

DATE IN <u>1-10-12</u>	SUSPENSE	ENGINEER <u>WUT</u>	LOGGED IN <u>1.10.12</u>	TYPE <u>SWD</u> <u>1314</u>	APP NO. <u>1201052716</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Yates Pet.*  
25575

*Lotus SWD #4*

**ADMINISTRATIVE APPLICATION CHECKLIST**

*30-025-36135*

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]  
 [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☒ Offset Operators, Leaseholders or Surface Owner  
 [C] ☒ Application is One Which Requires Published Legal Notice  
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Margrethe F. Hotter

Print or Type Name

Signature

Area Engineer

Title

1/3/12

Date

mholler@yatespetroleum.com  
 e-mail Address

*D-32-228-32E*

*5850-6456*  
*1170 PSI*

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (575) 748-1471

JOHN A. YATES  
CHAIRMAN OF THE BOARD

JOHN A. YATES JR.  
PRESIDENT

SCOTT M. YATES  
VICE PRESIDENT

JAMES S. BROWN  
CHIEF OPERATING OFFICER

JOHN D. PERINI  
CHIEF FINANCIAL OFFICER

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OCD  
2012 JAN 10 P 1:10

January 3, 2012

State of New Mexico  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

Re: Lotus SWD #4

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 32 T22S, R32E of Lea County, New Mexico.

If you have any questions or need additional information, please call me at (575) 748-4165.

Sincerely,

Margrethe Hotter  
Area Engineer

Enclosures

**C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Lotus SWD #4  
Unit D, 990' FNL & 330' FWL, Sec. 32, T22S, R32E  
Lea County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced Delaware Sand water into the Delaware Sand formation.**

**Yates Petroleum Corporation plans to convert this well to a water disposal well into the Delaware Sand.**

- II. Operator: Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
Margrethe Hotter (575) 748-4165**
- III. Well Data: See Attachment A**
- IV. This is not an expansion of an existing project.**
- V. See attached map, Attachment B.**
- VI. There are 10 wells within the area of review that penetrate the proposed injection zone (See Attachment C).**
- VII. 1. Proposed average daily injection volume approximately 2500 BWPD. Maximum daily injection volume approximately 5000 BWPD.**
- 2. This will be a closed system.**
- 3. Proposed average injection pressure –unknown.  
Proposed maximum injection pressure –1170 psi.**
- 4. Sources of injected water would be produced water from the Delaware Sand. (Attachment D)**
- VIII. 1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from 5850'-6450'.**

**Application for Authorization to Inject  
Lotus SWD #4**

**-2-**

- 2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 850' or less. There are no fresh water zones underlying the formation.**
- IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid, or proppant fractured.**
- X. Logs were filed at your office when the well was drilled.**
- XI. There are no windmills within a one-mile radius of the subject location.**
- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval. (Attachment G)**
- XIII. Proof of notice.**
  - A. Certified letters sent to the surface owner and offset operators attached (Attachment E)**
  - B. Copy of legal advertisement attached. (Attachment F)**
- XIV. Certification is signed.**

**Yates Petroleum Corporation  
Lotus SWD #4  
D-32-T22S-R32E  
Lea County, New Mexico**

**Attachment A**

**III. Well Data**

- A.**
1. Lease Name/Location  
Lotus SWD #4  
(Prev. Lotus ALT St #4)  
D-32-T22S-R32E  
990' FNL & 330' FWL
  2. Casing Strings:
    - a. Present well condition  
13 3/8", 48# H-40 @ 853' w/670 sx (circ)  
8 5/8", 32# J-55 @ 4,475' w/1220 sx (circ).  
5 1/2", 15.5# & 17#, J-5 @ 8,600' w/DV tool @ 4,403'  
Stage 1: 870sx (circ)  
Stage 2: 450sx (circ)
    - b. Present Status:  
Non-commercial completion in Delaware at 7,062'-7,142', 7,374'-  
7,398', 8,292'-8,392'
  3. Proposed well condition:  
Casing same as above.  
CIBP @ 7,012' and cap with 35' cement.  
3 1/2" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 5750'
  4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 5750'.
- B.**
1. Injection Formation: Delaware Sands
  2. Injection Interval will be through perforations from approximately 5850'-6450' gross interval.
  3. Well was originally drilled as a Delaware oil well. Well will be a Delaware water disposal well when work is completed.
  4. Perforations: High porosity sands between 5850'-6450'.
  5. Next higher (shallower) oil or gas zone within 2 miles-None.  
Next lower (deeper) oil or gas zone within 2 miles- Brushy Canyon

**WELL NAME:** Lotus ALT State #4 **FIELD:** SE Livingston Ridge Delaware  
**LOCATION:** 990'FNL & 330' FWL Sec 32-22S-32E Lea County  
**GL:** 3537' **ZERO:** **KB:** 3,552'  
**SPUD DATE:** 3/27/03 **COMPLETION DATE:** 4/14/03  
**COMMENTS:** Api# 30-025-36135

