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KENNETH D. SCHMIDT AND ASSOCIATES

GROUNDWATER QUALITY CONSULTANTS

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August 8, 2002

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Mr. James L. Nickel  
Nickel Family LLC  
P.O. Box 60679  
Bakersfield, CA 93386-0679

Re: Rio Bravo Wells  
Aquifer Test

Dear Jim:

Following is my report on the results of the 21-day pump test that was conducted on the two Rio Bravo wells during June-July, 2002. Pumping of Well No. 2 began at 12:40 PM on June 19 and continued until 8:35 AM on July 10, 2002. Well No. 1 was used as an observation well and not pumped for the first 12 days of the test. Pumping of Well No. 1 began at 7:15 AM on July 1 and stopped at 8:35 AM on July 10, 2002. As you are aware, it was necessary to use airgages and airlines for the water-level measurements, as there were no spaces for sounding lines. Also, Well No. 1 originally had perforated casing from 785 to 1,900 feet in depth. However, a recent TV survey indicated that the well was filled in up to a depth of 1,037 feet. Thus, only about one quarter of the strata originally tapped by the well are now accessible.

Drawdown Measurements

Depth to water in Well No. 2 was 157 feet below the measuring point prior to pumping on June 19. A total of 55,310,000 gallons was pumped from this well during the 21-day pumping period. The average pumping rate was 1,845 gpm.

Figure 1 shows pumping levels in Well No. 2 during the test. After about 12 days of pumping of Well No. 2 alone, the pumping

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level was 243 feet, or a drawdown of 86 feet. The specific capacity at this time was 22 gpm per foot. Drawdown measurements in Well No. 2 indicate a transmissivity of about 32,000 gpd per foot. After pumping of Well No. 1 commenced, pumping levels in Well No. 2 fell significantly to about 282 feet near the end of the 21-day pumping period. At the end of pumping of both wells, the specific capacity for Well No. 2 was about 15 gpm per foot.

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A total of 11,659,000 gallons was pumped from Well No. 1 during the 9-day pumping period. The average pumping rate was about 895 gpm. The static level in Well No. 1 prior to pumping of Well No. 2 was 237 feet. Figure 2 shows water levels in Well No. 1. After about 12 days of pumping Well No. 2, depth to water in Well No. 1 was about 250 feet, or a drawdown of 13 feet. Drawdown measurements in Well No. 1 when it was used as an observation well indicate a transmissivity of 31,000 gpd per foot and a storage coefficient of 0.01. Prior to the beginning of pumping of Well No. 1, depth to water in Well No. 1 was 249.7 feet. The pumping level in Well No. 1 was 391 feet at the end of pumping of both wells. The drawdown was 141 feet, and the specific capacity was about 6 gpm per foot. Drawdown measurements are provided in Attachment A.

Recovery Measurements

Figure 3 shows water-level recovery for Well No. 2. The air-gage for the well was found to be malfunctioning after the first week or so of recovery. Later measurements indicated that full recovery to the static water level prior to pumping occurred within about 28 days after pumping of both wells stopped. Meaningful values of transmissivity couldn't be determined from the recovery measurements for Well No. 2.

Figure 4 shows water-level recovery for Well No. 1. Full recovery to the static water level prior to pumping of either well was attained after about 19 days following the end of pumping of both wells. A transmissivity of 24,000 gpd per foot was obtained from uncorrected recovery measurements for Well No. 1. The best value for aquifer transmissivity for the test is about 30,000 gpd per foot. Water-level recovery measurements for the test are provided in Attachment B.

### Sustained Yields

Long-term pumping of such wells requires an allowance for recovery during intervening periods of no pumping. Assuming a pumping schedule of about six months per year, Well No. 1 would be capable of about 900 gpm and Well No. 2 would be capable of about 1,380 gpm. ~~The sustained yield of Well No. 2 is lower than the~~ average pumping rate during the test, because full recovery wasn't attained within the same time interval as for the pumping period.

### Water Quality

Attachment C contains the results of comprehensive chemical analyses of water samples collected from both wells at the end of the pumping period. Field electrical conductivities and water temperatures were also periodically measured during the pumping period, and the results are provided in Appendix A.

For Well No. 2, the water temperatures ranged from 94 to 95°F throughout the pumping period. Electrical conductivities were about 1,110 to 1,120 micromhos per centimeter at 25°C early in the pumping period, and increased slightly, to about 1,170 to 1,200 micromhos at the end of the period. For Well No. 1, the water temperature was essentially 90°F throughout the pumping period. The electric conductivity was about 1,680 micromhos early in the pumping period and was about 1,730 micromhos near the end of the period. These trends and trends in water levels during the draw-down part of the test indicate no influence of Kern River seepage on pumped water during the test. This is expected because of the presence of a thick confining bed (Round Mountain Formation) above the top of the perforations in the wells.

Water from Well No. 1 was of the sodium sulfate type. The sulfate concentration was 542 mg/l and the chloride concentration was 51 mg/l. Concentrations of nitrate, fluoride, arsenic, and chromium were well below the respective MCLs for drinking water. The boron concentration was 0.6 mg/l and the manganese concentration was 0.06 mg/l. The alpha activity was so low as to not be measurable.

Water from Well No. 2 was of the sodium bicarbonate-sulfate type. The sulfate concentration was 219 mg/l and the chloride concentration was 44 mg/l. Concentrations of nitrate, fluoride,

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arsenic, and chromium were well below the respective MCLs for drinking water. The boron concentration was 1.27 mg/l and the manganese concentration was less than 0.01 mg/l. The alpha activity was 2 picocuries per liter, well below the MCL of 15 picocuries per liter.

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My letter of April 3, 2000 evaluated the potential impacts of pumping water from these wells into the Kern River. I used an electrical conductivity of about 1,320 micromhos for the two wells for that evaluation. The pump test indicates that the actual value would be about 1,460 micromhos. Because the wells would only produce a combined total of about 2,280 gpm on a sustained (six months per year) basis, compared to the 4,715 gpm that I previously evaluated, the overall impact on river water quality would be considerably less than I previously projected.

Please call me if you have any questions.

