Barry

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

C-04-13

0194

Form 3160-3
(December 1990)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.
NM 3606

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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

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

7. UNIT AGREEMENT NAME
CA NMNM100717

8. FARM OR LEASE NAME, WELL NO.
Lake Shore "10" Federal SC No 5

2. NAME OF OPERATOR
Fasken Oil and Ranch, Ltd.

RECEIVED
FEB 1 0 2004
OCD-ARTESIA

9. API WELL NO.
30-015-33234

3. ADDRESS AND TELEPHONE NO.
303 W. Wall, Suite 1800, Midland, TX 79701 (432) 687-1777

10. FIELD AND POOL, OR WILDCAT
Avalon Morrow

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1500' FNL, 1980' FEL ~~Non Standard Location~~ (JE)
At proposed prod. zone

~~SUBJECT TO LIKE~~
~~APPROVAL BY STATE~~

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10, T21S, R26E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
1.5 miles north of Carlsbad, NM

12. COUNTY OR PARISH
Eddy

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
320.00

17. NO. OF ACRES ASSIGNED TO THIS WELL
320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH
11,200'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3190' GR

22. APPROX. DATE WORK WILL START*
January 15, 2004

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8", H-40	48#	400'	440 sx C WITNESS
12 1/4"	9 5/8", J-55	36#	~~2100'~~ 1900'	700 sx C WITNESS
8 3/4"	5 1/2", N-80	17#	11200'	2550 sx C/H

Fasken Oil and Ranch, Ltd. proposes to drill to a depth sufficient to test the Morrow formation. If productive, 5-1/2" casing will be set at TD and cemented back to approximately 1500'. If non-commercial, the well will be plugged and abandoned in accordance with Federal regulations.

CARLSBAD CONTROLLED WATER BASIN

Drilling Program:
Surface Use and Operating Plan
Exhibit No. 1 - Area Maps
Exhibit No. 2 - One-Mile Radius Map
Exhibit No. 3 - Hydrogen Sulfide Drilling Operations Plan
Exhibit No. 4 - Well Site Layout
Exhibit No. 5 - Blowout Preventer Equipment

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 Regulatory Affairs Coordinator DATE 12/02/03

(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/ Joe G. Lara TITLE ACTING FIELD MANAGER DATE 9 FEB 2004

*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

APPROVAL FOR 1 YEAR

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

Form C-102
Revised March 17, 1999

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
	70920	Avalon Morrow

Property Code	Property Name	Well Number
	LAKESHORE "10" FEDERAL	5

OGRID No.	Operator Name	Elevation
151416	FASKEN OIL & RANCH, LTD.	3190'

Surface Location

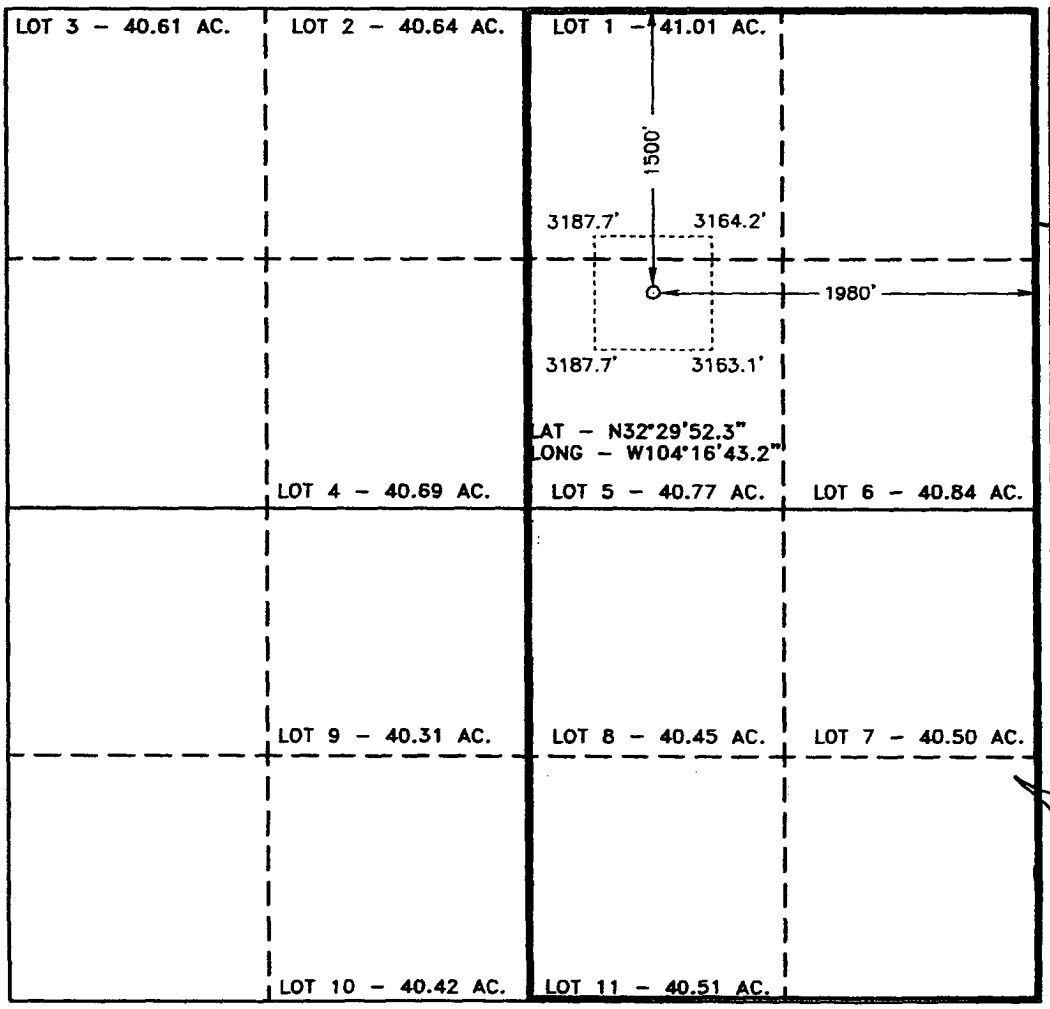
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 5	10	21 S	26 E		1500	NORTH	1980	EAST	EDDY