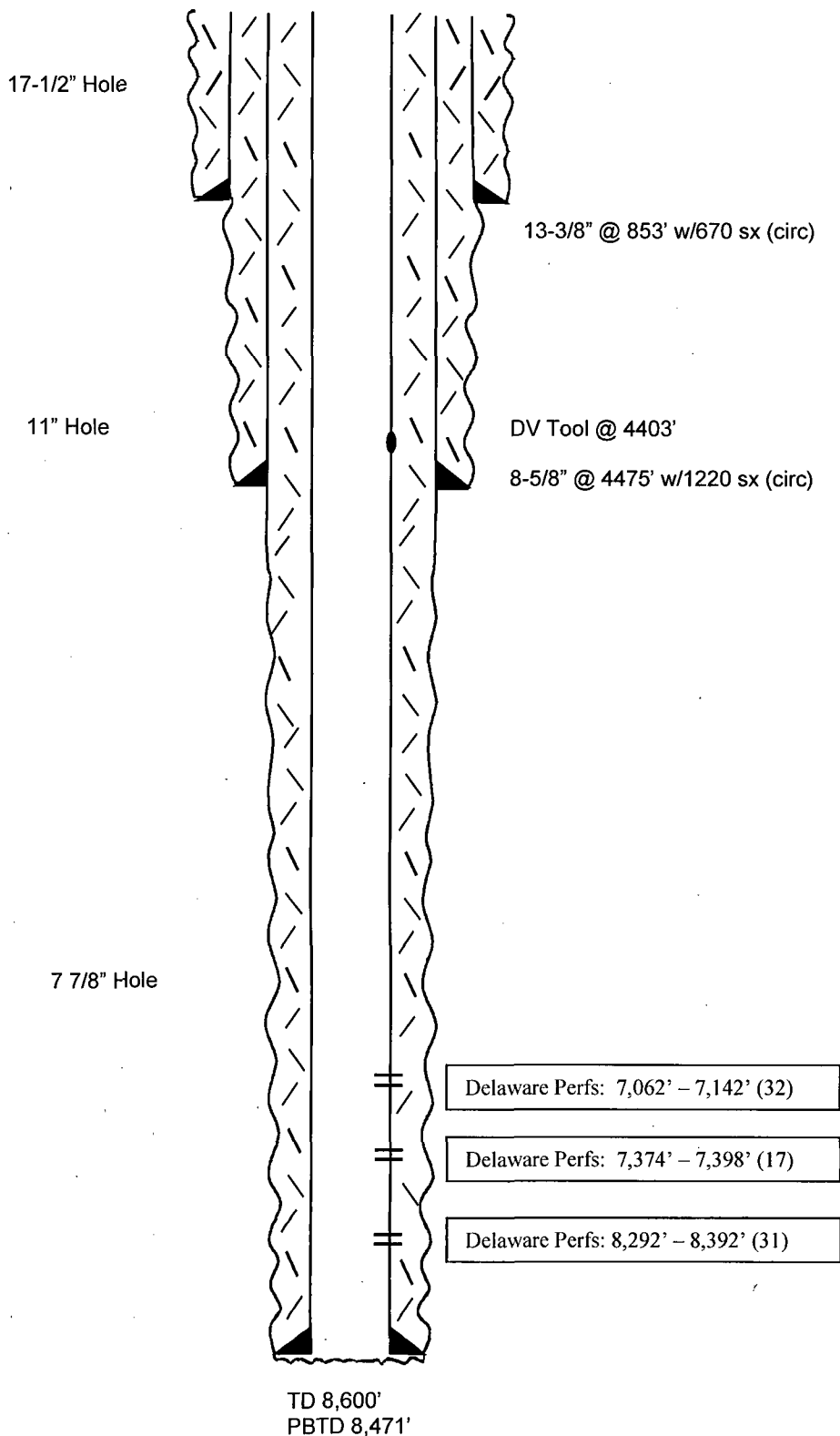
#### CASING PROGRAM

13-3/8" 48# H40	853'
8-5/8" 32# J55 ST&C	4475'
Surface	
5-1/2" 17# J55 LT&C 126.07'	
5-1/2" 15.5 J55 LT&C 7,192.20'	
5-1/2" 17# J55 LT&C 1,279.24'	8,600'
Bottom	

#### Current

##### Fm tops:

Rustler : 804'  
 TOS : 956'  
 BOS : 4,345'  
 Cherry Canyon : 5,540'  
 Brushy Canyon : 6,830'  
 Bone Spring : 8,482'



WELL NAME: Lotus SWD #4 FIELD: SE Livingston Ridge Delaware

LOCATION: 990'FNL & 330' FWL Sec 32-22S-32E Lea County

GL: 3537' ZERO: KB: 3,552'

SPUD DATE: 3/27/03 COMPLETION DATE: 4/14/03

COMMENTS: Api# 30-025-36135

#### CASING PROGRAM

13-3/8" 48# H40	853'
8-5/8" 32# J55 ST&C	4475'
Surface	
5-1/2" 17# J55 LT&C 126.07'	
5-1/2" 15.5 J55 LT&C 7,192.20'	
5-1/2" 17# J55 LT&C 1,279.24'	8,600'
Bottom	

17-1/2" Hole

11" Hole

Nickel plated pkr @ 5750'  
3 1/2" or 2 7/8" PC tbg

13-3/8" @ 853' w/670 sx (circ)

DV Tool @ 4403'

