New Mexico Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, NM 88240

RECEIVED
JAN 11 2010
HOBBSOCD

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

5 Lease Serial No
NMNM-119274

6 If Indian, Allotee or Tribe Name

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. (303941)
Peery Federal #8 H

2 Name of Operator
Mack Energy Corporation (13837)

9 API Well No.
30-005-29116

3a Address
P.O. Box 960 Artesia, NM 88211-0960

3b. PhoneNo. *(include area code)*
(575)748-1288

10 Field and Pool or Exploratory
Wildcat Abo

4 Location of Well *(Report location clearly andinaccordance with any State requirements*)*

At surface 2445 FSL & 330 FEL Unit I

At proposed prod zone 2285 FSL & 330 FWL Unit L

11 Sec , T R M or Blk and Survey or Area
Sec. 29 T15S R30E

14 Distance in miles and direction from nearest town or post office*
15 miles north of Loco Hills, NM

12 County or Parish
Chaves

13 State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any)	16 No of acres in lease	17 Spacing Unit dedicated to this well
330	640	160
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	**19 Proposed Depth**	**20 BLM/BIA Bond No on file**
165'	MD 12,128' TVD 7,771'	NMB000286
21 Elevations (Show whether DF, KDB, RT, GL, etc)	**22 Approximate date work will start***	**23 Estimated duration**
3977' GR	12/1/2009	35 days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

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	Name *(Printed/Typed)*	Date
Jerry W. Sherrell	Jerry W. Sherrell	11/11/09
Title Production Clerk		
Approved by *(Signature)* /S/ Angel Mayes	**Name *(Printed/Typed)*** Angel Mayes	**Date** JAN 06 2010
Title Assistant Field Manager, Lands And Minerals	**Office** ROSWELL 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

APPROVED FOR 2 YEARS

Title 18 U S C Section 1001 and Tide 43 U S C Section 1212, make it a crime for any person knowirilly 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)

DECLARED WATER BASIN

CEMENT BEHIND THE 9⅝" CASING MUST BE CIRCULATED

WITNESS

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
JAN 11 2010
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
1220 S. ST FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-005-29116	97768	Wildcat Abo

Property Code	Property Name	Well Number
303941	PEERY FEDERAL	8H

OGRID No.	Operator Name	Elevation
013837	MACK ENERGY CORPORATION	3977'

Surface Location

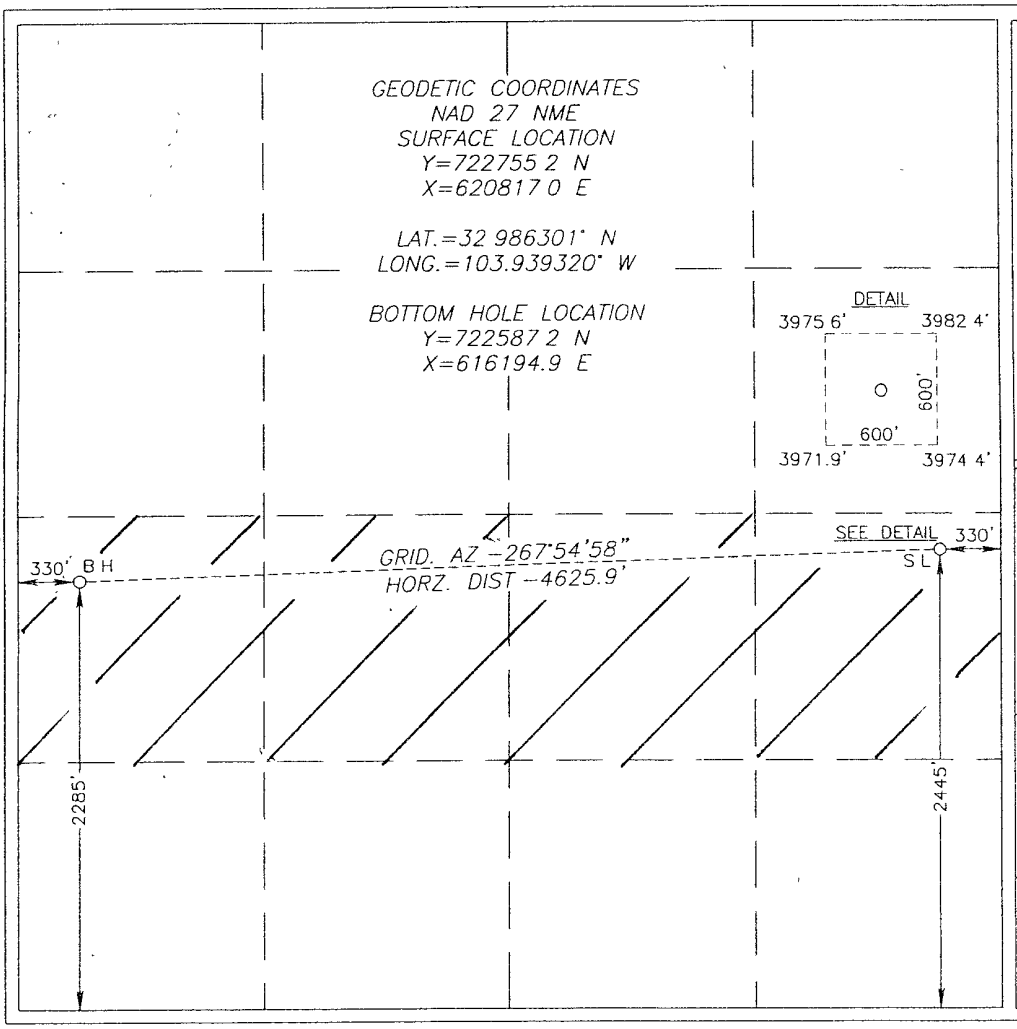
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	29	15-S	30-E		2445	SOUTH	330	EAST	CHAVES

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
L	29	15-S	30-E		2285	SOUTH	330	WEST	CHAVES

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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 11/10/09
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.

RONALD J. EIDSON
NEW MEXICO
OCTOBER 17, 2009
USA

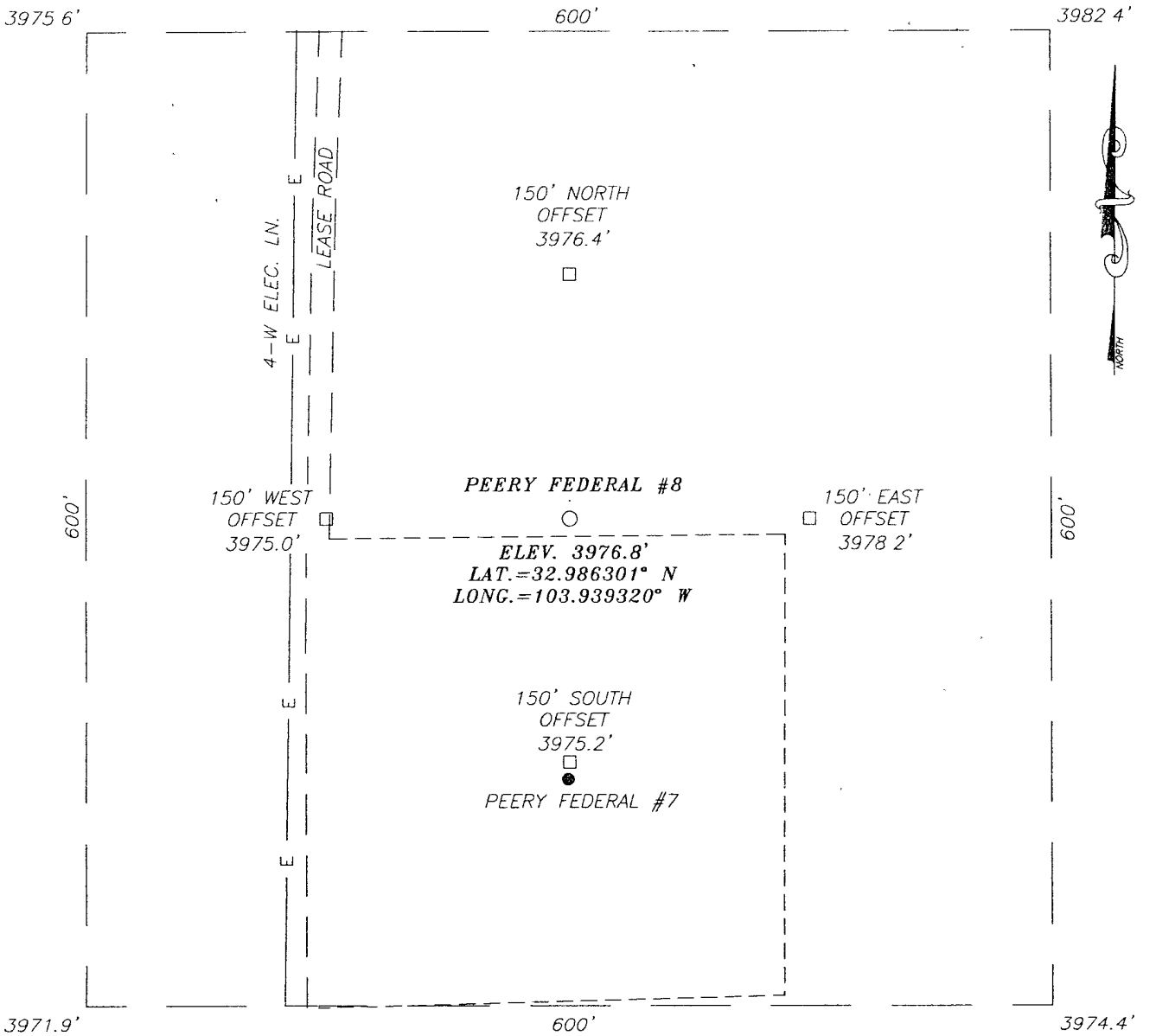
Date Surveyed:
Signature & Seal of Professional Surveyor

