



*Environmental & Geological Services, Inc.*

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Environmental & Geological  
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MR. BILL MARLEY  
GANDY MARLEY INC.  
PO Box 1658  
ROSWELL, NM 88202-1658

MAY 18, 2005

RE: SUBMITTAL OF MONITOR WELL PUMP TEST / FLUID RECOVERY REPORT  
MONITOR WELLS # 1 & 2  
GANDY MARLEY COMMERCIAL LANDFARM  
SW/4 SEC.4, SE/4 SEC.5., NE/4 SEC.8, NW/4 SEC.9  
T.11 S. R. 31 E.  
CHAVES COUNTY, NEW MEXICO

DEAR MR. MARLEY:

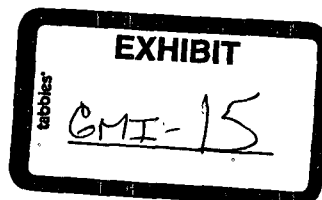
CLAYTON M. BARNHILL PG, DBA / CMB ENVIRONMENTAL AND GEOLOGICAL SERVICES,  
INC. ON BEHALF OF THE OWNER / OPERATOR, GANDY MARLEY INC. SUBMITS  
THE ATTACHED MONITOR WELL PUMP TEST / FLUID RECOVERY TEST REPORT FOR THE  
ABOVE MENTIONED SITE.

IF YOU HAVE ANY QUESTIONS ABOUT THE CONTENTS OF THE REPORT, PLEASE DO NOT  
HESITATE TO CALL ME. THANK YOU.

SINCERELY,

CLAYTON M. BARNHILL, PG  
CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.  
PO Box 2304  
ROSWELL, NEW MEXICO 88202-2304  
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CMBENVIRO@DFN.COM

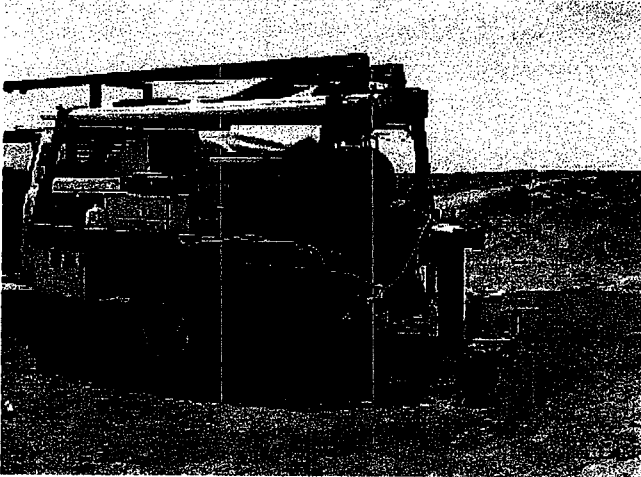
CC: GANDY MARLEY, INC.



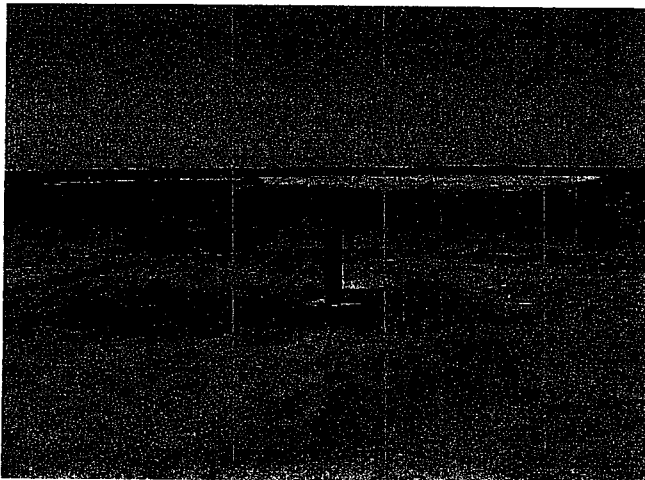
**Site Information:**

Gandy Marley Inc.  
Commercial Landfarm  
SW/4 Section 4, SE/4 Section 5, NE/4 Section 8, NW/4 Section 9  
Township 11 South Range 31 E  
Chaves County, New Mexico

**Monitor Well # 1:** N 33°23' 11.7"  
W 103° 50' 20.7"



**Monitor Well # 2:** N 33°23' 05.0"  
W 103° 50' 12.3"



### **Work Performed:**

CMB Environmental and Geological Services, Inc. performed a pump test / fluid recovery test of Monitor Wells # 1 & 2, on 05/12/05, 05/16/ 05 and 05/17/05 to evaluate the permeability (or hydraulic conductivity) of the confined perched aquifer underlying the Gandy Marley Inc. Landfarm located in Chaves Co., N.M.

In this pump test/ fluid recovery test, the pre-test water levels and total depths of the wells were measured and noted. The same water level reference measuring point (top of casing) was used throughout the testing. A Grundfos Redi-flo2 1.8 inch submersible pump was submersed into the wells to rapidly lower the water levels. The pump was set at total depth in the monitor wells or near total depth, and the wells were pumped at a constant rate until dry. Field water parameters of pH, conductivity, dissolved oxygen, and temperature were measured at various gallon intervals while the wells were being pumped dry. The exact time the pump quit pumping was noted, and the pump quickly removed. Periodic water levels (rising head) were collected with a Solonist water level meter to track the rate of water level recovery. After the pump test, water samples were collected from both wells and sent to Trace Analysis Inc., laboratory located in Lubbock Texas for chemical analysis. The pump was de-contaminated between pump tests by pumping a solution ofalconox soap and water through the pump and rinsing with potable water.

Results of the pump tests / fluid recovery tests are as follows:

On May 12, 2005 a pump test / fluid recovery test of monitor well # 1 was performed by CMB Environmental and Geological Services, inc.

Initial water level monitor well # 1 was 133.72' feet. The total depth of Monitor Well # 1 was 203.40' At sixty gallons purged from the well the water level in the well was 194.65' and after the 1.8" Grundfos submersible pump was removed the water level was 189.0' and the recovery test was begun.

Fluid recovery rates were recorded every minute for 41 minutes and then at 10-minute increments until 181 minutes of fluid recovery were completed. The initial gallon per minute recovery rate was 0.16 gpm(230 gallons per day) and the final fluid recovery rate was 0.08 gpm (115.20 gallons per day). A significant 50% drop in the fluid recovery rate at the end of the test.

All data was plotted graphically, with time in minutes on the x –axis of the graph and gallons of water recovered in the monitor well on the y-axis of the graphs.

On May 16<sup>th</sup> and 17<sup>th</sup> 2005, similar pump tests / fluid recovery tests were conducted on monitor well # 1.

On May 16<sup>th</sup>, 2005 the initial water level in MW-1 was 130.32' and the pump was removed at 70 gallons purged from the well. Fluid recovery rates were recorded every minute for 17 minutes and then at 10-minute increments until 78 minutes of fluid recovery were completed. The initial gallon per minute fluid recovery rate was 0.098 gpm(141 gallons per day) and the final per minute fluid recovery rate was 0.094 gpm (135.36 gallons per day).

May 17<sup>th</sup> 2005, the initial water level was 131.32' and the pump was removed at 80 gallons purged from the well. Fluid recovery rates were recorded every minute for 20 minutes and then at 10-minute increments until 80 minutes of fluid recovery were completed. The initial gallon per minute fluid recovery rate was 0.1306 gpm(188 gallons per day) and the final per minute fluid recovery rate was 0.1045 gpm (150.48 gallons per day).

On May 16<sup>th</sup>, 2005 the initial water level in MW-2 was 122.62' and the total depth was 180.0'. The pump was removed at 95 gallons purged from the well. Fluid recovery rates were recorded every minute for 47 minutes and then at 10-minute increments until 107 minutes of fluid recovery were completed. The initial gallon per minute fluid recovery rate was 0.4310 gpm(620.64 gallons per day) and the final per minute fluid recovery rate was 0.1471 gpm (211.82 gallons per day). A significant 66 % drop in the fluid recovery rate.

On May 17<sup>th</sup>, 2005 the initial water level in MW-2 was 124.70' and the pump was removed at 80 gallons purged from the well. Fluid recovery rates were recorded every minute for 12 minutes and then at 10-minute increments until 72 minutes of fluid recovery were completed. The initial gallon per minute fluid recovery rate was 0.1306 gpm(188 gallons per day) and the final per minute fluid recovery rate was 0.1515 gpm (218.16 gallons per day)  
All field notes and graphs are attached.

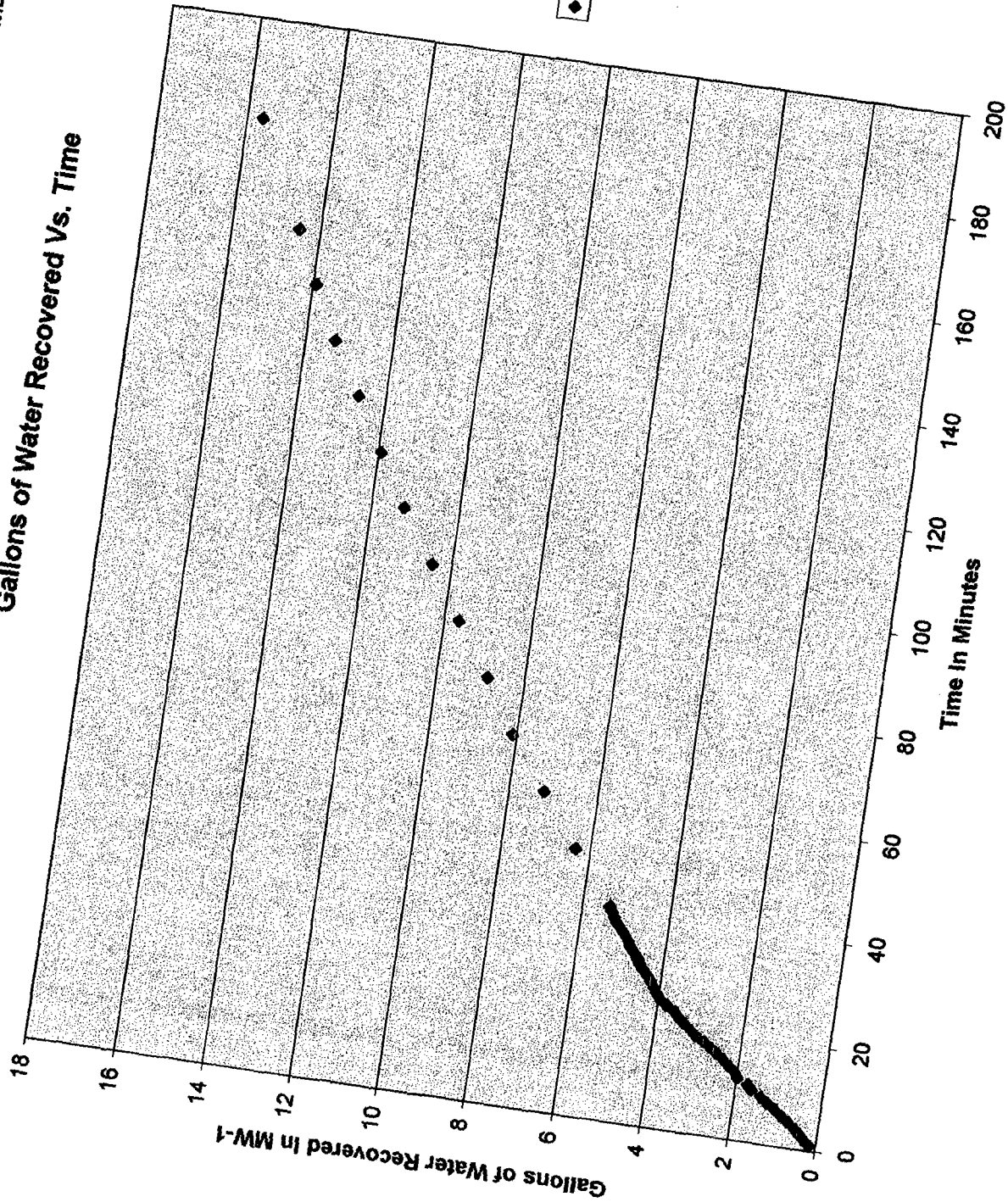
### **Conclusions:**

- The aquifer appears to be poorly transmissive, confined, perched aquifer.
- Fluid recovery rates are slow and the monitor wells take many hours to recover. The wells quickly pump dry. The wells could never sustain domestic, livestock, or commercial usage, but will make excellent monitor wells. MW-1 may produce an estimated sustained rate on the average of 154 gallons per day. MW-2 could possibly produce an estimated sustained rate 206 gallons per day. The wells are properly screened across the water bearing formations.
- Fluid recovery trends in monitor wells were at least 75% of the full recovery of the initial water levels indicating that a good percentage of total fluid recovery was obtained during the test.
- Water quality in the area is poor and not suitable for domestic or livestock use.(See attached Trace Analysis Summary Report)

Candy Marley Landfarm  
Chaves Co, NM  
MW-1 Pump Test  
05/12/05

Clayton M. Barnhill, PG  
CMB Environmental Geological Services Inc.

# Gallons of Water Recovered Vs. Time



◆ Gallons of Water Per Linear Foot

| TIME: | DTW:   | Delta t (minutes) | Delta DTW (feet) | Gallons of Water Per Linear Foot | Gallons per minute Well Recovery |
|-------|--------|-------------------|------------------|----------------------------------|----------------------------------|
| 13:49 | 189    | 0                 |                  |                                  |                                  |
| 13:50 | 188.75 | 1                 | 0.25             | 0.16325                          | 0.1633                           |
| 13:51 | 188.55 | 2                 | 0.45             | 0.29385                          | 0.1469                           |
| 13:52 | 188.35 | 3                 | 0.65             | 0.42445                          | 0.1415                           |
| 13:53 | 188.15 | 4                 | 0.85             | 0.55505                          | 0.1388                           |
| 13:54 | 187.9  | 5                 | 1.1              | 0.7183                           | 0.1437                           |
| 13:55 | 187.65 | 6                 | 1.35             | 0.88155                          | 0.1469                           |
| 13:56 | 187.4  | 7                 | 1.6              | 1.0448                           | 0.1493                           |
| 13:57 | 187.1  | 8                 | 1.9              | 1.2407                           | 0.1551                           |
| 13:58 | 186.85 | 9                 | 2.15             | 1.40395                          | 0.1560                           |
| 13:59 | 186.5  | 10                | 2.5              | 1.6325                           | 0.1633                           |
| 14:00 | 186.35 | 11                | 2.85             | 1.73045                          | 0.1573                           |
| 14:01 | 185.95 | 12                | 3.05             | 1.99165                          | 0.1660                           |
| 14:02 | 185.85 | 13                | 3.15             | 2.05695                          | 0.1582                           |
| 14:03 | 185.6  | 14                | 3.4              | 2.2202                           | 0.1586                           |
| 14:04 | 185.35 | 15                | 3.65             | 2.38345                          | 0.1589                           |
| 14:05 | 185.1  | 16                | 3.9              | 2.5467                           | 0.1592                           |
| 14:06 | 184.85 | 17                | 4.15             | 2.70995                          | 0.1594                           |
| 14:07 | 184.6  | 18                | 4.4              | 2.8732                           | 0.1596                           |
| 14:08 | 184.3  | 19                | 4.7              | 3.0691                           | 0.1616                           |
| 14:09 | 184.1  | 20                | 4.9              | 3.1997                           | 0.1600                           |
| 14:10 | 183.85 | 21                | 5.15             | 3.36295                          | 0.1601                           |
| 14:11 | 183.6  | 22                | 5.4              | 3.5262                           | 0.1603                           |
| 14:12 | 183.45 | 23                | 5.55             | 3.62415                          | 0.1576                           |
| 14:13 | 183.15 | 24                | 5.85             | 3.82005                          | 0.1592                           |
| 14:14 | 182.9  | 25                | 6.1              | 3.9833                           | 0.1593                           |
| 14:15 | 182.75 | 26                | 6.25             | 4.08125                          | 0.1570                           |
| 14:16 | 182.65 | 27                | 6.35             | 4.14655                          | 0.1536                           |
| 14:17 | 182.5  | 28                | 6.5              | 4.2445                           | 0.1516                           |
| 14:18 | 182.35 | 29                | 6.65             | 4.34245                          | 0.1487                           |
| 14:19 | 182.2  | 30                | 6.8              | 4.4404                           | 0.1480                           |
| 14:20 | 182.05 | 31                | 6.95             | 4.53835                          | 0.1464                           |
| 14:21 | 181.95 | 32                | 7.05             | 4.60365                          | 0.1439                           |
| 14:22 | 181.8  | 33                | 7.2              | 4.7016                           | 0.1425                           |
| 14:23 | 181.65 | 34                | 7.35             | 4.79955                          | 0.1412                           |
| 14:24 | 181.55 | 35                | 7.45             | 4.86485                          | 0.1390                           |
| 14:25 | 181.4  | 36                | 7.6              | 4.9628                           | 0.1379                           |
| 14:26 | 181.25 | 37                | 7.75             | 5.06075                          | 0.1368                           |
| 14:27 | 181.05 | 38                | 7.95             | 5.19135                          | 0.1366                           |
| 14:28 | 180.95 | 39                | 8.05             | 5.25665                          | 0.1346                           |
| 14:29 | 180.85 | 40                | 8.15             | 5.32195                          | 0.1330                           |
| 14:30 | 180.75 | 41                | 8.25             | 5.38725                          | 0.1314                           |
| 14:40 | 179.3  | 51                | 9.7              | 6.3341                           | 0.1242                           |
| 14:50 | 177.95 | 61                | 11.05            | 7.21565                          | 0.1183                           |
| 15:00 | 176.6  | 71                | 12.4             | 8.0972                           | 0.1140                           |
| 15:10 | 175.45 | 81                | 13.55            | 8.84815                          | 0.1092                           |
| 15:20 | 174.2  | 91                | 14.8             | 9.6644                           | 0.1062                           |
| 15:30 | 173    | 101               | 16               | 10.448                           | 0.1034                           |
| 15:40 | 171.75 | 111               | 17.25            | 11.26425                         | 0.1015                           |
| 15:50 | 170.7  | 121               | 18.3             | 11.9499                          | 0.0988                           |
| 16:00 | 169.67 | 131               | 19.33            | 12.62249                         | 0.0964                           |
| 16:10 | 168.6  | 141               | 20.4             | 13.3212                          | 0.0945                           |
| 16:20 | 167.65 | 151               | 21.35            | 13.94155                         | 0.0923                           |
| 16:30 | 166.82 | 161               | 22.18            | 14.48354                         | 0.0900                           |
| 16:50 | 165.05 | 181               | 23.95            | 15.63935                         | 0.0864                           |

Average Recovery Rate of 0.1392 Gallons per minute  
Or 200 Hundred Gallons Per Day  
Minimum 0.0864 gpm or 124.41 gallons per day  
Maximum 0.1660 gpm or 239.04 gallons per day

05/12/65 Sandy Marky Landform  
Chorus Co. NM.

MONITOR well Development and  
Pump Test. Page 1 of 3 By: Clayton

MW-1: DTW = 133.72' (Toc) PC

T.D. = 203.40' 69.68' x 0.653

(4" SCH 40 PVC MW) = 45.50 Gallons

3CV = 13.65 Gallons = 136.50 GPM

Screened Interval = 183.40' - 143.40'

203.40' - 183.40' = PVC Casing

143.40' 0.020 slot screen -

8 1/4 Sand Pack.

GPS COORDINATES OF MW-1:

N 33° 23' 11.7"

W 103° 50' 12.3"

203.40

| TIME  | Q     | DTW    | DTW | PH   | COND. | MLs | REMARKS  |
|-------|-------|--------|-----|------|-------|-----|----------|
| 12:22 | Init. | 131.72 | 6.5 | 8.86 | 10.4  |     | TURBID   |
| 12:30 | 3     | 134.2  | 6.0 | 8.63 | 11.6  |     | TURBID   |
| 12:40 | 6     | 142.10 | 5.8 | 8.48 | 12.0  |     | TURBID   |
| 13:01 | 9     | 147.50 | 6.4 | 8.88 | 12.4  |     | PUMP     |
| 13:11 | 13.66 | 151.1  | 7.0 | 8.86 | 12.8  |     | 0.26 GPM |
| 13:20 | 20    | 156.3  | 4.3 | 8.59 | 13.0  |     | TURBID   |
| 13:27 | 30    | 166.2  | 5.5 | 8.28 | 13.1  |     | " " "    |
|       |       |        |     |      |       |     | 125 GPM  |

Sandy Marky

Landform - MW-1 Pump Test

Page 2 of 3 By: GMB

| TIME  | Q  | DTW          | DTW   | PH    | COND. | MLs | REMARKS |
|-------|----|--------------|-------|-------|-------|-----|---------|
| 13:24 | 40 | 173.40       | 2.14  | 8.42  | 12.9  |     | 1:25    |
| 13:32 | 50 | 184.60       | 2.18  | 8.28  | 12.9  |     | 1:25.50 |
| 13:41 | 60 | 194.65       | 2.25  | 8.01  | 13.5  |     | 1:25.50 |
|       |    | Stopped pump | 13:43 |       |       |     |         |
| 13:49 |    | 189.0        |       | 14.08 |       |     | 184.30  |
| 13:50 |    | 188.75       |       | 14.09 |       |     | 184.10  |
| 13:51 |    | 188.55       |       | 14.10 |       |     | 183.85  |
| 13:52 |    | 188.35       |       | 14.11 |       |     | 183.60  |
| 13:53 |    | 188.15       |       | 14.12 |       |     | 183.45  |
| 13:54 |    | 187.9        |       | 14.13 |       |     | 183.15  |
| 13:55 |    | 187.65       |       | 14.14 |       |     | 182.90  |
| 13:56 |    | 187.40       |       | 14.15 |       |     | 182.75  |
| 13:57 |    | 187.10       |       | 14.16 |       |     | 182.65  |
| 13:58 |    | 186.85       |       | 14.17 |       |     | 182.50  |
| 13:59 |    | 186.50       |       | 14.18 |       |     | 182.35  |
| 14:00 |    | 186.35       |       | 14.19 |       |     | 182.20  |
| 14:01 |    | 185.95       |       | 14.20 |       |     | 182.05  |
| 14:02 |    | 185.85       |       | 14.21 |       |     | 181.95  |
| 14:03 |    | 185.60       |       | 14.22 |       |     | 181.80  |
| 14:04 |    | 185.35       |       | 14.23 |       |     | 181.65  |
| 14:05 |    | 185.10       |       | 14.24 |       |     | 181.55  |
| 14:06 |    | 184.85       |       | 14.25 |       |     | 181.40  |
| 14:07 |    | 184.60       |       | 14:26 |       |     | 181.25  |

