1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-101 May 27, 2004

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

Oil Conservation Division 27 2008 abmit to appropriate District Office 1220 South St. Francis Dr. IIII 27 2008 AMENDED REPORT Santa Fe, NM 87505 OCD-ARTESIA AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE														
Fasken Oil and Ranch, Operator Name and Address 151416 OGRID Number														
303 West Wall, Suite 1800 Midland, TX 79701 30 - 015 - 35736														
<sup>3</sup> Proper	<sup>3</sup> Property Code September 1													
			9 Proposed Pool 1	ate "22"			3441		1	<sup>0</sup> Proposed	Pool 2	1		
Undesignated Millman; Morrow, South								Iman;	Atoka,	South	<u></u>			
	<sup>7</sup> Surface l							<u>-</u>		- Y				
UL or lot no         Section         Township         Range         Lot ldn         Feet from Feet						outh line uth	Feet from th		East/West li East	ine	Eddy	ounty 7		
<sup>8</sup> Proposed Bottom Hole Location If Different From Surface														
UL or lot no	Section	Townsh			Feet from the			outh line	Feet from th	ie I	East/West li	ne	Co	ounty
				Additi	⊥ onal We	ll Infor	matio	ın				1		
	ype Code		12 Well Type Co		13 Cable	e/Rotary	matic		Lease Type Co	de	15 Ground Level Elevation			
N 16 M			G  17 Proposed Dep	th.	R For	mation			S Contractor		-	3387		
'N	ıltıple		17 Proposed Dep 11500	r"	Mo	mation TroW	ļ		Unknow	n		9/17	Poud Date	
Depth to Groun		150'		Distance from	nearest fresh	water well er th	an 1	mile	Distance	e from near	rest surface	e water er t	han	l mile
	-		mils thick Clay	Pit Volume	bbls		ıllın <u>g M</u> ı		-					
Closed-	Loop Syster	n 🗀	2						Diesel/Oil-	based L	Gas/Aır	Ц		
<u> </u>	1'	Γ		Proposed (		nd Cen	nent I	<b>'</b> rogran						
Hole Si 17 1/2			Casing Size	Casing weig	ht/foot	Se	etting Do		+	of Cemen 440	ment Estimated TOC surface			
12 1/4			9 5/8"		36#		2800		800			surface		
8 3/4			5 1/2"	17#		11350'		1350			20001			
							DV	<u>@ 850</u>	0'					
												·		
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 State "22" No. 1 to test the Morrow. Please see the attachments for the well plat, drilling procedures, BOP specs and H2S														
Contin				TOT CHE	werr p	Lac,	<b>GIII</b>	B	procedu	,	DO1 C	ресс	, and	
The surface is owned by the State of New Mexico.and leased to Dagger Draw Ranch Inc. We have reached agreement on damages for this location, road and pipeline with the lessee.														
<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						OIL CONSERVATION DIVISION								
(attached) alto Signature	15		roved plan .	r .		Approve	ed by							-
Signature	fu	ery	W (a	ull					BRYAN				OFF	
Printed name			immy D. Car			Title			DISTRIC	1			-	. 0000
Title	Title Regulatory Affairs Coor. Approval Date AUG 0 1 2007 Expiration Date AUG 0 1 2008							1 2008						
E-mail Address			immyc@for1		7									
Date. 7/26/07 Phone 432 687-1777							Conditions of Approval Attached							

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

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

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies



### CONSERVATION DIVISION

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

7.1111 27 2007

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION APLAT

API		Pool Code			Pool Name					
		81368 5			Undesignated Millman;Morrow,South					
Property Code					Well Number					
36649					1 1					
OGRID No.					Elevation					
151416				FASKEN	3387'					
Surface Location										
UL or lot No.	Section	Township	Range	Lot Idn	Feet from th	e North/South line	Feet from the	East/West line	County	
	22	19 S	28 E		1980	SOUTH	660	EAST	EDDY	
Bottom Hole Location If Different From Surface										
UL or lot No.	Section	Township	Range	Lot Idn	Feet from th	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

OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to this organization either owns a working inferest or unleased mineral inferest in the land including the proposed bottom hole location pursuant to a contract this content of the organization produced bottom hole location pursuant to a complete the inference of the abundant pooling agreement or a compulsory pooling order heretofore entered by the division.  Date  Jimmy D. Carlile  jimmy.ceforl.com  Frinted Name  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 bekef  NMSPCE - N 59823.0.33  (NAD-83)  Date Surveys  Signature S. Surveys  Signature S. Surveys  Signature S. Surveys  Professional surveys  Signature S. Surveys  Signature S. Surveys  Professional surveys  Signature S. Surveys  Signature S. Surveys  Professional surveys  Signature S. Surveys  Professional surveys  Signature S. Surveys  Signature S. Surveys  Professional surveys  Signature S. Surveys

DISTRICT I 1625 N French Dr., Hobbs, NM 88240 DISTRICT II 1301 W Grand Avenue, Artesia, NM 88210 DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

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DISTRICT IV

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### $\mathbf{OIL}$ Santa Fe, New Mexico 87505 -

CONSERVATION DIVISION 1220 South St. Francis Dr.

OCD-ARTESIA - AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number				Pool Code		Pool Name					
			81	350		Millman; Atok	a. South _				
Property	Code	Property Name							ımber		
Į				1							
OGRID N	ο.			Elevation							
151416		FASKEN OIL AND RANCH, LTD						3387'			
	·		· <del>-</del>	<del></del> –	Surface Loc	ation					
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
1	22	19 S	28 E	]	1980	SOUTH	660	EAST	EDDY		
			Bottom	Hole Loc	cation If Diffe	rent From Sur	face				
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
		ļ							İ		
Dedicated Acre	s Joint o	r Infill	Consolidation (	Code Or	der No.	·			L		
320											

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OR A NON-STANDARD UNIT HAS BEEN APPROVED	BI THE DIVISION
Lat - N32'38'40.16" Long - W104'09'28.61" NMSPCE - N 598232.033 (NAD-83)  (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.    Carlile jimmyc@forl.com

#### Recommended Procedure

State "22" No. 1 ------- A.F.E. No. 1316-------Undesignated Millman Morrow, South 1980' FSL & 660' FEL Sec. 22, T19S, R28E Eddy County, N.M.

- 1. Drilling contractor to set 20" conductor if necessary. MIRU rotary tools.
- Drill 17-1/2" hole to 400' with spud mud. Set and cement 13-3/8" casing with 440 sx Class "C" cement with 2% CaCl2 (s.w. 14.8 ppg, yield 1.32 cuft/sx). WOC hrs. Weld on 13-5/8" 3000# bradenhead. NU 13-5/8" 3000# annuluar preventor
- 3. Drill 12-1/4" hole to 2800' 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 2800'. Estimate 600 sx Class "C" with 4% gel and 2% CaCl<sub>2</sub> (s.w. 13.50 ppg, yield 1.74 ft<sup>3</sup>/sx), plus 200 sx Class "C" with 2% CaCl<sub>2</sub> (s.w. 14.8 ppg, yield 1.34 ft<sup>3</sup>/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<sub>2</sub>, 10#/sx Gilsonite, and ½#/sx Cello Flake (s.w. 14.6 ppg, yield 1 52 ft<sup>3</sup>/sx).
- 5. Install 11" x 5000 psi intermediate spool. NU 11" 5000 psi B.O.P.'s, hydril and choke manifold. WOC 12 hours. Set up DST test line complete with test tank. RU mud gas separator with flare ignitor. Install H<sub>2</sub>S 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 7500', 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 11,500' using 9.0 ppg brine water to 9900'. Mud up at 9900' with starch and PAC mud system 
  Increase viscosity with salt gel or polymer as needed to clean hole. Maintain 9.0-9.5 ppg and 10 cc water loss to total depth.
- 9. DST all shows. Possible tests in the Delaware, Bone Springs, Wolfcamp, Strawn and Morrow intervals.
- 10 Log well with DLL-MSFL and CNL-LDT using Schlumberger Platform Express.
- 11. Install 5-1/2" BOP rams, run and cement 5-1/2" production casing (resin coated and centralized through pay zones) with DV tool at base of Bone Springs (estimate 8500') as follows,

First Stage Note, batch mix lead slurry. 10 bfw + 500 gallons Mud Clean II + 10 bfw and 750 sx Super "C" Modified (15 #/sx Poz A and 11 #/sx CSE), 1% Salt, 1.4% FL-25 and 0.2% CD-32 (s.w. 14.0 ppg, yield 1 34 ft<sup>3</sup>/sx). Open DV tool and circulate 6 hours.

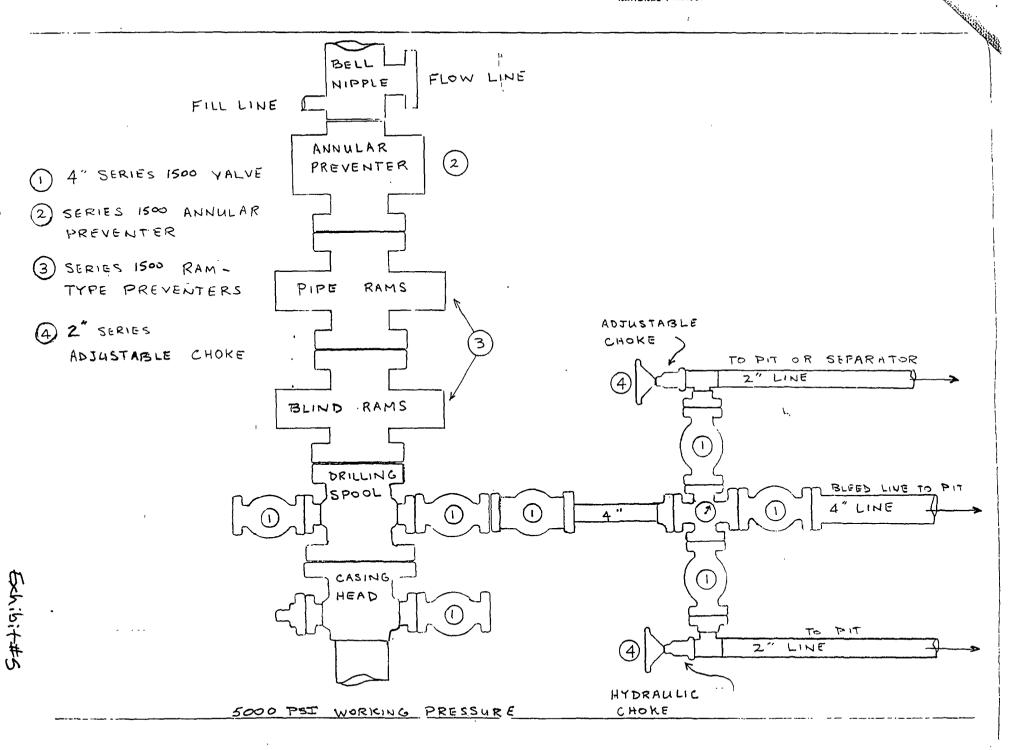
Second stage: 500 sx BJ lite "C" with 6% gel, 1% Salt and 0.4% FL-62 and 0.2% FL-52 (s.w. 12.6 ppg, yield 2 01 ft<sup>3</sup>/sx) plus 100 sx Class "H" neat (s.w. 15.6 ppg, yield 1.18 ft<sup>3</sup>/sx). Calculate second stage cement volume for TOC at 2000'.

- 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 tubing head and flow tree

## State "22" No 1 Recommended Procedure Page 2

- 14. Rig down and move out rotary tools.
- 15. Level location, set mast anchors, move in and rig up completion unit.
- 16. Complete well as per Completion Procedure.

TET/JRE (State221drlgproc)



### 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 <sub>2</sub> S	1.18	10 ppm * 20 ppm **	250 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	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	CH₄	0.55	9%	Combustabe above 5% in air	

<sup>\*</sup>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).

<sup>\*\*</sup>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.

Percent Vol	Concentration 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.
    - 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.
    - 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. <u>UNDER NO CIRCUMSTANCE</u> 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.