ATS-08-69

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JAN 30 2008
HOBBS OCD

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
LC-031670-B

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

8. Lease Name and Well No. <36895>
BURGER "B-17" # 1

2. Name of Operator <873>
APACHE CORPORATION (LANA WILLIAMS 918-491-4980)

9. API Well No.
30-025-38749

3a. Address TWO WARREN PLACE SUITE 1500
6120 SOUTH YALE, TULSA, OKLAHOMA 74136-4224

3b. Phone No. (include area code)
(PH-918-491-4980)

10. Field and Pool, or Exploratory
~~Warren~~ Drinkard 54995 12-3-07 DW

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 1400' FSL & 980' FEL SECTION 17 T20S-R38E LEA CO.
At proposed prod. zone SAME Unit I

UNORTHODOX LOCATION NSL-5723

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 17 T20S-R38E

14. Distance in miles and direction from nearest town or post office*
Approximately 10 miles South of Hobbs, New Mexico

12. County or Parish
LEA CO.

13. State
NEW MEXICO

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
980'	1921	40 acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
900'±	7300'	BLM-CO-1463 NATION WIDE
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approximate date work will start*	23. Estimated duration
3562' GL.	WHEN APPROVED	20 days

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer

25. Signature	Name (Printed/Typed)	Date
Joe T. Janica	Joe T. Janica	12/01/07
Title: Agent		

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ James Stovall		JAN 25 2008
Title: FIELD MANAGER	Office: CARLSBAD FIELD OFFICE	

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 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)

Lea County Controlled Water Basin

Conditions of Approval: Approval to recomplete & test new zone, but cannot produce Downhole commingle until DHC is approved in Hobbs District office according to R-11363.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

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	Pool Code	Pool Name
30-025-38749	57000	SKAGGS-DRINKARD

Property Code	Property Name	Well Number
36895	BURGER B-17 FEDERAL	1

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3562'

Surface Location

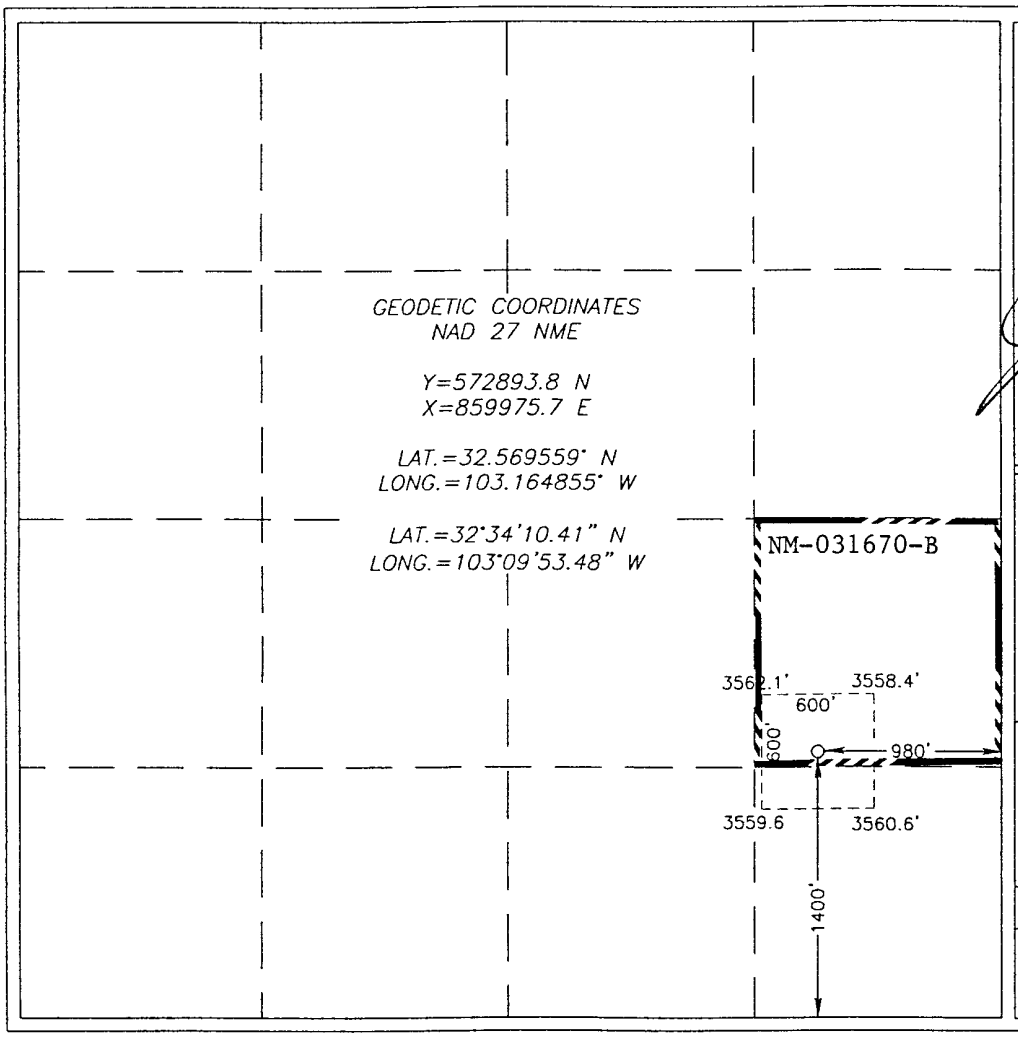
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	20-S	38-E		1400	SOUTH	980	EAST	LEA

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			NSL-5723

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



OPERATOR CERTIFICATION

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.

Joe T. Janica — 12/01/07

Signature — Date

Joe T. Janica

Printed Name

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.

SEPTEMBER 5, 2007

Date Surveyed — MJN

Signature & Seal of Professional Surveyor

Ronald J. Eidson 9/14/07

07.11.1234

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

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

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38749	47400	NADINE PADDOCK-BLINEBRY, WEST

Property Code	Property Name	Well Number
36895	BURGER B-17 FEDERAL	1

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3562'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	20-S	38-E		1400	SOUTH	980	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			NSL-5723

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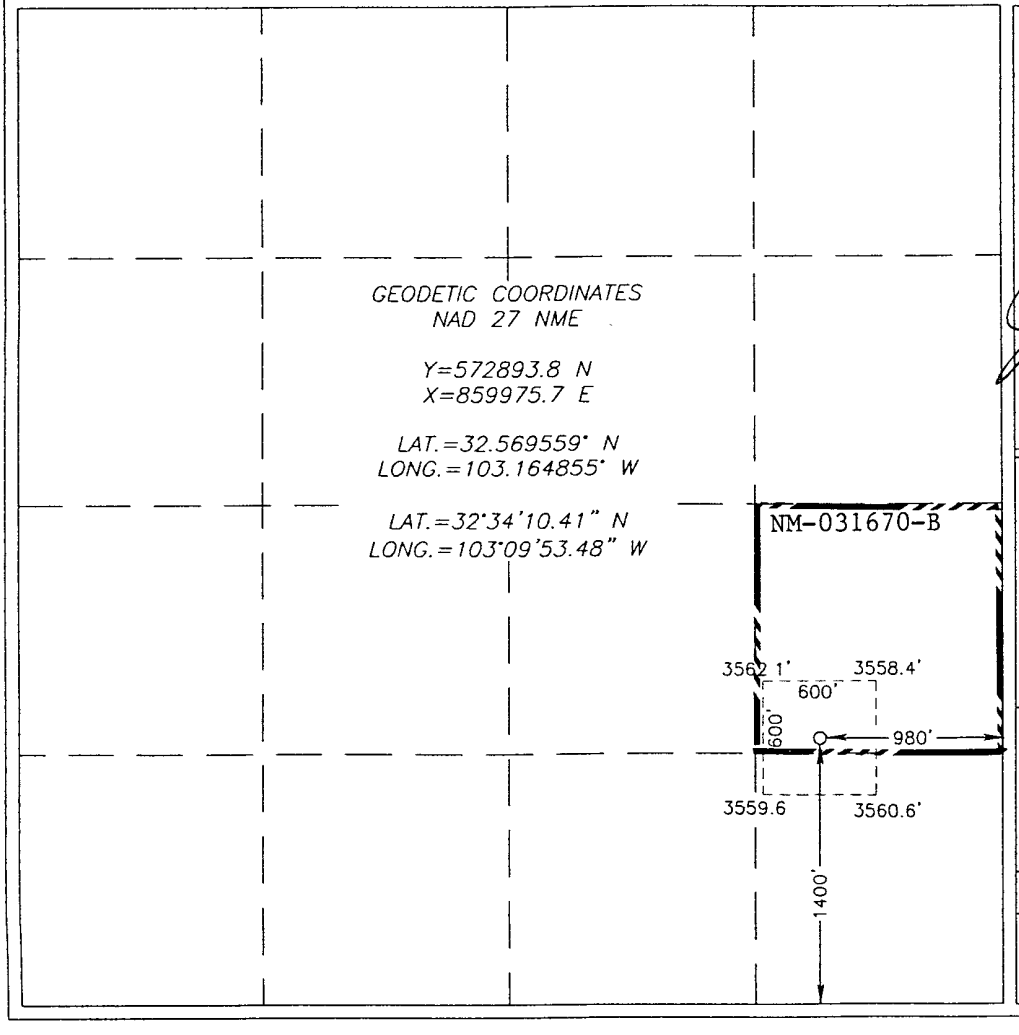

