K-06-63

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE * (Other Instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

OCD-HOBBS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NMNM-90161

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME:

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

8. FARM OR LEASE NAME, WELL NO.: Hawk B-1 #61 (24427)

2. NAME OF OPERATOR
Apache Corporation (CO1463 Bond) (0873-OGRID)

9. API WELL NO.: 30- 025- 38547

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 170' FSL, 1180' FEL, Unit P (SE¼SE¼)
At proposed prod. Zone 170' FSL, 1180' FEL, Unit P (SE¼SE¼)
NSL-5683

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 Northwest 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
170'	958.25	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**
682'	6,925'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3,498' (KB)

CAPITAN CONTROLLED WATER BASIN

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		

Received
Hobbs
OCD

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 Bonita L. L. Jones, RPL (Bonnie) TITLE Permit Agent for Apache Corporation DATE 8-24-06

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

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

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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 SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Witness Surface Casing

K-06-63 Exhibit D-1
Recd 8-25-06

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
30-025-38547	22900	Eunice; Blinebry-Tubb-Drinkard, North

Property Code	Property Name	Well Number
24427	HAWK B-1	61

OGRID No.	Operator Name	Elevation
0873	APACHE CORPORATION	3498'

Surface Location

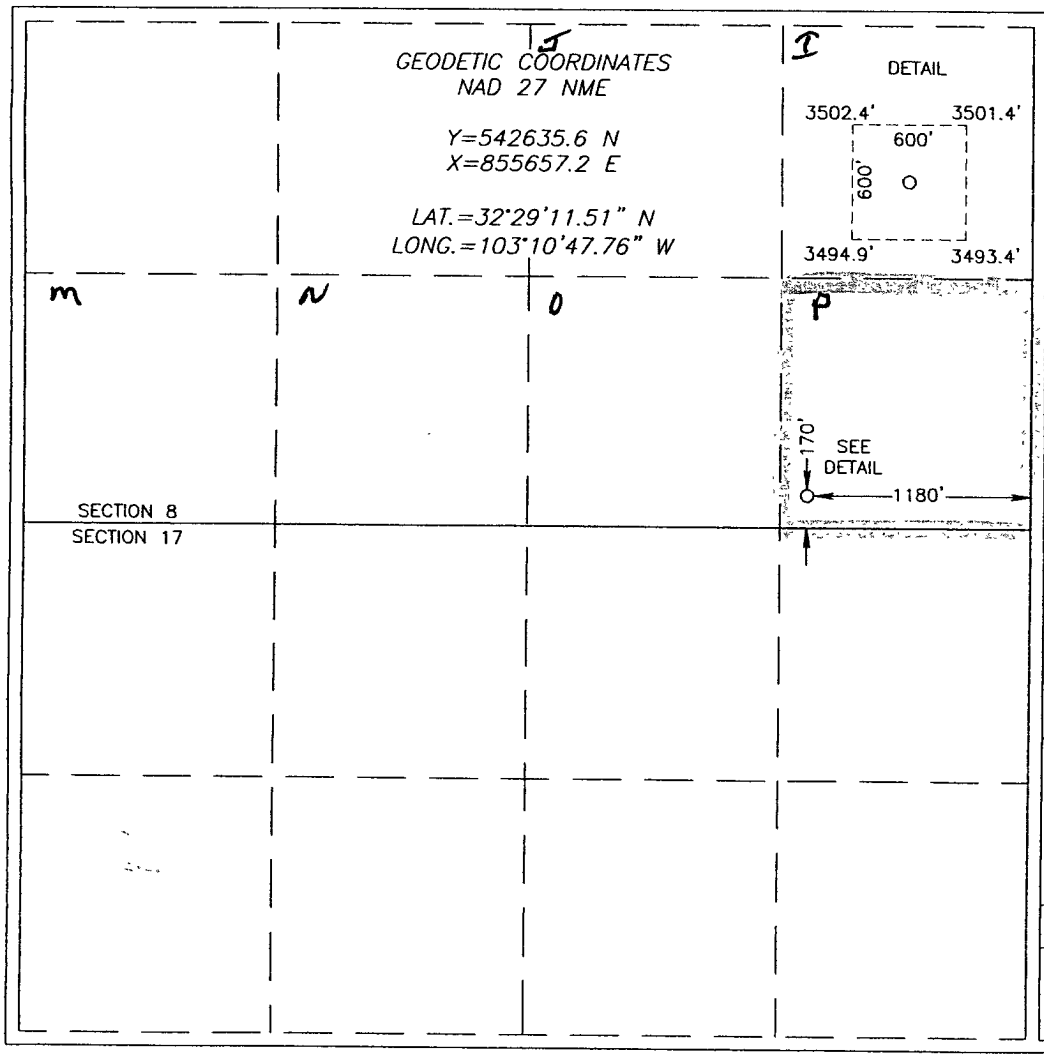
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	21-S	37-E		170	SOUTH	1180	EAST	LEA

