



HUNT ENERGY & MINERAL CO -AUSTRALIA PTY LTD

Rig # 3 - Drilling Equipment Specifications

Draw-works:	TSM Model 6000 550HP Single Drum Draw-works Serial # 1018, Powered by 2 only Caterpillar 3306 TA Diesel Engines coupled to Allison TC475 Torque Converters & Twin Disc Low and High Drum Clutches Foster model 27S Make up and 27B Breakout Catheads Lebus 1-1/8" Main Drum Grooving 8" x 38" brake drum
Rig Capacity:	Drilling Depth 2,300mtrs/ + with 4-1/2" D.P. Drilling Depth 3,000mtrs/ + with 3-1/2" D.P.
Substructure:	Tri-Rudd Industries, one piece unit construction, 12' high x 14' wide x 40' long, Drillers Dog House: 9' wide x 16' long with 4' landing one end. Toolhouse: 11' wide x 10' long on 40' skid with water tank 500bbl. Fold up landings, staircase and substructure access for rig moving. Casing Capacity 280,000lbs Setback Capacity 200,000lbs
Derrick:	Tri Rudd Industries Adeco Model 105-13-4-420, Clear height 105', leg spread 13' 4", GNC 420,000lbs
Crown Block:	Model 536-118 Nobles Crown Block 4 x 36" drilling sheaves plus 1 x 36" fast-line sheave all grooved for 1-1/8" drilling line
Crown-O-Matic:	NL Shaffer crown saver Posi-stop fail safe breaking system
Travelling Block:	Sowa 150 ton with Web Wilson Hydra Hook, 4 x 36" sheaves grooved for 1-1/8" drilling line
Auxiliary Brake:	McKinney-22CCW Single Hydromatic

Floor Winch: Pullmaster Model H7A Hydraulic winch

Rotary Swivel: Tri-Service Machine Model TSM-150 Swivel 150 ton rating @ 100RPM

Rotary Table: **Twister 175, 17-1/2" c/w Varco HDS 4-1/4" Square drive & TSM split Master Bushing**

Rig Lighting: Explosion proof fluorescent & high pressure sodium

Mud Pump #1 **TFI Emsco F500 Triplex 7-1/2" x 9" mud pump** powered by Caterpillar 3412 engine with 20" Fawick clutch, Barber Rig Saver 42" 8 groove 8 vee belt drive equipped with 2" Oteco pop off valve, Oteco Type 4 Mud Pressure Gauge, Continental Emsco style CS10 x 5,000 Pulsation Dampener and 10" Suction line mounted on 12' x 33' steel skid.

Mud Pump #2 TSM 500 Duplex 7-1/2" x 16" mud pump powered by Caterpillar 3412 engine with 20" Fawick clutch, Barber Rig Saver 58" 10 groove 8 vee belt drive equipped with Oteco 2" pop off valve, Oteco Type 4 Mud Pressure Gauge, Hydril K-20 x 3,000 Pulsation Dampener & 10" suction line mounted on 12' x 33' steel skid.

Mud Mixing Pumps (2) Harrisburg Magnum 5 x 6 Centrifugal pumps powered with 50hp electric motors

Standpipe: Standpipe Manifold - 4" x 3,000lb fitted with Demco 4" Gate Valves, Martin Decker E-17-152 Pressure Sensor & Oteco Model 7 Pressure Gauge, 1 x 5,000 psi WP Kelly hose

Mud System: **Dallas Tanks 600bbl Double tank system**
Comprising Mixing/Pill tank
2 x Suction Tanks, Desilter/Desander tank
Shaker tank

Mud Hopper: Harrisburg

Water Pumps (2): Harrisburg 2 x 2 Centrifugal pumps powered with 10hp electric motor

Shale Shaker: 2 x DFE SCR-01 Linear Motion

Degasser: Vertical Type Poor Boy Gas Separator

Agitator: 4 x Lightning Model 72Q7.5 c/w EXP Motor

Desilter: Harrisburg 4" x 12 Poly cone assembly powered by 50hp electric motor

Desander: Harrisburg 2 x 10" Poly cone assembly powered by 50hp electric motor

Blowout Preventers: Ram BOP
 1 only Shaffer LWS Double Ram BOP
 11" x 3,000
 Ram Sizes – 2-3/8", 2-7/8", 3-1/2" 4-1/2" & 7"

Annular BOP
 1 only Shaffer 11" x 3,000 Spherical Annular BOP

Accumulator Ross Hill Model C180-IE20-2AG, 7 bottles with T315-10-3 electric powered triplex pump, GU2KB4B 'G' series manifold, Air actuated operator master control panel, Nitrogen emergency backup.

Choke Manifold: 3" x 3,000 complete with - 2 only 3" & 9 only 2" x 3,000 API flanged standard trim gate valves.
 1 only CIW 3-1/8" x 5,000 HCR Valve c/- H2S Trim.

Kill Line: 2 only 2" – 3,000psi Wood Group M25 Adjustable Chokes.

Instrumentation: Martin Decker 7 Pen Recorder with Air Retrieve
 Martin Decker Type 'AA15' Clipper Weight Indicator
 Totco 0-3,000 psi Pump Pressure Gauges
 Totco Tong Line Pull Gauges
 Totco Rotary Torque Gauge

Mud Monitoring: AOI-300 Series Flow Indicator System
 AOI Digital Read Out Stroke Counters
 AOI 1000 Series Pneumatic Mud Monitoring System

Survey Unit: 0-8 degree Totco Unit

Wire line Unit: Model 5 Hydraulic Wire line Unit with Charlyn Orbit Power Hydraulic pump
 Capacity : (0.92 x 10,000')

Kelly: 1 only 4-1/4" x 41' Varco Square drive

Upper Kelly Valve: M&M Upper Kelly Cock 6-5/8" Reg LH Pin/Box Connections
10,000 psi test

Lower Kelly Valve: M&M. 4-1/4" x 10,000 (4"IF Pin/Box) Canister type Lower
Kelly Cock.

