

DATE IN <u>4/30/10</u>	SUSPENSE	ENGINEER <u>TW.</u>	LOGGED IN <u>4/30/10</u>	TYPE <u>TPI</u>	APP NO. <u>7012046193</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Nash Unit #29
30-015-29434
 RECEIVED OCD
XTO
 2010 APR 30 A 10:59

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATION WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify Increase Surface Pressure

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☒ Offset Operators, Leaseholders or Surface Owner(Potash - Mosiac)
 [C] ☐ Application is One Which Requires Published Legal Notice
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kristy Ward
 Print or Type Name

Kristy Ward
 Signature

Regulatory Analyst
 Title

4/23/10
 Date

Distribution
 OCD - Santa Fe
 OCD District - Artesia
 BLM - Carlisbad
 Mosiac

Kristy - Ward@xtoenergy.com
 e-mail Address

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
June 19, 2008

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-29434
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Nash Unit
8. Well Number 29
9. OGRID Number 005380
10. Pool name or Wildcat Nash Draw; Delaware/BS (Avalon Sand)

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator XTO Energy, Inc.
3. Address of Operator 200 N. Loraine, Ste. 800 Midland, TX 79701
4. Well Location Unit Letter J : 1980' feet from the South line and 2310' feet from the East line Section 13 Township 23S Range 29E NMPM County Eddy
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING CPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: Surface Pressure Increase-Order SWD-1157 ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

4/8/2010 Based on the order SWD-1157 issued on January 29, 2009, the maximum surface injection pressure is 638 psi. XTO, as operator, performed a valid step rate test on well on April 8, and based on the step rate test, no formation parting pressure was realized up to the maximum surface pressure realized during the test of 979 psi. This higher pressure will not result in any migration of the injected fluid from the predescribed Bell Canyon member as previously approved by the order. Therefore XTO respectfully requests approval of a surface pressure increase up to 979 psi. The Step Rate test performed by Cardinal Surveys is attached for your review.

Spud Date:

Rig Release Date:

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

SIGNATURE Kristy Ward TITLE Regulatory Analyst DATE 04/14/10

Type or print name Kristy Ward E-mail address: kristy_ward@xtoenergy.com PHONE 432-620-6740

For State Use Only

APPROVED BY _____ TITLE _____ DATE _____

Conditions of Approval (if any):



April 19, 2010

Mosaic Potash Carlsbad Inc.
Attention: Mr. Don J. Purvis, General Manager
P.O. Box 71
1361 Potash Mines Road
Carlsbad, NM 88221-0071

Re: Nash Unit Well No 29
Eddy Co., New Mexico

Gentlemen:

Enclosed is one (1) copy of the Sundry Notice and Step Rate Test requesting an increase in the well head injection pressure of the reference well. As of January 29, 2009 the surface injection pressure was limited to no more than 638 psig into the Delaware Mountain Group perforations from 3192 feet to 3786 feet.

This step rate test was performed on April 8, 2010 and based on the results of this test, no formation parting pressure was realized. The maximum surface pressure realized during this test was 979 psig. Therefore the requested higher surface injection pressure of 979 psig will not result in any migration of the injected fluid from the predescribed perforations.

In addition, XTO plans to run an injection tracer survey in the very near future at the current pressure limit of 638 psig. In addition if permission is granted to increase surface injection pressure limit to 979 psig, a second injection tracer survey will be ran within 3 months of approval date of new pressure limitation.

If you have any further questions or issues, please feel free to contact Guy Haykus at (432) 620-6705. We appreciate your cooperation in this matter.

Sincerely,

Kyle Hammond
Vice President, Operations
Permian Division

✓ = 0.3
979-50
929 psi ✓

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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 reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO Energy Inc.

3a. Address

200 N. Lorraine, Ste. 800 Midland, TX 79701

3b. Phone No. (include area code)

432-620-6740

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit Ltr. J, Section 13, T-23S, R-29E
1980' FSL & 2310' FEL, Eddy Co., NM

5. Lease Serial No.

NM-17589

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Nash Unit

8. Well Name and No.

Nash Unit #29

9. API Well No.

30-015-29434

10. Field and Pool, or Exploratory Area
Nash Draw; Delaware/BS
(Avalon Sand)

11. County or Parish, State

Eddy County NM

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

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Deepen

☐ Production (Start/Resume)

☐ Water Shut-Off

☐ Alter Casing

☐ Fracture Treat

☐ Reclamation

☐ Well Integrity

☐ Casing Repair

☐ New Construction

☐ Recomplete

☒ Other Surface

☐ Change Plans

☐ Plug and Abandon

☐ Temporarily Abandon

Pressure Increase

☐ Convert to Injection

☐ Plug Back

☐ Water Disposal

Order # - SWD-1157

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 recompleat 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 recompleat 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.)

