| Submit 3 Copies To Appropriate District Office                                                                                                                                                                                                                                                       | State of New Mexico                                                  | Form C-103<br>May 27, 2004                                                       |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|--|--|--|
| 1625 N. French Dr., He NM 88240                                                                                                                                                                                                                                                                      | Minerals and Natural Resources                                       | WELL API NO. 30-015-32410                                                        |  |  |  |
| 1501 11. Clause 11.0., 12.                                                                                                                                                                                                                                                                           | ONSERVATION DIVISION                                                 | 5. Indicate Type of Lease                                                        |  |  |  |
| 1000 Rio Brazos Rd., Aztec, NW 87410                                                                                                                                                                                                                                                                 | 220 South St. Francis Dr. Santa Fe, NM 87505                         | STATE X FEE                                                                      |  |  |  |
| <u>District IV</u><br>1220 S. St. Francis Dr., Sanța Fe, NM<br>87505                                                                                                                                                                                                                                 | Santa Pe, NW 67303                                                   | 6. State Oil & Gas Lease No.                                                     |  |  |  |
| SUNDRY NOTICES AND RE (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL DIFFERENT RESERVOIR. USE "APPLICATION FOR PE PROPOSALS.)                                                                                                                                                                          | OR TO DEEPEN OR PLUG BACK TO A                                       | 7. Lease Name or Unit Agreement Name STATE IE                                    |  |  |  |
| 1. Type of Well: Oil Well Gas Well X                                                                                                                                                                                                                                                                 | Other Month - Year                                                   | 8. Well Number 2                                                                 |  |  |  |
| Name of Operator     Chesapeake Operating Inc.                                                                                                                                                                                                                                                       | FEB 2 1 2007                                                         | 9. OGRID Number 147179                                                           |  |  |  |
| 3. Address of Operator 2010 Rankin Hwy<br>Midland, TX 79701                                                                                                                                                                                                                                          | OCD - ARTESIA, NM                                                    | 10. Pool name or Wildcat HAPPY VALLEY; MORROW (GAS)                              |  |  |  |
| 4. Well Location                                                                                                                                                                                                                                                                                     |                                                                      |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                      | et from the SOUTH line and 66                                        |                                                                                  |  |  |  |
| Section 16 To                                                                                                                                                                                                                                                                                        | ownship 22S Range 26E<br>n (Show whether DR, RKB, RT, GR, etc.,<br>R | NMPM CountyEDDY )                                                                |  |  |  |
| Pit or Below-grade Tank Application or Closure                                                                                                                                                                                                                                                       |                                                                      | To district make 3 the American page 1750 controlled that have Chief. And Chief. |  |  |  |
|                                                                                                                                                                                                                                                                                                      | nnce from nearest fresh water wellDis                                |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                      | de Tank: Volume bbls; Co                                             |                                                                                  |  |  |  |
| 12. Check Appropriate                                                                                                                                                                                                                                                                                | Box to Indicate Nature of Notice,                                    | Report or Other Data                                                             |  |  |  |
| NOTICE OF INTENTION                                                                                                                                                                                                                                                                                  |                                                                      | SEQUENT REPORT OF:                                                               |  |  |  |
| PERFORM REMEDIAL WORK  PLUG AND TEMPORARILY ABANDON CHANGE P                                                                                                                                                                                                                                         |                                                                      | RK                                                                               |  |  |  |
| PULL OR ALTER CASING   MULTIPLE                                                                                                                                                                                                                                                                      | <b>f</b>                                                             |                                                                                  |  |  |  |
| OTHER:RE-COMPLETE TO CANYON ZONE                                                                                                                                                                                                                                                                     | X OTHER:                                                             | П                                                                                |  |  |  |
| 13. Describe proposed or completed operation                                                                                                                                                                                                                                                         | ns. (Clearly state all pertinent details, an                         | d give pertinent dates, including estimated date                                 |  |  |  |
| of starting any proposed work). SEE RU or recompletion.                                                                                                                                                                                                                                              | LE 1103. For Multiple Completions: At                                | ttach wellbore diagram of proposed completion                                    |  |  |  |
| CHESAPEAKE, RESPECTFULLY, REQUEST                                                                                                                                                                                                                                                                    | PERMISSION TO RECOMPLETE THI                                         | S WELL IN THE CANYON ZONE PER                                                    |  |  |  |
| THE ATTACHED.                                                                                                                                                                                                                                                                                        |                                                                      |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                      |                                                                      |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                      |                                                                      |                                                                                  |  |  |  |
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|                                                                                                                                                                                                                                                                                                      |                                                                      |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                      |                                                                      |                                                                                  |  |  |  |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit or an (attached) alternative OCD-approved plan . |                                                                      |                                                                                  |  |  |  |
| SIGNATURE THE SIGNATURE                                                                                                                                                                                                                                                                              | TITLE Regulatory Tech.                                               | DATE 02/20/2007                                                                  |  |  |  |
| Type or print name Shay Stricklin For State Use Only                                                                                                                                                                                                                                                 | E-mail address:sstricklin@cl                                         | hkenergy.com Telephone No. (432)687-2992                                         |  |  |  |
| DENIED                                                                                                                                                                                                                                                                                               |                                                                      | FEB 2 6 2007                                                                     |  |  |  |
| APPROVED BY:  Conditions of Approval (if any):   Conditions of Approval (if any):                                                                                                                                                                                                                    | TITLE                                                                | DATE                                                                             |  |  |  |

# State IE Com #2 Plug Back to Canyon Eddy County, New Mexico



# **GENERAL INFORMATION**

Location: 660' FSL & 660' FWL, Sec 16 - T22S - R26E

API No.: 30-015-32410

# WELL INFORMATION

| String OD | Weight & Grade | <b>Depth</b> | <u>ID</u> | <u>Drift</u>    | <b>Burst</b> | <u>TOC</u> |
|-----------|----------------|--------------|-----------|-----------------|--------------|------------|
| 13-3/8"   | 48# H40 STC    | 0' - 760'    | 12.715"   | 12.559"         | 1730         | <u>0</u> , |
| 9-5/8"    | 40# J55 STC    | 0' - 2525'   | 8.835"    | 8.6 <b>7</b> 9" | 3950         | 0'         |
| 5-1/2"    | 17# S95/N80    | 0' - 11750'  | 4.892"    | 4.767"          | 7740         | 3100'      |

Morrow Perforations: 11126 – 11378' (OA)

TD/PBTD: 11750'/11631'

# **Recommended Perforations**

Canyon Lime 9955 - 68'

# **Re-Completion Procedure**

- MIRU Service Rig and requisite equipment. Kill well as required with 2% KCL. NDWH, NU BOP. Release M1-X 10K packer and POOH laying down 2-7/8" N80 tubing.
- 2. MIRU Wireline Service Unit. Set a 5-1/2" CIBP at 11080'. Bail 2 sx of cement on 5-1/2" plug. Correlate to CBL/GR/CCL dated 12/09/2002.
- 3. Load hole with 2% KCL and pressure test casing and plug to 1500#.
- 4. RIH w/ casing gun. Perforate the Canyon Lime w/ 4 SPF, 23 gram charge, .37" holes, 90 deg. phasing, from 9955' 68' (53 holes). Correlate to same CBL.
- 5. RIH w/ 5-1/2" treating packer and SN picking up tested and inspected 2-3/8" N80 tubing 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 9968'.
- 6. RU Acid Service Company. Spot 200 gal of 15% HCL Acid containing 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull packer to ~9900'. 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/ 2,300

gal of same acid. Displace w/ 2% KCL. Do not over-displace. Pump at 4 to 5 BPM max. Launch 60 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 with 10,000 gal of 20% gelled NeFe HCL acid containing 4 gpt of iron control, 2 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Treat via 2-3/8" production tubing at 10 12 BPM. Maximum pressure 8000#.
- 10. Flow back job. Swab to clean up and test.
- 11. Put well to sales. RDMO.

# **CURRENT WELLBORE SCHEMATIC** CHESAPEAKE OPERATING INC.



WELL

: STATE "IE" #2

SURF. LOC. : 660' FSL & 660' FWL OF SEC. 16-R22S-T26E.

COUNTY

: EDDY

STATE: NM

**FIELD** 

: HAPPY VALLEY (MORROW GAS)

ELEVATION: 3,447' GL

3,457 KB

API#:

30-015-32410

SPUD DATE:

10/15/02

COMPL DATE: CHK Property #: 890593

02/06/78

Hote Size

12-1/2

8-3/4

PREPARED BY:\_

17-55

# 13-3/8" 48# H-40 ST&C Surf. Csg. 60 760"

Lead w/200 ax Cl. H + 10% A-10 1% CaCl 10# Gilsonite 1/2 pps Celloffake and 400 sx 35/65 CI C + 6% gel 2% CaCl 5# Gilsonite ½ pps Celloflake Tail w/200 ex Cl. C + additives, circ 279 ex to surf.

### 9-5/5" 40# J-55 inter. Csq. @ 2.525"

Cmt: Lead w/200 sx Cl. H + 10% A-10 1% CaCl % pps celloffake 10# LCM and 700 ex 50/50 POZ C + 5% sait % pps Celloffake 5# LCM
Tall w/200 ex Cl. C + 2% CaCl % pps celloffake, circ 266 ax to surf.

TOC @ 3,100' by CBL.

### Well History Highlights:

12/13/02 Acdz peris 11,243-378' w/4500 gai 7-½% Morrow acid + mathanol w/193,050 SCF N2 90 B8.
12/18/02 Frac peris 11,243-375' w/6,000 gai 70Q binary foam. 71,000\$ 20/40 interprop - flush w/binary foam. FB.

2/6/03 Ran thru-thg gun & shot Morrow @ 11,126-42' w/4 spf. Tstd 180 mofgpf 18 bw, FTP 400#. 2/13/03 Sand back to 11,200". Trtd perfs 11,126-142 w/2500 gal 7-3/54 Morrow acid w/20% methanol 104,000 SCF N2 pad & 80 BS, no bell out. Prod after treatment tstd 500 motgpd, no wtr. CO w/CTU to 11,475'. 3/24/03 Well stabilized flwg from perfs 11,243-378' & 11,126-142' w/130 FTP on 64/84/ck, no oil, 595 MCFGPD,18 BW.

6/12/04 MiRU Key swab unit, TP 500#, compressor down, IFL 5,100°, make 9 swab runs, rec 30 BW, FFL 10,200°, start

IFL 5,100°, make 9 swab runs, rec 30 BW, FFL 10,200°, star compressor.

7.08.04 MIRU Key swab unit, compressor down, TP 800#, IFL 5,800°, 11 runs, 16 bbls. TP 300#, RTP, 349 MCFG. 8724.04 MIRU Key swab unit, TP 480#, make 8 swab runs, IFL 5,100°, 20 BF. 8725.04 Swab, IFL 6,500°, make 10 runs, rec 24 BW, TP 1508, 262 MCFG.

08/26/04 TP 520#, compressor down, LP 504#, IFL 7,100°, make 9 runs rec 18 BF.

make 9 runs, rec 18 BF. 8/27/04, Compressor down, 79 MCFG, start compressor. 8/28/04, 24 hrs, 0 BO, 5 BW, 132 MCFG, TP 510#, CP 0#, 8/28/04, 24 hrs, 0 BO, 7 BW, 119 MCFG, TP 500#, CP 0#, 8/28/04, 24 hrs, 0 BO, 8 BW, 101 MCFG, TP 500#, CP 0#.

08/31/05 Swab 14 runs, rec 48 BF, TP 0#, CP vacuum. 09/02/06 0 BO, 0 BW, 0 MCFG, will not flow. 10/18 to 10/27/05 Tag fill @ 11,180', RIH w/1-3/4" baller. CO af Rib 0 11,316', 10/28/05 RDMO PP rate 0 MCFG, left well open

DV Tool @ 6,998'.

CO fill to 11,315' 10/2005

Tog Details: 334 jts of 2-2/8" N80 2.31 X in on/off @ 10,937 M1-X 10K pkr @ 10,938 1 Jt 2-7/8" 2.31 XN @ 10,977' WL Re-entry guide @ 10,978' EOT 10,979'

Perfs @ 11,126-11,142' w/4 spf 64 holes

Peris @ 11,243-50, 11,253-56', 11,264-86', 11,344-52', 11,384-72', 11,378-78' w/2 SPF 68 holes - covered w/fill sand during acid & frac of upper perfs and then opened back up.

5-%" 17# S-95: N-80 Prod Csg. @ 11.750

Cmt: 1<sup>st</sup> Stage 1260 Cl. H + 1.6 % BA56 0.2% SMS 2 pps CaCl 0.2% R-3 & 1 pps 2<sup>nd</sup> Stage Lead w/730 sx 50/50 Cl. H + 10% gel 5% salt ½ pps cellofiake 5# Gilsonite 0.3% Flocele.

| 7    | (ail w/10 | XX BOZ | H Ne |
|------|-----------|--------|------|
| <br> |           |        | _    |
| <br> |           |        | •    |

Linda S. Fries

TD @ 11,750

08/30/04 DATE:

LIPDATED BY: ....

DATE:

# Arrant, Bryan, EMNRD

From:

Arrant, Bryan, EMNRD

Sent:

Monday, February 26, 2007 11:02 AM

To:

'Shay Stricklin'

**Subject:** State IE # 2/API # 30-015-32410

Dear Shay,

In reference to the above noted well, I cannot review further and/or approve your request as it is filed on the wrong form. Recompletions to another formation need to be filed on NMOCD form C-101 and C-102, as described on the form you have

In addition, please note if a H2S well contingency plan is required per NMOCD Rule 118. If not, please submit a letter of statement. Please call if you have any questions,

Yours truly,

Bryan. G. Arrant District II Geologist NMOCD-Artesia 505-748-1283 ext. 103

CC: Well File