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

RECEIVED
NOV 19 2008
HOBBS (OCD)

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

# APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| [1] Operator Name and Address | [2] OGRID Number |
|---|---|
| Fasken Oil and Ranch, Ltd.<br>303 W. Wall Str., Suite 1800, Midland, TX 79701 | 151416<br>[3] API Number<br>30- 025-39340 |

| [3] Property Code | [4] Property Name | [6] Well No |
|---|---|---|
| 36547 | Quail State "16" | 2 |

| [9] Proposed Pool 1 | [10] Proposed Pool 2 |
|---|---|
| Laguna Valley; Morrow (Gas) | |

POTASH AREA

## [7] Surface Location

POTASH AREA

| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| N | 16 | 20S | 34E | | 1230' | South | 1980' | West | Lea |

## [8] Proposed 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

## Additional Well Information

| [11] Work Type Code | [12] Well Type Code | [13] Cable/Rotary | [14] Lease Type Code | [15] Ground Level Elevation |
|---|---|---|---|---|
| N | G | R | S | 3636' |
| **[16] Multiple** | **[17] Proposed Depth** | **[18] Formation** | **[19] Contractor** | **[20] Spud Date** |
| N | 13,600' | Morrow | Unknown | 7-1-09 |

## [21] Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|---|---|---|---|---|---|
| 17 1/2" | 13 3/8" | 48 & 54.5# | 1600' | 1050 sx "C" | Surface |
| 12 1/4" | 9 5/8" | 36 & 40 # | 5200' | 400 sx HLC & "C" | Surface |
| | | | DV Tool @ 4000' | 1550 sx HLC & "C" | |
| 8 3/4" | 5 1/2" | 17 & 20 # | 13,600' | 1150 sx Super H | 4800' |
| | | | DV Tool @ 9000' | 1100 sx HLH & "H" | |

[22] Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone
Describe the blowout prevention program, if any Use additional sheets if necessary

Fasken Oil and Ranch, Ltd. proposes to drill and complete the Quail State "16" No. 2 in the Laguna Valley; Morrow (Gas) pool.

Please see attached for procedures, BOP schematics, plats, and H2S contingency plan.

The surface owner is the State of New Mexico.

**Permit Expires 2 Years From Approval Date Unless Drilling Underway**

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief

Signature: Kim Tyson

Printed name: Kim Tyson

Title: Regulatory Analyst

E-mail Address: kimt@forl.com

Date: 11-18-08 Phone: 432-687-1777

OIL CONSERVATION DIVISION

Approved by:

Title: PETROLEUM ENGINEER

Approval Date: FEB 11 2009 Expiration Date:

**CONDITION FOR APPROVAL** -- The Location of this well is in the POTASH area. Please notify the Hobbs OCD office before you start to drill.

RECEIVED
NOV 19 2008
HOBBS OCD

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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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-39340 | 79900 | Laguna Valley; Morrow (Gas) |

| Property Code | Property Name | Well Number |
|---|---|---|
| 36547 | QUAIL "16" STATE | 2 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 151416 | FASKEN OIL AND RANCH, LTD | 3636' |

### Surface Location

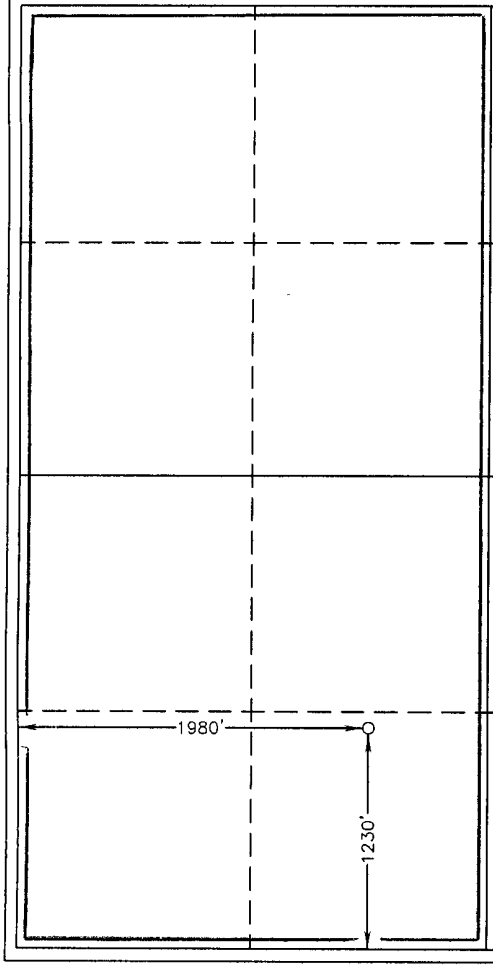
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| N | 16 | 20 S | 34 E | | 1230 | SOUTH | 1980 | WEST | LEA |

