ATS-09-488 RA

Form 3160 - 3 - 5 - 1 August 2007)		OCD Artesia			APPROVED Io. 1004-0137 July 31, 2010
UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN	INTERIOR	SEP 222	009	5. Lease Serial No.	, -,
APPLICATION FOR PERMIT TO				6. If Indian, Allotee	or Tribe Name
la. Type of work: DRILL REENTI	ER			7 If Unit or CA Agr	eement, Name and No.
lb. Type of Well: Onl Well Gas Well Other	Sin	ngle Zone Multip	ole Zone	8. Lease Name and Trigg 9 Fed, Well #	
Name of Operator Rubicon Oil & Gas, LLC 194266				9. API Well No. 30 015 · 37 3	82
3a. Address 508 W. Wall, Suite 500, Midland, TX 79701		. (include area code) 100/684-6381	_	10 Field and Pool, or Honshaw, Morrow	Exploratory Undesignat
4. Location of Well (Report location clearly and in accordance with an At surface 660' FSL & 1980' FEL (O)	sy State requirem	ents *)			Blk. and Survey or Area
At proposed prod. zone same 4. Distance in miles and direction from nearest town or post office* 7 miles North of Loco Hills				12. County or Parish Eddy County	13. State NM
5 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16 No. of a	cres in lease	17. Spacin	ng Unit dedicated to this	well
8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed 10,800'	Depth	20 BLM/ 2922	BIA Bond No. on file	
Elevations (Show whether DF, KDB, RT, GL, etc.) 3816'	22. Approxim 08/08/200	nate date work will star 9	t*	23. Estimated duration 32 days	n
	24. Attac	hments			
the following, completed in accordance with the requirements of Onshord. Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).		4 Bond to cover the Item 20 above). 5 Operator certific	ne operation	ns unless covered by an	existing bond on file (see
5. Signature Music Tulano	1	(Printed/Typed) . Ritchie		,	Date 07/01/2009
itle Regulatory Agent					
pproved by (Signature) /S/ DAVID D. EVANS		(Printed/Typed)	, posta i	A 2 69	Date SEP 1 8 2009
itle FIELD MANAGER	Office	(S/ DAVID D CARLSBAD FIE	LD OFFI	CE	
application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equit		s in the sub		
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr					

Roswell Controlled Water Basin

(Continued on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL Approval Subject to General Requirements & Special Stipulations Attached

*(Instructions on page 2)

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe. NM 87505

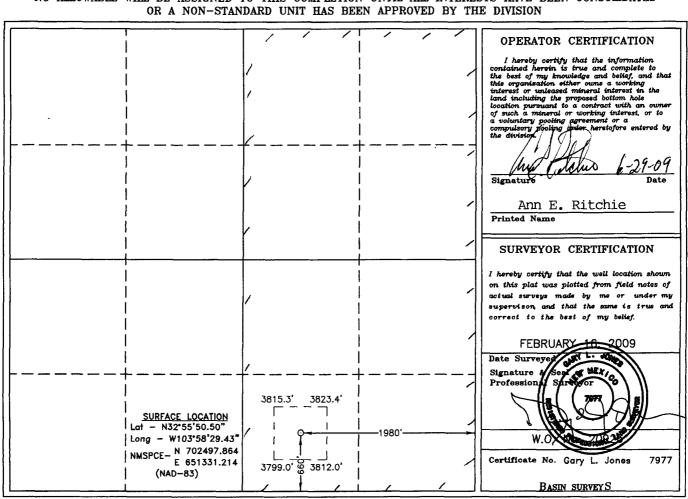
320

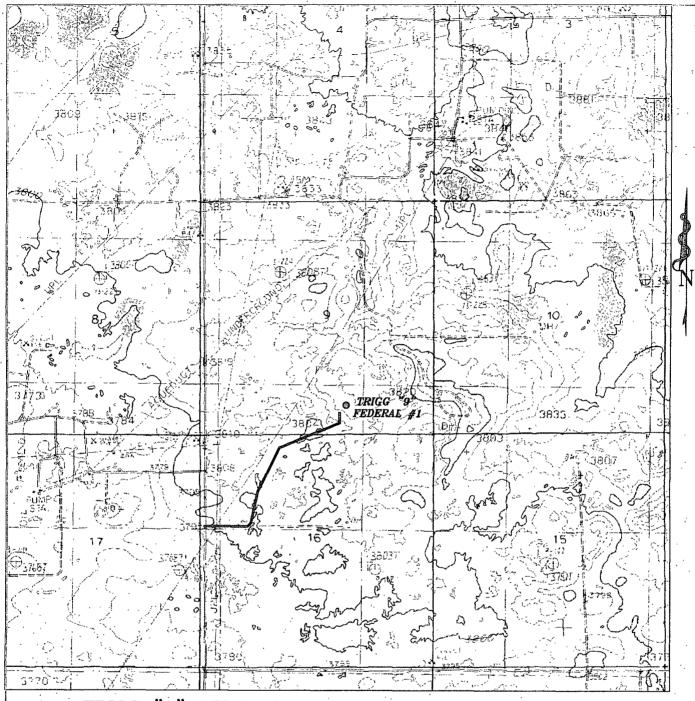
WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

