

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

Form C-101  
May 27, 2004

Submit to appropriate District Office

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

FEB - 6 2008

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Fasken Oil and Ranch, Ltd 303 West Wall, Suite 1800 Midland, Texas 79701		<sup>2</sup> OGRID Number 151416
<sup>3</sup> Property Code 36938	<sup>23</sup> Property Name Harris "2"	<sup>5</sup> API Number 30-025-38723
<sup>9</sup> Proposed Pool 1 Broncho; Wolf camp		<sup>10</sup> Proposed Pool 2

## 7 Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
7	2	13 S	38E		660	South	595	East	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

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 3804'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 9800'	<sup>18</sup> Formation Wolf camp	<sup>19</sup> Contractor Unknown	<sup>20</sup> Spud Date 2/15/08
Depth to Groundwater 65'		Distance from nearest fresh water well 1/4 mile		Distance from nearest surface water greater than 1 mile
Pit Liner Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 24000 bbls		Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air		
Closed-Loop System <input type="checkbox"/>				

## 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	400	525	surface
12 1/4	8 5/8	32	4500	1550	surface
7 7/8	5 1/2	17	9700	900	4000
			DV tool @		
			7000		

<sup>22</sup> 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 the Harris "2" No. 1 to test the Wolf camp formation. Please see the attached BOP specs, plat, drilling procedures and H2S Contingency Plan for further information.

Fasken has reached agreement with the private surface owner on location and damages.

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

This application also requires a non-standard proration unit as the governmental quarter/ quarter section is only 28.01 acres.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCB-approved plan ☐.

Signature

Printed name: Jimmy Carme

Title, Regulatory Affairs Coord.

E-mail Address: jummyc@forl.com

Date: 2/5/08

Phone: 432 687-1777

## OIL CONSERVATION DIVISION

Approved by

*Chris Williams*

Title: **OC DISTRICT SUPERVISOR/GENERAL MANAGER**

Approval Date

**FEB 08 2008**

Expiration Date

Conditions of Approval Attached ☐

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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 12, 2005

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-38723</b>	Pool Code <b>7600</b>	Pool Name <b>Bronco:Wolfcamp</b>
Property Code <b>36438</b>	Property Name <b>HARRIS "2"</b>	Well Number <b>1</b>
OGRID No. <b>151416</b>	Operator Name <b>FASKEN OIL AND RANCH, LTD</b>	Elevation <b>3804'</b>

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 7	2	13 S	38 E		660	SOUTH	595	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 <b>28.01</b>	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

LOT 4	LOT 3	LOT 2	LOT 1
			LOT 5
			LOT 6
		Lot - N33°12'54.81" Long - W103°03'43.9" NMSPCE- N 808204.2 E 930100.1 (NAD-83)	LOT 7 28.01 AC. 

**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.

*Jimmy D. Carlile* 2/5/08  
Signature Date

**Jimmy D. Carlile**  
Printed Name

*JimmyC@forl.com*  
Email

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

FEBRUARY 4, 2008  
Date Surveyed

*Gary L. Jones*  
Signature of Surveyor

**GARY L. JONES**  
Professional Surveyor

**7977**  
Surveyor's License No.

**9929**  
Certificate No.

**GARY L. JONES 7977**  
Certificate No. Gary L. Jones

**BASIN SURVEYS**

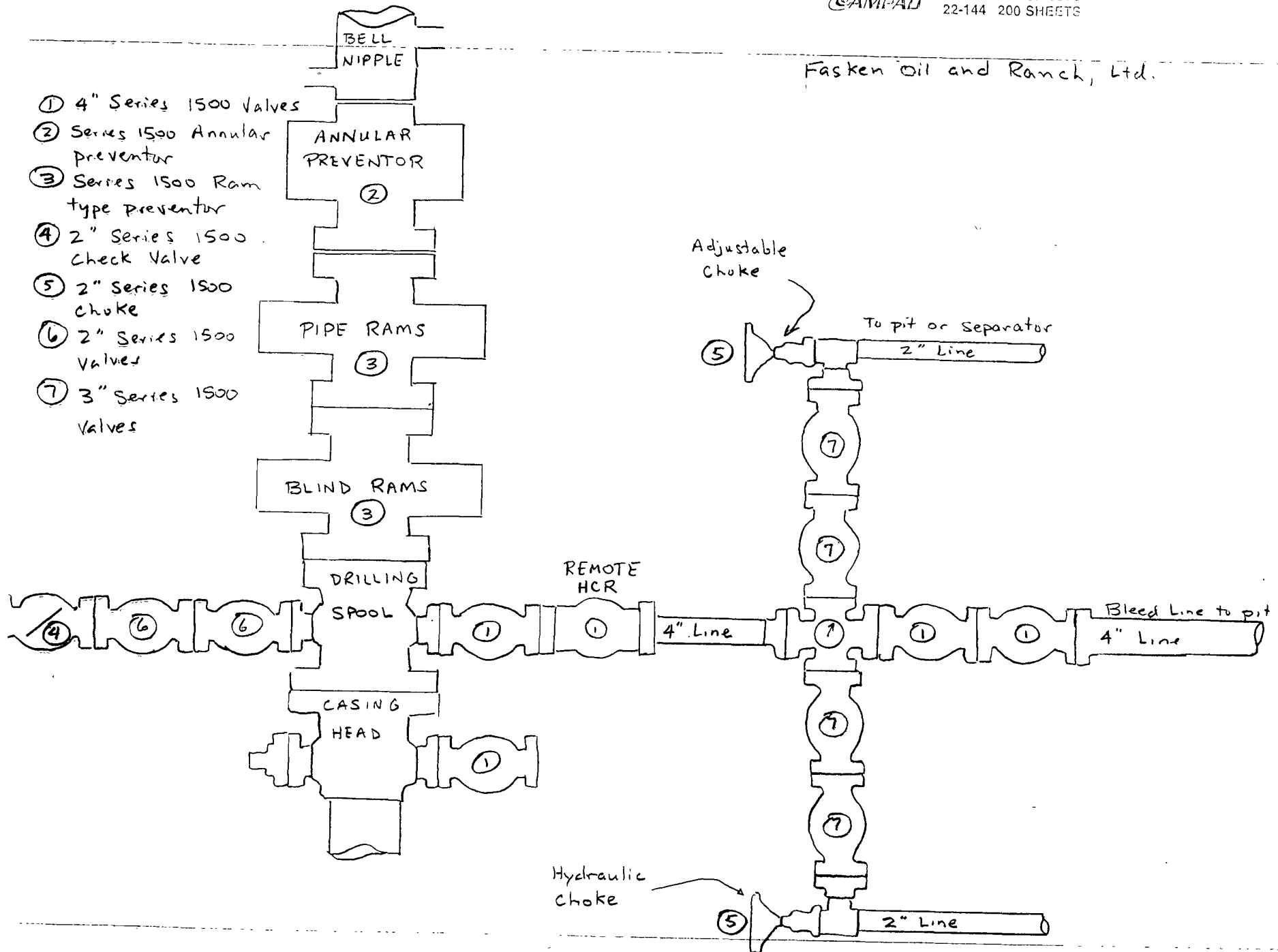
## Recommended Drilling and Completion Procedure

Fasken Oil and Ranch, Ltd.-----Harris "2" No. 1----- Bronco (Wolfcamp) Field  
660' FSL and 595' FEL  
Sec. 2, T13S, R38E  
Lea County, New Mexico

1. Set 20" conductor at 40'. Dig rat hole and mouse hole.
2. Move in rotary tools.
3. Drill 17-1/2" hole to 400' with spud mud.
4. Set 13-3/8" casing at 400'. Cement to surface with estimated 525 sx Class "C" with 2% CaCl<sub>2</sub> and 1/8# Poly-E-Flake (s.w. 14.8 ppg, yield 1.32 ft<sup>3</sup>/sx). Centralize casing at middle of shoe joint and every 4<sup>th</sup> joint to surface.
5. WOC 12 hrs. Install 13-5/8" 3000# bradenhead and BOP stack. Pressure test BOP and casing to 750# before drilling out shoe.
6. Drill 12-1/4" hole to 4500'. Drill with fresh water to 2000' and 10 ppg brine water from 2000' to 4500'. Control seepage with paper. Add 75-100 bbls of oil to mud at 1400' and increase viscosity with gel and starch at 4500' to maintain hole. RU H<sub>2</sub>S safety equipment package at 3000'. Run fluid caliper at 4000'.
7. Set 8-5/8" casing @ 4500'. Centralize casing at middle of shoe joint, top of 2<sup>nd</sup> joint, top of 6<sup>th</sup> joint and top of 10<sup>th</sup> joint.
8. Cement casing with 1300 sx Halliburton Lite "C" with 6# salt and 1/4# Poly-E-Flake (s.w. 12.6 ppg, yield 2.0 ft<sup>3</sup>/sx) plus 250 sx Class "C" with 1% CaCl<sub>2</sub> (s.w. 14.8 ppg, yield 1.32 ft<sup>3</sup>/sx).
9. Set slips, cut-off casing, install secondary seal unit and NU 13-5/8" 3000# x 11" 3000# intermediate spool. Install hydraulic Super choke. NU BOP and hydrotest BOP, choke manifold, and floor safety valves to 3000 psi, hydril to 1500 psi, and 200' of 8-5/8" casing to 2300 psi.
10. RU Mud logging unit at 4500'. RU flow Sensor and pit volume totalizer PVT equipment.
11. Drill 7-7/8" hole to total depth of 9,700' with fresh water. Mud up at 9000' with fresh water polymer mud having properties of 8.5-9.2 ppg, 36-38 sec viscosity, 10 cc water loss. Increase viscosity as necessary to maintain hole. DST all shows.
12. Run open hole logs, CNL-LDT, DLL-MSFL, Caliper and Full Wave Sonic
13. 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 7,000' as follows;  
  
    First Stage: 10 bfw, 500 gallons Mud Flush, 10 bfw, 200 sx Halliburton Light "C" with 6% gel (s.w. 12.6 ppg, yield 2.00 ft<sup>3</sup>/sx) plus 300 sx Class "H" with (s.w. 14.32 ppg, yield 1.32 ft<sup>3</sup>/sx).  
  
    Second Stage: 300 sx Halliburton Light "C" with 6% gel (s.w. 12.6 ppg, yield 2.00 ft<sup>3</sup>/sx) plus 100 sx Class "C" with (s.w. 14.32 ppg, yield 1.32 ft<sup>3</sup>/sx).
14. Set slips, cut-off casing, install secondary seal unit and NU 11" x 7-1/16" 3000. psi WP tubinghead and flowtree.
15. Move out rotary tools.
16. Level location and set mast anchors.
17. Complete well as per completion procedure.

JRE/TET  
(Harris2-1drlgproc.doc)

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

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

<u>Percent Vol</u>	<u>Concentration ppm</u>	<u>Physical Effects</u>
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, unidirectional 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.