### 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. |
|---|---|---|---|
| 320 | | | |

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




SURFACE LOCATION
Lat - N32°34'09.45"
Long - W103°34'02.82"
NMSPCE- N 571687.853
E 779277.079
(NAD-83)

### OPERATOR CERTIFICATION

*I hereby certify that the information contained 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 pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Kim Tyson 11-18-08
Signature Date

Kim Tyson
kimt@forl.com
Printed Name
432-687-1777

### 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.*

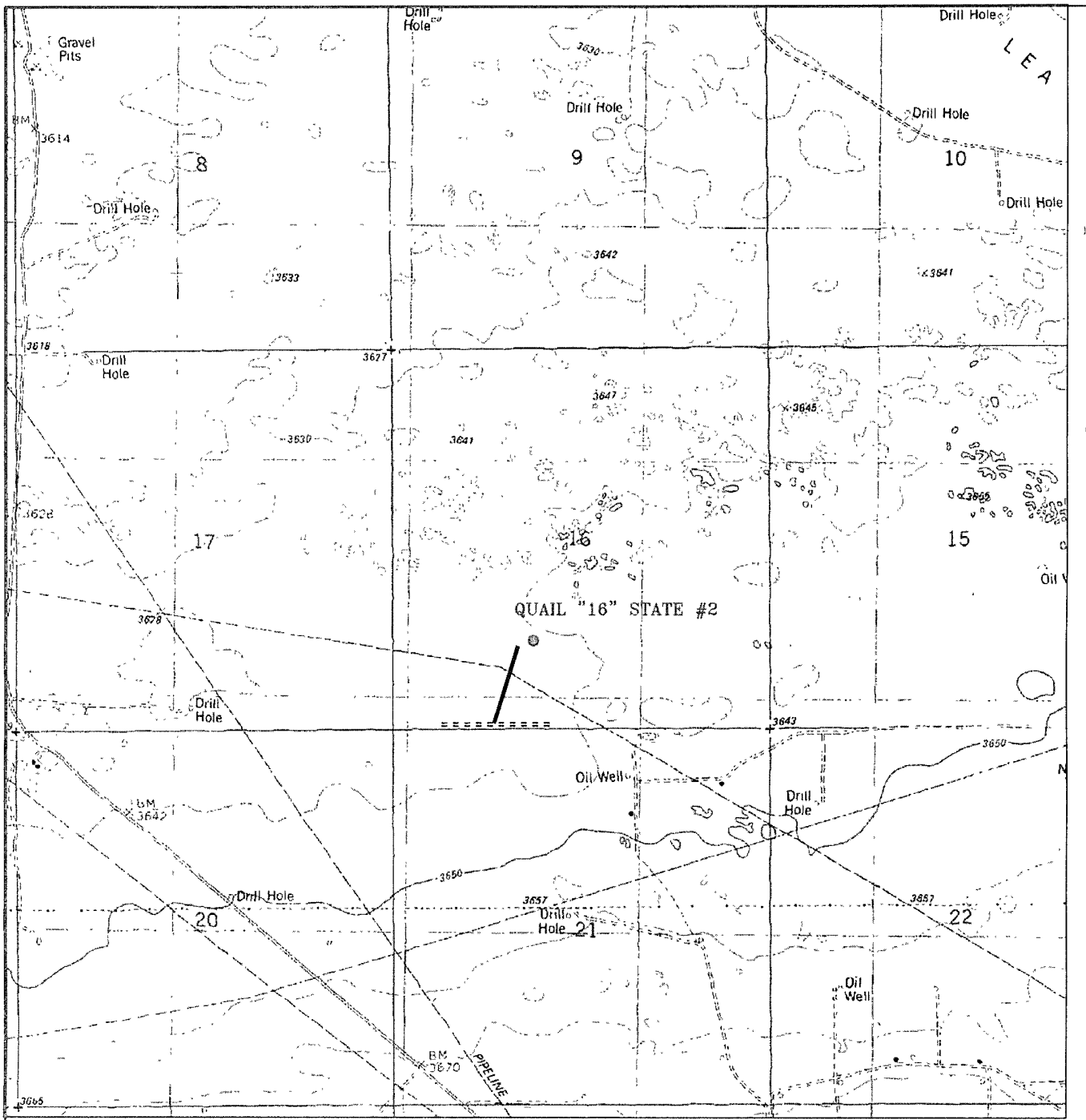
SEPTEMBER 2, 2008
Date Surveyed

Signature & Seal of Professional Surveyor

W.O. [illegible]06

Certificate No. Gary L. Jones 7977

BASIN SURVEYS




QUAIL "16" STATE #2
Located 1230' FSL and 1980' FWL
Section 16, Township 20 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.


basin
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com


| | |
|---|---|
| W.O Number: | JMS 20306 |
| Survey Date: | 09-02-2008 |
| Scale. | 1" = 2000' |
| Date: | 09-03-2008 |

*FASKEN OIL AND RANCH, LTD*

**FASKEN OIL AND RANCH, LTD.**

303 W. WALL AVE.

SUITE 1800

MIDLAND, TEXAS 79701-5116

**CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE**

DRILLING OPERATIONS

CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE

DRILLING OPERATIONS

I. **HYDROGEN SULFIDE PHYSICAL PROPERTIES AND TOXICITY** - Hydrogen sulfide is extremely toxic. The acceptable concentration for eight-hour exposure is 20 ppm, which is .002% by volume. Hydrogen sulfide is heavier than air (specific gravity - 1 192) and is colorless. It forms an explosive mixture with air between 4.3 and 46.0 volume percent. Toxicity data for hydrogen sulfide and various gasses are compared in the table below.

| Common Name | Chemical Formula | Sp. Gravity (Air =1) | Threshold Limit | Hazardous Limit | Lethal Conc. |
|---|---|---|---|---|---|
| Hydrogen Cyanide | HCN | 0.94 | 10 ppm | 150 ppm | 300 ppm |
| Hydrogen Sulfide | $H_2S$ | 1.18 | 10 ppm * 20 ppm ** | 250 ppm/hr | 600 ppm |
| Sulfur Dioxide | $SO_2$ | 2.21 | 5 ppm | -- | 1000 ppm |
| Chlorine | $Cl_2$ | 2.45 | 1 ppm | 4 ppm/hr | 1000 ppm |
| Carbon Monoxide | CO | 0.97 | 50 ppm | 400 ppm/hr | 1000 ppm |
| Carbon Dioxide | $CO_2$ | 1.52 | 5000 ppm | 5% | 10% |
| Methane | $CH_4$ | 0.55 | 9% | Combustabe above 5% in air | --- |

*Threshold Limit - concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects, 10 ppm = 1972 ACGIH concentration (American Conference of Governmental Industrial Hygienist).

**Threshold Limit = 20 ppm - 1966 ANSI acceptable ceiling concentration for eight-hour exposure (based on a 40-hour week) per OSHA Rules and Regulations (Federal Register, Vol. 37, #202, Part II, dated October 18, 1972.

II. **PHYSICAL EFFECTS OF HYDROGEN SULFIDE** - The physiological effects of hydrogen sulfide are summarized in the table below.

| Concentration | | |
|---|---|---|
| Percent Vol. | ppm | Physical Effects |
| 0.001 | 10 | obvious and unpleasant odor. |
| 0.002 | 20 | Safe for 8-hour exposure. |
| 0.01 | 100 | Kills smell in 3 to 15 minutes, may sting eyes and throat. |
| 0.02 | 200 | Kills smell shortly, stings eyes and throat. |
| 0.05 | 500 | Dizziness, breathing ceases in a few minutes, needs prompt artificial resuscitation. |
| 0.07 | 700 | Unconscious quickly, death will result if not rescued promptly. |
| 0.10 | 1000 | Unconscious at once, followed by death within minutes. |

III. **ACCIDENTAL RELEASE OF HYDROGEN SULFIDE** - The possible release of hydrogen sulfide gas could result from leakage at either wellhead, flow lines, separators or drill string at this drilling location.

A. In the event of an accidental release, the tool pusher, supervisor or agent of the operator in the vicinity at the time of the discharge will be in charge of all activities on the ground and shall be responsible for the following.

1. Notify all personnel, Company or outside, that are in the area to evacuate as soon as possible. This includes drilling rig crews, roustabout gangs, supervisory personnel, maintenance personnel, sales representatives, farm or ranch hands, visitors and all others that may be in the vicinity.