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 - 5683

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

7/26/06
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 19, 2006
Date Surveyed JR

Signature & Seal of Professional Surveyor

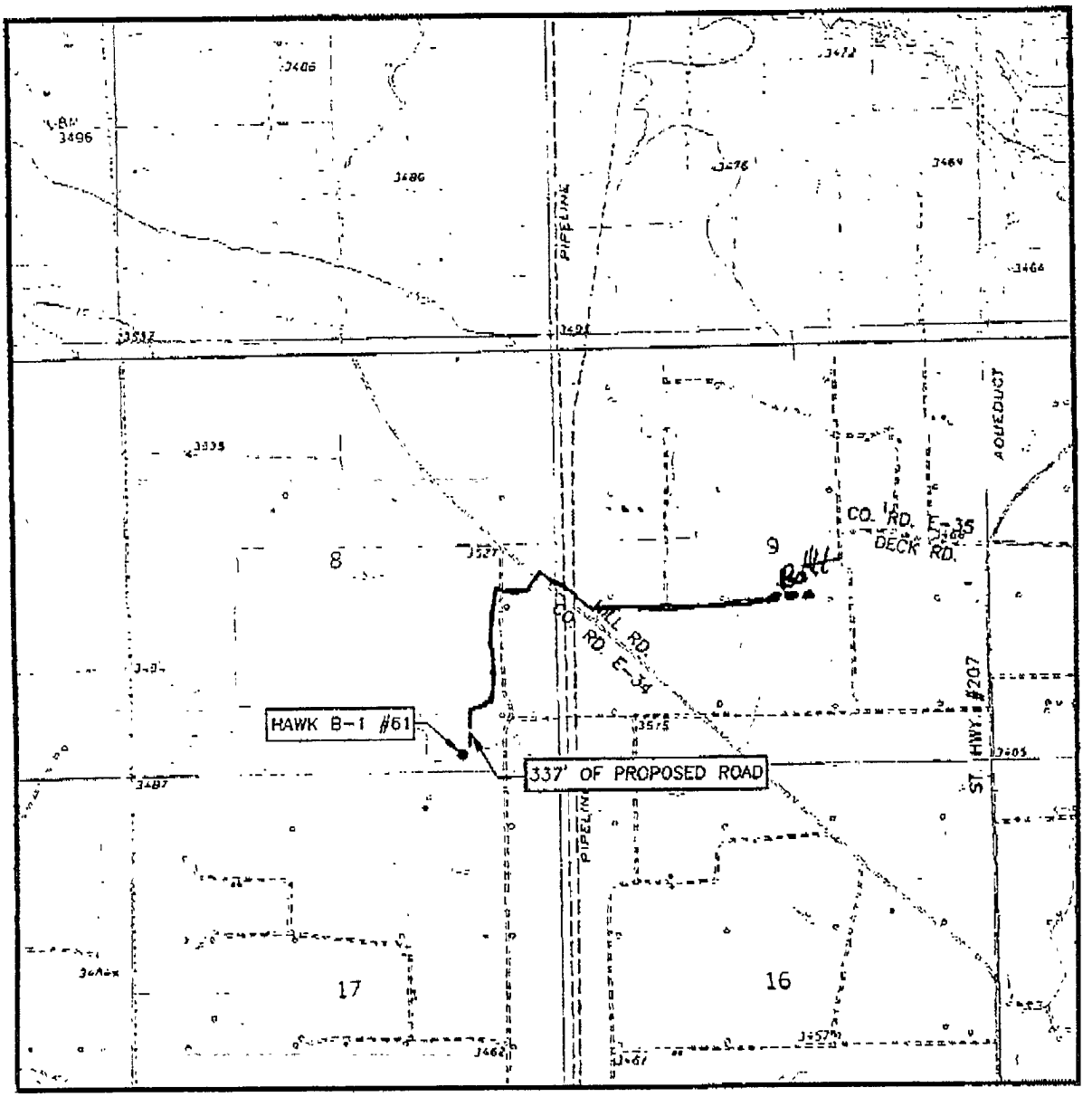
Gary L. Eidson 1/30/06

06.11.0075

Certificate No. GARY EIDSON 12641

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 170' FSL & 1180' FEL

ELEVATION 3498'

OPERATOR APACHE CORPORATION

LEASE HAWK B-1

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 "A"
Hawk B-1 #61

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	1275'
Yates	2685'
Queen	3442'
Grayburg	3707'
San Andres	3999'
Glorieta	5201'
Blinebry	5687'
Tubb	6182'
Drinkard	6514'
Abo	6768'
TD	6925'

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

SUBSTANCE	DEPTH
Oil	Blinebry@5687' Tubb@6182' Drinkard@6514'
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#	6,925'	1,400	TOC – Surface Float Collar set @ 6880"/ 10.10 ppg Brine Mud; 141 ° F Est. Static Temp; 117 ° F Est. Circ. Temp.

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
3725 ft	x	0.1733 cf/ft	with	159% excess	=	1672 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			=	2536.60 cf
					=	451.75 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.