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.
320			CA-NMNM100717

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.

Signature

Jimmy D. Carlile
Printed Name

Regulatory Affairs Coor.
Title

11/24/03
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.

NOVEMBER 6, 2003
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 3768

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SURFACE USE PLAN
Fasken Oil and Ranch, Ltd.
Lake Shore "10" Federal SC No. 5
1500' FNL & 1980' FEL
Sec. 10, T21S, R26E
Eddy County, New Mexico

1. EXISTING ROADS - Area map, Exhibit #1, is a reproduction of the U.S.G.S., Lake McMillian, South, N.M. Quadrangle 7.5 minute series. Existing roads are shown on the exhibit. 1152' of new road construction will be required. All existing roads shall be maintained in a condition equal to that which existed prior to start of construction.

   A. Exhibit #1 shows the proposed development well site as staked.

   B. From Carlsbad, New Mexico, travel Northwest on U.S. Highway 285 for approximately 4 miles. Turn North through cattlegaurd, turn east for 0.3 mile to "Y", take left fork, go North 0.7 mile, East for 0.3 miles, North 0.3 mile to proposed least road, 1152' Northeast to location.

2. PLANNED ACCESS ROADS – 1152' of new access road will be required.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS.

   A. Water wells - None known.

   B. Disposal wells - None known.

   C. Drilling wells - None known.

   D. Producing wells

Fasken Oil and Ranch, Ltd.	El Paso Federal No. 2
Yates Petroleum Corp.	Lakeshore Federal No. 1-XH
Yates Petroleum Corp.	South Avalon Federal No. 1-AQY
Devon Energy	Avalon State No. 1-C
Fasken Oil and Ranch, Ltd.	Avalon "10" Federal No. 23
Fasken Oil and Ranch, Ltd.	Avalon "10" Federal No. 43
Fasken Oil and Ranch, Ltd.	Avalon "10" Federal No. 22
Fasken Oil and Ranch, Ltd.	Avalon "10" Federal No. 42
Fasken Oil and Ranch, Ltd.	Lake Shore "10" S C Federal No. 2
Fasken Oil and Ranch, Ltd.	Lake Shore "10" S C Federal No. 3
Fasken Oil and Ranch, Ltd.	Lake Shore "10" S C Federal No. 4

   E. Abandoned wells - As shown on Exhibit #2.

Inexco Oil Co.	State "L" No. 1

4. If, upon completion, the well is a producer Fasken Oil and Ranch, Ltd. will furnish maps or plats showing "On Well Pad Facilities" and "Off Well Pad Facilities" (if needed) on a Sundry Notice before construction of these facilities starts.

5. LOCATION AND TYPE OF WATER SUPPLY

   Water will be purchased locally from a private source and trucked over the access roads.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site excavations or from a local source. These materials will be transported over the access roads as shown on Exhibit #1.

7. METHOD FOR HANDLING WASTE DISPOSAL

A. 1. Drill cuttings will be disposed of in the reserve pit.

2. Trash, waste paper, and garbage will be contained in a trash trailer and disposed of in an approved public landfill.

3. All mud materials including salts will be picked up by the mud supplier and transported back to their warehouse facilities.

4. Sewage from trailer houses will drain into hole with a minimum depth of 10'. A "Porta John" will be provided for the rig crews. This will be properly maintained and removed after drilling operations are completed.

5. Chemicals remaining after completion of the well will be stored in the manufacturer containers and picked up by the supplier.

B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time; they will be transported by tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during the testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

A. Exhibit #3 is the H_2S Drilling Operations Plan.

B. Exhibit #4a and #4b (Scale 1" = 50') shows the proposed well site layout.

C. This exhibit indicates the proposed location of reserve pit, trash trailer and living facilities.

D. Mud pits in the active circulation system will be steel pits.

E. The reserve pit will be lined with a polyethylene liner. The pit liner will be a minimum of 2' over the reserve pit walls where the liner will be anchored down.

F. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion operations. The fourth side will be fenced after drilling has been completed. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location pad and surface facilities. After the area has been shaped and contoured, top soil from the spoil pile (if any) will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recontoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas that are not required for production facilities.

11. OTHER INFORMATION

A. The topography is of hilly terrain with vegetation of sagebrush and native grasses. The soils are silty and very shallow.

B. The surface is controlled by the Bureau of Reclamation.

C. An archeological study has been conducted and is attached herewith.

D. There are no buildings of any kind in the area.

12. OPERATOR'S REPRESENTATIVE - Field representative for contact regarding compliance with the Surface Use Plan is:

Before, during & after Construction:

Tommy E. Taylor
303 W. Wall Ave., Suite 1900
Midland, Texas 79701-5116
(915) 687-1777

13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exists; that the statements made in this 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 Fasken Oil and Ranch, Ltd. and its contractors/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.

NAME: Tommy E. Taylor
DATE: 11/21/03
TITLE: Drilling and Production Engineer
TET
(LakeShore10SCFed5apd)

APPLICATION FOR PERMIT TO DRILL
FASKEN OIL AND RANCH, LTD.
LAKE SHORE "10" FEDERAL SC NO. 5
1500' FNL & 1980' FEL
SEC. 10, T21S, R26E
EDDY COUNTY, NM

In conjunction with Form 3160-3, Application for Permit to Drill, Fasken Oil and Ranch, Ltd. submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. The geologic surface formation is of Permian age.

2. Estimate tops of geologic markers are as follows:

Delaware	2150'
Bone Spring	4260'
Wolfcamp	8300'
Cisco	9240'
Strawn	9650'
Atoka	9925'
Morrow	10,550'
Mississippi	10,950'

3. The estimated depths at which water, oil or gas formation are expected to be encountered:

Delaware	2200'	Gas and oil
Wolfcamp	8300'	Gas and oil
Cisco	9240'	Gas
Strawn	9650'	Gas
Atoka	9925'	Gas
Morrow	10,550'	Gas

Groundwater to be protected by 13-3/8" surface casing with cement circulated to the surface. Potentially productive horizons to be protected by 5-1/2" production casing with cement top at approximately 1500'.

4. Proposed Casing Program:

String	Footage	Size	Weight	Grade	Thread
Surface	400'	13-3/8"	48.00#	H-40	ST&C
Intermediate	2,100'	9-5/8"	36.00#	J-55	ST&C
Production	11,200'	5-1/2"	17.00#	N-80	LT&C
Tubing	11,100'	2-3/8"	4.70#	N-80	EUE 8rd

5. Proposed Cementing Program:

Cement 13-3/8" casing with 400 sx Class "C" cement with 2% CaCl2 (s.w. 14.8 ppg, yield 1.32 ft^3/sx).

Cement 9-5/8" casing with 500 sx Class "C" with 4% gel and 2% $CaCl_2$, s.w. 13.51 ppg, yield 1.74 ft^3/sx, plus 200 sx Class "C" with 2% $CaCl_2$; s.w. 14.8 ppg, yield 1.32 ft^3/sx.

Cement 5-1/2" casing in two stages as follows;

First Stage: 10 bfw + 500 gallons Mud Clean II + 10 bfw and 850 sx Super "C" Modified (15 #/sx Poz A and 11 #/sx CSE) 0.4% CD-32 and 0.8% FL-50 (s.w. 13.1 ppg, yield 1.60 ft^3/sx). Batch mix slurry. Open DV tool and circulate 6 hours.

Second stage: 1200 sx BJ lite "C" with 6% gel, 5% Salt and 0.4% FL-62 (s.w. 12.56 ppg, yield 2.01 ft^3/sx) plus 400 sx Super "C" Modified with 1% Salt, 0.4% FL-62, (s.w. 12.5 ppg, yield 1.93 ft^3/sx) plus 100 sx Class "H" neat (s.w. 15.6 ppg, yield 1.18 ft^3/sx). Calculate second stage cement volume for TOC at 1500'.

6. Pressure Control Equipment: BOP's to be pressure test with the rig pump prior to drilling out the intermediate. BOP stack and choke manifold to by hydrotested before drilling into the Upper Penn section at 7500'. See Exhibit #5 for BOP diagram. Request variance to use 13-5/8" 3000# annular preventor only to drill intermediate hole.

7. Mud Program:

Depth	Type	Weight	Viscosity	Waterloss
0-400'	Fresh Water	8.5	40	N.C.
400'-2100'	Fresh Water	8.5	28	N.C.
2100'-7500'	Fresh Water	8.5	28	N.C.
7500'-9200'	Cut Brine	9.5	28	N.C.
9600'–11,200'	Gel-Pac/Brine	10.0	40	10 cc

1. Auxiliary Equipment: Upper Kelly Cock, Full Opening Stabbing Valve, hydraulic choke.

2. Testing Logging and Coring Programs:

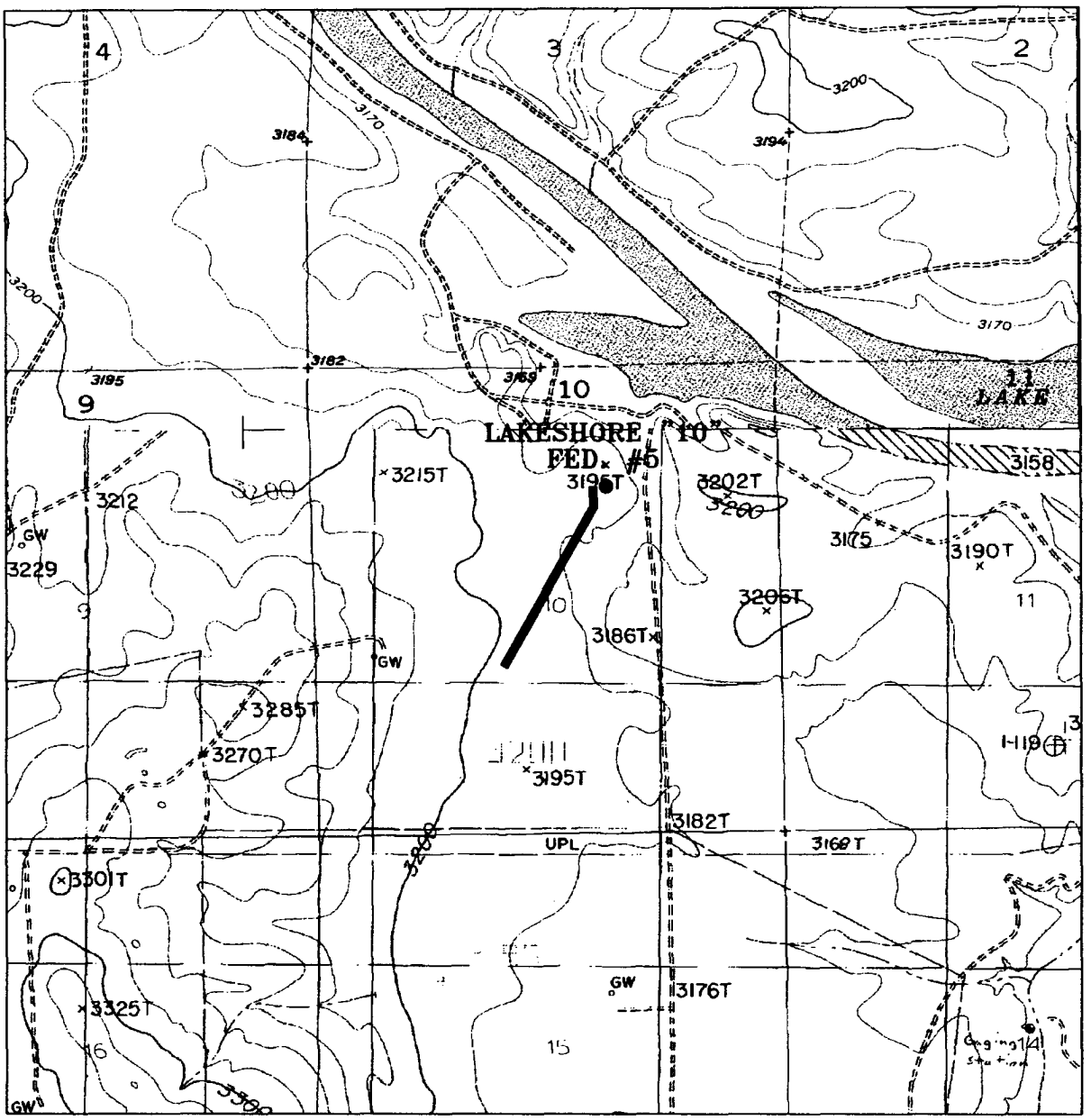
Logging: 2-man Mudlogging unit from 2100' to T.D.

Electric Logs: Platform Express with CNL-LDT, DLL-MSFL, GR and Caliper.

Coring: Rotary Sidewall possible in Delaware interval.

1. Abnormal Pressure, Temperatures or Other Hazards: Lost circulation is anticipated in the surface hole. Maximum bottomhole pressure is estimated to be 5300 psig.

2. Anticipated Starting Date: February 1, 2004.



PROP. PIPELINE TO THE LAKESHORE "10" FEDERAL #5
1400' FNL & 1980' FEL
Section 10, Township 21 South, Range 26 East,
N.M.P.M., Eddy County, New Mexico.

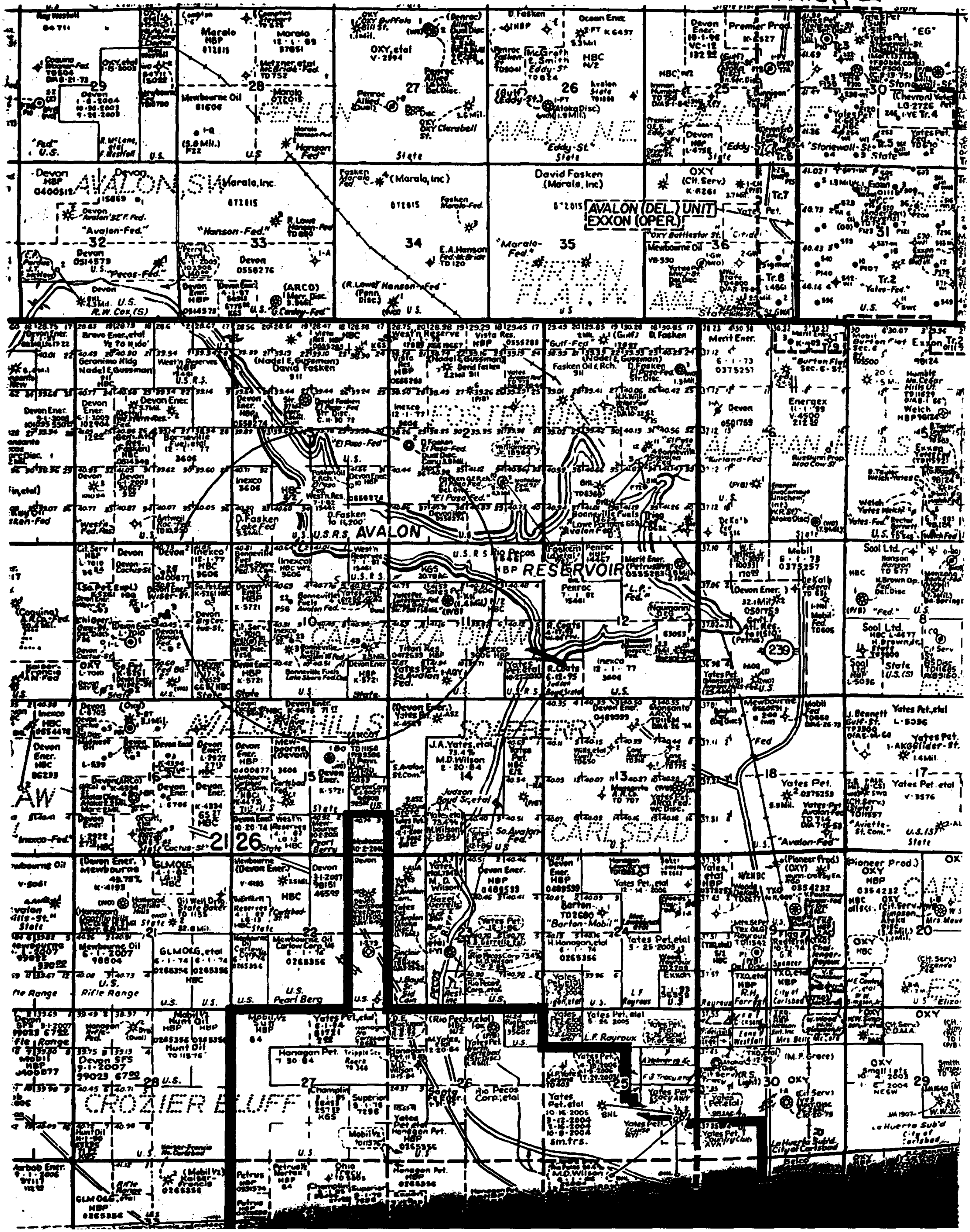
Exhibit 1

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	3766BB - KJG CD#6
Survey Date:	11-06-2003
Scale:	1" = 2000'
Date:	11-11-2003

FASKEN OIL & RANCH, LTD.

Exhibit 2


AVALON N.E.
AVALON, S.
AVALON (DEL.) UNIT
EXXON (OPER.)
ARTN FLAT N.
AVALON
RESERVOIR
CARLSBAD
CROZIER BLUFF
Rio Pecos
Devon
Marolo, Inc
David Fasken
Yates Pet.
Mewbourne Oil
OXY
Hanagan Pet.
239

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EXHIBIT #3
FASKEN OIL AND RANCH, LTD.
LAKE SHORE "10" FEDERAL SC NO. 5
1500' FNL & 1980' FEL
SEC. 10, T21S, R26E
EDDY COUNTY, NM

I. Hydrogen sulfide Training.

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

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

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques of first aid and rescue procedures.

In addition the supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H2S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan. This plan shall be available at the will site. All personnel will be required to carry documentation that they have received the proper training.

II. H2S Safety Equipment and Systems.

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetration the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

A. Flare line with flare igniter.

B. Choke manifold with 1 remote hydraulic choke installed.

C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

D. Auxiliary equipment to include: Annular Preventor.

2. Protective equipment for essential personnel:

A. 5-minute escape units located in the dog house and 30-minute air units at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 3 - portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

B. 1 - portable SO2 monitor positioned near flare line during H2S flaring operations.

4. Visual warning systems:

A. Wind direction indicators as shown on well site diagram.

B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be a readable distance from the immediate location.

5. Mud program:

The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight safe drilling practices and the use of H2S scavengers when necessary will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventors, drilling spools kill lines, choke manifold and lines valves shall be suitable for H2S service.

B. All elastomers used for packing and seals shall be H2S trimmed.

7. Communications:

A. Radio communications will be available in company vehicles and rig dog house.

8. Well testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H2S will be conducted during daylight hours.

SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**

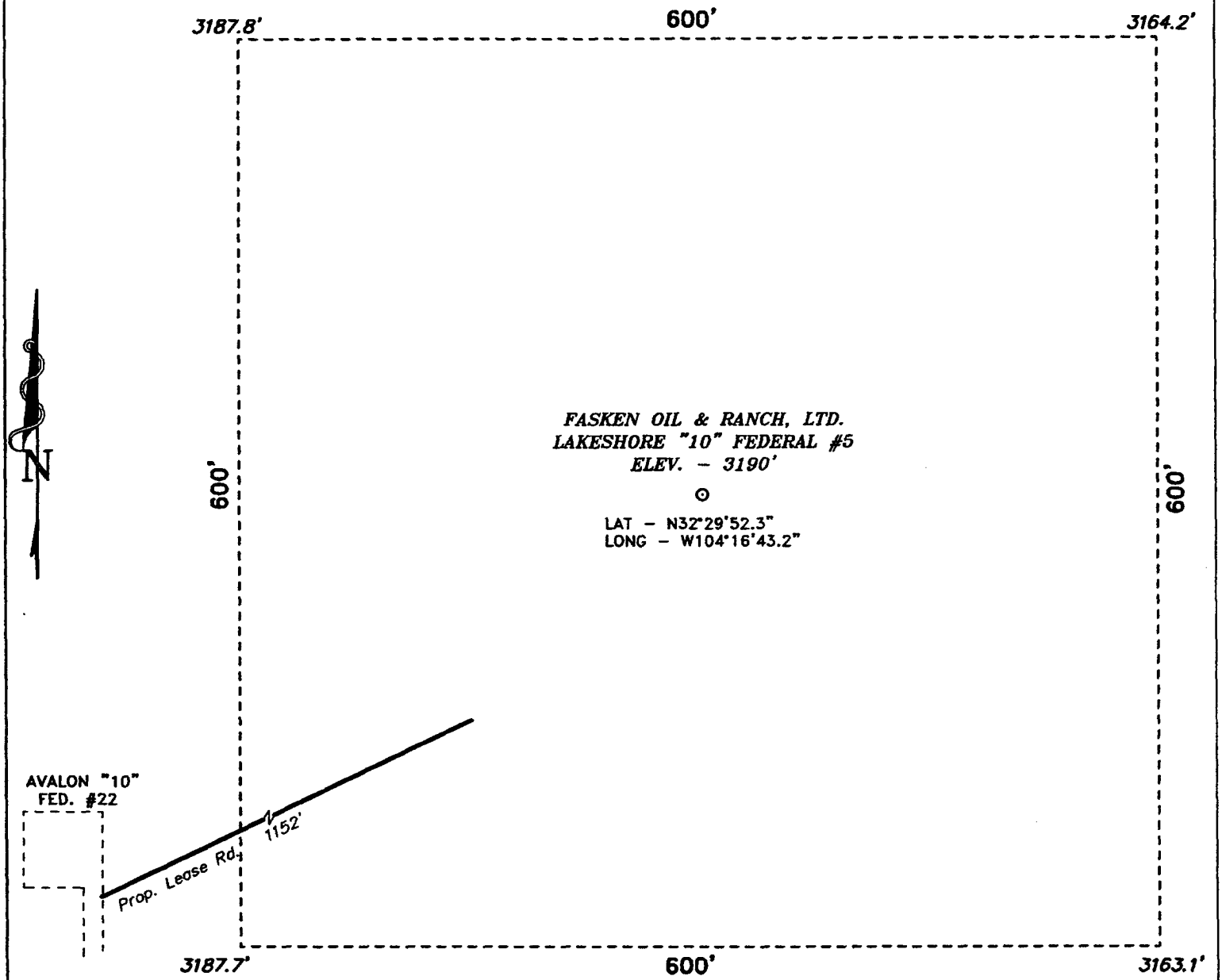


Exhibit 4A

100 0 100 200 FEET

SCALE: 1" = 100'

DIRECTIONS TO LOCATION:

FROM MILE MARKER 40 ON STATE HWY 285, GO NORTH 0.7 MILE TO A LEASE ROAD; THENCE EAST FOR 0.3 MILE TO A "Y" AND TAKE LEFT FORK; THENCE NORTH FOR 0.7 MILE; THENCE EAST FOR 0.3 MILE; THENCE NORTH FOR 0.3 MILE TO PROPOSED LEAE ROAD.

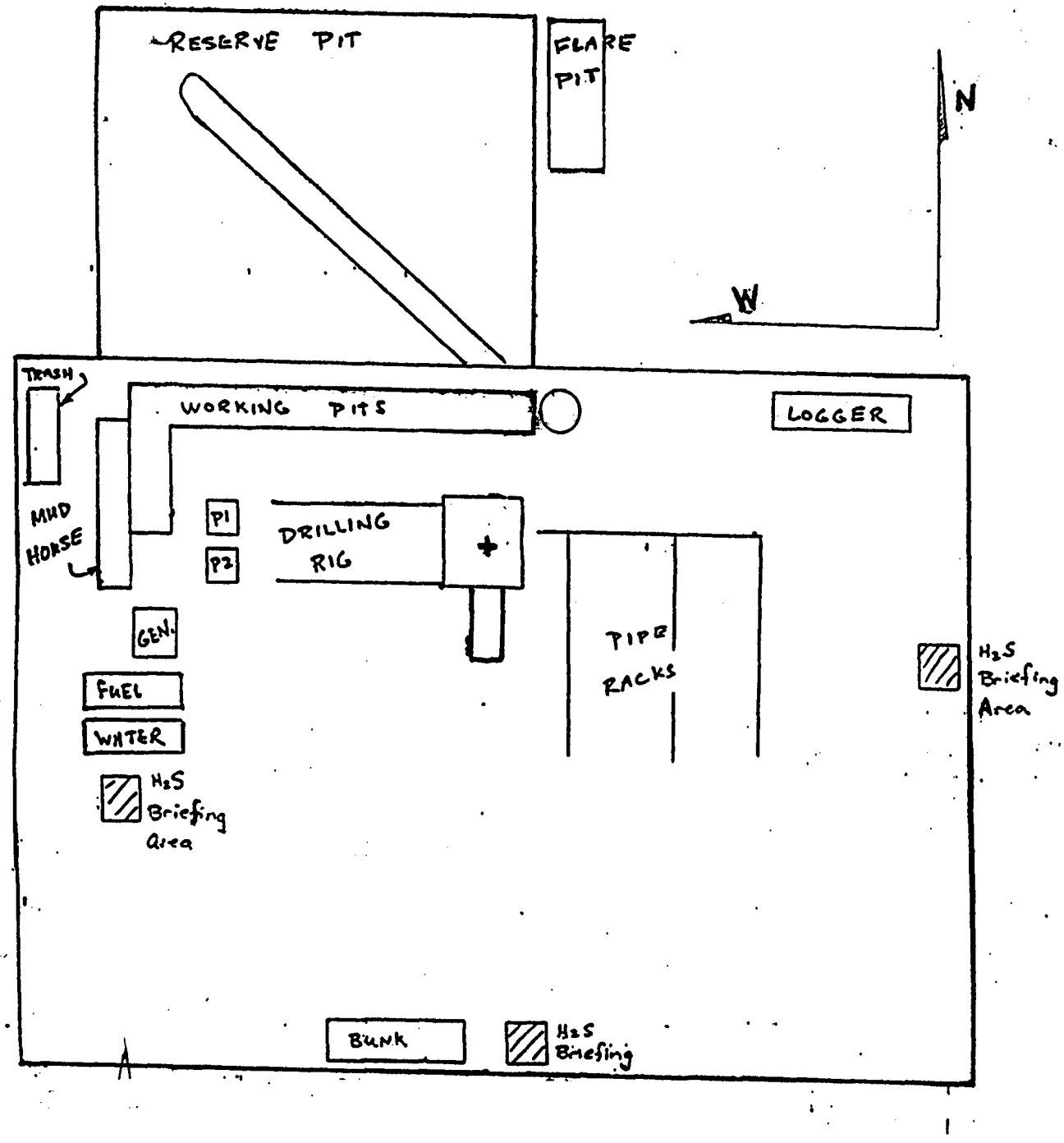
Fasken Oil & Ranch Ltd.

REF: LAKESHORE "10" FED. No. 5 / Well Pad Topo

THE LAKESHORE "10" FED. No. 5 LOCATED 1500' FROM THE NORTH LINE AND 1980' FROM THE EAST LINE OF SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 3766	Drawn By: K. GOAD		
DATE: 11-11-2003	Disk: KJG CD#6 - 3766A.DWG	Survey Date: 11-06-2003	Sheet 1 of 1 Sheets



FASKEN OIL & RANCH, LTD.