Ronald J. Eidson 10-14-09
09.11.0902

Certificate No. GARY EIDSON 12641
RONALD EIDSON 3239

SECTION 29, TOWNSHIP 15 SOUTH, RANGE 30 EAST, N.M.P.M.,

CHAVES COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #217 (HAGERMAN CUTOFF) AND CO. RD. #256 (BOOGER LANGSTON), GO NORTH ON CO. RD. #217 APPROX. 1.8 MILES. TURN RIGHT AND GO EAST APPROX. 1.5 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.2 MILES. TURN LEFT AND GO EAST APPROX. 0.6 MILES. TURN LEFT AND GO NORTH APPROX. 1.0 MILES. TURN RIGHT AND GO EAST APPROX 0.4 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.4 MILES. THIS LOCATION STAKE IS APPROX. 150 EAST.

100 0 100 200 Feet

Scale: 1"=100'

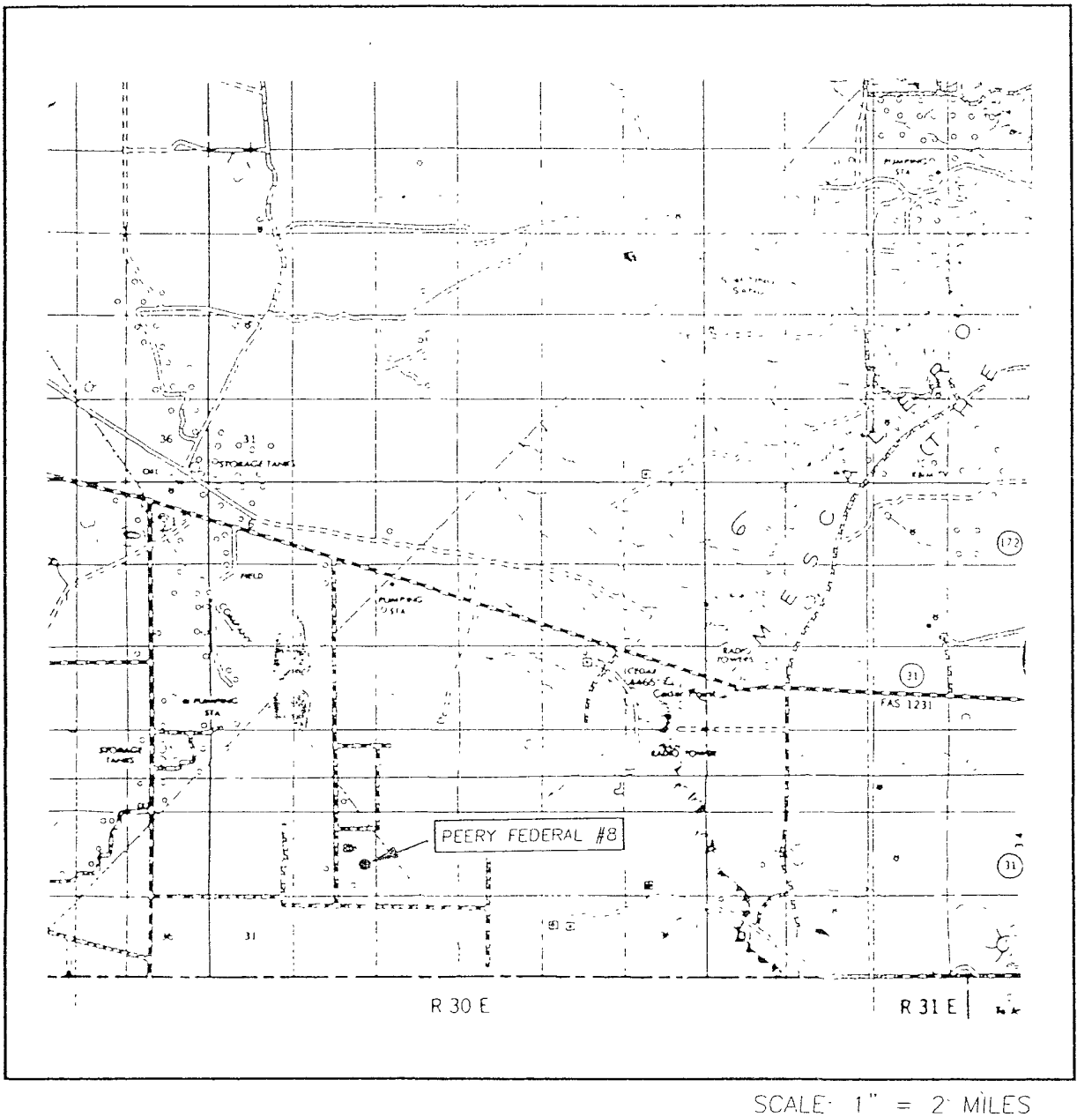
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

MACK ENERGY CORPORATION

PEERY FEDERAL #8 WELL
LOCATED 2445 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 29,
TOWNSHIP 15 SOUTH, RANGE 30 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.

Survey Date: 10/7/09	Sheet 1 of 1 Sheets		
W.O. Number: 09.11.0902	Dr By: LA	Rev 1: N/A	
Date: 10/13/09		09110902	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC 29 TWP 15-S RGE 30-E

SURVEY N M P M

COUNTY CHAVES STATE NEW MEXICO

DESCRIPTION 2445' FSL & 330' FEL

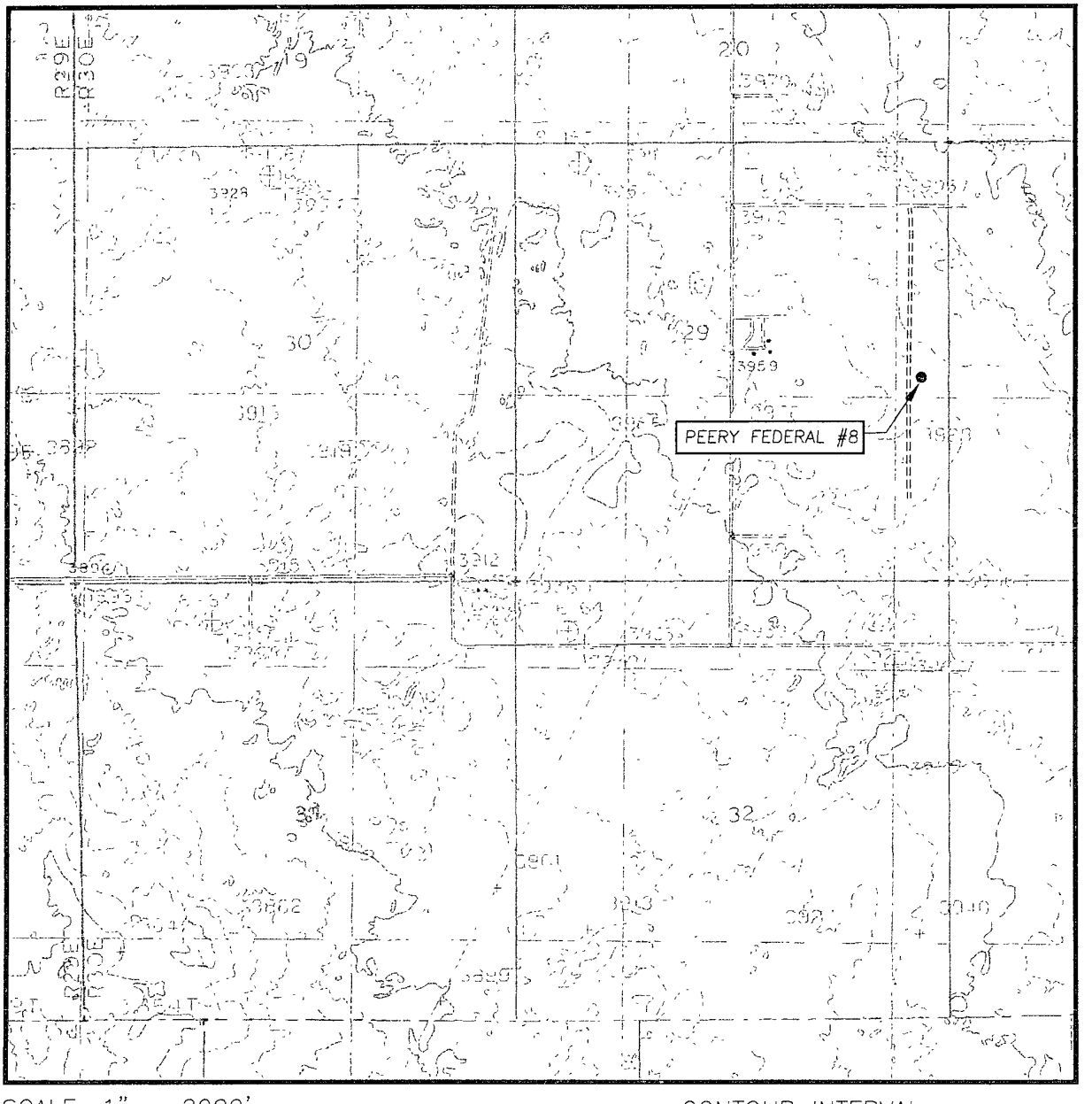
ELEVATION 3977'

OPERATOR MACK ENERGY CORPORATION

LEASE PEERY FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HENSHAW TANK, N.M. – 10'

SEC. 29 TWP. 15-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY CHAVES STATE NEW MEXICO

DESCRIPTION 2445' FSL & 330' FEL

ELEVATION 3977'

OPERATOR MACK ENERGY CORPORATION

LEASE PEERY FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
HENSHAW TANK, 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
Peery Federal #8
SL 2445 FSL & 330 FEL, Unit I, Sec. 29 T15S R30E
BHL 2285 FSL & 330 FWL, Unit L, Sec. 29 T15S R30E
Chaves County, NM

DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Yates	1480'	Tubb	5710'
Queen	2240'	Abo	6510'
San Andres	2920'	WC	7900'
Glorieta	4520'	Strawn	9725'

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

Water Sand	150'	Fresh Water
San Andres	2920'	Oil/Gas
Abo	6510'	Oil/Gas
WC	7900'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 9 5/8" casing to 450' and circulating cement back to surface will protect the surface fresh water sand. An optional Intermediate string of 7" casing set @ 2300' should hole problems occur. Salt Section and any shallower zones above production zone, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing a combination string of 5 1/2" and 4 ½" production casing thru a ported collar @ 6800', 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
14 ¾"	0-450'	9 5/8"	36#, J-55, ST&C, New, 10.875/6.877/7.040
8 ¾"	0-2300'	7"	23#,J-55, LT&C, New, 2.707/15.137/14.533
7 7/8"	0-7850'	5 ½"	17#, HCP-110, LT&C, New, 2.189/3.364/3.547
6 1/8"	7850-12,128'	4 ½"	11.6# HCP-110, LT&C, New, 1.422/3.286/3.56

5. Cement Program:

9 5/8" Surface Casing: Class C, 500sx yield 1.34
7" Optional Intermediate Casing: Class C, 700sx, yield 1.34.
5 ½" Production Casing: Class C, 1000sx, yield 1.34.
4 ½" Production Casing: Set with isolation packers.

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 BOP will be nippled up on the 9 5/8" surface casing and tested to 2000 psi by a 3rd party 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
0-450'	Fresh Water	8.5	28	N.C.
450-3050'	Brine	10	30	N.C.
3050'-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 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 at TD.

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.

Attachment to Exhibit #9
NOTES REGARDING THE BLOWOUT PREVENTERS
Peery Federal #8
Chaves 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

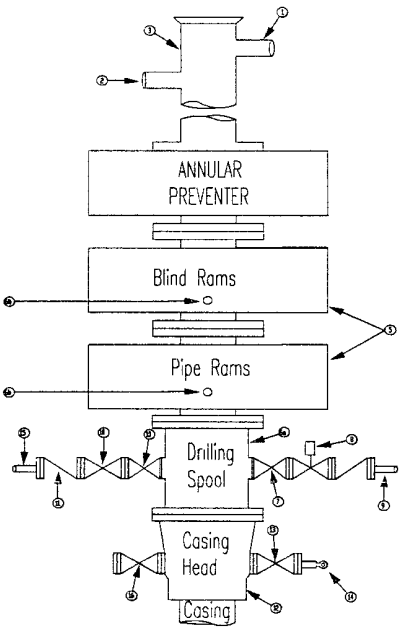
EXHIBIT #10

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 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

MEC TO FURNISH

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

10 ME

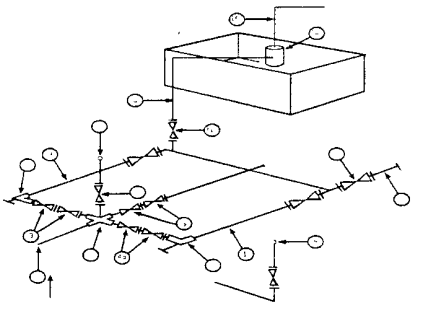
GENERAL NOTES

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

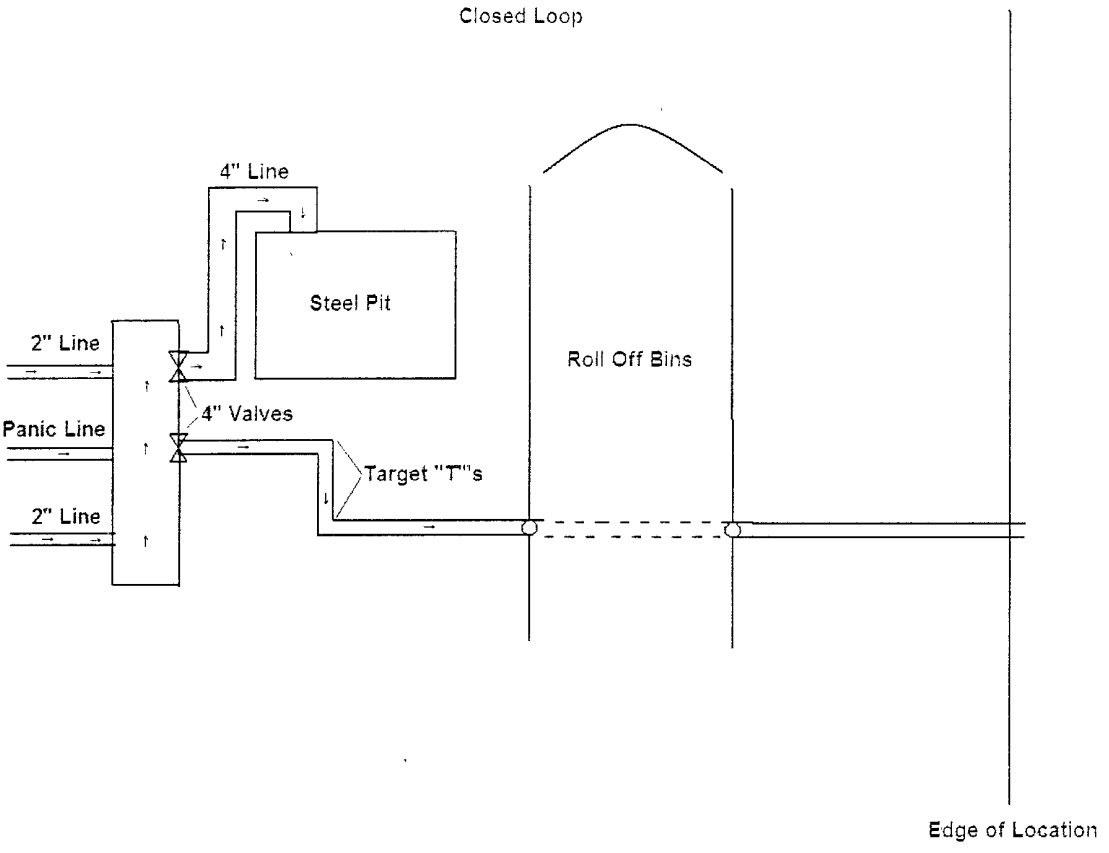
(1) Only one required in Class 3M
(2) Gate valves only shall be used for Class 10 M
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling

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

Mack Energy Corporation Call List, Chaves 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)

Roswell

State Police	622-7200
City Police	624-6770
Sheriff's Office	624-7590
Ambulance	624-7590
Fire Department	624-7590
LEPC (Local Emergency Planning Committee	624-6770
NMOCD	748-1283
Bureau of Land Management	627-0272

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
[illegible] ervices	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

Mack Energy

Chaves County
Peery Federal
#8H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

10 November, 2009

Company:	Mack Energy	**Local Co-ordinate Reference:**	Well #8H
Project:	Chaves County	**TVD Reference:**	WELL @ 3996 00ft (19' KB Correction)
Site:	Peery Federal	**MD Reference:**	WELL @ 3996 00ft (19' KB Correction)
Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Chaves County

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

Site Peery Federal

Site Position:		**Northing:**	721,535.600 ft	**Latitude:**	32° 58' 58 617 N
From:	Map	**Easting:**	620,821 500 ft	**Longitude:**	103° 56' 21.552 W
Position Uncertainty:	0 00 ft	**Slot Radius:**	"	**Grid Convergence:**	0 21 °

Well #8H

Well Position	**+N/-S**	0 00 ft	**Northing:**	722,755.200 ft	**Latitude:**	32° 59' 10 685 N
	+E/-W	0 00 ft	**Easting:**	620,817.000 ft	**Longitude:**	103° 56' 21.551 W
Position Uncertainty		0 00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,977.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	11/10/2009	7.99	60.88	49,219

Design Plan #1

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	267 92

Survey Tool Program **Date** 11/10/2009

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	12,127.85	Plan #1 (OH)	MWD	MWD - Standard

Company:	Mack Energy	**Local Co-ordinate Reference:**	Well #8H
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Site:	Peery Federal	**MD Reference:**	WELL @ 3996.00ft (19' KB Correction)
Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0 00	0 00	-3,996.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
100.00	0.00	0 00	100.00	-3,896.00	0.00	0.00	0 00	0 00	722,755.20	620,817 00
200.00	0 00	0 00	200 00	-3,796.00	0 00	0.00	0.00	0 00	722,755 20	620,817 00
300.00	0.00	0 00	300.00	-3,696.00	0 00	0.00	0.00	0 00	722,755.20	620,817.00
400.00	0.00	0 00	400 00	-3,596 00	0.00	0.00	0.00	0 00	722,755.20	620,817 00
500.00	0.00	0 00	500.00	-3,496 00	0 00	0 00	0.00	0.00	722,755.20	620,817 00
600.00	0 00	0 00	600.00	-3,396.00	0.00	0 00	0.00	0.00	722,755.20	620,817 00
700 00	0 00	0.00	700 00	-3,296.00	0.00	0.00	0.00	0 00	722,755 20	620,817.00
800.00	0.00	0 00	800 00	-3,196.00	0.00	0 00	0 00	0.00	722,755 20	620,817.00
900 00	0 00	0 00	900 00	-3,096 00	0 00	0.00	0 00	0 00	722,755.20	620,817 00
1,000 00	0 00	0.00	1,000 00	-2,996.00	0.00	0 00	0 00	0.00	722,755 20	620,817.00
1,100.00	0 00	0.00	1,100.00	-2,896.00	0.00	0.00	0.00	0.00	722,755.20	620,817.00
1,200.00	0.00	0.00	1,200 00	-2,796.00	0.00	0.00	0.00	0.00	722,755 20	620,817 00
1,300 00	0 00	0.00	1,300 00	-2,696.00	0.00	0.00	0.00	0 00	722,755.20	620,817 00
1,400.00	0 00	0.00	1,400 00	-2,596.00	0.00	0.00	0.00	0.00	722,755 20	620,817 00
1,500 00	0.00	0.00	1,500.00	-2,496.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
1,600.00	0 00	0.00	1,600 00	-2,396.00	0.00	0.00	0.00	0 00	722,755.20	620,817.00
1,700.00	0 00	0.00	1,700 00	-2,296.00	0.00	0.00	0 00	0.00	722,755.20	620,817 00
1,800.00	0 00	0.00	1,800.00	-2,196.00	0.00	0.00	0 00	0.00	722,755 20	620,817 00
1,900.00	0.00	0.00	1,900 00	-2,096.00	0.00	0.00	0 00	0.00	722,755.20	620,817 00
2,000 00	0 00	0.00	2,000 00	-1,996.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
2,100.00	0 00	0.00	2,100 00	-1,896.00	0.00	0.00	0.00	0.00	722,755.20	620,817.00
2,200.00	0 00	0.00	2,200.00	-1,796.00	0.00	0.00	0 00	0.00	722,755.20	620,817 00
2,300 00	0.00	0.00	2,300 00	-1,696.00	0.00	0.00	0 00	0 00	722,755.20	620,817.00
2,400 00	0.00	0.00	2,400.00	-1,596.00	0.00	0.00	0 00	0 00	722,755.20	620,817 00
2,500.00	0.00	0.00	2,500 00	-1,496.00	0.00	0 00	0.00	0 00	722,755 20	620,817.00
2,600.00	0 00	0 00	2,600.00	-1,396 00	0.00	0 00	0.00	0.00	722,755 20	620,817 00

Company:	Mack Energy	**Local Co-ordinate Reference:**	Well #8H
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Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0 00	2,700.00	-1,296.00	0.00	0.00	0.00	0.00	722,755 20	620,817 00
2,800.00	0 00	0 00	2,800.00	-1,196.00	0 00	0.00	0.00	0 00	722,755 20	620,817 00
2,900 00	0 00	0.00	2,900 00	-1,096.00	0 00	0.00	0.00	0.00	722,755.20	620,817 00
3,000 00	0.00	0.00	3,000.00	-996.00	0 00	0.00	0.00	0 00	722,755.20	620,817 00
3,100 00	0 00	0.00	3,100.00	-896.00	0 00	0.00	0.00	0 00	722,755.20	620,817.00
3,200.00	0 00	0.00	3,200.00	-796.00	0 00	0.00	0.00	0 00	722,755.20	620,817 00
3,300.00	0.00	0 00	3,300.00	-696.00	0.00	0.00	0.00	0 00	722,755 20	620,817 00
3,400.00	0 00	0 00	3,400.00	-596.00	0.00	0 00	0.00	0.00	722,755 20	620,817 00
3,500.00	0 00	0.00	3,500.00	-496.00	0 00	0.00	0 00	0 00	722,755.20	620,817 00
3,600.00	0 00	0 00	3,600.00	-396.00	0.00	0.00	0 00	0.00	722,755.20	620,817.00
3,700.00	0 00	0.00	3,700.00	-296.00	0.00	0.00	0.00	0 00	722,755.20	620,817 00
3 800 00	0 00	0 00	3,800.00	-196 00	0.00	0.00	0.00	0.00	722,755 20	620,817 00
3,900.00	0 00	0 00	3,900.00	-96.00	0.00	0.00	0 00	0.00	722,755 20	620,817.00
4,000.00	0.00	0 00	4,000.00	4.00	0 00	0.00	0 00	0 00	722,755.20	620,817.00
4,100.00	0 00	0.00	4,100.00	104 00	0.00	0.00	0 00	0 00	722,755.20	620,817 00
4,200 00	0 00	0.00	4,200.00	204.00	0.00	0.00	0.00	0 00	722,755 20	620,817.00
4,300.00	0.00	0.00	4,300 00	304.00	0.00	0.00	0 00	0.00	722,755 20	620,817.00
4,400 00	0 00	0.00	4,400.00	404 00	0.00	0.00	0 00	0.00	722,755.20	620,817 00
4,500.00	0 00	0 00	4,500.00	504.00	0.00	0.00	0.00	0 00	722,755 20	620,817.00
4,600.00	0 00	0.00	4,600.00	604.00	0.00	0.00	0 00	0.00	722,755 20	620,817 00
4,700 00	0.00	0 00	4,700 00	704 00	0 00	0.00	0 00	0.00	722,755.20	620,817 00
4,800 00	0 00	0 00	4,800.00	804 00	0.00	0.00	0 00	0.00	722,755 20	620,817 00
4,900 00	0.00	0 00	4,900 00	904 00	0 00	0.00	0.00	0.00	722,755 20	620,817 00
5,000 00	0.00	0.00	5,000 00	1,004 00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
5,100 00	0 00	0 00	5,100 00	1,104.00	0.00	0 00	0.00	0 00	722,755 20	620,817.00
5,200.00	0 00	0.00	5,200.00	1,204.00	0.00	0 00	0.00	0 00	722,755.20	620,817.00
5,300 00	0.00	0.00	5,300 00	1,304.00	0.00	0 00	0 00	0 00	722,755.20	620,817.00

