

Aquifer Storage and Recovery Project

2009 Accounting Report

prepared for

**City of Wichita
Wichita, Kansas**



July 2010

Project No. 56235



INDEX AND CERTIFICATION

Aquifer Storage and Recovery Project Revised 2009 Accounting Report City of Wichita

Project 56235


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Certification

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Paul A. McCormick, P.E.
Date: July 28, 2010
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1.0 INTRODUCTION

The purpose of this report is to provide a summary of the recharge and recovery activities for the City of Wichita Aquifer Storage and Recovery (ASR) project in the *Equus* Beds Aquifer during calendar year 2009 and to provide an accounting of recharge credits claimed for the year as required by the Kansas Department of Agriculture, Division of Water Resources (DWR).

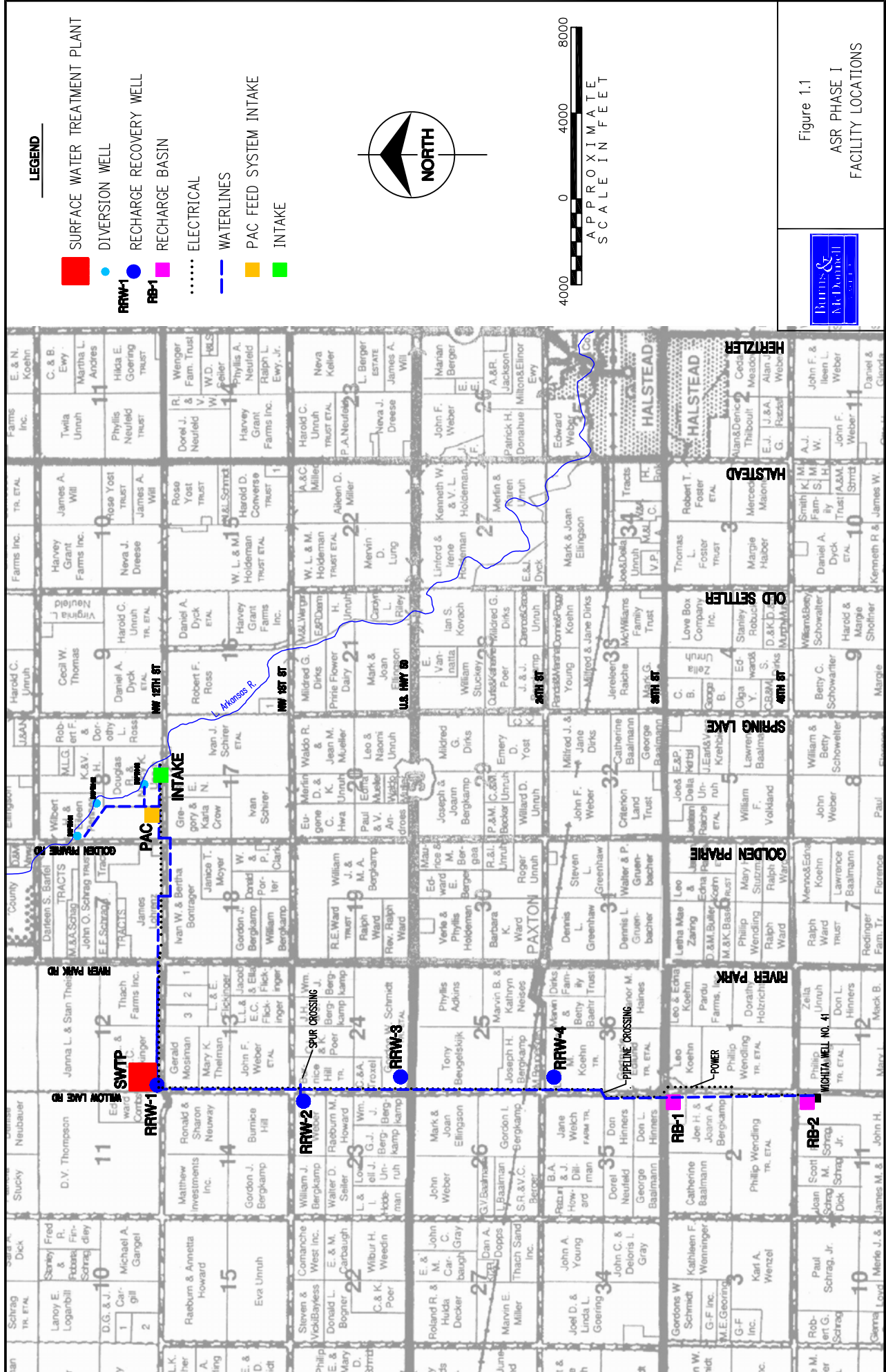
1.1 Background

Construction of Phase I of the City's ASR project was substantially complete on September 13, 2006. Phase II is currently under construction. Phase I, designed to permit recharge of up to 10 million gallons per day (MGD), consists of three diversion wells, a surface water intake, a surface water treatment plant, 15 miles of pipeline, four recharge wells, two recharge basins and 50 monitoring wells. The Phase I recharge facilities are strategically located with the intent of developing a hydraulic barrier to slow the advancement of the Burrton brine plume toward the Wichita well field. During 2009 the City operated the Phase I project utilizing the three diversion wells, the surface water intake and treatment plant, the four recharge wells and Recharge Basin No. 2. A map of the facilities is presented in Figure 1.1.

1.2 Accounting Report Components

Per DWR Chief Engineer's Order approving the Wichita ASR applications, recharge credit accounting shall use a groundwater flow model and specifically address the following items for each cell in the basin storage area:

- Natural and artificial recharge
- Groundwater inflow and outflow
- Evaporation and transpiration
- Groundwater diversions from all non-domestic wells
- Infiltration from streams
- Groundwater discharge to streams
- Calculated recharge credits
- Surface water diversions



2.0 2009 OPERATIONS

The ASR Phase I project operated for the third full year in 2009. Diversion of above baseflow water is permitted between October 1 and March 31 when the flow in Little Arkansas River, as measured at the Highway 50 gage, exceeds 20 cubic feet per second (cfs) and between April 1 and September 30 when the flow exceeds 57 cfs.

2.1 Type Of Source Water Used For Recharge

Source water for the recharge project was taken directly from the Little Arkansas River using the surface water intake and groundwater from the three diversion wells located along the banks of the Little Arkansas River.

2.2 Quantity of water available

Based on the daily average flow statistics data from the U.S. Geological Survey (USGS) for the Highway 50 gage on the Little Arkansas River, stream flow exceeded the minimum limit for diversion and recharge operations a total of 280 days in 2009.

2.3 Quantity of water diverted

The quantity of water diverted from the surface water intake and the three diversion wells is summarized in Table 2.1.

2.4 Recharge techniques used

During 2009, water was recharged to the groundwater basin via the four recharge recovery wells (RRWs) and recharge basin 2 (RB2).

2.5 Quantity recharged each technique

The quantities of water recharged by each technique is summarized in Table 2.1. There was a difference of 34.25 acre-feet between the volume diverted and volume recharged to the groundwater basin. Of this difference, 0.03 acre-feet is the volume of water that is diverted from the surface water plant at startup that is of insufficient quality to recharge to the recharge basins. The remaining difference, 34.22 acre-feet, is due to water spent on system operations such as pipeline flushing. This water was diverted to a drainage ditch and was not metered.

**Table 2.1
2009 Metered Diversion, Recharge and Recovery
Volumes**

	<u>(gallons)</u>	<u>(acre-feet)</u>
<u>Diversions:</u>		
Surface Intake	22,745,792	69.81
DW1	60,258,960	184.94
DW2	36,911,313	113.28
DW3	61,256,432	188.00
Total		556.03
<u>Recharged (metered):</u>		
RB2	52,498,208	161.12
RRW1	16,182,600	49.67
RRW2	28,374,240	87.08
RRW3	27,865,840	85.52
RW1	45,091,616	138.39
Total		521.78
<u>Recharge Credits Recovered:</u>		
RRW1	0.00	0.00
RRW2	0.00	0.00
RRW3	0.00	0.00
Total		0.00
<u>Recharge Well Maintenance Pumping¹:</u>		
RRW1	175,668	0.54
RRW2	360,811	1.11
RRW3	332,874	1.02
RW1	348,132	1.07
Total		3.74
<u>Surface Water Treatment Plant Operations Water:²</u>		
RB1	10,800	0.03
<u>Water Diverted for System Operations:³</u>		
System	11,149,193	34.22

¹Maintenance pumping is performed periodically to redevelop the wells when recharge efficiency begins to decline. The discharged water is currently sent to Recharge Basin 2. The amounts are deducted from the well recharge credit and are included in Recharge Basin 2 recharge volume.

²Surface water that passes through plant during startup that is not recharged due to high turbidity. This water was diverted to a drainage ditch and was not metered.

³Water used to flush out the main surface water pipeline and/or drain the pipeline for system deactivation. This water was diverted to a drainage ditch and was not metered.

2.6 Total quantity of source water stored in Basin Storage Area

The following volumes have been recharged to the Basin Storage Area:

**Table 2.2
Total Quantity Recharged to Basin Storage Area.**

Volume Recharged to Basin in 2006-2008 (acre-feet)	Volume Recharged to Basin in 2009 (acre-feet)	Total Volume Recharged (acre-feet)
2007.31	521.78	2529.10

2.7 Chemical, physical, radiological and biological quality of each type of water stored

Appendix D contains a summary of the water quality data collected and analyzed by the USGS from the finished water from the surface water treatment plant. Water captured by the diversion wells was not treated, and recharged water quality matches that shown in Appendix C. All surface water diverted from the Little Arkansas River was treated and all water recharged met all of the primary Maximum Contaminant Levels (MCL) established for drinking water. Final filtration to remove biological constituents from the surface water was obtained through infiltration at RB2.

2.8 Monthly and annual summary of recharge credits withdrawn.

The City summarizes annual withdrawal in the Water Use Report, and monthly on a Supervisory Control and Data Acquisition (SCADA) system report. There has been no recovery of stored water to date. The total number of recharge credits recovered is summarized in Table 2.1.

3.0 HYDROLOGIC CONDITIONS

3.1 Quarterly index water levels

Water level measurements for the ASR index wells were obtained from the Groundwater Management District No. 2 (GMD2) and are attached as Appendix C. GMD2 collects these water levels quarterly and supplies the data to the USGS. USGS generates water level maps using this data; however, only the map for the first quarter of 2009 (Jan 2009) was available for this report.

3.2 Key groundwater quality parameters

The USGS collects groundwater samples from the Index Wells on an annual basis. The analytical results from the 2009 sampling were not available at the time this report was published. The data will be provided when it becomes available.

3.3 Monthly and annual precipitation data

The monthly and annual precipitation data was obtained from the GMD2. The weather station in McPherson County, which is the watershed for the Little Arkansas River, was used as representative data for the area. Appendix E contains the data from the McPherson County weather station for the 2009 calendar year.

3.4 Withdrawals from Non-domestic Wells

As part of an open files records request, the DWR provides the City with a spreadsheet showing the pumping from all non-domestic wells for use in the annual accounting model. According to the 2009 data provided by DWR, 167,657.93 acre-feet was pumped from non-domestic wells in the Basin Storage Area in 2009. The database of the pumping data is included in Appendix F.

3.5 Annual streamflow, including baseflow and above baseflow stage

The annual streamflow data for the Little Arkansas River was obtained from the USGS, and is included as Appendix G.

3.6 Summary of conjunctive use amounts

Conjunctive use amounts are totaled when the City uses more than its base water rights of 53,000 acre-feet from Cheney during wet years. This did not happen in 2009, so the conjunctive use amount is 0.0 acre-feet.

3.7 Water supply and demand forecast for next three years

The projected water demand for the next three years is:

Year	Gallons
2011	21,715,000,000
2012	21,900,000,000
2013	22,630,000,000

The City’s current water supplies are anticipated to meet the projected demands, and no ASR credits are anticipated to be used in the next three years.

* * * * *

4.0 GROUNDWATER MODELING

4.1 Background

DWR requires a groundwater-based accounting system to track movement of recharge credits as a condition for approval of permits required to capture, store and recover water for beneficial use by the City. The MODFLOW groundwater model currently in use was originally developed by the USGS office in Lawrence, Kansas. The model was refined by the U.S. Bureau of Reclamation (USBR) for analysis of chloride migration in the Burrton, Kansas area. The model was later refined and used to evaluate the City's Aquifer Storage and Recovery project.

The USGS groundwater flow model was developed to study stream-aquifer interaction between the Arkansas River and the *Equus* Beds aquifer. The USGS model area included the current study area along the Little Arkansas River. The original USGS model grid consisted of 34 rows, 42 columns and 3 layers. The location and extent of the model area is shown in Figure 2.1.

The USGS model used constant-head nodes along the margins of the model boundary to represent areas where the aquifer extends beyond the model boundary. No-flow boundaries represent areas where shale provides a natural barrier to groundwater flow. The model included areal recharge, evapotranspiration, stream flow and well pumpage. More extensive details of the USGS model including information regarding model set-up, calibration, sensitivity analysis and model results are contained in "Hydrologic and Chemical Interaction of the Arkansas River and the *Equus* Beds Aquifer Between Hutchinson and Wichita, South-Central Kansas," USGS Water-Resources Investigation Report 95-4191 (Myers, et al, 1995).

The USBR modified the USGS model for a contaminant transport study for GMD2. In order to improve the accuracy of the transport modeling, the USBR reduced model grid spacing and adjusted the grid cells to a more uniform dimension. This resulted in a model grid consisting of 54 rows and 84 columns. Details of the USBR modeling are given in "Arkansas River Water Management Improvement Study, Modeling of Chloride Transport in the *Equus* Beds Aquifer" (Pruitt, 1993).

Because the primary area of interest during the initial ASR Investigation was the Wichita well field, the model was re-gridded by Burns & McDonnell to provide better resolution in this area. The finest grid spacing was 1000 feet by 1000 feet and resulted in a model domain with 84 rows and 120 columns.

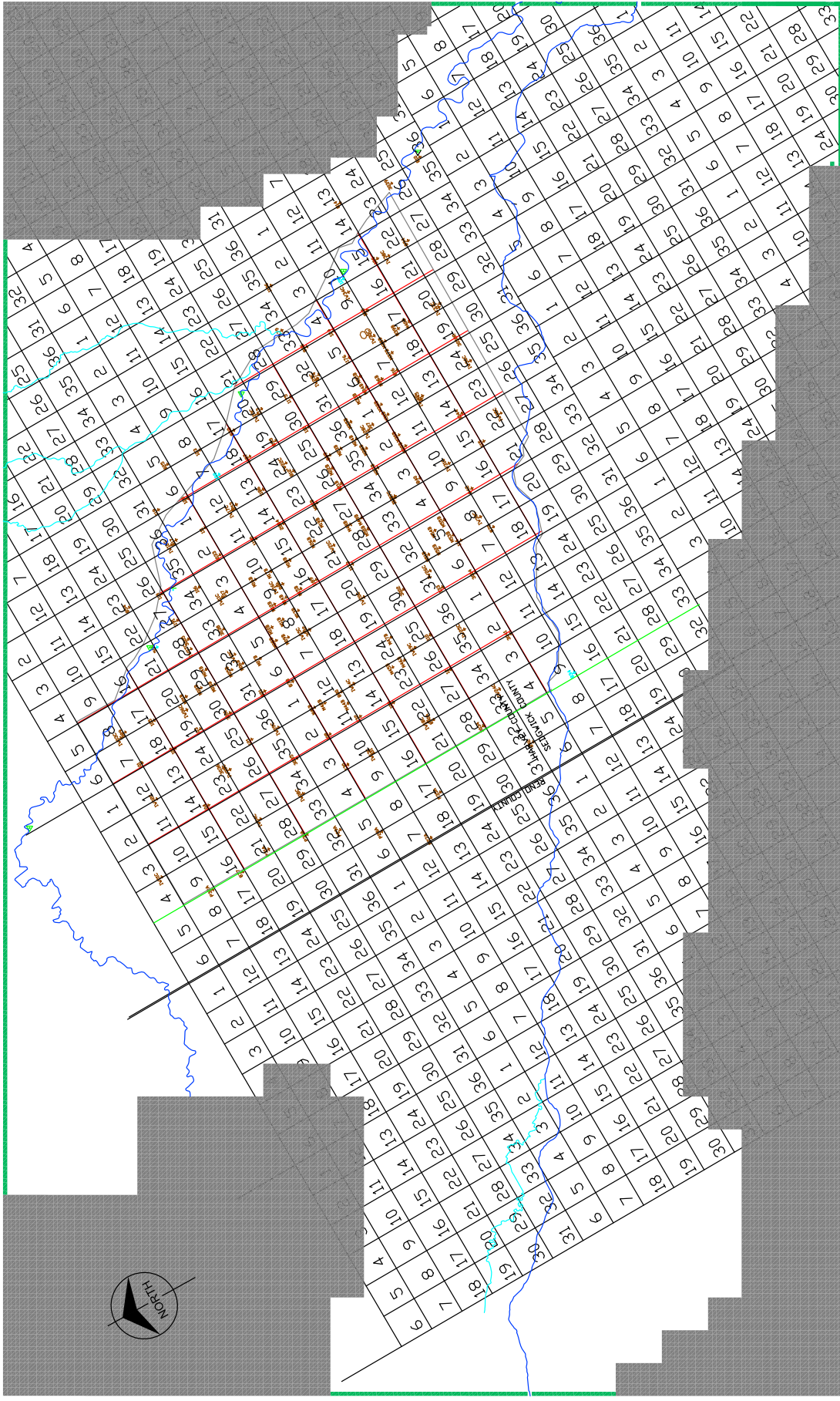


FIGURE 4-1

ACCOUNTING MODEL AREA
& BOUNDARY CONDITIONS



0 15,000 30,000
APPROXIMATE SCALE IN FEET

■ CONSTANT HEAD BOUNDARY CELL
■ NO-FLOW CELL

4.2 Model Implementation for ASR Accounting

DWR requires that ASR accounting utilize groundwater modeling to track movement of recharged water within the index cells previously established. Wichita's ASR Basin Storage Area (the entire project area) is not a closed basin and groundwater migrates down-gradient from higher water table elevations in the west to lower elevations in the east, eventually discharging to the Little Arkansas River. Water originally recharged in one index cell will eventually migrate to down-gradient index cells. This migration depends on the local gradient which is influenced by natural recharge, municipal and irrigation pumping, and the amount of ASR recharge. Groundwater modeling has been proven to effectively quantify the groundwater movement. However, modeling cannot directly track the movement of recharge credits from one index cell to another and keep it separate from movement of non-recharge water.

In order to track recharge credits, two model runs are implemented, one with the complete ASR recharge and recovery history and one run assuming no ASR recharge or diversion well production. Since the only difference between the two model runs is the water recharged (and recovered), the differences in the water budget between the two model runs are assumed to be due to the impact of ASR operation. For example if the net underflow (flow from one index cell to another) is greater with the ASR model run, the additional underflow is assumed to be due to ASR operation.

The difference is subtracted from the up gradient index cell and added to the down gradient index cell, and effectively represents the migration of ASR credit. Recharge credits that are lost to the Little Arkansas River are deducted from the total recharge credits available.

4.3 Model Setup and Implementation

The groundwater model used for the Wichita ASR accounting has been upgraded and refined with data acquired during various phases of investigation for the ASR project. The current model configuration is a uniform cell size of 500 feet by 500 feet, resulting in a model with 253 rows and 420 columns, and three layers. Minimal model refinements were completed for the 2009 accounting runs in anticipation of the revised and updated model that the USGS will publish next year. Some adjustments were made to the hydraulic conductivity values that resulted in a distribution very similar to the original USGS values. In addition, the recharge amount in the central zones of the model was increased based on calibration runs and information the USGS has developed during the development of the new model.

The 2009 model simulates 2003 flows under steady-state conditions and then transient flow conditions for 2004 through 2009. The model units are feet, cubic feet and days. Unless otherwise noted below, units are model units.

Details of the water budgets and groundwater modeling to support the ASR recharge credits claimed are presented in the following sections.

4.4 Basin Storage Area Stresses for Model Input

4.4.1 Precipitation and Recharge

A percentage of annual precipitation contributes to natural recharge. The USGS model used average precipitation from three area weather stations and then distributed the recharge across the model area based on soil type, ground cover and model calibration. The current model employs data from the same locations plus the station that was added at Newton. The calculated natural recharge for each index cell is shown in the model water budget summaries contained in Appendix A.

4.4.2 Stream Flow

Stream flow can contribute to aquifer recharge depending on river stage, river bed conductivity, and elevation of the underlying groundwater table. Variations in river stage and flow are considered in the groundwater model using the MODFLOW stream package in which a starting flow is assigned to the upstream river node with MODFLOW assigning river flow and stage in downstream nodes. The USGS determined that the appropriate starting river flow was that flow with a 70 percent return interval within the modeled stress period. Table 4.1 summarizes the modeled stream flows for each year of the model.

Table 4.1
Model Simulated Stream Flows

Stream Name	Flow, in cubic feet per second (cfs)						
	2003	2004	2005	2006	2007	2008	2009
Arkansas River	110	121	127	77	269	355	302
Little Arkansas River	13	12	9.1	2.4	8.6	27	19
Cow Creek	10	10	10	10	10	10	10
Sand Creek	1	1	1	1	1	1	1
East Emma Creek	1	1	1	1	1	1	1
West Emma Creek	1	1	1	1	1	1	1
Emma Creek	<i>Emma Creek flow was calculated by the model as the outflow from East & West Emma Creeks</i>						

4.4.3 Groundwater Pumping

Water use data for 2009 was obtained from DWR. Water use reported in acre-ft by DWR was converted to average daily pumping rates, and well locations reported in geographic coordinates (latitude and longitude) were converted to model coordinates. The converted data was then imported into the model.

4.5 Model Calibration

The current model has a water budget mass balance discrepancy of -0.005 percent (less than the industry standard rule of thumb of 0.1 percent), a residual mean of 0.23 feet and absolute residual mean (compared to selected 358 index well water level targets from 2003 through 2009) of 3.49 feet. The absolute residual mean is less than that for the published USGS model which had a model-wide absolute residual mean of 4.67 feet. The absolute residual mean is the average absolute difference between measured water levels and computed water levels at the same location. The current model uses the Index Wells screened in Layer 3 of the model for targets. Calibration differences are due to different monitoring wells being used for targets, seasonal variations in local weather (recharge), timing of local pumping, and other operations factors.

4.6 Model Water Budget

MODFLOW permits tracking of groundwater flow throughout the model. This includes flows into and out of the model, flows between cells within the model, and changes in storage on a cell-by-cell basis. With the processing software (Groundwater Vistas) a group of model cells may be combined into a hydrostratigraphic unit for which a composite water budget can be calculated. For the accounting model, a total of 38 hydrostratigraphic units were established and numbered to represent the 38 ASR index cell areas. For most of the model, the model hydrostratigraphic units roughly match the actual cells; however, on the eastern side of the basin storage area, the Little Arkansas River was not included in an index cell boundary. Because river interaction is an important element for complete accounting, several index cells were extended eastward in the model to include the river. A map depicting the modeled hydrostratigraphic units (index cells) is shown in Figure 4.2.

A water balance report was generated using Groundwater Vistas. A copy of the detailed reports both with and without ASR activities is included in Appendix B. The water balance reports for the model runs with and without ASR are combined to show net changes in the water budget which are reported in the Index Cell Water Budget Summaries provided in Appendix B.

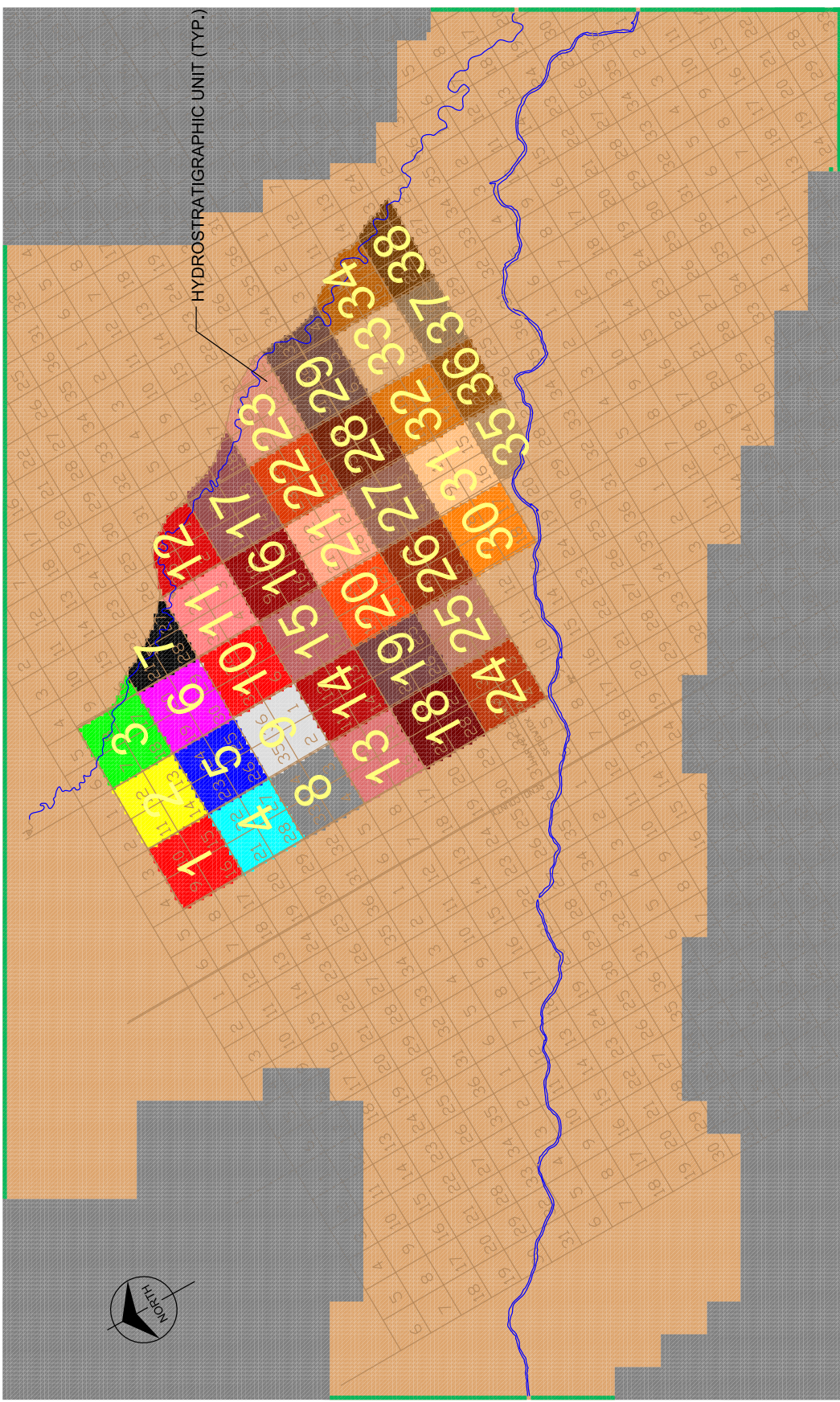


FIGURE 4-2
INDEX ACCOUNTING CELLS AS
HYDROSTRATIGRAPHIC UNITS



4.7 Specific Water Budget Components

4.7.1 Natural and Artificial Recharge

4.7.1.1 Natural Recharge

The amount of natural recharge entering an aquifer system is based on many factors including; the amount of precipitation, surface soil texture, slope, and type and amount of groundcover. The GMD2 has determined that approximately 20 percent of rainfall is recharged to the aquifer. The USGS groundwater model used average rainfall from Wichita, Hutchison, and Mount Hope for model input. Since that time, an additional weather station in Newton has become available and has been added into the calculation.

The USGS distributed natural recharge across the model based on soil type and other factors. The current model retains the distribution developed by the USGS with the amount adjusted for the average annual precipitation total for each year. Table 4.2 summarizes the natural recharge data simulated in the model.

Table 4.2
Modeled Average Annual Precipitation

Station	Annual Precipitation (inches)						
	2003	2004	2005	2006	2007	2008	2009
Hutchinson	35.42	34.87	40.26	28.14	44.35	39.15	32.45
Mount Hope	27.64	39.81	36.97	26.47	36.74	38.26	35.63
Wichita Mid-Continent	32.60	37.55	36.72	28.59	37.98	53.84	37.55
Newton	36.05	33.56	36.18	17.15	35.93	38.60	35.66
Average	32.93	36.45	37.53	25.09	38.75	42.46	35.32

The modeled amount of recharge for each index cell is shown in the model water budget summaries presented in Appendix A.

4.7.1.2 Artificial Recharge

The metered volume of water recharged through the basins and recharge wells is shown in Table 1.1. For the groundwater model, water recharged by wells or basins is considered to be well pumpage into the aquifer (both wells and basins).

4.7.2 Groundwater Inflow and Outflow

Groundwater inflow and outflow is the amount of groundwater or underflow migrating into an index cell from other areas and flowing out of an index cell to other areas. The net underflow, positive or negative,

is shown in the model water budget summaries for water movement between index cells (Appendix B) or areas outside of the recharge basin area.

4.7.3 Evaporation and Transpiration

Evapotranspiration is estimated in the model. Earlier USGS studies estimated maximum evapotranspiration to be approximately 3.5 in/yr. The model incorporates a maximum value of 3.5 in/yr when the water table is at the surface. The rate is reduced with deeper groundwater level and is 0 when the water table is below 10 feet from the surface. Estimates of evapotranspiration are given for each index cell in the model water budgets.

4.7.4 Groundwater Diversions from Non-Domestic Wells

Groundwater diversions from all non-domestic wells are obtained from DWR in an electronic spreadsheet format. The well location and annual pumping for each water right is provided, and these are incorporated into the model. Well pumpage is provided to DWR from annual well reports required of all permitted owners. The data provided by DWR is provided in Appendix H.

The amount of pumpage within each index cell is shown in the model water budget summaries provided in Appendix B. The volume shown in the summary is the net volume for the cell (pumpage minus volume recharged).

4.7.5 Infiltration from Streams

When aquifer levels are lower than water levels in a stream, there is a potential for water inflow or infiltration from the stream to the aquifer. The amount of flow depends on the difference in water levels and the permeability of the streambed. Using the calibrated model, estimates of net flow (water leaving the stream minus water entering the stream) is estimated for each index cell that has a river reach.

Infiltration throughout the river reach included in the basin storage area from the Little Arkansas River was approximately 867 acre-feet, and from the Arkansas River approximately 1525 acre-feet. Only index cell 35 includes Arkansas River inflows. The estimates are shown in the model index cell water budget.

4.7.6 Groundwater Discharge to Streams

When aquifer levels are higher than water levels in a stream, there is a potential for water inflow or infiltration from the aquifer to the stream. The amount of flow depends on the difference in water levels

and the permeability of the streambed. Using the calibrated USGS model, estimates of net flow (water leaving the stream minus water entering the stream) is estimated for each index cell that has a river reach.

The model shows that a total of 38,582 acre-feet of water migrated from the aquifer in the basin storage area to the Little Arkansas River in 2009. This accounts for about 53.2 cfs of the average annual flow of 304 cfs for the year. The estimates are shown in the model index cell water budget.

4.8 Calculated Recharge Credits

Calculated recharge credits are based on the following for each index cell:

$$\begin{aligned} & \text{Previous recharge credit} \\ + & \text{ metered additional recharge} \\ - & \text{ recharge credits recovered for use or maintenance} \\ + & \text{ recharge credits entering by underflow (modeled)} \\ - & \text{ recharge credits leaving by underflow or flow to river (modeled)} \\ = & \text{ current recharge credit} \end{aligned}$$

Some differences in the water budgets with ASR and without ASR are excluded from the recharge credit calculations. For example, the four cells up-gradient of active recharge cells have a reduced underflow to the recharge cells compared to results of the 2008 annual modeling. This difference is not a credit, but shows increased water in storage in the up-gradient (non-recharge) cell. This indicates that the barrier to the Burton Salt Water Plume is beginning to form.

A summary of the calculated recharge credits is presented in Table 4.3.

Table 4.3
2009 Recharge Credit Summary
 (Acre-Feet)

Index Cell	Previous Recharge Credit (2006-2008)	2009 Metered Recharge	2009 Metered Recovery	Net Recharge Credit Underflow Entering Index Cell	Net Recharge Credit Underflow Leaving Index Cell	Net Recharge Credit Loss to River	Current Recharge Credit
1	----			----	----	----	----
2	197.0	49.7	1.5	82.8	124.3	----	203.7
3	19.3			187.7	35.5	0.0	171.5
4	----			----	----	----	----
5	324.3	85.5	6.0	48.8	186.1	----	266.6
6	63.3			172.5	183.7	----	52.2
7	22.1			91.7	16.6	73.2	97.2
8	----			----	----	----	----
9	227.0	138.4	2.9	56.3	150.1	----	268.6
10	63.8			102.9	106.0	----	60.7
11	26.0			60.0	45.7	9.0	31.3
12	5.2			15.5	3.1	11.4	6.2
13	----			----	----	----	----
14	296.9	161.1	0.0	-23.8	102.8	----	331.4
15	43.8			57.9	49.0	----	52.7
16	21.6			38.6	28.7	----	31.4
17	5.7			19.7	9.8	5.7	9.9
18	----			----	----	----	----
19	24.8			-2.8	-19.1	----	41.0
20	18.4			17.7	8.0	----	28.1
21	12.0			22.2	13.8	----	20.3
22	4.1			11.8	7.7	----	8.1
23	1.1			4.4	1.6	1.9	2.0
24	----			----	----	----	----
25	8.5			6.2	5.9	----	8.9
26	1.2			10.3	8.8	----	2.7
27	5.8			8.4	4.7	----	9.4
28	2.4			4.9	2.5	----	4.8
29	0.7			2.3	0.9	0.3	1.7
30	0.5			4.2	2.7	----	2.0
31	1.8			3.0	1.9	----	2.8
32	0.8			1.7	0.9	----	1.7
33	0.3			0.9	0.4	----	0.8
34	0.0			0.3	0.0	0.2	0.1
35	0.5			0.6	0.2	0.1	0.8
36	0.2			0.4	0.2	----	0.4
37	0.1			0.2	0.1	----	0.2
38	0.0			0.1	0.0	0.0	0.0
Total	1399.06	434.7	10.3	1007.2	1082.6	101.8	1719.4

APPENDICES

**APPENDIX A –
2008 INDEX CELL WATER BUDGET SUMMARIES**

**City of Wichita
2009 ASR Accounting**

Index Cell 1				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	19,531	19,531	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	14,252	13,986	266	2.23
Flows Between Index Cells				
Index Cell Number				
Index Cell 2	351,558	353,815	-2,257	-18.91
Index Cell 4	175,594	177,760	-2,167	-18.15
Outside Basin Area	159,156	157,791	1,365	11.44
Net Underflow Between Index Cells				-25.63
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 2				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	32,000	32,000	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	10,512	11,941	-1,429	-11.97
Flows Between Index Cells				
Index Cell Number				
Index Cell 1	0	0	0	0.00
Index Cell 3	499,079	488,270	10,809	90.57
Index Cell 5	207,232	207,336	-105	-0.88
Index Cell 6	22,725	22,363	361	3.03
Outside Basin Area	135,755	131,990	3,765	31.55
Net Underflow Between Index Cells				124.27
<u>Metered recharge</u>		<u>Gallons</u>		<u>AF</u>
		40,417,403		124.04
		35,908,574		110.20
		16,182,600		49.66
Total		92,508,577		283.90

**City of Wichita
2009 ASR Accounting**

Index Cell 3				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	80,716	22,689	58,028	486.23
Stream	1,128,387	1,166,650	-38,263	-320.62
Recharge	0	0	0	0.00
ET	3,305	3,317	-11	-0.10
Storage	2,940	3,590	-650	-5.45
Flows Between Index Cells				
Index Cell Number				
Index Cell 2	0	0	0	0.00
Index Cell 6	208,790	206,164	2,626	22.01
Index Cell 7	58,038	57,903	135	1.13
Outside Basin Area	149,830	148,214	1,616	13.54
Net Underflow Between Index Cells				23.14
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 4				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	36,091	36,091	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	19,816	20,047	-231	-1.94
Flows Between Index Cells				
Index Cell Number				
Index Cell 1	183,475	183,383	93	0.78
Index Cell 5	499,093	505,203	-6,110	-51.20
Index Cell 8	214,874	217,173	-2,298	-19.26
Index Cell 9	24,212	24,575	-364	-3.05
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				-72.73
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 5				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	94,278	94,278	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	15,272	17,528	-2,256	-18.91
Flows Between Index Cells				
Index Cell Number				
Index Cell 2	234,486	224,605	9,880	82.79
Index Cell 4	0	0	0	0.00
Index Cell 6	530,236	517,514	12,722	106.60
Index Cell 9	222,331	222,720	-389	-3.26
Net Underflow Between Index Cells				186.13
<u>Metered recharge</u>		<u>Gallons</u>		<u>AF</u>
RRW-2 2007		69,205,807		212.38
RRW-2 2008		63,117,032		193.70
RRW-2 2009		28,374,240		87.08
RRW-3 2007		75,386,013		231.35
RRW-3 2008		39,424,807		120.99
RRW-3 2009		<u>27,865,840</u>		<u>85.52</u>
Total		<u>303,373,739</u>		<u>931.02</u>

**City of Wichita
2009 ASR Accounting**

Index Cell 6				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	260,883	260,883	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	7,866	9,198	-1,332	-11.17
Flows Between Index Cells				
Index Cell Number				
Index Cell 2	0	0	0	0.00
Index Cell 3	284,657	273,901	10,757	90.13
Index Cell 5	0	0	0	0.00
Index Cell 7	377,774	370,099	7,675	64.31
Index Cell 9	16,677	16,274	403	3.38
Index Cell 10	134,153	131,368	2,786	23.34
Index Cell 11	15,526	15,229	297	2.49
Net Underflow Between Index Cells				183.65
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 7				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	38,476	38,476	0	0.00
Stream	725,270	716,530	8,740	73.23
Recharge	0	0	0	0.00
ET	2,376	2,371	5	0.04
Storage	863	917	-55	-0.46
Flows Between Index Cells				
Index Cell Number				
Index Cell 3	25,770	24,930	839	7.03
Index Cell 6	0	0	0	0.00
Index Cell 11	158,536	157,407	1,129	9.46
Outside Basin Area	21,839	21,828	12	0.10
Net Underflow Between Index Cells				16.59
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 8				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	74,579	74,579	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	550	418	132	1.11
Storage	23,689	23,437	252	2.11
Flows Between Index Cells				
Index Cell Number				
Index Cell 4	214,353	217,727	-3,374	-28.27
Index Cell 9	416,724	422,591	-5,867	-49.16
Index Cell 13	203,559	204,543	-984	-8.24
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				-85.68
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 9				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	188,832	188,832	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	22,641	24,032	-1,391	-11.66
Flows Between Index Cells				
Index Cell Number				
Index Cell 4	0	0	0	0.00
Index Cell 5	207,377	201,551	5,827	48.82
Index Cell 6	18,232	17,616	616	5.16
Index Cell 8	0	0	0	0.00
Index Cell 10	421,446	412,264	9,182	76.94
Index Cell 13	0	0	0	0.00
Index Cell 14	120,194	118,947	1,247	10.45
Index Cell 15	32,459	31,417	1,042	8.73
Net Underflow Between Index Cells				150.11
 Metered recharge				
		<u>Gallons</u>		<u>AF</u>
RB-1 2007		0		0.00
RB-1 2008		0		0.00
RB-1 2009		0		0.00
RW-1 2007		100,523,612		308.50
RW-1 2008		75,482,050		231.65
RW-1 2009		<u>45,091,616</u>		<u>138.38</u>
Total		221,097,278		678.52

**City of Wichita
2009 ASR Accounting**

Index Cell 10				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	172,027	172,027	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	12,784	13,156	-372	-3.11
Flows Between Index Cells				
Index Cell Number				
Index Cell 6	195,466	191,206	4,261	35.70
Index Cell 9	6,591	6,364	227	1.90
Index Cell 11	234,884	230,009	4,875	40.85
Index Cell 15	175,573	172,280	3,292	27.59
Net Underflow Between Index Cells				106.04
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 11				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	68,607	68,607	0	0.00
Stream	151,689	150,614	1,074	9.00
Recharge	0	0	0	0.00
ET	98	94	4	0.03
Storage	4,151	3,533	618	5.18
Flows Between Index Cells				
Index Cell Number				
Index Cell 6	0	0	0	0.00
Index Cell 7	109,214	106,080	3,134	26.26
Index Cell 10	3,279	3,295	-16	-0.13
Index Cell 12	189,167	188,036	1,131	9.48
Index Cell 15	0	0	0	0.00
Index Cell 16	89,773	88,564	1,209	10.13
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				45.73
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 12				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	22,361	22,361	0	0.00
Stream	753,316	751,956	1,361	11.40
Recharge	0	0	0	0.00
ET	1,772	1,771	0	0.00
Storage	1,133	999	134	1.12
Flows Between Index Cells				
Index Cell Number				
Index Cell 11	14,321	14,335	-14	-0.12
Index Cell 16	0	0	0	0.00
Index Cell 17	144,343	143,975	368	3.08
Outside Basin Area	9,114	9,112	2	0.02
Net Underflow Between Index Cells				2.99
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 13				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	61,532	61,532	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	868	720	148	1.24
Storage	20,412	19,487	925	7.75
Flows Between Index Cells				
Index Cell Number				
Index Cell 8	137,453	141,525	-4,072	-34.12
Index Cell 9	9,443	9,795	-352	-2.95
Index Cell 14	440,176	443,714	-3,538	-29.64
Index Cell 18	239,560	239,557	3	0.02
Index Cell 19	52,412	52,258	154	1.29
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				-65.40
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 14				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	120,300	120,300	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	9	0	9	0.08
Storage	24,121	23,549	572	4.79
Flows Between Index Cells				
Index Cell Number				
Index Cell 9	174,110	167,636	6,474	54.25
Index Cell 13	0	0	0	0.00
Index Cell 15	330,568	326,282	4,286	35.92
Index Cell 19	234,511	233,001	1,510	12.65
Net Underflow Between Index Cells				102.81
<u>Metered recharge</u>		<u>Gallons</u>		<u>AF</u>
RB-2 2007		66,897,663		205.30
RB-2 2008		64,246,416		197.16
RB-2 2009		<u>52,498,208</u>		<u>161.11</u>
Total		183,642,287		563.58

**City of Wichita
2009 ASR Accounting**

Index Cell 15				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	322,217	322,217	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	17,057	15,995	1,063	8.90
Flows Between Index Cells				
Index Cell Number				
Index Cell 9	0	0	0	0.00
Index Cell 10	74,598	74,267	332	2.78
Index Cell 11	5,620	5,539	81	0.68
Index Cell 14	0	0	0	0.00
Index Cell 16	337,170	333,862	3,309	27.73
Index Cell 19	0	0	0	0.00
Index Cell 20	191,405	189,410	1,995	16.72
Index Cell 21	14,948	14,821	127	1.06
Net Underflow Between Index Cells				48.97
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 16				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	258,052	258,052	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	13,775	12,597	1,178	9.87
Flows Between Index Cells				
Index Cell Number				
Index Cell 11	49,805	49,015	790	6.62
Index Cell 12	5,203	5,145	59	0.49
Index Cell 15	564	575	-11	-0.09
Index Cell 17	277,218	275,632	1,587	13.30
Index Cell 21	153,522	152,516	1,006	8.43
Net Underflow Between Index Cells				28.74
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 17				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	80,270	80,270	0	0.00
Stream	562,031	561,346	685	5.74
Recharge	0	0	0	0.00
ET	1,429	1,426	3	0.03
Storage	9,944	9,461	483	4.04
Flows Between Index Cells				
Index Cell Number				
Index Cell 12	104,104	103,440	664	5.57
Index Cell 16	255	265	-9	-0.08
Index Cell 22	130,481	130,049	432	3.62
Index Cell 23	108,941	108,865	76	0.64
Outside Basin Area	12,806	12,797	9	0.08
Net Underflow Between Index Cells				9.82
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 18				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	135,237	135,237	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	35	31	4	0.03
Storage	12,609	11,745	865	7.25
Flows Between Index Cells				
Index Cell Number				
Index Cell 13	141,805	145,345	-3,540	-29.66
Index Cell 19	564,885	565,672	-788	-6.60
Index Cell 24	292,148	291,975	173	1.45
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				-34.81
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 19				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	178,241	178,241	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	5	3	2	0.01
Storage	17,777	16,749	1,028	8.61
Flows Between Index Cells				
Index Cell Number				
Index Cell 13	0	0	0	0.00
Index Cell 14	182,259	186,346	-4,087	-34.24
Index Cell 15	12,370	12,564	-194	-1.63
Index Cell 18	0	0	0	0.00
Index Cell 20	518,848	517,665	1,184	9.92
Index Cell 24	0	0	0	0.00
Index Cell 25	251,506	250,763	743	6.22
Index Cell 26	21,534	21,453	80	0.67
Net Underflow Between Index Cells				16.82
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 20				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	75,303	75,303	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	20,604	19,446	1,158	9.70
Flows Between Index Cells				
Index Cell Number				
Index Cell 15	248,034	249,544	-1,511	-12.66
Index Cell 19	0	0	0	0.00
Index Cell 21	509,027	507,374	1,653	13.85
Index Cell 26	209,798	208,989	809	6.78
Net Underflow Between Index Cells				20.63
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 21				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	348,727	348,727	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	27,413	26,416	997	8.35
Flows Between Index Cells				
Index Cell Number				
Index Cell 15	0	0	0	0.00
Index Cell 16	165,978	165,880	98	0.82
Index Cell 20	0	0	0	0.00
Index Cell 22	302,565	301,578	988	8.27
Index Cell 27	149,945	149,448	497	4.16
Index Cell 28	36,599	36,532	68	0.57
Net Underflow Between Index Cells				13.83
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 22				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	63,174	63,174	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	2	2	0	0.00
Storage	23,885	23,408	477	4.00
Flows Between Index Cells				
Index Cell Number				
Index Cell 17	92,464	92,172	292	2.45
Index Cell 21	1,810	1,811	-1	-0.01
Index Cell 23	283,568	283,185	383	3.21
Index Cell 28	150,248	149,997	250	2.10
Net Underflow Between Index Cells				7.74
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 23				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	102,633	102,633	0	0.00
Stream	524,559	524,335	224	1.88
Recharge	0	0	0	0.00
ET	1,800	1,799	1	0.00
Storage	8,557	8,454	103	0.86
Flows Between Index Cells				
Index Cell Number				
Index Cell 17	42,096	41,988	107	0.90
Index Cell 22	339	340	-1	0.00
Index Cell 28	0	0	0	0.00
Index Cell 29	164,716	164,632	84	0.70
Outside Basin Area	2,621	2,620	0	0.00
Net Underflow Between Index Cells				1.60
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 24				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	117,605	117,605	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	9,782	9,737	45	0.38
Storage	6,208	5,756	452	3.79
Flows Between Index Cells				
Index Cell Number				
Index Cell 18	195,774	197,605	-1,831	-15.34
Index Cell 19	9,759	9,879	-120	-1.00
Index Cell 25	568,657	568,896	-239	-2.00
Outside Basin Area	273,916	273,813	103	0.86
Net Underflow Between Index Cells				-17.48
Upgradient Cell - No Recharge Credits				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 25				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	91,617	91,617	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	983	938	45	0.38
Storage	11,271	10,635	636	5.33
Flows Between Index Cells				
Index Cell Number				
Index Cell 19	163,397	165,397	-2,001	-16.76
Index Cell 24	25	24	1	0.01
Index Cell 26	586,772	586,433	339	2.84
Index Cell 30	27,535	27,494	40	0.34
Outside Basin Area	254,297	253,979	318	2.67
Net Underflow Between Index Cells				3.02
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 26				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	192,073	192,073	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	199	193	5	0.05
Storage	16,920	16,227	692	5.80
Flows Between Index Cells				
Index Cell Number				
Index Cell 19	0	0	0	0.00
Index Cell 20	211,148	212,219	-1,071	-8.97
Index Cell 25	0	0	0	0.00
Index Cell 27	397,615	397,015	600	5.03
Index Cell 30	317,203	316,757	446	3.74
Net Underflow Between Index Cells				8.77
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 27				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	47,632	47,632	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	6	6	0	0.00
Storage	27,110	26,550	560	4.69
Flows Between Index Cells				
Index Cell Number				
Index Cell 21	215,760	215,897	-138	-1.15
Index Cell 26	0	0	0	0.00
Index Cell 28	359,435	359,122	314	2.63
Index Cell 30	0	0	0	0.00
Index Cell 31	227,669	227,420	249	2.09
Net Underflow Between Index Cells				3.56
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 28				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	260,070	260,070	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	28,303	27,999	304	2.55
Flows Between Index Cells				
Index Cell Number				
Index Cell 21	0	0	0	0.00
Index Cell 22	42,195	42,211	-16	-0.13
Index Cell 23	5,202	5,199	3	0.02
Index Cell 27	4,105	4,109	-4	-0.03
Index Cell 29	322,145	321,955	190	1.59
Index Cell 31	0	0	0	0.00
Index Cell 32	183,607	183,505	102	0.86
Index Cell 33	18,845	18,838	7	0.06
Net Underflow Between Index Cells				2.36
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 29				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	129,755	129,755	0	0.00
Stream	248,063	248,023	41	0.34
Recharge	0	0	0	0.00
ET	149	149	0	0.00
Storage	16,786	16,659	128	1.07
Flows Between Index Cells				
Index Cell Number				
Index Cell 23	107,629	107,569	60	0.50
Index Cell 28	0	0	0	0.00
Index Cell 33	166,449	166,407	42	0.35
Index Cell 34	38,440	38,437	4	0.03
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				0.88
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 30				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	314,684	314,684	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	17,323	17,302	21	0.17
Storage	7,778	7,533	245	2.05
Flows Between Index Cells				
Index Cell Number				
Index Cell 25	0	0	0	0.00
Index Cell 26	182,780	183,335	-555	-4.65
Index Cell 27	6,322	6,336	-14	-0.12
Index Cell 31	531,449	531,217	233	1.95
Outside Basin Area	191,981	191,895	86	0.72
Net Underflow Between Index Cells				2.55
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 31				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	150,921	150,921	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	2,825	2,821	5	0.04
Storage	14,378	14,159	219	1.84
Flows Between Index Cells				
Index Cell Number				
Index Cell 27	199,484	199,579	-95	-0.79
Index Cell 28	12,627	12,630	-4	-0.03
Index Cell 30	66,633	66,619	14	0.11
Index Cell 32	497,515	497,372	143	1.20
Index Cell 35	220,146	220,080	66	0.55
Index Cell 36	18,651	18,646	5	0.04
Outside Basin Area	0	0	0	0.00
Net Underflow Between Index Cells				1.87
Values in yellow cells not included in Net Underflow Between Index Cells calculation				
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 32				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	217,815	217,815	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	944	943	1	0.01
Storage	17,947	17,803	144	1.21
Flows Between Index Cells				
Index Cell Number				
Index Cell 28	186,476	186,518	-43	-0.36
Index Cell 31	0	0	0	0.00
Index Cell 33	382,940	382,874	66	0.55
Index Cell 36	147,983	147,947	36	0.30
Net Underflow Between Index Cells				0.49
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 33				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	255,917	255,917	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	620	620	0	0.00
Storage	12,640	12,571	69	0.58
Flows Between Index Cells				
Index Cell Number				
Index Cell 28	0	0	0	0.00
Index Cell 29	68,745	68,747	-2	-0.01
Index Cell 32	0	0	0	0.00
Index Cell 34	314,582	314,553	29	0.24
Index Cell 36	0	0	0	0.00
Index Cell 37	117,647	117,634	13	0.11
Net Underflow Between Index Cells				0.34
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 34				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	20,470	20,470	0	0.00
Stream	450,885	450,861	24	0.20
Recharge	0	0	0	0.00
ET	100	100	0	0.00
Storage	1,464	1,458	6	0.05
Flows Between Index Cells				
Index Cell Number				
Index Cell 29	4,825	4,824	1	0.01
Index Cell 33	0	0	0	0.00
Index Cell 37	0	0	0	0.00
Index Cell 38	76,901	76,899	2	0.02
Outside Basin Area	37,610	37,610	0	0.00
Net Underflow Between Index Cells				0.02
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 35				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	21,401	21,401	0	0.00
Stream	35,026	35,019	6	0.05
Recharge	0	0	0	0.00
ET	15,912	15,907	5	0.04
Storage	2,242	2,214	28	0.23
Flows Between Index Cells				
Index Cell Number				
Index Cell 31	229,943	230,071	-129	-1.08
Index Cell 36	289,282	289,271	11	0.09
Outside Basin Area	181,501	181,493	7	0.06
Net Underflow Between Index Cells				-0.93
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 36				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	142,323	142,323	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	2,663	2,661	2	0.02
Storage	3,957	3,924	33	0.27
Flows Between Index Cells				
Index Cell Number				
Index Cell 31	0	0	0	0.00
Index Cell 32	143,151	143,192	-41	-0.34
Index Cell 33	7,101	7,102	-1	-0.01
Index Cell 35	0	0	0	0.00
Index Cell 37	194,990	194,977	13	0.11
Outside Basin Area	217,885	217,871	14	0.12
Net Underflow Between Index Cells				-0.12
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 37				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	99,681	99,681	0	0.00
Stream	0	0	0	0.00
Recharge	0	0	0	0.00
ET	31	31	0	0.00
Storage	2,208	2,193	15	0.13
Flows Between Index Cells				
Index Cell Number				
Index Cell 33	75,814	75,818	-4	-0.03
Index Cell 34	5,489	5,489	0	0.00
Index Cell 36	0	0	0	0.00
Index Cell 38	149,878	149,874	5	0.04
Outside Basin Area	155,764	155,758	6	0.05
Net Underflow Between Index Cells				0.05
Metered recharge (no recharge facilities)				

**City of Wichita
2009 ASR Accounting**

Index Cell 38				
	Outflow rate with ASR (ft ³ /day)	Outflow rate without ASR (ft ³ /day)	Outflow rate change due to ASR (ft ³ /day)	Outflow change due to ASR (AF/year)
Flows Within Index Cell				
Well	7,845	7,845	0	0.00
Stream	184,795	184,795	1	0.01
Recharge	0	0	0	0.00
ET	0	0	0	0.00
Storage	196	194	2	0.02
Flows Between Index Cells				
Index Cell Number				
Index Cell 34	116,222	116,221	1	0.01
Index Cell 37	0	0	0	0.00
Outside Basin Area	150,687	150,686	1	0.01
Net Underflow Between Index Cells				0.02
Metered recharge (no recharge facilities)				

**APPENDIX B –
2008 WATER BUDGET REPORT WITH ASR**

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

		With ASR		Without ASR	
Summary of HSU Zone Number 1		1.00		1.00	
Flows Within HSU		Inflow	Outflow	Inflow	Outflow
Constant Head		0.00	0.00	0.00	0.00
River		0.00	0.00	0.00	0.00
Drain		0.00	0.00	0.00	0.00
GHB		0.00	0.00	0.00	0.00
Well		0.00	19530.95	0.00	19530.95
Stream		0.00	0.00	0.00	0.00
Lake		0.00	0.00	0.00	0.00
Recharge		138092.00	0.00	138092.00	0.00
ET		0.00	0.00	0.00	0.00
Storage		0.00	14252.43	0.00	13986.13
Flows Between HSUs					
HSU Number		Inflow	Outflow	Inflow	Outflow
HSU Zone 2		0.00	351558.20	0.00	353815.40
HSU Zone 4		183475.40	175593.70	183382.80	177760.20
HSU Zone 39		398537.40	159156.20	401422.00	157791.20
TOTAL FLOWS		720104.80	720091.50	722896.90	722883.90
Error		0.00		0.00	

		With ASR		Without ASR	
Summary of HSU Zone Number 2		2.00		2.00	
Flows Within HSU		Inflow	Outflow	Inflow	Outflow
Constant Head		0.00	0.00	0.00	0.00
River		0.00	0.00	0.00	0.00
Drain		0.00	0.00	0.00	0.00
GHB		0.00	0.00	0.00	0.00
Well		5862.92	31999.59	0.00	31999.59
Stream		0.00	0.00	0.00	0.00
Lake		0.00	0.00	0.00	0.00
Recharge		167357.40	0.00	167357.40	0.00
ET		0.00	0.00	0.00	0.00
Storage		0.00	10511.67	0.00	11940.64
Flows Between HSUs					
HSU Number		Inflow	Outflow	Inflow	Outflow
HSU Zone 1		351558.20	0.00	353815.40	0.00
HSU Zone 3		0.00	499079.30	0.00	488270.30
HSU Zone 5		234485.60	207231.60	224605.20	207336.20
HSU Zone 6		0.00	22724.77	0.00	22363.41
HSU Zone 39		148054.50	135754.60	148139.70	131989.70
TOTAL FLOWS		907318.70	907301.50	893917.70	893899.80
Error		0.00		0.00	

