

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See herin-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.6.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

|                                                                                                                                                                                                                                         |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------|------------------------------------|-------------------------------------------------|------------------------------------|-------------------------------------------------------|------------------------------------|--------------------------------------------|--|
| 1a. TYPE OF WELL:                                                                                                                                                                                                                       |  | OIL WELL <input type="checkbox"/>                                    | GAS WELL <input type="checkbox"/>  | DRY <input checked="" type="checkbox"/>         | Other <b>RECEIVED</b>              |                                                       |                                    |                                            |  |
| b. TYPE OF COMPLETION:                                                                                                                                                                                                                  |  | NEW WELL <input type="checkbox"/>                                    | WORK OVER <input type="checkbox"/> | DEEP-EN <input type="checkbox"/>                | PLUG BACK <input type="checkbox"/> | DIFF. RESVR. <input type="checkbox"/>                 | Other                              |                                            |  |
| 2. NAME OF OPERATOR<br>Harvey E. Yates Company ✓                                                                                                                                                                                        |  |                                                                      |                                    |                                                 |                                    | JUN 20 1978                                           |                                    |                                            |  |
| 3. ADDRESS OF OPERATOR<br>P. O. Box 1933, Roswell, New Mexico 88201                                                                                                                                                                     |  |                                                                      |                                    |                                                 |                                    | U. C. C.<br>ARTESIA, OFFICE                           |                                    |                                            |  |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*<br>At surface 660' FNL & 1980' FWL<br>At top prod. interval reported below Same<br>At total depth Same                                     |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 15. DATE SPUDDED<br>4-7-78                                                                                                                                                                                                              |  | 16. DATE T.D. REACHED<br>4-15-78                                     |                                    | 17. DATE COMPL. (Ready to prod.)<br>P&A 6-10-78 |                                    | 18. ELEVATIONS (DF, REB, RT, GR, ETC.)*<br>3442.6' GL |                                    | 19. ELEV. CASINGHEAD                       |  |
| 20. TOTAL DEPTH, MD & TVD<br>2400'                                                                                                                                                                                                      |  | 21. PLUG, BACK T.D., MD & TVD                                        |                                    | 22. IF MULTIPLE COMPL., HOW MANY*               |                                    | 23. INTERVALS DRILLED BY<br>→ 0'-2400'                |                                    | ROTARY TOOLS<br>CABLE TOOLS                |  |
| 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*                                                                                                                                                           |  |                                                                      |                                    |                                                 |                                    | 25. WAS DIRECTIONAL SURVEY MADE<br>Yes                |                                    |                                            |  |
| 26. TYPE ELECTRIC AND OTHER LOGS RUN<br>CNL DLL                                                                                                                                                                                         |  |                                                                      |                                    |                                                 |                                    | 27. WAS WELL CORED                                    |                                    |                                            |  |
| 28. CASING RECORD (Report all strings set in well)                                                                                                                                                                                      |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| CASINO SIZE                                                                                                                                                                                                                             |  | WEIGHT, LB./FT.                                                      |                                    | DEPTH SET (MD)                                  |                                    | HOLE SIZE                                             |                                    | CEMENTING RECORD                           |  |
| 8 5/8"                                                                                                                                                                                                                                  |  | 20#                                                                  |                                    | 249'                                            |                                    | 12 1/4"                                               |                                    | 120 Sx C1 C 2% CaCl                        |  |
| 4 1/2"                                                                                                                                                                                                                                  |  | 9.5# & 11.6#                                                         |                                    | 2400' KB                                        |                                    | 7 7/8"                                                |                                    | 550 Sx C1 C w/5#                           |  |
| 29. LINER RECORD                                                                                                                                                                                                                        |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| SIZE                                                                                                                                                                                                                                    |  | TOP (MD)                                                             |                                    | BOTTOM (MD)                                     |                                    | SACKS CEMENT*                                         |                                    | SCREEN (MD)                                |  |
|                                                                                                                                                                                                                                         |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 30. TUBING RECORD                                                                                                                                                                                                                       |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| SIZE                                                                                                                                                                                                                                    |  | DEPTH SET (MD)                                                       |                                    | PACKER SET (MD)                                 |                                    |                                                       |                                    |                                            |  |
|                                                                                                                                                                                                                                         |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 31. PERFORATION RECORD (Interval, size and number)<br>2316'-2324' - 16 Shots; 2074'-2086', 2102'-2108', 2110'-2116' - 48 Shots<br>1918'-1924', 1934'-1940' - 24 Shots<br>1130'-1135' - 10 Shots<br>770' - 2 Shots; 638'-644' - 12 Shots |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.                                                                                                                                                                                          |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| DEPTH INTERVAL (MD)                                                                                                                                                                                                                     |  |                                                                      |                                    |                                                 | AMOUNT AND KIND OF MATERIAL USED   |                                                       |                                    |                                            |  |
| PLEASE SEE ATTACHED TREATMENT SUMMARY                                                                                                                                                                                                   |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 33. PRODUCTION                                                                                                                                                                                                                          |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| DATE FIRST PRODUCTION                                                                                                                                                                                                                   |  | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) |                                    |                                                 |                                    |                                                       | WELL STATUS (Producing or shut-in) |                                            |  |
| DATE OF TEST                                                                                                                                                                                                                            |  | HOURS TESTED                                                         |                                    | CHOKE SIZE                                      |                                    | PROD'N. FOR TEST PERIOD                               |                                    | OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO |  |
| FLOW. TUBING PRESS.                                                                                                                                                                                                                     |  | CASING PRESSURE                                                      |                                    | CALCULATED 24-HOUR RATE                         |                                    | OIL—BBL. GAS—MCF. WATER—BBL.                          |                                    | OIL GRAVITY API (CORR.)                    |  |
| 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)                                                                                                                                                                              |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    | TEST WITNESSED BY                          |  |
| 35. LIST OF ATTACHMENTS                                                                                                                                                                                                                 |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| 36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records                                                                                                       |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    |                                            |  |
| SIGNED                                                                                                                                                                                                                                  |  | Perk Harder                                                          |                                    |                                                 |                                    | TITLE                                                 |                                    | Engineer                                   |  |
|                                                                                                                                                                                                                                         |  |                                                                      |                                    |                                                 |                                    |                                                       |                                    | DATE 6-16-78                               |  |

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

| 37. SUMMARY OF POROUS ZONES:<br>SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING<br>DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES |      |         | 38. GEOLOGIC MARKERS        |      |             |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|-----------------------------|------|-------------|------------------|
| FORMATION                                                                                                                                                                                                                                             | TOP  | BOTTOM  | DESCRIPTION, CONTENTS, ETC. | NAME | MEAS. DEPTH | TRUE VERT. DEPTH |
| Seven Rivers                                                                                                                                                                                                                                          | 258  | 516     |                             |      |             |                  |
| Bowers                                                                                                                                                                                                                                                | 516  | 636     |                             |      |             |                  |
| Queen                                                                                                                                                                                                                                                 | 636  | 979     |                             |      |             |                  |
| Grayburg                                                                                                                                                                                                                                              | 979  | 1300    |                             |      |             |                  |
| San Andres                                                                                                                                                                                                                                            | 1300 | 2100    |                             |      |             |                  |
| Limestone facies<br>of San Andres                                                                                                                                                                                                                     | 2100 | 2405 TD |                             |      |             |                  |

HARVEY E. YATES COMPANY

EAST LAKE ARTHUR FEDERAL #2

Treatment Summary

- 5-11-78 Perforations - 2316' - 2324' - 500 gals Spearhead acid
- 5-13-78 Ran CIBP on wireline and set @ 2280' KB with 2 Sx cement on top of plug with wireline bailer.
- 5-13-78 Perforations - 2074' - 2116' - 2500 gals 15% DS-30 acid
- 5-17-78 Squeezed perfs from 2074' - 2116' with 150 Sx C1 C cement
- 5-18-78 Perforations - 1918' - 1924' and 1934' - 1940' - 2500 gals 15% DS-30
- 5-24-78 Fractured perforations 1918' - 1940' via casing with 20,000 gal 3% gel acid in 2 10,000 gal stages
- 5-31-78 Set CIBP at 1880' KB with 35' cement on top with wireline bailer
- 6-01-78 Perforations - 1130' - 1135' KB - 500 gals 15% DS-30 acid
- 6-06-78 Ran CIBP and set at 1040' KB with 3 Sx cement with wireline bailer on top of CIBP. Ran 4½" Baker squeeze retainer and 2 3/8" tubing and set @ 722' KB. Mixed 175 Sx Class C cement with 15# salt/sx and squeezed below retainer. Had full returns and reversed out ½ bbl cement. Pulled tubing out of hole.
- 6-08-78 Perforations - 638' - 644' - 500 gals 15% NE acid

\* Ran 2 holes @ 770' for up.

# ARTESIA FISHING TOOL COMPANY

P. O. BOX 301, PHONE SH 6-6651

EAST MAIN STREET

ARTESIA, NEW MEXICO

June 15, 1978

Harvey E. Yates Co.  
P.O. Box 1933  
Roswell, New Mexico 88201

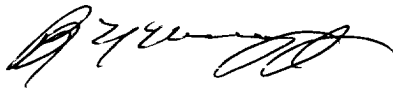
RE: East L. A. Fed # 2  
Section 29, T15S, R27E  
Eddy County, New Mexico

Gentlemen:

The following is a Deviation Survey of the above captioned well:

| <u>Depth</u> | <u>Deviation</u> |
|--------------|------------------|
| 291'         | 3/4°             |
| 588'         | 1°               |
| 1987'        | 1°               |
| 2400'        | 1-1/4°           |

Very truly yours,

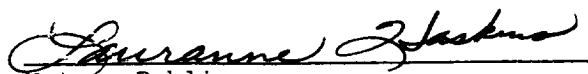


B. N. Muncy, Jr.  
Secretary

STATE OF NEW MEXICO |

COUNTY OF EDDY |

The foregoing was acknowledged before me this 15th day of June, 1978.

  
Notary Public

My Commission Expires: Sept. 23, 1979

RECEIVED  
JUN 19 1978  
U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO