

~~CONFIDENTIAL~~

OCD-ARTESIA

J-06-33

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 13074
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator CHESAPEAKE OPERATING, INC. ATTN: LINDA GOOD		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496		8. Lease Name and Well No. Mosaic 34 Federal 1
3b. Phone No. (include area code) 405-767-4275		9. API Well No. 30-015-35118
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330 FSL 2310 FWL, SESW At proposed prod. zone 330 FSL 330 FWL, SWSW		10. Field and Pool, or Exploratory Undesignated Willow Lake, Delaware
11. Sec. T. R. M. or Blk. and Survey or Area Sec 34-T24S-R28E		12. County or Parish Eddy County
13. State NM		14. Distance in miles and direction from nearest town or post office* 4 Miles South of Malaga, New Mexico.
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 240	17. Spacing Unit dedicated to this well 240 80
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 6650	20. BLM/BIA Bond No. on file NM2634
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) Henry Hood	Date 7/24/06
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Title
Sr. Vice President - Land & Legal & General Counsel

Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date AUG 24 2006
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Chesapeake Operating Inc.
Mosaic 34 Federal 1
330 FSL 2310 FWL
SESW of Section 34-24S-28E
Eddy County, NM

Confidential – Tight Hole
Lease No. NMNM 13074

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

Chesapeake Operating, Inc. respectfully requests permission to drill a well to 6650' to test the Basal Brushy Canyon 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. 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.

1625 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 96855	Pool Name Undesignated Willow Lake; Delaware, (Gas)
Property Code 36004	Property Name MOSAIC 34 FEDERAL	Well Number 1
GRID No. 147179	Operator Name CHESAPEAKE OPERATING, INC.	Elevation 3000'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	34	24-S	28-E		330	SOUTH	2310	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
M	34	24-S	28-E		330	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80		P	Governed by OCD Rule 111

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

BOTTOM HOLE

Y=424669.8 N
X=577690.2 E

GRID AZ.=269°42'47"
DIST.=1980.0'

3001.7' 3001.0'

600' 600'

2310'

BH

330' 330'

SL

330' 330'

2998.6' 2997.7'

GEODETIC COORDINATES
NAD 27 NME

Y=424679.7 N
X=579669.8 E

LAT.=32.167299° N
LONG.=104.075862° W

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.

Kathy J. Blick 6-29
Signature Date

Kathy F. Blick
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.

