Form 3160-5 (June 1990)

# UNITED STATES DEPARTMENT OF THE INTERIOR

) DIL CO	ns commission
Drawer DI	NHFOBBAAPROVED Budget Bureau No. 1004-

Budget Bureau No. 1004-0135 Expires: March 31, 1993

BUREAU OF LAN	5. Lease Designation and Serial No.	
	/ NM-83068	
Do not use this form for proposals to drill of	ND REPORTS ON WELLS or to deepen or reentry to a different reservoir. R PERMIT-" for such proposals	6. If Indian, Allottee or Tribe Name
SUBMI	7. If Unit or CA, Agreement Designation	
I. Type of Well Oil Well X Well Other	8. Well Name and No. Zinnia Federal Unit #1	
2. Name of Operator YATES PETROLEUM CORPOR	9. API Well No.	
3. Address and Telephone No. 105 S. 4th Street, Artesia, NM 4. Location of Well (Footage, Sec., T., R., M., or Surve	3001527939  10 Eteldand Pool, or Exploratory Area  Unidesignated Strawn Walfcam	
Section 27-T20S-R29E 19	11. County or Parish, State Eddy, N.M.	
	OX(s) TO INDICATE NATURE OF NOTION	
TYPE OF SUBMISSION	TYPE OF A	CTION
Notice of Intent	Abandonment	Change of Plans
X Subsequent Report	Recompletion Plugging Back	New Construction Non-Routine Fracturing
Final Abandonment Notice	Casing Repair  Altering Casing	Water Shut-Off Conversion to Injection
	Other	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
Yates Petroleum Corporation is submi Order #7 and requests your approval.		the above well pursusant to of water per day from the
		OIL CON, DIV.
14. I hereby certify that the foregoing is true and correct		D157. 2
signed Shannon Couplo	Title Production Clerk	Date 9/22/95
(This space for Federal or State office use)  Approved by Jonnes C. Conditions of approval, if any:	Title Lead ObI	Date 10/12/5
Title 18 U.S.C. Section 1001, makes it a crime for any per	rson knowingly and willfully to make to any department or ag	ency of the United States any false, fictitious or fraudulent



# TRETOLITE DVISION

Petrolite Corporation 422 West Main Street Artesia, NM 88210-2041

> (505) 746-3588 Fax (505) 746-3580

> > Reply to: P.O. Box 1140 Artesia, NM 88211-7531

# WATER ANALYSIS REPORT

Company : YATES PETROLEUM Address : ARTESIA, NM

: 06/29/95 Date Date : 06/29/95 Date Sampled : 06/27/95

: ZINNIA FEDERAL

Analysis No. : 0112

Lease Well

: #1

Sample Pt. : WELLHEAD

	ANALYSIS			mg/L		* meq/L
1.	рн	5.8				
2.	H2S	NR				
З.	Specific Gravity	1.085				
4.	Total Dissolved Soli	ds		120886.2		
5.	Suspended Solids			NR		
6.	Dissolved Oxygen			NR		
7.	Dissolved CO2			NR		
8.	Oil In Water			NR		
9.	Phenolphthalein Alka	alinity (C	aCO3)			
10.						
11.	Bicarbonate		HCO3	85.0	HCO3	1.4
12.	Chloride		Cl	72633.0	Cl	2048.9
13.	Sulfate		SO4	50.0	SO4	1.0
14.	Calcium		Ca	18840.0	Ca	940.1
15.	Magnesium		Mg	-4186.4	Mg	-344.4
16.	Sodium (calculated)		Na	33464.6	Na	1455.6
17.	Iron		Fe	NR		
18.	Barium		Ba	NR		
19.	Strontium		Sr	NR		
20.	Total Hardness (CaCo	03)		29812.0		

#### PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound Equiv wt X $meq/L = mg/L$
++	
940  *Ca < *HCO3   1	Ca(HCO3)2 81.0 1.4 113
/	CaSO4 68.1 1.0 71
-344  *Mg> *SO4   1	CaCl2 55.5 937.7 52032
<	Mg(HCO3)2 73.2
1456  *Na> *Cl   2049	MgSO4 60.2
++	MgC12 47.6
Saturation Values Dist. Water 20 C	NaHCO3 84.0
CaCO3 13 mg/L	Na2SO4 71.0
CaSO4 * 2H2O 2090 mg/L	NaCl 58.4 1111.2 64939
BaSO4 2.4 mg/L	

REMARKS:

----- ANDY MILLER

Petrolite Oilfield Chemicals Group

Respectfully submitted, SHAWNA MATTHEWS





#### SCALE TENDENCY REPORT ------

Company : YATES PETROLEUM

Date : 06/29/95

Address

: ARTESIA, NM

Date Sampled: 06/27/95 Analysis No. : 0112

: ZINNIA FEDERAL

Analyst : SHAWNA MATTHEWS

Lease : ZIN
Well : #1

Sample Pt. : WELLHEAD

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

S.I. = -0.3 at 60 deg. F or 16 deg. C S.I. = -0.3 at 80 deg. F or 27 deg. C S.I. = -0.2 at 100 deg. F or 38 deg. C S.I. = -0.1 at 120 deg. F or 49 deg. C S.I. = -0.0 at 140 deg. F or 60 deg. C

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

773 at 60 deg. F or 16 deg C s = S = 858 at 80 deg. F or 27 deg C S = 914 at 100 deg. F or 38 deg C S = 941 at 120 deg. F or 49 deg C S = 961 at 140 deg. F or 60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted, SHAWNA MATTHEWS