

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS  
HOBBSOCD  
DEC 15 2014

FORM APPROVED  
OMB No. 1004-0157  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

|                                                                                                                                  |                                                   |                                                             |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other |                                                   | 5. Lease Serial No.<br>NM99048                              |
| 2. Name of Operator<br>Caza Operating, LLC                                                                                       |                                                   | 6. If Indian, Allottee or Tribe Name                        |
| 3a. Address<br>200 N. Lorraine, Suite 1550, Midland, Texas 79701                                                                 | 3b. Phone No. (include area code)<br>432 682 7424 | 7. If Unit or CA/Agreement, Name and/or No.                 |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br>1980 FNL & 1980 FWL, Sec 15, T-28S, R-34-E             |                                                   | 8. Well Name and No.<br>Mud Slide Lim 15 Federal # 1        |
|                                                                                                                                  |                                                   | 9. API Well No.<br>30 025 38469                             |
|                                                                                                                                  |                                                   | 10. Field and Pool, or Exploratory Area<br>Lea: Delaware NW |
|                                                                                                                                  |                                                   | 11. County or Parish, State<br>Lea, New Mexico              |

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                                     |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume)                  |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation                                |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                                 |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon                        |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal                             |
|                                                      |                                               |                                           | <input type="checkbox"/> Water Shut-Off                             |
|                                                      |                                               |                                           | <input type="checkbox"/> Well Integrity                             |
|                                                      |                                               |                                           | <input checked="" type="checkbox"/> Other <b>Commingle Lea Bone</b> |
|                                                      |                                               |                                           | <b>Sprgs 37570 w/ Lea;</b>                                          |
|                                                      |                                               |                                           | <b>Delaware NW 37584</b>                                            |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No., on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Caza Operating, LLC respectfully request authorization from BLM to commingle the currently producing Lower Brushy Canyon Perfs 8291-8306 (pool 37584) w/ the Bone Springs perfs 9488-10,925 (pool 37570). We see no adverse affect combining both zones so as to maximize Rate of Return. Attached are Federal Commingle Worksheet, Delaware Completion report 3160-4, OCD C-102's for both zones, Production curves for both zones, Allocation sheet, gas & oil analysis & well bore schematics showing existing wellbore & both zones combined. OCD has received our request dated 8-26-2014.

*Wellbore reflects operations without BLM approval historically.*

APPROVAL BY STATE  
SUBJECT TO LIKE

SUBJECT TO LIKE  
APPROVAL BY STATE

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Richard L. Wright

Title Operations Manager, Caza Operating

Signature

*Richard L. Wright*

Date

08/27/2014

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

Date

DEC 9 2014

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

DEC 15 2014

# Downhole Commingling Worksheet

Operator: Caza Operating, LLC 249099

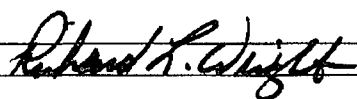
Lease/Well Name/API Number/Location: **Mud Slide Slim 15 Fed # 1** API # 30-025-38469 Sec 15, T20S, R34E

Date: 8/25/2014

| <u>Data</u>                                                                                                                                           | <u>Bottom Formation</u> | <u>Middle Formation</u> | <u>Upper Formation</u> | <u>Estimated Combined Production Data</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|------------------------|-------------------------------------------|
| Pool name                                                                                                                                             | Lea; Bone Sprgs         |                         | Lea; Delaware NE       |                                           |
| Pool Code                                                                                                                                             | 37570                   |                         | 37584                  |                                           |
| State Form C-102 with dedicated Acres Provided                                                                                                        | Attached                |                         | Attached               | Attached                                  |
| Formation Name                                                                                                                                        | Bone Springs            |                         | Delaware               |                                           |
| Top and Bottom of Pay Section (Perforated or open-Hole Interval)                                                                                      | 9488-10,925             |                         | 8291-8306              |                                           |
| Method of production                                                                                                                                  | Rod Pump                |                         | Rod Pump               |                                           |
| Bottom Hole Pressure                                                                                                                                  | 3500                    |                         | 3000                   | estimated                                 |
| Reservoir Drive mechanism                                                                                                                             | Solution Gas            |                         | Solution Gas           |                                           |
| Oil gravity and/or BTU                                                                                                                                | 39.1                    |                         | 41.4                   | 40                                        |
| Average Sulfur Content (Wt %)                                                                                                                         | 0.16560                 |                         | 0.1949                 | 0.1772                                    |
| Oil sample Analysis provided                                                                                                                          | Attached                |                         | Attached               |                                           |
| Gas Analysis provided                                                                                                                                 | Attached                |                         | Attached               |                                           |
| Produce Water Analysis provided                                                                                                                       | Attached                |                         | Attached               |                                           |
| H2S present                                                                                                                                           | 10                      |                         | 0                      | 0.377                                     |
| Producing, Shut-In or New Zone                                                                                                                        | Shut In                 |                         | Producing              |                                           |
| Date and Oil/Gas/Water rates of Last Production (new zones or no production history Operator shall attached production estimated and supporting data) | 16/8/21                 |                         | 10.5/2/105             |                                           |
| Average decline % ( provide back up data)                                                                                                             | 6%                      |                         | 8%                     |                                           |
| Fixed Allocation Percentage                                                                                                                           | 60/80/17                |                         | 40/20/83               |                                           |

Remarks:

Operator Signature:



Date: 8-27-2014

## Attached Supporting documents

State Form C-102 with dedicated Acres Provided

Oil sample Analysis provided (Must be current)

