

OCD-HOBBS

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A+5-09-205

JUN 10 2009

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

HOBBSOCD

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                  |  |                                                                                                                                                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                     |  | <b>Split Estate</b>                                                                                                                                      |  |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone      |  | 8. Lease Name and Well No. <b>WBDU # 1308</b> <b>37346</b>                                                                                               |  |
| 2. Name of Operator <b>APACHE CORPORATION</b> (LANA WILLIAMS 918-491-4980) <b>30-025-39443</b>                                                                                                                   |  | 9. API Well No. <b>30-025-39443</b>                                                                                                                      |  |
| 3a. Address <b>6120 SOUTH YALE SUITE 1500 TULSA, OKLAHOMA 74136-4224</b>                                                                                                                                         |  | 3b. Phone No. (include area code) <b>918-491-4980</b>                                                                                                    |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)*<br>At surface <b>780' FNL &amp; 540' FEL SEC. 17 T21S-R37E</b><br>At proposed prod. zone <b>Same</b> <b>Unit A</b> |  | 10. Field and Pool, or Exploratory<br><b>EUNICE BLIN, TUBB, DRINK. N</b><br>11. Sec., T. R. M. or Blk. and Survey or Area<br><b>SECTION 17 T21S-R37E</b> |  |
| 14. Distance in miles and direction from nearest town or post office*<br><b>Approximately 4 miles North of Eunice New Mexico.</b>                                                                                |  | 12. County or Parish<br><b>LEA CO.</b>                                                                                                                   |  |
| 15. Distance from proposed* location to nearest property or lease line, ft. <b>540'</b><br>(Also to nearest drig. unit line, if any)                                                                             |  | 16. No. of acres in lease<br><b>640</b>                                                                                                                  |  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>660'</b>                                                                                           |  | 17. Spacing Unit dedicated to this well--<br><b>40</b>                                                                                                   |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br><b>3484' GL.</b>                                                                                                                                          |  | 20. BLM/BIA Bond No. on file<br><b>NATION WIDE BLM-CO-1463</b>                                                                                           |  |
| 22. Approximate date work will start*<br><b>WHEN APPROVED</b>                                                                                                                                                    |  | 23. Estimated duration<br><b>15 Days</b>                                                                                                                 |  |
| 24. Attachments                                                                                                                                                                                                  |  |                                                                                                                                                          |  |

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |                                                                                                                                                 |                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                                | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.                                                                                                                             | 5. Operator certification                                                                          |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

|                                                      |                                               |                           |
|------------------------------------------------------|-----------------------------------------------|---------------------------|
| 25. Signature<br><i>Joe T. Janica</i>                | Name (Printed/Typed)<br><b>Joe T. Janica</b>  | Date<br><b>03/04/09</b>   |
| Title<br><b>Permit Eng.</b>                          |                                               |                           |
| Approved by (Signature)<br><b>/s/ DAVID D. EVANS</b> | Name (Printed/Typed)<br><b>DAVID D. EVANS</b> | Date<br><b>JUN 8 2009</b> |
| Title<br><b>FIELD MANAGER</b>                        | Office<br><b>CARLSBAD FIELD OFFICE</b>        |                           |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

Capitan Controlled Water Basin

KE

Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

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JUN 10 2009

HOBBS

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

|                                   |                                              |                                                  |
|-----------------------------------|----------------------------------------------|--------------------------------------------------|
| API Number<br><b>30-025-39443</b> | Pool Code<br>22900                           | Pool Name<br>EUNICE BLINBREY TUBB DRINKARD NORTH |
| Property Code<br><b>32346</b>     | Property Name<br>WEST BLINBREY DRINKARD UNIT | Well Number<br>130 <b>W</b>                      |
| OGRID No.<br>873                  | Operator Name<br>APACHE CORPORATION          | Elevation<br>3484'                               |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| A             | 17      | 21-S     | 37-E  |         | 780           | NORTH            | 540           | EAST           | LEA    |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|-----------------|-----------------|--------------------|-----------|
| 40              |                 |                    |           |

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

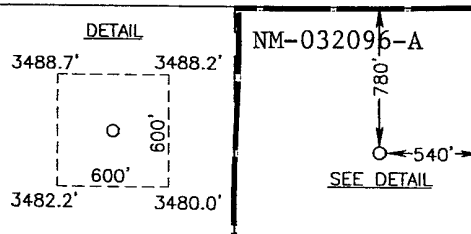
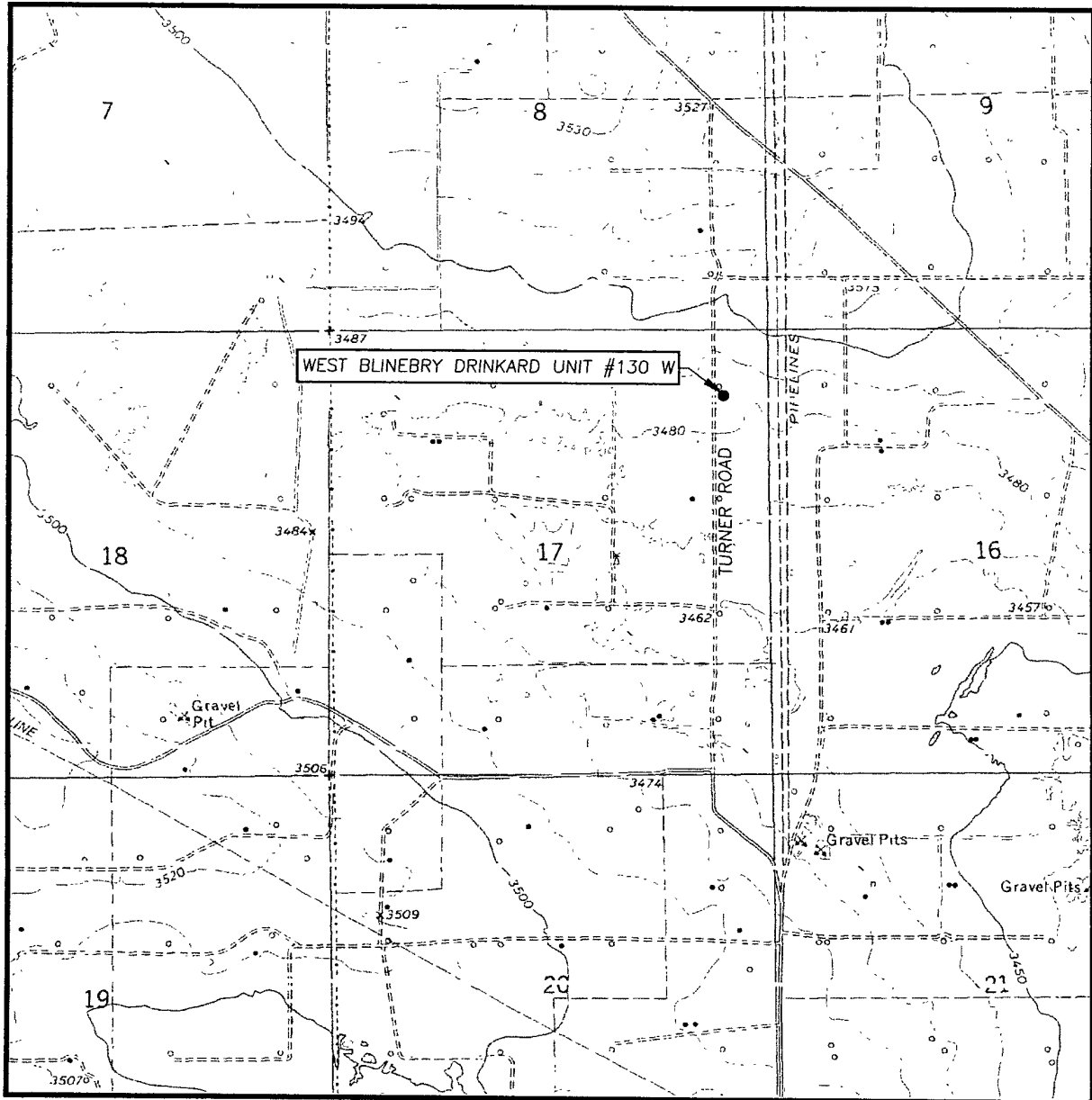
|                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                    | <p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>Joe T. Janica</i><br/>Signature Date<br/>Joe T. Janica 03/04/09<br/>Printed Name</p> |
| <p>GEODETIC COORDINATES<br/>NAD 27 NME</p> <p>Y=541691.6 N<br/>X=856306.2 E</p> <p>LAT.=32.483916" N<br/>LONG.=103.177862" W</p> <p>LAT.=32°29'02.10" N<br/>LONG.=103°10'40.30" W</p> | <p><b>SURVEYOR CERTIFICATION</b></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>OCTOBER 10, 2008</p> <p>Date Surveyed: 10/21/08 AR<br/>Signature &amp; Seal of Professional Surveyor<br/><i>Ronald J. Eidson</i><br/>Certificate No. GARY EIDSON 12641<br/>RONALD J. EIDSON 3239</p>                                                                                                                                                                  |

EXHIBIT "A"

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
EUNICE, N.M. - 10'

SEC. 17 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 780' FNL & 540' FEL

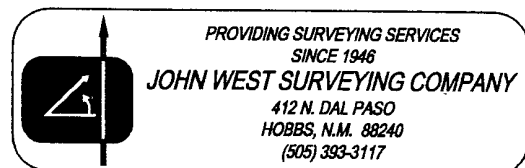
ELEVATION 3484'

OPERATOR APACHE CORPORATION

LEASE WEST BLINEBRY DRINKARD UNIT

U.S.G.S. TOPOGRAPHIC MAP

EUNICE, N.M.