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR			Without ASR		
Summary of HSU Zone Number 3			3.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00	0.00
Well	0.00	80716.45	0.00	22688.94	
Stream	0.00	1128387.00	0.00	1166650.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	157101.80	0.00	157101.80	0.00	
ET	0.00	3305.22	0.00	3316.70	
Storage	181.75	2940.20	180.54	3590.41	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 2	499079.30	0.00	488270.30	0.00	
HSU Zone 6	284657.30	208790.10	273900.70	206163.80	
HSU Zone 7	25769.53	58037.93	24930.11	57902.76	
HSU Zone 39	665305.70	149829.70	664232.10	148213.70	
TOTAL FLOWS	1632095.00	1632006.00	1608616.00	1608526.00	
Error	0.01		0.01		

Summary of HSU Zone Number 4			4.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00	0.00
Well	0.00	36090.71	0.00	36090.71	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	165588.70	0.00	165588.70	0.00	
ET	0.00	0.00	0.00	0.00	
Storage	0.00	19816.00	0.00	20047.16	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 1	175593.70	183475.40	177760.20	183382.80	
HSU Zone 5	0.00	499092.60	0.00	505202.80	
HSU Zone 8	214353.10	214874.40	217727.00	217172.80	
HSU Zone 9	0.00	24211.52	0.00	24575.32	
HSU Zone 39	422043.40	0.00	425413.50	0.00	
TOTAL FLOWS	977578.90	977560.70	986489.40	986471.60	
Error	0.00		0.00		

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR			Without ASR		
Summary of HSU Zone Number 5 5.00			5.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00	0.00
Well	20345.17	94277.62	0.00	94277.62	
Stream	0.00	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00	0.00
Recharge	162571.50	0.00	162571.50	0.00	
ET	0.00	0.00	0.00	0.00	0.00
Storage	0.00	15272.12	0.00	17528.46	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 2	207231.60	234485.60	207336.20	224605.20	
HSU Zone 4	499092.60	0.00	505202.80	0.00	
HSU Zone 6	0.00	530235.60	0.00	517513.50	
HSU Zone 9	207377.40	222330.60	201550.70	222720.00	
TOTAL FLOWS	1096618.00	1096602.00	1076661.00	1076645.00	
Error	0.00		0.00		

Summary of HSU Zone Number 6 6.00			6.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00	0.00
Well	0.00	260883.10	0.00	260883.10	
Stream	0.00	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00	0.00
Recharge	122099.40	0.00	122099.40	0.00	
ET	0.00	0.00	0.00	0.00	0.00
Storage	0.00	7865.55	0.00	9198.03	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 2	22724.77	0.00	22363.41	0.00	
HSU Zone 3	208790.10	284657.30	206163.80	273900.70	
HSU Zone 5	530235.60	0.00	517513.50	0.00	
HSU Zone 7	0.00	377774.00	0.00	370099.20	
HSU Zone 9	18231.78	16676.89	17615.72	16273.60	
HSU Zone 10	195466.20	134153.40	191205.70	131367.90	
HSU Zone 11	0.00	15525.88	0.00	15228.73	
TOTAL FLOWS	1097548.00	1097536.00	1076962.00	1076951.00	
Error	0.00		0.00		

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR			Without ASR		
Summary of HSU Zone Number 7			7.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	38476.02	0.00	38476.02	
Stream	7417.38	725270.10	7651.67	716530.30	
Lake	0.00	0.00	0.00	0.00	
Recharge	49679.00	0.00	49679.00	0.00	
ET	0.00	2375.89	0.00	2371.35	
Storage	93.26	862.92	93.81	917.47	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 3	58037.93	25769.53	57902.76	24930.11	
HSU Zone 6	377774.00	0.00	370099.20	0.00	
HSU Zone 11	109214.20	158535.60	106080.20	157407.00	
HSU Zone 39	370877.90	21839.48	370924.10	21827.63	
TOTAL FLOWS	973093.60	973129.50	962430.70	962459.80	
Error	0.00		0.00		

Summary of HSU Zone Number 8			8.00		
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	74579.18	0.00	74579.18	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	153401.00	0.00	153401.00	0.00	
ET	0.00	550.40	0.00	418.03	
Storage	0.00	23688.70	0.00	23437.19	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 4	214874.40	214353.10	217172.80	217727.00	
HSU Zone 9	0.00	416723.90	0.00	422591.20	
HSU Zone 13	137453.20	203559.00	141524.90	204542.90	
HSU Zone 39	427739.10	0.00	431212.40	0.00	
TOTAL FLOWS	933467.70	933454.20	943311.20	943295.40	
Error	0.00		0.00		

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

	With ASR		Without ASR	
Summary of HSU Zone Number 9	9.00		9.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	16392.31	188832.20	0.00	188832.20
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	124715.30	0.00	124715.30	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	22640.87	0.00	24032.22
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 4	24211.52	0.00	24575.32	0.00
HSU Zone 5	222330.60	207377.40	222720.00	201550.70
HSU Zone 6	16676.89	18231.78	16273.60	17615.72
HSU Zone 8	416723.90	0.00	422591.20	0.00
HSU Zone 10	6590.68	421446.30	6363.50	412264.10
HSU Zone 13	9443.49	0.00	9795.21	0.00
HSU Zone 14	174109.90	120194.00	167636.10	118946.60
HSU Zone 15	0.00	32459.35	0.00	31417.18
TOTAL FLOWS	1011195.00	1011182.00	994670.20	994658.70
Error	0.00		0.00	
Summary of HSU Zone Number 10	10.00		10.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	172027.30	0.00	172027.30
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	163864.60	0.00	163864.60	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	12784.07	0.00	13155.61
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 6	134153.40	195466.20	131367.90	191205.70
HSU Zone 9	421446.30	6590.68	412264.10	6363.50
HSU Zone 11	3279.14	234883.70	3295.25	230008.90
HSU Zone 15	74598.24	175572.50	74266.56	172280.20
TOTAL FLOWS	797341.70	797324.50	785058.50	785041.30
Error	0.00		0.00	

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	With ASR		Without ASR	
Summary of HSU Zone Number 11	11.00		11.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	68606.94	0.00	68606.94
Stream	0.00	151688.50	0.00	150614.40
Lake	0.00	0.00	0.00	0.00
Recharge	122342.00	0.00	122342.00	0.00
ET	0.00	97.88	0.00	93.85
Storage	4.56	4151.09	4.81	3533.34
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 6	15525.88	0.00	15228.73	0.00
HSU Zone 7	158535.60	109214.20	157407.00	106080.20
HSU Zone 10	234883.70	3279.14	230008.90	3295.25
HSU Zone 12	14321.16	189167.20	14335.09	188036.20
HSU Zone 15	5619.72	0.00	5538.88	0.00
HSU Zone 16	49804.92	89772.63	49015.02	88563.56
HSU Zone 39	14929.03	0.00	14930.59	0.00
TOTAL FLOWS	615966.60	615977.60	608811.10	608823.70
Error	0.00		0.00	
Summary of HSU Zone Number 12	12.00		12.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	22360.81	0.00	22360.81
Stream	2046.35	753316.30	2049.12	751955.70
Lake	0.00	0.00	0.00	0.00
Recharge	53424.51	0.00	53424.51	0.00
ET	0.00	1771.71	0.00	1771.36
Storage	52.53	1133.44	53.73	999.26
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 11	189167.20	14321.16	188036.20	14335.09
HSU Zone 16	5203.44	0.00	5144.93	0.00
HSU Zone 17	104104.10	144342.90	103439.90	143974.90
HSU Zone 39	592383.80	9114.15	592392.80	9111.79
TOTAL FLOWS	946381.90	946360.50	944541.10	944509.00
Error	0.00		0.00	

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With ASR			Without ASR		
Summary of HSU Zone Number 13			13.00		
Flows Within HSU			13.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	61531.55	0.00	61531.55	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	157562.60	0.00	157562.60	0.00	
ET	0.00	867.66	0.00	719.67	
Storage	0.00	20412.44	0.00	19487.35	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 8	203559.00	137453.20	204542.90	141524.90	
HSU Zone 9	0.00	9443.49	0.00	9795.21	
HSU Zone 14	0.00	440176.20	0.00	443713.90	
HSU Zone 18	141805.10	239559.50	145345.00	239557.00	
HSU Zone 19	0.00	52412.42	0.00	52258.44	
HSU Zone 39	458944.50	0.00	461152.10	0.00	
TOTAL FLOWS	961871.20	961856.50	968602.60	968588.00	
Error	0.00		0.00		

With ASR			Without ASR		
Summary of HSU Zone Number 14			14.00		
Flows Within HSU			14.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	19228.70	120299.80	0.00	120299.80	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	121772.40	0.00	121772.40	0.00	
ET	0.00	9.36	0.00	0.05	
Storage	0.00	24120.88	0.00	23548.97	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 9	120194.00	174109.90	118946.60	167636.10	
HSU Zone 13	440176.20	0.00	443713.90	0.00	
HSU Zone 15	0.00	330568.00	0.00	326281.60	
HSU Zone 19	182258.90	234510.80	186345.70	233001.00	
TOTAL FLOWS	883630.30	883618.70	870778.60	870767.60	
Error	0.00		0.00		

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	With ASR		Without ASR	
Summary of HSU Zone Number 15	15.00		15.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	322216.50	0.00	322216.50
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	163463.30	0.00	163463.30	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	17057.44	0.00	15994.80
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 9	32459.35	0.00	31417.18	0.00
HSU Zone 10	175572.50	74598.24	172280.20	74266.56
HSU Zone 11	0.00	5619.72	0.00	5538.88
HSU Zone 14	330568.00	0.00	326281.60	0.00
HSU Zone 16	564.00	337170.40	574.98	333861.50
HSU Zone 19	12370.31	0.00	12564.47	0.00
HSU Zone 20	248033.50	191404.90	249544.10	189409.60
HSU Zone 21	0.00	14948.22	0.00	14821.33
TOTAL FLOWS	963031.00	963015.50	956125.90	956109.30
Error	0.00		0.00	
Summary of HSU Zone Number 16	16.00		16.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	258051.70	0.00	258051.70
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	164979.30	0.00	164979.30	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	13774.75	0.00	12597.08
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 11	89772.63	49804.92	88563.56	49015.02
HSU Zone 12	0.00	5203.44	0.00	5144.93
HSU Zone 15	337170.40	564.00	333861.50	574.98
HSU Zone 17	255.06	277218.40	264.50	275631.70
HSU Zone 21	165978.40	153522.10	165880.00	152516.30
TOTAL FLOWS	758155.80	758139.30	753548.90	753531.70
Error	0.00		0.00	

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With ASR			Without ASR		
Summary of HSU Zone Number 17			17.00		
Flows Within HSU			17.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	80269.78	0.00	80269.78	
Stream	0.00	562031.40	0.00	561346.30	
Lake	0.00	0.00	0.00	0.00	
Recharge	180603.50	0.00	180603.50	0.00	
ET	0.00	1429.36	0.00	1426.19	
Storage	0.06	9944.16	0.07	9461.43	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 12	144342.90	104104.10	143974.90	103439.90	
HSU Zone 16	277218.40	255.06	275631.70	264.50	
HSU Zone 22	92463.69	130480.70	92171.68	130049.10	
HSU Zone 23	42095.87	108941.20	41988.47	108864.90	
HSU Zone 39	273536.70	12806.08	273553.20	12796.93	
TOTAL FLOWS	1010261.00	1010262.00	1007924.00	1007919.00	
Error	0.00		0.00		

Summary of HSU Zone Number 18			18.00		
Flows Within HSU			18.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	135237.30	0.00	135237.30	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	157904.50	0.00	157904.50	0.00	
ET	0.00	35.03	0.00	31.25	
Storage	0.00	12609.27	0.00	11744.57	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 13	239559.50	141805.10	239557.00	145345.00	
HSU Zone 19	0.00	564884.50	0.00	565672.00	
HSU Zone 24	195774.10	292148.10	197605.10	291974.70	
HSU Zone 39	553496.70	0.00	554954.30	0.00	
TOTAL FLOWS	1146735.00	1146719.00	1150021.00	1150005.00	
Error	0.00		0.00		

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	With ASR		Without ASR	
Summary of HSU Zone Number 19	19.00		19.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	178241.00	0.00	178241.00
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	157592.40	0.00	157592.40	0.00
ET	0.00	5.03	0.00	3.41
Storage	0.00	17776.87	0.00	16749.04
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 13	52412.42	0.00	52258.44	0.00
HSU Zone 14	234510.80	182258.90	233001.00	186345.70
HSU Zone 15	0.00	12370.31	0.00	12564.47
HSU Zone 18	564884.50	0.00	565672.00	0.00
HSU Zone 20	0.00	518848.40	0.00	517664.60
HSU Zone 24	9759.34	0.00	9879.11	0.00
HSU Zone 25	163396.60	251506.10	165397.20	250763.20
HSU Zone 26	0.00	21533.63	0.00	21453.34
TOTAL FLOWS	1182556.00	1182540.00	1183800.00	1183785.00
Error	0.00		0.00	
Summary of HSU Zone Number 20	20.00		20.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	75303.19	0.00	75303.19
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	141376.80	0.00	141376.80	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	20603.62	0.00	19445.96
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 15	191404.90	248033.50	189409.60	249544.10
HSU Zone 19	518848.40	0.00	517664.60	0.00
HSU Zone 21	0.00	509026.80	0.00	507373.70
HSU Zone 26	211147.70	209797.50	212218.70	208988.80
TOTAL FLOWS	1062778.00	1062765.00	1060670.00	1060656.00
Error	0.00		0.00	

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	With ASR		Without ASR	
Summary of HSU Zone Number 21	21.00		21.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	348727.30	0.00	348727.30
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	136174.70	0.00	136174.70	0.00
ET	0.00	0.00	0.00	0.00
Storage	0.00	27413.30	0.00	26416.44
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 15	14948.22	0.00	14821.33	0.00
HSU Zone 16	153522.10	165978.40	152516.30	165880.00
HSU Zone 20	509026.80	0.00	507373.70	0.00
HSU Zone 22	1809.68	302565.00	1810.51	301577.50
HSU Zone 27	215759.50	149944.50	215897.30	149447.60
HSU Zone 28	0.00	36599.33	0.00	36531.54
TOTAL FLOWS	1031241.00	1031228.00	1028594.00	1028580.00
Error	0.00		0.00	

	With ASR		Without ASR	
Summary of HSU Zone Number 22	22.00		22.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	63174.35	0.00	63174.35
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	139584.90	0.00	139584.90	0.00
ET	0.00	2.10	0.00	1.73
Storage	0.00	23885.13	0.00	23407.66
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 17	130480.70	92463.69	130049.10	92171.68
HSU Zone 21	302565.00	1809.68	301577.50	1810.51
HSU Zone 23	339.17	283567.70	339.68	283184.90
HSU Zone 28	42195.00	150247.60	42211.05	149997.30
TOTAL FLOWS	615164.80	615150.30	613762.20	613748.10
Error	0.00		0.00	

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With ASR			Without ASR		
Summary of HSU Zone Number 23			23.00		
Flows Within HSU			23.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	102632.80	0.00	102632.80	
Stream	46723.44	524558.90	46724.92	524335.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	77989.00	0.00	77989.00	0.00	
ET	0.00	1799.68	0.00	1799.14	
Storage	19.03	8556.98	19.29	8454.00	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 17	108941.20	42095.87	108864.90	41988.47	
HSU Zone 22	283567.70	339.17	283184.90	339.68	
HSU Zone 28	5202.13	0.00	5199.42	0.00	
HSU Zone 29	107628.90	164715.80	107569.10	164631.80	
HSU Zone 39	217293.40	2620.52	217294.80	2620.36	
TOTAL FLOWS	847364.70	847319.60	846846.20	846801.30	
Error	0.01		0.01		

With ASR			Without ASR		
Summary of HSU Zone Number 24			24.00		
Flows Within HSU			24.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	117605.10	0.00	117605.10	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	107518.70	0.00	107518.70	0.00	
ET	0.00	9782.26	0.00	9737.02	
Storage	0.00	6208.02	0.00	5755.95	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 18	292148.10	195774.10	291974.70	197605.10	
HSU Zone 19	0.00	9759.34	0.00	9879.11	
HSU Zone 25	25.40	568656.60	23.95	568895.60	
HSU Zone 39	782013.20	273916.10	783776.50	273813.00	
TOTAL FLOWS	1181705.00	1181702.00	1183294.00	1183291.00	
Error	0.00		0.00		

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With ASR			Without ASR		
Summary of HSU Zone Number 25			25.00		
Flows Within HSU			25.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	91617.05	0.00	91617.05	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	118309.30	0.00	118309.30	0.00	
ET	0.00	983.33	0.00	938.36	
Storage	0.00	11271.07	0.00	10634.87	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 19	251506.10	163396.60	250763.20	165397.20	
HSU Zone 24	568656.60	25.40	568895.60	23.95	
HSU Zone 26	0.00	586772.10	0.00	586432.70	
HSU Zone 30	0.00	27534.81	0.00	27494.43	
HSU Zone 39	197434.10	254297.40	198558.70	253979.20	
TOTAL FLOWS	1135906.00	1135898.00	1136527.00	1136518.00	
Error	0.00		0.00		

Summary of HSU Zone Number 26			26.00		
Flows Within HSU			26.00		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	192072.90	0.00	192072.90	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	134287.10	0.00	134287.10	0.00	
ET	0.00	198.71	0.00	193.30	
Storage	0.00	16919.83	0.00	16227.47	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 19	21533.63	0.00	21453.34	0.00	
HSU Zone 20	209797.50	211147.70	208988.80	212218.70	
HSU Zone 25	586772.10	0.00	586432.70	0.00	
HSU Zone 27	0.00	397615.00	0.00	397014.60	
HSU Zone 30	182779.50	317203.20	183334.70	316757.20	
TOTAL FLOWS	1135170.00	1135157.00	1134497.00	1134484.00	
Error	0.00		0.00		

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR			Without ASR		
Summary of HSU Zone Number 27		27.00	Summary of HSU Zone Number 27		27.00
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	47631.84	0.00	47631.84	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	120152.30	0.00	120152.30	0.00	
ET	0.00	6.33	0.00	6.16	
Storage	0.00	27110.36	0.00	26550.14	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 21	149944.50	215759.50	149447.60	215897.30	
HSU Zone 26	397615.00	0.00	397014.60	0.00	
HSU Zone 28	4104.85	359435.40	4108.51	359121.80	
HSU Zone 30	6322.11	0.00	6336.12	0.00	
HSU Zone 31	199484.20	227668.90	199578.90	227420.00	
TOTAL FLOWS	877623.00	877612.40	876638.10	876627.20	
Error	0.00		0.00		

With ASR			Without ASR		
Summary of HSU Zone Number 28		28.00	Summary of HSU Zone Number 28		28.00
Flows Within HSU	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	260069.80	0.00	260069.80	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	119097.00	0.00	119097.00	0.00	
ET	0.00	0.00	0.00	0.00	
Storage	0.00	28303.38	0.00	27999.11	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 21	36599.33	0.00	36531.54	0.00	
HSU Zone 22	150247.60	42195.00	149997.30	42211.05	
HSU Zone 23	0.00	5202.13	0.00	5199.42	
HSU Zone 27	359435.40	4104.85	359121.80	4108.51	
HSU Zone 29	0.00	322145.20	0.00	321955.40	
HSU Zone 31	12626.69	0.00	12630.39	0.00	
HSU Zone 32	186475.50	183606.80	186518.40	183504.70	
HSU Zone 33	0.00	18844.52	0.00	18837.65	
TOTAL FLOWS	864481.60	864471.70	863896.50	863885.70	
Error	0.00		0.00		

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR			Without ASR		
Summary of HSU Zone Number 29			29.00		
Flows Within HSU			Flows Within HSU		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	129755.40	0.00	129755.40	
Stream	390.00	248063.40	390.01	248022.90	
Lake	0.00	0.00	0.00	0.00	
Recharge	90368.48	0.00	90368.48	0.00	
ET	0.00	148.72	0.00	148.61	
Storage	1.34	16786.24	1.34	16658.62	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 23	164715.80	107628.90	164631.80	107569.10	
HSU Zone 28	322145.20	0.00	321955.40	0.00	
HSU Zone 33	68745.25	166448.80	68746.83	166406.70	
HSU Zone 34	4824.65	38440.20	4823.78	38436.55	
HSU Zone 39	56137.60	0.00	56138.04	0.00	
TOTAL FLOWS	707328.30	707271.70	707055.70	706997.90	
Error	0.01		0.01		

With ASR			Without ASR		
Summary of HSU Zone Number 30			30.00		
Flows Within HSU			Flows Within HSU		
	Inflow	Outflow	Inflow	Outflow	
Constant Head	0.00	0.00	0.00	0.00	
River	0.00	0.00	0.00	0.00	
Drain	0.00	0.00	0.00	0.00	
GHB	0.00	0.00	0.00	0.00	
Well	0.00	314684.30	0.00	314684.30	
Stream	0.00	0.00	0.00	0.00	
Lake	0.00	0.00	0.00	0.00	
Recharge	106537.80	0.00	106537.80	0.00	
ET	0.00	17322.57	0.00	17301.80	
Storage	0.00	7777.68	0.00	7532.98	
Flows Between HSUs					
HSU Number	Inflow	Outflow	Inflow	Outflow	
HSU Zone 25	27534.81	0.00	27494.43	0.00	
HSU Zone 26	317203.20	182779.50	316757.20	183334.70	
HSU Zone 27	0.00	6322.11	0.00	6336.12	
HSU Zone 31	66632.92	531449.30	66619.23	531216.70	
HSU Zone 39	734409.80	191980.80	734896.10	191895.00	
TOTAL FLOWS	1252319.00	1252316.00	1252305.00	1252302.00	
Error	0.00		0.00		

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

	With ASR		Without ASR	
Summary of HSU Zone Number 31	31.00		31.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	150920.50	0.00	150920.50
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	113330.20	0.00	113330.20	0.00
ET	0.00	2825.41	0.00	2820.52
Storage	0.00	14378.39	0.00	14159.39
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 27	227668.90	199484.20	227420.00	199578.90
HSU Zone 28	0.00	12626.69	0.00	12630.39
HSU Zone 30	531449.30	66632.92	531216.70	66619.23
HSU Zone 32	0.00	497515.00	0.00	497372.00
HSU Zone 35	229942.60	220146.00	230071.40	220080.30
HSU Zone 36	0.00	18650.61	0.00	18645.91
HSU Zone 39	80796.96	0.00	80796.87	0.00
TOTAL FLOWS	1183188.00	1183180.00	1182835.00	1182827.00
Error	0.00		0.00	
Summary of HSU Zone Number 32	32.00		32.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	217815.00	0.00	217815.00
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	129843.00	0.00	129843.00	0.00
ET	0.00	943.74	0.00	942.93
Storage	0.00	17947.17	0.00	17802.75
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 28	183606.80	186475.50	183504.70	186518.40
HSU Zone 31	497515.00	0.00	497372.00	0.00
HSU Zone 33	0.00	382940.40	0.00	382874.30
HSU Zone 36	143151.10	147982.50	143191.70	147946.80
TOTAL FLOWS	954115.90	954104.30	953911.50	953900.20
Error	0.00		0.00	

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

	With ASR		Without ASR	
Summary of HSU Zone Number 33	33.00		33.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	255916.70	0.00	255916.70
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	119014.60	0.00	119014.60	0.00
ET	0.00	619.80	0.00	619.77
Storage	0.00	12640.19	0.00	12570.81
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 28	18844.52	0.00	18837.65	0.00
HSU Zone 29	166448.80	68745.25	166406.70	68746.83
HSU Zone 32	382940.40	0.00	382874.30	0.00
HSU Zone 34	0.00	314582.30	0.00	314553.10
HSU Zone 36	7100.85	0.00	7101.85	0.00
HSU Zone 37	75813.54	117646.60	75817.71	117633.50
TOTAL FLOWS	770162.70	770150.80	770052.70	770040.70
Error	0.00		0.00	

	With ASR		Without ASR	
Summary of HSU Zone Number 34	34.00		34.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	20470.30	0.00	20470.30
Stream	44944.64	450884.70	44944.93	450860.80
Lake	0.00	0.00	0.00	0.00
Recharge	28091.83	0.00	28091.83	0.00
ET	0.00	99.98	0.00	99.96
Storage	18.81	1463.73	18.88	1457.65
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 29	38440.20	4824.65	38436.55	4823.78
HSU Zone 33	314582.30	0.00	314553.10	0.00
HSU Zone 37	5488.54	0.00	5488.53	0.00
HSU Zone 38	116222.10	76901.35	116220.80	76899.45
HSU Zone 39	44463.74	37610.39	44463.74	37610.39
TOTAL FLOWS	592252.10	592255.10	592218.30	592222.30
Error	0.00		0.00	

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

With ASR				Without ASR			
Summary of HSU Zone Number 35		35.00		35.00			
Flows Within HSU				Flows Within HSU			
	Inflow	Outflow		Inflow	Outflow		
Constant Head	0.00	0.00		0.00	0.00		
River	0.00	0.00		0.00	0.00		
Drain	0.00	0.00		0.00	0.00		
GHB	0.00	0.00		0.00	0.00		
Well	0.00	21401.47		0.00	21401.47		
Stream	181948.90	35025.64		182020.30	35019.26		
Lake	0.00	0.00		0.00	0.00		
Recharge	61829.95	0.00		61829.95	0.00		
ET	0.00	15911.87		0.00	15906.86		
Storage	0.06	2241.88		0.06	2214.12		
Flows Between HSUs							
HSU Number	Inflow	Outflow		Inflow	Outflow		
HSU Zone 31	220146.00	229942.60		220080.30	230071.40		
HSU Zone 36	0.00	289281.60		0.00	289270.80		
HSU Zone 39	311524.20	181500.50		311590.40	181493.10		
TOTAL FLOWS	775449.10	775305.50		775521.00	775377.00		
Error	0.02			0.02			
Summary of HSU Zone Number 36		36.00		36.00			
Flows Within HSU				Flows Within HSU			
	Inflow	Outflow		Inflow	Outflow		
Constant Head	0.00	0.00		0.00	0.00		
River	0.00	0.00		0.00	0.00		
Drain	0.00	0.00		0.00	0.00		
GHB	0.00	0.00		0.00	0.00		
Well	0.00	142323.10		0.00	142323.10		
Stream	0.00	0.00		0.00	0.00		
Lake	0.00	0.00		0.00	0.00		
Recharge	68488.56	0.00		68488.56	0.00		
ET	0.00	2662.70		0.00	2660.54		
Storage	0.00	3956.83		0.00	3924.04		
Flows Between HSUs							
HSU Number	Inflow	Outflow		Inflow	Outflow		
HSU Zone 31	18650.61	0.00		18645.91	0.00		
HSU Zone 32	147982.50	143151.10		147946.80	143191.70		
HSU Zone 33	0.00	7100.85		0.00	7101.85		
HSU Zone 35	289281.60	0.00		289270.80	0.00		
HSU Zone 37	0.00	194989.80		0.00	194976.50		
HSU Zone 39	187667.80	217885.40		187698.70	217871.40		
TOTAL FLOWS	712071.00	712069.80		712050.80	712049.10		
Error	0.00			0.00			

2009
Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

	With ASR		Without ASR	
Summary of HSU Zone Number 37	37.00		37.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	99680.82	0.00	99680.82
Stream	0.00	0.00	0.00	0.00
Lake	0.00	0.00	0.00	0.00
Recharge	69915.40	0.00	69915.40	0.00
ET	0.00	30.82	0.00	30.78
Storage	9.16	2208.11	9.43	2192.76
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 33	117646.60	75813.54	117633.50	75817.71
HSU Zone 34	0.00	5488.54	0.00	5488.53
HSU Zone 36	194989.80	0.00	194976.50	0.00
HSU Zone 38	0.00	149878.40	0.00	149873.90
HSU Zone 39	106309.30	155764.20	106313.90	155758.40
TOTAL FLOWS	488870.30	488864.40	488848.70	488843.00
Error	0.00		0.00	
Summary of HSU Zone Number 38	38.00		38.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	0.00	0.00	0.00	0.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	7845.04	0.00	7845.04
Stream	1934.43	184795.20	1934.44	184794.50
Lake	0.00	0.00	0.00	0.00
Recharge	43751.24	0.00	43751.24	0.00
ET	0.00	0.00	0.00	0.00
Storage	447.05	196.10	448.65	194.03
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 34	76901.35	116222.10	76899.45	116220.80
HSU Zone 37	149878.40	0.00	149873.90	0.00
HSU Zone 39	186795.30	150687.00	186795.20	150685.70
TOTAL FLOWS	459707.80	459745.40	459702.90	459740.00
Error	-0.01		-0.01	

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Accounting Model
Detailed Hydrostratigraphic Unit Water Budget

	With ASR		Without ASR	
Summary of HSU Zone Number	39.00		39.00	
Flows Within HSU	Inflow	Outflow	Inflow	Outflow
Constant Head	6665701.00	1992424.00	6665592.00	1992425.00
River	0.00	0.00	0.00	0.00
Drain	0.00	0.00	0.00	0.00
GHB	0.00	0.00	0.00	0.00
Well	0.00	4026264.00	0.00	4026264.00
Stream	5750546.00	11180010.00	5754474.00	11171880.00
Lake	0.00	0.00	0.00	0.00
Recharge	11460500.00	0.00	11460500.00	0.00
ET	0.00	1324753.00	0.00	1323615.00
Storage	170793.40	250269.70	172663.30	241926.90
Flows Between HSUs				
HSU Number	Inflow	Outflow	Inflow	Outflow
HSU Zone 1	159156.20	398537.40	157791.20	401422.00
HSU Zone 2	135754.60	148054.50	131989.70	148139.70
HSU Zone 3	149829.70	665305.70	148213.70	664232.10
HSU Zone 4	0.00	422043.40	0.00	425413.50
HSU Zone 7	21839.48	370877.90	21827.63	370924.10
HSU Zone 8	0.00	427739.10	0.00	431212.40
HSU Zone 11	0.00	14929.03	0.00	14930.59
HSU Zone 12	9114.15	592383.80	9111.79	592392.80
HSU Zone 13	0.00	458944.50	0.00	461152.10
HSU Zone 17	12806.08	273536.70	12796.93	273553.20
HSU Zone 18	0.00	553496.70	0.00	554954.30
HSU Zone 23	2620.52	217293.40	2620.36	217294.80
HSU Zone 24	273916.10	782013.20	273813.00	783776.50
HSU Zone 25	254297.40	197434.10	253979.20	198558.70
HSU Zone 29	0.00	56137.60	0.00	56138.04
HSU Zone 30	191980.80	734409.80	191895.00	734896.10
HSU Zone 31	0.00	80796.96	0.00	80796.87
HSU Zone 34	37610.39	44463.74	37610.39	44463.74
HSU Zone 35	181500.50	311524.20	181493.10	311590.40
HSU Zone 36	217885.40	187667.80	217871.40	187698.70
HSU Zone 37	155764.20	106309.30	155758.40	106313.90
HSU Zone 38	150687.00	186795.30	150685.70	186795.20
TOTAL FLOWS	26002300.00	26004410.00	26000690.00	26002760.00
Error	-0.01		-0.01	

**APPENDIX C –
CHEMICAL, PHYSICAL, RADIOLOGICAL AND BIOLOGICAL QUALITY FOR
EACH SOURCE WATER DIVERTED.**

Abbreviations, Units of Measure, and Fixed Value Codes used in Sand and Gravel Pit Data Tables

Abbreviation	Description	Units of measure	Description
ANC	acid neutralizing capacity	deg C	degrees Celsius
c	see laboratory comment	FNU	formazin nephelometric units
corrctd	corrected	g/cm ³	grams per cubic centimeter
Cs	Cesium	mg/kg	milligrams per kilogram, parts per million
det ang	detection angle	mg/L	milligrams per liter, parts per million
dia	diameter	mm Hg	millimeters of mercury
E	estimated	mV	millivolts
E coli	the bacterium <i>Escherichia coli</i>	NTRU	nephelometric turbidity ratio units
emf	electromotive force	pCi/g	picocuries per gram
evap	evaporation	u, um	micrometer
fld	field	ug/g	micrograms per gram, parts per million
flt, fltrd	filtered sample	ug/kg	micrograms per kilogram, parts per billion
GF	glass-fiber filter	ug/L	micrograms per liter, parts per billion
incrm titr	incremental titration		
IR	infrared		
LED	light emitting diode		
LSD	land surface		
M	presence verified but not quantified		
m	value is highly variable by this method		
MF	membrane filtration		
m-FC	fecal cloiform media		
MI	total coliform media		
m-TEC	membrane-Thermotolerant <i>Escherichia coli</i> agar		
n	below the laboratory reporting limit and above the long-term method detection limit		
N	nitrogen		
NAVD	North American Vertical Datum of 1988		
pt	point		
r	sample ruined in preparation		
Redox	reduction-oxidation potential		
rel	relative		
sed, sedimnt	sediment		
SHE	standard hydrogen electrode		
svd	sieved		
sve	sieve		
t	below the long-term method detection limit		
tot	total		
u	unable to determine---matrix interference		
unf, unfltrd	unfiltered sample		
wat	water		
wgt	weight		
wsv nat	wet-sieve native water		

Fixed Value Codes

Sample type	7 = replicate 9 = regular	Sampler type code	125 = Kemmerer bottle 84164 3060 = weighted-bottle sampler 3070 = grab sample
Sample purpose code	10.00 = routine	71999	Type of replicate sample code 10.00 = concurrent 99105 20.00 = sequential
Sampling method code	30 = single vertical 40 = multiple verticals 70 = grab sample 4040 = submersible pump 8010 = other	82398	

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Temper- ature, water, deg C (00010)	Specif- ic conduc- tance, wat unfltrd uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)	Bicar- bonate, wat flt infl pt titr., lab, mg/L (29806)	Carbon- ate, wat flt infl pt titr., lab, mg/L (29809)	Calcium water, fltrd, mg/L (00915)
380329097363706 23S 03W 12CCCC06 RRW-01 SOURCE WATER (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	18...	1125	9	28.2	354	7.5	2.0	308	1.1	--	--	--	--
	18...	1126	9	--	--	--	--	--	--	150	184	220	.0 49.1
	18...	1130	9	28.2	354	7.5	2.0	308	1.1	--	--	--	--
	18...	1135	7	28.2	354	7.5	2.0	308	1.1	--	--	--	--
380235097364004 23S 03W 23AAAA04 RRW-02 SOURCE WATER (LAT 38 02 35N LONG 097 36 40W)													
JUN 2009	18...	1345	9	16.6	361	7.4	1.1	290	.3	--	--	--	--
	18...	1346	9	--	--	--	--	--	--	130	172	210	.0 45.5
	18...	1350	9	16.6	361	7.4	1.1	290	.3	--	--	--	--
	18...	1355	7	16.6	361	7.4	1.1	290	.3	--	--	--	--
380145097363604 23S 03W 24CCCC04 RRW-03 SOURCE WATER (LAT 38 01 45N LONG 097 36 36W)													
JUN 2009	24...	1030	9	16.5	366	7.1	.1	250	.3	--	--	--	--
	24...	1031	9	--	--	--	--	--	--	140	176	220	.0 45.6
	24...	1035	9	16.5	366	7.1	.1	250	.3	--	--	--	--
	24...	1040	7	16.5	366	7.1	.1	250	.3	--	--	--	--
380050097363604 23S 03W 36BBBB04 RW-01 SOURCE WATER (LAT 38 00 50N LONG 097 36 36W)													
JUN 2009	24...	1230	9	16.5	365	7.1	.1	270	.6	--	--	--	--
	24...	1231	9	--	--	--	--	--	--	140	175	210	.0 45.9
	24...	1235	9	16.5	365	7.1	.1	270	.6	--	--	--	--
	24...	1240	7	16.5	365	7.1	.1	270	.6	--	--	--	--
375954097363803 24S 03W 02AAAA03 RB-01 SOURCE WATER (LAT 37 59 54N LONG 097 36 38W)													
APR 2009	03...	1215	9	9.3	515	5.9	9.8	490	5.7	--	--	--	--
	03...	1216	9	--	--	--	--	--	--	160	36	44	.0 49.5
	03...	1220	7	9.3	515	5.9	9.8	490	5.7	--	--	--	--
	14...	1140	9	10.3	657	7.7	10.7	510	8.4	--	--	--	--
	14...	1141	9	--	--	--	--	--	--	150	98	120	.0 43.4
	17...	1110	9	14.6	791	6.9	9.4	400	2.3	--	--	--	--
	17...	1111	9	--	--	--	--	--	--	230	114	140	.0 67.9

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Date	Sodium, water, fltrd, mg/L (00930)	Potas- sium, water, fltrd, mg/L (00935)	Magnes- ium, water, fltrd, mg/L (00925)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite water, fltrd, mg/L as N (00613)	Nitrate + nitrite water, fltrd, mg/L as N (00631)	Phos- phorus, water, fltrd, mg/L as P (00666)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)
	380329097363706 23S 03W 12CCCC06 RRW-01 SOURCE WATER (LAT 38 03 29N LONG 097 36 37W)												
JUN 2009	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	31.4	3	5.43	5.4	12	.3	24.1	.080	.01	.070	.240	.21	12
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
	380235097364004 23S 03W 23AAAA04 RRW-02 SOURCE WATER (LAT 38 02 35N LONG 097 36 40W)												
JUN 2009	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	29.0	2	5.06	<5.0	9.4	.4	24.2	.190	<.01	<.020	.180	.19	6
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
	380145097363604 23S 03W 24CCCC04 RRW-03 SOURCE WATER (LAT 38 01 45N LONG 097 36 36W)												
JUN 2009	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	31.5	2	5.31	<5.0	9.8	.4	24.2	.170	<.01	<.020	.200	.19	7
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
	380050097363604 23S 03W 36BBBB04 RW-01 SOURCE WATER (LAT 38 00 50N LONG 097 36 36W)												
JUN 2009	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	31.6	2	5.32	<5.0	9.9	.4	24.3	.160	<.01	<.020	.190	.18	7
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375954097363803 24S 03W 02AAAA03 RB-01 SOURCE WATER (LAT 37 59 54N LONG 097 36 38W)												
APR 2009	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	39.1	11	9.87	62	100	.1	12.1	.540	.10	2.68	<.030	<.02	<1
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	77.9	9	9.50	65	110	.1	7.65	.150	.10	2.29	.030	<.02	<1
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	86.5	10	13.8	94	130	.1	14.6	.030	.04	1.30	<.030	<.02	<1

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Date	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sus- pended solids, water, unfltrd mg/L (00530)	Dis- solved solids dried @ 180degC wat flt mg/L (70300)	Total solids dried at 105degC wat unf mg/L (00500)	Tri- zine screen, wat flt ELISA, ug/L as atrazin (34756)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Total coli- form, LesEndo immed, col/ 100 mL (31504)
380329097363706	23S 03W 12CCCC06	RRW-01	SOURCE WATER	(LAT 38 03 29N LONG 097 36 37W)				
JUN 2009								
18...	--	--	--	--	--	<.10	--	--
18...	<100	123	<4	223	240	--	<1	<1
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
380235097364004	23S 03W 23AAAA04	RRW-02	SOURCE WATER	(LAT 38 02 35N LONG 097 36 40W)				
JUN 2009								
18...	--	--	--	--	--	<.10	--	--
18...	<100	221	<4	214	224	--	<1	1
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
380145097363604	23S 03W 24CCCC04	RRW-03	SOURCE WATER	(LAT 38 01 45N LONG 097 36 36W)				
JUN 2009								
24...	--	--	--	--	--	<.10	--	--
24...	<100	222	<4	241	232	--	<1	<1
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
380050097363604	23S 03W 36BBBB04	RW-01	SOURCE WATER	(LAT 38 00 50N LONG 097 36 36W)				
JUN 2009								
24...	--	--	--	--	--	<.10	--	--
24...	<100	225	<4	239	228	--	<1	<1
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
375954097363803	24S 03W 02AAAA03	RB-01	SOURCE WATER	(LAT 37 59 54N LONG 097 36 38W)				
APR 2009								
03...	--	--	--	--	--	.42	--	--
03...	<100	61.0	<4	311	--	--	22	37
03...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	.66	--	--
14...	<100	<5.0	8	408	--	--	200	110
17...	--	--	--	--	--	.27	--	--
17...	<100	7.0	<4	493	--	--	5	23

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Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elevation, feet above NGVD (72020)	Temperature, deg C (00010)	Specific conductance, uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dissolved oxygen, mg/L (00300)	Redox potential, rel to SHE, mV (63002)	Turbidity white light, det ang 90+/-30 corrctd (63676)	Hardness, water, mg/L as CaCO3 (00900)	Alkalinity, wat flt inf tit lab, mg/L as CaCO3 (39087)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)													
JUL 2009	10...	9	125.39	38.61	--	16.7	265	6.5	.3	230	2.8	--	--
	10...	9	125.39	--	--	--	--	--	--	--	--	96	126
	10...	9	125.39	38.61	--	16.7	265	6.5	.3	230	2.8	--	--
	10...	7	125.39	38.61	--	16.7	265	6.5	.3	230	2.8	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)													
JUN 2009	22...	9	101.76	29.36	--	16.9	281	6.5	.3	170	1.4	--	--
	22...	9	101.76	--	--	--	--	--	--	--	--	100	134
	22...	9	101.76	29.36	--	16.9	281	6.5	.3	170	1.4	--	--
	22...	7	101.76	29.36	--	16.9	281	6.5	.3	170	1.4	--	--
	22...	7	101.76	--	--	--	--	--	--	--	--	100	135
	22...	7	101.76	29.36	--	16.9	281	6.5	.3	170	1.4	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	04...	9	26.95	6.65	1442.73	14.4	234	5.4	2.9	428	.8	--	--
	04...	9	26.95	--	--	--	--	--	--	--	--	68	38
	04...	7	26.95	6.65	1442.73	14.4	234	5.4	2.9	428	.8	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	04...	9	97.10	31.55	1417.95	16.0	334	6.7	.3	180	.6	--	--
	04...	9	97.10	--	--	--	--	--	--	--	--	120	160
	04...	7	97.10	31.55	1417.95	16.0	334	6.7	.3	180	.6	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)													
JUN 2009	23...	9	269.53	28.48	--	16.8	397	7.5	1.9	190	.8	--	--
	23...	9	269.53	--	--	--	--	--	--	--	--	140	174
	23...	9	269.53	28.48	--	16.8	397	7.5	1.9	190	.8	--	--
	23...	7	269.53	28.48	--	16.8	397	7.5	1.9	190	.8	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)													
JUN 2009	23...	9	248.84	21.04	--	16.8	389	7.5	3.0	210	.7	--	--
	23...	9	248.84	--	--	--	--	--	--	--	--	130	176

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Date	Phos- phorus, water, fltrd, mg/L as P (00666)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sus- pended solids, water, unfltrd mg/L (00530)	Dis- solved solids dried @ 180degC wat flt mg/L (70300)	Total solids dried at 105degC wat unf mg/L (00500)	Tria- zine screen, wat flt ELISA, ug/L as (34756)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Total coli- form, LesEndo immed, col/ 100 mL (31504)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)											
JUL 2009											
10...	--	--	--	--	--	--	--	--	<.10	--	--
10...	.270	.21	4	480	417	<4	157	176	--	<1	1
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)											
JUN 2009											
22...	--	--	--	--	--	--	--	--	<.10	--	--
22...	.250	<.02	4	2190	306	4	172	184	--	<1	<1
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	<.10	--	--
22...	.230	<.02	4	2190	305	4	172	188	--	<1	<1
22...	--	--	--	--	--	--	--	--	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)											
JUN 2009											
04...	--	--	--	--	--	--	--	--	<.10	--	--
04...	.070	.07	<1	<100	<5.0	<4	150	--	--	<1	<1
04...	--	--	--	--	--	--	--	--	--	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)											
JUN 2009											
04...	--	--	--	--	--	--	--	--	<.10	--	--
04...	.160	.06	<1	510	93.0	<4	190	--	--	<1	<1
04...	--	--	--	--	--	--	--	--	--	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)											
JUN 2009											
23...	--	--	--	--	--	--	--	--	<.10	--	--
23...	.350	.24	3	<100	242	<4	248	248	--	<1	<1
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)											
JUN 2009											
23...	--	--	--	--	--	--	--	--	<.10	--	--
23...	.280	.24	5	<100	301	<4	236	242	--	<1	<1

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Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elevation, feet above NGVD (72020)	Temperature, deg C (00010)	Specific conductance, uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dissolved oxygen, mg/L (00300)	Redox potential, rel to SHE, mV (63002)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	Hardness, water, mg/L as CaCO3 (00900)	Alkalinity, wat flt inf tit lab, mg/L as CaCO3 (39087)
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)													
JUN 2009													
23...	1210	9	248.84	21.04	--	16.8	389	7.5	3.0	210	.7	--	--
23...	1215	7	248.84	21.04	--	16.8	389	7.5	3.0	210	.7	--	--
380148097363801 23S 03W 23DDDD01 RR3-MN-1 (LAT 38 01 48N LONG 097 36 37W)													
JUN 2009													
22...	1045	9	250.09	24.09	--	16.7	392	7.5	.3	240	.4	--	--
22...	1046	9	250.09	--	--	--	--	--	--	--	--	140	178
22...	1050	9	250.09	24.09	--	16.7	392	7.5	.3	240	.4	--	--
22...	1055	7	250.09	24.09	--	16.7	392	7.5	.3	240	.4	--	--
380142097363702 23S 03W 25BBBB02 RR3-MS-1 (LAT 38 01 41N LONG 097 36 37W)													
JUN 2009													
22...	1240	9	243.74	20.72	--	17.0	380	7.4	.2	190	.5	--	--
22...	1241	9	243.74	--	--	--	--	--	--	--	--	130	175
22...	1245	9	243.74	20.72	--	17.0	380	7.4	.2	190	.5	--	--
22...	1250	7	243.74	20.72	--	17.0	380	7.4	.2	190	.5	--	--
380056097363801 23S 03W 26DDDD01 RR4-MN (LAT 38 00 56N LONG 097 36 37W)													
JUN 2009													
24...	1030	9	125.63	21.85	--	15.8	523	7.5	.4	140	11	--	--
24...	1031	9	125.63	--	--	--	--	--	--	--	--	200	144
24...	1035	9	125.63	21.85	--	15.5	523	7.5	.4	140	11	--	--
24...	1040	7	125.63	21.85	--	15.8	523	7.5	.4	140	11	--	--
380042097363701 23S 03W 36BBBC01 RR4-MS (LAT 38 00 42N LONG 097 36 37W)													
JUN 2009													
24...	1220	9	129.98	18.92	--	15.9	547	7.3	.2	150	1.2	--	--
24...	1221	9	129.98	--	--	--	--	--	--	--	--	210	154
24...	1225	9	129.98	18.92	--	15.9	547	7.3	.2	150	1.2	--	--
24...	1230	7	129.98	18.92	--	15.9	547	7.3	.2	150	1.2	--	--
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)													
FEB 2009													
09...	1020	9	60.05	14.72	1417.55	15.1	1040	6.7	.1	160	.4	--	--
09...	1021	9	60.05	--	--	--	--	--	--	--	--	380	207
APR													
01...	1110	9	60.05	14.56	1417.71	14.9	1020	6.6	.9	150	.5	--	--
01...	1111	9	60.05	--	--	--	--	--	--	--	--	380	201
01...	1115	7	60.05	14.56	1417.71	14.9	1020	6.6	.9	150	.5	--	--

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PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Temper- ature, deg C water, deg C (00010)	Specif- ic conduc- tance, uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)													
APR 2009													
21...	0955	9	60.05	14.43	1417.84	15.2	1060	6.8	.2	140	.6	--	--
21...	0956	9	60.05	--	--	--	--	--	--	--	--	380	200
JUN													
25...	1000	9	60.05	13.37	1418.90	16.6	1050	6.7	.2	150	.3	--	--
25...	1001	9	60.05	--	--	--	--	--	--	--	--	380	200
25...	1005	9	60.05	13.37	1418.90	16.6	1050	6.7	.2	150	.3	--	--
25...	1010	7	60.05	13.37	1418.90	16.6	1050	6.7	.2	150	.3	--	--
JUL													
14...	1025	9	60.05	14.23	1418.04	16.7	1010	6.5	.4	190	.6	--	--
14...	1026	9	60.05	--	--	--	--	--	--	--	--	360	204
14...	1030	7	60.05	14.23	1418.04	16.7	1010	6.5	.4	190	.6	--	--
AUG													
19...	0955	9	60.05	15.09	1417.18	16.0	997	6.8	.1	170	.6	--	--
19...	0956	9	60.05	--	--	--	--	--	--	--	--	360	202
19...	1000	7	60.05	15.09	1417.18	16.0	997	6.8	.1	170	.6	--	--
19...	0957	7	60.05	--	--	--	--	--	--	--	--	--	--
NOV													
18...	1000	9	60.05	14.52	1417.75	15.4	1070	7.0	.4	190	.2	--	--
18...	1001	9	60.05	--	--	--	--	--	--	--	--	--	--
18...	1005	7	60.05	14.52	1417.75	15.4	1070	7.0	.4	190	.2	--	--
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)													
FEB 2009													
09...	1150	9	249.38	21.42	1410.52	15.6	635	7.0	.1	140	.3	--	--
09...	1151	9	249.38	--	--	--	--	--	--	--	--	230	201
APR													
01...	1240	9	249.38	21.11	1410.83	15.5	625	6.9	.1	130	.3	--	--
01...	1241	9	249.38	--	--	--	--	--	--	--	--	230	199
01...	1245	9	249.38	21.11	1410.83	15.5	625	6.9	.1	130	.3	--	--
21...	1115	9	249.38	22.36	1409.58	15.6	584	7.2	.1	120	.4	--	--
21...	1116	9	249.38	--	--	--	--	--	--	--	--	210	202
01...	1242	7	249.38	--	--	--	--	--	--	--	--	--	--
JUN													
25...	1200	9	249.38	23.27	1408.67	16.5	593	7.1	.1	140	.2	--	--
25...	1201	9	249.38	--	--	--	--	--	--	--	--	220	198
25...	1205	9	249.38	23.27	1408.67	16.5	593	7.1	.1	140	.2	--	--
25...	1210	7	249.38	23.27	1408.67	16.5	593	7.1	.1	140	.2	--	--
25...	1211	7	249.38	--	--	--	--	--	--	--	--	220	198
25...	1215	7	249.38	23.27	1408.67	16.5	593	7.1	.1	140	.2	--	--
JUL													
14...	1200	9	249.38	24.18	1407.76	16.5	648	6.9	.2	160	.3	--	--
14...	1201	9	249.38	--	--	--	--	--	--	--	--	240	202
14...	1205	7	249.38	24.18	1407.76	16.5	648	6.9	.2	160	.3	--	--
AUG													
19...	1125	9	249.38	26.28	1405.66	16.1	600	7.1	.1	140	.1	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
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PROCESS DATE 12-10-09

Date	Phosphorus, water, fltrd, mg/L as P (00666)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Suspended solids, water, unfltrd, mg/L (00530)	Dis-solved solids dried @ 180degC wat flt mg/L (70300)	Total solids dried at 105degC wat unf mg/L (00500)	Triazine screen, wat flt ELISA, ug/L as atrazin (34756)	Fecal coli-form, M-FC 0.7u MF col/ 100 mL (31625)	Total coli-form, LesEndo immed, col/ 100 mL (31504)
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)											
APR 2009											
21...	--	--	--	--	--	--	--	--	<.10	--	--
21...	.280	<.02	8	4760	310	9	332	--	--	<1	<1
JUN											
25...	--	--	--	--	--	--	--	--	<.10	--	--
25...	.240	<.02	7	4740	311	8	635	736	--	<1	<1
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	<.10	--	--
14...	.380	.06	8	4370	281	5	570	--	--	<1	<1
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	<.10	--	--
19...	.280	<.02	7	4270	271	7	588	--	--	<1	<1
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	<.10	--	--
NOV											
18...	--	--	--	--	--	--	--	--	--	<1	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)											
FEB 2009											
09...	--	--	--	--	--	--	--	--	<.10	--	--
09...	.247	.06	13	920	433	<4	360	--	--	<1	<1
APR											
01...	--	--	--	--	--	--	--	--	<.10	--	--
01...	.230	.08	13	850	432	<4	346	--	--	<1	<1
01...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	<.10	--	--
21...	.240	.13	14	840	398	<4	331	--	--	<1	<1
01...	--	--	--	--	--	--	--	--	<.10	--	--
JUN											
25...	--	--	--	--	--	--	--	--	<.10	--	--
25...	.260	.08	14	840	400	<4	347	356	--	<1	<1
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	<.10	--	--
25...	.252	.08	14	840	403	<4	347	350	--	<1	<1
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	<.10	--	--
14...	.370	.06	14	920	435	<4	363	--	--	<1	<1
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	<.10	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Temper- ature, deg C (00010)	Specif- ic conduc- tance, uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)													
AUG 2009													
19...	1126	9	249.38	--	--	--	--	--	--	--	--	220	200
19...	1130	7	249.38	26.28	1405.66	16.1	600	7.1	.1	140	.1	--	--
NOV													
18...	1130	9	249.38	21.22	1410.72	16.0	655	7.4	.2	180	.1	--	--
18...	1131	9	249.38	--	--	--	--	--	--	--	--	--	--
18...	1135	7	249.38	21.22	1410.72	16.0	655	7.4	.2	180	.1	--	--
375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)													
FEB 2009													
04...	1005	9	60.12	13.97	1416.48	14.9	531	6.6	.5	170	1.4	--	--
04...	1006	9	60.12	--	--	--	--	--	--	--	--	180	192
MAR													
24...	1135	9	60.12	13.67	1416.78	15.6	530	6.7	3.0	180	2.1	--	--
24...	1136	9	60.12	--	--	--	--	--	--	--	--	190	184
24...	1140	7	60.12	13.67	1416.78	15.6	530	6.7	3.0	180	2.1	--	--
APR													
06...	1010	9	60.12	13.17	1417.28	15.1	531	6.7	.3	170	2.3	--	--
06...	1011	9	60.12	--	--	--	--	--	--	--	--	190	180
06...	1015	7	60.12	13.17	1417.28	15.1	531	6.7	.3	170	2.3	--	--
09...	1005	9	60.12	13.04	1417.41	15.8	528	6.7	.2	170	.9	--	--
09...	1006	9	60.12	--	--	--	--	--	--	--	--	190	188
09...	1010	7	60.12	13.04	1417.41	15.8	528	6.7	.2	170	.9	--	--
16...	1015	9	60.12	13.05	1417.40	15.9	537	7.0	.1	120	.7	--	--
16...	1016	9	60.12	--	--	--	--	--	--	--	--	180	178
20...	1005	9	60.12	13.07	1417.38	15.8	531	6.8	.2	150	.5	--	--
20...	1006	9	60.12	--	--	--	--	--	--	--	--	190	183
MAY													
06...	1025	9	60.12	12.95	1417.50	16.1	538	7.1	.1	160	1.5	--	--
06...	1026	9	60.12	--	--	--	--	--	--	--	--	180	182
06...	1030	7	60.12	12.95	1417.50	16.1	538	7.1	.1	160	1.5	--	--
20...	1005	9	60.12	12.60	1417.85	16.2	529	6.8	.1	160	.8	--	--
20...	1006	9	60.12	--	--	--	--	--	--	--	--	180	180
20...	1010	7	60.12	12.60	1417.85	16.2	529	6.8	.1	160	.8	--	--
JUN													
25...	1000	9	60.12	12.58	1417.87	16.6	533	7.2	.1	160	.9	--	--
25...	1001	9	60.12	--	--	--	--	--	--	--	--	180	180
25...	1005	9	60.12	12.58	1417.87	16.6	533	7.2	.1	160	.9	--	--
25...	1010	7	60.12	12.58	1417.87	16.6	533	7.2	.1	160	.9	--	--
JUL													
08...	1020	9	60.12	15.35	1415.10	17.0	533	6.9	.2	170	1.4	--	--
08...	1021	9	60.12	--	--	--	--	--	--	--	--	190	182
08...	1025	7	60.12	15.35	1415.10	17.0	533	6.9	.2	170	1.4	--	--
13...	1015	9	60.12	15.50	1414.95	17.0	546	6.9	.2	200	.6	--	--
13...	1016	9	60.12	--	--	--	--	--	--	--	--	190	184
13...	1020	7	60.12	15.50	1414.95	17.0	546	6.9	.2	200	.6	--	--
20...	1015	9	60.12	15.68	1414.77	16.7	545	6.8	.3	140	.8	--	--
20...	1016	9	60.12	--	--	--	--	--	--	--	--	190	185

