

DHC 11/10/97

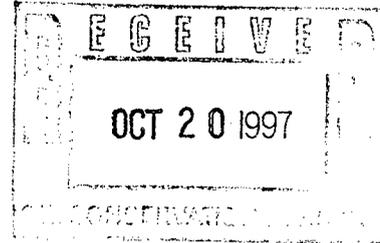
# Hallwood Petroleum, Inc.

4582 South Ulster Street Parkway • Stanford Place III • Suite 1700 • Post Office Box 378111  
Denver, Colorado 80237 • (303) 850-7373

734

**CERTIFIED MAIL NO. P 212 222 118**

October 15, 1997



Mr. David Catanach,  
Hearing Examiner  
State of New Mexico  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

RE: State "B" 14 Com #1  
Unit P – Section 14-T18S-R28E  
Eddy County, New Mexico  
Application for Downhole Commingling

Dear Mr. Catanach:

Hallwood Petroleum, Inc., as operator of the State "B" 14 Com #1 well, respectfully submits a Form 107-A, Application for Downhole Commingling. Enclosed with this application are supportive documents and a list of offset operators who are being notified of this proposal.

The State "B" 14 Com #1 was drilled in 1980 and originally dual completed in the Upper Penn formations at 9653-9804' and the Morrow formation at 10,690' – 10,743'. The well is still a dual completion in the Travis-Upper Penn pool and South Empire-Morrow pool, respectively. This well has a unique mechanical set-up downhole with an Otis brand "crossover" tool that allows for production from the deeper zone (South Empire-Morrow) to come up the tubing part way, then cross over and flow up the annulus. The shallower zone (Travis-Upper Penn), conversely, comes up the annulus part way and crosses over to the tubing string just under an upper packer. A color-coded diagram is attached to help illustrate this scenario (Attachment #9). This downhole configuration was set up due to the Upper Penn formations having more oil and needing to be produced up the tubing.

The Upper Upper-Penn zones still produce more oil than the deeper Morrow zones; however, this zone is now essentially a gas well with associated oil due to a 40,000 – 45,000 GOR (1995 production). This is considerably higher than the original completion (1980) reported 2343 gas-oil ratio.

Mr. David Catanach  
State of New Mexico  
Oil Conservation Division  
October 15, 1997  
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Hallwood Petroleum, Inc. is seeking this downhole commingling for two (2) reasons:

1. The Upper completion Travis Upper Penn zone is currently not producing and is loaded up and logged off. This is graphically illustrated in the attached production plot for this zone (Attachment #3).
2. An attractive recompletion opportunity exists in an uphole zone at approximately 9100'. This zone (in the Wolfcamp) was drillstem tested in 1980 and flow tested gas and oil. In order to recomplete uphole to this zone, Hallwood wants to be able to commingle the Upper Penn and Morrow zones, and then eventually dual complete with a successful future Wolfcamp recompletion.

Hallwood believes that commingling of the two proposed formations will not cause any fluid compatibility problems and will most likely increase production and recoveries from the commingled zones. This is due in part to the elimination of the complicated downhole mechanism that is probably restricting flow presently. Also, the additional gas volumes from the Morrow zone (lower completion) should assist in lifting oil production from the upper completion.

Although pressure data is somewhat limited on this well, we have calculated the original BHP of the Upper Penn to be 4456 psig. This compares nearly identically to the measured BHP of 4434 psig for the Morrow zones. Both zones were originally drilled with a 10.1 ppg mud weight. In February 1991, after setting the well up for dual completion, the shut-in pressures for each zone were within 640 psi (Travis-Upper Penn – 1560 psi; Empire-South Morrow – 2200 psi).

With regard to current formation pressures, they are essentially impractical to obtain due to the previously discussed downhole setup with two (2) packers and a "crossover" tool which will not allow wireline bombs to pass through. We have reviewed the 1996 packer integrity test data, which had extended (3-day) shut-in pressures and concluded that the current bottomhole pressures are as follows:

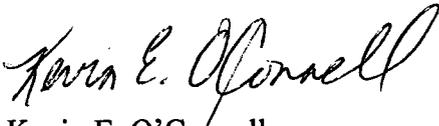
	<u>Travis-Upper Penn</u>	<u>Empire-South Morrow</u>
Shut-in Pressure	680# SITP	600# SICP
Calculated BHP	978 psig	898 psig

Mr. David Catanach  
State of New Mexico  
Oil Conservation Division  
October 15, 1997  
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We hope that this information and supporting attachments are satisfactory for your review and approval of this application. Should you need any additional data, please contact me at (303) 850-6303. Hallwood is confident that increased production can be obtained from a downhole commingling of the Upper Penn and Morrow zones as both zones have such similar fluids, rates and pressures. This downhole commingling will also allow us to proceed with a planned Wolfcamp recompletion in early 1998 to try and develop additional reserves from this well.

