

### Collector Well Projects – Two Page Questionnaire

Thank you for taking the time to help us in this effort to educate interested parties about collector well projects throughout the United States. A copy of this report will be provided to you within a couple months time. Please include references to reports or other documents regarding your project in Question C.2.

#### A. General Project Information

1. Name of project?  
Collector Well No.1 - Collector Well No.4

2.

3.

4. Project location?  
City/State: De Soto, Kansas

5. Project start date?  
mm/dd/yy: on-going

6. When did wells begin operating (or anticipated start)?  
mm/dd/yy: 1999, 2002, 2004, 2005

7. Project objective(s)?  
 Municipal water supply  
 Agricultural water supply  
 Conjunctive groundwater/surface water use  
 Others (please list)

8. Status of project?  
 Planning  
 Small-Scale Testing  
 Large-Scale Testing  
 Full-scale operation  
 Other (please explain)

9. Project funding source(s)?  
 Agency/owner out of pocket expense  
 Grant funds  
 Partnerships  
 Other (please list)  
SDF, system Development Fees

10. What was the primary reason for using collector well technology at this site?  
 Environmental concerns  
 Water demand too great for ordinary production well  
 Water rights for a surface supply not available  
 Research  
Other: \_\_\_\_\_

11. Number of collector wells and periods of use (seasonal, year-round)? Check boxes that apply.

Well Name	Well Status		Use		Average Flow Production (gpm)
	Active	Proposed	Seasonal	Year-Round	
CW-1	✓			✓	3103
CW-2	✓			✓	1872
CW-3	✓			✓	2,861
CW-4	✓			✓	2,798

12. Describe the characteristics of your collector wells.

Well Name	Depth of Caisson	Diameter of Caisson	Depth of Laterals	Number of Laterals	Diameter of Laterals
CW-1	68'	16" ID	62'	5	12"
CW-2	65'	16" ID	58'	4	12"
CW-3	60'	16" ID	54'	4	12"
CW-4	64'	16" ID	57'	4	12"

13. Have you observed decreased flow from your collector wells over time? If so, what do you think is the cause?  
 River migration away from well (please report approximate distance river has migrated: \_\_\_\_\_ ft)  
 Laterals clogging  
 Increased pumping from wells nearby (lowered groundwater elevation)  
Other: Changes in sand bar location

14. What measures have you taken, if any, to increase yield of your wells?  
 Well re-development  
 Lateral replacement  
 Added new laterals to existing system  
Other: \_\_\_\_\_

15. Do you have records indicating well yield with time?

- No records available
- Yes (please fill in the following table)

	Date	Event	Yield (indicate units)
0	Before operation	Designed capacity	
1		Well start-up	
2	See attached page		
3			
4			
5		Most recent data	

16. What is the cost of your raw water (how much does it cost per unit volume for you to produce untreated water)?

- \$1.00 per Million Gallons
- Number provided includes treatment costs
- No records available

**B. Aquifer Characterization**

1. Describe regional aquifer characteristics.

- Unconfined
- Semi-confined
- Confined
- Unknown
- Other (please list)

2. Describe aquifer geology.

- Cobble
  - Gravel
  - Sand
  - Silt/Clay
  - Unknown
  - Other (please list)
- Well Sorted
  - Poorly Sorted

3. What is the closest distance to the nearest surface water body?

- Feet or miles: CW-1: 113' CW-2: 113'
- Unknown CW-3: 60' CW-4: 120'

4. What is the number of monitoring wells if any?

- 12 wells
- None
- Other
- Unknown

5. What is the frequency of groundwater level monitoring?

- minutes/days/months: Monthly
- Unknown

**C. Additional Questions**

1. Do you have records indicating changes in yield upon re-development? How often do you re-develop your wells?

See attached page. CW-1 re-developed after six years.

2. Are any reports, technical memos, or other documentation available from your project activities? If so, who do we contact for copies?

Pump test results DAVID E COX

## CW-1

	Date	Event	Yield (MGD)
0		Design capacity	10.0
1	February-98	Initial Performance Test	11.5
2	July-99	Well start-up	10.0
3	July-00	Monitoring	13.1
4	July-01	Monitoring	11.2
5	July-02	Monitoring	13.1
6	July-03	Monitoring	11.1
7	January-04	Pre-redevelopment	6.5
	July-04	Monitoring	10.7
8	May-04	Post-redevelopment	9.5
9	July-05	Monitoring	6.5
10	February-06	Most Recent	2.7

## CW-2

	Date	Event	Yield (MGD)
0		Design capacity	7.0
1	September-02	Well start-up	3.2
2	October-02	Initial Performance Test	5.8
3	July-03	Monitoring	5.9
4	July-04	Monitoring	5.4
5	July-05	Monitoring	4.9
6	January-06	Most Recent	2.6

## CW-3

	Date	Event	Yield (MGD)
0		Design capacity	5.0
1	September-04	Well start-up	8.7
2	October-04	Initial Performance Test	5.9
3	July-05	Monitoring	5.1
4	February-06	Most Recent	2.0

## CW-4

	Date	Event	Yield (MGD)
0		Design capacity	5.0
1	July-05	Initial Performance Test	6.3
2	July-05	Well start-up	2.8
3	February-06	Most Recent	2.4