

OCD Artesia

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

ATS-12-641

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC063875A

JCS

6. If Indian, Allottee or Tribe Name

10/1/2012

1a. Type of work: ☒ DRILL☐ REENTER7. If Unit or CA Agreement, Name and No.
NMNM071016X1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other☒ Single Zone ☐ Multiple Zone8. Lease Name and Well No.
PLU Phantom Banks 22 25 30 USA 1H

C394882

2. Name of Operator Chesapeake, Agent for Bopco
Contact: Erin Carson - erin.carson@chk.com

9. API Well No.

30-015-40763

<147179>

3a. Address PO Box 18496
Oklahoma City, OK 73154-04963b. Phone No. (include area code)
405-935-289610. Field and Pool, or Exploratory
Corral Canyon; Bone Spring

C962382

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface NENW Lot C 325FNL 1980FWL 32.122077 N Lat, 103.870708 W Lon

At proposed prod. zone SESW Lot N 100FSL 1980 FWL 32.108604 N Lat, 103.870655 W Lon

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 22 T25S R30E Mer NMP14. Distance in miles and direction from nearest town or post office*
32 Miles from Loving, NM12. County or Parish
Eddy13. State
NM15. Distance from proposed* location to nearest property or lease line, ft
(Also to nearest drig. unit line, if any)

325 Ft from north section line

16. No. of acres in lease
192017. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft

2,360 Ft rom PLU Pierce Canyon 16 1H

19. Proposed Depth
12471 MD
8004 TVD20. BLM/BIA Bond No. on file
ESB00015921. Elevations (Show whether DF, KDB, RT, GL, etc.)
3334 GL22. Approximate date work will start*
12/19/201223. Estimated duration
30 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:

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).

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

25. Signature

Name (Printed/Typed)
Erin CarsonDate
08/28/2012

Title

Regulatory Compliance Technician III

Approved by (Signature) /s/ Don Peterson

Name (Printed/Typed) /s/ Don Peterson

Date SEP 26 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 BasinSEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

District I
1623 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1230 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 36-015-40763	² Pool Code 96238	³ Pool Name CORRAL CANYON; BONE SPRING
⁴ Property Code 39488	⁵ Property Name PLU PHANTOM BANKS 22 25 30 USA	⁶ Well Number 1H
⁷ GRID No. 147179	⁸ Operator Name CHESAPEAKE OPERATING, INC.	⁹ Elevation 3334'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	25S	30E		325'	NORTH	1980'	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	22	25S	30E		330'	SOUTH	1980'	WEST	EDDY
¹² Dedicated Acres 160'	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 1980' PROJECTED FIRST PERFS 330' FNL & 1980' FWL Project Area Producing Area 162.41 ACRES 1980' 330' S 00°26'08"E 4671.32'	PLU PHANTOM BANKS 22 25 30 USA NO 1H WELL X= 643,222 NAD 27 Y= 408,442 LAT. 32.122077 LONG. 103.870708 X= 684,407 NAD83 Y= 408,500 LAT. 32.122202 LONG. 103.871189 ELEVATION +3334' NAVD 88	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Bryan Arrant</i> Date: 06/25/2012 Printed Name: Bryan Arrant Email Address: bryan.arrant@chk.com
	OPERATOR: Please do not report production under this pool id code until OCD confirms perfs and appropriate pool designation on completion and C104 approvals. PROPOSED BOTTOM HOLE LOCATION X= 643,257 NAD 27 Y= 403,770 LAT. 32.109236 LONG. 103.870658 X= 684,443 NAD83 Y= 403,828 LAT. 32.109360 LONG. 103.871139	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of a duly sworn surveyor made by me or under my supervision, and that the same is true and correct to the best of my knowledge. Date of Survey: June 25, 2012 Signature and Seal of Professional Surveyor: <i>[Signature]</i> Certificate Number: 15078

EXHIBIT A1

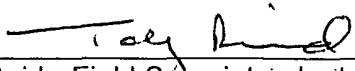
ONSHORE ORDER NO. 1
Chesapeake Agent for BOPCO
PLU Phantom Banks 22 25 30 USA 1H
Eddy County, NM

CONFIDENTIAL – TIGHT HOLE
OPERATOR CERTIFICATION

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Executed this 20th day of June, 2011

Name: 
Toby Reid - Field Superintendent

Address: 1616 W Bender Blvd Hobbs, NM 88240

Telephone: 575-725-8497

E-mail: toby.reid@chk.com

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc. Agent for BOPCO
PLU Phantom Bnks 22-25-30 USA 1H
Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

DRILLING PLAN
PAGE: 1

ONSHORE OIL & GAS ORDER 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	2178	1181	
Top of Salt	1944	1415	
Base of Salt	-392	3751	
Lamar	-603	3962	
Bell Canyon	-623	3982	
Cherry Canyon	-1531	4890	
Brushy Canyon	-2745	6104	
Bone Spring	-4400	7759	
Lateral TD	-4645	8004	12471

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	1181
Oil/Gas	Brushy Canyon	6104
Oil/Gas	Bone Spring	7759

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. Stack will be tested as specified below. Surface casing and Intermediate Casing shoes will be tested to 10.5 ppg equivalent after drilling out 10' of new formation.