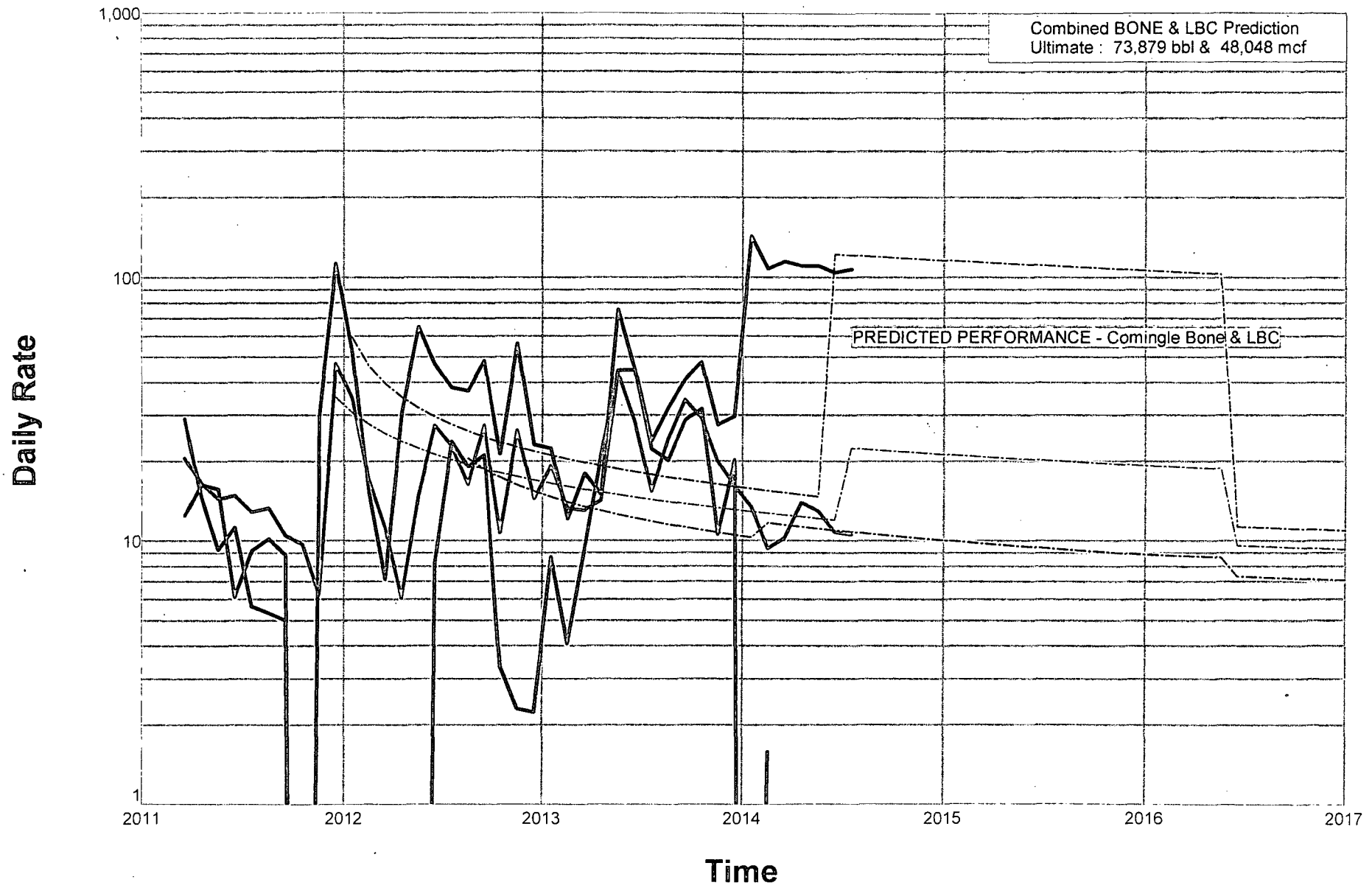
Gas Analysis provided (Must be current)

Produce Water Analysis provided (Must be current)

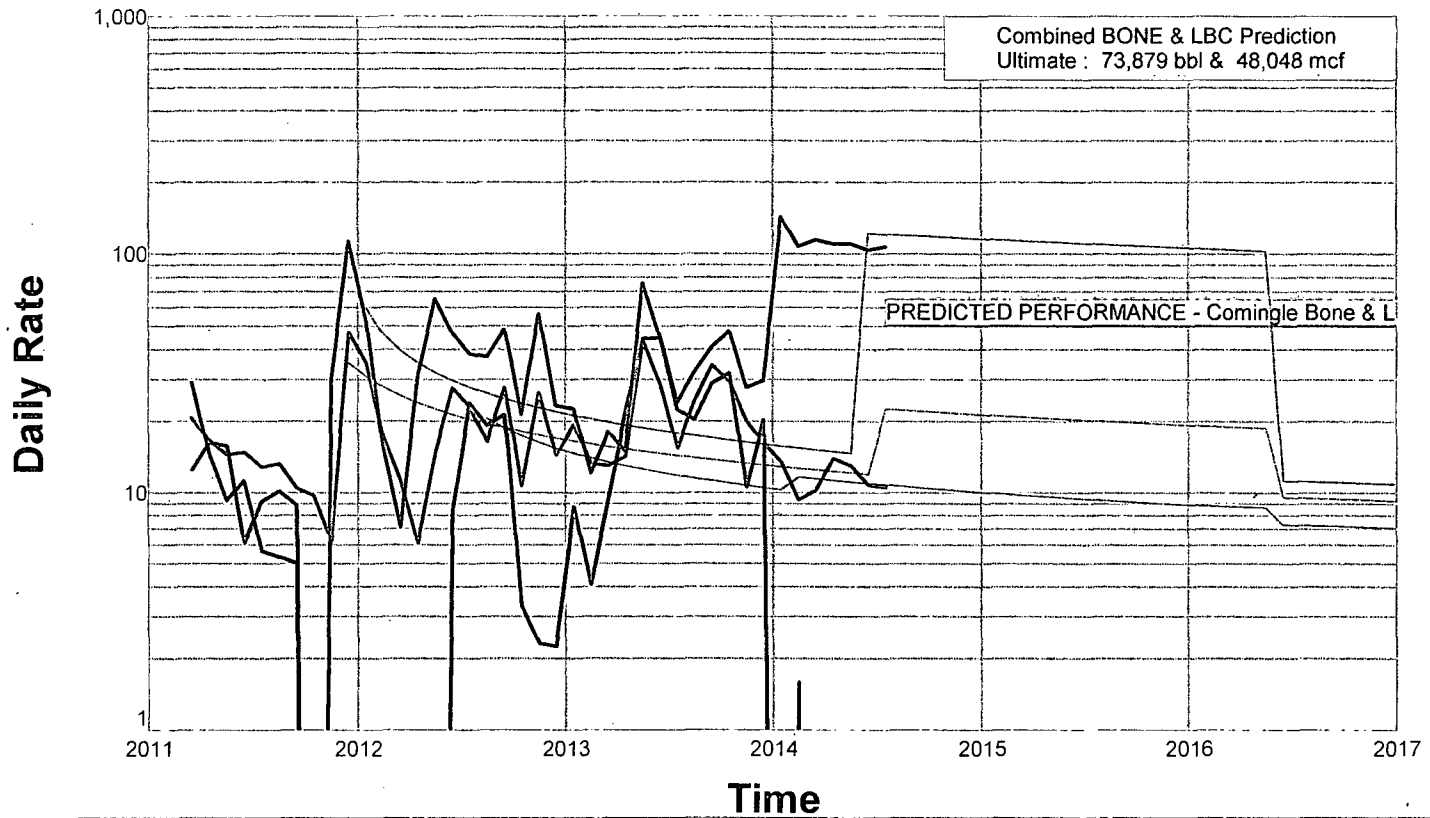
Any additional supporting data (i.e. offset well production and decline curves etc..)

\*Utilize weighted average.