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Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0 00	5,400.00	1,404.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
5,500.00	0.00	0 00	5,500 00	1,504.00	0 00	0 00	0 00	0 00	722,755.20	620,817 00
5,600.00	0.00	0.00	5,600.00	1,604.00	0.00	0 00	0.00	0 00	722,755 20	620,817.00
5,700.00	0.00	0.00	5,700.00	1,704.00	0.00	0 00	0.00	0.00	722,755.20	620,817.00
5,800.00	0.00	0.00	5,800.00	1,804.00	0.00	0.00	0.00	0 00	722,755.20	620,817 00
5,900.00	0 00	0.00	5,900.00	1,904 00	0.00	0.00	0.00	0 00	722,755 20	620,817 00
6,000 00	0 00	0.00	6,000.00	2,004.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
6,100 00	0.00	0 00	6,100.00	2,104 00	0.00	0.00	0 00	0 00	722,755.20	620,817.00
6,200.00	0 00	0 00	6,200.00	2,204.00	0.00	0.00	0 00	0.00	722,755.20	620,817 00
6,300.00	0.00	0.00	6,300.00	2,304 00	0.00	0.00	0 00	0.00	722,755 20	620,817.00
6,400 00	0.00	0.00	6,400.00	2,404.00	0.00	0.00	0.00	0 00	722,755 20	620,817.00
6,500 00	0 00	0.00	6,500.00	2,504.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
6,600 00	0.00	0 00	6,600.00	2,604 00	0 00	0.00	0.00	0 00	722,755.20	620,817.00
6,700.00	0 00	0 00	6,700.00	2,704 00	0.00	0.00	0 00	0 00	722,755.20	620,817.00
6,800 00	0 00	0 00	6,800.00	2,804.00	0.00	0.00	0.00	0 00	722,755.20	620,817.00
6,900.00	0 00	0 00	6,900.00	2,904.00	0.00	0.00	0 00	0 00	722,755 20	620,817.00
7,000 00	0 00	0 00	7,000.00	3,004 00	0 00	0.00	0 00	0 00	722,755 20	620,817 00
7,101.00	0.00	0.00	7,101.00	3,105.00		0.00	0.00	0 00	722,755.20	620,817.00
7,150 00	4.20	255 07	7,149.96	3,153 96		-1.74	1 75	8.58	722,754.74	620,815.26
7,200 00	8 49	255.07	7,199 64	3,203 64	-1.89	-7 08	7 14	8 58	722,753.31	620,809 92
7,250 00	12.78	255 07	7,248 77	3,252.77	-4.26	-15 99	16 13	8.58	722,750.94	620,801 01
7,300 00	17.07	255 07	7,297 07	3,301 07	-7.58	-28 43	28 69	8.58	722,747.62	620,788 57
7,350 00	21.36	255 07	7,344.27	3,348.27	-11 82	-44.32	44.72	8.58	722,743.38	620,772.68
7,400.00	25.65	255.07	7,390.12	3,394 12	-16.96	-63.58	64.16	8.58	722,738.24	620,753 42
7,450.00	29.93	255.07	7,434.34	3,438.34	-22.96	-86 10	86.88	8 58	722,732.24	620,730.90
7,500.00	34.22	255.07	7,476.69	3,480.69	-29 80	-111.75	112.76	8 58	722,725.40	620,705.25
7,550.00	38 51	255.07	7,516.95	3,520.95	-37.44	-140.39	141 66	8 58	722,717 76	620,676.61

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Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,600 00	42.80	255 07	7,554.87	3,558.87	-45.83	-171.86	173.41	8.58	722,709 37	620,645 14
7,650.00	47.09	255 07	7,590 25	3,594.25	-54.93	-205.98	207 84	8 58	722,700 27	620,611 02
7,700 00	51 38	255 07	7,622.89	3,626 89	-64.68	-242.56	244 75	8 58	722,690.52	620,574 44
7,750 00	55.67	255 07	7,652.61	3,656.61	-75.04	-281.40	283 94	8 58	722,680.16	620,535 60
7,800 00	59 95	255 07	7,679.24	3,683 24	-85.94	-322.28	325.19	8.58	722,669.26	620,494 72
7,850 00	64 24	255 07	7,702.64	3,706 64	-97.32	-364.96	368.26	8 58	722,657 88	620,452.04
7,900.00	68 53	255 07	7,722.66	3,726.66	-109.12	-409.22	412.91	8.58	722,646 08	620,407.78
7,950.00	72.82	255.07	7,739 20	3,743.20	-121.28	-454.80	458.90	8.58	722,633.92	620,362.20
8,000.00	77.11	255.07	7,752.17	3,756 17	-133.72	-501.44	505.97	8.58	722,621.48	620,315 56
8,050 00	81.40	255.07	7,761.49	3,765.49	-146.37	-548.90	553.85	8.58	722,608.83	620,268 10
8,097.84	85.50	255.07	7,766.95	3,770.95	-158.62	-594.81	600.18	8.58	722,596.58	620,222 19
8,100.00	85 59	255.29	7,767.12	3,771 12	-159.17	-596.89	602.28	11.00	722,596 03	620,220 11
8,102.85	85.71	255 58	7,767.33	3,771.33	-159.88	-599.64	605.05	11.00	722,595.32	620,217.36
TGT @ 600 'VS										
8,150 00	87.68	260 39	7,770.06	3,774.06	-169.68	-645.67	651.40	11.00	722,585.52	620,171.33
8,200 00	89 78	265 47	7,771 17	3,775.17	-175.83	-695.26	701.18	11.00	722,579.37	620,121.74
8,205 22	90.00	266.00	7,771 18	3,775 18	-176.21	-700.46	706.39	11.00	722,578 99	620,116 54
8,300 00	92 20	267.81	7,769.36	3,773 36	-181.33	-795 08	801.14	3.00	722,573 87	620,021.92
8,322 75	92 72	268 24	7,768.39	3,772 39	-182.12	-817.79	823.86	3.00	722,573 08	619,999.21
8,400.00	92 72	268.24	7,764.71	3,768.71	-184.49	-894 92	901 03	0.00	722,570 71	619,922.08
8,499.24	92.72	268.24	7,760.00	3,764.00	-187.53	-994.00	1,000.16	0.00	722,567 67	619,823.00
TGT1 @ 1000'VS(#8H)										
8,581.92	91.50	270.40	7,756.96	3,760 96	-188 51	-1,076.61	1,082.74	3.00	722,566 69	619,740 39
8,600.00	91 50	270.40	7,756 49	3,760.49	-188.39	-1,094.68	1,100 80	0.00	722,566 81	619,722.32
8,700 00	91 50	270.40	7,753.88	3,757.88	-187.69	-1,194.65	1,200 68	0.00	722,567 51	619,622 35
8,800.00	91 50	270 40	7,751.27	3,755.27	-187.00	-1,294.61	1,300 55	0.00	722,568 20	619,522.39
8,900.00	91 50	270 40	7,748 66	3,752.66	-186.31	-1,394.57	1,400.42	0 00	722,568 89	619,422 43