	Number 5 · 37a	82	ł	Pool Code	26 H	endhaw:	Pool Name	ر	
	Property Code Property Name Well Number					ımber			
378	34	ļ	TRIGG "9" FEDERAL				1		
OGRID N	OGRID No. Operator Name Elevation								
19426	6		RUBICON OIL AND GAS, LLC 3816'				6 '		
					Surface Loc	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	9	16 S	30 E		660	SOUTH	1980	EAST	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
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Ore	der No.	I			L

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED



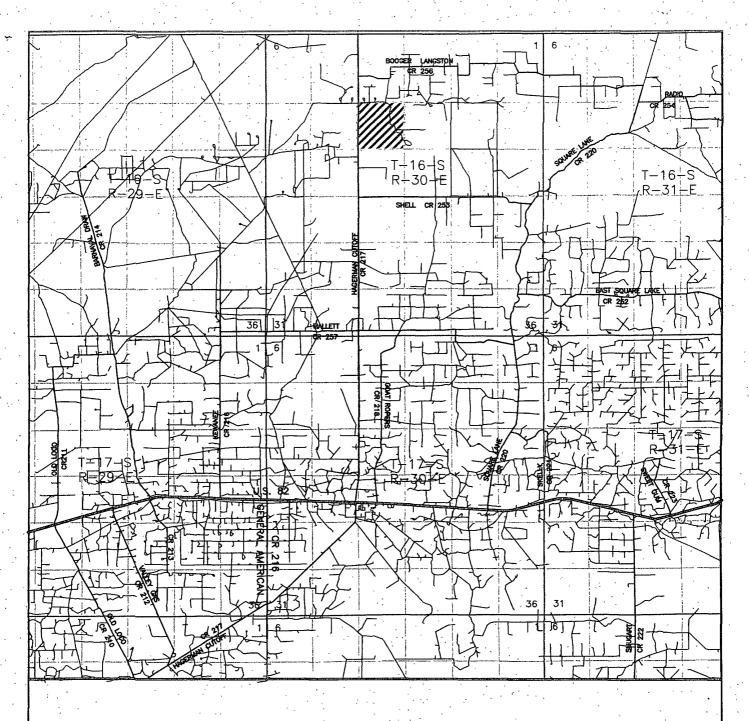


TRIGG "9" FEDERAL #1
Located 660' FSL and 1980' FEL
Section 9, Township 16 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



F.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 383-7316 - Office (505) 392-3074 - Fax W.O. Number: JMS 20926-21627
Survey Date: 68-14-2009
Socie: 1" = 2000'

RUBICON OIL AND GAS, LLC



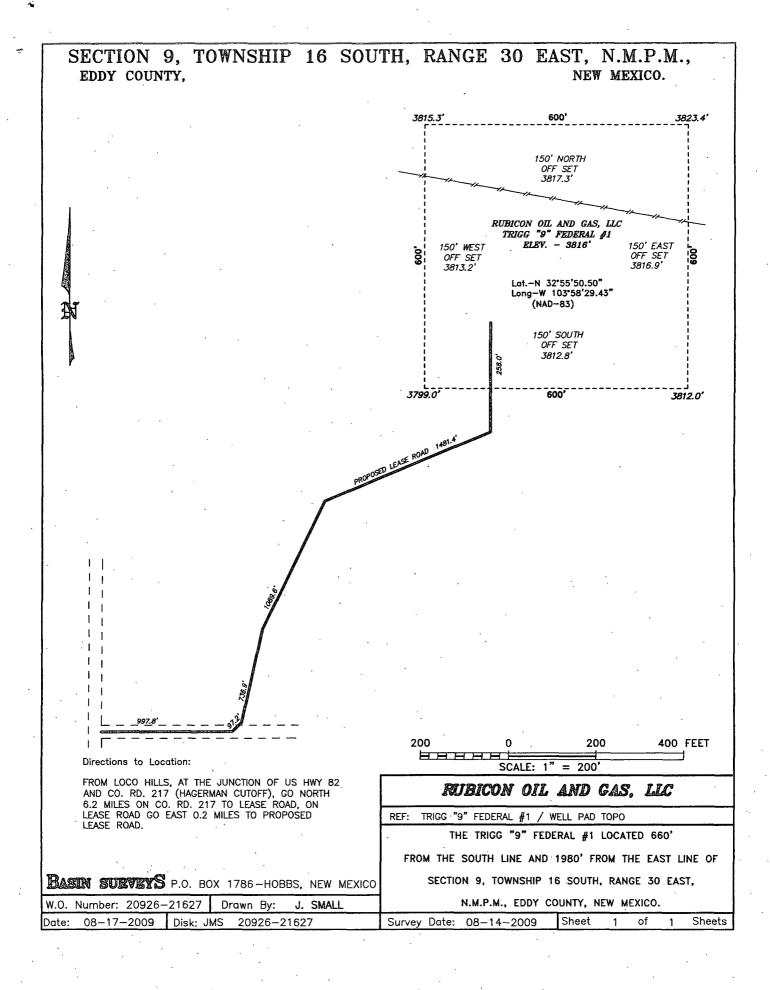
TRIGG "9" FEDERAL #1
Located 660' FSL and 1980' FEL
Section 9, Township 16 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

