

OPERATOR'S COPY

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SEP 27 2004

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

EC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BY: *[Signature]*

Case Serial No.
ADMINISTRATIVE

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

R-111-POTASH

CONFIDENTIAL

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
CHESAPEAKE OPERATING, INC.

Contact: SHARON E. DRIES
E-Mail: sdries@chkenergy.com

3a. Address
OKLAHOMA CITY, OK 73154-0496

3b. Phone No. (include area code)
Ph: 405.879.7985
Fx: 405.879.9583

South

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
FULL HOUSE 10 FEDERAL 1

9. API Well No.

10. Field and Pool, or Exploratory
SAND DUNES, Lower Penn.

11. Sec., T., R., M., or Bld. and Survey or Area

Sec 10 T24S R31E Mer NMP
SME: BLM

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

At surface SWNW 1330FNL 800FWL

At proposed prod. zone

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14. Distance in miles and direction from nearest town or post office
16 MILES SOUTHEAST OF LOVING NM

NOV 22 2004

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)

320.00

ODD-ARTEZIA

17. Spacing Unit dedicated to this well

320.00

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

19. Proposed Depth

15500 MD

20. BLM/BLA Bond No. on file

21. Elevations (Show whether DF, RB, RT, GL, etc.)
3454 GL

22. Approximate date work will start

23. Estimated duration

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
SHARON E. DRIES

Date
07/15/2004

Title
AUTHORIZED REPRESENTATIVE

Approved by (Signature)

Name (Printed/Typed)

Date
9/21/04

Title
STATE DIRECTOR

NM STATE OFFICE

Application approval does not warrant or certify 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 1 YEAR

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.

Additional Operator Remarks (see next page)

Electronic Submission #33033 verified by the BLM Well Information System
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad
Committed to AFMSS for processing by LINDA ASKWIG on 07/15/2004 (04LA0548AE)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Witness Surface &
Intermediate Casing

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional Operator Remarks:

Chesapeake Operating, Inc. proposes to drill a well to 15500' to test the Lower Pennsylvanian formation. If the well is productive casing will be run and the well will be completed. If dry, the well will be plugged and abandoned as per BLM and New Mexico Oil Conservation Division requirements.

Attached please find the Surface Use Plan, Drilling Plan, and attachments as required by Onshore Order No. 1.

Please be advised that Chesapeake Operating, Inc. is considered to be the Operator of the above mentioned well. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name
Full House 10 Federal

8. Well Number 001

9. OGRID Number 147179

10. Pool name or Wildcat
Sand Dunes

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

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2. Name of Operator
Chesapeake Operating, Inc.

NOV 22 2004

3. Address of Operator P. O. Box 11050
Midland, TX 79702-8050

OCD-ARTESIA

4. Well Location

Unit Letter E : 1330 feet from the North line and 800 feet from the West line
Section 10 Township 24S Range 31E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3722 GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater 100+ Distance from nearest fresh water well 1000+ Distance from nearest surface water 1000+

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume Attached bbls; Construction Material Synthetic

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: Pit Requirements

☒

OTHER:

☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake, respectfully, requests that the following procedure be approved for the drilling pit for this well. Based on available information, at this location, the depth to groundwater is 158', the distance to the closest surface water is 1000+', and the distance to the closest fresh water wells or spring is 1000+ feet. The well site is not located within a watercourse, lakebed, sinkhole, or playa lake. Therefore, the pit for this location will be constructed and closed as detailed on the attached figures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☒.

SIGNATURE

Brenda Coffman

TITLE Regulatory Analyst

DATE 11/19/2004

Type or print name Brenda Coffman
For State Use Only

E-mail address: bcoffman@chkenergy.com

Telephone No. (432)685-4310

TIM W. GUM
DISTRICT II SUPERVISOR

NOV 22 2004

APPROVED BY:

TITLE

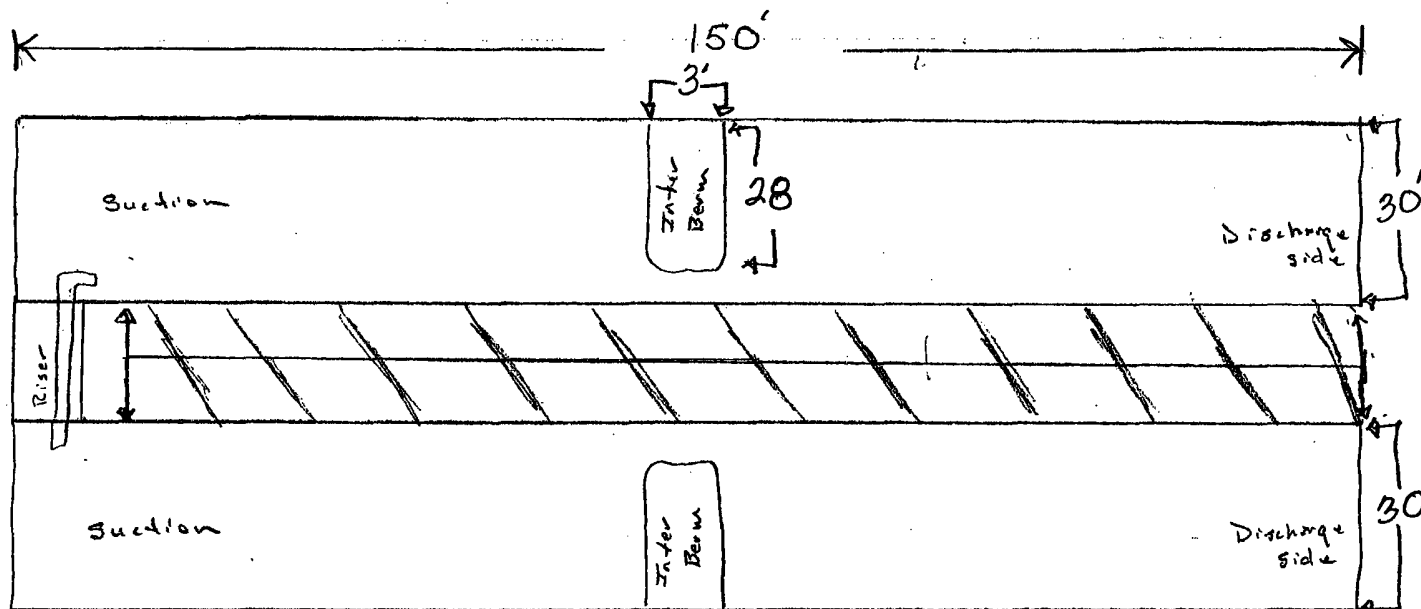
DATE

Conditions of Approval (if any):

BGA for VB

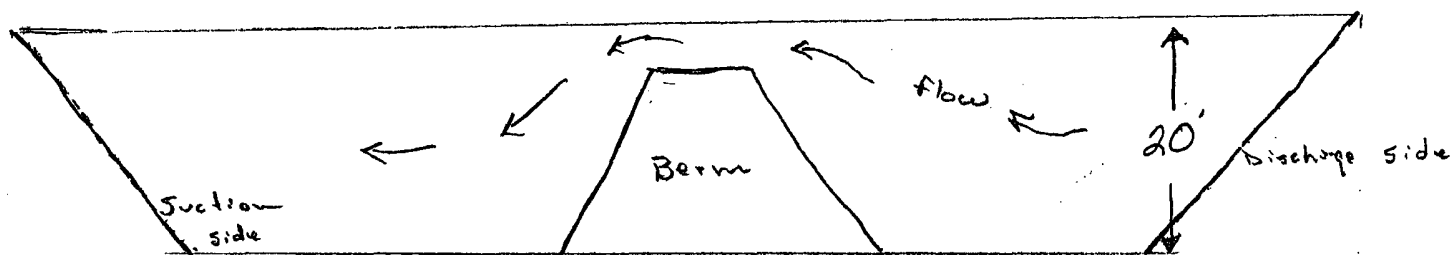
Chesapeake Energy

Double Pit



12 mm plastic
over all

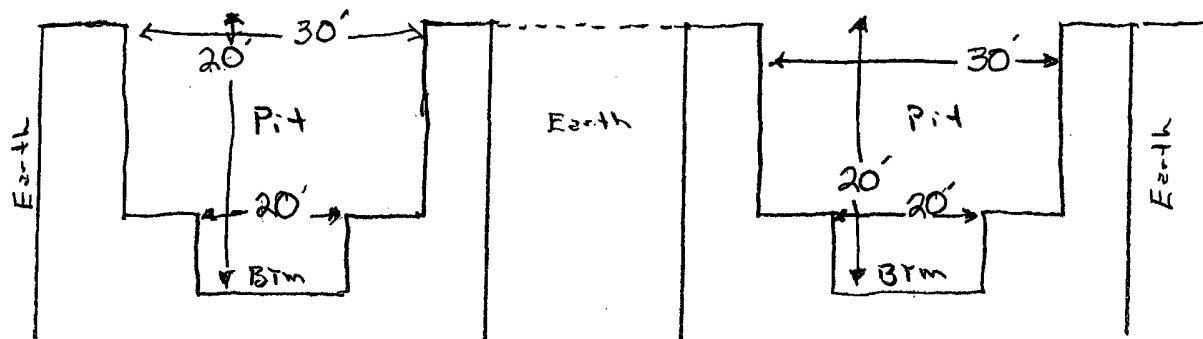
Top View



Side View

$$18' \times 30' \times 140' = 75600 \text{ ft}^3 \div 5.6146 = 13464.8 \text{ bbls} \times 2 = 26929.7 \text{ bbls, with 18' of fluid \& cuttings in pits.}$$

$$20' \times 30' \times 140' = 90000 \text{ ft}^3 \div 5.6146 = 16029.6 \text{ bbls} \times 2 = 32059.2 \text{ bbls with 20'}$$



End
cross section

DISTRICT I
1826 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 97505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
For Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name FULL HOUSE "10" FEDERAL	Well Number 1
OGRIID No.	Operator Name CHESAPEAKE OPERATING INC.	Elevation 3454

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	10	24 S	31 E		1330'	NORTH	800'	WEST	EDDY

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

Dedicated Acres 3.20	Joint or Infill	Consolidation Code	Order No.
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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

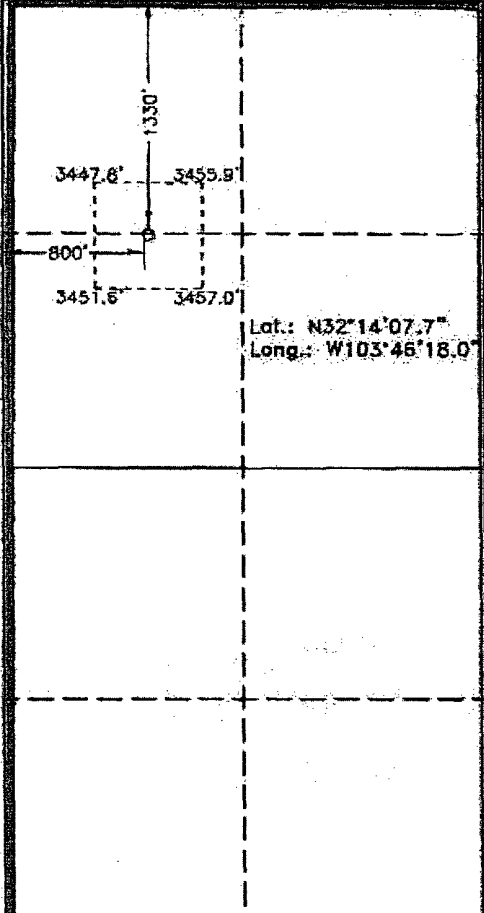

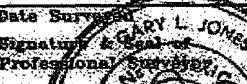
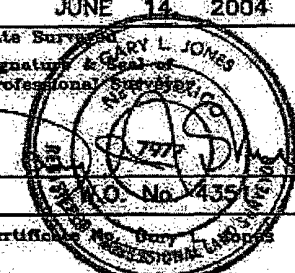
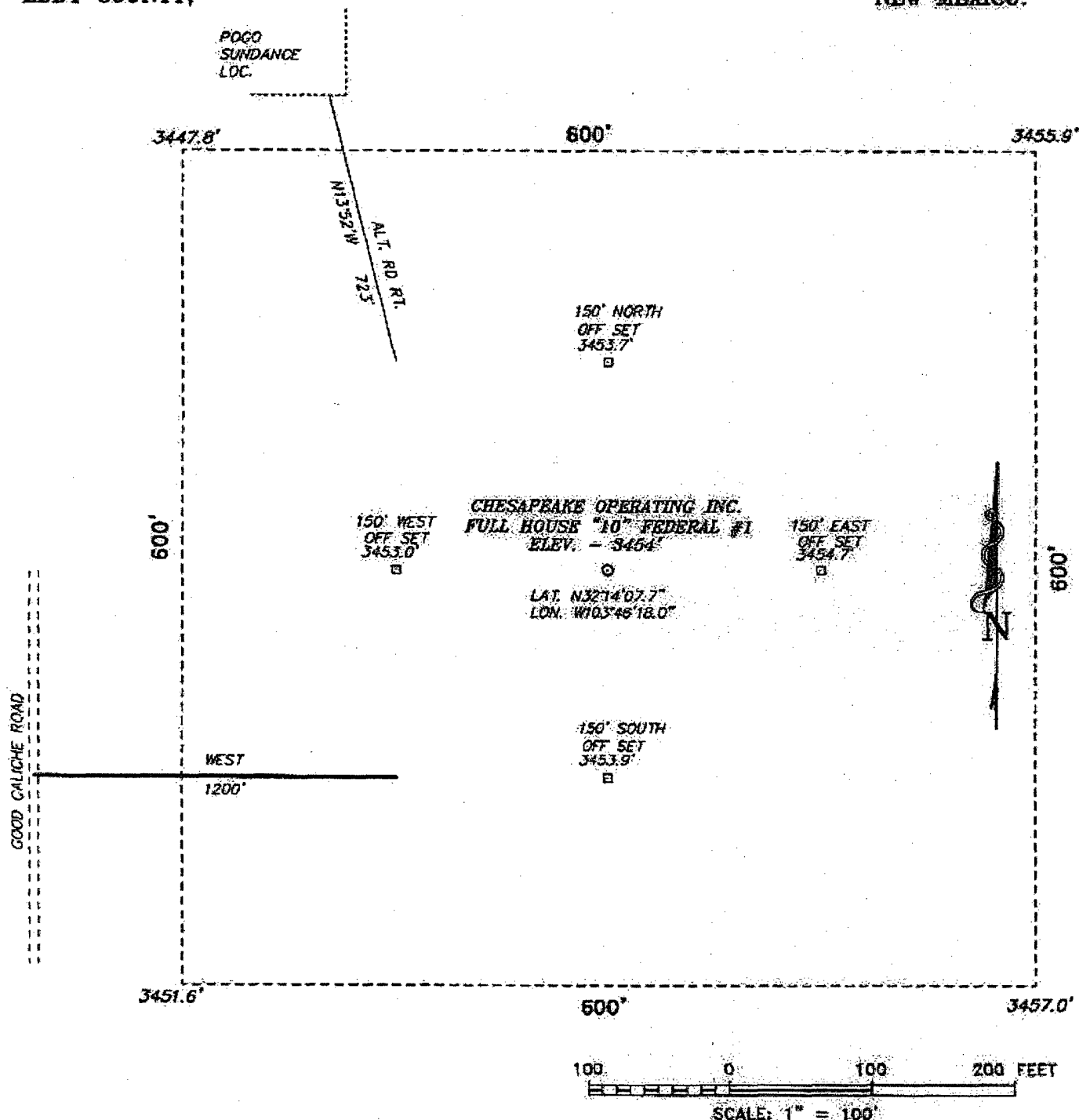
	<p>RECEIVED NOV 22 2004 OGD ARTESIA</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature</p> <p>JIM BALL Printed Name</p> <p>Senior Landman Title</p> <p>6/23/04 Date</p>
		<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>JUNE 14, 2004 Date Surveyed</p> <p> Signature of Gary L. Jones Professional Surveyor</p> <p></p> <p>Certificate No. Gary L. Jones 7977</p> <p>JLP BASIN SURVEYS</p>

Exhibit A-1

SECTION 10, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



FROM THE MM 14 ON STATE HWY. 128 GO NORTHWEST
0.3 MILES TO A LEASE ROAD SOUTH, THEN SOUTH 2.7 MILES
TO A LEASE ROAD EAST. GO EAST, NORTH, & EAST 0.3 MILES
TO A LEASE ROAD SOUTHWEST 1.3 MILES TO A LEASE ROAD
EAST, THEN EAST 0.3 MILES TO A LEASE ROAD NORTH,
THEN NORTH 0.3 MILES TO PROPOSED ROAD.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 4351 Drawn By: JAMES PRESLEY

Date: 06/17/04 Disk: JLP #1 - 4351A

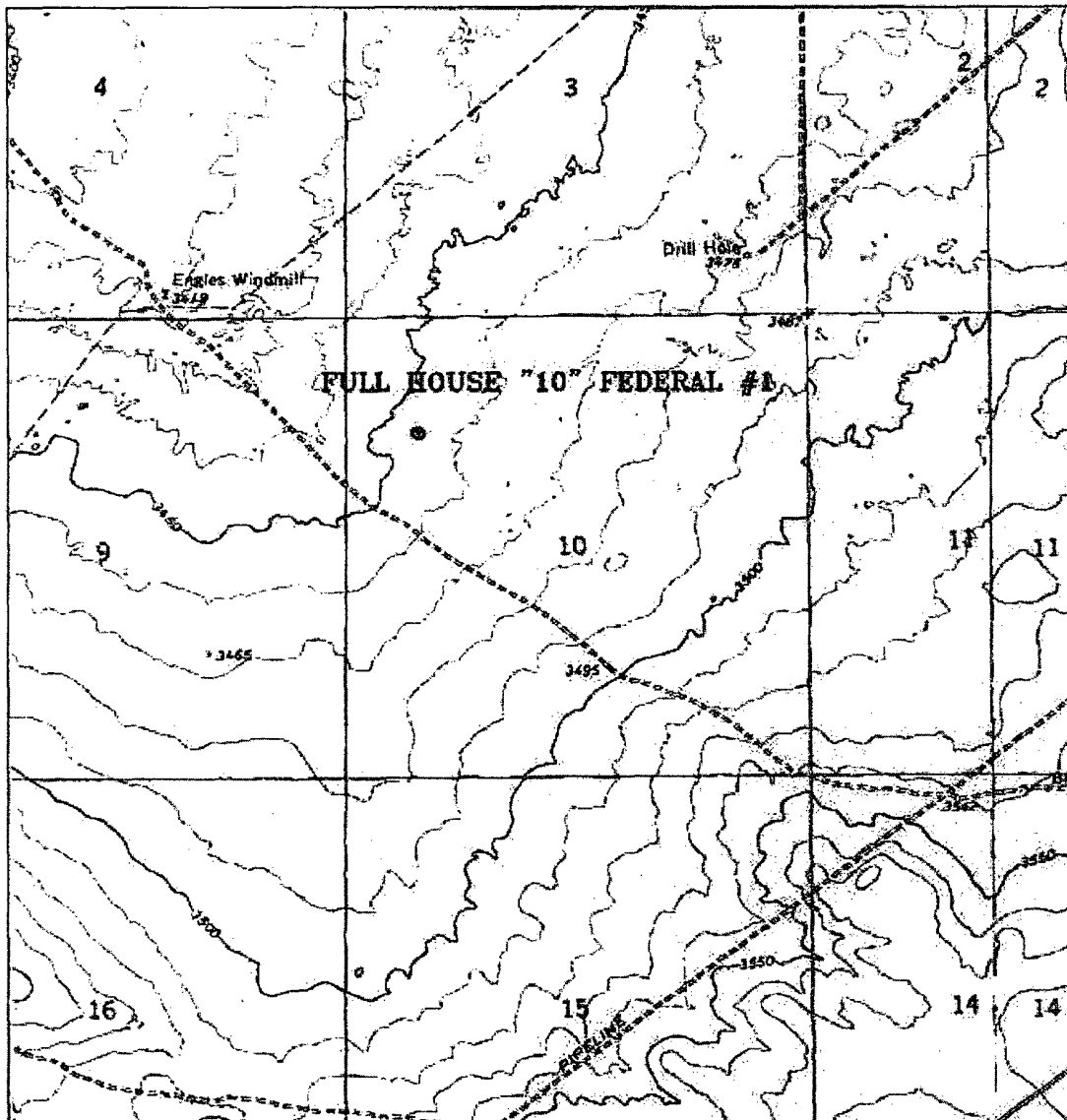
CHESAPEAKE OPERATING INC.

REF: FULL HOUSE "10" FEDERAL #1 / Well Pad Topo

FULL HOUSE "10" FEDERAL #1 LOCATED 1330' FROM THE
NORTH LINE AND 800' FROM THE WEST LINE OF
SECTION 10, TOWNSHIP 24 SOUTH, RANGE 31 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 06/14/04 Sheet 1 of 1 Sheets

Exhibit A-3



FULL HOUSE "10" FEDERAL #1
 Located at 1330' FNL and 800' FWL
 Section 10, Township 24 South, Range 31 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basin-surveys.com

W.O. Number: 4251AA - JLP #1

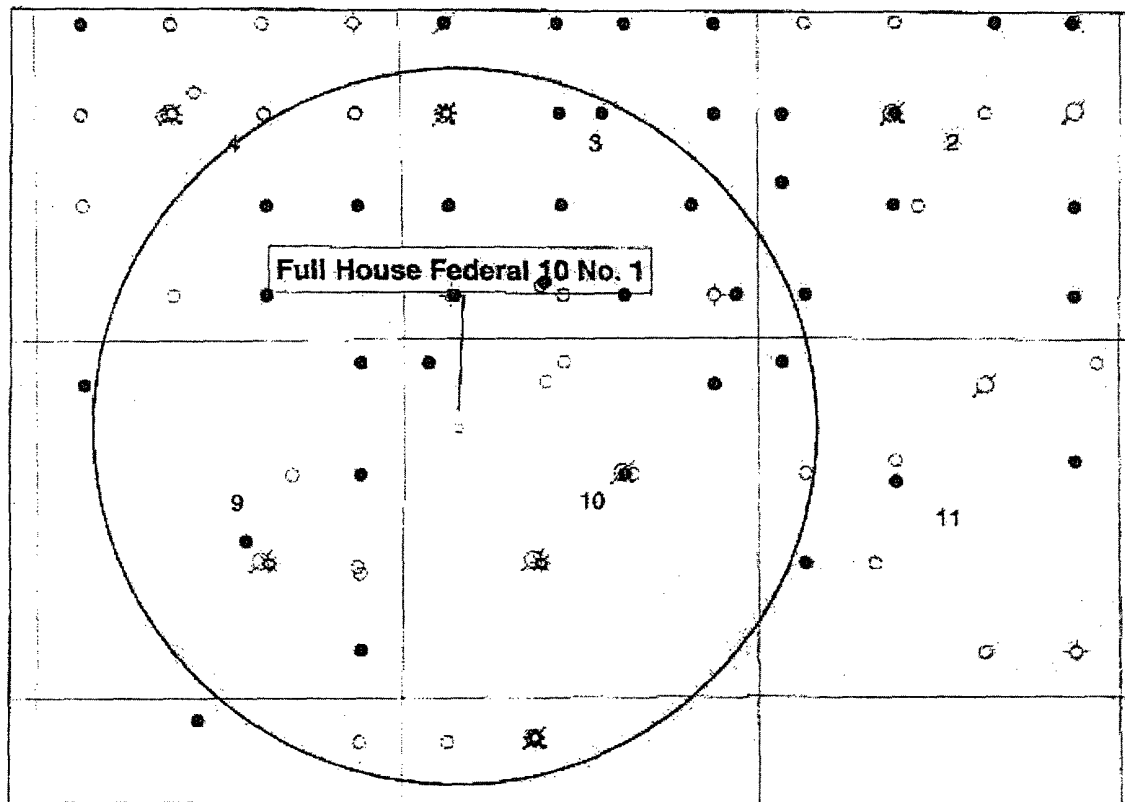
Survey Date: 08/14/04

Scale: 1" = 2000'

Date: 08/17/04

CHESAPEAKE
OPERATING
INC.

Exhibit A-4




 Chesapeake <small>Natural Gas</small> <small>Natural Apportionment</small>	CHESAPEAKE OPERATING, INC.
<p align="center">Full House Federal 10 No. 1 1 mile Radius Circle around proposed location Section 10 T 24S R31E</p>	
Date: 6 July, 2004	Geologist: Doug Bellis

Exhibit 8

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SW NW of Section 10-24S-31E
Eddy County, NM

CONFIDENTIAL - TIGHT HOLE

Lease No. NMNM 70895

SURFACE USE PLAN
Page 1

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

1. EXISTING ROADS

- a. Existing county and lease roads will be used to enter proposed access road.
- b. Location, access, and vicinity plats attached hereto. See Exhibits A-1 through A-4.

2. PLANNED ACCESS ROADS

- a. A new access road 1200' in length and 14' in travel way width with a maximum disturbance area of 30' will be built in accordance with guidelines set forth in the BLM Onshore Orders. An alternate access road (723') is noted on the well pad plat.
- b. No turnouts are expected.
- c. In order to level the location, cut and fill will be required. Please see attached Well Location and Acreage Dedication Plat - Exhibit A1-A4.
- d. A locking gate will be installed at the site entrance.
- e. Any fences cut will be repaired. Cattle guards will be installed, if needed.
- f. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
- g. Driving directions are from mile marker 14 on State Hwy 128 go northwest 0.3 miles to a lease road, then south 2.7 miles to a lease road, east north & east 0.3 miles to a lease road, southwest 1.3 miles to a lease road, then east 0.3 miles to a lease road, then north 0.3 miles to a proposed access road.

3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION - see Exhibit B.

4. LOCATION OF PRODUCTION FACILITIES

It is anticipated that production facilities will be located on the well pad as product will be sold at the wellhead and/or tank battery. - See Exhibit C

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SW NW of Section 10-24S-31E
Eddy County, NM

CONFIDENTIAL - TIGHT HOLE

Lease No. NMNM 70895

SURFACE USE PLAN
Page 2

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be obtained from a private water source. Chesapeake Operating, Inc. will ensure all proper notifications and filings are made with the state.

6. CONSTRUCTION MATERIALS

No construction materials will be used from Section 10-24S-31E. All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

Drill cuttings will be contained and buried in an earthen reserve pit after the drilling fluids have evaporated. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

8. ANCILLARY FACILITIES

None

9. WELLSITE LAYOUT

The proposed site layout plat is attached showing rig orientation and equipment location. See Exhibit D. Also see Exhibit A for the size of the pad.

10. PLANS FOR RECLAMATION OF THE SURFACE

The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing Oklahoma Corporation Commission regulations.

Backfilling leveling, and contouring are planned as soon as the drilling rig and steel tanks are removed. Wastes and spoils materials will be buried immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible. The rehabilitation will begin after the drilling rig is removed.

11. SURFACE & MINERAL OWNERSHIP

United States of America
Department of Interior
Bureau of Land Management

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SW NW of Section 10-24S-31E
Eddy County, NM

CONFIDENTIAL - TIGHT HOLE

Lease No. NMNM 70895

SURFACE USE PLAN
Page 3

GRAZING LEASE HELD BY:

Richardson Cattle
P.O. Box 487
Carlsbad, NM 88221

12. ADDITIONAL INFORMATION

A Class III cultural resource inventory report was prepared by Boone Archaeological Services, Carlsbad, New Mexico for the proposed location. A copy of the report has been sent to the BLM office under separate cover and is also attached for reference. See Exhibit E.

13. OPERATOR'S REPRESENTATIVES

Drilling and Completion Operations

Rob Jones
District Manager
P.O. Box 18496
Oklahoma City, OK 73154
(405) 810-2694 (OFFICE)
(405) 879-9573 (FAX)
rjones@chkenergy.com

Drilling Engineer

David DeLaO
P.O. Box 14896
Oklahoma City, OK 73154
(405) 767-4339 (OFFICE)
(405) 879-9573 (FAX)
(405) 990-8182 (MOBILE)
ddelao@chkenergy.com

Regulatory Compliance

Linda Good
Regulatory Compliance Analyst
P.O. Box 18496
Oklahoma City, OK 73154
(405) 767-4275 (OFFICE)
(405) 879-9583 (FAX)
lgood@chkenergy.com

Field Representative

Curtis Blake
Production Superintendent
5014 Carlsbad Hwy
Hobbs, NM 88240
505-391-1462 Ext. 12 (OFFICE)
505-391-6679 (FAX)
505-631-9936 (MOBILE)
cblake@chkenergy.com

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SW NW of Section 10-24S-31E
Eddy County, NM

CONFIDENTIAL - TIGHT HOLE

Lease No. NMNM 70895

SURFACE USE PLAN

Page 4

14. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this surface use plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed will be performed by operator (including contractors and subcontractors) submitting the APD, in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

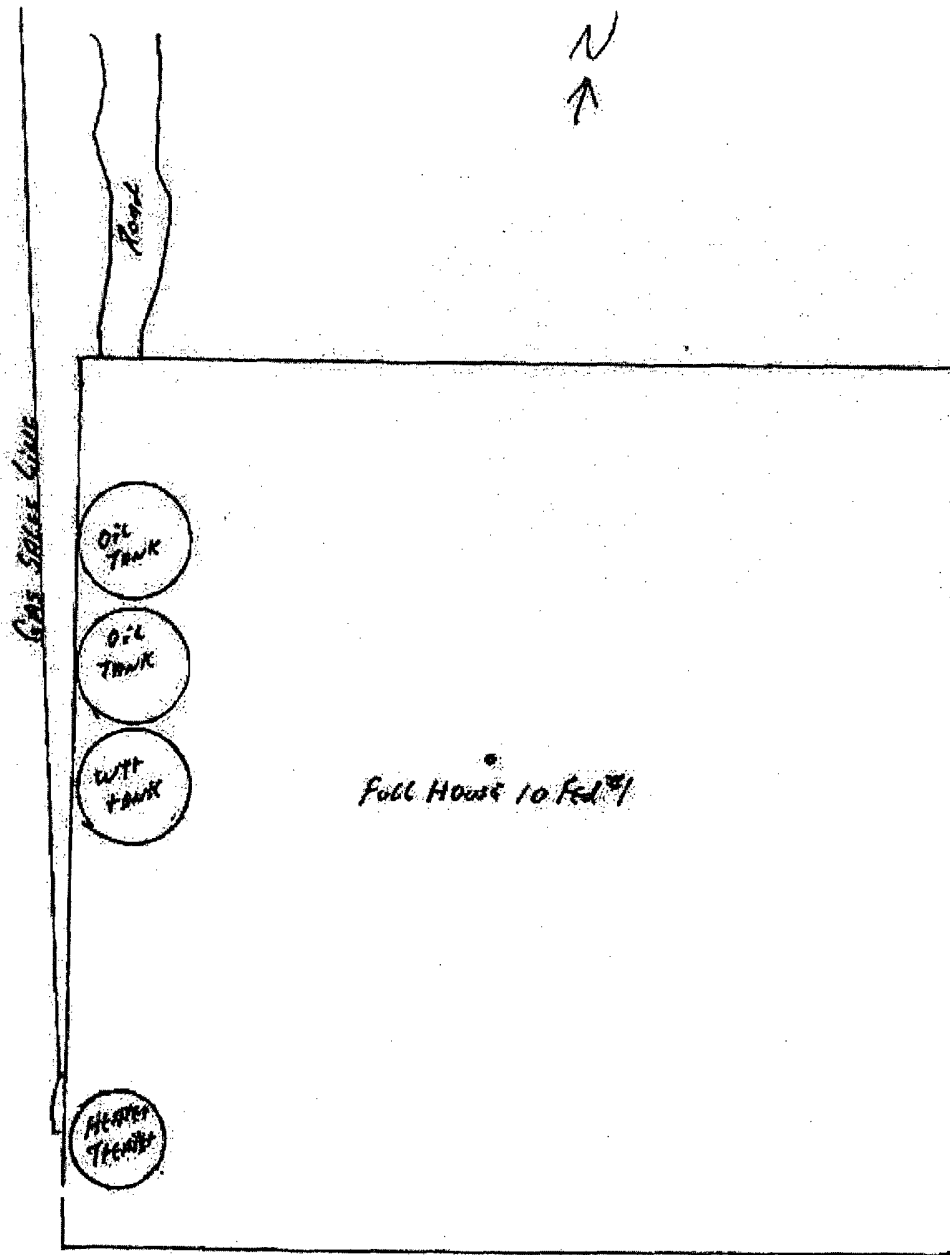
By:

J. Mark Lister

Date:

7/14/04

Full House 10 Fed. #1



Dir: Loving 285 N. 2 miles to 31E
7.4 miles to 128 E 13.2 miles to
Dirt Rd. on Right 3.4 miles to T Left
0.5 miles to T Right 1.1 miles Left
0.3 miles Left 0.3 miles to Full
House Lease Rd.

1. 16 miles South East Loving N.M.
2. There will need to be gas line run to Battery
3. The oil & gas measurement facilities will be on location.

Exhibit C

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SWNW of Section 10-24S-31E
Eddy County, New Mexico

CONFIDENTIAL - TIGHT HOLE
Lease Contract No. NMNM 70895

DRILLING PROGRAM

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	Depth	Subsea
Rustler	580	2900
Lamar	4380	-900
Bell Canyon	4420	-940
Cherry Canyon	5310	-1830
Brushy Canyon	6560	-3080
L Brushy Canyon	7080	-3600
Bone Springs Lime	8200	-4720
1 st Bone Springs	9170	-5790
2 nd Bone Springs	9870	-6390
3 rd Bone Springs	11110	-7630
Wolfcamp	11570	-8090
Basal Wolfcamp Carbonate	12760	-9280
Cisco	13070	-9590
Strawn	13480	-10000
Atoka	13690	-10210
Atoka Bank	13820	-10340
Atoka Datum	13900	-10420
Morrow Poker Lake Sand	14480	-11000
Morrow Clastic	14690	-11210
Morrow B Sand	14780	-11300
Morrow B Lower	14830	-11350
Morrow C Sand	14940	-11460
Morrow D Sand	15050	-11570
Lower Morrow	15190	-11710
Barnett	15340	-11860
Total Depth	15500	-12020

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
Oil/Gas	Pennsylvanian Lower	14800
Oil/Gas	Pennsylvanian Lower	14950

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

3. BOP EQUIPMENT: 10,000# System

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-3.

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, and
- (d) Upper and lower kelly cock valves, inside BOP's and safety valves.

B. Test Frequency

- 1. All tests should 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, and
 - (d) at least once every 30 days while drilling.

C. Test Pressure

- 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.

D. Test Duration

1. In each case, the individual components should be monitored for leaks for 5 minutes, with no observable pressure decline, once the test pressure has been applied.

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 BOP'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:

3.

System Operating Pressures

Precharge Pressure

1500 PSI

750 PSI

2000 PSI

1,000 PSI

3000 PSI

1,000 PSI

3. Closing times for the Hydril 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.

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Full House 10 Federal 1
1330 FNL 800 FWL
SWNW of Section 10-24S-31E
Eddy County, New Mexico

CONFIDENTIAL - TIGHT HOLE
Lease Contract No. NMNM 70895

DRILLING PROGRAM

Page 4

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:

<u>System Pressure</u>	<u>Remaining Pressure At Conclusion of Test</u>
1,500 PSI	950 PSI
2,000 PSI	1,200 PSI
3,000 PSI	1,200 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.

4. CASING AND CEMENTING PROGRAM

- a. The proposed casing program will be as follows:

<u>Purpose</u>	<u>Interval</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Condition</u>
Surface	0-680' ^{35'} 915'	17-1/2	13-3/8	48	H40	STC	New
Intermediate	680' - 4,500'	12-1/4	9-5/8	40	J55	LTC	New
Production	4500' - 11,750'	8-3/4	7	23/26	L80	LTC	New
Liner	11,450'-15,500'	6-1/8	4-1/2	13.5	P110	LTC	New

- b. Casing design subject to revision based on geologic conditions encountered.
- c. The cementing program will be as follows:

<u>Interval</u>	<u>Type</u>	<u>Amount</u>	<u>Yield</u>	<u>Washout</u>	<u>Excess</u>
0-680' ^{35'} 915'	Class C + Additives	705	1.34	75	100
680' - 4,500'	Class C 50/50 Poz + Additives	1000+200	2.23/1.34	50	75
4,500' - 11,750'	Class H + Additives	450+400	2.38/1.22	10	30
11,750'-15,500'	Class H + additives	125+200	2.22/1.22	10	30

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
SMITH FEDERAL 1-4
2310' FNL & 660' FWL
SENE of Section 4 - 20S-33E
Lea County New Mexico

CONFIDENTIAL - TIGHT HOLE
Lease No. OKNM 77074

DRILLING PROGRAM

Page 5

5. MUD PROGRAM

a. The proposed circulating mediums to be used in drilling are as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-680' 915'	FW	8.7	29-38	NC
680'-4,500'	Brine	10	29	NC
4,500'-11,750'	FW/Brine	8.5 - 10	29-32	NC
11,750'-15,500'	Brine/XCD	10-11.3	29-38	NC-15

An in-ground, lined pit will be utilized during the drilling of this well. 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.

6. TESTING, LOGGING AND CORING

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

- Drill stem tests are not planned.
- The logging program will consist of Natural GR, Density-Neutron, PE & Dual Laterolog from TD to surface casing; Neutron-GR surface casing to surface.
- Cores samples are not planned.

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- The estimated bottom hole pressure is 8500 psi. No abnormal pressures or temperatures are anticipated.
- Hydrogen sulfide gas is not anticipated.

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : Full House 10 Federal #1

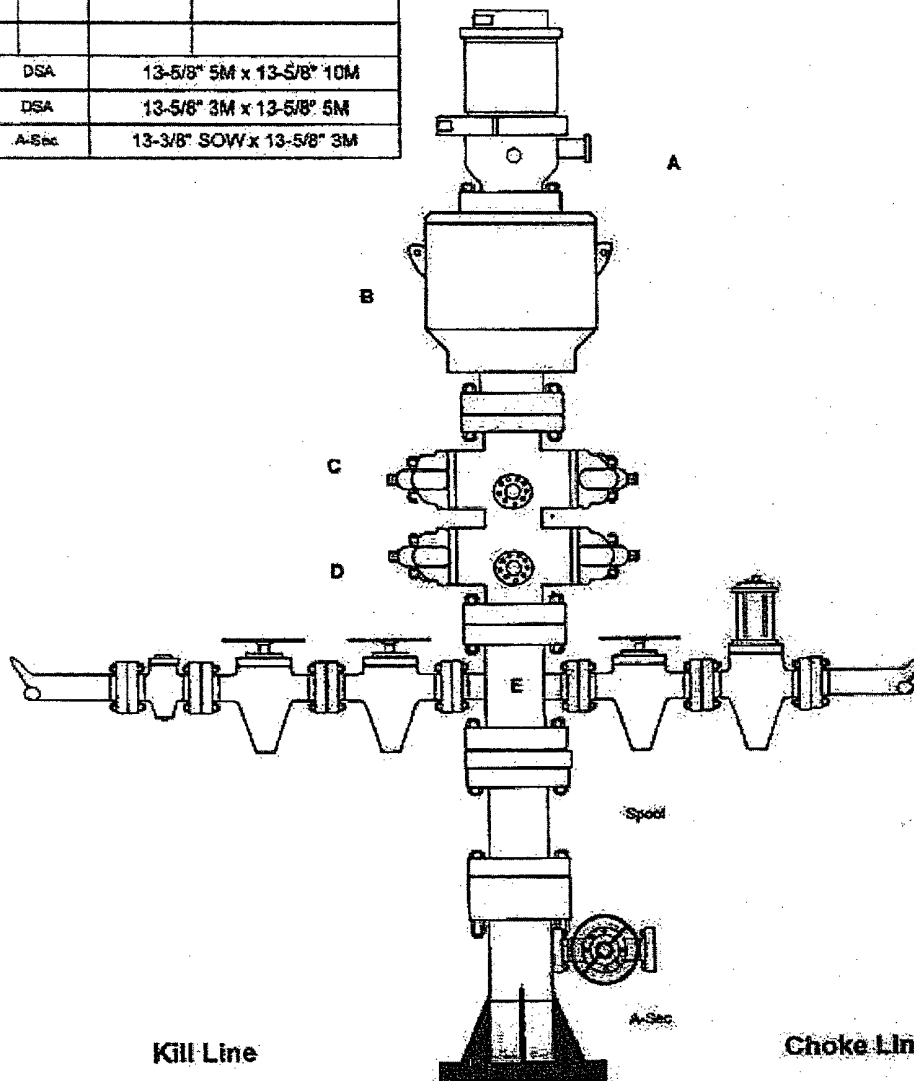
RIG : Nabors #311

COUNTY : Eddy

STATE: New Mexico

OPERATION: Drill out below 13-3/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	500#	Rot Head
B	13-5/8"	5,000#	Annular
C	13-5/8"	10,000#	Pipe Rams
D	13-5/8"	10,000#	Blind Rams
E	13-5/8"	10,000#	Mud Cross
DSA	13-5/8" 5M	x 13-5/8" 10M	
DSA	13-5/8" 3M	x 13-5/8" 5M	
A-Sec	13-3/8" SOW	x 13-5/8" 3M	



SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

Exhibit F-1

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : Full House 10 Federal #1

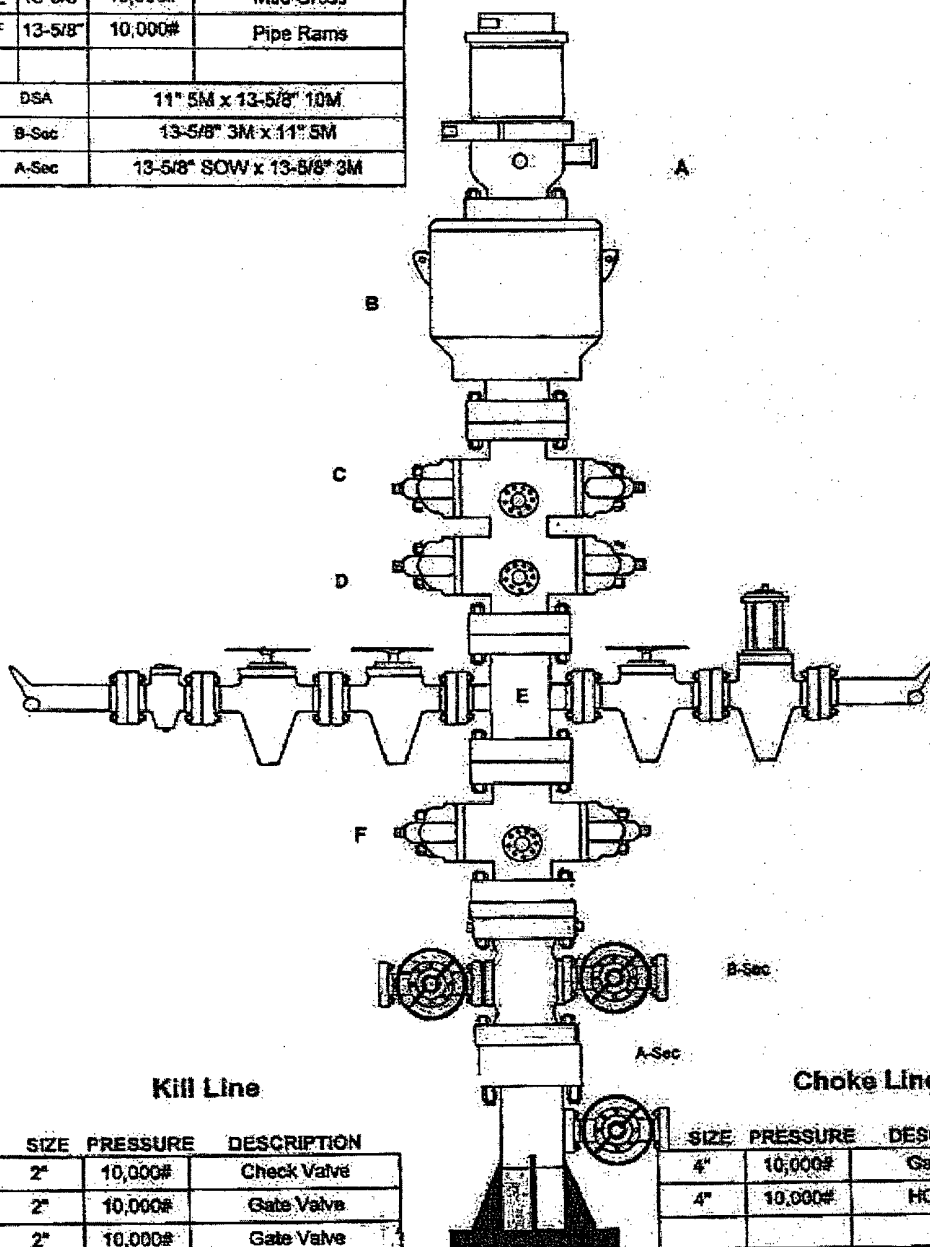
RIG : Nabors 311

COUNTY : Eddy

STATE: New Mexico

OPERATION: Drill out below 9-5/8" Casing

SIZE	PRESSURE	DESCRIPTION
A 13-5/8"	500#	Rot Head
B 13-5/8"	5,000#	Annular
C 13-5/8"	10,000#	Pipe Rams
D 13-5/8"	10,000#	Blind Rams
E 13-5/8"	10,000#	Mud Cross
F 13-5/8"	10,000#	Pipe Rams
DSA	11" 5M x 13-5/8" 10M	
B-Sec	13-5/8" 3M x 11" 5M	
A-Sec	13-5/8" SOW x 13-5/8" 3M	



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

Exhibit

F-2

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : Full House 10 Federal #1

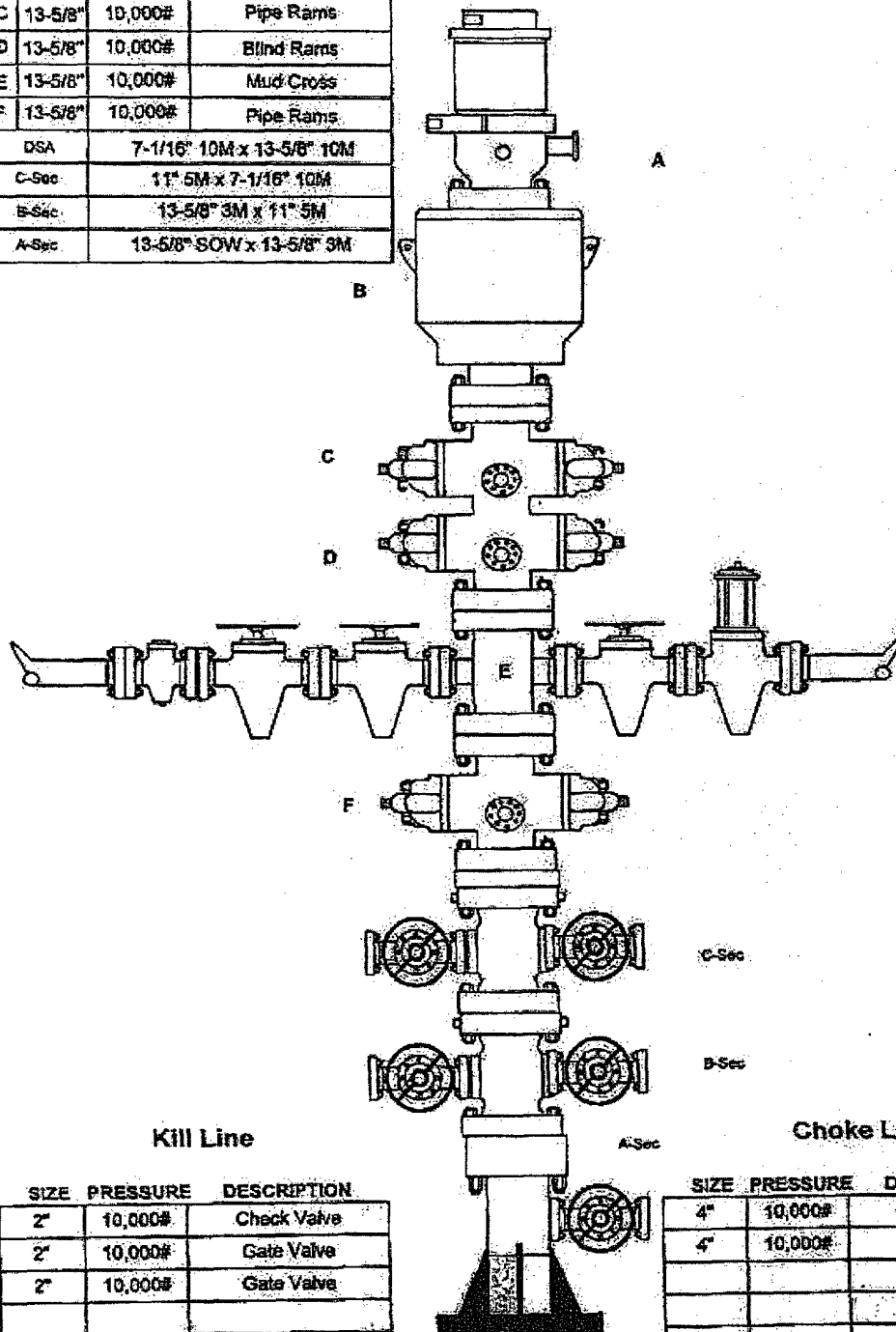
RIG : Nabors 311

COUNTY : Eddy

STATE: New Mexico

OPERATION: Drill out below 7" Casing

SIZE	PRESSURE	DESCRIPTION
A 13-5/8"	500#	Rot Head
B 13-5/8"	5,000#	Annular
C 13-5/8"	10,000#	Pipe Rams
D 13-5/8"	10,000#	Blind Rams
E 13-5/8"	10,000#	Mud Cross
F 13-5/8"	10,000#	Pipe Rams
DSA	7-1/16" 10M x 13-5/8" 10M	
C-Sec	11" 5M x 7-1/16" 10M	
B-Sec	13-5/8" 3M x 11" 5M	
A-Sec	13-5/8" SOW x 13-5/8" 3M	



SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

Exhibit

F-3

**FEDERAL PERMIT ATTACHED - READ CAREFULLY
FOLLOW REQUIREMENTS**

DATE: September 28, 2004
TO: DISTRIBUTION
FROM: Linda Good *LG*
RE: APD (Federal Permit) - APPROVED
FULL HOUSE 10 FED 1
Section 10-24S-31E, Eddy County NM
BLM Lease: NMNM-70895

RECEIVED
NOV 22 2004
OCB-ARTESIA

Please be advised this well is subject to Bureau of Land Management (BLM) regulations and Minerals Management Service (MMS) reporting. A copy of the BLM approved permit to drill must be on location at the date of first surface disturbance and thereafter, including any subsequent sundry notices changing the original APD. A summary of BLM stipulations is set forth below, but is not a substitute for your review and compliance with all stipulations. In addition these requirements are not in lieu of any state requirements; we must be in compliance with both state and federal rules and regulations. A copy of the approved federal permit is attached.

- **REVIEW AND COMPLY WITH THE CONDITIONS OF APPROVAL.** All operations, unless otherwise specifically approved in APD, must be conducted in accordance with Onshore Order No. 1 - Surface Use; Onshore Order No. 2 - Drilling Operations and Onshore Order No. 3 - Site Security.
- **REQUIREMENTS PRIOR TO & DURING CONSTRUCTION:**
 1. Approved APD must be read carefully and followed by all parties involved. A complete copy must be on location at all times.
 2. The BLM will monitor construction of this drill site. Contact the BLM Carlsbad Field Office at 505-234-5972 **at least 3 working days** prior to commencing construction of access road and/or well pad (Special Drilling Stipulations, Pg. 1, Item II).
 3. Provide dirt contractor with copy of APD signature page, maps, drilling requirements, and Standard Stipulations for Permanent Resource Roads.
 4. Construct and maintain access road pursuant to BLM standards. The travelway of the road shall be constructed **14 feet wide** (minimum driving surface 12 feet) not to exceed **30 feet wide**. The Access road will be surfaced with **caliche** material and shall be compacted to a minimum thickness of **6 inches** for entire length of the travelway surface on the access road (Special Drilling Stipulations, Pg. 1, Item II and Standard Stipulations for Permanent Resource Roads Carlsbad Field Office, Pg. 2, Item 1).
 5. **SPECIAL STIPULATIONS: Use the alternate route to the northwest.** (Standard Stipulations for Permanent Resource Roads Carlsbad Field Office, Pg 5, Item 10)

6. Crowning and Ditching are required for access road. Lead-off ditches shall be at 400 foot intervals (Standard Stipulations for Permanent Resource Roads Carlsbad Field Office, Pg. 2 and 3, Item 2 and 3).
7. The reserve pit shall be constructed entirely in cut material and line with a 6 mil plastic liner (Special Drilling Stipulations, Pg. 2, Item Reserve Pit Construction Standards).

• **STANDARD and SPECIAL ENVIRONMENTAL STIPULATIONS:**

1. All surface-disturbing activities will be restricted to approved areas. During surface-disturbing activities if any archeological items or foundations are encountered immediately contact BLM Carlsbad Field Office (Special Drilling Stipulations, Pg. 2, Cultural).
2. No burn pits allowed. Junk or trash shall not be buried in the reserve pit (Special Drilling Stipulations, Pg. 2, Trash Pit Stips).
3. The Nabors 311 plat was submitted with this APD. If this changes **PLEASE** notify Regulatory so a new rig plat can be submitted via Sundry.
4. Review drilling program under Condition of Approval - Drilling (Conditions of Approval Drilling, Pg. 1).
5. Refer to NTL-96 for protection of migratory birds and bats.
6. Re-vegetate all reclaimed areas with desired seed mixture (Pg. 1 Exhibit B, Seed Mixture 2 for LPC Sandy Sites). If dry hole, restore to former land use. Seeding should be done in either late fall (Sep 15 to Nov 15) or early as possible in the spring.

If questions arise regarding environmental/biological issues, contact BLM Carlsbad Field Office, NM, at 505-234-5972.

REPORTING REQUIREMENTS:

1. Contact BLM Carlsbad Field Office, at 505-234-5972, within 3 working days (72 hours) before starting access road and/or well pad construction.
2. Contact BLM Hobbs Field Office, at 505-393-3612 in sufficient time for BLM representative to witness the following. Voice mail, E-mail, or Facsimile notice is allowed only after direct communication. Daily progress report should include BLM staff that was notified (directly or otherwise).
 - a) spud
 - b) cementing of all casing strings
 - c) testing of BOP equipment
3. Submit a Sundry Notice for each casing string, and cementing operations. The Sundry shall be submitted within 15 days of completion of each casing string. Reports may be combined into same Sundry if they fall within the same 15-day time frame.
4. Submit **written daily progress report** to BLM Hobbs Field Office until well is completed. Submit a **weekly report** during period between completion of drilling operations and initiation of completion operations.

5. Production start-up must be reported within 5 business days of production.
6. Site Facility Diagram must be submitted to BLM within 60 days of production. Diagram should indicate required federal seals.
7. MMS revenue must be reported by 4 p.m. Mountain Time on or before the last day of the month following the month the product was removed from the lease or sold, unless lease terms state otherwise. If the last day of the month, or the due date, falls on a weekend or Federal holiday, the report and payment are due by 4 p.m. mountain time the next business day.

If you have any questions or need additional information, please do not hesitate to call me at 405-767-4275.

attachments

DISTRIBUTION:

<u>Memo with APD Copy</u>	<u># of copies</u>
Rob Jones District Mgr	1
Curtis Blake	1
Mike Whitefield	5
Jim Ball	original
David DeLaO-Drtg Eng	1
Andrew McCalmont	1
Well File	1
Regulatory Compliance	1

Memo Only
 TLW, SGD, SWM, JML, HJH
 Keith Dudley
 Mark Edge
 Mike Hazlip
 Doug Bellis
 LuAnn Wernli
 Cindi Williams

Susan Keller
 Wade Brawley
 Gayle Harris
 Julie Knox
 Carol Fehrenbacher
 Matthew Klaassen

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CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Chesapeake Operating, Inc.
Well Name & No. Full House 10 Federal #1
Location: 1330' FNL, 800' FWL, Section 10, T. 24 S., R. 31 E., Eddy County, New Mexico
Lease: NM-70895

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Well spud

B. Cementing casing: 13-3/8 inch 9-5/8 inch 7 inch 5-1/2 inch lined SL

C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as: spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCDC shall be included on the subsequent report of setting the first casing string.

5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 915 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is to be circulated to the surface.

3. The minimum required fill of cement behind the 7 inch production casing is to be circulated to the surface.

4. The minimum required fill of cement behind the 4-1/2 inch production liner is to be circulated to the top of the liner.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 10000 psi. Operator may use a 2000 psi system to 4500'. A 5000 psi system may be used to 10,750'.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests:

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE shall be tested before drilling into the Wolfcamp formation.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

7/19/04

acs