

May 27, 2004

District I  
1625 N. French Dr., Hobbs, NM 88240  
District R  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30 025 08592
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Jalmat Field Yates Sand Unit 25191
8. Well Number Well #122
9. OGRID Number 184860
10. Pool name or Wildcat Jalmat ; Tan-Yates-7 Rvrs 33820

<p><b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)</p>	
<p>1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/></p>	
<p>2. Name of Operator Melrose Operating Company</p>	
<p>3. Address of Operator c/o P.O. Box 953, Midland, TX 79702</p>	
<p>4. Well Location Unit Letter M 660 feet from the South line and 990 feet from the West line Section 11 Township 22S Range 35E NMPM Lea County</p>	
<p>I 1. Elevation (Show whether DR, RKB, RT, GR, etc.)</p>	
<p>Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/></p>	
<p>Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____</p>	
<p>Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____</p>	

**12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data**

<p><b>NOTICE OF INTENTION TO:</b></p>		<p><b>SUBSEQUENT REPORT OF:</b></p>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P & A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL. <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
<p>OTHER: <input type="checkbox"/></p>		<p>OTHER: <input checked="" type="checkbox"/></p>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1 103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Step Rate Test Request for Increased Pressure. (WFX-633) 809

Step rate test attached reflecting Intercept @ 354 bbls per day, 3976 psia BHP with 2222 surface pressure.

Requesting approval for increased injection pressure to 1500 psia, based on step rate test results.

**RECEIVED**

APR 18 2008

**HOBBS OCD**

I hereby certify that the information above is true and complete to the best of my knowledge and belief I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐

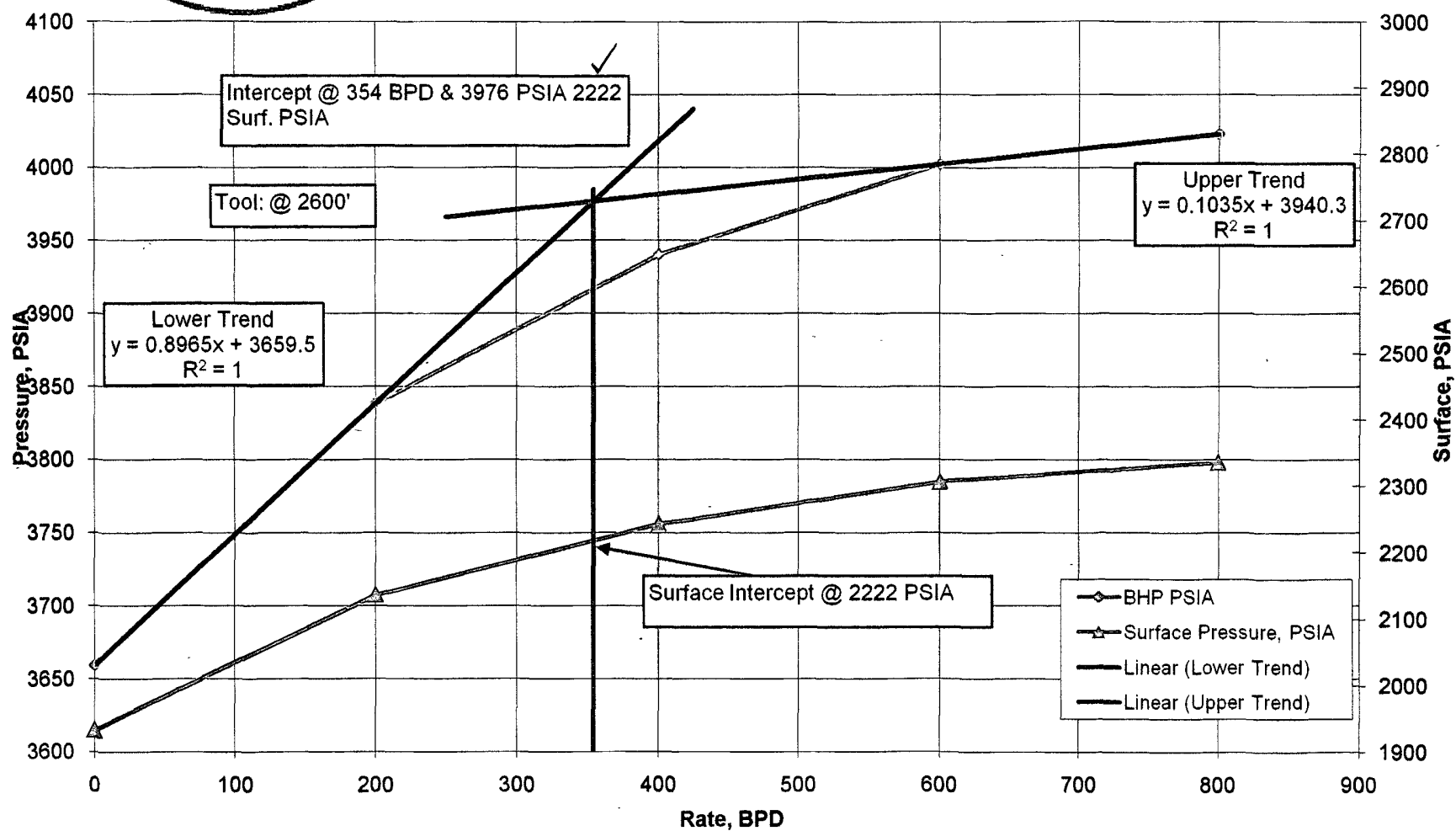
SIGNATURE Ann E. Ritchie TITLE Regulatory Agent DATE 04/09/2008

