

OCD-ARTESIA

JUL 17 2009

ATS-09-134

RM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

R-111-POTASH

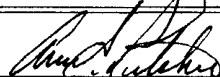
FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM 0556859-A SHL/BHLNM1076	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator XTO ENERGY, INC.		7. If Unit or CA Agreement, Name and No.	
3a. Address 200 N. LORAIN, SUITE 800 MIDLAND, TX 79701		8. Lease Name and Well No. Nash Unit, Well #41H	
3b. Phone No. (include area code) 432 684-6381/620-6749		9. API Well No. 30 015 - 37165	
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2456 FSL & 1674 FWL, Section 12, T23S, R29E At proposed prod. zone 2400 FNL & 2000 FWL, Sec 1, T23S, R29E		10. Field and Pool, or Exploratory NASH DRAW	
11. Sec., T. R. M. or Blk. and Survey or Area Section 12, T23S, R29E (SL) Section 1, T23S, R29E (BHL)		UNORTHODOX LOCATION	
14. Distance in miles and direction from nearest town or post office* 17 miles SE of Carlsbad		12. County or Parish Eddy	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 2000'		13. State NM	
16. No. of acres in lease 5123 - unit		17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft		20. BLM/BIA Bond No. on file 404312570 BLM	
19. Proposed Depth 12,800 MD; 6800 TVD 12,220 6814		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2983' GL	
22. Approximate date work will start* 01/12/2009		23. Estimated duration 40 days	
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) Ann E. Ritchie	Date 11/13/2008
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Title

Regulatory Agent

Approved by (Signature) /s/ Linda S.C. Rundell	Name (Printed/Typed) /s/ Linda S.C. Rundell	Date JUL 13 2009
Title STATE DIRECTOR	Office NM STATE OFFICE	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE STREET
CARLSBAD, NM 88220

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Operator Name: XTO ENERGY INC
Street or Box: 200 N. Loraine St., Ste. 800
City, State: Midland, TX
Zip Code: 79701

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No: NM - 0556859-A

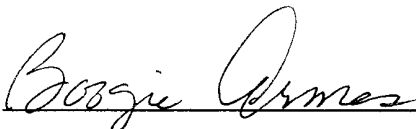
Legal Description of Land: Nash Unit #41H

Section: 12 Township: 23 South Range: 29 East Eddy, New Mexico

Bond Coverage: \$1,184,600.00

Statewide Oil and Gas Surety Bond, XTO ENERGY INC.

BLM Bond File No.: 104312570

Signature:  Printed Name: Boogie Armes

Title: Sr. Drilling Superintendent

Date: _____

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37165	Pool Code 47545	Pool Name Nash Draw, Brushy Canyon
Property Code 303152	Property Name NASH UNIT	Well Number 41H
OGRID No. 5380	Operator Name XTO ENERGY, Inc.	Elevation 2983'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	12	23-S	29-E		2456	SOUTH	1674	WEST	EDDY

Bottom Hole Location If Different From Surface

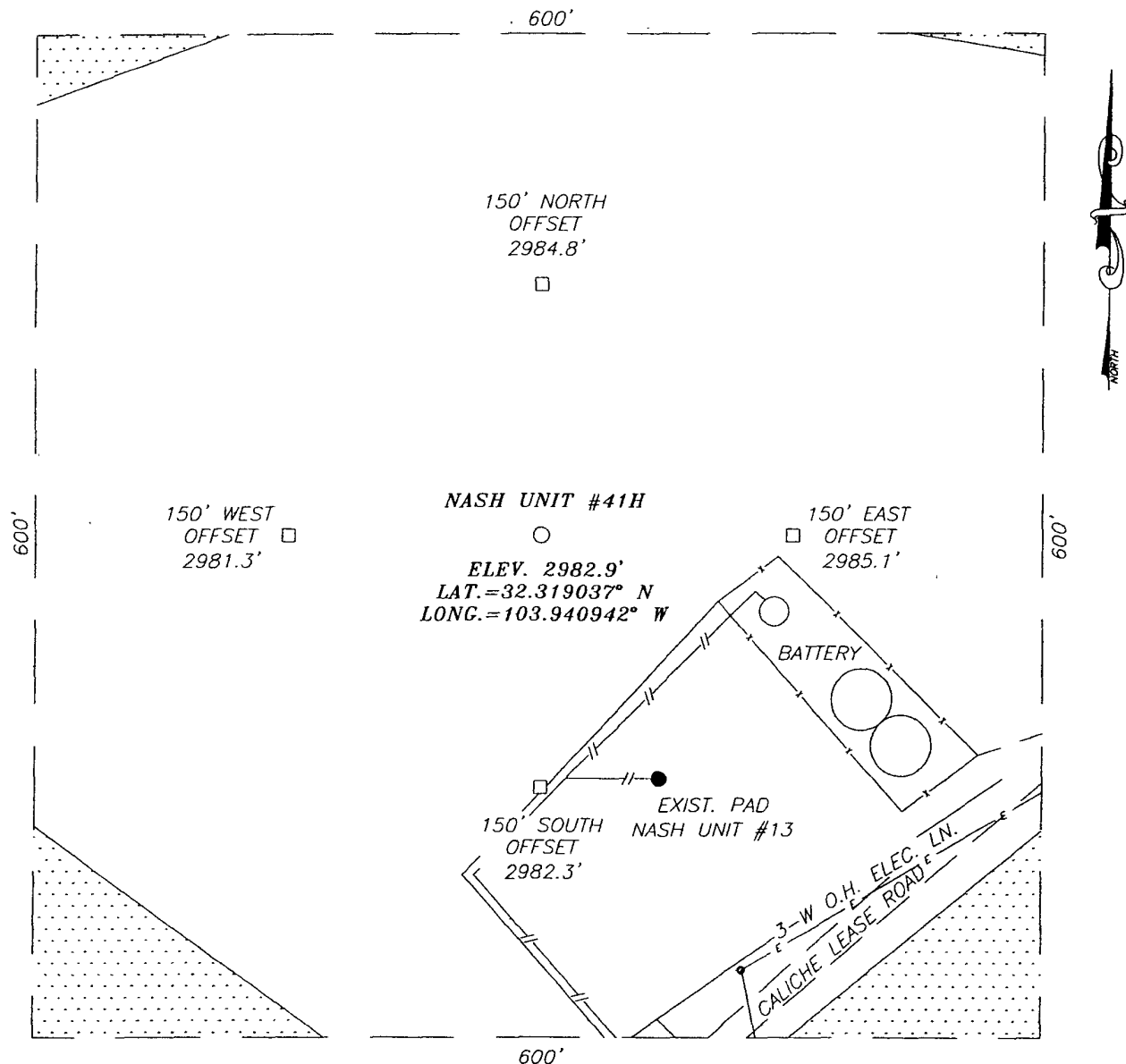
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	1	23-S	29-E		2400	NORTH	2000	WEST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

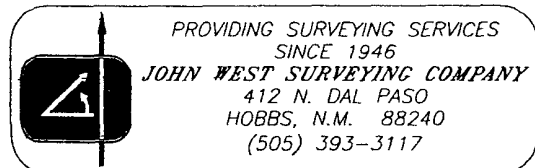
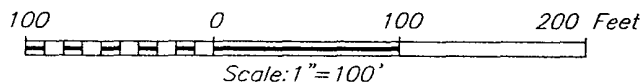
<p>BOTTOM HOLE LOCATION Y=485753.9 N X=621510.0 E</p> <p>GEODETIC COORDINATES NAD 27 NME Y=480003.8 N X=621216.6 E LAT.=32.319037° N LONG.=103.940942° W</p> <p>SCALE, 1" = 2000'</p>		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Sorina L. Flores</i> 10/28/08 Signature Date Sorina L. Flores Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>OCTOBER 15, 2008 Date Surveyed JC Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i> 10/17/08 08-11-1779 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>
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SECTION 12, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #128 (JAL HWY.) AND CO. RD. #793 (RAWHIDE RD), GO SOUTH ON RAWHIDE RD. APPROX. 2 MILES. TURN RIGHT ON A CALICHE ROAD AND GO WEST APPROX. 0.7 MILES TO THE EXISTING XTO NASH UNIT #13 WELL PAD. THIS LOCATION IS APPROX. 150 FEET NORTH OF THE EXISTING PAD.

