

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
 1000 Rio Brazos Road, Aztec, NM 87410  
 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  
**NM OIL CONSERVATION**  
 Energy Minerals and Natural Resources DISTRICT

Form C-101  
 Revised July 18, 2013

Oil Conservation Division NOV 12 2014  AMENDED REPORT  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505 RECEIVED

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

<sup>1</sup> Operator Name and Address COG Operating LLC One Concho Center 600 W Illinois Ave, Midland, TX 79701		<sup>2</sup> OGRID Number 229137
<sup>3</sup> Property Code 313891		<sup>3</sup> API Number 30-015-28164
<sup>3</sup> Property Name Lakewood Farms SWD 18		<sup>6</sup> Well No. 1

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	18	19S	26E		660	North	660	West	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

**9. Pool Information**

<sup>9</sup> Pool Name SWD;Devonian	<sup>9</sup> Pool Code 96101
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**Additional Well Information**

<sup>11</sup> Work Type R	<sup>12</sup> Well Type S	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type P	<sup>15</sup> Ground Level Elevation 3385
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 10,700	<sup>18</sup> Formation Devonian	<sup>19</sup> Contractor	<sup>20</sup> Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

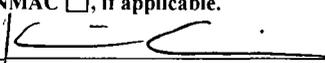
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
	8-3/4"	7"	26#	9945'	1200	surface

**Casing/Cement Program: Additional Comments**

Original casing will remain the same. Please see attachment for procedure.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Hydraulic	2000 psig	2000 psig	

<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 <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature:  Printed name: Kanicia Castillo Title: Lead Regulatory Analyst E-mail Address: kcastillo@concho.com Date: 11/07/14 Phone: 432-685-4332	OIL CONSERVATION DIVISION	
	Approved By: 	
	Title: "Geologist"	
	Approved Date: 11-18-2014	Expiration Date: 11-18-2016
	Conditions of Approval Attached	

Lakewood Farms 18 #1 SWD

**C-101 - Casing/Cement Program: Additional Comments**

It is COG's intent to re-enter and deepen this well to the Devonian formation for produced water disposal. Cement plugs from surface to 9,200 ft will be drilled out of the existing surface casing and the 7-7/8" OH using a 7-7/8" bit. Existing 7-7/8" hole will be reamed to 8-3/4" from 1,112 ft to @ 9,550 ft; 9,550 ft to 9,945 ft will be new hole. 7" casing will be run to 9,945 feet and cemented to surface with 1200 sacks of cement. Once casing is set, we will drill 6-1/8" OH from 9,945 ft to TD @ 10,700 ft.

## Lakewood Farms 18 #1 – SWD Completion Procedure

660' FNL & 600' FWL

Sec 18, T19S, R26E

Eddy Co, NM

API #30-015-28614

### Well Data

Injection Formation: Devonian

MD/PBTD: 10,700'

Surface Csg: 9-5/8" 36# J55 @ 1,112', CMT w/ 150 sx Class C w/ 2% CaCl<sub>2</sub> + 800 sx 35:65:6 Class C, Circ 123 sx

Prod Csg: 7" 29# HCL-80 @ +/- 9,945',

Inj Tubing: 3-1/2" 9.3# L80 EUE Glassbore Tubing (10 ppf actual)

### Procedure

- Set anchors, set two frac tanks, set two lined acid frac tanks, MIRU WSU, NU 7-1/16" hydraulic BOP with 3-1/2" pipe rams and blind rams. Close blind rams and test casing to 1,000 psi.
- Order 3-1/2" 9.3# L80 workstring. RIH with RBP retrieving tool and retrieve 7" RBP set @ approximately 9,900'.
- RIH with 7" treating packer on 3-1/2" workstring to 9,800'. Set packer and test tubing x casing annulus to 1,500 psi.
- Acidize Devonian open hole from 9,945' – 10,700' with 40,000 gals NE Fe 20% HCl acid (inhibited) at 8-10 BPM while limiting treating pressure to 5,000 psi and holding 1,500 psi on the annulus. Flush acid with one frac tank of fresh water. Shut well in for a couple of hours or until well is on a vacuum.
- Unset treating packer and TOOH laying down workstring. Inspect packer for damage and missing elements.
- RIH with 7" nickel plated AS-1X retrievable injection packer with pump out plug on 3-1/2" 9.3# L80 EUE Glassbore internally lined tubing to place packer at approximately 9,900'.
- Space out to put 20 points compression on packer, set packer and get off of on/off tool. Reverse circulate annulus with approximately 250 bbls fresh water packer fluid containing corrosion inhibitor/biocide/oxygen scavenger.
- Latch onto on/off tool and plumb in wellhead. Top off annulus with packer fluid if necessary.
- Give NMOCD Artesia 24 hours of notice for MIT. Test tubing x casing annulus to 500 psi for 30 minutes. Limit injection pressure to 1,989 psi using a pressure limiting device.
- Run injection test as follows without exceeding 1,975 psi injection pressure while holding 1,000 psi on the annulus:
  - 2.0 BPM for 20 minutes (40 total barrels)
  - 4.0 BPM for 20 minutes (120 total barrels)
  - 6.0 BPM for 20 minutes (240 total barrels)
  - 8.0 BPM for 20 minutes (400 total barrels)
  - 10.0 BPM for 20 minutes (600 total barrels)
  - 12.0 BPM for 20 minutes (840 total barrel)
- Collect ISIP, 5 min SIP, 10 min SIP, 15 min SIP and shut well in. RDMO and have all data sent to engineer.
- Put well into service.

Well: Lakewood Farms 18 #001

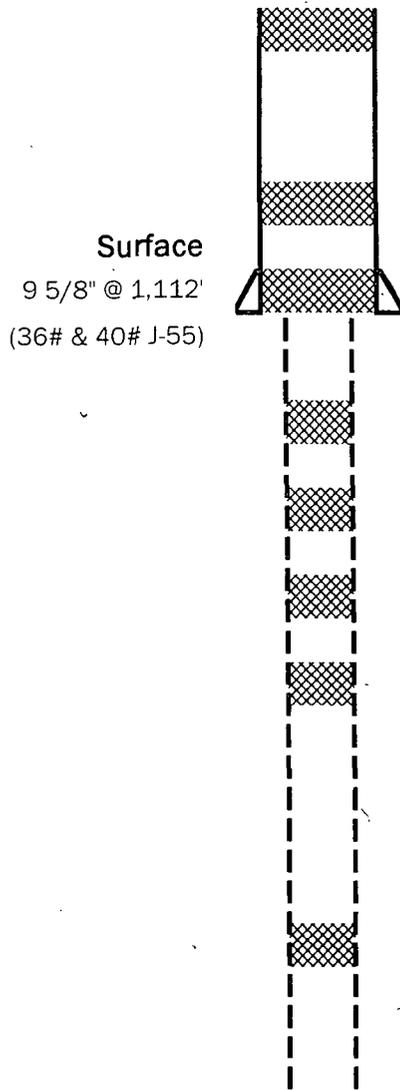
API: 30-015-28164

(Before ReEntry)

Elev: 3385' GL

Location: 600' FNL; 660' FWL, Sec 18, T19S, R26E, Eddy Co. NM

Plugs are indicated by crosshatched fill



Plug #9: 10 sx Surface Plug

Plug #8: 35 sx @ 350' - 250'

Plug #7: 35 sx @ 1,172' - 1,072'

7 7/8" OH below Surface Casing

OH Plug #6: 35 sx @ 2,700' - 2,600'

Glorieta: 2,736'

(TIH. Did not tag cement)

OH Plug #3: 35 sx @ 4,400' - 4,300'

OH Plug #2: 35 sx @ 6,400' - 6,300'

Wolfcamp: 6,450'

OH Plug #1: 35 sx @ 7,646' - 6,646' (???)

