OCD-HOBBS

K-06-51

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE *
(Other Instructions on reverse side)

FORM APPROVED 8/21/06
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NMLC-031741-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [X]

8. FARM OR LEASE NAME, WELL NO.: Hawk A #31 (24426)

2. NAME OF OPERATOR: Apache Corporation (CO1463 Bond) [illegible]

9. API WELL NO.: 30- 025- 38195

3. ADDRESS AND TELEPHONE NO. Agent: 705 W Mescalero Rd., Roswell, NM 88201 505-624-9799 (Bonnie Jones)
Apache: 6120 S. Yale Ave., #1500, Tulsa, OK 74136 918-491-4801 (Terry Gilbert)

10. FIELD AND POOL OR WILDCAT: Eunice; Blinebry-Tubb-Drinkard, North (22900)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At Surface 2630' FNL, 1330' FEL, Unit G (SW¼NE¼)
At proposed prod. Zone 2630' FNL, 1330' FEL, Unit G (SW¼NE¼)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 8, T21S-R37E, NMPM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: ±3.25 miles North of Eunice, NM

12. COUNTY FOR PARISH: Lea

13. STATE: NM

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. NO. OF ACRES ASSIGNED TO THIS WELL
10'	560.00	40.00
18. DISTANCE FROM PROPOSED LOCATION * TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
774'	7,000'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3,523' (KB)

22. APPROX. DATE WORK WILL START *: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
		See Exhibit A		

Anticipated Duration of Program: Drilling – 14 days
Completion - 28 days

See attached Exhibit Afor complete Drilling Program

EXHIBITS

Exhibit A: Drilling Program
Exhibit B: H_2S Plan
Exhibit C: Surface Use Plan
Exhibit D: Survey Plat
Exhibit E: Location Plat
Exhibit F: Existing Well Plat
Exhibit G: Rig Layout
Exhibit H: BOP Layout

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED [signature] TITLE Permit Agent for Apache Corporation DATE 8-18-06

Bonita L. L. Jones, RPL (Bonnie)

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds le[illegible]ER in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Don Peterson TITLE FIELD MANAGER DATE SEP 15 2006

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

APPROVAL FOR 1 YEAR

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

CAPITAN CONTROLLED WATER BASIN

LIMPUSJONES, LLC
OIL & GAS LAND SERVICES

August 31, 2006

Ms. Betty Hill
Bureau of Land Management
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220

RE: Application for Permit to Drill
Lease NMLC-031741A
Hawk A-4 #4, Hawk A-5 #4, Hawk A-5 #5
Hawk A #30, Hawk A #31, Hawk A #33
Township 21 South, Range 37 East, NMPM
Lea County, New Mexico

Dear Ms. Hill:

Please be advised that the Surface Owner's Agreement for the Hawk A-4 #4, Hawk A-5 #4, Hawk A-5 #5, Hawk A #30, Hawk A #31, Hawk A #33 wells were executed by Apache Corporation and the Trustee of the Millard Deck Estate, surface owner, on August 31, 2006. It is my understanding that this statement is sufficient for your needs and that you may now proceed with approval of the Applications for Permit to Drill, received by your office on within the past two weeks.

Sincerely,

LIMPUSJONES, LLC

Bonita L. Limpus Jones, RPL
Consulting Landman, Permit Agent for Apache Corporation

/bj
Enclosure

705 West Mescalero Road, Roswell, New Mexico 88201-5226
Phone: 505-624-9799 Fax: 505-624-9799 Cell: 505-626-0567 E-mail: blljones@plateautel.net

EXHIBIT "A"
Hawk A #31
DRILLING PROGRAM

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

II. Estimated Tops of Geological Markers:

FORMATION	DEPTH
Quaternary alluvials	Surface
Rustler	1318'
Yates	2722'
Queen	3490'
Grayburg	3770'
San Andres	4052'
Glorieta	5233'
Blinebury	5722'
Tubb	6230'
Drinkard	6554'
Abo	6831'
TD	7000'

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

SUBSTANCE	DEPTH
Oil	Blinebry@5722' Tubb@6230' Drinkard@ 6554'
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.

IV. A. 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#	1300'	600	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#	7,000'	1,400	TOC – Surface Float Collar set @ 6955"/ 10.10 ppg Brine Mud; 141 ° F Est. Static Temp; 117 ° F Est. Circ. Temp.

Witness Surface Casing

B. Proposed Cement Program:

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
8 5/8"	400 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;	200 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;	80 bbls Fresh Water @ 8.33 ppg

8 5/8" Casing: Volume Calculations:

1260 ft	x	0.4127 cf/ft	with	100% excess	=	1040.0 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			=	1087.1 cf
					=	193.6 bbls

Spacer 20.0 bbls Water @ 8.33 ppg

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
5 ½"	950 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;	450 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;	160 bbls 2% Kcl Water @ 8.43 ppg

5 ½" Casing: Volume Calculations:

1300 ft	x	0.1926 cf/ft	with	0% excess	=	250.4 cf
3800 ft	x	0.1733 cf/ft	with	159% excess	=	1706 cf
1900 ft	x	0.1733 cf/ft	with	85% excess	=	609.0 cf
40 ft	x	0.1305 cf/ft	with	0% excess	=	5.2 cf(inside pipe)
		TOTAL SLURRY VOLUME			=	2570.6 cf
					=	457.8 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.

V. A. Proposed Mud Program

DEPTH	MUD PROPERTIES	REMARKS
0 – 1,300'	Weight: 8.6 – 9.6 ppg Viscosity: 34 – 36 sec/qt pH: NC 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. At TD of interval, mix in pre-mix pit, 100 barrels of system fluid, NewGel viscosity of 60 sec/100cc, add 0.25 ppb of Super Sweep.
1300' – 5600'	Weight: 9.9 – 10.1 ppg Viscosity: 28 – 29 sec/qt pH: 9-10 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 New-55 at flowline every 250 feet drilled to promote solids settling. Sweep hole with 5-ppb of Super Sweep every 500 feet.
5600' – TD	Weight: 9.9 – 10.1 ppg Viscosity: 30 – 40 sec/qt pH: 9-10 Filtrate: 8-15 cm/30 min	From 5600' to Total Depth, it is recommended the system be restricted to the working pits. Adjust and maintain pH with Caustic Soda. Treat system with Newcide to prevent bacterial degradation of organic materials. Mix Starch (yellow) to control API filtrate at <15cc.

VI. 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. **As expected pressures will not exceed 2000 psi, we request a waiver of the remote control requirement on the accumulator of the 3M BOP and a variance to run a 2M BOP, if available.** See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

9" x 3000 psi double BOP/blind & pipe ram **(2M BOP if available)**
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

VIII A. Testing Program: None planned

B. Logging Program: The following logs may be run:
CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-1300'
CNL, GR from TD-Surface

C. Coring Program: None planned

D. Mudlogging Program: None planned

IX. 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 2400 psi.

EXHIBIT "B"
Hawk A #31

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H_2S is anticipated.