20...	1020	7	60.12	15.68	1414.77	16.7	545	6.8	.3	140	.8	--	--
AUG													
18...	1010	9	60.12	14.51	1415.94	16.7	540	6.8	.1	180	1.1	--	--
18...	1011	9	60.12	--	--	--	--	--	--	--	--	190	183
18...	1015	7	60.12	14.51	1415.94	16.7	540	6.8	.1	180	1.1	--	--
NOV													
18...	1005	9	60.12	13.55	1416.90	15.9	528	7.1	2.7	170	1.4	--	--
18...	1006	9	60.12	--	--	--	--	--	--	--	--	--	--
18...	1010	7	60.12	13.55	1416.90	15.9	528	7.1	2.7	170	1.4	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Bicar- bonate, wat flt infl pt titr., lab, mg/L (29806)	Carbon- ate, wat flt infl pt titr., lab, mg/L (29809)	Calcium water, fltrd, mg/L (00915)	Sodium, water, fltrd, mg/L (00930)	Potas- sium, water, fltrd, mg/L (00935)	Magnes- ium, water, fltrd, mg/L (00925)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite water, fltrd, mg/L as N (00613)	Nitrate + nitrite water, fltrd, mg/L as N (00631)
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)													
AUG 2009													
19...	240	.0	70.9	46.3	3	10.5	58	22	.4	19.5	.280	<.01	<.020
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)													
FEB 2009													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	230	.0	56.0	50.1	3	10.7	13	65	.5	17.4	<.030	<.01	.150
MAR													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	220	.0	57.4	49.0	3	10.8	12	66	.5	17.1	.040	<.01	.170
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	220	.0	57.3	51.2	3	11.0	13	66	.5	17.5	.050	<.01	.140
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	230	.0	57.4	50.3	3	11.0	30	24	.5	17.4	.040	<.01	<.020
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	220	.0	56.0	49.6	3	10.8	14	68	.6	16.8	<.030	<.01	<.020
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	220	.0	57.3	52.6	3	11.3	14	67	.6	17.3	.040	<.01	<.020
MAY													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	220	.0	55.9	49.0	3	10.8	14	64	.5	17.1	.032	<.01	.040
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	220	.0	56.2	50.3	3	10.8	15	64	.5	17.2	.030	<.01	.020
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	220	.0	55.1	49.4	3	10.5	16	66	.5	17.1	.040	<.01	.020
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	220	.0	56.8	49.0	3	10.7	15	69	.5	17.6	.050	<.01	<.020
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	220	.0	57.5	49.5	3	11.0	14	71	.5	17.6	.040	<.01	<.020
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	230	.0	57.5	49.7	3	11.1	13	73	.5	17.5	.030	<.01	<.020

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
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PROCESS DATE 12-10-09

Date	Phos- phorus, water, fltrd, mg/L as P (00666)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sus- pended solids, water, unfltrd mg/L (00530)	Dis- solved solids dried @ 180degC wat flt mg/L (70300)	Total solids dried at 105degC wat unf mg/L (00500)	Tri- zine screen, wat flt ELISA, ug/L as atrazin (34756)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Total coli- form, LesEndo immed, col/ 100 mL (31504)
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)											
AUG 2009											
19...	.260	.10	14	850	408	<4	358	--	--	<1	<1
19...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	--	--	--	--	--	--	--	--	--	<1	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)											
FEB 2009											
04...	--	--	--	--	--	--	--	--	<.10	--	--
04...	.230	.02	5	1170	120	<4	329	--	--	<1	<1
MAR											
24...	--	--	--	--	--	--	--	--	<.10	--	--
24...	.230	.08	4	1150	116	<4	333	--	--	<1	<1
24...	--	--	--	--	--	--	--	--	--	--	--
APR											
06...	--	--	--	--	--	--	--	--	<.10	--	--
06...	.250	.11	5	1180	120	9	331	--	--	<1	<1
06...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	<.10	--	--
09...	.200	.21	4	1180	118	<4	326	--	--	<1	<1
09...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	<.10	--	--
16...	.250	.05	5	1160	117	<4	330	--	--	<1	<1
20...	--	--	--	--	--	--	--	--	<.10	--	--
20...	.200	.08	5	1130	114	<4	329	--	--	<1	<1
MAY											
06...	--	--	--	--	--	--	--	--	<.10	--	--
06...	.250	.02	5	1150	115	<4	318	340	--	<1	11
06...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	<.10	<1	--
20...	.252	.02	5	1110	117	<4	328	--	--	<1	<1
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25...	--	--	--	--	--	--	--	--	<.10	--	--
25...	.215	.04	4	1150	116	<4	335	344	--	<1	<1
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
08...	--	--	--	--	--	--	--	--	<.10	--	--
08...	.220	<.02	4	1210	115	<4	333	--	--	<1	<1
08...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	<.10	<1	--
13...	.350	<.02	5	1150	110	<4	331	--	--	<1	<1
13...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	<.10	<1	--
20...	.180	.02	4	1040	105	6	332	--	--	<1	1

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Temper- ature, water, deg C (00010)	Specif- ic conduc- tance, uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)
375954097363802 24S 03W 02AADA02 RB1-MS DEEP (LAT 37 59 54N LONG 097 36 38W)													
FEB 2009													
04...	1140	9	261.40	21.38	1409.02	15.4	503	7.0	.1	100	.3	--	--
04...	1141	9	261.40	--	--	--	--	--	--	--	--	190	192
MAR													
24...	1305	9	261.40	20.75	1409.65	15.8	536	7.1	.1	40.0	.4	--	--
24...	1306	9	261.40	--	--	--	--	--	--	--	--	200	188
24...	1310	7	261.40	20.75	1409.65	15.8	536	7.1	.1	40.0	.4	--	--
APR													
06...	1140	9	261.40	20.66	1409.74	15.4	517	7.0	.2	160	.3	--	--
06...	1141	9	261.40	--	--	--	--	--	--	--	--	200	187
06...	1145	9	261.40	20.66	1409.74	15.4	517	7.0	.2	160	.3	--	--
09...	1135	9	261.40	20.18	1410.22	15.8	513	7.1	.1	150	.3	--	--
09...	1136	9	261.40	--	--	--	--	--	--	--	--	200	194
09...	1140	7	261.40	20.18	1410.22	15.8	513	7.1	.1	150	.3	--	--
16...	1140	9	261.40	23.84	1406.56	15.8	519	7.3	.1	120	.2	--	--
16...	1141	9	261.40	--	--	--	--	--	--	--	--	200	188
20...	1135	9	261.40	21.58	1408.82	15.8	521	7.1	.1	150	.3	--	--
20...	1136	9	261.40	--	--	--	--	--	--	--	--	200	192
MAY													
06...	1150	9	261.40	22.14	1408.26	16.0	528	7.4	.1	140	.1	--	--
06...	1151	9	261.40	--	--	--	--	--	--	--	--	200	192
06...	1155	7	261.40	22.14	1408.26	16.0	528	7.4	.1	140	.1	--	--
20...	1140	9	261.40	20.57	1409.83	16.0	519	7.1	M	160	.4	--	--
20...	1141	9	261.40	--	--	--	--	--	--	--	--	200	192
20...	1145	7	261.40	20.57	1409.83	16.0	519	7.1	M	160	.4	--	--
JUN													
25...	1145	9	261.40	23.29	1407.11	16.2	532	7.5	.2	150	.5	--	--
25...	1146	9	261.40	--	--	--	--	--	--	--	--	200	192
25...	1150	9	261.40	23.29	1407.11	16.2	532	7.5	.2	150	.5	--	--
25...	1155	7	261.40	23.29	1407.11	16.2	532	7.5	.2	150	.5	--	--
JUL													
08...	1205	9	261.40	23.95	1406.45	16.6	522	7.2	.1	260	.3	--	--
08...	1206	9	261.40	--	--	--	--	--	--	--	--	190	193
08...	1210	7	261.40	23.95	1406.45	16.6	522	7.2	.1	260	.3	--	--
13...	1155	9	261.40	23.90	1406.50	16.6	522	7.2	.1	180	.4	--	--
13...	1156	9	261.40	--	--	--	--	--	--	--	--	190	192
13...	1200	7	261.40	23.90	1406.50	16.6	522	7.2	.1	180	.4	--	--
20...	1240	9	261.40	24.08	1406.32	16.6	515	7.0	.2	170	.4	--	--
20...	1241	9	261.40	--	--	--	--	--	--	--	--	190	195
20...	1245	7	261.40	24.08	1406.32	16.6	515	7.0	.2	170	.4	--	--
AUG													
18...	1145	9	261.40	27.20	1403.20	16.3	496	7.1	.1	160	.1	--	--
18...	1146	9	261.40	--	--	--	--	--	--	--	--	180	188
18...	1150	7	261.40	27.20	1403.20	16.3	496	7.1	.1	160	.1	--	--
NOV													
18...	1135	9	261.40	20.73	1409.67	15.7	488	7.4	.1	160	.6	--	--
18...	1136	9	261.40	--	--	--	--	--	--	--	--	--	--
18...	1140	7	261.40	20.73	1409.67	15.7	488	7.4	.1	160	.6	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Temper- ature, water, deg C (00010)	Specif- ic conduc- tance, wat unfltrd uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)	Bicar- bonate, wat flt infl pt titr., lab, mg/L (29806)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1030	9	56.98	9.24	15.9	1270	6.5	.2	140	.4	--	--	--
07...	1031	9	56.98	--	--	--	--	--	--	--	490	162	200
07...	1035	9	56.98	9.24	15.9	1270	6.5	.2	140	.4	--	--	--
JUL													
16...	0950	9	56.98	10.45	16.8	1100	6.3	.4	140	.5	--	--	--
16...	0951	9	56.98	--	--	--	--	--	--	--	420	167	200
16...	0955	9	56.98	10.45	16.8	1100	6.3	.4	140	.5	--	--	--
16...	1000	7	56.98	10.45	16.8	1100	6.3	.4	140	.5	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1150	9	259.25	43.83	16.7	582	6.8	.4	300	12	--	--	--
07...	1151	9	259.25	--	--	--	--	--	--	--	180	198	240
07...	1155	9	259.25	43.83	16.7	582	6.8	.4	300	12	--	--	--
JUL													
16...	1145	9	259.25	20.82	17.2	905	6.6	.2	160	3.2	--	--	--
16...	1146	9	259.25	--	--	--	--	--	--	--	310	208	250
16...	1150	9	259.25	20.82	17.2	905	6.6	.2	160	3.2	--	--	--
16...	1155	7	259.25	20.82	17.2	905	6.6	.2	160	3.2	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1025	9	59.43	10.16	14.2	687	6.9	.1	120	.7	--	--	--
11...	1026	9	59.43	--	--	--	--	--	--	--	190	100	120
11...	1030	7	59.43	10.16	14.2	687	6.9	.1	120	.7	--	--	--
JUL													
16...	1000	9	59.43	11.82	17.4	566	7.3	<.01	110	.6	--	--	--
16...	1001	9	59.43	--	--	--	--	--	--	--	140	112	140
16...	1005	9	59.43	11.82	17.4	566	7.3	<.01	110	.6	--	--	--
16...	1010	7	59.43	11.82	17.4	566	7.3	<.01	110	.6	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1150	9	255.80	57.55	16.5	549	7.2	.1	240	.5	--	--	--
11...	1151	9	255.80	--	--	--	--	--	--	--	200	221	270
11...	1155	7	255.80	57.55	16.5	549	7.2	.1	240	.5	--	--	--
JUL													
16...	1140	9	255.80	22.67	16.6	543	7.4	.1	280	.6	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Suspended solids, water, unfltrd mg/L (00530)	Dis-solved solids dried @ 180degC wat flt mg/L (70300)	Total solids dried at 105degC wat unfl mg/L (00500)	Triazine screen, wat flt ELISA, ug/L as atrazin (34756)	Fecal coli-form, M-FC 0.7u MF col/ 100 mL (31625)	Total coli-form, LesEndo immed, col/ 100 mL (31504)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)										
MAY 2009										
07...	--	--	--	--	--	--	--	<.10	Elk	--
07...	<.02	11	9050	735	9	856	936	--	<1	<1
07...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	<.10	--	--
16...	.02	11	7860	642	5	745	776	--	<1	<1
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)										
MAY 2009										
07...	--	--	--	--	--	--	--	<.10	--	--
07...	.03	3	<100	36.0	4	319	362	--	<1	<1
07...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	<.10	--	--
16...	.04	3	<100	36.0	<4	531	568	--	<1	<1
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)										
MAY 2009										
11...	--	--	--	--	--	--	--	.32	Elk	--
11...	<.02	4	1550	215	<4	408	428	--	<1	<1
11...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	.18	--	--
16...	.04	6	1180	168	<4	313	334	--	<1	<1
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)										
MAY 2009										
11...	--	--	--	--	--	--	--	<.10	--	--
11...	.03	2	<100	157	<4	340	344	--	<1	<1
11...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	<.10	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Temper- ature, water, deg C (00010)	Specif- ic conduc- tance, wat unf uS/cm @ 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Dis- solved oxygen, mg/L (00300)	Redox poten- tial, rel to SHE, mV (63002)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Hard- ness, water, mg/L as CaCO3 (00900)	Alka- linity, wat flt inf tit lab, mg/L as CaCO3 (39087)	Bicar- bonate, wat flt infl pt titr., lab, mg/L (29806)
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
JUL 2009													
16...	1141	9	255.80	--	--	--	--	--	--	--	180	221	270
16...	1145	9	255.80	22.67	16.6	543	7.4	.1	280	.6	--	--	--
16...	1150	7	255.80	22.67	16.6	543	7.4	.1	280	.6	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Suspended solids, water, unfltrd, mg/L (00530)	Dis-solved solids, dried @ 180degC, wat flt, mg/L (70300)	Total solids, dried at 105degC, wat unf, mg/L (00500)	Fecal coli-form, M-FC, col/100 mL (31625)	Total coli-form, LesEndo, immed, col/100 mL (31504)
------	--	------------------------------------	----------------------------------	---------------------------------------	--	---	---	---	---

375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)

JUL 2009									
16...	.03	3	<100	157	<4	324	328	<1	<1
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.
 E -- Estimated.
 M -- Presence verified but not quantified.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Total solids dried at 105degC wat unf mg/L (00500)	Alum- inum, water, fltrd, ug/L (01106)	Organic carbon, water, unfltrd mg/L (00680)	Beryll- ium, water, fltrd, ug/L (01010)	Chrom- ium, water, fltrd, ug/L (01030)	Lead, water, fltrd, ug/L (01049)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Thall- ium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	Anti- mony, water, fltrd, ug/L (01095)
380329097363706 23S 03W 12CCCC06 RRW-01 SOURCE WATER (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	18...	1125	9	--	--	--	--	--	--	--	--	--	--
	18...	1126	9	240	<20	1.15	<1.0	<10	<1.00	<1.0	<10	<2	23
	18...	1130	9	--	--	--	--	--	--	--	--	--	--
	18...	1135	7	--	--	--	--	--	--	--	--	--	--
380235097364004 23S 03W 23AAAA04 RRW-02 SOURCE WATER (LAT 38 02 35N LONG 097 36 40W)													
JUN 2009	18...	1345	9	--	--	--	--	--	--	--	--	--	--
	18...	1346	9	224	<20	.65	<1.0	<10	<1.00	<1.0	<10	<2	21
	18...	1350	9	--	--	--	--	--	--	--	--	--	--
	18...	1355	7	--	--	--	--	--	--	--	--	--	--
380145097363604 23S 03W 24CCCC04 RRW-03 SOURCE WATER (LAT 38 01 45N LONG 097 36 36W)													
JUN 2009	24...	1030	9	--	--	--	--	--	--	--	--	--	--
	24...	1031	9	232	<20	.57	<1.0	<10	<1.00	<1.0	<10	<2	19
	24...	1035	9	--	--	--	--	--	--	--	--	--	--
	24...	1040	7	--	--	--	--	--	--	--	--	--	--
380050097363604 23S 03W 36BBBB04 RW-01 SOURCE WATER (LAT 38 00 50N LONG 097 36 36W)													
JUN 2009	24...	1230	9	--	--	--	--	--	--	--	--	--	--
	24...	1231	9	228	<20	.60	<1.0	<10	<1.00	<1.0	<10	<2	19
	24...	1235	9	--	--	--	--	--	--	--	--	--	--
	24...	1240	7	--	--	--	--	--	--	--	--	--	--
375954097363803 24S 03W 02AAAA03 RB-01 SOURCE WATER (LAT 37 59 54N LONG 097 36 38W)													
APR 2009	03...	1215	9	--	--	--	--	--	--	--	--	--	--
	03...	1216	9	--	--	6.62	--	--	--	--	--	--	--
	03...	1220	7	--	--	--	--	--	--	--	--	--	--
	14...	1140	9	--	--	--	--	--	--	--	--	--	--
	14...	1141	9	--	--	11.9	--	--	--	--	--	--	--
	17...	1110	9	--	--	--	--	--	--	--	--	--	--
	17...	1111	9	--	--	8.16	--	--	--	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Total solids dried at 105degC wat mg/L (00500)	Alum-inum, water, fltrd, ug/L (01106)	Organic carbon, water, unfltrd mg/L (00680)	Beryll-ium, water, fltrd, ug/L (01010)	Chrom-ium, water, fltrd, ug/L (01030)	Lead, water, fltrd, ug/L (01049)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Thall-ium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	Anti-mony, water, fltrd, ug/L (01095)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)													
JUL 2009	10...	9	--	--	--	--	--	--	--	--	--	--	--
	10...	9	176	<20	.45	<1.0	<10	<1.00	<1.0	<10	<2	<5	<2
	10...	9	--	--	--	--	--	--	--	--	--	--	--
	10...	7	--	--	--	--	--	--	--	--	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)													
JUN 2009	22...	9	--	--	--	--	--	--	--	--	--	--	--
	22...	9	184	<20	.43	<1.0	<10	<1.00	1.0	<10	<2	17	<2
	22...	9	--	--	--	--	--	--	--	--	--	--	--
	22...	7	--	--	--	--	--	--	--	--	--	--	--
	22...	7	188	<20	.46	<1.0	<10	<1.00	1.1	<10	<2	17	<2
	22...	7	--	--	--	--	--	--	--	--	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	04...	9	--	--	--	--	--	--	--	--	--	--	--
	04...	9	--	--	--	--	--	--	--	--	--	--	--
	04...	7	--	--	--	--	--	--	--	--	--	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)													
JUN 2009	04...	9	--	--	--	--	--	--	--	--	--	--	--
	04...	9	--	--	--	--	--	--	--	--	--	--	--
	04...	7	--	--	--	--	--	--	--	--	--	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)													
JUN 2009	23...	9	--	--	--	--	--	--	--	--	--	--	--
	23...	9	248	<20	.65	<1.0	<10	<1.00	<1.0	<10	<2	19	<2
	23...	9	--	--	--	--	--	--	--	--	--	--	--
	23...	7	--	--	--	--	--	--	--	--	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)													
JUN 2009	23...	9	--	--	--	--	--	--	--	--	--	--	--
	23...	9	242	<20	.54	<1.0	<10	<1.00	<1.0	<10	<2	18	<2

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Barium, water, fltrd, ug/L (01005)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Mercury water, fltrd, ug/L (71890)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vana- dium, water, fltrd, ug/L (01085)	Cyanide water, fltrd, mg/L (00723)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)									
JUL 2009									
10...	--	--	--	--	--	--	--	--	--
10...	194	<20	<1.00	<5	<.10	<2	182	<5	<.01
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)									
JUN 2009									
22...	--	--	--	--	--	--	--	--	--
22...	225	<20	<1.00	<5	<.10	<2	194	<5	<.01
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	225	<20	<1.00	<5	<.10	<2	195	<5	<.01
22...	--	--	--	--	--	--	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)									
JUN 2009									
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)									
JUN 2009									
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)									
JUN 2009									
23...	--	--	--	--	--	--	--	--	--
23...	90.0	<20	<1.00	<5	<.10	<2	314	<5	<.01
23...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)									
JUN 2009									
23...	--	--	--	--	--	--	--	--	--
23...	116	27	<1.00	<5	<.10	<2	283	<5	<.01

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Barium, water, fltrd, ug/L (01005)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Mercury water, fltrd, ug/L (71890)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vana- dium, water, fltrd, ug/L (01085)	Cyanide water, fltrd, mg/L (00723)
------	--	---	--	--	--	---	--	---	--

375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)

JUL 2009									
16...	72.0	21	<1.00	<5	<.10	<2	566	<5	<.01
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than.

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	1-Naph-thol, water, fltrd 0.7u GF ug/L (49295)	Ter-buthyl-azine, water, fltrd ug/L (04022)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)				
JUL 2009				
10...	<.08	<.09mc	--	<.006mc
10...	--	--	--	--
10...	--	--	--	--
10...	--	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)				
JUN 2009				
22...	<.08	<.09mc	<.01	<.006mc
22...	--	--	--	--
22...	--	--	--	--
22...	<.08	<.09mc	<.01	<.006mc
22...	--	--	--	--
22...	--	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)				
JUN 2009				
04...	--	--	--	--
04...	--	--	--	--
04...	--	--	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)				
JUN 2009				
04...	--	--	--	--
04...	--	--	--	--
04...	--	--	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)				
JUN 2009				
23...	<.08	<.09mc	<.01	<.006mc
23...	--	--	--	--
23...	--	--	--	--
23...	--	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)				
JUN 2009				
23...	<.08	<.09mc	<.01	<.006mc
23...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	1-Naph-thol, water, fltrd 0.7u GF ug/L (49295)	Ter-buthyl-azine, water, fltrd ug/L (04022)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)				
JUN 2009				
23...	--	--	--	--
23...	--	--	--	--
380148097363801 23S 03W 23DDDD01 RR3-MN-1 (LAT 38 01 48N LONG 097 36 37W)				
JUN 2009				
22...	<.08	<.09mc	<.01	<.006mc
22...	--	--	--	--
22...	--	--	--	--
22...	--	--	--	--
380142097363702 23S 03W 25BBBB02 RR3-MS-1 (LAT 38 01 41N LONG 097 36 37W)				
JUN 2009				
22...	<.08	<.09mc	<.01	<.006mc
22...	--	--	--	--
22...	--	--	--	--
22...	--	--	--	--
380056097363801 23S 03W 26DDDD01 RR4-MN (LAT 38 00 56N LONG 097 36 37W)				
JUN 2009				
24...	<.08	<.09mc	<.01	<.006mc
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
380042097363701 23S 03W 36BBBC01 RR4-MS (LAT 38 00 42N LONG 097 36 37W)				
JUN 2009				
24...	<.08	<.09mc	<.01	<.006mc
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)				
FEB 2009				
09...	--	--	--	--
09...	--	--	--	--
APR				
01...	--	--	--	--
01...	--	--	--	--
01...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
------	--	---	--	---

375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)

APR 2009				
21...	--	--	--	--
21...	--	--	--	--
JUN				
25...	<.08	<.09mc	<.01	<.006mc
25...	--	--	--	--
25...	--	--	--	--
25...	--	--	--	--
JUL				
14...	--	--	--	--
14...	--	--	--	--
14...	--	--	--	--
AUG				
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)

FEB 2009				
09...	--	--	--	--
09...	--	--	--	--
APR				
01...	--	--	--	--
01...	--	--	--	--
01...	--	--	--	--
21...	--	--	--	--
21...	--	--	--	--
01...	--	--	--	--
JUN				
25...	<.08	<.09mc	<.01	<.006mc
25...	--	--	--	--
25...	--	--	--	--
25...	<.08	<.09mc	<.01	<.006mc
25...	--	--	--	--
25...	--	--	--	--
JUL				
14...	--	--	--	--
14...	--	--	--	--
14...	--	--	--	--
AUG				
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
------	--	---	--	---

375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)

NOV 2009
 18... -- -- -- --
 18... -- -- -- --

375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)

FEB 2009
 04... -- -- -- --
 04... -- -- -- --

MAR
 24... -- -- -- --
 24... -- -- -- --
 24... -- -- -- --

APR
 06... -- -- -- --
 06... -- -- -- --
 06... -- -- -- --
 09... -- -- -- --
 09... -- -- -- --
 09... -- -- -- --
 16... -- -- -- --
 16... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

MAY
 06... -- -- -- --
 06... -- -- -- --
 06... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

JUN
 25... <.08 <.09mc <.01 <.006mc
 25... -- -- -- --
 25... -- -- -- --
 25... -- -- -- --

JUL
 08... -- -- -- --
 08... -- -- -- --
 08... -- -- -- --
 13... -- -- -- --
 13... -- -- -- --
 13... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

AUG
 18... -- -- -- --
 18... -- -- -- --

18...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	1-Naph-thol, water, fltrd 0.7u GF ug/L (49295)	Ter-buthyl-azine, water, fltrd ug/L (04022)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)
------	--	---	---	---

375954097363802 24S 03W 02AADA02 RB1-MS DEEP (LAT 37 59 54N LONG 097 36 38W)

FEB 2009				
04...	--	--	--	--
04...	--	--	--	--
MAR				
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
APR				
06...	--	--	--	--
06...	--	--	--	--
06...	--	--	--	--
09...	--	--	--	--
09...	--	--	--	--
09...	--	--	--	--
16...	--	--	--	--
16...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
MAY				
06...	--	--	--	--
06...	--	--	--	--
06...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
JUN				
25...	<.08	<.09mc	<.01	<.006mc
25...	--	--	--	--
25...	--	--	--	--
25...	--	--	--	--
JUL				
08...	--	--	--	--
08...	--	--	--	--
08...	--	--	--	--
13...	--	--	--	--
13...	--	--	--	--
13...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
AUG				
18...	--	--	--	--
18...	--	--	--	--
18...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	alpha- HCH, water, fltrd, ug/L (34253)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	2,6-Di- ethyl- aniline water, fltrd 0.7u GF ug/L (82660)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1030	9	56.98	9.24	--	--	--	--	--	--	--	--	--
07...	1031	9	56.98	--	--	--	--	--	--	--	--	--	--
07...	1035	9	56.98	9.24	--	--	--	--	--	--	--	--	--
JUL													
16...	0950	9	56.98	10.45	<.008	<.010	<.008	<.006	<.007	<.120mc	<.014	<.002	<.200mc
16...	0951	9	56.98	--	--	--	--	--	--	--	--	--	--
16...	0955	9	56.98	10.45	--	--	--	--	--	--	--	--	--
16...	1000	7	56.98	10.45	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1150	9	259.25	43.83	--	--	--	--	--	--	--	--	--
07...	1151	9	259.25	--	--	--	--	--	--	--	--	--	--
07...	1155	9	259.25	43.83	--	--	--	--	--	--	--	--	--
JUL													
16...	1145	9	259.25	20.82	<.008	<.010	<.008	<.006	<.007	<.120mc	<.014	<.002	<.200mc
16...	1146	9	259.25	--	--	--	--	--	--	--	--	--	--
16...	1150	9	259.25	20.82	--	--	--	--	--	--	--	--	--
16...	1155	7	259.25	20.82	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1025	9	59.43	10.16	--	--	--	--	--	--	--	--	--
11...	1026	9	59.43	--	--	--	--	--	--	--	--	--	--
11...	1030	7	59.43	10.16	--	--	--	--	--	--	--	--	--
JUL													
16...	1000	9	59.43	11.82	<.008	<.010	E.008n	<.006	.211	<.120mc	<.014	<.002	<.200mc
16...	1001	9	59.43	--	--	--	--	--	--	--	--	--	--
16...	1005	9	59.43	11.82	--	--	--	--	--	--	--	--	--
16...	1010	7	59.43	11.82	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1150	9	255.80	57.55	--	--	--	--	--	--	--	--	--
11...	1151	9	255.80	--	--	--	--	--	--	--	--	--	--
11...	1155	7	255.80	57.55	--	--	--	--	--	--	--	--	--
JUL													
16...	1140	9	255.80	22.67	<.008	<.010	<.008	<.006	<.007	<.120mc	<.014	<.002	<.200mc

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyana- zine, water, fltrd ug/L (04041)	DCPA, water, fltrd ug/L (82682)	CIAT, water, fltrd ug/L (04040)	Diazi- non, water, fltrd ug/L (39572)	Diazi- non-d10 surrog. wat flt 0.7u GF percent recovry ug/L (91063)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd ug/L (82668)	Ethal- flur- alin, water, fltrd ug/L (82663)	Etho- prop, water, fltrd ug/L (82672)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.060mc	<.010	<.014	<.040	<.006	<.014mc	<.005	96.6	<.009	<.04mc	<.002	<.009	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.060mc	<.010	<.014	<.040	<.006	<.014mc	<.005	90.0	<.009	<.04mc	<.002	<.009	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.060mc	<.010	<.014	<.040	<.006	E.042mc	<.005	113	<.009	<.04mc	<.002	<.009	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.060mc	<.010	<.014	<.040	<.006	<.014mc	<.005	89.4	<.009	<.04mc	<.002	<.009	<.016

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Desulf- inyl- fipro- nil, water, fltrd, ug/L (62170)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovry ug/L (91065)	Lindane water, fltrd, ug/L (39341)	Linuron water, fltrd, 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd, 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.029mc	<.013	<.024	<.012	<.040mc	<.010	98.8	<.014	<.060	<.020	<.008	<.014	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.029mc	<.013	<.024	<.012	<.040mc	<.010	99.1	<.014	<.060	<.020	<.008	<.014	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.029mc	<.013	<.024	<.012	<.040mc	<.010	98.8	<.014	<.060	<.020	<.008	.130	<.016
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
16...	<.029mc	<.013	<.024	<.012	<.040mc	<.010	97.6	<.014	<.060	<.020	<.008	<.014	<.016

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Molin- ate, water, fltrd 0.7u GF (82671) ug/L	Naprop- amide, water, fltrd 0.7u GF (82684) ug/L	p,p'- DDE, water, fltrd (34653) ug/L	Para- thion, water, fltrd (39542) ug/L	Peb- ulate, water, fltrd 0.7u GF (82669) ug/L	Pendi- meth- alin, water, fltrd 0.7u GF (82683) ug/L	Phorate water, fltrd 0.7u GF (82664) ug/L	Prome- ton, water, fltrd (04037) ug/L	Propy- zamide, water, fltrd 0.7u GF (82676) ug/L	Propa- chlor, water, fltrd (04024) ug/L	Pro- panil, water, fltrd 0.7u GF (82679) ug/L	Propar- gite, water, fltrd 0.7u GF (82685) ug/L	Sima- zine, water, fltrd (04035) ug/L
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.002	<.018	<.003	<.020	<.016	<.012	<.020	<.01	<.004	<.012	<.014	<.02	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
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07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.002	<.018	<.003	<.020	<.016	<.012	<.020	<.01	<.004	<.012	<.014	<.02	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.002	<.018	<.003	<.020	<.016	<.012	<.020	<.01	<.004	<.012	<.014	<.02	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.002	<.018	<.003	<.020	<.016	<.012	<.020	<.01	<.004	<.012	<.014	<.02	<.010

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	2,4,5-T surrog, water, fltrd, percent recovry (99958)	2,4-D, water, fltrd, ug/L (39732)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-DB, water, fltrd 0.7u GF ug/L (38746)	OIET, water, fltrd, ug/L (50355)	N-(4- Chloro- phenyl) -N'- methyl- urea, ug/L (61692)	Aci- fluor- fen, water, fltrd 0.7u GF ug/L (49315)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.040mc	<.02	<.016	<.006	<.012	E104	<.06	<.200	<.02	<.060	<.06	<.040
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.040mc	<.02	<.016	<.006	<.012	E119	<.06	<.200	<.02	<.060	<.06	<.040
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.040mc	<.02	<.016	<.006	<.012	E95.5	<.06	<.200	<.02	<.060	<.06	<.040
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.040mc	<.02	<.016	<.006	<.012	E102	<.06	<.200	<.02	<.060	<.06	<.040

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
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PROCESS DATE 12-10-09

Date	Aldi-carb, water, fltrd 0.7u GF (49312)	Aldi-carb sulfone water, fltrd 0.7u GF (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF (49314)	Chlor-amben methyl ester, water, fltrd (61188)	Barban, surrog, Sched. 2060/ 9060, wat flt % recvy (90640)	Bendio-carb, water, fltrd (50299)	Benomyl water, fltrd (50300)	Bensul-furon-methyl, water, fltrd (61693)	Ben-tazon, water, fltrd 0.7u GF (38711)	Broma-cil, water, fltrd (04029)	Brom-oxynil, water, fltrd 0.7u GF (49311)	Caf-feine, water, fltrd (50305)	Caf-feine-13C, surrog, wat flt percent recovery (99959)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.12mc	<.08	<.060mc	<.10	57.7	<.04	<.060mc	<.06	<.06	<.06	<.12mc	<.080	E52.9
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.12mc	<.08	<.060mc	<.10	72.9	<.04	<.060mc	<.06	<.06	<.06	<.12mc	<.080	E52.7
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.12mc	<.08	<.060mc	<.10	57.3	<.04	<.060mc	<.06	<.06	<.06	<.12mc	<.080	E42.6
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.12mc	<.08	<.060mc	<.10	67.0	<.04	<.060mc	<.06	<.06	<.06	<.12mc	<.080	E61.5

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
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PROCESS DATE 12-10-09

Date	Car- baryl, water, fltrd 0.7u GF ug/L (49310)	Carbo- furan, water, fltrd 0.7u GF ug/L (49309)	3- Hydroxy carbo- furan, wat flt 0.7u GF ug/L (49308)	Chlori- muron- ethyl, water, fltrd, ug/L (50306)	Clopyr- alid, water, fltrd 0.7u GF ug/L (49305)	Cyclo- ate, water, fltrd, ug/L (04031)	Dacthal mono- acid, water, fltrd 0.7u GF ug/L (49304)	CEAT, water, fltrd, ug/L (04038)	Dicamba water, fltrd 0.7u GF ug/L (38442)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen- amid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF ug/L (49300)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.04	<.040	<.040	<.080mc	<.06mc	<.04	<.04	<.06	<.04	<.04	<.04	<.04	<.04
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.04	<.040	<.040	<.080mc	<.06mc	<.04	<.04	<.06	<.04	<.04	<.04	<.04	<.04
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.04	<.040	<.040	<.080mc	<.06mc	<.04	<.04	<.06	<.04	<.04	<.04	<.04	<.04
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.04	<.040	<.040	<.080mc	<.06mc	<.04	<.04	<.06	<.04	<.04	<.04	<.04	<.04

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Fenuron water, fltrd 0.7u GF ug/L (49297)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water, fltrd 0.7u GF ug/L (38811)	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- cloprid water, fltrd, ug/L (61695)	Linuron water, fltrd 0.7u GF ug/L (38478)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd, ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul- furon- methyl, water, fltrd, ug/L (61697)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
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07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.06mc	<.06mc	<.04	E.01mtc	<.06	<.060	<.04	<.04	<.20	<.04	<.040	<.120mc	<.14mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.06mc	<.06mc	<.04	E.01mtc	<.06	<.060	<.04	<.04	<.20	<.04	<.040	<.120mc	<.14mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.06mc	<.06mc	<.04	<.06mc	<.06	<.060	<.04	<.04	<.20	<.04	<.040	<.120mc	<.14mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.06mc	<.06mc	<.04	<.06mc	<.06	<.060	<.04	<.04	<.20	<.04	<.040	<.120mc	<.14mc

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Propham water, fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron- methyl, water, fltrd, ug/L (50337)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.10mc	<.04	<.04	<.12mc	<.12mc	<.040	<.04	<.060	<.04	<.060mc	<.040	<.08
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.10mc	<.04	<.04	<.12mc	<.12mc	<.040	<.04	<.060	<.04	<.060mc	<.040	<.08
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.10mc	<.04	<.04	<.12mc	<.12mc	<.040	<.04	<.060	<.04	<.060mc	<.040	<.08
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.02	<.10mc	<.04	<.04	<.12mc	<.12mc	<.040	<.04	<.060	<.04	<.060mc	<.040	<.08

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
MISCELLANEOUS STATION ANALYSES

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
------	---	---

375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
MAY 2009		
07...	--	--
07...	--	--
07...	--	--
JUL		
16...	<.09mc	<.006mc
16...	--	--
16...	--	--
16...	--	--

375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
MAY 2009		
07...	--	--
07...	--	--
07...	--	--
JUL		
16...	--	--
16...	--	--
16...	--	--
16...	--	--

375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
MAY 2009		
11...	--	--
11...	--	--
11...	--	--
JUL		
16...	<.09mc	<.006mc
16...	--	--
16...	--	--
16...	--	--

375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)
MAY 2009		
11...	--	--
11...	--	--
11...	--	--
JUL		
16...	<.09mc	<.006mc

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)				
JUL 2009				
16...	1141	9	255.80	--
16...	1145	9	255.80	22.67
16...	1150	7	255.80	22.67

Remark codes used in this table:

< -- Less than.
E -- Estimated.

Value qualifier codes used in this table:

c -- See result laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL
t -- Below the long-term MDL

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)				
JUL 2009				
10...	<.2	<.2	<.1	<.2
10...	--	--	--	--
10...	--	--	--	--
10...	--	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)				
JUN 2009				
22...	<.2	<.2	<.1	<.2
22...	--	--	--	--
22...	--	--	--	--
22...	<.2	<.2	<.1	<.2
22...	--	--	--	--
22...	--	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)				
JUN 2009				
04...	--	--	--	--
04...	--	--	--	--
04...	--	--	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)				
JUN 2009				
04...	--	--	--	--
04...	--	--	--	--
04...	--	--	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)				
JUN 2009				
23...	<.2	<.2	<.1	<.2
23...	--	--	--	--
23...	--	--	--	--
23...	--	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)				
JUN 2009				
23...	<.2	<.2	<.1	<.2
23...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)				
JUN 2009				
23...	--	--	--	--
23...	--	--	--	--
380148097363801 23S 03W 23DDDD01 RR3-MN-1 (LAT 38 01 48N LONG 097 36 37W)				
JUN 2009				
22...	<.2	<.2	<.1	<.2
22...	--	--	--	--
22...	--	--	--	--
22...	--	--	--	--
380142097363702 23S 03W 25BBBB02 RR3-MS-1 (LAT 38 01 41N LONG 097 36 37W)				
JUN 2009				
22...	<.2	<.2	<.1	<.2
22...	--	--	--	--
22...	--	--	--	--
22...	--	--	--	--
380056097363801 23S 03W 26DDDD01 RR4-MN (LAT 38 00 56N LONG 097 36 37W)				
JUN 2009				
24...	<.2	<.2	<.1	<.2
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
380042097363701 23S 03W 36BBBC01 RR4-MS (LAT 38 00 42N LONG 097 36 37W)				
JUN 2009				
24...	<.2	<.2	<.1	<.2
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)				
FEB 2009				
09...	--	--	--	--
09...	--	--	--	--
APR				
01...	--	--	--	--
01...	--	--	--	--
01...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
------	---	--	---	---

375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)

APR 2009				
21...	--	--	--	--
21...	--	--	--	--
JUN				
25...	<.2	<.2	<.1	<.2
25...	--	--	--	--
25...	--	--	--	--
25...	--	--	--	--
JUL				
14...	--	--	--	--
14...	--	--	--	--
14...	--	--	--	--
AUG				
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)

FEB 2009				
09...	--	--	--	--
09...	--	--	--	--
APR				
01...	--	--	--	--
01...	--	--	--	--
01...	--	--	--	--
21...	--	--	--	--
21...	--	--	--	--
01...	--	--	--	--
JUN				
25...	<.2	<.2	<.1	<.2
25...	--	--	--	--
25...	--	--	--	--
25...	<.2	<.2	<.1	<.2
25...	--	--	--	--
25...	--	--	--	--
JUL				
14...	--	--	--	--
14...	--	--	--	--
14...	--	--	--	--
AUG				
19...	--	--	--	--
19...	--	--	--	--
19...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
------	---	--	---	---

375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)

NOV 2009
 18... -- -- -- --
 18... -- -- -- --

375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)

FEB 2009
 04... -- -- -- --
 04... -- -- -- --

MAR
 24... -- -- -- --
 24... -- -- -- --
 24... -- -- -- --

APR
 06... -- -- -- --
 06... -- -- -- --
 06... -- -- -- --
 09... -- -- -- --
 09... -- -- -- --
 09... -- -- -- --
 16... -- -- -- --
 16... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

MAY
 06... -- -- -- --
 06... -- -- -- --
 06... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

JUN
 25... <.2 <.2 <.1 <.2
 25... -- -- -- --
 25... -- -- -- --
 25... -- -- -- --

JUL
 08... -- -- -- --
 08... -- -- -- --
 08... -- -- -- --
 13... -- -- -- --
 13... -- -- -- --
 13... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --
 20... -- -- -- --

AUG
 18... -- -- -- --
 18... -- -- -- --

18...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
------	---	--	---	---

375954097363802 24S 03W 02AADA02 RB1-MS DEEP (LAT 37 59 54N LONG 097 36 38W)

FEB 2009				
04...	--	--	--	--
04...	--	--	--	--
MAR				
24...	--	--	--	--
24...	--	--	--	--
24...	--	--	--	--
APR				
06...	--	--	--	--
06...	--	--	--	--
06...	--	--	--	--
09...	--	--	--	--
09...	--	--	--	--
09...	--	--	--	--
16...	--	--	--	--
16...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
MAY				
06...	--	--	--	--
06...	--	--	--	--
06...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
JUN				
25...	<.2	<.2	<.1	<.2
25...	--	--	--	--
25...	--	--	--	--
25...	--	--	--	--
JUL				
08...	--	--	--	--
08...	--	--	--	--
08...	--	--	--	--
13...	--	--	--	--
13...	--	--	--	--
13...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
AUG				
18...	--	--	--	--
18...	--	--	--	--
18...	--	--	--	--
NOV				
18...	--	--	--	--
18...	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
 MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Acrylo- nitrile water, unfltrd ug/L (34215)	Benzene water, unfltrd ug/L (34030)	1,2,3- Tri- chloro- benzene water, unfltrd ug/L (77613)	1,2,4- Tri- chloro- benzene water, unfltrd ug/L (34551)	14Bromo fluoro- benzene surrog. wat unfl % recvy (99834)	Bromo- benzene water, unfltrd ug/L (81555)	Chloro- benzene water, unfltrd ug/L (34301)	Ethyl- benzene water, unfltrd ug/L (34371)	1,3-Di- chloro- benzene water, unfltrd ug/L (34566)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1030	9	56.98	9.24	--	--	--	--	--	--	--	--	--
07...	1031	9	56.98	--	--	--	--	--	--	--	--	--	--
07...	1035	9	56.98	9.24	--	--	--	--	--	--	--	--	--
JUL													
16...	0950	9	56.98	10.45	<2.5	<.1	<.2	<.2	75.3	<.2	<.1	<.1	<.1
16...	0951	9	56.98	--	--	--	--	--	--	--	--	--	--
16...	0955	9	56.98	10.45	--	--	--	<.2	--	--	--	--	<.2
16...	1000	7	56.98	10.45	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	1150	9	259.25	43.83	--	--	--	--	--	--	--	--	--
07...	1151	9	259.25	--	--	--	--	--	--	--	--	--	--
07...	1155	9	259.25	43.83	--	--	--	--	--	--	--	--	--
JUL													
16...	1145	9	259.25	20.82	<2.5	<.1	<.2	<.2	77.4	<.2	<.1	<.1	<.1
16...	1146	9	259.25	--	--	--	--	--	--	--	--	--	--
16...	1150	9	259.25	20.82	--	--	--	<.2	--	--	--	--	<.2
16...	1155	7	259.25	20.82	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1025	9	59.43	10.16	--	--	--	--	--	--	--	--	--
11...	1026	9	59.43	--	--	--	--	--	--	--	--	--	--
11...	1030	7	59.43	10.16	--	--	--	--	--	--	--	--	--
JUL													
16...	1000	9	59.43	11.82	<2.5	<.1	<.2	<.2	76.3	<.2	<.1	<.1	<.1
16...	1001	9	59.43	--	--	--	--	--	--	--	--	--	--
16...	1005	9	59.43	11.82	--	--	--	<.2	--	--	--	--	<.2
16...	1010	7	59.43	11.82	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	1150	9	255.80	57.55	--	--	--	--	--	--	--	--	--
11...	1151	9	255.80	--	--	--	--	--	--	--	--	--	--
11...	1155	7	255.80	57.55	--	--	--	--	--	--	--	--	--
JUL													
16...	1140	9	255.80	22.67	<2.5	<.1	<.2	<.2	76.0	<.2	<.1	<.1	<.1

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	n-Butyl benzene water, unfltrd ug/L (77342)	n-Propyl benzene water, unfltrd ug/L (77224)	1,2-Di-chloro-benzene water, unfltrd ug/L (34536)	1,4-Di-chloro-benzene water, unfltrd ug/L (34571)	sec-Butyl benzene water, unfltrd ug/L (77350)	tert-Butyl benzene water, unfltrd ug/L (77353)	Tri-bromo-methane water, unfltrd ug/L (32104)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Tetra-chloro-methane water, unfltrd ug/L (32102)	Tri-chloro-methane water, unfltrd ug/L (32106)	Iso-propyl-benzene water, unfltrd ug/L (77223)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	<.2	<.2	--	--	--	<.2	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	<.2	<.2	--	--	--	<.2	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	<.2	<.2	--	--	--	<.2	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	CFC-113 water, unfltrd ug/L (77652)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- ethane- d4, sur Sch2090 wat unfltrd % recvy (99832)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,1,2,2 -Tetra- chloro- ethane, water, unfltrd ug/L (34516)	Chloro- ethane, water, unfltrd ug/L (34311)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,3,5- Tri- methyl- benzene water, unfltrd ug/L (77226)	Bromo- chloro- methane water, unfltrd ug/L (77297)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	154	<.2	<.2	<.2	<.1	<.1	<.1	<.1	<.1	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	146	<.2	<.2	<.2	<.1	<.1	<.1	<.1	<.1	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	151	<.2	<.2	<.2	<.1	<.1	<.1	<.1	<.1	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	148	<.2	<.2	<.2	<.1	<.1	<.1	<.1	<.1	<.2	<.2

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
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PROCESS DATE 12-10-09

Date	Bromo- di- chloro- methane water, unfltrd ug/L (32101)	Di- bromo- chloro- methane water, unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Tri- chloro- fluoro- methane water, unfltrd ug/L (34488)	Bromo- methane water, unfltrd ug/L (34413)	Chloro- methane water, unfltrd ug/L (34418)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Di- bromo- methane water, unfltrd ug/L (30217)	Di- chloro- methane water, unfltrd ug/L (34423)	Naphth- alene, water, unfltrd ug/L (34696)	4-Iso- propyl- toluene water, unfltrd ug/L (77356)	1,2,3- Tri- chloro- propane water, unfltrd ug/L (77443)	1,3-Di- chloro- propane water, unfltrd ug/L (77173)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	<.2mc	<.2	<.4mc	<.2mc	<.2	<.2	<.2	<.5	<.2	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	<.32	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	<.2mc	<.2	<.4mc	<.2mc	<.2	<.2	<.2	<.5	<.2	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	<.32	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	<.2mc	<.2	<.4mc	<.2mc	<.2	<.2	<.2	<.5	<.2	<.2	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	<.32	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.1	<.2	<.2mc	<.2	<.4mc	<.2mc	<.2	<.2	<.2	<.5	<.2	<.2	<.2

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PROCESS DATE 12-10-09

Date	2,2-Di-chloro-propane water, unfltrd ug/L (77170)	Dibromo-chloro-propane water, unfltrd ug/L (82625)	1,1-Di-chloro-propene water, unfltrd ug/L (77168)	cis-1,3-Di-chloro-propene water, unfltrd ug/L (34704)	trans-1,3-Di-chloro-propene water, unfltrd ug/L (34699)	1,2-Di-chloro-propane water, unfltrd ug/L (34541)	1,2,4-Tri-methyl-benzene water, unfltrd ug/L (77222)	Styrene water, unfltrd ug/L (77128)	Toluene water, unfltrd ug/L (34010)	2-Chloro-toluene water, unfltrd ug/L (77275)	4-Chloro-toluene water, unfltrd ug/L (77277)	Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)	Vinyl chlor-ide, water, unfltrd ug/L (39175)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.1	<.1	<.2	<.2	94.4	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.1	<.1	<.2	<.2	92.8	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.1	<.1	<.2	<.2	94.6	<.2
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.1	<.1	<.2	<.2	92.7	<.2

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Date	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
------	--	---	---

375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)

Date	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
MAY 2009			
07...	--	--	--
07...	--	--	--
07...	--	--	--
JUL			
16...	<.2	<.1	<.2
16...	--	--	--
16...	--	--	--
16...	--	--	--

375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)

Date	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
MAY 2009			
07...	--	--	--
07...	--	--	--
07...	--	--	--
JUL			
16...	<.2	<.1	<.2
16...	--	--	--
16...	--	--	--
16...	--	--	--

375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)

Date	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
MAY 2009			
11...	--	--	--
11...	--	--	--
11...	--	--	--
JUL			
16...	<.2	<.1	<.2
16...	--	--	--
16...	--	--	--
16...	--	--	--

375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)

Date	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	Xylene, water, unfltrd ug/L (81551)
MAY 2009			
11...	--	--	--
11...	--	--	--
11...	--	--	--
JUL			
16...	<.2	<.1	<.2

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	1,2,4- Tri- chloro- benzene water, unfltrd ug/L (34551)	1,3-Di- chloro- benzene water, unfltrd ug/L (34566)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,4-Di- chloro- benzene water, unfltrd ug/L (34571)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Naphth- alene, water, unfltrd ug/L (34696)
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)										
JUL 2009										
16...	1141	9	255.80	--	--	--	--	--	--	--
16...	1145	9	255.80	22.67	<.2	<.2	<.2	<.2	<.2	<.32
16...	1150	7	255.80	22.67	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than.