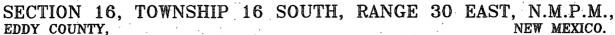


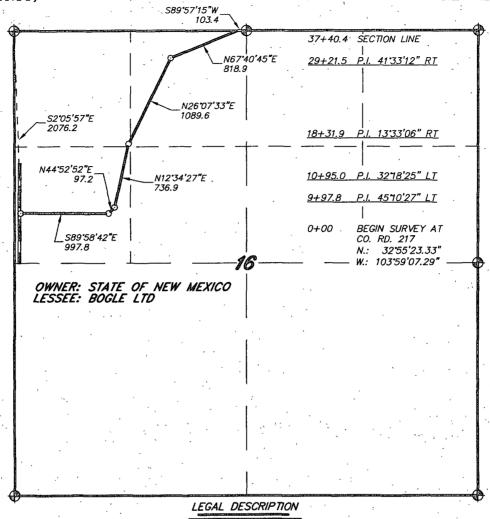
P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fox basinsurveys.com

Cardindrate d.	W.O. Number	. vMS	20926-	-21.62	7,
1	prina a managa sa	er temenseren	COLUMN TRANSPORT	es there	aran,
-	Survey Date:	08-1	4-2009		•
-	Sancra market ne indicatoria process I		ercologyandisch	CHARLESTEE	. ` =====
-	Scale: 1" = 2	'CŭO'	4		
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RUBICON OIL
AND GAS, LLC



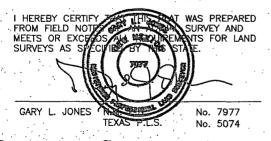




A STRIP OF LAND 20.0 FEET WIDE, LOCATED IN SECTION 16, TOWNSHIP 16 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT WHICH LIES S.02'05'57"E., 2076.2 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 16; THENCE S.89'58'42"E., 997.8 FEET; THENCE N.44'52'52"E., 97.2 FEET; THENCE N.12'34'27"E., 736.9 FEET; THENCE N.26'07'33"E., 1089.6 FEET; THENCE N.67'40'45"E., 818.9 FEET TO A POINT ON THE NORTH SECTION LINE WHICH LIES S.89'57'15"W., 103.4 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 16. SAID STRIP OF LAND BEING 3740.4 FEET OR 226.69 RODS IN LENGTH AND CONTAINING 1.72 ACRES, MORE OR LESS, AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

 $SW/4 \ NW/4 = 109.04 \ RODS = 0.83 \ ACRES$ $NW4 \ NW/4 = 4.66 \ RODS = 0.03 \ ACRES$ $NE/4 \ NW/4 = 112.99 \ RODS = 0.86 \ ACRES$



