CLSA

Monitoring Report Submittal Transmittal Form

Attn: Guy Childs (916) 464-4648
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Staff: GJC

Logged in as received: 2/4/2013 SHM

Date reviewed: _____

Violations?: _____

Logged in as Reviewed: _____

Discharger:	The Morning Star Packing Company, LP
Name of Facility:	Williams Facility
WDRs Order Number:	95-160
WDID:	5A062005001
County:	Colusa

I am hereby submitting to the Central Valley Water Board the following information:

Check all that apply:

Monthly Monitoring Report for the month of _____

1st / 2nd / 3rd / 4th (circle one) Quarterly Monitoring Report for the year of 2012

1st / 2nd (circle one) Semi-annual Monitoring Report for the year _____

* Annual Monitoring Report for the year 2012

Violation Notification

During the monitoring period, there were / were not (circle one) any violations of the WDRs.

1. The violations were: N/A

2. Have the violations been corrected? Yes / No. If no, what will be done to correct the violations: N/A

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Certification Statement

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature: _____ Phone: (530)666-6600

Printed Name: Ross Oliveira Date: 2/1/13

ANNUAL REPORT

Prepared for

THE MORNING STAR PACKING COMPANY, LLC
2211 Old Hwy 99
Williams, CA 95987

Colusa County

Phone: (530) 473-3600

January 31, 2013

Prepared by

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The following items were requested in the Quarterly Groundwater Monitoring and Reporting Program:

1. Results of groundwater monitoring.

The results of groundwater monitoring activities for the monitoring wells are included as **Attachment A**.

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDRs, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged.

Field logs for the sampling activities are included as **Attachment B**. Prior to sampling, the groundwater elevations are measured. The monitoring wells are then purged a minimum of three well volumes or until temperature, pH and electrical conductivity have stabilized. Samples are collected and returned to the certified lab and tested for the different constituents.

3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends, if any.

Groundwater elevations for the wells are shown in Table 1.

Table 1. Groundwater Elevations on November 12, 2012

Monitoring Well Number	Elevation
MW1	91.56
MW2	87.84
MW3	86.76
MW4	89.23
MW5	83.30
MW6	81.60
MW7	80.24
MW8	72.55
MW9	74.37

Groundwater sampling for this quarter was generally consistent with historic results.

Groundwater in the vicinity of the processing facility usually flows toward the north and slightly east. This quarter, the results are consistent with historical results. Gradients for the four monitoring wells located near the settling pond are presented in Table 2.

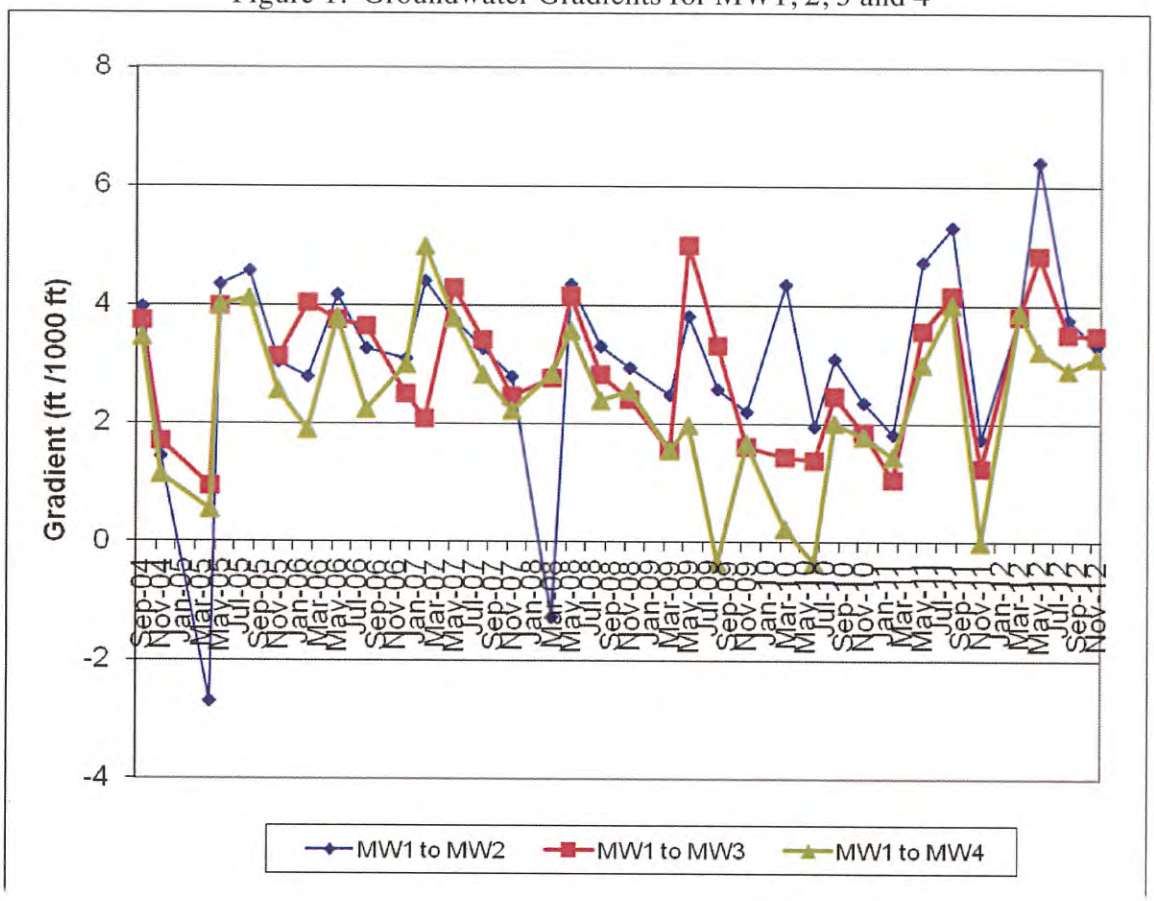
Table 2. Groundwater Gradients in MW 1, 2, 3 and 4

	Gradient (ft/1000ft)		
Date	MW1 to MW2	MW1 to MW3	MW1 to MW4
2/21/07	4.40	2.09	4.99
5/23/07	3.75	4.28	3.77
8/17/07	3.25	3.40	2.83
11/29/07	2.79	2.47	2.23
3/7/08	NA	2.77	2.84
5/20/08	4.32	4.16	3.56
8/30/08	3.31	2.83	2.39
11/17/08	2.93	2.41	2.56
3/6/09*	2.49	1.56	1.56
5/22/09	3.80	5.00	1.97
8/25/09	2.57	3.32	-0.33
11/23/09	2.20	1.61	1.67
3/16/10	4.35	1.43	0.23
6/7/10	1.95	1.73	-0.33
8/26/10	3.08	2.47	2.00
11/17/10	2.35	1.86	1.77
2/20/11	1.82	1.07	1.44
5/4/11	4.72	3.56	3.00
8/11/11	5.31	4.16	4.00
11/22/11	1.75	1.25	0.00
3/9/12	3.83	3.80	3.89
5/14/12	6.42	4.83	3.21
8/7/12	3.75	3.50	2.89
11/12/12	3.31	3.49	3.11

** Measurements from MW2 and MW3 taken on 3/13/2009.*

Groundwater gradients continue to appear to be highest during the summer and lowest during the winter months. Figure 1 below provides a graph of gradients for MW1, 2, 3, and 4.

Figure 1. Groundwater Gradients for MW1, 2, 3 and 4



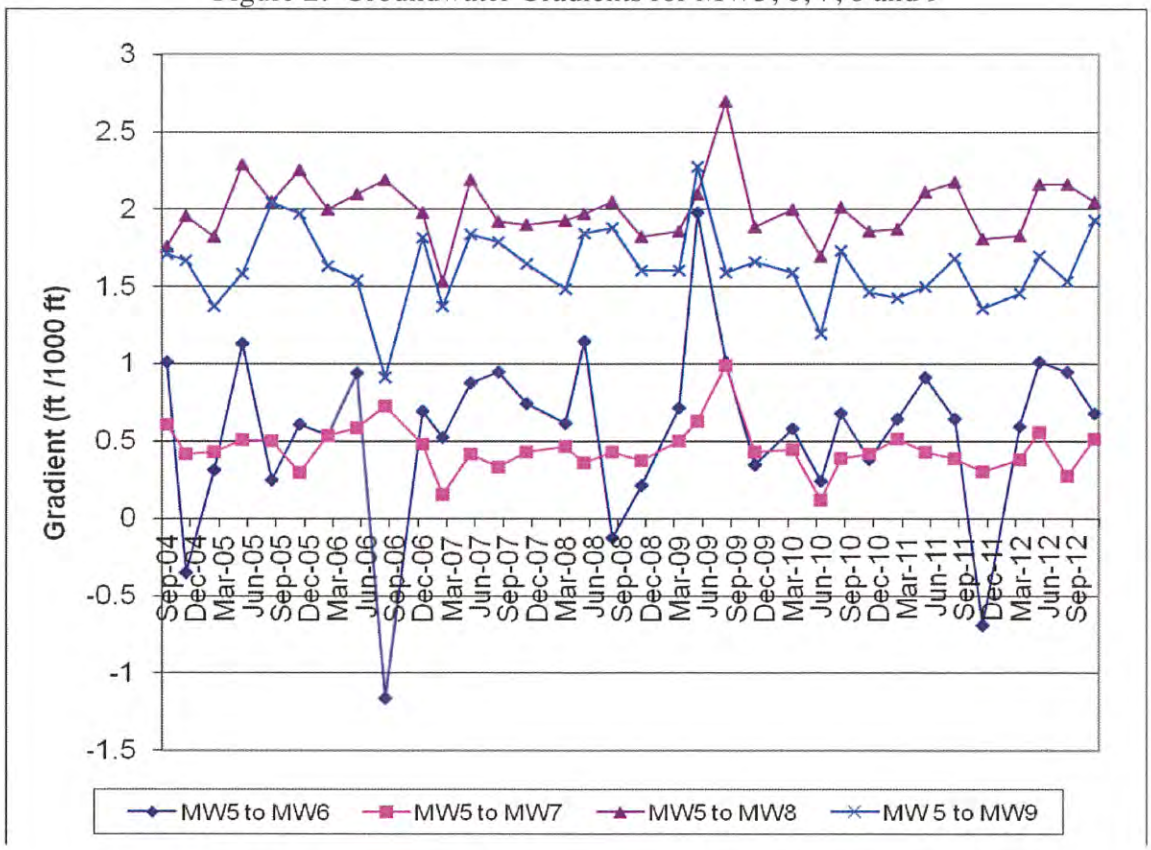
Groundwater in the cropped area north of the processing facility generally moves toward the northeast. This quarter, groundwater gradients are consistent with historical results. Groundwater gradients for these wells are included as Table 3.

Table 3. Groundwater Gradients in MW 5, 6, 7, 8, and 9

	Gradient (ft/1000ft)			
Date	MW5 to MW6	MW5 to MW7	MW5 to MW8	MW 5 to MW9
2/21/07	0.52	0.16	1.53	1.37
5/23/07	0.94	0.33	1.92	1.97
11/27/07	0.74	0.43	1.90	1.64
3/7/08	0.61	0.46	1.93	1.48
5/20/08	1.15	0.36	1.97	1.84
8/30/08	(0.12)	0.43	2.05	1.88
11/17/08	0.21	0.37	1.82	1.61
3/6/09	0.71	0.50	1.86	1.61
5/22/09	1.98	0.63	2.10	2.27
8/25/09	1.01	0.99	2.70	1.59
11/23/09	0.34	0.43	1.89	1.66
3/16/10	0.58	0.44	2.00	1.59
6/7/10	0.24	0.12	1.70	1.19
8/26/10	0.68	0.39	2.02	1.73
11/17/10	0.68	0.42	1.86	1.46
2/20/11	0.64	0.52	1.87	1.43
5/4//11	0.91	0.43	2.11	1.50
8/11//11	0.64	0.39	2.17	1.68
11/22/11	-0.69	0.30	1.81	1.36
3/9/12	0.60	0.38	1.83	1.45
5/14/12	1.01	0.56	2.16	1.70
8/7/12	0.94	0.28	2.16	1.54
11/12/12	0.68	0.52	1.05	1.93

No clear seasonal trends are evident in the groundwater gradients in the cropped area. A graph of the gradients is provided below in Figure 2.

Figure 2. Groundwater Gradients for MW5, 6, 7, 8 and 9



4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs and appended analytical reports (as applicable).

The parameters and variability of water quality samples for MW1, 2, and 3 have remained consistent with past results. The results have been graphed to determine if any of the results are trending upward or downward. Samples from this quarter are consistent with historical data. The graphs of the sampling results for each monitoring well have been included as **Attachment A.**

Results from MW4, 5, 6, 7, 8, and 9 are consistent with previous sampling events. No trends are evident at this time and no seasonal trends have been identified.

The results from this sampling event are consistent with previous events with no upward trends or degradation evident. Natural spatial variability between the wells is evident in both the upgradient and downgradient wells.

5. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements.

Groundwater quality in MW1, 2 and 3 have been tested since plant operations began in 1995. Samples from this quarter are consistent with the background data taken during the first season. No trends are evident in the results.

The groundwater quality samples from MW 4, 5, 6, 7, 8 and 9 have shown spatial variability. Because this trend shows up in both upgradient and downgradient wells, this trend can most likely be attributed to naturally occurring causes. Results from this quarter are consistent with historical results.

6. Summary data tables of historical and current water table elevations and analytical results.

Summary data tables for the monitoring wells are included with **Attachment A**.

7. A scaled map showing relevant structures and features of the facility, the land application area and irrigation check boundaries, the locations of monitoring wells and other sampling stations, and groundwater elevation contours referenced to mean sea level datum.

See **Attachment C**.

8. Copies of laboratory analytical report(s) for groundwater monitoring.

See **Attachment D**.

In addition to the information requested in the quarterly monitoring report, the following information is provided in accordance with the annual report requirements.

1. Tabular and graphical summaries of historical monthly total loading rates for water (hydraulic loading in gallons and inches), BOD, total nitrogen, and total dissolved solids.

See **Attachment E** for graphical summaries of hydraulic loadings, BOD, total nitrogen and TDS. Tabular monthly total nitrogen and TDS loadings are also included with this attachment. A summary of BOD and hydraulic loadings for the fields is presented below. The 2012 Annual Report includes updated October 2012 nutrient loading calculations for the LAA. Rainfall numbers were not included in the previously submitted October 2012 monthly report.

Table 4. Monthly Average and Maximum Daily BOD Loadings (lbs/acre)

Field	July		August		September		October	
	Ave.	Max. Daily	Ave.	Max. Daily	Ave.	Max. Daily	Ave.	Max. Daily
MS 1	1	14	23	62	17	56	0	0
MS 2&3	3	21	2	17	45	120	0	0
MS 5	2	14	22	62	14	59	28	83
MS 6	0	0	17	132	7	59	5	71
MS 11	0	0	7	52	8	50	0	0
MS 14	0	0	8	59	15	120	23	84
MS 15	2	14	21	62	13	59	27	84
MS 16 & 17	0	0	22	62	14	59	28	84
MS 18 ch 1	3	21	1	13	25	100	27	84
MS 18 ch 2	0	0	6	35	25	71	0	0
MS 20 ch1	0	0	24	132	33	112	7	81
MS 20 ch2	0	0	0	0	12	85	0	0
MS 21	0	0	3	31	9	54	0	0
MS 24 ch1	0	0	26	132	14	85	20	84
MS 24 ch2	0	0	32	126	40	112	7	76

A summary of the monthly hydraulic loading for the fields is presented in Table 5. The gallons calculation included water from the settling pond, cooling pond and fresh irrigation water. The inches calculation included settling pond, cooling pond, fresh irrigation water and rainfall.

Table 5. Monthly Hydraulic Loadings

Field	July		August		September		October	
	MG	in	MG	in	MG	in	MG	in
MS 1	1.79	0.69	15.53	6.10	6.89	2.76	0	0.86
MS 2&3	5.78	2.59	3.71	1.67	16.51	7.84	0	0.86
MS 5	0.92	1.38	3.07	4.67	1.38	2.06	0	0.86
MS 6	0	0	1.24	2.13	0.61	1.05	0.36	1.48
MS 11	0	0	1.11	1.16	1.18	1.22	0	0.86
MS 14	0	0	1.31	1.08	2.65	2.20	3.65	3.90
MS 15	1.00	1.38	3.33	4.67	1.50	2.06	2.67	4.56
MS 16 & 17	0	0	4.58	4.67	2.06	2.06	3.68	4.56
MS 18 ch1	2.75	2.59	0.67	0.63	4.43	4.40	3.92	4.56
MS 18 ch2	0	0	2.34	2.28	4.07	4.04	0	0.86
MS 20 ch1	0	0	2.82	3.21	4.55	5.22	0.86	1.83
MS 20 ch2	0	0	0	0	1.67	2.21	0	0.86
MS 21	0	0	0.59	0.84	0.96	1.42	0	0.86
MS 24 ch1	0	0	11.20	5.24	4.85	2.57	5.93	3.60
MS 24 ch2	0	0	9.15	4.21	12.85	6.02	2.08	1.82

2. A narrative description of the annual soil monitoring program and a map of sampling locations.

Soil sampling data will be available within the next two weeks. Results and analysis will be provided to the Regional Board by February 28th.

3. A mass balance relative to constituents of concern and hydraulic loading along with supporting data and calculations. The report shall describe the types of crops planted and planting and harvest dates for each crops.

See **Attachment G**.

4. Tabular and graphical summaries of historical soil analytical results for all monitored constituents and parameters.

Soil sampling data will be available within the next two weeks. Results and analysis will be provided to the Regional Board by February 28th.

5. An evaluation of groundwater quality at the processing facility and land application areas.

Based on a review of the monitoring results performed at the facility, there is no evidence of degradation of groundwater quality caused by either the settling pond or irrigation of the surrounding fields with washwater. Spatial variation causes differences between the wells. The results from the monitoring events considered in the report do not show signs of degradation and are consistent with background conditions for the area.

6. An evaluation of soil monitoring data based on current and historical data including evidence of waste constituent migration, the effectiveness of land treatment, potential for groundwater degradation, and recommendations for operational modifications to reduce waste constituent migration.

Soil sampling data will be available within the next two weeks. Results and analysis will be provided to the Regional Board by February 28th.

7. A comprehensive evaluation of the effectiveness of the past year's wastewater application operation in terms of odor control, including consideration of application management practices (i.e.: waste constituent and hydraulic loadings, application cycles, drying times and cropping practices), soil profile monitoring data and groundwater monitoring data.

Based upon the evidence from the pond monitoring and monitoring wells, the washwater application process has been successful.

Odor Control

The processor took preventative action to reduce the frequency and amount of odors from the land application area. Ditches were pumped out after use to prevent nuisance conditions and any ponding of washwater that occurred was quickly drained.

An aerator was installed in the facility's settling pond. The dissolved oxygen measurements from the settling pond were good this season, with all readings above 1.0 mg/l. No significant odors were found in the vicinity of the pond.

Groundwater Monitoring

The results from monitoring wells are consistent with past results. Based on these sample results, there is evidence of spatial variability which appears to be tied to native conditions.

8. A narrative description of solids disposal practices, including the name and contact information for each disposal facility and the quantity disposed.

The Morning Star Packing Company receives raw tomatoes in its facilities, and after basic industry standard practices, has the end result of tomato paste manufactured to its customers specifications. Two of these standard processes, screening and finishing, create a solid reject stream. These are referred to as wet waste and pomace, respectively.

Screening is the physical act of separating water from solids that weren't suitable for processing; namely, vines, broken tomatoes and other materials other than tomatoes (m.o.t.). Each season Morning Star generates less than one percent wet waste. For the processing season of 2012 there was 10,716 tons of wet waste generated. The wet waste is then removed from the property, services provided by Wilbur Ellis, and fed to cattle either in its wet stage or in a dried stage.

Pomace is generated through the process of finishing. A customer demands a specific finish, described as the amount and size of skins and seeds in the tomato paste. The "excess" seeds and skins are rejected and conveyed to a trailer. The pomace is removed from the property, by Wilbur Ellis, and fed to cattle in a solar dried stage. In 2012, the facility generated 9,250 tons of pomace.

Wilbur Ellis is located at 1476 West Herndon Suite 101 Fresno, CA 93711. The primary contact is Brandon Byrne at (530) 682-6732.

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

Nutrient loadings calculated for the 2012 season exceeded the crop nitrogen uptake for some fields. However, the overall average nitrogen loading for the fields showed a net nitrogen deficit. Spreading the washwater more evenly across the LAA will prevent excess of application of nitrogen on some fields.

TDS loadings for some of the fields exceeded the 2,000 lb/acre recommended salt loading rate. Washwater TDS concentrations were slightly higher this year than they have been historically. Morning Star colleagues are reviewing the washwater characteristic information to identify the source of the salinity increase. However, it should to be noted that the overall average TDS loadings was 2,123 lbs/acre, which is only slightly over the recommended long term loading rate.

Additionally, TDS includes organic compounds that are broken down in the soil profile and used as plant nutrients. Food processing washwater typically has a significant concentration of organic dissolved solids and nutrients. These include proteins and carbohydrates. Organic dissolved solids are broken down in the soil profile and do not impact groundwater like the inorganic dissolved solids. Nutrients such as nitrogen and potassium are included in the TDS concentration, but are taken up during crop production. When FDS was used to calculate the salt loading rates, the fields received 1,810 lbs/acre on average.

For the upcoming season, Morning Star will implement some changes to ensure that the washwater is more evenly applied to the LAA. These changes include the following:

- Reviewing monthly data and calculating monthly loading rates sooner so that the information can be used to plan future irrigations and ensure that washwater is spread more evenly.

- Educating the colleague in charge of irrigation scheduling about the potential effects of excess nutrients being applied to the LAA. And developing a plan to more evenly apply washwater.

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

The facility operates and discharges water to the settling pond and cooling pond between July and October. Water held in the cooling pond is of high quality with low salt content and high DO. Even though the sample results for DO and EC are consistent and the water is generally not being discharged during the off-season, the existing monitoring and reporting program requires weekly water quality samples to continue throughout the winter months. Weekly testing of DO and EC from the cooling pond is excessive and should be reduced to monthly sampling during periods of discharge with no sampling during periods of non-discharge.

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Nov-12	7.5	258	91.56	7.92	144	129	0.1	0.0	0.0	5.0	1.7	16.5	80
Averages	7.6	295	91.65	7.86	170	140	0.3	6.3	0.0	5.7	2.5	7.0	19
Min	6.0	233	88.54	3.25	0	66	0.0	0.0	0.0	0.0	0.2	0.0	0
Max	8.8	434	96.23	10.98	234	207	1.4	197.0	0.2	34.3	10.0	23.0	240

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.4	781	87.84	13.92	438	415	0.4	0.0	0.0	57.0	2.2	33.8	240
Averages	7.3	722	88.70	13.27	447	410	0.2	0.2	0.0	25.2	6.4	32.5	18
Min	6.5	582	81.50	7.25	353	268	0.0	0.0	0.0	0.0	2.2	11.9	0
Max	8.5	987	94.51	20.55	560	520	0.9	2.4	0.0	70.0	11.5	54.6	240

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.4	852	86.76	7.08	477	432	0.6	0.0	0.0	33.0	11.1	51.9	30
Averages	7.5	777	87.86	6.13	476	425	0.3	0.6	0.8	17.8	14.2	39.2	53
Min	6.7	425	82.90	2.87	253	212	0.0	0.0	0.0	0.0	3.9	9.6	0
Max	8.4	1,083	91.17	11.14	633	570	1.0	20.0	31.0	47.5	51.4	65.4	1,600

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Nov-12	7.3	546	89.23	8.00	306	287	0.5	0.0	0.0	17.0	5.0	18.1	0
Averages	7.5	594	90.31	6.92	350	298	0.3	2.6	0.1	32.0	5.6	22.6	9
Min	7.0	497	87.81	4.00	275	226	0.0	0.0	0.0	13.7	2.1	0.0	0
Max	8.0	782	93.23	9.42	506	400	0.9	83.0	2.8	95.0	10.8	44.0	240

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.6	1,139	83.30	5.00	638	616	0.9	0.0	0.0	55.0	26.3	152.3	0
Averages	7.7	958	84.13	4.17	599	532	0.4	2.9	0.1	36.3	14.5	105.6	3
Min	7.3	728	81.45	2.50	462	350	0.0	0.0	0.0	0.0	3.3	42.4	0
Max	8.2	1,558	85.80	6.85	930	875	1.2	88.0	2.4	95.0	83.7	194.6	50

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.4	1,205	81.60	4.92	674	638	0.3	0.0	0.0	58.0	5.6	68.7	0
Averages	7.5	1,204	82.69	3.83	720	647	0.3	0.9	0.0	60.9	8.6	106.3	5
Min	7.1	915	79.69	0.41	600	516	0.0	0.0	0.0	0.0	3.2	65.6	0
Max	7.9	1,447	86.11	6.83	840	798	1.1	23.6	0.8	175.0	16.5	190.9	130

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.4	1,166	80.24	4.92	653	615	0.5	0.0	0.6	93.0	1.1	85.6	23
Averages	7.5	1,055	81.45	3.71	635	565	0.3	1.8	0.2	91.1	7.2	90.7	3
Min	7.0	842	77.12	1.67	528	439	0.0	0.0	0.0	4.5	1.1	21.9	0
Max	8.0	1,414	83.49	8.04	830	775	1.0	56.0	2.2	314.9	14.6	167.0	30

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Nov-12	7.1	1,564	72.55	4.92	876	831	0.3	0.0	0.9	137.0	0.9	103.7	23
Averages	7.3	1,330	73.64	3.83	800	716	0.3	1.2	0.4	104.0	2.7	81.8	9
Min	6.8	870	69.06	2.00	512	464	0.0	0.0	0.0	0.0	0.0	45.3	0
Max	8.1	1,808	75.47	8.41	1,017	983	1.0	35.2	1.9	324.9	9.0	142.4	240

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Nov-12	7.5	1,770	74.37	5.33	992	933	0.2	0.0	0.0	151.0	11.3	177.0	240
Averages	7.8	1,509	76.63	3.08	927	824	0.3	0.4	0.1	74.8	14.3	169.6	19
Min	7.4	1,234	73.83	1.00	732	523	0.0	0.0	0.0	0.0	4.3	112.0	0
Max	8.3	2,082	78.70	5.87	1,353	1,216	1.2	4.5	0.9	322.5	36.8	296.3	300

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Aug-95	8.3	434	92.66	6.86	234					34.3	0.2	23.0	
Sep-95	7.9	337	92.30	7.22									
Oct-95	8.1	329	92.41	7.11	177					6.7	0.2	13.5	
Nov-95	7.3	322	91.74	7.78									
Jan-96	8.0	303	90.16	9.36									
Feb-96	8.0	300	90.66	8.86									
Mar-96	7.5	296	91.87	7.65									
Apr-96	7.9	299	91.51	8.01									
May-96	8.0	322	94.39	5.13									
Jun-96	7.9	294	94.15	5.37									
Jul-96	8.0	289	92.80	6.72	164					4.8	0.4	9.0	
Aug-96	8.3	295	91.66	7.86									
Sep-96	7.7	297	91.04	8.48									
Oct-96	8.0	295	90.63	8.89	160					4.3	0.3	7.9	
Nov-96	7.7	290	89.54	9.98									
Dec-96	8.1	287	89.28	10.24									
Jan-97	7.7	294	89.89	9.63									
Feb-97	7.6	299	90.65	8.87									
Mar-97	7.9	304	91.06	8.46									
Apr-97	7.5	308	91.76	7.76									
May-97	7.9	323	92.74	6.78									
Jun-97	7.8	300	92.82	6.70									
Jul-97	7.9	299	92.74	6.78	159					3.8	0.6	7.0	
Aug-97	7.6	305	90.93	8.59									
Sep-97	8.2	306	91.41	8.11									
Oct-97	8.8	303	90.54	8.98	166					3.4	0.5	6.7	
Nov-97	7.5	297	89.74	9.78									
Dec-97	7.4	296	89.77	9.75									
Jan-98	7.6	313	89.50	10.02									
Feb-98	7.4	329	94.18	5.34									
Mar-98	7.3	306	93.12	6.40									
Apr-98	7.4	318	93.68	5.84									
May-98	7.5	347	93.80	5.72									
Jun-98	7.6	349	94.19	5.33									
Jul-98	7.5	331	93.18	6.34									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Aug-98	7.5	344	93.09	6.43	224					8.6	1.2	19.7	
Sep-98	7.6	362	92.23	7.29									
Oct-98	7.8	367	91.67	7.85	215					8.5	0.8	20.5	
Nov-98	7.4	356	90.33	9.19									
Dec-98	7.4	340	88.76	10.76									
Jan-99	7.3	354	88.92	10.60									
Feb-99	7.6	349	91.14	8.38									
Mar-99	7.5	322	91.98	7.54									
Apr-99	7.7	323	91.92	7.60									
May-99	7.8	317	94.55	4.97									
Jun-99	7.6	316	93.18	6.34									
Jul-99	7.5	306	93.12	6.40									
Aug-99	7.6	307	92.31	7.21	181					6.6	0.7	12.0	
Sep-99	7.9	301	91.31	8.21									
Oct-99	7.6	298	91.98	7.54	174					5.2	0.6	10.0	
Nov-99	7.5	296	90.32	9.20									
Dec-99	7.1	295	89.79	9.73									
Jan-00	7.1	304	88.54	10.98									
Feb-00	7.6	295	89.73	9.79									
Mar-00	7.6	291	90.50	9.02									
Apr-00	7.7	294	92.78	6.74									
May-00	7.7	302	93.25	6.27									
Jun-00	7.6	292	93.42	6.10									
Jul-00	7.6	292	92.17	7.35	148					2.8	1.0	7.5	
Aug-00	7.6	293	91.42	8.10									
Sep-00	7.6	295	91.30	8.22									
Oct-00	6.8	295	91.21	8.31	173					3.4	1.0	7.6	
Nov-00	7.2	288	90.73	8.79									
Dec-00	7.1	283	89.86	9.66									
Jan-01	7.0	287	89.20	10.32									
Feb-01	6.9	287	89.29	10.23									
Mar-01	7.1	292	90.03	9.49									
Apr-01													
May-01	7.5	286	92.55	6.97									
Jun-01	7.1	282	92.81	6.71									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01	6.9	283	92.89	6.63									
Aug-01	7.4	289	91.99	7.53	166					4.4	1.0	7.1	
Sep-01	7.3	287	91.33	8.19									
Oct-01	7.5	290	91.11	8.41	143					5.0	1.1	7.3	
Nov-01	7.5	289	90.01	9.51									
Dec-01	7.4	284	89.92	9.60									
Jan-02	7.6	283	91.29	8.23									
Feb-02	7.4	283	90.71	8.81									
Mar-02	7.7	283	90.09	9.43									
Apr-02	7.6	289	92.95	6.57									
May-02	7.4	278	93.01	6.51									
Jun-02	7.6	287	93.07	6.45									
Jul-02	7.7	311	92.67	6.85									
Aug-02	7.5	293	91.88	7.64	166					4.3	2.1	7.8	
Sep-02	7.8	283	91.30	8.22									
Oct-02	7.1	283	90.41	9.11	156					3.9	1.1	7.1	
Nov-02	6.9	276	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	276	90.08	9.44									
Apr-03	6.0	289	92.42	7.10									
May-03	6.5	288	92.26	7.26									
Jun-03	7.0	282	92.56	6.96									
Jul-03	7.6	290	92.12	7.40									
Aug-03	6.8	295	91.42	8.10	127					3.8	2.2	6.5	
Sep-03	7.5	281	91.12	8.40									
Oct-03	7.7	277	90.56	8.96	150					3.1	1.4	6.2	
Nov-03	7.0	269	89.72	9.80	133	120	0.2	40.0	0.0	3.0	1.0	5.7	
Dec-03	8.0	267	89.62	9.90	0	101	0.4	197.0	0.0	2.9	1.1	6.0	2
Mar-04	7.7	270	91.42	8.10	158	145	0.0	0.0	0.0	3.7	6.2	0.0	0
May-04	7.7	286	94.44	5.08	222	207	0.4	0.8	0.0	5.7	6.7	6.6	0
Aug-04	7.6	331	93.48	6.00	192	183	0.0	0.1	0.0	6.6	7.9	13.2	0
Sep-04	7.6	304	92.40	7.08	162	150	0.0	0.2	0.0	2.5	5.8	9.0	23
Nov-04	7.6	280	90.48	9.00	208	183	0.0	0.2	0.0	3.3	7.1	0.0	0

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1	#1
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.6	305	91.48	8.00	187	155	0.0	5.4	0.2	0.0	10.0	0.0	0
May-05	7.8	292	93.31	6.17	185	159	0.0	1.0	0.0	0.0	5.6	0.0	0
Aug-05	7.7	293	94.48	5.00	170	157	0.2	1.6	0.0	0.0	3.0	8.6	0
Nov-05	7.4	239	91.48	8.00	137	124	0.0	0.4	0.0	2.9	3.4	9.4	13
Feb-06	7.4	255	90.90	8.58	134	94	0.0	0.3	0.0	8.7	2.3	13.1	30
May-06	7.5	319	92.96	6.52	171	120	0.0	0.0	0.0	4.0	5.7	7.0	90
Aug-06	7.6	260	93.14	6.34	183	66	0.7	0.0	0.0	10.0	4.9	8.2	0
Dec-06	7.6	254	91.40	8.08	174	109	0.0	0.0	0.0	6.0	2.1	0.0	0
Feb-07	7.8	271	89.45	10.03	169	119	0.0	0.0	0.0	2.5	5.8	0.0	0
May-07	7.7	251	94.48	5.00	142	85	0.8	0.2	0.0	3.5	1.2	0.0	0
Aug-07	7.9	265	93.52	5.96	184	160	0.9	0.0	0.0	2.2	1.6	0.0	0
Nov-07	7.7	332	90.90	8.58	210	149	0.5	0.0	0.0	2.5	2.2	0.0	0
Mar-08	7.8	253	91.65	7.83	198	173	0.1	0.0	0.0	15.0	3.7	3.3	8
May-08	7.8	253	94.15	5.33	222	172	0.5	0.0	0.0	8.2	1.4	0.0	0
Aug-08	8.1	273	93.23	6.25	212	163	0.5	0.0	0.0	3.7	1.6	0.0	0
Nov-08	8.0	252	91.23	8.25	210	168	0.0	0.0	0.0	7.4	2.7	0.0	0
Mar-09	7.9	248	89.40	10.08	181	137	0.0	0.0	0.0	7.0	2.6	19.5	0
May-09	7.4	261	93.88	5.60	210	168	0.7	0.0	0.0	11.2	2.2	22.0	0
Aug-09	7.9	272	92.82	6.66	178	160	0.0	0.0	0.0	7.8	1.6	0.0	0
Nov-09	7.5	234	89.81	9.67	170	134	0.0	0.0	0.0	3.2	1.1	10.7	0
Mar-10	7.6	256	90.40	9.08	143	122	0.4	0.0	0.0	4.0	0.6	12.7	0
Jun-10	7.6	277	91.15	8.33	155	110	1.4	0.0	0.0	7.7	1.1	8.3	0
Aug-10	7.6	287	93.31	6.17	158	136	0.4	0.0	0.0	9.5	3.2	14.0	240
Nov-10	7.5	260	90.48	9.00	145	127	0.4	0.0	0.0	8.3	2.1	18.9	240
Feb-11	7.7	233	89.56	9.92	151	121	0.6	0.0	0.0	5.0	3.3	0.0	0
May-11	7.6	257	92.90	6.58	141	118	0.4	0.0	0.0	3.8	1.7	0.0	0
Aug-11	7.7	293	96.23	3.25	190	157	0.4	0.0	0.0	7.5	2.9	0.0	0
Nov-11	7.4	318	91.23	8.25	208	175	0.3	0.4	0.0	7.5	1.7	0.0	5
Mar-12	7.8	281	91.15	8.33	157	136	0.2	0.0	0.0	3.7	2.2	0.0	0
May-12	8.0	243	93.81	5.67	136	118	0.2	0.0	0.0	6.3	2.4	0.0	2
Aug-12	7.2	260	92.73	6.75	151	144	0.0	0.0	0.0	7.0	1.0	0.0	0
Nov-12	7.5	258	91.56	7.92	144	129	0.1	0.0	0.0	5.0	1.7	16.5	80
Averages	7.6	295	91.65	7.86	170	140	0.3	6.3	0.0	5.7	2.5	7.0	19
Min	6.0	233	88.54	3.25	0	66	0.0	0.0	0.0	0.0	0.2	0.0	0
Max	8.8	434	96.23	10.98	234	207	1.4	197.0	0.2	34.3	10.0	23.0	240

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Aug-95	8.1	824	90.96	11.09	484					52.0	11.1	43.8	
Sep-95	7.6	752	90.53	11.52									
Oct-95	7.6	725	90.05	12.00	422					17.4	10.6	36.3	
Nov-95	7.6	723	88.07	13.98									
Jan-96	7.7	687	87.49	14.56									
Feb-96	7.9	674	88.01	14.04									
Mar-96	7.5	680	88.23	13.82									
Apr-96	7.7	657	87.95	14.10									
May-96	7.9	662	89.83	12.22									
Jun-96	8.0	669	89.31	12.74									
Jul-96	7.7	670	89.36	12.69	391					5.3	7.3	34.0	
Aug-96	7.7	673	87.91	14.14									
Sep-96	7.3	679	88.74	13.31									
Oct-96	7.8	680	88.81	13.24	399					6.0	7.9	33.3	
Nov-96	7.5	683	86.71	15.34									
Dec-96	7.9	692	86.39	15.66									
Jan-97	7.6	685	88.89	13.16									
Feb-97	7.4	690	88.05	14.00									
Mar-97	7.7	686	87.34	14.71									
Apr-97	7.3	698	89.57	12.48									
May-97	7.7	698	93.44	8.61									
Jun-97	7.6	706	89.63	12.42									
Jul-97	7.7	704	89.51	12.54	384					9.0	11.5	36.3	
Aug-97	7.3	707	89.57	12.48									
Sep-97	7.9	705	89.62	12.43									
Oct-97	8.5	711	88.23	13.82	403					9.4	11.3	36.9	
Nov-97	7.4	707	86.78	15.27									
Dec-97	7.3	710	87.60	14.45									
Jan-98	7.3	707	87.58	14.47									
Feb-98	7.1	708	90.46	11.59									
Mar-98	7.2	704	88.93	13.12									
Apr-98	7.4	697	88.79	13.26									
May-98	7.3	703	89.54	12.51									
Jun-98	7.5	691	90.43	11.62									
Jul-98	7.3	697	90.33	11.72									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Aug-98	7.4	690	89.21	12.84	401					9.7	8.9	36.0	
Sep-98	7.4	686	89.41	12.64									
Oct-98	7.6	688	87.06	14.99	417					10.3	8.2	35.5	
Nov-98	7.6	692	87.38	14.67									
Dec-98	7.5	687	87.08	14.97									
Jan-99	7.2	690	86.50	15.55									
Feb-99	7.5	688	88.45	13.60									
Mar-99	7.3	684	87.85	14.20									
Apr-99	7.5	677	88.09	13.96									
May-99	7.4	696	89.17	12.88									
Jun-99	7.4	680	89.15	12.90									
Jul-99	7.4	683	89.27	12.78									
Aug-99	7.2	685	88.92	13.13	400					12.6	8.9	34.6	
Sep-99	7.7	693	88.60	13.45									
Oct-99	7.4	692	88.69	13.36	406					11.8	8.8	33.5	
Nov-99	7.3	684	88.29	13.76									
Dec-99	7.2	765											
Jan-00	7.1	688	86.37	15.68									
Feb-00	7.4	689	88.37	13.68									
Mar-00	7.1	689	88.23	13.82									
Apr-00	7.3	694	89.81	12.24									
May-00	7.5	684	89.66	12.39									
Jun-00	7.3	698	89.76	12.29									
Jul-00	7.4	682	88.81	13.24	412					10.5	7.4	31.3	
Aug-00	7.5	679	88.95	13.10									
Sep-00	7.2	679	89.42	12.63									
Oct-00	7.0	686	88.91	13.14	404					10.8	9.0	31.9	
Nov-00	7.2	685	87.96	14.09									
Dec-00	7.1	672	87.08	14.97									
Jan-01	7.0	682	87.42	14.63									
Feb-01	7.0	686	87.05	15.00									
Mar-01	7.3	648	87.90	14.15									
Apr-01													
May-01	7.5	691	89.38	12.67									
Jun-01	7.4	684	88.83	13.22									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01	7.3	676	88.20	13.85									
Aug-01	6.9	699	89.60	12.45	405					12.4	7.9	32.9	
Sep-01	7.1	720	89.76	12.29									
Oct-01	7.1	694	89.91	12.14	412					12.5	7.9	33.6	
Nov-01	7.4	694	87.45	14.60									
Dec-01													
Jan-02													
Feb-02	7.1	739	88.66	13.39									
Mar-02	7.6	717	87.11	14.94									
Apr-02	7.3	702	89.32	12.73									
May-02	7.0	701	89.60	12.45									
Jun-02	7.0	670	88.85	13.20									
Jul-02	7.0	689	89.14	12.91									
Aug-02	7.3	679	88.54	13.51	386					12.5	7.1	33.3	
Sep-02	7.4	681	89.21	12.84									
Oct-02	7.3	685	88.30	13.75	418					12.2	6.8	33.8	
Nov-02	6.9	707	86.95	15.10									
Dec-02			87.86	14.19									
Jan-03			88.77	13.28									
Feb-03	6.9	749	81.50	20.55									
Mar-03	7.6	705	88.67	13.38									
Apr-03			88.15	13.90									
May-03	6.5	718	89.21	12.84									
Jun-03	6.8	681	89.79	12.26									
Jul-03	7.4	717	88.03	14.02									
Aug-03	6.7	706	93.70	8.35	359					9.9	5.1	30.0	
Sep-03	7.4	709	89.85	12.20									
Oct-03	7.3	675	88.05	14.00	394					11.3	5.5	31.3	
Nov-03	6.9	726	86.95	15.10	423	332	0.0	0.0	0.0	11.4	6.1	31.6	
Dec-03	7.4	724	88.19	13.86	426	311	0.0	0.0	0.0	10.6	5.6	30.8	2
Mar-04	7.0	800	91.93	10.12	460	419	0.0	0.0	0.0	0.0	10.5	27.5	140
May-04	7.3	802	90.05	12.00	448	429	0.5	0.4	0.0	11.2	9.5	38.0	180
Aug-04	6.9	825	91.60	10.16	479	467	0.0	0.0	0.0	7.5	8.2	35.4	0
Sep-04	7.0	724	87.93	13.83	426	394	0.0	0.0	0.0	7.7	7.2	32.5	23
Nov-04	7.5	628	88.86	12.90	354	333	0.0	0.2	0.0	9.9	8.2	20.9	8

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2	#2
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.0	699	94.51	7.25	476	461	0.2	2.4	0.0	9.9	9.0	24.3	0
May-05	7.6	750	88.43	13.33	445	381	0.0	0.7	0.0	9.9	8.8	26.7	0
Aug-05	7.0	744	89.34	12.42	445	360	0.0	1.3	0.0	10.0	3.9	36.2	0
Nov-05	6.8	723	88.06	13.70	428	423	0.0	0.3	0.0	0.0	5.7	31.2	8
Feb-06	7.0	703	87.76	14.00	463	410	0.0	0.5	0.0	19.9	5.5	34.1	0
May-06	7.5	802	88.26	13.50	517	439	0.0	0.0	0.0	10.5	5.5	31.7	2
Aug-06	6.9	802	89.47	12.29	531	418	0.7	0.0	0.0	45.0	6.7	36.6	0
Dec-06	6.8	802	87.93	13.83	538	400	0.0	0.0	0.0	10.0	2.2	40.7	12
Feb-07	7.2	987	86.60	15.16	407	362	0.0	0.0	0.0	0.0	9.7	23.6	4
May-07	7.1	582	90.26	11.50	353	268	0.6	0.0	0.0	30.0	3.9	31.3	4
Aug-07	7.1	795	89.86	11.90	493	418	0.9	0.0	0.0	16.2	5.0	14.8	0
Nov-07	7.1	987	87.76	14.00	469	366	0.6	0.0	0.0	20.0	5.0	11.9	4
Mar-08	7.0	778	93.09	8.67	445	386	0.2	0.0	0.0	25.0	5.0	24.0	0
May-08	7.3	738	89.26	12.50	451	395	0.4	0.0	0.0	26.2	3.0	29.2	0
Aug-08	7.7	851	89.51	12.25	502	445	0.6	0.0	0.0	21.2	3.2	21.4	0
Nov-08	7.5	793	87.93	13.83	524	410	0.2	0.0	0.0	29.7	4.6	18.6	0
Mar-09	7.1	794	86.60	15.16	530	415	0.0	0.0	0.0	32.9	6.7	25.1	0
May-09	7.4	810	89.60	12.16	544	489	0.0	0.3	0.0	44.1	7.7	28.2	0
Aug-09	7.2	760	89.93	11.83	450	420	0.9	0.0	0.0	31.8	6.1	14.8	0
Nov-09	6.9	810	87.34	14.42	540	481	0.0	0.0	0.0	39.5	2.4	21.0	0
Mar-10	6.9	802	85.51	16.25	449	421	0.0	0.0	0.0	48.7	2.6	38.8	0
Jun-10	7.2	745	88.96	12.80	405	366	0.6	0.0	0.0	40.7	3.4	28.6	0
Aug-10	7.2	842	89.84	11.92	463	428	0.3	0.0	0.0	67.5	9.4	54.6	0
Nov-10	7.0	895	87.84	13.92	501	476	0.3	0.0	0.0	62.4	3.2	37.0	23
Feb-11	7.2	706	87.51	14.25	459	367	0.6	0.0	0.0	70.0	3.9	30.9	0
May-11	7.2	714	87.59	14.17	393	346	0.3	0.0	0.0	67.5	2.6	41.9	23
Aug-11	7.3	812	90.26	11.50	528	506	0.3	0.0	0.0	70.0	5.8	51.8	0
Nov-11	6.9	896	89.26	12.50	534	460	0.4	0.3	0.0	60.0	4.6	47.7	5
Mar-12	7.0	826	86.84	14.92	463	438	0.3	0.0	0.0	55.0	4.9	42.8	0
May-12	7.4	796	86.59	15.17	446	422	0.4	0.0	0.0	53.8	3.7	41.2	2
Aug-12	6.8	864	88.51	13.25	560	520	0.0	0.0	0.0	58.0	4.6	43.0	0
Nov-12	7.4	781	87.84	13.92	438	415	0.4	0.0	0.0	57.0	2.2	33.8	240
Averages	7.3	722	88.70	13.27	447	410	0.2	0.2	0.0	25.2	6.4	32.5	18
Min	6.5	582	81.50	7.25	353	268	0.0	0.0	0.0	0.0	2.2	11.9	0
Max	8.5	987	94.51	20.55	560	520	0.9	2.4	0.0	70.0	11.5	54.6	240

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Aug-95	8.0	850	91.17	2.87	494					32.4	10.1	44.9	
Sep-95	7.6	865	89.99	4.05									
Oct-95	7.6	811	89.32	4.72	486					19.4	10.3	41.7	
Nov-95	7.5	789	87.87	6.17									
Jan-96	7.7	789	87.49	6.55									
Feb-96	7.8	765	87.55	6.49									
Mar-96	7.6	756	87.55	6.49									
Apr-96	7.6	753	87.44	6.60									
May-96	7.8	752	88.86	5.18									
Jun-96	7.9	750	88.83	5.21									
Jul-96	7.7	753	88.51	5.53	419					7.8	9.4	36.7	
Aug-96	8.0	755	87.30	6.74									
Sep-96	7.4	753	87.78	6.26									
Oct-96	7.8	742	87.97	6.07	454					7.9	9.2	35.7	
Nov-96	7.4	747	86.12	7.92									
Dec-96	7.8	749	85.86	8.18									
Jan-97	7.5	741	88.28	5.76									
Feb-97	7.4	746	87.37	6.67									
Mar-97	7.8	737	86.80	7.24									
Apr-97	7.3	750	88.77	5.27									
May-97	7.6	743	87.50	6.54									
Jun-97	7.6	745	88.46	5.58									
Jul-97	7.6	732	88.70	5.34	415					7.6	10.8	35.3	
Aug-97	7.3	740	88.87	5.17									
Sep-97	7.9	738	88.84	5.20									
Oct-97	8.4	745	87.44	6.60	428					7.8	10.8	36.5	
Nov-97	7.4	745	86.37	7.67									
Dec-97	7.3	745	87.04	7.00									
Jan-98	7.4	755	87.52	6.52									
Feb-98	7.2	762	89.56	4.48									
Mar-98	7.3	777	88.38	5.66									
Apr-98	7.5	776	87.96	6.08									
May-98	7.4	762	88.61	5.43									
Jun-98	7.5	758	88.79	5.25									
Jul-98	7.3	774	89.16	4.88									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Aug-98	7.4	770	89.04	5.00	443					8.8	13.8	35.9	
Sep-98	7.4	761	88.51	5.53									
Oct-98	7.6	761	88.30	5.74	439					8.5	11.8	35.0	
Nov-98	7.7	761	82.90	11.14									
Dec-98	7.6	760	86.64	7.40									
Jan-99	7.4	754	86.06	7.98									
Feb-99	7.6	753	87.90	6.14									
Mar-99	7.4	755	87.19	6.85									
Apr-99	7.5	754	87.16	6.88									
May-99	7.5	763	88.14	5.90									
Jun-99	7.4	761	88.31	5.73									
Jul-99	7.4	767	88.19	5.85									
Aug-99	7.4	774	88.20	5.84	480					9.5	13.6	35.7	
Sep-99	8.0	768	88.05	5.99									
Oct-99	7.5	767	88.14	5.90	451					9.4	13.4	35.7	
Nov-99	7.3	769	87.68	6.36									
Dec-99	7.2	683											
Jan-00	7.3	757	86.06	7.98									
Feb-00													
Mar-00	7.4	752	87.70	6.34									
Apr-00	7.5	755	88.68	5.36									
May-00	7.3	759	88.46	5.58									
Jun-00	7.5	772	88.41	5.63									
Jul-00	7.5	763	87.94	6.10	452					6.1	13.3	32.1	
Aug-00	7.5	767	87.54	6.50									
Sep-00	7.4	768	88.73	5.31									
Oct-00	7.4	764	88.64	5.40	466					8.8	13.9	35.1	
Nov-00	7.4	766	87.30	6.74									
Dec-00	7.3	757	86.44	7.60									
Jan-01	7.3	773	86.97	7.07									
Feb-01	7.4	754	86.58	7.46									
Mar-01	7.8	746	87.44	6.60									
Apr-01													
May-01	7.5	770	87.79	6.25									
Jun-01	7.4	767	88.12	5.92									

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01	7.3	771	87.94	6.10									
Aug-01	7.4	773	88.65	5.39	498					9.5	13.2	34.7	
Sep-01	7.2	781	88.73	5.31									
Oct-01	7.2	777	88.07	5.97	470					10.0	13.7	36.7	
Nov-01	7.6	784	86.88	7.16									
Dec-01													
Jan-02													
Feb-02	7.2	941	87.92	6.12									
Mar-02	7.4	816	86.53	7.51									
Apr-02	7.2	801	88.28	5.76									
May-02	7.3	805	88.35	5.69									
Jun-02	7.4	780	88.05	5.99									
Jul-02	7.6	786	88.14	5.90									
Aug-02	7.3	786	87.85	6.19	452					9.4	8.8	32.4	
Sep-02	7.4	802	88.23	5.81									
Oct-02	7.3	807	87.47	6.57	463					9.9	6.5	39.5	
Nov-02	7.3	785	86.27	7.77									
Dec-02			87.57	6.47									
Jan-03			88.29	5.75									
Feb-03													
Mar-03	7.8	751	87.04	7.00									
Apr-03			85.43	8.61									
May-03	6.7	770	88.02	6.02									
Jun-03	7.0	778	88.26	5.78									
Jul-03	7.6	769	85.14	8.90									
Aug-03	6.9	763	85.48	8.56	410					7.7	8.7	28.1	
Sep-03	7.4	747	88.82	5.22									
Oct-03	7.7	750	87.12	6.92	432					8.7	10.0	32.4	
Nov-03	7.1	760	86.44	7.60	454	367	0.0	0.0	0.0	9.1	11.0	31.7	
Dec-03	7.7	719	88.80	5.24	462	308	0.7	0.0	31.0	11.7	11.7	37.6	1600
Mar-04	7.4	800	88.08	5.96	487	449	0.0	0.0	0.0	0.0	19.8	48.9	4
May-04	7.6	780	88.96	5.08	492	483	0.0	0.8	0.0	12.5	21.0	44.8	4
Aug-04	7.3	754	87.84	6.00	499	481	0.0	0.1	0.0	7.5	17.1	38.7	0
Sep-04	7.4	728	87.26	6.58	446	420	0.2	0.0	0.0	6.2	15.2	39.5	23
Nov-04	7.7	710	88.14	5.70	396	376	0.0	0.0	0.0	8.3	18.1	28.4	5

MORNING STAR PACKING COMPANY
GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3	#3
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.3	816	89.18	4.66	522	511	0.6	20.0	0.6	7.5	18.5	49.3	0
May-05	7.5	865	87.38	6.46	516	477	0.0	0.7	0.0	12.5	27.2	43.6	0
Aug-05	7.5	785	88.59	5.25	480	343	0.9	0.0	0.4	5.0	18.4	34.5	0.0
Nov-05	7.1	793	87.18	6.66	473	414	0.0	0.6	0.0	0.0	6.4	40.7	23
Feb-06	7.1	791	85.34	8.50	488	413	0.0	0.7	0.0	27.4	10.8	48.9	30
May-06	7.1	938	87.80	6.04	633	561	0.0	0.1	0.0	37.5	12.9	46.9	2
Aug-06	7.2	938	88.14	5.70	576	517	0.8	0.0	0.0	40.0	9.3	42.0	0
Dec-06	7.2	825	87.97	5.87	510	393	0.0	0.0	0.0	37.4	11.9	54.7	0
Feb-07	7.3	777	88.68	5.16	537	445	0.0	0.0	0.0	0.0	15.0	9.6	2
May-07	7.5	664	88.59	5.25	360	273	0.8	0.0	0.0	26.3	10.3	35.4	4
Aug-07	7.5	825	88.84	5.00	555	474	1.0	0.0	0.0	13.7	10.8	21.8	0
Nov-07	7.4	1,083	87.51	6.33	495	388	0.5	0.0	0.0	13.7	15.1	28.8	4
Mar-08	7.4	425	87.84	6.00	253	212	0.1	0.0	0.0	30.0	3.9	21.4	8
May-08	7.6	732	88.43	5.41	463	395	0.5	0.0	0.0	12.0	6.4	23.8	0
Aug-08	7.9	773	89.34	4.50	479	421	0.5	0.0	0.0	15.0	8.6	28.4	0
Nov-08	7.9	833	87.92	5.92	549	442	0.0	0.0	0.0	24.8	12.1	24.5	0
Mar-09	7.3	656	87.26	6.58	432	347	0.0	0.0	0.0	26.0	12.3	38.6	0
May-09	7.4	641	87.01	6.83	420	383	0.2	0.2	0.0	18.9	10.8	36.3	0
Aug-09	7.6	815	88.26	5.58	540	470	0.0	0.0	0.0	28.0	8.7	37.2	0
Nov-09	7.3	786	87.59	6.25	517	438	0.3	0.0	0.0	21.5	8.9	32.5	0
Mar-10	7.4	725	88.43	5.41	406	356	0.0	0.0	0.0	23.7	15.1	42.4	0
Jun-10	7.2	630	89.26	4.58	388	288	0.4	0.0	0.0	28.1	7.7	34.6	0
Aug-10	7.3	975	89.92	3.92	536	493	0.5	0.0	0.0	47.5	51.4	44.1	0
Nov-10	7.3	814	87.92	5.92	456	425	0.3	0.0	0.0	31.6	16.4	46.7	240
Feb-11	7.5	806	88.09	5.75	524	419	0.9	0.0	0.0	30.0	12.2	49.8	0
May-11	7.4	784	88.01	5.83	431	405	0.7	0.0	0.0	26.2	20.0	55.9	23
Aug-11	7.5	861	90.51	3.33	560	526	0.6	0.0	0.0	32.5	27.4	62.9	0
Nov-11	7.3	1,056	89.51	4.33	630	570	0.6	0.5	0.0	33.7	30.8	65.4	7
Mar-12	7.4	890	85.92	7.92	498	457	0.6	0.0	0.0	25.0	18.0	56.6	2
May-12	7.6	954	87.17	6.67	534	490	0.7	0.0	0.0	31.3	26.3	60.5	0
Aug-12	7.1	859	87.92	5.92	520	510	0.0	0.0	0.0	30.0	20.6	52.4	0
Nov-12	7.4	852	86.76	7.08	477	432	0.6	0.0	0.0	33.0	11.1	51.9	30
Averages	7.5	777	87.86	6.13	476	425	0.3	0.6	0.8	17.8	14.2	39.2	53
Min	6.7	425	82.90	2.87	253	212	0.0	0.0	0.0	0.0	3.9	9.6	0
Max	8.4	1,083	91.17	11.14	633	570	1.0	20.0	31.0	47.5	51.4	65.4	1,600

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Jul-01													
Aug-01													
Sep-01													
Oct-01													
Nov-01													
Dec-01													
Jan-02													
Feb-02													
Mar-02													
Apr-02													
May-02													
Jun-02													
Jul-02													
Aug-02													
Sep-02													
Oct-02													
Nov-02													
Dec-02													
Jan-03													
Feb-03													
Mar-03													
Apr-03													
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	637	89.81	7.42	348	308	0.0	0.0	0.0	30.5	5.2	23.0	23
Nov-04	7.6	604	89.63	7.60	352	287	0.0	0.2	0.0	27.5	6.8	20.5	0

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												
Sample Location	Well #4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.3	704	90.07	7.16	438	370	0.4	83.0	2.8	65.0	7.1	20.5	0
May-05	7.7	763	90.31	6.92	506	400	0.3	0.8	0.0	79.9	5.2	28.3	0
Aug-05	7.5	541	91.40	5.83	298	228	0.0	3.3	0.0	25.0	2.7	40.0	0
Nov-05	7.4	554	89.57	7.66	296	293	0.0	0.2	0.0	33.4	8.3	16.9	0
Feb-06	7.2	605	89.48	7.75	367	304	0.0	1.3	0.0	33.4	5.8	29.2	0
May-06	7.4	702	90.11	7.12	481	399	0.0	0.0	0.0	70.0	3.9	26.7	0
Aug-06	7.2	537	91.47	5.76	305	226	0.8	0.0	0.0	95.0	3.8	22.2	4
Dec-06	7.5	613	89.15	8.08	365	276	0.0	0.0	0.0	41.2	4.2	39.9	11
Feb-07	7.4	654	87.81	9.42	414	340	0.0	0.0	0.0	34.9	10.8	20.9	0
May-07	7.4	529	91.65	5.58	309	233	0.7	0.0	0.0	50.0	4.1	25.9	4
Aug-07	7.5	654	91.40	5.83	327	269	0.9	0.0	0.0	28.7	3.9	19.3	8
Nov-07	7.4	758	89.23	8.00	385	260	0.3	0.0	0.0	22.5	5.8	19.3	2
Mar-08	7.4	645	89.52	7.71	378	337	0.1	0.0	0.0	52.5	4.2	21.0	0
May-08	7.5	573	91.48	5.75	371	301	0.3	0.0	0.0	23.7	4.8	10.7	0
Aug-08	8.0	575	91.44	5.79	351	285	0.5	0.0	0.0	25.0	5.4	8.6	0
Nov-08	7.6	551	89.31	7.92	360	295	0.0	0.0	0.0	24.8	7.5	0.0	0
Mar-09	7.8	598	88.23	9.00	373	308	0.0	0.0	0.0	20.0	6.6	27.5	0
May-09	7.6	588	92.40	4.83	347	322	0.0	0.2	0.0	24.7	7.1	22.2	0
Aug-09	7.8	782	93.07	4.16	420	375	0.5	0.0	0.0	41.0	4.4	44.0	0
Nov-09	7.3	525	88.56	8.67	327	265	0.4	0.0	0.0	17.5	2.1	18.1	0
Mar-10	7.4	569	90.23	7.00	324	308	0.3	0.0	0.0	15.0	2.1	27.2	0
Jun-10	7.7	620	91.40	5.83	344	306	0.8	0.0	0.0	16.8	4.1	21.9	0
Aug-10	7.5	527	91.81	5.42	290	267	0.6	0.0	0.0	27.5	9.4	23.6	0
Nov-10	7.3	511	89.15	8.08	286	265	0.5	0.0	0.0	18.3	4.8	22.2	13
Feb-11	7.5	497	88.48	8.75	323	259	0.7	0.0	0.0	18.7	4.6	19.3	0
May-11	7.5	501	90.65	6.58	275	249	0.4	0.0	0.0	13.7	5.8	16.9	240
Aug-11	7.6	546	93.23	4.00	355	319	0.5	0.0	0.0	17.5	7.2	21.0	0
Nov-11	7.4	536	91.23	6.00	320	286	0.5	0.4	0.0	17.5	6.1	19.3	2
Mar-12	7.5	569	88.23	9.00	319	293	0.6	0.0	0.0	27.5	5.6	23.9	2
May-12	7.9	532	91.40	5.83	298	274	0.5	0.0	0.0	17.5	7.2	22.2	0
Aug-12	7.0	542	90.56	6.67	350	325	0.0	0.0	0.0	16.0	7.7	26.5	0
Nov-12	7.3	546	89.23	8.00	306	287	0.5	0.0	0.0	17.0	5.0	18.1	0
Averages	7.5	594	90.31	6.92	350	298	0.3	2.6	0.1	32.0	5.6	22.6	9
Min	7.0	497	87.81	4.00	275	226	0.0	0.0	0.0	13.7	2.1	0.0	0
Max	8.0	782	93.23	9.42	506	400	0.9	83.0	2.8	95.0	10.8	44.0	240

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01													
Aug-01													
Sep-01													
Oct-01													
Nov-01													
Dec-01													
Jan-02													
Feb-02													
Mar-02													
Apr-02													
May-02													
Jun-02													
Jul-02													
Aug-02													
Sep-02													
Oct-02													
Nov-02													
Dec-02													
Jan-03													
Feb-03													
Mar-03													
Apr-03													
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	949	84.05	4.25	704	686	0.3	0.0	0.0	55.0	42.3	124.3	50
Nov-04	7.8	830	84.14	4.16	528	487	0.0	0.2	0.0	22.5	7.1	79.8	23

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												
Sample Location	Well #5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.7	728	85.05	3.25	462	412	0.3	88.0	2.4	22.5	9.0	76.5	0
May-05	7.8	811	84.01	4.29	488	458	0.0	1.0	0.0	19.9	7.6	88.8	0
Aug-05	7.8	815	84.72	3.58	469	434	0.0	5.5	0.1	30.0	4.4	82.0	0
Nov-05	7.8	816	82.93	5.37	533	435	0.0	0.2	0.0	0.0	6.2	130.0	8
Feb-06	7.6	840	84.05	4.25	572	514	0.0	1.7	0.0	32.4	5.8	118.1	0
May-06	7.8	903	84.47	3.83	697	627	0.0	0.1	0.0	33.7	5.1	106.9	0
Aug-06	7.6	909	81.45	6.85	627	555	0.7	0.0	0.0	95.0	5.9	142.8	0
Dec-06	7.9	884	84.59	3.71	610	527	0.0	0.0	0.0	77.4	6.2	144.4	0
Feb-07	7.7	1,037	82.17	6.13	655	604	0.0	0.0	0.0	8.9	9.3	194.6	0
May-07	7.7	876	84.97	3.33	563	464	0.9	0.0	0.0	23.3	3.9	131.3	4
Aug-07	7.7	881	84.55	3.75	524	455	1.0	0.0	0.0	18.7	4.2	42.4	0
Nov-07	7.7	1,115	83.55	4.75	484	350	0.4	0.0	0.0	26.2	3.8	64.2	2
Mar-08	7.8	858	84.13	4.17	533	466	0.3	0.0	0.0	10.0	4.8	84.8	23
May-08	7.8	857	84.64	3.66	617	560	0.5	0.0	0.0	76.8	3.3	63.0	0
Aug-08	8.2	900	84.63	3.67	585	532	0.5	0.0	0.0	27.5	4.1	75.7	0
Nov-08	7.9	970	83.80	4.50	670	555	0.0	0.0	0.0	24.8	5.8	74.0	0
Mar-09	8.1	974	84.72	3.58	663	583	0.2	0.0	0.0	25.5	8.5	115.0	0
May-09	7.9	961	84.64	3.66	624	510	0.3	0.2	0.1	24.2	8.8	104.0	0
Aug-09	7.9	910	83.22	5.08	608	510	0.8	0.0	0.0	31.4	4.2	68.4	0
Nov-09	7.6	851	84.13	4.17	571	506	0.3	0.0	0.0	21.5	5.4	74.9	0
Mar-10	7.5	987	84.64	3.66	582	530	0.5	0.0	0.0	30.0	7.1	89.2	0
Jun-10	8.0	933	82.55	5.75	566	520	1.2	0.0	0.0	28.0	6.9	65.0	0
Aug-10	7.7	905	85.05	3.25	498	423	0.5	0.0	0.0	32.0	15.2	92.4	0
Nov-10	7.5	870	84.30	4.00	487	458	0.5	0.0	0.0	25.8	7.4	92.2	0
Feb-11	7.7	838	85.30	3.00	545	436	0.8	0.0	0.0	27.5	12.5	90.5	0
May-11	7.6	1,006	84.72	3.58	553	495	0.8	0.0	0.0	67.5	25.3	105.0	0
Aug-11	7.7	1,198	85.80	2.50	779	721	0.9	0.0	0.0	45.0	54.1	166.0	0
Nov-11	7.6	1,275	84.39	3.91	760	610	0.9	0.4	0.0	51.2	40.2	177.8	7
Mar-12	7.7	1,122	84.09	4.21	628	601	0.9	0.0	0.0	50.0	25.3	153.7	0
May-12	8.1	1,075	83.47	4.83	602	576	0.9	0.0	0.0	45.0	22.4	147.4	0
Aug-12	7.3	1,558	84.30	4.00	930	875	0.0	0.0	0.0	71.2	83.7	74.5	0
Nov-12	7.6	1,139	83.30	5.00	638	616	0.9	0.0	0.0	55.0	26.3	152.3	0
Averages	7.7	958	84.13	4.17	599	532	0.4	2.9	0.1	36.3	14.5	105.6	3
Min	7.3	728	81.45	2.50	462	350	0.0	0.0	0.0	0.0	3.3	42.4	0
Max	8.2	1,558	85.80	6.85	930	875	1.2	88.0	2.4	95.0	83.7	194.6	50

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01													
Aug-01													
Sep-01													
Oct-01													
Nov-01													
Dec-01													
Jan-02													
Feb-02													
Mar-02													
Apr-02													
May-02													
Jun-02													
Jul-02													
Aug-02													
Sep-02													
Oct-02													
Nov-02													
Dec-02													
Jan-03													
Feb-03													
Mar-03													
Apr-03													
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	1,329	81.52	5.00	770	710	0.0	0.0	0.0	95.0	11.0	190.9	23
Nov-04	7.9	1,066	85.02	1.50	699	630	0.0	0.3	0.0	67.4	9.3	144.4	0

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												
Sample Location	Well #6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6	#6
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.5	1,056	84.27	2.25	689	640	0.3	23.6	0.8	65.0	11.4	144.8	0
May-05	7.9	1,212	81.19	5.33	750	713	0.0	0.6	0.0	57.4	16.0	146.0	0
Aug-05	7.5	1,164	84.10	2.42	751	705	0.0	5.0	0.1	40.0	7.2	127.0	0
Nov-05	7.6	1,096	81.40	5.12	748	627	0.0	0.3	0.0	0.0	7.5	155.5	4
Feb-06	7.1	1,067	82.69	3.83	700	649	0.0	0.4	0.0	56.2	6.7	158.0	0
May-06	7.7	1,073	82.11	4.41	666	617	0.0	0.0	0.0	51.2	8.9	167.4	0
Aug-06	7.4	1,043	84.36	2.16	682	567	1.0	0.0	0.0	175.0	10.5	145.7	0
Dec-06	7.6	1,135	82.85	3.67	685	607	0.0	0.0	0.0	64.9	14.8	139.9	0
Feb-07	7.5	1,049	80.86	5.66	669	584	0.0	0.0	0.0	14.4	16.5	118.1	0
May-07	7.6	915	82.77	3.75	600	553	0.7	0.0	0.0	41.2	6.6	123.9	4
Aug-07	7.6	1,155	82.19	4.33	600	516	1.1	0.0	0.0	43.7	12.8	93.0	0
Nov-07	7.5	1,447	81.69	4.83	741	603	0.6	0.0	0.0	53.7	12.7	100.0	2
Mar-08	7.5	1,207	82.60	3.92	658	573	0.4	0.0	0.0	67.5	12.8	119.0	0
May-08	7.5	1,212	81.77	4.75	739	667	0.5	0.0	0.0	53.7	6.5	93.8	0
Aug-08	7.9	1,173	84.94	1.58	680	608	0.7	0.0	0.0	50.0	7.2	93.4	0
Nov-08	7.8	1,232	83.27	3.25	725	660	0.2	0.0	0.0	64.5	8.2	84.0	0
Mar-09	7.8	1,269	82.94	3.58	710	643	0.2	0.0	0.0	46.2	7.9	91.3	0
May-09	7.9	1,334	79.69	6.83	730	644	0.4	0.3	0.1	64.2	11.6	88.7	0
Aug-09	7.9	1,220	80.69	5.83	725	630	1.1	0.0	0.0	44.0	12.0	82.0	0
Nov-09	7.3	1,236	83.27	3.25	695	626	0.3	0.0	0.0	61.5	7.5	73.2	0
Mar-10	7.3	1,320	83.19	3.33	765	680	0.5	0.0	0.0	55.0	4.7	95.9	0
Jun-10	7.5	1,288	81.94	4.58	821	675	0.3	0.0	0.0	73.2	8.5	65.6	0
Aug-10	7.4	1,280	83.35	3.17	704	665	0.5	0.0	0.0	65.0	5.9	91.2	0
Nov-10	7.2	1,269	83.35	3.17	710	667	0.3	0.0	0.0	63.3	3.2	73.7	130
Feb-11	7.4	1,198	83.69	2.83	779	623	0.6	0.0	0.0	60.0	4.2	72.4	0
May-11	7.4	1,153	82.44	4.08	634	570	0.2	0.0	0.0	55.0	5.2	80.7	0
Aug-11	7.5	1,269	84.19	2.33	825	798	0.3	0.0	0.0	60.0	5.8	75.7	0
Nov-11	7.4	1,295	86.11	0.41	840	710	0.2	0.2	0.0	62.5	6.5	78.2	7
Mar-12	7.4	1,424	82.60	3.92	797	754	0.4	0.0	0.0	65.0	5.0	86.3	0
May-12	7.6	1,323	80.94	5.58	740	701	0.4	0.0	0.0	63.8	5.9	80.3	0
Aug-12	7.1	1,227	81.94	4.58	780	745	0.0	0.0	0.0	112.0	7.1	66.5	0
Nov-12	7.4	1,205	81.60	4.92	674	638	0.3	0.0	0.0	58.0	5.6	68.7	0
Averages	7.5	1,204	82.69	3.83	720	647	0.3	0.9	0.0	60.9	8.6	106.3	5
Min	7.1	915	79.69	0.41	600	516	0.0	0.0	0.0	0.0	3.2	65.6	0
Max	7.9	1,447	86.11	6.83	840	798	1.1	23.6	0.8	175.0	16.5	190.9	130

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7
Date	pH	EC	Elevation	Depth to	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate	Sulfate	Total
				GroundWater							Nitrogen		Coliform
Jul-01													
Aug-01													
Sep-01													
Oct-01													
Nov-01													
Dec-01													
Jan-02													
Feb-02													
Mar-02													
Apr-02													
May-02													
Jun-02													
Jul-02													
Aug-02													
Sep-02													
Oct-02													
Nov-02													
Dec-02													
Jan-03													
Feb-03													
Mar-03													
Apr-03													
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	931	80.41	4.75	534	468	0.0	0.0	0.0	82.5	11.0	104.0	0
Nov-04	7.5	842	81.66	3.50	542	477	0.0	0.2	0.2	74.9	9.9	73.2	0

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												
Sample Location	Well #7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7	#7
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.4	890	82.50	2.66	531	463	0.0	56.0	2.2	72.4	11.8	74.0	0
May-05	7.9	931	80.99	4.17	536	515	0.3	0.8	0.1	70.0	11.5	72.8	0
Aug-05	7.6	960	81.74	3.42	528	506	0.0	1.8	0.3	85.0	7.0	79.4	0
Nov-05	7.5	910	81.16	4.00	554	486	0.0	0.3	0.1	4.5	8.6	111.1	23
Feb-06	7.2	944	80.83	4.33	563	439	0.0	0.6	0.0	88.7	7.5	107.8	0
May-06	7.6	968	80.96	4.20	616	481	0.0	0.0	0.0	84.9	8.4	115.6	0
Aug-06	7.3	948	77.12	8.04	619	492	0.7	0.0	0.0	314.9	6.8	117.3	0
Dec-06	7.2	1,011	81.74	3.42	647	543	0.0	0.0	0.1	82.4	4.3	111.5	0
Feb-07	7.4	987	81.24	3.92	742	622	0.0	0.0	1.0	78.9	13.1	159.2	0
May-07	7.5	846	82.49	2.67	624	587	0.8	0.1	0.0	85.0	6.2	105.8	4
Aug-07	7.5	1,055	82.58	2.58	615	528	1.0	0.0	0.0	74.9	7.9	48.5	0
Nov-07	7.4	1,414	81.00	4.16	694	570	0.5	0.0	0.1	91.2	5.2	74.5	23
Mar-08	7.4	1,085	81.37	3.79	607	600	0.2	0.0	0.0	102.7	13.8	109.0	0
May-08	7.5	1,048	82.50	2.66	591	546	0.5	0.0	0.0	78.7	3.7	87.6	0
Aug-08	8.0	1,095	82.08	3.08	613	558	0.5	0.0	0.0	82.4	7.0	93.0	0
Nov-08	8.0	1,114	81.58	3.58	710	560	0.2	0.0	0.0	104.0	9.9	77.5	0
Mar-09	7.5	1,112	81.75	3.41	698	582	0.5	0.0	0.1	83.7	12.4	95.0	0
May-09	7.7	1,088	80.91	4.25	655	576	0.4	0.0	0.2	75.3	14.6	102.0	0
Aug-09	7.9	1,120	77.33	7.83	680	615	0.9	0.0	0.0	75.0	10.4	77.0	0
Nov-09	7.3	1,080	81.58	3.58	678	601	0.3	0.0	0.0	79.5	2.4	75.3	0
Mar-10	7.3	1,087	82.00	3.16	652	615	0.4	0.0	0.1	85.0	4.2	94.6	0
Jun-10	7.5	1,088	81.83	3.33	665	576	0.3	0.0	0.0	82.2	4.3	21.9	0
Aug-10	7.4	1,062	82.74	2.42	584	537	0.2	0.0	0.1	87.5	4.7	35.1	8
Nov-10	7.3	1,108	81.83	3.33	620	596	0.2	0.0	0.0	87.5	3.1	167.0	30
Feb-11	7.4	1,070	82.24	2.92	696	556	0.5	0.1	0.2	95.0	3.8	91.7	0
May-11	7.4	1,031	82.16	3.00	567	516	0.5	0.0	0.0	90.0	4.8	86.0	0
Aug-11	7.6	1,092	83.49	1.67	710	683	0.6	0.0	0.0	87.5	6.5	88.5	0
Nov-11	7.3	1,235	82.58	2.58	830	775	0.5	0.3	0.3	120.0	5.5	96.3	7
Mar-12	7.4	1,206	81.83	3.33	675	639	0.5	0.0	0.7	95.0	5.8	95.6	0
May-12	7.6	1,177	80.16	5.00	659	624	0.5	0.0	0.8	113.8	4.4	93.4	0
Aug-12	7.0	1,156	82.66	2.50	710	668	0.0	0.0	0.0	91.0	5.0	58.4	0
Nov-12	7.4	1,166	80.24	4.92	653	615	0.5	0.0	0.6	93.0	1.1	85.6	23
Averages	7.5	1,055	81.45	3.71	635	565	0.3	1.8	0.2	91.1	7.2	90.7	3
Min	7.0	842	77.12	1.67	528	439	0.0	0.0	0.0	4.5	1.1	21.9	0
Max	8.0	1,414	83.49	8.04	830	775	1.0	56.0	2.2	314.9	14.6	167.0	30

