ATS-08-871

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OCD-HOBBS

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work: ☑ DRILL ☐ REENTER	5 Lease Serial No: NM-2511
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6 If Indian, Allotee or Tribe Name
2 Name of Operator: EnerVest Operating, Ltd. (143199)	7 If Unit or CA Agreement, Name and No.
3a Address: 1001 Fannin, Suite 800, Houston, Texas 77002-6707	3b Phone No. (include area code): 713/495-6530
4 Location of Well (Report location clearly and in accordance with any State requirements *): At surface: 660' FSL AND 842' FEL (UNIT P); At proposed prod zone:	8. Lease Name and Well No: Meyer B-28 A Com AC2 #7 (303914)
	9 API Well No: 30-025-39239
	10. Field and Pool, or Exploratory: Eumont (Yates-7Rivers-Queen) Gas
	11 Sec., T. R. M. or Blk. and Survey or Area: Sec 28, T-20S-R37E
14 Distance in miles and direction from nearest town or post office*: 3 miles north of Oil Center, New Mexico	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): 842'	16. No. of acres in lease: 1640; 17 Spacing Unit dedicated to this well: 360
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft: 1200'	19. Proposed Depth: 3800'; 20. BLM/BIA Bond No. on file: NMB 000503
21 Elevations (Show whether DF, KDB, RT, GL, etc.): GL 3503'	22. Approximate date work will start*: 11/01/2008; 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	Name (Printed/Typed): Gary Miller	Date: 9-8-08
Title: Agent, Enervest Operating, Ltd		
Approved by (Signature): /s/ James Stovall	Name (Printed/Typed): /s/ James Stovall	Date: OCT 29 2008
Title: FIELD MANAGER	Office: CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

KZ

LEA COUNTY CONTROLLED WATER BASIN

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED

NOV 03 2008

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
30-025-39239	76480	Eumont; Yates Seven Rivers Queen (Gas)

Property Code	Property Name	Well Number
303914	MEYER B-28 A COM AC2	7

OGRID No.	Operator Name	Elevation
143199	EnerVest Operating	3503'

Surface Location

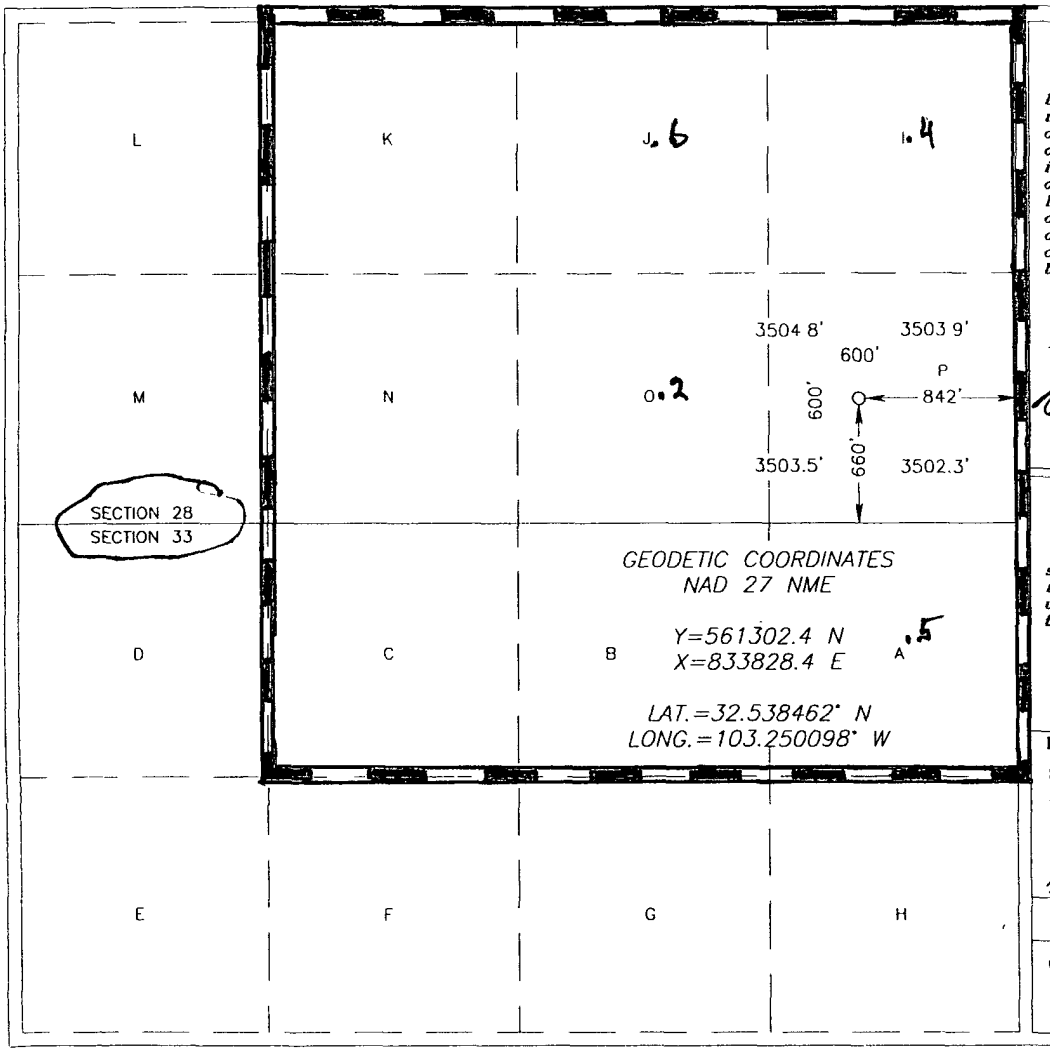
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	20-S	37-E		660	SOUTH	842	EAST	LEA

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.
360			

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.

Signature — Date: 9-8-08

Printed Name: Gary Mills, Agent

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.

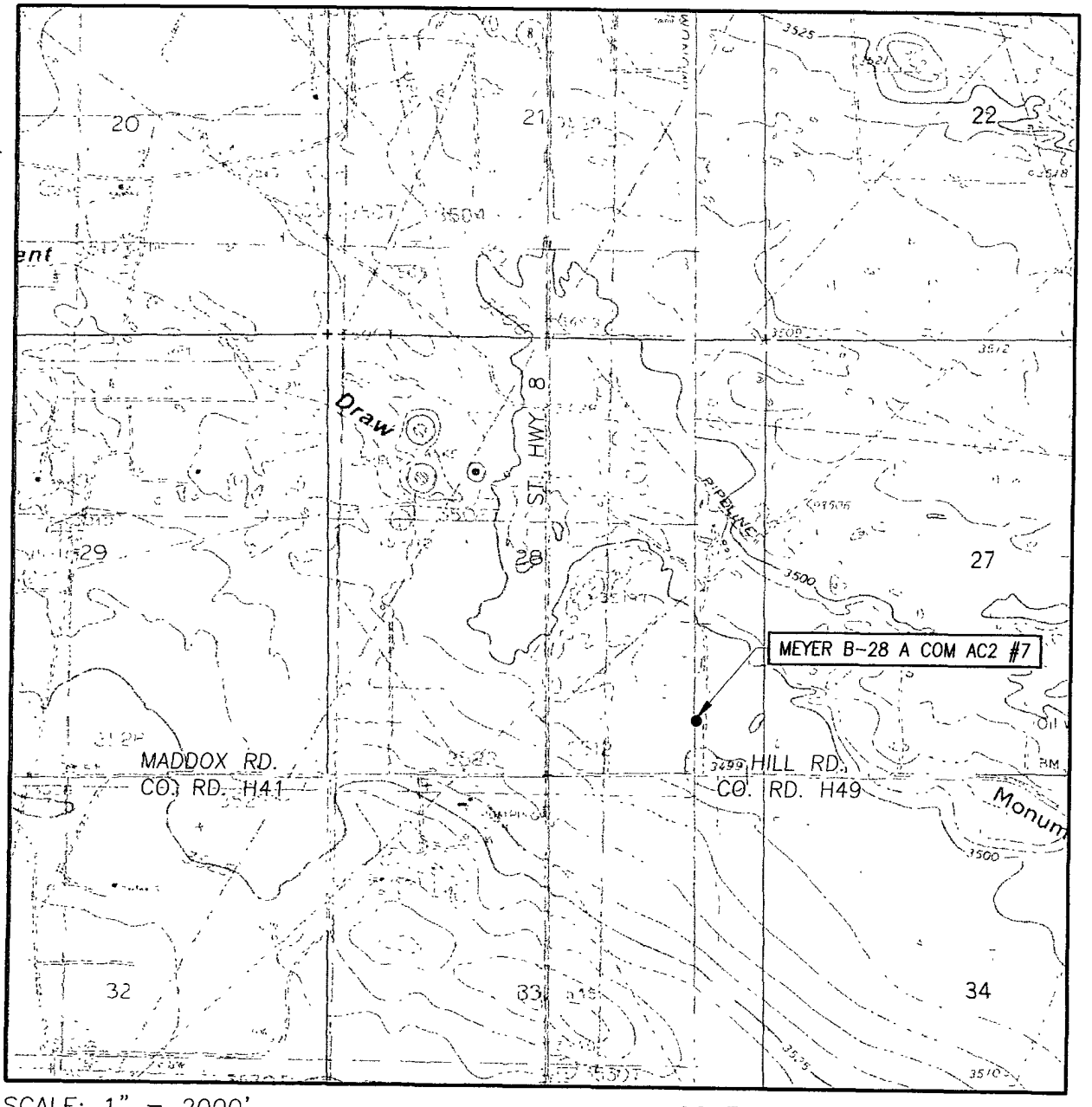
RONALD J. EIDSON
AUGUST 4, 2008
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed: 08/29/08 DSS

Signature & Seal of Professional Surveyor: 9/02/08

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SOUTHWEST, N.M. – 5'
MONUMENT SOUTH, N.M. – 5'

SEC. 28 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 660' FSL & 842' FEL

ELEVATION 3503'

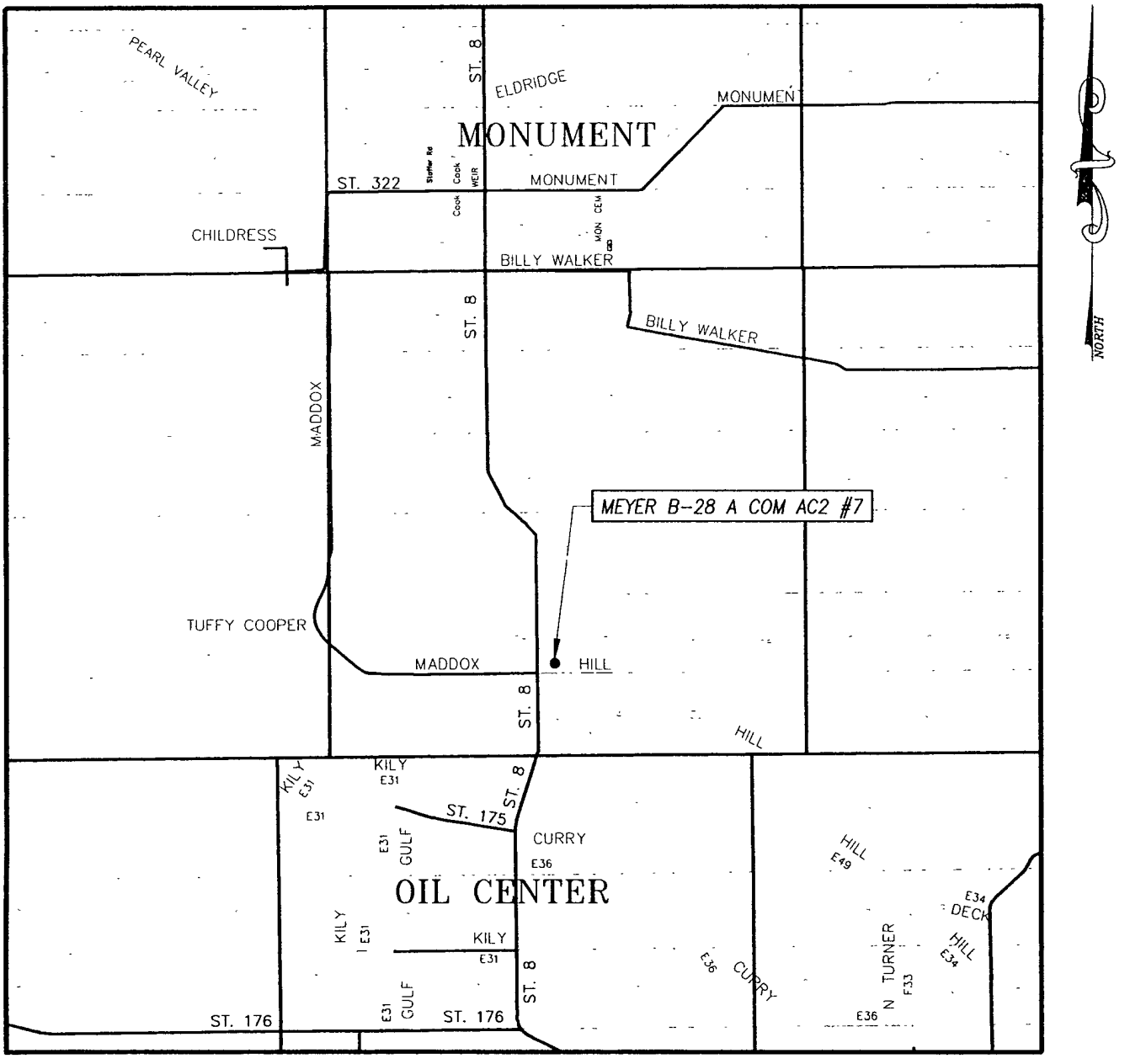
OPERATOR EnerVest Operating

LEASE MEYER B-28 A COM AC2

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SOUTHWEST, N.M.

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 660' FSL & 842' FEL

ELEVATION 3503'

