AT S-09-311
EA-09-540

OCD-HOBBS

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MAY 22 2009
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Form 3160-3
(April 2004)

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

Split Estate

5 Lease Serial No NMLC-~~049648B~~ 029406 B	
6 If Indian, Allotee or Tribe Name CR	
1a Typeofwork- ☒ 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 <306387> Grace Mitchell B Federal #10
2 Name of Operator Mack Energy Corporation <13837>	9 API Well No 30-025-39411
3a Address P.O. Box 960 Artesia, NM 88211-0960	3b PhoneNo *(include area code)* (575)748-1288
	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 2310 FSL & 1650 FEL Unit J At proposed prod zone **ROSWELL CONTROLLED WATER BASIN**	11 Sec , T R M or Blk and Survey or Area Sec. 5 T17S R32
14 Distance in miles and direction from nearest town or post office* 12 miles north/northwest of Loco Hills, NM	12 County or Parish Lea 13 State NM
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any) 330	16 No of acres in lease 480 17 Spacing Unit dedicated to this well 40
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1320	19 Proposed Depth 5000' 20 BLM/BIA Bond No on file NMB000286
21 Elevations (Show whether DF, KDB, RT, GL, etc) 4098' GR	22 Approximate date work will start* 4/24/09 23 Estimated duration 10 days

24 Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall 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 shall 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 authorized officer.

25 Signature Jerry W. Sherrell	Name *(Printed/Typed)* Jerry W. Sherrell	Date 3/24/2009
Title Production Clerk		
Approved by *(Signature)* **/s/ James Stovall**	Name *(Printed/Typed)*	Date MAY 18 2009
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrantor certify that the applicant holds lega orequitable 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 ofthe United States any false, fictitious or fraudulent statements or representations as to any matter within its juris iction

(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

SURFACE USE AGREEMENT

This Surface Use Agreement is by and between Olane Caswell and wife Ladoyce Caswell of 1702 Gillham, Brownfield, Texas 79316 ("Owner"), and Mack Energy Corporation of P.O. Box 960, Artesia, New Mexico 88211("Mack").

WHEREAS, Owner is the owner of the surface estate of Section 5, T17S, R32E, Lea County, New Mexico ("Lands"); and

WHEREAS, Mack is preparing to conduct oil and gas operations on the Lands, and

WHEREAS, Owner and Mack desire to enter into an agreement governing the use of the Lands by Mack in its oil and gas operations

NOW THEREFORE, for and in consideration of the sum of Ten and NO/100 Dollars ($10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, Owner and Mack agree to the following terms and conditions:

Prior to entry upon the Lands for any activity that does not disturb the surface (staking, surveys, inspections, etc.); Mack will provide not less than 24 hours notice by mail, telephone, or personal contact with Owner.

Prior to entry upon the Lands to commence any other operations for the exploration of oil and gas or preparation of the surface therefore, Mack will provide not less than 24 hours notice by mail, telephone, or personal contact with Owner.

Mack agrees to pay Owner for damages to the lands in accordance with the Damage Schedule attached hereto as Exhibit "A." Owner agrees that the damages paid hereunder will constitute all damages to which Owner is entitled to receive or claim and that in consideration of the amounts paid hereunder, Owner releases and waives any additional claims for damages as to the Lands outside of the terms and conditions of this Agreement.

Owner grants Mack the right to use and improve existing roads and well pads as Mack deems appropriate for its operations on the Lands.

Mack agrees to control water runoff, soil erosion, weeds, litter and dust to the best of its ability.

Mack agrees, upon cessation of oil and gas operations on said Lands, to restore, to the extent reasonably possible, the surface of the Lands to its condition as of the date hereof or as otherwise agreed to between Owner and Mack.

Contact Information:

Owner

Name:	Olane Caswell
Address:	1702 Gillham
	Brownfield, Texas 79316
Telephone:	806-637-7004

575 674 2222 Ranch
806 777 0584 Olane cell
806 777 0583 wife's cell

OR

Name:	~~Jodie Garlitz~~ X
Telephone:	~~575~~-

Mack

Name:	Ronald W. Lanning
Address:	P.O. Box 960
	Artesia, New Mexico 88211
Telephone 1:	575-748-1288 office
Telephone 2:	575-746-5516 cellular
Facsimile:	575-748-7374
Email:	rlanning@mackenergycorp.com

OR

Name:	Joel Bell
Telephone:	575-746-7835

Owner represents and warrants that it is entitled to receive all of the compensation for the damages to the Lands and agrees to indemnify and hold Mack harmless as to all claims by any other legal, equitable or beneficial owners of the Lands as may be shown in the records of the county in which the Lands are located.

As further consideration for the sums paid hereunder, Owner waives all rights, causes of action, claims or damages to which Owner might otherwise be entitled pursuant to the Surface Owners Protection Act, a copy of which is attached hereto as Exhibit "B." Owner and Mack agree that this Surface Use Agreement will be the exclusive remedy between the parties as to damages to the Lands attributable to Mack's oil and gas operations on the Lands.

Mack's rights under this Agreement shall be in addition to, and shall not diminish any rights under its oil and gas leases covering all or any portion of the Lands. Venue for cause of action hereunder shall be in accordance with the laws of the State of New Mexico and venue shall be the Fifth Judicial District Court, Eddy County, New Mexico.

This Agreement may be amended in writing by mutual agreement of Owner and Mack at any time.

The term of this Agreement shall be five (5) years from the date of Owner's execution hereof.

EXECUTED, this 28 day of January 2009.

Owner

Olane Caswell

Olane Caswell

Ladoyce Caswell

Ladoyce Caswell

Mack

Mack Energy Corporation

Ronald W. Lanning
Attorney in Fact

STATE OF TEXAS §
§
COUNTY OF TERRY §

The foregoing instrument was acknowledged before me this 28th day of January 2009, by Olane Caswell and wife, Ladoyce Caswell.

Susan Pickett
Notary Public

My Commission Expires: 9-2-2012

SUSAN PICKETT
Notary Public, State of Texas
My Comm. Expires 9-2-2012

STATE OF NEW MEXICO §
§
COUNTY OF EDDY §

The foregoing instrument was acknowledged before me this 13th day of January 2009 by Ronald W. Lanning, Attorney in Fact for Mack Energy Corporation, a New Mexico corporation.

OFFICIAL SEAL
STACI D. SANDERS
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 2-15-09

Staci D. Sanders
Notary Public

EXHIBIT "A"

Damage Schedule

Locations:	D.C. $5,000.00 per location
New Roads:	$30.00 per rod
Pipelines:	$30.00 per rod
Electric Lines:	$10.00 per rod

EXHIBIT "B"

AN ACT

RELATING TO THE PRODUCTION OF OIL AND GAS; ENACTING THE SURFACE OWNERS PROTECTION ACT; STATING CERTAIN DUTIES OWED BY OIL AND GAS OPERATORS TO SURFACE OWNERS; REQUIRING NOTICE TO THE SURFACE OWNER OF OIL AND GAS OPERATIONS; REQUIRING A BOND OR OTHER SURETY IN CERTAIN CIRCUMSTANCES; PROVIDING FOR THE AWARD OF TREBLE DAMAGES IN CERTAIN CIRCUMSTANCES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. SHORT TITLE.--This act may be cited as the "Surface Owners Protection Act".

Section 2. APPLICABILITY.--The Surface Owners Protection Act applies to:

A. private fee surface land; and

B. leasehold interests in any land on which oil and gas operations are conducted when the tenant incurs damages to leasehold improvements as a result of oil and gas operations.

Section 3. DEFINITIONS.--As used in the Surface Owners Protection Act:

A. "oil and gas operations" means all activities affecting the surface owner's land that are associated with exploration, drilling or production of oil or gas, through final reclamation of the affected surface;

B. "operator" means a person with the legal right

to conduct oil and gas operations and includes the agents, employees and contractors of that person;

C. "reclaim" means to substantially restore the surface affected by oil and gas operations to the condition that existed prior to oil and gas operations, or as otherwise agreed to in writing by the operator and surface owner;

D. "surface owner" means a person who holds legal or equitable title, as shown in the records of the county clerk, to the surface of the real property on which the operator has the legal right to conduct oil and gas operations;

E. "surface use and compensation agreement" means an agreement between an operator and a surface owner specifying the rights and obligations of the surface owner and the operator concerning oil and gas operations; and

F. "tenant" means a person who occupies land or premises belonging to another in subordination to the owner's title and with the owner's assent, express or implied.

Section 4. COMPENSATION FOR OIL AND GAS OPERATIONS.--

A. An operator shall compensate the surface owner for damages sustained by the surface owner, as applicable, for loss of agricultural production and income, lost land value, lost use of and lost access to the surface owner's land and lost value of improvements caused by oil and gas operations. The payments contemplated by this section only cover land

affected by oil and gas operations.

B. An operator shall not be responsible for allocating compensation between the surface owner and any tenant, except that an operator shall compensate a tenant of the surface owner for any leasehold improvements damaged as a result of the operator's oil and gas operations if the improvements are approved and authorized by the surface owner. The compensation shall equal the cost of repairing or replacing the improvements.

C. An operator shall reclaim all the surface affected by the operator's oil and gas operations.

Section 5. NOTICE OF OPERATIONS--PROPOSED SURFACE USE AND COMPENSATION AGREEMENT.--

A. Prior to initial entry upon the land for activities that do not disturb the surface, including inspections, staking, surveys, measurements and general evaluation of proposed routes and sites for oil and gas operations, the operator shall provide at least five business days' notice by certified mail or hand delivery to the surface owner.

B. No less than thirty days before first entering the surface of the land to conduct oil and gas operations, an operator shall, by certified mail or hand delivery, give the surface owner notice of the planned oil and gas operations. The notice shall include:

(1) sufficient disclosure of the planned oil and gas operations to enable the surface owner to evaluate the effect of the operations on the property;

(2) a copy of the Surface Owners Protection Act;

(3) the name, address, telephone number and, if available, facsimile number and electronic mail address of the operator and the operator's authorized representative; and

(4) a proposed surface use and compensation agreement addressing, at a minimum and to the extent known, the following issues:

(a) placement, specifications, maintenance and design of well pads, gathering pipelines and roads to be constructed for oil and gas operations;

(b) terms of ingress and egress upon the surface of the land for oil and gas operations;

(c) construction, maintenance and placement of all pits and equipment used or planned for oil and gas operations;

(d) use and impoundment of water on the surface of the land;

(e) removal and restoration of plant life;

(f) surface water drainage changes;

(g) actions to limit and effectively

control precipitation runoff and erosion;

(h) control and management of noise, weeds, dust, traffic, trespass, litter and interference with the surface owner's use;

(i) interim and final reclamation;

(j) actions to minimize surface damages to the property;

(k) operator indemnification for injury to persons caused by the operator; and

(l) an offer of compensation for damages to the surface affected by oil and gas operations.

C. The notices required by this section shall be given to the surface owner at the address shown by the records of the county clerk at the time the notice is given. If legal title and equitable title are not held by the same person, notice shall be given to both the holder of legal title and to the holder of equitable title at the addresses shown by the records of the county clerk at the time the notice is given.

D. Upon receipt of the notice required by Subsection B of this section, the surface owner may:

(1) accept the proposed surface use and compensation agreement within twenty days; or

(2) reject the proposed surface use and compensation agreement; provided that, failure to accept the proposed agreement within twenty days shall be deemed to be a

rejection by the surface owner. If the proposed agreement is rejected, the surface owner may enter into negotiations with the operator, including, if the parties agree, binding arbitration or mediation.

E. Notices required by the Surface Owners Protection Act shall be deemed to have been received five days after mailing by certified mail or immediately upon hand delivery.

F. The operator and the surface owner may enter into a mutually acceptable agreement that sets forth the rights and obligations of the parties with respect to the surface activities conducted by the operator.

Section 6. ENTRY WITHOUT AGREEMENT--BOND.--If, after thirty days from a surface owner receiving notice pursuant to Subsection B of Section 4 of the Surface Owners Protection Act, no surface use and compensation agreement has been entered into, the operator may enter the surface owner's property and conduct oil and gas operations:

A. after depositing a surety bond, letter of credit from a banking institution, cash or a certificate of deposit with a New Mexico surety company or financial institution for the benefit of the surface owner in the amount of ten thousand dollars ($10,000) per well location. The surety bond, letter of credit, cash or certificate of deposit shall only be released by the surety company or financial

institution if:

(1) the surface owner provides notice that compensation for damages has been paid;

(2) the surface owner and the operator have executed a surface use and compensation agreement or otherwise agreed that the security should be released;

(3) there has been a final resolution of the judicial appeal in any action for damages and any awarded damages have been paid; or

(4) all wells have been plugged and abandoned and the operator has not conducted oil and gas operations on the surface owner's property for a period of six years; or

B. after posting a blanket surety bond, letter of credit from a banking institution, cash or a certificate of deposit with a New Mexico surety company or financial institution in the sum of twenty-five thousand dollars ($25,000) subject to the following criteria:

(1) the surety company or financial institution shall hold the corporate surety bond, letter of credit, cash or certificate of deposit for the benefit of the surface owners of this state and shall ensure that such security is in a form readily payable to a surface owner awarded damages in an action brought pursuant to the Surface Owners Protection Act;

(2) the bond, letter of credit, cash or certificate of deposit shall remain in full force and effect as long as the operator continues oil and gas operations in New Mexico;

(3) the bond, letter of credit, cash or certificate of deposit shall not be released until six years after the operator has deposited with the surety company or financial institution a certified statement from the oil conservation division of the energy, minerals and natural resources department that, according to the records of the division, the operator is not the operator of record of any well in New Mexico and does not hold any outstanding drilling permits in New Mexico; and

(4) in the event that, pursuant to a judgment, all or a portion of the bond, letter of credit, cash or certificate of deposit has been used to pay a surface owner, the operator shall immediately post additional security so that the total amount posted equals twenty-five thousand dollars ($25,000) and, if the operator does not post the additional security, the surety or financial institution shall publish notice to that effect in a paper of general circulation in each county of the state in which oil or gas is produced.

Section 7. DAMAGES.--In an action brought pursuant to the Surface Owners Protection Act, if the court finds that

compensation is owed under Section 3 of the Surface Owners Protection Act, the court may also award the prevailing party:

A. attorney fees and costs if:

(1) the operator conducted oil and gas operations without providing notice as required by Subsection B of Section 4 of the Surface Owners Protection Act;

(2) the operator conducted oil and gas operations without a surface use and compensation agreement and before depositing a bond or other surety as required by Section 5 of the Surface Owners Protection Act;

(3) the operator conducted oil and gas operations outside the scope of a surface use and compensation agreement and, when entering into the agreement, knew or should have known that oil and gas operations would be conducted outside the scope of the agreement; or

(4) the surface owner failed to exercise good faith in complying with the provisions of the Surface Owners Protection Act or the terms of a surface use and compensation agreement; or

B. attorney fees, costs and treble damages if the court finds, by clear and convincing evidence, that:

(1) the operator willfully and knowingly entered upon the premises for the purpose of commencing the drilling of a well:

(a) without giving notice of the entry

as required by Subsection B of Section 4 of the Surface Owners Protection Act; or

(b) without a surface use and compensation agreement with the surface owner and before depositing a bond or other surety pursuant to Section 5 of the Surface Owners Protection Act; or

(2) either the surface owner or the operator willfully and knowingly violated the surface use and compensation agreement.

Section 8. REMEDIES NOT EXCLUSIVE.--The remedies provided by the Surface Owners Protection Act are not exclusive and do not preclude a person from seeking other remedies allowed by law.

Section 9. EMERGENCY SITUATIONS.--Notwithstanding any provisions of the Surface Owners Protection Act to the contrary, no notice, surface use and compensation agreement or bond shall be required in emergency situations for activities to protect health, safety or the environment.

Section 10. TEMPORARY PROVISION--APPLICABILITY.--The provisions of the Surface Owners Protection Act apply to all oil and gas operations commenced on or after July 1, 2007 except:

A. maintenance and ongoing production activities related to an oil or gas well producing or capable of producing oil or gas on June 30, 2007 for which the operator

has a valid permit from the oil conservation division of the energy, minerals and natural resources department, provided that:

(1) reentries, workovers and other oil or gas operations are subject to that act if the activities disturb additional surface; and

(2) the duty to reclaim, as stated in Subsection C of Section 3 of that act, is applicable to such a well that is not plugged and abandoned on July 1, 2007; and

B. oil and gas operations conducted within the scope of an agreement, entered into prior to July 1, 2007, between a surface owner and an operator that sets forth the rights and obligations of the parties with respect to surface activities conducted by the operator.

Section 11. EFFECTIVE DATE.--The effective date of the provisions of this act is July 1, 2007.