EXHIBIT "C"

SURFACE USE AND OPERATIONS PLAN
CULTURAL RESOURCES SURVEY
APPROXIMATE REHABILITATION SCHEDULE

LOCALITY: **HAWK A #31**
OPERATOR: **APACHE CORPORATION**

LOCATION: SW¼NE¼ OF SECTION 8, T21S-R37E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SUBMITTED TO:

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE ST
CARLSBAD, NM 88220
TELEPHONE (505) 234-5972

This plan is submitted to provide permitting agencies with information necessary to allow an appraisal of the environmental effects associated with the proposed drilling operations. Within the context of typical drilling operations, this plan provides for protection of surface resources and other environmental components. This plan has been developed in conformity with the United States Geological Survey NTL-6 guidelines, Bureau of Land Management Oil and Gas Order No. 1, and in connection and consultation with the private surface owner of record, if other than the United States of America, as well as the Roswell District Office for the Bureau of Land Management and the United States Department of the Interior personnel.

PART #1:

1) Surface Location:
SW¼NE¼ of Section 8, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
2630' FNL, 1330' FEL, Unit G
See attached Exhibits "D" and "E"

2) Bottom Hole Location:
SW¼NE¼ of Section 8, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
2630' FNL, 1330' FEL, Unit G
See attached Exhibits "D" and "E"

3) Leases Issued: NMLC-031741-A

4) Record Lessee:

Apache Corporation	50%
BP America	25%
Chevron USA	25%

5) Acres in Lease:
Township 21 South, Range 37 East
Section 4: W½SW¼
Section 5: SE¼
Section 8: NE¼, N½NW¼
Section 9: W½NW¼
Total Acres: 560.00

6) Acres Dedicated to Well:

There are 40.00 acres dedicated to this well, which takes in the SW¼NE¼ of Section 8, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PART #2:

1) Existing Roads:

Exhibits "E-1" & "E-2" comprise maps showing the proposed well site in relation to existing roads. From the intersection of Highway 8 and Loop Road 207 in Eunice, New Mexico, go 2.7 miles north on 207. Turn left (west) on Hill Road. Go 1.5 mile and then turn left (south) to location as illustrated on Exhibit "E-2".

2) Planned Access:

A. Length and Width: A new, 345-foot access road, 14' wide, will be constructed from the existing lease/access road to the well site. 30' will be provided in the turns. Application for a buried pipeline will be made if it becomes necessary.
B. Construction: The existing roads will be lightly graded and topped with compacted caliche as needed.
C. Turnouts: None required.
D. Culverts: None required.
E. Cuts and Fills: As needed.
F. Gates and Cattleguards: None required.

3) Location of Existing Wells:

Exhibit "F" shows existing wells within a 1-mile radius of the proposed well.

4) Location of Existing and/or Proposed Facilities:

A. There are production facilities within the area of the Hawk A lease.
B. If the oil well proves to be commercial, any necessary production facilities will be installed on the drilling pad, and flow lines will be installed along the proposed and existing roads to the production facilities and storage tanks. See Exhibit "E-3" for flow-line route.

5) 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.

6) Source of Construction Materials:

Caliche for surfacing access roads and the wellsite pad will be obtained from the location itself or from BLM pits in the area.

7) Method of Handling Waste Material:

A. Drill cuttings will be disposed of in the reserve pits.
B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
D. Water produced during operations will be collected in tanks until hauled to an approved disposal system.
E. Oil produced during operation will be stored in tanks until sold.
F. Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.
G. 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.

8) Ancillary Facilities: None planned.

9) Well Site Layout:

A. Exhibit "G" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area have been staked and flagged.
B. Mat Size: 150' x 210' plus reserve pits as shown on Exhibit "G".
C. Cut & Fill: Only minor leveling of the drilling site is anticipated.
D. The surface will be topped with compacted caliche and the reserve pits will be lined with 12 mil plastic.

10) Plans for Restoration of the Surface:

A. After completion of drilling and/or completion operations, all equipment and other material, not needed for operations, will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
B. Any unguarded pits containing fluids will be fenced until they are filled.

A. After completion of drilling and/or completion operations, all equipment and other material, not needed for operations, will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
B. Any unguarded pits containing fluids will be fenced until they are filled.
C. If the proposed well is non-productive, Apache Corporation will comply with all rehabilitation and/or vegetation requirements of the Bureau of Land Management, and such rehabilitation will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11) Other Information:

A. Topography: The wellsite and access road are located in the Querecho Plains and are relatively flat.

B. Soil: The proposed location, access road and production facilities consist of sandy soil. Slope in the proposed area ranges from zero (0) to five (5) degrees.

C. Flora and Fauna: Vegetation is one of a grassland environment and a scrub-grass, scrub disclimax community. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.

D. Ponds and Streams: There are no ponds, lakes, streams or feeder creeks in the immediate area.

E. Residences and Other Structures: There are no occupied residences or other structures on or near the proposed location.

F. Land Use: The land is used for grazing cattle.

G. Surface Ownership: The surface is owned by the Millard Deck Estate , c/o Bank of America NA, attention Tim Wolters, P. O. Box 270, Midland, TX 79701, 432-685-2064. A surface-damage agreement between Apache Corporation and the Millard Deck Estate is expected to be finalized on or before September 1, 2006.

H. 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):

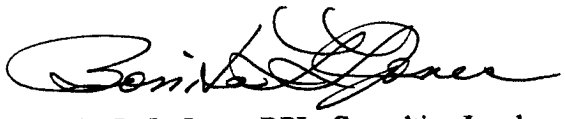
Kevin Mayes
Apache Corporation
Suite 1500 – Two Warren Place
6120 South Yale Avenue
Tulsa, Oklahoma 74136
(918) 491-4972

Drilling Operations (Operations Engineer):

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

CERTIFICATION

I hereby certify that Apache Corporation has inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Apache Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



Bonita L. L. Jones, RPL, Consulting Landman
Agent for Apache Corporation
LIMPUSJONES, LLC
705 West Mescalero Road
Roswell, New Mexico 88201-5226
(505) 624-9799 FAX (505) 624-9799
E-Mail: blljones@plateautel.net

Date: 8-18-06

K-06-50

8/21/06

Exhibit D-1

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 JUNE 10, 2003
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
30-025-39195	22900	Eunice; Blinebry-Tubb-Drinkard, North

Property Code	Property Name	Well Number
24426	HAWK A	31

OGRID No.	Operator Name	Elevation
0873	APACHE CORPORATION	3523'

