

New Mexico Oil Conservation Division, District I

1625 N. French Drive  
Hobbs, NM 88240

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC - 061873 B	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator H.L. Brown Operating L.L.C. (# 213179)		7. If Unit or CA Agreement, Name and No.	
3a. Address P.O. Box 3737, Midland, Texas 79707		8. Lease Name and Well No. Paduca Federal #1 34005	
3b. Phone No. (include area code) 432-688-3726		9. API Well No. 3D-025-36728	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL & 660' FEL (Unit I) At proposed prod. zone		10. Field and Pool, or Exploratory Paduca Delaware 49460	
14. Distance in miles and direction from nearest town or post office* 27 miles West of Jal, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 8, T-25-S, R-32-E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		12. County or Parish Lea	13. State NM
16. No. of Acres in lease 320		17. Spacing Unit dedicated to this well 40	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2100'		20. BLM/BIA Bond No. on file 0679788	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3427' GL		22. Approximate date work will start* 6-01-04	
		23. Estimated duration 8 days	

24. Attachments

**Carlsbad 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) Robert McNaughton	
Title Petroleum Engineer		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	Date 19 MAY 2004

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 1 YEAR**

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 reverse)

DECLARED WATER BASIN  
CEMENT BEHIND THE 8 3/8"  
CASING MUST BE CIRCULATED

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

*K*

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-36728		2 Pool Code 49460		3 Pool Name Paduca Delaware		
4 Property Code 34005		5 Property Name Paduca Federal "8"			6 Well Number 1	
7 OGRID No. 213179		8 Operator Name H. L. Brown Operating, L.L.C.			9 Elevation 3427'	

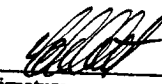
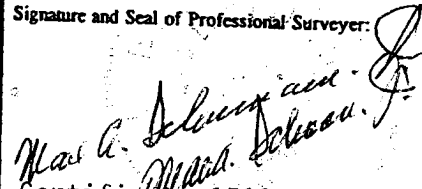
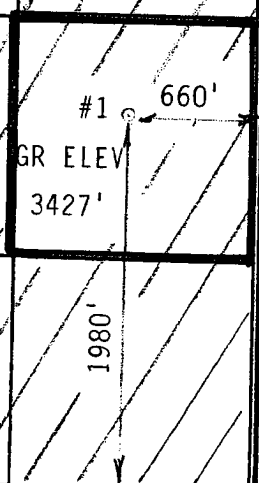
10 Surface Location

UL or lot no. I	Section 8	Township 25-S	Range 32-E	Lot Idn	Feet from the 1980	North/South line South	Feet from the 660	East/West line East	County Lea
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11 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
12 Dedicated Acres 40									
13 Joint or Infill									
14 Consolidation Code									
15 Order No.									

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

16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief   Signature Robert McNaughton Printed Name Petroleum Engineer Title 4-16-04 Date			
H. L. Brown Operating, LLC Paduca-Federal "8" Lease				18 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. March 8, 2004 Date of Survey Signature and Seal of Professional Surveyer:  Certificate Number 1510 Job No. 68,610-A			
							

#1  
SPENCER "5"  
FEDERAL  
ELEV 3452'

GRID N: 419686.0629  
GRID E: 740857.3387  
LATITUDE: 32°09'07.7516"  
LONGITUDE: -103°41'19.0867"

6

N89°24'22"E

5305.11'

5

4

7

FND IRON  
PIPE

FND IRON  
PIPE

FND STONE  
MOUND 8

9

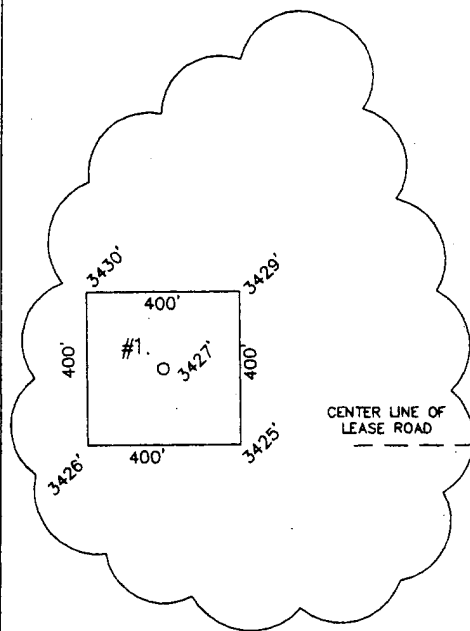
GRID N: 419631.0837  
GRID E: 735552.5163  
LATITUDE: 32°09'07.5177"  
LONGITUDE: -103°42'20.7955"

H. L. BROWN OPERATING, L.L.C.  
PADUCA-FEDERAL "8" LEASE  
322.40 acres

5473.49'

5278.74'

N00°09'33"W



CENTER LINE OF  
LEASE ROAD

GRID N: 416379.4438  
GRID E: 740226.3038  
LATITUDE: 32°08'35.0681"  
LONGITUDE: -103°41'26.6563"

GR ELEV  
3427'

3430'  
3429'  
3426'  
3425'

1980'

5281.65'

N00°27'15"W

FND IRON  
PIPE

#1.

#1L  
COTTON DRAW  
FEDERAL  
ELEV 3431'

CENTER LINE OF  
LEASE ROAD

FND IRON  
PIPE

18

S89°26'20"W

5332.30'

17

16

GRID N: 414352.3615  
GRID E: 735567.1746  
LATITUDE: 32°08'15.2808"  
LONGITUDE: -103°42'20.9828"

GRID N: 414404.5775  
GRID E: 740899.2167  
LATITUDE: 32°08'15.4859"  
LONGITUDE: -103°41'18.9674"

NOTE:

COURSES, DISTANCES AND COORDINATES SHOWN HEREON  
ARE LAMBERT GRID AND CONFORM TO THE "NEW MEXICO  
COORDINATE SYSTEM", NEW MEXICO EAST ZONE, NORTH  
AMERICAN DATUM OF 1983. ALL DISTANCES AND  
COORDINATES ARE SHOWN IN GRID FEET.