JUNE 20, 2006

Date Surveyed MR

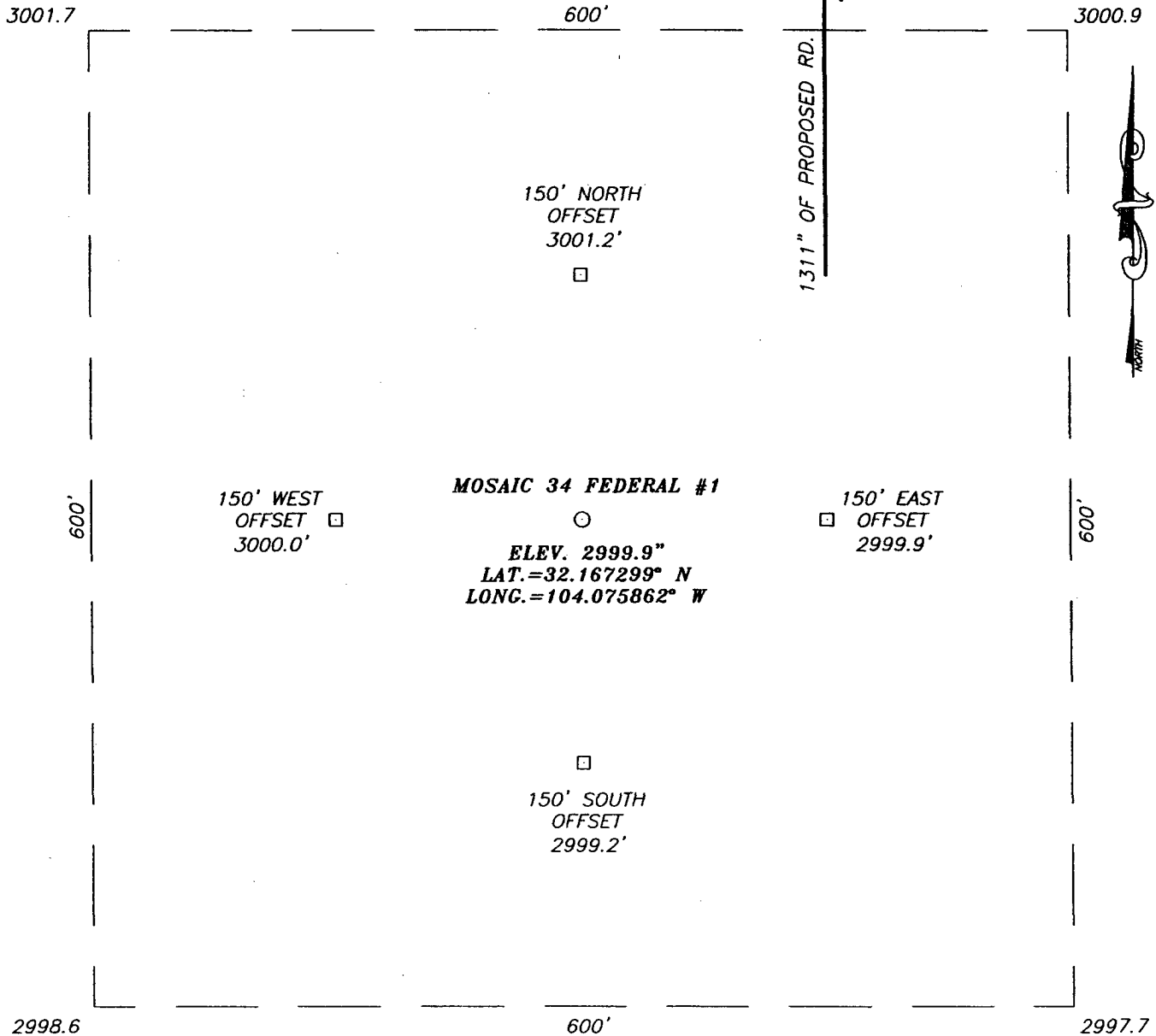
Signature & Seal of Professional Surveyor

Ronald E. Eason 6/27/06
06.11.1039

Certificate No. GARY EIDSON 12641

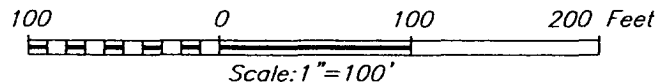
EXHIBIT A-1

SECTION 34, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

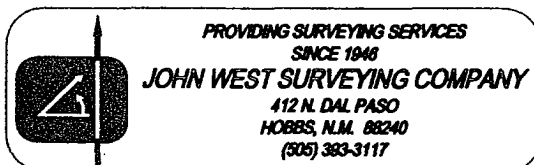
FROM THE INTERSECTION OF HWY. 285 AND
 COUNTY ROAD #721 (PULLEY RD.), GO SOUTH
 ON HWY. #285 APPROX. 1.55 MILES. TURN RIGHT
 AND GO WEST APPROX. 0.33 MILES TO A
 PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY
 SOUTH APPROX. 0.25 MILES TO THIS LOCATION.

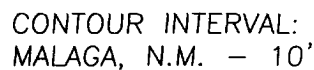


CHESAPEAKE OPERATING, INC.

MOASAIC 34 FEDERAL #1
 LOCATED 330 FEET FROM THE SOUTH LINE
 AND 2310 FEET FROM THE WEST LINE OF SECTION 34,
 TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 6/20/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.1039	Dr By: M.R. Rev 1:N/A
Date: 6/27/06	Disk: CD#6 06111039 Scale: 1"=100'

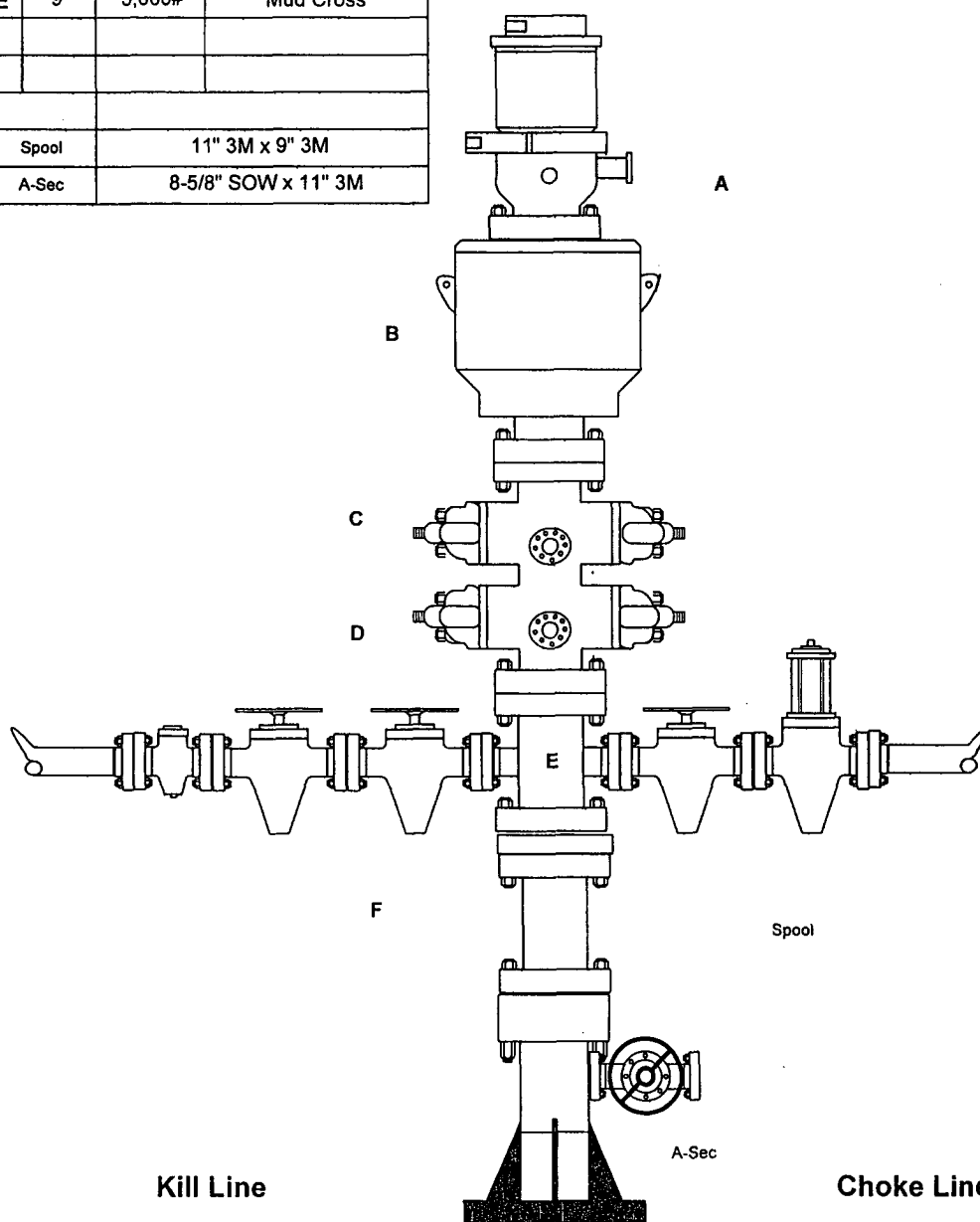




U.S.G.S. TOPOGRAPHIC MAP
MALAGA, N.M.



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

[illegible]

SIZE	PRESSURE	DESCRIPTION
3"	3,000#	Check Valve
3"	3,000#	Gate Valve
3"	3,000#	Gate Valve

SIZE	PRESSURE	DESCRIPTION
3"	3,000#	Gate Valve
3"	3,000#	HCR Valve

EXHIBIT F

Permian District

NM - Eddy - Morrow Project

Mosaic 34 Federal #1

Well #1

Wellbore #1

Plan: Plan #1

Standard Survey Report

29 June, 2006

Chesapeake Energy Corporation

Survey Report

Company:	Permian District	Local Co-ordinate Reference:	Site Mosaic 34 Federal #1
Project:	NM - Eddy - Morrow Project	TVD Reference:	kb @ 3018.0ft (Patterson 54)
Site:	Mosaic 34 Federal #1	MD Reference:	kb @ 3018.0ft (Patterson 54)
Well:	Well #1	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Drilling Database

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:	Mosaic 34 Federal #1		
Site Position:		Northing:	424,642.14 ft
From:	Lat/Long	Easting:	579,647.96 ft
Position Uncertainty:	ft	Slot Radius:	"
		Latitude:	32.16719400
		Longitude:	-104.07593600
		Grid Convergence:	0.14 °

