District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised March 17, 1999

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☒ 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. 303 W. Wall Ave., Suite 1800 Midland, TX 79701-5116	151416
	[3] API Number 30-015-32854

[3] Property Code	[5] Property Name	[6] Well No.
	Howell State Com	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
I	32	20S	25E		1810	south	660	east	Eddy

[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

[9] Proposed Pool 1	[10] Proposed Pool 2
Cemetery Morrow	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	S	3633'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	9900'	Morrow	Not available	7/10/03

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½"	13 3/8"	48#	400'	400 sx C	Surface
12 ¼"	9 5/8"	36#	3000'	800 sx C	Surface
8 ¾"	4 ½"	11.6#	9850'	1100 sx Super C	6000'

[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.

See attached procedure, casing program and BOP schematic.

Cement to cover all oil, gas and water bearing zones.

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

Signature: Jimmy D. Carlile

Printed name: Jimmy D. Carlile

Title: Regulatory Affairs Coordinator

Date: June 24, 2003 Phone: (915) 687-1777

OIL CONSERVATION DIVISION

Approved by: Gene Wm. Gum

Title: District Supervisor

Approval Date: JUL 02 2003 Expiration Date: JUL 02 2004

Conditions of Approval:

Attached ☐

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

RECEIVED
JUN 19 2003

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

FASKEN OIL AND RANCH, LTD.

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
	74640	Cemetery Morrow

Property Code	Property Name	Well Number
	HOWELL STATE COM	2

OGRID No.	Operator Name	Elevation
151416	FASKEN OIL & RANCH, LTD.	3633'

Surface Location

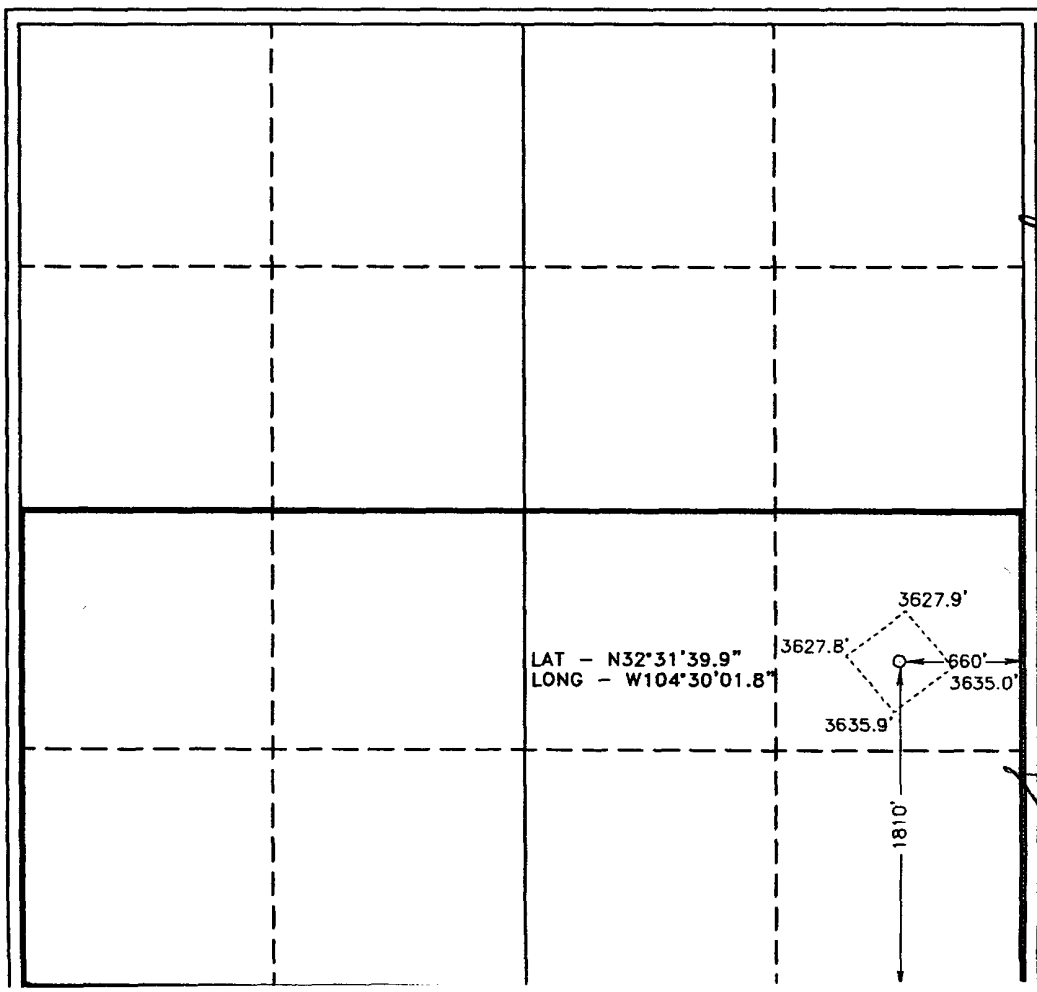
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	32	20 S	25 E		1810	SOUTH	660	EAST	EDDY

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			

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

June 24, 2003

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.

