

**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 Hrnzos Road, Artes, 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  
**NM OIL CONSERVATION**  
Oil Conservation Division ARTESIA DISTRICT  
1220 South St. Francis Dr. MAY 18 2017  
Santa Fe, NM 87505

Form C-101  
Revised July 18, 2013

AMENDED REPORT

RECEIVED

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

<sup>1</sup> Operator Name and Address RKI Exploration and Production, LLC 3500 OneWilliams Center MD 35, Tulsa, OK 74172		<sup>2</sup> OGRID Number 246289
<sup>4</sup> Property Code 316682		<sup>3</sup> API Number 30-015-42014
<sup>5</sup> Property Name Warren Fee		<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
C	34	22S	27E		875	N	2045	W	Eddy

**\* Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	34	22S	27E		875	N	2285	W	Eddy

**9. Pool Information**

<sup>9</sup> Pool Name Wye <del>Forehand Ranch</del> : Delaware	<sup>10</sup> Pool Code 24670 <span style="font-size: 2em; font-weight: bold;">96378</span>
--	---

**Additional Well Information**

<sup>11</sup> Work Type Recompletion	<sup>12</sup> Well Type Oil	<sup>13</sup> Cable/Rotary N/A	<sup>14</sup> Lease Type Private/Fcc	<sup>15</sup> Ground Level Elevation 3112
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 5395-5452	<sup>18</sup> Formation Delaware	<sup>19</sup> Contractor N/A	<sup>20</sup> Spud Date 1/19/2015
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	17.5"	13.375"	48.0	425	496	Surface
Intermediate	12.25"	9.625	36.0	1923	700	Surface
Production	7.875"	7	26.0	9290	1586	210

**Casing/Cement Program: Additional Comments**

DV tool was ran in production casing.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Frac Stack	10,000 psi	6,500 psi	PVS

<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: <i>[Signature]</i> Printed name: Justin Barmore Title: Regulatory Specialist E-mail Address: justin-barmore@uprenergy.com Date: 05/18/2017 Phone: 505-573-8651	<b>OIL CONSERVATION DIVISION</b> Approved By: <i>[Signature]</i> Title: Geologist Approved Date: 5-26-17 Expiration Date: 5-26-17 Conditions of Approval Attached
--	---

*[Handwritten mark]*

MAY 18 2017

Form C-102

Revised August 1, 2011

DISTRICT I  
1625 N. Fourth St., Hobbs, NM 88240  
Phone: (505) 790-6781 Fax: (505) 791-6750

DISTRICT II  
811 S. First St., Lordsburg, NM 88020  
Phone: (505) 745-1783 Fax: (505) 748-9725

DISTRICT III  
1620 Main Street, Lordsburg, NM 88020  
Phone: (505) 745-1783 Fax: (505) 748-9725

DISTRICT IV  
1739 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-1489 Fax: (505) 476-1382

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

Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-42014	Pool Code 24670 <b>96318</b>	Pool Name <b>WFF</b> FOREHAND RANCH, DELAWARE
Property Code 316682	Property Name WARREN FEE	Well Number 1
OGRID No 246289	Operator Name RKI EXPLORATION & PRODUCTION	Elevation 3112'

Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	22 S	27 E		875	NORTH	2045	WEST	EDDY

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
C	34	22 S	27 E		965	NORTH	2285	WEST	EDDY

Dedicated Acres 40	Joint or Infill	Consolidated Code	Order No
-----------------------	-----------------	-------------------	----------

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.

