OCD-ARTESIA

9/26/11 ... EXT BOND OK ATS-11-840

Form 3160-3
(August 2007)

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

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMLC063873A
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2. Name of Operator CHESAPEAKE AGENT FOR BOPCO. ATTN: LINDA GOOD (147179)	7. If Unit or CA Agreement, Name and No. NMNM071016X
3a. Address P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496 — 3b. Phone No. (include area code) 405-935-4275	8. Lease Name and Well No. PLU BIG SINKS 14-25-30 USA 1H (38836)
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 300 FSL & 1980 FWL, SESW (L) At proposed prod zone 350 FNL & 1980 FWL, NENW	9. API Well No. 30-015-39508
	10. Field and Pool, or Exploratory Wildcat; Bone Spring (96403)
	11. Sec., T. R. M. or Blk and Survey or Area 14-25S-30E
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 32 MILES SE OF LOVING.	12. County or Parish EDDY — 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 1920 ACRES	17. Spacing Unit dedicated to this well ~~640 ACRES~~ 160 Jit 9/L
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19. Proposed Depth 13,726' MD / 9214' TVD 10,150' PH	20. BLM/BIA Bond No. on file ~~ESB000159~~ NM2634
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3369' GL	22. Approximate date work will start*	23. Estimated duration

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 *Linda Good*	Name (Printed/Typed) Linda Good	Date Revised 8/16/2011
Title Sr. Regulatory Compliance Specialist		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date SEP - 6 2011
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)

RECEIVED SEP 12 2011 NMOCD ARTESIA

Carlsbad Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Additional Operator Remarks:

Chesapeake Operating, Inc. respectfully requests permission to drill a well to 13,726? to test the Bone Spring formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and New Mexico Oil Conservation Division requirements.

Please find the Surface Use Plan and Drilling Program as required by Onshore Order No. 1.

Attached are the Exhibit A-1 to A-4 Survey plats, Exhibit B 1 mile radius plat, Exhibit C Production facility, Exhibit D Patterson #62 rig layout, Exhibit E Fracline Plats, Exhibit F-1 to F-2 BOP & Choke Manifold and Exhibit G Standard Planning Rpt.

An Archeological Survey will be delivered to the BLM when completed.

Chesapeake Operating, Inc. has an agreement with the grazing lessee.

Please be advised that Chesapeake Operating, Inc. is the Designated Agent for BOPCO, the Operator of this unit. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

(CHK 639973)

OHSORE OIL & GAS ODER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR 43, Part 3160) and the approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application 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.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA	KBTVD	MD
Rustler	2270	1100	
Top of Salt	2180	1190	
Base of Salt	-440	3810	
Bell Canyon	-707	4077	
Cherry Canyon	-1608	4978	
Brushy Canyon	-2850	6220	
First Bone Spring Lime	-4539	7909	
First Bone Spring Sand	-5461	8830	
Second Beone Spring Lime	-5911	9281	
Pilot TD	-6780	10150	10150
Lateral TD	-5844	9214	13726

2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Water	Rustler	1100
Oil/Gas	Bone Spring	7909

All shows of fresh water and minerals will be reported and protected.

3. BOP EQUIPMENT

Will have a 5000 psi rig stack (see proposed schematic) for drill out below surface casing, but this system will be tested to 3000 psi working pressure and 3000 psi working pressure for the annular preventer; therefore, no shoe tests will be conducted.

