



## Primary Equipment



Major Systems	
<b>Drawworks</b>	
NOV ADS-10SD 1500HP AC drwks with ReGen Braking capacity NOV Software limited 625,000# Hoisting Capacity ( 10 ) lines w/2-AC 1150HP motor input/Gear drive	
<b>Prime Power</b>	
NOV DrillForce LT VFD "Ideal" System with Amphoin Drillers control cabin 3-Caterpillar 3512-C w/Kato 1265 KW AC Generator Dual Fuel Capable	
<b>Mast/Substructure</b>	
NOV 142' 750,000# Hook load, Slingshot Design 25' Sub w/RKB 21.8' Crown Block 5-50" Sheaves 1-3/8" Groove Fastline 1-60" 1-3/8" Groove 1- 42" deadline sheaves	
<b>Top Drive - Traveling Block - Pipe Handling</b>	
NOV TDS 11SA AC 500 Ton Top Drive NOV 500 Ton Traveling Block NOV 37 1/2" Rotary Table w/400HP AC motor NOV ST-80CL pipe handling system & CanRig Hydraulic Catwalk	
<b>Mud Pumps</b>	
2-National 12-P-160 1600HP Triplex, 7500PSI w/7,500#WP Fluid ends and delivery system each driven by 2-1150Hp AC motors	
<b>Mud System</b>	
2 -Tank system (1,314bbl Capacity), 100 Trip Tank 2 -NOV King Cobra Hydro Shale Shakers	
<b>BOP Stack Description</b>	
13 5/8" 5,000# Annular  13 5/8" 5,000# Double Ram	
<b>Drill String</b>	
8' and 6-1/2" Drill Collars  5" Drill Pipe	

Secondary Systems	
	Air/ Actuated, Park Disc
	1-3/8"WireRope 6 x 19 EIP IWRC
	Cold Start air system, primary Rig Air supply, floor hoisting systems
	Fuel Capacity 20,000gal & Water Storage Capacity 400bbl
	Rotary load 750,000# Set Back 600,000#
	Tool Pusher and Crew quarters, rig matting boards
	NOV Steel Toe Walking systems incorporated within lower substructure base
	Manual Tongs, elevators, slips and clamps for Latshaw supplied DS
	NOV BOP Control Model L200-T6EA30CE2 3,000PSI Accumulator, 180 gal, 6 station w/remote
	7-NOV MA-10 10HP Mud Agitators
	NOV DSN-3V-10CTX 3-10" cone Desander 1500gpm
	NOV Model DSLR-20GG-4CTX Desilter 20-4" cone Desilter
	Type FC 4-1/16" 10,000# x 3-1/8"10,000# Choke Manifold
	NOV Model DG-10 Degasser
	5" 19.5# G-105 & S135
	Heavy weight Drill pipe