8-5/8" @ 4475' w/1220 sx (circ)

After

#### Fm tops:

Rustler : 804'  
TOS : 956'  
BOS : 4,345'  
Cherry Canyon : 5,540'  
Brushy Canyon : 6,830'  
Bone Spring : 8,482'

Injection interval: Porous Delaware  
sands between 5850'-6450'

7 7/8" Hole

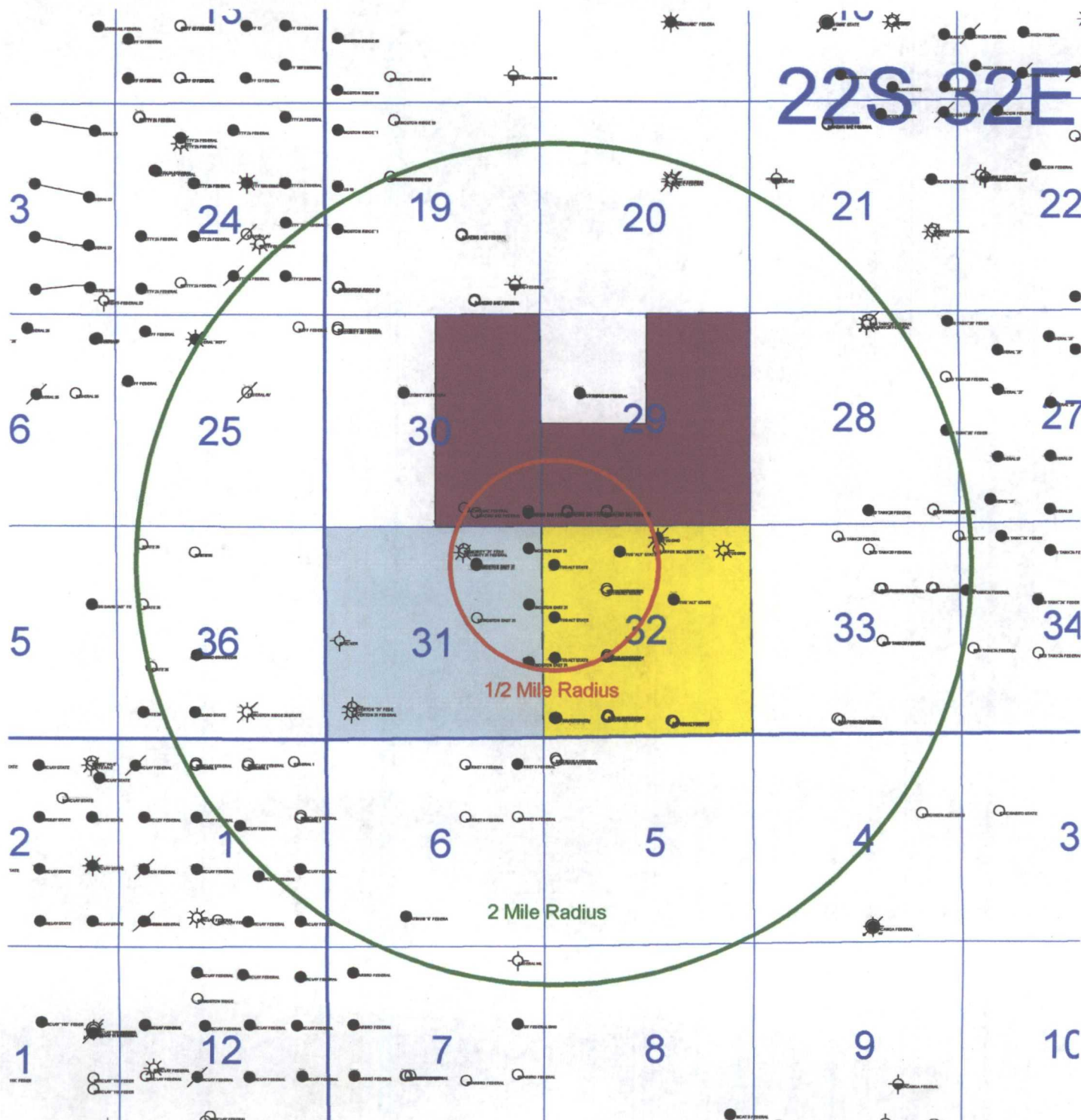
Delaware Perfs: 7,062' - 7,142' (32)




Delaware Perfs: 7,374' - 7,398' (17)

Delaware Perfs: 8,292' - 8,392' (31)

TD 8,600'  
PBTD 8,471'

Not to scale  
12/15/11 MMFH



	Yates Petroleum
	Yates Petroleum, et al
	Echo Production, Inc.