Value qualifier codes used in this table:
 c -- See result laboratory comment
 m -- Value is highly variable by this method

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Alpha radio- activty water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
380329097363706 23S 03W 12CCCC06 RRW-01 SOURCE WATER (LAT 38 03 29N LONG 097 36 37W)				
JUN 2009				
18...	1125	9	R.5	2.2
18...	1126	9	--	--
18...	1130	9	--	--
18...	1135	7	--	--
380235097364004 23S 03W 23AAAA04 RRW-02 SOURCE WATER (LAT 38 02 35N LONG 097 36 40W)				
JUN 2009				
18...	1345	9	1.8	1.4
18...	1346	9	--	--
18...	1350	9	--	--
18...	1355	7	--	--
380145097363604 23S 03W 24CCCC04 RRW-03 SOURCE WATER (LAT 38 01 45N LONG 097 36 36W)				
JUN 2009				
24...	1030	9	R.2	1.7
24...	1031	9	--	--
24...	1035	9	--	--
24...	1040	7	--	--
380050097363604 23S 03W 36BBBB04 RW-01 SOURCE WATER (LAT 38 00 50N LONG 097 36 36W)				
JUN 2009				
24...	1230	9	R.4	1.8
24...	1231	9	--	--
24...	1235	9	--	--
24...	1240	7	--	--
375954097363803 24S 03W 02AAAA03 RB-01 SOURCE WATER (LAT 37 59 54N LONG 097 36 38W)				
APR 2009				
03...	1215	9	--	--
03...	1216	9	--	--
03...	1220	7	--	--
14...	1140	9	--	--
14...	1141	9	--	--
17...	1110	9	--	--
17...	1111	9	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)							
JUL 2009							
10...	0940	9	125.39	38.61	--	.6	2.8
10...	0941	9	125.39	--	--	--	--
10...	0945	9	125.39	38.61	--	--	--
10...	0950	7	125.39	38.61	--	--	--
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)							
JUN 2009							
22...	1055	9	101.76	29.36	--	1.0	1.6
22...	1056	9	101.76	--	--	--	--
22...	1100	9	101.76	29.36	--	--	--
22...	1105	7	101.76	29.36	--	1.7	2.1
22...	1106	7	101.76	--	--	--	--
22...	1110	7	101.76	29.36	--	--	--
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)							
JUN 2009							
04...	1010	9	26.95	6.65	1442.73	--	--
04...	1011	9	26.95	--	--	--	--
04...	1015	7	26.95	6.65	1442.73	--	--
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)							
JUN 2009							
04...	1125	9	97.10	31.55	1417.95	--	--
04...	1126	9	97.10	--	--	--	--
04...	1130	7	97.10	31.55	1417.95	--	--
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)							
JUN 2009							
23...	1005	9	269.53	28.48	--	R.4	2.3
23...	1006	9	269.53	--	--	--	--
23...	1010	9	269.53	28.48	--	--	--
23...	1015	7	269.53	28.48	--	--	--
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)							
JUN 2009							
23...	1205	9	248.84	21.04	--	R.8	2.6
23...	1206	9	248.84	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)							
JUN 2009							
23...	1210	9	248.84	21.04	--	--	--
23...	1215	7	248.84	21.04	--	--	--
380148097363801 23S 03W 23DDDD01 RR3-MN-1 (LAT 38 01 48N LONG 097 36 37W)							
JUN 2009							
22...	1045	9	250.09	24.09	--	.6	2.3
22...	1046	9	250.09	--	--	--	--
22...	1050	9	250.09	24.09	--	--	--
22...	1055	7	250.09	24.09	--	--	--
380142097363702 23S 03W 25BBBB02 RR3-MS-1 (LAT 38 01 41N LONG 097 36 37W)							
JUN 2009							
22...	1240	9	243.74	20.72	--	1.1	2.4
22...	1241	9	243.74	--	--	--	--
22...	1245	9	243.74	20.72	--	--	--
22...	1250	7	243.74	20.72	--	--	--
380056097363801 23S 03W 26DDDD01 RR4-MN (LAT 38 00 56N LONG 097 36 37W)							
JUN 2009							
24...	1030	9	125.63	21.85	--	.6	2.3
24...	1031	9	125.63	--	--	--	--
24...	1035	9	125.63	21.85	--	--	--
24...	1040	7	125.63	21.85	--	--	--
380042097363701 23S 03W 36BBBC01 RR4-MS (LAT 38 00 42N LONG 097 36 37W)							
JUN 2009							
24...	1220	9	129.98	18.92	--	1.0	2.4
24...	1221	9	129.98	--	--	--	--
24...	1225	9	129.98	18.92	--	--	--
24...	1230	7	129.98	18.92	--	--	--
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)							
FEB 2009							
09...	1020	9	60.05	14.72	1417.55	--	--
09...	1021	9	60.05	--	--	--	--
APR							
01...	1110	9	60.05	14.56	1417.71	--	--
01...	1111	9	60.05	--	--	--	--
01...	1115	7	60.05	14.56	1417.71	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)							
APR 2009							
21...	0955	9	60.05	14.43	1417.84	--	--
21...	0956	9	60.05	--	--	--	--
JUN							
25...	1000	9	60.05	13.37	1418.90	3.1	4.8
25...	1001	9	60.05	--	--	--	--
25...	1005	9	60.05	13.37	1418.90	--	--
25...	1010	7	60.05	13.37	1418.90	--	--
JUL							
14...	1025	9	60.05	14.23	1418.04	--	--
14...	1026	9	60.05	--	--	--	--
14...	1030	7	60.05	14.23	1418.04	--	--
AUG							
19...	0955	9	60.05	15.09	1417.18	--	--
19...	0956	9	60.05	--	--	--	--
19...	1000	7	60.05	15.09	1417.18	--	--
19...	0957	7	60.05	--	--	--	--
NOV							
18...	1000	9	60.05	14.52	1417.75	--	--
18...	1005	7	60.05	14.52	1417.75	--	--
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)							
FEB 2009							
09...	1150	9	249.38	21.42	1410.52	--	--
09...	1151	9	249.38	--	--	--	--
APR							
01...	1240	9	249.38	21.11	1410.83	--	--
01...	1241	9	249.38	--	--	--	--
01...	1245	9	249.38	21.11	1410.83	--	--
21...	1115	9	249.38	22.36	1409.58	--	--
21...	1116	9	249.38	--	--	--	--
01...	1242	7	249.38	--	--	--	--
JUN							
25...	1200	9	249.38	23.27	1408.67	R.4	2.8
25...	1201	9	249.38	--	--	--	--
25...	1205	9	249.38	23.27	1408.67	--	--
25...	1210	7	249.38	23.27	1408.67	.6	2.6
25...	1211	7	249.38	--	--	--	--
25...	1215	7	249.38	23.27	1408.67	--	--
JUL							
14...	1200	9	249.38	24.18	1407.76	--	--
14...	1201	9	249.38	--	--	--	--
14...	1205	7	249.38	24.18	1407.76	--	--
AUG							
19...	1125	9	249.38	26.28	1405.66	--	--
19...	1126	9	249.38	--	--	--	--
19...	1130	7	249.38	26.28	1405.66	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)							
NOV 2009							
18...	1130	9	249.38	21.22	1410.72	--	--
18...	1135	7	249.38	21.22	1410.72	--	--
375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)							
FEB 2009							
04...	1005	9	60.12	13.97	1416.48	--	--
04...	1006	9	60.12	--	--	--	--
MAR							
24...	1135	9	60.12	13.67	1416.78	--	--
24...	1136	9	60.12	--	--	--	--
24...	1140	7	60.12	13.67	1416.78	--	--
APR							
06...	1010	9	60.12	13.17	1417.28	--	--
06...	1011	9	60.12	--	--	--	--
06...	1015	7	60.12	13.17	1417.28	--	--
09...	1005	9	60.12	13.04	1417.41	--	--
09...	1006	9	60.12	--	--	--	--
09...	1010	7	60.12	13.04	1417.41	--	--
16...	1015	9	60.12	13.05	1417.40	--	--
16...	1016	9	60.12	--	--	--	--
20...	1005	9	60.12	13.07	1417.38	--	--
20...	1006	9	60.12	--	--	--	--
MAY							
06...	1025	9	60.12	12.95	1417.50	--	--
06...	1026	9	60.12	--	--	--	--
06...	1030	7	60.12	12.95	1417.50	--	--
20...	1005	9	60.12	12.60	1417.85	--	--
20...	1006	9	60.12	--	--	--	--
20...	1010	7	60.12	12.60	1417.85	--	--
JUN							
25...	1000	9	60.12	12.58	1417.87	2.6	3.5
25...	1001	9	60.12	--	--	--	--
25...	1005	9	60.12	12.58	1417.87	--	--
25...	1010	7	60.12	12.58	1417.87	--	--
JUL							
08...	1020	9	60.12	15.35	1415.10	--	--
08...	1021	9	60.12	--	--	--	--
08...	1025	7	60.12	15.35	1415.10	--	--
13...	1015	9	60.12	15.50	1414.95	--	--
13...	1016	9	60.12	--	--	--	--
13...	1020	7	60.12	15.50	1414.95	--	--
20...	1015	9	60.12	15.68	1414.77	--	--
20...	1016	9	60.12	--	--	--	--
20...	1020	7	60.12	15.68	1414.77	--	--
AUG							
18...	1010	9	60.12	14.51	1415.94	--	--
18...	1011	9	60.12	--	--	--	--

18...	1015	7	60.12	14.51	1415.94	--	--
NOV							
18...	1005	9	60.12	13.55	1416.90	--	--
18...	1010	7	60.12	13.55	1416.90	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Elev- ation, feet above NGVD (72020)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
375954097363802 24S 03W 02AADA02 RB1-MS DEEP (LAT 37 59 54N LONG 097 36 38W)							
FEB 2009							
04...	1140	9	261.40	21.38	1409.02	--	--
04...	1141	9	261.40	--	--	--	--
MAR							
24...	1305	9	261.40	20.75	1409.65	--	--
24...	1306	9	261.40	--	--	--	--
24...	1310	7	261.40	20.75	1409.65	--	--
APR							
06...	1140	9	261.40	20.66	1409.74	--	--
06...	1141	9	261.40	--	--	--	--
06...	1145	9	261.40	20.66	1409.74	--	--
09...	1135	9	261.40	20.18	1410.22	--	--
09...	1136	9	261.40	--	--	--	--
09...	1140	7	261.40	20.18	1410.22	--	--
16...	1140	9	261.40	23.84	1406.56	--	--
16...	1141	9	261.40	--	--	--	--
20...	1135	9	261.40	21.58	1408.82	--	--
20...	1136	9	261.40	--	--	--	--
MAY							
06...	1150	9	261.40	22.14	1408.26	--	--
06...	1151	9	261.40	--	--	--	--
06...	1155	7	261.40	22.14	1408.26	--	--
20...	1140	9	261.40	20.57	1409.83	--	--
20...	1141	9	261.40	--	--	--	--
20...	1145	7	261.40	20.57	1409.83	--	--
JUN							
25...	1145	9	261.40	23.29	1407.11	1.2	2.6
25...	1146	9	261.40	--	--	--	--
25...	1150	9	261.40	23.29	1407.11	--	--
25...	1155	7	261.40	23.29	1407.11	--	--
JUL							
08...	1205	9	261.40	23.95	1406.45	--	--
08...	1206	9	261.40	--	--	--	--
08...	1210	7	261.40	23.95	1406.45	--	--
13...	1155	9	261.40	23.90	1406.50	--	--
13...	1156	9	261.40	--	--	--	--
13...	1200	7	261.40	23.90	1406.50	--	--
20...	1240	9	261.40	24.08	1406.32	--	--
20...	1241	9	261.40	--	--	--	--
20...	1245	7	261.40	24.08	1406.32	--	--
AUG							
18...	1145	9	261.40	27.20	1403.20	--	--
18...	1146	9	261.40	--	--	--	--
18...	1150	7	261.40	27.20	1403.20	--	--
NOV							
18...	1135	9	261.40	20.73	1409.67	--	--
18...	1140	7	261.40	20.73	1409.67	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Alpha radio- activity water, fltrd, Th-230, pCi/L (04126)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)						
MAY 2009						
07...	1030	9	56.98	9.24	--	--
07...	1031	9	56.98	--	--	--
07...	1035	9	56.98	9.24	--	--
JUL						
16...	0950	9	56.98	10.45	.5	4.8
16...	0951	9	56.98	--	--	--
16...	0955	9	56.98	10.45	--	--
16...	1000	7	56.98	10.45	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)						
MAY 2009						
07...	1150	9	259.25	43.83	--	--
07...	1151	9	259.25	--	--	--
07...	1155	9	259.25	43.83	--	--
JUL						
16...	1145	9	259.25	20.82	2.0	3.9
16...	1146	9	259.25	--	--	--
16...	1150	9	259.25	20.82	--	--
16...	1155	7	259.25	20.82	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)						
MAY 2009						
11...	1025	9	59.43	10.16	--	--
11...	1026	9	59.43	--	--	--
11...	1030	7	59.43	10.16	--	--
JUL						
16...	1000	9	59.43	11.82	1	2.9
16...	1001	9	59.43	--	--	--
16...	1005	9	59.43	11.82	--	--
16...	1010	7	59.43	11.82	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)						
MAY 2009						
11...	1150	9	255.80	57.55	--	--
11...	1151	9	255.80	--	--	--
11...	1155	7	255.80	57.55	--	--
JUL						
16...	1140	9	255.80	22.67	2.4	2.2

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
MISCELLANEOUS STATION ANALYSES

Date	Time	Sample type code	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)				
JUL 2009				
16...	1141	9	255.80	--
16...	1145	9	255.80	22.67
16...	1150	7	255.80	22.67

Remark codes used in this table:
R -- Radchem non-detect, below ssLc

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	2,4-Di-nitro-toluene water, unfltrd ug/L (34611)	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)	
380336097363701 23S 03W 12CCBC01 RR1-MN (LAT 38 03 35N LONG 097 36 36W)			
JUL 2009			
10...	--	--	
10...	--	--	
10...	<.6	<.43	
10...	--	--	
380323097363801 23S 03W 14AAAA01 RR1-MS (LAT 38 03 23N LONG 097 36 38W)			
JUN 2009			
22...	--	--	
22...	--	--	
22...	<.6	<.43	
22...	--	--	
22...	--	--	
22...	<.6	<.43	
380329097363701 23S 03W 12CCCC01 IW-02A SHALLOW (LAT 38 03 29N LONG 097 36 37W)			
JUN 2009			
04...	--	--	
04...	--	--	
04...	--	--	
380329097363702 23S 03W 12CCCC02 IW-02C DEEP (LAT 38 03 29N LONG 097 36 37W)			
JUN 2009			
04...	--	--	
04...	--	--	
04...	--	--	
380241097363801 23S 03W 14DDDA01 RR2-MN (LAT 38 02 40N LONG 097 36 38W)			
JUN 2009			
23...	--	--	
23...	--	--	
23...	<.6	<.43	
23...	--	--	
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)			
JUN 2009			
23...	--	--	
23...	--	--	

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	2,4-Di-nitro-toluene water, unfltrd ug/L (34611)	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)	
380228097363801 23S 03W 23AADA01 RR2-MS (LAT 38 02 28N LONG 097 36 38W)			
JUN 2009			
23...	<.6	<.43	
23...	--	--	
380148097363801 23S 03W 23DDDD01 RR3-MN-1 (LAT 38 01 48N LONG 097 36 37W)			
JUN 2009			
22...	--	--	
22...	--	--	
22...	<.6	<.43	
22...	--	--	
380142097363702 23S 03W 25BBBB02 RR3-MS-1 (LAT 38 01 41N LONG 097 36 37W)			
JUN 2009			
22...	--	--	
22...	--	--	
22...	<.6	<.43	
22...	--	--	
380056097363801 23S 03W 26DDDD01 RR4-MN (LAT 38 00 56N LONG 097 36 37W)			
JUN 2009			
24...	--	--	
24...	--	--	
24...	<.6	<.43	
24...	--	--	
380042097363701 23S 03W 36BBBC01 RR4-MS (LAT 38 00 42N LONG 097 36 37W)			
JUN 2009			
24...	--	--	
24...	--	--	
24...	<.6	<.43	
24...	--	--	
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)			
FEB 2009			
09...	--	--	
09...	--	--	
APR			
01...	--	--	
01...	--	--	
01...	--	--	

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	2,4-Di-nitro-toluene water, unfltrd ug/L (34611)	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)
375958097364601 24S 03W 02AABB01 RB1-MN SHALLOW (LAT 37 59 58N LONG 097 36 46W)		
APR 2009		
21...	--	--
21...	--	--
JUN		
25...	--	--
25...	--	--
25...	< .6	< .43
25...	--	--
JUL		
14...	--	--
14...	--	--
14...	--	--
AUG		
19...	--	--
19...	--	--
19...	--	--
19...	--	--
NOV		
18...	--	--
18...	--	--
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)		
FEB 2009		
09...	--	--
09...	--	--
APR		
01...	--	--
01...	--	--
01...	--	--
21...	--	--
21...	--	--
01...	--	--
JUN		
25...	--	--
25...	--	--
25...	< .6	< .43
25...	--	--
25...	--	--
25...	< .6	< .43
JUL		
14...	--	--
14...	--	--
14...	--	--
AUG		
19...	--	--
19...	--	--
19...	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	2,4-Di-nitro-toluene water, unfltrd ug/L (34611)	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)
375958097364602 24S 03W 02AABB02 RB1-MN DEEP (LAT 37 59 58N LONG 097 36 46W)		
NOV 2009		
18...	--	--
18...	--	--
375954097363801 24S 03W 02AADA01 RB1-MS SHALLOW (LAT 37 59 54N LONG 097 36 38W)		
FEB 2009		
04...	--	--
04...	--	--
MAR		
24...	--	--
24...	--	--
24...	--	--
APR		
06...	--	--
06...	--	--
06...	--	--
09...	--	--
09...	--	--
09...	--	--
16...	--	--
16...	--	--
20...	--	--
20...	--	--
MAY		
06...	--	--
06...	--	--
06...	--	--
20...	--	--
20...	--	--
20...	--	--
JUN		
25...	--	--
25...	--	--
25...	< .6	< .43
25...	--	--
JUL		
08...	--	--
08...	--	--
08...	--	--
13...	--	--
13...	--	--
13...	--	--
20...	--	--
20...	--	--
20...	--	--
AUG		
18...	--	--
18...	--	--

18...	--	--
NOV		
18...	--	--
18...	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
 MISCELLANEOUS STATION ANALYSES

Date	2,4-Di-nitro-toluene water, unfltrd ug/L (34611)	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)
375954097363802 24S 03W 02AADA02 RB1-MS DEEP (LAT 37 59 54N LONG 097 36 38W)		
FEB 2009		
04...	--	--
04...	--	--
MAR		
24...	--	--
24...	--	--
24...	--	--
APR		
06...	--	--
06...	--	--
06...	--	--
09...	--	--
09...	--	--
09...	--	--
16...	--	--
16...	--	--
20...	--	--
20...	--	--
MAY		
06...	--	--
06...	--	--
06...	--	--
20...	--	--
20...	--	--
20...	--	--
JUN		
25...	--	--
25...	--	--
25...	<.6	<.43
25...	--	--
JUL		
08...	--	--
08...	--	--
08...	--	--
13...	--	--
13...	--	--
13...	--	--
20...	--	--
20...	--	--
20...	--	--
AUG		
18...	--	--
18...	--	--
18...	--	--
NOV		
18...	--	--
18...	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Ace-naphthylene, water, unfltrd ug/L (34200)	Anthracene, water, unfltrd ug/L (34220)	Benzo-[a]-anthracene, water, unfltrd ug/L (34526)	1,2,4-Tri-chloro-benzene, water, unfltrd ug/L (34551)	Hexa-chloro-benzene, water, unfltrd ug/L (39700)	1,3-Di-chloro-benzene, water, unfltrd ug/L (34566)	Nitro-benzene, water, unfltrd ug/L (34447)	Nitro-benzene -d5, surrog, bed sed <2 mm, % recvy (49280)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,4-Di-chloro-benzene, water, unfltrd ug/L (34571)	Benzi-dine, water, unfltrd ug/L (39120)	3,3'-Di-chloro-benzi-dine, water, unfltrd ug/L (34631)	Benzo-[a]-pyrene, water, unfltrd ug/L (34247)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	<.2	--	<.1	--	--	<.1	<.1	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.30	<.39	<.26	<.2	<.30	<.2	<.2	79	<.2	<.2	--u	<.4mc	<.33
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)													
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	<.2	--	<.1	--	--	<.1	<.1	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.30	<.39	<.26	<.2	<.30	<.2	<.2	84	<.2	<.2	--u	<.4mc	<.33
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	<.2	--	<.1	--	--	<.1	<.1	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.30	<.39	<.26	<.2	<.30	<.2	<.2	89	<.2	<.2	--u	<.4mc	<.33
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)													
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	<.2	--	<.1	--	--	<.1	<.1	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
MISCELLANEOUS STATION ANALYSES

PROCESS DATE 12-10-09

Date	Benzo- [b]- fluor- anthene water, unfltrd ug/L (34230)	Benzo- [ghi]- per- ylene, water, unfltrd ug/L (34521)	Benzo- [k]- fluor- anthene water, unfltrd ug/L (34242)	2Fluoro -bi- phenyl, surrog, bed sed <2 mm, % recvy (49279)	Bis(2- chloro- ethyl) ether, water, unfltrd ug/L (34273)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Hexa- chloro- cyclo- penta- diene, wat unf ug/L (34386)	N- Nitroso -di-n- propyl- amine, wat unf ug/L (34428)	N- Nitroso -di- methyl- amine, wat unf ug/L (34438)	N- Nitroso -di- phenyl- amine, wat unf ug/L (34433)	Hexa- chloro- ethane, water, unfltrd ug/L (34396)	Fluor- anthene water, unfltrd ug/L (34376)	1,2-Di- phenyl- hydra- zine, water, unfltrd ug/L (82626)
	375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	<.2	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.40	<.4	<.4	78	<.30	<.2	<.4	<.4	<.2	<.4	<.2	<.30	<.30
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)												
MAY 2009													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	<.2	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.40	<.4	<.4	79	<.30	<.2	<.4	<.4	<.2	<.4	<.2	<.30	<.30
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	<.2	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.40	<.4	<.4	84	<.30	<.2	<.4	<.4	<.2	<.4	<.2	<.30	<.30
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
	375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)												
MAY 2009													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	<.2	--	--	--	--	--	--	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
MISCELLANEOUS STATION ANALYSES

Date	2,6-Di-nitro-toluene water, unfltrd ug/L (34626)
375906097365001 24S 03W 11AABB01 RB2-MN SHALLOW (LAT 37 59 06N LONG 097 36 49W)	
MAY 2009	
07...	--
07...	--
07...	--
JUL	
16...	--
16...	--
16...	<.43
16...	--
375906097365002 24S 03W 11AABB02 RB2-MN DEEP (LAT 37 59 06N LONG 097 36 49W)	
MAY 2009	
07...	--
07...	--
07...	--
JUL	
16...	--
16...	--
16...	<.43
16...	--
375902097363801 24S 03W 11AADA01 RB2-MS SHALLOW (LAT 37 59 02N LONG 097 36 37W)	
MAY 2009	
11...	--
11...	--
11...	--
JUL	
16...	--
16...	--
16...	<.43
16...	--
375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)	
MAY 2009	
11...	--
11...	--
11...	--
JUL	
16...	--

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE 12-10-09
MISCELLANEOUS STATION ANALYSES

2,6-Di-
nitro-
toluene
water,
Date unfltrd
ug/L
(34626)

375902097363802 24S 03W 11AADA02 RB2-MS DEEP (LAT 37 59 02N LONG 097 36 37W)

JUL 2009

16... --
16... <.43
16... --

Remark codes used in this table:

< -- Less than.
M -- Presence verified but not quantified.

Value qualifier codes used in this table:

c -- See result laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL
t -- Below the long-term MDL

Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

**APPENDIX D –
CHEMICAL, PHYSICAL, RADIOLOGICAL AND BIOLOGICAL QUALITY OF
EACH TYPE OF WATER STORED**

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-1: NW NW NW 2-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 0	n/a	0.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 1	n/a	7,200.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 1	n/a	3,600.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 0	n/a	0.00	4/1/2009	12:00AM	RR	
2		10,800.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month March-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-2: NW NW NW 11-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 1	n/a	7,200.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 5	n/a	5,454,000.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 1	n/a	14,400.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 0	n/a	0.00	4/1/2009	12:00AM	RR	
7		5,475,600.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/9/2009	10:45	< MDL	0.0083	5.1	131.7	1.81	222	0	0.21	0.208	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	44.24	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month March-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 0	n/a	0.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 5	n/a	1,209,960.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 0	n/a	0.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 1	n/a	238,912.00	4/1/2009	12:00AM	RR	
6			1,448,872.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month March-09

Max pH	7.95	Max Specific Conductance	335.16	Max Turbidity	0.97	Max Temperature	16.67
Min pH	7.72	Min Specific Conductance	333.59	Min Turbidity	0.22	Min Temperature	15.08

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 0	n/a	0.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 5	n/a	1,308,528.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 0	n/a	0.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 1	n/a	299,456.00	4/1/2009	12:00AM	RR	
6		1,607,984.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month March-09

Max pH	7.95	Max Specific Conductance	335.16	Max Turbidity	0.97	Max Temperature	16.67
Min pH	7.72	Min Specific Conductance	333.59	Min Turbidity	0.22	Min Temperature	15.08

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RRW-3: SW SW SW 24-23-W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 0	n/a	0.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 5	n/a	1,364,928.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 0	n/a	0.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 1	n/a	298,576.00	4/1/2009	12:00AM	RR	
6		1,663,504.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month March-09

Max pH	7.95	Max Specific Conductance	335.16	Max Turbidity	0.97	Max Temperature	16.67
Min pH	7.72	Min Specific Conductance	333.59	Min Turbidity	0.22	Min Temperature	15.08

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: March-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
3/1/2009	7 / 0	n/a	0.00	3/8/2009	12:00AM	RR	
3/8/2009	7 / 5	n/a	2,499,760.00	3/15/2009	12:00AM	RR	
3/15/2009	7 / 0	n/a	0.00	3/22/2009	12:00AM	RR	
3/22/2009	7 / 0	n/a	0.00	3/29/2009	12:00AM	RR	
3/29/2009	3 / 1	n/a	553,072.00	4/1/2009	12:00AM	RR	
6			3,052,832.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month March-09

Max pH	7.95	Max Specific Conductance	335.16	Max Turbidity	0.97	Max Temperature	16.67
Min pH	7.72	Min Specific Conductance	333.59	Min Turbidity	0.22	Min Temperature	15.08

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-1: NW NW NW 2-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	0.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	3,600.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	7,200.00	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	0.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	0.00	5/1/2009	12:00AM	RR	
30		10,800.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month April-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 Debra Ary
 Superintendent Water Production & Pumping Division

 7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-2: NW NW NW 11-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	4,021,200.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	2,635,200.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	11,368,799.82	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	0.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	2,457,712.00	5/1/2009	12:00AM	RR	
30		20,482,911.82					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
4/3/2009	08:45	< MDL	< MDL	61.4	161.1	11.15	318	0	< MDL	0.053	100

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	35	48.52	35	2.58	< MDL	< MDL	

Summary of Continuous Recording Data for the Month April-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	298,368.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	1,061,424.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	1,492,880.00	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	1,945,440.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	931,392.00	5/1/2009	12:00AM	RR	
30			5,729,504.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
4/3/2009	09:15	0.00031	0.0077	< MDL	140.0	1.95	221	0	0.18	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	46.96	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

April-09

Max pH	7.99	Max Specific Conductance	345.34	Max Turbidity	0.60	Max Temperature	16.09
Min pH	7.73	Min Specific Conductance	315.63	Min Turbidity	0.03	Min Temperature	14.98

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrtion KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	1,167,584.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	1,304,528.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	2,175,120.00	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	3,026,928.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	1,525,424.00	5/1/2009	12:00AM	RR	
30		9,199,584.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
4/3/2009	09:15	MDL=0.00004 0.00031	MDL=0.001 0.0077	MDL=5.0 < MDL	MDL=1.0 140.0	MDL=0.30 1.95	MDL=10.0 221	MDL=0 0	MDL=0.03 0.18	MDL=0.005 0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	46.96	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month April-09

Max pH	7.99	Max Specific Conductance	345.34	Max Turbidity	0.60	Max Temperature	16.09
Min pH	7.73	Min Specific Conductance	315.63	Min Turbidity	0.03	Min Temperature	14.98

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	1,211,744.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	1,444,592.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	1,776,368.00	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	2,792,544.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	1,474,816.00	5/1/2009	12:00AM	RR	
30		8,700,064.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
4/3/2009	09:15	0.00031	0.0077	< MDL	140.0	1.95	221	0	0.18	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	46.96	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month April-09

Max pH	7.99	Max Specific Conductance	345.34	Max Turbidity	0.60	Max Temperature	16.09
Min pH	7.73	Min Specific Conductance	315.63	Min Turbidity	0.03	Min Temperature	14.98

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	2,204,304.00	4/5/2009	12:00AM	RR	
4/5/2009	7 / 0	n/a	2,635,520.00	4/12/2009	12:00AM	RR	
4/12/2009	7 / 0	n/a	2,785,152.00	4/19/2009	12:00AM	RR	
4/19/2009	7 / 0	n/a	4,879,456.00	4/26/2009	12:00AM	RR	
4/26/2009	5 / 0	n/a	2,311,520.00	5/1/2009	12:00AM	RR	
30			14,815,952.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
4/3/2009	09:15	0.00031	0.0077	< MDL	140.0	1.95	221	0	0.18	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	46.96	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month April-09

Max pH	<input type="text" value="7.99"/>	Max Specific Conductance	<input type="text" value="345.34"/>	Max Turbidity	<input type="text" value="0.60"/>	Max Temperature	<input type="text" value="16.09"/>
Min pH	<input type="text" value="7.73"/>	Min Specific Conductance	<input type="text" value="315.63"/>	Min Turbidity	<input type="text" value="0.03"/>	Min Temperature	<input type="text" value="14.98"/>

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: April-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-2: NW NW NW 11-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
4/1/2009	4 / 0	n/a	4,021,200.00	n/a	12:00AM		
4/5/2009	7 / 0	n/a	2,635,200.00	n/a	12:00AM		
4/12/2009	7 / 0	n/a	11,368,799.82	4/17/2009	10:50AM	RR	This was a retest due to a higher number than expected of E-Coli during the first test.
4/19/2009	7 / 0	n/a	0.00	n/a	12:00AM		
4/26/2009	5 / 0	n/a	2,457,712.00	n/a	12:00AM		

#REF! 20,482,911.82

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
4/17/2009	10:50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25.0

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month April-09

Max pH	n/a	Max Specific Conductance	n/a	Max Turbidity	n/a	Max Temperature	n/a
Min pH	n/a	Min Specific Conductance	n/a	Min Turbidity	n/a	Min Temperature	n/a

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-1: NW NW NW 2-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	0.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	0.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	0.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	0.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	0.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00 AM	RR	
31		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month May-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording data for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-2: NW NW NW 11-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	0.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	9,414,000.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	6,231,600.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	2,059,200.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	0.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00AM	RR	
31		17,704,800.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/9/2009	10:45	MDL=0.00004 < MDL	MDL=0.001 0.0083	MDL=5.0 5.1	MDL=1.0 131.7	MDL=0.30 1.81	MDL=10.0 222	MDL=0 0	MDL=0.03 0.21	MDL=0.005 0.208	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	178	44.24	178	0.16	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

May-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	417,312.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	695,520.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	795,464.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	2,016.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	936.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00AM	RR	
31		1,911,248.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

May-09

Max pH	<input type="text" value="7.77"/>	Max Specific Conductance	<input type="text" value="353.90"/>	Max Turbidity	<input type="text" value="0.41"/>	Max Temperature	<input type="text" value="17.25"/>
Min pH	<input type="text" value="7.55"/>	Min Specific Conductance	<input type="text" value="262.50"/>	Min Turbidity	<input type="text" value="0.03"/>	Min Temperature	<input type="text" value="15.53"/>

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	701,680.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	1,627,936.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	1,385,104.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	1,750,944.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	912.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00AM	RR	
31		5,466,576.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month May-09

Max pH	7.77	Max Specific Conductance	353.90	Max Turbidity	0.41	Max Temperature	17.25
Min pH	7.55	Min Specific Conductance	262.50	Min Turbidity	0.03	Min Temperature	15.53

(**This information shall be determined from review of all the continuous recording data for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	727,824.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	1,772,096.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	1,510,384.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	2,069,440.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	432.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00AM	RR	
31		6,080,176.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
3/10/2009	11:15	MDL =0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	< 1
		< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month May-09

Max pH	7.77	Max Specific Conductance	353.90	Max Turbidity	0.41	Max Temperature	17.25
Min pH	7.55	Min Specific Conductance	262.50	Min Turbidity	0.03	Min Temperature	15.53

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: May-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week / Days Ran	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
5/1/2009	2	n/a	1,159,312.00	5/3/2009	12:00AM	RR	
5/3/2009	7	n/a	2,815,568.00	5/10/2009	12:00AM	RR	
5/10/2009	7	n/a	2,374,848.00	5/17/2009	12:00AM	RR	
5/17/2009	7	n/a	3,411,712.00	5/24/2009	12:00AM	RR	
5/24/2009	7	n/a	528.00	5/31/2009	12:00AM	RR	
5/31/2009	1	n/a	0.00	6/1/2009	12:00AM	RR	
31		9,761,968.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
3/10/2009	11:15	< MDL	0.0083	< MDL	132.0	1.84	242	0	0.20	0.215	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	44.37	175	0.15	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

May-09

Max pH	<input type="text" value="7.77"/>	Max Specific Conductance	<input type="text" value="353.90"/>	Max Turbidity	<input type="text" value="0.41"/>	Max Temperature	<input type="text" value="17.25"/>
Min pH	<input type="text" value="7.55"/>	Min Specific Conductance	<input type="text" value="262.50"/>	Min Turbidity	<input type="text" value="0.03"/>	Min Temperature	<input type="text" value="15.53"/>

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-1: NW NW NW 2-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrtou KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	0.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	0.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	0.00	7/1/2009	12:00AM	RR	
30		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month

June-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording data for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 Debra Ary
 Superintendent Water Production & Pumping Division

 7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-2: NW NW NW 11-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	0.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	376,608.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	2,208,224.00	7/1/2009	12:00AM	RR	
30		2,584,832.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month June-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	1,008.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	1,823,568.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	428,400.00	7/1/2009	12:00AM	RR	
30			2,252,976.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
6/19/2009	08:00	< MDL	0.0071	< MDL	133.3	1.77	219	0	0.15	0.219	<1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	172	45.16	172	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month June-09

Max pH	7.38	Max Specific Conductance	349.22	Max Turbidity	0.84	Max Temperature	25.13
Min pH	7.24	Min Specific Conductance	325.00	Min Turbidity	0.06	Min Temperature	18.14

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	891,072.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	2,967,184.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	694,560.00	7/1/2009	12:00AM	RR	
30		4,552,816.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
6/19/2009	08:00	MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	<1
		< MDL	0.0071	< MDL	133.3	1.77	219	0	0.15	0.219	<1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	172	45.16	172	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month June-09

Max pH	7.38	Max Specific Conductance	349.22	Max Turbidity	0.84	Max Temperature	25.13
Min pH	7.24	Min Specific Conductance	325.00	Min Turbidity	0.06	Min Temperature	18.14

(**This information shall be determined from review of all the continuous recording data for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	1,058,400.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	2,533,328.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	620,960.00	7/1/2009	12:00AM	RR	
30		4,212,688.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL =0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
6/19/2009	08:00	< MDL	0.0071	< MDL	133.3	1.77	219	0	0.15	0.219	<1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	172	45.16	172	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month June-09

Max pH	7.38	Max Specific Conductance	349.22	Max Turbidity	0.84	Max Temperature	25.13
Min pH	7.24	Min Specific Conductance	325.00	Min Turbidity	0.06	Min Temperature	18.14

(**This information shall be determined from review of all the continuous recording date for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: June-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
6/1/2009	6	n/a	0.00	6/7/2009	12:00AM	RR	
6/7/2009	7	n/a	0.00	6/14/2009	12:00AM	RR	
6/14/2009	7	n/a	1,637,600.00	6/21/2009	12:00AM	RR	
6/21/2009	7	n/a	4,399,456.00	6/28/2009	12:00AM	RR	
6/28/2009	3	n/a	1,057,216.00	7/1/2009	12:00AM	RR	
30			7,094,272.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
6/19/2009	08:00	< MDL	0.0071	< MDL	133.3	1.77	219	0	0.15	0.219	<1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	172	45.16	172	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

June-09

Max pH	7.38	Max Specific Conductance	349.22	Max Turbidity	0.84	Max Temperature	25.13
Min pH	7.24	Min Specific Conductance	325.00	Min Turbidity	0.06	Min Temperature	18.14

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-1: NW NW NW 2-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrtan KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	0.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	0.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	0.00	8/1/2009	12:00AM	RR	
31		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
7/21/2009	11:20	< MDL	0.0076	< MDL	132.5	1.88	218	0	0.20	0.190	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
16	171	44.80	171	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month July-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording data for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-2: NW NW NW 11-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	1,386,560.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	4,524,656.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	338,848.00	8/1/2009	12:00AM	RR	
31		6,250,064.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
7/21/2009	11:20	< MDL	0.0076	< MDL	132.5	1.88	218	0	0.20	0.190	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
16	171	44.80	171	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month July-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	0.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	1,608,712.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	160,352.00	8/1/2009	12:00AM	RR	
31		1,769,064.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
7/22/2009	11:05	< MDL	0.0079	< MDL	137.1	1.88	225	0	0.21	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.23	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

July-09

Max pH	7.78	Max Specific Conductance	430.47	Max Turbidity	0.63	Max Temperature	24.86
Min pH	7.29	Min Specific Conductance	333.59	Min Turbidity	0.03	Min Temperature	16.94

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	0.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	2,645,152.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	263,360.00	8/1/2009	12:00AM	RR	
31		2,908,512.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL =0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
7/22/2009	11:05	< MDL	0.0079	< MDL	137.1	1.88	225	0	0.21	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.23	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month July-09

Max pH	7.78	Max Specific Conductance	430.47	Max Turbidity	0.63	Max Temperature	24.86
Min pH	7.29	Min Specific Conductance	333.59	Min Turbidity	0.03	Min Temperature	16.94

(**This information shall be determined from review of all the continuous recording date for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	0.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	2,607,120.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	264,352.00	8/1/2009	12:00AM	RR	
31		2,871,472.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL =0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
7/22/2009	11:05	< MDL	0.0079	< MDL	137.1	1.88	225	0	0.21	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.23	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month July-09

Max pH	7.78	Max Specific Conductance	430.47	Max Turbidity	0.63	Max Temperature	24.86
Min pH	7.29	Min Specific Conductance	333.59	Min Turbidity	0.03	Min Temperature	16.94

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: July-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
7/1/2009	4	n/a	0.00	7/5/2009	12:00AM	RR	
7/5/2009	7	n/a	0.00	7/12/2009	12:00AM	RR	
7/12/2009	7	n/a	0.00	7/19/2009	12:00AM	RR	
7/19/2009	7	n/a	3,380,528.00	7/26/2009	12:00AM	RR	
7/26/2009	6	n/a	345,072.00	8/1/2009	12:00AM	RR	
31			3,725,600.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
7/22/2009	11:05	< MDL	0.0079	< MDL	137.1	1.88	225	0	0.21	0.223	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.23	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

July-09

Max pH	7.78	Max Specific Conductance	430.47	Max Turbidity	0.63	Max Temperature	24.86
Min pH	7.29	Min Specific Conductance	333.59	Min Turbidity	0.03	Min Temperature	16.94

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-1: NW NW NW 2-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	0.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	0.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	0.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month

September-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording data for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 Debra Ary
 Superintendent Water Production & Pumping Division

 7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RB-2: NW NW NW 11-24-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	0.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	0.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	0.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month September-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 Debra Ary
 Superintendent Water Production & Pumping Division

 7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-1: SW SW SW 12-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	697,760.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	185,520.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	819,504.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30		1,702,784.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
9/24/2009	07:30	< MDL	0.0071	< MDL	139.3	1.86	226	0	0.185	0.216	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.95	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month September-09

Max pH	7.33	Max Specific Conductance	339.06	Max Turbidity	0.16	Max Temperature	20.67
Min pH	7.24	Min Specific Conductance	312.50	Min Turbidity	0.03	Min Temperature	17.72

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burtron KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	1,148,912.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	299,504.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	1,230,912.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30		2,679,328.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL =0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
9/24/2009	07:30	< MDL	0.0071	< MDL	139.3	1.86	226	0	0.185	0.216	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.95	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month September-09

Max pH	7.33	Max Specific Conductance	339.06	Max Turbidity	0.16	Max Temperature	20.67
Min pH	7.24	Min Specific Conductance	312.50	Min Turbidity	0.03	Min Temperature	17.72

(**This information shall be determined from review of all the continuous recording data for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	1,143,808.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	311,808.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	1,213,904.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30		2,669,520.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL =0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
9/24/2009	07:30	< MDL	0.0071	< MDL	139.3	1.86	226	0	0.185	0.216	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.95	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month

September-09

Max pH	7.33	Max Specific Conductance	339.06	Max Turbidity	0.16	Max Temperature	20.67
Min pH	7.24	Min Specific Conductance	312.50	Min Turbidity	0.03	Min Temperature	17.72

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: September-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RW-1: NW NW NW 36-23-3W**
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
9/1/2009	5	n/a	0.00	9/6/2009	12:00AM	RR	
9/6/2009	7	n/a	1,593,824.00	9/13/2009	12:00AM	RR	
9/13/2009	7	n/a	430,656.00	9/20/2009	12:00AM	RR	
9/20/2009	7	n/a	1,832,640.00	9/27/2009	12:00AM	RR	
9/27/2009	4	n/a	0.00	10/1/2009	12:00AM	RR	
30			3,857,120.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5	MDL=1	MDL=0.3	MDL=10	MDL=0	MDL=0.03	MDL=0.005	
9/24/2009	07:30	< MDL	0.0071	< MDL	139.3	1.86	226	0	0.185	0.216	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.5	MDL=2	MDL=0.01	MDL=0.1	MDL=0.0001	
< MDL	173	46.95	173	< MDL	< MDL	< MDL	

Summary of Continuous Recording Data for the Month September-09

Max pH	7.33	Max Specific Conductance	339.06	Max Turbidity	0.16	Max Temperature	20.67
Min pH	7.24	Min Specific Conductance	312.50	Min Turbidity	0.03	Min Temperature	17.72

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-1: NW NW NW 2-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	0.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month

November-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

(**This information shall be determined from review of all the continuous recording data for the entire month.)

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RB-2: NW NW NW 11-24-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	0.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30		0.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Summary of Continuous Recording Data for the Month November-09

Max pH	<input type="text" value="n/a"/>	Max Specific Conductance	<input type="text" value="n/a"/>	Max Turbidity	<input type="text" value="n/a"/>	Max Temperature	<input type="text" value="n/a"/>
Min pH	<input type="text" value="n/a"/>	Min Specific Conductance	<input type="text" value="n/a"/>	Min Turbidity	<input type="text" value="n/a"/>	Min Temperature	<input type="text" value="n/a"/>

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RRW-1: SW SW SW 12-23-3W
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	1,368,152.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30			1,368,152.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
11/4/2009	08:50	< MDL	0.0072	5.7	135.7	1.92	214	0	0.19	0.214	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	45.65	175	0.02	< MDL	>0.0001	

Summary of Continuous Recording Data for the Month November-09

Max pH	7.20	Max Specific Conductance	346.88	Max Turbidity	0.88	Max Temperature	17.72
Min pH	7.07	Min Specific Conductance	334.38	Min Turbidity	0.03	Min Temperature	15.56

(**This information shall be determined from review of all the continuous recording date for the entire month.)

I certify under penalty of law that this document and all corresponding documentation were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-2: NE NE NE 23-23-3W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	1,959,440.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30		1,959,440.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
11/4/2009	08:50	MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	< 1
		< MDL	0.0072	5.7	135.7	1.92	214	0	0.19	0.214	

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	45.65	175	0.02	< MDL	>0.0001	

Summary of Continuous Recording Data for the Month November-09

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Min pH	7.07	Min Specific Conductance	334.38	Min Turbidity	0.03	Min Temperature	15.56

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7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: **RRW-3: SW SW SW 24-23-W**
 Legal Description: RRW-1:SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
 Wichita KS 67203

RB-2: NW NW NW 11-24-3W

Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	1,668,416.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30		1,668,416.00					

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
11/4/2009	08:50	MDL =0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	< 1
		< MDL	0.0072	5.7	135.7	1.92	214	0	0.19	0.214	

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	45.65	175	0.02	< MDL	>0.0001	

Summary of Continuous Recording Data for the Month November-09

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Debra Ary
 Superintendent Water Production & Pumping Division

7/28/2010

Class V Injection Well Monitoring Report
 Month: November-09
 Permit No. KS 05-079-001

Return to Bureau of Water
 UIC Unit, Geology Section
 1000 SW Jackson St Suite 420
 Topeka, Kansas 66612-1367

Recharge Basin: RW-1: NW NW NW 36-23-3W
 Legal Description: RRW-1: SW SW SW 12-23-3W
 RRW-2: NE NE NE 23-23-3W, RRW-3: SW SW SW 24-23-W
 RW-1; NW NW NW 36-23-3W, RB-1: NW NW NW 2-24-3W

Company: City of Wichita Water & Sewer Department
 1815 W Pine
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RB-2: NW NW NW 11-24-3W
 Well No: RRW-1, RRW-3, RW-1, and Recharge Basins RB-1, RB-2

Facility: Equus Beds Recharge Project Phase 1
 17934 NW 12th St
 Burrton KS

Weekly Monitoring Report:

Date Week Begins	Number of Days in Week	Injection Pressure (psig or inches vacuum)	Injection Volume (gals per week) 70,000,000 max.	Date of Reading	Time of Reading	Initials	Comments
11/1/2009	7	n/a	2,783,872.00	11/8/2009	12:00AM	RR	
11/8/2009	7	n/a	0.00	11/15/2009	12:00AM	RR	
11/15/2009	7	n/a	0.00	11/22/2009	12:00AM	RR	
11/22/2009	7	n/a	0.00	11/29/2009	12:00AM	RR	
11/29/2009	2	n/a	0.00	12/1/2009	12:00AM	RR	
30			2,783,872.00				

Monthly Monitoring Report:

Date Sample Collected	Time Sample Collected	Atrazine (<0.003 mg/L max)	Arsenic (<0.010 mg/L max)	Chloride (<250 mg/L max)	Hardness	Potassium, dissolved	Dissolved Solids	Carbonate, dissolved as CaCO ₃	Total Phosphorus as (P)	Manganese, dissolved	Escherichia coli (E. Coli) (Non-Detect)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN)/100ml
		MDL=0.00004	MDL=0.001	MDL=5.0	MDL=1.0	MDL=0.30	MDL=10.0	MDL=0	MDL=0.03	MDL=0.005	
11/4/2009	08:50	< MDL	0.0072	5.7	135.7	1.92	214	0	0.19	0.214	< 1

Suspended Solids	Alkalinity as CaCO ₃	Calcium, dissolved	Bicarbonate, dissolved as CaCO ₃	Nitrate as (N) (<10mg/L) Daily Max	Iron, dissolved	Triazine herbicide screen, dissolved	Comments
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MDL=4	MDL=2	MDL=0.50	MDL=2	MDL=0.01	MDL=0.10	MDL=0.0001	
< MDL	175	45.65	175	0.02	< MDL	>0.0001	

Summary of Continuous Recording Data for the Month November-09

Max pH	7.20	Max Specific Conductance	346.88	Max Turbidity	0.88	Max Temperature	17.72
Min pH	7.07	Min Specific Conductance	334.38	Min Turbidity	0.03	Min Temperature	15.56

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 Superintendent Water Production & Pumping Division

7/28/2010

**APPENDIX E –
QUARTERLY INDEX WATER LEVELS**

Index Well Water Levels

Well No.	Date	Depth to Water (feet)	Water Level Elevation (feet amsl)
IW-01 A	19-Jan-2009	1.55	1472.45
IW-01 A	09-Apr-2009	1.41	1472.59
IW-01 A	20-Jul-2009	1.80	1472.20
IW-01 A	20-Oct-2009	2.29	1471.71
IW-01 C	19-Jan-2009	52.59	1421.51
IW-01 C	09-Apr-2009	51.67	1422.43
IW-01 C	20-Jul-2009	53.91	1420.19
IW-01 C	20-Oct-2009	54.48	1419.62
IW-02 A	19-Jan-2009	8.62	1440.68
IW-02 A	09-Apr-2009	8.56	1440.74
IW-02 A	20-Jul-2009	8.06	1441.24
IW-02 A	20-Oct-2009	9.21	1440.09
IW-02 C	19-Jan-2009	33.54	1415.96
IW-02 C	09-Apr-2009	32.29	1417.21
IW-02 C	20-Jul-2009	40.20	1409.30
IW-02 C	20-Oct-2009	35.21	1414.29
IW-03 A	19-Jan-2009	8.37	1398.83
IW-03 A	09-Apr-2009	8.55	1398.65
IW-03 A	20-Jul-2009	10.03	1397.17
IW-03 A	20-Oct-2009	10.58	1396.62
IW-03 C	19-Jan-2009	10.43	1396.97
IW-03 C	09-Apr-2009	11.70	1395.70
IW-03 C	20-Jul-2009	16.82	1390.58
IW-03 C	20-Oct-2009	12.41	1394.99
IW-04 A	19-Jan-2009	10.25	1431.45
IW-04 A	09-Apr-2009	9.79	1431.91
IW-04 A	20-Jul-2009	7.27	1434.43
IW-04 A	20-Oct-2009	9.67	1432.03
IW-04 C	19-Jan-2009	18.61	1423.69
IW-04 C	09-Apr-2009	17.87	1424.43
IW-04 C	20-Jul-2009	21.60	1420.70
IW-04 C	20-Oct-2009	19.08	1423.22
IW-05 A	19-Jan-2009	23.74	1418.76
IW-05 A	09-Apr-2009	22.13	1420.37
IW-05 A	20-Jul-2009	32.26	1410.24
IW-05 A	20-Oct-2009	24.37	1418.13
IW-05 C	19-Jan-2009	23.73	1418.87
IW-05 C	09-Apr-2009	22.26	1420.34
IW-05 C	20-Jul-2009	31.13	1411.47
IW-05 C	20-Oct-2009	24.34	1418.26
IW-06 A	19-Jan-2009	27.58	1404.62
IW-06 A	09-Apr-2009	26.77	1405.43
IW-06 A	20-Jul-2009	35.78	1396.42
IW-06 A	20-Oct-2009	31.70	1400.50
IW-06 C	19-Jan-2009	29.23	1403.17
IW-06 C	09-Apr-2009	27.68	1404.72
IW-06 C	20-Jul-2009	36.96	1395.44
IW-06 C	20-Oct-2009	32.83	1399.57
IW-07 A	19-Jan-2009	42.26	1384.44

Index Well Water Levels

IW-07 A	09-Apr-2009	41.61	1385.09
IW-07 A	20-Jul-2009	52.63	1374.07
IW-07 A	20-Oct-2009	44.47	1382.23
IW-07 C	19-Jan-2009	42.56	1384.04
IW-07 C	09-Apr-2009	41.78	1384.82
IW-07 C	20-Jul-2009	51.22	1375.38
IW-07 C	20-Oct-2009	44.16	1382.44
IW-08 A	19-Jan-2009	12.11	1427.39
IW-08 A	09-Apr-2009	11.82	1427.68
IW-08 A	20-Jul-2009	11.28	1428.22
IW-08 A	20-Oct-2009	11.92	1427.58
IW-08 C	19-Jan-2009	12.63	1427.07
IW-08 C	09-Apr-2009	12.33	1427.37
IW-08 C	20-Jul-2009	12.05	1427.65
IW-08 C	20-Oct-2009	12.41	1427.29
IW-09 A	19-Jan-2009	14.54	1417.06
IW-09 A	09-Apr-2009	13.94	1417.66
IW-09 A	20-Jul-2009	14.05	1417.55
IW-09 A	20-Oct-2009	14.48	1417.12
IW-09 C	19-Jan-2009	24.90	1406.30
IW-09 C	09-Apr-2009	20.68	1410.52
IW-09 C	20-Jul-2009	23.82	1407.38
IW-09 C	20-Oct-2009	23.20	1408.00
IW-10 A	19-Jan-2009	33.34	1398.66
IW-10 A	09-Apr-2009	31.95	1400.05
IW-10 A	20-Jul-2009	34.47	1397.53
IW-10 A	20-Oct-2009	33.39	1398.61
IW-10 C	19-Jan-2009	35.69	1396.31
IW-10 C	09-Apr-2009	33.53	1398.47
IW-10 C	20-Jul-2009	35.79	1396.21
IW-10 C	20-Oct-2009	34.33	1397.67
IW-11 A	30-Jan-2009	34.25	1381.65
IW-11 A	09-Apr-2009	33.80	1382.10
IW-11 A	20-Jul-2009	39.96	1375.94
IW-11 A	20-Oct-2009	34.80	1381.10
IW-11 C	30-Jan-2009	34.17	1381.53
IW-11 C	09-Apr-2009	33.69	1382.01
IW-11 C	20-Jul-2009	39.81	1375.89
IW-11 C	20-Oct-2009	34.82	1380.88
IW-12 A	19-Jan-2009	17.98	1369.22
IW-12 A	09-Apr-2009	17.47	1369.73
IW-12 A	20-Jul-2009	16.29	1370.91
IW-12 A	20-Oct-2009	17.50	1369.70
IW-12 C	19-Jan-2009	18.50	1368.90
IW-12 C	09-Apr-2009	17.96	1369.44
IW-12 C	20-Jul-2009	17.09	1370.31
IW-12 C	20-Oct-2009	18.09	1369.31
IW-13 A	19-Jan-2009	9.55	1426.65
IW-13 A	09-Apr-2009	9.00	1427.20
IW-13 A	20-Jul-2009	8.92	1427.28
IW-13 A	20-Oct-2009	9.90	1426.30
IW-13 C	19-Jan-2009	9.90	1426.60

Index Well Water Levels

IW-13 C	09-Apr-2009	9.33	1427.17
IW-13 C	20-Jul-2009	9.28	1427.22
IW-13 C	20-Oct-2009	10.24	1426.26
IW-14 A	19-Jan-2009	12.26	1410.24
IW-14 A	09-Apr-2009	12.26	1410.24
IW-14 A	21-Jul-2009	10.70	1411.80
IW-14 A	20-Oct-2009	11.41	1411.09
IW-14 C	19-Jan-2009	14.90	1407.70
IW-14 C	09-Apr-2009	16.17	1406.43
IW-14 C	21-Jul-2009	15.03	1407.57
IW-14 C	20-Oct-2009	14.20	1408.40
IW-15 A	20-Jan-2009	27.93	1392.17
IW-15 A	09-Apr-2009	27.32	1392.78
IW-15 A	21-Jul-2009	27.81	1392.29
IW-15 A	20-Oct-2009	27.11	1392.99
IW-15 C	20-Jan-2009	27.95	1391.55
IW-15 C	09-Apr-2009	27.57	1391.93
IW-15 C	21-Jul-2009	28.20	1391.30
IW-15 C	20-Oct-2009	27.24	1392.26
IW-16 A	19-Jan-2009	19.77	1383.23
IW-16 A	09-Apr-2009	19.39	1383.61
IW-16 A	21-Jul-2009	20.30	1382.70
IW-16 A	20-Oct-2009	18.54	1384.46
IW-16 C	19-Jan-2009	20.02	1382.78
IW-16 C	09-Apr-2009	19.63	1383.17
IW-16 C	21-Jul-2009	21.11	1381.69
IW-16 C	20-Oct-2009	18.60	1384.20
IW-17 A	19-Jan-2009	15.25	1371.45
IW-17 A	09-Apr-2009	14.82	1371.88
IW-17 A	20-Jul-2009	17.19	1369.51
IW-17 A	20-Oct-2009	14.37	1372.33
IW-17 C	19-Jan-2009	16.09	1370.61
IW-17 C	09-Apr-2009	15.65	1371.05
IW-17 C	20-Jul-2009	17.62	1369.08
IW-17 C	20-Oct-2009	15.21	1371.49
IW-18 A	19-Jan-2009	6.82	1425.18
IW-18 A	09-Apr-2009	6.45	1425.55
IW-18 A	20-Jul-2009	6.98	1425.02
IW-18 A	20-Oct-2009	7.44	1424.56
IW-18 C	19-Jan-2009	6.81	1425.29
IW-18 C	09-Apr-2009	6.45	1425.65
IW-18 C	20-Jul-2009	6.95	1425.15
IW-18 C	20-Oct-2009	7.41	1424.69
IW-19 A	19-Jan-2009	9.29	1409.91
IW-19 A	09-Apr-2009	9.38	1409.82
IW-19 A	20-Jul-2009	10.28	1408.92
IW-19 A	20-Oct-2009	9.51	1409.69
IW-19 C	19-Jan-2009	9.48	1409.92
IW-19 C	09-Apr-2009	9.58	1409.82
IW-19 C	20-Jul-2009	10.44	1408.96
IW-19 C	20-Oct-2009	9.69	1409.71
IW-20 A	19-Jan-2009	22.53	1393.57

Index Well Water Levels

IW-20 A	09-Apr-2009	22.43	1393.67
IW-20 A	20-Jul-2009	22.08	1394.02
IW-20 A	20-Oct-2009	21.86	1394.24
IW-20 C	19-Jan-2009	24.32	1391.78
IW-20 C	09-Apr-2009	24.20	1391.90
IW-20 C	20-Jul-2009	24.55	1391.55
IW-20 C	20-Oct-2009	23.50	1392.60
IW-21 A	19-Jan-2009	25.85	1380.85
IW-21 A	09-Apr-2009	25.31	1381.39
IW-21 A	20-Jul-2009	26.42	1380.28
IW-21 A	20-Oct-2009	25.45	1381.25
IW-21 C	19-Jan-2009	25.82	1380.68
IW-21 C	09-Apr-2009	25.25	1381.25
IW-21 C	20-Jul-2009	26.37	1380.13
IW-21 C	20-Oct-2009	25.40	1381.10
IW-22 A	19-Jan-2009	18.73	1366.87
IW-22 A	09-Apr-2009	18.52	1367.08
IW-22 A	20-Jul-2009	17.38	1368.22
IW-22 A	20-Oct-2009	17.39	1368.21
IW-22 C	19-Jan-2009	19.14	1366.86
IW-22 C	09-Apr-2009	18.97	1367.03
IW-22 C	20-Jul-2009	17.98	1368.02
IW-22 C	20-Oct-2009	17.79	1368.21
IW-23 A	19-Jan-2009	19.80	1359.90
IW-23 A	09-Apr-2009	19.73	1359.97
IW-23 A	20-Jul-2009	24.54	1355.16
IW-23 A	20-Oct-2009	18.90	1360.80
IW-23 C	19-Jan-2009	19.76	1359.94
IW-23 C	09-Apr-2009	19.75	1359.95
IW-23 C	20-Jul-2009	24.36	1355.34
IW-23 C	20-Oct-2009	18.90	1360.80
IW-24 A	19-Jan-2009	6.65	1421.35
IW-24 A	10-Apr-2009	6.78	1421.22
IW-24 A	21-Jul-2009	7.02	1420.98
IW-24 A	20-Oct-2009	7.38	1420.62
IW-24 C	19-Jan-2009	6.69	1421.41
IW-24 C	10-Apr-2009	6.68	1421.42
IW-24 C	21-Jul-2009	7.39	1420.71
IW-24 C	20-Oct-2009	7.38	1420.72
IW-25 A	19-Jan-2009	9.00	1410.10
IW-25 A	10-Apr-2009	9.00	1410.10
IW-25 A	21-Jul-2009	9.07	1410.03
IW-25 A	20-Oct-2009	9.16	1409.94
IW-25 C	19-Jan-2009	8.82	1410.28
IW-25 C	10-Apr-2009	8.82	1410.28
IW-25 C	21-Jul-2009	9.05	1410.05
IW-25 C	20-Oct-2009	9.04	1410.06
IW-26 A	19-Jan-2009	12.18	1396.52
IW-26 A	10-Apr-2009	12.55	1396.15
IW-26 A	21-Jul-2009	10.92	1397.78
IW-26 A	20-Oct-2009	11.24	1397.46
IW-26 C	19-Jan-2009	23.83	1384.87

Index Well Water Levels

IW-26 C	10-Apr-2009	22.35	1386.35
IW-26 C	21-Jul-2009	24.27	1384.43
IW-26 C	20-Oct-2009	22.01	1386.69
IW-27 A	19-Jan-2009	16.32	1380.38
IW-27 A	10-Apr-2009	16.60	1380.10
IW-27 A	21-Jul-2009	15.09	1381.61
IW-27 A	20-Oct-2009	15.15	1381.55
IW-27 C	19-Jan-2009	19.50	1377.20
IW-27 C	10-Apr-2009	18.77	1377.93
IW-27 C	21-Jul-2009	19.52	1377.18
IW-27 C	20-Oct-2009	18.35	1378.35
IW-28 A	19-Jan-2009	22.55	1365.55
IW-28 A	10-Apr-2009	22.59	1365.51
IW-28 A	21-Jul-2009	21.22	1366.88
IW-28 A	21-Oct-2009	20.95	1367.15
IW-28 C	19-Jan-2009	29.28	1359.22
IW-28 C	10-Apr-2009	25.97	1362.53
IW-28 C	21-Jul-2009	24.69	1363.81
IW-28 C	21-Oct-2009	23.52	1364.98
IW-29 A	19-Jan-2009	16.17	1359.73
IW-29 A	10-Apr-2009	16.70	1359.20
IW-29 A	21-Jul-2009	16.48	1359.42
IW-29 A	20-Oct-2009	14.72	1361.18
IW-29 C	19-Jan-2009	17.05	1358.65
IW-29 C	10-Apr-2009	17.56	1358.14
IW-29 C	21-Jul-2009	17.29	1358.41
IW-29 C	20-Oct-2009	15.84	1359.86
IW-30 A	19-Jan-2009	11.92	1391.78
IW-30 A	10-Apr-2009	12.01	1391.69
IW-30 A	21-Jul-2009	12.66	1391.04
IW-30 A	21-Oct-2009	12.42	1391.28
IW-30 C	19-Jan-2009	12.40	1391.40
IW-30 C	10-Apr-2009	12.32	1391.48
IW-30 C	21-Jul-2009	13.50	1390.30
IW-30 C	21-Oct-2009	12.61	1391.19
IW-31 A	19-Jan-2009	7.53	1383.47
IW-31 A	10-Apr-2009	7.75	1383.25
IW-31 A	21-Jul-2009	7.40	1383.60
IW-31 A	21-Oct-2009	7.37	1383.63
IW-31 C	19-Jan-2009	21.06	1370.04
IW-31 C	10-Apr-2009	20.46	1370.64
IW-31 C	21-Jul-2009	22.15	1368.95
IW-31 C	21-Oct-2009	20.20	1370.90
IW-32 A	20-Jan-2009	15.07	1367.63
IW-32 A	10-Apr-2009	15.04	1367.66
IW-32 A	21-Jul-2009	13.79	1368.91
IW-32 A	21-Oct-2009	13.83	1368.87
IW-32 C	20-Jan-2009	15.47	1367.23
IW-32 C	10-Apr-2009	15.25	1367.45
IW-32 C	21-Jul-2009	14.86	1367.84
IW-32 C	21-Oct-2009	14.20	1368.50
IW-33 A	19-Jan-2009	19.97	1356.63

Index Well Water Levels

IW-33 A	10-Apr-2009	20.26	1356.34
IW-33 A	21-Jul-2009	19.09	1357.51
IW-33 A	21-Oct-2009	18.99	1357.61
IW-33 C	19-Jan-2009	20.31	1356.59
IW-33 C	10-Apr-2009	20.48	1356.42
IW-33 C	21-Jul-2009	19.42	1357.48
IW-33 C	21-Oct-2009	19.26	1357.64
IW-34 A	19-Jan-2009	15.48	1348.82
IW-34 A	10-Apr-2009	15.39	1348.91
IW-34 A	21-Jul-2009	13.94	1350.36
IW-34 A	21-Oct-2009	14.77	1349.53
IW-34 C	19-Jan-2009	15.49	1348.81
IW-34 C	10-Apr-2009	15.40	1348.90
IW-34 C	21-Jul-2009	14.00	1350.30
IW-34 C	21-Oct-2009	14.81	1349.49
IW-35 A	29-Jan-2009	4.08	1377.72
IW-35 A	10-Apr-2009	3.27	1378.53
IW-35 A	21-Jul-2009	4.80	1377.00
IW-35 A	21-Oct-2009	4.00	1377.80
IW-35 C	29-Jan-2009	7.65	1374.05
IW-35 C	10-Apr-2009	6.46	1375.24
IW-35 C	21-Jul-2009	8.54	1373.16
IW-35 C	21-Oct-2009	7.63	1374.07
IW-36 A	20-Jan-2009	7.59	1367.41
IW-36 A	10-Apr-2009	7.25	1367.75
IW-36 A	21-Jul-2009	7.26	1367.74
IW-36 A	21-Oct-2009	7.61	1367.39
IW-36 C	20-Jan-2009	8.98	1365.92
IW-36 C	10-Apr-2009	8.66	1366.24
IW-36 C	21-Jul-2009	10.19	1364.71
IW-36 C	21-Oct-2009	8.80	1366.10
IW-37 A	20-Jan-2009	12.53	1357.37
IW-37 A	10-Apr-2009	12.41	1357.49
IW-37 A	21-Jul-2009	11.70	1358.20
IW-37 A	21-Oct-2009	12.10	1357.80
IW-37 C	20-Jan-2009	12.54	1357.36
IW-37 C	10-Apr-2009	12.43	1357.47
IW-37 C	21-Jul-2009	11.74	1358.16
IW-37 C	21-Oct-2009	12.08	1357.82
IW-38 A	20-Jan-2009	13.77	1348.33
IW-38 A	10-Apr-2009	12.66	1349.44
IW-38 A	21-Jul-2009	13.15	1348.95
IW-38 A	21-Oct-2009	13.04	1349.06
IW-38 C	20-Jan-2009	13.99	1348.21
IW-38 C	10-Apr-2009	12.90	1349.30
IW-38 C	21-Jul-2009	13.37	1348.83
IW-38 C	21-Oct-2009	13.26	1348.94

Introduction

Beginning in the 1940s, the Wichita well field was developed in the *Equus* Beds aquifer in southwestern Harvey County and northwestern Sedgewick County to supply water to the city of Wichita (Williams and Lohman, 1949). In addition to supplying drinking water to the largest city in Kansas, the primary use of water from the *Equus* Beds aquifer is to irrigate crops in this agriculture-dominated part of south-central Kansas (Rich Eubank, Kansas Department of Agriculture, Division of Water Resources, oral commun., 2008). The decline of water levels in the aquifer were noted soon after the development of the Wichita well field began (Williams and Lohman, 1949). As water levels in the aquifer decline, the volume of water stored in the aquifer decreases and less water is available to supply future needs. For many years the U.S. Geological Survey (USGS), in cooperation with the city of Wichita, has monitored these changes in water levels and the resulting changes in storage volume in the *Equus* Beds aquifer as part of Wichita's effort to effectively manage this resource. In 2007, the city of Wichita began using Phase 1 artificial recharge to the *Equus* Beds aquifer and Recovery (ASR) project for large-scale artificial recharge of the *Equus* Beds aquifer. The ASR project uses water from the Little Arkansas River—either pumped from the river directly or from wells in the riverbank that obtain their water from the river by induced infiltration—as the source of artificial recharge to the *Equus* Beds aquifer (City of Wichita, 2009).

