

RIG INVENTORY

RIG # 11 : COOPER LTO 750

CARRIER:	Cooper LTO 750 Carrier with triple front and rear axles 54,000lb front and 70,000lb rear. All necessary highway equipment. Unit leveled with hydraulic jacks when stationary.
SUBSTRUCTURE:	5.2 m Ground level to rotary table. 4.3 m Clear height under rotary beams. Maximum 350,000 lbs on rotary table and 200,000 lbs on setback.
DRAWWORKS:	Cooper 750 HP Double Drum Drawworks
ENGINES:	Driven by 2 each Caterpillar 3406 TA Diesel Engines
BRAKE:	Parmac 202 Hydromatic
ROTARY TABLE:	National Rotary Table Model C-175
DERRICK:	Cooper Derrick Model 118-365. Ground height 118' Maximum rated static hook load 350,000 lbs with 10 lines. Mast raised, lowered and telescoped hydraulically. Pipe racking capacity of 2500m – 4-1/2" drill pipe.
CROWN BLOCK:	Cooper Crown Block with 4 working sheaves. Fast line sheave and dead line sheave. All grooved for 1-1/8" line
HOOK BLOCK:	Ideco 1 1/8" 265 Ton Shorty
SWIVEL:	National P-200
SLUSH PUMPS:	3 Gardner Denver PZ-7 Triplex Pumps driven by Cat 379TA Diesel Engines Rated 550 HP each.
MUD SYSTEM:	2 x 300 bbl tanks incorporating 80 bbl pill tank and 54 bbl trip tank.
SHAKERS:	2 x DFE SCR-01 Linear Motion.
DEGASSER:	Drilco Atmospheric Degasser Standard Pit powered by 7 ¹ / ₂ HP 60 Hz, 230v motor.
MUD / GAS SEPARATOR	40" Poor Boy Degasser
VENT LINE:	6" vent line from Separator to flare pit.
DESANDER:	Harrisburg Model DSN 1000. 2 x 10" Cones with 6" x 8" Centrifugal pump driven by 60 HP Electric Motor.
DESILTER:	Harrisburg 10 x 5" Cones and 6" x 8" Centrifugal pump, driven by a 60 HP Electric Motor.
MUD MIXING PUMP:	Harrisburg 6" x 8" Centrifugal pump driven by a 50 HP Electric Motor
MUD AGITATORS:	4 only Brandt Mud Agitator Model MA 7.5
BOP:	Annular: 11" 5,000psi Hydril GK Rams: 11" 5,000psi Shaffer Double Gate Model 'LWS' Complete with 4 ¹ / ₂ ", 5 ¹ / ₂ ", 7" and Blind Rams

ACCUMULATOR:	Koomey Model 100-11S
CHOKE MANIFOLD:	Cameron 3-1/8" 5,000 psi with one hydraulic and one manual choke complete with remote control panel.
DRILL PIPE SAFETY VALVE:	1 x 4" IF Inside BOP (Gray) 1 x 4" IF full Operating Stab Valve
SPOOLS:	1-11" 5,000 psi Flanged Drilling Spool with 3 ¹ / ₈ " 5,000 psi Flanged Choke Line out and 2 ¹ / ₁₆ " 5,000 psi Kill Line Outlet 1-11" 5,000 psi to 11" 3,000psi Kill Line Double Studded Adaptor 1-11" 5,000 psi to 7 ¹ / ₁₆ " 5,000 psi Double Studded Adaptor
KILL LINE VALVES:	2-2 ¹ / ₁₆ " 5,000 psi Manual Flanged Valves and MCM 2" – 5M Check Valve
CHOKE LINE VALVES:	1-3 ¹ / ₈ " 5,000 psi Manual Flanged Valve 1-3 ¹ / ₈ " 5,000 psi HCR Flanged Valve
INSTRUMENTATION:	AOI Advanced Drillers Monitoring System Martin-Decker 6 pen Record-O-Graph Martin-Decker Weight Indicator Type FS Martin-Decker Mud Pressure Gauge Martin-Decker Rotary RPM Indicator Martin-Decker Pump Stroke Indicator (3 of) Martin-Decker Tong Torque Indicator
KELLY SPINNER:	Foster Model 77 (hydraulic)
KELLY:	1-4 ¹ / ₄ " Hex Kelly 40' long with 6 ⁵ / ₈ " API Reg LH Box up 3-1/2" IF Pin Down
UPPER KELLY VALVE:	Upper Kelly Cock. 10,000 test 6 ⁵ / ₈ " API Reg LH Connections.
LOWER KELLY VALVE:	1 – Hydril Kelly Guard 4-3/4" OD 10,000 psi, 3-1/2" IF (NC46) Pin and Box Connection
KELLY DRIVE BUSHING:	Varco Type 4 KRS Kelly Drive Bushing
DRILL PIPE AND TOOLS:	12 joints 4 ¹ / ₂ " Range II Hevi Wate Drill Pipe with 18 ⁰ Taper 4" IF (NC46) Connections. 10,000 ft 4-1/2" G 105, 16.6 lb/ft Range II Drill pipe with 4" IF (NC46) Connections
DRILL COLLARS:	6 - 8" Drill Collars, Range II, with 6-5/8" Reg. Connections. 6 – 6-1/4" Drill Collars, Range II, with 4" IF (NC46) Connections.
FISHING TOOLS:	Fishing Tools to catch all Contractor's Equipment 1- 9-5/8" Gotco FS Overshot Series 150 1- 8-1/8" FS Overshot Series 150
<u>Note:</u>	Contractor will provide Overshots, Grapples, Guides, Packoffs, etc. for each size of drill pipe, drill collars and downhole tools provided by Contractor.
JUNK RETRIEVERS:	1- 11" OD Gotco Rev/Circ Junk Basket 1- 7-7/8" OD Gotco Rev/Circ Junk Basket