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.
6. The "high pressure" test for the annular preventer will be conducted at 70% of the rated working pressure.
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 Frequency

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'	1,300'	17-1/2"	13-3/8"	48 #	H-40	STC	New
Shallow Intermediate	0'	3,850'	11"	8-5/8"	32 #	J-55	LTC	New
Production	0'	12,471'	7-7/8"	5-1/2"	17.0 #	P-110	BTC	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	1.35	1.31	2.1
Shallow Intermediate	1.5	1.52	2.04
Production	1.44	2.04	2.52

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 (packer at KOP) 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

ONSHORE ORDER NO. 1
 Chesapeake Operating, Inc. Agent for BOPCO
 PLU Phantom Bnks 22-25-30 USA 1H
 Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

DRILLING PLAN
 PAGE: 5

5. CEMENTING PROGRAM

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks
<u>Surface</u>				(ppg)	(sx/cu ft)	Open Hole	
Lead	C + 3% Gel	0'	1,200'	13.7	1.65	250	1679
Tail	C	1,200'	1,300'	14.8	1.33	250	213
<u>Intermediate</u>							
Lead	TXI + 5% Salt	0'	3,350'	12	1.99	250	1228
Tail	50C/50Poz +5% Salt	3,350'	3,850'	14.2	1.37	250	336
<u>Production</u>							
Lead	35/65Poz H +8% Gel	3,350'	7,527'	12.4	2.11	75	570
Tail	50/50Poz H +2% Gel	7,527'	12,471'	14.5	1.27	75	1185

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 a single stage
4. 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: No Pilot hole

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc. Agent for BOPCO
PLU Phantom Bnks 22-25-30 USA 1H
Eddy, NM

CONFIDENTIAL -- TIGHT HOLE
Lease No:

DRILLING PLAN

PAGE: 6

6. MUD PROGRAM

From	To	Type	Weight	F. Vis	Filtrate
0'	1,300'	Fresh Water	8.4 - 8.7	32 - 34	NC - NC
1,300'	3,850'	Brine	9.5 - 10.1	28 - 29	NC - NC
3,850'	7,527'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC
7,527'	8,277'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC
8,277'	12,471'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC

A closed system will be 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

See COA

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

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

TYPE	Logs	Interval	Timing	Vendor
OH	Triple Combo	Base of Curve- Int	After Curve	Baker Atlas
Mudlog	2 man mudlogging crew	Int Csg to TD	Int Csg Drill Out	Nomac
LWD	MWD Gamma	Curve and Lateral	While Drilling	Phoenix

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

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP is: 3538 psi
- Hydrogen sulfide gas is not anticipated.

Permian District

Poker Lake

PLU Phantom Bnks 22-25-30 USA 1H

Well #1

Wellbore #1

Plan: Plat

Standard Planning Report

27 June, 2012

EXHIBIT 6

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	PLU Phantom Bnks 22-25-30 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 Phantom Bnks 22-25-30 USA 1H			
Site Position:		Northing:	408,500.00 usft	Latitude:	32.122202
From:	Map	Easting:	684,407.00 usft	Longitude:	-103.871190
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0:25 °

Well	Well #1					
Well Position	+N/-S	0.00 ft	Northing:	408,500.00 usft	Latitude:	32.122202
	+E/-W	0.00 ft	Easting:	684,407.00 usft	Longitude:	-103.871190
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	0.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/23/2012	7.59	60.04	48,471

Design:	Plat			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	179.56

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,526.53	0.00	0.00	7,526.53	0.00	0.00	0.00	0.00	0.00	0.00	
8,276.54	90.00	179.56	8,004.00	-477.45	3.68	12.00	12.00	0.00	179.56	
12,471.22	90.00	179.56	8,004.00	-4,672.01	36.00	0.00	0.00	0.00	0.00	PB 22-25-30 1H- BI