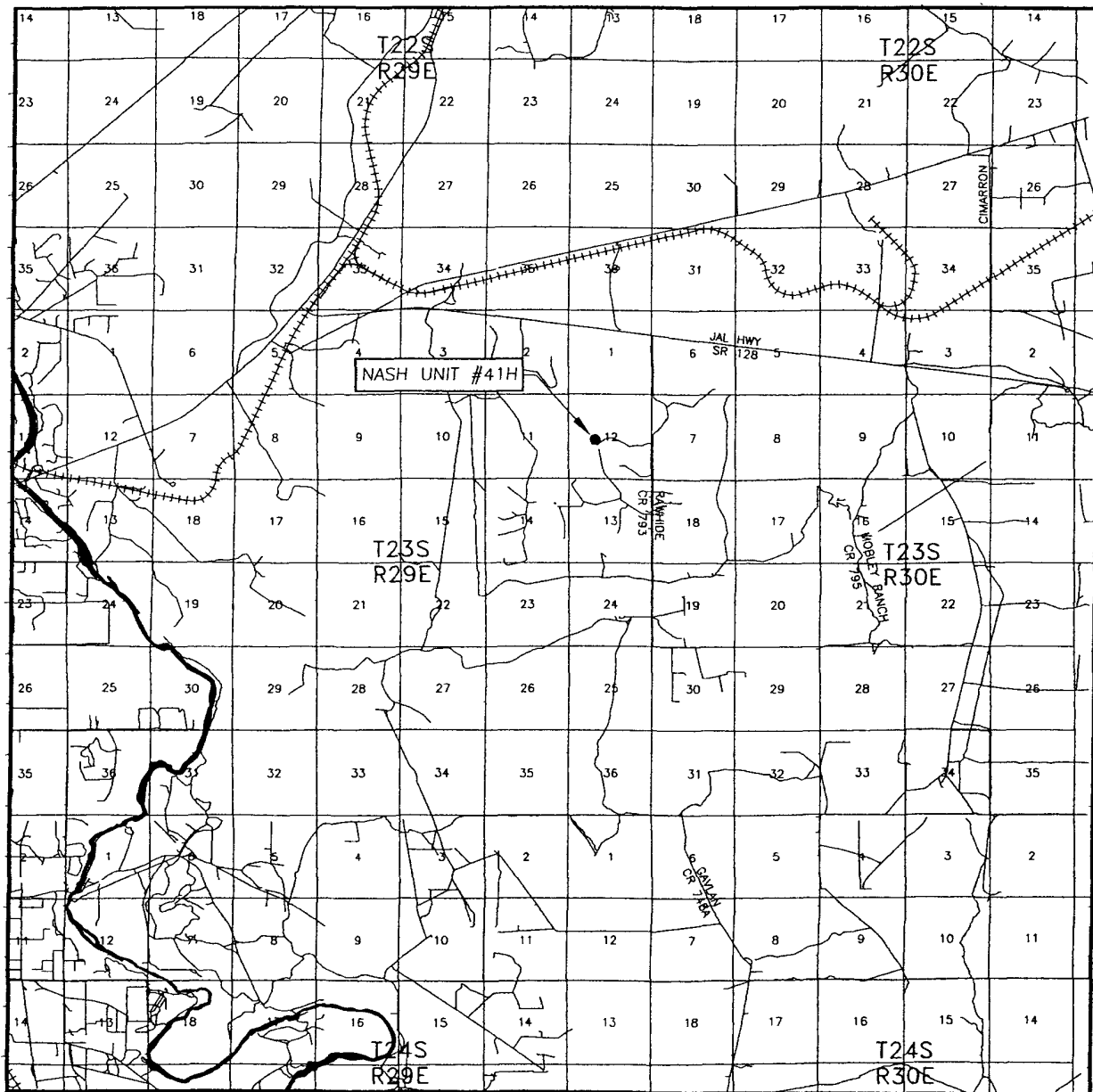


XTO ENERGY

NASH UNIT #41H WELL
LOCATED 2456 FEET FROM THE SOUTH LINE
AND 1674 FEET FROM THE WEST LINE OF SECTION 12,
TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 10/15/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1779	Dr By: JC
Date: 10/17/08	08111779
	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 12 TWP. 23-S RGE. 29-E

SURVEY N.M.P.M.

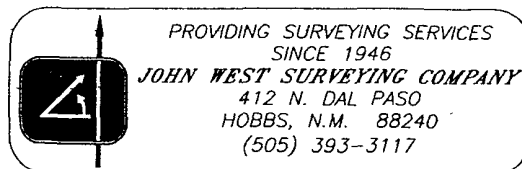
COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2456' FSL & 1674' FWL

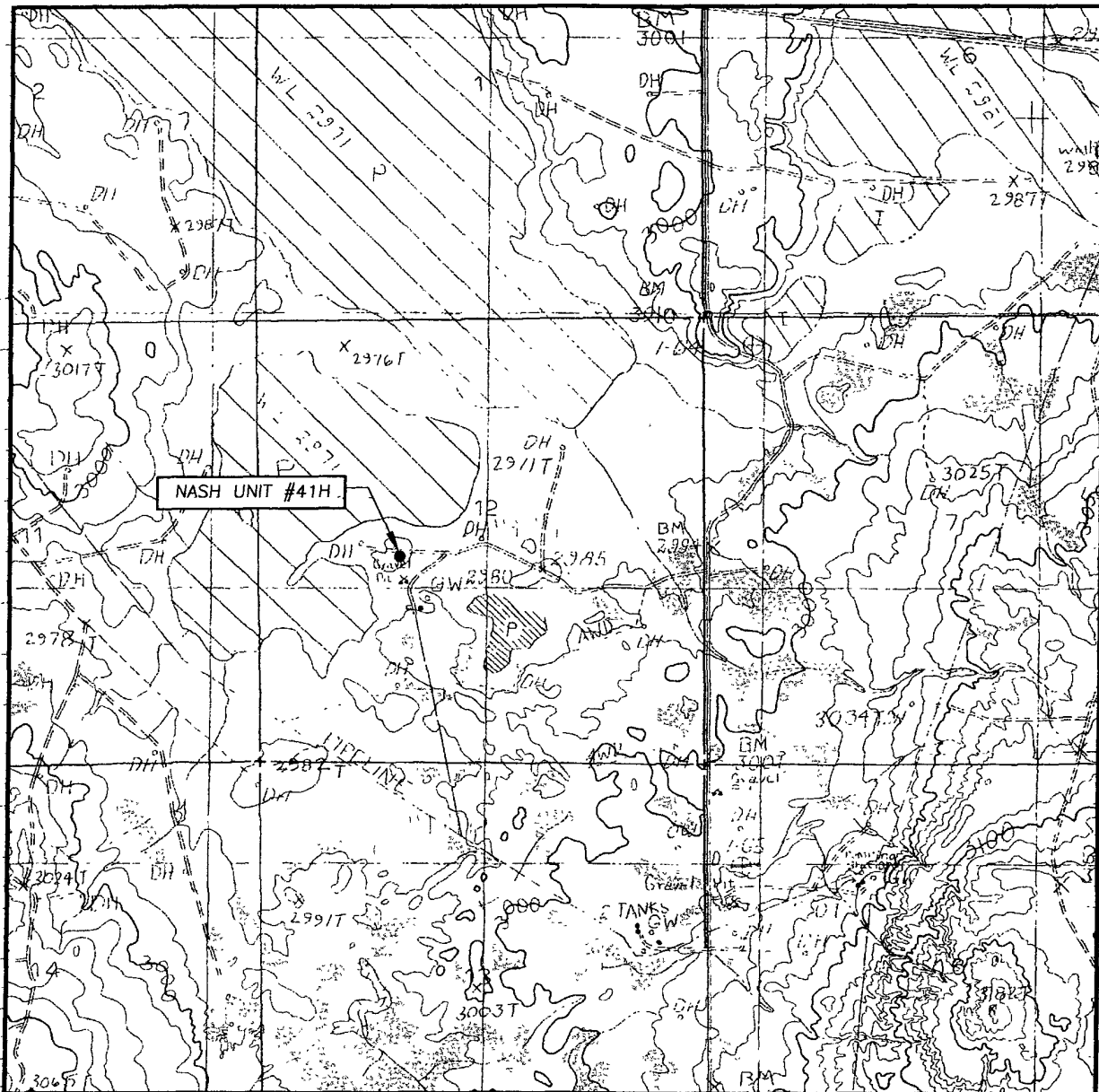
ELEVATION 2983'

OPERATOR XTO ENERGY

LEASE NASH UNIT



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
REMUDA BASIN, N.M. - 10'

SEC. 12 TWP. 23-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

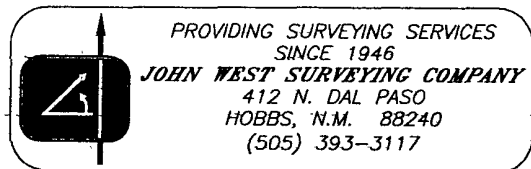
DESCRIPTION 2456' FSL & 1674' FWL

ELEVATION 2983'

OPERATOR XTO ENERGY

LEASE NASH UNIT

U.S.G.S. TOPOGRAPHIC MAP
REMUDA BASIN, N.M.



XTO Energy, Inc.