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Joe T. Janica — 12/01/07

Signature — Date

Joe T. Janica

Printed Name

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SEPTEMBER 5, 2007

Date Surveyed — MJN

Signature & Seal of Professional Surveyor

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

9/14/07

07.11.1237

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

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

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Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38744	47530	NADINE TUBB-WEST

Property Code	Property Name	Well Number
36895	BURGER B-17 FEDERAL	1

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3562'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	20-S	38-E		1400	SOUTH	980	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			NSL-5723

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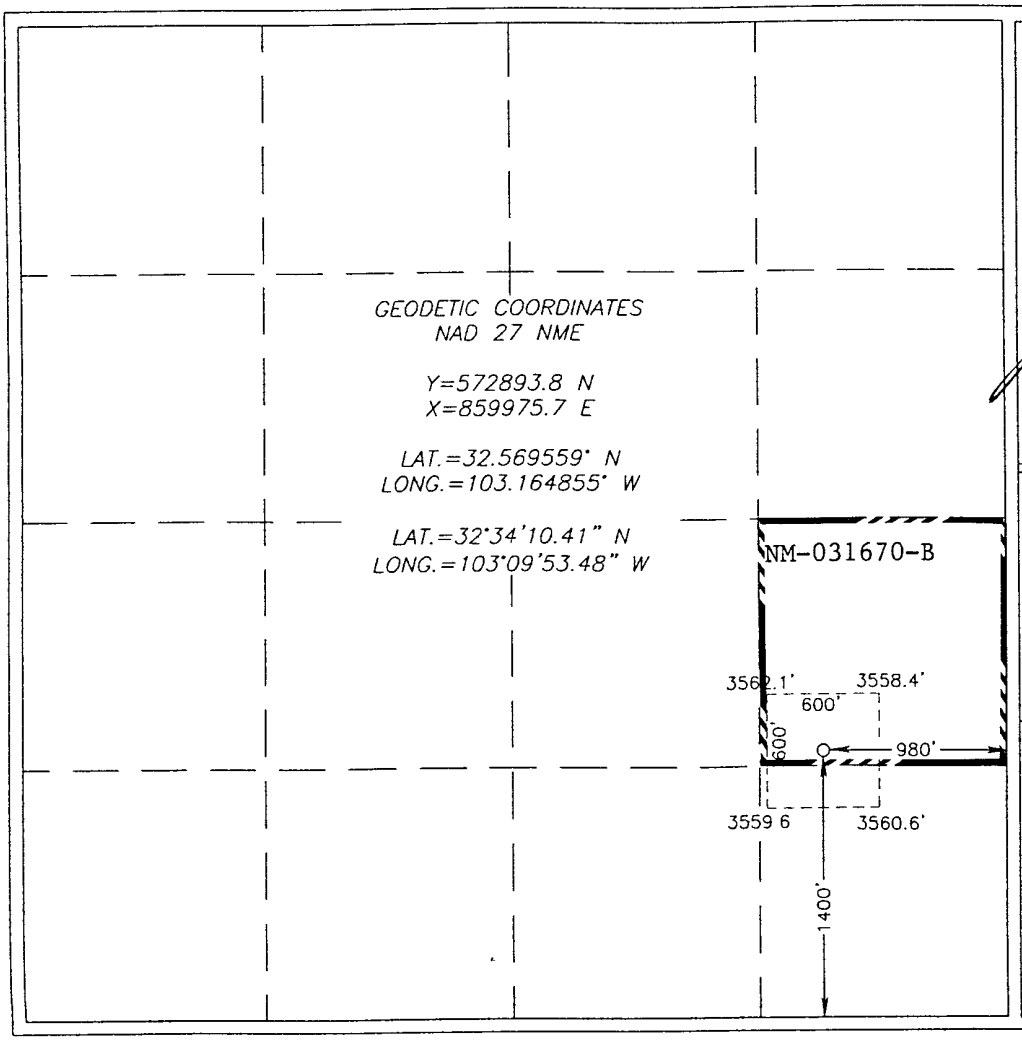

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Joe T. Janica
Signature

12/01/07
Date

Joe T. Janica
Printed Name

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.

SEPTEMBER 14, 2007
Date Surveyed

MJN

Signature & Seal of Professional Surveyor

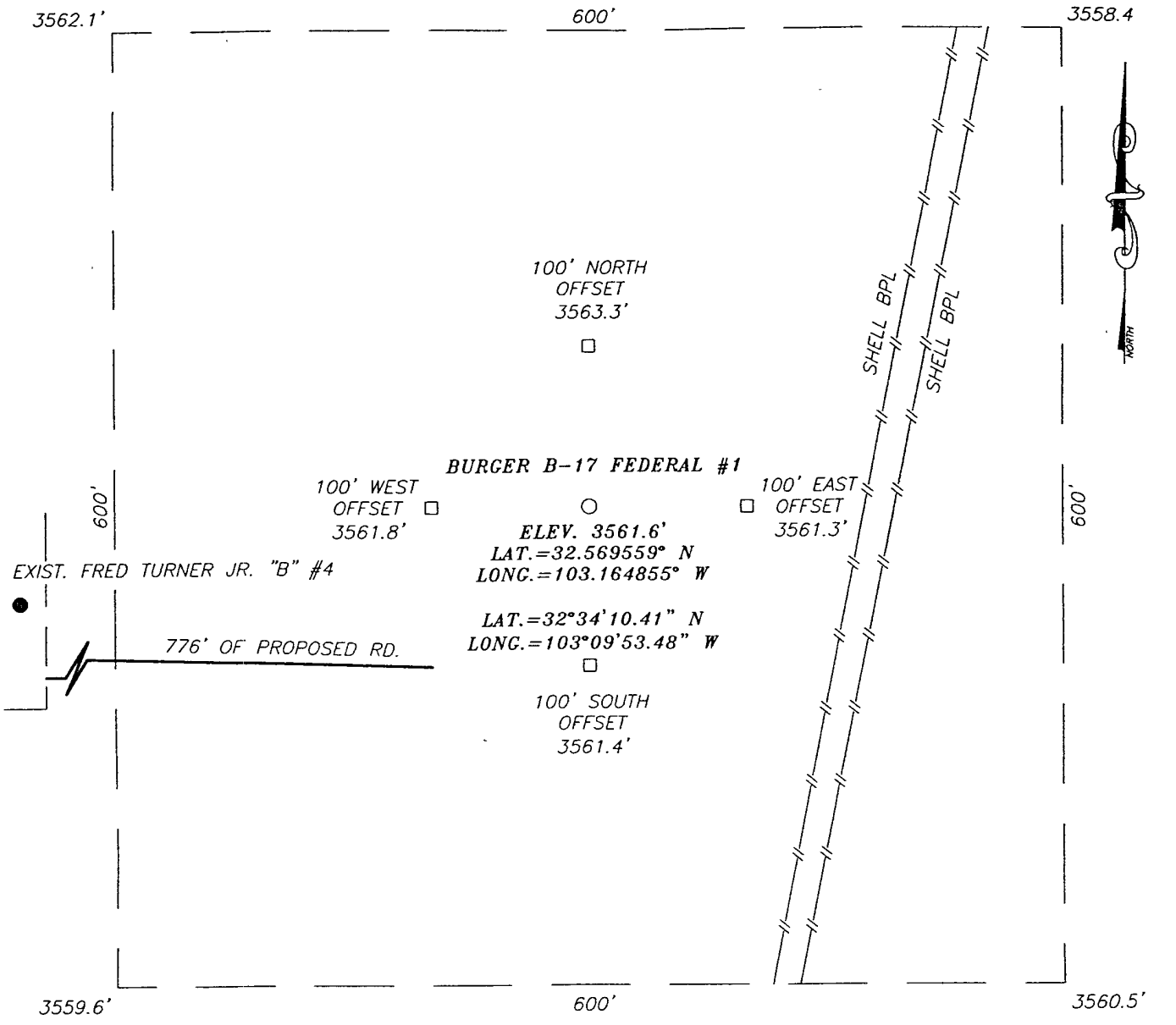
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR
RONALD J. EIDSON

Ronald J. Eidson 9/14/07

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

SECTION 17, TOWNSHIP 20 SOUTH, RANGE 38 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #18 AND CR. H45 (BILLY WALKER RD.), GO WEST ON CR. H45 2.9 MILES. TURN LEFT AND GO SOUTH APPROX. 0.5 MILES. VEER RIGHT AND GO WEST APPROX. 400 FEET. VEER LEFT AND GO SOUTH APPROX. 0.8 MILES TO A "T" INTERSECTION. TURN LEFT AND GO EAST APPROX. 0.2 MILES. VEER LEFT AND GO NORTHEAST APPROX. 0.1 MILE. VEER RIGHT AND GO EAST APPROX. 0.1 MILE. TURN RIGHT AND GO SOUTH APPROX. 0.4 MILES. TURN LEFT AND GO WEST APPROX. 1500 FEET TO THE EXISTING FRED TURNER JR. "B" #4 WELL PAD AND A BEGIN ROAD SURVEY. FOLLOW ROAD SURVEY EAST APPROX. 875 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

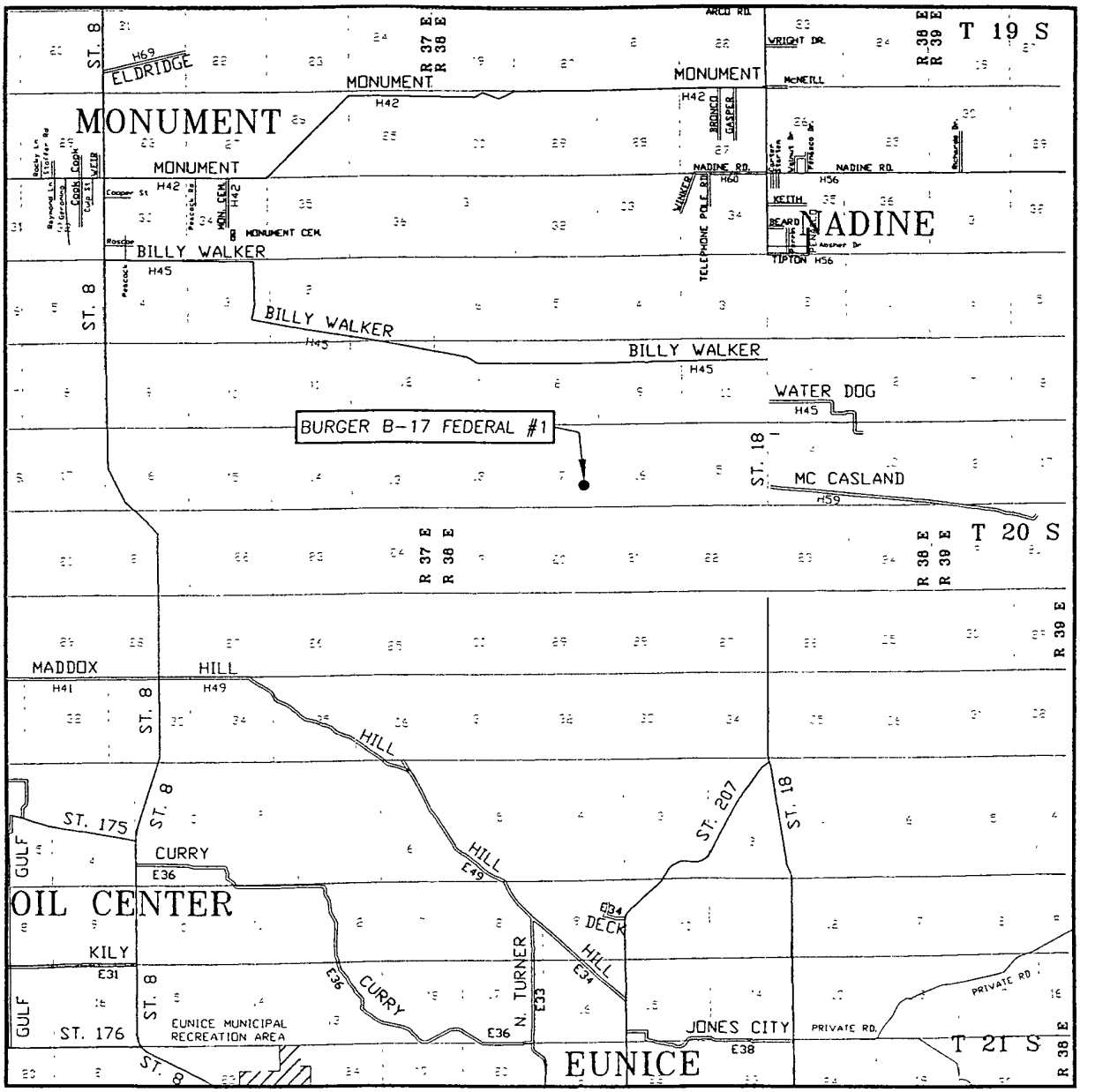
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

APACHE CORPORATION

BURGER B-17 #1 WELL
LOCATED 1400 FEET FROM THE SOUTH LINE
AND 980 FEET FROM THE EAST LINE OF SECTION 17,
TOWNSHIP 20 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 09/05/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.1234	Dr By. MJN	Rev 1:N/A	
Date: 09/13/07	Disk:	07111234	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 20-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1400' FSL & 980' FEL

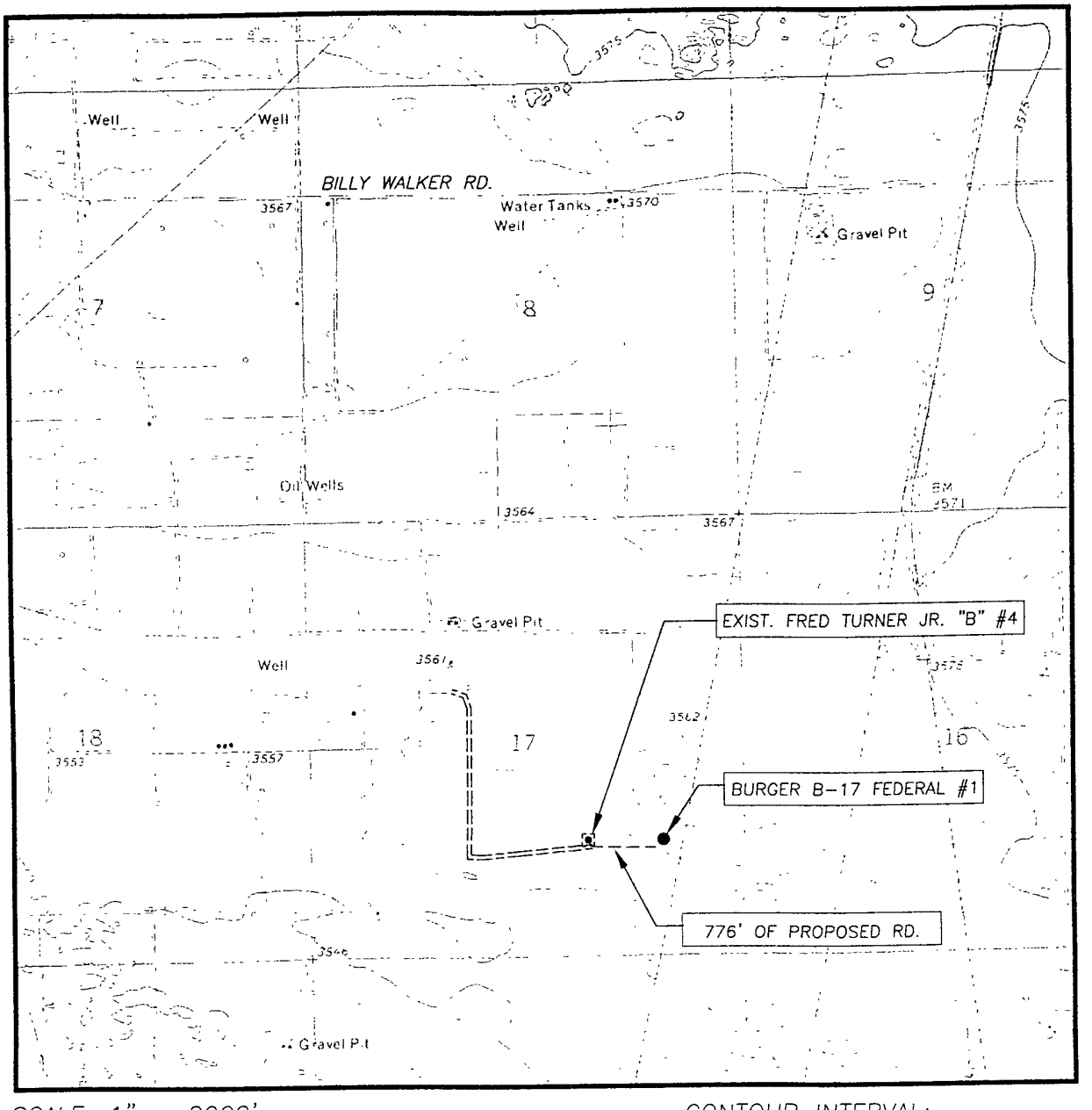
ELEVATION 3562'

OPERATOR APACHE CORPORATION

LEASE BURGER B-17 FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW, N.M. – 5'

SEC. 17 TWP. 20-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1400' FSL & 980' FEL

ELEVATION 3562'

OPERATOR APACHE CORPORATION

LEASE BURGER B-17 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

EXHIBIT "A"
BURGER B-17 #1
DRILLING PROGRAM

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

Formatted: Bullets and Numbering

Estimated Tops of Geological Markers:

FORMATION	DEPTH
Quaternary alluvials	Surface
Rustler	1509'
Yates	2795'
Queen	3599'
Grayburg	3931'
San Andres	4205'
Glorieta	5473'
Blinebry	5944'
Tubb	6457'
Drinkard	6795'
Abo	7085'
TD	7300'

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

SUBSTANCE	DEPTH
Oil	Grayburg @ 3931' San Andres @ 4205' Blinebry @ 5944' Tubb @ 6457' Drinkard @ 6795'
Gas	None anticipated
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:

HOLE SIZE	CASING SIZE OD / ID	GRADE	WEIGHT PER FOOT	DEPTH	SACKS CEMENT	ESTIMATED TOC - REMARKS
12 ¼"	8 5/8" 8.097"	J55 STC	24#	1600'	900	TOC - Surface 8.9 ppg Water-based Mud; 89 ° F Est. Static Temp; 83 ° F Est. Circ. Temp.
7 7/8"	5 ½" 4.892"	J55 LTC	17#	7300'	1,500	TOC – Surface Float Collar set @ 6855"/ 10.10 ppg Brine Mud; 141 ° F Est. Static Temp; 117 ° F Est. Circ. Temp.