Well:	Well #1		
Well Position	+N/-S	0.0 ft	Northing: 424,642.14 ft
	+E/-W	0.0 ft	Easting: 579,647.96 ft
Position Uncertainty	ft	Wellhead Elevation:	3,010.0 ft
		Latitude:	32.16719400
		Longitude:	-104.07593600
		Ground Level:	3,000.0 ft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	6/8/2006	8.39
			Dip Angle
			(°)
			60.17
			Field Strength
			(nT)
			49,021

Design:	Plan #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction: 270.00
			(°)

Survey Tool Program	Date 6/8/2006		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name
0.0	6,623.1	Plan #1 (Wellbore #1)	Description:

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

Chesapeake Energy Corporation

Survey Report

Company:	Permian District	Local Co-ordinate Reference:	Site Mosaic 34 Federal #1
Project:	NM - Eddy - Morrow Project	TVD Reference:	kb @ 3018.0ft (Patterson 54)
Site:	Mosaic 34 Federal #1	MD Reference:	kb @ 3018.0ft (Patterson 54)
Well:	Well #1	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Drilling Database

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)	
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	
4,370.5	0.00	0.00	4,370.5	0.0	0.0	0.0	0.00	0.00	0.00	
4,400.0	3.54	270.00	4,400.0	0.0	-0.9	0.9	12.00	12.00	0.00	
4,500.0	15.54	270.00	4,498.4	0.0	-17.4	17.4	12.00	12.00	0.00	
4,600.0	27.54	270.00	4,591.3	0.0	-54.1	54.1	12.00	12.00	0.00	
4,700.0	39.54	270.00	4,674.5	0.0	-109.2	109.2	12.00	12.00	0.00	
4,800.0	51.54	270.00	4,744.4	0.0	-180.5	180.5	12.00	12.00	0.00	
4,900.0	63.54	270.00	4,798.0	0.0	-264.7	264.7	12.00	12.00	0.00	
5,000.0	75.54	270.00	4,832.9	0.0	-358.2	358.2	12.00	12.00	0.00	
5,100.0	87.54	270.00	4,847.5	0.0	-456.9	456.9	12.00	12.00	0.00	
5,120.5	90.00	270.00	4,848.0	0.0	-477.5	477.5	12.00	12.00	0.00	
Landing point horz										
5,200.0	90.00	270.00	4,848.0	0.0	-556.9	556.9	0.00	0.00	0.00	
5,300.0	90.00	270.00	4,848.0	0.0	-656.9	656.9	0.00	0.00	0.00	
5,400.0	90.00	270.00	4,848.0	0.0	-756.9	756.9	0.00	0.00	0.00	
5,500.0	90.00	270.00	4,848.0	0.0	-856.9	856.9	0.00	0.00	0.00	
5,600.0	90.00	270.00	4,848.0	0.0	-956.9	956.9	0.00	0.00	0.00	
5,700.0	90.00	270.00	4,848.0	0.0	-1,056.9	1,056.9	0.00	0.00	0.00	
5,800.0	90.00	270.00	4,848.0	0.0	-1,156.9	1,156.9	0.00	0.00	0.00	
5,900.0	90.00	270.00	4,848.0	0.0	-1,256.9	1,256.9	0.00	0.00	0.00	
6,000.0	90.00	270.00	4,848.0	0.0	-1,356.9	1,356.9	0.00	0.00	0.00	
6,100.0	90.00	270.00	4,848.0	0.0	-1,456.9	1,456.9	0.00	0.00	0.00	
6,200.0	90.00	270.00	4,848.0	0.0	-1,556.9	1,556.9	0.00	0.00	0.00	
6,300.0	90.00	270.00	4,848.0	0.0	-1,656.9	1,656.9	0.00	0.00	0.00	

Chesapeake Energy Corporation

Survey Report

Company:	Permian District	Local Co-ordinate Reference:	Site Mosaic 34 Federal #1
Project:	NM - Eddy - Morrow Project	TVD Reference:	kb @ 3018.0ft (Patterson 54)
Site:	Mosaic 34 Federal #1	MD Reference:	kb @ 3018.0ft (Patterson 54)
Well:	Well #1	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Drilling Database