Sincerely,

**HALLWOOD PETROLEUM, INC.**



Kevin E. O'Connell  
Drilling and Production Manager

KEO/jey

Enclosures

cc: OCD District II  
811 S. First Street  
Artesia, NM 88210

State of New Mexico  
Commissioner of Public Lands  
310 Old South Santa Fe Trail  
P.O. 1148  
Santa Fe, NM 87504-1148

Offset Operators (8)

Well File

KEO97.069

State of New Mexico  
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**

2040 S. Pacheco  
Santa Fe, New Mexico 87605-6428

APPROVAL PROCESS:

Administrative  Hearing

EXISTING WELLBORE

YES  NO

**APPLICATION FOR DOWNHOLE COMMINGLING**

Hallwood Petroleum, Inc., P. O. Box 378111, Denver, CO 80237

Operator: State "B" 14 Com #1 P-14-18S-28E Eddy  
County: \_\_\_\_\_

OGRID NO. 015694 & 009171 Property Code 004915 API NO. 30-015-23350 Federal \_\_\_\_\_ State X (and/or) Fee \_\_\_\_\_

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Travis Upper Penn (59860)		Empire South Morrow (76400)
2. Top and Bottom of Pay Section (Partitions)	9653 - 9804'		10690 - 10743'
3. Type of production (Oil or Gas)	Gas (& Condensate)		Gas (& Condensate)
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 873 - 1200 psi	a.	a. 814 - 1200 psi
	b. (Original) 4456 psi (calc)	b.	b. 4434 psi @ 10726'
6. Oil Gravity ( <sup>o</sup> API) or Gas BTU Content	1170 BTU (46 <sup>o</sup> API)		1187 BTU (53.8 <sup>o</sup> API)
7. Producing or Shut-in?	Shut-in		Producing
Production Marginal? (yes or no)	Yes - presently		Yes
* If Shut-in, give date and oil/gas/water rates of last production  Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data  * If Producing, give date and oil/gas/water rates of recent test (within 90 days)	Date: 6/97 Rates: 15 MCFD x 3 BOPD x -0- BWPD	Date: Rates:	Date: Rates: N/A
	Date: N/A Rates:	Date: Rates:	Date: 7/97 Rates: 80 MCFD x -0- BOPD x-0-BWPD
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 81 % Gas: 46 %	Oil: % Gas: %	Oil: 19 % Gas: 54 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones?  Yes  No  
If not, have all working, overriding, and royalty interests been notified by certified mail?  Yes  No  
Have all offset operators been given written notice of the proposed downhole commingling?  Yes  No
11. Will cross-flow occur? Yes  No  If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable.  Yes  No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other?  Yes  No
13. Will the value of production be decreased by commingling?  Yes  No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application.  Yes  No  
*NO FEDERAL LANDS*
15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S). \_\_\_\_\_
16. ATTACHMENTS:
- 2 • C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
  - 3 • Production curve for each zone for at least one year. (If not available, attach explanation.)
  - For zones with no production history, estimated production rates and supporting data. N/A
  - 1 • Data to support allocation method or formula. - Attachment #1
  - 4 • Notification list of all offset operators.
  - Notification list of working, overriding, and royalty interests for uncommon interest cases.
  - Any additional statements, data, or documents required to support commingling.

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 Drilg & Prod Mgr DATE 10/15/97

TYPE OR PRINT NAME Kevin E. O'Connell TELEPHONE NO. ( 303 ) 850-6303

**Attachment #1**

Supporting Data (for Part 9) of Form 107-A  
To Determine Allocation Formula

Year	Upper Completion Upper Penn Formation Travis (Upper Penn) Field		Lower Completion Morrow Formation Empire-South (Morrow) Field	
	Ave. Monthly Gas Prod (% of Total)	Ave. Monthly Oil Prod. (% of Total)	Ave. Monthly Gas Prod. (% of Total)	Ave. Monthly Oil Prod. (% of Total)
1991	700 MCF (39%)	210 BO (75%)	11,000 MCF (61%)	70 BO (25%)
1992	6500 MCF (41%)	180 BO (78%)	9500 MCF (59%)	50 BO (22%)
1993	5800 MCF (49%)	160 BO (88%)	6000 MCF (51%)	20 BO (12%)
1994	5400 MCF (44%)	130 BO (87%)	7000 MCF (56%)	20 BO (13%)
1995	5000 MCF (50%)	110 BO (88%)	5000 MCF (50%)	15 BO (12%)
1996	Not representative due to load up and logging off problems with Travis (Upper Penn) zone. <u>Travis (Upper Penn)</u> Ave. Gas Production Percentage = 46%      Ave. Gas Production = 54% Ave. Oil Production Percentage = 81%      Ave. Oil Production = 19%			

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

Attachment #2

All distances must be from the outer boundaries of the Section.

