AT5-11-411

Form 3160-3
(August 2007)

HOBBS OCD
OCD-HOBBS AUG 05 2011
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM-62223

6. If Indian, Allotee or Tribe Name:

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

1a. Type of work: [✓] DRILL [ ] REENTER

1b. Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other [✓] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: Sharbro Federal #10 (305951)

2. Name of Operator: EnerVest Operating LLC (143199)

9. API Well No.: 30-025-40218

3a. Address: 1001 Fannin Street, Suite 800, Houston, Texas 77002

3b. Phone No. (include area code): (713) 495-6530

10. Field and Pool, or Exploratory: Sand Dunes, Bone Springs (53800)

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 1830' FSL, 1980 FEL, Unit Letter J
At proposed prod. zone:

11. Sec., T. R. M. or Blk. and Survey or Area: Section 7, T-23-S, R-32-E

14. Distance in miles and direction from nearest town or post office*: 39 miles west and north of Jal, 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 drig. unit line, if any): 1830'

16. No. of acres in lease: 280

17. Spacing Unit dedicated to this well: 40 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1,282'

19. Proposed Depth: 8,900'

20. BLM/BIA Bond No. on file: NMB000503

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3554' GL

22. Approximate date work will start*: 06/15/2011

23. Estimated duration: 2 weeks

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Bridget Helfrich — Name (Printed/Typed): Bridget Helfrich — Date: 5-6-11

Title: Regulatory Technician

Approved by (Signature): /s/ George MacDonnell — Name (Printed/Typed): — Date: AUG - 4 2011

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.

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.

(Continued on page 2)

*(Instructions on page 2)

KZ 08/05/11

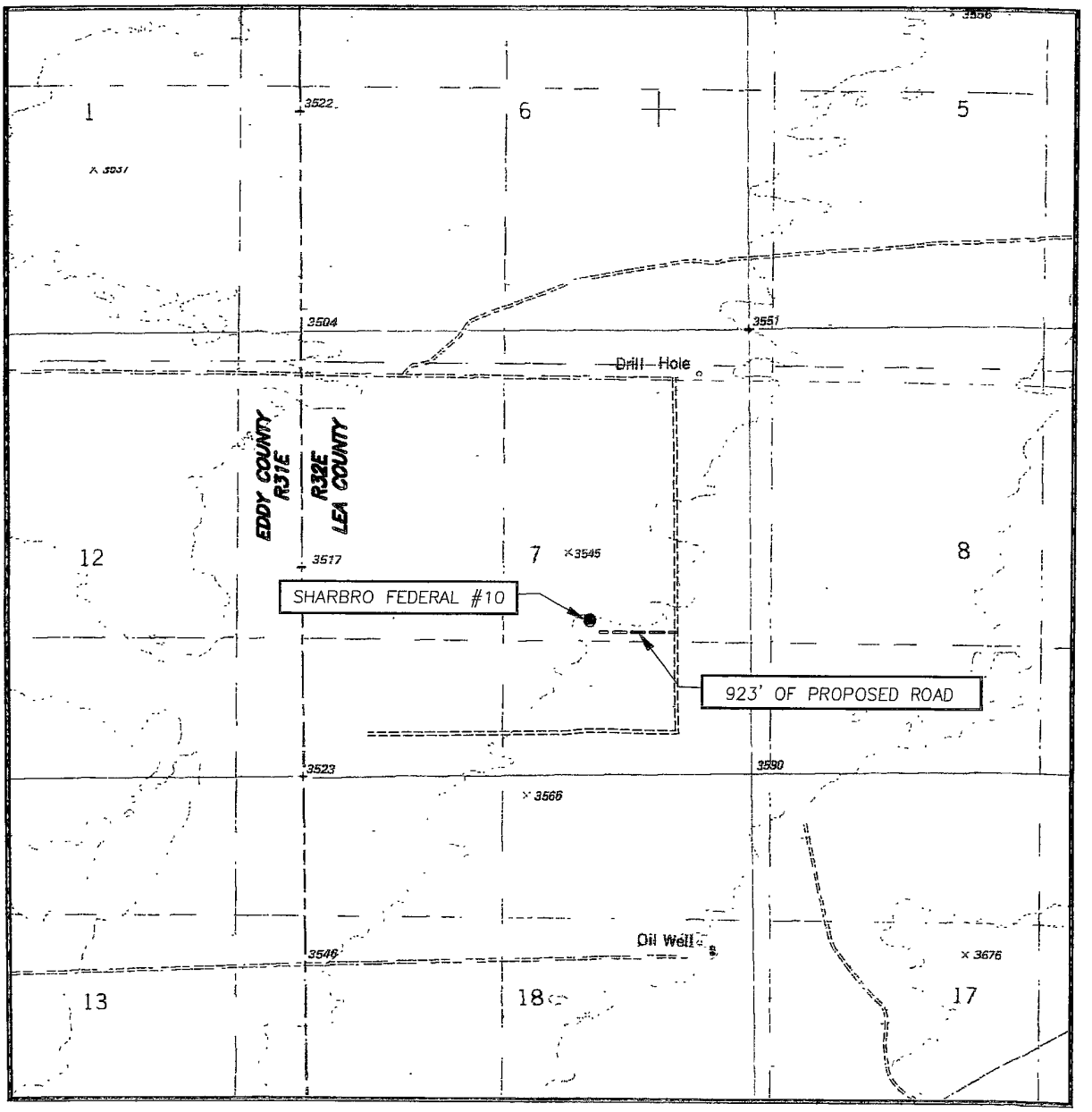
Carlsbad Controlled Water Basin

AUG 08 2011

ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BOOTLEG RIDGE, N.M. – 10'

SEC. 7 TWP. 23–S RGE. 32–E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1830' FSL & 1980' FEL

ELEVATION 3554'