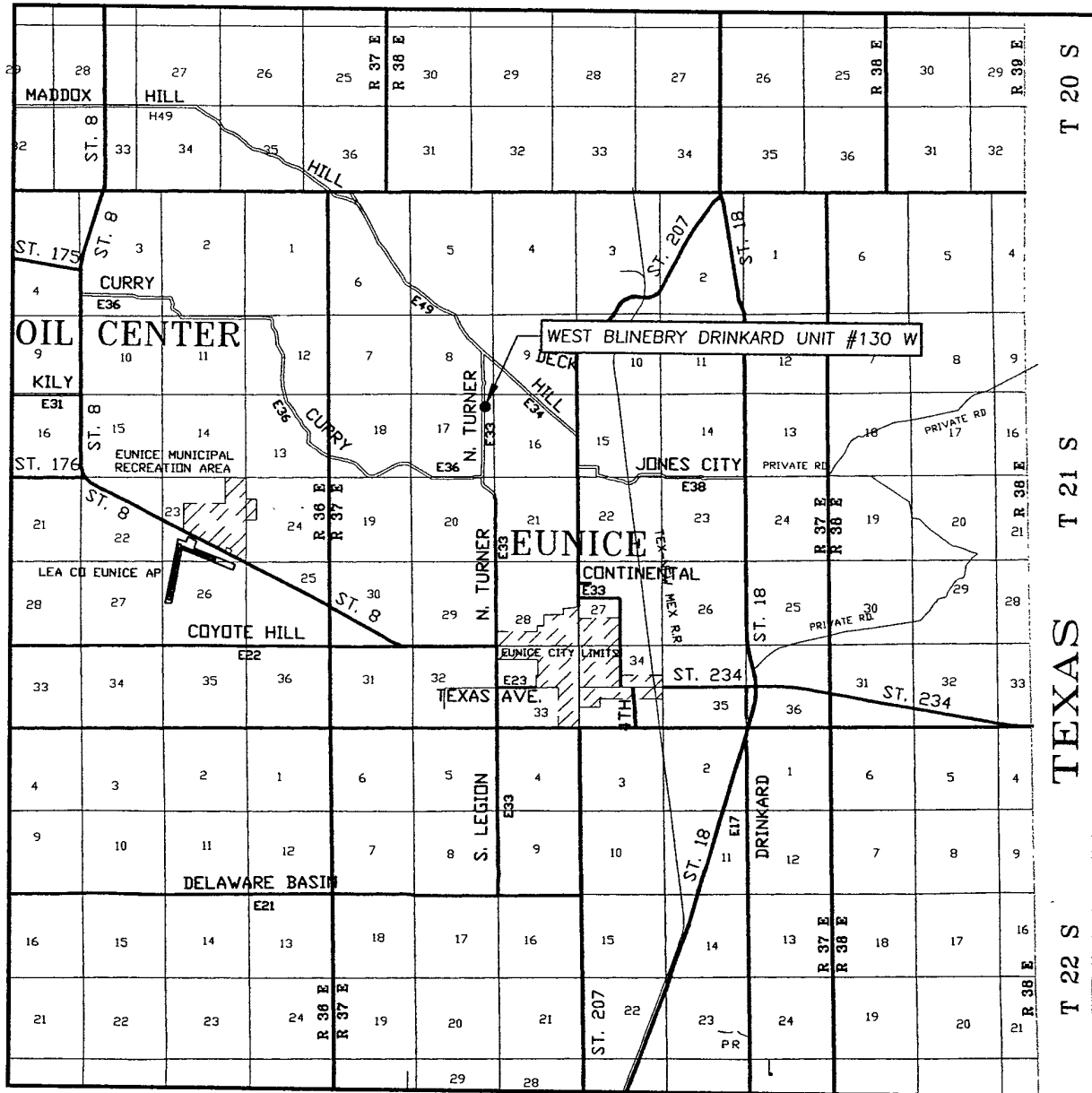


PROVIDING SURVEYING SERVICES  
SINCE 1946

**JOHN WEST SURVEYING COMPANY**

412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

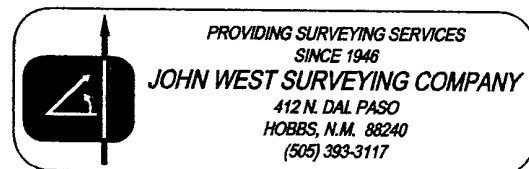
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 780' FNL & 540' FEL

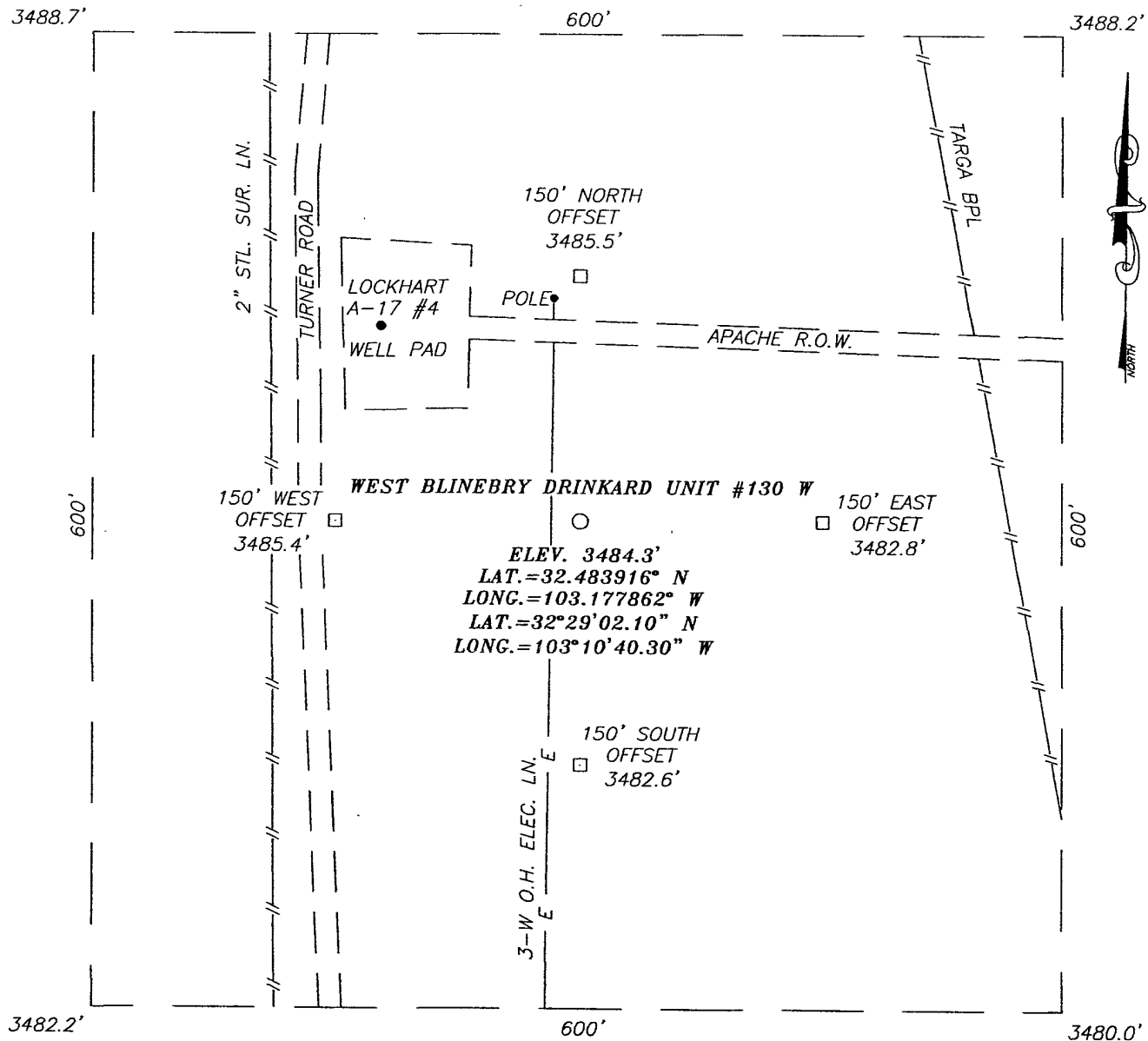
ELEVATION 3484'

