

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-10
June 16, 2001

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

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Legend Natural Gas III, Limited Partnership 410 West Grand Parkway South Suite 400 Katy, TX 77494		² OGRID Number 258894
		³ API Number 30-015-35342
³ Property Code WA-2740-1 State 305418	³ Property Name Winchester "5" State	⁶ Well No. 1
⁹ Proposed Pool 1 97594 Salt Draw, Morrow West Gas		¹⁰ Proposed Pool 2

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the 1004	North/South line	Feet from the 1986	East/West line	County
K	5	25S	28E			South		West	Eddy

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the 833.30	North/South line	Feet from the 1172.61	East/West line	County
K	5	25S	28E			South		West	Eddy

Additional Well Information

¹¹ Work Type Code P	¹² Well Type Code G	¹³ Cable/Rotary N/A	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3007
¹⁶ Multiple No.	¹⁷ Proposed Depth 12,833	¹⁸ Formation Morrow	¹⁹ Contractor N/A	²⁰ Spud Date N/A

²¹ Proposed Casing and Cement Program

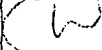
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2	13-3/8	48	650	575	Surface
12-1/4	9-5/8	36	2600	900	Surface
8-3/4	7	26	9897	1899	Surface
	4-1/2 (liner)	11.6	9050-12833	300	9050

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Legend Natural Gas III, LP proposes to P&A the Morrow formation and recomplete the subject well to the Cisco Canyon formation, as per the attached procedure.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:



Printed name:

R. BROCK HENDRICKSON

Title:

PRODUCTION ENGINEER

E-mail Address:

bhendrickson@lng2.com

Date:

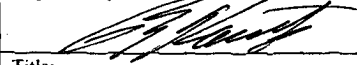
4/1/11

Phone:

281-644-5905

OIL CONSERVATION DIVISION

Approved by:



Title:

Approval Date:

4/6/11

Expiration Date:

4/5/13

Conditions of Approval Attached ☐

**Winchester 5 State #1
Unit K, Sec 05, T 25 S, R 28 E
30-015-35342
Eddy County, New Mexico**

Cisco Canyon Recompletion 1 Stage

Surf csg: 13-3/8", 48#, H-40, ST&C csg @ 650'. Circ cmt to surf.
Intm csg: 9-5/8", 36#, J-55, LT&C csg @ 2,600'. Circ cmt to surf.
Prod csg: 7", 26#, P-110, LT&C csg @ 9,897'. DV tl @ 5,004'. Circ cmt to surf.
Prod lnr: 4-1/2", 11.6#, P-110, LT&C csg @ 12,833'. FC @ 12,796', TOL @ 9,050'.
Liner Cmt: TOC @ ~11,704' (by CBL - 11/20/2007)
Current: PBTD @ 12,796'. Drift = 3.875". Capacity = 0.0155 bbls/ft.
Burst = 9,960 psi (Treating @ 80% = 8,000 psi)
BHA: 4-1/2" AS1-X pkr, SN, & 2-3/8", 4.6#, N-80 tbg @ 12,256'
Formation: Sulphate Draw; Wolfcamp NW (pool # 96333, well # 305418)

Completion Procedure

Note: All cement will be Class G or equivalent, mixed at 15.6 ppg with a 1.25 cf/sx yield.

1. MI 8 – 500 bbl (or 10 – 400 bbl) frac tanks and 1 flow back tank. Fill the frac tanks with 6% KCl water w/additives.
2. MIRU PU.
3. MI $\pm$ 5 jts 2-3/8", 4.6#, N-80, EUE, 8rd tbg.
4. TOH w/BHA. TIH w/3-7/8" bit, 4-1/2" csg scraper, & 2-3/8" tbg.
5. CO to 12,250'. TOH w/BHA.
6. TIH w/4-1/2" CICR, squeeze tl, & 2-3/8" tbg to surface.
7. Set CICR @ 12,208' & pressure test to 200 psig.
8. MIRU cmt truck.
9. **Plug #1 (12,108'-12,308'):** Mix 7 sx cement and pump a 100' plug below cement retainer. Mix additional 7 sx cement and spot a 100' plug to cap the CICR. **[Morrow Top - 12,208']**
10. TOH with 1 stand of tbg. Roll hole with water. TOH w/BHA.
11. RD cmt truck.
12. Pressure test the casing to 1,500 psig for 10 minutes then test casing to 3,500 psig for 5 minutes. Record pressure test on chart.

13. MIRU wireline and mast truck. RU full lubricator. RIH w/3.875" gauge ring fr/surface to new PBTD (12,108'). POOH w/gauge ring.
14. Run GR/CCL/CBL/CNL fr/PBTD (12,108') to 9,050' (Liner Top) w/800 psig on the casing, during logging. Correlate to OXY Winchester 5 State #1 Array Induction Log dated 11/20/2007.
15. Perf Squeeze Holes with a 4-1/2" csg gun with 8 JSPF (Owen HSC-3125-310A, 11.0 gm, 45 deg phasing, 0.58" dia., 5.18" penetration, 8 holes). POH with csg gun & RD WL truck.

Squeeze Perfs	
PERF	CCL
11,300'	

16. TIH w/4-1/2" CICR, squeeze tl, & 2-3/8" tbg to surface.
17. Set CICR @ 11,290' & pressure test to 200 psig.
18. RU cmt truck.
19. Break circulation and attempt to monitor returns behind liner hanger.
 - *If circulation is established, mix 120 sx cement and pump a block squeeze below CICR.*
 - *If circulation is NOT established, pump 250 gals 15% HCL & mix 65 sx cement and pump a block squeeze below CICR.*
20. RDMO cmt truck.
21. ALLOW CMT TO SET FOR 24 HRS.
22. TIH w/3-7/8" bit, bit sub, & 2-3/8" tbg to surface. DO cmt & CO to PBTD (12,108'). TOH w/BHA.
23. RU wireline and mast truck. RU full lubricator. Run GR/CCL/CBL fr/ 11,750' to 10,900', or 100' above TOC.
 - *If TOC is below 11,000', subsequent block squeezes will be performed, as indicated above.*
 - *If TOC is $\geq$ 11,000', continue to step #24.*
24. Pressure test the 4-1/2" casing to 3,500 psig for 10 minutes then test casing to 5,000 psig for 5 minutes. Record pressure test on chart.
25. NU frac valve.

26. RU wireline and mast truck. RU full lubricator.
27. Perf Cisco Canyon with a 3-1/8" csg gun with 2 JSPF (Owen SDP-3125-411NT4, 21.0 gm, 135 deg phasing, 0.34" dia., 32.86" penetration, 84 holes). POH with csg gun & RD WL truck.

Cisco Canyon Perfs

PERF	CCL
11,250'-11,258'	
11,220'-11,236'	
11,110'-11,128'	

28. MIRU acid equipment and pressure test surface lines to 8,650 psig. BD perfs with 6% KCl water and EIR. Acidize Cisco Canyon perfs from 11,110'-11,258' with 2,000 gals of 15% NEFE HCl acid and 126 Bio-balls at 12 BPM down csg. Flush with 15,975 gals 6% KCl water (2 bbls over flush). Record ISIP, and 5" SIP. Ball-off acid. Surge balls back several times. RDMO acid truck.
29. Install flowback manifold. Flowback well thru a choke manifold to flowback tank. Start with an 8/64" choke. Increase choke size as appropriate.
30. If well is determined to be unproductive, continue to step #31.
31. MIRU WH isolation tool. MIRU frac equip.
32. Review treatment schedule with service company personnel and confirm treatment rate, stage fluid volumes, proppant volumes, type and amount of flush.
33. Frac Cisco Canyon perfs down casing at 60 BPM. Pump 18# XL gelled fluid w/98,600 lbs 20/40 Super LC proppant followed by 17,400 lbs 20/40 Super LC proppant coated with Superset Activator. Flush with 15,875 gals 6% KCl water. Record ISIP & 5" SIP.

Stage 1	Volume	Fluid	Conc.	Proppant/Balls
1 - Acid	2,000	7.5% FE Acid		
2 - Flush	15,975	6% KCl Water		
3 - Pad	11,500	18# XL Gelled Fluid		
4 - Proppant Laden Fluid	5,800	18# XL Gelled Fluid	0.5 lbm/gal	Super LC-20/40
5 - Proppant Laden Fluid	5,800	18# XL Gelled Fluid	1 lbm/gal	Super LC-20/40
6 - Proppant Laden Fluid	13,050	18# XL Gelled Fluid	2 lbm/gal	Super LC-20/40
7 - Proppant Laden Fluid	21,250	18# XL Gelled Fluid	3 lbm/gal	Super LC-20/40
8 - Proppant Laden Fluid	5,800	18# XL Gelled Fluid - Superset	3 lbm/gal	Super LC-20/40
9 - Flush	15,875	Water Frac G - R (20)		

34. RDMO frac equip.
35. Shut well in for a **minimum** of **4 HOURS**.
36. Install flowback manifold. Flowback well thru a choke manifold to flowback tank. Start with an 8/64" choke. Increase choke size as appropriate.

37. MIRU PU. ND frac valve. NU and pressure test BOP.
38. TIH w/3-7/8" bit, bit sub, and 2-3/8" tubing. CO to PBTD (12,108') and circulate wellbore clean. TOH w/tbg & bit.
39. TIH w/WLEG, SN, & ± 356 jts 2-3/8" tbg. Land tubing at $\pm 11,226'$. SN at $\pm 11,225'$. ND BOP. NU WH.
40. If necessary, RU swab line and lubricator. Swab well until clean fluid is obtained and well kicks off.
41. RDMO PU.
42. Report rates and pressures to Brock Hendrickson.

