

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

JAN 14 2009  
OCD-ARTESIA

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. P.O. Box 18496 Oklahoma City, OK 73154-0496		<sup>2</sup> OGRID Number 147179
<sup>3</sup> Property Code 37066		<sup>4</sup> API Number 30 015-36223
<sup>5</sup> Property Name High Chicago 12 State		<sup>6</sup> Well No 1H
<sup>9</sup> Proposed Pool 1 Nash Draw; Delaware/BS (Avalon Sand)		<sup>10</sup> Proposed Pool 2

<sup>7</sup> Surface Location

UL or lot no P	Section 12	Township 25S	Range 29E	Lot Idn	Feet from the 400'	North/South line South	Feet from the 350'	East/Westline East	County Eddy
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<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no A	Section 12	Township 25S	Range 29E	Lot Idn	Feet from the 390'	North/South line North	Feet from the 374'	East/Westline East	County Eddy
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Additional Well Information

<sup>11</sup> Work Type Code E	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3155' GR
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth	<sup>18</sup> Formation	<sup>19</sup> Contractor	<sup>20</sup> Spud Date
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner: Synthetic <input type="checkbox"/> milst thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48#	680'	705 sxs.	Surface
12 1/4"	9 5/8"	40#	3410'	1415' sxs.	surface
8 3/4"	5 1/2"	17#	11,651'	2000 sxs.	1970'

<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

Dear Sirs/Madams:

Chesapeake Operating, Inc. request to add perforations to this well in the Brushy Canyon formation of the Delaware Mountain Group, produce from this zone and continue production in the Avalon Sands of the Upper Bone Spring.

So as not to apply for a DHC for this well, we request that this well be placed in the Nash Draw; Delaware/BS (Avalon Sand) Oil Pool as an offset well lies directly to the east in 6-25S-29E that produces from this oil pool. A copy of DHC Order # 3697 that established this pool in this area is provided for your convenience.

In addition, please find: The Recomplete Brushy Canyon Procedure to re-enter this well, a current well-bore diagram, NMOCD's (CLEZ) pit form for a closed loop system & NMOCD's C-102.

No H2S is expected in the re-entry, zones of production and completion operations.

<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 ☐ a general permit ☐ or an (attached) alternative OCD-approved plan ☒.

Printed name Linda Weeks *Linda Weeks*  
Title Regulatory Compliance Spec.  
E-mail Address linda.weeks@chk.com  
Date: 01/09/2009 Phone (405)935-6854

OIL CONSERVATION DIVISION

Approved by

*Tom W. Drum*  
District II Supervisor

Title

Approval Date

*1/14/09*

Expiration Date

*1/14/11*

Conditions of Approval Attached ☐

ENTERED  
1-15-09

**High Chicago 12 State 1H  
Eddy County, New Mexico  
Recomplete Brushy Canyon Procedure**

**Date:** January 7, 2009

**Surface Location:** 400' FSL & 350' FEL Sec. 12-T25S-R29E

**Casing:** 5 ½" 17# N-80, 0-11,651' ID – 4.892", Drift – 4.767", Burst 7,740 psi

**PBTD/TD:** 11,604'/11,651'

**Current Perfs:** Bone Springs "Avalon" Sand 7,668-11,410'

**Proposed Perfs:** Brushy Canyon 7,171-78'

**Recommended Procedure:**

1. MIRU PU. NU BOP.
2. POH w/ pump and rods.
3. Rig up wireline co. Perforate Brushy Canyon 7,171-78' (7') 4 spf (28 holes). This is at 38° inclination.
4. RIH w/ RBP and packer on tbg. Set RBP @ 7,225' (45° inclination) and dump 10' of sand on RBP. Pressure test RBP. Spot acid across perfs and pull packer up to 7,000'. Reverse acid back into tubing, and set packer. Acidize Brushy Canyon perfs with 2,000 gal 15% NEFE acid dropping 40 perf balls throughout job. Flow back acid job until well dies. Release packer and drop down through perfs to wipe balls off of perfs. POH w/ packer.
5. Frac Brushy Canyon perfs down casing per frac recommendation (anticipate 26,500# sand, 25 bpm). Flow back frac.
6. RIH w/ retrieving head on tbg. Wash sand off of RBP. POH w/ RBP.
7. RIH w/ 2 7/8" tubing w/ TAC and BHA. Set the TAC +/- 6,600' w/ the SN just below the kick off point of 6,700'
8. RIH w/ rod string as follows:
  - 100 7/8 KD rods
  - 133 ¾" KD rods
  - 35 7/8" KD rods
  - 1.5" pump to handle 144" stroke
9. ND BOP/NU WH. Rig down.