<p>WARREN FEE 1 SHL NMSP-E (NAD 83) N (Y) = 402501.36' E (X) = 588908.92' LAT. = 32.3539628° N LON. = 104.1792767° W</p> <p>WARREN FEE 1 BHL NMSP-E (NAD 83) N (Y) = 492412.02' E (X) = 589146.39' LAT. = 32.3536163° N LON. = 104.1785081° W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>[Signature]</i> 5/17/2017 Signature Date Justin Barmaic Phone Name justin.barmaic@upxenergy.com E-mail Address</p>
	<p><b>SURVEYORS CERTIFICATION</b></p> <p>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.</p> <p>DECEMBER 9, 2016 Date of Survey</p> <p>Signature and Seal of Professional Surveyor <i>[Signature]</i> <b>JAMES E. TOMPKINS</b> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 14729</p> <p>Job No. WTC51519 JAMES E. TOMPKINS 14729 Certificate Number</p>



# Warren Fee #1

## Completion Procedure

### Bone Springs

Surface Location: 875' FNL & 2,045' FWL of Section 34, T 22S, R 27E  
 Bottom Hole Location: 965' FNL & 2,285' FWL of Section 34, T 22S, R 27E  
 Eddy County, New Mexico  
 API # 30-015-42014

**Surface Location Coordinates (NAD 83):**

Latitude: N 32.3538628°  
 Longitude: W 104.1792767°

**Spud Date:** 1-19-2015

**TD Date:** 1-29-2015

**KBE:** 3,129'

**GLE:** 3,111'

**KB-GL** 17.5'

**TD:** 9,290' (MD):

**PBTD:** 9,246' (Float Collar Depth)

**BHT:** 155°F

**Marker Joint:** DV Tool @ 5,586'

**CASING SUMMARY:**

**Safety Factor of 90%**

Size	Depth (ft)	Weight (#/ft)	Grade psi	Conn. Type	Capacity (bbls/ft)	ID (in)	Drift (in)	Burst (psi)	Collapse (psi)	Tension (lbs)
13-3/8"	425'	48	J-55	STC	0.1571	12.715	12.559	1,557	665	486,900
9-5/8"	1,923'	36	J-55	LTC	0.0773	8.921	8.765	3,168	1,818	507,600
7"	7,594'	26	L-80	LTC	0.0382	6.276	6.151	6,516	4,869	543,600
7"	7,594'- 9,290'	26	HCP- 110	LTC	0.0382	6.276	6.151	8,955	7,020	747,000

Surface: 13-3/8" 48# J-55 STC: 0' – 425' (Tail: 375 sks @ 14.8 ppg, bump plug, floats held, circ 121 sks back of cement to surface).

Intermediate: 9-5/8" 36# J-55 LTC: 0' – 1,923' (CMT: Lead: 500 sks @ 13.7 ppg, Tail: 200 sks @ 14.8ppg, bumped plug, floats held, 200 sks back to surface)

Production: 7" 26# L-80 LTC: 0' – 7,594' &  
7" 26# HCP-110 LTC: 7,594 – 9,290' (CMT: 1<sup>ST</sup> Stage - 600 sks @ 13 ppg, did not bump plug, drop bomb open DV Tool & Circ, 151 sks off tool. 2<sup>nd</sup> Stage – Lead: 560 sks @ 12.6 ppg, Tail: 275 sks @ 13 ppg. Bumped Plug, floats held, 136 sks to surface. TOC is 210')

**WELLHEAD:**

10" 10M X 7 1/16" 10M      Tubing Head

**COMPLETION HISTORY TO DATE:**

**11/17/2016 – Spot reliable rig 9, NU 7 1/16" 10k dual Bop w/ blinds and 2 7/8" rams. Function test. tested good. Rig up reliable rig 9. MU 6 1/8" JZ Rollercone sealed bearing bit and bit sub. PU and RIH w/ 173 jts of 2 7/8" L-80 8rd EUE and tag DV tool at 5,586'. PU and Make up swivel. Drill out DV tool in 98 min. Circulate hole clean for 20 min and RD Swivel. TIH to w/ 286 jts total of 2 7/8" L-80 8rd EUE and tag PBTD at 9,246'. pu 10' Leave bit hanging at 9,236'. MU swivel. Secure well and SDFN**

**11/18/2016 - Circulate hole clean W/ 345 bbls of 2% KCL. RD Swivel. TOOH laying down 286 jts of 2 7/8" L-80 8rd EUE, bit sub and 6 1/8" bit. MIRU Renegade Services Wireline truck and PU Logging tools. RIH to PBTD and Log CBL to surface. EST TOC-208'.**

**11/19/2016 - MIRU Petro plex acidizing pump and test lines to 8,400 psi. Pressure test casing to 6,525 psi for 30 min. ending pressure 6,433 psi. lost 92 psi. tested good. Bleed off pressure.**

**FRAC STAGES 1-7!**

**OBJECTIVE:** Perforate and frac Stage #8

**NOTE:** Maximum allowable surface pressure 6,500. Test surface lines & frac pumps to ~6,500 psi.

**WPX REQUIRES THAT HARD HATS, STEEL TOE BOOTS, FIRE RETARDANT CLOTHING, AND SAFETY GLASSES BE WORN ON LOCATION**

**HOLD SAFETY MEETING PRIOR TO COMMENCING PERFORATING, WIRE LINE AND PUMPING OPERATIONS**

**NO IGNITION SOURCES WITHIN 100 FT OF THE WELLHEAD, FLOWBACK TANKS OR MANIFOLD.**

**PROCEDURE:**

- 1) RU 5K lubricator on top of upper manual valve and test to 250 psi low and 8,000 psi high. RIH with 3 1/8" guns loaded with 22.7 gram Hunting/Titan EXP 3323-301T charges, 0.40 EHD, 35.60" pen and 90° phasing on wireline and perforate Stage #1 perforations as listed on following page. POOH, ensure all shots fired.
- 2) **PLEASE NOTE THAT STAGES 1-7 ARE COMPLETED!!!**

**Stage #1: 3<sup>rd</sup> Bone Springs Sand (8,634' – 8,792') Completed**

**Stage # 1 Perforations – COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	8,786'	8,792	6	2	12	90°
2	8,770'	8,774	4	2	8	90°
3	8,746'	8,748	2	2	4	90°
4	8,716'	8,720	4	1	4	90°
5	8,692'	8,696	4	1	4	90°
6	8,666'	8,668	2	1	2	90°
7	8,646'	8,648	2	1	2	90°
8	8,634'	8,636	2	1	2	90°
TOTALS			26		38	

- 3) MIRU frac equipment and connect to frac head. Frac Stack will consist of 10K Manual valve, 10K Hydraulic valve, flow cross, 10K Manual valve, and Frac head.
- 4) Test pump kills and lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP. Obtain design rate if possible ~ 80 bpm.**
- 5) Frac **Stage #1** perfs per attached treatment schedule. **Use Treatment Schedule 2.** As shown in **Treatment Schedule 2** (refer to Treatment Schedule on page #12 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **60 bioball sealers**  
~ 100,000 gal Slickwater  
~ 114,000 gal 10# Linear Gel  
60,000 lbs 100 Mesh Sand  
241,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #2 3<sup>rd</sup> Bone Springs LS (8,300' – 8,480') Completed**

**Stage # 2 Perforations – COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	8,476'	8,480	4	3	12	90°
2	8,470'	8,472	2	3	6	90°
3	8,462'	8,464	2	2	4	90°
4	8,444'	8,446	2	1	2	90°
5	8,432'	8,436	4	1	4	90°
6	8,314'	8,318	4	1	4	90°
7	8,308'	8,310	2	1	2	90°
8	8,300'	8,302	2	1	2	90°
TOTALS			22		36	

- 6) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 8,510'** and perforate **Stage #2** as indicated above.
- 7) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm.**
- 8) Frac **Stage #2** perfs per attached treatment schedule. **Use Treatment Schedule 1.** As shown in **Treatment Schedule 1** (refer to Treatment Schedule on page #11 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
~ 83,000 gal Slickwater  
~ 77,000 gal 10# Linear Gel  
30,500 lbs 100 Mesh Sand  
117,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #3 3<sup>rd</sup> Bone Springs LS (7,986' – 8,266') Completed**

**Stage # 3 Perforations- COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	8,262'	8,266	4	3	12	90°
2	8,248'	8,250	2	3	6	90°
3	8,238'	8,240	2	3	6	90°
4	8,044'	8,050	6	1	6	90°
5	8,032'	8,034	2	1	2	90°
6	7,986'	7,990	4	1	4	90°
<b>TOTALS</b>			20		36	

- 9) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 8,286'** and perforate **Stage #3** as indicated above.
- 10) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm.**
- 11) Frac **Stage #3** perfs per attached treatment schedule. **Use Treatment Schedule 1.** As shown in **Treatment Schedule 1** (refer to Treatment Schedule on page #11 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
 ~ 83,000 gal Slickwater  
 ~ 77,000 gal 10# Linear Gel  
 30,500 lbs 100 Mesh Sand  
 117,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #4 2<sup>nd</sup> Bone Springs Sand (7,232' – 7,378') Completed**

**Stage # 4 Perforations- COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	7,372'	7,378	6	2	12	90°
2	7,358'	7,362	4	2	8	90°
3	7,336'	7,340	4	1	4	90°
4	7,306'	7,310	4	1	4	90°
5	7,272'	7,274	2	1	2	90°
6	7,250'	7,254	4	1	4	90°
7	7,232'	7,234	2	1	2	90°
<b>TOTALS</b>			26		36	

- 12) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 7,440'** and perforate **Stage #4** as indicated above.
- 13) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm.**
- 14) Frac **Stage #4** perfs per attached treatment schedule. **Use Treatment Schedule 2.** As shown in **Treatment Schedule 2** (refer to Treatment Schedule on page #12 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
 ~ 100,000 gal Slickwater  
 ~ 114,000 gal 10# Linear Gel  
 60,000 lbs 100 Mesh Sand  
 241,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #5 1<sup>st</sup> Bone Springs Sand (6,588'– 6,814') Completed**

**Stage # 5 Perforations– COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	6,810'	6,814	4	3	12	90°
2	6,776'	6,780	4	2	8	90°
3	6,744'	6,746	2	2	4	90°
4	6,714'	6,716	2	1	2	90°
5	6,686'	6,690	4	1	4	90°
6	6,670'	6,672	2	1	2	90°
7	6,642'	6,646	4	1	4	90°
8	6,588'	6,590	2	1	2	90°
TOTALS			24		38	

- 15) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 6,850'** and perforate **Stage #5** as indicated above.
- 16) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 80 bpm**
- 17) Frac **Stage #5** perfs per attached treatment schedule. **Use Treatment Schedule 3.** As shown in **Treatment Schedule 3** (refer to Treatment Schedule on page #13 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **60 bioball sealers**  
 ~ 110,000 gal Slickwater  
 ~ 127,000 gal 10# Linear Gel  
 72,500 lbs 100 Mesh Sand  
 287,000 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #6 Lower Avalon Shale (5,846' – 6,042') Completed**

**Stage # 6 Perforations– COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	6,036'	6,042	6	2	12	90°
2	6,018'	6,022	4	1	4	90°
3	6,006'	6,008	2	2	4	90°
4	5,944'	5,948	4	1	4	90°
5	5,928'	5,930	2	1	2	90°
6	5,908'	5,912	4	1	4	90°
7	5,894'	5,896	2	1	2	90°
8	5,846'	5,850	4	1	4	90°
TOTALS			28		36	

- 18) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 6,090'** and perforate **Stage #6** as indicated above.
- 19) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm**
- 20) Frac **Stage #6** perfs per attached treatment schedule. **Use Treatment Schedule 1.** As shown in **Treatment Schedule 1** (refer to Treatment Schedule on page #11 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
~ 83,000 gal Slickwater  
~ 77,000 gal 10# Linear Gel  
30,500 lbs 100 Mesh Sand  
117,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down. Note: It is important to flush past the top perforation at a high velocity to facilitate subsequent wireline work.**

**Stage #7 Upper Avalon Shale (5,670' – 5,758') Completed**

**Stage # 7 Perforations- COMPLETED!**

**Note: KB = 17.5'. Correlate to Schlumberger Compensated Neutron Log Dated 1/29/2015.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	5,754'	5,758	4	2	8	90°
2	5,744'	5,746	2	3	6	90°
3	5,738'	5,740	2	2	4	90°
4	5,726'	5,730	4	2	8	90°
5	5,680'	5,684	4	1	4	90°
6	5,670'	5,674	4	1	4	90°
<b>TOTALS</b>			<b>20</b>		<b>34</b>	

- 21) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CFP @ ~ 5,790'** and perforate **Stage #7** as indicated above.
- 22) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm**
- 23) Frac **Stage #7** perfs per attached treatment schedule. **Use Treatment Schedule 1.** As shown in **Treatment Schedule 1** (refer to Treatment Schedule on page #11 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
 ~ 83,000 gal Slickwater  
 ~ 77,000 gal 10# Linear Gel  
 30,500 lbs 100 Mesh Sand  
 117,500 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down.**

**Stage #8 Lower Brushy (5,395' – 5,452')**

**Stage # 8 Perforations**

**Note: KB = 17.5'.**

<b>Set</b>	<b>Upper</b>	<b>Lower</b>	<b>Feet</b>	<b>SPF</b>	<b>Shots</b>	<b>Phasing</b>
1	5,444'	5,452	8	2	16	90°
2	5,395'	5,402	7	2	14	90°
TOTALS			15		30	

- 24) RU 5K lubricator and E-line. RIH w/ 3 1/8" guns and 10K CFP. **Set CIBP @ ~ 5,550'** and perforate **Stage #8** as indicated above.
- 25) Set back lubricator and wireline. RU frac equipment. Test lines to 6,500 psi & check transducer calibration. **Do not exceed 6,500 psi STP during pumping operations. Obtain design rate if possible ~ 70 bpm**
- 26) Frac **Stage #8** perfs per attached treatment schedule. **Use Treatment Schedule 1.** As shown in **Treatment Schedule 1** (refer to Treatment Schedule on page #11 of this procedure), frac treatment will be spearheaded by 1,500 gallons of 15% HCL acid (double inhibited) and diverted with bioballs.

**Treatment Fluid / Proppant Totals**

1,500 gal 15% HCL, double inhibited and diverted w/ **50 bioball sealers**  
 ~ 215,000 gal Slickwater  
 125,000 lbs 100 Mesh Sand  
 75,000 lbs 20/40 Arizona Sand

Call flush when concentration at well head densitometer has dropped to 0 ppg. **Flush to Btm-perf at full treating rate, then shut down.**

- 27) RDMO Frac equipment and frac head.
- 28) Install add'l flow back equipment, inspect setup, turn over to production to begin flow back.

**TREATMENT SCHEDULE 1**  
**Stage 8**  
**Fracture Treatment Schedule**

Stage	Fluid Type	Stage Vol (gal)	Cum Vol (gal)	Prop. Conc. (ppg)	Proppant* / Fluid Type	Stage (lbs)	Cum Prop. (lbs)	Rate (BPM)
1	15% HCL	1,500	1,500		Acid			20
2	Slickwater	30,000	31,500		Pad			70
3	Slickwater	20,000	51,500	0.5	100 Mesh	10,000	10,000	70
4	Slickwater	25,000	76,500	1	100 Mesh	25,000	35,000	70
5	Slickwater	25,000	101,500	1.5	100 Mesh	37,500	72,500	70
6	Slickwater	30,000	131,500	1.75	100 Mesh	52,500	125,000	70
7	Slickwater	20,000	151,500	0.5	20/40 Arizona	10,000	135,000	70
8	Slickwater	20,000	171,500	1	20/40 Arizona	20,000	155,000	70
9	Slickwater	30,000	201,500	1.5	20/40 Arizona	45,000	200,000	70
10	Slickwater	15,000	216,500		Flush			70