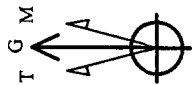
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,400.0	90.00	270.00	4,848.0	0.0	-1,756.9	1,756.9	0.00	0.00	0.00
6,500.0	90.00	270.00	4,848.0	0.0	-1,856.9	1,856.9	0.00	0.00	0.00
6,600.0	90.00	270.00	4,848.0	0.0	-1,956.9	1,956.9	0.00	0.00	0.00
6,623.1	90.00	270.00	4,848.0	0.0	-1,980.0	1,980.0	0.00	0.00	0.00
BHL									

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Landing point horz - plan misses by 197.8ft at 4743.7ft MD (4706.8 TVD, 0.0 N, -138.5 E) - Rectangle (sides W200.0 H200.0 D17.0)	0.00	0.00	4,848.0	0.0	0.0	424,642.14	579,647.96	32.16719400	-104.07593600
BHL - plan hits target - Point	0.00	0.00	4,848.0	0.0	-1,980.0	424,642.14	577,667.96	32.16720686	-104.08233477

Checked By: _____	Approved By: _____	Date: _____
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Chesapeake Operating

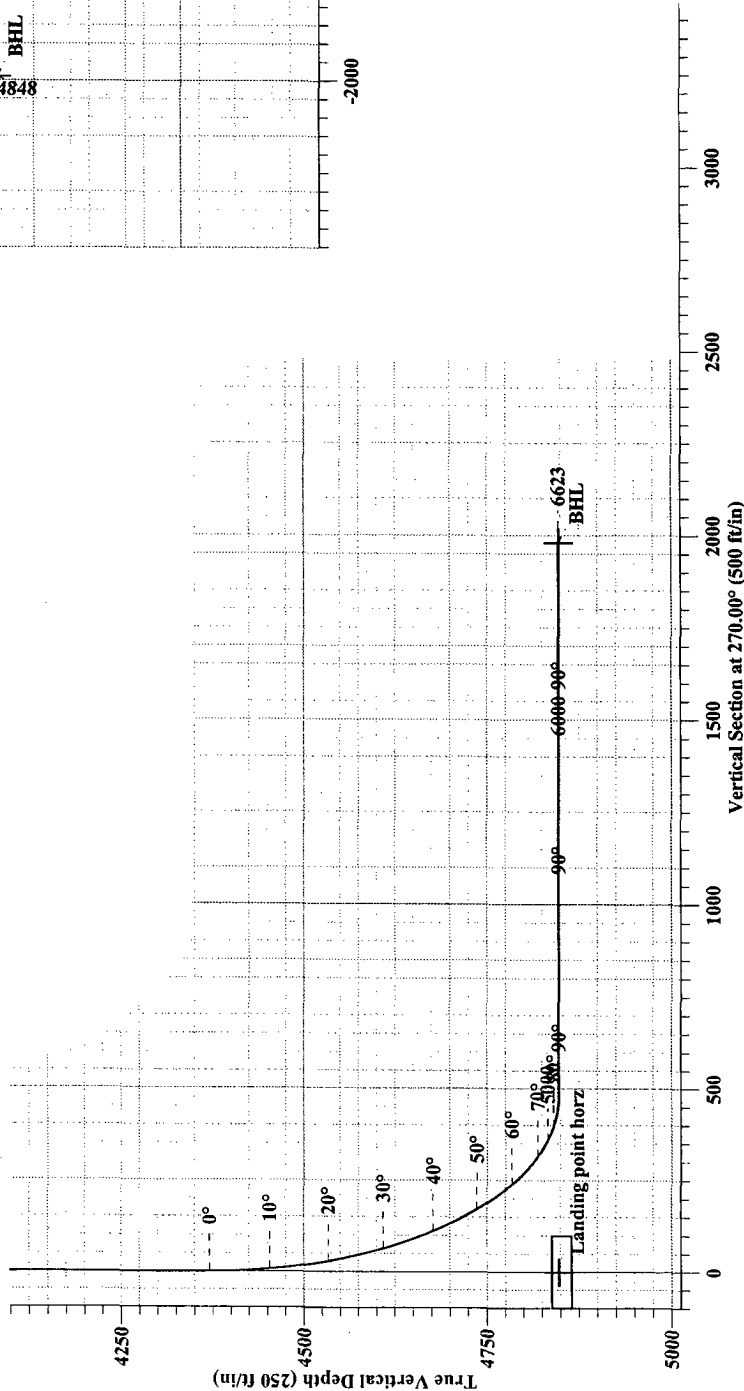
Project: NM - Eddy - Morrow Project
 Site: Mosaic 34 Federal #1
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Plan #1



