

HOBBS OCD

JUL 19 2016

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OCD Hobbs

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SHL: NMLC 069515 BHL: EO66220006	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A	
2. Name of Operator CONOCOPHILLIPS COMPANY (2/7817)		7. If Unit or CA Agreement, Name and No. N/A	
3a. Address 600 N. DAIRY ASHFORD ROAD HOUSTON, TX 77079		8. Lease Name and Well No. WAR HAMMER 25 FED. COM TC 16H (313602)	
3b. Phone No. (include area code) 281 206-5282		9. API Well No. 30-025-43363 (98085)	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 349' FNL & 2310' FEL 36-26S-32E At proposed prod. zone 330' FSL & 2310' FEL 36-26S-32E		10. Field and Pool, or Exploratory WC-025 G-08 5263825A; LWR 135	
14. Distance in miles and direction from nearest town or post office* 22 AIR MILES NE OF ORLA, TX & 25 AIR MILES SW OF JAL, NM		11. Sec., T. R. M. or Blk. and Survey or Area NWNE 25-26S-32E	
15. Distance from proposed* SHL: 349' location to nearest BHL: 330' property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish LEA	
16. No. of acres in lease NMLC-069515: 1,080.00 EO66220006: 259.76		13. State NM	
17. Spacing Unit dedicated to this well W2E2 SEC. 25 and NWNE & LOT 2 SEC. 36 = 224.96 ACRES		18. Distance from proposed location* SHL: 33' (WAR W1 15H) to nearest well, drilling, completed, BHL: 888' (NEMU 55) applied for, on this lease, ft.	
19. Proposed Depth TVD: 12,355' MD: 12,035' 11,249 17,801		20. BLM/BIA Bond No. on file ES0085	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,133' UNGRADED		22. Approximate date work will start* 01/21/2015	
23. Estimated duration 3 MONTHS		24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Kristina Mickens</i>	Name (Printed/Typed) KRISTINA MICKENS	Date 07/30/2014
Title SENIOR REGULATORY SPECIALIST		
Approved by (Signature) <i>Cody Layton</i>	Name (Printed/Typed)	Date JUL 14 2016
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant
conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1702
States any false, fictitious or fraudulent statement

(Continued on page 2)

See attached NMOCD
Conditions of Approval

the subject lease which would entitle the applicant to

APPROVAL FOR TWO YEARS

to make to any department or agency of the United States

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ
07/20/16

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Drilling Program

ConocoPhillips Company

War Hammer 25 Federal COM TC 16H

349' FNL 2310' FEL (SHL)

Sec 25-T26S-R32E

330' FSL 2310' FEL (BHL)

Sec 36-T26S-R32E

Lea County, New Mexico

1. Estimated tops of geological formations:

Geologic Formation at surface: Quaternary

	Formation	TVD (ft)
	Base Fresh Water	300
	Rustler	600
	Top Salt	1050
	Base Salt	4689
*	Cherry Canyon	5671
*	Brushy Canyon	7368
*	Bone Spring Carb	8865
*	Avalon	9071
*	1st Bone Spring	9758
*	2nd Bone Spring	10141
*	3rd Bone Spring	10654
*	Wolfcamp	11835

2. Estimated depth/thickness of freshwater and/or hydrocarbons:

Water:

Fresh water is anticipated above the Rustler at 300' and will be protected by surface casing at 950' and cemented to surface.

Hydrocarbons:

Oil and gas are anticipated in the formations annotated above (*). These zones will be isolated as necessary.

3. Pressure Control Equipment:

*Please see attached BOPE and Choke Manifold Schematic for more detail.

A 13-5/8" BOP system will be installed and tested prior to drilling out of the surface casing shoe. The BOP system will be utilized to drill the intermediate and production hole sections, and will be tested per BLM Onshore Oil & Gas Order No. 2 per each hole section specified in the final column of the table in section four.

Pressure tests will be conducted at the initial installation of the BOPE and again if needed 30 days from the initial test as per BLM Onshore Oil and Gas Order No. 2. BOPE controls will be installed prior to drilling under the surface casing and will be used until the completion of drilling operations. The intermediate 1 and production string will be tested per 5M working system requirements.

ConocoPhillips Company requests a variance to use a flexible line between the BOP and the choke. The testing and manufacturing specifications for this equipment is attached. The line will be kept as straight as possible with minimum turns.

