OCD-HOBBS

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NM-101609**

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No. **DINWIDDIE 23 FEDERAL 1** (36238)

2. Name of Operator **CHESAPEAKE OPERATING, INC.** ATTN: **LINDA GOOD** (147179)

9. API Well No. 30-025-38242

3a. Address **P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496**

3b. Phone No. *(include area code)* **405-767-4275**

10. Field and Pool, or Exploratory **WILDCAT** Morrow

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1400 FNL & 660 FEL, SENE** Unit H
At proposed prod. zone **SAME** CAPITAN CONTROLLED WATER BASIN

11. Sec., T. R. M. or Blk. and Survey or Area **23-25S-35E**

14. Distance in miles and direction from nearest town or post office*
9 MILES ENE OF JAL, NEW MEXICO

12. County or Parish **LEA COUNTY**

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	17. Spacing Unit dedicated to this well
	2080	**320**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	15,800	**NM2634**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3131 GR / 3154 KB**	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, 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	Name *(Printed/Typed)*	Date
	Henry Hood	**10/04/2006**

Title **Sr. Vice President - Land & Legal & General Counsel**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
ACTING /s/ Don Peterson	/s/ Don Peterson	NOV 17 2006
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 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.

*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

See comments on C103 about pit info. CH

NOV 2006 Received Hobbs OCD

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Chesapeake Operating Inc.
Dinwiddie 23 Federal 1
1400 FNL 660 FEL, SENE
of Section 23-25S-35E
Lea County, NM

Confidential – Tight Hole
Lease No. NMNM 101609

#24 Attachment to Application for Permit to Drill or Re-enter

Chesapeake Operating, Inc. respectfully requests permission to drill a well to 15,800' to test the Morrow 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 Plan as required by Onshore Order No. 1. A general rig plat is attached as Exhibit D. A final rig plat will be submitted prior to spud. Exhibit_E Archeological Survey to follow.

Chesapeake Operating, Inc. is in the process of obtaining an agreement with the surface owner.

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.

OCD-HOBBS

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160 - 3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No.
NMNM-101609

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Dinwiddie 23 Federal 1

2. Name of Operator **CHESAPEAKE OPERATING, INC.** **ATTN: LINDA GOOD**

9. API Well No.
NA

3a Address
P. O. BOX 18496, OKLAHOMA CITY, OK 73154-0496

3b. Phone No. *(include area code)*
405-767-4275

10. Field and Pool, or Exploratory Area
Wildcat

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1400' FNL & 660' FEL, SENE, Section 23, T25S, R35E

11. County or Parish, State
Lea County, New Mexico

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other **Chng Proposed Access Road on APD**
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Chesapeake, respectfully, request permission to change the access road from 1808' to 5519' per the attached plat. An Arch. Survey has been done and the report will be filed with the BLM.

(CHK PN 612528)

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **LINDA GOOD** Title **PERMITTING AGENT**

Signature Linda Good Date **11/13/2006**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Don Peterson ACTING FIELD MANAGER Title Date NOV 17 2006

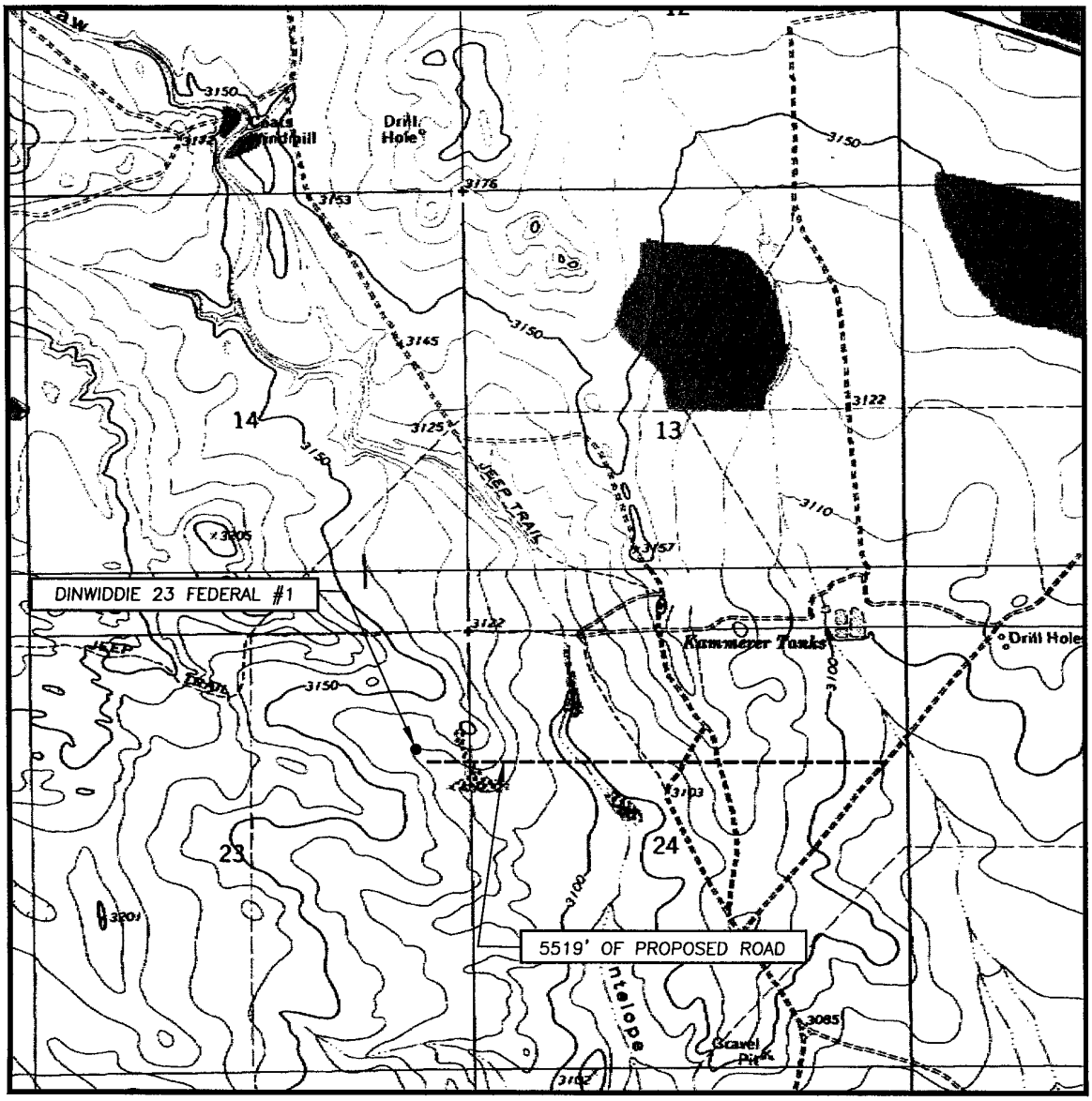
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CARLSBAD FIELD OFFICE

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.

(Instructions on page 2)

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
JAVELINA BASIN, N.M. – 10'

SEC. 23 TWP. 25-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1400' FNL & 660' FEL

ELEVATION 3128'

OPERATOR CHESAPEAKE OPERATING, INC.

LEASE DINWIDDIE 23 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
JAVELINA BASIN, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38242	1	Wildcat Morrow

Property Code	Property Name	Well Number
36238	DINWIDDIE 23 FEDERAL	1

OGRID No.	Operator Name	Elevation
147179	CHESAPEAKE OPERATING, INC.	3128'

Surface Location

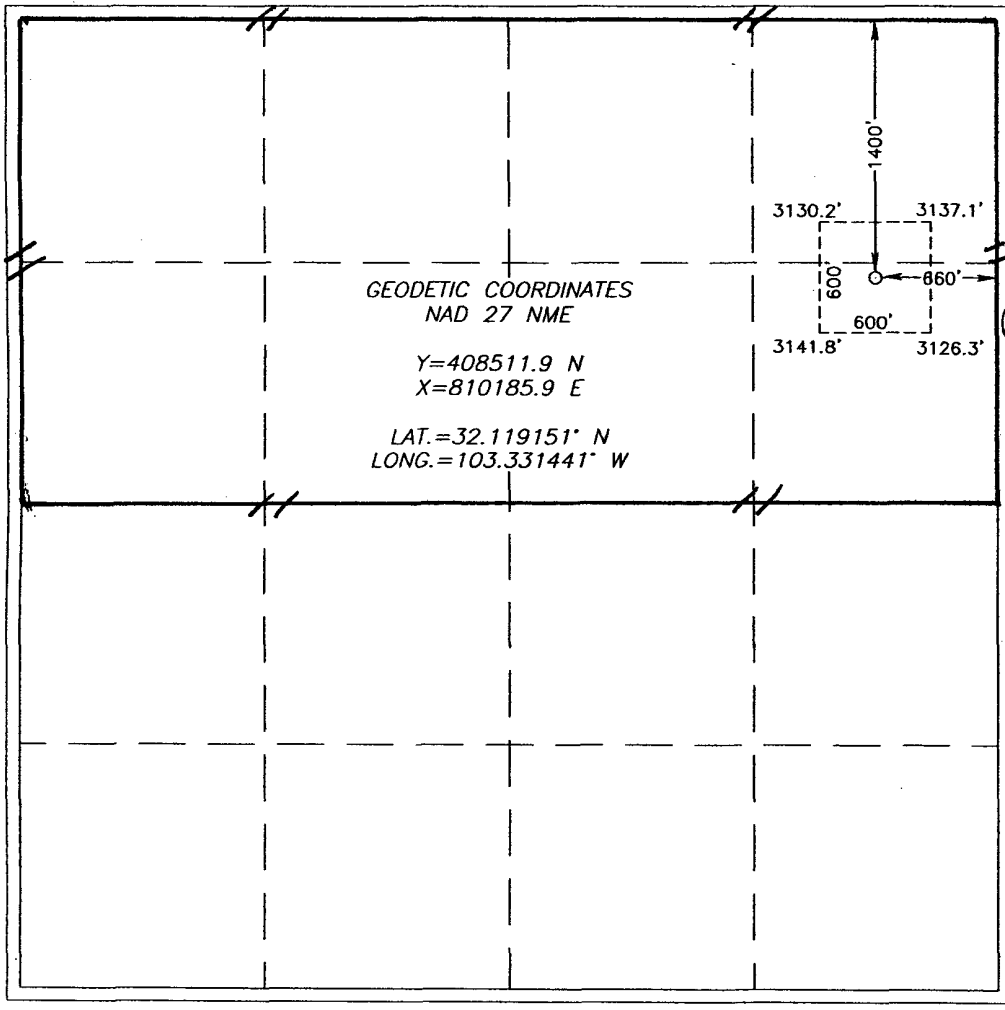
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	25-S	35-E		1400	NORTH	660	EAST	LEA

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	Joint or Infill	Consolidation Code	Order No.
320			

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Lynda F. Townsend 9-8-06
Signature Date

Lynda F. Townsend
Printed Name

SURVEYOR CERTIFICATION

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.

AUGUST 28, 2006
Date Surveyed MR

Signature & Seal of Professional Surveyor

GARY L. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR

Gary L. Eidson 9/11/06
06.11.1368

Certificate No. GARY EIDSON 12641

EXHIBIT A-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	TVD	Subsea	Hydrocarbon Type
Rustler	800	2355	
Delaware	5055	-1900	Oil
Bone Springs Lime	8700	-5545	
First Bone Springs Sand	9920	-6765	
Third Bone Springs	11550	-8395	Oil
Wolfcamp	11850	-8695	
Wolfcamp marker	12090	-8935	Gas
Strawn	12950	-9795	Gas Primary objective
Atoka Shale	13650	-10495	
Atoka Sandstone	13680	-10525	Gas
Atoka Bank	13700	-10545	Gas
Atoka Carbonate	13800	-10645	
Morrow	14720	-11565	Gas
Morrow Clastic	15160	-12005	
Morrow B Sandstone	15220	-12065	Gas Primary objective
Morrow C Sand	15450	-12295	Gas Primary objective
TD	15800	-12645	

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
Gas	Strawn	12950 to 13600
Gas	Morrow	14720 to 15600

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

3. BOP EQUIPMENT: 3,000# 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-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, 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 as 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.

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 Pressure	Remaining Pressure At Conclusion of Test
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:

Purpose	Interval	Hole Size	Casing Size	Weight	Grade	Thread	Condition
Surface	0' – 850'	17-1/2"	13-3/8"	48.0	H-40	8rd STC	New
Intermediate	0' – 5000'	12-1/4"	9-5/8"	40.0	J-55	8rd LTC	New
Production	0' - 15,800'	8-3/4"	5-1/2"	20.0	P-110	8rd LTC	New

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

Interval	Type	Amount	Yield	Washout	Excess
0' – 850'	Class C + Add @ 13.5ppg Class C @ 14.8	625 sx/ 100sx	1.74 / 1.34	50%	100%
0' – 5000'	50:50:10 Poz:C:Gel+ Add @ 11.5 / Class C @14.8ppg	1200sx / 200 sx	2.0 / 1.34	50%	75%
4500' - 15,800'	Super C Modified + Add @ 13.2 ppg	2350 sx	1.57	10%	30%

5. MUD PROGRAM

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

Interval	Mud Type	Mud Weight	Viscosity	Fluid Loss
0' – 850'	Fresh water mud	8.4 – 9.4	32 - 36	NC
850' – 5000'	Brine water	8.5 – 8.8	28 - 32	NC
5000' – 15,800'	Fresh to cut brine	9.0 – 10.0	28 - 32	NC
5000' – 15,800'	Brine/Polymer mud	10.0 – 13.5	34 - 50	10 - 6

Two parallel in-ground, lined pits 140' X 15' X 12' 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:

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

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. The estimated bottom hole pressure is 7800 psi. No abnormal pressures or temperatures are anticipated.
b. Hydrogen sulfide gas is not anticipated.

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

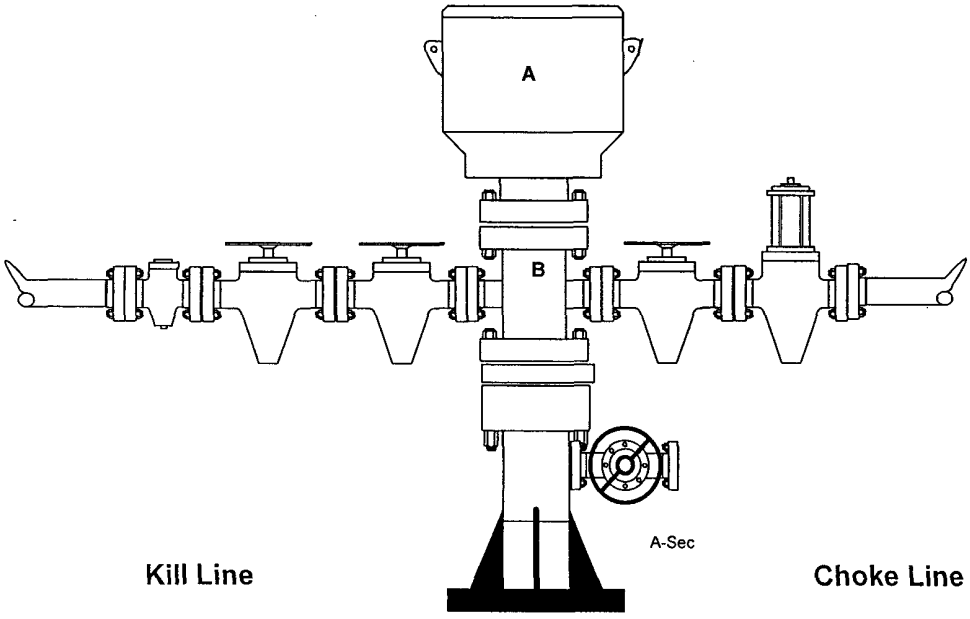
WELL: Dinwiddie 23 Federal #1

RIG: Latshaw 6

COUNTY: Eddy **STATE:** New Mexico

OPERATION: Drill out below 13-5/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	3000 psi	Annular
B	13-5/8"	3000 psi	Mud Cross
	-	-	-
	-	-	-
	-	-	
DSA (or spool)	13-5/8" 3M x 13-5/8" 3M		
A-Sec	13-3/8" SOW x 13-5/8" 3M		