2. Notify the County Sheriff's office, and the Department of Public Safety, and request their assistance to provide road blocks and direct traffic away from the drilling location. They should also be asked to assist in the evacuation of residents, if any, in affected area.

3. Alert local Hospital and Fire Department in the event that medical services or ambulance assistance is needed.

4. Call the Operations Manager in the Midland Office and advise him of the nature and extent of the emergency situation

B. Operations Manager or his assistant will notify the appropriate state and federal agencies that the contingency plan has been activated and what level and type of reaction has already been initiated.

C. Fasken's Senior Representative or employee on the scene will be in charge and shall initiate measures necessary to bring the gas flow under control securing whatever additional personnel and equipment are necessary to control the flow in the shortest time thereby reducing potential exposure of the general public to hydrogen sulfide.

IV. **WEATHER CONDITIONS** - During adverse weather conditions such as drizzle, rain, fog, calm winds, and snow, hydrogen sulfide collects in low lying areas. These areas should be avoided, any personnel in such areas should be evacuated, and law enforcement personnel should be requested to keep people and traffic from entering. Should moderate, undirectional winds be blowing hydrogen sulfide from the source of the discharge toward a populated area, residents and other personnel should be evacuated by law enforcement personnel who should then maintain an exclusion perimeter to avoid people from reentering the area until the emergency is over.

V. **TERMINATION OF EMERGENCY AND FOLLOW-UP PROCEDURES** - Fasken's Senior Representative or employee on the scene, with the cooperation of the Senior Law Enforcement Officer in whose jurisdiction the emergency occurred, will declare the emergency terminated when there is no further danger to oilfield personnel or general public. This will occur only after a sufficient number of gas measurements in the vicinity have been made by a qualified technician showing that hydrogen sulfide concentration is below the 20 ppm threshold. In addition, the Operator's Senior Representative or employee will perform the following duties connected with the emergency:

A Notify all cooperating law enforcement agencies and emergency medial services that the emergency has been terminated.

B. Notify all evacuees that they may return safely to their residences or job sites.

C. Make an estimate of damages and/or expenses incurred in the control of the emergency, the evacuation of any persons and the destruction of property, if any, including domestic animals and livestock. He is to make an itemized list of all such damages and/or expenses along with their addresses, and any other specific information pertinent to the situation. He is to deliver this list to the Operations Manager as soon as possible.

D. **UNDER NO CIRCUMSTANCE** are damage estimates, names of affected personnel, if any, or any other information pertaining to the emergency to be given to the press. Public information regarding the emergency will be issued by headquarters office in Midland, Texas.

VI. Copies of the Contingency Plan are available in Fasken's office in Midland, Texas.

VII. This plan is subject to approval of the state and federal agencies and shall be revised as required.

# Fasken Oil and Ranch, Ltd.

## H2S Contingency Plan

### Emergency Phone Numbers

### Quail State "16" No. 2

| | |
|---|---|
| **Fasken Oil and Ranch, Ltd.** | 432 687-1777 |

**Key Personnel**

| | |
|---|---|
| Tommy Taylor, Drilling Manager | 432 556-2228 |
| Jimmy Davis, Operations Manager | 432 557-5668 |
| Deryl Briles, Drilling Foreman | 432 556-4269 |
| Mark Jacobs, Drilling Foreman | 432 634-6318 |
| Jordan Evans, Drilling Engineer | 432 557-6941 |

**Hobbs, Lea County, New Mexico**

| | |
|---|---|
| Ambulance | 911 |
| State Police | 911 or 575 392-5580 |
| Sheriff's Office | 911 or 575 396-3611 |
| Fire Department | 911 or 575 397-9308 |
| Local Emergency Planning Committee | 575 393-2870 |
| New Mexico Oil Conservation Division | 575 393-6161 |

**Carlsbad, Eddy County, New Mexico**

| | |
|---|---|
| Ambulance | 911 |
| State Police | 911 or 575 885-3138 |
| Sheriff's Department | 911 or 575 887-7551 |
| Fire Department | 911 or 575 885-3125 |
| Local Emergency Planning Committee | 575 887-7553 |
| Bureau of Land Management | 575 887-6544 |
| New Mexico Oil Conservation Division (Artesia) | 575 748-1283 |

**Statewide and National Emergency Numbers**

| | |
|---|---|
| New Mexico Department of Homeland Security And Emergency Management | 505 476-9600 |
| New Mexico State Emergency Operations Center (24 Hour Number) | 505 476-9635 |
| National Emergency Response Center | 800 424-8802 |

