DEPARTM BUREAU ( SUNDRY NOTIO Do not use this form for proposals to	UNITED STATES MENT OF THE INTERIOR OF LAND MANAGEMENT ES AND REPORTS ON WELLS o drill or to deepen or reentry to a different reservoi FOR PERMIT—" for such proposals	
SUB	MIT IN TRIPLICATE	7. If Unit or CA, Agreement Designation
Type of Well Oil Well Well Name of Operator YATES PETROLEUM CORPORATION Address and Telephone No. 105 South 4th St., Artesin Location of Well (Footage, Sec., T., R., M., of Sur Section 34-T19S-R24E	a, NM 88210	8. Well Name and No. Oakason NV Federal #3 9. API Well No. 30-015-24095 10. Field and Pool, or Exploratory Area Undesignated Canyon 11. County or Parish, State Eddy County New Mexico
CHECK APPROPRIATE B	OX(s) TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	)N
Notice of Intent	Abandonment Recompletion Plugging Back Casing Repair	Change of Plans Change of Plans New Construction Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	Altering Casing Other	Conversion to Injection X Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form ) This any proposed work. If well is directionally drilled

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Yates Petroleum Corporation is submitting application for produced water from the above well pursuant to NTL-2B, Section II, and requests your approval. The above well produces approximately 150 bbls fo water per day from the Undesignated Canyon formation. The water is stored in a 210 barrel stock tank and pipelined to the Federal HJ SWD permit #R-5545.

A water analysis is attached.

(rev. 3/10/94)

· · · · ·

#### BUREAU OF LAND MANAGEMENT CARLSBAD RESOURCE AREA

# Disposal of Produced Water From Federal Wells

## Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Oil and Gas Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All aboveground structures on the lease shall be painted sandstone brown, Federal Std. 595-20318, or 30318, within 90 days if you have not already done so.
- 6. Any on lease open top storage tanks or pits shall be covered with a wire screen or plastic/nylon metting to prevent entry by birds and other wildlife.

7. This approval does not constitute right-of-way approval for any off lease activities. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.

•

PETROLITE						Petrolite Corporation
						510 West Texas
						Artesia, NM 88210-2041
TRETOLIT	E DMS	ION				(505) 746-3588 Fax (505) 746-3580
			WATER ANALYSIS	REPORT		P.O. Box FF Artesia, NM 88211-7531
Compan	y :	YATES PETRO	LEUM	Date	: 11/18/94	
Addres	S :	ARTESIA, NM	I	Date Sampled	• •	
Lease	:	OAKASON "NV	•	Analysis No.		_
Well	-	#3		-		
Sample	Pt. :	WATER TANK				
	ANALYSI	-		mg/L		* meq/L
1.	рH	_	7.0			
2.	H2S		70			
3.		c Gravity	1.000			
4.		issolved Sol		8896.5		
5.		ed Solids		NR		
6.	· · · · · · · · · · · · · · · · · · ·			NR		
7. Dissolved CO2 8. Oil In Water			NR			
			NR			
9.			alinity (CaCO3)	2423		
10.	Methyl	Orange Alkal	inity (CaCO3)			
11						_

### PROBABLE MINERAL COMPOSITION

HCO3

Cl

SO4

Ca

Mg

Na

Fe

Ba

Sr

366.0

3003.0

2500.0

552.0

194.7

2280.9

NR

NR

NR

2180.0

HCO3

C1

SO4

Ca

Mg

Na

6.0

84.7

52.1

27.5

16.0

99.2

*milli equivalents per Lite	 r	Compound	- Equiv wt	X meg/I	/1
++	++				= mg/L
28  *Ca < *HCO3	6	Ca(HCO3)2	81.0	6.0	486
>		CaSO4	68.1	21.5	1466
16¦ *Mg> *SO4	52	CaCl2	55.5		
</td <td>  </td> <td>Mg (HCO3)2</td> <td>73.2</td> <td></td> <td></td>		Mg (HCO3)2	73.2		
99¦ *Na> *Cl	85	MgSO4	60.2	16.0	964
	++	MgC12	47.6		
Saturation Values Dist. Wat	er 20 C	NaHCO3	84.0		
CaCO3 13 m	g/L	Na2SO4	71.0	14.5	1030
CaSO4 * 2H2O 2090 m	g/L	NaCl	58.4	84.7	4951
BaSO4 2.4 m	g/L				

### **REMARKS:**

11. Bicarbonate

12. Chloride

13. Sulfate

14. Calcium

17. Iron

18. Barium

15. Magnesium

19. Strontium

16. Sodium (calculated)

20. Total Hardness (CaCO3)

-----



SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 11/18/94
Address	: ARTESIA, NM	Date Sampled	: 11/18/94
Lease	: OAKASON "NV"	Analysis No.	: 937
Well	: #3	Analyst	: A. MILLER
Sample Pt.	: WATER TANK		

## STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I. =	0.3	at	60	deg.	F	or	16	deg.	С
S.I. =	0.3	at	80	deg.	F	or	27	deg.	С
S.I. =	0.4	at	100	deg.	F	or	38	deg.	С
S.I. =	0.4	at	120	deg.	F	or	49	deg.	С
S.I. =	0.4	at	140	deg.	F	or	60	deg.	С

\*\*\*\*\*\*\*\*

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S	=	1983	at	60	deg.	F	or	16	deg	С
S	=	2081	at	80	deg.	F	or	27	deg	С
S	=	2120	at	100	deg.	F	or	38	deg	С
S	=	2119	at	120	deg.	F	or	49	deg	С
S	=	2108	at	140	deg.	F	or	60	deg	С

Petrolite Oilfield Chemicals Group

Respectfully submitted, A. MILLER

PETROLITE