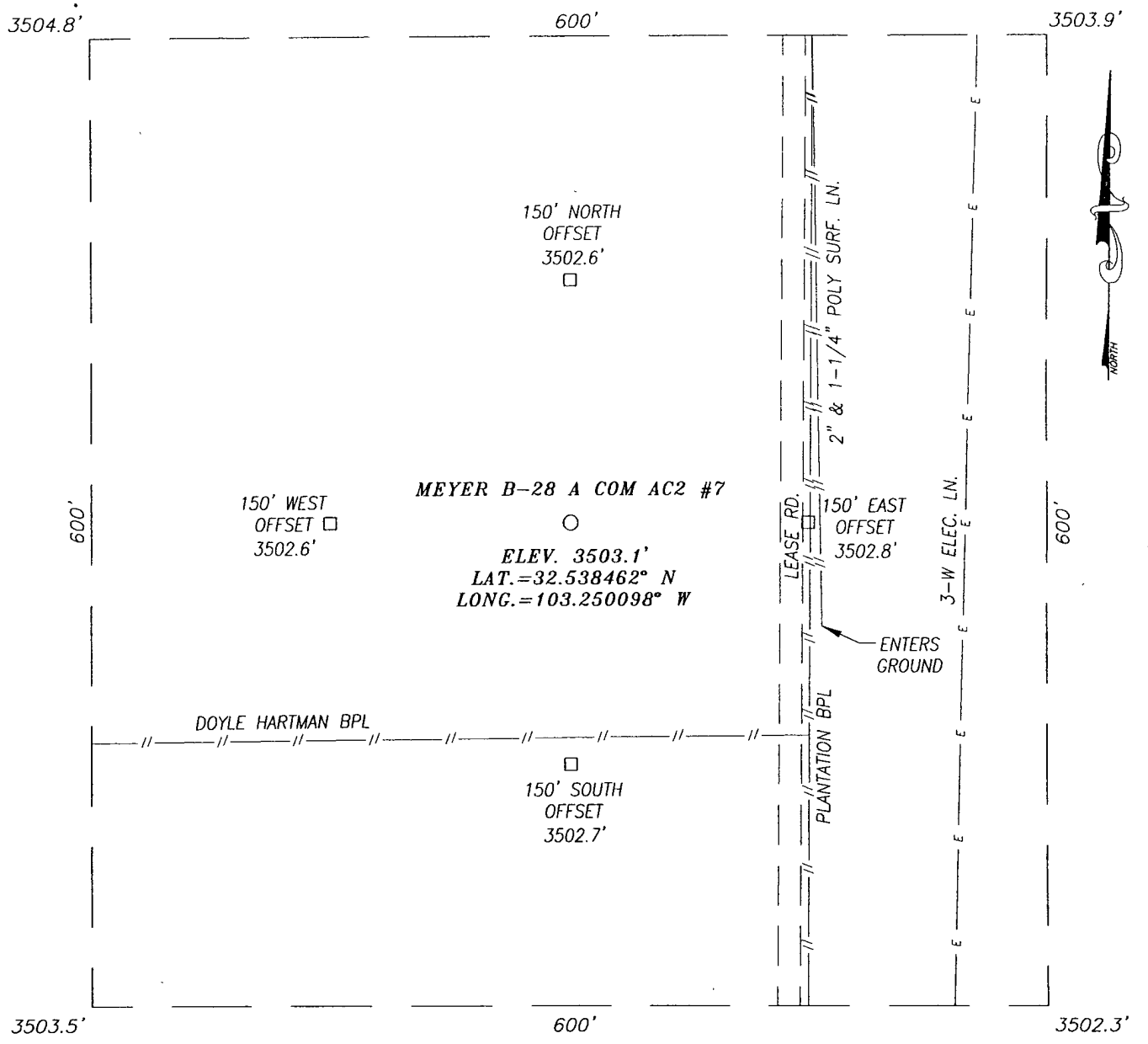
OPERATOR EnerVest Operating

LEASE MEYER B-28 A COM AC2

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

SECTION 28, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. 8 AND CO. RD. H-49 (HILL RD.), GO EAST ON HILL RD. APPROX. 0.3 MILES. TURN LEFT AND GO NORTH APPROX. 660 FEET. THIS LOCATION IS APPROX. 140 FEET WEST.

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

EnerVest Operating

MEYER B-28 A COM AC2 #7 WELL
LOCATED 660 FEET FROM THE SOUTH LINE
AND 842 FEET FROM THE EAST LINE OF SECTION 28,
TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 8/4/08	Sheet 1 of 1 Sheets		
W.O. Number: 08.13.1402	Dr By: DSS		Rev 2: 08/29/08
Date: 8/7/08		08131402	Scale: 1"=100'

EnerVest Operating, Ltd.
Drilling Plan
Eumont Field
660' FSL & 842' FEL Sec 28 T20S R37E
Lea County, NM 3503'

Felderhoff Bros. Rig #25
Rig Telephone #: (432) 967-9891

Meyer B-28 A COM AC2 #7 - DRILLING PROGRAM

1 Geologic Name of Surface Formation & Directions to Well

Quaternary

Directions to well:

2 Estimated Tops of Important Geologic Markers

MD	SS	Formation	Objective	Rock Type
1,238	1,989	Rustler		(Anhydrite)
1,326	1,901	Salado Salt		(Salt & Anhydrite)
2,670	557	Yates	Primary	(Sandstone & Dolomite)
2,932	295	Seven Rivers	Primary	(Sandstone & Dolomite)
3,418	-191	Queen	Primary	(Anhydrite, SS & Dolomite)
3,529	-302	Penrose	Primary	(Lower Queen)
3,720	-493	Grayburg		(Dolomitic SS)

3 Estimated Depths of Anticipated Fresh Water, Oil and Gas

MD	SS	Formation	Objective	Fluid Type
1,238	1,989	Rustler		
1,326	1,901	Salado Salt		None
2,670	557	Yates	Primary	(Sandstone & Dolomite)
2,932	295	Seven Rivers	Primary	(Sandstone & Dolomite)
3,418	-191	Queen	Primary	(Anhydrite, SS & Dolomite)
3,529	-302	Penrose	Primary	(Lower Queen)
3,720	-493	Grayburg		(Dolomitic SS)

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 8-5/8" casing to 1,250' and circulating cement back to the surface will protect the surface fresh water sand. All zones containing commercial quantities of oil or gas will have cement circulated across them by cementing the 4-1/2" production casing back to at least the 8-5/8" casing shoe. Cement volumes will be pumped to provide cement back to surface.