Sincerely yours,



Kenneth D. Schmidt

KDS/cap

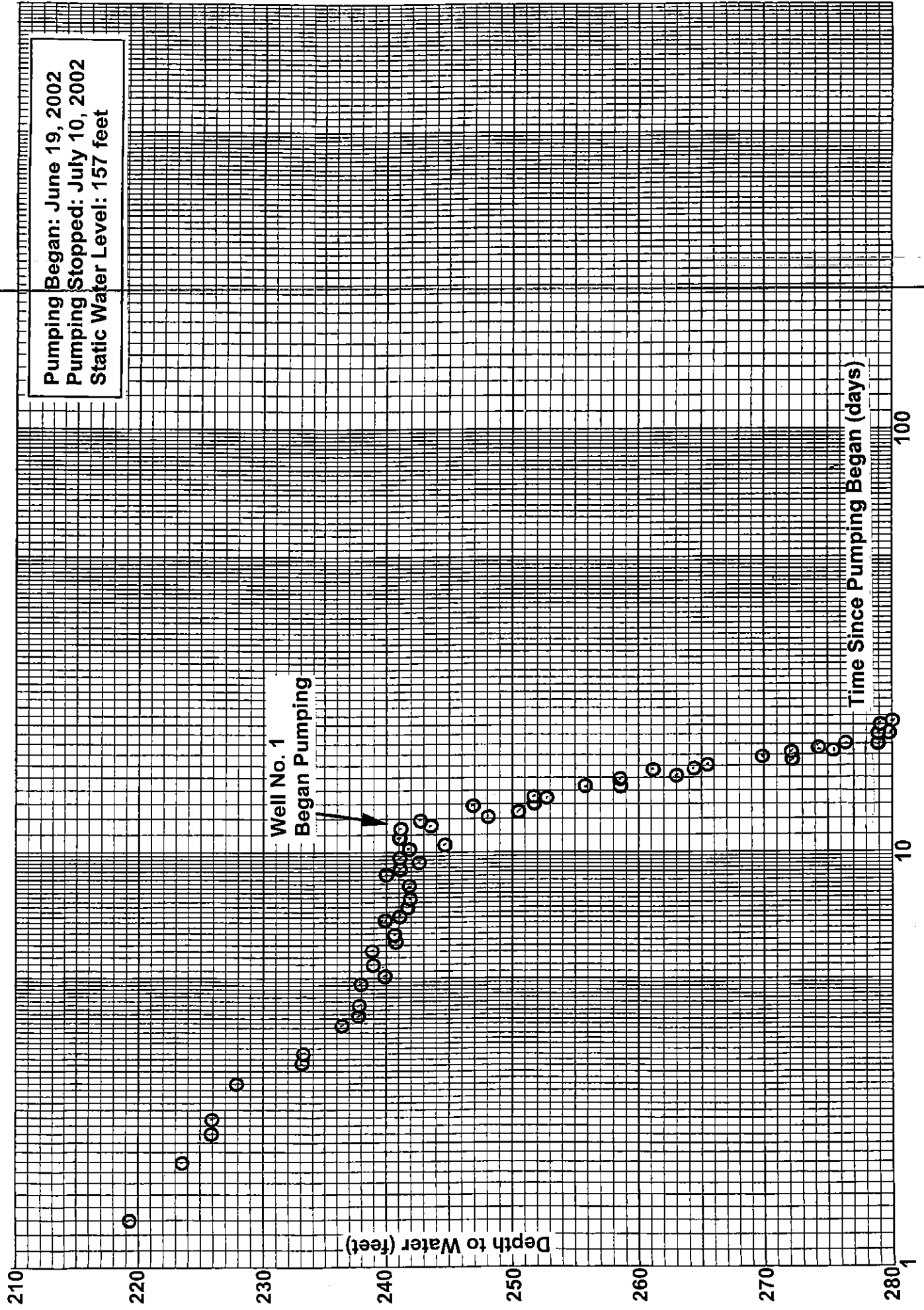


FIGURE 1 - DRAWDOWN FOR RIO BRAVO RANCH WELL NO. 2

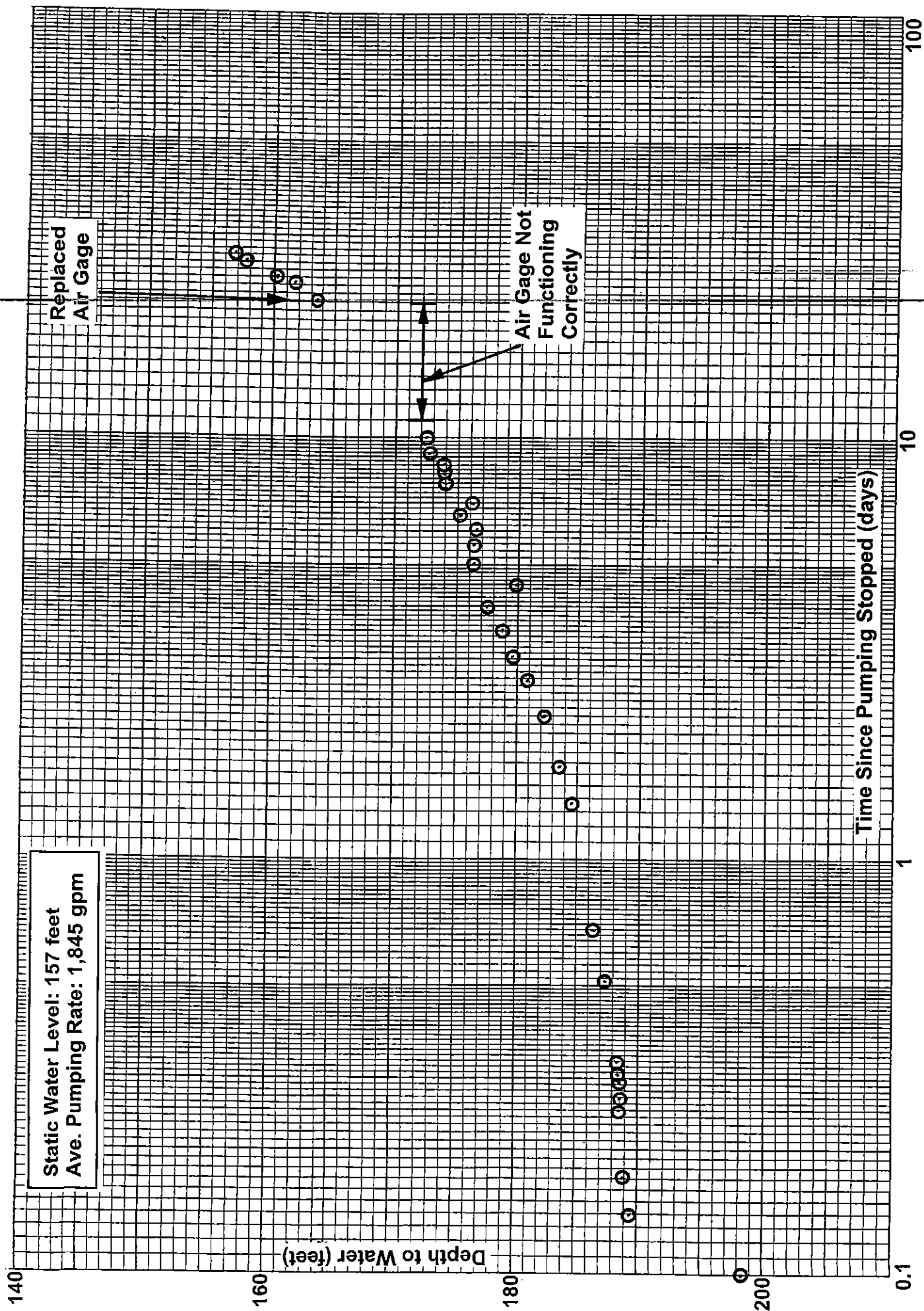


FIGURE 3 - RECOVERY FOR RIO BRAVO RANCH WELL NO. 2

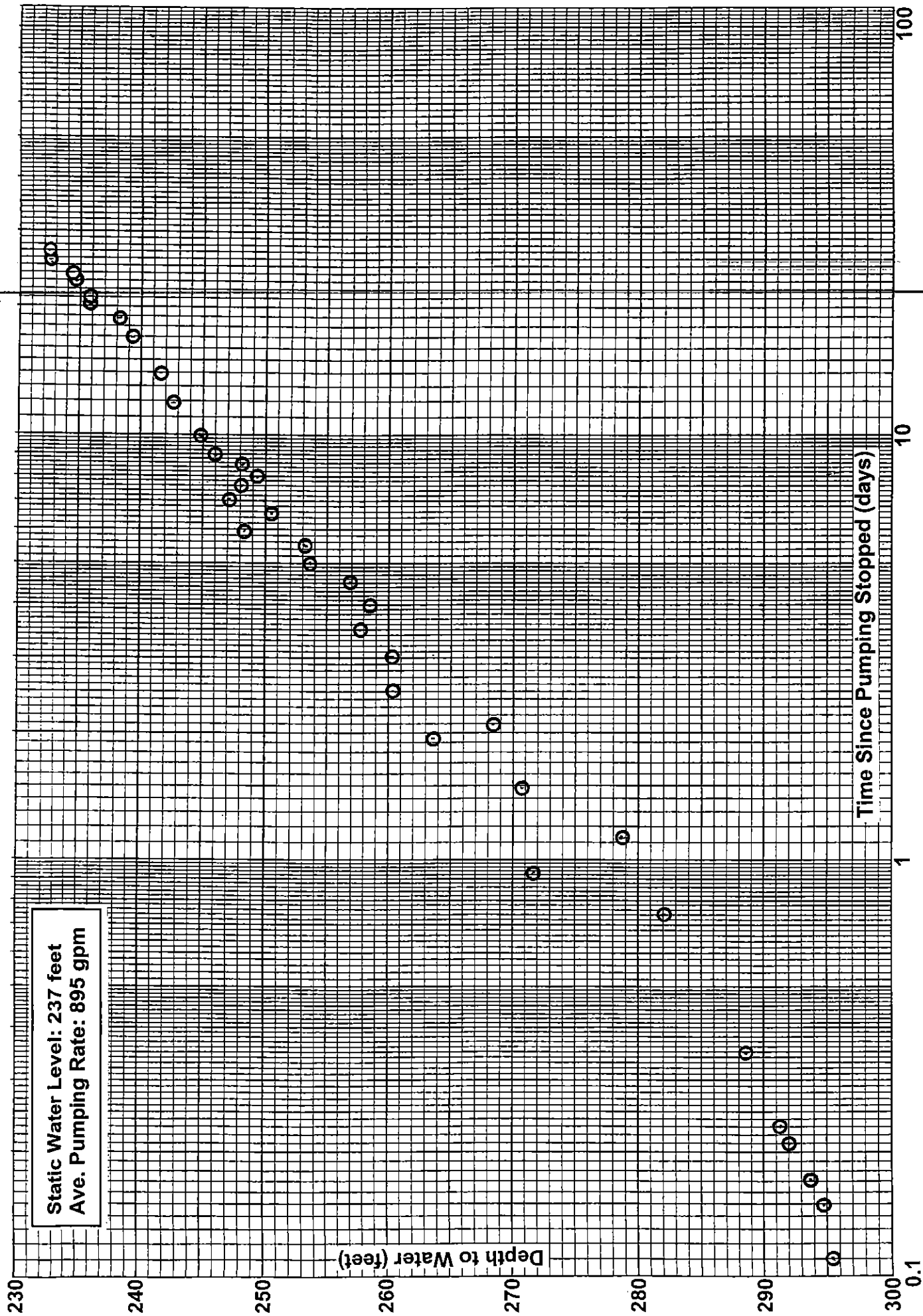


FIGURE 4 - RECOVERY FOR RIO BRAVO RANCH WELL NO. 1

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**ATTACHMENT A**  
**DRAWDOWN MEASUREMENTS**

# Rio Bravo

Well No. 2

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Atmine Length 360'  
+ Pump Setting  
Pumped Water  
Originally

## DRAWDOWN MEASUREMENTS

| Time (min) | Date/Time | PSI     | Water Level (feet) WL | Drawdown (feet) | Well Discharge AF<br>Inst. (gpm) | Total (gpm) | Notes                                        |
|------------|-----------|---------|-----------------------|-----------------|----------------------------------|-------------|----------------------------------------------|
|            |           |         |                       |                 |                                  |             |                                              |
|            | 1/19/02   | 88.0    | -15.7                 |                 |                                  | 670.192     |                                              |
|            | 12:40pm   | Pump On |                       |                 |                                  |             |                                              |
| 1          | 12:41pm   | 68.8    | 203                   | 45              |                                  |             | Ave Q: 184 gpm                               |
| 2          | 12:42     | 67.5    | 204                   | 46              |                                  |             | dd: 125 ft                                   |
| 3          | 12:43     | 67.0    | 205                   | 47              |                                  |             | S.C: 148 gpm/A                               |
| 5          | 12:45     | 67.0    | 205                   | 47              |                                  | 670.224     |                                              |
| 10         | 12:50     | 66.5    | 206                   | 48              | 1,790                            |             |                                              |
| 15         | 12:55     | 66.5    | 206                   | 48              |                                  |             |                                              |
| 20         | 1:00      | 66.2    | 207.1                 | 49.1            |                                  |             |                                              |
| 30         | 1:10      | 66.0    | 207.5                 | 49.5            |                                  |             |                                              |
| 35         | 1:15      | 65.8    | 208.0                 | 50.0            |                                  | 670.399     | T 94°F                                       |
| 40         | 1:20      | 65.5    | 208.7                 | 50.7            |                                  |             | EC 1152 umhos                                |
| 45         | 1:25      | 65.5    | 208.7                 | 50.7            |                                  |             |                                              |
| 50         | 1:30      | 65.5    | 208.7                 | 50.7            | 1,800                            |             |                                              |
| 55         | 1:35      | 65.3    | 209.2                 | 51.2            |                                  |             |                                              |
| 60         | 1:40      | 65.2    | 209.4                 | 51.4            |                                  |             |                                              |
| 70         | 1:50      | 66.0    | 209.4                 | 51.4            |                                  |             |                                              |
| 80         | 2:00      | 65.0    | 209.4                 | 51.4            |                                  | 670.717     |                                              |
| 90         | 2:10      | 65.0    | 209.4                 | 51.4            |                                  |             |                                              |
| 100        | 2:20      | 65.0    | 209.4                 | 51.4            |                                  |             | T 94°F                                       |
| 110        | 2:30      | 64.7    | 210.5                 | 52.5            | 1,902                            |             | EC 1,116 umhos                               |
| 120        | 2:40      | 64.5    | 211.0                 | 53.0            |                                  |             |                                              |
| 130        | 2:50      | 64.5    | 211.0                 | 53.0            |                                  |             |                                              |
| 140        | 3:00      | 64.3    | 211.5                 | 53.5            |                                  | 671.012     |                                              |
| 150        | 3:10      | 64.3    | 211.5                 | 53.5            |                                  |             |                                              |
| 160        | 3:20      | 64.2    | 211.7                 | 53.7            |                                  |             | Juan and R. Perfecto<br>Deliver<br>air tanks |
| 170        | 3:30      | 64.2    | 211.7                 | 53.7            |                                  |             | 3:15pm                                       |
| 180        | 3:40      | 64.2    | 211.7                 | 53.7            |                                  |             | T 94°F                                       |
| 190        | 3:50      | 64.0    | 212.2                 | 54.2            |                                  |             | 1,122 umhos                                  |
| 200        | 4:00      | 64.0    | 212.2                 | 54.2            | 1,900                            |             |                                              |
