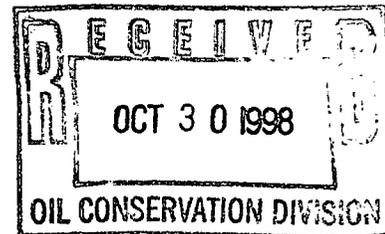


NSL 11/19/98

# MERRION

OIL & GAS



October 28, 1998

Mr. Michael E. Stogner  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**Re: Revised Application of Merrion Oil & Gas  
Non-Standard "Off Pattern" Location  
Shank Com #1  
Basin Fruitland Coal Pool  
NW/4 Section 2, T26N, R13W  
San Juan County, New Mexico**

Dear Mr. Stogner:

In an application dated September 17, 1998, Merrion Oil & Gas Corp. (Merrion) requested administrative approval for a non-standard location for the subject well. Although no objections were submitted by offset operators, in a letter dated October 21, 1998, you denied the application based on the recommendation of Ernie Busch of the Aztec OCD. Mr. Busch did not feel that our geologic arguments supported the fact that a well in the "off pattern" NW/4 would be significantly better than a standard location in the SW/4. After discussions with Mr. Busch and yourself, Merrion has decided to clarify our reasoning and re-apply for administrative approval for this NSL.

Merrion has an approved State APD to drill the Shank Com #1 in the NW/4 of Section 2, T26N, R13W. The well will be completed in the Basin Fruitland Coal on a W/2 320 acre spacing unit (see Exhibit 1 and 2). Although the well is at standard offsets from the spacing unit boundary, it is non-standard because of its "off pattern" location in the northwest quarter versus the southwest quarter of the section.

Merrion is proposing to drill the well on the northern part of the spacing unit for geologic reasons. Exhibit 3 is a log cross-section showing that the coal thickness increases to the north and east across the project area. The total coal thickness of approximately 26 feet in the SW/4 of Section 10 increases to 39 feet in the NW/4 of Section 2, T26N, R13W, where Merrion proposes to drill the well.

Page Two  
October 28, 1998

Along with the increasing coal thickness, there is a dramatic improvement in coal quality to the northeast across the project area. Exhibit 4 shows that adjacent wells to the southwest of the Shank Com #1 spacing unit are uneconomic at gas rates of 0 to 42 MCFD. Wells to the northeast in the "sweet trend" as shown on Exhibit 4 are making up to 600 MCFD. This dramatic improvement in well performance indicates a substantial improvement in coal quality and cleating to the north and east.

Merrion strongly feels that a well in the SW/4 of Section 2 will be similar to the offsets too the southwest and will be uneconomic. It is only by drilling the well in the thicker, higher quality, more cleated coal in the NW/4 of the section that we can have an economically viable project. Therefore, we request that you reconsider and approve our application.

Exhibit 2 is a plat showing the offset operators in the area. Exhibit 5 is a list of operators who received certified copies of this application.

Please notify me at (505) 327-9801, ext. 114 if more information is required.

Sincerely,

  
George F. Sharpe  
Manager - Oil & Gas Investments

Xc: Well File  
Ernie Busch - Aztec OCD

Box 1980, Hobbs, NM 88241-1980  
 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 21, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 APT Number 30-045-29516		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal	
4 Property Code 22342		5 Property Name Shank Com			6 Well Number 1
7 OGRID No. 014634		8 Operator Name MERRION OIL & GAS			9 Elevation 6045'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	2	26 N	13 W	SENW	1840	North	1840	West	San Juan

11 Bottom Hole Location If Different From Surface

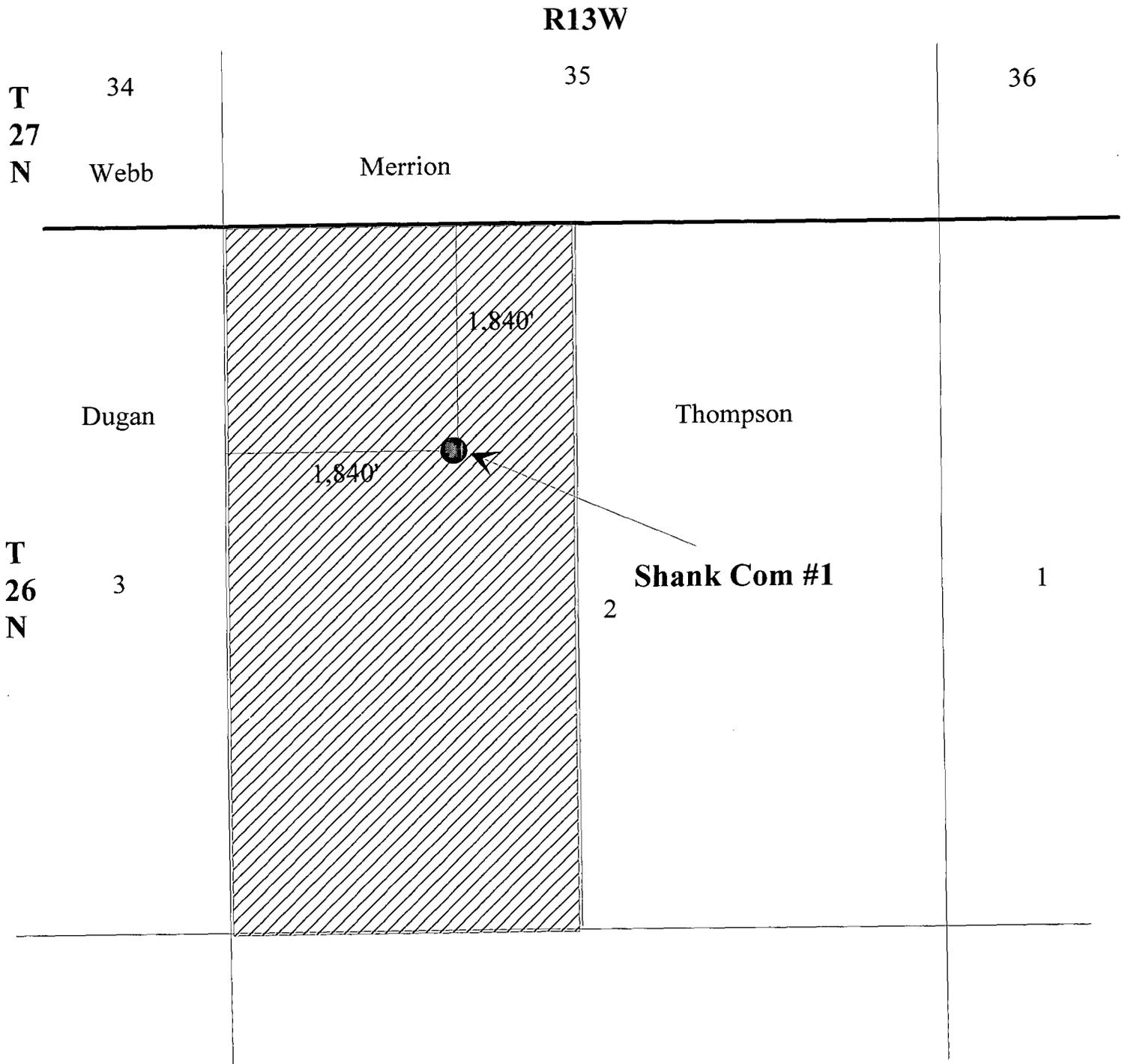
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 320 319.96	13 Joint or Infill	14 Consolidation Code	15 Order No. In progress
----------------------------------	--------------------	-----------------------	-----------------------------

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

<p>39.95 40.01 40.07 40.13 1840'</p>	<p>DECEIVED          IN JAN 2 1998          OIL CON. DIV.          DIST. 3</p>	<p>17 OPERATOR CERTIFICATION          I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Steven S. Dunn</i>          Signature          Steven S. Dunn          Printed Name          Drlg &amp; Prod Manager          Title          1/26/98          Date</p>
	<p>EXHIBIT 1</p> <p>20.01 39.95 79.96 8 59.96 16 319.96</p>	<p>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</p> <p>Date of Survey          Signature and Seal of Professional Surveyor            Certificate Number</p>

**EXHIBIT 2**  
**SHANK COM #1**  
**Non-Standard Location**  
**Offset Operator Plat**



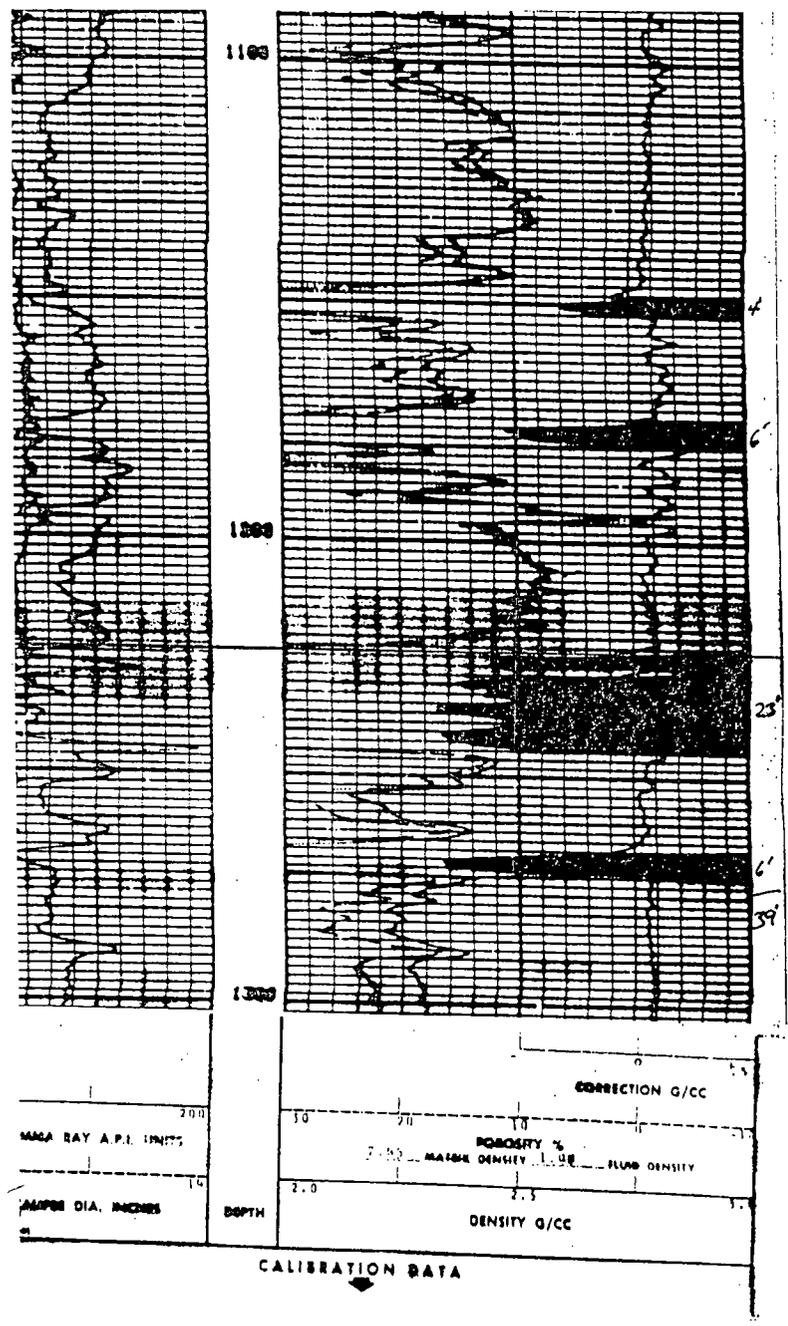
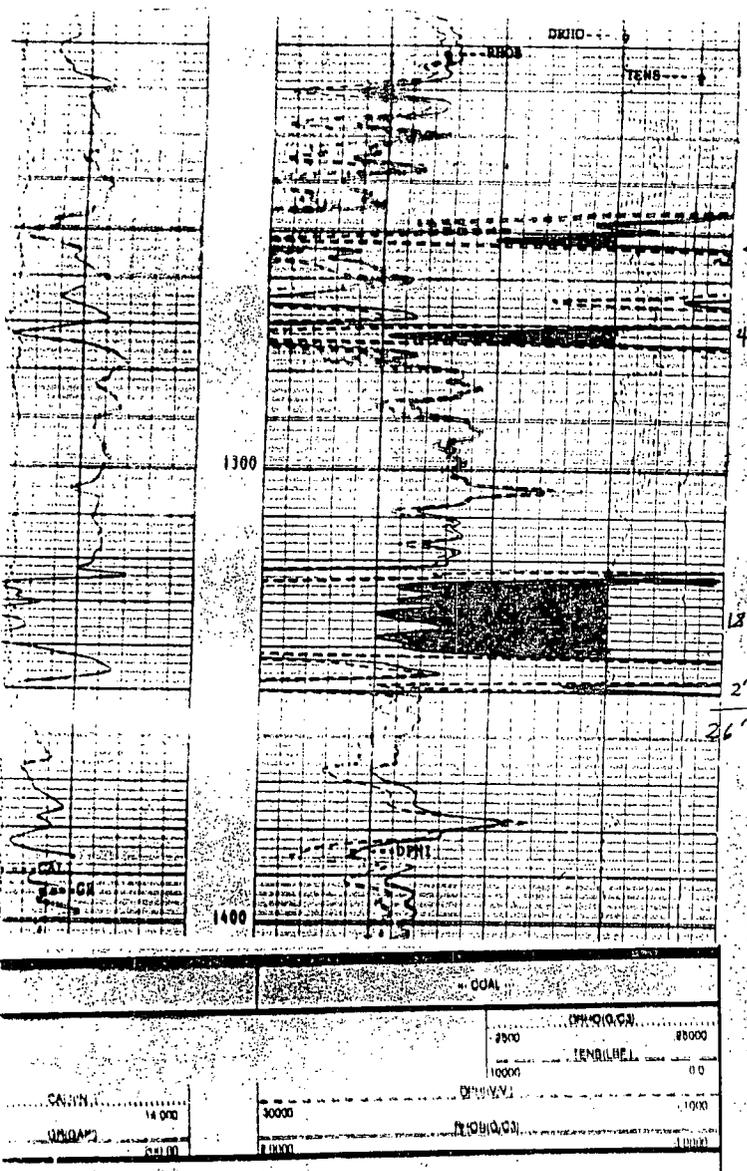
# EXHIBIT 3

## Density Log Cross Section

✱ Shank Com Location

SW  
Gallegos Fed 26-B-10 #2  
Density Log  
10N1 - 26N - 13W

Bartlesville #1  
Density Log  
2C - 26N - 13W  
NE



# EXHIBIT 4

## FRUITLAND COAL PRODUCTION

MCFD  
Cum MCF

Bubble on Rate

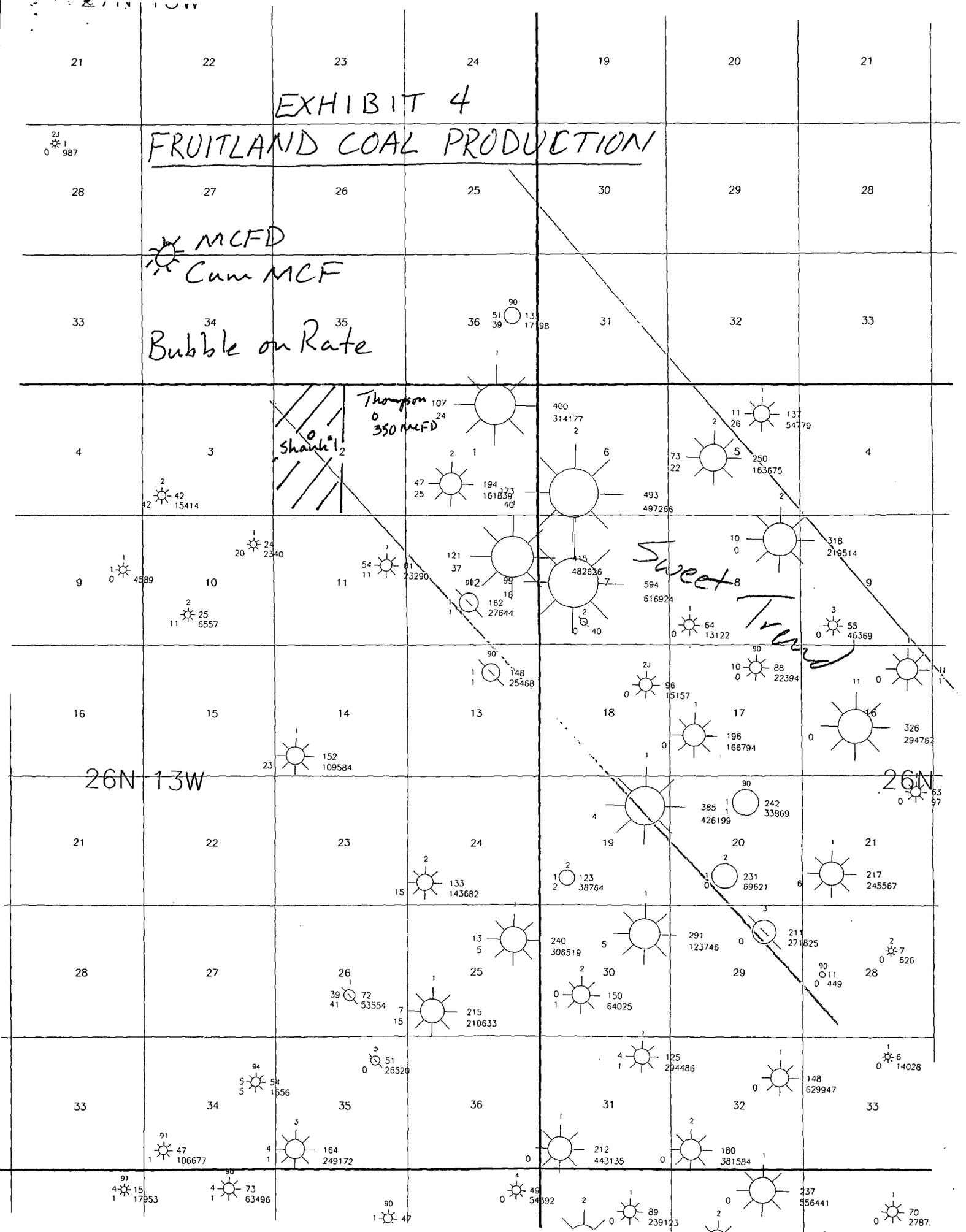
Shank's

Thompson  
350 MCFD

Sweet  
Tray

26N 13W

26N



**Exhibit 5**

Offset Operator Notification  
Shank Com #1  
Non-Standard Location

To: Offset Operators

If you have questions, please call George Sharpe at 327-9801. If you have any objections to this application, please notify the NMOCD in writing within 20 days of receipt of this application.

Mr. Paul Thompson  
Thompson Engineering  
7415 E. Main  
Farmington, New Mexico 87402

Mr. John Alexander  
Dugan Production  
P.O. Box 420  
Farmington, New Mexico 87499

Mr. Max Webb  
2705 ½ E. Main  
Farmington, New Mexico 87402

## **Stogner, Michael**

---

**From:** Busch, Ernie  
**Sent:** Tuesday, November 17, 1998 9:33 AM  
**To:** Mike Stogner  
**Subject:** merrion o&g nsl  
**Importance:** High

Mike,

This is concerning the Shank Com #1 well that we denied as an administrative application, on the first go around. Merrion resubmitted additional information of a geologic nature that helped their case. There was no offset opposition and I also talked to the BLM and they did not have a position. So I recommend we grant Merrion's application administratively.



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

October 21, 1998

Merrion Oil & Gas Corporation  
610 Reily Avenue  
Farmington, New Mexico 87401

Attention: George F. Sharpe

*RE: Administrative application for an unorthodox "off-pattern" coal gas well location within the Basin-Fruitland Coal (Gas) Pool for the proposed Shank Com. Well No. 1 (API No. 30-045-29516), to be drilled 1840 feet from the North and East lines (Unit F) of Section 2, Township 26 North, Range 13 West, NMPM, San Juan County, New Mexico.*

Dear Mr. Sharpe:

The subject application was duly filed with the New Mexico Oil Conservation Division ("Division") in Santa Fe on September 21, 1998. Subsequent to my initial review of this application and the records of the Division in Santa Fe and on the recommendation of the Aztec District Office of the Division (see copy attached), this application is hereby denied and is being returned to you at this time.

Should you have any questions concerning this decision, please contact Mr. Ernie Busch, Geologist, at the Division's Aztec District Office in Santa Fe. His telephone number is (505) 334-6178, or you may call me in Santa Fe at (505) 827-8185.

Sincerely,

Michael E. Stogner  
Chief Hearing Officer/Engineer

MES/kv

cc: New Mexico Oil Conservation Division - Aztec  
Lori Wrotenbery - OCD Director, Santa Fe  
Kathy Valdes - NMOCD, Santa Fe

## **Stogner, Michael**

---

**From:** Busch, Ernie  
**Sent:** Tuesday, September 29, 1998 7:49 AM  
**To:** Mike Stogner  
**Subject:** Merrion O&G Corp. (NSL)  
**Importance:** High

Mike,

In reference to the Shank Corn #1 well of Merrion's, I don't believe their application is justified for geologic exception. There is no substantial difference in the pay (exhibit #3), and a Southwest ¼ location is desirable because of the well distribution in the surrounding sections. I recommend not approving this application administratively and suggesting a standard location in the SW/4.

NSL 10/13/98

# MERRION

OIL & GAS

September 17, 1998

Mr. Michael E. Stogner  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87501

**Re: Application of Merrion Oil & Gas Corporation  
Non-Standard Location  
Shank Com #1  
Basin Fruitland Coal Pool  
NW/4 Section 2, T26N, R13W  
San Juan County, New Mexico**

Dear Mr. Stogner:

Merrion Oil & Gas Corp. (Merrion) requests administrative approval for a non-standard location for the subject well. Merrion has permitted to drill the Shank Com #1 in the NW/4 of Section 2, T26N, R13W. The well will be completed in the Basin Fruitland Coal on a W/2 320 acre spacing unit (see Exhibit 1 and 2). Although the well is at standard offsets from the spacing unit boundary, it is non-standard because of its location in the northwest quarter versus the southwest quarter of the section.

Merrion is proposing to drill the well on the northern part of the spacing unit for geologic reasons. Exhibit 3 is a log cross-section showing that the coal thickness increases to the north and east across the project area. The total coal thickness of approximately 26 feet in the SW/4 of Section 10 increases to 39 feet in the NW/4 of Section 2, T26N, R13W, where Merrion proposes to drill the well.

Even more telling is the dramatic improvement in production to the northeast across the project area. Exhibit 4 shows that by drilling the Shank Com #1 in the NW/4 of Section 2, it is more on trend with the highly productive wells to the east versus the marginal wells to the southwest. Therefore, Merrion feels the economic viability of the well will be dramatically improved by drilling the well in the non-standard NW/4.

Page Two  
September 17, 1998

Exhibit 2 is a plat showing the offset operators in the area. Exhibit 5 is a list of the operators who received certified copies of this application.

Please notify me at (505) 327-9801, ext. 114 if more information is required.

Sincerely,

A handwritten signature in cursive script that reads "George Sharpe". The signature is written in black ink and is positioned above the printed name and title.

George F. Sharpe  
Manager - Oil & Gas Investments

xc: Well File

Box 1980, Hobbs, NM 88241-1980  
 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  
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-29516		Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 22342	Property Name Shank Com		Well Number 1
OGRID No. 014634	Operator Name MERRION OIL & GAS		Elevation 6045'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	2	26 N	13 W	SENW	1840	North	1840	West	San Juan

11 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

12 Dedicated Acres 320 319.96	13 Joint or Infill	14 Consolidation Code	15 Order No. In progress
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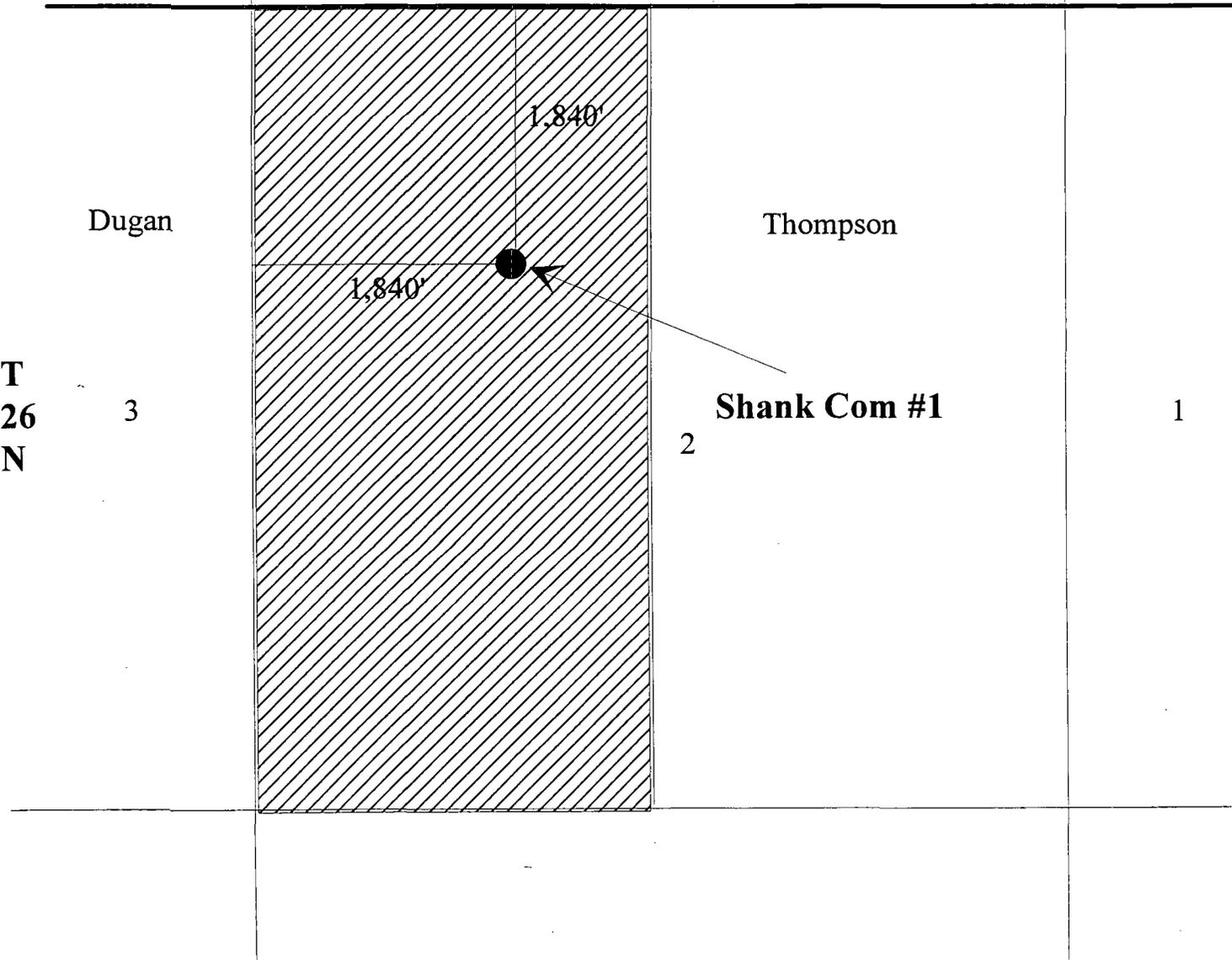
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>  Signature Steven S. Dunn Printed Name Drlg & Prod Manager Title 1/26/98 Date
	18 SURVEYOR CERTIFICATION <i>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.</i>  Date of Survey Signature Certificate Number

**EXHIBIT 2**  
**SHANK COM #1**  
**Non-Standard Location**  
**Offset Operator Plat**

**R13W**

<b>T</b>	34		35		36
<b>27</b>					
<b>N</b>	Webb		Merrion		



# EXHIBIT 3

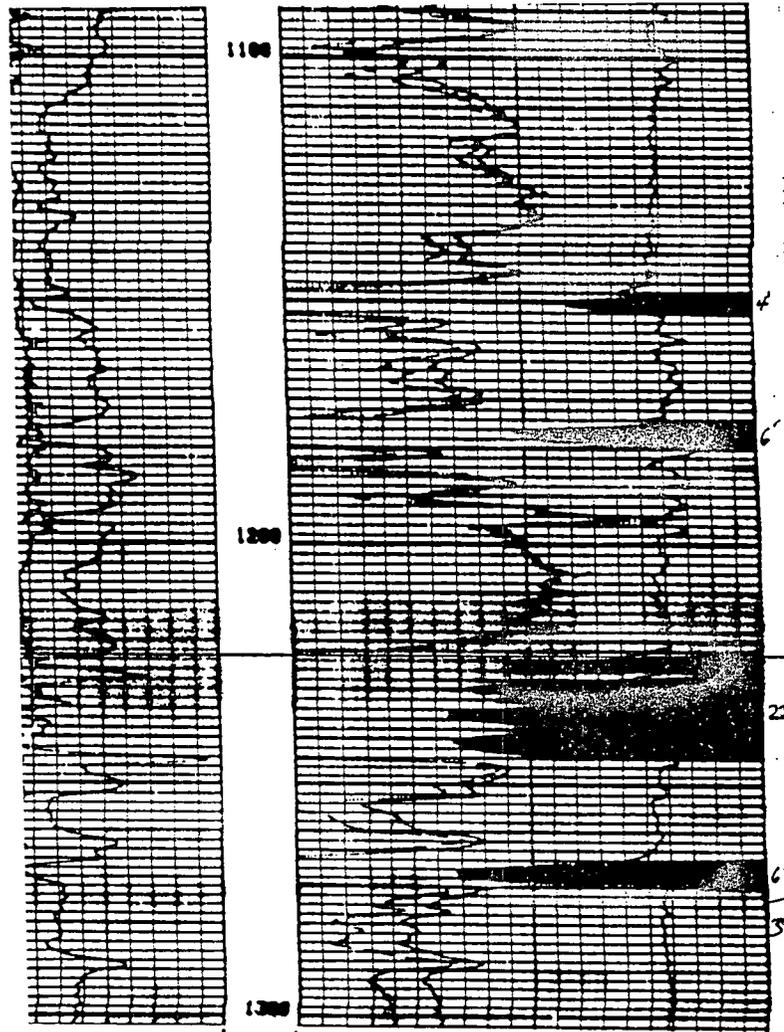
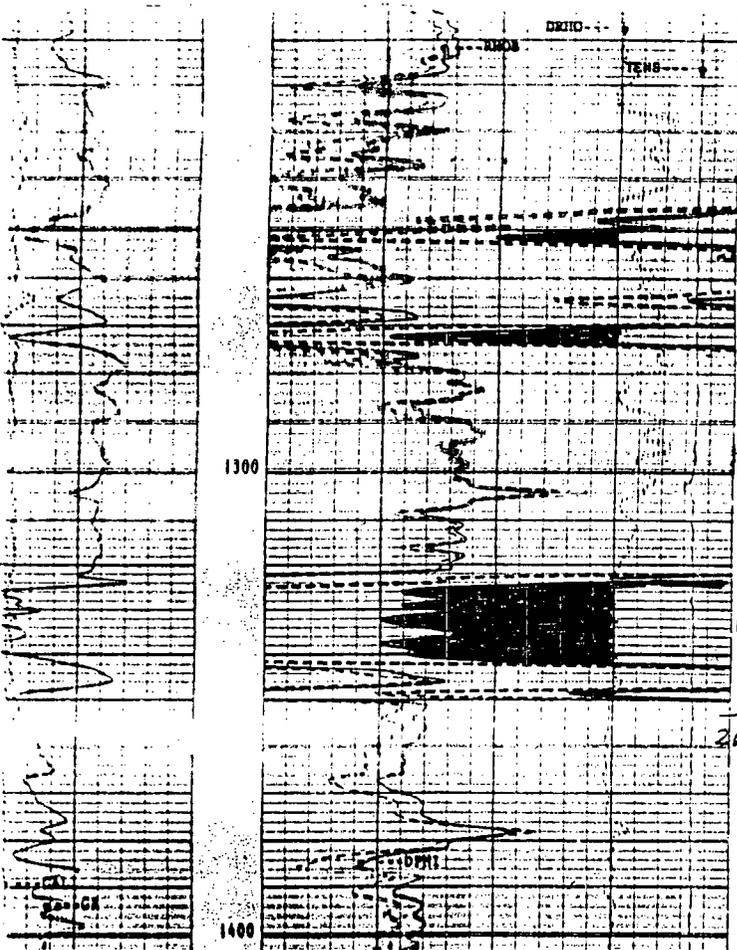
## Density Log Cross Section

☀ Shank Com Location

SW  
Gallegos Fed 26-B-10 #2  
Density Log  
10N1 - 26N - 13W

Bartlesville #1  
Density Log  
2C - 26N - 13W

NE



COAL	
2500	25000
10000	0.0
30000	1000
10000	10000

MAGN RAY A.P.I. UNIT	CORRECTION G/CC
10	10
14	7.50
2.0	2.5
DEPTH	DENSITY G/CC

CALIBRATION DATA

21

22

23

24

19

20

21

# EXHIBIT 4

## FRUITLAND COAL PRODUCTION

2J  
0 987

28

27

26

25

30

29

28

MCFD  
Cum MCF

33

34

35

36

31

32

33

Bubble on Rate

90  
51 13  
39 17 98

4

3

Shank 1 2

Thompson  
0 107  
350 MCFD 24

400  
314177  
2

11 157  
26 54779

2  
42 15414

47 25

194 173  
161839 40

6  
493 497266

73 22

5 250  
163675

9

1 4589

10

2 25  
11 6557

20 24  
2340

11

54 11 81 23290

121 37

982 99 16  
162 27644

145  
482626  
7  
0 40

594 616924  
8  
64 13122

10 0 318  
219514

9

3 55  
46369

16

15

14

13

18

17

16

26N 13W

1 152  
109584

90 148  
1 25468

2J 96  
0 15157

10 0 88  
22394

11 0

0 196  
166794

326  
294767

21

22

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21

26N  
0 63  
97

2 133  
15 143682

1 123  
2 38764

90 242  
385 1 33869  
426199

1 217  
245567

28

27

26

25

30

29

28

39 41 72  
53554

1 215  
210633

2 150  
0 64025

291 123746  
0 211  
271825

2 7  
0 626  
90 11  
0 449

33

34

35

36

31

32

33

94 54  
5 1856

5 51  
0 26520

4 125  
1 294486

148  
629947

1 6  
0 14028

91 47  
1 106677

3 164  
4 249172

1 212  
0 443135

2 180  
0 381584

237  
556441

91 15  
4 17953

4 73  
1 63496

4 49  
0 54892

2 89  
0 239123

2 70  
0 2787

1 70  
0 2787

**Exhibit 5**

Offset Operator Notification  
Shank Com #1  
Non-Standard Location

To: Offset Operators

If you have questions, please call George Sharpe at 327-9801. If you have any objections to this application, please notify the NMOCD in writing within 20 days of receipt of this application.

Mr. Paul Thompson  
Thompson Engineering  
7415 E. Main  
Farmington, New Mexico 87402

Mr. John Alexander  
Dugan Production  
P.O. Box 420  
Farmington, New Mexico 87499

Mr. Max Webb  
2705 ½ E. Main  
Farmington, New Mexico 87402



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

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 Revised October 18, 199  
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 Submit to Appropriate District Office  
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RECEIVED  
 JAN 27 1993

OIL CON. DIV.   
 DIST. 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address. <b>Merrion Oil &amp; Gas Corporation</b> 610 Reilly Avenue Farmington, New Mexico 87401		<sup>2</sup> OGRID Number 014634
		<sup>3</sup> API Number 30 - 045 - 29516
<sup>4</sup> Property Code 22342	<sup>5</sup> Property Name <b>Shank Com</b>	<sup>6</sup> Well No. 1

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	2	26N	13W		1840	North	1840	West	San Juan

<sup>8</sup> Proposed 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
71629									
<sup>9</sup> Proposed Pool 1 Basin Fruitland Coal					<sup>10</sup> Proposed Pool 2 W/319.96				

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 6045'
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 1383' KB	<sup>18</sup> Formation Fruitland Coal	<sup>19</sup> Contractor L&B Speed Drill	<sup>20</sup> Spud Date As Soon As Permitted

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
8-3/4"	7" J55	23 ppf	~120' KB	~30 sx (36 cuft)	Surface
6-1/4"	4-1/2" J55	10.5 ppf	~1383'KB	~113 sx (166 cuft)	Surface

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Merrion Oil & Gas proposes to drill 8<sup>3</sup>/<sub>4</sub>" hole with native mud to approx. 120' KB and set 7" 23# J55 surface casing, cement to surface with ~30 sx 'B' w/ 2% CaCl<sub>2</sub> (36 ft<sup>3</sup>). Will drill 6<sup>1</sup>/<sub>4</sub>" hole to TD @ approx. 1383' KB with low solids non-dispersed gel mud system. Run open hole surveys. If appears productive, will set 4<sup>1</sup>/<sub>2</sub>" 10.5 ppf J55 production casing from TD to surface. Will cement with 25 sx 'B' (30 ft<sup>3</sup>) lead slurry followed by 38 sx 'B' w/ 2% SMS (77 ft<sup>3</sup>) and tail in with 50 sx 'B' (59 ft<sup>3</sup>) cement to fill from total depth to surface. Top of cement should circulate to surface ( will adjust volumes based upon caliper log). If cement does not reach surface, a temperature log or cement bond log will be run to determine top of cement.

Will test Fruitland Coal through perforated casing. Will fracture stimulate and put on for production test.

Drilling operations below surface casing will be conducted with a bag type BOP in place, minimum working pressure 1000 psig.

Surface is owned by Navajo Tribe for NIIP operation. Will negotiate with NAPI for approval to use surface.

Formation tops: Ojo Alamo - Surface, Kirtland - 76', Fruitland - 800', Fruitland Coal - 1211', Pictured Cliffs 1233'.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:   
 Printed name: Steven S. Dunn  
 Title: Drilling & Production Manager  
 Date: January 26, 1998 Phone: 505-327-9801

<b>OIL CONSERVATION DIVISION</b>	
Approved by: 	
Title: DEPUTY OIL & GAS INSPECTOR, DIST. 3	
Approval Date: JAN 28 1998	Expiration Date: JAN 28 1999
Conditions of Approval: HOLD C-104 FOR NSL	
Attached <input type="checkbox"/>	

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 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

Form C-102  
 Revised February 21, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> APT Number 30-045-29516		<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 22.342	<sup>5</sup> Property Name Shank Com		<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 014634	<sup>8</sup> Operator Name MERRION OIL & GAS		<sup>9</sup> Elevation 6045'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	2	26 N	13 W	SENW	1840	North	1840	West	San Juan

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

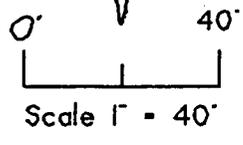
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

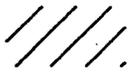
<sup>12</sup> Dedicated Acres 328.5/9.96	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. In progress
---	-------------------------------	----------------------------------	--

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

	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Steven S. Dunn</i></p> <p>Signature          Steven S. Dunn          Printed Name          Drlg &amp; Prod Manager          Title          1/26/98          Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor            6844</p> <p>Certificate Number</p>

Shank Com # 1  
 well pad and section



-  cut
-  fill
-  set stake & lath

