

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
OCD Hobbs  
NOV 19 2009

FORM APPROVED  
OMB No 1004-0137  
Expires March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NM-14496 & NM-10474  
6 If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator

Fasken Oil and Ranch, Ltd.

3a Address

303 West Wall St., Suite 1800, Midland, TX 79701

3b. Phone No (include area code)

432-687-1777

7 If Unit of CA/Agreement, Name and/or No.

8. Well Name and No  
Ling Federal Nos. 3, 4, 5, 6, & 9

9 API Well No  
30-025-38608, 38748, 39121, 39122, & 39454

4 Location of Well (Footage, Sec., T, R., M., or Survey Description)  
Please see remarks section

10. Field and Pool or Exploratory Area  
Apache Ridge; Bone Springs

11 Country or Parish, State  
Lea, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Dispose produced water</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13 Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Fasken Oil and Ranch, Ltd. is requesting approval to dispose produced water from the Ling Federal 3, 4, 5, 6, & 9 into the Ling Federal #1 SWD well.

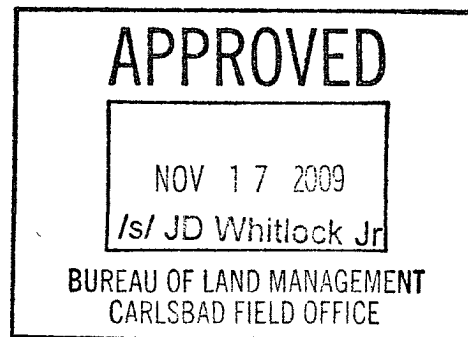
Item 4 - Location of Well

Ling Federal #3 - 660' FNL & 1980' FEL, Unit Letter B, Sec. 31, T19S, R34E NM 14496  
Ling Federal #4 - 1660' FSL & 2310' FEL, Unit Letter J, Sec. 31, T19S, R34E NM 14496  
Ling Federal #5 - 990' FNL & 660' FWL, Unit Letter D, Sec. 31, T19S, R34E NM 14496  
Ling Federal #6 - 2130' FNL & 660' FWL, Unit Letter E, Sec. 31, T19S, R34E NM 14496  
Ling Federal #9 - 580' FSL & 1980' FWL, Unit Letter C, Sec. 31, T19S, R34E NM 10474

Location Information & API number for the Ling Federal #1  
1980' FNL & 1980' FEL, Unit Letter G, Sec. 31, T19S, R34E, API Number 30-025-28064

Please see attached additional required information before disposal of water can be approved.

**SUBJECT TO LIKE  
APPROVAL BY STATE**



14 I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Kim Tyson

Title Regulatory Analyst

Signature

*Kim Tyson*

Date 11/05/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*[Signature]*

DISTRICT 1 SUPERVISOR

Title

Date

NOV 20 2009

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

The following information is needed before your disposal of produced water can be approved, Onshore Oil & Gas Order #7.

1. Name (s) of all formation (s) producing water on the lease.

Apache Ridge; Bone Springs  
Tonto; Wolfcamp

2. Amount of water produced from all formations in barrels per day.

125 barrels per day

3. A current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.

See attached water analysis for the Ling Federal #3, 4, 5, and 6. Ling Federal #9 is currently awaiting well completion.

4. How water is stored on the lease.

The water is stored in tanks.

5. How water is moved to the disposal facility.

The water is moved by injection pump at the Ling Federal #3 Battery.

6. Identify the Disposal Facility by:

A. Operators Name.

Fasken Oil and Ranch, Ltd.

B. Well Name.

Ling Federal

C. Well type and well number. (SWDW) (WIW)

Well #1. This is a water injection well.

C. Location by  $\frac{1}{4}$   $\frac{1}{4}$  , section, township, & range.

SW 1/4 of the NE 1/4, Lot G, Section 31, T19S, R34E

7. A copy of the Underground Injection Control Permit – issued for the injection well by the Environmental Protection Agency or New Mexico Oil Conservation Division where the State has achieved primacy.

See attached permit.