Regulatory:

1. Submit completion sundry to BLM & NM OCD

Equipment:

1. 3-7/8" bit & bit sub



Schematic - Current

Well Name: Winchester 5 State #1

Most Recent Job

AFE Number	Ground Elevation (ft)	Original KB Elevation (ft)	Total Depth (ftKB)	PBTD (Alt) (ftKB)
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Well Config: - Original Hole: 2/9/2011 11:05:10 AM

ftKB (MD)	ftKB (TVD)	Incl.	Schematic - Actual
20			
60			
650			
2,600			
5,004			1-1, Casing Joints, 20, 19,124, 20, 40.0, 94.00, H-40
5,007			2-1, Casing Joints, 13 3/8, 12,715, 20, 630.3, 48.00, H-40
9,050			3-1, Casing Joints, 9 5/8, 8,921, 20, 2,580.3, 36.00, J-55
9,054			4-1, Casing Joints, 7, 6,276, 20, 4,984.3, 26.00, P-110
9,438			4-2, DV Tool, 8,291, 6,276, 5,004, 3.0, 26.00, P-110
9,851			3-1, Tubing, 2 3/8, 1,995, 20, 12,233.3, 4.60, N-80
9,853			
9,895			5-1, Liner Hanger, 4 1/2, 4,000, 9,050, 4.0, 11.60, P-110
9,897			
11,220			
11,221			
11,224			
11,230			
11,236			
12,253			
12,256			3-2, Arrow packer, 4, 1,995, 12,253, 3.0
12,280			
12,300			
12,302			
12,398			Perforated (6 shots) Poker Lake, 12,398-12,404, 11/20/2007
12,404			
12,440			Perforated (10 shots) Chert, 12,440-12,450, 11/20/2007
12,450			
12,456			Perforated (6 shots) Chert, 12,456-12,462, 11/20/2007
12,462			
12,468			Perforated (10 shots) Chert, 12,468-12,478, 11/20/2007
12,478			
12,492			Perforated (10 shots) Chert, 12,492-12,502, 11/20/2007
12,502			
12,570			Perforated (10 shots) A Sand, 12,570-12,580, 11/20/2007
12,580			Perforated (20 shots) - A Sand, 12,580-12,600, 11/20/2007
12,600			
12,672			Perforated (6 shots) - Paduca, 12,672-12,678, 11/20/2007
12,678			
12,708			Perforated (6 shots) - Paduca, 12,708-12,714, 11/20/2007
12,714			
12,791			5-2, Casing Joints, 4 1/2, 4,000, 9,054, 3,737.0, 11.60, P-110
12,792			5-3, Float Collar, 4 1/2, 4,000, 12,791, 1.0, 11.60, P-110
12,832			5-4, Casing Joint, 4 1/2, 4,000, 12,792, 40.0, 11.60, P-110
12,833			5-5, Casing shoe, 4 1/2, 4,000, 12,832, 1.0, 11.60, P-110

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

PLUG BACK

305418 Operator LEGEND NAT GAS IFF LP OGRID # 258874
 Well Name & # WINCHESTER 5 STATE # 1 Surface Type (F) (S) (P)
 Location: UL 3, Sect 3, Township 25 s, RNG 28 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd / / C101 reviewed / /

B. 1. Check mark, Information is OK on Forms:

OGRID X BONDING , PROP CODE , WELL # , SIGNATURE

2. Inactive Well list as of: 4/5/14 # wells 20, # Inactive wells 1

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator , to Santa Fe

3. Additional Bonding as of: 4/5/14

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator , To Santa Fe

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator , To Santa Fe

C. C102 YES , NO , Signature

1. Pool SALT DRAW; UPPER PENN (G), Code 97594

a. Dedicated acreage , What Units

b. SUR. Location Standard : Non-Standard Location

c. Well shares acres: Yes , No , # of wells plus this well #

2. 2nd. Operator in same acreage, Yes , No

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes , No

a. Dedicated acreage , What Units

b. Bottomhole Location Standard , Non-Standard Bottomhole

4. Downhole Commingle: Yes , No

a. Pool #2 , Code , Acres

Pool #3 , Code , Acres

Pool #4 , Code , Acres

5. POTASH Area Yes , No X

D. Blowout Preventer Yes , No X, need

E. H2S Yes , No , need

F. C144 Pit Registration Yes , No X, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes , No X, NSL #

2. Non-Standard Proration: Yes , No X, NSP #

3. Simultaneous Dedication: Yes , No X, SD #

Number of wells Plus #

4. Injection order Yes , No X; PMX # or WFX #

5. SWD order Yes , NO X; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-015-- 35342

8. Reviewers