**Annular**

**13 5/8" 5,000#WP**

**Double Ram**

**13 5/8' 5,000#WP Pipe**

**13 5/8' 5,000#WP Blind**

**With required adaptors**

**Mud Cross 13 5/8" 5,000#WP**

**Wing Valve 4 1/16" 5'000#WP**

**HCR Valve 4 1/16" 5,000#WP**

**2-Kill Valves 2 1/16" 5,000#WP**

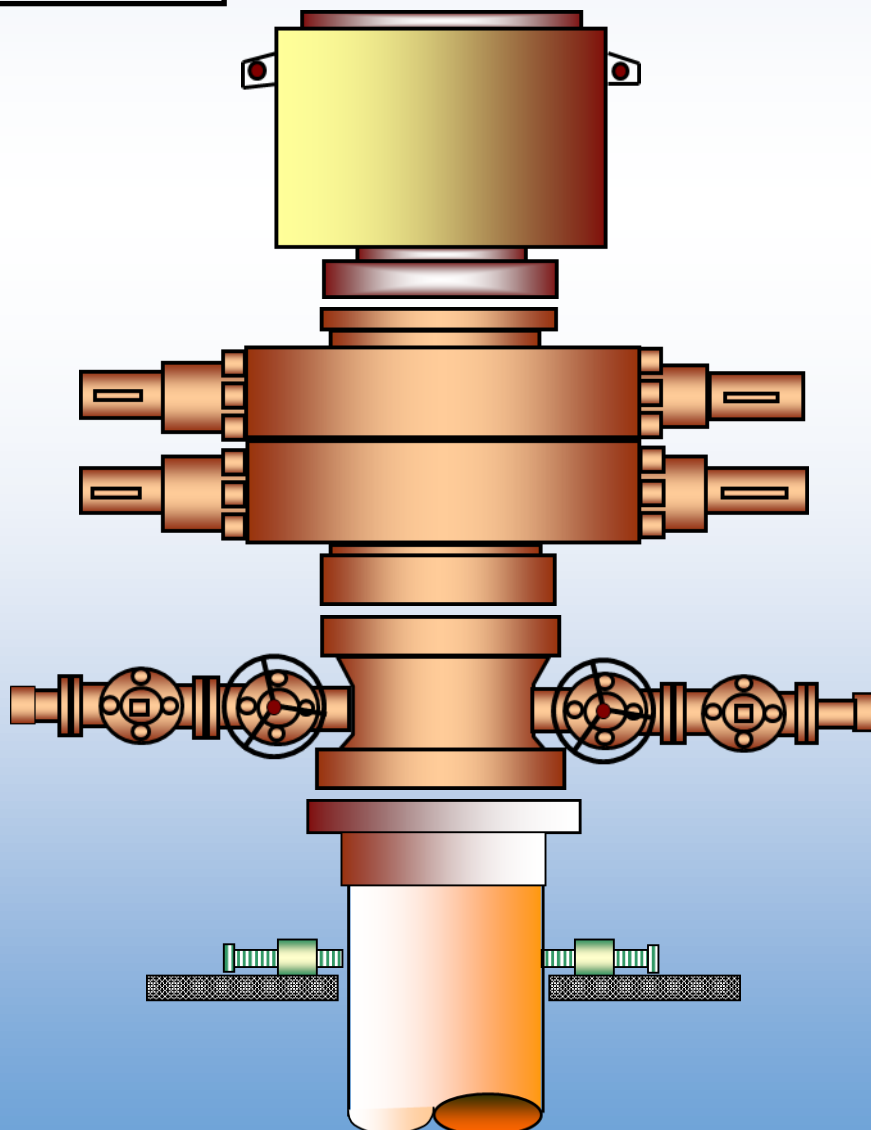
**Check Valve 2 1/16" 5,000#WP**

**Choke Line 4 1/16" 5M Armored**

**Kill Line 2 1/16" 5M Armored**

# RIG 45

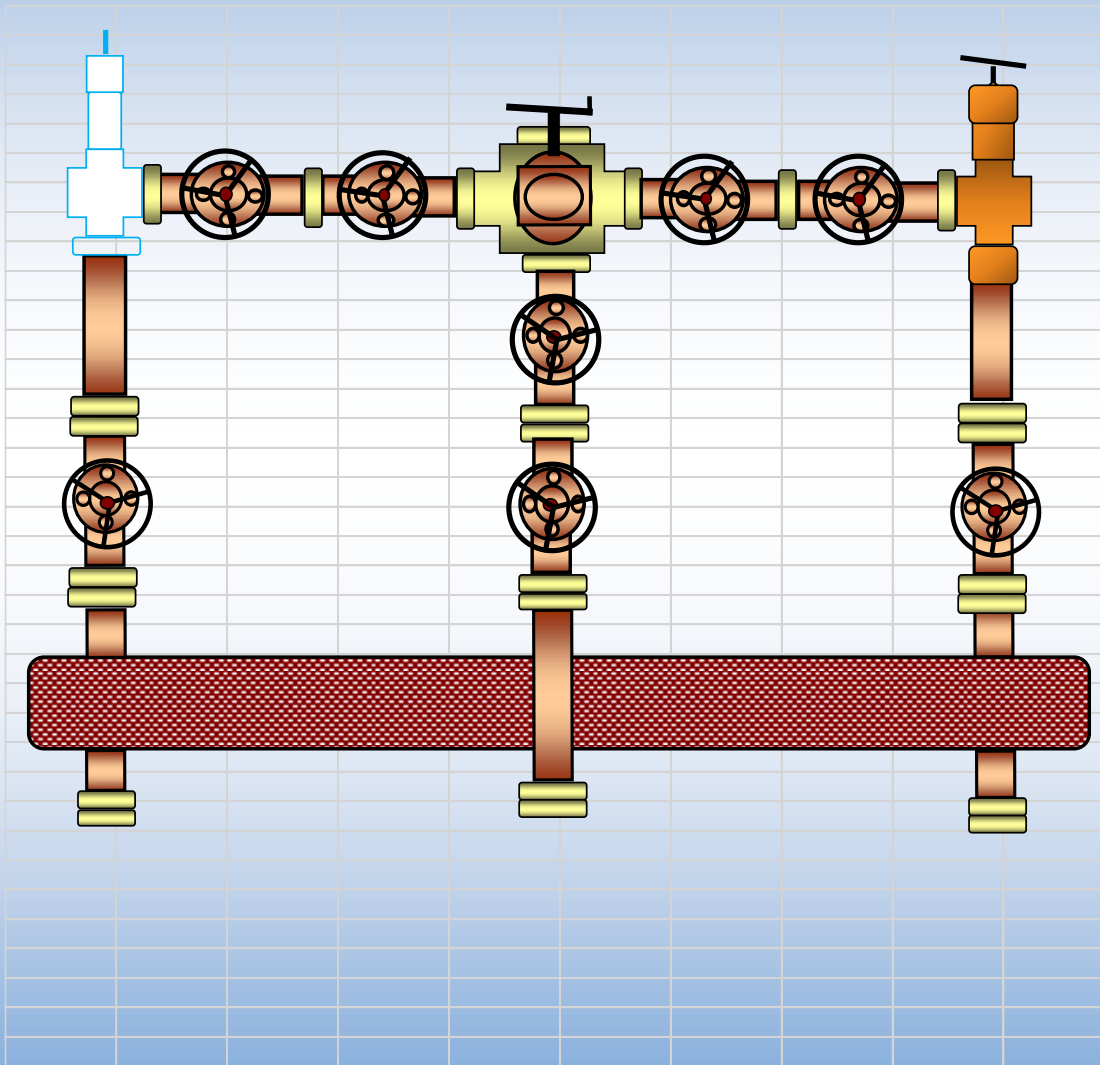
***Latshaw***  
**DRILLING** TM



Operator Supplied  
Hydraulic Chokes

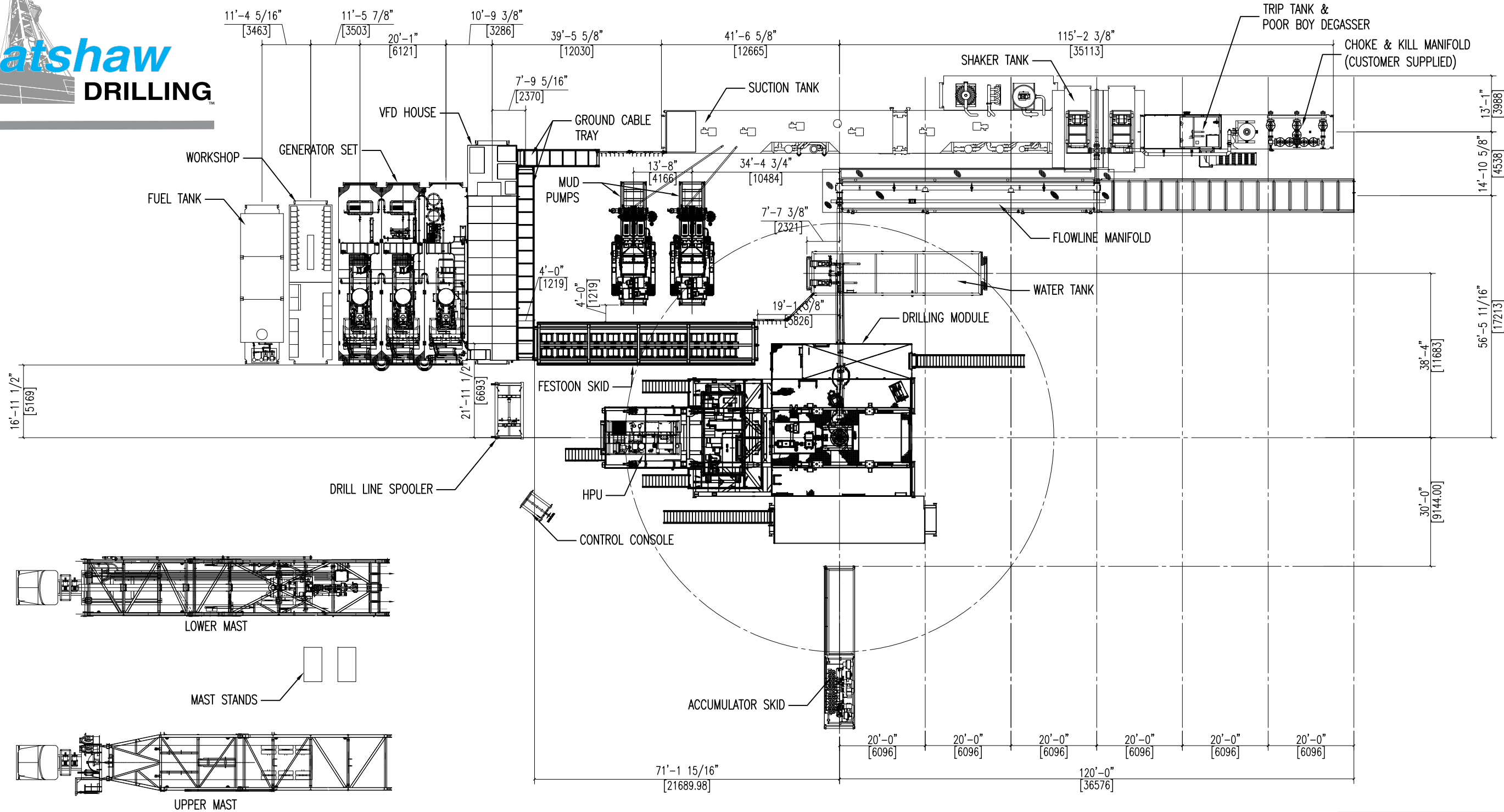
# *Latshaw* DRILLING

## Rig 45



- 2 - Gate Valve 4 1/16" 10,000#WP
