Form 3160-5 (February 2005)

UNITED STATES

FORM APPROVED OMB No. 1004-0137



	ARTMENT OF THE			Expires March 31, 2007		
BUR	EAU OF LAND MAN	AGEMENT O(5. Lease Serial No.			
	OTICES AND REPO	6. If Indian, Allotte	6. If Indian, Allottee or Tribe Name			
		o drill or to re-enter a PD) for such proposa				
SUBMIT	T IN TRIPLICATE – Other	7. If Unit of CA/Ag	7. If Unit of CA/Agreement, Name and/or No.			
. Type of Well		0. W-11 N	Y-			
Oil Well Gas Well Other				MOSAIC 34 FEDERAL 2H		
Name of Operator CHESAPEAKE OPERATING, INC. ATTN: LINDA GOOD				9. API Well No. 30-015-35831		
Ba Address P. O BOX 18496 3b. Phone No. (include of				10. Field and Pool or Exploratory Area UNDES. WILLOW LAKE		
OKLAHOMA CITY, OK 73154-0496	P. M. or Surnov Dascription	405-767-4275		11. Country or Parish, State		
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SHL: 371' FSL 365' FEL, (SESE), BHL 330 FSL 2310 FWL (SESW) SECTION 34, T24S, R28E				EDDY COUNTY, NEW MEXICO		
12. CHEC	K THE APPROPRIATE BO	X(ES) TO INDICATE NATU	RE OF NOTICE, REPORT OR O	THER DATA		
TYPE OF SUBMISSION		Т	YPE OF ACTION			
✓ Notice of Intent	Acidize	Deepen	Production (Start/Resume)	Water Shut-Off		
Trouble of filterin	Alter Casing	Fracture Treat	Reclamation	Well Integrity		
✓ Subsequent Report	Casing Repair	New Construction	Recomplete	Other		
Final Abandonment Notice	✓ Change Plans ☐ Convert to Injection	Plug and Abandon Plug Back	Temporarily Abandon Water Disposal			
			<u> </u>	vork and approximate duration thereof If		
Attach the Bond under which the v	work will be performed or project operations. If the operation Abandonment Notices must	ovide the Bond No. on file with on results in a multiple complet	BLM/BIA. Required subsequent ton or recompletion in a new inter	as of all pertinent markers and zones reports must be filed within 30 days val, a Form 3160-4 must be filed once een completed and the operator has		
ATTN: WESLEY INGRAM						
CHESAPEAKE, RESPECTFULLY, FILLS WELL SOON.	REQUESTS, VERBAL AF	PROVAL TO CHANGE THE	E DRILLING PLAN PER THE A	TTACHED. WE PLAN TO SPUD		
Int	ermodia	6 co-5/19	o to be si	et at		
	/ / /	7	g to be so	base		
0700	DY/Mate	7 2600	Delon Me	000		
(CHK PN 615928) OF 7	he salt	within t	the lamas	- limestone		
(CHK PN 615928)				11/11/3002,		
14 I hereby certify that the foregoing is t	rue and correct		·			
Name (Printed/Typed)						
LINDA GOOD Title FEDERAL REGULA			RAL REGULATORY ANALYST			
Signature Sinda Sood Date 12			12/07/2007			
	THIS SPACE	FOR FEDERAL OR S	TATE OFFICE USE	APPROVED		
Approved by	11.00					
		Title		Date DEC 7 2007		

Office

Entitle 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 of the Entitle Entitle Entitle Entitle Entitle Entitle Entitle Entitle En

fictitious or fraudulent statements or representations as to any matter within its jurisdiction (Instructions on page 2)

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

Purpose	<u>Interval</u>	Hole Size	Casing Size	Weight	<u>Grade</u>	Thread	Condition
Intermediate	0 2600	12.25	9,5/8	36	<u> J</u> 55	LIC	New

Cement:

Interval	Type	Amount	Yield	Washout	Excess
0 2200	Class C + additives	605	2:01	0	100
2200-2600	Class C4 additives	2115	1.32	0	100

Safety Factor:

9.625	Burst safety factor =	3.52	(casing test)
9.625	Burst safety factor =	1.96	(gas to surface)
	Collapse safety factor		(complete
9.625	=	1.66	evacuation)
	Collapse safety factor		
9.625	=	3.74	(50% evacuation)
9.625	Tension safety factor =	5.05	(cement job)
9.625	Tension safety factor =	6.43	(pressure test)

Chesapeake Operating Inc

Proposed Well Schematic (drilling)

Well

: Mosaic 34 Federal 2H

Field

: SE Eddy Project - Willow Lake Prospect

County

Eddy

State

: NM

Surf Locat

Section 34-24S-28E, 371' FSL & 365' FEL

BH Locat

: Section 34-24S-28E, 330' FSL & 2310' FEL (Hard Line)

KB Elev

3005

Grd Elev : 2987'



Wellhead Equipment Cement Lead: 35:65 Poz:C Tree Description 12.4 ppg, 2.10 yld Fresh Water 17-1/2" **Tubing Spool** Tail. 8.4 - 9.0 ppg trı-cone B-Section Class C (200' min) 13-5/8" 3M x 11" 5M 28 - 32 Vis 14.8 ppg, 1.34 yld Plan 100% OH Casing Head FL: NC 13-5/8" SOW x 13-5/8" 3M excess or area norm 650' 13-3/8" Casing **Tubular Detail** Depth Cement Size Wt Grd Conn. T۸ Lead: 35 65 Poz·C Surface 12-1/4 13-3/8" 48 0# H-40 ST&C 650 Brine 12 4 ppg, 2 10 yld tri-cone 99-10.1 ppg Int. 9-5/8" 36 0# J-55 LT&C 2600' Tail: 30 - 32 Vis Prod. N-80 LT&C TD Class C (400' min) Lamar Lime 5-1/2" 170 FL NC 14 8 ppg, 1 34 yld 2590' Delaware Mtn. Grout Plan 100% OH 2600 9-5/8" Casing excess or area norm 2369 **Bell Canyon** Tubing 2-7/8" 6 5# J-55 8rd EUE (or per Asset Manager) Annular Fluid 8-3/4" Logging Program tri-cone thru Interval Company Log Type Curve TBD Triple Combo 650' - 4400' MWD (GR) 4437' - TD DDC 8-1/2" tri-cone or PDC thru lateral Cement WBM 88-93 ppg TXI LW or similar 28 - 36 Vis -4437' Planned KOP 13 5 ppg, 1 26 yld 5 - 10 FL 0% free water 5 -1/2" Casing Keep WL low (Alt. Blend can be in curve and light-weight Class C; Willow Lake Horiz. Top @ 4911 lateral max 14 2 ppg) Plan 40% OH Est. TD ~6,625' MD Target: 4929' TVD @ 0' VS, 1.75° updip excess, TOC @ (~4870' TVD) Willow Lake Horiz. Base @ 4944 Willow Lake Horiz, Base @ 4944 2100'. EOB @ ~5200' MD/~4914' TVD 8-1/2" hole ~1424' lateral ~1915' vertical section

Note: All Depths are TVD unless otherwise indicated

Nn by Date.

T Nance/Y Cho

Date.
12/6/07

Rig.
Patterson #142

Property No.: 615928