Azimuths to Grid North
 True North: -0.14°
 Magnetic North: 8.25°
 Magnetic Field
 Strength: 49020.7nT
 Dip Angle: 60.17°
 Date: 6/8/2006
 Model: IGRF200510

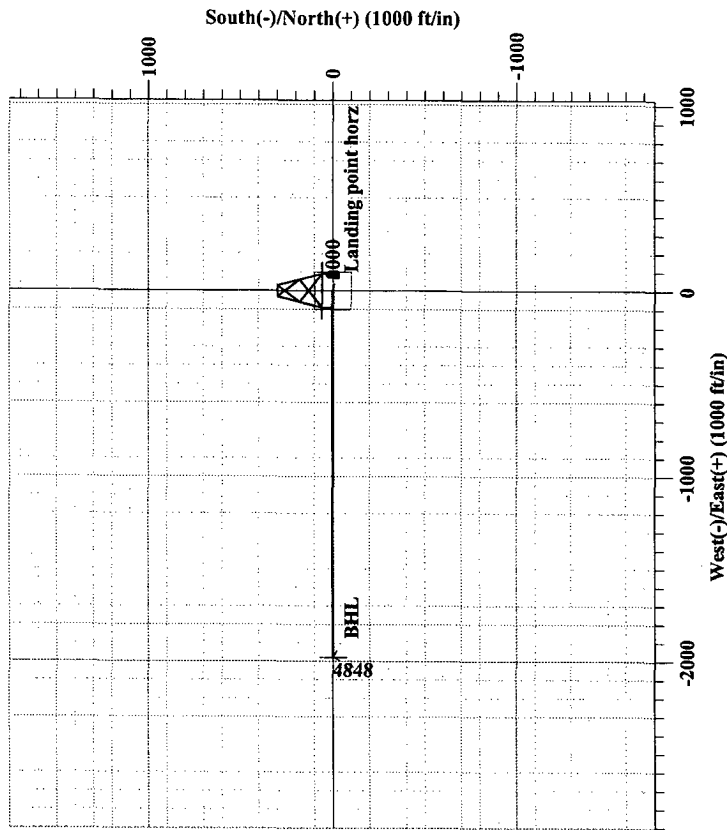
Surface Location: Well #1

	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
	0.0	424642.14	579647.96	32.16719400	-104.07593600	



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	
2	4370.5	0.00	0.00	4370.5	0.0	0.0	0.00	0.00	0.0	
3	5120.5	90.00	270.00	4848.0	0.0	-477.5	12.00	270.00	477.5	Landing point horz
4	6623.1	90.00	270.00	4848.0	0.0	-1980.0	0.00	0.00	1980.0	BHL



Plan: Plan #1 (Well #1/Wellbore #1)

Created By:
 Casey McDonough

Date:
 6/21/2006

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Mosaic 34 Federal 1
SHL: 330 FSL 2310 FWL
BHL: 330 FSL 330 FWL
of Section 34-24S-28E
Eddy County, NM

CONFIDENTIAL – TIGHT HOLE

Lease No. NMNM 13074

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 to A-4.

2. PLANNED ACCESS ROADS

- a. A proposed access road 1311' 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 Hwy 285 and County Rd #721 (Pulley Rd), Go South on Hwy #285 approx. 1.55 miles. Turn right and go West approx. 0.33 miles to a proposed road survey. Follow road survey South approx. 0.25 miles 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

Production facilities will be located on the well pad as product will be sold at the wellhead and/or tank battery. – See Exhibit C-1 to C-2.

6. CONSTRUCTION MATERIALS

No construction materials will be used from Section 34-24S-28E. 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. 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. MINERAL OWNERSHIP

United States of America
Department of Interior
Bureau of Land Management

SURFACE OWNERSHIP

Mosaic Potash Carlsbad, Inc.
P.O. Box 71
Carlsbad, NM 88221-0071
505-227-2871 – Contact: Scott Vail

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

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
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SURFACE USE PLAN

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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

Drilling Engineer

Casey McDonough
P.O. Box 14896
Oklahoma City, OK 73154
(405) 767-4778 (OFFICE)
(405) 879-9573 (FAX)
(405) 606-1482 (MOBILE)
cmcdonough@chkenergy.com