Type print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381/214 762-0830  
For State Use Only

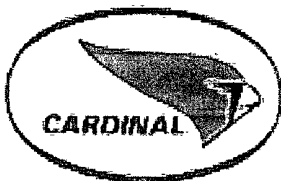
APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE APR 25 2008  
Conditions of Approval (if any):



Melrose Operating Jal Mat # 122A  
Step Rate Test 03-17-2008



## Step Rate Test



### Cardinal Surveys Company

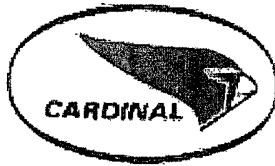
March 7, 2008

Melrose Operating  
Jal Mat # 122A  
Field:  
Lea County, NM  
SC 56777  
File # 18538

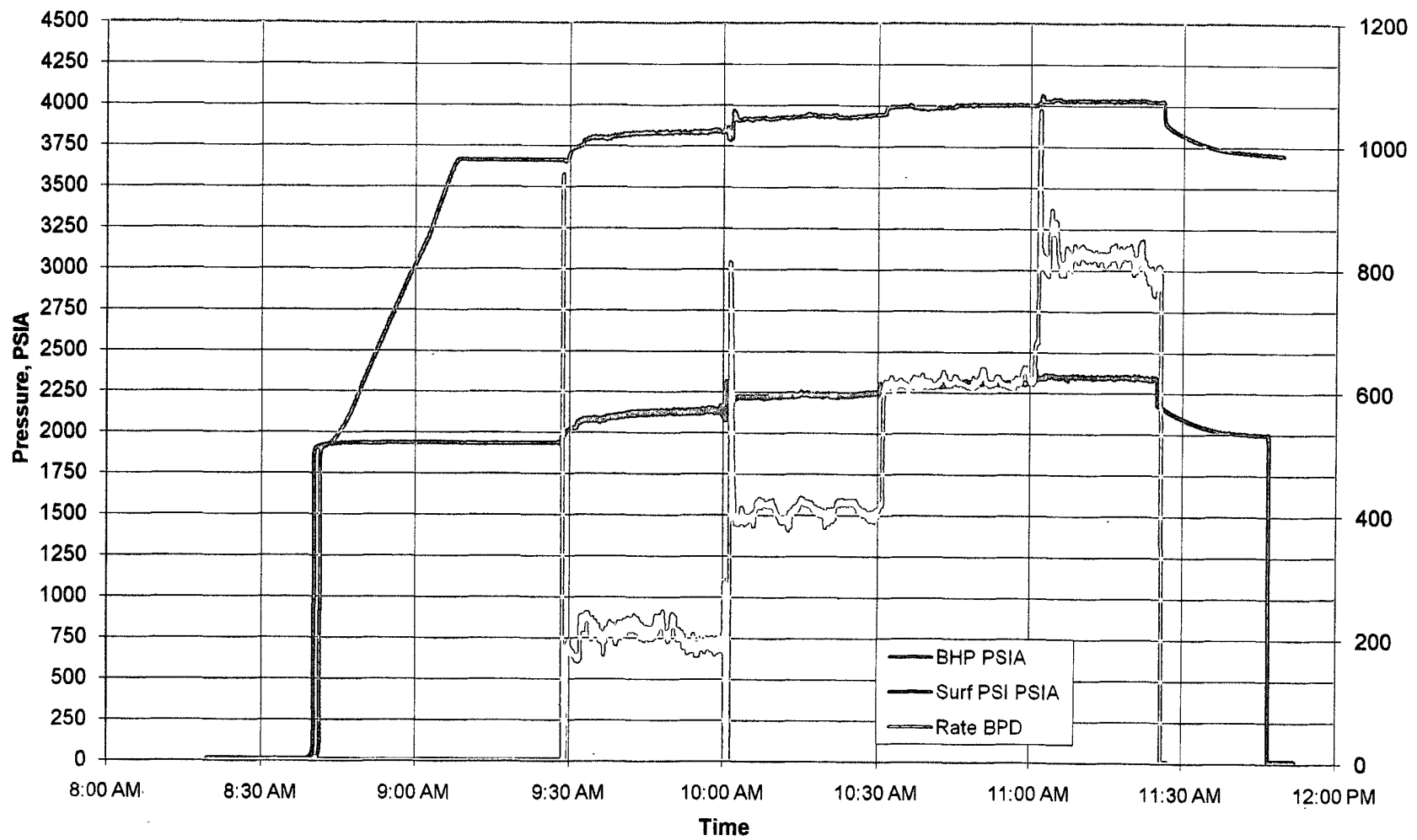
Intercept @ 354 BPD &  
3976 PSIA, 2222 Surf.  
PSIA

Downhole PSI Tool Ser. No.  
Surface PSI Gauge Ser. No.  
Tool @ 3925'

	Start Time	End Time	Rate BPD	Comments
1	9:07 AM	9:30 AM		0 On Bottom
2	9:30 AM	10:00 AM	200	