Hydrogeology of the Study Area

The study area (fig. 1) includes about 165 square miles (mi²) and is located in Harvey and Sedgewick Counties northwest from Wichita, Kansas. The study area is bounded on the southwest by the Arkansas River and on the northeast by the Little Arkansas River. There is little topographic relief in the study area. For the most part, the land surface slopes gently toward the major streams in the study area. The central part of the study area (fig. 1), which covers about 55 mi², is the historic center of pumping in the study area. The central part of the study area includes wells used to supply water to the city of Wichita and many wells used for irrigation.

Quaternary deposits occur throughout the study area primarily as alluvial deposits. These alluvial deposits, known locally as the *Equus* beds, are as much as 250 feet (ft) thick in the study area (Leonard and Kleinschmidt, 1976). The *Equus* beds primarily consist of sand and gravel interbedded with clay or silt, but locally may consist primarily of clay with thin sand and gravel layers (Lane and Miller, 1965a; Myers and others, 1996). The middle part of the deposits generally has more fine-grained material than the lower and upper parts (Lane and Miller, 1965b; Myers and others, 1996). The Wellington Formation of Permian age underlies the Quaternary deposits in the study area and forms the bedrock confining unit below these deposits; it is about 700 ft thick (Bayne, 1956). In the study area, the *Equus* Beds aquifer consists of the *Equus* beds deposits.

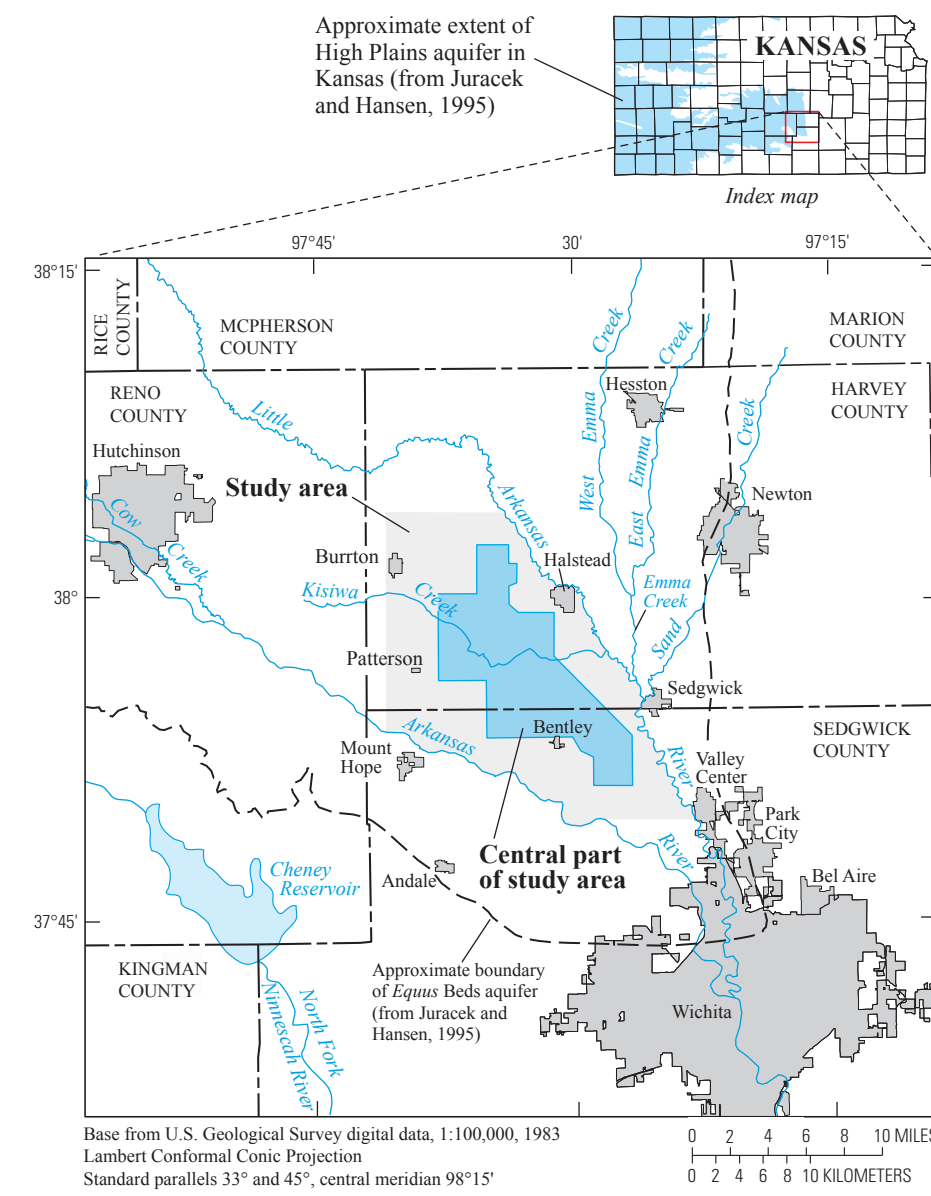


Figure 1. Location of study area near Wichita, south-central Kansas (modified from Aucott and Myers, 1998).

The *Equus* Beds aquifer is the easternmost extension of the High Plains aquifer in Kansas (Stulken and others, 1985; Hansen and Aucott, 2001). The *Equus* Beds aquifer is an important source of groundwater because of the generally shallow depth to the water table, the large saturated thickness, and generally good water quality. Near the Arkansas River, the water table may be as little as 10 ft below land surface. Farther from the Arkansas River and near the Little Arkansas River, the water table is at a greater depth, depending on the altitude of the land surface and the amount of water-level decline that has been caused by groundwater withdrawals. The saturated thickness of the *Equus* Beds aquifer within the study area ranges from about 75 ft near the Little Arkansas River to almost 250 ft near the Arkansas River where the lowest areas of the underlying bedrock surface occur (Spinazola and others, 1985). The *Equus* Beds aquifer is considered to be an unconfined aquifer, but the presence of clay layers has resulted in semi-confined conditions in some areas (Spinazola and others, 1985; Stramel, 1967). Storage volume (the amount of water available for use) of the *Equus* Beds aquifer in the study area in 2006 was estimated at about 2,100,000 acre-feet (acre-ft) (Hansen, 2007).

Methods

The January 2009 water-level measurements were collected during January 2 to 30, 2009, from 113 historic observation wells and 38 areal index wells. The historic observation wells have been used by the city of Wichita for monitoring water levels in the *Equus* Beds aquifer since the 1940s (Stramel, 1956). The areal index wells were installed in 2001 and 2002 to monitor the effects of artificial recharge on the water quality and water levels in the *Equus* Beds aquifer and to determine if there are water-quality differences between the shallow and deep parts of the aquifer (Andrew Ziegler, U.S. Geological Survey, oral commun., September 2003). Water levels in the historic observation wells were measured by city of Wichita personnel; water levels in the areal index wells were measured by *Equus* Beds Groundwater Management District No. 2 (GMD2) personnel. Both agencies used standard water-level measurement techniques that are similar to USGS methods described in Stallman (1971). The historic observation well data are on file in paper and electronic form with the city of Wichita's Water and Sewer Department in Wichita, Kansas; the areal index well data collected by GMD2 are stored in the Kansas Geological Survey's (KGS's) Water Information and Storage and Retrieval Database (WIZARD) and are available at the following URL: <http://www.kgs.ku.edu/Magellan/WaterLevels/index.html>. The water-level data used in this report from the historic monitoring wells and the areal index wells also are stored by the USGS in the National Water Information System (NWIS) database and are available at the following URL: <http://waterdata.usgs.gov/kv/nwis>.

The water-level change since August 1940 at a well was determined by subtracting the depth to water below land surface in January 2009 from the depth to water below land surface at the same well in August 1940. Of the 151 wells used in this report, 38 had measured water levels for August 1940 and 113 did not. If an August 1940 water-level measurement did not exist for a well in the study area, one was estimated from the August 1940 water-level altitude map of Stramel (1956) as modified

by Aucott and Myers (1998). The August 1940 to January 2009 water-level change values for the measured wells were plotted on the map and manually contoured.

Change in storage volume for the purposes of this report is defined as the change in saturated aquifer volume multiplied by the specific yield of the aquifer. A specific yield of 0.2 has been used to compute the changes in storage volume in the *Equus* Beds aquifer since Stramel (1956) first computed storage volume for the aquifer. The use of a specific yield of 0.2 was retained in this report because, as noted by Hansen and Aucott (2001), it is within the range of most estimates of specific yield, and because there is no general agreement on an average value of specific yield for the *Equus* Beds aquifer in the study area.

The change in storage volume from August 1940 to January 2009 was computed using computer-generated Thiessen polygons (Thiessen, 1911) that were based on the measured water-level changes at wells and the manually drawn lines of equal water-level change. Thiessen polygons apportion the water-level change at each well and the estimated value at points representing the lines of equal water-level change to the area around the wells and points. The volume of storage change was computed by summing the area of each Thiessen polygon multiplied by the water-level-change value associated with the Thiessen polygon, and then by the specific yield. To determine the storage-volume change since August 1940 in the whole study area and in the central part of the study area, the computation was done for the Thiessen polygons within each of these areas.

Changes in storage volume for periods that do not begin with August 1940 were calculated as the difference between changes in storage volume for August 1940 to the beginning of the selected time period, and for August 1940 to the end of the selected time period. For example, the change in storage volume for January 1993 to January 2009 was calculated as the change in storage volume for August 1940 to January 2009, minus the change in storage volume for August 1940 to January 1993.

Groundwater Levels and Storage Volume, January 2009

Groundwater-level declines can result from a combination of factors, with the primary factors being pumpage and decreased recharge resulting from less-than-average precipitation. Droughts and other periods of less-than-average precipitation tend to decrease the amount of recharge available and increase demand for, and thus pumpage of, groundwater, resulting in increased water-level declines. Periods of greater-than-average rainfall tend to increase the amount of recharge available and decrease the demand for, and thus pumpage of, groundwater, resulting in water-level rises. If the water-level declines or rises are large enough, they may locally alter the direction of groundwater flow. An annual cycle of water-level declines and rises generally occurs in the study area. Typically, the largest water-level declines occur during the summer or fall when agricultural-irrigation and city pumpage are greatest (Aucott and Myers, 1998). This cycle of annual water-level declines is reflected in the annual fluctuation in the water levels in wells shown in figure 2. The consistently large seasonal water-level variations in well 104 probably are caused by agricultural-irrigation pumpage.

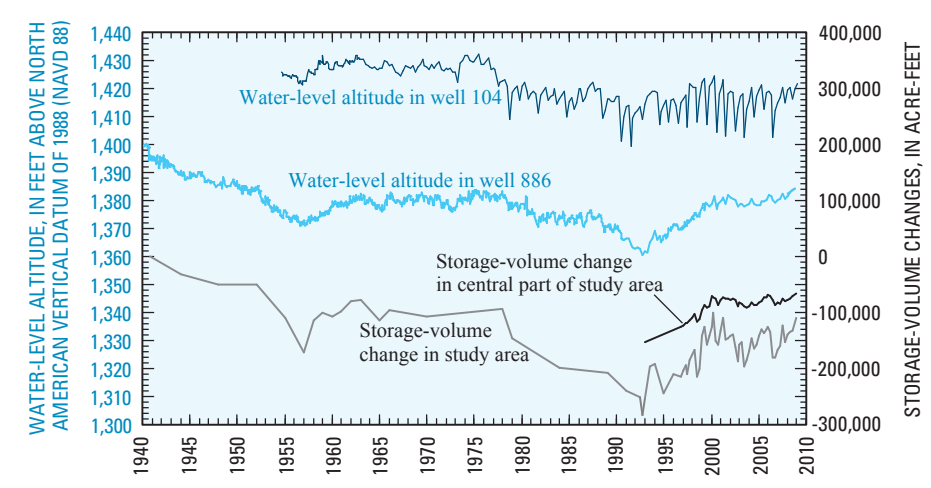


Figure 2. Water-level altitudes in observation wells 104 and 886 and *Equus* Beds aquifer storage-volume change since 1940 to January 2009 in the study area and the central part of the study area (water-level-altitude data from Stramel (1956, 1967), and from data collected by city of Wichita, *Equus* Beds Groundwater Management District No. 2, and on file with U.S. Geological Survey. Location of observation wells is shown in figure 3. Storage-volume changes from Stramel (1956, 1967), Aucott and Myers (1998), Aucott and others (1998), Hansen and Aucott (2001, 2004), Hansen (2007, 2009), and data on file with U.S. Geological Survey in Lawrence, Kansas).

Record to near-record water-level declines in the *Equus* Beds aquifer occurred in October 1992 and January 1993 (Aucott and Myers, 1998; Hansen and Aucott, 2001). Although the maximum recorded decline in storage-volume in the *Equus* Beds aquifer occurred in October 1992, the January 1993 storage-volume decline is used for comparison purposes to minimize the effect of seasonal factors on these comparisons (Hansen and Aucott, 2001). Recent reports have shown that since January 1993, the *Equus* Beds aquifer has been experiencing higher water levels because of near-average to greater-than-average precipitation and decreased city pumpage (Aucott and Myers, 1998; Hansen and Aucott, 2001, 2004; Hansen, 2007). Pumpage for agricultural irrigation, which can vary as much as 40 percent from year to year, tended to decrease in years of greater-than-average precipitation and increase in years of average to less-than-average precipitation (Hansen, 2007); thus, decreased pumpage for agricultural irrigation likely contributed to the higher water levels only in years of greater-than-average precipitation. Water levels in wells in the study area have continued to remain relatively high, indicating this period of higher water levels that began in 1993 continued through January 2009 (fig. 2). Large-scale artificial recharge by the city of Wichita, which began in 2007, probably also has contributed to the continuation of these higher water levels.

Water-level changes from August 1940 to January 2009 are shown in figure 3. Water levels were measured in the historic observation wells by city of Wichita personnel during January 2 to 12, 2009, and in the areal index wells by GMD2 personnel during January 19 to 30, 2009. Precipitation during January 2 to 12, 2009, was no more than a trace at all five weather stations in and near the study area (Halstead, Hutchinson, Mount Hope, Newton, and Wichita; fig. 1); precipitation ranged from 0.02 to 0.08 inch (in.) at these stations during January 19 to 30, 2009 (Mary Knapp, State Climatologist, written commun. May 2009). Water-level changes from August 1940 to January 2009 ranged from a decline of 25.66 ft at well 14 in the central part of the study area to a rise of 2.80 ft at well P27 just beyond the west edge of the study area (fig. 3). Water-level declines of 20 ft or more occurred in one small area around well 14 in the central part of the study area, probably because of pumping near this well. Surrounding the area of decline of 20 ft or more is a large area of water-level declines of 10 ft or more that covers much of the central part of the study area (where Wichita city wells are located). Water-level declines of 10 ft or more also occurred in a small area around Phase 1 recharge site RRW-3 in the northern part of the study area (fig. 3). Small water-level rises of less than 3 ft occurred along the western edge of the study area and near the Little Arkansas River. Since March 2007, when Wichita began large-scale artificial recharge, about 2,110 acre-ft of water have been artificially recharged into the aquifer through the six recharge sites shown in figure 3 (Wichita Water Utilities, written commun., 2009). The areas around the Phase 1 artificial recharge sites do not indicate any obvious effects from artificial recharge, probably because no artificial recharge occurred during January 2009, and only about 1 acre-ft was recharged from November 2008 through January 2009 (Wichita Water Utilities, written commun., 2009). The change in storage volume in the study area from August 1940 to January 2009 was a decrease of about 111,000 acre-ft (fig. 2, table 1). The storage volume in the study area in January 2009 was about 30,000 acre-ft more than in January 2008, and about 23,000 acre-ft more than in July 2008 (table 1). From August 1940 (just before Wichita began pumping water from the study area), to January 1993, when near-record low water levels and storage volumes occurred in the study area because of a combination of drought conditions and increased usage, storage volume decreased by about 255,000 acre-ft in the study area (Aucott and Myers, 1998). The change in storage volume from January 1993 to January 2009 represents a recovery of about 144,000 acre-ft (table 1) or about 56 percent of the storage volume previously lost from August 1940 to January 1993. From August 1940 to January 2007 (when the last set of water-level measurements were made before large-scale artificial recharge began), storage volume decreased by about 167,000 acre-ft (table 1). The change in storage volume from January 2007 to January 2009 represents a recovery of about 56,000 acre-ft, or about 34 percent of the storage volume previously lost from August 1940 to January 2007. Precipitation in the study area during July 2008 to January 2009 tended to be near normal except for September, when monthly precipitation was about 3 in. above normal in much of the study area (http://www.srh.noaa.gov/rchare/precip_analysis_new.php accessed May 2009). This near-normal to greater-than-normal precipitation probably contributed to the relatively high water levels, and thus maintenance of the substantial storage-volume recovery following the low levels in January 1993. Artificial recharge probably was an additional factor in the maintenance of the higher water levels and the storage-volume recovery seen in the study area since January 2007.

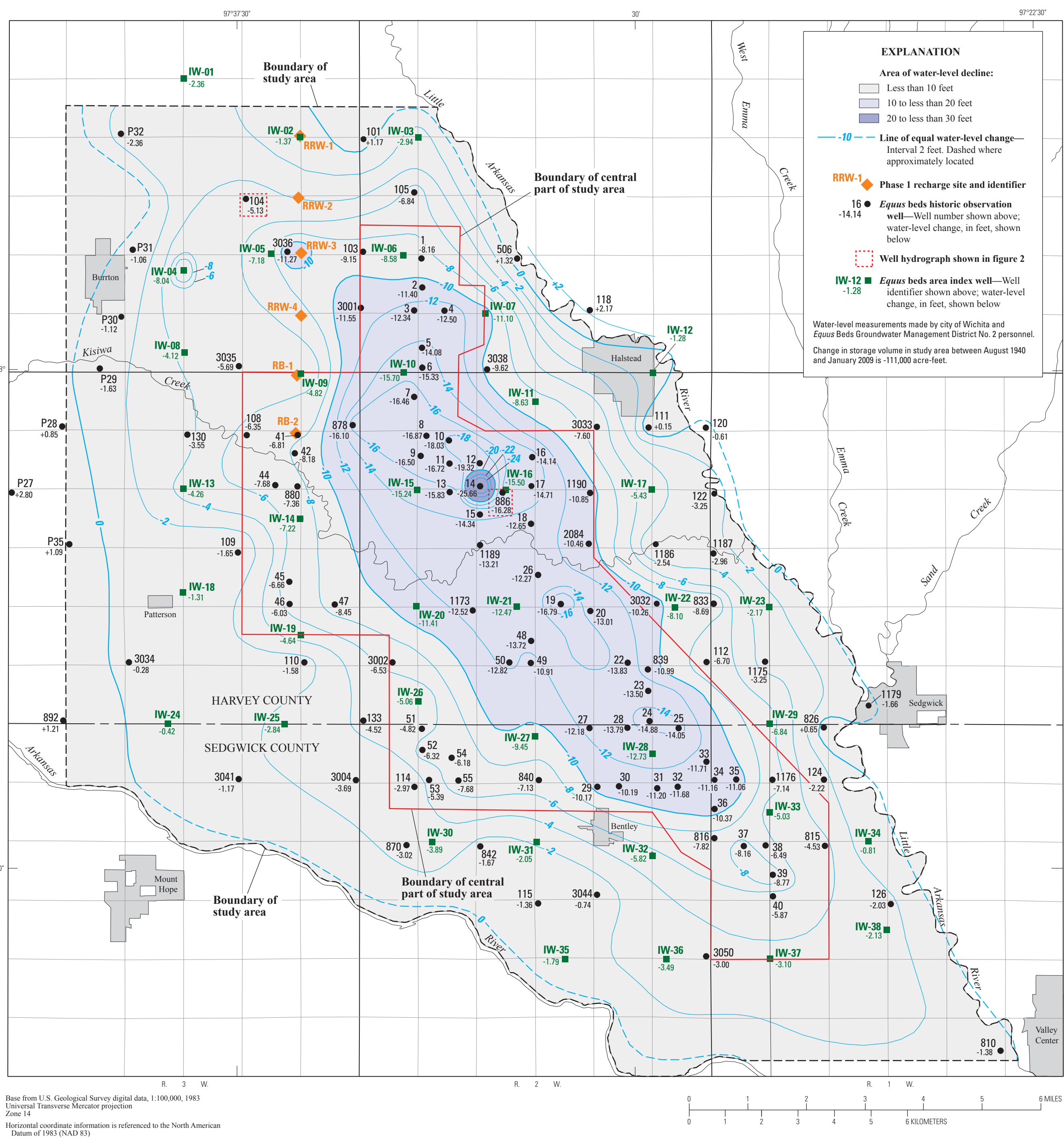


Figure 3. Water-level changes in the *Equus* Beds aquifer in the study area, August 1940 to January 2009.

The change in storage volume in the central part of the study area (where Wichita city wells are located) from August 1940 to January 2009 was a decrease of about 66,600 acre-ft (fig. 2, table 1). Storage volume in the central part of the study area in January 2009 was about 11,800 acre-ft more than in January 2008 and about 4,600 acre-ft more than in July 2008 (table 1). From January 1993 to January 2009, storage volume in the central part of the study area increased by about 87,400 acre-ft (table 1) or about 57 percent of the storage volume previously lost from August 1940 to January 1993. From January 2007 (just before large-scale artificial recharge began)

Table 1. Storage-volume changes in *Equus* Beds aquifer near Wichita, south-central Kansas, August 1940 to January 2009.

[Data on file with U.S. Geological Survey, Lawrence, Kansas.]

Time period	Storage-volume changes, in acre-feet	
	In study area	In central part of study area
August 1940 to January 1993	-255,000	-154,000
August 1940 to January 2007	-167,000	-82,900
August 1940 to January 2008	-141,000	-78,400
August 1940 to July 2008	-134,000	-71,200
August 1940 to January 2009	-111,000	-66,600
January 1993 to January 2009	+144,000	+87,400
January 2007 to January 2009	+56,000	+16,300
January 2008 to January 2009	+30,000	+11,800
July 2008 to January 2009	+23,000	+4,600

¹ Storage-volume change previously reported by Aucott and Myers (1998).
² Storage-volume change previously reported by Hansen (2009).

to January 2009, storage volume in the central part of the study area increased by about 16,200 acre-ft or about 20 percent of the storage volume previously lost from August 1940 to January 2007. A comparison of the changes in storage volume for the central part of the study area to those for the study area as a whole indicates that in recent years the recovery has been maintained more consistently in the central part of the study area than in the study area as a whole (fig. 2). This probably is because city pumpage, which occurs in the central part of the study area, has remained less than pre-1993 levels, whereas agricultural-irrigation pumpage, which occurs throughout the study area, has been as much or more than pre-1993 levels in some years (Hansen, 2007). Artificial recharge also probably contributed to the recovery of water levels and storage volume seen in the central part of the study area since January 2007.

Conversion Factors, Abbreviations, and Datums

Multiply	By	To obtain
Length		
inch (in.)	2.54	centimeter (cm)
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
square mile (mi ²)	2.590	square kilometer (km ²)
Volume		
acre-foot (acre-ft)	1.233	cubic meter (m ³)

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Altitude, as used in this report, refers to distance above the vertical datum.

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Status of Groundwater Levels and Storage Volume in the *Equus* Beds Aquifer Near Wichita, Kansas, January 2009

By
Cristi V. Hansen
2009

**APPENDIX F –
KEY GROUNDWATER QUALITY PARAMETERS**

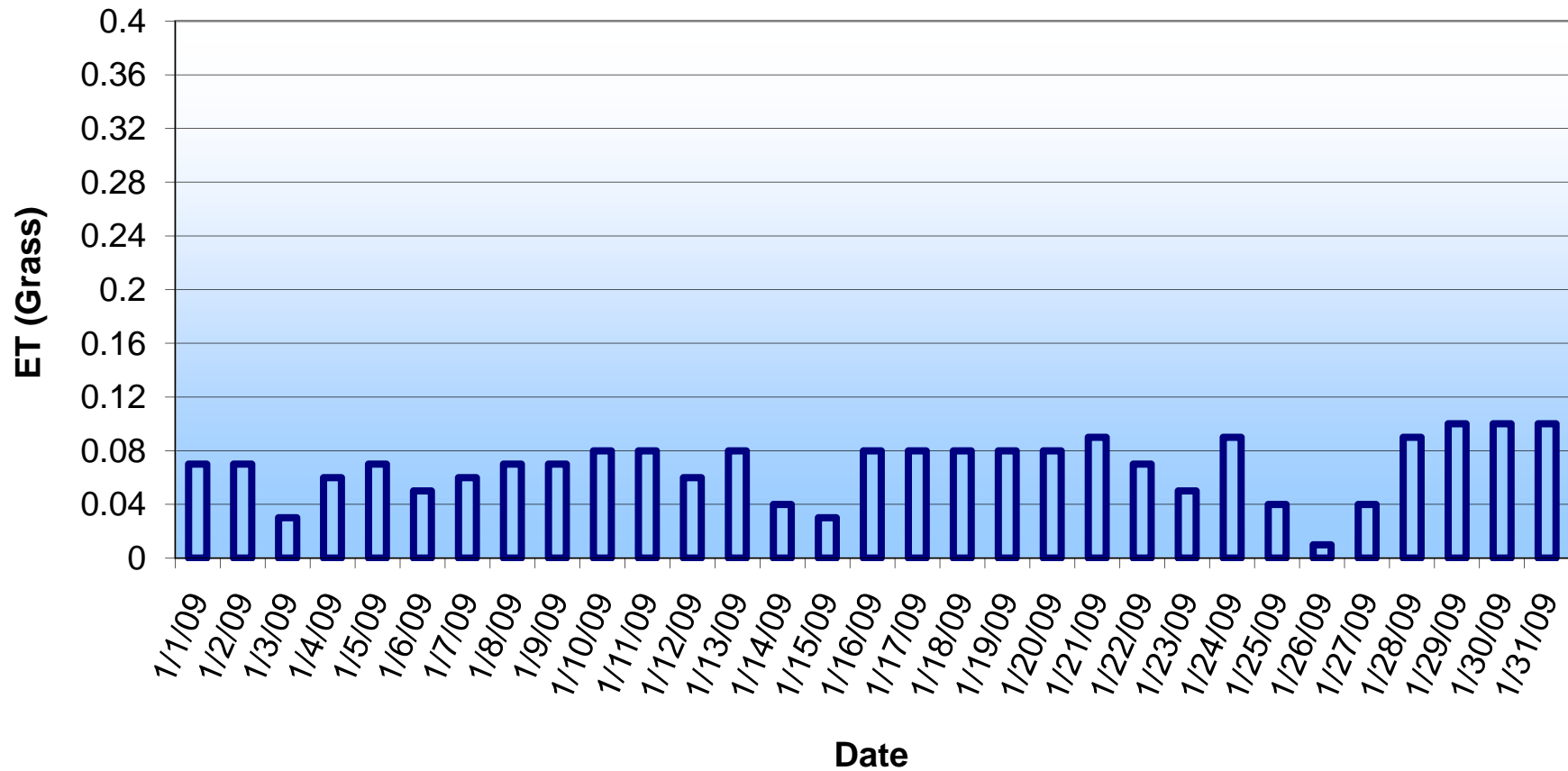
**APPENDIX G –
MONTHLY AND ANNUAL PRECIPITATION DATA**

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

JANUARY	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
1/1/2009	45.5	23.7	0	72.2	13.2	245.7	0.07	0	0	0	0	0	0	35.5	0	0
1/2/2009	52.7	21.6	0	86.2	10.23	233.3	0.07	0	0	0	0	0	0	37.97	0	0
1/3/2009	42.7	17.6	0.03	94.2	21.64	74.3	0.03	0	0	0	0	0	0	46.58	0	0
1/4/2009	26.6	13.4	0	60.7	15.29	210.6	0.06	0	0	0	0	0	0	47.81	0	0
1/5/2009	35.9	15.6	0	59.2	9.26	249.9	0.07	0	0	0	0	0	0	35.75	0	0
1/6/2009	45.3	12.8	0	72.3	4.56	177.6	0.05	0	0	0	0	0	0	23.46	0	0
1/7/2009	56	26.7	0	63	8.69	206.5	0.06	0	0	0	0	0	0	27.64	0	0
1/8/2009	54.7	20.5	0	78.6	11.24	258.1	0.07	0	0	0	0	0	0	27.88	0	0
1/9/2009	57.7	20.8	0	79.5	19.36	258.1	0.07	0	0	0	0	0	0	54.45	0	0
1/10/2009	32.5	14.8	0	73.1	14.08	264.3	0.08	0	0	0	0	0	0	46.83	0	0
1/11/2009	51.3	27.1	0	85.2	7.24	262.2	0.08	0	0	0	0	0	0	21.25	0	0
1/12/2009	49.7	15.6	0	63.7	20.51	212.7	0.06	0	0	0	0	0	0	57.88	0	0
1/13/2009	41.3	6.6	0	61	15.92	268.4	0.08	0	0	0	0	0	0	38.47	0	0
1/14/2009	43.2	9.2	0	58.3	16.91	140.4	0.04	0	0	0	0	0	0	43.63	0	0
1/15/2009	10.4	1.7	0	76.4	9.92	103.2	0.03	0	0	0	0	0	0	26.41	0	0
1/16/2009	35.7	9.6	0	80.8	17.82	262.2	0.08	0	0	0	0	0	0	35.75	0	0
1/17/2009	54.8	23	0	66.5	12.2	285	0.08	0	0	0	0	0	0	43.88	0	0
1/18/2009	62	32.5	0	52.7	17.67	266.4	0.08	0	0	0	0	0	0	38.22	0	0
1/19/2009	53	24.7	0	71.5	17.4	268.4	0.08	0	0	0	0	0	0	45.34	0	0
1/20/2009	45	24.4	0	79.8	4.65	262.2	0.08	0	0	0	0	0	0	14.22	0	0
1/21/2009	57.1	19.8	0	62.8	2.86	305.6	0.09	0	0	0	0	0	0	11.25	0	0
1/22/2009	62.9	21.5	0	59.6	0.41	251.9	0.07	0	0	0	0	0	0	6.67	0	0
1/23/2009	38.7	15.2	0	69.7	10.82	150.7	0.05	0	0	0	0	0	0	21.65	0	0
1/24/2009	22.5	6.9	0	55.6	5.89	299.4	0.09	0	0	0	0	0	0	16.39	0	0
1/25/2009	22.8	14.6	0	59.8	6.64	140.4	0.04	0	0	0	0	0	0	11.93	0	0
1/26/2009	15	11.7	0	90.9	6.89	39.2	0.01	0	0	0	0	0	0	12.96	0	0
1/27/2009	16.2	1.1	0	95.9	5.29	130.1	0.04	0	0	0	0	0	0	11.93	0	0
1/28/2009	46.1	-2.1	0	80.2	2.57	295.3	0.09	0	0	0	0	0	0	10.56	0	0
1/29/2009	44.5	20.6	0	69	4.16	311.8	0.1	0	0	0	0	0	0	13.65	0	0
1/30/2009	56.4	18	0	61.7	6.81	324.2	0.1	0	0	0	0	0	0	23.71	0	0
1/31/2009	70.3	25.1	0	50.3	7.12	332.5	0.1	0	0	0	0	0	0	28.05	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
January 2009

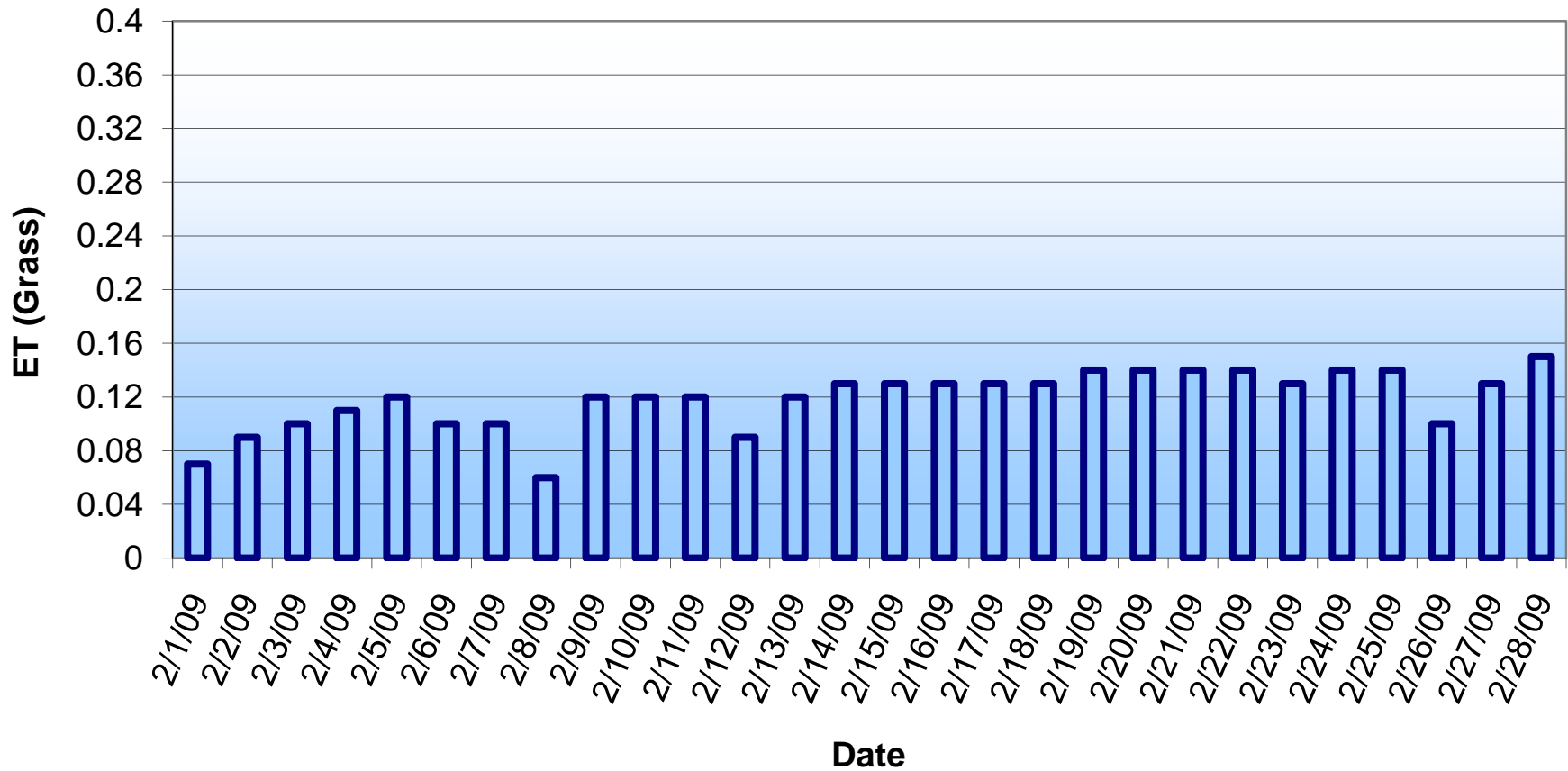


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

FEBRUARY	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
2/1/2009	45.3	21.4	0	54.4	6.81	249.9	0.07	0	0	0	0	0	0	16.96	0	0
2/2/2009	47.3	12.9	0	58.4	2.45	280.8	0.09	0	0	0	0	0	0	12.73	0	0
2/3/2009	36	13.5	0	50.7	5.22	313.9	0.1	0	0	0	0	0	0	15.93	0	0
2/4/2009	41.7	8.7	0	55.3	6.12	338.7	0.11	0	0	0	0	0	0	16.5	0	0
2/5/2009	66.2	23.3	0	58.6	7.22	353.1	0.12	0	0	0	0	0	0	16.96	0	0
2/6/2009	72.6	32.9	0	73.4	9.78	320.1	0.1	0	0	0	0	0	0	23.02	0	0
2/7/2009	68.1	29.3	0	60.9	2.59	326.3	0.1	0	0	0	0	0	0	12.73	0	0
2/8/2009	63.3	37.7	0	74	8.36	163.1	0.06	0	0	0	0	0	0	17.99	0	0
2/9/2009	65.3	47.9	0.14	66	15.86	344.8	0.12	0	0	0	0	0	0	28.96	0	0
2/10/2009	68.6	33.8	0	65.3	5.39	367.6	0.12	0	0	0	0	0	0	15.93	0	0
2/11/2009	51.9	31.1	0.09	76.9	7.82	361.4	0.12	0	0	0	0	0	0	23.59	0	0
2/12/2009	51.5	28.4	0	71.8	5.82	280.8	0.09	0	0	0	0	0	0	14.79	0	0
2/13/2009	51.9	23	0	79	7.83	367.6	0.12	0	0	0	0	0	0	20.16	0	0
2/14/2009	40.1	14	0	69.8	4.84	392.3	0.13	0	0	0	0	0	0	12.73	0	0
2/15/2009	38.9	14.2	0	65.5	2.96	398.5	0.13	0	0	0	0	0	0	8.84	0	0
2/16/2009	49.3	19.5	0	67.1	8.87	384.1	0.13	0	0	0	0	0	0	21.53	0	0
2/17/2009	73.8	37.8	0	61.8	10.8	375.8	0.13	0	0	0	0	0	0	23.71	0	0
2/18/2009	43.9	14	0	70.7	7.37	398.5	0.13	0	0	0	0	0	0	18.79	0	0
2/19/2009	49.8	10.2	0	64.5	3.22	410.9	0.14	0	0	0	0	0	0	18.34	0	0
2/20/2009	63.7	23.6	0	53.5	7.18	413	0.14	0	0	0	0	0	0	25.77	0	0
2/21/2009	39.3	17.1	0	50.5	8.5	423.3	0.14	0	0	0	0	0	0	25.2	0	0
2/22/2009	48.1	12.2	0	46.9	4.37	410.9	0.14	0	0	0	0	0	0	13.19	0	0
2/23/2009	57.3	26	0	44.9	10.15	386.1	0.13	0	0	0	0	0	0	19.14	0	0
2/24/2009	62.4	38.5	0	58.5	4.52	410.9	0.14	0	0	0	0	0	0	12.5	0	0
2/25/2009	72.4	34.7	0	73.2	2.58	421.3	0.14	0	0	0	0	0	0	12.16	0	0
2/26/2009	65.3	20.5	0	78.4	9.67	287	0.1	0	0	0	0	0	0	20.97	0	0
2/27/2009	31.9	16.6	0	75.5	8.24	382	0.13	0	0	0	0	0	0	15.14	0	0
2/28/2009	27.9	5.1	0	78.2	9.78	439.8	0.15	0	0	0	0	0	0	18.57	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
February 2009

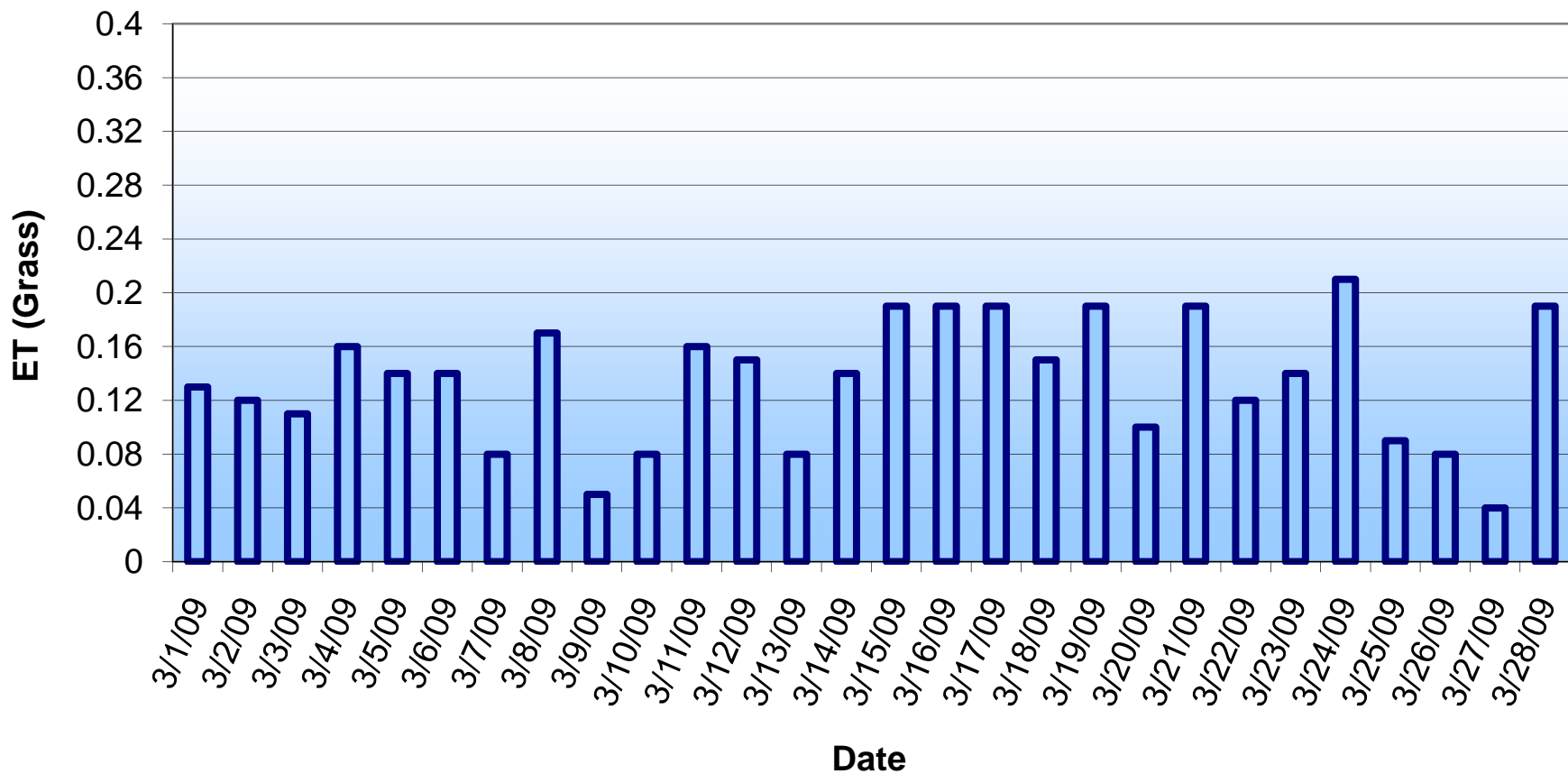


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

MARCH	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
3/1/2009	30.7	8.4	0	66.9	4.16	404.7	0.13	0	0	0	0	0	0	12.5	0	0
3/2/2009	46.9	13.2	0	56.7	7.91	365.5	0.12	0	0	0	0	0	0	16.51	0	0
3/3/2009	50.5	28.4	0	55.5	8.9	338.7	0.11	0	0	0	0	0	0	21.42	0	0
3/4/2009	67.5	29.7	0	64.8	9.98	464.6	0.16	0	0	0	0	0	0	20.97	0	0
3/5/2009	84.5	45.7	0	50.9	7.29	423.3	0.14	0	0	0	0	0	0	24.51	0	0
3/6/2009	71.1	36.1	0	33.7	5.6	408.9	0.14	0	0	0	0	0	0	17.31	0	0
3/7/2009	68.8	34.7	0.89	81.6	9.14	231.3	0.08	0	0	0	0	0	0	18.34	0	0
3/8/2009	63.5	32.1	0.01	74.1	6.8	495.6	0.17	0	0	0	0	0	0	17.08	0	0
3/9/2009	60.5	43	0	78.4	7.87	138.4	0.05	0	0	0	0	0	0	18.22	0	0
3/10/2009	43.7	21.7	0	88.2	9.39	247.8	0.08	0	0	0	0	0	0	18.68	0	0
3/11/2009	30.8	12.3	0	67.6	7.05	466.7	0.16	0	0	0	0	0	0	14.34	0	0
3/12/2009	42.7	17.8	0	72.5	6.42	429.5	0.15	0	0	0	0	0	0	15.25	0	0
3/13/2009	43.6	30.7	0	88.2	1.16	221	0.08	0	0	0	0	0	0	8.05	0	0
3/14/2009	54.6	34.7	0	70.6	0.91	390.3	0.14	0	0	0	0	0	0	8.97	0	0
3/15/2009	61.9	30.4	0	80.8	5.35	524.5	0.19	0	0	0	0	0	0	16.62	0	0
3/16/2009	72.4	37.6	0	80.4	6.03	543.1	0.19	0	0	0	0	0	0	15.93	0	0
3/17/2009	77.1	39.6	0	78.3	3.85	539	0.19	0	0	0	0	0	0	9.88	0	0
3/18/2009	61.2	43.8	0	66.2	8.52	431.6	0.15	0	0	0	0	0	0	20.17	0	0
3/19/2009	62.7	40.1	0	46.6	7.7	512.1	0.19	0	0	0	0	0	0	15.82	0	0
3/20/2009	60.8	41.4	0	59	8.78	285	0.1	0	0	0	0	0	0	21.77	0	0
3/21/2009	70	47.4	0	78	8.32	530.7	0.19	0	0	0	0	0	0	15.02	0	0
3/22/2009	70.5	50	0	80.1	14.3	326.3	0.12	0	0	0	0	0	0	27.83	0	0
3/23/2009	73.7	40.7	0	70	16.61	380	0.14	0	0	0	0	0	0	36.18	0	0
3/24/2009	52.3	29	0	56.8	8.56	576.1	0.21	0	0	0	0	0	0	23.71	0	0
3/25/2009	52.5	21.7	0	62.6	1.8	254	0.09	0	0	0	0	0	0	11.25	0	0
3/26/2009	55.8	30.5	0.09	79.4	7.6	218.9	0.08	0	0	0	0	0	0	19.71	0	0
3/27/2009	34	22.9	0	92	15.67	97.1	0.04	0	0	0	0	0	0	24.39	0	0
3/28/2009	38.9	22.6	0.39	84	11.52	522.4	0.19	0	0	0	0	0	0	26.8	0	0
3/29/2009	43.5	15.1	0	79.8	6.61	621.6	0.23	0	0	0	0	0	0	19.48	0	0
3/30/2009	55.2	33.9	0	77.1	10.74	596.8	0.22	0	0	0	0	0	0	21.89	0	0
3/31/2009	51.1	29.9	0	64.8	10	617.4	0.23	0	0	0	0	0	0	22.68	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
March 2009

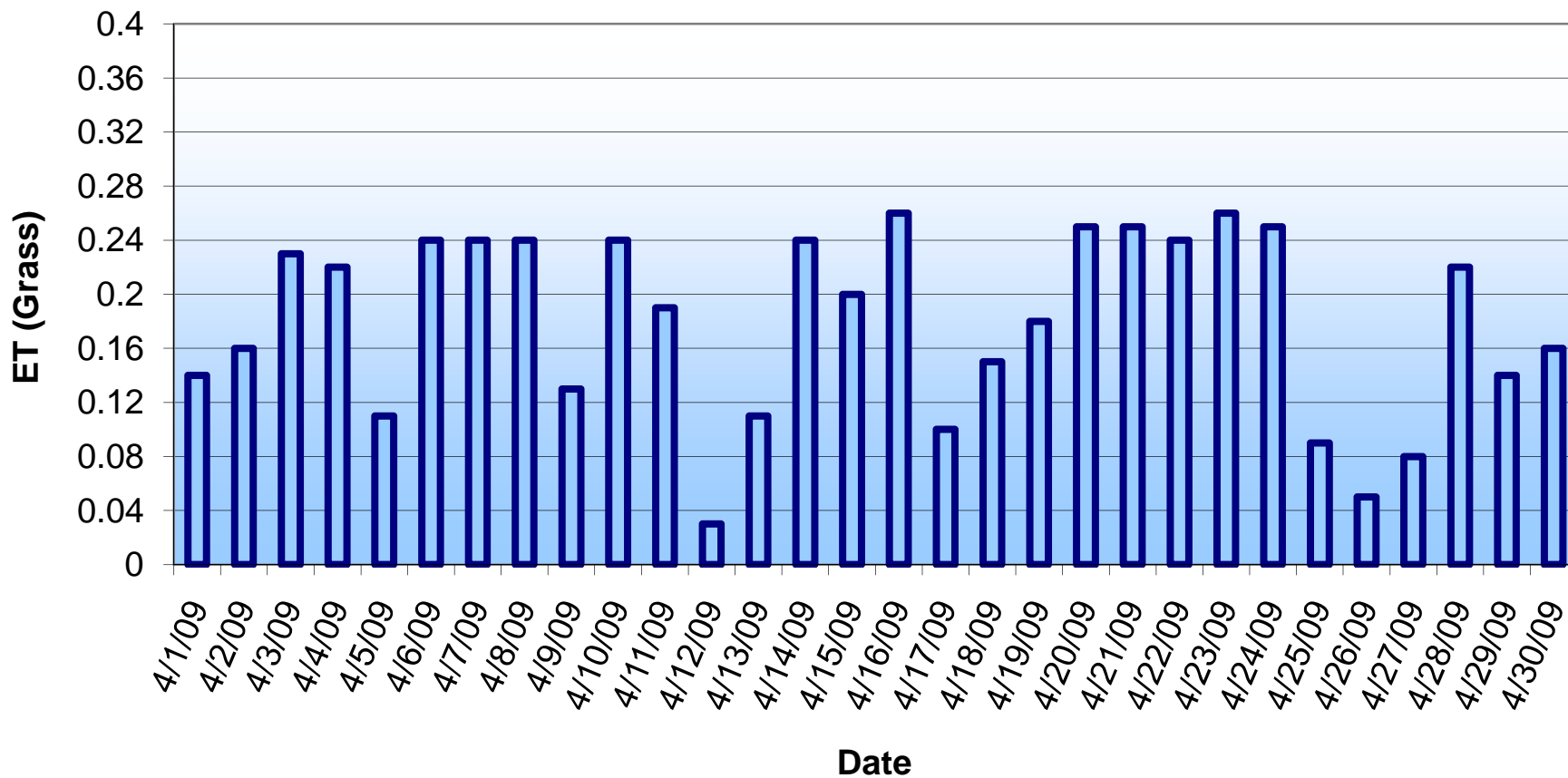


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

APRIL	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
4/1/2009	59.6	30.3	0	68.7	6.69	404.7	0.14	0	0	0	0	0	0	20.4	0	0
4/2/2009	50.6	30.5	0.01	79.5	9.84	446	0.16	0	0	0	0	0	0	24.05	0	0
4/3/2009	60	28.6	0	65.1	8.56	627.7	0.23	0	0	0	0	0	0	21.65	0	0
4/4/2009	72.7	40.1	0	64.5	16.44	598.8	0.22	0	0	0	0	0	0	33.66	0	0
4/5/2009	42	28.9	0.01	82.8	15.34	305.6	0.11	0	0	0	0	0	0	26.45	0	0
4/6/2009	42.4	23.7	0	64.9	11.37	654.6	0.24	0	0	0	0	0	0	22.91	0	0
4/7/2009	65.5	17.4	0	64	5.01	669	0.24	0	0	0	0	0	0	19.14	0	0
4/8/2009	67.9	30.4	0	56.6	4.12	660.8	0.24	0	0	0	0	0	0	12.96	0	0
4/9/2009	65.4	31.6	0.53	69.4	13.23	349	0.13	0	0	0	0	0	0	27.26	0	0
4/10/2009	56.2	31.8	0.18	75.5	7.35	644.3	0.24	0	0	0	0	0	0	20.62	0	0
4/11/2009	59.3	35.4	0	70.1	4.41	516.2	0.19	0	0	0	0	0	0	14.56	0	0
4/12/2009	49.2	37.2	0.46	96.1	8.11	78.5	0.03	0	0	0	0	0	0	17.88	0	0
4/13/2009	52.8	36.7	0	90.9	6.44	299.4	0.11	0	0	0	0	0	0	16.51	0	0
4/14/2009	64.5	34.8	0	80.6	5.1	644.3	0.24	0	0	0	0	0	0	16.96	0	0
4/15/2009	68	45.3	0	73.3	11.78	547.2	0.2	0	0	0	0	0	0	20.4	0	0
4/16/2009	70	41	0	58.7	16.85	685.6	0.26	0	0	0	0	0	0	32.63	0	0
4/17/2009	62.1	51.4	0.02	83.4	8.11	264.3	0.1	0	0	0	0	0	0	14.8	0	0
4/18/2009	68	49.8	0.14	89.3	3.42	406.8	0.15	0	0	0	0	0	0	19.14	0	0
4/19/2009	64.5	40.9	0.05	76.6	9.87	491.5	0.18	0	0	0	0	0	0	21.54	0	0
4/20/2009	69.1	37.6	0	59.8	4.94	669	0.25	0	0	0	0	0	0	15.93	0	0
4/21/2009	76.6	43.6	0	55.7	2.99	677.3	0.25	0	0	0	0	0	0	15.48	0	0
4/22/2009	84.1	45.7	0.08	68.6	4.13	642.2	0.24	0	0	0	0	0	0	24.51	0	0
4/23/2009	82.3	53.1	0.03	78.8	3.54	700	0.26	0	0	0	0	0	0	18.68	0	0
4/24/2009	81	61.2	0	80	12.75	667	0.25	0	0	0	0	0	0	26.8	0	0
4/25/2009	70.7	46.4	0.02	90.6	8.33	245.7	0.09	0	0	0	0	0	0	21.89	0	0
4/26/2009	75.1	46.5	2.39	98.4	9.27	142.5	0.05	0	0	0	0	0	0	33.09	0	0
4/27/2009	57.5	41.4	0.09	97.6	8.59	223	0.08	0	0	0	0	0	0	20.4	0	0
4/28/2009	61.3	35.2	0	95.5	5.65	592.6	0.22	0	0	0	0	0	0	13.19	0	0
4/29/2009	70	56.2	0.26	97.3	7.32	394.4	0.14	0	0	0	0	0	0	17.08	0	0
4/30/2009	72.7	59.2	0	92	6.22	431.6	0.16	0	0	0	0	0	0	14.11	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
April 2009

