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
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 20 2015
RECEIVED

☐ AMENDED REPORT

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

1. Operator Name and Address	2. OGRID Number
Apache Corporation: 303 Veterans Airpark Lane Midland, TX 79705	873
	3. API Number: 30-015-30138

4. Property Code	5. Property Name	6. Well No.
309175	Washington 33 State	006

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	33	17S	28E		790	North	1650	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

Pool Name	Pool Code
Artesia; Glorieta-Yeso(O)	96830

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
A	O	R	S	3667'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	4000'	Paddock		08/08/1998

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
Surface	12-1/4"	8-5/8"	24#	530'	325 sx Class C	Surface
Production	7-7/8"	5-1/2"	15.5#	4000'	760 sx Class C	Surface

Casing/Cement Program: Additional Comments

Apache would like to squeeze existing perfs and recomplete the Glorieta-Yeso per the attached procedure and wellbore diagrams.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

23. 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: Fatima Vasquez
Title: Regulatory Analyst II
E-mail Address: Fatima.Vasquez@apachecorp.com
Date: 04/16/2015 Phone: (432) 818-1015

OIL CONSERVATION DIVISION

Approved By:
Title:
Approved Date: 4/27/2015 Expiration Date:
Conditions of Approval Attached

APACHE CORPORATION 4/15/15

Washington 33 State #6
API 30-015-30138 AFE#
CEMENT SQUEEZE & RECOMPLETION PROCEDURE

Relative Data:

Casing:
5 1/2" 17 lb/ft, J-55
ID = 4.892"
Drift = 4.767"
Capacity = 0.02324 BBL/ft
Burst = 5,320 psi; 80% = 4,256 psi

Tubing:
2-7/8", 6.5 lb/ft, J-55, EU
Capacity = 0.005794 bbl/ft
Burst = 7,260 psi; 80% = 5,808 psi
Collapse 7,680 psi; 80% = 6,144 psi
Yield 99,660 psi; 80% = 79,728 psi

3 ½", 9.3lb/ft, N-80, EU
Capacity = .0087 BBL/ft
Burst = 10,160 psi; 80% = 8,128 psi
Collapse = 10,540; 80% = 8,432 psi
Yield = 207,200; 80% = 165,760 psi

Perfs:
Shallow Sands (Queen): 1,380'-2,028'
San Andres: 2,295'-2,826'

5 1/2" x 2 7/8" Annular capacity 0.0152 BBL/ft. 5 ½" x 3 ½" Annular capacity 0.0113 BBL/ft KB = 7 ft
PBTD = 3,952' KB TD = 4,000' KB GL: 3,667' KB: 3,674'

1. Spot 500 BBL wtr tanks. Load all 500 BBL tanks with W/fresh wtr to be used for stimulation work.
2. MIRUSU. POOH & lay down rods, tbg, & prod equipment.
3. MIRU cmt service company. Sqz existing perf interval per recommendation. Tag cmt, re-sqz if entire interval is not covered. RDMO cmt company.
4. RIH w/ bit on 2 7/8" WS and DO cmt. CO to PBTD. POOH and lay down.
5. MIRU WL. RIH w/ guns and perforate the Glorieta and the Paddock per log analysis:

   3,450' – 3,750'

   26 shots using a charge that generates a .37" - .42" diameter hole with a min. 21" penetration. RDMO WL
6. RU acid crew, wellhead tree saver. TIH w/ 3 ½'' WS and pkr. Set pkr ± 3448'. Spot 15% NEFE across perfs, break down perfs with fresh wtr. Acidize W/3,500 gals of 15% NEFE HCl using ball sealers (double amount of perfs) evenly spaced throughout the job at max rate but not exceeding 8,000 psi surface pressure. Surge balls. RDMO acid crew.
7. RIH w/ tbg and pkr to knock off balls past lowest perf. PUH and set pkr ± 3448'. Prep for frac.
8. MIRU pump company & frac the Glorieta and Paddock down the 3 ½'' tbg according to procedure.
9. RD Frac. Flow back well until dead. Release pkr and POOH, lay down.
10. RIH w/ bailer, tag fill. Bail until PBTD. If not able to bail, MIRU RU. TIH w/ bit and tbg to top of fill. CO well to PBTD, reverse circ clean. RDMO RU.
11. RIH w/ production tbg and production equipment as specified by the Artesia office, return to produciton.