| 215        | 4:15      | 63.8    | 212.6                 | 54.6            |                                  |             |                                              |
| 230        | 4:30      | 63.7    | 212.8                 | 54.8            |                                  |             |                                              |
| 245        | 4:45      | 63.5    | 213.3                 | 55.3            |                                  |             |                                              |
| 260        | 5:00      | 63.5    | 213.3                 | 55.3            |                                  | 671.711     |                                              |

DRAWDOWN MEASUREMENTS

| $t(\text{min}) + t(\text{day})$ | Date/Time      | psi   | Water Level (feet) | <del>Drawdown</del> Inst. (gpm) | Well Discharge Total (AF) | Notes         |
|---------------------------------|----------------|-------|--------------------|---------------------------------|---------------------------|---------------|
| 450                             | 6/19/02 8:10pm | 64    | 212.2              | 54.2                            |                           |               |
| 575                             | 10:15pm        | 63    | 214.5              | 56.5                            |                           |               |
| 990 6/20/02                     | 5:10am         | 63    | 214.5              | 56.5                            |                           |               |
| 1,095                           | 6:55am         | 62.5  | 215.6              | 57.8                            |                           | T 92°F        |
| 1,110                           | 7:10am         | 62.3  | 216.1              | 58.1                            | 1,890                     | EC 1.215      |
| 1,160                           | 8:00am         | 62.0  | 216.8              | 58.8                            |                           | B.41          |
| 1,175                           | 8:15           | 61.9  | 217.0              | 59.0                            | 1,900                     | T 93.5°F      |
| 1,190                           | 8:30           | 61.7  | 217.5              | 59.5                            |                           |               |
| 1,220                           | 9:00           | 61.3  | 218.4              | 60.4                            | 1,900                     | T 93.5°F      |
| 1,235                           | 9:15           | 61.3  | 218.4              | 60.4                            |                           | EC 1.106umhos |
| 1,250                           | 9:30           | 61.2  | 218.6              | 60.6                            | 1,880                     | UT 7A47       |
| 1,265                           | 9:45           | 61.0  | 219.1              | 61.1                            |                           |               |
| 1,280                           | 10:00          | 61.0  | 219.1              | 61.1                            | 1,900                     | T 94°F        |
| 1,300                           | 10:20          | 60.8  | 219.6              | 61.6                            |                           | EC 1.112umhos |
| 1,310                           | 10:30          | 60.7  | 219.8              | 61.8                            |                           |               |
| 1,325                           | 10:45          | 60.7  | 219.8              | 61.8                            | 1,900                     |               |
| 1,340                           | 11:00          | 60.5  | 220.2              | 62.2                            |                           | T 94°F        |
| 1,890 13                        | 8:10pm         | 61    | 219.1              | 61.1                            |                           | EC 1.110umhos |
| 2,595 6/21/02                   | 7:55am         | 59    | 223.7              | 65.7                            |                           |               |
| 2,885 2.0                       | 12:45pm        | 58    | 226                | 68.0                            | 686.895                   | T 94°F        |
| 3,320 2.3                       | 8:00pm         | 58    | 226                | 68.0                            | 688.930                   | EC 1.114umhos |
| 3,980 6/22/02                   | 7:00am         | 57    | 228                | 70.0                            | 1,880                     | PH 8.40       |
| 4,416 3.1                       | 2:16pm         | 55    | 233                | 75.0                            | 695.717                   | T 95.5°F      |
| 4,760 3.3                       | 8:00pm         | 55    | 233                | 75.0                            | 697.592                   | EC 1.111umhos |
| 5,494 4.3                       | 8:14am         | 53.5  | 236.5              | 76.5                            | 1,870                     | PH 8.38       |
| 5,838 4.0                       | 1:58pm         | 53    | 237.6              | 79.6                            |                           | T 95.5°F      |
| 6,200 4.3                       | 8:00pm         | 53    | 237.6              | 79.6                            |                           | EC 1.145umhos |
| 6,873 6/24/02                   | 7:13am         | 53    | 237.6              |                                 | 709.818                   | PH 8.29       |
| 7,200 5.0                       | 12:40pm        | 52    | 239.9              |                                 | 1,785                     | T 95.5°F      |
| 7,640 5.3                       | 8:10pm         | 52.5  | 238.7              |                                 | 714.198                   | EC 1.109umhos |
| 8,305 6/25/02                   | 7:05am         | 52.5  | 238.7              |                                 | 718.030                   | PH 8.40       |
| 8,690 6.0                       | 1:30pm         | 51.75 | 240.5              |                                 | 1,862                     | T 95.5°F      |
| 9,080 6.8                       | 8:00pm         | 51.75 | 240.5              |                                 |                           | EC 1.123umhos |
| 9,807 6.8                       | 8:04am         | 52.0  | 239.9              |                                 |                           | PH 8.41       |