BASIN SURVEYS P.O. BOX 1786 -HOBBS, NEW MEXICO

W.O. Number: 20926-21627 | Drawn By: J. M. SMALL

Date: 02-17-2009 Disk: JMS 20926-21627

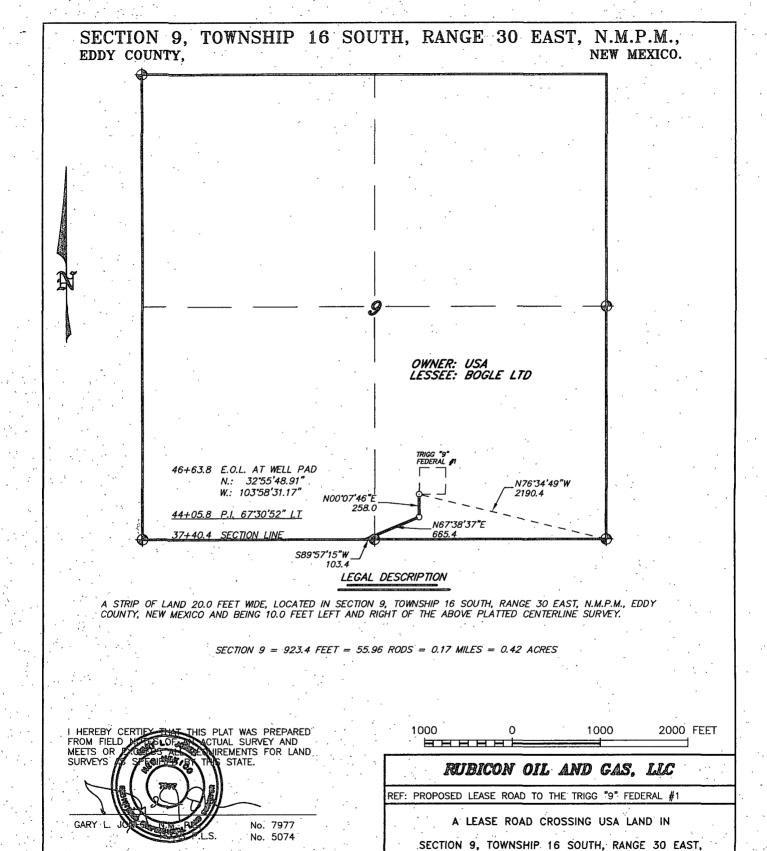
1000 0 1000 2000 FEET

RUBICON OIL AND GAS, LLC

REF: PROPOSED LEASE ROAD TO THE TRIGG "9" FEDERAL #1

A LEASE ROAD CROSSING STATE LAND IN
SECTION 16, TOWNSHIP 16 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 08-14-2009 | Sheet 1 of 2 Sheets

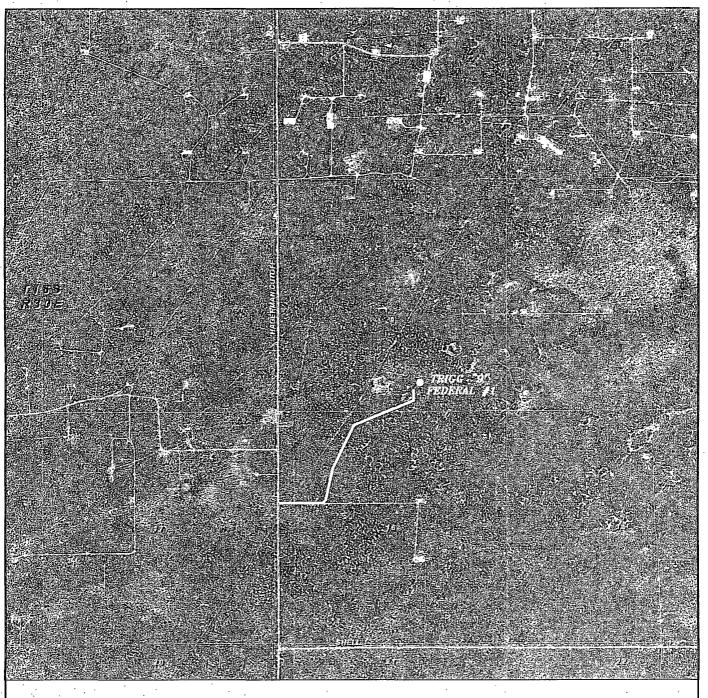


W.O. Number: 20926-21627 | Drawn By: J. M. SMALL

Date: 02-17-2009 | Disk: JMS 20926-21627 | Survey Date: 08-14-2009 | Sheet 2 of 2 Sheets

N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO



TRIGG "9" FEDERAL #1
Located 660' FSL and 1980' FEL
Section 9, Township 16 South, Range 30 East.
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1788 1120 N. West County Rd. Hobbs, New Mexico 38241 (575) 393-7316 - Office (575) 392-2208 - Fax

Socie. 1" = 2000'
Socie. 1" = 2000'
YELLOW TAN - USA LAND
SLUE TINT - STATT LAND
NATURAL COLOR - TEE LAND

RUBICON OIL AND GAS, LLC

Rubicon Oil & Gas, LLC Trigg Prospect

KB: TBD' GL: 3816'

Trigg 9 Fed 1
Eddy County, New Mexico
Proposed Wellbore
Eddy County, NM

Trigg 9 Fed 1
Eddy County, New Mexico
Proposed Wellbore
30-015-XXXX

Prod: TD'd:

Spud: 7/2009

Bit Size: 17-1/2" drilled to 450' 8.4-8.6 MW, 32+ Vis, FW Spud Mud

13-3/8" 48ppf H40 @ 450' w/ Cmt 450sks C 2% CC Circ to surface.