RECEIVED
MAY 22 2009
HOBBSOCD

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
12310 S. ST. FRANCIS DR., SANTA FE, NM 871650

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
12310 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 871650

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-39411	43329	Maljamar; Grayburg-San Andres

Property Code	Property Name	Well Number
306387	GRACE MITCHELL B FEDERAL	10

OGRID No.	Operator Name	Elevation
013837	MACK ENERGY CORPORATION	4098'

Surface Location

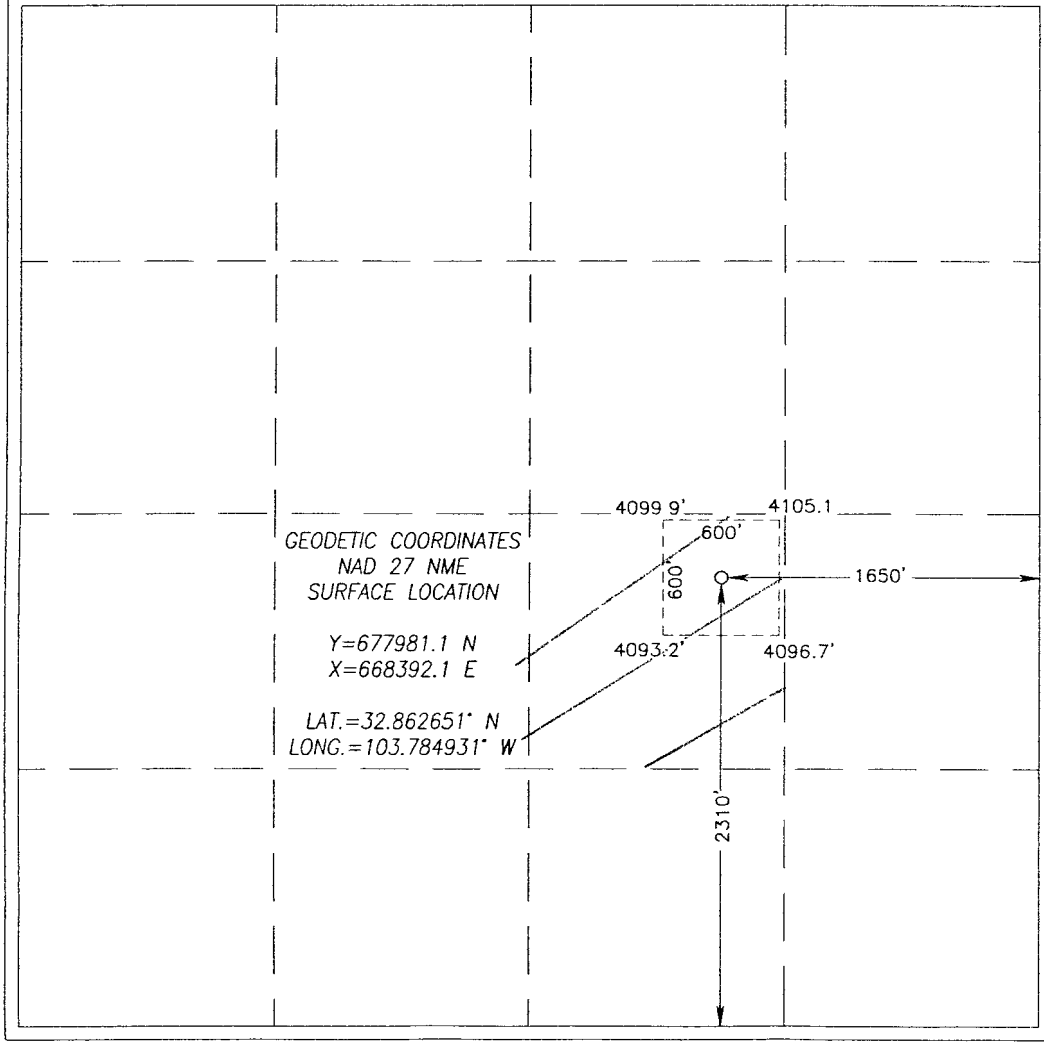
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	5	17-S	32-E		2310	SOUTH	1650	EAST	LEA

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			

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 that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jerry W. Sherrell 3-24-09
Signature Date

Jerry W. Sherrell
Printed Name

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

FEBRUARY 9, 2009
Date Surveyed DSS

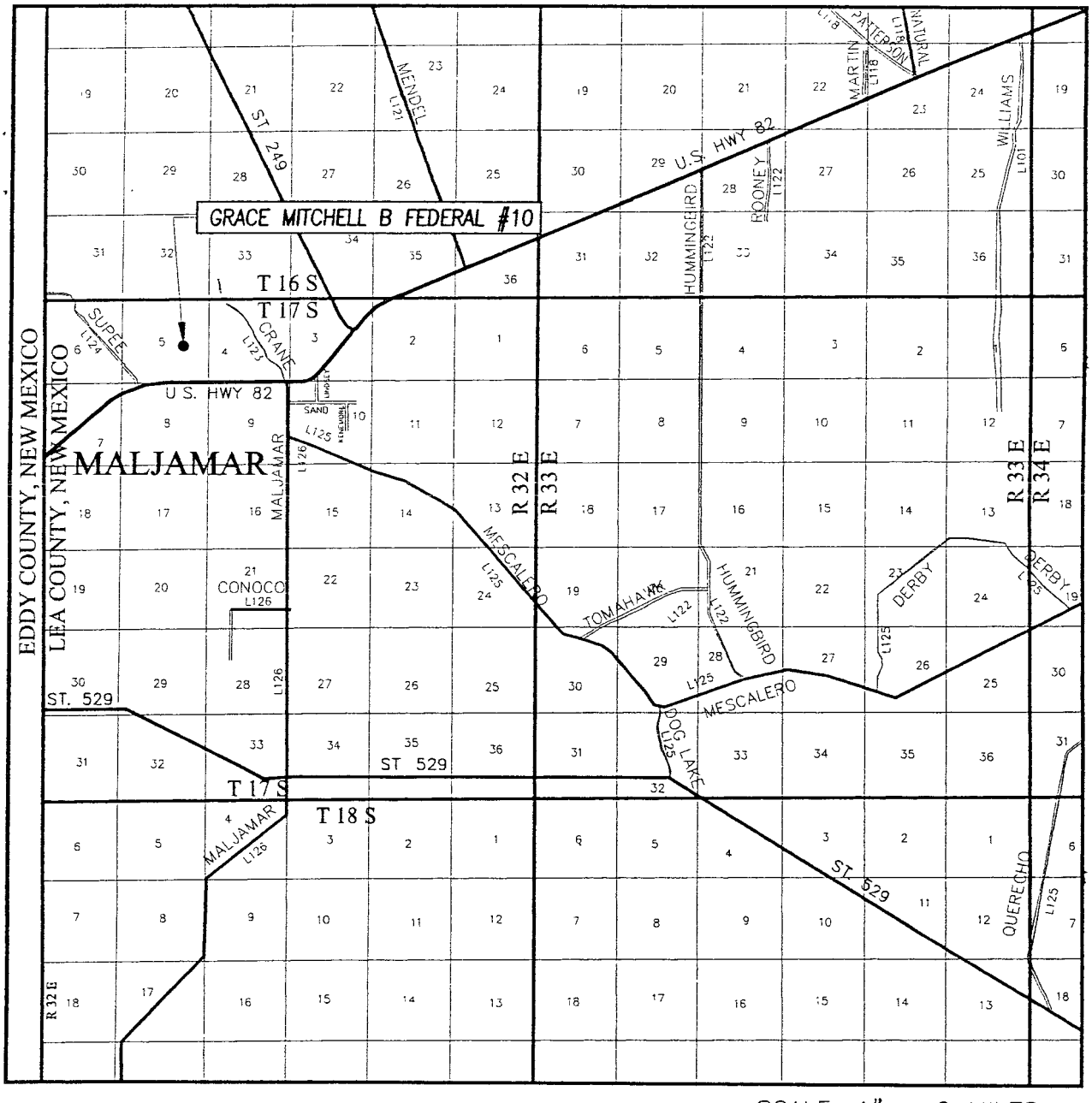
Signature & Seal of Professional Surveyor

Ronald J. Eidson 02/20/09

09.11.0101

Certificate No. GARY G. EIDSON 12641
RONALD J. EIDSON 3239

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 5 TWP. 17-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2310' FSL & 1650' FEL

ELEVATION 4098'