Rio Bravo

Well No. 2Page No. 3/4

Pumped Meters

## DRAWDOWN MEASUREMENTS

| + (min) + (days) | Date/Time      | Psi                   | Water Level<br>(feet) | Well Discharge AF |                 | Notes          |
|------------------|----------------|-----------------------|-----------------------|-------------------|-----------------|----------------|
|                  |                |                       |                       | Inst. (gpm)       | Total (gallons) |                |
| 10,152           | 8/26/02 1:52pm | 51.5                  | 241.0                 |                   | 728.614         | ← T 95.5°F     |
| 10,520           | 7/3 8:00pm     | 51.25                 | 241.6                 | 1,923             |                 | EC 1,139 umhos |
| 11,120           | 8/27/02 6:00am | 51.25                 | 241.6                 |                   | 734.329         | PH 8.46        |
| 8.0              | 12:16pm        | 51.25                 | 241.6                 |                   | 736.270         | ← T 95°F       |
| 8.3              | 8:10pm         | 51.25                 | 241.6                 | 1,813             | 738.68          | EC 1,161 umhos |
| 8.7              | 8/28/02 7:14am | 52.0                  | 239.9                 |                   | 742.751         | PH 8.35        |
| 9.0              | 12:46pm        | 51.5                  | 241.0                 |                   | 742.666         | ← T 95°F       |
| 9.3              | 8:00pm         | 51.0                  | 242.2                 | 1,854             | 747.009         | EC 1,135 umhos |
| 9.7              | 8/29/02 7:24am | 51.5                  | 241.0                 |                   | 750.999         | PH 8.40        |
| 10.0             | 11:45am        | 51.25                 | 241.6                 |                   | 752.345         | ← T 95°F       |
| 10.3             | 8:10pm         | 50.0                  | 244.5                 | 1,851             | 755.344         | EC 1,122 umhos |
| 10.7             | 8/30/02 7:18am | 51.5                  | 241.0                 |                   | 759.146         | PH 8.42        |
| 11.0             | 12:00pm        | 51.5                  | 241.0                 |                   | 760.073         | ← T 95°F       |
| 11.3             | 8:10pm         | 50.5                  | 243.3                 | 1,847             | 763.510         | EC 1,134 umhos |
| 11.7             | 7/1/02 7:15am  | Begin Pumping Well #1 |                       |                   |                 | PH 8.45        |
| 11.7             | 7:31am         | 51.0                  | 242.2                 |                   | 767.383         |                |
| 12.0             | 8:16pm         | 48.5                  | 248.0                 | 1,841             | 769.694         | ← T 95°F       |
| 12.3             | 8:16pm         | 47.5                  | 250.2                 |                   | 771.548         | EC 1,122 umhos |
| 12.7             | 8/2/02 7:11am  | 49                    | 246.8                 |                   | 775.407         | PH 8.58        |
| 13.0             | 1:20pm         | 47                    | 251.4                 | 1,829             | 777.496         | ← T 95°F       |
| 13.3             | 8:15pm         | 46.5                  | 252.5                 |                   | 779.764         | EC 1,142 umhos |
| 13.7             | 7/3/02 7:18am  | 47                    | 251.4                 |                   | 783.529         | PH 8.56        |
| 14.0             | 12:43pm        | 45                    | 256.0                 | 1,824             | 785.348         |                |
| 14.3             | 8:15pm         | 44                    | 258.4                 |                   | 787.744         | EC 1,168 umhos |
| 14.7             | 7/4/02 7:32am  | 44                    | 258.4                 |                   | 791.657         | PH 8.57        |
| 15.0             | 12:15pm        | 42                    | 263.0                 | 1,853             | 793.206         | ← T 95°F       |
| 15.3             | 8:15pm         | 42.5                  | 261.8                 |                   | 795.871         | EC 1,131 umhos |
| 15.7             | 7/5/02 7:19am  | 41.5                  | 264.1                 |                   | 799.785         | PH 8.38        |
| 16.0             | 1:45pm         | 40.75                 | 265.9                 | 1,776             | 801.752         | ← T 95°F       |
| 16.3             | 8:15pm         | 38                    | 272.2                 |                   | 803.805         | EC 1,156 umhos |
| 16.7             | 7/6/02 7:22am  | 39                    | 269.9                 |                   | 807.648         | PH 8.50        |
| 17.0             | 11:45am        | 38                    | 272.2                 | 1,810             | 809.130         | ← T 95°F       |
| 17.3             | 8:15pm         | 36.5                  | 275.7                 |                   | 812.038         | EC 1,153 umhos |
| 17.7             | 7/7/02 7:55am  | 37                    | 274.5                 |                   | 815.805         | PH 8.61        |

Well No. 2

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[illegible]

## Well No.

Well No.