Yates Petroleum Corporation		
Lea County, NM Lotus ALT St #4 Plat: 22S-32E		
Author Kevin K.	Date 21 December, 2011	
dw	Scale:	Permian Basin - dw 16 Lotus ALT St #4

Attachment B



## Attachment "C"

Lotus SWD #4  
Form C-108

Tabulation of data on wells within area of review

Well Name	Operator	Type	Spud	Total Depth	Zone	Producing	Perforations	Completion Information
Lotus ALT St #3 660FNL & 1980FWL Sec 32 22S 32E	Yates Petroleum Corp	Oil	11/3/2002	8600'	Delaware	6706'-8398'	13 3/8" @ 842' Cmtid w/700 sx (circ) 8 5/8" @ 4,489' Cmtid w/1250 sx (circ) 5 1/2" @ 8,600' Cmtid w/ Stage 1: 555 sx (TOC 5608) Stage 2: 550 sx (circ)	✓
Lotus ALT St #5 2310FNL & 330FWL Sec 32 22S 32E	Yates Petroleum Corp	Oil	6/3/2003	8574'	Delaware	6668'-8390'	13 3/8" @ 863' Cmtid w/700 sx (circ) 8 5/8" @ 4,499' Cmtid w/1450 sx (circ) 5 1/2" @ 8,574' Cmtid w/ Stage 1: 785 sx (circ) Stage 2: 400 sx (circ)	✓
Lotus ALT St #8 1980FSL & 330FWL Sec 32 22S 32E	Yates Petroleum Corp	Oil	4/19/2004	8900'	Delaware	6736'-8358'	13 3/8" @ 853' Cmtid w/700 sx (circ) 8 5/8" @ 4,500' Cmtid w/1350 sx (circ) 5 1/2" @ 8,900' Cmtid w/ Stage 1: 575 sx (circ) Stage 2: 450 sx (circ) Stage 3: 500 sx (circ)	✓ ✓ ✓
Lotus SWD #12 330FNL & 2310FEL Sec 32 22S 32E	Yates Petroleum Corp	Oil	7/6/2006	8600'	Delaware	Inj. interval: 5754'-6500' CIBP @ 6720' + 35' cmt 6772'-8386'	13 3/8" @ 865' Cmtid w/780 sx (circ) 8 5/8" @ 4,528' Cmtid w/1310 sx (circ) 5 1/2" @ 8,600' Cmtid w/ Stage 1: 800 sx (circ) Stage 2: 450 sx (TOC 2650)	✓
Amazing BAZ Fed #3 330FSL & 330FEL Sec 30 22S 32E	Yates Petroleum Corp	Oil	7/16/2008	8600'	Delaware	6668'-8465'	13 3/8" @ 900' Cmtid w/650 sx (circ) 8 5/8" @ 4,504' Cmtid w/1280 sx (circ) 5 1/2" @ 8,600' Cmtid w/ Stage 1: 400 sx (circ) Stage 2: 460 sx (TOC @ 3288)	✓
East Livingston 31 Fed #1 560FNL & 330FEL Sec 31 22S 32E	Echo production	Oil	6/16/2004	8800'	Delaware	6925'-7139', 8376'-8442'	13 3/8" @ 824' Cmtid w/745 sx (circ) 8 5/8" @ 4,573' Cmtid w/1485 sx (circ) 5 1/2" @ 8,800' Cmtid w/750 sx (TOC @ 5500)	✓
East Livingston 31 Fed #2 1980FNL & 330FEL Sec 31 22S 32E	Echo production	Oil	12/28/2003	8792'	Delaware	6916'-7120', 8360'-8384'	13 3/8" @ 810' Cmtid w/850 sx (circ) 8 5/8" @ 4,550' Cmtid w/1450 sx (circ) 5 1/2" @ 8,786' Cmtid w/700 sx (TOC @ 5520)	✓

East Livingston 31 Fed #3  
1810FSL & 330FEL  
Sec 31 22S 32E  
Echo production  
Oil  
8/30/2004  
8777' Delaware  
6931'-7136', 8342'-8412'  
13 3/8" @ 802' Cmtd w/725 sx (circ)  
8 5/8" @ 4,595' Cmtd w/1550 sx (circ)  
5 1/2" @ 8,840' Cmtd w/775 sx (TOC @ 5500')

East Livingston 31 Fed #5  
990FNL & 1650FEL  
Sec 31 22S 32E  
Echo production  
Oil  
12/16/2004  
8800' Delaware  
6922'-7058', 8260'-8427'  
13 3/8" @ 823' Cmtd w/750 sx (circ)  
8 5/8" @ 5,650' Cmtd w/  
Stage 1: 350 sx (circ)  
Stage 2: 1300 sx (circ)  
5 1/2" @ 8,800' Cmtd w/750 sx (TOC @ 5554')  
Cut @ 5000'

Proximity 31 Fed #4  
660FNL & 2085FEL  
Sec 31 22S 32E  
Oxy USA Inc  
SWD 9/20/1993  
(Order SWD-543)  
7225' Delaware  
4734'-4956  
5174'-5590'  
8 5/8" @ 368' Cmtd w/250 sx (circ)  
5 1/2" @ 7225' Cmtd w/  
Stage 1: 270 sx (circ)  
Stage 2: 350 sx (circ)  
Stage 3: 1300 sx (circ)