OPERATOR APACHE CORPORATION

LEASE WEST BLINEBRY DRINKARD UNIT

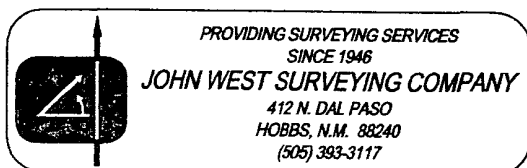
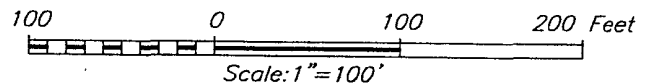


**SECTION 17, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,**  
 LEA COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF CO. RD. #E-34 (HILL ROAD) AND TURNER ROAD, GO SOUTH ON TURNER ROAD APPROX. 0.7 MILES. THIS LOCATION IS EAST OF ROAD APPROX. 166 FEET.



**APACHE CORPORATION**

WEST BLINEBRY DRINKARD UNIT #130 W WELL  
 LOCATED 780 FEET FROM THE NORTH LINE  
 AND 540 FEET FROM THE EAST LINE OF SECTION 17,  
 TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,  
 LEA COUNTY, NEW MEXICO.

|                         |                     |
|-------------------------|---------------------|
| Survey Date: 10/10/08   | Sheet 1 of 1 Sheets |
| W.O. Number: 08.11.1568 | Dr By: AR           |
| Date: 10/15/08          | Disk: 08111568      |
|                         | Scale: 1"=100'      |

## APPLICATION TO DRILL

APACHE CORPORATION  
 W. BLINEBRY DRINKARD UNIT #130W  
 UNIT "A" SECTION 17  
 T21S-R37E LEA CO. NM

In response to questions asked under Section II of Bulliten NTL-6, the following information on the above will be provided.

1. LOCATION: 780' FNL & 540' FEL SECTION 17 T21S-R37E LEA CO. NM
2. ELEVATION ABOVE SEA LEVEL: 3484' GL
3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits.
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. PROPOSED DRILLING DEPTH: 6950'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:
 

|                   |       |                 |       |
|-------------------|-------|-----------------|-------|
| Rustler Anhydrite | 1269' | Blinebry Marker | 5672' |
| Seven Rivers      | 2895' | Tubb            | 6171' |
| Grayburg          | 3714' | Drinkard        | 6499' |
| San Andres        | 3992' | Abo             | 6766' |
| Glorieta          | 5192' | TD              | 6950' |
7. POSSIBLE MINERAL BEARING FORMATIONS:
 

|          |     |
|----------|-----|
| Blinebry | Oil |
| Tubb     | Oil |
| Drinkard | Oil |
8. CASING PROGRAM:

| HOLE SIZE | INTERVAL | OD OF CASING | WEIGHT | THREAD | COLLAR | GRADE        | CONDITION |
|-----------|----------|--------------|--------|--------|--------|--------------|-----------|
| 26"       | 0-40     | 20"          | NA     | NA     | NA     | Conductor    | New       |
| 12 1/4"   | 0-1300'  | 8 5/8"       | 24#    | 8-R    | ST&C   | J-55         | New       |
| 7 7/8"    | 0-6950'  | 5 1/2"       | 17#    | 8-R    | LT&C   | L-80<br>J-55 | New       |

## Casing Design:

|          |       |       |     |            |     |                 |     |     |
|----------|-------|-------|-----|------------|-----|-----------------|-----|-----|
| Collapse | 1.125 | Burst | 1.0 | Body Yield | 1.5 | Joint Strength: | 8-R | 1.8 |
|          |       |       |     |            |     | Buttress        |     | 1.6 |

## APPLICATION TO DRILL

APACHE CORPORATION  
 W. BLINEBRY DRINKARD UNIT #130W  
 UNIT "A" SECTION 17  
 T21S-R37E LEA CO. NM

9. CASINGSETTING DEPTHS AND CEMENTING:

|        |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20"    | Conductor  | Set 40' pof 20" conductor pipe and cement to surface with Redi-mix.                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8 5/8" | Surface    | Set 1300' of 8 5/8" 24# J-55 ST&C casing. Cement with 450 Sx. of Premium Class "C" cement + 3% Salt, + 0.25# Cello Flakes/Sx. + 3# LCM-1/Sx., + 0.005gps FP-6L, + 4% Bentonite, Yield 1.7, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 0.25#/Sx. of Cello Flakes, + 0.005% FP-L6, Yield 1.3, circulate cement to surface.                                                                                                                                      |
| 5 1/2" | Production | Run and set 6950' of 5 1/2" casing as follows: Bottom 5950' 5 1/2" 17# J-55 J-55 LT&C, top 1000' 5 1/2" 17# L-80 LT&C. Cement with 800 Sx. of 35/65 Class "C" POZ, 5% Salt, + 0.25#/Sx. Cello Flakes, + 3#/Sx LCM, + 0.005% gpsFL-6L, + 6% BENTONITE, + 0.5% FL-52A, Yield 2.0, tail in with 350 Sx of 50/50 Class "C" POZ cement, + 5% Salt, + 0.2% FL-52A, + 0.25#/Sx Cello Flakse, + 0.6% FL-25, + 3#/Sx LCM, + 2% Bentonite, Yield 1.3, circulate cement to surface. |

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "I" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, bottom pipe rams. This B.O.P. will be nipped up on the 8 5/8" casing. The B.O.P. will be tested by a third party at 2000 PSI, maximum surface pressure is not expected to exceed 2000 PSI, BHP is calculated to be approximately 3080 PSI. The B.O.P. will be worked at least once in each 24 hour period and the blind rams will be worked when the drill pipe is out of the hole on trips. Exhibit "I" also shows a 3000 PSI choke manifold with a 3" blowdown line. Full opening stabbing valve and kelly cock will be on derrick floor in case of need. No abnormal pressures or temperatures are expected in this well no nearby wells have encountered any problems.

11. PROPOSED MUD CIRCULATING SYSTEM:

| DEPTH                                                | MUD WT.   | VISC. | FLUID LOSS         | TYPE SYSTEM                                                                                                                   |
|------------------------------------------------------|-----------|-------|--------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 40-1300                                              | 8.6-9.2   | 28-34 | NC                 | Fresh water spud mud add paper to control seepage, use Gel to maintain enough viscosity to clean hole.                        |
| 1300-6500'                                           | 10.0-10.2 | 28-32 | NC                 | Brine water from surface casing add paper to control seepage use lime to control pH, use high viscosity sweeps to clean hole. |
| 6500-TD                                              | 10.0-10.2 | 36-42 | 8-10 cc<br>or less | Brine as above control pH with Caustic Soda, add starch to control water loss, use high viscosity sweeps to clean hole.       |
| CLOSED LOOP SYSTEM SEE PAGE 6<br>OF DRILLING PROGRAM |           |       |                    |                                                                                                                               |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run logs, DST's and casing water loss/viscosity may have to be altered or adjusted in order to meet these needs.

APPLICATION TO DRILL

APACHE CORPORATION  
W. BLINEBRY DRINKARD UNIT #130W  
UNIT "A" SECTION 17  
T21S-R37E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, CNL, Litho Density, MSFL, Gamma Ray, Caliper, Sonic from TD to 8 5/8" casing shoe.
- B. CNL, Gamma Ray from TD back to surface.
- C. No mud logger, cores or DST's are planned for this well.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3058 Max. PSI, and Estimated BHT 115°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 15 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Bline.Tubb Drink formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.



WEST BLINEBRY DRINKARD UNIT # 130W  
**DRILLING PROGRAM**

**Surface Location**

780' FNL & 540' FEL  
NE ¼ of Section 17, Unit Letter A, Township 21 South, Range 37 East, N.M.P.M.  
Lea County, New Mexico

The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.

Estimated Tops of Geological Markers:

| <u>FORMATION</u>     | <u>DEPTH</u> |
|----------------------|--------------|
| Quaternary alluvials | Surface      |
| ✓ Rustler ✓          | 1269'        |
| ✓ Yates              | 2677'        |
| ✓ Seven Rivers ✓     | 2895'        |
| ✓ Queen              | 3438'        |
| ✓ Grayburg ✓         | 37134'       |
| ✓ San Andres ✓       | 3992'        |
| ✓ Glorieta           | 5192'        |
| ✓ Blinebry Marker    | 56720'       |
| ✓ Tubb               | 61717'       |
| ✓ Drinkard           | 6499'        |
| ✓ Abo                | 6766'        |
| ✓ TD                 | 6950'        |

Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

| <u>SUBSTANCE</u> | <u>DEPTH</u>                                                          |
|------------------|-----------------------------------------------------------------------|
| Oil              | Blinebry@ 5672'<br>Tubb@ 6171'<br>Drinkard@ 6499'<br>None anticipated |
| Gas              |                                                                       |
| Fresh Water      | None anticipated                                                      |

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

Proposed Casing Program

| <u>HOLE</u><br><u>SIZE</u> | <u>CASING</u><br><u>SIZE</u><br>OD / ID | <u>GRAD</u><br><u>E</u> | <u>WEIGHT</u><br><u>PER</u><br><u>FOOT</u> | <u>DEPTH</u>      | <u>SACKS</u><br><u>CEMENT</u><br><u>T</u> | <u>ESTIMATED TOC -</u><br><u>REMARKS</u>                                                                  |
|----------------------------|-----------------------------------------|-------------------------|--------------------------------------------|-------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 12 1/4"                    | 8 5/8"<br>8.097"                        | J55<br>STC              | 24#                                        | 1,300'            | 650                                       | TOC - Surface<br>8.9 ppg Water-based<br>Mud;<br>89 ° F Est. Static<br>Temp;<br>83 ° F Est. Circ.<br>Temp. |
| 7 7/8"                     | 5 1/2"<br>4.892"                        | L80<br>LTC              | 17#                                        | 0 –<br>1,000'     | 1,250                                     | TOC – Surface<br>Float Collar set @<br>6,960'                                                             |
|                            | 5 1/2"<br>4.892"                        | J55<br>LTC              | 17#                                        | 1,000 –<br>6,950' |                                           | 10.10 ppg Brine<br>Mud;<br>126 ° F Est. Static<br>Temp;<br>115 ° F Est. Circ.<br>Temp.                    |

Proposed Cement Program:

| <u>CASING</u> | <u>LEAD SLURRY</u>                                                                                                                                                                                                                                                                                                                                              | <u>TAIL SLURRY</u>                                                                                                                                                                                                                                                                                                  | <u>DISPLACEMENT</u>                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 8 5/8"        | 450 sacks Premium Class<br>C Cmt + 3% bwoc Sodium<br>Chloride + 0.25 lbs/sack<br>Cello Flake + 3 lbs/sack<br>LCM-1 + 0.005 gps FP-6L<br>+ 4% bwoc Bentonite Gel<br>796 Vol Cu Ft.,<br>1.7 Vol. Factor<br>Slurry Weight 13.5 ppg<br>Slurry yield 1.77 cf/sack<br>Amount of Water mix 9.02<br>gps<br><u>Estimated Pumping Time – 70</u><br><u>BC (HH:MM) 4:18</u> | 200 sacks Class C Cement +<br>2% bwoc Calcium Chloride +<br>0.25 lbs/sack Cello Flake +<br>0.005 gps FP-L6+56.3%<br>Fresh Water, 270 Vol. Cu Ft<br>1.3 Vol. Factor<br>Slurry Weight (ppg) 14.8<br>Slurry Yield (cf/sack) 1.35<br>Amount of Mix Water<br>(gps)6.35<br>Estimated Pumping Time –<br>70 BC (HH:MM)-2:33 | 80.1 bbls Fresh<br>Water @ 8.33 ppg |

8 5/8" Casing: Volume Calculations:

|                     |   |              |                 |   |                       |
|---------------------|---|--------------|-----------------|---|-----------------------|
| 1,300 ft            | x | 0.4127 cf/ft | with 75% excess | = | 938.5 cf              |
| 42 ft               | x | 0.3576 cf/ft | with 0% excess  | = | 15.0 cf (inside pipe) |
| TOTAL SLURRY VOLUME |   |              |                 | = | 953.5 cf              |
|                     |   |              |                 | = | 169.8 bbls            |

Spacer 20.0 bbls Water @ 8.33 ppg

| <u>CASING</u> | <u>LEAD SLURRY</u>                                                                                                                                                                                                                                                                                                                                                                                                            | <u>TAIL SLURRY</u>                                                                                                                                                                                                                                                                                                                                                                  | <u>DISPLACEMENT</u>                   |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 5 1/2"        | 800 sacks (35:65) Poz<br>(Fly Ash): Class C<br>Cement + 5% bwow<br>Sodium Chloride + 0.25<br>lbs/sack Cello Flake + 3<br>lbs/sk LCM + 0.005 gps<br>FP-6L + 6% bwoc<br>Bentonite + 0.5% bwoc<br>FL-52A<br>1,640 Vol. Cu Ft<br>2.0 Vol. Factor<br>Slurry Weight (ppg) 12.5<br>Slurry Yield (cf/sack)<br>2.05<br>Amount of Mix Water<br>(gps) 10.92;<br><u>Estimated Pumping Time</u><br><u>- 70 BC (HH:MM)-</u><br><u>4:00;</u> | 350 sacks (50:50) Poz (Fly<br>Ash):Class C Cement + 5%<br>bwow Sodium Chloride<br>+0.2% bwoc FL-52A + 0.6%<br>bwoc FL-25 + 0.25 lb/sk<br>Cello Flake + 3 lbs/sk LCM +<br>2% bwoc Bentonite<br>455 Vol. Cu Ft<br>1.3 Vol. Factor<br>Slurry Weight (ppg) 14.2<br>Slurry Yield (cf/sack) 1.30<br>Amount of Mix Water (gps)<br>5.55;<br>Estimated Pumping Time –<br>70 BC (HH:MM)-4:00; | 160.5 bbls 2% Kcl<br>Water @ 8.43 ppg |

5 1/2" Casing: Volume Calculations:

|                     |   |              |                  |   |                     |
|---------------------|---|--------------|------------------|---|---------------------|
| 1300 ft             | x | 0.1926 cf/ft | with 0% excess   | = | 250.2 cf            |
| 3700 ft             | x | 0.1733 cf/ft | with 100% excess | = | 1,281.4 cf          |
| 1950 ft             | x | 0.1733 cf/ft | with 50% excess  | = | 506.5 cf            |
| 40 ft               | x | 0.1305 cf/ft | with 0% excess   | = | 5.2 cf(inside pipe) |
| TOTAL SLURRY VOLUME |   |              |                  | = | 2,043.4 cf          |
|                     |   |              |                  | = | 363.9 bbls          |

All slurries will be tested prior to loading to confirm thickening times and a lab report furnished to Apache. Fluid loss will be tested and reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.

### Proposed Pressure Control Equipment

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP with Annular, and will test using a 3<sup>rd</sup> party tester before drilling out of surface casing. **As maximum anticipated surface pressures do not exceed 2,000 psi, we will test the BOPE as a 2,000 psi system.** Bottom hole pressure calculations are included below. See Exhibit I, 3,000 psi BOPE attached.

### Bottom Hole Pressure Calculations

The maximum anticipated bottom hole pressure is calculated by multiplying the depth of the well by 0.44. The maximum anticipated surface pressure is calculated assuming one half of the hole is evacuated of the drilling fluid required to control the maximum anticipated bottom hole pressure.

For the West Blinberry Drinkard Unit # 130W the maximum anticipated bottom hole pressure is  $6,950' \times 0.44 \text{ psi/ft.} = \underline{3,058 \text{ psi.}}$

The maximum anticipated surface pressure assuming a hole where one half of the mud required to contain the bottom hole pressure has been evacuated is  $3,058 \text{ psi} - (3,058 \text{ psi}/2) = \underline{1,529 \text{ psi.}}$