## Mud Slide Slim 15-1 PREDICTED PERFORMANCE

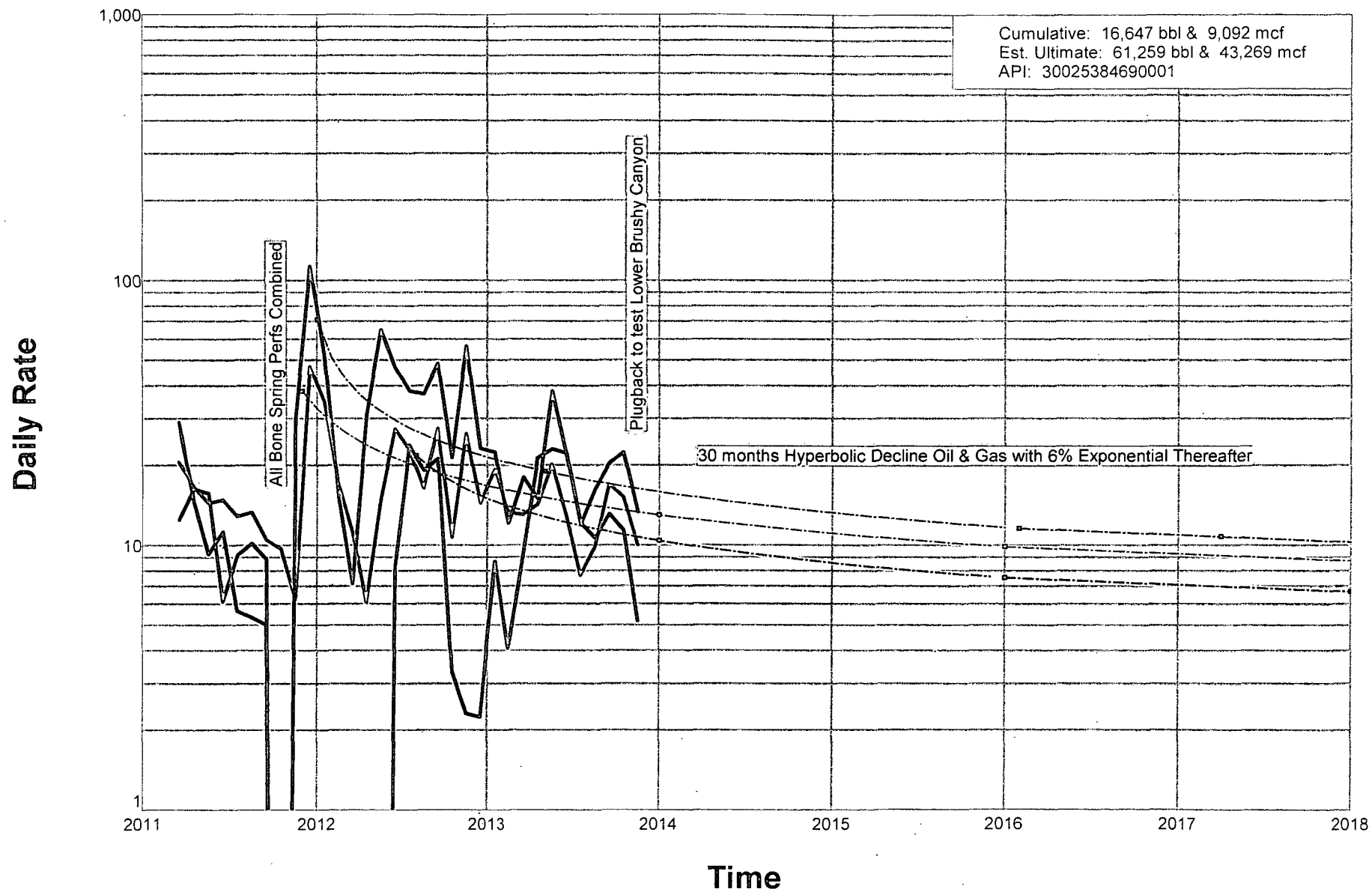


## Mud Slide Slim 15-1 PREDICTED PERFORMANCE

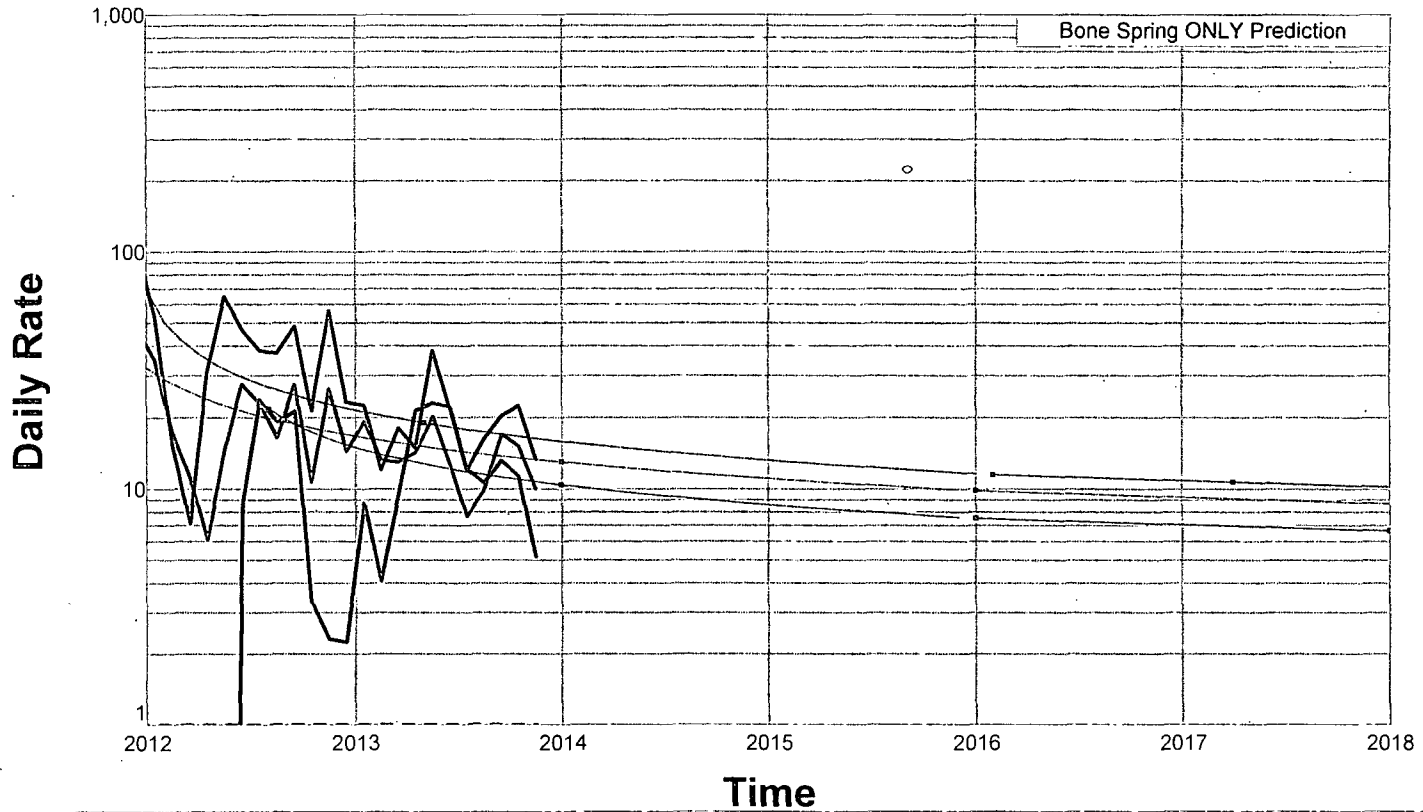


| Date    | Oil<br>(bbl) | Gas<br>(mcf) | Water<br>(bbl) | Total Oil<br>(bbl) | Total Gas<br>(mcf) | Total Water<br>(bbl) |
|---------|--------------|--------------|----------------|--------------------|--------------------|----------------------|
| 09/2014 | 668          | 318          | 3,610          | 668                | 318                | 3,610                |
| 10/2014 | 661          | 314          | 3,583          | 1,329              | 631                | 7,193                |
| 11/2014 | 655          | 310          | 3,555          | 1,984              | 941                | 10,748               |
| 12/2014 | 649          | 306          | 3,528          | 2,633              | 1,247              | 14,276               |
| 01/2015 | 643          | 302          | 3,502          | 3,277              | 1,549              | 17,778               |
| 02/2015 | 637          | 299          | 3,475          | 3,914              | 1,848              | 21,253               |
| 03/2015 | 632          | 295          | 3,449          | 4,546              | 2,144              | 24,702               |
| 04/2015 | 626          | 292          | 3,424          | 5,172              | 2,436              | 28,126               |
| 05/2015 | 621          | 289          | 3,398          | 5,793              | 2,725              | 31,524               |