4. Proposed Casing Program

*All tubulars used for this design will be new.

Hole Size (in)	Casing (in)	Wt/Ft	Grade	Connection	Depth (ft)	Depth (ftTVD)	Depth (ftMD)	BOPE System
17 1/2	13 3/8	54.5	J-55	BTC	0-950	950	950	N/A
12 1/4	9 5/8	40.0	L-80	BTC	0-4825	4825	4825	5M
8 3/4	5 1/2	20.0	P-110	Ten XP BTC	0- 17776	11249	17776	5M

17,801

Drilling Program
ConocoPhillips Company
War Hammer 25 Federal COM TC 16H
349' FNL 2310' FEL (SHL)
Sec 25-T26S-R32E
330' FSL 2310' FEL (BHL)
Sec 36-T26S-R32E
Lea County, New Mexico

Minimum casing design factors: Collapse:1.125, Burst 1.0, Tensile Strength 1.6 Dry / 1.8 Buoyant

Hole Size (in)	Casing (in)	Burst	Collapse	Tension	Thread & Cplg. OD (in)	Minimum Clearance (in)
17 1/2	13 3/8	5.94	2.46	20.46	14.375	1.5625
12 1/4	9 5/8	2.22	1.20	5.82	10.625	0.8125
8 3/4	5 1/2	2.32	2.04	3.32	6.100	1.3250

5. Proposed Cementing Program

		Volume (sx)	Type	Weight (ppg)	Yield (ft ³ /sx)	Water (Gal/sx)	Excess	Cement Top
Surface	Lead	540	Class C	13.7	1.68	8.684	100%	Surface
	Tail	320	Class C	14.8	1.33	6.349	100%	650ft
Additives (BWOB): 4% Extender, 2% CaCl ₂ , 0.125 lb/sx LCM, 0.2% Anti-Foam								
Intermediate 1	Lead	1250	Class C	11.9	2.59	15.393	130%	Surface
	Tail	440	Class C	14.8	1.33	6.187	130%	4325ft
Additives (BWOB): 7% Extender, 0.6% Retarder, 0.2% Anti-foam, 0.9% Fluid Loss, 0.125 lb/sx LCM								
Production	Lead	990	Tuned Light	9.7	2.28	7.74	40%	4325ft
	Tail	1800	TXI	13.2	1.40	6.84	40%	10677ft
Additives (BWOB): 0.4% Retarder, 0.2% Anti-foam, 0.7 Anti-gelling, 0.4% Fluid Loss, 2% Expanding Agent, 5.0% Silica								
Production (Optional DV)	Depth (ft):	8,300						
	Lead	890	Tuned Light	9.7	2.28	7.74	100%	4052ft
Additives (BWOB): 0.4% Retarder, 0.2% Anti-foam, 0.7 Anti-gelling, 0.4% Fluid Loss, 2% Expanding Agent, 5.0% Silica								

*DV Tool will be conditionally placed at 8,300' depending on hole conditions while drilling the production section.

6. Proposed Fluids Program

Depth (ft)	Type	Mud Weight (ppg)	Viscosity	Fluid Loss
0 to 950	Spud Mud	8.4 - 9.3	32-36	NC
950 to 4825	Brine	9.3 - 10.3	28-30	≤5
4825 to 17801	Cut Brine	8.8 - 9.3	28-45	≤5

Sufficient fluid volume, weight material, and additives will be available onsite at all times. Visual and electronic mud monitoring equipment will be in place to indicate gain or loss.

7. Formation Evaluation Program

Samples: Dry samples taken 30' from intermediate casing point to TD. GC Tracers KOP to TD.
Logging: GR/Neutron from base salt to surface if data is unavailable within one mile. GR from 200' above KOP to TD. Shuttle log in the lateral.

8. Anticipated Wellbore Conditions

	Value	Comments
Bottom Hole Pressure (psi)	2587	Assumes 0.45psi/ft - 0.22psi/ft Partial Evacuation
Bottom Hole Temperature (°F)	184	Assumes 0.01deg/100ft
Abnormal Pressure / Potential Hazards	Losses below Delaware will be mitigated with lost circulation material. Potential overpressure below the top of Wolfcamp will be mitigated with mud weight. If H ₂ S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation being used to drill this well.	

