

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Chesapeake Operating Inc. 2010 Rankin Hwy Midland, TX 79701		<sup>2</sup> OGRID Number 147179
<sup>3</sup> Property Code 300017		<sup>4</sup> Property Name State EO
<sup>5</sup> Proposed Pool 1 Antelope Ridge; Atoka (Gas)		<sup>6</sup> Well No. 1
<sup>7</sup> Surface Location		<sup>8</sup> Proposed Pool 2

UL or lot no. C	Section 26	Township 23S	Range 34E	Lot Idn	Feet from the 660	North/South line North	Feet from the 1980	East/Westline West	County Lea
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<sup>8</sup> Proposed 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/Westline	County

**Additional Well Information**

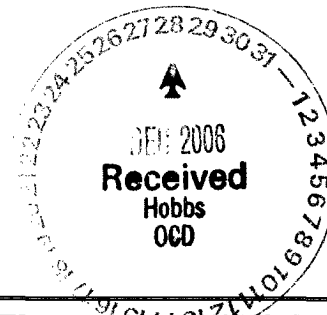
<sup>11</sup> Work Type Code P	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3414 GR
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 13871	<sup>18</sup> Formation Morrow	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 12/20/2006
Depth to Groundwater > 100		Distance from nearest fresh water well 1000		Distance from nearest surface water 1000
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mil thick Clay <input type="checkbox"/> Pit Volume: 12129 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

**21 Proposed Casing and Cement Program**

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
20	16	65	750	725	
14 3/4	10 3/4	40.5	5100	3100	
9 1/2	7 5/8	29.7	12050	1325	
8 1/2	5	93	11937-13868	300	

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.  
Chesapeake, respectfully, request permission to plug back this well to the morrow zone per the attached procedure.

Permit Expires 1 Year From Approval  
Date Unless Drilling Underway  
Plugback



<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input checked="" type="checkbox"/> .		<b>OIL CONSERVATION DIVISION</b>	
Printed name: Shay Stricklin		Approved by: <i>Chris Williams</i>	
Title: Regulatory Assistant		Title: <b>DISTRICT SUPERVISOR/GENERAL MANAGER</b>	
E-mail Address: sstricklin@chkenegy.com		Approval Date: <b>JAN 02 2007</b>	
Date: 12/13/2006	Phone: (432)687-2992	Conditions of Approval Attached <input type="checkbox"/>	

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## State of New Mexico

Energy, Minerals &amp; Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30-025-25650	'Pool Code 70360	'Pool Name Antelope Ridge; Atoka (Gas)
'Property Code 300017	'Property Name State EO	'Well Number 1
'OGRID No. 147179	'Operator Name Chesapeake Operating Inc.	'Elevation 3414 GR

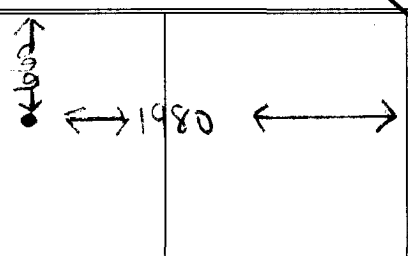
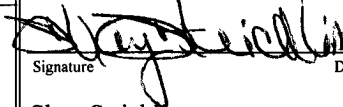
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	26	23S	34E		660	North	1980	West	Lea

<sup>11</sup> 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 320	" Joint or Infill N	" Consolidation Code	" Order No.						

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.

16					<b>17 OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>	
					Signature 	Date 12/22/2006
					Printed Name Shay Stricklin	
					<b>18 SURVEYOR CERTIFICATION</b> <i>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.</i>	
					Date of Survey	Signature and Seal of Professional Surveyor:
					Certificate Number	

**State EO #1**  
**Lea County, New Mexico**

December 6, 2006

**GENERAL INFORMATION**

Location: 660' FNL & 1980' FWL, S26 – T23S – R34E

API No.: 30-025-25650

**WELL INFORMATION**

<u>String OD</u>	<u>Weight &amp; Grade</u>	<u>Depth</u>	<u>ID</u>	<u>Drift</u>	<u>Burst</u>	<u>TOC</u>
10-3/4"	40.5/45.5# S80	0' – 5100'	9.950"	9.794"	3130	0'
7-5/8"	29/39# P110/S95	0' - 12050'	6.625"	6.50"	6450	5175'
5"	17.93# N80	11937' - 13868'	4.276"	4.151"	10140	11937'

Morrow Sand: 12995 – 13366' (OA)

TD/PBTD: 13871' / 13390'

Proposed Upper Morrow Carbonate perms: 12544 – 54'

**Re-Completion Procedure**

1. MIRU Service Rig and requisite equipment. Kill well as required with 2% KCL. NDWH, NU BOP. Release Arrow Set and POOH with 2-3/8" N80 tubing.
2. MIRU Wireline Service Unit. Run a GR/CCL log and correlate depth with Compensated Neutron-Density log dated 1/11/78 to set a 5" CIBP at 12950'. Pull correlation strip from ~13100' to 12100'. Bail 2 sx of cement on 5" plug.
3. Load hole with 2% KCL and pressure test to 1000#.
4. RIH w/ casing gun. Perforate the Upper Morrow w/ 4 SPF, 23 gram charge, .37" holes, 90 deg. phasing, from 12544' - 54' (41 holes).
5. RIH w/ 5" treating packer testing tubing in hole as follows: Re-entry guide, 4' sub, 'XN' nipple, 10' sub, Arrow Set packer, on/off tool w/ 'X' profile nipple. Space out with the EOT at 12554'.
6. RU Acid Service Company. Spot 200 gal of 15% HCL Acid containing 20% methanol, 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull packer to ~12500'. Reverse circulate to ensure packer is clear of acid, set packer. Pressure test annulus to 1000#.
7. ND BOP. NU tree. Pressure annulus to 1000 psi. Displace spot acid, establish rate of 4 to 5 BPM w/ 2% KCL. (Keep KCL water usage to a minimum). Acidize w/ 1800 gal of same acid. Displace w/ 2% KCL. Do not over-displace. Pump at

5 BPM max. Launch 50 ball sealers during job. Note rates and pressures. Note ISIP. Max pressure 6000#.

8. Flow/swab back job. Swab/flow test zone.
9. Re-treat as warranted. Pressure backside to 1000# and retreat as follows:
  - a) 1500 gal 20% NeFe Acid.
  - b) 3000 gal of 20% Ultragel.
  - c) 1000 gal 20% gelled NeFe.
  - d) 4000 gal of 20% Ultragel.
  - e) 500 gal of 20% gelled NeFe. Over-displace by 25 bbl of 2% KCL.

Treat via 2-3/8" production tubing at 5 - 6 BPM. Max pressure 6000#.

10. Flow back job. Swab to clean up and test.
11. Put well to sales. RDMO.