| 06/2015 | 616          | 286          | 3,373          | 6,409              | 3,011              | 34,897               |
| 07/2015 | 611          | 283          | 3,348          | 7,020              | 3,294              | 38,246               |
| 08/2015 | 606          | 280          | 3,324          | 7,625              | 3,574              | 41,569               |
| 09/2015 | 601          | 278          | 3,300          | 8,226              | 3,852              | 44,869               |
| 10/2015 | 596          | 275          | 3,276          | 8,822              | 4,127              | 48,145               |
| 11/2015 | 591          | 272          | 3,252          | 9,413              | 4,399              | 51,397               |
| 12/2015 | 587          | 270          | 3,229          | 10,000             | 4,669              | 54,625               |
| 01/2016 | 583          | 268          | 3,205          | 10,583             | 4,937              | 57,831               |
| 02/2016 | 579          | 267          | 3,183          | 11,162             | 5,204              | 61,014               |
| 03/2016 | 576          | 265          | 3,162          | 11,737             | 5,469              | 64,175               |
| 04/2016 | 572          | 264          | 3,140          | 12,309             | 5,732              | 67,315               |
| 05/2016 | 569          | 262          | 3,119          | 12,878             | 5,995              | 70,435               |
| 06/2016 | 290          | 222          | 341            | 13,168             | 6,216              | 70,776               |