HANDLING TOOLS:

Elevators:

- 1 Set 9-5/8" Casing
- 1 Set 7" Casing
- 1 Set 5-1/2" Casing
- 1 Set 9-5/8" Single Jt
- 1 Set 7" Single Jt
- 1 Set 5-1/2" Single Jt
- 2 Sets 4-1/2" 250 Ton

Safety clamp

- 1 Safety clamp for 8" and 6-1/4" Drill Collars.

Slips:

- 1 Set 9-5/8" Casing
- 1 Set 7" Casing
- 1 Set 5-1/2" Casing
- 1 Set 8" Drill collar
- 1 Set 6-1/4" Drill collar
- 2 Sets 4-1/2" Drill pipe

Tongs:

- 1 Set Foley 36" short lever with jaws to suit 3-1/2" to 13-3/8"
- 1 Set Farr Hydraulic Power Tongs
- Jaws to suit 5-1/2", 7", 9-5/8" and 13-3/8"

PIPE SPINNER:

- Air powered Weatherford Lamb Spinner Hawk to suit 3-1/2" to 5-1/2"

SUBS:

- 1 – 6-5/8" Reg. x 6-5/8" Reg. Bit Sub (Double Box)
- 2 – 4-1/2" Reg. x 4" IF (NC46) Bit Subs
- 1 – 6-5/8" Reg. x 4" IF (NC46) Crossover Sub (Pin x Box)
- 3 – 6-5/8" Reg. Lift Nubbins
- 11 – 4" IF (NC46) Lift Nubbins

CASING / TUBING DRIFTS:

- 1 – 9-5/8" 36 lb/ft
- 1 - 7" 26 lb/ft
- 1 - 7" 23 lb/ft
- 1 – 5-1/2" 17 lb/ft
- 1 – 5-1/2" 15.5 lb/ft

THREAD PROTECTORS:

- 3 – 9-5/8" Klampon Style
- 3 - 7" Klampon Style
- 3 – 5-1/2" Klampon Style

WELDING EQUIPMENT:

- 1 x Cig-weld 300A Electric Welder
- 2 x Oxy/acetylene sets

AIR COMPRESSORS:

- 2 x Sullair Compressor Package Model 10-30L - 100 CFM @ 125 psi. 2 x Engine mounted 12 CFM CAT Compressors. 2 x Coldstart Compressors.

AC GENERATOR:

- 2 x Caterpillar 3408TA AC Generator Model SR-4. 1,800 rpm 60 hz 275 kw.

FUEL TANKS:

- 1 x 27,000 litre - Skid Mounted

WATER TANK:

- 400 BBL tank with two Warman 3 × 2 pumps driven by 20 HP electric motors

PIPE RACKS:	4 sets 30ft in length
CATWALKS:	2 piece Catwalk drill pipe construction 42" height
COMMUNICATION:	Gaitronics System
WIRELINE UNIT	1 x Mathey Slick line unit c/w 10,000 ft of 0.092" slick line
MUD LAB:	Baroid Rig Laboratory Model 821
RATHOLE DRILLER:	Manufactured Rat Hole Driller for 5 ¹ / ₄ " Kelly
MUD SAVER:	Harrisburg Unit with 4 ¹ / ₂ " Sealing Rubbers
CELLAR PUMP:	1 only 3" Pacific Diaphragm Unit
FIRE EXTINGUISHER:	1 lot as per State Mining Regulations for Rig and Camp
CUP TESTER:	Cameron Type 'F' Cup Tester Mandrel with 4-1/2" IF Connections. 9 ⁵ / ₈ " 47- 36 lbs rubber for cup tester.
TRANSPORTATION:	One Cat 950F Loader or equivalent
RIG ACCOMMODATION:	1 Skid-Mounted Rig Manager/Company Man sleeper/office unit 1 Century rig office/Electrician/Mechanic office 1 Air conditioned smoko/ training Shack

At Contractors discretion any of the forgoing items may be replaced by equipment of equivalent or greater capacity.