Exhibit #4B

Scale: 1 inch = 50 feet

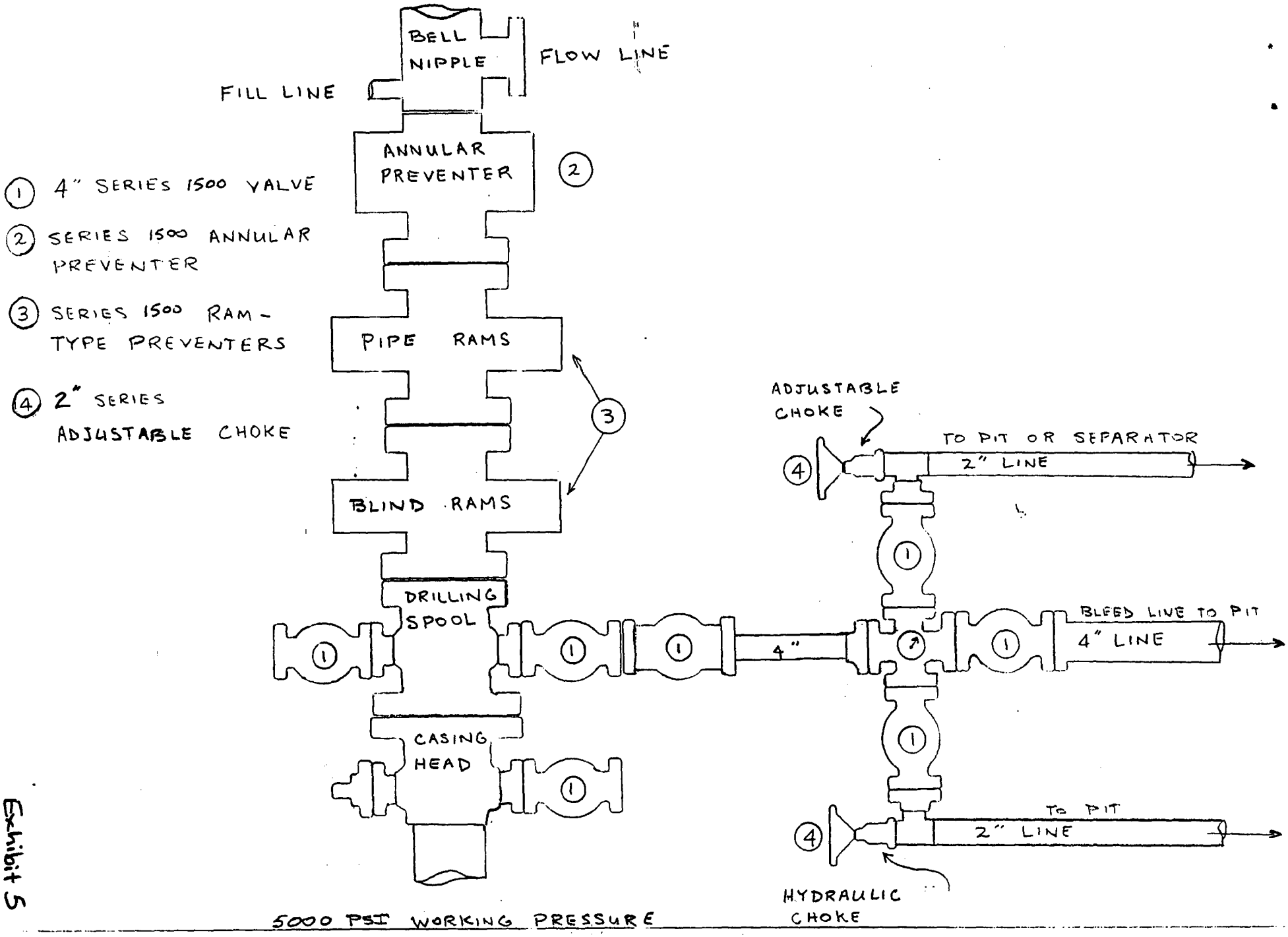

BELL NIPPLE
FLOW LINE
FILL LINE
ANNULAR PREVENTER
2
1 4" SERIES 1500 VALVE
2 SERIES 1500 ANNULAR PREVENTER
3 SERIES 1500 RAM-TYPE PREVENTERS
4 2" SERIES ADJUSTABLE CHOKE
PIPE RAMS
3
BLIND RAMS
DRILLING SPOOL
CASING HEAD
ADJUSTABLE CHOKE
TO PIT OR SEPARATOR
2" LINE
4
1
4"
BLEED LINE TO PIT
4" LINE
To PIT
2" LINE
HYDRAULIC CHOKE
5000 PSI WORKING PRESSURE

Exhibit 5