Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other	5. Lease Serial No. NMNM 15302 6. If Indian, Allottee or Tribe Name 7. If Unit or CA/Agreement, Name and/or No. 8. Well Name and No. BAR 4 FEDERAL 1
2. Name of Operator XTO ENERGY INCORPORATED Contact: PATRICIA DONALD E-Mail: PATRICIA_DONALD@XTOENERGY.COM	9. API Well No. 30-015-25748-00-S1
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 3b. Phone No. (include area code) Ph: 432-571-8220	10. Field and Pool or Exploratory Area RUSTLER BLUFF Willow Lake Bone Spring SE
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 4 T25S R29E NWSW 1830FSL 660FWL	11. County or Parish, State EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO ENERGY INC SUBMITS SUNDRY IN ORDER TO RECOMPLETE THE WELL TO THE HARKEY SAND. DUE TO CHARACTER RESTRICTION, YOU WILL FIND THE FOLLOWING ATTACHED:
1. RECOMPLETION PROCEDURE
2. CURRENT WELLBORE DIAGRAM
3. PROPOSED WELLBORE DIAGRAM

OUR GOAL IS TO HAVE THIS WELL BACK ONLINE BY 1ST QUARTER 2019.

RECEIVED

OCT 12 2018

DISTRICT II-ARTESIA O.C.D.

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

Electronic Submission #434905 verified by the BLM Well Information System
For XTO ENERGY INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 09/13/2018 (18PP2642SE)

Name *(Printed/Typed)* PATRICIA DONALD — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 09/11/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Jonathon Shepard — Title Petroleum Engineer — Date SEP 19 2018

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 Carlsbad Field 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.

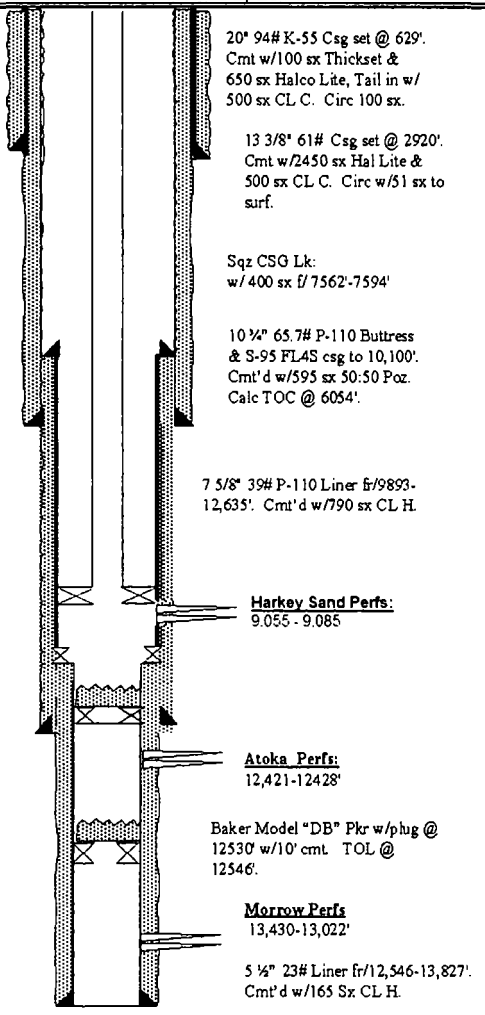
(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

9/20/2018 - hold for C102 ag

XTO ENERGY

Well: Bar 4 Federal #1
Area:
Location: 1830' FSL & 660' FWL, Unit L
Sec 4 T25S R29E
County: Eddy **State:** New Mexico
Elevation: 2943.7' GL; 2970.2 KB



PBTD 12,578'
TD 13,827'

Bar 4 Federal #1
Spud: 11/30/87
Completion:
04/04/88: Perf Morrow 13,430-13,022' (OA). Breakdown w/ 800 gals 10% acetic acid.
04/18/88: Acdz 13430-13022 w/10,000 gals 7.5% Morflow BC acid & 500 SCF/bbl N2. Set Pkr @ 12,588 w/10' cmt. Abandon Morrow.
04/23/88: Perf Atoka 12,421-12,428'. Spot 500 gals acetic acid.
05/31/06: RIH W/2" CIBP & set @ 12,098' in 2 3/8" tbg. Perf holes @ 12091' & 12093'. Acidized perfs 12,421'-428' w/ 1500 gals 7 ½% NEFE HCL & 80 mcf of Nitrogen @ 1.5 BPM & MTP 6095#, Second stg pmp 4713 gals 5% KCL wtr & 125 mcf of nitrogen @ 1.5 BPM, MTP 6586#. ISIP 6030#. Locate CSG Leak f/ 7562'-94'. Sqz fw/ 400 sx cmt. Held OK. Frac perfs 12,421.-28' w/ 64,790 gals of 40# 70Q Binary Foam w/ 43,600# 20/40 100% Sinterd Bauxite sd. AIR 16.5 BPM @ 8661#, MIP 10,000#, MIP 7864#. CO fill. Put on prod.
09/25/06: 24 HR test, 0 BO, 13 BW, 286 MCF, TP @ 750# on 15/64" choke. Duke line press 395#.
08/05/08: Instld cap string.
08/18/08: Post WO 0 BO, 6 BW, 131 MCF 24 hrs. pmpg soap @ rate 7 gals/day. FTP 510 psig. SP 484 psig. Final.

Current Equip:
Pkr @ 12,126' w/ 2 3/8" 4.7#/ft P-110 CS Hydril tbg.

PREPARED BY: PAC **DATE:** 6/18/11

W/WELL SKETCHES/OTHER NEW MEXICO/Bar 4 Federal #1

XTO ENERGY

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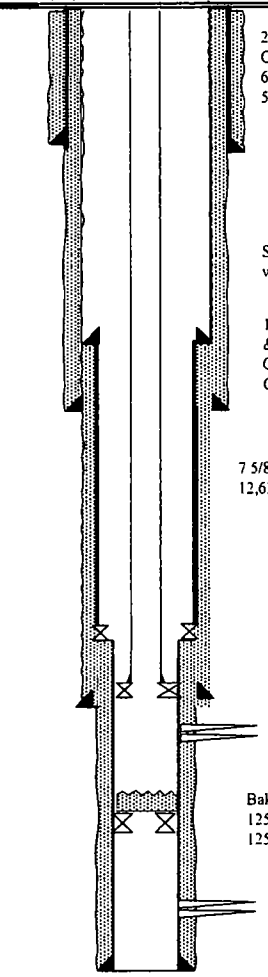
Sec 4 T25S R29E
County: Eddy **State:** New Mexico
Elevation: 2943.7' GL; 2970.2 KB



20" 94# K-55 Csg set @ 629'. Cmt w/100 sx Thickset & 650 sx Halco Lite, Tail in w/ 500 sx CL C. Circ 100 sx.

13 3/8" 61# Csg set @ 2920'. Cmt w/2450 sx Hal Lite & 500 sx CL C. Circ w/51 sx to surf.

Sqz CSG Lk: w/ 400 sx f/ 7562'-7594'

10 ¾" 65.7# P-110 Buttress & S-95 FL4S csg to 10,100'. Cmt'd w/595 sx 50:50 Poz. Calc TOC @ 6054'.

7 5/8" 39# P-110 Liner fr/9893-12,635'. Cmt'd w/790 sx CL H.

Atoka Perfs: 12,421-12428'

Baker Model "DB" Pkr w/plug @ 12530' w/10' cmt. TOL @ 12546'.

Morrow Perfs 13,430-13,022'

5 ½" 23# Liner fr/12,546-13,827'. Cmt'd w/165 Sx CL H.

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TD 13,827'

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Current Equip:
Pkr @ 12,126' w/ 2 3/8" 4.7#/ft P-110 CS Hydril tbg.

PREPARED BY: PAC **DATE:** 6/18/11

XTO ENERGY

Bar 4 Federal #1
CO, Acidize, & Frac Well
Eddy County, NM
September 10th, 2018
AFE #:

CURRENT STATUS: SI Cased Hole Producer

OBJECTIVE: POOH cap string, scan tubing OOH, cleanout well with 9-1/2" & 6-1/2" bits to 12,530', isolate existing perfs, and acidize/frac wellbore. Cleanout well, hydrotest production tubing, return well to production.

WELL DATA:

API:	**30-015-25748**	
Elevation:	GL—2,970'	KB—2,950'
Depth:	PBTD—12,530' ("DB" Pkr w/ plug)	TD—13,827'

CASING DETAIL	Diameter (in)	Weight (lb/ft)	Grade -	MD (ft)	TOC (ft)	ID (in)	Drift (in)	Collapse (psi)	Burst (psi)	Capacity (bbl/ft)
Conductor	20"	94#	K-55	Surf – 629	Surface	19.124	18.936	520		0.3553
Surface	13-3/8"	61#	K-55	Surf – 2,920	Surface	12.515	12.359	1,540	3,090	0.1500
Production	10-3/4"	65.7#	L-80	Surf – 10,100	6,054	9.560	9.400	6,300	7,750	0.0888
Production Liner	7-5/8"	39#	P-110	9,893 – 12,635	9,893	6.625	6.500	11,060	12,620	0.0426
Liner	5-1/2"	23#		12,546 – 13,827	12,546	4.670	4.540			0.0212
Tubing	2-3/8"	4.7#	P-110	Surf – 12,126	N/A	1.995	1.901	16,130	15,400	0.0039

ACTIVE PERFS:

Atoka: 12,421'-12,428'

ISOLATED PERFS:

Morrow: 13,022'-13,430'

PROPOSED PERFS:

Harkey Sand: 9,055' –9,085'

Prepared by: RVF

PROCEDURE:

Prior to MIRU, verify that location is cleared for the workover rig. Check anchors, power lines, any other safety hazards, and notify all personnel involved in any work on the location.

******Operate Using OIMS guidelines during workover******

Well Classification: Class II (>300 to 1,500 psig)
MASIP: 1,000 PSIG
MAOP: 1,500 PSIG

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1. MIRU WSU. Check well pressures and bleed off & kill well as necessary.

2. POOH & spool up cap string. ND WH. NU Class II BOP with 2-3/8" rams. Function & pressure test BOP equipment.

3. Scan tubing OOH discarding of any GB or RB tubing while laying down the rest.

4. Move in 2-7/8" XTO owned WS for CO. Change BOP rams from 2-3/8" to 2-7/8".

5. RIH w/ 9-1/2" bit and scraper to CO well to 9,893' (7-5/8" Liner Top). Report tag depth. POOH standing back WS. LD 9-1/2" bit and scraper.

6. RIH w/ 6-1/2" bit and scraper to CO well to 12,530' ("DB" Pkr w/ plug). Report tag depth prior to CO (last CO to 12,530' in 2006). **Note: contact Midland if casing issues are encountered**

7. Circulate a minimum of two bottoms up. Contact Nalco Champion to collect sample and perform analysis (notify Midland of samples found). Will adjust acid job as necessary depending on solids seen in returns.

8. POOH standing back 2-7/8" tbg. LD 6-1/2" bit.

9. PU 10-3/4" RBP and PKR. RIH and set ~9,250ft. Pressure test production casing to surface to 5,000 psi for 10 min. **Note: contact Midland if casing test fails.** If test fails, set PKR ~8,750ft and test between RBP & PKR (sqz'd csg leak @ 7,562'-7,594'). POOH laying down 2-7/8" tbg, RBP, and PKR.

10. MIRU WL. Load well with treated FW and NU lubricator. RIH with CCL/CBL and log from 9,250 ft to 500 ft above TOC. **Notify Midland if poor cement quality is observed.**

11. RIH with CIBP, set @ 9,200ft to isolate active perfs. POOH.

12. Pressure test CIBP to 5,000 psi for 5 min. Record pressures.

13. RIH with perforating guns, perforate 9,055ft to 9,085ft with 1 spf @ 60º phasing for a total of 30 perforations. POOH. RDMO WL.

14. MI and rack ~9,000' 3-1/2" 9.2# L-80 WS (company owned) with turndown collars. Change BOP rams from 2-7/8" to 3-1/2".

15. MIRU tubing hydrotesters. PU 10-3/4" frac packer (for 65.7# L-80 casing) and 3-1/2" WS. RIH hydrotesting 3-1/2" WS to 8000 psig (EOT should be at +/- 8,855', but do not set packer).

16. MIRU acid company. Pump 750 gallons of 15% HCl acid to pickle tubing. Leave backside open to circulate tail of acid to EOT. Reverse circulate any remaining acid to tank. RDMO acid company.

17. Set frac packer at +/- 8,855' (subject to change depending on CIL results). Pump down tubing at greatest rate and pressure possible. **Monitor backside for any pressure increase, notify Midland if observed.**

18. NU 10k frac valve and goat head (NU directly to 3-1/2" tubing). Use tubing hydrotesters to test frac stack. RDMO tubing hydrotesters.

19. Space out frac tanks on location (6 recommended). XTO to provide at least **1,900 bbls of FW**. Contact Nalco Champion to test tanks for bacteria and treat with biocide and scale inhibitor prior to frac.

20. SWI. RDMO WSU. Wait on frac.

21. MIRU Frac Company. RU pressure transducer to backside to monitor pressure throughout job. RU pump truck to load backside, maintain 250-500 psig in the TCA for the duration of the frac. **Have pop-off valve plumbed into backside (set pop-off pressure to 1000 psig, and test prior to frac to ensure proper operation)**. Verify the bleed off line is staked down.