Surface Location

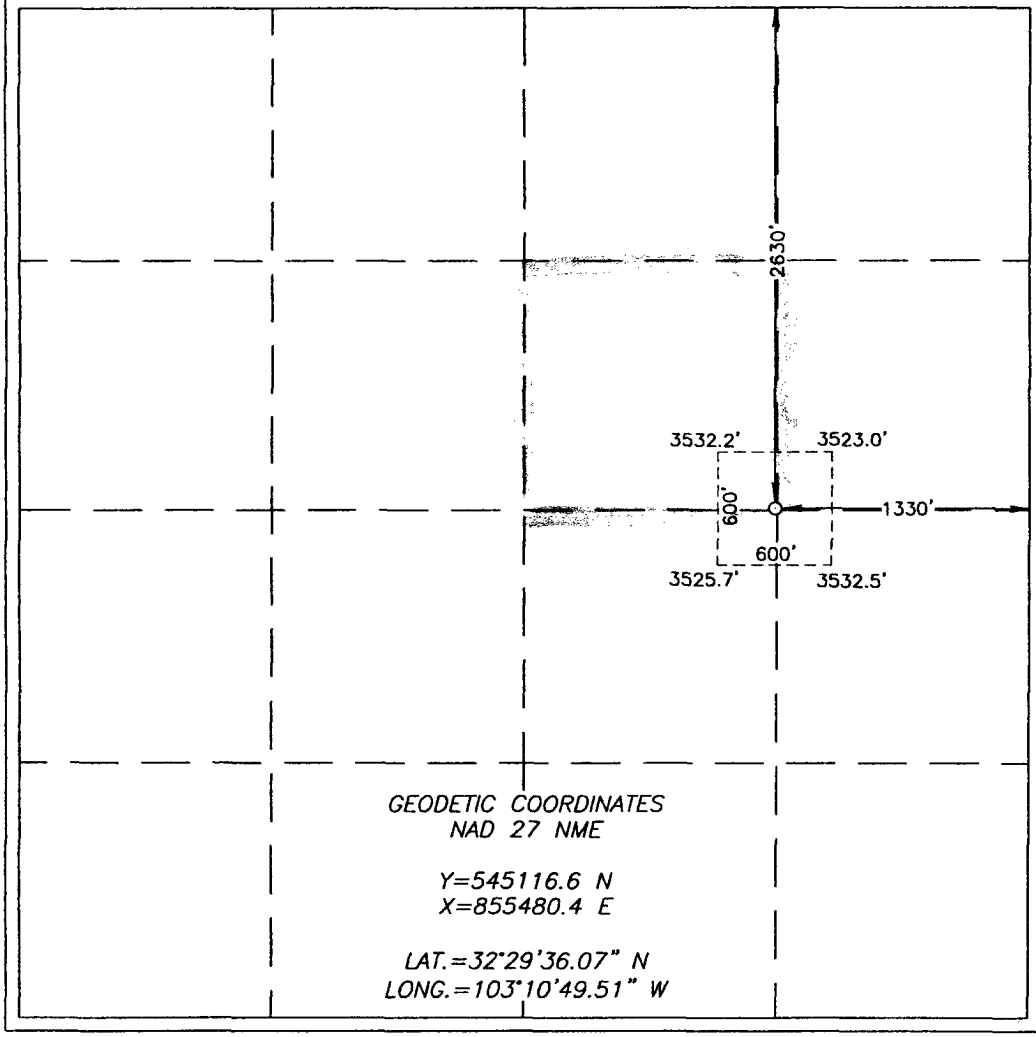
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	21-S	37-E		2630	NORTH	1330	EAST	LEA

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.
40.00			NSL-5496

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



GEODETIC COORDINATES
NAD 27 NME

Y=545116.6 N
X=855480.4 E

LAT.=32°29'36.07" N
LONG.=103°10'49.51" W

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Lana Williams
Signature

Lana Williams
Printed Name

Eng. Tech
Title

7/26/06
Date

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 supervison, and that the same is true and correct to the best of my belief.