NASH #41H

Drilling Prognosis

December 5, 2008

***Surface Location: 2456' FSL & 1674' FWL Sec 12, 23S, 29E
Bottomhole Location: 2400' FNL & 2000' FWL Sec 1, 23S, 29E***

Eddy County, NM

D&C AFE #802631

Drilling Permit #30-025-

API #30-025-

Well ID #115531

Projected TD - 12,800' MD/6,800' TVD

12220 6817

XTO Energy, Inc.
Vendors and Contacts

Well Name & Number	NASH #41H
Drilling Contractor:	
Toolpushers:	
Directions to well:	See Plat

Services	Company/Person	Location	Telephone
New Mexico - OCD	NM - OCD	Hobbs <i>575</i>	505-393-6161
Dirt Contractor	Sweatt / Jeff Raines	Artesia, NM <i>575</i>	505-631-7366
Pit Lining, Water Line	All American Pit Liner Alvin Powell	Midland, TX	432-238-4479
Fresh/Brine Water	Pate	Hobbs, NM <i>575</i>	505-397-6264
Mud Logger (on at ±6200')	Suttles	Midland	432-687-3148
Drilling Mud/Chemicals	Nova	Hobbs, NM	800-530-8786
Cementing Services	Halliburton	Hobbs, NM	800-416-6081
Float Equipment	Antelope Oil Tool	Odessa, TX	432-530-2313
Casing Crews	Lewis Casing Crews	Odessa, TX	800-732-5423 432-366-8077
Supplies & Thread Dope	Wilson Supply	Artesia, NM <i>575</i>	505-746-3100
Open Hole Logging Company	Halliburton	Midland, TX	432-682-4305
H ₂ S Equipment	Indian Fire & Safety	Hobbs, NM <i>575</i>	505-393-3093
Wellhead Equipment	Wood Group		432-368-0661
Casing/Materials/Wellhead	Sandy Brazil	Midland, TX	432-620-4310 432-853-5675 cellular
Casing Inspection Services	Art's Inspection Service	Odessa, TX	432-556-3879 cellular 432-560-5700 beeper
Portable Toilet & Trash Trailer	BOS Services	Denver City, TX	806-759-9277

XTO Personnel	Title	Cell #	Office #	Home #
Don Eubank	Drig Manager	432-664-8593	432-620-6718	
Boogie Armes	Drig Superintendent	432-556-7403	432-620-6739	806-894-8073 432-218-7141
Bob Chance	Drig Superintendent	432-296-3926	432-620-4321	432-381-0454
Chip Amrock	Drig Engineer	432-638-8372	432-620-4323	
Cody Grasmick	Drig Engineer	432-238-0053	432-620-4328	
Scott Kelley	Geologist	817-789-2397	817-885-2893	817-346-7964
Dudley McMinn	Safety Coordinator	432-557-7976	432-620-6713	432-686-9417

XTO Energy, Inc.
NASH #41H
Drilling Procedure
December 5, 2008

1. FORMATION TOPS:

Formation	Subsea Depth	Well Depth
Top Salido Salt		310'
Base of Salt		3111'
Top Delaware		3111'
Cherry Canyon		3970'
Top Brushy Canyon		5551'
Base Brushy Canyon		6603'
Brushy Canyon E5 Zone		6763'
Target/Land Curve		6798'
TD/MD		12800'

12220

*

*** HYDROCARBONS @ BRUSHY CANYON.

2. MUD PROGRAM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 285'	17-1/2"	FW/Native	8.5-8.8	35-40	NC
350' 285' to 3130' +/-	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3130' to 6000'	8-3/4"	Cut Brine/ Sweeps	9.2-9.4	29-32	NC-20
6000' to 12800'	8-3/4"	Cut Brine/Poly-Starch	9.2-9.4	32-38	18-15-10
12220		See mud prog			

See COA

Remarks: Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution.. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Use available solids control equipment to help keep mud weight down after mud up.

3. CASING PROGRAM:

Surface Casing: 13-3/8" NEW casing to be set at $\pm 350'$ in 8.8 ppg mud. Casing cost is \$32.65/ft.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll 1.12	SF Burst	SF Ten
0' to 285'	285'	48#	H-40	STC	740	1,730	322	12.715	12.559	.96	2.24	4.56

Optimum makeup torque for 48#, H-40, STC casing is 3220 ft-lbs (Min - 2420 ft-lbs, Max - 4030 ft-lbs).

Intermediate Casing: 9-5/8" NEW casing to be set at 3130' in 10.2 ppg mud. Casing cost:

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0-3130'	3130'	36	J-55	LTC	2570	3950	520	8.921	8.75	1.38	2.12	3.35

Optimum makeup torque for 36#, J-55, LTC casing is 4530 ft-lbs (Min - 3400 ft-lbs, Max - 5660 ft-lbs).

Production Casing: 5-1/2" NEW casing to be set at TD in 9.2 ppg mud. Casing cost is:

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll 1.12	SF Burst 1.125	SF Ten 1.6
0-12800'	12800'	17	N-80/P-110	LTC	7480	10640	445	4.892	4.767			

Optimum makeup torque for 17#, P-110 LTC is 4620 ft-lbs, min 3470 ft-lbs, max 5780 ft-lbs.

4. WELLHEAD:

- Starting Head: 13-5/8" 3000 psi top flange x 13-3/8" SOW bottom (to be removed upon setting intermediate casing)
- Lower Casing Head: 11" 3000 psi top flange x 8-5/8" SOW bottom
- "B" Section: Casing Hanger 11" Bowl x 5-1/2" casing
- Tubing Spool: 11" 3000 psi bottom flange x 7-1/16" 5000 psi top flange

5. CEMENT PROGRAM: Halliburton

- Surface Casing: 13-3/8", NEW 48#, H-40, STC casing to be set at $\pm 285'$.

500 sx HalCem-C + 2% CaCl (14.80 ppg, 1.35 cu ft/sx, 6.39gal/sx wtr)
Compr Strengths - 12 hr - 900 psi 24 hr - 1500 psi

All volumes 100% excess. Cement to surface.

B. Intermediate Casing: 9-5/8", NEW 36#, J-55, LTC casing to be set at $\pm 3130'$.

see COA

Lead: 20 bbls FW, then 800 sx EconoCem-HLC + 5% salt (mixed at 12.4 ppg, 2.12 ft³/sk, 11.93 gal/sx wtr) Compr Strengths 12 hr - 250 psi 24 hr - 400 psi

← see COA

Tail: 250 sx HalCem-C + 1% CaCl (mixed at 14.8 ppg, 1.34 ft³/sk, 6.36 gal/sx wtr)
Compr Strengths 12 hr - 900 psi 24 hr - 1500 psi

All volumes 100% excess. Cement to surface.

C.B.

Production Casing: 5-1/2", NEW 17#, P-110, LTC casing to be set at $\pm 12800'$.

~~(4000' - N-80 - 6000' - P-110)~~

per operator

12220'

1/6/09

First Stage Cement fill from 12800' to DV Tool @ $\pm 5000'$:

WBA

see
COA

Lead: 150 sx EconoCem-H + 0.4% Halad R-9 + 0.1% HR-7 (mixed at 11.9 ppg, 2.48 cu ft/sx, 14.39 gal/sx wtr) Compr Strengths 24 hr - 340 psi 48 hr - 515 psi

Tail: 1200 sx CorossaCem-H + 0.5% LAP-1 + 0.4% CFR-3 + 0.2% HR-7 + .25 lb/sx D-air 3000 + 5 lb/sx Gilsonite (14.1 ppg, 1.30 cu ft/sx, 5.63 gal/sx wtr). Compr Strengths 24 hr - 290 psi 48 hr - 930 psi

Second Stage Cement fill from DV Tool @ $\pm 5000'$ to 2000':

0'

see
COA

Lead: 20 bbls FW, 400 sx EconoCem-C + 0.4% Halad R-9 (11.9 ppg, 2.47 ft³/sk, 14.28 gal/sx wtr). Compr Strengths 24 hr - 170 psi 48 hr - 245 psi

Tail: 150 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft³/sk, 6.33 gal/sx wtr). Compr Strengths 24 hr - 1500 psi

Remarks: Adjust cement volumes for the production casing based on log caliper volume plus 30% in the open hole section. Desired cement top on the second stage cement job is

2000' surface

(see COA)

6. LOGGING PROGRAM:

A. Mud Logger: Suttles Mud Logging Unit (2 man) on @ 6000'.
Catch 10' samples from 3110' to 12800' (TD). Send 1 set of dry samples to Midland Sample Library.

12220

B. Open Hole Logs by Halliburton WL as follows:
GR/Cal/DLL/Sonic from middle of curve to intermediate casing point
CMR

Leave one copy of field prints with Area Production office.

see
COA

7. **DRILLING HAZARDS:**

- A. Water Flows/Lost Circulation: Seepage and/or lost circulation could be encountered. Water flow at 4200' possible. LCM pills may be needed to slug the hole periodically.

8. **ABNORMAL PRESSURES AND TEMPERATURES:**

* None anticipated. Maximum bottom hole pressure should not exceed 2500 psi. BHT of 175 F is anticipated. H2S can be present from 4600 – TD. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area, and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

9. **SPECIAL INSTRUCTIONS:**

- A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.
- B Deviation:
Surface Hole: Maximum of 1° and not more than 1° change per 100'.
Intermediate Hole: Maximum of 4° and not more than 1.5° change per 100'.
Production hole: Maximum of 6° and not more than 1.5° change per 100'.
Note: Maximum distance between surveys is 500'.
- C. WOC a minimum of ^{see COH} 12 hours before drilling out shoe joint on surface and intermediate casing strings. Use minimal WOB and RPM until drill collars are below the shoe joints.
- D. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- E. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.
- F. The reserve pits should be lined with a plastic liner in order to contain the drill cuttings and drilling fluids. At the conclusion of the drilling operations, all re-usable drilling fluid should be moved to the next well in the drilling order.

It is estimated that this well will be drilled and cased in approximately 40 days. Drilling will commence as soon as approval is received and services can be contracted.