Bit Size: 12-1/4" drilled to 3000' 8.4-10.0 MW, 28 vis, FW w/ LCM sweeps for seepage

9-5/8" 36# J55 @ 3000' CMT w/ 550sks. C Interfill Lite 11.9 ppg, 2.1ft3/sk yld w/ 1/8# polyflake + 250 sks C 14.8 ppg, 1.26 ft3/sk yield w/ 2%CC. Circ to surface.

Bit Size: 8-3/4" drilled to 10,800' 3000'-6300' 8.4-8.6 MW FW & sweeps 6300'-10,800' 8.8-9.4 MW cutbrine salt gel & Starch

4-1/2" 11.60# HCP-110 LTC 10,800'

1) Cement 10,800' to 8000' 500 sks Super H w/ .5% Halad 4, .4% CFR-3, 3# salt, .2% HR 5. (1.73ft3/yld, 13ppg)

PBTD (FC): ~10,750' TD: ~10,800'

Cameron 5k 7-1/16" Wellhead

TOC planned 8000'.

Seecon

Queen ~ 2000'
Premier ~ 2700'
San Andres ~ 2800'
Tubb~ 5500'
Abo ~ 6300'
Wolfcamp ~ 7600'
Cisco~ 8700'
Strawn ~ 9950'
Atoka ~ 10250'
Morrow ~ 10400'
Morrow Clastics~ 10650'
TD Miss ~ 10700

Nine Point Drilling Plan (Supplement to BLM 3160-3)

Rubicon Oil & Gas, LLC

Trigg 9 Federal #1

Surface Location: Section 9, T-16-S, R-30-E, 660' FSL & 1980' FEL

Bottomhole Location: Same

Field: Henshaw Morrow

Eddy Co., NM

1. Name and estimated tops of geologic horizons:

Surface formation is the Quarternary Alluvium.

Queen ~2000', Premier~2700', San Andres ~2800, Tubb~5500, Abo~6300', Wolfcamp~7600', Cisco~8700', Strawn~9950', Atoka~10,250', Morrow~10,400', Morrow Clastics ~ 10,650', Miss ~ 10,700'

- Protection of possible useable water will be achieved by setting 13-3/8" surface casing @_450'+/- and cementing it to surface. Isolation of any evaporate/ analydrite section will be achieved by setting 9-5/8" casing @_3000' +/- and cementing back to surface. Isolation of the productive horizons will be achieved by setting 4-1/2" casing @_10,800' and cementing back to a depth of 8000'.
- 3. The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a 13-5/8"-2 ram BOP, annular BOP and choke manifold of comparable pressure rating. Equipment (except annular which is rated to 3000 psi) will be rated for 5000 PSI and will be tested to 5000 psi (except Annular which will be tested to 70% of rated working pressure = 2100 psi) prior to drilling out of the 9-5/8" intermediate casing. Prior to drilling out of the 13-3/8" surface casing the same equipment and casing shall be tested to 1211 PSI or 70% of the burst rating of the casing utilizing the rig pumps. A hydraulic closing unit will be a part of this equipment and will be function tested daily.
- 4. The casing strings will consist of the following:

Conductor 20" set @ 40'

Surface 13-3/8" OD, 48 #/ft, H40, STC, new pipe @ 450'+/- in 17-1/2" hole.

Intermediate: 9-5/8" OD, 36 #/ft, J55, STC, new pipe @ 3000+/- in 12-1/4" hole.

Production: 4-1/2" OD, 11.6#/ft, P110HC, LTC, new pipe @ 10,800+/- in 8-3/4" hole.

Minimum Casing Design Factors: Collapse 1.1, Burst 1.2, and Tensile Strength 1.8

5. Cementing programs for the above casing strings are:

See COR

Conductor @ 40' cemented to surface utilizing redi-mix cement

Surface @ 450': Slurry: 450 sks Class C with 2% Bentonite, 0.125% Cello Flake, yld ~ 1.35 cu ft/ sk, mixed @ 14.8 ppg

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 fresh water.

Intermediate 1 @ 3000':

Lead Slurry: 550 sks Class C Interfill, yld ~ 2.11 cu ft/sk, 11.9 #/gal

Tail Slurry: 250 sks Class C w/ 2% CaCl, yld ~ 1.34 cu ft/sk, 14.8#/gal

The above volume represents 50% excess over calculated hole volume - actual volumes will be adjusted to a fluid caliper run at TD of this hole section with 20% excess added. The cement slurries will be preceded by 20 bbls cement wash for mud removal and displaced with fresh water.

Production 1: 10,800 to \$800° See Cop

Slurry: 500 sks Class H Poz with additives, yld ~ 1.73 cu ft/sk, 13#/gal

Actual cement type and additives will be determined from hole conditions encountered and prospective zones determined from e-logs. Actual volumes pumped will be determined from an open hole caliper recorded over this interval.

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below and closed loop system as mandated by the NMOCD:

0-450': Gel/Lime "spud mud" 8.4-9.4 PPG. Utilize native solids to maintain

sufficient viscosity to clean hole. Mix paper as required to control

seepage loss.