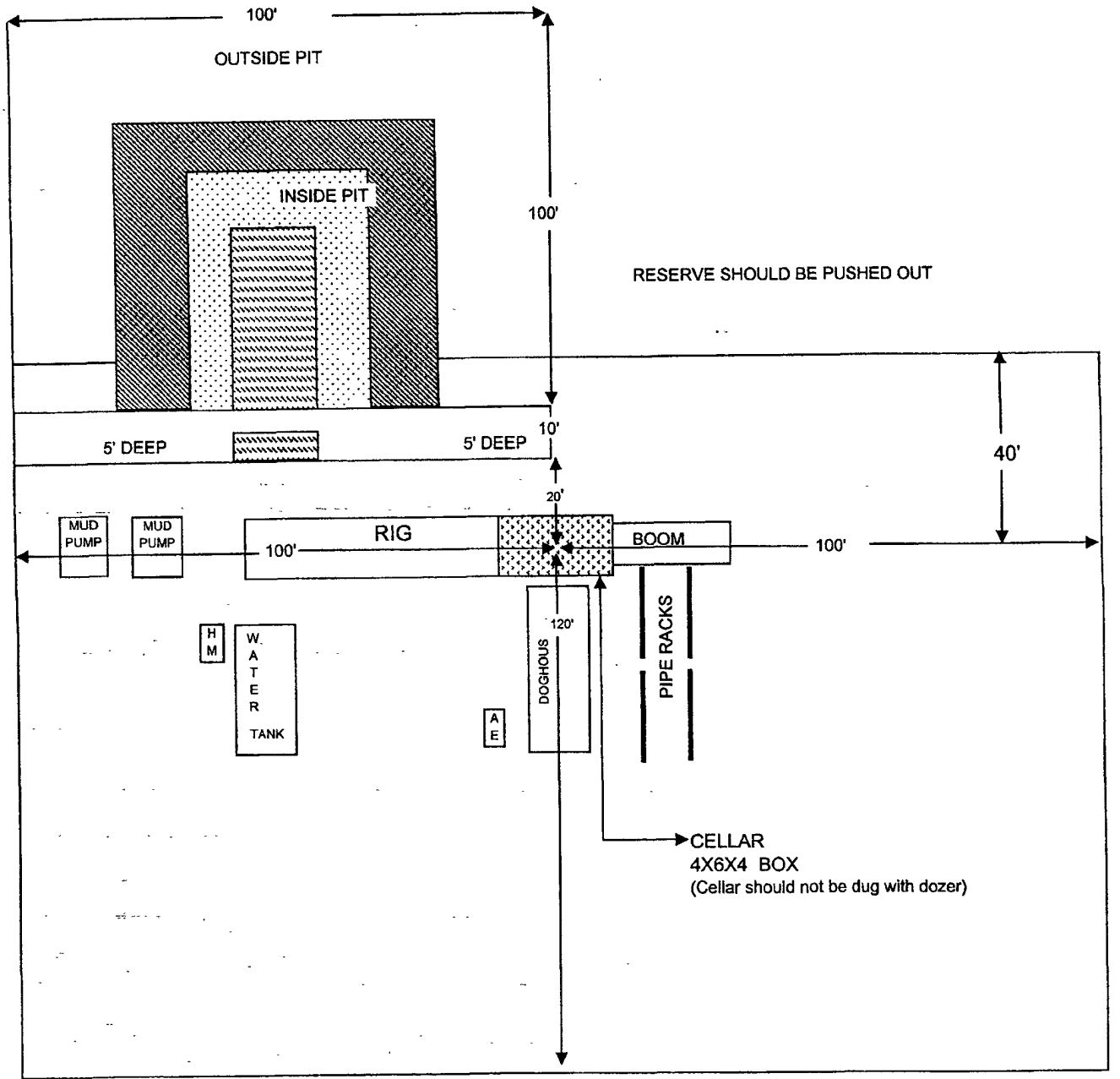
Exhibit G

CapStar Drilling, Inc.

LOCATION SPECIFICATIONS AND RIG LAYOUT