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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,000 00	91 50	270 40	7,746.05	3,750.05	-185.61	-1,494.54	1,500.29	0.00	722,569.59	619,322.46
9,100.00	91.50	270 40	7,743 44	3,747.44	-184.92	-1,594.50	1,600.17	0.00	722,570.28	619,222 50
9,200 00	91 50	270.40	7,740 83	3,744.83	-184 23	-1,694.47	1,700.04	0.00	722,570.97	619,122.53
9,300 00	91.50	270 40	7,738 22	3,742.22	-183.54	-1,794 43	1,799.91	0.00	722,571 66	619,022 57
9,400 00	91 50	270.40	7,735.61	3,739.61	-182.84	-1,894.39	1,899.78	0 00	722,572.36	618,922 61
9,500 14	91 50	270.40	7,733.00	3,737.00	-182.15	-1,994.50	1,999.80	0.00	722,573 05	618,822.50
TGT2 @ 2000'VS(#8H)										
9,529 56	90 62	270.31	7,732.46	3,736.46	-181.97	-2,023.91	2,029.19	3 00	722,573 23	618,793 09
9,600 00	90 62	270.31	7,731.70	3,735.70	-181.59	-2,094.35	2,099.56	0 00	722,573 61	618,722 65
9,700.00	90.62	270.31	7,730 62	3,734 62	-181.05	-2,194.34	2,199.47	0 00	722,574 15	618,622 66
9,800.00	90.62	270.31	7,729.55	3,733 55	-180.52	-2,294.33	2,299.37	0 00	722,574.68	618,522.67
9,900.00	90.62	270.31	7,728.47	3,732.47	-179 98	-2,394.32	2,399.28	0 00	722,575.22	618,422 68
10,000 00	90.62	270.31	7,727.39	3,731 39	-179.45	-2,494.32	2,499.19	0 00	722,575 75	618,322 68
10,100.00	90.62	270.31	7,726.32	3,730.32	-178.91	-2,594.31	2,599.10	0.00	722,576 29	618,222.69
10,200 00	90 62	270.31	7,725 24	3,729 24	-178.37	-2,694.30	2,699.00	0.00	722,576 83	618,122.70
10,300.00	90.62	270.31	7,724.16	3,728.16	-177.84	-2,794.29	2,798.91	0 00	722,577.36	618,022.71
10,400 00	90.62	270.31	7,723.08	3,727.08	-177.30	-2,894.29	2,898.82	0.00	722,577.90	617,922.71
10,500 72	90.62	270.31	7,722.00	3,726.00	-176.76	-2,995.00	2,999.44	0.00	722,578.44	617,822 00
TGT3 @ 3000'VS(#8H)										
10,519.56	90 05	270.31	7,721.89	3,725 89	-176.66	-3,013.84	3,018.26	3.00	722,578 54	617,803.16
10,600.00	90.05	270.31	7,721.82	3,725.82	-176.23	-3,094.28	3,098.64	0.00	722,578 97	617,722.72
10,700.00	90 05	270.31	7,721.73	3,725 73	-175.69	-3,194.28	3,198.55	0 00	722,579 51	617,622 72
10,800.00	90.05	270.31	7,721.64	3,725 64	-175.15	-3,294.27	3,298.46	0.00	722,580 05	617,522 73
10,900.00	90 05	270.31	7,721.55	3,725 55	-174.61	-3,394 27	3,398.38	0 00	722,580.59	617,422 73
11,000 00	90.05	270.31	7,721 45	3,725.45	-174.07	-3,494 27	3,498.29	0.00	722,581 13	617,322.73
11,100 00	90.05	270 31	7,721 36	3,725.36	-173.53	-3,594 27	3,598.20	0 00	722,581 67	617,222.73
11,200.00	90.05	270 31	7,721.27	3,725.27	-172.99	-3,694 27	3,698.11	0 00	722,582 21	617,122.73

Company:	Mack Energy	**Local Co-ordinate Reference:**	Well #8H
Project:	Chaves County	**TVD Reference:**	WELL @ 3996.00ft (19' KB Correction)
Site:	Peery Federal	**MD Reference:**	WELL @ 3996.00ft (19' KB Correction)
Well:	#8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
11,300.00	90.05	270 31	7,721 18	3,725.18	-172.46	-3,794.27	3,798.03	0 00	722,582 74	617,022 73
11,400.00	90 05	270.31	7,721.09	3,725 09	-171.92	-3,894.27	3,897.94	0 00	722,583 28	616,922 73
11,501.74	90 05	270 31	7,721 00	3,725.00	-171.37	-3,996.00	3,999.59	0.00	722,583.83	616,821.00
TGT4 @ 4000'VS(#8H)										
11,506.12	90.18	270 31	7,720 99	3,724.99	-171.35	-4,000.39	4,003 97	3 00	722,583.85	616,816.61
11,600 00	90 18	270.31	7,720.69	3,724.69	-170.84	-4,094.26	4,097.77	0.00	722,584.36	616,722.74
11,700.00	90 18	270.31	7,720 37	3,724.37	-170 30	-4,194.26	4,197.68	0.00	722,584.90	616,622.74
11,800.00	90.18	270.31	7,720.05	3,724.05	-169.76	-4,294.26	4,297.59	0 00	722,585 44	616,522 74
11,900.00	90.18	270.31	7,719.73	3,723.73	-169.23	-4,394.26	4,397.50	0 00	722,585 97	616,422 74
12,000.00	90 18	270.31	7,719 41	3,723.41	-168.69	-4,494.25	4,497.42	0 00	722,586 51	616,322 75
12,100.00	90 18	270.31	7,719.09	3,723.09	-168.15	-4,594.25	4,597.33	0.00	722,587.05	616,222 75
12,127.85	90.18	270 31	7,719.00	3,723.00	-168.00	-4,622.10	4,625.15	0.00	722,587.20	616,194 90
PBHL(#8H)										

MACK Energy Corporation

PATHFINDER

Azimuths to Grid North
True North: -0.21°
Magnetic North 7.78°

Magnetic Field
Strength: 49218.7snT
Dip Angle 60 88°
Date 11/10/2009
Model: IGRF200510

