CLSA

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January 29, 2014

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Mr. Guy Childs
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Subject: Letter Report, Annual Report, Morning Star Packing, Inc.

Dear Mr. Childs:

Enclosed is the annual report prepared in accordance with Order No. R5-2013-0144.

The following items were requested in the Annual Monitoring Report in Monitoring and Reporting Program R5-2013-0144:

1. *A description of the following work conducted after the end of the processing season:*
   a. *Irrigation/tailwater ditch draining procedures prior to the release of storm water runoff from the LAAs;*

      At this time, no storm water has been allowed to leave the LAA. At the end of the season, washwater in the irrigation system head ditches was pumped out with a portable pump onto the LAA. Tailwater was pumped out of the tailwater collection system ditches using the in-place lift pumps and was applied to the LAA.

   b. *Depth of total precipitation between dates of last discharge and first off-site release of storm water runoff from the LAAs;*

      No storm water has been released from the facility at this time.

   c. *Draining and cleaning of the Settling Pond, including the disposal method and location of the off-site and/or onsite disposal.*

      The settling pond has not been cleaned at this time. The settling pond needs sufficient drying time for the accumulated solids to become manageable. The pond will be cleaned in the late spring prior to the start of the processing season.

Initial: GC
Logged in as received: 02.03.2014 LC
Date reviewed:
Violations?:
Logged in as Reviewed:

2. Total annual flow measurements from each wastewater source and supplemental irrigation water to the LAAs for the calendar year and comparison to the annual maximum flow limit.

A comparison of the total flows from the settling pond, cooling pond and supplemental irrigation water to the annual maximum flow limit is provided below:

Table 1. Annual Flows

Source	Annual Flow	Flow Limit
Settling Pond/Gutters	182,269,627	
Cooling Pond	0	
Total Washwater Discharge	182,269,627	422,000,000
Supplemental Irrigation Water	None During Season/Not Measured Pre-Season	

3. Flow-weighted annual average FDS concentration from the Settling pond (including plant sanitation/clean-up water) for the calendar year with supporting data and calculations and comparison to the effluent limit.

The flow-weighted FDS for the season is provided in Table 2 below. Supporting data on the calculation of the monthly average FDS is provided in **Attachment A**.

Table 2. Flow-weighted Annual Average FDS

	Settling Pond Discharge Monthly Volume (MG)	Monthly Average FDS (mg/L)
July	40.76	638
August	73.40	640
September	63.12	676
October*	5.00	676

Annual Flow-weighted Average	**653**	**mg/L**
Annual Average Limit	*900*	*mg/L*

**Processing ended on October 4th, so no water quality samples were pulled from the settling pond/gutter discharge in October. September monthly average FDS was used for October.*

4. Total hydraulic loading rate and total nitrogen loading rate applied to each LAA field for the calendar year with supporting data and calculations and comparison to crop evapotranspiration rate and nitrogen demand.

The hydraulic loading rate for the season was recorded for the 2013 processing season. Pre-season irrigations with GCID water were not recorded. In accordance with the Facility's new MRP, the facility has begun tracking GCID irrigation water events and will be able to provide an annual hydraulic summary for 2014. A summary of the Facility's 2013 processing season hydraulic loading is provided in **Attachment B**.

Monthly hydraulic loading during the season was less than the crop evapotranspiration in almost all instances. GCID deliveries to MS-1 were not recorded during the beginning of the season. All water applications to MS-1 will be recorded during the 2014 season.

Annual nitrogen loadings are provided in **Attachment C**.

5. A nitrogen mass balance (from all sources for the calendar year with supporting data and calculations. Include descriptions of the types of crops planted and dates of planting and harvest for each crop. For each LAA field used for pasture, include description of the number of grazing cattle, start and finish dates of grazing operations, agricultural practices of the pasture land including types of crops planted and total nitrogen applied and comparison of the loading limits of the WDRs. If the mass balance indicates that nitrogen has been applied in excess of the agronomic rate, include a discussion of any corrective action performed during the year and a detailed plan and schedule for additional corrective actions that will be implemented to ensure future compliance with the land application area specifications of the WDRs.

A nitrogen mass balance including the types of crops planted and dates of planting and harvest for each crop is provided in **Attachment C.**

The pastures are planted in a perennial rye grass/clover mixture. The start and finish dates of grazing operations, type, animal units and nitrogen excretion rates are provided in Attachment D.

Calculations of the wastewater nitrogen application rates are also provided in Attachment D. Calculations were performed using the formula provided on page 30 of the WDR.

All fields within the LAA had nitrogen application rates that were under the crop uptake rates.

6. Concentration vs. time graphs for each monitored constituent using all historic groundwater monitoring data. Each graph shall show the background groundwater concentration range, the trigger concentration specified above (where applicable), and the Groundwater Limitation as horizontal lines at the applicable concentration.

Concentration vs. time graphs for the groundwater wells are provided in **Attachment E.**

7. An evaluation of groundwater quality beneath the site and determination of whether any trigger concentrations were exceeded in any compliance well at any time during the calendar year. This shall be determined by comparing the annual average concentration for each well during the calendar year to the corresponding trigger concentration specified above. If any groundwater trigger concentrations were exceeded, including acknowledgement that the technical report described in the Groundwater Concentrations section of this MRP will be submitted in accordance with the specified schedule.

Table 3. Comparison of Compliance Wells Annual Average with Trigger Concentrations

Constituent	Compliance Well	Trigger Concentration (mg/L)	2013 Average (mg/L)
TDS	MW2	700	469
	MW3	700	529
	MW6	1200	727
	MW7	1200	695
	MW8	1200	871
	MW9	1200	994
Iron	MW2	0.2	0
	MW3	0.2	0
	MW6	0.2	0
	MW7	0.2	0
	MW8	0.2	0
	MW9	0.2	0

No groundwater trigger concentrations were exceeded during 2013.

8. An evaluation of the groundwater quality beneath the site and the determination of Compliance with Groundwater Limitation E.1 of the WDRs based on statistical analysis for each constituent monitored for each compliance well in accordance with the approved Groundwater Limitations Compliance Assessment Plan. *Include all calculations and data input/analysis tables derived from the use of statistical software as applicable.*

The *Groundwater Limitations Compliance Assessment Plan* is due on July 1, 2014. An assessment will be included in next year's annual report.

9. A discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

Beginning in December 2013, the Facility is now operating under a new Report of Waste Discharge and MRP. Facility staff is working to ensure that all of the new requirements are followed and that all required reports are submitted on time and complete.

10. A discussion of the following:

a. *Waste constituent reduction efforts implemented in accordance with any required workplan;*

At this point, no required workplans have been submitted.

b. *Other treatment control measures implemented during the calendar year either voluntarily or pursuant to the WDRs, this MRP, or any other Order;*

While the Facility continues to investigate methods of reducing wastes, no specific projects were performed during the 2013 season.

c. *Based on monitoring data, an evaluation of the effectiveness of the treatment or control measures implemented to date.*

During the 2013 season, the irrigation scheduling was modified to help more evenly distribute the washwater to the LAA. Groundwater monitoring was either consistent with or better than historical results.

The Facility is continuing to investigate methods of increasing the irrigation efficiency of the LAA and plans on implementing more changes this year.

11. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

The MRP requires that the monthly monitoring reports include the planting, anticipated harvest and actual harvest dates. Submitting this information monthly is redundant. Submitting the planting and harvest dates in the annual report reduces this redundancy and reduces paperwork while still providing the information.

Respectfully,

Hilary A. Reinhard, P.E.

Attachment A

2013 Wastewater FDS Results

Sampling Date	FDS mg/l
7/15/2013	710
7/22/2013	620
7/29/2013	585
July Average	**638**
8/5/2013	640
8/12/2013	520
8/19/2013	640
8/26/2013	758
August Average	**640**
9/2/2013	635
9/9/2013	650
9/16/2013	680
9/23/2013	735
9/30/2013	678
September Average	**676**

**No sample taking in October since processing ended on 10/4/13*

Attachment B

Monthly Hydraulic Loading for 2013					
Reclamation Area	Crop	Month	Etc[1] (in)	Hydraulic Loading (in)	Deep Percolation (in)
MS 1	Rice	July	9.65		-9.65
		August	8.15		-8.15
		September	5.65	3.31	-2.34
		October	0.00	1.53	1.53
MS 2&3	Sudan	July	5.15	1.84	-3.31
		August	7.80	4.35	-3.45
		September	4.67	5.64	0.97
		October	3.83	0.00	-3.83
MS 5	Pasture	July	8.56	3.45	-5.11
		August	7.13	1.88	-5.25
		September	5.27	3.97	-1.30
		October	4.22	0.00	-4.22
MS 6	Sudan	July	5.15	2.79	-2.36
		August	7.80	1.90	-5.90
		September	5.77	0.00	-5.77
		October	3.83	0.00	-3.83
MS 11	Sudan	July	5.15	3.88	-1.27
		August	7.80	3.35	-4.45
		September	4.73	4.11	-0.62
		October	3.83	0.00	-3.83
MS 14	Alfalfa/Gra	July	3.21	3.02	-0.19
		August	7.38	5.05	-2.33
		September	4.51	4.97	0.46
		October	4.33	0.00	-4.33
MS 15	Pasture	July	8.56	0.96	-7.60
		August	7.13	4.88	-2.25
		September	5.27	3.17	-2.10
		October	4.22	0.00	-4.22
MS 16 & 17	Sudan	July	4.31	3.93	-0.38
		August	6.90	5.16	-1.74
		September	5.77	3.57	-2.20
		October	3.83	0.00	-3.83
MS 18 ch1	Pasture	July	8.56	3.27	-5.29
		August	7.13	1.76	-5.37
		September	5.27	2.69	-2.58
		October	4.22	0.00	-4.22

MS 18 ch2	Pasture	July	8.56	0.00	-8.56
		August	7.13	2.78	-4.35
		September	5.27	2.42	-2.85
		October	4.22	0.00	-4.22
MS 20 ch1	Sudan	July	5.15	0.39	-4.76
		August	7.80	4.33	-3.47
		September	5.77	1.16	-4.61
		October	3.83	0.00	-3.83
MS 20 ch2	Sudan	July	5.15	1.02	-4.13
		August	7.80	2.86	-4.94
		September	5.77	2.85	-2.92
		October	3.83	0.00	-3.83
MS 21	Sudan	July	5.15	3.45	-1.70
		August	7.80	3.35	-4.45
		September	4.73	4.80	0.07
		October	3.83	0.00	-3.83
MS 24 ch1	Pasture	July	8.56	1.84	-6.72
		August	7.13	5.75	-1.38
		September	5.27	2.32	-2.95
		October	4.22	0.00	-4.22
MS 24 ch2	Pasture	July	8.56	3.02	-5.54
		August	7.13	5.58	-1.55
		September	5.27	2.89	-2.38
		October	4.22	0.50	-3.72

Attachment C

Nitrogen Balance

LAA Field	MS 1	MS 2/3	MS 5	MS 6	MS 11	MS 14	MS 15	MS 16/17	MS 18 ch1	MS 18 ch 2	MS 20 ch1	MS 20 ch2	MS 21	MS 24 ch1	MS 24 ch2
2013 Cropping	Rice	Oats/Sudan	Pasture	Oats/Sudan	Sudan	Alfalfa/Rye Grass	Pasture	Oats/Sudan	Pasture	Pasture	Oats/Sudan	Oats/Sudan	Sudan	Pasture	Pasture
Planting Dates	4/30/2013	5/21/2013	2007	5/21/2013	5/21/2013	2008	2007	6/2/2013	2007	2007	5/21/2013	5/21/2013	5/21/2013	2007	2007
Harvest Dates	10/1/2013	7/16/13, 9/1/13, 10/14/13	NA	7/16/13, 10/14/13	7/16/13, 9/10/13, 10/14/13	7/16/13, 9/10/13	NA	10/14/2013	NA	NA	7/16/13, 10/14/13	7/16/13, 10/14/13	7/16/13, 9/10/13, 10/14/13	NA	NA
Total Nitrogen Loading from Wastewater (lbs/ac/year)	101	230	53	26	95	138	59	115	70	54	48	52	70	195	232
Total Nitrogen Loading from Cattle (lbs/ac/year)	0	0	42	0	0	0	8	0	8	8	0	0	0	8	20
Total Nitrogen Loading from Commercial Fertilizers (lbs/ac/year)	0	97	0	0	0	32	0	0	0	0	97	97	0	0	0
Cumulative Annual Total Nitrogen Value	**101**	**327**	**95**	**26**	**95**	**171**	**67**	**115**	**78**	**62**	**144**	**149**	**70**	**203**	**252**
Annual Crop Demand (lbs/ac/year)	*110*	*440*	*300*	*440*	*325*	*480*	*300*	*440*	*300*	*300*	*440*	*440*	*325*	*300*	*300*

Attachment D

2013 Cattle Calculations

Nitrogen Excretion Rate 0.33 lbs/AU/day

Field	Animals	AU/Animal	Total AU	Date In	Date Out	Days on Pasture	Acres	Nitrogen Excreted (lbs/day)	Total Nitrogen Excreted (lbs/acre)
MS5, MS15, MS 18, MS 24	131 Feeder Steers	0.7	91.7	3/12/2013	5/15/2013	64	289.3	30.261	7
MS5, MS15, MS 18, MS 24	27 Feeder Steers	0.7	18.9	5/16/2013	7/11/2013	56	289.3	6.237	1
MS5	37 Cow/Calf Pairs	1.2	44.4	11/4/2013	12/31/2013	57	24.6	14.652	34
MS15	33 Cow/Calf Pairs	1.2	39.6	11/4/2013	12/31/2013	57	26.7	13.068	28
MS24	87 Cow/Calf Pairs	1.2	104.4	11/4/2013	12/31/2013	57	159.8	34.452	12

Attachment D

2013 Wastewater Nitrogen Calculations

		July		August		September		October		
	Avg Total N (mg/L)	94.6		110.7		92.1		92.1		
	Acreage	Gallons Applied	Nitrogen (lbs/ac)	Gallons Applied	Nitrogen (lbs/ac)	Gallons Applied	Nitrogen (lbs/ac)	Gallons Applied (MG)	Nitrogen (lbs/ac)	Total N (lbs/ac)
MS1	95	0	0	0	0	8.5	69	3.9	32	101
MS 2/3	82.1	4.1	34	9.7	95	12.6	102	0	0	230
MS 5	24.6	2.3	19	1.3	12	2.6	21	0	0	53
MS 6	21.4	1.6	13	1.3	12	0.0	0	0	0	26
MS 11	35.6	3.7	31	3.2	32	4.0	32	0	0	95
MS 14	44.5	3.6	30	6.1	59	6.0	49	0	0	138
MS 15	26.7	0.7	6	3.5	34	2.3	19	0	0	59
MS 16/17	36.7	4.4	36	5.1	50	3.5	29	0	0	115
MS 18 ch1	39.1	3.5	29	1.9	18	2.8	23	0	0	70
MS 18 ch 2	39.1	0.5	4	3.0	29	2.6	21	0	0	54
MS 20 ch1	32.3	0.3	3	3.8	37	1.0	8	0	0	48
MS 20 ch2	32.3	0.9	7	2.5	24	2.5	20	0	0	52
MS 21	25.9	2.4	20	2.4	23	3.4	27	0	0	70
MS 24 ch1	79.9	4.0	33	12.5	121	5.0	41	0	0	195
MS 24 ch2	79.9	6.5	54	12.1	118	6.3	51	1.1	9	232

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #1	#1	#1	#1	#1	#1	#1	#1
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
Aug-95	8.3	92.66	6.86	234				0.2
Sep-95	7.9	92.30	7.22					
Oct-95	8.1	92.41	7.11	177				0.2
Nov-95	7.3	91.74	7.78					
Jan-96	8.0	90.16	9.36					
Feb-96	8.0	90.66	8.86					
Mar-96	7.5	91.87	7.65					
Apr-96	7.9	91.51	8.01					
May-96	8.0	94.39	5.13					
Jun-96	7.9	94.15	5.37					
Jul-96	8.0	92.80	6.72	164				0.4
Aug-96	8.3	91.66	7.86					
Sep-96	7.7	91.04	8.48					
Oct-96	8.0	90.63	8.89	160				0.3
Nov-96	7.7	89.54	9.98					
Dec-96	8.1	89.28	10.24					
Jan-97	7.7	89.89	9.63					
Feb-97	7.6	90.65	8.87					
Mar-97	7.9	91.06	8.46					
Apr-97	7.5	91.76	7.76					
May-97	7.9	92.74	6.78					
Jun-97	7.8	92.82	6.70					
Jul-97	7.9	92.74	6.78	159				0.6
Aug-97	7.6	90.93	8.59					
Sep-97	8.2	91.41	8.11					
Oct-97	8.8	90.54	8.98	166				0.5
Nov-97	7.5	89.74	9.78					
Dec-97	7.4	89.77	9.75					
Jan-98	7.6	89.50	10.02					
Feb-98	7.4	94.18	5.34					
Mar-98	7.3	93.12	6.40					
Apr-98	7.4	93.68	5.84					
May-98	7.5	93.80	5.72					
Jun-98	7.6	94.19	5.33					
Jul-98	7.5	93.18	6.34					
Aug-98	7.5	93.09	6.43	224				1.2
Sep-98	7.6	92.23	7.29					
Oct-98	7.8	91.67	7.85	215				0.8
Nov-98	7.4	90.33	9.19					
Dec-98	7.4	88.76	10.76					
Jan-99	7.3	88.92	10.60					
Feb-99	7.6	91.14	8.38					
Mar-99	7.5	91.98	7.54					
Apr-99	7.7	91.92	7.60					
May-99	7.8	94.55	4.97					
Jun-99	7.6	93.18	6.34					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #1	#1	#1	#1	#1	#1	#1	#1
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
Jul-99	7.5	93.12	6.40					
Aug-99	7.6	92.31	7.21	181				0.7
Sep-99	7.9	91.31	8.21					
Oct-99	7.6	91.98	7.54	174				0.6
Nov-99	7.5	90.32	9.20					
Dec-99	7.1	89.79	9.73					
Jan-00	7.1	88.54	10.98					
Feb-00	7.6	89.73	9.79					
Mar-00	7.6	90.50	9.02					
Apr-00	7.7	92.78	6.74					
May-00	7.7	93.25	6.27					
Jun-00	7.6	93.42	6.10					
Jul-00	7.6	92.17	7.35	148				1.0
Aug-00	7.6	91.42	8.10					
Sep-00	7.6	91.30	8.22					
Oct-00	6.8	91.21	8.31	173				1.0
Nov-00	7.2	90.73	8.79					
Dec-00	7.1	89.86	9.66					
Jan-01	7.0	89.20	10.32					
Feb-01	6.9	89.29	10.23					
Mar-01	7.1	90.03	9.49					
Apr-01								
May-01	7.5	92.55	6.97					
Jun-01	7.1	92.81	6.71					
Jul-01	6.9	92.89	6.63					
Aug-01	7.4	91.99	7.53	166				1.0
Sep-01	7.3	91.33	8.19					
Oct-01	7.5	91.11	8.41	143				1.1
Nov-01	7.5	90.01	9.51					
Dec-01	7.4	89.92	9.60					
Jan-02	7.6	91.29	8.23					
Feb-02	7.4	90.71	8.81					
Mar-02	7.7	90.09	9.43					
Apr-02	7.6	92.95	6.57					
May-02	7.4	93.01	6.51					
Jun-02	7.6	93.07	6.45					
Jul-02	7.7	92.67	6.85					
Aug-02	7.5	91.88	7.64	166				2.1
Sep-02	7.8	91.30	8.22					
Oct-02	7.1	90.41	9.11	156				1.1
Nov-02	6.9	89.44	10.08					
Dec-02		89.41	10.11					
Jan-03		90.30	9.22					
Feb-03		90.32	9.20					
Mar-03	7.9	90.08	9.44					
Apr-03	6.0	92.42	7.10					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #1	#1	#1	#1	#1	#1	#1	#1
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-03	6.5	92.26	7.26					
Jun-03	7.0	92.56	6.96					
Jul-03	7.6	92.12	7.40					
Aug-03	6.8	91.42	8.10	127				2.2
Sep-03	7.5	91.12	8.40					
Oct-03	7.7	90.56	8.96	150				1.4
Nov-03	7.0	89.72	9.80	133	0.2	40.0	0.00	1.0
Dec-03	8.0	89.62	9.90	0	0.4	197.0	0.00	1.1
Mar-04	7.7	91.42	8.10	158	0.0	0.0	0.00	6.2
May-04	7.7	94.44	5.08	222	0.4	0.8	0.00	6.7
Aug-04	7.6	93.48	6.00	192	0.0	0.1	0.00	7.9
Sep-04	7.6	92.40	7.08	162	0.0	0.2	0.00	5.8
Nov-04	7.6	90.48	9.00	208	0.0	0.2	0.00	7.1
Feb-05	7.6	91.48	8.00	187	0.0	5.4	0.16	10.0
May-05	7.8	93.31	6.17	185	0.0	1.0	0.00	5.6
Aug-05	7.7	94.48	5.00	170	0.2	1.6	0.00	3.0
Nov-05	7.4	91.48	8.00	137	0.0	0.4	0.00	3.4
Feb-06	7.4	90.90	8.58	134	0.0	0.3	0.00	2.3
May-06	7.5	92.96	6.52	171	0.0	0.0	0.00	5.7
Aug-06	7.6	93.14	6.34	183	0.7	0.0	0.00	4.9
Dec-06	7.6	91.40	8.08	174	0.0	0.0	0.00	2.1
Feb-07	7.8	89.45	10.03	169	0.0	0.0	0.00	5.8
May-07	7.7	94.48	5.00	142	0.8	0.2	0.00	1.2
Aug-07	7.9	93.52	5.96	184	0.9	0.0	0.00	1.6
Nov-07	7.7	90.90	8.58	210	0.5	0.0	0.00	2.2
Mar-08	7.8	91.65	7.83	198	0.1	0.0	0.00	3.7
May-08	7.8	94.15	5.33	222	0.5	0.0	0.00	1.4
Aug-08	8.1	93.23	6.25	212	0.5	0.0	0.00	1.6
Nov-08	8.0	91.23	8.25	210	0.0	0.0	0.00	2.7
Mar-09	7.9	89.40	10.08	181	0.0	0.0	0.00	2.6
May-09	7.4	93.88	5.60	210	0.7	0.0	0.00	2.2
Aug-09	7.9	92.82	6.66	178	0.0	0.0	0.00	1.6
Nov-09	7.5	89.81	9.67	170	0.0	0.0	0.00	1.1
Mar-10	7.6	90.40	9.08	143	0.4	0.0	0.00	0.6
Jun-10	7.6	91.15	8.33	155	1.4	0.0	0.00	1.1
Aug-10	7.6	93.31	6.17	158	0.4	0.0	0.00	3.2
Nov-10	7.5	90.48	9.00	145	0.4	0.0	0.00	2.1
Feb-11	7.7	89.56	9.92	151	0.6	0.0	0.00	3.3
May-11	7.6	92.90	6.58	141	0.4	0.0	0.00	1.7
Aug-11	7.7	96.23	3.25	190	0.4	0.0	0.00	2.9
Nov-11	7.4	91.23	8.25	208	0.3	0.4	0.00	1.7
Mar-12	7.8	91.15	8.33	157	0.2	0.0	0.00	2.2
May-12	8.0	93.81	5.67	136	0.2	0.0	0.00	2.4
Aug-12	7.2	92.73	6.75	151	0.0	0.0	0.00	1.0
Nov-12	7.5	91.56	7.92	144	0.1	0.0	0.00	1.7
Feb-13	7.5	89.40	10.08	150	0.0	0.0	0.00	1.1