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01													
Aug-01													
Sep-01													
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Jun-03													
Jul-03													
Aug-03													
Sep-03													
Oct-03													
Nov-03													
Dec-03													
Mar-04													
May-04													
Aug-04													
Sep-04	7.3	870	74.81	2.66	512	464	0.0	0.0	0.0	43.5	0.0	86.4	4
Nov-04	7.5	1,244	73.87	3.60	732	657	0.0	0.3	1.2	84.9	2.2	68.3	0

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												
Sample Location	Well #8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.2	1,174	75.47	2.00	755	680	0.4	35.2	1.9	85.0	0.4	67.9	0
May-05	7.4	1,113	72.01	5.46	699	652	0.6	0.5	0.9	54.9	0.0	67.8	0
Aug-05	7.7	1,313	73.97	3.50	729	618	0.0	2.6	0.0	50.0	8.8	142.4	0
Nov-05	7.3	1,120	71.14	6.33	737	627	0.0	0.2	1.1	0.0	0.5	82.3	0
Feb-06	7.0	1,243	73.56	3.91	721	646	0.0	0.5	0.4	108.4	0.3	78.5	0
May-06	7.3	1,242	73.47	4.00	787	708	0.0	0.0	0.0	0.0	0.9	78.6	0
Aug-06	7.1	1,030	69.93	7.54	700	604	1.0	0.0	0.0	324.9	2.1	84.4	0
Dec-06	7.5	1,223	74.22	3.25	753	619	0.0	0.0	0.0	117.0	1.4	99.1	0
Feb-07	7.2	1,234	74.13	3.34	934	836	0.0	0.0	0.0	4.0	2.7	71.6	0
May-07	7.2	1,048	73.47	4.00	645	603	0.8	0.7	0.4	114.9	0.3	90.1	4
Aug-07	7.3	1,381	74.47	3.00	776	676	0.8	0.0	0.0	101.2	4.7	48.0	0
Nov-07	7.2	1,808	73.56	3.91	850	722	0.7	0.0	0.5	113.7	1.3	49.4	8
Mar-08	7.2	1,094	74.01	3.46	820	754	0.1	0.0	0.0	135.0	9.0	68.7	0
May-08	7.2	1,588	74.31	3.16	963	891	0.5	0.0	0.7	128.7	1.7	45.3	0
Aug-08	7.7	1,386	73.89	3.58	942	876	0.5	0.0	0.6	82.4	4.1	104.1	0
Nov-08	7.5	1,364	74.22	3.25	815	685	0.2	0.0	0.2	104.0	4.0	77.5	0
Mar-09	7.5	1,194	74.97	2.50	712	608	0.3	0.0	0.2	77.5	4.0	74.9	0
May-09	7.7	1,347	73.64	3.83	718	645	0.3	0.0	0.3	85.7	6.5	102.0	0
Aug-09	8.1	1,345	69.06	8.41	780	705	0.9	0.0	0.0	84.0	6.9	55.0	0
Nov-09	7.1	1,302	74.22	3.25	776	695	0.5	0.0	0.0	104.5	3.5	73.6	0
Mar-10	7.1	1,434	74.14	3.33	820	765	0.3	0.0	0.7	112.0	0.4	72.8	0
Jun-10	7.8	1,277	73.65	3.82	735	610	0.5	0.0	0.0	77.6	5.5	74.5	0
Aug-10	7.3	1,360	74.47	3.00	748	702	0.0	0.0	0.5	96.2	3.5	72.0	240
Nov-10	7.0	1,335	74.55	2.92	747	710	0.2	0.0	0.4	117.0	1.1	78.6	0
Feb-11	7.2	1,442	75.47	2.00	937	750	0.4	0.3	0.9	145.0	5.3	90.9	0
May-11	7.1	1,471	73.64	3.83	809	727	0.3	0.0	0.0	147.5	1.9	95.5	0
Aug-11	7.3	1,565	74.39	3.08	1,017	983	0.2	0.0	0.0	140.0	0.0	102.0	0
Nov-11	7.2	1,512	74.89	2.58	996	770	0.5	1.1	0.5	140.0	2.0	98.4	7
Mar-12	7.3	1,503	74.47	3.00	842	803	0.3	0.0	1.2	140.0	2.2	92.8	8
May-12	7.4	1,526	72.14	5.33	855	815	0.4	0.0	1.2	141.3	2.7	94.3	2
Aug-12	6.8	1,571	72.97	4.50	966	915	0.0	0.0	0.0	138.0	1.3	88.7	0
Nov-12	7.1	1,564	72.55	4.92	876	831	0.3	0.0	0.9	137.0	0.9	103.7	23
Averages	7.3	1,330	73.64	3.83	800	716	0.3	1.2	0.4	104.0	2.7	81.8	9
Min	6.8	870	69.06	2.00	512	464	0.0	0.0	0.0	0.0	0.0	45.3	0
Max	8.1	1,808	75.47	8.41	1,017	983	1.0	35.2	1.9	324.9	9.0	142.4	240

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Jul-01													
Aug-01													
Sep-01													
Oct-01													
Nov-01													
Dec-01													
Jan-02													
Feb-02													
Mar-02													
Apr-02													
May-02													
Jun-02													
Jul-02													
Aug-02													
Sep-02													
Oct-02													
Nov-02													
Dec-02													
Jan-03													
Feb-03													
Mar-03													
Apr-03													
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	1,781	76.12	3.58	1,080	1,010	0.2	0.0	0.0	95.5	23.0	296.3	4
Nov-04	7.7	1,685	76.40	3.30	1,204	1,133	0.0	0.2	0.9	72.4	30.8	285.5	8

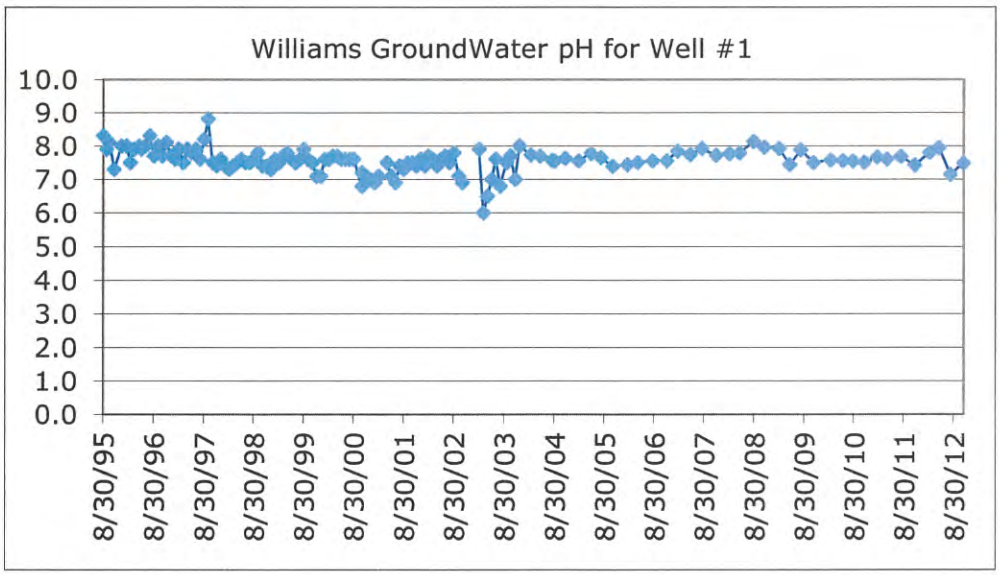
New Monitoring Wells Completed 19 August 2004

and Sampled 4 September 2004

MORNING STAR PACKING COMPANY

GroundWater Samples Lab-Test Results

	Groundwater Sample Locations & Constituents												
Sample Location	Well #9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9	#9
Date	pH	EC	Elevation	Depth to GroundWater	TDS	FDS	TKN	Iron	Manganese	Chloride	Nitrate Nitrogen	Sulfate	Total Coliform
Feb-05	7.6	1,643	78.70	1.00	1,157	1,033	0.3	4.5	0.3	50.0	26.6	243.6	0
May-05	8.0	1,574	76.70	3.00	904	858	0.2	0.6	0.0	32.5	20.8	226.3	0
Aug-05	7.7	1,543	75.28	4.42	936	918	0.2	2.3	0.0	35.0	19.6	153.9	0
Nov-05	7.8	1,400	73.83	5.87	951	839	0.0	0.5	0.1	0.0	26.8	220.9	0
Feb-06	7.5	1,364	76.53	3.17	780	523	0.0	0.5	0.1	59.9	12.0	205.7	300
May-06	7.8	1,395	77.37	2.33	950	637	0.0	0.0	0.0	33.7	8.4	221.8	0
Aug-06	7.6	1,317	77.25	2.45	857	689	0.7	0.0	0.0	95.0	8.1	186.4	0
Dec-06	8.0	1,270	76.20	3.50	732	668	0.0	0.0	0.0	27.4	11.5	189.0	0
Feb-07	7.8	1,234	75.83	3.87	952	920	0.0	0.0	0.0	1.5	15.4	188.9	0
May-07	7.7	1,328	77.28	2.42	862	630	0.7	2.9	0.0	40.0	7.8	207.0	4
Aug-07	7.8	1,421	76.29	3.41	859	748	1.2	0.0	0.0	21.2	11.2	121.8	0
Nov-07	7.7	1,584	75.95	3.75	861	668	0.4	0.0	0.0	20.0	10.7	132.9	4
Mar-08	7.7	1,282	77.28	2.42	813	759	0.2	0.0	0.0	35.0	7.7	167.0	2
May-08	7.8	1,402	76.12	3.58	865	807	0.5	0.0	0.0	25.0	4.3	186.0	0
Aug-08	8.2	1,428	75.95	3.75	885	825	0.5	0.0	0.0	22.4	6.1	164.6	0
Nov-08	8.0	1,334	76.37	3.33	830	705	0.2	0.0	0.2	29.7	8.8	175.0	0
Mar-09	7.8	1,281	77.29	2.41	817	710	0.5	0.0	0.0	24.0	10.2	116.4	0
May-09	7.7	1,310	74.12	5.58	775	677	0.3	0.2	0.1	33.8	12.8	132.0	0
Aug-09	8.2	1,510	75.87	3.83	885	774	1.2	0.0	0.0	17.9	13.8	150.0	0
Nov-09	7.6	1,299	76.45	3.25	830	746	0.3	0.0	0.5	33.5	8.8	112.0	0
Mar-10	7.6	1,394	77.29	2.41	836	797	0.2	0.0	0.0	50.0	7.2	142.0	0
Jun-10	8.1	1,440	77.03	2.67	832	710	0.5	0.0	0.0	44.6	36.8	127.0	0
Aug-10	7.7	1,453	77.03	2.67	799	735	0.7	0.0	0.1	63.7	12.8	133.4	23
Nov-10	7.5	1,540	77.53	2.17	862	815	0.6	0.0	0.0	107.0	10.1	125.0	30
Feb-11	7.7	1,439	78.70	1.00	935	748	0.4	0.0	0.0	97.5	5.9	151.0	0
May-11	7.6	1,534	77.78	1.92	843	760	0.3	0.0	0.0	175.0	10.6	138.0	0
Aug-11	7.6	2,082	78.03	1.67	1,353	1,216	0.4	0.0	0.0	322.5	16.6	134.0	0
Nov-11	7.6	1,953	78.12	1.58	1,225	1,140	0.3	0.5	0.0	255.0	13.7	146.9	2
Mar-12	7.7	1,812	77.37	2.33	1,015	965	0.3	0.0	0.0	162.0	14.6	135.2	0
May-12	8.3	1,765	75.62	4.08	989	940	0.2	0.0	0.0	168.7	24.4	131.7	23
Aug-12	7.4	1,753	77.20	2.50	1,050	980	0.0	0.0	0.0	142.0	18.7	141.2	0
Nov-12	7.5	1,770	74.37	5.33	992	933	0.2	0.0	0.0	151.0	11.3	177.0	240
Averages	7.8	1,509	76.63	3.08	927	824	0.3	0.4	0.1	74.8	14.3	169.6	19
Min	7.4	1,234	73.83	1.00	732	523	0.0	0.0	0.0	0.0	4.3	112.0	0
Max	8.3	2,082	78.70	5.87	1,353	1,216	1.2	4.5	0.9	322.5	36.8	296.3	300


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
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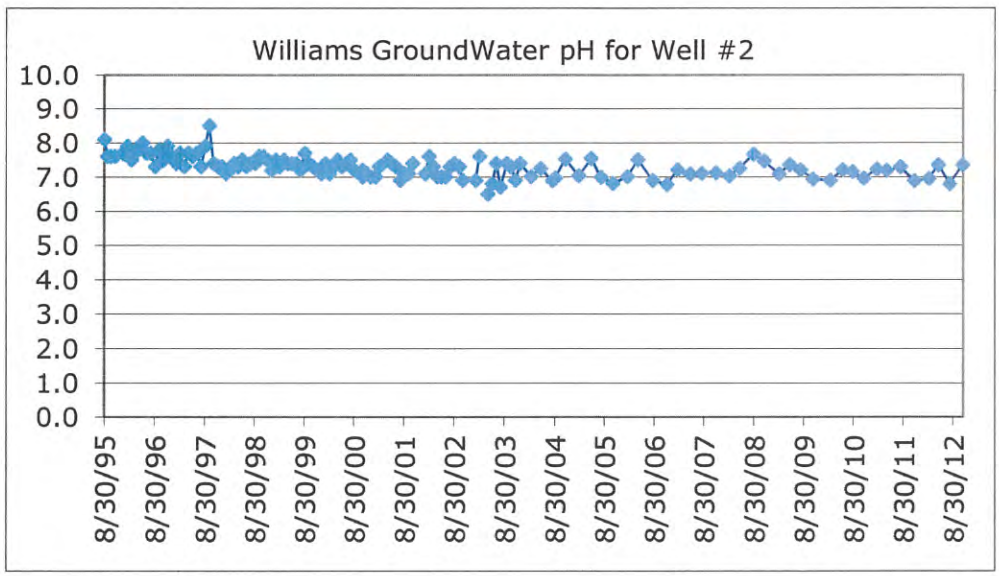
8/30/11
8/30/12


Williams GroundWater pH for Well #2
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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
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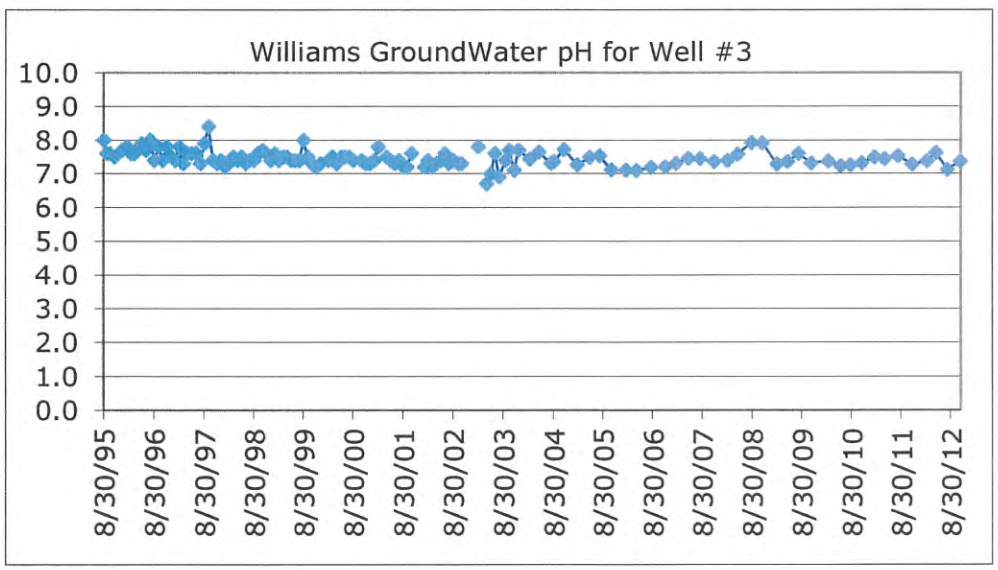
8/30/09
8/30/10
8/30/11
8/30/12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8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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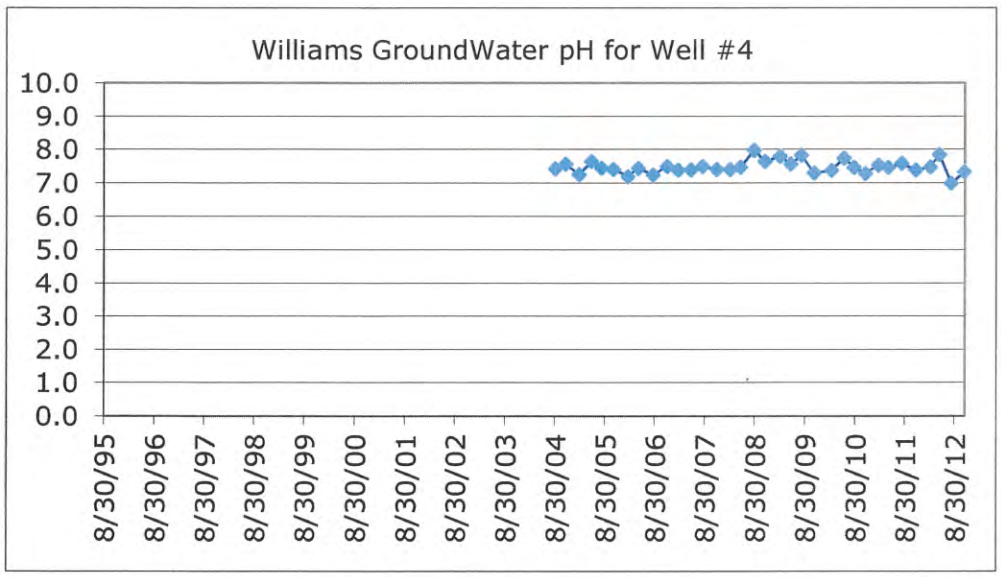
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater pH for Well #4
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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
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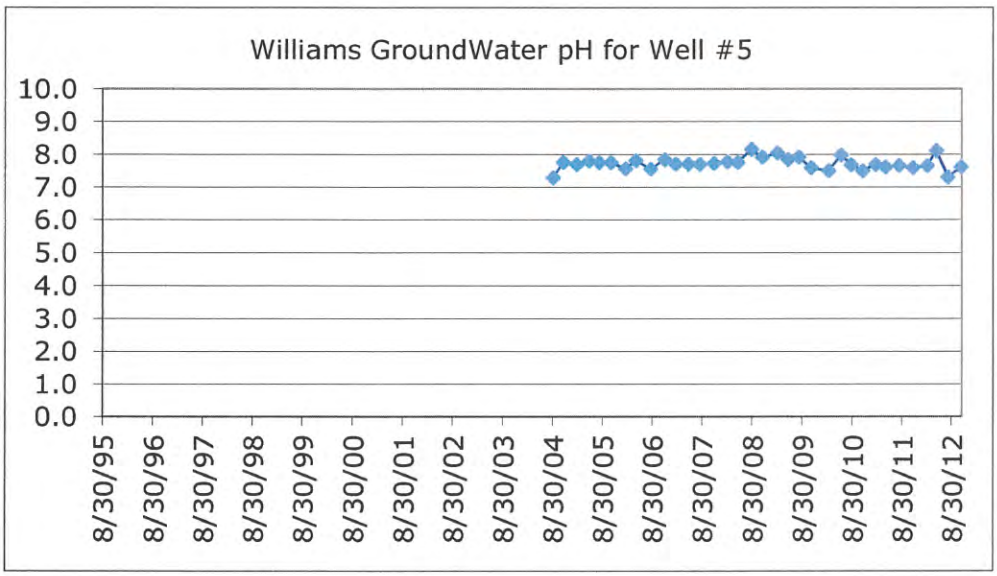
8/30/11
8/30/12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9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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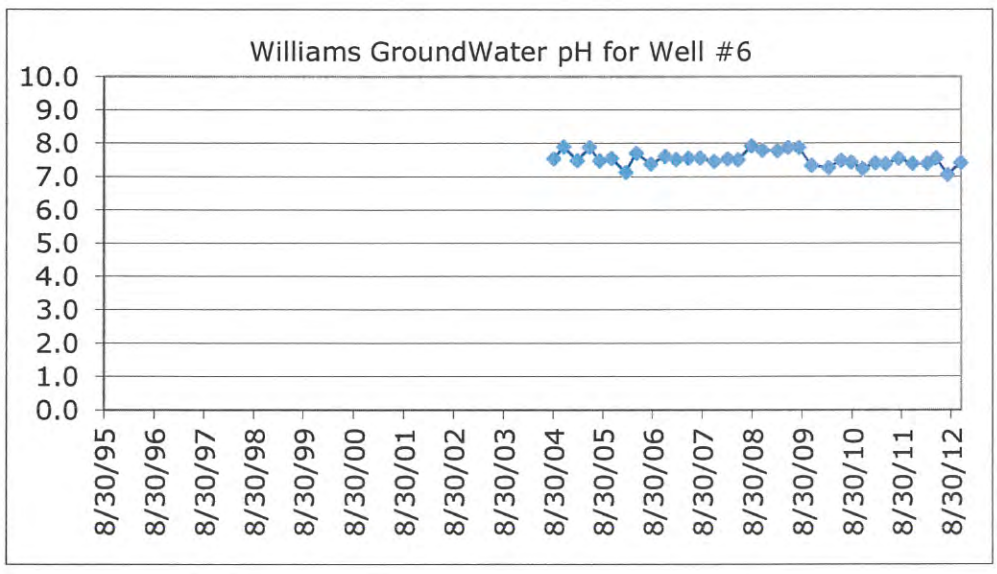
8/30/11
8/30/12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9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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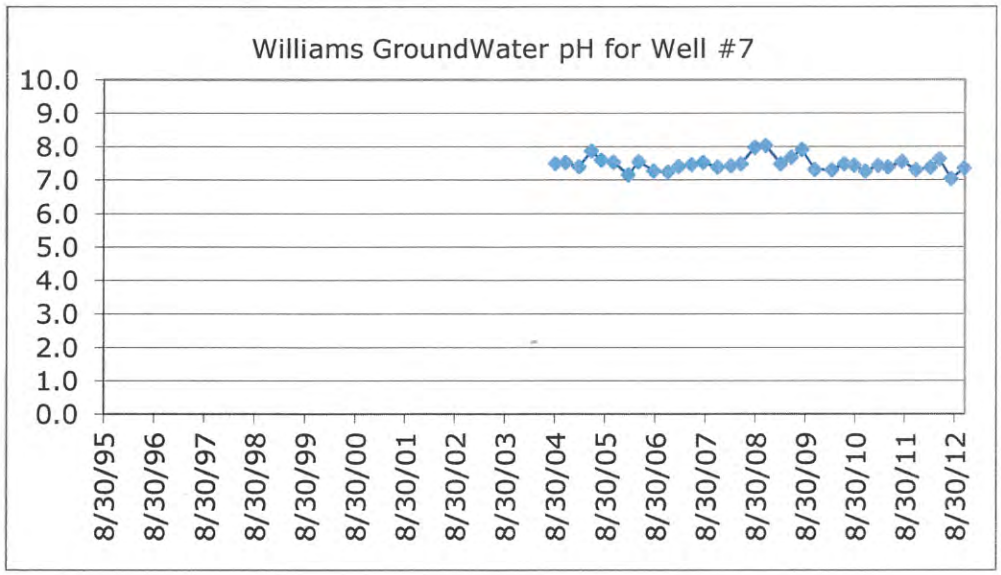
8/30/11
8/30/12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9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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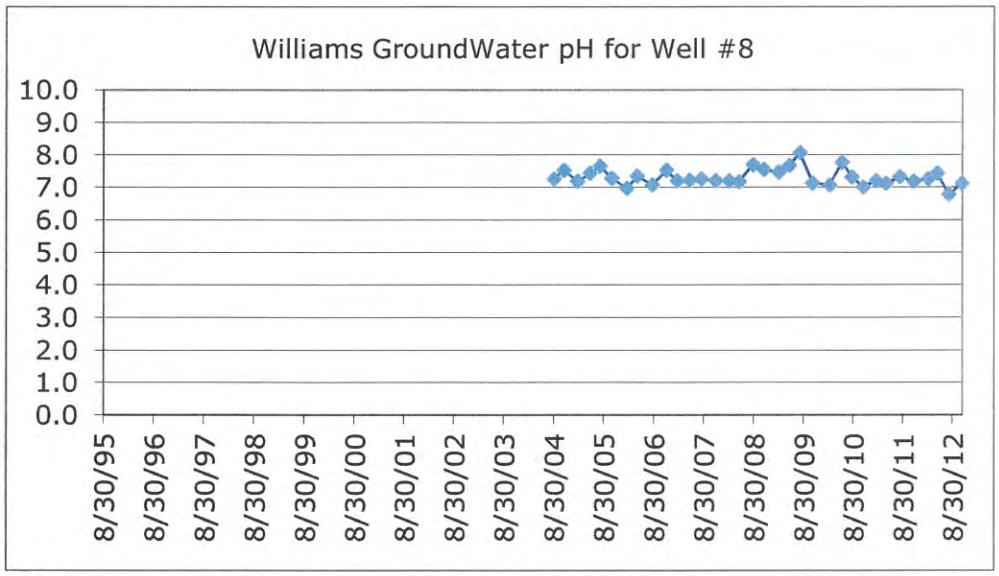
8/30/11
8/30/12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9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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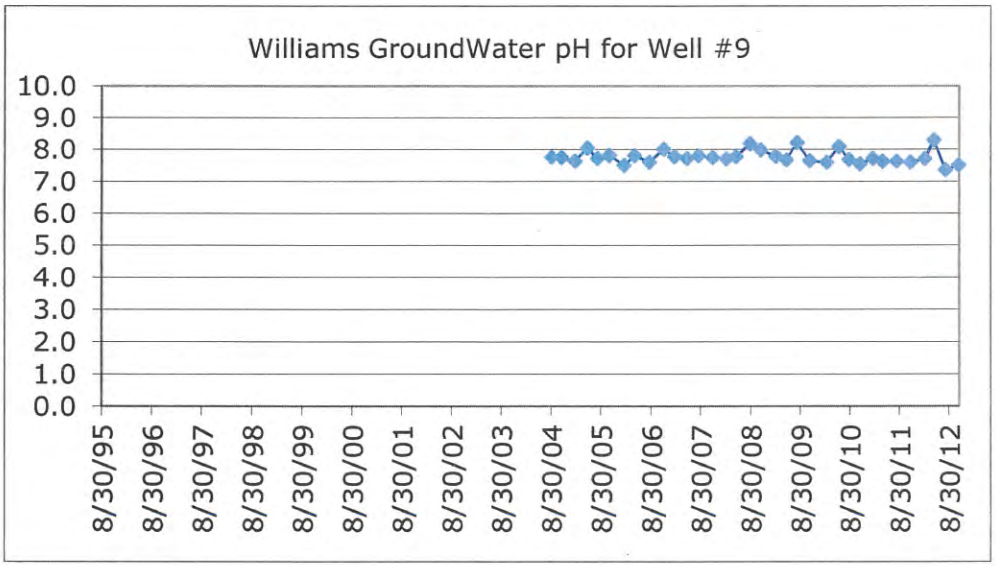
8/30/11
8/30/12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9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
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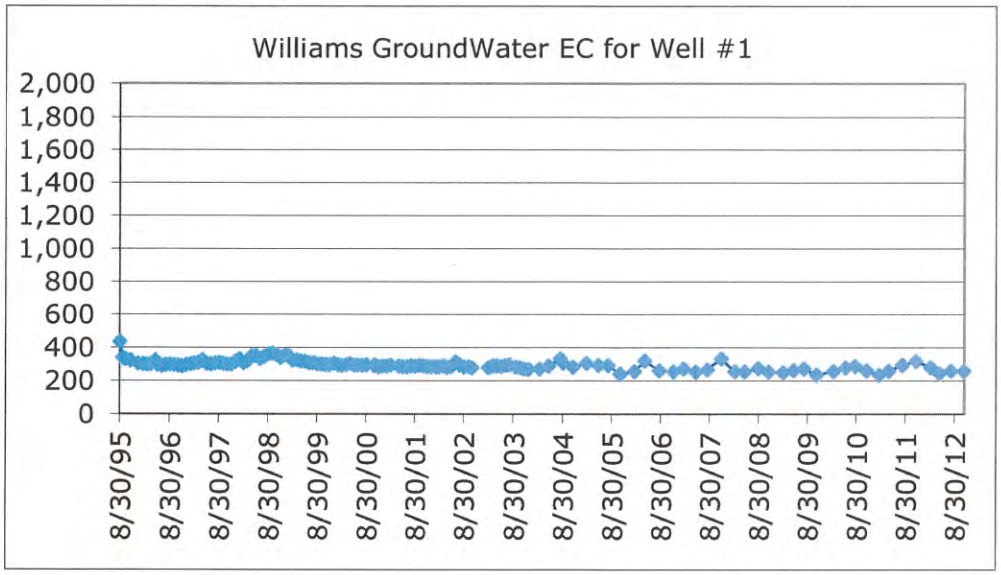
8/30/11
8/30/12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1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
8/30/00
8/30/01
8/30/02
8/30/03
8/30/04
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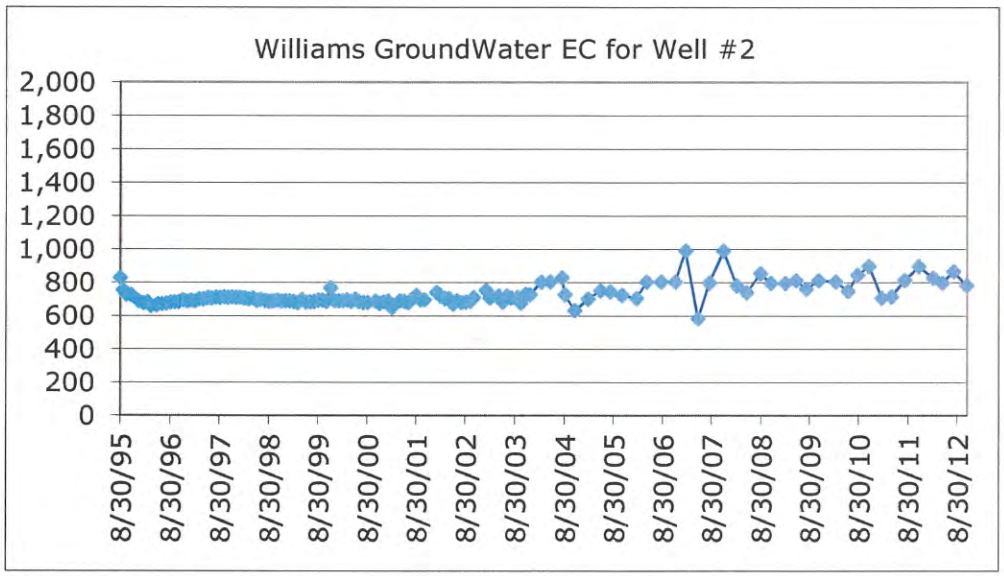
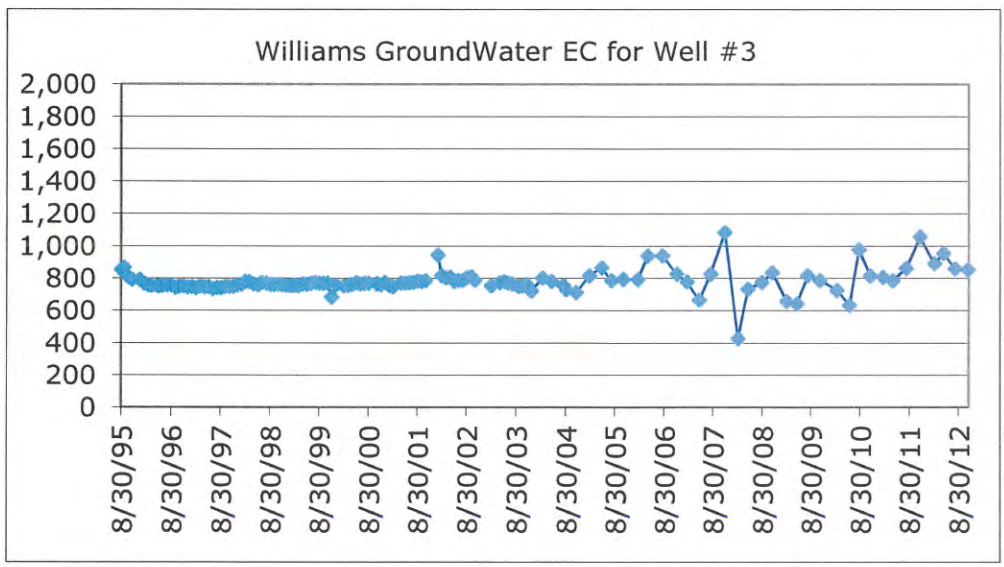
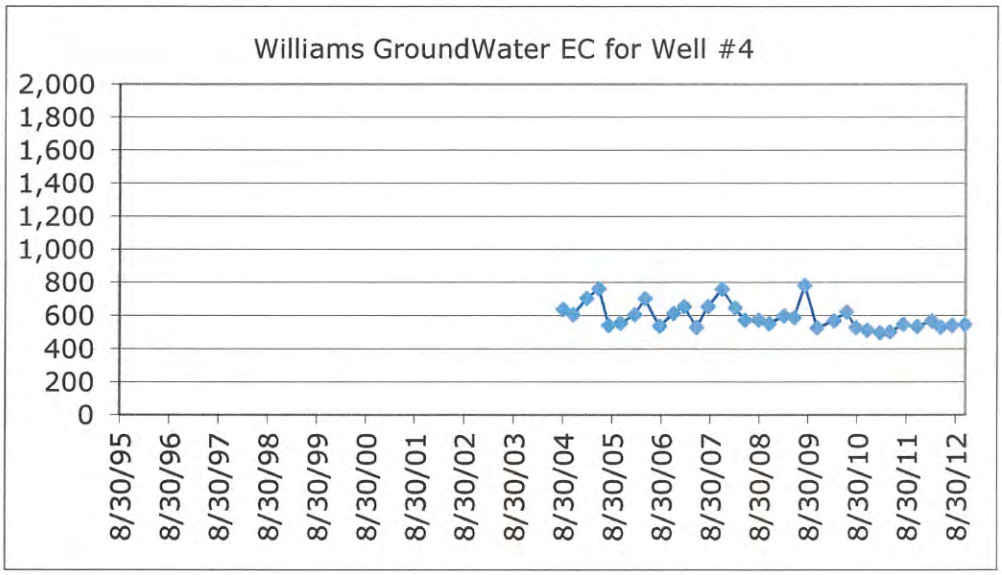
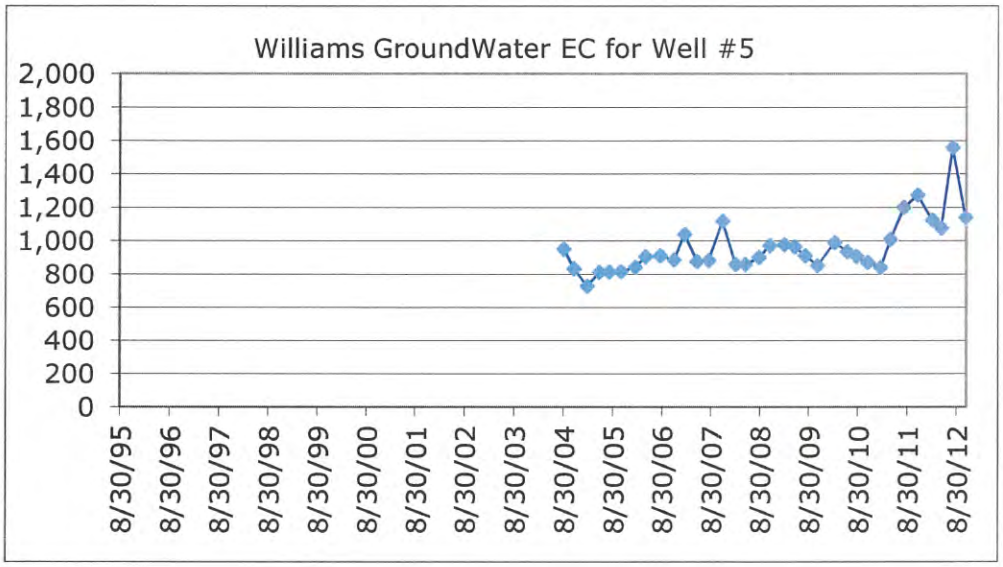
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater EC for Well #2
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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


Williams GroundWater EC for Well #3
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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


Williams GroundWater EC for Well #4
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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


Williams GroundWater EC for Well #5
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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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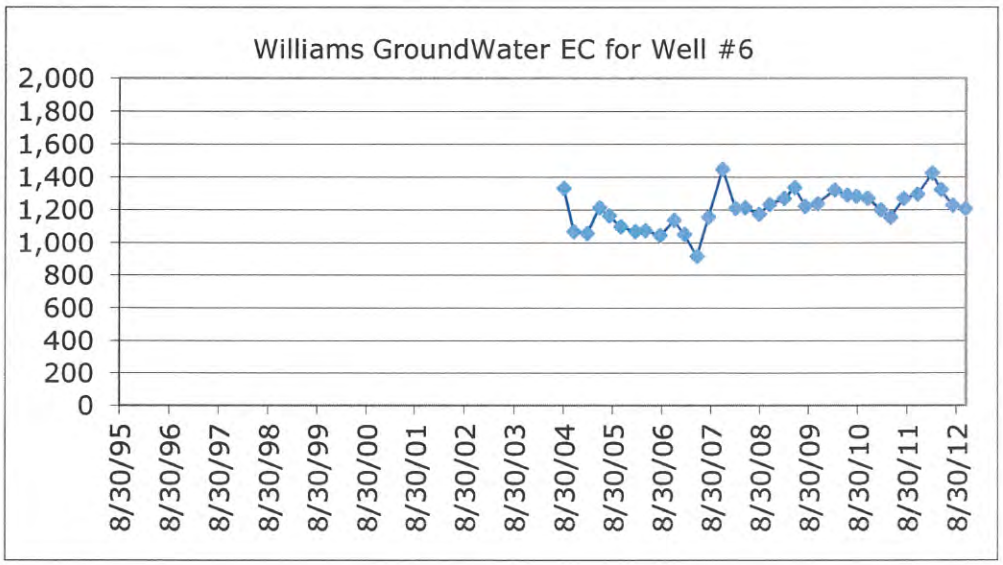
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater EC for Well #6
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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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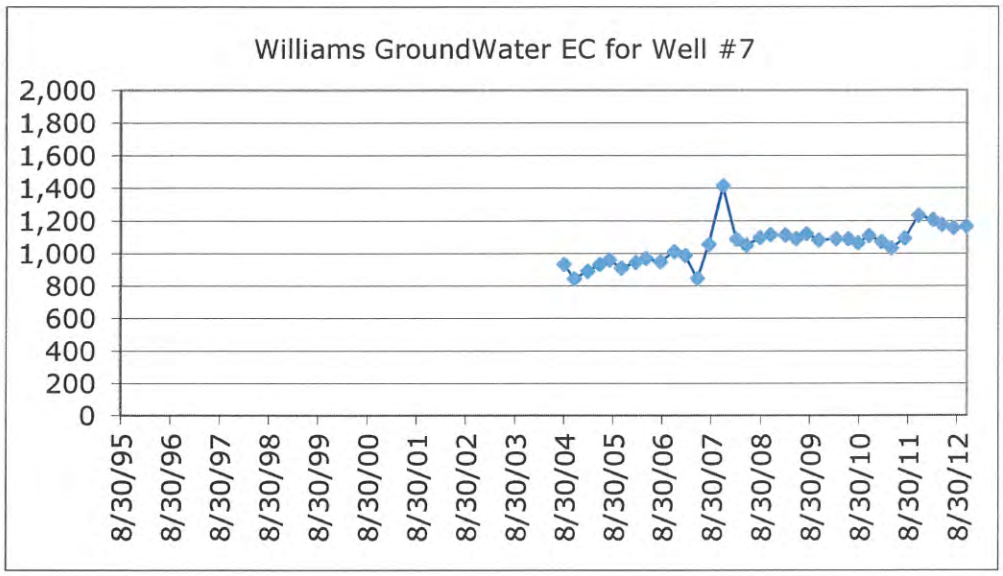
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater EC for Well #7
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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
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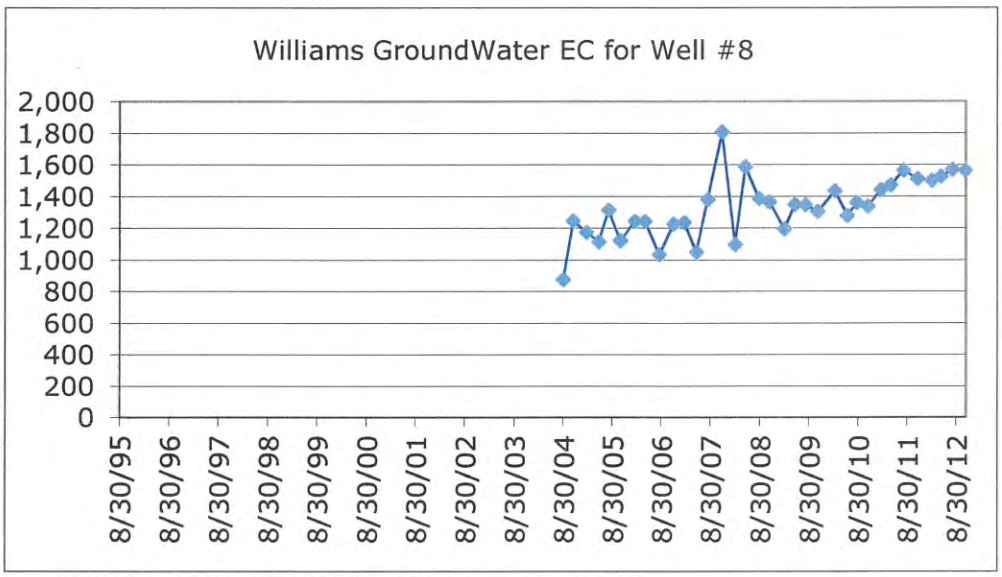
8/30/10
8/30/11
8/30/12


Williams GroundWater EC for Well #8
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
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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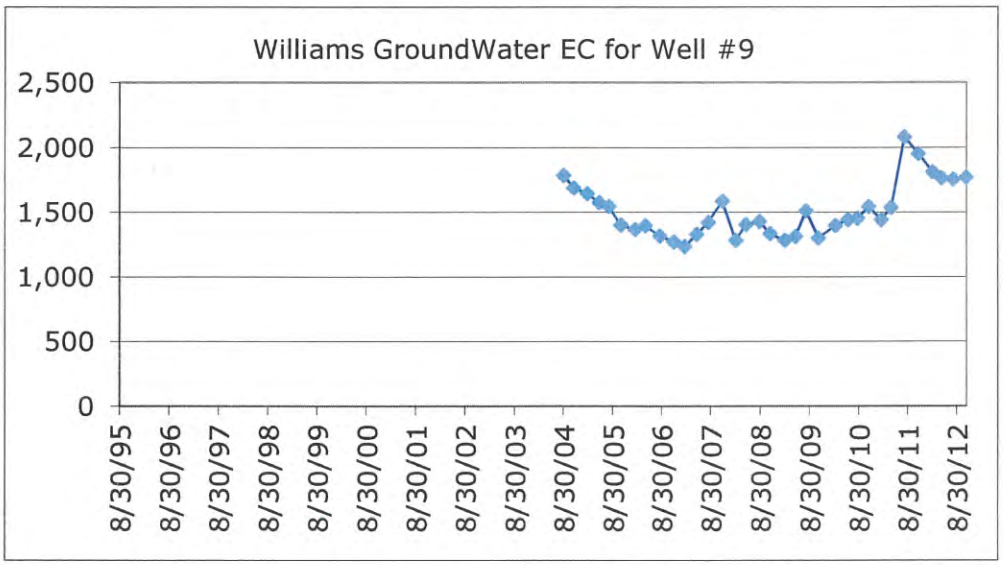
8/30/10
8/30/11
8/30/12


Williams GroundWater EC for Well #9
2,500
2,000
1,500
1,000
500
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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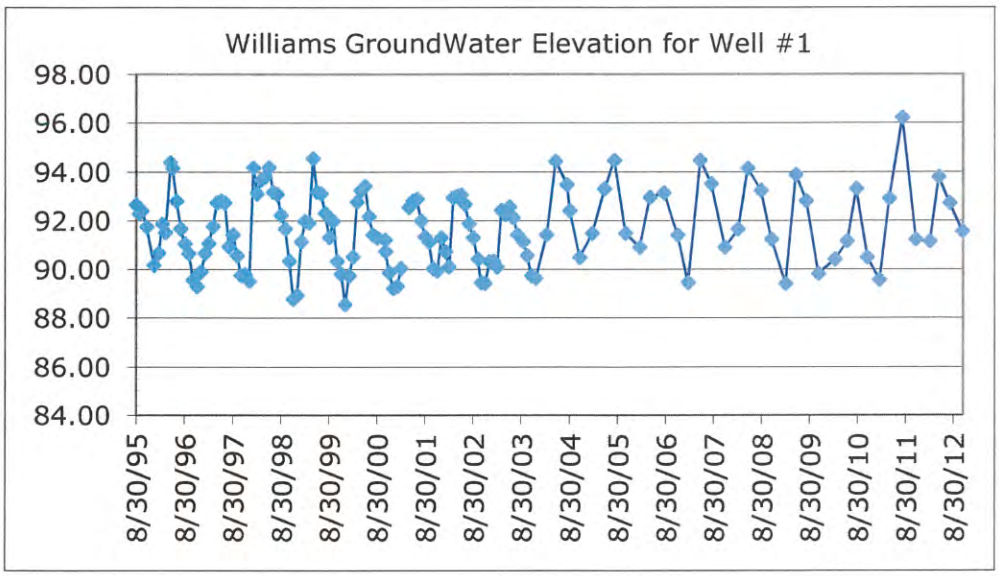
8/30/10
8/30/11
8/30/12


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
8/30/05
8/30/06
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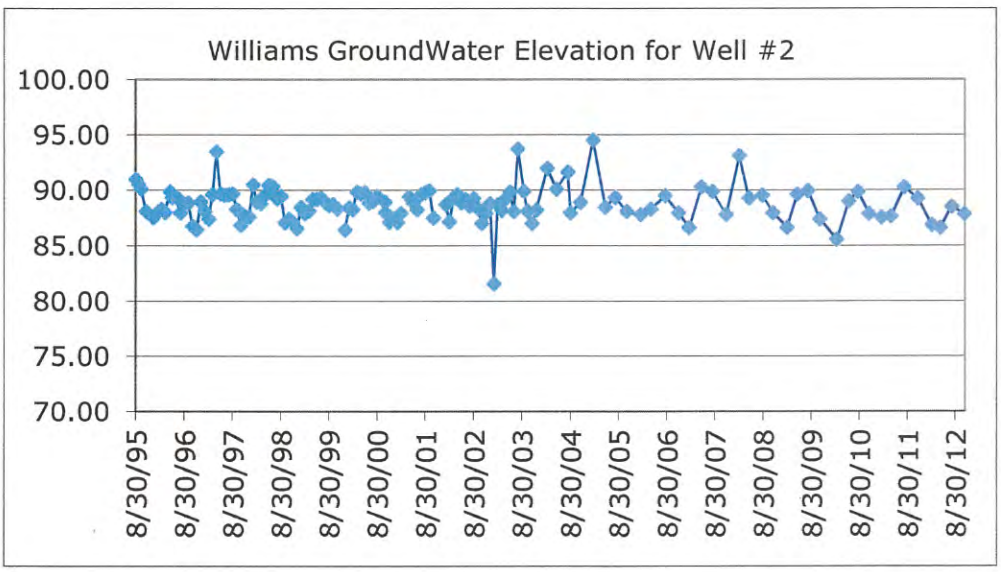
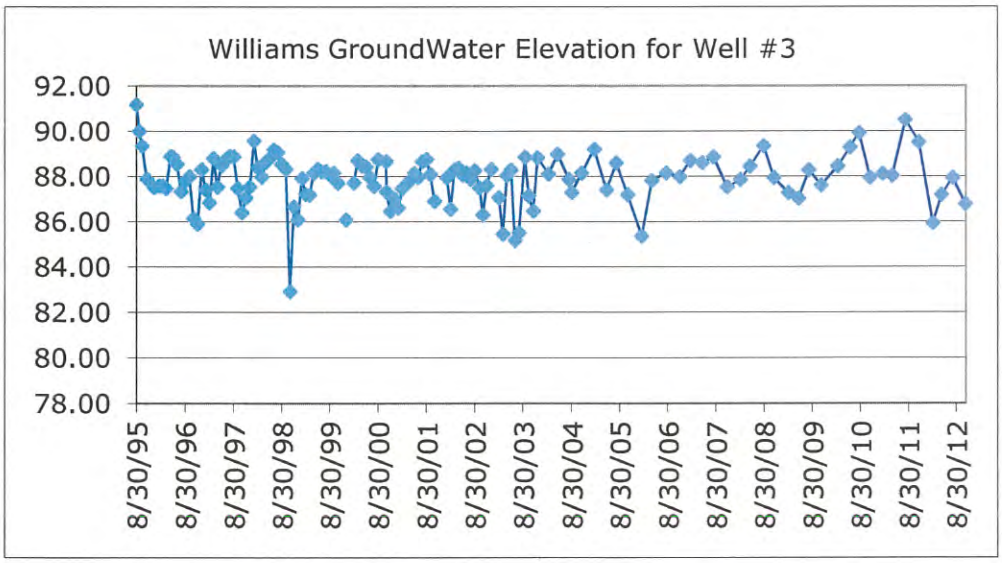
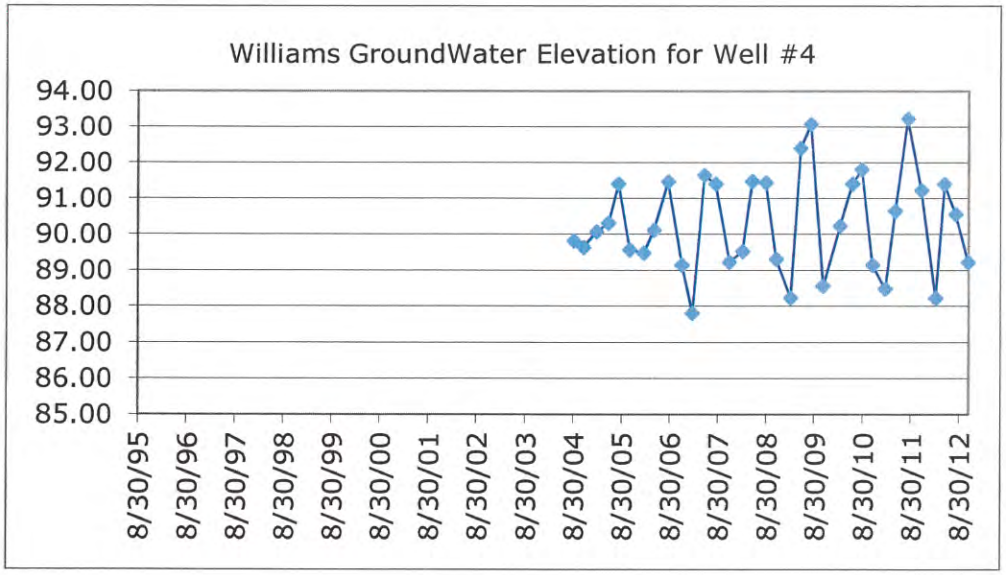
8/30/10
8/30/11
8/30/12


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
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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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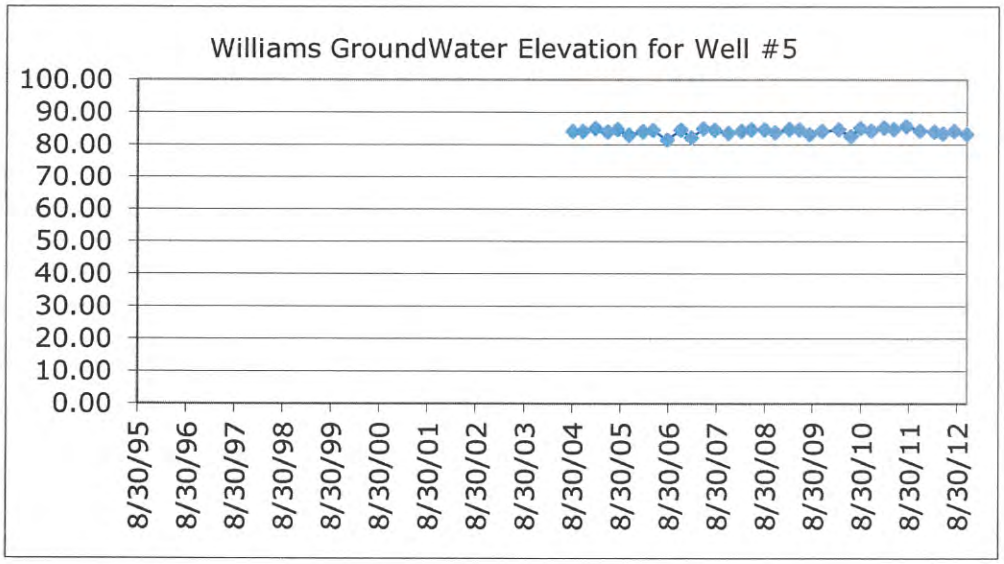
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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
8/30/05
8/30/06
8/30/07
8/30/08
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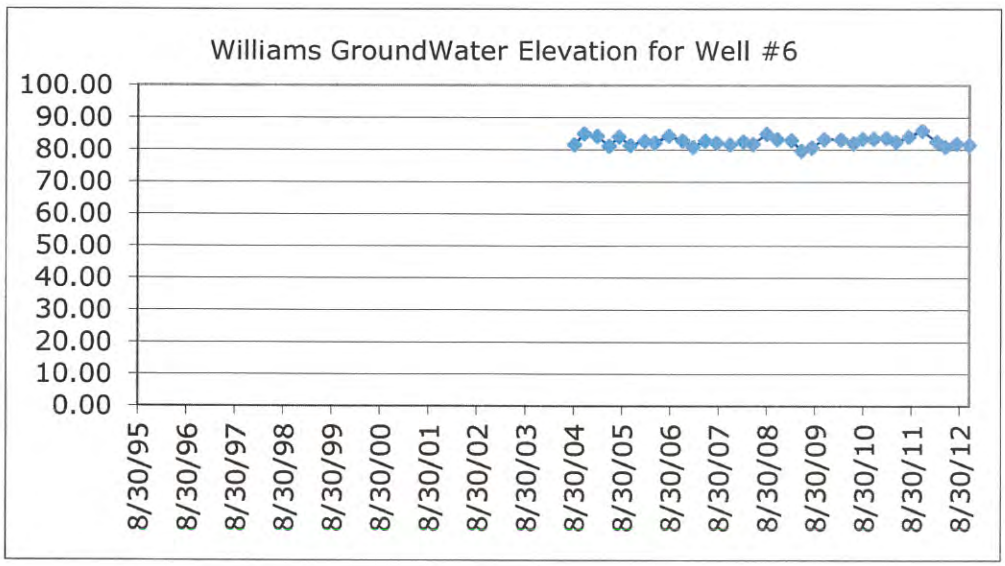
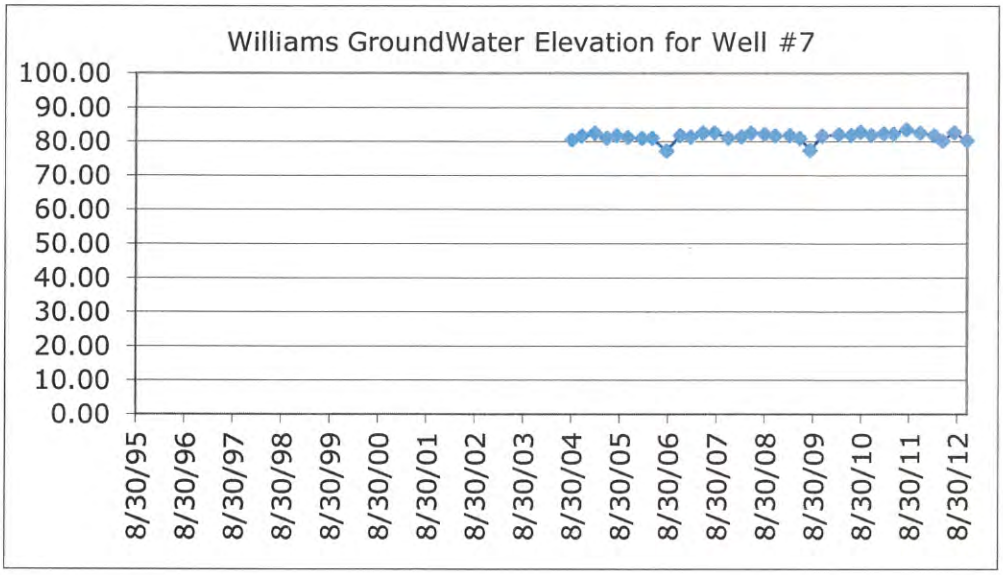
8/30/10
8/30/11
8/30/12


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
8/30/05
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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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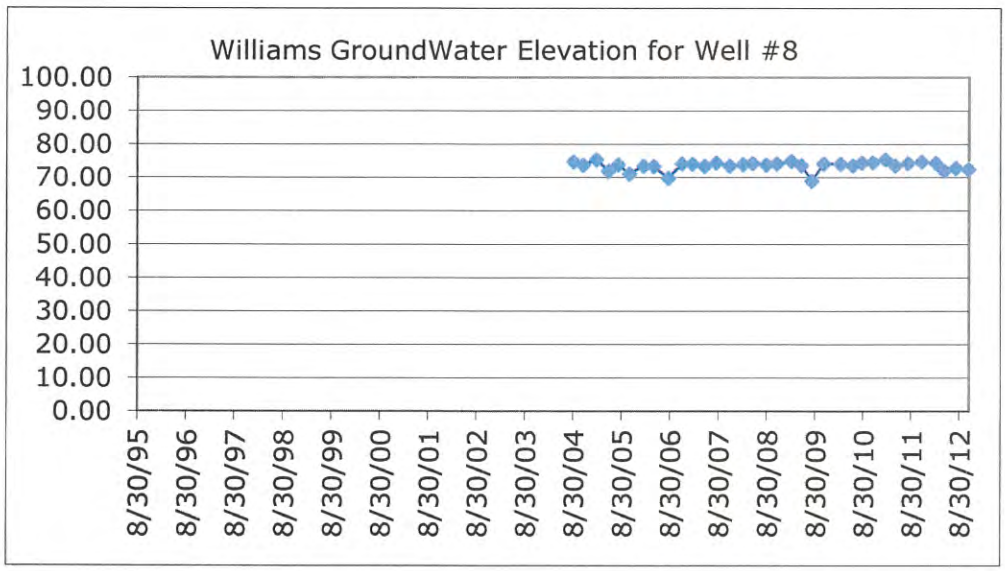
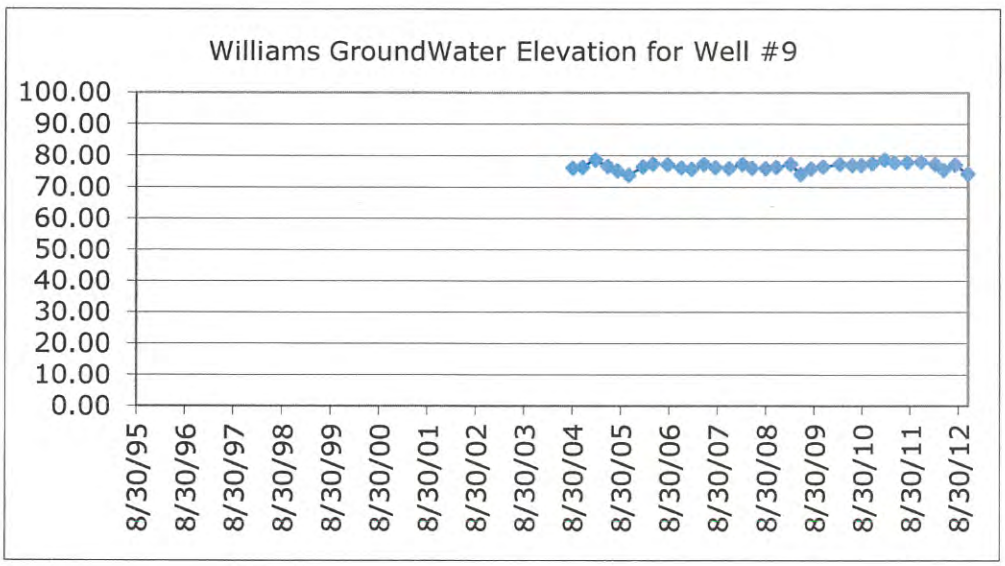
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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


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
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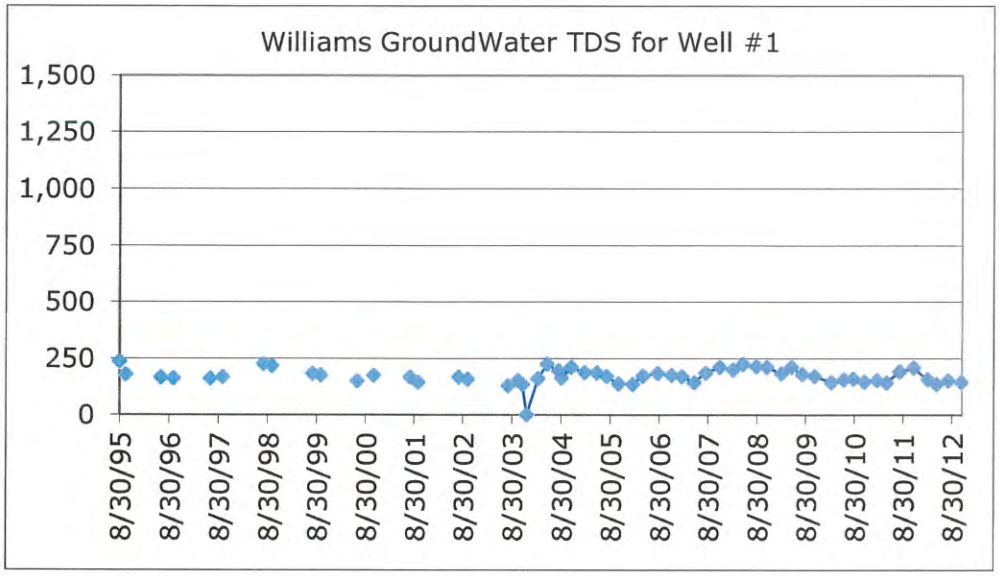
8/30/10
8/30/11
8/30/12


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
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8/30/07
8/30/08
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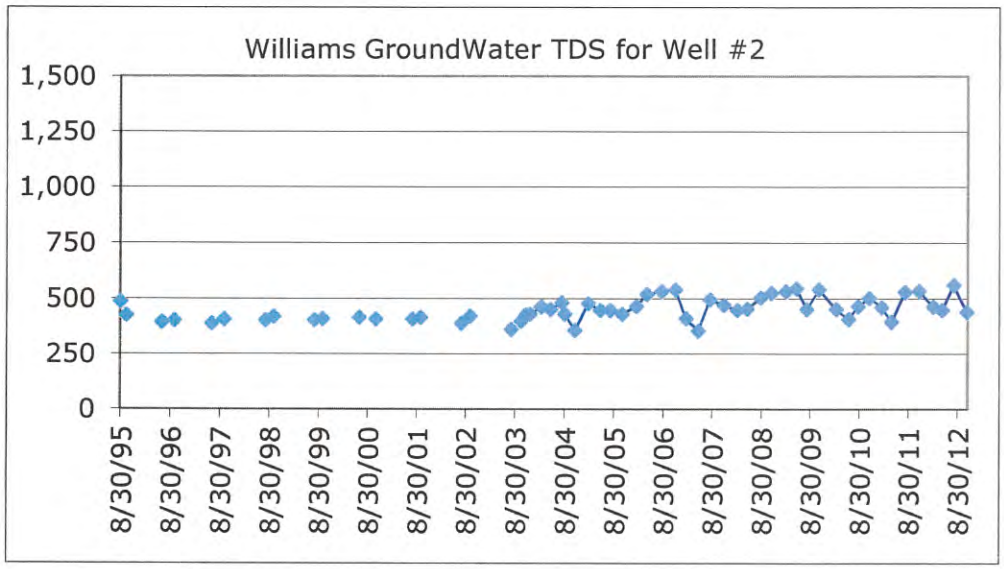
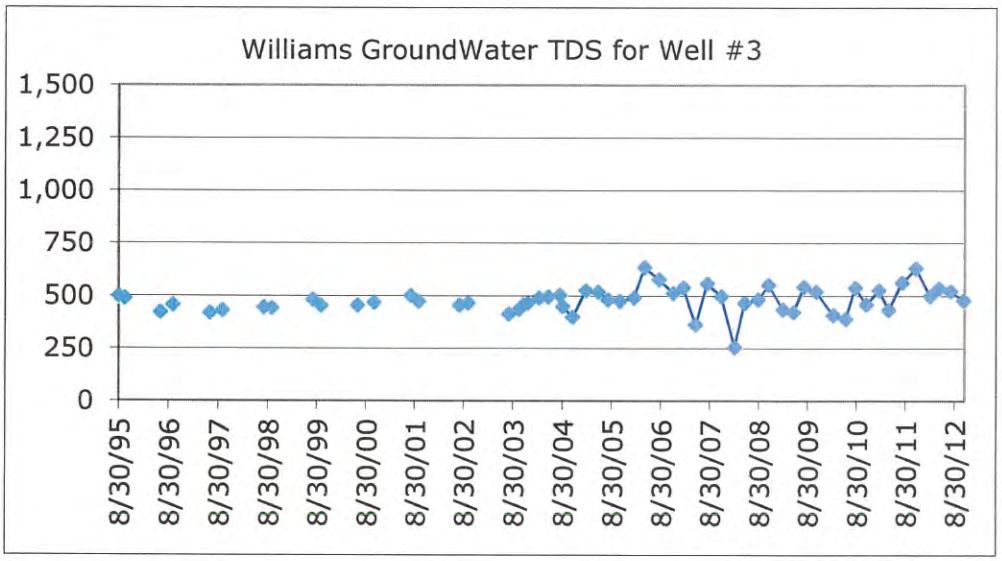
8/30/10
8/30/11
8/30/12


Williams GroundWater TDS for Well #2
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


Williams GroundWater TDS for Well #3
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
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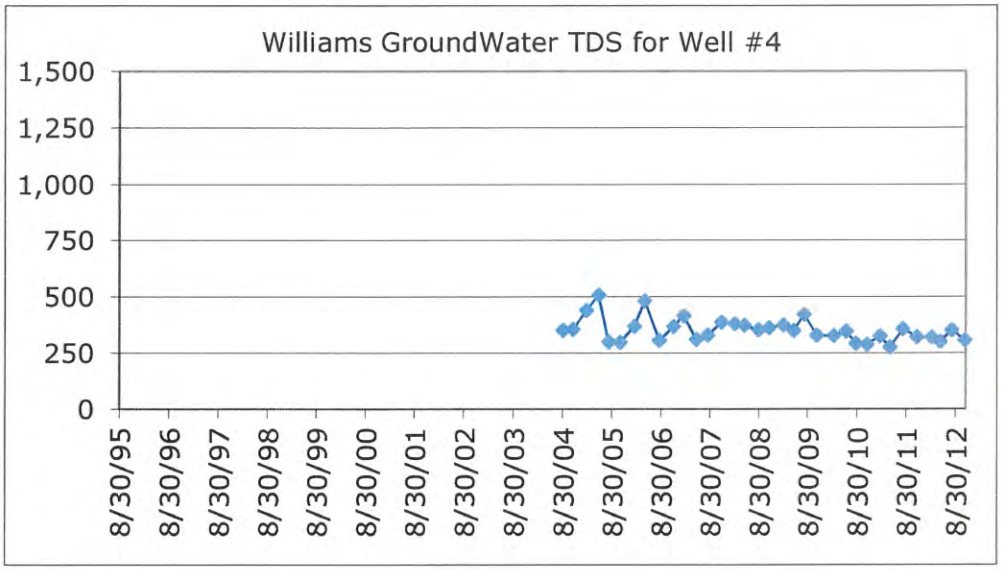
8/30/10
8/30/11
8/30/12


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
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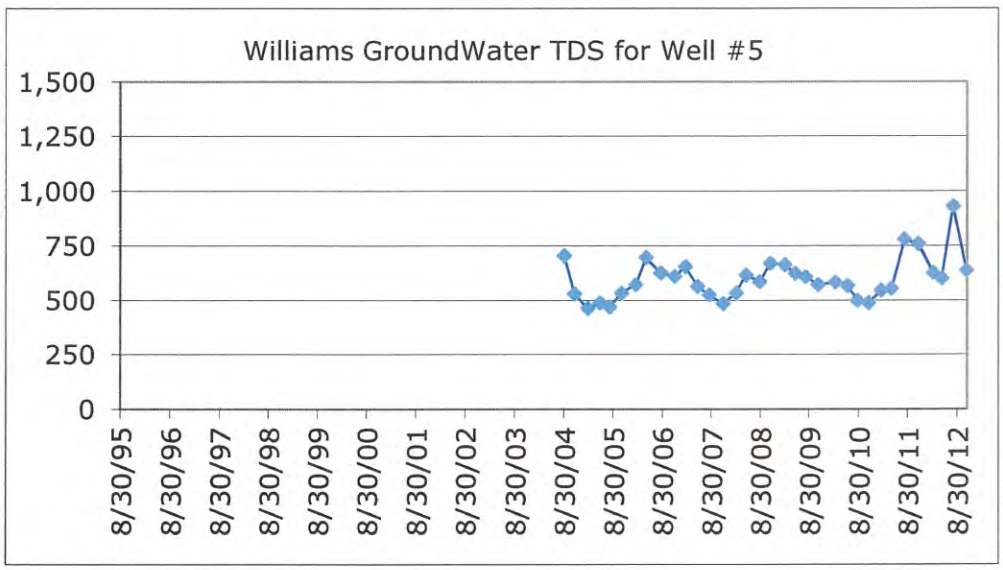
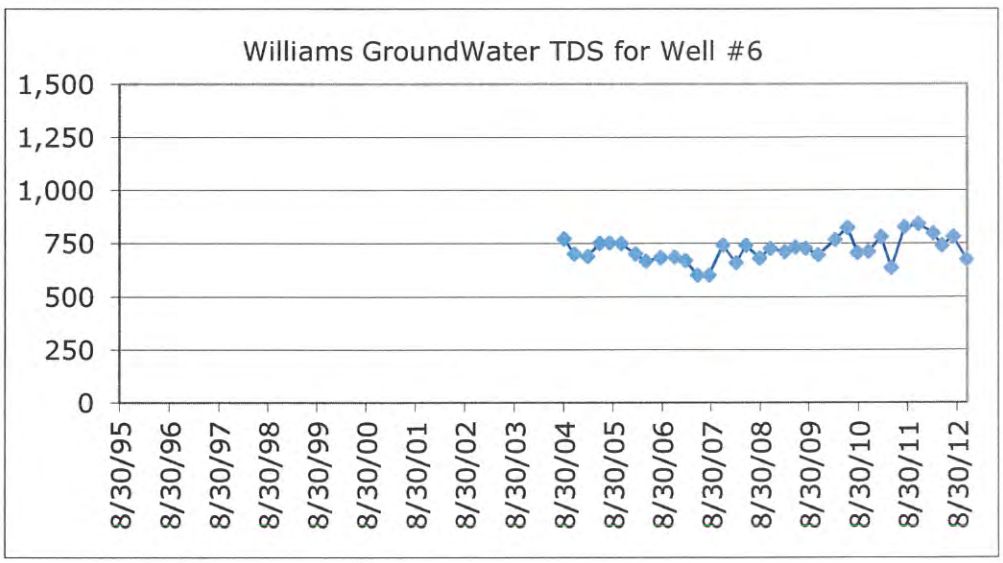
8/30/10
8/30/11
8/30/12


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
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater TDS for Well #6
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
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8/30/07
8/30/08
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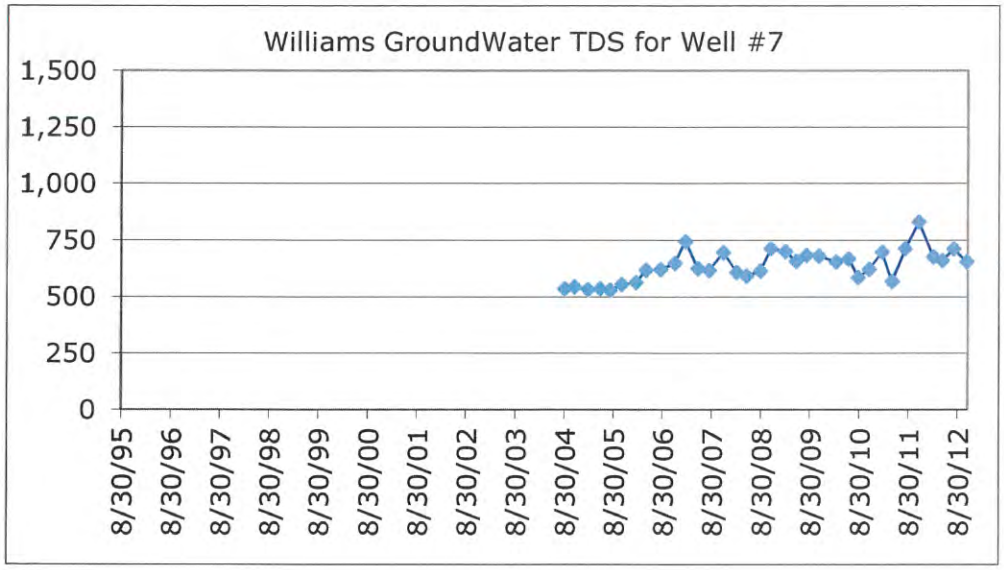
8/30/10
8/30/11
8/30/12


Williams GroundWater TDS for Well #7
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
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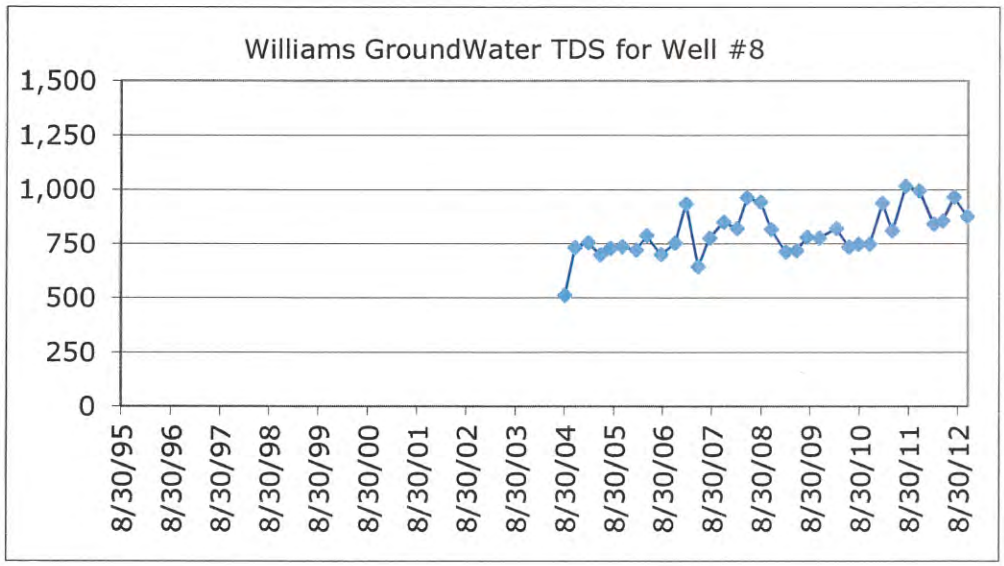
8/30/10
8/30/11
8/30/12


