

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

¹ Operator name and Address Apache Corporation 303 Veterans Airpark Lane Suite 1000 Midland TX 79705		² OGRID Number 873
		³ Reason for Filing Code/ Effective Date NW / 06/17/2014
⁴ API Number 30-015-41910	⁵ Pool Name FREN; GLORIETA-YESO	⁶ Pool Code 26770
⁷ Property Code 308711	⁸ Property Name CROW FEDERAL	⁹ Well Number #020H

II. ¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
I	10	17s	31e		2310	FSL	370	FEL	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	10	17s	31e		2311	FSL	331	FWL	EDDY
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 06/17/2014	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ 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
NM OIL CONSERVATION ARTESIA DISTRICT JAN 16 2015 RECEIVED		

IV. Well Completion Data

²¹ Spud Date 02/28/2014	²² Ready Date 06/17/2014	²³ TD 10296'	²⁴ PBSD 9882'	²⁵ Perforations 6262'-10120'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17.5"	13.375"	680'	730 sx Class C		
11"	8.625"	3500'	1180 sx Class C		
7.875'	5.5"	10,296'	1680sx Class C		
Tubing	2.875"	5039'			

V. Well Test Data

³¹ Date New Oil 06/17/2014	³² Gas Delivery Date 06/17/2014	³³ Test Date 09/25/2014	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil 353	³⁹ Water 2090	⁴⁰ Gas 303		⁴¹ Test Method P

⁴² 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: *Emily Follis*
Printed name:
Emily Follis

Title:
Reg Analyst I

E-mail Address:
emily.follis@apachecorp.com

Date:
12/15/2014

Phone:
432-818-1801

OIL CONSERVATION DIVISION	
Approved by: <i>[Signature]</i>	
Title: <i>Dr. J. Spewer</i>	
Approval Date: <i>1-26-15</i>	
Pending BLM approvals will subsequently be reviewed and scanned <i>[Signature]</i>	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.5. Lease Serial No.
NMLC029426B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.8. Well Name and No.
CROW FEDERAL 20H9. API Well No.
30-015-41910

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
APACHE CORPORATIONContact: EMILY FOLLIS
E-Mail: EMILY.FOLLIS@APACHECORP.COM3a. Address
303 VETERANS AIRPARK LANE SUITE 1000
MIDLAND, TX 797053b. Phone No. (include area code)
Ph: 432-818-180110. Field and Pool, or Exploratory
FREN:GLORIETA-YESO<26770>

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 10 T17S R31E NESE 2310FSL 370FEL

11. County or Parish, and State

EDDY COUNTY 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 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 recompleat 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.)

SEE ATTACHED FOR THE SUNDRY FORM DETAIL 3160-5 FOR THE CROW FEDERAL 20H

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #285305 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Carlsbad**

Name (Printed/Typed) EMILY FOLLIS

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 12/16/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

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

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.

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

APACHE HAS COMPLETED THIS WELL AS FOLLOWS:

CROW FEDERAL #20H FORM 3160-5 SUNDRY

03/14/2014 RELEASE RIG -RIG DOWN

03/21/2014 PREP TO TEST CSG & RUPTURE DISK MIRU

WEATHERFORD WL. RIH W/ CBL-CNL-GR-CCL LOGGING TOOL. LOG FROM 5300' TO SF. FOUND GOOD CMT. TOC @ 50' FROM SURF. POOH W/ LOGGING TOOLS. PREP TO TEST CSG & RUPTURE DISK

03/24/2014 PREP TO MIRUPU RIH W/TBG & BIT CO TO PBTD

03/28/2014 RIH W/ BIT & POH,RIH W/ BIT MIRUSU & REV UNIT. FOUND WELL WITH 0#. NU BOP. RACK 10500' OF 2 3/8" L80TBG. PU RIH 4 3/4 BIT, BIT SUB, XO ON 2 3/8" L80 TBG. TO 5180'. LEAVE BIT SWINGING @ 5180'. SD.SI. SDFW. PREP TO FINISH RIH TO INSURE WELL BORE CLEAN TO PBTD

03/31/2014 PERFORATE RIH W/ BIT FOUND WELL @ 0#. CONTINUE RIH W/ BIT TO PBTD @ 10177'. POH & LD TBG. SI. SDFN. PREP TO PERFORATE

05/14/2014 TEST LINES TO 8000# AND POP OFF TO 6230#.WELL CION W/ON FRAC EQPT TO FINISH FRAC OPS ON CROW 19H. MOVE LINES FROM CROW 19H TO CROW 20H. W/ON SAND AND ACID DELV AND BUILDING WATER VOLUME IN FRAC PIT. PUMPCO DOING PMP MAINTENCE

05/15/2014 FRAC STAGE #5 AT MIDNIGHT CONINUE PERF AND FRAC STAGES IN ORDER FRAC STAGE #1 THEN PERF AND FRAC STAGES #2 + #3 + #4. PERF STAGE #5 STAGE 1 - PUMPCO SERVICES TO FRAC UPPER BLINEBRY FORMATION. 260 BBLs / FORMATION BREAK @ 6000 PSI & 11.72 BPM, RAN 184 BBL 15% HCL,5083 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,69090 LBS 100 MESH SAND,72190 LBS 40/70 WHITE,39620 LBS 40/70 RC,0 TOTAL PROP = 180900 LBS, AVG PRESS = 4791 PSI, MAX PRESS = 6140 PSI, AVG RATE = 89.2 BPM, MAX RATE = 92.3 BPM, ISIP = 2000 PSI, FG = 0.772, W/ LTR = 5267 BBL. STAGE 2. RAN 182 BBL 15% HCL,4731 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,68540 LBS 100 MESH SAND,70450 LBS 40/70 WHITE,39100 LBS 40/70 RC,0 ,TOTAL PROP = 178090 LBS, AVG PRESS = 4472 PSI, MAX PRESS = 6400 PSI, AVG RATE = 91 BPM, MAX RATE = 92.2 BPM, ISIP = 2153 PSI, FG = 0.7979, W/ LTR = 5263.2 BBL STAGE 3. PUMPCO SERVICES RAN 180 BBL 15% HCL,4573.8 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,68860 LBS 100 MESH SAND,70140 LBS 40/70 WHITE,39241 LBS 40/70 RC,0 TOTAL PROP = 178241 LBS, STAGE 4. RAN 180 BBL 15% HCL,4987 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,69340 LBS 100 MESH SAND,69820 LBS 40/70 WHITE,39260 LBS 40/70 RC,0 ,TOTAL PROP = 178420 LBS,

05/16/2014 STAGE #5 RAN 180 BBL 15% HCL,4484 BBL

SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,69940 LBS 100 MESH SAND,71360 LBS 40/70 WHITE,39080 LBS 40/70 RC,0 ,TOTAL PROP = 180380 LBS, STAGE 6. RAN 179 BBL 15% HCL,5046 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,71250 LBS 100 MESH SAND,70990 LBS 40/70 WHITE,39060 LBS 40/70 RC,0 ,TOTAL PROP = 181300 LBS, STAGE 7. RAN 180 BBL 15% HCL,4734 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,71130 LBS 100 MESH SAND,71090 LBS 40/70 WHITE,39540 LBS 40/70 RC,0 ,TOTAL PROP = 181760 LBS, STAGE 8 RAN 180 BBL 15% HCL,4713 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,71130 LBS 100 MESH SAND,71090 LBS 40/70 WHITE,39340 LBS 40/70 RC,0 ,TOTAL PROP = 181560 LBS, STAGE 9 RAN 180 BBL 15% HCL,4647 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,70190 LBS 100 MESH SAND,69490 LBS 40/70 WHITE,40560 LBS 40/70 RC,0 ,TOTAL PROP = 180240 LBS STAGE 10 RAN 178 BBL 15% HCL,4712 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,71140 LBS 100 MESH SAND,70010 LBS 40/70 WHITE,39280 LBS 40/70 RC,0 ,TOTAL PROP = 180430 LBS

05/17/2014 STAGE 11 RAN 178 BBL 15% HCL,5376 BBL

SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,69100 LBS 100 MESH SAND,70590 LBS 40/70 WHITE,40800 LBS 40/70 RC,0 ,TOTAL PROP = 180490 LBS, STAGE 12 RAN 193 BBL 15% HCL,4512 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,71460 LBS 100 MESH SAND,68390 LBS 40/70 WHITE,39480 LBS 40/70 RC,0 ,TOTAL PROP = 179330 LBS, STAGE 13 RAN 252 BBL 15% HCL,4648 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,69330 LBS 100 MESH SAND,71300 LBS 40/70 WHITE,39200 LBS 40/70 RC,0 ,TOTAL PROP = 179830 LBS, STAGE 14 RAN 223 BBL 15% HCL,4291 BBL SLICKWATER,0 BBL CROSSLINK,,0 BBL LINEAR GEL,70310 LBS 100 MESH SAND,69320 LBS 40/70 WHITE,39280 LBS 40/70 RC,0 ,TOTAL PROP = 178910 LBS