Canyon: 7,710'

Strawn: 8,112'

Atoka: 8,628'

PBTD: 8,950'

Morrow: 9,182'

(100 sx @ 8,950' - 9,200')

Chester: 9,503'

TD: 9,550'

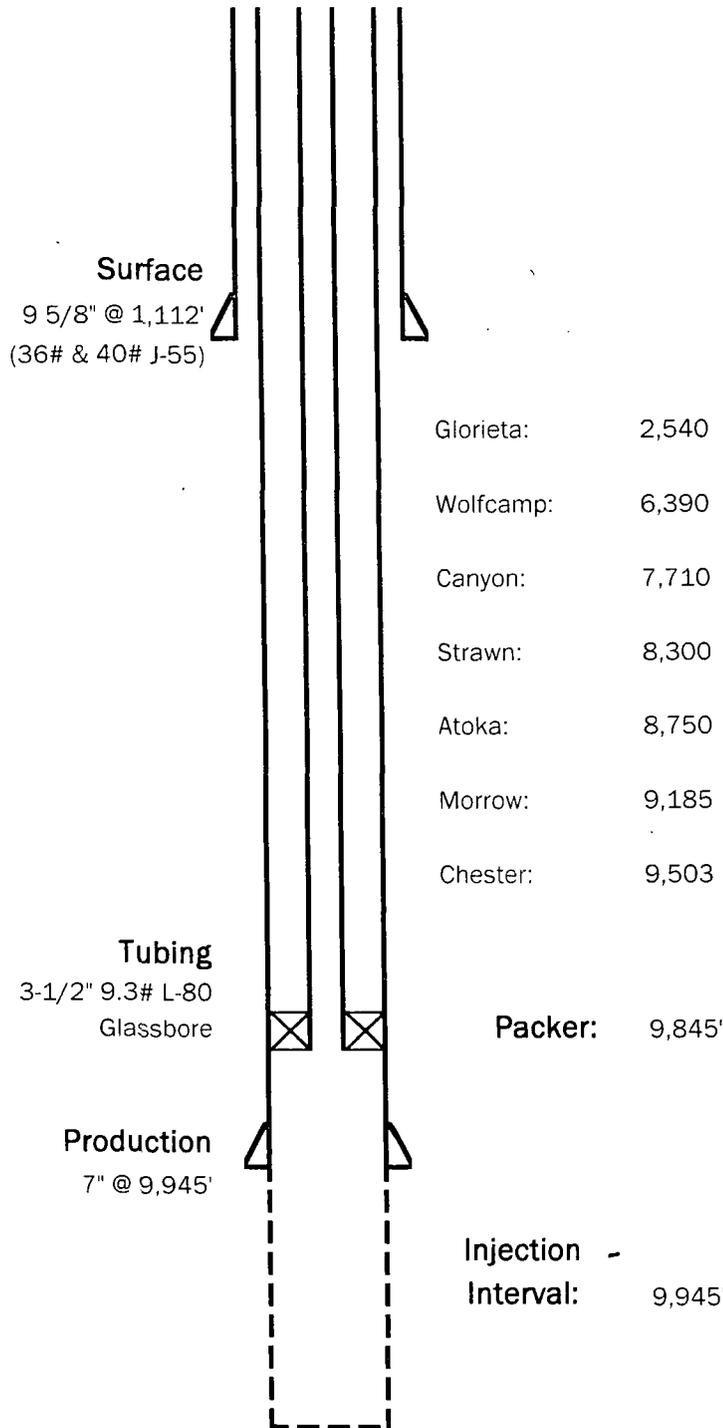
Well: Lakewood Farms 18 #001

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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office  
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-05-28164 ✓		<sup>2</sup> Pool Code 96101	<sup>3</sup> Pool Name SWD; Devonian ✓
<sup>4</sup> Property Code 315891	<sup>5</sup> Property Name Lakewood Farms SWD 18		<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 229137	<sup>8</sup> Operator Name COG Operating LLC		<sup>9</sup> Elevation 3385

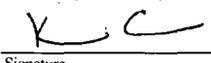
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	18	19S	26E		660	North	660	West	Eddy

<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
<sup>12</sup> Dedicated Acres									
<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code			<sup>15</sup> Order No. SWD- Pending				

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.

<sup>16</sup> 					<sup>17</sup> <b>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>
					 10/7/14 Signature Date
					Kanicia Castillo Printed Name kcastillo@concho.com E-mail Address
				<sup>18</sup> <b>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	