Williams GroundWater TDS for Well #8
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
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8/30/08
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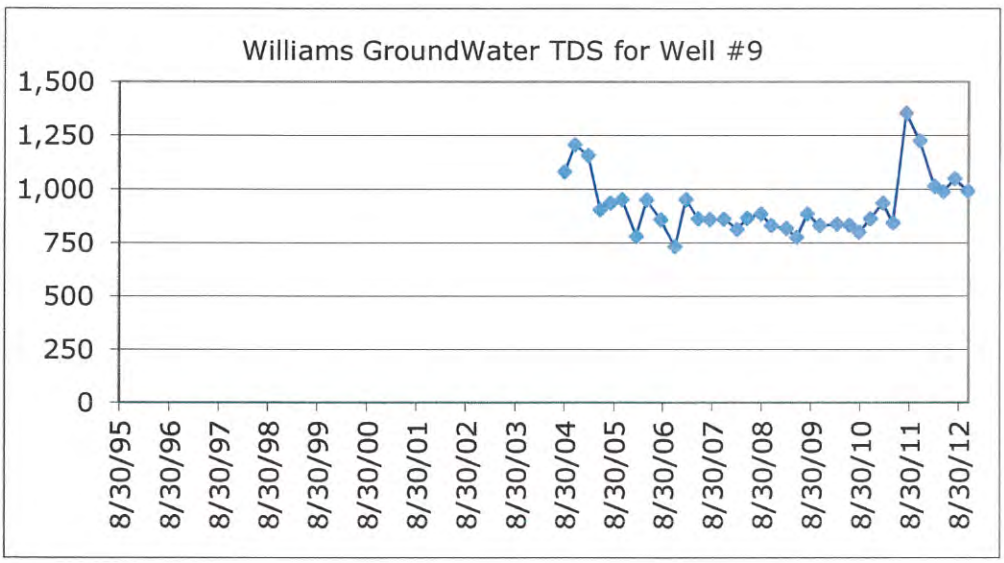
8/30/10
8/30/11
8/30/12


Williams GroundWater TDS for Well #9
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
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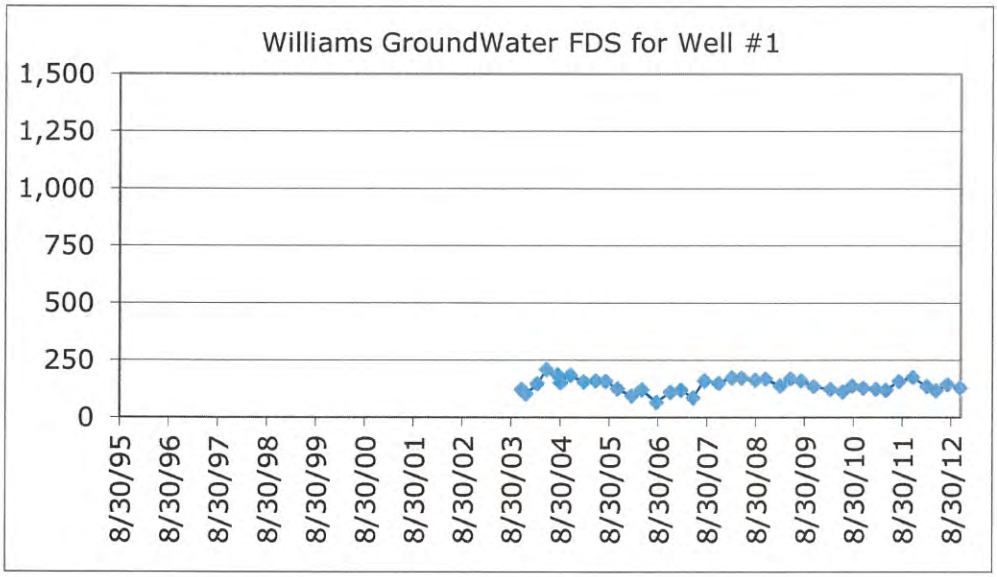
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS 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
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8/30/08
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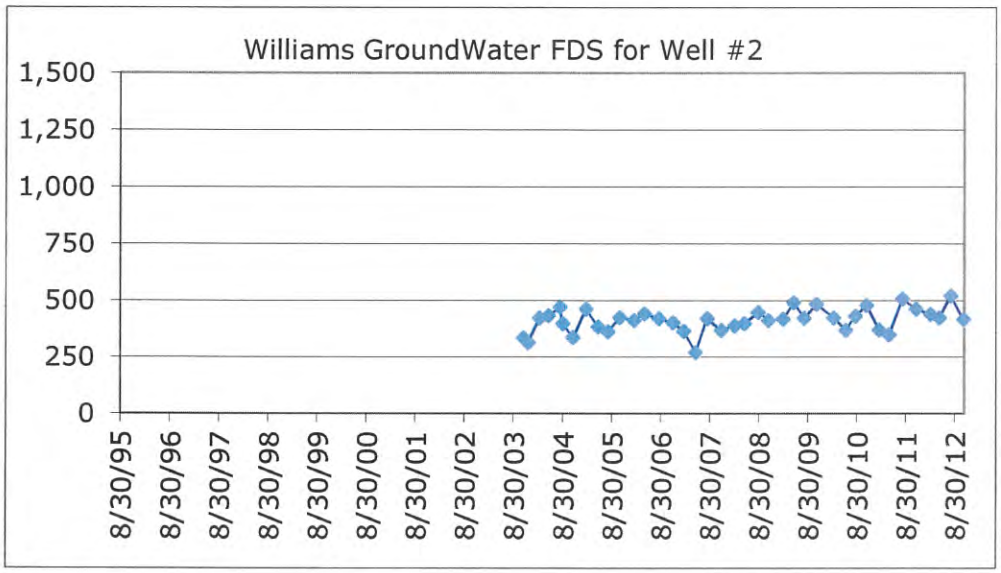
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS for Well #2
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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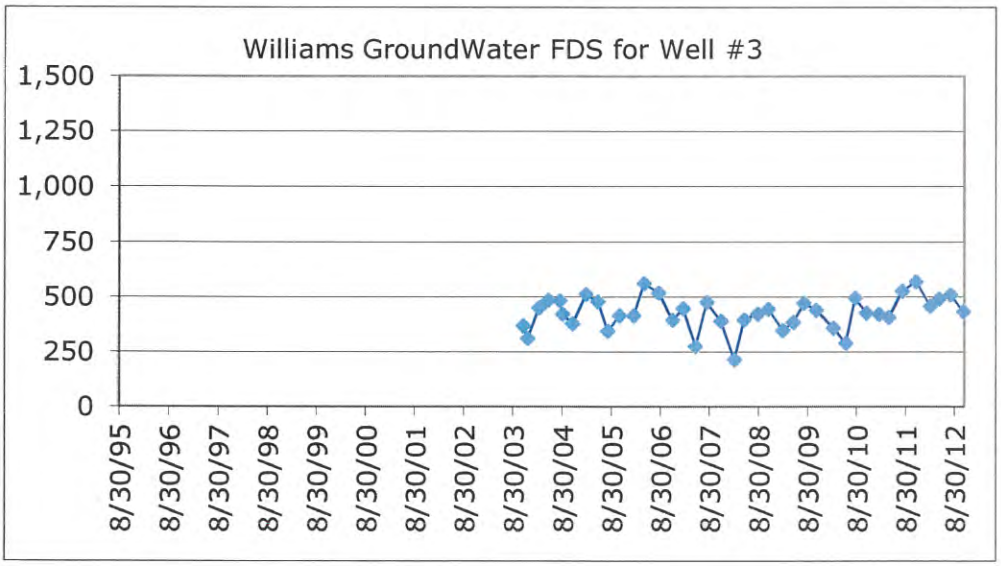
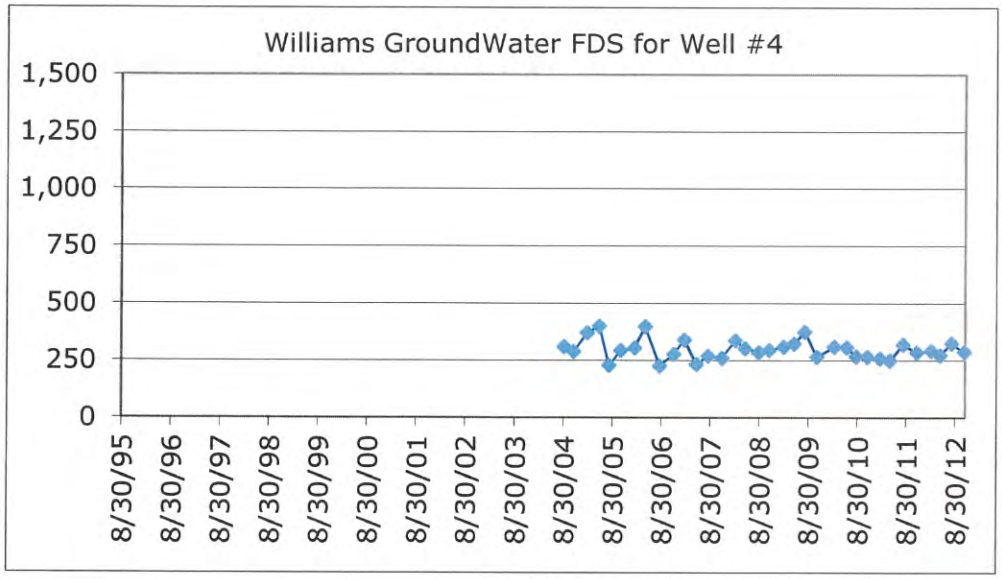
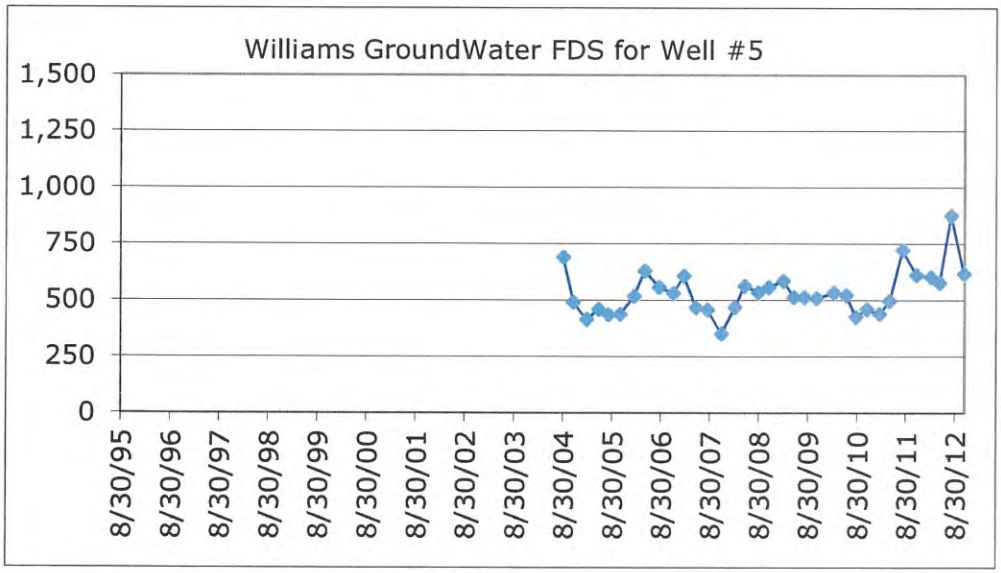
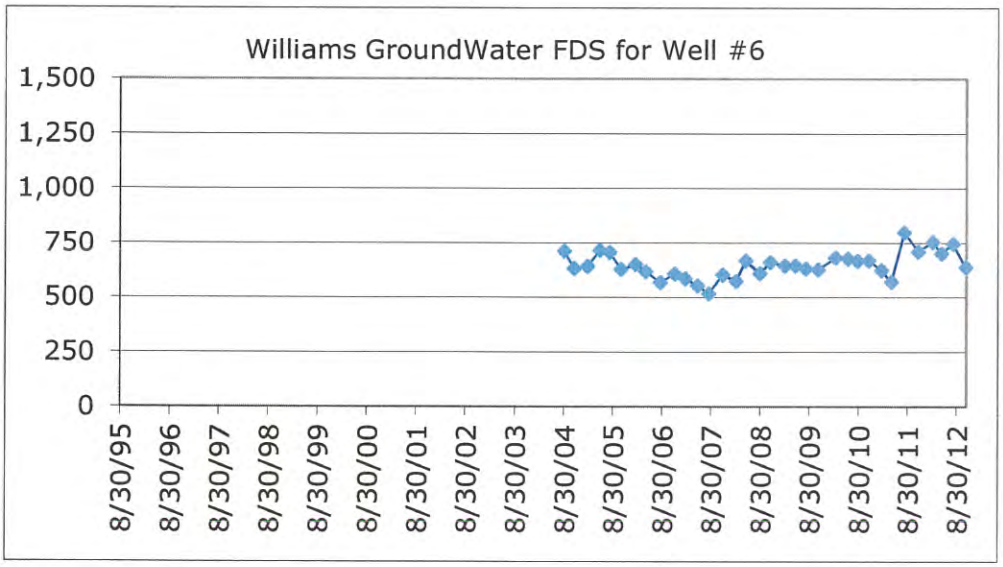
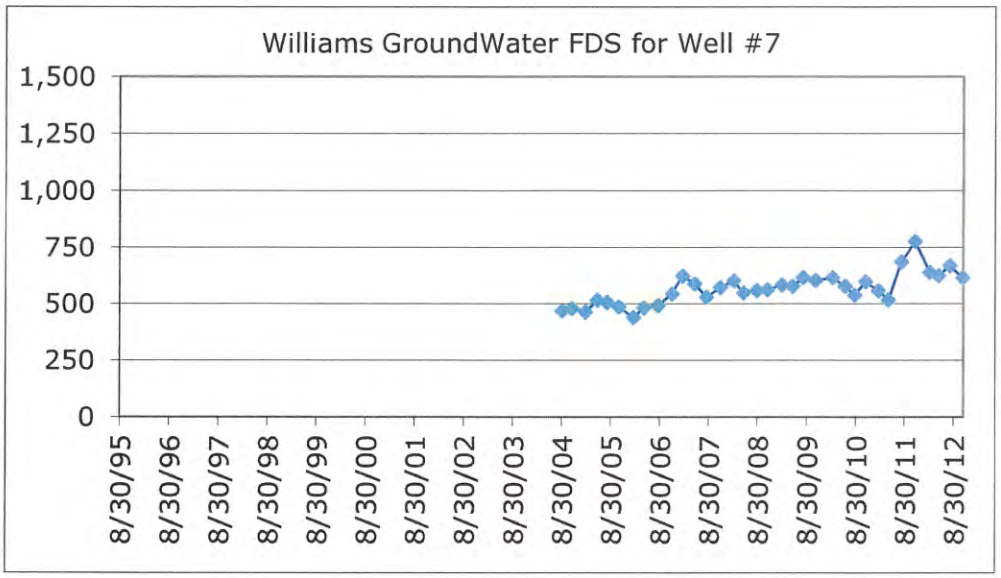
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS for Well #3
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


Williams GroundWater FDS 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
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS 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
8/30/06
8/30/07
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS for Well #6
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


Williams GroundWater FDS for Well #7
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
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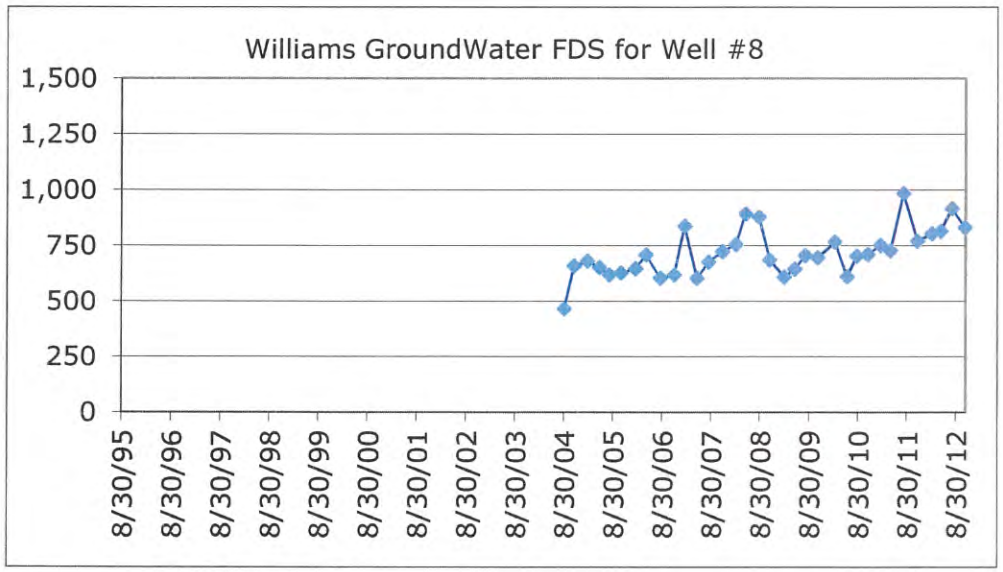
8/30/11
8/30/12


Williams GroundWater FDS for Well #8
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
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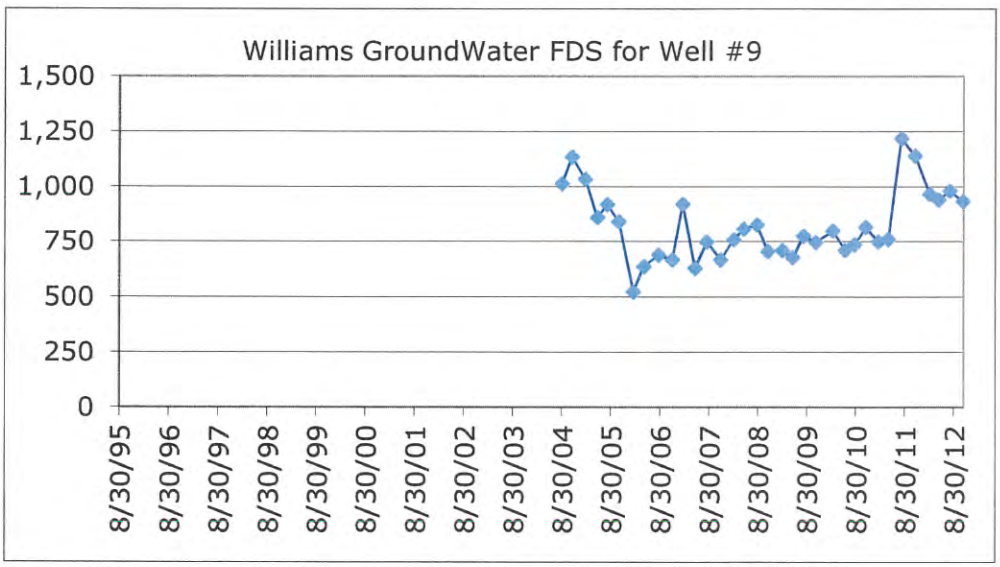
8/30/10
8/30/11
8/30/12


Williams GroundWater FDS for Well #9
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
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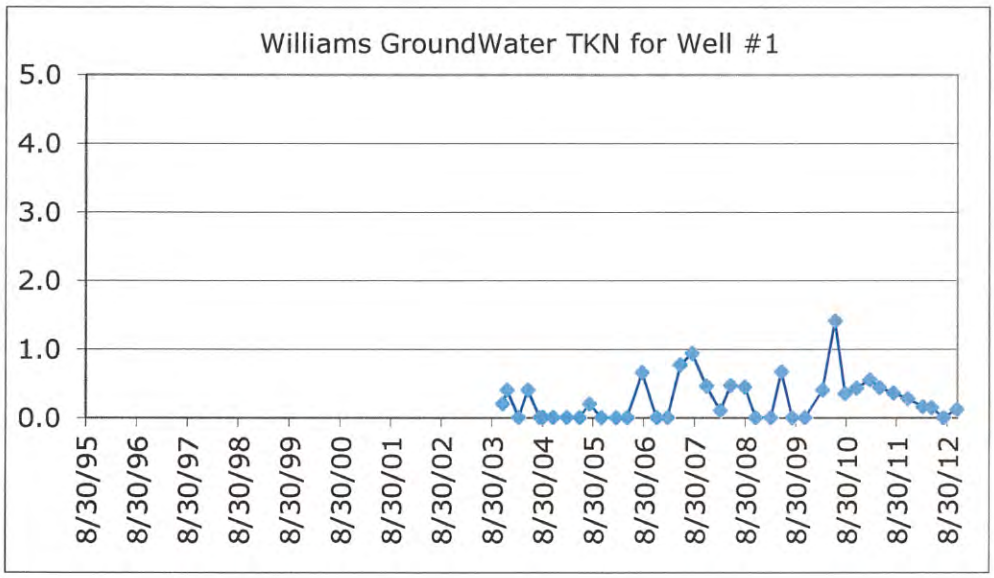
8/30/09
8/30/10
8/30/11
8/30/12


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
8/30/06
8/30/07
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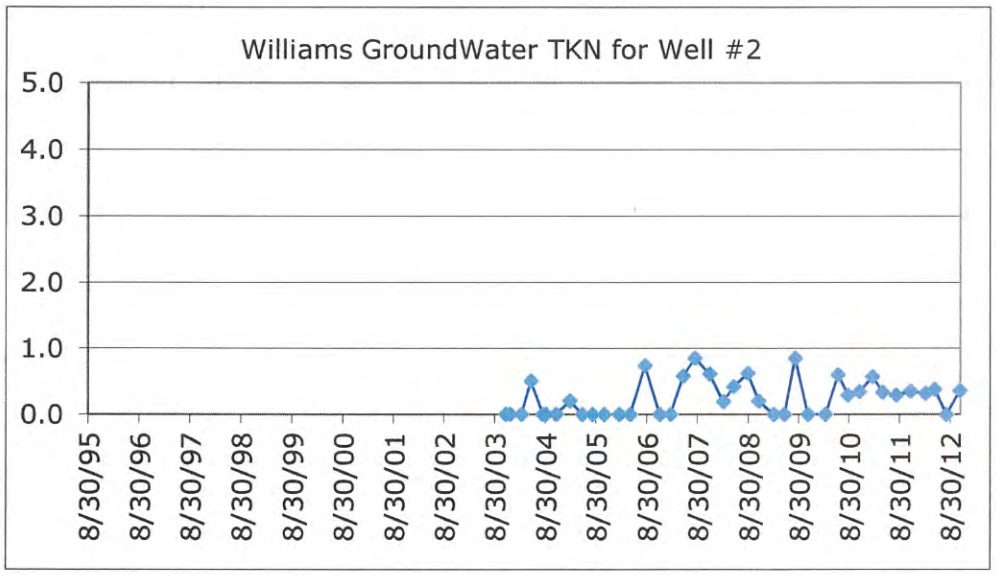
8/30/09
8/30/10
8/30/11
8/30/12


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
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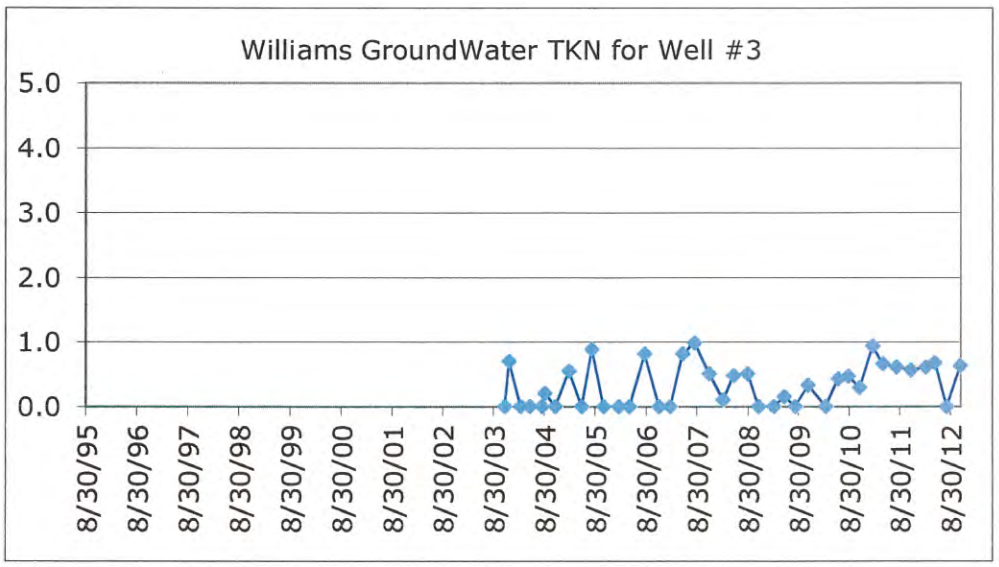
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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
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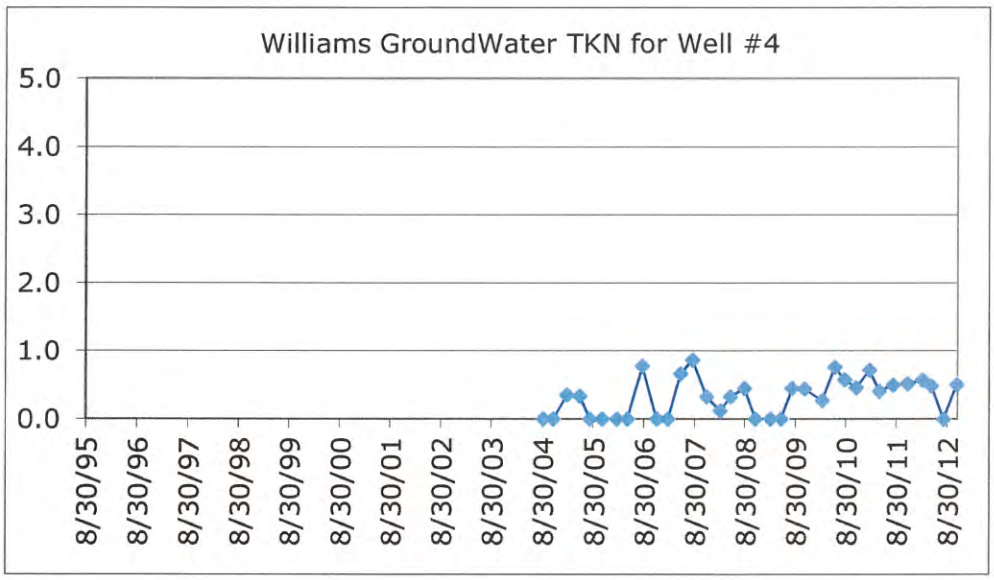
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


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
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8/30/08
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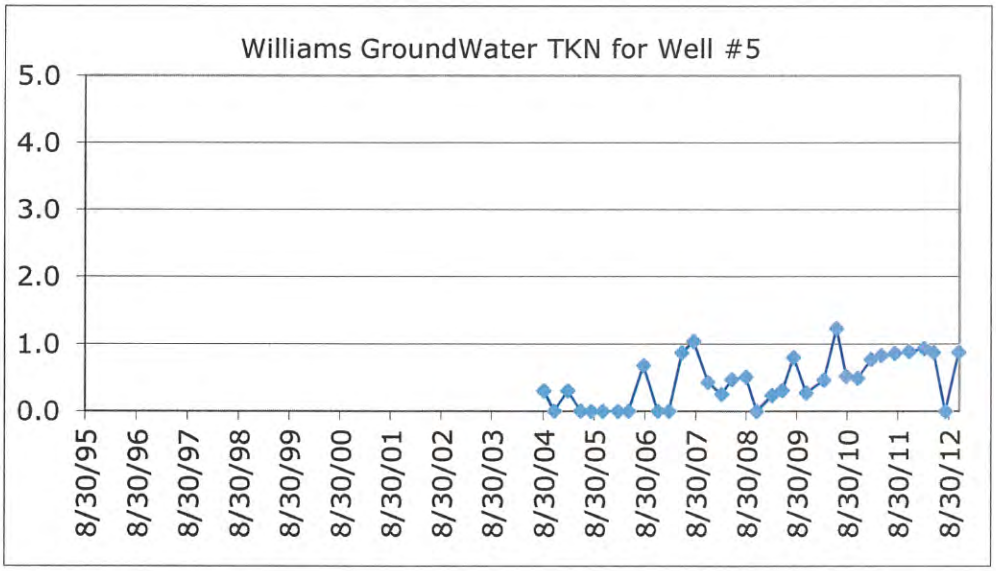
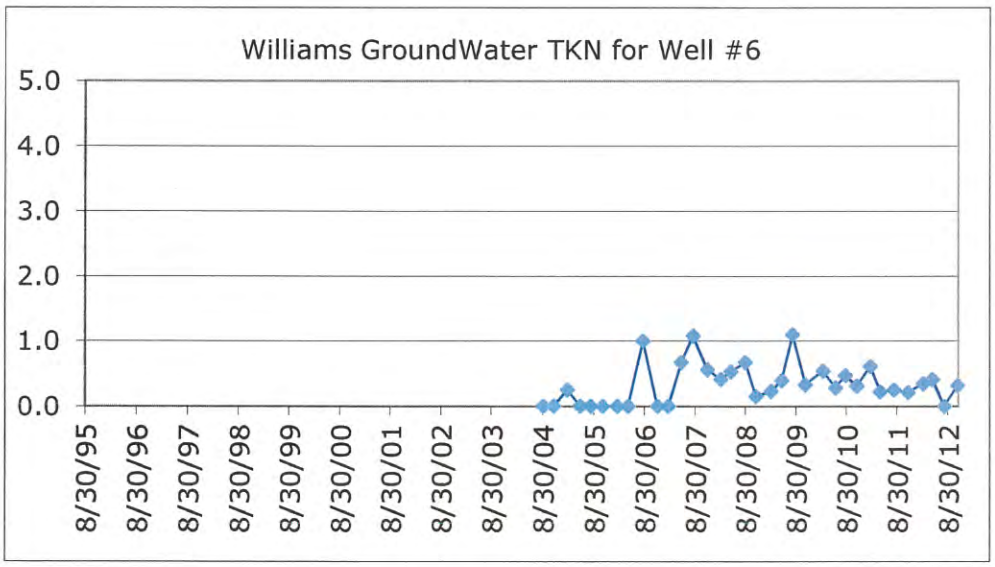
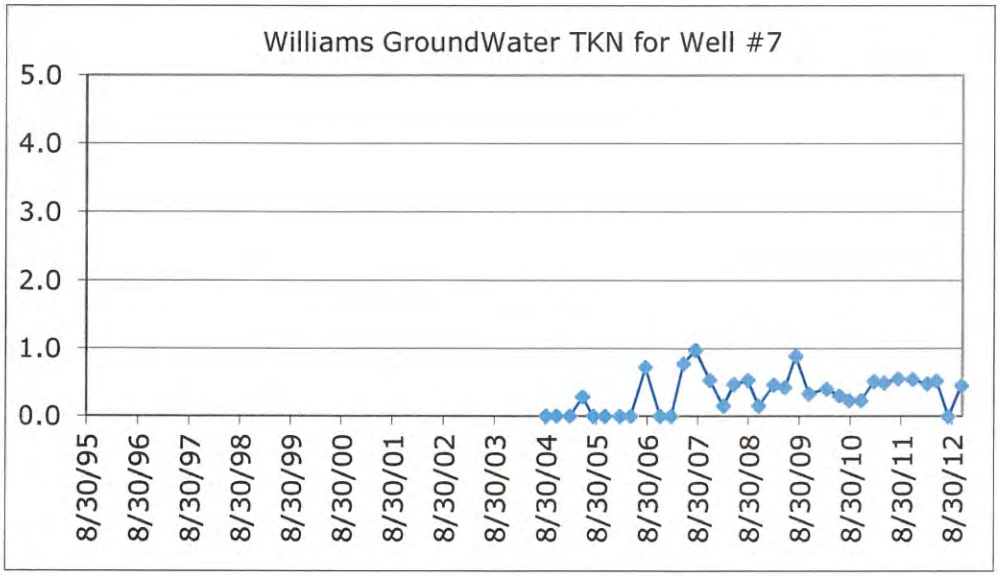
8/30/10
8/30/11
8/30/12


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


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


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
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8/30/08
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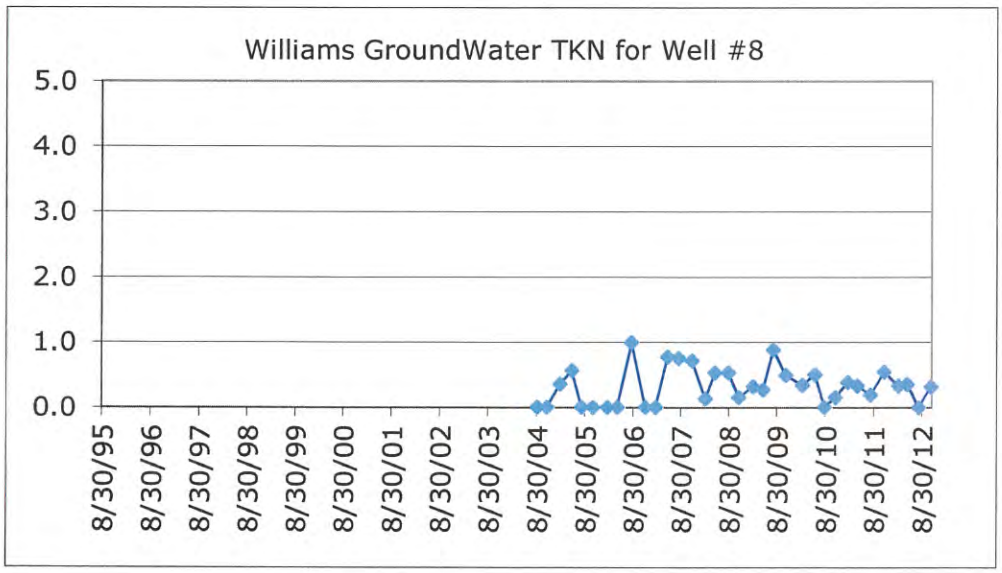
8/30/10
8/30/11
8/30/12


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
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8/30/07
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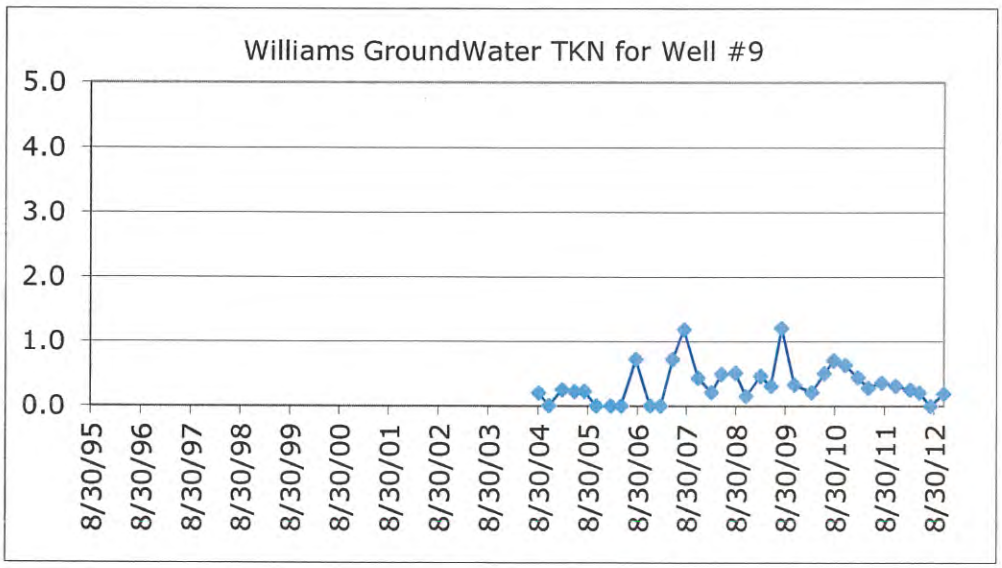
8/30/10
8/30/11
8/30/12


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
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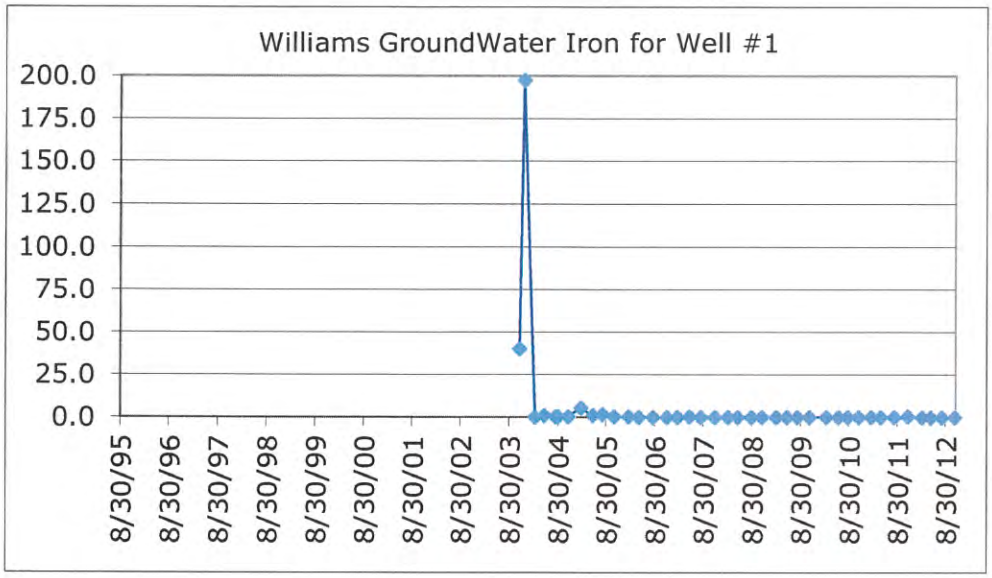
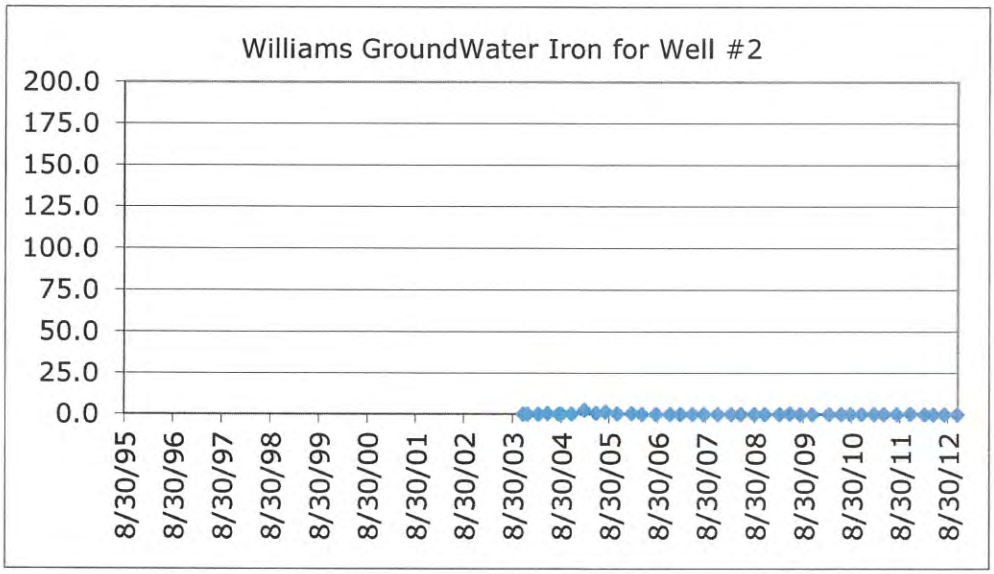
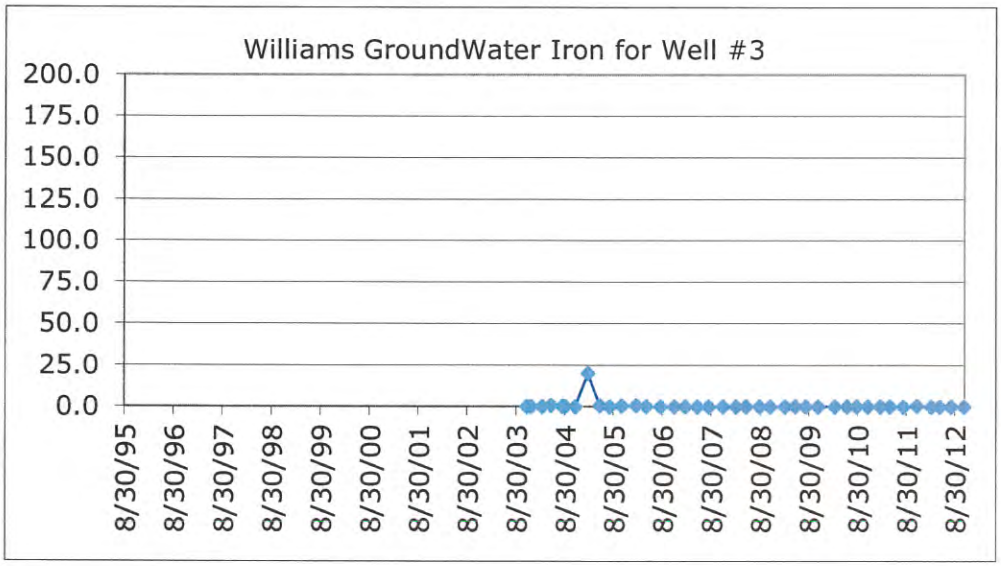
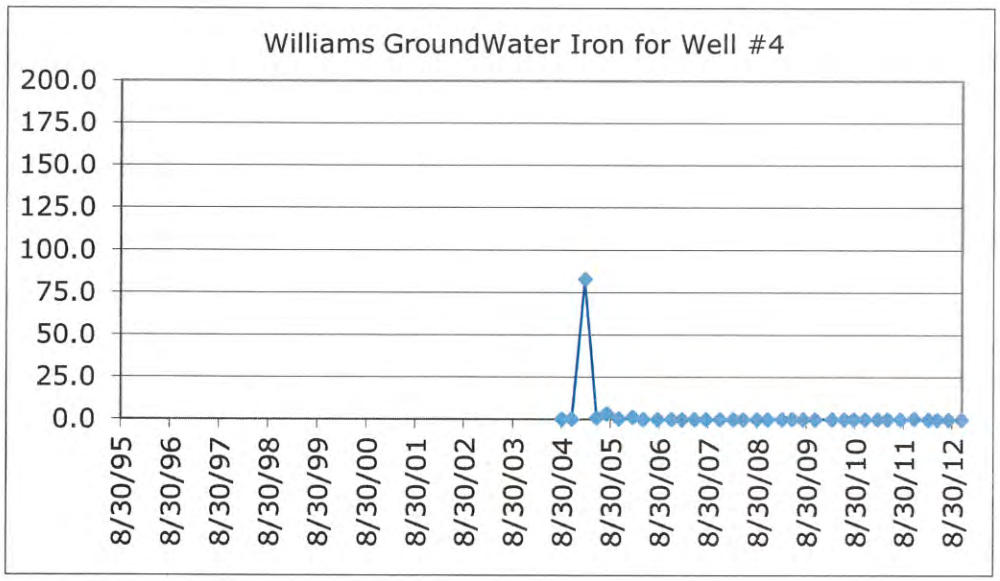
8/30/10
8/30/11
8/30/12


Williams GroundWater Iron for Well #1
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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


Williams GroundWater Iron for Well #2
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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


Williams GroundWater Iron for Well #3
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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


Williams GroundWater Iron for Well #4
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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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8/30/08
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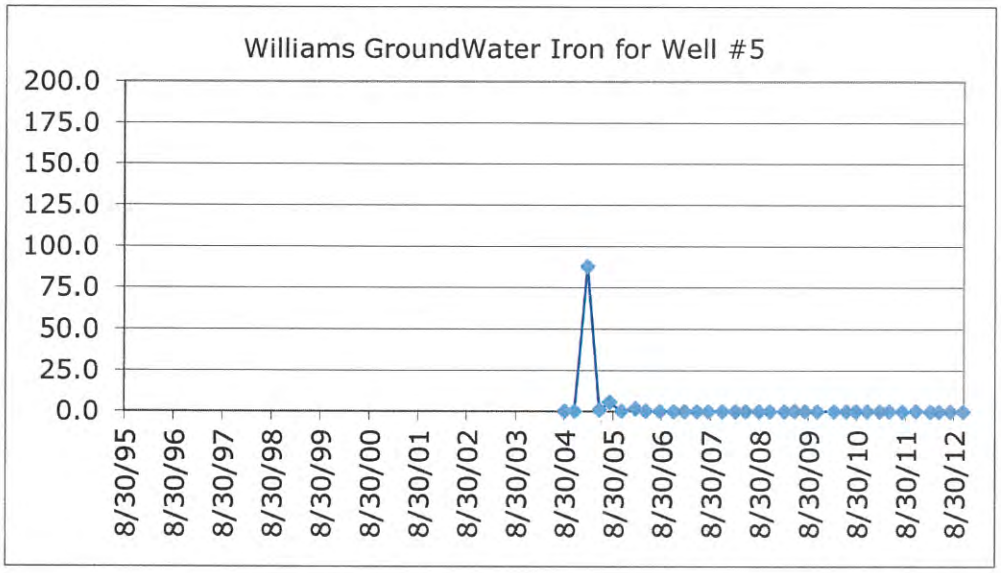
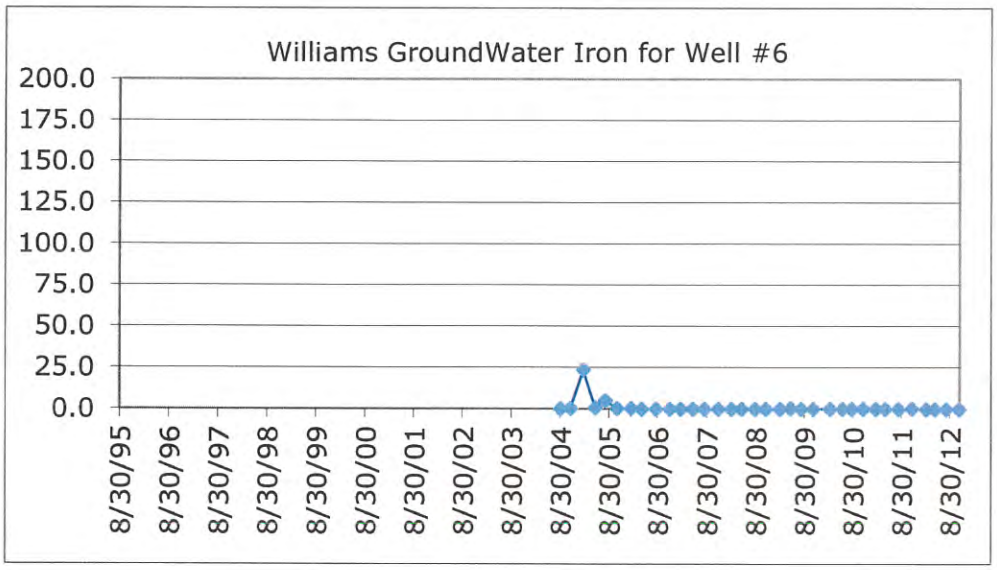
8/30/10
8/30/11
8/30/12


Williams GroundWater Iron for Well #5
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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


Williams GroundWater Iron for Well #6
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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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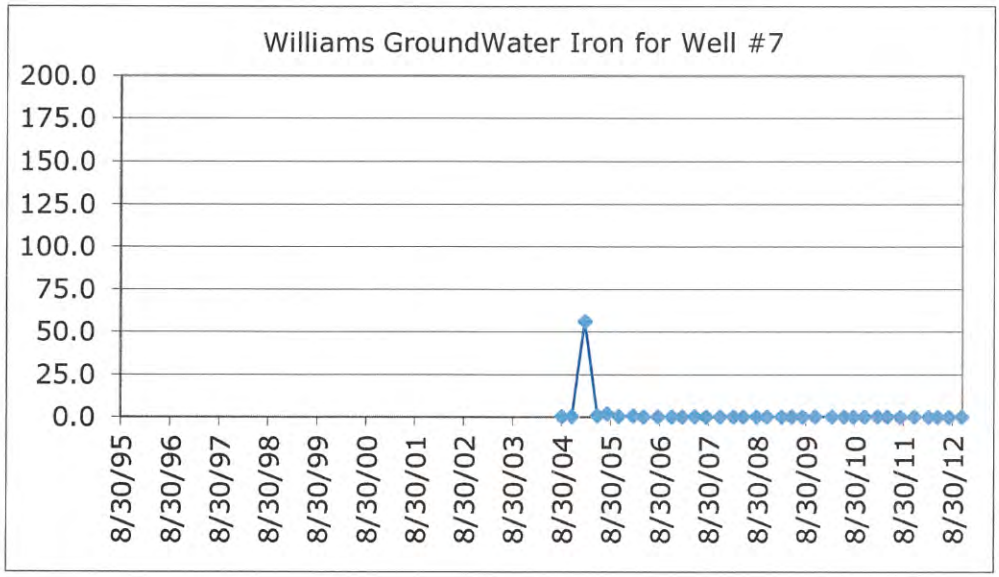
8/30/10
8/30/11
8/30/12


Williams GroundWater Iron for Well #7
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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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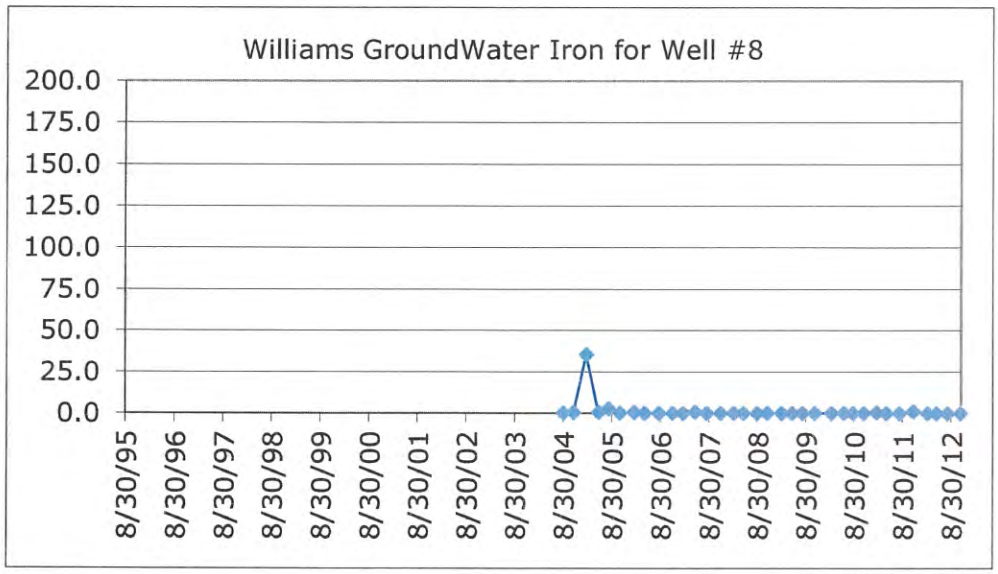
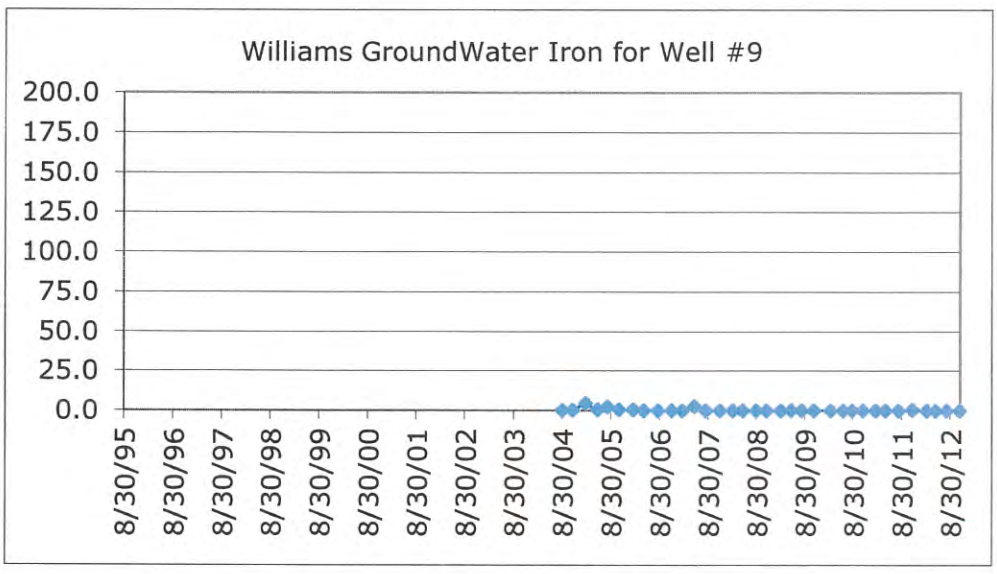
8/30/10
8/30/11
8/30/12


Williams GroundWater Iron for Well #8
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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


Williams GroundWater Iron for Well #9
200.0
175.0
150.0
125.0
100.0
75.0
50.0
25.0
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
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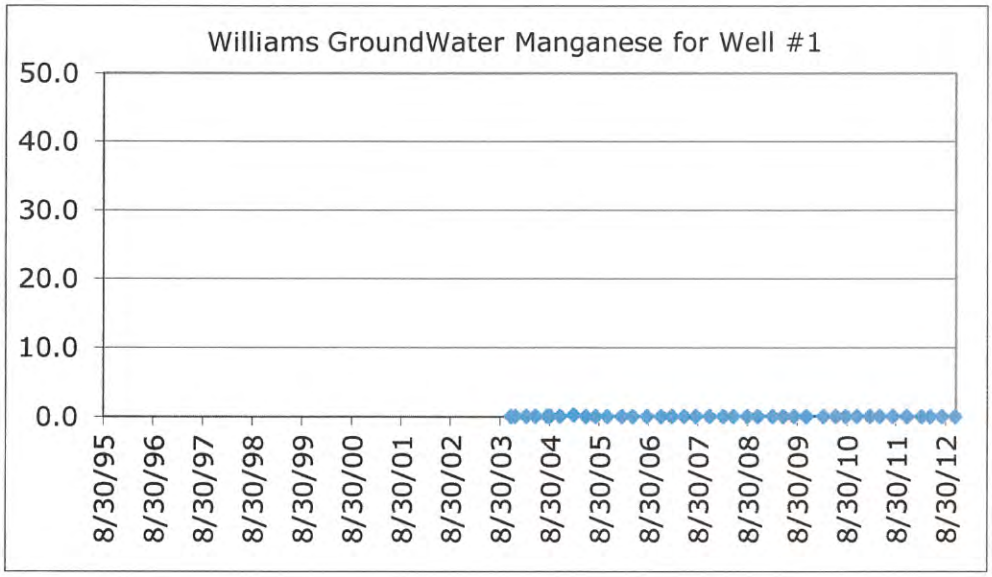
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese 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
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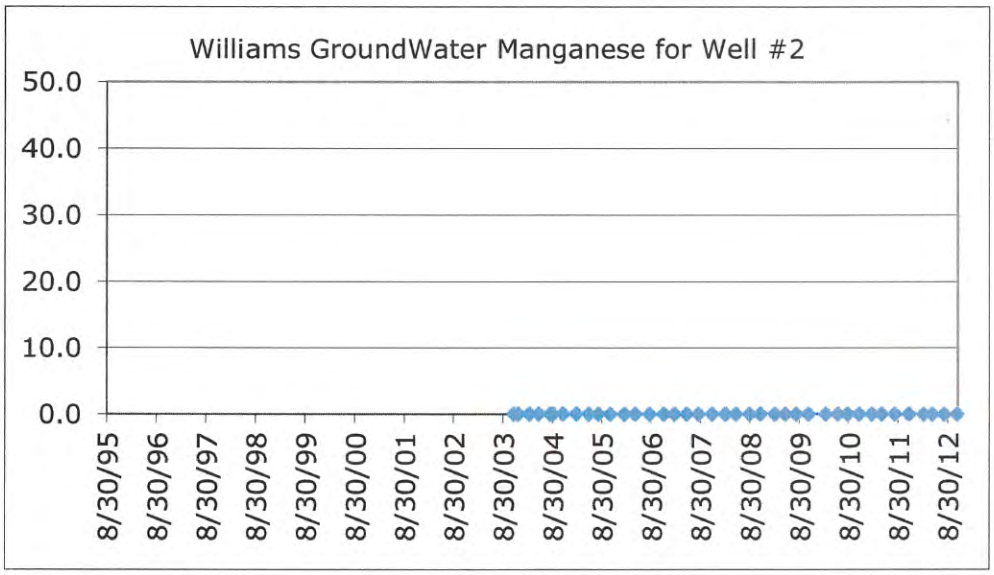
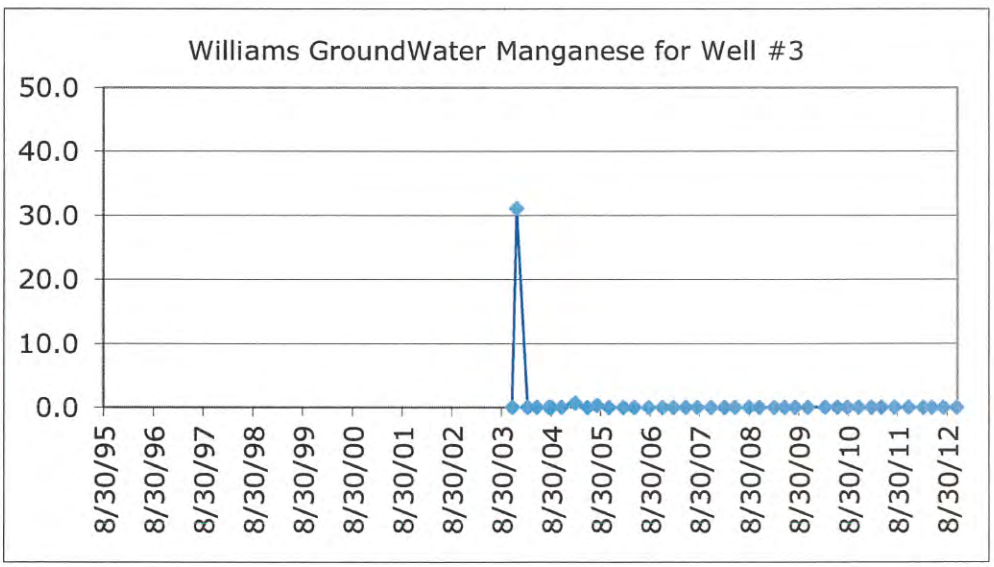
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese for Well #2
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


Williams GroundWater Manganese 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
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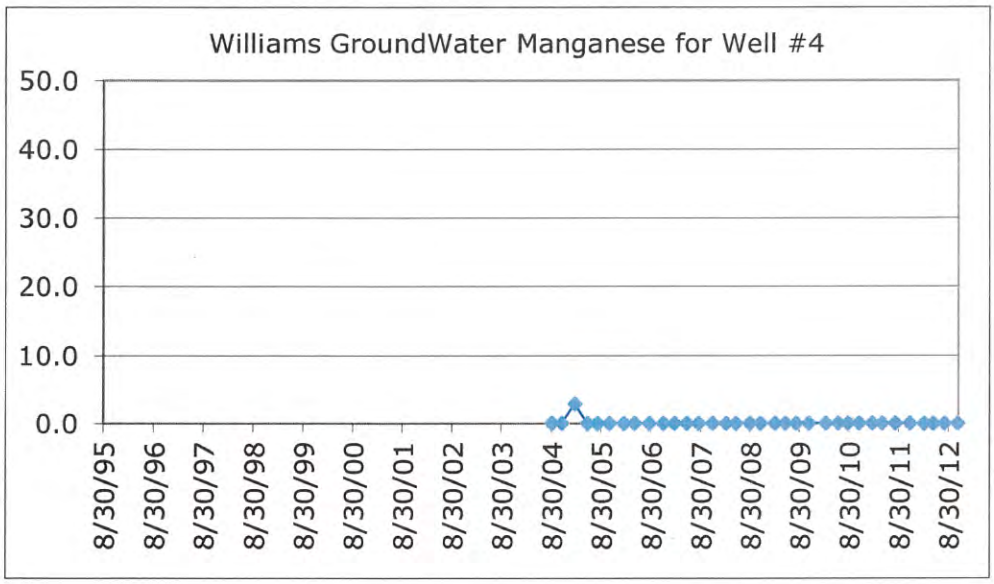
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese 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
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8/30/08
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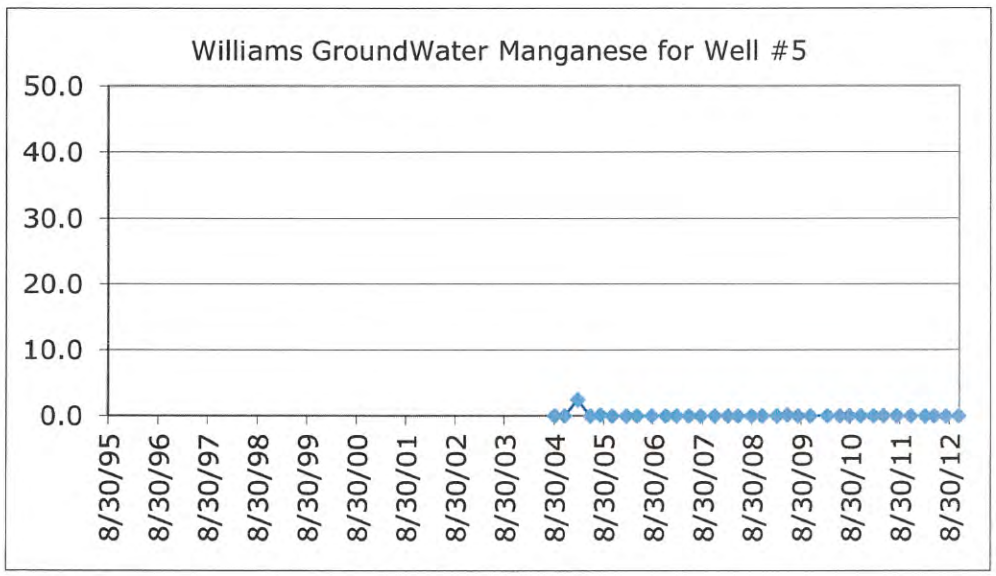
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese 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
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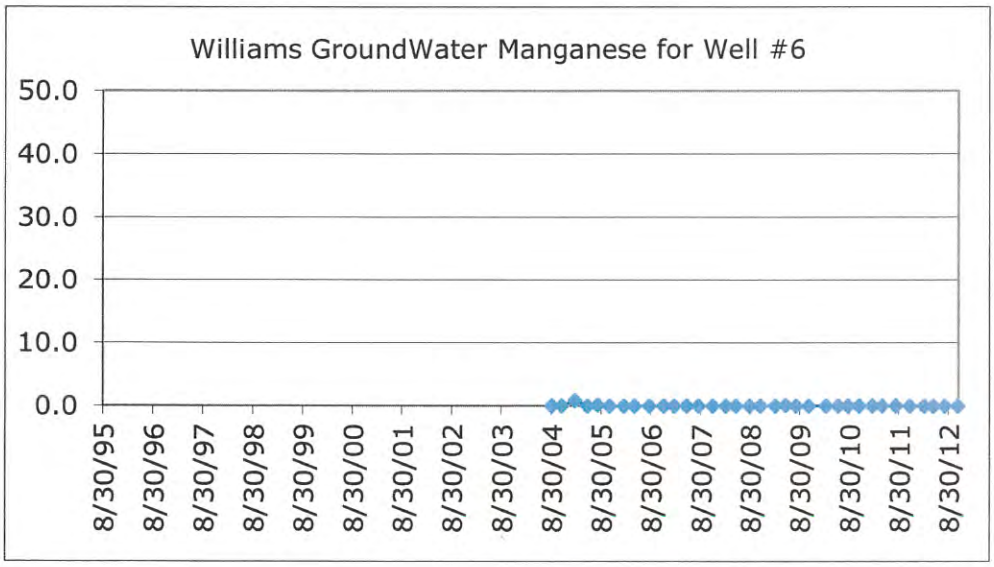
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese for Well #6
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
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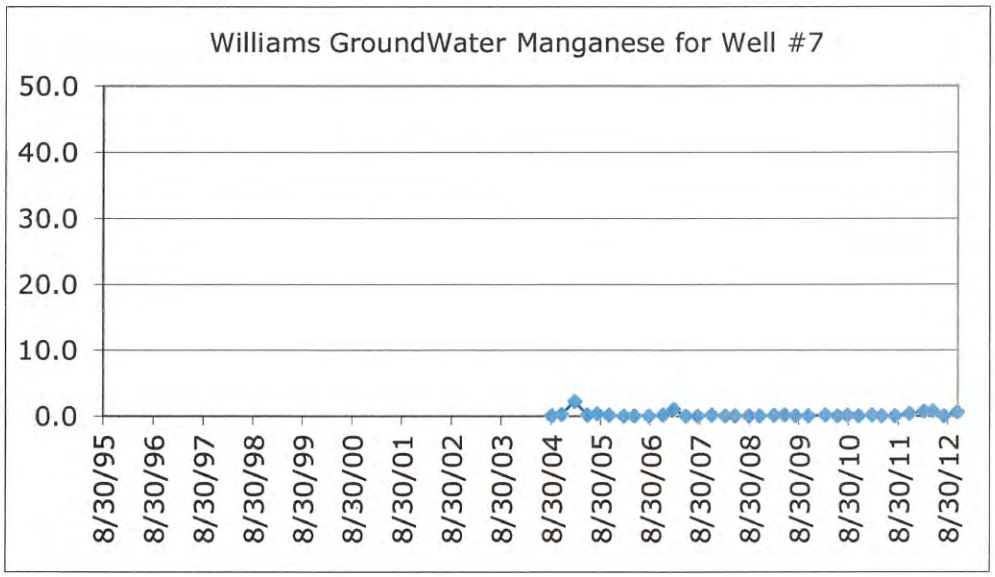
8/30/11
8/30/12


Williams GroundWater Manganese for Well #7
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
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8/30/06
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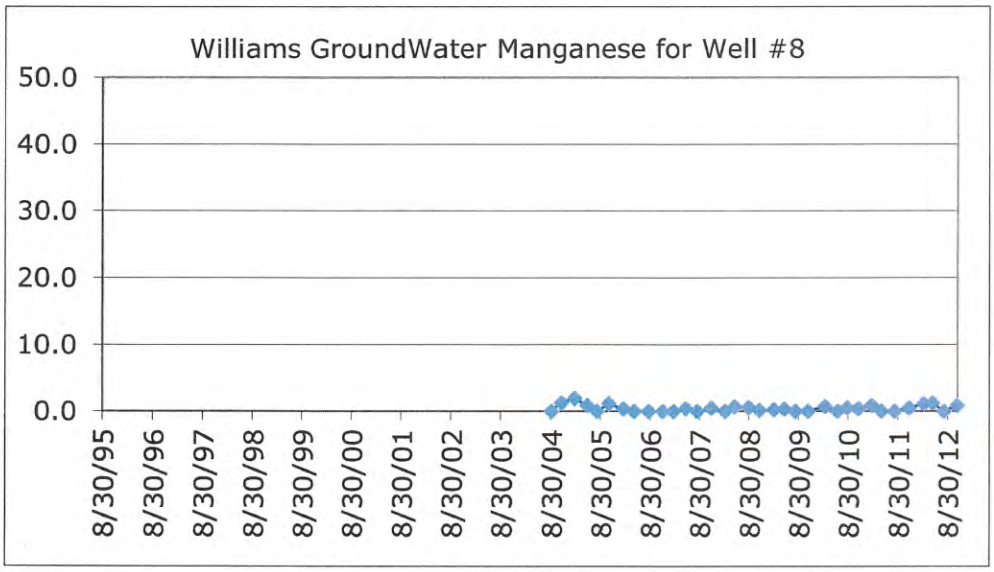
8/30/08
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater Manganese for Well #8
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
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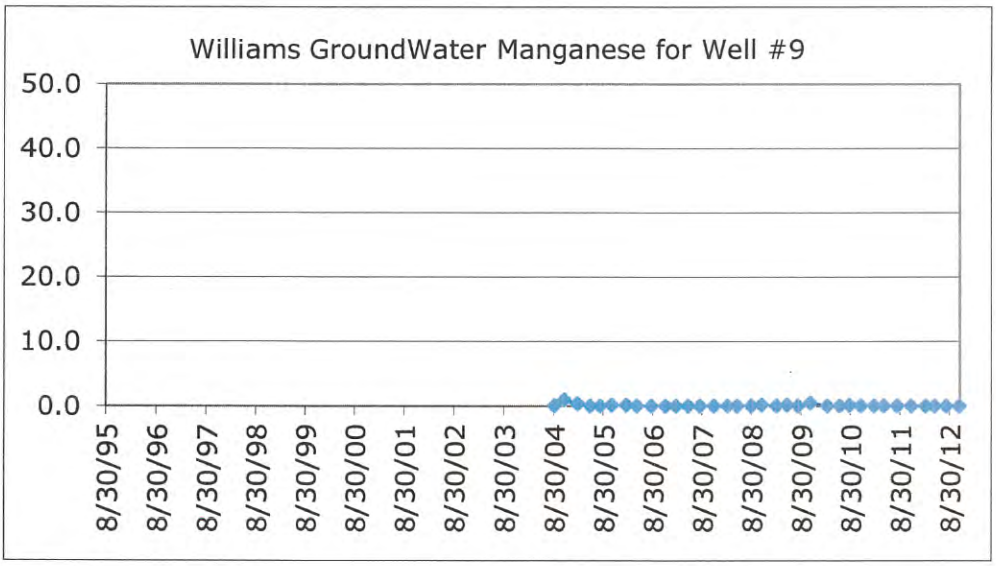
8/30/11
8/30/12


Williams GroundWater Manganese 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
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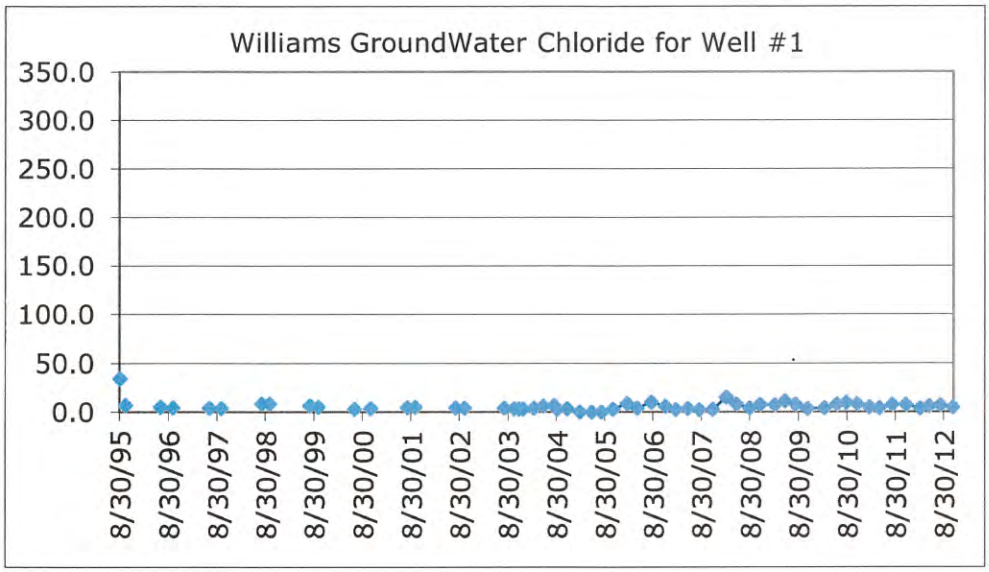
8/30/11
8/30/12


Williams GroundWater Chloride for Well #1
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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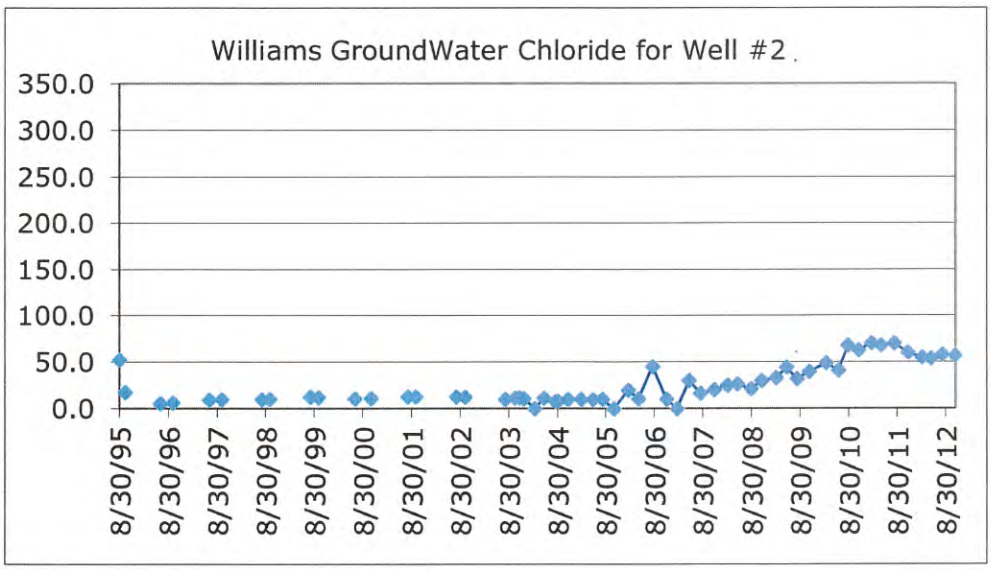
8/30/11
8/30/12


Williams GroundWater Chloride for Well #2
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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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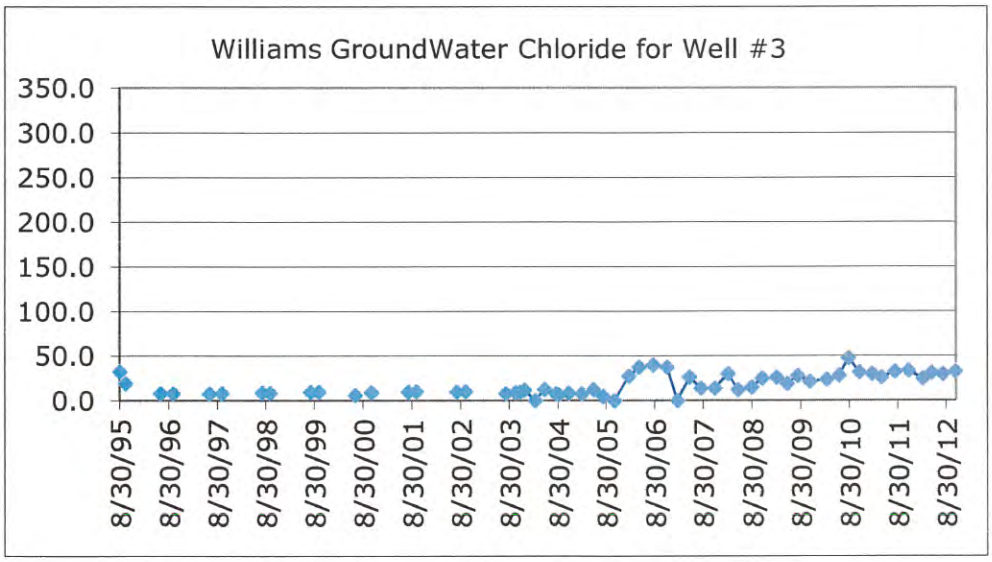
8/30/11
8/30/12


Williams GroundWater Chloride for Well #3
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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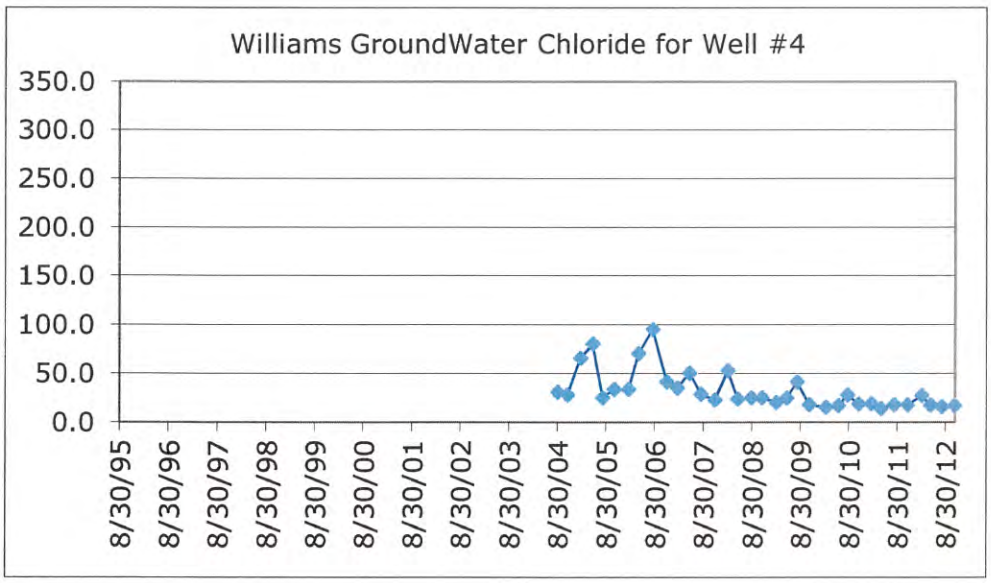
8/30/11
8/30/12