**WELL NAME:** East Livingstone 31 Fed #5 **FIELD:** Livingstone Ridge, Delaware, SE

**LOCATION:** 990' FNL & 1650' FEL of Section 31-22S-32E Lea Co., NM

**GL:** 3,525' **ZERO:** **KB:**

**SPUD DATE:** 12/16/04 **COMPLETION DATE:** 12/16/05

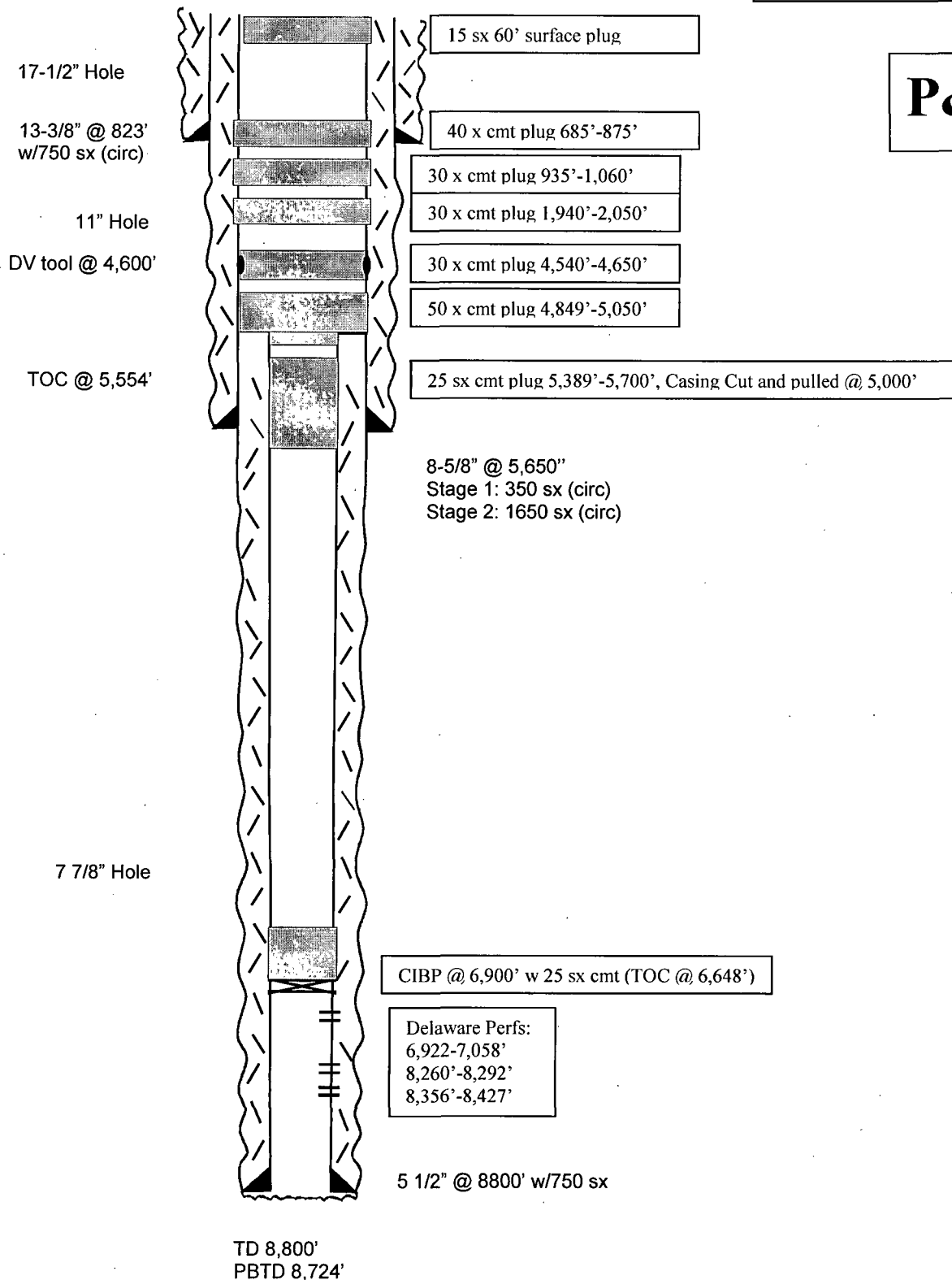
**COMMENTS:** API No.: 30-025-36912

P&A 10/12/07

Drilled & Abandoned by Echo Production, Inc

**CASING PROGRAM**

13-3/8" 40# H40	823'
8-5/8" 32#	5,650'
5 1/5" 17#	8,800'



North Permian Basin Region

P.O. Box 740

Sundown, TX 79372-0740

(806) 229-8121

Lab Team Leader - Sheila Hernandez

(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354147
Lease/Platform:	LOTUS 'ALT' STATE UNIT	Analysis ID #:	94689
Entity (or well #):	4	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354147 @ 75 °F							
Sampling Date:	9/15/09	Anions		mg/l	meq/l	Cations		mg/l	meq/l
Analysis Date:	9/23/09	Chloride:		142320.0	4014.33	Sodium:		69489.4	3022.62
Analyst:	LEAH DURAN	Bicarbonate:		36.6	0.6	Magnesium:		2815.0	231.57
		Carbonate:		0.0	0.	Calcium:		14251.0	711.13
TDS (mg/l or g/m3):	231647.5	Sulfate:		350.0	7.29	Strontium:		1225.0	27.96
Density (g/cm3, tonne/m3):	1.15	Phosphate:				Barium:		87.0	1.27
Anion/Cation Ratio:	1	Borate:				Iron:		15.0	0.54
		Silicate:				Potassium:		1053.0	26.93
						Aluminum:			
Carbon Dioxide:	280 PPM	Hydrogen Sulfide:			0 PPM	Chromium:			
Oxygen:		pH at time of sampling:			5.7	Copper:			
Comments:		pH at time of analysis:				Lead:			
		pH used in Calculation:			5.7	Manganese:		5.500	0.2
						Nickel:			