Date : 4/14/2015

Apache Corporation – Washington 33 State #6

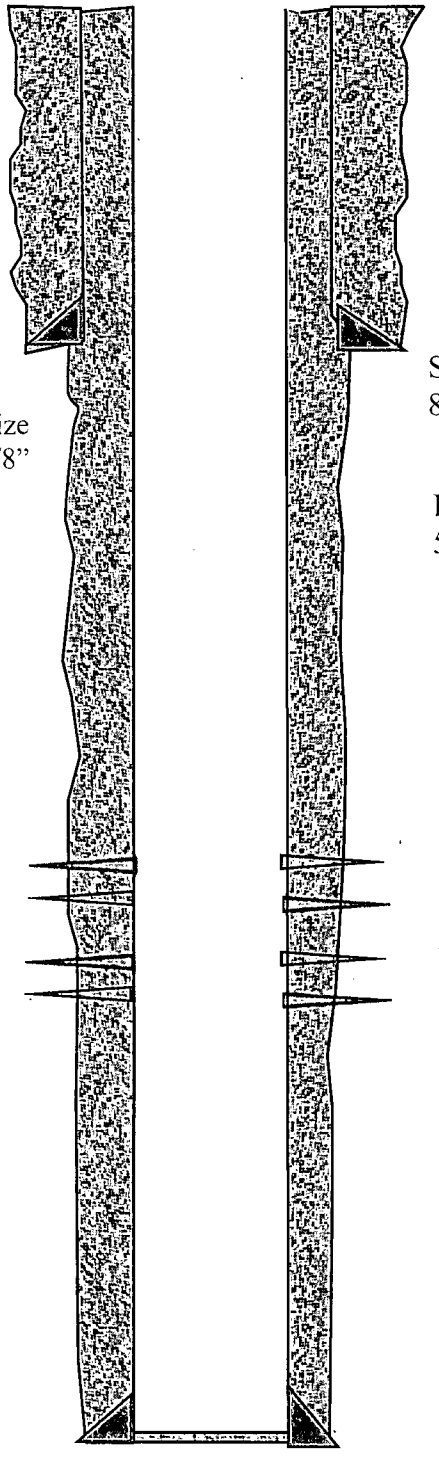
Wellbore Diagram – Existing

API: 30-015-30138

Spud Date: 8/8/1998
GL = 3,667'
KB = 3,674

Surface Location

790' FNL & 1650' FWL
Sec 33, T17S, R28E
Eddy County, NM



Surface Casing
8 5/8" 24# @ 530' w/ 325sx circ to surface

Production Casing
5 1/2" 15.5# @ 4,000' w/ 760sx circ to surface

Existing:

1380'-1405', 1457'-1480', 1717'-1735', 1916'-1950', 2020'-2030'(Queen & San Andres Shallow Sands) '07

2826-2295'(San Andres) '98

PBTD @ 3,952'
TD @ 4,000'

Date : 4/14/2015

Apache Corporation – Washington 33 State #6

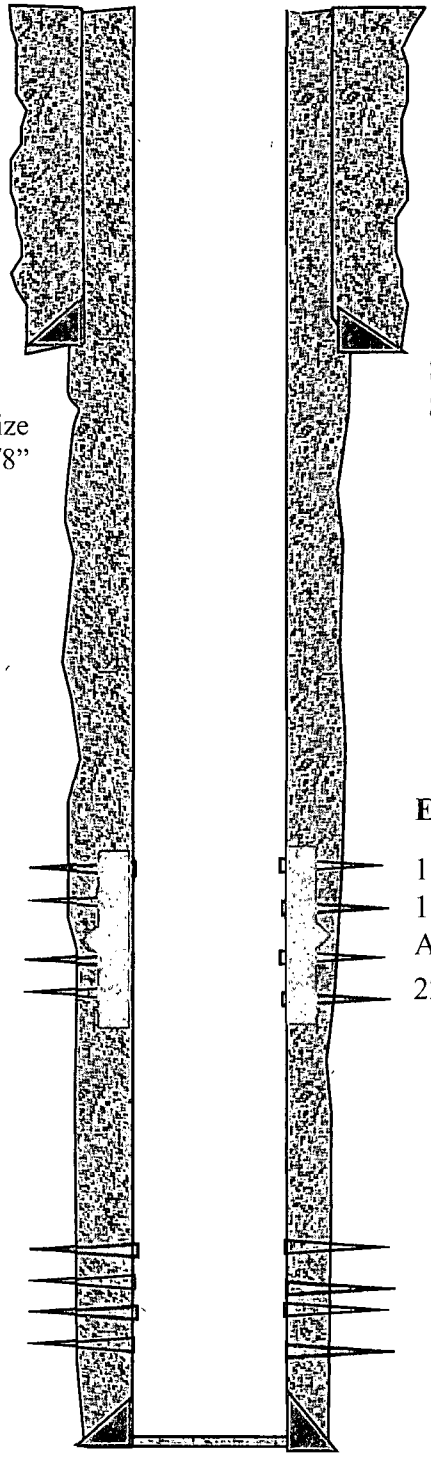
Wellbore Diagram – Proposed

API: 30-015-30138

Spud Date: 8/8/1998
GL = 3,667'
KB = 3,674'

Surface Location

790' FNL & 1650' FWL
Sec 33, T17S, R28E
Eddy County, NM



Surface Casing
8 5/8" 24# @ 530' w/ 325sx circ to surface

Production Casing
5 1/2" 15.5# @4,000' w/ 760sx circ to surface

Existing: Proposed to squeeze

1380'-1405', 1457'-1480', 1717'-1735', 1916'-1950', 2020'-2030'(Queen & San Andres Shallow Sands) '07

2295'-2826'(San Andres) '98

Proposed:
Perfs @ 3,400'-3,800' (Yeso)

PBTD @ 3,952'
TD @ 4,000'