Candy Marley Land Survey

05/12/05 MW-1 Pump Test

Time Draw Tagc 30F 3 By: CMB

14:27 181.05

14:28 180.95

14:29 180.85

14:30 180.75

14:40 179.30

14:50 177.95 } (1.35' / 10 min)

15:00 176.65 } 0.135' / min

15:10 175.45 } 1.25' / 10 min

15:20 174.20 } 0.125' / min

15:30 173.0 } 1.25' / 10 min

15:40 171.75 } 0.125' / min

15:50 170.70 } 1.03' / 10 min

16:00 169.67 } 0.103' / min

16:10 168.60 } 0.95' / 10 min

16:20 167.65 } 0.09' / min

16:30 166.82 } 0.83' / 10 min

16:30 165.05 } 0.083' / min

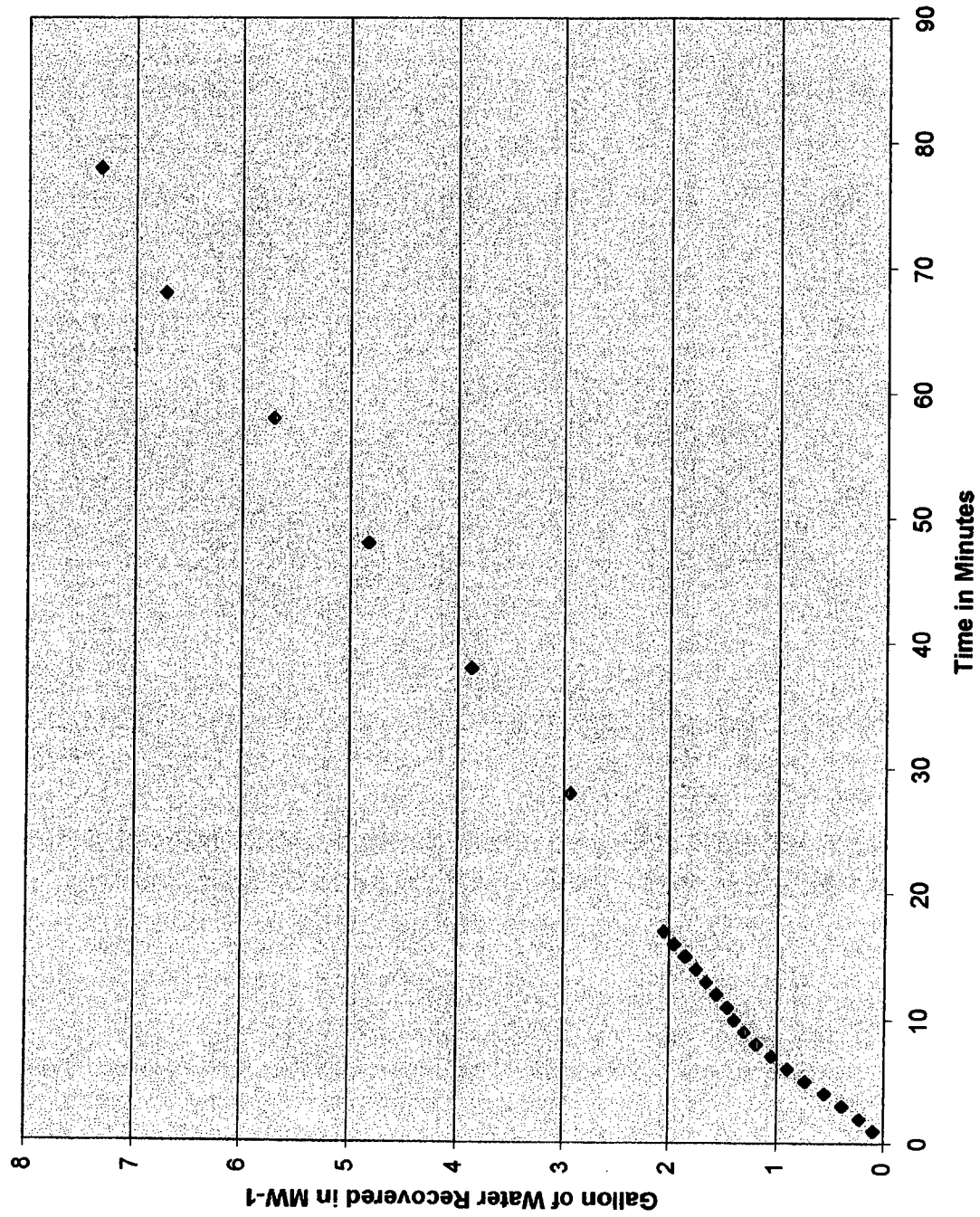
16:30 165.05 } 0.08' / min



Gandy Marley Landfarm  
Chaves Co, NM  
MW-1 Pump Test  
05/16/05

Clayton M. Barnhill PG  
CMB Environmental Geological Services Inc.

### Gallons of Water Recovered Vs. Time



Gandy Marley Landfarm  
Chaves, Co., NM  
MW-1 Pump Test  
05/16/05

Clayton M. Barnhill, PG  
CMB Environmental Geological Services, Inc.

| <u>TIME:</u> | <u>DTW:</u> | <u>Delta t (minutes)</u> | <u>Delta DTW (feet)</u> | <u>Gallons of Water Per Linear Foot</u> | <u>Gallons per minute Well Recovery</u> |
|--------------|-------------|--------------------------|-------------------------|-----------------------------------------|-----------------------------------------|
| 15:23        | 184.75      | 0                        |                         |                                         |                                         |
| 15:24        | 184.6       | 1                        | 0.15                    | 0.09795                                 | 0.0980                                  |
| 15:25        | 184.4       | 2                        | 0.35                    | 0.22855                                 | 0.1143                                  |
| 15:26        | 184.15      | 3                        | 0.6                     | 0.3918                                  | 0.1306                                  |
| 15:27        | 183.9       | 4                        | 0.85                    | 0.55505                                 | 0.1388                                  |
| 15:28        | 183.62      | 5                        | 1.13                    | 0.73789                                 | 0.1476                                  |
| 15:29        | 183.37      | 6                        | 1.38                    | 0.90114                                 | 0.1502                                  |
| 15:30        | 183.14      | 7                        | 1.61                    | 1.05133                                 | 0.1502                                  |
| 15:31        | 182.92      | 8                        | 1.83                    | 1.19499                                 | 0.1494                                  |
| 15:32        | 182.75      | 9                        | 2                       | 1.306                                   | 0.1451                                  |
| 15:33        | 182.6       | 10                       | 2.15                    | 1.40395                                 | 0.1404                                  |
| 15:34        | 182.5       | 11                       | 2.25                    | 1.46925                                 | 0.1336                                  |
| 15:35        | 182.35      | 12                       | 2.4                     | 1.5672                                  | 0.1306                                  |
| 15:36        | 182.2       | 13                       | 2.55                    | 1.66515                                 | 0.1281                                  |
| 15:37        | 182.05      | 14                       | 2.7                     | 1.7631                                  | 0.1259                                  |
| 15:38        | 181.9       | 15                       | 2.85                    | 1.86105                                 | 0.1241                                  |
| 15:39        | 181.75      | 16                       | 3                       | 1.959                                   | 0.1224                                  |
| 15:40        | 181.6       | 17                       | 3.15                    | 2.05695                                 | 0.1210                                  |
| 15:50        | 180.25      | 28                       | 4.5                     | 2.9385                                  | 0.1049                                  |
| 16:00        | 178.82      | 38                       | 5.93                    | 3.87229                                 | 0.1019                                  |
| 16:10        | 177.35      | 48                       | 7.4                     | 4.8322                                  | 0.1007                                  |
| 16:20        | 176         | 58                       | 8.75                    | 5.71375                                 | 0.0985                                  |
| 16:30        | 174.45      | 68                       | 10.3                    | 6.7259                                  | 0.0989                                  |
| 16:40        | 173.52      | 78                       | 11.23                   | 7.33319                                 | 0.0940                                  |

Average Recovery Rate of 0.1239 Gallons Per Minute  
Or 178 Gallons per Day  
Minimum 0.09 gpm or 135.36 gallons per day  
Maximum 0.1502 gpm or 216.28 gallons per day