JANUARY 18, 2006
Date Surveyed JR

Signature & Seal of Professional Surveyor

Gary L. Eidson 1/30/06

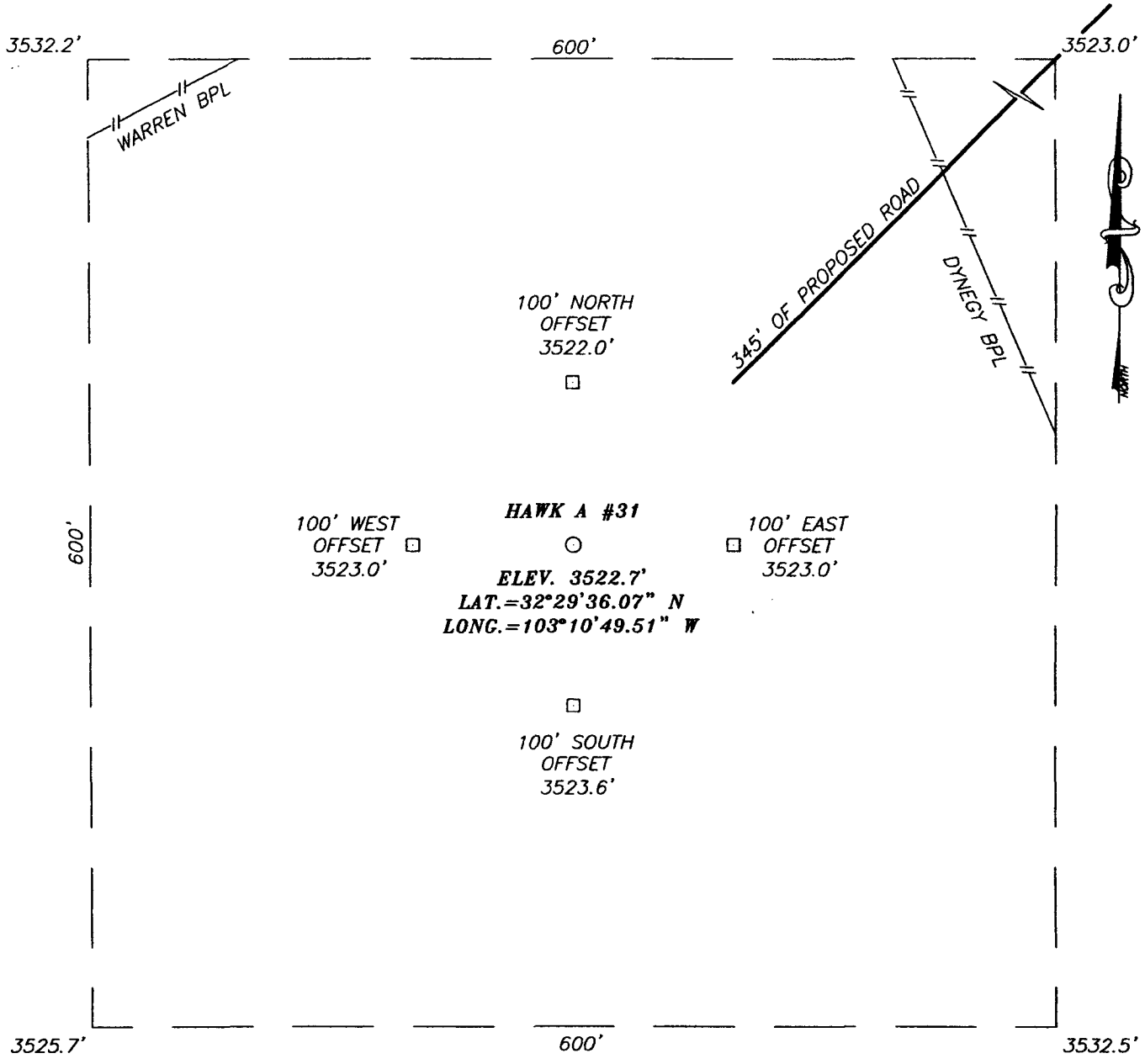
06.11.0069

Certificate No. GARY EIDSON 12641

SECTION 8, TOWNSHIP 21 SOUTH, RANGE 37 EAST

Exhibit D-2

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #207 AND CO. RD. E-34 (HILL RD.) GO NW ON CO. RD. E-34 APPROX. 1.6 MILES TO A PROPOSED ROAD SURVEY ON THE LEFT. FOLLOW PROPOSED ROAD SURVEY APPROX. 345' SW 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

HAWK A #31 WELL
LOCATED 2630 FEET FROM THE NORTH LINE
AND 1330 FEET FROM THE EAST LINE OF SECTION 8,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 1/18/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.0069	Dr By: J.R.	Rev 1: N/A	
Date: 1/24/06	Disk: CD#6	06110069	Scale: 1"=100'

Exhibit D-3

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
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Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
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

Property Code	Property Name	Well Number
	HAWK A	31
OGRID No.	Operator Name	Elevation
	APACHE CORPORATION	3523'

Surface Location

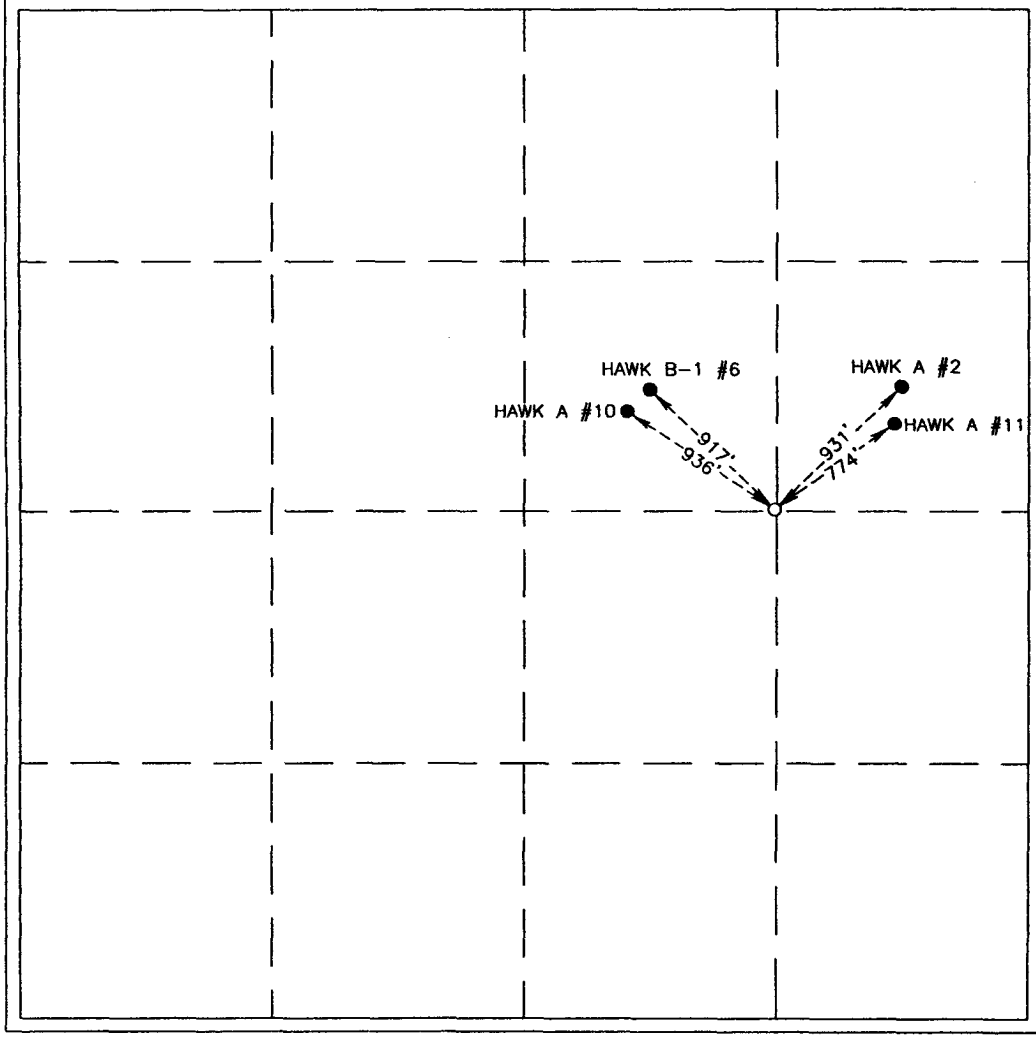
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	21-S	37-E		2630	NORTH	1330	EAST	LEA

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.

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 the the information contained herein is true and complete to the best of my knowledge and belief.

Lana Williams
Signature

Lana Williams
Printed Name

Eng. Tech
Title

7/26/04
Date

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 supervison, and that the same is true and correct to the best of my belief.