Williams GroundWater Chloride for Well #4
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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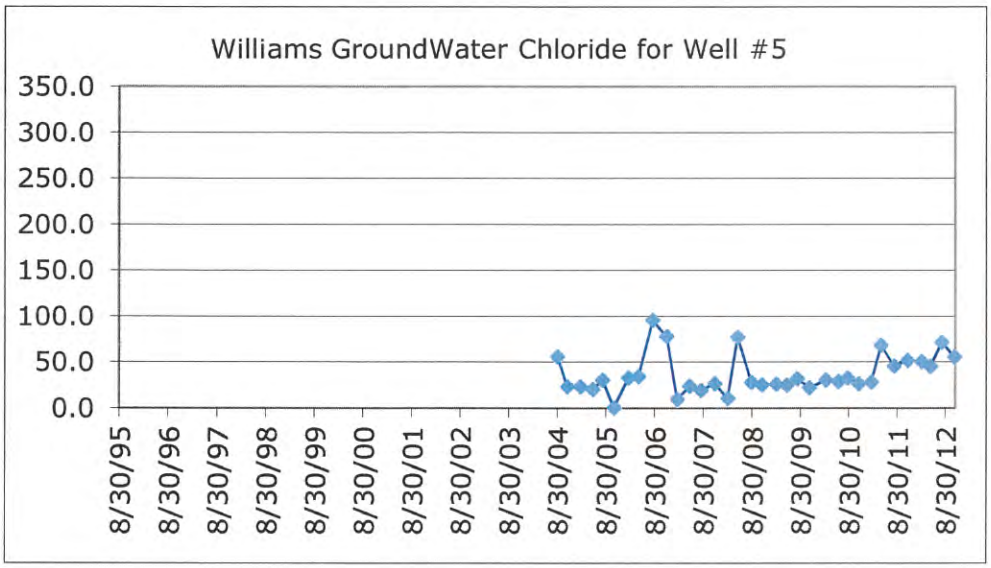
8/30/11
8/30/12


Williams GroundWater Chloride for Well #5
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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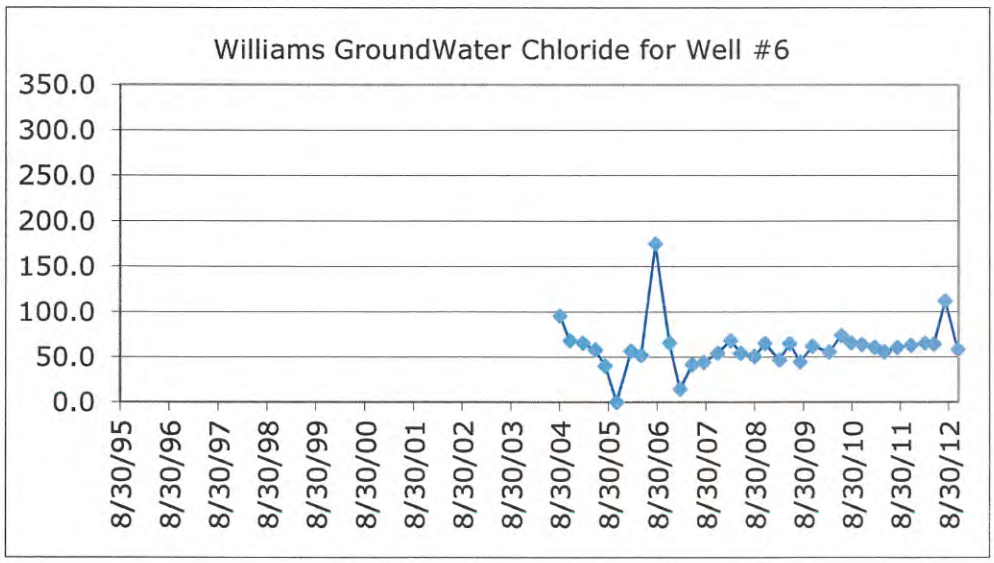
8/30/11
8/30/12


Williams GroundWater Chloride for Well #6
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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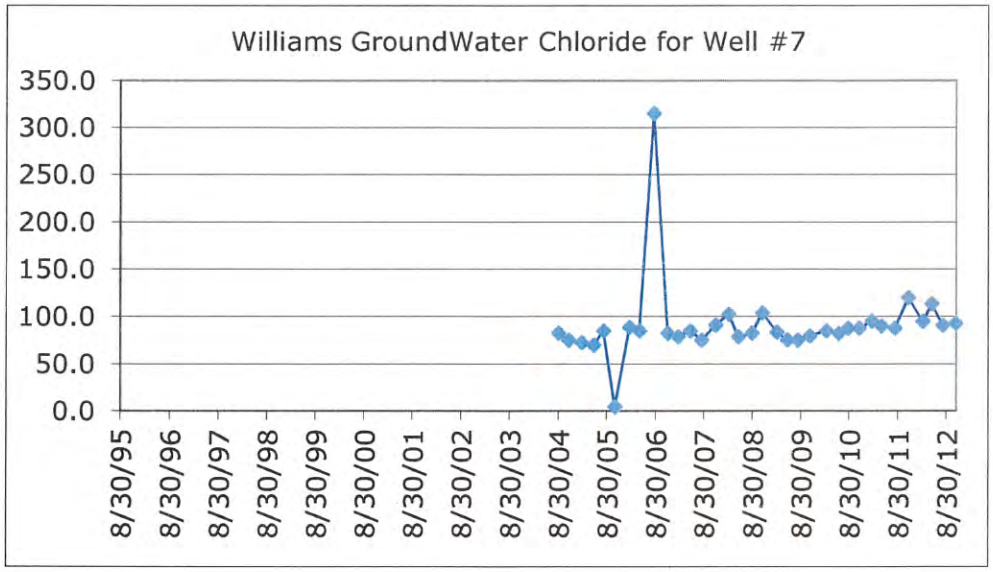
8/30/11
8/30/12


Williams GroundWater Chloride for Well #7
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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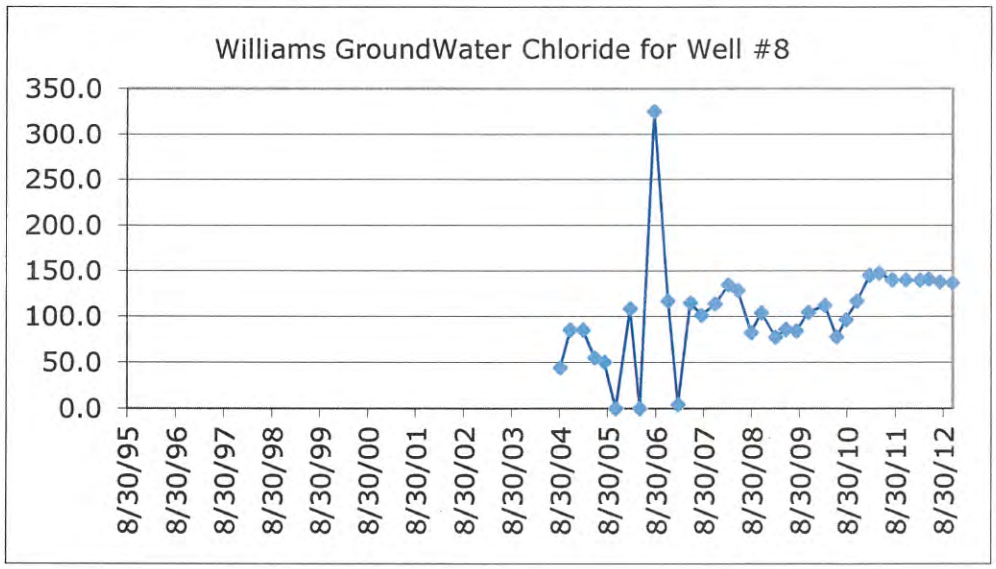
8/30/11
8/30/12


Williams GroundWater Chloride for Well #8
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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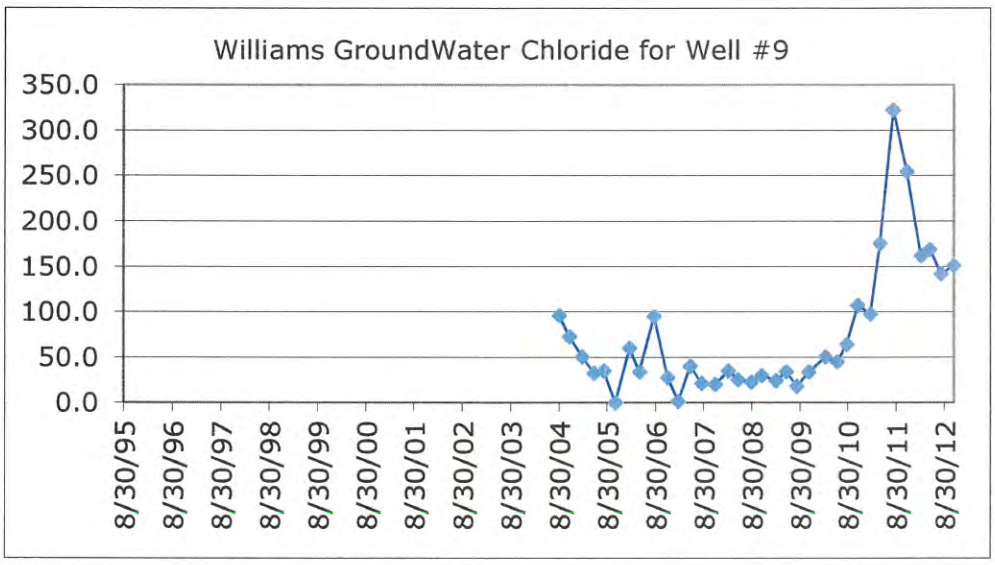
8/30/11
8/30/12


Williams GroundWater Chloride for Well #9
350.0
300.0
250.0
200.0
150.0
100.0
50.0
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
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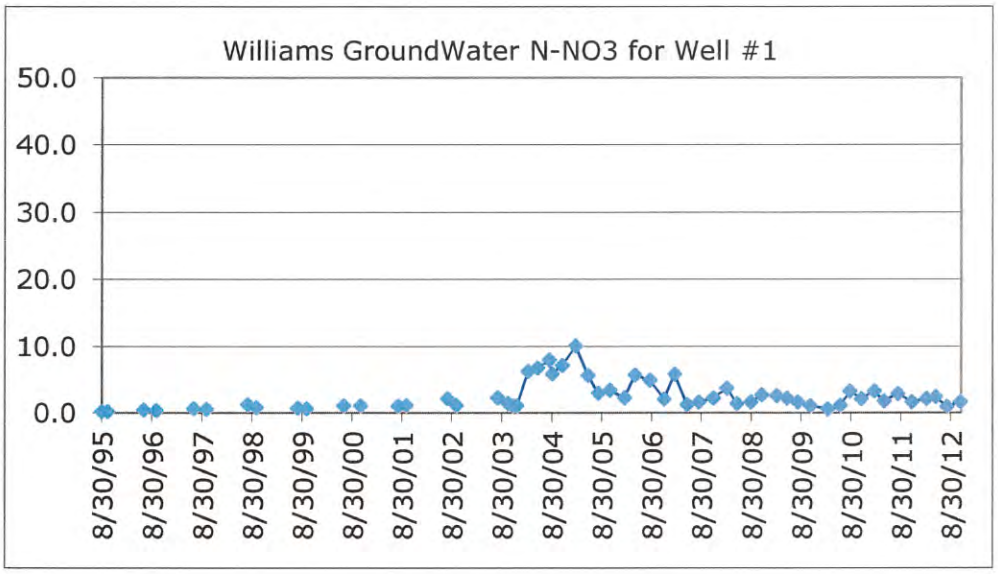
8/30/11
8/30/12


Williams GroundWater N-NO3 for Well #1
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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
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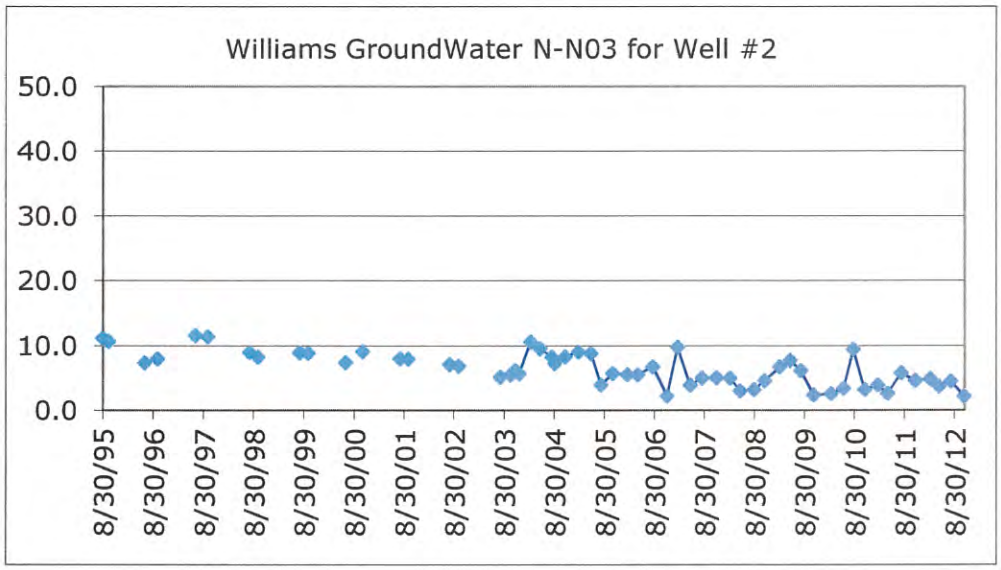
8/30/11
8/30/12


Williams GroundWater N-N03 for Well #2
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
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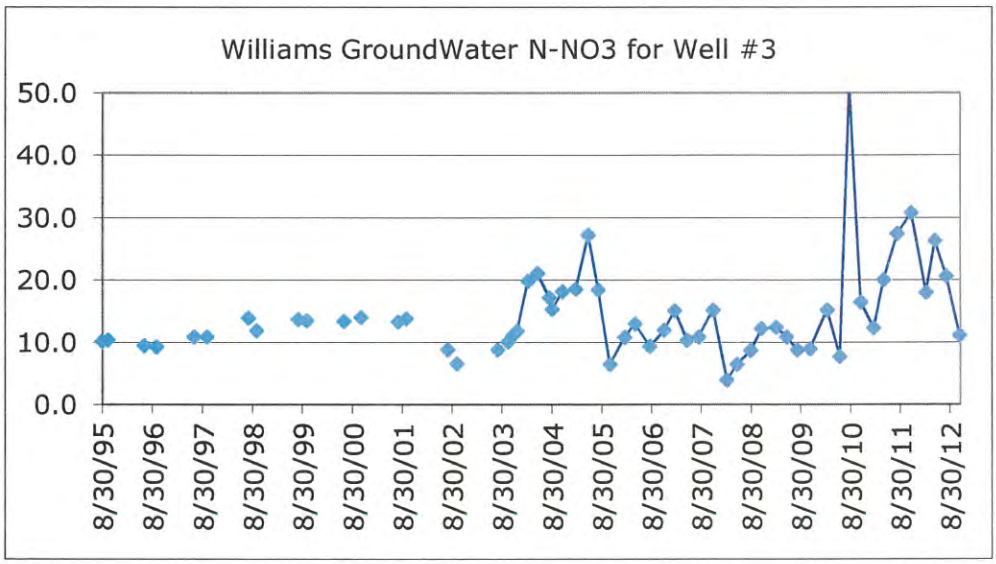
8/30/11
8/30/12


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
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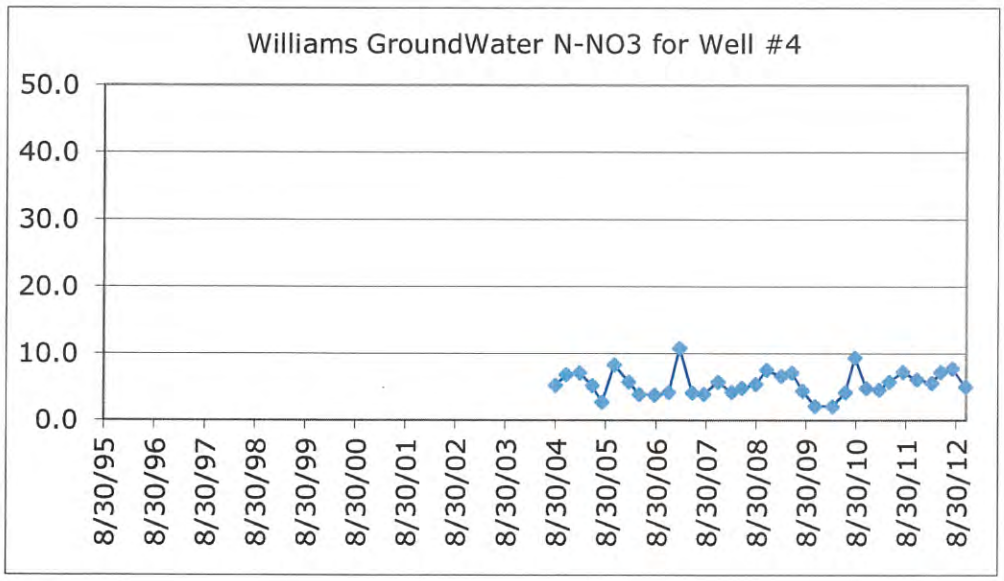
8/30/11
8/30/12


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
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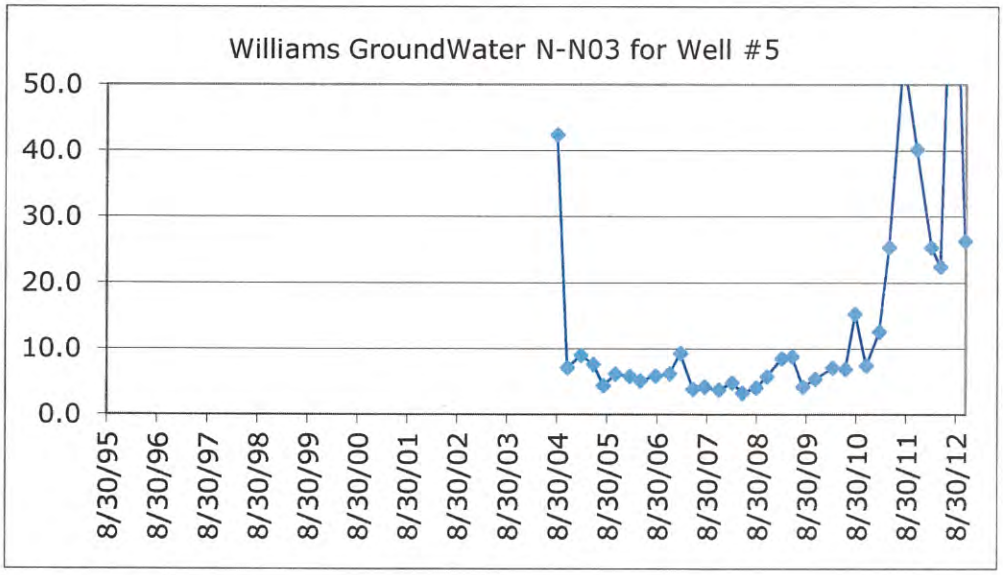
8/30/11
8/30/12


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
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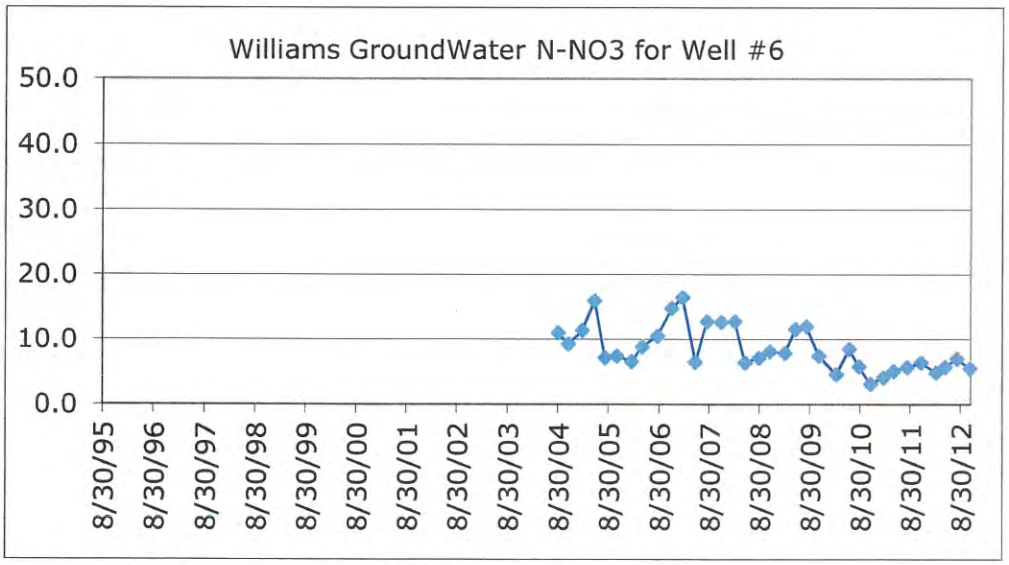
8/30/11
8/30/12


Williams GroundWater N-NO3 for Well #6
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
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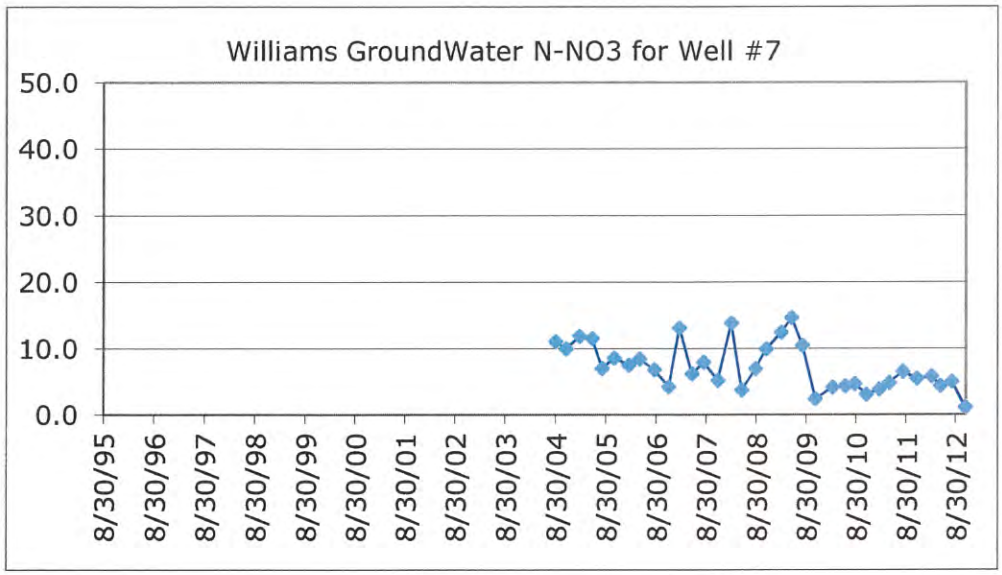
8/30/11
8/30/12


Williams GroundWater N-NO3 for Well #7
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
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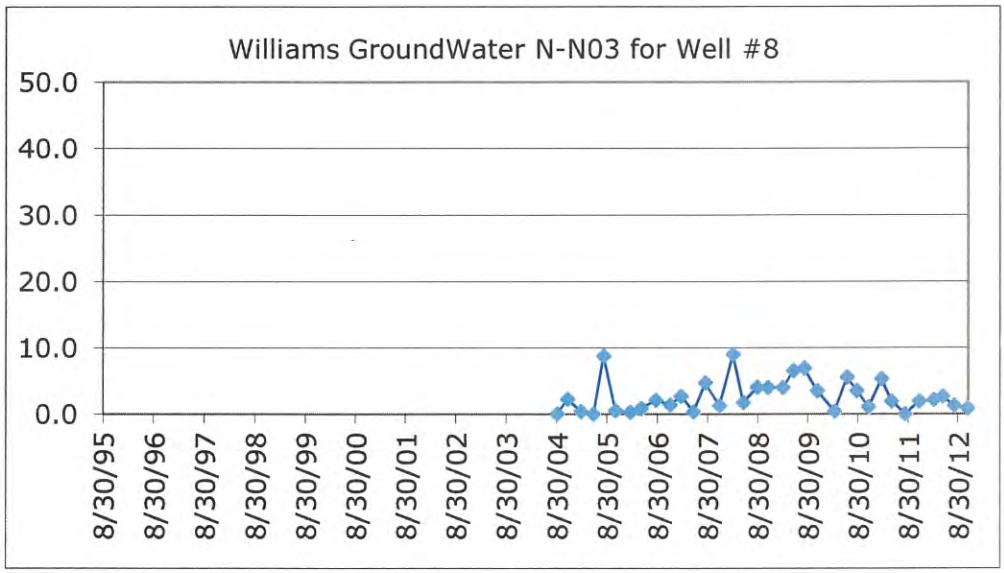
8/30/11
8/30/12


Williams GroundWater N-N03 for Well #8
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
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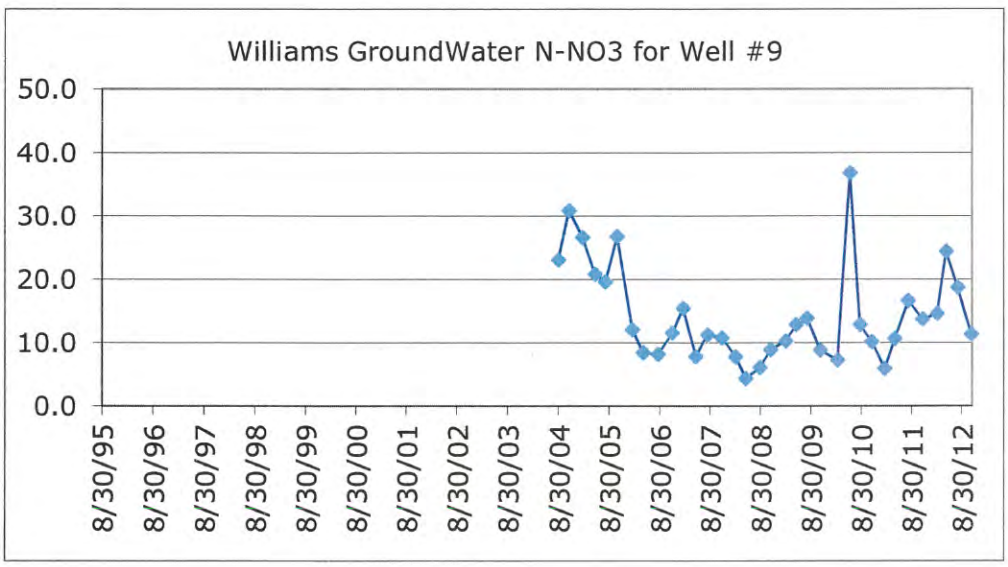
8/30/11
8/30/12


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
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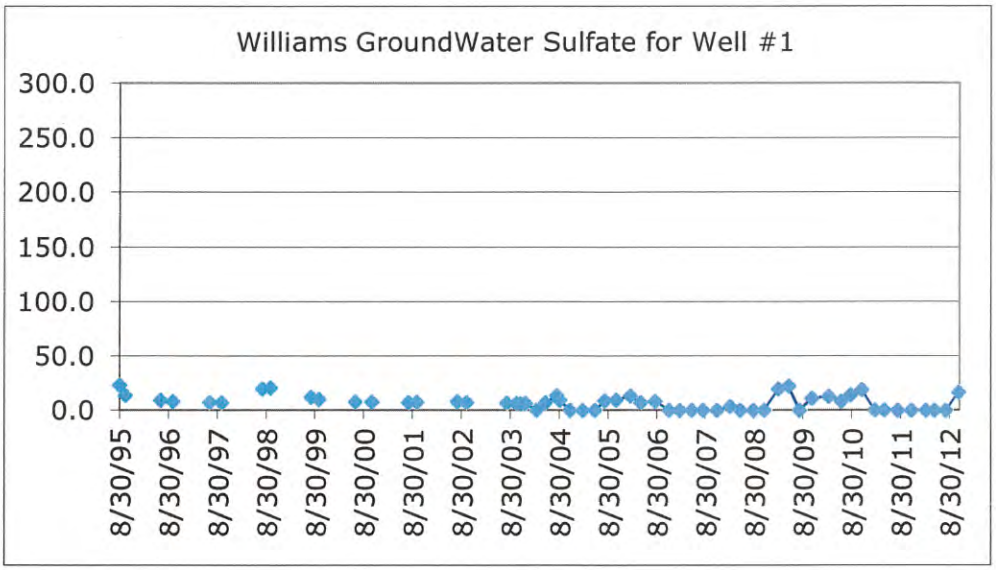
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #1
300.0
250.0
200.0
150.0
100.0
50.0
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
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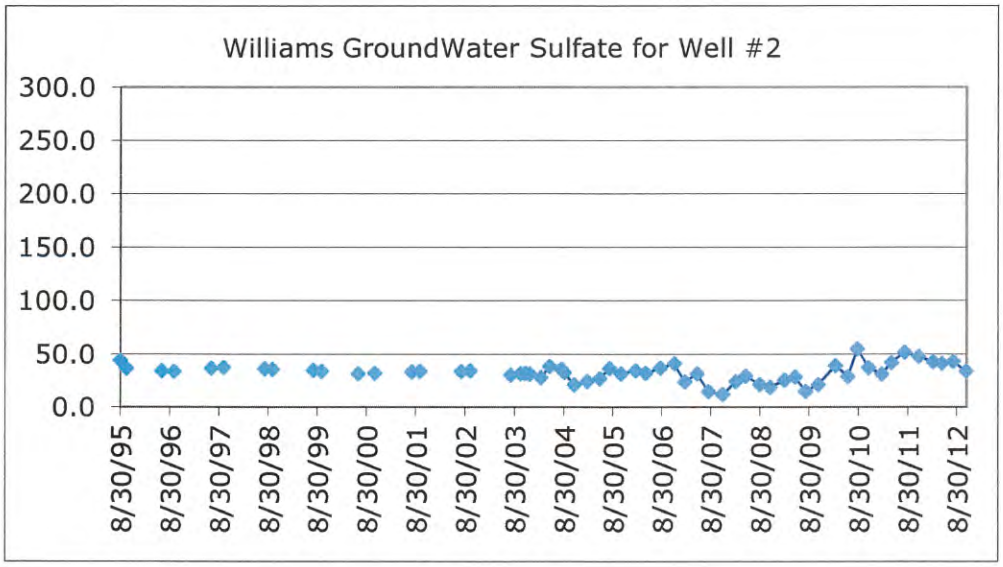
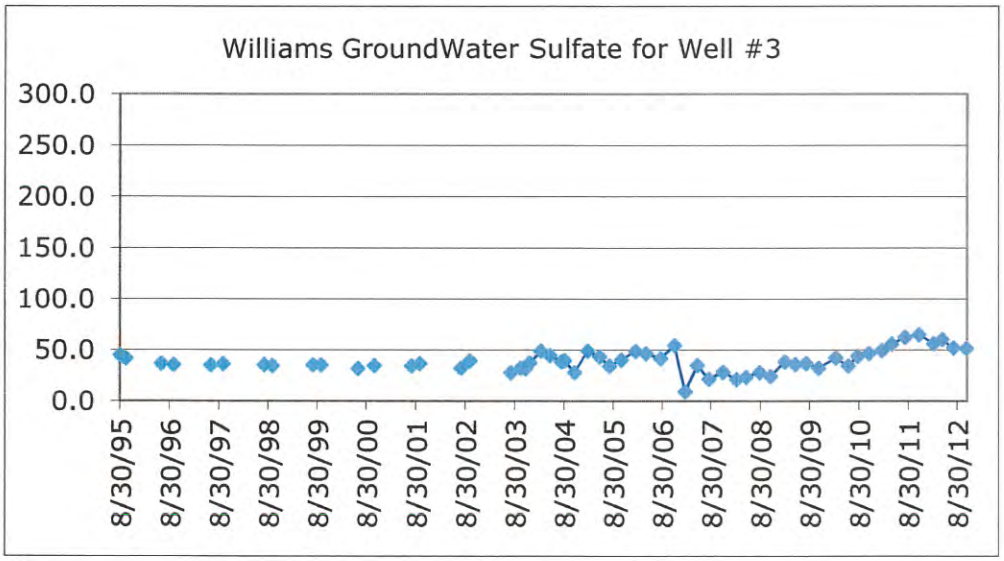
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #2
300.0
250.0
200.0
150.0
100.0
50.0
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


Williams GroundWater Sulfate for Well #3
300.0
250.0
200.0
150.0
100.0
50.0
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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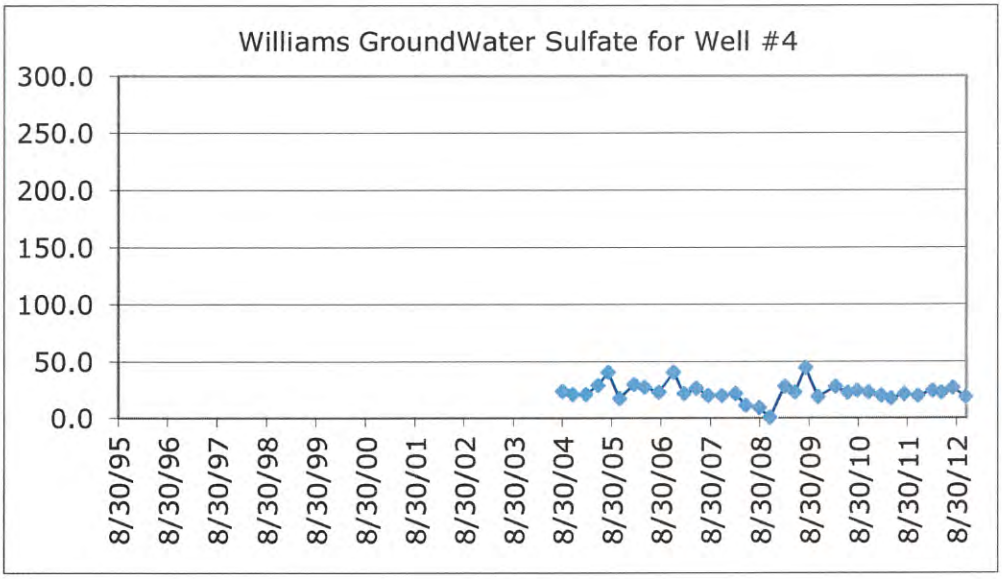
8/30/09
8/30/10
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #4
300.0
250.0
200.0
150.0
100.0
50.0
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
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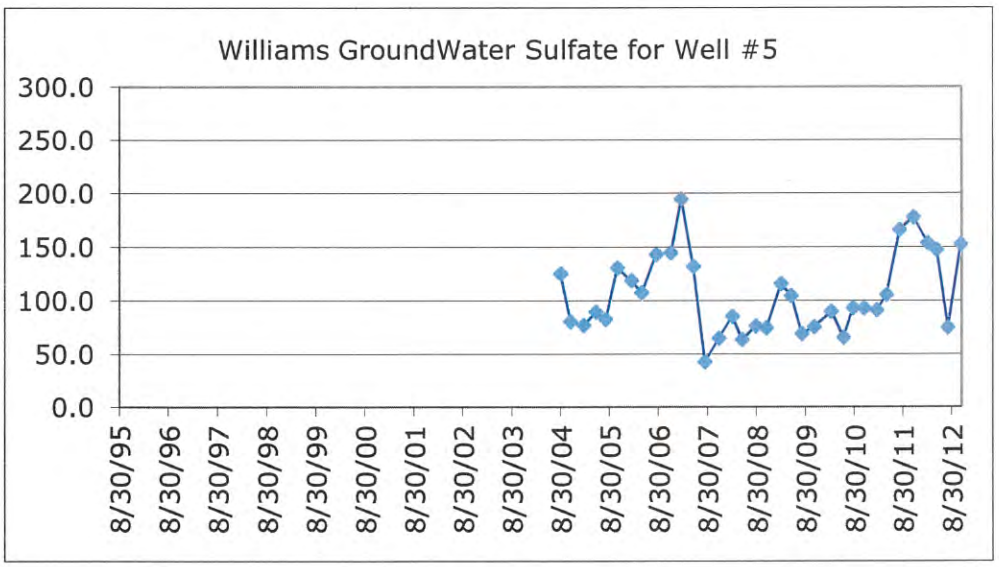
8/30/10
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #5
300.0
250.0
200.0
150.0
100.0
50.0
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
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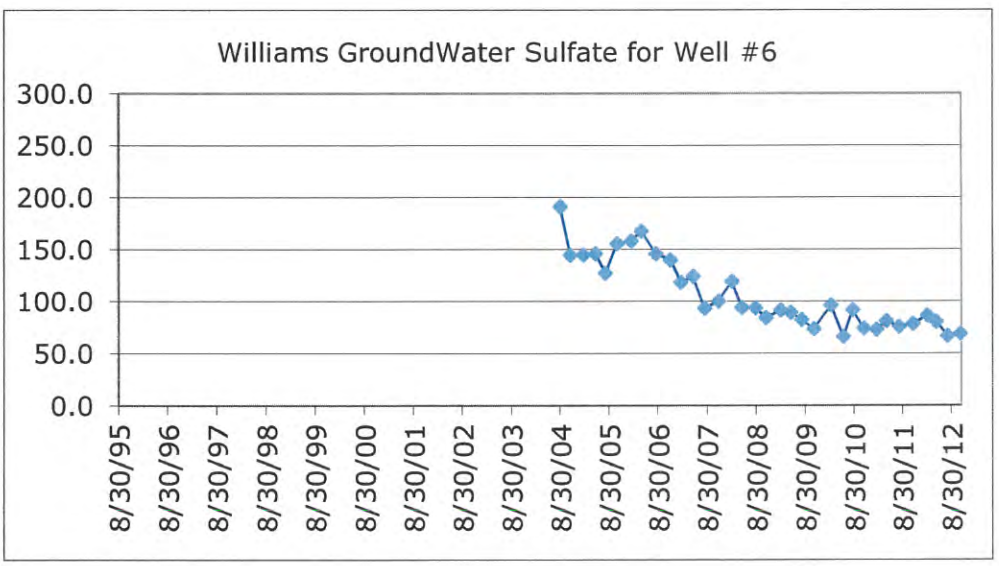
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #6
300.0
250.0
200.0
150.0
100.0
50.0
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
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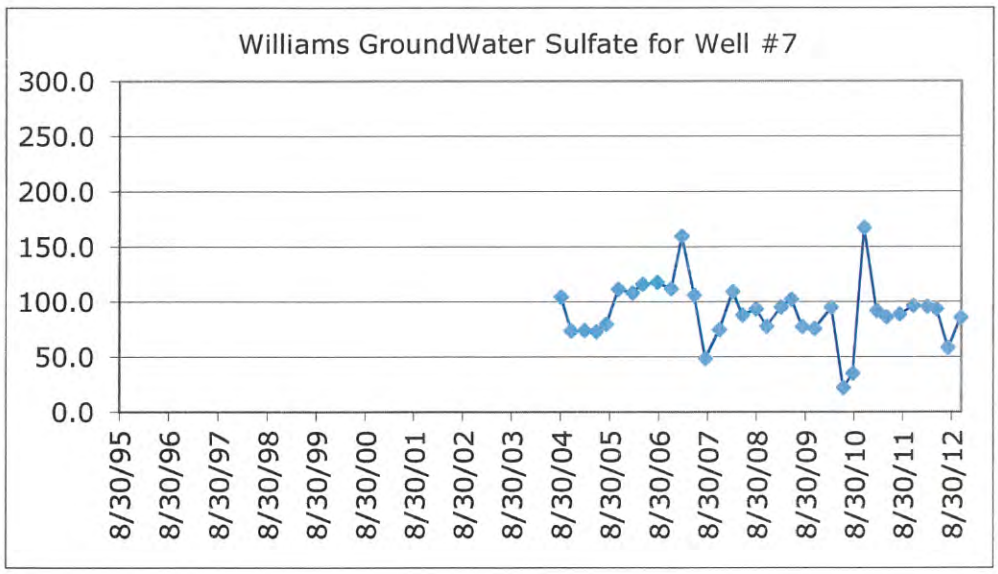
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #7
300.0
250.0
200.0
150.0
100.0
50.0
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
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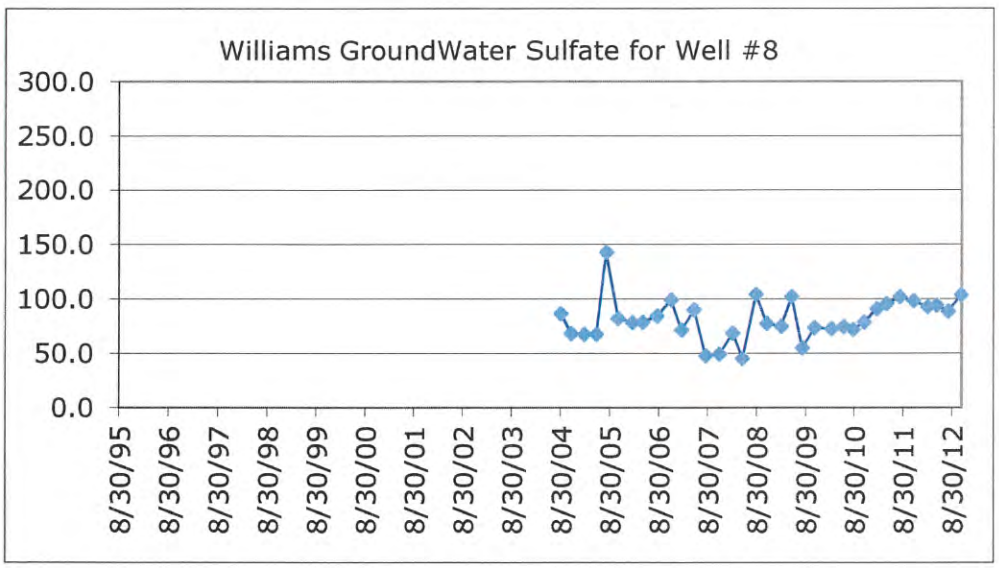
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #8
300.0
250.0
200.0
150.0
100.0
50.0
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
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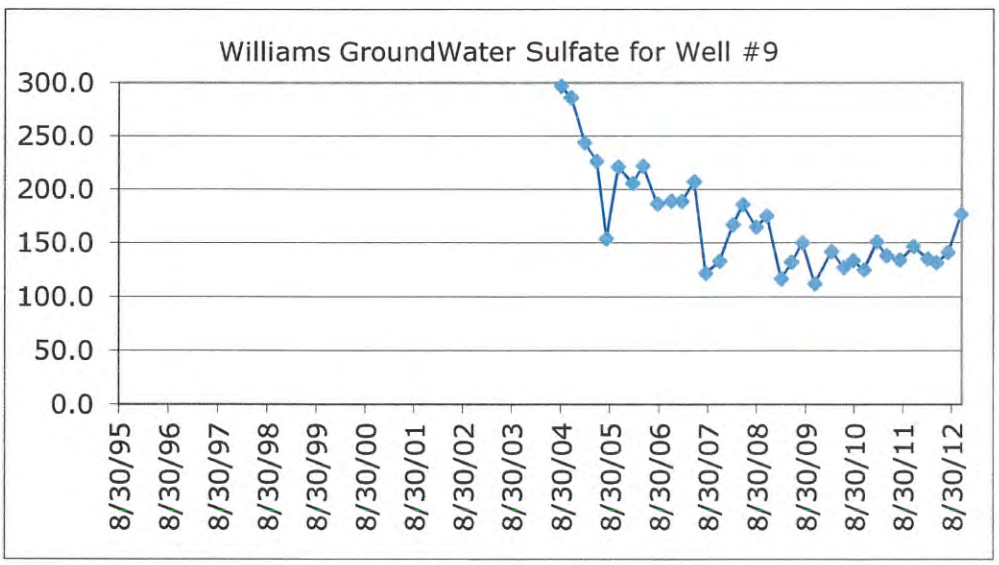
8/30/11
8/30/12


Williams GroundWater Sulfate for Well #9
300.0
250.0
200.0
150.0
100.0
50.0
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
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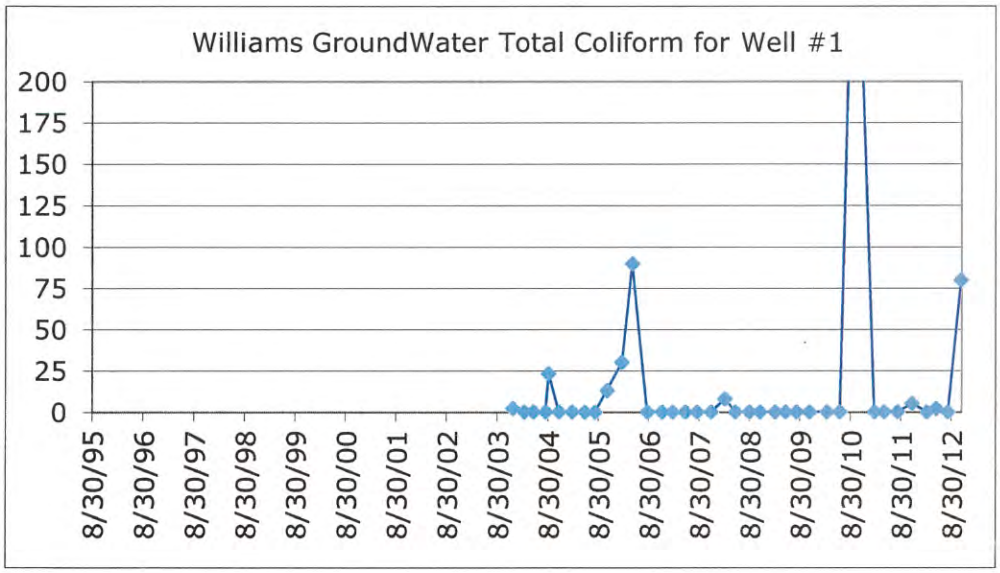
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #1
200
175
150
125
100
75
50
25
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
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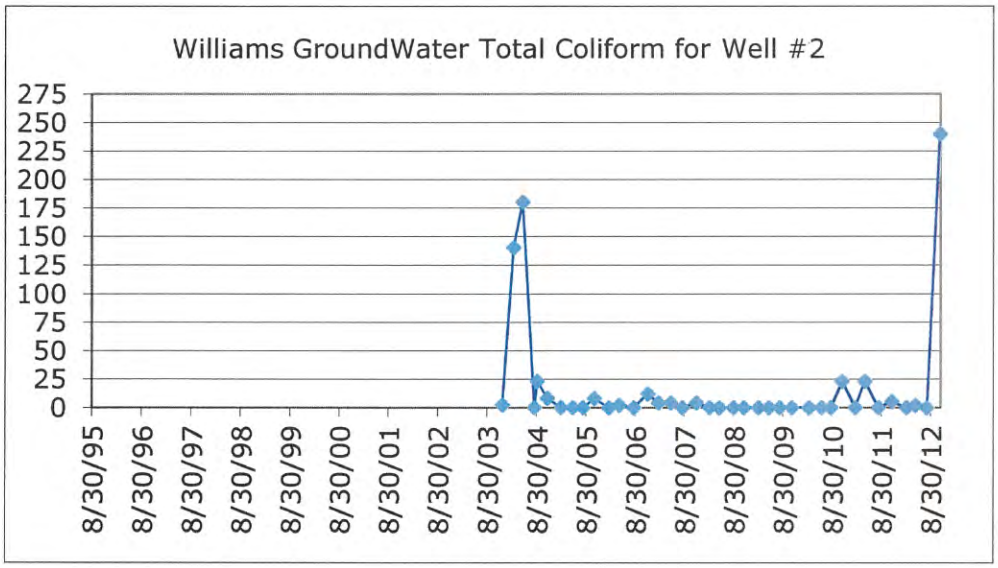
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #2
275
250
225
200
175
150
125
100
75
50
25
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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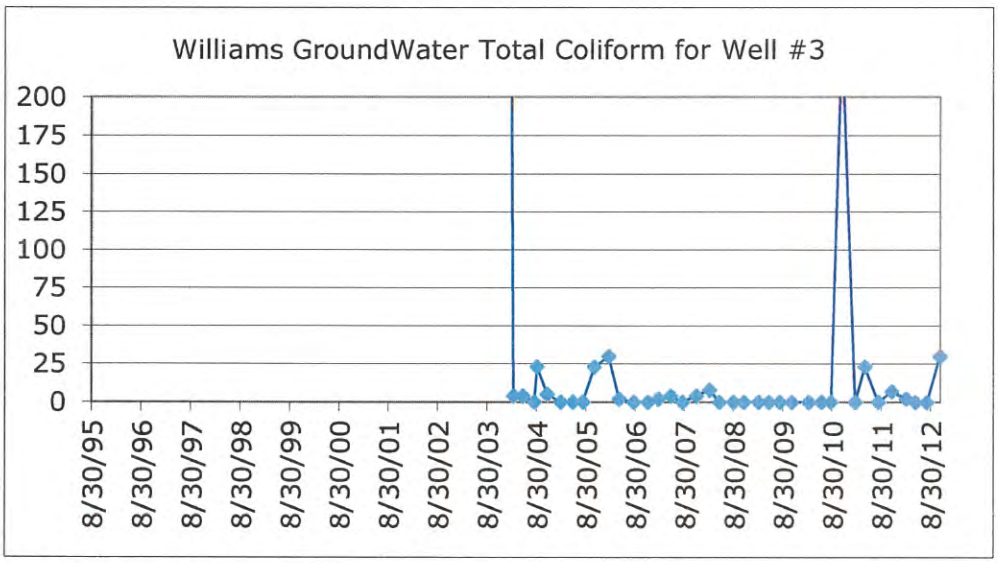
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #3
200
175
150
125
100
75
50
25
0
8/30/95
8/30/96
8/30/97
8/30/98
8/30/99
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8/30/01
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8/30/03
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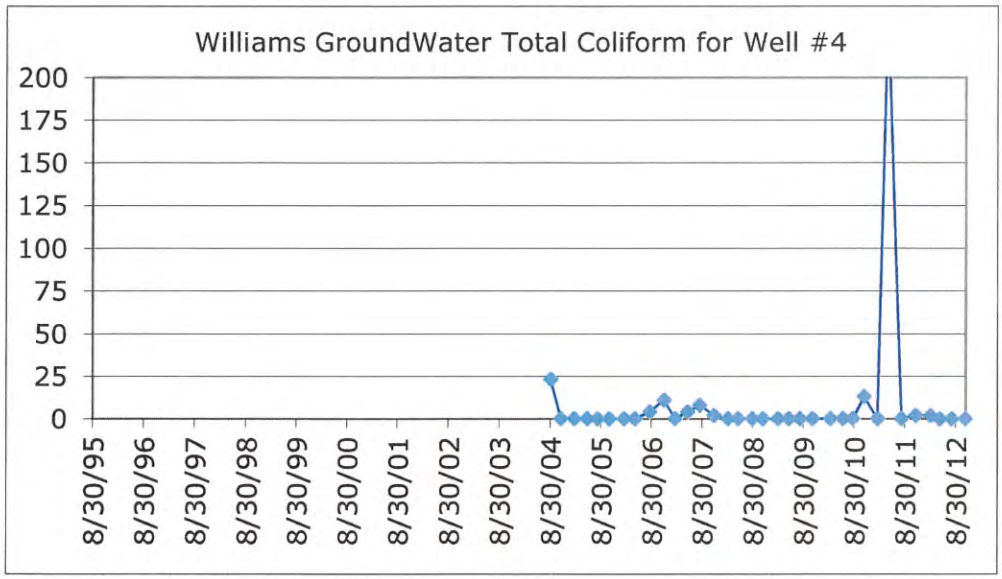
8/30/12


Williams GroundWater Total Coliform for Well #4
200
175
150
125
100
75
50
25
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
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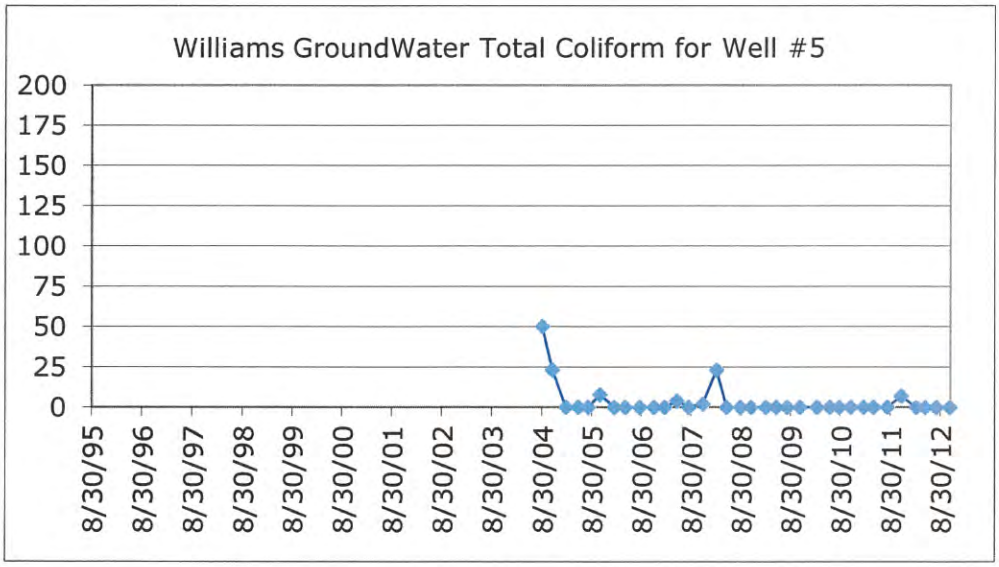
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #5
200
175
150
125
100
75
50
25
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
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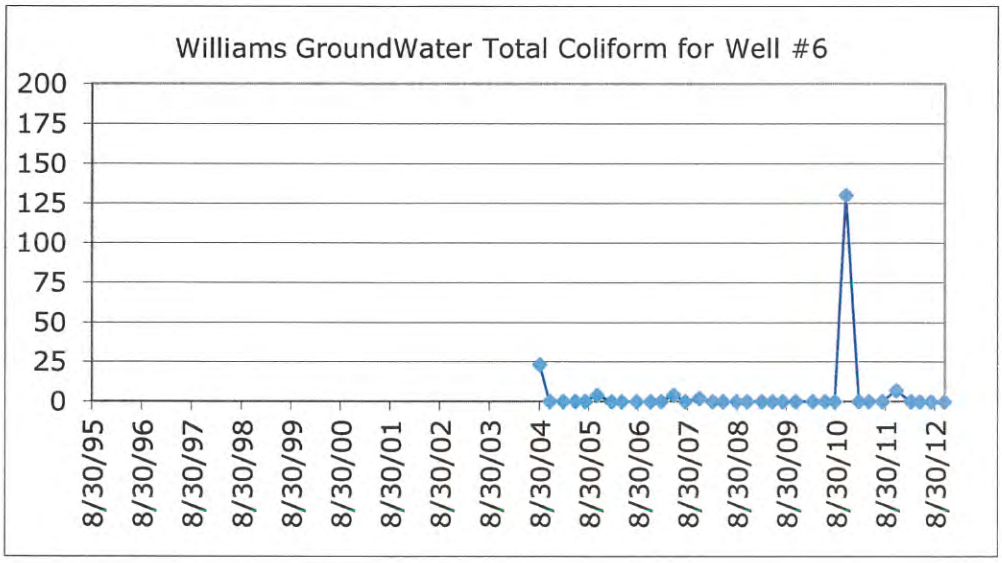
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #6
200
175
150
125
100
75
50
25
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
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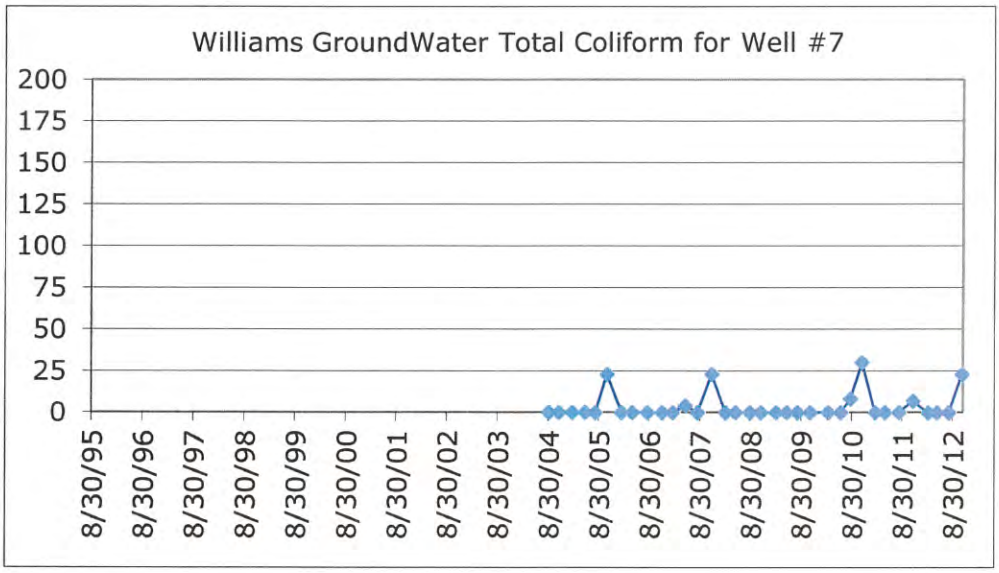
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #7
200
175
150
125
100
75
50
25
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
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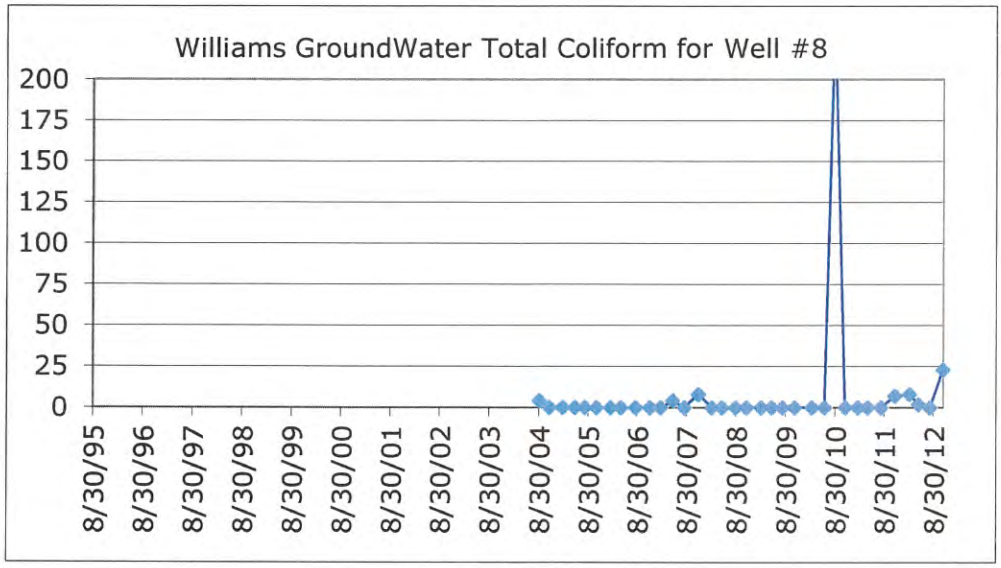
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #8
200
175
150
125
100
75
50
25
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
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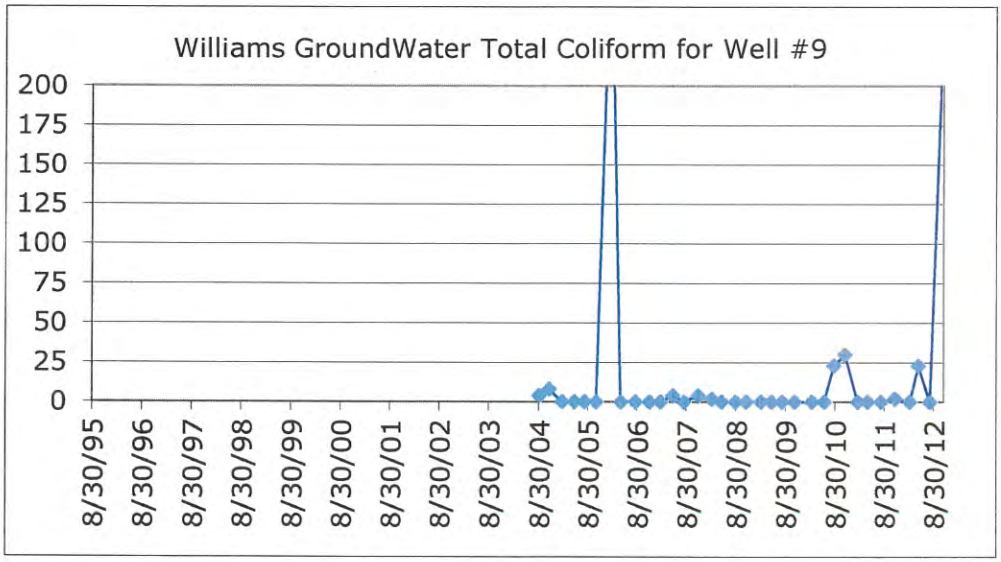
8/30/11
8/30/12


Williams GroundWater Total Coliform for Well #9
200
175
150
125
100
75
50
25
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

Nachtmann Analytical Laboratory, Inc.

720 Olive Drive Davis, CA 95616 Tel: (530)758-5850 Fax: (530)758-5870
Mailing Address: P.O. Box 1025 Davis, CA 95617

Project Site: Morning Star.

Field Report

Date: 11-12-2012

Site	Water Level	Well Depth	PH std. Units	1st run Temp (°C)	Cond.	PH std. Units	2nd run Temp (°C)	Cond.	PH std. Units	3rd run Temp (°C)	Cond.	Approx. Vol purged
Well #1 10:19AM	5'+35"	20'-14"	8.38	18.1	294	8.24	22.6	273	8.23	22.5	277	45L
Well #4 10:53AM	5'+36"	20'-30"	8.00	21.1	604	8.16	22.3	592	8.15	23.0	577	45L
Well #2 11:21AM	5'-13"	20'+36"	7.81	23.6	896	7.95	22.3	936	8.25	22.1	854	45L
Well #3 12:00PM	5'+25"	20'-19"	8.28	23.8	869	8.42	22.1	1023	8.49	21.2	878	45L
Well #7 12:31PM	5'-1"	20'-22"	8.59	18.8	1220	8.53	20.3	1174	8.53	20.0	1146	45L
Well #6 12:58PM	5'-1"	20'-24"	8.58	20.9	1274	8.64	20.4	1216	8.65	20.8	1203	45L
Well #8 1:39PM	5'-1"	20'-23"	8.65	20.3	1612	8.41	20.5	1425	8.55	21.1	1588	45L
Well #9 1:59PM	5'+4"	20'-26"	8.90	21.6	1835	8.95	23.8	1707	8.90	24.5	1712	45L
Well #5 2:20PM	5'.0"	20'-17"	8.87	25.4	1090	8.90	24.8	1126	8.92	24.4	1137	45L

Comments: _____

Nachtmann Analytical Laboratory, Inc.

720 Olive Drive Davis, CA 95616 Tel: (530)758-5850 Fax: (530)758-5870

Mailing Address: P.O. Box 1025 Davis, CA 95617

Project Site: Morning Star

Field Report

Date: 08-07-12

Site	Water Level	Well Depth	PH std. Units	1st run Temp (°C)	Cond.	PH std. Units	2nd run Temp (°C)	Cond.	PH std. Units	3rd run Temp (°C)	Cond.	Approx. Vol purged
Well 5 8:20 AM	5'-12"	20'-19"	8.14	24.9	1364	8.29	26.1	1562	8.30	28.5	1539	45
Well 1 8:50 AM	5'+21"	20'-19"	8.27	25.3	269	8.58	23.7	273	8.47	22.3	277	45
Well 4 9:20 AM	5'+20"	20'-34"	8.50	23.6	576	8.37	23.6	550	8.26	25.3	520	45
Well 2 9:42 AM	15'-21"	20'+4"	8.33	28.0	814	8.05	27.7	816	8.21	27.0	771	45
Well 3 10:10 AM	5'+11"	20'-23"	8.48	29.0	798	8.33	28.8	860	8.39	26.9	753	45
Well 7 10:39 AM	5'-30"	20'-26"	8.45	32.5	1056	8.44	27.5	999	8.56	26.1	942	45
Well 6 11:15 AM	5'-5"	20'-23"	8.40	26.8	1204	8.49	27.5	1160	8.42	26.3	1120	45
Well 8 11:40 AM	5'-6"	20'-19"	8.38	31.8	1425	8.27	29.1	1410	8.32	29.4	1436	45
Well 9 12:15	5'-30"	20'-23"	8.66	34.2	1692	8.72	33.9	1495	8.64	32.8	1429	45

Comments: _____

Nachtmann Analytical Laboratory, Inc.
720 Olive Drive Davis, CA 95616 Tel: (530)758-5850 Fax: (530)758-5870
Mailing Address: P.O. Box 1025 Davis, CA 95617

Project Site: Morning Star Williams

Date: 5/14/12

Field Report

Site	Water Level	Well Depth	PH std. Units	1st run Temp (°C)	Cond.	PH std. Units	2nd run Temp (°C)	Cond.	PH std. Units	3rd run Temp (°C)	Cond.	Approx. Vol purged
Well # 1 8:00 am	5+8"	20-17'	7.8	18.3	287	7.63	18.3	275	7.66	18.3	283	50L
Well #4 8:30 am	5+10"	15+27"	7.65	18.5	557	7.80	18.8	553	7.88	19.0	545	45L
Well # 2 9:20	10-18" ↓	15 +/- 20' 20+6'	7.82	21.1	816	7.99	19.2	812	19.0 8.11	8.11 19.	819	45L
Well # 3, 9:45	5+2"	20-21"	8.24	18.2	933	8.14	18.1	1001	8.10 8.10	18.16	927	45L
Well # 5, 10:10	5-2"	20-19"	8.31	21.7	1024	8.50	19.4	1062	8.61	18.6	1103	45L
Well # 6, 10:40	5-2 5+7"	15+36"	8.35	18.5	1370	8.36	17.4	1378	8.48	17.3	1363	45L
Well # 7: 11:10	5.0"	20-23"	8.57	19.0	1210	8.32	18.6	1177	8.32	17.8	1207	45L
Well # 8, 11:40	5+4"	20-21 1/2"	8.23	20.4	1447	8.21	18.6	1492	8.16	17.3	1539	45L
well #9 12:40	4.3"	15+31"	8.56	22.2	1737	8.60	22.0	1791	8.72	21.8	1802	45L

Comments: #3 water level 5+20" #2 15+2" well # 9 4.1

Nachtmann Analytical Laboratory, Inc.
720 Olive Drive Davis, CA 95616 Tel: (530)758-5850 Fax: (530)758-5870
Mailing Address: P.O. Box 1025 Davis, CA 95617

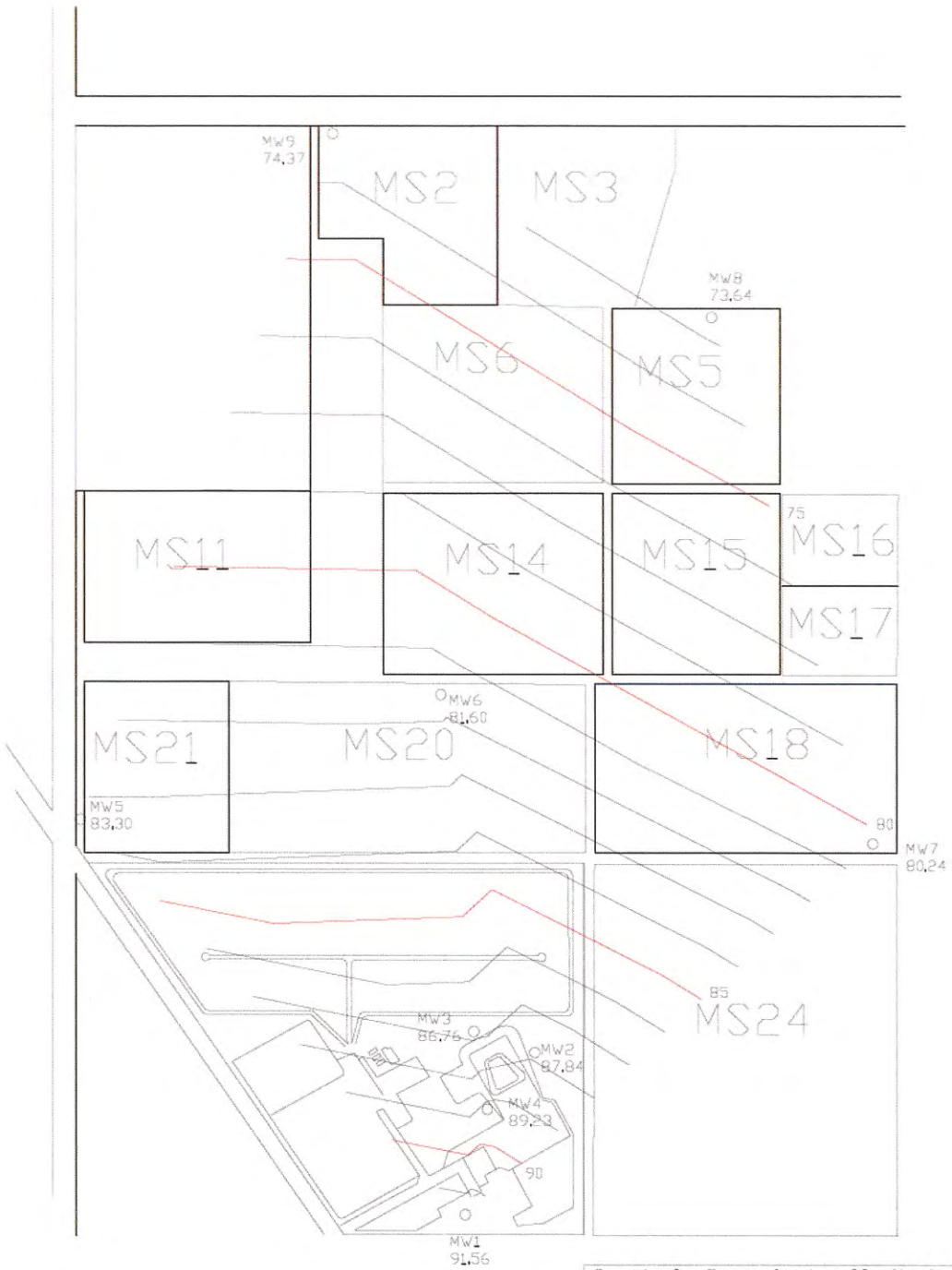
Project Site: MORNING STAR

Field Report

Date: 3-9-12

Site	Water Level	Well Depth	PH std. Units	1st run Temp (°C)	Cond.	PH std. Units	2nd run Temp (°C)	Cond.	PH std. Units	3rd run Temp (°C)	Cond.	Approx. Vol purged
WELL 5 10:07 AM	5'-9½"	20'-19"	8.55	14.3	1191	8.63	14.5	1245	8.71	16.6	1167	45
WELL 1 10:35 AM	10'-20"	20'-19½"	8.75	16.0	302	8.54	16.6	304	8.51	16.4	302	45
WELL 4 10:55 AM	10'-12"	20'-34"	8.37	17.0	633	8.39	20.5	576	8.27	24.8	529	45
WELL 2 10:15 AM	15'-1"	20'-5"	8.07	28.1	753	8.15	29.3	796	8.13	30.6	705	45
WELL 3 11:47 AM	10'-25"	20'-21"	8.22	30.6	704	8.33	30.3	779	8.46	30.7	680	45
WELL 7 12:20 pm	5'-20"	20'-26"	8.24	32.4	915	8.51	31.7	895	8.64	28.2	982	45
WELL 6 1:02 pm	5'-13"	20'-24"	~~117.1~~ 8.48	25.3	1171	8.74	23.1	1241	8.77	21.1	1252	45
WELL 8 2:00 pm	5'-24"	20'-23"	8.76	24.0	1289	8.63	23.9	1224	8.77	23.1	1296	45
WELL 9 2:28 pm	5'-32"	20'-28"	8.81	24.7	1611	8.95	23.1	1657	9.03	23.4	1696	45

Comments:



Quarterly Groundwater Monitoring
Morning Star Packing
Williams Facility
Colusa County

FOURTH QUARTER, 2012
GROUNDWATER ELEVATION MAP

SCALE 1"=1200'
DRAWN BY HAR
REVISED
DEP. REVISED

DESIGN ENGINEER HILARY A. REINHARD
DATE 1/27/13 C.E. LICENSE NO. 64379

SHEET 1 OF 1 SHEETS

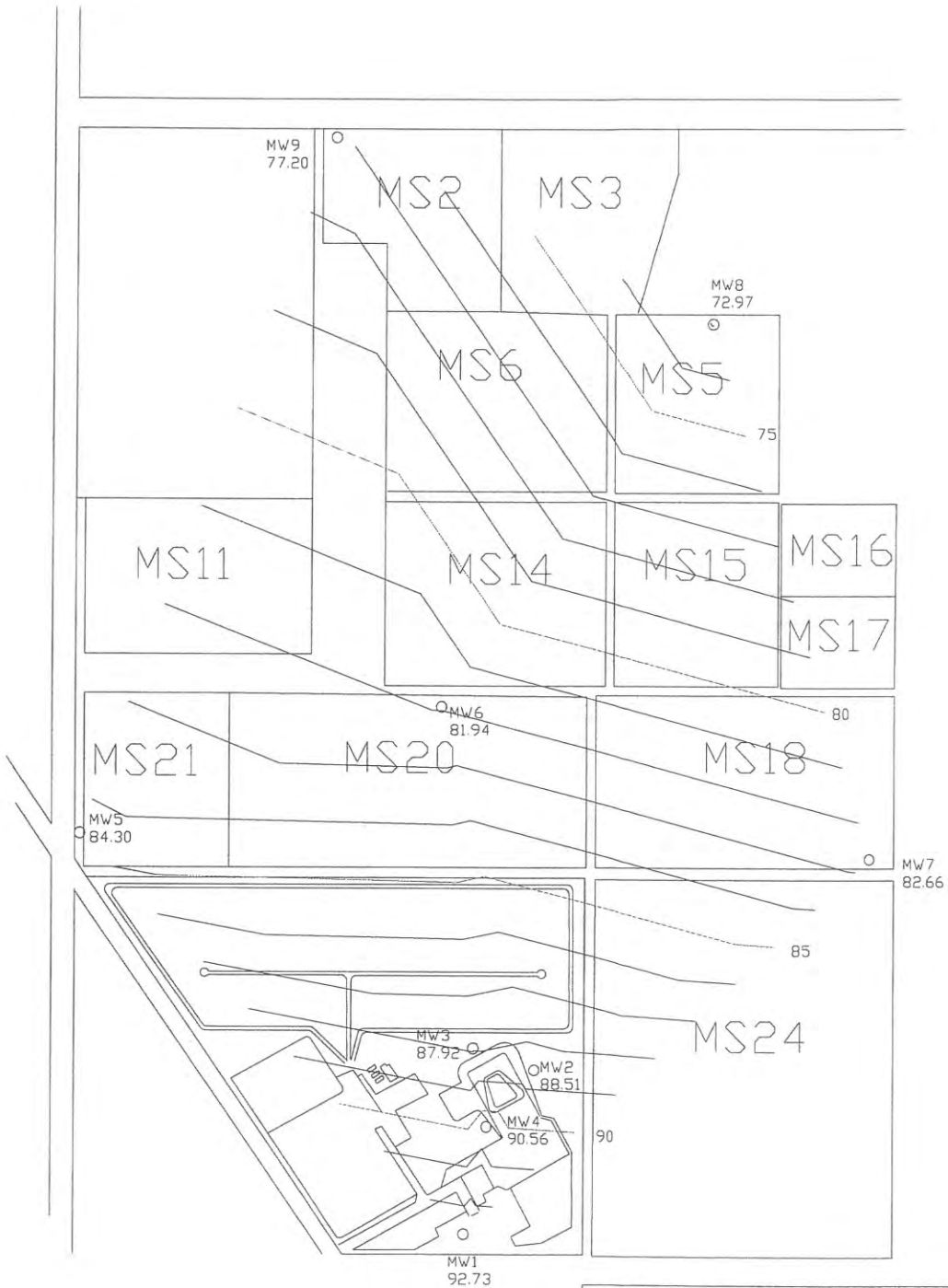
Job No. 1000.01
Dwg. No. 1037

Date Revised
Approval

Morning Star Packing Company
2211 Old Highway 99 W
Williams, CA 95987

DATE: 11-12-2012 **Note: Elevation taken from GCID on 8/25/04**

WELL #	ELEVATION (BOX)	ELEVATION (PVC)	WATER DEPTH	SUBSURFACE WATER ELEV.	DESCRIPTION
1	99.94	99.48	7.92	91.56	
2	102.02	101.76	13.92	87.84	
3	94.45	93.84	7.08	86.76	
4	97.56	97.23	8.00	89.23	
5	88.59	88.30	5.00	83.30	
6	87.08	86.52	4.92	81.60	
7	85.63	85.16	4.92	80.24	
8	77.74	77.47	4.92	72.55	
9	80.14	79.70	5.33	74.37	



Quarterly Groundwater Monitoring
Morning Star Packing
Williams Facility
Colusa County

THIRD QUARTER, 2012
GROUNDWATER ELEVATION MAP

DESIGN ENGINEER HILARY A. REINHARD
DATE 10/23/12 C.E. LICENSE NO. 64379

Job No. 1000.01
Dwg. No. 1037
Date Revised
Approval

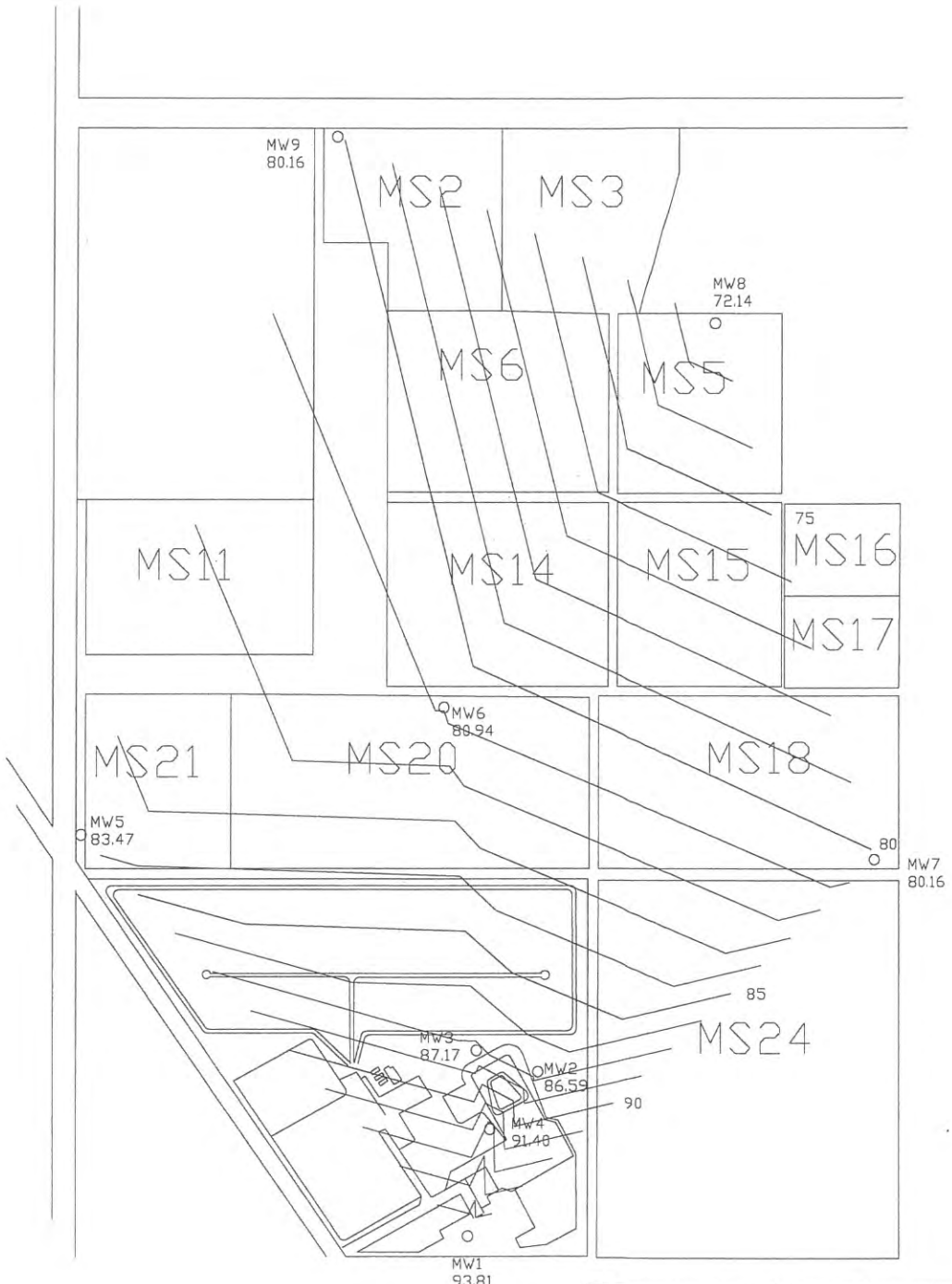
SCALE 1"=1200'
DRAWN BY HAR
REVISED
USER_REVISED

SHEET 1 OF 1 SHEETS

Morning Star Packing Company
2211 Old Highway 99 W
Williams, CA 95987

DATE: 8-7-2012 **Note: Elevation taken from GCID on 8/25/04**

WELL #	ELEVATION (BOX)	ELEVATION (PVC)	WATER DEPTH	SUBSURFACE WATER ELEV.	DESCRIPTION
1	99.94	99.48	6.75	92.73	
2	102.02	101.76	13.25	88.51	
3	94.45	93.84	5.92	87.92	
4	97.56	97.23	6.67	90.56	
5	88.59	88.30	4.00	84.30	
6	87.08	86.52	4.58	81.94	
7	85.63	85.16	2.50	82.66	
8	77.74	77.47	4.50	72.97	
9	80.14	79.70	2.50	77.20	



Quarterly Groundwater Monitoring
Morning Star Packing
Williams Facility
Colusa County

SECOND QUARTER, 2012
GROUNDWATER ELEVATION MAP

SCALE 1"=1200'
DRAWN BY HAR
REVISED
USER_REVISED

DESIGN ENGINEER HILARY A. REINHARD
DATE 7/23/12 C.E. LICENSE NO. 64379

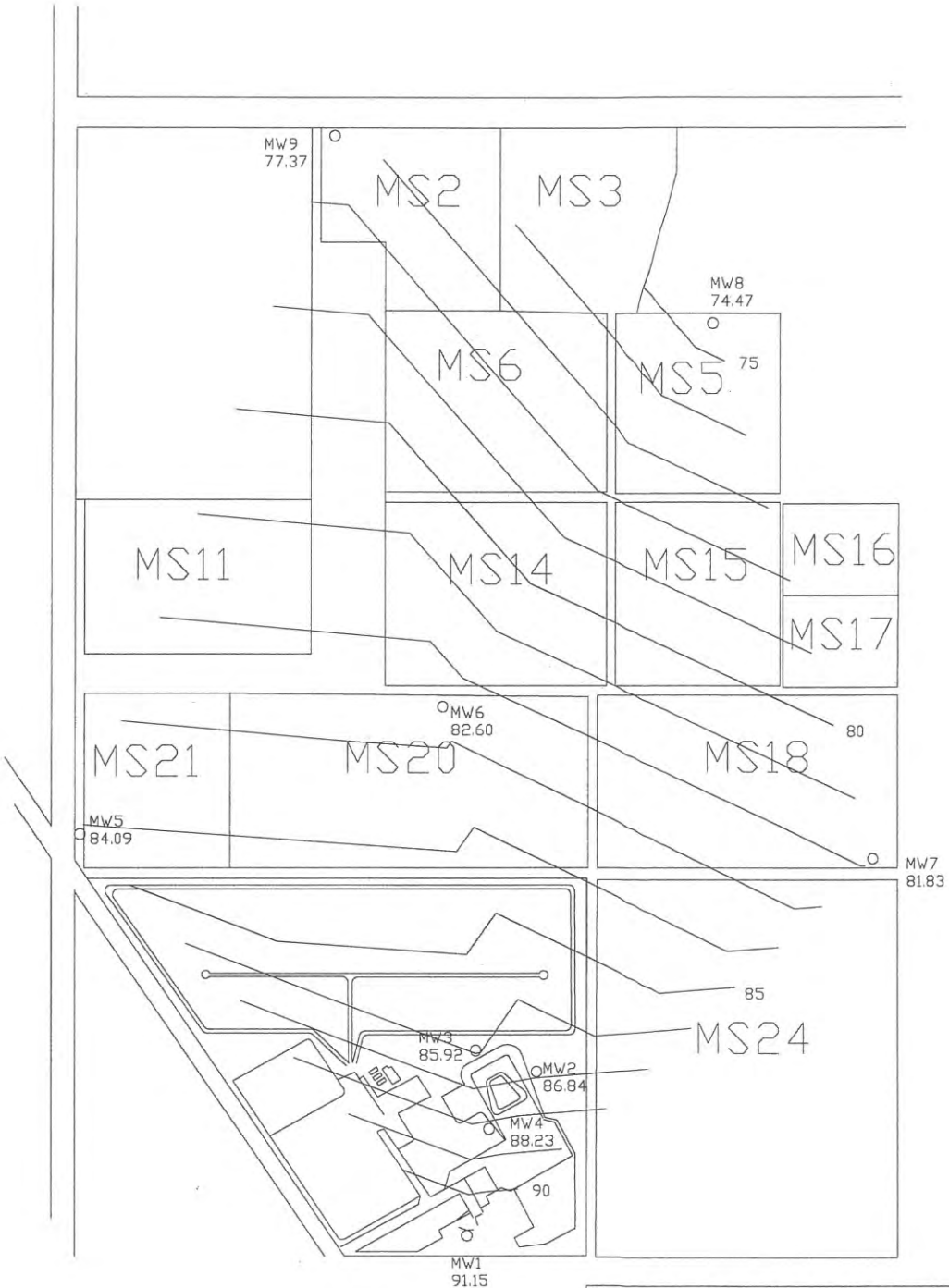
SHEET 1 OF 1 SHEETS

Job No. 1000.01	Date Revised				
Dwg. No. 1036	Approval				

Morning Star Packing Company
2211 Old Highway 99 W
Williams, CA 95987

DATE: 5-14-2012 **Note: Elevation taken from GCID on 8/25/04**

WELL #	ELEVATION (BOX)	ELEVATION (PVC)	WATER DEPTH	SUBSURFACE WATER ELEV.	DESCRIPTION
1	99.94	99.48	5.67	93.81	
2	102.02	101.76	15.17	86.59	
3	94.45	93.84	6.67	87.17	
4	97.56	97.23	5.83	91.40	
5	88.59	88.30	4.83	83.47	
6	87.08	86.52	5.58	80.94	
7	85.63	85.16	5.00	80.16	
8	77.74	77.47	5.33	72.14	
9	80.14	79.70	4.08	75.62	



	Quarterly Groundwater Monitoring Morning Star Packing Williams Facility Colusa County						SCALE 1"=1200' DRAWN BY HAR REVISED USER_REVISED
	FIRST QUARTER, 2012 GROUNDWATER ELEVATION MAP						
	DESIGN ENGINEER HILARY A. REINHARD DATE 4/25/12 C.E. LICENSE NO. 64379						SHEET 1 OF
Job No. 1000.01 Dwg. No. 1035	Date Revised Approval						1 SHEETS

Morning Star Packing Company
2211 Old Highway 99 W
Williams, CA 95987

DATE: 3-9-2012 **Note: Elevation taken from GCID on 8/25/04**

WELL #	ELEVATION (BOX)	ELEVATION (PVC)	WATER DEPTH	SUBSURFACE WATER ELEV.	DESCRIPTION
1	99.94	99.48	8.33	91.15	
2	102.02	101.76	14.92	86.84	
3	94.45	93.84	7.92	85.92	
4	97.56	97.23	9.00	88.23	
5	88.59	88.30	4.21	84.09	
6	87.08	86.52	3.92	82.60	
7	85.63	85.16	3.33	81.83	
8	77.74	77.47	3.00	74.47	
9	80.14	79.70	2.33	77.37	

Nachtmann Analytical Laboratory, Inc.

1100 W. Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 1
Sample Lab. #	: 111212-1
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	258.
PH	SM 4500-H B	1-14	7.49
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	144.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	129.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.12
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	1.67
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	7.39
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	16.5
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	5.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	80. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
7.92	18.42	8.28	281.	21.1

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 2
Sample Lab. #	: 111212-2
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	781.
PH	SM 4500-H B	1-14	7.36
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	438.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	415.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.36
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	2.23
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	9.87
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	33.8
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	57.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	240. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
13.92	23.00	8.00	895.	22.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 3
Sample Lab. #	: 111212-3
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	852.
PH	SM 4500-H B	1-14	7.38
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	477.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	432.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.63
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	11.1
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	49.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	51.9
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	33.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	30. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
7.08	18.42	8.40	923.	22.4

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 4
Sample Lab. #	: 111212-4
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	546.
PH	SM 4500-H B	1-14	7.33
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	306.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	287.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.51
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.01
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	22.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	18.1
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	17.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
8.00	17.50	8.10	591.	22.1

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 5
Sample Lab. #	: 111212-5
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1139.
PH	SM 4500-H B	1-14	7.62
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	638.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	616.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.88
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	26.3
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	116.
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	152.3
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	55.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.00	18.58	8.90	1118.	24.9

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 6
Sample Lab. #	: 111212-6
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1205.
PH	SM 4500-H B	1-14	7.41
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	674.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	638.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.32
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.62
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	24.9
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	68.7
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	58.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.92	18.00	8.62	1234.	20.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 7
Sample Lab. #	: 111212-7
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1166.
PH	SM 4500-H B	1-14	7.35
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	653.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	615.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.45
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	1.13
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	5.01
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	85.6
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	0.56
Cl	SM 4500-Cl C	1.0 mg/l	93.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	23. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.92	18.17	8.55	1180.	19.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 8
Sample Lab. #	: 111212-8
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1564.
PH	SM 4500-H B	1-14	7.12
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	876.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	831.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.32
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	0.85
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	3.76
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	103.7
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	0.85
Cl	SM 4500-Cl C	1.0 mg/l	137.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	23. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.92	18.08	8.54	1542.	20.6

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 11/27/2012

Sample ID #	: MW # 9
Sample Lab. #	: 111212-9
Sample Location	: Williams, CA.
Sampling Date	: 11/12/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1770.
PH	SM 4500-H B	1-14	7.51
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	992.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	933.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.19
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	11.3
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	50.1
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	177.0
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	151.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	240. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.33	17.83	8.92	1751.	23.3

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 1
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	259.5
PH	SM 4500-H B	1-14	7.15
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	151.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	144.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	0.968
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	4.28
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	< 5. 0
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	7.00
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
6.75	18.42	8.44	273.	23.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 2
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	864.
PH	SM 4500-H B	1-14	6.80
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	560.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	520.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	4.55
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	20.1
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	43.0
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	58.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
13.25	20.3	8.20	800.	27.6

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 3
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	859.
PH	SM 4500-H B	1-14	7.13
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	520.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	510.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	20.6
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	91.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	52.4
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	30.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.92	18.1	8.40	804.	28.2

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Analytical Laboratory Report

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Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 4
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	542.
PH	SM 4500-H B	1-14	6.98
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	350.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	325.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	7.74
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	34.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	26.5
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	16.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
6.67	17.2	8.38	549.	24.2

Field Note:

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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 5
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1558.
PH	SM 4500-H B	1-14	7.31
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	930.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	875.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	83.7
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	370.
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	74.5
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	71.2
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.00	18.42	8.24	1488.	26.5

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 6
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1227.
PH	SM 4500-H B	1-14	7.06
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	780.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	745.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	7.07
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	31.3
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	66.5
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	112.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.58	18.08	8.44	1161	26.9

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 7
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1156.
PH	SM 4500-H B	1-14	7.04
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	710.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	668.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.03
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	22.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	58.4
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	91.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
2.50	17.83	8.48	999.	28.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 8
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1571.
PH	SM 4500-H B	1-14	6.78
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	966.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	915.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	1.29
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	5.70
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	88.7
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	138.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.50	18.42	8.32	1424.	30.1

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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Williams, CA. 95987
Attn: Ross Oliveira
Date Reporting: Aug. 19, 2012

Sample ID #	: MW # 9
Sample Lab. #	: 08072012
Sample Location	: Williams, CA.
Sampling Date	: Aug. 7, 2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	: 45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1753.
PH	SM 4500-H B	1-14	7.36
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	1050.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	980.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	ND
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	18.7
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	82.6
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	141.2
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	142.
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
2.50	18.08	8.67	1539.	33.6

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 1
Sample Lab. #	: 051412-1
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	243.
PH	SM 4500-H B	1-14	7.95
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	136.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	118.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.15
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	2.41
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	10.7
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	< 5.0
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	6.3
Coliform (total)	SM 9221 B	2. MPN/100 ml	2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.67	18.58	7.61	282	18.3

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 2
Sample Lab. #	: 051412-2
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	796.
PH	SM 4500-H B	1-14	7.36
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	446.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	422.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.38
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	3.72
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	16.5
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	41.2
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	53.8
Coliform (total)	SM 9221 B	2. MPN/100 ml	2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
15.17	20.50	7.97	814	19.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 3
Sample Lab. #	: 051412-3
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	954.
PH	SM 4500-H B	1-14	7.63
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	534.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	490.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.68
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	26.3
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	116.5
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	60.5
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	31.3
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
6.67	18.25	8.16	954	18.1

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 4
Sample Lab. #	: 051412-4
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	532.
PH	SM 4500-H B	1-14	7.85
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	298.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	274.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.49
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	7.23
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	32.0
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	22.2
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl^-	SM 4500-Cl C	1.0 mg/l	17.5
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.83	17.25	7.78	558	18.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 5
Sample Lab. #	: 051412-5
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1075.
PH	SM 4500-H B	1-14	8.13
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	602.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	576.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.88
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	22.4
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	99.2
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	147.4
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	45.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.83	18.42	8.47	1063	19.9

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Client:

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Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 6
Sample Lab. #	: 051412-6
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1323.
PH	SM 4500-H B	1-14	7.56
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	740.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	701.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.41
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.86
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	26.0
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	80.3
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	63.8
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.58	17.50	8.40	1370	17.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

1100 W. Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 7
Sample Lab. #	: 051412-7
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1177.
PH	SM 4500-H B	1-14	7.63
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	659.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	624.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.52
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	4.39
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	19.4
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	93.4
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	0.78
Cl	SM 4500-Cl C	1.0 mg/l	113.8
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.00	18.08	8.40	1198	18.5

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 8
Sample Lab. #	: 051412-8
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1526.
PH	SM 4500-H B	1-14	7.43
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	855.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	815.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.35
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	2.68
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	11.9
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	94.3
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	1.21
Cl	SM 4500-Cl C	1.0 mg/l	141.3
Coliform (total)	SM 9221 B	2. MPN/100 ml	2. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
5.33	17.83	8.20	1493	18.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Analytical Laboratory Report

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 5/29/2012

Sample ID #	: MW # 9
Sample Lab. #	: 051412-9
Sample Location	: Williams, CA.
Sampling Date	: 5/14/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1765.
PH	SM 4500-H B	1-14	8.29
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	989.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	940.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.21
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	24.4
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	108.1
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	131.7
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	168.7
Coliform (total)	SM 9221 B	2. MPN/100 ml	23. MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.08	17.58	8.63	1777	22.0

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 1
Sample Lab. #	: 030912-1
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	281.
PH	SM 4500-H B	1-14	7.81
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	157.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	136.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.16
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	2.15
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	9.52
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	< 5.0
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	3.7
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
8.33	18.38	8.60	303	16.3

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Analytical Laboratory Report

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Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 2
Sample Lab. #	: 030912-2
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	826.
PH	SM 4500-H B	1-14	6.96
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	463.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	438.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.32
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	4.87
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	21.6
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	42.8
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	55.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
14.92	20.42	8.12	751	29.3

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 3
Sample Lab. #	: 030912-3
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	890.
PH	SM 4500-H B	1-14	7.39
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	498.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	457.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.61
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	18.0
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	79.7
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	56.6
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	25.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
7.92	18.25	8.34	721	30.5

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 4
Sample Lab. #	: 030912-4
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	569.
PH	SM 4500-H B	1-14	7.48
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	319.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	293.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.58
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.62
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	24.9
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	23.9
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	27.5
Coliform (total)	SM 9221 B	2. MPN/100 ml	2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
9.00	17.17	8.34	563	20.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

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Client:

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2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 5
Sample Lab. #	: 030912-5
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1122.
PH	SM 4500-H B	1-14	7.66
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	628.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	601.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.94
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	25.3
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	112.0
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	153.7
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	50.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
4.21	18.42	8.63	1191	15.1

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

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Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 6
Sample Lab. #	: 030912-6
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1424.
PH	SM 4500-H B	1-14	7.39
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	797.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	754.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.35
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	4.96
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	22.0
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	86.3
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	65.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
3.92	18.00	8.66	1221	23.2

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 7
Sample Lab. #	: 030912-7
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1206.
PH	SM 4500-H B	1-14	7.38
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	675.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	639.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.48
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	5.83
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	25.8
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	95.6
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	0.72
Cl	SM 4500-Cl C	1.0 mg/l	95.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
3.33	17.83	8.46	931	30.8

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
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Lab. director : Ahmed Modabber

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 8
Sample Lab. #	: 030912-8
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1503.
PH	SM 4500-H B	1-14	7.26
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	842.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	803.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.33
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	2.18
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	9.66
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	92.8
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	1.15
Cl	SM 4500-Cl C	1.0 mg/l	140.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	8 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
3.00	18.08	8.72	1270	23.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

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Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company
2211 Old HWY 99
Williams, CA. 95987
Attn: Ross Oliveira

Date Reporting: 3/14/2012

Sample ID #	: MW # 9
Sample Lab. #	: 030912-9
Sample Location	: Williams, CA.
Sampling Date	: 3/9/2012
Sampled By	: Lab. chemist
Volume Purged 3 Times	:45. L (Approx)

Analyte	Method #	RL(mg/l)	Conc. (mg/l)
EC (umhos/cm)	SM 2510 B	1. umhos/cm	1812.
PH	SM 4500-H B	1-14	7.71
TDS (total dissolved solid)	SM 2540 C	5.0 mg/l	1015.
FDS (fixed dissolved solid)	SM 2540 E	5.0 mg/l	965.
TKN (total k nitrogen)	SM 4500-N C	0.1 mg/l	0.25
Nitrogen in nitrate form (N-NO3)	SM 4500-NO3 E	0.05 mg/l	14.6
Nitrate (NO3)	SM 4500-NO3 E	0.20 mg/l	64.7
Sulfate (SO4)	SM 4500-SO4 D	5. 0 mg/l	135.2
Fe (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Mn (dissolved)	SM 3111B	0.10 mg/l	< 0.10
Cl	SM 4500-Cl C	1.0 mg/l	162.0
Coliform (total)	SM 9221 B	2. MPN/100 ml	< 2 MPN/100 ml

Field Data

Water level(ft)	Well Depth(ft)	PH	EC (umhos/cm)	Temp. (C)
2.33	17.67	8.93	1655	23.7

Field Note:

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limit

Lab. director : Ahmed Modabber

THE MORNING STAR PACKING COMPANY
2211 Old Highway 99, Williams, CA 95987

23 January 2013

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

Dear Mr. Childs,

Please find herewith the loading calculations for the processing year at The Morning Star Packing Company. The loading calculations are for July 2012 through October 2012 as washwater was not applied to the fields from January 2012 through June 2012 and November 2012 through December 2012.

Respectfully yours,

Ross Oliveira

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 1

LAND APPLICATION AREA:

M.S. 1 — 95.0 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	0	0.00	1,002	1,643	63	0	0.00	423	0	0.00	0.00
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	0	**0.00**				**0**	**0.00**		**0**	**0.00**	**0.86**
	0.0 ac-ft					**0.0** ac-ft			**0.0** ac-ft		**6.8**
Percent of Total =	**#DIV/0!**					**#DIV/0!**			**#DIV/0!**		

Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.31	0	**0**	0	**0**	0	**0**
0.86	**0**	**0 Ave.**	**0**	**0 Total**	**0**	**0 Total**

Cumulative Loading Calculations	**Nitrogen**	**TDS**
Commercial Applications	0 lbs/acre	
July-12	13 lbs/acre	163 lbs/acre
August-12	109 lbs/acre	1,475 lbs/acre
September-12	49 lbs/acre	691 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**171 lbs/acre**	**2,329 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 2 & 3

LAND APPLICATION AREA: M.S. 2 & 3 — 82.1 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	0	**0.00**				**0**	**0.00**		**0**	**0.00**	**0.86**
	0.0	**ac-ft**				**0.0**	**ac-ft**		**0.0**	**ac-ft**	**5.9**
Percent of Total =	**#DIV/0!**					**#DIV/0!**			**#DIV/0!**		

Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.52	0	**0**	0	**0**	0	**0**
0.01	0	**0**	0	**0**	0	**0**
0.02	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.31	0	**0**	0	**0**	0	**0**
0.86	**0**	**0 Ave.**	**0**	**0 Total**	**0**	**0 Total**

Cumulative Loading Calculations	**Nitrogen**	**TDS**
Commercial Applications	74 lbs/acre	
July-12	49 lbs/acre	611 lbs/acre
August-12	31 lbs/acre	393 lbs/acre
September-12	174 lbs/acre	1,709 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**328 lbs/acre**	**2,713 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 5

LAND APPLICATION AREA: M.S. 5 — 24.6 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	207,425	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	207,983	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	223,784	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	217,140	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	239,164	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	233,716	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	231,198	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	251,451	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	208,353	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	243,485	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	200,501	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	2,464,201	**3.70**				**0**	**0.00**		**0**	**0.00**	**0.86**
	7.6	**ac-ft**				**0.0**	**ac-ft**		**0.0**	**ac-ft**	**1.8**
Percent of Total =	**100%**					**0%**			**0%**		

Day	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	0.31	1,734	**70**	109	**4**	2,844	**116**
2	0.31	1,739	**71**	110	**4**	2,851	**116**
3	0.34	1,871	**76**	118	**5**	3,068	**125**
4	0.33	1,816	**74**	115	**5**	2,977	**121**
5	0.36	2,000	**81**	126	**5**	3,279	**133**
6	0.35	1,954	**79**	123	**5**	3,204	**130**
7	0.35	1,933	**79**	122	**5**	3,170	**129**
8	0.38	2,054	**83**	120	**5**	3,028	**123**
9	0.31	1,702	**69**	99	**4**	2,509	**102**
10	0.36	1,989	**81**	116	**5**	2,932	**119**
11	0.30	1,638	**67**	96	**4**	2,414	**98**
12	0.00	0	**0**	0	**0**	0	**0**
13	0.00	0	**0**	0	**0**	0	**0**
14	0.00	0	**0**	0	**0**	0	**0**
15	0.00	0	**0**	0	**0**	0	**0**
16	0.00	0	**0**	0	**0**	0	**0**
17	0.00	0	**0**	0	**0**	0	**0**
18	0.00	0	**0**	0	**0**	0	**0**
19	0.00	0	**0**	0	**0**	0	**0**
20	0.00	0	**0**	0	**0**	0	**0**
21	0.00	0	**0**	0	**0**	0	**0**
22	0.52	0	**0**	0	**0**	0	**0**
23	0.01	0	**0**	0	**0**	0	**0**
24	0.02	0	**0**	0	**0**	0	**0**
25	0.00	0	**0**	0	**0**	0	**0**
26	0.00	0	**0**	0	**0**	0	**0**
27	0.00	0	**0**	0	**0**	0	**0**
28	0.00	0	**0**	0	**0**	0	**0**
29	0.00	0	**0**	0	**0**	0	**0**
30	0.00	0	**0**	0	**0**	0	**0**
31	0.31	0	**0**	0	**0**	0	**0**
	4.56	**20,430**	**28 Ave.**	**1,254**	**51 Total**	**32,276**	**1312 Total**

Cumulative Loading Calculations	**Nitrogen**	**TDS**
Commercial Applications	0 lbs/acre	
July-12	26 lbs/acre	325 lbs/acre
August-12	83 lbs/acre	1,138 lbs/acre
September-12	34 lbs/acre	642 lbs/acre
October-12	51 lbs/acre	1,312 lbs/acre
Total	**194 lbs/acre**	**3,417 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 6

LAND APPLICATION AREA: M.S. 6 — 21.4 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)	Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
1	180,443	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.31	1,509	71	95	4	2,474	116
2	180,928	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.31	1,513	71	95	4	2,481	116
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52	0.52	0	0	0	0	0	0
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01	0.01	0	0	0	0	0	0
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02	0.02	0	0	0	0	0	0
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31	0.31	0	0	0	0	0	0
	361,371	0.62				0	0.00		0	0.00	0.86	1.48	3,022	5 Ave.	190	9 Total	4,955	232 Total
	1.1	ac-ft				0.0	ac-ft		0.0	ac-ft	1.5							
Percent of Total =	100%					0%			0%									

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	33 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	46 lbs/acre	489 lbs/acre
September-12	17 lbs/acre	349 lbs/acre
October-12	9 lbs/acre	232 lbs/acre
Total	**105 lbs/acre**	**1,070 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 11

LAND APPLICATION AREA: M.S. 11 — 35.6 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	0	**0.00**				**0**	**0.00**		**0**	**0.00**	**0.86**
	0.0 ac-ft					**0.0 ac-ft**			**0.0 ac-ft**		**2.6**
Percent of Total =	**#DIV/0!**					**#DIV/0!**			**#DIV/0!**		

Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.31	0	**0**	0	**0**	0	**0**
0.86	**0**	**0 Ave.**	**0**	**0 Total**	**0**	**0 Total**

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	10 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	21 lbs/acre	292 lbs/acre
September-12	21 lbs/acre	362 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**52 lbs/acre**	**654 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 14

LAND APPLICATION AREA: M.S. 14 — 44.5 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	375,220	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	376,230	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	404,812	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	392,794	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	432,635	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	422,779	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	418,223	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	454,861	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	376,899	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	3,654,453	3.04				0	0.00		0	0.00	0.86
	11.2 ac-ft					0.0 ac-ft			0.0 ac-ft		3.2
Percent of Total =	100%					0%			0%		

Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
0.31	3,137	70	198	4	5,144	116
0.31	3,146	71	198	4	5,158	116
0.34	3,385	76	213	5	5,550	125
0.33	3,284	74	207	5	5,385	121
0.36	3,617	81	228	5	5,931	133
0.35	3,535	79	223	5	5,796	130
0.35	3,497	79	221	5	5,734	129
0.38	3,716	84	217	5	5,477	123
0.31	3,079	69	180	4	4,538	102
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.52	0	0	0	0	0	0
0.01	0	0	0	0	0	0
0.02	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.31	0	0	0	0	0	0
3.90	30,396	23 Ave.	1,885	42 Total	48,713	1095 Total

Cumulative Loading Calculations	Nitrogen	TDS
Commercial Applications	74 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	27 lbs/acre	226 lbs/acre
September-12	57 lbs/acre	447 lbs/acre
October-12	42 lbs/acre	1,095 lbs/acre
Total	**200 lbs/acre**	**1,768 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 15

LAND APPLICATION AREA: M.S. 15 — 26.7 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	225,132	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	225,738	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	242,887	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	235,677	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	259,581	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	253,667	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	250,934	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	272,917	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	226,139	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	264,270	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	217,617	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	2,674,559	3.70				0	0.00		0	0.00	0.86
	8.2	ac-ft				0.0	ac-ft		0.0	ac-ft	1.9
Percent of Total =	100%					0%			0%		

Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
0.31	1,882	**70**	119	**4**	3,087	**116**
0.31	1,887	**71**	119	**4**	3,095	**116**
0.34	2,031	**76**	128	**5**	3,330	**125**
0.33	1,971	**74**	124	**5**	3,231	**121**
0.36	2,170	**81**	137	**5**	3,559	**133**
0.35	2,121	**79**	134	**5**	3,478	**130**
0.35	2,098	**79**	132	**5**	3,440	**129**
0.38	2,230	**84**	130	**5**	3,286	**123**
0.31	1,847	**69**	108	**4**	2,723	**102**
0.36	2,159	**81**	126	**5**	3,182	**119**
0.30	1,778	**67**	104	**4**	2,620	**98**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.52	0	**0**	0	**0**	0	**0**
0.01	0	**0**	0	**0**	0	**0**
0.02	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.00	0	**0**	0	**0**	0	**0**
0.31	0	**0**	0	**0**	0	**0**
4.56	22,174	**27 Ave.**	1,361	51 Total	35,031	1312 Total

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	0 lbs/acre	
July-12	26 lbs/acre	325 lbs/acre
August-12	83 lbs/acre	1,138 lbs/acre
September-12	34 lbs/acre	642 lbs/acre
October-12	51 lbs/acre	1,312 lbs/acre
Total	**194 lbs/acre**	**3,417 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 16 & 17

LAND APPLICATION AREA: M.S. 16 & 17 — 36.7 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	309,451	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	310,284	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	333,856	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	323,945	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	356,802	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	348,674	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	344,917	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	375,133	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	310,836	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	363,248	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	299,122	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	3,676,267	3.70				0	0.00		0	0.00	0.86
	11.3	ac-ft				0.0	ac-ft		0.0	ac-ft	2.6
Percent of Total =	100%					0%			0%		

Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
0.31	2,587	70	163	4	4,243	116
0.31	2,594	71	164	4	4,254	116
0.34	2,791	76	176	5	4,577	125
0.33	2,709	74	171	5	4,441	121
0.36	2,983	81	188	5	4,892	133
0.35	2,915	79	184	5	4,780	130
0.35	2,884	79	182	5	4,729	129
0.38	3,065	84	179	5	4,517	123
0.31	2,539	69	148	4	3,743	102
0.36	2,967	81	173	5	4,374	119
0.30	2,444	67	143	4	3,602	98
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.52	0	0	0	0	0	0
0.01	0	0	0	0	0	0
0.02	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.31	0	0	0	0	0	0
4.56	30,478	28 Ave.	1,871	51 Total	48,152	1312 Total

Cumulative Loading Calculations	Nitrogen	TDS
Commercial Applications	0 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	83 lbs/acre	1,138 lbs/acre
September-12	34 lbs/acre	642 lbs/acre
October-12	51 lbs/acre	1,312 lbs/acre
Total	**168 lbs/acre**	**3,092 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 18 Check 1

LAND APPLICATION AREA:

	M.S. 18 Ch1	39.1	acres														
Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	329,687	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.31	2,757	71	174	4	4,520	116
2	330,575	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.31	2,764	71	174	4	4,532	116
3	355,689	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.34	2,974	76	188	5	4,876	125
4	345,129	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.33	2,886	74	182	5	4,732	121
5	380,135	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.36	3,178	81	200	5	5,212	133
6	371,475	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.35	3,106	79	196	5	5,093	130
7	367,473	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.35	3,072	79	194	5	5,038	129
8	399,665	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.38	3,265	84	190	5	4,812	123
9	331,163	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.31	2,705	69	158	4	3,988	102
10	387,002	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.36	3,161	81	184	5	4,660	119
11	318,683	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.30	2,603	67	152	4	3,837	98
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52	0.52	0	0	0	0	0	0
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01	0.01	0	0	0	0	0	0
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02	0.02	0	0	0	0	0	0
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31	0.31	0	0	0	0	0	0
	3,916,677	3.70				0	0.00		0	0.00	0.86	4.56	32,471	27 Ave.	1,992	51 Total	51,300	1312 Total
	12.0	ac-ft				0.0	ac-ft		0.0	ac-ft	2.8							
Percent of Total =	100%					0%			0%									

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	0 lbs/acre	
July-12	49 lbs/acre	611 lbs/acre
August-12	12 lbs/acre	148 lbs/acre
September-12	105 lbs/acre	939 lbs/acre
October-12	51 lbs/acre	1,312 lbs/acre
Total	**217 lbs/acre**	**3,010 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 18 Check 2

LAND APPLICATION AREA: M.S. 18 Ch2 — 39.1 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	0	**0.00**				**0**	**0.00**		**0**	**0.00**	**0.86**
	0.0	**ac-ft**				**0.0**	**ac-ft**		**0.0**	**ac-ft**	**2.8**
Percent of Total =	**#DIV/0!**					**#DIV/0!**			**#DIV/0!**		

Day	Hydraulic Loading (in)	BOD Loading: Total Weight (lbs/day)	BOD Loading: Loading Applied (lbs/ac/day)	Nitrogen Loading: Total (lbs/day)	Nitrogen Loading: Applied (lbs/ac/month)	TDS Loading: Total (lbs/day)	TDS Loading: Applied (lbs/ac/month)
1	0.00	0	**0**	0	**0**	0	**0**
2	0.00	0	**0**	0	**0**	0	**0**
3	0.00	0	**0**	0	**0**	0	**0**
4	0.00	0	**0**	0	**0**	0	**0**
5	0.00	0	**0**	0	**0**	0	**0**
6	0.00	0	**0**	0	**0**	0	**0**
7	0.00	0	**0**	0	**0**	0	**0**
8	0.00	0	**0**	0	**0**	0	**0**
9	0.00	0	**0**	0	**0**	0	**0**
10	0.00	0	**0**	0	**0**	0	**0**
11	0.00	0	**0**	0	**0**	0	**0**
12	0.00	0	**0**	0	**0**	0	**0**
13	0.00	0	**0**	0	**0**	0	**0**
14	0.00	0	**0**	0	**0**	0	**0**
15	0.00	0	**0**	0	**0**	0	**0**
16	0.00	0	**0**	0	**0**	0	**0**
17	0.00	0	**0**	0	**0**	0	**0**
18	0.00	0	**0**	0	**0**	0	**0**
19	0.00	0	**0**	0	**0**	0	**0**
20	0.00	0	**0**	0	**0**	0	**0**
21	0.00	0	**0**	0	**0**	0	**0**
22	0.52	0	**0**	0	**0**	0	**0**
23	0.01	0	**0**	0	**0**	0	**0**
24	0.02	0	**0**	0	**0**	0	**0**
25	0.00	0	**0**	0	**0**	0	**0**
26	0.00	0	**0**	0	**0**	0	**0**
27	0.00	0	**0**	0	**0**	0	**0**
28	0.00	0	**0**	0	**0**	0	**0**
29	0.00	0	**0**	0	**0**	0	**0**
30	0.00	0	**0**	0	**0**	0	**0**
31	0.31	0	**0**	0	**0**	0	**0**
	0.86	**0**	**0 Ave.**	**0**	**0 Total**	**0**	**0 Total**

Cumulative Loading Calculations	**Nitrogen**	**TDS**
Commercial Applications	0 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	40 lbs/acre	535 lbs/acre
September-12	72 lbs/acre	1,031 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**112 lbs/acre**	**1,566 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 20 Check 1

LAND APPLICATION AREA: M.S. 20 Ch1 — 32.3 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	273,569	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	319,698	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	263,260	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	856,527	0.97				0	0.00		0	0.00	0.86
	2.6	ac-ft				0.0	ac-ft		0.0	ac-ft	2.3
Percent of Total =	100%					0%			0%		

Day	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	0.00	0	0	0	0	0	0
2	0.00	0	0	0	0	0	0
3	0.00	0	0	0	0	0	0
4	0.00	0	0	0	0	0	0
5	0.00	0	0	0	0	0	0
6	0.00	0	0	0	0	0	0
7	0.00	0	0	0	0	0	0
8	0.00	0	0	0	0	0	0
9	0.31	2,235	69	130	4	3,294	102
10	0.36	2,612	81	152	5	3,849	119
11	0.30	2,151	67	125	4	3,170	98
12	0.00	0	0	0	0	0	0
13	0.00	0	0	0	0	0	0
14	0.00	0	0	0	0	0	0
15	0.00	0	0	0	0	0	0
16	0.00	0	0	0	0	0	0
17	0.00	0	0	0	0	0	0
18	0.00	0	0	0	0	0	0
19	0.00	0	0	0	0	0	0
20	0.00	0	0	0	0	0	0
21	0.00	0	0	0	0	0	0
22	0.52	0	0	0	0	0	0
23	0.01	0	0	0	0	0	0
24	0.02	0	0	0	0	0	0
25	0.00	0	0	0	0	0	0
26	0.00	0	0	0	0	0	0
27	0.00	0	0	0	0	0	0
28	0.00	0	0	0	0	0	0
29	0.00	0	0	0	0	0	0
30	0.00	0	0	0	0	0	0
31	0.31	0	0	0	0	0	0
	1.83	6,998	7 Ave.	407	13 Total	10,313	319 Total

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	33 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	73 lbs/acre	715 lbs/acre
September-12	137 lbs/acre	1,071 lbs/acre
October-12	13 lbs/acre	319 lbs/acre
Total	**256 lbs/acre**	**2,105 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 20 Check 2

LAND APPLICATION AREA: M.S. 20 Ch2 32.3 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52	0.52	0	0	0	0	0	0
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01	0.01	0	0	0	0	0	0
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02	0.02	0	0	0	0	0	0
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31	0.31	0	0	0	0	0	0
	0	0.00				0	0.00		0	0.00	0.86	0.86	0	0 Ave.	0	0 Total	0	0 Total
	0.0 ac-ft					0.0 ac-ft			0.0 ac-ft		2.3							
Percent of Total =	#DIV/0!					#DIV/0!			#DIV/0!									

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	33 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	0 lbs/acre	0 lbs/acre
September-12	41 lbs/acre	506 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**74 lbs/acre**	**506 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 21

LAND APPLICATION AREA: M.S. 21 — 25.9 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	0	0	0	0	0
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	0	0	0	0	0
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	0	0	0	0	0
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52	0.52	0	0	0	0	0	0
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01	0.01	0	0	0	0	0	0
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02	0.02	0	0	0	0	0	0
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	0	0	0	0	0
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	0	0	0	0	0
31	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.31	0.31	0	0	0	0	0	0
	0	0.00				0	0.00		0	0.00	0.86	0.86	0	0 Ave.	0	0 Total	0	0 Total
	0.0	ac-ft				0.0	ac-ft		0.0	ac-ft	1.9							
Percent of Total =	#DIV/0!					#DIV/0!			#DIV/0!									

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	10 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	14 lbs/acre	203 lbs/acre
September-12	25 lbs/acre	322 lbs/acre
October-12	0 lbs/acre	0 lbs/acre
Total	**49 lbs/acre**	**525 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 24 Check 1

LAND APPLICATION AREA: M.S. 24 Ch1 — 79.9 acres

Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)	Hydraulic Loading (in)	BOD Loading Total Weight (lbs/day)	BOD Loading Loading Applied (lbs/ac/day)	Nitrogen Loading Total (lbs/day)	Nitrogen Loading Applied (lbs/ac/month)	TDS Loading Total (lbs/day)	TDS Loading Applied (lbs/ac/month)
1	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
2	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
3	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
4	705,265	0.33	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.33	5,897	**74**	372	**5**	9,669	**121**
5	776,798	0.36	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.36	6,495	**81**	410	**5**	10,650	**133**
6	759,102	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.35	6,347	**79**	400	**5**	10,407	**130**
7	750,922	0.35	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00	0.35	6,279	**79**	396	**5**	10,295	**129**
8	816,706	0.38	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.38	6,672	**84**	389	**5**	9,834	**123**
9	676,724	0.31	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.31	5,528	**69**	322	**4**	8,148	**102**
10	790,831	0.36	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.36	6,460	**81**	377	**5**	9,522	**119**
11	651,221	0.30	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.30	5,320	**67**	310	**4**	7,841	**98**
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52	0.52	0	**0**	0	**0**	0	**0**
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01	0.01	0	**0**	0	**0**	0	**0**
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02	0.02	0	**0**	0	**0**	0	**0**
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00	0.00	0	**0**	0	**0**	0	**0**
31	#REF!	#REF!	979	1,443	57.1	0	0.00	446	0	0.00	0.31	#REF!	#REF!	**#REF!**	#REF!	#REF!	#REF!	**#REF!**
	5,927,570	2.74				0	0.00		0	0.00	0.86	**#REF!**	48,998	**20 Ave.**	2,976	37 Total	76,366	956 Total
	18.2	ac-ft				0.0	ac-ft		0.0	ac-ft	5.7							
Percent of Total =	100%					0%			0%									

Cumulative Loading Calculations

	Nitrogen	TDS
Commercial Applications	0 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	95 lbs/acre	1,268 lbs/acre
September-12	49 lbs/acre	591 lbs/acre
October-12	37 lbs/acre	956 lbs/acre
Total	**181 lbs/acre**	**2,815 lbs/acre**

The Morning Star Packing Company
Water & Constituent Loading Calculations
Field: M. S. 24 Check 2

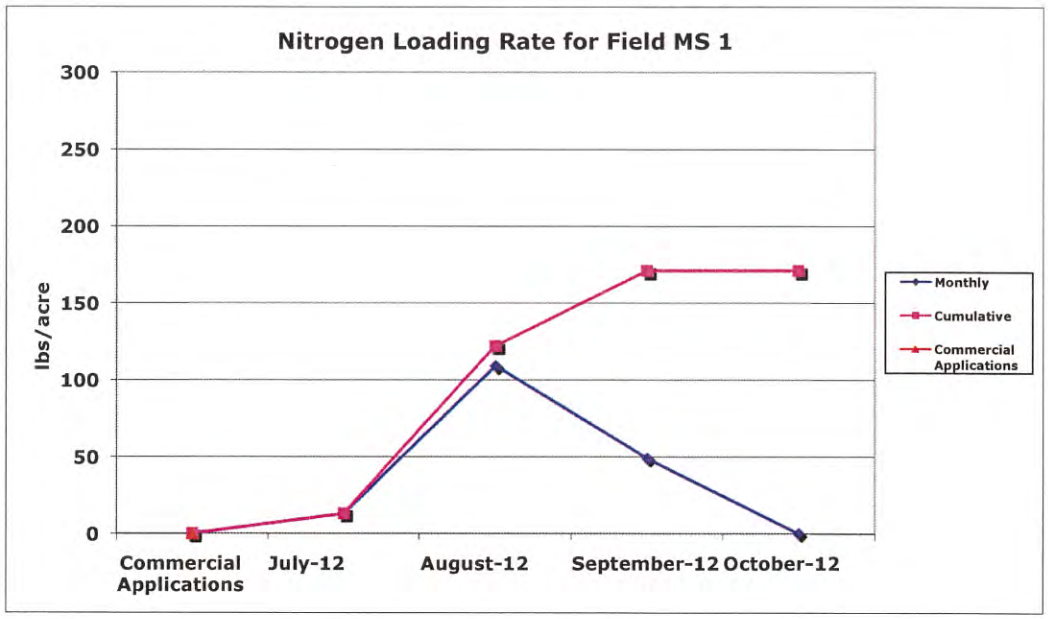
LAND APPLICATION AREA:

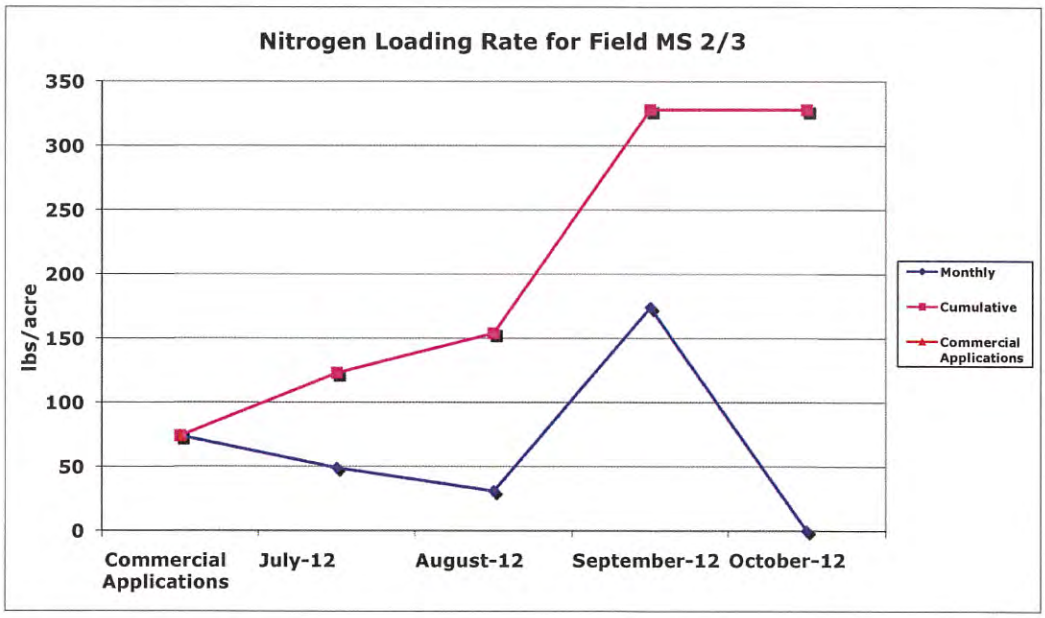
	M.S. 24 Ch2	79.9	acres								
Day	Settling Pond Effluent Applied (gal)	Settling Pond Effluent Applied (in)	BOD Ave. Applied (mg/l)	TDS Ave. Applied (mg/l)	Nitrogen Ave. Applied (mg/l)	Cooling Pond Effluent Applied (gal)	Cooling Pond Effluent Applied (in)	TDS Ave. Applied (mg/l)	Fresh Irrigation (gal)	Fresh Irrigation (in)	Rainfall (in)
1	673,709	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
2	675,523	0.31	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
3	726,842	0.34	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
4	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
5	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
6	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
7	0	0.00	1,002	1,643	63.2	0	0.00	423	0	0.00	0.00
8	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
9	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
10	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
11	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
12	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
13	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
14	0	0.00	979	1,443	57.1	0	0.00	416	0	0.00	0.00
15	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
16	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
17	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
18	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
19	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
20	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
21	0	0.00	979	1,443	57.1	0	0.00	429	0	0.00	0.00
22	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.52
23	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.01
24	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.02
25	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
26	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
27	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
28	0	0.00	979	1,443	57.1	0	0.00	434	0	0.00	0.00
29	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
30	0	0.00	979	1,443	57.1	0	0.00	446	0	0.00	0.00
31	#REF!	#REF!	979	1,443	57.1	0	0.00	446	0	0.00	0.31
	2,076,074	0.96				0	0.00		0	0.00	0.86
	6.4	ac-ft				0.0	ac-ft		0.0	ac-ft	5.7
Percent of Total =	100%					0%			0%		

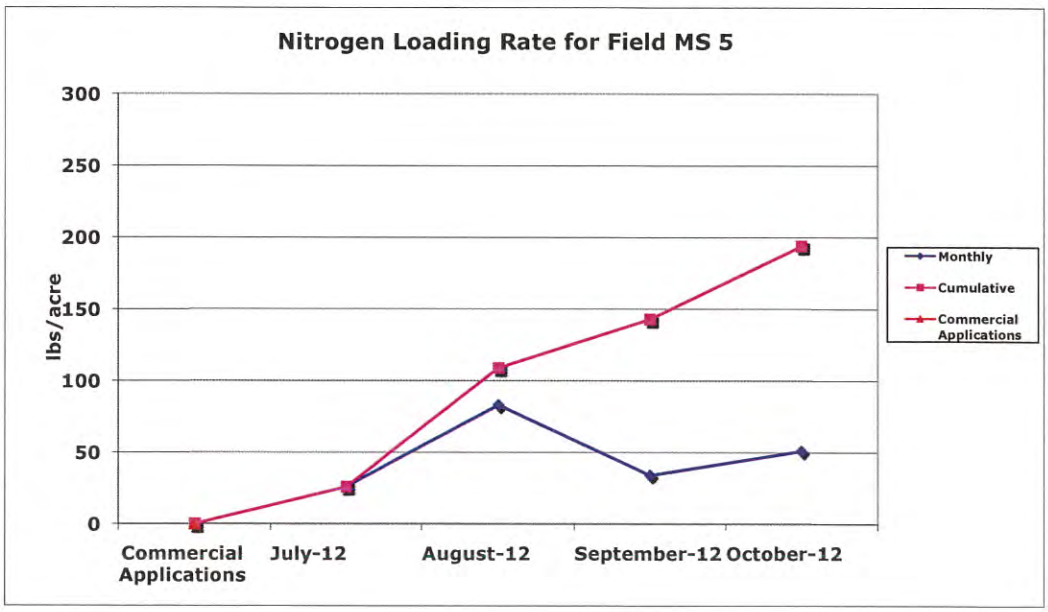
	BOD Loading		Nitrogen Loading		TDS Loading	
Hydraulic Loading (in)	Total Weight (lbs/day)	Loading Applied (lbs/ac/day)	Total (lbs/day)	Applied (lbs/ac/month)	Total (lbs/day)	Applied (lbs/ac/month)
0.31	5,633	71	355	4	9,236	116
0.31	5,648	71	356	4	9,261	116
0.34	6,077	76	383	5	9,965	125
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.52	0	0	0	0	0	0
0.01	0	0	0	0	0	0
0.02	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
0.00	0	0	0	0	0	0
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
1.51	17,358	7 Ave.	1,094	14 Total	28,462	356 Total

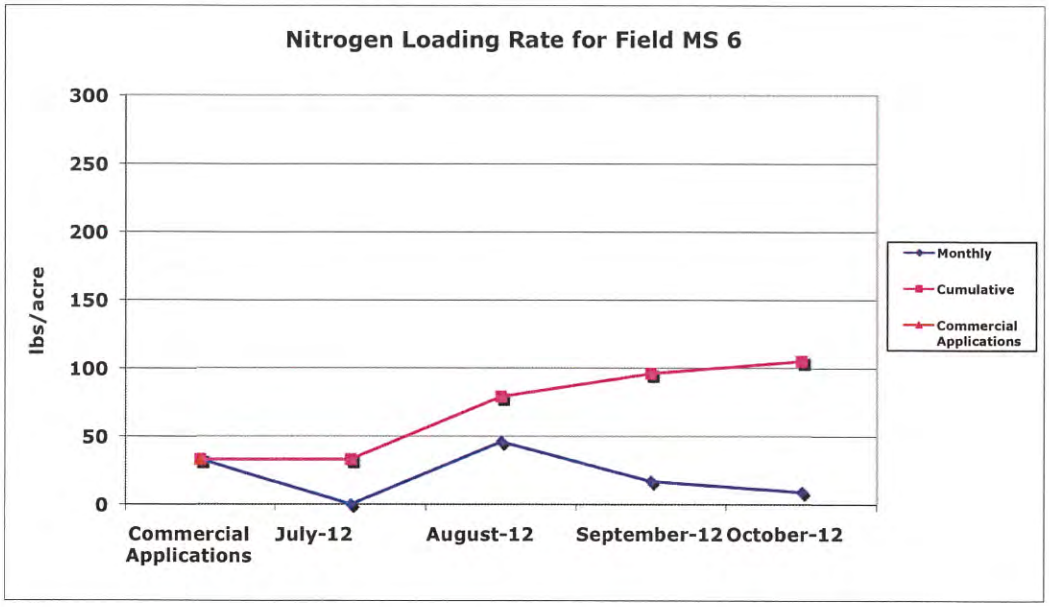
Cumulative Loading Calculations

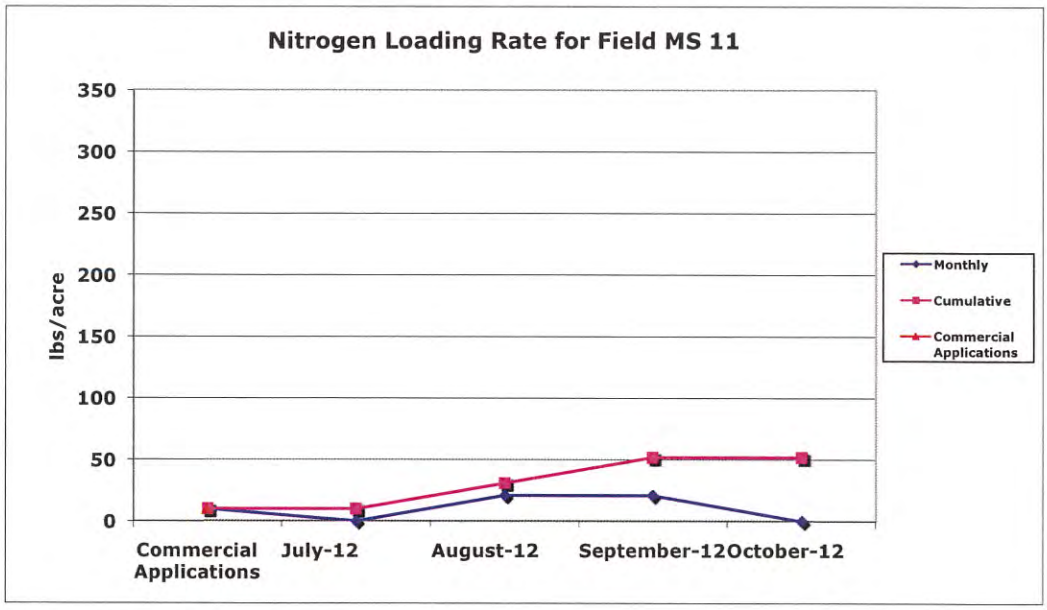
	Nitrogen	TDS
Commercial Applications	0 lbs/acre	
July-12	0 lbs/acre	0 lbs/acre
August-12	99 lbs/acre	919 lbs/acre
September-12	116 lbs/acre	1,579 lbs/acre
October-12	14 lbs/acre	356 lbs/acre
Total	**229 lbs/acre**	**2,854 lbs/acre**

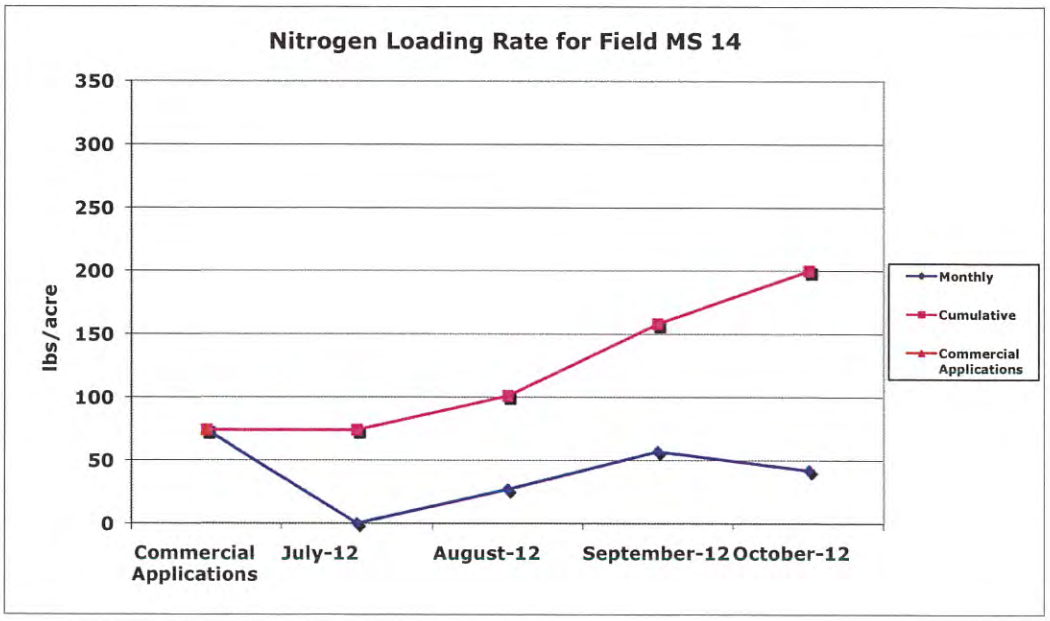

Nitrogen Loading Rate for Field MS 1
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

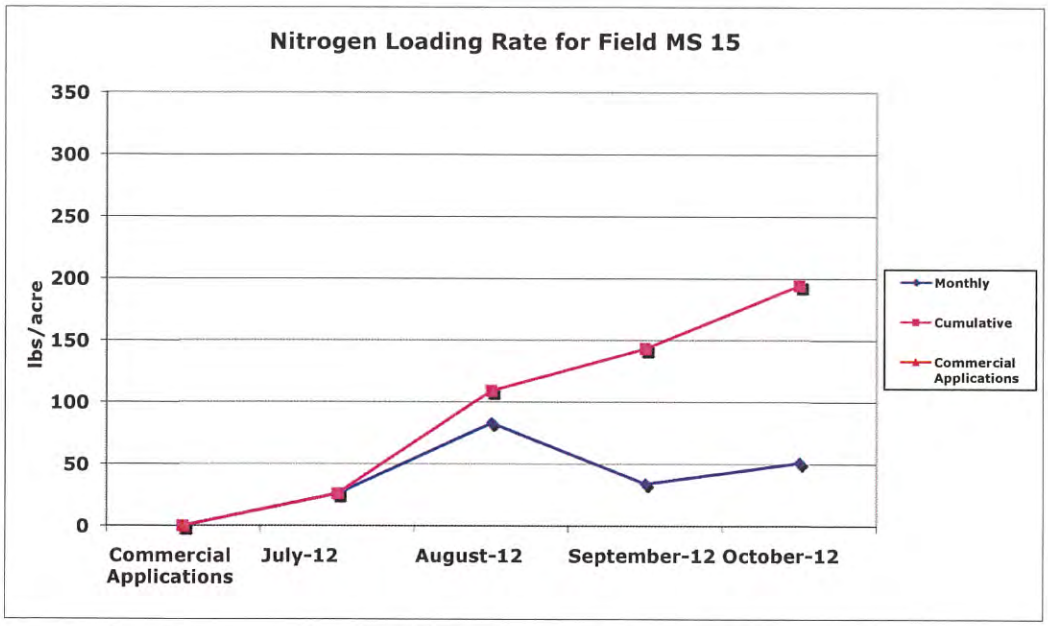

Nitrogen Loading Rate for Field MS 2/3
350
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

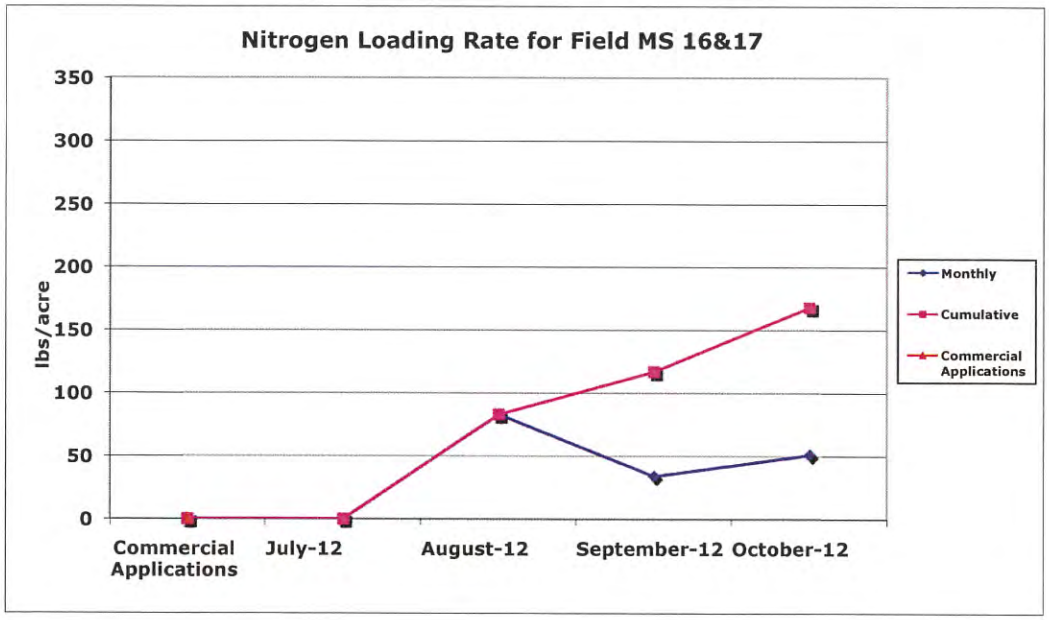

Nitrogen Loading Rate for Field MS 5
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

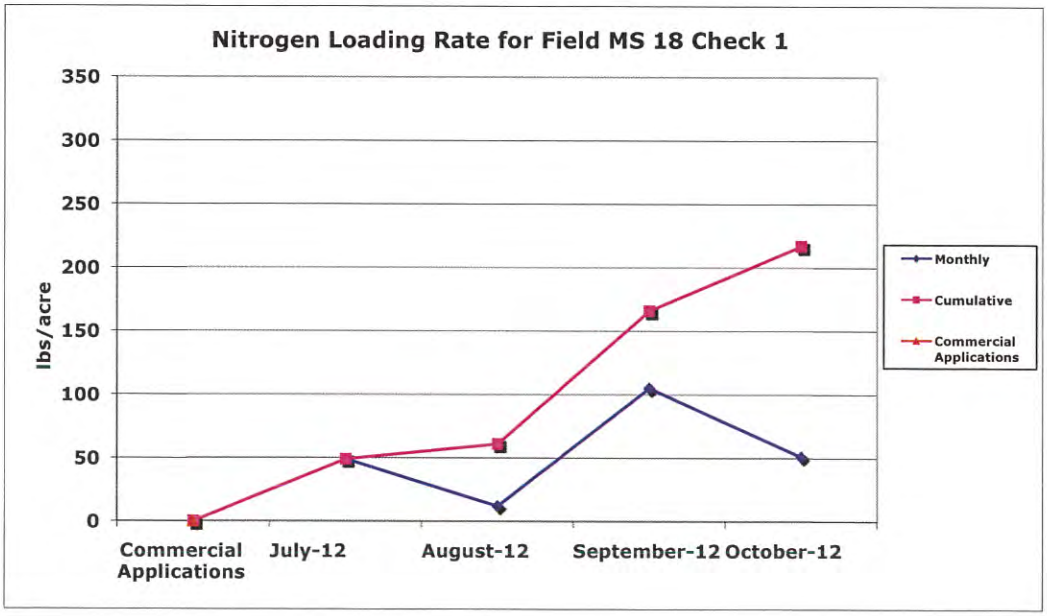

Nitrogen Loading Rate for Field MS 6
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

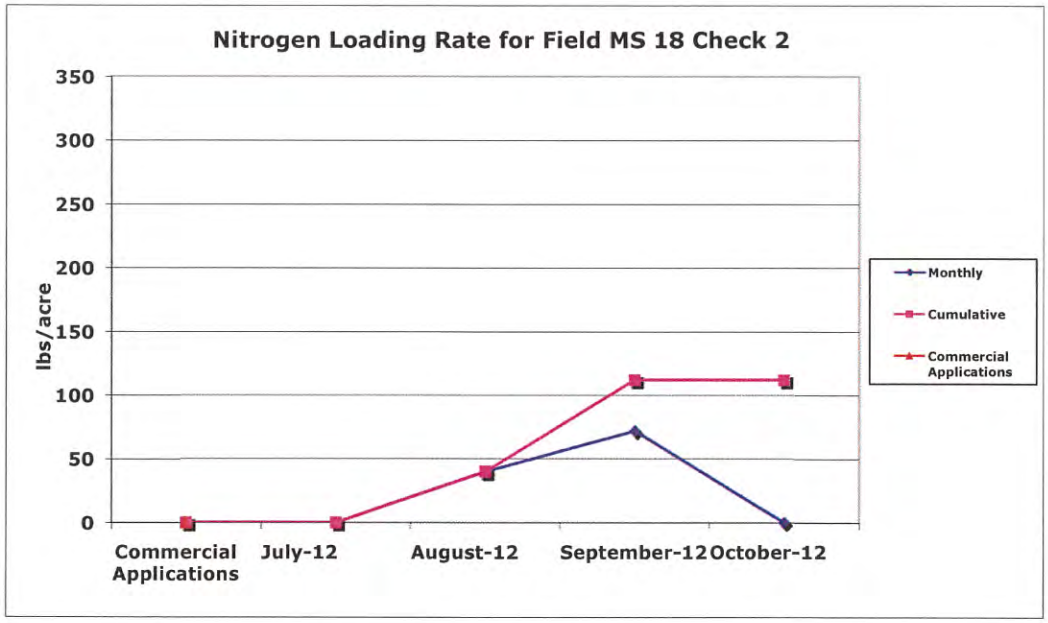

Nitrogen Loading Rate for Field MS 11
350
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

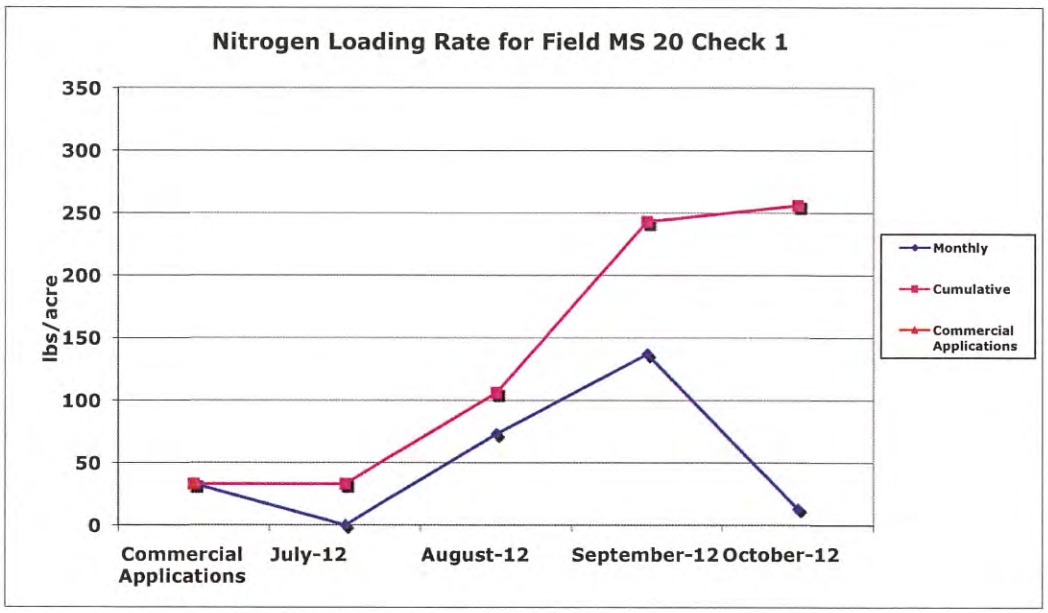

Nitrogen Loading Rate for Field MS 14
350
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

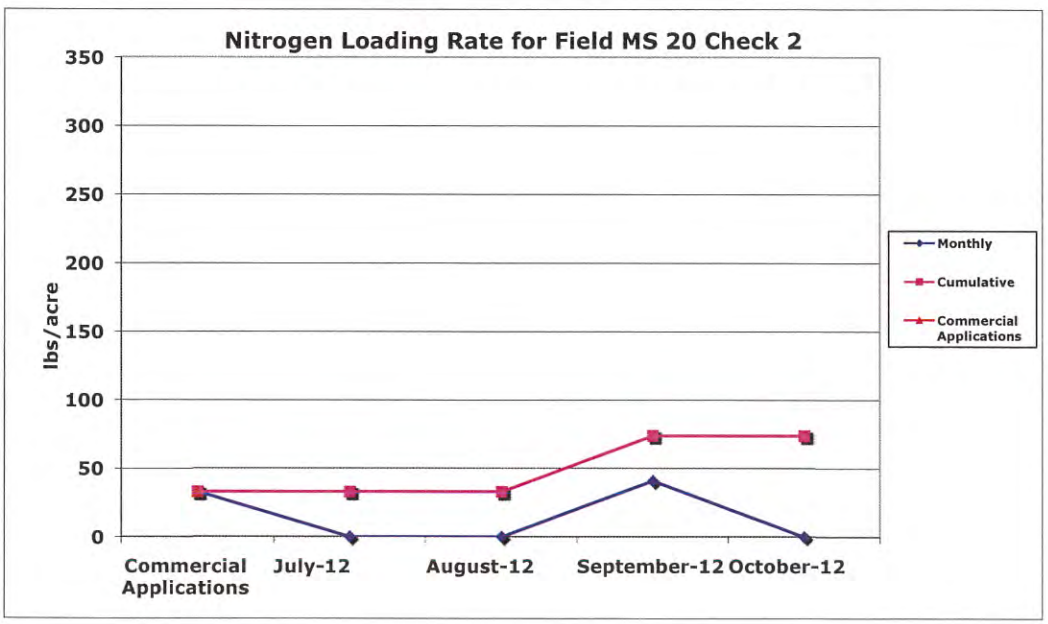

Nitrogen Loading Rate for Field MS 15
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

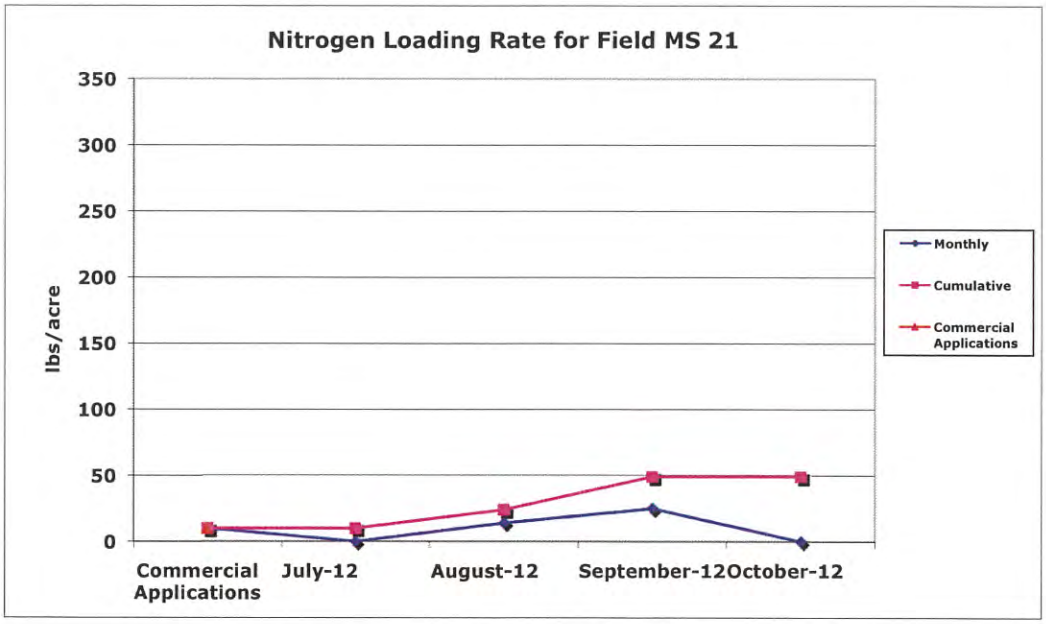

Nitrogen Loading Rate for Field MS 16&17
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

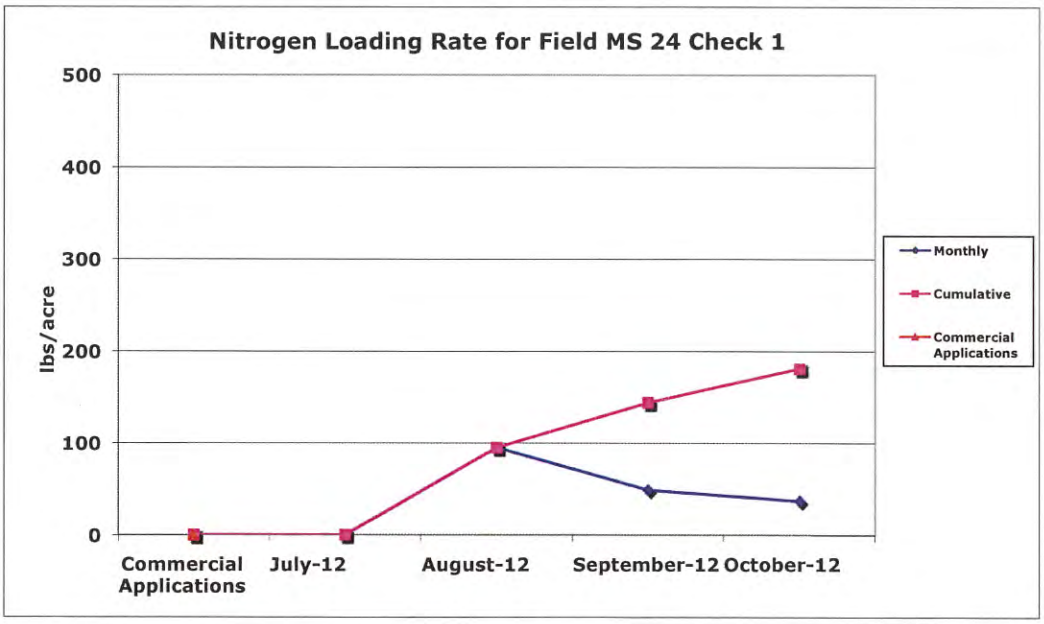

Nitrogen Loading Rate for Field MS 18 Check 1
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