Drilling Program
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Lea County, New Mexico

9. Directional Plan:

Kick off Point (ft)	Landing TVD (ft)	Landing MD (ft)	Total Measured Depth (ft)
10677	11249	11577	17801

*ConocoPhillips proposes to drill a vertical wellbore to kick off point and then drill horizontally to TD. Please see the attached directional plan for more detail.

10. Spudder Rig and Skid Operations.

The reasons for using the spudder rig to drill and pre-set surface casing are: Time & Cost Saving.

2k
A The "Pinergy #1" Rig will be used to drill the surface hole and pre-set surface casing on all of the wells in the same pad. Once each surface hole section has been drilled, it will be cased and cemented according to all applicable rules and regulations (Onshore Orders). The wellhead will be nipped up and tested as soon as 13-3/8" surface casing is cut off after the applicable WOC time has been reached. A blind flange of the same pressure rating as the wellhead will be utilized to seal the wellbore on all casing strings. Pressure will be monitored via wing valves on each wellhead section and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operation is expected to take 7-10 days for a quad pad and 4-6 days for a dual pad. The BLM will be contacted / notified 24 hours prior to commencing spudder rig operations.

Drilling operation will start with a big Drilling Rig (H&P Flex 3 rig type) and an approved BOP stack will be nipped up and tested on the wellhead before drilling operations resumes on each well. The rig will skid between the wells until each well's section has been drilled as planned (see "Skid-Batch Drilling Operations" Attachment). The BLM will be contacted / notified 24 hours before the big rig moves back on the location.

Once "Spudder Rig" has left the location, The "big Drilling Rig" will be on location within 90 days to drill each well in the Pad as batch drilling operations.

SKID / BATCH DRILLING OPERATIONS – “QUAD PAD”

SKID / BATCH DRILLING OPERATION PLAN FOR “QUAD PAD”:

1. ALL SURFACE CASINGS PRE-SET (Pre-set with “Spudder Rig”).
 2. WELL 1 / WolfCamp 3. 9-5/8” CASING – WBM.
 3. WELL 2 / WolfCamp 2. 9-5/8” CASING – WBM.
 4. WELL 3 / WolfCamp 1. 9-5/8” CASING – WBM.
 5. WELL 4 / BS 3rd Carb. 9-5/8” CASING – WBM.
 6. WELL 4 / BS 3rd Carb. 5-1/2” CASING – WBM.
 7. WELL 3 / WolfCamp 1. 7-5/8” CASING – WBM.
 8. WELL 2 / WolfCamp 2. 7-5/8” CASING – WBM.
 9. WELL 1 / WolfCamp 3. 7-5/8” CASING – WBM.
 10. WELL 1 / WolfCamp 3. 5”x4-1/2” CASING – OBM.
 11. WELL 2 / WolfCamp 2. 5”x4-1/2” CASING – OBM.
 12. WELL 1 / WolfCamp 1. 5”x4-1/2” CASING – OBM.
 13. RIG RELEASE.
- “INTERMEDIATE 1” BATCH**
- “INTERMEDIATE 2” BATCH**
- “PRODUCTION” BATCH**

March 05 2014



Size: 7.625 in.
Wall: 0.430 in.
Weight: 33.70 lbs/ft
Grade: P110
Min. Wall Thickness: 87.5 %

Connection: Wedge 523™
Casing/Tubing: CAS

PIPE BODY DATA			
GEOMETRY			
Nominal OD	7.625 in.	Nominal Weight	33.70 lbs/ft
		Standard Drift Diameter	6.640 in.
Nominal ID	6.765 in.	Wall Thickness	0.430 in.
		Special Drift Diameter	N/A
Plain End Weight	33.07 lbs/ft		
PERFORMANCE			
Body Yield Strength	1069 x 1000 lbs	Internal Yield	10860 psi
		SMYS	110000 psi
Collapse	7870 psi		
WEDGE 523™ CONNECTION DATA			
GEOMETRY			
Connection OD	7.775 in.	Connection ID	6.675 in.
		Make-Up Loss	4.060 in.
Critical Section Area	7.057 sq. in.	Threads per in.	3.06
PERFORMANCE			
Tension Efficiency	72.6 %	Joint Yield Strength	776 x 1000 lbs
		Internal Pressure Capacity	10860 psi
Compression Strength	881 x 1000 lbs	Compression Efficiency	82.4 %
		Bending	48 °/100 ft
External Pressure Capacity	7870 psi		
MAKE-UP TORQUES			
Minimum	9900 ft-lbs	Target	11900 ft-lbs
		Maximum (▲)	17300 ft-lbs
OPERATIONAL LIMIT TORQUES			
Operating Torque	42000 ft-lbs	Yield Torque	63000 ft-lbs
BLANKING DIMENSIONS			
<u>Blanking Dimensions</u>			

* If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative.