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.83	0.00	-0.43	0.00	-0.39	0.00	0.11	37.23	2.06	44.50	0.43
100	0	-0.74	0.00	-0.50	0.00	-0.40	0.00	0.08	29.67	1.86	44.22	0.51
120	0	-0.66	0.00	-0.57	0.00	-0.38	0.00	0.07	26.31	1.69	43.94	0.59
140	0	-0.57	0.00	-0.62	0.00	-0.35	0.00	0.08	26.59	1.54	43.39	0.67

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

Attachment D  
Example of water to be disposed:

North Permian Basin Region  
P.O. Box 740  
Sundown, TX 79372-0740  
(806) 229-8121  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354157
Lease/Platform:	KIWI 'AKX' STATE LEASE	Analysis ID #:	94687
Entity (or well #):	3	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354157 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	177816.0	5015.54	Sodium:	81444.2	3542.62
Analyst:	LEAH DURAN	Bicarbonate:	73.2	1.2	Magnesium:	3828.0	314.91
TDS (mg/l or g/m3):	289080.9	Carbonate:	0.0	0.	Calcium:	22006.0	1098.1
Density (g/cm3, tonne/m3):	1.192	Sulfate:	774.0	16.11	Strontium:	1226.0	27.98
Anion/Cation Ratio:	1	Phosphate:			Barium:	2.5	0.04
		Borate:			Iron:	28.0	1.01
		Silicate:			Potassium:	1879.0	48.05
Carbon Dioxide:	430 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		5.5	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.5	Lead:		
					Manganese:	4.000	0.15
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.49	0.00	0.09	74.08	0.15	94.78	0.34	175.23	0.74	1.06	1.14
100	0	-0.41	0.00	0.00	2.12	0.13	84.16	0.31	165.14	0.54	0.80	1.33
120	0	-0.33	0.00	-0.07	0.00	0.14	87.62	0.30	161.43	0.37	0.80	1.51
140	0	-0.24	0.00	-0.13	0.00	0.17	103.02	0.31	163.02	0.22	0.53	1.66

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

North Permian Basin Region

P.O. Box 740

Sundown, TX 79372-074C

(806) 229-8121

Lab Team Leader - Sheila Hernandez

(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354152
Lease/Platform:	LOTUS 'ALT' STATE UNIT	Analysis ID #:	94688
Entity (or well #):	3	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354152 @ 75 °F							
Sampling Date:	9/15/09	Anions		mg/l	meq/l	Cations		mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	181989.0		5133.25	Sodium:	77172.6		3356.82
Analyst:	LEAH DURAN	Bicarbonate:	48.8		0.8	Magnesium:	4720.0		388.29
		Carbonate:	0.0		0.	Calcium:	26148.0		1304.79
TDS (mg/l or g/m3):	294549.4	Sulfate:	541.0		11.26	Strontium:	1946.0		44.42
Density (g/cm3, tonne/m3):	1.197	Phosphate:				Barium:	3.5		0.05
Anion/Cation Ratio:	1	Borate:				Iron:	24.0		0.87
		Silicate:				Potassium:	1952.0		49.92
						Aluminum:			
Carbon Dioxide:	400 PPM	Hydrogen Sulfide:			0 PPM	Chromium:			
Oxygen:		pH at time of sampling:			5.2	Copper:			
Comments:		pH at time of analysis:				Lead:			
		pH used in Calculation:			5.2	Manganese:	4.500		0.16
						Nickel:			

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.93	0.00	-0.01	0.00	0.05	24.84	0.36	151.42	0.70	1.32	1.41
100	0	-0.84	0.00	-0.10	0.00	0.03	16.38	0.34	144.28	0.51	1.32	1.65
120	0	-0.76	0.00	-0.17	0.00	0.04	20.61	0.33	142.17	0.34	1.06	1.86
140	0	-0.67	0.00	-0.23	0.00	0.07	35.15	0.33	144.02	0.19	0.53	2.05

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

North Permian Basin Region  
P.O. Box 740  
Sundown, TX 79372-0740  
(806) 229-8121  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354158
Lease/Platform:	KIWI 'AKX' STATE LEASE	Analysis ID #:	94686
Entity (or well #):	1	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354158 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	139881.0	3945.53	Sodium:	61614.9	2680.1
Analyst:	LEAH DURAN	Bicarbonate:	85.4	1.4	Magnesium:	3256.0	267.85
TDS (mg/l or g/m3):	227088.3	Carbonate:	0.0	0.	Calcium:	18604.0	928.34
Density (g/cm3, tonne/m3):	1.152	Sulfate:	404.0	8.41	Strontium:	1504.0	34.33
Anion/Cation Ratio:	1	Phosphate:			Barium:	3.0	0.04
		Borate:			Iron:	23.0	0.83
		Silicate:			Potassium:	1709.0	43.71
Carbon Dioxide:	480 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		5.1	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.1	Lead:		
					Manganese:	4.000	0.15
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-1.01	0.00	-0.29	0.00	-0.25	0.00	0.24	85.83	0.63	1.13	3.69
100	0	-0.92	0.00	-0.36	0.00	-0.26	0.00	0.22	80.20	0.44	0.84	4.43
120	0	-0.84	0.00	-0.42	0.00	-0.24	0.00	0.21	78.23	0.27	0.84	5.15
140	0	-0.75	0.00	-0.46	0.00	-0.19	0.00	0.22	79.64	0.13	0.28	5.8