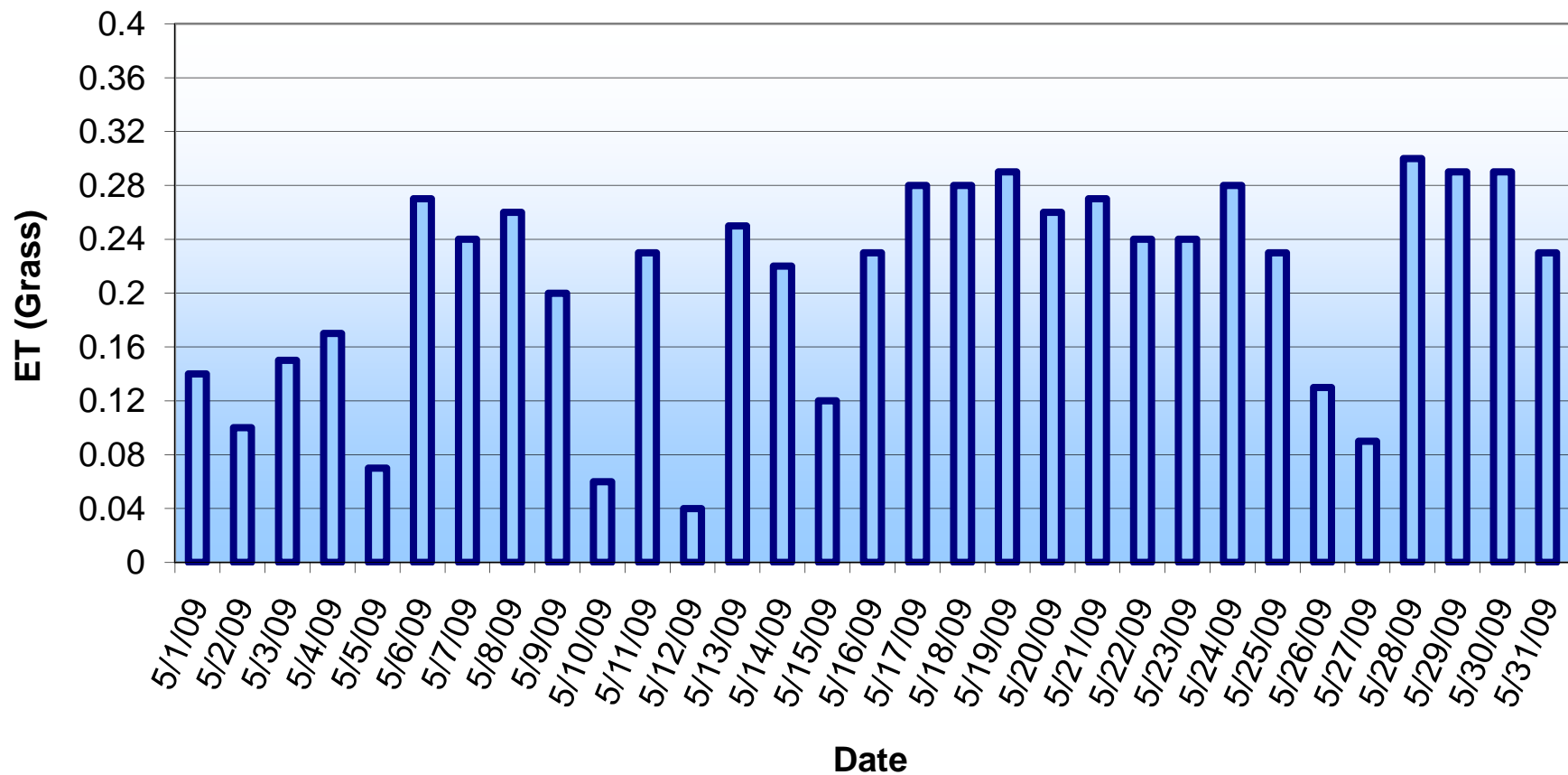


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

MAY	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
5/1/2009	61.1	48.9	0	82.3	7.93	388.2	0.14	0	0	0	0	0	0	18.68	0	0
5/2/2009	59.3	48.5	0.05	88.7	2.66	266.4	0.1	0	0	0	0	0	0	12.62	0	0
5/3/2009	63.5	48.5	0	84.7	4.55	386.1	0.15	0	0	0	0	0	0	14.34	0	0
5/4/2009	64.9	48.7	0	86.2	3.22	458.4	0.17	0	0	0	0	0	0	11.25	0	0
5/5/2009	59	48.6	0.03	99.9	4.94	173.5	0.07	0	0	0	0	0	0	14.8	0	0
5/6/2009	82.5	52.9	0	74.7	6.01	728.9	0.27	0	0	0	0	0	0	18.45	0	0
5/7/2009	82.4	55.4	0.02	87	5.28	660.8	0.24	0	0	0	0	0	0	19.37	0	0
5/8/2009	77.6	58.4	2.44	72	6.8	708.3	0.26	0	0	0	0	0	0	22.34	0	0
5/9/2009	64.9	46.8	0	69.5	4.55	532.8	0.2	0	0	0	0	0	0	17.19	0	0
5/10/2009	58.1	46.7	0.05	92.7	2.95	156.9	0.06	0	0	0	0	0	0	10.34	0	0
5/11/2009	66.3	40.6	0	83.1	3.49	627.7	0.23	0	0	0	0	0	0	12.16	0	0
5/12/2009	64.8	56.5	0.02	98.4	9.62	101.2	0.04	0	0	0	0	0	0	17.77	0	0
5/13/2009	82.5	53	0	73.5	8.59	660.8	0.25	0	0	0	0	0	0	18.34	0	0
5/14/2009	69.8	47.2	0	70.8	3.74	586.4	0.22	0	0	0	0	0	0	12.74	0	0
5/15/2009	84.6	59	0	83.5	9.25	305.6	0.12	0	0	0	0	0	0	22.8	0	0
5/16/2009	64.2	47.2	0	63	7.11	625.7	0.23	0	0	0	0	0	0	17.88	0	0
5/17/2009	70.6	40.7	0	66.6	5.21	766.1	0.28	0	0	0	0	0	0	15.25	0	0
5/18/2009	77.1	47.7	0	69	9.01	755.8	0.28	0	0	0	0	0	0	18.11	0	0
5/19/2009	80.8	53.4	0	67.2	9.67	772.3	0.29	0	0	0	0	0	0	19.37	0	0
5/20/2009	80.1	55.5	0	67.7	10.3	714.5	0.26	0	0	0	0	0	0	21.99	0	0
5/21/2009	82.4	53.4	0	68.2	6.01	714.5	0.27	0	0	0	0	0	0	14.22	0	0
5/22/2009	83.5	53	0	70.9	2.32	656.7	0.24	0	0	0	0	0	0	9.88	0	0
5/23/2009	85	57.1	0	67.9	1.88	660.8	0.24	0	0	0	0	0	0	10.45	0	0
5/24/2009	84.5	56.6	0	73.5	4.12	743.4	0.28	0	0	0	0	0	0	14.11	0	0
5/25/2009	81	58.9	0	80.3	3.66	627.7	0.23	0	0	0	0	0	0	12.4	0	0
5/26/2009	74.8	53.6	0.24	94.6	6.01	330.4	0.13	0	0	0	0	0	0	18.57	0	0
5/27/2009	62.8	49.6	0.09	93.9	6.63	239.5	0.09	0	0	0	0	0	0	15.02	0	0
5/28/2009	77.4	44.4	0	73.5	2.75	790.9	0.3	0	0	0	0	0	0	13.53	0	0
5/29/2009	89.1	52.1	0	62.8	2.99	780.6	0.29	0	0	0	0	0	0	11.25	0	0
5/30/2009	94.4	61.6	0	55.3	4.83	770.2	0.29	0	0	0	0	0	0	12.4	0	0
5/31/2009	93	56.9	0	59.3	6.65	644.3	0.23	0	0	0	0	0	0	20.05	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
May 2009

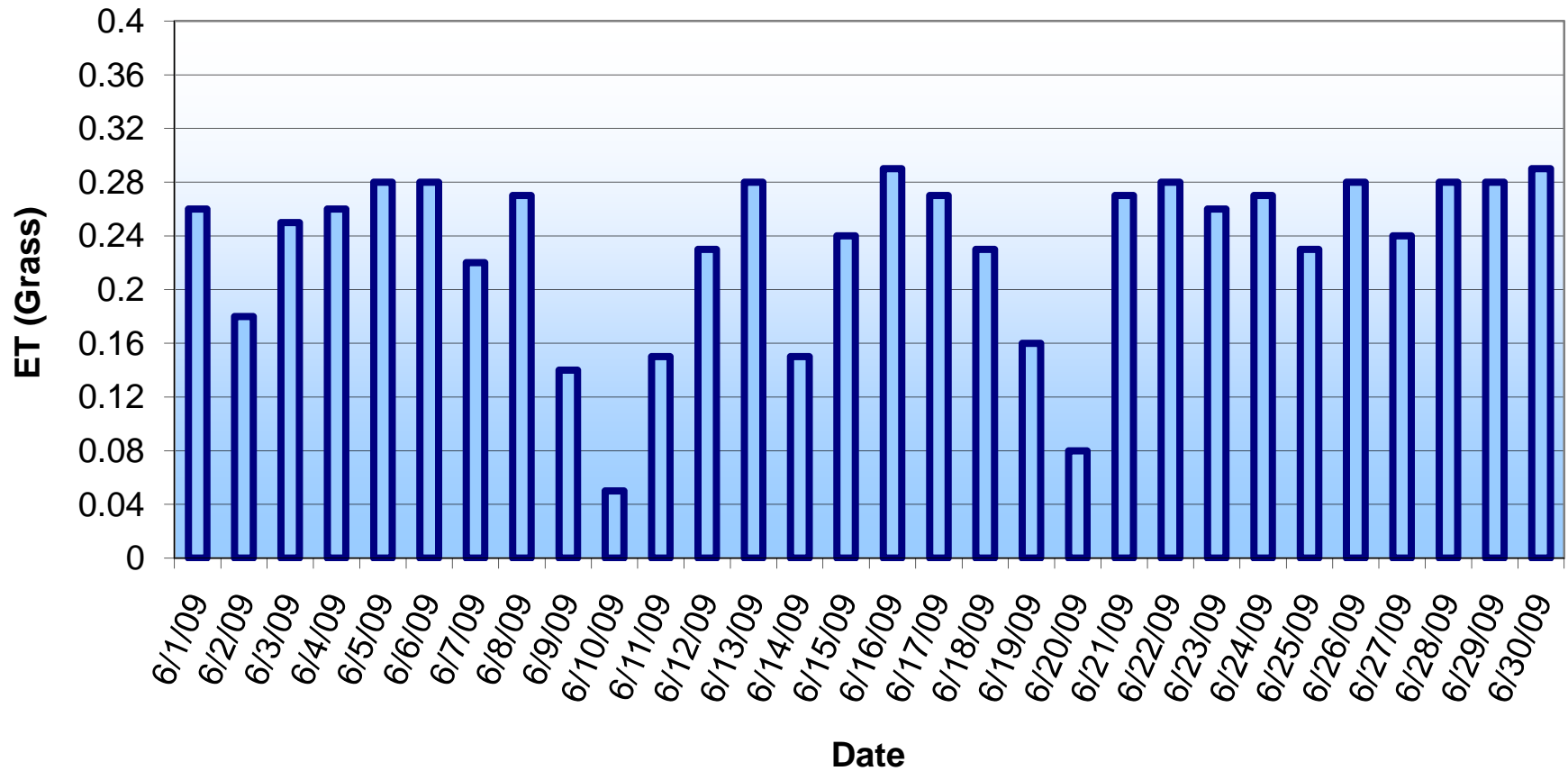


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

JUNE	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
6/1/2009	90.2	64.1	0	67.7	8.65	708.3	0.26	0	0	0	0	0	0	18.57	0	0
6/2/2009	78.7	58.6	0.2	87.9	8.13	481.1	0.18	0	0	0	0	0	0	19.14	0	0
6/3/2009	74	52	0.01	73.7	6.69	664.9	0.25	0	0	0	0	0	0	15.02	0	0
6/4/2009	74.9	51.2	0	63.6	1.85	706.2	0.26	0	0	0	0	0	0	9.88	0	0
6/5/2009	86.6	56	0	67.6	7.23	755.8	0.28	0	0	0	0	0	0	16.85	0	0
6/6/2009	93.9	67.1	0	61.3	10.44	753.7	0.28	0	0	0	0	0	0	21.08	0	0
6/7/2009	90.4	60.3	0.76	72.5	6.44	592.6	0.22	0	0	0	0	0	0	25.08	0	0
6/8/2009	75.7	53.8	0	82.4	6.89	726.9	0.27	0	0	0	0	0	0	14.34	0	0
6/9/2009	75.5	61.2	0	92.4	6.59	390.3	0.14	0	0	0	0	0	0	15.37	0	0
6/10/2009	69	62.2	0	98.6	4.24	142.5	0.05	0	0	0	0	0	0	11.94	0	0
6/11/2009	76.4	62.4	0	90	3.89	413	0.15	0	0	0	0	0	0	8.5	0	0
6/12/2009	83.9	62.7	0.15	84.9	4.32	623.6	0.23	0	0	0	0	0	0	18.22	0	0
6/13/2009	79.8	55.4	0	76.4	5.33	764	0.28	0	0	0	0	0	0	12.62	0	0
6/14/2009	80.6	63	0.2	90.5	5.37	394.4	0.15	0	0	0	0	0	0	15.25	0	0
6/15/2009	90.8	63.4	1.55	82.8	6.01	638.1	0.24	0	0	0	0	0	0	32.4	0	0
6/16/2009	89.2	60.6	1.19	84.5	3.15	768.2	0.29	0	0	0	0	0	0	22.23	0	0
6/17/2009	99.2	73.2	0	69.6	8.66	722.7	0.27	0	0	0	0	0	0	34.91	0	0
6/18/2009	96.4	73.5	0	64.6	9.48	625.7	0.23	0	0	0	0	0	0	18.8	0	0
6/19/2009	87.6	73.3	0	73.9	7.94	450.2	0.16	0	0	0	0	0	0	23.02	0	0
6/20/2009	83.5	69.7	1.75	97.7	3.14	233.3	0.08	0	0	0	0	0	0	38.58	0	0
6/21/2009	93.5	71.8	0.02	82.7	6.25	739.3	0.27	0	0	0	0	0	0	29.43	0	0
6/22/2009	99.1	73.1	0	74.2	5.54	759.9	0.28	0	0	0	0	0	0	14.91	0	0
6/23/2009	97	71.9	0	71.7	3.65	708.3	0.26	0	0	0	0	0	0	10.91	0	0
6/24/2009	96.7	73.1	0	71.4	5.04	737.2	0.27	0	0	0	0	0	0	17.08	0	0
6/25/2009	99.9	69.8	0	74.3	2.96	603	0.23	0	0	0	0	0	0	11.94	0	0
6/26/2009	99.3	71.4	0	66.4	4.12	745.5	0.28	0	0	0	0	0	0	15.48	0	0
6/27/2009	91.6	64.7	0	74.5	5.56	636	0.24	0	0	0	0	0	0	14.68	0	0
6/28/2009	89.2	60.8	0	69.8	2.1	762	0.28	0	0	0	0	0	0	10.1	0	0
6/29/2009	95.9	66	0	57.7	4.39	751.6	0.28	0	0	0	0	0	0	14.56	0	0
6/30/2009	91.8	61.8	0	57.5	4.29	780.6	0.29	0	0	0	0	0	0	13.08	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
June 2009

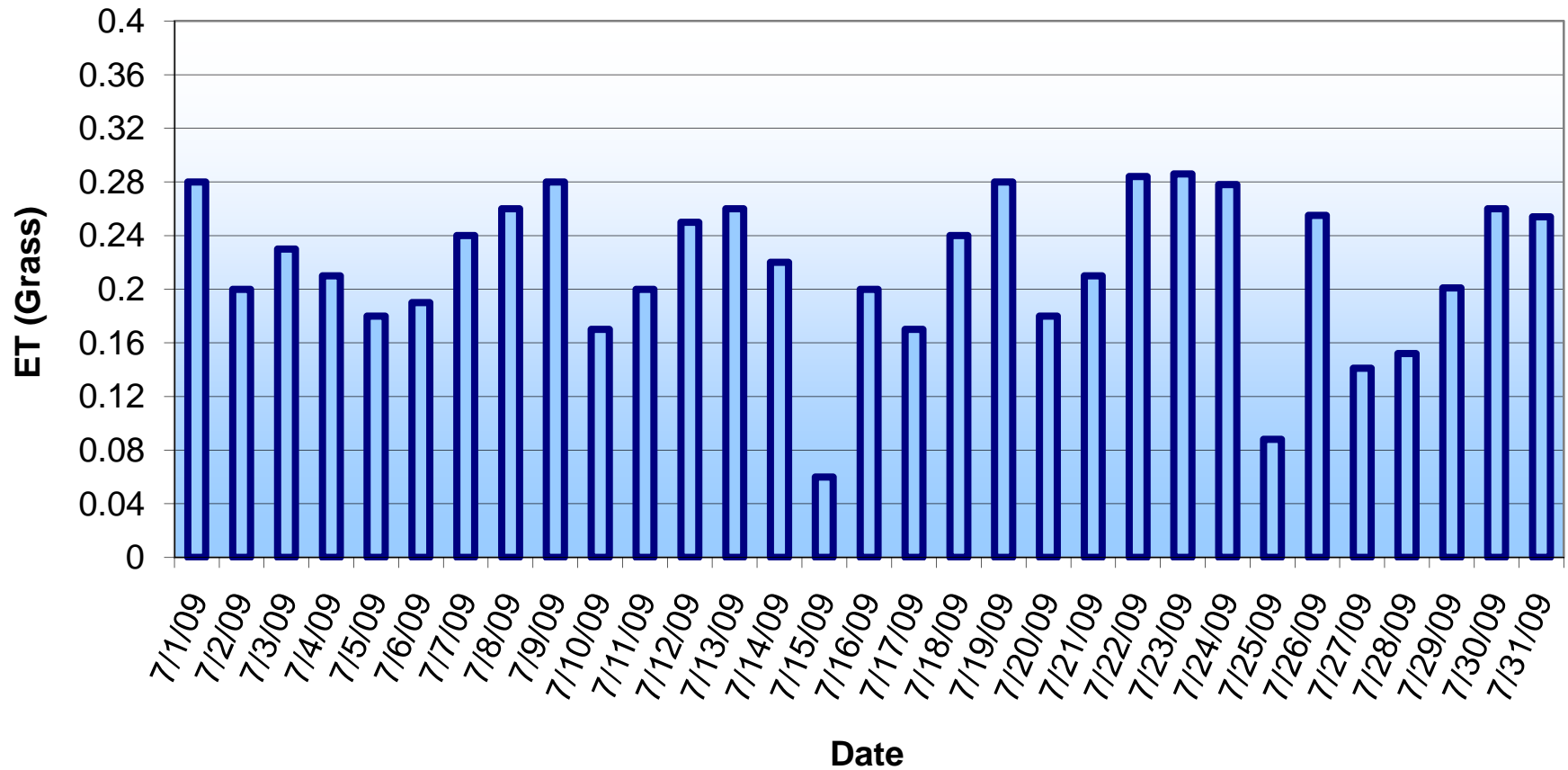


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

JULY	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
7/1/2009	89.2	57.4	0	60.5	0.95	755.8	0.28	0	0	0	0	0	0	7.94	0	0
7/2/2009	87	64.3	0.15	73.5	4.75	545.1	0.2	0	0	0	0	0	0	17.65	0	0
7/3/2009	94.2	68.9	0.14	73.6	9.04	609.2	0.23	0	0	0	0	0	0	22.91	0	0
7/4/2009	84.4	65.5	0.18	87.8	6.58	578.2	0.21	0	0	0	0	0	0	13.99	0	0
7/5/2009	78.8	64.9	0	83.4	4.49	491.5	0.18	0	0	0	0	0	0	12.16	0	0
7/6/2009	83	59.6	0	76.9	0.77	518.3	0.19	0	0	0	0	0	0	8.05	0	0
7/7/2009	82.8	59.9	0	78.2	4.17	650.5	0.24	0	0	0	0	0	0	13.19	0	0
7/8/2009	89	67.7	0.06	75.4	7.44	689.7	0.26	0	0	0	0	0	0	21.08	0	0
7/9/2009	94.9	68.3	0	71.6	9.49	743.4	0.28	0	0	0	0	0	0	23.26	0	0
7/10/2009	95	76.8	0.09	81.4	5.8	462.6	0.17	0	0	0	0	0	0	13.99	0	0
7/11/2009	89.8	73.4	0	88.6	4.55	539	0.2	0	0	0	0	0	0	11.47	0	0
7/12/2009	94.7	70.3	0	86.4	4.57	660.8	0.25	0	0	0	0	0	0	12.85	0	0
7/13/2009	87.6	68.4	0.22	87.7	5.22	685.6	0.26	0	0	0	0	0	0	21.65	0	0
7/14/2009	102.2	73.3	0	73.4	6.22	603	0.22	0	0	0	0	0	0	30.91	0	0
7/15/2009	78.6	69.8	0.05	90.7	3.73	152.8	0.06	0	0	0	0	0	0	16.74	0	0
7/16/2009	80.4	65.4	0	86.1	4.2	547.2	0.2	0	0	0	0	0	0	18.8	0	0
7/17/2009	78.6	58.2	0.03	88	2.05	477	0.17	0	0	0	0	0	0	10.56	0	0
7/18/2009	80.3	57.9	0	75.8	1.71	658.7	0.24	0	0	0	0	0	0	9.19	0	0
7/19/2009	85.3	53.7	0	64.1	4.07	751.6	0.28	0	0	0	0	0	0	11.71	0	0
7/20/2009	82.6	61.3	1.49	88.2	6.55	483.2	0.18	0	0	0	0	0	0	18.68	0	0
7/21/2009	78.1	59.9	0	88.6	4.68	578.2	0.21	0	0	0	0	0	0	12.05	0	0
7/22/2009	85.7	57.5	0.00	74.3	2.5	757.8	0.28	0	0	0	0	0	0	9.3	0	0
7/23/2009	88.4	61.7	0.00	70.6	3.1	762.0	0.29	0	0	0	0	0	0	12.3	0	0
7/24/2009	93.3	65.5	0.00	66.8	3.7	743.4	0.28	0	0	0	0	0	0	13.5	0	0
7/25/2009	81.2	65.5	0.04	87.2	2.9	249.9	0.09	0	0	0	0	0	0	16.2	0	0
7/26/2009	90.2	62.2	0.00	79.7	1.3	685.6	0.26	0	0	0	0	0	0	7.6	0	0
7/27/2009	88.4	65.4	0.01	88.5	1.8	384.1	0.14	0	0	0	0	0	0	13.2	0	0
7/28/2009	80.6	61.6	0.11	94.1	2.9	415.1	0.15	0	0	0	0	0	0	17.5	0	0
7/29/2009	80.3	56.9	0.00	87.0	1.7	555.5	0.20	0	0	0	0	0	0	13.3	0	0
7/30/2009	78.7	58.3	0.00	77.7	4.6	700.0	0.26	0	0	0	0	0	0	15.3	0	0
7/31/2009	84.9	54.3	0.26	72.2	5.1	685.6	0.25	0	0	0	0	0	0	24.7	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
July 2009

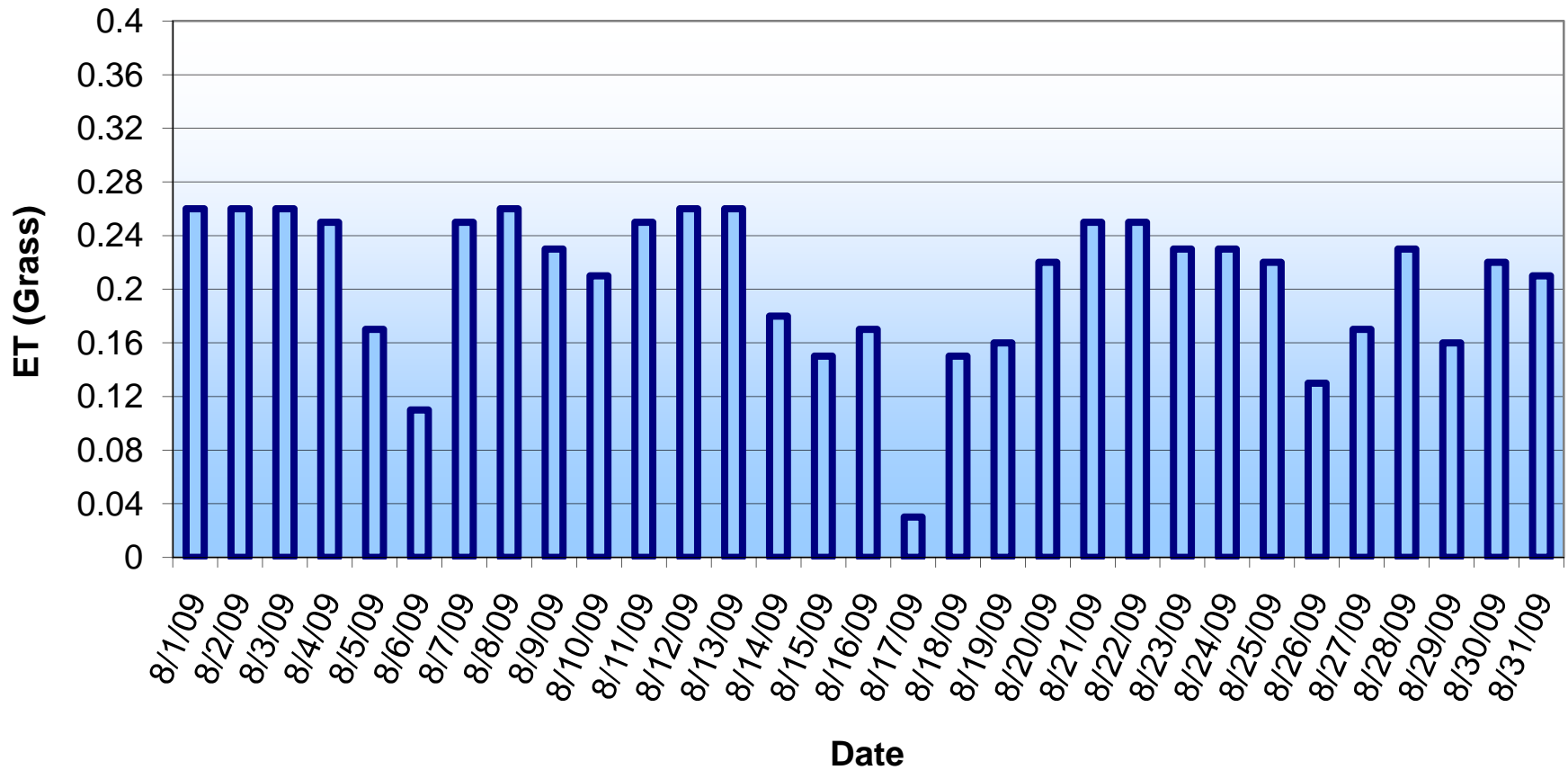


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

AUGUST	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
8/1/2009	77.1	57.4	0.15	79.4	3.56	704.2	0.26	0	0	0	0	0	0	13.53	0	0
8/2/2009	86	53.9	0	74.4	5.27	704.2	0.26	0	0	0	0	0	0	14.68	0	0
8/3/2009	94.3	64.3	0	75.9	4.87	704.2	0.26	0	0	0	0	0	0	11.82	0	0
8/4/2009	88.9	69.1	0	75.7	4.55	679.4	0.25	0	0	0	0	0	0	11.82	0	0
8/5/2009	87.1	64.8	0	89	3.58	454.3	0.17	0	0	0	0	0	0	13.31	0	0
8/6/2009	80.9	68.5	0.11	95.4	5.13	311.8	0.11	0	0	0	0	0	0	13.31	0	0
8/7/2009	96.4	71.5	0	75.3	9.79	685.6	0.25	0	0	0	0	0	0	19.71	0	0
8/8/2009	98.1	75.1	0	65.4	9.82	687.6	0.26	0	0	0	0	0	0	19.02	0	0
8/9/2009	97.4	69.8	0	75	6.58	605	0.23	0	0	0	0	0	0	16.51	0	0
8/10/2009	83.4	65	0.11	86.9	2.81	569.9	0.21	0	0	0	0	0	0	22.91	0	0
8/11/2009	89	59.5	0	78.7	1.19	681.4	0.25	0	0	0	0	0	0	9.31	0	0
8/12/2009	89.3	59.5	0	71.2	3.66	698	0.26	0	0	0	0	0	0	11.82	0	0
8/13/2009	88.6	61.5	0	71	4.93	689.7	0.26	0	0	0	0	0	0	13.65	0	0
8/14/2009	86.6	64.6	0	77	6.51	499.7	0.18	0	0	0	0	0	0	14.22	0	0
8/15/2009	87.7	71.5	0.08	88.3	7.68	427.4	0.15	0	0	0	0	0	0	15.37	0	0
8/16/2009	83.1	70.8	0	86	4.3	468.7	0.17	0	0	0	0	0	0	13.08	0	0
8/17/2009	72.4	60.3	0.76	99.9	2.97	88.8	0.03	0	0	0	0	0	0	20.05	0	0
8/18/2009	79.2	64.5	0	93.4	2.36	413	0.15	0	0	0	0	0	0	9.76	0	0
8/19/2009	81	63.5	0.33	94.2	3.89	444	0.16	0	0	0	0	0	0	19.14	0	0
8/20/2009	78.8	58.2	0	80.5	2.4	582.3	0.22	0	0	0	0	0	0	11.59	0	0
8/21/2009	78.3	53.3	0	76.7	3.48	671.1	0.25	0	0	0	0	0	0	12.28	0	0
8/22/2009	78.7	49.7	0	77.4	1.12	675.2	0.25	0	0	0	0	0	0	8.97	0	0
8/23/2009	82.5	56.6	0	80	5.21	615.4	0.23	0	0	0	0	0	0	12.74	0	0
8/24/2009	87.9	65.2	0	83.3	7.74	625.7	0.23	0	0	0	0	0	0	15.25	0	0
8/25/2009	92.5	67.9	0.03	85.7	3.93	586.4	0.22	0	0	0	0	0	0	14.11	0	0
8/26/2009	80.9	66.7	0.02	94	3.34	375.8	0.13	0	0	0	0	0	0	14.45	0	0
8/27/2009	78.7	58.2	0	91.1	3.71	466.7	0.17	0	0	0	0	0	0	12.5	0	0
8/28/2009	83.1	52.3	0	83.7	1.37	619.5	0.23	0	0	0	0	0	0	9.99	0	0
8/29/2009	74.2	55.2	0	90.4	2.73	441.9	0.16	0	0	0	0	0	0	10.68	0	0
8/30/2009	73.5	47.4	0	76.2	1.82	600.9	0.22	0	0	0	0	0	0	11.02	0	0
8/31/2009	73.5	46.3	0	74.4	3.24	576.1	0.21	0	0	0	0	0	0	11.94	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
August 2009

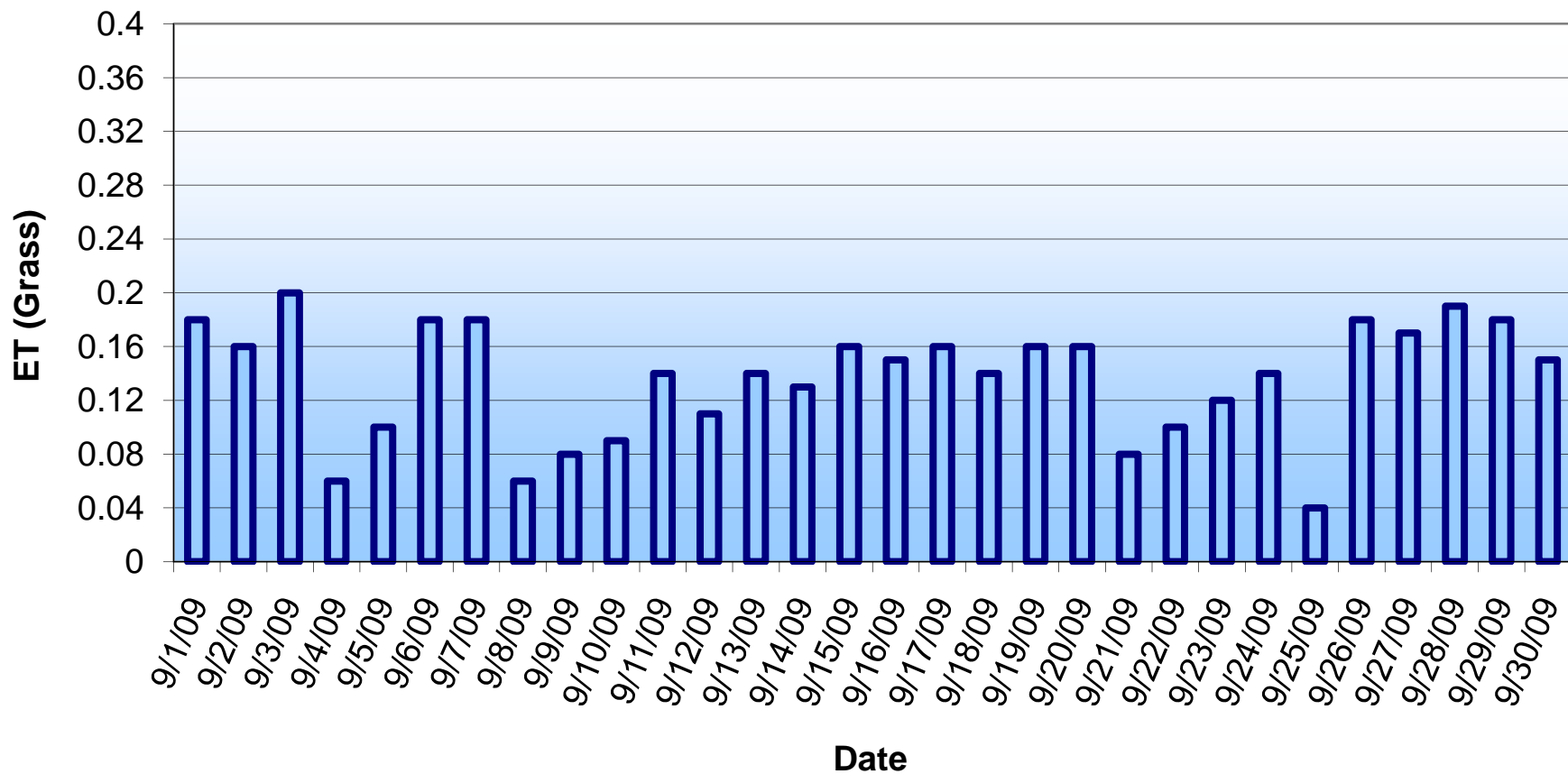


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

SEPTEMBER	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
9/1/2009	78.9	56.5	0	76.4	6.61	508	0.18	0	0	0	0	0	0	14.56	0	0
9/2/2009	79.3	61.3	0	83.9	7.35	460.5	0.16	0	0	0	0	0	0	17.19	0	0
9/3/2009	83.9	59	0	84.2	2.2	561.7	0.2	0	0	0	0	0	0	11.37	0	0
9/4/2009	69	62.1	0.8	99.5	1.79	144.5	0.06	0	0	0	0	0	0	11.13	0	0
9/5/2009	73.5	61.5	0	94.2	1.39	293.2	0.1	0	0	0	0	0	0	7.82	0	0
9/6/2009	77.2	55.4	0	91.5	2.82	493.5	0.18	0	0	0	0	0	0	10.56	0	0
9/7/2009	85.4	61.1	0	88.8	5.35	510	0.18	0	0	0	0	0	0	11.02	0	0
9/8/2009	72.2	63.3	0.45	99.6	5.92	165.2	0.06	0	0	0	0	0	0	14.68	0	0
9/9/2009	73.2	64.9	0.35	99.5	2.82	212.7	0.08	0	0	0	0	0	0	9.88	0	0
9/10/2009	76.6	65.6	0	96.7	1.74	229.2	0.09	0	0	0	0	0	0	8.5	0	0
9/11/2009	79.3	63	0	94.5	1.71	408.9	0.14	0	0	0	0	0	0	7.7	0	0
9/12/2009	75.4	61.6	0.13	94.7	4.29	315.9	0.11	0	0	0	0	0	0	11.94	0	0
9/13/2009	76.7	63.3	0	87	3.26	380	0.14	0	0	0	0	0	0	11.47	0	0
9/14/2009	74.4	61.1	0	88.5	1.45	355.2	0.13	0	0	0	0	0	0	8.97	0	0
9/15/2009	77.2	58.9	0	85.2	2.45	452.2	0.16	0	0	0	0	0	0	9.88	0	0
9/16/2009	79	59.7	0	84.3	4.16	421.3	0.15	0	0	0	0	0	0	12.28	0	0
9/17/2009	77.5	57.4	0	80.8	3.18	468.7	0.16	0	0	0	0	0	0	10.68	0	0
9/18/2009	74.2	53.4	0	82.2	1.03	377.9	0.14	0	0	0	0	0	0	7.94	0	0
9/19/2009	77.1	48.2	0	77.8	1.57	458.4	0.16	0	0	0	0	0	0	9.65	0	0
9/20/2009	82.2	56.2	0.02	86.2	4.99	446	0.16	0	0	0	0	0	0	14.11	0	0
9/21/2009	71.7	55.2	2.01	89.4	6.07	237.5	0.08	0	0	0	0	0	0	21.08	0	0
9/22/2009	65.8	46.7	0	85.8	1.74	299.4	0.1	0	0	0	0	0	0	8.5	0	0
9/23/2009	65.5	42.5	0	86.8	1.68	326.3	0.12	0	0	0	0	0	0	9.53	0	0
9/24/2009	69.1	42.9	0	83.5	1.38	417.1	0.14	0	0	0	0	0	0	9.31	0	0
9/25/2009	62.5	46.1	0.45	98.4	2.08	109.4	0.04	0	0	0	0	0	0	12.5	0	0
9/26/2009	77.1	44.7	0.02	82.1	1.59	510	0.18	0	0	0	0	0	0	10.1	0	0
9/27/2009	88.6	50.4	0	65.6	4.77	487.3	0.17	0	0	0	0	0	0	13.77	0	0
9/28/2009	71.2	42.9	0	54.8	3.95	524.5	0.19	0	0	0	0	0	0	18.8	0	0
9/29/2009	73.4	38.7	0	65.2	2.4	501.8	0.18	0	0	0	0	0	0	8.73	0	0
9/30/2009	83.4	52.9	0	74.6	9.91	419.2	0.15	0	0	0	0	0	0	20.74	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
September 2009

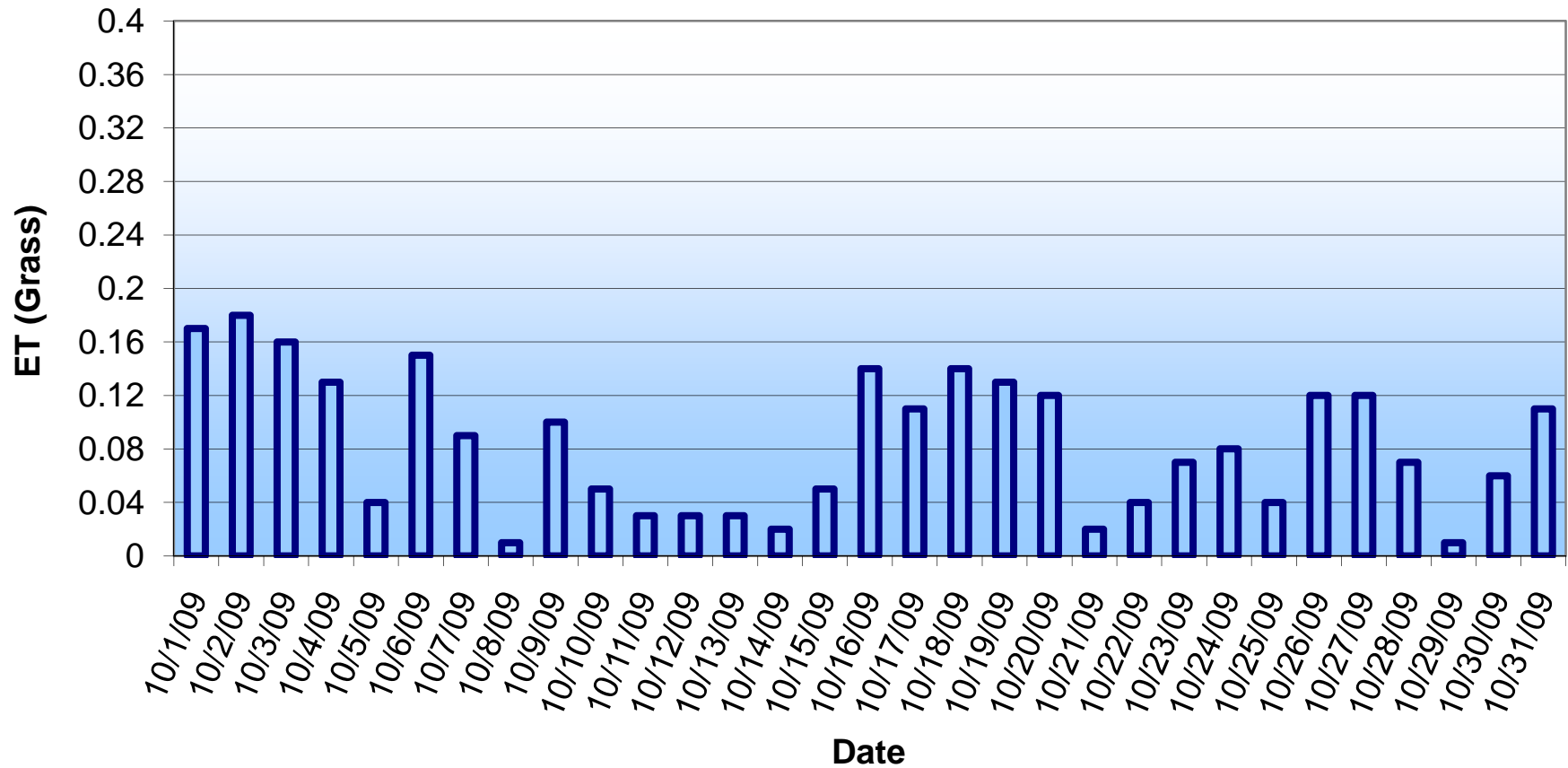


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

OCTOBER	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
10/1/2009	71	43.5	0	64.1	8.69	483.2	0.17	0	0	0	0	0	0	19.94	0	0
10/2/2009	67.7	38.5	0	48.8	7.03	497.7	0.18	0	0	0	0	0	0	21.08	0	0
10/3/2009	64.2	35.3	0	68.4	2	454.3	0.16	0	0	0	0	0	0	10.91	0	0
10/4/2009	67.9	48.1	0	65	5.9	361.4	0.13	0	0	0	0	0	0	13.99	0	0
10/5/2009	59.8	49.6	0.04	93.4	7.25	107.4	0.04	0	0	0	0	0	0	14.91	0	0
10/6/2009	61.9	35.8	0.04	75.2	5.71	413	0.15	0	0	0	0	0	0	19.14	0	0
10/7/2009	66.1	33.7	0.04	83.1	4.92	245.7	0.09	0	0	0	0	0	0	15.48	0	0
10/8/2009	53.7	40	0.29	99.9	6.03	39.2	0.01	0	0	0	0	0	0	16.28	0	0
10/9/2009	53.4	34.3	0	87.9	3.48	287	0.1	0	0	0	0	0	0	13.08	0	0
10/10/2009	36.6	29.7	0	93	6.06	134.2	0.05	0	0	0	0	0	0	15.14	0	0
10/11/2009	40.9	31.1	0	89.7	4.08	80.5	0.03	0	0	0	0	0	0	9.07	0	0
10/12/2009	51.3	38.4	0	99.8	2.72	82.6	0.03	0	0	0	0	0	0	8.73	0	0
10/13/2009	44.9	37.8	0.47	99.9	5.3	72.3	0.03	0	0	0	0	0	0	13.65	0	0
10/14/2009	44.2	37.6	0.02	100	2.73	66.1	0.02	0	0	0	0	0	0	8.73	0	0
10/15/2009	50.7	37.8	0	99	2.58	142.5	0.05	0	0	0	0	0	0	7.94	0	0
10/16/2009	62	35	0.05	87.4	2.25	410.9	0.14	0	0	0	0	0	0	10.34	0	0
10/17/2009	52.7	36.9	0	88.1	2.96	313.9	0.11	0	0	0	0	0	0	9.76	0	0
10/18/2009	65.5	36.4	0	87.1	8.59	400.6	0.14	0	0	0	0	0	0	17.54	0	0
10/19/2009	72.4	49.4	0	87.4	7.16	390.3	0.13	0	0	0	0	0	0	14.11	0	0
10/20/2009	74.4	59	0	87.1	8.72	363.4	0.12	0	0	0	0	0	0	17.65	0	0
10/21/2009	68.3	49.4	0.33	96.8	5.67	72.3	0.02	0	0	0	0	0	0	12.62	0	0
10/22/2009	50	36.4	0.01	100	8.32	109.4	0.04	0	0	0	0	0	0	15.59	0	0
10/23/2009	53.4	34	0	89.2	5.88	223	0.07	0	0	0	0	0	0	15.14	0	0
10/24/2009	63.4	31.3	0	85.3	2.62	235.4	0.08	0	0	0	0	0	0	15.25	0	0
10/25/2009	54.8	42.2	0.08	97.2	4.2	113.6	0.04	0	0	0	0	0	0	12.4	0	0
10/26/2009	56.1	33.7	0	84.5	3.37	367.6	0.12	0	0	0	0	0	0	13.53	0	0
10/27/2009	59.3	31.1	0	80.5	4.66	365.5	0.12	0	0	0	0	0	0	13.42	0	0
10/28/2009	65.8	46.4	0.05	86.1	9.12	227.1	0.07	0	0	0	0	0	0	19.37	0	0
10/29/2009	57.6	43.8	1.31	99.9	4.87	45.4	0.01	0	0	0	0	0	0	14.8	0	0
10/30/2009	47.1	36.2	0	88.4	6.84	181.7	0.06	0	0	0	0	0	0	17.08	0	0
10/31/2009	67.4	35.5	0	81.1	1.41	344.8	0.11	0	0	0	0	0	0	9.19	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
October 2009

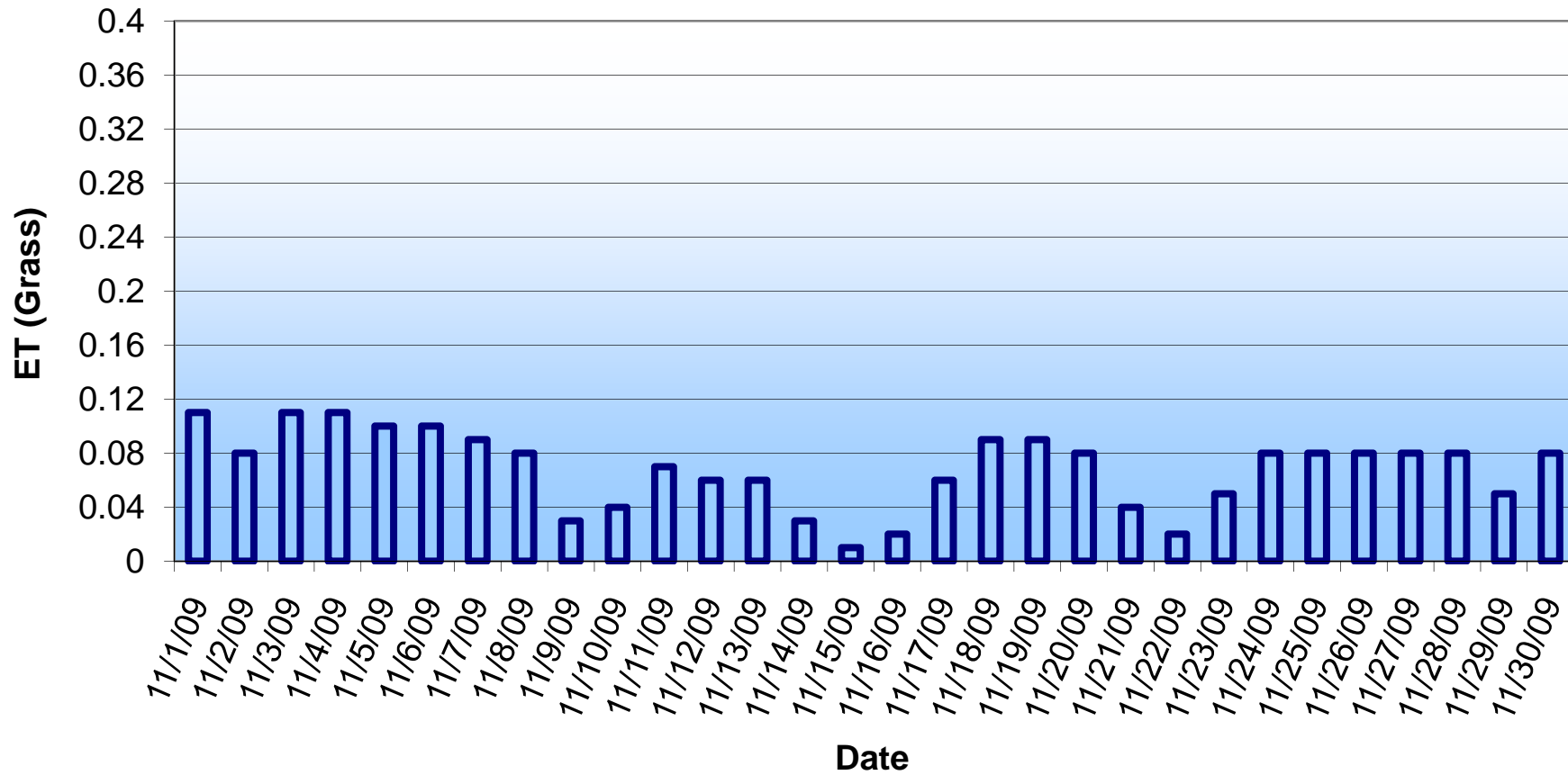


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

NOVEMBER	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
11/1/2009	72.4	40.4	0	76.5	3.03	340.7	0.11	0	0	0	0	0	0	13.08	0	0
11/2/2009	60	36.8	0	81.4	4.08	254	0.08	0	0	0	0	0	0	13.08	0	0
11/3/2009	61.3	32.1	0	80.7	2.85	332.5	0.11	0	0	0	0	0	0	13.99	0	0
11/4/2009	61.4	36.9	0	69.8	3.06	332.5	0.11	0	0	0	0	0	0	14.34	0	0
11/5/2009	71.6	33.8	0	76.3	5.35	322.1	0.1	0	0	0	0	0	0	16.85	0	0
11/6/2009	74.6	50	0	76.9	6.84	313.9	0.1	0	0	0	0	0	0	14.8	0	0
11/7/2009	72.4	43	0	81	2.18	305.6	0.09	0	0	0	0	0	0	8.97	0	0
11/8/2009	71.3	52.3	0	92.8	8.65	260.2	0.08	0	0	0	0	0	0	19.14	0	0
11/9/2009	60.8	48.1	0	86.2	4.21	99.1	0.03	0	0	0	0	0	0	10.45	0	0
11/10/2009	58.2	47.2	0	96.5	4.1	111.5	0.04	0	0	0	0	0	0	9.19	0	0
11/11/2009	59.6	44.5	0	90.5	4.85	214.8	0.07	0	0	0	0	0	0	10.22	0	0
11/12/2009	69.6	47	0	92.8	11.73	192	0.06	0	0	0	0	0	0	24.05	0	0
11/13/2009	69.1	46	0	91	8.96	208.6	0.06	0	0	0	0	0	0	18.11	0	0
11/14/2009	50.7	44.3	0	92.5	5.22	86.7	0.03	0	0	0	0	0	0	12.4	0	0
11/15/2009	45.2	34.3	0.16	98.1	8.08	24.8	0.01	0	0	0	0	0	0	18.57	0	0
11/16/2009	39.1	31.3	0.07	98.4	11.24	53.7	0.02	0	0	0	0	0	0	19.37	0	0
11/17/2009	50.2	30.1	0	75.2	7.51	200.3	0.06	0	0	0	0	0	0	16.96	0	0
11/18/2009	54.1	25.4	0	75.6	1.53	287	0.09	0	0	0	0	0	0	5.53	0	0
11/19/2009	57.5	28.7	0	83.3	3.43	278.8	0.09	0	0	0	0	0	0	11.47	0	0
11/20/2009	55.5	30.6	0	89.7	2.52	254	0.08	0	0	0	0	0	0	8.85	0	0
11/21/2009	57.8	34.8	0	96.6	6.42	126	0.04	0	0	0	0	0	0	15.71	0	0
11/22/2009	53.3	39.9	0	98.1	7.63	55.8	0.02	0	0	0	0	0	0	15.82	0	0
11/23/2009	57.7	35.7	0.04	97.8	3.81	154.9	0.05	0	0	0	0	0	0	17.88	0	0
11/24/2009	51.1	31.8	0.01	80.1	9.61	272.6	0.08	0	0	0	0	0	0	22.57	0	0
11/25/2009	48.8	26.6	0	75.8	6.91	260.2	0.08	0	0	0	0	0	0	21.42	0	0
11/26/2009	51.3	21.6	0	76.2	2.84	274.6	0.08	0	0	0	0	0	0	7.59	0	0
11/27/2009	66.3	29.9	0	75.6	4.18	272.6	0.08	0	0	0	0	0	0	8.5	0	0
11/28/2009	63.4	34.8	0	82.4	5.6	256.1	0.08	0	0	0	0	0	0	15.02	0	0
11/29/2009	45.1	24.7	0	84.4	8.27	175.5	0.05	0	0	0	0	0	0	19.94	0	0
11/30/2009	57	23.2	0	75.6	2.88	262.2	0.08	0	0	0	0	0	0	11.71	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
November 2009

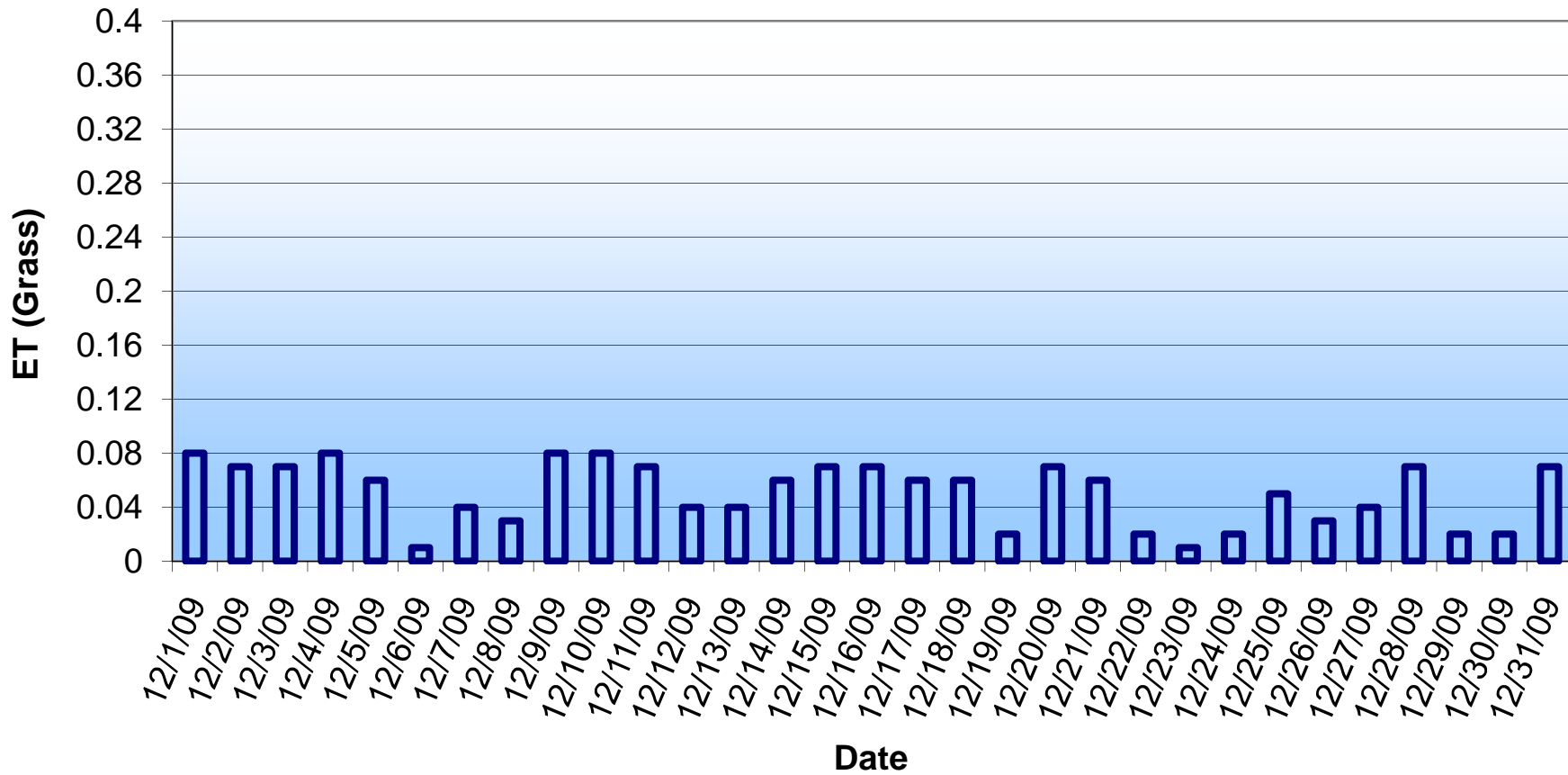


Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

DECEMBER	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (in)	Avg RH (%)	Avg Wind Speed (mph)	Solar Radiation (langley)	ET (grass) (in)	Max 2" Soil Temp (°F)	Min 2" Soil Temp (°F)	Max 4" Soil Temp (°F)	Min 4" Soil Temp (°F)	Max RH (%)	Min RH (%)	Max Wind Speed (mph)	Wind Vector Speed (mph)	Vector Direction (°)
12/1/2009	58.1	28.5	0	71	6.46	258.1	0.08	0	0	0	0	0	0	18.11	0	0
12/2/2009	38.6	20.5	0	71.5	11.8	237.5	0.07	0	0	0	0	0	0	22.34	0	0
12/3/2009	30.7	12.4	0	72.6	5.28	258.1	0.07	0	0	0	0	0	0	15.02	0	0
12/4/2009	33.3	8.8	0	72.5	4.06	260.2	0.08	0	0	0	0	0	0	12.28	0	0
12/5/2009	40.8	17.2	0	77	6.84	227.1	0.06	0	0	0	0	0	0	15.71	0	0
12/6/2009	31.5	19.3	0	88.8	6.35	28.9	0.01	0	0	0	0	0	0	14.8	0	0
12/7/2009	19.9	13.9	0	94.5	6.43	121.8	0.04	0	0	0	0	0	0	14.68	0	0
12/8/2009	24.4	13.1	0	100	8.46	90.9	0.03	0	0	0	0	0	0	23.48	0	0
12/9/2009	13.4	-7.2	0	82.8	9.78	268.4	0.08	0	0	0	0	0	0	24.74	0	0
12/10/2009	26.5	-8.2	0.04	79.7	2.44	268.4	0.08	0	0	0	0	0	0	9.31	0	0
12/11/2009	33.6	6	0.03	81.5	4.23	249.9	0.07	0	0	0	0	0	0	10.45	0	0
12/12/2009	39.1	22.9	0.03	94.6	5.22	154.9	0.04	0	0	0	0	0	0	16.96	0	0
12/13/2009	43.3	18.5	0.02	97.1	2.74	107.4	0.04	0	0	0	0	0	0	11.37	0	0
12/14/2009	40.3	8.9	0	91.1	10.87	202.4	0.06	0	0	0	0	0	0	20.74	0	0
12/15/2009	20	4.5	0	81.4	3.82	245.7	0.07	0	0	0	0	0	0	9.65	0	0
12/16/2009	45.6	15.6	0	74	8.34	227.1	0.07	0	0	0	0	0	0	16.28	0	0
12/17/2009	46.8	26.6	0	85.8	3.74	214.8	0.06	0	0	0	0	0	0	9.53	0	0
12/18/2009	44.8	26.2	0	90.1	6.4	225.1	0.06	0	0	0	0	0	0	14.45	0	0
12/19/2009	33	22.4	0	98.2	6.14	51.6	0.02	0	0	0	0	0	0	16.74	0	0
12/20/2009	48.5	22.4	0	90.1	3.84	237.5	0.07	0	0	0	0	0	0	13.88	0	0
12/21/2009	49.9	24	0	88.5	3.84	212.7	0.06	0	0	0	0	0	0	14.68	0	0
12/22/2009	33.2	26.6	0	99.8	5.76	53.7	0.02	0	0	0	0	0	0	12.96	0	0
12/23/2009	34	30.3	0.18	100	7.19	39.2	0.01	0	0	0	0	0	0	16.17	0	0
12/24/2009	31.4	14.6	0	92.1	17.95	64	0.02	0	0	0	0	0	0	28.85	0	0
12/25/2009	21.4	9.4	0	77.8	15.68	179.7	0.05	0	0	0	0	0	0	27.37	0	0
12/26/2009	25.6	18.4	0	80.5	10.25	99.1	0.03	0	0	0	0	0	0	19.14	0	0
12/27/2009	28.9	19	0	85.6	8.12	136.3	0.04	0	0	0	0	0	0	18.91	0	0
12/28/2009	41.4	18.7	0	86.3	4.77	251.9	0.07	0	0	0	0	0	0	12.62	0	0
12/29/2009	28.5	17.7	0	99.8	5.46	70.2	0.02	0	0	0	0	0	0	11.47	0	0
12/30/2009	34.7	23.2	0.02	99.4	6	64	0.02	0	0	0	0	0	0	12.28	0	0
12/31/2009	27	13.2	0	88.4	5.36	245.7	0.07	0	0	0	0	0	0	14.11	0	0

Equus Beds Groundwater Management District No. 2
McPherson County Weather Station #1089

Evapotranspiration (ET) in McPherson County
at Weather Station #1089
December 2009



**APPENDIX H –
WITHDRAWALS FROM NON-DOMESTIC WELLS**

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1	-97.532290	37.865435	71.000	56	-98.070469	37.814290	0.000
2	-97.917536	38.042466	980.936	57	-97.378024	37.798217	0.000
3	-97.550039	37.815871	13.000	58	-97.623471	37.857579	0.207
4	-97.383133	37.807280	41.458	59	-97.825072	37.944436	0.000
5	-97.555110	38.009347	0.000	60	-97.899877	37.951889	0.000
6	-97.615036	38.185023	116.418	61	-97.891645	37.988239	135.000
7	-98.020135	37.786308	0.000	62	-97.825142	37.952084	0.000
8	-97.622776	37.806761	134.000	63	-97.998147	38.075204	0.000
9	-97.585999	37.819563	189.205	64	-97.798670	37.981080	87.000
10	-98.054140	38.169066	88.000	65	-97.788925	37.981548	162.000
11	-97.499886	37.941495	110.231	66	-97.815939	37.981242	0.000
12	-97.878779	38.042896	524.476	67	-97.807099	37.996006	130.000
13	-97.895100	38.044369	0.000	68	-97.732614	37.908636	44.000
14	-97.724521	38.232052	0.000	69	-98.077587	37.839030	9.704
15	-97.744925	38.271473	33.254	70	-97.340491	37.769732	87.485
16	-97.583290	38.220672	0.000	71	-97.754637	38.016394	28.000
17	-98.059330	37.802607	138.813	72	-97.635431	37.963274	0.000
18	-97.513455	37.790691	0.000	73	-97.577705	38.133602	0.000
19	-97.731534	37.995824	0.000	74	-97.579686	38.133437	0.000
20	-97.730180	37.995552	0.000	75	-97.395761	37.831351	0.000
21	-97.728685	37.994979	0.000	76	-97.601512	37.814137	0.000
22	-97.730438	37.994605	0.000	77	-97.530634	38.054248	0.000
23	-97.634209	37.908763	50.000	78	-97.578188	37.988722	0.000
24	-97.628198	37.900433	110.000	79	-97.568790	37.886792	76.000
25	-98.017988	37.995437	79.824	80	-97.577561	38.052199	15.200
26	-97.462918	38.003749	144.314	81	-97.867253	37.962894	32.321
27	-97.462987	38.011442	96.783	82	-97.472721	37.907259	87.096
28	-97.724921	38.273217	108.639	83	-98.047791	37.819771	90.000
29	-97.846675	38.094683	30.790	84	-97.991082	37.799389	0.000
30	-97.844705	38.095136	20.417	85	-98.091432	37.944855	118.469
31	-97.658728	38.141389	117.000	86	-97.595678	38.155284	0.000
32	-97.878935	37.969726	0.000	87	-97.623787	38.046931	88.667
33	-97.735753	37.890877	15.633	88	-97.614540	38.021270	46.000
34	-97.688511	38.155805	0.000	89	-97.664898	38.023467	0.000
35	-97.670037	38.161281	116.587	90	-97.472527	37.910811	69.000
36	-97.688419	38.162971	0.000	91	-97.489182	38.224652	0.000
37	-97.729173	38.130643	102.861	92	-97.678861	37.902440	0.000
38	-97.724536	38.010332	105.532	93	-98.050160	37.788025	106.458
39	-97.724728	38.155605	94.718	94	-97.504842	37.850903	119.220
40	-97.716522	38.178349	102.510	95	-97.567961	38.017603	0.000
41	-97.670719	38.196102	71.246	96	-97.486402	38.115329	83.310
42	-97.637975	38.199671	46.970	97	-97.554540	37.815470	74.000
43	-97.503126	37.836924	147.000	98	-97.379566	37.829389	0.000
44	-98.023288	37.803392	0.000	99	-97.632173	38.296058	0.000
45	-97.698970	38.402048	29.000	100	-97.632541	37.876413	76.784
46	-97.837845	37.832951	0.000	101	-97.866714	38.058819	0.000
47	-97.381655	37.839313	209.746	102	-97.687701	37.922977	81.000
48	-97.660280	38.169689	115.083	103	-97.485303	37.747783	0.000
49	-97.726217	38.322435	117.000	104	-97.733655	37.933306	63.000
50	-97.541520	37.961269	42.000	105	-97.957286	37.957825	0.990
51	-97.531591	37.820670	67.000	106	-97.907706	37.991994	50.781
52	-97.930549	38.054074	0.000	107	-97.950119	37.764061	0.000
53	-97.568269	37.797779	54.000	108	-97.950119	37.763786	0.000
54	-97.912399	37.974941	113.000	109	-98.118820	37.928880	98.032
55	-97.918480	37.962530	0.000	110	-97.429649	37.846557	48.876

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
111	-97.610706	38.153969	0.000	166	-97.986558	37.795599	96.000
112	-98.040270	37.933671	26.816	167	-97.987579	37.792600	96.000
113	-98.123281	37.925795	0.000	168	-97.605506	38.046945	94.082
114	-98.114060	37.891300	43.000	169	-97.991714	38.068720	0.000
115	-98.018613	38.147912	110.000	170	-97.992696	38.067942	0.000
116	-97.910357	38.047424	758.322	171	-97.596658	38.232079	18.868
117	-97.429438	38.320180	0.000	172	-97.696779	38.241686	124.000
118	-97.422758	38.325896	0.000	173	-97.734090	38.252631	108.000
119	-98.063299	37.795110	0.000	174	-97.598076	38.179543	15.198
120	-97.527268	37.824431	0.000	175	-97.664991	37.987801	61.000
121	-97.814341	38.163479	4.002	176	-97.779616	37.915902	130.395
122	-97.481355	37.992669	0.000	177	-97.595101	37.850009	0.000
123	-98.119615	37.887481	0.000	178	-97.535043	38.197388	0.000
124	-97.528571	38.099598	0.000	179	-97.496389	37.864905	78.000
125	-97.860650	38.059711	0.004	180	-97.411422	37.882920	0.000
126	-97.870029	38.093199	0.781	181	-97.525680	37.776169	387.984
127	-97.724492	37.945207	137.000	182	-97.516753	37.766710	512.458
128	-97.849692	38.004744	0.000	183	-97.993313	38.087209	0.000
129	-97.706304	37.945499	6.445	184	-97.856808	38.079493	0.000
130	-97.857276	38.017654	0.000	185	-98.089740	38.141350	0.000
131	-97.857276	38.016555	0.000	186	-98.088082	38.142616	0.000
132	-97.898429	37.980981	0.000	187	-97.981761	37.925201	0.000
133	-97.907650	37.981071	88.000	188	-97.445192	37.974031	25.000
134	-97.623714	37.843423	194.000	189	-97.445288	38.012287	0.366
135	-98.109712	37.937489	33.000	190	-97.449695	38.011079	61.000
136	-97.565306	38.085516	1.312	191	-97.527592	37.868758	32.431
137	-97.570429	38.131900	0.000	192	-97.458108	37.865561	85.797
138	-97.527641	38.155924	0.000	193	-97.431329	37.944970	66.000
139	-97.820692	37.977481	16.000	194	-97.655731	37.861303	109.000
140	-97.988188	37.808410	0.000	195	-97.742929	37.967150	51.000
141	-97.642339	38.134057	82.000	196	-97.913078	38.011860	0.000
142	-97.527751	37.876318	10.000	197	-97.898142	38.035063	68.750
143	-97.393402	37.845810	0.000	198	-97.498091	37.963231	85.000
144	-98.133201	37.917301	5.526	199	-97.474061	37.727759	2.628
145	-97.749637	38.361938	0.000	200	-97.605481	37.945125	0.000
146	-97.910096	37.959457	0.000	201	-97.832624	38.096748	0.000
147	-97.988584	37.772102	0.000	202	-97.687958	37.916075	36.735
148	-97.693307	38.463536	15.000	203	-98.013838	38.067949	13.918
149	-97.785511	38.466593	0.186	204	-97.526456	38.129182	0.000
150	-97.783990	38.466703	0.869	205	-97.616111	38.104339	0.000
151	-97.749270	38.398680	0.000	206	-97.675612	38.271513	105.846
152	-97.807368	37.974271	0.000	207	-97.671769	38.372090	205.947
153	-97.807298	37.974271	0.000	208	-97.703761	38.340140	309.037
154	-97.815910	37.988471	133.000	209	-97.702788	38.347431	475.018
155	-97.432674	37.754576	3.897	210	-97.710980	37.991478	93.000
156	-97.527452	38.124658	28.000	211	-97.710959	37.991480	0.000
157	-97.695956	38.118972	53.000	212	-97.504926	37.908731	68.000
158	-97.927124	38.075650	0.464	213	-97.509470	37.961401	15.805
159	-97.923407	38.078025	1.558	214	-97.696761	37.974243	115.000
160	-97.466836	37.752401	5.056	215	-97.706132	37.974235	0.000
161	-97.465405	37.757432	4.962	216	-98.055076	37.959343	132.889
162	-97.465405	37.757432	9.678	217	-97.949529	37.744560	196.000
163	-97.399997	37.776259	0.000	218	-97.938843	38.022827	0.000
164	-97.446564	38.096683	0.000	219	-97.591611	38.134080	107.412
165	-97.625611	37.796379	0.000	220	-97.467091	37.748037	64.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
221	-97.575756	37.839597	0.000	276	-97.772555	38.059621	0.000
222	-97.575756	37.834462	0.000	277	-97.771916	38.059445	0.000
223	-97.485046	38.035988	0.000	278	-97.749393	37.970849	89.000
224	-97.707956	38.300501	105.917	279	-97.830054	38.029739	0.000
225	-97.666997	38.308903	102.000	280	-97.831442	38.028641	0.000
226	-97.542119	37.895046	47.000	281	-97.412800	37.886566	138.000
227	-97.623753	38.032382	107.767	282	-97.922882	38.072800	0.000
228	-97.410030	37.784940	103.333	283	-97.946091	38.072357	0.000
229	-97.758702	38.416076	42.000	284	-97.941503	38.085652	430.166
230	-98.326686	37.871716	13.666	285	-97.976325	38.117460	594.934
231	-97.943150	38.093030	1.284	286	-97.936699	38.058369	0.246
232	-97.943928	38.093189	0.854	287	-98.082301	38.143171	13.297
233	-97.945551	38.094180	16.044	288	-97.942415	38.116691	8.424
234	-97.564262	37.881485	42.000	289	-97.387590	37.817525	5.000
235	-97.568834	37.879470	166.000	290	-97.928789	37.791339	2.762
236	-97.563870	37.885075	80.000	291	-97.744545	38.257919	64.539
237	-97.666480	37.934224	0.000	292	-97.427809	37.938099	34.819
238	-97.983556	37.994799	0.000	293	-97.585120	38.212821	64.790
239	-97.748629	38.034959	99.000	294	-97.481114	37.785308	13.704
240	-97.670031	38.120410	22.000	295	-97.735803	38.293059	45.000
241	-97.664640	37.857701	53.030	296	-97.718262	38.421219	32.000
242	-97.476474	38.042380	9.763	297	-97.718773	38.427870	75.000
243	-97.559624	38.090448	84.529	298	-98.100949	37.948378	0.000
244	-97.716021	37.988514	114.089	299	-97.726565	38.184782	0.000
245	-98.010889	37.770951	138.717	300	-97.890470	38.077821	0.434
246	-97.458876	37.735311	0.000	301	-97.448418	37.741798	1.328
247	-97.561991	38.048879	75.000	302	-97.416321	37.851295	178.241
248	-97.945496	38.165587	0.000	303	-97.578449	38.141401	0.000
249	-98.006321	38.095219	0.000	304	-97.578449	38.140410	0.000
250	-97.953828	37.988119	117.000	305	-97.556128	37.987780	178.103
251	-97.632758	37.952479	92.262	306	-97.578250	37.979678	104.945
252	-97.642333	37.959649	172.588	307	-97.444726	37.833874	53.000
253	-97.514429	38.045381	0.000	308	-97.665140	38.057630	84.830
254	-97.770500	37.987854	0.000	309	-97.918954	38.039288	1376.086
255	-97.499557	37.897480	120.343	310	-97.632668	37.930518	110.000
256	-97.517548	37.897565	345.781	311	-97.670114	37.959785	202.749
257	-97.463224	37.875452	261.193	312	-97.559427	37.930232	88.384
258	-97.610363	37.984495	966.706	313	-97.568985	37.937686	99.000
259	-97.464367	37.882581	379.870	314	-97.644289	37.870375	76.000
260	-97.568427	37.898056	376.120	315	-97.706061	38.112009	0.000
261	-97.572659	37.912034	205.382	316	-98.014397	37.763413	48.975
262	-97.610704	37.948091	191.778	317	-97.587138	38.006765	160.977
263	-97.586293	37.958483	0.000	318	-97.584430	37.790108	129.000
264	-97.572681	37.978450	247.506	319	-98.063930	38.162808	121.000
265	-97.563973	37.977640	433.959	320	-97.583023	38.077520	30.705
266	-97.500804	37.920296	385.928	321	-97.536602	38.147096	269.899
267	-97.513542	37.840250	70.894	322	-97.491132	37.879933	140.739
268	-97.563687	37.969757	0.000	323	-97.491132	37.879933	0.000
269	-97.610415	37.971039	0.000	324	-97.883402	38.008584	29.035
270	-97.614970	37.934004	60.000	325	-97.707909	38.329544	113.993
271	-97.678094	37.911054	8.286	326	-98.054372	37.828303	0.000
272	-97.688256	37.988854	29.000	327	-97.459461	37.931002	95.000
273	-97.637496	37.828652	144.213	328	-97.465240	37.933151	16.062
274	-97.775198	37.908251	0.000	329	-97.724764	38.122954	103.833
275	-97.775080	37.904741	0.000	330	-97.605503	37.795134	98.603

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
331	-97.623714	37.843423	2.000	386	-97.989780	37.799381	0.000
332	-97.510641	37.755244	0.000	387	-97.496295	38.215767	0.000
333	-97.614620	37.923209	31.000	388	-97.670232	37.902242	0.000
334	-97.489928	37.980348	26.877	389	-97.477327	37.836098	74.513
335	-97.661832	38.345654	1222.000	390	-97.703539	38.311338	77.792
336	-97.459760	38.009517	52.054	391	-97.633100	37.945124	104.486
337	-97.457018	38.007565	47.473	392	-97.728257	38.362488	175.000
338	-97.578732	38.222265	44.333	393	-97.757725	38.047738	2.763
339	-97.341411	37.802911	133.807	394	-97.380608	37.827743	0.000
340	-97.733888	38.257341	95.000	395	-97.632173	38.295715	63.486
341	-97.846439	38.093610	0.000	396	-97.934099	37.988531	0.000
342	-98.123016	38.165699	23.201	397	-98.110151	38.170191	60.744
343	-97.656370	38.144695	106.083	398	-98.105655	38.158201	0.000
344	-97.650459	38.137767	78.482	399	-97.567726	37.771979	0.000
345	-97.742869	38.368201	4.083	400	-97.867558	38.058927	0.000
346	-97.664916	38.190091	108.799	401	-97.958729	37.952469	0.000
347	-97.432780	37.917601	0.055	402	-97.767971	38.435224	33.000
348	-97.458752	37.828559	0.000	403	-97.463333	37.937493	76.000
349	-97.912293	38.004775	0.000	404	-98.040979	37.954000	84.601
350	-97.956499	37.984250	317.431	405	-98.123271	37.926489	170.692
351	-97.557747	37.807127	82.356	406	-97.961987	37.975218	0.000
352	-97.695394	38.274054	2.157	407	-98.103810	37.919209	0.000
353	-97.698904	38.271406	91.146	408	-98.040700	37.938847	9.891
354	-97.381655	37.839313	0.000	409	-98.040700	37.938092	0.000
355	-97.433422	38.311141	24.000	410	-98.009403	38.133187	102.000
356	-97.571087	38.096466	110.480	411	-97.607211	38.166226	0.000
357	-97.861938	37.973705	0.000	412	-97.713112	37.968670	34.000
358	-97.908092	37.967860	132.000	413	-97.761321	37.951551	112.000
359	-97.533279	37.993168	49.000	414	-97.765700	37.955011	0.000
360	-97.945698	38.107643	31.079	415	-97.398980	37.824791	0.000
361	-98.070123	37.814288	119.981	416	-97.481400	37.993499	73.634
362	-97.889427	37.966317	0.000	417	-97.431964	37.966740	25.540
363	-97.825072	37.944917	0.000	418	-98.011388	37.981220	56.710
364	-97.891645	37.988239	0.000	419	-97.856371	38.058061	93.986
365	-97.659670	38.156741	48.786	420	-97.624939	37.896965	82.000
366	-97.650628	38.148431	103.409	421	-97.684587	37.958637	4.474
367	-97.823634	37.965390	13.000	422	-97.683221	37.928773	37.000
368	-97.798061	37.988787	104.000	423	-97.623714	37.843423	0.000
369	-97.802634	37.994563	0.000	424	-98.093309	37.965221	0.000
370	-97.958761	37.943841	0.000	425	-98.092768	37.964402	0.473
371	-97.954420	38.108733	964.251	426	-97.565261	38.085521	0.000
372	-97.554899	38.004444	83.008	427	-97.569935	38.131878	84.201
373	-97.668938	38.169418	91.186	428	-97.596491	38.050460	83.250
374	-97.535141	38.068760	113.000	429	-97.559179	38.118070	0.000
375	-97.706253	37.966999	90.225	430	-97.989711	37.808410	0.000
376	-97.531940	38.039466	134.026	431	-97.576245	38.158411	8.596
377	-97.531940	38.039466	0.000	432	-97.376317	37.789177	0.000
378	-97.941307	38.161949	0.000	433	-97.770481	38.024665	0.000
379	-97.737359	38.214841	0.000	434	-97.749456	38.361938	0.000
380	-97.692611	37.926853	36.424	435	-97.749745	38.376516	0.000
381	-98.082204	38.133813	127.833	436	-97.500633	38.202086	0.239
382	-97.449647	37.886869	96.080	437	-97.868866	37.958316	64.990
383	-97.435503	37.857635	89.000	438	-97.694223	38.450260	79.000
384	-97.964910	37.885591	0.000	439	-97.770291	38.472880	0.000
385	-97.990431	37.799386	163.956	440	-97.776672	38.463882	71.417

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
441	-97.772391	37.741900	0.789	496	-97.680209	38.134240	68.752
442	-98.111015	37.945783	0.000	497	-97.834327	38.088387	0.000
443	-98.109628	37.945866	0.000	498	-97.832972	38.096748	0.000
444	-97.841165	37.986601	45.000	499	-97.651342	37.948679	0.000
445	-97.824958	37.981259	76.000	500	-97.649081	37.955901	26.515
446	-97.807385	37.974271	0.000	501	-97.688013	37.908904	0.000
447	-97.824976	37.988454	96.000	502	-97.631953	38.010476	0.000
448	-97.974335	38.031971	0.000	503	-97.394553	37.799787	67.172
449	-98.064004	37.791076	0.000	504	-97.683577	38.152123	168.385
450	-98.064789	37.790579	138.050	505	-98.013823	38.067983	0.000
451	-97.429158	37.792070	0.000	506	-98.013838	38.067949	0.000
452	-97.719380	37.893526	134.000	507	-97.641231	38.263259	52.310
453	-97.881740	37.953201	0.000	508	-97.531955	38.031882	87.000
454	-97.880370	37.952901	0.000	509	-98.025719	37.825523	0.000
455	-97.914722	37.955434	125.496	510	-97.615908	38.228571	0.000
456	-97.907814	37.953457	0.000	511	-97.661891	38.282426	157.000
457	-97.839237	38.027317	62.000	512	-97.614740	38.235320	0.000
458	-97.844680	38.006698	61.000	513	-97.614288	38.242566	0.000
459	-97.664666	38.186709	0.000	514	-97.653258	38.282690	0.000
460	-97.527297	37.956312	0.000	515	-97.707807	38.351288	0.000
461	-97.696779	38.241686	0.000	516	-97.672325	38.368492	0.000
462	-97.439871	38.328561	0.000	517	-98.032869	37.989430	0.000
463	-97.889520	38.072826	461.751	518	-97.465562	38.315509	0.000
464	-97.623567	37.879667	0.000	519	-97.464904	38.315849	0.000
465	-97.413371	37.756195	0.000	520	-97.532144	37.930576	83.000
466	-98.007699	37.814301	0.000	521	-97.484927	37.773003	130.385
467	-97.568882	37.930464	85.000	522	-97.651400	37.988809	82.000
468	-97.517775	37.788058	0.000	523	-97.426246	37.966735	13.810
469	-97.517775	37.791044	183.648	524	-97.610027	38.108766	0.000
470	-97.517106	37.762483	246.757	525	-97.608985	38.108766	0.000
471	-98.026999	37.973739	132.000	526	-97.787625	37.977722	85.000
472	-97.627382	37.813457	13.000	527	-97.583170	38.126854	0.000
473	-97.614538	38.025029	63.342	528	-98.015045	37.991760	0.000
474	-97.568435	38.075829	76.121	529	-97.549456	37.801207	35.000
475	-97.981190	37.893951	0.000	530	-97.454117	37.828475	11.000
476	-97.980098	37.893830	0.000	531	-97.495057	38.017472	86.563
477	-97.990423	37.783701	0.000	532	-97.495057	38.017472	0.000
478	-97.981865	37.924468	101.000	533	-97.581444	37.846142	0.000
479	-97.513007	38.010297	45.000	534	-97.733869	37.967049	105.880
480	-97.518728	37.860436	49.564	535	-97.490715	37.839469	126.257
481	-97.458748	37.850261	176.326	536	-97.532559	37.829079	0.000
482	-97.509661	37.857853	38.000	537	-97.549052	37.822600	67.000
483	-97.523276	37.872621	117.834	538	-97.729129	37.978751	76.701
484	-97.989387	38.141183	0.000	539	-98.137744	38.168389	113.000
485	-97.473526	37.801093	0.000	540	-97.698971	38.300721	135.743
486	-97.930993	38.065587	141.109	541	-97.716918	38.394919	113.000
487	-97.431658	37.934219	20.000	542	-97.735431	38.389421	51.000
488	-97.705983	37.996058	114.000	543	-97.713111	38.107387	0.000
489	-97.708891	37.970370	0.000	544	-97.943661	38.094200	1.992
490	-97.914500	38.013151	0.000	545	-97.777122	38.454399	26.958
491	-97.898142	38.035063	0.000	546	-97.578036	37.886990	129.000
492	-97.871099	38.039302	1390.942	547	-97.573380	37.883189	152.000
493	-97.419932	37.776796	0.000	548	-97.901317	38.069021	0.000
494	-97.613495	37.849770	17.493	549	-97.296272	37.619044	6.120
495	-97.605502	37.937740	65.982	550	-97.663114	38.451609	0.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
551	-97.979531	37.781119	0.000	606	-98.101816	37.947977	0.000
552	-97.455891	37.871758	0.000	607	-97.653887	37.981721	0.000
553	-97.724593	37.957973	53.417	608	-98.019194	37.779434	0.948
554	-97.736095	37.987061	0.000	609	-97.619351	38.138030	56.753
555	-97.733841	37.959750	61.000	610	-97.652579	38.290025	71.000
556	-97.924962	37.750490	0.000	611	-97.628527	38.247055	41.000
557	-97.658125	38.148529	0.000	612	-97.697380	37.932035	30.000
558	-97.602069	37.977921	0.000	613	-97.664929	37.970340	61.000
559	-98.000071	38.082413	63.029	614	-97.463160	38.022923	16.000
560	-97.533071	37.797568	62.605	615	-97.665140	38.057630	0.000
561	-97.791393	37.948272	0.000	616	-97.448933	38.359296	47.370
562	-97.550687	37.879826	127.000	617	-97.926863	38.011670	35.417
563	-97.699542	38.286846	161.633	618	-97.555110	38.009347	133.000
564	-97.694182	38.445682	80.509	619	-97.550543	37.945043	99.000
565	-97.715402	37.923381	0.000	620	-98.037900	38.168210	0.000
566	-97.955709	37.995320	0.000	621	-97.399109	37.814285	9.704
567	-97.972377	37.975562	0.000	622	-97.522485	37.768904	0.000
568	-97.768900	37.908666	109.000	623	-97.493007	37.787505	57.008
569	-97.690639	37.997650	0.000	624	-97.367957	37.886178	65.000
570	-97.545754	38.079362	0.000	625	-97.540697	37.793618	0.000
571	-97.537566	37.933520	232.744	626	-98.054955	38.155607	139.000
572	-97.508369	37.792601	0.000	627	-98.063249	38.169999	140.000
573	-97.572722	38.006134	257.829	628	-97.536602	38.147096	0.000
574	-97.537652	37.970895	429.193	629	-97.495201	38.010334	20.882
575	-97.565025	38.014429	427.220	630	-97.864237	38.042875	559.750
576	-97.563687	37.969757	60.629	631	-97.468483	37.843385	195.918
577	-97.554454	37.969461	0.000	632	-97.458786	37.843147	54.651
578	-97.610704	37.948091	0.000	633	-97.481653	37.930446	81.000
579	-97.559919	37.897809	0.000	634	-97.477071	37.937691	82.000
580	-97.536283	37.951067	0.000	635	-97.441873	37.843151	90.778
581	-97.683336	37.912153	13.810	636	-97.523367	37.923172	108.000
582	-97.733944	37.974340	99.000	637	-97.697329	37.937916	120.000
583	-97.641950	37.857797	0.000	638	-97.464408	37.933750	2.960
584	-97.783145	37.905323	88.786	639	-97.697031	38.148297	111.000
585	-97.767448	37.897862	0.000	640	-97.487101	37.887236	73.607
586	-97.765918	38.065352	0.000	641	-97.502430	37.758300	0.000
587	-98.031660	37.802806	164.449	642	-97.446862	37.905369	83.000
588	-97.707985	38.429428	80.448	643	-97.628256	37.923250	107.000
589	-97.918251	38.049282	0.000	644	-97.609969	37.907630	91.000
590	-97.909241	38.065704	0.000	645	-97.651360	37.901484	48.806
591	-97.969047	38.093778	535.306	646	-97.952129	38.041400	639.593
592	-97.934456	38.079918	563.202	647	-97.950129	38.041087	1204.066
593	-97.916539	38.028719	39.438	648	-97.587839	38.203118	92.478
594	-98.082301	38.143171	0.000	649	-97.670039	38.344632	0.000
595	-98.083740	38.144289	0.000	650	-97.459378	38.004902	146.143
596	-98.087482	38.172795	357.679	651	-97.449774	37.923069	35.000
597	-97.609842	38.097385	20.000	652	-97.582677	37.886987	36.944
598	-97.568825	38.039711	98.000	653	-97.341270	37.794998	46.429
599	-97.522392	38.019909	139.032	654	-97.980743	38.117592	0.000
600	-97.710329	38.268922	151.000	655	-97.645887	37.942190	0.000
601	-97.426481	37.948724	7.363	656	-97.844705	38.095136	0.000
602	-97.451533	37.757619	0.000	657	-97.846311	38.092665	0.071
603	-97.451533	37.757435	0.000	658	-97.845310	38.095175	12.023
604	-97.742857	38.283406	109.099	659	-97.873750	37.969800	0.000
605	-97.545813	38.070996	97.136	660	-97.607900	38.035950	75.700

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
661	-97.680003	38.253335	146.334	716	-97.662010	38.286213	147.722
662	-97.674784	38.200813	82.028	717	-97.527165	38.052450	0.000
663	-97.689090	38.199228	84.554	718	-97.531636	38.061422	90.667
664	-97.727042	38.358279	56.417	719	-97.522456	38.061669	79.000
665	-97.669410	38.193221	67.479	720	-97.569798	37.771979	0.000
666	-97.958619	37.999681	0.000	721	-97.866731	38.058819	0.128
667	-97.952010	37.984280	349.432	722	-97.733851	37.981562	98.000
668	-97.557747	37.807127	0.000	723	-97.907820	37.988380	101.325
669	-97.547063	37.804893	132.996	724	-97.907706	37.993641	6.082
670	-97.624032	38.122985	0.000	725	-97.924290	37.955302	55.000
671	-97.742351	37.887229	0.000	726	-97.948731	37.999471	149.596
672	-97.541686	38.037238	58.665	727	-98.103499	37.919209	13.515
673	-97.540933	38.061303	76.000	728	-98.113776	37.895101	67.000
674	-97.706296	38.228440	69.860	729	-97.739701	38.369701	0.000
675	-97.689802	38.181223	147.500	730	-97.623848	38.170719	118.179
676	-97.438480	38.308100	0.000	731	-97.678971	37.952338	87.000
677	-97.538329	37.961654	1.138	732	-97.752049	37.952326	69.000
678	-97.578347	37.952632	97.980	733	-97.765700	37.955011	60.000
679	-97.575784	38.093691	0.000	734	-97.532578	37.894231	0.000
680	-97.576895	37.782445	13.000	735	-97.504030	37.798457	0.000
681	-98.070347	37.823461	81.328	736	-97.814042	38.162669	1.818
682	-97.893989	37.969785	136.040	737	-97.655930	37.828660	0.000
683	-97.746083	38.280564	62.000	738	-97.679243	37.966881	46.000
684	-97.558091	37.768256	133.000	739	-97.747501	37.988788	76.000
685	-97.825072	37.945397	0.000	740	-97.549857	37.895850	1.000
686	-97.900875	37.951661	36.438	741	-97.972119	37.766920	0.000
687	-97.825142	37.952084	124.000	742	-97.971164	37.767036	138.000
688	-97.893769	37.950709	0.000	743	-97.595284	38.111397	17.401
689	-97.893769	37.950709	13.810	744	-97.516625	38.116529	88.153
690	-97.650628	38.148431	0.000	745	-98.054688	37.995539	169.441
691	-97.954118	37.948085	25.000	746	-97.866270	38.059711	0.029
692	-97.958740	37.944401	0.000	747	-97.870832	38.093641	1.128
693	-97.958781	37.943291	0.000	748	-97.870939	38.092691	0.969
694	-97.919862	37.977660	171.041	749	-97.747539	37.941236	0.000
695	-98.040921	37.773410	106.000	750	-97.614700	38.054153	0.000
696	-98.040921	37.773410	0.000	751	-97.857276	38.017379	81.000
697	-97.675319	38.112219	48.518	752	-97.898429	37.980981	161.568
698	-97.683920	38.108930	95.691	753	-97.948960	37.991796	104.733
699	-98.081802	37.839081	48.519	754	-97.577931	38.017791	105.750
700	-97.454615	38.303798	253.366	755	-97.585137	38.154511	0.000
701	-97.454615	38.303798	0.000	756	-97.569445	38.131853	0.000
702	-97.437602	38.345526	0.000	757	-97.442690	37.814822	615.152
703	-97.438519	38.341133	0.000	758	-97.696039	38.039251	46.263
704	-97.689380	38.248865	0.000	759	-97.696039	38.039251	0.000
705	-97.723640	38.199151	71.993	760	-97.988957	37.808962	109.000
706	-97.669952	38.157560	103.946	761	-97.752016	37.959725	89.000
707	-97.941315	38.163754	49.618	762	-97.858389	38.081195	0.000
708	-97.964088	37.885415	112.915	763	-97.745216	38.369705	32.970
709	-98.090389	37.944901	0.000	764	-97.750854	38.312458	6.951
710	-97.388794	37.853058	0.000	765	-97.693307	38.463536	0.000
711	-97.495485	37.846790	0.000	766	-97.706772	38.444889	59.000
712	-97.509367	37.854264	0.000	767	-97.657301	38.456689	0.000
713	-97.518344	37.861482	0.000	768	-97.784682	38.466920	0.000
714	-97.518241	37.861564	0.000	769	-97.781621	38.466301	115.909
715	-97.717970	38.271886	128.921	770	-97.735428	38.449282	83.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
771	-97.743062	38.402324	155.000	826	-97.385241	37.799563	73.000
772	-97.841200	37.986601	0.000	827	-97.669779	38.138909	143.917
773	-97.841147	37.986601	0.000	828	-97.713318	38.112439	81.583
774	-97.824968	37.981286	0.000	829	-97.651457	38.163192	125.300
775	-97.680259	38.394761	73.417	830	-97.721451	38.115484	51.833
776	-97.746448	38.275253	85.000	831	-97.704656	37.923381	0.000
777	-97.975477	38.030878	0.000	832	-97.486405	37.901404	39.957
778	-97.971530	38.032660	7.133	833	-98.023712	37.759827	96.000
779	-97.467742	37.761101	0.000	834	-97.702006	38.450557	4.340
780	-97.447898	38.097037	0.000	835	-97.722151	38.383837	70.583
781	-97.533104	37.786294	232.817	836	-97.615908	38.228571	210.742
782	-97.914202	37.955519	0.000	837	-97.677329	38.383729	317.928
783	-97.907814	37.952391	0.000	838	-97.703761	38.333689	343.025
784	-97.664666	38.186709	121.026	839	-98.033170	37.989436	2.963
785	-97.509394	38.027876	46.000	840	-97.464921	38.315904	0.000
786	-97.614831	38.039681	18.797	841	-97.488456	37.778873	73.653
787	-97.509394	38.027876	0.000	842	-97.706222	37.937892	140.033
788	-98.054951	38.147671	84.000	843	-97.646256	38.035840	22.000
789	-97.602079	38.174241	0.000	844	-98.031709	38.140569	22.000
790	-97.598605	38.118331	0.000	845	-97.740690	38.322315	72.548
791	-97.993022	38.013113	13.428	846	-97.664495	37.937895	0.000
792	-97.512465	37.823811	0.000	847	-98.055039	37.966472	0.000
793	-97.447998	37.765907	0.000	848	-97.938843	38.023467	0.000
794	-97.466942	37.730762	4.714	849	-97.486481	38.184769	0.000
795	-97.471386	37.737288	0.000	850	-97.476072	37.755389	35.676
796	-97.476096	37.740710	0.000	851	-97.484553	38.036627	91.000
797	-97.536441	38.197421	0.000	852	-97.646556	37.861488	72.502
798	-98.008706	37.814287	182.000	853	-97.660083	37.843095	82.123
799	-97.519949	37.792558	0.000	854	-97.990715	38.051507	0.000
800	-97.526041	37.788133	383.666	855	-97.990715	38.051507	88.833
801	-97.591763	37.928853	37.000	856	-97.425705	38.303222	33.586
802	-97.856728	38.081371	0.592	857	-97.669545	37.850322	78.774
803	-97.417264	37.785110	83.333	858	-97.605539	37.828810	108.375
804	-97.990423	37.782080	0.000	859	-97.708721	38.423880	119.000
805	-97.687203	37.937934	83.000	860	-97.898782	37.977147	139.652
806	-97.445411	37.981410	43.000	861	-97.442302	37.870486	25.963
807	-97.518398	37.865473	59.124	862	-97.946058	38.096940	1.296
808	-97.519358	37.916049	238.894	863	-97.559592	37.883079	92.000
809	-97.803590	38.126141	0.310	864	-97.666099	37.934243	0.000
810	-97.697229	37.894159	0.000	865	-97.660400	37.850398	103.575
811	-97.705845	37.996032	0.000	866	-97.454224	37.792177	77.583
812	-97.708891	37.970370	29.000	867	-97.744966	38.313954	69.000
813	-97.918162	38.009883	0.000	868	-97.652171	38.119160	30.934
814	-97.742960	37.945200	115.000	869	-97.587113	38.043064	99.917
815	-97.609647	38.013724	2.786	870	-97.736952	37.987061	0.000
816	-97.576324	37.773686	40.527	871	-97.715220	37.988800	0.000
817	-97.476695	37.722940	5.206	872	-98.024719	38.104813	0.004
818	-97.477612	37.725700	4.543	873	-98.022672	38.100776	0.000
819	-97.474061	37.727759	0.060	874	-97.717373	38.300339	117.551
820	-97.960731	37.772611	0.000	875	-97.435739	38.031251	0.000
821	-97.832972	38.096474	0.000	876	-98.012327	38.092025	0.000
822	-97.833319	38.096748	0.000	877	-97.497767	37.937668	33.931
823	-97.697151	37.879818	86.174	878	-98.004612	37.755270	0.000
824	-97.688143	37.928844	40.878	879	-98.006063	38.094904	0.000
825	-97.522866	37.927047	27.000	880	-97.950737	37.955184	75.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
881	-97.953780	37.995300	0.000	936	-97.596341	37.930521	24.876
882	-97.795391	37.938991	54.000	937	-97.596167	38.010446	86.000
883	-97.973487	37.976891	0.000	938	-97.689570	38.275437	47.492
884	-97.889329	37.980800	0.000	939	-97.689557	38.257768	236.751
885	-97.568748	38.025055	62.000	940	-97.406070	37.812433	0.000
886	-97.605345	38.018556	46.000	941	-97.391501	37.835266	10.127
887	-97.608885	38.025111	119.272	942	-97.497332	37.791899	0.000
888	-97.628107	37.918666	92.693	943	-98.014397	37.763413	0.000
889	-97.628193	37.915510	0.000	944	-97.598946	38.147617	72.000
890	-97.549837	37.935331	42.000	945	-97.429039	37.926366	23.994
891	-97.469589	37.771451	0.000	946	-97.533873	38.145380	191.275
892	-97.468897	37.771180	0.000	947	-97.884862	38.047378	176.519
893	-97.711655	38.253585	64.631	948	-97.724961	38.233068	0.000
894	-97.486175	37.999657	33.000	949	-97.726634	38.246708	0.000
895	-97.517664	37.927359	244.701	950	-97.724961	38.233068	81.468
896	-97.537757	37.962560	332.993	951	-97.606960	38.156528	44.081
897	-97.537757	37.962560	0.000	952	-97.550995	38.195896	2.578
898	-97.499992	37.946820	47.000	953	-97.449676	38.351693	96.506
899	-97.687923	37.879543	133.000	954	-97.477933	38.038758	24.631
900	-97.696514	38.263867	4.373	955	-97.468149	37.937834	68.000
901	-97.775198	37.908251	67.528	956	-97.513943	37.934058	41.000
902	-97.798086	37.919422	41.000	957	-97.983176	37.808061	0.000
903	-98.068460	37.810211	187.147	958	-97.730737	37.996512	0.000
904	-97.495625	37.894242	80.098	959	-97.605460	37.905062	79.000
905	-97.500328	37.984842	68.000	960	-97.605408	37.909220	0.000
906	-97.936699	38.058369	0.000	961	-97.628267	37.909990	78.000
907	-97.957171	38.116983	475.862	962	-97.559625	37.936656	7.620
908	-97.753917	38.453104	77.000	963	-97.550501	38.173610	161.117
909	-97.609877	38.099802	0.000	964	-97.664266	37.870125	0.000
910	-97.939979	38.123271	10.986	965	-97.669705	37.870637	98.211
911	-97.451533	37.757251	0.000	966	-97.749029	38.369065	0.000
912	-97.451533	37.756886	0.000	967	-97.667249	38.341329	771.000
913	-97.688546	38.173798	0.000	968	-97.462838	38.008876	114.052
914	-97.994525	38.020687	330.526	969	-97.457920	38.012592	72.436
915	-97.578988	38.203355	201.000	970	-97.340077	37.795603	2.216
916	-97.518274	37.923138	0.812	971	-97.846800	38.090616	0.000
917	-97.511374	37.966731	95.000	972	-97.651476	37.992434	43.811
918	-97.716838	38.344008	213.250	973	-97.576640	37.805291	94.000
919	-97.702225	38.392197	47.000	974	-97.568469	37.803109	41.000
920	-98.100082	37.947977	0.000	975	-97.576640	37.805291	0.000
921	-98.077263	38.142317	7.347	976	-97.545373	37.811312	0.000
922	-97.632964	38.032463	0.000	977	-97.697237	38.124341	0.000
923	-97.729400	38.028213	83.000	978	-97.679010	37.994340	0.000
924	-97.448418	37.741798	0.000	979	-97.449525	37.821707	57.173
925	-97.940730	38.059103	0.398	980	-97.568585	37.995900	49.342
926	-98.025107	37.779855	0.038	981	-97.421492	38.311393	0.000
927	-97.734589	38.274185	12.031	982	-97.443689	37.953972	73.000
928	-97.426381	37.984321	69.000	983	-98.004155	38.006606	50.000
929	-97.577980	38.003135	97.397	984	-97.926204	37.978669	127.604
930	-97.712103	38.128809	146.374	985	-97.572955	38.032296	59.636
931	-97.532290	37.865435	0.000	986	-97.710986	38.235558	133.000
932	-97.444726	37.833874	0.000	987	-97.569314	38.206837	70.443
933	-97.591450	37.900579	62.380	988	-97.707702	38.278650	70.000
934	-97.702774	38.145706	0.000	989	-97.614681	37.944793	116.000
935	-97.701386	38.177359	81.632	990	-98.021660	37.794647	0.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
991	-98.041045	37.787976	159.505	1046	-98.044572	38.142082	0.000
992	-98.027207	37.969839	85.894	1047	-97.866909	38.051480	260.076
993	-97.990534	38.096941	4.697	1048	-97.644613	38.216605	65.341
994	-97.898878	37.952115	0.000	1049	-97.670041	37.981458	22.000
995	-97.899890	37.951893	0.000	1050	-97.553575	37.891437	1.320
996	-97.993347	38.075115	53.000	1051	-97.481310	37.991837	81.055
997	-97.999131	38.074427	0.000	1052	-97.427039	37.977602	32.234
998	-98.000114	38.075204	0.000	1053	-97.528102	38.098897	40.874
999	-97.802634	37.994563	32.000	1054	-97.633045	37.966866	75.000
1000	-97.788881	37.988821	0.000	1055	-97.878854	38.072604	131.524
1001	-97.806970	37.981241	108.000	1056	-97.871242	38.093070	0.501
1002	-97.944603	37.974639	197.000	1057	-97.869560	38.093309	0.650
1003	-97.962948	37.995306	101.170	1058	-97.850212	38.004744	0.000
1004	-97.944603	37.974639	0.000	1059	-97.537168	37.783114	0.000
1005	-97.958761	37.942761	0.000	1060	-97.481642	37.948845	60.963
1006	-98.086976	37.941028	0.000	1061	-97.987228	38.079610	0.000
1007	-97.568283	37.820141	0.000	1062	-97.585137	38.155198	0.000
1008	-97.479242	38.054673	64.027	1063	-97.565351	38.085510	0.000
1009	-97.481124	38.051529	59.785	1064	-97.665498	38.249942	2124.445
1010	-97.635431	37.960514	0.000	1065	-97.708365	37.916845	15.000
1011	-97.449761	37.881373	45.000	1066	-97.559374	38.118872	120.000
1012	-97.578188	37.988722	51.536	1067	-97.527641	38.157023	0.000
1013	-97.652227	37.870680	270.000	1068	-97.449294	38.343915	0.000
1014	-98.055437	37.809074	179.043	1069	-97.977265	37.752603	165.000
1015	-98.049920	37.809811	192.178	1070	-97.569836	38.119448	82.000
1016	-97.964379	37.884701	0.000	1071	-97.683502	38.037443	0.000
1017	-97.612742	38.089179	27.000	1072	-97.770481	38.024665	66.000
1018	-97.488708	38.224671	16.140	1073	-97.740751	38.353873	11.174
1019	-97.495814	38.216294	14.307	1074	-97.740709	38.353999	1.237
1020	-97.495589	37.846790	37.287	1075	-97.908778	37.959045	0.000
1021	-97.509264	37.854347	0.000	1076	-97.937858	37.741691	0.000
1022	-97.435715	37.821685	73.009	1077	-97.856850	38.084941	0.000
1023	-97.464591	38.346630	51.000	1078	-97.656850	38.456914	0.000
1024	-97.757906	38.047614	0.000	1079	-98.111015	37.944685	0.000
1025	-97.379301	37.830901	0.000	1080	-97.841182	37.986601	0.000
1026	-97.866749	38.058819	0.000	1081	-97.807212	37.974271	0.000
1027	-97.624565	37.794641	0.000	1082	-97.807264	37.974271	0.000
1028	-97.724557	37.937763	0.000	1083	-97.697170	37.870611	55.535
1029	-97.425642	37.901300	7.955	1084	-97.877351	38.086080	4.959
1030	-97.907706	37.992817	0.000	1085	-97.975477	38.030878	9.590
1031	-97.958729	37.953490	0.000	1086	-97.975543	38.029436	0.000
1032	-97.426414	38.355619	0.000	1087	-97.974391	38.031059	0.000
1033	-97.440245	37.865892	65.736	1088	-97.724506	38.173609	123.000
1034	-97.559614	37.916087	88.000	1089	-98.065571	37.790079	0.000
1035	-97.467624	37.872297	40.276	1090	-97.447898	38.096106	0.000
1036	-97.610706	38.153969	45.000	1091	-98.045357	37.937300	86.000
1037	-98.045291	37.981031	120.460	1092	-97.881057	37.953052	81.357
1038	-98.104746	37.919209	57.000	1093	-97.907141	37.952924	73.150
1039	-98.040637	37.924228	102.000	1094	-97.843465	38.006698	0.000
1040	-98.040503	37.948610	67.000	1095	-97.836413	38.006698	0.000
1041	-98.029373	37.980934	2.320	1096	-97.436998	37.752750	2.861
1042	-97.446353	37.767599	2.589	1097	-97.441427	37.901689	55.000
1043	-97.713070	37.965160	0.000	1098	-97.513973	37.951096	25.000
1044	-98.054582	37.792861	130.000	1099	-97.623703	38.025040	72.000
1045	-98.063299	37.795110	195.003	1100	-97.477019	38.046729	0.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1101	-97.510320	38.028242	0.000	1156	-97.532151	37.937631	114.000
1102	-97.508932	38.027143	0.000	1157	-97.588068	37.966661	134.000
1103	-97.513792	38.024779	119.250	1158	-97.632934	37.996034	94.106
1104	-97.991714	38.067165	0.000	1159	-97.697128	37.981651	75.387
1105	-98.042753	38.152022	112.000	1160	-97.480419	37.744760	121.585
1106	-97.699149	38.445599	57.902	1161	-97.571402	38.194625	11.048
1107	-97.598136	38.117645	68.000	1162	-97.571402	38.194625	85.037
1108	-97.891572	38.072009	316.540	1163	-97.605057	38.220254	79.597
1109	-97.924771	38.015235	0.433	1164	-97.509790	37.812949	0.000
1110	-98.110912	37.897840	96.145	1165	-97.678910	37.930649	0.000
1111	-97.635299	38.015679	0.000	1166	-97.472617	37.853802	85.000
1112	-97.561550	37.832100	0.000	1167	-97.472617	37.853802	0.000
1113	-97.559607	37.892469	0.000	1168	-97.532194	37.829217	0.000
1114	-97.535271	38.201850	0.000	1169	-97.532195	37.828930	0.000
1115	-97.535752	38.197413	0.000	1170	-97.426050	38.303625	35.354
1116	-97.650889	38.018131	70.000	1171	-97.404342	37.784693	0.000
1117	-98.009530	37.766299	103.000	1172	-97.692993	38.406647	92.000
1118	999.999000	-999.999000	0.000	1173	-97.744637	38.423908	110.000
1119	-98.005231	37.806710	0.000	1174	-97.716966	38.402137	102.000
1120	-97.986210	37.751699	0.000	1175	-97.945311	38.094430	2.038
1121	-97.997393	37.777450	165.000	1176	-97.444800	38.036203	0.000
1122	-97.422178	37.854114	10.662	1177	-97.579622	37.883131	111.000
1123	-97.521966	37.785270	256.185	1178	-97.564203	37.877842	129.000
1124	-97.526053	37.785277	288.973	1179	-97.665717	37.934265	0.000
1125	-97.525703	37.772654	404.449	1180	-97.655212	37.823929	57.597
1126	-97.678780	37.865013	153.000	1181	-97.724162	37.894341	0.000
1127	-97.500286	38.012876	7.000	1182	-97.474610	38.041823	21.422
1128	-97.550186	38.032355	79.275	1183	-97.588694	37.805354	35.666
1129	-97.981331	37.923789	0.000	1184	-97.568953	38.108675	63.151
1130	-97.532487	37.872619	179.316	1185	-97.559624	38.090448	0.000
1131	-97.724858	38.119491	45.333	1186	-97.485431	38.124193	38.000
1132	-97.586044	37.799173	10.753	1187	-97.716969	37.988800	0.000
1133	-97.931341	38.065620	8.061	1188	-97.926020	37.751369	0.000
1134	-97.706121	37.996085	0.000	1189	-97.632116	38.025057	29.000
1135	-97.889053	38.024290	0.000	1190	-97.821638	38.064366	1.947
1136	-97.609650	38.028944	2.605	1191	-98.019136	38.096870	118.481
1137	-97.706841	38.435799	58.000	1192	-98.004404	37.756904	0.000
1138	-97.477612	37.725700	4.051	1193	-97.416130	38.326733	0.000
1139	-97.600774	37.937660	70.889	1194	-97.694182	38.445682	0.000
1140	-97.645615	37.915157	119.871	1195	-97.954745	37.995311	82.105
1141	-97.641750	37.897776	31.000	1196	-97.898445	37.992828	
1142	-97.834327	38.088181	0.000	1197	-97.972932	37.976226	0.000
1143	-97.835334	38.088181	0.000	1198	-97.769766	37.908666	0.000
1144	-97.655600	37.954111	0.000	1199	-97.967648	37.941270	10.659
1145	-97.646376	37.908741	41.246	1200	-97.605345	38.018556	0.000
1146	-97.632976	38.010476	0.000	1201	-97.869694	38.045840	0.138
1147	-97.724756	38.148287	92.527	1202	-97.655780	37.972455	25.000
1148	-98.013841	38.067933	0.000	1203	-97.513620	38.045381	0.000
1149	-97.999417	38.127027	15.000	1204	-97.481549	37.891082	239.662
1150	-97.614288	38.242566	96.000	1205	-97.559919	37.897809	742.858
1151	-97.693749	38.348129	335.669	1206	-97.476236	37.864927	0.000
1152	-97.672325	38.368492	4.247	1207	-97.554511	37.977101	482.110
1153	-98.028630	37.996579	11.639	1208	-97.528196	37.942112	0.000
1154	-97.410337	37.800080	6.540	1209	-97.500804	37.920296	0.000
1155	-97.760617	37.908611	129.000	1210	-97.537566	37.933520	0.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1211	-97.678783	37.857658	69.971	1266	-97.449676	38.351693	0.000
1212	-97.683301	37.888770	136.000	1267	-97.943466	38.047314	13.862
1213	-97.774463	37.902602	0.000	1268	-98.004799	37.766339	156.000
1214	-97.765918	38.064528	0.000	1269	-97.468808	37.930213	104.000
1215	-97.766960	38.064528	0.000	1270	-97.727887	37.994981	0.000
1216	-97.830054	38.028641	0.000	1271	-97.731775	37.994876	0.000
1217	-97.513849	37.981441	73.653	1272	-97.632985	37.915556	12.116
1218	-97.961126	38.085660	369.770	1273	-97.663749	37.832028	0.000
1219	-97.972874	38.104357	413.379	1274	-97.542118	38.174270	71.692
1220	-98.056162	37.952080	0.000	1275	-97.569771	38.203099	0.000
1221	-97.715949	38.285732	117.551	1276	-97.571677	38.203107	176.169
1222	-97.448559	37.998912	31.318	1277	-97.505154	37.965087	12.682
1223	-97.545200	38.086926	0.000	1278	-97.678497	38.345225	1976.000
1224	-97.578988	38.203355	0.000	1279	-97.462918	38.000947	245.070
1225	-97.523445	37.944064	184.000	1280	-97.577884	37.901289	78.993
1226	-98.100949	37.949183	0.000	1281	-97.338966	37.795002	74.905
1227	-97.892141	38.077906	2.819	1282	-97.337441	37.802881	244.565
1228	-97.892240	38.077830	0.000	1283	-97.346460	37.802953	188.341
1229	-97.624084	38.177815	68.000	1284	-97.844990	38.094318	0.000
1230	-97.522755	37.979618	46.438	1285	-97.853679	38.090739	4.228
1231	-97.479282	37.784920	0.000	1286	-97.848279	38.093447	23.799
1232	-97.966523	38.038877	0.000	1287	-97.846311	38.092665	0.000
1233	-97.734589	38.274185	77.936	1288	-97.873750	37.969800	14.206
1234	-97.734442	38.278754	716.677	1289	-97.404273	38.320814	11.379
1235	-97.728615	38.449459	42.000	1290	-97.677736	38.219984	102.912
1236	-97.726211	38.142426	72.088	1291	-97.688089	38.240473	175.290
1237	-97.468102	37.894142	201.000	1292	-97.468149	37.835389	78.500
1238	-97.653835	38.294696	104.394	1293	-97.503126	37.836924	0.000
1239	-97.660659	37.974952	84.000	1294	-97.695394	38.274029	0.000
1240	-97.614600	37.894176	0.000	1295	-97.562223	38.115294	0.000
1241	-97.422513	37.765789	0.000	1296	-97.682119	38.191874	98.000
1242	-97.670106	38.017946	0.179	1297	-97.374499	37.842679	2.779
1243	-97.632668	37.930518	0.000	1298	-97.380860	37.845049	173.573
1244	-97.549790	37.812060	0.000	1299	-97.416382	38.305906	0.000
1245	-97.497890	37.971840	60.000	1300	-97.701979	37.876121	0.000
1246	-97.568985	37.937686	0.000	1301	-97.925982	37.945199	70.000
1247	-98.045194	38.171700	34.347	1302	-97.918702	37.962662	1.000
1248	-97.399172	37.807465	68.724	1303	-97.653844	37.897666	131.000
1249	-97.701708	38.168245	0.000	1304	-98.073881	37.822829	30.411
1250	-97.713345	38.172632	0.000	1305	-97.784818	37.899140	0.000
1251	-97.632979	37.901513	117.000	1306	-97.684194	38.233188	166.665
1252	-97.698638	38.218571	91.000	1307	-97.458371	37.981283	37.998
1253	-97.717066	38.380487	120.000	1308	-97.988893	38.101664	23.159
1254	-98.020135	37.786308	153.000	1309	-97.999131	38.075204	114.000
1255	-97.584430	37.790108	0.000	1310	-97.798670	37.981080	0.000
1256	-98.063695	38.141055	16.093	1311	-97.955800	37.948058	29.000
1257	-98.063249	38.169999	0.000	1312	-97.949991	37.948099	22.000
1258	-97.491185	37.865065	105.686	1313	-97.338785	37.768645	102.884
1259	-97.706188	37.952443	47.285	1314	-97.338853	37.769785	11.287
1260	-97.897415	38.048807	0.000	1315	-97.502969	38.018406	0.000
1261	-97.724521	38.232052	85.166	1316	-97.756025	37.908973	0.000
1262	-97.475061	37.844997	13.506	1317	-97.689380	38.248865	134.601
1263	-97.467993	37.981361	88.936	1318	-97.704726	38.269328	143.256
1264	-97.694823	38.209352	140.696	1319	-97.585458	38.132614	2.757
1265	-97.583290	38.220672	142.000	1320	-97.578695	38.133520	48.112

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1321	-97.669994	38.153605	78.949	1376	-97.868856	38.053841	1287.561
1322	-97.601512	37.814137	163.000	1377	-97.428981	37.963363	33.279
1323	-97.737359	38.214841	84.000	1378	-97.788860	37.937561	72.719
1324	-97.568790	37.886792	0.000	1379	-97.503902	37.781610	50.477
1325	-97.745077	38.300608	9.346	1380	-97.592964	38.109592	17.262
1326	-97.963790	37.886121	0.000	1381	-97.596768	38.109913	39.441
1327	-97.454057	37.841644	17.529	1382	-97.515583	38.116529	0.000
1328	-97.974915	37.744487	121.000	1383	-97.882572	38.079286	83.389
1329	-97.497060	38.215259	6.296	1384	-97.692803	37.930674	0.000
1330	-97.495828	38.215745	0.000	1385	-97.898455	37.988380	65.469
1331	-97.678750	37.903560	0.000	1386	-97.849952	38.004744	0.000
1332	-98.141356	37.917254	0.000	1387	-97.687340	37.958704	4.474
1333	-98.137096	37.919173	87.055	1388	-97.738629	37.934069	51.000
1334	-97.715402	37.923381	61.372	1389	-97.917128	38.087097	4.468
1335	-97.509315	37.854305	155.583	1390	-98.097068	37.912391	59.000
1336	-97.518345	37.861564	55.848	1391	-98.096202	37.912111	0.000
1337	-97.731838	38.188491	27.393	1392	-97.630661	37.850517	82.000
1338	-97.650572	38.155623	71.040	1393	-97.725018	38.303220	0.000
1339	-97.394418	37.796007	18.667	1394	-98.136091	38.150493	0.000
1340	-97.724230	37.876141	134.196	1395	-97.442690	37.814822	42.167
1341	-97.646721	37.948717	122.000	1396	-97.989718	37.809519	0.000
1342	-97.495497	37.923071	65.367	1397	-97.600728	38.010539	112.000
1343	-97.722848	38.369555	11.454	1398	-97.693080	37.870074	35.501
1344	-97.542046	38.031642	62.996	1399	-98.035122	38.002860	0.000
1345	-98.105655	38.158201	110.000	1400	-97.422066	37.848568	66.000
1346	-97.567726	37.771979	60.779	1401	-97.426378	37.852175	2.000
1347	-97.624565	37.794641	40.614	1402	-97.391129	37.840370	0.000
1348	-97.624659	37.793820	38.441	1403	-98.133066	37.917301	0.000
1349	-97.633349	38.235750	0.000	1404	-98.132931	37.917301	4.909
1350	-97.738005	37.939426	121.160	1405	-98.132931	37.917301	0.000
1351	-97.958740	37.952980	0.000	1406	-97.377088	37.788491	0.000
1352	-97.924713	37.955541	0.000	1407	-97.376704	37.788834	0.000
1353	-97.930455	38.049165	19.015	1408	-97.858719	38.081407	0.000
1354	-98.045476	38.133541	105.450	1409	-97.859004	38.080981	0.000
1355	-98.036320	38.155424	84.996	1410	-97.807139	38.002999	8.000
1356	-97.616752	38.159729	71.002	1411	-97.909437	37.959251	79.000
1357	-97.550576	37.886900	115.783	1412	-98.036226	37.973611	74.000
1358	-97.542526	37.887180	117.551	1413	-97.735572	38.438617	80.167
1359	-97.467952	37.908631	65.515	1414	-98.110554	37.945418	39.303
1360	-98.039486	37.933651	28.851	1415	-97.824899	37.981286	0.000
1361	-98.045481	37.933830	102.570	1416	-97.825003	37.981204	0.000
1362	-98.040961	37.955340	64.378	1417	-97.453245	37.752717	0.000
1363	-98.040972	37.954670	0.000	1418	-97.457544	37.754450	0.000
1364	-98.123291	37.925100	98.769	1419	-97.425996	38.006444	2.353
1365	-98.114473	37.948615	57.965	1420	-97.761281	37.923129	0.000
1366	-98.040503	37.949159	0.000	1421	-97.862609	38.080770	0.688
1367	-98.031659	37.922740	0.000	1422	-97.929052	38.079426	0.571
1368	-97.444511	38.347282	66.288	1423	-97.839237	38.028004	0.000
1369	-97.422758	38.325896	72.695	1424	-97.839237	38.026631	0.000
1370	-97.770370	37.959689	0.000	1425	-97.508932	38.028242	0.000
1371	-97.752108	37.945150	155.000	1426	-97.601582	38.174235	26.546
1372	-98.054582	37.792861	0.000	1427	-97.569063	38.115896	9.305
1373	-97.527389	37.812619	0.000	1428	-97.441635	38.337822	65.367
1374	-97.521833	37.822101	0.000	1429	-97.885262	38.071923	0.479
1375	-97.655930	37.828660	99.667	1430	-97.887949	38.071987	22.053

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1431	-98.081013	37.884882	0.000	1486	-97.355550	37.779530	0.000
1432	-97.832109	37.982871	44.000	1487	-97.485339	37.789812	109.000
1433	-97.603264	37.821854	99.756	1488	-97.546937	37.797447	29.000
1434	-97.624027	37.995890	188.147	1489	-97.485339	37.789812	0.000
1435	-97.685966	37.995802	0.000	1490	-97.485108	37.802459	5.000
1436	-97.439653	37.783623	0.000	1491	-97.575756	37.839597	33.414
1437	-97.477995	37.794631	0.000	1492	-97.632970	37.842709	73.745
1438	-98.018133	38.105301	0.000	1493	-97.623954	37.872676	0.000
1439	-98.000354	38.101526	0.000	1494	-97.724197	37.907889	68.000
1440	-97.990343	38.089971	0.000	1495	-97.702263	38.412163	47.000
1441	-97.535794	38.197487	35.096	1496	-97.689979	38.285921	115.000
1442	-97.535794	38.197487	0.000	1497	-97.454026	37.866865	49.073
1443	-97.651649	38.017601	0.000	1498	-97.944519	38.094460	2.973
1444	-97.650128	38.018661	0.000	1499	-97.777122	38.454399	0.000
1445	-97.500332	37.855225	27.620	1500	-97.550537	37.952375	52.000
1446	-97.521982	37.793992	130.682	1501	-97.582964	37.968570	99.000
1447	-97.516820	37.772532	269.771	1502	-97.582964	37.968570	0.000
1448	-97.983100	38.066163	7.759	1503	-97.573380	37.883189	0.000
1449	-97.495483	37.782066	30.382	1504	-97.958669	37.751839	120.000
1450	-97.367322	37.790413	3.037	1505	-97.978541	37.781111	194.130
1451	-97.434103	37.758256	0.000	1506	-97.476474	38.042380	0.000
1452	-97.432868	37.757333	0.000	1507	-97.898209	38.155675	3.895
1453	-98.015224	37.802527	0.000	1508	-97.614555	38.032328	83.000
1454	-97.980795	37.893912	93.000	1509	-98.028149	38.107471	0.000
1455	-97.982621	37.924330	0.000	1510	-97.658125	38.148529	96.167
1456	-97.692539	37.937866	43.000	1511	-97.435739	38.029714	0.000
1457	-97.518458	37.868697	69.845	1512	-97.867450	37.937647	2.266
1458	-97.518659	37.864685	40.454	1513	-97.944226	38.166705	26.511
1459	-97.512072	37.861514	0.000	1514	-97.944748	38.164969	25.583
1460	-97.715491	37.974339	93.000	1515	-97.486404	37.988527	36.727
1461	-97.921441	38.001771	75.667	1516	-98.004508	37.756088	0.000
1462	-97.917207	38.009883	27.000	1517	-97.792083	37.947819	0.000
1463	-97.916253	38.009883	0.000	1518	-97.685060	38.442499	76.000
1464	-97.563606	38.176842	93.000	1519	-97.965100	37.947710	0.000
1465	-97.871099	38.039302	46.929	1520	-97.898445	37.992004	0.000
1466	-97.403318	37.770547	23.365	1521	-97.972932	37.976226	88.000
1467	-97.472571	37.723950	1.765	1522	-97.768033	37.908666	0.000
1468	-97.605481	37.945125	92.108	1523	-97.876210	38.047790	0.173
1469	-97.681641	38.137619	57.812	1524	-97.476215	37.770057	15.983
1470	-97.668596	38.143081	144.846	1525	-97.514009	38.044472	0.000
1471	-97.879074	37.959980	37.000	1526	-97.483040	37.904372	159.214
1472	-97.525736	38.129322	0.000	1527	-97.473961	37.896931	302.577
1473	-98.128259	37.950798	0.000	1528	-97.536283	37.951067	47.773
1474	-98.128235	37.944870	148.921	1529	-97.572811	37.905800	483.420
1475	-97.653258	38.282690	109.380	1530	-97.537566	37.927413	478.179
1476	-97.698723	38.358582	0.000	1531	-97.564233	37.904894	561.250
1477	-97.739695	38.395884	104.000	1532	-97.618116	37.970902	0.000
1478	-97.698751	38.351340	0.000	1533	-97.403785	37.828560	0.000
1479	-97.685342	38.356339	356.767	1534	-97.500825	37.912620	256.537
1480	-97.697332	37.945041	92.527	1535	-97.537443	37.978309	182.148
1481	-97.711011	37.992301	0.000	1536	-97.554454	37.969461	234.693
1482	-97.697156	37.887033	61.000	1537	-97.528196	37.942112	453.634
1483	-97.696761	37.974243	0.000	1538	-97.517674	37.838311	182.378
1484	-97.938843	38.022780	0.000	1539	-97.517674	37.834659	205.382
1485	-97.717520	38.442254	45.000	1540	-97.515043	37.836732	174.742

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1541	-97.515147	37.833670	225.858	1596	-97.900978	38.051274	0.000
1542	-97.508604	37.927222	0.000	1597	-97.587370	38.177889	119.000
1543	-97.678432	37.906853	9.943	1598	-97.910357	38.047424	1.201
1544	-97.930775	38.071663	12.495	1599	-98.031784	37.790047	52.202
1545	-98.036256	37.962592	53.583	1600	-97.601090	38.161510	46.000
1546	-97.617091	37.821329	0.000	1601	-97.477156	38.025787	0.000
1547	-97.749393	37.970849	0.000	1602	-97.722824	38.404961	38.000
1548	-97.747995	37.985047	0.000	1603	-97.660820	37.945157	109.000
1549	-97.468185	37.944971	104.000	1604	-97.513455	37.790691	63.000
1550	-97.674336	37.917205	98.000	1605	-98.049042	37.825525	187.972
1551	-97.959538	38.099816	641.704	1606	-97.729831	37.994922	0.000
1552	-97.976301	38.129917	722.201	1607	-97.729843	37.994593	72.206
1553	-97.928106	38.035026	23.482	1608	-97.440612	37.919490	62.000
1554	-97.913749	38.020698	0.000	1609	-97.673073	37.844040	140.236
1555	-97.876881	38.088761	11.063	1610	-98.020273	37.990040	0.000
1556	-97.609877	38.099802	216.000	1611	-97.955399	38.041331	425.271
1557	-97.612148	38.100257	71.000	1612	-97.568275	38.202309	0.000
1558	-97.560468	38.032356	130.000	1613	-97.550501	38.173610	0.000
1559	-97.568834	37.959542	162.000	1614	-97.678021	38.333649	0.000
1560	-97.451493	38.286538	39.866	1615	-97.464133	37.998148	113.650
1561	-97.451030	38.286547	0.000	1616	-97.462803	38.006406	131.348
1562	-97.578501	38.213730	69.590	1617	-97.727676	38.266933	48.979
1563	-97.558755	38.179327	41.645	1618	-97.660829	38.180449	0.000
1564	-97.675950	38.315149	82.636	1619	-97.567192	37.893676	108.083
1565	-98.054592	38.005315	13.746	1620	-97.846046	38.093574	0.000
1566	-98.063913	37.806020	151.959	1621	-97.853825	38.090171	6.493
1567	-98.064052	37.798594	194.953	1622	-97.846800	38.090616	0.394
1568	-97.468091	37.901369	121.000	1623	-97.608279	37.838133	8.636
1569	-97.614925	38.177783	60.902	1624	-97.656370	38.144695	0.000
1570	-98.077270	38.142570	19.150	1625	-97.878935	37.969726	14.421
1571	-97.519074	37.975116	99.279	1626	-97.689656	38.315140	106.946
1572	-97.426625	37.990905	55.000	1627	-97.609702	38.031863	90.084
1573	-98.025107	37.779855	0.000	1628	-97.651603	38.003193	92.000
1574	-97.577666	37.790145	114.000	1629	-97.559595	37.981404	57.000
1575	-97.571736	37.788361	96.880	1630	-97.572109	37.806578	6.000
1576	-97.434692	37.880493	73.000	1631	-97.458752	37.828559	162.000
1577	-97.628527	38.247055	0.000	1632	-97.463237	37.835648	70.854
1578	-97.670111	37.966931	127.833	1633	-97.463391	37.832067	57.002
1579	-97.701389	38.174031	85.622	1634	-97.958351	37.980760	330.430
1580	-97.454181	38.358720	4.906	1635	-97.560555	37.793048	0.000
1581	-97.917691	38.039711	0.000	1636	-97.545300	37.814086	10.606
1582	-98.087446	38.058170	2.646	1637	-97.607013	38.143932	0.000
1583	-97.697005	38.109339	0.000	1638	-97.615639	38.146361	0.000
1584	-97.719677	38.173700	0.000	1639	-97.625230	38.140301	0.000
1585	-97.522623	37.768904	0.000	1640	-97.660555	37.952304	40.878
1586	-97.697585	38.230782	101.000	1641	-97.380945	37.834883	0.000
1587	-97.602581	38.073151	0.000	1642	-97.380860	37.845049	0.000
1588	-97.609859	38.072464	0.000	1643	-97.426258	38.306227	0.000
1589	-97.541049	37.821281	107.027	1644	-97.541624	37.955942	60.000
1590	-97.698532	38.250885	118.923	1645	-97.554821	38.077910	7.702
1591	-97.524359	38.143248	110.744	1646	-97.439691	37.777478	3.567
1592	-97.789948	38.012932	0.000	1647	-97.926010	37.945067	0.000
1593	-97.484870	37.870542	22.000	1648	-98.046579	38.117950	32.000
1594	-97.883402	38.008584	0.000	1649	-97.707702	38.278650	0.000
1595	-97.900609	38.049079	0.000	1650	-98.031759	37.785177	149.935

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1651	-98.041045	37.787976	0.000	1706	-97.878888	38.076083	76.803
1652	-98.069777	37.814286	0.000	1707	-97.866440	38.065299	83.264
1653	-97.784818	37.899140	2.713	1708	-97.453021	37.748182	16.645
1654	-97.826477	37.958374	124.000	1709	-97.621481	37.897611	79.000
1655	-97.880198	37.966640	55.129	1710	-97.692803	37.930674	81.000
1656	-97.806970	37.981241	0.000	1711	-98.015807	38.136546	0.000
1657	-97.779063	37.896162	0.000	1712	-97.683221	37.928773	69.000
1658	-97.958761	37.943574	127.000	1713	-97.715330	38.025569	79.000
1659	-97.660685	37.959764	88.000	1714	-97.857276	38.017104	0.000
1660	-97.342068	37.768469	100.374	1715	-97.731456	38.177714	133.497
1661	-97.461914	38.304141	0.000	1716	-98.097935	37.912111	0.000
1662	-97.954420	38.106950	55.936	1717	-97.515386	37.827467	0.000
1663	-98.100376	37.937541	0.000	1718	-97.585137	38.155198	72.000
1664	-97.773077	37.921460	0.000	1719	-97.900969	38.055098	0.000
1665	-97.633062	37.957642	0.000	1720	-97.559568	38.119671	0.000
1666	-97.553864	38.005867	53.022	1721	-97.527641	38.156474	70.000
1667	-97.449761	37.881373	0.000	1722	-97.455255	38.343915	33.601
1668	-97.731032	38.384086	0.000	1723	-97.761323	37.977968	69.000
1669	-97.530634	38.054248	106.835	1724	-97.683502	38.039091	0.000
1670	-97.652227	37.870680	0.000	1725	-97.761442	37.967052	90.000
1671	-97.697604	38.157817	0.000	1726	-97.739052	38.361298	60.000
1672	-98.021355	38.001797	28.679	1727	-98.035122	38.002860	135.928
1673	-98.082204	38.133813	0.000	1728	-97.568843	37.843872	29.000
1674	-97.472721	37.907259	0.000	1729	-97.979683	37.759606	157.000
1675	-98.054631	37.821611	153.448	1730	-97.465427	37.784445	0.000
1676	-97.595678	38.155284	78.597	1731	-98.133201	37.917301	0.000
1677	-97.500230	37.846710	0.000	1732	-97.414200	37.767816	0.000
1678	-97.500126	37.846792	0.000	1733	-97.783852	38.467462	1.490
1679	-97.705711	37.860036	60.000	1734	-97.738562	38.197551	33.838
1680	-97.970311	37.759141	39.528	1735	-97.778942	37.753730	0.584
1681	-97.527165	38.052450	74.000	1736	-97.807298	37.974271	98.000
1682	-98.027384	38.166131	12.705	1737	-97.424330	38.003940	0.000
1683	-97.970121	37.744594	142.000	1738	-97.878022	38.085506	0.998
1684	-97.624610	37.794232	0.000	1739	-97.995264	38.145687	40.000
1685	-97.687701	37.922977	0.000	1740	-97.470804	37.754689	29.302
1686	-97.485303	37.747783	46.000	1741	-97.668880	38.271380	36.144
1687	-97.724557	37.937763	111.000	1742	-97.845547	38.006698	0.000
1688	-97.688010	37.872499	2.915	1743	-97.837801	38.006698	84.000
1689	-97.924744	37.954558	0.000	1744	-97.624977	37.796291	0.000
1690	-97.659276	38.058752	0.892	1745	-97.509153	37.951058	66.000
1691	-97.624227	38.163026	91.882	1746	-97.991714	38.067942	126.000
1692	-97.540971	37.887181	75.126	1747	-97.990731	38.067942	0.000
1693	-98.114473	37.949301	0.000	1748	-97.999890	38.147546	22.000
1694	-97.961765	37.974570	145.076	1749	-97.457700	38.322161	59.000
1695	-98.040503	37.949708	33.328	1750	-97.646629	37.850441	38.300
1696	-98.040700	37.937337	13.350	1751	-97.439871	38.328561	77.000
1697	-98.010516	38.139585	33.000	1752	-97.887738	38.075127	0.018
1698	-98.046913	37.958305	28.449	1753	-98.082053	37.884882	158.000
1699	-97.477563	37.749772	1.333	1754	-97.832109	37.982728	0.000
1700	-97.770370	37.959689	155.000	1755	-97.832109	37.982871	0.000
1701	-97.523336	37.896040	0.000	1756	-97.491684	37.803118	0.000
1702	-97.846774	38.042775	459.376	1757	-97.476096	37.740710	7.071
1703	-98.073376	38.162386	17.530	1758	-97.466821	37.726477	0.000
1704	-97.970210	37.767151	0.000	1759	-97.426801	37.815058	9.000
1705	-97.432997	37.770173	0.000	1760	-97.535793	38.201575	10.680

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1761	-97.535770	38.197971	0.000	1816	-97.456906	37.824951	69.234
1762	-98.003040	37.806831	0.000	1817	-97.800463	37.931175	88.709
1763	-97.517811	37.785264	0.000	1818	-97.456025	38.332369	57.000
1764	-97.579994	37.931940	47.000	1819	-97.510127	37.999230	0.000
1765	-98.089740	38.141350	8.813	1820	-97.855479	38.113330	0.000
1766	-98.088082	38.142616	10.518	1821	-97.485431	38.123644	0.000
1767	-97.532156	38.010295	69.742	1822	-97.925487	37.750932	98.433
1768	-97.980972	37.893311	0.000	1823	-97.926030	37.750520	0.000
1769	-97.513900	37.867249	54.251	1824	-97.924931	37.751350	0.000
1770	-97.518728	37.860436	0.000	1825	-97.636846	38.004964	62.000
1771	-97.527759	37.872723	51.822	1826	-97.822968	38.062100	1.701
1772	-97.403318	37.770547	48.500	1827	-97.435739	38.030483	0.000
1773	-97.609792	38.057960	2.134	1828	-97.447290	37.731760	0.000
1774	-97.476695	37.722940	4.229	1829	-97.791712	37.948047	0.000
1775	-97.474569	37.731351	1.252	1830	-97.740169	38.406719	89.000
1776	-97.959278	37.773789	0.000	1831	-98.006580	38.095533	0.000
1777	-97.541732	37.879771	91.202	1832	-97.580929	37.774891	0.000
1778	-97.646549	37.902457	51.557	1833	-97.951080	37.955181	0.000
1779	-97.614604	37.901477	66.288	1834	-97.963231	37.947726	0.000
1780	-97.618459	37.911920	0.000	1835	-97.964219	37.947718	0.000
1781	-97.651587	38.047000	56.500	1836	-97.953363	37.980433	0.000
1782	-97.651481	38.039875	81.997	1837	-97.889329	37.980800	109.000
1783	-97.683577	38.152123	0.000	1838	-97.578243	37.923364	130.000
1784	-97.724756	38.148287	0.000	1839	-97.636071	37.954570	0.000
1785	-97.486409	37.897809	34.998	1840	-97.596331	37.923243	103.000
1786	-97.527179	38.129044	0.000	1841	-97.468898	37.771317	0.000
1787	-97.618640	38.232406	76.000	1842	-97.670452	38.235429	0.000
1788	-97.685429	38.362119	429.663	1843	-97.545754	38.079362	128.475
1789	-97.672325	38.363052	244.934	1844	-97.514009	38.045296	79.000
1790	-98.029102	37.996931		1845	-97.509729	37.911889	226.524
1791	-97.578386	37.966793	106.000	1846	-97.463016	37.869232	499.873
1792	-97.488456	37.778873	0.000	1847	-97.472162	37.882718	365.412
1793	-97.504864	37.886923	83.182	1848	-97.610363	37.978728	0.000
1794	-97.724596	37.967058	111.953	1849	-97.610415	37.971039	732.022
1795	-97.642212	37.992418	90.000	1850	-97.574172	37.992920	625.838
1796	-97.706271	37.887148	135.183	1851	-97.574113	38.014665	590.822
1797	-97.646256	38.035840	0.000	1852	-97.572696	38.027994	669.576
1798	-97.706012	38.141279	60.000	1853	-97.519097	37.940838	185.152
1799	-97.460703	37.778721	0.000	1854	-97.572348	37.999829	65.539
1800	-97.568253	38.189594	57.330	1855	-97.508604	37.927222	258.719
1801	-97.568253	38.189594	22.703	1856	-97.572715	37.984368	376.740
1802	-97.615133	38.126639	53.825	1857	-97.545030	37.927303	0.000
1803	-98.063981	37.959019	135.878	1858	-97.440248	37.787078	0.000
1804	-97.581710	38.126854	119.806	1859	-97.641950	37.857797	91.000
1805	-97.575756	37.834462	31.000	1860	-97.639976	37.811455	135.522
1806	-97.490650	38.027629	0.000	1861	-97.688216	37.887033	97.000
1807	-97.424113	37.785071	0.000	1862	-97.764876	38.064528	0.000
1808	-97.660083	37.843095	0.000	1863	-97.799913	37.919945	39.000
1809	-97.707902	38.358572	37.000	1864	-97.769867	38.017391	56.000
1810	-97.715323	37.945081	113.167	1865	-97.568548	37.981426	100.000
1811	-97.946173	38.096679	0.632	1866	-97.927444	38.056545	0.215
1812	-97.628836	38.114011	22.925	1867	-97.912384	38.085555	333.266
1813	-97.582605	37.879586	148.000	1868	-97.942734	38.100416	461.377
1814	-97.901320	38.068980	65.246	1869	-97.936867	38.070606	368.266
1815	-97.901310	38.069060	71.690	1870	-97.926321	38.032882	24.435

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1871	-98.056162	37.952080	86.000	1926	-97.894998	38.050730	0.000
1872	-97.451533	37.757435	20.562	1927	-97.468274	37.879481	97.534
1873	-97.451533	37.757985	0.000	1928	-97.449887	37.861510	57.726
1874	-97.451953	38.286530	0.000	1929	-97.468012	37.974113	96.670
1875	-97.991984	38.020758	343.423	1930	-97.909770	38.046059	2.023
1876	-97.994525	38.020687	0.000	1931	-97.476289	37.986839	18.000
1877	-97.617270	37.977629	27.000	1932	-97.550455	37.923061	51.000
1878	-97.514526	37.963030	131.000	1933	-98.054372	37.828303	149.413
1879	-97.485450	37.784096	0.402	1934	-97.463770	37.930592	164.000
1880	-97.753937	38.278683	84.701	1935	-97.449731	37.930524	87.000
1881	-97.731668	38.285752	64.447	1936	-97.444880	37.875853	47.000
1882	-97.732337	38.359824	0.000	1937	-97.614637	37.836149	90.741
1883	-97.726565	38.184782	79.720	1938	-97.622650	37.849678	0.000
1884	-97.887554	38.078216	6.568	1939	-97.730831	37.996106	0.000
1885	-97.548181	37.988568	85.000	1940	-97.731322	37.994205	0.000
1886	-97.461732	37.743377	22.817	1941	-98.013139	38.114309	50.149
1887	-97.461732	37.743377	0.000	1942	-97.953726	38.041650	413.033
1888	-97.892148	38.048644	702.532	1943	-97.542118	38.174270	0.000
1889	-97.728100	38.453015	40.000	1944	-97.665339	37.873619	0.000
1890	-97.722546	38.188574	91.637	1945	-97.735878	38.366939	0.000
1891	-97.442787	37.879597	25.563	1946	-97.667250	38.344621	449.000
1892	-97.669943	37.974315	100.750	1947	-97.673431	38.342600	0.000
1893	-97.513923	37.905083	158.000	1948	-97.464134	37.994959	159.545
1894	-97.513923	37.905083	0.000	1949	-97.456948	38.011575	129.003
1895	-97.451311	38.307888	3.834	1950	-97.845310	38.095175	0.000
1896	-97.452008	38.307943	7.000	1951	-98.119553	38.162964	39.497
1897	-97.446198	38.357872	42.498	1952	-97.511783	37.986811	4.640
1898	-98.026062	37.774422	74.951	1953	-97.742365	37.890791	39.613
1899	-97.551661	37.797918	65.000	1954	-97.683363	38.173612	131.796
1900	-97.706373	38.133822	0.000	1955	-97.688208	38.264013	128.028
1901	-97.523680	37.765039	0.000	1956	-97.952010	37.984280	0.000
1902	-97.521600	37.753863	0.000	1957	-97.958351	37.980760	0.000
1903	-97.646129	37.874078	24.858	1958	-97.665463	38.235645	143.000
1904	-98.039972	38.171708	24.748	1959	-97.695394	38.274079	2.326
1905	-97.406070	37.812433	92.067	1960	-97.562223	38.115294	1.565
1906	-97.403610	37.799946	79.089	1961	-97.380945	37.834883	295.752
1907	-97.522554	37.768904	0.000	1962	-97.414638	38.305109	0.000
1908	-97.697585	38.230782	0.000	1963	-97.606419	37.988811	71.216
1909	-97.622776	37.806761	0.000	1964	-97.485041	37.755076	159.063
1910	-97.540697	37.793618	37.000	1965	-97.908092	37.967860	0.000
1911	-97.650651	37.930527	18.000	1966	-97.918920	37.962791	0.000
1912	-97.655471	37.928800	244.000	1967	-97.926838	37.944869	0.000
1913	-97.587480	38.145002	45.886	1968	-97.925933	37.945611	0.000
1914	-97.622911	38.133090	45.000	1969	-97.533279	37.993168	0.000
1915	-97.622911	38.133090	0.000	1970	-97.586804	37.937710	114.000
1916	-98.063934	38.155387	0.000	1971	-97.663698	37.861769	1.000
1917	-98.054955	38.155607	0.000	1972	-97.746031	38.287951	93.000
1918	-97.583023	38.077520	0.000	1973	-98.139389	37.908497	0.000
1919	-97.524341	38.144731	144.321	1974	-97.548705	37.764847	50.913
1920	-97.533873	38.145380	0.000	1975	-97.825072	37.944917	101.000
1921	-97.693601	38.413359	70.000	1976	-97.843656	37.989435	18.000
1922	-97.505314	37.940403	109.191	1977	-97.782232	37.993881	149.000
1923	-97.471291	37.776534	0.000	1978	-97.782232	37.993881	0.000
1924	-97.883298	38.008584	0.000	1979	-97.951881	37.948142	5.000
1925	-97.897431	38.050975	0.000	1980	-97.795730	37.943031	33.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
1981	-97.340501	37.768615	64.981	2036	-97.656612	38.134233	152.000
1982	-97.952116	38.116562	23.179	2037	-97.858298	38.080349	0.000
1983	-97.991130	38.125858	50.744	2038	-97.749753	38.372891	0.000
1984	-97.536450	38.072469	86.803	2039	-97.643708	37.922379	0.000
1985	-97.609912	37.887591	63.000	2040	-97.726536	38.329468	82.000
1986	-97.489652	38.224630	0.365	2041	-97.772660	38.468919	100.109
1987	-97.678806	37.903000	0.000	2042	-97.719421	38.438568	62.015
1988	-97.715402	37.923381	38.000	2043	-97.749270	38.398680	49.498
1989	-97.500229	37.846792	101.918	2044	-97.738562	38.197551	0.000
1990	-97.495693	37.846790	0.000	2045	-97.807316	37.974271	0.000
1991	-97.731567	38.184562	69.639	2046	-97.457544	37.754450	3.534
1992	-98.014271	37.788219	181.985	2047	-97.974391	38.031059	272.727
1993	-97.551911	38.022862	2.381	2048	-97.974335	38.031971	12.081
1994	-97.494962	38.115615	88.068	2049	-97.695956	38.118972	0.000
1995	-97.488001	38.108711	90.904	2050	-97.667635	38.034011	0.000
1996	-97.707650	38.214611	33.000	2051	-97.981018	38.018557	0.000
1997	-97.454488	38.347567	76.000	2052	-97.665285	38.253790	0.000
1998	-97.454488	38.347567	0.000	2053	-97.812896	38.020949	95.000
1999	-97.757541	38.047862	0.000	2054	-98.045357	37.937300	0.000
2000	-97.495497	37.923071	0.000	2055	-97.915239	37.955349	0.000
2001	-97.612304	37.855834	33.770	2056	-97.443881	37.758242	0.000
2002	-97.537791	37.788359	0.000	2057	-97.439281	37.754837	0.000
2003	-97.633349	38.235750	62.853	2058	-97.385349	37.832274	3.964
2004	-97.958849	37.759141	91.000	2059	-97.468056	38.039398	27.767
2005	-97.958729	37.953232	51.000	2060	-97.477019	38.046729	78.000
2006	-97.923554	37.955557	0.000	2061	-98.027932	38.147912	118.000
2007	-97.924144	37.955552	0.000	2062	-97.601081	38.174230	0.000
2008	-97.428395	38.355144	0.000	2063	-97.597667	38.116958	0.000
2009	-97.495670	37.850416	104.000	2064	-97.894064	38.071692	78.567
2010	-97.629481	37.839411	44.000	2065	-98.123180	37.898870	145.235
2011	-98.039892	37.933662	0.000	2066	-98.083092	37.884882	0.000
2012	-98.102875	37.919209	13.515	2067	-98.082035	37.884882	0.000
2013	-98.042939	37.928848	64.096	2068	-97.832109	37.983014	0.000
2014	-98.072899	37.951780	73.972	2069	-97.551870	37.827786	0.000
2015	-97.713640	38.214790	63.000	2070	-97.535758	38.201850	0.000
2016	-97.656250	38.046950	21.000	2071	-97.454590	37.901771	81.000
2017	-97.650673	38.126703	50.000	2072	-97.446387	37.799112	0.000
2018	-97.532366	38.169801	71.866	2073	-98.004137	37.806771	194.000
2019	-97.710801	37.974130	55.000	2074	-97.522023	37.791140	215.184
2020	-97.990986	38.133096	46.000	2075	-97.517277	37.780340	385.983
2021	-97.674973	38.215481	182.000	2076	-97.512000	37.765557	265.284
2022	-97.674973	38.215481	0.000	2077	-98.051797	37.837749	24.000
2023	-97.399077	37.819612	43.000	2078	-97.541412	37.945016	45.000
2024	-97.399077	37.819612	0.000	2079	-97.417264	37.785110	757.524
2025	-97.431098	37.980156	498.091	2080	-98.088911	38.141983	0.000
2026	-97.698861	38.423772	66.083	2081	-97.502895	37.776443	33.255
2027	-97.742973	37.935346	0.000	2082	-97.716736	38.230965	6.834
2028	-97.857276	38.018203	0.000	2083	-97.980920	37.894670	0.000
2029	-97.902500	38.073120	0.747	2084	-97.665352	38.401093	39.000
2030	-97.585137	38.155884	0.000	2085	-97.512072	37.861514	69.838
2031	-97.449294	38.343915	69.408	2086	-97.523365	37.876185	58.337
2032	-97.683502	38.038267	90.000	2087	-97.504529	37.872898	135.209
2033	-97.439108	37.763625	78.333	2088	-97.596313	37.901437	97.000
2034	-97.596430	37.853411	0.000	2089	-97.697229	37.894159	101.000
2035	-97.662170	38.192829	179.459	2090	-97.705871	37.900440	24.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
2091	-97.367037	37.769552	0.000	2146	-97.421906	37.835838	51.410
2092	-97.867777	38.050206	0.446	2147	-97.626079	37.856168	0.000
2093	-97.871099	38.039302	0.000	2148	-98.022518	37.810201	0.000
2094	-97.472571	37.723950	3.536	2149	-97.977552	37.781100	0.000
2095	-97.665860	38.182688	75.495	2150	-97.475544	38.042103	0.000
2096	-97.642253	37.904755	48.335	2151	-97.742912	37.983354	60.000
2097	-97.587261	37.894228	71.812	2152	-97.736525	37.987061	22.418
2098	-97.614691	37.908674	84.701	2153	-97.822739	38.063385	1.874
2099	-98.002508	38.105821	14.039	2154	-98.040589	38.104320	0.000
2100	-98.002508	38.105821	0.000	2155	-98.027631	38.097054	95.786
2101	-97.651360	38.035999	50.416	2156	-98.005551	38.090240	0.000
2102	-98.128301	37.951965	0.000	2157	-97.944157	38.164351	17.346
2103	-97.661891	38.282426	0.000	2158	-97.423302	38.278396	3.878
2104	-97.682439	38.376960	336.516	2159	-97.600578	37.801040	66.000
2105	-97.742544	38.377611	0.000	2160	-98.004508	37.756088	174.000
2106	-98.028866	37.996755	0.000	2161	-97.735526	38.409440	91.000
2107	-98.030659	37.994871	2.508	2162	-97.683668	38.288604	49.790
2108	-97.627184	37.859243	0.003	2163	-97.905440	38.051936	0.000
2109	-97.478676	37.775207	31.128	2164	-97.437899	37.771074	0.000
2110	-97.697152	37.952407	104.404	2165	-97.795274	37.996848	4.437
2111	-97.710973	37.990651	0.000	2166	-97.949731	37.955201	0.000
2112	-98.027653	38.140434	50.000	2167	-97.951739	37.955159	0.000
2113	-97.761198	37.915948	2.000	2168	-97.954745	37.995311	0.000
2114	-97.609506	38.108766	56.000	2169	-97.964181	37.947718	20.000
2115	-98.036302	38.148095	94.251	2170	-97.898445	37.992828	0.000
2116	-98.036302	38.148095	0.000	2171	-97.977601	37.949819	0.000
2117	-98.013373	37.977054	52.000	2172	-97.944718	37.980831	72.000
2118	-98.055039	37.966472	155.195	2173	-97.889329	37.979976	0.000
2119	-97.938843	38.022231	0.000	2174	-97.889329	37.981623	0.000
2120	-97.467091	37.748037	0.000	2175	-97.669641	37.995914	104.000
2121	-97.481242	37.794645	87.000	2176	-97.461173	37.767283	0.000
2122	-97.491035	38.027017	0.000	2177	-97.459139	37.767476	8.685
2123	-97.484060	38.037265	0.000	2178	-97.470807	37.771973	0.000
2124	-97.424113	37.785071	223.252	2179	-97.514571	38.046101	0.000
2125	-97.532923	37.829078	0.000	2180	-97.770500	37.986080	0.000
2126	-97.623753	38.032382	0.000	2181	-97.449707	37.877785	0.000
2127	-97.410030	37.784940	0.000	2182	-97.545030	37.927303	635.382
2128	-97.624165	37.829345	114.881	2183	-97.469299	37.857765	0.000
2129	-97.728429	37.912255	20.347	2184	-97.554388	37.962582	312.287
2130	-97.680500	38.401936	43.000	2185	-97.517694	37.841330	203.998
2131	-97.749860	38.320401	112.917	2186	-97.565025	38.014429	0.000
2132	-97.707777	38.377695	100.000	2187	-97.563973	37.977503	433.959
2133	-97.449705	37.926557	97.115	2188	-97.572659	37.912034	0.000
2134	-97.945600	38.093529	1.908	2189	-97.564789	37.984472	0.000
2135	-97.944439	38.094911	0.910	2190	-97.614970	37.934004	0.000
2136	-97.444800	38.035961	0.000	2191	-97.499992	37.946820	16.000
2137	-97.444800	38.036444	0.000	2192	-97.633047	38.041374	36.000
2138	-97.444800	38.036203	308.000	2193	-97.564162	37.974235	289.406
2139	-98.000884	38.097516	12.589	2194	-97.496555	37.726954	0.000
2140	-97.425844	38.005090	0.000	2195	-97.612227	37.821516	121.942
2141	-97.454234	37.793012	0.000	2196	-97.765918	38.063704	0.000
2142	-97.454227	37.792463	0.000	2197	-97.771235	38.059324	0.000
2143	-97.454217	37.791914	0.000	2198	-97.770607	38.059654	0.000
2144	-97.412997	37.808775	0.000	2199	-97.747995	37.985047	562.000
2145	-97.385257	37.792311	43.849	2200	-98.021660	37.794647	162.571

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
2201	-98.068114	37.817104	148.338	2256	-97.952809	38.041941	673.486
2202	-97.830748	38.029190	106.000	2257	-97.955701	38.040661	758.476
2203	-97.440225	37.828546	0.000	2258	-97.953316	38.041641	1431.038
2204	-97.895454	38.056698	0.000	2259	-97.569771	38.203099	54.724
2205	-97.934456	38.079918	0.000	2260	-97.662901	37.865353	1.884
2206	-97.966375	38.081019	81.632	2261	-97.457885	38.008856	66.601
2207	-97.918251	38.049282	3.468	2262	-97.458684	38.007319	58.874
2208	-98.079850	38.151920	30.950	2263	-97.412564	37.777607	3.314
2209	-97.389701	37.814065	7.000	2264	-97.341411	37.802911	0.000
2210	-97.568769	37.943315	55.000	2265	-97.337441	37.802881	0.000
2211	-97.607117	38.012649	72.000	2266	-97.844990	38.094318	28.222
2212	-97.993078	38.082379	5.262	2267	-97.846557	38.091641	27.617
2213	-97.614745	37.937755	127.000	2268	-97.424903	37.894282	0.368
2214	-97.688546	38.173798	132.000	2269	-97.541043	37.779695	0.000
2215	-97.991984	38.020758	0.000	2270	-97.688511	38.155805	104.830
2216	-97.518219	37.957377	114.000	2271	-97.683363	38.173612	0.000
2217	-97.717168	38.358698	98.000	2272	-97.688419	38.162971	0.000
2218	-97.722030	38.338451	54.967	2273	-97.724544	38.014035	90.000
2219	-97.604918	38.137620	559.000	2274	-97.675319	38.112219	39.703
2220	-98.009856	37.784189	91.867	2275	-97.704479	37.865111	55.599
2221	-97.712103	38.128809	0.000	2276	-97.670038	38.177619	101.387
2222	-97.570641	38.164169	84.663	2277	-97.568469	37.803109	0.000
2223	-97.624084	38.257495	108.403	2278	-97.910555	38.004756	0.000
2224	-97.703589	38.289531	112.248	2279	-97.956499	37.984250	0.000
2225	-97.660498	37.981569	10.000	2280	-97.712344	38.321960	0.000
2226	-97.614600	37.894176	103.501	2281	-97.679456	38.235455	88.782
2227	-97.917487	38.040370	392.081	2282	-97.665389	38.232123	173.822
2228	-97.914303	38.039690	340.392	2283	-97.720220	38.260616	95.749
2229	-97.630989	37.922655	153.512	2284	-97.731201	37.879956	0.000
2230	-97.557954	37.801162	69.000	2285	-97.540933	38.061303	0.000
2231	-97.549010	37.790227	18.000	2286	-97.688316	38.192043	70.413
2232	-97.706373	38.133822	136.000	2287	-97.701866	38.208381	99.000
2233	-97.850677	38.085089	17.424	2288	-97.714057	38.187978	182.250
2234	-97.596167	38.010446	0.000	2289	-97.438480	38.308100	59.327
2235	-98.050103	38.171590	35.354	2290	-97.735275	38.322431	136.000
2236	-97.532180	37.945184	92.207	2291	-97.569269	38.225949	0.000
2237	-97.665505	38.242937	101.200	2292	-97.605351	37.992339	83.417
2238	-97.665505	38.242937	0.000	2293	-97.701979	37.876121	72.667
2239	-97.665885	38.217118	6.696	2294	-97.926140	37.974789	0.000
2240	-97.689396	38.217359	0.000	2295	-97.918702	37.962662	16.000
2241	-97.669711	37.988900	85.000	2296	-97.918702	37.962662	0.000
2242	-97.970561	37.781182	79.000	2297	-97.925150	37.945248	0.000
2243	-97.581157	37.768575	10.643	2298	-98.054213	38.122130	67.749
2244	-97.585999	37.819563	0.000	2299	-97.692374	37.890768	
2245	-98.054737	38.162773	110.000	2300	-97.624145	37.945512	126.000
2246	-97.524995	38.146753	43.422	2301	-97.623967	37.937727	97.000
2247	-97.467881	37.850315	57.782	2302	-98.031759	37.785177	0.000
2248	-97.479271	37.959631	58.583	2303	-97.615339	38.199450	94.817
2249	-97.735826	38.332860	253.000	2304	-97.746083	38.280564	0.000
2250	-98.028921	37.822509	11.932	2305	-97.868172	37.969155	104.532
2251	-98.029308	37.815535	34.249	2306	-97.889427	37.966317	66.067
2252	-97.594400	37.797058	55.000	2307	-97.999131	38.075981	0.000
2253	-97.731202	37.994836	0.000	2308	-97.828422	37.965936	0.070
2254	-97.730857	37.995743	0.000	2309	-98.004940	37.788210	93.579
2255	-97.597912	37.907391	13.000	2310	-97.788881	37.988821	81.000

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
2311	-97.815887	37.981357	0.000	2366	-97.988209	37.809511	0.000
2312	-97.779063	37.896162	188.000	2367	-97.523251	37.883230	85.000
2313	-97.807820	37.940240	1.989	2368	-97.439108	37.763625	0.000
2314	-97.675319	38.112219	0.000	2369	-97.858604	38.080984	0.000
2315	-97.502969	38.018406	43.000	2370	-97.949754	37.737378	0.000
2316	-97.568283	37.820141	24.000	2371	-97.706352	38.219246	0.000
2317	-97.626394	37.934020	30.000	2372	-97.656400	38.457139	0.000
2318	-97.738647	38.219826	94.000	2373	-97.841130	37.986601	0.000
2319	-97.688383	38.208521	100.000	2374	-97.779549	38.024689	74.000
2320	-97.449637	37.894129	59.679	2375	-97.453245	37.752717	35.410
2321	-97.762475	37.901402	138.000	2376	-97.424383	38.005730	0.000
2322	-98.062848	37.828670	126.295	2377	-97.404683	38.342511	0.000
2323	-97.963271	37.885250	0.000	2378	-97.975543	38.029436	40.748
2324	-97.468109	37.886852	56.107	2379	-97.971571	38.034349	0.000
2325	-97.496469	38.215769	0.000	2380	-97.986281	38.024690	0.608
2326	-98.135781	37.915708	71.000	2381	-97.455306	37.770263	0.000
2327	-97.567961	38.017603	43.000	2382	-97.675620	38.257223	0.000
2328	-97.637502	37.943862	31.000	2383	-98.008709	37.998737	0.000
2329	-97.632156	38.295371	0.000	2384	-97.447231	38.096405	0.000
2330	-97.643880	38.271702	97.152	2385	-97.446564	38.095793	0.000
2331	-97.968112	37.751916	129.387	2386	-97.906469	37.953457	0.000
2332	-97.568764	37.771979	0.000	2387	-97.906469	37.952391	0.000
2333	-97.569798	37.771979	79.263	2388	-97.838495	38.006698	0.000
2334	-97.624659	37.793820	0.000	2389	-97.681961	37.937490	8.000
2335	-97.513899	37.853602	84.513	2390	-97.568940	38.090456	218.000
2336	-97.958761	37.953990	0.000	2391	-97.660514	37.901483	27.000
2337	-97.907820	37.988380	0.000	2392	-97.505342	37.953028	0.000
2338	-97.950119	37.762962	0.000	2393	-97.527987	38.007455	57.000
2339	-97.950119	37.763511	0.000	2394	-98.027932	38.147912	0.000
2340	-97.950119	37.764610	0.000	2395	-97.756689	37.988700	31.000
2341	-97.504930	37.858058	137.000	2396	-97.604514	38.116546	52.539
2342	-98.031659	37.922740	131.000	2397	-97.573471	38.218540	82.972
2343	-98.050043	37.948173	189.350	2398	-97.603264	37.821854	0.000
2344	-98.114473	37.949988	126.597	2399	-97.651185	37.850217	68.000
2345	-97.962209	37.975867	53.030	2400	-97.655688	37.844027	13.920
2346	-98.104122	37.919209	13.515	2401	-97.728476	37.885199	104.000
2347	-97.607046	38.166542	50.000	2402	-97.716785	37.909505	0.000
2348	-97.606878	38.166858	0.000	2403	-97.990650	38.079714	0.000
2349	-97.445740	37.766797	5.220	2404	-98.016601	38.102553	0.000
2350	-97.603230	38.190479	119.598	2405	-98.014104	37.973568	0.000
2351	-97.747995	37.985047	51.000	2406	-97.986210	37.751699	185.000
2352	-97.815541	38.159421	10.120	2407	-97.421945	37.864758	37.000
2353	-97.689396	38.217359	89.000	2408	-97.421937	37.857302	29.718
2354	-97.398980	37.824791	65.000	2409	-98.057509	37.835519	161.000
2355	-97.516625	38.116529	0.000	2410	-97.983100	38.066163	0.000
2356	-97.527633	38.098197	0.000	2411	-97.989948	38.078009	0.000
2357	-97.880482	38.064345	3.717	2412	-97.614538	38.025029	0.000
2358	-97.935470	37.748611	108.823	2413	-98.015224	37.802527	47.893
2359	-97.541335	37.937565	91.000	2414	-97.990423	37.782891	58.000
2360	-97.750131	38.024098	27.000	2415	-97.981751	37.924550	0.000
2361	-97.743240	37.938353	0.000	2416	-97.525219	37.868775	76.951
2362	-97.614967	38.192187	99.000	2417	-97.513871	37.864381	48.013
2363	-97.656099	38.020100	13.000	2418	-97.527595	37.865352	75.897
2364	-98.097068	37.912948	0.000	2419	-97.930764	38.065521	4.935
2365	-97.698642	38.314964	75.419	2420	-97.610522	38.043070	3.541

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
2421	-97.474569	37.731351	4.472	2476	-97.724162	37.894341	105.228
2422	-97.732481	38.221020	28.000	2477	-97.474610	38.041823	0.000
2423	-97.960004	37.773201	142.000	2478	-97.898229	38.158036	3.161
2424	-97.541498	37.872521	109.358	2479	-97.485431	38.123095	0.000
2425	-97.834327	38.089005	0.000	2480	-97.724593	37.957973	0.000
2426	-97.833319	38.088181	0.000	2481	-97.715879	37.987941	0.000
2427	-97.832972	38.097023	0.000	2482	-97.822749	38.064478	1.767
2428	-97.668596	38.143081	0.000	2483	-98.035039	38.104230	287.011
2429	-97.651587	38.047000	0.000	2484	-97.834219	38.050717	0.000
2430	-98.013851	38.067977	0.000	2485	-97.944035	38.165065	0.000
2431	-98.100400	37.930371	144.000	2486	-97.632940	37.988780	100.000
2432	-97.586965	37.905054		2487	-97.950390	37.955190	0.000
2433	-97.531955	38.031882	0.000	2488	-97.898445	37.993652	0.000
2434	-97.628323	38.102005	67.000	2489	-97.756569	37.995206	18.000
2435	-98.025719	37.825523	36.320	2490	-97.757107	37.960159	32.000
2436	-98.128280	37.951383	94.714	2491	-97.550369	38.017731	119.083
2437	-97.739701	38.369701	125.083	2492	-97.596196	38.039597	61.869
2438	-97.698722	38.336988	0.000	2493	-97.642317	37.952381	235.046
2439	-97.672325	38.366680	8.090	2494	-97.421918	37.828590	57.000
2440	-98.033470	37.989441	0.000	2495	-97.476215	37.770057	0.000
2441	-97.464294	38.316355	0.000	2496	-97.492055	37.897535	375.076
2442	-97.733071	37.894399	42.000	2497	-97.481382	37.898771	310.314
2443	-97.578386	37.966793	0.000	2498	-97.517284	37.912136	286.309
2444	-97.680347	37.923270	139.172	2499	-97.510285	37.897581	414.091
2445	-97.715384	37.937892	94.060	2500	-97.610656	37.941879	421.892
2446	-97.665396	38.053795	0.433	2501	-97.600070	37.942137	0.000
2447	-97.745074	38.293441	35.771	2502	-97.477175	37.857892	0.000
2448	-97.553744	37.897654	1.224	2503	-97.490085	37.912680	188.335
2449	-97.505473	37.811233	0.000	2504	-97.564789	37.984472	94.789
2450	-97.611117	37.917434	0.000	2505	-97.572783	38.021047	0.000
2451	-97.480952	37.739047	115.319	2506	-97.572348	37.999829	0.000
2452	-97.425554	37.966735	13.810	2507	-97.519097	37.940838	0.000
2453	-97.610115	38.219195	28.000	2508	-97.610656	37.941879	0.000
2454	-97.710419	37.890629	123.000	2509	-97.614739	37.928688	70.000
2455	-98.008880	37.977054	29.000	2510	-97.499992	37.946820	0.000
2456	-97.582440	38.126854	0.000	2511	-97.838418	38.046722	0.000
2457	-97.581710	38.126854	0.000	2512	-97.760636	37.956901	2.176
2458	-97.549790	37.812060	28.000	2513	-97.679201	37.959725	75.000
2459	-97.490629	38.026489	0.000	2514	-97.683146	37.881540	69.602
2460	-97.490771	38.027044	95.467	2515	-97.771579	38.059511	0.000
2461	-97.662360	38.318652	110.000	2516	-98.035138	37.792928	161.028
2462	-97.532195	37.829081	0.000	2517	-98.031660	37.802806	0.000
2463	-97.763275	38.438684	54.656	2518	-97.740629	38.438435	68.086
2464	-97.615020	37.828942	143.944	2519	-97.831442	38.029739	0.000
2465	-97.598130	37.825459	72.650	2520	-97.916748	38.030136	0.000
2466	-97.758893	38.405974	79.000	2521	-97.926970	38.033769	81.123
2467	-97.702255	38.417595	86.000	2522	-97.926970	38.033769	0.000
2468	-97.706091	38.378024	108.000	2523	-97.928893	37.791339	2.762
2469	-97.713111	38.107387	91.892	2524	-97.726614	38.285992	127.788
2470	-97.559592	37.875829	81.000	2525	-97.615456	37.974285	166.000
2471	-97.577900	37.894347	95.000	2526	-97.614561	37.980815	83.000
2472	-97.503154	37.813485	0.000	2527	-97.752903	38.286505	130.735
2473	-97.454210	37.791343	0.000	2528	-98.044058	38.004617	46.000
2474	-97.768241	37.916481	151.754	2529	-97.888871	38.076365	0.000
2475	-97.391980	37.792287	28.186	2530	-98.031754	37.780776	468.933

Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED	Point No.	NAD27_ LONGITUDE	NAD27_ LATITUDE	AF_PUMPED
2531	-97.718277	38.352264	142.976				
2532	-97.701574	38.221816	96.515				
2533	-97.710681	38.149241	151.955				
2534	-97.719891	38.124791	38.048				
2535	-97.579099	38.140907	99.223				

**APPENDIX I –
ANNUAL STREAMFLOW, INCLUDING BASEFLOW AND ABOVE
BASEFLOW STAGE**



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

[News](#) - updated March 17, 2010

USGS 07143672 L ARKANSAS R AT HWY 50 NR HALSTEAD, KS PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site Time-series:

This station is operated by the USGS and funded by the city of Wichita and the USGS.
 The National Weather Service flood stage for this site is 25.0 ft.

[National Weather Service Flood Forecast](#)

Current shift-adjusted rating in [tab-separated format](#). [What is a shift-adjusted rating?](#)
[Precipitation records disclaimer](#)

To view continuous estimates of concentrations and loads for bacteria and other chemicals visit http://ks.water.usgs.gov/Kansas/rtqw/sites/07143672/htmls/31d/p00060_7d_all_uv.shtml

This station managed by the Wichita field office, 316-773-3225.

Available Parameters	Period of Record	Output format	Begin date	End date
<input type="checkbox"/> All 6 Available Parameters for this site		<input type="radio"/> Graph	2009-01-01	
<input checked="" type="checkbox"/> 00060 Discharge (Mean)	1995-05-01 2010-06-29	<input type="radio"/> Graph w/ stats		
<input type="checkbox"/> 00010 Temperature, water (Max.,Min.,Mean)	1998-05-13 2010-06-29	<input type="radio"/> Graph w/ meas	2009-12-31	
<input type="checkbox"/> 00400 pH (Max.,Min.,Med.)	1998-05-12 2010-06-29	<input checked="" type="radio"/> Table		
<input type="checkbox"/> 00095 Specific cond at 25C (Max.,Min.,Mean)	1998-05-12 2010-06-29	<input type="radio"/> Tab-separated		
<input type="checkbox"/> 00300 Dissolved oxygen (Max.,Min.,Mean)	1998-05-09 2007-10-23			
<input type="checkbox"/> 63680 Turbidity, Form Neph (Max.,Min.,Mean)	2004-07-16 2010-06-29			

[Summary of all available data for this site](#)

Date	Dis-charge, ft ³ /s (Mean)
01/01/2009	35 ^A
01/02/2009	36 ^A
01/03/2009	

	36 A
01/04/2009	33 A
01/05/2009	31 A
01/06/2009	29 A
01/07/2009	34 A
01/08/2009	32 A
01/09/2009	32 A
01/10/2009	30 A
01/11/2009	29 A
01/12/2009	33 A
01/13/2009	26 A
01/14/2009	32 A
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12/30/2009	24 ^P
12/31/2009	24 ^P

Explanation

Ice	Ice affected
A	Approved for publication -- Processing and review completed.
P	Provisional data subject to revision.
e	Value has been estimated.

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