H. L. BROWN OPERATING, L.L.C.

WELL NO. 1  
PADUCA-FEDERAL "8" LEASE

1980 FEET FROM THE SOUTH AND  
660 FEET FROM THE EAST LINES

SECTION 8, T-25-S, R-32-E

LEA COUNTY, NEW MEXICO

SCHUMANN ENGINEERING CO., INC.

REGISTERED PROFESSIONAL LAND SURVEYORS  
LICENSED STATE LAND SURVEYORS

REGISTERED PROFESSIONAL CIVIL ENGINEERS  
TEXAS and NEW MEXICO

Civil Engineering ~ Land Surveying

408 N. PECOS STREET - P. O. BOX 504  
MIDLAND, TEXAS 79702-0504

Office (432) 684-5548  
Fax (432) 684-6973

QUAD: PADUCA BREAKS NW  
SCALE: 1" = 1000'

PROJECT: 68610HLB  
JOB NO: 68,610-A

MARCH 8, 2004

*Handwritten signature: Mark A. Schumann, J.*

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**H. L. BROWN OPERATING, L.L.C.  
Paduca Federal "8" No. 1  
1980' FSL & 660' FEL, Sec. 8, T-25-S, R-32-E  
Lea County, New Mexico  
New Mexico Lease LC – 061873-b**

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbances involved, and the procedures to be followed in rehabilitating the surface after completion of the operations so that a complete appraisal can be made of the environmental effects associated with the operation.

### **1. EXISTING ROADS:**

- A. **Figure No.1** is a portion of a USGS contour map showing the location of the proposed well as staked. The well is approximately 30 miles west of Jal, NM on State Highway 128 and 5.7 miles south on Lea County Highway #1. From the lease road intersection with the highway, go 1/10 mile west to Cotton Draw Unit No. 34, 1/10 mile southwest to a lease road intersection. Turn right and go ¼ mile west to Cotton Draw Unit (CDU) #14. Go 3/8 of a mile northwest towards the 9L #1 well. The proposed new lease access road will branch off to the west about 3/8 mile to the new well.
- B. **Figure No.1** also shows all existing roads within one-mile radius of the well site. The proposed location is adjacent to the Cotton Draw Unit water flood operated by Sahara.
- C. The existing roads will be maintained as needed for both drilling and production by offset lease operators.

### **2. PLANNED ACCESS ROADS:**

- A. Length and width: New road required will be 12' wide and approximately 2100' long and will enter the location at the south east corner. This new road is labeled on Exhibit "A". The center line of the proposed new road from the beginning to the wellsite has been staked and flagged with the stakes being visible from any one to the next.
- B. Surfacing material: Six inches of caliche, water, compacted and graded.
- C. Maximum grade: 2 percent.
- D. Turnouts and Culverts: None required.
- E. Drainage design: New road will have a drop of six inches from centerline on each side.

- F. Cuts and Fills: This is relatively flat surface broken by occasional small sand dunes. A slight amount of leveling will be required.
  - G. Gates and Cattle Guards: A cattle guard will be required at the fence line between section 8 and section 9.
3. LOCATION OF EXISTING WELLS:
- A. Existing wells within a one-mile (plus) radius are shown on **Figure No.2**.
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. Any produced oil and water will be stored in a tank battery to be built on location. We anticipate sending produced water to an existing water disposal line serving the 9L #1 and running south to the Cotton Draw Unit. Gas will be sent down existing sales lines.
  - B. We expect this well will be rod pumped. We expect to be able to tie into an existing electrical line serving the 9L #1. This will require that about ½ mile of new power line will be constructed. Alternatively, we may run the pumping unit on an Ajax gas engine until fluid production stabilizes.
5. TYPE OF WATER SUPPLY:
- A. Water will be purchased and trucked to location by low bidder.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Caliche for surfacing the well pad and access road will be dug from the reserve pit. Additional caliche will be transported from an approved pit located in the NW/4 of the NE/4 of Section 2, T-25-S, R-31-E, or as designated by the BLM.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cuttings will be disposed of in the drilling pits.
  - B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
  - C. Current laws and regulations pertaining to the disposal of human waste will be complied with.

- D. Trash, waste paper, garbage, and junk will be discarded in a trash trailer and hauled to a state approved garbage disposal facility. All waste material will be contained within trailer to prevent scattering by the wind.
- E. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELLSITE LAYOUT:

- A. **Figure No.3** shows the general layout and dimensions of the well pad.
- B. Only minor leveling of the wellsite will be required. No significant cuts and fills will be necessary.
- C. The reserve pit will be plastic lined as per current BLM regulations.
- D. The pad and pit area have been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operation will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite is as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment of the well, surface restoration will be in accordance with the agreement with the surface lessee and the BLM. Pits will be filled and location will be cleaned. The pit area, well pad, and all unneeded access road will be ripped to promote re-vegetation. Rehabilitation should be accomplished within 90 days after abandonment.

11. OTHER INFORMATION:

- A. Topography: Land surface is relatively level with small to moderate sand dunes. From an elevation of 3427' at the wellsite, the regional surface slopes gently toward the south at about 1 to 2 percent.
- B. Soil: Soil is predominantly sand and sandy loam underlain by caliche.

- C. Flora and Fauna: The vegetative cover moderate and includes range grasses, weeds, scrub oak and mesquite bushes. Wildlife in the area is the typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail and hawks.
- D. Ponds and Streams: There are no rivers, lakes, or ponds in the area.
- E. Residences and Other Structures: There are no occupied dwellings or other structures within or near the proposed area of the wellsite.
- F. Archeological, Historical and Cultural Sites: None observed in the area.
- G. Land Use: Grazing, oil and gas production and wildlife habitat.
- H. Surface Ownership: Well site and road are on the surface owned by the Bureau of Land Management.

