Form 3160-5 (April 2004)

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD-ARTESIA	
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FORM APPROVED OMB NO 1004-0137 Expires March 31, 2007

AUG SUNDRY NOTICES AND REPORTS ON WELLS

12 2000	5 Lease Serial No.
· ~ Z009	5 Lease Serial No. NM-17589
	6 If Indian Allottee or Tribe Name

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.	o it indian, Anottee of Thoe Name
SUBMIT IN TRIPLICATE - Other instructions on reverse side	7 If Unit or CA/Agreement, Name and/or No Nash Unit
Gas Well Other	8 Well Name and No

Type of Well X Oil Well #29 lNash Unit 2. Name of Operator XTO Energy Inc. 9. API Well No 3b Phone No (include area code) 3a Address 30-015-29434 200 N. Loraine, Ste. 800 Midland, TX 79701 432-620-6740 10. Field and Pool, or Exploratory Area 4 Location of Well (Footage, Sec., T, R, M, or Survey Description) Nash Draw: Delaware/BS (Avalon Sand) Unit Ltr. J. Section 13, T-23S, R-29E 11 County or Parish, State 1980' FSL & 2310' FEL, Eddy Co., NM Eddy County CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 12 TYPE OF SUBMISSION TYPE OF ACTION

	l			
X Notice of Intent	Acidize	Deepen	Production (Start/Resume)	Water Shut-Off
C st	Alter Casing	Fracture Treat	Reclamation	Well Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete	X Other Convert t
Final Abandonment Notice	Change Plans	Plug and Abandon	Temporarily Abandon	SWD Well
	Convert to Injection	Plug Back	Water Disposal	AO - SWD-1157
13. Describe Proposed or Completed Operation (clearly	y state all pertinent details,	including estimated starting	ng date of any proposed work an	d approximate duration there

of. 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 shall 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 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 final site is ready for final inspection.)

Isolate currently producing Brushy Canyon perfs & Convert well to SWD in Bell Canyon interval from 3192'-3786' to allow for disposal of produced water from 4 planned 6000' laterals for 2009.

Procedure Cont'd. on Next Page

Bem Requirement Devices

THEY DO NOT MEET THE SEE ATTACHED FOR

REQUIREMENT OF SUD 1157 CONDITIONS OF APPROVAL

REQUIREMENT OF SUD 1157 CONDITIONS OF APPROVAL

I hereby certify that the foregoing is true and correct Name (Printed/Typed)	Title	
Kristy Ward	Regulatory Ana	lyst
Kinty Ward	Date 4/08/09	APPROVED
	OR FEDERAL OR STATE OFFICE USE	
Approved by	Title	AUG <sup>ate</sup> 8 2009
Conditions of approval, if any, are attached. Approval of this notice d certify that the applicant holds legal or equitable title to those rights i which would entitle the applicant to conduct operations thereon	oes not warrant or Office in the subject lease	WESLEY W. INGRAM
Tule 18 IJ S.C. Section 1001 and Title 43 IJ S.C. Section 1212 maker	s it a crime for any person knowingly and willfully	to make tREUBOLEUM ENGINEER United

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# NASH UNIT #29 SWD EDDY COUNTY, NEW MEXICO MARCH 16, 2009

**ELEVATION:** 

PBTD - 7250'

KB - 3005'

TD - 7210'

GL - 2991'

WELL DATA:

Surface Casing:

13-3/8", 48 ppf. Set at 309'. Cemented with 425 sx.

Circulated.

Inter. Casing:

8-5/8", 32 ppf. Set at 3000'. Cemented with

900 sx. Circulated.

Prod. Csg:

5-1/2", 17 ppf J-55 Csg. Set at 7250'.

Cemented with 1245 sx in three stages, DV tools @ 4496' &

6076'

Circulated 1" & 2nd stages, TOC @ 2060' CBL

**PERFORATIONS:** 

Brushy Canyon (Delaware): 5433-6870' (38', 38 total holes)

Last test: 3 bopd, 58 bwpd, 12 mcfpd (Jan 2009)

**OBJECTIVE:** 

Isolate currently producing Brushy Canyon perfs & convert well to SWD in Bell Canyon interval from 3192-3786 to allow for disposal

of produced water from 4 planned 6000' laterals for 2009.

### RECOMMENDED PROCEDURE

- 1. MIRU PU. POH w/ rods & pump. LD rods & pump. ND <u>WH. NU</u> BOP. POH & LD production tbg.
- 2. PU 2 7/8" WS. TIH with WS & bit to below 4200'. TOH w/ WS & bit.
- 3. RU Key WL. RIH w/ WL & set CIBP @ +/- 5400'. Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w/ WL
- 4. RIH w/ WL & dump bailer. Dump 10 sx cmt on top of CIBP. POH w/ WL.
- 5. RIH w/ WL & set CIBP @ +/- 3900'. Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w/ WL.
- 6. RIH w/ WL & dump bailer. Dump 10 sx cmt on top of CIBP. POH w/ WL.

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## NASH UNIT #29 SWD EDDY COUNTY, NEW MEXICO MARCH 16, 2009

- 7. RIH w/ WL & Perf Bell Canyon in the following intervals 3688'-92', 3698'-3712', 3726'-38', 3750'- 68', 3774'-86' (60', 60 total holes). Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Key WL.
- 8. RIH w/ 2 7/8" WS & packer. Set packer @ +/- 3600'.
- 9. RU Key Pressure Pumping Services. Acidize Bell Canyon perfs (3688'-3786') w/ 3500 gal 7.5% HCL & 100 RCNBS. Attempt to get 5 BPM but stay below max pressure of 5000 psi. Drop 100 RCNBS evenly throughout last %" of job. Flush with fresh water to bottom perf. After pumping SI well to obtain ISIP, 5 min, 10 min & 15 min SI pressures. RD Key Pressure Pumping Services.
- 10. Open well to blow down tank to flow off pressure if necessary.
- 11. TOH w/ WS & packer.
- 12. RU Key Pressure Pumping Services & Key WL.

#### IS' Stage Frac (Lower Bell Canyon)

Frac Bell Canyon perfs (3688'-3786') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. On flush begin with 2000 gal 7.5% NEFE HCL acid treated with WFR-3. Finish flush with treated freshwater. Flush to top perf is 3600 gal so should require 1600 gal of treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures.

### 2nd Stage Perforating/Frac (Middle Bell Canyon)

RU Lubricator & RIH w/ WL & Set Composite Bridge Plug @ +/- 3650'. Perf Bell Canyon in the following intervals 3478'-86', 3492'-3500', 3512'-22', 3536'-50', 3554'-68' (54', 54 total holes). Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Lubricator & Key WL.

Frac Bell Canyon perfs (3478'-3568') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. On flush begin with 2000 gal 7.5% NEFE HCL acid treated with WFR-3. Finish flush with treated freshwater. Flush to top perf is 3400 gal so should require 1400 gal of treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures.

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# NASH UNIT #29 SWD EDDY COUNTY, NEW MEXICO MARCH 16, 2009

### 3"d Stage Perforating/Frac (Upper Bell Canyon)

RU Lubricator & RIH w/ WL & Set Composite Bridge Plug @ +/- 3425'. Perf Bell Canyon in the following intervals 3192'-3202', 3244'-54', 3260'-70', 3292'-98', 3324'-34', 3346'-56', 3376'-86' (66', 66 total holes). Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Lubricator & Key WL.

Frac Bell Canyon perfs (3192'-3386') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. Flush to top perf is 3117 gal. Flush w/ 3075 gal treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures. RD Key Pressure Pumping Services & Key WL.

- 13. RU foam unit. TIH w/ WS & bit to composite bridge plug @ +/- 3425'. Drill out composite bridge plug and continue in hole to 2' composite bridge plug @ +/- 3650. Drill out composite bridge plug. Continue in hole to CIBP to ensure that no sand is present from frac treatment. POH w/ WS & bit. Lay down WS. RD Foam Unit.
- 14. TIH w/ Loc-Set packer & 2 7/8" J-55 IPC tbg to +/- 3150'. Test tbg in hole to 5000 psi. Circulate packer fluid. Set packer @ +/- 3150'.
- 15. ND <u>BOP. NU</u> WH. Notify NM OCD of MIT. Perform MIT test.
- 16. RD PU. Convert well to Saltwater Disposal. Maximum allowable surface pressure is 638 psi.

Lot OH

XTO ENERGY - PROPOSED WITH CIBP REVISIONA

Well: N

Location:

Nash Unit #29

Carlsbad

Section 13, T23S, R29E

County: Eddy

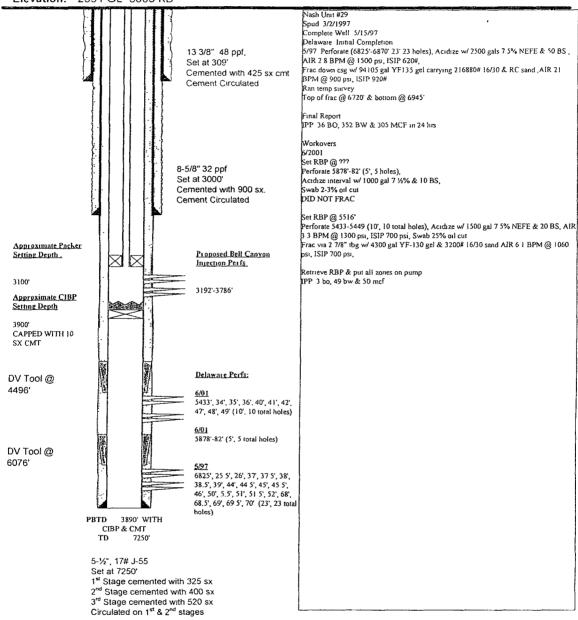
Elevation: 2991 GL 3005 KB

**WI**: 86 593973%

NRI: 66 807591% Spud: 3/2/1997

State: New Mexico





PREPARED BY: KIC

Richard Lauderdale

DATE: 12/9/08

#### XTO ENERGY - CURRENT

Well:

Nash Unit #29

Area:

Carlsbad

Location:

Section 13, T23S, R29E

County: Eddy

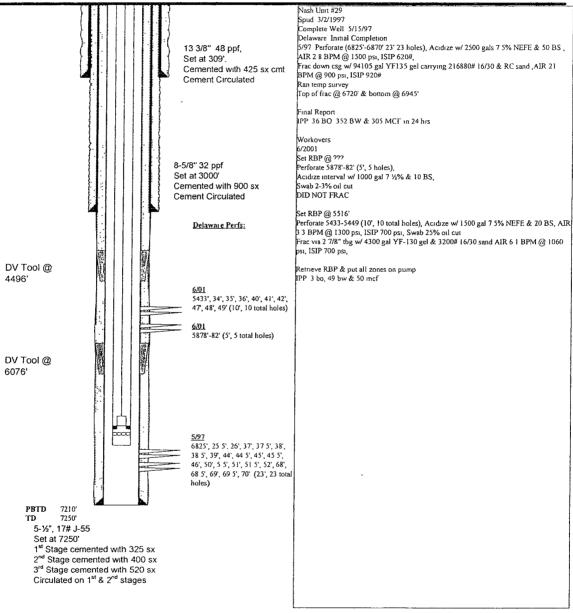
Elevation: 2991 GL 3005 KB

Wi: 86 593973%

NRI: 66 807591% 3/2/1997 Spud:

State: New Mexico





Richard Lauderdale PREPARED BY:

DATE: 10/20/08

Nash Unit #29 30-015-29434 **XTO Energy** August 8, 2009 **Conditions of Approval** 

- 1. Contact the BLM at 575-361-2822 a minimum of 24 hours prior to starting work.
- 2. Per NMOCD Order SWD-1157, the Nash Unit Well No. 1 is to have a squeeze cement procedure to raise the existing cement top to above the 10-3/4" casing shoe set at 3325 feet. No procedure has been received by the BLM for this work. This is a unit well and the BLM requires notification on work taking place in unit wells. As per NMOCD, verification of the new cement top must be submitted prior to work beginning on Nash Unit #29.
- 3. A monitor well is required to monitor potential water flow toward the potash mine workings and potential mine workings. This monitor well is to be located on the half section line approximately 50 feet from the west line of Section 13. The monitor well should be to a depth just below the salt formation.
- 4. The Nash Unit #29 completion report indicated the Bone Spring formation at 6888'. A plug is required at the top of this formation. Due to the proximity of the lower perforations, this plug should also cover those perforations. Plug to be set from 6940 - 6770' and must be tagged at 6770' or shallower. Plug to be 170' in length and a minimum of 25 sacks.
- 5. Plug required across DV tool at 6076'. Plug to be set from 6150 5990' and tagged at 5990' or shallower. Plug to be 160' in length and a minimum of 25 sacks.
- 6. CIBP at 5400' is to have 35' of cement bailed or 25 sacks of cement pumped on top of CIBP.
- 7. Plug required across DV tool at 4496'. Plug to be set from 4550 4405' and must be tagged at 4405' or shallower. Plug to be 145' in length and a minimum of 25 sacks.
- 8. CIBP that was to be set at 3900' will need to be moved deeper as the BLM after further review will require that the Cherry Canyon be the injection interval. The CIBP will require 35' of cement bailed or 25 sacks of cement pumped on top.
- 9. Proceed with proposed procedure, but for the Cherry Canyon.
- 10. Subsequent sundry required detailing all work and when well was placed on injection.

WWI 080809

DENIED. FORMATION COMNUT BE CHANGED WITHOUT OCO APROVAL.