- 4 - Gate Valve 3 1/16" 10,000#WP
- 2 - Gate Valves 3 1/8" 10,000#WP
- 1 - Gate Valve 2 1/16" 10,000#WP
- 1 - Manual Adjustable Choke 3 1/10" 10,000#WP
- 1 - DSA, 3 1/16" 10,000#WP
- 1 - Spacer Spool, 3 1/8" 10,000#WP
- 1 - Studded Cross (5way) 10,000#WP
- 1 - Instrument Flange and Gauge
- 10 3/4" Buffer Chamber

IF IN DOUBT...ASK!



- NOTES:
- Drilling Module should be located at Well #2 during rig up to avoid interference with backyard equipment while rig floor is in the lowered position.
  - Choke Manifold will be supplied by the customer; Pictured item is NOV's choke manifold.
  - General Arrangement is preliminary and for reference purposes only. Specific locations of equipment relative to well center and other equipment subject to change. Unreleased assemblies subject to design changes.

04					
03					
02					
01	09-23-14	ISSUED FOR CONSTRUCTION	CDH	YLW	CDH
REV	DATE	DESCRIPTION	MADE	CHKD	APRD

DIMENSIONS & TOLERANCES

FRACTIONAL  $\pm 1/16$   
CASTINGS  $\pm 1/16$   
ANGULAR  $\pm 1^\circ$   
0.0  $\pm 0.030$   
0.00  $\pm 0.015$   
0.000  $\pm 0.005$

POSITION  $\pm 0.005$  in  
CONCENTRICITY  $\pm 0.005$  in TIR  
STRAIGHTNESS  $\pm 0.005$  in/5 inches  
FLATNESS  $\pm 0.005$  in/5 inches  
PARALLELISM  $\pm 0.010$  in/5 inches  
PERPENDICULARITY  $\pm 0.010$  in/10 inches