06/04/2014 TIH TO 1ST PLUG. PU SWIVEL AND ESTABLISH CIRC W/ FOAM UNIT. START DRLG 13 EA. CBP'S

06/05/2014 TOO H TO 6522'. RE ESTABLISH CIRC WILL THEN STAGE IN HOLE AND RE GAIN CIRC AND FINISH DRLG PLUG #13 AND TO PBTD OF 10250'.

06/06/2014 TOO H AND CION FOR WEEKEND

06/07/2014 RIG REMAINS ON HOLE. WILL RUN PROD EQPT MONDAY

06/09/2014 TURN WELL OVER TO PRODUCTION. WAITING FOR BATTERY TO BE COMPLETED RIH W/SUBMERSIBLE PUMP & TURN WELL OVER TO PRODUCTION EST EOT @ 5467.

LOAD & RELEASE 2 7/8 PH-6 TBG, UNLOAD & TALLY, 2 7/8 J-55 TBG, RIH W/ TBG &
SUBMERSIBLE PUMP, TURN WELL OVER TO PRODUCTION, W/ END OF TBG @ 5467
06/16/2014 INSTALL DRIVE & ELECTRIC START PROD TO BATTERY FINAL REPORT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMLC029426B

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____2. Name of Operator
APACHE CORPORATION Contact: EMILY FOLLIS
E-Mail: emily.follis@apachecorp.com8. Lease Name and Well No.
CROW FEDERAL 20H3. Address 300 VETERANS AIRPARK LN #3000
MIDLAND, TX 797073a. Phone No. (include area code)
Ph: 432-818-18019. API Well No.
30-015-41910

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NESE 2310FSL 370FEL

At top prod interval reported below NESE 2305FSL 370FEL

At total depth NWSW 2311FSL 331FWL

10. Field and Pool, or Exploratory
FREN:GLORIETA-YESO<26770>11. Sec., T., R., M., or Block and Survey
or Area Sec 10 T17S R31E Mer12. County or Parish
EDDY COUNTY13. State
NM14. Date Spudded
02/28/201415. Date T.D. Reached
03/14/201416. Date Completed
☐ D & A ☒ Ready to Prod.
06/17/201417. Elevations (DF, KB, RT, GL)*
3924 GL18. Total Depth: MD
TVD 10296
583619. Plug Back T.D.: MD
TVD 1029620. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL-CNL-GR-CCL22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ 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 Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	680		730		0	
11.000	8.625 J-55	32.0	0	3500		1180		0	
7.875	5.500 L-80	17.0	0	10296		1680		0	

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	5039							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) UPPER BLINBERY	6262	9902	6262 TO 9902		560	PRODUCING
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
6262 TO 9902	FLUID 66538 BBL, 15% HCL 2649, 100 MESH 980,810#, 40/70 WHITE 986,230#, 40/70 RC 552,841#

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
06/07/2014	07/02/2014	24	→	75.0	115.0	1779.0	37.0		ELECTRIC PUMPING UNIT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→				1533	POW	

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	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

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

ELECTRONIC SUBMISSION #285303 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
QUEEN SAN ANDRES GLORIETA PADDOCK BLINEBRY	2834 3616 5108 5191 5767	3616 5108 5191 5767	SILTSTONE DOLOMITE, CHERT DOLOMITE SANDSTONE DOLOMITE DOLOMITE, SILTSTONE, SANDSTONE	QUEEN SAN ANDRES GLORIETA PADDOCK BLINEBRY	2834 3616 5108 5191 5767

32. Additional remarks (include plugging procedure):

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 #285303 Verified by the BLM Well Information System.
For APACHE CORPORATION, sent to the Carlsbad**

Name (please print) EMILY FOLLIS

Title REGULATORY ANALYST I

Signature (Electronic Submission)

Date 12/16/2014

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 ****