

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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.*

**SUBMIT IN TRIPLICATE-** Other instructions on reverse side.

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
**Manhattan Petroleum, Inc.**

3a. Address  
**P.O. Box 35888, Tulsa, OK 74153-0888**

3b. Phone No. (include area code)  
**918-621-6533**

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

**I Sec 30-T9S-R38E  
1980' FSL & 660' FEL**

5. Lease Serial No.

**LC063659**

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

**Great Western B Federal #1**

9. API Well No.

**30-025-21445**

10. Field and Pool, or Exploratory Area

**Sawyer**

11. County or Parish, State

**Lea**

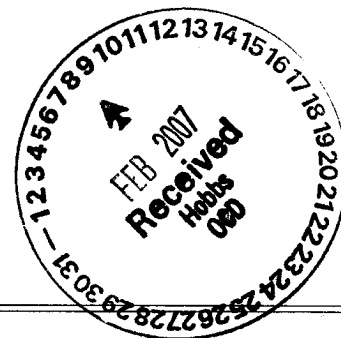
**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

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 type="checkbox"/> Other
	<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 checked="" 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 recompleat 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Request for approval of water disposal filed in response to BLM Form 3160-9 Notice No. AJM-011-07.**

**Additional information and current water analysis attached.**



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

**Connie Swan**

Title **Regulatory Administrator**

Signature

*CSwan*

Date

**01/29/2007**

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

Approved by

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.

Title

Office

Date

**APPROVED**

**FEB 5 2007**

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.

**FREDERICK WRIGHT  
PETROLEUM ENGINEER**

(Instructions on page 2)

**GW**

**Attachment to Sundry Notice 3160-5 Notice of Intention for Water Disposal Approval**  
**Great Western B Federal #1**  
**API No. 30-025-21445**

1. Formation producing water on the lease: **San Andres**
2. Amount of water produced in barrels per day: **4.5 bbls/day in Nov06**
3. Current water analysis attached: **Lab ID Dec1506.002-3**
4. How water is stored on the lease: **Fiberglass tank**
5. How water is moved to the disposal facility: **Tank truck**
6. Identify disposal facility by
  - a. Operator's name: **State Line Trucking**
  - b. Well name: **Reed Estate #1**
  - c. Well type and well number: **Commercial Disposal**
  - d. Location :  
**467' FNL & 2130' FWL**  
**Sec 41 Harrison & Brown Survey**  
**Abstract 46**  
**Cochran County, Texas**  
**RRC Injection Permit No. 10658**

# Permian Treating Chemicals, Inc.

## WATER ANALYSIS REPORT

**SAMPLE**

Oil Co. : Manhattan Petroleum  
 Lease : Great Western B Fed  
 Well No.: 1  
 Location:  
 Attention:

Date Sampled : 08-December-2006  
 Date Analyzed: 15-December-2006  
 Lab ID Number: Dec1506.002- 3  
 Salesperson :  
 Requested By : Permian Treating Chemicals, Inc.\*  
 File Name : Dec1506.002

**ANALYSIS**

- |    |                           |        |
|----|---------------------------|--------|
| 1. | Ph                        | 5.830  |
| 2. | Specific Gravity 60/60 F. | 1.153  |
| 3. | CACO3 Saturation Index    | @ 80F  |
|    |                           | @ 140F |

0.570      Mild  
 2.070      Severe

**Dissolved Gasses**

- |    |                  |                |
|----|------------------|----------------|
| 4. | Hydrogen Sulfide | Not Present    |
| 5. | Carbon Dioxide   | Not Determined |
| 6. | Dissolved Oxygen | Not Determined |

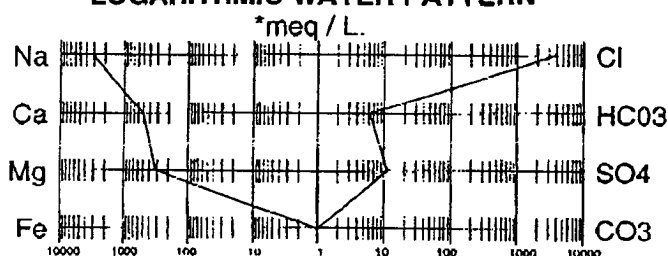
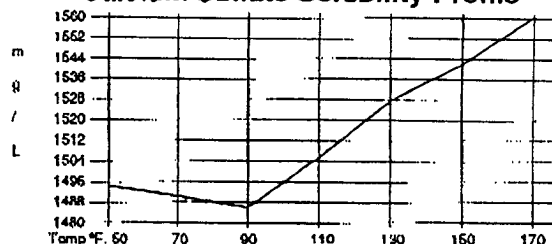
MG/L.      EQ. WT.      \*MEQ/L

**Cations**

- |     |           |                    |                |          |          |
|-----|-----------|--------------------|----------------|----------|----------|
| 7.  | Calcium   | (Ca++)             | 9,719          | / 20.1 = | 483.53   |
| 8.  | Magnesium | (Mg++)             | 3,708          | / 12.2 = | 303.93   |
| 9.  | Sodium    | (Na+) (Calculated) | 70,393         | / 23.0 = | 3,060.57 |
| 10. | Barium    | (Ba++)             | Not Determined |          |          |

**Anions**

- |     |                                  |         |                    |          |          |
|-----|----------------------------------|---------|--------------------|----------|----------|
| 11. | Hydroxyl                         | (OH+)   | 0                  | / 17.0 = | 0.00     |
| 12. | Carbonate                        | (CO3=)  | 0                  | / 30.0 = | 0.00     |
| 13. | Bicarbonate                      | (HCO3-) | 356                | / 61.1 = | 5.83     |
| 14. | Sulfate                          | (SO4=)  | 525                | / 48.8 = | 10.76    |
| 15. | Chloride                         | (Cl-)   | 135,969            | / 35.5 = | 3,830.11 |
| 16. | Total Dissolved Solids           |         | 220,670            |          |          |
| 17. | Total Iron                       | (Fe)    | 2.00               | / 18.2 = | 0.11     |
| 18. | Manganese                        | (Mn++)  | Not Determined     |          |          |
| 19. | Total Hardness as CaCO3          |         | 39,535             |          |          |
| 20. | Resistivity @ 75 F. (Calculated) |         | 0.001 Ohm · meters |          |          |

**LOGARITHMIC WATER PATTERN****Calcium Sulfate Solubility Profile****PROBABLE MINERAL COMPOSITION**

COMPOUND	*meq/L	X	EQ. WT. =	mg/L.
Ca(HCO3)2	5.83		81.04	472
CaSO4	10.76		68.07	732
CaCl2	466.95		55.50	25,916
Mg(HCO3)2	0.00		73.17	0
MgSO4	0.00		60.19	0
MgCl2	303.93		47.62	14,473
NaHCO3	0.00		84.00	0
NaSO4	0.00		71.03	0
NaCl	3,059.23		58.46	178,843

\* milliequivalents per Liter

Kevin Byrne, Analyst



# RAILROAD COMMISSION OF TEXAS

## OIL AND GAS DIVISION

### PERMIT TO DISPOSE OF NON-HAZARDOUS OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS

PERMIT NO. 10658, AMENDED

STATE LINE TRUCKING, INC.  
P O BOX 520  
LEVELLAND TX 79336

Based on information contained in your application (Form W-14) dated April 6, 2006, you are hereby authorized to dispose of oil and gas waste into your well designated as follows:

Reed Estate Lease, (67650), Well No. 1, Levelland Field, Cochran County, RRC  
District 8A

Authority is granted to inject in accordance with Statewide Rule 9 of the Railroad Commission of Texas and subject to the following special and standard conditions:

#### SPECIAL CONDITIONS:

1. Oil and gas waste shall only be injected into strata in the subsurface depth interval from 5200 feet to 10300 feet.
2. The injection volume shall not exceed 3000 barrels per day.
3. The maximum operating surface injection pressure shall not exceed 2600 psig.
4. The authority to dispose of oil and gas waste is limited to the disposal of salt water.

#### STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.
2. The District Office must be notified 48 hours prior to:
  - a. running tubing and setting packer;
  - b. beginning any workover or remedial operation;
  - c. conducting any required pressure tests or surveys.
3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.