Page No. 3/3

Well 1, Well 2 pumping concurrently

### DRAWDOWN MEASUREMENTS

Ave @ 894 gpm  
ad 153 ft

S.C. 5.8g<sup>WH</sup>/F

| H (days) | Date/Time       | Psi                                 | Water Level<br>(feet) | Well Discharge AF<br>Inst. (gpm) Total (gallons) | Notes                       |
|----------|-----------------|-------------------------------------|-----------------------|--------------------------------------------------|-----------------------------|
| 7/10     | 2 7:15am        | Pump On (w/elec No. 1)              |                       | 779.297                                          |                             |
| 11.7     | 7:17am          | 49                                  | 324.8                 | 779.694                                          |                             |
| 12.0     | 2:00pm          | 34.5                                | 358.3                 | 780.528                                          | T 91°F                      |
| 12.3     | 8:00pm          | 36.5                                | 353.7                 | 781.570                                          | EC 1.68 umho/cm             |
| 12.7     | 7/10/02 7:02am  | 32.5                                | 362.9                 | 783.480                                          | pH 7.45                     |
| 13.0     | 7/10/02 1:08pm  | 29                                  | 371.0                 | 784.532                                          | T 90°F                      |
| 13.3     | 7/10/02 8:00pm  | 29.5                                | 369.9                 | 785.752                                          | EC 1.840 umho/cm            |
| 13.77    | 7/10/02 7:04am  | 30.5                                | 367.5                 | 787.562                                          | pH 7.39                     |
| 14.0     | 7/10/02 12:30pm | 26.75                               | 376.2                 | 788.477                                          | T 90°F                      |
| 14.3     | 7/10/02 8:00pm  | 28.5                                | 372.2                 | 789.742                                          | EC 1.945 umho/cm            |
| 14.7     | 7/10/02 7:14am  | 27.5                                | 374.5                 | 791.597                                          | pH 7.28                     |
| 15.0     | 7/10/02 12:10pm | 26.0                                | 377.9                 | 792.376                                          | T 90°F                      |
| 15.3     | 7/10/02 8:00pm  | 25.5                                | 379.0                 | 793.619                                          | EC 1.79 umho/cm             |
| 15.77    | 7/10/02 7:39am  | 25.5                                | 379.0                 | 795.621                                          | pH 7.53                     |
| 16.0     | 7/10/02 1:15pm  | 24.25                               | 382.0                 | 796.550                                          | T 90°F                      |
| 16.3     | 7/10/02 8:00pm  | 24.5                                | 381.4                 | 797.656                                          | EC 1.774 umho/cm            |
| 16.7     | 7/10/02 6:59am  | 26                                  | 377.9                 | 799.434                                          | pH 7.50                     |
| 17.0     | 7/10/02 11:30am | 23.25                               | 384.3                 | 800.175                                          | T 90°F                      |
| 17.3     | 7/10/02 8:00pm  | 22.5                                | 386.0                 | 801.564                                          | EC 1.731 umho/cm            |
| 17.77    | 7/10/02 7:30am  | 23.25                               | 384.3                 | 803.409                                          | pH 7.60                     |
| 18.0     | 7/10/02 1:50pm  | 22.25                               | 386.6                 | 804.418                                          | T 90°F                      |
| 18.3     | 7/10/02 8:00pm  | 23                                  | 384.9                 | 805.431                                          | EC 1.736 umho/cm            |
| 18.8     | 7/10/02 9:00am  | 22.5                                | 386.0                 | 807.558                                          | pH 7.63                     |
| 19.0     | 7/10/02 1:50pm  | 22.0                                | 387.2                 | 808.274                                          | T 90°F                      |
| 19.3     | 7/10/02 8:00pm  | 22.5                                | 386.0                 | 808.980                                          | EC 1.710 umho/cm            |
| 19.7     | 7/10/02 8:00am  | 22.5                                | 386.0                 | 811.092                                          | pH 7.66                     |
| 20.0     | 7/10/02 1:45pm  | 20.25                               | 391.2                 | 812.090                                          | T 90°F                      |
| 20.3     | 7/10/02 8:00am  | 21.5                                | 388.3                 | 813.125                                          | EC 1.729 umho/cm            |
| 20.77    | 7/10/02 8:14am  | 20.8                                | 390                   | 815.0205                                         | pH 7.71                     |
| 20.7     | 7/10/02 8:20    | 21                                  | 389.5                 | 815.045                                          | T 90°F                      |
| 20.7     | 7/10/02 8:35am  | Pump Off                            |                       | 815.075                                          | EC 1.705 umho/cm            |
|          |                 |                                     |                       |                                                  | Samples Collected at 8:00am |
|          |                 | Average Q for entire Pumping Period |                       | 894 gpm                                          |                             |

# Rio Bravo

Well No. 1

Obs. Well Originally

Page No. 1/3

Airline length = 438'  
Pump setting

## DRAWDOWN MEASUREMENTS

PSI x 2.31 - 438'

| H (min) | H (date) | Time    | (PSI)          | Water Level (feet) WL | Drawdown (ft) | Well Discharge Inst. (gpm) | Total (gallons) | Notes |
|---------|----------|---------|----------------|-----------------------|---------------|----------------------------|-----------------|-------|
|         | 6/19/02  | 12:40pm | 87             | = 237.0               |               |                            | 779.297         |       |
|         |          | 12:40   | Well 2 Pump On |                       |               |                            |                 |       |
| 25      |          | 1:05pm  | 86.8           | = 237.0               | 0             |                            |                 |       |
| 30      |          | 1:10    | 87             | = 237.0               | 0             |                            |                 |       |
| 35      |          | 1:15    | 87             | = 237.0               | 0             |                            |                 |       |
| 40      |          | 1:20    | 87             | = 237.0               | 0             |                            |                 |       |
| 45      |          | 1:25    | 87             | = 237.0               | 0             |                            |                 |       |
| 80      |          | 2:00pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 90      |          | 2:10    | 87             | = 237.0               | 0             |                            |                 |       |
| 100     |          | 2:20    | 87             | = 237.0               | 0             |                            |                 |       |
| 110     |          | 2:30pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 120     |          | 2:40    | 87             | = 237.0               | 0             |                            |                 |       |
| 130     |          | 2:50    | 87             | = 237.0               | 0             |                            |                 |       |
| 140     |          | 3:00pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 150     |          | 3:10    | 87             | = 237.0               | 0             |                            |                 |       |
| 160     |          | 3:20    | 87             | = 237.0               | 0             |                            |                 |       |
| 170     |          | 3:30pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 180     |          | 3:40    | 87             | = 237.0               | 0             |                            |                 |       |
| 190     |          | 3:50    | 87             | = 237.0               | 0             |                            |                 |       |
| 200     |          | 4:00pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 210     |          | 4:10    | 87             | = 237.0               | 0             |                            |                 |       |
| 220     |          | 4:20    | 87             | = 237.0               | 0             |                            |                 |       |
| 230     |          | 4:30pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 240     |          | 4:40    | 87             | = 237.0               | 0             |                            |                 |       |
| 250     |          | 4:50    | 86.9           | = 237.3               | 0.3           |                            |                 |       |
| 260     |          | 5:00pm  | 86.9           | = 237.3               | 0.3           |                            |                 |       |
| 270     |          | 5:10    | 86.9           | = 237.3               | 0.3           |                            |                 |       |
| 280     |          | 5:20    | 86.9           | = 237.3               | 0.3           |                            |                 |       |
| 460     |          | 8:20pm  | 87             | = 237.0               | 0             |                            |                 |       |
| 560     |          | 10:00   | 87             | = 237.0               | 0             |                            |                 |       |
| 980     | 6/20/02  | 5:00am  | 87.5           | 236                   | 0             |                            |                 |       |
| 1,085   |          | 6:45    | 87.5           | 236                   | 0             |                            |                 |       |
| 1,130   |          | 7:30    | 86.8           | 237.5                 | 0.5           |                            |                 |       |
| 1,200   |          | 8:40    | 84.7           | 237.7                 | 0.7           |                            |                 |       |

Rio Bravo  
RATCH MARS.

