Form 3160-3
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN (See other instructions on reverse side)

Form approved.

N.M. Oil Cons. Division
811 S. 1st
Artesia, NM 88210-2834

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL ☐ DEEPEN ☒

b. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ Other ____ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
DEVON ENERGY CORPORATION (NEVADA)

3. ADDRESS AND TELEPHONE NO.
20 N. BROADWAY, SUITE 1500, OKC, OK 73102 (405) 552-4511

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface ~~990'~~ 2310' FSL & 1650' FWL
At top proposed prod. zone (SAME)

5. LEASE DESIGNATION AND SERIAL NO.	LC-070678-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	NA
7. UNIT AGREEMENT NAME	NA
8. FARM OR LEASE NAME, WELL NO.	Hawk 8K Federal #3
9. API WELL NO.	30-015-29014
10. FIELD AND POOL, OR WILDCAT	Red Lake (Q-GB-SA); Red Lake Glor-Yeso
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA	Section 8-T18S-R27E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 7 miles southeast of Artesia, NM	12. COUNTY OR PARISH Eddy County	13. STATE New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line if any) 330'	16. NO. OF ACRES IN LEASE 240	17. NO. OF ACRES ASSIGNED TO THIS WELL 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 400'	19. PROPOSED DEPTH 3350'	20. ROTARY OR CABLE TOOLS* Workover Rig
21. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 3414'		22. APPROX. DATE WORK WILL START* JUNE 15, 1999

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8" J-55	24	1044' existing	500 sxs
7 7/8"	5 1/2" J-55	15.5	2199' existing	400 sxs
4 3/4"	4"	10.46	2100'- 3350'	80 sxs

Devon Energy plans to TA San Andres perfs @ 1567'- 1966' by squeezing w/ a polymer. The well will then be deepened to ±3350' to the Yeso Formation. After logging, a 4" liner will be run and cemented from 2100'- 3350'. Plans are to perforate, stimulate, and pump test the Yeso. After approval of our downhole commingling application, the polymer plug across the San Andres perforations will be dissolved by pumping an enzyme breaker and the Yeso and San Andres zones will be downhole commingled.

The road and location were previously archeologically cleared in 1996 when the well was drilled so no new Surface Use Plan is included. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Deepening Program
Current & Proposed wellbore schematics
Exhibit #1 – Blowout Prevention Equipment
Exhibit #2 – Location and Elevation Plat
H_2S Operating Plan

Bond Coverage: Nationwide BLM Bond File No.: CO-1104

DHC

APR 1999
RECEIVED
OCD - ARTESIA

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 E. L. Buttross Jr. TITLE E. L. BUTTROSS, JR. DISTRICT ENGINEER DATE April 9, 1999

*(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 (ORIG. SGD.) DAVID R. GLASS TITLE PETROLEUM ENGINEER DATE APR 15 1999

See Instructions On Reverse Side

EXHIBIT 2

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	51300	Red Lake (Q-GB-SA) ~~Glorieta Yeso~~

Property Code	Property Name	Well Number
	~~Higgins Federal~~ Hawk "8K" Federal	~~2~~ 3

OGRID No.	Operator Name	Elevation
6137	Devon Energy Corporation (Nevada)	3414'