Stabbing Valve: Gray 63021 (4"IF) c/w rod and deflector.

Drill Pipe: 200jnts 4-1/2" Grade 'E' 16.6lb/ft Range 2 Drill Pipe with 4" IF
connections
10 each 4-1/2" HWDP

**Optional 4" & 3-1/2" slim hole drill string available on
request**

Drill Collars: 3 each 8" Spiral Drill Collar
26 each 6-1/2" Spiral / Slick 4" if Drill Collar

Fishing Tools: as required to fish Contractors string

Handling Tools: Elevators:
1 set 2-7/8" Tubing Elevators
1 set 7" Centre Latch Casing Elevators
1 set 7" Side Door Casing Elevators
1 set 9-5/8" Centre Latch Casing Elevators
1 set 9-5/8" Side Door Casing Elevators
1 set 13-3/8 Casing Elevators
2 sets 4-1/2" Drill Pipe Elevators

Slips:
2 set 4-1/2" - Drill Pipe
1 set 5-1/2" - 7" Drill Collar
1 set DCS-S 4-3/4" Drill Collar
1 set DCS-L 8" Drill Collar
1 set Varco 9-5/8" Casing Slips

Safety Clamp:
1 only Varco MPR

Main Floor Rotary Tongs
1 set (2) Drill pipe tongs c/w jaws 3-1/2" - 10-3/4"

Subs: Bit Subs:
1 x 6-5/8" Reg. box x 4" I.F. box bored for float
1 x 4-1/2" Reg. box x 4" I.F. box bored for float

X-Over Subs:
6-5/8" Reg. Pin x 4" If Box. X-over
4-1/2" Reg. x 6-5/8" Reg. (Double Pin)
2 x 4" IF Box x 4" FH Pin
4" FH Box x 4" IF Pin

Saver Subs:
4" IF Pin/Box (3-1/2')
4" If Pin/Box (12")
4" If Pin/Box (2-1/2')

Pickup Subs:
10 x 6-1/2" OD x 4-1/2" OD x 42" long x 4" I.F.

Pipe Spinner Greyspin Hydraulic pipe spinner

Kelly Spinner Foster Model # 77

Tubing Tong Model XYQ3C 2-3/8" to 3-1/2" Hydraulic c/w back up

Casing Tong Universe Model 01B13E 13-3/8" Tong assembly c/w 13-3/8",
9-5/8" & 7" jaws

Casing / Tubing Drifts: as required

Cup Tester: 9-5/8" Casing cup tester

Hydraulic Unit: Flodraulic Hydraulic Unit

Welding Equipment: 1 x Miller Model SRH-333 Electric Welder
1 x BOC Oxy/Acetylene Cutting / Welding set

Air Compressors (2) Kaeser BS51
Broadbent 37/7.5 Industrial Unit

Ac Generator: 2 x Caterpillar 3406 Diesel Engines coupled to Brown Boveri
Model 523R alternators, 219kva, 60Hz, mounted in Rudd &
Hodgson fabricated steel building

Fuel Tank:	4,000gal
Pipe Racks:	4 sets
Catwalks:	2 x 30'
Mud Lab:	Baroid Mud Laboratory Kit
Mud Saver:	1 x Katch Kan mud saver
Mouse / Rat Hole Digger:	Landrill Oiltools 6-1/2" Mud Motor
Cellar Pump:	Cellar Jet
Water Pump:	2 only 3" x 2" Portable Pumps
Rig Vehicles:	1 X Toyota Troop Carrier 1 X Toyota Tray Top Ute 1 X Caterpillar 966 Loader
Rig Accommodation:	Rig Manager's Accommodation - 1 only Transportable unit 40' x 9' x 9' c/w Sleeping quarters, Ablution facilities & two separate offices. Drilling Supervisor's Accommodation - 1 only Transportable unit 40' x 9' x 9' c/w Sleeping quarters, Ablution facilities & two separate offices.
Fire Extinguisher:	Certified Units located in strategic positions in and around Rig and Camp.
Rig Communication:	iDirect Satellite System on GE23 Ku-Band CDMA Mobile Phone

Camp

- Generator:** 1 only Camp Generator House fully sound proofed
12m x 3m skid mounted
c/w 14,000 litre capacity water tank -Davey Water Pump
2 only Onan Generator sets 100KVA
Fuel tank capacity 7000lts
- Sleeping Units:** 1 only 14.4m x 3m skid mounted 6 person bunkhouse
c/w built in wardrobes, table, beds and bedding.
2 only 14.4m x 3m skid mounted 10 person bunkhouse
c/w built in wardrobes, table, beds and bedding.
- Kitchen-Dining:** 1 only Kitchen/Diner/Cool room/Freezer Unit 14.4m x 3m
skid mounted built-in combined freezer/chiller unit c/w
commercial kitchen range/oven, microwave, deep fryer,
mixer/blender, Bain Marie, fixed tables, chairs and all
necessary utensils.
- Recreation:** 1 x Recreation Room/Clinic Unit
14.4m x 3m skid mounted c/w television, video & lounge
chairs
1 x First Aid Room
- Ablution:** 1 x Ablution/Laundry/Store Unit
14m x 3m skid mounted c/w 315 litre hot water unit,
4 x toilet bays and 5 x shower bays.
Laundry c/w 2 x washing machines & 2 x dryers
Storage area with built in shelving