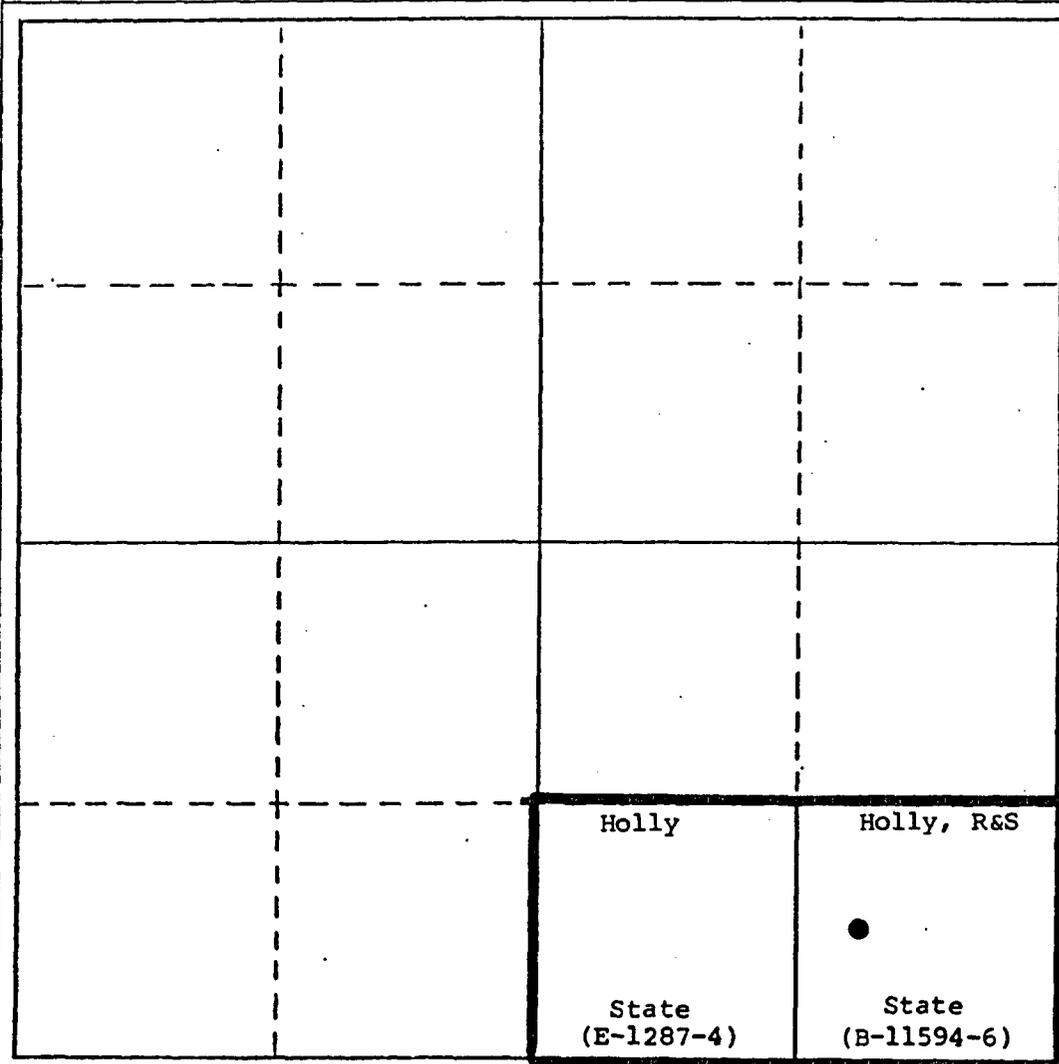
Operator <b>Holly Energy, Inc.</b>		Lease <b>State "B" 14 COM</b>			Well No. <b>1</b>
Unit Letter <b>P</b>	Section <b>14</b>	Township <b>18 S</b>	Range <b>28 E</b>	County <b>Eddy</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>990</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3540</b>	Producing Formation <b>Strawn</b>		Pool <b>Travis--Upper Penn (Ext.)</b>	Dedicated Acreage: <b>80</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
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).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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 interests, has been approved by the Commission.



