

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

Form C-104  
Revised August 1, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

<sup>1</sup> Operator name and Address Apache Corporation 303 Veterans Airpark Lane Suite 3000 Midland TX 79705		<sup>2</sup> OGRID Number 873
		<sup>3</sup> Reason for Filing Code/ Effective Date NW / 12/12/2014
<sup>4</sup> API Number 30-015-40916	<sup>5</sup> Pool Name Cedar Lake; Glorieta-Yeso	<sup>6</sup> Pool Code 96831
<sup>7</sup> Property Code 39330	<sup>8</sup> Property Name Raven Federal	<sup>9</sup> Well Number 019H

**II. <sup>10</sup> Surface Location**

UL or lot no. P	Section 07	Township 17S	Range 31E	Lot Idn	Feet from the 485	North/South Line South	Feet from the 180	East/West line East	County Eddy
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**<sup>11</sup> Bottom Hole Location**

UL or lot no. M	Section 07	Township 17S	Range 31E	Lot Idn 4	Feet from the 1260	North/South line South	Feet from the 332	East/West line West	County Eddy
<sup>12</sup> Use Code F	<sup>13</sup> Producing Method Code P	<sup>14</sup> Gas Connection Date 12/12/2014	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

**III. Oil and Gas Transporters**

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> O/G/W
221115	Frontier Field Services LLC 4200 East Skelly Drive Suite 700 Tulsa OK 74135	G
252293	Holly Energy Pipeline 311 W Quay / PO Box 1360 Artesia NM 88210	O
<b>NM OIL CONSERVATION</b> ARTESIA DISTRICT APR 17 2015 RECEIVED		

**IV. Well Completion Data**

<sup>21</sup> Spud Date 09/17/2014	<sup>22</sup> Ready Date 12/12/2014	<sup>23</sup> TD 9315' <i>4773</i>	<sup>24</sup> PBTB 8676'	<sup>25</sup> Perforations 5470'-9184'	<sup>26</sup> DHC, MC
<sup>27</sup> Hole Size	<sup>28</sup> Casing & Tubing Size	<sup>29</sup> Depth Set	<sup>30</sup> Sacks Cement		
17-1/2"	13-3/8"	460'	550 sx Class C		
12-1/4"	9-5/8"	3455'	1450 sx Class C		
8-3/4"	5-1/2" / 7" (Tapered)	9290'	625 sx Class C		
Tubing	2-7/8"	4653'			

**V. Well Test Data**

<sup>31</sup> Date New Oil 12/12/2014	<sup>32</sup> Gas Delivery Date 12/12/2014	<sup>33</sup> Test Date 03/23/2015	<sup>34</sup> Test Length 24	<sup>35</sup> Tbg. Pressure	<sup>36</sup> Csg. Pressure
<sup>37</sup> Choke Size	<sup>38</sup> Oil 520	<sup>39</sup> Water 2301	<sup>40</sup> Gas 600		<sup>41</sup> Test Method P

<sup>42</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name:  
Fatima Vasquez

Title:  
Regulatory Analyst II

E-mail Address:  
Fatima.Vasquez@apachecorp.com

Date:  
04/14/2015

Phone:  
(432) 818-1015

OIL CONSERVATION DIVISION

Approved by:



Title:



Approval Date:

4-29-15

Pending BLM approvals will  
subsequently be reviewed  
and scanned *LD*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**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.*

<b>SUBMIT IN TRIPLICATE - Other instructions on reverse side.</b>		5. Lease Serial No. NMLC029435B
		6. If Indian, Allottee or Tribe Name
		7. If Unit or CA/Agreement, Name and/or No.
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. RAVEN FEDERAL 19H	
2. Name of Operator APACHE CORPORATION	Contact: <b>FATIMA VASQUEZ</b> E-Mail: fatima.vasquez@apachecorp.com	9. API Well No. 30-015-40916
3a. Address 303 VETERANS AIRPARK LN MIDLAND, TX 79705	3b. Phone No. (include area code) Ph: 432-818-1015	10. Field and Pool, or Exploratory CEDAR LAKE; GLORIETA-YESO
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  Sec 7 T17S R31E SESE 485FSL 180FEL 32.843100 N Lat, 103.901191 W Lon		11. County or Parish, and State  EDDY COUNTY, NM

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

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

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 recomple 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.)