XTO Energy, Inc.
NASH #41H
Surface Hole Procedure
December 5, 2008

1. MIRU Drilling Rig and associated equipment.
2. Drill 17-1/2" hole to $\pm 285'$. *see COA* Strap the 13-3/8" NEW casing on location and drill hole to match. Clean and visually inspect casing ends after casing is loaded on pipe racks. Circulate the hole clean and POOH.
3. RU and run 13-3/8" NEW casing as follows:
 - a) Texas Pattern Guide Shoe
 - b) One joint 13-3/8", 48#, H-40, STC casing
 - c) Insert Float Valve
 - d) 13-3/8", 48#, H-40, STC casing to surface
 - Thread lock the guide shoe onto the shoe joint. Use Non-Metal API Modified thread compound on the remaining connections.
 - see COA* → • Run 10 bow spring centralizers, placing one 10' above the guide shoe using a stop ring, and one 10' from the collar of the shoe joint. The remaining centralizers should be placed every third collar for the remainder.
 - Have a casing swedge on the floor to wash the casing to bottom if necessary. Make up the cementing head on the last joint prior to landing casing.
4. With casing on bottom, circulate a minimum of one casing volume. RU HES and cement per attached procedure.
 - a) Pump 15 bbls of water ahead of cement.
 - b) Mix and displace the cement at an acceptable rate. Catch wet and dry samples throughout job, sending dry samples to Midland if a problem arises.
 - c) Drop plug and displace with fresh water, DO NOT over displace. Bump plug and pressure casing to 500 psig over final displacement pressure. Release pressure and check float.
 - d) If cement does not circulate, notify the *BLM* ~~QCD~~ and prepare to run a TS to determine TOC. A 1" top job may be required.
5. WOC for *12 per NMCD rules* four hours, back out landing joint and NU starting head and BOP equipment.
6. NU BOPE and choke manifold. BOP stack to consist of drilling spool with choke and kill lines, double rams with pipe rams on top and blind rams on bottom. An annular BOP and a rotating head should also be installed. Use cold water and test BOPE with the rig pump to

↑
see COA

250 psig low pressure and ~~1000~~ psig high pressure. Record all tests on the IADC report. Inspect accumulator closing unit to ensure that precharge pressures and oil levels are within API specifications, report same on the IADC report.

see COA

7. WOC for total of ~~twelve~~ hours before drilling out. Prior to drilling out, pressure test the casing to ~~1000~~ psig and record on the IADC report.
see Onshore Order 2, III, B.1.1
8. Drill out with an 12-1/4" bit with reduced weight until drill collars are below surface casing. Drill out with a brine water. Operate pipe rams daily and blind rams on trips. Audit the rig for water usage to ensure waste water is minimal.

XTO Energy, Inc.
NASH #41H
Intermediate Hole Procedure
December 5, 2008

- see COA*
1. Drill an 12-1/4" hole to ~~±3130'~~ ^{*see COA*}, into the top of the Delaware, circulate and condition the hole for casing. POH.
 2. RU casing crew and run 9-5/8" NEW intermediate casing as follows:
 - a.) 9-5/8" Davis Lynch Float Shoe
 - b.) One joint of 9-5/8", 36#, J-55, LTC casing
 - c.) 9-5/8" Davis Lynch Float Collar
 - d.) 9-5/8", 36#, J-55, LTC
 - Thread lock all float equipment. Use Non-Metal API thread compound on the remaining connections.

Interval	# of Jts (approx)	Turbolators	Turbolizers	Centralizers
3100-3014'	2	0	4	0
3014-surf	70	0	23 every 3 rd jt	0

3. RU the cementing head, allowing enough chicksan to reciprocate the casing with at least a 20' stroke. Circulate the hole while reciprocating casing (circulate a minimum of one full circulation). Pump and displace the cement at as high a rate as possible. Catch wet and dry samples throughout the job.
4. RU HES and cement the 9-5/8" intermediate casing. Continue reciprocating casing for a short time after cement has cleared the shoe. Set casing 1' off bottom. Displace cement with fresh water. Bump plug to 500 psig over final displacement pressure. **DO NOT over displace.** Release pressure and check floats.
5. Install casing head and NU BOPE. Test to 250 psi low and ~~1000~~ ^{*1000*} psi high. Prior to drilling out test casing to ~~1000~~ ^{*1000*} psi.

See Onshore Order 2

III, A, 2, L, L, + III, B, 1, h

XTO Energy, Inc.
NASH #41H
Production Hole Procedure
December 5, 2008

1. Drill 8-3/4" hole to 6000' +/-, KOP, POH & PU directional tools and follow directional program while drilling the curve to a landing point TVD of 6798' and 90.6 deg inclination, POH & PU lateral directional assembly and drill lateral at the proposed inclination of 90.6 deg to 12,800' MD/TD. Circ and cond, POH.
12220
2. PU 7-7/8" swaging tool, 2 jts DP, 8-3/4" string mill, TIH and W&R the curve and lateral to TD
3. At TD, circulate and condition the hole for logs. TOOH, RU Halliburton WL and log well to a set dn point in the curve, probably around 60 deg inclination.
4. TIH after logging with swaging tool and string mill, circulate and condition the hole for casing. TOOH and lay down the drill string.
5. RU casing crew and run 5-1/2" NEW production casing as follows:
 - a.) 5-1/2" Davis Lynch Float Shoe
 - b.) One joint of 5-1/2", 17#, P-110, LTC casing
 - c.) 5-1/2" Davis Lynch Float Collar
 - d.) 5-1/2" 17#, P-110, LTC casing to 5000', place DV tool
 - e.) 5-1/2" 17#, P-110 LTC casing to surface
 - Thread lock all float equipment. Use Non-Metal API thread compound on the remaining connections.
 - Install a marker joint near the top of the Brushy Canyon formation @ 5500' & 8000'.
 - Install centralizers and turbolizers as follows

Interval	# of Jts (approx)	Turbolators	Turbolizers	Centralizers
12800 - 12714'	2	0	4	0
12714 - 7500'	122		61	
7500 - 5000'	58		16 every 4 th jt	

MD →
12220'
per
directional
plan

6. RU the cementing head, allowing enough chicksan to reciprocate the casing with at least a 20' stroke. Circulate the hole while reciprocating casing (circulate a minimum of one full circulation). Pump 20 bbls of fresh water ahead of the cement. Pump and displace the cement at as high a rate as possible. Catch wet and dry samples throughout the job.

7. Cement with HES. Displace the cement with enough water to fill from the float collar to 200' above the DV tool, then mud from there to surface. Drop the opening bomb and allow enough time for the bomb to fall. Open the DV tool and circulate bottoms up from the DV tool. Note the amount of cement circulated between stages. Continue circulating through the DV tool until four hour after the plug was down on the first stage cement. Use OH caliper volume plus 30%. Displace cement with fresh water. Close the DV tool.
8. Set slips and NU wellhead. Clean and jet pits. Release rig and MORT.

*Casing must be tested
per Onshore Order 2, III, B, 1, b.*



XTO

Eddy County

Nash Unit #41H

41H

OH

Plan: Plan #1

Pathfinder X & Y Survey Report

05 November, 2008

PATHFINDER
ENERGY SERVICES



Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company: XTO
Project: Eddy County
Site: Nash Unit #41H
Well: 41H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 41H
TVD Reference: WELL @ 3000.00ft (17' KB)
MD Reference: WELL @ 3000.00ft (17' KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland DB

Project Eddy County

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Nash Unit #41H

Site Position:	From: Map	Position Uncertainty:	0.00 ft	Northing:	480,003.800 ft	Latitude:	32° 19' 8.532 N
				Easting:	621,216.600 ft	Longitude:	103° 56' 27.391 W
				Slot Radius:	"	Grid Convergence:	0.21 °

Well 41H

Well Position	+N-S	0.00 ft	Northing:	480,003.800 ft	Latitude:	32° 19' 8.532 N
	+E-W	0.00 ft	Easting:	621,216.600 ft	Longitude:	103° 56' 27.391 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	2,983.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/05/2008	8.06	60.29	48,944

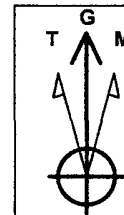
Design Plan #1

Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.00	0.00	0.00	2.91

Survey Tool Program Date 11/05/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	12,220.11	Plan #1 (OH)		



