HTS08-166
EA-08-243

OCD-ARTESIA

Form 3160-3
(August 2007)

JAN 03 2008

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0136
Expires July 31, 2010

EC

Split Estate

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work: ☒ DRILL ☐ REENTER — CONFIDENTIAL	5. Lease Serial No. NMNM111533
	6. If Indian, Allottee or Tribe Name
	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. DIAMOND 31 FEDERAL 2H 36925
2. Name of Operator CHESAPEAKE OPERATING, INC. Contact: LINDA GOOD E-Mail: lgood@chkenergy.com 147179	9. API Well No. 30-015-36022
3a. Address P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496 / 3b. Phone No. (include area code) Ph: 405-767-4275 Fx: 405-753-5469	10. Field and Pool, or Exploratory WILLOW LAKE DELAWARE OIL
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NWSE 1722FSL 1542FEL At proposed prod. zone NESW 1650FSL 1650FWL Carlsbad Controlled Water Basin	11. Sec., T., R., M., or Blk. and Survey or Area Sec 31 T24S R29E Mer NMP
14. Distance in miles and direction from nearest town or post office* 4 MILES SE OF MALAGA, NM	12. County or Parish EDDY / 13. State NM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) / 16. No. of Acres in Lease 360.00	17. Spacing Unit dedicated to this well 80.00
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. / 19. Proposed Depth 6600 MD 5077 TVD 6991 MD	20. BLM/BIA Bond No. on file NM #2634
21. Elevations (Show whether DF, KB, RT, GL, etc. 2938 GL / 22. Approximate date work will start / 23. Estimated duration	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, 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) LINDA GOOD Ph: 405-767-4275	Date 11/12/2007
Title FEDERAL REGULATORY ANALYST		
Approved by (Signature) /s/ James A. Amos	Name (Printed/Typed) /s/ James A. Amos	Date DEC 28 2007
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

-NSL-

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 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.

Additional Operator Remarks (see next page)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Electronic Submission #57109 verified by the BLM Well Information System
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Bureau of Land Management
Received
NOV 13 2007
Carlsbad Field Office
Carlsbad, N.M.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Additional Operator Remarks:

CHESAPEAKE OPERATING, INC. RESPECTFULLY REQUESTS PERMISSION TO DRILL A WELL TO 6600' TO TEST THE DELAWARE FORMATION. IF PRODUCTIVE, CASING WILL BE RUN AND THE WELL COMPLETED. IF DRY, THE WELL WILL BE PLUGGED AND AVANDONED 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.

CHESAPEAKE OPERATING, INC. HAS AN AGREEMENT WITH THE GRAZING LESSEE.

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.

(CHK PN 616912)

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
	64453	Willow Lake; Delaware

Property Code	Property Name	Well Number
	DIAMOND 31 FEDERAL	2H

OGRID No.	Operator Name	Elevation
147179	CHESAPEAKE OPERATING, INC.	2908'

Surface Location

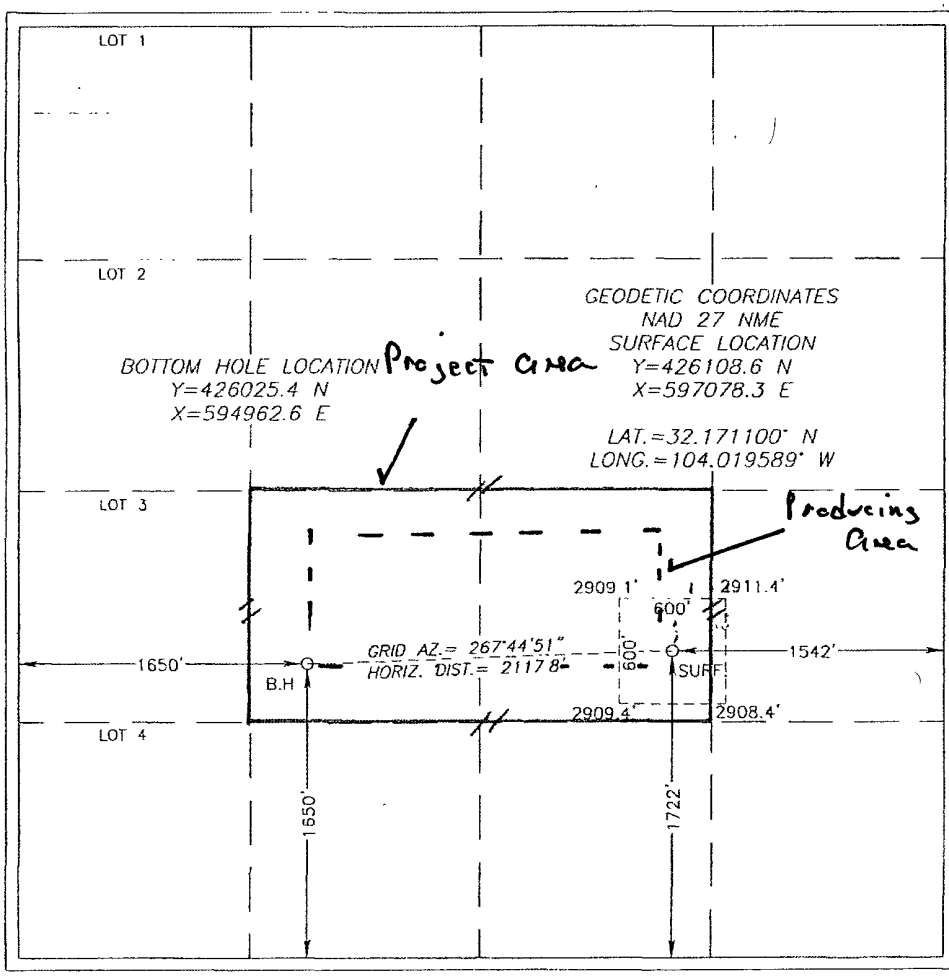
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	31	24-S	29-E		1722	SOUTH	1542	EAST	EDDY

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
K	31	24-S	29-E		1650	SOUTH	1650	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

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.

Craig Bannard 8/14/07
Signature Date

CRAIG BANNARD
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.

GARY G. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
12641

JULY 26, 2007
Date Surveyed AR

Signature & Seal of Professional Surveyor

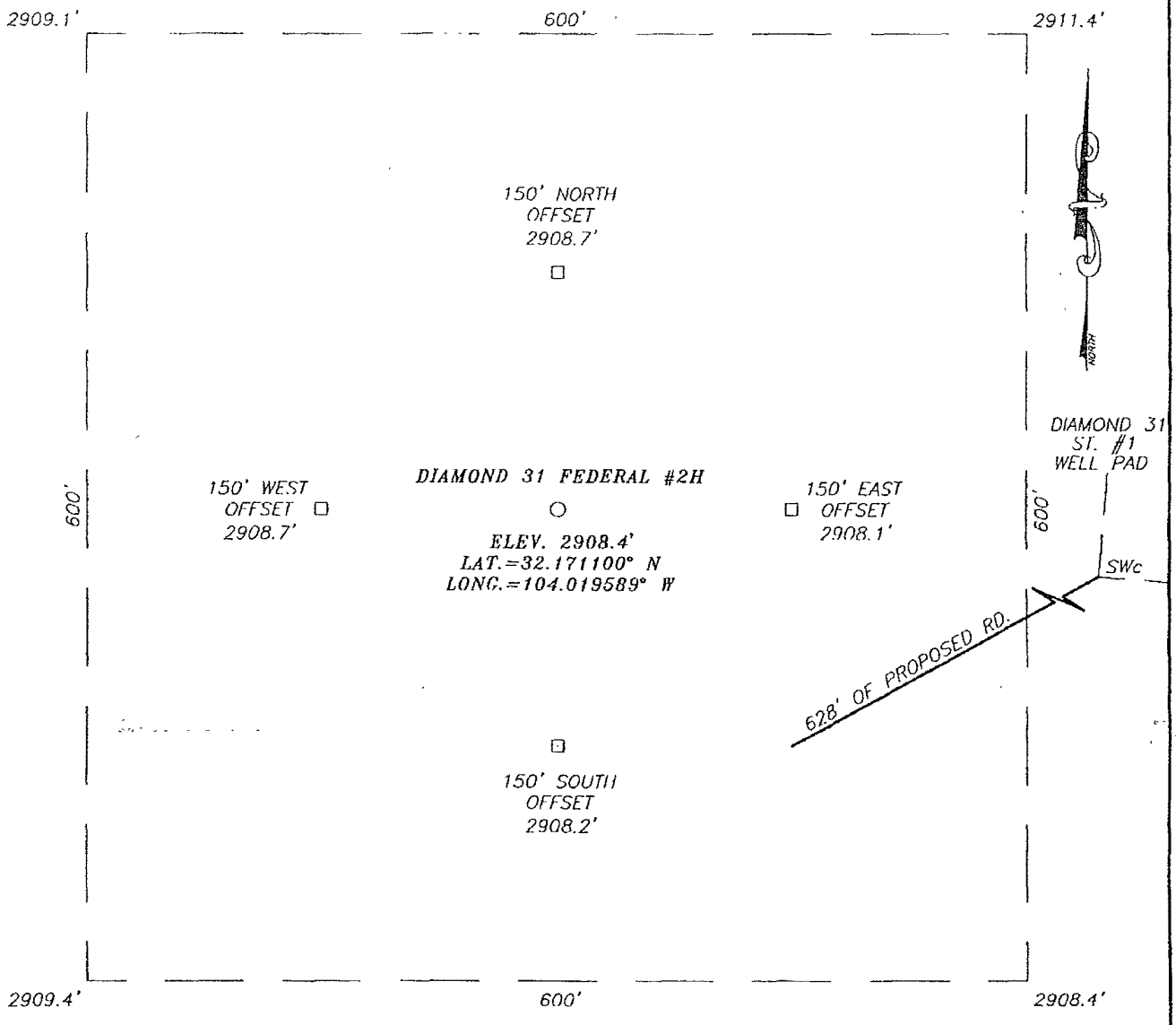
8/8/07

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT A-1

SECTION 31, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #746 (MCDONALD RD.) AND CO. RD. #721 (PULLY RD.), GO EAST ON CO. RD #746 APPROX. 1.7 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.5 MILES. ROAD CONTINUES EAST APPROX. 0.2 MILES. TURN LEFT AND GO SOUTH APPROX. 0.2 MILES. VEER RIGHT AND GO SOUTHWEST APPROX. 0.5 MILES. TURN LEFT AND GO SOUTH APPROX. 0.1 MILE. TURN LEFT AND GO EAST APPROX. 0.5 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.2 MILES TURN LEFT AND GO SOUTHEAST APPROX. 0.2 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.3 MILES. TURN RIGHT AND GO WEST APPROX. 0.1 MILE. VEER LEFT AND GO SOUTHWEST APPROX. 0.5 MILES TO DIAMOND 31 ST. #1 WELL PAD AND A PROPOSED ROAD SURVEY. FROM THE SOUTHWEST CORNER OF THIS WELL PAD, FOLLOW ROAD SURVLY SOUTHWEST APPROX. 700 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

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

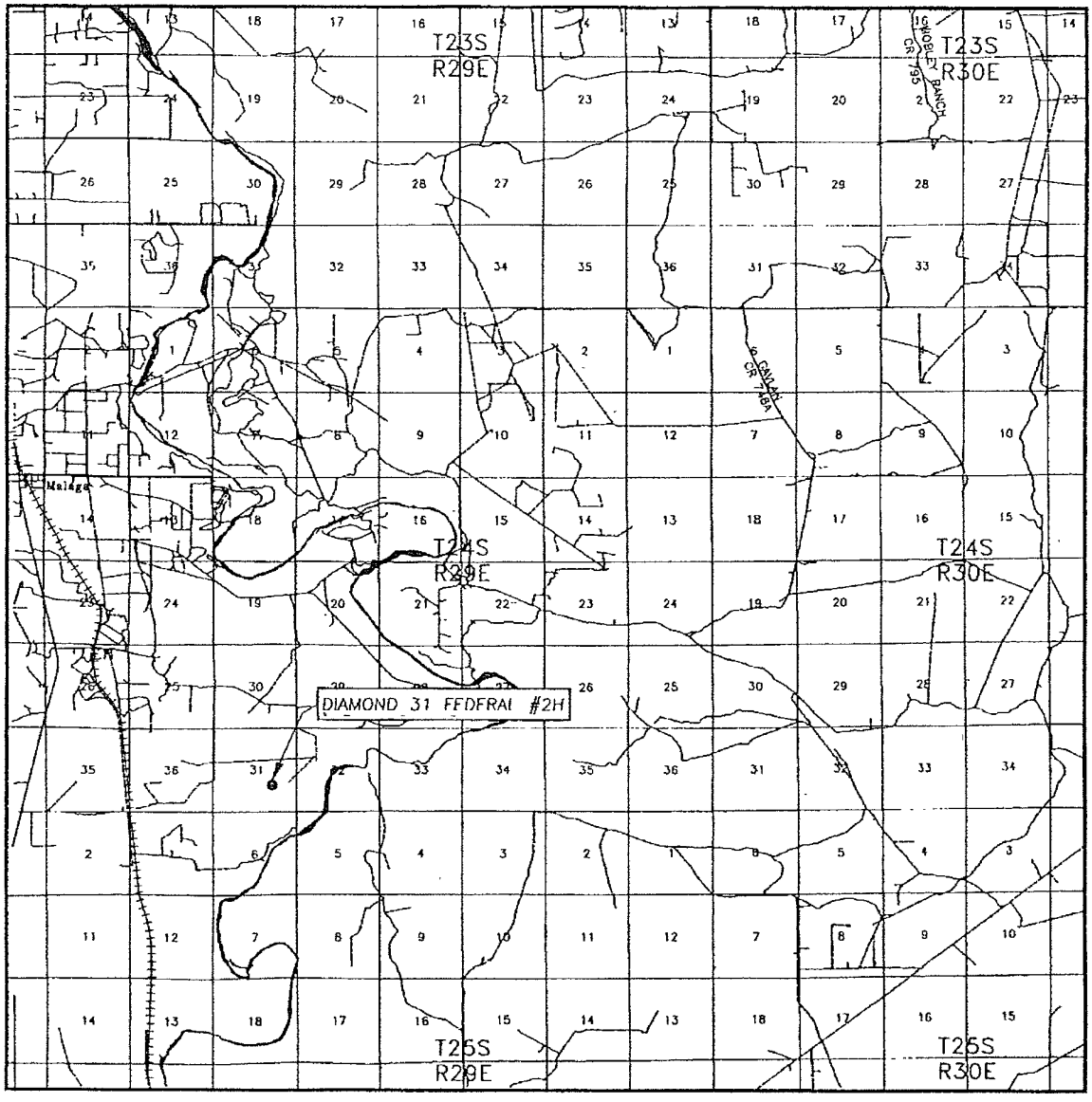
CHESAPEAKE OPERATING, INC.

DIAMOND 31 FEDERAL #2H WELL
LOCATED 1722 FEET FROM THE SOUTH LINE
AND 1542 FEET FROM THE EAST LINE OF SECTION 31,
TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 7/26/17	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.0930	Dr By: AR		Rev 1: N/A
Date: 7/31/07	Disk:	07110930	Scale: 1"=100'

EXHIBIT A-2

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 31 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1722' FSL & 1542' FEL

ELEVATION 2908'

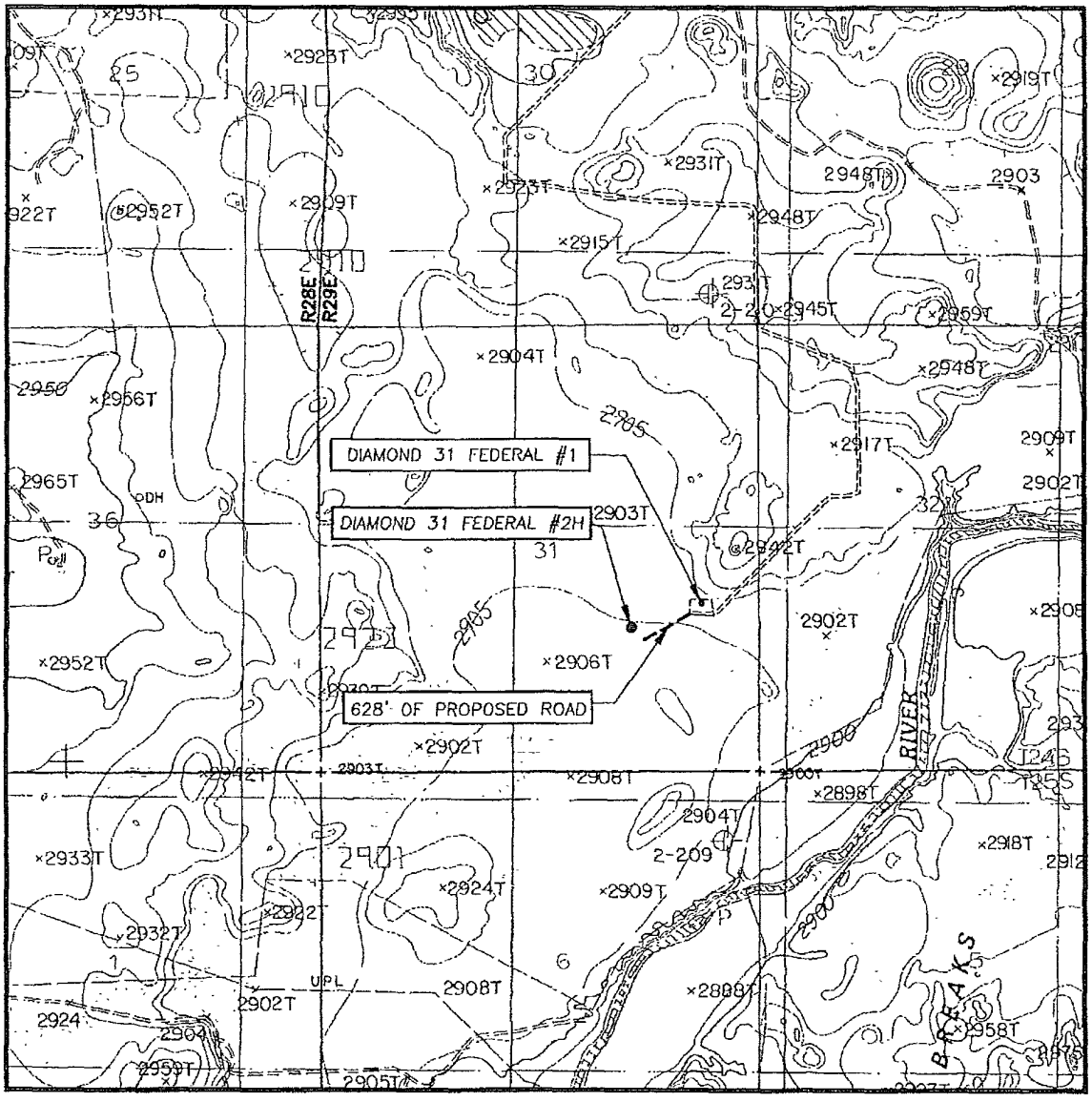
OPERATOR CHESAPEAKE OPERATING, INC.

LEASE DIAMOND 31 FEDERAL

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

EXHIBIT A-3

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MALAGA, N.M. – 10'
SUPPLEMENTAL – 5'

SEC. 31 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1722' FSL & 1542' FEL

ELEVATION 2908'

OPERATOR CHESAPEAKE OPERATING, INC.

LEASE DIAMOND 31 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
MALAGA, N.M.

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

EXHIBIT A-4

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	Subsea	Depth
BASE OF SALT	161'	2,751'
*BELL CANYON	100'	2,813'
MANZANITA MARKER	-870'	3,782'
KOP		
**WILLOW LAKE HORIZ. TOP	-2,147'	5,059'
**WILLOW LAKE HORIZONTAL TARGET LINE	-2,167'	5,079'
** WILLOW LAKE HORIZ. BASE	-2,187'	5,099'
**Potentially productive zones		
PILOT HOLE	TD (MD)	5,350'

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	Bell Canyon	2813'
Oil/Gas	Cherry Canyon	3682'

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

3. BOP EQUIPMENT:

Will have a 3000 psi simplified rental stack (see proposed schematic) for drill out below surface casing; this system will be tested to 2000 psi working pressure.

Will have a 5000 psi rig stack (see proposed schematic) for drill out below intermediate casing; this system will be tested to 3000 psi working pressure.

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

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

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
7. the rated working pressure.
8. A record of all pressures will be made on a pressure-recording chart.

D. Test Duration

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.

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
7. the rated working pressure.
8. 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

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	0-650'	17.5"	13.375"	48.0	H-40	STC	New
Intermediate	0-2750'	11.0"	8.625"	32.0	J-55	STC	New
Production	0-6991'	7.875"	5.5"	17.0	N-80	LTC	New

b. Casing design subject to revision based on geologic conditions encountered.
c. Casing Safety Factors:
13-3/8" Surface Casing: SFb = 1.44, SFc = 2.43 and SFt = 2.11
8-5/8" Intermediate Casing: SFb = 1.34, SFc = 2.40 and SFt = 2.15
5-1/2" Production Casing: SFb = 1.94, SFc = 1.86 and SFt = 2.66

d. The cementing program will be as follows:

Interval	Type	Amount	Yield	Washout	Excess
0' – 650'	35:65 Poz:C	351	2.10 1.34	0	100
	Class C (450' – sect TD)	204		0	70
0' – 2750'	35:65 Poz:C	519	2.10 1.34	0	75
	Class C (2150' – sect TD)	192		0	50
2350' – 6991'	TXI LW (2350' – sect TD)	774	1.26	0	20

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' – 650'	water	8.4 – 9.2	28 - 32	NC
650' – 2750'	brine	9.9 – 10.1	30 – 32	NC
2750' – 6991'	water base	8.6 – 9.3	28 - 36	5 - 10

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 in an approved sanitary landfill.

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:

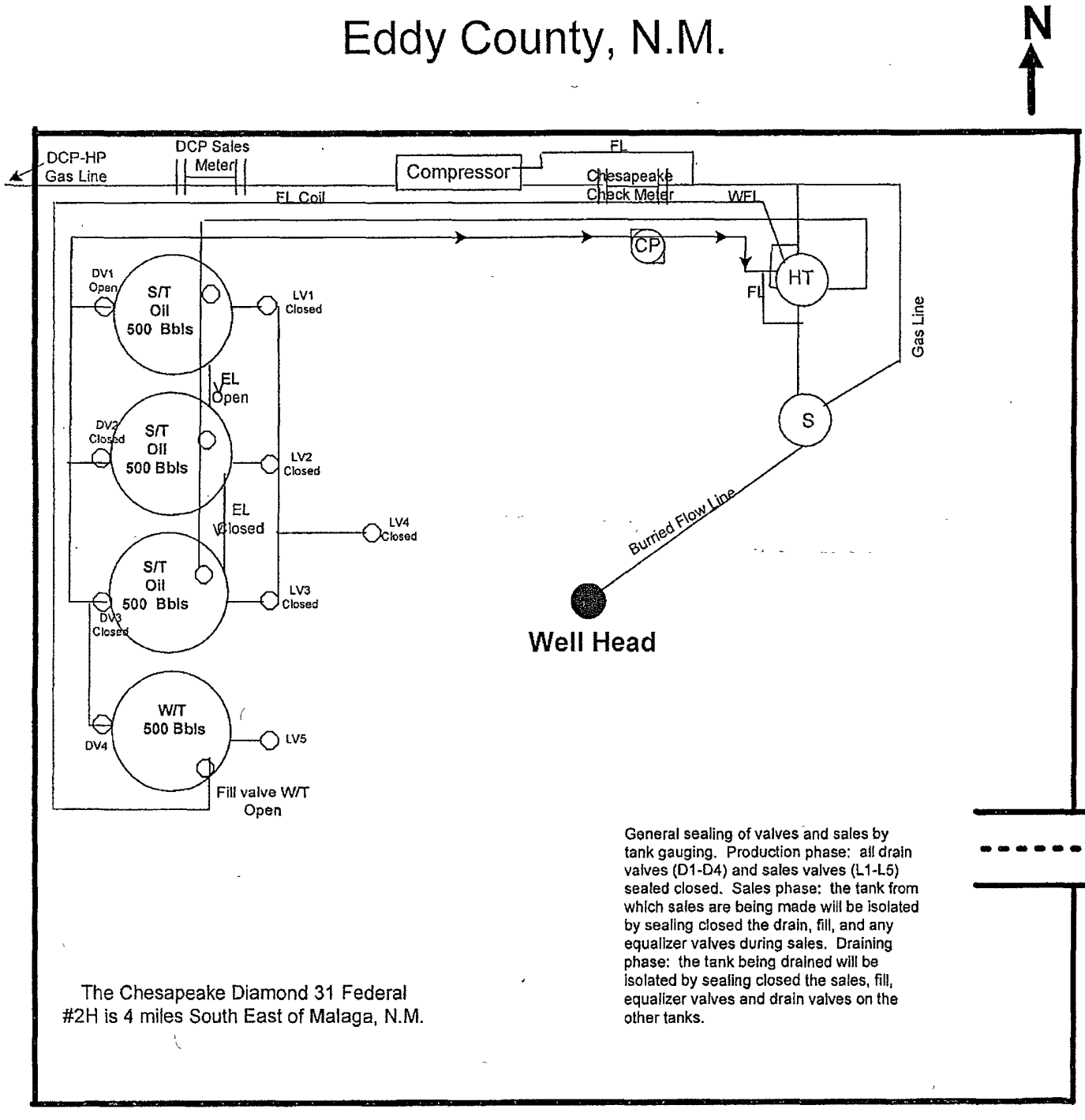
a. Drill stem tests are not planned.
b. The logging program will consist of Natural GR, Density-Neutron, PE & Dual Laterolog from TD to surface casing; Neutron-GR surface casing to surface.
c. Cores samples are not planned.

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. The estimated bottom hole pressure is 2408 psi (0.45 psi/ft @ 5,350' tvd. No abnormal pressures or temperatures are anticipated.
b. Hydrogen sulfide gas is not anticipated

CHESAPEAKE OPERATING, INC.

Diamond 31 Federal #2H
1722'S & 1542'E of Sec. 31-24-29
Eddy County, N.M.



DIAMOND 31 Federal #2H

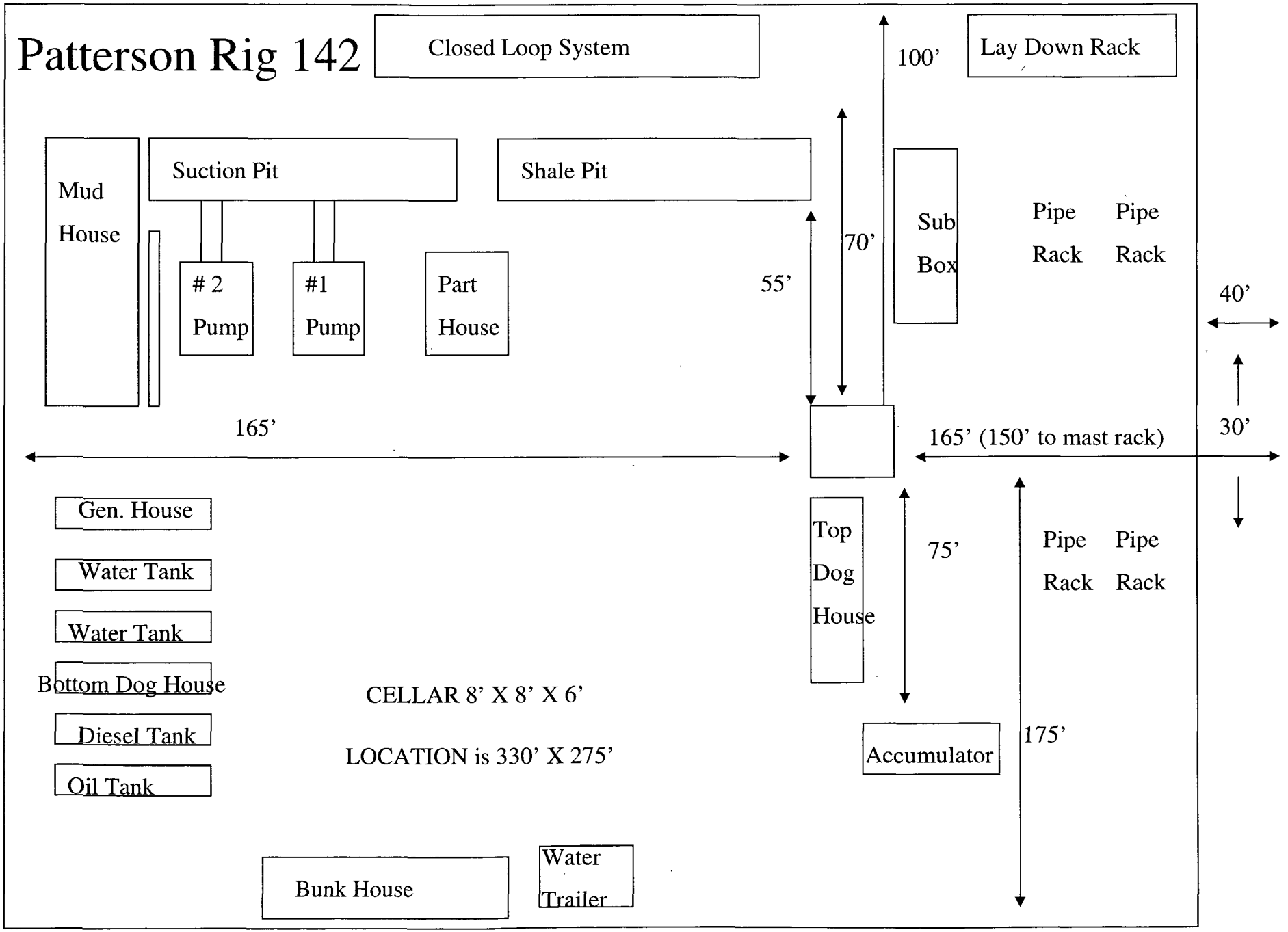
Direction of Flow off Site: N

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

Prepared by: DEBBIE HERNANDEZ
Date: 8-23-2007

Approved by:
Date:

EXHIBIT A-1


Patterson Rig 142
Closed Loop System
100'
Lay Down Rack
Mud House
Suction Pit
Shale Pit
2 Pump
#1 Pump
Part House
55'
70'
Sub Box
Pipe Rack
Pipe Rack
40'
30'
165'
165' (150' to mast rack)
Gen. House
Water Tank
Water Tank
Bottom Dog House
Diesel Tank
Oil Tank
Top Dog House
75'
Pipe Rack
Pipe Rack
CELLAR 8' X 8' X 6'
LOCATION is 330' X 275'
Accumulator
175'
Bunk House
Water Trailer

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

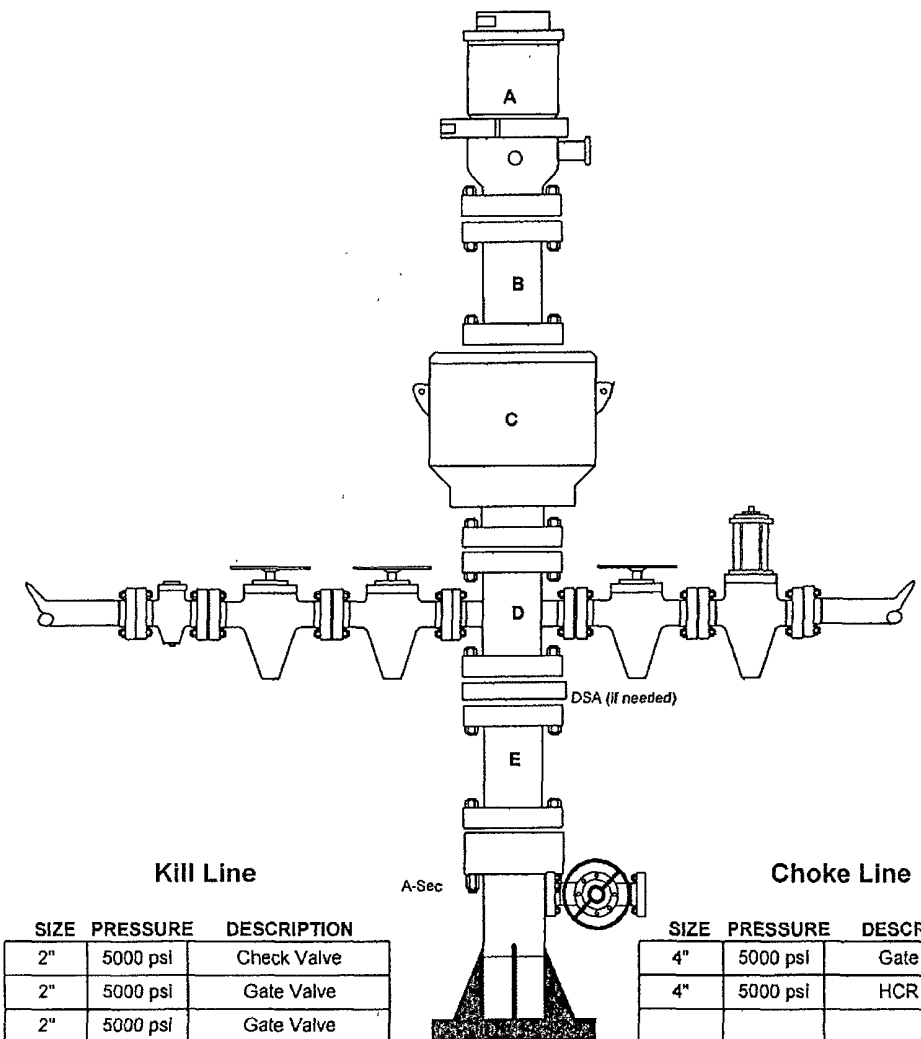
WELL : Diamond 31 Federal 2H

RIG : Patterson 142

COUNTY : Eddy STATE: New Mexico

OPERATION: Drill out below 13-3/8" Casing (11" hole size)

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	500 psi	Rot Head
B	13-5/8"	3000 psi	Spacer Spool
C	13-5/8"	3000 psi	Annular
D	13-5/8"	3000 psi	Mud Cross
E	13-5/8"	3000 psi	Spacer Spool
DSA	13-5/8" 3M x 13-5/8" 3M (if needed)		
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