450-3000': Brine water, 9.6 ppg to 10 ppg, with paper sweeps for seepage and to

insure hole cleaning.

3000-10,000': Fresh Water / Cut brine 8.4 – 9.4 Circulate thru steel pits utilizing solids

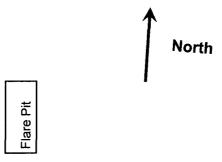
control.; sweeps for hole cleaning and LCM as needed for seepage.

10,000-11,000': Polymer/Brine 10.0 – 10.1 PPG Utilize polymers and starch to

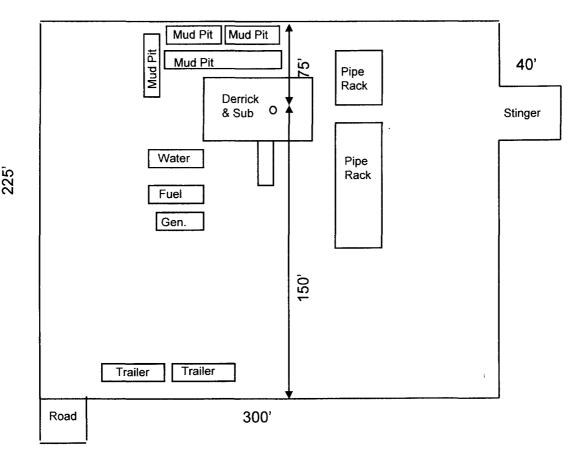
maintain fluid loss < 8 cc range and sufficient mud weights to stabilize shales and minimize any hydrocarbon influx. Utilize sweeps for hole

cleaning and LCM as needed for seepage.

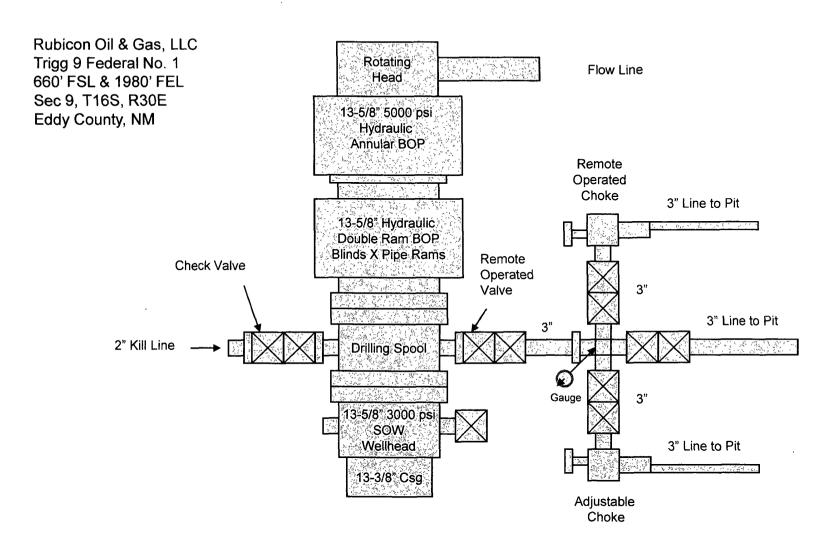
- 7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.
- 8. No drill stem testing or coring is planned for this wellbore. Mudlogging will commence at 6000' under the current plan. A Schlumberger Platform Express Triple Combo electric log suite or equivalent will be run at TD.
- 9. The estimated BHP at TD is not expected to exceed <u>5500</u> psi, and a BHT of <u>175</u> F is anticipated. There is no H2S present in the hydrocarbons being produced in this area. 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. 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.
- 10. It is estimated that this well will be drilled and cased in <u>32</u> days. Drilling will commence as soon approval is received and services can be contracted.



Closed Loop Mud system, No reserve



Rig & Well Site Plat Rubicon Oil & Gas, LLC Trigg 9 Federal 1 Section 9, T16S, R30E Eddy County, NM



5000 psi Working Pressure BOPE Configuration And Choke Manifold

Rubicon Oil & Gas, LLC Trigg 9 Fed, Well #1 Sec 9, T16S, R30E 660' FSL & 1980' FEL Eddy County, NM

H2S Contingency Plan

Rubicon Oil & Gas, LLC

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
 - Detection of H₂S, and
 - 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

Rubicon'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. Rubicon's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