Chesapeake Operating Inc.'s minimum specifications for pressure control equipment are as follows:

I. BOP, Annular, Choke Manifold Pressure Test - See Exhibit F-1 and F-2

A. Equipment
1. The equipment to be tested includes all of the following that is installed on the well
   (a) Ram-type and annular preventers
   (b) Choke manifolds and valves
   (c) Kill lines and valves
   (d) Upper and lower kelly cock valves, inside BOP's and safety valves

B. Frequency
1. All tests shall be performed with clear water
   (a) when installed
   (b) before drilling out each casing string
   (c) at any time that there is a repair requiring a pressure seal to be broken in the assembly
   (d) at least once every 30 days while drilling

C. Frequency
1. In some drilling operations, the pressures to be used for low and high pressure testing of preventers and casing may be different from those given below due to governmental regulations or approved local practices.
2. If an individual component does not test at the low pressure, do not test to the high pressure and then drop back down to the low pressure.
3. All valves located downstream of a valve being tested must be placed in the open position.
4. All equipment will be tested with an initial "low pressure" test at 250 psi.
5. The subsequent "high pressure" test will be conducted at the rated working pressure of the equipment for all equipment except the annular preventer unless otherwise stated (see above).
6. The "high pressure" test for the annular preventer will be conducted at 70% of the rated working pressure unless otherwise stated (see above).
7. A record of all pressures will be made on a pressure-recording chart.

II. Accumulator Performance Test

A. Scope
1. The purpose of this test is to check the capabilities of the Bop control systems and to detect deficiencies in the hydraulic oil volume and recharge time.

B. Test Requency
1. The accumulator is to be tested each time the BO's are tested, or any time a major repair is performed.

C. Minimum Requirements

1. The accumulator should be of sufficient volume to supply 1.5 times the volume to close and hold all BOP equipment in sequence, without recharging and the pump turned off, and have remaining pressures of 200 psi above the precharge pressure.
2. Minimum precharge pressures for the various accumulator systems per manufacturers recommended specifications are as follows:

System Operating Pressure	Precharge Pressure
1500 psi	750 psi
2000 psi	1000 psi
3000 psi	1000 psi

3. Closing times for the annular preventer should be less than 20 seconds and for the ram-type preventers less than 10 seconds.
4. System recharge time should not exceed 10 minutes.

D. Test Procedure

1. Shut accumulator pumps off and record accumulator pressure.
2. In sequence, close the annular and one set of properly sized pipe rams, and open the HCR valve
3. Record time to close or open each element and the remaining accumulator pressure after each operation.
4. Record the remaining accumulator pressure at the end of the test sequence. Per the previous requirement, this pressure should not be less than the following pressures:

System Operating Pressure	Remaining Pressure After Test
1500 psi	950 psi
2000 psi	1200 psi
3000 psi	1200 psi

5. Turn the accumulator pumps on and record the recharge time. This time should not exceed 10 minutes.
6. Open annular and ram-type preventers. Close HCR valve.
7. Place all 4-way control valves in full open or full closed position. Do not leave in neutral position.

3. CASING PROGRAM

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	1340 ~~1,200'~~	17-1/2"	13-3/8"	48 #	H-40	STC	New
Shallow Intermediate	0'	4,050'	11"	8-5/8"	32 #	J-55	LTC	New
Production	0'	13,726'	7-7/8"	5-1/2"	20.0 #	L-80	LTC	New

b. Casing design subject to revision based on geologic conditions encountered.

c. Casing Safety Factors

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension
Surface	1.32	1.42	2.03
Shallow Intermediate	1.43	1.45	1.98
Production	1.18	2.15	1.61

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int	Prod
Burst Design			
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X		
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 15 ppg Frac Gradient		X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid			X
Collapse Design			
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X
Tension Design			
100k lb overpull	X	X	X

5. CEMENTING PROGRAM

Slurry	Type	Top	Btm	Wt	Yld	%Exc	Sx
Surface				(ppg)	(sx/cu ft)	Open Hole	
Single Slurry	C + 4% Gel	0'	1,200'	13.5	1.73	150	1192
Shallow Int							
Lead	TXI + 5% Salt	0'	3,550'	12	1.8	150	1141
Tail	50C/50Poz +5% Salt	3,550'	4,050'	14.2	1.37	150	243
Production							
1st Stage lead	35/65Poz H +8% Gel	4,900'	7,900'	12.4	2.11	75	431
1st Stage Tail	50/50Poz H +2% Gel	7,900'	13,726'	14.5	1.27	75	1400
2nd Stage Lead	35/65Poz C +6% Gel + 5% Salt	3,550'	4,650'	12.4	2.19	200	183
2nd Stage Tail	C	4,650'	4,900'	14.8	1.33	200	98

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. The production casing will be cemented in two stages with the DV tool place at: 4,900'
3. Production casing will have one centralizer on every other joint from TD to KOP (horizontal type) and from KOP to intermediate casing (bowspring type).

Pilot Hole Plugging Plan:
Pilot hole will be plugged back from TD of 10,150' TVD to KOP of 8,773' TVD with a single balanced plug using tubing that will be cemented in place on the bottom of the Smith Trackmaster OH-Openhole whipstock cmenting system (info attached). This will be accomplished using 505 sx (40% excess) of 17.0 ppg 0.99 cuft/sk yield Class H cement.

6. MUD PROGRAM

From	To	Type	Weight	F. Vis	Filtrate
0' 1340	1,200'	Spud Mud	8.4 - 8.7	32 - 34	NC - NC
1,200'	4,050'	Brine	9.5 - 10.1	28 - 29	NC - NC
4,050'	8,773'	Cut Brine	8.4 - 9.5	28 - 29	NC - NC
8,773'	10,150'	Cut Brine	8.4 - 9.5	28 - 29	NC - NC
8,773'	9,527'	Cut Brine	8.4 - 9.5	28 - 29	NC - NC
9,527'	13,726'	Cut Brine	8.4 - 9.5	28 - 29	NC - NC

A closed system will by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

7. TESTING, LOGGING, AND CORING

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mud Log	2 man Mudlog	Int Cas to TD	Int Csg Drill out	Suttles
OH	Triple Combo	Pilot TD to 7900'	After Pilot TD	TBD
OH	DIL	8100' to Int Csg	After Pilot TD	TBD
OH	GR/Neutron	Int Cas to Surf	After Pilot TD	TBD
LWD	MWD Gamma	Curve and Lateral	While Drilling	Ryan

c. Core samples are not planned.
d. A Directional Survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. No abnormal pressures or temperatures are expected. Estimated BHP is: 4329 psi
b. Hydrogen sulfide gas is not anticipated.

Permian District

Poker Lake
PLU Big Sinks 14-25-30 USA 1H
Well #1

Wellbore #1

Plan: Plat

Standard Planning Report

27 July, 2011

EXHIBIT 6

Chesapeake Operating
Planning Report

Database:	Drilling Database	Local Coordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	PLU Big Sinks 14-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Project Poker Lake, Eddy County, NM

Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site PLU Big Sinks 14-25-30 USA 1H

Site Position:		Northing:	409,176.00 usft	Latitude:	32.1239964781
From:	Map	Easting:	689,726.00 usft	Longitude:	-103.8539985653
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.2549125 °

Well Well #1

Well Position	+N/-S	0.0 usft	Northing:	409,176.00 usft	Latitude:	32.1239964781
	+E/-W	0.0 usft	Easting:	689,726.00 usft	Longitude:	-103.8539985653
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	0.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/11/2011	7.6985303	60.0679007	48,584

Design Plat

Audit Notes:

Version:		Phase:	PROTOTYPE	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.95

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0000000	
8,773.2	0.00	0.00	8,773.2	0.0	0.0	0.00	0.00	0.00	0.0000000	
9,527.4	90.50	359.95	9,250.6	481.6	-0.4	12.00	12.00	0.00	359.9510293	
13,725.9	90.50	359.95	9,214.0	4,660.0	-4.0	0.00	0.00	0.00	0.0000000	PLU BS 14-25-30 US

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	PLU Big Sinks 14-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	PLU Big Sinks 14 25 30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dog Leg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,773.2	0.00	0.00	8,773.2	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	3.22	359.95	8,800.0	0.8	0.0	0.8	12.00	12.00	0.00
8,900.0	15.22	359.95	8,898.5	16.7	0.0	16.7	12.00	12.00	0.00
9,000.0	27.22	359.95	8,991.6	52.9	0.0	52.9	12.00	12.00	0.00
9,100.0	39.22	359.95	9,075.1	107.5	-0.1	107.5	12.00	12.00	0.00
9,200.0	51.22	359.95	9,145.4	178.4	-0.2	178.4	12.00	12.00	0.00
9,300.0	63.22	359.95	9,199.4	262.3	-0.2	262.3	12.00	12.00	0.00
9,400.0	75.22	359.95	9,234.9	355.6	-0.3	355.6	12.00	12.00	0.00
9,500.0	87.22	359.95	9,250.1	454.3	-0.4	454.3	12.00	12.00	0.00
9,527.4	90.50	359.95	9,250.6	481.6	-0.4	481.6	12.00	12.00	0.00
9,600.0	90.50	359.95	9,250.0	554.3	-0.5	554.3	0.00	0.00	0.00
9,700.0	90.50	359.95	9,249.1	654.3	-0.6	654.3	0.00	0.00	0.00
9,800.0	90.50	359.95	9,248.3	754.3	-0.6	754.3	0.00	0.00	0.00
9,900.0	90.50	359.95	9,247.4	854.3	-0.7	854.3	0.00	0.00	0.00
10,000.0	90.50	359.95	9,246.5	954.3	-0.8	954.3	0.00	0.00	0.00
10,100.0	90.50	359.95	9,245.6	1,054.3	-0.9	1,054.3	0.00	0.00	0.00
10,200.0	90.50	359.95	9,244.8	1,154.2	-1.0	1,154.2	0.00	0.00	0.00
10,300.0	90.50	359.95	9,243.9	1,254.2	-1.1	1,254.2	0.00	0.00	0.00
10,400.0	90.50	359.95	9,243.0	1,354.2	-1.2	1,354.2	0.00	0.00	0.00
10,500.0	90.50	359.95	9,242.2	1,454.2	-1.2	1,454.2	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	PLU Big Sinks 14-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.0	90.50	359.95	9,241.3	1,554.2	-1.3	1,554.2	0.00	0.00	0.00
10,700.0	90.50	359.95	9,240.4	1,654.2	-1.4	1,654.2	0.00	0.00	0.00
10,800.0	90.50	359.95	9,239.5	1,754.2	-1.5	1,754.2	0.00	0.00	0.00
10,900.0	90.50	359.95	9,238.7	1,854.2	-1.6	1,854.2	0.00	0.00	0.00
11,000.0	90.50	359.95	9,237.8	1,954.2	-1.7	1,954.2	0.00	0.00	0.00
11,100.0	90.50	359.95	9,236.9	2,054.2	-1.8	2,054.2	0.00	0.00	0.00
11,200.0	90.50	359.95	9,236.0	2,154.2	-1.8	2,154.2	0.00	0.00	0.00
11,300.0	90.50	359.95	9,235.2	2,254.2	-1.9	2,254.2	0.00	0.00	0.00
11,400.0	90.50	359.95	9,234.3	2,354.2	-2.0	2,354.2	0.00	0.00	0.00
11,500.0	90.50	359.95	9,233.4	2,454.2	-2.1	2,454.2	0.00	0.00	0.00
11,600.0	90.50	359.95	9,232.6	2,554.2	-2.2	2,554.2	0.00	0.00	0.00
11,700.0	90.50	359.95	9,231.7	2,654.2	-2.3	2,654.2	0.00	0.00	0.00
11,800.0	90.50	359.95	9,230.8	2,754.2	-2.4	2,754.2	0.00	0.00	0.00
11,900.0	90.50	359.95	9,229.9	2,854.2	-2.4	2,854.2	0.00	0.00	0.00
12,000.0	90.50	359.95	9,229.1	2,954.2	-2.5	2,954.2	0.00	0.00	0.00
12,100.0	90.50	359.95	9,228.2	3,054.2	-2.6	3,054.2	0.00	0.00	0.00
12,200.0	90.50	359.95	9,227.3	3,154.2	-2.7	3,154.2	0.00	0.00	0.00
12,300.0	90.50	359.95	9,226.4	3,254.2	-2.8	3,254.2	0.00	0.00	0.00
12,400.0	90.50	359.95	9,225.6	3,354.2	-2.9	3,354.2	0.00	0.00	0.00
12,500.0	90.50	359.95	9,224.7	3,454.2	-3.0	3,454.2	0.00	0.00	0.00
12,600.0	90.50	359.95	9,223.8	3,554.2	-3.0	3,554.2	0.00	0.00	0.00
12,700.0	90.50	359.95	9,223.0	3,654.2	-3.1	3,654.2	0.00	0.00	0.00
12,800.0	90.50	359.95	9,222.1	3,754.1	-3.2	3,754.1	0.00	0.00	0.00
12,900.0	90.50	359.95	9,221.2	3,854.1	-3.3	3,854.1	0.00	0.00	0.00
13,000.0	90.50	359.95	9,220.3	3,954.1	-3.4	3,954.1	0.00	0.00	0.00
13,100.0	90.50	359.95	9,219.5	4,054.1	-3.5	4,054.1	0.00	0.00	0.00
13,200.0	90.50	359.95	9,218.6	4,154.1	-3.6	4,154.1	0.00	0.00	0.00
13,300.0	90.50	359.95	9,217.7	4,254.1	-3.6	4,254.1	0.00	0.00	0.00
13,400.0	90.50	359.95	9,216.8	4,354.1	-3.7	4,354.1	0.00	0.00	0.00
13,500.0	90.50	359.95	9,216.0	4,454.1	-3.8	4,454.1	0.00	0.00	0.00
13,600.0	90.50	359.95	9,215.1	4,554.1	-3.9	4,554.1	0.00	0.00	0.00
13,700.0	90.50	359.95	9,214.2	4,654.1	-4.0	4,654.1	0.00	0.00	0.00
13,725.9	90.50	359.95	9,214.0	4,680.0	-4.0	4,680.0	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLU BS 14-25-30 USA 1 - plan hits target center - Point	0.00	0.00	9,214.0	4,680.0	-4.0	413,856.00	689,722.00	32.1368611505	-103.8539442139
PLU BS 14-25-30 USA 1 - plan misses target center by 200.9usft at 9150.5usft MD (9112.4 TVD, 141.5 N, -0.1 E) - Point	0.00	0.00	9,255.0	0.0	0.0	409,176.00	689,726.00	32.1239964781	-103.8539985653