Azimuths to Grid North
True North: -0.21°
Magnetic North: 7.85°

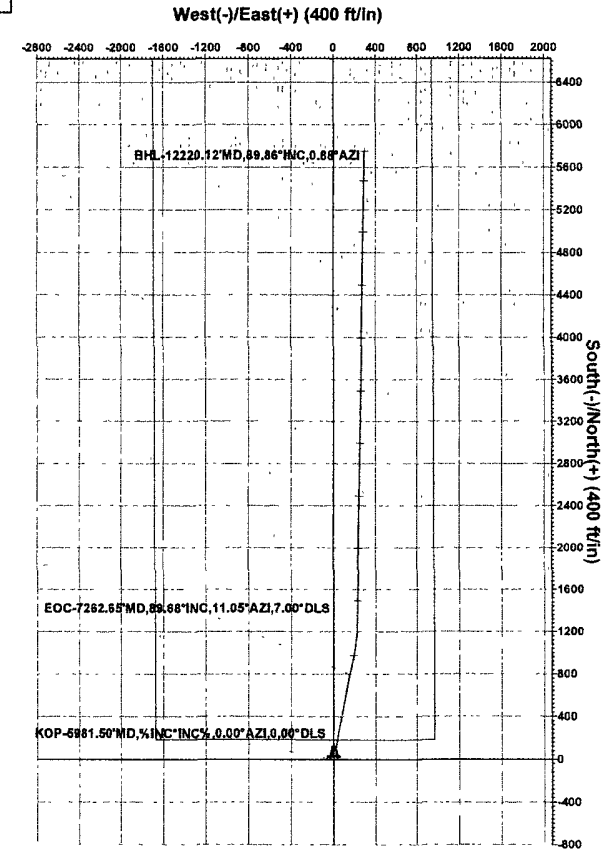
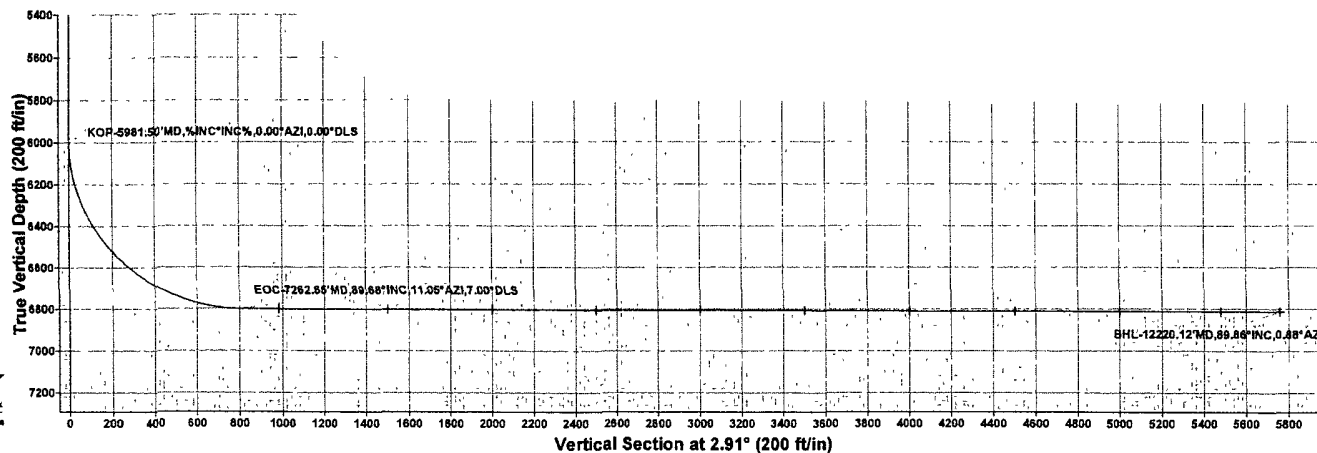
Magnetic Field
Strength: 48944.0nT
Dip Angle: 60.29°
Date: 11/05/2008
Model: IGRF200510



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5981.50	0.00	0.00	5981.50	0.00	0.00	0.00	0.00	0.00	
3	7282.85	89.88	11.05	8800.00	798.85	156.00	7.00	11.05	805.74	
4	7283.19	89.88	11.04	8800.00	798.38	156.11	2.50	-85.28	808.28	
5	7442.32	89.88	11.04	8801.00	878.20	190.40	0.00	0.00	983.61	TGT1@100°VS(Nash 41H)
6	7781.21	89.99	0.87	8801.87	1311.82	225.52	3.00	-88.27	1321.88	
7	7980.41	89.99	0.87	8802.00	1491.00	228.23	0.00	0.00	1500.67	TGT2@1500°VS(Nash 41H)
8	7986.73	89.88	0.88	8802.01	1496.32	228.33	2.00	179.04	1505.98	
9	8480.07	89.88	0.88	8803.00	1996.60	235.89	0.00	0.00	2000.01	TGT3@2000°VS(Nash 41H)
10	8485.80	89.77	0.88	8803.02	1998.32	235.98	2.00	179.96	2006.73	
11	8880.34	89.77	0.88	8805.00	2490.80	243.54	0.00	0.00	2499.85	TGT4@2500°VS(Nash 41H)
12	8986.13	89.89	0.88	8805.02	2496.80	243.63	2.00	0.22	2505.75	
13	9480.99	89.89	0.88	8806.00	2991.40	251.20	0.00	0.00	3000.30	TGT5@3000°VS(Nash 41H)
14	9486.78	89.77	0.88	8806.02	2997.19	251.29	2.00	-180.00	3006.68	
15	9981.58	89.77	0.88	8808.00	3492.00	258.89	0.00	0.00	3500.64	TGT6@3500°VS(Nash 41H)
16	9982.92	89.77	0.88	8808.09	3513.28	259.19	0.00	0.00	3521.89	
17	10481.72	89.77	0.88	8810.00	3992.00	266.50	0.00	0.00	4000.38	TGT7@4000°VS(Nash 41H)
18	10487.50	89.89	0.88	8810.02	3997.78	266.59	2.00	-0.08	4006.16	
19	10981.78	89.89	0.88	8811.00	4492.00	274.15	0.00	0.00	4500.13	TGT8@4500°VS(Nash 41H)
20	10983.93	89.88	0.83	8811.00	4494.15	274.18	2.00	-94.15	4502.27	
21	11941.99	89.88	0.83	8813.00	5471.20	288.40	0.00	0.00	5478.79	TGT10@5500°VS(Nash 41H)
22	12220.12	89.88	0.83	8813.67	5760.20	292.46	0.00	0.00	5767.53	PBHL OH(Nash 41H)

WELL DETAILS 41H						
Ground Elevation: 2983.00						
RXB Elevation: WELL @ 3000.00R (17' KB)						
Rig Name: 17' KB						
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
9.00	0.00	480003.500	821216.800	32° 19' 8.532 N	103° 56' 27.391 W	

Project: Eddy County
Site: Nash Unit #41H
Well: 41H
Wellbore: OH
Plan: Plan #1 (41H/OH)

