ATS-07-739

6107

OCD-HOBBS

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1317

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 200

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
LC 060967

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
SEMGSAU, Well #147 (3355)

2. Name of Operator
XTO Energy, Inc. (5380)

9. API Well No.
30 025 38613

3a. Address **200 N. Loraine, Suite 800**
Midlnd, TX 79701

3b. Phone No. *(include area code)*
432 684-6381

10. Field and Pool, or Exploratory
Maljamar;Grayburg San Andres

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **(P) 334 FSL & 1180 FEL, Sec 30, T17S, R33E**
At proposed prod. zone **same**

NSL-5686
UNORTHODOX LOCATION

11. Sec., T. R. M. or Blk. and Survey or Area
Section 30, T17S, R33E

14. Distance in miles and direction from nearest town or post office*
5 miles SE of Maljamar

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **334'**	16. No. of acres in lease **2200 +/-**	17. Spacing Unit dedicated to this well **40 (waterflood)**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **1220'**	19. Proposed Depth **4350'**	20. BLM/BIA Bond No. on file **UTB000138**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **4037'**	22. Approximate date work will start* **10/01/2007**	23. Estimated duration **12+ days**

NOV 2007
Received
HOBBS OCD

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
	Ann E. Ritchie	9-10-07 BLM **07/25/2007**

Title **Regulatory Agent**

Approved by *(Signature)* **/s/ James Stovall**	Name *(Printed/Typed)* **/s/ James Stovall**	Date **NOV 5 2007**
Title **FIELD MANAGER**	Office **CARLSBAD FIELD 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.

*(Instructions on page 2)

Capitan Controlled Water Basin

GWW

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

XTO Energy, Inc. (5380)
200 N. Loraine St., Suite 800
Midland, TX 79701
(432) 682-8873
(432) 684-9681-fax

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

SEMGSAU #147

Lease Number: LC 060967 / ~~NM-05-86978~~ per operator 9-24-07

Legal Description of Land: UL: P Section 30 T17S R33E
Lea County, New Mexico

Formation: Grayburg and San Andres (43329)

Bond Coverage: UTB 000138

Authorized Signature: Boogie Armes

Printed Name: Boogie Armes

Title: Drilling Superintendent; contact phone: 432 620-6739; 432 556-7403

Date: 7-25-07

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

OCD / MIDLAND
DEC 28 2005

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38613	43329	Maljamar; Grayburg - San Andres

Property Code	Property Name	Well Number
37355	SEMGSAU	147

OGRID No.	Operator Name	Elevation
5380	XTO ENERGY	4028'

Surface Location

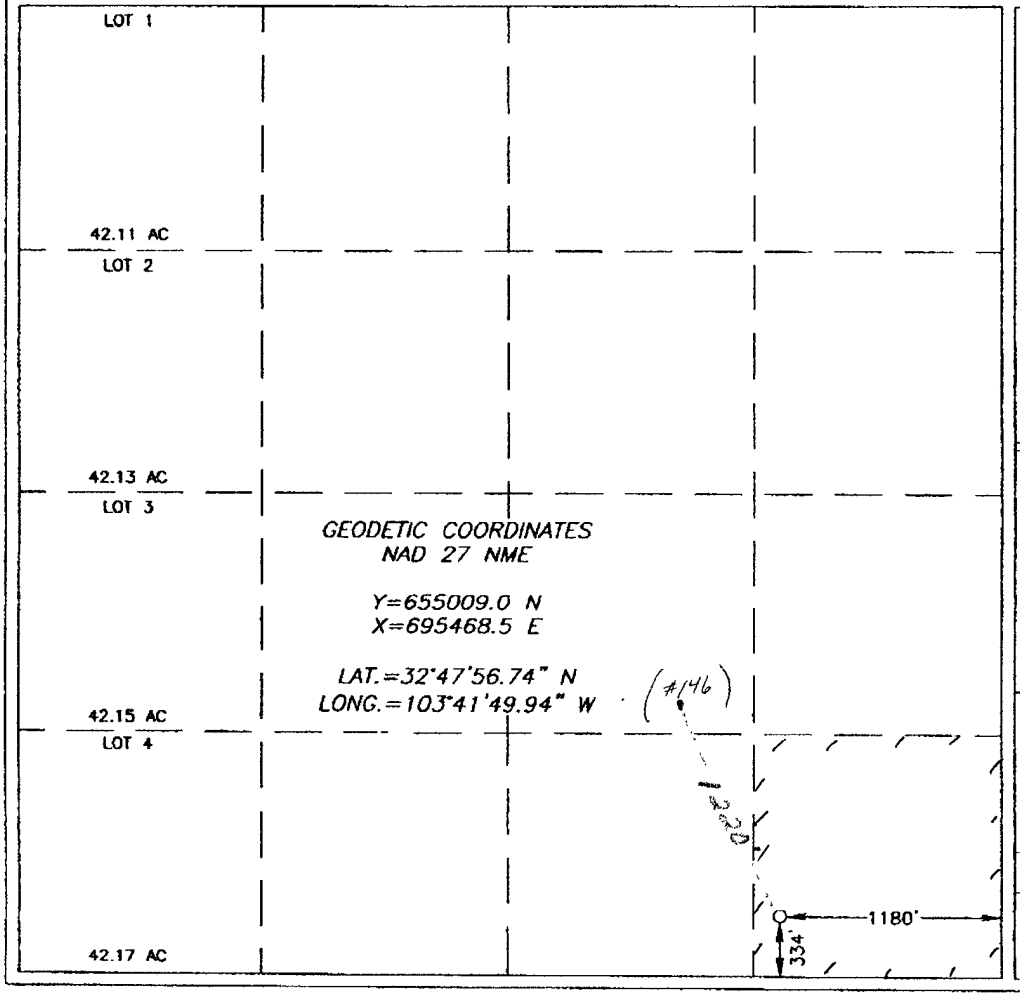
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	30	17-S	33-E		334	SOUTH	1180	EAST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			NSL-5686

