

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

API NO. (assigned by OCD on New Wells)

30-045-29035

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒

RE-ENTER ☐

DEEPEN ☐

PLUG BACK ☐

b. Type of Well:

OIL  
WELL ☐

GAS  
WELL ☒

OTHER ☐

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

7. Lease Name or Unit Agreement Name

Redfern

13514

2. Name of Operator

Hallwood Petroleum, Inc. 5812

8. Well No.

1

(W/320)

3. Address of Operator

P. O. Box 378111, Denver, Colorado 80237

9. Pool name or Wildcat

Basin Fruitland Coal

4. Well Location

Unit Letter K : 1688 Feet From The South Line and 1848 Feet From The West Line

Section 14

Township 29N

Range 13W

NMPM

San Juan

County

10. Proposed Depth

1600'

11. Formation

Fruitland Coal

12. Rotary or C.T.

Rotary

13. Elevations (Show whether DF, RT, GR, etc.)

GR 5344', KB 5356'

14. Kind & Status Plug. Bond

Blanket B1595 231

15. Drilling Contractor

Four Corners

16. Approx. Date Work will start

1/30/94

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	8-5/8"	24#	250'	175sx	Surface
7-7/8"	5-1/2"	15.5#	1600'	325sx	Surface

Hallwood Petroleum, Inc. proposes to drill a 12 1/4" hole with native mud to 250' and set 8 5/8" 24# J-55 casing at 250', cementing back to surface with approximately 175 sx of Class "B" cement. Drill 7-7/8" hole out of surface casing to 1600' with mud, log well and set 5 1/2" 15.50# J-55 production casing from 0-1600'. Cement to surface with approximately 250 sx of lead cement and 75 sx of Class "B" tail cement. Perforate and fracture stimulate coal interval and put well on beam pump to test well.

Drilling operations to include a BOP system consisting of a Shaffer LSW 10" 3000# with pipe and blind rams.

This Approval  
Expires 12-9-94  
And Will Not Be  
Extended

RECEIVED  
DEC-8 1993

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTION ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kevin E. O'Connell TITLE Drilling & Prod. Manager DATE 12/6/93

TYPE OR PRINT NAME Kevin O'Connell (303) TELEPHONE NO. 850-7373

(This space for State Use)

APPROVED BY Gene Busch TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE 12-9-93

CONDITIONS OF APPROVAL, IF ANY:

Subject to City Approval

DEC 09 1993

Submit to Appropriate  
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Fee Lease - 3 copies

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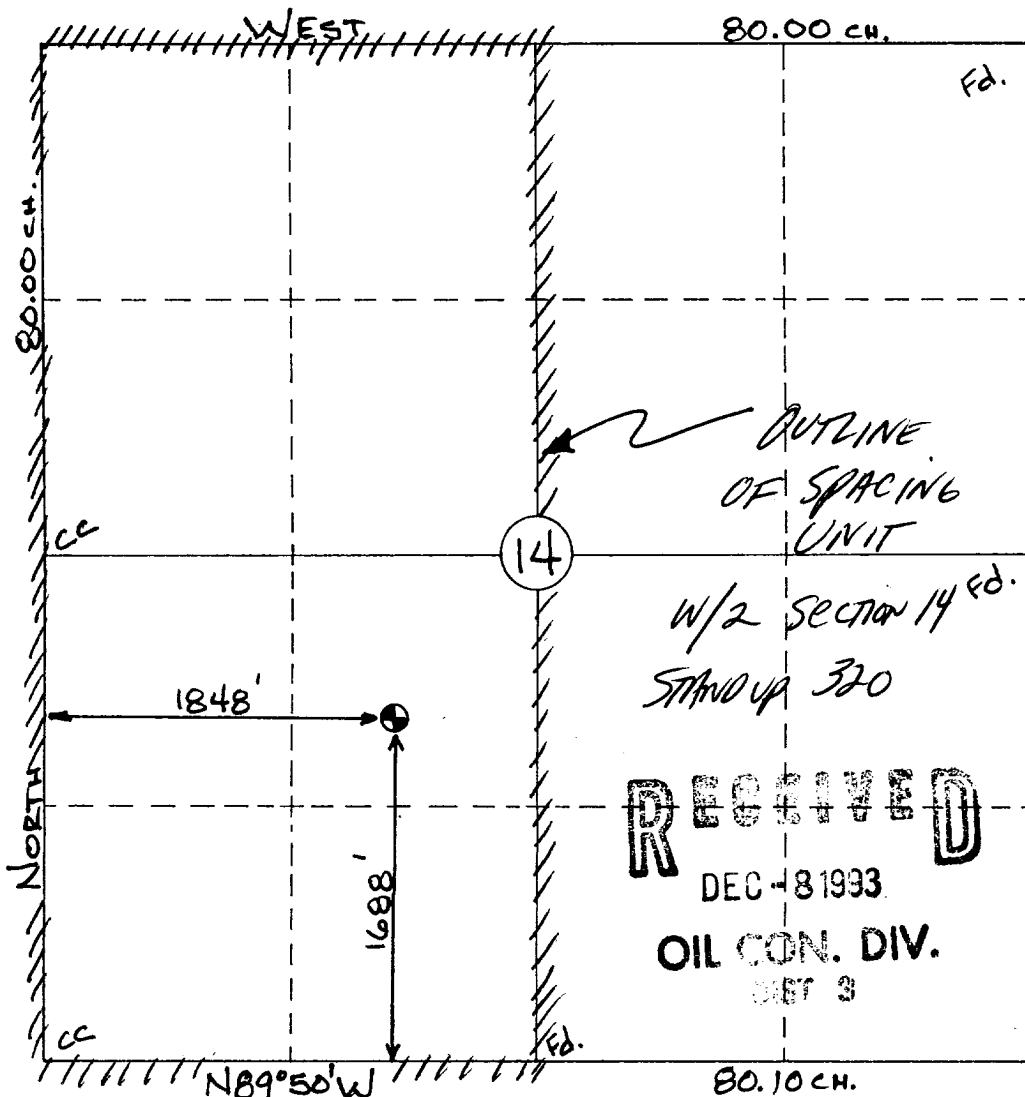
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>HALLWOOD</b>		Lease <b>REDFERN</b>		Well No. <b>1</b>
Unit Letter <b>K</b>	Section <b>14</b>	Township <b>29 N</b>	Range <b>13 W</b>	County <b>San Juan</b>
Actual Footage Location of Well: <b>1688</b> feet from the <b>South</b> line and <b>1848</b> feet from the <b>West</b> line				
Ground level Elev. <b>5344</b>	Producing Formation <b>FRUITLAND COAL</b>	Pool <b>BASIN FRUITLAND COAL</b>	Dedicated Acreage: <b>(1.320)</b> Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature  
*Kevin E. O'Connell*  
Printed Name  
**KEVIN E. O'CONNELL**  
Position  
**DRLG. & PRODUCTION MANAGER**  
Company  
**HALLWOOD Petroleum Inc.**  
Date  
**12/6/93**