Apache completed this well as follows:

10/07/2014 Run logs, TOC @ 174' (CBL).  
10/21/2014 Tag DV Tool @ 4362'. DO on DV tool.  
10/22/2014 Finish DO DV tool, circ clean @ 4366'. RIH w/ mill, mill debris sub.  
10/23/2014 Finish mill debris sub.  
10/24/2014 POH LD tbg.  
11/17/2014 Frac Paddock using Packer Plus Packer Sleeve System.  
Stage 1 - Frac 9180'-9184' w/ 179 bbls 15% HCl & 179,772# sand (100 Mesh & 40/70).  
Stage 2 - Frac 8954'-8958' w/ 179 bbls 15% HCl & 144,969# sand (100 Mesh & 40/70).  
Stage 3 - Frac 8677'-8681' w/ 179 bbls 15% HCl & 181,880# sand (100 Mesh & 40/70).  
Stage 4 - Frac 8402'-8406' w/ 178 bbls 15% HCl & 179,788# sand (100 Mesh & 40/70).

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

APR 17 2015

RECEIVED

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #298253 verified by the BLM Well Information System For APACHE CORPORATION, sent to the Carlsbad</b>	
Name (Printed/Typed) <b>FATIMA VASQUEZ</b>	Title <b>REGULATORY ANALYST II</b>
Signature (Electronic Submission)	Date <b>04/15/2015</b>

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

Approved By _____	Title _____
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.	Office _____

Pending BLM approvals will  
subsequently be reviewed  
and scanned *MS*

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

any department or agency of the United States

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

## Additional data for EC transaction #298253 that would not fit on the form

### 32. Additional remarks, continued

Stage 5 - Frac 8123'-8127' w/ 179 bbls 15% HCl & 179,942# sand (100 Mesh & 40/70).  
11/18/2014 Stage 6 - Frac 7845'-7849' w/ 179 bbls 15% HCl & 179,824# sand (100 Mesh & 40/70).  
Stage 7 - Frac 7571'-7575' w/ 179 bbls 15% HCl & 179,700# sand (100 Mesh & 40/70).  
Stage 8 - Frac 7303'-7307' w/ 179 bbls 15% HCl & 179,808# sand (100 Mesh & 40/70).  
Stage 9 - Frac 7023'-7027' w/ 179 bbls 15% HCl & 180,111# sand (100 Mesh & 40/70).  
Stage 10 - Frac 6746'-6750' w/ 164.9 bbls 15% HCl & 180,204# sand (100 Mesh & 40/70).  
Stage 11 - Frac 6430'-6434' w/ 179 bbls 15% HCl & 180,216# sand (100 Mesh & 40/70).  
Stage 12 - Frac 6109'-6113' w/ 174.3 bbls 15% HCl & 180,020# sand (100 Mesh & 40/70).  
Stage 13 - Frac 5789'-5793' w/ 178.9 bbls 15% HCl & 180,124# sand (100 Mesh & 40/70).  
Stage 14 - Frac 5470'-5474' w/ 179 bbls 15% HCl & 180,067# sand (100 Mesh & 40/70).  
12/05/2014 RIH w/ mill, DO frac ports #1-#5.  
12/06/2014 DO frac ports #6-#11.  
12/07/2014 Lost circ on #12 - unable to regain circ. PBTD @ 8676'.  
12/08/2014 POH, LD tbq.  
12/11/2014 RIH w/ 2-7/8" prod tbq. Submersible @ 4174'. Desander @ 4325'. ETD @ 4653'. RDMOSU.  
Clean loc.  
12/12/2014 POP.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTNM OIL CONSERVATION  
ARTESIA DISTRICT

