



# Arch Petroleum Inc.

March 5, 1996

Application for Administrative Approval of  
Eight Unorthodox Well Locations  
Lea County, New Mexico

William J. LeMay, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Dear Mr. LeMay:

Arch Petroleum Inc. hereby seeks administrative approval pursuant to the provisions of Division Rule 104 F(2) adopted on January 18, 1996, of the unorthodox well locations listed on attached Exhibit A.

Exhibit B is lease Base Map showing the proposed locations. These locations do encroach on immediately adjacent existing spacing units in the same pool. These adjacent spacing units are in the same lease as the subject wells and are also operated by Arch in all cases. Therefore, there are no affected parties to whom notice is required pursuant to the NMOCD rules.

Exhibit B also shows the first seven infill wells drilled as Phase I wells pursuant to OCD Order #R-10453. The initial potential tests from the NMOCD Form C-105 are listed on Exhibit C. The results have been encouraging to date although it is too early to project an estimated ultimate recovery.

These unorthodox locations in the Blinebry formation are necessary for geological reasons. Exhibit D is a porosity isopach map of the Blinebry. It shows the areal extent of the porosity development in the field. This development is made up of thin porosity stringers that are very discontinuous between wellbores. This discontinuity, coupled with the low average porosity of five to eight percent and low average permeability of 0.5 millidarcies causes low ultimate recoveries and inadequate drainage of the field based on current 40 acre locations.

Exhibit E is a Drainage Map showing the areas estimated to be drained by the existing wells in the Blinebry. The drainage areas shown were calculated and are listed on Exhibit F. The parameters used to make these calculations are also shown. On average, it is seen that the

existing wells are expected to drain a little over 13 acres per well. It is therefore necessary to drill the subject well to avoid waste and efficiently recover the available reserves.

Your attention to this request is appreciated.

Very truly yours,

A handwritten signature in black ink that reads "Chris N. Bezner". The signature is written in a cursive, flowing style.

Chris N. Bezner, P. E.

Engineer

CNB/

Attachments

cc: Mr. Jerry Sexton, District Supervisor

Oil Conservation Division

Mr. William F. Carr

Attorney for Arch Petroleum Inc.

**PROPOSED INFILL WELLS - TEAGUE BLINEBRY - ARCH PETROLEUM INC.  
8 UNORTHODOX LOCATIONS**

Proposed Well #	Acreage	Footages	Unit	Section	Township	Range
C E Lamunyon 57	Federal	2310' FNL 1200' FWL	E	27	23S	37E ✓
C E Lamunyon 58	Federal	2310' FNL 1340' FEL	G	28	23S	37E ✓
C E Lamunyon 59	Federal	330' FNL 1300' FWL	D	21	23S	37E ✓
C E Lamunyon 60	Federal	1300' FSL 1340' FWL	N	22	23S	37E ✓
E C Hill A 5	Fee	1340' FSL 1980' FEL	J	27	23S	37E ✓
E C Hill B 6	Fee	1340' FSL 2310' FWL	K	27	23S	37E ✓
M K Stewart 8	Federal	1340' FSL 330' FEL	I	28	23S	37E ✓
M K Stewart 9	Federal	1490' FSL 1340' FEL	J	28	23S	37E ✓

Note To File:

4-8-96

Oversized Exhibits "B", "D" and "E"  
are included w/ the Administrative Order  
file for the E.C. Hill "A" (W/11 No. 5 (J-28-235-37E)  
affiliation.

A handwritten signature in cursive script, appearing to read "M. Stos", with a long horizontal flourish extending to the right.

**TEAGUE BLINEBRY - INFILL WELLS**

WELL NAME	INITIAL POTENTIAL TEST (C-105)			
	DATE	BOPD	BWPD	MCFPD
C. E. LAMUNYON #51	10/22/95	115	102	706
C. E. LAMUNYON #52	11/09/95	127	10	222
C. E. LAMUNYON #53	11/19/95	180	142	802
C. E. LAMUNYON #55	02/13/96	162	93	709
SALTMOUNT #3	02/02/96	105	413	200

<b>TEAGUE BLINEBRY FIELD - INFILL WELLS</b>					
<b>Estimated Ultimate Recovery-Drainage Radius</b>					
	<b>Current Well</b>	<b>Net Pay, h net, ft.</b>	<b>Est. Ult. Prim. Rec., MSTB</b>	<b>Drainage Acres</b>	<b>Drainage Radius, ft.</b>
1	GG Travis 2	126	151.3	21.4	545
2	GG Travis 3	137	112.7	14.7	451
3	Lamunyon 14	90	73.8	14.6	450
4	Lamunyon 20	143	58.9	7.3	319
5	Lamunyon 21	125	111.7	15.9	470
6	Lamunyon 22	86	46.8	9.7	367
7	Lamunyon 23	101	76.5	13.5	433
8	Lamunyon 24	101	55.0	9.7	367
9	Lamunyon 25	119	134.0	20.1	528
10	Lamunyon 26	106	69.1	11.6	402
11	Lamunyon 27	168	177.2	18.8	511
12	Lamunyon 28	118	86.6	13.1	426
13	Lamunyon 29	119	95.1	14.3	445
14	Lamunyon 30	90	109.7	21.7	549
15	Lamunyon 33	148	114.9	13.9	438
16	Lamunyon 34	113	137.7	21.7	549
17	Lamunyon 35	84	37.7	8.0	333
18	Lamunyon 36	96	59.9	11.1	393
19	Lamunyon 37	113	184.6	29.1	636
20	Lamunyon 39	110	1.6	0.3	60
21	Lamunyon 40	179	158.9	15.8	469
22	Lamunyon 42	137	124.3	16.2	474
23	Lamunyon 43	104	24.8	4.3	243
24	Lamunyon 44	213	135.7	11.4	397
25	Lamunyon 50*	123	64.6	9.4	360
26	Elk State 2	119	138.4	20.8	536
27	W H Elson 1	113	94.8	15.0	456
28	E C Hill A 2	110	67.7	11.0	390
29	E C Hill A 3	115	3.4	0.5	86
30	E C Hill B 2	120	39.0	5.8	284
31	E C Hill B 3	115	59.0	9.2	356
32	E C Hill C 1	120	73.1	10.9	388
33	E C Hill C 2	120	78.1	11.6	401
34	M K Stewart 2	109	87.2	14.3	445
35	M K Stewart 3	103	42.9	7.4	321
36	M K Stewart 4	120	66.7	9.9	371
37	M K Stewart 5	109	70.7	11.6	401
38	Saltmount 1	168	124.7	13.2	429
39	Saltmount 2	119	73.2	11.0	390
40	Seeton 1	187	221.9	21.2	542
	<b>Total/Average</b>	<b>4,896</b>	<b>3,643.9</b>	<b>13.3</b>	<b>429</b>

Assumes: Swi=18%, Avg. Porosity=7.4%, Boi=1.26 RB/STB  
Recovery Factor=15%

\* First 20-Acre Infill Drilled



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE  
RECEIVED

3/7/96 MAR 13 AM 8 52

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

GOVERNOR

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC \_\_\_\_\_  
DHC \_\_\_\_\_  
NSL   X   \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD \_\_\_\_\_  
WFX \_\_\_\_\_  
PMX \_\_\_\_\_

Proposed Well #	Acreage	Footages	Unit	Section	Township	Range
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Gentlemen:

I have examined the application for the:

Arch Petroleum Inc  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

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Yours very truly,

Jerry Sexton  
Supervisor, District 1

/ed

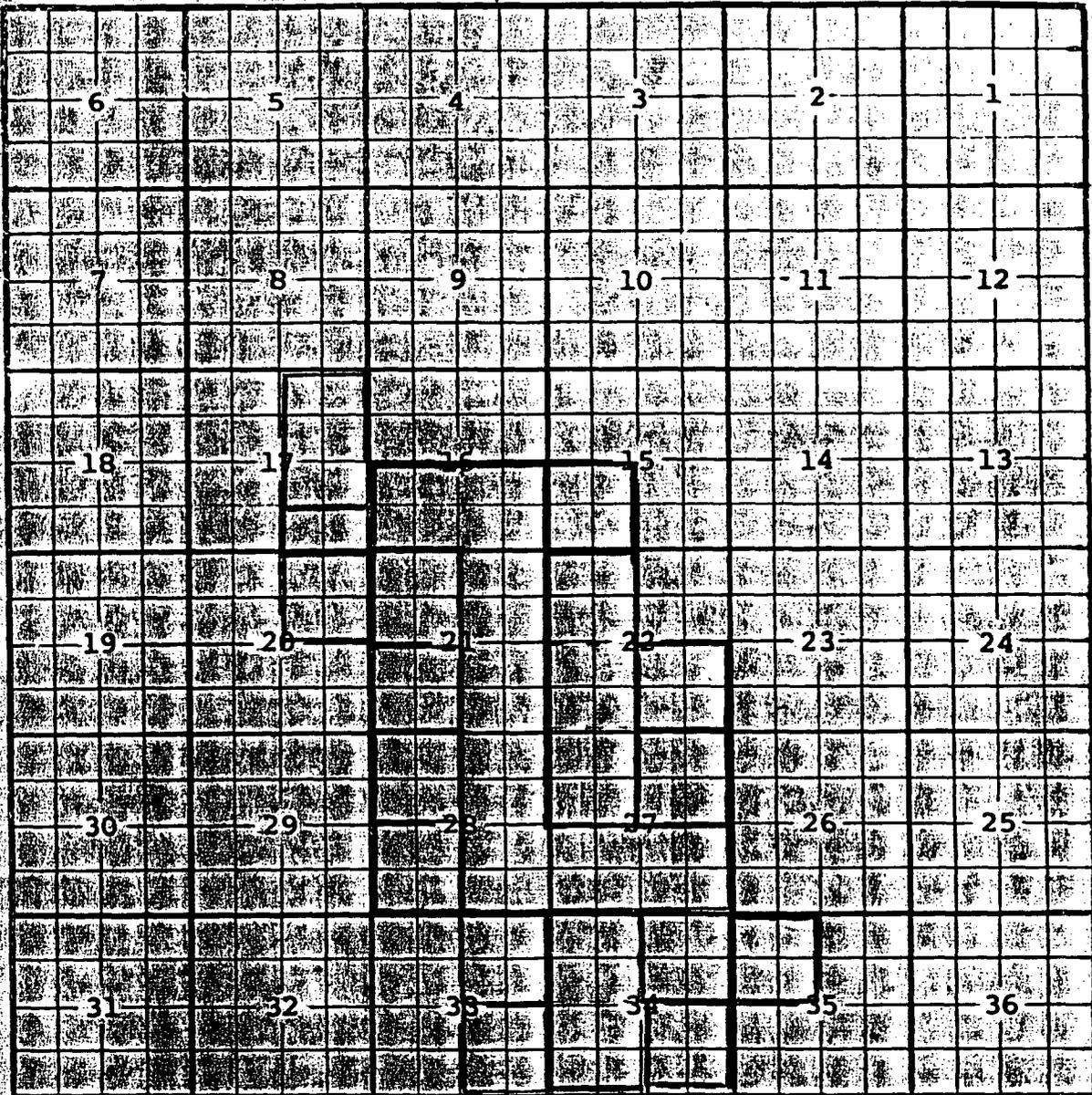
COUNTY *Lea*

POOL *Teague - Blinebry*

TOWNSHIP *23 South*

RANGE *37 East*

NMPM



*Description*  $\frac{1}{2}$  Sec. 16,  $\frac{1}{2}$  Sec. 21,  $\frac{1}{2}$  Sec. 27,  $\frac{1}{2}$  Sec. 28 (R-3280, 8-1-67)  
 $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec. 21 (R-3355, 1-1-68) -  $\frac{1}{4}$  W  $\frac{1}{4}$  Sec. 27;  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 27 (R-3389, 4-1-68)  
 $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec. 33 (R-3407, 1-1-68) -  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 21;  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 22;  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 28 (R-3438, 7-1-68)  
 $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec. 28 (R-3530, 11-1-68) -  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec. 20 (R-3662, 2-1-69) -  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec. 15;  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 33 (R-3713, 5-1-69)  
 $\frac{1}{2}$  SE  $\frac{1}{4}$  Sec. 17;  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec. 27 (R-3895, 1-1-70) -  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec. 34 (R-4329, 7-1-72)  
Ext.  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 12 (A-1131, 11-38-82) Ext. NW  $\frac{1}{4}$  Sec. 35 (R-9741, 9-1-89)  
Ext.  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec. 34 (R-9723, 9-25-93) Ext.  $\frac{1}{4}$  W  $\frac{1}{4}$  Sec. 34 (R-9937, 8-17-93)