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	PLU Big Sinks 14 25 30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

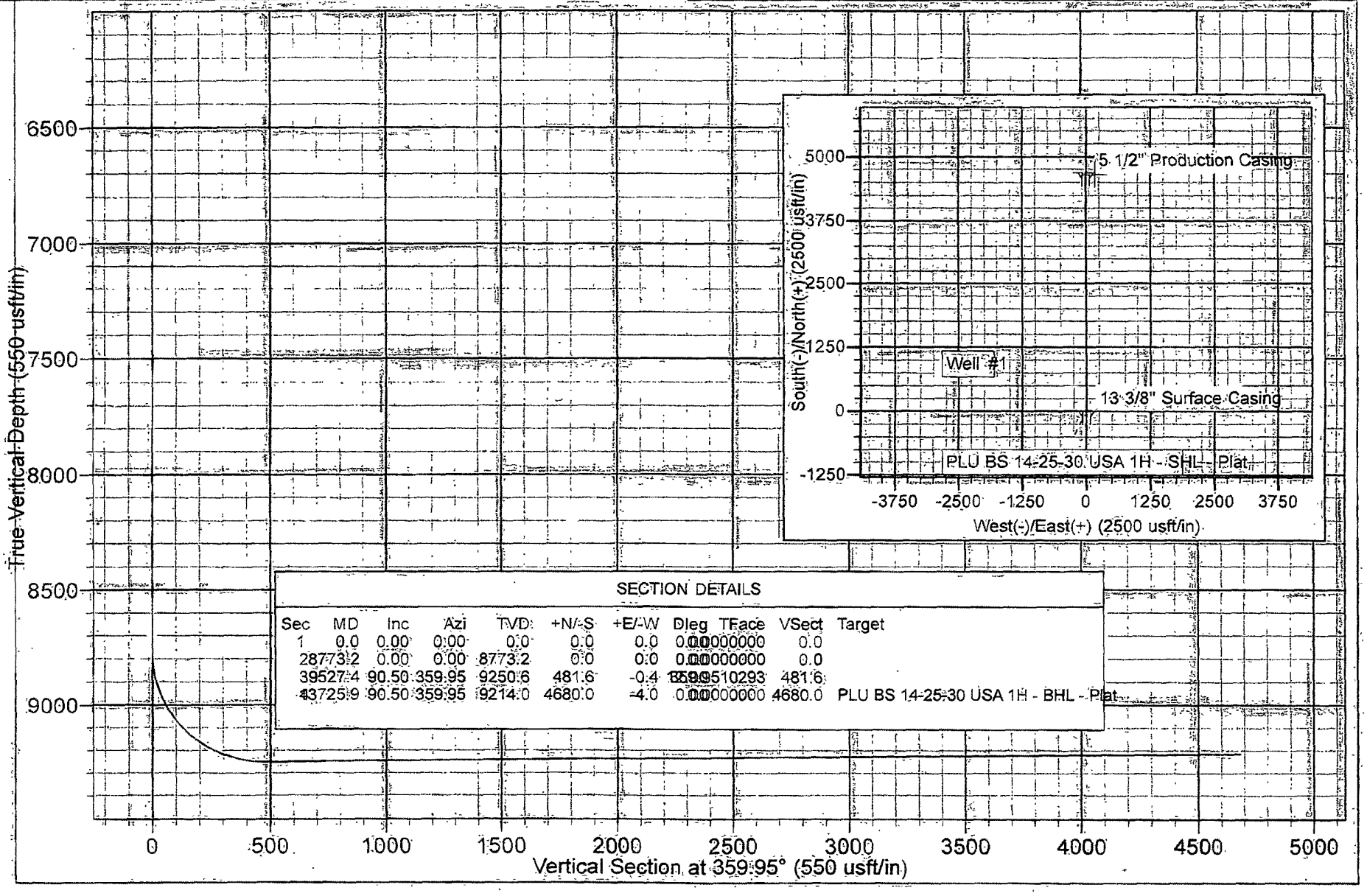
Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,200.0	1,200.0	13 3/8" Surface Casing	13.375	17.500
4,050.0	4,050.0	"8 5/8" Intermediate Casing	8.625	11.000
13,725.9	9,214.0	5 1/2" Production Casing	5.500	7.875

Project: Poker Lake
Site: PLU Big Sinks 14-25-30 USA 1H
Well: Well #1
Wellbore: Wellbore #1
Design: Plat

PROJECT DETAILS: Poker Lake

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00000000	0.0	
2	8773.2	0.00	0.00	8773.2	0.0	0.0	0.00	0.00000000	0.0	
3	9527.4	90.50	359.95	9250.6	481.6	-0.4	12.00	-0.03510293	481.6	
4	13725.9	90.50	359.95	9214.0	4680.0	-4.0	0.00	0.00000000	4680.0	PLU BS 14-25-30 USA 1H - BHL - Plat