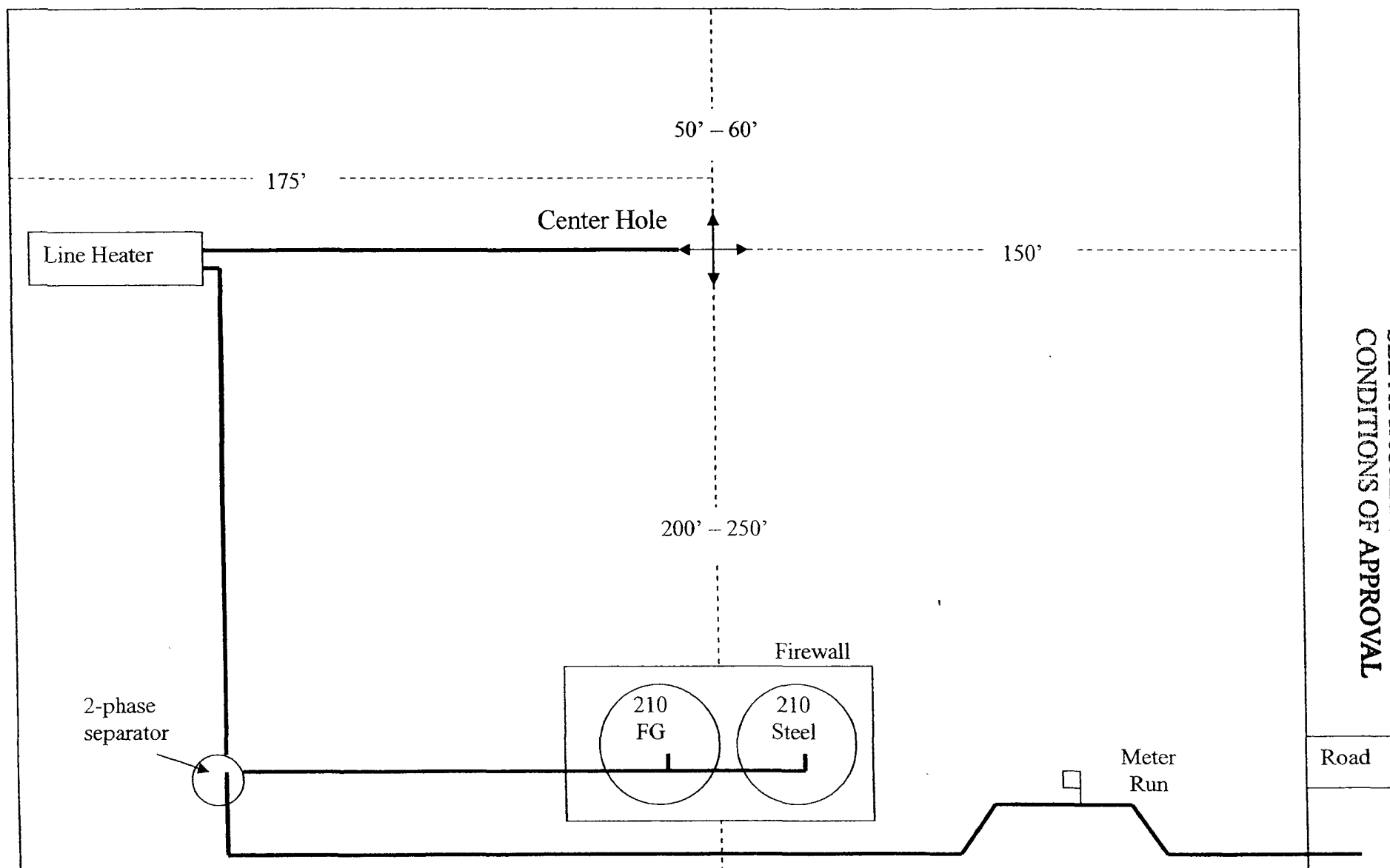


PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

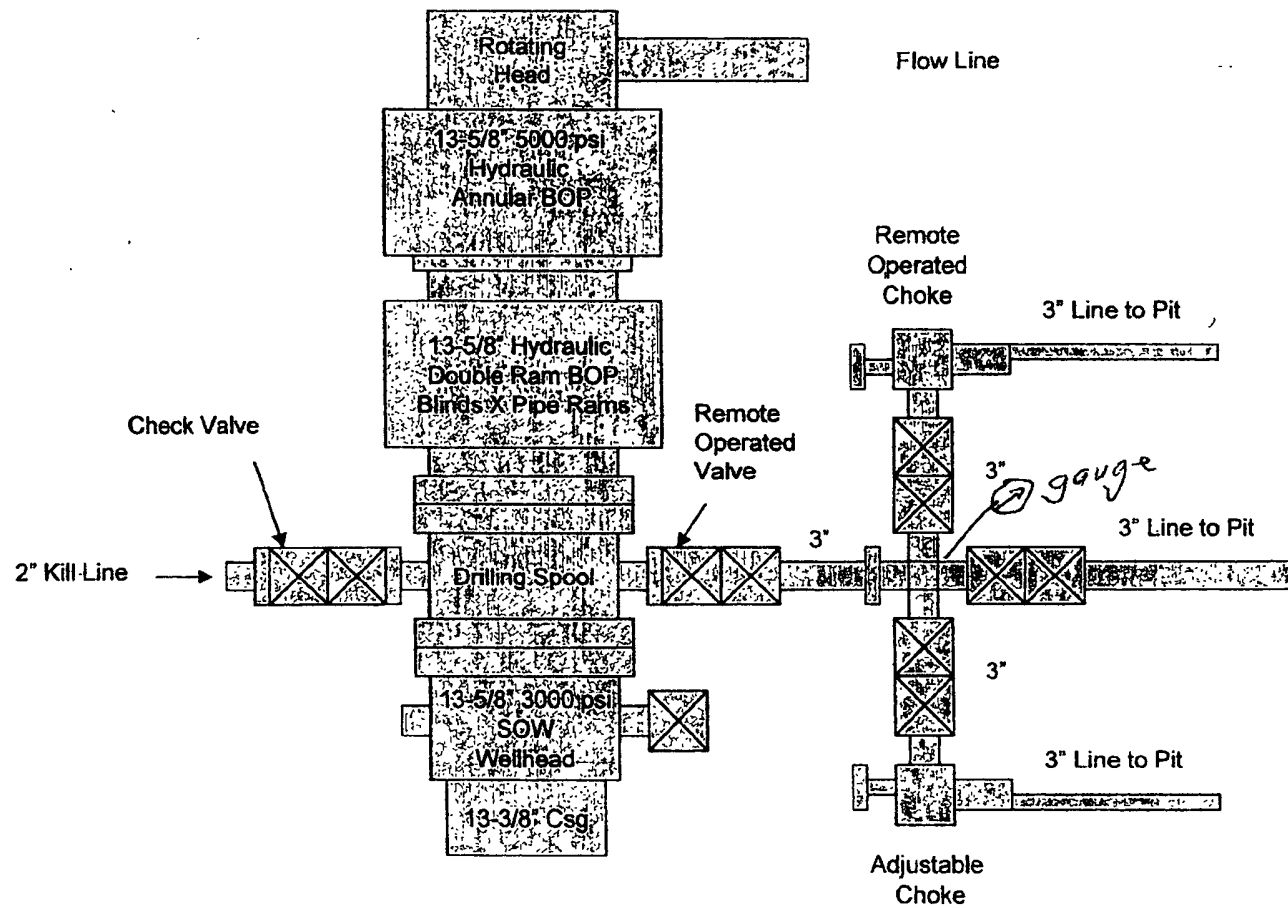
Plan: Plan #1 (41H/OH)	
Created By: Nate Bingham	Date: 16.34, November 05 2008
Checked: _____	Date: _____

Wellsite Layout

North



SEE ATTACHED FOR
CONDITIONS OF APPROVAL



5000 psi Working Pressure
 BOPE Configuration
 And Choke Manifold



November 20, 2008

Sorina Flores
XTO Energy Inc.
200 N. Loraine St., Ste. 800
Midland, TX 79701
432-620-6749
sorina_flores@xtoenergy.com

Bureau of Land Management
620 E. Greene
Carlsbad, NM 88220
575-887-6544

Dear Sirs:

XTO Energy Inc. does not anticipate encountering H₂S while drilling the Nash #41H located in Section 12, T23S, R29E, in Eddy County, New Mexico. As a precaution, I have attached an H₂S contingency plan along with a gas analysis of our well stream. If you need anything further, please contact me at the telephone number or email listed above.

Thank you,

A handwritten signature in cursive script, appearing to read 'Sorina Flores'.

Sorina Flores
Drilling Tech.



HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

XTO Energy Inc's personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

EUNICE OFFICE – EDDY & LEA COUNTIES

EMSU @ Oil Center, NM, 8/10ths mile west of Hwy 8 on Hwy 175
Eunice, NM

575-394-2089

XTO ENERGY INC PERSONNEL:

Boogie Armes, Sr. Drilling Superintendent	432-556-7403
Bob Chance, Drilling Superintendent	432-296-3926
Chip Amrock, Sr. Drilling Engineer	432-638-8372
Jeff Raines, Construction Foreman	432-557-3159
Dudley McMinn, EH & S Manager	432-557-7976
Rick Wilson, Production Foreman	575-441-1147
Jerry Parker, Buckeye Production Foreman	575-441-1628
David Paschal, Eunice Monument Production Foreman	575-390-7167
Gene Hudson, Maintenance Foreman	575-441-1634
Guy Haykus, Production Superintendent	575-634-5677

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

HOSPITALS:

	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

AGENT NOTIFICATIONS:

Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161
Mosaic Potash - Carlsbad	575-887-2871

CONTRACTORS:

ABC Rental – Light Towers	575-394-3155
Bulldog Services – Trucking/Forklift	575-391-8543
Champion – Chemical	575-393-7726
Indian Fire & Safety	575-393-3093
Key – Dirt Contractor	575-393-3180
Key Tools – Light Towers	575-393-2415
Sweatt – Dirt Contractor	575-397-4541
RWI – Contract Gang	575-393-5305

XTO ENERGY, INC.

H2S
BATTERY SURVEY

Location	Results	Comments	Type Gas
Bar 4 Fed #1	0	Oil & Water tanks	
Bridges St. 514	0	Oil & Water tanks	
Bridges St. 120	2,100 ppm	Oil & Water tanks	Sour
Bridges St. 126	10,000 ppm	Oil & Water tanks	Sour
Bridges St. 12	16,000 ppm	Oil tanks	Sour
Bridges St. 95	200 ppm	Oil tanks	Sour
Bridges St. 14	4,200 ppm	Oil & Water tanks	Sour
Federal DM #1	180,000 ppm	Oil & Water tanks	Sour
Greenstar 22 #1	0	Oil & Water tanks	
Gulf 5 Fed #1	0	Oil & Water tanks	
NVA North Prod wtr station	300 ppm	Water tanks	Sour
NVAE	350 ppm	Oil & Water tanks	Sour
NVA 204	600 ppm	Oil & Water tanks	Sour
NVA 134	600 ppm	Oil & Water tanks	Sour
NVA 120	200 ppm	Oil & Water tanks	Sour
NVA 131	8,000 ppm	Oil & Water tanks	Sour
NVA 203	100 ppm	Oil & Water tanks	Sour
NVA South Prod wtr station	9,000 ppm	Water tanks	Sour
NVA 95	100 ppm	Oil tanks	Sour
Remuda Basin 24 #1	0	Oil & Water tanks	
Remuda Basin 19	0	Oil & Water tanks	
Ross Draw 25 #1	0	Oil & Water tanks	
Yates 8	0	Oil & Water tanks	
Nash 15,33,9,36,13,34,19,24,1,6,38	0	Oil & Water tanks	
SDE 31	20	Oil & Water tanks	Sour
SDE 19	0	Oil & Water tanks	
SEMGS AU Batt. #1	16,000 ppm	Oil & Water tanks	Sour
SEMGS AU Batt. #2	8,000 ppm	Oil & Water tanks	Sour
Sprinkle "B" Fed #2	50 ppm	Oil & Water tanks	Sour
State N	200 ppm	Oil & Water tanks	Sour
State XX	0	Oil & Water tanks	
State K	25 ppm	Oil & Water tanks	Sour
NM State BO	9,000 ppm	Oil & Water tanks	Sour
State M	0	Oil & Water tanks	
State Sec 27 SWD	2,200 ppm	Water tanks	Sour
State L & PP	0	Oil & Water tanks	
NM J State	100 ppm	Oil & Water tanks	Sour
Tex-Mack "5" State Comm	0	Oil & Water tanks	

XTO Energy, Inc.