|                                                                                                                                                                                             |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------|------------------|------------------|----------------------------|----------------------|
| Type Well<br><input checked="" type="checkbox"/> MW<br><input type="checkbox"/> Production<br><input type="checkbox"/> Other _____                                                          |                                                                                                             | Type of Data<br><input checked="" type="checkbox"/> Development<br><input checked="" type="checkbox"/> Sampling<br><input checked="" type="checkbox"/> Pump Test<br><input type="checkbox"/> Other _____ |                                                                                                                                                                                               | Well No. <u>MW-1</u><br>Sheet 1<br>of <u>2</u> Sheets                                   |               |                  |                  |                            |                      |
| 1. Project <u>Well Development</u>                                                                                                                                                          |                                                                                                             | 2. Project Location <u>Gandy Markey Land Farm</u>                                                                                                                                                        |                                                                                                                                                                                               | 3. Date <u>05/16/05</u>                                                                 |               |                  |                  |                            |                      |
| 4. Technician <u>CMB Smith, P.E.</u>                                                                                                                                                        |                                                                                                             | Charles Co, NM<br>Sec. 4, 5, 8, 9 T.11.5. R.31E.                                                                                                                                                         |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| 7. Method<br><input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other |                                                                                                             | 8. Manufacturer's Designation of Rig<br><u>DSR-2001</u>                                                                                                                                                  |                                                                                                                                                                                               | 9. Location of Well (Site, Description)<br><u>MW-1: N 33° 25' 11.7" W 103° 52' 2.5"</u> |               |                  |                  |                            |                      |
| <b>Water Levels</b>                                                                                                                                                                         |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| Initial                                                                                                                                                                                     |                                                                                                             | Final                                                                                                                                                                                                    |                                                                                                                                                                                               | Final + 24 Hours                                                                        |               |                  |                  |                            |                      |
| Date: <u>05/16/05</u> Time: <u>13:55</u>                                                                                                                                                    |                                                                                                             | Date: <u>05/16/05</u> Time: <u>16:40</u>                                                                                                                                                                 |                                                                                                                                                                                               | Date: _____ Time: _____                                                                 |               |                  |                  |                            |                      |
| 10. Total Depth of Well (from TOC)<br><u>203.20'</u>                                                                                                                                        |                                                                                                             | 15. Total Depth of Well (from TOC)<br><u>203.20</u>                                                                                                                                                      |                                                                                                                                                                                               | 20. Total Depth of Well (from TOC)                                                      |               |                  |                  |                            |                      |
| 11. Water Level (from TOC)<br><u>130.32'</u>                                                                                                                                                |                                                                                                             | 16. Water Level (from TOC)<br><u>173.52</u>                                                                                                                                                              |                                                                                                                                                                                               | 21. Water Level (from TOC)                                                              |               |                  |                  |                            |                      |
| 12. Water Column Height<br><u>72.88'</u>                                                                                                                                                    | Nom Dia x = gal/ft<br>Sch 40 Sch 80<br>2" 0.16 0.1534<br>4" 0.67 0.5972<br>6" 1.47 1.3540<br>8" 2.61 2.3720 | 17.3 Well Volumes<br><u>146.48 gallons</u>                                                                                                                                                               |                                                                                                                                                                                               | 22. Size and Type of Pump or Bailer                                                     |               |                  |                  |                            |                      |
| 13. Well Diameter<br><u>4" SCH 40 PVC MW</u>                                                                                                                                                |                                                                                                             | 18.5 Well Volumes<br><u>244.10 gallons</u>                                                                                                                                                               |                                                                                                                                                                                               | 1.8" Submersible Rediff 2                                                               |               |                  |                  |                            |                      |
| 14. Well Volume (gal) (s) w.e. height) <u>48.82 gal</u>                                                                                                                                     |                                                                                                             | 19. Purge Volume<br><u>70 gallon</u>                                                                                                                                                                     |                                                                                                                                                                                               | Set to T.O.                                                                             |               |                  |                  |                            |                      |
|                                                                                                                                                                                             |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| <b>Final Field Analysis</b>                                                                                                                                                                 |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| 23. Total Amount of Water Removed<br><u>70 gallons</u>                                                                                                                                      | 24. Was Well Pumped Dry?<br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>             | 25. Was water added to well?<br><input checked="" type="checkbox"/> No Yes<br>If yes, source:                                                                                                            | 26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No<br>If yes, what was the sample number & Date:<br>Sampling Personnel? <u>MW-1 05/16/05</u><br><u>CMB Smith P.E.</u> |                                                                                         |               |                  |                  |                            |                      |
| 27. Final Parameters                                                                                                                                                                        |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| Time                                                                                                                                                                                        | Temp C                                                                                                      | Conductivity                                                                                                                                                                                             | pH                                                                                                                                                                                            | NTUs                                                                                    | WL            | Removed          | Flow Rate        | Photo Roll #, Observations |                      |
| <u>15:13</u>                                                                                                                                                                                | <u>22.5</u>                                                                                                 | <u>13.6</u>                                                                                                                                                                                              | <u>7.96</u>                                                                                                                                                                                   | <u>TURBID</u>                                                                           | <u>189.45</u> | <u>70 gal</u>    | <u>3.3 gpm</u>   | <u>TURBID</u>              |                      |
| IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS                                                                                                                     |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| 28. Physical Appearance and Remarks<br><u>Clear initially, TURBID @ 70 Gallons Purged.</u>                                                                                                  |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| 29. Purgewater disposal method:<br><u>ON GROUND SURFACE</u>                                                                                                                                 |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| <b>Sampling / Development Parameters</b>                                                                                                                                                    |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| Time                                                                                                                                                                                        | Temp C                                                                                                      | Conductivity                                                                                                                                                                                             | pH                                                                                                                                                                                            | NTUs                                                                                    | WL (from TOC) | Volume (gallons) | Dissolved Oxygen | Flow Rate (gpm)            | Photo #, Observ. (1) |
| <u>14:17</u>                                                                                                                                                                                | <u>20.2</u>                                                                                                 | <u>13.5</u>                                                                                                                                                                                              | <u>8.13</u>                                                                                                                                                                                   | <u>Clear</u>                                                                            | <u>130.32</u> | <u>Initial</u>   | <u>4.4</u>       | <u>2.5</u>                 | <u>Clear H2O</u>     |
| <u>14:19</u>                                                                                                                                                                                | <u>20.4</u>                                                                                                 | <u>13.8</u>                                                                                                                                                                                              | <u>8.09</u>                                                                                                                                                                                   | <u>Clear</u>                                                                            | <u>145.20</u> | <u>10</u>        | <u>3.9</u>       | <u>2.5</u>                 | <u>Clear H2O</u>     |
| <u>14:24</u>                                                                                                                                                                                | <u>20.6</u>                                                                                                 | <u>14.0</u>                                                                                                                                                                                              | <u>8.07</u>                                                                                                                                                                                   | <u>Clear</u>                                                                            | <u>151.70</u> | <u>20</u>        | <u>4.0</u>       | <u>2.5</u>                 | <u>Clear H2O</u>     |
| <u>14:29</u>                                                                                                                                                                                | <u>20.7</u>                                                                                                 | <u>13.9</u>                                                                                                                                                                                              | <u>8.01</u>                                                                                                                                                                                   | <u>Clear</u>                                                                            | <u>159.20</u> | <u>30</u>        | <u>4.2</u>       | <u>2.5</u>                 | <u>Clear H2O</u>     |
| <u>14:37</u>                                                                                                                                                                                | <u>21.0</u>                                                                                                 | <u>13.8</u>                                                                                                                                                                                              | <u>8.00</u>                                                                                                                                                                                   | <u>Clear</u>                                                                            | <u>167.0</u>  | <u>40</u>        | <u>3.1</u>       | <u>1.15</u>                | <u>Clear</u>         |
| <u>14:47</u>                                                                                                                                                                                | <u>21.6</u>                                                                                                 | <u>12.7</u>                                                                                                                                                                                              | <u>7.98</u>                                                                                                                                                                                   | <u>SLIGHT TURBID</u>                                                                    | <u>175.65</u> | <u>50</u>        | <u>3.5</u>       | <u>1.0</u>                 | <u>SLIGHT TURBID</u> |
| <u>14:57</u>                                                                                                                                                                                | <u>21.8</u>                                                                                                 | <u>13.4</u>                                                                                                                                                                                              | <u>8.06</u>                                                                                                                                                                                   | <u>SLIGHT TURBID</u>                                                                    | <u>181.40</u> | <u>60</u>        | <u>3.7</u>       | <u>1.0</u>                 | <u>SLIGHT TURBID</u> |
| <u>15:13</u>                                                                                                                                                                                | <u>22.5</u>                                                                                                 | <u>13.6</u>                                                                                                                                                                                              | <u>7.96</u>                                                                                                                                                                                   | <u>TURBID</u>                                                                           | <u>189.45</u> | <u>70</u>        | <u>3.3</u>       | <u>3.3 gpm</u>             | <u>TURBID</u>        |
| (1) Note volume and physical character of sediments removed. <u>Removed pump. Will let well Re-charge</u>                                                                                   |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| NTU = Nephelometric turbidity units<br>WL = Water Level from Top of PVC Casing                                                                                                              |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  |                            |                      |
| Checked By <u>[Signature]</u>                                                                                                                                                               |                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                               |                                                                                         |               |                  |                  | Date <u>05/16/05</u>       |                      |

Well No. MW-1  
Sheet 2  
of 2 Sheets

2. Project Location  
Gandy Marley Land Farms  
CHAVES Co, NM

3. Date 05/16/05

4. Technician *C. M. Barnhill, AG*

[illegible]

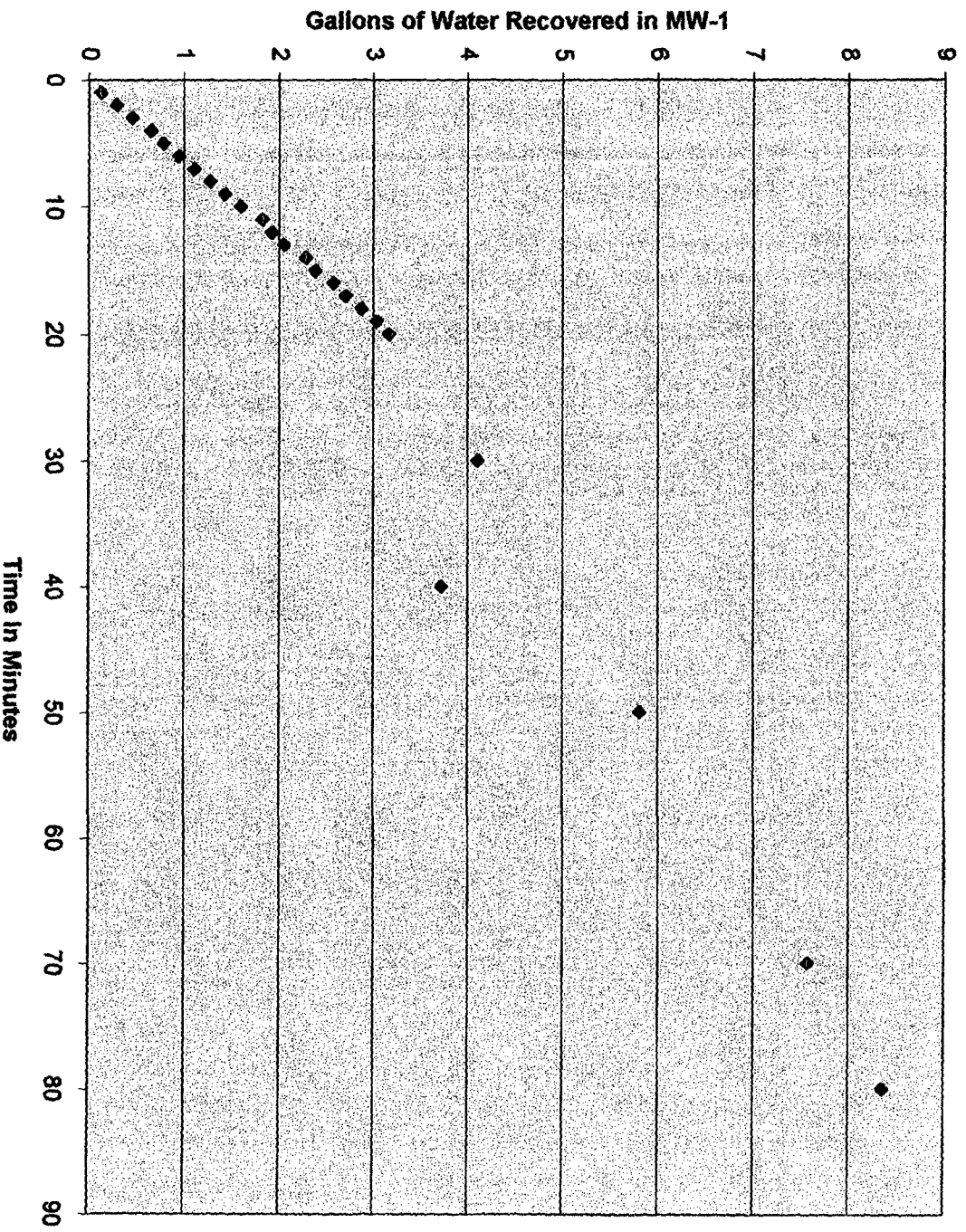
WL = Water Level from Top of PVC Casing

Checked By

Date \_\_\_\_\_

05/14/03

### Gallons of Water Recovered Vs. Time



◆ Gallons of Water Per Linear Foot

Gandy Marley Landfarm  
Chaves, Co., NM  
MW-1 Pump Test  
05/17/05

Clayton M. Barnhill, PG  
CMB Environmental Geological Services, Inc.

| <u>TIME:</u> | <u>DTW:</u> | <u>Delta t (minutes)</u> | <u>Delta DTW (feet)</u> | <u>Gallons of Water Per Linear Foot</u> | <u>Gallons per minute Well Recovery</u> |
|--------------|-------------|--------------------------|-------------------------|-----------------------------------------|-----------------------------------------|
| 14:40        | 187.8       | 0                        |                         |                                         | 0.1306                                  |
| 14:41        | 187.6       | 1                        | 0.2                     | 0.1306                                  | 0.1469                                  |
| 14:42        | 187.35      | 2                        | 0.45                    | 0.29385                                 | 0.1524                                  |
| 14:43        | 187.1       | 3                        | 0.7                     | 0.4571                                  | 0.1633                                  |
| 14:44        | 186.8       | 4                        | 1                       | 0.653                                   | 0.1567                                  |
| 14:45        | 186.6       | 5                        | 1.2                     | 0.7836                                  | 0.1578                                  |
| 14:46        | 186.35      | 6                        | 1.45                    | 0.94685                                 | 0.1586                                  |
| 14:47        | 186.1       | 7                        | 1.7                     | 1.1101                                  | 0.1592                                  |
| 14:48        | 185.85      | 8                        | 1.95                    | 1.27335                                 | 0.1596                                  |
| 14:49        | 185.6       | 9                        | 2.2                     | 1.4366                                  | 0.1600                                  |
| 14:50        | 185.35      | 10                       | 2.45                    | 1.59985                                 | 0.1662                                  |
| 14:51        | 185         | 11                       | 2.8                     | 1.8284                                  | 0.1605                                  |
| 14:52        | 184.85      | 12                       | 2.95                    | 1.92635                                 | 0.1582                                  |
| 14:53        | 184.65      | 13                       | 3.15                    | 2.05695                                 | 0.1633                                  |
| 14:54        | 184.3       | 14                       | 3.5                     | 2.2855                                  | 0.1589                                  |
| 14:55        | 184.15      | 15                       | 3.65                    | 2.38345                                 | 0.1612                                  |
| 14:56        | 183.85      | 16                       | 3.95                    | 2.57935                                 | 0.1594                                  |
| 14:57        | 183.65      | 17                       | 4.15                    | 2.70995                                 | 0.1596                                  |
| 14:58        | 183.4       | 18                       | 4.4                     | 2.8732                                  | 0.1598                                  |
| 14:59        | 183.15      | 19                       | 4.65                    | 3.03645                                 | 0.1584                                  |
| 15:00        | 182.95      | 20                       | 4.85                    | 3.16705                                 | 0.1371                                  |
| 15:10        | 181.5       | 30                       | 6.3                     | 4.1139                                  | 0.0932                                  |
| 15:20        | 180         | 40                       | 7.8                     | 3.72863                                 | 0.1162                                  |
| 15:30        | 178.9       | 50                       | 8.9                     | 5.8117                                  | 0.1082                                  |
| 15:50        | 176.2       | 70                       | 11.6                    | 7.5748                                  | 0.1045                                  |
| 16:00        | 175         | 80                       | 12.8                    | 8.3584                                  |                                         |

Average Recovery Rate of 0.1484 Gallons per Minute  
Or 213.69 Gallons per Day  
Minimum 0.0932 or 134 gallons per day  
Maximum 0.1662 gpm or 239.32 gallons per day



# CMB CONSULTING GEOLOGIST WELL DATA FORM

Well No. *MW-1*  
Sheet *1*  
of *1* Sheets

1. Project  
*Pump Test MW-1*

2. Project Location  
*Gandy Marley Land farm -  
Chaves Co, NM*

3. Date  
*05/17/05*

4. Technician *C.M. Barnhill, PE*

## Sampling / Development Parameters, Continued

| Time                                                      | Temp C                                                              | Conductivity<br>(umhos/cm) | pH/DO           | NTUs                | WL<br>(from TOC) | Volume<br>(gallons) | Flow Rate<br>(gpm) | Photo #,<br>Observations (1) |
|-----------------------------------------------------------|---------------------------------------------------------------------|----------------------------|-----------------|---------------------|------------------|---------------------|--------------------|------------------------------|
| <i>13:30</i>                                              |                                                                     |                            |                 |                     | <i>131.32</i>    | <i>Initial</i>      |                    |                              |
| <i>13:35</i>                                              | <i>Set pump in well (1.8" Red, 62 Submersible) @ T.D. = 203.10'</i> |                            |                 |                     |                  |                     |                    |                              |
| <i>13:36</i>                                              | <i>Started pumping well</i>                                         |                            |                 |                     | <i>129.62</i>    | <i>Initial</i>      |                    |                              |
| <i>13:36</i>                                              | <i>22.3</i>                                                         | <i>10.98</i>               | <i>8.0/3.8</i>  | <i>TURBID</i>       | <i>129.62</i>    | <i>Initial</i>      |                    | <i>TURBID Red 5.14</i>       |
| <i>13:47</i>                                              | <i>21.5</i>                                                         | <i>11.08</i>               | <i>8.02/3.2</i> | <i>TURBID</i>       | <i>153.80</i>    | <i>20</i>           | <i>1.8</i>         | <i>TURBID</i>                |
| <i>13:58</i>                                              | <i>21.3</i>                                                         | <i>10.70</i>               | <i>7.91/2.4</i> | <i>TURBID</i>       | <i>163.95</i>    | <i>40</i>           | <i>1.8</i>         | <i>TURBID</i>                |
| <i>14:09</i>                                              | <i>21.6</i>                                                         | <i>10.60</i>               | <i>7.99/3.0</i> | <i>TURBID</i>       | <i>177.40</i>    | <i>60</i>           | <i>1.8</i>         | <i>TURBID</i>                |
| <i>14:30</i>                                              | <i>22.6</i>                                                         | <i>10.8</i>                | <i>8.13/4.6</i> | <i>TURBID - DRY</i> |                  | <i>80</i>           | <i>0.95</i>        | <i>TURBID</i>                |
| <i>Pumped well DRY @ 80 Gallons purged - Removed Pump</i> |                                                                     |                            |                 |                     |                  |                     |                    |                              |
| <i>Let well re-charge</i>                                 |                                                                     |                            |                 |                     |                  |                     |                    |                              |
| <i>Time</i>                                               | <i>DTW</i>                                                          | <i>Time</i>                | <i>DTW</i>      |                     |                  |                     |                    |                              |
| <i>14:43:40</i>                                           | <i>187.80</i>                                                       | <i>14:58</i>               | <i>183.40</i>   |                     |                  |                     |                    |                              |
| <i>14:43:41</i>                                           | <i>187.60</i>                                                       | <i>14:59</i>               | <i>183.15</i>   |                     |                  |                     |                    |                              |
| <i>14:43:42</i>                                           | <i>187.35</i>                                                       | <i>15:00</i>               | <i>182.95</i>   |                     |                  |                     |                    |                              |
| <i>14:43:43</i>                                           | <i>187.10</i>                                                       | <i>15:10</i>               | <i>181.50</i>   |                     |                  |                     |                    |                              |
| <i>14:43:44</i>                                           | <i>186.80</i>                                                       | <i>15:20</i>               | <i>180.0</i>    |                     |                  |                     |                    |                              |
| <i>14:43:45</i>                                           | <i>186.60</i>                                                       | <i>15:30</i>               | <i>178.90</i>   |                     |                  |                     |                    |                              |
| <i>14:43:46</i>                                           | <i>186.35</i>                                                       | <i>15:40</i>               | <i>176.20</i>   |                     |                  |                     |                    |                              |
| <i>14:43:47</i>                                           | <i>186.10</i>                                                       | <i>16:00</i>               | <i>175.0</i>    |                     |                  |                     |                    |                              |
| <i>14:43:48</i>                                           | <i>185.85</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:49</i>                                           | <i>185.60</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:50</i>                                           | <i>185.35</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:51</i>                                           | <i>185.0</i>                                                        |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:52</i>                                           | <i>184.85</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:53</i>                                           | <i>184.65</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:54</i>                                           | <i>184.30</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:55</i>                                           | <i>184.15</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:56</i>                                           | <i>183.85</i>                                                       |                            |                 |                     |                  |                     |                    |                              |
| <i>14:43:57</i>                                           | <i>183.65</i>                                                       |                            |                 |                     |                  |                     |                    |                              |

NTU = Nephelometric turbidity units

WL = Water Level from Top of PVC Casing

Checked By

*[Signature]*

Date

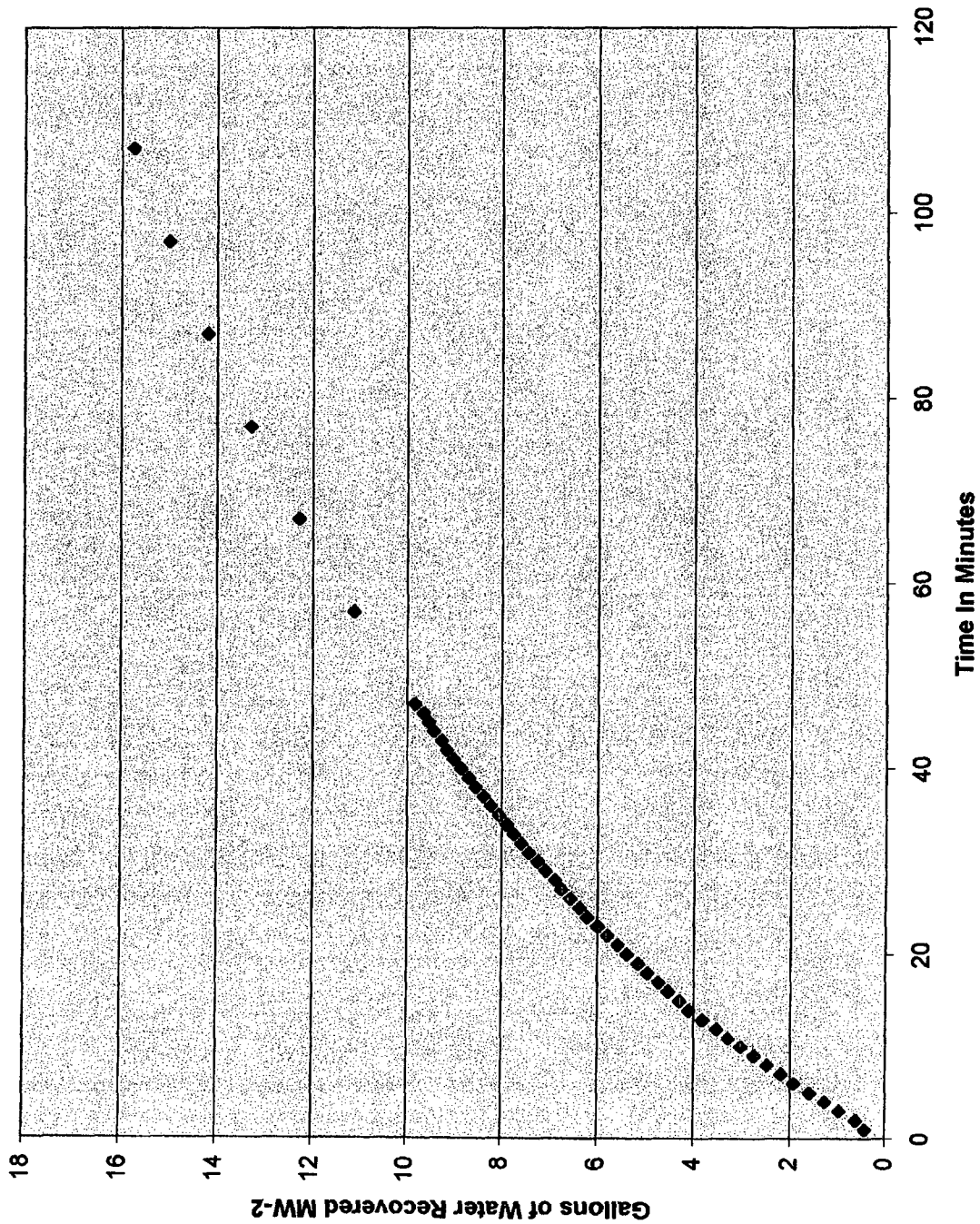
*05/17/05*



Gandy Marley Landfarm  
Chaves Co., NM  
MW-2 Pump Test  
05/16/05

Clayton M. Barnhill, PG  
CMB Environmental Geological Services Inc.