# EXHIBIT I

3000psi -  
BOPE

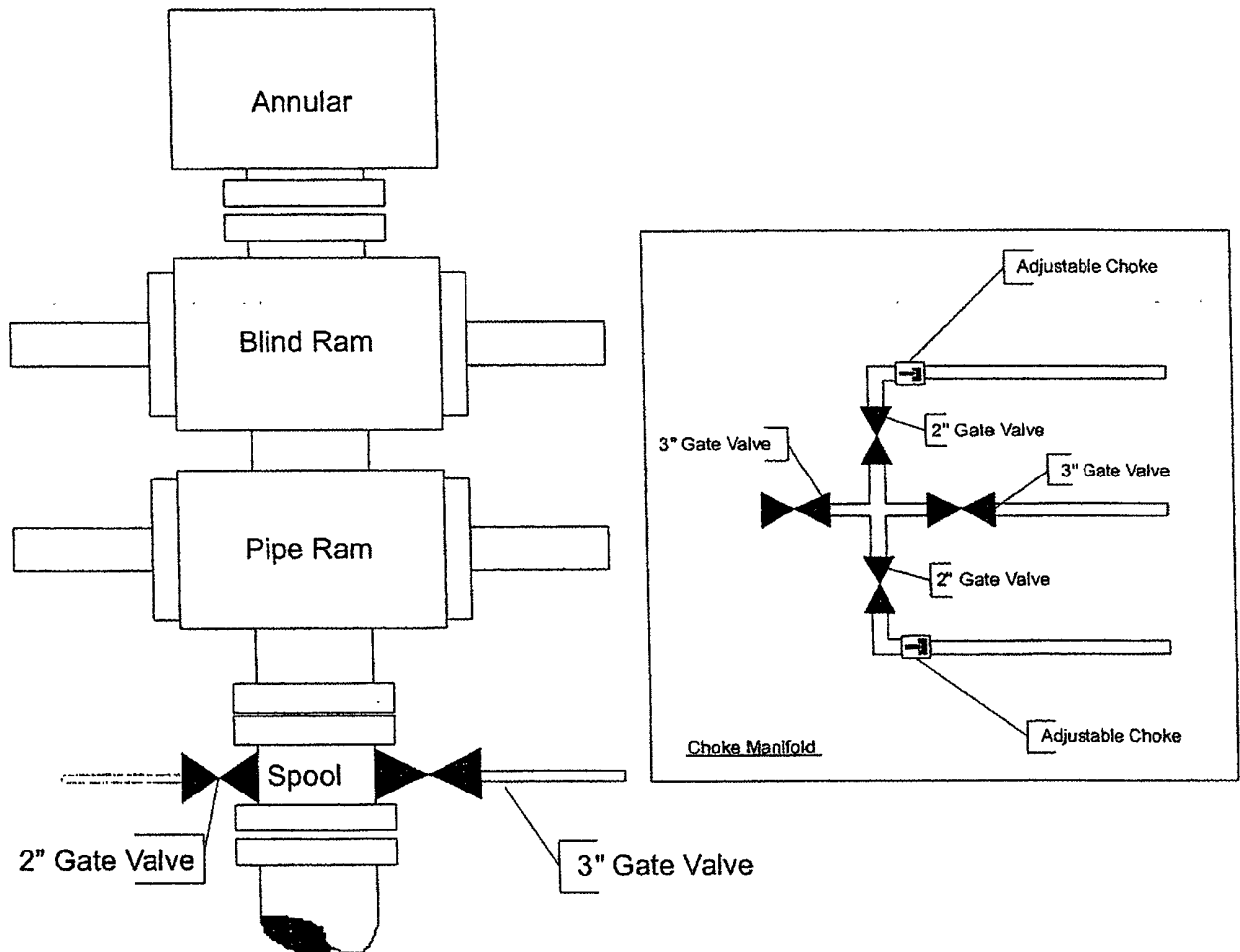


EXHIBIT "I"  
SKETCH OF BOP & CHOKE MANIFOLD

APACHE CORPORATION  
W BLINEBRY DRINKARD UNIT #130W  
UNIT "A" SECTION 17  
T21S-R37E LEA CO. NM

### Proposed Mud Program

| <u>DEPTH</u>  | <u>MUD PROPERTIES</u>                                                                               | <u>REMARKS</u>                                                                                                                                                                                                                                                                                                                                                                |
|---------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0 – 1,300'    | Weight: 8.6 – 9.2 ppg<br>Viscosity: 28 – 34 sec/qt<br><br>pH: 9.0 – 9.5<br>Filtrate: NC             | Spud with a Conventional Gel/Lime "Spud mud". Use gel and native solids to maintain a sufficient viscosity to keep the hole clean. Mix Paper one-two sacks every 100 feet drilled to minimize wall cake build up on water sands and to control seepage loss. Every 500' sweep the hole with 50 bbls of pre-mixed freshwater, gel and lime having a viscosity of 45-50 sec/qt. |
| 1300' – 6500' | Weight: 10<br>10.0 – 10.2 ppg<br>Viscosity: 28 – 32 sec/qt<br><br>pH: 9.5 -10<br>Filtrate: NC       | Drill out from under the surface casing with Brine Water. Paper should be added at 2 bags after every 100' drilled to control seepage losses. Use Lime to maintain pH at 9-10. Mix one gallon of Anco Drill N at flowline every 250 feet drilled to promote solids settling                                                                                                   |
| 6500' – TD    | Weight: 10.0 – 10.2 ppg<br>Viscosity: 36 – 42 sec/qt<br><br>pH: 9.5 -10<br>Filtrate: 8-10 cm/30 min | From 6500' to Total Depth, it is recommended the system be restricted to the working pits. Adjust and maintain pH with Caustic Soda. Treat system with WT-22 @ 0.1 ppb. Mix Starch (yellow) to control API filtrate at 8-10 cc. Sweep hole with Anco Drill N every 100'.                                                                                                      |

### Auxiliary Equipment:

9" x 3000 psi double BOP/blind & pipe ram  
41/2" x 3000 psi Kelly valve  
9" x 3000 psi mud cross – H<sub>2</sub>S detector on production hole  
Gate-type safety valve 3" choke line from BOP to manifold  
2" adjustable chokes – 3" blowdown line

### Logging Program

The following logs may be run:

CNL, Litho Density, GR, CAL, Dual Laterolog/MSFL, Sonic from TD-1400'  
CNL, GR from TD-Surface

### Mudlogging Program:

There are no plans to utilize a mud logging service on this well.

### Potential Hazards

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. The estimated maximum bottom hole pressure is 3,058 psi., estimated BHT is 115°F. No H<sub>2</sub>S is anticipated.

### Anticipated Starting Date

When drilling rig becomes available.

