Form 3160-3 HOBBS OCD
(August 2007)

OCD-HOBBS

MAR 23 2012

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMLC068281B

6. If Indian, Allotee or Tribe Name:

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.: <39058>

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: Buck Federal 20 #3H <39135>

2. Name of Operator: ConocoPhillips Company <217817>

9. API Well No.: 30-025-40503

3a. Address: 3300 N "A" St, Bldg 6 Midland, TX 79705

3b. Phone No. *(include area code)*: (432)688-6913

10. Field and Pool, or Exploratory: WC-025 G-05 S263208P; AS UPPER SHALE (97838)
Red Hills; Bone Springs

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface: UL C, Sec 20, T 26S, R 32E, 224 FNL 2416 FWL
At proposed prod. zone: UL N, Sec 20, T 26S, R 32E, 330 FSL 2416 FWL

11. Sec., T. R. M. or Blk. and Survey or Area: Sec 20, T 26S, R 32E

14. Distance in miles and direction from nearest town or post office*: 30 miles south west of Jal, NM

12. County or Parish: Lea

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 330' FSL

16. No. of acres in lease: 640.0

17. Spacing Unit dedicated to this well: 40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 650' from Russsell Fed #4

19. Proposed Depth: 13720 MD 9284 TVD

20. BLM/BIA Bond No. on file: ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3183 Gr

22. Approximate date work will start*: 06/09/2012

23. Estimated duration: 44 days

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: B. Maiorino — Name *(Printed/Typed)*: Brian D Maiorino — Date: 01/25/2011

Title: Regulatory Specialist

Approved by *(Signature)*: /s/ James A. Amos — Name *(Printed/Typed)*: — Date: MAR 2 1 2012

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KR 03/26/2012

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

MAR 27 2012

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Buck Federal 20 #3H**
SURFACE LOCATION:	**224 FNL & 2416 FWL**
BHL:	**330 FSL & 2416 FWL**
FIELD NAME:	**Red Hills**
POOL NAME:	**Bone Spring**
COUNTY:	**Lea County, New Mexico**

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.

Quaternary	Surface	Water
Rustler	748	Salt
Castile	2498	Salt
Delaware Top	4292	Oil/gas/water
Ramsey	4373	Oil/gas/water
Ford Sand	4443	Oil/gas/water
Olds	4448	Oil/gas/water
Cherry Canyon lower top	6545	Oil/gas/water
Bone Spring	8226	Oil/gas/water
Bone Spring 1st carbonate top	8451	Oil/gas/water
Bone Spring 1st carbonate base	8528	Oil/gas/water
KOP	8550	Oil/gas/water
Avalon A shale Top	8726	Oil/gas/water
Avalon A shale base	8937	Oil/gas/water
Avalon B zone top	8937	Oil/gas/water
Avalon B zone base	9087	Oil/gas/water
Avalon C shale top	9087	Oil/gas/water
Drain Hole	9284	Oil/gas/water
Avalon C Shale Base	9349	Oil/gas/water

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary	748 (water)
Rustler	2498 (Salt)
Castile	4292 (Salt)

All of the water bearing and salt formations identified above will be protected by the intermediate setting of the 9-5/8" casing and circulating of cement to surface

Bone Spring	8451-9349 (gas & gas/oil)

The geologic tops identified above from the Bone Spring/Avalon are part of the target formation.

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

as a 3M system

A 5000# system will be installed, used, maintained, and tested accordingly. After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure. Annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. ConocoPhillips Company request a variance to the testing as follows: The 13 3/8 surface casing will be set at a depth of ~~740'~~ and a Wood Group Pressure Control SH2 type wellhead will be installed on the 13 3/8" casing string. The SH2 type wellhead is a "multi-bowl" type wellhead system that allows the landing of multiple casing strings without having to remove the BOP to install additional wellhead components. This specific wellhead design consists of a 13 3/8" SOW x 13 5/8" 3M psi lower flange assembly with a 13 5/8" x 5M psi upper flange assembly. For the initial installation on the 13 3/8" surface casing, the maximum pressure application to the wellhead system is limited by the 3M psi flange rating. Once installed, the 3M psi wellhead flange will be isolated and all subsequent BOPe pressure testing can be performed to 5000 psi, consistent with the requirements of a 5M system as set forth in Onshore Order No. 2 and the APD Conditions of Approval. The SH2 wellhead schematic and proposed BOPe configuration is attached for reference. COP also request approval for use of one flex hose on the drilling rig. **See Attached BOPe Schematic and Testing Information and hose specifications.**

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition. For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

Surface: 17 1/2" hole, 13 3/8" 54.5# J-55 STC csg, set @ ~~850~~'. Drill out with 12 ¼" bit and perform shoe test to 11.0 ppg MWE.
Burst: 2.67/Collapse: 4.92/Tension: 3.43

Inter 1: 12 1/4" hole, 9 5/8" 40# L-80 BTC csg, set @ ~~4500~~'
Burst: 2.88/Collapse: 2.62/Tension: 6.31

Production Lateral: 8-3/4" hole, 5 ½" 17# P-110 BTC csg set @ 13,720' MD 9284 TVD. Burst 1.93/Collapse 5.32/Tension 3.79