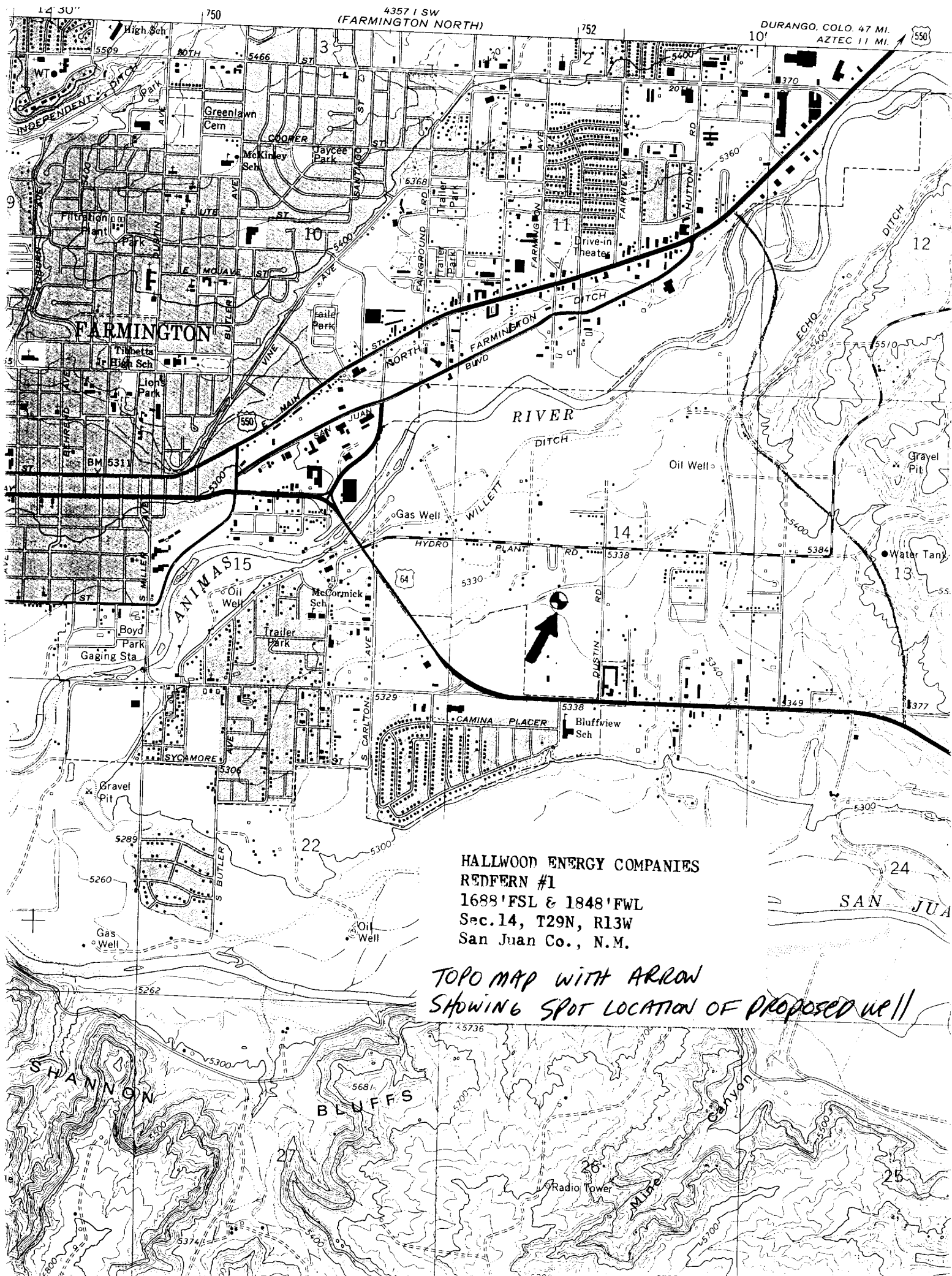
SURVEYOR CERTIFICATION

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 knowledge and belief.  
**11 Nov., 1993**

Date Surveyed  
**William E. Mahnke II**

Signature & Seal of Professional Surveyor  
**WILLIAM E. MAHNKE II**

Certificate No. **8466**



HALLWOOD ENERGY COMPANIES  
REDFERN #1  
1688' FSL & 1848' FWL  
Sec. 14, T29N, R13W  
San Juan Co., N.M.

TOPO MAP WITH ARROW  
SHOWING SPOT LOCATION OF PROPOSED WELL

## HALLWOOD GEOLOGICAL PROGNOSIS

DATE: 9/23/93 TYPE WELL: Fruitland Coal  
WELL NAME: Redfern #1 FIELD/LEASE: Basin Fruitland  
LOCATION: SW/4 Section 14-T29N-R13W (W/2 Spacing Unit)  
COUNTY: San Juan STATE: New Mexico  
ELEVATION: GR 5,340' (Est.) KB 5,350' (Est.) TIGHT HOLE: No

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>	<u>Remarks</u>
Fruitland	1,185'	+4,165'	
Top of Coal	1,210'	+4,140'	
Total Depth	1,600'	+3,750'	

Samples: 1,000' to TD

Testing/Coring: None

Logging Program: GR, FDC (high resolution)

Known Area Problems: None

Wellsite Geologist/Mudlogger: None Planned

Remarks:

Name	Position	Mobil Phone	Home Phone	Office Phone
Jeff Pickett - Prod. Foreman	(505)885-7020	(915)689-6963	(505)885-8764	
Jim Bonaventura-Area Supr.	(505)325-0492	(303)247-9662	(303)259-1374	
Kevin O'Connell-Drlg & Prod Manager	N/A	(303)838-2191	(303)850-6303	