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	PLU Phantom Bnks 22-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	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 @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	PLU Phantom Bnks 22-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,526.53	0.00	0.00	7,526.53	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	8.82	179.56	7,599.71	-5.64	0.04	5.64	12.00	12.00	0.00
7,700.00	20.82	179.56	7,696.21	-31.16	0.24	31.17	12.00	12.00	0.00
7,800.00	32.82	179.56	7,785.29	-76.19	0.59	76.20	12.00	12.00	0.00
7,900.00	44.82	179.56	7,863.07	-138.76	1.07	138.76	12.00	12.00	0.00
8,000.00	56.82	179.56	7,926.13	-216.13	1.67	216.13	12.00	12.00	0.00
8,100.00	68.82	179.56	7,971.73	-304.92	2.35	304.92	12.00	12.00	0.00
8,200.00	80.82	179.56	7,997.88	-401.25	3.09	401.26	12.00	12.00	0.00
8,276.54	90.00	179.56	8,004.00	-477.45	3.68	477.47	12.00	12.00	0.00
8,300.00	90.00	179.56	8,004.00	-500.92	3.86	500.93	0.00	0.00	0.00
8,400.00	90.00	179.56	8,004.00	-600.91	4.63	600.93	0.00	0.00	0.00
8,500.00	90.00	179.56	8,004.00	-700.91	5.40	700.93	0.00	0.00	0.00
8,600.00	90.00	179.56	8,004.00	-800.91	6.17	800.93	0.00	0.00	0.00
8,700.00	90.00	179.56	8,004.00	-900.90	6.94	900.93	0.00	0.00	0.00
8,800.00	90.00	179.56	8,004.00	-1,000.90	7.71	1,000.93	0.00	0.00	0.00
8,900.00	90.00	179.56	8,004.00	-1,100.90	8.48	1,100.93	0.00	0.00	0.00
9,000.00	90.00	179.56	8,004.00	-1,200.89	9.25	1,200.93	0.00	0.00	0.00
9,100.00	90.00	179.56	8,004.00	-1,300.89	10.02	1,300.93	0.00	0.00	0.00
9,200.00	90.00	179.56	8,004.00	-1,400.89	10.79	1,400.93	0.00	0.00	0.00
9,300.00	90.00	179.56	8,004.00	-1,500.89	11.57	1,500.93	0.00	0.00	0.00
9,400.00	90.00	179.56	8,004.00	-1,600.88	12.34	1,600.93	0.00	0.00	0.00
9,500.00	90.00	179.56	8,004.00	-1,700.88	13.11	1,700.93	0.00	0.00	0.00
9,600.00	90.00	179.56	8,004.00	-1,800.88	13.88	1,800.93	0.00	0.00	0.00
9,700.00	90.00	179.56	8,004.00	-1,900.87	14.65	1,900.93	0.00	0.00	0.00
9,800.00	90.00	179.56	8,004.00	-2,000.87	15.42	2,000.93	0.00	0.00	0.00
9,900.00	90.00	179.56	8,004.00	-2,100.87	16.19	2,100.93	0.00	0.00	0.00
10,000.00	90.00	179.56	8,004.00	-2,200.86	16.96	2,200.93	0.00	0.00	0.00
10,100.00	90.00	179.56	8,004.00	-2,300.86	17.73	2,300.93	0.00	0.00	0.00
10,200.00	90.00	179.56	8,004.00	-2,400.86	18.50	2,400.93	0.00	0.00	0.00
10,300.00	90.00	179.56	8,004.00	-2,500.86	19.27	2,500.93	0.00	0.00	0.00
10,400.00	90.00	179.56	8,004.00	-2,600.85	20.04	2,600.93	0.00	0.00	0.00
10,500.00	90.00	179.56	8,004.00	-2,700.85	20.81	2,700.93	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 @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	PLU Phantom Bnks 22-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