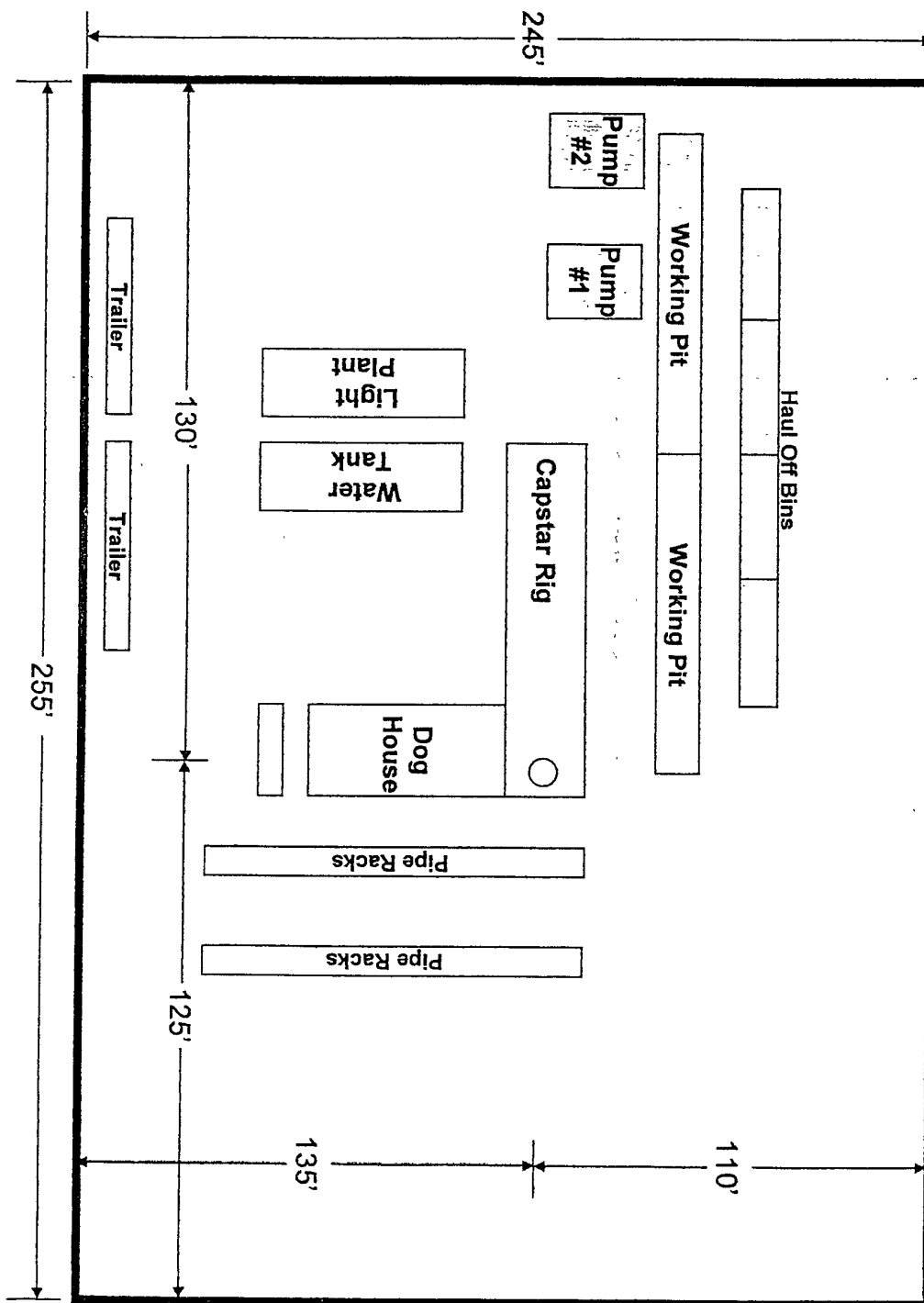
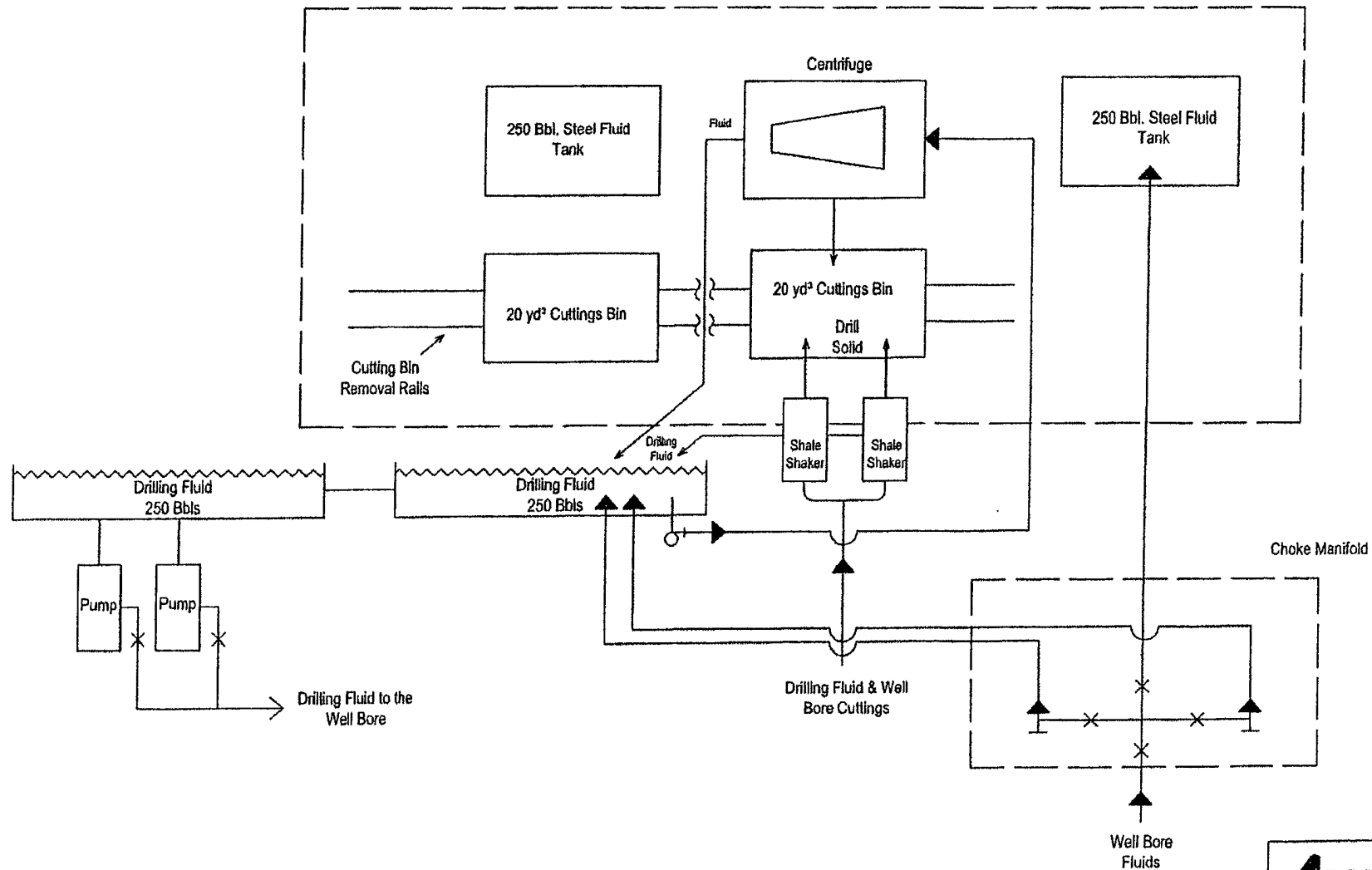


EXHIBIT "G"  
RIG LAYOUT PLAT

APACHE CORPORATION  
W BLINEBRY DRINKARD UNIT #130W  
UNIT "A" SECTION 17  
T21S-R37E LEA CO. NM

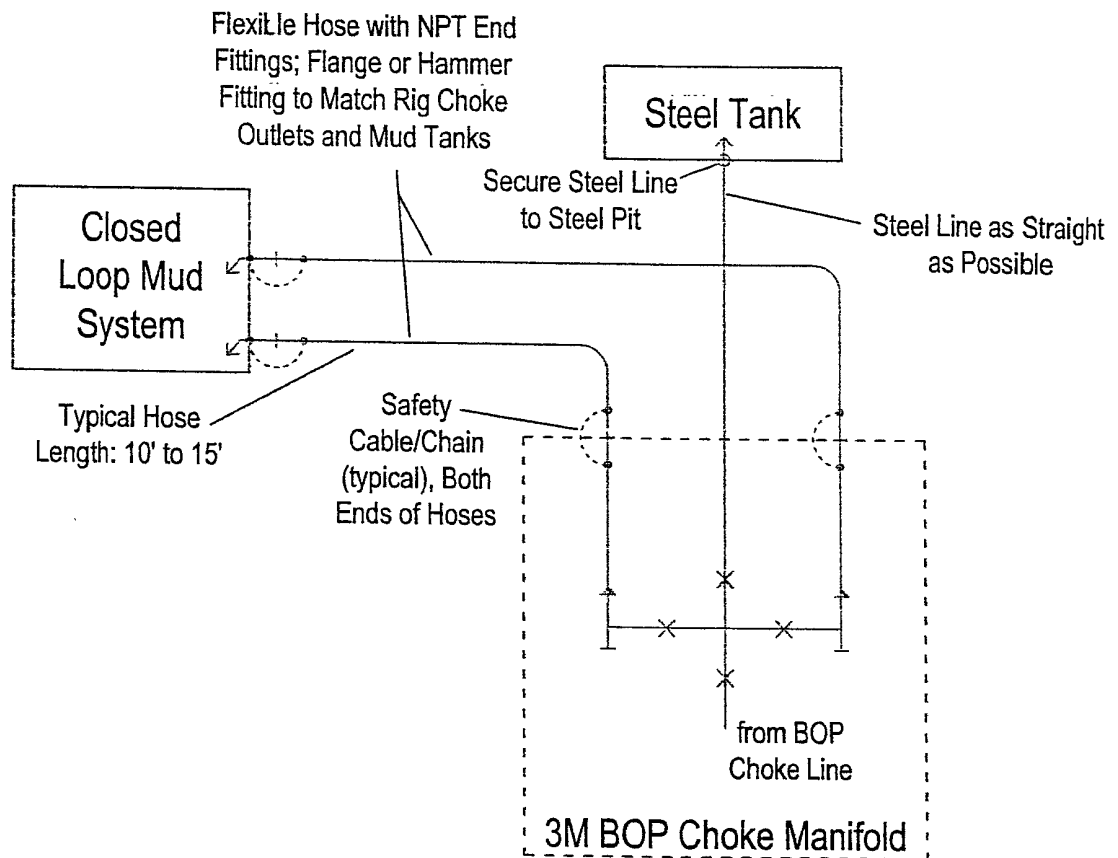



20-mil liner for splash containment



**Apache**  
ENERGY SERVICES

Figure 1  
New Mexico Typical  
Closed-Loop System



|                                                                                              |            |                                                                               |  |
|----------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------|--|
|         |            | TWO WARREN PLACE, SUITE 1500<br>6120 SOUTH YALE<br>TULSA, OKLAHOMA 74136-4224 |  |
| <b>Typical Choke Manifold<br/>         Schematic for Closed-Loop<br/>         Mud System</b> |            |                                                                               |  |
| PLOD: SAM HAMPTON                                                                            | SCALE: NTS | DATE: 2 MARCH 2008                                                            |  |
| <small>FILED: H:\Tulsa\Design\Line\Print\AUTOCAD\BARCHOPP-CHOKE-HAMPTON.dwg</small>          |            |                                                                               |  |

## Hydrogen Sulfide Contingency Plan For Drilling/Workover/Facility

If at this time the supervising person determines the release of H<sub>2</sub>S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.