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

EXHIBIT F-1

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

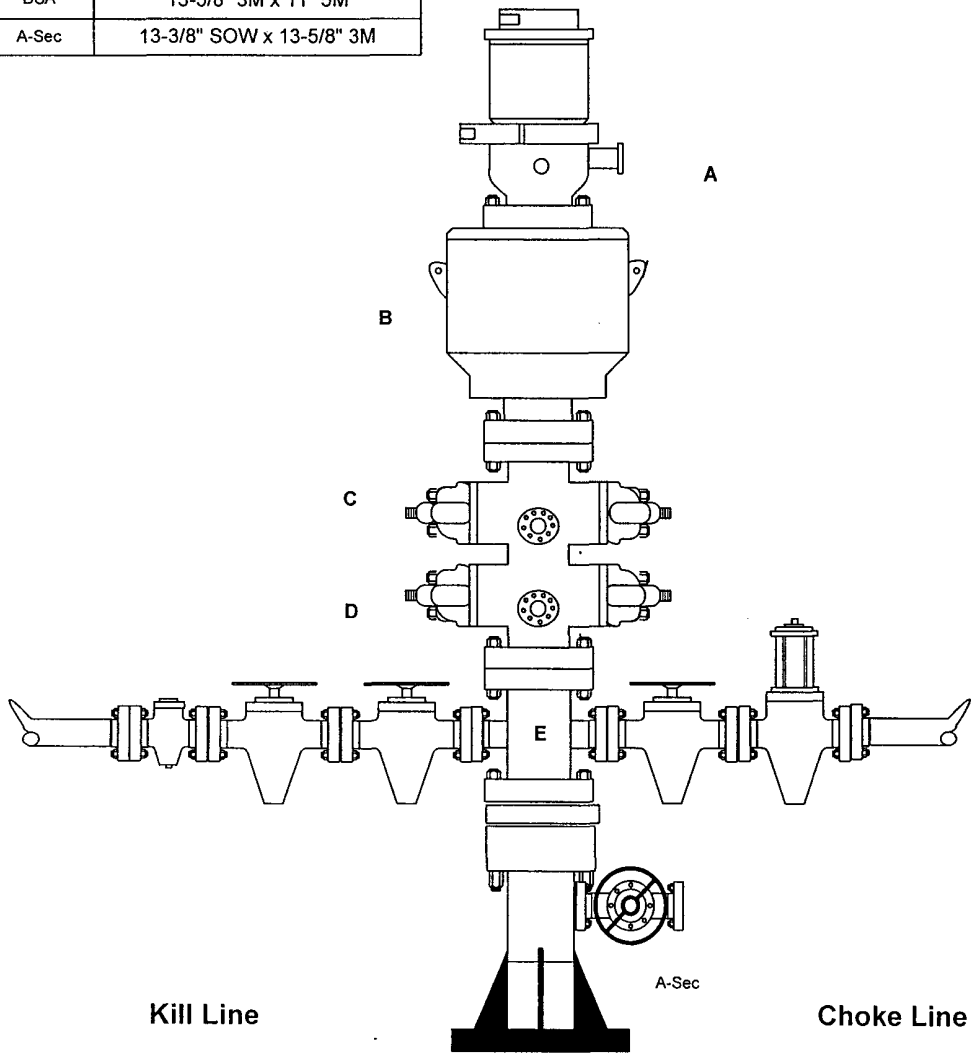
WELL: Dinwiddie 23 Federal 1

RIG: Latshaw 6

COUNTY: Eddy **STATE:** New Mexico

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

	SIZE	PRESSURE	DESCRIPTION
A	11"	500 psi	Rot Head
B	11"	5000 psi	Annular
C	11"	5000 psi	Pipe Rams
D	11"	5000 psi	Blind Rams
E	11"	5000 psi	Mud Cross
DSA	13-5/8" 3M x 11" 5M		
A-Sec	13-3/8" SOW x 13-5/8" 3M		



Kill Line

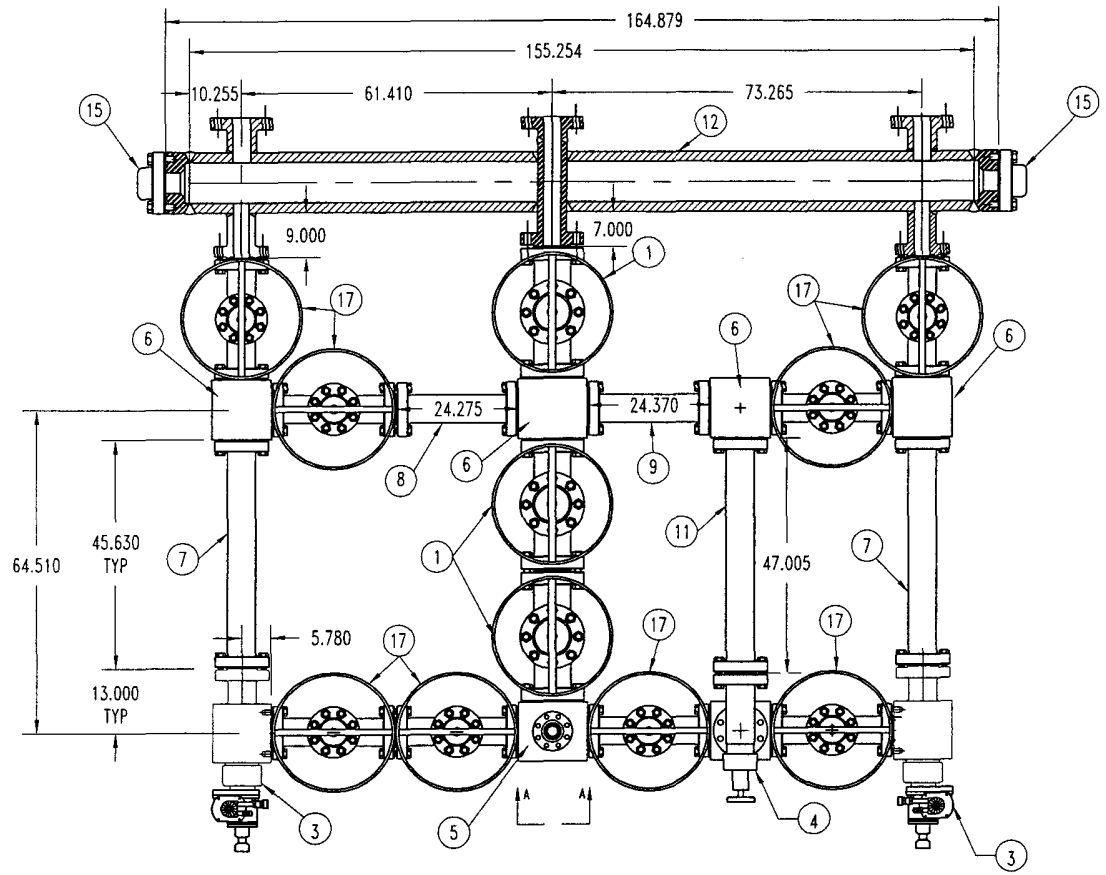
SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

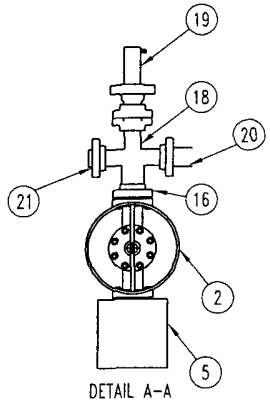
Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

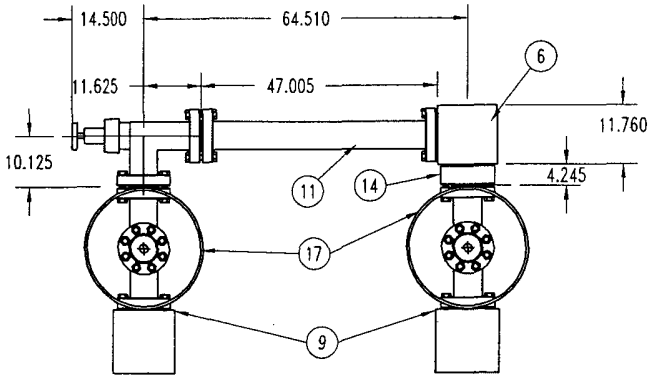
EXHIBIT F-2

EXHIBIT F-3





NOTE:
DIMENSION IN BRACKETS ARE
MEASURED DIMENSION ON ASSY



1. (3) 4-1/16 10M MANUAL GATE VALVE
2. (1) 2-1/16 10M MANUAL GATE VALVE
3. (2) 3-1/16 10M HYD FULL BORE CHOKES W/ 3-1/16 TRIM
4. (1) 3-1/16 10M HAND ADJUSTABLE CHOKE
5. (1) 4-1/16 10M X 3-1/16 10M 5 WAY BLOCK W/ 2-1/16 10M TOP OUTLET
6. (5) 3-1/16 10M 3 WAY BLOCK
7. (2) 3-1/16 10M SPOOL APPROXIMATELY 45.630 OAL
8. (1) 3-1/16 10M SPOOL APPROXIMATELY 24.301" OAL
9. (1) 3-1/16 10M SPOOL APPROXIMATELY 24.396" OAL
10. (1) 4-1/16 10M X 3-1/16 10M 4 WAY BLOCK
11. (1) 3-1/16 10M SPOOL 47.00 OAL
12. (1) BUFFER TANK
13. (1) ADJUSTABLE HEIGHT SKID W/ HANDRAILS (NOT PICTURED) W/ 3" SQUARE LEG'S, 1X1 FOOTING
14. (1) 4-10M PANCAKE 4.245 OAL
15. (2) 4-5M BLIND FLANGE
16. (1) 2-1/16 10M WECO FLANGE
17. (10) 3-1/16 10M MANUAL GATE VALVE
18. (1) 1502 4 WAY
19. (1) PRESSURE SENSOR
20. (1) 1502 WING CAP (1502 TEE'S AVAILABLE FOR ADDITIONAL MONITORING HOOKUP)

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PowerWell SERVICES™

POWER CHOKES®

APPROVALS	DATE
CAD OPERATOR: DSH	1/28/05
CHECKED:	
APPROVED:	

TITLE: MANIFOLD, (2) HYD CHOKE, (1) HAND ADJ CHOKE, (3) 4-1/16 10M MAN, (10) 3-1/16 10M MAN

SIZE		DRAWING NO.	REV.
A	DO NOT SCALE	SD-1981-61	A

SCALE	CAD FILE NAME:	PAGE:	OF:
NTS	981SD-1981-61	1	2

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

1. EXISTING ROADS

   a. Existing county 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 planned access road in a draw 1808' in length and 14' in travel way width with a maximum disturbance area of 30' will be used, and in accordance with guidelines set forth in the BLM Onshore Orders.
   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 the intersection of St. Hwy #18 (Jal Hwy) and St. Hwy #128, go West on St. Hwy #128 approx. 7.4 miles. Turn left (at gate) and go South approx. 0.1 mile to a "Y" intersection. Turn right and go Southwest approx. 1.2 miles to a "Y" intersection. Turn right and go West approx. 0.8 miles (road goes around Kammerer tanks) to a two track road. Turn left (on two track road) and go South approx. 0.3 miles to a begin road survey. Follow road survey approx. 1800' to this location.

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. It is anticipated that custody transfer of the gas will occur off the well pad but on lease. – See Exhibit C.

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 23-25S-35E. All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

Two parallel in-ground, lined pits 140' X 15' X 12' 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.

8. ANCILLARY FACILITIES

None

9. WELLSITE LAYOUT

The proposed site layout plat is attached showing the Patterson Rig #54 plat. See Exhibit D.

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 New Mexico Oil Conservation Division 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. Mineral Ownership

United States of America
Department of Interior
Bureau of Land Management

Surface Owner

Billy Wayne Dinwiddie
P.O. Box 374
Roswell, NM 88202

(Chesapeake Operating, Inc. has an agreement with the surface owner)

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.

Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

13. OPERATOR'S REPRESENTATIVES

Drilling and Completion Operations
Jarvis Hensley
District Manager – Northern Permian
P.O. Box 18496
Oklahoma City, OK 73154
(405) 879-7863 (OFFICE)
(405) 879-9529 (FAX)
jhensley@chkenergy.com

Sr. Drilling Engineer
Randy Patterson
P.O. Box 14896
Oklahoma City, OK 73154
(405) 767-4056 (OFFICE)
(405) 767-4225 (FAX)
(405) 388-9002 (MOBILE)
ddelao@chkenergy.com

Sr. Field Representative
Cecil Gutierrez
P.O. Box 11050
Midland, TX 79705
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432-687-3675 (FAX)
432-631-0971
cgutierrez@chkenergy.com

Asset Manager
Jeff Finnell
P.O. Box 18496
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405-767-4347 (OFFICE)
405-879-7930 (FAX)
405-919-3305
jfinnell@chkenergy.com

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

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: _____
Henry Hood, Sr. Vice President – Land & Legal & General Counsel

Date: 10/31/06

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 1-Dinwiddie 23 Federal
Operator's Name: Chesapeake Operating, Inc.
Location: 1400FNL, 660 FEL, Section 23, T-25-S, R-35-E
Lease: NM-101609

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) 234-5972 or (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

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

C. BOP tests

2. **Hydrogen Sulfide has been reported in Sections 8 and 9 at rates of 1500 ppm and 250 ppm. Monitoring equipment should be onsite prior to drilling into the Morrow formation with appropriate drilling plans available should H2S be encountered.**

3 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.

4. 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.

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

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. 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 **850 feet (LEA COUNTY ALTERNATIVE)**, below usable water 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.

Fresh water mud to be used to the Rustler Anhydrite approximately 1130 feet.

Possible lost circulation in the Yates formation and the Capitan Reef.

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

3. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall extend upward a minimum of 500 feet into the intermediate casing. Class H cement below 8000 feet.**

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. **Test pressure to be held for at least 10 minutes per Onshore Order 2.III.A.2.i.ii.**

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be **3M** psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **9-5/8** inch casing shall be **10M (based on mud weight of 13.5 ppg and depth)** psi.

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 must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

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:

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

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

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

Form C-103
May 27, 2004

WELL API NO. 30-025-38242
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Dinwiddie 23 Federal

1. Type of Well: Oil Well ☐ Gas Well ☒ Other
8. Well Number 1
2. Name of Operator: Chesapeake Operating, Inc.
9. OGRID Number 147179
3. Address of Operator: 2010 Rankin Hwy. Midland, TX 79701
10. Pool name or Wildcat: Wildcat

4. Well Location
Unit Letter H : 1400 feet from the North line and 660 feet from the East line
Section 23 Township 25S Range 35E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3128 GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type _____ **Depth to Groundwater** 230 **Distance from nearest fresh water well** 1000 **Distance from nearest surface water** 1000

Pit Liner Thickness: 12 **mil** **Below-Grade Tank: Volume** 12129 **bbls; Construction Material** Synthetic

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: Build Pit. ☒		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 request permission to build a drilling pit per the attached diagram for this well. Chesapeake will follow all OCD guidelines.

depth to groundwater ? 160'

Use a C-144 or C103 w/pit info. on it. CW

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 11/28/2006

Type or print name Brenda Coffman E-mail address: bcoffman@chkenergy.com Telephone No. (432)687-2992

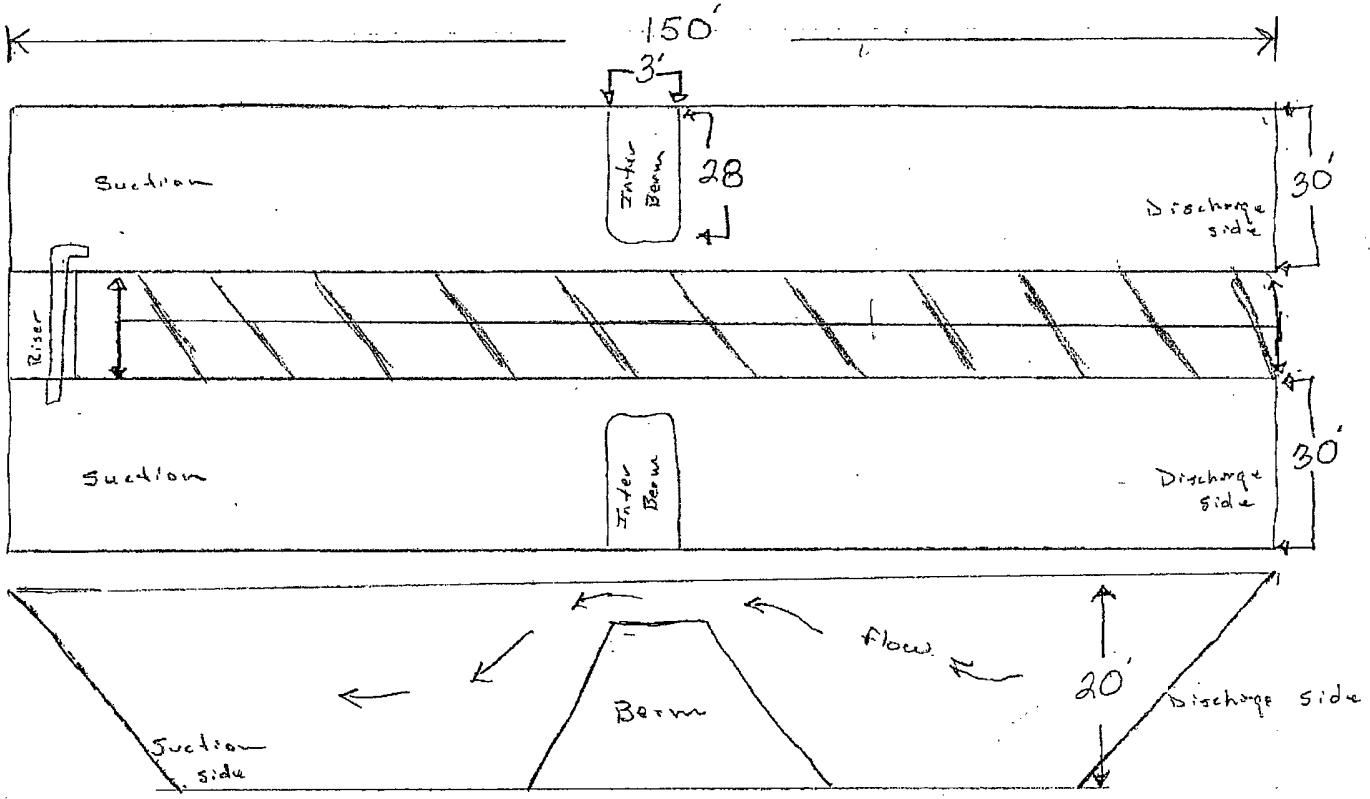
For State Use Only

APPROVED BY: Chris Williams OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE _____

Conditions of Approval (if any):

JAN 0 8 2007

Chesapeake Energy Double Pit Guideline 3A



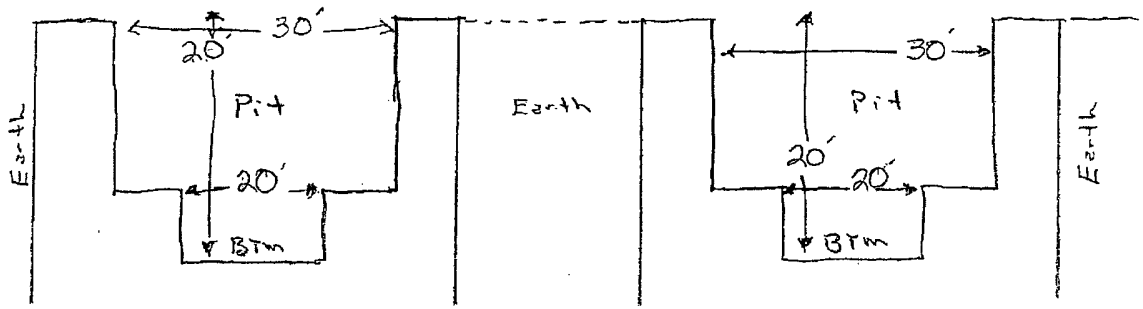
12 mm plastic over all

Top View

Side View

18' x 30' x 140' = 75600 ft³ ÷ 5.6146 = 13464.8 bbls x 2 = 26929.7 bbls, with 18' of fluid & cuttings in pits.

20' x 30 x 140 = 90000 ft³ ÷ 56146 = 16029.6 bbls x 2 = 32059.2 bbls with 20'



End cross section