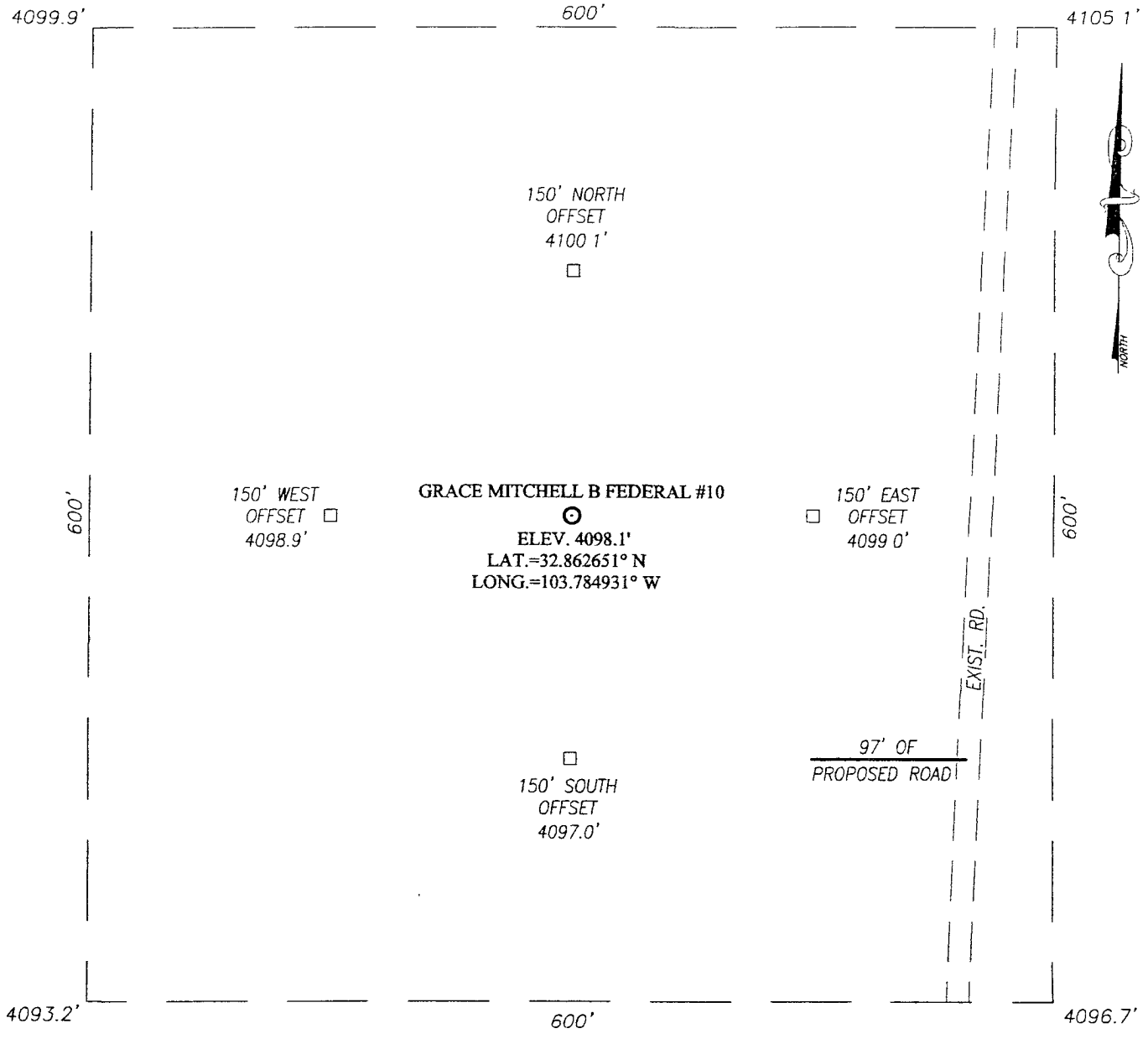
OPERATOR MACK ENERGY CORPORATION

LEASE GRACE MITCHELL B FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

SECTION 5, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. #82 AND MALJAMAR RD., GO WEST ON HWY. #82 APPROX. 1.2 MILES. TURN RIGHT AT CATTLE GUARD AND GO NORTH APPROX. 0.3 MILES. TURN LEFT AND GO WEST APPROX. 0.1 MILE. VEER RIGHT AND GO NORTH APPROX. 0.2 MILES. TURN LEFT AT PROPOSED ROAD SURVEY AND GO WEST APPROX. 97 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

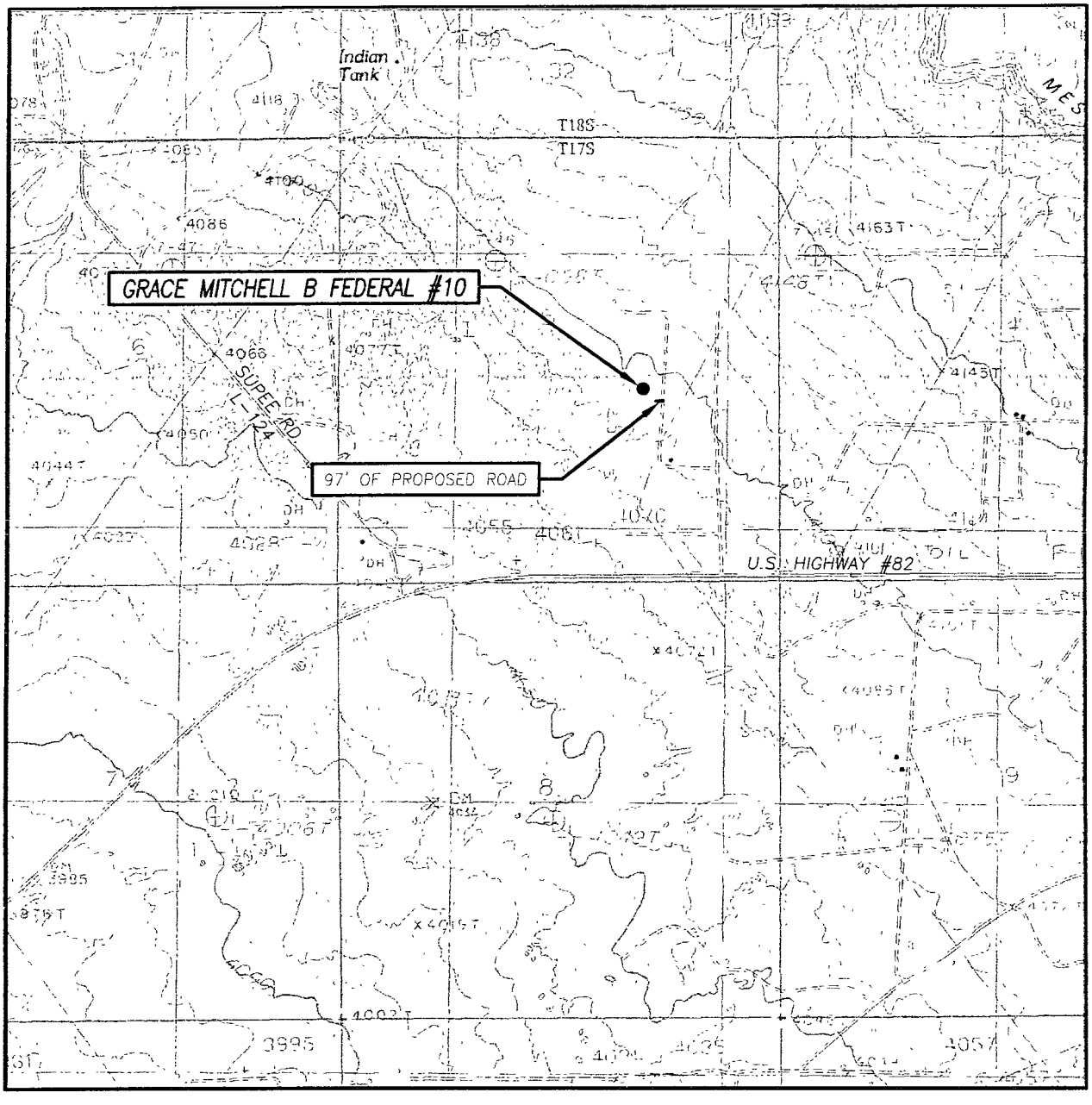
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