FOR EARTH PITS

Rig #8



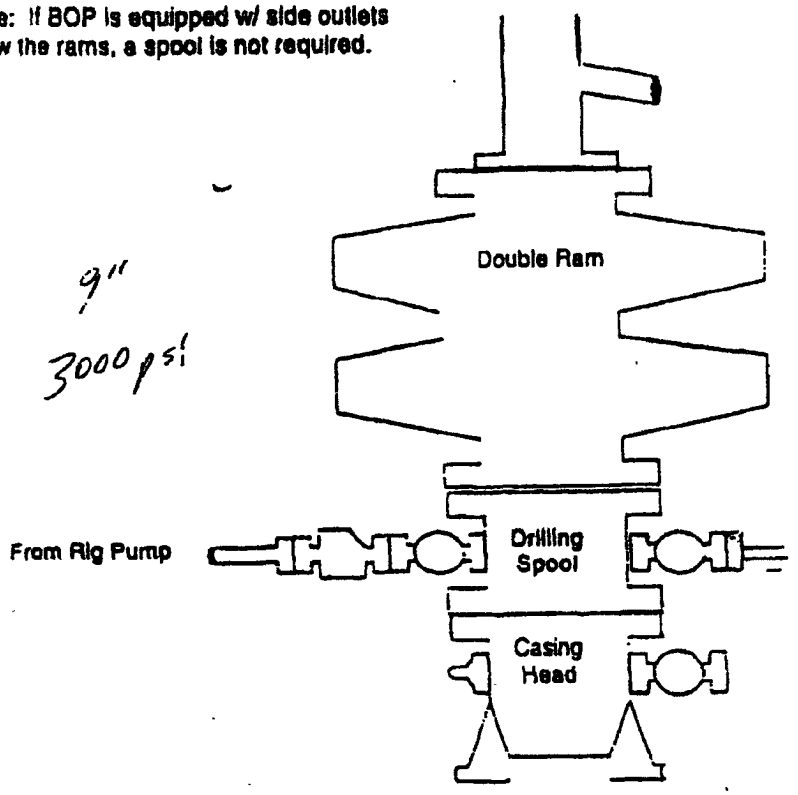
Cellar can be 4X4X4 if using a screw-on wellhead