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #1	#1	#1	#1	#1	#1	#1	#1
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.5	94.15	5.33	144	0.0	0.0	0.00	1.2
Aug-13	7.7	93.32	6.16	145	0.0	0.0	0.00	0.0
Dec-13	7.1	89.73	9.75	167	0.2	0.0	0.00	0.0
Averages	7.6	91.65	7.86	168	0.2	5.8	0.00	2.3
Min	6.0	88.54	3.25	0	0.0	0.0	0.00	0.0
Max	8.8	96.23	10.98	234	1.4	197.0	0.16	10.0

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #2	#2	#2	#2	#2	#2	#2	#2
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
Aug-95	8.1	90.96	11.09	484				11.1
Sep-95	7.6	90.53	11.52					
Oct-95	7.6	90.05	12.00	422				10.6
Nov-95	7.6	88.07	13.98					
Jan-96	7.7	87.49	14.56					
Feb-96	7.9	88.01	14.04					
Mar-96	7.5	88.23	13.82					
Apr-96	7.7	87.95	14.10					
May-96	7.9	89.83	12.22					
Jun-96	8.0	89.31	12.74					
Jul-96	7.7	89.36	12.69	391				7.3
Aug-96	7.7	87.91	14.14					
Sep-96	7.3	88.74	13.31					
Oct-96	7.8	88.81	13.24	399				7.9
Nov-96	7.5	86.71	15.34					
Dec-96	7.9	86.39	15.66					
Jan-97	7.6	88.89	13.16					
Feb-97	7.4	88.05	14.00					
Mar-97	7.7	87.34	14.71					
Apr-97	7.3	89.57	12.48					
May-97	7.7	93.44	8.61					
Jun-97	7.6	89.63	12.42					
Jul-97	7.7	89.51	12.54	384				11.5
Aug-97	7.3	89.57	12.48					
Sep-97	7.9	89.62	12.43					
Oct-97	8.5	88.23	13.82	403				11.3
Nov-97	7.4	86.78	15.27					
Dec-97	7.3	87.60	14.45					
Jan-98	7.3	87.58	14.47					
Feb-98	7.1	90.46	11.59					
Mar-98	7.2	88.93	13.12					
Apr-98	7.4	88.79	13.26					
May-98	7.3	89.54	12.51					
Jun-98	7.5	90.43	11.62					
Jul-98	7.3	90.33	11.72					
Aug-98	7.4	89.21	12.84	401				8.9
Sep-98	7.4	89.41	12.64					
Oct-98	7.6	87.06	14.99	417				8.2
Nov-98	7.6	87.38	14.67					
Dec-98	7.5	87.08	14.97					
Jan-99	7.2	86.50	15.55					
Feb-99	7.5	88.45	13.60					
Mar-99	7.3	87.85	14.20					
Apr-99	7.5	88.09	13.96					
May-99	7.4	89.17	12.88					
Jun-99	7.4	89.15	12.90					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #2	#2	#2	#2	#2	#2	#2	#2
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
Jul-99	7.4	89.27	12.78					
Aug-99	7.2	88.92	13.13	400				8.9
Sep-99	7.7	88.60	13.45					
Oct-99	7.4	88.69	13.36	406				8.8
Nov-99	7.3	88.29	13.76					
Dec-99	7.2							
Jan-00	7.1	86.37	15.68					
Feb-00	7.4	88.37	13.68					
Mar-00	7.1	88.23	13.82					
Apr-00	7.3	89.81	12.24					
May-00	7.5	89.66	12.39					
Jun-00	7.3	89.76	12.29					
Jul-00	7.4	88.81	13.24	412				7.4
Aug-00	7.5	88.95	13.10					
Sep-00	7.2	89.42	12.63					
Oct-00	7.0	88.91	13.14	404				9.0
Nov-00	7.2	87.96	14.09					
Dec-00	7.1	87.08	14.97					
Jan-01	7.0	87.42	14.63					
Feb-01	7.0	87.05	15.00					
Mar-01	7.3	87.90	14.15					
Apr-01								
May-01	7.5	89.38	12.67					
Jun-01	7.4	88.83	13.22					
Jul-01	7.3	88.20	13.85					
Aug-01	6.9	89.60	12.45	405				7.9
Sep-01	7.1	89.76	12.29					
Oct-01	7.1	89.91	12.14	412				7.9
Nov-01	7.4	87.45	14.60					
Dec-01								
Jan-02								
Feb-02	7.1	88.66	13.39					
Mar-02	7.6	87.11	14.94					
Apr-02	7.3	89.32	12.73					
May-02	7.0	89.60	12.45					
Jun-02	7.0	88.85	13.20					
Jul-02	7.0	89.14	12.91					
Aug-02	7.3	88.54	13.51	386				7.1
Sep-02	7.4	89.21	12.84					
Oct-02	7.3	88.30	13.75	418				6.8
Nov-02	6.9	86.95	15.10					
Dec-02		87.86	14.19					
Jan-03		88.77	13.28					
Feb-03	6.9	81.50	20.55					
Mar-03	7.6	88.67	13.38					
Apr-03		88.15	13.90					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #2	#2	#2	#2	#2	#2	#2	#2
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-03	6.5	89.21	12.84					
Jun-03	6.8	89.79	12.26					
Jul-03	7.4	88.03	14.02					
Aug-03	6.7	93.70	8.35	359				5.1
Sep-03	7.4	89.85	12.20					
Oct-03	7.3	88.05	14.00	394				5.5
Nov-03	6.9	86.95	15.10	423	0.0	0.0	0.00	6.1
Dec-03	7.4	88.19	13.86	426	0.0	0.0	0.00	5.6
Mar-04	7.0	91.93	10.12	460	0.0	0.0	0.00	10.5
May-04	7.3	90.05	12.00	448	0.5	0.4	0.00	9.5
Aug-04	6.9	91.60	10.16	479	0.0	0.0	0.00	8.2
Sep-04	7.0	87.93	13.83	426	0.0	0.0	0.00	7.2
Nov-04	7.5	88.86	12.90	354	0.0	0.2	0.00	8.2
Feb-05	7.0	94.51	7.25	476	0.2	2.4	0.00	9.0
May-05	7.6	88.43	13.33	445	0.0	0.7	0.00	8.8
Aug-05	7.0	89.34	12.42	445	0.0	1.3	0.00	3.9
Nov-05	6.8	88.06	13.70	428	0.0	0.3	0.00	5.7
Feb-06	7.0	87.76	14.00	463	0.0	0.5	0.00	5.5
May-06	7.5	88.26	13.50	517	0.0	0.0	0.00	5.5
Aug-06	6.9	89.47	12.29	531	0.7	0.0	0.00	6.7
Dec-06	6.8	87.93	13.83	538	0.0	0.0	0.00	2.2
Feb-07	7.2	86.60	15.16	407	0.0	0.0	0.00	9.7
May-07	7.1	90.26	11.50	353	0.6	0.0	0.00	3.9
Aug-07	7.1	89.86	11.90	493	0.9	0.0	0.00	5.0
Nov-07	7.1	87.76	14.00	469	0.6	0.0	0.00	5.0
Mar-08	7.0	93.09	8.67	445	0.2	0.0	0.00	5.0
May-08	7.3	89.26	12.50	451	0.4	0.0	0.00	3.0
Aug-08	7.7	89.51	12.25	502	0.6	0.0	0.00	3.2
Nov-08	7.5	87.93	13.83	524	0.2	0.0	0.00	4.6
Mar-09	7.1	86.60	15.16	530	0.0	0.0	0.00	6.7
May-09	7.4	89.60	12.16	544	0.0	0.3	0.00	7.7
Aug-09	7.2	89.93	11.83	450	0.9	0.0	0.00	6.1
Nov-09	6.9	87.34	14.42	540	0.0	0.0	0.00	2.4
Mar-10	6.9	85.51	16.25	449	0.0	0.0	0.00	2.6
Jun-10	7.2	88.96	12.80	405	0.6	0.0	0.00	3.4
Aug-10	7.2	89.84	11.92	463	0.3	0.0	0.00	9.4
Nov-10	7.0	87.84	13.92	501	0.3	0.0	0.00	3.2
Feb-11	7.2	87.51	14.25	459	0.6	0.0	0.00	3.9
May-11	7.2	87.59	14.17	393	0.3	0.0	0.00	2.6
Aug-11	7.3	90.26	11.50	528	0.3	0.0	0.00	5.8
Nov-11	6.9	89.26	12.50	534	0.4	0.3	0.00	4.6
Mar-12	7.0	86.84	14.92	463	0.3	0.0	0.00	4.9
May-12	7.4	86.59	15.17	446	0.4	0.0	0.00	3.7
Aug-12	6.8	88.51	13.25	560	0.0	0.0	0.00	4.6
Nov-12	7.4	87.84	13.92	438	0.4	0.0	0.00	2.2
Feb-13	7.1	87.26	14.50	460	0.0	0.0	0.00	2.3

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #2	#2	#2	#2	#2	#2	#2	#2
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.4	88.93	12.83	466	0.0	0.0	0.00	2.2
Aug-13	7.2	89.85	11.91	440	0.0	0.0	0.00	1.4
Dec-13	7.3	87.35	14.41	508	0.2	0.0	0.00	3.0
Averages	7.3	88.69	13.28	449	0.2	0.1	0.00	6.2
Min	6.5	81.50	7.25	353	0.0	0.0	0.00	1.4
Max	8.5	94.51	20.55	560	0.9	2.4	0.00	11.5

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #3	#3	#3	#3	#3	#3	#3	#3
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
Aug-95	8.0	91.17	2.87	494				10.1
Sep-95	7.6	89.99	4.05					
Oct-95	7.6	89.32	4.72	486				10.3
Nov-95	7.5	87.87	6.17					
Jan-96	7.7	87.49	6.55					
Feb-96	7.8	87.55	6.49					
Mar-96	7.6	87.55	6.49					
Apr-96	7.6	87.44	6.60					
May-96	7.8	88.86	5.18					
Jun-96	7.9	88.83	5.21					
Jul-96	7.7	88.51	5.53	419				9.4
Aug-96	8.0	87.30	6.74					
Sep-96	7.4	87.78	6.26					
Oct-96	7.8	87.97	6.07	454				9.2
Nov-96	7.4	86.12	7.92					
Dec-96	7.8	85.86	8.18					
Jan-97	7.5	88.28	5.76					
Feb-97	7.4	87.37	6.67					
Mar-97	7.8	86.80	7.24					
Apr-97	7.3	88.77	5.27					
May-97	7.6	87.50	6.54					
Jun-97	7.6	88.46	5.58					
Jul-97	7.6	88.70	5.34	415				10.8
Aug-97	7.3	88.87	5.17					
Sep-97	7.9	88.84	5.20					
Oct-97	8.4	87.44	6.60	428				10.8
Nov-97	7.4	86.37	7.67					
Dec-97	7.3	87.04	7.00					
Jan-98	7.4	87.52	6.52					
Feb-98	7.2	89.56	4.48					
Mar-98	7.3	88.38	5.66					
Apr-98	7.5	87.96	6.08					
May-98	7.4	88.61	5.43					
Jun-98	7.5	88.79	5.25					
Jul-98	7.3	89.16	4.88					
Aug-98	7.4	89.04	5.00	443				13.8
Sep-98	7.4	88.51	5.53					
Oct-98	7.6	88.30	5.74	439				11.8
Nov-98	7.7	82.90	11.14					
Dec-98	7.6	86.64	7.40					
Jan-99	7.4	86.06	7.98					
Feb-99	7.6	87.90	6.14					
Mar-99	7.4	87.19	6.85					
Apr-99	7.5	87.16	6.88					
May-99	7.5	88.14	5.90					
Jun-99	7.4	88.31	5.73					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #3	#3	#3	#3	#3	#3	#3	#3
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
Jul-99	7.4	88.19	5.85					
Aug-99	7.4	88.20	5.84	480				13.6
Sep-99	8.0	88.05	5.99					
Oct-99	7.5	88.14	5.90	451				13.4
Nov-99	7.3	87.68	6.36					
Dec-99	7.2							
Jan-00	7.3	86.06	7.98					
Feb-00								
Mar-00	7.4	87.70	6.34					
Apr-00	7.5	88.68	5.36					
May-00	7.3	88.46	5.58					
Jun-00	7.5	88.41	5.63					
Jul-00	7.5	87.94	6.10	452				13.3
Aug-00	7.5	87.54	6.50					
Sep-00	7.4	88.73	5.31					
Oct-00	7.4	88.64	5.40	466				13.9
Nov-00	7.4	87.30	6.74					
Dec-00	7.3	86.44	7.60					
Jan-01	7.3	86.97	7.07					
Feb-01	7.4	86.58	7.46					
Mar-01	7.8	87.44	6.60					
Apr-01								
May-01	7.5	87.79	6.25					
Jun-01	7.4	88.12	5.92					
Jul-01	7.3	87.94	6.10					
Aug-01	7.4	88.65	5.39	498				13.2
Sep-01	7.2	88.73	5.31					
Oct-01	7.2	88.07	5.97	470				13.7
Nov-01	7.6	86.88	7.16					
Dec-01								
Jan-02								
Feb-02	7.2	87.92	6.12					
Mar-02	7.4	86.53	7.51					
Apr-02	7.2	88.28	5.76					
May-02	7.3	88.35	5.69					
Jun-02	7.4	88.05	5.99					
Jul-02	7.6	88.14	5.90					
Aug-02	7.3	87.85	6.19	452				8.8
Sep-02	7.4	88.23	5.81					
Oct-02	7.3	87.47	6.57	463				6.5
Nov-02	7.3	86.27	7.77					
Dec-02		87.57	6.47					
Jan-03		88.29	5.75					
Feb-03								
Mar-03	7.8	87.04	7.00					
Apr-03		85.43	8.61					

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #3	#3	#3	#3	#3	#3	#3	#3
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-03	6.7	88.02	6.02					
Jun-03	7.0	88.26	5.78					
Jul-03	7.6	85.14	8.90					
Aug-03	6.9	85.48	8.56	410				8.7
Sep-03	7.4	88.82	5.22					
Oct-03	7.7	87.12	6.92	432				10.0
Nov-03	7.1	86.44	7.60	454	0.0	0.0	0.00	11.0
Dec-03	7.7	88.80	5.24	462	0.7	0.0	31.00	11.7
Mar-04	7.4	88.08	5.96	487	0.0	0.0	0.00	19.8
May-04	7.6	88.96	5.08	492	0.0	0.8	0.00	21.0
Aug-04	7.3	87.84	6.00	499	0.0	0.1	0.00	17.1
Sep-04	7.4	87.26	6.58	446	0.2	0.0	0.00	15.2
Nov-04	7.7	88.14	5.70	396	0.0	0.0	0.00	18.1
Feb-05	7.3	89.18	4.66	522	0.6	20.0	0.64	18.5
May-05	7.5	87.38	6.46	516	0.0	0.7	0.00	27.2
Aug-05	7.5	88.59	5.25	480	0.9	0.0	0.35	18.4
Nov-05	7.1	87.18	6.66	473	0.0	0.6	0.00	6.4
Feb-06	7.1	85.34	8.50	488	0.0	0.7	0.00	10.8
May-06	7.1	87.80	6.04	633	0.0	0.1	0.00	12.9
Aug-06	7.2	88.14	5.70	576	0.8	0.0	0.00	9.3
Dec-06	7.2	87.97	5.87	510	0.0	0.0	0.00	11.9
Feb-07	7.3	88.68	5.16	537	0.0	0.0	0.00	15.0
May-07	7.5	88.59	5.25	360	0.8	0.0	0.00	10.3
Aug-07	7.5	88.84	5.00	555	1.0	0.0	0.00	10.8
Nov-07	7.4	87.51	6.33	495	0.5	0.0	0.00	15.1
Mar-08	7.4	87.84	6.00	253	0.1	0.0	0.00	3.9
May-08	7.6	88.43	5.41	463	0.5	0.0	0.00	6.4
Aug-08	7.9	89.34	4.50	479	0.5	0.0	0.00	8.6
Nov-08	7.9	87.92	5.92	549	0.0	0.0	0.00	12.1
Mar-09	7.3	87.26	6.58	432	0.0	0.0	0.00	12.3
May-09	7.4	87.01	6.83	420	0.2	0.2	0.00	10.8
Aug-09	7.6	88.26	5.58	540	0.0	0.0	0.00	8.7
Nov-09	7.3	87.59	6.25	517	0.3	0.0	0.00	8.9
Mar-10	7.4	88.43	5.41	406	0.0	0.0	0.00	15.1
Jun-10	7.2	89.26	4.58	388	0.4	0.0	0.00	7.7
Aug-10	7.3	89.92	3.92	536	0.5	0.0	0.00	51.4
Nov-10	7.3	87.92	5.92	456	0.3	0.0	0.00	16.4
Feb-11	7.5	88.09	5.75	524	0.9	0.0	0.00	12.2
May-11	7.4	88.01	5.83	431	0.7	0.0	0.00	20.0
Aug-11	7.5	90.51	3.33	560	0.6	0.0	0.00	27.4
Nov-11	7.3	89.51	4.33	630	0.6	0.5	0.00	30.8
Mar-12	7.4	85.92	7.92	498	0.6	0.0	0.00	18.0
May-12	7.6	87.17	6.67	534	0.7	0.0	0.00	26.3
Aug-12	7.1	87.92	5.92	520	0.0	0.0	0.00	20.6
Nov-12	7.4	86.76	7.08	477	0.6	0.0	0.00	11.1
Feb-13	7.3	86.34	7.50	515	0.0	0.0	0.00	21.3

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #3	#3	#3	#3	#3	#3	#3	#3
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.4	87.84	6.00	477	0.0	0.0	0.00	16.1
Aug-13	7.4	88.84	5.00	550	0.0	0.0	0.00	19.1
Dec-13	7.6	86.76	7.08	574	0.4	0.1	0.00	12.0
Averages	7.5	87.85	6.14	480	0.3	0.5	0.74	14.4
Min	6.7	82.90	2.87	253	0.0	0.0	0.00	3.9
Max	8.4	91.17	11.14	633	1.0	20.0	31.00	51.4

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #4	#4	#4	#4	#4	#4	#4	#4
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.4	89.81	7.42	348	0.0	0.0	0.00	5.2
Nov-04	7.6	89.63	7.60	352	0.0	0.2	0.00	6.8
Feb-05	7.3	90.07	7.16	438	0.4	83.0	2.80	7.1
May-05	7.7	90.31	6.92	506	0.3	0.8	0.00	5.2
Aug-05	7.5	91.40	5.83	298	0.0	3.3	0.00	2.7
Nov-05	7.4	89.57	7.66	296	0.0	0.2	0.00	8.3
Feb-06	7.2	89.48	7.75	367	0.0	1.3	0.00	5.8
May-06	7.4	90.11	7.12	481	0.0	0.0	0.00	3.9
Aug-06	7.2	91.47	5.76	305	0.8	0.0	0.00	3.8
Dec-06	7.5	89.15	8.08	365	0.0	0.0	0.00	4.2
Feb-07	7.4	87.81	9.42	414	0.0	0.0	0.00	10.8
May-07	7.4	91.65	5.58	309	0.7	0.0	0.00	4.1
Aug-07	7.5	91.40	5.83	327	0.9	0.0	0.00	3.9
Nov-07	7.4	89.23	8.00	385	0.3	0.0	0.00	5.8
Mar-08	7.4	89.52	7.71	378	0.1	0.0	0.00	4.2
May-08	7.5	91.48	5.75	371	0.3	0.0	0.00	4.8
Aug-08	8.0	91.44	5.79	351	0.5	0.0	0.00	5.4
Nov-08	7.6	89.31	7.92	360	0.0	0.0	0.00	7.5
Mar-09	7.8	88.23	9.00	373	0.0	0.0	0.00	6.6
May-09	7.6	92.40	4.83	347	0.0	0.2	0.00	7.1
Aug-09	7.8	93.07	4.16	420	0.5	0.0	0.00	4.4
Nov-09	7.3	88.56	8.67	327	0.4	0.0	0.00	2.1
Mar-10	7.4	90.23	7.00	324	0.3	0.0	0.00	2.1
Jun-10	7.7	91.40	5.83	344	0.8	0.0	0.00	4.1
Aug-10	7.5	91.81	5.42	290	0.6	0.0	0.00	9.4
Nov-10	7.3	89.15	8.08	286	0.5	0.0	0.00	4.8
Feb-11	7.5	88.48	8.75	323	0.7	0.0	0.00	4.6
May-11	7.5	90.65	6.58	275	0.4	0.0	0.00	5.8
Aug-11	7.6	93.23	4.00	355	0.5	0.0	0.00	7.2
Nov-11	7.4	91.23	6.00	320	0.5	0.4	0.00	6.1
Mar-12	7.5	88.23	9.00	319	0.6	0.0	0.00	5.6
May-12	7.9	91.40	5.83	298	0.5	0.0	0.00	7.2
Aug-12	7.0	90.56	6.67	350	0.0	0.0	0.00	7.7
Nov-12	7.3	89.23	8.00	306	0.5	0.0	0.00	5.0
Feb-13	7.6	88.23	9.00	290	0.0	0.0	0.00	4.1

New Monitoring Wells Completed 19 August 2004 and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #4	#4	#4	#4	#4	#4	#4	#4
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.5	90.98	6.25	310	0.0	0.0	0.00	4.2
Aug-13	7.4	91.32	5.91	330	0.0	0.0	0.00	2.1
Dec-13	7.7	88.57	8.66	380	0.3	0.0	0.00	6.0
Averages	7.5	90.26	6.97	348	0.3	2.4	0.07	5.4
Min	7.0	87.81	4.00	275	0.0	0.0	0.00	2.1
Max	8.0	93.23	9.42	506	0.9	83.0	2.80	10.8

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #5	#5	#5	#5	#5	#5	#5	#5
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.3	84.05	4.25	704	0.3	0.0	0.00	42.3
Nov-04	7.8	84.14	4.16	528	0.0	0.2	0.00	7.1
Feb-05	7.7	85.05	3.25	462	0.3	88.0	2.40	9.0
May-05	7.8	84.01	4.29	488	0.0	1.0	0.00	7.6
Aug-05	7.8	84.72	3.58	469	0.0	5.5	0.10	4.4
Nov-05	7.8	82.93	5.37	533	0.0	0.2	0.00	6.2
Feb-06	7.6	84.05	4.25	572	0.0	1.7	0.00	5.8
May-06	7.8	84.47	3.83	697	0.0	0.1	0.00	5.1
Aug-06	7.6	81.45	6.85	627	0.7	0.0	0.00	5.9
Dec-06	7.9	84.59	3.71	610	0.0	0.0	0.00	6.2
Feb-07	7.7	82.17	6.13	655	0.0	0.0	0.00	9.3
May-07	7.7	84.97	3.33	563	0.9	0.0	0.00	3.9
Aug-07	7.7	84.55	3.75	524	1.0	0.0	0.00	4.2
Nov-07	7.7	83.55	4.75	484	0.4	0.0	0.00	3.8
Mar-08	7.8	84.13	4.17	533	0.3	0.0	0.00	4.8
May-08	7.8	84.64	3.66	617	0.5	0.0	0.00	3.3
Aug-08	8.2	84.63	3.67	585	0.5	0.0	0.00	4.1
Nov-08	7.9	83.80	4.50	670	0.0	0.0	0.00	5.8
Mar-09	8.1	84.72	3.58	663	0.2	0.0	0.00	8.5
May-09	7.9	84.64	3.66	624	0.3	0.2	0.14	8.8
Aug-09	7.9	83.22	5.08	608	0.8	0.0	0.00	4.2
Nov-09	7.6	84.13	4.17	571	0.3	0.0	0.00	5.4
Mar-10	7.5	84.64	3.66	582	0.5	0.0	0.00	7.1
Jun-10	8.0	82.55	5.75	566	1.2	0.0	0.00	6.9
Aug-10	7.7	85.05	3.25	498	0.5	0.0	0.00	15.2
Nov-10	7.5	84.30	4.00	487	0.5	0.0	0.00	7.4
Feb-11	7.7	85.30	3.00	545	0.8	0.0	0.00	12.5
May-11	7.6	84.72	3.58	553	0.8	0.0	0.00	25.3
Aug-11	7.7	85.80	2.50	779	0.9	0.0	0.00	54.1
Nov-11	7.6	84.39	3.91	760	0.9	0.4	0.00	40.2
Mar-12	7.7	84.09	4.21	628	0.9	0.0	0.00	25.3
May-12	8.1	83.47	4.83	602	0.9	0.0	0.00	22.4
Aug-12	7.3	84.30	4.00	930	0.0	0.0	0.00	83.7
Nov-12	7.6	83.30	5.00	638	0.9	0.0	0.00	26.3
Feb-13	7.6	83.22	5.08	520	0.0	0.0	0.00	11.2

New Monitoring Wells Completed 19 August 2004 and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #5	#5	#5	#5	#5	#5	#5	#5
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.5	84.89	3.41	566	0.0	0.0	0.00	10.4
Aug-13	7.6	84.55	3.75	638	0.0	0.0	0.00	5.7
Dec-13	7.8	83.55	4.75	680	0.2	0.0	0.00	10.5
Averages	7.7	84.12	4.18	599	0.4	2.6	0.07	13.9
Min	7.3	81.45	2.50	462	0.0	0.0	0.00	3.3
Max	8.2	85.80	6.85	930	1.2	88.0	2.40	83.7

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #6	#6	#6	#6	#6	#6	#6	#6
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.5	81.52	5.00	770	0.0	0.0	0.00	11.0
Nov-04	7.9	85.02	1.50	699	0.0	0.3	0.00	9.3
Feb-05	7.5	84.27	2.25	689	0.3	23.6	0.80	11.4
May-05	7.9	81.19	5.33	750	0.0	0.6	0.00	16.0
Aug-05	7.5	84.10	2.42	751	0.0	5.0	0.13	7.2
Nov-05	7.6	81.40	5.12	748	0.0	0.3	0.00	7.5
Feb-06	7.1	82.69	3.83	700	0.0	0.4	0.00	6.7
May-06	7.7	82.11	4.41	666	0.0	0.0	0.00	8.9
Aug-06	7.4	84.36	2.16	682	1.0	0.0	0.00	10.5
Dec-06	7.6	82.85	3.67	685	0.0	0.0	0.00	14.8
Feb-07	7.5	80.86	5.66	669	0.0	0.0	0.00	16.5
May-07	7.6	82.77	3.75	600	0.7	0.0	0.00	6.6
Aug-07	7.6	82.19	4.33	600	1.1	0.0	0.00	12.8
Nov-07	7.5	81.69	4.83	741	0.6	0.0	0.00	12.7
Mar-08	7.5	82.60	3.92	658	0.4	0.0	0.00	12.8
May-08	7.5	81.77	4.75	739	0.5	0.0	0.00	6.5
Aug-08	7.9	84.94	1.58	680	0.7	0.0	0.00	7.2
Nov-08	7.8	83.27	3.25	725	0.2	0.0	0.00	8.2
Mar-09	7.8	82.94	3.58	710	0.2	0.0	0.00	7.9
May-09	7.9	79.69	6.83	730	0.4	0.3	0.11	11.6
Aug-09	7.9	80.69	5.83	725	1.1	0.0	0.00	12.0
Nov-09	7.3	83.27	3.25	695	0.3	0.0	0.00	7.5
Mar-10	7.3	83.19	3.33	765	0.5	0.0	0.00	4.7
Jun-10	7.5	81.94	4.58	821	0.3	0.0	0.00	8.5
Aug-10	7.4	83.35	3.17	704	0.5	0.0	0.00	5.9
Nov-10	7.2	83.35	3.17	710	0.3	0.0	0.00	3.2
Feb-11	7.4	83.69	2.83	779	0.6	0.0	0.00	4.2
May-11	7.4	82.44	4.08	634	0.2	0.0	0.00	5.2
Aug-11	7.5	84.19	2.33	825	0.3	0.0	0.00	5.8
Nov-11	7.4	86.11	0.41	840	0.2	0.2	0.00	6.5
Mar-12	7.4	82.60	3.92	797	0.4	0.0	0.00	5.0
May-12	7.6	80.94	5.58	740	0.4	0.0	0.00	5.9
Aug-12	7.1	81.94	4.58	780	0.0	0.0	0.00	7.1
Nov-12	7.4	81.60	4.92	674	0.3	0.0	0.00	5.6
Feb-13	7.3	81.44	5.08	735	0.0	0.0	0.00	8.8

New Monitoring Wells Completed 19 August 2004 and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #6	#6	#6	#6	#6	#6	#6	#6
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.5	81.52	5.00	666	0.0	0.0	0.00	9.7
Aug-13	7.3	82.02	4.50	685	0.0	0.0	0.00	7.8
Dec-13	7.6	82.02	4.50	820	0.4	0.0	0.01	5.5
Averages	7.5	82.59	3.93	721	0.3	0.8	0.03	8.5
Min	7.1	79.69	0.41	600	0.0	0.0	0.00	3.2
Max	7.9	86.11	6.83	840	1.1	23.6	0.80	16.5

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #7	#7	#7	#7	#7	#7	#7	#7
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.5	80.41	4.75	534	0.0	0.0	0.00	11.0
Nov-04	7.5	81.66	3.50	542	0.0	0.2	0.22	9.9
Feb-05	7.4	82.50	2.66	531	0.0	56.0	2.20	11.8
May-05	7.9	80.99	4.17	536	0.3	0.8	0.13	11.5
Aug-05	7.6	81.74	3.42	528	0.0	1.8	0.34	7.0
Nov-05	7.5	81.16	4.00	554	0.0	0.3	0.14	8.6
Feb-06	7.2	80.83	4.33	563	0.0	0.6	0.00	7.5
May-06	7.6	80.96	4.20	616	0.0	0.0	0.00	8.4
Aug-06	7.3	77.12	8.04	619	0.7	0.0	0.00	6.8
Dec-06	7.2	81.74	3.42	647	0.0	0.0	0.14	4.3
Feb-07	7.4	81.24	3.92	742	0.0	0.0	1.00	13.1
May-07	7.5	82.49	2.67	624	0.8	0.1	0.00	6.2
Aug-07	7.5	82.58	2.58	615	1.0	0.0	0.00	7.9
Nov-07	7.4	81.00	4.16	694	0.5	0.0	0.14	5.2
Mar-08	7.4	81.37	3.79	607	0.2	0.0	0.00	13.8
May-08	7.5	82.50	2.66	591	0.5	0.0	0.00	3.7
Aug-08	8.0	82.08	3.08	613	0.5	0.0	0.00	7.0
Nov-08	8.0	81.58	3.58	710	0.2	0.0	0.00	9.9
Mar-09	7.5	81.75	3.41	698	0.5	0.0	0.11	12.4
May-09	7.7	80.91	4.25	655	0.4	0.0	0.15	14.6
Aug-09	7.9	77.33	7.83	680	0.9	0.0	0.00	10.4
Nov-09	7.3	81.58	3.58	678	0.3	0.0	0.00	2.4
Mar-10	7.3	82.00	3.16	652	0.4	0.0	0.14	4.2
Jun-10	7.5	81.83	3.33	665	0.3	0.0	0.00	4.3
Aug-10	7.4	82.74	2.42	584	0.2	0.0	0.08	4.7
Nov-10	7.3	81.83	3.33	620	0.2	0.0	0.00	3.1
Feb-11	7.4	82.24	2.92	696	0.5	0.1	0.16	3.8
May-11	7.4	82.16	3.00	567	0.5	0.0	0.00	4.8
Aug-11	7.6	83.49	1.67	710	0.6	0.0	0.00	6.5
Nov-11	7.3	82.58	2.58	830	0.5	0.3	0.33	5.5
Mar-12	7.4	81.83	3.33	675	0.5	0.0	0.72	5.8
May-12	7.6	80.16	5.00	659	0.5	0.0	0.78	4.4
Aug-12	7.0	82.66	2.50	710	0.0	0.0	0.00	5.0
Nov-12	7.4	80.24	4.92	653	0.5	0.0	0.56	1.1
Feb-13	7.3	80.50	4.66	644	0.0	0.0	0.00	2.5

New Monitoring Wells Completed 19 August 2004

and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #7	#7	#7	#7	#7	#7	#7	#7
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.4	81.75	3.41	653	0.0	0.0	0.00	8.8
Aug-13	7.3	82.33	2.83	720	0.0	0.0	0.00	2.1
Dec-13	7.6	80.83	4.33	762	0.4	0.1	0.19	2.0
Averages	7.5	81.44	3.72	641	0.3	1.6	0.20	6.9
Min	7.0	77.12	1.67	528	0.0	0.0	0.00	1.1
Max	8.0	83.49	8.04	830	1.0	56.0	2.20	14.6

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #8	#8	#8	#8	#8	#8	#8	#8
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.3	74.81	2.66	512	0.0	0.0	0.00	0.0
Nov-04	7.5	73.87	3.60	732	0.0	0.3	1.24	2.2
Feb-05	7.2	75.47	2.00	755	0.4	35.2	1.90	0.4
May-05	7.4	72.01	5.46	699	0.6	0.5	0.87	0.0
Aug-05	7.7	73.97	3.50	729	0.0	2.6	0.00	8.8
Nov-05	7.3	71.14	6.33	737	0.0	0.2	1.13	0.5
Feb-06	7.0	73.56	3.91	721	0.0	0.5	0.36	0.3
May-06	7.3	73.47	4.00	787	0.0	0.0	0.00	0.9
Aug-06	7.1	69.93	7.54	700	1.0	0.0	0.00	2.1
Dec-06	7.5	74.22	3.25	753	0.0	0.0	0.00	1.4
Feb-07	7.2	74.13	3.34	934	0.0	0.0	0.00	2.7
May-07	7.2	73.47	4.00	645	0.8	0.7	0.43	0.3
Aug-07	7.3	74.47	3.00	776	0.8	0.0	0.00	4.7
Nov-07	7.2	73.56	3.91	850	0.7	0.0	0.48	1.3
Mar-08	7.2	74.01	3.46	820	0.1	0.0	0.00	9.0
May-08	7.2	74.31	3.16	963	0.5	0.0	0.65	1.7
Aug-08	7.7	73.89	3.58	942	0.5	0.0	0.56	4.1
Nov-08	7.5	74.22	3.25	815	0.2	0.0	0.15	4.0
Mar-09	7.5	74.97	2.50	712	0.3	0.0	0.21	4.0
May-09	7.7	73.64	3.83	718	0.3	0.0	0.32	6.5
Aug-09	8.1	69.06	8.41	780	0.9	0.0	0.00	6.9
Nov-09	7.1	74.22	3.25	776	0.5	0.0	0.00	3.5
Mar-10	7.1	74.14	3.33	820	0.3	0.0	0.70	0.4
Jun-10	7.8	73.65	3.82	735	0.5	0.0	0.00	5.5
Aug-10	7.3	74.47	3.00	748	0.0	0.0	0.49	3.5
Nov-10	7.0	74.55	2.92	747	0.2	0.0	0.35	1.1
Feb-11	7.2	75.47	2.00	937	0.4	0.3	0.86	5.3
May-11	7.1	73.64	3.83	809	0.3	0.0	0.00	1.9
Aug-11	7.3	74.39	3.08	1,017	0.2	0.0	0.00	0.0
Nov-11	7.2	74.89	2.58	996	0.5	1.1	0.47	2.0
Mar-12	7.3	74.47	3.00	842	0.3	0.0	1.15	2.2
May-12	7.4	72.14	5.33	855	0.4	0.0	1.21	2.7
Aug-12	6.8	72.97	4.50	966	0.0	0.0	0.00	1.3
Nov-12	7.1	72.55	4.92	876	0.3	0.0	0.85	0.9
Feb-13	7.3	73.39	4.08	800	0.0	0.0	0.00	2.5

New Monitoring Wells Completed 19 August 2004 and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #8	#8	#8	#8	#8	#8	#8	#8
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.1	72.47	5.00	870	0.0	0.0	0.00	9.0
Aug-13	7.1	73.56	3.91	954	0.0	0.0	0.00	0.0
Dec-13	7.5	73.05	4.42	859	0.4	0.0	0.96	1.0
Averages	7.3	73.58	3.89	808	0.3	1.1	0.40	2.7
Min	6.8	69.06	2.00	512	0.0	0.0	0.00	0.0
Max	8.1	75.47	8.41	1,017	1.0	35.2	1.90	9.0

MORNING STAR PACKING COMPANY

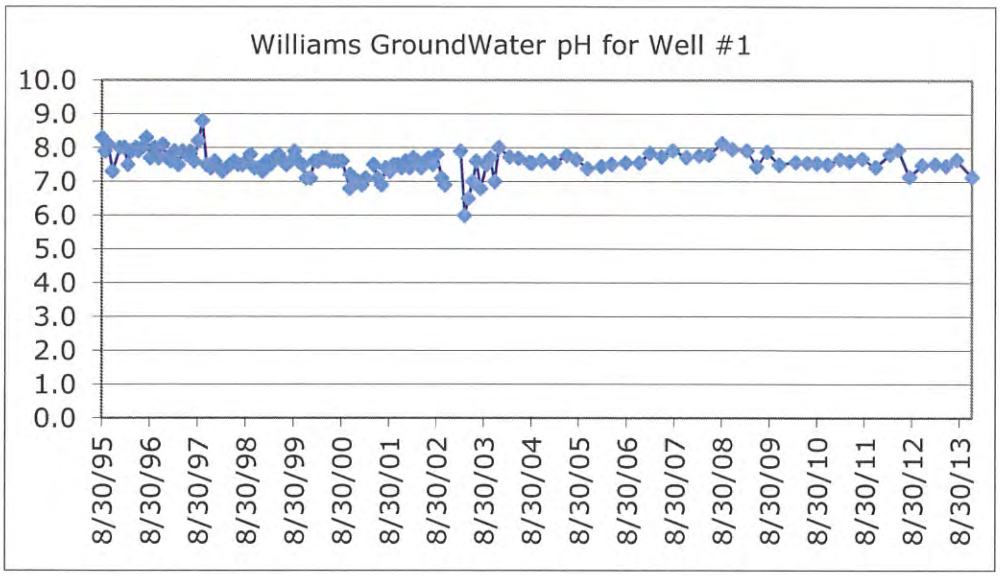
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #9	#9	#9	#9	#9	#9	#9	#9
Date	pH	Elevation	Depth to GroundWater	TDS	TKN	Iron	Manganese	Nitrate Nitrogen
May-03								
Jun-03								
Jul-03								
Aug-03								
Sep-03								
Oct-03								
Nov-03								
Dec-03								
Mar-04								
May-04								
Aug-04								
Sep-04	7.8	76.12	3.58	1,080	0.2	0.0	0.00	23.0
Nov-04	7.7	76.40	3.30	1,204	0.0	0.2	0.91	30.8
Feb-05	7.6	78.70	1.00	1,157	0.3	4.5	0.26	26.6
May-05	8.0	76.70	3.00	904	0.2	0.6	0.00	20.8
Aug-05	7.7	75.28	4.42	936	0.2	2.3	0.00	19.6
Nov-05	7.8	73.83	5.87	951	0.0	0.5	0.11	26.8
Feb-06	7.5	76.53	3.17	780	0.0	0.5	0.11	12.0
May-06	7.8	77.37	2.33	950	0.0	0.0	0.00	8.4
Aug-06	7.6	77.25	2.45	857	0.7	0.0	0.00	8.1
Dec-06	8.0	76.20	3.50	732	0.0	0.0	0.00	11.5
Feb-07	7.8	75.83	3.87	952	0.0	0.0	0.00	15.4
May-07	7.7	77.28	2.42	862	0.7	2.9	0.00	7.8
Aug-07	7.8	76.29	3.41	859	1.2	0.0	0.00	11.2
Nov-07	7.7	75.95	3.75	861	0.4	0.0	0.00	10.7
Mar-08	7.7	77.28	2.42	813	0.2	0.0	0.00	7.7
May-08	7.8	76.12	3.58	865	0.5	0.0	0.00	4.3
Aug-08	8.2	75.95	3.75	885	0.5	0.0	0.00	6.1
Nov-08	8.0	76.37	3.33	830	0.2	0.0	0.15	8.8
Mar-09	7.8	77.29	2.41	817	0.5	0.0	0.00	10.2
May-09	7.7	74.12	5.58	775	0.3	0.2	0.12	12.8
Aug-09	8.2	75.87	3.83	885	1.2	0.0	0.00	13.8
Nov-09	7.6	76.45	3.25	830	0.3	0.0	0.45	8.8
Mar-10	7.6	77.29	2.41	836	0.2	0.0	0.00	7.2
Jun-10	8.1	77.03	2.67	832	0.5	0.0	0.00	36.8
Aug-10	7.7	77.03	2.67	799	0.7	0.0	0.09	12.8
Nov-10	7.5	77.53	2.17	862	0.6	0.0	0.00	10.1
Feb-11	7.7	78.70	1.00	935	0.4	0.0	0.00	5.9
May-11	7.6	77.78	1.92	843	0.3	0.0	0.00	10.6
Aug-11	7.6	78.03	1.67	1,353	0.4	0.0	0.00	16.6
Nov-11	7.6	78.12	1.58	1,225	0.3	0.5	0.00	13.7
Mar-12	7.7	77.37	2.33	1,015	0.3	0.0	0.00	14.6
May-12	8.3	75.62	4.08	989	0.2	0.0	0.00	24.4
Aug-12	7.4	77.20	2.50	1,050	0.0	0.0	0.00	18.7
Nov-12	7.5	74.37	5.33	992	0.2	0.0	0.00	11.3
Feb-13	7.5	75.70	4.00	1,110	0.0	0.0	0.00	12.5

New Monitoring Wells Completed 19 August 2004 and Sampled 4 September 2004

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents							
Location	Well #9	#9	#9	#9	#9	#9	#9	#9
Date	pH	Elevation	Depth to	TDS	TKN	Iron	Manganese	Nitrate
			GroundWater					Nitrogen
May-13	7.4	78.20	1.50	855	0.0	0.0	0.00	11.4
Aug-13	7.6	78.70	1.00	972	0.0	0.0	0.00	11.3
Dec-13	7.8	71.12	8.58	1,040	0.2	0.0	0.14	7.0
Averages	7.7	76.55	3.15	934	0.3	0.3	0.06	13.9
Min	7.4	71.12	1.00	732	0.0	0.0	0.00	4.3
Max	8.3	78.70	8.58	1,353	1.2	4.5	0.91	36.8


Williams GroundWater pH for Well #1
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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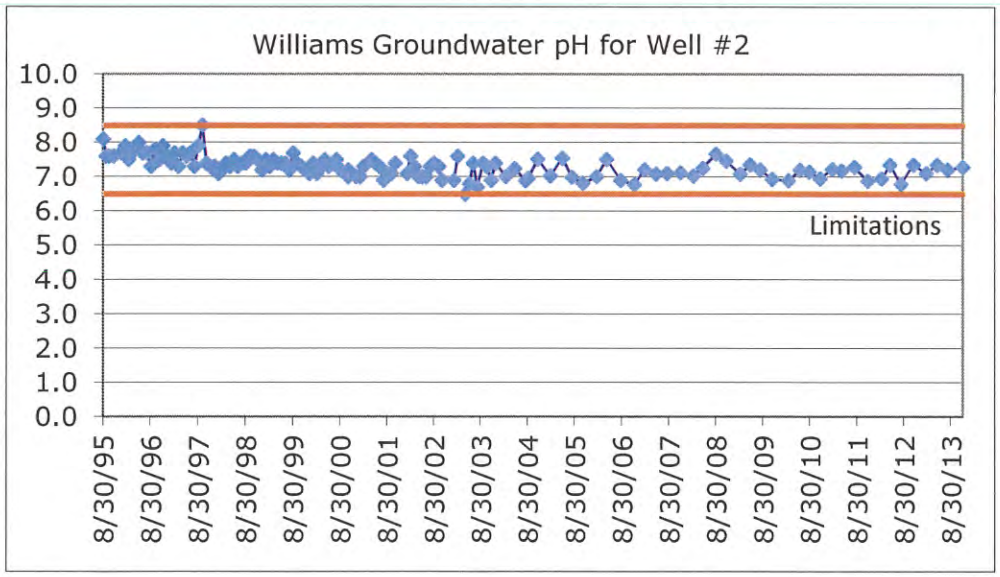
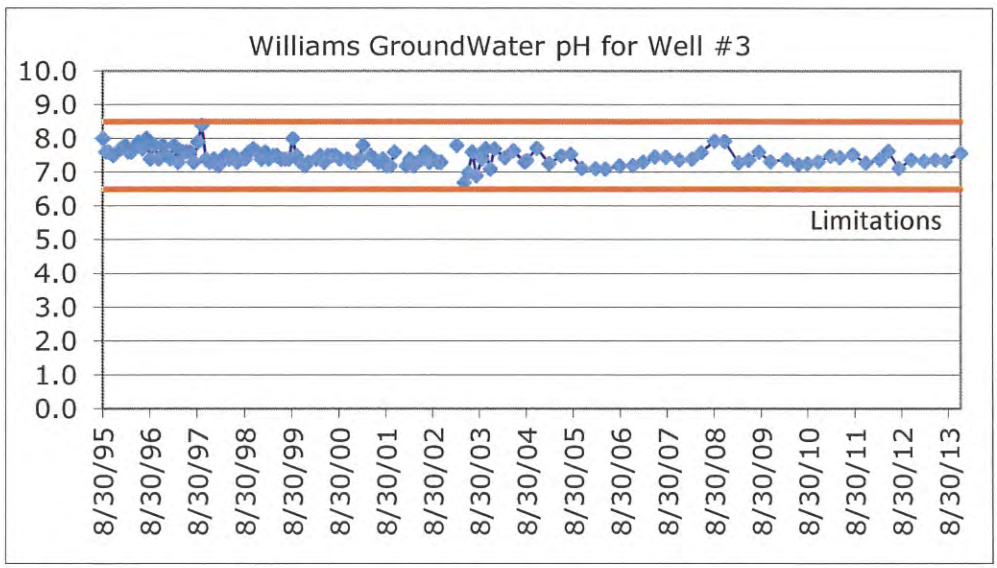
8/30/10
8/30/11
8/30/12
8/30/13


Williams Groundwater pH for Well #2
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #3
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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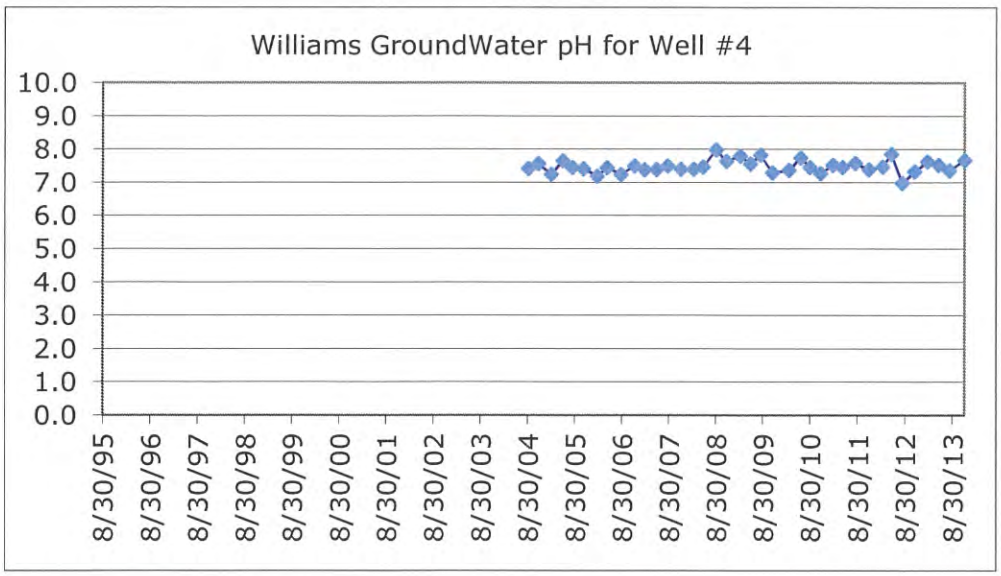
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #4
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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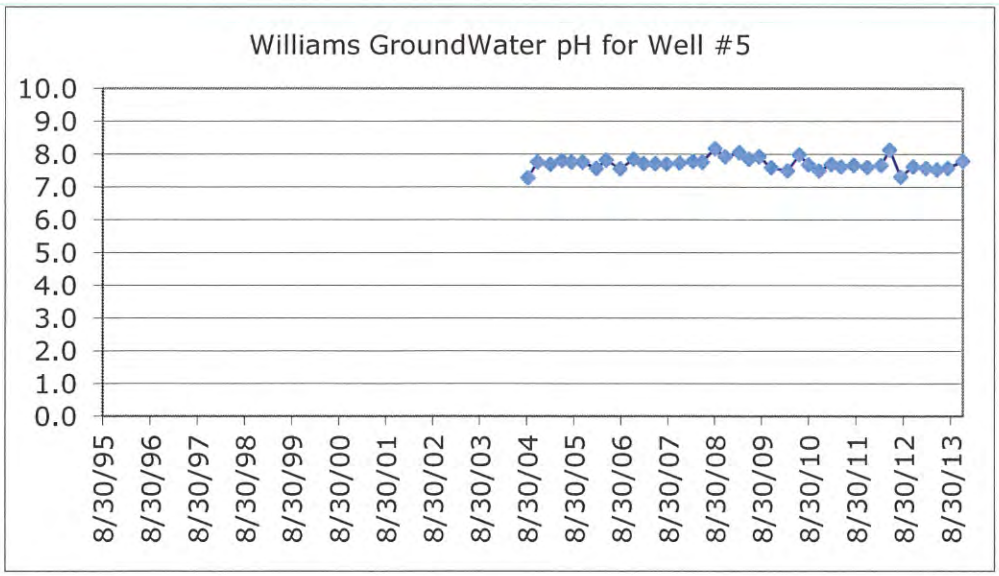
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #5
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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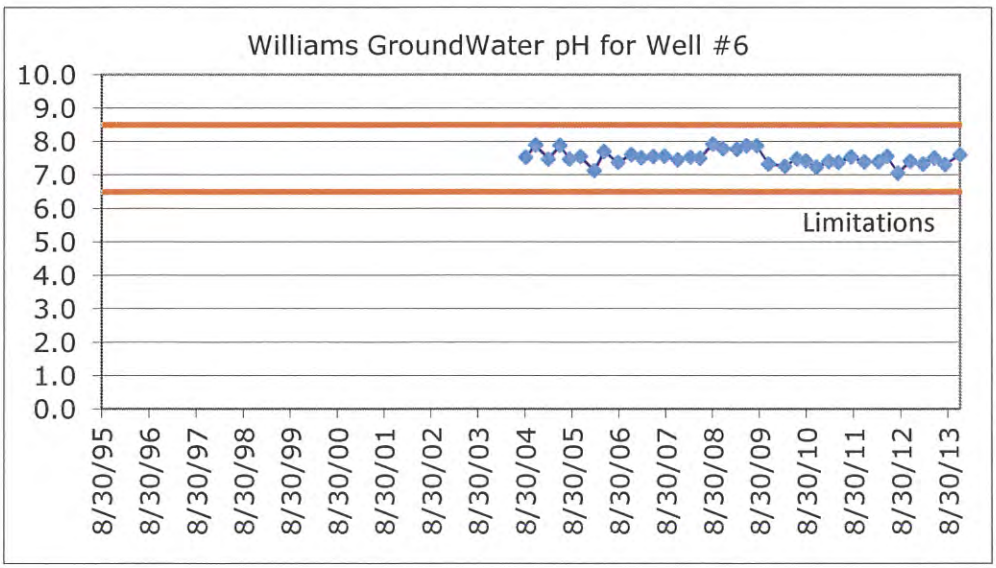
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #6
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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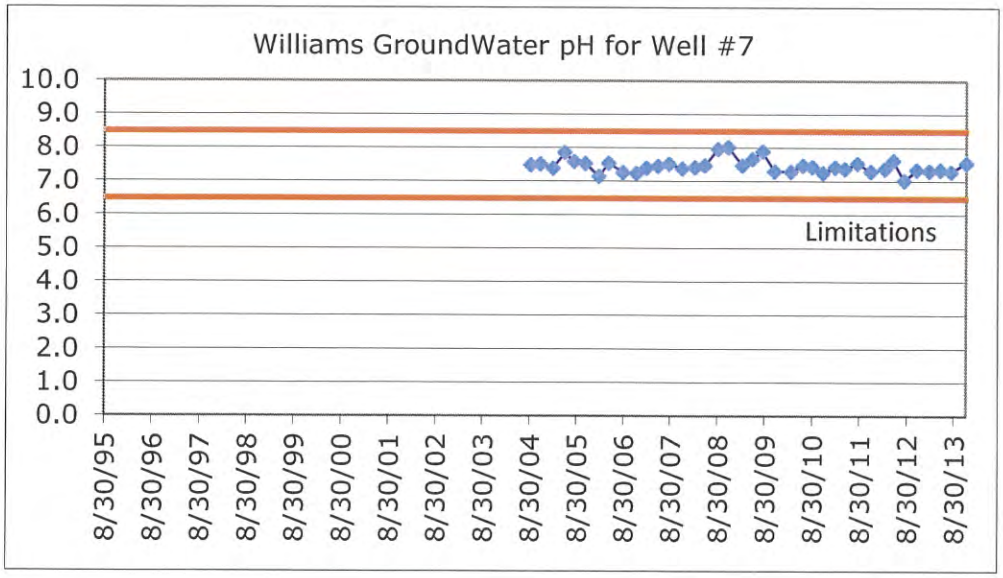
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #7
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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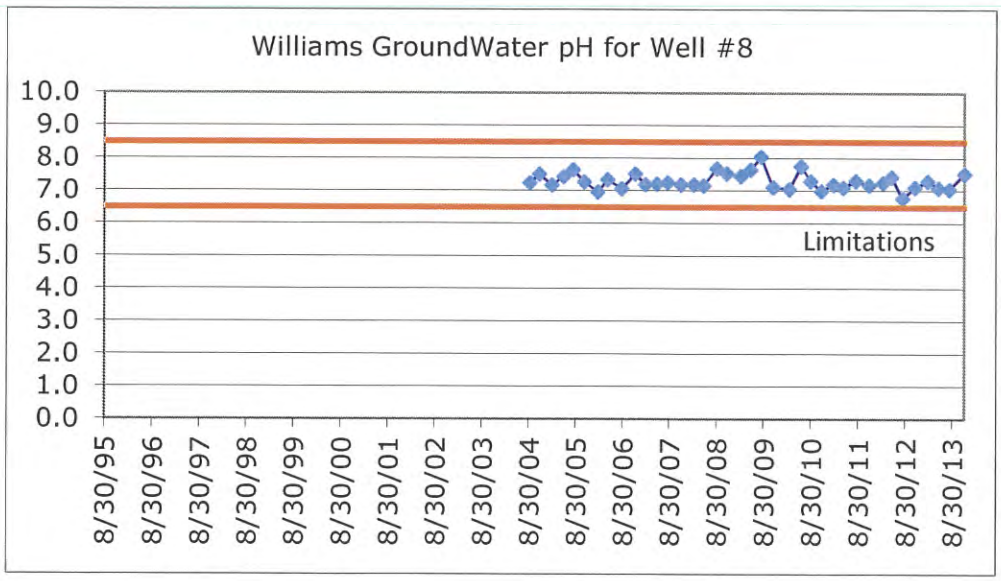
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #8
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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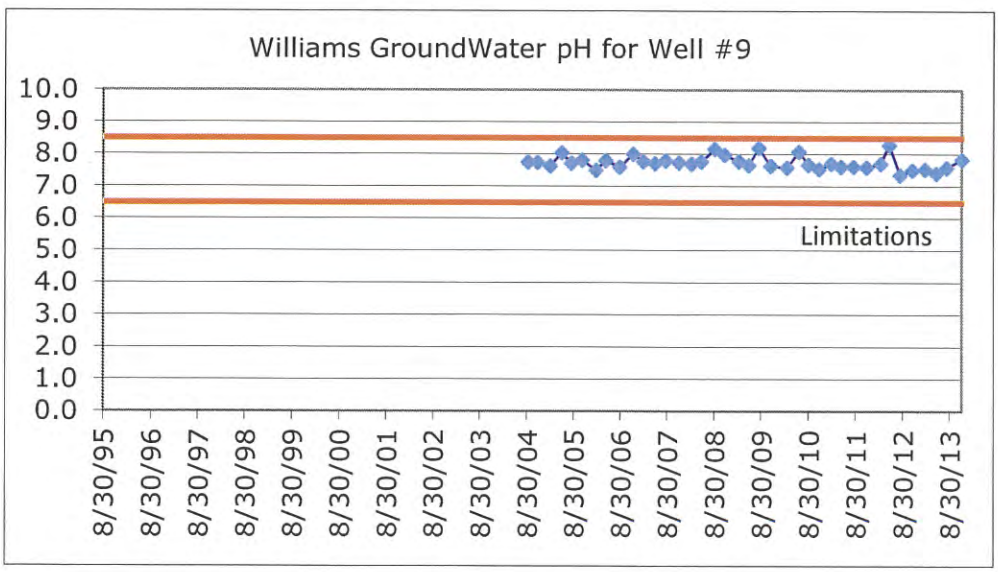
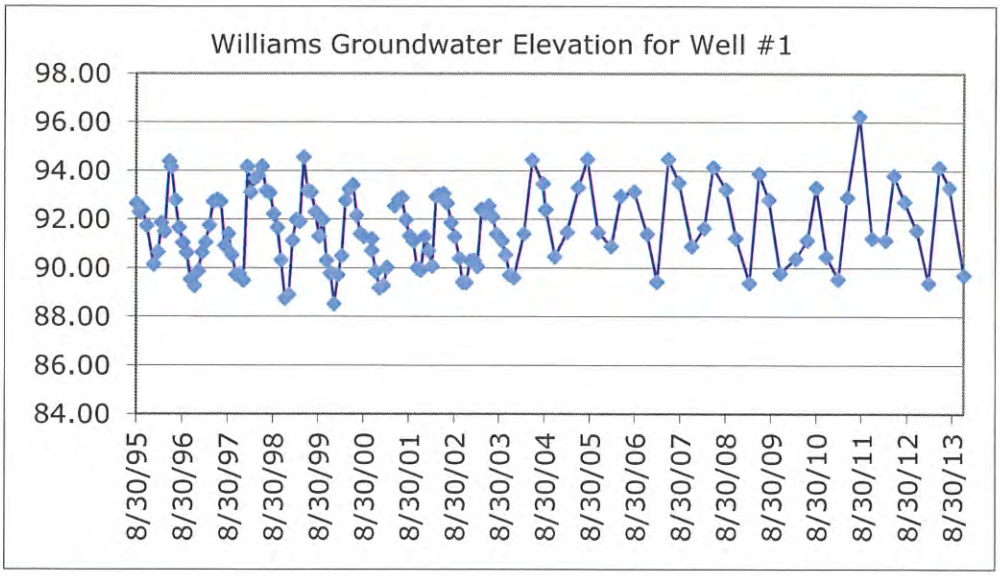
8/30/11
8/30/12
8/30/13


Williams GroundWater pH for Well #9
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams Groundwater Elevation for Well #1
98.00
96.00
94.00
92.00
90.00
88.00
86.00
84.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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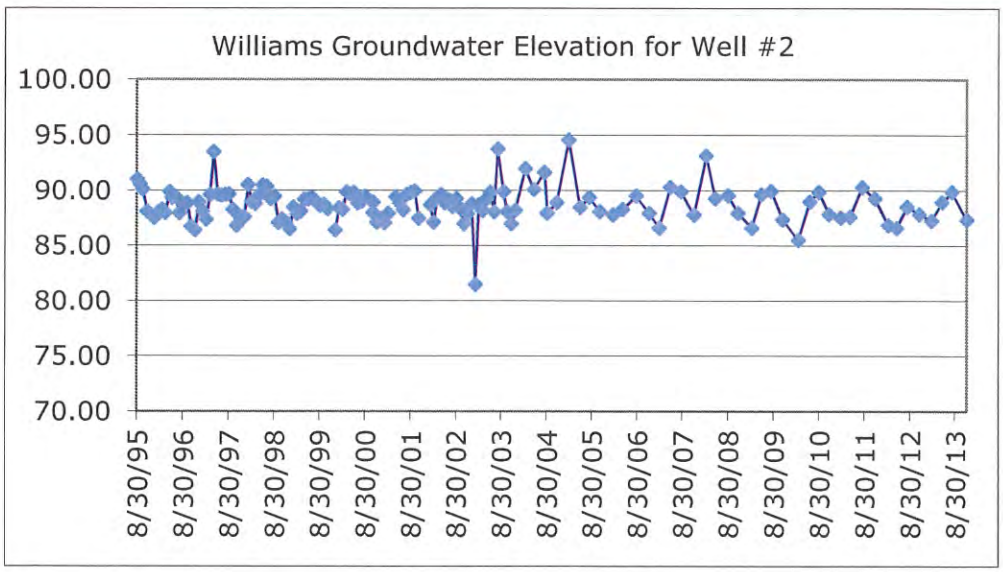
8/30/12
8/30/13


Williams Groundwater Elevation for Well #2
100.00
95.00
90.00
85.00
80.00
75.00
70.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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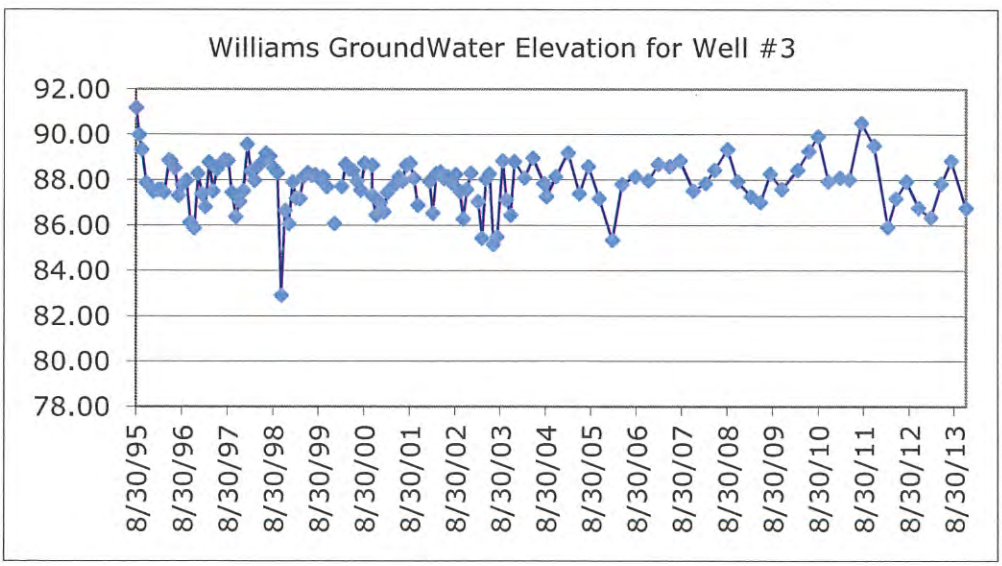
8/30/11
8/30/12
8/30/13


Williams GroundWater Elevation for Well #3
92.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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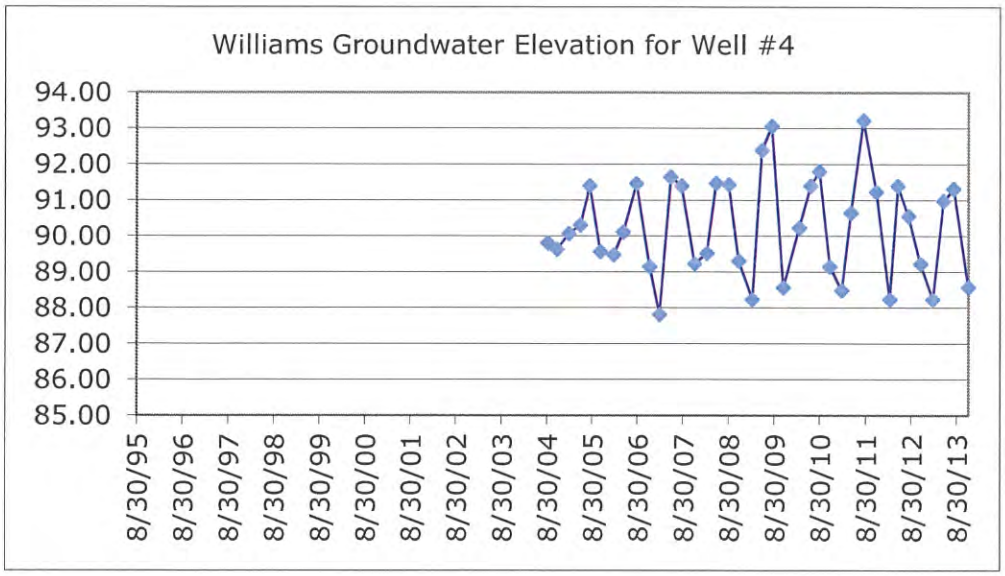
8/30/12
8/30/13


Williams Groundwater Elevation for Well #4
94.00
93.00
92.00
91.00
90.00
89.00
88.00
87.00
86.00
85.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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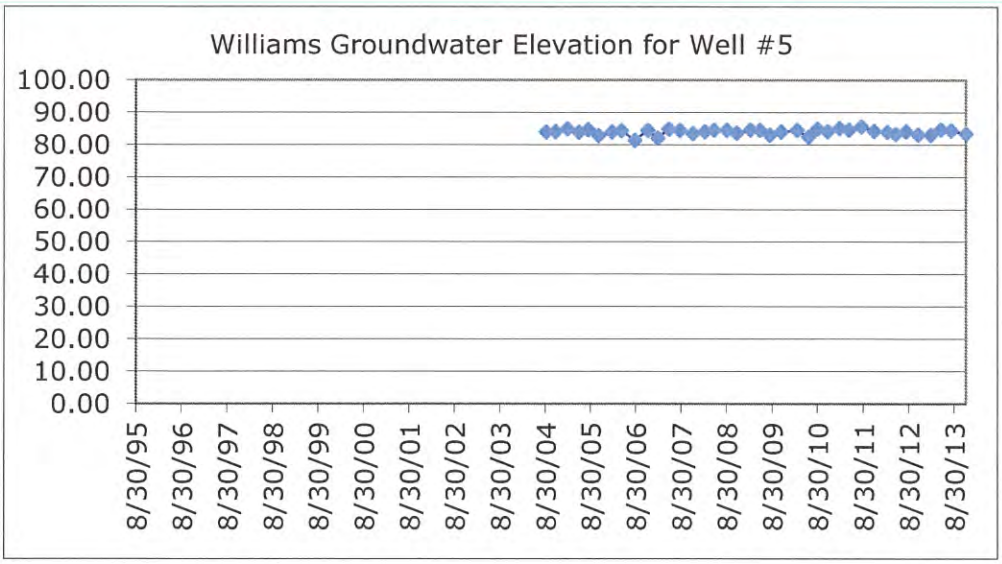
8/30/12
8/30/13


Williams Groundwater Elevation for Well #5
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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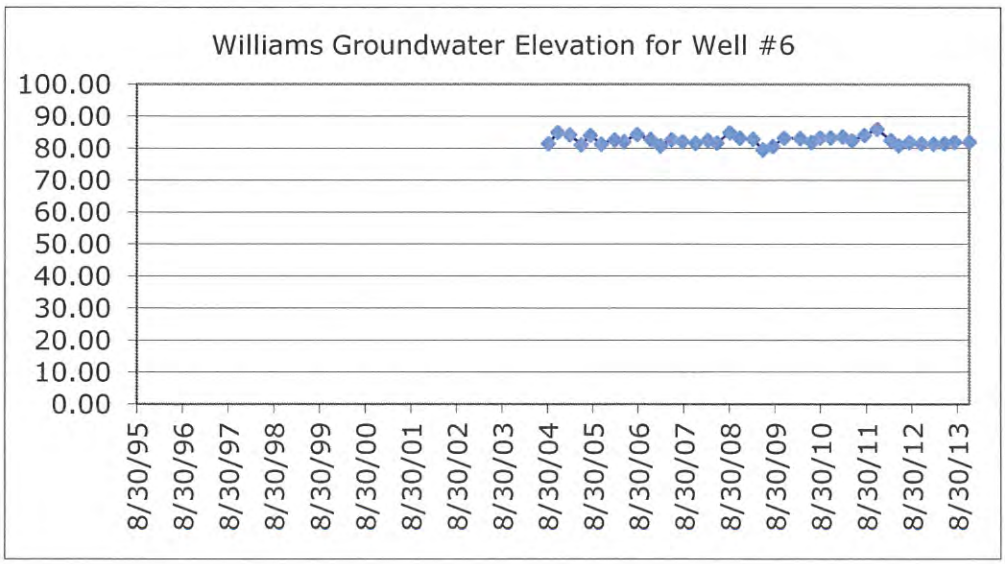
8/30/12
8/30/13


Williams Groundwater Elevation for Well #6
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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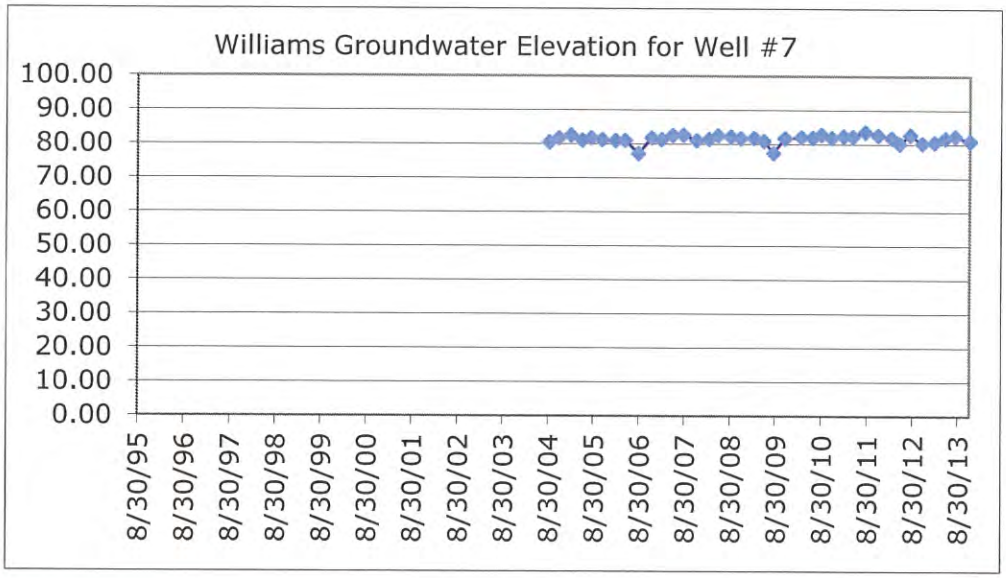
8/30/11
8/30/12
8/30/13


Williams Groundwater Elevation for Well #7
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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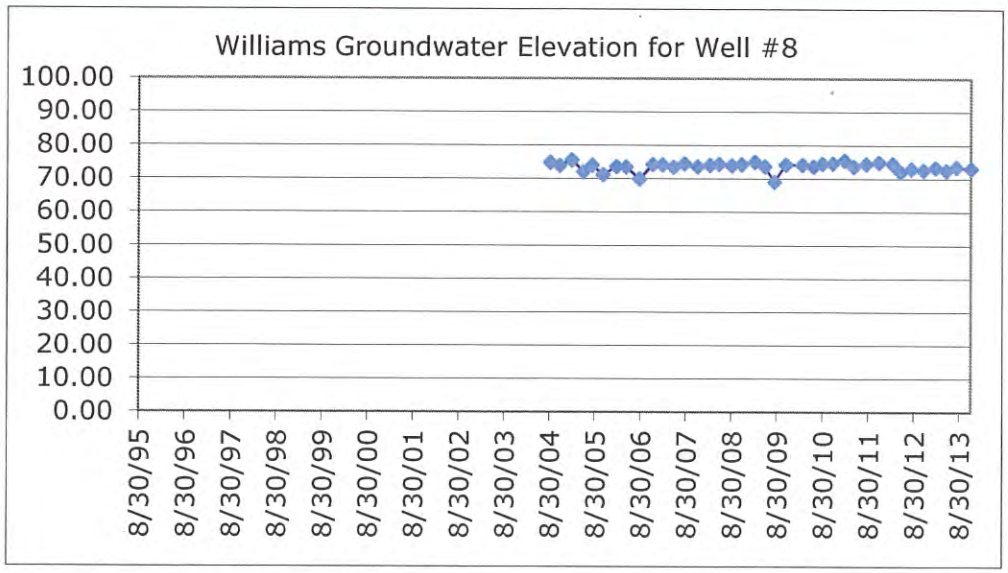
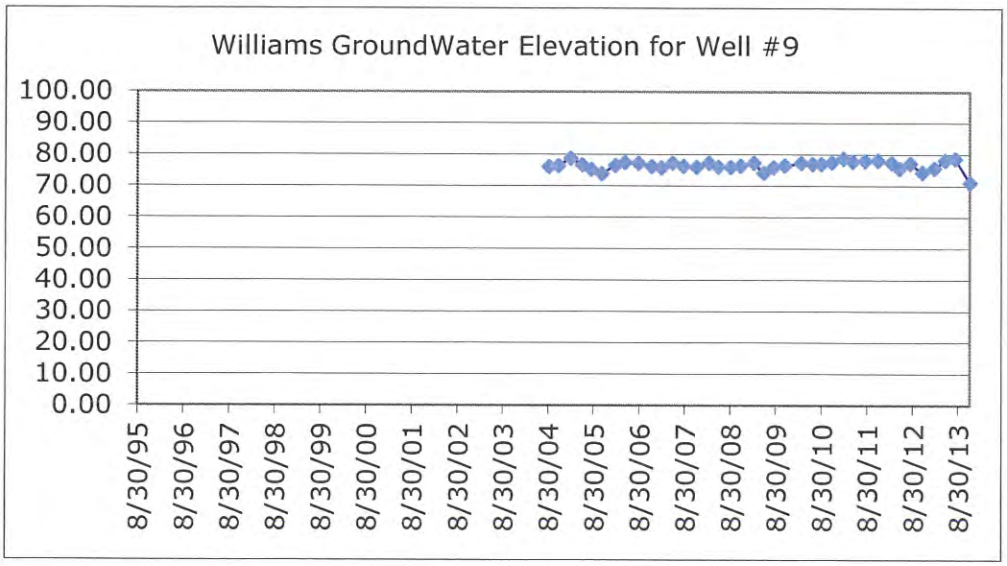
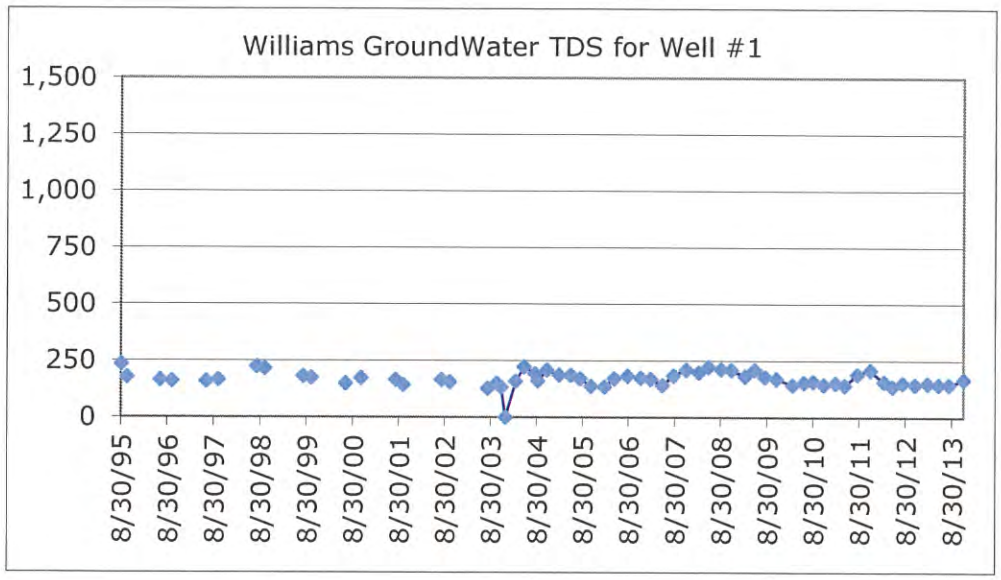
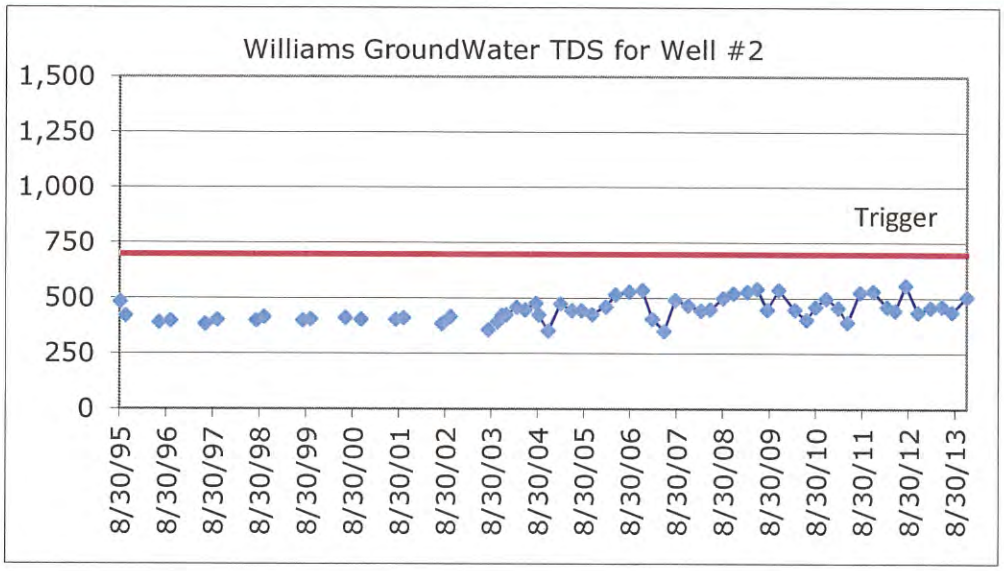
8/30/12
8/30/13


Williams Groundwater Elevation for Well #8
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Elevation for Well #9
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #1
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #2
1,500
1,250
1,000
750
500
250
0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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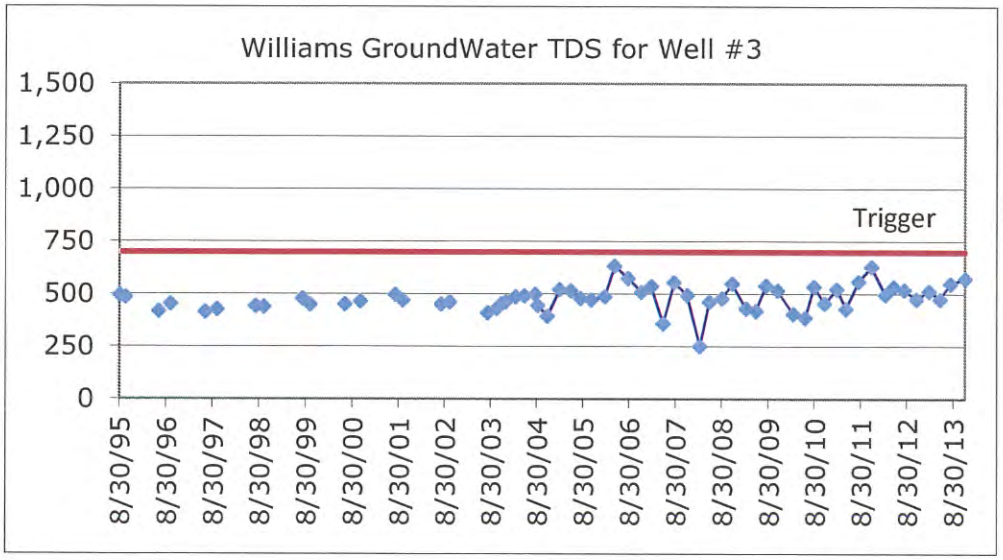
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #3
1,500
1,250
1,000
750
500
250
0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/09
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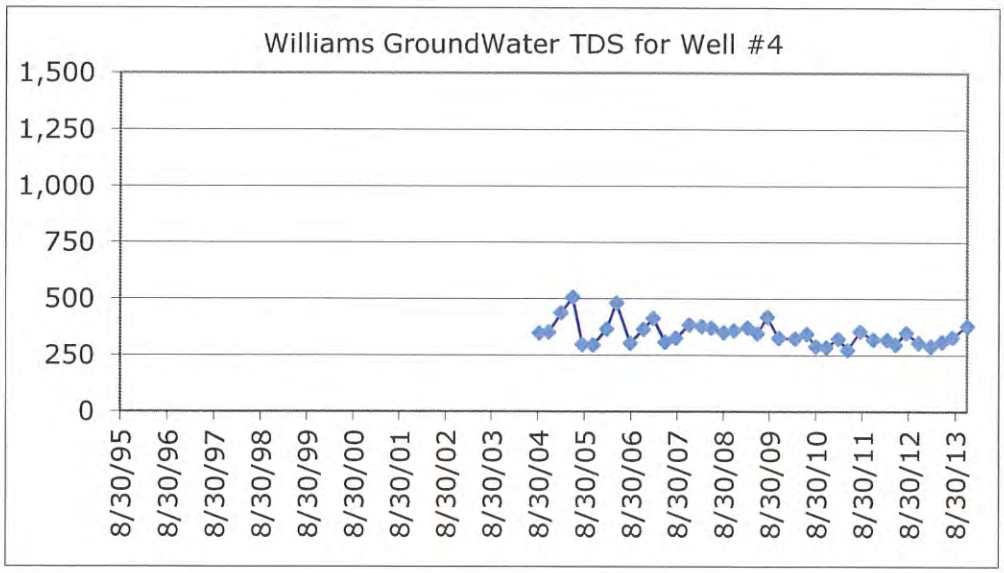
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #4
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/07
8/30/08
8/30/09
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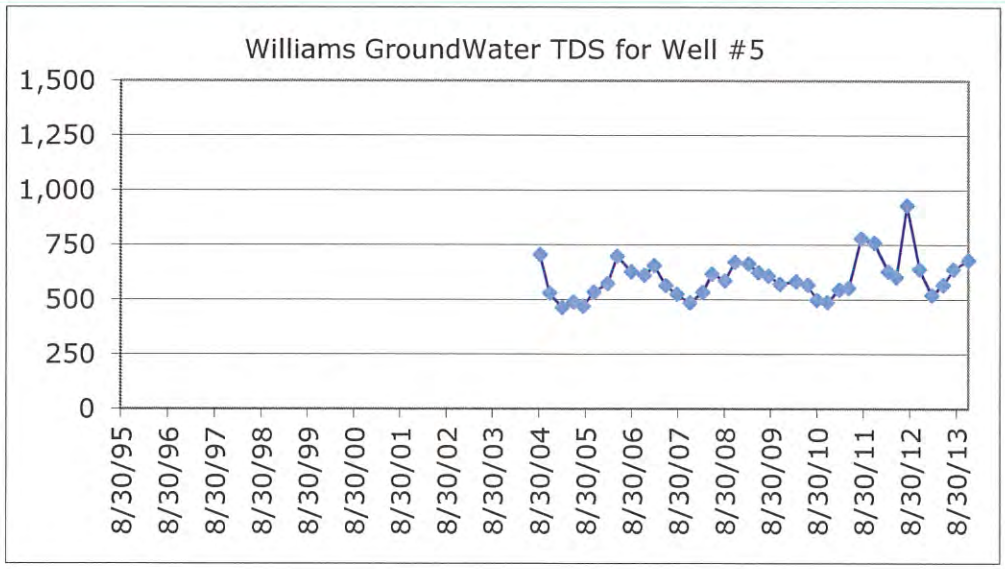
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #5
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/08
8/30/09
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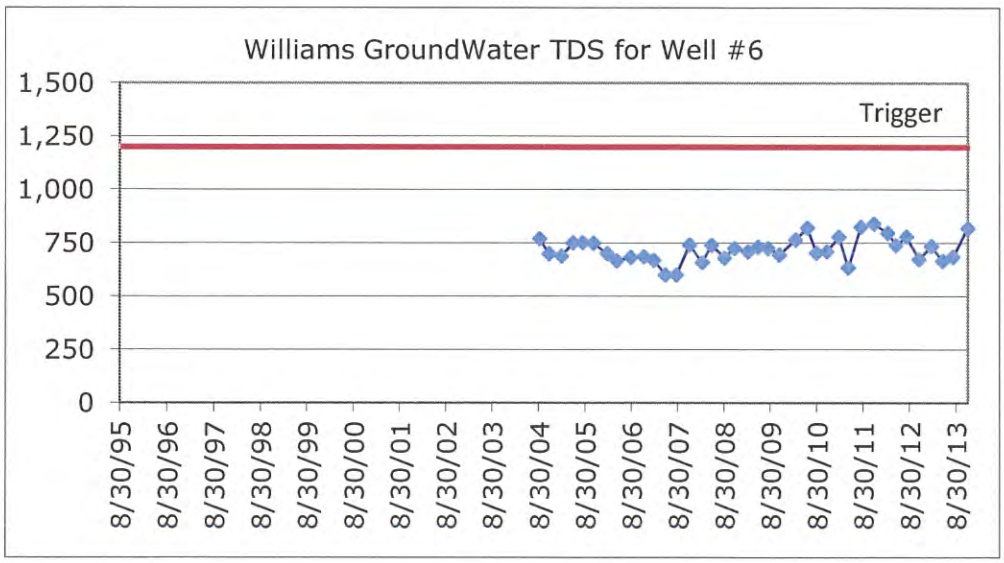
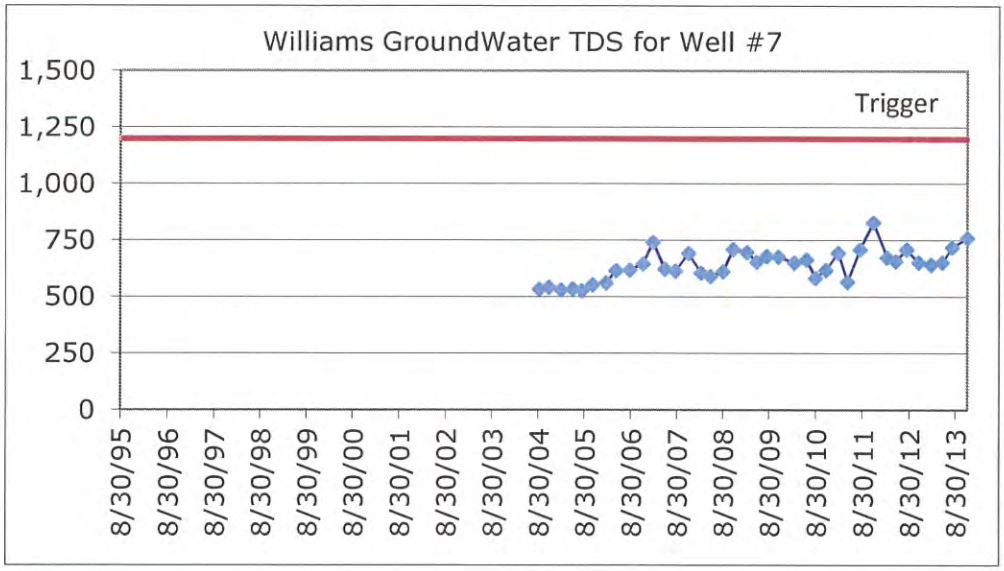
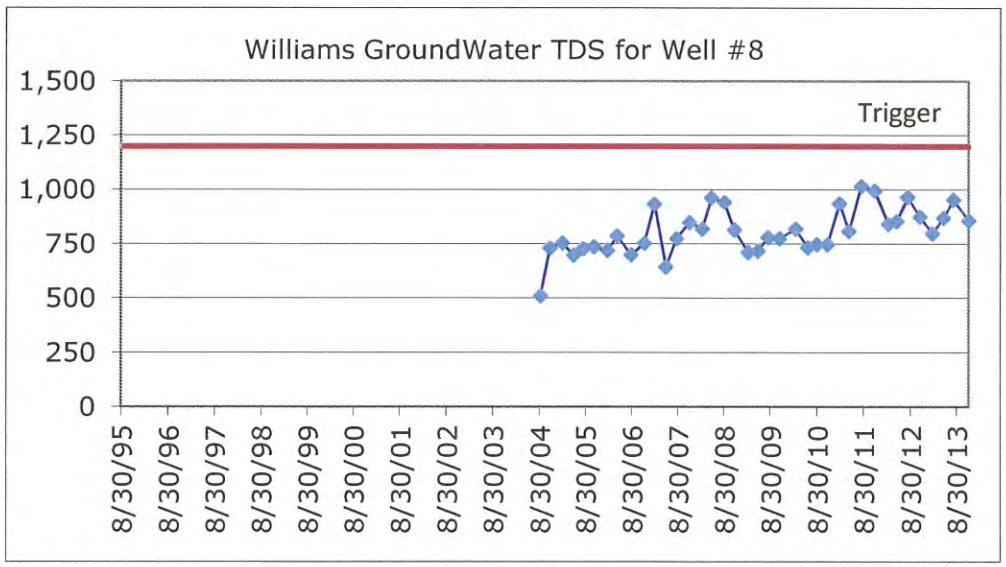
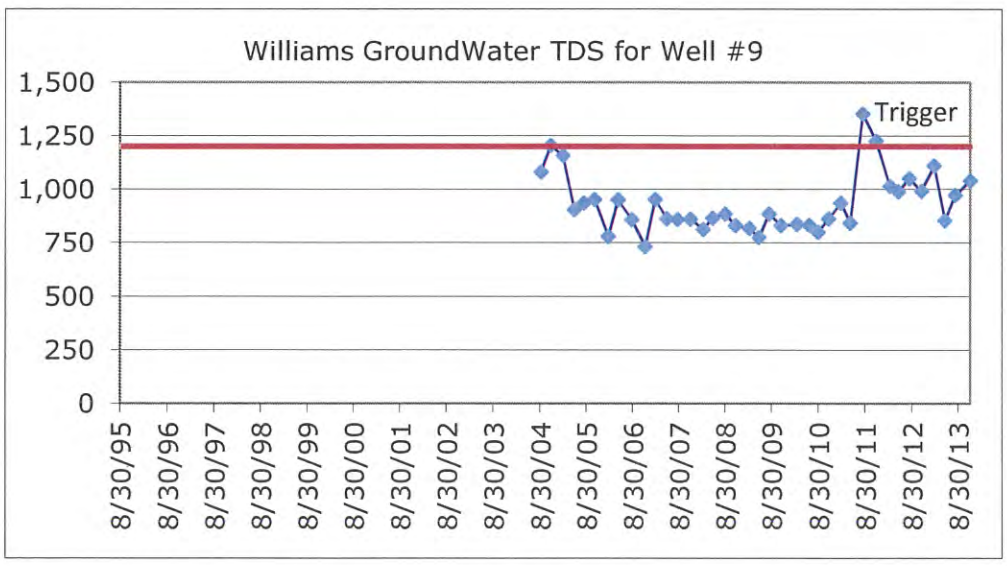
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #6
Trigger
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #7
Trigger
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #8
Trigger
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TDS for Well #9
Trigger
1,500
1,250
1,000
750
500
250
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/07
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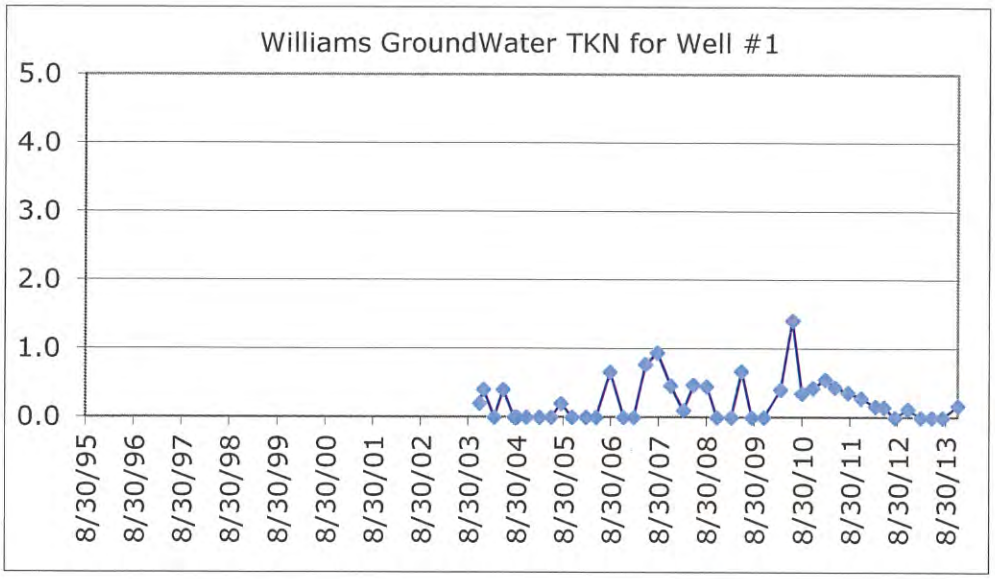
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #1
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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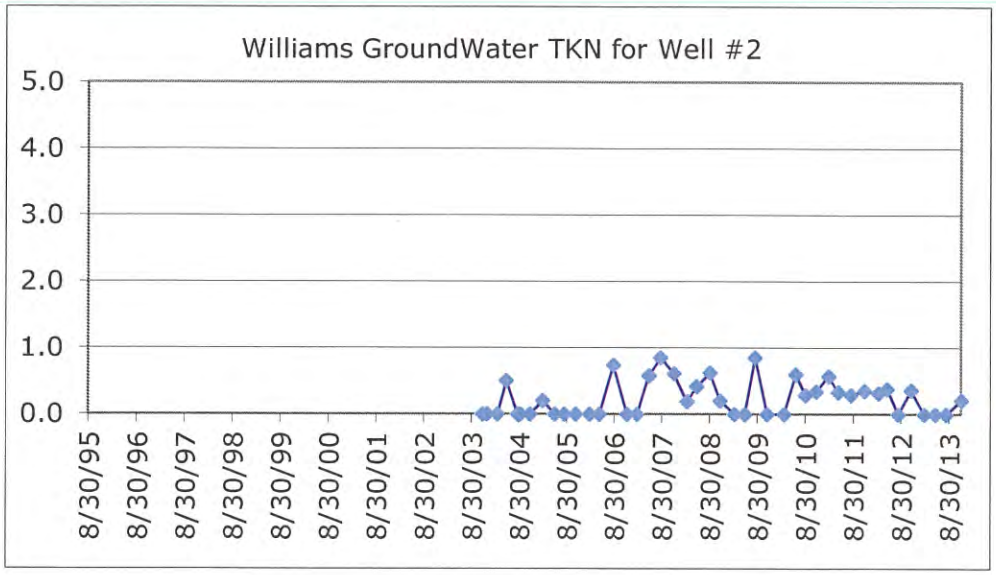
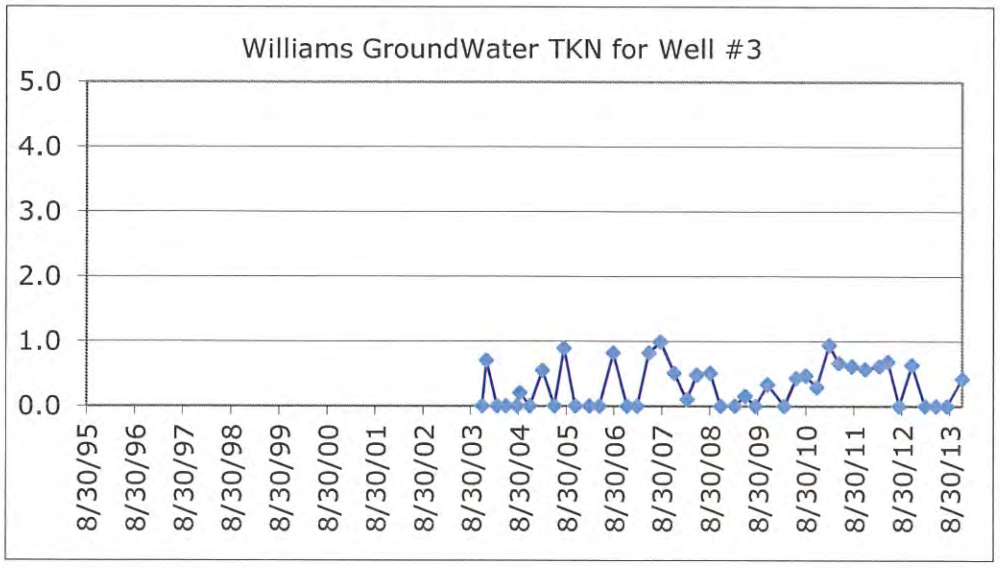
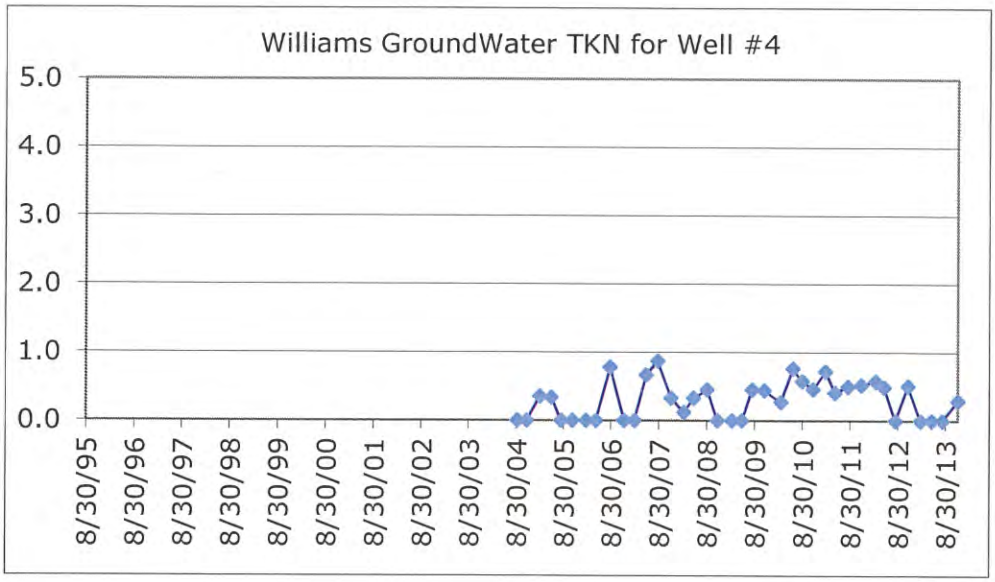
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #2
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #3
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #4
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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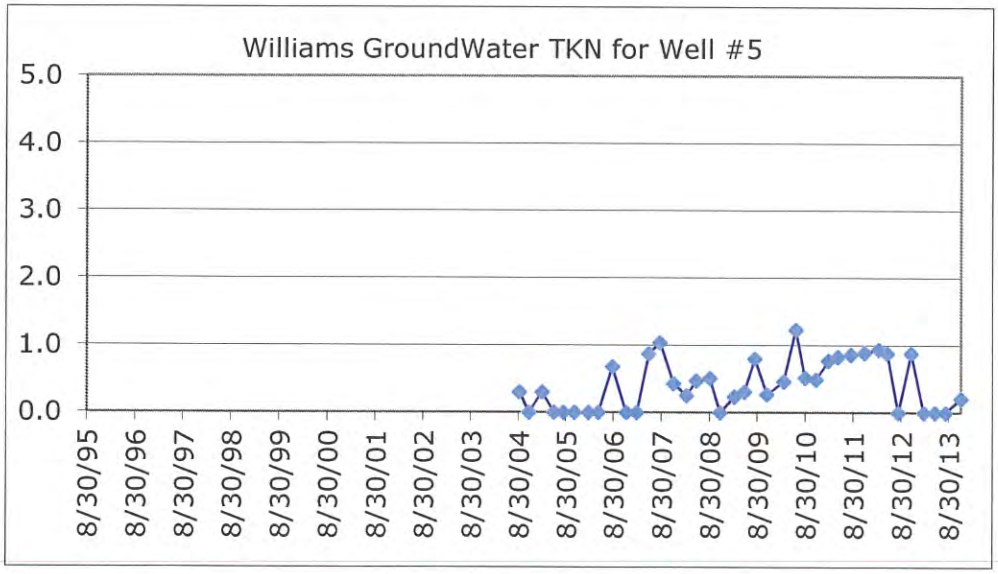
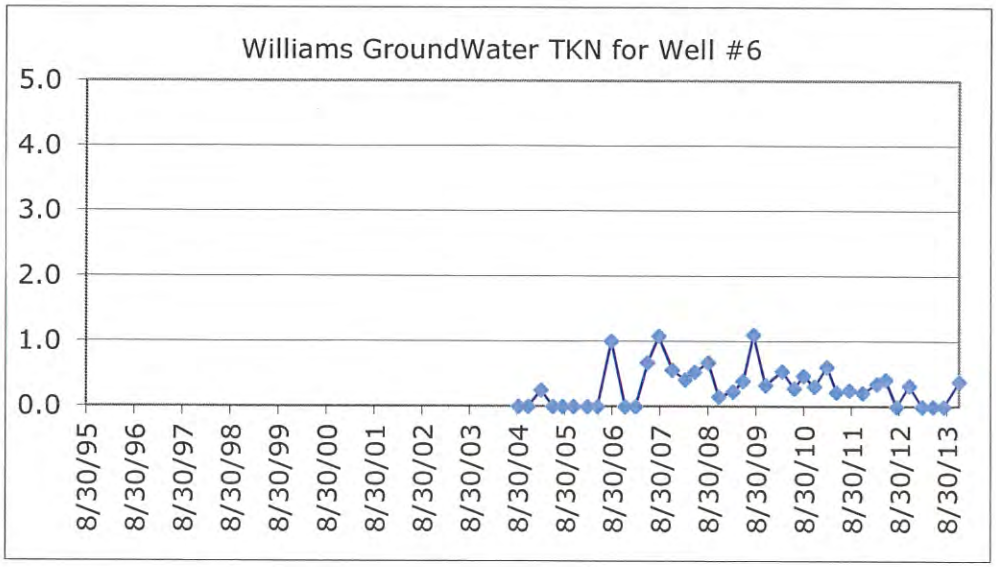
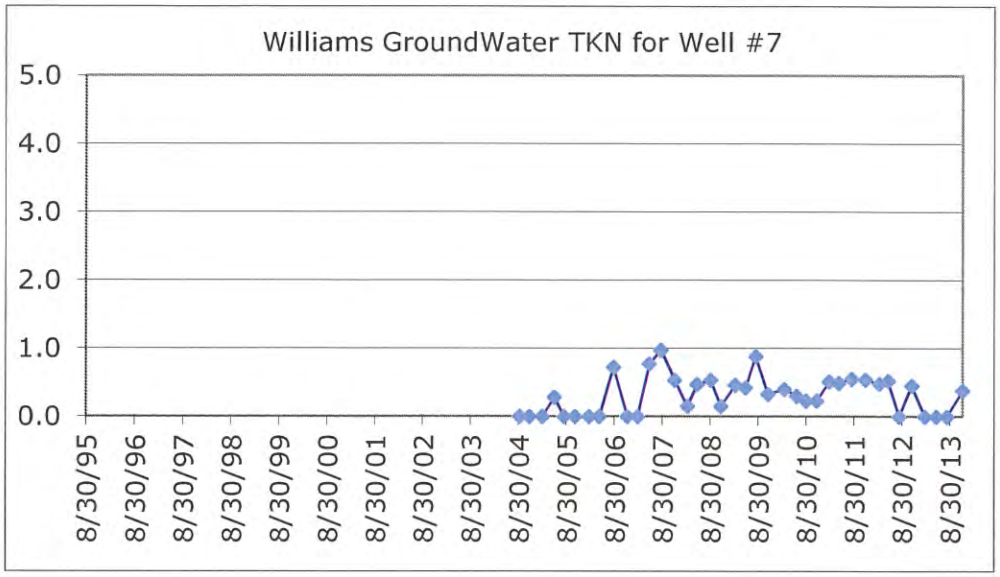
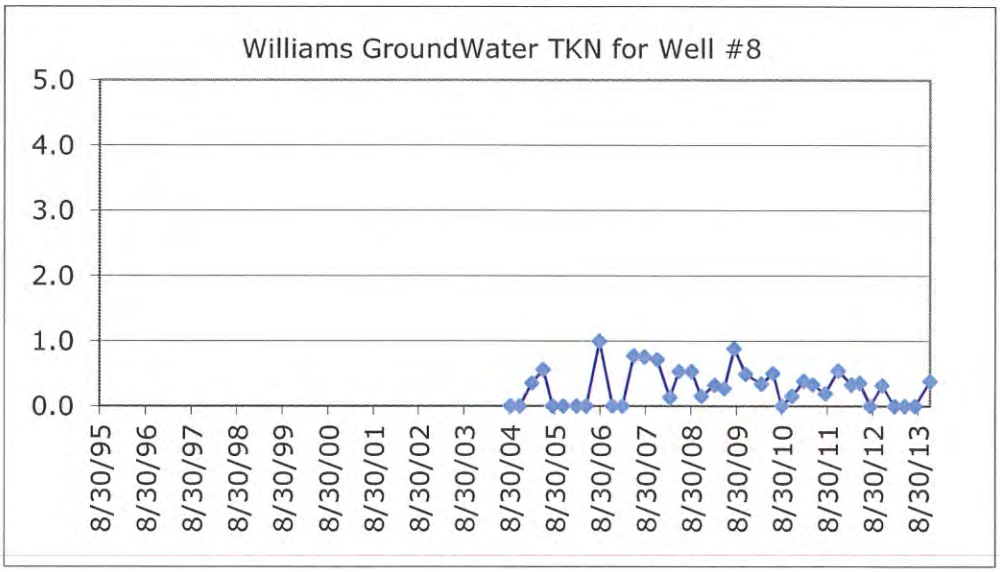
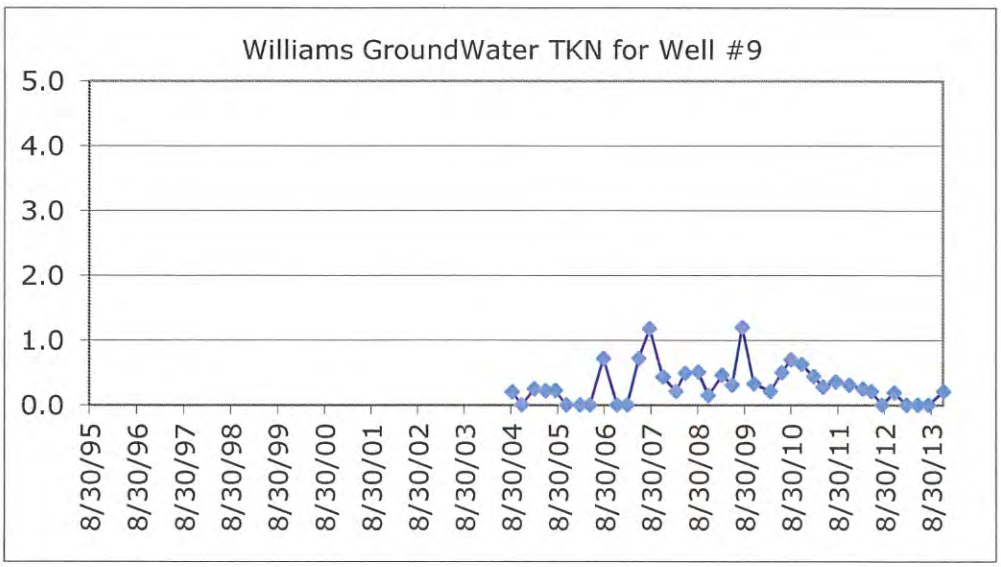
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13

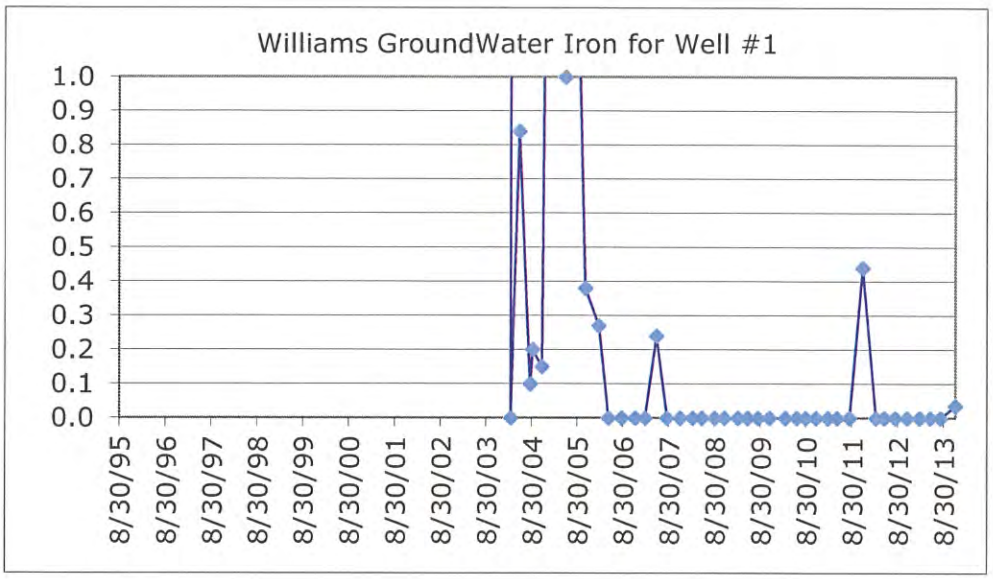

Williams GroundWater TKN for Well #5
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13