H₂S CONTINGENCY PLAN EMERGENCY CONTACTS

Company Office 505-123-5555
Answering Service (During Non-Office Hours) 505-123-5556

Key Personnel

<u>Name</u>	<u>Title</u>	<u>Phone Number</u>
Don Eubank	Drilling Manager	432 620 6718
Boogie Armes	Drilling Superintendent	432 296-3926
Chip Amrock	Drilling Engineer	432 638-8372
Ambulance		911
State Police		575-746-2703
City Police		575-746-2703
Sheriff's Office		575-746-9888
Fire Department		575-746-2701
Local Emergency Planning Committee		575-746-2122
New Mexico Oil Conservation Division		575-748-1283

Carlsbad

Ambulance	911
State Police	575-8885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-3798
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

New Mexico Emergency Response Commission (Santa Fe) 505-476-9600
24 Hour 505-827-9126
New Mexico State Emergency Operations Center 505-476-9635
National Emergency Response Center (Washington, DC) 800-424-8802

Other

Boots & Coots IWC 800-256-9688 or 281-931-8884
Cudd PressureControl 915-699-0139 or 915-563-3356
Halliburton 575-746-2757
B. J. Services 575-746-3569
Flight For Life – 4000 24th St. Lubbock, Texas 806-743-9911
Aerocare – R3, Box 49F, Lubbock, Texas 806-747-8923
Med Flight Air Amb – 2301 Yale Blvd SE #D3, Albuquerque, NM 505-842-4433
S B Air Med Service – 2505 Clark Carr Loop SE, Albuquerque, NM 505-842-4949

Surface Use Plan
(Additional data for form 3160-3)

XTO Energy, Inc.
Nash, Well #41H
SL (K) Sec 12, T23S, R29E, 2436' FSL & 1674' FWL
BHL (F) Sec 1', T23S, R29E, 2400' FNL & 2000' FWL
Eddy County, NM
NMNM 100555

1. EXISTING ROADS –

The road log to the location is as follows:

From the intersection of St. Hwy 128 and Co. Rd. #793 - Rawhide Rd., go south on Rawhide Rd, approx 2 miles. Turn right and go west approx. 0.7 miles to the existing XTO Nash #39H pad. This location is approx 150' north. All roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

- 2. PLANNED ACCESS ROAD** —Approximately 446' of new E-W access road will be built from the existing N-S lease road to the Nash Unit battery, caliche road to the north/east. All lease roads will be graded in compliance with BLM standards and made a uniform width of 20', including shoulders.

- 3. LOCATION OF EXISTING WELLS** – The Nash Unit, Well #39H is to be drilled prior to this well, the same pad will be utilized for Well #41H.

Water wells: None known; Disposal wells: none known; Drilling wells: none known
Producing Wells: Closest well more than one mile. Abandoned wells: none known

- 4. LOCATION OF EXISTING OR PROPOSED FACILITIES** – In the event this well is productive we will use existing facilities located on the Nash Unit Well #13 pad. Permanent tanks and gas measurement meter(s) will be utilized for each well as per BLM specifications.

- 5. LOCATION AND TYPE OF WATER SUPPLY** - All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.

- 6. SOURCE OF CONSTRUCTION MATERIALS** - Construction material (caliche) required for the access road and well site pad will be obtained on location, if available, or from an approved pit. No surface materials will be disturbed except those necessary for actual grading and construction of the drill site and access road

7. METHODS FOR HANDLING WASTE DISPOSAL –

- Closed Loop System. Waste Material will be stored then hauled to a state approved disposal facility. Drilling fluids will be contained in steel pits, fluids will be cleaned & reused. Water produced during testing will be contained in steel pits and disposal at a state approved facility. Any oil or condensate will be stored in test tanks until sold & hauled from site.
- Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site. Salts remaining after completion will be picked up by supplier including broken sacks.
- Any other waste generated by the drilling, completion, testing of this well will be through a closed loop system.
- A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well, and cleaned out periodically.

8. ANCILLARY FACILITIES – Upon completion, and/or testing of this well rental tanks, facilities will be utilized until permanent storage is established. No camps or airstrips will be constructed.

9. WELLSITE LAYOUT – Enclosed, please see “Drilling Rig Layout”

10. PLANS FOR SURFACE RESTORATION - Reclamation of the surface location will be in accordance with the requirements set forth by the BLM. As stated earlier all waste generated by this operation will be disposed of in an approved manner, and the site restored as closely as possible to its pre-operation appearance. The topsoil at the wellsite & access road is light/medium brown colored fine sand. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.

The vegetation at the wellsite is a sparse grass cover of three-awn, grama, bluestem, dropseed, burrograss, muhly and misc. native grasses. Plants are sparse mesquite, yucca, sage, shinners oak brush, broomweed, and cacti w/misc. weeds. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove and quail all typical of the semi-arid desert land. There are no ponds or streams. No dwelling with 1.5 miles of location.

Arc Survey has been submitted.

11. OTHER INFORMATION - The surface ownership of the drill site and the access routes are under the control/ownership of: Bureau of Land Management, 620 E. Greene St., Carlsbad, NM 88220, 505-887-6544. Barry Hunt w/the BLM can be reached @ the BLM number or @ 505-361-4078. Surface letter statement attached. Drilling contractor: Pending .

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE STREET
CARLSBAD, NM 88220

OPERATOR CERTIFICATION

I HEARBY CERTIFY THAT I, OR SOMEONE UNDER MY DIRECT SUPERVISION, HAVE INSPECTED THE DRILL SITE AND ACCESS ROUTE PROPOSED HEREIN; THAT I AM FAMILIAR WITH THE CONDITIONS WHICH CURRENTLY EXIST; THAT I HAVE FULL KNOWLEDGE OF STATE AND FEDERAL laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 18 day of November, 2008

Well: Nash Unit #41H, Sec. 12, T23S, R29E, Eddy Co., NM

Operator Name: XTO ENERGY INC

Signature:  Printed Name: Don Eubank

Title: Drilling Manager Date: _____

Email (optional): don_eubank@xtoenergy.com

Street or Box: 200 N. Loraine St., Ste. 800

City, State, Zip Code: Midland, TX 79701

Telephone: 432-682-8873

Field Representative (if not above signatory): _____

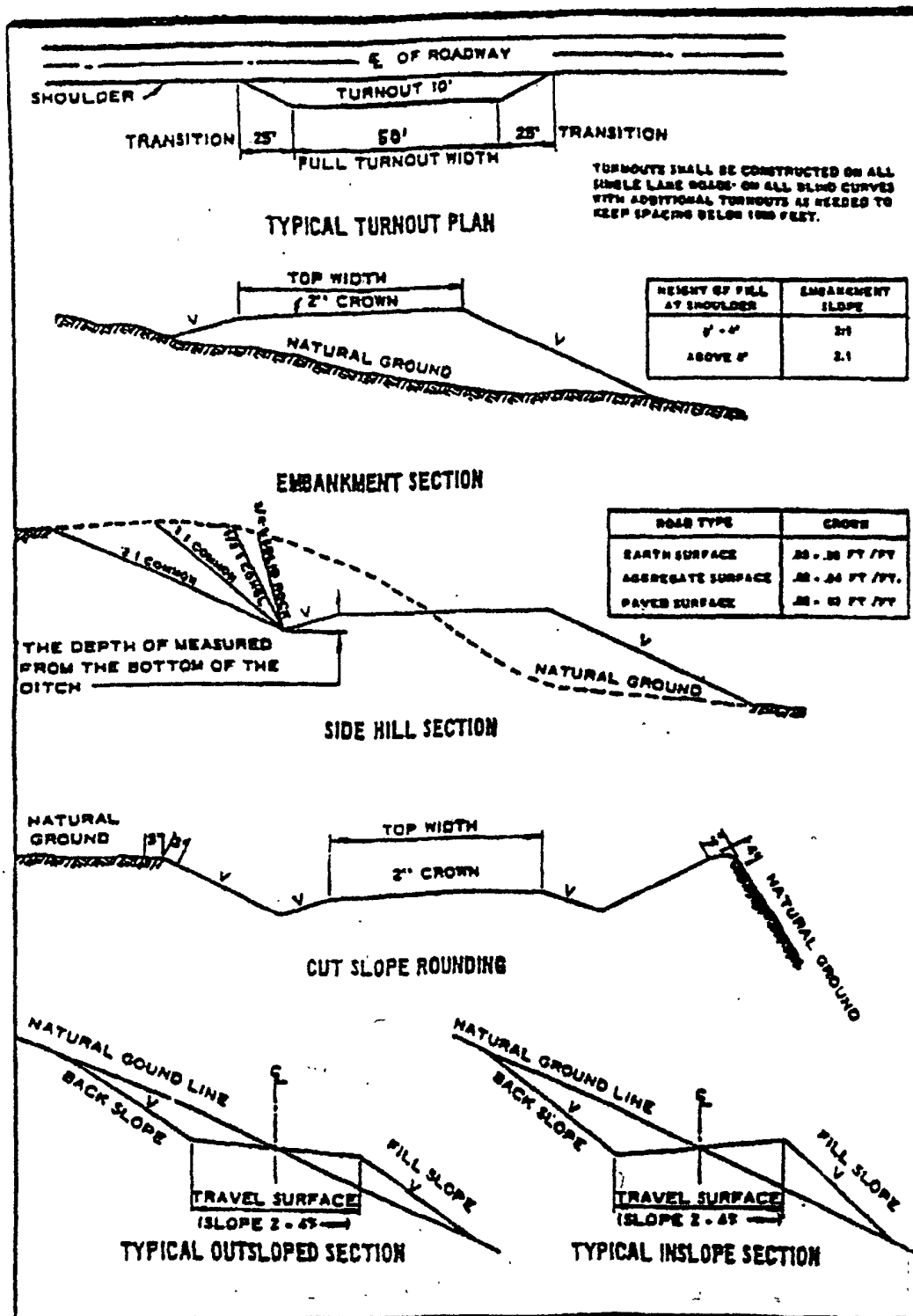
Address (if different from above): _____

Telephone (if different from above): _____

Email (optional): _____

Agents not directly employed by the operator must submit a letter from the operator authorizing that the agent to act or file this application on their behalf.