12. OPERATORS' REPRESENTATIVES:

The field representative responsible for assuring compliance with the approved surface use and operations plan is:


Robert McNaughton	(432) 688-3726 (office)
Petroleum Engineer	(432) 694-2553 (residence)

H. L. Brown Operating, L.L.C.'s office is located at 300 W. Louisiana, Midland, Texas, 79701.

13. CERTIFICATION:

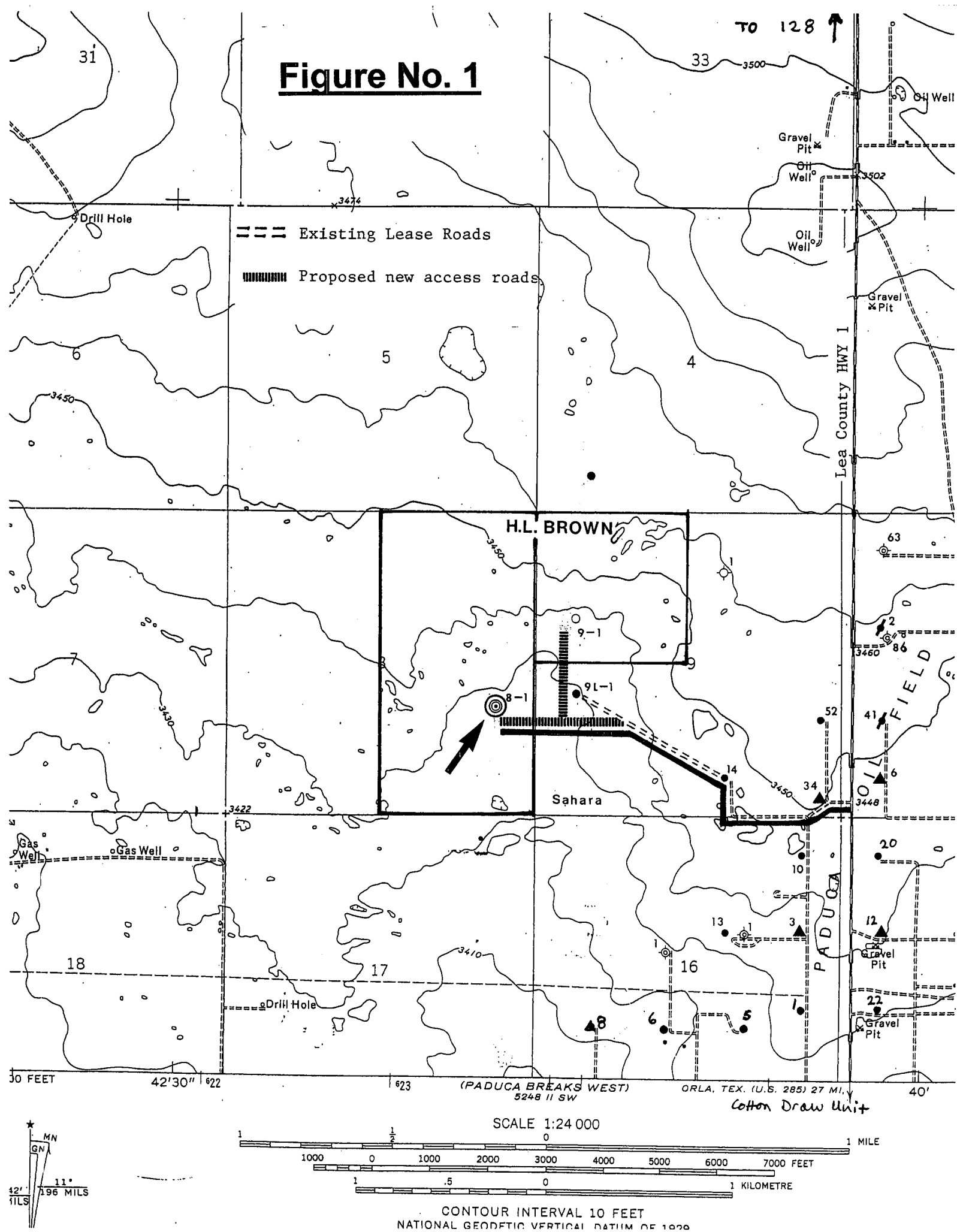
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by H. L. Brown Operating, L.L.C. and it's contractors and subcontractors in conformity with this plan and terms and conditions under which is approved. This statement is subject to provisions of 18 U.P.S. 1001 for the filing of false statement.

4-16-04  
Date

  
Robert McNaughton  
Petroleum Engineer  
H. L. Brown Operating, L.L.C.

Enclosures

TO 128





U.S. (S)

U.S. (S)

U.S. (S)

Devon Ener.  
HBU  
061863  
Chevron 1/2

G.P. Miller  
S.I. 2012  
108969  
120 25

Devon Ener.  
HBU  
061863  
Chevron 1/2

Sahara Oper.  
(Chevron &  
Devon Ener.)  
054031

Devon Ener.  
HBP  
061936  
Chevron 1/2

3

49  
Texaco  
Cotton Draw Unit  
U.S. TD4890

Cotton Draw Unit  
U.S.

Chevron 1/2  
3-1 (12)  
061873

8-1

9-1  
1-L (SDG)

63  
TD4910  
3-8  
2  
33 S.I.  
60 WI  
24  
6-8 (T/A)

Mal  
8  
07193

Devon Ener.  
Chevron 1/2

U.S.

Sahara Oper. 20  
T/A 75  
Sahara Oper.  
062300  
12 WI  
2 WI  
17 WI  
Sahara Op. 22  
Sahara Oper.  
Devon Ener. et al HBP

Hill  
Hall  
TD 41

Sahara Op

"St. Monsanto"

Del Disc. Jordan  
NCT-1

Eugene H. Perry  
061869

Sahara Oper.  
061869

Sahara Oper. 16  
NCT  
062300

Texaco et al  
Devon Ener.  
to 14430  
062300  
Enron to 14430  
16854  
(Superior)  
Producers  
Fed.