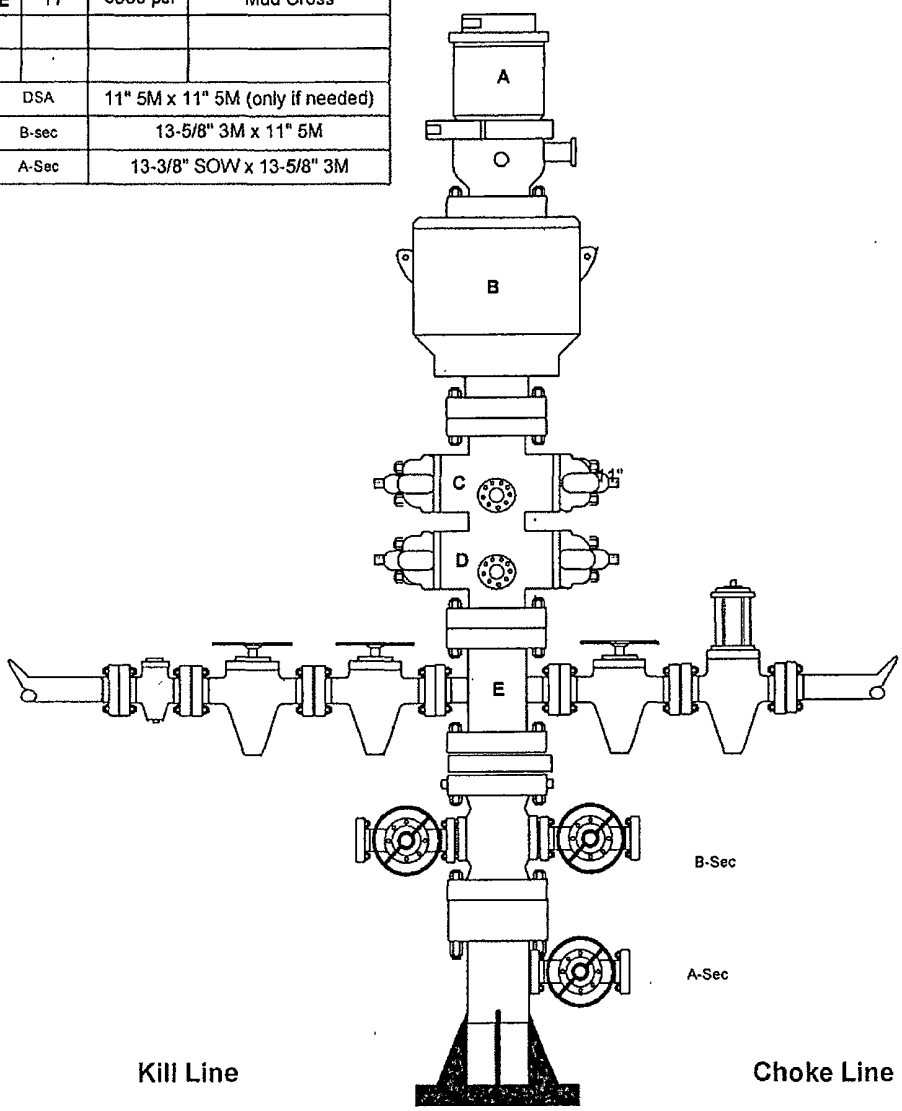
WELL : Diamond 31 Federal 2H

RIG : Patterson 142

COUNTY : Eddy **STATE:** New Mexico

OPERATION: Drill out below 8-5/8" Casing (7-7/8" hole size)

	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		11" 5M x 11" 5M (only if needed)	
B-sec		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

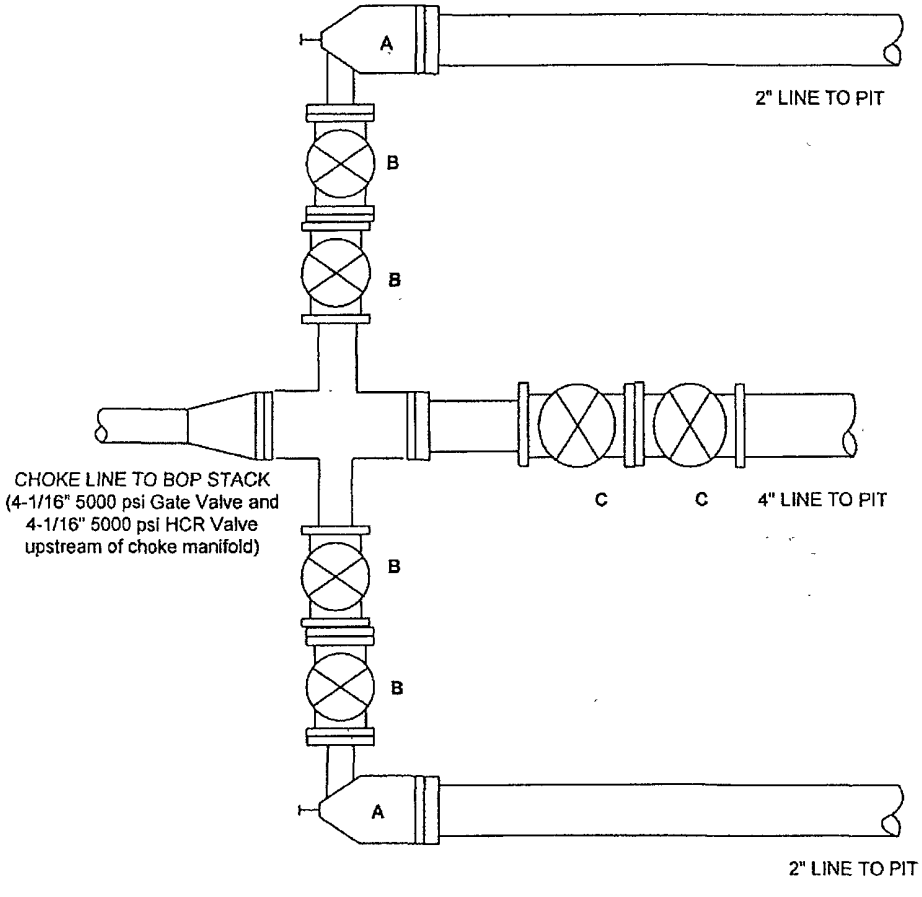
SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

EXHIBIT F-2

CHOKE MANIFOLD SCHEMATIC

CHESAPEAKE OPERATING, INC.

WELL : Diamond 31 Federal 2H
RIG : Patterson #142
COUNTY : Eddy STATE : New Mexico
OPERATION: Drilling below/beyond 13-3/8" surface casing



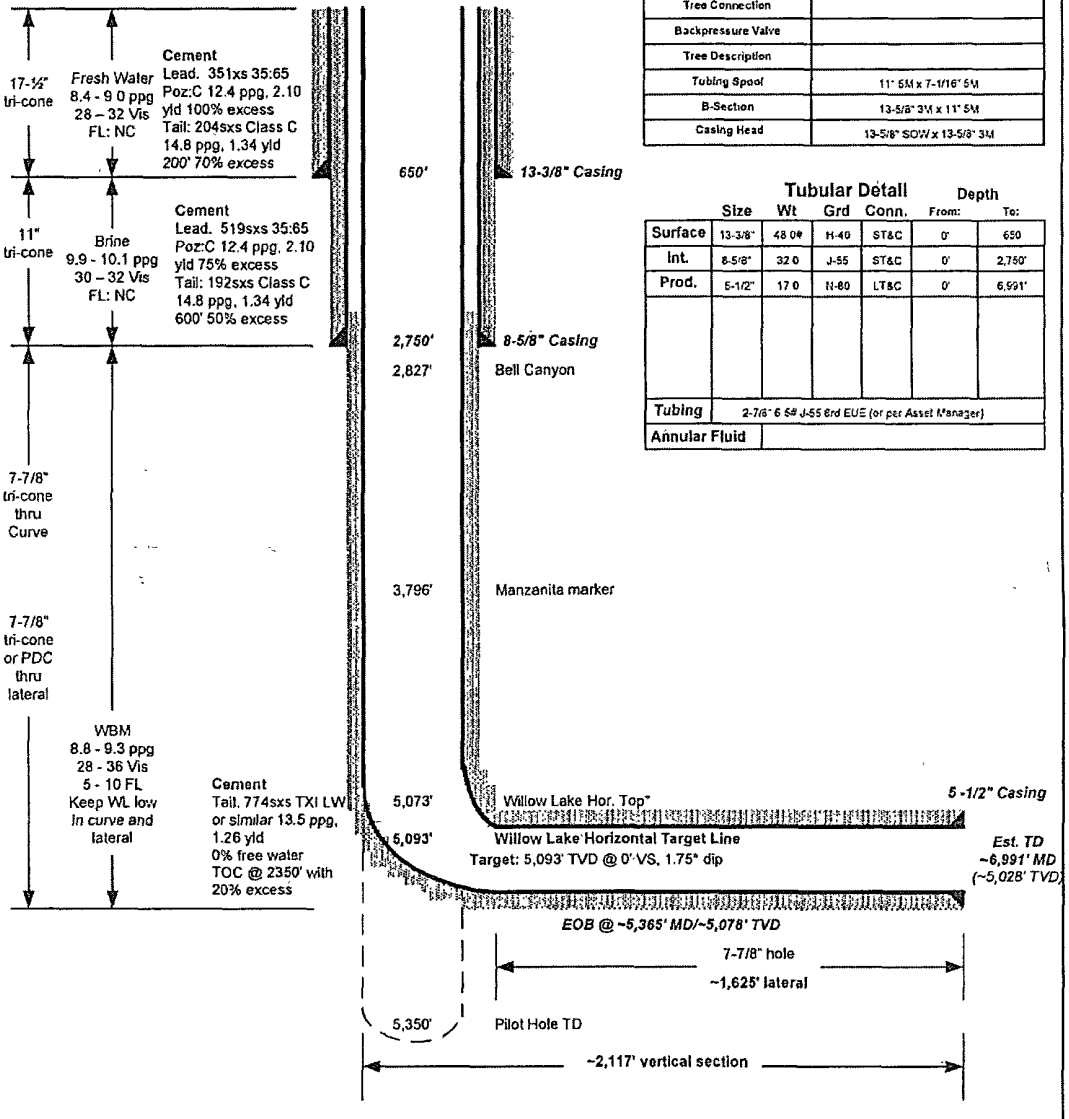
	SIZE	PRESSURE	DESCRIPTION
A	2-1/16"	5000 psi	Manual Choke
B	2-1/16"	5000 psi	Gate Valve
C	4-1/16"	5000 psi	Gate Valve