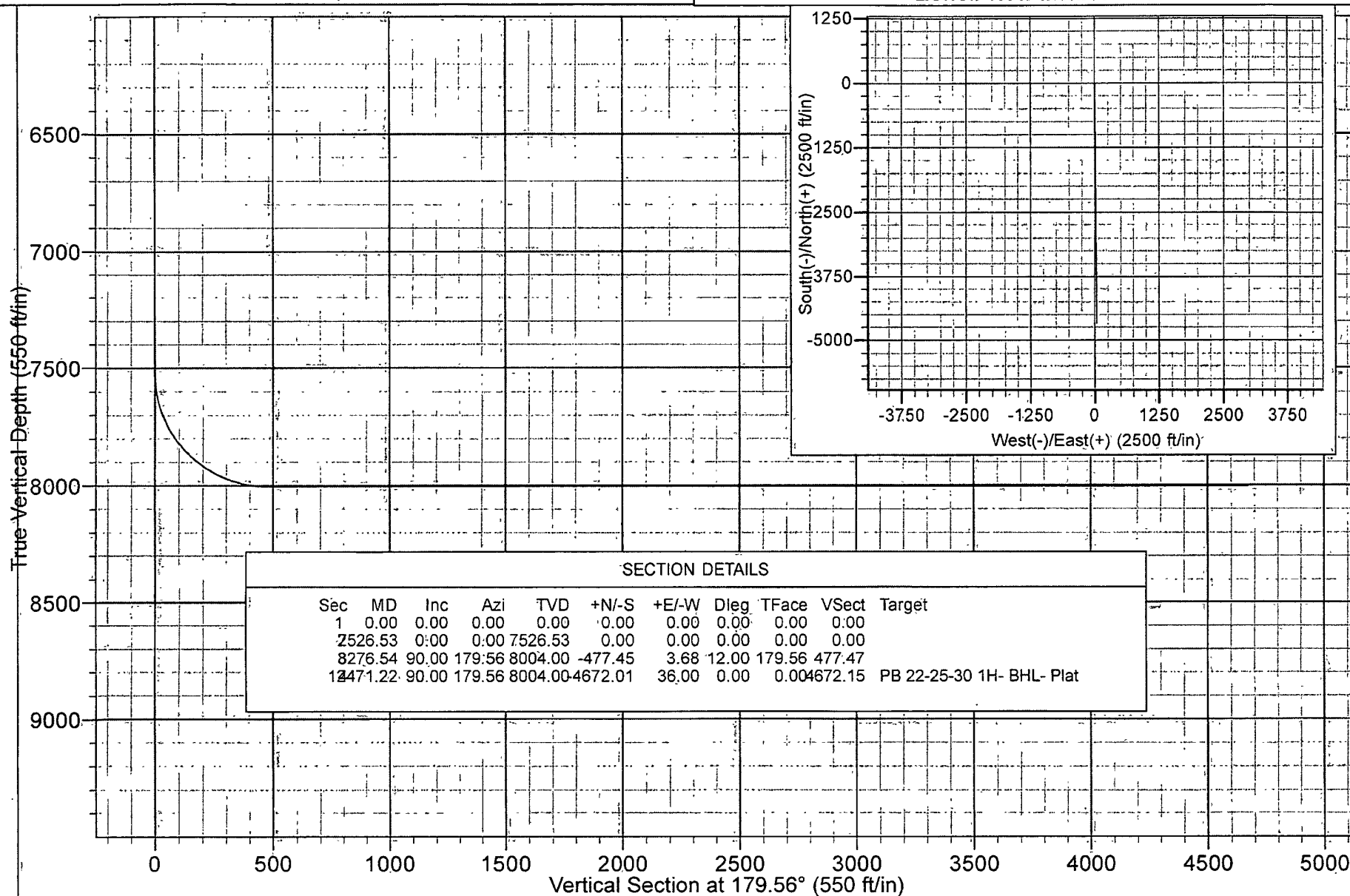
Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,600.00	90.00	179.56	8,004.00	-2,800.85	21.58	2,800.93	0.00	0.00	0.00	
10,700.00	90.00	179.56	8,004.00	-2,900.84	22.35	2,900.93	0.00	0.00	0.00	
10,800.00	90.00	179.56	8,004.00	-3,000.84	23.12	3,000.93	0.00	0.00	0.00	
10,900.00	90.00	179.56	8,004.00	-3,100.84	23.89	3,100.93	0.00	0.00	0.00	
11,000.00	90.00	179.56	8,004.00	-3,200.84	24.66	3,200.93	0.00	0.00	0.00	
11,100.00	90.00	179.56	8,004.00	-3,300.83	25.43	3,300.93	0.00	0.00	0.00	
11,200.00	90.00	179.56	8,004.00	-3,400.83	26.21	3,400.93	0.00	0.00	0.00	
11,300.00	90.00	179.56	8,004.00	-3,500.83	26.98	3,500.93	0.00	0.00	0.00	
11,400.00	90.00	179.56	8,004.00	-3,600.82	27.75	3,600.93	0.00	0.00	0.00	
11,500.00	90.00	179.56	8,004.00	-3,700.82	28.52	3,700.93	0.00	0.00	0.00	
11,600.00	90.00	179.56	8,004.00	-3,800.82	29.29	3,800.93	0.00	0.00	0.00	
11,700.00	90.00	179.56	8,004.00	-3,900.81	30.06	3,900.93	0.00	0.00	0.00	
11,800.00	90.00	179.56	8,004.00	-4,000.81	30.83	4,000.93	0.00	0.00	0.00	
11,900.00	90.00	179.56	8,004.00	-4,100.81	31.60	4,100.93	0.00	0.00	0.00	
12,000.00	90.00	179.56	8,004.00	-4,200.81	32.37	4,200.93	0.00	0.00	0.00	
12,100.00	90.00	179.56	8,004.00	-4,300.80	33.14	4,300.93	0.00	0.00	0.00	
12,200.00	90.00	179.56	8,004.00	-4,400.80	33.91	4,400.93	0.00	0.00	0.00	
12,300.00	90.00	179.56	8,004.00	-4,500.80	34.68	4,500.93	0.00	0.00	0.00	
12,400.00	90.00	179.56	8,004.00	-4,600.79	35.45	4,600.93	0.00	0.00	0.00	
12,471.22	90.00	179.56	8,004.00	-4,672.01	36.00	4,672.15	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PB 22-25-30 1H- SHL	0.00	0.00	8,004.00	0.00	0.00	408,500.00	684,407.00	32.122202	-103.871190	
- hit/miss target										
- Shape										
- plan misses target center by 197.78ft at 7900.00ft MD (7863.07 TVD, -138.76 N, 1.07 E)										
- Point										
PB 22-25-30 1H- BHL	0.00	0.00	8,004.00	-4,672.01	36.00	403,828.00	684,443.00	32.109359	-103.871138	
- plan hits target center										
- Point										

Project: Poker Lake
 Site: PLU Phantom Bnks 22-25-30 USA 1H
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Plat

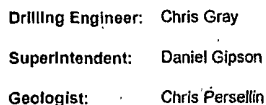
PROJECT DETAILS: Poker Lake

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



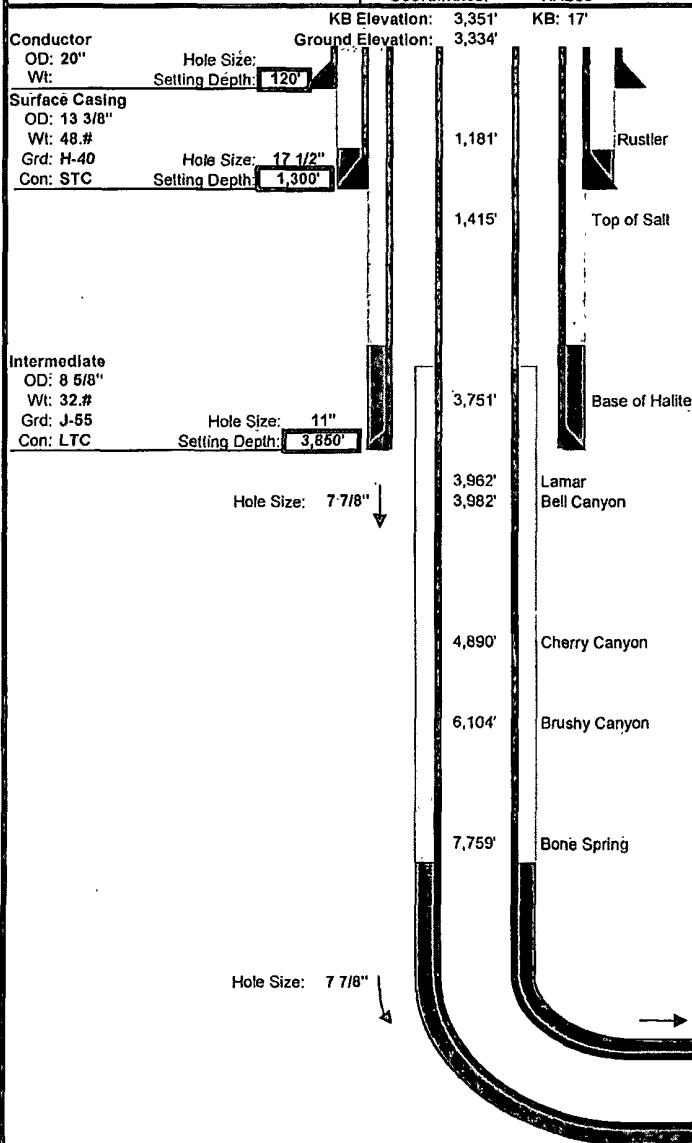
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	2526.53	0.00	0.00	7526.53	0.00	0.00	0.00	0.00	0.00	
	8276.54	90.00	179.56	8004.00	-477.45	3.68	12.00	179.56	477.47	
	12471.22	90.00	179.56	8004.00	-4672.01	36.00	0.00	0.00	4672.15	PB 22-25-30 1H- BHL- Plat



Well Name:	PLU Phantom Bnks 22-25-30 USA 1H		
Target:			
County, State:	Eddy, NM		
Surface Location:	325' FNL 1980' FWL, Section 22, Township 25S, Range 30E		
BH Location:	330' FSL 1980' FWL, Section 22, Township 25S, Range 30E		
SHL Latitude:	32.122202	SHL North:	408500
SHL Longitude:	-103.871189	SHL East:	684407
BHL Latitude:	32.10936	BHL North:	403828
BHL Longitude:	-103.871139	BHL East:	684443
Coordinates:	NAD83	Coordinates:	NMSPCE

Drilling Rig:	Trinidad-111
Directional:	Phoenix
Drilling Mud:	Nova
Cement:	Schlumberger
Wellhead:	Sunbelt
Property Number:	
AFE Number:	



Cement							
Slurry	Top	Btm	Wt	Yld	%Exc	Bbl	Sx
Surface							
Lead	0'	1,200'	13.7	1.65	250	493	1679
Tail	1,200'	1,300'	14.8	1.33	250	50	213
Intermediate							
Lead	0'	3,350'	12.0	1.99	250	435	1228
Tail	3,350'	3,850'	14.2	1.37	250	82	336
Production							
Lead	3,350'	7,527'	12.4	2.11	75	214	570
Tail	7,527'	12,471'	14.5	1.27	75	268	1185

Directional Plan						
Target Line:	8004' @ 0° VS w/90.0 deg Inclination					
Target Window:	20' above, 20' below, 50' left, 50' right					
	MD	INC	AZM	TVD	VS	DLS
KOP	7,527'	0.00	0.00	7,527'	0'	0.00
EOB	8,277'	90.00	179.56	8,004'	477'	12.00
TD	12,471'	90.00	179.56	8,004'	4,672'	0.00
Hardlines:	Lateral- 467' from parallel lease lines.					
	Vertical- Actual Lease Lines					
Notes:	Please note SHL and BHL distance from lease lines					

	Type	Logs	Interval	Vendor
LOGS	OH	Triple Combo	Base of Curve- Int Shoe	Baker Atlas
	Mudlog	2 man mudlogging crew	Int Csg to TD	Normac
	LWD	MWD Gamma	Curve and Lateral	Phoenix