## MUD SLIDE SLIM 15 FEDERAL (BONE) - LEA

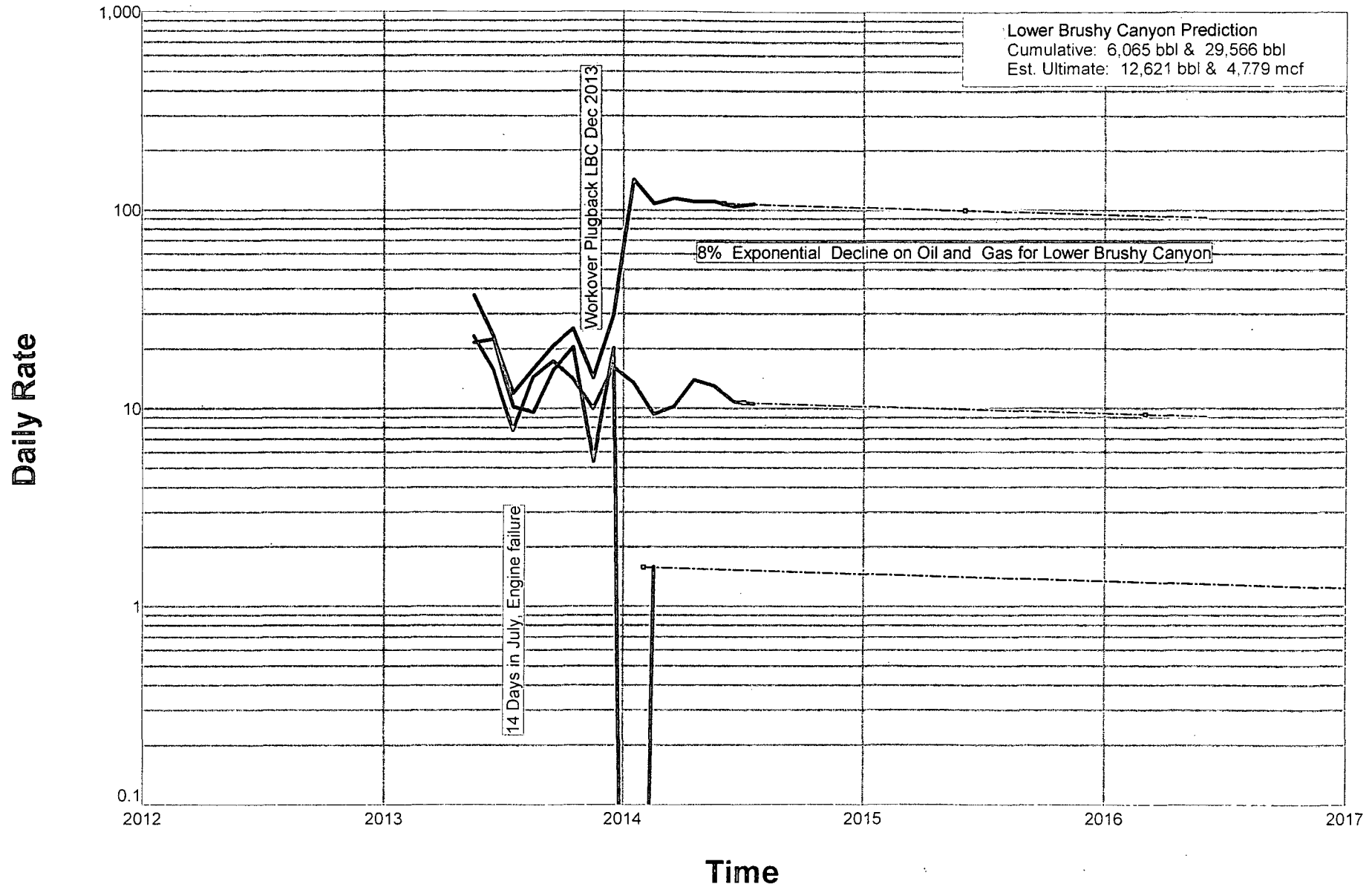


## MUD SLIDE SLIM 15 FEDERAL (BONE) - 1 - LEA

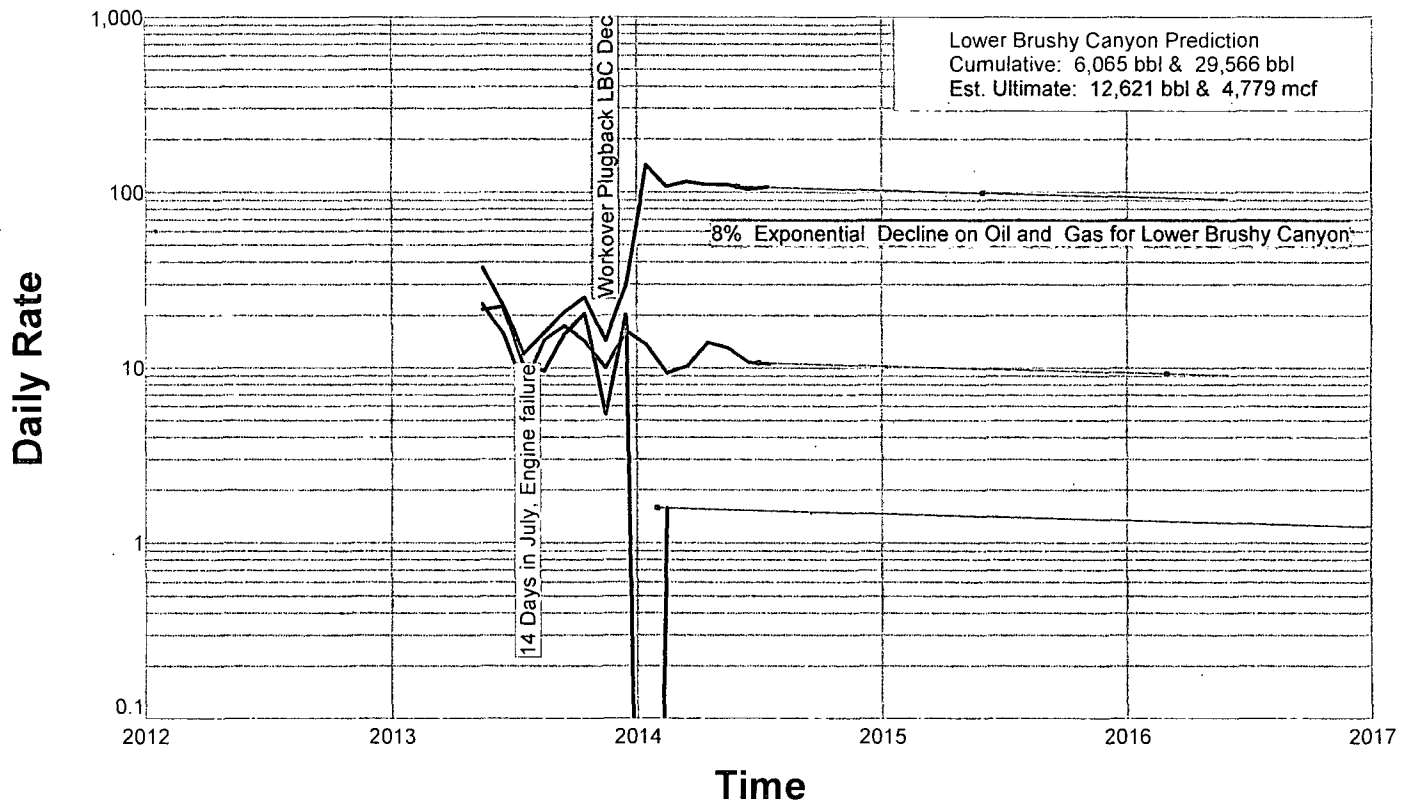


| Date    | Oil<br>(bbl) | Gas<br>(mcf) | Water<br>(bbl) | Total Oil<br>(bbl) | Total Gas<br>(mcf) | Total Water<br>(bbl) |
|---------|--------------|--------------|----------------|--------------------|--------------------|----------------------|
| 09/2014 | 350          | 272          | 420            | 350                | 272                | 420                  |
| 10/2014 | 346          | 269          | 414            | 695                | 541                | 834                  |
| 11/2014 | 342          | 265          | 409            | 1,037              | 806                | 1,243                |
| 12/2014 | 338          | 262          | 404            | 1,375              | 1,068              | 1,647                |
| 01/2015 | 334          | 258          | 399            | 1,709              | 1,326              | 2,046                |
| 02/2015 | 330          | 255          | 394            | 2,039              | 1,581              | 2,440                |
| 03/2015 | 327          | 252          | 389            | 2,366              | 1,833              | 2,829                |
| 04/2015 | 323          | 249          | 385            | 2,689              | 2,082              | 3,214                |
| 05/2015 | 320          | 246          | 380            | 3,010              | 2,328              | 3,594                |
| 06/2015 | 317          | 243          | 376            | 3,327              | 2,571              | 3,971                |
| 07/2015 | 314          | 241          | 372            | 3,641              | 2,812              | 4,343                |
| 08/2015 | 311          | 238          | 368            | 3,952              | 3,051              | 4,711                |
| 09/2015 | 308          | 236          | 365            | 4,260              | 3,287              | 5,076                |
| 10/2015 | 305          | 234          | 361            | 4,565              | 3,520              | 5,437                |
| 11/2015 | 303          | 231          | 357            | 4,868              | 3,751              | 5,795                |
| 12/2015 | 300          | 229          | 354            | 5,168              | 3,981              | 6,149                |
| 01/2016 | 298          | 227          | 351            | 5,466              | 4,208              | 6,499                |
| 02/2016 | 296          | 226          | 348            | 5,762              | 4,434              | 6,848                |
| 03/2016 | 295          | 225          | 346            | 6,057              | 4,659              | 7,194                |
| 04/2016 | 293          | 224          | 345            | 6,351              | 4,883              | 7,539                |