CERTIFICATION

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

*Robert Loyd*

Name  
**Robert Loyd**

Position  
**Superintendent**

Company  
**Holly Energy, Inc.**

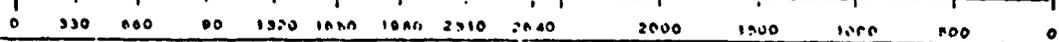
Date  
**October 22, 1980**

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.

Date Surveyed  
**3-10-80**

Registered Professional Engineer and/or Land Surveyor  
**Original signed by John W. West**

Certificate No.  
**676**



NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

Attachment #2A

All distances must be from the outer boundaries of the Section.

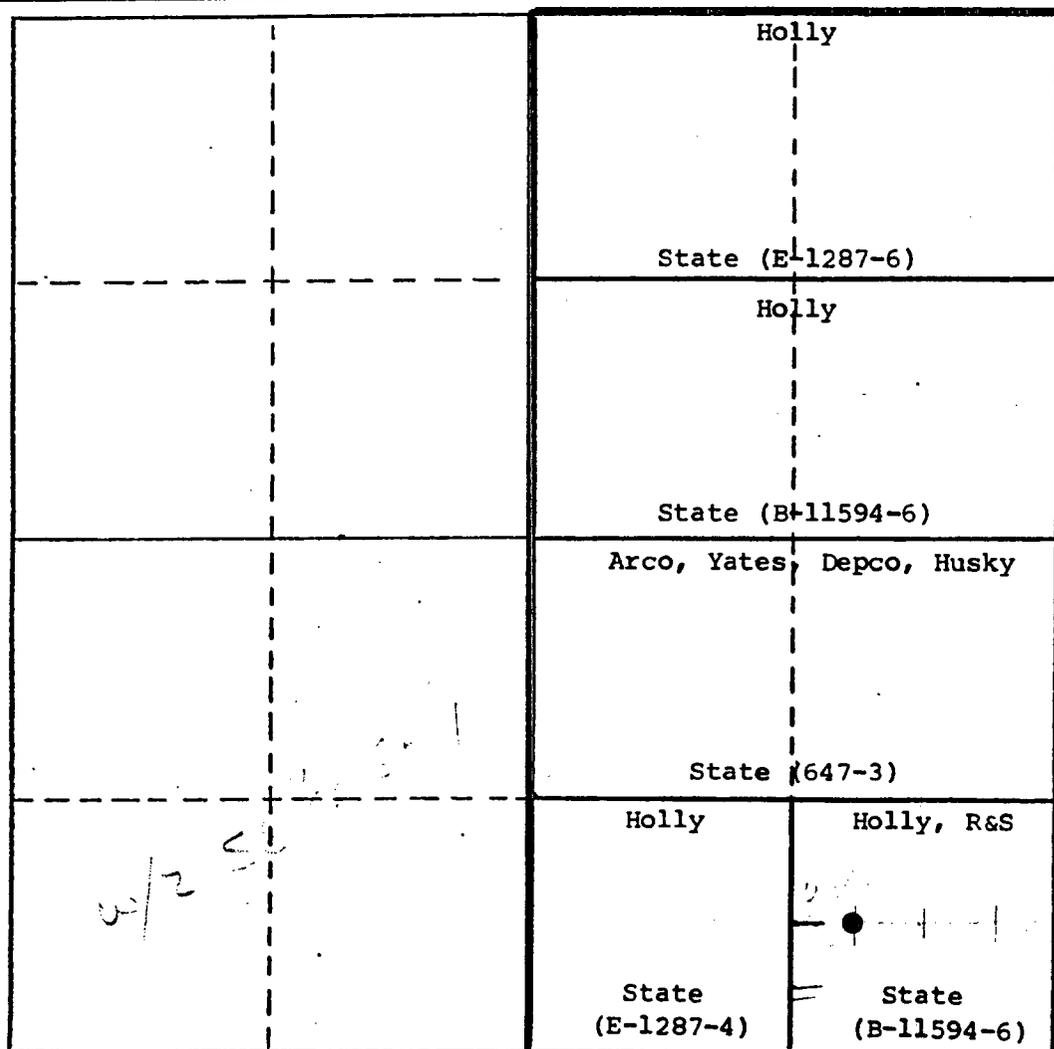
Operator <b>Holly Energy, Inc.</b>			Lease <b>State "B" 14 COM</b>		Well No. <b>1</b>
Unit Letter <b>P</b>	Section <b>14</b>	Township <b>18 S</b>	Range <b>28 E</b>	County <b>Eddy</b>	
Actual Postage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>990</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3540</b>	Producing Formation <b>Morrow</b>		Pool <b>South Empire - Morrow (Ext.)</b>		Dedicated Acreage: <b>320</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
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).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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 interests, has been approved by the Commission.



CERTIFICATION

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

*Robert Loyd*

Name **Robert Loyd**

Position **Superintendent**

Company **Holly Energy, Inc.**

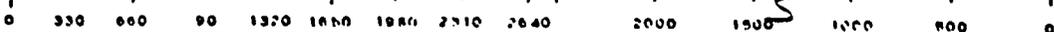
Date **March 19, 1980**

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.

Date Surveyed **3-10-80**

Registered Professional Engineer and/or Land Surveyor  
**Original signed by John W. West**

Certificate No.  
**676**

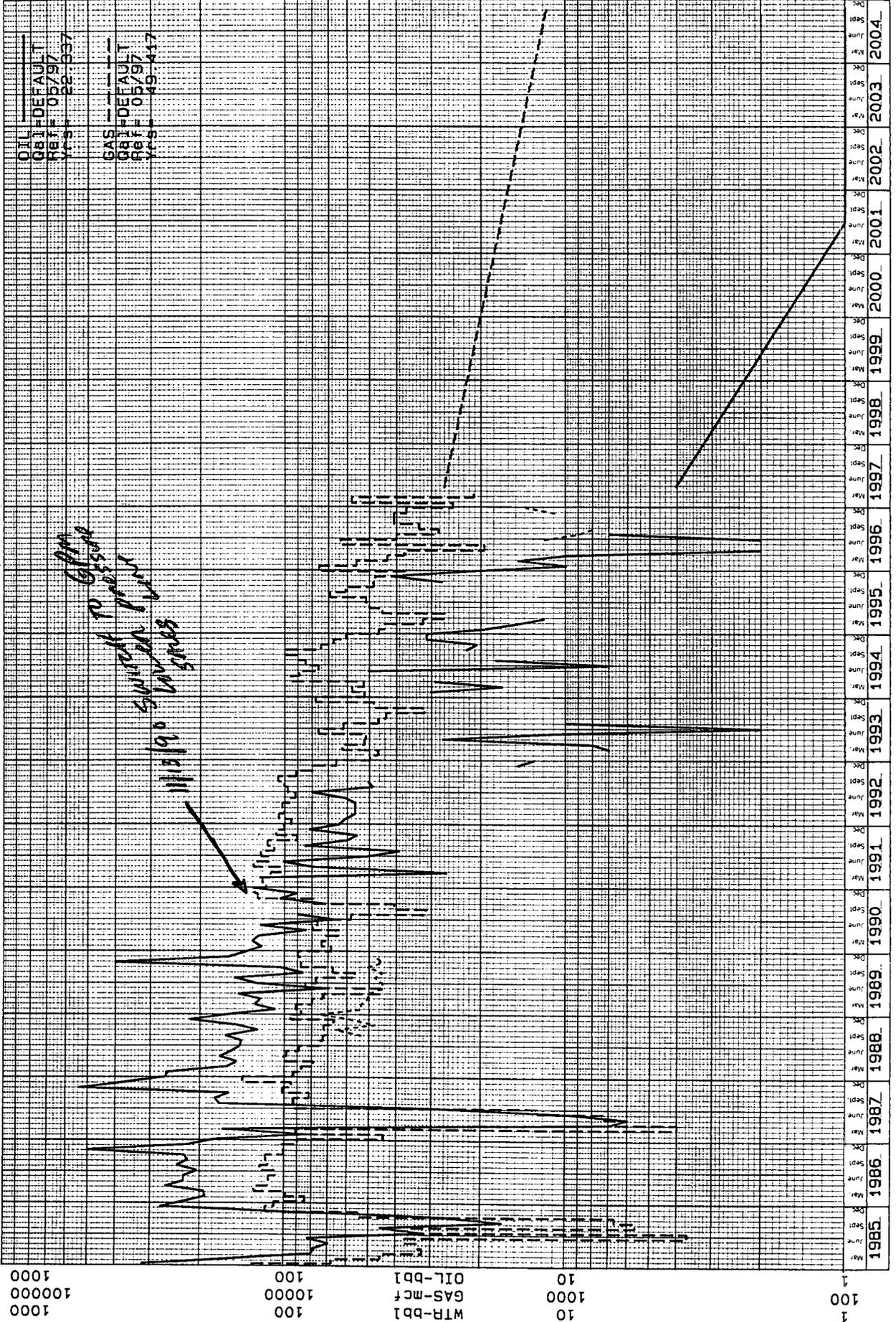




*Lower Completion  
CASING ANNULUS*

STATE B 14 COM 1 (MOR)  
EMPIRE SOUTH  
NM EDDY  
CBM WELLS  
MORROW (10709-743)