MACK ENERGY CORPORATION

GRACE MITCHELL B FEDERAL #10 WELL
LOCATED 2310 FEET FROM THE SOUTH LINE
AND 1650 FEET FROM THE EAST LINE OF SECTION 5,
TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 2/9/09	Sheet 1 of 1 Sheets		
W.O. Number: 09.11.0101	Dr By: DSS	Rev 1:	
Date: 2/19/09		09110101	Scale: 1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MALJAMAR, N.M. – 10'

SEC. 5 TWP. 17-S RGE 32-E

SURVEY N.M P.M

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2310' FSL & 1650' FEL

ELEVATION 4098'

OPERATOR MACK ENERGY CORPORATION

LEASE GRACE MITCHELL B FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

Attached to Form 3160-3
Mack Energy Corporation
Grace Mitchell B Federal #10
2310 FSL & 1650 FEL
Unit J, Sec. 5 T17S R32E
Lea County, NM

DRILLING PROGRAM

1. **Geologic Name of Surface Formation**

   Quaternary

2. **Estimated Tops of Important Geologic Markers:**

Quaternary	Surface
Queen	630'
San Andres	1350'
~~Glorieta~~	~~2780'~~
Abo	4700'

3. **Estimated Depths of Anticipated Fresh Water, Oil and Gas:**

Water Sand	50'	Fresh Water
San Andres	1350'	Oil/Gas
~~Glorieta~~	~~2780'~~	~~Oil/Gas~~
Abo	4700'	Oil/Gas

~~No other~~ formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 8 5/8" casing to 950' and circulating cement back to surface will protect the surface fresh water sand. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 1/2" production casing, sufficient cement will be pumped to circulate back to surface.

4. **Casing Program:**

Hole Size	Interval	OD Casing	Wt, Grade, Jt, cond, collapse/burst/tension
12 ¼"	0-950'	8 5/8"	24#, J-55, ST&C, New, 2.950/5.570/5.900
7 7/8"	0-5000'	5 1/2"	17#, L-80, LT&C, New, 2.372/2.722/2.580

5. **Cement Program:**

   8 5/8 Intermediate Casing: Class C, 850sx, yield 1.32.

   5 1/2" Production Casing: Class C, 1000sx, yield 1.32.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (3000 psi WP) minimum preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on bottom. The conductor pipe will have a flow nipple installed. The BOP will then be nippled up on the 8 5/8" surface casing and tested by a 3rd party to 2000 psi and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of surface casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #10) will include a Kelly cock and floor safety valve and choke lines and choke manifold (Exhibit #11) with a minimum 3000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-950'	Fresh Water	8.5	28	N.C.
1150'-TD	Cut Brine	9.1	29	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

8. Auxiliary Well Control and Monitoring Equipment:

A. Kelly cock will be kept in the drill string at all times.

B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program:

A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be ran from T.D. to 8 5/8 casing shoe.

B. Drill Stem test is not anticipated.

C. No conventional coring is anticipated.

D. Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows and log evaluation.

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 2250 psig. Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H2S may be present while drilling of the well; a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is April 24, 2009. Once commenced, the drilling operation should be finished in approximately 12 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

1. Well Site Layout:

A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #6. Dimensions of the pad are shown. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.

B. Diagram below shows the proposed orientation of the location. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

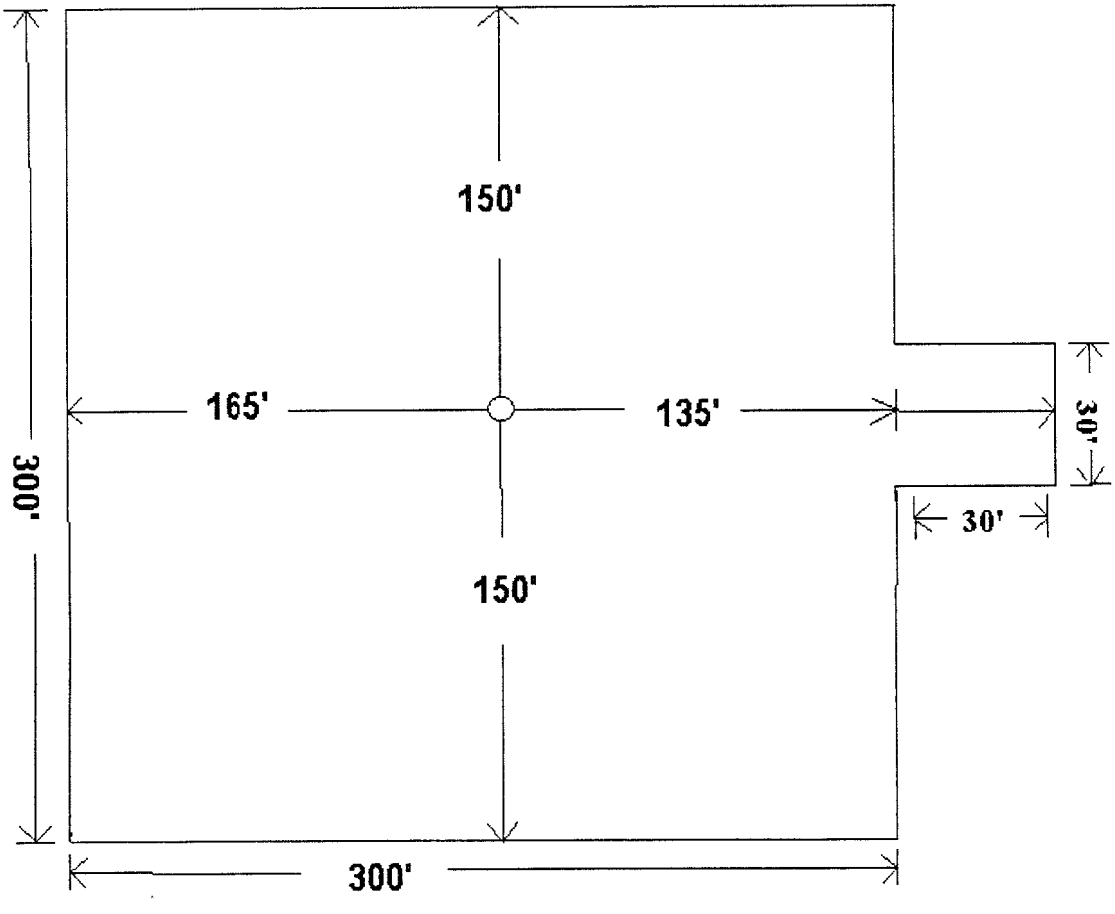


Exhibit #6

Attached to Form 3160-3
Mack Energy Corporation
Grace Mitchell B Federal #10
2310 FSL & 1650 FEL
Unit J, Sec. 5 T17S R32E
Lea County, NM

Attachment to Exhibit #9
NOTES REGARDING THE BLOWOUT PREVENTERS
Grace Mitchell B Federal #10
Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

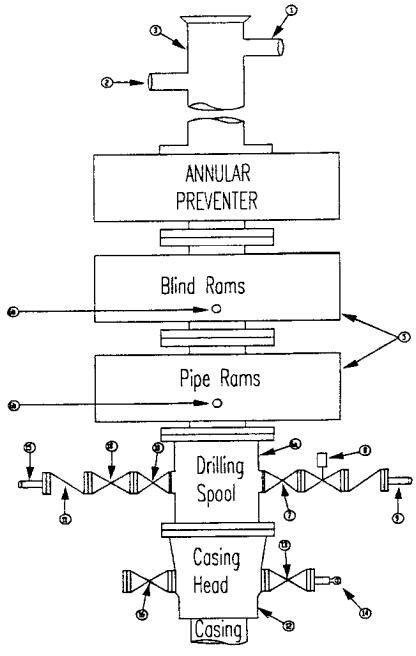
Mack Energy Corporation
Minimum Blowout Preventer Requirements
3000 psi Working Pressure
3 MWP
EXHIBIT #10

Stack Requirements

NO	Items	Min I.D	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL

16	Flanged Valve	1 13/16	



CONTRACTOR'S OPTION TO CONTRACTOR'S OPTION TO FURNISH.

1 All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum
2 Automatic accumulator (80 gallons, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times
7 Plug type blowout preventer tester
8 Extra set pipe rams to fit drill pipe in use on location at all times.
9 Type RX ring gaskets in place of Type R.
10.

ME

MEC TO FURNISH

1 Bradenhead or casing head and side valves
2. Wear bushing. If required

GENERAL NOTES.

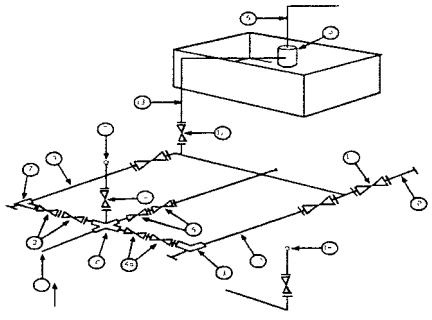
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2 All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3 Controls to be of standard design and each marked, showing opening and closing position
4 Chokes will be positioned so as not to hamper or delay changing of choke beans

Replaceable parts for adjustable choke, or bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.

5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency
11 Does not use kill line for routine fill up operations.

Mack Energy Corporation

Exhibit #11
MIMIMUM CHOKE MANIFOLD
3,000, 5,000, and 10,000 PSI Working Pressure
3M will be used
3 MWP - 5 MWP - 10 MWP



Mud Pit

Reserve Pit

*** Location of separator optional**

Below Substructure

Mimimum requirements

No.		3,000 MWP I.D.	Nominal	Rating	5,000 MWP I.D.	Nominal	Rating	10,000 MWP I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure quage			3,000			5,000			10,000
15	Gas Separator		2' x5'			2' x5'			2' x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

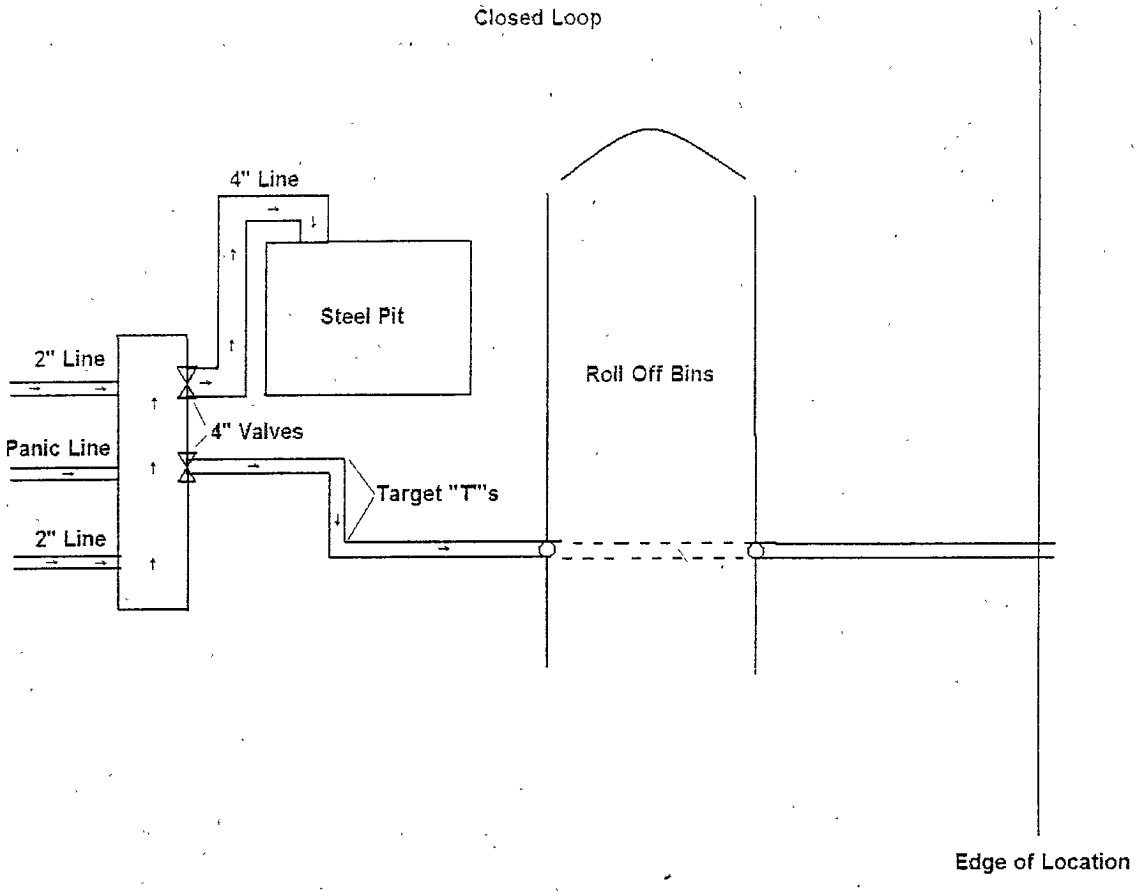
(1) Only one required in Class 3M
(2) Gate valves only shall be used for Class 10 M
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

1 All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2 All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP
3. All lines shall be securely anchored.
4 Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5 alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge
6. Line from drilling spool to choke manifold should bee as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees

Mack Energy Corporation

MANIFOLD SCHEMATIC



Mack Energy Corporation
Onshore Order #6
Hydrogen Sulfide Drilling Operation Plan

I. 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:

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

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

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

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) 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 and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

II. 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 penetrating the first zone containing or reasonable expected to contain H2S.

1. **Well Control Equipment:**

   A. Flare line.

   B. Choke manifold.

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

   D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

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

   A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

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

   A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. **Visual warning systems:**

   A. Wind direction indicators as shown on well site diagram (Exhibit #8).

   B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. **Mud program:**

   A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

   B. All elastomers used for packing and seals shall be H2S trim.

7. **Communication:**

   A. Radio communications in company vehicles including cellular telephone and 2-way radio.

   B. Land line (telephone) communication at Office.

8. **Well testing:**

   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

EXHIBIT #7

WARNING

YOU ARE ENTERING AN H2S

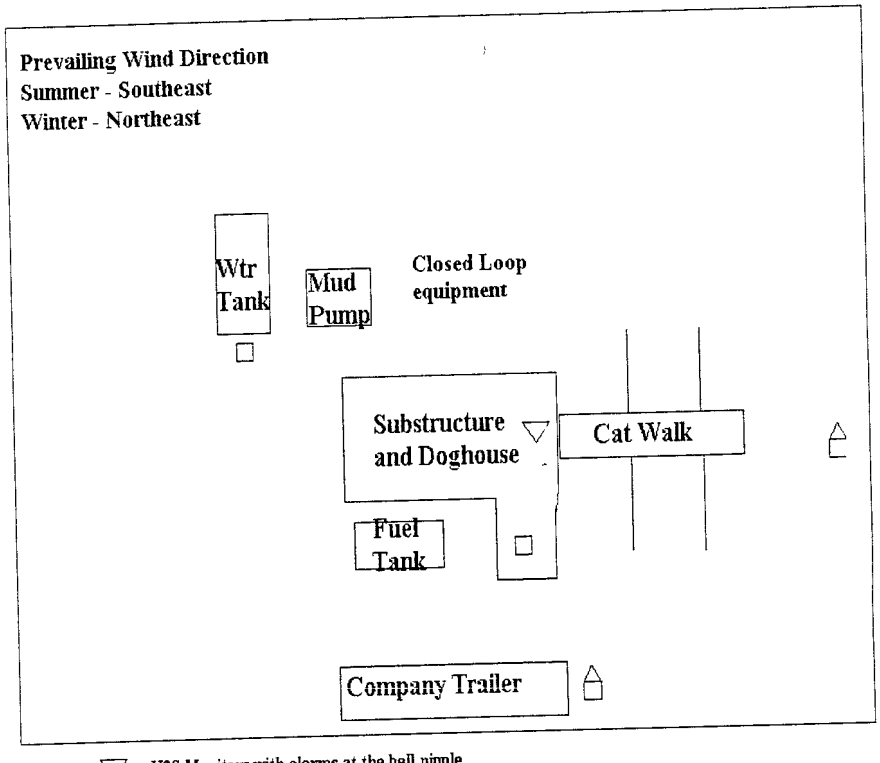
AUTHORIZED PERSONNEL ONLY

1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH MACK ENERGY FOREMAN AT OFFICE

MACK ENERGY CORPORATION

1-575-748-1288

DRILLING LOCATION H2S SAFTY EQUIPMENT
Exhibit # 8



Need wind direction & North direction

Mack Energy Corporation Call List, Eddy County

Artesia (575)	Cellular	Office	Home
Jim Krogman	746-5515	748-1288	746-2674
Lonnie Archer	746-7889	748-1288	365-2998
Donald Archer	748-7875	748-1288	748-2287
Chris Davis	746-7132	748-1288	
Kevin Garrett	746-7423	748-1288	

Agency Call List (575)

Artesia

State Police	746-2703
City Police	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee	746-2122
NMOCD	748-1283

Carlsbad

State Police	885-3137
City Police	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee	887-3798
Bureau of Land Management	887-6544
New Mexico Emergency Response Commission	(505)476-9690
24 Hour	(505)827-9126
Natonal Emergency Response Center (Washington)	(800)424-8802

Emergency Services

Boots & Coots IWC	1-800-256-9688 or (281)931-8884
Cudd pressure Control	(915)699-0139 or (915)563-3356
Halliburton	746-2757
B. J. Services	746-3569
Flight For Life-Lubbock, TX	(806)743-9911
Aerocare-Lubbock, TX	(806)747-8923
Med Flight Air Amb-Albuquerque, NM	(505)842-4433
Lifeguard Air Med Svc. Albuquerque, NM	(505)272-3115

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

A. The well site and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.

B. All roads to the location are shown in Exhibit below. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling well will be done where necessary.

C. Directions to Location: From the intersection of Hwy 82 and Maljamar RD. go west on Hwy 82 1.2 miles, turn right/north 0.3 mile, turn left/west 0.1 mile, veer right/north 0.2 miles, turn left location is 97 ft west.

D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

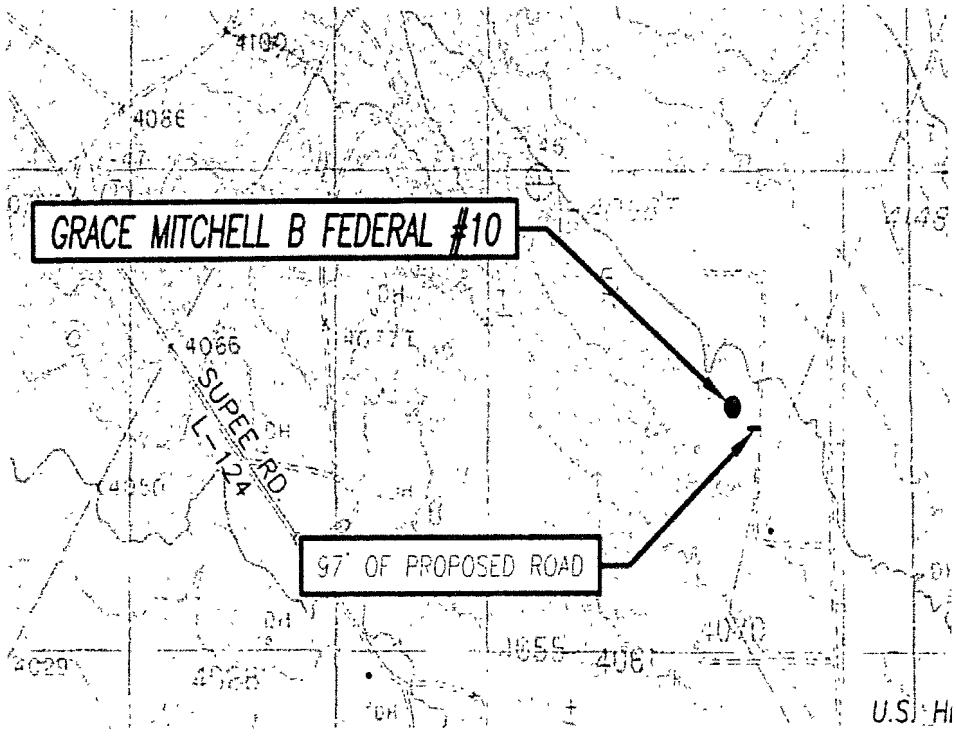


Exhibit #4

2. Proposed Access Road:

Exhibit #3 shows the 97' of new access road to be constructed. The road will be constructed as follows:

A. The Maximum width of the running surface will be 14'. The road will be crowned and ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

B. The average grade will be less than 1%.

C. No turnouts are planned.

D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.

E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit.

F. The proposed access road as shown in Exhibit #3 has been centerline flagged by John West Engineering, Hobbs, New Mexico.

3. Location of Existing Wells & Proposed flow lines for New Wells:

Exhibit #4 shows all existing wells within a one-mile radius of this well. Proposed flow lines, will stay on location production facility will be constructed.

4. Location of Existing and/or Proposed Facilities:

A. Mack Energy Corporation does not operate a production facility on this lease.

B. If the well is productive, contemplated facilities will be as follows:

1) Maljamar; Grayburg-San Andres Completion: Will be sent to the Grace Mitchell B Federal TB located at the #8 well. The Facility is shown in Exhibit #5.

2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.

3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.

4) It will be necessary to run electric power if this well is productive. Power will be run by CVE and they will send in a separate plan for power.

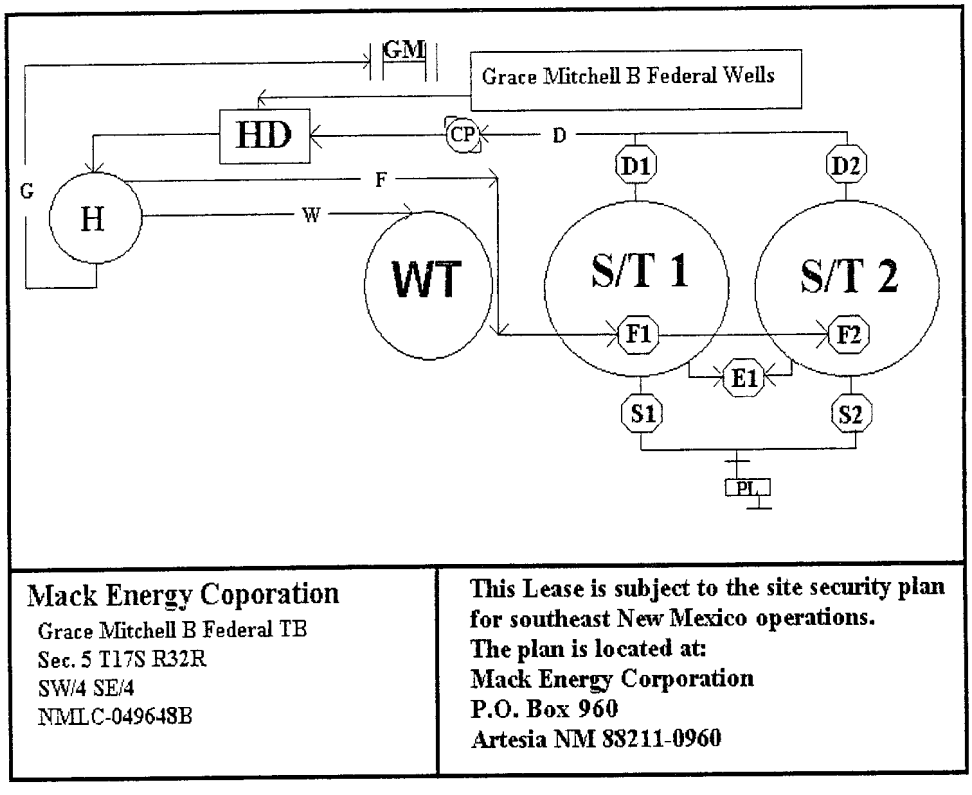


Exhibit #5

A. If the well is productive, rehabilitation plans are as follows:

1) Topsoil removed from the drill site will be used to recontour the surrounding area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #4. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit.

7. Methods of Handling Water Disposal:

A. Drill cuttings not retained for evaluation purposes will be disposed into the steel tanks and hauled to an approved facility.

B. Drilling fluids will be contained in steel tanks using a closed loop system.

C. Water produced from the well during completion may be disposed into a steel tank. After the well is permanently placed on production, produced water will be collected in tanks (fiberglass) until pumped to an approved disposal system; produced oil will be collected in steel tanks until sold.

D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. All water and fluids will be disposed of into an approved facility. No toxic waste or hazardous chemicals will be produced by this operation.

E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Plans for Restoration of the Surface:

A. Upon completion of the proposed operations, if the well is completed, any additional caliche required for facilities will be obtained from a BLM approved caliche pit.

B. In the event of a dry hole. Topsoil removed from the drill site will be used to recontour the area to its original natural level and reseeded as per BLM specifications.

10. Surface Ownership:

The well site and lease is located entirely on Fee surface. We have notified the surface lessee of the impending operations. According to BLM the lease Olane Caswell, 1702 Gillham Dr., Brownfield, TX 79316, 575-676-2222. a private surface owner agreement is attached, ok 3/27/04

11. Other Information:

A. The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass with sagebrush.

B. There is no permanent or live water in the immediate area.

C. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

12. Lessee's and Operator's Representative:

The Mack Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell
Mack Energy Corporation
P.O. Box 960
Artesia, NM 88211-0960
Phone (575) 748-1288 (office)

CERTIFICATION

I hereby certify that I, or person under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this APD are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mack Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 3-24-09 Signed: Jerry W. Sherrell

Jerry W. Sherrell

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mack Energy Corporation
LEASE NO.:	LC029406B
WELL NAME & NO.:	Grace Mitchell B Federal # 10
SURFACE HOLE FOOTAGE:	2310' FSL & 1650' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 5, T. 17 S., R 32 E., NMPM
COUNTY:	Lea 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.

If present, the spraying of noxious weeds must be completed by a licensed or certified applicator. In order to attempt to kill or remove noxious weeds, the proper mix of chemical is needed. Noxious weeds must be sprayed two weeks prior to any dirt working activities or disturbances to the site being sprayed. This will allow proper time to ensure the plants mortality.

V. SPECIAL REQUIREMENT(S)

Mitigation Measures: The mitigation measures include Pecos District Conditions of Approval, the standard stipulations for permanent resource roads, the standard stipulations for surface flow lines and the standard stipulation for the lesser prairie chicken.

There will need to be some special mitigation measures for the Grace Mitchell B Federal # 8, Grace Mitchell B Federal # 10, Grace Mitchell B Federal # 11, Grace Mitchell B Federal # 12 as listed below:

The Grace Mitchell B Federal # 10 well pad needs to be have a berm placed on the north, side of the location to direct water around the proposed location and prevent water from running onto or through the well pad location.

1. 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.

Grace Mitchell B Federal # 10: Closed loop system: 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

Grace Mitchell B Federal # 10: Closed loop system: V- Door East

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.

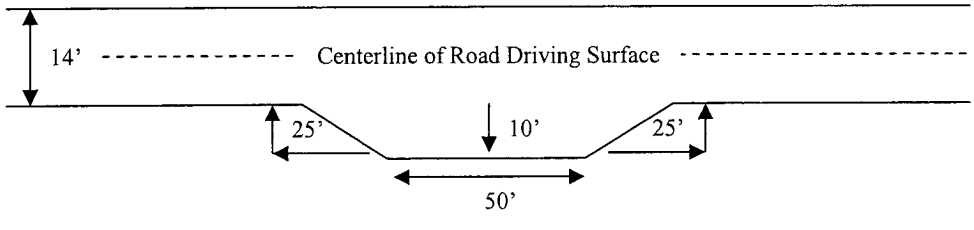
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

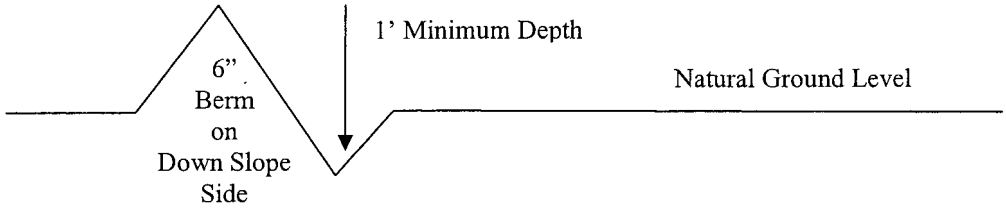
Standard Turnout – Plan View



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.

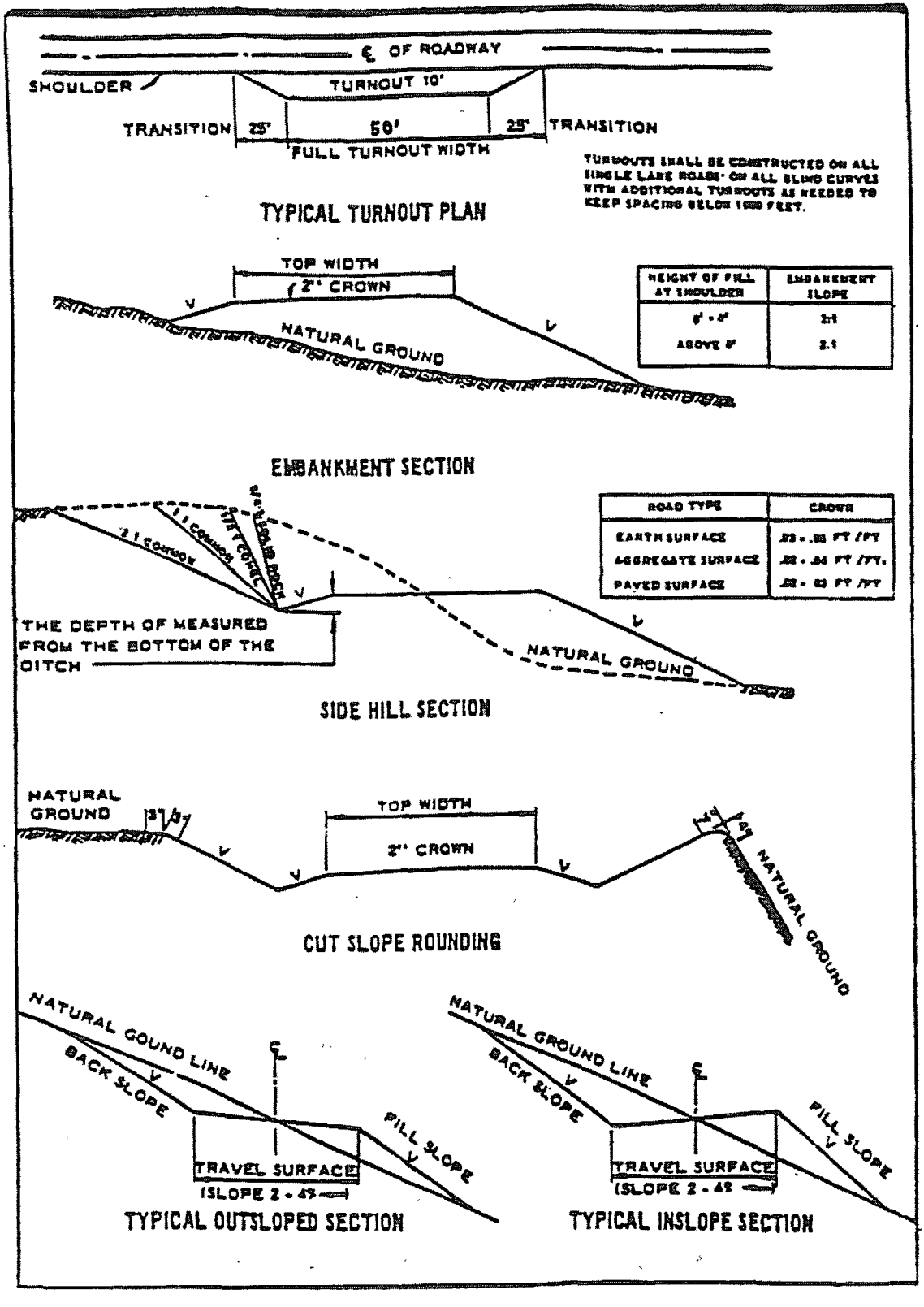
A gate shall be constructed and fastened securely to H-braces.

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

☐ **Chaves and Roosevelt Counties**
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575) 200-7902.

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

☐ **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 formation.

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. When floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufactures of the logging tools recommended speed. (R-111-P area only)

B. CASING

1. The inch surface casing shall be set at 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.

2. The minimum required fill of cement behind the inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a-d above.

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

3. The minimum required fill of cement behind the inch production casing is:

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

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

☐ Top of cement to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be 2000 (2M) psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

    e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the formation. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

    f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of psi with the rig pumps is approved.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the 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.

ACS/ (date)

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

B. PIPELINES

BLM LEASE NUMBER:
COMPANY NAME:
WELL NO. & NAME:

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b.

A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.

b. Activities of other parties including, but not limited to:

(1) Land clearing.
(2) Earth-disturbing and earth-moving work.
(3) Blasting.
(4) Vandalism and sabotage.

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean

up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **25** feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder 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 will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

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

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

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

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

BLM SERIAL #:
COMPANY REFERENCE:
WELL # & NAME:

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 no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

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

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

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	1lbs/A

**Four-winged Saltbush 5lbs/A

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

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds 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.

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.

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.