### Gallons of Water Recovered Vs. Time



| <u>TIME:</u> | <u>DTW:</u> | <u>Delta t (minutes)</u> | <u>Delta DTW (feet)</u> | <u>Gallons of Water Per Linear Foot</u> | <u>Gallons per minute Well Recovery</u> |
|--------------|-------------|--------------------------|-------------------------|-----------------------------------------|-----------------------------------------|
| 10:13        | 167.91      | 0                        |                         |                                         |                                         |
| 10:14        | 167.25      | 1                        | 0.66                    | 0.43098                                 | 0.4310                                  |
| 10:15        | 166.95      | 2                        | 0.96                    | 0.62688                                 | 0.3134                                  |
| 10:16        | 166.42      | 3                        | 1.49                    | 0.97297                                 | 0.3243                                  |
| 10:17        | 165.95      | 4                        | 1.96                    | 1.27988                                 | 0.3200                                  |
| 10:18        | 165.47      | 5                        | 2.44                    | 1.59332                                 | 0.3187                                  |
| 10:19        | 164.95      | 6                        | 2.96                    | 1.93288                                 | 0.3221                                  |
| 10:20        | 164.55      | 7                        | 3.36                    | 2.19408                                 | 0.3134                                  |
| 10:21        | 164.1       | 8                        | 3.81                    | 2.48793                                 | 0.3110                                  |
| 10:22        | 163.66      | 9                        | 4.25                    | 2.77525                                 | 0.3084                                  |
| 10:23        | 163.25      | 10                       | 4.66                    | 3.04298                                 | 0.3043                                  |
| 10:24        | 162.85      | 11                       | 5.06                    | 3.30418                                 | 0.3004                                  |
| 10:25        | 162.47      | 12                       | 5.44                    | 3.55232                                 | 0.2960                                  |
| 10:26        | 162.05      | 13                       | 5.86                    | 3.82658                                 | 0.2944                                  |
| 10:27        | 161.62      | 14                       | 6.29                    | 4.10737                                 | 0.2934                                  |
| 10:28        | 161.32      | 15                       | 6.59                    | 4.30327                                 | 0.2869                                  |
| 10:29        | 160.95      | 16                       | 6.96                    | 4.54488                                 | 0.2841                                  |
| 10:30        | 160.65      | 17                       | 7.26                    | 4.74078                                 | 0.2789                                  |
| 10:31        | 160.3       | 18                       | 7.61                    | 4.96933                                 | 0.2761                                  |
| 10:32        | 160         | 19                       | 7.91                    | 5.16523                                 | 0.2719                                  |
| 10:33        | 159.65      | 20                       | 8.26                    | 5.39378                                 | 0.2697                                  |
| 10:34        | 159.35      | 21                       | 8.56                    | 5.58968                                 | 0.2662                                  |
| 10:35        | 159.02      | 22                       | 8.89                    | 5.80517                                 | 0.2639                                  |
| 10:36        | 158.72      | 23                       | 9.19                    | 6.0107                                  | 0.2609                                  |
| 10:37        | 158.4       | 24                       | 9.51                    | 6.21003                                 | 0.2588                                  |
| 10:38        | 158.15      | 25                       | 9.76                    | 6.37328                                 | 0.2549                                  |
| 10:39        | 157.85      | 26                       | 10.06                   | 6.56918                                 | 0.2527                                  |
| 10:40        | 157.55      | 27                       | 10.36                   | 6.76508                                 | 0.2506                                  |
| 10:41        | 157.35      | 28                       | 10.56                   | 6.89568                                 | 0.2463                                  |
| 10:42        | 157.05      | 29                       | 10.86                   | 7.09158                                 | 0.2445                                  |
| 10:43        | 156.8       | 30                       | 11.11                   | 7.25483                                 | 0.2418                                  |
| 10:44        | 156.52      | 31                       | 11.39                   | 7.43767                                 | 0.2399                                  |
| 10:45        | 156.27      | 32                       | 11.64                   | 7.60092                                 | 0.2375                                  |
| 10:46        | 156.02      | 33                       | 11.89                   | 7.76417                                 | 0.2353                                  |
| 10:47        | 155.8       | 34                       | 12.11                   | 7.90783                                 | 0.2326                                  |
| 10:48        | 155.55      | 35                       | 12.36                   | 8.07108                                 | 0.2306                                  |
| 10:49        | 155.3       | 36                       | 12.61                   | 8.23433                                 | 0.2287                                  |
| 10:50        | 155.05      | 37                       | 12.86                   | 8.39758                                 | 0.2270                                  |
| 10:51        | 154.8       | 38                       | 13.11                   | 8.56083                                 | 0.2253                                  |
| 10:52        | 154.56      | 39                       | 13.35                   | 8.71755                                 | 0.2235                                  |
| 10:53        | 154.33      | 40                       | 13.58                   | 8.86774                                 | 0.2217                                  |
| 10:54        | 154.1       | 41                       | 13.81                   | 9.01793                                 | 0.2199                                  |
| 10:55        | 153.87      | 42                       | 14.04                   | 9.16812                                 | 0.2183                                  |
| 10:56        | 153.7       | 43                       | 14.21                   | 9.27913                                 | 0.2158                                  |
| 10:57        | 153.45      | 44                       | 14.46                   | 9.44238                                 | 0.2146                                  |
| 10:58        | 153.27      | 45                       | 14.64                   | 9.5692                                  | 0.2124                                  |
| 10:59        | 153.05      | 46                       | 14.86                   | 9.6644                                  | 0.2101                                  |
| 11:00        | 152.85      | 47                       | 15.06                   | 9.83418                                 | 0.2092                                  |
| 11:10        | 150.87      | 57                       | 17.04                   | 11.12712                                | 0.1952                                  |
| 11:20        | 149.11      | 67                       | 18.8                    | 12.2764                                 | 0.1832                                  |
| 11:30        | 147.55      | 77                       | 20.36                   | 13.29508                                | 0.1727                                  |
| 11:40        | 146.15      | 87                       | 21.76                   | 14.20928                                | 0.1633                                  |
| 11:50        | 144.95      | 97                       | 22.96                   | 14.99288                                | 0.1546                                  |
| 12:00        | 143.8       | 107                      | 24.11                   | 15.74383                                | 0.1471                                  |

Average Recovery Rate of 0.2543 Gallons per minute  
Or 366.19 Hundred Gallons Per Day

Minimum 0.1471 gpm or 211.82 gallons per day  
Maximum 0.4310 gpm or 620.64 gallons per day

|                                                                                                                                                                    |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------|------------------|----------------------|----------------------------|
| Type Well<br><input checked="" type="checkbox"/> MW<br><input type="checkbox"/> Production<br><input type="checkbox"/> Other                                       |                                                                                                                             | Type of Data<br><input checked="" type="checkbox"/> Development<br><input checked="" type="checkbox"/> Sampling<br><input checked="" type="checkbox"/> Pump Test<br><input type="checkbox"/> Other |                                                                                                                                                                                                                                | Well No. <u>MW-2</u><br>Sheet 1 of <u>2</u> Sheets                                                 |                                               |                  |                  |                      |                            |
| 1. Project <u>Well Development</u><br><u>Pump Test &amp; GW Sampling</u>                                                                                           |                                                                                                                             | 2. Project Location<br><u>Gandy Marley Land farm</u>                                                                                                                                               |                                                                                                                                                                                                                                | 3. Date<br><u>05/16/05</u>                                                                         |                                               |                  |                  |                      |                            |
| 4. Technician<br><u>CM Barnhill, PE</u>                                                                                                                            |                                                                                                                             | 5. <u>Charles G. Noy</u><br><u>Sec. 4, 5, 8, 9, T. 11. S. R. 31 E.</u>                                                                                                                             |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| 7. Method<br><input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing Other |                                                                                                                             | 8. Manufacturer's Designation of Rig<br><u>DSR-2001</u>                                                                                                                                            |                                                                                                                                                                                                                                | 9. Location of Well (Site, Description)<br><u>N 33° 23' 05.0"</u><br><u>MW-2: W 103° 50' 20.7"</u> |                                               |                  |                  |                      |                            |
| <b>Water Levels</b> <span style="float: right;"><u>GPS Coordinates</u></span>                                                                                      |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| Initial                                                                                                                                                            |                                                                                                                             | Final                                                                                                                                                                                              |                                                                                                                                                                                                                                | Final + 24 Hours                                                                                   |                                               |                  |                  |                      |                            |
| Date: <u>05/16/05</u> Time: <u>0856</u>                                                                                                                            |                                                                                                                             | Date: <u>05/16/05</u> Time: <u>13:15</u>                                                                                                                                                           |                                                                                                                                                                                                                                | Date: _____ Time: _____                                                                            |                                               |                  |                  |                      |                            |
| 10. Total Depth of Well (from TOC)<br><u>180.0'</u>                                                                                                                |                                                                                                                             | 15. Total Depth of Well (from TOC)<br><u>180.60</u>                                                                                                                                                |                                                                                                                                                                                                                                | 20. Total Depth of Well (from TOC)                                                                 |                                               |                  |                  |                      |                            |
| 11. Water Level (from TOC)<br><u>122.62'</u>                                                                                                                       |                                                                                                                             | 16. Water Level (from TOC)<br><u>137.30'</u>                                                                                                                                                       |                                                                                                                                                                                                                                | 21. Water Level (from TOC)                                                                         |                                               |                  |                  |                      |                            |
| 12. Water Column Height<br><u>57.38'</u>                                                                                                                           | Nom Dia<br><u>4"</u>                                                                                                        | x = gal/ft<br><u>Sch 40</u>                                                                                                                                                                        | Sch 80                                                                                                                                                                                                                         | 17. 3 Well Volumes<br><u>115.33 bbls</u>                                                           | 22. Size and Type of<br><u>Pump or Bailer</u> |                  |                  |                      |                            |
| 13. Well Diameter<br><u>4" SCH 40 PVC MW</u>                                                                                                                       | 2" <u>0.16</u>                                                                                                              | 0.1534                                                                                                                                                                                             |                                                                                                                                                                                                                                | 18. 5 Well Volumes<br><u>192.22 bbls</u>                                                           | <u>1.8" submersible</u>                       |                  |                  |                      |                            |
| 14. Well Volume (gal) (s.w.e. height) <u>38.44 bbls</u>                                                                                                            | 6" <u>0.67</u>                                                                                                              | 0.5972                                                                                                                                                                                             |                                                                                                                                                                                                                                | 19. Purge Volume <u>95 bbls</u>                                                                    | <u>Redi-Flow</u>                              |                  |                  |                      |                            |
|                                                                                                                                                                    | 8" <u>2.61</u>                                                                                                              | 2.3720                                                                                                                                                                                             |                                                                                                                                                                                                                                |                                                                                                    | <u>Set @ 175' From TOC</u>                    |                  |                  |                      |                            |
| <b>Final Field Analysis</b>                                                                                                                                        |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| 23. Total Amount of Water Removed<br><u>95 Gallons</u>                                                                                                             | 24. Was Well Pumped Dry?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br><u>95 Gallons purged</u> | 25. Was water added to well?<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>If yes, source:                                                                             | 26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If yes, what was the sample number & Date:<br>Sampling Personnel? <u>MW-2, 05/16/05</u><br><u>CM Barnhill, PE 12:10</u> |                                                                                                    |                                               |                  |                  |                      |                            |
| 27. Final Parameters                                                                                                                                               | Time                                                                                                                        | Temp C                                                                                                                                                                                             | Conductivity                                                                                                                                                                                                                   | pH                                                                                                 | NTUs                                          | WL               | Removed          | Flow Rate            | Photo Roll #, Observations |
|                                                                                                                                                                    | <u>10:06</u>                                                                                                                | <u>20.5</u>                                                                                                                                                                                        | <u>11.92</u>                                                                                                                                                                                                                   | <u>8.13</u>                                                                                        | <u>TURBID</u>                                 | <u>17445</u>     | <u>95 bbls</u>   | <u>2.5 gpm</u>       | <u>TURBID Red Silt</u>     |
| IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS                                                                                            |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| 28. Physical Appearance and Remarks<br><u>TURBID Red Silt - in H<sub>2</sub>O</u>                                                                                  |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| 29. Purge water disposal method:<br><u>ON GROUND SURFACE</u>                                                                                                       |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| <b>Sampling / Development Parameters</b> <span style="float: right;"><u>m/e</u></span>                                                                             |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| Time                                                                                                                                                               | Temp C                                                                                                                      | M/S Conductivity                                                                                                                                                                                   | pH                                                                                                                                                                                                                             | NTUs                                                                                               | WL (from TOC)                                 | Volume (gallons) | Dissolved Oxygen | Flow Rate (gpm)      | Photo #, Observ. (1)       |
| <u>0930</u>                                                                                                                                                        | <u>17.9°</u>                                                                                                                | <u>11.12</u>                                                                                                                                                                                       | <u>7.90</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>122.62'</u>                                | <u>initial</u>   | <u>4.8</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0932</u>                                                                                                                                                        | <u>19.1°</u>                                                                                                                | <u>11.46</u>                                                                                                                                                                                       | <u>8.04</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>129.65'</u>                                | <u>5</u>         | <u>4.4</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0934</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.60</u>                                                                                                                                                                                       | <u>8.07</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>133.10'</u>                                | <u>10</u>        | <u>4.5</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0936</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.64</u>                                                                                                                                                                                       | <u>8.11</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>136.35'</u>                                | <u>15</u>        | <u>4.6</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0938</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.56</u>                                                                                                                                                                                       | <u>8.06</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>140.10'</u>                                | <u>20</u>        | <u>4.6</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0940</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.59</u>                                                                                                                                                                                       | <u>8.14</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>143.43'</u>                                | <u>25</u>        | <u>4.9</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0942</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.59</u>                                                                                                                                                                                       | <u>8.15</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>146.35'</u>                                | <u>30</u>        | <u>4.6</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| <u>0944</u>                                                                                                                                                        | <u>19.6</u>                                                                                                                 | <u>11.24</u>                                                                                                                                                                                       | <u>8.17</u>                                                                                                                                                                                                                    | <u>TURBID</u>                                                                                      | <u>148.47'</u>                                | <u>35</u>        | <u>5.4</u>       | <u>2.5</u>           | <u>Red Silt</u>            |
| (1) Note volume and physical character of sediments removed.<br>NTU = Nephelometric turbidity units<br>WL = Water Level from Top of PVC Casing                     |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  |                      |                            |
| Checked By <u>CM Barnhill, PE</u>                                                                                                                                  |                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                |                                                                                                    |                                               |                  |                  | Date <u>05/16/05</u> |                            |