See COA

Casing Sring	Settig Depth TVD	OD"	Wt lb/ft	Grade	Conn	MIY (psi)	Collapse (psi)	Jt Str (Klbs)	MASP	Burst DF	Collapse DF	Axial DF
Surface	~~850~~ 1135	13-3/8	54.5	J-55	STC	2730	1130	514	1024	2.67	4.92	2.57
Intermdiate	~~4400~~ 4325	9-5/8	40.0	L-80	BTC	5750	3090	947	1995	2.88	2.62	4.74
Production	9235	5-1/2	17.0	P-110	BTC	10640	7840	568	-	2.17	5.32	2.84

The Plan is to set casing and drill in a southern direction to a proposed bottom hole location of 330 FSL 2416 FEL Unit letter "N" Section 20, 26S, 32E

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

a. 13-3/8" Csg: lead w/230 sx Class C cement + HalCem-C (Yeild: 1.33 cft)
Tail w/870 sx Class C cement + 1 lbm/sk EconoChem-HRLTRRC (Yield 1.85 cft/sk)
Circulate to surface. Based on 17-1/2" OH, with 200% excess
b. 9-5/8" Csg: lead w/1200 sx 50/50 Class C Poz + 2.5 gal/bbl WG-19 +
1 lbm/sk EconoCem-C (Yield: 2.48 cft/sk) Tail w/270 sx 'H' + HalCem C
(Yield 1.33 cft/sk) Circulate to surface. Based on 12.25" hole with 150% excess
c. 5-1/2" Csg lead w/1180 sx HLH+ 0.3% Halad-9 + 5lbs/sk silicalite + 0.3% HR- 800 (Yield: 2.00 cft/sk) Tail w/805 sx 'H' + 0.4% Halad-9 + 0.1% WG-17 + 3.0% KCL + 0.3% HR-800 (Yield 1.2 cft/sk) circulate cement 500' into 9-5/8" casing. Based on 8-3/4" Hole w/150% excess

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

See COA

0-~~850~~ 1135'	Aquagel/Spudmud	8.9#	Vis 32-36	WL: NC
~~850~~-~~4500~~'	Brine	10.1#	Vis 28-30	WL: 5-8
~~4500~~-13,720'	Cut Brine	9.2-9.3#	Vis 30-40	WL: <=5

4325

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None
b. Mud Logging: Two-Man – 2800'-TD' Vertical and Horizontal Lateral
Logs to be run: GR-MWD 13720'-8550' — See COA

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The expected pressure gradient is 0.433 psi/ft or 9.0-9.1 ppg equivalent .The average anticipated bottom hole pressure ranges on average 4360 psi.

See COA — No hydrogen sulfide is expected to be encountered during drilling operations; however, the potential does exist for H2S. Please see attached H2S contingency plan to be used in the event of occurrence.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.

Anticipated Spud date of June 9, 2012. Construction of well pad and road will begin as soon as all agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed directional/horizontal documents are attached.

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills			COUNTY/STATE		Lea County, NM
OWNERS	BURLINGTON RESOURCES			LEASE		
WELL NO.	Buck Federal 20 #3H		FNL	FSL	FEL	FWL
LOCATION	Surface Location:		224		2416	
	Bottom Hole Location:			330	2416	
EST. T.D.	Leg #1. 13,720' MD			GROUND ELEV.		3,160' (est)
					RKB	3183'

PROGNOSIS: Based on 3,160' KB(est)

Marker	S.S. Depth	TVD
Quaternary		Surface
Rustler	2,412	748
Castile	685	2498
Delaware Top	-1,230	4,292
Ramsey	-1190	4373
Ford Sand	-1280	4443
Olds	-1265	4448
Cherry Canyon Lower Top	-3362	6545
Bone Spring	-5,077	8,226
Bone Spring 1st Carbonate Top	-5,311	8,451
Bone Spring 1st Carbonate Base	-5,368	8,528
KOP (est)	-5,402	8,550
Avalon A Shale Top	-5,573	8,726
Avalon A Shale Base	-5,803	8,937
Avalon B Zone Top	-5,803	8,937
Avalon B Zone Base	-5,927	9,087
Avalon C Shale Top	-5,927	9,087
Avalon C Shale Base (Should not penetrate	-6,194	9,349

LOGS:

Type	Interval
Open Hole:	
GR-MWD	13,720' - 8550'

DEVIATION:

Surf	3° max., svy every 500'
Int1/2	3° max, svy every 90'
Prod	

DST'S:

CORES: No core

SAMPLES:

Mudlogging	Start	End	
Two-Man.	2,800'	TD	Vertical and Horizontal sections

BOP:

COP Category 3 Well Control Requirements

Nabors Rig M-09 BOPE (With Rotating Head)

- 13-5/8"-5Mpsi Annular (Hydril GK)
- 13-5/8"-5Mpsi Blind Ram (Cameron U)
- 13-5/8"-5Mpsi Cross / Choke & Kill Lines
- 13-5/8"-5M psi Pipe Ram (Cameron U)
- 13-5/8"-5Mpsi Spacer Spool

used as 3M

Dip Rate (See inclination prediction)

Max. Anticipated BHP: 0.65 psi/ft

Surface Formation:

MUD:

	Interval	Type	Max MW	Vis	WL	Remarks
Surface:	0'-850'	Aquagel - Spud Mud	8.9	32-36	NC	
Intermediate 1	850'-4500'	Brine	10.1	28-30	5-8	
Production	4500'-13720'	Cut Brine	10	30-40	<=5	

CASING:

	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54.5	17-1/2	850'	To Surface	18hrs	
Intermediate 1	9-5/8"	40	12-1/4"	4,500'	To Surface	18hrs	
Production Lat #1.	5-1/2"	17	8-3/4"	13,720'	500' into intermediate	18hrs	Long String

DIRECTIONAL PLAN

	MD	TVD	AZ		
Surface:	N/A	N/A	180	Directional Company	DDC
Vertical KOP:	8,550'	8,500'	180.0	Vertical Build Rate.	8.8 °/100'
End Build/ 7"Casing (90° curve)	9,695'	9,277'	180.0	Tan Leg Turn Rate	0.0 °/100'
Tangent	N/A	N/A	180.0		
Turn	N/A	N/A	180.0		
TD	13,720'	9,284'	180.0		

Comments:
Surveys will be taken at 90' **interval below surface casing** while drilling with PDC / Motor / MWD.

Prep By: Luis Serrano Date 11/22/11 Doc REV 0

Tom 2/17/201

Buck Federal 20 #3H				
Surface Location.			Bottom Hole Location	
	0	2416	330	2416

SAP Network.	TBA	
Inv. Handler ID.		TBA
Drilling	TBA	
Completion/Facility.		$0
Total		

Permit	
NDIC #	TBA
API #	TBA
Fed #	TBA
AFE#	TBA

Directional·

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZ$
Vertical KOP	8550	8500	0	0	0	180
End Build/ 7"Casing (90° curve)	9,695'	9,277'	0	0	0	180 0
Tangent.	N/A	N/A	0	0	0	180 0
Turn	N/A	N/A	0	0	0	180 0
TD	13,720'	9 284'	0	0	0	180 0

Formation	TVD
Quaternary	Surface
Rustler	748
Castile	2498
Delaware Top	4292
Ramsey	4373
Ford Sand	4443
Olds	4448
Cherry Canyon Lower Top	6545
Bone Spring	8226
Bone Spring 1st Carbonate Top	8451
Bone Spring 1st Carbonate Base	8528
KOP (est)	8550
Avalon A Shale Top	8726
Avalon A Shale Base	8937
Avalon B Zone Top	8937
Avalon B Zone Base	9087
Avalon C Shale Top	9087
Avalon C Shale Base (Should not penetrate)	9349

KOP (8 8°/100') 8,550

CASING

Surface
850' 13-3/8" 54 5# J-55 STC

Intermediate
4,500' 40# L-80 BTC

Drill Fluids

Surf. Hole:
FW gel mud
8 9#
w/ high vis sweeps

Interm.1
Brine
10 1#
40-50 Vis
5-8 WL

Pred Hole.
Cut Brine
10#
28-36 Vis
<=5 WL

high vis sweeps
as required

Cement

Data These numbers are only estimates.

Surface:
230 Sx Lead
670 Sx Tail

Based on 17 -1/2" OH,
with 200% excess

Intermediate
1 200 Sx Lead
270 Sx Tail

Based on 8 75 in Hole
with 150% excess

Production
1,180 Sx Lead
805 Sx Tail

Based on 0 00 in Hole
with 150% excess

Slurry Top
500' into 9-5/8"

Analysis

Mudlogging.
Two-Man
2,800'

TD

Open Hole:
0
0
GR-MWD
13,720' - 8550'

Cased Hole Logs:
None

Production
13,720' MD 5-1/2" 17# P-110 BTC
9,284 ' TVD

Max Anticipated BHP 0 65 psi/ft

TD @ 13,720' MD
9,284' TVD

Notes for Well:

1.) Refer to the drilling program for detailed casing, drilling fluids, bit etc
2)Mud logger (two-man) to be on at surface casing depth of 2,800'
3) The curve will be drilled with ~ 8°/100' build rate and 2° Azimuth
4) Begin LWD GR service after drilling out surface shoe at 850'
5) Run 9-5/8" 40# L-80 BTC from surface to Intermediate1 Section TD @ 4200'
6) Drill 8-3/4" hole to KOP at 8550'
7) Kick off and drill curve to 9647' MD/ 9248' TVD POOH
8) RIH with lateral Assy and drill lateral as per the plan to TD at 12850'
9) Run logs
10) If required, ream 6-1/8"" lateral in preparation for running 5 1/2" casing
11) Run 5 1/2" Casing to TD
12) Cement casing as per the plan, leaving at least 500' overlapped with the 9-5/8"
13) Displace cement with water containing 2% KCL
14) POOH laying down pipe
15) ND BOPE Install 10M tubing head Test connection
16) Release drilling rig

Tuwa
2/17/2012

Vick Harvey
Geologist
Date

Luis Serrano
Drilling Engineer
Date

Bonespring/Red Hills
BURLINGTON RESOURCES
Buck Federal 20 #3H

0

Surface Casing:	
Surface Casing Depth (Ft)	850
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	200%
Volume Tail (Sx)	230
Yield Tail (Cu. Ft./Sx)	1.85
Yield Lead (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	35.3
Tail feet of cement	300
Calculated Total Volume (Cu. Ft.)	1,598
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	1,146
Calc. Lead Volume (Sx)	870

Intermediate1 Casing (Lead):	
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill	3,800'
Yield Lead (Cu. Ft./Sx)	2.48
Calculated Total Lead (Cu. Ft.)	2,975
Calc. Lead Volume (Sx)	1200