RECEIVED

P.O. BOX 98  
MIDLAND, TX. 79702  
PHONE (432) 683-4521

**Martin Water Laboratories, Inc.**

709 W. INDIANA  
MIDLAND, TEXAS 79701  
FAX (432) 682-8819

NOV 9 7 2008

## RESULT OF WATER ANALYSES

**FASKEN OIL AND  
RANCH, LTD.**

TO: Mr. Carl H. HATCH, LTD.  
303 W. Wall, Suite 1800, Midland, TX 79701

LABORATORY NO. 1108-51  
SAMPLE RECEIVED 11-5-08  
RESULTS REPORTED 11-6-08

COMPANY Fasken Oil & Ranch

LEASE \_\_\_\_\_ Ling #3

FIELD OR POOL

SECTION \_\_\_\_\_ BLOCK \_\_\_\_\_ SURVEY \_\_\_\_\_ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Submitted water sample - taken 11-4-08.

NO. 2

NO. 3

NO. 4

REMARKS:

## Bone Springs

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0980			
pH When Sampled				
pH When Received	7.16			
Bicarbonate as HCO <sub>3</sub>	3,026			
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	1,550			
Calcium as Ca	460			
Magnesium as Mg	97			
Sodium and/or Potassium	60,787			
Sulfate as SO <sub>4</sub>	1,031			
Chloride as Cl	92,300			
Iron as Fe	2.5			
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	157,701			
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohm-cm at 77° F	0.068			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

This water shows characteristics that are similar to some of our Bone

**Springs records in central Lea county.**

Form No. 3

By

Greg Ogden, B.S.

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date	9/17/2009	Endura Rep Norman Smiley	Code	10113410
Sampling Point/Date	W/H 9/15/2009		State	New Mexico
Company	Fasken Oil and Ranch		County	Lea
Formation	Lease Ling Federal		Well	#4

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	39,146	1,702
Total Hardness as Ca <sup>++</sup>	6,088	0
Calcium Ca <sup>++</sup>	5,568	278
Magnesium, Mg <sup>+</sup>	317	26
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++*</sup>	36	2

## ANIONS

Chlorides, Cl <sup>-</sup>	71,000	2,000
Sulfate, SO <sub>4</sub> <sup>-</sup>	300	6
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonates, HCO <sub>3</sub> <sup>-</sup>	122	2
Sulfide, S <sup>-*</sup>	0	0
Total Dissolved Solid	116,489	

## OTHER PROPERTIES

pH*	6.910
Specific Gravity, 60/60 F.	1.072
Turbidity	592

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	0.0518	-0.7885	-1.0006	-29.2009
120	0.3840	-0.7962	-0.8278	-29.4176
160	0.8983	-0.8021	-0.6611	-29.6473

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date 7/30/2009 Endura Rep Norman Smiley  
Sampling Point/Date Separator 7/15/2009  
Company Fasken Oil and Ranch  
Formation Lease Ling Federal

Code 10111716  
State New Mexico  
County Lea  
Well #5

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na+ (Calc.)	51,566	2,242
Total Hardness as Ca++	4,152	0
Calcium Ca++	3,480	174
Magnesium, Mg+	410	34
Barium, Ba++	0	0
Iron (Total) Fe+++*	60	3

## ANIONS

Chlorides, Cl-	86,000	2,423
Sulfate, SO4-	1,350	28
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	122	2
Sulfide, S-*	0	0
Total Dissolved Solid	142,988	

## OTHER PROPERTIES

pH*	6.940
Specific Gravity, 60/60 F.	1.097
Turbidity	148

## SCALING INDICIES

<u>TEMP. F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	-0.0110	-0.3617	-0.5901	-29.2520
120	0.3381	-0.3688	-0.4168	-29.4602
160	0.8783	-0.3807	-0.2560	-29.6903

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date	3/6/2009	Endura Rep Norman Smiley	Code	10107843
Sampling Point/Date	well head 2/26/2009		State	New Mexico
Company	Fasken Oil and Ranch, LTD		County	Lea
Formation	Lease Ling Federal		Well	#6

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	47,081	2,047
Total Hardness as Ca++	4,208	0
Calcium Ca++	2,648	132
Magnesium, Mg++	951	79
Barium, Ba++	0	0
Iron (Total) Fe+++*	12	1

### ANIONS

Chlorides, Cl-	77,900	2,194
Sulfate, SO4-	1,275	27
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	2,318	38
Sulfide, S-*	0	0
Total Dissolved Solid	132,185	

## OTHER PROPERTIES

pH*	6.740
Specific Gravity, 60/60 F.	1.082
Turbidity	136

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	0.8918	-0.5016	-0.7221	-29.2280
120	1.2323	-0.5097	-0.5497	-29.4403
160	1.7596	-0.5208	-0.3883	-29.6705