22. Test lines to 8000 psig (set treating line pop-off at 4800 psig, pump kickoff at 4500 psig).

Max Treating Pressure: 5000 psig
Max Casing Pressure: 1000 psig
Planned Pump Rate: 40 bpm

Well & Configuration			Total Fluid & Sand		Max Pressures / Rate	
Well Name	Bar 4 Federal #1		Fresh Water (bbl)	1831	**Test Lines**	8000 psi
County	Eddy, NM		Frac Tanks	6 (25 bbl btms)	**Max TP**	5000 psi
Formation	Harkey Sand		RC Proppant (lb)	30,000	TP Popoff	4800 psi
Res Temp	110-125 deg F		UC Proppant (lb)	70,000	Pump Kickouts	4500 psi
Top Perf	9055 ft	30 ft gross	Total Proppant (lb)	100,000	**Max CP**	1000 psi
Btm Perf	9085 ft	30 ft net	15% Acid (gal)	1,000	CP Popoff	1000 psi
PBTD	9200 ft	**Total Stages**	Frac Time	53 min	Max Diff Press	5000 psi
Packer at	8855 ft	1	Min Break Time	1.3 hrs		
# Perfs	30 shots		Shut in time	16 hrs	**Pump Rate**	40 bpm

Prepared by: RVF

23. Frac the Harkey Sand perfs (from 9,055'-9,085') down 3-1/2" tubing with 80,000 gals 20# X-Linked Gel & 70,000 lbs 20/40 NWS + 30,000 lbs 20/40 curable resin-coated sand (CryoSet, Coolset, Garnet, or InnoProp) good for 110º F @ 40-45 BPM. Drop **45 Ball Sealers** spaced our evenly during the acid stage. Treat according to the following schedule. **Flush 1 bbl shy of top perf and call flush at 2.5# inline proppant concentration**. Do not overflush RCS. Record ISIP, 5 min, 10 min and 15 min SITP.

Proposed Schedule		CLEAN FLUID				PROPPANT				SLURRY				
Stage #	Stage Description	Base Fluid	Clean Stage Vol (gal)	Clean Stage Vol (bbls)	Clean Tot Vol (bbls)	Proppant Type	Prop Conc (ppa)	Stg Prop (lbs)	Tot Prop (lbs)	Slurry Rate (bpm)	Slurry Stg Vol (bbls)	Slurry Tot Vol (bbls)	Stg Time (min)	Tot Stg Time (min)
1.01	Load	FW	3,980	95	95		0	0	0	15	95	95	6	6
1.02	Acid	Acid	1,000	24	119		0	0	0	40	24	119		
1.03	Pad	20# X-Linked Gel	20,000	476	595		0	0	0	40	476	595	12	18
1.04	Prop Fluid	20# X-Linked Gel	6,500	155	750	20/40 NWS	1	6,500	6,500	40	155	750	4	22
1.05	Prop Fluid	20# X-Linked Gel	9,667	230	980	20/40 NWS	1.5	14,500	21,000	40	246	996	6	28
1.06	Prop Fluid	20# X-Linked Gel	11,000	262	1,242	20/40 NWS	2	22,000	43,000	40	296	1,290	7	35
1.07	Prop Fluid	20# X-Linked Gel	10,800	257	1,499	20/40 NWS	2.5	27,000	70,000	40	261	1,551	7	42
1.08	Prop Fluid	20# X-Linked Gel	10,000	238	1,737	20/40 LT RCS	3	30,000	100,000	40	270	1,821	7	50
	Flush	FW	3,938	94	1,831		0	0	100,000	40	94	1,915	2	52

24. Shut frac valve. RDMO frac company. Leave well SI for at least 16 hours.

25. Run steel lines to frac tank to begin flowback. Gradually flowback Harkey Sand perforations to tank. Begin flowback with an 8/64" choke in order to reduce proppant flowback. Ramp flowback up to 50 bbl/hr. Once pressure is controlled under 200 psig and no sand in returns, notify production foreman to turn over flowback operations.

26. MIRU PU. ND frac valve. NU BOP with 3-1/2" rams. Unset packer, POOH & LD 3-1/2" WS & pkr.

27. MI and rack ~9,200' of 2-7/8" 6.5# J-55 production tubing (enough to CO to PBTD (CIBP)). If casing issues were encountered during initial CO, perform post frac CO with WS.

28. Change BOP rams to 2-7/8".

29. RIH with 6-1/2" bit on 2-7/8" production tubing and cleanout to 9,200' (CIBP). DO NOT drill out CIBP. Circulate the well clean. POOH standing back production tubing. Lay down bit.

30. RIH w/ agreed production equipment.

31. RDMO WSU, clean location. Notify operations and Nalco Champion to put well in test and treat with necessary chemical.

Prepared by: **Approved by:**

Ruslan Filyukov **Date** **Rob Heinle** **Date**

Wes McSpadden **Date**