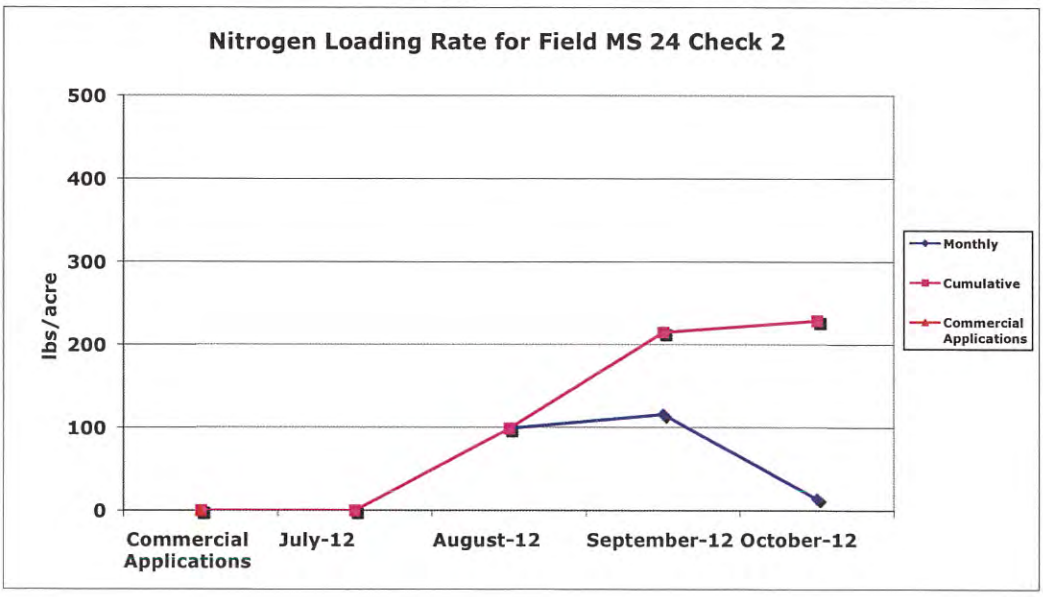

Nitrogen Loading Rate for Field MS 18 Check 2
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

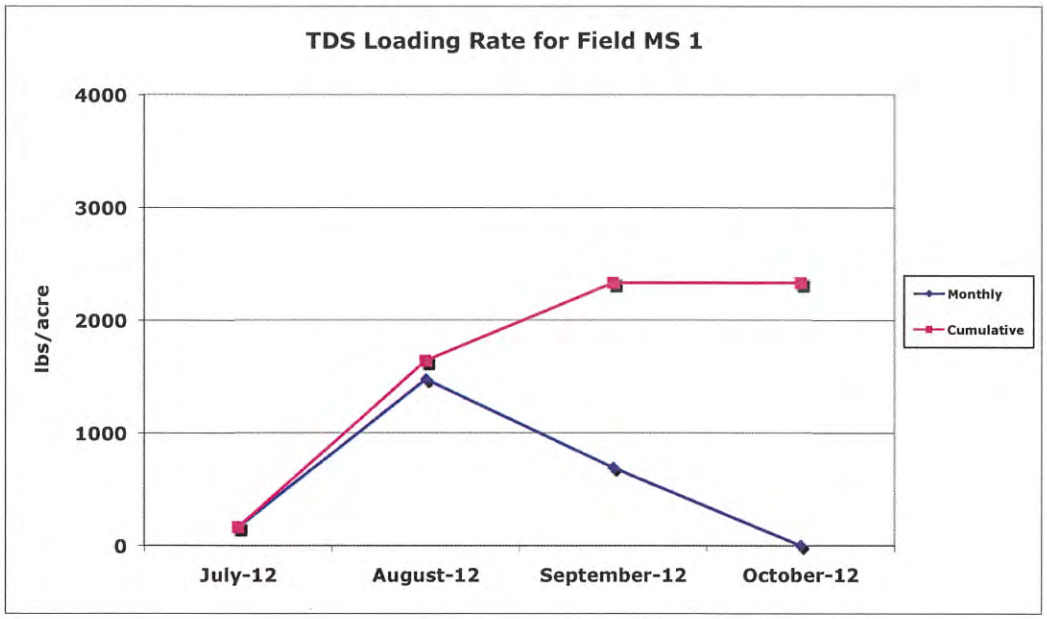

Nitrogen Loading Rate for Field MS 20 Check 1
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

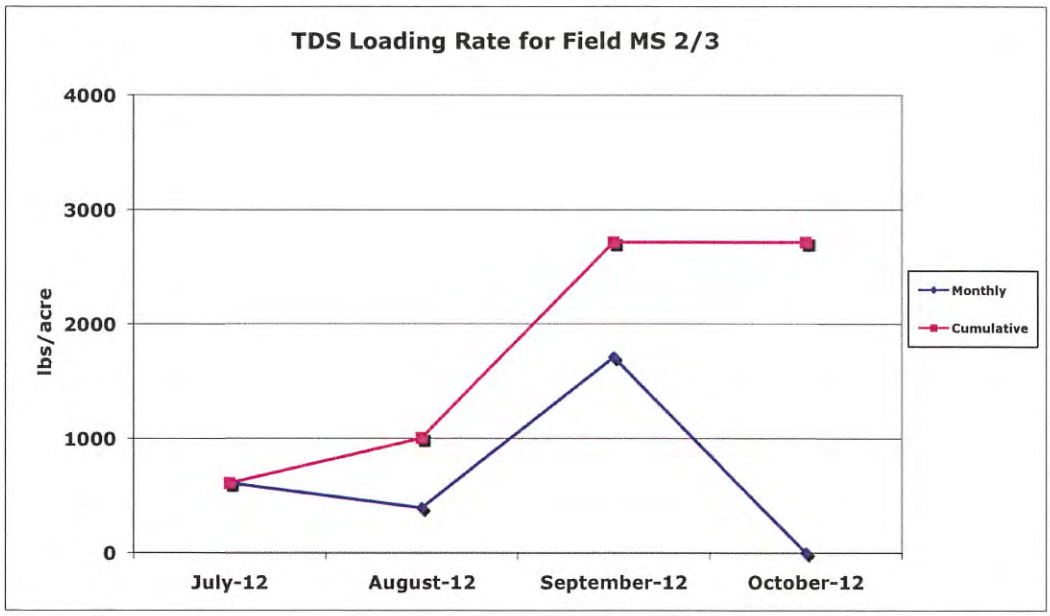

Nitrogen Loading Rate for Field MS 20 Check 2
lbs/acre
350
300
250
200
150
100
50
0
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

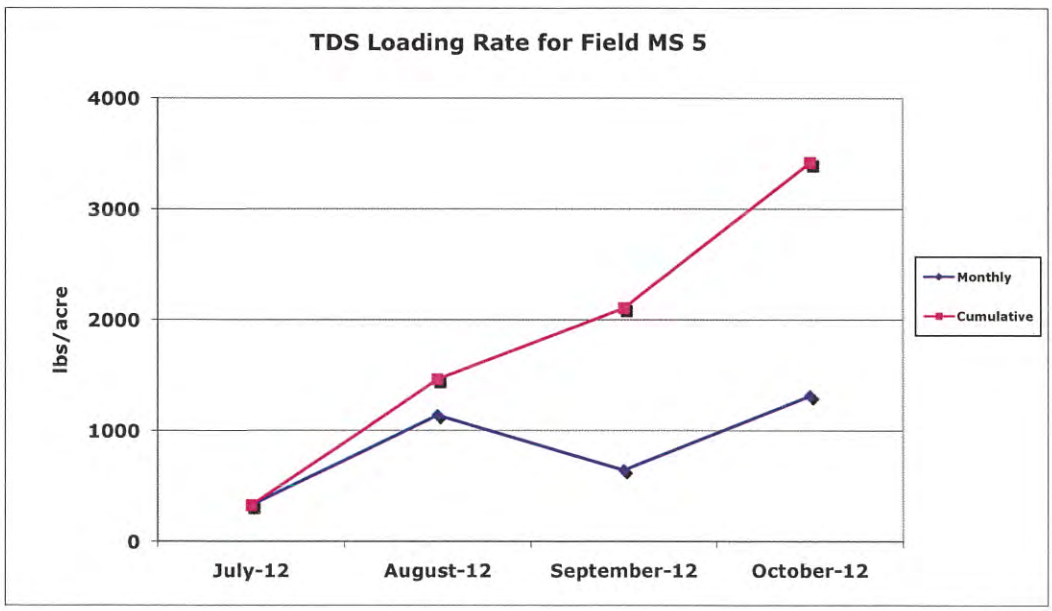

Nitrogen Loading Rate for Field MS 21
350
300
250
200
150
100
50
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

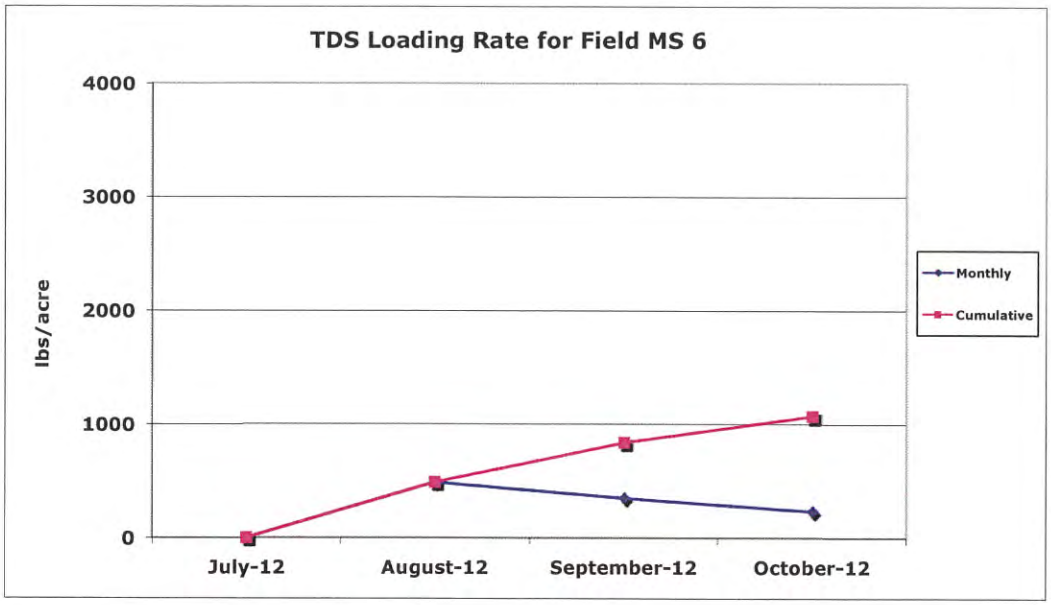

Nitrogen Loading Rate for Field MS 24 Check 1
500
400
300
200
100
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

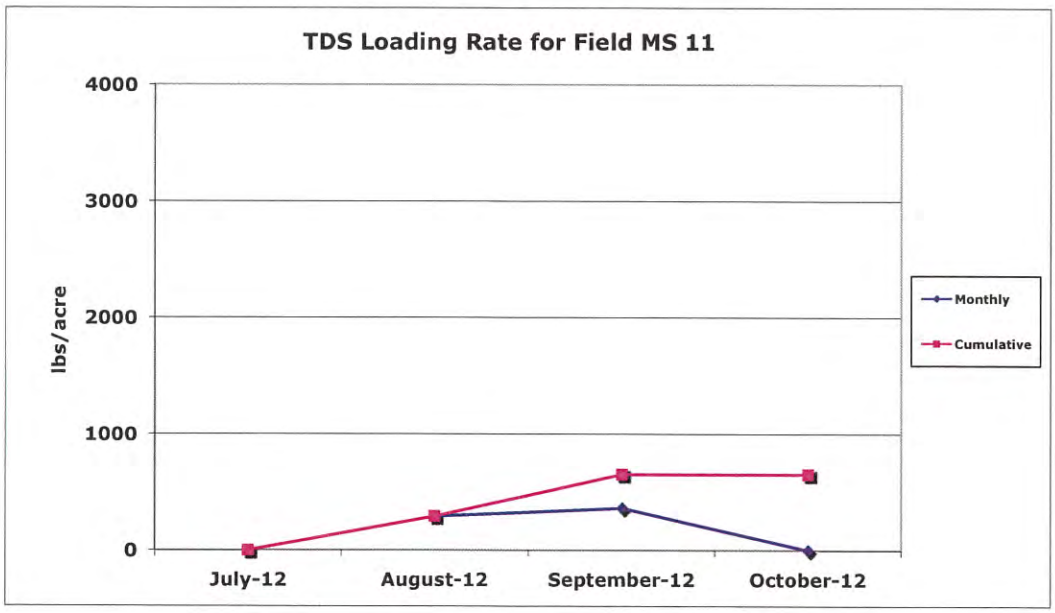

Nitrogen Loading Rate for Field MS 24 Check 2
500
400
300
200
100
0
lbs/acre
Commercial Applications
July-12
August-12
September-12
October-12
Monthly
Cumulative
Commercial Applications

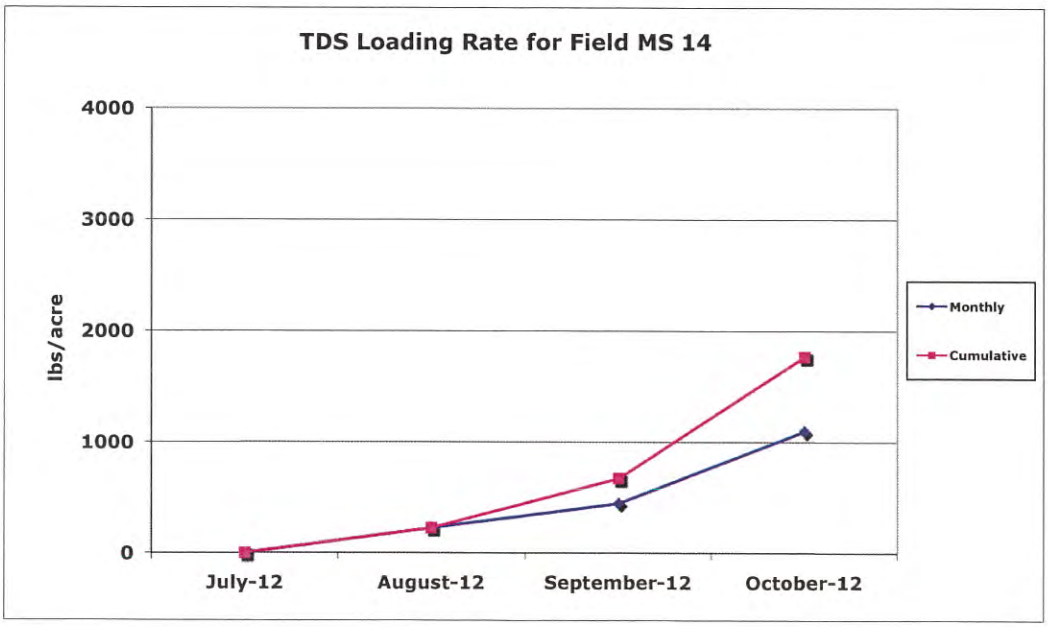

TDS Loading Rate for Field MS 1
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

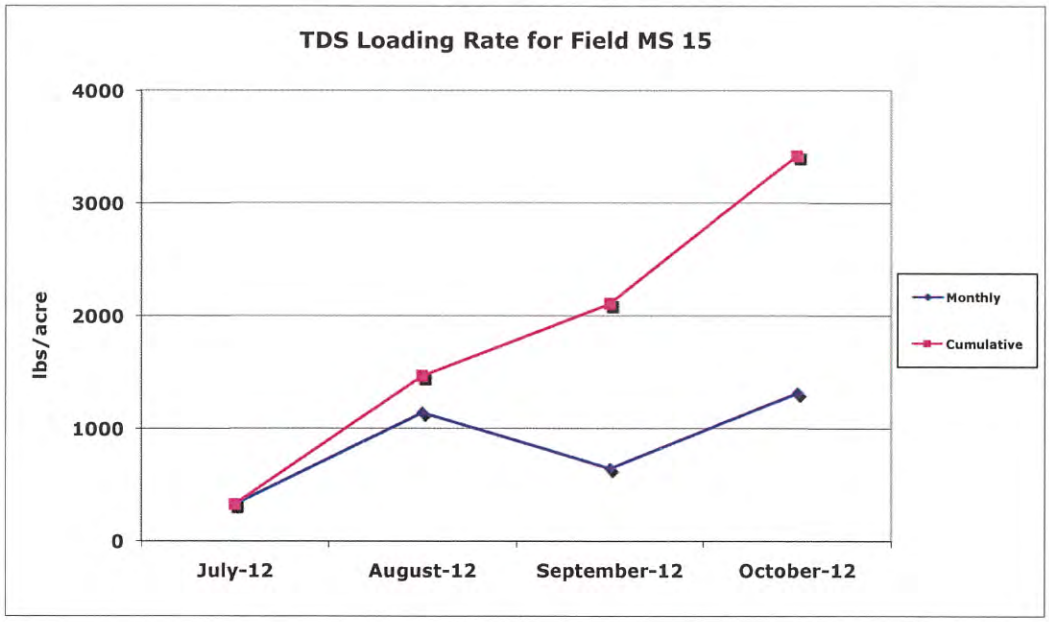

TDS Loading Rate for Field MS 2/3
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

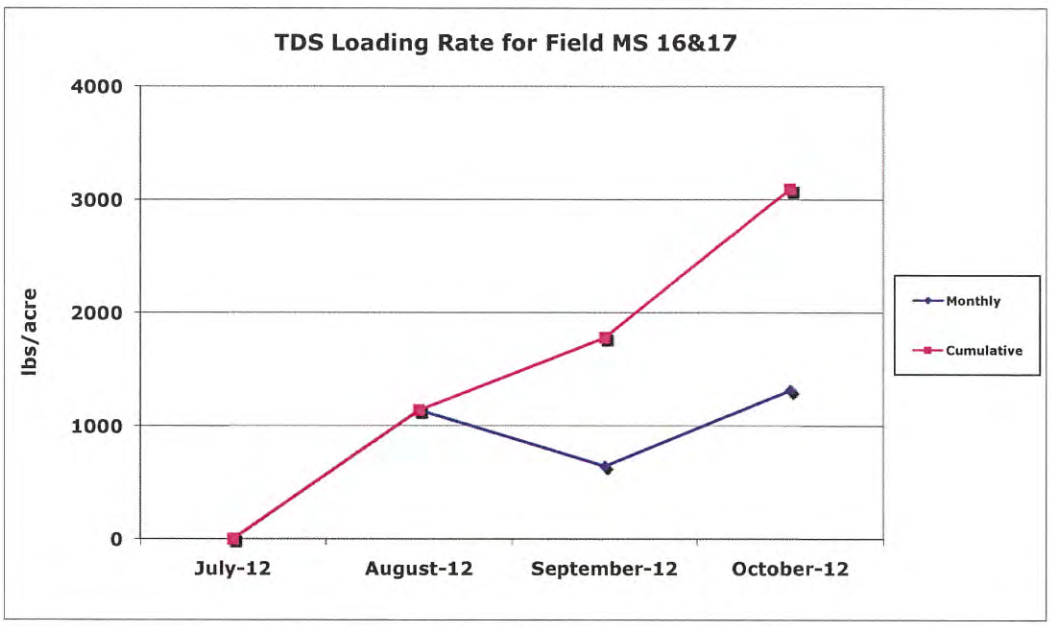

TDS Loading Rate for Field MS 5
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

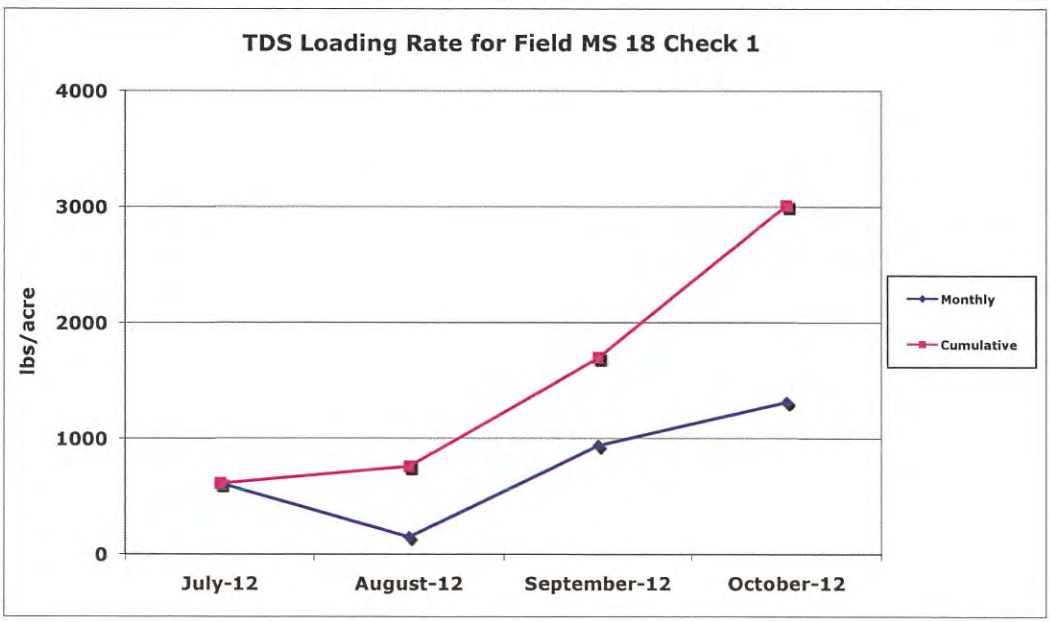

TDS Loading Rate for Field MS 6
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

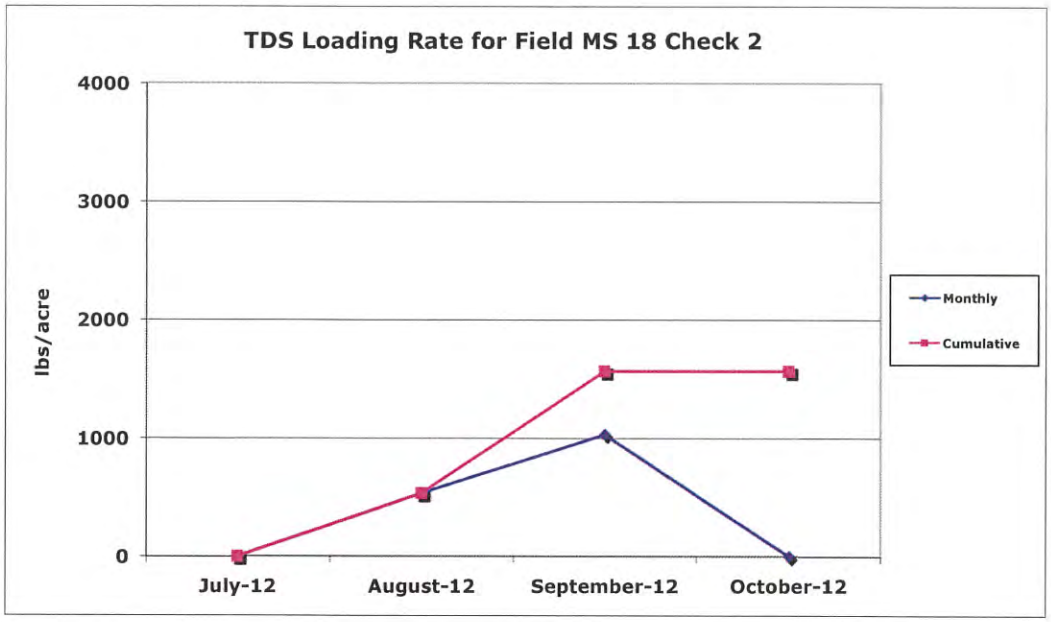

TDS Loading Rate for Field MS 11
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

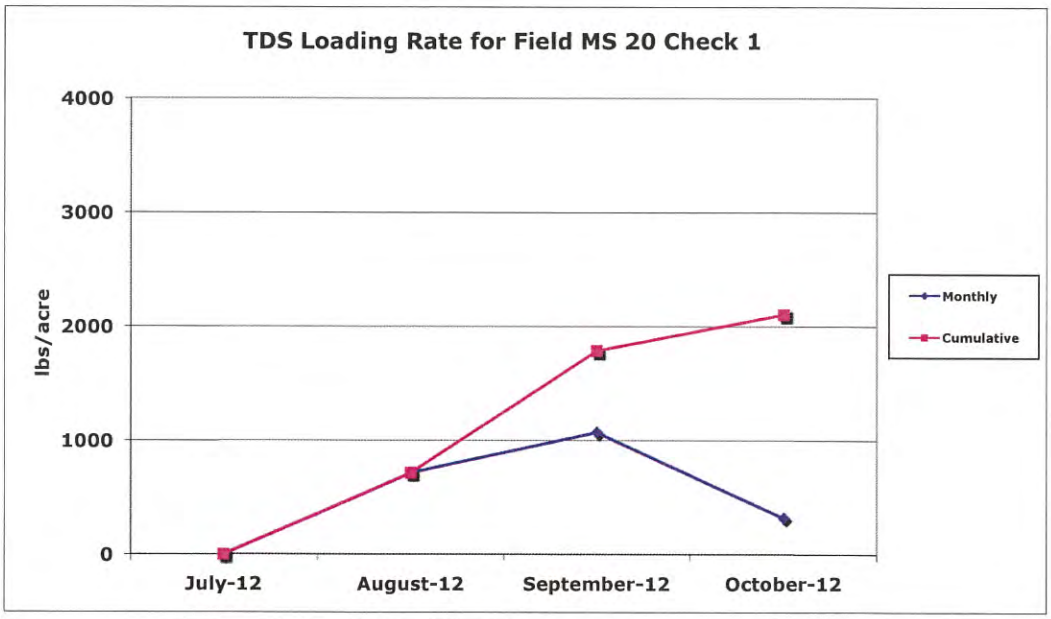

TDS Loading Rate for Field MS 14
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

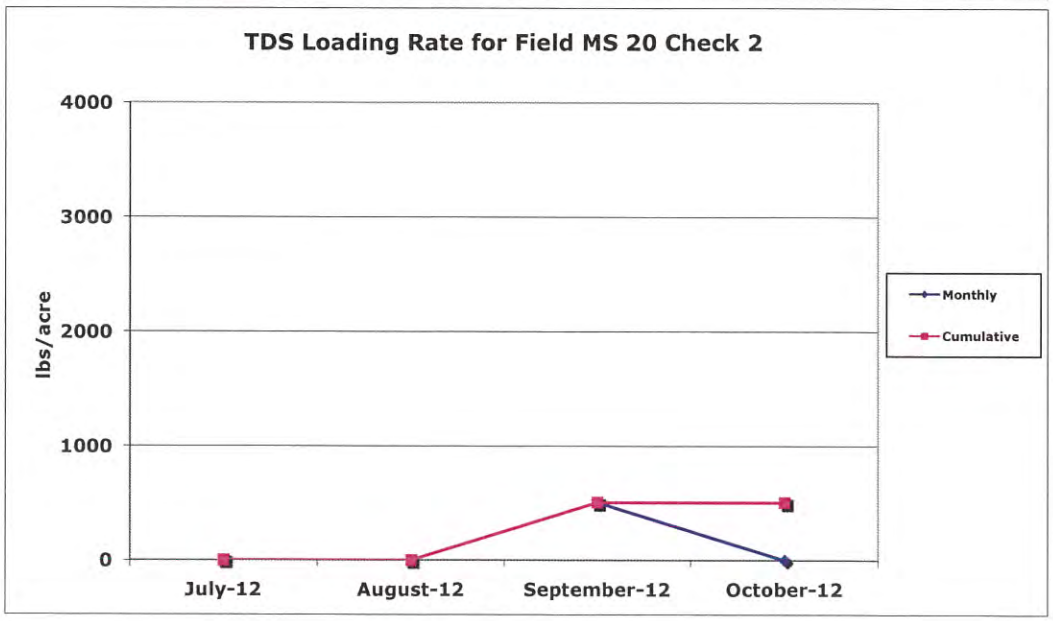

TDS Loading Rate for Field MS 15
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

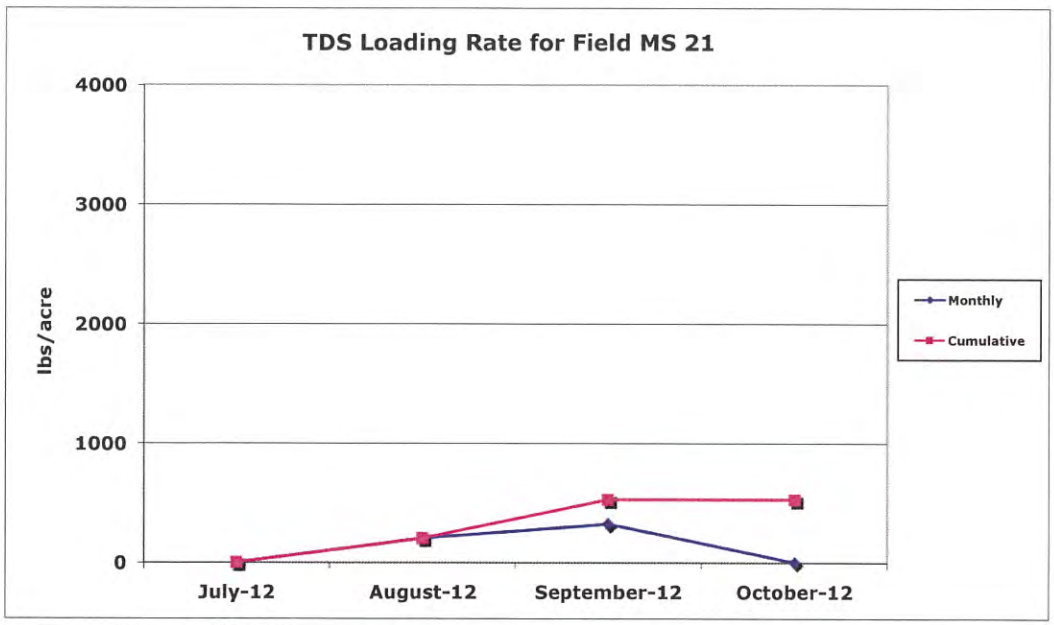

TDS Loading Rate for Field MS 16&17
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 18 Check 1
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 18 Check 2
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 20 Check 1
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 20 Check 2
4000
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 21
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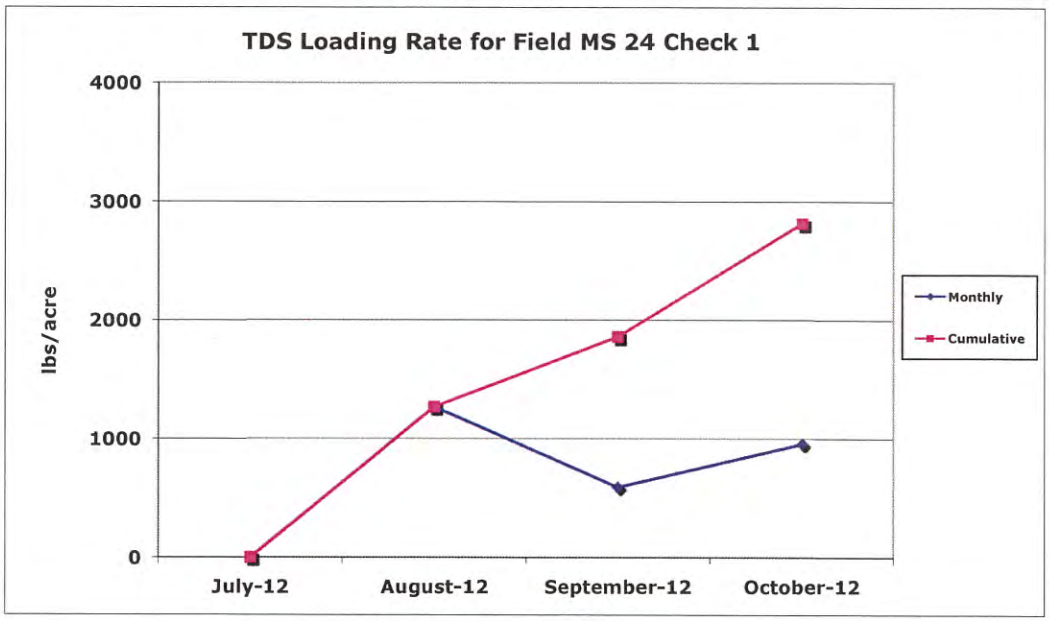
3000
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 24 Check 1
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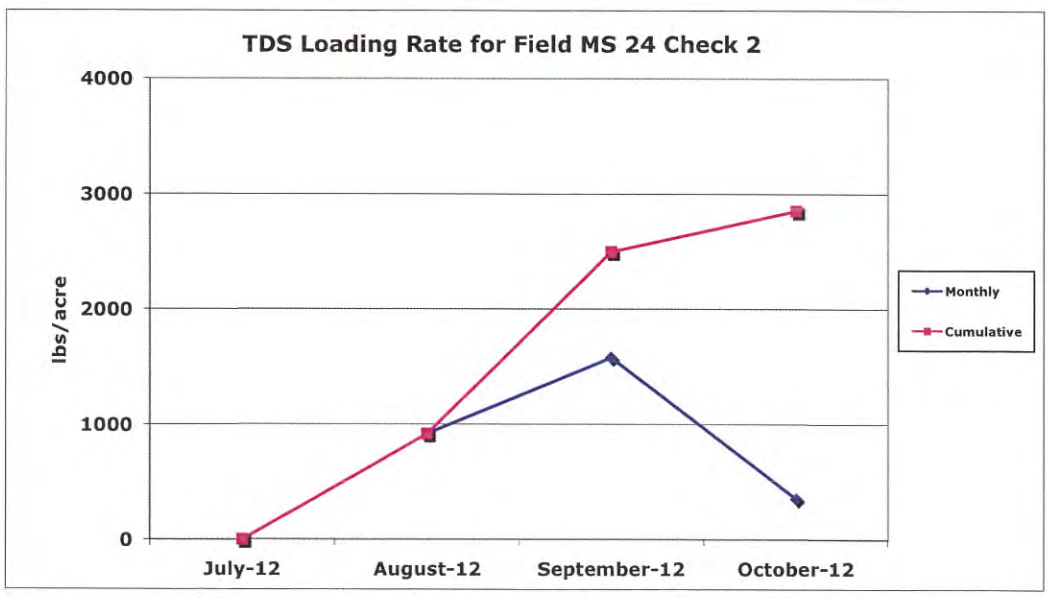
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative


TDS Loading Rate for Field MS 24 Check 2
4000
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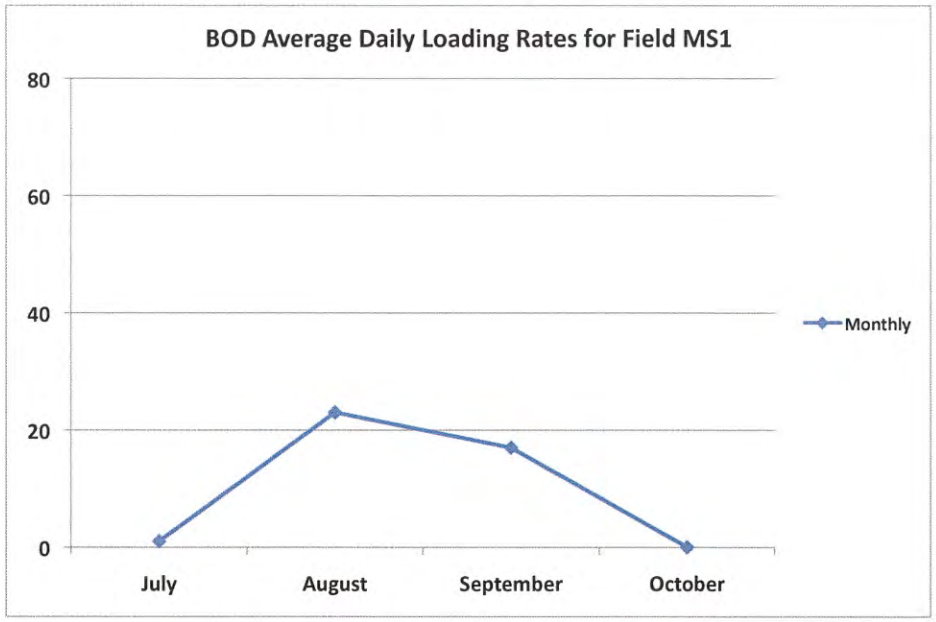
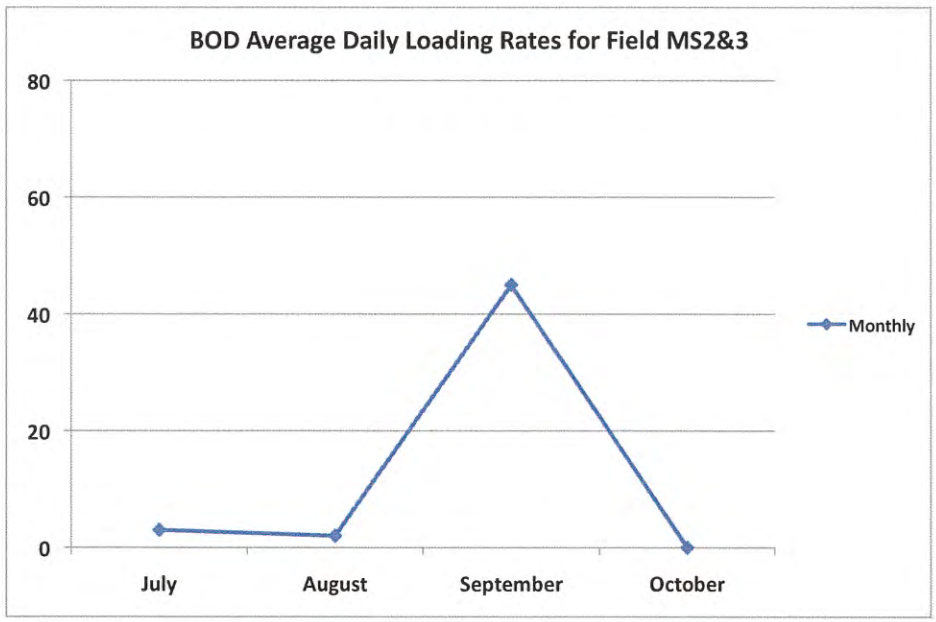
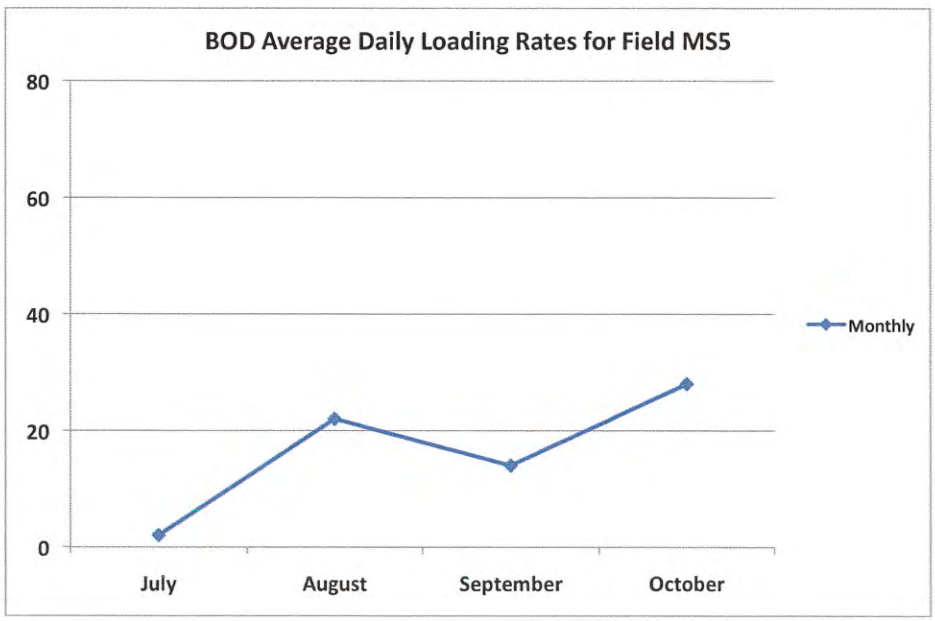
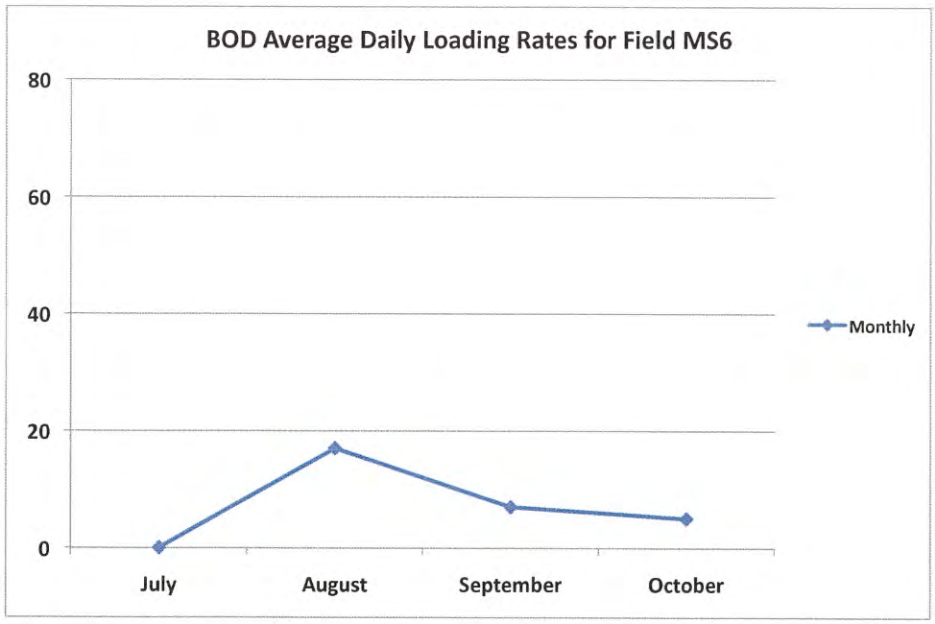
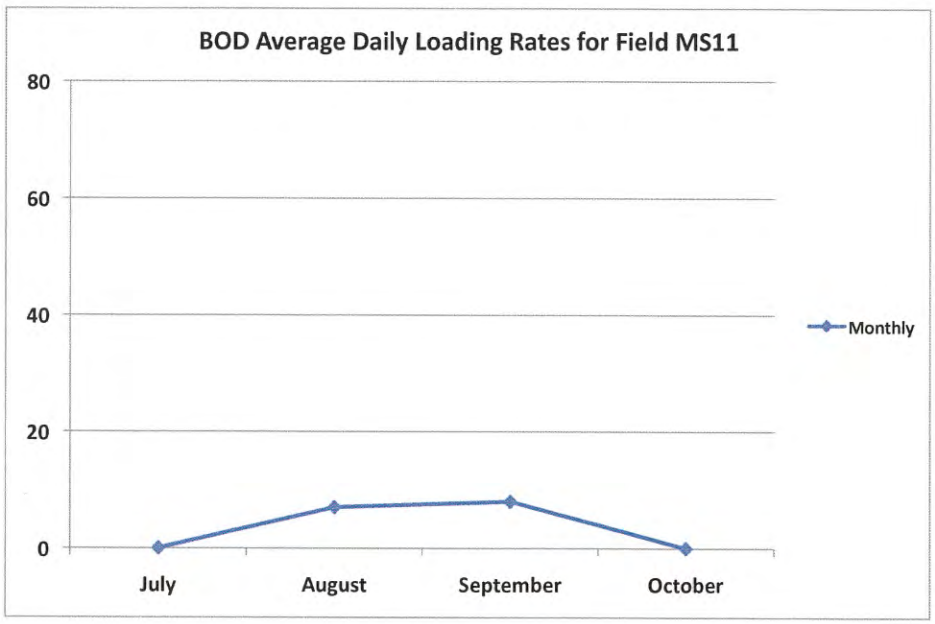
2000
1000
0
lbs/acre
July-12
August-12
September-12
October-12
Monthly
Cumulative

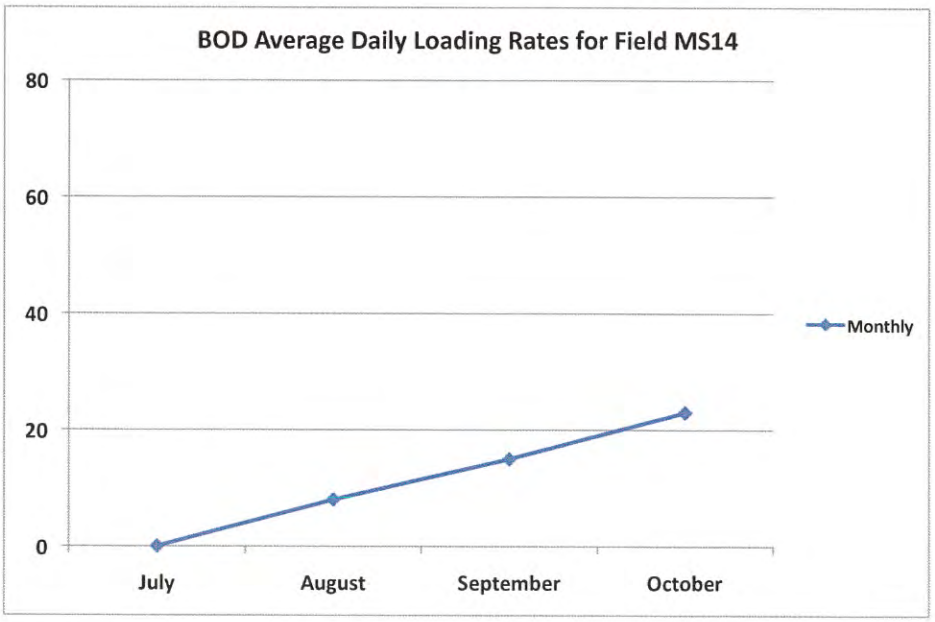

BOD Average Daily Loading Rates for Field MS1
80
60
40
20
0
July
August
September
October
Monthly

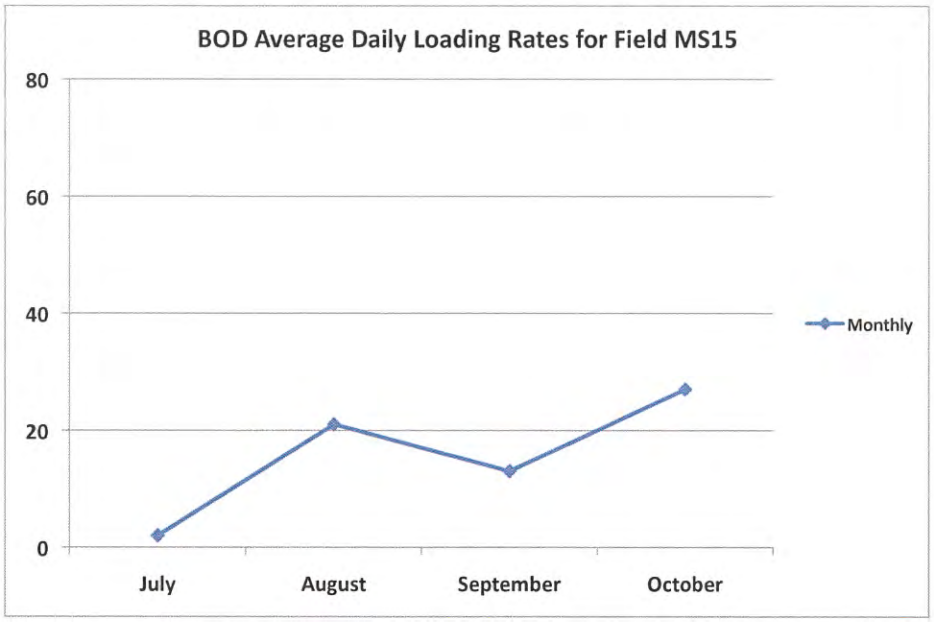

BOD Average Daily Loading Rates for Field MS2&3
80
60
40
20
0
July
August
September
October
Monthly

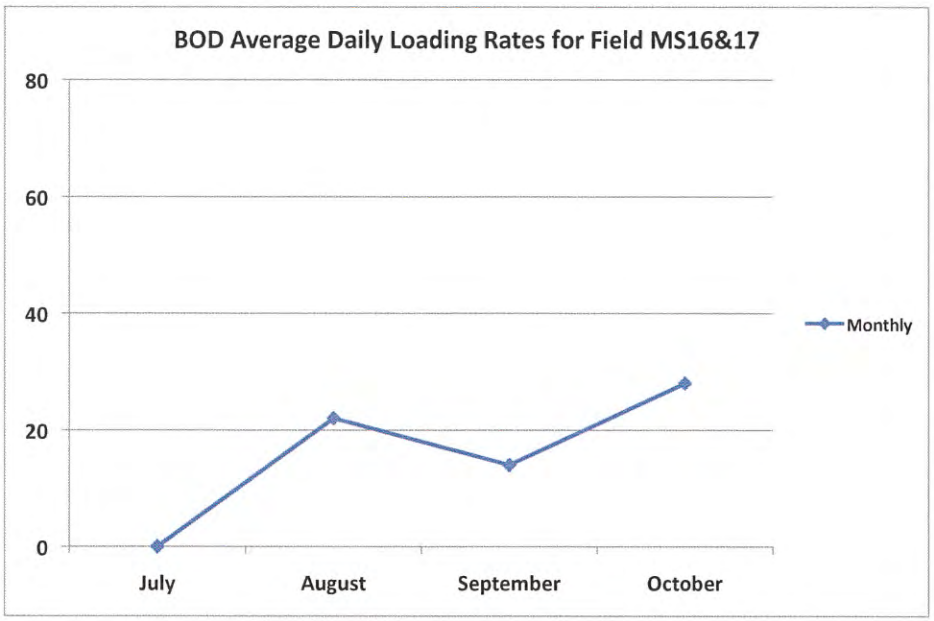

BOD Average Daily Loading Rates for Field MS5
80
60
40
20
0
July
August
September
October
Monthly

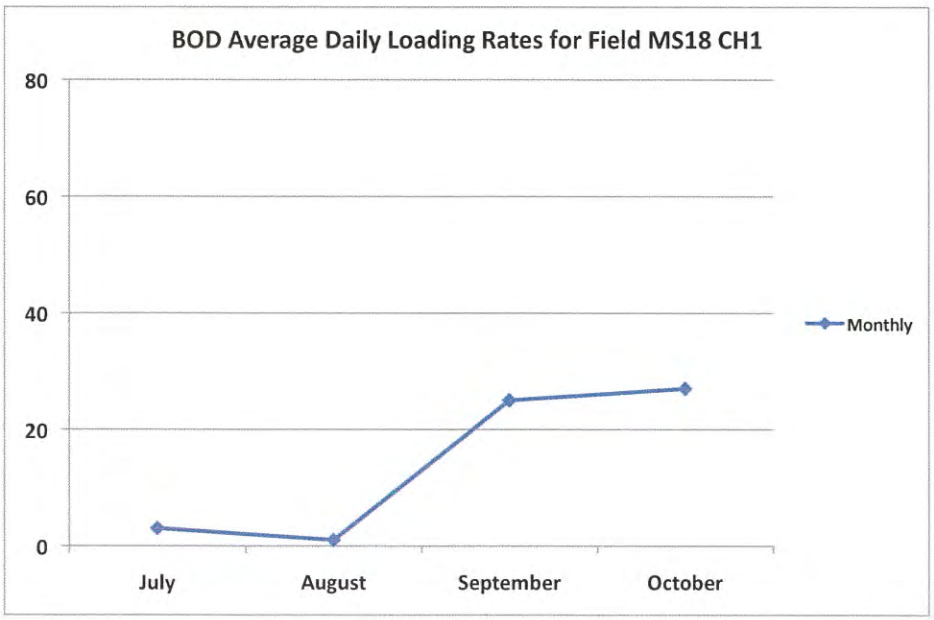

BOD Average Daily Loading Rates for Field MS6
80
60
40
20
0
July
August
September
October
Monthly

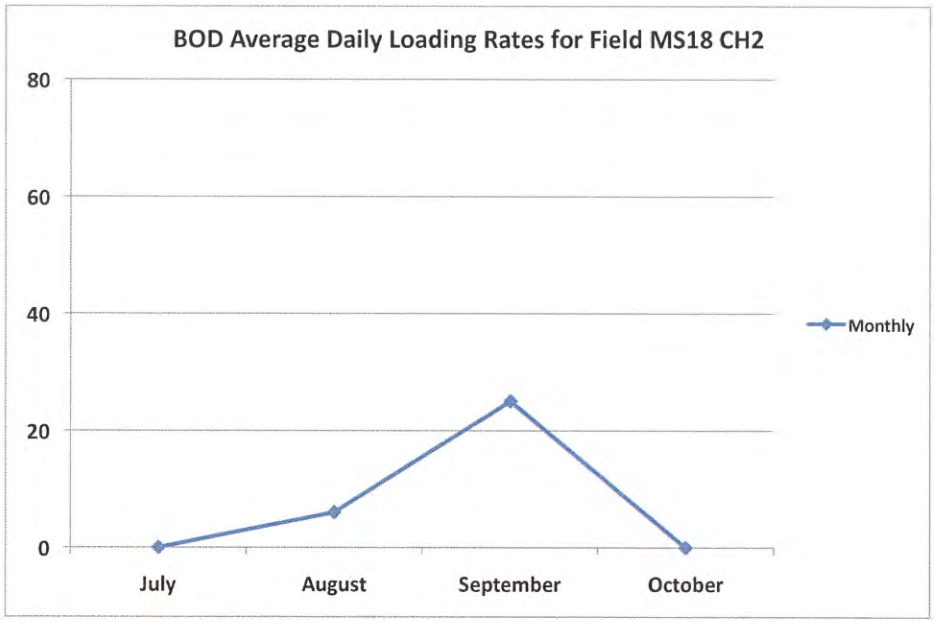

BOD Average Daily Loading Rates for Field MS11
80
60
40
20
0
July
August
September
October
Monthly

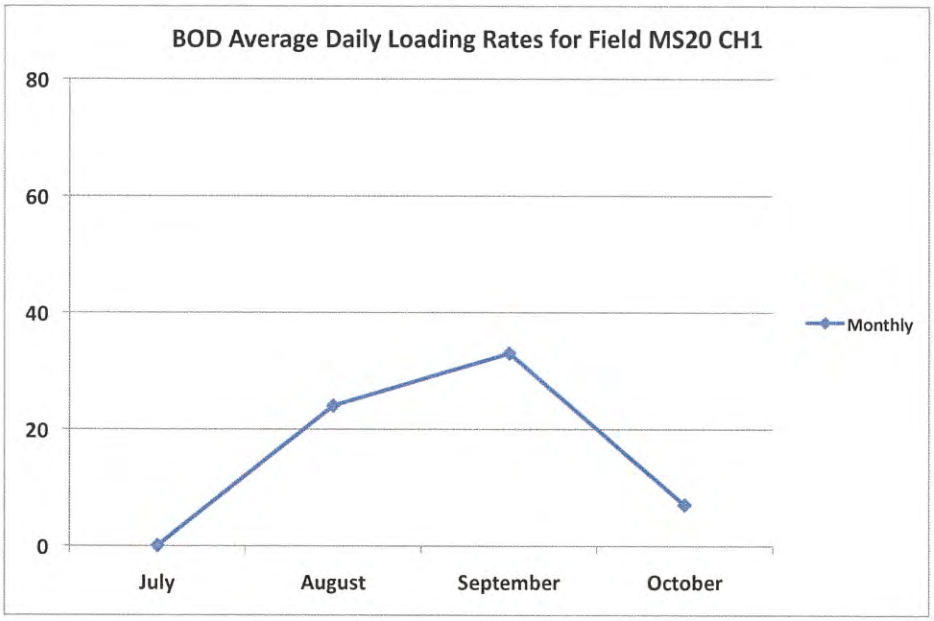

BOD Average Daily Loading Rates for Field MS14
80
60
40
20
0
July
August
September
October
Monthly

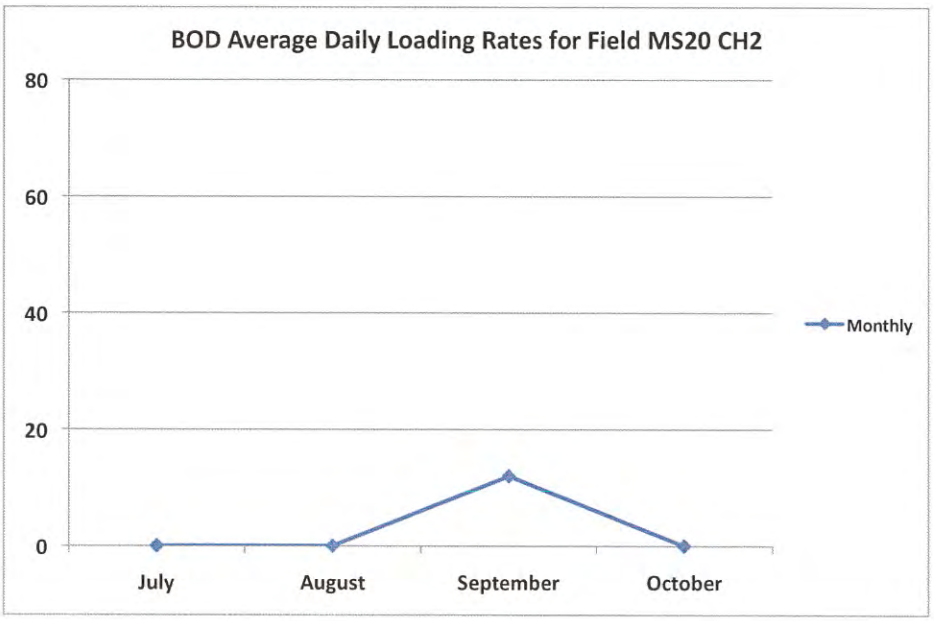

BOD Average Daily Loading Rates for Field MS15
80
60
40
20
0
July
August
September
October
Monthly

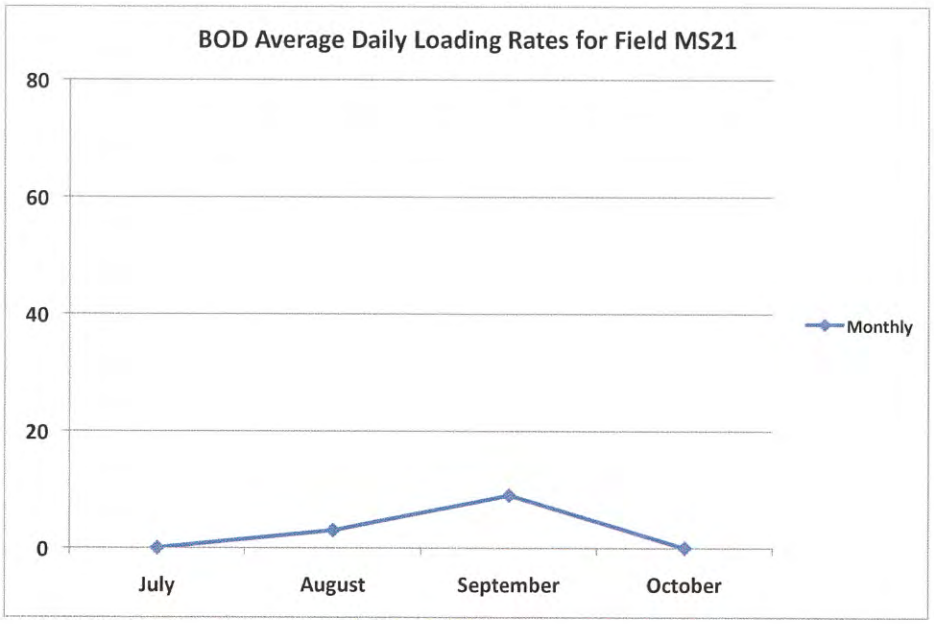

BOD Average Daily Loading Rates for Field MS16&17
80
60
40
20
0
July
August
September
October
Monthly

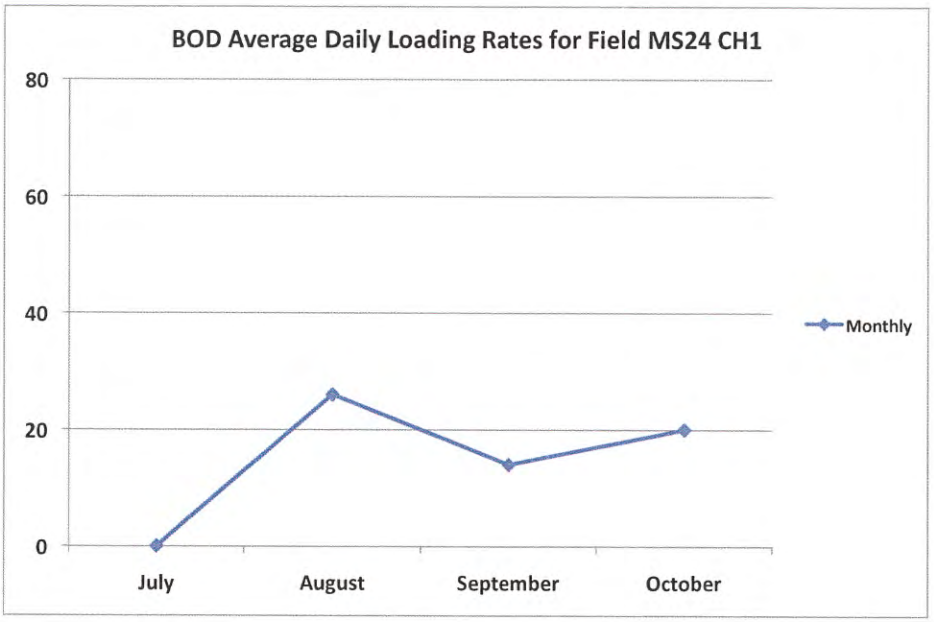

BOD Average Daily Loading Rates for Field MS18 CH1
80
60
40
20
0
July
August
September
October
Monthly

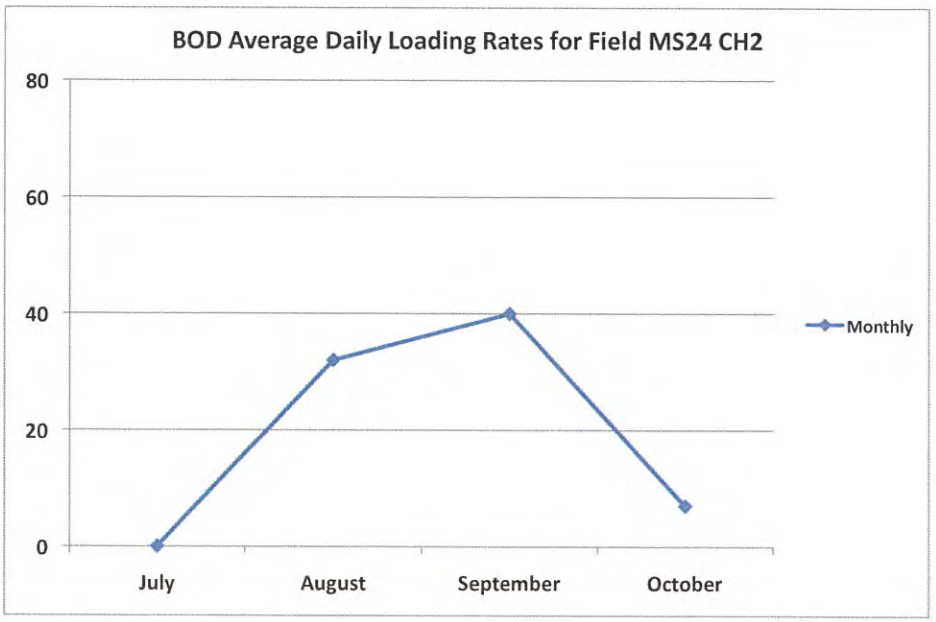

BOD Average Daily Loading Rates for Field MS18 CH2
80
60
40
20
0
July
August
September
October
Monthly

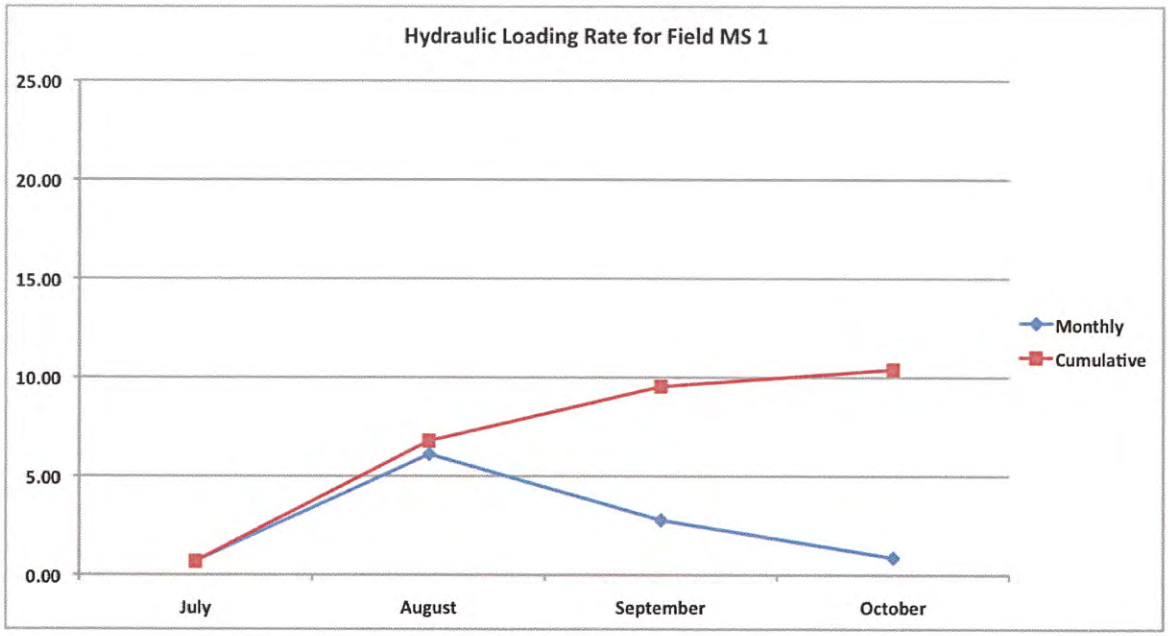

BOD Average Daily Loading Rates for Field MS20 CH1
80
60
40
20
0
July
August
September
October
Monthly

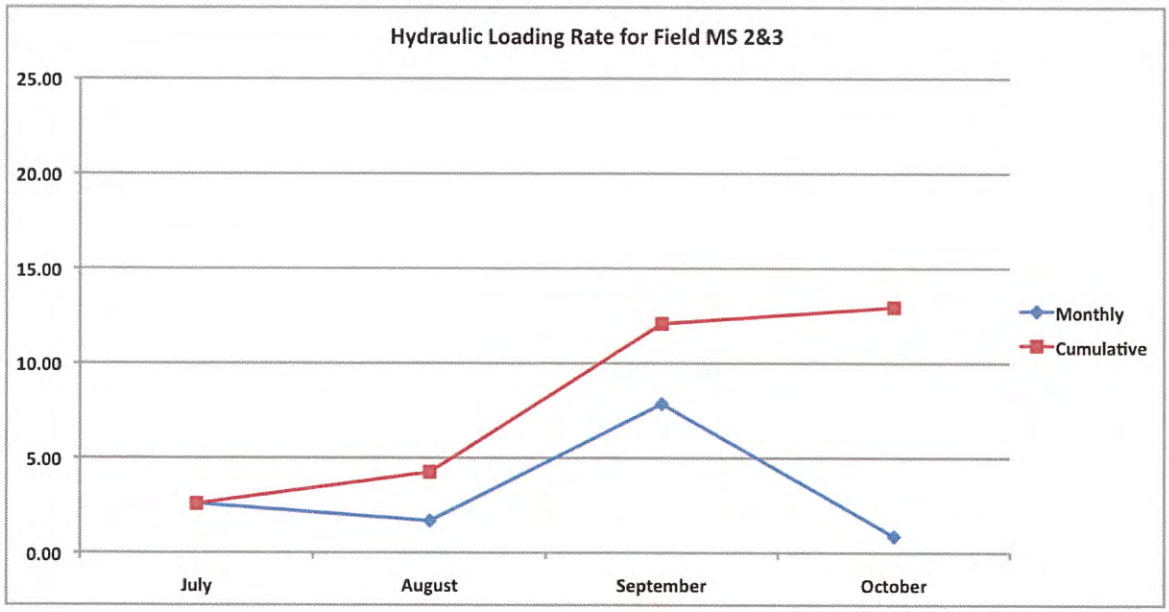

BOD Average Daily Loading Rates for Field MS20 CH2
80
60
40
20
0
July
August
September
October
Monthly


BOD Average Daily Loading Rates for Field MS21
80
60
40
20
0
July
August
September
October
Monthly


BOD Average Daily Loading Rates for Field MS24 CH1
80
60
40
20
0
July
August
September
October
Monthly


BOD Average Daily Loading Rates for Field MS24 CH2
80
60
40
20
0
July
August
September
October
Monthly