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



OPERATOR CERTIFICATION

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

Signature

Ann Ritchie
Printed Name

Regulatory Agent
Title

6-25-07
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

DECEMBER 15, 2005
Date Surveyed RZB

Signature & Seal of Professional Surveyor

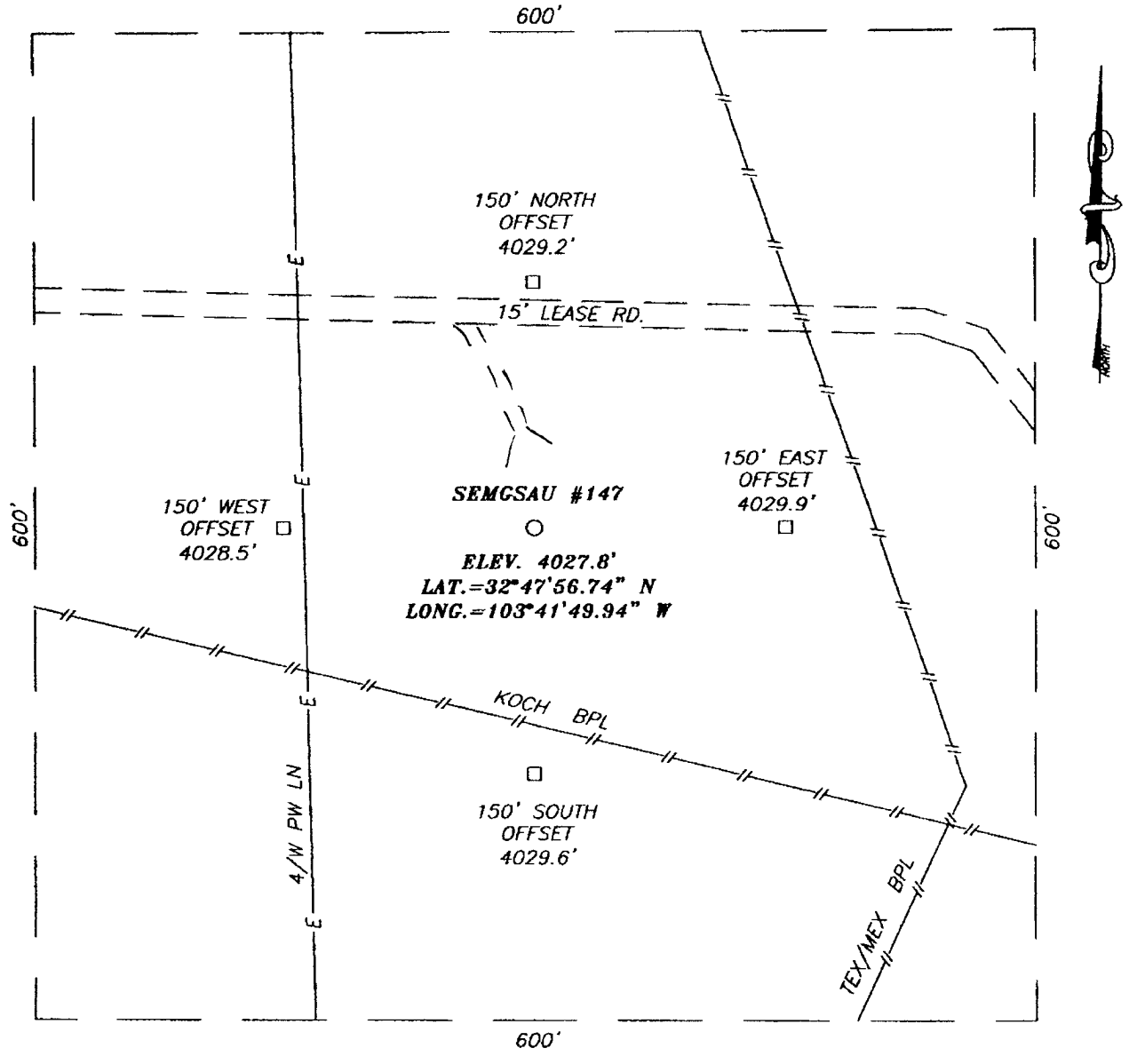
12/24/05

05.11.1970

Certificate No. GARY EIDSON 12641

SECTION 30, TOWNSHIP 17 SOUTH, RANGE 33 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM STATE HWY. #529 AND CO. RD. #L125 (DOG LAKE) GO NORTH APPROX. 0.5 MILES. TURN LEFT HEADING WEST ON A CALICHE ROAD AND GO APPROX. 0.6 MILES. TURN RIGHT ON A CALICHE RD. AND GO NORTH FOR APPROX. 0.2 MILES. TURN LEFT AND GO WEST ON A CALICHE RD. FOR APPROX. 0.1 MILES. THIS LOCATION WILL BE 150 FEET TO THE SOUTH.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

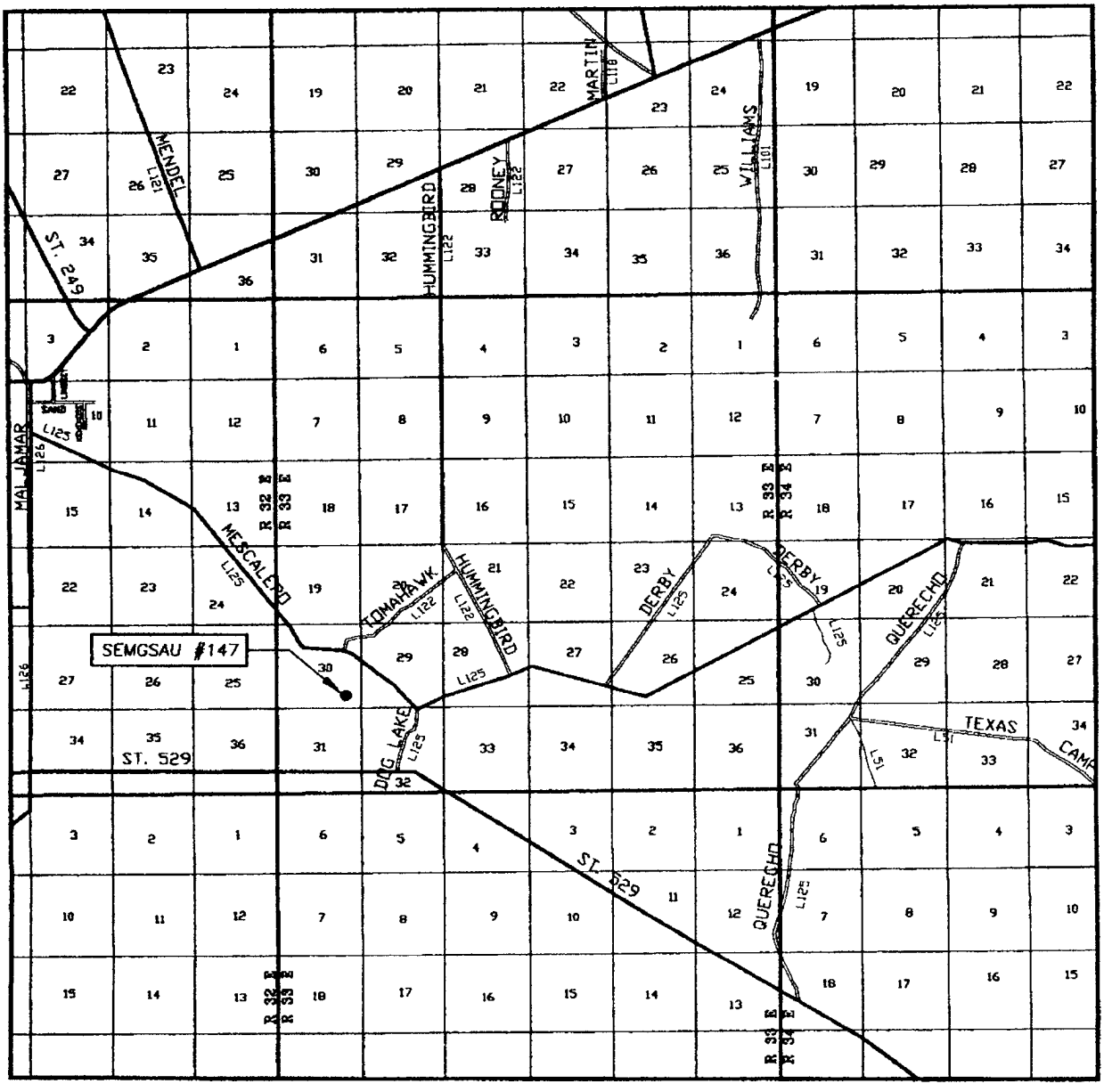
(505) 393-3117

XTO ENERGY

SEMGSAU #147 WELL
LOCATED 334 FEET FROM THE SOUTH LINE
AND 1180 FEET FROM THE EAST LINE OF SECTION 30,
TOWNSHIP 17 SOUTH, RANGE 33 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 12/15/05	Sheet 1 of 1 Sheets		
W.O. Number: 05.11.1970	Dr By: RZB	Rev 1:N/A	
Date: 12/16/05	Disk: CD#1	05111970	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 30 TWP. 17-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 334' FSL & 1180' FEL

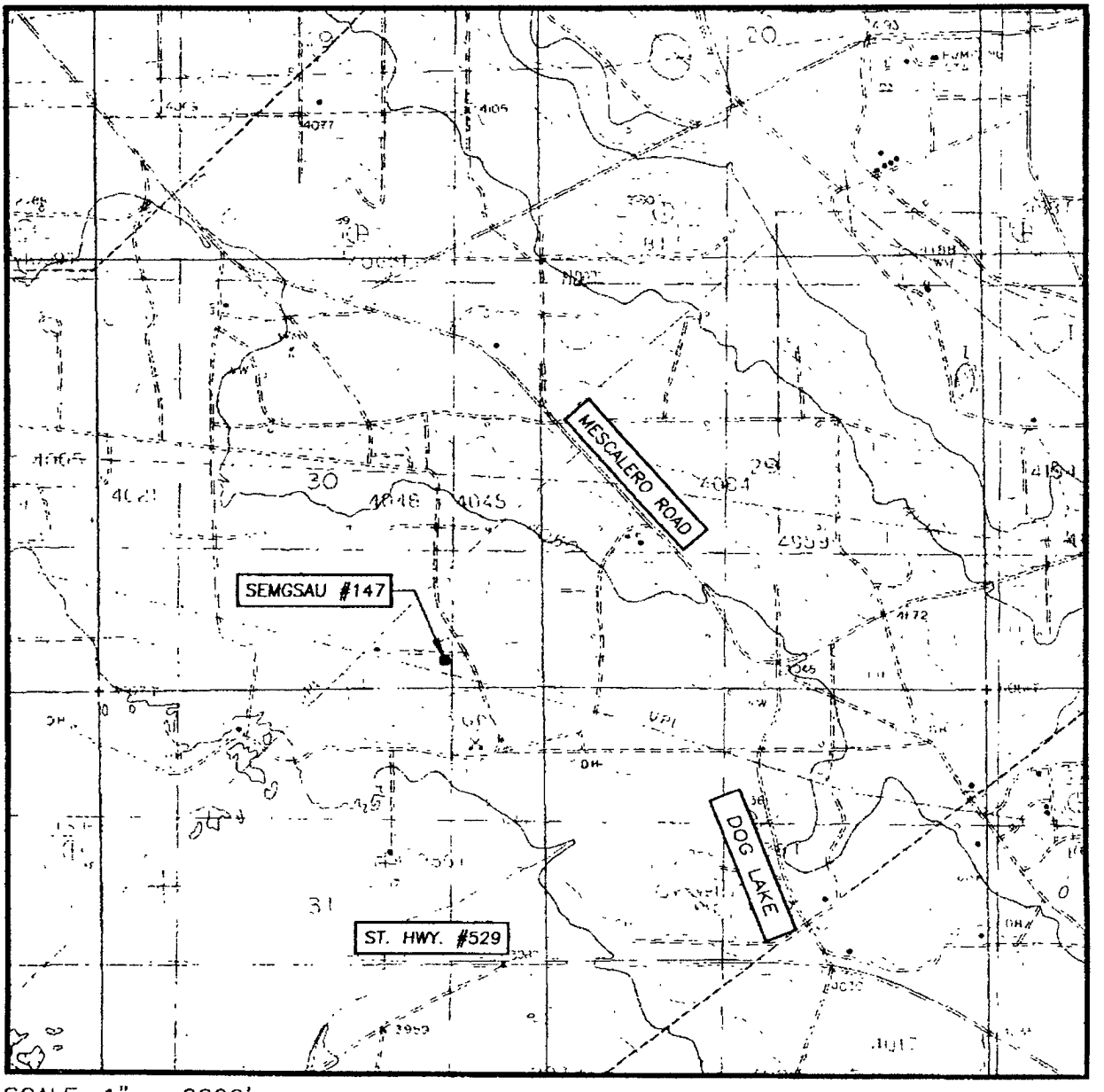
ELEVATION 4028'

OPERATOR XTO ENERGY

LEASE SEMGSAU

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
DOG LAKE, N.M. – 10'

SEC. 30 TWP. 17-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 334' FSL & 1180' FEL

ELEVATION 4028'

OPERATOR XTO ENERGY

LEASE SEMGSAU

U.S.G.S. TOPOGRAPHIC MAP
DOG LAKE, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Nine Point Drilling Plan

(Supplement to BLM 3160-3)

XTO Energy, Inc., 200 North Loraine, Suite 800, Midland, TX 79701

SEMGSAU (SouthEast Maljamar Grayburg San Andres Unit), Well #147

334' FSL & 1180' FEL (P), Section 30, T17S, R33E, Lea County, New Mexico

Maljamar; Grayburg-San Andres: Pool Code 43329

LC 060967/~~NM-058697B~~ Per operator 9-24-07

1. The geologic surface formation is quaternary.
2. Name and estimated tops of geologic horizons

Queen	3500'
Grayburg	3850'
San Andres	4240'
Proposed TD	~~4350'~~ 4417' per 10/2/07 drilling prognosis of 10/2/07 see

3. Protection of possible useable water will be achieved by setting 8.625" surface casing @ 1200'+/- w/lead 325 sx Cl C, 4% gel, 2% CaCl2, 0.25 pps flocele & tail w/150 sx Cl C w/2% CaCl2-cementing casing to surface. The Grayburg-San Andres are oil and gas productive in this area for this unit development well.

   Isolation will be achieved by setting 5.5" casing @ 4350' +/-, and cementing to surface w/lead 300 sx Cl C w/.25 flocele and tail w/450 sx Cl C w/5% LAP-1, .4% CRF-3, .25 pps d-air, 3 pps microbond.

4. **Specifically the casing string referenced in #3 above will consist of the following:**

   Surface: 8.625" OD, 24#/ft, J55, STC, new pipe @ 1200'+/- in 12.25" hole.

   Production: 5.50" OD, ~~15.5#/ft~~ 17#, J55, LTC, new pipe @4350'+/- in 7.875" hole

   Cementing programs for the above casing strings are:

   Surface: **475 sx as state above.** see drilling prognosis 10/2/07

   The above volume represents 100% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with brine water. Total estimated slurry volume is 1008 ft3.

   Production: **750 sx, as state above** – *caliper volume plus 30% excess in open hole volume. Total estimated slurry volume is 1352 ft3.*

5. *The well control equipment to be employed during the drilling of this well is as illustrated on BOP diagram attached. This equipment includes a pipe and blind rams, an annular preventer and a choke manifold of comparable pressure rating. Equipment will be rated for a minimum of 3000 psi, and will be tested to 80% of that pressure rating prior to drilling out of the 8.625" surface casing.*

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below:

0-1200': Gel/Lime spud mud 8.6-9.2 ppg. Utilizing native solids to maintain sufficient viscosity to clean hole. Add starch & gel as required to control seepage loss.

1200-4350': Brine water 10-10.1 ppg. Circulate through reserve pit for gravitational solids removal. Add starch and gel as required to control seepage loss. Maintain pH using Lime.

7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges. WOC a minimum of 12 hrs before drilling out surface casing, check BOP blind rams each trip and pipe rams each day. see COA

8. No drill stem testing is planned for this wellbore. A mud logging unit will be utilized from 2500' to TD to record geological tops, collect samples, and monitor drilling fluids for hydrocarbons. We plan on open hole logs will be run, GR/Cal/CNL/FDC/DLLMSFL will be run to casing point.

9. The estimated BHP at TD is not expected to exceed 1300 psi, and a BHT of 100 F is anticipated. There is no H2S present in the hydrocarbons being produced from the other wells in this section. Should such unexpected circumstances be encountered the operator and drilling contractor are prepared to take necessary steps to ensure safety of all personnel, and environment. Likewise, if a water flow is experienced while drilling through the San Andres-Grayburg the appropriate steps will be taken. Lost circulation is not expected to be a serious problem in this area, and hole seepage will be compensated for by additions of small amounts of starch & gel as needed.

It is estimated that this well will be drilled and cased in 7-10 days. Drilling will commence as soon as approval to drill is issued by the Bureau of Land Management.

It is anticipated that CapStar Drilling will drill this well, rig phone # 432 238-1272.

XTO Energy, Inc.

SEMGSAU, Well #147

334' FSL & 1180' FEL

Section 30, T17S, R33E

Lea County, New Mexico

Casing Program:			Design Factors		
			Collapse	Burst	Tension
1200'+/-	8 5/8"	24# J55 STC	2.22	4.78	9.85 J
4500'+/-	5 I/2"	17# J55 LTC	1.86	2.02	3.75 J

SEMGSAU #147

Drilling Prognosis

October 2, 2007

Surface Location: 334' FSL & 1180' FEL of Sec 30, T-17S R-33E

Lea County, NM

D&C AFE # 508089

XTO ID # 450

Lease Serial #

API # 30-025-

Projected TD 4417'

Notify the OCD 24 hrs prior to spud
Silvia Dickey (505) 393-6161 ext. 112

XTO Energy, Inc.

Vendor Listing

Well Name & Number:	**SEMGSAU #147**		
Drilling Contractor.	Patterson-UTI #54 Rig Phone		
Toolpushers:	Office	Home	Cellular
Directions to well			

Services	Company/Person	Location	Telephone
Dirt Contractor	Sweatt / Jeff Raines	Artesia, NM	505-631-7366
Pit Lining, Water Line	All American Pit Liner Alvin Powell	Midland, TX	432-238-4479
Fresh/Brine Water	Pate	Hobbs, NM	505-397-6264
Mud Logger (on at ±3500')	Selman & Associates		432-563-0084
Drilling Mud/Chemicals	Nova / Steve Rippy	Hobbs, NM	505-390-1258
Cementing Services	Halliburton	Midland, TX	800-844-8451 432-682-4305
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	505-746-3100
Open Hole Logging Company	Halliburton	Midland, TX	432-682-4305
H_2S Equipment	Indian Fire & Safety	Hobbs, NM	505-393-3093
Wellhead Equipment	Wilson Supply / Jake Pena	Eunice, NM	505-394-1206
Casing/Materials	Jeff Grasmick	Midland, TX	432-620-6738 CTOC office 432-697-4731 home 432-638-4620 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 Personel	Title	Cell #	Office #	Home #
Don Eubank	Drlg Manager	432-664-8593	432-620-6718	
Boogie Armes	Drlg Superintendent	432-556-7403	432-620-6739	806-894-8073 432-218-7141
Bob Chance	Drlg Superintendent	432-296-3926	432-620-4321	432-381-0454
Chip Amrock	Drlg Engineer	432-638-8372	432-620-4323	
Cody Grasmick	Drlg Engineer	432-238-0053	432-620-4328	
Richard Simpson	Geologist	817-703-8579	817-885-2386	817-447-3633
Jeff Grasmick	Materials Coordinator	432-638-4620	432-620-6738	432-697-4731
Dudley McMinn	Safety Coordinator	432-557-7976	432-620-6713	432-686-9417

XTO ENERGY, INC

SEMGSAU #147

Drilling Prognosis

October 2, 2007

Location: 334' FSL & 1180' FEL of Sec 30, T-17S R-33E
County: Lea **State**: NM

PROJECTED TOTAL DEPTH: 4417'
GR ELEV: 4028'

OBJECTIVE: San Andres
KB ELEV: 4---' (--' AGL)

Surface Hole

1. Notify One Call of impending location build.

2. Bid and build location (Line pits, lay water line).

3. MIRU Drilling Rig. Notify the OCD 24 hrs prior to spud. Silvia Dickey 505-393-6161 ext. 112.

4. Review Safety Procedures. Prepare to spud well.

5. Spud well with 12-1/4" tri-cone tooth bit.

6. Strap the 8-5/8" casing on location.

7. Have water for cementing analyzed for acceptability and pilot test the cement blends with the water for compatibility, providing test results to the Midland office.

8. Clean and visually inspect casing ends after casing is loaded on pipe racks.

9. Drill to match Casing Strap, TD @ ~1,200. (Surface casing will be set below the Redbeds, into the Rustler Anhydrite. This casing string can sometimes be difficult to run, often requiring several joints to be washed down.)

10. RU and run 8-5/8" casing as follows (A landing joint will be utilized if possible):
    a.) Texas Pattern Guide Shoe
    b.) One joint 8-5/8", 24#, J-55, STC casing
    c.) Float Collar
    d.) 8-5/8", 24#, J-55, STC casing to surface
    e.) 8-5/8" Landing Joint

    - Thread lock the bottom two joints of casing. Use No-Metal Wilson/Sefco EPI Modified thread compound on the remaining connections, thread compound available from Wilson Supply in Sundown, Texas.

    - Torque casing connections to the optimum value of 2440 ft-lbs for the 24#, J-55 STC casing (maximum torque value is 3050 ft-lbs, and the

minimum torque value is 1830 ft-lbs). Adjust torque on threadlocked connections as specified by manufacturer.

- Run 9 bow spring centralizers. The bottom two joints are to have one centralizer per joint, approximately 10' from each end. Starting on the sixth joint above the float collar, place a centralizer every fourth collar for the remainder.

- Have a casing swedge on the floor to wash the casing down if necessary.

- Land casing with collar 1' below GL, so that the drilling flange on the casinghead will be at ground level when nippling up the BOPE.

11. With casing on bottom, circulate a minimum of one bottoms up. RU Halliburton and cement the 8-5/8" casing with **430 sx of Class C w/ 4% Bentonite + 2% CaCl + 0.25 pps Flocele** (100% Excess) (mixed @ 13.5 ppg, 1.75 cuft/sk, 9.14 gal/sk), followed by **200 sx of Class C w/ 2% $CaCl_2$** (mixed @ 14.8 ppg, 1.34 ft^3/sk, and 6.34 gal wtr/sk).

    a. Pump 20 bbls of water ahead of cement.

    b. Mix and pump the cement at 6-8 BPM. Catch wet and dry samples throughout job, sending dry samples to Midland if a problem arises.

    c. Drop the plug and displace the cement with fresh water. **DO NOT OVERDISPLACE**. Bump the plug and pressure the casing to 500 psig over final displacement pressure. Release pressure and check the float.

    d. If cement does not circulate, notify the OCD and prepare for a top job.

12. WOC for a minimum of four hours, check samples to ensure cement has set and has sufficient strength to support casing. Back out the landing joint, check the threads to ensure integrity for next job. Install a thread protector on pin end of landing joint.

13. Install Larkin Fig 92 casing head and drilling flange. Install BOP stack, to consist of drilling spool with choke and kill lines, double rams with pipe rams on bottom, blind rams on top. Use cold water and test BOPE to 250 psig low and 1000 psig high. Record all tests on the IADC tour report, and note on the XTO drilling report. Inspect accumulator closing unit to ensure that precharge pressures and oil levels are within API specifications, report same on IADC tour report.

14. WOC for a total of twelve hours before drilling out. Prior to drilling out, pressure test the casing to 250/1000 psig and record on IADC report. Make sure that we can pump through all surface kill lines.

See COA

Production Hole

15. Drill out with 7-7/8" bit and drill using weight and rotary rpm conducive to good drilling practices. Maximum allowable inclination will be 4° below surface casing. Operate pipe rams daily and blind rams on trips. Audit the rig for water usage to ensure waste water is minimal. **NOTE: POSSIBLE SHALLOW WATER FLOW AT +/- 1770'.**

16. Hydrogen Sulfide Gas (H_2S) should be anticipated from the San Andres formation to TD. A minimum safety compliance package should be in place shortly after drilling out from under the 8-5/8" surface casing.

17. Use fibrous materials as needed to control seepage and/or lost circulation. Pump viscous sweeps as needed for hole cleaning. Should severe seepage be encountered, a light mud up should help seal off the problem. Starch up +/- 300' f/ TD to aid in logging.

18. After casing is delivered and loaded on pipe racks, clean the threads and visually inspect the ends. Drift casing to API specifications. Count and tally all casing on the rack.

19. Check with Midland office for final cement blend to be used. Have cementer's pilot test the cement blends with the water to be used for compatibility, providing test results to the Midland office.

20. Drill Production Hole to TD @ 4,417'. Adjust TD as necessary so that casing can be landed near the floor.

21. At TD, circulate the hole with viscous sweeps and spot a viscous pill on bottom. Condition the hole for logs. SOOH, keeping the hole full of fluid.

22. Come out of hole standing drill pipe back in the derrick.

23. RU Halliburton and log well as per procedure. Have logging engineer contact Richard Simpson upon arrival. Richard can be reached at 817-885-2386 (office) and 817-279-1027 (home). Open Hole as follows:

    - Platform Express (TD – 3000')
    - GR/Neutron (TD – Surface)

    RD WL.

24. TIH with bit, circulate until hole is stable, then TOOH, LDDP and DC's.

25. RU casing crew and run new 5-1/2" production casing as follows:

    a.) 5-1/2" Davis Lynch Float Shoe
    b.) One joint of 5-1/2", 17#, J-55, LTC casing
    c.) 5-1/2" Davis Lynch Float Collar
    d.) 5-1/2", 17#, J-55, LTC casing
    e.) 5-1/2", 17#, J-55, LTC Marker **Jt @ 3,900'**

f.) 5-1/2", 17#, J-55, LTC casing to Surface

- Optimum make-up torque for 5-1/2", 17#, J-55, LTC casing is 2470 ft-lbs (min is 1850 ft-lbs, max is 3090 ft-lbs).
- Thread lock all float equipment. Use Non-Metal API thread compound on the remaining connections.
- Have a casing swedge on the floor to fill casing while running if necessary, or to wash casing to bottom. Tag bottom with casing, PU 1' and begin circulating.
- Place one turbolizer per joint on the bottom two joints, then alternate turbolizers and centralizers on every other joint to 3554' (approximately 17 joints, 5 turbolizers and 4 centralizers). From 3554' to Surf (approximately 85 joints), install a centralizer every fourth joint (21 centralizers).

Interval	Approx # of Jts	Spacing	Turbolizers	Centralizers
TD to 4365'	2	1 per Joint	2	0
4365' - 3550'	19	Every jt	19	0
3554' - Surf	85	Every 4th Joint	0	21
Total	**106**		**21**	**21**

26. 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).

27. RU Halliburton Services. Pump 20 bbls of fresh water, 500 gal of mud Flush ahead of the cement. Pump and displace the cement at as high a rate as possible. Catch wet and dry samples throughout the job. Cement the 5-1/2" production casing in one stage. The lead slurry will consist of **650 sacks of Interfill "C" cement containing 0.25 pps Flocele** (mixed at 11.9 ppg, 2.45 ft^3/sk, and 14.12 gal wtr/sk). The tail slurry will consist of **210 sacks of Class "C" cement containing 0.5% LAP-1, 0.4% CFR-3, 0.25 pps D-AIR, 3 pps Microbond** (mixed at 14.8 ppg, 1.37 ft^3/sk, 6.47 gal wtr/sk). Reciprocate casing during cement placement. Set casing 1' off bottom. **Break loose and wash up to the reserve pit prior to displacing the plug.** Displace cement with fresh water. Bump plug to 500 psig over final displacement pressure. **Do not over displace.** Release pressure and check floats.

    Cement volumes are ***estimates***. Use the open hole caliper log plus 35% excess to calculate actual volumes. It is desired to bring the tail slurry from TD to 3700', and the lead slurry from 3700' to surface.

28. Set the slips and NU wellhead. Jet and clean the pits. RDRT. Release rig and MORT.

29. **If cement does not circulate to surface, run a Temperature Survey to determine the cement top.**

SPECIAL INSTRUCTIONS

1. Check BOP blind rams each trip and pipe rams each day.

2. 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.

* Cement Yields ?

Yield for Surface Casing cement job:

#11; weight: 13.5 ppg ; yield: 1.75 cuft/sk; water: 9.14 gal/sk

Yield for Production String Casing cement job:

#27; Lead – weight: 11.9 ppg; yield: 2.45 cuft/sk; water 14.12 gal/sk

Tail – weight: 14.8 ppg; yield: 1.37 cuft/sk; water: 6.47 gal/sk

July 25, 2007

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87504

RE: ***XTO Energy, Inc.*** *Application for Administrative Approval of an Unorthodox Well, SEMGSAU, Well #147, located 334 feet FSL and 1180 feet FEL of Section 30, T17S, R33E, NMPM, Lea County, New Mexico*

NMOCD:

After meeting with Barry Hunt and Cody Layton with the Bureau of Land Management, Carlsbad, New Mexico concerning the location of the Southeast Monument Grayburg San Andres Unit (SEMGSAU), Well #147, it was established that the only location the BLM would approve, due to pipeline and topography issues, would be 334 FSL and 1180 FEL of Section 30, T17S, R33E, Lea County, New Mexico.