T130XD

A heavy duty, heavy hoist carrier mounted drill rig. The T130XD utilizes innovative Telemast technology to achieve Range III pipe capability in a compact over the road package.

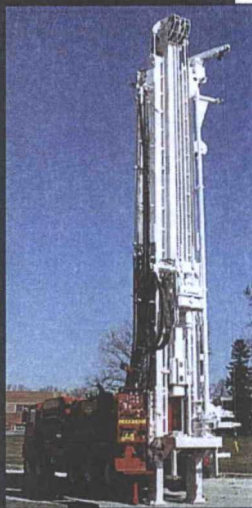
- Equipped with Schramm Telemast
- 50' head travel handles Range III casing
- 43' transport length with less than 6' overhang
- 130,000 lbs hoist
- No sub-structure required
- Mast slides to clear BOP

ROTADRILL



CARRIER MOUNTED RIG EQUIPPED WITH TELEMAST

T130XD ROTADRILL SPECIFICATIONS



Engine

Detroit Diesel DDC/MTU 12V-2000TA DDEC
760 bhp (567 kw) @ 1800 rpm

Standard Compressor

Variable volume two-stage, oil flooded
rotary screw
1350 cfm @ 350 psi (38.0 cu. m/min @ 24.1 bar),
up to 1150 cfm @ 500 psi (32.6 cu. m/min @
35.5 bar)

Cooling

Three core, side by side type
130°F (54.4°C) ambient design temp.

Dimensions

OA length, transport - 42' 9" (13 m)
OA width - 8' 6" (2.6 m)
OA height, transport - 13' 6" (4.1 m)
Weight std. rig - 92,000 lb (41,723 kg)

Carrier

CCC 8x4 Carrier
Cat C-13, 410 hp @ 2100 rpm engine
44,000 lb (19,955 kg) front axles
21,500 lb (9,750 kg) pusher axle
52,000 lb (23,587 kg) rear axles
117,500 lb (53,298 kg) GVWR

Top Head Rotation

Ductile iron, single reduction oil bath gearbox
with two disc valve type hydraulic motors.
Infinitely variable rotation speed.
3.5:1 Reduction Gear
3" diameter (76.2 mm) spindle thru hole
0-143 rpm, infinitely variable
106,600 in-lb (12,045 N·m) torque

Feed System

Top head is driven by hydraulic traverse
cylinders through special wire rope and large
diameter Nylatron sheaves. As top head is raised,
the inner mast section extends by a ratio of 1:2
until it reaches its fully extended position at 50'
of clear head travel.
42' 9" (13 m) OA height (retracted)
69' 9" (21.65 m) OA height (extended)
50' (15.24 m) top head travel
130,000 lb (59,090 kg) pullup
8 fpm (2.44 mpm) pullup speed-slow feed
125 fpm (38.1 mpm) pullup speed-rapid feed
32,000 lb (14,545 kg) pulldown capacity
26 fpm (7.92 mpm) pulldown speed-slow feed
270 fpm (82.3 mpm) pulldown speed-rapid feed
52' 10" (16.1 m) working clearance mast spindle
to table (sub removed)
48' 10" (14.9 m) working clearance mast sub to
table

Drill Pipe & Casing

30' x 4-1/2" OD x 2-7/8" IF breakout style drill pipe,
range III casing
28" (711 mm) max. diameter through slipbox

Mast

Telescoping construction permits long head travel
and working height, yet short OA length in
transport position.
32" (813 mm) cylinder operated slide
Free-standing mast
hydraulically operated adjustable mast feet
hydraulically retracted slip box
20" (508 mm) table opening w/o slips

Winch

Planetary with spring applied hydraulic
release brake
9,600 lb (4,354 kg) bare drum line pull
151 fpm (46 mpm) bare drum line speed

Hydraulic System

Open loop load sensing system
7 micron filtration
200 gallon (760 l) system capacity

Water Injection System

25 gpm (95 lpm) water pump
Electric foam pump

Outriggers

Front - (1) 5" bore x 41" stroke
(127 mm x 1.4 m)
Rear - (2) 5" bore x 41" stroke
(127 mm x 1.4 m)

Tool Lubricator

Positive displacement, air pump operated
piston type pump variable to 5.0 gph
(18.9 lph)

Lighting & Electrical System - 24 Volt

Mast - (4) 60 watt floodlights
Control Panel - (2) 60 watt gauge floodlights
Work - (3) 70 watt halogen

Accessories

Pipe handling sling, 60" breakout wrench,
and 50 hour maintenance kit.

Optional Equipment

Many modifications are available including:
Third driving axle
Reverse circulation package
Tilt-out top head
High capacity top head
Single pipe loading arm
Auxiliary winch controls
Auxiliary air supply

These specifications are based on theoretical calculations and industry standards. Performance will vary according to actual drilling conditions. Schramm, Inc. continuously improves its products and reserves the right to change specifications, design, prices and terms at any time without notification or obligation. These specifications do not extend any warranty, expressed or implied, nor do they or Schramm, Inc. make or imply any representation of the machine's merchantability or fitness for a particular purpose.



www.schramm-inc.com

SCHRAMM, INC.

800 E. Virginia Avenue
West Chester, PA 19380 USA

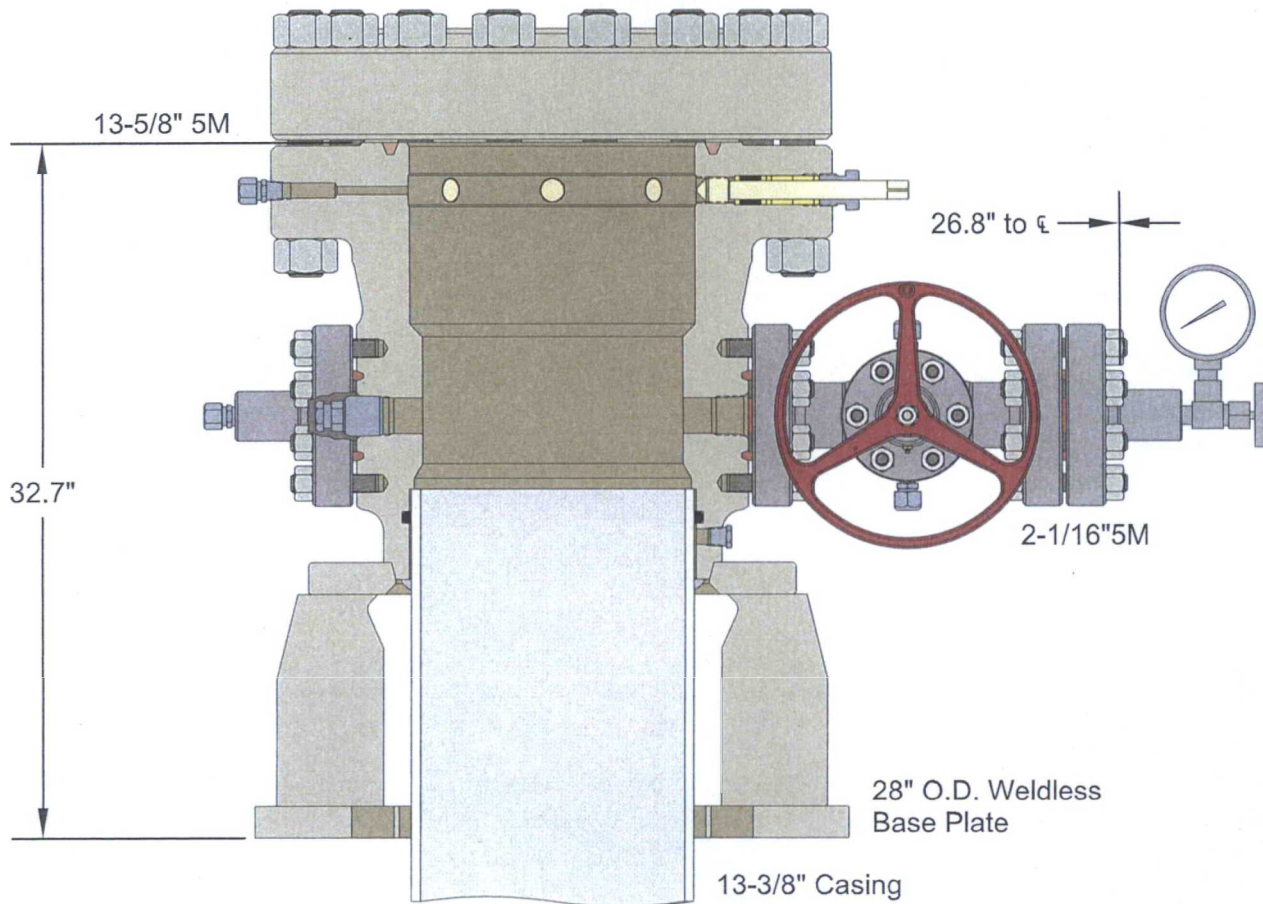
Phone: 610-696-2500

Fax: 610-696-6950

E-mail: schramm@schramm-inc.com



GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

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CONOCOPHILLIPS
SPUDDER RIG

HSG,WG,SH2-LWR,13-5/8 5M X 13-3/8 SOW,W/2 2-1/16 5M FP
BASEPLATE,WELDLESS,28 OD
FLANGE,BLIND, 13-5/8 5M

DRAWN	VJK	19AUG14
APPRV	KN	16AUG14

FOR REFERENCE ONLY

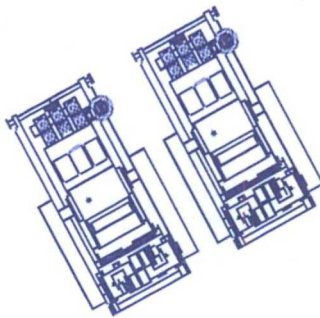
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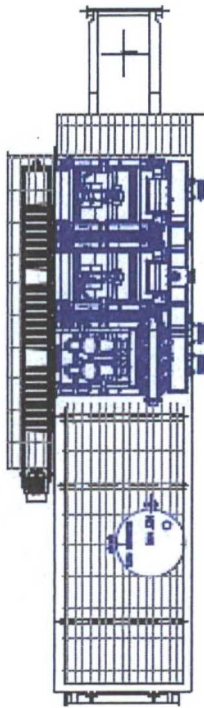
120'

60'

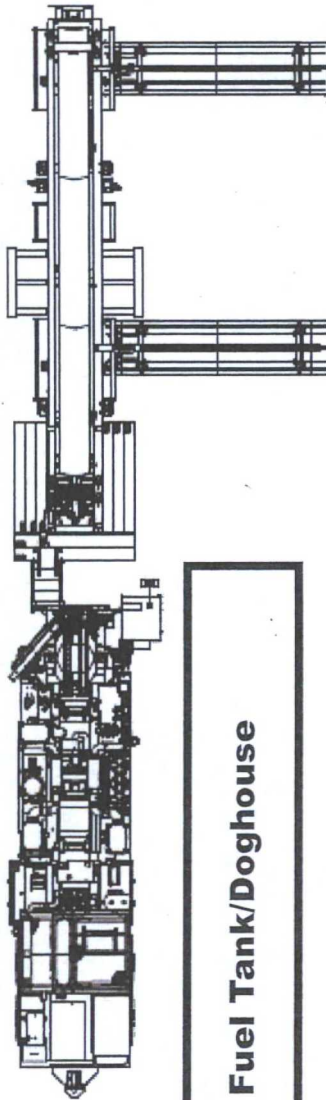
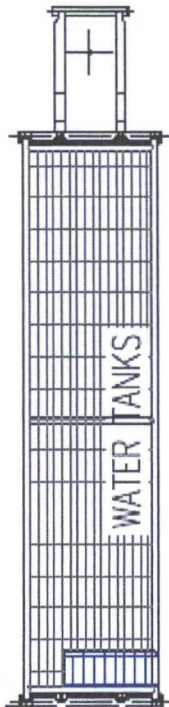
20'



Mud Pumps



Mud Tank/Generator



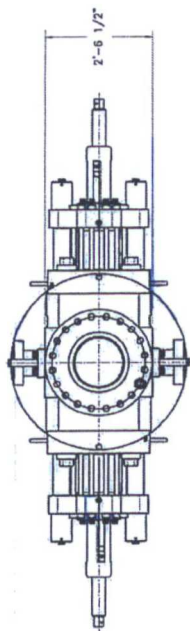
Fuel Tank/Doghouse



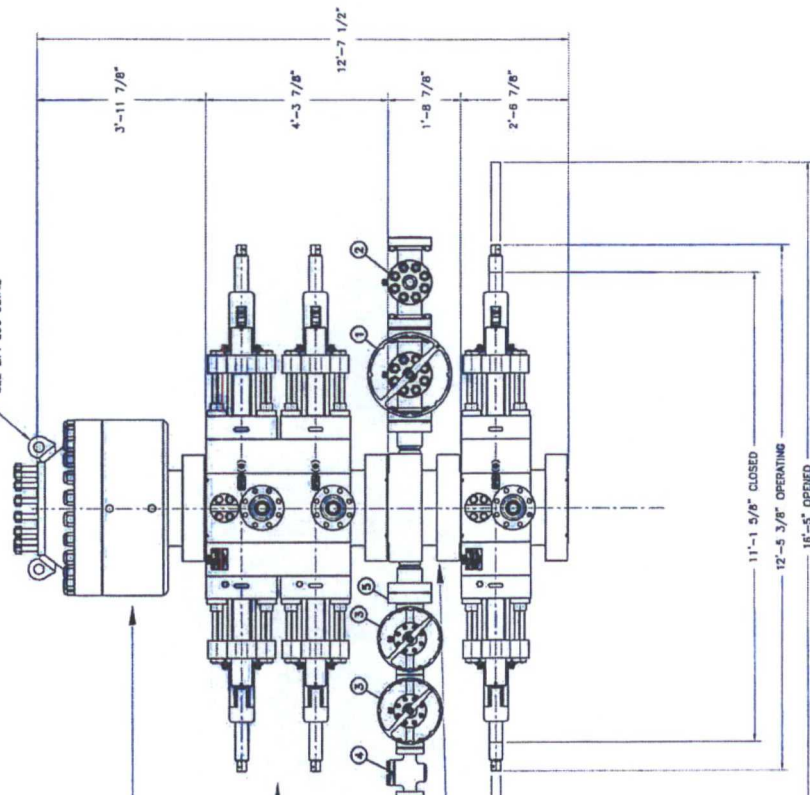
T130XD

"Pinnergy #1" Spudder Rig Layout

- LEGEND
- ①- 4 1/16"-10M FLANGED END GATE VALVE WITH DOUBLE ACTING HYDRAULIC ACTUATOR
 - ②- 4 1/16"-10M FLANGED END GATE VALVE
 - ③- 2 1/16"-10M FLANGED END GATE VALVE
 - ④- 2 1/16"-10M FLANGED END CHECK VALVE
 - ⑤- DOUBLE STUDDED ADAPTER



SEE LIFT LUG DETAIL



SHAFTER BOLTED-COVER SPHERICAL ANNUAL PREVENTER, (API 16A MONOGRAMMED, 13 5/8"-10M WP), 10M BOTTOM FLANGE 5M, STUDDED TOP (WEIGHT = 14,300 LBS WITH SHAFTER API 16A HOT OIL RESISTANT ACRYLONITRILE ELEMENT)

CAMERON UN DOUBLE RAM-TYPE PREVENTER (API 16A MONOGRAMMED, 13 5/8"-10M WP), WITH 5" CAMERON PIPE RAMS (CAMRAM FRONT PACKERS & TOP SEAL) IN TOP CAVITY AND CAMERON RS SHEARING AND CAMERON RS SEPARATING AND CAMERON RS SEPARATING BOTTOM FLANGE X STUDDED TOP (WEIGHT = 21,100 LBS, WITH RAMS)

13 5/8"-10M WP CAMERON DRILLING SPOOL, (API 16A MONOGRAMMED, 13 5/8"-10M WP), 10M BOTTOM FLANGE 5M, STUDDED TOP (WEIGHT APPROXIMATELY 6,000 LBS)

CAMERON UN SINGLE RAM-TYPE PREVENTER (API 16A MONOGRAMMED, 13 5/8"-10M WP), WITH 5" CAMERON PIPE RAMS (CAMRAM FRONT PACKERS & TOP SEAL) IN TOP CAVITY AND CAMERON RS SEPARATING BOTTOM FLANGE X STUDDED TOP (WEIGHT = 10,800 LBS)