Rubicon Oil & Gas, LLC

H₂S CONTINGENCY PLAN EMERGENCY CONTACTS

Company Office	432 687-5100
Answering Service (During Non-Office Hou	ırs) 432 664-9040
	·
Key Personnel	
Name Title	Phone Number
Hal Lee: Operations & Drilling Manager	432-683-6565(off); 432 664-9040 (cell)
Jerry Cox: Rig Supervisor	432 934-5668 (24 hr #)
JW Drilling: 575 746-6410	
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	5/5-/40-2122
New Mexico Oil Conservation Division	575-748-1283
<u>Carlsbad</u>	
Ambulanca	911
Ambulance	
State Police	575-885-2111
City Police	575-005-2111 575-997-7551
Sheriff's Office Fire Department	575-887-2708
Local Emergency Planning Committee	575-887-3798 575-887-6544
US Bureau of Land Management	575-887-6 <i>544</i>
	313-001-0344
New Mexico Emergency Response Commis	sion (Santa Fe) 505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations C	enter 505-476-9635
National Emergency Response Center (Was	shington, DC)800-424-8802
	•
Other	
Total Safety, 1101 S. Ist St., Artesia, NM 88	
Bobby Winn – Construction Supervisor	
Boots & Coots IWC	
Cudd PressureControl	
Halliburton	575-746-2757
Flight For Life – 4000 24th St. Lubbock, Texa	
Aerocare – R3, Box 49F, Lubbock, Texas	806-747-8923
Med Flight Air Amb – 2301 Yale Blvd SE #D	
S B Air Med Service – 2505 Clark Carr Loop	SE, Albuq., NM505-842-4949

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

Rubicon Oil & Gas, LLC Trigg 9 Federal #1 Section 8, T-16-S, R-30-E 660' FSL & 1980' FEL, Unit Ltr O

Field: Henshaw Morrow

Eddy County, NM

1. EXISTING ROADS - A "VICINITY MAP" and a "LOCATION VERIFCATION

MAP" by Basin Surveys are attached which show the location of existing roads and the area topography.

The road log to the location is as follows:

- a) From intersection of U.S. Hwy. #82 and Co. Rd. #217 (Hagerman cutoff). Go North 6.2 miles on Co. Rd. #217.
- b) Turn right or east on lease road for 2/10 mile, turn NE on new road 6/10 mile to location.
- 2. PLANNED ACCESS ROAD —Build approximately 3445' of new E-W access road to location as depicted on Basin survey.
- 3. LOCATION OF EXISTING WELLS EXHIBIT B shows the location of other wells within a mile radius of the proposed location.
- 4. LOCATION OF PROPOSED FACILITIES This production well will be tied new facilities built on location.
- 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 preparation of the drill site is available from a local source. It is not anticipated that a significant amount of material will be required as the terrain is relatively flat. Transportation will be over the existing roads.
- 7. METHODS FOR HANDLING WASTE DISPOSAL -
 - A closed system will be utilized for drilling (no reserve pits). Steel pits will be utilized to catch cuttings and drill fluids. All drill cuttings and drill fluids will be removed from the site and disposed at an approved facility.
 - 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.

- Any other waste generated by the drilling, completion, testing of this well will be removed from the site within 30 days of the completion of drilling or testing operations.
- 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.
- 8. ANCILLARY FACILITIES The drilling, completion, and/or testing of this well will require no ancillary facilities.
- 9. WELLSITE LAYOUT Attached, as EXHIBITS C & D are plats showing the anticipated orientation of the drilling rig and the pad.
- 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. 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.
- 11. OTHER INFORMATION The surface ownership of the drill site and the access routes are under the control/ownership of:

Bureau of Land Management

P. O. Box 1778

Carlsbad, New Mexico 88221-1778

505-234-5972

The BLM representative for this area is Barry Hunt who can be reached at the above number, or 505-361-4078.

The site was archaeologically surveyed in February 2009. Danny Boone, the registered archeological surveyor, should forward a copy of that report to the BLM.

12. OPERATORS REPRESENTATIVE – Rubicon Oil & Gas, LLC is covered by Statewide Bond No. B32644643, BLM Bond # 2922, Oil & Gas State of New Mexico Blanket Plugging Bond B32644641.

Rubicon is represented by:

Brett Smith

Rubicon Oil & Gas, LLC

(432) 687-5100

Agent / Operations Manager:

Hal Lee

Cell (432) 664-9040

Office (432) 683-6565

13. OPERATORS CERTIFICATION

I hereby certify that I, Hal Lee -Operations Manager, have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are to the best of my knowledge true and

y Back

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Rubicon Oil & Gas, LLC 194266

Sec. 9, T16S, R30E

Trigg 9 Federal Lease

Eddy County, New Mexico

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

Lease Name & Well Number	Trigg 9 Federal, Well #1	- the shadoward			
Federal Lease Number:	BLM 07725				
Legal Description of Land: _	Sec. 9, T16S, R30E				
Formation:	Morrow				
Bond Coverage: NMB B32644641 (BLM Bond #2922) Authorized Signature:					
Printed Name: Hal Lee					
Title: Engineer					