Hydraulic Loading Rate for Field MS 1
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 2&3
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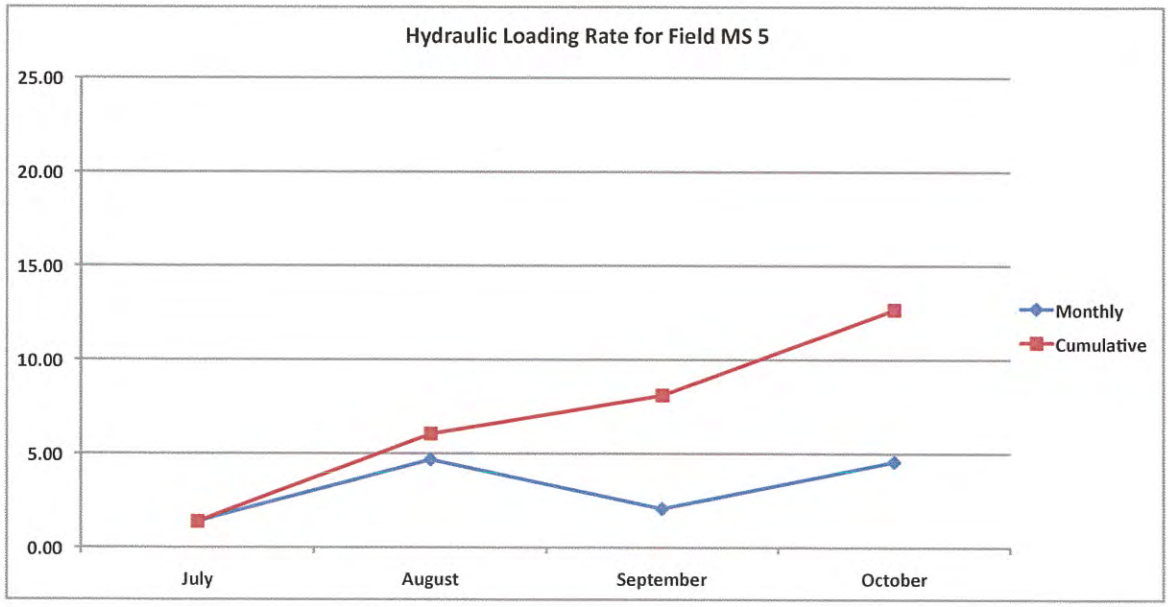
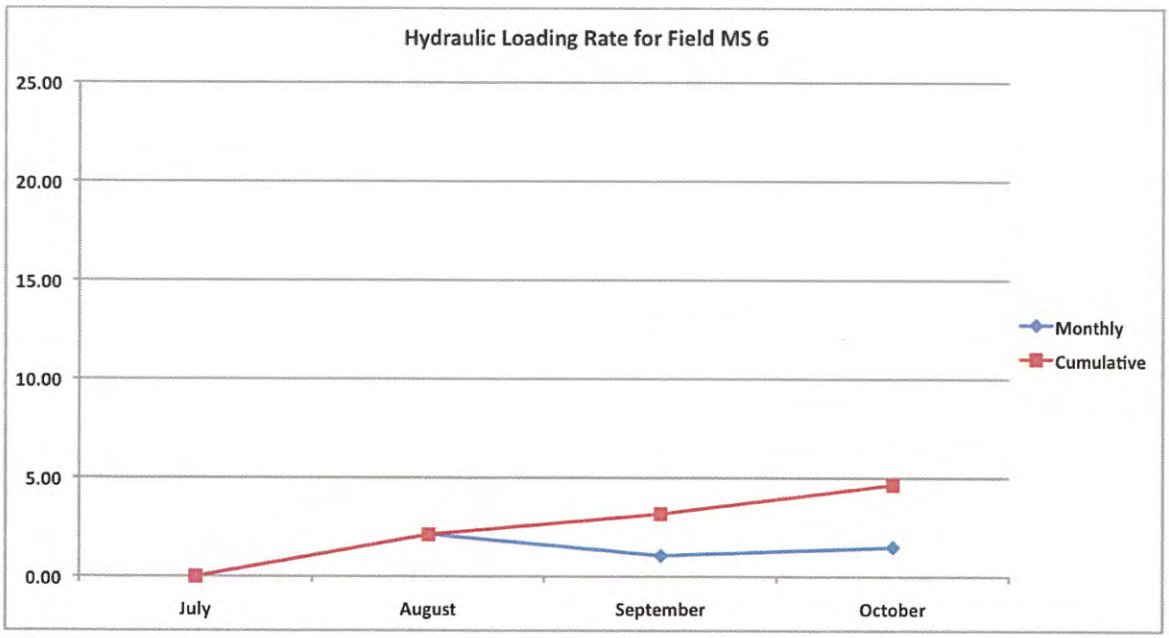
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 5
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 6
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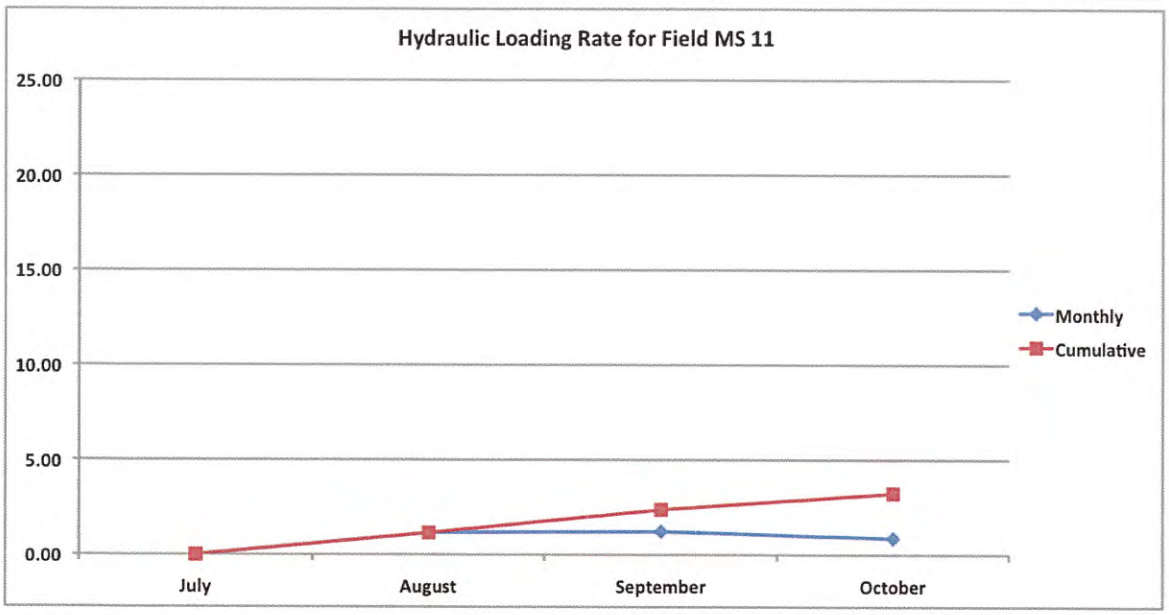
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 11
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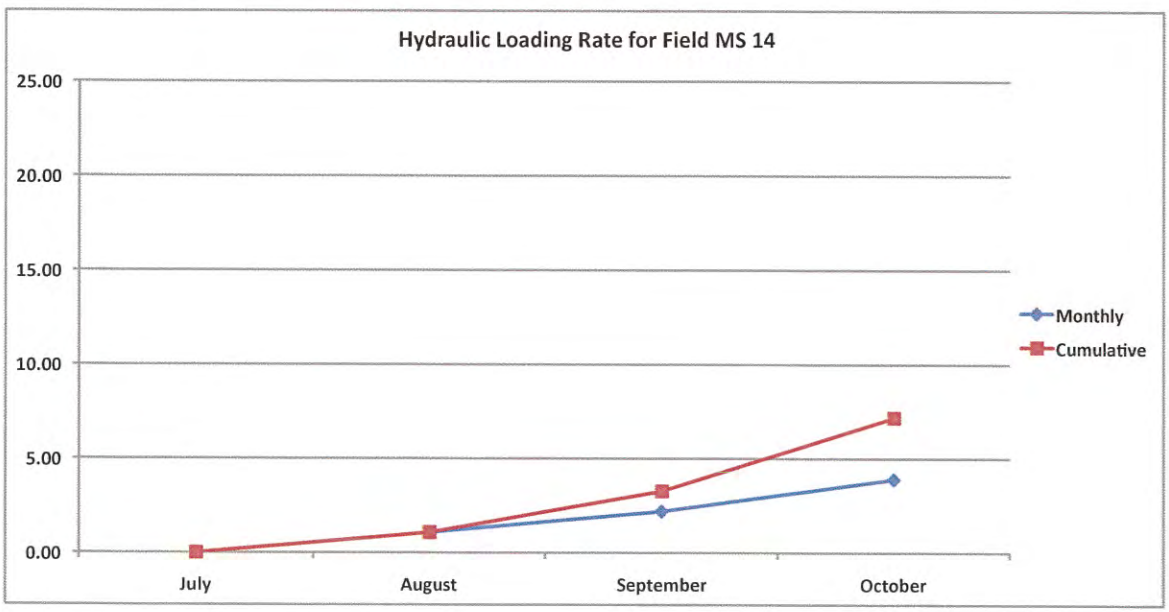
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 14
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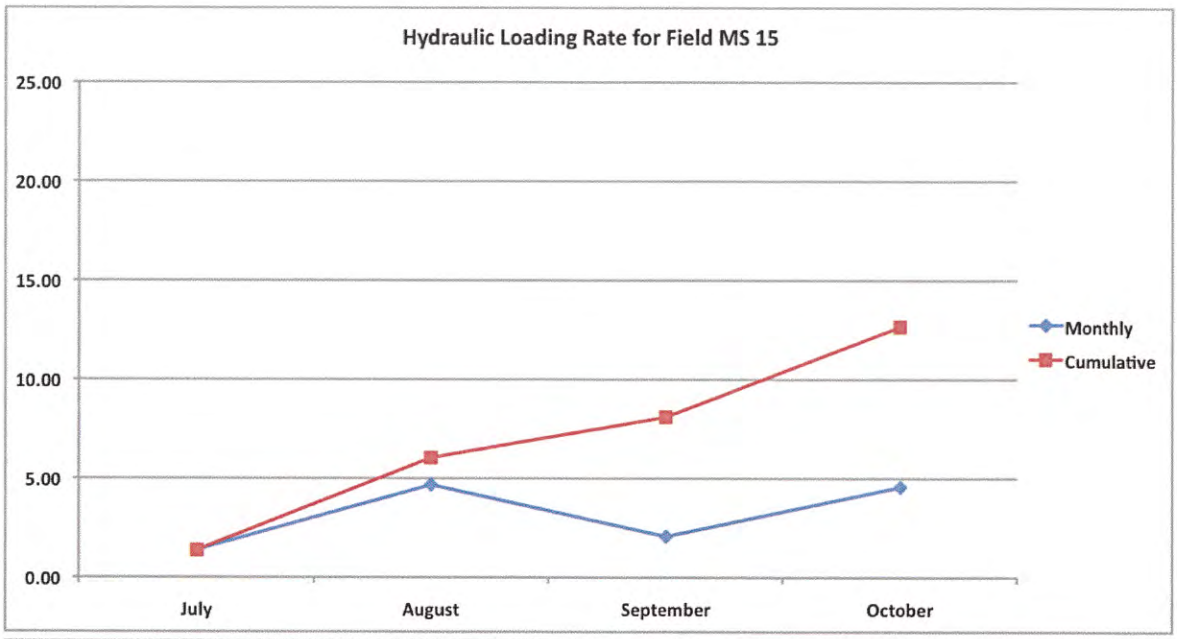
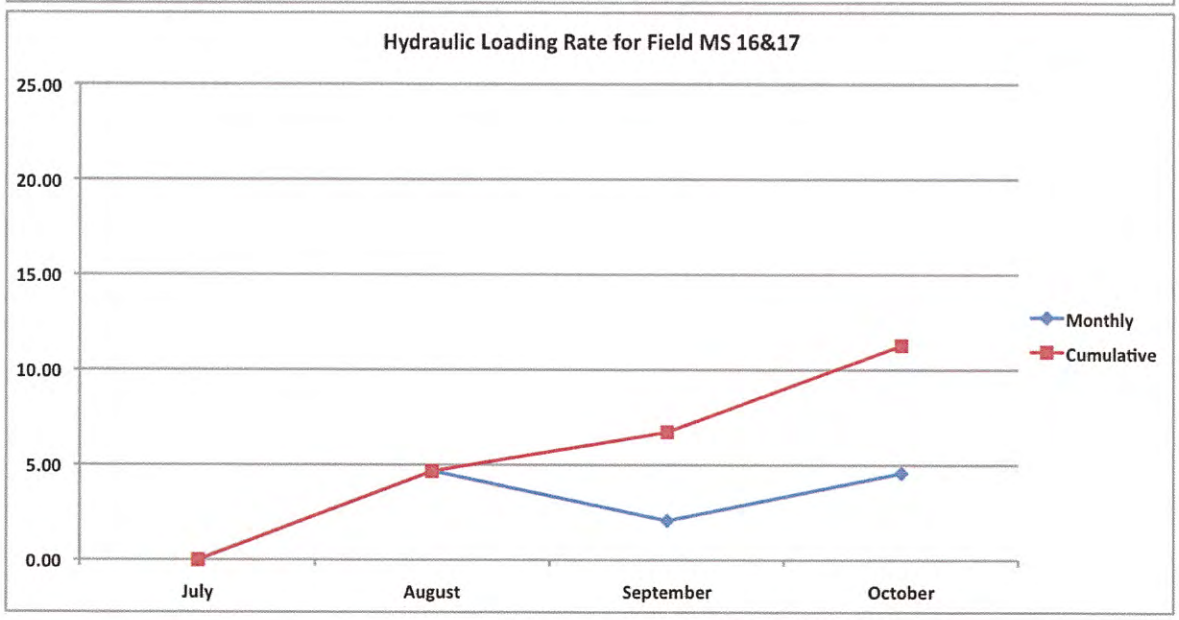
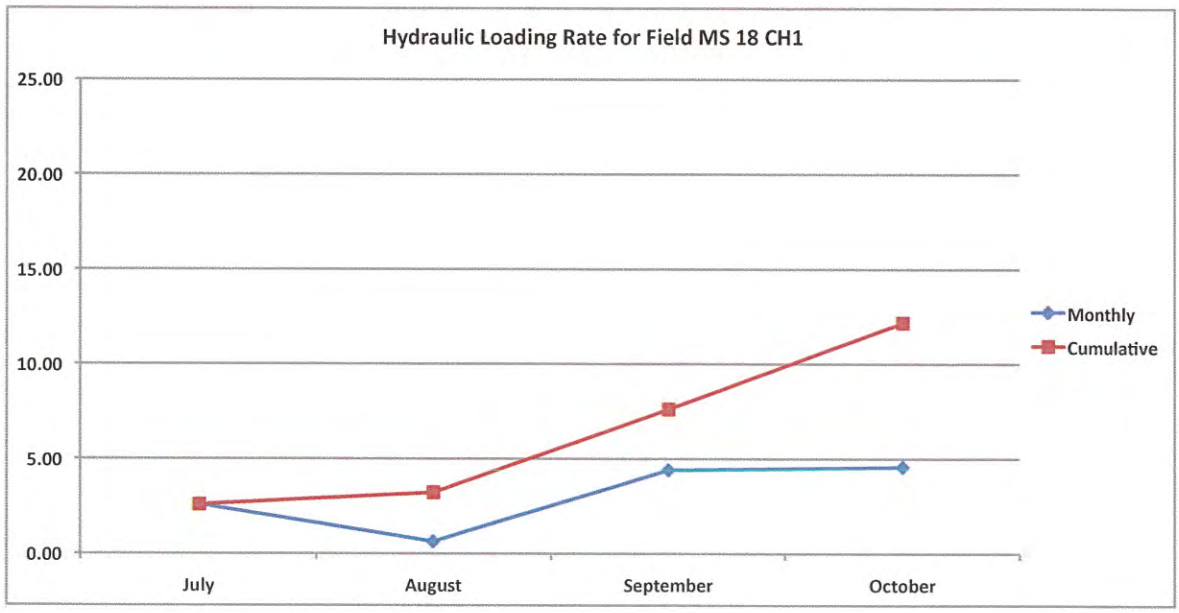
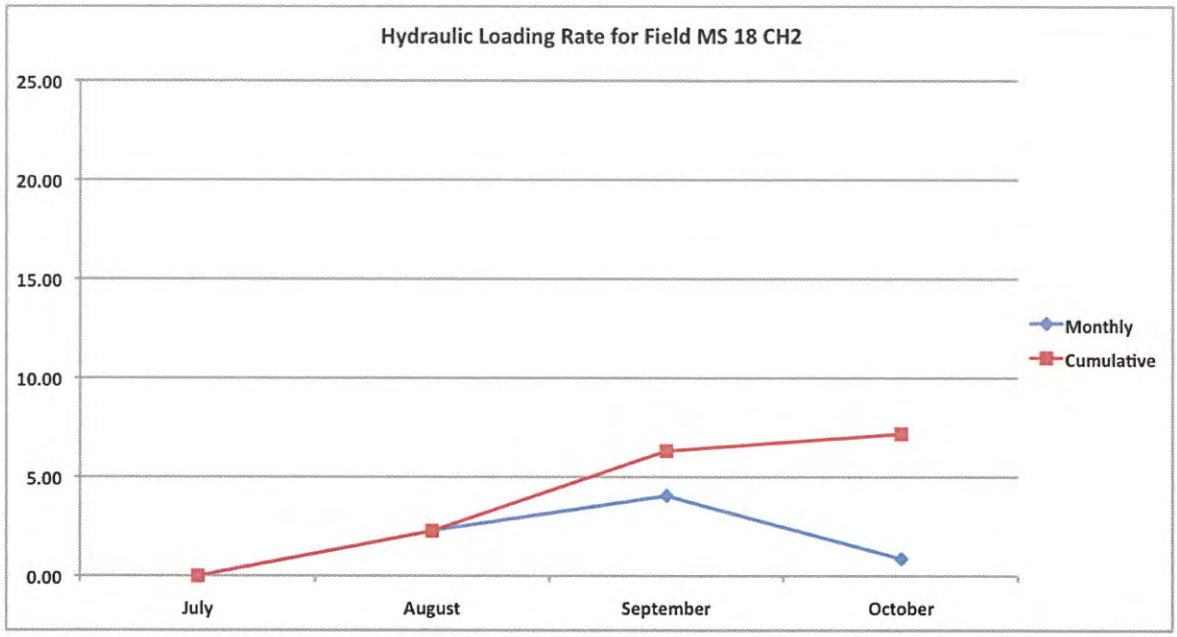
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 15
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 16&17
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 18 CH1
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 18 CH2
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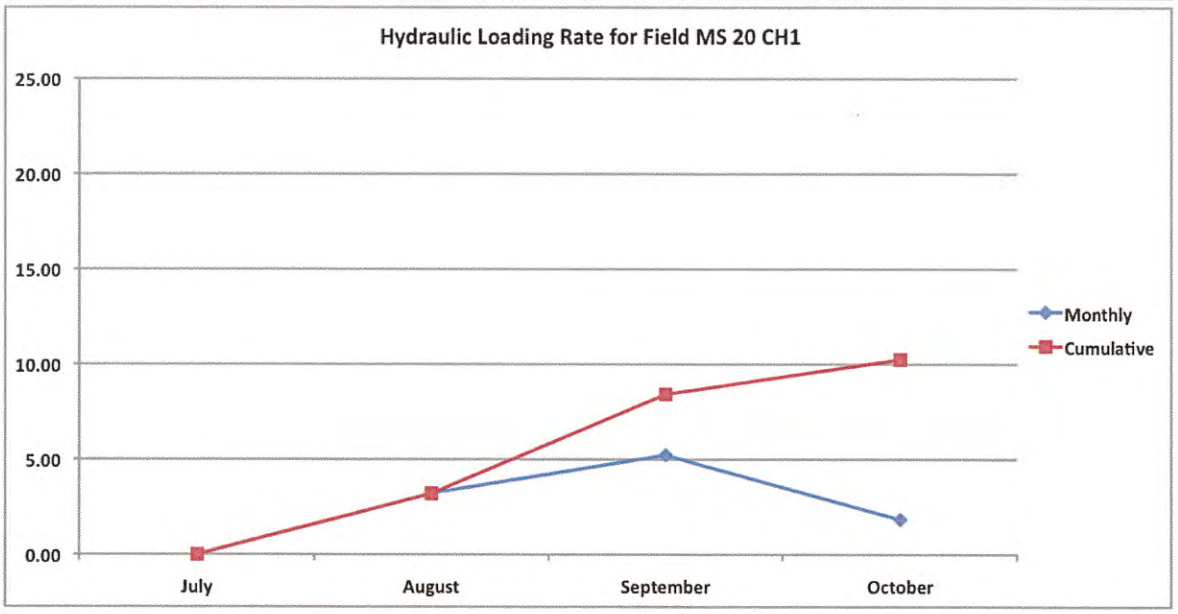
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 20 CH1
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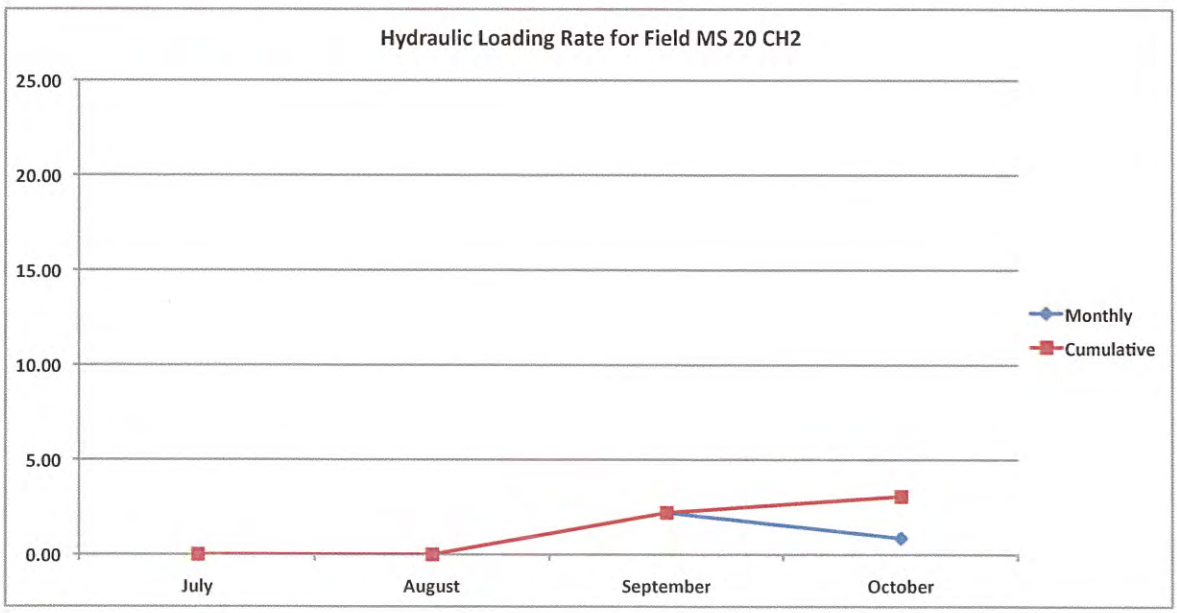
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 20 CH2
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20.00
15.00
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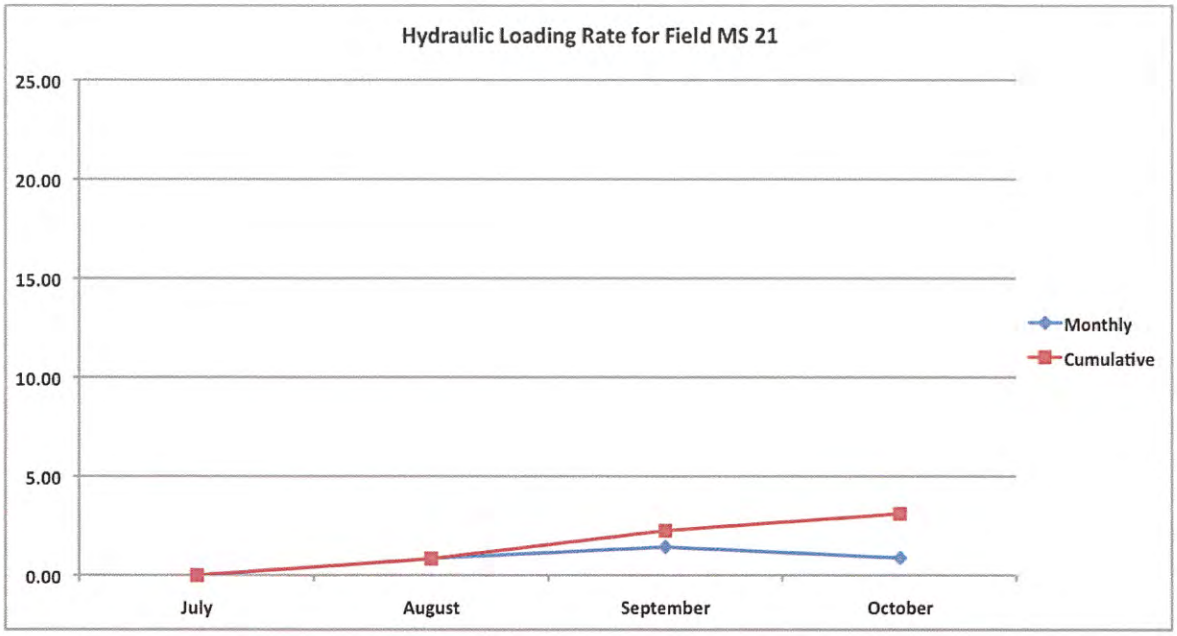
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 21
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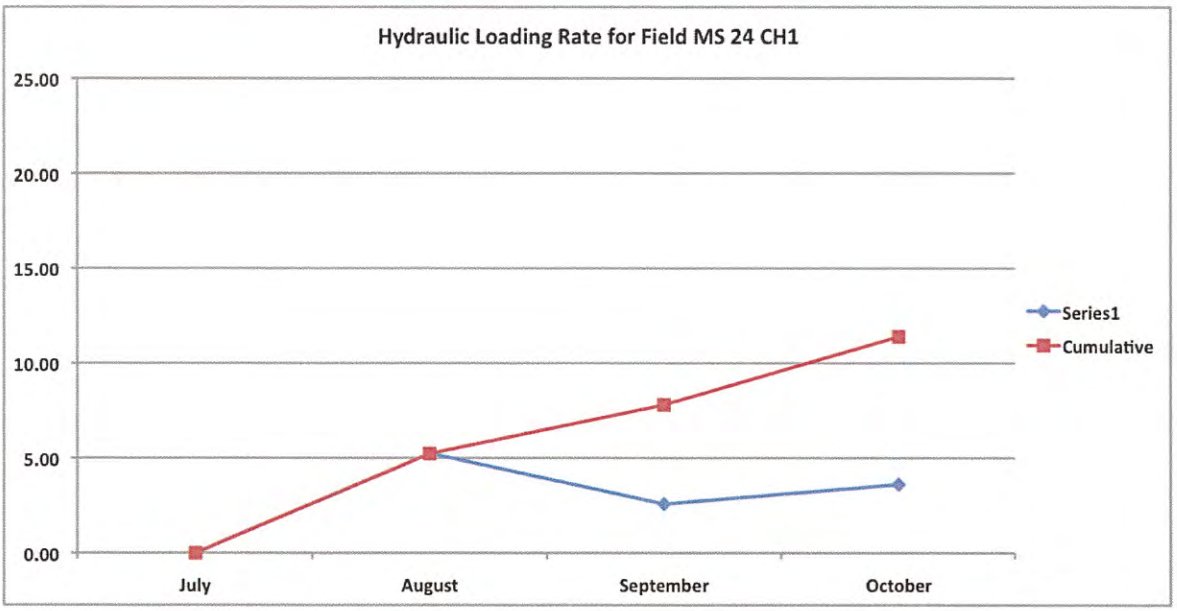
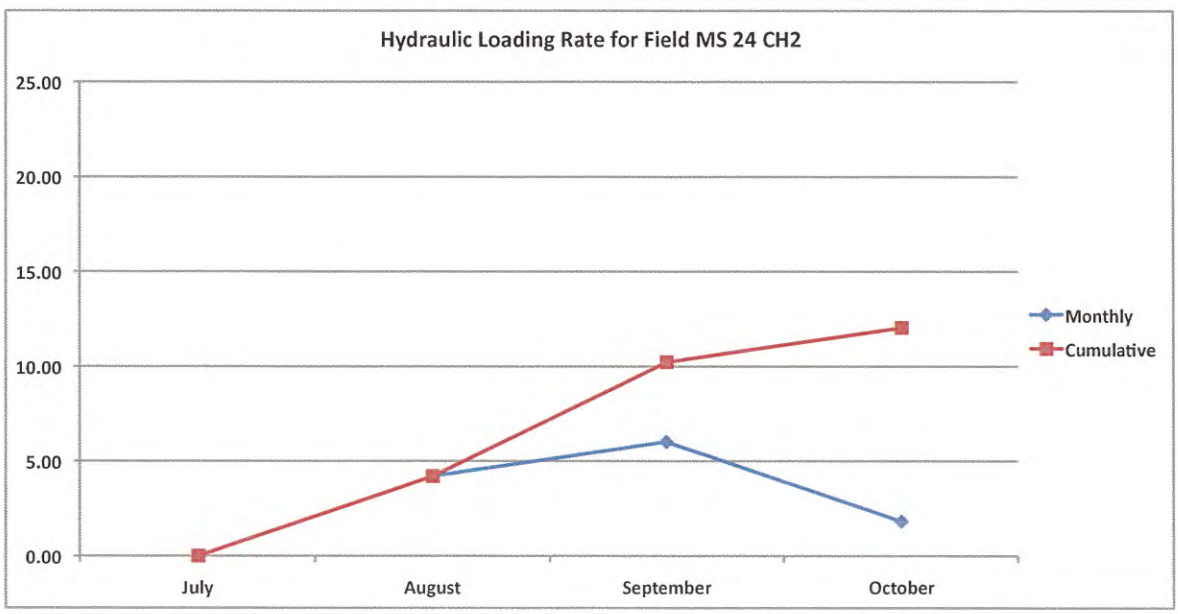
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative


Hydraulic Loading Rate for Field MS 24 CH1
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Series1
Cumulative


Hydraulic Loading Rate for Field MS 24 CH2
25.00
20.00
15.00
10.00
5.00
0.00
July
August
September
October
Monthly
Cumulative

THE MORNING STAR PACKING COMPANY
2211 Old Highway 99, Williams, CA 95987

30 January 2013

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

Dear Mr. Childs,

The soil sampling data will be available within the next two weeks. Results and analysis will be provided in a separate report by 2013 February 28.

Respectfully yours,

Ross Oliveira

Monthly Hydraulic Loading for 2012					
Reclamation Area	Crop	Month	Etc[1] (in)	Hydraulic Loading (in)	Deep Percolation (in)
MS 1	Sudan	July	8.12	0.69	-7.43
		August	7.84	6.10	-1.74
		September	5.08	2.76	-2.32
		October	3.48	0.86	-2.62
MS 2&3	Sudan	July	8.12	2.59	-5.53
		August	7.84	1.67	-6.17
		September	5.08	7.84	2.76
		October	3.48	0.86	-2.62
MS 5	Pasture	July	9.05	1.38	-7.67
		August	8.14	4.67	-3.47
		September	5.91	2.06	-3.85
		October	3.84	4.56	0.72
MS 6	Sudan	July	8.12	0.00	-8.12
		August	7.84	2.13	-5.71
		September	5.08	1.05	-4.03
		October	3.48	1.48	-2.00
MS 11	Alfalfa	July	9.18	0.00	-9.18
		August	8.14	1.16	-6.98
		September	5.91	1.22	-4.69
		October	3.84	0.86	-2.98
MS 14	Alfalfa/Grass	July	7.27	0.00	-7.27
		August	6.98	1.08	-5.90
		September	5.45	2.20	-3.25
		October	3.59	3.90	0.31
MS 15	Pasture	July	9.05	1.38	-7.67
		August	8.14	4.67	-3.47
		September	5.91	2.06	-3.85
		October	3.84	4.56	0.72
MS 16 & 17	Pasture	July	9.05	0.00	-9.05
		August	8.14	4.67	-3.47
		September	5.91	2.06	-3.85
		October	3.84	4.56	0.72
MS 18 ch1	Pasture	July	9.05	2.59	-6.46
		August	8.14	0.63	-7.51
		September	5.91	4.40	-1.51
		October	3.84	4.56	0.72
MS 18 ch2	Pasture	July	9.05	0.00	-9.05
		August	8.14	2.28	-5.86
		September	5.91	4.04	-1.87
		October	3.84	0.86	-2.98
MS 20 ch1	Sudan	July	8.12	0.00	-8.12
		August	7.84	3.21	-4.63
		September	5.08	5.22	0.14
		October	3.48	1.83	-1.65
MS 20 ch2	Sudan	July	8.12	0.00	-8.12
		August	7.84	0.00	-7.84
		September	5.08	2.21	-2.87
		October	3.48	0.86	-2.62
MS 21	Alfalfa	July	9.18	0.00	-9.18
		August	8.14	0.84	-7.30
		September	5.91	1.42	-4.49
		October	3.84	0.86	-2.98
MS 24 ch1	Pasture	July	9.05	0.00	-9.05
		August	8.14	5.24	-2.90
		September	5.91	2.57	-3.34
		October	3.84	3.60	-0.24
MS 24 ch2	Pasture	July	9.05	0.00	-9.05
		August	8.14	4.21	-3.93
		September	5.91	6.02	0.11
		October	3.84	1.82	-2.02

1 Etc caclulated using the method prescribed in the FAO Irrigation and Drainage Paper 56

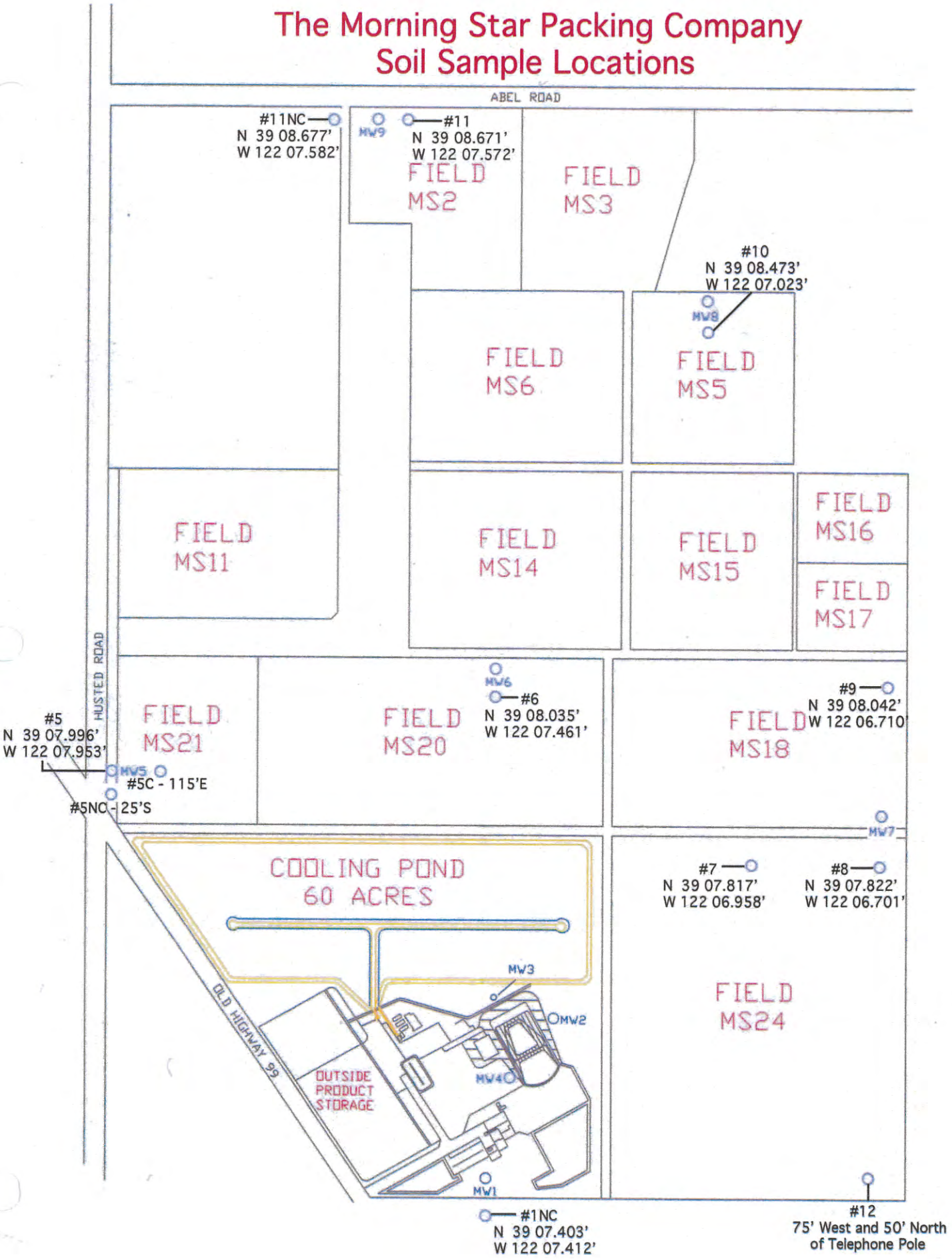
Field	Crop	Plant Date	Harvest Date
MS1	Sudan	3/24/12	9/24/12
MS2,3	Sudan	3/24/12	5/29/12, 9/24/12
MS5	Pasture	11/5/08	Grazed
MS6	Sudan	3/24/12	5/29/12, 9/24/12
MS11	Alfalfa	5/1/09	5/29/12, 6/18/12, 7/23/12, 8/24/12, 9/24/12
MS14	Alfalfa/Grass	4/30/07	5/29/12, 7/23/12, 8/24/12
MS15	Pasture	4/30/07	Grazed
MS16	Pasture	4/30/07	Grazed
MS17	Pasture	4/30/07	Grazed
MS18	Pasture	4/30/07	5/29/12, 7/23/12, Grazed
MS20	Sudan	3/24/12	5/29/12, 9/24/12
MS21	Alfalfa	3/15/10	5/29/12, 6/18/12, 7/23/12, 8/24/12, 9/24/12
MS24	Pasture	4/30/07	5/29/12, 7/23/12, Grazed

Crops	Nitrogen Requirements
Corn	230
Alfalfa	350
Fallow	0
Sudan	230
Pasture	136

Pasture Nitrogen Requirement	150	lbs/acre
Pasture Acres	326	acres
Pasture Cattle AU (Heifers - 50 head, 0.7 AU/head)	35	AU
Days on Pasture	106	days
Pasture Cattle AU (Cow/calf - 24 head, 1.2 AU/head)	28.8	AU
Days on Pasture	119	days
Pasture Cattle AU (Cow/calf - 161 head, 1.2 AU/head)	193.2	AU
Days on Pasture	35	days
Nitrogen Excreted	0.33	lbs/AU/day
Nitrogen Excreted per Season	4587	lbs
Nitrogen Excreted per Season per Acre	14	lbs/acre
Net Nitrogen Requirement	**136**	**lbs/acre**

Reclamation Area	Crop	Nutrient Loadings		Crop Root Uptake	Balance
		Nitrogen (lbs/acre)	TDS (lbs/acre)	Nitrogen (lbs/acre)	Nitrogen (lbs/acre)
MS 1	Sudan	171	2,329	230	-59
MS 2&3	Sudan	328	2,713	230	98
MS 5	Pasture	194	3,417	120	74
MS 6	Sudan	105	1,070	230	-125
MS 11	Alfalfa	52	654	350	-298
MS 14	Alfalfa/Grass	200	1,768	290	-90
MS 15	Pasture	194	3,417	136	58
MS 16 & 17	Pasture	168	3,092	136	32
MS 18 ch1	Pasture	217	3,010	136	81
MS 18 ch2	Pasture	112	1,566	136	-24
MS 20 ch1	Sudan	256	2,105	230	26
MS 20 ch2	Sudan	74	506	230	-156
MS 21	Alfalfa	49	525	350	-301
MS 24 ch1	Pasture	181	2,815	136	45
MS 24 ch2	Pasture	229	2,854	136	93
	AVERAGE		2,123		-36

The Morning Star Packing Company
Soil Sample Locations



THE MORNING STAR PACKING COMPANY
2211 Old Highway 99, Williams, CA 95987

30 January 2013

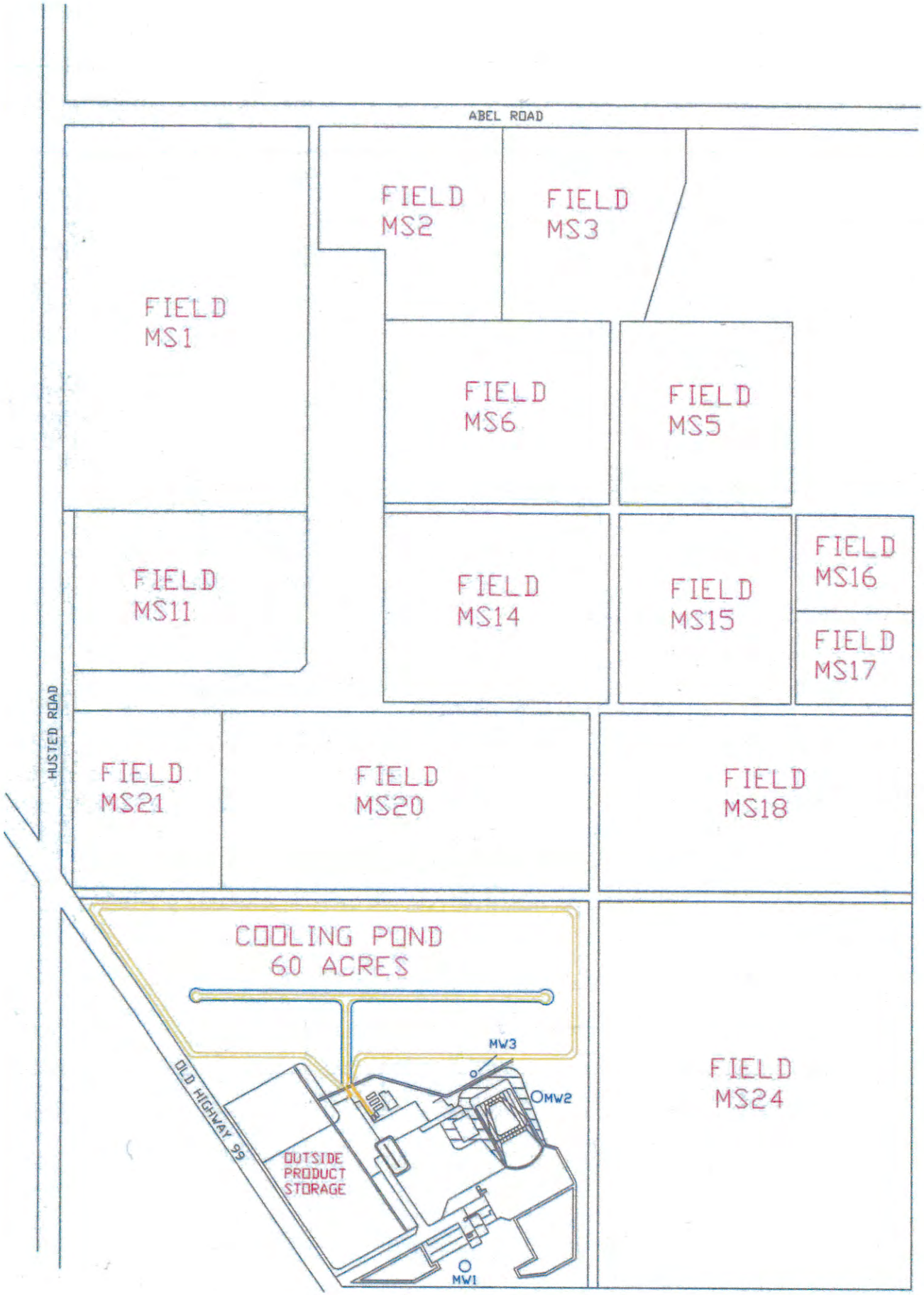
Mr. Guy Childs
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Dear Mr. Childs,

The soil sampling data will be available within the next two weeks. Results and analysis will be provided in a separate report by 2013 February 28.

Respectfully yours,

Ross Oliveira


ABEL ROAD
FIELD MS1
FIELD MS2
FIELD MS3
FIELD MS6
FIELD MS5
FIELD MS11
FIELD MS14
FIELD MS15
FIELD MS16
FIELD MS17
FIELD MS21
FIELD MS20
FIELD MS18
FIELD MS24
HUSTED ROAD
COOLING POND
60 ACRES
MW3
MW2
MW1
OUTSIDE PRODUCT STORAGE
OLD HIGHWAY 99

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
Aug-95	8.1	583	1.1	1.80	5.9	1,520	0.7	5.80
Sep-95	8.1	625	7.3	2.00	5.2	1,340	0.6	6.70
Oct-95	8.1	689	7.9	1.80	6.5	1,290	2.2	8.00
Nov-95	8.0	714	8.0	2.90				
Jan-96	8.3	686	6.3					
Feb-96	8.1	660	8.4					
Mar-96	7.9	641	9.8					
Apr-96	8.5	646	7.3					
May-96	8.7	707	8.3					
Jun-96	8.6	793	7.7	5.10				
Jul-96	8.5	498	8.0	2.34	5.7	1,080	2.2	5.61
Aug-96	8.2	522	2.5	2.25	5.6	1,480	0.6	5.43
Sep-96	7.6	512	6.8	1.70	6.3	1,070	3.3	5.70
Oct-96	8.6	509	6.0	2.30	6.9	1,560	0.5	7.56
Nov-96	8.7	553	12.6	4.02				8.10
Dec-96	8.9	553	13.1	3.97				7.98
Jan-97	8.9	472	14.7	3.71	8.0	1,870	3.7	9.37
Feb-97	7.8	502	8.2	3.92				
Mar-97	8.6	515	7.4	4.26				
Apr-97	7.9	570	9.1	4.58				
May-97	7.6	627	2.0	5.38				
Jun-97	8.5	391	10.0	2.38				
Jul-97	8.1	454	1.9	2.23	5.5	1,090	3.6	6.24
Aug-97	8.3	479	11.2	2.40	6.3	1,010	2.2	5.47
Sep-97	8.6	490	6.0	2.53	6.4	1,080	1.9	5.35
Oct-97	9.4	521	7.8	3.38	6.2	2,160	0.0	6.57
Nov-97	7.6	553	7.2	4.21				6.11
Dec-97	8.0	517	8.3	4.03	7.4	2,920	0.9	9.40
Jan-98	7.8	516	6.6	3.94	7.6	1,390	1.8	11.60
Feb-98	7.6	425	10.1	3.57				
Mar-98	7.3	451	9.1	3.67				
Apr-98	7.7	467	9.0	3.98				
May-98	8.4	479	10.2	4.13				
Jun-98	8.3	463	8.3	4.20				
Jul-98	8.1	451	8.2	3.78				
Aug-98	8.8	411	8.3	2.56	6.3	7,750	2.7	5.45
Sep-98	7.6	447	2.5	2.28	5.9	1,190	0.0	
Oct-98	7.9	465	5.1	2.22	6.4	1,290	1.8	5.69

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
Nov-98	8.2	495	10.5	3.44				
Dec-98	8.4	465	11.7	3.51				
Jan-99	8.4	458	13.0	3.89				
Feb-99	8.2	490	9.8	3.86				
Mar-99	7.8	513	8.1	4.01				
Apr-99	8.1	539	8.0	3.90				
May-99	8.3	630	7.6	5.15				
Jun-99	8.3	455	9.9	3.05				
Jul-99	9.4	449	10.4	3.43				
Aug-99	7.8	364	3.6	2.14	5.0	1,420	1.3	5.68
Sep-99	7.6	325	0.9	2.08	5.2	1,270	0.0	5.42
Oct-99	7.4	298	0.7	2.14	6.5	1,080	3.0	5.74
Nov-99	6.8	369	6.3	2.73				
Dec-99	7.6	318	7.0	2.94				
Jan-00	8.2	313	10.0	3.28				
Feb-00	7.6	342	6.1	2.88				
Mar-00	8.0	342	9.1	2.76				
Apr-00	7.7	366	5.1	3.37				
May-00	8.1	384	10.0	3.87				
Jun-00	9.4	360	10.0	3.38				
Jul-00	8.7	291	6.1	2.58	4.1	1,400	1.1	5.48
Aug-00	7.8	313	2.4	1.94	5.5	1,220	1.3	5.47
Sep-00	7.5	311	1.8	1.70	5.3	1,340	0.6	5.50
Oct-00	7.2	303	1.7	1.84	5.1	2,520	0.0	8.51
Nov-00	7.4	318	9.4	3.87				
Dec-00	8.0	317	14.9	3.58				
Jan-01	7.0	324	9.0	3.55				
Feb-01	6.8	344	8.4	3.58				
Mar-01	7.3	404	7.0	3.36				
Apr-01								
May-01	7.7	430	7.8	3.83				
Jun-01	7.7	378	11.1	3.47				
Jul-01	7.2	417	8.2	2.98				
Aug-01	8.1	378	6.0	1.63	6.0	1,320	1.9	4.62
Sep-01	7.5	361	2.2	1.68	5.8	1,290	1.9	4.60
Oct-01	7.6	388	3.5	1.82	7.7	834	4.0	
Nov-01	8.3	366	9.5	2.64				
Dec-01	7.4	389	5.3	2.57				
Jan-02	7.7	374	8.7	2.49				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
Feb-02	7.5	383	10.0	3.28				
Mar-02	8.1	395	8.8	4.02				
Apr-02	8.2	425	9.9	4.50				
May-02	7.5	470	7.5	3.90				
Jun-02	8.3	353	8.3	3.06				
Jul-02	8.3	405	6.7	3.87				
Aug-02	7.5	357	1.3	2.00	4.8	1,230	0.4	4.86
Sep-02	7.9	328	2.4	1.80	5.0	1,420	2.7	4.81
Oct-02	7.4	328	2.4	2.14				
Nov-02	7.6	335	9.0	3.16				
Dec-02	7.1	335	8.5	3.52				
Jan-03	6.9	351	6.8	3.08				
Feb-03	6.9	368	6.6	3.10				
Mar-03	8.1	356	9.1	3.00				
Apr-03	6.6	367	9.3	2.90				
May-03	7.0	440	8.5	2.85				
Jun-03	7.8	381	9.5	2.72				
Jul-03	8.0	373	7.6	2.78				
Aug-03	7.0	364	2.4	1.39	6.9	888	3.3	4.79
Sep-03	7.7	381	5.7	1.68	9.2	743	0.0	4.82
Oct-03	9.4	396	8.7	3.65				
20-Nov-03	8.9	445	9.8	2.90				
22-Dec-03	8.3	388	3.7	3.65				
30-Dec-03	7.6	366	6.1	3.00				
5-Jan-04	7.8	356	5.9	3.00				
12-Jan-04	7.2	363	6.9	3.00				
19-Jan-04	7.6	365	5.1	3.00				
26-Jan-04	7.6	368	5.4	3.00				
2-Feb-04	7.4	364	5.8	3.00				
9-Feb-04	7.2	358	8.2	2.98				
17-Feb-04	6.8	315	7.8	2.96				
23-Feb-04	7.3	350	5.2	2.88				
1-Mar-04	7.2	324	7.4	2.92				
8-Mar-04	7.4	349	6.7	2.75				
15-Mar-04	6.6	357	7.2	2.92				
22-Mar-04	7.1	363	6.5	3.00				
29-Mar-04	7.0	366	7.1	2.83				
5-Apr-04	7.2	369	7.8	3.42				
12-Apr-04	7.3	391	9.8	3.42				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
19-Apr-04	7.2	392	8.4	3.33				
26-Apr-04	7.3	387	8.9	3.83				
3-May-04	7.4	402	11.4	3.92				
10-May-04	7.6	427	11.6	4.00				
17-May-04	6.7	440	4.7	4.00				
24-May-04	7.7	452	8.8	4.17				
1-Jun-04	7.5	433	7.4	3.08				
7-Jun-04	7.6	336	9.4	2.83				
14-Jun-04	7.1	380	7.0	2.92				
21-Jun-04	7.2	398	7.1	3.00				
28-Jun-04	8.0	434	6.3	4.25				
6-Jul-04	7.4	399	5.7	4.25				
12-Jul-04	7.8	376	2.1	3.08	4.0	1,041	5.2	4.42
19-Jul-04	6.9	417	0.4	2.33	3.9	1,081	4.8	4.08
26-Jul-04	7.0	415	1.2	2.25	4.0	1,056	0.0	4.17
3-Aug-04	7.4	414	1.1	2.04	4.3	999	0.6	4.25
9-Aug-04	8.2	392	1.4	2.00	4.9	1,001	0.7	4.04
17-Aug-04	8.0	394	2.8	2.08	4.7	1,135	0.3	4.00
23-Aug-04	7.1	412	2.8	2.17	5.1	965	0.6	4.00
30-Aug-04	8.0	400	0.5	2.13	5.5	1,160	1.0	4.00
8-Sep-04	7.2	388	1.3	2.00	4.2	1,380	1.4	4.58
13-Sep-04	7.1	391	1.0	2.00	4.0	1,541	2.8	4.58
20-Sep-04	7.3	380	1.2	2.00	5.1	1,360	5.7	4.58
27-Sep-04	7.0	369	0.9	2.00	5.6	1,177	2.2	4.58
6-Oct-04	6.8	377	2.0	1.73				
11-Oct-04	7.3	371	5.5	1.92				
19-Oct-04	7.4	368	5.2	2.00				
2-Nov-04	7.1	365	8.3	2.92				
8-Nov-04	8.3	360	8.2	3.08				
15-Nov-04	9.0	350	9.7	3.25				
22-Nov-04	8.9	351	9.0	3.42				
29-Nov-04	7.4	341	8.4	3.42				
6-Dec-04	8.2	351	8.1	3.50				
13-Dec-04	7.1	352	6.9	3.42				
20-Dec-04	8.2	340	9.3	3.46				
27-Dec-04	7.0	319	9.1	3.46				
3-Jan-05	6.8	300	9.0	2.58				
10-Jan-05	7.0	310	9.2	2.29				
17-Jan-05	9.1	327	11.3	2.21				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
24-Jan-05	9.0	318	9.8	2.27				
31-Jan-05	9.1	324	9.4	2.29				
7-Feb-05	9.0	332	9.4	2.25				
14-Feb-05	6.9	388	3.7	2.50				
22-Feb-05	6.5	346	5.2	2.42				
28-Feb-05	6.1	361	4.1	2.33				
7-Mar-05	6.8	378	5.4	2.46				
15-Mar-05	7.0	365	6.2	2.58				
21-Mar-05	6.8	377	6.6	2.67				
28-Mar-05	6.8	383	7.2	2.75				
4-Apr-05	7.0	367	6.8	2.79				
11-Apr-05	6.8	372	7.2	2.83				
18-Apr-05	7.0	404	8.0	3.08				
25-Apr-05	6.8	387	7.8	3.17				
2-May-05	6.8	402	7.6	3.42				
9-May-05	6.8	391	7.2	3.42				
16-May-05	7.0	522	8.0	3.50				
24-May-05	7.9	412	9.2	3.58				
30-May-05	7.5	427	9.2	3.63				
6-Jun-05	7.4	450	7.3	4.00				
13-Jun-05	7.4	435	8.5	4.00				
20-Jun-05	7.2	438	8.2	4.00				
27-Jun-05	7.0	398	8.2	2.58				
6-Jul-05	7.4	424	7.7	3.04				
11-Jul-05	7.2	422	7.6	3.00				
18-Jul-05	8.1	413	8.0	2.42	4.3	1,098	2.1	3.71
25-Jul-05	7.2	417	1.6	2.25	3.8	1,044	2.0	4.17
1-Aug-05	8.0	432	2.1	2.25	3.8	986	1.8	3.75
8-Aug-05	8.1	443	2.2	2.25	4.6	987	1.2	3.67
15-Aug-05	7.6	458	3.6	2.21	5.5	830	2.8	3.67
22-Aug-05	8.0	468	2.8	2.17	5.5	846	1.2	3.71
29-Aug-05	7.5	480	4.4	2.17	5.7	857	2.8	3.67
7-Sep-05	7.0	489	3.9	2.17	5.1	830	4.2	3.92
12-Sep-05	7.3	493	4.7	2.25	6.1	786	4.0	3.83
19-Sep-05	7.4	502	3.6	2.25	6.1	743	2.8	3.83
26-Sep-05	8.0	498	6.7	2.33	6.9	927	1.4	4.08
3-Oct-05	7.4	515	2.0	2.25	6.5	718	4.3	3.75
12-Oct-05	7.5	532	6.1	2.50				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
18-Oct-05	7.8	519	6.8	2.50				
3-Nov-05	7.1	540	3.3	2.83				
7-Nov-05	7.2	560	4.1	2.88				
15-Nov-05	7.2	527	8.4	3.00				
21-Nov-05	6.9	518	7.2	3.08				
28-Nov-05	6.8	516	6.8	3.08				
5-Dec-05	7.0	509	6.8	3.13				
12-Dec-05	6.8	523	6.2	3.17				
20-Dec-05	6.8	541	6.0	3.17				
28-Dec-05	6.8	564	6.4	3.08				
2-Jan-06	6.4	440	6.8	2.70				
9-Jan-06	6.7	463	6.6	2.70				
16-Jan-06	6.4	468	6.4	2.70				
23-Jan-06	7.0	479	6.8	2.70				
30-Jan-06	6.8	468	6.4	2.80				
7-Feb-06	6.9	490	6.8	2.90				
13-Feb-06	6.9	490	6.4	2.90				
20-Feb-06	6.5	491	6.8	2.90				
1-Mar-06	6.6	485	7.0	3.00				
6-Mar-06	6.8	465	6.8	3.00				
13-Mar-06	6.9	434	6.7	3.00				
21-Mar-06	6.6	465	6.8	2.90				
27-Mar-06	6.6	440	6.6	3.00				
4-Apr-06	6.7	400	6.9	2.80				
10-Apr-06	6.7	435	6.8	2.90				
17-Apr-06	7.0	425	7.0	2.80				
24-Apr-06	7.3	440	7.8	2.90				
1-May-06	7.2	446	8.2	3.10				
8-May-06	7.2	438	8.8	3.20				
15-May-06	7.2	424	9.0	3.40				
22-May-06	7.1	431	8.8	3.50				
29-May-06	7.2	440	9.0	3.60				
5-Jun-06	7.0	455	8.9	3.50				
12-Jun-06	6.9	460	8.8	3.00				
19-Jun-06	7.2	440	8.6	3.00				
26-Jun-06	6.8	480	8.4	2.90				
3-Jul-06	6.9	497	8.6	3.40				
10-Jul-06	7.3	560	8.8	3.30				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
17-Jul-06	7.7	368	9.8	2.40				
24-Jul-06	6.9	497	8.6	3.40				
31-Jul-06	8.7	483	2.9	2.00	6.0	1,158	1.8	3.40
6-Aug-06	9.0	483	2.0	2.00	4.5	883	1.0	3.00
14-Aug-06	8.4	494	1.1	2.10	6.7	698	1.0	4.10
21-Aug-06	9.0	500	1.3	2.10	6.0	600	1.0	4.30
28-Aug-06	9.0	529	4.9	2.00	6.6	717	1.2	3.70
4-Sep-06	8.0	548	1.0	2.10	5.5	638	1.8	3.80
11-Sep-06	7.8	564	1.1	2.00	5.7	747	1.4	3.60
18-Sep-06	7.9	595	1.8	2.00	6.8	677	1.3	4.00
25-Sep-06	7.9	618	4.1	2.20	6.7	780	1.3	4.20
2-Oct-06	7.7	629	1.6	2.00	6.8	689	1.3	4.00
8-Oct-06	7.4	630	2.9	2.00	6.4	755	1.4	4.10
16-Oct-06	7.8	664	5.5	1.90	6.5	780	1.4	3.50
23-Oct-06	8.5	660	9.3	2.00	6.3	830	2.2	3.30
30-Oct-06	7.4	634	3.1	2.00	6.4	687	2.2	3.30
6-Nov-06	6.9	601	3.3	2.10				
15-Nov-06	6.8	580	3.9	2.60				
20-Nov-06	7.0	629	4.3	2.70				
27-Nov-06	6.9	620	4.4	2.70				
4-Dec-06	6.7	622	4.6	2.70				
13-Dec-06	6.8	614	4.4	3.20				
18-Dec-06	6.8	610	4.0	3.20				
26-Dec-06	6.6	580	4.4	3.20				
2-Jan-07	6.8	590	4.6	2.96				
10-Jan-07	7.4	538	4.4	2.96				
15-Jan-07	7.6	578	4.6	3.00				
22-Jan-07	7.4	580	4.4	3.08				
30-Jan-07	7.3	576	4.6	3.08				
9-Feb-07	7.2	581	4.4	3.17				
12-Feb-07	6.8	580	4.8	3.17				
19-Feb-07	6.7	574	4.4	3.17				
26-Feb-07	6.9	585	4.7	3.25				
6-Mar-07	6.8	564	4.6	3.25				
12-Mar-07	6.8	545	4.4	3.25				
21-Mar-07	6.6	564	4.6	3.25				
26-Mar-07	6.4	610	4.8	3.50				
2-Apr-07	6.2	623	4.4	3.67				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
9-Apr-07	6.1	655	4.7	3.71				
16-Apr-07	6.4	683	4.8	3.58				
23-Apr-07	6.4	695	4.9	3.54				
1-May-07	6.3	665	4.8	3.67				
7-May-07	6.6	645	5.0	3.75				
14-May-07	6.7	630	4.9	3.75				
21-May-07	7.0	595	5.0	3.79				
29-May-07	7.4	642	5.1	4.00				
6-Jun-07	7.8	722	4.4	4.17				
11-Jun-07	7.5	290	7.7	3.08				
18-Jun-07	7.2	295	7.6	2.92				
25-Jun-07	7.2	301	7.4	2.92				
2-Jul-07	7.0	324	7.1	3.00				
11-Jul-07	6.9	376	3.7	3.00	6.8	612	9.1	5.90
16-Jul-07	4.8	374	2.7	2.60	4.2	632	1.7	4.20
23-Jul-07	7.5	380	2.1	2.30	4.5	544	1.0	4.10
30-Jul-07	8.1	574	1.5	2.00	4.8	961	1.0	4.20
6-Aug-07	7.6	403	1.5	2.20	5.0	716	1.8	4.20
13-Aug-07	7.7	411	1.3	2.10	5.6	531	1.5	4.20
20-Aug-07	7.9	408	1.1	2.00	5.7	601	1.9	4.20
27-Aug-07	8.1	417	1.1	2.10	5.4	662	1.7	4.20
3-Sep-07	7.4	424	1.1	2.10	5.1	690	1.6	4.30
10-Sep-07	7.3	426	2.9	2.00	5.1	696	1.8	4.30
17-Sep-07	8.4	435	4.1	2.00	5.5	637	1.7	4.10
24-Sep-07	7.9	433	5.7	2.00	5.6	620	2.0	4.30
1-Oct-07	8.6	439	3.3	2.00	5.1	632	3.3	4.30
6-Oct-07	7.7	635	3.8	2.30				
23-Oct-07	6.8	540	7.2	2.10				
30-Oct-07	7.6	610	4.0	2.20				
6-Nov-07	7.7	635	3.8	2.29				
13-Nov-07	7.6	645	3.6	2.58				
19-Nov-07	8.2	625	3.9	2.75				
26-Nov-07	8.1	632	3.7	2.92				
3-Dec-07	8.2	643	3.9	3.00				
10-Dec-07	8.3	652	3.8	3.04				
17-Dec-07	8.1	648	4.2	3.00				
26-Dec-07	8.0	637	3.9	3.00				
2-Jan-08	7.8	614	4.1	3.17				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
7-Jan-08	7.6	628	6.3	3.17				
14-Jan-08	7.6	633	6.6	3.17				
21-Jan-08	7.7	634	6.8	3.17				
28-Jan-08	7.4	640	6.6	2.67				
4-Feb-08	7.8	620	7.1	2.75				
11-Feb-08	8.3	599	8.0	2.83				
19-Feb-08	7.2	585	7.8	2.92				
25-Feb-08	6.8	533	7.4	2.92				
4-Mar-08	7.2	600	7.2	2.96				
10-Mar-08	7.4	612	7.3	3.04				
17-Mar-08	7.0	616	7.5	3.13				
24-Mar-08	7.2	628	7.6	3.21				
31-Mar-08	7.4	645	7.5	3.29				
7-Apr-08	7.5	652	7.4	3.42				
14-Apr-08	7.5	628	8.2	3.67				
21-Apr-08	7.5	672	7.7	3.75				
28-Apr-08	7.6	695	8.4	3.88				
5-May-08	7.0	689	8.2	3.83				
12-May-08	6.9	674	8.0	3.67				
19-May-08	7.0	666	7.8	3.67				
27-May-08	7.0	648	7.4	3.67				
3-Jun-08	7.0	642	7.8	4.00				
11-Jun-08	7.1	628	8.2	4.00				
16-Jun-08	7.0	690	8.0	4.00				
23-Jun-08	7.1	590	5.8	3.00				
30-Jun-08	7.0	585	6.2	3.08				
8-Jul-08	7.6	670	7.0	3.17				
15-Jul-08	7.6	675	6.8	2.17				
21-Jul-08	7.9	690	8.0	2.58	4.7	886	1.2	4.00
28-Jul-08	8.1	662	4.0	2.58	4.8	1,046	1.2	4.00
4-Aug-08	8.8	643	2.4	2.33	5.1	1,101	1.2	4.00
11-Aug-08	8.9	660	2.6	2.17	5.2	903	1.8	4.00
18-Aug-08	8.5	686	3.4	2.08	6.1	875	1.6	2.67
25-Aug-08	8.2	700	1.3	2.08	5.3	1,003	1.1	4.00
2-Sep-08	8.6	702	5.3	2.08	5.7	1,114	1.5	4.17
9-Sep-08	8.2	704	1.2	2.17	5.1	992	1.4	4.00
16-Sep-08	8.5	699	1.3	2.25	5.4	928	1.5	4.17
23-Sep-08	8.2	691	1.5	2.29	5.5	991	1.4	4.08

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
30-Sep-08	8.8	702	1.0	2.17	5.8	1,014	1.0	4.00
7-Oct-08	9.1	698	5.2	2.00	6.1	1,133	2.3	4.17
21-Oct-08	8.2	653	7.4	2.50				
28-Oct-08	8.3	648	7.2	2.46				
6-Nov-08	8.5	650	7.0	2.46				
12-Nov-08	8.3	648	6.8	2.46				
17-Nov-08	7.6	675	7.3	2.58				
24-Nov-08	7.2	680	7.2	2.75				
2-Dec-08	7.4	640	6.8	2.83				
9-Dec-08	7.6	670	7.0	2.83				
16-Dec-08	6.9	660	7.2	3.00				
22-Dec-08	7.0	684	6.8	3.00				
29-Dec-08	7.2	680	6.8	3.00				
5-Jan-09	7.1	675	7.1	3.00				
12-Jan-09	7.0	685	6.3	3.00				
18-Jan-09	7.2	720	5.7	3.00				
26-Jan-09	7.1	701	5.0	3.00				
2-Feb-09	7.2	744	5.4	3.00				
9-Feb-09	7.2	736	5.6	3.00				
16-Feb-09	7.0	734	5.6	3.00				
23-Feb-09	7.2	735	6.2	3.00				
2-Mar-09	7.2	676	7.2	3.00				
9-Mar-09	7.4	698	8.2	3.00				
18-Mar-09	7.1	704	7.9	3.00				
25-Mar-09	7.3	738	7.9	3.17				
30-Mar-09	7.2	733	7.6	3.24				
6-Apr-09	7.4	738	7.4	3.50				
15-Apr-09	7.8	748	7.6	3.83				
22-Apr-09	7.0	720	6.8	3.83				
27-Apr-09	7.8	796	7.4	4.00				
4-May-09	7.6	786	7.6	4.00				
11-May-09	7.9	810	7.7	4.00				
18-May-09	8.3	792	7.4	4.00				
28-May-09	8.0	800	6.0	4.00				
2-Jun-09	8.2	780	6.2	4.00				
9-Jun-09	6.8	784	6.4	3.67				
17-Jun-09	8.1	789	7.5	3.17				
23-Jun-09	8.7	660	7.7	3.42				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
30-Jun-09	8.6	714	8.2	3.67				
6-Jul-09	8.5	725	8.5	3.79				
13-Jul-09	8.4	723	8.3	3.79				
20-Jul-09	7.7	666	1.2	3.00	4.6	1,225	1.0	4.00
27-Jul-09	7.8	641	1.1	2.58	4.8	1,378	1.2	4.00
3-Aug-09	8.2	624	1.2	2.13	4.4	1,252	1.2	4.00
10-Aug-09	7.7	618	1.4	2.29	4.8	1,240	1.7	4.00
17-Aug-09	7.5	617	1.0	2.25	5.0	873	1.6	4.10
24-Aug-09	8.0	614	1.2	2.21	5.4	837	1.4	4.00
31-Aug-09	7.7	632	1.2	2.25	5.1	836	1.3	4.00
7-Sep-09	7.7	636	1.1	2.20	5.3	844	1.3	4.10
14-Sep-09	6.7	652	1.2	2.20	4.0	1,177	1.5	4.10
21-Sep-09	7.8	651	1.0	2.00	4.9	1,080	1.3	2.80
28-Sep-09	7.5	616	1.2	2.00	5.0	1,032	1.3	3.00
6-Oct-09	8.5	646	1.8	2.00	6.2	1,103	7.1	3.00
12-Oct-09	8.1	636	2.3	2.10				
19-Oct-09	7.3	642	5.4	2.30				
26-Oct-09	7.4	634	5.6	2.30				
2-Nov-09	7.6	628	6.0	2.33				
9-Nov-09	7.8	650	5.8	2.33				
18-Nov-09	8.6	601	11.8	2.50				
24-Nov-09	8.4	620	10.5	2.67				
30-Nov-09	8.3	610	10.2	2.67				
7-Dec-09	8.5	605	9.3	2.67				
14-Dec-09	8.3	610	10.5	2.67				
21-Dec-09	8.5	603	10.2	2.67				
28-Dec-09	8.9	598	9.7	2.67				
5-Jan-10	9.1	597	12.3	2.75				
11-Jan-10	8.7	595	12.8	2.75				
18-Jan-10	8.2	533	5.0	2.42				
27-Jan-10	7.8	495	3.0	2.29				
4-Feb-10	7.0	558	2.0	2.50				
11-Feb-10	6.8	565	2.8	2.58				
17-Feb-10	7.0	583	3.6	2.58				
22-Feb-10	7.2	562	4.1	2.67				
1-Mar-10	7.2	560	3.6	2.67				
11-Mar-10	7.2	556	9.8	2.67				
18-Mar-10	8.2	568	7.8	2.75				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
23-Mar-10	8.0	595	7.6	2.83				
31-Mar-10	5.9	603	5.5	3.00				
7-Apr-10	7.4	636	7.6	2.83				
15-Apr-10	7.2	622	8.0	2.75				
22-Apr-10	7.3	628	7.3	2.88				
29-Apr-10	7.2	616	7.1	3.04				
4-May-10	6.8	711	7.1	3.08				
11-May-10	6.9	710	7.4	3.08				
18-May-10	7.2	720	8.4	3.17				
25-May-10	7.2	715	8.0	3.17				
1-Jun-10	7.1	718	8.1	3.33				
8-Jun-10	7.0	715	8.2	3.50				
15-Jun-10	7.0	720	8.0	3.50				
21-Jun-10	7.2	726	8.3	3.67				
28-Jun-10	7.6	748	8.6	4.00				
6-Jul-10	7.6	756	9.2	4.00				
14-Jul-10	7.7	765	8.4	3.83				
21-Jul-10	7.7	760	7.1	3.67				
30-Jul-10	7.6	750	6.8	3.50				
2-Aug-10	7.4	658	6.1	3.08	5.2	1,063	1.3	3.00
9-Aug-10	6.9	672	2.1	2.58	4.5	906	1.7	2.75
16-Aug-10	7.0	698	1.4	2.25	4.8	912	6.4	3.08
23-Aug-10	7.0	766	1.4	2.25	5.6	927	3.4	2.67
30-Aug-10	6.1	731	1.6	2.23	4.9	976	1.0	2.83
6-Sep-10	6.9	715	2.6	2.25	4.7	964	1.4	2.58
13-Sep-10	8.3	776	2.8	2.33	5.5	965	1.8	2.67
20-Sep-10	7.3	733	1.6	2.23	5.9	888	2.8	2.92
27-Sep-10	7.5	760	2.1	2.29	6.1	834	2.6	2.58
4-Oct-10	6.8	768	1.6	2.00	5.2	1,116	2.3	2.58
13-Oct-10	6.8	745	1.6	2.00				
21-Oct-10	7.4	750	8.5	2.42				
28-Oct-10	7.2	740	8.0	2.46				
4-Nov-10	7.4	728	7.8	2.46				
9-Nov-10	7.6	704	3.3	2.46				
16-Nov-10	7.2	712	3.6	2.50				
24-Nov-10	7.1	718	3.9	2.63				
1-Dec-10	6.9	718	3.8	2.67				
8-Dec-10	7.0	720	4.2	2.67				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
15-Dec-10	6.9	710	4.0	2.67				
22-Dec-10	6.8	711	2.6	2.63				
29-Dec-10	7.0	724	3.1	2.58				
4-Jan-11	6.8	711	4.0	2.54				
11-Jan-11	7.0	713	6.0	2.58				
18-Jan-11	7.1	715	8.8	2.63				
25-Jan-11	7.4	720	8.8	2.63				
31-Jan-11	7.2	714	9.0	2.63				
8-Feb-11	7.1	725	8.5	2.71				
15-Feb-11	7.0	725	8.0	2.71				
22-Feb-11	7.0	715	7.4	2.71				
3-Mar-11	6.8	720	6.8	2.71				
8-Mar-11	6.8	714	7.1	2.67				
15-Mar-11	7.0	718	7.6	2.67				
22-Mar-11	7.0	711	9.5	2.63				
29-Mar-11	7.6	675	10.0	2.58				
4-Apr-11	7.4	680	9.4	2.58				
12-Apr-11	7.8	690	8.4	2.79				
19-Apr-11	7.4	680	7.7	2.75				
28-Apr-11	7.6	685	6.8	2.75				
3-May-11	7.2	695	6.4	2.75				
9-May-11	7.4	688	5.4	2.71				
16-May-11	7.7	694	5.7	3.33				
23-May-11	7.6	710	5.6	4.00				
31-May-11	7.2	738	5.8	3.50				
7-Jun-11	7.3	748	6.0	3.67				
14-Jun-11	7.4	744	6.2	3.67				
21-Jun-11	7.8	788	7.5	3.75				
30-Jun-11	8.1	800	7.0	4.17				
5-Jul-11	8.4	870	6.0	4.50				
12-Jul-11	8.2	838	7.2	3.50				
20-Jul-11	8.4	850	7.8	3.17				
27-Jul-11	8.0	841	8.1	4.33				
3-Aug-11	8.8	780	8.2	4.33				
8-Aug-11	8.6	741	4.6	3.42	6.4	924	2.5	3.08
15-Aug-11	8.7	738	4.8	3.08	5.3	1,148	1.6	2.58
22-Aug-11	8.7	729	4.8	2.92	5.4	1,014	2.6	2.50
29-Aug-11	8.9	725	5.1	2.67	6.5	953	1.9	2.58

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
6-Sep-11	7.9	759	1.3	2.42	6.3	899	2.0	2.50
12-Sep-11	7.7	763	1.2	2.54	5.7	935	1.9	2.42
19-Sep-11	7.9	765	1.1	2.33	6.4	1,021	3.3	2.58
26-Sep-11	7.7	767	1.3	2.25	6.3	940	4.3	2.58
3-Oct-11	7.7	758	1.4	2.17	6.5	935	4.2	2.67
10-Oct-11	8.0	733	1.4	2.13	6.1	901	2.3	2.25
17-Oct-11	8.5	742	1.9	2.13	6.8	1,031	2.3	2.25
25-Oct-11	7.9	780	4.8	2.42				
1-Nov-11	8.1	760	4.9	2.42				
8-Nov-11	8.1	770	5.7	2.50				
15-Nov-11	7.1	615	5.1	2.50				
22-Nov-11	7.0	610	5.2	2.58				
29-Nov-11	6.8	640	4.8	2.58				
5-Dec-11	7.8	685	6.7	2.67				
12-Dec-11	8.8	715	9.8	2.75				
19-Dec-11	8.7	724	9.4	2.75				
26-Dec-11	8.8	718	8.3	2.75				
2-Jan-12	8.2	745	6.7	2.75				
9-Jan-12	7.8	724	7.0	2.83				
16-Jan-12	7.2	728	6.8	2.83				
23-Jan-12	7.7	717	6.5	2.92				
30-Jan-12	7.8	724	7.4	3.00				
6-Feb-12	7.6	770	6.8	3.00				
13-Feb-12	7.5	745	6.0	3.00				
20-Feb-12	7.6	768	5.8	3.00				
27-Feb-12	7.4	738	6.1	3.00				
5-Mar-12	7.1	748	7.1	3.00				
12-Mar-12	7.1	736	6.8	3.00				
20-Mar-12	7.2	714	6.2	3.17				
27-Mar-12	7.4	727	5.9	3.33				
2-Apr-12	7.5	752	5.5	3.33				
9-Apr-12	7.9	789	4.9	3.50				
17-Apr-12	7.8	801	4.0	3.50				
25-Apr-12	7.6	780	4.4	3.50				
2-May-12	7.2	740	5.6	3.50				
9-May-12	7.6	720	6.2	3.50				
15-May-12	7.2	710	6.0	3.50				
22-May-12	7.1	826	4.8	4.00				

MORNING STAR PACKING COMPANY
General Pond Monitoring Results

General Pond Monitoring Locations & Constituents								
	Cooling Pond				Settling Pond			
	CP	CP	CP	CP	SP	SP	SP	SP
Date	pH	EC	DO	Freeboard	pH	EC	DO	FreeBoard
29-May-12	7.7	949	1.2	4.00				
4-Jun-12	7.0	850	3.1	4.00				
13-Jun-12	8.1	780	6.1	4.00				
20-Jun-12	8.3	740	6.0	3.83				
25-Jun-12	8.0	718	6.8	3.67				
3-Jul-12	7.9	800	7.2	3.50				
10-Jul-12	7.8	720	6.0	3.67				
18-Jul-12	7.2	693	4.8	3.67				
24-Jul-12	7.5	671	2.4	3.17				
30-Jul-12	8.0	667	1.1	2.75	4.7	945	4.1	3.20
6-Aug-12	7.6	676	1.0	2.75	5.1	921	4.3	3.42
13-Aug-12	8.0	694	1.3	2.83	4.9	1,253	3.1	3.42
20-Aug-12	8.0	672	1.2	2.83	5.3	1,128	2.5	3.50
27-Aug-12	7.4	692	1.1	2.75	5.5	806	3.2	3.21
4-Sep-12	7.6	657	1.0	2.58	6.3	899	3.0	3.25
10-Sep-12	7.4	642	1.2	2.58	5.4	1,109	4.2	3.25
17-Sep-12	7.5	624	1.4	2.67	6.6	926	3.1	3.25
24-Sep-12	7.3	620	1.3	2.67	6.0	568	3.6	3.17
1-Oct-12	7.2	600	1.2	2.58	6.2	972	3.3	3.17
8-Oct-12	7.5	592	1.1	2.67	6.1	807	4.7	3.17
15-Oct-12	7.3	680	1.4	2.75				
22-Oct-12	7.2	620	4.2	2.83				
29-Oct-12	7.4	645	6.8	3.00				
5-Nov-12	7.3	610	9.8	3.00				
12-Nov-12	7.6	604	6.1	2.83				
19-Nov-12	8.2	585	5.8	2.92				
26-Nov-12	8.1	590	5.4	3.00				
3-Dec-12	8.1	610	7.4	2.92				
11-Dec-12	7.9	605	7.2	2.83				
19-Dec-12	7.2	595	6.4	2.75				
26-Dec-12	7.1	605	6.6	2.75				
Average	7.6	565	6.0	2.9	5.6	1,074	2.1	4.26
Minimum	4.8	290	0.4	1.4	3.8	531	0.0	2.25
Maximum	9.4	949	14.9	5.4	9.2	7,750	9.1	11.60

MORNING STAR PACKING COMPANY
Effluent Monitoring Results

Date	pH	EC	TDS	FDS	Settleable Solids	BOD	TKN	N-NO3
15-Aug-96	5.6	1,480						
3-Oct-96	6.9	1,560						
29-Jan-97	8.0	1,870						
28-Jul-97	5.5	1,090						
12-Aug-97	6.3	1,010						
12-Sep-97	6.4	1,080						
2-Oct-97	6.2	2,160						
4-Dec-97	7.4	2,920						
16-Jul-98	7.6	1,390						
12-Aug-98	6.3							
3-Sep-98	5.9	1,190						
1-Oct-98	6.4	1,290						
13-Aug-99	5.0	1,420						
10-Sep-99	5.2	1,270						
11-Oct-99	6.5	1,080						
24-Jul-00	4.1	1,400						
11-Aug-00	5.5	1,220						
19-Sep-00	5.3	1,340						
6-Oct-00	5.1	2,520						
1-Aug-01	6.0	1,320						
10-Sep-01	5.5	1,400	1,200			1,080		
11-Sep-01	5.3	1,450	1,220			1,090		
12-Sep-01	5.3	1,430	1,180			1,100		
13-Sep-01	5.4	1,400	1,140			1,010		
17-Sep-01	5.4	1,320	1,110			930		
18-Sep-01	5.5	1,280	1,110			900		
19-Sep-01	5.2	1,330	1,140			1,060		
20-Sep-01	5.2	1,380	1,190			1,140		
24-Sep-01	6.3	1,230	980			670		
25-Sep-01	6.6	1,170	890			260		
26-Sep-01	6.4	1,340	1,070			650		
27-Sep-01	6.3	1,350	1,180			730		
17-Jul-02	4.3	1,300	1,800		5.5	1,800	88.0	0.0
24-Jul-02	4.2	1,200	1,900		1.5	1,600	79.0	0.8
31-Jul-02	4.3	1,300	1,800		6.5	1,700	44.0	0.0
7-Aug-02	5.0	1,700	1,100		0.5	1,200	63.0	0.0
14-Aug-02	5.1	1,200	1,000		18.0	1,000	120.0	0.0
21-Aug-02	5.4	1,300	1,100		1.6	1,100	13.0	0.0
28-Aug-02	4.6	1,500	1,700		9.5	3,400	180.0	0.2
4-Sep-02	5.4	1,400	1,200		0.7	950	42.0	0.0
11-Sep-02	5.7	1,200	950		12.0	950	50.0	0.0
18-Sep-02	12.1	13,000	4,300		24.0	1,300	63.0	0.3
25-Sep-02	12.4	9,700	3,900		43.0	1,200	86.0	0.3

MORNING STAR PACKING COMPANY
Effluent Monitoring Results

Date	pH	EC	TDS	FDS	Settleable Solids	BOD	TKN	N-NO3
24-Jul-03	3.9	1,400	2,200		0.7	2,500		0.3
31-Jul-03	4.0	1,400	2,200		3.0	2,600	120.0	0.0
7-Aug-03	3.8	1,400	1,900		1.5	1,800	87.0	0.0
14-Aug-03	5.0	1,400	1,400		2.0	1,600	69.0	0.0
21-Aug-03	5.4	1,200	1,100		7.0	790	33.0	0.0
28-Aug-03	6.7	1,200	1,000		0.3	540	28.0	0.0
4-Sep-03	5.2	1,200	1,100		12.0	880	48.0	0.0
11-Sep-03	6.1	1,100	820		9.0	600	40.0	0.0
17-Sep-03	6.2	1,100	850		10.0	770	44.0	0.0
12-Jul-04	4.0	1,267	1,312	764	3.0	131	69.5	1.1
19-Jul-04	3.8	997	1,408	820	3.0	368	67.3	0.0
26-Jul-04	4.0	1,120	1,104	572	3.0	490	56.5	1.1
3-Aug-04	4.0	1,032	1,082	472	3.0	1,123	69.0	0.3
10-Aug-04	5.0	1,013	860	598	4.0	1,088	43.4	1.1
16-Aug-04	5.2	1,077	854	550	3.0	758	36.9	1.3
23-Aug-04	4.9	988	784	626	3.0	1,095	40.2	0.6
30-Aug-04	5.3	985	938	768	3.0	1,016	58.3	0.5
8-Sep-04	3.9	1,447	2,026	1,264	4.0	1,749	151.8	0.8
13-Sep-04	3.8	1,513	2,072	1,178	4.0	1,791	137.8	1.5
20-Sep-04	4.1	1,271	3,272	1,926	3.0	1,722	54.3	5.6
27-Sep-04	5.0	1,225	1,428	704	3.0	1,131	55.6	6.3
4-Oct-04	5.1	1,370	2,216	1,468	4.0	1,311	65.7	3.2
18-Jul-05	4.7	1,069	800	291	3.0	351	31.3	1.0
25-Jul-05	4.7	934	697	177	13.0	378	26.5	0.0
1-Aug-05	4.0	1,490	1,032	484	5.0	664	89.6	0.0
8-Aug-05	4.9	960	718	538	4.0	1,110	106.4	0.0
15-Aug-05	5.6	780	600	438	2.0	700	78.4	0.0
22-Aug-05	6.0	730	526	313	0.6	736	28.0	0.1
29-Aug-05	6.0	1,075	696	385	0.8	581	84.5	0.7
6-Sep-05	5.4	801	574	385	2.8	776	78.4	0.3
12-Sep-05	6.4	742	502	294	0.8	316	61.6	1.4
20-Sep-05	6.8	736	420	380	4.0	312	44.8	1.2
27-Sep-05	7.1	880	491	466	0.4	139	16.8	0.0
3-Oct-05	6.6	670	386	336	0.6	261	50.4	0.0
31-Jul-06	5.6	1,097	1,243	599	0.0	855	39.0	4.1
7-Aug-06	5.4	832	784	526	0.0	738	23.4	0.5
14-Aug-06	6.1	678	668	398	0.0	345	14.5	0.2
21-Aug-06	6.8	632	486	339	0.7	307	16.6	37.4
28-Aug-06	6.0	725	659	356	0.6	290	33.6	0.0
4-Sep-06	6.2	664	640	384	1.0	281	42.0	0.6
11-Sep-06	6.0	722	467	263	0.0	359	19.2	5.9
18-Sep-06	6.0	795	429	364	16.0	413	29.2	0.4
25-Sep-06	5.5	652	642	381	42.0	421	17.4	2.3
2-Oct-06	5.8	785	646	392	11.0	327	25.8	0.2
8-Oct-06	6.4	733	596	348	2.0	248	22.3	0.4
16-Oct-06	7.1	812	572	412	0.0	171	20.9	0.4
23-Oct-06	6.7	764	574	402	0.0	358	25.1	0.4
30-Oct-06	6.7	699	634	396	0.0	331	55.7	0.3

MORNING STAR PACKING COMPANY
Effluent Monitoring Results

Date	pH	EC	TDS	FDS	Settleable Solids	BOD	TKN	N-NO3
16-Jul-07	4.1	924	1,108	475	0.0	1,178	68.5	0.2
23-Jul-07	5.6	786	751	339	0.0	633	36.6	0.3
30-Jul-07	4.8	1,024	1,082	532	0.0	2,119	70.0	0.4
6-Aug-07	4.6	1,163	955	530	0.0	1,146	37.8	0.0
13-Aug-07	5.9	878	592	383	0.0	249	25.9	0.3
20-Aug-07	5.2	973	808	496	0.0	635	47.3	0.2
27-Aug-07	5.4	977	808	380	0.0	619	79.0	0.3
3-Sep-07	5.4	957	846	454	0.0	676	55.9	0.2
10-Sep-07	6.4	949	814	512	2.2	764	32.7	0.6
17-Sep-07	6.0	952	779	478	62.3	676	35.0	0.6
24-Sep-07	6.3	907	776	468	62.3	544	41.5	0.8
21-Jul-08	6.6	886	547	388	3.2	640	61.5	1.4
28-Jul-08	5.3	1,067	889	498	1.8	757	74.5	1.1
4-Aug-08	7.3	836	764	615	2.1	600	39.3	0.9
11-Aug-08	6.3	885	433	342	2.8	243	42.7	1.1
20-Aug-08	6.5	970	457	422	4.3	471	28.5	0.4
25-Aug-08	6.6	890	685	340	26.9	525	59.4	1.8
2-Sep-08	5.6	720	976	458	18.5	693	79.2	2.2
9-Sep-08	5.2	978	1,019	675	41.0	653	49.9	1.5
16-Sep-08	5.4	863	806	464	25.0	788	33.5	0.7
23-Sep-08	5.5	925	880	434	10.2	788	42.9	0.5
2-Oct-08	5.5	874	886	643	75.0	722	44.8	1.3
7-Oct-08	6.2	945	773	610	57.0	884	77.5	1.7
20-Jul-09	5.0	1,263	1,207	702	17.0	1,604	72.6	0.4
27-Jul-09	5.0	1,263	1,220	710	17.0	1,140	63.6	1.1
3-Aug-09	5.0	1,245	1,240	685	22.6	1,140	63.0	0.9
10-Aug-09	5.2	1,213	1,175	680	24.0	1,294	57.0	0.7
17-Aug-09	9.0	716	728	354	3.2	746	68.5	3.7
24-Aug-09	6.8	773	713	405	2.7	974	24.8	4.7
31-Aug-09	6.6	714	680	385	2.5	826	24.3	3.1
7-Sep-09	6.7	705	503	324	2.5	529	14.5	0.8
14-Sep-09	5.7	1,250	947	697	2.5	514	36.5	3.0
21-Sep-09	6.1	910	891	482	2.2	552	38.8	3.8
28-Sep-09	5.1	1,087	960	576	1.3	431	26.4	1.5
6-Oct-09	6.5	1,066	807	596	2.5	451	31.8	1.8
3-Aug-10	5.2	1,140	1,320	750	0.2	575	63.8	0.4
9-Aug-10	5.0	920	880	665	4.5	665	72.7	0.3
16-Aug-10	6.5	816	916	506	3.3	612	32.2	2.6
23-Aug-10	5.7	970	896	543	3.1	555	28.9	2.7
30-Aug-10	6.2	926	810	530	1.2	745	38.5	2.3
6-Sep-10	4.5	975	867	556	1.5	859	77.8	4.4
13-Sep-10	5.1	910	775	512	24.0	505	44.4	1.3
20-Sep-10	5.6	881	766	493	1.2	587	52.3	2.9
27-Sep-10	5.5	927	816	523	1.4	955	62.2	3.5
4-Oct-10	6.1	1,390	778	576	2.8	444	38.9	4.2

MORNING STAR PACKING COMPANY
Effluent Monitoring Results

Date	pH	EC	TDS	FDS	Settleable Solids	BOD	TKN	N-NO3
8-Aug-11	5.0	902	804	474	1.2	110	82.2	1.0
15-Aug-11	5.0	1,294	1,229	724	3.2	154	48.6	1.4
22-Aug-11	5.3	1,123	1,216	785	3.7	184	58.4	2.4
29-Aug-11	6.1	1,020	918	571	1.9	135	75.3	1.3
6-Sep-11	6.1	910	896	682	1.2	225	44.5	3.4
12-Sep-11	5.4	890	862	498	1.4	153	66.7	2.2
19-Sep-11	6.1	947	580	520	2.1	225	108.0	2.1
26-Sep-11	5.9	1,038	687	567	3.4	256	75.1	2.8
3-Oct-11	6.1	1,133	746	579	1.5	288	58.3	2.2
10-Oct-11	5.0	951	813	618	3.2	360	43.1	4.3
17-Oct-11	6.0	910	891	482	2.2	560	77.6	3.2
30-Jul-12	5.2	1,329	1,040	910	1.2	178	83.0	0.0
6-Aug-12	5.5	940	1,100	610	2.0	774	68.9	0.0
13-Aug-12	4.8	1,176	1,210	775	15.0	1,376	88.9	0.0
20-Aug-12	4.6	1,132	724	640	3.0	921	127.8	0.0
27-Aug-12	6.2	1,018	770	710	3.0	571	124.5	0.0
4-Sep-12	5.0	1,275	1,190	760	47.0	921	107.5	0.0
10-Sep-12	4.6	1,003	1,331	924	37.0	1,054	55.6	0.0
17-Sep-12	7.4	957	1,210	825	12.0	604	82.2	0.0
24-Sep-12	6.6	2,690	1,880	1,550	4.0	944	72.6	0.0
1-Oct-12	4.8	1,085	1,840	1,150	9.0	1,457	34.8	0.0
8-Oct-12	6.4	802	610	485	0.0	535	43.0	20.9
Average	5.7	1,246	1,039	573	8.1	798	56.9	1.6
Minimum	3.8	632	386	177	0.0	110	13.0	0.0
Maximum	12.4	13,000	4,300	1,926	75.0	3,400	180.0	37.4

Nachtmann Analytical Laboratory, Inc.