PRELIMINARY
April-14-2011
DRAFTSMAN
ENGINEER

API 16A MONOGRAMMED CAMERON CHOKES AND WELL VALVE ASSEMBLIES ARE NOT SHOWN FOR CLARITY

WEIGHTS DO NOT INCLUDE HOSES, ADAPTER SPOOLS OR QUICK CONNECT FITTINGS

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

13 5/8"-10M BOP 3 RAM STACK

FLEXRIG3

CUSTOMER: H&P

PROJECT: FLEXRIG3

DRAWN: MTS

DATE: 8-5-02

SHEET 1 OF 1

210-P1-07

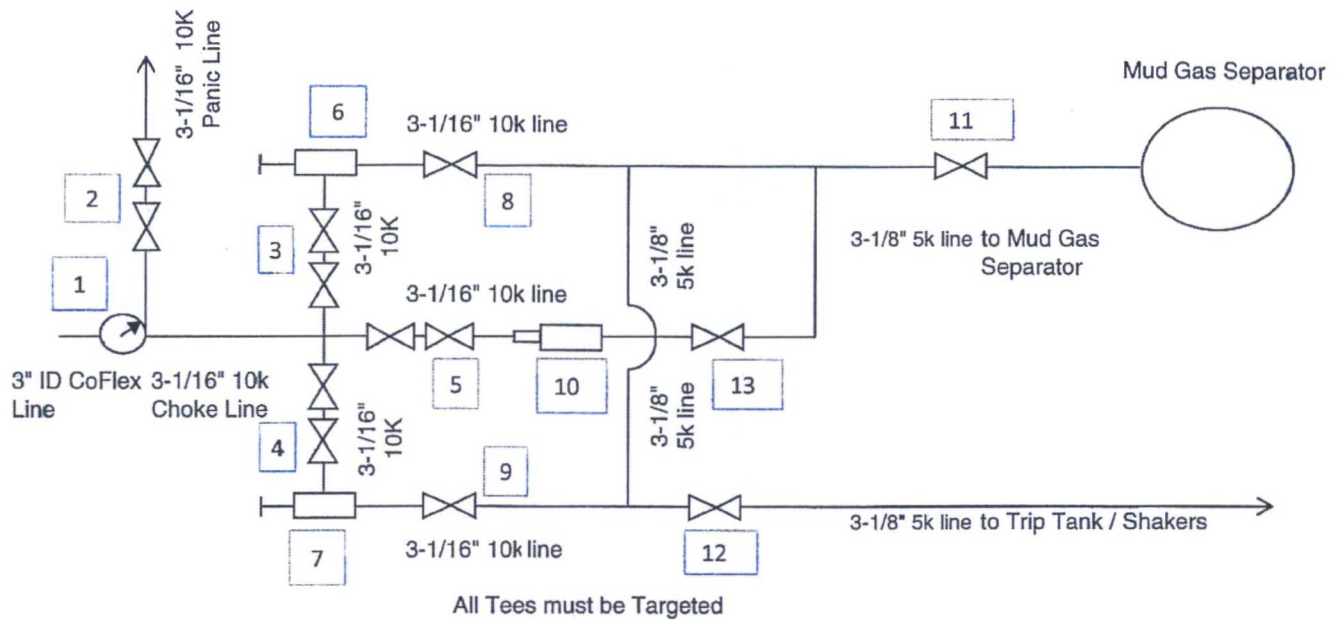
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PROPRIETARY

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CHOKE MANIFOLD ARRANGEMENT - HP486

10M System per Onshore Oil and Gas Order No. 2 utilizing 5M/10M Equipment



Item	Description
1	Pressure Gauge
2	2 Gate Valves, 3-1/16" 10M
3	2 Gate Valves, 3-1/16" 10M
4	2 Gate Valves, 3-1/16" 10M
5	2 Gate Valves, 3-1/16" 10M
6	Upper Manual Adjustable Choke, 4-1/16", 10M
7	Lower Manual Adjustable Choke, 4-1/16", 10M
8	Gate Valve, 3-1/16" 10M
9	Gate Valve, 3-1/16" 10M
10	Remote Controlled Hydraulic Adjustable Choke, 4-1/16", 10M
11	Gate Valve, 3-1/8" 5M
12	Gate Valve, 3-1/8" 5M
13	Gate Valve, 3-1/16" 10M

The 10M Choke Manifold & Valves will be tested to rated working pressure.

Drawn by:
James Chen, P.E.
Drilling Engineer, ConocoPhillips Company
Date: June 25th-2012