Atoka  
Disc

Figure No. 2

35 (Panther City Inv)

<p align="center"><b>DRILLING RIG &amp; RESERVE PIT LAYOUT</b></p> <p>Worksheet supplement for "Application for Permit to Drill or Deepen a Well"</p>	<p>Applicant  <b>H.L. Brown Operating L.L.C</b>  <b>P.O. Box 2237, Midland Texas 79702</b></p>
<p><b>Location: 1980' FSL &amp; 660' FEL</b>  <b>Unit I, Section 8, T-25-S, R- 32-E</b>  <b>Lea Co, NM</b></p>	<p>Well name and number   <b>Paduca Federal 8 #1</b></p>

**Applicant**

**H.L. Brown Operating L.L.C**

**P.O. Box 2237, Midland Texas 79702**

**Location: 1980' FSL & 660' FEL**  
**Unit I, Section 8, T-25-S, R- 32-E**  
**Lea Co, NM**

Well name and number

## Paduca Federal 8 #1



## Supplemental Drilling Data

H. L. BROWN OPERATING, L.L.C.  
Paduca Federal "8" No. 1  
1980' FSL & 660' FEL, Sec. 8, T-25-S, R-32-E  
Lea County, New Mexico  
New Mexico Lease LC - 061873-b

The following items supplement Form 3160-3 in accordance with instructions contained in onshore Oil and Gas Order No.1:

### Overview of Well:

The proposed well will be drilled to about 5000' to test the Delaware formation. 8-5/8" intermediate pipe will be set at 780' and 5-1/2" production casing will be set at 5000'. The Delaware will be perforated and fracture stimulated.

1.) Surface Formation: Ogallala

### 2.) Estimated Top of Geologic Markers:

Rustler Anhydrite	750'	
T/ Salado Salt	1000'	B/ Salado Salt 3200'
Castile Anhydrite	3200	
Lamar Shale	4570'	
Ramsey Sand	4590'	
Ford Shale	4635'	
Olds Sands	4645'	

### 3.) Estimated Depths Water, Oil, Gas or Other Mineral Bearing Formations:

Water	None Anticipated
Oil/ Gas	Ramsey/ Olds sands at 4590'
Other Minerals	None Anticipated

### 4.) Proposed Casing and Cementing Program:

Hole Size, in.	Casing Data				Depth, ft	Cement	Expected Top of Cement
	Size	Wt.,#/ft	Grade	Thread			
12-1/4"	8-5/8"	24	J-55	LT&C	780'	260 sx "C" Poz 35:65:6 200 sx "C" w/ CaCl <sub>2</sub>	Surface * must circulate
7-7/8"	5-1/2"	15.50	J-55	LT&C	4800'	175 sx "C"	4000'

The surface casing string will be tested to 1000 psi. The 5 1/2" casing will be tested to 2000 psi. All casing will be new or used, inspected yellow-band or better.

**5.) Pressure Control Equipment:**

Pressure control equipment will include a 3000 psi WP blowout preventer stack, sour trim, with both pipe rams and blind rams. Above BOP stack will be an annular BOP, 3000 psi WP with sour trim. Below the double BOP stack will be an adapter spool, 3000 psi WP. On one side of the adapter spool will be a kill line with a check valve and a ball valve. The other side will be a choke manifold with a bleed off line. Hydraulic BOP controls will be operated daily (**Figures No.4 and No.5**).

**6.) Circulating Medium:**

Depth	Mud Type	Wt. lb/gal	Viscosity sec/1000cc	Filtrate cc/30min	Remarks
0 - 780'	FW-Gel	8.5-9.0	32-35	NC	
780' - 4000'	Cut Brine	9.2-10.3	32-34	NC	
4000' - 5000'	SW-Gel	9.2-10.3	38-40	10	Mud up for logs and cores

No abnormal pressures are anticipated. Mud is used for borehole stability and filtrate control and will not be needed for formation pressure control.

**7.) Auxiliary Equipment:**

- a.) Kelly cock: in mud line above swivel.
- b.) Floats at bit: none planned.
- c.) Mud system monitoring equipment: No automatic equipment planned; will use visual testing and inspection by rig and mud company personnel.

**8.) Testing, Logging and Coring Program:**

- a.) Samples: Drilling samples will be caught at 10' intervals below 3750'.
- b.) DST and Cores: may cut up to 10 rotary sidewall cores.
- c.) Logging: GR/CNL will be run from surface to TD and the GR/CNL/SDL and DLL/MLL will be run from TD to ~3800' (minimum).

**9.) Abnormal Pressures, Temperature or Hydrogen Sulfide:**

None Anticipated.

**10.) Completion Equipment:**

The completed well will be rod pumped with a screw-on wellhead and stuffing box. (**Figure No. 6**).

**11.) Anticipated Starting Date:**

Drilling operations are expected to commence June 1, 2004 and are expected to last 8 days. Completion operations are expected to last 10 days.

# WELLHEAD BLOWOUT CONTROL SYSTEM

Worksheet supplement for "Application for Permit to Drill or Deepen a Well"

Applicant

H.L. Brown Operating L.L.C

P.O. Box 2237, Midland Texas 79702

Well name and number

Paduca Federal 8 #1

Location: 1980' FSL & 660' FEL

Unit I, Section 8, T-25-S, R- 32-E

Lea Co, NM

Max. anticipated surface pressure \_\_\_\_\_

Annular B.O.P. 11", 3000 psi W.P. →

B.O.P.  
☐ Manual  
☒ Hydraulic  
☒ Sour Trim

3.O.P. Blind Rams 11", 3000 psi W.P.  
(Pipe/Blind)

B.O.P. Pipe Rams 11", 3000 psi W.P.  
(Pipe/Blind)

neck Valve 4", 3000 psi W.P.

Valve 4", 3000 psi W.P.

Valve 4", 3000 W.P.

Valve 4", 3000 W.P.

Valve 4", 3000 psi W.P.

Kill Line Manifold

Manifold Line

Line 3", 3000 psi W.P.

Ground level

Wellhead 3000 W.P.

Fill above blanks with applicable information. If not applicable, enter "N.A." or cross-out item shown.  
Describe test pressures and procedure for conducting pressure test. Identify any exceptions to R324.406 being requested.

## Figure No. 4

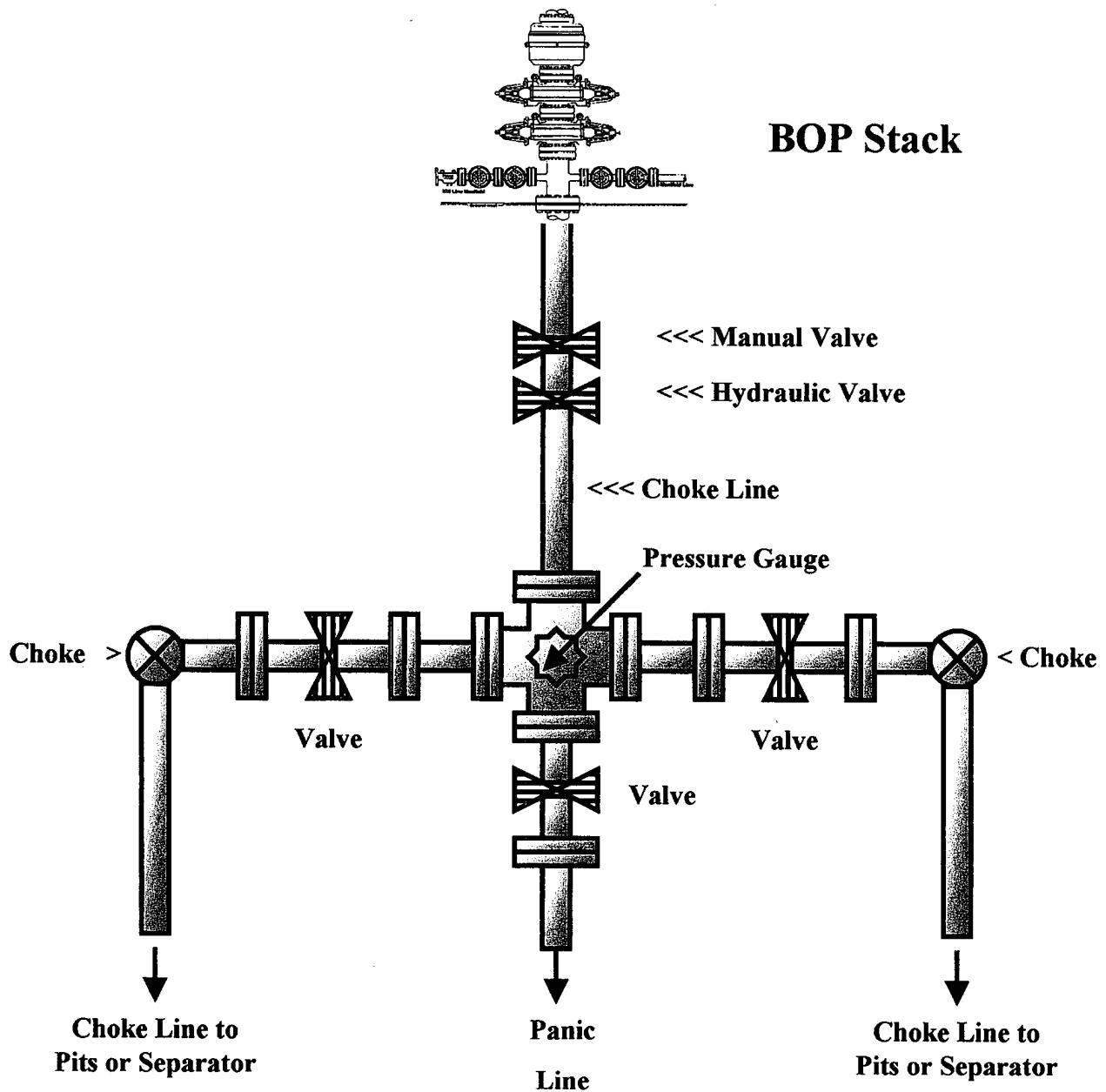
**H.L. Brown Operating, L.L.C.**

**Paduca Federal 8 #1 - Application to Drill**

**1980' FSL, 660' FEL, Unit I, Sec 8, T25S, R32E**

**Lea County, New Mexico**

**Choke Manifold Diagram**



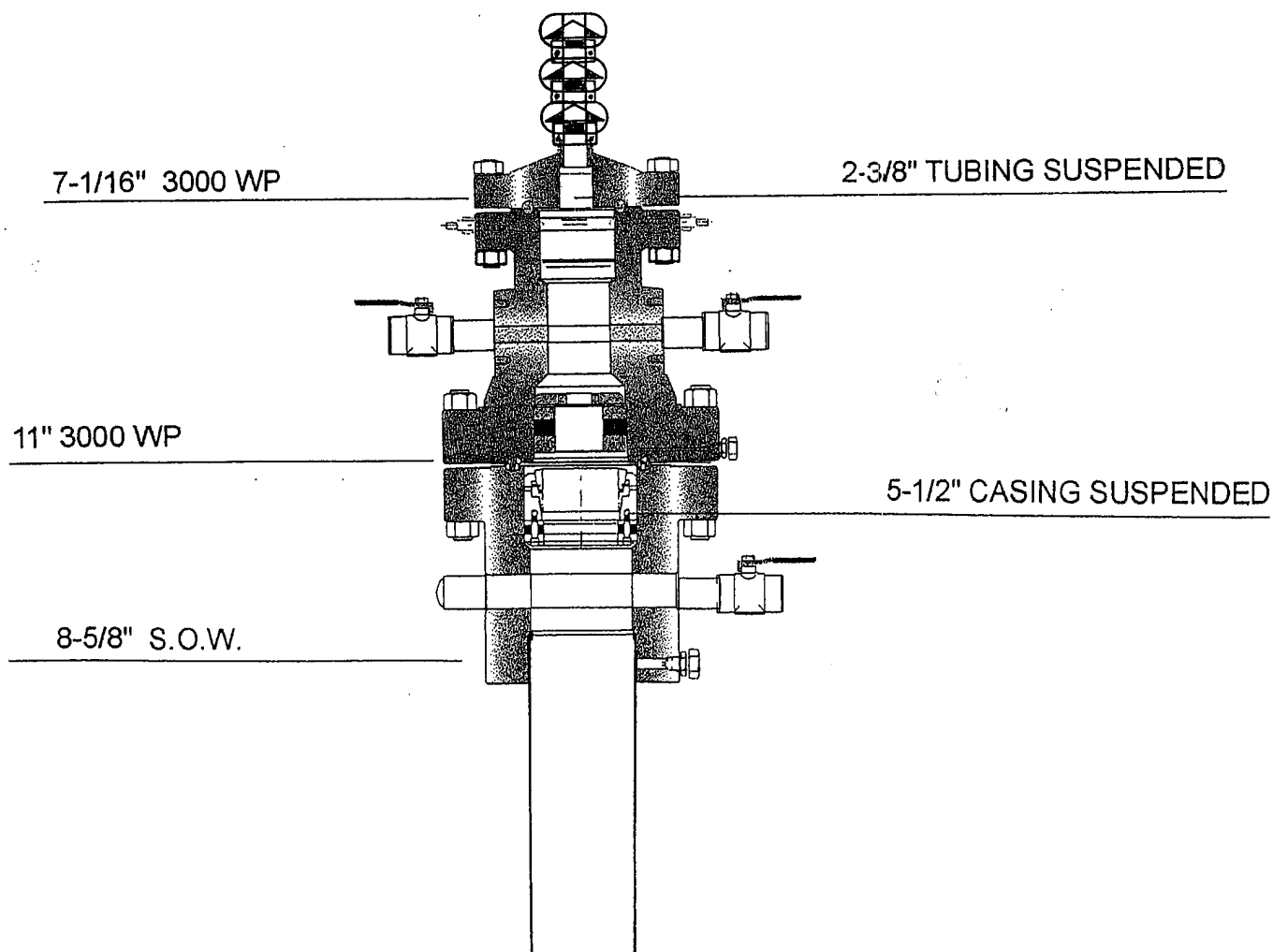
3/17/2004

RTM

**Figure No. 5**

<p align="center"><b>WELLHEAD DIAGRAM</b></p> <p>Worksheet supplement for "Application for Permit to Drill or Deepen a Well"</p>	<p>Applicant  <b>H.L. Brown Operating L.L.C</b>  <b>P.O. Box 2237, Midland Texas 79702</b></p>
<p><b>Location: 1980' FSL &amp; 660' FEL</b>  <b>Unit I, Section 8, T-25-S, R- 32-E</b>  <b>Lea Co, NM</b></p>	<p>Well name and number  <b>Paduca Federal 8 #1</b></p>

Stuffing Box For Rod Pumping



**Figure No. 6**

1. (For BLM Use) BLM Report No.		2. (For BLM Use) Reviewer's Initials/Date _____  Accepted (    ) Rejected (    )		3. NMCRIS Number: 87607		
4. Type of Report: Negative ( X ) Positive (    )						
5. Title of Report: A Cultural Resource Survey for the Paduca Federal No. 8-1 and 9-1 Well Pads and their Associated Access Roads  Author(s): Theresa Straight				6. Fieldwork Date(s): March 18, 2004		
				7. Report Date: March 19, 2004		
8. Consultant Name/Address: Mesa Field Services  Direct Charge: Theresa Straight  Field Personnel Names: Theresa Straight  Address: P.O. Box 3072 Carlsbad, New Mexico 88221-3072  Phone (505) 628-8885				9. Cultural Resource Permit No.: 153-2920-03-N		
				10. Consultant Report No.: MFS-1001		
11. Customer Name: H.L. Brown Operating, LLC  Responsible Individual: Robert McNaughton  Address: P.O. Box 2237 Midland, TX 79702  Phone: (432) 688-3726				12. Customer Project No.:		
13. Land Status		BLM	State	Private	Other	Total
a. Area Surveyed (acres)		24.85				24.85
b. Area of Effect (acres)		9.84				9.84
14. Block Linear Length <u>600 ft</u> Width <u>600 ft</u> (each) Length <u>3,624 ft</u> - Width <u>100 ft</u>						
15. Location (Map[s] Attached):  a. State: New Mexico  b. County: Lea County  c. BLM Office: Carlsbad  d. Nearest City or Town: Jal, NM  e. Legal Description: T 25 S, R 32 E, Section 8: NE¼, SE¼ Section 9: SW¼ NW¼, N½ SW¼  f. Well Pad Footages: Paduca Federal No. 8-1: 1,800 FSL and 750 FEL of Section 8; Paduca Federal No. 9-1: 1,900 FNL and 700 FWL: of Section 9  g. USGS 7.5' Map Name(s), Date(s), and Code(s): Paduca Breaks NW, New Mexico 1973 (32103-B6)						



**16. Project Data:**

**a. Records Search:** Date(s) of BLM File Review: March 11, 2004 Name of Reviewer(s): Justin Rein  
Date(s) of ARMS Data Review March 9, 2004 Name of Reviewer(s): Justin Rein

**Findings (see Field Office requirements to determine area to be reviewed during records search):** No previously recorded sites are located within 0.25 mile of the undertaking. An expanded search revealed two sites, LA 46450 and LA 46451, within one mile. Neither site will be impacted by the proposed project.

**b. Description of Undertaking:** H.L. Brown Operating plans to build two wells, the Paduca Federal No. 8-1 and the Paduca Federal 9-1, and their associated access roads. Each well pad will impact a 400 ft by 400 ft area, yet a 600 ft by 600 area was inspected to ensure the protection of cultural resources. The two access roads are approximately 3,624 ft long and will impact a 30 ft wide corridor, yet a 100 ft wide corridor was surveyed. A total of 24.85 acres was surveyed, all of which is on land owned and administered by the BLM-CFO.

**c. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):** The project area is located within the Paduca Oil Field, eight miles northeast of Phantom Banks and four miles northwest of Paduca Breaks. The terrain is relatively flat with a southern slope of less than one percent. The soil is reddish brown sands of the Pyote-Maljamar-Kermit association as defined by the Soil Conservation Service of the U.S. Department of Agriculture. Local vegetation includes yucca, prickly pear, sage, mesquite, and various weeds. Due to this vegetative cover, ground surface visibility averaged 80 percent at the time of survey.

Meteorological data was obtained for the nearby city of Jal, New Mexico from the Western Regional Climate Center online database. From 1919 to 2003, Jal received an annual precipitation of 12.31 inches. July through September were the wettest months while December through February were the driest. During the same time, Jal had an average high temperature of 79.5 degrees Fahrenheit and an average low temperature of 48.2 degrees Fahrenheit. January was the coldest month with an average high of 59.7 degrees Fahrenheit, while July was the warmest with an average high temperature of 96.5 degrees Fahrenheit.

**d. Field Methods (transect intervals; crew size; time in field; etc.):** A crew of one spent 2 hours surveying the project area. A 15 m transect interval was used.

**e. Artifacts Collected?:** None

**17. Cultural Resource Findings:** No cultural material was encountered.

**a. Location/Identification of Each Resource:** N/A

**b. Evaluation of Significance of Each Resource:** N/A

**18. Management Summary (Recommendations):** Because no cultural materials were encountered, archaeological clearance is recommended for the proposed project as staked. If any cultural resources are encountered during construction activities, work at that location should stop immediately and archaeologists at the BLM-CFO should be notified.

**19.**

I certify the information provided above is correct and accurate and meets all applicable BLM standards.

Responsible Archaeologist

Signature

Date

3/19/04

THE ABOVE COMPLETES A NEGATIVE REPORT. IF ELIGIBLE OR POTENTIALLY ELIGIBLE PROPERTIES ARE INVOLVED, THE ABOVE WILL BE THE TITLE PAGE AND ABSTRACT FOR A COMPLETE REPORT.