Proposed Cement Program:

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
8 5/8"	600 sacks 35:65 Poz:Class C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.003 gps FP-6L + 6% bwoc Bentonite gel 752 Vol. Cu Ft 1.94 Vol. Factor Slurry Weight (ppg) 12.7 Slurry Yield (cf/sack) 1.88 Amount of Mix Water (gps) 10.7; Estimated Pumping Time – 70 BC (HH:MM)-4:00;	300 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water 270 Vol. Cu Ft 1.94 Vol. Factor Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.35 Amount of Mix Water (gps)6.35 Estimated Pumping Time – 70 BC (HH:MM)-3:00;	79.8 bbls Fresh Water @ 8.33 ppg

8 5/8" Casing: Volume Calculations:

1560 ft	x	0.4127 cf/ft	with	100% excess	=	1287.6 cf
40 ft	x	0.8214 cf/ft	with	0% excess	=	32.8 cf
40 ft	x	0.3576 cf/ft	with	0% excess	=	14.3 cf (inside pipe)
		TOTAL SLURRY VOLUME			=	1334.7 cf
					=	237.7 bbls

Spacer 20.0 bbls Water @ 8.33 ppg

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
5 ½"	900 sacks (50:50) Poz (Fly Ash): Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.003 gps FP-6L + 10% bwoc Bentonite 2318 Vol. Cu Ft 2.66 Vol. Factor Slurry Weight (ppg) 11.8 Slurry Yield (cf/sack) 2.44 Amount of Mix Water (gps) 14.07; Amount of Mix Fluid (gps) 14.07 Estimated Pumping Time – 70 BC (HH:MM)-4:00;	600 sacks (50:50) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride +0.003 gps FP-6L 581 Vol. Cu Ft 1.84 Vol. Factor Slurry Weight (ppg) 14.2 Slurry Yield (cf/sack) 1.29 Amount of Mix Water (gps) 5.91; Amount of Mix Fluid(gps) 5.91; Estimated Pumping Time – 70 BC (HH:MM)-3:00;	171 bbls 2% Kcl Water @ 8.43 ppg

5 ½" Casing: Volume Calculations:

1600 ft	x	0.1926 cf/ft	with	0% excess	=	308.16 cf
2775 ft	x	0.1733 cf/ft	with	159% excess	=	1245.6 cf
2925 ft	x	0.1733 cf/ft	with	85% excess	=	1312.9 cf
40 ft	x	0.1305 cf/ft	with	0% excess	=	5.2 cf(inside pipe)
		TOTAL SLURRY VOLUME			=	2871.9 cf
					=	512 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 Mud Program

DEPTH	MUD PROPERTIES	REMARKS
0 – 1,600'	Weight: 8.6 – 9.2 ppg Viscosity: 28 – 34 sec/qt pH: 9.0 – 9.5 Filtrate: NC	Spud with a Conventional New Gel/Lime "Spud mud".. Use NewGel 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, Anco Gel and lime having a viscosity of 45-50 sec/qt.
1600' – 6700'	Weight: 10 10.0 – 10.2 ppg Viscosity: 28 – 32 sec/qt pH: 9.5 -10 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
6700' – TD	Weight: 10.0 – 10.2 ppg Viscosity: 36 – 42 sec/qt pH: 9.5 -10 Filtrate: 8-10 cm/30 min	From 6700' 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'.

Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP and will test before drilling out of surface casing See Exhibit "H" for BOP layout.

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_2S detector on production hole
Gate-type safety valve 3" choke line from BOP to manifold
2" adjustable chokes – 3" blowdown line

Logging Program:

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The following logs may be run:
CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-1600'
CNL, GR from TD-Surface

Mudlogging Program: From 3500' to TD

Formatted: Bullets and Numbering

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 2600 psi.

Hydrogen Sulfide Drilling Operations Plan

No H_2S is anticipated.

Surface Location

SE ¼ of Section 17, Township 20 South, Range 38 East, N.M.P.M.
Lea County, New Mexico
1400' FSL, 980' FEL, Lot No. I

Bottom Hole Location

SE ¼ of Section 17, Township 20 South, Range 38 East, N.M.P.M.
Lea County, New Mexico
1400' FSL, 980' FEL, Lot No. I

Leases Issued: LC-031670-B

Operating Rights:

Apache Corporation	25%
Chevron USA	25%
BP	25%
ConocoPhillips Company	25%

Acres in Lease:

Township 20 South, Range 38 East, NMPM

SEC	17	SE/4 NE/4, E/2 SE/4
	18	LOTS 3,4, SE/4 SW/4, SW/4 SE/4
	19	NW/4 N3/4, SE/4 NE/4
	20	NE/4 NE/4, S/2 N/2, S/2
	21	SW/4 NE/4, NW/4 NW/4, S/2 NW/4, SW/4, W/2 SE/4
	22	S/2 S/2
	27	N/2 N/2
	28	N/2 N/2
	29	N/2 N/2

Total Acres: 1,920.92

Acres Dedicated to Well:

There are 40.00 acres dedicated to this well, which takes in the UL I of Section 17, Township 20 South, Range 38 East, N.M.P.M., Lea County, New Mexico.

Driving Directions

From the intersection of St Hwy # 18 and CR H45 (Billy Walker Rd), go west on CR H45 2.0 miles. Turn left and go south approx .5 miles. Veer right and go west approx 400'. Veer left and go south approx .8 mile to a "T" intersection. Turn left and go east approx .2 mile. Veer left and go NE approx .1 mile. Veer right and go south approx .4 mile. Turn left and go East approx 1500' to the existing Fred Turner Jr. "B" # 4 well pad and a begin road survey. Follow the road survey east approx 875' to this location.

Location and Type of Water Supply

Apache Corporation plans to drill the proposed well with fresh and brine water which will be transported by truck over proposed and existing access roads.

Method of Handling Waste Material

We will be utilizing a closed-loop mud system, all drill cuttings and fluids will be hauled off to a licensed disposal location. Formatted: Bullets and Numbering
Water produced during operations will be collected in tanks until hauled to an approved disposal system.
Oil produced during operation will be stored in tanks until sold.
Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.
All waste materials will be contained to prevent scattering by the wind and will be removed from the well site within 30 days after drilling and/or completion operations are finished.

Surface Ownership

The surface is owned by McCasland Trust, P O Box 206, Eunice, New Mexico, 88231. We will have a surface damage agreement with the surface owner.

Archaeological, Historical, and Other Cultural Sites
Don Clifton, Archaeological Consultant, of Pep, New Mexico, will be conducting an archaeological survey of the proposed well which covers the drilling location, production facilities, and access road, including a corridor along said access road for power and flow lines. His report will be filed under separate cover.

I. Senior Representative (Manager, Engineering & Production):

Ross Murphy
Apache Corporation
Suite 1500 – Two Warren Place
6120 South Yale Avenue
Tulsa, Oklahoma 74136
(918) 491-4834

Project (Operations Engineer):

Kevin Mayes
Apache Corporation
Suite 1500 – Two Warren Place
6120 South Yale Avenue
Tulsa, Oklahoma 74136
(918) 491-4972

Drilling Operations (Operations Engineer):

Terry Gilbert
Apache Corporation
Suite 1500 – Two Warren Place
6120 South Yale Avenue
Tulsa, Oklahoma 74136
(918) 491-4801

Joe Janica

From: Williams, Lana [lana.williams@usa.apachecorp.com]
Sent: Wednesday, December 12, 2007 9:25 AM
To: joejanica@valornet.com
Subject: FW: BLM Permit Additions

BOP Testing
All BOP's are tested by a third party company to 2000 psi after we nipple up.

BHP Calculation
The pressure noted is based on depleted BHP in offset wells. Our mud program reflects a higher MW as we must use cut brine to drill through the salt sections, with the drill solids that we encounter MW could increase to 10.2 ppg. This increase in MW is not completed to account for BHP, but rather to achieve the chemistry required to drill through the salt sections.

*Burger B-17 #1→ page 2 from the packet sent to the BLM needs to be changed to reflect our casing plan. The surface hole/casing will be at a depth of 1600', while the production hole will be from 1600'-TD.

Lucas Martin
Drilling Engineer
Apache Corporation
Office: 918-491-4883
Cell: 918-527-3516

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

1. LOCATION: 1400' FSL & ~~890'~~ 980' FEL SECTION 17 T20S-R38E LEA CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3562' GL.