In meeting with the Bureau of Land Management field staff, they approved the attached rig layout which will avoid the existing buried pipelines that are located to the west, south and east of the proposed location. To the best of our knowledge the archaeological resources are not an issue in establishing this proposed location.

This well is a proposed production unit development well in the Maljamar; Grayburg-San Andres pool, an oil test on 40 acres. Please see attached a listing of the operators offsetting this well. All ownership in the proposed spacing unit is common. Also attached is a copy of the C-102 prepared by West Engineering, along with the Form 3160-3 for this proposed location.

We are respectfully requesting approval for this non-standard location. Please let me know if you need any further information in order to process this request. Thank you.

Yours truly,

Ann E. Ritchie, Regulatory Agent
XTO Energy, Inc.
c/o P.O. Box 953
Midland, TX 79702
432 684-6381/682-1458-fax
ann.ritchie@wtor.net

attachments
cc: XTO/Midland – Sorina Flores

XTO Energy, Inc. (5380)
SEMGSAU, Well #147
Unorthodox Location Application (submitted to OCD 7-25-07)

Offset Operators with a l/2 mile radius:

Oxy Permain/Occidental Permian Ltd.
P.O. Box 50250
Midland, TX 79710

COG Operating
550 W. Texas, Suite 1300
Midland, TX 79701

Southwestern Energy Prod. Co.
2350 N Sam Houston Parkway E
Houston, TX 77032

Mack Energy Co.
P.O. Box 400
Duncan, OK 73534

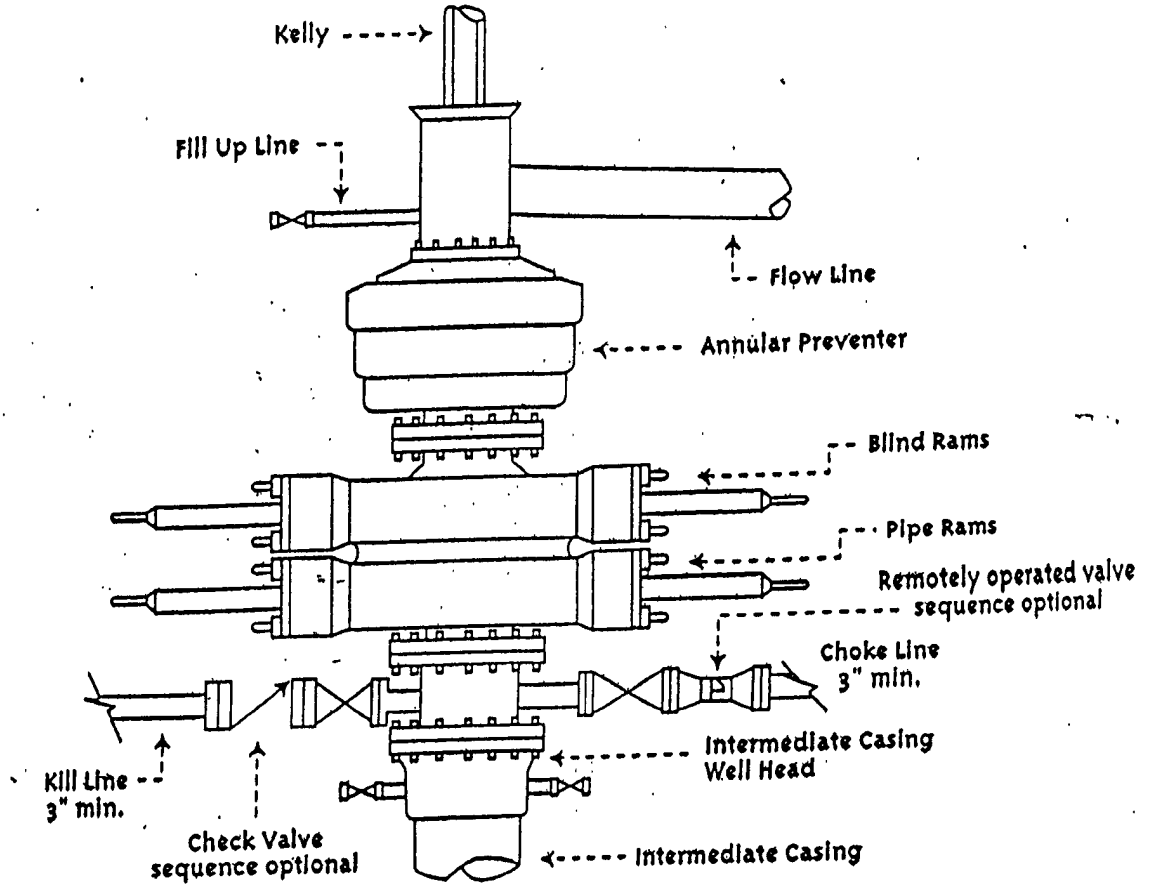
Williams Oil Company
P.O. Box 3012
Midland, TX 79702

Collier Pet. Corp.
P.O. Box 51311
Midland, TX 79702

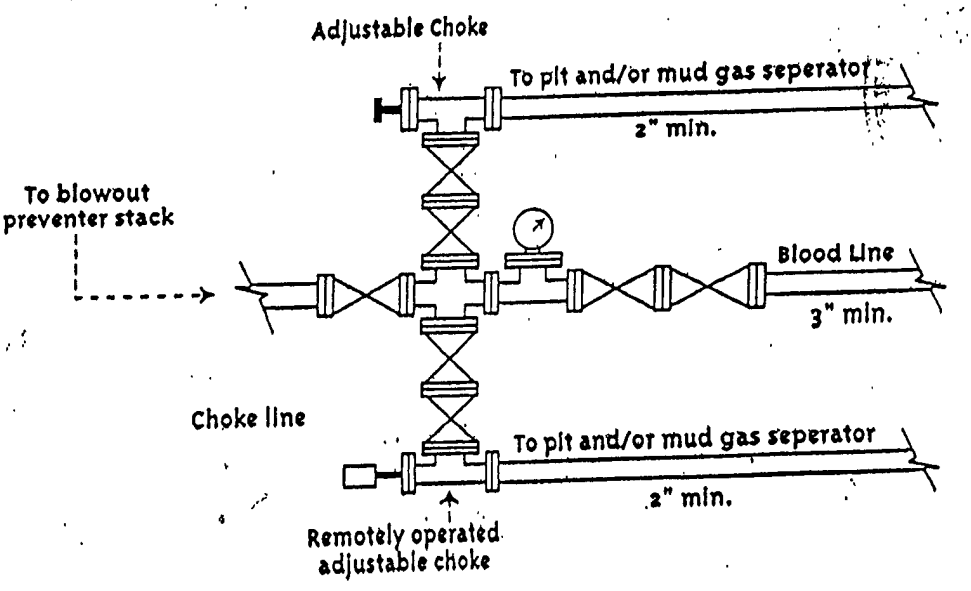
A copy of the Non-Standard/Unorthodox request and Oil Conservation Divison Form C-102 have been sent to the above stated parties.