Sr. Field Representative

Cecil Gutierrez
P.O. Box 11050
Midland, TX 79705
432-687-2992 (OFFICE)
432-687-3675 (FAX)
cgutierrez@chkenergy.com

Asset Manager

Andrew McCalmont
P.O. Box 18496
Oklahoma City, OK 73154-0496
405-879-7852 (OFFICE)
405-879-7930 (FAX)
amccalmont@chkenergy.com

Regulatory Compliance

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

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Mosaic 34 Federal 1
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SURFACE USE PLAN

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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: _____

7/24/06

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Mosaic 34 Federal 1
SHL: 330 FSL 2310 FWL
BHL: 330 FSL 330 FWL
of Section 34-24S-28E
Eddy County, New Mexico

CONFIDENTIAL – TIGHT HOLE
Lease Contract No. NMNM 13074

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	Subsea	Depth
DELAWARE MTN. GROUP	430'	2,588'
*BELL CANYON	385'	2,633'
*CHERRY CANYON	-452'	3,470'
MANZANITA MARKER	-575'	3,593'
**WILLOW LAKE PAY ZONE	-1,633'	4,651'
**WILLOW LAKE PAY ZONE 2	-1,758'	4,776'
**WILLOW LAKE HORIZONTAL PAY ZONE	-1,820'	4,838'
BRUSHY CANYON	-2,018'	5,036'
**BASAL BRUSHY CANYON	-2,949'	5,967'
BONE SPRING LIME	-3,245'	6,263'
TD		6650
**Potentially Productive Zones		

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	Cherry Canyon	4651-4850
Oil/Gas	Brushy Canyon	5967-6263

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

3. BOP EQUIPMENT: 3,000# System

DRILLING PROGRAM

Page 2

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

I. BOP, Annular, Choke Manifold, Pressure Test - See Exhibit F1.

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~~ ¹⁵ minutes, with no observable pressure decline, once the test pressure has been applied.

II. Accumulator Performance Test

A. Scope

DRILLING PROGRAM

Page 3

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.

<u>System Operating Pressures</u>	<u>Precharge Pressure</u>
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:

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

DRILLING PROGRAM

Page 4

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	0-650	11	8.625	24	J55	STC	New
Intermediate	650-6650	7.875	5.5	15.5	J55	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>
0-650	Class C + additives	300	1.4	40	100
650-6650	Class C + additives	580/450	2.03/1.26	20	50

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>
0-650	Fresh water	8.4-9.0	32-34	NC
650-6650	Cut brine	10.0	30-32	10-12

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.

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Mosaic 34 Federal 1
SL: 330 FSL 2310 FWL
BL: 330 FSL 330 FWL
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DRILLING PROGRAM
Page 5

c. Cores samples are not planned.

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- a. The estimated bottom hole pressure is 2300 psi. No abnormal pressures or temperatures are anticipated.
- b. Hydrogen sulfide gas is not anticipated.

CHESAPEAKE OPERATING, INC.
MOSAIC 34 FEDERAL #1 WELL
330' FSL & 2310' FWL (Unit Letter N)
SECTION 34, T. 24 S., R. 28 E., N.M.P.M.
EDDY COUNTY, NEW MEXICO
FEDERAL LEASE NO. NM-13074

STATE OF SURFACE USE

The surface to the subject land is owned by **Mosaic Potash Carlsbad Inc.** The surface owner has been contacted regarding the drilling of the subject well, and an agreement for the surface has been negotiated.

CERTIFICATION: I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

Chesapeake Operating, Inc.

By Kathy F. Blick
Name: Kathy F. Blick
Title: Senior Landman
Date: August 21, 2006

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Chesapeake Operating

Well Name & No: Mosiac 34 Federal #1

Location: Surface 330' FSL & 2310' FWL; Sec.34, T. 24 S. R. 28 E.

BHL: 330' FSL, & 330' FWL; Sec. 34, T. 24 S., R. 28 E.

Lease: NMNM 13074

Eddy County, New Mexico

.....

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (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: 8 5/8 inch; 5 1/2 inch;

C. BOP Tests

2. A Hydrogen Sulfide (H2S) Drilling Plan is not required for this well bore.

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.

II. CASING:

1. The 8 5/8 inch shall be set at 650 Feet with 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 5 1/2 inch Production casing is to circulate to surface.

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 3/4 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.

(III Cont):

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2M psi.

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

- The test 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 safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

G. Gourley RFO 08/01/06