| District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88240 District III District III | | | | | | | | w Mex Natura | ico 1 Resc | ources | | | Form C-101 June 16, 2008 |
|---|--|--|---|---|---------------------|--------------------------------|---------------------------|---------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---|-----------------------------|
| 1000 Rio Brazos Road, Aztec, NM 8741 FEB 09 2011 1220 Sc | | | | | | | outh St. Francis Dr. | | | | riate District Office | | |
| 1220 S. St. Fr | ATION | FOR PI | ERMIT TO | | LL, R | | - | M 875 DEEI | | | | | |
| TLOOD | | ¹ Operator Name a Chesapeake Oper | | | | | | | ² OGRID Number 147179 | | | | |
| | | О | P.O. Box 18 klahoma City, OK | | 496 | | | | | | ³ API Number | | |
| ³ Drong | rty Code | | | | 5 | Property 1 | Jama | | | 30-025-2 | 27771 | ⁶ Well | No |
| 29 | 955 5 | | | | | Huey | | | | | | 2 | NO. |
| | | | roposed Pool 1 aggs; Grayburg | | | | | | | ¹⁰ Pro | posed Poo | ol 2 | |
| ⁷ Surface | Locatic | | aggs, Grayourg | | | | | | | | | | |
| UL or lot no. F | Section 5 | Township 20S | Range 38E | Lot I | dn | Feet from 2310 | | North/ No | | Feet from the 1980' | | East/West line County West Lea | |
| ⁸ Proposed UL or lot no. | Bottom I Section | Iole Locati Township | on If Different Range | From S Lot I | | Feet fro | m the | North/So | outh line | Feet from the | East/ | West line | County |
| Additiona | al Well | Informati | on | | l | | | 1 | | I | | | |
| ¹¹ Work | Type Code P | / | ¹² Well Type Code O | | | ¹³ Cable Rot | - | у 14 | | ⁴ Lease Type Code P | | ¹⁵ Ground Level Elevation 3582' | |
| | ultiple N | | ¹⁷ Proposed Depth PBTD-5900' | | | ¹⁸ Form Gray | | ¹⁹ Contractor TBD | | | ²⁰ Spud Date ASAP | | |
| Hole S | ize | Casi | Cementing of Well boreCasing SizeCasing weight/foot8 5/8"23 # | | /foot | Setting Depth 1500' | | 750 | Sacks of Cement 750 sxs | | Estimated TOC | | |
| 77/8 | 3" | 5 | 1/2" | 17# | | | 7150' | | 665 sxs | | | 3430' | |
| Describe the Chesapea Please f | blowout pr ake Op Eind t Commit I | evention prog erating, ne recor Expires 2 e Unless | ram, if any. Use Inc. pro npletion p Years Fro Drilling U Plug b | additiona poses rogra m API derwa & CV | to m, N provs | if necessa re-coi MOCD': | my. mplet | te thi | ls we | ll in the | Grayb | ourg fo | new productive zone. |
| ²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.Signature: | | | | | | | OIL CONSERVATION DIVISION | | | | | | |
| Printed name: | 1) Ay | - / | Krein | / | | | Title: | | 1 | Chilly | <i>(</i> | | |
| Title: Sr. Reg | | | cialist | | | | | val Date: | PEIn | | Expiratio | • • | |
| E-mail Addres | | | | | | | | A | pr o | 6 2011 | | | |
| Date: 02/07/2 | | | Phone: 405.93 | 5.3782 | | | Condit | ions of Aj | oproval A | attached | | | |
| · · · | | | | | | | | | | | | | |

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Huey 2-5 Sec. 5-T20S-R38E, 2310 FNL & 1980 FWL Lea County, NM API #3002527771 CHK Prop #890237



Grayburg Recompletion

Well Data

| Casing: | 5.5" 17# J-55 @ 7,150' | | | | | |
|------------------|----------------------------|-----------|--|--|--|--|
| TOC: | 3,340' (CBL – Ran 12/2010) | | | | | |
| TD: | 7,150' | | | | | |
| PBTD: | 5,900' (CIBP w/ 35' cmt) | | | | | |
| Elevation: | 3,597' KB | 3,582' GL | | | | |
| WI / NRI (%): | 93.00/ 74.66 | | | | | |
| Tools: | 5.5" CIBP w/ cmt | @ 5,900' | | | | |
| | 5.5" CIBP w/ cmt | @ 6,240' | | | | |
| Proposed Perfora | ations: | | | | | |
| C | 4 4001 041 4 60 | - | | | | |

Grayburg 4,102' – 04' (4 SPF) 4,144' – 47' (4 SPF) 4,178' – 80' (4 SPF)

Tubular Specifications

| SIZE | WEIGHT | GRADE | BURST | COLLAPSE | YIELD | DRIFT (ID/OD) | CAPACITY (FT./GAL) | CAPACITY (FT./BBL) |
|--------|--------|-------|------------|------------|-------|------------------|-----------------------|-----------------------|
| 2-7/8″ | 6.5# | N-80 | 10,570 psi | 11,160 psi | 145K | 2.347" / 3.668" | 4.1135 | 172.76 |
| 5.5" | 17# | J-55 | 5,320 psi | 4,910 psi | 229K | 4.767" / 6.050" | 1.0242 | 43.01 |

Procedure

 RU wireline. RIH w/ 3-3/8", 22.7 gram, 0.36" EH, 35.63" Pen guns loaded w/ 4 SPF @ 60° phasing. Correlate and shoot Grayburg. POOH. RDMO wireline.

| Formation | Perforations | Interval | SPF | Total Shots |
|-----------|--------------|----------|-----|-------------|
| Grayburg | 4,102' - 04' | 2' | 4 | 8 |
| Grayburg | 4,144' - 46' | 2' | 4 | 8 |
| Grayburg | 4,178' - 80' | 2' | 4 | 8 |
| Totals: | | 6' | | 24 |

- 2. RU pump truck. Perform pump-in test to ensure breakdown within csg limitations (4256 psi @ 80%). RD pump truck.
 - a. If sufficient breakdown, proceed to step 3.
 - b. If insufficient breakdown:
 - i. MIRU PU. PU 5.5" packer and workstring.
 - ii. MIRU acid crew. TIH w/ tbg and spot acid over perforations.
 - iii. Come uphole, set packer, and pump 1500 gal. 15% NEFE HCL acid job.
 - iv. Overflush w/ a tbg volume. RDMO acid crew.
 - v. Release packer and TOH.
- 3. RU frac crew. Frac Grayburg as per recommendations. Record ISIP-5-10-15 minute pressures. RDMO frac crew.
- 4. TIH to clean-out to below perforations. Circulate hole clean w/ 2% KCL. TOH.
- 5. TIH while hydrotesting w/ production tbg and SN to 4,200' (below perforations).
- a. Contact Production Engineer for appropiate rod design.
- 6. TIH w/ rods and pump. RDMO PU.
- 7. Return to production.

| District I | | | | | | | | | | Form C-102 | | |
|---|--|-----------------|--------------|----------------------------|-----------------------|------------------|----------------------|---------------|--------------------------|------------------------------|--------|--|
| 1625 N. French Dr., Hobbs, NM 88240 District II | | | | | | | | | Revised July 16, 2010 | | | |
| District II 1301 W. Grand Avenue, Artesia, NM 88210 OIL CONSERVATION DIVISION | | | | | | | | | | Submit one copy to appropria | | |
| | | District Office | | | | | | | | | | |
| District III 1220 South St. Francis Dr. 1000 Rio Brazos Rd., Aztec, NM 874f0 CD Santa Fe, NM 87505 | | | | | | | | | | | | |
| District IV 1220 S. St. Francis | | HOR | RSOC | C, | Santa Fe, N | IM 87505 | | L | | NDED F | EPORI | |
| 1220 S. St. Francis | s Dr., Santa | Fe, NM 87505 | | | | | | ۸ | | | | |
| | | WE | ELL LC | CATION | | REAGE DEDIC | | | | | | |
| | API Numbe | r · | | ² Pool Code | | | ³ Pool Na | me | | | | |
| 30-025-277 | | <u></u> | 5738 | 0 | | iggs; Grayburg | / | | ⁶ Well Number | | | |
| ⁴ Property C | Code | | | ⁵ Property Name | | | | | | | | |
| 29555 | | Huey | | | | | <u></u> | | 2 | | | |
| ⁷ OGRID N | No. | | | ⁸ Operator Name | | | | | | [®] Elevation | | |
| 147179 | | Chesapeal | e Operat | ing, Inc. | | | | | 3597' (| JR | | |
| | | | | | ¹⁰ Surface | Location | | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East | /West line | | County | |
| F | F 5 20S 38E | | | 2310' | North 1980' V | | West | | Lea | | | |
| ······································ | ¹¹ 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 | Eas | t/West line | | County | | | | |
| | | | | | ` | | | | | | | |
| ¹² Dedicated Acre | s ¹³ Joint o | r Infill 14 C | onsolidation | Code 15 Or | der No. | | | | | | | |
| 40 | | | | | | | <u></u> | | | | | |

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 | <u>۸</u> | | 17 OPERATOR CERTIFICATION |
|-----------|---|----------|---|
| | | | I hareby cartify that the information contained herein is true and complete to the |
| · . | 긛 | | best of my knowledge and belief, and that this organization either owns a |
| | E Z | | working interest or unleased mineral interest in the land including the proposed |
| | 2310' FNL | | bottom hole location or has a right to drill this well at this location pursuant to |
| | 53 | | 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. |
| | | | Bun And 02/07/2011 |
| | | | Sgnaure Date |
| | | | Bryan Arrant |
| - | | | |
| | | | Printed Name |
| | ¥. | | bryan.arrant@chk.com |
| fa | ~~~~ ,0 | | E-mail Address |
| 1980' FWĹ | | | |
| | International Activity of the International Activity | | ¹⁸ 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. |
| | | | |
| · | | | Date of Survey |
| | | | Signature and Seal of Professional Surveyor: |
| | | | |
| | | | PLEASE REFER TO ORIGINAL PLAT |
| | | <i>.</i> | |
| | 1 | | |
| | | | - |
| | | | Certificate Number |
| | | l | |