Ann E. Ritchie, Regulatory Agent
XTO Energy, Inc.
July 25, 2007

Typical 5,000 psi Pressure System
Schematic
Annular Double Ram Preventer Stack



Typical 3,000 psi choke manifold assembly with at least these minimum features



Hydrogen Sulfide Drilling Operations Plan

XTO Energy, Inc.
SEMGSAU, Well #147, Lease NMLC 060967
Section 30, T17S, R33E, 334 FSL & 1180 FEL
Lea County, New Mexico

(Standards Where H2S is Anticipated)

ONE - Hydrogen Sulfide Training:

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- The hazards and characteristics of hydrogen sulfide (H2S);
- The proper use and maintenance of personal protective equipment and life support systems;
- The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds; and,
- The proper techniques of first aid and rescue procedures.

In addition, the supervisory personnel will be trained in the following areas;

- The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements;
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- The contents and requirements of the H2S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500') and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

TWO - H2S Safety Equipment and Systems:

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or, three days prior to penetration of the first zone containing, or reasonably expected to contain, H2S.

1. Well Control Equipment:

- Flare line with flare igniter;
- Choke manifold with one remote hydraulic choke installed;
- Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit;
- Auxiliary equipment to include an Annular Preventer.

2. **Protective equipment for essential personnel:**

- The designated safety expert will provide 5-minute escape units located in the doghouse, and 30-minute air units at briefing areas.

3. **H2S detection and monitoring equipment:**

- Three portable H2S monitors will be positioned on location for the best coverage and response. These units have warning lights and audible sirens when triggered by H2S levels > 20 PPM.
- One portable SO2 monitor will be positioned near flare line during H2S flaring operations. – if incurred.

4. **Visual warning systems:**

- Wind direction indicators will be placed in accordance with the directives issued by the designated H2S expert.
- Caution/Danger signs shall be posted on roads providing direct access to the location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be legible from the immediate location.

5. **Mud Program:**

- The mud program will minimize the volume of H2S circulated to the surface. Proper mud weight safe drilling practices, and, if necessary, the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. **Metallurgy:**

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spools kill lines, choke manifold and line valves shall be suitable for H2S service.
- ~~All elastomers used for packing and seals shall be H2S trimmed.~~

7. **Communications:**

- Radio and telephone communications will be available in company vehicles and rig doghouse.

8. **Well Testing:**

- Drill stem testing will be performed with a minimum number of personnel necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H2S will be conducted during daylight hours.

South East Maljamar Grayburg San Andres Unit		
XTO Energy, Inc. - H2S Concentration/battery		
Data	**Description**	
1619	H2S Concentration - PPM (Block 13)	
[redacted]	Maximum Escape Volume - MCF/Day (Block 13)	
8	100 PPM Radius of Exposure (Block 15)	
	Formula = 1.589 * (B5/1000000)*(B6*1000) *.6258	
3	500 PPM Radius of Exp0sure (Block 16)	
	Formula = .4546 *(B5/1000000)*(B6*1000)*.6258	
C		

Duke Energy Field Services, LP.

370 17th Street, #2500 Denver CO 80202

Gas Analysis Certificate Report

05/12/2005
07:31:27
BTONGE

Analysis ID: 17618-00

Alternate ID: S.M.G.S.A.UNIT Tract 1-10

Company Name: XTO ENERGY INC Main Bty.

Effective Date:	04/01/2005 00:00	Saturated HV:	1554.1	Sample Date:	03/03/2005
Valid Thru Date:	01/18/2038 00:00			Sample ID:	
Last Update:	03/11/2005 14:55	Dry HV:	1530.9	Sample Type:	Spot
Analysis Origin:	Portable Chromatog	Gravity:	1.0641	Sample Pressure Base:	14.650
Analysis Type:	Lab analysis	Source:	Import	Sample Temperature:	68.0
				Sample Pressure:	22.0

Component	% Mol	GPM
Methane	43.8700	
Ethane	19.7600	5.2524
Propane	15.5970	4.2710
I Butane	2.1110	0.6857
N Butane	4.9640	1.5564
I Pentane	1.1060	0.4025
Pentane	0.9890	0.3562
Hexanes+	1.2480	0.5415
Nitrogen	2.7620	
CO2	5.9750	
Oxygen	0.0000	
H2O	0.0000	
CO	0.0000	
H2S	1.6190	
Hydrogen	0.0000	
Helium	0.0000	
Argon	0.0000	
Total	100.0010	13.0557

C4 lighter STCond	0.0000
C5 heavier STCond	0.0000
26 # Gasoline @14.65	1.9410
26 Lbs. excess	0.0000
Stock Tank Bbl/mm	0.0000
H20 GPMs	0.0000
FWS Factor	0.0000
FWS C6+or C7+ GPM	0.000
Reject Override Code	0
GC Unnormalized Mol%	101
TestCar GPM Permian	1.467
TestCar GPM Panhndle	1.878
Run Number	2705000
H2S Test Type	0
H2S Units	0
H2S PPM	0
TestCar GPM MidCon	1.531

Comments:

GPM-0681

Average Daily Production for Battery is 70 MCFPD.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy, Inc.
LEASE NO.:	LC-060967
WELL NAME & NO.:	SEMGSAU Fed. #147
SURFACE HOLE FOOTAGE:	334' FSL & 1180' FEL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 30, T. 17 S., R 33 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.

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)

EXHIBIT NO. 1

Date of Issue: 4/5/07

Bureau of Land Management, Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

BLM Report No. 07-NM-523-422

NOTICE OF STIPULATIONS

Historic properties in the vicinity of this project are protected by federal law. In order to ensur that they are not damaged or destroyed by construction activities, the project proponent an construction supervisors shall ensure that the following stipulations are implemented.

Project Name:	A Class III Cultural Resource Inventory Report for the SEMGSAU Number 147 Proposed Well Location, and Sites L 43,388 and LA 155,564 Lea County, New Mexico
Required	***1). A 3-day preconstruction call-in notification.*** Contact BLM Inspection and Enforcement at (505) 234-5977, 5909, or 5958, to establish a construction start date.
Required	***2. Professional archaeological monitoring***. Contact your project archaeologist, or BLM's Cultural Resources Section at (505) 2228, 5917, 5967, 5943, or 5986, for assistance.
A. ☒	These stipulations must be given to your monitor at least **5 days** prior to the start of construction.
B. ☒	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
	3. Cultural site barrier fencing. (Your monitor will assist you).
A. ☐	A temporary site protection barrier(s) shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging o blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
B. ☒	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
Required	***4. The archaeological monitor shall:***
A. ☐	Ensure that all site protection barriers are located as indicated on the attached map(s).
B. ☒	Observe all ground-disturbing activities within 100 feet of cultural site number LA 43,388
C. ☐	Ensure that all reroutes are adhered to avoid cultural site no.(s) LA
D. ☐	Ensure the proposed is/are located as shown on the attached map(s).
E. ☒	Submit a brief monitoring report within 30 days of completion of monitoring.
Other:	If subsurface cultural resources are encountered during the monitoring, all activities shall cease and a BLM-CFO archaeologist shall be notified immediately. Monitor: Ensure the construction of the pit(s) and the pit fill does not encroach LA 43388.

Site Protection and Employee Education: It is the responsibility of the project proponent and hi construction supervisor to inform all employees and subcontractors that cultural and archaeological site are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, c disturb cultural resources on Public Lands.