OPERATOR ENERVEST OPERATING, LLC

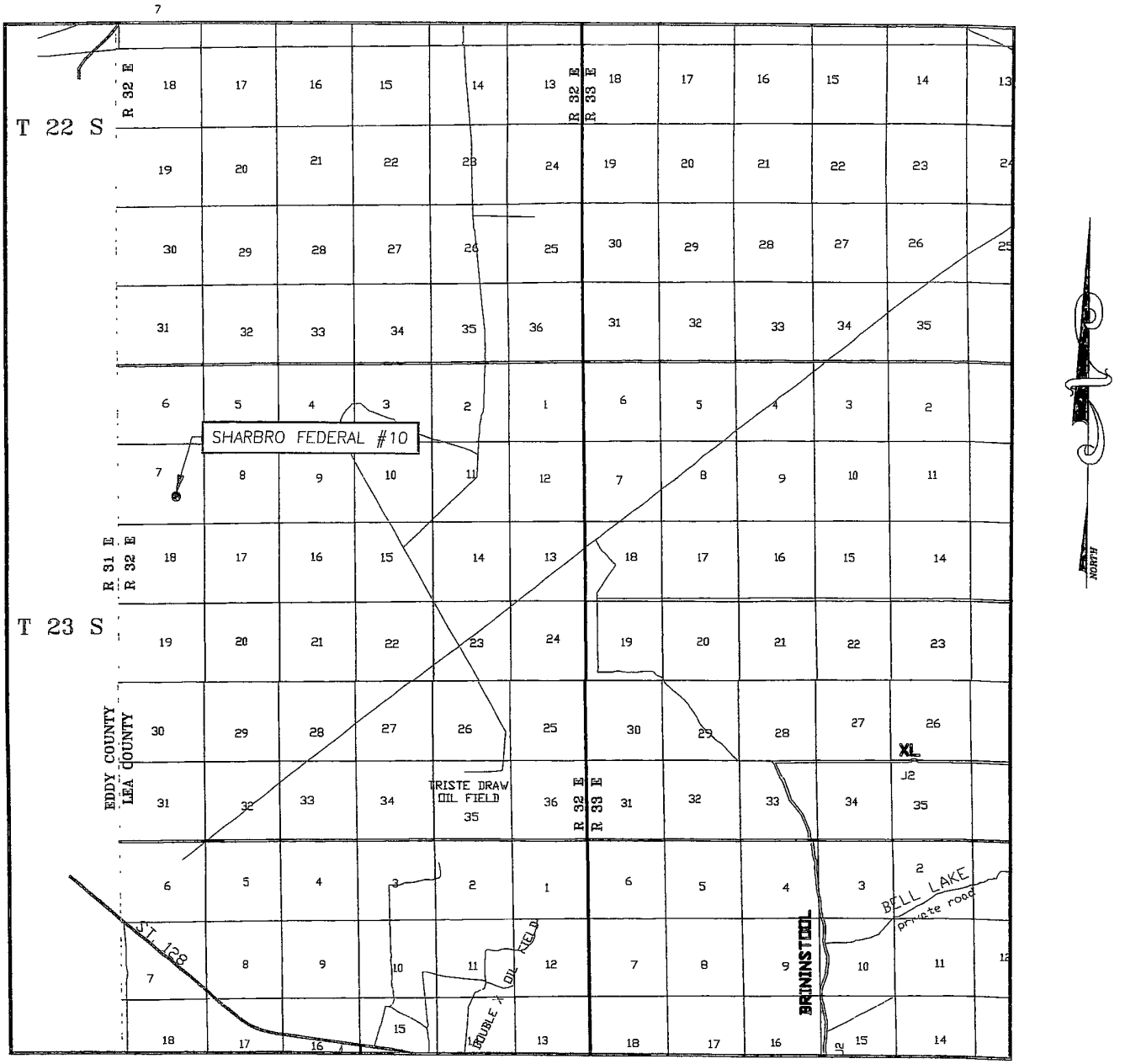
LEASE SHARBRO FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
BOOTLEG RIDGE, N.M.

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

EXHIBIT 2

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 7 TWP. 23-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1830' FSL & 1980' FEL

ELEVATION 3554'