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

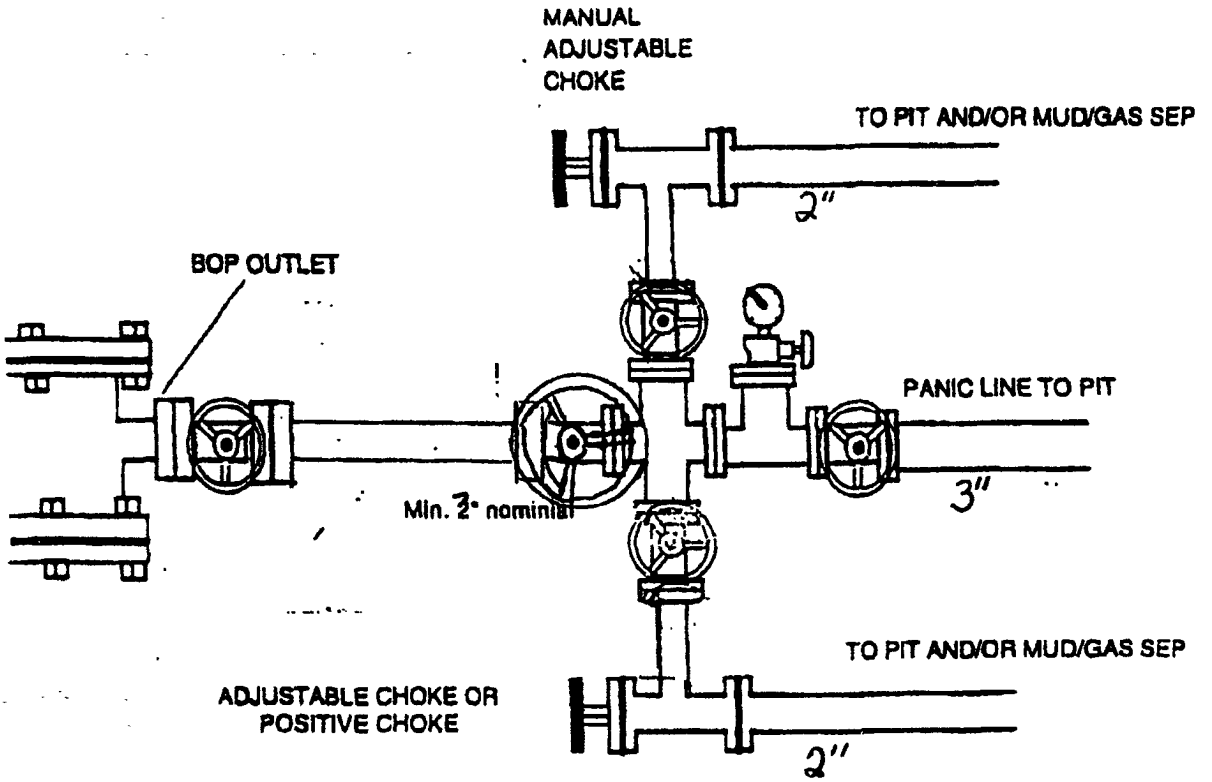


EXHIBIT "B"
Hawk B-1 #61

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H_2S is anticipated.