For assistance, contact BLM Cultural Resources: Martin Stein (505) 234-5967, Bruce Boeke (505) 234-5917, James Smith (505) 234-5986, George MacDonell (505) 234-2228, Rebecca Hill (505) 234-5943

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the locations described below:

T. 17 S., R. 33 E.
Section 30: ALL

For the purpose of: Protecting Prairie Chickens:

Activities that produce noise or involve human activity will not be allowed between 3:00 am and 9:00 am in lesser prairie-chicken habitat during the period from March 15 through June 15 annually. Additionally, no new drilling will be allowed within 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. The proposed action will be allowed during the period from March 15 through June 15, provided that no personnel are on site between the hours of 3:00 am and 9:00 am. Furthermore, no equipment (including mud pumps and generators) will be allowed to operate during these hours.

Bureau of Land Management

SENM
-S-22

Carlsbad Field Office

December 1997

Modified 2007

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 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 6 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

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 110' X 90' on **the North Northeast** side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

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 (505) 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.

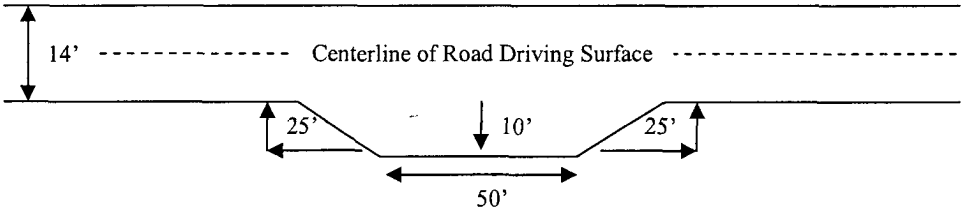
Ditching

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

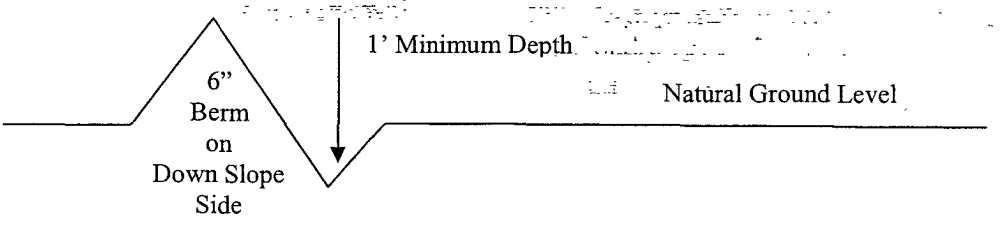


Drainage

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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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.

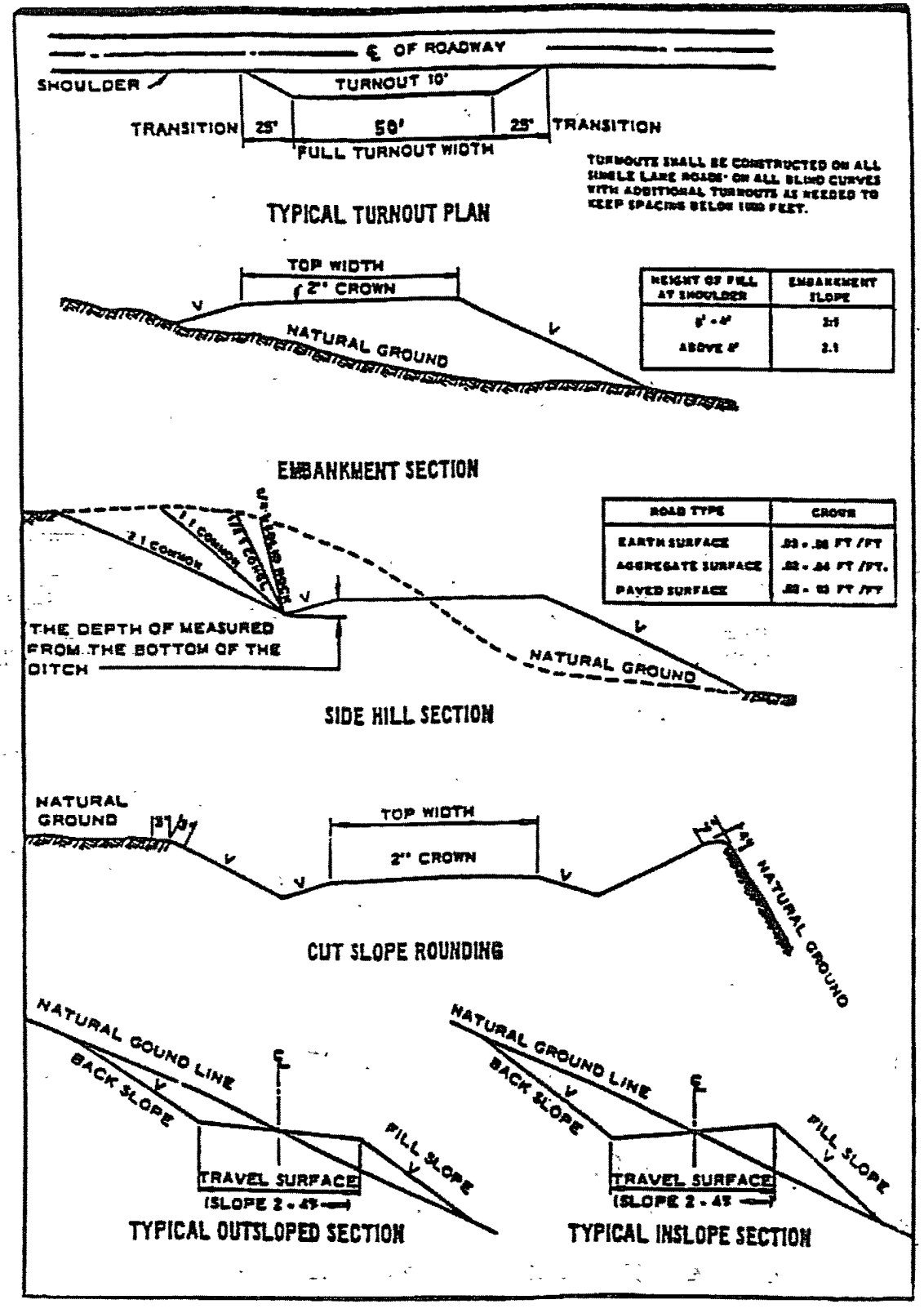
A gate shall be constructed and fastened securely to H-braces.

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

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Queen** formation. **H2S has been measured in the gas streams at 500 ppm and 500 ppm in the STVs from wells completed in the Queen and Grayburg/San Andres.**

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.

B. CASING

1. The **8-5/8** inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 1200** feet and cemented to the surface.

   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 will be **a minimum 18 hours for a water basin,** 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

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 action will be done prior to drilling out that string.

Possible lost circulation in the Grayburg and San Andres formations.
Possible water and brine flows in the Salado and Artesia Group.

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

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

3. 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.

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. **Approved for operator to use BOP/BOPE system that is tested to 2400 psi (80% of 3M system.**

3. 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.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779
WWI 111407

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

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.

At the time reserve pits are to be reclaimed, 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.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture 1, for Loamy 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 bye the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper 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 (small/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:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent gemination = 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.