DATE: 07/22/97  
TIME: 12:04:35



*Hallwood*

**Attachment #4**

List of Offset Operators

Hallwood-State "B" 14 Com #1 Well

**T18S-R28E, Eddy County, New Mexico**

Section 10

1. SDX Resources  
P. O. Box 5061  
Midland, TX 79704
2. Kay Jay Oil Company  
P. O. Box 1306  
Artesia, NM 88210

**T18S-R28E, Eddy County, New Mexico**

Section 11

1. Yates Drilling Company  
105 S. 4<sup>th</sup> Street  
Artesia, NM 88210
2. SDX Resources  
P. O. Box 5061  
Midland, TX 79704

**T18S-R28E, Eddy County, New Mexico**

Section 12

1. Harvey E. Yates Company  
500 N. Main Street  
Roswell, NM 88202

**T18S-R28E, Eddy County, New Mexico**

Section 13

1. Harvey E. Yates Company  
500 N. Main Street  
Roswell, NM 88202

List of Offset Operators

Hollywood-State "B" 14 Com #1 Well

T18S-R28E, Eddy County, New Mexico

Section 14

1. Hallwood Petroleum, Inc.  
P. O. Box 378111  
Denver, CO 80237
2. SDX Resources  
P. O. Box 5061  
Midland, TX 79704

T18S-R28E, Eddy County, New Mexico

Section 15

1. SDX Resources  
P. O. Box 5061  
Midland, TX 79704

T18S-R28E, Eddy County, New Mexico

Section 22

1. SDX Resources  
P. O. Box 5061  
Midland, TX 79704
2. W. E. Jeffers  
P. O. Box 65  
Artesia, NM 88211-0065

List of Offset Operators

Hallwood-State "B" 14 Com #1 Well

T18S-R28E, Eddy County, New Mexico

Section 23

1. Devon Energy Corporation  
20 N. Broadway, Suite 1500  
Oklahoma City, OK 73102-9951
2. SDX Resources  
P. O. Box 5061  
Midland, TX 79704
3. UMC Petroleum Corporation  
410 17<sup>th</sup> Street, Suite 1400  
Denver, CO 80202
4. Ray Wistall  
P. O. Box 4  
Loco Hills, NM 88255
5. Yates Drilling Company  
105 S. 4<sup>th</sup> Street  
Artesia, NM 88210
6. Harvey E. Yates Company  
500 N. Main Street  
Roswell, NM 88202



**Attachment #6**

Supportive Data (for Part 10) of Form 107-A

List of Working, Overriding & Royalty Interest Owners

State "B" 14 Com #1 – Travis Upper Penn Zone

OWNER NAME	PERCENT	TYPE OWNER*
Hallwood Consolidated Resources Corp	29.0039	WI
HEP Development	29.0039	WI
Devon Energy Corporation	10.9375	WI
Costilla Energy, Inc.	6.8360	WI
Louis Dreyfus Gas Holdings, Inc.	3.4934	WI
Yates Petroleum Corporation	3.3864	WI
Pride Energy Company	1.7467	WI
Durango Production Corporation	1.7467	WI
State of New Mexico	12.5000	RI
Della Sheldon	0.7813	OI
Yates Brothers A Partnership	0.5642	OI
TOTAL	100.0000	
*WI = Working Interest      RI = Royalty Interest      OI = Override Interest		

State "B" 14 Com #1 – Empire, South Morrow Zone

OWNER NAME	PERCENT	TYPE OWNER*
Hallwood Consolidated Resources Corp	29.0039	WI
HEP Development	29.0039	WI
Devon Energy Corporation	10.9375	WI
Costilla Energy, Inc.	6.8360	WI
Louis Dreyfus Gas Holdings, Inc.	3.4934	WI
Yates Petroleum Corporation	3.3864	WI
Pride Energy Company	1.7467	WI
Durango Production Corporation	1.7467	WI
State of New Mexico	12.5000	RI
Della Sheldon	0.7813	OI
Yates Brothers A Partnership	0.5642	OI
TOTAL	100.0000	
*WI = Working Interest      RI = Royalty Interest      OI = Override Interest		

October 15, 1997

TO: Address List for Offset Operators

RE: State "B" 14 Com #1  
Unit P-Section 14-T18S-R28E  
Eddy County, New Mexico  
Application for Downhole Commingling

Gentlemen:

Hallwood Petroleum, Inc. is applying for administrative approval to commingle production from the Upper Penn and Morrow zones in the above referenced well. If you, as an offset operator, have no objection to the proposed commingling, please sign the waiver at the bottom of this page and return one copy in the enclosed self-addressed stamped envelope.