JANUARY 18, 2006
Date Surveyed JR

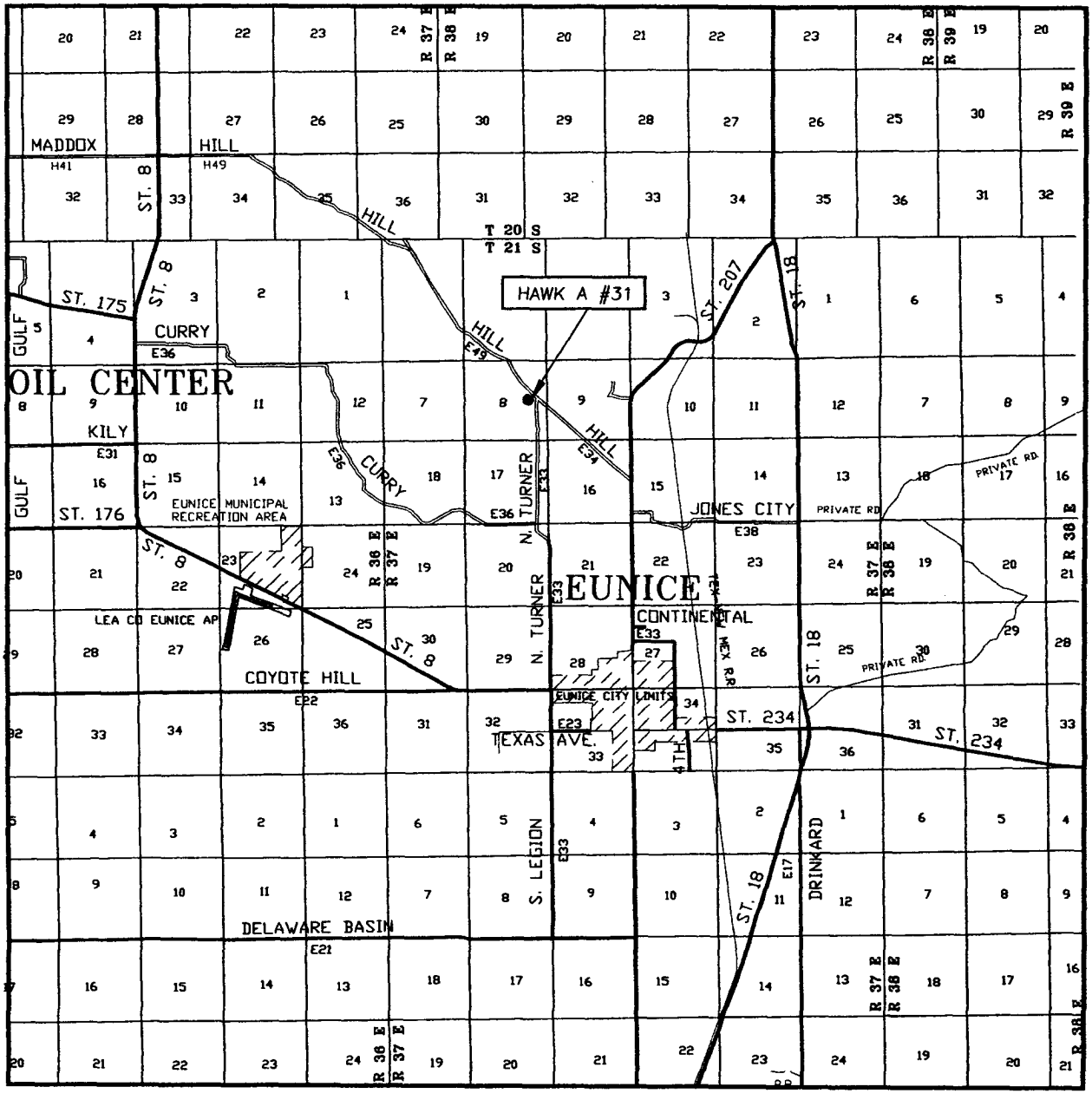
Signature & Seal of Professional Surveyor

06.11.0069

Certificate No. GARY EIDSON 12641

EXHIBIT E-1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2630' FNL & 1330' FEL

ELEVATION 3523'

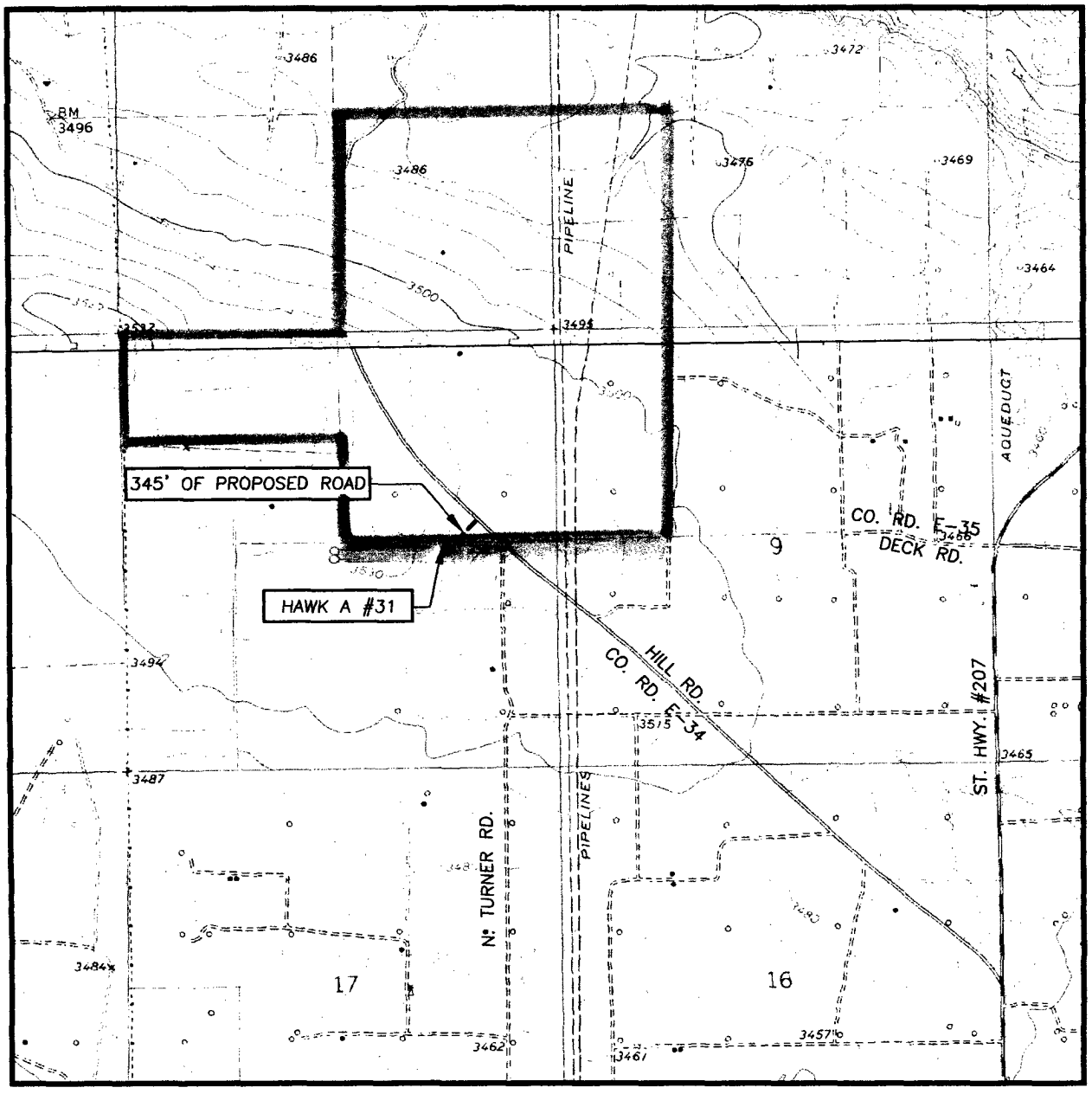
OPERATOR APACHE CORPORATION

LEASE HAWK A

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

EXHIBIT E-2

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW, N.M. – 5'
EUNICE, N.M. – 10'