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

Notification letters sent to:

**1. Surface owner:**

State of New Mexico  
Commissioner of Public Lands  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148

**2. Operators:**

OXY USA WTP LP  
6 Desta Drive #6000  
Midland, TX 79705-5505

Chevron USA Inc  
15 Smith Rd  
Midland, TX 79705

ZPZ Delaware I LLC  
2000 Post Oak Blvd, Suite 100  
Houston, TX 77056-4497

Echo Production Inc  
PO Box 1210  
Graham, TX 76450



MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (575) 748-1471

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VICE PRESIDENT

JAMES S. BROWN  
CHIEF OPERATING OFFICER

JOHN D. PERINI  
CHIEF FINANCIAL OFFICER

January 3, 2012

State of New Mexico  
Commissioner of Public Lands  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148

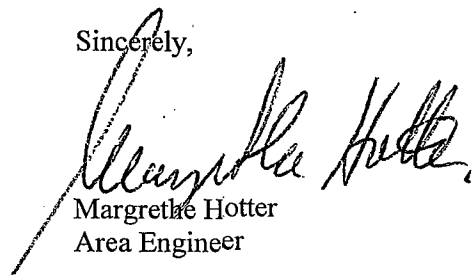
Re: Lotus SWD #4

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 32 T22S, R32E of Lea County, New Mexico.

If you have any questions or need additional information, please call me at (575) 748-4165.

Sincerely,

  
Margrethe Hotter  
Area Engineer

Enclosures

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SECRETARY

DENNIS G. KINSEY  
TREASURER

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January 3, 2012

ZPZ Delaware I LLC  
2000 Post Oak Blvd, Suite 100  
Houston, TX 77056-4497

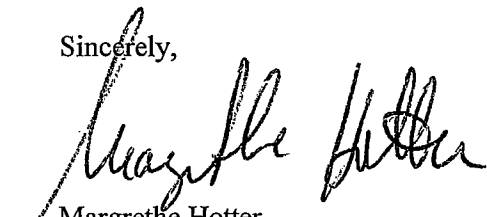
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City, State	Houston, TX 77056-4497

PS-Form 3849

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CHIEF FINANCIAL OFFICER

January 3, 2012

Echo Production Inc  
PO Box 1210  
Graham, TX 76450

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.63
Sent To	Echo Production Inc
Street, Apt. 1 or PO Box #	PO Box 1210
City, State, ZIP	Graham, TX 76450
PS Form 38	

ARTESIA NM 88210 JAN 4 2012 Postmark Here

KATHY H. PORTER  
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January 3, 2012

OXY USA WTP LP  
6 Desta Drive #6000  
Midland, TX 79705-5505

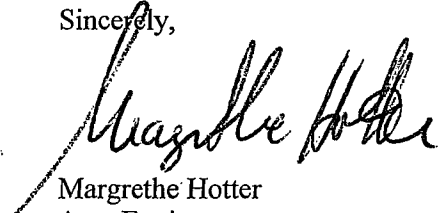
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City, State, Z Midland, TX 79705-5505	
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January 3, 2012

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15 Smith Rd  
Midland, TX 79705

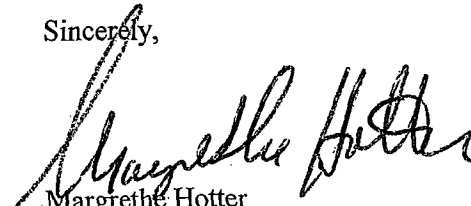
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Sincerely,

  
Margrethe Hotter  
Area Engineer

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.19
Sent To Chevron USA Inc Street, Apt. No. 15 Smith Rd or PO Box No. City, State, Zip Midland, TX 79705	
PS Form 3800	

Postmark: JAN 3 2012 ARTESIA NM

KATHY H. PORTER  
SECRETARY

DENNIS G. KINSEY  
TREASURER

# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, JUDY HANNA  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

of 1 issue(s).

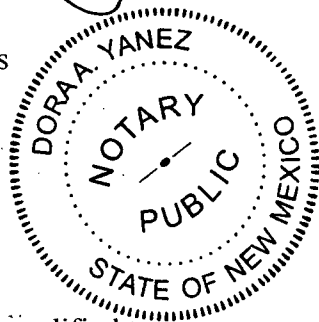
Beginning with the issue dated  
December 23, 2011  
and ending with the issue dated  
December 23, 2011

  
PUBLISHER

Sworn and subscribed to before me  
this 28th day of  
December, 2011

  
Notary Public

My commission expires  
February 09, 2015  
(Seal)



This newspaper is duly qualified to  
publish legal notices or  
advertisements within the meaning of  
Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.