John Genziano - Senior Engineer	N/A	(303)779-4133	(303)850-6223	

FORMS/GEOL.PROG.

# DRILLING PROGNOSIS

OPERATOR Hallwood Petroleum, Inc. DATE 9/23/93  
WELL NAME Redfern #1 PREPARED BY KEO  
LOCATION SW/4 Section 14-T29N-R13W (W/2 Spacing Unit)  
COUNTY San Juan STATE New Mexico PROPOSED TD 1,600'

## TUBULAR PROGRAM:

HOLE SIZE	CASING/TUBING	FROM	TO	SIZE	WEIGHT	GRADE	CPLG
12-1/4"	CSG	0	250'	8-5/8"	24#	J-55	STXC
7-7/8"	CSG	0	1,600'	<del>4-1/2"</del> 5 1/2"	<del>11.6#</del> 15.5	K-55	LTXC

## MUD PROGRAM:

TYPE	DEPTH	RHEOLOGY -	WT	VIS	WL	ETC
Surface hole - Native mud.						
Production hole - Native mud with 45-50 viscosity for logging.						

## CEMENT PROGRAM:

INTERVAL STAGE	EST. SLURRY VOLUME	SLURRY CHARACTERISTICS	EQUIPMENT: DV, SCRATCHER CENTRALIZERS, SHOE, ETC.
Surface Csg.*	175 sx	Class "B"	One centralizer on shoe it.
Production Csg.*	250 sx	Lead cemet (65:35) Poz) followed by	
	75 sx	Class "B" tail cement.	

\*Cement both strings to surface.

## BIT PROGRAM:

Footage contract, contractors responsibility.

## DRILLING HAZARDS/PRODUCTION PROBLEMS:

Keep mud weight under 9.5 ppg to minimize any chance of lost circulation.

## DEVIATION SURVEYS/PRODUCTION PROBLEMS:

Take Totco's every 300'.

## WELLHEAD:

3000 psi (minimum) required.

## SPECIAL EQUIPMENT/TECHNIQUE:

## SPECIAL PERSONNEL REQUIREMENTS: