



**BAKER PERFORMANCE  
CHEMICALS**  
A Division of Baker Performance Chemicals, Inc.

A Baker Industries company

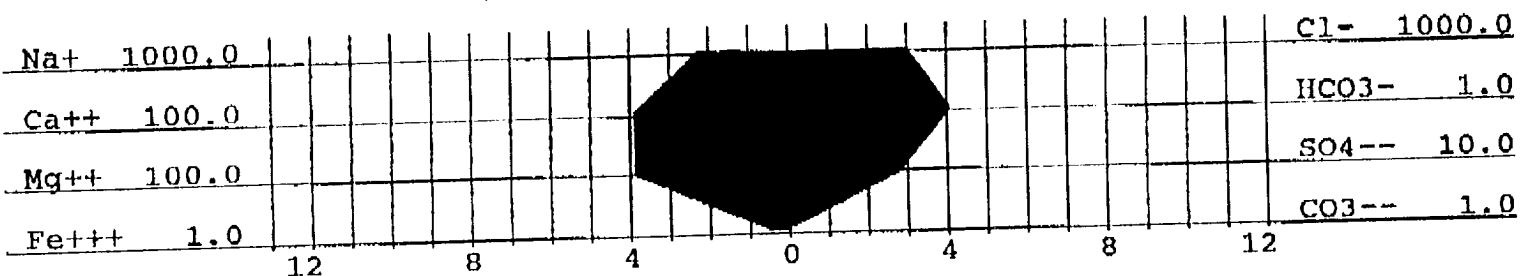
# **WATER ANALYSIS for HEYCO**

**Date of Analysis:** JANUARY 12, 1994  
**Company:** HEYCO  
**State:** NEW MEXICO  
**Lease:** ARCO 8-2 & 8-5  
**Oil (bbl/day):** N/D  
**Type of Water:** PRODUCED  
**Sample Source:** HEATER TREATER  
**Representative:** STEVE STROUD

**Analysis #:** 2549  
**Company Address:** ROSWELL  
**Field:** N/D  
**Well #:** #2, #5  
**Water (bbl/day):** N/D  
**Temp., C:** 20  
**Date of Sampling:** JANUARY 11, 1994  
**Analysis By:** SUZANNE WILLIAMS

## **WATER ANALYSIS PATTERN**

(number beside ion symbol indicates me/l scale unit)



## **DISSOLVED SOLIDS**

CATIONS	me/l	mg/l
Total Hardness	800.00	
Calcium, (Ca++)	400.00	8019.25
Magnesium, (Mg++)	400.00	4860.56
Iron, (Fe+++)	0.54	10.00
Barium, (Ba++)	N/D	N/D
Sodium, Na+(calc.)	2360.39	54288.94
Manganese, (Mn++)	0.00	0.00

ANIONS	me/l	mg/l
Chloride, Cl-	3126.76	110996.09
Sulfate, SO4--	29.97	1440.00
Carbonate, CO3--	0.00	0.00
Bicarbonate, HCO3--	4.20	256.25
Hydroxyl, OH-	0.00	0.00
Sulfide, S--	0.00	0.00
TOTAL SOLIDS (quant.)		179871.00

## **DISSOLVED GASES**

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide	43.30	mg/l
Oxygen	N/D	mg/l

## **PHYSICAL PROPERTIES**

pH	6.80
Spec Grav.	1.115
TDS (calc.)	179875.30

## **SCALE STABILITIES**

Temp., C	CaCO3	CaSO4	BaSO4
20.0	0.74	2453	0
30.0	0.94	2635	0
40.0	1.20	109	1
Max entity, (calc.)	2157		0
RESIDUAL HYDROCARBONS:	N/D		

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.  
@20'C...MODERATE CARBONATE SCALING.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NM OIL CONS COMMISSION  
Drawer DD  
Artesia, NM 88210

FORM APPROVED

Budget Bureau No. 1604-0135

Expires: March 31, 1993

FEB 17 1994

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Harvey E. Yates Company

3. Address and Telephone No.

P.O. Box 1933, Roswell, NM 88201

(505)623-6601

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

Unit L, 1980' FSL & 660' FWL  
Sec.08, T18S, R31E

5. Lease Designation and Serial No.

LC-029393-A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

ARCO 8-5

9. API Well No.

30-015-27213

10. Field and Pool, or Exploratory Area

North Shugart/Bone Spring

11. County or Parish, State

Eddy County, NM

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

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☒ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)\*

1. Formation: Bone Spring
2. BWPD: 5-15
3. Wtr Analysis: See attached.
4. Lease storage: Stock tanks.
5. Water transported by truck to disposal.
6. Operator: Tennessee Water Disposal  
Tennessee Federal Well #1  
Unit 1, Sec.21, T19S, R31E  
Eddy County, NM

or Loco Hills Water Disposal Company  
Sec.16, T17S, R30E  
Eddy County, NM

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

14. I hereby certify that the foregoing is true and correct

Signed

Title

Date

1/24/94

(This space for Federal or State office use)

Approved by

Title

Date

2/14/94

Conditions of Approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

\*See Instruction on Reverse Side