SEC. 8 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2630' FNL & 1330' FEL

ELEVATION 3523'

OPERATOR APACHE CORPORATION

LEASE HAWK A

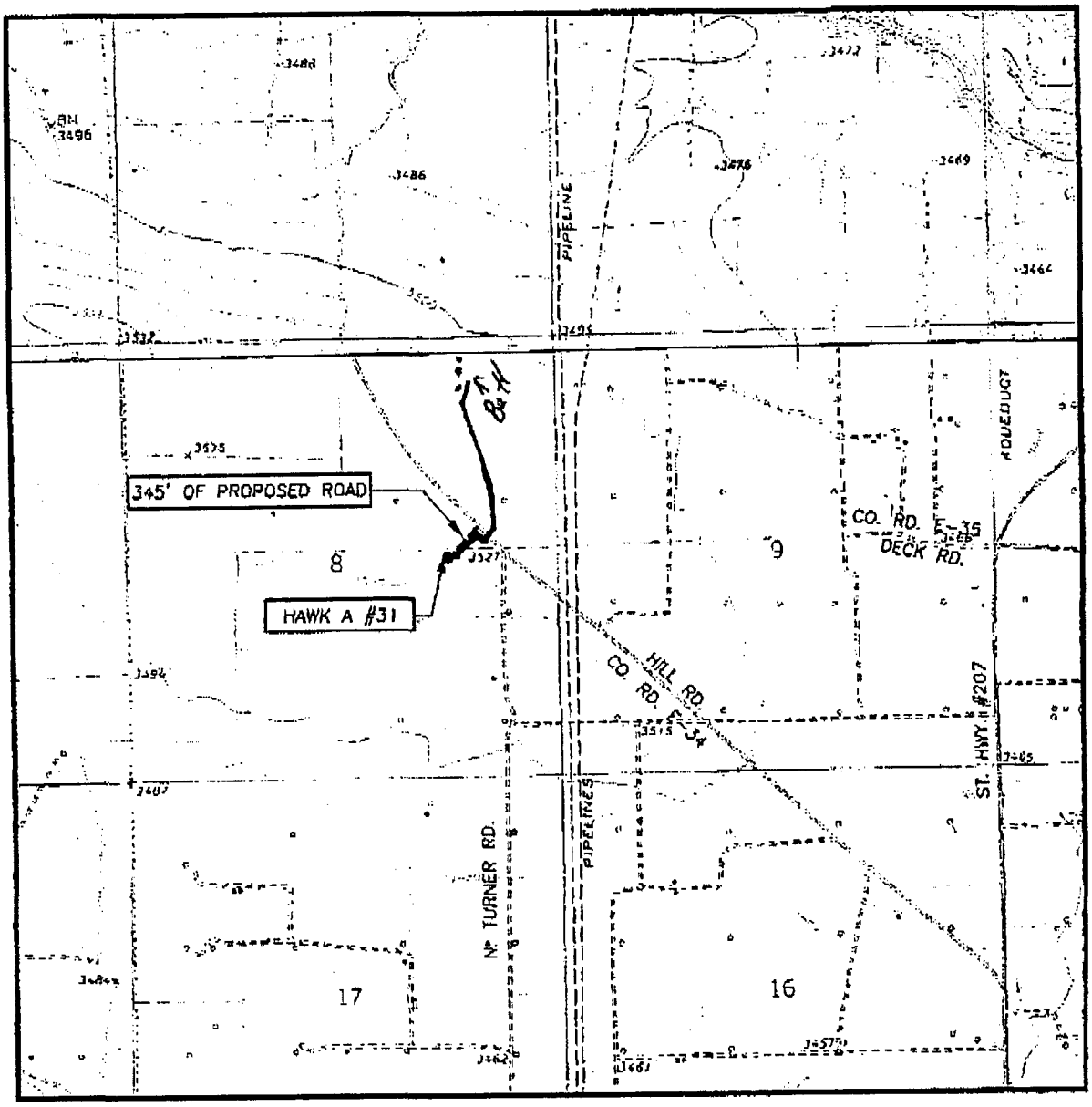
U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW, N.M.

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

LEASE BOUNDARY

EXHIBIT E-3

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW, N.M. – 5'
EUNICE, N.M. – 10'

SEC. 8 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2630' FNL & 1330' FEL

ELEVATION 3523'

OPERATOR APACHE CORPORATION

LEASE HAWK A

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

Flow Lines

Exhibit "F"
Hawk A #31
Township 21 South, Range 37 East, NMPM
Section 8: SWNE
2630' FNL, 1330' FEL (Unit G)
Lea County, New Mexico

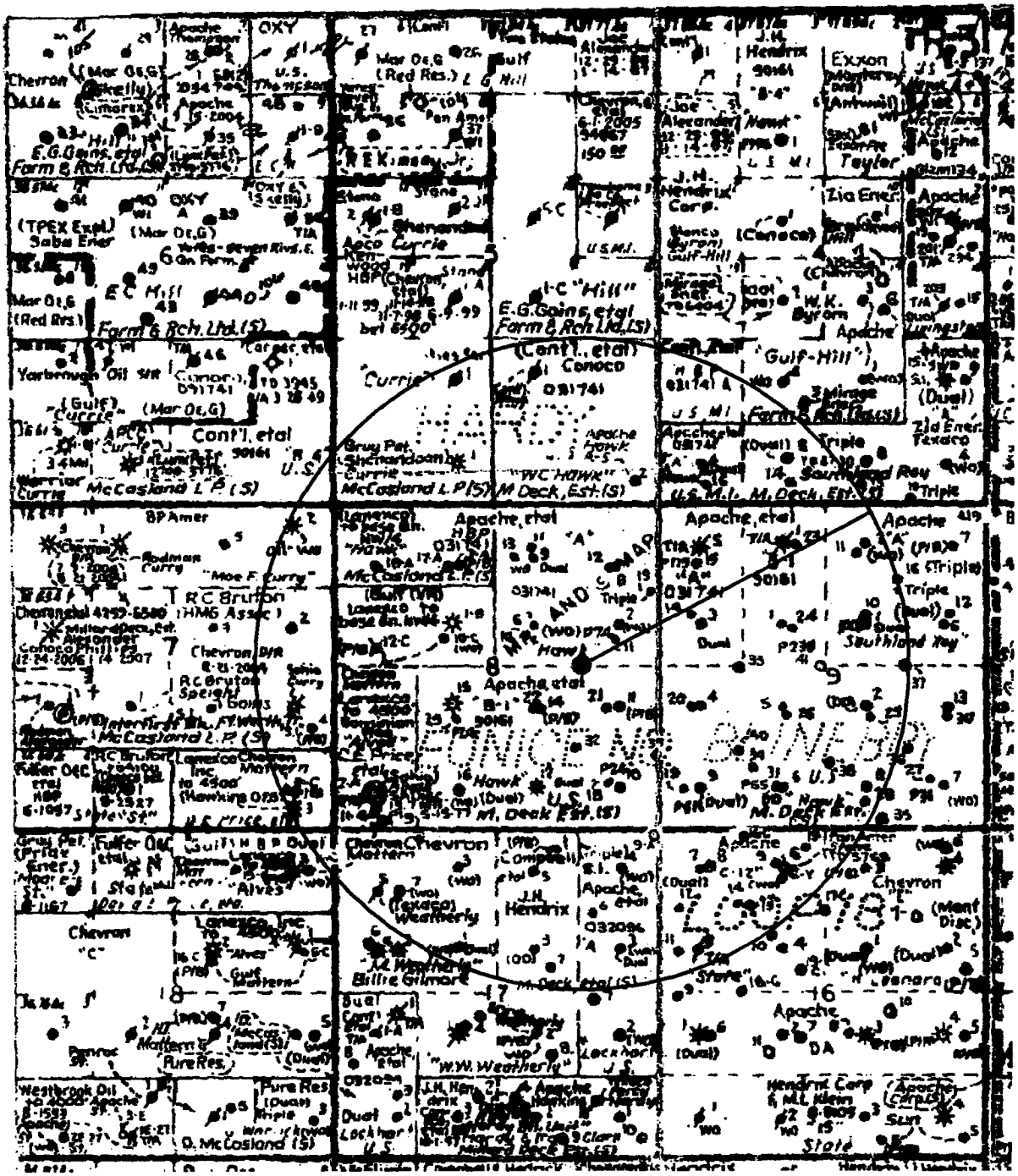
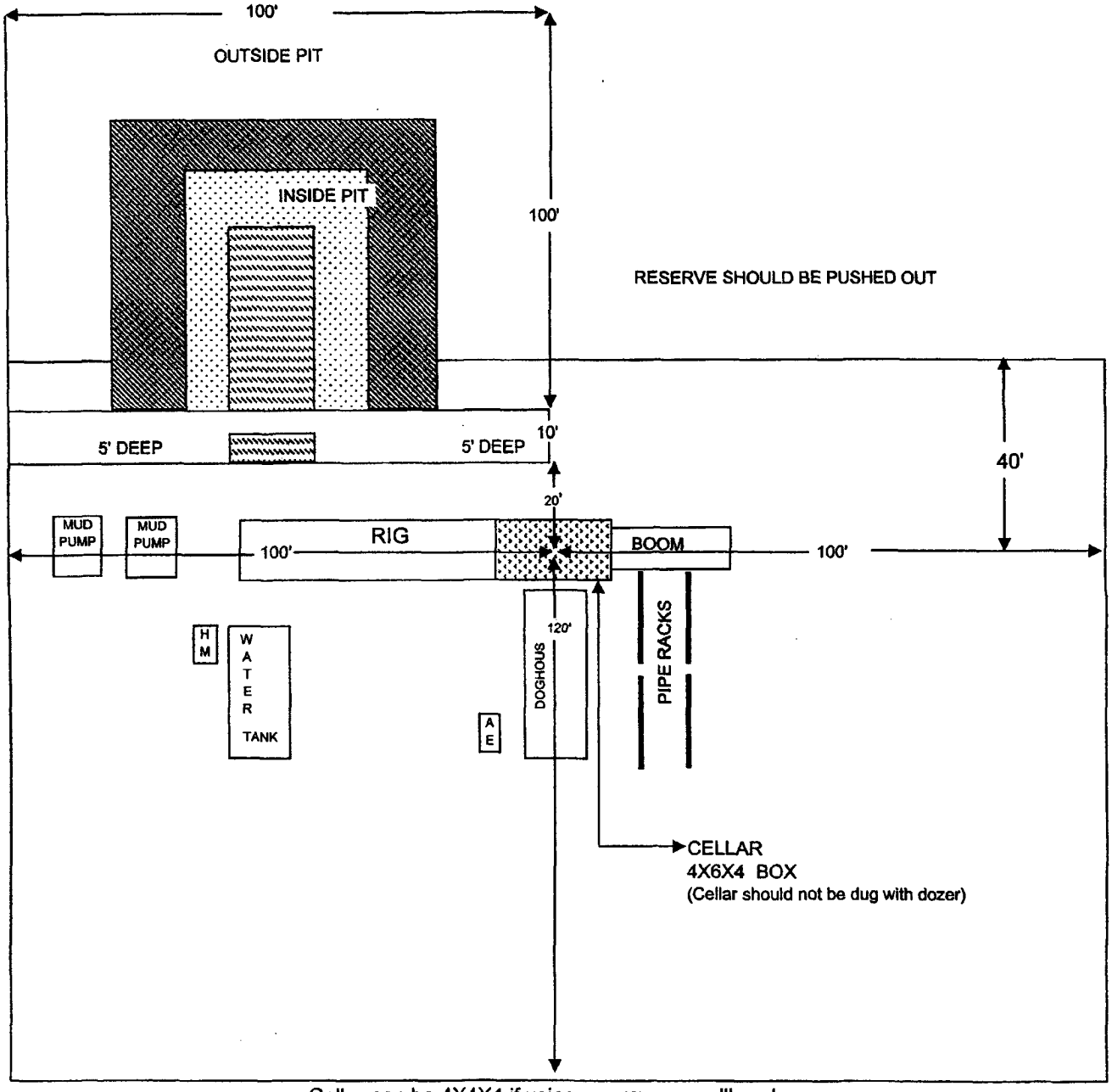


Exhibit G

CapStar Drilling, Inc.

LOCATION SPECIFICATIONS AND RIG LAYOUT
FOR EARTH PITS

Rig #8



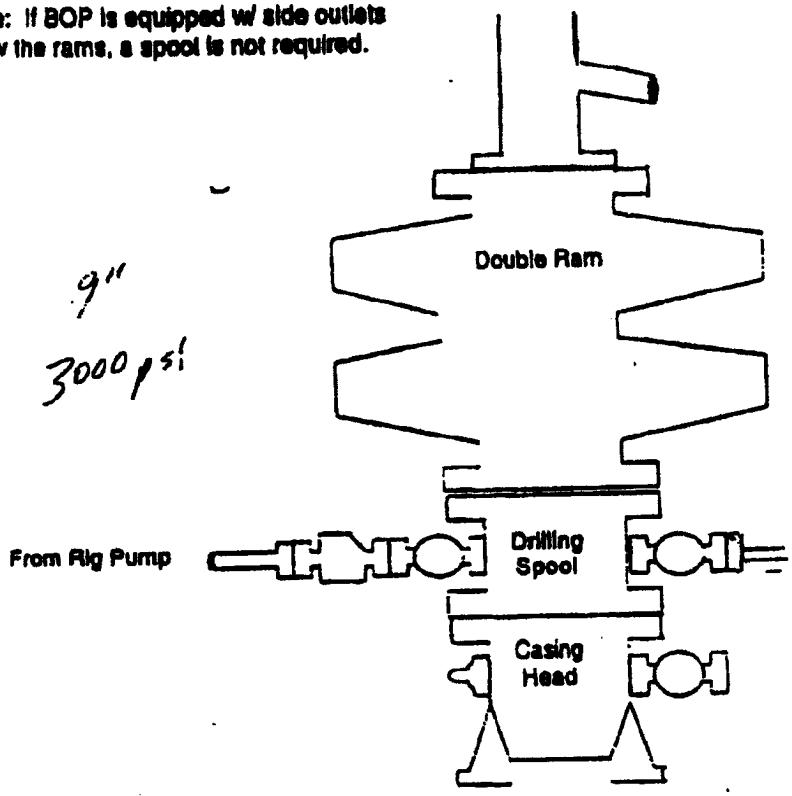
Cellar can be 4X4X4 if using a screw-on wellhead
Working Pits dug 5' below ground level

Exhibit H

BOP Schematic

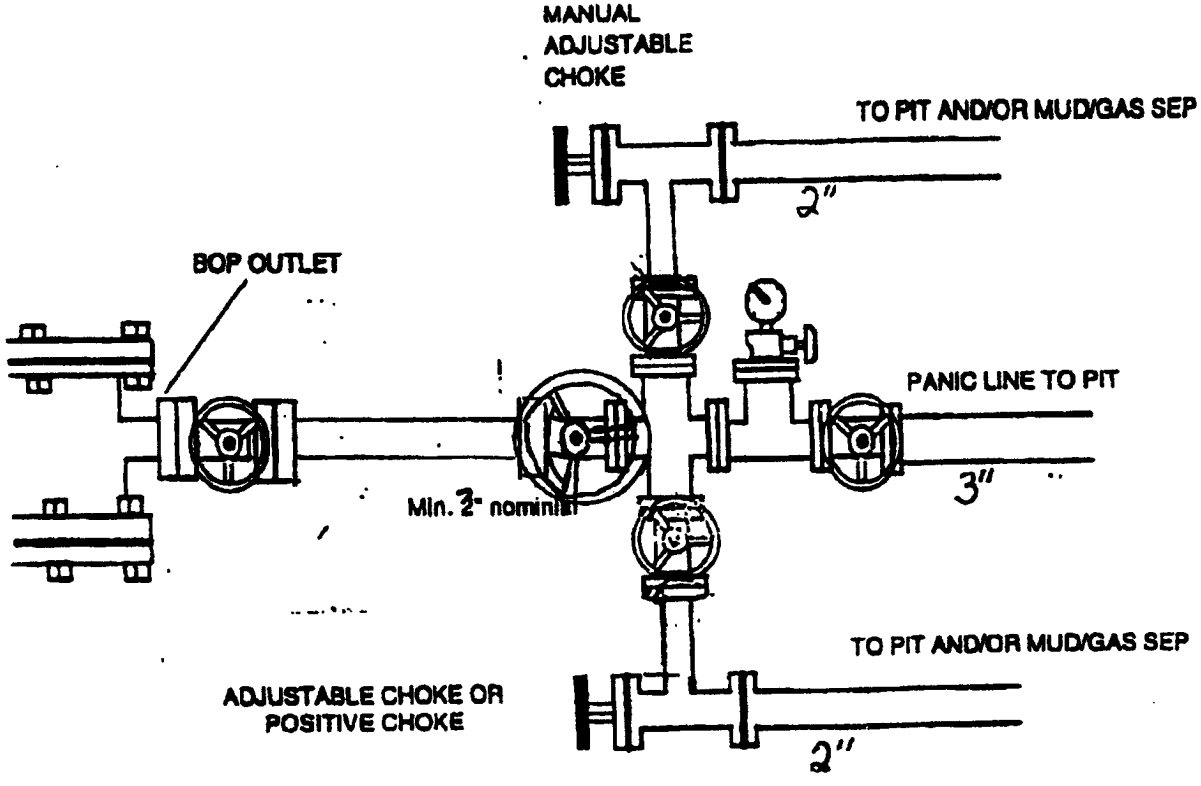
*Note: If BOP is equipped w/ side outlets below the rams, a spool is not required.

3000 psi WP Double Ram Blow-out Preventor. Must be tested to 1000 psi prior to drilling out 8-5/8" surface casing.



Minimum 2" nominal to choke manifold

Choke Manifold Schematic



CONDITIONS OF APPROVAL - DRILLING

Well Name & No.	**Hawk A #31**
Operator's Name:	**Apache Corporation**
Location:	**2630 FNL, 1330 FEL, Section 8, T-21-S, R-37-E**
Lease:	**NMLC-031741-A**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: **8-5/8** inch **5-1/2** inch.

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the **Glorieta** Formation. A copy of the plan shall be posted at the drilling site. **Hydrogen Sulfide has been reported in wells in section 3 and 10 in amounts from 200-800 ppm in gas streams and 400-130,000 in STVs.**

3 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.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

NB! Casing depth for 8-5/8 should be approximately 50' deeper than shown in APD. Modify cement volume for additional length.

1. The **8-5/8** inch surface casing shall be set below usable water, **which is found above 1326', and a minimum of 25' into the Rustler** and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

Possible lost circulation in the Glorieta.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall circulate to surface.**

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **8-5/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is **2000** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

Engineer (after hours): 505-706-2779

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☐

Operator: Apache Corporation (0873) Telephone: 918-491-4801 e-mail address: terry.gilbert@usa.apachecorp.com

Address: 6120 S. Yale Ave., #1500, Tulsa, OK 74136

Facility or well name: Hawk A 31 API #: 30-025 – 38195 U/L or Qtr/Qtr G Sec 8 T 21S R 37E

County: Lea Latitude ____ Longitude ____ NAD: 1927 ☐ 1983 ☐

Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 7105 bbl	Volume: ____ bbl Type of fluid: ____ Construction material: ____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) 10
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No (circled)	(20 points) (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0
	Ranking Score (Total Points)	10

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 8-23-06
Printed Name/Title Terry Gilbert Signature [signature]

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title CHRIS WILLIAMS / DIST. SUPV Signature Chris Williams Date: 12/5/06