# Current Wellbore Schematic

HIGH CHICAGO 12 STATE 1H

Field: Delaware Basin North  
County: EDDY  
State: NEW MEXICO  
Elevation: GL 3,155.00 KB 3,173.00  
KB Height: 18.00

Location: SEC 12, 25S-29E, 400 FSL & 350 FEL

Spud Date: 4/21/2008  
Initial Compl. Date:  
API #: 3001536223  
CHK Property #: 620442  
1st Prod Date: 7/29/2008  
PBDT: Original Hole - 11603.8  
TD: 11,651.0

Well Config: - Original Hole, 1/8/2009 2:50:54 PM  
Schematic - Actual

## Well History

Date	Event
7/8/2008	PERF Avalon Sand @ 10810-11, 10960-61, 11168-69, 11270-71, 11410-11 w/ 6 jsfp, 30 holes.
7/9/2008	ACDZ 10810-11410 w/ 5000 gal 15% NeFe.
7/14/2008	FRAC 10810-11410 w/ 203868 gal B-Frac 25 X link gel w/ 300100# 20/40 White sd & 50040# 16/30 Super LC. CBP @ 10750'. PERF Avalon Sand @ 9572-10600 w/ 6 jsfp, 30 holes. FRAC w/ 3000 gal 15% NeFe, 182616 gal B Frac 25 X link gel w/ 299680# Ottawa sd & 50020# 16/30 Super LC, Flush w/ 266 bbls 25# Linear Gel. CBP @ 9192'. PERF Avalon @ 8560-9060 w/ 6 jsfp, 30 holes. FRAC w/ 3000 ga; 15% NeFe, 200886 gal B Frac X link gel w/ 300120# 20/40 Ottawa sd & 49640# 16/30 Super LC, Flush w/ 210 bbl 25% Linear gel. CBP @ 8500'. PERF Avalon Sand @ 7668-8383 w/ 6 jsfp, 30 holes. FRAC w/ 3000 gal 15% NeFe, 226590 gal B Frac 25 X link gel, 301240# 20/40 Ottawa sd & 49340# 16/30 Super LC, Flush w/ 194 bbls 25# Linear gel.
7/18/2008	DO CBP's.
7/24/2008	Tubing - Production set at 6,665.0ftKB on 7/24/2008
10/18/2008	Tubing - Production set at 6,665.0ftKB on 10/18/2008

Original Hole, 17 1/2, 18, 680

13 3/8" 48# H-40 Surf Csg, 680  
Cmt w/ 705 sx, circ 184 sx to pit, 680  
Original Hole, 12 1/4, 680, 3,410  
TOC (Calc), 2,900

Tubing, 2 7/8, 6,583, 8.70, N-80

9 5/8" 40# J-55 Inter Csg, 3,410  
Cmt Lead w/ 1100sx & tail w/ 315sx. Circ 511sx to pit, 3,410

Seat Nipple: Cup Type, 2 7/8, 6,584

Tubing Sub, 2 7/8, 6,590

ESP - Pump, 4, 6,618

ESP - Rotary Gas Separator, 4, 6,623

ESP - Seal Section, 4, 6,634

ESP - Motor, 4, 6,665

Kick off Point, 6,675

Original Hole, 8 3/4, 3,410, 11,651

7,668, 8,383, 7/14/2008

8,570, 9,060, 7/14/2008

9,572, 10,600, 7/14/2008

10,810, 11,410, 7/8/2008

PBDT, 11,604

5 1/2" 17# N-80 Prod Csg, 11,651  
TD, 11,651  
Cmt 2,000sx Super H, 11,651

## DISTRICT I

1620 N. FRENCH DR., HOHOKU, NM 87040

## DISTRICT II

1301 W. GRAND AVENUE, ALBUQUERQUE, NM 87102

## 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 30-015-36223	Pool Code 47545	Pool Name Nash Draw Del/BS (Cavalon Sand)
Property Code 37066	Property Name HIGH CHICAGO 12 STATE	Well Number 1H
GRID No. 147179	Operator Name CHESAPEAKE OPERATING, INC.	Elevation 3155

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	12	25-S	29-E		400	SOUTH	350	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
A	12	25-S	29-E		350	NORTH	350	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

<p>BOTTOM HOLE LOCATION</p> <p>Y=418870.11 N X=624801.2 E</p> <p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION</p> <p>Y=414312.1 N X=624821.7 E</p> <p>LAT.=32.138418° N LONG.=103.930070° W</p>	<p>Project area</p>	<p>CRID. AZ. = 355°41'27"</p> <p>HORIZ. DIS. = 4559.2'</p>	<p>OPERATOR CERTIFICATION</p> <p>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 undivided 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.</p> <p><i>Linda Weeks</i> 1-4-09 Signature Date <i>Linda Weeks</i> Printed Name</p>
	<p>Producing Area</p>		<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>CELESTIAL... 502 2008 Date Surveyed Signature of Professional Surveyor 3239 <i>Ronald J. Eidson</i> 008-1-02-08 Certificate No. GARY EIDSON 12041 RONALD J. EIDSON 3239</p>
	<p>Penetration Point</p>		



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

Administrative Order DHC-3697

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210

Attention: Margrethe Hotter

Ohkay BHH State Well No. 1  
API No. 30-015-34551  
Unit D, Section 6, Township 25 South, Range 30 East, NMPM,  
Eddy County, New Mexico  
Undesignated Nash Draw-Delaware/Bone Spring (47545), and  
Wildcat-Bone Spring (96053) Pools

Dear Ms. Hotter:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with Division 303C.(1)(f), the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

**Assignment of allowable to the well and allocation of production from the well shall be done after testing of all intervals to be commingled. The applicant shall submit the allocation percentages to the Division within 60 days following completion of this workover.**

REMARKS: The operator shall notify the Artesia District Office of the Division upon implementation of commingling operations.

Pursuant to Rule 303C(2), the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on April 25, 2006.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
Director

cc: Oil Conservation Division – Artesia  
State Land Office – Oil, Gas, and Minerals Division