Surface Location

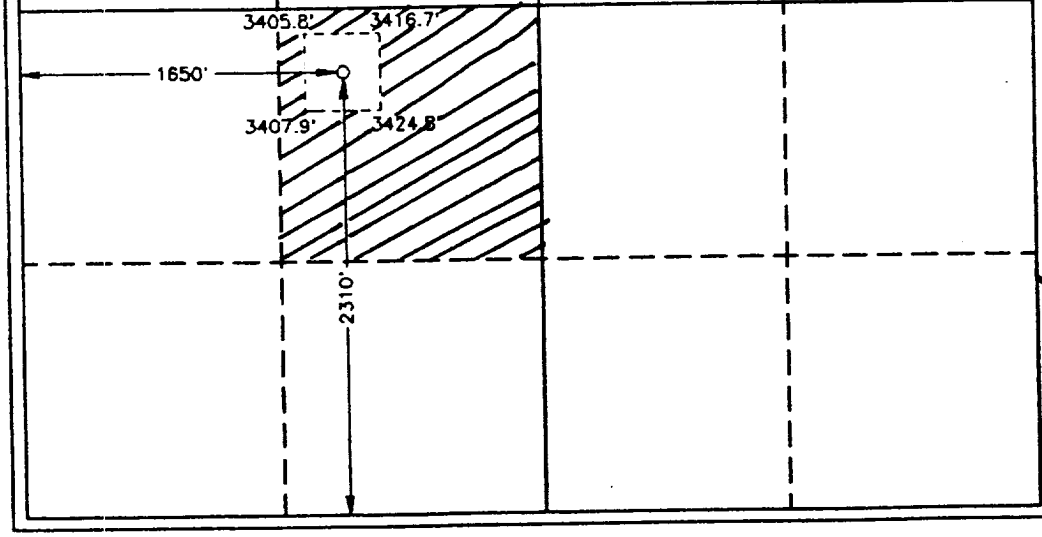
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	18 S	27 E		2310	South	1650	West	Eddy

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

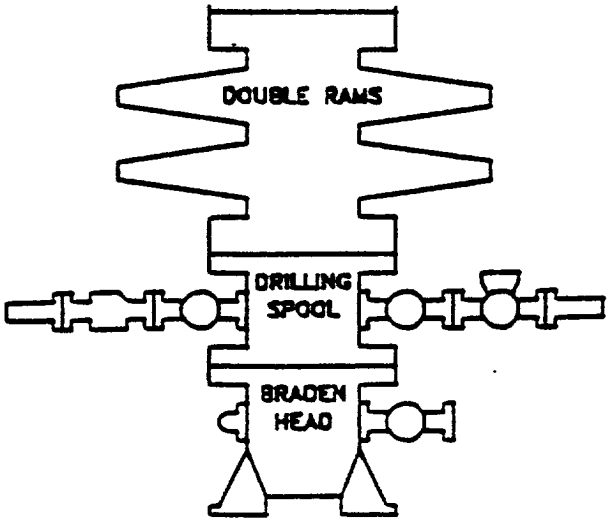
E. L. Buttross Jr.
Signature
E.L. Buttross, Jr.
Printed Name
District Engineer
Title
May 20, 1996
Date

SURVEYOR CERTIFICATION

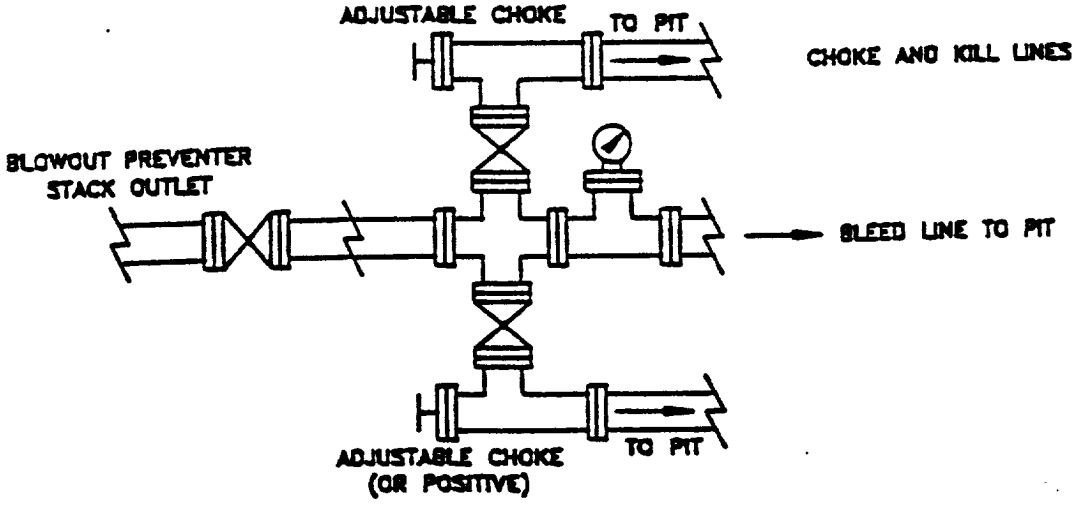
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