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery 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: 7250'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Rustler Anhydrite	1509'	Glorieta	5473'
Yates	2795'	Blinebry	5944'
Queen	3599'	Tubb	6557'
Grayburg	3931	Drinkard	6795'
San Andres	4205	Abo	7085'

7. POSSIBLE MINERAL BEARING FORMATION:

Grayburg	Oil	Blinebry	Oil	Drinkard	Oil
San Andres	Oil	Tubb	Oil		

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade	
26"	0-40'	20"	NA	NA	NA	Conductor	New
12¼"	0-~~1300'~~ 1600' casing page	8 5/8"	24#	8-R	ST&C	J-55	New
7 7/8"	0-7250'	5½"	17#	8-R	LT&C	J-55	New

DESIGN FACTORS: Collapse 1.125 Burst 1.0 Body yield 1.5 Joint Strength 8-R 1.8 Buttress 1.6

VERTICAL GEOLOGIC WELL PROGNOSIS

[X] NEW WELL FOR ECONOMICS

[ ] DEEPENING

WELL NAME and NUMBER	OPERATOR	PROSPECT NAME	
BURGER B-17 #1	APACHE (ConocoPhillips)	WEIR (NM4045)	
LOCATION (Footage, Sec, T & R, Survey, Block, Section)		COUNTY	STATE
1650 FSL & 990 FEL Section 17, T20S-R38E		LEA	NM

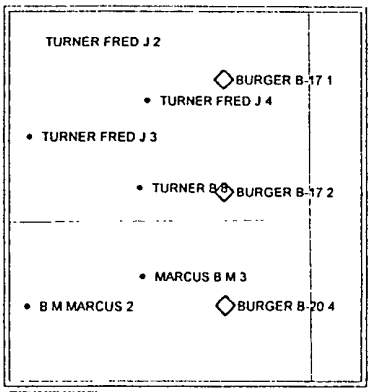
	ESTIMATED PRIMARY PAY THICKNESS:	TYPE COMPLETION (Oil, Gas - Pumping or Flowing)	TOTAL DEPTH
Drinkard	220	Oil & Gas - Pumping	7250'

SPACING	WI:	NRI:	COMMENCED BY
40	25.0000%	21.8750%	

LOCATION OF NEAREST HORIZONTAL OR VERTICAL PRODUCTION FROM OBJECTIVE HORIZON

Operator	Well Name	Well No.	County	State
Amerada Hess	Fred Turner	4	Lea	NM

BTD wells only



FORMATION TOPS

EST ELEV: 3571 REFERENCE: KB

FORMATION	TOPS		SUBSEA ELEV		STRUCTURAL COMPARISON	
	Estimated	Actual	Estimated	Actual	Estimated	Actual
Rustler	1509		2062		-26	
Yates	2795		776		-26	
Queen	3599		-28		-23	
Grayburg	3931		-360		-28	
San Andres	4205		-634		-32	
Glorieta	5473		-1902		-36	
Blinebry	5944		-2373		-30	
Tubb	6457		-2886		-21	
Drinkard	6795		-3224		-39	
Abo	7085		-3514		-20	

CORRELATION WELL

OPERATOR	Amerada Hess	
Well Name & No	Fred Turner Jr #4	
LOCATION	COUNTY	STATE
1400 FSL & 1900 FEL Section 17, T20S-R38E	Lea	NM
ELEV: 3575	REFERENCE:	KB

ELECTRIC LOG	SUBSEA
1487	2088
2773	802
3580	-5
3907	-332
4177	-602
5441	-1866
5918	-2343
6437	-2862
6760	-3185
7069	-3494

LIST ALL ZONES CAPABLE OF PRODUCING HYDROCARBONS

ZONE	TOPS		TYPE OBJECTIVE		DEPLETED	GEO PRESSURED	THICKNESS		CORE/DST
	Est.	Actual	Primary	Secondary	(BHP)	(BHP)	Gross	Net	
Grayburg	3931			Acid & Frac	1500		75	40	
San Andres	4205			Acid	1700		25	0	
Blinebry	5944		Acid & Frac		2400		90	50	
Tubb	6457		Acid & Frac		2500		160	80	
Drinkard	6795		Acid & Frac		2600		210	90	

ANALOGOUS COMPLETIONS	MUD LOGGER		
Apache Hawk B-1 #34	UNIT ON BY:	3500'	
	SAMPLES FROM:	3500	TO: TD
	SAMPLE INTERVAL (FT.):	10	

APACHE CONTACT		NAME	ADDRESS	A.C.	HOME	CELL	OFFICE
GEOL		Bob Curtis	APACHE CORPORATION 6120 S. Yale, Ste 1500 Tulsa,Oklahoma 74136	918	252-3911	906-5342	491-4924
GEOPHY							
LAND		Mario Moreno		918	249-5265	527-4298	491-4963
ENGINEER	RES	Kevin Mayes		918	298-1577	645-4438	491-4972
	DLG	Glen Bone		918	250-6392	633-1109	491-4907
	PROD	Rick Crist		918	488-1937	809-7134	491-4800

REMARKS: (Logging Program, Casing Program, Misc. Recommendations)

E-Log Program:	Litho-Density, Dual Laterolog/MSFL, Sonic	Cost:	$12,000
Mud Log Program:		Cost:	$6,000

COMMENTS

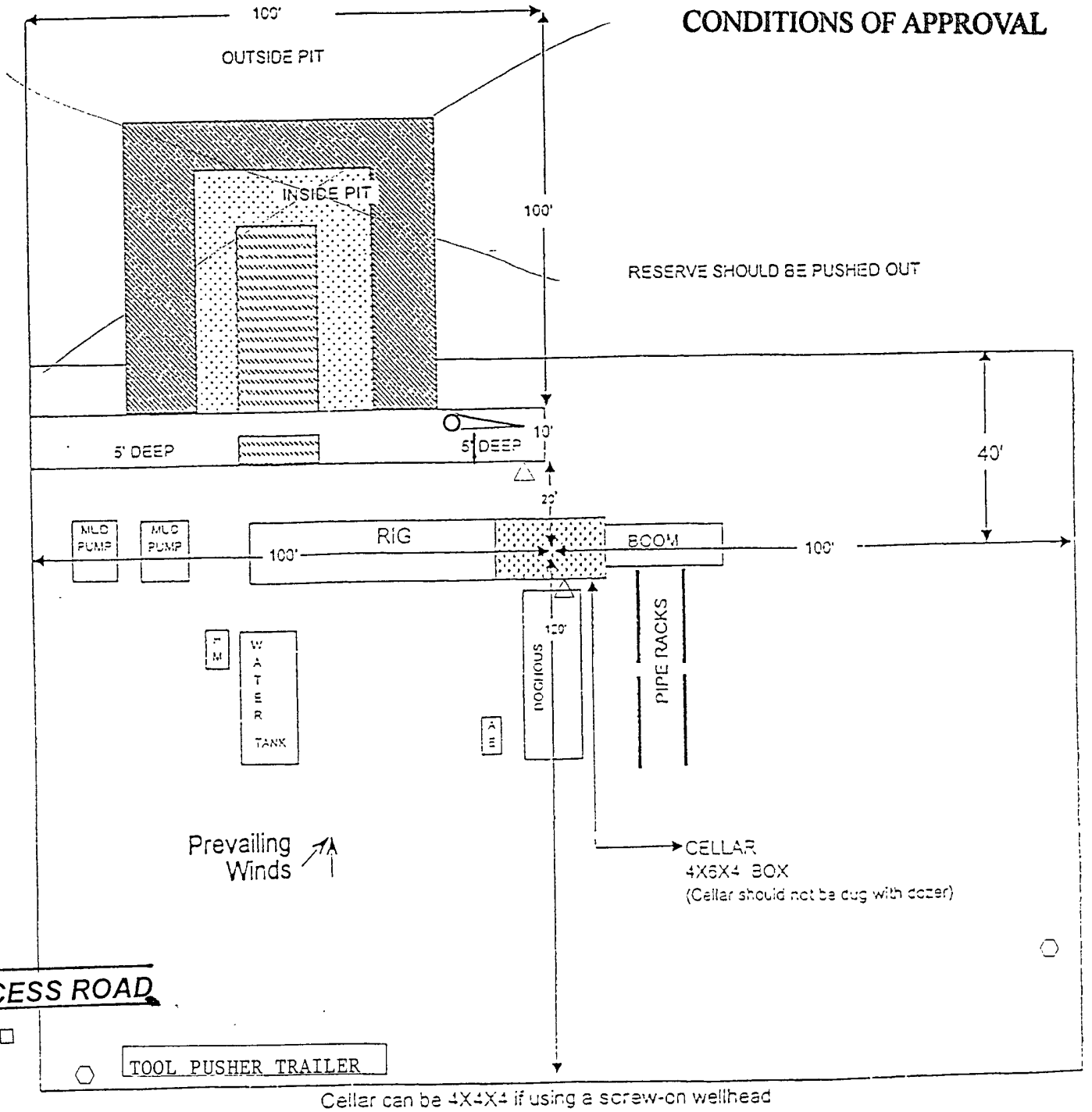
Federal Lease
Nadine, West Paddock-Blinebry Pool
West Tubb Pool
Skaggs Drinkard Pool

Nadine,

RECOMMENDED BY: (GEOL) Robert E Curtis	DATE: 11/30/2007	AUTHORIZED BY (Mgr. Expl) Thomas E. Voytovich	DATE:

LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS

SEE ATTACHED FOR CONDITIONS OF APPROVAL



Cellar can be 4X4X4 if using a screw-on wellhead
Working Pits dug 5' below ground level

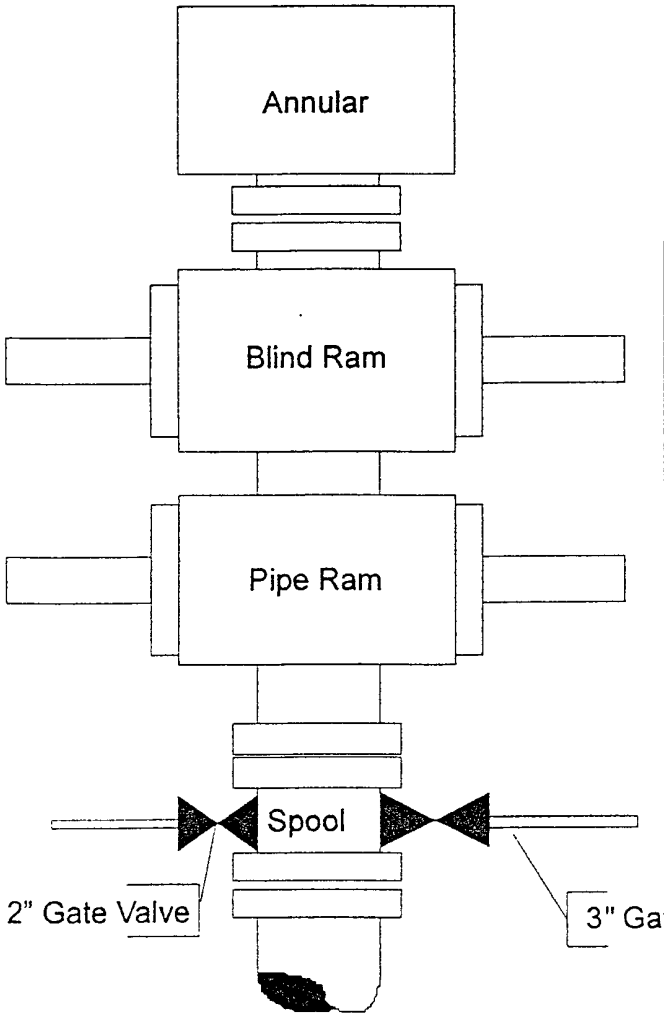
- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- ⬡ Briefing Areas
- ○ Remote BOP Closing Unit
- □ Sign and Condition Flags

Location Specs

EXHIBIT "G"
RIG LAY OUT PLAT

APACHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM

3000psi -
BOPE



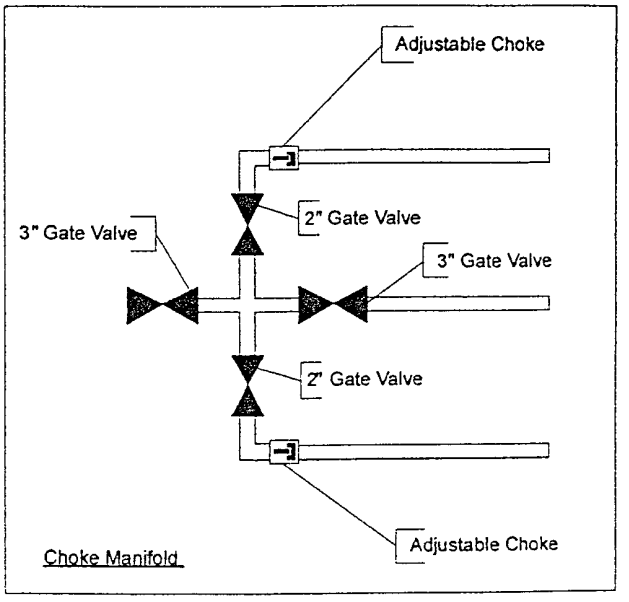


EXHIBIT "H"
SKETCH OF B.O.P. TO BE USED ON

APACHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM

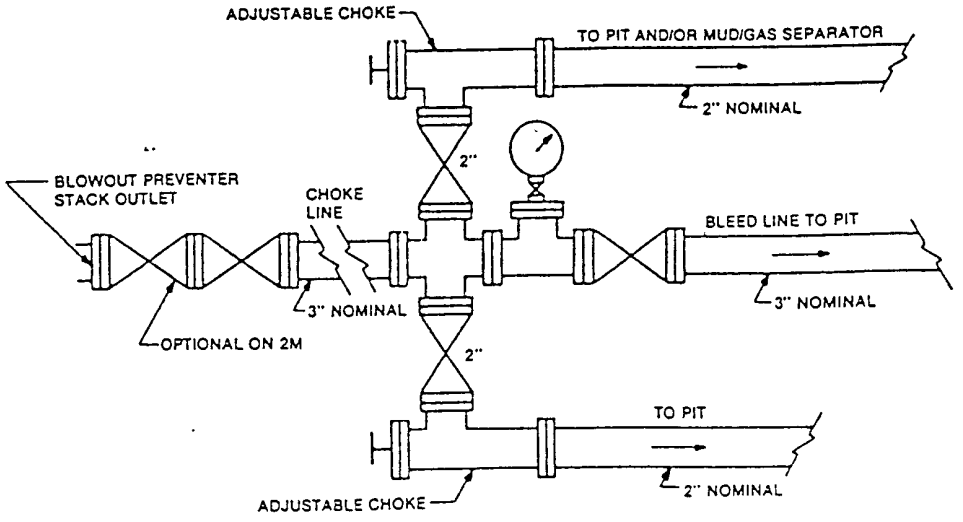


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

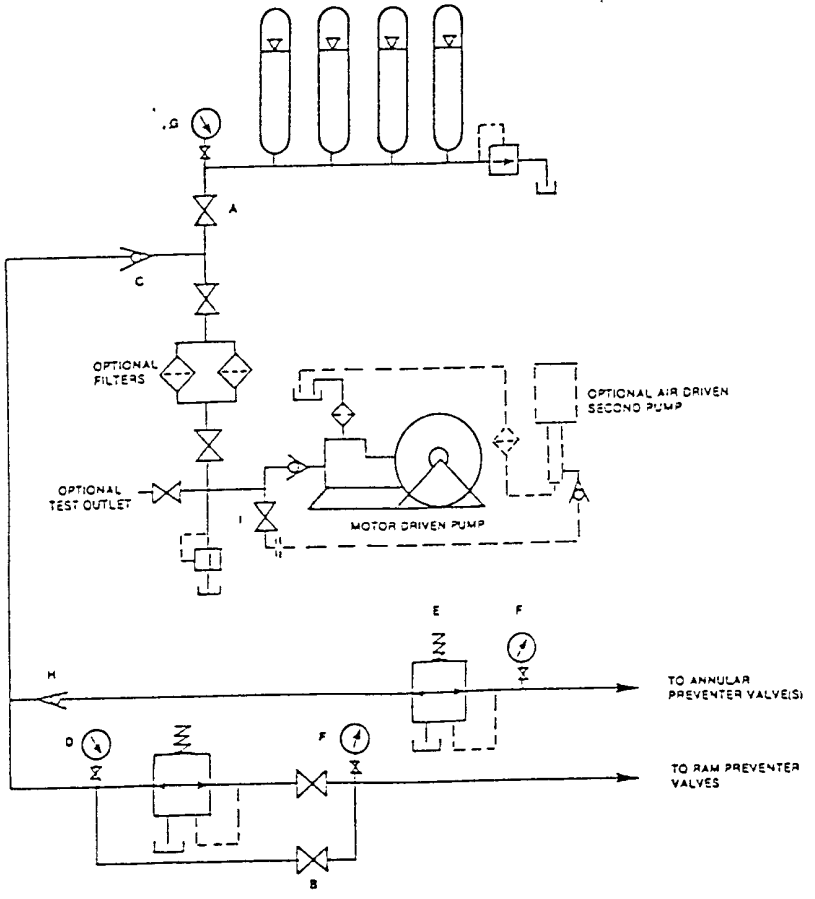


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E"
CHOKE MANIFOLD & CLOSING UNIT

APACHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM

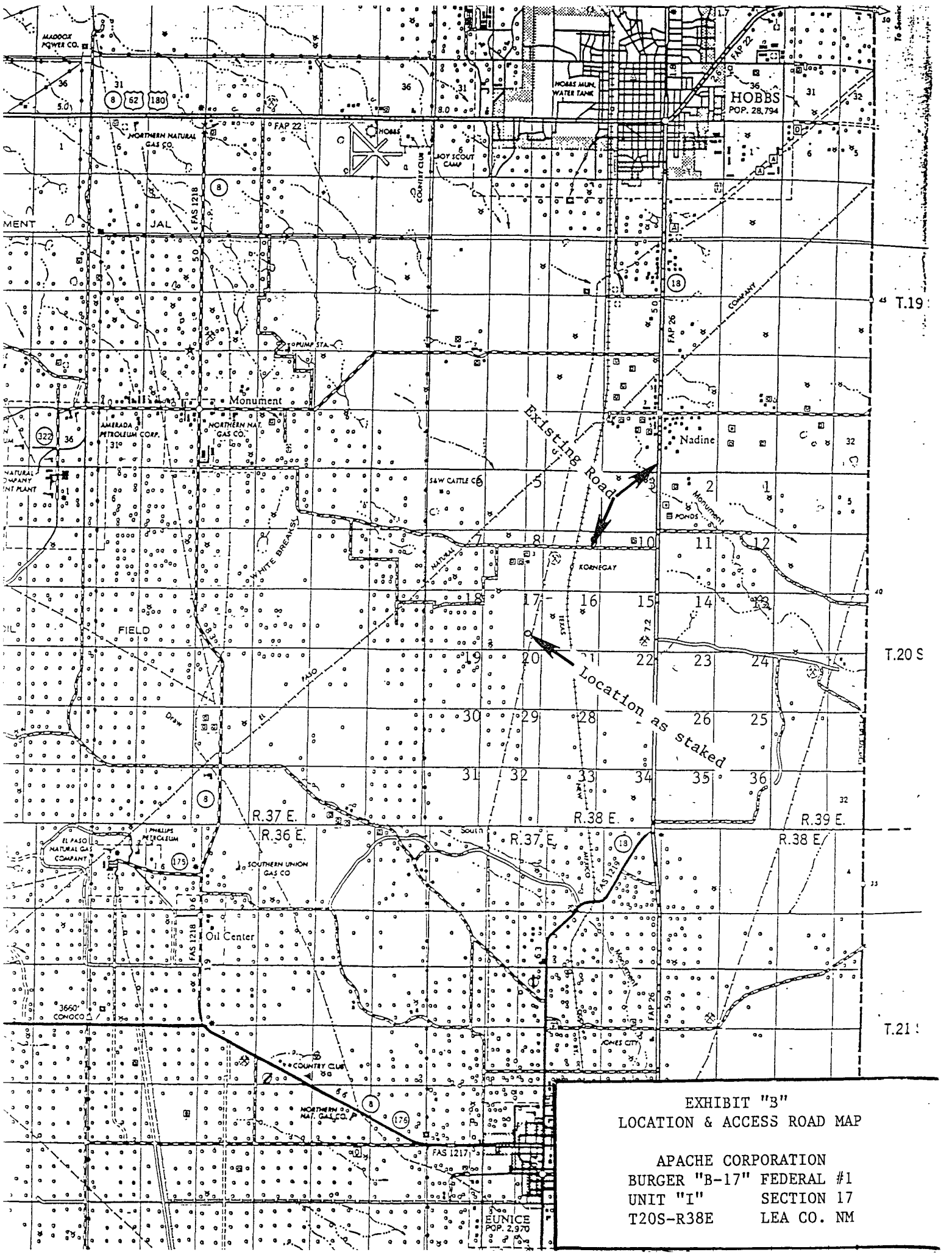


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

APACHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM

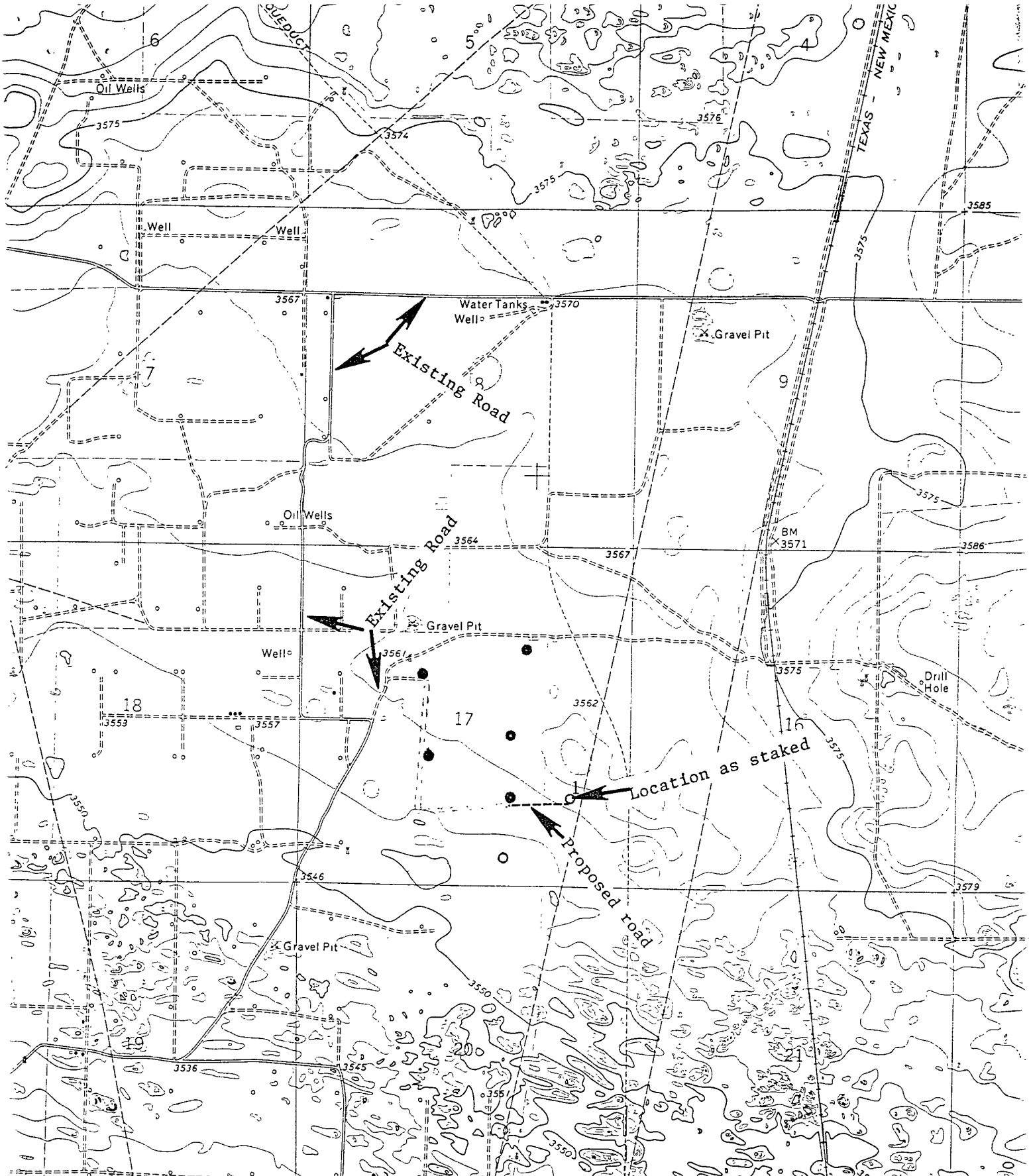
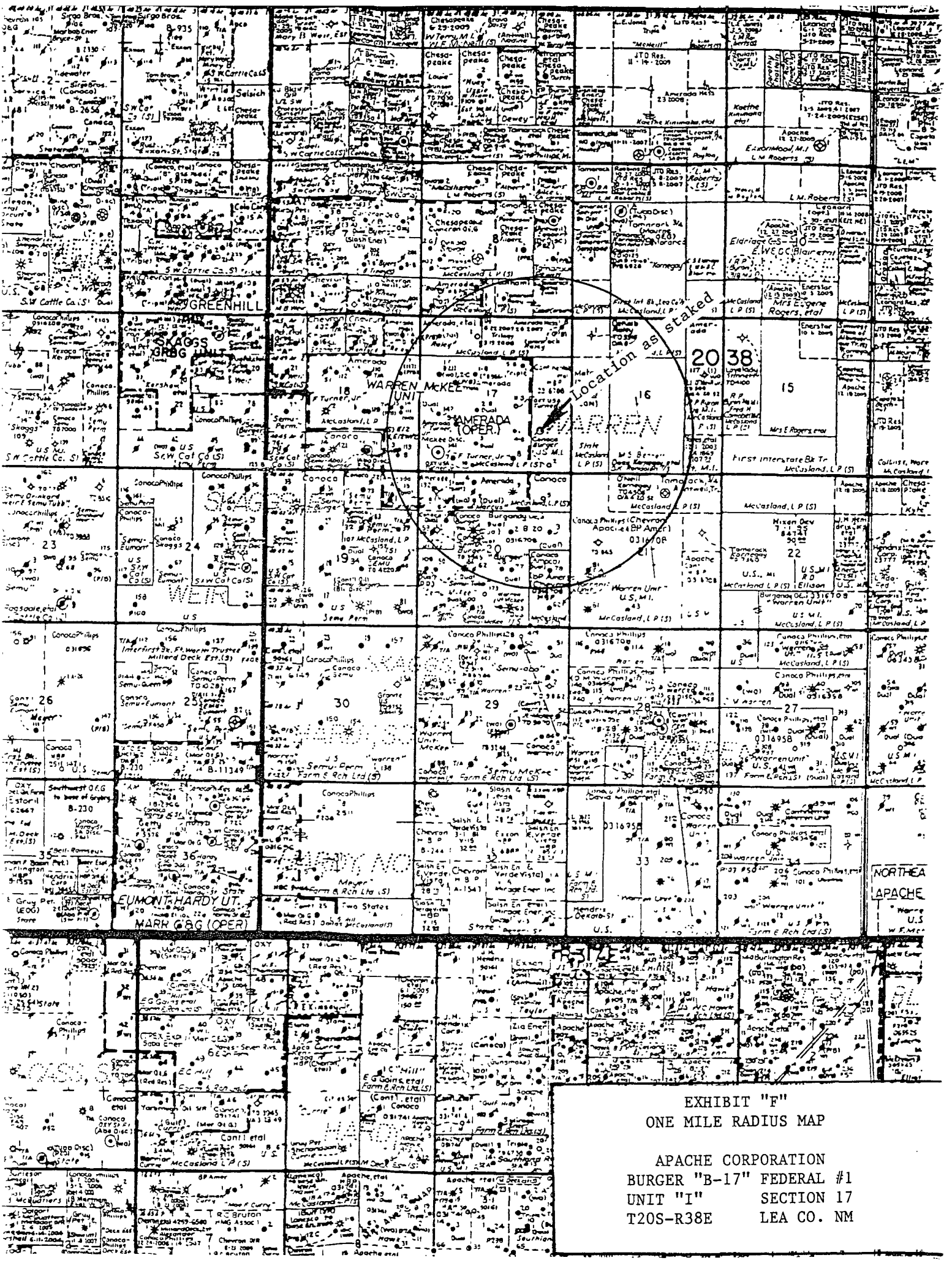