EMERGENCY CALL LIST: (Start and continue until ONE of these people has been contacted)

|              | OFFICE       | MOBILE       | HOME |
|--------------|--------------|--------------|------|
| Harold Swain | 432-527-3311 | 575-390-4368 |      |
| Danny Chaney | 405-574-4249 |              |      |
| Sam Hampton  | 918-491-4954 | 918-978-0121 |      |

### EMERGENCY RESPONSE NUMBERS:

|                                       |                  |        |                     |
|---------------------------------------|------------------|--------|---------------------|
| State Police                          | Eddy County      |        |                     |
| State Police                          | Lea County       |        | 575 -748-9718       |
|                                       |                  |        | 575-392-5588        |
| Sheriff                               | Eddy County      |        |                     |
| Sheriff                               | Lea County       |        | 575-746-2701        |
| Emergency Medical Service (Ambulance) | Eddy County      |        | 911 or 505-746-2701 |
|                                       | Lea County       | Eunice | 911 or 505-394-3258 |
| Emergency Response                    | Eddy County SERC |        |                     |
|                                       | Lea County       |        | 575-476-9620        |
| Artesia Police Dept                   |                  |        |                     |
| Artesia Fire Dept                     |                  |        | 575-746-5001        |
|                                       |                  |        | 575-746-5001        |
| Carlsbad Police Dept                  |                  |        |                     |
| Carlsbad Fire Dept                    |                  |        | 575-385-2111        |
|                                       |                  |        | 575-385-3125        |

EMERGENCY CALL LIST (CONT.)

|                        |                                    |                |
|------------------------|------------------------------------|----------------|
| Loco Hills Police Dept |                                    | 575- 677-2349  |
| Jal Police Dept        |                                    | 575- 395-2501  |
| Jal Fire Dept          |                                    | 575- 395-2221  |
| Jal Ambulance          |                                    | 575- 395-2221  |
| Eunice Police Dept     |                                    | 575- 394-0112  |
| Eunice Fire Dept       |                                    | 575- 394-3258  |
| Eunice Ambulance       |                                    | 575- 394-3258  |
| Hobbs Police Dept      |                                    | 575- 397-3365  |
| Hobbs Fire Dept        |                                    | 575- 397-9308  |
| NMOCD                  | District 1 (Lea, Roosevelt, Curry) | 575- 393-6161  |
|                        | District 2 (Eddy, Chavez)          | 575- 748-1283  |
| Lea County Information |                                    | 575- 393-8203  |
| Callaway Safety        | Eddy/Lea Counties                  | 575- 392-2973  |
| BJ Services            | Artesia                            | 575- 746-3140  |
|                        | Hobbs                              | 575- 392-5556  |
| Halliburton            | Artesia                            | 1-800-523-2482 |
|                        | Hobbs                              | 1-800-523-2482 |
| Wild Well Control      | Midland                            | 432-550-6202   |
|                        | Mobile                             | 432-553-1166   |

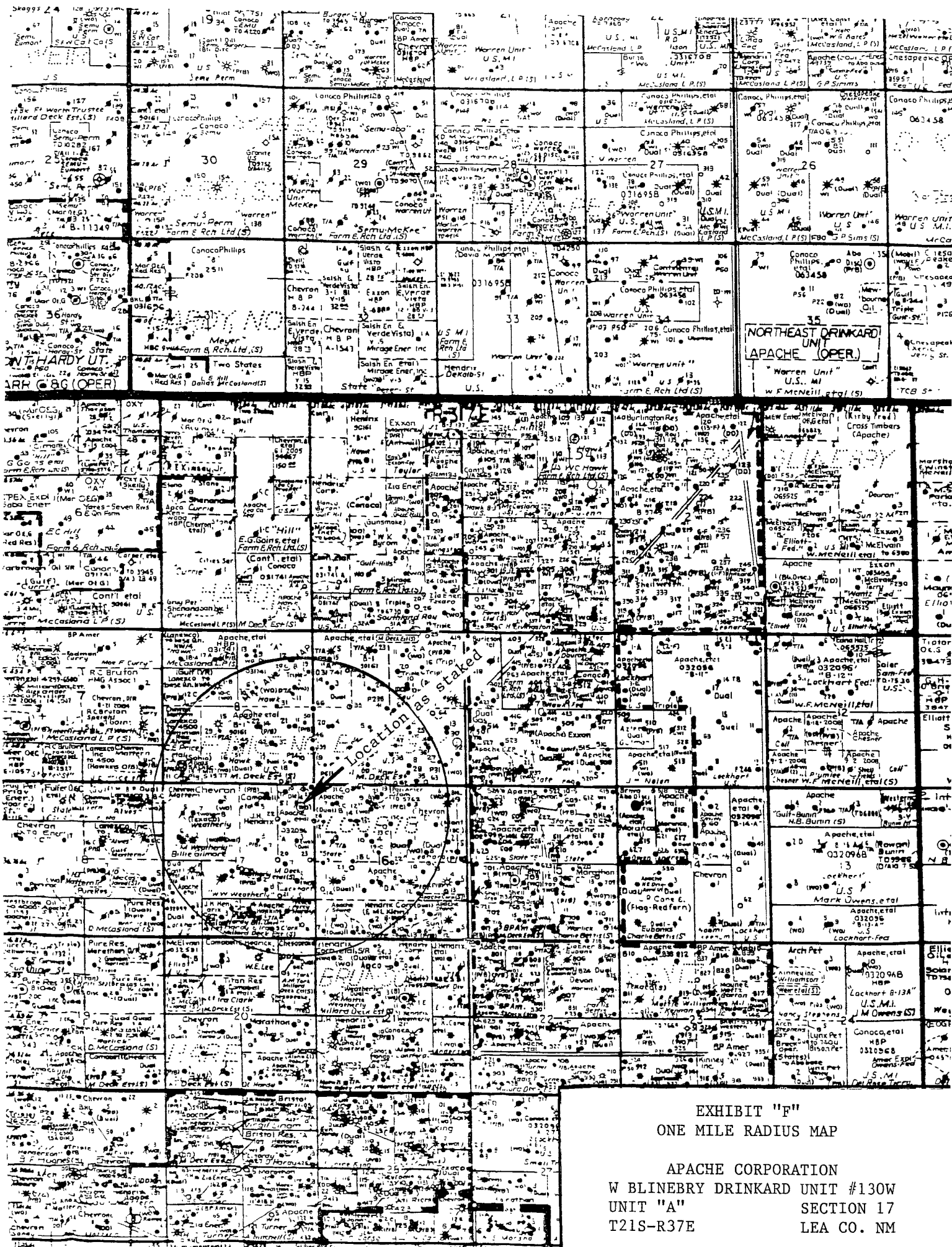


EXHIBIT "F"