Thank you for your cooperation.

Sincerely,



Kevin E. O'Connell  
Drilling and Production Manager

O: (303) 850-6303  
FAX: (303) 850-6290

KEO/jey  
Enclosures

KEO97.074

\*\*\*\*\*

W A I V E R

WE HEREBY WAIVE ANY OBJECTIONS TO HALLWOOD PETROLEUM, INC.'S APPLICATION TO COMMINGLE PRODUCTION AS SET FORTH ABOVE.

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*\*\*\*\*

**Attachment #7**

**Address List for Offset Operators**

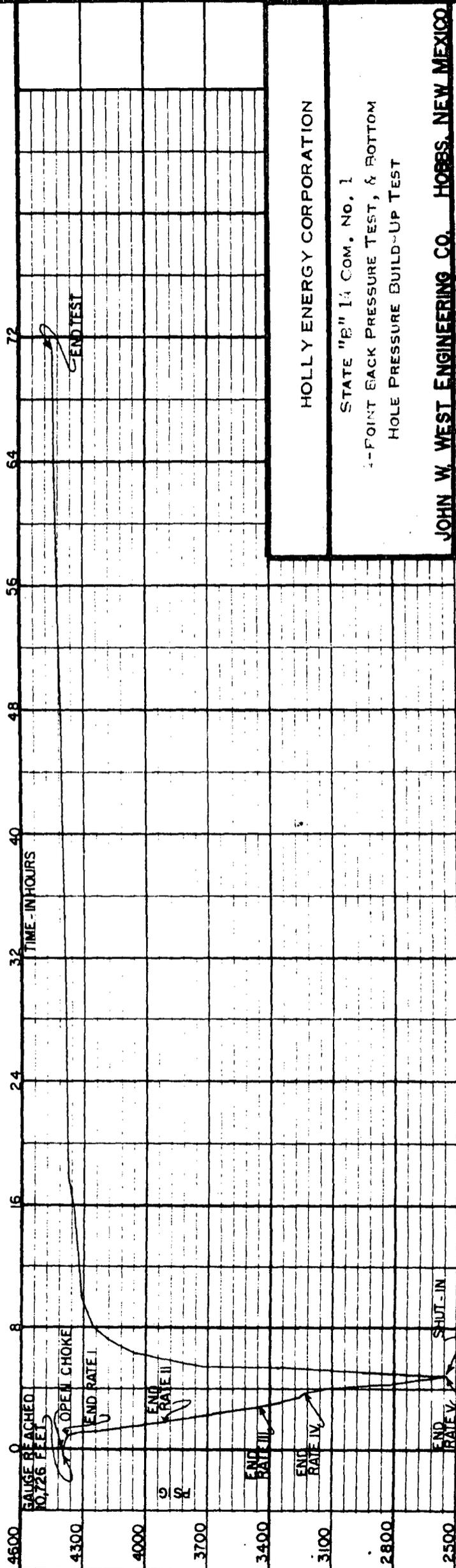
**State "B" 14 Com #1**

1. SDX Resources  
P. O. Box 5061  
Midland, TX 79704
2. Kay Jay Oil Company  
P. O. Box 1306  
Artesia, NM 88210
3. Yates Drilling Company  
105 S. 4<sup>th</sup> Street  
Artesia, NM 88210
4. Harvey E. Yates Company  
500 N. Main Street  
Roswell, NM 88202
5. W. E. Jeffers  
P. O. Box 65  
Artesia, NM 88211-0065
6. Devon Energy Corporation  
20 N. Broadway, Suite 1500  
Oklahoma City, OK 73102-9951
7. UMC Petroleum Corporation  
410 17<sup>th</sup> Street, Suite 1400  
Denver, CO 80202
8. Ray Wistall  
P. O. Box 4  
Loco Hills, NM 88255

TEST DATE: SEPTEMBER 6, TO SEPTEMBER 9, 1980  
TEST DEPTH: 10,725 FEET

ELEMENT NO.: 2534 ELEMENT NO.: 12809  
RANGE: 0 - 750 PSI RANGE: 0 - 5650 PSI  
CLOCK NO.: 10835 CLOCK NO.: E-794  
RANGE: 72 HOURS RANGE: 72 HOURS

NOTE: SEE FOLLOWING PAGE FOR TABULATION OF TIMES AND PRESSURES.



HOLLY ENERGY CORPORATION  
STATE "B" 14 COM. NO. 1  
-- POINT BACK PRESSURE TEST, & BOTTOM  
HOLE PRESSURE BUILD-UP TEST

HOLLY ENERGY CORPORATION  
 STATE "B" 14 COM. NO. 1  
 4-POINT BACK PRESSURE TEST,  
 & BOTTOM HOLE PRESSURE BUILD-UP TEST  
 TABULATION OF TIMES AND PRESSURES

TEST CONDUCTED BY:  
 JOHN WEST ENGINEERING COMPANY

TEST DATE: SEPTEMBER 6, TO SEPTEMBER 9, 1980  
 TEST DEPTH: 10,726 FEET  
 ELEMENT No. : 8534  
 OPERATOR: W.S.

<u>DATE</u>	<u>TIME</u>	<u>CUM. HRS. / MIN.</u>		<u>PSIG @ 10,726 FEET</u>
9-6-80	9:45 AM			4396 GAUGE REACHED 10,726'
9-6-80	10:15 AM	00 HRS.	00 MIN.	4396 OPEN CHOKE; BEGIN 4-POINT
	10:30 AM	00	15	4378
	10:45 AM	00	30	4373
	11:00 AM	00	45	4367 END RATE I
9-6-80	11:15 AM	01	00	4338
	11:30 AM	01	15	4194
	11:45 AM	01	30	4041
	12:00 NOON	01	45	3919 END RATE II
9-6-80	12:15 PM	02	00	3763
	12:30 PM	02	15	3685
	12:45 PM	02	30	3558
	1:00 PM	02	45	3457 END RATE III
9-6-80	1:15 PM	03	00	3384
	1:30 PM	03	15	3298
	1:45 PM	03	30	3254
	2:00 PM	03	45	3223 END RATE IV
9-6-80	2:15 PM	04	00	3116
	2:30 PM	04	15	2849
	2:45 PM	04	30	2719
	3:00 PM	04	45	2551 END RATE V; END 4-POINT
9-6-80	3:00 PM	04	45	2551 SHUT-IN; BEGIN BUILD-UP
	3:15 PM	05	00	2954
	3:30 PM	05	15	3370
	3:45 PM	05	30	3711
	4:00 PM	05	45	3856
	4:15 PM	06	00	3957
	4:30 PM	06	15	4055
	4:45 PM	06	30	4104
	5:00 PM	06	45	4147
	5:15 PM	07	00	4173
9-6-80	5:45 PM	07	30	4225
	6:15 PM	08	00	4249
	6:45 PM	08	30	4266
	7:15 PM	09	00	4280
9-6-80	8:15 PM	10	00	4303
	9:15 PM	11	00	4318
	10:15 PM	12	00	4330

HOLLY ENERGY CORPORATION  
 STATE "B" 14 COM. NO. 1  
 4-POINT BACK PRESSURE TEST,  
 & BOTTOM HOLE PRESSURE BUILD-UP TEST  
 TABULATION OF TIMES AND PRESSURES

CONTINUED FROM PRECEDING PAGE

<u>DATE</u>	<u>TIME</u>	<u>CUM. HRS. / MIN.</u>	<u>PSIG @ 10,726 FEET</u>
9-7-80	12:15 AM	14 HRS. 00 MIN.	4347
	2:15 AM	16 00	4358
	4:15 AM	18 00	4373
	6:15 AM	20 00	4376
9-7-80	11:15 AM	25 00	4390
	4:15 PM	30 00	4399
	9:15 PM	35 00	4408
9-8-80	2:15 AM	40 00	4410
9-8-80	12:15 PM	50 00	4419
	10:15 PM	60 00	4428
9-9-80	8:15 AM	70 00	4434
9-9-80	10:15 AM	72 00	4434 GAUGE OUT; END BUILD-UP END TEST

NOTE: TANDEM BOMBS WERE RUN FOR THIS TEST.  
 THE ELEMENTS CHECKED WITHIN 1/10 OF  
 1% AS SPECIFIED BY THE MANUFACTURER.

API Well #  
30-015-23350

#1 STATE "B" 14 COM  
660' FSL & 990' FEL SEC. 14-18S-28E

Hallwood Petroleum

Attachment #9

### Wellbore Diagram