4/8/10 Based on the order SWD-1157 issued on January 29, 2009, the maximum surface injection pressure is 638 psi. XTO, as operator, performed a valid step rate test on well on April 8, and based on the step rate test, no formation parting pressure was realized up to the maximum surface pressure realized during the test of 979 psi. This higher pressure will not result in any migration of the injected fluid from the predescribed Bell Canyon member as previously approved by the order. Therefore XTO respectfully requests approval of a surface pressure increase up to 979 psi. The Step Rate test performed by Cardinal Surveys is attached for your review.

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

Name (Printed/Typed)

Kristy Ward

Title

Regulatory Analyst

Date 04/14/10

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

Attn: ^{William} Bill Jones - Santa Fe

To Whom It May Concern:

Subject: Nash Unit #29 SWD - 30-015-29434
Order # SWD-1157
Surface Pressure Increase

RECEIVED OCD

2010 APR 19 P 1:32

I am attaching a sundry requesting permission to increase our original injection rate per the Step Rate Test.

Thank You,

Kristy Ward
XTO Energy, Inc.
432-620-6740

Attachments

**copies have been sent to the OCD District Office - Artesia, NM &
BLM Office in Carlsbad, NM

↑

Must notify Mosaic Potash

as per Mr

Hammond's

letter dated Nov 4, 2009

Submit 3 Copies To Appropriate District
Office
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District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103

June 19, 2008

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Nash Unit
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11. Elevation (Show whether DR, RKB, RT, GR, etc.)

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

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TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: Surface Pressure Increase-Order SWD-1157 ☒

SUBSEQUENT REPORT OF:

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COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

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Rig Release Date:

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

SIGNATURE Kristy Ward TITLE Regulatory Analyst DATE 04/14/10
Type or print name Kristy Ward E-mail address: kristy.ward@xtoenergy.com PHONE 432-620-6740

For State Use Only

APPROVED BY _____ TITLE _____ DATE _____
Conditions of Approval (if any):

Warnell, Terry G, EMNRD

To: Kristy_Ward@xtoenergy.com
Subject: RE: FW: OCD Administrative Application Checklist needed for Nash Unit Well No. 29

Thanks Kristy

There is one other thing

I need verification that Mosaic Potash was notified of this IPI as per Mr. Hammond's letter dated Nov4, 2009

From: Kristy_Ward@xtoenergy.com [mailto:Kristy_Ward@xtoenergy.com]
Sent: Tuesday, April 20, 2010 9:28 AM
To: Warnell, Terry G, EMNRD
Subject: Re: FW: OCD Administrative Application Checklist needed for Nash Unit Well No. 29

Mr. Warnell...attached is the requested form. Please let me know if there is anything else you need.

Kristy Ward | XTO Energy | Regulatory Analyst

200 N. Loraine | Midland, TX 79701 | ☎: 432-620-6740 | 📠: 432-618-3527 | ✉: kristy_ward@xtoenergy.com

"Warnell, Terry G, EMNRD" <TerryG.Warnell@state.nm.us>

To <kristy_ward@xtoenergy.com>

cc

04/20/2010 09:17 AM

Subject FW: OCD Administrative Application Checklist needed for Nash Unit Well No. 29

Hi Kristy,

OCD/Will Jones just received your paper work for the Nash Unit Well No. 29

What we didn't get was the OCD Administrative Application Checklist

Please send or fax me a signed and completed Administrative Application Checklist for this application

<http://www.emnrd.state.nm.us/OCD/documents/AdminApplicationChecklist20090826.DOC>

Thank you,

Terry G. Warnell

TerryG.Warnell@state.nm.us

New Mexico Oil Conservation Division

1220 South St. Francis

Santa Fe, NM 87505

Step Rate Test



Cardinal Surveys Company

8-Apr-10

XTO Energy

Well: Nash Unit No. 29

Field;

County: Eddy County NM

SC59193

File No. 19,799

NO PARTING PRESSURE WAS DETECTED

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. 10213

Tool @ 3,400'

	Start	End	Rate
1	7:25 AM	9:15 AM	0 At 3,400'
2	12:00 PM	12:30 PM	400
3	12:30 PM	1:00 PM	200
4	1:00 PM	1:30 PM	300
5	1:30 PM	2:00 PM	400
6	2:00 PM	2:30 PM	500
7	2:30 PM	3:00 PM	700
8	3:00 PM	3:30 PM	900
9	3:30 PM	3:45 PM	15 MIN. Fall-Off

10

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18

MAXIMUM PUMP RATE FOR TRUCK WAS 4800 BPD

Step Rate Test
8-Apr-10

XTO Energy

Well: Nash Unit No. 29

Field:

Location: Eddy County NM



	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP		Surf PSIA	Cum BBL	Delta		Avg. BPD	Lower Trend	Upper Trend
						PSIA	BBL			BBL	BBL			
1	7:25 AM	9:15 AM	110	0	0	2198.5	0	464.8	0	0	0	0		
2	12:00 PM	12:30 PM	30	400	400	2206.2	4.4	503.5	4.4	4.4	211	211		
3	12:30 PM	1:00 PM	30	800	400	2219.9	25.8	497.5	25.8	21.4	1027	1027		
4	1:00 PM	1:30 PM	30	1600	800	2245.7	60.7	549.6	60.7	34.9	1675	1675		
5	1:30 PM	2:00 PM	30	2400	800	2272.5	107.5	632.6	107.5	46.8	2246	2246		
6	2:00 PM	2:30 PM	30	3200	800	2303.3	178.4	766	178.4	70.9	3403	3403		
7	2:30 PM	3:00 PM	30	4000	800	2332.7	262.6	852.2	262.6	84.2	4042	4042		
8	3:00 PM	3:30 PM	30	4800	800	2364.4	366.2	979	366.2	103.6	4973	4973		
9	3:30 PM	3:45 PM	15	0	0	2289.4		566.8						

10

MAXIMUM PUMP RATE FOR TRUCK WAS 4800 BPD

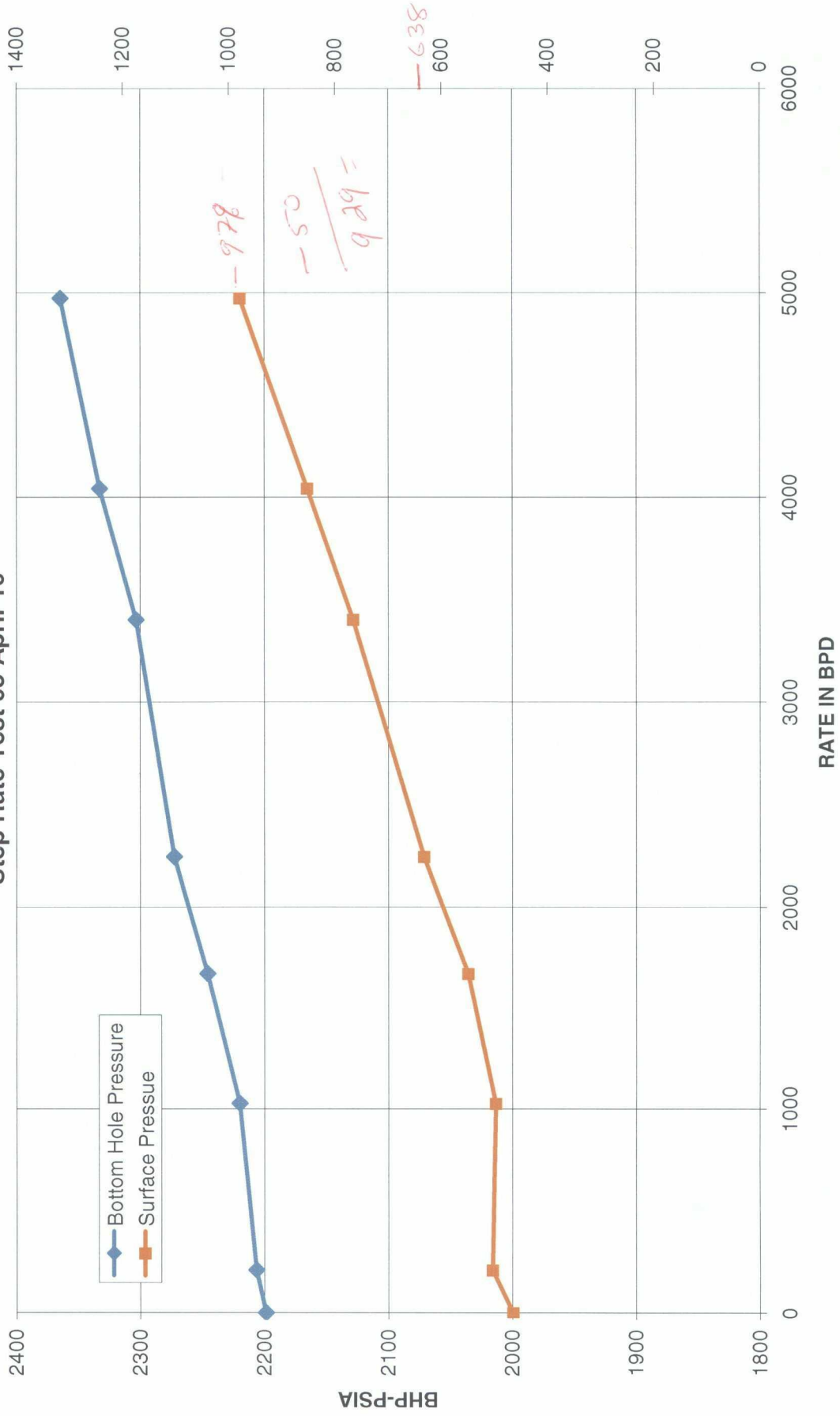
intersect
BHP PSI

#DIV/0!
#DIV/0!

BPD
PSIA



XTO ENERGY
Nash Unit No. 29
Step Rate Test 08-April-10



Total Data Chart
Nash Unit No. 29