Date: 6-25-09

Address: 508 W. Wall, Suite 500, Midland, TX 79701

Telephone No.: office: 432 683-6565; cell: 432 664-9040

correct; and that the work associated with operations herein will be performed by Rubicon Oil & Gas, LLC and it's contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

Name and title: Hal Lee, Agent and Operations Signature:	
Signature:	lanager for Rubicon Oil & Gas, Ll
' ' n m	
Date: 6/14/09	

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Rubicon Oil & Gas	-			-
LEASE NO.:	NM7725		. *		
WELL NAME & NO.:	1-Trigg 9 Fed	÷ 5	`,	,	
SURFACE HOLE FOOTAGE:	660' FSL & 1980' FEL				
BOTTOM HOLE FOOTAGE	Same	-			
LOCATION:	Section 9, T. 16 S., R 30 E., NMPM	•		· ;	
COUNTY:	Eddy County, New Mexico				

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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.

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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)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Low profile tanks: Upon installation of storage tanks/collection facility, low profile tanks will be required

Interim reclamation: Upon completion of the well, the drilling pad will be reclaimed to only the size needed for operations

V-Door: East

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 (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 shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

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.

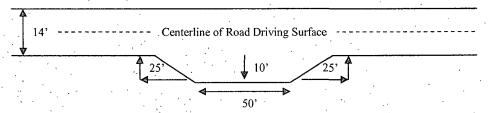
Ditching

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

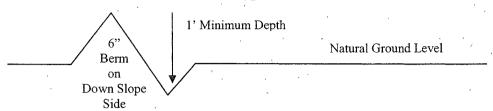


Drainage

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 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

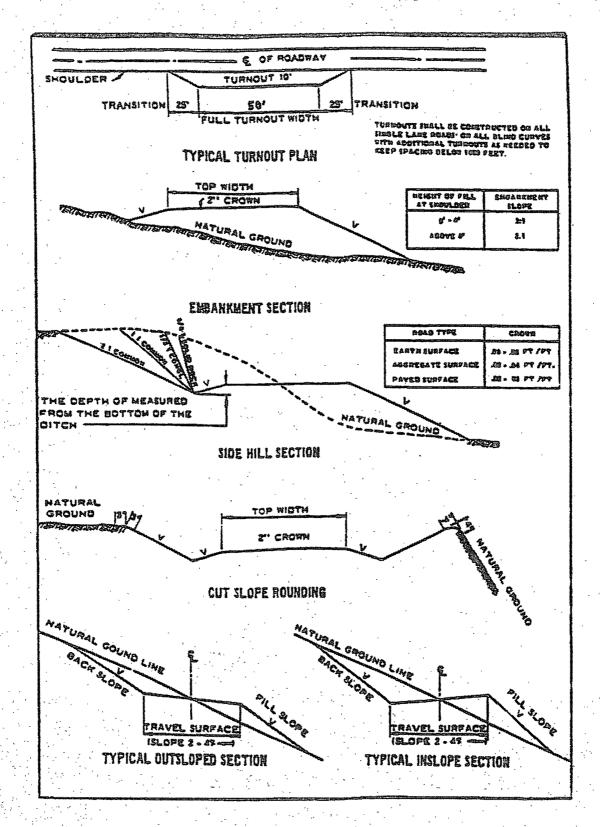
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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

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 potential hazard. 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. The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. The Rustler top and top and bottom of Salt is to be recorded on the Completion Report.

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.

Possible brine and water flows in the Salado and Artesia groups. Possible loss of circulation in the Grayburg and San Andres formations. Possible over pressure in the Atoka Clastics.

- 1. The 13-3/8 inch surface casing shall be set at approximately 450 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is penetrated, set casing shoe at least 25 feet above the top of salt.
 - 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.
 - 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.
- The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

 \sum Cement to surface. If cement does not circulate see B.1.a, c-d above.

 The minimum required fill of cement behind the 4-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. Cement volume submitted is inadequate to reach the required depth.

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.

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 **2000 (2M)** 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. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 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. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
 - f. 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. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

DHW 090809

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the west side of the well pad to allow for maximum interim recontouring and revegetation of the east side of the well location. The storage tanks shall be located on the west side of the pad to obstruct view of the wildlife water unit toward the west

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

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.

Interim reclamation shall begin on the east side of the pad to reduce the size of the pad as soon as possible. During interim reclamation, any portion of the road that was widened to allow rig entry shall be reduced down to standard width.

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 for LPC Sand/Shinnery 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 <u>no</u> 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:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	11bs/A

^{**}Four-winged Saltbush

5lbs/A

Pounds of seed x percent purity x percent germination = pounds pure live seed

^{*} This can be used around well pads and other areas where caliche cannot be removed.

^{*}Pounds of pure live seed:

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.

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

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.