APRIL 09, 2003

Date Surveyed

Signature & Seal of Professional Surveyor

W.O. No. 3201A

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

Recommended Procedure

Howell State Com. No. 2 ----------Cemetary-Morrow
1810' FSL and 660' FEL Eddy County, N.M.
Sec. 32, T-20-S, R-25-E
Eddy County, NM

1. Drilling contractor to set 20" conductor if necessary. MIRU rotary tools.

2. Drill 17-1/2" hole to 400' with spud mud. Set and cement 13-3/8" casing with 400 sx Class "C" cement with 2% $CaCl_2$ (s.w. 14.8 ppg, yield 1.32 ft^3/sx). WOC 18 hrs. NU 13-5/8" 3000# annuluar preventor.

3. Drill 12-1/4" hole to 3000' with fresh water. Control seepage with paper. Dry drill if complete loss of returns is experienced.

4. Set and cement 9-5/8" casing at 3000' with estimated 600 sx Class "C" with 4% gel and 2% $CaCl_2$, (s.w. 13.50 ppg, yield 1.74 ft^3/sx) plus 200 sx Class "C" with 2% $CaCl_2$ (s.w. 14.8 ppg, yield 1.34 ft^3/sx). Note: If lost circulation has occurred prior to running casing, add 200 sx Thixset cement for the lead slurry. Thixset cement blend: 200 sx Class "H" with 10% A-10B, 1% $CaCl_2$, 10#/sx Gilsonite, and ¼#/sx Cello Flake (s.w. 14.6 ppg, yield 1.52 ft^3/sx).

5. Install 11" x 5000 psi intermediate spool. NU 11" 5000 psi B.O.P.'s, hydril and choke manifold. WOC 18 hours. Set up DST test line complete with test tank. RU mud gas separator with flare ignitor. Install H_2S monitor equipment, escape packs and briefing stations.

6. Pressure test BOP stack to 1500 psi with rig pump.

7. Upon first bit trip or before 6500', hydrostatically test 200' of 9-5/8" casing to 2800 psig, casing spool, BOP's, and choke manifold to 3000 psig, and hydril to 1500 psig. Install PVT equipment

8. Drill 8-3/4" hole to total depth of 9850' using fresh water to 6000' and 9.0 ppg cut brine water from 6000' to TD. Mud up at 8700' with gel and PAC mud system and maintain 38-40 sec. viscosity, 9.0-9.5 ppg and 10 cc water loss to total depth.

9. DST all shows.

10. Log well with DLL-MSFL and CNL-LDT using Schlumberger Platform Express.

11. Set and cement 4-1/2" production casing (resin coated and centralized through pay zones) with 10 bfw + 500 gallons Mud Clean II + 10 bfw and 1100 sx Super C Modified (15#/sx Poz A and 11 #/sx CSE), 1% salt, 1.1% FL-25 (s.w. 14.2 ppg, yield 1.35 cuft/sx). Calculate cement volume for TOC at 6000'. Displace bottom plug with 5% KCl water containing 15 gallons packer fluid.

12. Set slips, nipple down BOP's and run temperature survey to locate cement top.

13. Install 11"-5000 psi x 7-1/16"-5000 psi tubinghead and flow tree.

14. Rig down and move out rotary tools.

15. Level location, set mast anchors, move in and rig up completion unit.

16. RIW with packer, T.O.S.S.D. with "F" profile nipple and 2-3/8" tubing. Set packer, install flow tree, swab down tubing and perforate pay interval.

17. Flow test well , evaluate, and stimulate if necessary.

Comment:

18. RDPU. Clean and level location.

19. Run C.A.O.F.P. and pressure build up.

20. Connect surface equipment.

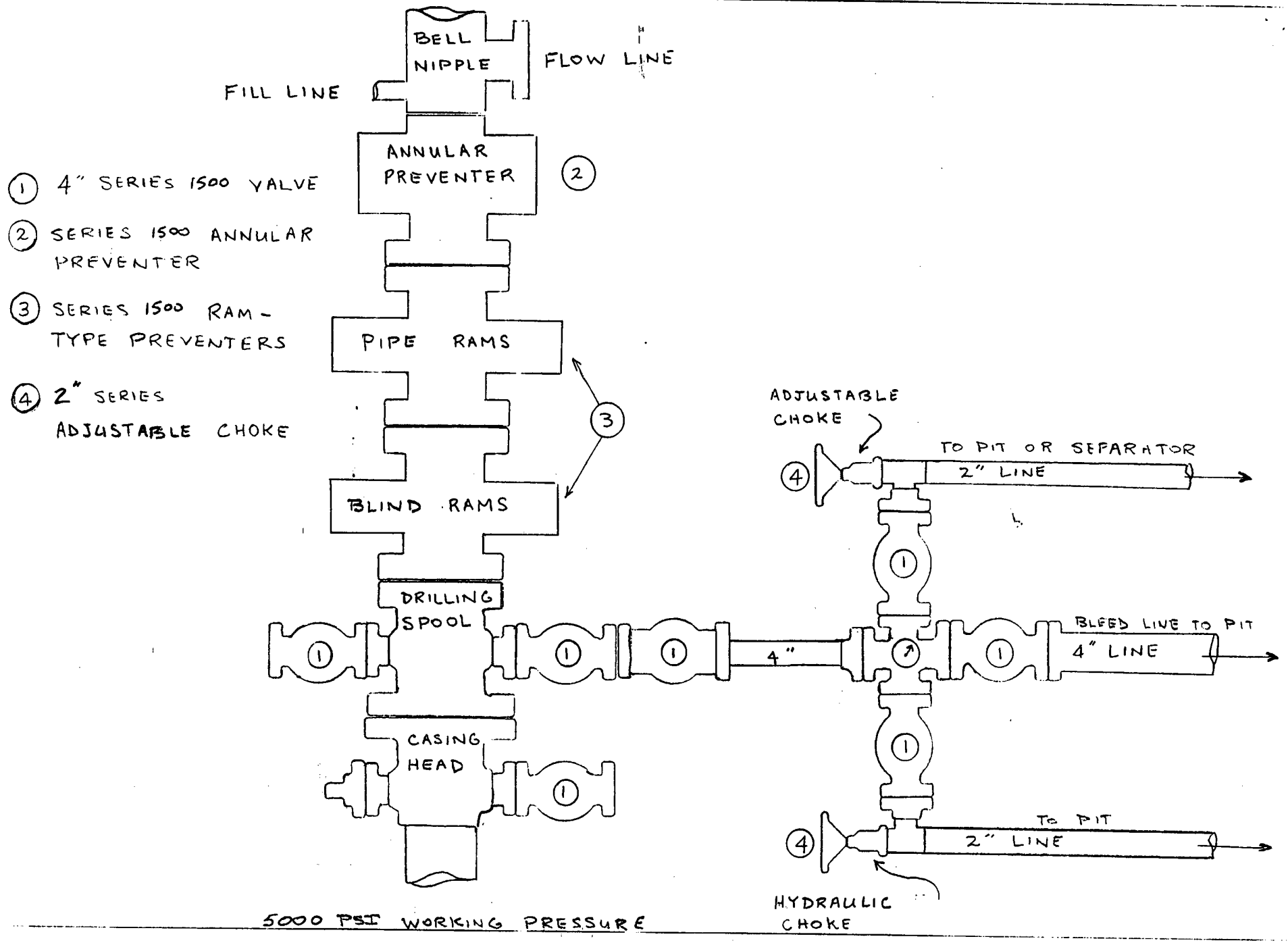
TET
(HowellStateCom2drlgprc)

Recommended Casing Program
A.F.E. No. 685

Fasken Oil and Ranch, Ltd.----------Howell State Com. No. 2----------Cemetary-Morrow Field
Eddy County, NM

String	Footage	Size	Weight	Grade	Thread
Surface	400'	13-3/8"	48.00#	H-40	ST&C
Intermediate	3000'	9-5/8"	36.00#	K-55	ST&C
Production	9850'	4-1/2"	11.60#	N-80	LT&C
Tubing	9700'	2-3/8"	4.70#	N-80	EUE 8rd

TET
(HowellStateCom2csg)



HYDROGEN SULFIDE DRILLING OPERATIONS PLAN
FASKEN OIL AND RANCH, LTD.
HOWELL STATE COM. NO. 2
1810' FSL & 660' FEL
SEC. 32, T20S, R25E
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 penetration of 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.

ACCIDENTAL RELEASE OF HYDROGEN SULFIDE - The possible release of hydrogen sulfide gas could result from leakage at either wellhead, flowlines, 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 Eddy County Sheriff's office at (505) 887-7551, and the New Mexico State Police at (505) 748-9718 and request their assistance to provide road blocks on White Pine road and direct traffic away from the drilling location. <u>They should also be asked to assist in the evacuation of the residents of Mr. and Mrs. Richard Howell their family located ½ mile to the Northwest of this drilling location at (505) 457-2602 if necessary.</u>

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.

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.

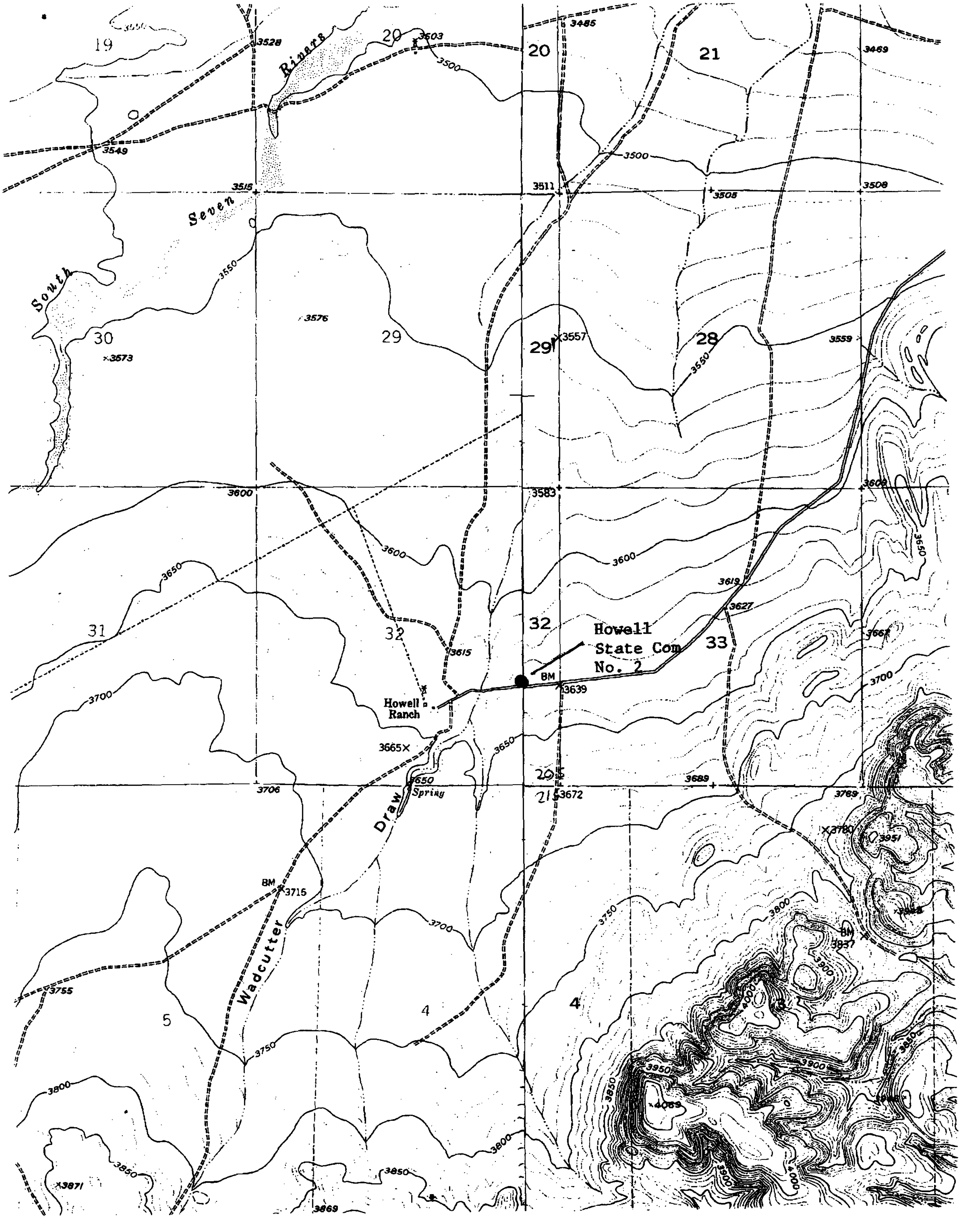
TERMINATION OF EMERGENCY AND FOLLOW-UP PROCEDURES - Fasken's Senior Representative or employee on the scene, with the cooperation of the Senior Law Enforcement Officer in whose jurisdiction the emergency occurred, will declare the emergency terminated when there is no further danger to oilfield personnel 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 destructon 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.


Howell
State Com
No. 2
Howell Ranch
BM
South Seven Rivers
Wadcutter Draw
Spring
19
20
21
28
29
30
31
32
33
4
5
3528
3503
3485
3469
3549
3515
3511
3505
3508
3576
3573
3557
3559
3600
3583
3609
3619
3627
3615
3639
3665
3650
3706
3672
3689
3789
3780
3951
3715
3837
3755
4069
3871
3869
3500
3550
3650
3700
3750
3800
3850
3900
3950
4000