March 21, 1996
Date Surveyed
Signature & Seal of Professional Surveyor

W.O. No. 6093F
Certificate No. Gary L. Jones 7977
BASIN SURVEYS



CHOKE MANIFOLD REQUIREMENT (2000 psi WP)



devon

WEST RED LAKE AREA

BLOWOUT PREVENTOR

C:_\PROJECTS\EXPANDED

DEEPENING PROGRAM

Attached to Form 3160-3
Devon Energy Corporation
Hawk 8K Federal #3
990' FSL & 1650' FWL
Section 8-T18S-R27E
Eddy County, New Mexico

1. Geologic Name of Surface Formation:

   Permian

2. Estimated Tops of Important Geologic Markers:

Queen	550'
Grayburg	950'
San Andres	1215'
Glorieta	2650'
Yeso	2700'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

   Water

   There is no known fresh water.

   Oil

San Andres:	1567'-1966' (Existing perfs)
Yeso:	2700'

No other formations are expected to yield oil or gas in measurable volumes. The surface water sands are protected by the 8 5/8" casing at 1044' that was cemented to surface. The San Andres is isolated by the 5-1/2" casing set at 2199' that was cemented to surface.

The Yeso will be isolated by the 4" liner set and cemented from 2100'-3350'.

4. Casing Program:

Hole Size	Interval	Csg OD	Weight, Grade, Type
4-3/4"	2100' - 3350'	4"	10.46# J-55 FL4S Liner

Burst (SF)	Collapse (SF)	Tension (SF)
6300 psi (2.0)	6590 psi (3.51)	153,000# (13.29)

Cementing Program:

4" Liner @ 2100'- 3350': Cemented with 80 sxs Class C + 5% salt + .5% fluid loss additive + 1/4 lb/sx cellophane flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach the liner top.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (2M system) double ram type (2000 psi WP). The unit will be manually operated and will be equipped with blind rams on top and 2-7/8" drill pipe rams on bottom. Depending on availability, a 3000 psi WP BOP may be utilized instead of the 2000 psi WP BOP. The BOP will be installed when the workover rig is rigged up and utilized continuously until total depth is reached. Prior to drilling out the 5-1/2" casing shoe, the BOP's will be tested with the rig pump to 1000 psi.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log.

6. Types and Characteristics of the Proposed Mud System:

Produced water will be used to deepen the well to total depth. The proposed properties of the drilling fluid are as follows:

Depth	Type	Weight (ppg)	Viscosity (1/sec)	Water Loss (cc)
2199' - TD	Salt Water	9.0-9.2	28-32	No Control

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

A. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program:

A. No drillstem tests are planned.

B. The open hole electrical logging program will be:

T. D. to 2199': Dual Lateral-Micro SFL with Gamma Ray, and Caliper

T. D. to 2199': Compensated Neutron-Litho Density with Gamma Ray and Caliper

C. No cores are planned.

9. Abnormal Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 95 degrees and maximum bottom hole pressure is 900 psig. No major loss circulation intervals have been encountered in adjacent wells. An H_2S Drilling Operations Plan is included .

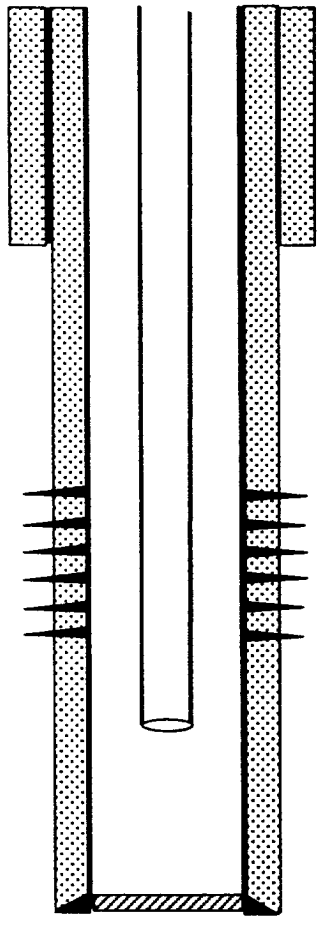
10. Anticipated Starting Date and Duration of Operations:

The anticipated starting date for the deepening is June 15, 1999. The deepening should take approximately 7 days. If the well is deemed productive, completion operations will require an additional 30 days .

DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

WELL NAME: Hawk 8K Federal #3		FIELD: Red Lake	
LOCATION: 990' FSL & 1650' FWL, Sec. 8-18S-27E		COUNTY: Eddy	STATE: NM
ELEVATION: GL = 3414', KB 3423'		SPUD DATE: 8/2/96	COMP DATE: 9/1/96
API#: 30-015-29014	PREPARED BY: T. Rutelonis		DATE: 4/9/99

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1044'	8-5/8"	24#	J-55		12-1/4"
CASING:	0' - 2199'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - 2118'	2-7/8"	6.5#	J-55	8RD EUE	(67 JTS)
TUBING:						



CURRENT PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 1044' w/ 500 sxs cmt. TOC @ surface

SAN ANDRES PERFORATIONS:
1567'- 1966' (27 holes, .40", ALPHA, "A", "B", "C", & "D")

2-7/8" tbg w/ SN @ 2118'

PBTD @ 2156'
5 1/2" 15.5# J-55 Casing Set @ 2199' w/ 400 sxs cmt. TOC @ surf.
TD @ 2199'

DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

WELL NAME: Hawk 8K Federal #3		FIELD: Red Lake	
LOCATION: 990' FSL & 1650' FWL, Sec. 8-18S-27E		COUNTY: Eddy	STATE: NM
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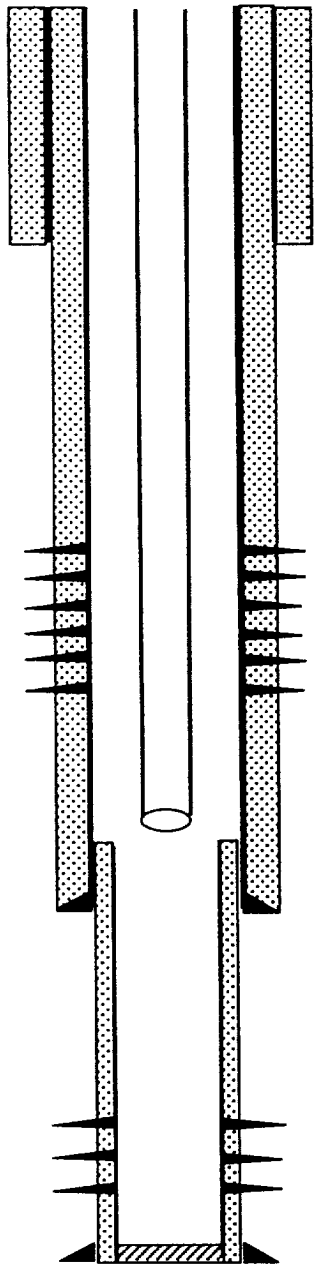
CASING:	0' - 2199'	5 1/2"	15.5#	J-55		7-7/8"
LINER:	2100' - 3350'	4"	10.46#	J-55	FL4S	4-3/4"
TUBING:	0' - 2070'	2-7/8"	6.5#	J-55	8RD EUE	
TUBING:						



☐ CURRENT ▦ PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 1044' w/ 500 sxs cmt. TOC @ surface

SAN ANDRES PERFORATIONS:
1567'- 1966' (27 holes, .40", ALPHA, "A", "B", "C", & "D")
(PERFS SQZ'D W/ POLYMER & TA'D)

2-7/8" tbg w/ SN @ 2070'

TOL @ 2100'
5 1/2" 15.5# J-55 Casing Set @ 2199' w/ 400 sxs cmt. TOC @ surf.

YESO PERFORATIONS:
±2750'- ±3050' (20 HOLES, .38")

PBTD @ 3310'
4" 10.46# J-55 FL4S Liner set @ 2100'- 3350' (TOC @ TOL)

DEVON ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H2S).