Cross Sections and Plans For Typical Road Sections





**DESIGN PLAN, OPERATING & MAINTENANCE PLAN, & CLOSURE PLAN
FOR OCD FOR C-144**

NASH UNIT #41H

DESIGN PLAN

Fluid & cuttings coming from drilling operations will pass over the Shale Shaker with the cuttings going to the CRI haul off bin and the cleaned fluid returning to the working steel pits.

Equipment includes:

- 2 – 500 bbl steel tanks (fresh) & 3 – frac tanks (brine)
- 3 – steel working pits, 1100 bbl system
- 3 – 20 cu yards steel haul off bins (calc'd cutting is 381 cu yards)
- 2 – Pumps – PZ9
- 1 – Shale shaker
- 1 – Desander – desilter (if needed)
- 1 – Mud cleaner (if needed)
- 1 – Centrifuge (2 if needed)

OPERATING AND MAINTENANCE PLAN

Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

CLOSURE PLAN

All haul bins containing cuttings will be removed from location and hauled to Controlled Recovery, Inc's (#R9166) disposal site located near mile marker 66 on Highway 62/180.

Chip Amrock
Sr. Drilling Engineer

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy
LEASE NO.:	NMNM10776
WELL NAME & NO.:	Nash Unit No 41H
SURFACE HOLE FOOTAGE:	2456' FSL & 1674' FWL
BOTTOM HOLE FOOTAGE:	2400' FNL & 2000' FWL
LOCATION:	Section 12, T. 23 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Cave/Karst
 - VRM
- ☒ **Construction**
 - V-Door**
 - Notification
 - Topsoil
 - Reserve Pit
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - R-111-P potash**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides of the pad will be bermed.

Tank Battery Liners and Berms:

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VRM

To minimize the visual impacts the following COA(s) will apply: Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color Shale Green, Munsell Soil Color No. 5Y 4/2".

Low-profile tanks not greater than eight feet high shall be used to minimize visual impacts to the natural features of the landscape. The proposed construction will be limited to the approved pad size.

Upon completion of the well and installation of the production facilities (if the well is a producer) the pad will be reclaimed back to a size necessary for production operations only. The edges will be recontoured and the extra caliche and pad material will be hauled off-site. The BLM may require additional reclamation depending upon vegetation recovery. The reclaimed area will be recontoured and reseeded according to vegetation and soil type.

VI. CONSTRUCTION

V-DOOR SOUTHWEST

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 4 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

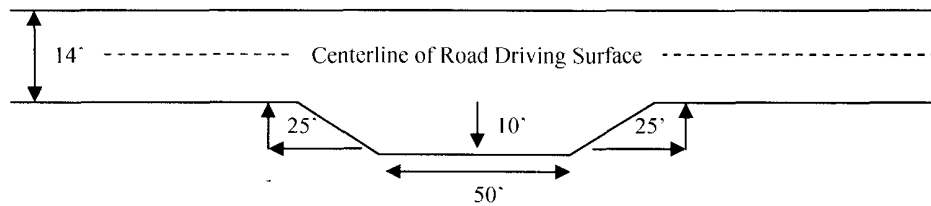
Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

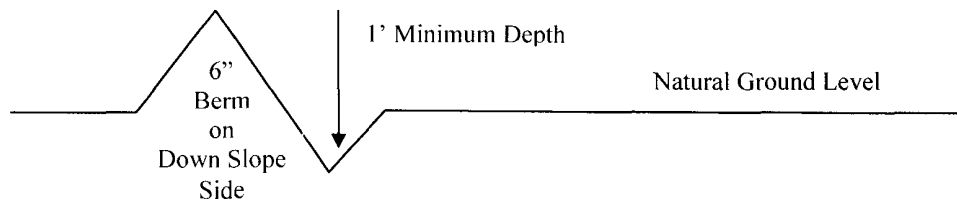


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

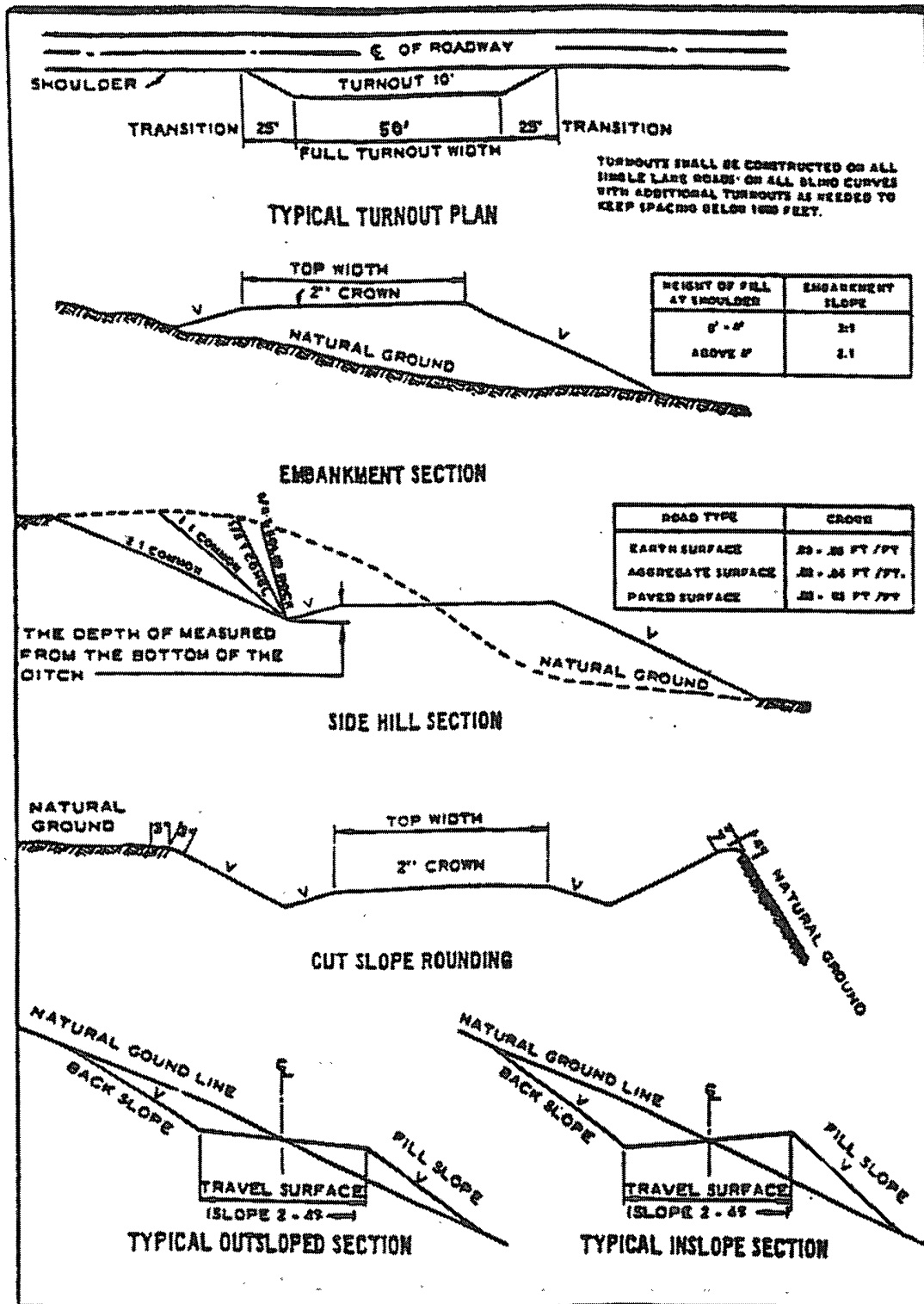
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in Section 13 and it is recommended that monitoring equipment be onsite. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
4. **Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturer of the logging tools recommended speed.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P potash

High cave/karst

Possible lost circulation in the Delaware Mountain Group and the Bone Spring formations.

1. The 13-3/8 inch surface casing shall be set **at approximately 280-285 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **This casing must not be set in the salt since that is not a competent formation and Onshore Order II requires casing to be set across a competent formation. Fresh water mud to setting depth, brine mud below.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry. Not applicable if current cementing program without lead slurry is used.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Casing is required to be set a minimum of 100' below the salt and not more than 600' below the salt. The proposed depth is too close to the base of the salt.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to R-111-P potash area.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

a. First stage to DV tool, cement shall:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job. **Additional cement may be required as excess cement calculates to less than 6%.**

b. Second stage above DV tool, cement shall:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office. **Additional cement will be required to bring cement to surface – required in R-111-P potash area.**

No completion activities are to take place on this well until the lead slurry on the second stage reaches a 500 psi compressive strength.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
5. **Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.**

C. PRESSURE CONTROL

1. **All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.**
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **5000 (5M)** psi.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 010809

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

VRM Facility Requirement

Low-profile tanks not greater than eight-feet-high shall be used.

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

The operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Seed Mixture 4, for Gypsum Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Alkali Sacaton (<i>Sporobolus airoides</i>)	1.0
DWS Four-wing saltbush (<i>Atriplex canescens</i>)	5.0

DWS: DeWinged Seed

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed
(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.