Intermediate1 Casing (Tail):		
Intermediate Casing O.D. (In.)	9-5/8"	
Production Casing ID (In)	8.835	
Hole O.D. (In)	12.25	
Excess (%)	150%	
cap 12-1/4 - 9-5/8"	0.0558	
Calculated fill:	700'	
Yield Tail (Cu. Ft./Sx)	1 33	
Shoe Joint (Ft)	40	
Shoe Volume (Cu. Ft)	17.0	
Calc. Tail Volume (Cu. Ft.)	346	5480
Required Tail Volume (Sx)	270	

Production Casing (Lead):	
Intermediate Casing O.D. (In.)	5.500
Intermediate Casing ID (In)	4.892
Hole O.D. (In)	8 75
Excess (%)	150%
cap 5-1/2" - 8-3/4" bls/ft	0.0450
cap 5-1/2 - 9-5/8" bls/ft	0.0408
Calculated fill: (500' into 9-5/8")	6,200'
Yield Lead (Cu. Ft./Sx)	2.0
Calculated Total Lead (Cu. Ft.)	2,349
Calc. Lead Volume (Sx)	1180

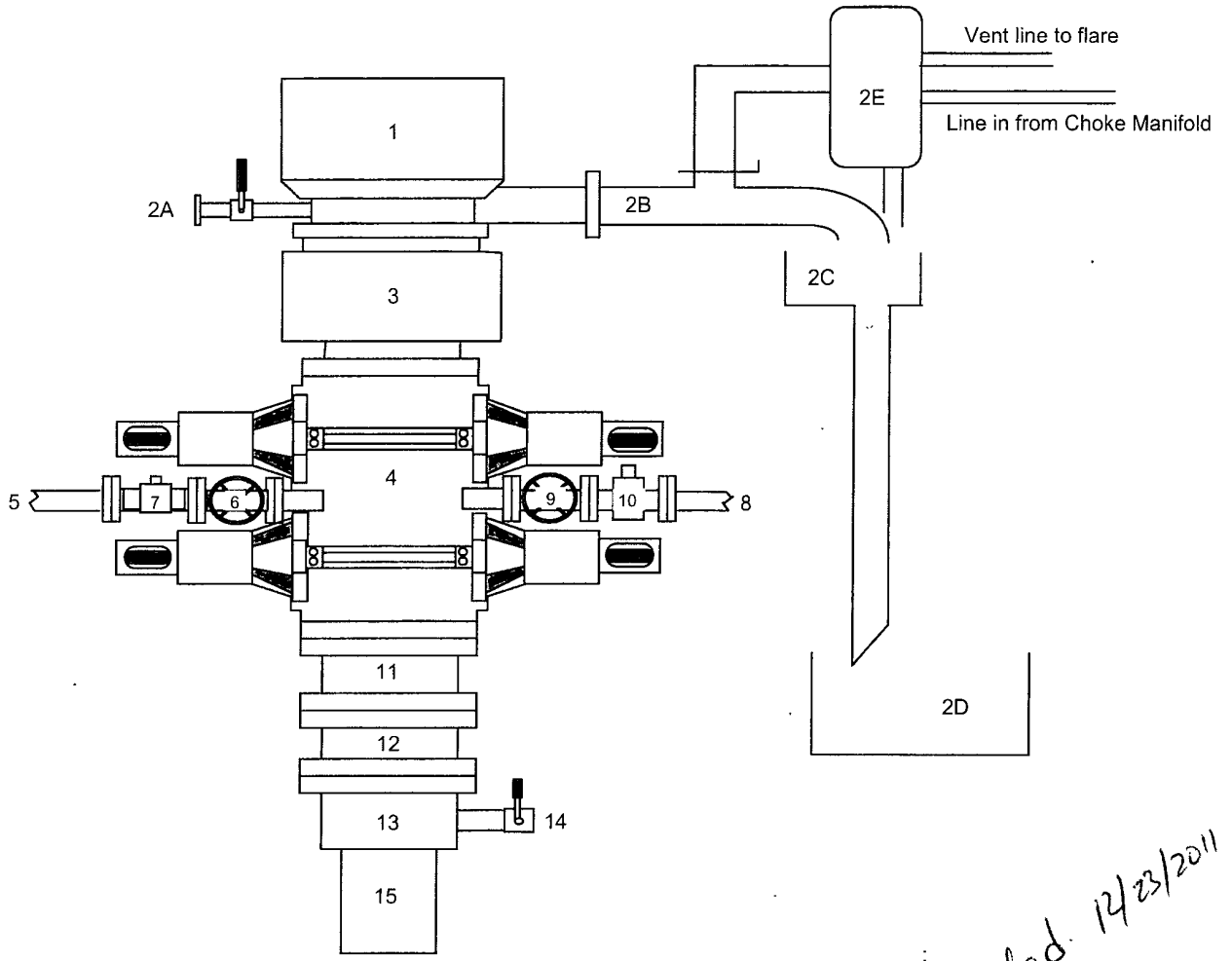
Production Casing (Tail):			
Intermediate Casing O.D. (In.)	5.500		
Intermediate Casing ID (In)	4.982		
Hole O.D. (In)	8.75		
Excess (%)	150%		
cap 5-1/2" - 8-3/4" bls/ft	0.0450		
cap 7 - 9-5/8" bls/ft			
Calculated fill:	2,550'	8,720'	
Yield Lead (Cu. Ft./Sx)	1.2		
Calculated Total Tail (Cu. Ft.)	966		4050
Required Tail Volume (Sx)	805		

7850

Tmm
2/17/12

BLOWOUT PREVENTER ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 5M Rated Equipment



Inserted 12/23/2011 TMM

Item	Description
1	Rotating Head (13-5/8", 3M)
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", 5M)
4	Double Ram BOP (13-5/8", 5M with Blind Rams in Upper Set and Pipe Rams in Lower Set)
5	Kill Line (2" chicksan, 5000 psi WP)
6	Kill Line Valve, Inner (2", 5000 psi WP)
7	Kill Line Check Valve (2", 5000 psi WP
8	Choke Line (4" Flexible Steel Line, 5000 psi WP)
9	Choke Line Valve, Inner (4", 5000 psi WP)
10	Choke Line Valve, Outer, (Hydraulically operated, 4", 5000 psi WP
11	Spacer Spool (13-5/8" 5M)
12	Spacer Spool (13-5/8" 5M)
13	Casing Head (13-5/8" 5M)
14	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
15	Surface Casing

Drawn by: Steven O. Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 22-Dec-2011

Stage 2 — . Install Split Speed Head With Riser Assembly

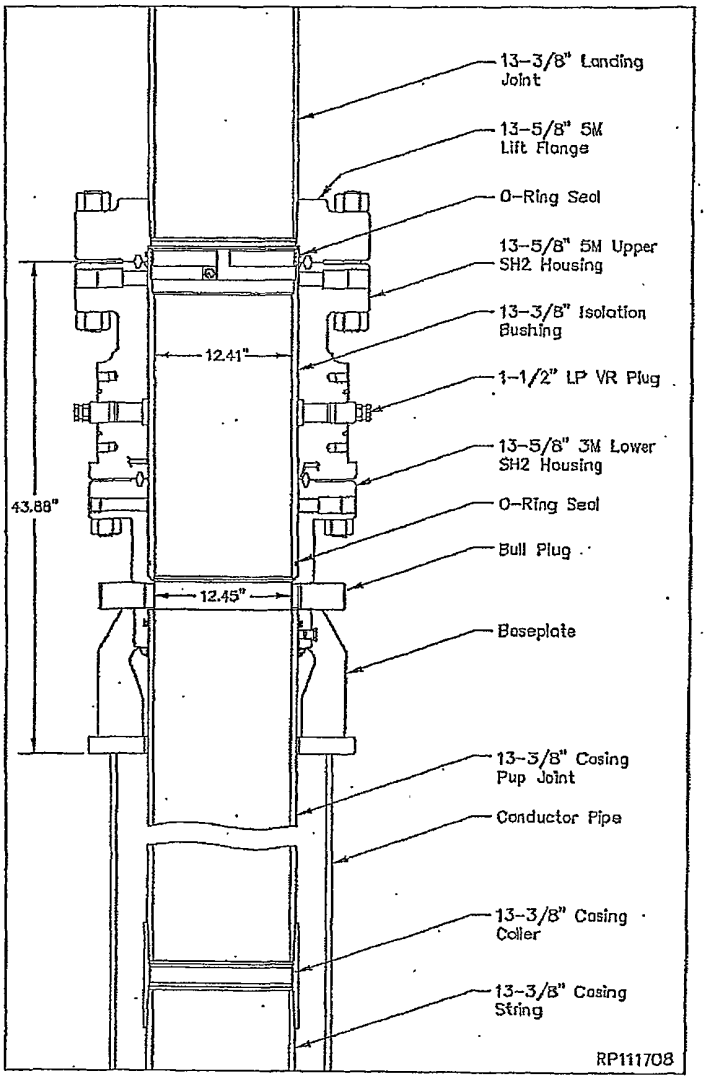
1. Drill and condition hole for surface casing.
2. Cut the conductor pipe off at the correct height above the cellar floor and grind stub level.

Note: The SH2 Riser Assembly is pre-assembled and tested prior to being shipped to location. The assembly is made up of a full length landing joint with flange, upper and lower SH2 housings, and a 10' long pup joint.

3. Examine the *13-5/8" 5M x 13-3/8" SOW SH2 Speed Head/Riser Assembly (Items A1 & B1)*. Verify the following:
   - 10' pup joint is properly welded in place and casing threads are clean and in good condition
   - all outlet equipment has been removed including all studs and nuts, and valves
   - VR plugs are in place and tight
   - base plate is intact and properly welded to the casing head
   - isolation bushing is in place and properly retained with landing flange
   - landing flange with landing joint are in place and connection is properly made up

Note: Lockscrews are removed to clear 27-1/2" rotary.

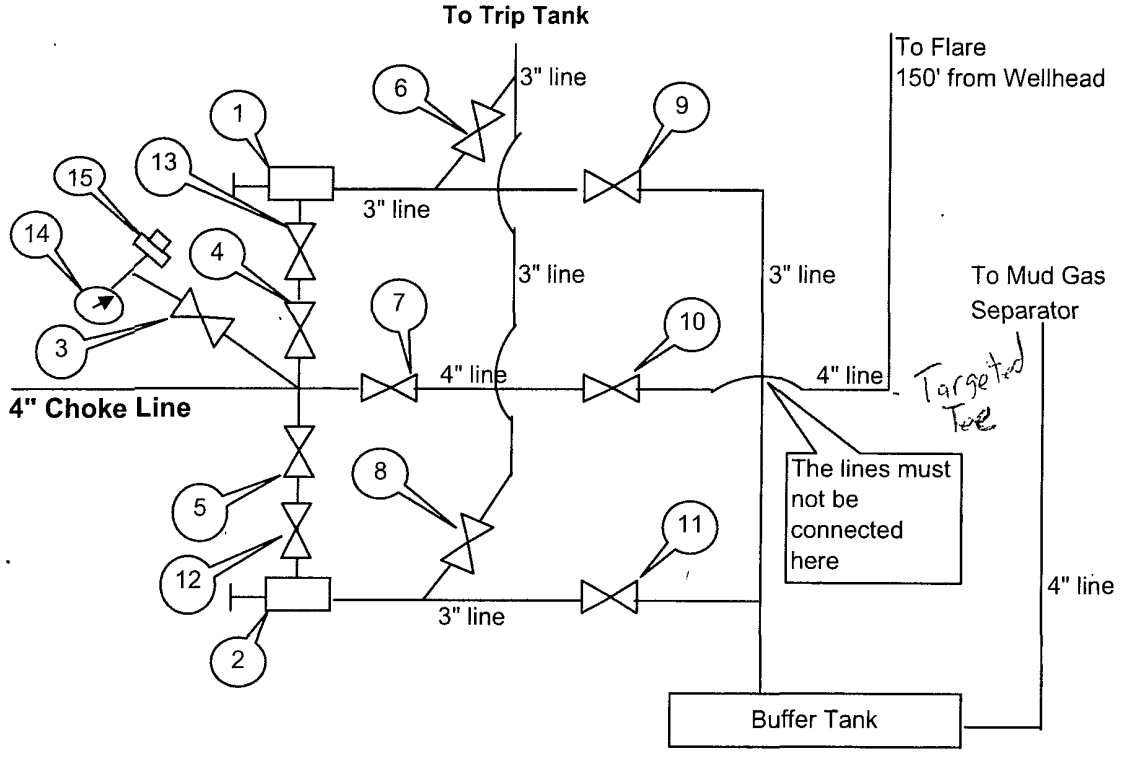
4. Run the surface casing to the required depth and then set the last joint of casing run in the floor slips.
5. Pick up the SH2 Riser Assembly and make up the assembly in the casing string, tightening the thread connection to the thread manufacturers optimum make up torque.
6. Pick up the casing string and remove the floor slips and rotary bushings.
7. Slowly and carefully lower the assembly through the rotary table until the baseplate contacts the conductor pipe stub. Slack off all weight.
9. Remove the duct tape from the O.D. of both the upper and lower flanges of the assembly and lightly grease all threaded lockscrew holes.
10. Locate the (six) 1-1/4" and the (twelve) 1-1/2" lockscrew assemblies.



11. Install the 1-1/4" integral lockscrew assemblies in the upper flange and the 1-1/4" assemblies in the lower flange as indicated. (Ref. Dwg. RP111709)
12. Rig up the cement head and cement the surface casing string as per program, taking returns through the circulation ports in the baseplate.
13. After the cement job is completed, bleed off and remove the cement head.
14. Remove the landing flange with landing joint and set aside.

CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 10M rated equipment



Item	Description
1	Manual Adjustable Choke, 3-1/16, 10M
2	Manual Adjustable Choke, 3-1/16, 10M
3	Gate Valve, 2-1/16 10M
4	Gate Valve, 3-1/16 10M
5	Gate Valve, 3-1/16 10M
6	Gate Valve, 3-1/16 10M
7	Gate Valve, 4-1/16" 10M
8	Gate Valve, 3-1/16 10M
9	Gate Valve, 3-1/16 10M
10	Gate Valve, 4-1/16" 10M
11	Gate Valve, 3-1/16 5M
12	Gate Valve, 3-1/16 10M
13	Gate Valve, 3-1/16 10M
14	Pressure Gauge
15	2" hammer union tie-in point for BOP Tester

Inserted
2/7/2012
TMM

Drawn by:
Steven O. Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
01-Feb-2012

COPPER STATE RUBBER
VISUAL INSPECTION / HYDROSTATIC TEST REPORT
CHOKE & KILL HOSE
10,000 P.S.I. W/P X 15,000 P.S.I. T/P
SPEC: 090-1915 HS
H2S SUITABLE

SHOP ORDER NO.: 16528 SIZE: 3" I.D.

SERIAL NO.: 22269 LENGTH 25 FT. IN.

CONNECTIONS: 4-1/16" 10,000 PSI API FLANGE

VISUAL INSPECTION

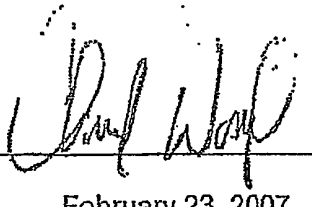
(A) END CAPS / SLEEVE RECESS: OK
(B) EXTERIOR / COVER / BRANDING: OK
(C) INTERIOR TUBE: OK

HYDROSTATIC TEST

5 MIN. @ 10,000 PSI

2 MIN. @ 0 PSI 25' 3" OAL

3 MIN. @ 15,000 PSI

WITNESSED BY: 

DATE February 23, 2007

FORM QA-21- REV-2
3-22-00

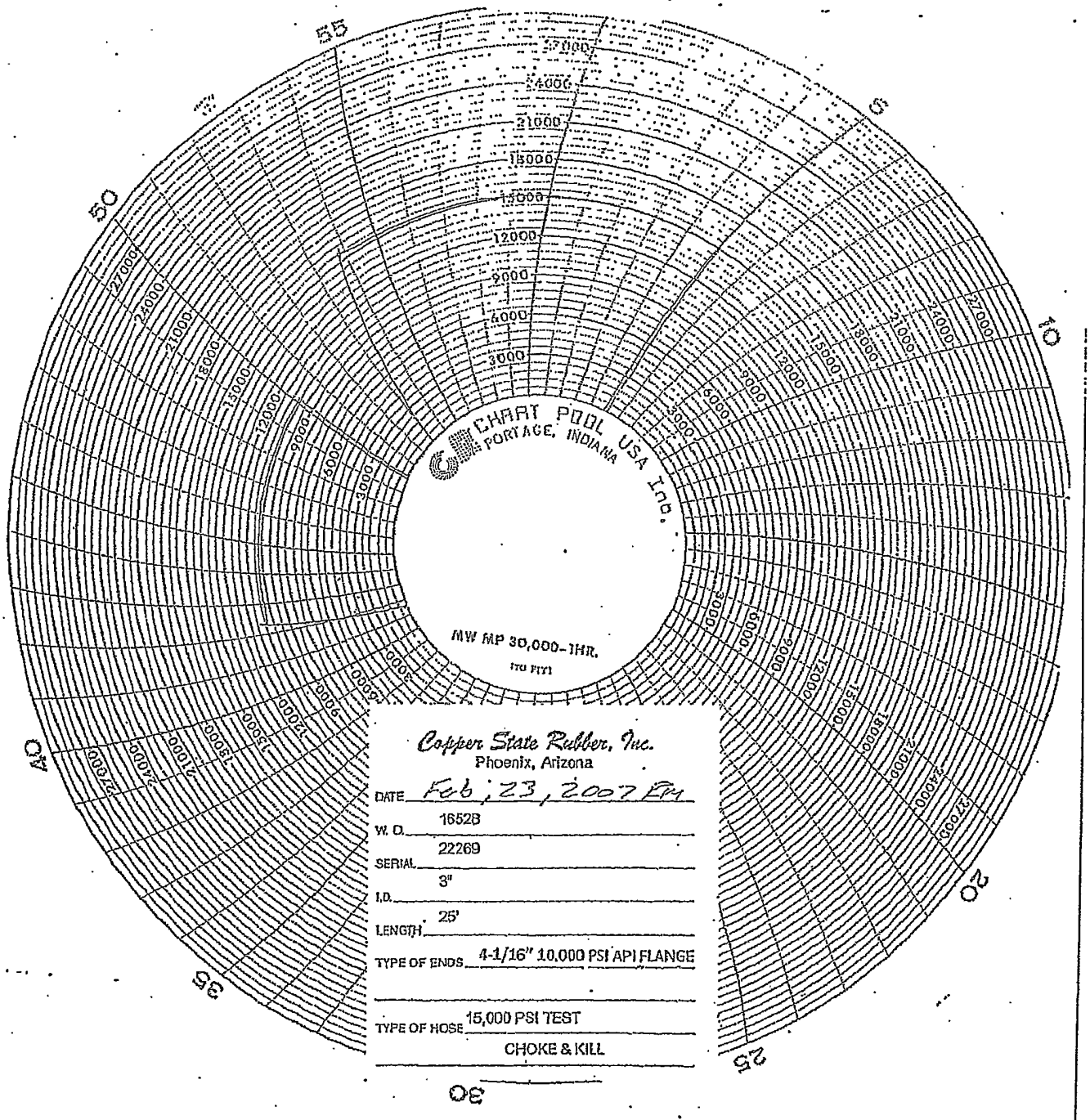


CHART POOL USA Inc.
PORTAGE, INDIANA
MW MP 30,000-1HR.
Copper State Rubber, Inc.
Phoenix, Arizona
DATE Feb 23, 2007 EM
W. O. 16528
SERIAL 22269
I.D. 3"
LENGTH 25'
TYPE OF ENDS 4-1/16" 10,000 PSI API FLANGE
TYPE OF HOSE 15,000 PSI TEST
CHOKE & KILL

August 09 2011

TenarisHydril

Size: 4.500 in.
Grade: API T95

Wall: 0.430 in.
Weight: 18.900 lbs/ft
Connection: Blue™

PIPE BODY DATA

GEOMETRY

Nominal OD	4.500 in.	Nominal Weight	18.90 lbs/ft	Standard Drift Diameter	3.515 in.
Nominal ID	3.640 in.	Wall Thickness	0.430 in.	Special Drift Diameter	N/A
Plain End Weight	18.71 lbs/ft				

PERFORMANCE

Body Yield Strength	522 x 1000 lbs	Internal Yield	15890 psi	Collapse	16410 psi

BLUE™ CONNECTION DATA

GEOMETRY

Regular OD	5.189 in.	Special Clearance OD	5.051 in.	Connection ID	3.740 in.
Critical Section Area	5.768 sq. in.	Critical Section Area (Special Clearance)	4.659 sq. in.	Make-Up Loss	4.012 in.
Threads per in.	5.00	Coupling Length	9.213 in.		

PERFORMANCE

Regular OD Tension Efficiency	100 %	Joint Yield Strength	522 x 1000 lbs	Internal Yield	15890 psi
Compression Efficiency	100 %	Compression Rating	522 x 1000 lbs	Collapse	16410 psi
Special Clearance Tension Efficiency	85.0 %	Bending	97 °/100 ft		

MAKE-UP TORQUES

Minimum	8630 ft-lbs	Target	9590 ft-lbs	Maximum	10550 ft-lbs
Yield Torque	15750 ft-lbs				

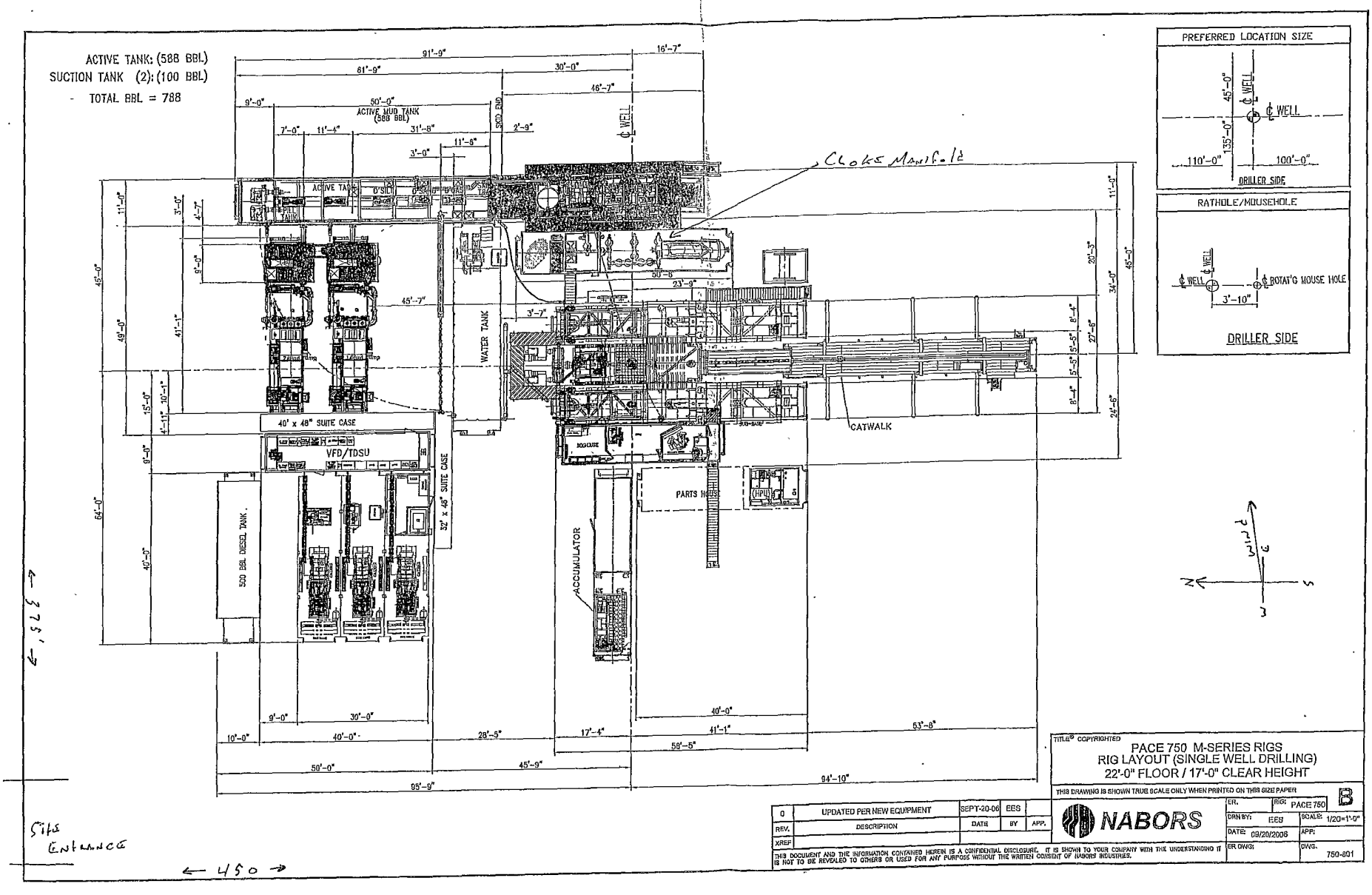
BLANKING DIMENSIONS

Blanking Dimensions

M09 CHOKE HOSE SPECIFICATIONS

HOSE MANUFACTURER	HOSE MANUFACTURED DATE	HOSE SERIAL #	HOSE OD	HOSE ID	WORKING PSI	TEST PSI
COPPER STATE RUBBER	2/2007 USA	22269	6.25	3	10K	15K

FLANGE	FLANGE MANUFACTERED DATE	RING TYPE				
4 1/16 10M	11/8/2006	BX153				



TITLE© COPYRIGHTED

PACE 750 M-SERIES RIGS
RIG LAYOUT (SINGLE WELL DRILLING)
22'-0" FLOOR / 17'-0" CLEAR HEIGHT

THIS DRAWING IS SHOWN TRUE SCALE ONLY WHEN PRINTED ON THIS SIZE PAPER

B

REV.	DESCRIPTION	DATE	BY	APP.
0	UPDATED PER NEW EQUIPMENT	SEPT-20-06	EES	
XREF				

NABORS

ER. | RIG: PACE 750

DRN BY: EES | SCALE: 1/20=1'-0"

DATE: 09/20/2006 | APP:

ER DWG: | DWG. 750-801

AREA= 157,500 FT2
(3.6 Acres)

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