APR 17 2015

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
NMLC029435B

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No.	
2. Name of Operator APACHE CORPORATION		Contact: FATIMA VASQUEZ E-Mail: fatima.vasquez@apachecorp.com	
3. Address 303 VETERANS AIRPARK LN MIDLAND, TX 79705		3a. Phone No. (include area code) Ph: 432-818-1015	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 7 T17S R31E Mer At surface SESE 485FSL 180FEL 32.843100 N Lat, 103.901191 W Lon At top prod interval reported below Sec 7 T17S R31E Mer At total depth SWSW Lot 4 1260FSL 332FWL		8. Lease Name and Well No. RAVEN FEDERAL 19H	
14. Date Spudded 09/17/2014		15. Date T.D. Reached 10/01/2014	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 12/12/2014		17. Elevations (DF, KB, RT, GL)* 3713 GL	
18. Total Depth: MD 9315 TVD 4773		19. Plug Back T.D.: MD 8676 TVD	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CNGR/SBGR/(2)MWD GAMMA-RÖP 5"	
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			

## 23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0		460		550		0	
12.250	9.625 J-55	36.0		3455		1450		0	
8.750	7.000 L-80	29.0		9290					
8.750	5.500 L-80	20.0		9290		625		174	

## 24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	4653							

## 25. Producing Intervals

## 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) PADDOCK	4653	5141	5470 TO 9184			PRODUCING
B)						
C)						
D)						

## 27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

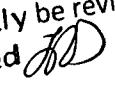
Depth Interval	Amount and Type of Material
5470 TO 9184	2486 BBLS ACID & 2,486,425# SAND

## 28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/12/2014	03/23/2015	24	→	520.0	600.0	2301.0	37.0		ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→				1154	POV	

## 28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity
			→					
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

Pending BLM approvals will  
subsequently be reviewed  
and scanned 

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #298271 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)  
SOLD

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
RUSTLER	262	497	SANDSTONE/ANHYDRITE - N/A	RUSTLER	262
YATES	1507	1786	SANDSTONE/ANHYDRITE - N/A	YATES	1507
SEVEN RIVERS	1786	2403	SS/CARBONATE - OIL, GAS & WATER	SEVEN RIVERS	1786
QUEEN	2403	2792	SS/CARBONATE - OIL, GAS & WATER	QUEEN	2403
SAN ANDRES	2792	4595	CARBONATE - OIL, GAS & WATER	SAN ANDRES	2792
GLORIETA	4595	4653	SANDSTONE - OIL, GAS & WATER	GLORIETA	4595
PADDOCK	4653	5141	DOLOMITE - OIL, GAS & WATER	PADDOCK	4653
BLINEBRY	5141		DOLOMITE - OIL, GAS & WATER	BLINEBRY	5141

## 32. Additional remarks (include plugging procedure):

Attachments - Frac Disclosure, OCD Forms C-102 & C-104. Logs mailed 04/14/2015.

\*Ran tapered production csg string - 5-1/2" & 7".

Continued Summary of Porous Zones:

Tansill Salt 497'-1329' Salt - N/A

Bottom Salt 1329'-1507' Salt - N/A

Blinebry - didn't drill far enough to get bottom depth of Blinebry.

## 33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)

2. Geologic Report

3. DST Report

4. Directional Survey

5. Sundry Notice for plugging and cement verification

6. Core Analysis

7 Other:

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #298271 Verified by the BLM Well Information System.  
For APACHE CORPORATION, sent to the Carlsbad

Name (please print) FATIMA VASQUEZ

Title REGULATORY ANALYST II

Signature (Electronic Submission)

Date 04/15/2015

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.

**\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\***

Additional data for transaction #298271 that would not fit on the form

32. Additional remarks, continued

\*\*SS-Sandstone