EXHIBIT F-3

Chesapeake Operating Inc	Proposed Well Schematic (drilling)

Well : **Diamond 31 Federal 2H**
Field : **SE Eddy – Willow Lake Prospect**
County : **Eddy** **State** : **NM**
Surf Loc. : **Section 31-24S-29E, 1,722' FSL & 1,542' FEL**
BH Loc. : **Section 31-24S-29E, 1,650' FSL & 1,650' FWL**
KB Elev : **2,926'** **Grd Elev** : **2,908'**

Chesapeake ENERGY



Wellhead Equipment

Tree Connection	
Backpressure Valve	
Tree Description	
Tubing Spool	11" 5M x 7-1/16" 5M
B-Section	13-5/8" 3M x 11" 5M
Casing Head	13-5/8" SOW x 13-5/8" 3M

Tubular Detail

	Size	Wt	Grd	Conn.	Depth From:	Depth To:
Surface	13-3/8"	48.0#	H-40	ST&C	0'	650'
Int.	8-5/8"	32.0	J-55	ST&C	0'	2,750'
Prod.	5-1/2"	17.0	N-80	LT&C	0'	6,991'
Tubing	2-7/8" 6.5# J-55 8rd EUE (or per Asset Manager)					
Annular Fluid						

Note: ***All Depths are TVD unless otherwise indicated***

Drawn by:	Date:		Revised by:	Date:
YHC	11/02/07		-	-

Permian District

NM - Eddy - Morrow Project
Diamond 31 Federal #2H
Well #1
Wellbore #1

Plan: Plan #1

Standard Planning Report

17 December, 2007

Database:	Drilling Database	**Local Co-ordinate Reference:**	Well Well #1
Company:	Permian District	**TVD Reference:**	WELL @ 0 0ft (Original Well Elev)
Project:	NM - Eddy - Morrow Project	**MD Reference:**	WELL @ 0 0ft (Original Well Elev)
Site:	Diamond 31 Federal #2H	**North Reference:**	True
Well:	Well #1	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project NM - Eddy - Morrow Project

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Diamond 31 Federal #2H

Site Position:		**Northing:**	m	**Latitude:**	
From:	None	**Easting:**	m	**Longitude:**	
Position Uncertainty:	ft	**Slot Radius:**	in	**Grid Convergence:**	0.00 °

Well Well #1

Well Position	**+N/-S**	0.0 ft	**Northing:**	0 00 m	**Latitude:**	30° 59' 24 512 N
	+E/-W	0.0 ft	**Easting:**	0 00 m	**Longitude:**	105° 55' 44.137 W
Position Uncertainty		ft	**Wellhead Elevation:**	ft	**Ground Level:**	0 0 ft

Wellbore Wellbore #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	User Defined	11/2/2007	0.00	0 00	0

Design Plan #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0 0
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.0	0 0	0 0	267 75	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 00	0 00	0 00	
4,600 4	0.00	0.00	4,600 4	0 0	0 0	0.00	0.00	0 00	0 00	
5,365 0	91 75	267.75	5,077 7	-19.3	-491.7	12 00	12 00	0 00	267 75	
6,991 0	91 75	267 75	5,028 0	-83.1	-2,115 7	0.00	0 00	0 00	0 00	

Database:	Drilling Database	**Local Co-ordinate Reference:**	Well Well #1
Company:	Permian District	**TVD Reference:**	WELL @ 0 0ft (Original Well Elev)
Project:	NM - Eddy - Morrow Project	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Diamond 31 Federal #2H	**North Reference:**	True
Well:	Well #1	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0 0	0 00	0.00	0.0	0 0	0 0	0 0	0.00	0 00	0.00
100 0	0 00	0.00	100 0	0.0	0 0	0.0	0 00	0 00	0 00
200 0	0.00	0 00	200 0	0 0	0 0	0 0	0 00	0 00	0 00
300 0	0 00	0 00	300 0	0.0	0 0	0 0	0.00	0 00	0 00
400.0	0.00	0.00	400 0	0.0	0.0	0.0	0.00	0 00	0.00
500.0	0 00	0.00	500.0	0 0	0.0	0 0	0 00	0 00	0.00
600.0	0.00	0 00	600 0	0.0	0 0	0.0	0.00	0.00	0 00
700 0	0 00	0 00	700 0	0.0	0 0	0.0	0 00	0 00	0 00
800 0	0 00	0.00	800 0	0 0	0.0	0 0	0.00	0.00	0 00
900 0	0 00	0 00	900 0	0 0	0 0	0 0	0.00	0 00	0 00
1,000 0	0 00	0.00	1,000 0	0 0	0.0	0 0	0.00	0 00	0 00
1,100 0	0 00	0 00	1,100 0	0 0	0.0	0 0	0.00	0 00	0 00
1,200 0	0 00	0 00	1,200.0	0 0	0 0	0 0	0 00	0 00	0 00
1,300 0	0 00	0.00	1,300.0	0 0	0 0	0.0	0 00	0 00	0.00
1,400 0	0 00	0.00	1,400 0	0 0	0 0	0.0	0 00	0 00	0.00
1,500 0	0 00	0 00	1,500 0	0 0	0 0	0.0	0 00	0 00	0 00
1,600 0	0 00	0 00	1,600 0	0 0	0 0	0.0	0.00	0 00	0.00
1,700 0	0 00	0 00	1,700 0	0 0	0.0	0 0	0 00	0 00	0.00
1,800 0	0 00	0 00	1,800.0	0 0	0 0	0.0	0 00	0.00	0 00
1,900 0	0 00	0 00	1,900 0	0 0	0 0	0 0	0 00	0 00	0 00
2,000 0	0 00	0 00	2,000 0	0 0	0 0	0 0	0 00	0 00	0 00
2,100 0	0.00	0 00	2,100 0	0 0	0 0	0 0	0 00	0.00	0 00
2,200 0	0 00	0 00	2,200 0	0 0	0 0	0.0	0 00	0 00	0 00
2,300 0	0 00	0 00	2,300.0	0 0	0 0	0.0	0 00	0 00	0 00
2,400 0	0.00	0 00	2,400 0	0 0	0 0	0.0	0 00	0 00	0 00
2,500.0	0 00	0.00	2,500 0	0 0	0 0	0 0	0 00	0 00	0 00
2,600 0	0 00	0.00	2,600.0	0 0	0 0	0 0	0 00	0 00	0 00
2,700 0	0 00	0 00	2,700 0	0 0	0 0	0 0	0 00	0 00	0 00
2,800.0	0 00	0.00	2,800.0	0 0	0 0	0.0	0.00	0 00	0 00
2,900 0	0 00	0 00	2,900 0	0 0	0 0	0 0	0 00	0.00	0 00
3,000.0	0 00	0 00	3,000 0	0 0	0 0	0 0	0.00	0.00	0 00
3,100 0	0.00	0 00	3,100 0	0 0	0 0	0.0	0.00	0 00	0 00
3,200 0	0 00	0 00	3,200 0	0 0	0 0	0 0	0.00	0 00	0.00
3,300.0	0.00	0 00	3,300.0	0 0	0 0	0.0	0 00	0 00	0 00
3,400 0	0 00	0 00	3,400 0	0 0	0 0	0.0	0 00	0 00	0 00
3,500 0	0.00	0 00	3,500 0	0 0	0 0	0 0	0 00	0 00	0 00
3,600.0	0.00	0 00	3,600.0	0 0	0 0	0 0	0 00	0 00	0 00
3,700 0	0.00	0 00	3,700.0	0 0	0 0	0 0	0 00	0 00	0 00
3,800 0	0.00	0 00	3,800 0	0.0	0.0	0 0	0 00	0.00	0 00
3,900 0	0.00	0 00	3,900.0	0 0	0.0	0 0	0 00	0 00	0 00
4,000 0	0.00	0.00	4,000.0	0 0	0.0	0 0	0.00	0.00	0 00
4,100 0	0.00	0.00	4,100 0	0 0	0 0	0 0	0 00	0 00	0 00
4,200 0	0 00	0.00	4,200 0	0.0	0 0	0 0	0.00	0 00	0 00
4,300 0	0.00	0 00	4,300 0	0.0	0.0	0.0	0 00	0.00	0 00
4,400.0	0 00	0 00	4,400 0	0 0	0.0	0 0	0.00	0 00	0 00
4,500.0	0 00	0.00	4,500 0	0 0	0.0	0.0	0.00	0 00	0 00
4,600 0	0 00	0.00	4,600 0	0 0	0 0	0.0	0.00	0 00	0 00
4,600 4	0 00	0 00	4,600.4	0 0	0 0	0.0	0 00	0 00	0 00
4,700 0	11 95	267 75	4,699 3	-0 4	-10 3	10 4	12 00	12 00	0 00
4,800 0	23 95	267 75	4,794 2	-1 6	-41 1	41.1	12 00	12 00	0 00
4,900 0	35.95	267 75	4,880.7	-3 6	-90.9	91.0	12 00	12.00	0.00
5,000 0	47 95	267 75	4,955 0	-6 2	-157 6	157.7	12 00	12 00	0 00
5,100 0	59.95	267 75	5,013.7	-9 4	-238 2	238.4	12.00	12 00	0 00
5,200 0	71.95	267.75	5,054 4	-12.9	-329.3	329.5	12 00	12.00	0.00

Database:	Drilling Database	**Local Co-ordinate Reference:**	Well Well #1
Company:	Permian District	**TVD Reference:**	WELL @ 0 0ft (Original Well Elev)
Project:	NM - Eddy - Morrow Project	**MD Reference:**	WELL @ 0 0ft (Original Well Elev)
Site:	Diamond 31 Federal #2H	**North Reference:**	True
Well:	Well #1	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300 0	83.95	267 75	5,075 2	-16 8	-426 8	427.2	12 00	12 00	0 00
5,365 0	91.75	267.75	5,077 7	-19.3	-491 7	492 1	12 00	12 00	0 00
5,400 0	91.75	267.75	5,076 6	-20 7	-526 6	527 1	0 00	0.00	0 00
5,500 0	91.75	267 75	5,073 5	-24 6	-626 5	627 0	0.00	0 00	0.00
5,600 0	91 75	267.75	5,070 5	-28 5	-726 4	727 0	0 00	0.00	0.00
5,700.0	91.75	267 75	5,067 4	-32 5	-826 3	826 9	0 00	0 00	0.00
5,800 0	91 75	267 75	5,064.4	-36 4	-926 2	926 9	0.00	0.00	0.00
5,900 0	91.75	267.75	5,061 3	-40 3	-1,026 0	1,026.8	0 00	0 00	0.00
6,000 0	91.75	267.75	5,058.3	-44 2	-1,125 9	1,126 8	0 00	0 00	0 00
6,100 0	91 75	267 75	5,055 2	-48 2	-1,225.8	1,226.7	0 00	0 00	0 00
6,200 0	91.75	267 75	5,052 2	-52 1	-1,325 7	1,326.7	0.00	0 00	0.00
6,300 0	91 75	267 75	5,049 1	-56 0	-1,425 5	1,426 6	0.00	0.00	0 00
6,400 0	91 75	267.75	5,046 0	-59 9	-1,525 4	1,526.6	0.00	0 00	0 00
6,500 0	91 75	267 75	5,043.0	-63 9	-1,625 3	1,626.5	0 00	0 00	0 00
6,600 0	91 75	267 75	5,039 9	-67 8	-1,725 2	1,726 5	0.00	0 00	0 00
6,700 0	91 75	267.75	5,036 9	-71 7	-1,825.0	1,826 4	0 00	0 00	0 00
6,800 0	91 75	267 75	5,033 8	-75 6	-1,924 9	1,926 4	0 00	0 00	0 00
6,900.0	91 75	267 75	5,030 8	-79 6	-2,024 8	2,026 4	0 00	0.00	0 00
6,991 0	91 75	267 75	5,028 0	-83 1	-2,115 7	2,117 3	0.00	0 00	0 00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Section 31	0 00	0 00	0 0	-1,699.7	1,566 5	-524 87	470 00	30° 59' 7 692 N	105° 55' 26 145 W
- plan misses by 2311 5ft at 0 0ft MD (0 0 TVD, 0 0 N, 0 0 E)									
- Rectangle (sides W5,280 0 H5,280 0 D0 0)									

SITE DETAILS: Diamond 31 Federal #2H

Site: Diamond 31 Federal #2H
Design: Plan #1

Northing:
Easting:
Ground Level: 0.0
WELL @ 0.0ft (Original Well Elev)

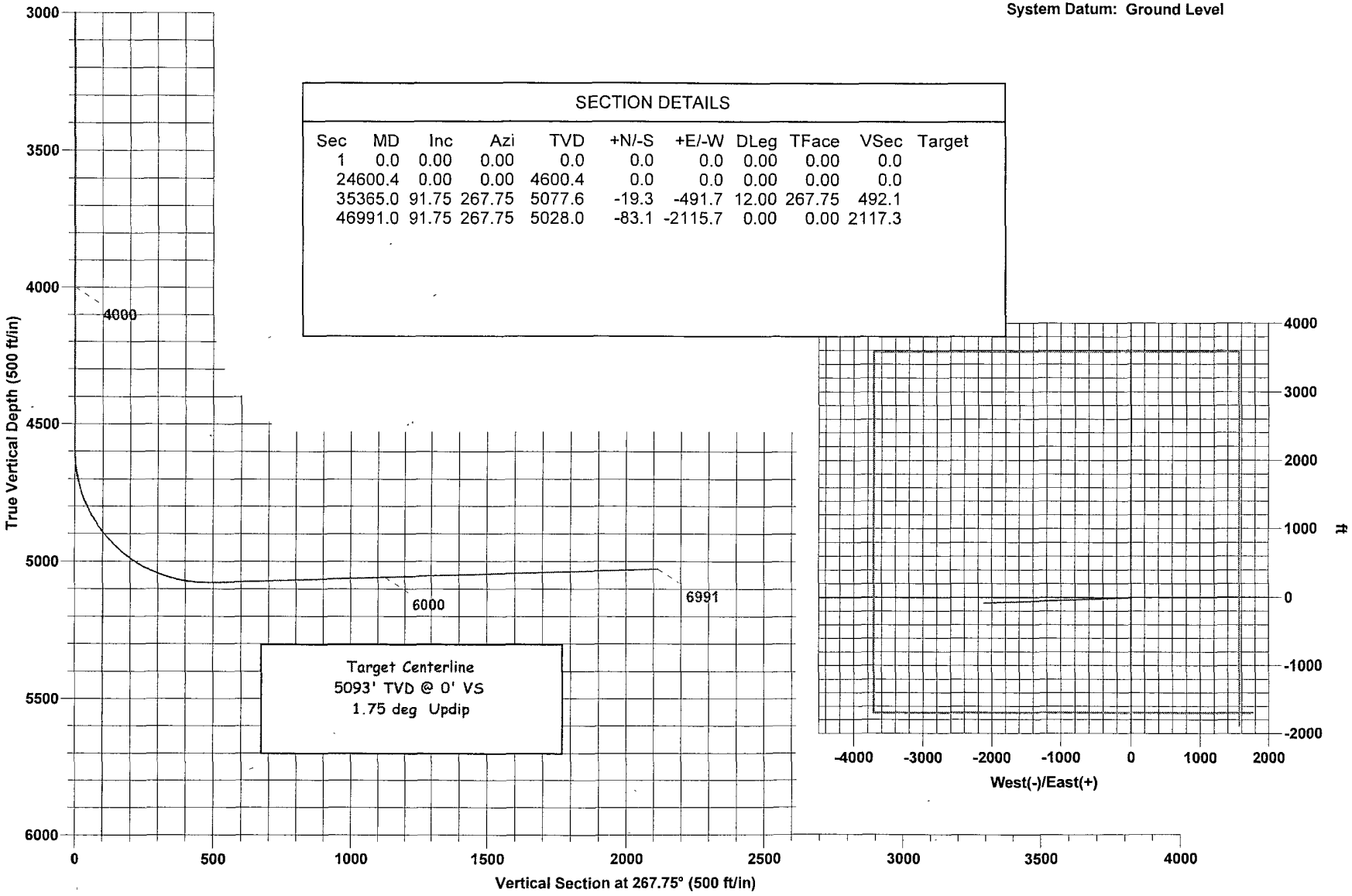
PROJECT DETAILS: NM - Eddy - Morrow Project

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Ground Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
24600.4	0.00	0.00	4600.4	0.0	0.0	0.00	0.00	0.0		
35365.0	91.75	267.75	5077.6	-19.3	-491.7	12.00	267.75	492.1		
46991.0	91.75	267.75	5028.0	-83.1	-2115.7	0.00	0.00	2117.3		



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 to A-4.

2. PLANNED ACCESS ROADS

a. A proposed access road 628' 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. No turnouts are expected.

b. In order to level the location, cut and fill will be required. Please see attached Well Location and Acreage Dedication Plat – Exhibits A-1 to A-4.

c. A locking gate will be installed at the site entrance.

d. Any fences cut will be repaired. Cattle guards will be installed, if needed.

e. 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.

f. Driving directions are from the intersection of Co: Rd. #746 (McDonald Rd) and Co. Rd #721 (Pully Rd) go East on Co. Rd #746 approx. 1.7 miles. Turn right and go South approx. 0.5 miles Road continues East approx. 0.2 miles. Turn left and go South approx 0.2 miles. Veer right and go Southwest approx. 0.5 miles. Turn left and go South approx. 0.1 miles. Turn left an go East approx. 0.5 miles. Turn right and go South approx. 0.2 miles. Turn left and go Southeast approx. 0.2 miles. Turn right and go South approx. 0.3 miles. Turn right and go West approx. 0.1 miles. Veer left and go Southwest approx. 0.5 miles to Diamond 31 St. #1 well pad and proposed road survey. From the Southwest corner of this well pad, follow road survey Southwest approx. 700 ft 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. Chesapeake plans to have DCP lay pipe to the well pad. – 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 31-24S-29E. All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

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 in an approved sanitary landfill.

8. ANCILLARY FACILITIES

None

9. WELLSITE LAYOUT

The proposed Patterson Rig #142 site layout plat is attached showing rig orientation and equipment location. - See Exhibit D. Also see Exhibit A-2 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 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 OWNERSHIP

State of New Mexico

GRAZING LESSEE
Jerry Ballard
P. O. Box 60
Malaga, NM 88263
(Chesapeake Operating, Inc. has an agreement with the grazing lessee)

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
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Oklahoma City, OK 73154
(405) 767-4056 (OFFICE)
(405) 767-4225 (FAX)
(405) 388-9002 (MOBILE)
rpatterson@chkenergy.com

Field Representative
Curtis Griffin
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Hobbs, NM
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505-391-6679 (FAX)
cgriffin@chkenergy.com

Assett Manager
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405-879-7930 (FAX)
jfinnell@chkenergy.com

Regulatory Compliance
Linda Good
Regulatory Analyst
P.O. Box 18496
Oklahoma City, OK 73154
(405) 767-4275 (OFFICE)
(405) 753-5468 (FAX)
lgood@chkenergy.com

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 12th day of November, 2009.

Name: Paul Hagemeier, Vice President – Regulatory Compliance

Address: P.O. Box 18496, Oklahoma City, OK 73154-0496

Telephone: 405-848-8000

Field Representative: Curtis Griffin

Telephone: 505-391-1462 Ext. 6238

E-mail: cgriffin@chkenergy.com

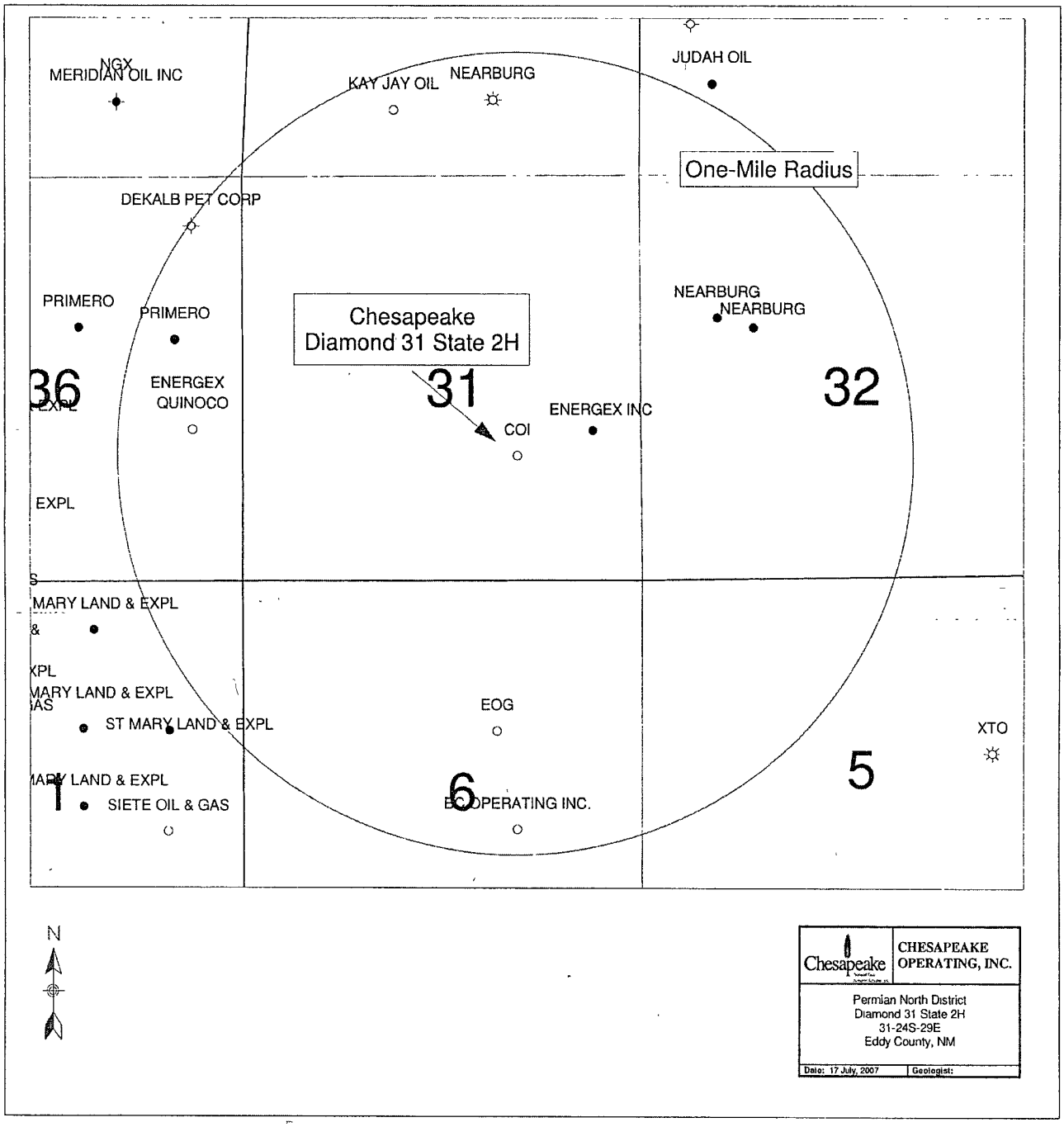
NGX
MERIDIAN OIL INC
KAY JAY OIL
NEARBURG
JUDAH OIL
One-Mile Radius
DEKALB PET CORP
PRIMERO
PRIMERO
Chesapeake
Diamond 31 State 2H
NEARBURG
NEARBURG
36
31
32
ENERGEX
QUINOCO
ENERGEX INC
COI
EXPL
MARY LAND & EXPL
ST MARY LAND & EXPL
EOG
XTO
1
6
5
SIETE OIL & GAS
OPERATING INC.
N
Chesapeake
CHESAPEAKE
OPERATING, INC.
Permian North District
Diamond 31 State 2H
31-24S-29E
Eddy County, NM
Date: 17 July, 2007
Geologist:

EXHIBIT B

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.**

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. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **13-3/8** inch surface casing shall be set at **approximately 650** feet and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

   b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

High cave/karst.
Possible lost circulation in the Delaware and Bone Spring formations.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a-d above. **Please provide WOC times to inspector for cement slurries.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Please provide WOC times to inspector for cement slurries.**

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 122707

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

C. ELECTRIC LINES