2. The proper use and maintenance of the H2S safety equipment and of personal protective equipment to be utilized at the location such as H2S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.

3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H2S bearing formation, H2S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H2S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H2S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

B. H2S Safety Equipment And Systems

All H2S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H2S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

(a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.

(b) A choke manifold with a minimum of one remote choke.

2. H2S Detection And Monitoring Equipment

(a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.

(b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

(a) Four (4) - five minute escape packs located at strategic points around the rig.

(b) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

4. Visual Warning System

Visual warning system will consist of the following:

(a) Two wind direction indicators.

(b) One condition / warning sign which will be posted on the road - providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

5. Mud Program

(a) The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H2S bearing formations.

6. Metallurgy

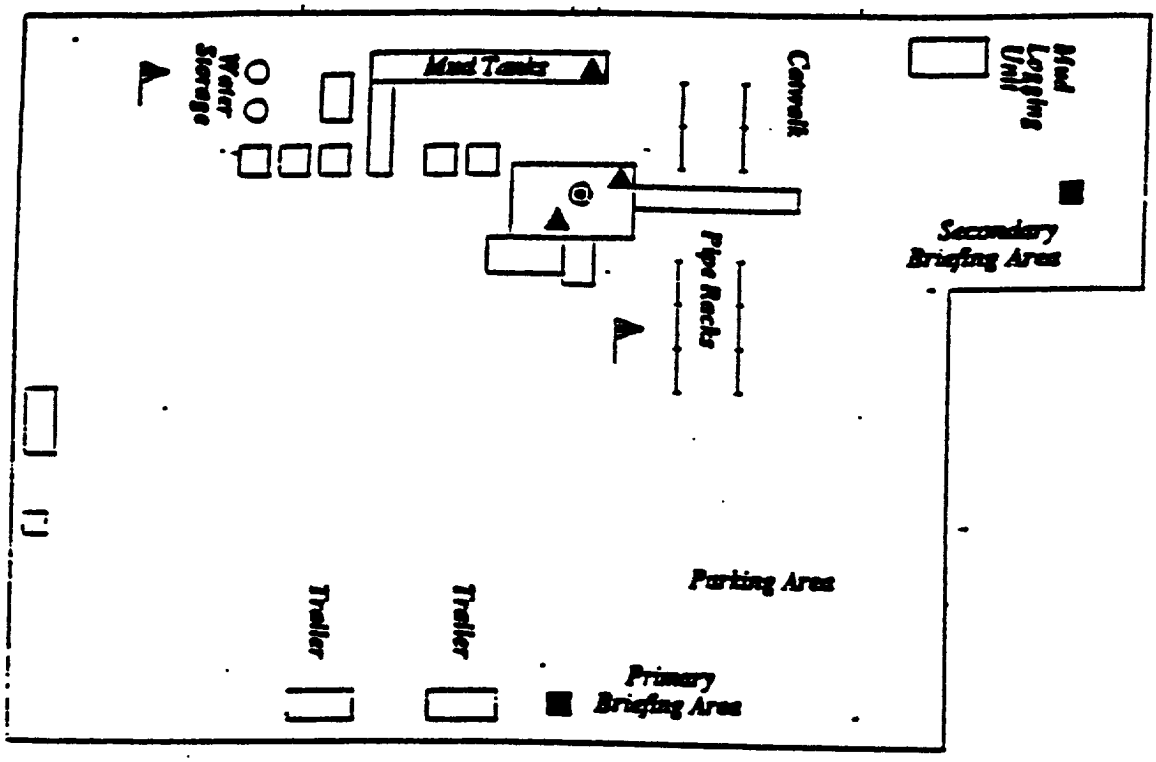
(a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

7. Communication

(a) Two way radio and cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

1. Attached is a diagram representing a typical location layout as well as the location of H2S monitors, briefing areas, and wind direction indicators.



▲ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER

WIND DIRECTION INDICATORS

■ SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT

devon

WEST RED LAKE AREA

H2S PLAN