Chesapeake Minimum BOPE Requirements

Wellname: PLU Big Sinks 14-25-30 USA 1H

Operation: Intermediate and Production Hole Sections

BLOWOUT PREVENTER SCHEMATIC

CHESAPEAKE OPERATING INC

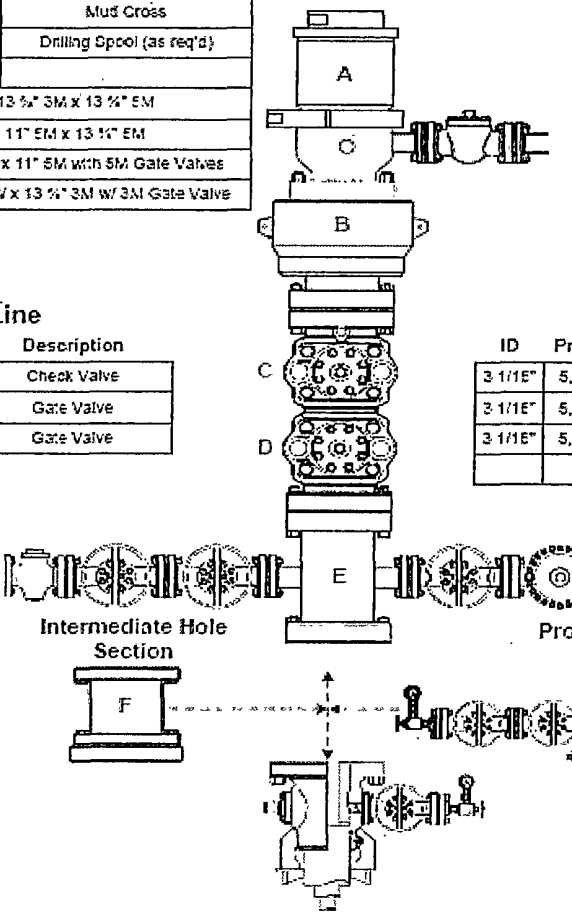
WELL : Permian District
FIELD : Avalon
RIG :
COUNTY : STATE :
OPERATION : Intermediate and Production Hole Sections REVISION : : / /

Component Descriptions

	Size	Pressure	Description
A	13 ⅝"	LP	Rotating Head w/ Orbit Valve
B	13 ⅝"	5,000 psi	Annular
C	13 ⅝"	5,000 psi	Pipe Ram
D	13 ⅝"	5,000 psi	Blind Ram
E	13 ⅝"	5,000 psi	Mud Cross
F	13 ⅝"	5,000 psi	Drilling Spool (as req'd)
G			
DSA (Int)	13 ⅝" 3M x 13 ⅝" 5M		
DSA (Prod)	11" 5M x 13 ⅝" 5M		
B Sec	13 ⅝" 3M x 11" 5M with 5M Gate Valves		
A Sec	13 ⅝" BOW x 13 ⅝" 3M w/ 3M Gate Valve		

Schematic	Reference

Trip Tank Required: Yes [X] No [ ]



Intermediate Hole Section

Production Hole Section

Kill Line

ID	Pressure	Description
2 1/16"	5,000 psi	Check Valve
2 1/16"	5,000 psi	Gate Valve
2 1/16"	5,000 psi	Gate Valve

Choke Line

ID	Pressure	Description
3 1/16"	5,000 psi	Gate Valve
3 1/16"	5,000 psi	HCR Valve
3 1/16"	5,000 psi	Steel

Testing Requirements

Item	Pressure	Frequency
Rotating Head	250 psi	Once prior to DO shoe
Annular	250 / 3,500 psi	Every 21 Days
Rams	250 / 5,000 psi	Every 21 Days
Choke Manifold	250 / 5,000 psi	Every 21 Days