# Rio Bravo

Well No. 1

Page No. 2/3

Obs Well

## DRAWDOWN MEASUREMENTS

| H (min) | Drawdown (ft) | Date/Time      | PSL   | Water Level (feet) WL | Drawdown (ft) | Well Discharge Inst. (gpm) | Total (gallons) | Notes |
|---------|---------------|----------------|-------|-----------------------|---------------|----------------------------|-----------------|-------|
| 1,270   | 1.2           | 6/20/02 9:50am | 86.5  | 238.2                 | 1.2           |                            |                 |       |
| 1,360   | 1.6           | 11:20am        | 86.3  | 238.6                 | 1.6           |                            |                 |       |
| 1,880   | 2.0           | 8:00pm         | 86    | 239                   | 2.0           |                            |                 |       |
| 2,585   | 2.0           | 6/21/02 7:45am | 86    | 239                   | 2.0           |                            |                 |       |
| 2,892   | 2.0           | 12:52pm        | 86    | 239                   | 2.0           |                            |                 |       |
| 3,390   | 2.0           | 8:20pm         | 86    | 239                   | 2.0           |                            |                 |       |
| 3,967   | 2.0           | 6/22/02 6:47am | 86    | 239                   | 2.0           |                            |                 |       |
| 4,408   | 3.1           | 2:08pm         | 85.25 | 241                   | 4.0           |                            |                 |       |
| 4,775   | 3.3           | 8:15pm         | 85    | 241.7                 | 4.7           |                            |                 |       |
| 5,480   | 4.0           | 6/23/02 8:00am | 85    | 241.7                 | 4.7           |                            |                 |       |
| 5,829   | 4.0           | 1:49pm         | 84    | 241.7                 | 4.7           |                            |                 |       |
| 6,215   | 4.3           | 8:15pm         | 84    | 241.7                 | 4.7           |                            |                 |       |
| 6,664   | 5.0           | 6/24/02 7:04am | 84.5  | 242.8                 | 5.8           |                            |                 |       |
| 7,170   | 5.0           | 12:12pm        | 83.5  | 245.1                 | 8.1           |                            |                 |       |
| 7,400   | 5.1           | 4:00pm         | 83.5  | 245.1                 | 8.1           |                            |                 |       |
| 8,285   | 5.8           | 6/25/02 6:55am | 83.0  | 246.3                 | 9.3           |                            |                 |       |
| 8,700   | 6.0           | 1:40pm         | 83.0  | 246.3                 | 9.3           |                            |                 |       |
| 9,100   | 6.3           | 8:20pm         | 83.25 | 245.7                 | 8.7           |                            |                 |       |
| 9,790   | 6.8           | 6/28/02 7:50am | 82.5  | 247.4                 | 10.4          |                            |                 |       |
| 10,145  | 7.0           | 1:45pm         | 82.5  | 247.4                 | 10.4          |                            |                 |       |
| 10,540  | 7.3           | 8:20pm         | 82.5  | 247.4                 | 10.4          |                            |                 |       |
| 11,150  | 7.7           | 6/27/02 6:30am | 84.5  | 242.8                 | 5.8           |                            |                 |       |
| 8,011   | 8.0           | 12:30pm        | 82.25 | 248.0                 | 11            |                            |                 |       |
| 8,311   | 8.3           | 8:00pm         | 82.5  | 247.4                 | 10.4          |                            |                 |       |
| 8,712   | 8.7           | 6/28/02 7:04am | 83.5  | 245.1                 | 8.1           |                            |                 |       |
| 9,012   | 9.0           | 1:30pm         | 83    | 246.3                 | 9.3           |                            |                 |       |
| 9,313   | 9.3           | 8:00pm         | 82.25 | 245.7                 | 8.7           |                            |                 |       |
| 9,714   | 9.7           | 6/29/02 7:00am | 83    | 246.3                 | 9.3           |                            |                 |       |
| 10,014  | 10.0          | 11:30am        | 82    | 248.6                 | 11.6          |                            |                 |       |
| 10,314  | 10.3          | 8:00pm         | 82    | 248.6                 | 11.6          |                            |                 |       |
| 10,715  | 10.7          | 6/30/02 7:11am | 82.5  | 247.4                 | 10.4          |                            |                 |       |
| 11,015  | 11.0          | 12:00pm        | 82    | 248.6                 | 11.6          |                            |                 |       |
| 11,316  | 11.3          | 8:00pm         | 81.5  | 249.7                 | 12.7          |                            |                 |       |
| 11,616  | 11.6          | 7/1/02 7:08am  | 81.5  | 249.7                 | 12.7          |                            | 779,247         |       |

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**ATTACHMENT B**  
**RECOVERY MEASUREMENTS**

# Rio Bravo Ranch

Well No. 1

Page No. 1/2

SWL - 87psi = 237'  
length of airline 430'  
Average Q: 894 gpm

## RECOVERY MEASUREMENTS

| t(min)    | Date/Time      | Water Level       |           | Date/Time              | Water Level |           |
|-----------|----------------|-------------------|-----------|------------------------|-------------|-----------|
|           |                | psi               | (feet) WL |                        | psi         | (feet) WL |
|           | 7/10/02 8:35am | Well 1 2 Pump Off |           | t(min) t(days)         |             |           |
| 5         | 8:40am         | 53.2              | 315.1     | 13.0 7/11/02 1:15am    | 72.0        | 271.7     |
| 10        | 8:45am         | 51.8              | 311.4     | 1.6 4.5 12:00pm        | 69.0        | 278.4     |
| 15        | 8:50am         | 55.7              | 309.3     | 2.1 2.5 8:00 pm        | 72.5        | 270.5     |
| 20        | 8:55am         | 56.7              | 307.0     | 2.7 8.5 7/12/02 7:00am | 75.5        | 263.6     |
| 25        | 9:00am         | 57.2              | 305.9     | 2.1 12:00              | 73.5        | 268.2     |
| 30        | 9:05am         | 57.7              | 304.7     | 3.5 52.5 8:00pm        | 77.0        | 260.1     |
| 35        | 9:10am         | 58.2              | 303.6     | 4.2 3.0 7/13/02 8:00am | 77.0        | 260.1     |
| 40        | 9:15am         | 58.7              | 302.4     | 5.0 3.5 8:00pm         | 78.0        | 257.8     |
| 45        | 9:20am         | 58.9              | 301.9     | 5.7 4.0 7/14/02 8:00am | 77.5        | 258.9     |
| 50        | 9:25am         | 58.9              | 301.9     | 6.4 4.5 8:00pm         | 78.5        | 256.7     |
| 55        | 9:30am         | 58.9              | 301.9     | 7.1 5.0 7/15/02 8:00am | 80.0        | 253.2     |
| 60        | 9:35am         | 59.0              | 301.7     | 7.8 5.5 8:00pm         | 80.0        | 253.2     |
| 90        | 10:05am        | 59.9              | 299.6     | 8.5 6.0 7/16/02 7:00am | 82.0        | 248.6     |
| 100       | 10:15          | 60.1              | 299.2     | 9.2 6.5 8:00pm         | 81.0        | 250.9     |
| 115       | 10:30          | 60.3              | 298.7     | 9.9 7.0 7/17/02 7:00am | 82.5        | 247.4     |
| 150       | 11:05          | 61.3              | 296.4     | 7.5 8:00pm             | 82.0        | 248.6     |
| 0.11 165  | 11:20          | 61.6              | 295.7     | 8.0 7/18/02 8:00am     | 81.5        | 249.7     |
| 195       | 11:50          | 61.8              | 295.2     | 8.5 8:00pm             | 82.0        | 248.6     |
| 0.15 220  | 12:15          | 62.0              | 294.8     | 9.0 7/19/02 8:00am     | 83.0        | 246.3     |
| 0.17 250  | 12:45          | 62.4              | 293.8     | 10.0 7/20/02 8:00am    | 83.5        | 245.1     |
| 0.21 305  | 1:40           | 63.1              | 292.2     | 12.0 7/22/02 7:45am    | 84.5        | 242.8     |
| 0.23 330  | 2:05pm         | 63.5              | 291.3     | 14.0 7/24/02 7:20      | 85.0        | 241.7     |
| 0.35 505  | 5:00pm         | 64.75             | 288.4     | 17.0 7/27/02 7:10      | 86.0        | 239.3     |
| 0.82 1490 | 8:00pm         | 67.5              | 282.1     | 19.0 7/29/02 7:45      | 86.5        | 238.2     |

# Rio Bravo Ranch (By River)

Well No. 2

Page No. 1/2

SWL 880 psi = 157'

Length of airline 340'

## RECOVERY MEASUREMENTS

Average Q: 1,844 gpm

| H(min)       | Date/Time      | psi  | Water Level (feet) | WL                  | Date/Time      | psi   | Water Level (feet) | WL |
|--------------|----------------|------|--------------------|---------------------|----------------|-------|--------------------|----|
|              |                |      |                    |                     |                |       |                    |    |
|              | 7/10/02 8:35am |      |                    | Well 1 & 2 Pump Off |                |       |                    |    |
|              |                |      |                    | H(min.) + (days)    |                |       |                    |    |
| 1            | 8:36am         | 55.8 | 231.1              | 240 0.17            | 12:35pm        | 74    | 189.0              |    |
| 2            | 8:37am         | 55.8 | 231.1              | 280 0.01            | 12:45pm        | 74.2  | 188.6              |    |
| 5            | 8:40am         | 56.0 | 230.6              | 265 0.18            | 1:00pm         | 74.2  | 188.6              |    |
| 10           | 8:45am         | 56.3 | 229.9              | 275 0.19            | 1:10pm         | 74.2  | 188.6              |    |
| 15           | 8:50           | 56.3 | 229.9              | 290 0.20            | 1:25           | 74.3  | 188.4              |    |
| 20           | 8:55           | 56.3 | 229.9              | 310 0.22            | 1:45           | 74.3  | 188.4              |    |
| 25           | 9:00           | 56.3 | 229.9              | 325 0.23            | 2:00           | 74.3  | 188.4              |    |
| 30           | 9:05           | 56.5 | 229.5              | 505 0.35            | 5:00pm         | 74.75 | 187.3              |    |
| 35           | 9:10           | 56.5 | 229.5              | 685 0.48            | 8:00pm         | 75.25 | 186.1              |    |
| 40           | 9:15           | 56.5 | 229.5              | 1,360 7/11/02       | 7:05am         | 76.0  | 184.4              |    |
| 45           | 9:20           | 56.5 | 229.5              | 1,645 1.1           | 12:00pm        | 76.5  | 183.3              |    |
| 50           | 9:25           | 56.5 | 229.5              | 2,125 1.5           | 8:00pm         | 77.0  | 182.1              |    |
| 55           | 9:30           | 56.5 | 229.5              | 2785 7/12/02        | 7:00am         | 77.5  | 181.0              |    |
| 60           | 9:35           | 56.5 | 229.5              | 3,085 2.1           | 12:00pm        | 77.5  | 180.9              |    |
| 65           | 9:40           | 56.5 | 229.5              | 3,565 2.5           | 8:00pm         | 78.0  | 179.8              |    |
| 75           | 9:50           | 56.5 | 229.5              | 4,285 3.0           | 7/13/02 8:00   | 78.0  | 179.8              |    |
| 85           | 10:00          | 56.5 | 229.5              | 5,005 3.5           | 8:00pm         | 78.5  | 178.7              |    |
|              | 10:35          | 56.5 | 229.5              | 5,725 4.0           | 7/14/02 8:00   | 79.0  | 177.5              |    |
|              |                |      |                    | 6,445 4.5           | 8:00pm         | 78.0  | 179.8              |    |
|              |                |      |                    | 7,165 5.0           | 7/15/02 8:00am | 79.5  | 176.4              |    |
| 145 + (days) | 11:00am        | 68   | 202.9              | 7,885 5.5           | 8:00pm         | 79.5  | 176.4              |    |
| 155 0.10     | 11:10am        | 70   | 198.3              | 8,510 6.0           | 7/16/02 8:00am | 79.5  | 176.4              |    |
| 195 0.14     | 11:40am        | 73.8 | 189.5              | 9,235 6.5           | 8:00pm         | 80.0  | 175.2              |    |
| 205 0.14     | 12:00pm        | 74.0 | 189.0              | 9,960 7.0           | 7/17/02 7:00am | 79.5  | 176.4              |    |

Problem with pressure gage

Juan installed new gage

Well No. 1

Page No. 2/2

[illegible]

Well No. 2

Page No.

## RECOVERY MEASUREMENTS

[illegible]

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**ATTACHMENT C**  
**CHEMICAL ANALYSES**



## ANALYTICAL CHEMISTS

August 1, 2002

Lab ID : SP 206870-01

Customer ID: 2-6051

Kenneth D. Schmidt &amp; Assoc.

600 W. Shaw Ave. #250

Fresno, CA 93704

Sampled On : July 10, 2002-08:00

Sampled By : Cheryl Lassotovitch

Received On: July 12, 2002-09:30

Matrix : Ground Water

Description : Rio Bravo Ranch Well 1

Project : Rio Bravo

## Sample Results - Inorganic

| Constituent                              | Results | PQL            | Units    | MCL               | Sample Preparation<br>Method Date/ID | Sample Analysis<br>Method Date/ID |
|------------------------------------------|---------|----------------|----------|-------------------|--------------------------------------|-----------------------------------|
| <b>General Mineral</b> P:4,5             |         |                |          |                   |                                      |                                   |
| Total Hardness                           | 213     | 2.5            | mg/L     |                   | Calculation                          | Calculation                       |
| Calcium                                  | 69      | 1              | mg/L     |                   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Magnesium                                | 10      | 1              | mg/L     |                   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Potassium                                | 19      | 1              | mg/L     |                   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Sodium                                   | 265     | 1              | mg/L     |                   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:N01              |
| Total Cations                            | 16.3    | --             | meq/L    |                   | Calculation                          | Calculation                       |
| Boron                                    | 0.61    | 0.05           | mg/L     |                   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Copper                                   | 10      | 10             | ug/L     | 1000 <sup>2</sup> | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Iron                                     | ND      | 50             | ug/L     | 300 <sup>2</sup>  | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Manganese                                | 60      | 10             | ug/L     | 50 <sup>2</sup>   | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Zinc                                     | ND      | 20             | ug/L     | 5000 <sup>2</sup> | 200.7 07/16/02:A203                  | 200.7 07/16/2002:A01              |
| Total Alkalinity (as CaCO <sub>3</sub> ) | 180     | 10             | mg/L     |                   | 2320B 07/15/02:A202                  | 2320B 07/15/2002:A01              |
| Hydroxide                                | ND      | 10             | mg/L     |                   | 2320B 07/15/02:A202                  | 2320B 07/15/2002:A01              |
| Carbonate                                | ND      | 10             | mg/L     |                   | 2320B 07/15/02:A202                  | 2320B 07/15/2002:A01              |
| Bicarbonate                              | 220     | 10             | mg/L     |                   | 2320B 07/15/02:A202                  | 2320B 07/15/2002:A01              |
| Sulfate                                  | 542     | 5 <sup>*</sup> | mg/L     | 500 <sup>2</sup>  | 300.0 07/12/02:A215                  | 300.0 07/13/2002:A03              |
| Chloride                                 | 51      | 1              | mg/L     | 500 <sup>2</sup>  | 300.0 07/12/02:A215                  | 300.0 07/13/2002:A02              |
| Nitrate                                  | ND      | 0.4            | mg/L     | 45                | 300.0 07/12/02:A215<br>19:00         | 300.0 07/13/2002:A02<br>00:38     |
| Nitrite as N                             | ND      | 0.1            | mg/L     | 1                 | 300.0 07/12/02:A215<br>19:00         | 300.0 07/13/2002:A02<br>00:38     |
| Fluoride                                 | 0.2     | 0.1            | mg/L     | 2                 | 300.0 07/12/02:A215                  | 300.0 07/13/2002:A02              |
| Total Anions                             | 16.3    | --             | meq/L    |                   | Calculation                          | Calculation                       |
| pH                                       | 7.7     | --             | units    |                   | 4500-H B 07/12/02:A246               | 4500-H B 07/12/2002:A01<br>15:05  |
| Specific Conductance                     | 1640    | 1              | umhos/cm | 1600 <sup>2</sup> | 2510B 07/15/02:A212                  | 2510B 07/15/2002:A01              |
| Total Dissolved Solids                   | 1150    | 40             | mg/L     | 1000 <sup>2</sup> | 2540C 07/15/02:B235                  | 2540 C,E 07/16/2002:B00           |
| MBAS (foaming agents)                    | ND      | 0.1            | mg/L     | 0.5 <sup>2</sup>  | 5540C 07/12/02:A218<br>14:25         | 5540C 07/12/2002:A01<br>14:29     |
| Aggressiveness Index                     | 12.2    | 1.0            | mg/L     |                   | Calculation                          | Calculation                       |
| Langlier Index                           | 0.3     | 1.0            | mg/L     |                   | Calculation                          | Calculation                       |

ND=Non-Detect. PQL=Practical Quantitation Limit. ♦ PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.

MCL = Maximum Contaminant Level. <sup>2</sup> - Secondary Standard.Containers: (P) Plastic Preservatives: (4) H<sub>2</sub>SO<sub>4</sub> pH < 2, (5) HNO<sub>3</sub> pH < 2

SP 206870: Chemical Results Page 1

**Corporate Offices & Laboratory**  
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## ANALYTICAL CHEMISTS

August 1, 2002

Kenneth D. Schmidt &amp; Assoc.

600 W. Shaw Ave. #250

Fresno, CA 93704

Lab ID : SP 206870-01

Customer ID: 2-6051

Sampled On : July 10, 2002-08:00

Sampled By : Cheryl Lassotovitch

Received On: July 12, 2002-09:30

Matrix : Ground Water

Description : Rio Bravo Ranch Well

Project : Rio Bravo

## Sample Results - Radio

| Constituents              | Result $\pm$ Error | Units | MCL | Preparation |               | Analysis |                |
|---------------------------|--------------------|-------|-----|-------------|---------------|----------|----------------|
|                           |                    |       |     | Method      | Date/ID       | Method   | Date/ID        |
| <b>Radio Chemistry P:</b> |                    |       |     |             |               |          |                |
| Gross Alpha               | 0.000 $\pm$ 1.26   | pCi/L | 15* | 900.0       | 07/22/02:A207 | 900.0    | 07/31/2002:A01 |

MCL = Maximum Contaminant Level. Containers: (P) Plastic Preservatives:

\* Including Radium but excluding Uranium. (Ref. Title 22 sec. 64441.)