ONE MILE RADIUS MAP

APACHE CORPORATION

W BLINBERY DRINKARD UNIT #130W  
UNIT "A"  
T21S-R37E  
LEA CO. NM

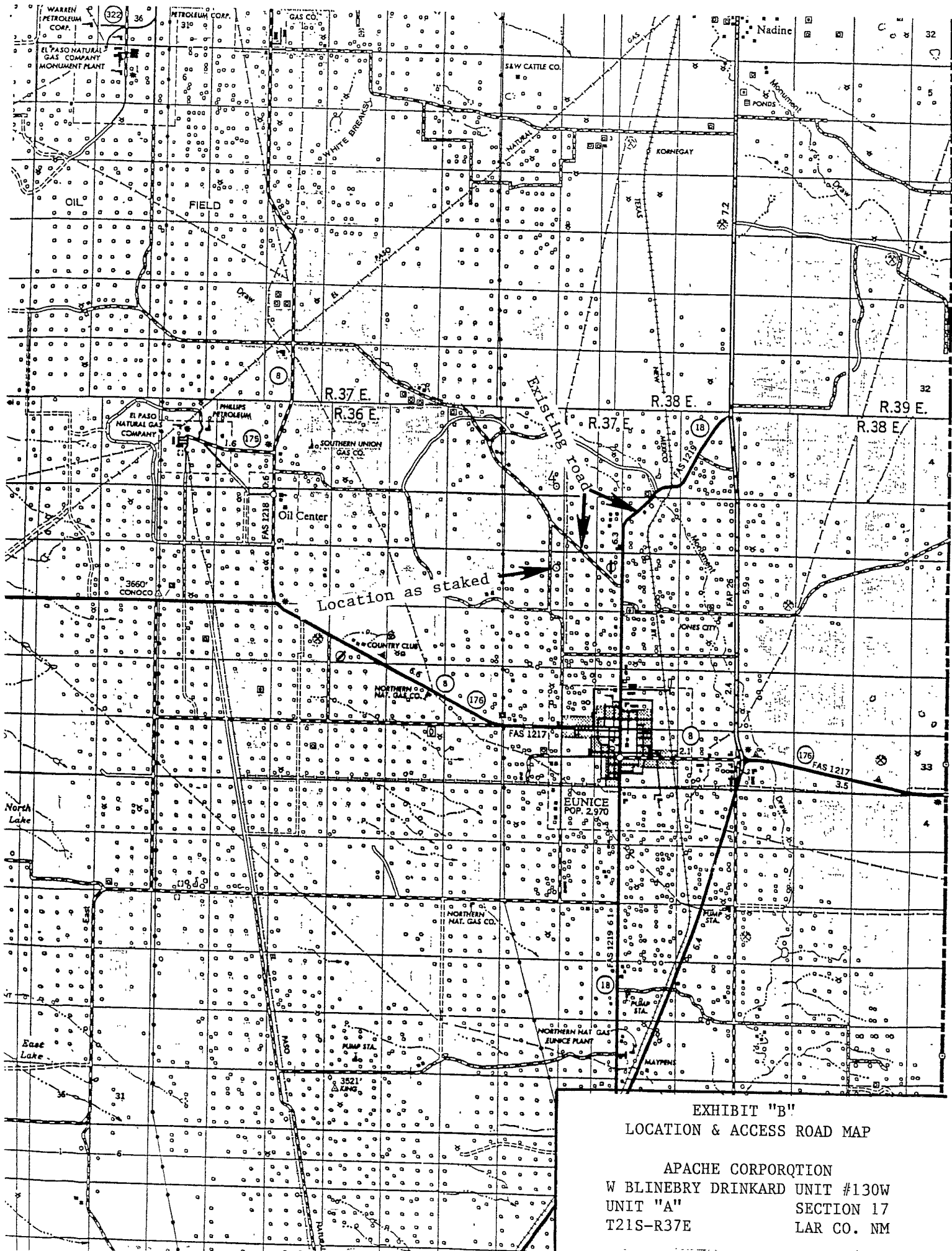


EXHIBIT "B"  
LOCATION & ACCESS ROAD MAP

APACHE CORPORATION  
W BLINEBRY DRINKARD UNIT #130W  
UNIT "A" SECTION 17  
T21S-R37E LAR CO. NM

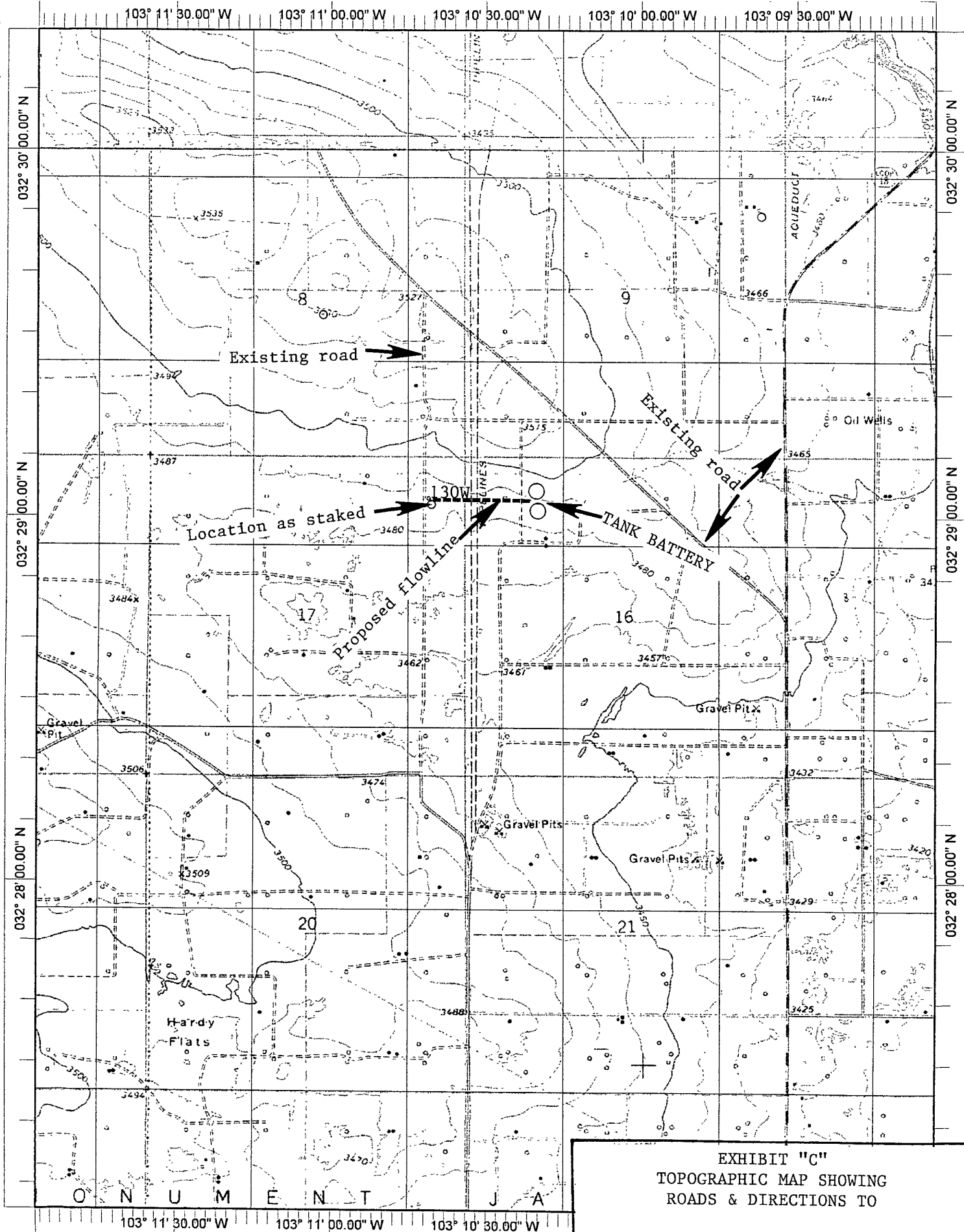


EXHIBIT "C"  
TOPOGRAPHIC MAP SHOWING  
ROADS & DIRECTIONS TO

APACHE CORPORATION  
W BLINEBRY DRINKARD UNIT #130W  
UNIT "A" SECTION 17  
T21S-R37E LEA CO. NM

Datum: NAD27

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# PECOS DISTRICT CONDITIONS OF APPROVAL

|                       |                                     |
|-----------------------|-------------------------------------|
| OPERATOR'S NAME:      | Apache Corporation                  |
| LEASE NO.:            | LC032096A                           |
| WELL NAME & NO.:      | West Blinery Drinkard Unit 130W     |
| SURFACE HOLE FOOTAGE: | 780' FNL & 540' FEL                 |
| BOTTOM HOLE FOOTAGE   | Same                                |
| LOCATION:             | Section 17, T. 21 S., R 37 E., NMPM |
| COUNTY:               | Lea County, New Mexico              |

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☐ **Special Requirements**
- ☒ **Construction**
  - Notification
  - Topsoil
  - Reserve Pit – Closed-loop mud system
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - Onshore Order 6 – H2S Requirements
- ☒ **Production (Post Drilling)**
  - Pipelines
- ☐ **Reserve Pit Closure/Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**



## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

### **C. RESERVE PITS**

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## VI. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated 500 feet prior to drilling into the **Blinbry** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible lost circulation in the Glorietta formation.  
Possible water flows in the Blinbry.**

1. The **8-5/8** inch surface casing shall be set at **approximately 1300 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, a remedial cement job will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

#### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi. Operator is installing a 3M system and testing as a 2M based on bottom hole pressure gradient. 2M system approved.**
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.

- b. The results of the test shall be reported to the appropriate BLM office.
- c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

**D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**RGH 040809**

## **VII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color  
Shale Green, Munsell Soil Color Chart # 5Y 4/2

### **B. PIPELINES**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the sundry notice and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.
7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.
9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
15. Any cultural and/or paleontological resource (historic or prehistoric site or object)



discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

## **VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE**

### **A. INTERIM RECLAMATION**

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

## Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

| <u>Species</u>                                      | <u>lb/acre</u> |
|-----------------------------------------------------|----------------|
| Sand dropseed ( <i>Sporobolus cryptandrus</i> )     | 1.0            |
| Sand love grass ( <i>Eragrostis trichodes</i> )     | 1.0            |
| Plains bristlegrass ( <i>Setaria macrostachya</i> ) | 2.0            |

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## **X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS**

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.