3	10:00 AM	10:30 AM	200	
4	10:30 AM	11:00 AM	200	
5	11:00 AM	11:30 AM	200	
6	11:24 AM	11:45 AM	-800	Fall Off

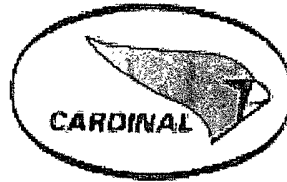


Melrose Operating Jal Mat # 122A  
Step Rate Test 03-17-2008



# Step Rate Test

Melrose Operating  
Jal Mat # 122A  
Field:  
Lea County, NM



	S Time	E Time	D Time	Last Rate	Step	B. H. Pressure	Surf	Cum	Delta	Avg.	Lower	Upper
			Min	BPD	BPD	PSIA	PSIA	BBL	BBL	BPD	Trend	Trend
1	9:07 AM	9:30 AM	23	0	0	3659.5	1933.6	0	0	0	3659.5	
2	9:30 AM	10:00 AM	30	200	200	3838.8	2136.7	4.2	4.2	202	3838.8	
3	10:00 AM	10:30 AM	30	400	200	3940.4	2242.9	12.6	8.4	403		
4	10:30 AM	11:00 AM	30	600	200	4002.4	2306.7	15	2.4	115		4002.4
5	11:00 AM	11:30 AM	30	800	200	4023.1	2336.3	39.7	24.7	1186		4023.1
6	11:24 AM	11:45 AM	21	0	-800	3706.2	1998	39.7	0	0		

0.8965 3659.5  
0.1035 3940.3

int point: 354.09836 BPD  
3976.9492 Psia



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

*ADMINISTRATIVE ORDER NO. WFX-809*

## ***APPLICATION OF MELROSE OPERATING COMPANY TO EXPAND ITS WATERFLOOD PROJECT IN THE JALMAT OIL & GAS POOL IN LEA COUNTY, NEW MEXICO***

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

Under the provisions of Division Order No. R-2243, Melrose Operating Company has made application to the Division on December 17, 2004 for permission to expand its Jalmat Field Yates Sand Unit Waterflood Project in the Jalmat Oil & Gas Pool in Lea County, New Mexico.

#### **THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application was filed in due form.
- (2) Satisfactory information was provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.

#### **IT IS THEREFORE ORDERED THAT:**

The applicant, Melrose Operating Company, is hereby authorized to inject water into the Tansill, Yates and Seven Rivers formations (Jalmat Oil & Gas Pool), through the gross interval from approximately 3,750 feet to 4,200 feet using 2-3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery to wit:

***Jalmat Field Yates Sand Unit Well No. 111 (API No. 30-025-08582)***  
1980' FNL & 660' FWL (Unit E) Section 11, Township 22 South, Range 35 East  
Current Perforated Interval: 3,902 feet to 4,024 feet  
Maximum Surface Injection Pressure: 780 psi

***Jalmat Field Yates Sand Unit Well No. 115 (API No. 30-025-08586)***  
1980' FSL & 330' FEL (Unit I) Section 11, Township 22 South, Range 35 East  
Current Perforated Interval: 3,844 feet to 3,990 feet  
Maximum Surface Injection Pressure: 769 psi

***Jalmat Field Yates Sand Unit Well No. 121 (API No. 30-025-08588)***  
660' FSL & 2310' FWL (Unit N) Section 11, Township 22 South, Range 35 East  
Current Perforated Interval: 3,852 feet to 4,013 feet  
Maximum Surface Injection Pressure: 770 psi

***Jalmat Field Yates Sand Unit Well No. 122 (API No. 30-025-08592)***  
660' FSL & 990' FWL (Unit M) Section 11, Township 22 South, Range 35 East  
Current Perforated Interval: 3,885 feet to 3,998 feet  
Maximum Surface Injection Pressure: 777 psi

***Jalmat Field Yates Sand Unit Well No. 126 (API No. 30-025-08615)***  
660' FNL & 2310' FWL (Unit C) Section 14, Township 22 South, Range 35 East  
Current Perforated Interval: 3,835 feet to 3,964 feet  
Maximum Surface Injection Pressure: 767 psi

**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.

Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure to 0.2 psi per foot of depth to the uppermost injection perforations or open-hole interval in each of the wells.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Tansill, Yates and Seven Rivers formations. 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 Hobbs district office of the Division of the date and time: i) of the installation of injection equipment in each of the injection wells; and ii) of the mechanical integrity tests so that these operations may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

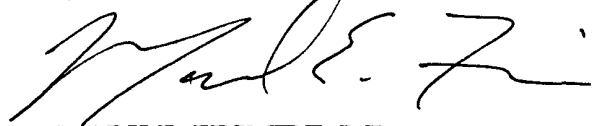
The subject wells shall be governed by all provisions of Division Order No. R-2243 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, 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 water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

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 wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 14th day of January, 2005.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
Division Director

S E A L



*Administrative Order WFX-809*  
*Melrose Operating Company*  
*January 14, 2005*  
*Page 4 of 4*

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DRC

cc: Oil Conservation Division – Hobbs  
Bureau of Land Management - Carlsbad  
Case File No. 2546