## ANALYTICAL CHEMISTS

August 1, 2002

Lab ID : SP 206870-02

Customer ID: 2-6051

Kenneth D. Schmidt &amp; Assoc.

600 W. Shaw Ave. #250

Fresno, CA 93704

Sampled On : July 10, 2002-08:20

Sampled By : Cheryl Lassotovitch

Received On : July 12, 2002-09:30

Matrix : Ground Water

Description : Rio Bravo Ranch Well 2

Project : Rio Bravo

## Sample Results - Inorganic

| Constituent                  | Results | PQL  | Units    | MCL               | Sample Preparation |               | Sample Analysis |                |
|------------------------------|---------|------|----------|-------------------|--------------------|---------------|-----------------|----------------|
|                              |         |      |          |                   | Method             | Date/ID       | Method          | Date/ID        |
| <b>General Mineral</b> P:4.5 |         |      |          |                   |                    |               |                 |                |
| Total Hardness               | 35.7    | 2.5  | mg/L     |                   | Calculation        |               | Calculation --  |                |
| Calcium                      | 11      | 1    | mg/L     |                   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Magnesium                    | 2       | 1    | mg/L     |                   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Potassium                    | 4       | 1    | mg/L     |                   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Sodium                       | 226     | 1    | mg/L     |                   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:N01 |
| Total Cations                | 10.6    | --   | meq/L    |                   | Calculation        |               | Calculation     |                |
| Boron                        | 1.27    | 0.05 | mg/L     |                   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Copper                       | ND      | 10   | ug/L     | 1000 <sup>2</sup> | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Iron                         | 90      | 50   | ug/L     | 300 <sup>2</sup>  | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Manganese                    | ND      | 10   | ug/L     | 50 <sup>2</sup>   | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Zinc                         | 40      | 20   | ug/L     | 5000 <sup>2</sup> | 200.7              | 07/16/02:A203 | 200.7           | 07/16/2002:A01 |
| Total Alkalinity (as CaCO3)  | 220     | 10   | mg/L     |                   | 2320B              | 07/15/02:A202 | 2320B           | 07/15/2002:A01 |
| Hydroxide                    | ND      | 10   | mg/L     |                   | 2320B              | 07/15/02:A202 | 2320B           | 07/15/2002:A01 |
| Carbonate                    | 10      | 10   | mg/L     |                   | 2320B              | 07/15/02:A202 | 2320B           | 07/15/2002:A01 |
| Bicarbonate                  | 240     | 10   | mg/L     |                   | 2320B              | 07/15/02:A202 | 2320B           | 07/15/2002:A01 |
| Sulfate                      | 219     | 5*   | mg/L     | 500 <sup>2</sup>  | 300.0              | 07/12/02:A215 | 300.0           | 07/13/2002:A03 |
| Chloride                     | 44      | 1    | mg/L     | 500 <sup>2</sup>  | 300.0              | 07/12/02:A215 | 300.0           | 07/13/2002:A03 |
| Nitrate                      | ND      | 0.4  | mg/L     | 45                | 300.0              | 07/12/02:A215 | 300.0           | 07/13/2002:A03 |
|                              |         |      |          |                   |                    | 19:00         |                 | 01:32          |
| Nitrite as N                 | ND      | 0.1  | mg/L     | 1                 | 300.0              | 07/12/02:A215 | 300.0           | 07/13/2002:A03 |
|                              |         |      |          |                   |                    | 19:00         |                 | 01:32          |
| Fluoride                     | 0.5     | 0.1  | mg/L     | 2                 | 300.0              | 07/12/02:A215 | 300.0           | 07/13/2002:A03 |
| Total Anions                 | 10.1    | --   | meq/L    |                   | Calculation        |               | Calculation     |                |
| pH                           | 8.7     | --   | units    |                   | 4500-H B           | 07/12/02:A246 | 4500-H B        | 07/12/2002:A01 |
|                              |         |      |          |                   |                    |               |                 | 15:06          |
| Specific Conductance         | 1100    | 1    | umhos/cm | 1600 <sup>2</sup> | 2510B              | 07/15/02:A212 | 2510B           | 07/15/2002:A01 |
| Total Dissolved Solids       | 710     | 40   | mg/L     | 1000 <sup>2</sup> | 2540C              | 07/15/02:B235 | 2540 C,E        | 07/16/2002:B00 |
| MBAS (foaming agents)        | ND      | 0.1  | mg/L     | 0.5 <sup>2</sup>  | 5540C              | 07/12/02:A218 | 5540C           | 07/12/2002:A01 |
|                              |         |      |          |                   |                    | 14:25         |                 | 14:30          |
| Aggressiveness Index         | 12.5    | 1.0  | mg/L     |                   | Calculation        |               | Calculation     |                |
| Langlier Index               | 0.6     | 1.0  | mg/L     |                   | Calculation        |               | Calculation     |                |

ND=Non-Detect. PQL=Practical Quantitation Limit. \* PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.

MCL = Maximum Contaminant Level. <sup>2</sup> - Secondary Standard.Containers: (P) Plastic Preservatives: (4) H<sub>2</sub>SO<sub>4</sub> pH < 2, (5) HNO<sub>3</sub> pH < 2

SP 206870: Chemical Results Page 3

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## ANALYTICAL CHEMISTS

August 1, 2002

Kenneth D. Schmidt &amp; Assoc.

600 W. Shaw Ave. #250

Fresno, CA 93704

Lab ID : SP 206870-02

Customer ID: 2-6051

Sampled On : July 10, 2002-08:20

Sampled By : Cheryl Lassotovitch

Received On: July 12, 2002-09:30

Matrix : Ground Water

Description : Rio Bravo Ranch Well 2

Project : Rio Bravo

## Sample Results - Radio

| Constituents       | Result $\pm$ Error | Units | MCL | Preparation |               | Analysis |                |
|--------------------|--------------------|-------|-----|-------------|---------------|----------|----------------|
|                    |                    |       |     | Method      | Date/ID       | Method   | Date/ID        |
| Radio Chemistry P: |                    |       |     |             |               |          |                |
| Gross Alpha        | 2.11 $\pm$ 1.59    | pCi/L | 15* | 900.0       | 07/22/02:A207 | 900.0    | 07/23/2002:B01 |

MCL = Maximum Contaminant Level. Containers: (P) Plastic Preservatives:

\* Including Radium but excluding Uranium. (Ref. Title 22 sec. 64441.)

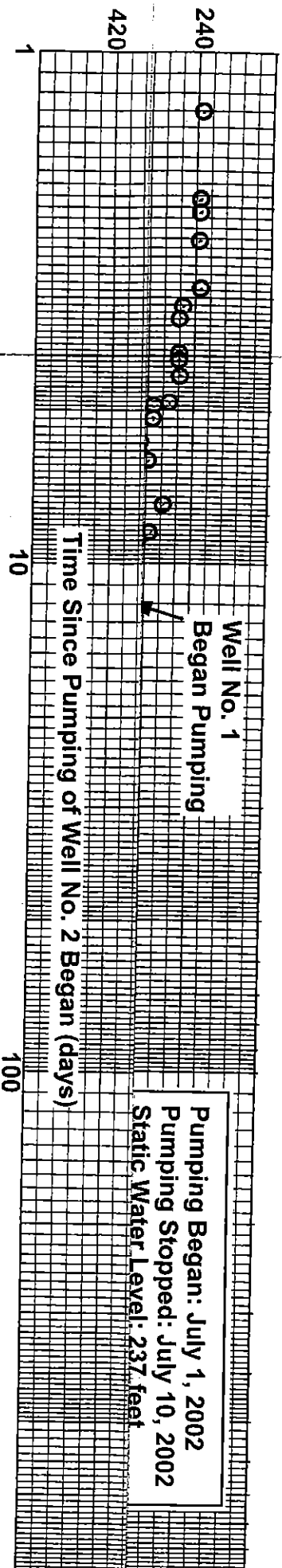


FIGURE 2 - DRAWDOWN FOR RIO BRAVO RANCH WELL NO. 1