LEGAL	LEGAL
<p><b>Legal Notice</b> <b>DECEMBER 23, 2011</b></p> <p>Yates Petroleum Corporation, 105 south Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well the Lotus SWD #4 located 990' FNL &amp; 330' FWL, Unit D, Section 32, Township 22 South, Range 32 East of Lea County, New Mexico, will be used for saltwater disposal. Produced waters from the Delaware Sand will be re-injected into the Delaware Sand at a depth of 5850'-6450' with a maximum pressure of 1170 psi and a maximum rate of 5000 BWPD.</p> <p>All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472, within 15 days. Additional information can be obtained by contacting Margrethe Hotter at (575) 748-4165.</p> <p>#27060</p>	

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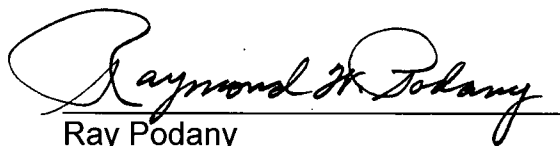
ATTN: MARGRETHE F. HOTTER  
YATES PETROLEUM CORPORATION  
P.O. BOX 97  
ARTESIA, NM 88210

Attachment F

**Attachment G**

C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Lotus SWD #4  
Unit D, Section 32-T22S-R32E  
Lea County New Mexico.

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.



Ray Podany  
Geologist  
Yates Petroleum Corporation

1-3-2012  
Date

Injection Permit Checklist (11/15/2010)

WFX \_\_\_\_\_ PMX \_\_\_\_\_ SWD 1314 Permit Date 1/27/12 UIC Qtr (J/F/M)

# Wells 1 Well Name(s): LOTUS SWD #4 (was LOTUS ALT St #4)

API Num: 30-0 25-36135 Spud Date: 3/27/03 New/Old: N (UIC primacy March 7, 1982)

Footages 990 FNL/330 FWL Unit D Sec 32 Tsp 225 Rge 32E County LEA

General Location: ~ 6 mi SW of Reef, 4 mi E. of WIPP

Operator: Yates Petroleum Corporation Contact Margaret HOTTEN

OGRID: 25575 RULE 5.9 Compliance (Wells) 3/2360 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed \_\_\_\_\_ Current Status: NON commercial del 7062-8392' (Last Prod 6/11)

Planned Work to Well: PLUG BACK, Perf, EQUIP, INT

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: ☒

Well Details		Sizes	Setting	Stage	Cement	Determination
		Hole.....Pipe	Depths	Tool	Sx or Cf	Method
New ___ Existing <input checked="" type="checkbox"/>	Surface	<u>7 3/8</u>	<u>853</u>	<u>—</u>	<u>670</u>	<u>CIRC</u>
New ___ Existing <input checked="" type="checkbox"/>	Interm	<u>11 - 8 5/8</u>	<u>4475</u>	<u>—</u>	<u>1220</u>	<u>CIRC</u>
New ___ Existing <input checked="" type="checkbox"/>	LongSt	<u>7 7/8 - 5 1/2</u>	<u>8600 TO</u>	<u>4403</u>	<u>870/450</u>	<u>CIRC/CIRC</u>
New ___ Existing ___	Liner					
New ___ Existing ___	OpenHole					

Depths/Formations:

	Depths, Ft.	Formation	Tops?
Formation(s) Above	<u>4610</u>	<u>Del</u>	<input checked="" type="checkbox"/>
	<u>5540</u>	<u>Cherry C.</u>	<input checked="" type="checkbox"/>
Injection TOP:	<u>5850</u>	<u>Cherry C.</u>	Max. PSI <u>1170</u> OpenHole _____ Perfs <input checked="" type="checkbox"/>
Injection BOTTOM:	<u>6450</u>	<u>Cherry C.</u>	Tubing Size <u>2 1/2 - 2 7/8</u> Packer Depth <u>5750'</u>
Formation(s) Below	<u>6830</u>	<u>Brushy C.</u>	<input checked="" type="checkbox"/>
	<u>8482</u>	<u>B.S.</u>	<input checked="" type="checkbox"/>

Capitan Reef? \_\_\_\_\_ (Potash? \_\_\_\_\_ Noticed? \_\_\_\_\_) [WIPP? \_\_\_\_\_ Noticed? \_\_\_\_\_] Salado Top/Bot 956-4345 Cliff House? \_\_\_\_\_

Fresh Water: Depths: < 850' Formation \_\_\_\_\_ Wells? NO Analysis? \_\_\_\_\_ Affirmative Statement ☒

Disposal Fluid Analysis? ☒ Sources: Delaware

Disposal Interval: Analysis? ☒ Production Potential/Testing: ☒

Notice: Newspaper Date 12/23/11 Surface Owner SLO (1/4/12) Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A) Affected Persons: ECHO/Yates ET AL/OXY/Chen/ZPE Del

AOR: Maps? ☒ Well List? ☒ Producing in Interval? NO Wellbore Diagrams? yes

.....Active Wells 990 Repairs? 0 Which Wells? —

.....P&A Wells 10 Repairs? 0 Which Wells? —

Issues: \_\_\_\_\_

Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_