UCD

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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- 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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3"d Stage Perforatins/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.

XTO ENERGY - CURRENT

Well: Area: Nash Unit #29

Carlsbad Section 13, T23S, R29E

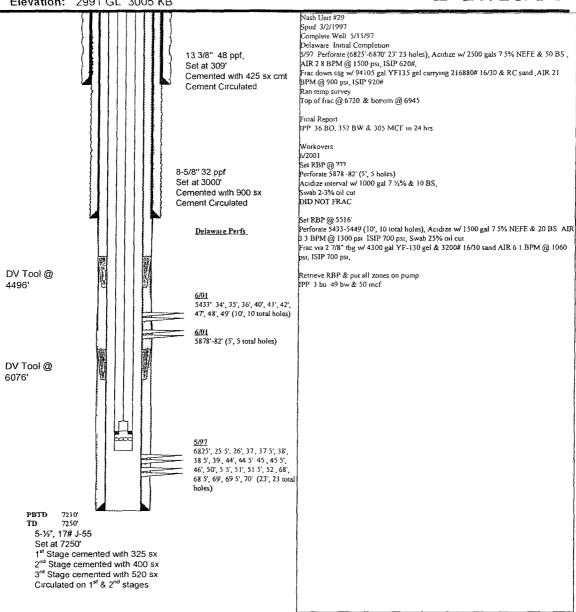
Location: County: Eddy

Elevation: 2991 GL 3005 KB WI: 86 593973%

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

State: New Mexico





Richard Lauderdale PREPARED BY-

DATE: 10/20/08

XTO ENERGY - PROPOSED WITH CIBP REVISION #

Well:

Nash Unit #29

Area:

Location:

Carlsbad

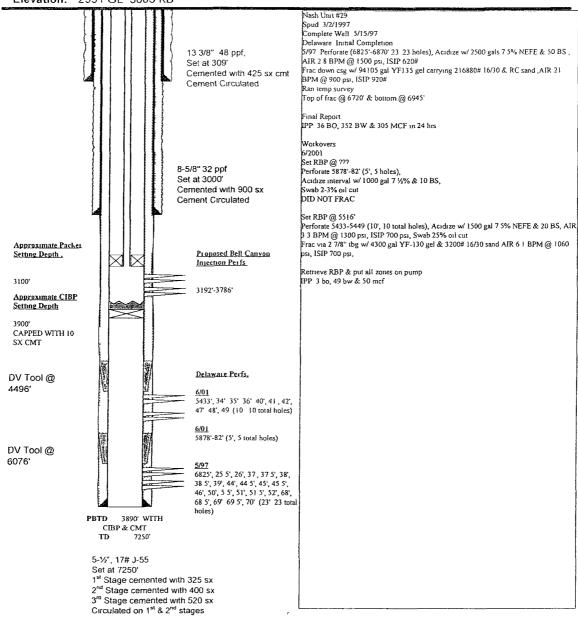
Section 13, T23S, R29E

County: Eddy

Elevation: 2991 GL 3005 KB WI: 86 593973% NRI: 66 807591%

3/2/1997 Spud:

State: New Mexico



PREPARED BY

Richard Lauderdale

DATE: 12/9/08