

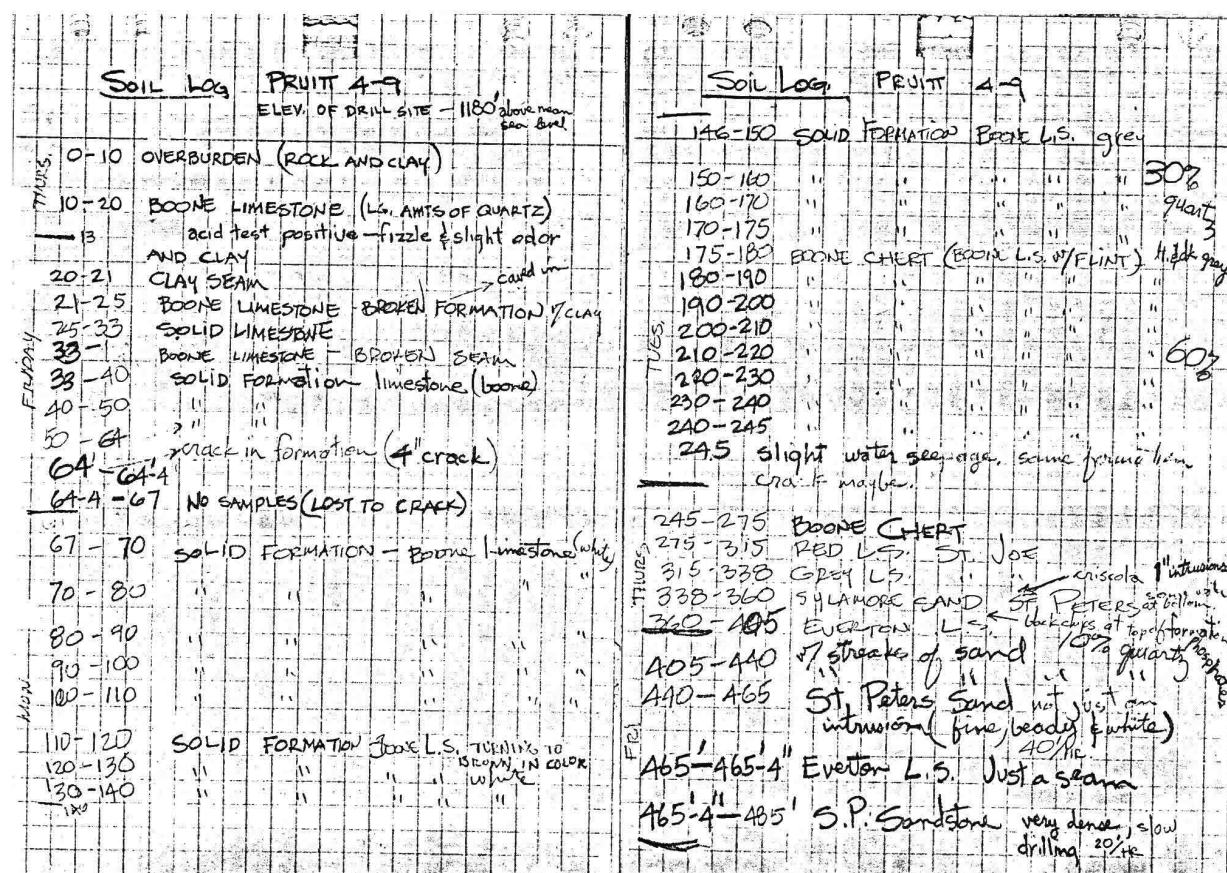


**Docket No:** 1

PRUIT RESIDENCE WELL #4-9

## Supporting Hydro Data

0: well log



SOIL LOG  
 4-9  
 1/2 gpm  
 485' first water sample taken  
 at #2 sample

485'-540 S.P. Sandstone fine, beady, white  
 still dense (20'/hr)

540-550 Everton L.S.

550-595 S.P. Sandstone NOT AS DENSE  
 (30'/hr)

595-605 S.P. Sandstone (DENSE, 20'/hr)

605-665 Ev. L.S. some sand stringers  
 another water sample taken 0.6 top sample

665-690 Ev. L.S. SAND FREE  
 690-710 - L.S. NO SAND, DARK grey  
 710-720 CASION SHALE, dark grey clays, no  
 sand, very little L.S. checked with acid.

730 top of Jeff City (or Powell dolomite)  
 grey L.S.

665-690 Bottom of EVERTON L.S.

690-730 Silty L.S.

730-790 Dark L.S. w/ shale seams

790-800 Lt. grey L.S. very fine

800-825 Dk grey L.S. " " w/ LT. STREAKS

825-850 Dk and Lt. grey L.S. w/ silty streaks

850-860 Black rocks

860-870 Dk grey rocks

870-915 " " " " " " " " " " " "

915-935 w/ FLINT & QUARTZ basically L.S. could be  
 and of Powell

shows upon test pumping

935-980 L.S. (greyish)

980-981 Clay & sand seams - orange in color

981-988 Mottled colored L.S. silt seams, flint looked  
 like top of Devonian

988-1010 " " " " " " " " " " " "

100 Soft L.S. w/ blue-green slate seams

1010-1020 Strip of flint

1020-1060 Grey L.S. (COTTER FORMATION)

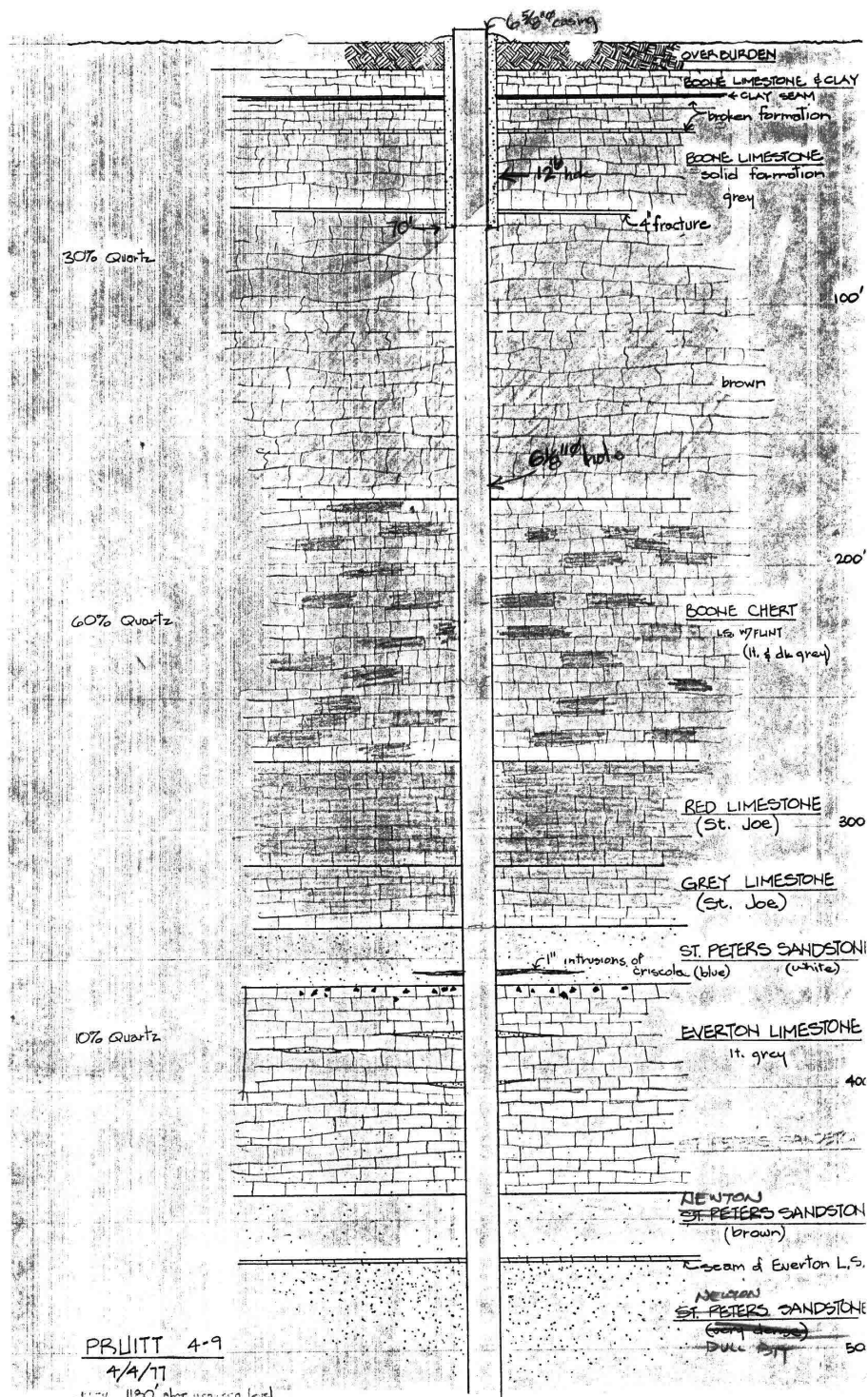
1060 - 7.5-8.0 gal/min

1060-1070 - Grey L.S. w/ veins of flint 30-50%

1070 - picking up more water (QUARTZES IN BOTTOM  
 OF FLINT)

1070-1080 - Brown L.S. (little or no flint)

1080-1100 Grey L.S. contains flint & quartz



CUSTOMER National Park Servi  
 ADDRESS P.O. Box 728  
 CITY Santa Fe, NM 87501  
 ATTENTION Gary Moore  
 INVOICE NO. 101206

# REPORT OF ANALYSIS

|                                                          |                                           |                       |
|----------------------------------------------------------|-------------------------------------------|-----------------------|
| SAMPLES RECEIVED                                         | 12/31/80                                  | CUSTOMER ORDER NUMBER |
| TYPE OF ANALYSIS                                         | Water Date Collected 8/2/80 EC 240 @ 13°C |                       |
| Sample Identification                                    | Type of Analysis                          | mg/l                  |
| Pruitt Ranger Station -<br>Buffalo River<br>by: G. Moore | Bicarbonate (as CaCO <sub>3</sub> )       | 110                   |
|                                                          | Calcium                                   | 44                    |
|                                                          | Carbonate                                 | < 1.0                 |
|                                                          | Chloride                                  | 4.0                   |
|                                                          | Fluoride                                  | 2.2                   |
|                                                          | Hardness (as CaCO <sub>3</sub> )          | 138                   |
|                                                          | Calcium (Hardness)                        | 110                   |
|                                                          | Magnesium (Hardness)                      | 15                    |
|                                                          | Non-Carbonates                            | 28                    |
|                                                          | Iron                                      | < 0.01                |
|                                                          | Manganese                                 | < 0.001               |
|                                                          | Nitrogen, Nitrate (as N)                  | 0.9                   |
|                                                          | pH Units                                  | 7.4                   |
|                                                          | Potassium                                 | 0.4                   |
|                                                          | Silica                                    | 13                    |
|                                                          | Sodium                                    | 2.2                   |
|                                                          | Solids, Total Dissolved                   | 137                   |
|                                                          | Specific Conductance umhos/cm             | 280                   |
|                                                          | Sulfate                                   | < 1                   |



Controls for Environmental Pollution, Inc.

P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502  
 Telephone 505/982-9841

APPROVED BY  
 1/29/81

*Elmer D. Martinez*  
 Elmer D. Martinez, Operations Division Manager  
 PAGE 2 OF 13 PAGE

Location: Pruitt Ranger Station  
 Date: 8-3-80  
 Observers: Christensen, Moore

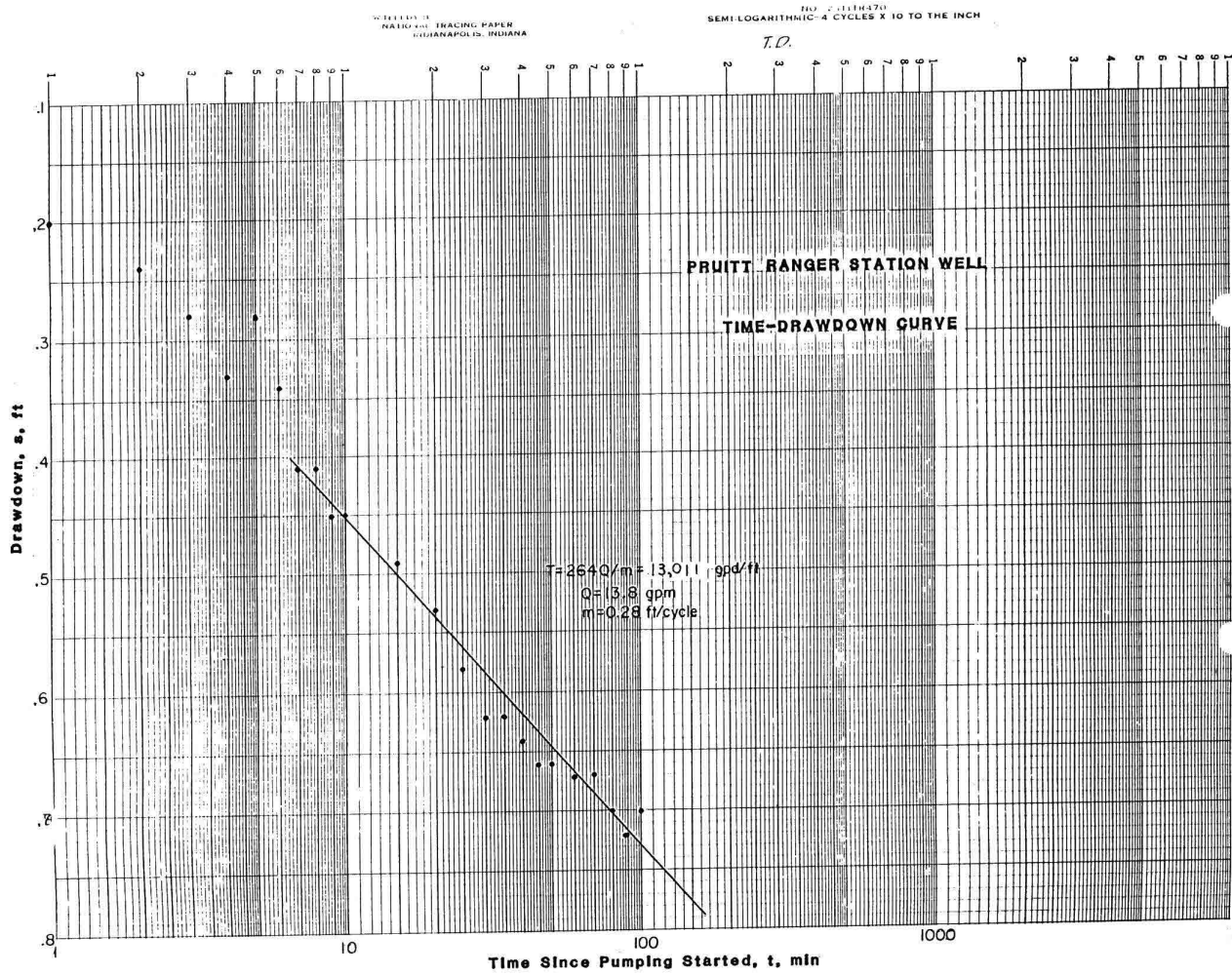
DRAWDOWN DATA

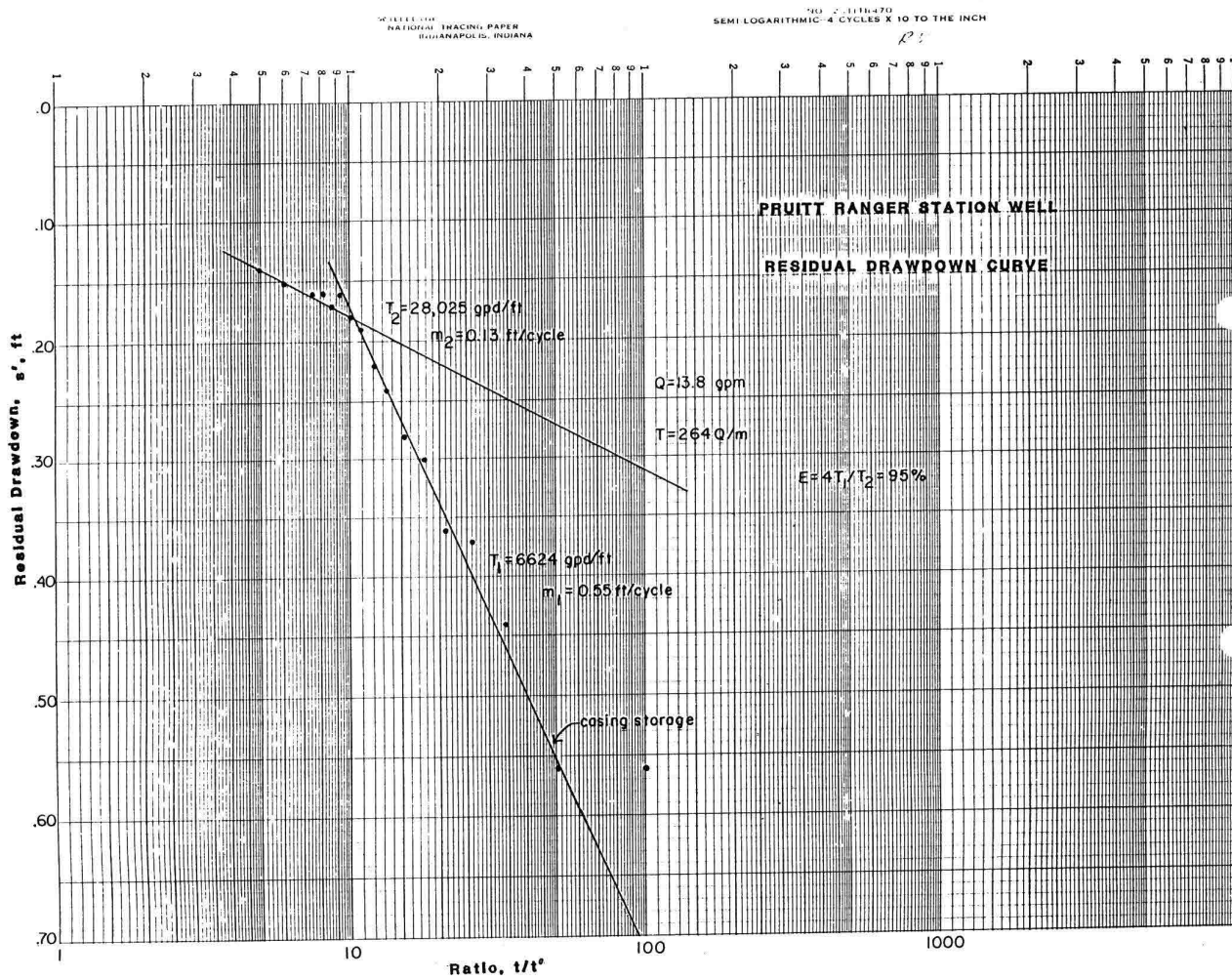
| <u>Clock Time</u><br><u>(hour)</u> | <u>Pumping Time</u><br><u>(min)</u> | <u>Water Level</u><br><u>BTC (feet)</u> | <u>Drawdown</u><br><u>(feet)</u> | <u>Specific</u><br><u>Capacity</u> | <u>Remarks</u>                 |
|------------------------------------|-------------------------------------|-----------------------------------------|----------------------------------|------------------------------------|--------------------------------|
| 1130                               | 0                                   | 40.80                                   | 0                                |                                    | SWL 40.8 ft                    |
|                                    | 1                                   | 41.00                                   | .20                              |                                    | 0 Back pressure                |
|                                    | 2                                   | 41.04                                   | .24                              | 57.5 gpm/ft                        | 3 gal/13 sec Q=13.8 gal ft/min |
|                                    | 3                                   | 41.08                                   | .28                              |                                    |                                |
|                                    | 4                                   | 41.13                                   | .33                              |                                    |                                |
|                                    | 5                                   | 41.08                                   | .28                              |                                    |                                |
|                                    | 6                                   | 41.14                                   | .34                              |                                    |                                |
|                                    | 7                                   | 41.21                                   | .41                              |                                    |                                |
|                                    | 8                                   | 41.21                                   | .41                              |                                    |                                |
|                                    | 9                                   | 41.25                                   | .45                              |                                    |                                |
|                                    | 10                                  | 41.25                                   | .45                              | 26.7 gpm/ft                        | 3 gal/15 sec Q=12.0 gal ft/min |
|                                    | 15                                  | 41.29                                   | .49                              |                                    |                                |
|                                    | 20                                  | 41.33                                   | .53                              |                                    |                                |
|                                    | 25                                  | 41.38                                   | .58                              |                                    |                                |
| 1200                               | 30                                  | 41.42                                   | .62                              |                                    |                                |
|                                    | 35                                  | 41.42                                   | .62                              | 19.4                               | "temp" accident shut off       |
|                                    |                                     |                                         |                                  |                                    | 3 gal/15 sec Q=12.0 gal ft/min |
|                                    | 40                                  | 41.44                                   | .64                              | 20.1                               | 3 gal/14 sec Q=12.9 gal ft/min |
| 1215                               | 45                                  | 41.46                                   | .66                              |                                    |                                |
|                                    | 50                                  | 41.46                                   | .66                              |                                    |                                |
|                                    | 60                                  | 41.47                                   | .67                              | 20.6                               | EC=302.4 @25°C                 |
|                                    | 70                                  | 41.47                                   | .67                              |                                    | 3 gal/13 sec Q=13.8 gal ft/min |
|                                    | 80                                  | 41.50                                   | .70                              |                                    |                                |
|                                    | 90                                  | 41.52                                   | .72                              |                                    |                                |
|                                    | 100                                 | 41.50                                   | .70                              | 19.7                               | pump off                       |

Location: Pruitt Ranger Station  
 Date: 8-3-80  
 Observers: Christensen, Moore

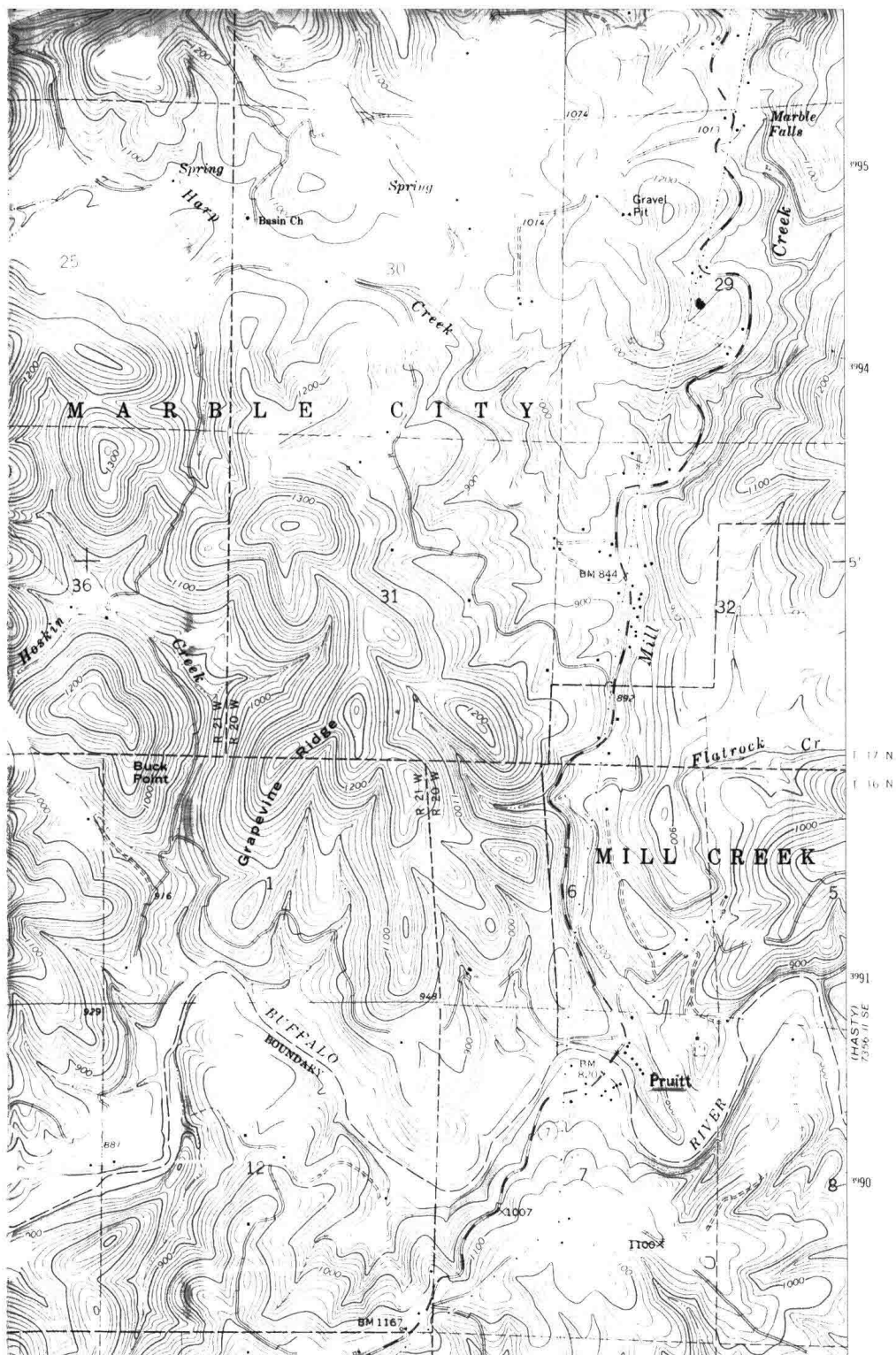
RECOVERY DATA

| <u>Clock Time</u><br><u>(hour)</u> | <u>Time, Pump Start</u><br><u>(t, min)</u> | <u>Time, Pump Stop</u><br><u>(t', min)</u> | <u>Ratio</u><br><u>(t/t')</u> | <u>Water Level</u><br><u>(BTC, ft.)</u> | <u>Residual</u><br><u>Drawdown</u> | <u>Calculated</u><br><u>Recovery</u> |
|------------------------------------|--------------------------------------------|--------------------------------------------|-------------------------------|-----------------------------------------|------------------------------------|--------------------------------------|
| 1310                               | 100                                        | 0                                          |                               | 41.50                                   | .70                                |                                      |
|                                    | 101                                        | 1                                          | 101.0                         | 41.36                                   | .56                                |                                      |
|                                    | 102                                        | 2                                          | 51.0                          | 41.36                                   | .56                                |                                      |
|                                    | 103                                        | 3                                          | 34.3                          | 41.24                                   | .44                                |                                      |
|                                    | 104                                        | 4                                          | 26.0                          | 41.17                                   | .37                                |                                      |
|                                    | 105                                        | 5                                          | 21.0                          | 41.16                                   | .36                                |                                      |
|                                    | 106                                        | 6                                          | 17.7                          | 41.10                                   | .30                                |                                      |
|                                    | 107                                        | 7                                          | 15.3                          | 41.08                                   | .28                                |                                      |
|                                    | 108                                        | 8                                          | 13.5                          | 41.04                                   | .24                                |                                      |
|                                    | 109                                        | 9                                          | 12.1                          | 41.02                                   | .22                                |                                      |
| 1320                               | 110                                        | 10                                         | 11.0                          | 40.99                                   | .19                                |                                      |
|                                    | 111                                        | 11                                         | 10.1                          | 40.98                                   | .18                                |                                      |
|                                    | 112                                        | 12                                         | 9.33                          | 40.96                                   | .16                                |                                      |
|                                    | 113                                        | 13                                         | 8.69                          | 40.97                                   | .17                                |                                      |
|                                    | 114                                        | 14                                         | 8.14                          | 40.96                                   | .16                                |                                      |
| 1325                               | 115                                        | 15                                         | 7.57                          | 40.96                                   | .16                                |                                      |
| 1330                               | 120                                        | 20                                         | 6.00                          | 40.95                                   | .15                                |                                      |
| 1335                               | 125                                        | 25                                         | 5.00                          | 40.94                                   | .14                                |                                      |





Maps and Miscellaneous Information



Docket Information

Number of Documents in Docket 9  
Documents Dated from 4/4/1977 to 1/29/1981  
Docket Compiled: 2/8/2011