

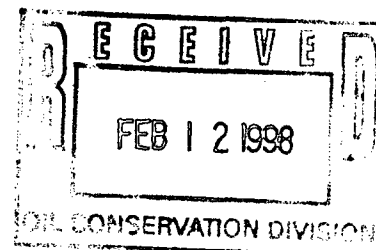
**WALSH**

ENGINEERING &amp; PRODUCTION CORP.

Petroleum Engineering Consulting  
Lease Management  
Contract Pumping7415 East Main  
Farmington, New Mexico 87402  
(505) 327-4892

January 21, 1998

Ms. Kathleen Garland  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87504-2088



Re: Application for Downhole Commingling  
Thompson Engineering and Production Corp.  
Hartman #2  
990' FNL, 990' FEL, Section 31, T29N R11W  
San Juan County, New Mexico  
Basin Fruitland Coal and Fulcher-Kutz PC

Dear Ms. Garland,

This is a request for administrative approval for downhole commingling of the production from the Basin Fruitland Coal and Fulcher Kutz Pictured Cliffs pools.

I have attached for your review, an acreage plat outlining the dedicated acreage, offset wells and offset operators. I have also included a proposed allocation formula with a short discussion of the history of the well.

The offset operators are being notified of this application by certified return receipt mail. Copies of these letters are enclosed.

Thank you for your consideration and approval of this application. If you have any questions please do not hesitate to call upon me.

Sincerely,

Paul C. Thompson, P.E.  
President

2/12/98	3/4/98	DC	M	DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

#### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

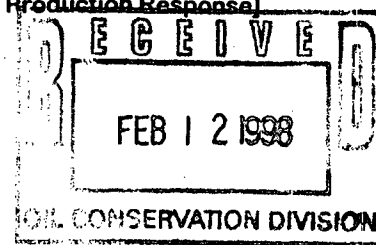
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

PAUL C. THOMPSON  
Print or Type Name

Paul C. Thompson  
Signature

PRESIDENT  
Title

1/27/98  
Date

DHC 4/21/98

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980  
APR - 1 1998DISTRICT II  
811 South First St., Artesia, NM 88210-2835  
OIL CONSERVATION DIVISIONDISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410-1693State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

THOMPSON ENGR. & PROD. CORP. 7415 E. Main Farmington, New Mexico 87402  
 Operator Address  
 Hartman 2 A 31 29N 11W San Juan  
 Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 037581 Property Code 22356 API NO. 30 - 045 - 07730 Spacing Unit Lease Types: (check 1 or more)  
 Federal ☐ State ☐ (and/or) Fee ☒

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Basin Fruitland Coal		Fulcher - Kutz PC
2. Top and Bottom of Pay Section (Perforations)	1432 - 1452		1456 - 1492 OH
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Pumping		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 150 Est. b. (Original)	a.  b.	a. 150 Est. b. 152 on 11/79
6. Oil Gravity (°API) or Gas BTU Content	N/A		
7. Producing or Shut-In?	Shut-In Waiting on	Surface Facilities	Shut In
Production Marginal? (yes or no)	Unknown		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	Date: New Zone Rates: See Attached Offset Production	Date: Rates:	Date: 8/89 Rates: 10 MCF/MO.
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Greater than 3MCF/D Oil: % Gas: %	Oil: % Gas: %	0 - 3 MCF/D Oil: % Gas: %

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

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).

## 16. ATTACHMENTS:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- 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.
- Data to support allocation method or formula.
- 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 Paul C. Thompson TITLE President DATE 3/27/98

TYPE OR PRINT NAME Paul C. Thompson TELEPHONE NO. ( 505 ) 327-4892

OFFSET FRUITLAND COAL PRODUCTION

<u>WELL NAME</u>	<u>LOCATION</u>	<u>3/97 MCFD</u>	<u>CUMMLATIVE MMCF</u>
Gallegos Canyon Unit #410	K 35 - 29N - 12W	203	499
Gallegos Canyon Unit #414	18 - 28N - 11W	387	404
Gallegos Canyon Unit #412	M 12- 28N - 12W	214	288

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Farmington, New Mexico 87402  
(505) 327-4892

January 21, 1998

Ms. Kathleen Garland  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87504-2088

**RECEIVED****JAN 29 1998**

MINING &amp; MINERALS DIV.

Re: Application for Downhole Commingling  
Thompson Engineering and Production Corp.  
Hartman #2  
990' FNL, 990' FEL, Section 31, T29N R11W  
San Juan County, New Mexico  
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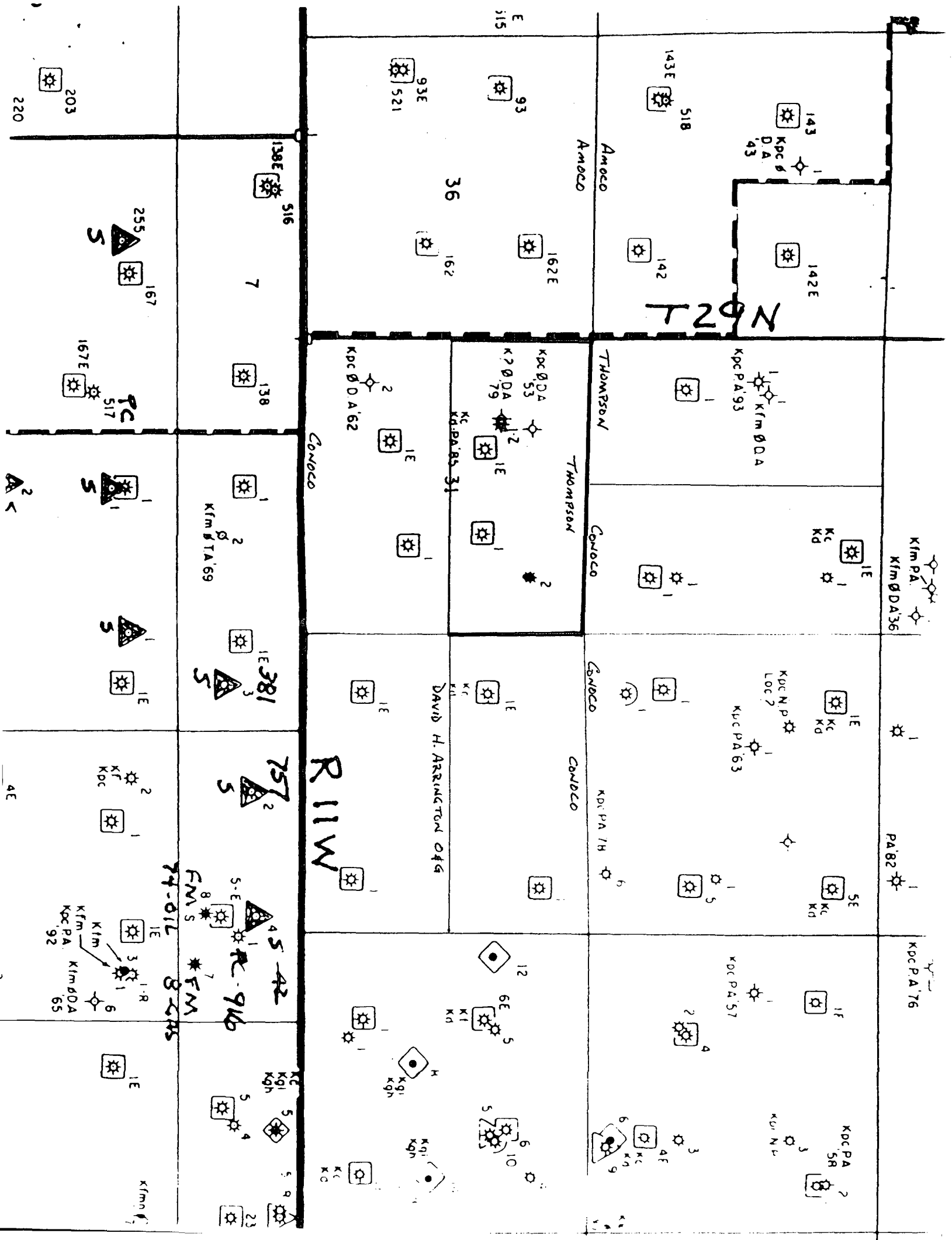
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Sincerely,

Paul C. Thompson, P.E.  
President



District I  
PO Box 1900, Hobbs, NM 88241-1900  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 10, 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

* APT. Number		* Pool Code 71629		* Pool Name Basin Fruitland Coal	
* Property Code		* Property Name Hartman			* Well Number 2
* OGRID No. 037581		* Operator Name THOMPSON ENGINEERING & PROD. CORP.			* Elevation 5360' GL

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
A	31	29N	11W		990	North	990	East	San Juan

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

* Deduct: Acres 320	* Joint or Infill Y	* Consolidation Code	* Order No.
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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					<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Paul C. Thompson</i> Signature Paul C. Thompson Printed Name President Title 1/23/98 Date
					<sup>18</sup> 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.  Original on file Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

District I  
PO Box 1988, Hobbs, NM 88241-1988  
District II  
PO Drawer DD, Artesia, NM 88211-8719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

**OIL CONSERVATION DIVISION**  
PO Box 2088  
Santa Fe, NM 87504-2088

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Submit to Appropriate District Office  
State Lease - 4 Copies  
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☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number 30-045-07730		2 Pool Code 77200		3 Pool Name Fulcher - Kutz Pictured Cliffs	
4 Property Code		5 Property Name Hartman			6 Well Number 2
7 OGRID No. 037581		8 Operator Name THOMPSON ENGR. & PROD. CORP			9 Elevation 5360' GL

**10 Surface Location**

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A	31	29N	11W		990	North	990	East	San Juan

**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 Dedication Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
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<div data-bbox="121 1095 1055 1330"> <p>16</p> </div>	<div data-bbox="1063 1095 1526 1564"> <p><b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Paul C. Thompson</i> Signature Paul C. Thompson Printed Name President Title 1/23/98 Date</p> </div>	
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Hartman #2  
Downhole Commingling Application

Allocation Formula

The Fulcher Kutz Pictured Cliffs was completed by a previous operator, Haynes Drilling Company, in 1953. The well has not produced since 1989. Cumulative production is 161,116 MCF. 5-1/2" casing was set above the Pictured Cliffs and the Pictured Cliffs was completed open hole.

Thompson Engineering proposes to set a plug above the Pictured Cliffs and complete the Basin Fruitland coal. It is anticipated that the Fruitland Coal will require a pump to remove produced water. The open hole portion of the well is needed for rat hole for the installation of the pump.

Both zones have very similar bottom hole pressures (approximately 150 psig) so cross flow will not be a factor. While the Fruitland Coal is expected to produce more water, neither zone is fluid sensitive and the fluids from the two zones are compatible.

The ownership, including working interest, royalty and overriding royalty interests, is common.

Since the Pictured Cliffs is not currently capable of production and it will not be restimulated, it is not anticipated that it will contribute very much to the total production stream. The Pictured Cliffs will, however, still be open in the well and pumping off the produced water may have some beneficial effect on its production. Absent any additional data, Thompson Engineering proposes to allocate the first 3 MCFD to the Pictured Cliffs and anything over that to the Basin Fruitland Coal.

Thompson Engineering  
Hartman #2  
990' FNL & 990' FEL  
Sec. 31, T29N, R11W  
San Juan County, New Mexico

The following offset Operators have received written notice of the proposed downhole commingling application.

Land Manager  
Amoco Production Company  
P.O. Box 800  
Denver, CO 80201-0800

Land Manager  
Conoco, Inc.  
10 Desta Dr. W Suite 100W  
Midland, TX 79705

David H. Arrington  
P.O. Box 2071  
Midland, TX 79702

I certify that copies of the Application for a non-standard Fruitland Coal well has been mailed to the above Operators.

  
Paul C. Thompson

San Juan County            )  
                                  ) ss  
State of New Mexico    )

The following instrument was acknowledged before me this 22nd day of January 1998 by Paul C. Thompson.

  
Notary Public

My Commission Expires:

July 31, 2001

**WALSH**

ENGINEERING &amp; PRODUCTION CORP.

Petroleum Engineering Consulting  
Lease Management  
Contract Pumping7415 East Main  
Farmington, New Mexico 87402  
(505) 327-4892CERTIFIED- RETURN RECEIPT

January 21, 1998

Mr. David H. Arrington  
P.O. Box 2071  
Midland, TX 79702Re: Downhole Commingling Application  
Thompson Engineering  
Hartman #2  
990' FNL, 990' FEL  
Section 31, T29N R11W  
San Juan County, NM  
Fulcher Kutz Pictured Cliffs and Basin Fruitland Coal

Dear Arrington,

Enclosed you will find a copy of the above referred to application that has been submitted to the New Mexico Oil Conservation Division for administrative approval. As an offset operator you are being notified of this application pursuant to NMOCD rules.

If you desire to submit remarks concerning the application, please send them to Ms. Lori Wrotenberry, Director, New Mexico Oil Conservation Division, Santa Fe, New Mexico, within 20 days from the receipt of this notice. If you have no objection to the proposal, no action is required on your part.

Thank you for your consideration in this matter and if you have any questions, please do not hesitate to call upon me.

Sincerely,

Paul C. Thompson, P.E.

**WALSH**

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January 21, 1998

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10 Desta Dr. W Suite 100W  
Midland, TX 79705Re: Downhole Commingling Application  
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San Juan County, NM  
Fulcher Kutz Pictured Cliffs and Basin Fruitland Coal

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