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

APAPCHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM


Location as staked
WARREN McKEE UNIT
SKAGGS GRBG UNIT
GREENHILL
EUMONT HARDY UT.
MARK G&G (OPER)
NORTHEA
APACHE
EXHIBIT "F"
ONE MILE RADIUS MAP
APACHE CORPORATION
BURGER "B-17" FEDERAL #1
UNIT "I" SECTION 17
T20S-R38E LEA CO. NM

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Apache Corporation
LEASE NO.:	LC-031670B
WELL NAME & NO.:	1- Burger B-17
SURFACE HOLE FOOTAGE:	1400' FSL & 980' FEL
BOTTOM HOLE FOOTAGE	' FL &' FL
LOCATION:	Section 17, T. 20 S., R 38 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.

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 (505) 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 (505) 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.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

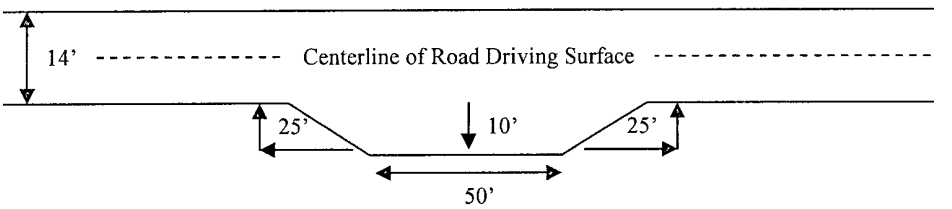
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

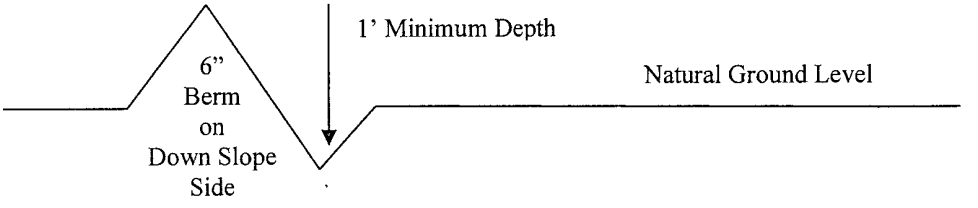
Standard Turnout – Plan View



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

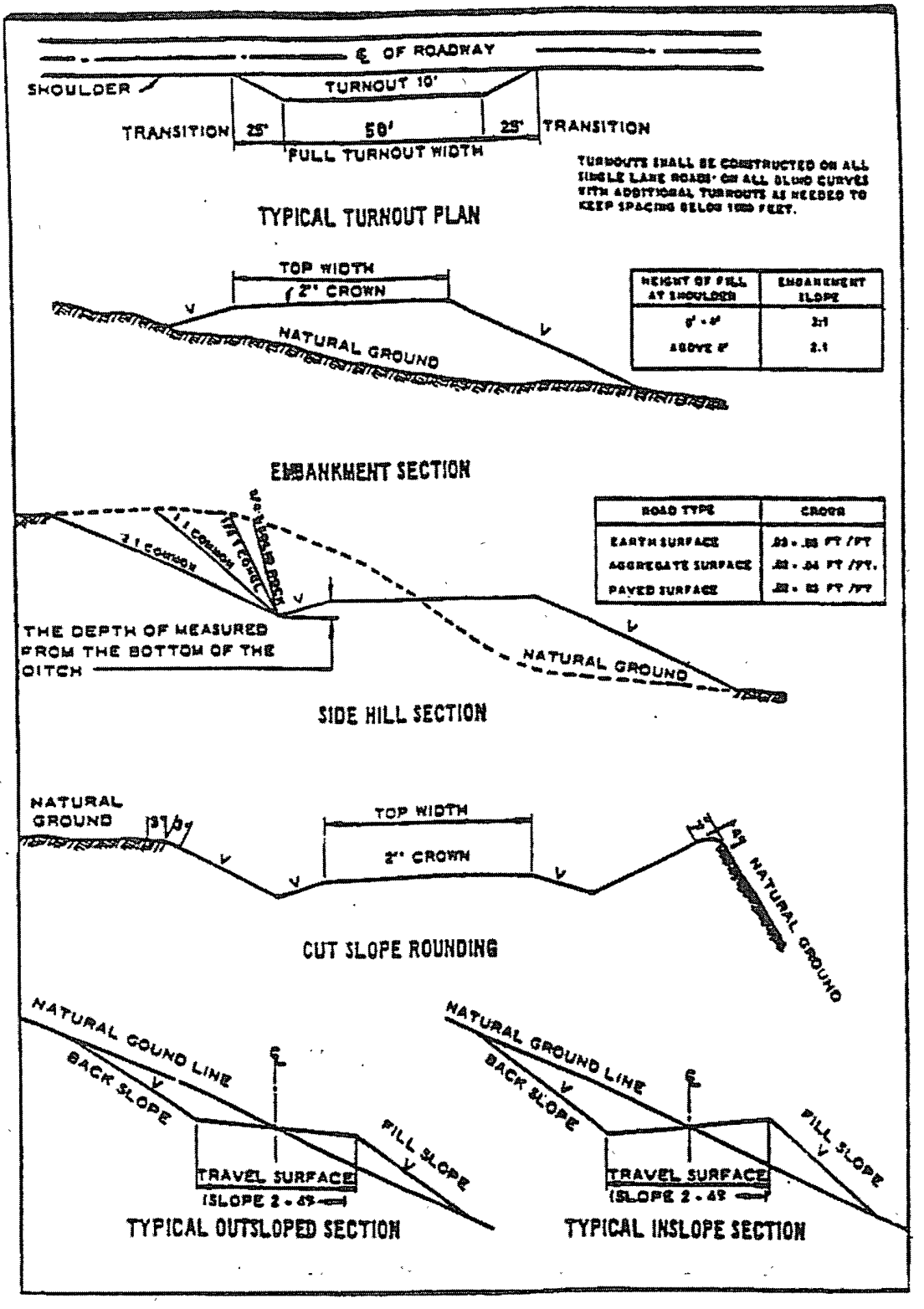
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



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 (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Blinebry** formation. **Hydrogen Sulfide has been reported measuring 5000 ppm in gas streams and 500 ppm in STVs.**

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

1. The **8-5/8** inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 1600** feet 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 will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

   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, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Glorietta.

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. **Please provide WOC times to inspector for cement slurries.**

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. **Operator has supplied information based on the BHP in offset wells that the BHP will not exceed 2000 psi. Therefore, a 2M system is approved.**

2. 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.

Engineer on call phone (after hours): **Carlsbad: (575) 706-2779**

WWI 010508

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

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.

At the time reserve pits are to be reclaimed, 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 see 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:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	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.

Joe Janica

From: Williams, Lana [lana.williams@usa.apachecorp.com]
Sent: Wednesday, December 12, 2007 10:11 AM
To: joejanica@valornet.com
Subject: Permit Info
Attachments: Landowner list.pdf

Please send the necessary information to the BLM stating we have reached an agreement with the surface owner. McCasland LTD Partnership is the surface owner. His address is on the attachment.

Can you also please check on the Change of Operator form for the Burger B-17 # 2. ConocoPhillips filed it with the BLM on 11/8/2007. The API # is 30-025-37926.

Thanks.

Lana Williams
Engineering Tech-Central Drilling
Apache Corporation
Phone 918-491-4980
Fax 918-491-4869