- Function test on trips
- H2S service trim required

Approved by	Date
BLM	
VP	
D&C	

Revised EXHIBIT F-1

Chesapeake Minimum BOPE Requirements

Wellname: PLU Big Sinks 14-25-30 USA 1H

Operation: Intermediate and Production Hole Sections

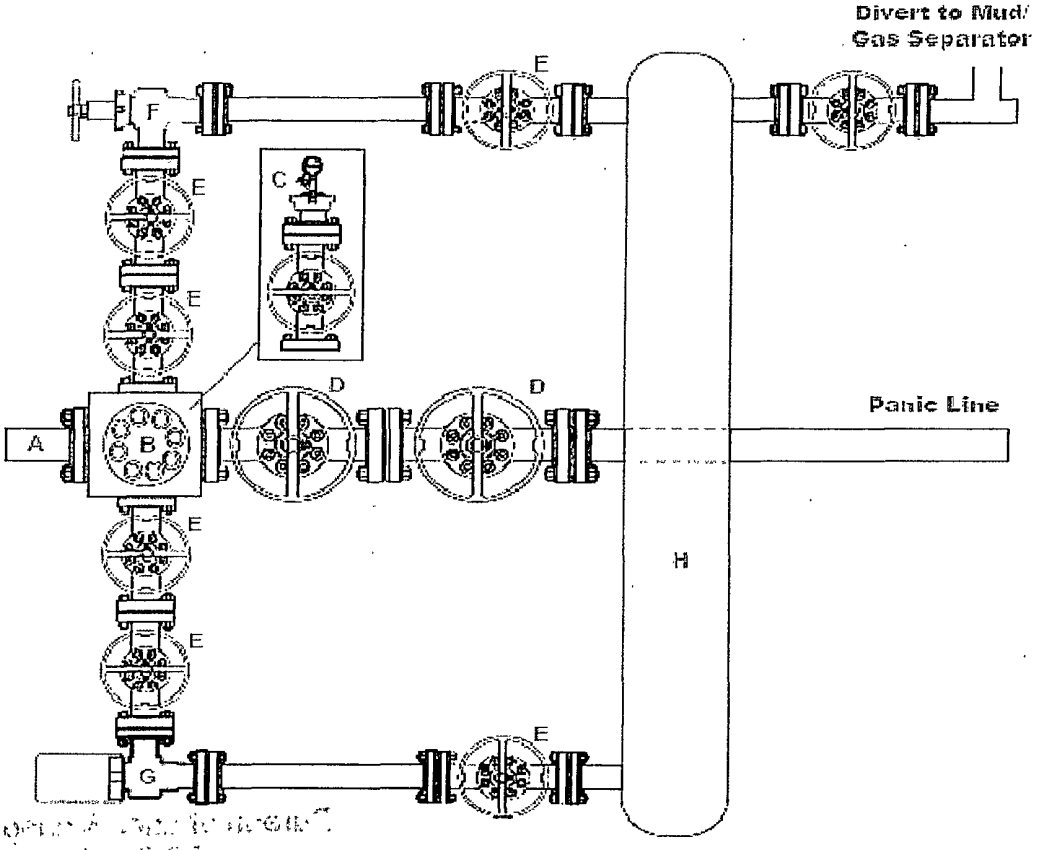
CHOKE MANIFOLD SCHEMATIC
CHESAPEAKE OPERATING INC

WELL : Permian District
FIELD : Avalon
RIG :
COUNTY : STATE :
OPERATION : REVISION : / /

Description	Reference

Component Descriptions

	Size	Pressure	Description
A	3 1/16"	5,000 psi	Steel
B	3 1/16" x 2 1/16"	5,000 psi	Block T
C	2 1/16"	5,000 psi	Top Valve
D	3 1/16"	5,000 psi	Gate Valve
E	2 1/16"	5,000 psi	Gate Valve
F	2 1/16"	5,000 psi	Manual Choke
G	2 1/16"	5,000 psi	Hydraulic Choke
H	6" minimum		Buffer Chamber



Approved by	Date
FPD	
VP	
Asst.	

Revised EXHIBIT F-2