4 Casing Program

Hole Size	Interval	OD Casing	Weight	Grade	Conn./New?	Bur/Col/Tens
12-1/4"	0-1,250'	8-5/8"	24#	J-55	STC/New	2.00 / 2.40 / 1.94
7-7/8"	0-3,800'	4-1/2"	10.50#	J-55	~~LTC~~ STC/New	1.16 / 2.50 / 1.86

5 Cement Program ← See COA

8-5/8" Surface Casing
100% XS

LEAD 415 SX, 35/65/6, C/Poz/Gel, 1.90 cf/sk, 12.8 PPG
TAIL 195 SX, Class "C", 1.35 cf/sk, 14.8 PPG

4-1/2" Production Csg

LEAD 400 SKS 50:50 POZ:C (11.8 PPG 2.56 CF/SK)
TAIL 300 SKS CLASS "C" (14.8 PPG 1.33 CF/SK)

6 Minimum Specifications for Pressure Control & Wellhead Equipment

The blowout preventer equipment (BOPE) shown in Exhibit #9 will consist of a double ram-type (2,000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on bottom and 4-1/2" drill pipe rams on top. The BOPE will be nippled up on the 8-5/8" surface casing and tested to 2,000 psi by a third party. 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, choke lines and a choke manifold (Exhibit #11) and will have a 2,000 psi WP rating.

A 2,000 psi WP Larkin Type Wellhead will be used.

7 Types and Characteristics of the Proposed Mud System

The surface hole will be drilled with a fresh water mud.
The production hole will be drilled with saturated brine water.

DEPTH	TYPE	WEIGHT	VISCOSITY	WATER LOSS
0-1,250'	FW Mud	8.7	28	N.C.
1,250'-TD	Brine	10.0	30	12 cc

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

8 Auxillary 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 a GR-Dual Laterolog Litho Density log run from TD to the surface casing shoe.

B. A GR-Neutron will be run to surface.

C. No mud logger will be used.

D. No conventional coring is anticipated.
Further testing procedures will be determined after the 4-1/2" production casing has been cemented at TD, based on drill shows and log evaluation.

10 Abnormal conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 97°F and the estimated maximum bottom hole pressure is 1,700 psi. Lost returns have been experienced in offset wells. Losses have occurred below 2,700'.

11 Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the BLM. Anticipated Start Date is October 15, 2008
Once commenced, drilling operations 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.

12 Safety

Conduct Tour Safety Meetings with all crews and record topics of these meetings on the IADC and morning reports. Document all personnel in attendence and topics of these Safety Meetings. Keep these documents on file in company representative's office for inspection.

13 Notes

Stamp, Code and Sign all Invoices

H_2S Area? If yes, attach contingency plan.

Inclinations: Survey every 500' or bit trip
Drop Totco every trip out to check the angle. Max inclination = 3°
Call Houston if survey is >= 3°

Mud Disposal: Closed Loop system will be used. Haul off all cuttings and fluids.

BHA #1 **Surface** BIT - 8" DC - 6" DC's as needed

BHA #2 **Production** BIT - DC - STAB - DC - STAB - DC's as needed (30-60)

BIT PROGRAM

			RPM	WOB
Surface	**12-1/4"**	Smith F29	90	35k
Production	**7-7/8"**	FMH3655ZM	100-110	10-15k

WELL	Meyer B-28 A COM AC2 #7		ENERVEST		
TYPE	VERTICAL	RIG	FELDERHOFF BROS. #25	DATE	8/29/2008
FIELD	EUMONT	COUNTY	LEA COUNTY, NEW MEXICO	ELEVATION	3503'
GAS/OIL	GAS	MUD	VENTURE MUD	CEMENT	RISING STAR
LOCATION	660' FSL & 842' FEL SEC 28 T20S R37E			SBHT	99° F

COMMENTS: OBJECTIVE FORMATION: YATES, SEVEN RIVERS, QUEEN, & PENROSE

NOTE:

MUD-LOGGER	SURVEYS	WOB/GPM BIT	FORMATION TOPS HOLE SIZES	VERTICAL DEPTH	MUD WEIGHT	OPEN HOLE LOGS	CEMENT	WELLHEAD	REMARKS
			14" CONDUCTOR	**40'**					
	INCLINATIONS 400' & 1,250'	5K/300 10K/350 15K/450 TYPE 2 INSERT BIT	12-1/4" HOLE		8.5 - 8.8 PPG NATIVE				
NO MUD LOGGER		1 - 8" DC 6" DC'S AS NEEDED	RED BEDS				LEAD: 415 Sks 35:65:6 POZ:C:GEL (1.90 Yld, 12.8 PPG) TAIL: 195 Sks Class "C" 2% CaCl2 (1.35Yld, 14.8 PPG) (100 % Excess) FLOAT COLLAR & TEXAS PATTERN SHOE TOP OUT: IF NEEDED		
			8-5/8" 24# J55 STC	**1,250'**					
	INCLINATIONS EVERY 500' OR AS NEEDED	15K/350 HCC 506ZX	7-7/8" HOLE		9.8 - 10.1 PPG BRINE				
		15K/350 30-60 IBS	RUSTLER ANHYD: >						
NO MUD LOGGER			SALADO SALT / ANHYD >	**1,236'**					
		15K/350		2,000'					
		15K/350		2,400'					< ADD STARCH FOR 15 - 20 CC WL
POS LR - DEPLETION			**TANSIL (DOLO / ANHYD) >**	**2510'**					< POS LOST RETURNS 2,700' - 3,600'
		15K/350	**YATES (SS / DOLO) >**	**2,670'**		OPEN HOLE LOGS: HALLIBURTON TD TO SC: GR / LITHO DENSITY / DUAL LATEROLOG TD TO SURFACE: GR / NEUTRON			
			SEVEN RIVERS (SS / DOLO) >	**2,932'**					< POSSIBLE LOST RETURNS
			QUEEN (ANHYD / SS / DOLO) >	**3,418'**					
			PENROSE (LOWER QUEEN) >	**3,529'**					
			GRAYBURG >	**3,720'**					
			4-1/2 10.50# J55 LTC STC	**3,800'**					

			OFFICE	HOME
AFE #	REGULATORY	RONNIE YOUNG	(713) 495-6530	(832) 559-8128
EV #	SAFETY, HEALTH & ENVIRONMENTAL	ELROY ARDOIN	(713) 495-6534	(337)654-1992
API # 30-025-	GEOLOGIST	ROGER TREJO	(713) 495-5317	(281) 265-5973

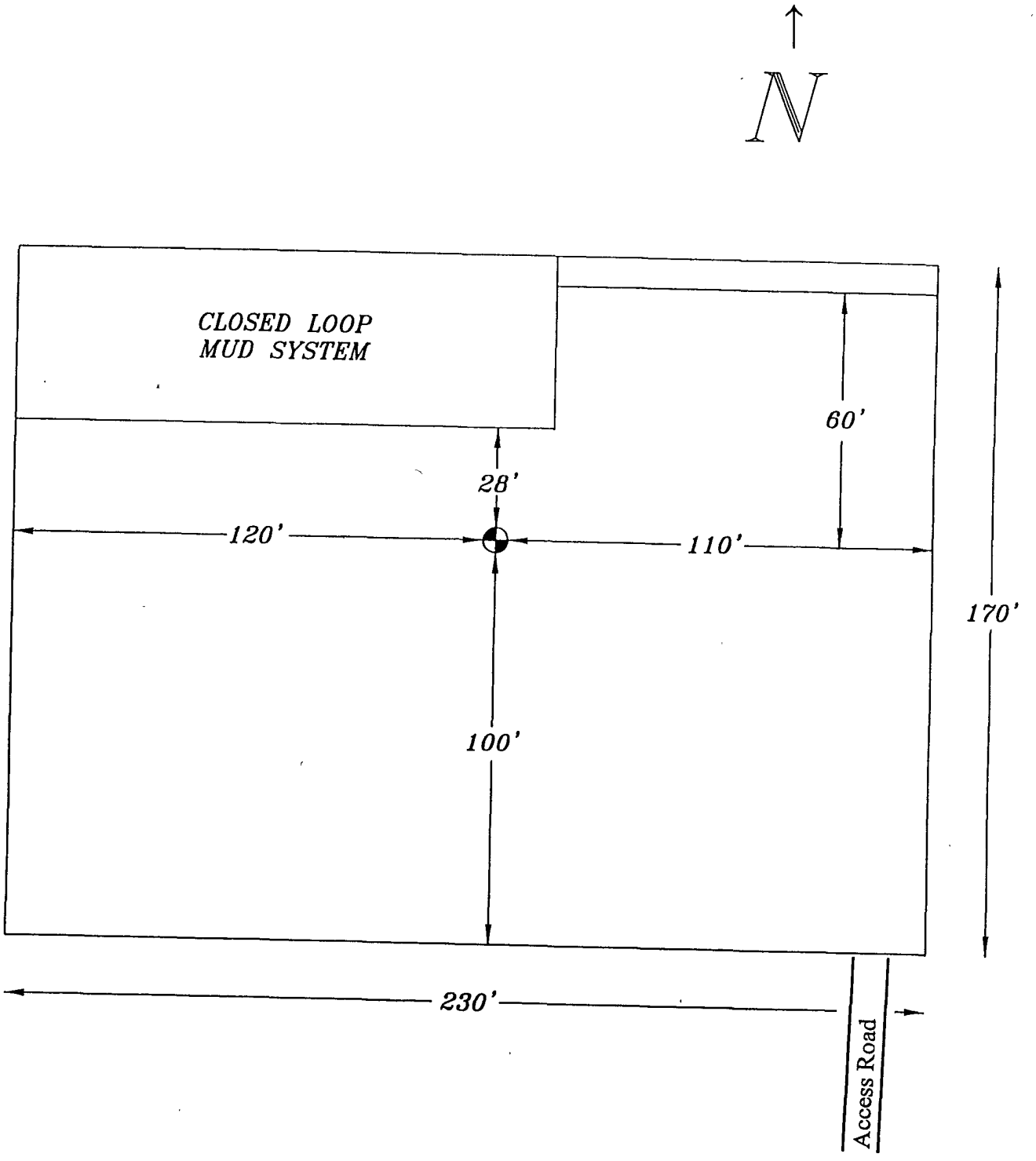


EXHIBIT #6

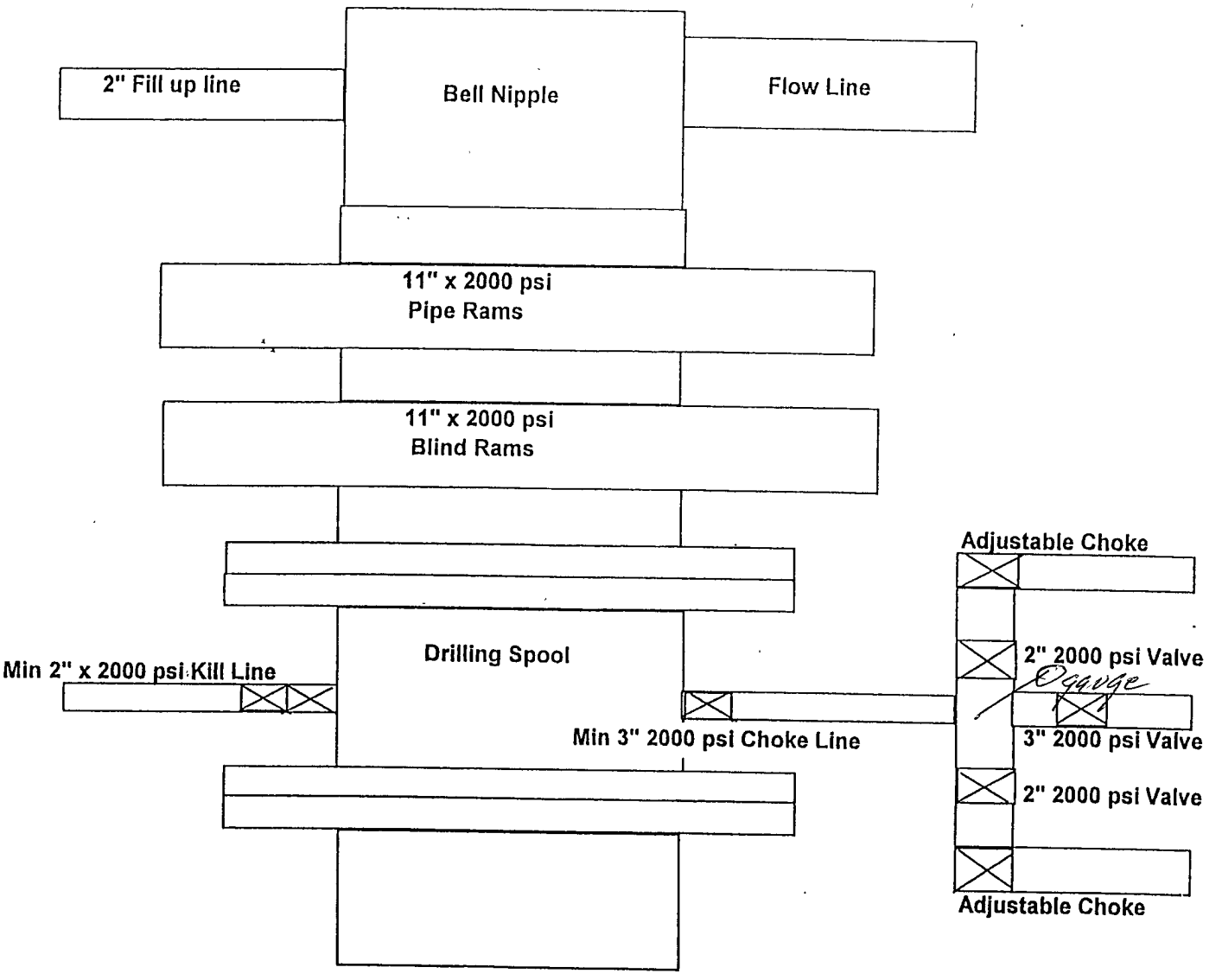
NOT TO SCALE

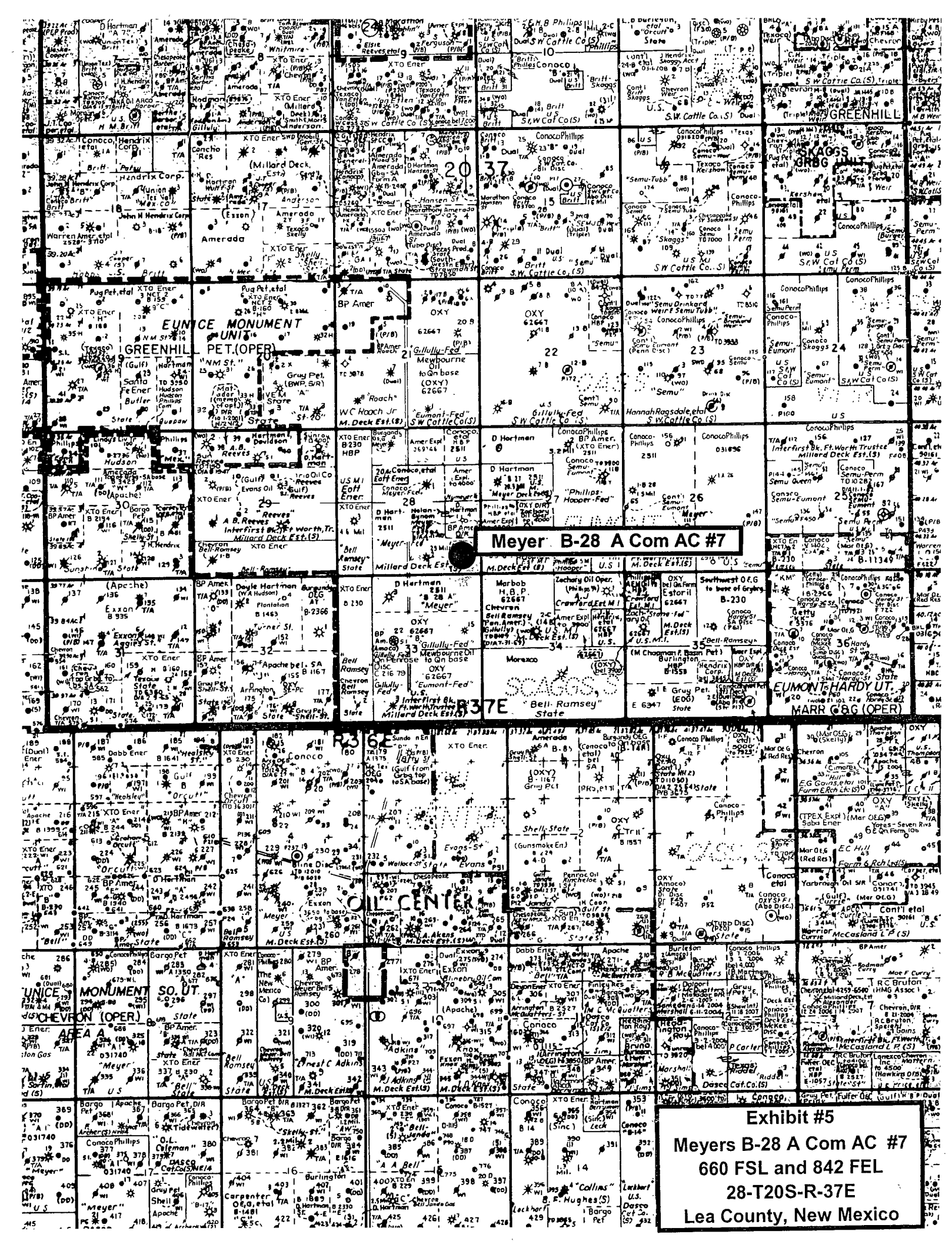
DATE: 1/7/08
DWN. BY: RC
FILE: C:\ENERVEST\3336 RIG LAYOUT

ENERVEST OPERATING, LTD.
RIG LAYOUT

ENERVEST

BOP DIAGRAM
LEA COUNTY, NEW MEXICO




Meyer B-28 A Com AC #7
EUNICE MONUMENT GREENHILL PET.(OPER)
SKAGGS GRBG UNIT
EUMONT-HARDY UT.
MARR (BG (OPER)
OIL CENTER
MONUMENT SO. UT.
CHEVRON (OPER.)
AREA A
Exhibit #5
Meyers B-28 A Com AC #7
660 FSL and 842 FEL
28-T20S-R-37E
Lea County, New Mexico

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EnerVest Operating, Ltd.
LEASE NO.:	NM2511
WELL NAME & NO.:	Meyer B28 A Com AC2 #7
SURFACE HOLE FOOTAGE:	660' FSL & 842' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 28, T. 20 S., R 37 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.

V. SPECIAL REQUIREMENT(S)

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

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 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

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

C. RESERVE PITS

The operator has applied for a closed-loop system. 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.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Yates** formation. **Hydrogen Sulfide has been measured between 300-700 ppm in the gas stream. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

B. CASING

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

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

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

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

Possible lost circulation in the Chinle and Glorietta formations.

1. The **8-5/8** inch surface casing shall be set **at approximately 1250 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** 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 is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, a remedial cement job will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **4-1/2** inch production casing is:

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

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

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. 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.

D. DRILL STEM TEST

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

WWI 100608

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

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

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

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

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

Seed Mixture 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.