**Other Numbers for Emergency Response**

| | |
|---|---|
| Boots & Coots IWC | 800 256-9688 or 281 931-8884 |
| Cudd Pressure Control | 432 563-3356 |
| MCH Care Star Flight Service (air ambulance) | 432 640-4000 |
| Aerocare (air ambulance) | 806 725-1111 |

## Recommended Drilling and Completion Procedure

**Fasken Oil and Ranch, Ltd.----------Quail State "16" No. 2---------- Lea (Penn) Field**
**1230' FSL & 1980' FWL Lea County, New Mexico**
**Sec. 16, T 20S, R 34E**

1. Set 20" conductor at 40'. Dig rat hole and mouse hole.

2. Move in rotary tools.

3. Drill 17-1/2" hole to 1600' with spud mud. Run a packed hole drilling assembly

4. Set 13-3/8" casing at 1600'. Cement to surface with estimated 700 sx Class "C" with 4% gel and 2% $CaCl_2$ (s w 13.5 ppg, yield 1.74 $ft^3$/sx) plus 350 sx Class "C" with 2% $CaCl_2$ (s.w. 14.8 ppg, yield 1.32 $ft^3$/sx). Centralize casing at middle of shoe joint and every 4th joint to surface

5 WOC 6 hrs Install 13-5/8" 3000# bradenhead and 3000# annular BOP. Pressure test annular and casing to 750# before drilling out shoe.

6 Drill 12-1/4" hole to 5200' Drill with 10 ppg brine water to 5200'. Control seepage with paper. RU $H_2S$ safety equipment package at 4000'. .

7. Set 9-5/8" casing @ 5200'. Centralize casing at middle of shoe joint, top of 2nd joint, top of 6th joint and top of 10th joint.

8. Cement casing in two stages with DV tool at approximately 4,000' as follows;

   First Stage: 200 sx HLC with 15# salt, 1/8# Poly-E-Flake and 5# gilsonite (s.w.12.6 ppg, yield 2.23 $ft^3$/sx) plus 200 sx Class "C" (s.w. 14.8 ppg, yield 1.32 $ft^3$/sx). Open DV tool and circulate for 6 hrs.

   Second Stage: 1350 sx HLC with 15# salt and 1/8# Poly-E-Flake (s.w. 12 6, yield 2.23 $ft^3$/sx) plus 200 sx Class "C" (s.w. 14.8 ppg, yield 1.32 $ft^3$/sx).

9. Set slips, cut-off casing, install secondary seal unit and NU 13-5/8" 3000# x 11" 5000# intermediate spool. Install hydraulic Super choke. NU 11" 5000# BOP. Hydrotest BOP, choke manifold, and floor safety valves to 5000 psi high and 300 psi low, hydril to 2500 psi high and 300 psi low, and 200' of 9-5/8" casing to 2800 psi. RU mud gas separator complete with flare line and ignitor.

10 Drill 8-3/4" hole to total depth of 13,600' with fresh water. Displace hole with 10# brine water at 10,000' and mud up by 12,100' with XCD and Pac with properties of 10.0 ppg, 36-38 sec. viscosity and 8-10 cc water loss. Increase viscosity as necessary to maintain hole. DST all shows.

11. Run open hole logs; CNL-LDT, DLL-MSFL, and Full Wave Sonic. Side wall coring may be performed in selected intervals as determined by log shows.

- Set 5-1/2" casing at TD (Resin coat and centralize through all prospective pay zones). Cement casing in two stages with DV tool at approximately 9,000' as follows;

  First Stage: 10 bfw, 500 gallons Mud Flush 102, 10 bfw, 1150 sx Super "H" Modified with 0.4% LAP-1, 0.4% CFR-3, 1/83 Poly-E-Flake, 2# salt and 0.2% HR-7 (s w. 13.2 ppg, yield 1.63 $ft^3$/sx). Batch mix slurry Open DV tool and circulate for 6 hrs.

  Second Stage: 900 sx Halliburton Light "H" with 1/8# Poly-E-Flake and 0.4% Halad-9 (s.w. 12.4, yield 2.03 $ft^3$/sx) and 200 sx Class "H" neat (s.w. 15.6 ppg, yield 1.18 $ft^3$/sx). Calculate second stage cement volume for TOC @ 4800'.