# Survey for the Paduca Federal Nos. 8-1 and 9-1 Well Pads and Access Roads

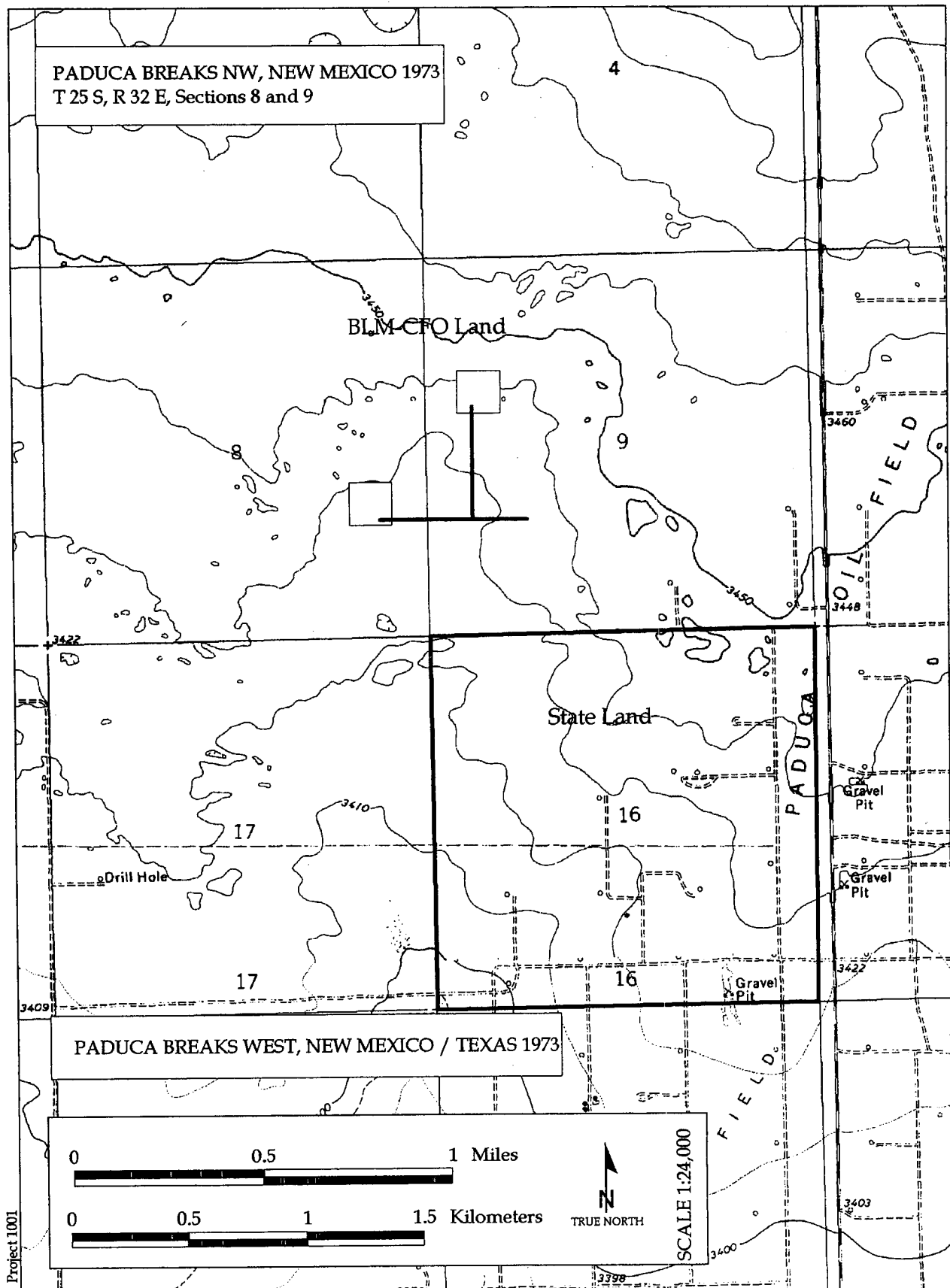


Figure 1. Project Area Map

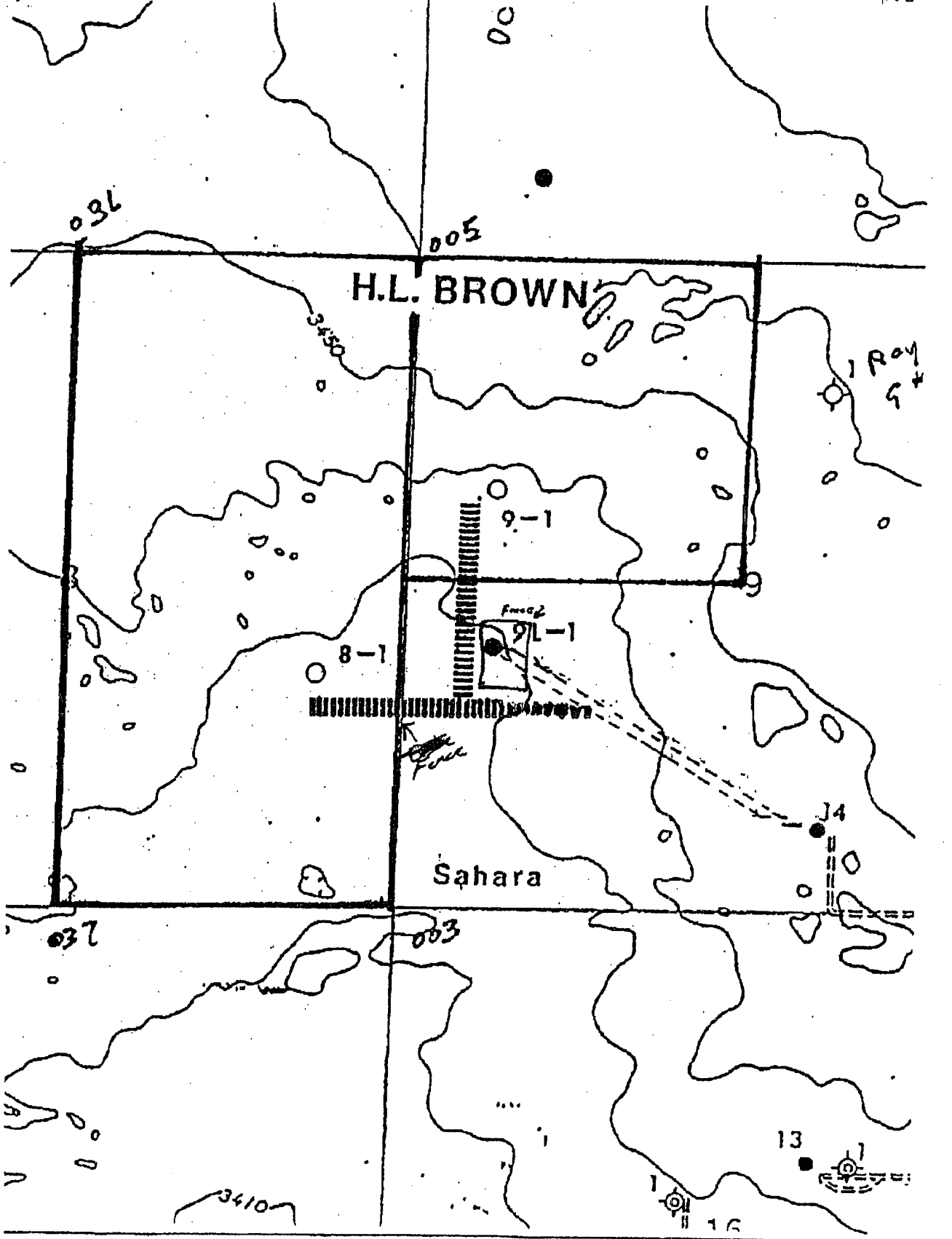
Mesa Field Services

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H L BROWN Jr  
Greg McWilliams

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p.3  
P.C



**UNITED STATES DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201-1287**

**Statement Accepting Responsibility for Operations**

Operator Name: H.L. Brown Operating L.L.C.  
Address: 300 West Louisiana  
City, State: Midland, Texas  
Zip Code: 79702

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

Lease Names: **Paduca Federal 8, Paduca Federal 9**

Lease Number: **LC – 061873-B (lease will be reassigned if well is completed)**

Legal Description of Land: **T-25-S, R-32-E, NMPM, Lea County, New Mexico:**

**Section 4: SW/4**

**Section 5: SE/4**

**Section 8: E/2**

**Section 9: NW/4**

**Section 17: NE/4**

Formations: **All uncommitted mineral interests from surface to the base of the Wolfcamp.**

Bond Coverage: **Statewide**

BLM Bond File Number: **#0679788**

Authorized Signature: 

Name: **Robert McNaughton**

Title: **Petroleum Engineer**

Date: **April 16, 2004**

**UNITED STATES DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201-1287**

**Designation as Operator**

Operator Name: H.L. Brown Operating L.L.C.  
Address: 300 West Louisiana  
City, State: Midland, Texas  
Zip Code: 79702

H.L. Brown L.L.C. has proposed drilling the referenced well. Devon has approved the AFE with H.L. Brown L.L.C. designated as operator. Both parties have a 50% working interest in the well.

Lease Name: **Paduca Federal 8**  
**Sec. 8, T-25-S, R-32-E**  
**Lea County, New Mexico**

Lease Number: **LC – 061873-B**  
**(lease will be reassigned when well is completed for production)**

Authorized Signature: 

Name: Robert McNaughton

Title: Petroleum Engineer

Date: April 16, 2004