

**District I**  
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Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
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Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
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Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

**State of New Mexico**  
**Energy Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
Revised July 18, 2013

**HOBS** AMENDED REPORT

AUG 09 2013

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

<sup>1.</sup> Operator Name and Address <b>VANGUARD PERMIAN LLC</b> <b>P O BOX 1570 281 NORTH NM HIGHWAY 248</b> <b>EUNICE, NM 88231</b>		<sup>2.</sup> OGRID Number <b>258350</b>
		<sup>3.</sup> API Number <b>30-025-37829</b>
<sup>4.</sup> Property Code <b>312410</b>	<sup>5.</sup> Property Name <b>GRIZZELL B</b>	<sup>6.</sup> Well No. <b>8</b>

**<sup>7.</sup> Surface Location**

UL - Lot H	Section 8	Township 22S	Range 37E	Lot Idn	Feet from 2310	N/S Line North	Feet From 497	E/W Line EAST	County LEA
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**<sup>8.</sup> Proposed Bottom Hole Location**

UL - Lot H	Section 8	Township 22S	Range 37E	Lot Idn	Feet from 2310	N/S Line NORTH	Feet From 497	E/W Line EAST	County LEA
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**<sup>9.</sup> Pool Information**

Pool Name <b>PENROSE SKELLY GRAYBURG</b>	Pool Code <b>50350</b>
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**Additional Well Information**

<sup>11.</sup> Work Type <b>P</b>	<sup>12.</sup> Well Type <b>O</b>	<sup>13.</sup> Cable/Rotary <b>R</b>	<sup>14.</sup> Lease Type <b>PRIVATE</b>	<sup>15.</sup> Ground Level Elevation <b>3420 KB</b>
<sup>16.</sup> Multiple	<sup>17.</sup> Proposed Depth <b>3780</b>	<sup>18.</sup> Formation <b>GRAYBURG</b>	<sup>19.</sup> Contractor	<sup>20.</sup> Spud Date
Depth to Ground water <b>40</b>		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits During this procedure we plan to use the Closed-Loop System with a steel tank and haul contents to the required disposal per OCD Rule 19.15.171

**Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
	12.25	8.625	24	2950		
	17	5.5	17	5320		

**Casing/Cement Program: Additional Comments**

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**<sup>22.</sup> Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

<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 I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature:

Printed name: **GAYN HEARD**

Title: **AGENT**

E-mail Address: **gheard@oilreportsinc.com**

Date:

Phone:

**OIL CONSERVATION DIVISION**

Approved By:

Title:

Approved Date:

Expiration Date:

**Oil Conservation Division**

Conditions of approval: Approval for drilling/workover ONLY -- CANNOT produce Downhole Commingled until DHC is approved in the OCD Santa Fe office.

SEP 09 2013



### **WORKOVER PROCEDURE**

**Acidize, Test SA, then add Perforations, Stimulate & Test the Grayburg**

**Grizzell B #8**

**Eunice Area**

**Lea County, New Mexico**

**7/12/2013**

**HOBBS OCD**

**AUG 09 2013**

**AFE # \_\_\_\_\_**

#### **Well Data:**

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RKB - GL: 3430' / 3429'  
Surf. Casing: 8-5/8", 24# K-55, set at 871'  
Prod. Casing: 5-1/2", 17# K-55, set at 4496'  
Tbg & Pkr: 2 7/8", 6.5# J-55 EUE, set at unknown  
Perforations: San Andres 3,826' – 4,050' (See WBD)  
PBTD: 4,451' FC WLM,  
BHP: Not certain – well on pump  
BHT: 120°F @ TD

#### **Casing Specifications**

Depth ( ft)	Casing Wt & Grade	Burst	Col	Body Yield	JT Yield	Wall	ID	Drift Dia.	Top Cmt
0 – 1092'	8-5/8, 24#, K-55 ST&C	2,950	1,370	630	381	-	8.097	7.972	Surf.
0 – 4,284'	5-1/2", 17#, K-55	5,320	4,910	273	272	-	4.892	4.767	Surf.

#### **Safety:**

Vanguard's policy on safety as employees and contractors is for everyone to go home safely every day. To this end a safety meeting involving all persons on location will be held at the beginning of each day and prior to any significant activity during the course of this operation. **It is the responsibility of the Wellsite Supervisor to lead these safety**

**Grizzell B #8**

**Acidize and test SA, Perf, Stim & Test Upper Grayburg**

meetings, document attendance, note in the daily report, and retain the documentation for the permanent well record.

While there are multiple aspects running a safe operation, one key point that should be made at each safety meeting is the Stop Work Authority (SWA) policy. The SWA Policy grants all persons on a Vanguard site, facility, location, or property the **Right, Obligation, Authority, and Responsibility** to stop any work or action that are unsafe to personnel, equipment, or that if continued may damage the environment. This is a key component of our safety policy and must be conveyed to all personnel on location.

HOBBS OGD

**Scope of Operations:**

AUG 09 2013

Acidize the San Andres and test. Then, isolate the current San Andres interval and add 30 new perforations to the Grayburg Formation, fracture stimulate and test the Grayburg. Comingle if possible.

**Contact Information:**

Name	Title	Office	Cell
Bryan Kindred	Workover Foreman		575-602-1788
Mike Jones	Production Foreman	575-396-0812	575-390-4611
Newt Painter	Production Superintendent	432-362-2209	432-438-3872
Randall Hicks	Senior Operations Engineer	832-377-2207	713-252-1626
Frank Lemkowitz	Operations Manager	832-377-2237	713-560-3122

**Procedure:**

1. MIRU completion rig and test anchors.
2. Unseat pump and POOH w/ rods and pump.
3. ND WH and NU BOP. Kill well with 2% KCL water, if necessary. Release TAC and POOH w/ tubing.
4. PU, strap and TIH with 4-3/4" bit, 5-1/2" casing scrapper & 2-7/8" tubing. Clean out hole to PBTD (4451') until clean returns, POOH.
5. PU a 5-1/2" Arrowset I packer and RIH to ~3780'. Load tubing with 2 % KCl and set packer. Test csg to 3700 psi.
6. MIRU pump truck and test lines to 3500 psi.
7. Pump 4000 gals 15% NEFE acid with 125 ball sealers.
  - a. Pump 500 gal then drop 125 balls over next 3000 gals.
  - b. Pump last 500 gals and flush to 3874'.
  - c. Record ISIP, 5 min, 10 min and 30 min.
8. RU swabber and swab well in to test acid job. Recover load and report fluid/gas entry.
9. Load hole and release packer, POOH and lay out tubing.
10. MI wireline w/ packoff. RIH w/ CBP and GR/CCL & correlate to the Halliburton Spectral Density/Dual-spaced Neutron/GR log dated 6/08/2006.

Grizzell B #8

Acidize and test SA, Perf, Stim & Test Upper Grayburg

11. Set CBP @ ~3800'.
12. MU 3-1/8" slick casing guns set at 3 spf, 120° phasing (0.40" hole, 21" penetration).
13. Perforate as follows:
  - a. 3656' – 3660' (4', 12 shots)
  - b. 3774' – 3780' (6', 18 shots) – (30 total shots)
14. RD wireline.
15. RDMO completion rig.
16. Call out 4-500 bbl tanks & fill with 2% KCl water. Install frac valve in preparation for frac job.
17. RU frac Co. and test lines & pump as per frac schedule.
18. Monitor ISIP, 10 min, 15 min. Flowback until well dies. **HOBBS OCD**
19. MIRU completion rig.
20. RIH w/ 5-1/2" TAC, SN and 2-7/8" tubing. Set SN at 3600'. **AUG 09 2013**
21. RIH w/ rods and pump.
22. RD & MO. **RECEIVED**
23. Turn well on to production.
24. Test well to get comingle permit.
25. See additional procedure to comingle zones, if needed.

*Note: It is the responsibility of Wellsite Supervisor to enter all daily activity reports and costs into WellView on a timely basis.*

**Originator:**

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**Randall Hicks**  
**Senior Operations Engineer**

**Approved:**

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**Frank Lemkowitz**  
**Operations Manager**

*Grizzell B #8*  
*Acidize and test SA, Perf, Stim & Test Upper Grayburg*



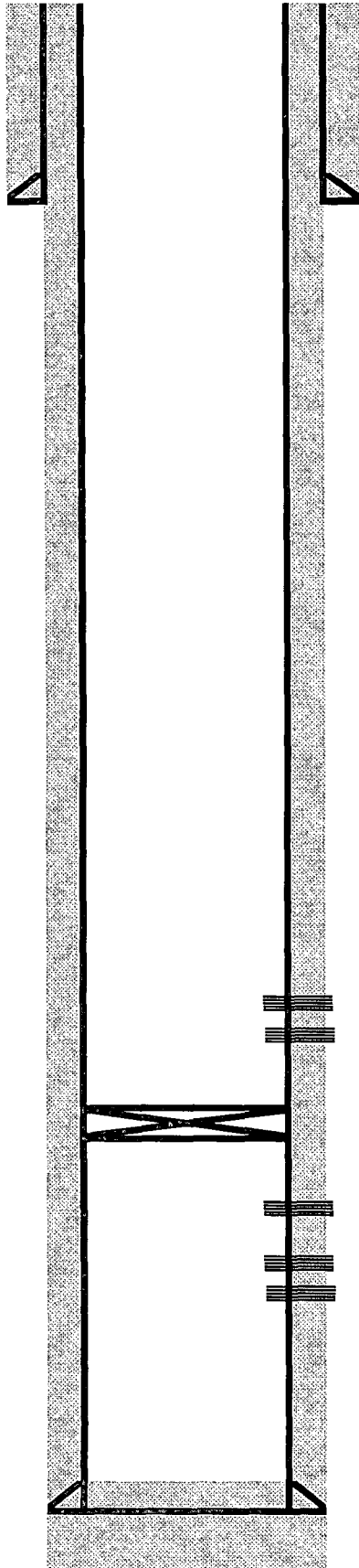
**Grizzell B #8**  
**Eunice SA SW Field - 30-025-37829**  
**Lea County, New Mexico**  
 INTERIM COMPLETION - 7/2013

TOC @ surf  
330 sxs

8 5/8" csg @ 871

TOC @ surf  
850 sxs

5 1/2" csg @ 4496



**CASING PROGRAM**

<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>I.D.</u>	<u>Collapse</u>	<u>Burst</u>
871	8 5/8"	24#	K-55	8.097	1,370	2,950
4496	5 1/2"	17#	K-55	4.892	4,910	5,320

**PRODUCTION TUBING**

<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Threads</u>
unknown	2 7/8"	6.5#	J-55	EUE

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Grayburg Perforations 30 holes:

3,656' - 3,660' (3 spf, 12 holes)  
 3,774' - 3,780' (3 spf, 18 holes)

Composite BP @ 3800'

San Andres Perforations 182 holes:  
 3,826' - 3,864' (2 spf, 76 holes)

3,902' - 3,956' (1 spf, 54 holes)  
 3,992' - 4,050' (1 spf, 52 holes)

PBTD = 4,451' FC

*Note: This schematic is not to scale. For display purposes only.*