## PERFORATIONS

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



Administrative Order IPI-346  
June 19, 2009

Fasken Oil & Ranch, Ltd.  
300 West Wall Ave, Suite 1800  
Midland, TX 79701-5116

Attention: Ms. Kim Tyson

**RECEIVED**

**JUN 25 2009**

**FASKEN OIL AND  
RANCH, LTD.**

**RE: Injection Pressure Increase Request**

Ling Federal Well No. 1 (API No. 30-025-28064) SWD-1142  
Unit G, Sec 31, T 19 South, R 34 East, NMPM, Lea County, New Mexico  
Delaware formation  
Through perforations from 5679 feet to 8303 feet

Reference is made to your request on behalf of Fasken Oil & Ranch, Ltd. (OGRID 151416) received by the Division June 15, 2009, to increase the surface injection pressure limit on the above named disposal well.

Administrative Order No SWD-1142 approved on September 29, 2008, permitted the Ling Federal Well No. 1 for injection into the Delaware formation from 5679 feet to 8303 feet and allowed a maximum surface injection pressure of 1136 psi.

It is our understanding that this well will not take a sufficient volume of water at this pressure limit and a higher pressure limit is needed to enable increased water disposal.

The basis for granting this pressure increase is the step rate test run by Gray wireline on this well in May, 2009. Gray wireline measured the pressures during this test with surface and downhole pressure gauges.

You are hereby authorized to utilize up to **1500 psi** as the maximum surface injection pressure on this well provided the tubing, size, type, setting depth and perforation depths do not change. However, you are prohibited from injecting at pressures that would induce fracturing.

This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 5.9.

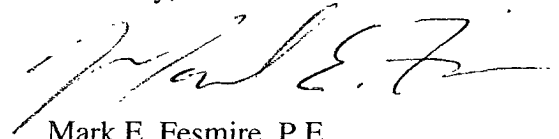




The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark E. Fesmire', is written over a horizontal line.

Mark E. Fesmire, P.E.  
Director

MEF/tw

cc: Oil Conservation Division – Hobbs  
Bureau of Land Management-Carlsbad  
File: SWD-1136



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**RECEIVED**  
**OCT 01 2008**  
**FASKEN OIL AND RANCH, LTD.**

**Mark Fesmire**  
Division Director  
Oil Conservation Division



**Administrative Order SWD-1142**  
**September 29, 2008**

**APPLICATION OF FASKEN OIL & RANCH, LTD. FOR PRODUCED WATER DISPOSAL, LEA COUNTY, NEW MEXICO**

**ADMINISTRATIVE ORDER**  
**OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Fasken Oil & Ranch, Ltd. (OGRID 151416) made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Ling Federal Well No. 1 (API No. 30-025-28064) located 1980 feet from the North line and 1980 feet from the East line of Section 31, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations. Satisfactory information has been provided that affected parties as defined in Rule 701B(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met and the operator will be in compliance with the Division's Rule 40 after production wells surrounding this subject injection well are re-activated.

**IT IS THEREFORE ORDERED THAT:**

Fasken Oil & Ranch, Ltd. is hereby authorized to utilize its Ling Federal Well No. 1 (API No. 30-025-28064) located 1980 feet from the North line and 1980 feet from the East line of Section 31, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group through perforations from 5679 feet to 8303 feet and through plastic-lined tubing set with a packer located within 100 feet of the top of the injection interval.

**IT IS FURTHER ORDERED THAT:**



The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Within 6 months of beginning injection, the operator shall supply the Division with a copy of an injection [temperature and tracer survey] log run while injecting at this well's average injection rate, identifying the injection intervals within the perforated interval.

After installing injection tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 1136 psi**. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

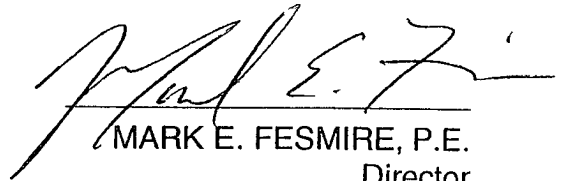
The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of injection to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1115 of the Division Rules and Regulations.