PROJECT:  
CUSTOMER:  
ITP:  
SHOP W/O:

DATE:

**NATIONAL OILWELL VARCO**

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RIG PACKAGE GROUP  
11000 CORPORATE CENTRE DR.  
HOUSTON, TEXAS 77041

TITLE:  
RIG GENERAL ARRANGEMENT  
IDEAL RIG - 120' SINGLE ROW

SCALE:      PROJECTION:      SIZE: D      MAIN PART:

DRAWING NUMBER: 11042514-GAD      SHEET: 1 of 3      REVISION: 01

A

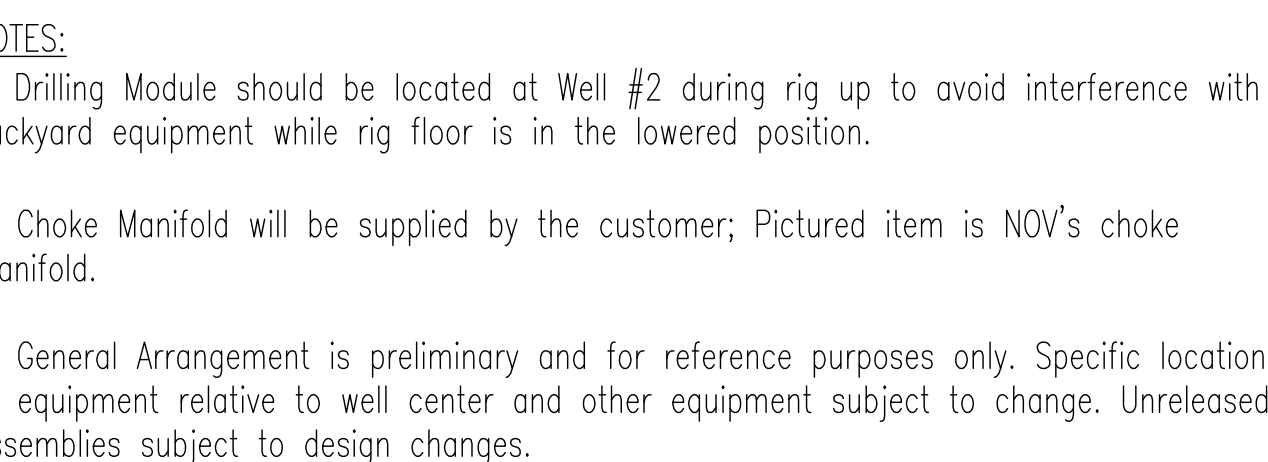
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SH	2
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C

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A



04					
03					
02					
01	09-23-14	ISSUED FOR CONSTRUCTION		CDH	YLF
REV	DATE	DESCRIPTION		MADE	CHKD

GA SPECIFICATION INFORMATION		PROJECT:  CUSTOMER:  ITP:  SHOP W/O:		RIG PACKAGE GROUP 11000 CORPORAE CENTRE DR. HOUSTON, TEXAS 77041	
DIMENSIONS & TOLERANCES  FRACTIONAL $\pm 1/16$ POSITION $\oplus$ 0.005in CASTINGS $\pm 1/16$ CONCENTRICITY $\odot$ 0.005in TIR ANGULAR $\pm 1^\circ$ STRAIGHTNESS $\text{---}$ 0.005in/5 inches 0.0 $\pm$ 0.030 FLATNESS $\text{///}$ 0.005in/5 inches 0.00 $\pm$ 0.015 PARALLELISM $\text{///}$ 0.010in/5 inches 0.000 $\pm$ 0.005 PERPENDICULARITY $\perp$ 0.010in/10 inches		TITLE:  RIG GENERAL ARRANGEMENT IDEAL RIG - 120' SINGLE ROW		SCALE: PROJECTION:  SIZE: D	
DATE:		DRAWING NUMBER: 11042514-GAD		MAIN PART:  SHEET: 2 of 3 REVISION: 01	