# CMB CONSULTING GEOLOGIST WELL DATA FORM

Well No. MW-2  
Sheet 2  
of Sheets 2

1. Project Well Development  
Pump Test & GW Sampling  
4. Technician CM Barnhill, PE

2. Project Location  
Gandy Marley Landfarm  
O'Hares Co., NM

3. Date  
05/16/05

## Sampling / Development Parameters, Continued

| Time                             | Temp C                            | Conductivity<br>(umhos/cm) | pH       | NTUs   | WL<br>(from TOC) | Volume<br>(gallons) | Flow Rate<br>(gpm) | Photo #,<br>Observations (1) |
|----------------------------------|-----------------------------------|----------------------------|----------|--------|------------------|---------------------|--------------------|------------------------------|
| 0946                             | 19.7                              | 10.99                      | 8.16/4.9 | TURBID | 152.0            | 40                  | 2.5                | Red Silt                     |
| 0948                             | 19.8                              | 11.11                      | 8.15/5.4 | TURBID | 154.15           | 45                  | 2.5                | Red Silt                     |
| 0950                             | 19.9                              | 11.32                      | 8.15/5.1 | TURBID | 156.52           | 50                  | 2.5                | Red Silt                     |
| 0952                             | 19.9                              | 11.68                      | 8.17/4.7 | TURBID | 158.80           | 55                  | 2.5                | Red Silt                     |
| 0954                             | 20.0                              | 11.77                      | 8.12/4.9 | TURBID | 160.95           | 60                  | 2.5                | Red Silt                     |
| 0956                             | 20.0                              | 11.87                      | 8.16/4.5 | TURBID | 163.45           | 65                  | 2.5                | Red Silt                     |
| 0958                             | 19.9                              | 11.93                      | 8.16/4.1 | TURBID | 165.24           | 70                  | 2.5                | Red Silt                     |
| 1000                             | 20.0                              | 12.03                      | 8.14/4.1 | TURBID | 168.05           | 75                  | 2.5                | Red Silt                     |
| 1002                             | 20.0                              | 12.05                      | 8.12/3.5 | TURBID | 170.05           | 80                  | 2.5                | Red Silt                     |
| 10:04                            | 20.0                              | 12.19                      | 8.19/2.9 | TURBID | 172.35           | 85                  | 2.5                | Red Silt                     |
| 10:06                            | 20.5                              | 11.92                      | 8.13/3.4 | TURBID | 174.45           | 90                  | 2.5                | Red Silt                     |
| 10:08                            | Well Pumped down to 5' off bottom |                            |          |        |                  | 95                  | 2.5                | Red Silt                     |
| Removal pump - let well recharge |                                   |                            |          |        |                  |                     |                    |                              |

| TIME  | DTW    | Time  | DTW    | TIME | DTW     | Time   | DTW     |
|-------|--------|-------|--------|------|---------|--------|---------|
| 10:13 | 167.91 | 10:27 | 161.62 | 1041 | 157.35  | 1055   | 153.87' |
| 10:14 | 167.25 | 10:28 | 161.32 | 1042 | 157.05  | 1056   | 153.70' |
| 10:15 | 166.95 | 10:29 | 160.95 | 1043 | 156.80' | 1057   | 153.45  |
| 10:16 | 166.42 | 10:30 | 160.65 | 1044 | 156.52  | 1058   | 153.27  |
| 10:17 | 165.95 | 10:31 | 160.30 | 1045 | 156.27  | 1059   | 153.05' |
| 10:18 | 165.47 | 10:32 | 160.0  | 1046 | 156.02  | 1100   | 152.85  |
| 10:19 | 164.95 | 10:33 | 159.65 | 1047 | 155.80  | 155.05 |         |
| 10:20 | 164.55 | 10:34 | 159.35 | 1048 | 155.55  |        |         |
| 10:21 | 164.10 | 10:35 | 159.02 | 1049 | 155.30  | 11:10  | 150.87  |
| 10:22 | 163.66 | 10:36 | 158.72 | 1050 | 155.05  | 11:20  | 149.11  |
| 10:23 | 163.25 | 10:37 | 158.40 | 1051 | 154.80  | 11:30  | 147.55  |
| 10:24 | 162.85 | 10:38 | 158.15 | 1052 | 154.56  | 11:40  | 146.16  |
| 10:25 | 162.47 | 10:39 | 157.85 | 1053 | 154.33  | 11:50  | 144.95  |
| 10:26 | 162.05 | 10:40 | 157.55 | 1054 | 154.10  | 12:00  | 143.80  |

NTU = Nephelometric turbidity units

WL = Water Level from Top of PVC Casing

Checked By

*[Signature]* PE

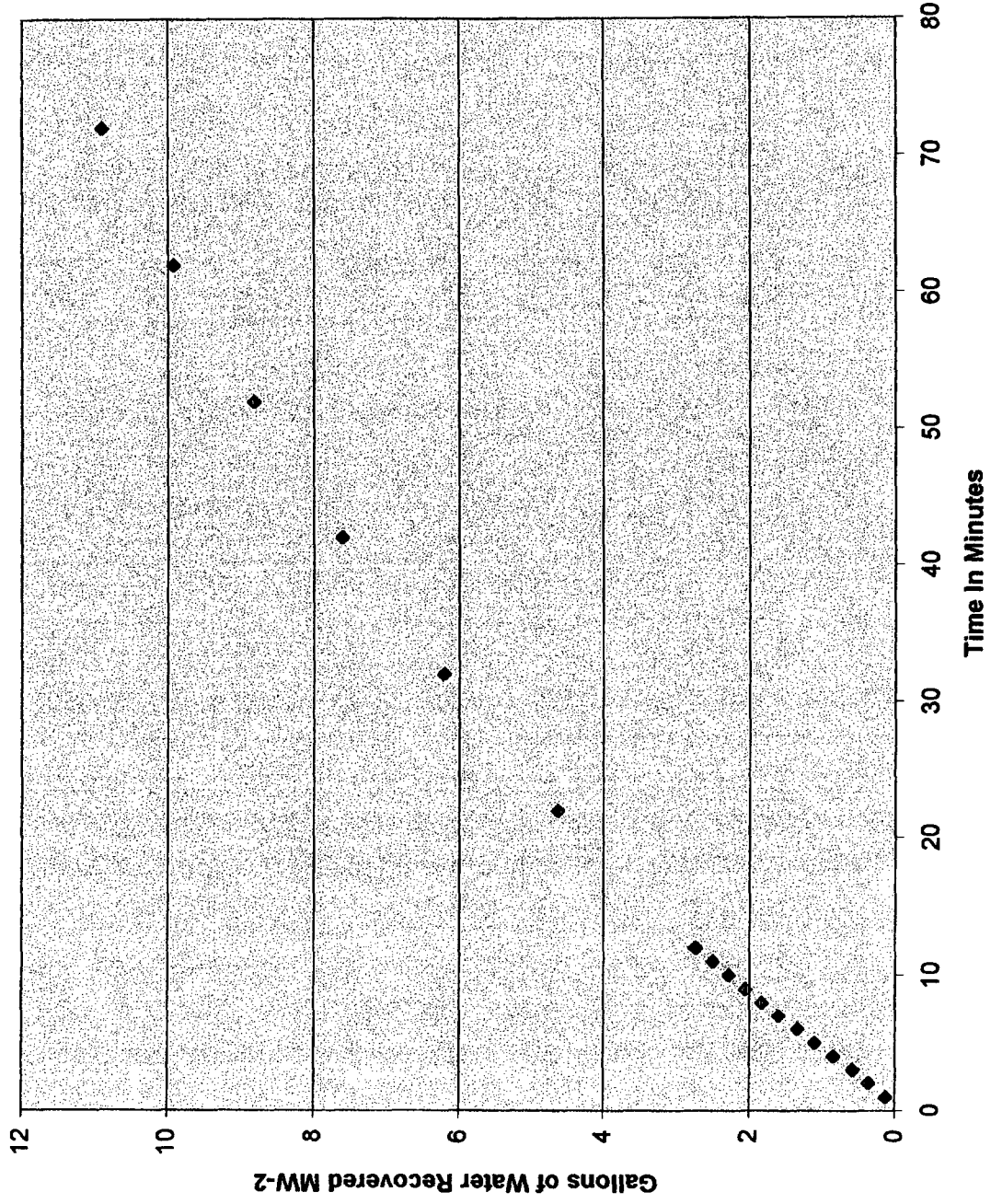
Date

05/16/05

Gandy Marley Landfarm  
Chaves Co., NM  
MW-2 Pump Test  
05/17/05

Clayton M. Bamhill, PG  
CMB Environmental Geological Services Inc.

### Gallons of Water Recovered Vs. Time



Gandy Marley Landfarm  
Chaves, Co., NM  
MW-2 Pump Test  
05/17/05

Clayton M. Barnhill, PG  
CMB Environmental Geological Services, Inc.

| <u>TIME:</u> | <u>DTW:</u> | <u>Delta t (minutes)</u> | <u>Delta DTW (feet)</u> | <u>Gallons of Water Per Linear Foot</u> | <u>Gallons per minute Well Recovery</u> |
|--------------|-------------|--------------------------|-------------------------|-----------------------------------------|-----------------------------------------|
| 11:48        | 165.6       | 0                        |                         |                                         |                                         |
| 11:49        | 165.4       | 1                        | 0.2                     | 0.1306                                  | 0.1306                                  |
| 11:50        | 165.1       | 2                        | 0.5                     | 0.36568                                 | 0.1828                                  |
| 11:51        | 164.7       | 3                        | 0.9                     | 0.5877                                  | 0.1959                                  |
| 11:52        | 164.3       | 4                        | 1.3                     | 0.8489                                  | 0.2122                                  |
| 11:53        | 163.9       | 5                        | 1.7                     | 1.1101                                  | 0.2220                                  |
| 11:54        | 163.55      | 6                        | 2.05                    | 1.33865                                 | 0.2231                                  |
| 11:55        | 163.15      | 7                        | 2.45                    | 1.59985                                 | 0.2286                                  |
| 11:56        | 162.8       | 8                        | 2.8                     | 1.8284                                  | 0.2286                                  |
| 11:57        | 162.45      | 9                        | 3.15                    | 2.05695                                 | 0.2286                                  |
| 11:58        | 162.1       | 10                       | 3.5                     | 2.2855                                  | 0.2286                                  |
| 11:59        | 161.75      | 11                       | 3.85                    | 2.51405                                 | 0.2286                                  |
| 12:00        | 161.4       | 12                       | 4.2                     | 2.7426                                  | 0.2286                                  |
| 12:10        | 158.5       | 22                       | 7.1                     | 4.6363                                  | 0.2107                                  |
| 12:20        | 156.1       | 32                       | 9.5                     | 6.2035                                  | 0.1939                                  |
| 12:30        | 153.95      | 42                       | 11.65                   | 7.60745                                 | 0.1811                                  |
| 12:40        | 152.1       | 52                       | 13.5                    | 8.8155                                  | 0.1695                                  |
| 12:50        | 150.4       | 62                       | 15.2                    | 9.9256                                  | 0.1601                                  |
| 13:00        | 148.9       | 72                       | 16.7                    | 10.9051                                 | 0.1515                                  |

0.2003

Average Recovery Rate of 0.2003 Gallons per minute  
Or 288 Gallons per day

Minimum 0.1306 or 188 gallons per day  
Maximum 0.2286 or 329 gallons/day

# CMB CONSULTING GEOLOGIST WELL DATA FORM

Well No. MW-2

Sheet 1

of / Sheets

1. Project

Pump Test MW-2

2. Project Location

Gandy Marley Land Farm  
Chaves Co, NM

3. Date

05/17/05

4. Technician

Jim Barnhill, PE

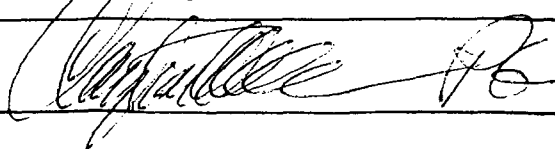
## Sampling / Development Parameters, Continued

| Time                                                              | Temp C                                                                  | Conductivity<br>(umhos/cm) | pH/D.O.         | NTUs          | WL<br>(from TOC) | Volume<br>(gallons) | Flow Rate<br>(gpm) | Photo #,<br>Observations (1) |
|-------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------|-----------------|---------------|------------------|---------------------|--------------------|------------------------------|
| <u>10:36</u>                                                      |                                                                         |                            |                 |               | <u>124.70'</u>   | <u>Initial</u>      |                    |                              |
| <u>10:40</u>                                                      | <u>Set well pump in well (1.8" Rediflor Submersible) @ T.D. 179.40'</u> |                            |                 |               |                  |                     |                    |                              |
| <u>10:50</u>                                                      | <u>Started pumping well</u>                                             |                            |                 |               |                  |                     |                    |                              |
| <u>10:50</u>                                                      | <u>20.4</u>                                                             | <u>9.96</u>                | <u>7.81/2.9</u> | <u>TURBID</u> | <u>123.0</u>     | <u>Initial</u>      | <u>1.81</u>        | <u>TURBID Red Silt</u>       |
| <u>11:01</u>                                                      | <u>20.4</u>                                                             | <u>10.53</u>               | <u>8.08/3.1</u> | <u>TURBID</u> | <u>139.95'</u>   | <u>20</u>           | <u>1.81</u>        | <u>TURBID Red Silt</u>       |
| <u>11:10</u>                                                      | <u>20.7</u>                                                             | <u>10.48</u>               | <u>8.07/3.5</u> | <u>TURBID</u> | <u>150.0</u>     | <u>40</u>           | <u>2.22</u>        | <u>TURBID Red Silt</u>       |
| <u>11:20</u>                                                      | <u>21.0</u>                                                             | <u>10.31</u>               | <u>8.14/4.5</u> | <u>TURBID</u> | <u>159.82'</u>   | <u>60</u>           | <u>1.81</u>        | <u>TURBID Red Silt</u>       |
| <u>11:38</u>                                                      | <u>21.3</u>                                                             | <u>10.20</u>               | <u>8.03/3.6</u> | <u>TURBID</u> | <u>172.85'</u>   | <u>80</u>           | <u>1.19</u>        | <u>TURBID Red Silt</u>       |
| <u>11:40 - Well pumped Dry @ 82 Gallons Purged - Removed pump</u> |                                                                         |                            |                 |               |                  |                     |                    |                              |
| <u>Let well Recharge</u>                                          |                                                                         |                            |                 |               |                  |                     |                    |                              |
| <u>Time:</u>                                                      | <u>DTW</u>                                                              |                            |                 |               |                  |                     |                    |                              |
| <u>11:48</u>                                                      | <u>165.60</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:49</u>                                                      | <u>165.40</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:50</u>                                                      | <u>165.10</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:51</u>                                                      | <u>164.90</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:52</u>                                                      | <u>164.30</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:53</u>                                                      | <u>163.90</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:54</u>                                                      | <u>163.55</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:55</u>                                                      | <u>163.15</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:56</u>                                                      | <u>162.80</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:57</u>                                                      | <u>162.45</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:58</u>                                                      | <u>162.10</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>11:59</u>                                                      | <u>161.75</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>12:00</u>                                                      | <u>161.40</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>12:10</u>                                                      | <u>158.5</u>                                                            |                            |                 |               |                  |                     |                    |                              |
| <u>12:20</u>                                                      | <u>156.10</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>12:30</u>                                                      | <u>153.95</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>12:40</u>                                                      | <u>152.10</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>12:50</u>                                                      | <u>150.40</u>                                                           |                            |                 |               |                  |                     |                    |                              |
| <u>13:00</u>                                                      | <u>148.90</u>                                                           |                            |                 |               |                  |                     |                    |                              |

NTU = Nephelometric turbidity units

WL = Water Level from Top of PVC Casing

Checked By



Date

05/17/05

## Summary Report

Larry Gandy  
Gandy Marley Inc.  
Box 1658  
Roswell, NM 88202

Report Date: May 18, 2005

Work Order: 5051704

Project Location: Sec4,Sec5,Sec8,Sec9 T.11.SR.31E  
Project Name: Gandy Marley Landfarm  
Project Number: Quarterly Sampling (NM-711-1-0020)

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 62903  | MW-2        | water  | 2005-05-16 | 12:10      | 2005-05-16    |
| 62904  | MW-1        | water  | 2005-05-16 | 12:45      | 2005-05-16    |

| Sample - Field Code | TPH DRO<br>DRO<br>(mg/L) |
|---------------------|--------------------------|
| 62903 - MW-2        | <5.00                    |
| 62904 - MW-1        | <5.00                    |

### Sample: 62903 - MW-2

| Param                  | Flag | Result  | Units         | RL     |
|------------------------|------|---------|---------------|--------|
| Hydroxide Alkalinity   |      | <1.00   | mg/L as CaCo3 | 1.00   |
| Carbonate Alkalinity   |      | <1.00   | mg/L as CaCo3 | 1.00   |
| Bicarbonate Alkalinity |      | 88.0    | mg/L as CaCo3 | 4.00   |
| Total Alkalinity       |      | 88.0    | mg/L as CaCo3 | 4.00   |
| Chloride               |      | 4790    | mg/L          | 0.500  |
| Specific Conductance   |      | 14200   | µMHOS/cm      | 0.00   |
| Nitrite-N              |      | <0.0100 | mg/L          | 0.0100 |
| Nitrate-N              |      | <1.00   | mg/L          | 0.200  |
| pH                     |      | 8.15    | s.u.          | 0.00   |
| Sulfate                |      | 2180    | mg/L          | 0.500  |
| Total Dissolved Solids |      | 8970    | mg/L          | 10.00  |

### Sample: 62904 - MW-1

| Param                  | Flag | Result | Units         | RL    |
|------------------------|------|--------|---------------|-------|
| Hydroxide Alkalinity   |      | <1.00  | mg/L as CaCo3 | 1.00  |
| Carbonate Alkalinity   |      | <1.00  | mg/L as CaCo3 | 1.00  |
| Bicarbonate Alkalinity |      | 90.0   | mg/L as CaCo3 | 4.00  |
| Total Alkalinity       |      | 90.0   | mg/L as CaCo3 | 4.00  |
| Chloride               |      | 4840   | mg/L          | 0.500 |
| Specific Conductance   |      | 14500  | µMHOS/cm      | 0.00  |

continued ...



Report Date: May 18, 2005  
Quarterly Sampling (NM-711-1-0020)

Work Order: 5051704  
Gandy Marley Landfarm

Page Number: 2 of 2  
Sec4,Sec5,Sec8,Sec9 T.11.SR.31E

*sample 62904 continued ...*

| Param                  | Flag | Result  | Units | RL     |
|------------------------|------|---------|-------|--------|
| Nitrite-N              |      | <0.0100 | mg/L  | 0.0100 |
| Nitrate-N              |      | <1.00   | mg/L  | 0.200  |
| pH                     |      | 8.14    | s.u.  | 0.00   |
| Sulfate                |      | 1760    | mg/L  | 0.500  |
| Total Dissolved Solids |      | 8930    | mg/L  | 10.00  |