## Mudslide Slim 15 # 1 - LYNCH - Lower Brushy Canyon



## Mudslide Slim 15 # 1 - LYNCH - Lower Brushy Canyon



| Date    | Oil<br>(bbl) | Gas<br>(mcf) | Water<br>(bbl) | Total Oil<br>(bbl) | Total Gas<br>(mcf) | Total Water<br>(bbl) |
|---------|--------------|--------------|----------------|--------------------|--------------------|----------------------|
| 09/2014 | 318          | 45           | 3,190          | 318                | 45                 | 3,190                |
| 10/2014 | 316          | 45           | 3,168          | 634                | 90                 | 6,358                |
| 11/2014 | 314          | 45           | 3,146          | 947                | 135                | 9,505                |
| 12/2014 | 311          | 44           | 3,124          | 1,259              | 180                | 12,629               |
| 01/2015 | 309          | 44           | 3,103          | 1,568              | 224                | 15,732               |
| 02/2015 | 307          | 44           | 3,081          | 1,875              | 267                | 18,813               |
| 03/2015 | 305          | 43           | 3,060          | 2,180              | 311                | 21,873               |
| 04/2015 | 303          | 43           | 3,039          | 2,483              | 354                | 24,912               |
| 05/2015 | 301          | 43           | 3,018          | 2,784              | 397                | 27,930               |
| 06/2015 | 299          | 43           | 2,997          | 3,083              | 440                | 30,926               |
| 07/2015 | 297          | 42           | 2,976          | 3,379              | 482                | 33,902               |
| 08/2015 | 295          | 42           | 2,955          | 3,674              | 524                | 36,858               |
| 09/2015 | 293          | 42           | 2,935          | 3,966              | 565                | 39,793               |
| 10/2015 | 291          | 41           | 2,915          | 4,257              | 607                | 42,708               |
| 11/2015 | 289          | 41           | 2,895          | 4,546              | 648                | 45,602               |
| 12/2015 | 287          | 41           | 2,874          | 4,832              | 689                | 48,477               |
| 01/2016 | 285          | 41           | 2,855          | 5,117              | 729                | 51,331               |
| 02/2016 | 283          | 40           | 2,835          | 5,399              | 770                | 54,166               |
| 03/2016 | 281          | 40           | 2,815          | 5,680              | 809                | 56,981               |
| 04/2016 | 279          | 40           | 2,796          | 5,959              | 849                | 59,777               |



## Allocation Spreadsheet\_Mud Slide Slim 30-025-38469

### Lea; Bone Sprgs 37570

| Test Date       | Oil       | Wtr       | Gas      |
|-----------------|-----------|-----------|----------|
| 11/1/13         | 20        | 27        | 14       |
| 11/2/13         | 17        | 30        | 13       |
| 11/3/13         | 17        | 27        | 15       |
| 11/4/13         | 17        | 20        | 16       |
| 11/5/13         | 15        | 27        | 4        |
| 11/6/13         | 10        | 20        | 5        |
| 11/7/13         | 12        | 23        | 6        |
| 11/8/13         | 8         | 23        | 7        |
| 11/9/13         | 10        | 27        | 6        |
| 11/10/13        | 7         | 30        | 7        |
| 11/11/13        | 7         | 20        | 8        |
| 11/12/13        | 8         | 27        | 6        |
| 11/13/13        | 22        | 16        | 6        |
| 11/14/13        | 20        | 10        | 5        |
| 11/15/13        | 18        | 20        | 10       |
| 11/16/13        | 11        | 17        | 7        |
| 11/17/13        | 13        | 16        | 7        |
| 11/18/13        | 13        | 6         | 6        |
| 11/19/13        | 18        | 7         | 5        |
| 11/20/13        | 20        | 13        | 5        |
| 11/21/13        | 20        | 26        | 5        |
| <b>Avg Rate</b> | <b>14</b> | <b>21</b> | <b>8</b> |

### Lea; Delaware NE

| Test Date       | Oil         | Wtr        | Gas      |
|-----------------|-------------|------------|----------|
| 8/1/14          | 10          | 110        | 2        |
| 8/2/14          | 10          | 100        | 2        |
| 8/3/14          | 12          | 103        | 2        |
| 8/4/14          | 10          | 110        | 2        |
| 8/5/14          | 5           | 100        | 2        |
| 8/6/14          | 7           | 106        | 2        |
| 8/7/14          | 10          | 94         | 2        |
| 8/8/14          | 10          | 100        | 2        |
| 8/9/14          | 8           | 104        | 2        |
| 8/10/14         | 8           | 106        | 2        |
| 8/11/14         | 17          | 123        | 2        |
| 8/12/14         | 7           | 100        | 2        |
| 8/13/14         | 12          | 97         | 2        |
| 8/14/14         | 7           | 94         | 2        |
| 8/15/14         | 10          | 102        | 2        |
| 8/16/14         | 10          | 112        | 2        |
| 8/17/14         | 8           | 107        | 2        |
| <b>Avg Rate</b> | <b>9.47</b> | <b>104</b> | <b>2</b> |

| Allocation   | Oil          | Water         | Gas          |
|--------------|--------------|---------------|--------------|
| Bone=        | 14.00        | 21.00         | 8.00         |
| Brushy=      | 9.47         | 104.00        | 2.00         |
| <b>Total</b> | <b>23.47</b> | <b>125.00</b> | <b>10.00</b> |

|                 |             |             |            |
|-----------------|-------------|-------------|------------|
| <b>Bone %</b>   | <b>0.60</b> | <b>0.17</b> | <b>0.8</b> |
| <b>Brushy %</b> | <b>0.40</b> | <b>0.83</b> | <b>0.2</b> |
|                 | <b>1</b>    | <b>1</b>    | <b>1</b>   |



www.permianls.com

575.397.3713 2609 W Marland Hobbs NM 88240

For: Caza Operating  
Attention: Richard Wright  
200 N. Lorraine, Suite 1550  
Midland, Texas 79701

Sample: Meter Run  
Identification: Mudslide 15 Fed. #1  
Company: Caza  
Lease:  
Plant:

Sample Data: Date Sampled 8/22/2014 3:18 PM  
Analysis Date 8/25/2014  
Pressure-PSIA  
Sample Temp F  
Atmos Temp F 99

Sampled by: Logan McIlroy  
Analysis by: Vicki McDaniel

H2S = 0

DELAWARE LWA BAUSHY GAS

#### Component Analysis

|                  |     | Mol<br>Percent | GPM   |
|------------------|-----|----------------|-------|
| Hydrogen Sulfide | H2S | 0.000          |       |
| Nitrogen         | N2  | 7.746          |       |
| Carbon Dioxide   | CO2 | 0.052          |       |
| Methane          | C1  | 63.630         |       |
| Ethane           | C2  | 11.780         | 3.142 |
| Propane          | C3  | 8.803          | 2.419 |
| I-Butane         | IC4 | 1.252          | 0.409 |
| N-Butane         | NC4 | 3.345          | 1.052 |
| I-Pentane        | IC5 | 1.032          | 0.376 |
| N-Pentane        | NC5 | 0.979          | 0.354 |
| Hexanes Plus     | C6+ | 1.381          | 0.598 |
|                  |     | 100.000        | 8.350 |

#### REAL BTU/CU.FT.

|               |        |
|---------------|--------|
| At 14.65 DRY  | 1376.2 |
| At 14.65 WET  | 1352.2 |
| At 14.698 DRY | 1380.5 |
| At 14.698 WET | 1357.0 |
| At 14.73 DRY  | 1383.7 |
| At 14.73 Wet  | 1359.8 |

#### Specific Gravity

Calculated 0.8713

Molecular Weight 25.2342

Z Factor (DRY) 0.9952

Z Factor (WET) 0.9947



**LABORATORY SERVICES**  
Natural Gas Analysis

www.permianls.com

575.397.3713 2609 W Marland Hobbs NM 88240

ASTM DISTILLATION

Caza Operating  
Attention: Richard Wright  
200 N. Lorraine, Suite 1550  
Midland, Texas 79701

DELAWARE

Sampled By: Logan McIlroy  
Sample Date: 8/22/14

LWR Brushy oil

Sample ID: Mudslide 15 Fed. #1

Percent Distilled

Temperature

|     |     |
|-----|-----|
| IBP | 100 |
| 5   | 150 |
| 10  | 194 |
| 20  | 251 |
| 30  | 326 |
| 40  | 409 |
| 50  | 512 |
| 60  | 601 |
| 70  | 660 |
| 80  | 709 |
| 90  | 735 |
| EP  | 740 |

%Recovered = 93.0  
% Residue = 4.0  
% Loss = 3.0

Total Sulfur

API Gravity

Specific Gravity

RVP

0.1949 wt. %

41.4

0.8183

Distillation ASTM D 86

Sulfur ASTM D 2622

Gravity ASTM D 287

Vapor Pres ASTM D 323



**LABORATORY**  
Natural Gas Analysis

www.permianls.com

575.397.3713 2609 W Marland Hobbs NM 88240

For: Caza Operating  
Attention: Richard Wright  
200 N. Lorraine, Suite 1550  
Midland, Texas 79701

Sample: Meter Run  
Identification: Mudslide Slim 15 Fed #1  
Company: Caza Operating  
Lease:  
Plant:

Sample Data: Date Sampled 5/14/2012  
Analysis Date 5/15/2012  
Pressure-PSIA 13.2  
Sample Temp F 78.4  
Atmos Temp F 62

Sampled by: Dustin Armstrong  
Analysis by: Vickie Sullivan

H2S = 10 PPM

*BONE SPRINGS GAS*

Component Analysis

|                  |     | Mol<br>Percent | GPM          |
|------------------|-----|----------------|--------------|
| Hydrogen Sulfide | H2S | 0.001          |              |
| Nitrogen         | N2  | 2.326          |              |
| Carbon Dioxide   | CO2 | 4.424          |              |
| Methane          | C1  | 57.701         |              |
| Ethane           | C2  | 15.016         | 4.006        |
| Propane          | C3  | 10.989         | 3.020        |
| I-Butane         | IC4 | 1.422          | 0.464        |
| N-Butane         | NC4 | 4.158          | 1.307        |
| I-Pentane        | IC5 | 0.985          | 0.359        |
| N-Pentane        | NC5 | 1.097          | 0.397        |
| Hexanes Plus     | C6+ | <u>1.881</u>   | <u>0.814</u> |
|                  |     | 100.000        | 10.367       |

REAL BTU/CU.FT.

|               |        |
|---------------|--------|
| At 14.65 DRY  | 1491.4 |
| At 14.65 WET  | 1465.3 |
| At 14.696 DRY | 1496.0 |
| At 14.696 WET | 1470.6 |
| At 14.73 DRY  | 1499.4 |
| At 14.73 Wet  | 1473.6 |

Specific Gravity

Calculated 0.9569

Molecular Weight 27.7145



Laboratory Services, Inc.  
2609 W. Marland  
Hobbs, New Mexico 88240  
Telephone: (575) 397-3713

**ASTM DISTILLATION**

Caza Operating LLC  
200 N. Lorraine, Suite 1550  
Midland, Texas 79701

Sample Date: 6/10/09  
Sampled By: Will McDaniel

*Bone Springs Oil*

Mud Slide Slm 15 Fed. #1

Percent DistilledTemperature

|     |     |
|-----|-----|
| IBP | 108 |
| 5   | 177 |
| 10  | 212 |
| 20  | 262 |
| 30  | 325 |
| 40  | 408 |
| 50  | 500 |
| 60  | 583 |
| 70  | 647 |
| 80  | 674 |
| 90  | 717 |
| EP  | 720 |

% Recovered = 94.0  
% Residue = 4.0  
% Loss = 2.0

API Gravity @ 60° F = 39.1

Thank You,

Vicki McDaniel



Laboratory Services, Inc.  
2609 W. Marland  
Hobbs, New Mexico 88240  
Telephone: (575) 397-3713

### SULFUR IN CRUDE OIL

Caza Operating LLC  
200 N. Lorraine, Suite 1550  
Midland, Texas 79701

*Bone Springs Oil*

Jun 10, 2009

|                           | Total<br>Sulfur | API<br>Gravity @ 60° F | Specific<br>Gravity @ 60° F |
|---------------------------|-----------------|------------------------|-----------------------------|
| Mud Slide Slim 15 Fed. #1 | 0.1656 wt. %    | 39.1                   | 0.8294                      |

Thank You,  
Vickie Sullivan

# Current Delaware Producer.

Mud Slide Slim 15 Fed # 1-Well Bore Schematic 3-2013

API # 30 025 38469-Lea County, New Mexico

Caza Operating,LLC-249099

KB=20'. GR=3,642'

Surface Hole 17.5"-1621'  
Mud=WB-9.2 ppg

Inter Hole=12.25"-5,525'  
Mud = WB Brine-10.1 ppg

Tbg stub above pkr @ 9,710'

Abandon Pkr 2-23-11

Prod Hole=8.5"-12,496'  
Prod Hole=7.875"-13,514'  
Mud = WBM-10.35 ppg

Prod Csg: 13,514'

Surface Csg: 1,621'  
Cement Data:

13-3/8" 54.5 J-55  
Lead: 1050 Sks 35:65:6 Poz-C +  
additives  
Tail: 1200 sks "C" + 2% Cacl2  
Circulated 383 sks.

TOC 5-1/2" csg @ 2,955' CBL

Intermediate Csg: 5,525'  
Cement Data:  
Stg tool 3546'-CP@3,591'

9-5/8" 40.0# N-80 & P-110  
1st stg: Lead-330 "C" 35:65:6+  
Tail w/ 200 sks "C" + 1% cacl2  
2nd stg: Lead-1245 sks "C" 35:65:6  
Tail w/ 100 sks "C" + 1% cacl2  
Circulate 75 sks to surface

TAC 8094' EOT 8260  
Lwr Delaware 8291-8306 11-29-13  
Frac'd 12-16-13

RBP @ 8456'. 11-27-13  
5.5" stg tool @ 8,512'

Avalon perms 8,802'-8,964' -Squeezed 4-18-12

Avalon perms 9,164'-9,037' Squeezed 4-18-12

Avalon perms 9,302'-9,242' Squeezed 4-18-12

1st Bone perf 9,488'-9,536' TA 10-7-11  
Frac 10-14-11

2nd Bone perf 9,836-9,854 TA "Csg Collapse" 5-12-09  
Frac 5-20-09

3rd Bone perf 10,910-10,925 TA  
Frac 2-11-11

2/1/2011

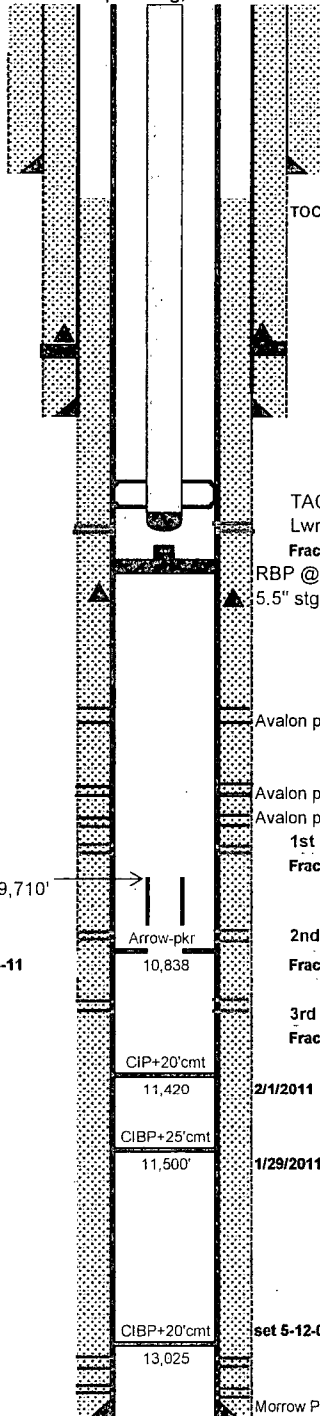
1/29/2011

set 5-12-09

Cement Data: Stg tool @ 8512'  
Morrow Perfs: 13,395-13,047' (5-6-08)

Frac 5-7-08

5-1/2" 20#L & 17#P  
1st stg: 1600 sks "H" 15.7ppg+  
additives. Circ 248 sks  
2nd stg: 1200 sks "C" 14.1ppg+  
8 pps Gilsontite  
TOC 2,955' CBL



# Proposed Delaware/Bone Spring Producer.

Mud Slide Slim 15 Fed # 1-Well Bore Schematic 3-2013  
API # 30 025 38469-Lea County, New Mexico  
Caza Operating, LLC-249099

KB=20'. GR=3,642'

Surface Hole 17.5"-1621'  
Mud=WB-9.2 ppg

Inter Hole=12.25"-5,525'  
Mud = WB Brine-10.1 ppg

Surface Csg: 1,621'  
Cement Data:

13-3/8" 54.5 J-55  
Lead: 1050 Sks 35:65:6 Poz-C + additives  
Tail: 1200 sks "C" + 2% Cacl2  
Circulated 383 sks.

TOC 5-1/2" csg @ 2,955' CBL

Intermediate Csg: 5,525'  
Cement Data:  
Stg tool 3546'-CP@3,591'

9-5/8" 40.0# N-80 & P-110  
1st stg: Lead-330 "C" 35:65:6+  
Tail w/ 200 sks "C" + 1% cacl2  
2nd stg: Lead-1245 sks "C" 35:65:6  
Tail w/ 100 sks "C" + 1% cacl2  
Circulate 75 sks to surface

TAC 8094' EOT 8260  
Lwr Delaware 8291-8306 11-29-13  
Frac'd 12-16-13

5.5" stg tool @ 8,512'

Avalon perms 8,802'-8,964' -Squeezed 4-18-12

Proposed TAC 9284  
ft. EOT 9450 ft

Avalon perms 9,164'-9,037' Squeezed 4-18-12

Avalon perms 9,302'-9,242' Squeezed 4-18-12

1st Bone perf 9,488'-9,536' TA 10-7-11  
Frac 10-14-11

Tbg stub above pkr @ 9,710'

2nd Bone perf 9,836-9,854 TA "Csg Collapse" 5-12-09  
Frac 5-20-09

Abandon Pkr 2-23-11

Arrow-pkr

10,838

3rd Bone perf 10,910-10,925 TA  
Frac 2-11-11

CIP+20'cmt

11,420

2/1/2011

CIBP+25'cmt

11,500'

1/29/2011

CIBP+20'cmt

13,025

set 5-12-09

Prod Hole=8.5"-12,496'  
Prod Hole=7.875"-13,514'  
Mud = WBM-10.35 ppg

TD 13,514'

Prod Csg: 13,514'

Cement Data: Stg tool @ 8512'  
Morrow Perfs: 13,395-13,047' (5-6-08)  
Frac 5-7-08

5-1/2" 20#L & 17#P  
1st stg: 1600 sks "H" 15.7ppg+ additives. Circ 248 sks  
2nd stg: 1200 sks "C" 14.1ppg+ 8 pps Gilsonite  
TOC 2,955' CBL



## **Conditions of Approval**

**Caza Operating, LLC  
Mud Slide Slim - 01, API 3002538469  
T20S-R34E, Sec 15, 1980FNL & 1980FWL  
December 09, 2014**

1. Surface disturbance beyond the originally approved pad must have prior approval.
2. A closed loop system is required. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility.
3. Tanks are required for all operations, no excavated pits.
4. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
5. Functional H<sub>2</sub>S monitoring equipment shall be on location.
6. 5000 (5M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment shall be installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
7. Submit a subsequent Sundry Form 3160-5 relating the dated daily wellbore activities and a updated well completion report within 30 days.

**Access information for use of Form 3160-5 "Sundry Notices and Reports on Wells"**

NM Fed Regs & Forms - [http://www.blm.gov/nm/st/en/prog/energy/oil\\_and\\_gas.html](http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html)

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.