Without limitation on the duties of the operator as provided in Division Rules 19 and 116, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

In accordance with Rule No 705.C, the injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause shown. One year after injection operations into the well has ceased, the injection authority will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

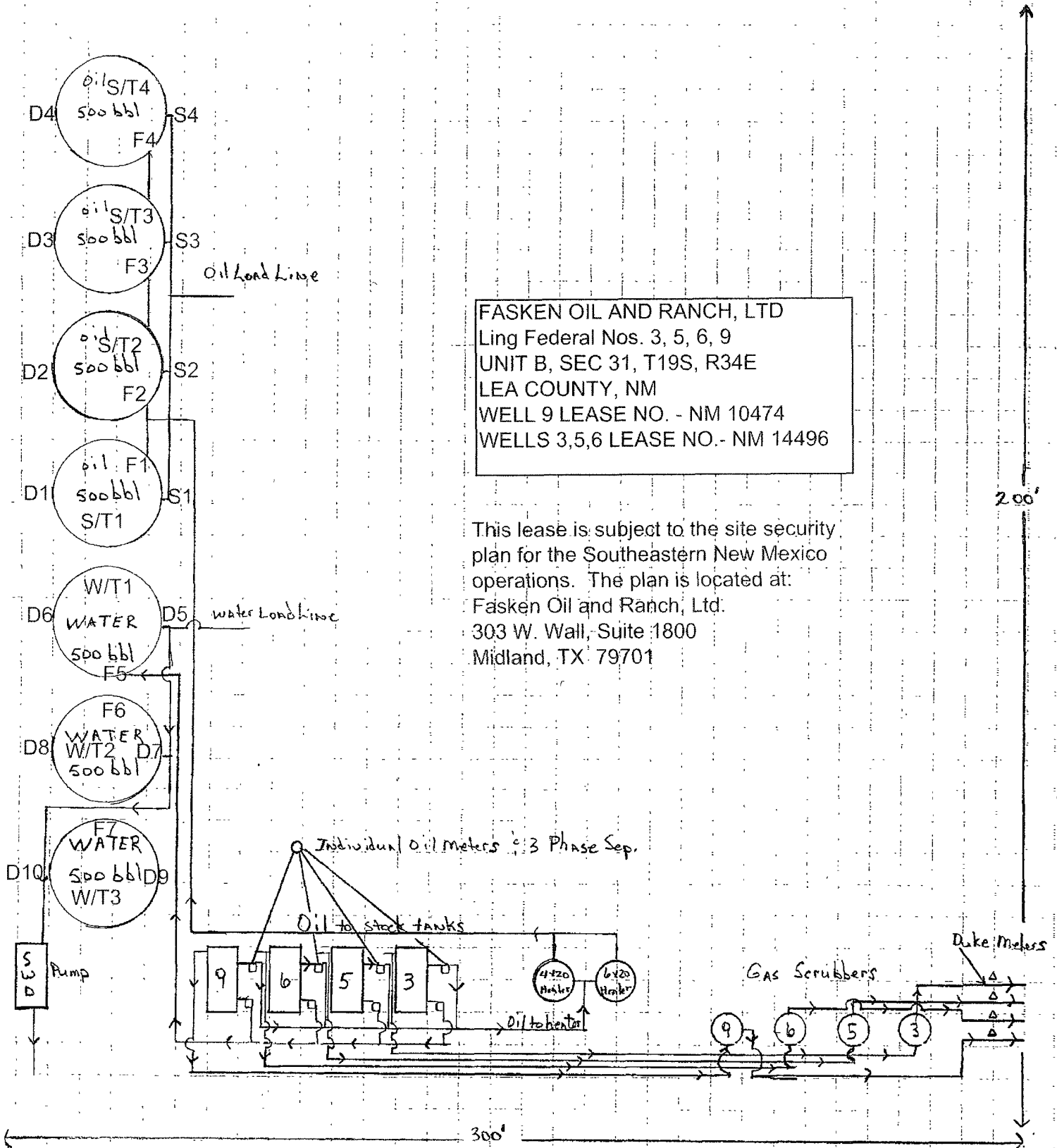
Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

  
MARK E. FESMIRE, P.E.  
Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs  
Bureau of Land Management - Carlsbad

# FACILITY DIAGRAM



Attachment 1-1  
To Site Facility Diagram  
Ling Federal Nos. 3,5,6 - Lease No. NM 14496  
Ling Federal No. 9 - Lease No. NM 10474

General sealing of valves, sales by tank gauging and transport truck.

Production phase - drain valves D1 through D4, D6, D8, D10 are sealed closed.  
sales valves S1, S2, S3 and S4 are sealed closed.

Sales phase - Sales are from tanks S/T1, S/T2, S/T3 or S/T4.

Sealing of valves:

Tank S/T - valves D1 through D4, F1 through F4 and S1 through S4 sealed closed.

Production System - Closed