Chesapeake Minimum BOPE Requirements

Wellname: PLU Phantom Bnks 22-25-30 USA 1H

Operation: Intermediate and Production Hole Sections

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

Permian District-Minimum Requirements

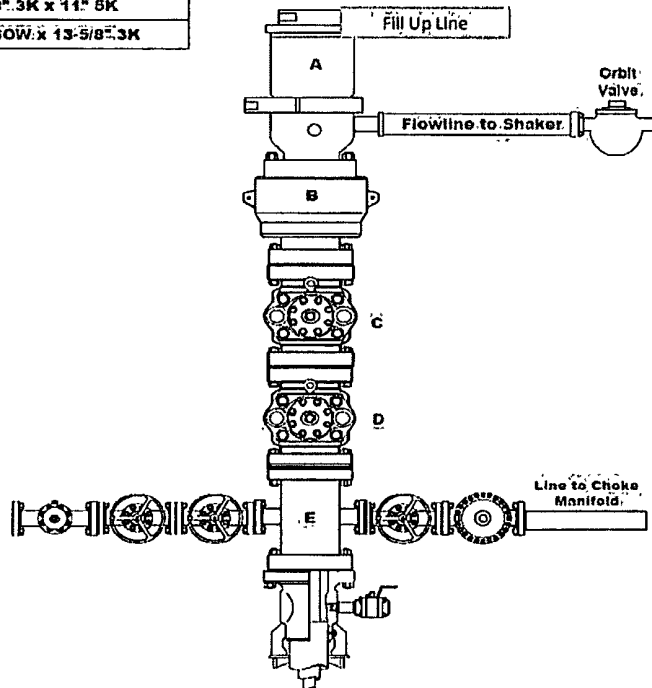
FIELD : Avalon

OPERATION: Intermediate and Production Hole Sections

	SIZE	PRESSURE	DESCRIPTION
A		500	Rotating Head
B	13 5/8"	5,000	Annular
C	13 5/8"	5,000	Pipe Ram
D	13 5/8"	5,000	Blind Ram
E	13 5/8"	5,000	Mud Cross
F			
DSA	As required for each hole size		
C-Sec			
B-Sec	13-5/8" 3K x 11" 5K		
A-Sec	13-3/8" SOW x 13-5/8" 3K		

Test Notes:

- Pressure test to rating of BOP or wellhead every 21 days.
- Function test on trips
- H2S service trim required



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5,000	Check Valve
2"	5,000	Gate Valve
2"	5,000	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	5,000	Gate Valve
3"	5,000	HCR Valve
3"	5,000	Steel Line Only

EXHIBIT

F1

Chesapeake Minimum BOPE Requirements

Wellname: PLU Phantom Bnks 22-25-30 USA 1H

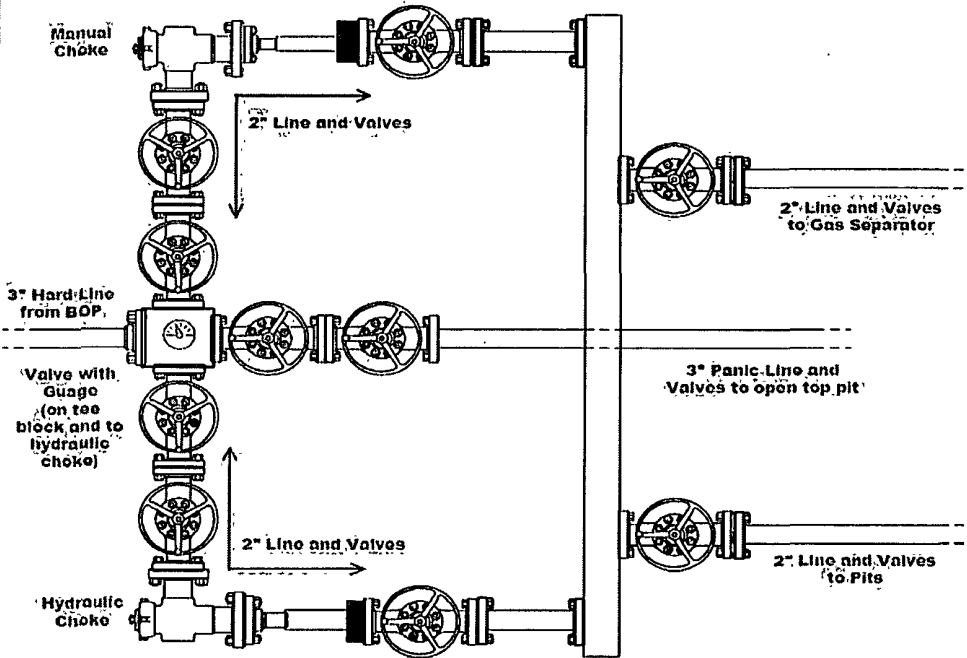
Operation: Intermediate and Production Hole Sections

CHOKE MANIFOLD SCHEMATIC

CHESAPEAKE OPERATING INC

Permian District

Avalon Minimum Requirements



Choke Manifold

SIZE	PRESSURE	DESCRIPTION
2" or 3"	8,000	Gate Valves
3'x15'		Gas Separator
8"		Gas Separator vent line (anchored)

EXHIBIT

F2



CHESAPEAKE OPERATING, INC.

PLU Big Sinks 14-25-30 USA 1H

Property # 639973

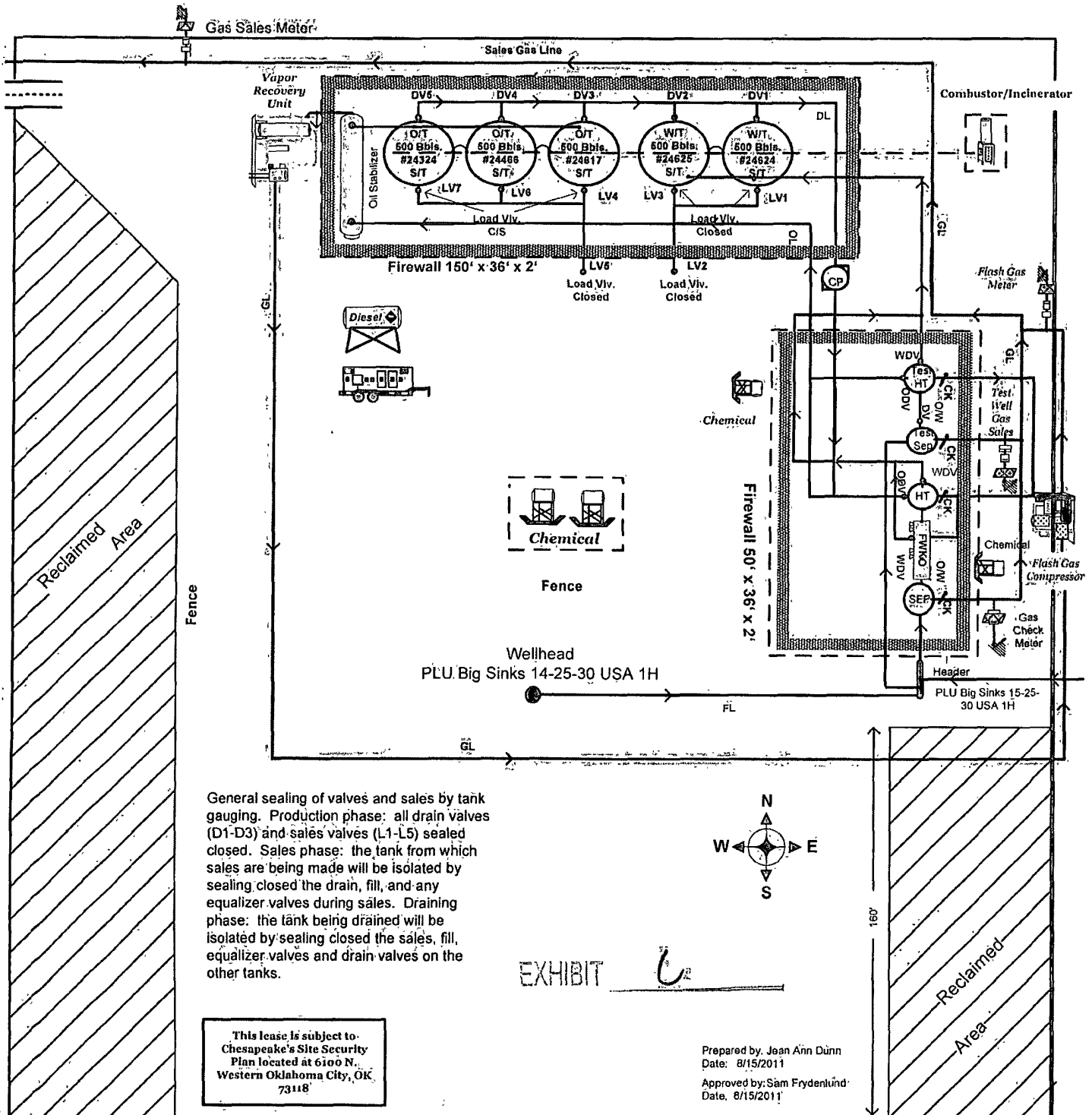
NE NW Section 14 – T25S – R30E

100 FSL & 1980 FWL

Lat.: 32.136756– Long.: -103.853394

Eddy County, New Mexico

Drawing Not to Scale



General sealing of valves and sales by tank gauging. Production phase: all drain valves (D1-D3) and sales valves (L1-L5) sealed closed. Sales phase: the tank from which sales are being made will be isolated by sealing closed the drain, fill, and any equalizer valves during sales. Draining phase: the tank being drained will be isolated by sealing closed the sales, fill, equalizer valves and drain valves on the other tanks.

This lease is subject to Chesapeake's Site Security Plan located at 6100 N. Western Oklahoma City, OK 73118

Prepared by: Jean Ann Dunn
Date: 8/15/2011
Approved by: Sam Frydenlund
Date: 8/15/2011



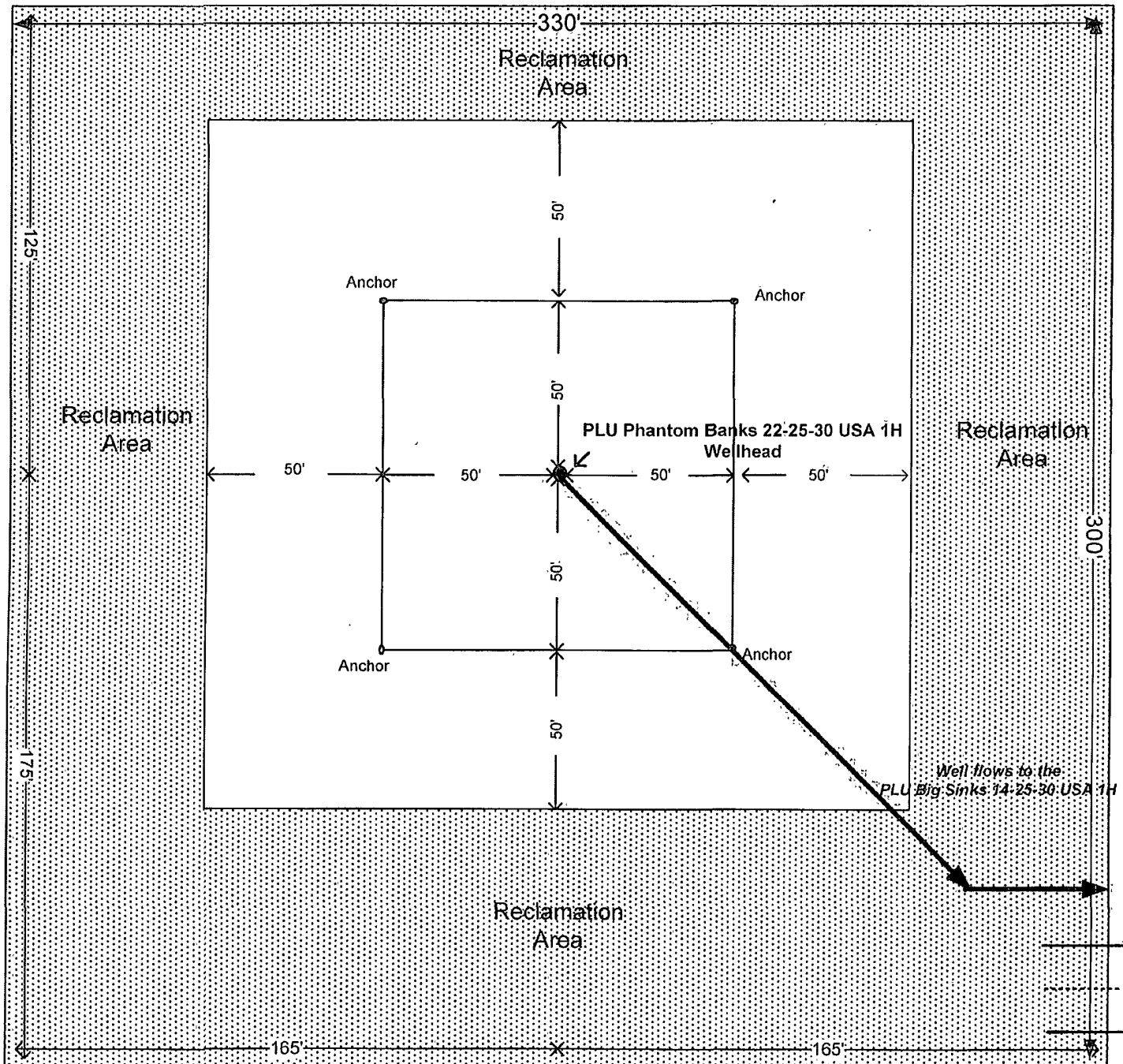
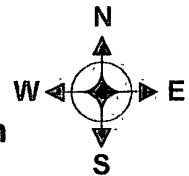
PLU Phantom Banks 22-25-30 USA 1H

Property Number: 645560 PAD SITE Number: 919986

Section 22 – T25S – R30E 325' FNL & 1980' FWL of Section

NAD 27 Lat.: 32.1221 – Long.: 103.8707

Eddy County, New Mexico



Drawing not to scale

This lease is subject to
Chesapeake's Site Security Plan
located at 6100 N. Western
Oklahoma City, OK 73118

Prepared by: Donny Lowry
Date: 6/21/2012

PECOS DISTRICT

CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHESAPEAKE AGENCY FOR BOPCO, LP
LEASE NO.:	LC063875A
WELL NAME & NO.:	1H-PLU ROSS RANCH 22 25 30 USA
SURFACE HOLE FOOTAGE:	325'/N. & 1980'/W.
BOTTOM HOLE FOOTAGE:	100'/S. & 1980'/W.
LOCATION:	Section 22, T. 25 S., R. 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Flowline**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Medium Cave/Karst
 - Logging requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**