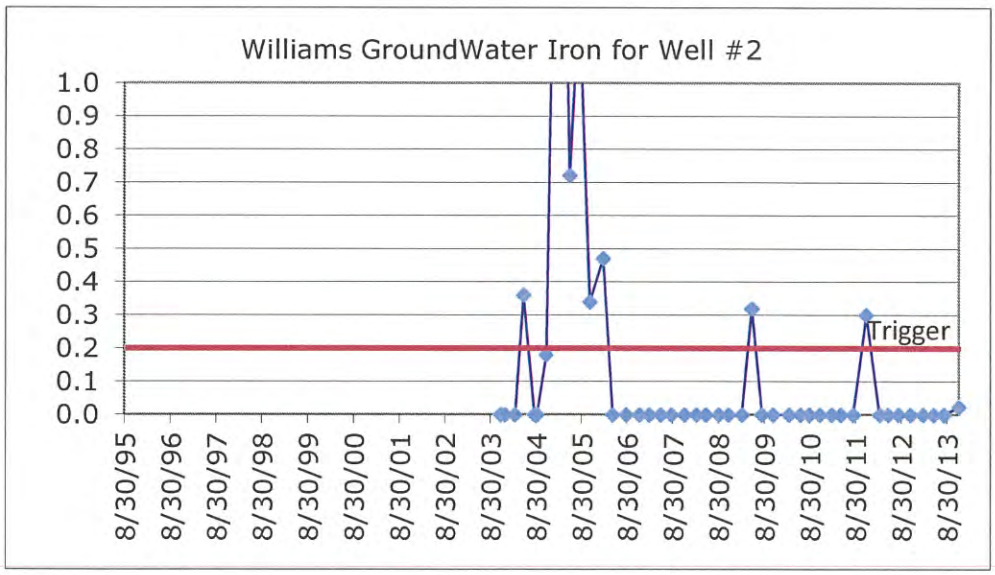

Williams GroundWater TKN for Well #6
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #7
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #8
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater TKN for Well #9
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #2
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
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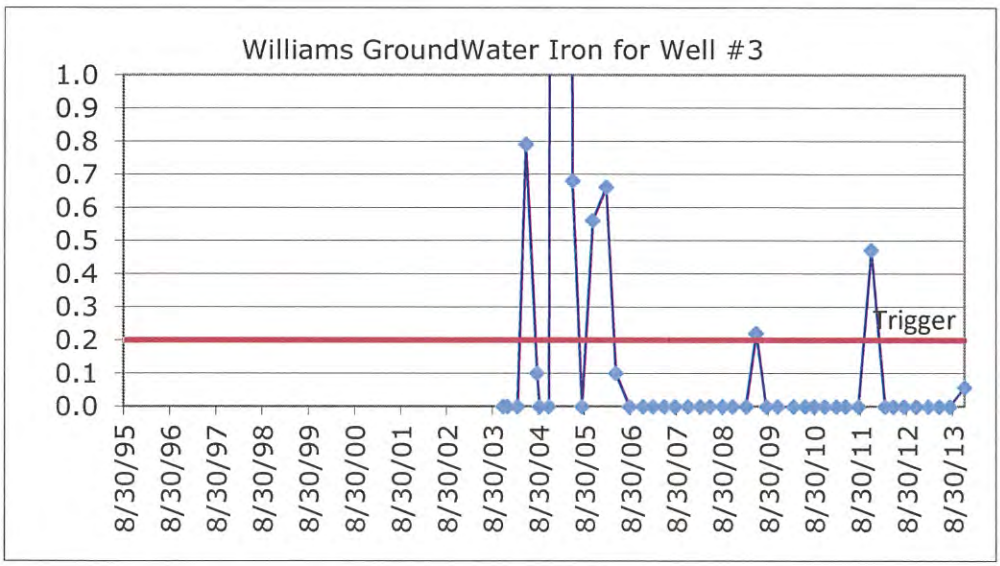
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #3
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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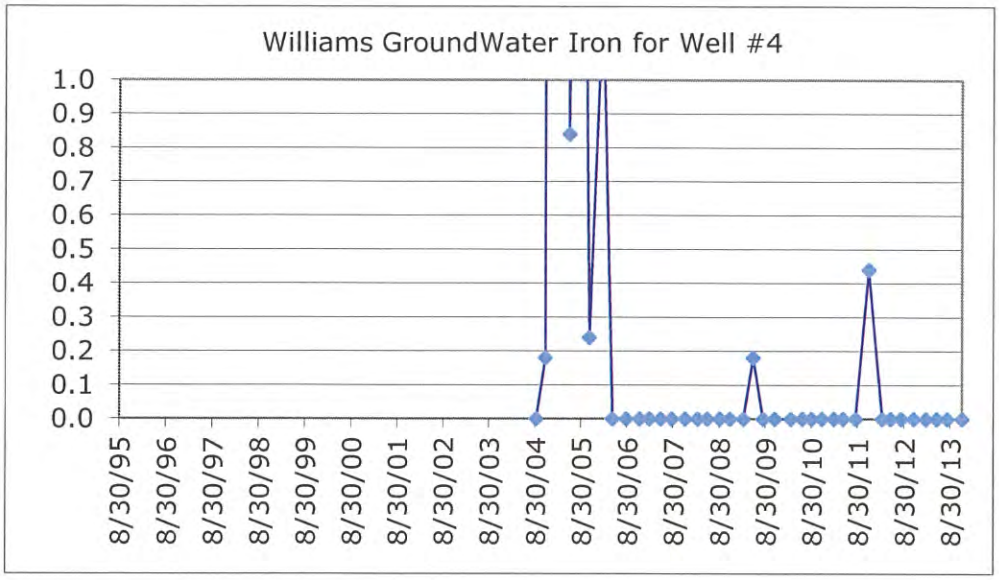
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #4
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/07
8/30/08
8/30/09
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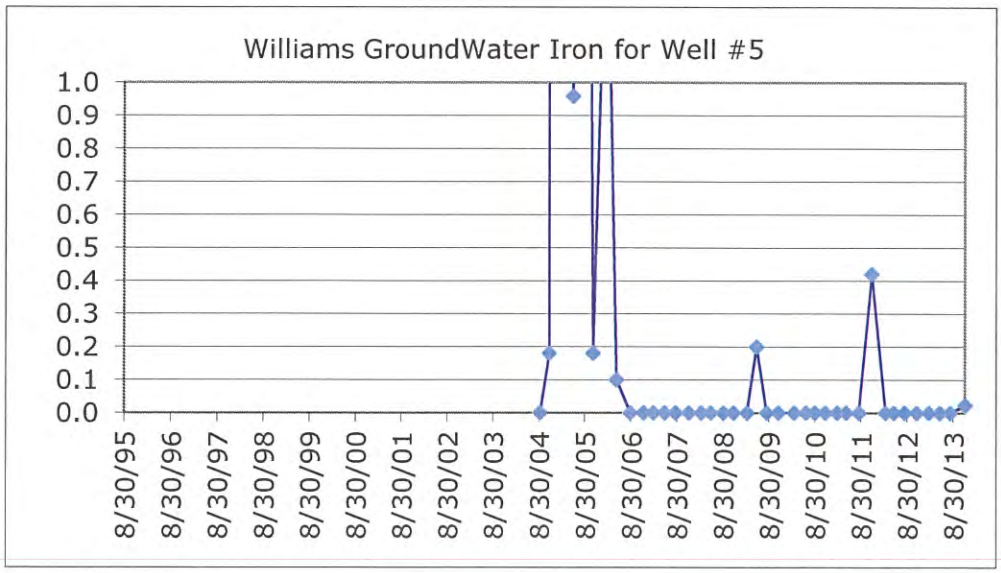
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #5
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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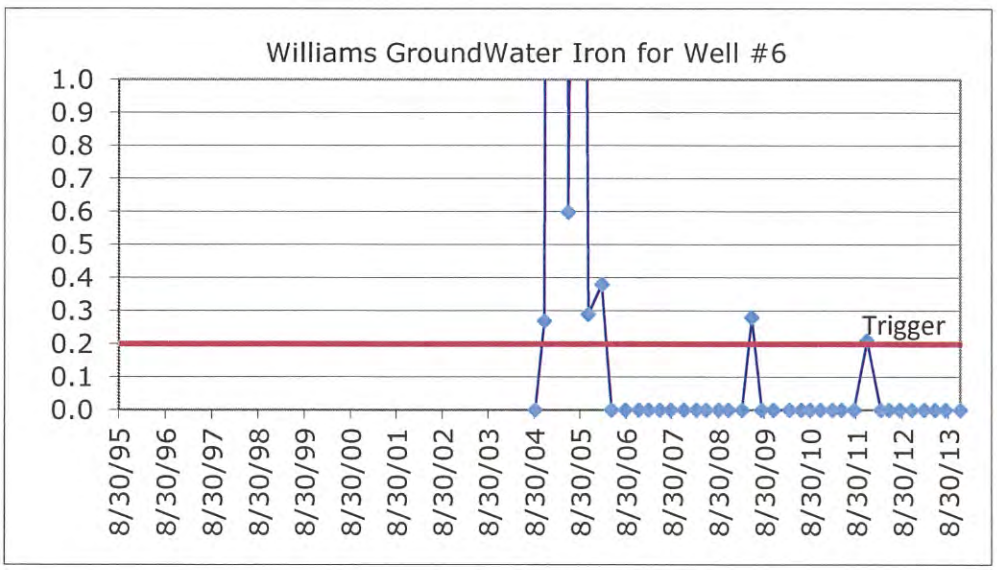
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #6
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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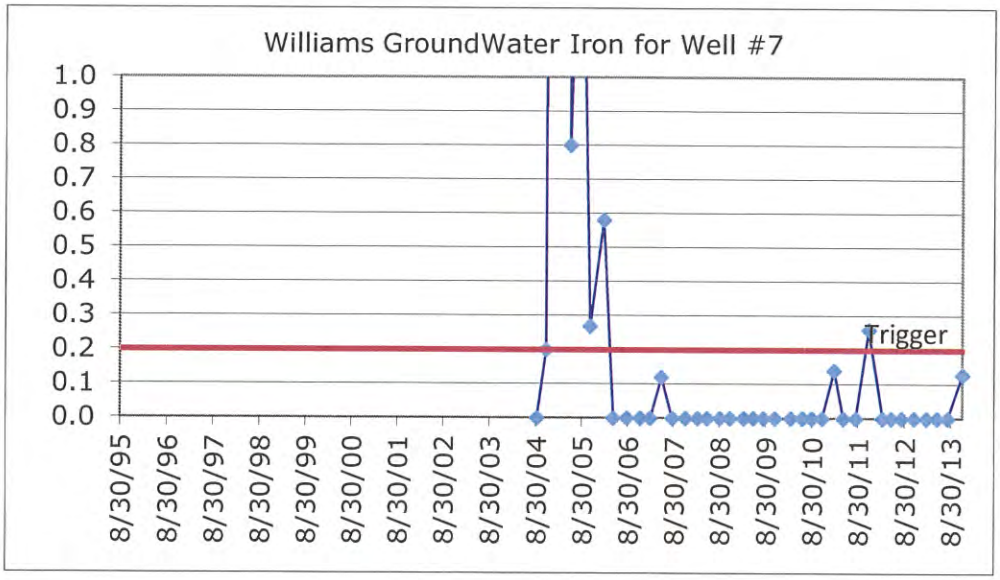
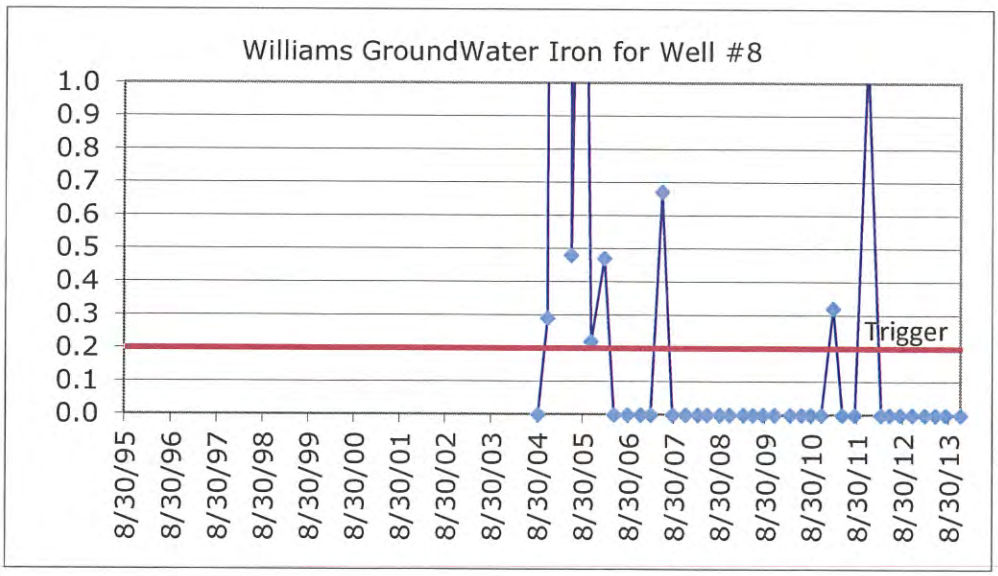
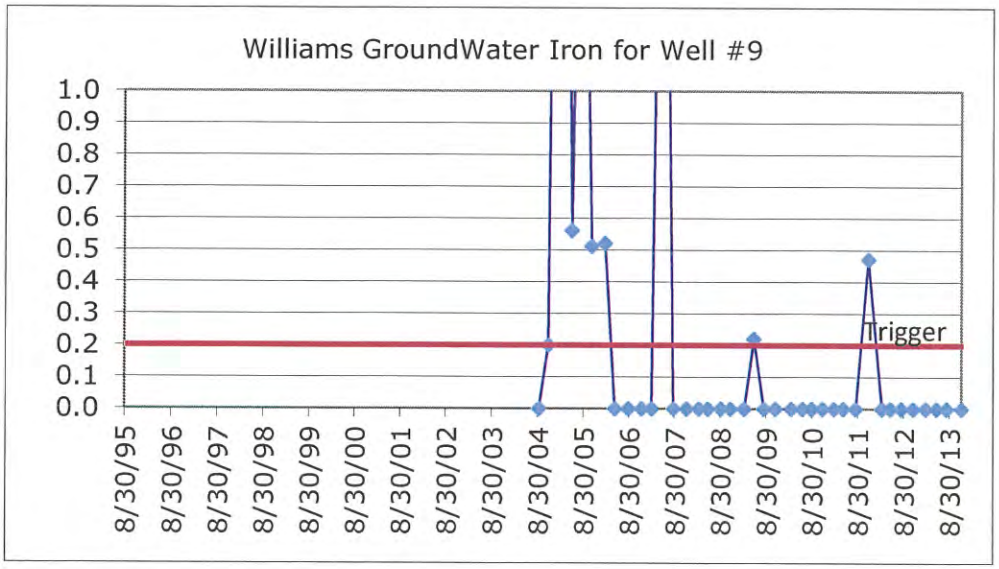
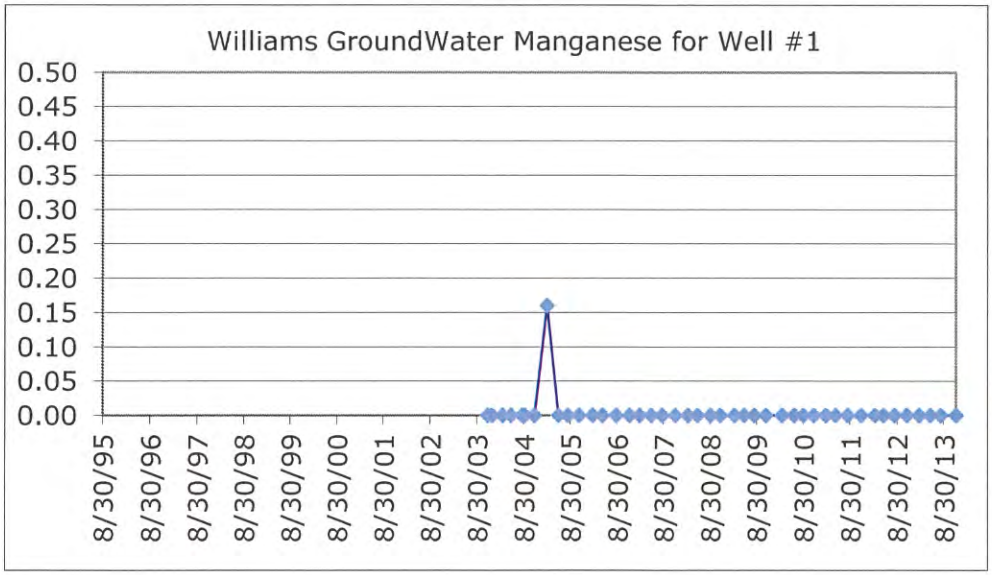
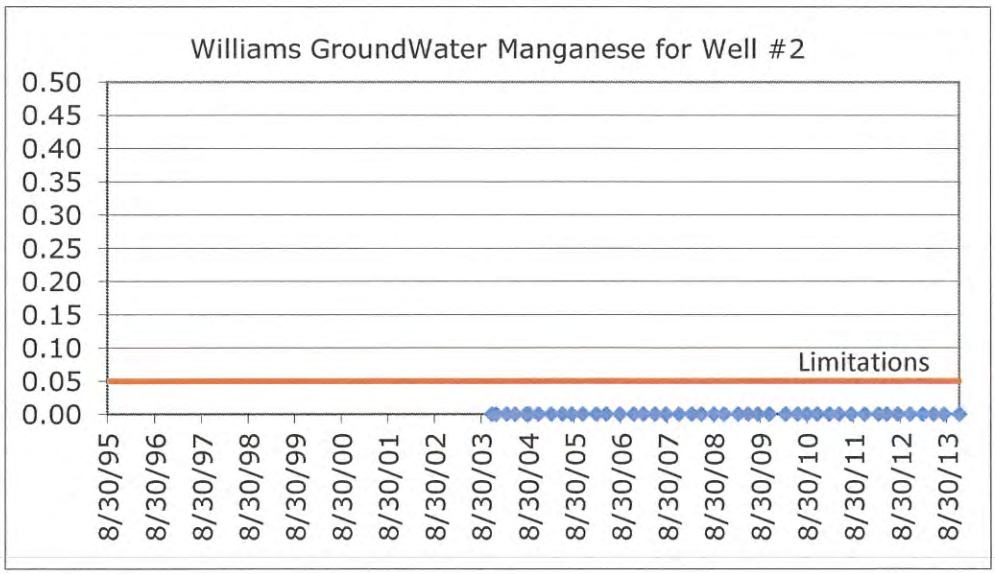
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #7
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #8
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Iron for Well #9
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Trigger
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #1
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #2
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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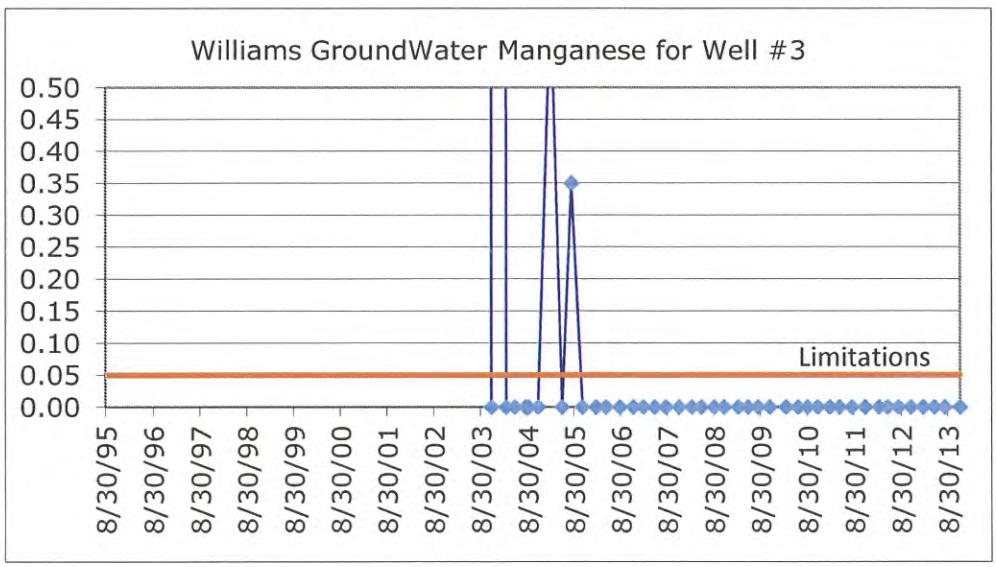
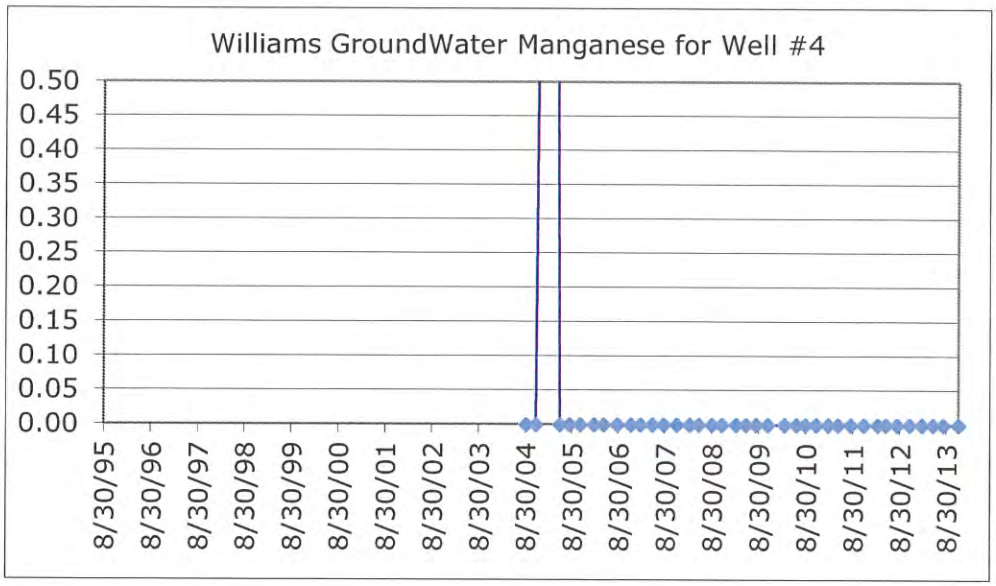
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #3
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #4
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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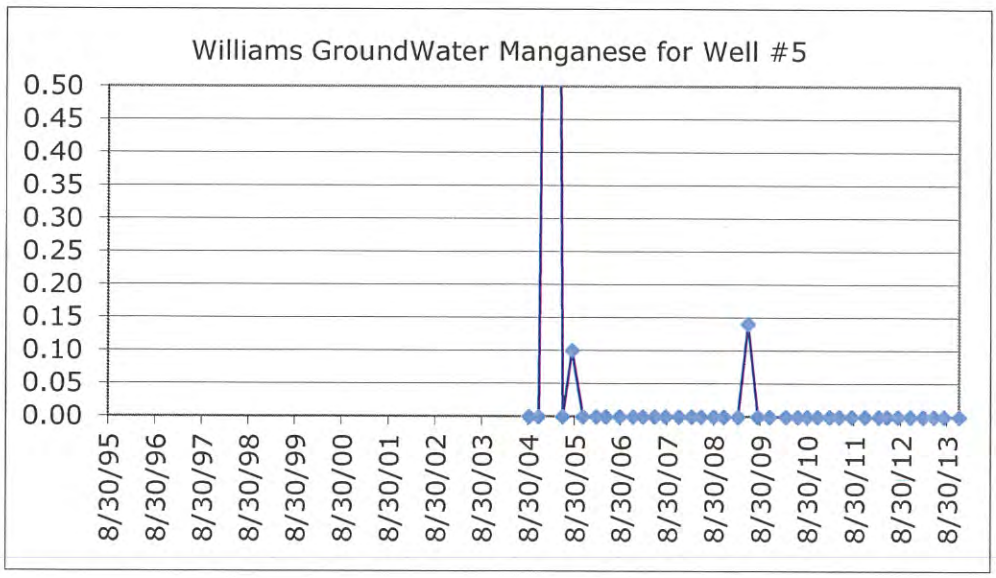
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #5
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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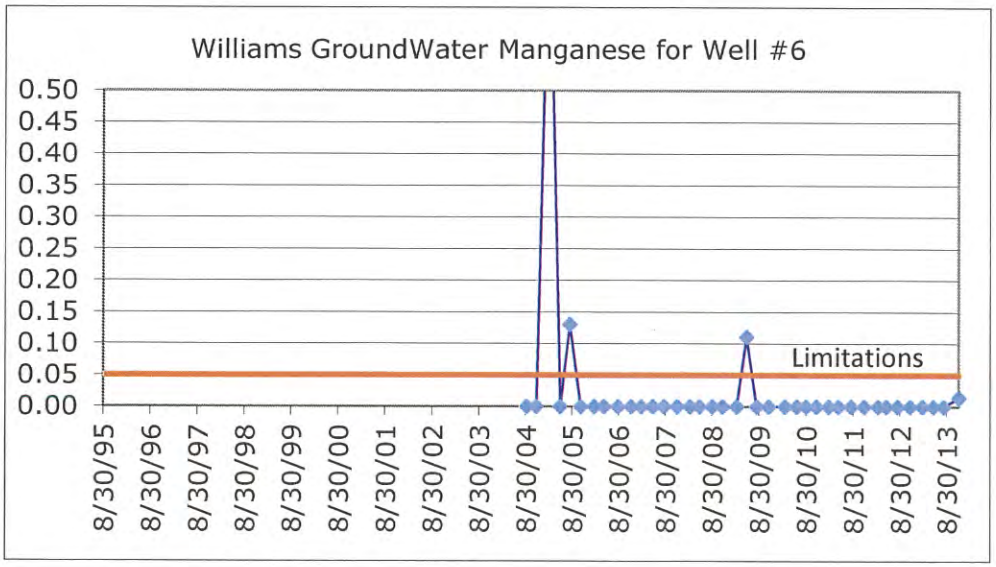
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #6
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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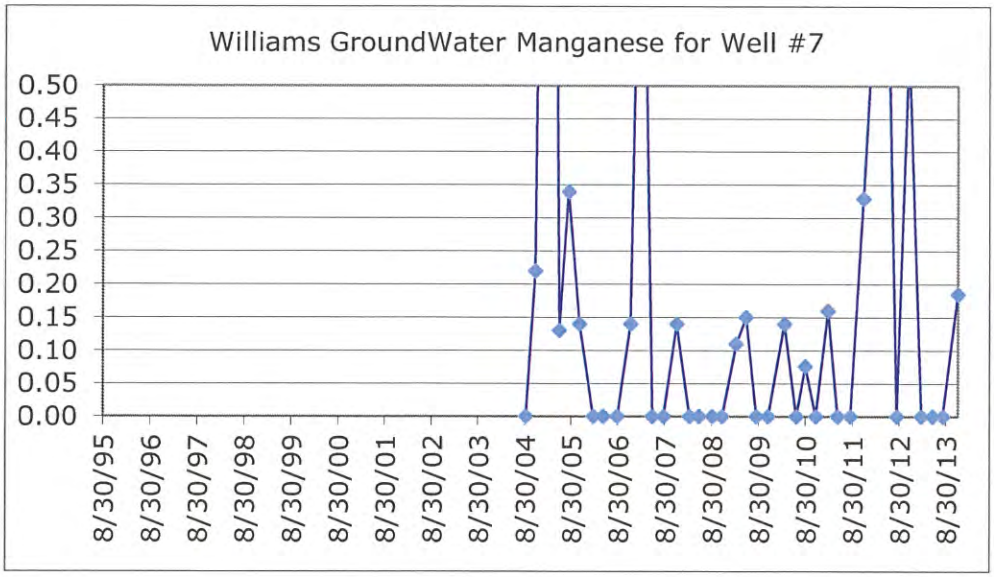
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #7
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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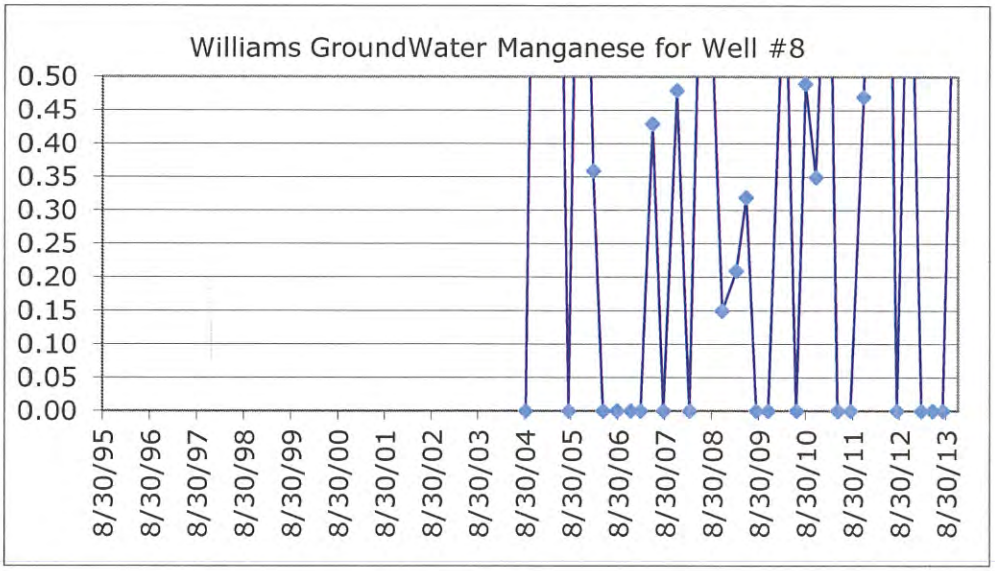
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #8
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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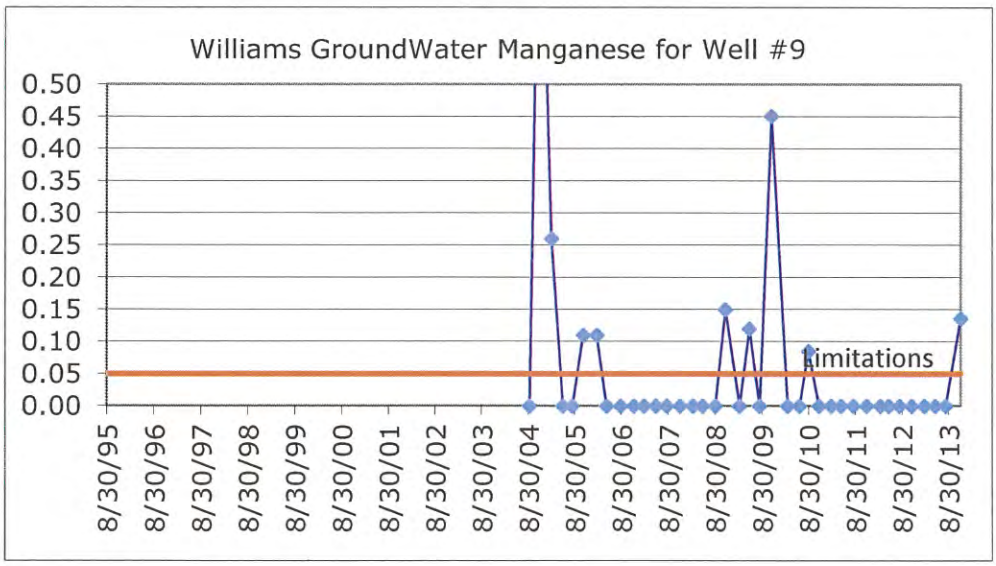
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater Manganese for Well #9
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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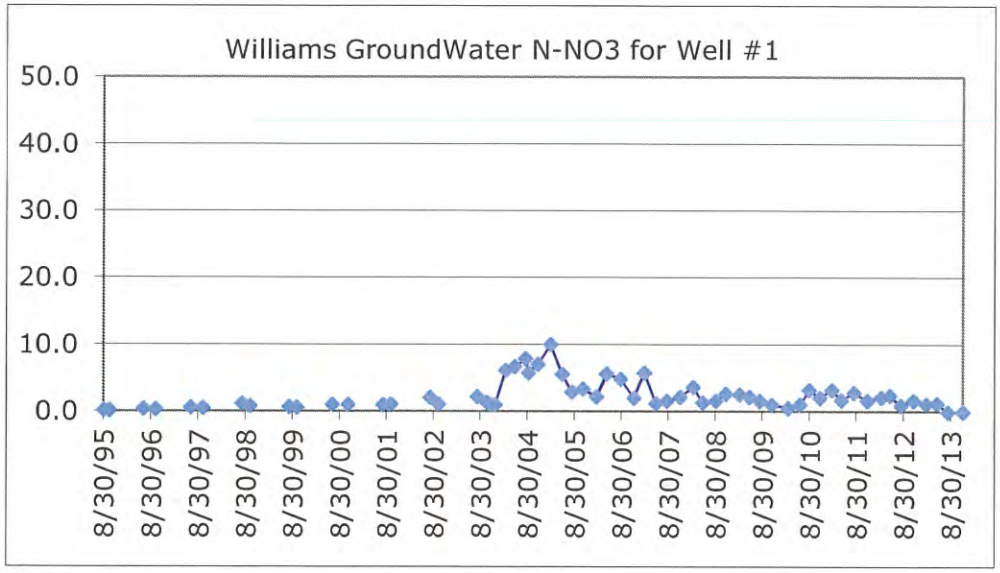
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #1
50.0
40.0
30.0
20.0
10.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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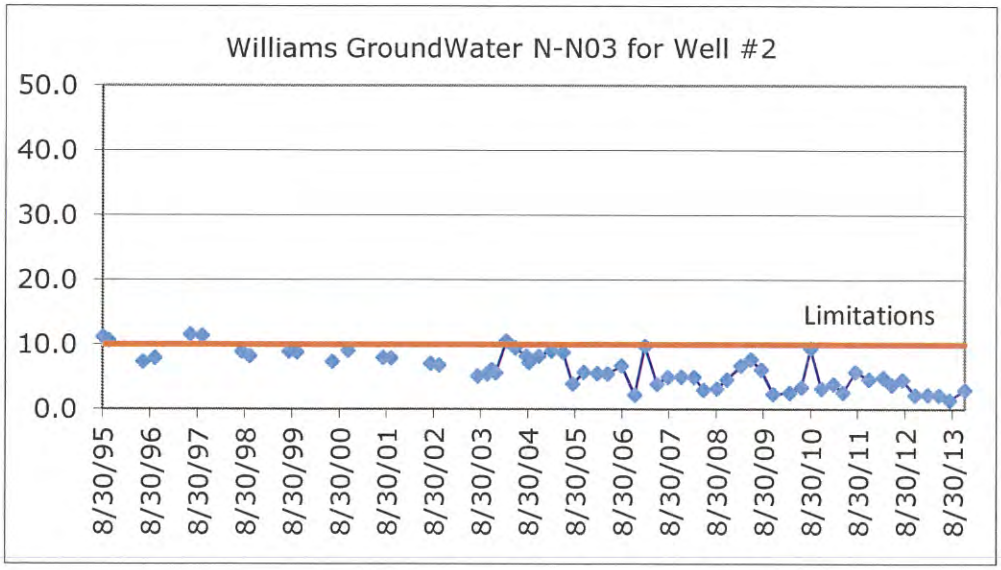
8/30/11
8/30/12
8/30/13


Williams GroundWater N-N03 for Well #2
50.0
40.0
30.0
20.0
10.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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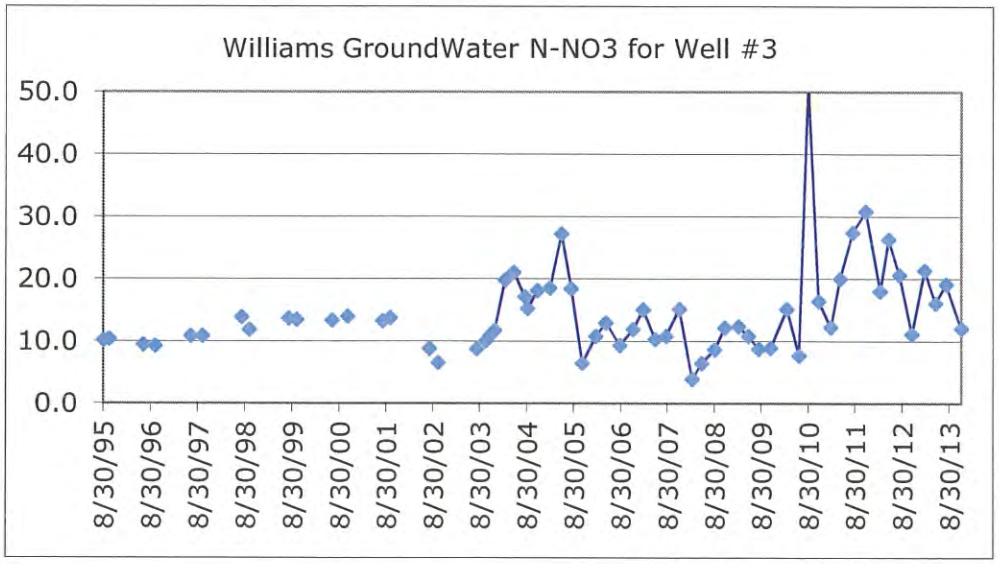
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #3
50.0
40.0
30.0
20.0
10.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/07
8/30/08
8/30/09
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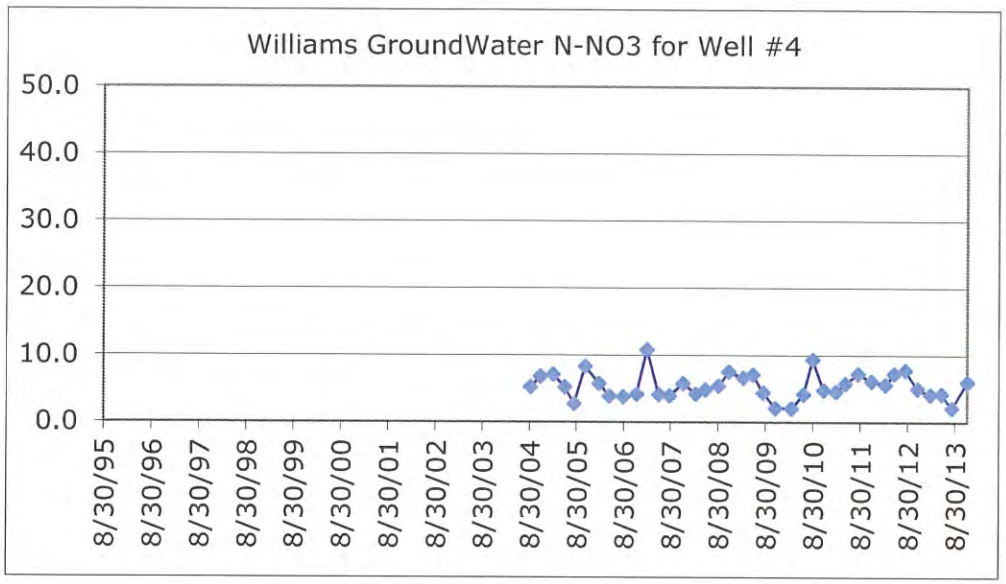
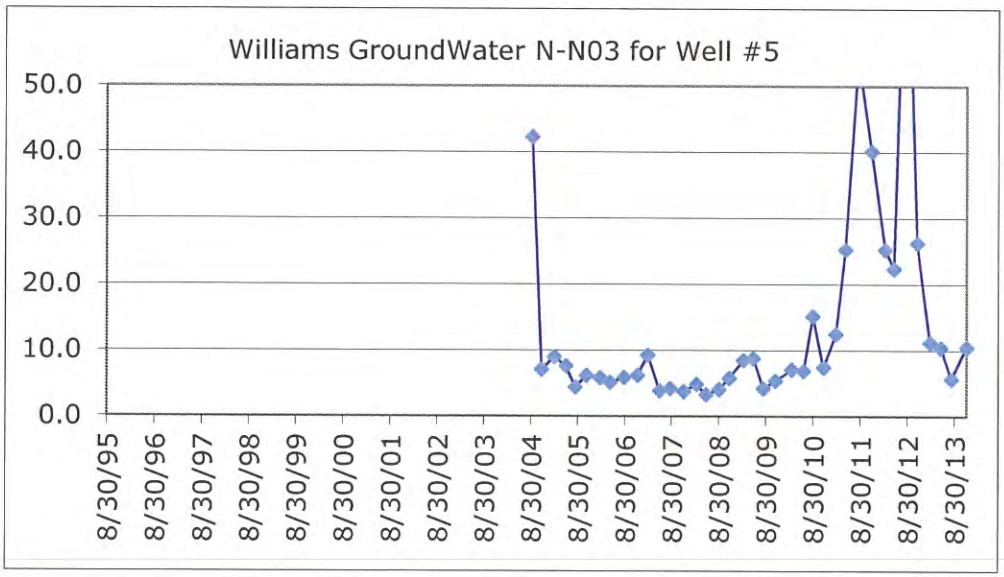
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #4
50.0
40.0
30.0
20.0
10.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater N-N03 for Well #5
50.0
40.0
30.0
20.0
10.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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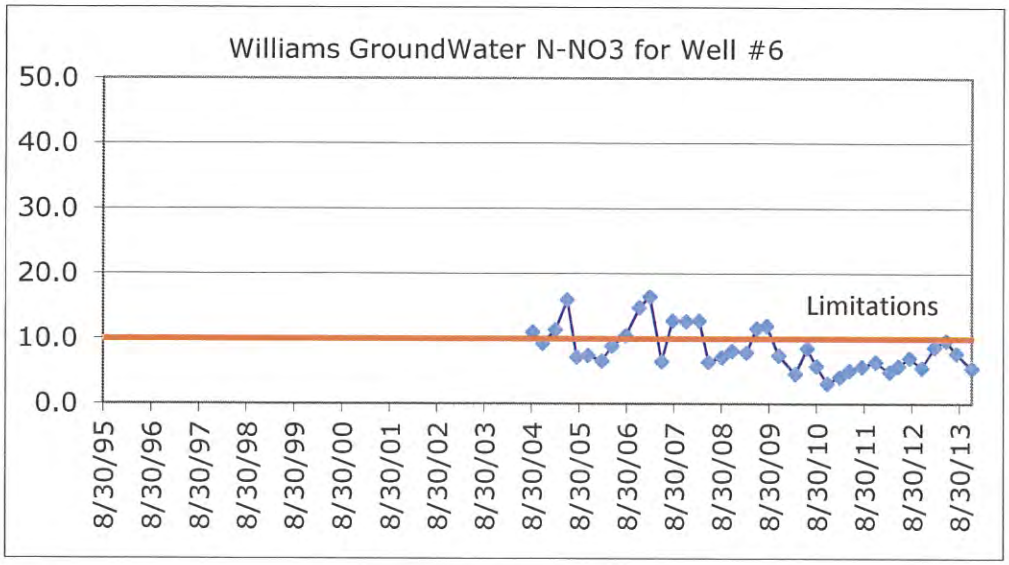
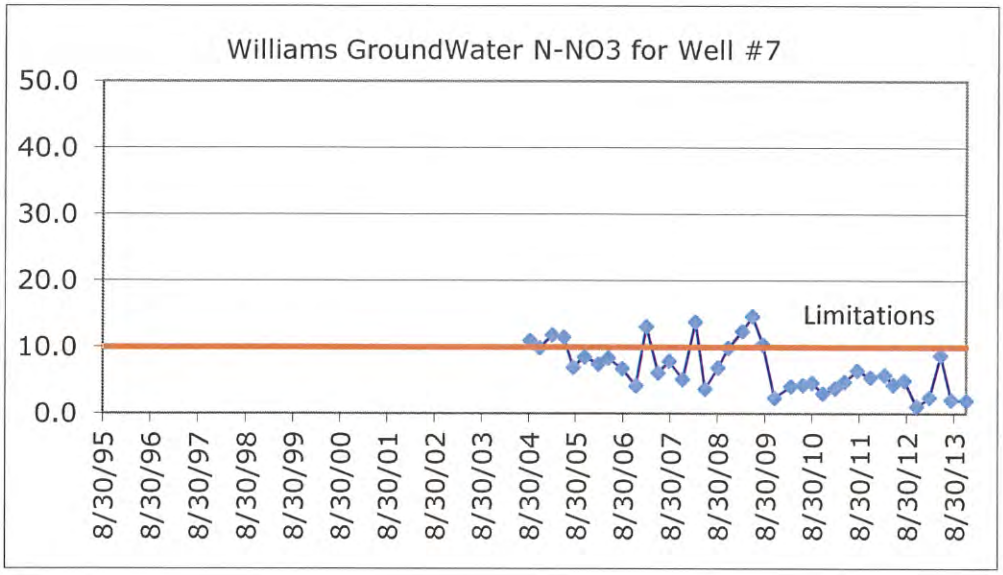
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #6
50.0
40.0
30.0
20.0
10.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #7
50.0
40.0
30.0
20.0
10.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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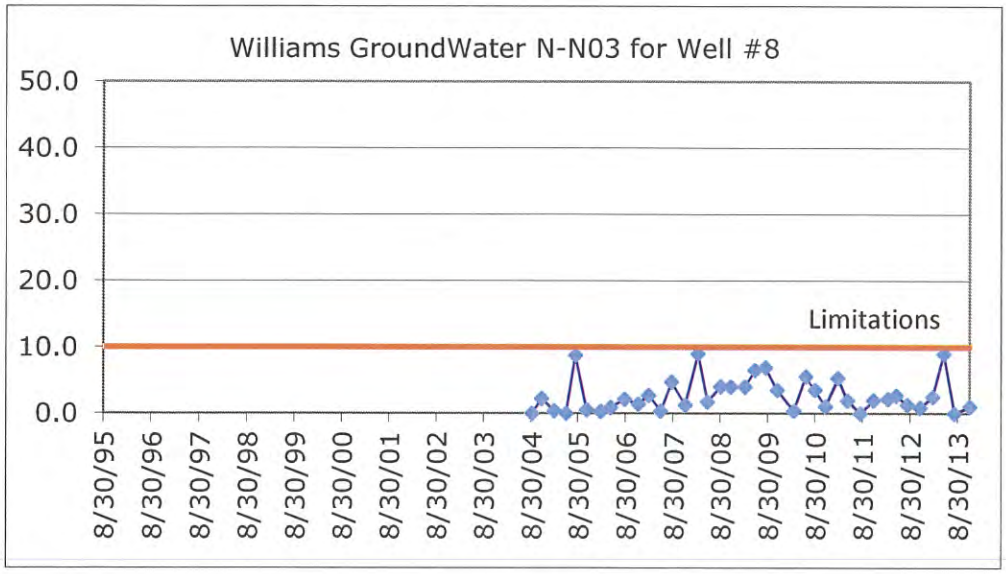
8/30/11
8/30/12
8/30/13


Williams GroundWater N-N03 for Well #8
50.0
40.0
30.0
20.0
10.0
0.0
Limitations
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
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8/30/09
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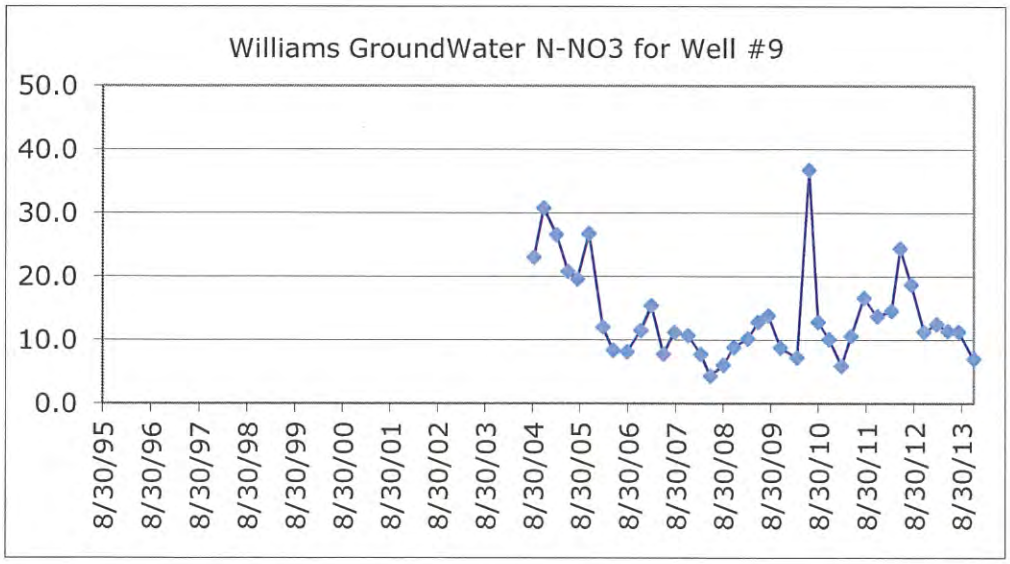
8/30/11
8/30/12
8/30/13


Williams GroundWater N-NO3 for Well #9
50.0
40.0
30.0
20.0
10.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12
8/30/13