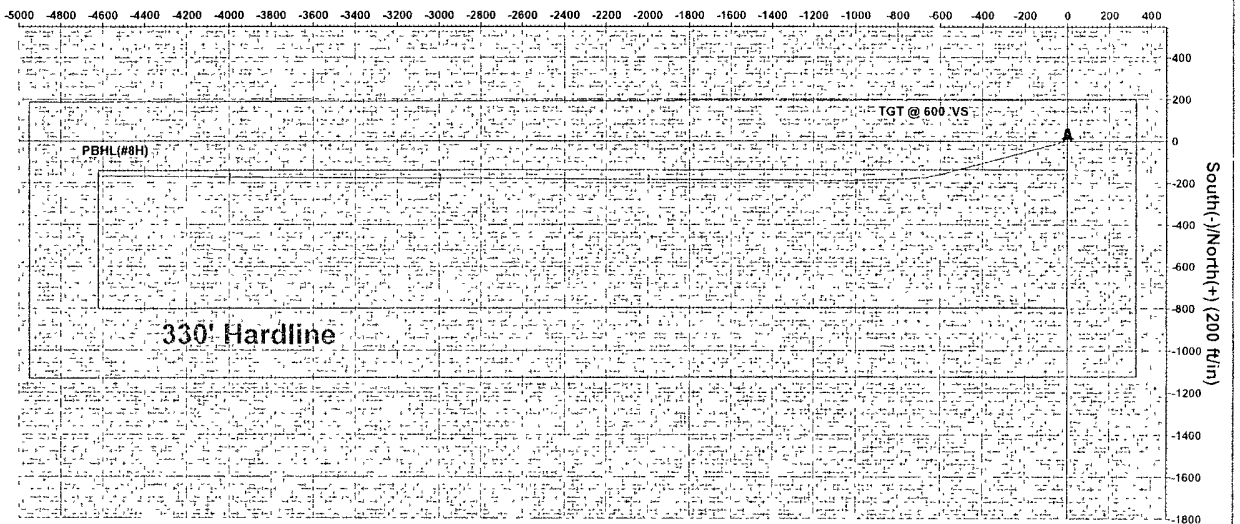
WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL(#8H)	7719 00	-168 00	-4622.10	Point
TGT4 @ 4000'VS(#8H)	7721 00	-171 37	-3996.00	Point
TGT3 @ 3000'VS(#8H)	7722 00	-176 76	-2995.00	Point
TGT2 @ 2000'VS(#8H)	7733 00	-182 15	-1994 50	Point
TGT1 @ 1000'VS(#8H)	7760 00	-187.53	-994 00	Point
TGT @ 600 'VS	7761 00	-160 00	-600 00	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2	7101 00	0 00	0 00	7101 00	0 00	0 00	0 00	0 00	0 00	
3	8097 84	85 50	255 07	7766 95	-158 62	-594 81	8 58	255 07	600 18	TGT @ 600 'VS
4	8205 22	90 00	266 00	7771 18	-176 21	-700 46	11 00	67 89	706 39	
5	8322 75	92 72	268 24	7768 39	-182 12	-817 79	3 00	39 42	823 86	
6	8499 24	92 72	268 24	7760 00	-187 53	-994 00	0 00	0 00	1000 16	TGT1 @ 1000'VS(#8H)
7	8581 92	91 50	270 40	7756 96	-188 51	-1076 61	3 00	119 64	1082 74	
8	9500 14	91 50	270 40	7733 00	-182 15	-1994 50	0 00	0 00	1999 80	TGT2 @ 2000'VS(#8H)
9	9529 56	90 62	270 31	7732 46	-181 97	-2023 91	3 00	-174 17	2029 19	
10	10500 72	90 62	270 31	7722 00	-176 76	-2995 00	0 00	0 00	2999 44	TGT3 @ 3000'VS(#8H)
11	10519 56	90 05	270 31	7721 89	-176 66	-3013 84	3 00	179 88	3018 26	
12	11501 74	90 05	270 31	7721 00	-171 37	-3996 00	0 00	0 00	3999 59	TGT4 @ 4000'VS(#8H)
13	11506 12	90 18	270 31	7720 99	-171 35	-4000 39	3 00	-0 06	4003 97	
14	12127 85	90 18	270 31	7719 00	-168 00	-4622 10	0 00	0 00	4625 15	PBHL(#8H)

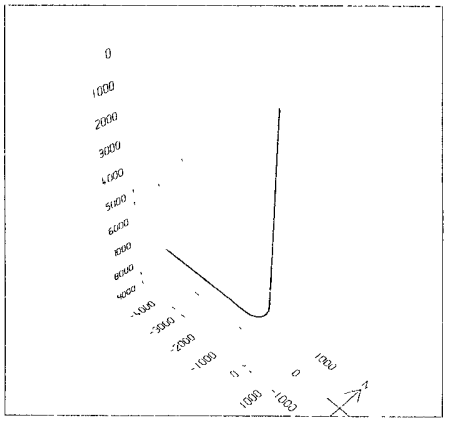
West(-)/East(+) (200 ft/in)

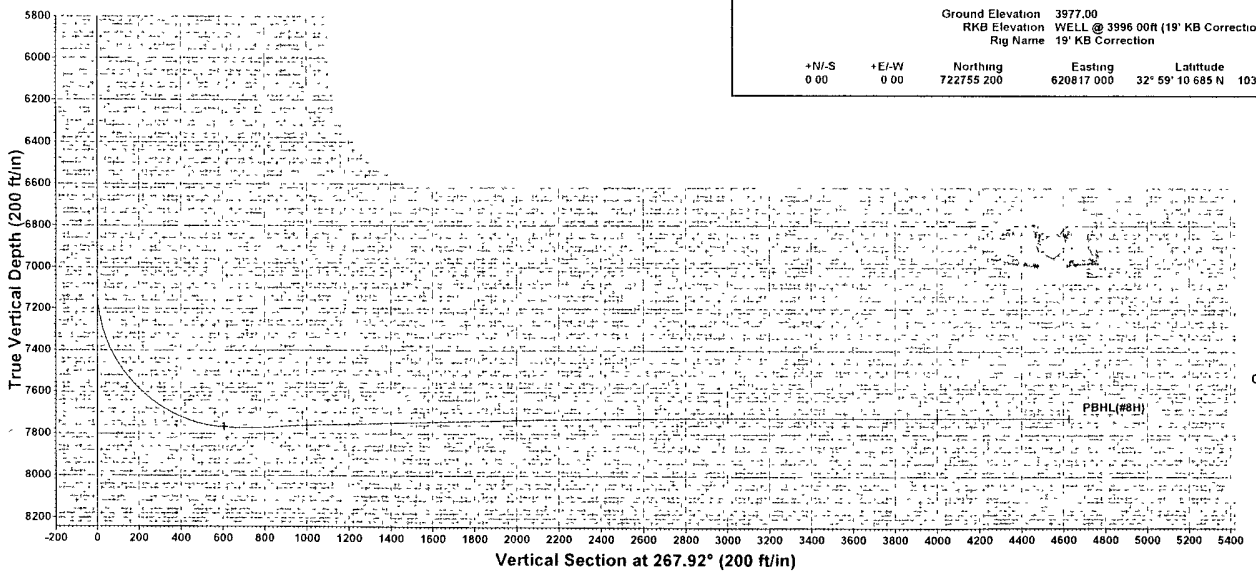


WELL DETAILS #8H

Ground Elevation 3977.00
RKB Elevation WELL @ 3996 00ft (19' KB Correction)
Rig Name 19' KB Correction

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	722755 200	620817 000	32° 59' 10 685 N	103° 56' 21 551 W	





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

Plan Plan #1 (#8H/OH)
Created By Nate Bingham Date 17 07, November 10 2009
Checked _____ Date _____

EXHIBIT B

PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL

December, 2009

OPERATORS NAME: **Mack Energy Corporation**
LEASE NO.: **NM-119274**
WELL NAME & NO: **Peery Federal #8**
SURFACE HOLE FOOTAGE: **2445' FSL & 330' FEL**
BOTTOM HOLE FOOTAGE: **2285' FSL & 330' FWL**
LOCATION: **Section 29, T. 15 S., R. 30 E.**
COUNTY: **Chaves County, New Mexico**

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.

I. 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).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

The project falls within the area covered by the Permian Basin Memorandum of Agreement (MOA). The Permian Basin MOA is an optional method of compliance with Section 106 of the National Historic Preservation Act for energy related projects in a 28 quadrangle area of the Pecos District a portion of which is within the Roswell Field Office. The proponent chose to participate in the Permian Basin MOA by planning to avoid all known NRHP eligible and potentially eligible cultural resources. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the MOA serves as mitigation for the effects of this project on cultural resources. If any skeletal remains that might be human or funerary objects are discovered by any activities, the project proponent will cease activities in the area of discovery and notify the BLM within 24 hours as required by the Permian Basin MOA.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). 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.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0209 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 Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 6 inches in depth. The topsoil shall be used for interim and final reclamation. The soil shall be stockpiled on the southeast corner of the well pad.

C. CLOSED LOOP SYSTEM: **No reserve pit will be used.**

Steel tanks are required for drilling operations: No Pits Allowed.

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. Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Roswell Field Office at (505) 627-0236.

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 need.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The access road shall be constructed to access the northwest corner of the well pad. The access road will traverse the west side of the well location and will continue on to another well location

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.

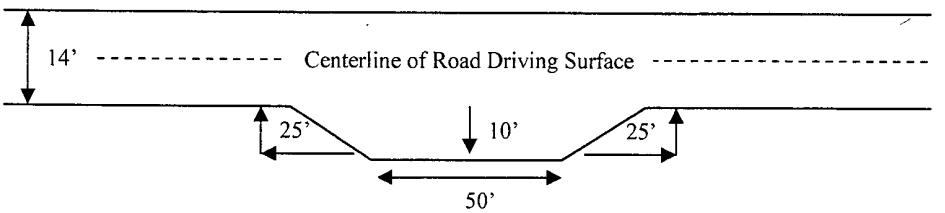
Crowning

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.

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

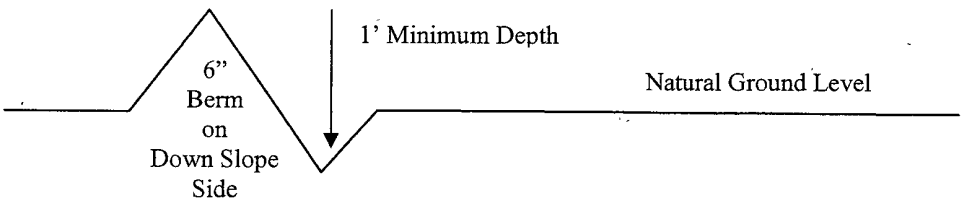


Drainage

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 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

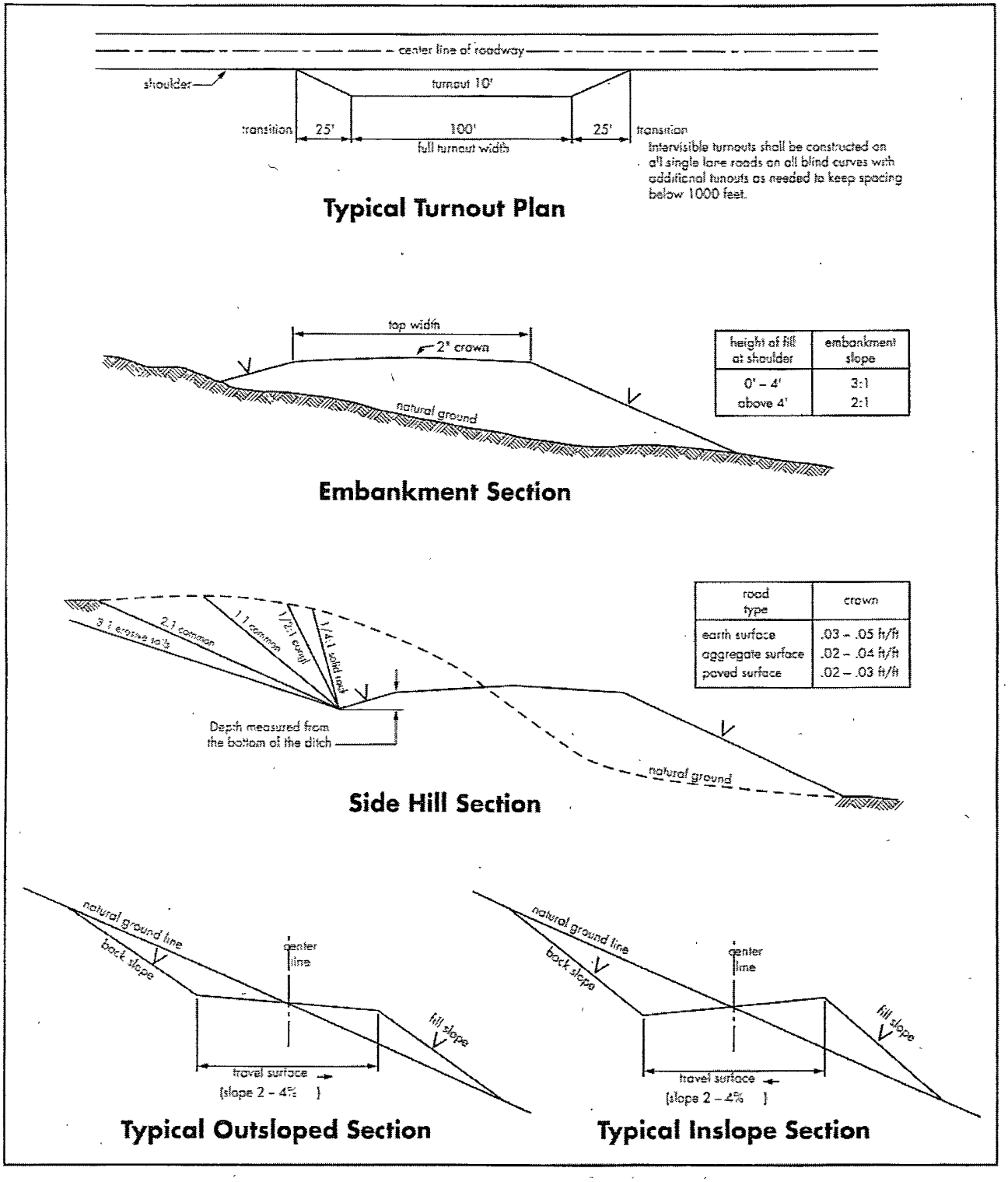
Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

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

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



V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS:

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 910-6024. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.

2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

BOPE Tests

3. 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.

4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.

5. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion

6. Air, air-mist or fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING

1. The **13 3/8** inch usable water protection casing string(s) shall be set at approximately **450** feet opposite competent bedrock. At 450 ft the operator could encounter the top Rustler but it is more likely to be deeper. If the Rustler is deeper then the operator should drill 25 ft into the top of the Rustler anhydrite and set casing. In no way shall the surface casing be set in the Rustler Halite.

a. If cement does not circulate to the surface, the Roswell Field 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 or 500 pounds compression 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 compression 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 **9-5/8** inch intermediate casing is **sufficient to circulate to the surface.** If cement does not circulate see B.1.a-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **sufficient to tie back 500 feet true vertical depth above the uppermost perforation in the pay zone**. If cement does not circulate, 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.

4. There is no required fill of cement behind the **4-1/2** inch production liner since a Isolation Packer will be used for lateral and will not require cementing.

5. 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. Before drilling below the **13-3/8** inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the **9-5/8** inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the **13-3/8** inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the **9-5/8** inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.

3. The BOPE shall be installed before drilling below the **13-3/8** inch surface casing and the **9-5/8** inch intermediate casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

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

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

c. 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.

d. 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 BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

g. The requested variance to test the BOPE prior to **drilling below the 13-3/8 inch surface casing** to the reduced pressure of **1000** psi using the rig pumps is approved.

D. DRILLING MUD

1. Fresh water and non toxic drilling mud shall be used to 450 feet to drill the 17-1/2 inch hole for the 13-3/8 inch surface casing to be set at 450 feet.

VI. PRODUCTION

A. WELL STRUCTURES & FACILITIES

1. Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim re-contouring and re-vegetation of the well location.

2. 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.

3. 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, **Juniper Green**, Standard Environmental Colors.

VII. INTERIM RECLAMATION

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site within 6 months of well completion. 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 operator 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.

B. DPC SEED MIXTURE

During reclamation, the removal of caliche is important to increasing the success of re-vegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, 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 re-vegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be re-vegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

The following seed mixture shall be used for interim reclamation and upon abandonment of the well on all areas of disturbance:

Sand Hills CP-2 Ecological Site

Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Sand bluestem	(*Andropogon hallii)*	0.50 lb.
Little bluestem	(*Schizachyrium scoparium*)	0.50 lb.
Sideoats grama,	(*Bouteloua curtipendula)*	1.50 lbs.
Sand dropseed	(*Sporobolus cryptandrus)*	0.50 lb.
Spike dropseed	(*S. contractus*)	0.50 lb.
Mesa dropseed	(*S. flexuosus*)	0.50 lb.
Plains bristlegrass	(*Setaria macrostachya)*	2.00 lbs.
Desert or Scarlet Globemallow or Buckwheat	(*Sphaeralcea ambigua*) (*S. coccinea)* (*Eriogonum* spp.)	0.50 lb. 1.50 lbs.
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE		8.00 lbs.

IF ONE SPECIES IS NOT AVAILABLE, INCREASE ALL OTHER PROPORTIONATELY. NO LESS THAN SIX (6) SPECIES WITH A MINIMUM OF ONE (1) FORB. NO LESS THAN 8.0 POUNDS PLS PER ACRE SHALL BE APPLIED. CERTIFIED WEED FREE SEED.

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

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. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, 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.

IX. Range Requirement

The operator shall keep traffic to a minimum, with the speed limit less than 20 MPH. When conflicts with livestock do arise as a result of the access road and well pad construction, in consultation with the allottee, measures will be taken to resolve the conflicts.

X. Wildlife Requirement

The operator shall cover with netting open top storage tanks and install cones on separator stacks.