OPERATOR ENERVEST OPERATING, LLC

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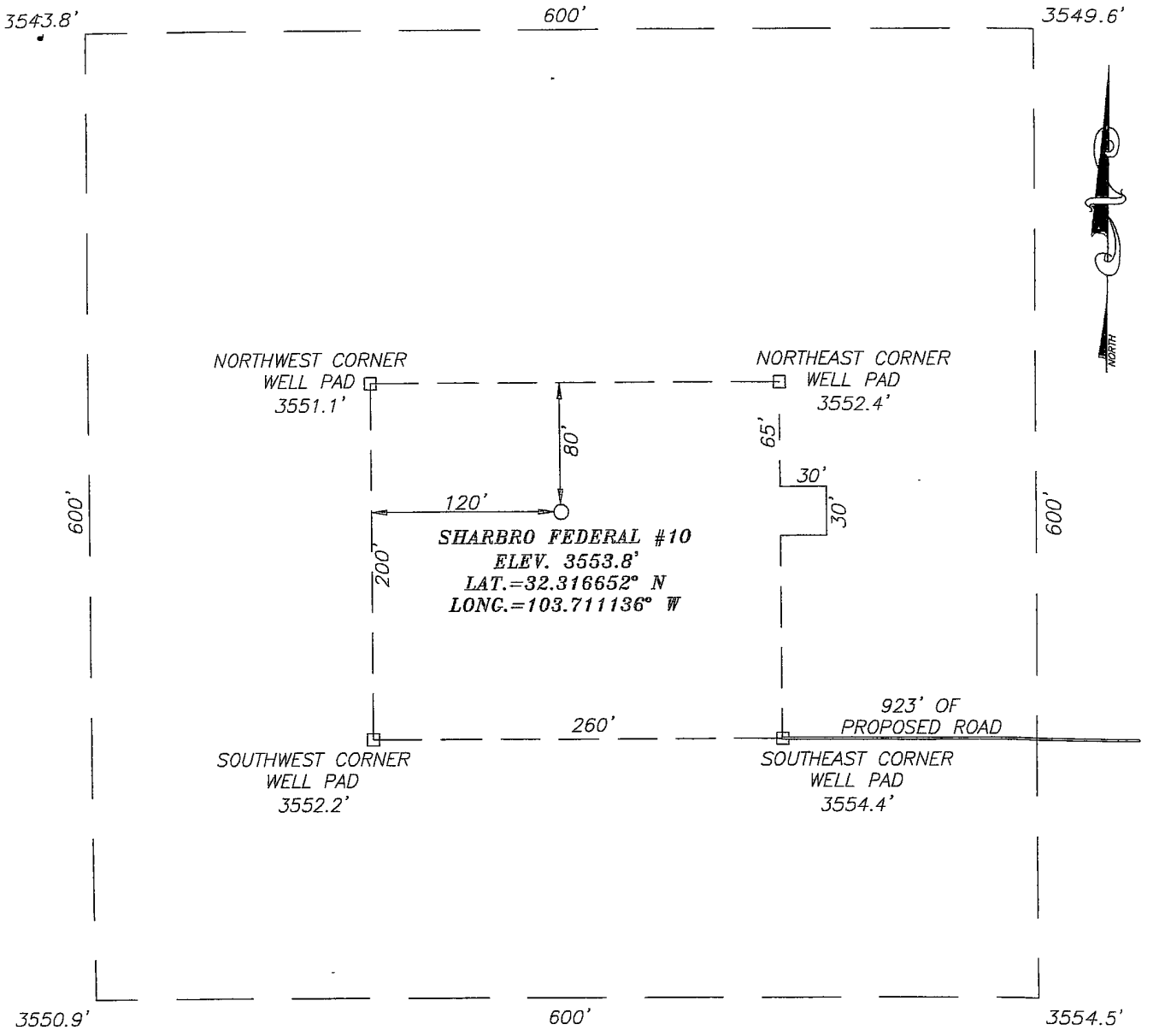
EXHIBIT 3

SECTION 7, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #128 AND CO. RD. #789 (RED ROAD), GO NORTH ON RED ROAD APPROX. 5.1 MILES. TURN RIGHT AND GO EAST APPROX. 1.8 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.6 MILES TO A PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY 923 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

ENERVEST OPERATING, LLC

SHARBRO FEDERAL #10 WELL
LOCATED 1830 FEET FROM THE SOUTH LINE
AND 1980 FEET FROM THE EAST LINE OF SECTION 7,
TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 3/19/11	Sheet 1 of 1 Sheets		
W.O. Number: 11.13.0874	Dr By: LA	Rev 1: N/A	
Date: 4/20/11	REL: 11110390	11130874	Scale: 1"=100'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
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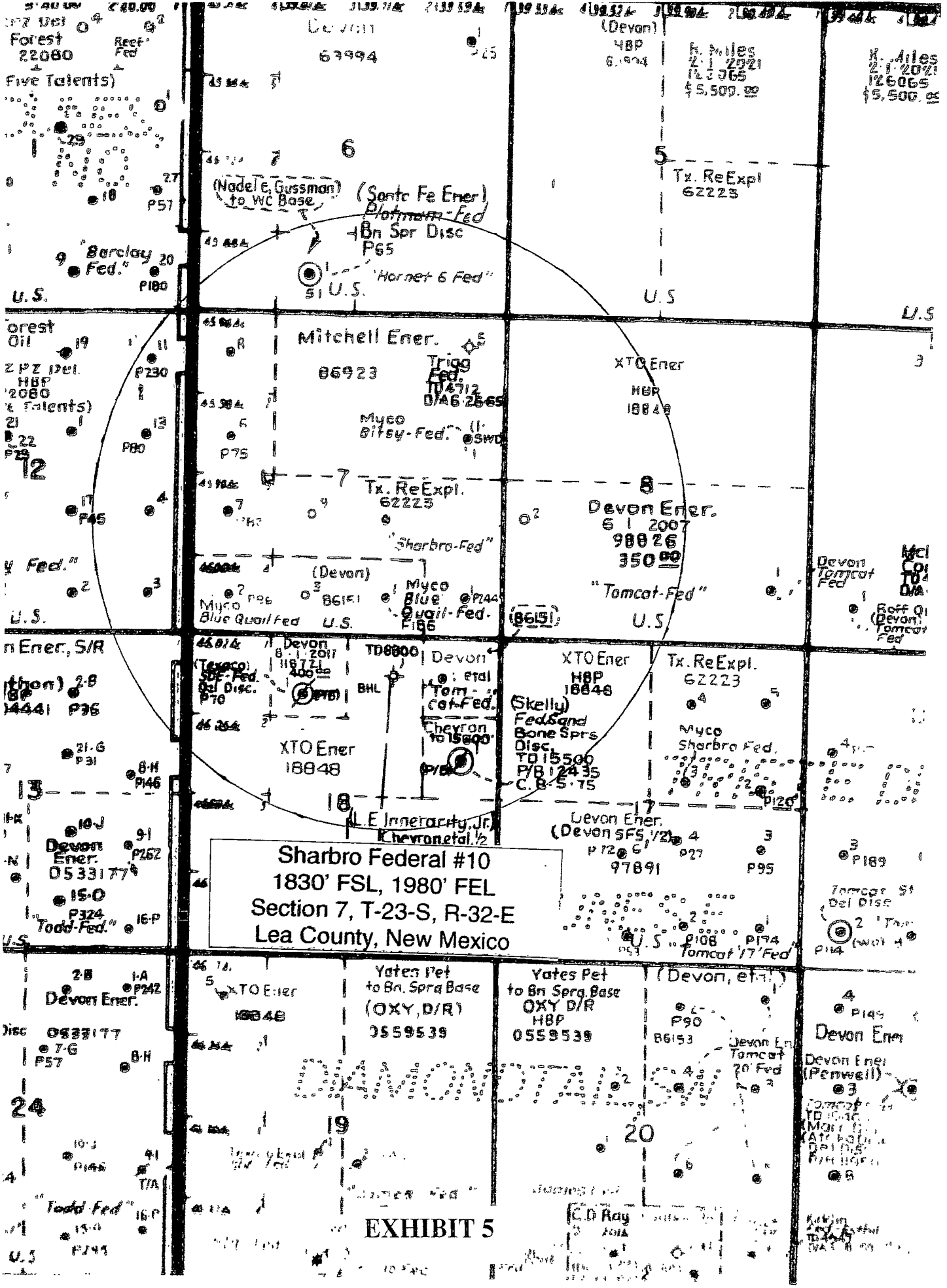
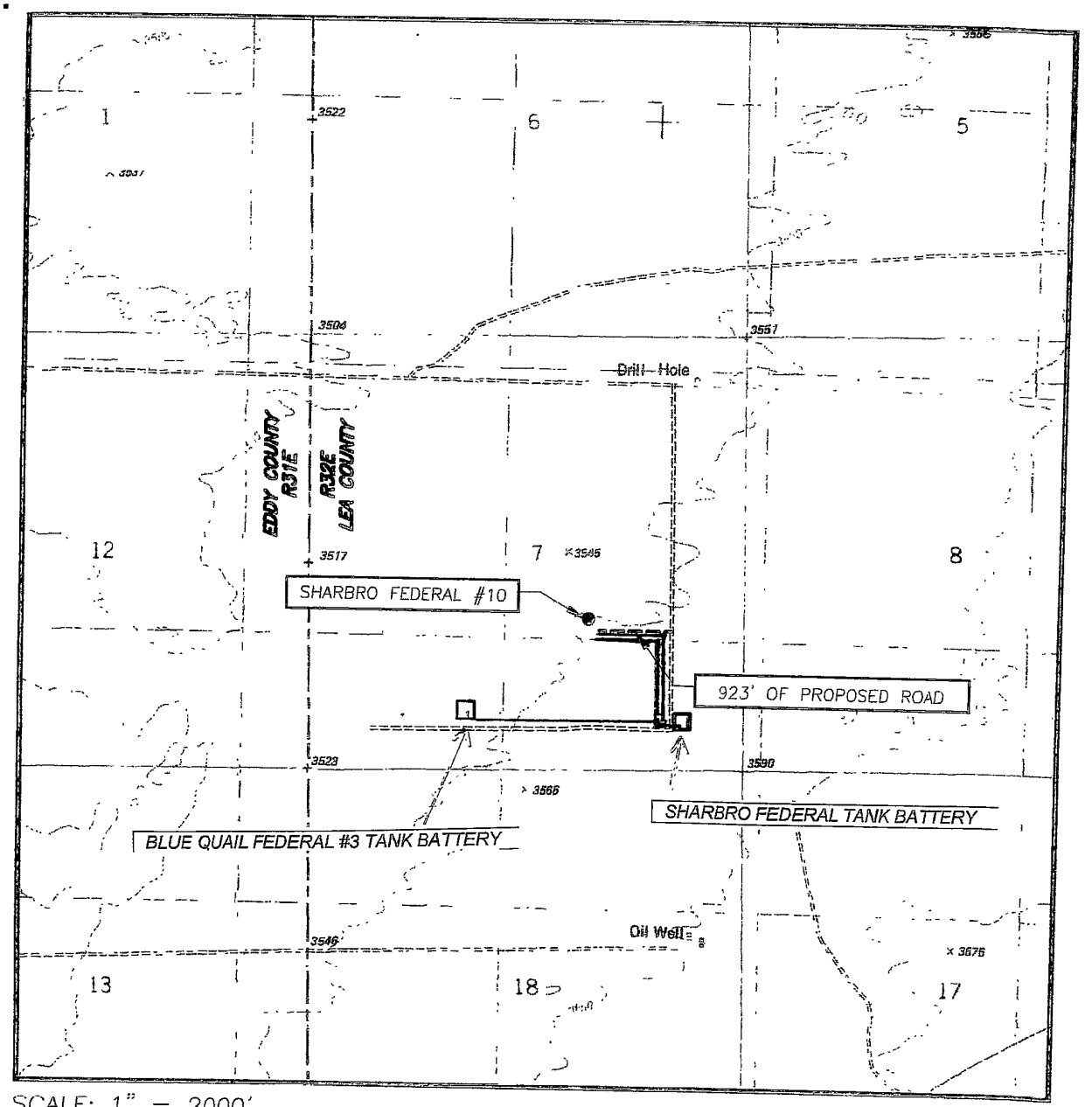
EXHIBIT 4


Sharbro Federal #10
1830' FSL, 1980' FEL
Section 7, T-23-S, R-32-E
Lea County, New Mexico
EXHIBIT 5

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BOOTLEG RIDGE, N.M. – 10'

SEC. 7 TWP. 23-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1830' FSL & 1980' FEL

ELEVATION 3554'

OPERATOR ENERVEST OPERATING, LLC

LEASE SHARBRO FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
BOOTLEG RIDGE, N.M.

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

EXHIBIT 6

EXHIBIT 7

ENERVEST OPERATING, LLC

SHARBRO FEDERAL #10

LEA COUNTY, NM

1830' FSL & 1980' FEL

1. The estimated tops of geologic markers are as follows:

not correct

Rustler Anhydrite	915'	Ramsey Sand	4625'	Avalon Sand	8556'
Top of Salt	4360'	Cherry Canyon	5529'	TD	8900'
Base of Salt	4530'	Brushy Canyon	6828'		
Lamar Lime	4600'	Bone Spring	8485'		

2. The estimated depths at which anticipated water, oil or gas bearing formations are expected to be encountered:

   Water: 150-250'

   Oil or Gas: 5600-8700'

3. **PRESSURE CONTROL EQUIPMENT:** A 13-5/8" BOPE will be installed on the 13-3/8" casing and rated for at least 3M. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit 9.

   3A. **AUXILIARY EQUIPMENT:** Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and drill collars will be available on the rig floor in the open position at all times for use when the Kelly is not in use.

4. **PROPOSED CASING AND CEMENTING PROGRAM:**

   A. **Casing Program: (All New)** See COA

Hole Size	Casing Size	Wt/ft	Grade	Thread	Interval	Length	Safety Factors
17-1/2"	13-3/8"	48#	H-40	STC	0-928'/1015	928'	1.86 (c) 3.26 (b) 7.89 (t)
12 ¼"	8-5/8"	32#	J-55	LTC	0-4625'/4600	4625'	1.32 (c) 1.41 (b) 2.73 (t)
7-7/8"	5-1/2"	17#	N-80	LTC	0-8900'	8900'	1.48 (c) 1.55 (b) 2.33 (t)

   B. Cementing Program:

   13-3/8" Surface Casing: 928' 1005-1015
   Lead - 580 sx lite prem cmt w/2% $CaCl_2$ + 0.125 ppsx Poly-E-Flake + 5 lb Gilsonite (wt. 12.30 ppg, Yield 1.95 ft^3/sx)
   Tail – 180 sx Class G prem cmt w/2% $CaCl_2$ + 0.125 ppsx Poly-E-Flake (wt. 15.80 ppg, Yield 1.17 ft^3/sx). Cement to surface using 100% excess cement.

   8-5/8" Intermediate Casing: 4625' 4600: 1150 sx lite prem cmt + 12% salt + .1 Versaset (wt. 12.50 ppg, Yield 2.01 cu ft^3/sxs)
   Tail: 300 sx 50/50 Poz prem + 12% Salt + .1% Versaset. (wt. 13.50 ppg, Yield 1.44 ft^3/sx.
   Cement to surface using 50% excess cement.

5-1/2" Production Casing – 8900': 1st stage: Lead w/260 sxs lite prem cmt + 5 ppg/sx Gilsonite + .125 ppg/sx Poly-E-Flake + .3% HR-5 + 1 ppg/sx Pheno Seal Medium (wt. 12.30 ppg, Yield 1.93 ft^3/sx)

See COA

Tail w/100 sxs 50/50 Poz prem + 2.5 ppg/sx Gilsonite + .125ppg/sx Poly-E-Flake +.3% Halad(R)-9 + .1% CFR-3 (wt. 13.50 ppg, Yield 1.29 ft^3/sx). DV Tool set at approx. 6000'.
2nd stage: Lead w/180 Lite prem cmt + 5 ppg/sx Gilsonite + .125 ppg/sx Poly-E-Flake + .2% Halad(R)-9 (wt. 12.30 ppg, Yield 1.92 ft^3/sx)
Tail w/50 sx of Class "G" prem cmt + .3% Halad(R)-9 (wt 15.80 ppg; yield 1.15 ft^3 sx. Tie back to Intermediate Casing (4000'). Volumes to be adjusted using 25% excess cement.

5. **MUD PROGRAM AND AUXILIARY EQUIPMENT:**

Interval	Type	Weight	Viscosity	Fluid Loss
0-928 1015	FW Gel	8.4-8.9	32-26	N/C
928-4625 4600	Brine	10.0	28	N/C
4625-TD	Cut Brine	8.9-9.3	28	<15.0

Sufficient mud material to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. **EVALUATION PROGRAM:**

Samples:	Every 10' from intermediate casing to TD
Logging:	G/R/N from surface to TD; Dual Induction Spectra G/R, Litho Density from 4500' to TD
Coring:	None anticipated
DST's:	None anticipated

7. **ABNORMAL CONDITIONS AND ANTICIPATED BHP:**

From 0-928': Anticipated Max. BHP: 250 psi
From 928 – 4625': Anticipated Max. BHP: 750 psi
From 4625 – 8900' (TD): Anticipated Max. BHP: 2620 psi

Anticipated Potential Hazards: None

Abnormal Pressures Anticipated: None

Lost circulation Zones Anticipated: per COA – Glorieta, Delaware, Bone Spring

H_2S Zones Anticipated: Per COA – Bone Springs – Hydrogen Sulfide Drilling Plan to be activated 500' prior to drilling the Bone Spring formation.

Maximum Bottom Hole Temperature: 160° F

8. **ANTICIPATED STARTING DATE:**

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 16 days to drill the well with completion taking another 10 days. This well lies in the CRMA prairie chicken area as defined by the 1966 NM GAP analysis study; NM State University. ENERVEST OPERATING, LLC REQUESTS AN EXEMPTION FROM THE MARCH 15-JUNE 15 PRAIRIE CHICKEN STIPS FOR THE DRILLING, COMPLETION & WORKOVER PHASES OF THIS WELL. EnerVest contends that there are no prairie chickens in this area, as supported by the attached field survey prepared by Auburn University in 2000, attached to the Surface Use of Operations.

WELL	Sharbro Federal 10		ENERVEST OPERATING		
TYPE	VERTICAL	RIG	TBD (United)	DATE	22-Jun-11
FIELD	SAND DUNES	COUNTY	LEA	ELEVATION	3555' (Est)
GAS/OIL	OIL	MUD		CEMENT	
LOCATION	1830' FSL & 1980' FEL OF SEC. 7, T23S, R32E			SBHT	

COMMENTS: OBJECTIVE FORMATIONS: BONE SPRING SAND, AVALON SAND

NOTE:

MUD-LOGGER	SURVEYS	WOB/GPM BIT	FORMATION TOPS HOLE SIZES	VERTICAL DEPTH	MUD WEIGHT	OPEN HOLE LOGS	CEMENT	WELLHEAD	REMARKS
		300'/600'/TD 10/50/900 RENTAL INSERT	17-1/2"			8 4-8.9 GR/N (C.H.)	Cement to surface (100% Excess)		
			Rustler Anhydrite Est 903'						
			13-3/8" 48# H-40 STC Casing	928					
SET SURFACE CASING A MIN OF 25' INTO THE RUSTLER ANHYRITE									
		Every 1000' or less 10/25/700 PDC	12-1/4"		10 ppg Brine	GR/N (C.H.)	Cement to surface (50% Open Hole Excess)		
				4,000			TOC (5-1/2" String Second stage above DV tool) MINIMUM 500' into the intermediate annulus		
			Top of Salt	4,360					
			Base of Salt	4,530					
			Lamar Lime	4,600					
			8-5/8" 32# J-55 STC Casing						
			Ramsey Sand	4,625	8.9-9.3 Cut Brine				
		Every 1000' or less 10/25/500 PDC (FX65R)							
			7-7/8" OH						
6,000' H_2S Equip. Operational			Cherry Canyon	5,529		DV Tool @ 6,000'	Bring cement into intermediate casing @ 4000' Use 15% Excess Over OH Caliper Volume		
							Stage 2 (Estimated Volume):		
			Brushy Canyon	6,828					
			Bone Spring	8,485		Dual Induction, Spectra GR, Litho Density Neutron			
							Stage 1 (Estimated Volume):		
			Avalon Sand	8,556					
			5-1/2" 17# N-80 LTC Casing	8,900					

			Office
AFE #	Regulatory	Janet Blenski	713.495.1571
EV #	Engineer	RG Trueheart	713.495.1561
API #	Geologist	Gary Kowalczyk	713.495 6590

BOP Diagram

SHARBRO FEDERAL #10
LEA COUNTY, NM

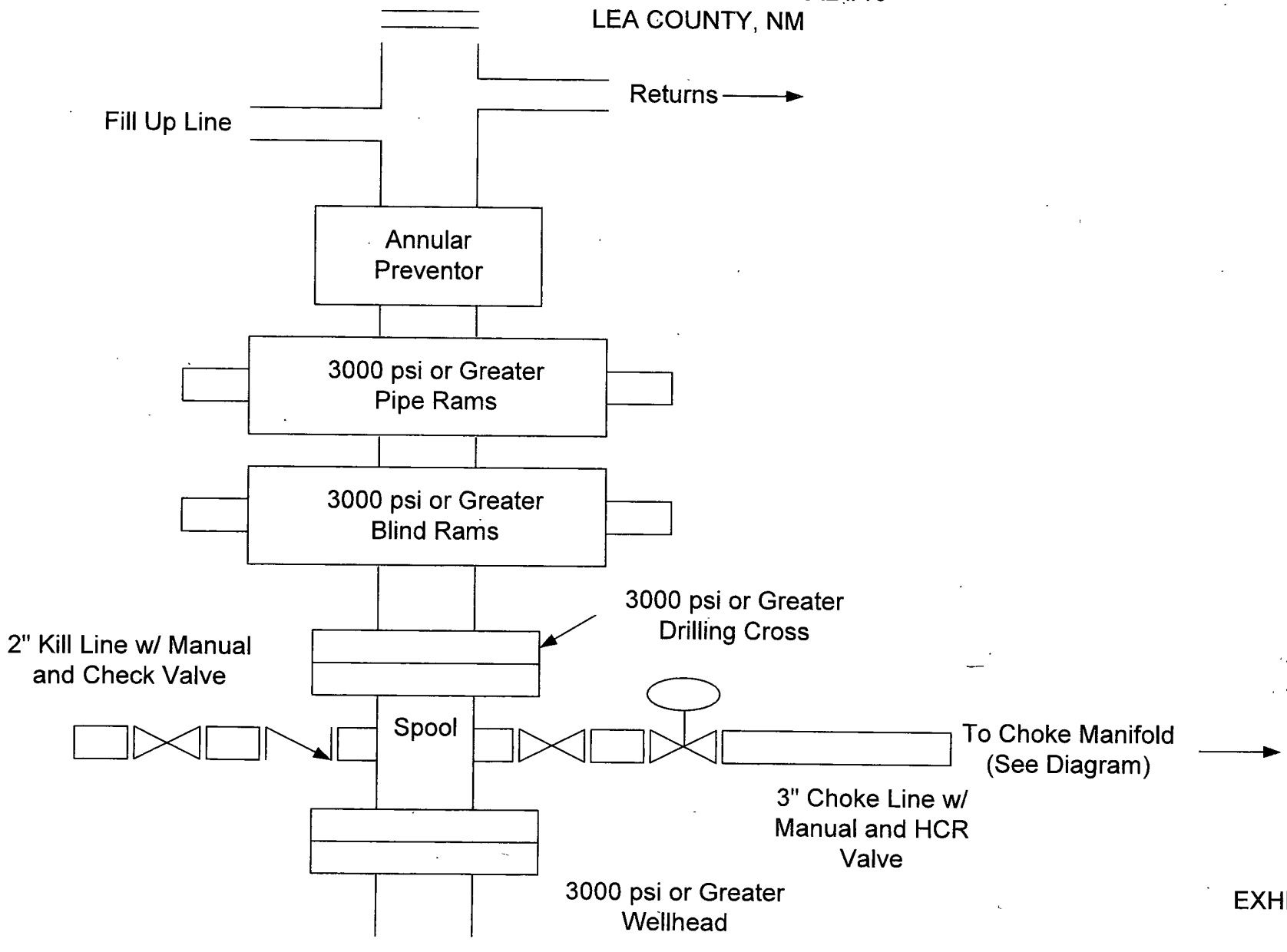
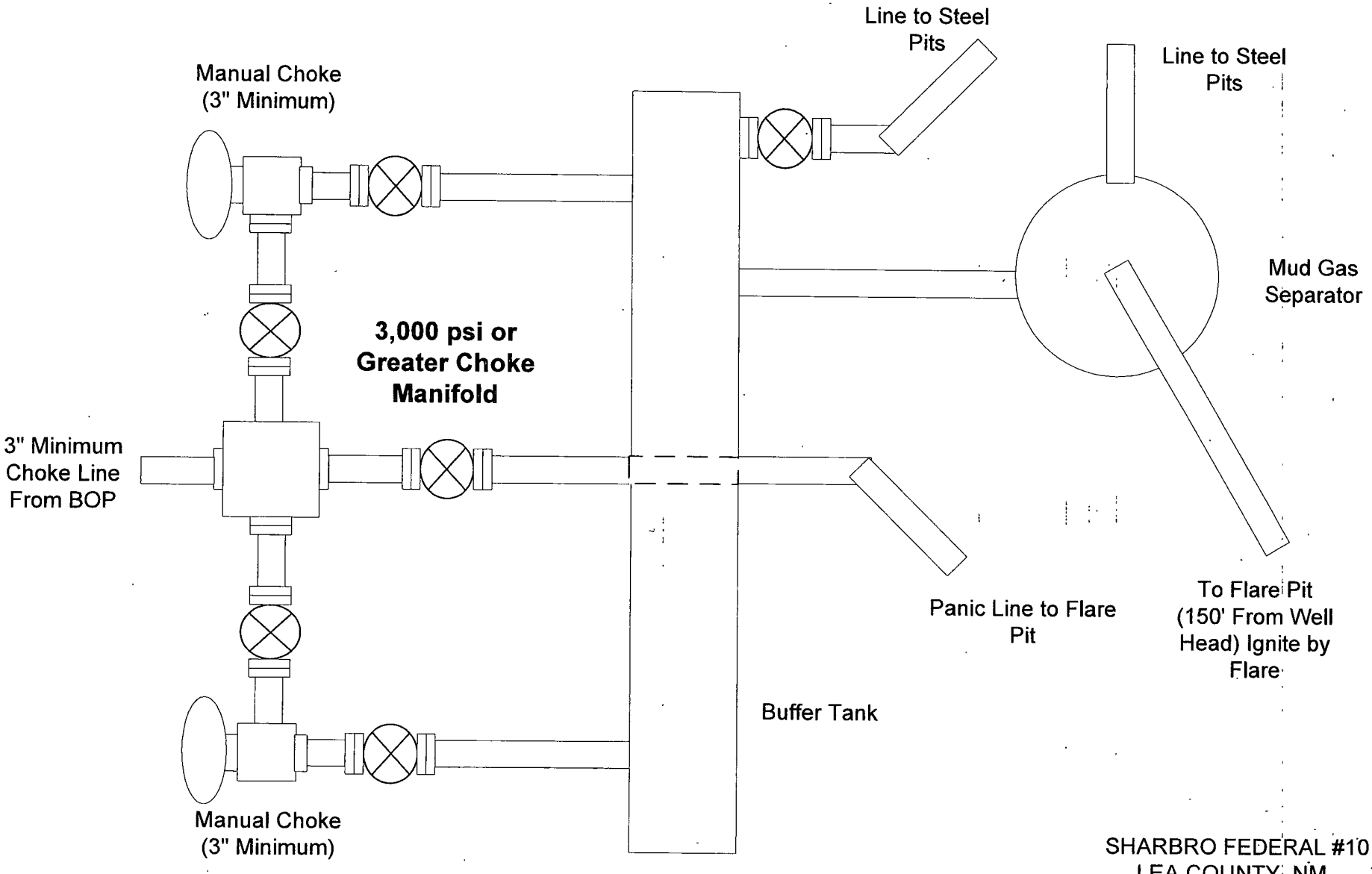


EXHIBIT 9

Sand Dunes
Choke Manifold & Piping Configuration



SHARBRO FEDERAL #10
LEA COUNTY, NM

EXHIBIT 9A

CLOSED LOOP SCHEMATIC
SHARBRO FEDERAL #10

SAND DUNES LOCATION LAYOUT

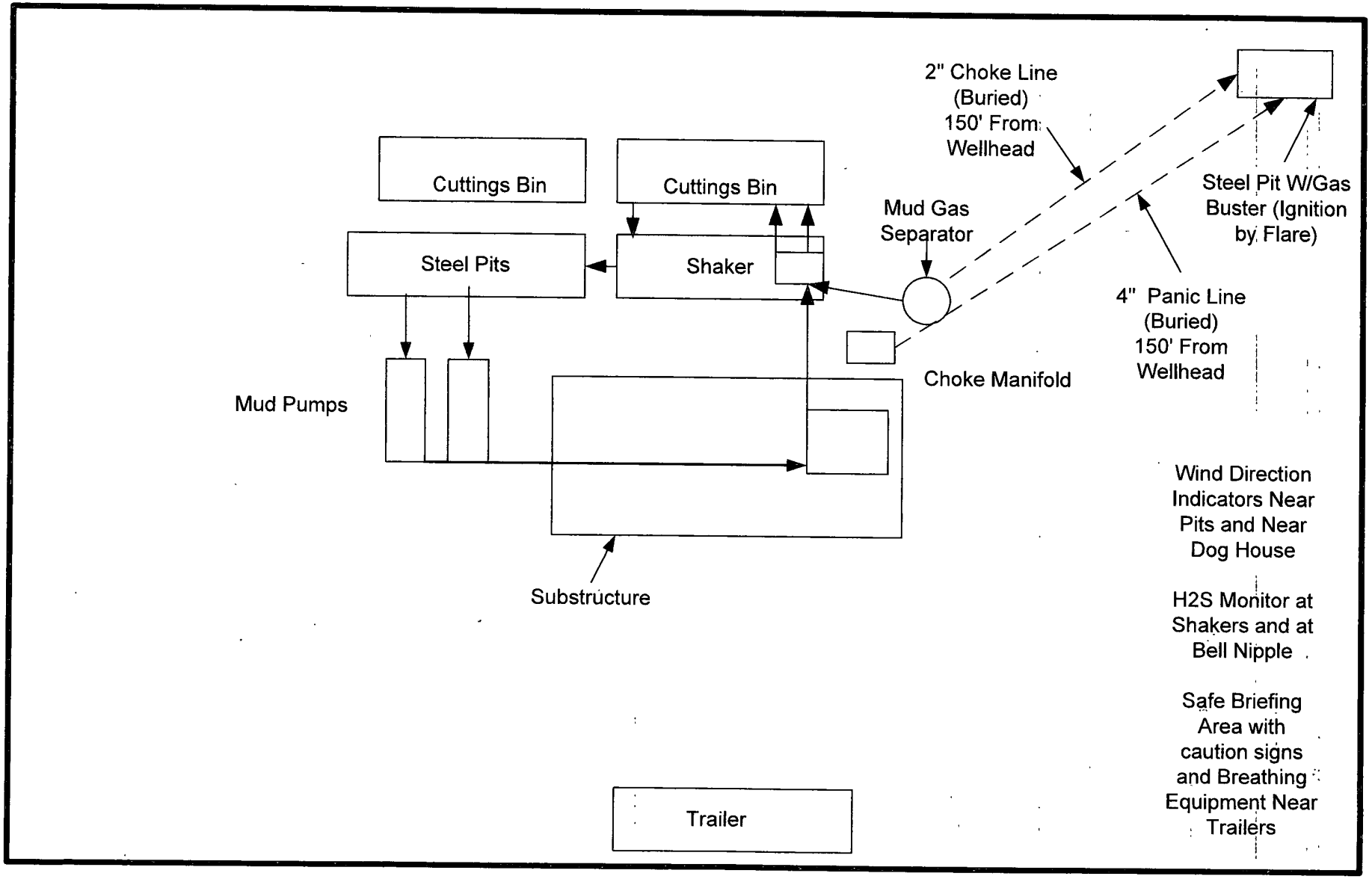


EXHIBIT 10

ENERVEST OPERATING LLC

CLOSED-LOOP DESIGN PLAN

EnerVest Operating LLC ("EnerVest") shall design and construct its closed-loop system closed-loop system to ensure the confinement of oil, gas or water to prevent uncontrolled releases.

The design plan for the closed-loop system shall use appropriate engineering principles and practices and follow applicable manufacturers' requirements. The plan shall include operating and maintenance procedures and a closure plan, as set out below. For further information on the closed-loop system design, please see the attached diagram.

EnerVest's closed loop system will not use a drying pad, temporary pit, below grade tank or sump. It will use an aboveground haul-off bin suitable for holding solids and fluids from rig operations. No fencing will be constructed around the closed-loop system. Signage shall be posted per the C-144 form to which this plan is attached.

CLOSED-LOOP OPERATING AND MAINTENANCE PLAN

EnerVest shall operate and maintain the closed-loop system in a manner that will contain solids and liquids, maintain the system's integrity, prevent contamination of fresh water and protect public health and the environment. To attain this goal, the following procedures will be followed:

1. EnerVest shall recycle, reuse or reclaim or dispose of all drilling fluids in a manner approved by NMOCD rules.

2. EnerVest shall not discharge into or store any hazardous waste in the closed-loop system, including the haul-off bin, nor shall it allow miscellaneous solid waste or debris into same.

3. The haul-off bin will be of sufficient volume to maintain a safe freeboard prior to disposal of the solids and liquids from rig operations. Disposal will be done on a periodic basis, whenever a haul-off bin is determined to be at full volume capacity. The solids and liquids in the closed-loop system will be transported off the drill site and disposed at the NMOCD-permitted disposal facility or facilities listed below. The designated NMOCD-permitted disposal facility is:

Disposal Facility:	NMOCD Permit No.:
Controlled Recovery, Inc.	NM-01-0006
Gandy Marley, Inc.	DP-1041

4. The closed-loop system will be inspected at least daily while the drilling or workover rig is on-site EnerVest shall maintain a log of such inspections.

5. If some component of the closed-loop system develops a leak, or if any penetration of a component occurs below the liquid's surface, then EnerVest shall promptly remove all liquid above the damage or leak line, notify the appropriate NMOCD district office within 48 hours of the discovery and repair the damage or replace the affected closed-loop system component.

CLOSED-LOOP CLOSURE PLAN

The closure for this drill site is not subject to the closure requirements for temporary pits specified in Subsection B of 19.15.17.13, NMAC, as EnerVest will not use any temporary pits in conjunction with its closed-loop system. The closure for this drill site is not subject to the closure requirements for closed-loop systems using drying pads specified in Subsection D of 19.15.17.13, NMAC, as ENERVEST will not use any drying pads in conjunction with its closed-loop system. Further, the closed-loop system operations and associated activities will all be performed on the drilling pad, and will not be performed on or in areas that will not be used for future service and operations. The closure for the closed-loop system at this site will be performed as follows:

1. Immediately following termination of rig operations, all solids and liquids remaining in the closed-loop system will be transported in the haul-off bin or bins to the NMOCD-permitted facility(ies) listed above.

2. The closed-loop system components, including any and all haul-off bins, will be removed from the location in conjunction with the move of the drilling or completion rig from the well site.

3. Within six months from the date that EnerVest releases the drilling or workover rig, EnerVest will complete and execute items 9 and 10 of the attached C-144 CLEZ and file same with the appropriate NMOCD district office.