**Flush Volume Schedule**

Stage	BBLs	Gals
8	208.3	8,747

**WPX Contact List:**

<b>WPX</b>	<b>Title</b>	<b>Office</b>	<b>Cell</b>
Josh Shannon	Completion Engineer	539-573-0121	918-497-0180
Nikki Ferradas	Completion Engineer	539-573-0113	918-606-9831
Jim Auld	Completion Superintendent	575-885-1330	575-200-4191
Jamie Hall	Completion Team Lead	539-573-1492	918-261-5658
Cody Snuggs	Completion Consultant	575-885-1313	580-339-0921
Laco Mendoza	Completion Consultant	575-885-1313	505-859-5305
Jeremy Meaux	Completion Consultant	307-233-8765	337-962-2370
Joshua Richardson	Completion Consultant	307-233-8765	605-858-9907
Jim Pierce	Completion Consultant	307-233-8765	432-664-6411
Dan Pittman	Completion Consultant	307-233-8765	325-450-8910
Jerrod Rundberg	Completion Consultant	307-233-8765	970-314-3023
Michael Palmer	Completion Consultant	307-233-8765	575-420-2711
Chuck Pannell	Completion Consultant	307-233-8765	(580) 713-8088
Raymond Gabaldon	Completion Consultant	307-233-8765	575-513-9944
Bob Cady	Completion Consultant	307-233-8765	970-433-8194
Wayne Marcotte	Completion Consultant	307-233-8765	970-270-0228
Tom Parker	Completion Consultant	307-233-8765	405-395-7748
Loren Demers	Completion Consultant	307-233-8765	970-620-2069
Cullen DeFries	Completion Consultant	307-233-8765	405-200-6778
Robert Goodwin	Production Manager	539-573-3496	918-645-3688
Danny Emerson	Production Superintendent	575-885-1313	505-614-4867
Alyssa Venamon	Sourcing Consultant	539-573-0200	918-852-1442
Aaron Davis	Sourcing Manager	539-573-6586	918-640-7854
Matt Hinson	VP-Permian Asset	539-573-0170	
Jay Foreman	Completions Manager	539-573-8948	303-887-6827
Kent Hejl	Completions Superintendent	575-885-7539	970-629-2404

**Vendor List:**

<b>SERVICE</b>	<b>VENDOR – CONTACT</b>	<b>PHONE</b>
Stimulation Services	Basic Energy Services – Josh Chapman	406-208-0466
Electric Line Service/Setting Tools	Cased Hole Solutions – Matt Starks	720-498-9736
Frac Plugs	Cased Hole Solutions – Matt Starks	720-498-9736
Chemicals	Basic Energy Services – Josh Chapman	406-208-0466
Frac Stack	PVS – Ken McAlister	432-770-3576
Frac Water Distribution	Breakwater – Kelly Hall	972-800-2196
Flowback Equip	White Tail Testers - Robbie Whiteley	918-314-5800
Workover Rig	Reliable Well Services – Benny Parra	575-513-0466
Acid	Basic Energy Services – Josh Chapman	406-208-0466
Fuel	Pilot Thomas – Les Williams	830-583-5270

**Emergency Contacts – New Mexico:**

Hospital: Carlsbad Medical Center  
(575) 887-4100  
2430 W. Pierce St., Carlsbad, NM 88220

Sheriff's Office: Lea County Sheriff Dept  
(575) 396-3611

Eddy County Sheriff Dept  
(575) 887-7551

**Emergency Contacts – Texas:**

Hospital: Reeves County Hospital  
(432) 447-3551  
2323 Texas St, Pecos TX 79772

Sheriff's Office: Reeves County Sheriff Dept  
(432) 445-4901  
Loving County Sheriff Dept  
(432) 377-2411