12. Set slips, cut-off casing, install secondary seal unit and NU 5000# WP tubinghead and flowtree.

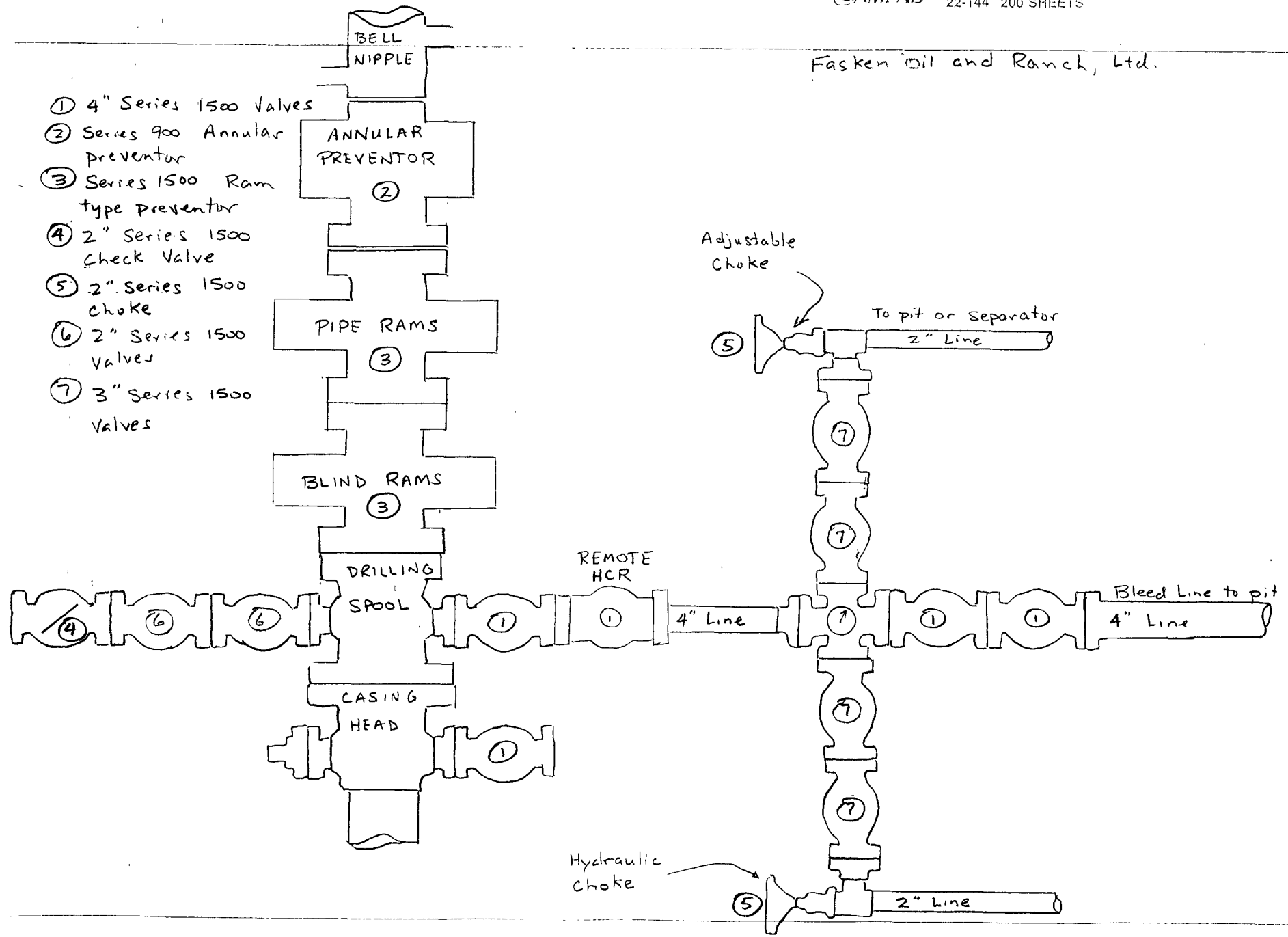
13. Move out rotary tools.

14. Level location and set mast anchors.

15 Complete well as per completion procedure.

JRE/TET
(Quailstate16-2drlgproc.doc)

Fasken Oil and Ranch, Ltd.




1. 4" Series 1500 Valves
2. Series 900 Annular preventor
3. Series 1500 Ram type preventor
4. 2" Series 1500 Check Valve
5. 2" Series 1500 choke
6. 2" Series 1500 Valves
7. 3" Series 1500 Valves