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E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 08/06/2012

Sample ID #: Settling Pond and Cooling Pond
Sample Matrix : Effluent
Sampling Date : 07/30/2012
Date Received : 07/30/2012
Sampled By : client
Sample Lab. # :07302012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	5.15
EC	SM 2510-B	1.0 umhos/cm	1329. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1040.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	910
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	1.20
(BOD) 5-day	SM 5210-B	0.2	178.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	83.0
Cooling Pond			
PH	SM 4500-H B	1-14	7.62
EC	SM 2510-B	1.0 umhos/cm	690.
Total Dissolved Solid	SM 2540-D	5.0	475.

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

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Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co
ADDRESS: 2211 old Hwy 99 Williams CA
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning Star
SAMPLER: Sergio Cervantes
DATE: 7/30/12

REPORT TO:
BILLING TO:
TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY
PO#/BILLING REFERENCE:

ANALYSIS REQUESTED: Nitrate

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	Nitrate	REMARKS	SAMPLE NUMBER
SP	settling pond	2	BTL	0830	✓		
CP	Cooling Pond	2	"	0800	✓		
GCID	GCID natural canal	1	"	0850	✓	GCID: No analysis required	

RELINQUISHED BY: Sergio Cervantes — DATE: 7/30/12 — TIME:
RECEIVED BY: — DATE: 7/31/12
RELINQUISHED BY: — DATE: — TIME:
RECEIVED BY:
RELINQUISHED BY: — DATE: — TIME:
RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 08/12/2012

Sample ID #: Settling Pond and Cooling Pond
Sample Matrix : Effluent
Sampling Date : 08/06/2012
Date Received : 08/06/2012
Sampled By : client
Sample Lab. # :08062012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	5.54
EC	SM 2510-B	1.0 umhos/cm	940. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,100.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	610.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	2.00
(BOD) 5-day	SM 5210-B	0.2	774.0
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	68.9.
Cooling Pond			
PH	SM 4500-H B	1-14	7.21
EC	SM 2510-B	1.0 umhos/cm	698.
Total Dissolved Solid	SM 2540-D	5.0	370.

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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CHAIN OF CUSTODY REPORT

CLIENT: Morning star parking Co.
ADDRESS: 22H old Hwy 99
Williams CA 95987
PHONE: 530 473-3600
PROJECT NAME/SITE: 501-3601 Cell
Morning star
SAMPLER: Sergio Cervantes
DATE: 8/6/12

REPORT TO:
BILLING TO:
PO#/BILLING REFERENCE:

TURNAROUND TIME:
8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

ANALYSIS REQUESTED

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP	settling pond	2	BTL	07:50/8/6/12	EC/TDS	
CP	Cooling pond	2	BTL	08:10/8/6/12		

RELINQUISHED BY: Sergio Cervantes
DATE: 8/6/12 TIME: 10:30 pm
RECEIVED BY: 8/6/12

RELINQUISHED BY:
DATE: TIME:
RECEIVED BY:

RELINQUISHED BY:
DATE: TIME:
RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 08/19/2012

Sample ID # : Settling Pond
Sample Matrix : Effluent
Sampling Date : 08/13/2012
Date Received : 08/13/2012
Sampled By : client
Sample Lab. # :08132012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	4.81
EC	SM 2510-B	1.0 umhos/cm	1,176. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,210.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	775.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	15.0
(BOD) 5-day	SM 5210-B	0.2	1376.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	88.9
Cooling Pond			
none			

* This sample contains large amounts of organic material

Reference	:	Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL	:	Reporting Limits
ND	:	Not Detected at RL
Lab. director	:	Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co.
ADDRESS: 2211 Old Hwy 99 Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: MORNING STAR
SAMPLER: 1559-544-9545 Phone # Sergio Cervantes
DATE: 8/13/12

REPORT TO:
BILLING TO:
TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY
PO#/BILLING REFERENCE:

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED ↓MRP	REMARKS	SAMPLE NUMBER
SP	Settling Pond	2	BTL	0845/8-13-12			

RELINQUISHED BY: Sergio Cervantes — DATE: 8/13/12 TIME: 0845 — RECEIVED BY: 8/13/12
RELINQUISHED BY: — DATE: TIME: — RECEIVED BY:
RELINQUISHED BY: — DATE: TIME: — RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES:		
PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

1100 W. Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Clinet :
Morning Star Packing Co.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Oliveira
Liberty Packing Co.
12045 South Ingmar Grade Rd.
Los Banos, CA. 93685

Sample ID #	: Settling Pond
Sample Matrix	: Effluent
Sampling Date	: 8/20/2012
Date Received	: 8/20/2012
Sampled By	: client
Sample Lab. #	: 08202012
Reporting	: 8/25/2012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	4.60
EC	SM 2510-B	1.0 umhos/cm	1132.umhos/cm
Total Dissolved Solid (TDS)	SM 2540-D	5.0	724.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	640.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	3.0
(BOD) 5-day	SM 5210-B	0.2	921
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	127.8

Reference	:	Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL	:	Reporting Limits
ND	:	Not Detected at RL
Lab. director	:	Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing
ADDRESS: 2211 old Hwy 99
Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning star
SAMPLER: Sergio
DATE: 8/20/12

REPORT TO:
BILLING TO:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

PO#/BILLING REFERENCE:

ANALYSIS REQUESTED: MPR

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP 1	Settling pond #1	1	BTL	0750 / 8/20/12		
SP 2	Settling pond #2	1	BTL	0750 / 8/20/12		

	DATE:	TIME:		
RELINQUISHED BY: Sergio Cervantes	8/20/12		RECEIVED BY:	8/20/12
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED IN LAB BY:	

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Clinet :
Morning Star Packing Co.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Oliveira
Liberty Packing Co.
12045 South Ingmar Grade Rd.
Los Banos, CA. 93685

Sample ID #	: Settling Pond
Sample Matrix	: Effluent
Sampling Date	: 8/27/2012
Date Received	: 8/27/2012
Sampled By	: client
Sample Lab. #	: 08272012
Date Reporting	: 9/1/2012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	6.17
EC	SM 2510-B	1.0 umhos/cm	1018.
Total Dissolved Solid (TDS)	SM 2540-D	5.0	770.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	710.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	3.0
(BOD) 5-day	SM 5210-B	0.2	571.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	124.5

Reference	:	Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL	:	Reporting Limits
ND	:	Not Detected at RL
Lab. director	:	Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning star parking Co.
ADDRESS: 2211 8th Hwy 99.
Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning star #530501360 1
SAMPLER: Sergio Cervantes
DATE: 8/27/12

REPORT TO:

BILLING TO:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

PO#/BILLING REFERENCE:

ANALYSIS REQUESTED: MRD

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP1	Settling pond 1	1	BTL	0750 / 8/27/12		
SP2	Settling pond 2	1	BTL	0750 / 8-27-12		

RELINQUISHED BY: Sergio Cervantes — DATE: 8-27-12 TIME:
RECEIVED BY: Q.M. 8/27/12

RELINQUISHED BY: — DATE: TIME:
RECEIVED BY:

RELINQUISHED BY: — DATE: TIME:
RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Clinet :
Morning Star Packing Co.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Oliveira
Liberty Packing Co.
12045 South Ingmar Grade Rd.
Los Banos, CA. 93685

Sample ID #	: Settling Pond
Sample Matrix	: Effluent
Sampling Date	: 9/4/2012
Date Received	: 9/4/2012
Sampled By	: client
Sample Lab. #	: 09042012
Date Reporting	: 9/11/2012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	4.96
EC	SM 2510-B	1.0 umhos/cm	1275.umhos/cm
Total Dissolved Solid (TDS)	SM 2540-D	5.0	1190.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	760.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	47.0
(BOD) 5-day	SM 5210-B	0.2	921.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	107.5

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

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Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning star packing Co.
ADDRESS: 2211 Old Hwy 99 Williams CA 95987
PHONE: 530 473 3600

REPORT TO:
BILLING TO:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

PROJECT NAME/SITE: Morning star
PO#/BILLING REFERENCE:

SAMPLER: Sergio Cervantes
DATE: 9/4/12

ANALYSIS REQUESTED: TURB

SAMPLE ID/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP 1	Settling Pond 1	1	BTL	9/4/12 @ 0755		
SP 2	Settling Pond 2	1	BTL	9/4/12 @ 0800		

	DATE:	TIME:		
RELINQUISHED BY: Sergio Cervantes	9/4/12		RECEIVED BY:	9/4/12
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED IN LAB BY:	

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 09/17/2012

Sample ID # : Settiing Pond
Sample Matrix : Effluent
Sampling Date : 09/10/2012
Date Received : 09/10/2012
Sampled By : client
Sample Lab. # :09102012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	4.63
EC	SM 2510-B	1.0 umhos/cm	1,003. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,331.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	924.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	37.
(BOD) 5-day	SM 5210-B	0.2	1054.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	55.6

Cooling Pond

none

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

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Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co.
ADDRESS: 2211 old Hwy 99W
Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning Star
SAMPLER: Sergio Cervantes
DATE: 9/10/12

REPORT TO:
BILLING TO:
PO#/BILLING REFERENCE:

TURNAROUND TIME:

8 HR.		24 HR.		48 HR.		72 HR.	
		5 DAY		10 DAY		15 DAY	

ANALYSIS REQUESTED: NPD

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP1	Settling pond 1	1	BTL	0750 / 9/10/12	✓	
SP2	Settling pond 2	1	BTL	0750 / 9/10/12	✓	

RELINQUISHED BY: Sergio Cervantes — DATE: 9/10/12 — TIME:
RECEIVED BY: [signature] 9/10/12

RELINQUISHED BY: — DATE: — TIME:
RECEIVED BY:

RELINQUISHED BY: — DATE: — TIME:
RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 09/22/2012

Sample ID # : Settling Pond
Sample Matrix : Effluent
Sampling Date : 09/17/2012
Date Received : 09/17/2012
Sampled By : client
Sample Lab. # :09172012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	7.35
EC	SM 2510-B	1.0 umhos/cm	957. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,210.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	825.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	12.0
(BOD) 5-day	SM 5210-B	0.2	604.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	82.2
Cooling Pond			
none			

* This sample contains large amounts of organic material

Reference	:	Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL	:	Reporting Limits
ND	:	Not Detected at RL
Lab. director	:	Ahmed Modabber

Lichtmann Analytical Laboratory, Inc.

1100 W Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co.

ADDRESS: 2211 old Hwy 99 Williams CA 95987

PHONE: 530 473 3600

PROJECT NAME/SITE: Morning star

SAMPLER: Sergio Cervantes

DATE: 9/17/12

REPORT TO:

BILLING TO:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

PO#/BILLING REFERENCE:

ANALYSIS REQUESTED: HRP

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP 1	Settling Pond 1	1	BTL	0820 / 9/17/12		
SP 2	Settling Pond 2	1	BTL	0821 / 9/17/12		

RELINQUISHED BY: Sergio Cervantes — DATE: 9/17/12 — TIME:

RECEIVED BY: [signature] 9/17/12

RELINQUISHED BY: — DATE: — TIME:

RECEIVED BY:

RELINQUISHED BY: — DATE: — TIME:

RECEIVED IN LAB BY:

TRAVEL TIME:

ON SITE TIME:

OTHER:

WERE SAMPLES:	YES	NO
PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 09/30/2012

Sample ID # : Settling Pond
Sample Matrix : Effluent
Sampling Date : 09/24/2012
Date Received : 09/24/2012
Sampled By : client
Sample Lab. # :09242012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	6.60
EC	SM 2510-B	1.0 umhos/cm	2,690. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,880.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	1550.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	4.00
(BOD) 5-day	SM 5210-B	0.2	944.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	72.6

Cooling Pond

none

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

Nichtmann Analytical Laboratory, Inc.
1100 W Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co.
ADDRESS: 2211 Old Hwy 99W, Williams CA 95987
PHONE: 530 473-3600
PROJECT NAME/SITE: Morning Star
SAMPLER: Sergio Cervantes
DATE: 9/24/12

REPORT TO:
BILLING TO:
PO#/BILLING REFERENCE:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

ANALYSIS REQUESTED: 420

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	REMARKS	SAMPLE NUMBER
SP1	Settling Pond 1	1	BTL	9/24/12 ✓		
SP2	Settling Pond 2	1	BTL	9/24/12 ✓		

RELINQUISHED BY: Sergio Cervantes — DATE: 9/24/12 — TIME:
RECEIVED BY: [signature] 9/24/12

RELINQUISHED BY: — DATE: — TIME:
RECEIVED BY:

RELINQUISHED BY: — DATE: — TIME:
RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

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Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 10/7/2012

Sample ID # : Settling Pond
Sample Matrix : Effluent
Sampling Date : 10/1/2012
Date Received : 10/1/2012
Sampled By : client
Sample Lab. # :10012012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	4.82
EC	SM 2510-B	1.0 umhos/cm	1085. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	1,840.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	1150.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	9.0
(BOD) 5-day	SM 5210-B	0.2	1457.
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	ND
Nitrate (NO3)	SM 4500-NO3E	0.4	ND
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	34.8

Cooling Pond

none

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

Nachtmann Analytical Laboratory, Inc.
1100 W Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Co.
ADDRESS: 2211 old Hwy 99. Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning star
SAMPLER: Sergio Cervantes
DATE: 10/1/12

REPORT TO:
BILLING TO:
TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY
PO#/BILLING REFERENCE:

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED	REMARKS	SAMPLE NUMBER
SP 1	Settling Pond 1	1	BTL	0815/10/1/12			
SP 2	Settling Pond 2	1	BTL	0820/10/1/12			

RELINQUISHED BY: Sergio Cervantes — DATE: 10/1/12 — TIME:
RECEIVED BY: Qvm, 10/1/12
RELINQUISHED BY: — DATE: — TIME: — RECEIVED BY:
RELINQUISHED BY: — DATE: — TIME: — RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		

Nachtmann Analytical Laboratory, Inc.

1100 W. Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617
E mail: Nachtmannlab@yahoo.com

Analytical Laboratory Report

State DHS Cert. # 1419

Client:

The Morning Star Packing Company.
2211 Old HWY 99
Williams, CA. 95987
Attn: Mike Olivera
12045 South Ingomar Grade Road
Los Banos, California 93635
Date Reporting: 10/14/2012

Sample ID # : Settling Pond
Sample Matrix : Effluent
Sampling Date : 10/8/2012
Date Received : 10/8/2012
Sampled By : client
Sample Lab. # :10082012

Analyte	Method #	RL(mg/l)	Sample Results(mg/l)
Settling Pond			
PH	SM 4500-H B	1-14	6.35
EC	SM 2510-B	1.0 umhos/cm	802. umhos/cm
Total Dissolved Solid (TDS)*	SM 2540-D	5.0	610.
Fixed Dissolved Solid (FDS)	SM 2540-E	5.0	485.
Settleable Solid (SS)	SM 2540-F	1.0ml/l/hr	< 1.0
(BOD) 5-day	SM 5210-B	0.2	535
Nitrate as Nitrogen(N-NO3)	SM 4500-NO3E	0.10	20.9
Nitrate (NO3)	SM 4500-NO3E	0.4	4.75
Total Kjeldahl Nitrogen (TKN)	SM 4500-N C	1.0	43.0

Cooling Pond

none

* This sample contains large amounts of organic material

Reference : Std. Methods for Examination for Water & Wastewater, 20th Ed. 1998
RL : Reporting Limits
ND : Not Detected at RL
Lab. director : Ahmed Modabber

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1100 W Chiles Rd • Davis, CA 95616 • (530) 758-5850 • Fax (530) 758-5870
Mailing Address: P.O. Box 1025 • Davis, CA 95617

CHAIN OF CUSTODY REPORT

CLIENT: Morning Star Packing Company
ADDRESS: 9211 old Hwy 99W
Williams CA 95987
PHONE: 530 473 3600
PROJECT NAME/SITE: Morning Star
SAMPLER: Sergio Cervantes
DATE: 10/8/12

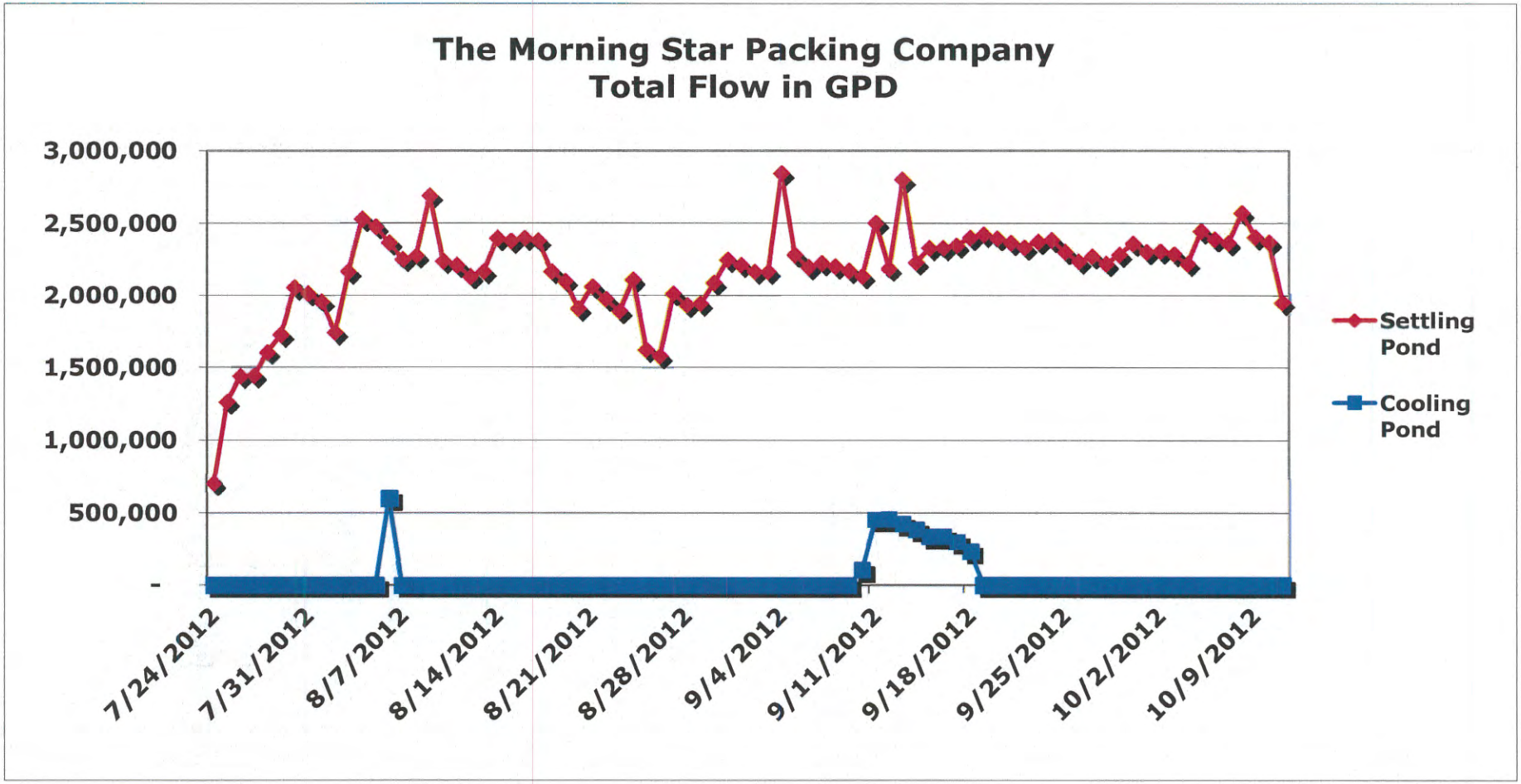
REPORT TO:
BILLING TO:
TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY
PO#/BILLING REFERENCE:

SAMPLE ID# STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED: NH3-N	REMARKS	SAMPLE NUMBER
SP1	settling pond 1	1	BTL	0930/10/8/12	✓		
SP2	Settling pond 2	1	BTL	0930/10/8/12	✓		

RELINQUISHED BY: Sergio Cervantes — DATE: 10/8/12 TIME: 1200 — RECEIVED BY: [signature] 10/8/12
RELINQUISHED BY: — DATE: TIME: — RECEIVED BY:
RELINQUISHED BY: — DATE: TIME: — RECEIVED IN LAB BY:

TRAVEL TIME:
ON SITE TIME:
OTHER:

	YES	NO
WERE SAMPLES: PRESERVED?		
IN GOOD CONDITION?		


The Morning Star Packing Company
Total Flow in GPD
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
-
7/24/2012
7/31/2012
8/7/2012
8/14/2012
8/21/2012
8/28/2012
9/4/2012
9/11/2012
9/18/2012
9/25/2012
10/2/2012
10/9/2012
Settling Pond
Cooling Pond

The Morning Star Packing Company
Washwater and Fresh Water Flows to Fields
July-12

calculated

DATE	TIMES	Flow through Irrigation Ditch		Discharge from Cooling Pond		Discharge from Settling Pond/Gutters [1]		Discharge from GCID Canal
		WATER FLOW		WATER FLOW		WATER FLOW		WATER FLOW
		GPM	GPD	GPM	GPD	GPM	GPD	GPD
7/1/12	15min. Intervals							
7/2/12	15min. Intervals							
7/3/12	15min. Intervals							
7/4/12	15min. Intervals							
7/5/12	15min. Intervals							
7/6/12	15min. Intervals							
7/7/12	15min. Intervals							
7/8/12	15min. Intervals							
7/9/12	15min. Intervals							
7/10/12	15min. Intervals							
7/11/12	15min. Intervals							
7/12/12	15min. Intervals							
7/13/12	15min. Intervals							
7/14/12	15min. Intervals							
7/15/12	15min. Intervals							
7/16/12	15min. Intervals							
7/17/12	15min. Intervals							
7/18/12	15min. Intervals							
7/19/12	15min. Intervals							
7/20/12	15min. Intervals							
7/21/12	15min. Intervals							
7/22/12	15min. Intervals							
7/23/12	15min. Intervals							
7/24/12	15min. Intervals	369	530,977			487	701,428	
7/25/12	15min. Intervals	870	1,252,264			876	1,262,073	
7/26/12	15min. Intervals	1,001	1,441,901			1,000	1,440,085	
7/27/12	15min. Intervals	1,019	1,467,332			1,002	1,442,644	
7/28/12	15min. Intervals	1,140	1,640,921			1,115	1,605,453	
7/29/12	15min. Intervals	1,208	1,739,757			1,198	1,725,372	
7/30/12	15min. Intervals	1,510	2,174,037			1,424	2,051,249	
7/31/12	15min. Intervals	1,479	2,129,930			1,398	2,013,645	
Average		1,074	1,547,140			1,063	1,530,243	
Minimum		369	530,977			487	701,428	
Maximum		1,510	2,174,037			1,424	2,051,249	

*Discharge from settling pond/gutters flows used to calcualte Settling Pond Effluent loading rates. Discharge from cooling pond used to calculate cooling pond water nutrient loadings.

The Morning Star Packing Company
Washwater and Fresh Water Flows to Fields
August-12

DATE	TIMES	Flow through Irrigation Ditch		Discharge from Cooling Pond		Discharge from Settling Pond/Gutters [1]		Discharge from GCID Canal
		WATER FLOW		WATER FLOW		WATER FLOW		WATER FLOW
		GPM	GPD	GPM	GPD	GPM	GPD	GPD
8/1/2012	15min. Intervals	1,420	2,045,501			1,358	1,955,989	
8/2/2012	15min. Intervals	1,270	1,828,893			1,210	1,741,791	
8/3/2012	15min. Intervals	1,563	2,250,889			1,502	2,162,965	
8/4/2012	15min. Intervals	1,872	2,695,190			1,755	2,527,312	
8/5/2012	15min. Intervals	1,383	1,991,615			1,719	2,474,652	
8/6/2012	15min. Intervals	1,246	1,793,895			1,641	2,363,418	
8/7/2012	15min. Intervals	1,164	1,676,643	416	599,038	1,562	2,248,645	
8/8/2012	15min. Intervals	1,311	1,887,588			1,578	2,272,397	
8/9/2012	15min. Intervals	1,325	1,908,397			1,867	2,689,069	
8/10/2012	15min. Intervals	1,194	1,718,959			1,552	2,235,474	
8/11/2012	15min. Intervals	1,242	1,789,137			1,534	2,208,923	
8/12/2012	15min. Intervals	1,415	2,037,234			1,480	2,131,773	
8/13/2012	15min. Intervals	1,351	1,945,984			1,504	2,165,200	
8/14/2012	15min. Intervals	1,571	2,262,300			1,665	2,397,549	
8/15/2012	15min. Intervals	1,600	2,304,157			1,651	2,377,422	
8/16/2012	15min. Intervals	1,452	2,091,438			1,665	2,397,282	
8/17/2012	15min. Intervals	782	1,126,672			1,652	2,378,739	
8/18/2012	15min. Intervals	605	871,088			1,503	2,163,849	
8/19/2012	15min. Intervals	563	810,835			1,455	2,095,424	
8/20/2012	15min. Intervals	485	698,348			1,324	1,906,779	
8/21/2012	15min. Intervals	645	928,353			1,430	2,059,821	
8/22/2012	15min. Intervals	662	953,798			1,370	1,973,115	
8/23/2012	15min. Intervals	650	936,143			1,312	1,888,699	
8/24/2012	15min. Intervals	758	1,091,085			1,463	2,107,098	
8/25/2012	15min. Intervals	508	730,854			1,126	1,620,865	
8/26/2012	15min. Intervals	507	730,507			1,096	1,578,484	
8/27/2012	15min. Intervals	671	966,381			1,398	2,013,203	
8/28/2012	15min. Intervals	663	954,211			1,342	1,932,681	
8/29/2012	15min. Intervals	653	939,704			1,349	1,942,046	
8/30/2012	15min. Intervals	715	1,029,475			1,449	2,085,864	
8/31/2012	15min. Intervals	805	1,159,808			1,559	2,245,053	
Average		1,034	1,488,874			1,486	2,140,051	
Minimum		485	698,348			1,096	1,578,484	
Maximum		1,872	2,695,190			1,867	2,689,069	

*Discharge from settling pond/gutters flows used to calcualte Settling Pond Effluent loading rates. Discharge from cooling pond used to calculate cooling pond water nutrient loadings.

The Morning Star Packing Company
Washwater and Fresh Water Flows to Fields
September-12

DATE	TIMES	Flow through Irrigation Ditch		Discharge from Cooling Pond		Discharge from Settling Pond/Gutters [1]		Discharge from GCID Canal
		WATER FLOW		WATER FLOW		WATER FLOW		WATER FLOW
		GPM	GPD	GPM	GPD	GPM	GPD	GPD
9/1/2012	15min. Intervals	835	1,201,759	0	0	1,534	2,209,020	
9/2/2012	15min. Intervals	828	1,191,857	0	0	1,501	2,161,296	
9/3/2012	15min. Intervals	747	1,076,177	0	0	1,501	2,161,509	
9/4/2012	15min. Intervals	1,425	2,051,352	0	0	1,975	2,843,739	
9/5/2012	15min. Intervals	1,616	2,326,794	0	0	1,584	2,280,882	
9/6/2012	15min. Intervals	1,606	2,312,210	0	0	1,524	2,195,242	
9/7/2012	15min. Intervals	1,611	2,320,054	0	0	1,543	2,222,111	
9/8/2012	15min. Intervals	1,590	2,289,226	0	0	1,527	2,199,029	
9/9/2012	15min. Intervals	1,567	2,256,259	0	0	1,507	2,170,404	
9/10/2012	15min. Intervals	1,585	2,281,728	71	101,816	1,482	2,133,441	
9/11/2012	15min. Intervals	1,038	1,494,829	315	453,438	1,736	2,499,196	
9/12/2012	15min. Intervals	1,049	1,510,159	316	455,403	1,516	2,182,973	
9/13/2012	15min. Intervals	1,034	1,489,088	296	425,591	1,942	2,796,278	
9/14/2012	15min. Intervals	1,051	1,513,520	268	386,122	1,547	2,228,092	
9/15/2012	15min. Intervals	1,077	1,551,178	233	335,300	1,617	2,328,571	
9/16/2012	15min. Intervals	1,221	1,757,950	234	336,604	1,616	2,327,324	
9/17/2012	15min. Intervals	1,325	1,908,249	208	299,516	1,629	2,346,445	
9/18/2012	15min. Intervals	1,121	1,614,806	163	234,094	1,666	2,399,547	
9/19/2012	15min. Intervals	1,202	1,730,531	0	0	1,680	2,419,271	
9/20/2012	15min. Intervals	1,093	1,573,959	0	0	1,663	2,394,669	
9/21/2012	15min. Intervals	985	1,418,092	0	0	1,641	2,362,718	
9/22/2012	15min. Intervals	980	1,411,219	0	0	1,619	2,331,551	
9/23/2012	15min. Intervals	1,017	1,464,281	0	0	1,648	2,373,034	
9/24/2012	15min. Intervals	1,220	1,756,168	0	0	1,656	2,384,552	
9/25/2012	15min. Intervals	1,220	1,756,168	0	0	1,599	2,302,967	
9/26/2012	15min. Intervals	1,087	1,564,844	0	0	1,552	2,235,600	
9/27/2012	15min. Intervals	1,037	1,494,000	0	0	1,577	2,271,332	
9/28/2012	15min. Intervals	1,031	1,484,119	0	0	1,541	2,219,405	
9/29/2012	15min. Intervals	1,057	1,522,584	0	0	1,586	2,284,437	
9/30/2012	15min. Intervals	1,076	1,549,505	0	0	1,639	2,359,809	
Average		1,178	1,695,756	70	100,929	1,612	2,320,815	
Minimum		747	1,076,177	0	0	1,482	2,133,441	
Maximum		1,616	2,326,794	316	455,403	1,975	2,843,739	

* Discharge from settling pond/gutters flows used to calcualte Settling Pond Effluent loading rates. Discharge from cooling pond used to calculate cooling pond water nutrient loadings.

The Morning Star Packing Company
Washwater and Fresh Water Flows to Fields
October-12

DATE	TIMES	Flow through Irrigation Ditch		Discharge from Cooling Pond		Discharge from Settling Pond/Gutters [1]		Discharge from GCID Canal
		WATER FLOW		WATER FLOW		WATER FLOW		WATER FLOW
		GPM	GPD	GPM	GPD	GPM	GPD	GPD
10/1/2012	15min. Intervals	1,073	1,544,962	0	0	1,598	2,301,065	
10/2/2012	15min. Intervals	1,073	1,544,495	0	0	1,602	2,307,260	
10/3/2012	15min. Intervals	1,040	1,497,972	0	0	1,589	2,287,871	
10/4/2012	15min. Intervals	1,004	1,446,080	0	0	1,542	2,219,951	
10/5/2012	15min. Intervals	1,155	1,662,855	0	0	1,698	2,445,116	
10/6/2012	15min. Intervals	1,205	1,735,601	0	0	1,659	2,389,413	
10/7/2012	15min. Intervals	1,197	1,723,257	0	0	1,641	2,363,667	
10/8/2012	15min. Intervals	1,229	1,769,058	0	0	1,785	2,570,733	
10/9/2012	15min. Intervals	1,215	1,749,048	0	0	1,669	2,403,685	
10/10/2012	15min. Intervals	1,236	1,780,537	0	0	1,645	2,368,534	
10/11/2012	15min. Intervals	895	1,288,392	0	0	1,354	1,950,404	
10/12/2012	15min. Intervals	142	204,347	0	0	726	1,045,764	
10/13/2012	15min. Intervals	0	0	0	0	0	0	
10/14/2012	15min. Intervals	0	0	0	0	0	0	
10/15/2012	15min. Intervals	0	0	0	0	0	0	
10/16/2012	15min. Intervals	0	0	0	0	0	0	
10/17/2012	15min. Intervals	0	0	0	0	0	0	
10/18/2012	15min. Intervals	0	0	0	0	0	0	
10/19/2012	15min. Intervals	0	0	0	0	0	0	
10/20/2012	15min. Intervals	0	0	0	0	0	0	
10/21/2012	15min. Intervals	0	0	0	0	0	0	
10/22/2012	15min. Intervals	0	0	0	0	0	0	
10/23/2012	15min. Intervals	0	0	0	0	0	0	
10/24/2012	15min. Intervals	0	0	0	0	0	0	
10/25/2012	15min. Intervals	0	0	0	0	0	0	
10/26/2012	15min. Intervals	0	0	0	0	0	0	
10/27/2012	15min. Intervals	0	0	0	0	0	0	
10/28/2012	15min. Intervals	0	0	0	0	0	0	
10/29/2012	15min. Intervals	0	0	0	0	0	0	
10/30/2012	15min. Intervals	0	0	0	0	0	0	
Average		415	598,220	0	0	617	888,449	
Minimum		0	0	0	0	0	0	
Maximum		1,236	1,780,537	0	0	1,785	2,570,733	

* Discharge from settling pond/gutters flows used to calcualte Settling Pond Effluent loading rates. Discharge from cooling pond used to calculate cooling pond water nutrient loadings.

THE MORNING STAR PACKING COMPANY
2211 Old Highway 99, Williams, CA 95987

23 January 2013

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

Dear Mr. Childs,

The daily land application monitoring log sheets were included in the monthly reports. If you would like an additional copy of the land application monitoring log sheets please do not hesitate to contact me at (916)719-5650.

Respectfully yours,

Ross Oliveira

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: January 1, 2012 to January 31, 2012, retrieved on February 13, 2012

Note: Only 86% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MAX	MIN		MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
01-01-2012	23:59	0.00	61	30		E	3		236	48	43		98.7	48.4			
01-02-2012	23:59	0.00	59	31		SE	3		152	48	43		99.5	68.1			
01-03-2012	23:59	0.00	63	32		N	3		225	48	43		99.9	46.8			
01-04-2012	23:59	0.00	64	33		N	2		222	48	43		99.7	43.1			
01-05-2012	23:59	0.00	67	32		E	2		231	49	43		99.8	40.4			
01-06-2012	23:59	0.00	58	31		N	2		208	48	43		99.9	51.2			
01-07-2012	23:59	0.00	63	32		N	10		233	48	43		98.7	31.1			
01-08-2012	23:59	0.00	62	33		N	6		205	49	45		90.1	28.4			
01-09-2012	23:59	0.00	61	27		E	2		245	48	43		99.2	38.8			
01-10-2012	23:59	0.00	61	30		N	3		204	47	42		99.7	39.4			
01-11-2012	23:59	0.00	64	29		NE	2		252	47	41		98.9	28.2			
01-12-2012	23:59	0.00	66	29		N	4		255	47	41		97.4	25.1			
01-13-2012	23:59	0.00	67	28		N	3		254	47	41		98.5	25.8			
01-14-2012	23:59	0.00	63	27		N	2		256	47	41		99.0	36.4			
01-15-2012	23:59	0.00	57	29		N	4		228	47	42		90.0	37.1			
01-16-2012	23:59	0.00	51	24		N	4		267	44	40		86.3	22.8			
01-17-2012	23:59	0.00	50	20		E	3		250	43	37		96.4	36.0			
01-18-2012	23:59	0.00	54	38		SE	7		110	45	41		84.3	52.8			
01-19-2012	23:59	0.16	46	39		SE	8		29	44	42		98.1	60.4			
01-20-2012	23:59	0.82	51	41		SE	8		32	46	43		99.6	95.0			
01-21-2012	23:59	0.00	58	41		SW	8		244	49	45		98.2	50.2			
01-22-2012	23:59	0.78	47	41		SE	6		36	46	44		98.8	88.9			
01-23-2012	23:59	0.63	57	39		N	6		224	48	45		99.3	62.2			
01-24-2012	23:59	0.00	56	37		N	2		191	49	45		99.2	64.8			
01-25-2012	23:59	0.00	59	43		N	4		220	51	46		99.2	71.6			
01-26-2012	23:59	0.00	55	43		NW	5		67	50	47		99.6	90.4			
01-27-2012	23:59	0.00	61	47		NW	11		301	50	47		94.3	35.5			
01-28-2012	23:59	0.00	61	31		N	4		290	49	44		94.0	34.9			
01-29-2012	23:59	0.00	64	34		N	2		264	50	44		99.0	49.1			
01-30-2012	23:59	0.00	63	38		N	3		262	51	46		99.9	55.9			
01-31-2012	23:59	0.00	61	35		N	4		243	51	46		99.9	61.3			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: February 1, 2012 to February 29, 2012, retrieved on March 17, 2012

Note: Only 84% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE MAX	AIR TEMPERATURE MIN	AIR TEMPERATURE OBS	WIND DD	WIND SS	ETo	SOL RAD	SOIL T MAX	SOIL T MIN	WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET	BULB TEMP DRY	PAN EVAP
MM DD YYYY	HH:MM	(IN) *	(F) *		*	*		* (IN) *	(LY) *	(F) *		*				* (F)	* (IN) *
02-01-2012	23:59	0.00	56	42		SE	5		173	51	48		99.3	77.2			
02-02-2012	23:59	0.00	65	41		N	9		287	50	46		95.9	29.4			
02-03-2012	23:59	0.00	63	30		N	4		308	50	44		99.4	27.4			
02-04-2012	23:59	0.00	64	31		N	3		313	50	44		97.3	32.0			
02-05-2012	23:59	0.00	65	33		N	3		310	50	44		98.5	34.8			
02-06-2012	23:59	0.00	63	35		N	3		238	50	45		99.1	36.7			
02-07-2012	23:59	0.24	53	46		N	4		84	50	47		99.6	87.7			
02-08-2012	23:59	0.00	64	42		NW	4		319	53	48		99.9	59.2			
02-09-2012	23:59	0.00	66	40		SE	3		308	54	48		99.4	59.3			
02-10-2012	23:59	0.00	65	45		SE	5		200	54	50		99.7	65.0			
02-11-2012	23:59	0.00	62	41		SE	3		232	54	50		99.7	66.2			
02-12-2012	23:59	0.04	59	33		SE	4		226	52	47		99.2	41.5			
02-13-2012	23:59	0.02	56	38		N	4		275	52	48		98.2	60.9			
02-14-2012	23:59	0.00	61	35		N	5		347	52	46		97.8	40.0			
02-15-2012	23:59	0.00	58	38		NW	10		366	50	46		70.3	30.9			
02-16-2012	23:59	0.00	59	42	A	E	4		207	A 53	50	A	84.4	29.7			
02-17-2012	23:59	0.00	65	37		E	3		340	53	46		89.8	40.4			
02-18-2012	23:59	0.00	61	38		N	4		210	51	48		97.2	37.8			
02-19-2012	23:59	0.00	60	41		NW	5		360	52	46		69.3	28.0			
02-20-2012	23:59	0.00	56	40		NW	5		226	52	49		93.1	62.7			
02-21-2012	23:59	0.00	68	35		NW	3		284	53	47		99.0	51.3			
02-22-2012	23:59	0.00	76	48		N	5		341	57	50		84.3	31.7			
02-23-2012	23:59	0.00	70	52		N	13		393	56	51		65.2	16.8			
02-24-2012	23:59	0.00	72	50		N	8		395	58	50		52.1	28.5			
02-25-2012	23:59	0.00	60	33		N	7		390	55	50		80.9	29.4			
02-26-2012	23:59	0.00	56	36		N	6		293	52	47		72.2	30.3			
02-27-2012	23:59	0.00	57	26		N	4		413	53	45		95.6	34.3			
02-28-2012	23:59	0.00	57	31		SE	9		320	51	46		97.3	40.8			
02-29-2012	23:59	0.22	55	42		S	10		271	51	48		95.8	54.5			

29 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: March 1, 2012 to March 31, 2012, retrieved on April 9, 2012

Note: Only 79% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE MAX	AIR TEMPERATURE MIN	AIR TEMPERATURE OBS	WIND DD	WIND SS	ETo	SOL RAD	SOIL T MAX	SOIL T MIN	WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET	BULB TEMP DRY	PAN EVAP
MM DD YYYY	HH:MM	(IN) *	(F) *		*	*		(IN) *	(LY) *	(F) *		*			(F) *		(IN) *
03-01-2012	23:59	0.00	62	41		S	7		319	53	47		94.0	47.3			
03-02-2012	23:59	0.00	64	39		NW	10		413	51	46		72.2	26.1			
03-03-2012	23:59	0.00	69	33		SE	2		423	55	46		92.4	35.9			
03-04-2012	23:59	0.00	75	36		N	3		427	57	48		98.7	38.2			
03-05-2012	23:59	0.00	74	36		SW	5		425	58	50		99.6	27.7			
03-06-2012	23:59	0.00	57	40		NW	13		455	56	51		63.5	18.0			
03-07-2012	23:59	0.00	64	39		N	11		460	54	47		49.8	19.8			
03-08-2012	23:59	0.00	68	36		SE	3		451	56	48		80.0	24.2			
03-09-2012	23:59	0.00	71	33		SE	3		452	57	48		96.8	29.1			
03-10-2012	23:59	0.00	69	44		SE	7		408	58	51		86.0	35.0			
03-11-2012	23:59	0.01	61	43		SE	8		282	55	52		91.3	41.0			
03-12-2012	23:59	0.00	62	39		SE	8		415	56	49		80.9	42.0			
03-13-2012	23:59	0.15	55	51		SE	13		114	54	52		97.0	67.2			
03-14-2012	23:59	0.21	58	53		SE	10		95	55	52		97.8	91.6			
03-15-2012	23:59	0.07	65	55		SE	9		222	57	53		97.4	78.3			
03-16-2012	23:59	0.11	60	46		S	10		109	56	54		97.1	70.1			
03-17-2012	23:59	0.00	57	38		N	6		295	54	50		99.2	43.3			
03-18-2012	23:59	0.01	54	36		SE	5		328	54	49		98.6	52.6			
03-19-2012	23:59	0.00	53	32		NE	2		286	52	48		99.3	48.9			
03-20-2012	23:59	0.00	60	44		SE	2		312	55	50		91.3	48.0			
03-21-2012	23:59	0.00	69	46		S	5		317	58	52		89.7	55.9			
03-22-2012	23:59	0.00	66	42		S	7		443	59	54		86.9	30.0			
03-23-2012	23:59	0.00	59	38		SE	6		407	56	50		84.2	42.5			
03-24-2012	23:59	0.13 A	67	43	A				396	A 58	55	A					
03-25-2012	23:59	0.01 A	68	44	A				451	A 59	55	A					
03-26-2012	23:59	0.00	59	38		SE	6		321	53	50		98.5	56.0			
03-27-2012	23:59	0.53	53	47		SE	9		74	53	51		97.5	71.8			
03-28-2012	23:59	0.01	65	51		SE	8		416	56	51		96.4	47.7			
03-29-2012	23:59	0.00	72	42	A	SE	6		483	A 59	55	A	92.0	69.7			
03-30-2012	23:59	0.00	68	53		SE	8		366	59	53		97.3	64.1			
03-31-2012	23:59	0.19	59	46		S	10		301	57	55		89.5	53.1			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: April 1, 2012 to April 30, 2012, retrieved on May 24, 2012

Note: Only 84% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE MAX	AIR TEMPERATURE MIN	AIR TEMPERATURE OBS	WIND DD	WIND SS	ETo	SOL RAD	SOIL T MAX	SOIL T MIN	WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET	BULB TEMP DRY	PAN EVAP
MM DD YYYY	HH:MM	(IN) *	(F) *		*	*	*	(IN) *	(LY) *	(F) *		*		*	(F) *		(IN) *
04-01-2012	23:59	0.00	63	35		NW	3		537	58	52		99.7	41.5			
04-02-2012	23:59	0.00	69	42		NW	6		452	58	52		91.3	34.9			
04-03-2012	23:59	0.00	68	45		SE	8		451	59	53		87.0	41.4			
04-04-2012	23:59	0.00	62	35		W	4		525	59	53		85.9	36.4			
04-05-2012	23:59	0.00	59	31		W	4		540	58	52		98.0	36.4			
04-06-2012	23:59	0.00	64	30		N	2		560	58	52		99.0	31.1			
04-07-2012	23:59	0.00	67	36		N	3		473	58	52		96.9	30.7			
04-08-2012	23:59	0.00	70	36		SE	3		451	59	53		96.5	33.7			
04-09-2012	23:59	0.00	70	41		SE	3		392	59	54		94.9	29.3			
04-10-2012	23:59	0.45	58	50		SE	5		134	58	55						
04-11-2012	23:59	0.03	61	49		S	8		398	59	55		99.2	56.2			
04-12-2012	23:59	0.63	61	46		S	9		393	58	54		96.3	49.3			
04-13-2012	23:59	0.21	56	45		W	5		260	56	54		98.9	69.9			
04-14-2012	23:59	0.00	69	39		NW	3		589	59	53		99.5	44.8			
04-15-2012	23:59	0.00	70	41		SE	4		544	61	55		99.8	52.9			
04-16-2012	23:59	0.00	71	50		SE	6		476	62	57		86.2	37.1			
04-17-2012	23:59	0.00	73	48	A	SE	5		450	A	63	59	A	97.2	52.4		
04-18-2012	23:59	0.00	74	51		SE	4		438		65	59		92.3	48.0		
04-19-2012	23:59	0.00	80	53		NW	4		579		68	60		94.6	46.6		
04-20-2012	23:59	0.00	92	61		N	5		596		70	63		86.6	34.2		
04-21-2012	23:59	0.00	92	55		E	3		598		72	65		99.1	34.5		
04-22-2012	23:59	0.00	90	57		SE	3		599		73	66		99.2	36.3		
04-23-2012	23:59	0.00	80	56		SE	6		600		73	66		91.4	37.4		
04-24-2012	23:59	0.00	75	54		SE	4		570		71	65		90.4	50.5		
04-25-2012	23:59	0.17	71	58		SE	5		234		68	65		97.3	66.6		
04-26-2012	23:59	0.00	67	46		SW	8		605		68	64		97.5	36.9		
04-27-2012	23:59	0.00	72	44		NW	5		572		65	60		83.9	24.9		
04-28-2012	23:59	0.00	82	45		N	6		610		66	59		90.4	26.0		
04-29-2012	23:59	0.00	87	59		N	6		611		68	62		61.6	22.1		
04-30-2012	23:59	0.00	86	54		SE	5		577		70	64		93.2	35.9		

30 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: May 1, 2012 to May 31, 2012, retrieved on June 14, 2012

Note: Only 84% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MAX	MIN		MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN) *	(F)		*		*	(IN) *	(LY) *	(F)		*		*	(F)		(IN) *
05-01-2012	23:59	0.00	79	51		N	5		621	69	63		73.0	27.0			
05-02-2012	23:59	0.00	73	46		SE	5		501	67	63		92.3	38.8			
05-03-2012	23:59	0.00	69	52		SE	9		488	66	62		86.0	57.3			
05-04-2012	23:59	0.00	71	50		SE	5		503	66	62		95.0	38.6			
05-05-2012	23:59	0.00	76	52		NW	12		648	65	55		57.0	20.4			
05-06-2012	23:59	0.00	83	59		NW	11		642	63	59		43.7	18.2			
05-07-2012	23:59	0.00	88	55		N	6		664	65	60		63.4	14.5			
05-08-2012	23:59	0.00	91	46		N	3		641	67	61		85.7	18.4			
05-09-2012	23:59	0.00	89	53		N	4		650	69	64						
05-10-2012	23:59	0.00	85	62		NW	12		657	68	64		36.6	14.1			
05-11-2012	23:59	0.00	90	51		N	5		671	68	62		68.3	15.7			
05-12-2012	23:59	0.00	96	50		E	3		672	69	63		97.0	15.2			
05-13-2012	23:59	0.00	83	53		SE	5		567	69	65		94.5	39.8			
05-14-2012	23:59	0.00	76	52		SE	5		661	69	65		86.6	37.5			
05-15-2012	23:59	0.00	82	54		SE	4		637	69	65		85.3	35.4			
05-16-2012	23:59	0.00	86	54		SE	5		649	71	66		83.8	40.2			
05-17-2012	23:59	0.00	78	55		SE	5		544	70	67		85.2	43.1			
05-18-2012	23:59	0.00	85	49		N	5		669	69	65		89.8	13.2			
05-19-2012	23:59	0.00	86	49		SE	3		657	70	64		94.9	21.5			
05-20-2012	23:59	0.00	92	55		N	4		632	72	66		90.4	26.6			
05-21-2012	23:59	0.00	87	60		SE	8		616	77	64		79.1	23.1			
05-22-2012	23:59	0.00	82	58		N	4		627	74	70		91.9	35.7			
05-23-2012	23:59	0.00	81	48		NW	5		679	72	68		85.2	27.1			
05-24-2012	23:59	0.00	83	54	A	N	7		596	A	72	68	A	60.2	20.5		
05-25-2012	23:59	0.00	70	49		N	5		637	71	66		68.0	34.3			
05-26-2012	23:59	0.00	73	46		SE	5		639	72	66		93.7	40.3			
05-27-2012	23:59	0.00	76	49		SE	4		669	73	67		93.8	37.2			
05-28-2012	23:59	0.00	77	54		SE	6		679	74	67		83.8	31.4			
05-29-2012	23:59	0.00	83	48		SE	3		691	74	68		89.4	26.9			
05-30-2012	23:59	0.00	90	52		NE	3		688	75	69		97.7	28.9			
05-31-2012	23:59	0.00	95	57		SE	3		681	77	71		94.7	33.0			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: June 1, 2012 to June 30, 2012, retrieved on July 17, 2012

Note: Only 84% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE MAX	AIR TEMPERATURE MIN	AIR TEMPERATURE OBS	WIND DD	WIND SS	ETo	SOL RAD	SOIL T MAX	SOIL T MIN	WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET	BULB TEMP DRY	PAN EVAP
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
06-01-2012	23:59	0.00	97	61		SE	3		673	79	73		96.0	29.7			
06-02-2012	23:59	0.00	89	64		SE	6		625	78	74		78.1	31.3			
06-03-2012	23:59	0.00	88	58		SE	6		635	77	73		78.8	33.5			
06-04-2012	23:59	0.11	71	54		SE	8		334	76	70		88.2	47.5			
06-05-2012	23:59	0.00	70	47		NW	4		689	71	67		91.9	35.5			
06-06-2012	23:59	0.00	81	51		N	6		693	71	66		77.2	20.1			
06-07-2012	23:59	0.00	84	54		SE	4		668	73	67		86.3	31.4			
06-08-2012	23:59	0.00	82	59		N	5		706	67	61		69.1	25.6			
06-09-2012	23:59	0.00	78	53		N	12		725	67	64		50.2	21.8			
06-10-2012	23:59	0.00	89	63		NW	10		718	68	63		57.5	18.2			
06-11-2012	23:59	0.00	94	56		E	3		702	71	65		66.8	16.8			
06-12-2012	23:59	0.00	94	58		N	4		682	73	68		90.7	28.5			
06-13-2012	23:59	0.00	95	62		N	4		696	74	70		88.9	23.9			
06-14-2012	23:59	0.00	97	62		N	4		694	74	70		88.5	24.2			
06-15-2012	23:59	0.00	96	62		N	8		683	74	70		69.0	25.6			
06-16-2012	23:59	0.00	102	69		N	5		644	76	71		77.6	22.1			
06-17-2012	23:59	0.00	100	64		SE	6		678	77	72		76.2	24.0			
06-18-2012	23:59	0.00	87	60		SE	6		690	76	72		77.2	36.8			
06-19-2012	23:59	0.00	91	53		N	5		717	74	71		93.7	15.0			
06-20-2012	23:59	0.00	92	57	1	N	5		697	A 79	74	A	69.2	15.7			
06-21-2012	23:59	0.00	79	56		SE	8		690	78	72		77.5	46.6			
06-22-2012	23:59	0.00	72	52		SE	6		400	75	69		86.9	52.0			
06-23-2012	23:59	0.00	76	53		SE	6		708	71	65		81.1	33.5			
06-24-2012	23:59	0.00	75	51		SE	6		716	71	66		83.4	25.2			
06-25-2012	23:59	0.00	76	52		SE	8		656	72	66		81.9	38.7			
06-26-2012	23:59	0.00	80	48		NW	4		705	73	67		97.2	26.7			
06-27-2012	23:59	0.00	86	49		SE	4		699	74	67		94.5	26.5			
06-28-2012	23:59	0.00	87	58		SE	6		688	75	69		74.9	32.4			
06-29-2012	23:59	0.00	85	58		SE	6		683	76	71		87.2	36.5			
06-30-2012	23:59	0.00	88	60		SE	6		667	77	71		86.8	45.7			

30 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: July 1, 2012 to July 31, 2012, retrieved on August 8, 2012

Note: Only 84% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MAX	MIN		MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
07-01-2012	23:59	0.00	87	62		SE	5		680	78	73		92.1	32.4			
07-02-2012	23:59	0.00	92	61		SE	5		670	78	73		94.4	38.3			
07-03-2012	23:59	0.00	94	58		SE	4		680	78	74		89.1	29.0			
07-04-2012	23:59	0.00	91	60		SE	5		671	78	74		95.6	29.4			
07-05-2012	23:59	0.00	85	58		SE	7		660	77	73		81.2	36.9			
07-06-2012	23:59	0.00	91	52		SE	4		681	77	72		92.9	26.6			
07-07-2012	23:59	0.00	97	58		SE	3		678	77	73		96.2	18.8			
07-08-2012	23:59	0.00	96	58		SE	4		671	78	73		80.9	25.3			
07-09-2012	23:59	0.00	94	62		SE	4		676	92	74		77.1	22.9			
07-10-2012	23:59	0.00	99	59		E	3		657	84	80		95.1	20.8			
07-11-2012	23:59	0.00	101	63		W	3		656	83	80		93.9	20.9			
07-12-2012	23:59	0.00	98	58	1	SE	5		672 A	83	78	A	96.0	25.5			
07-13-2012	23:59	0.00	89	59		SE	7		671	84	79		82.5	44.7			
07-14-2012	23:59	0.00	86	53		SE	3		667	83	77		95.1	35.8			
07-15-2012	23:59	0.00	92	59		SE	5		652	84	77		92.8	35.8			
07-16-2012	23:59	0.00	82	57		SE	9		675	83	77		86.6	39.3			
07-17-2012	23:59	0.00	75	55		SE	5		485	79	74		92.5	53.4			
07-18-2012	23:59	0.00	82	53		SE	4		650	81	74		94.1	42.3			
07-19-2012	23:59	0.00	84	56		SE	5		621	80	75		95.5	34.1			
07-20-2012	23:59	0.00	91	58		SE	4		663	81	74		89.3	27.8			
07-21-2012	23:59	0.00	98	59		SE	4		663	82	75		97.0	19.8			
07-22-2012	23:59	0.00	103	61		SE	4		650	82	76		95.5	18.8			
07-23-2012	23:59	0.00	90	66		SE	6		617	83	78		76.5	39.8			
07-24-2012	23:59	0.00	91	62		SE	5		660	82	77		74.3	25.5			
07-25-2012	23:59	0.00	91	55		SE	5		657	81	71		83.9	27.5			
07-26-2012	23:59	0.00	89	58		SE	5		608	75	69		83.6	30.0			
07-27-2012	23:59	0.00	87	56		SE	5		656	76	71		88.4	31.4			
07-28-2012	23:59	0.00	89	56		SE	4		649	77	72		91.1	29.0			
07-29-2012	23:59	0.00	91	59		SE	4		646	78	72		84.2	32.7			
07-30-2012	23:59	0.00	96	60		SW	3		640	79	73		91.2	30.9			
07-31-2012	23:59	0.00	96	63		SE	4		637	80	75		84.9	22.7			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: August 1, 2012 to August 31, 2012, retrieved on September 9, 2012

Note: Only 86% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MAX	MIN		MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
08-01-2012	23:59	0.00	96	60		SE	4		649	80	75		83.5	19.9			
08-02-2012	23:59	0.00	97	60		SE	3		636	80	75		85.0	25.8			
08-03-2012	23:59	0.00	95	60		SE	4		617	80	75		79.3	31.1			
08-04-2012	23:59	0.00	85	59		SE	6		532	79	75		84.1	49.4			
08-05-2012	23:59	0.00	89	60		SE	6		617	79	74		91.7	37.9			
08-06-2012	23:59	0.00	91	57		SE	5		627	78	74		84.6	30.3			
08-07-2012	23:59	0.00	96	57		E	3		627	78	74		91.0	24.6			
08-08-2012	23:59	0.00	98	55		W	3		629	78	74		90.9	22.2			
08-09-2012	23:59	0.00	99	60		SE	3		615	78	73		92.4	25.0			
08-10-2012	23:59	0.00	100	60		E	3		617	73	66		93.4	23.2			
08-11-2012	23:59	0.00	104	61		SE	3		613	74	69		96.3	21.9			
08-12-2012	23:59	0.00	98	61		SE	4		588	76	71		92.8	29.5			
08-13-2012	23:59	0.00	104	63		SE	3		565	77	72		86.1	15.5			
08-14-2012	23:59	0.00	97	67		SE	5		468	77	73		81.1	36.5			
08-15-2012	23:59	0.00	94	70		SE	4		510	77	73		68.2	34.7			
08-16-2012	23:59	0.00	97	64		SE	5		581	77	73		66.3	31.9			
08-17-2012	23:59	0.00	93	61		SE	4		571	77	73		75.3	33.6			
08-18-2012	23:59	0.00	94	65		SE	5		571	77	73		76.2	30.8			
08-19-2012	23:59	0.00	92	61		SE	4		578	76	73		77.3	33.4			
08-20-2012	23:59	0.00	92	58		SE	5		515	76	72		91.9	36.3			
08-21-2012	23:59	0.00	91	55		SE	5		573	76	72		93.5	39.9			
08-22-2012	23:59	0.00	93	56		SE	5		564	76	72		95.5	24.4			
08-23-2012	23:59	0.00	89	57		SE	4		551	76	72		91.0	39.3			
08-24-2012	23:59	0.00	93	53		SE	4		570	75	72		98.3	21.0			
08-25-2012	23:59	0.00	88	52		SE	6		556	75	71		91.1	39.0			
08-26-2012	23:59	0.00	82	55		SE	8		558	80	70		89.2	37.6			
08-27-2012	23:59	0.00	88	52		SE	3		563	79	74		94.5	33.7			
08-28-2012	23:59	0.00	90	52		SE	3		558	76	72		97.9	28.9			
08-29-2012	23:59	0.00	94	52		W	3		561	75	71		93.9	27.4			
08-30-2012	23:59	0.00	92	52		SE	4		536	74	71		89.9	23.8			
08-31-2012	23:59	0.00	79	55		SE	7		541	74	70		91.7	50.6			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: September 1, 2012 to September 30, 2012, retrieved on October 29, 2012

Note: Only 86% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T MAX		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MIN			MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
09-01-2012	23:59	0.00	82	49		SE	3		521	72	69		97.7	35.8			
09-02-2012	23:59	0.00	89	49		SE	3		514	72	68		99.1	29.4			
09-03-2012	23:59	0.00	92	53		SE	3		521	72	68		98.0	25.9			
09-04-2012	23:59	0.00	93	53		SE	3		529	72	69		92.4	19.9			
09-05-2012	23:59	0.00	88	52		SE	4		364	71	69		91.9	32.2			
09-06-2012	23:59	0.00	88	55		SE	4		502	72	68		93.7	27.3			
09-07-2012	23:59	0.00	92	49		SW	3		481	71	67		94.8	24.8			
09-08-2012	23:59	0.00	91	59		SE	5		486	72	69		66.8	27.5			
09-09-2012	23:59	0.00	88	58		SE	5		508	71	60		72.7	26.9			
09-10-2012	23:59	0.00	93	49		N	3		508	65	62		96.4	24.3			
09-11-2012	23:59	0.00	91	50		W	2		503	66	63		95.0	29.8			
09-12-2012	23:59	0.00	93	53		SW	2		457	66	63		92.4	33.5			
09-13-2012	23:59	0.00	95	55		NE	3		460	68	64		95.3	31.0			
09-14-2012	23:59	0.00	90	57		SE	4		445	69	66		91.9	39.1			
09-15-2012	23:59	0.00	90	55		SE	4		488	69	67		84.4	26.3			
09-16-2012	23:59	0.00	90	51		SE	3		465	69	65		94.5	24.5			
09-17-2012	23:59	0.00	91	52		SE	4		460	68	65		93.2	26.6			
09-18-2012	23:59	0.00	90	51		SE	4		461	68	65		87.4	32.3			
09-19-2012	23:59	0.00	86	50		SE	4		461	68	66		90.8	33.0			
09-20-2012	23:59	0.00	89	49		SE	3		452	68	65		94.0	32.1			
09-21-2012	23:59	0.00	88	58		SE	4		453	70	65		95.1	31.0			
09-22-2012	23:59	0.00	92	50		E	3		471	72	65		96.2	19.4			
09-23-2012	23:59	0.00	89	57		SE	5		377	72	67		88.9	29.4			
09-24-2012	23:59	0.00	88	51		N	4		459	72	67		86.9	23.5			
09-25-2012	23:59	0.00	92	52		SE	3		417	70	59		90.4	26.9			
09-26-2012	23:59	0.00	89	54		SE	2		424	68	63		95.7	34.4			
09-27-2012	23:59	0.00	93	53		SE	2		431	69	64		98.9	25.4			
09-28-2012	23:59	0.00	96	55		SE	3		427	71	65		96.9	25.1			
09-29-2012	23:59	0.00	96	53		SE	2		423	71	66		96.9	25.2			
09-30-2012	23:59	0.00	94	53		N	3		429	70	66		95.9	23.2			

30 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: October 1, 2012 to October 31, 2012, retrieved on November 2, 2012

Note: Only 86% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE	AIR TEMPERATURE			WIND		ETo	SOL RAD	SOIL T		WX	RELATIVE HUMIDITY		BULB TEMP		PAN EVAP
			MAX	MIN	OBS	DD	SS			MAX	MIN		MAX	MIN	WET	DRY	
MM DD YYYY	HH:MM	(IN)	(F)					(IN)	(LY)	(F)					(F)		(IN)
10-01-2012	23:59	0.00	97	52		E	2		424	71	66		98.0	24.3			
10-02-2012	23:59	0.00	94	53		E	3		419	71	67		95.0	21.5			
10-03-2012	23:59	0.00	93	53		SE	3		412	71	66		96.3	25.0			
10-04-2012	23:59	0.00	80	59		SE	6		395	71	67		82.7	44.8			
10-05-2012	23:59	0.00	76	56		SE	4		348	69	66		88.7	47.4			
10-06-2012	23:59	0.00	75	50		SE	3		399	69	65		98.4	45.9			
10-07-2012	23:59	0.00	79	47		SE	3		391	69	64		98.8	41.8			
10-08-2012	23:59	0.00	75	53		SE	5		384	68	65		87.9	41.3			
10-09-2012	23:59	0.00	76	46		SE	3		383	67	64		96.9	40.6			
10-10-2012	23:59	0.00	80	48		SE	3		375	67	64		97.0	31.4			
10-11-2012	23:59	0.00	72	51		SE	6		354	67	59		95.7	51.5			
10-12-2012	23:59	0.00	64	44		E	2		169	63	61		99.8	62.7			
10-13-2012	23:59	0.00	79	44		SE	3		357	63	60		98.9	43.3			
10-14-2012	23:59	0.00	79	51		SE	3		348	65	61		96.5	49.3			
10-15-2012	23:59	0.00	83	51		N	2		342	65	62		98.8	40.6			
10-16-2012	23:59	0.00	86	59		SE	4		343	66	63		81.7	29.7			
10-17-2012	23:59	0.00	88	53		N	9		358	66	62		60.5	13.1			
10-18-2012	23:59	0.00	88	47		SE	3		340	65	61		78.4	24.2			
10-19-2012	23:59	0.00	81	48		SE	3		329	65	62		98.4	43.1			
10-20-2012	23:59	0.00	77	49		SE	3		330	65	63		99.6	44.8			
10-21-2012	23:59	0.00	68	48		SE	4		254	64	62		95.7	43.9			
10-22-2012	23:59	0.52	64	50		S	9		262	63	60		98.0	49.9			
10-23-2012	23:59	0.01	62	47		SE	5		278	61	59		85.1	50.6			
10-24-2012	23:59	0.02	64	48		SE	6		241	61	58		98.0	61.5			
10-25-2012	23:59	0.00	66	45		N	6		337	60	58		98.9	43.7			
10-26-2012	23:59	0.00	75	44		N	4		318	60	57		84.4	25.3			
10-27-2012	23:59	0.00	82	47		N	4		315	61	58		94.2	35.6			
10-28-2012	23:59	0.00	78	49		E	2		294	62	59		98.2	45.9			
10-29-2012	23:59	0.00	78	48		E	2		305	62	59		99.8	44.7			
10-30-2012	23:59	0.00	75	46		SE	3		283	62	59		100.0	53.6			
10-31-2012	23:59	0.31	63	53		SE	6		85	61	60		98.9	69.1			

31 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: November 1, 2012 to November 30, 2012, retrieved on December 27, 2012

Note: Only 59% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE		AIR TEMPERATURE MAX (F)			WIND DD	SS	ETo	SOL RAD	SOIL T MAX		WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET	BULB TEMP DRY	PAN EVAP
						OBS						MIN						
MM DD YYYY	HH:MM	(IN)	*	(F)	*	*	*	*	(IN) *	(LY) *	(F)	*	*	*		(F)	*	(IN) *
11-01-2012	23:59	0.00		69	50		SE	4		259	62	60		99.7	65.8			
11-02-2012	23:59	0.00		67	44		N	2		239	61	58		100.0	63.6			
11-03-2012	23:59	0.00		75	48		N	2		285	61	58		100.0	39.6			
11-04-2012	23:59	0.00		76	47		E	2		281	61	58		100.0	48.3			
11-05-2012	23:59	0.00		83	46		E	1		279	61	58		100.0	46.2			
11-06-2012	23:59	0.00		79	48		E	1		271	61	59						
11-07-2012	23:59	0.00		73	55		SE	5		287	61	58		100.0	54.9			
11-08-2012	23:59	0.00		68	41	A	SW	8		232 A	59	56	A	94.7	42.8			
11-09-2012	23:59	0.00		56	32		E	3		291	58	55		97.6	46.3			
11-10-2012	23:59	0.00		57	30		E	2		287	56	53		100.0	43.1			
11-11-2012	23:59	0.00		58	30		E	2		260	55	51		100.0	44.6			
11-12-2012	23:59	0.00		62	33		N	2		275	55	52		99.7	35.9			
11-13-2012	23:59	0.00		63	38		N	2		220	55	52		97.2	43.3			
11-14-2012	23:59	0.00		70	40		N	2		263	56	52		100.0	51.5			
11-15-2012	23:59	0.00		67	38		E	2		207	56	53		100.0	58.0			
11-16-2012	23:59	0.48		56	45		N	2		69	55	54		100.0	82.2			
11-17-2012	23:59	1.22		65	52		SE	8		178	58	54		100.0	65.0			
11-18-2012	23:59	0.00		59	41		SE	4		186	57	54		99.3	60.7			
11-19-2012	23:59	0.00		63	52		SE	6		119	57	55		92.2	66.7			
11-20-2012	23:59	0.06	A	69	60	1				168 A	54	52	A					
11-21-2012	23:59	0.12	A	59	40	A				184 A	54	52	A					
11-22-2012	23:59	0.02	A	62	38	A				203 A	54	51	A					
11-23-2012	23:59	0.08	A	88	42	1				190 A	53	51	A					
11-24-2012	23:59	0.17	A	87	37	1				175 A	52	50	A					
11-25-2012	23:59	0.07	A	90	41	1				190 A	52	50	A					
11-26-2012	23:59	0.07	A	86	39	1				183 A	52	50	A					
11-27-2012	23:59	0.09	A	69	42	1				174 A	52	50	A					
11-28-2012	23:59	0.26		73	50	1	SE	8		171 A	52	50	A					
11-29-2012	23:59	0.23		60	53		SE	11		66	55	53		96.8	82.3			
11-30-2012	23:59	0.86		63	57		SE	10		85	57	55		97.6	76.8			

30 records listed

Daily weather report for COLUSA.A (CIMIS #32, Colusa)

More about COLUSA.A: Station description; More data: Daily ~ Averages;

Time Period: December 1, 2012 to December 31, 2012, retrieved on January 11, 2013

Note: Only 51% of requested data were available from station COLUSA.A. See retrieval table.

DATE	OBS TIME	PRECIP AMOUNT & TYPE		AIR TEMPERATURE MAX (F)			WIND DD	WIND SS	ETo (IN)	SOL RAD (LY)		SOIL T MAX (F)	SOIL T MIN (F)		WX	RELATIVE HUMIDITY MAX	RELATIVE HUMIDITY MIN	BULB TEMP WET (F)	BULB TEMP DRY (F)	PAN EVAP (IN)
MM DD YYYY	HH:MM	(IN)	*			*														
12-01-2012	23:59	0.06	A	89	75	1				164	A	51	49	A						
12-02-2012	23:59	0.06	A	59	37	A				160	A	51	49	A						
12-03-2012	23:59	0.07	A	58	38	A				177	A	51	49	A						
12-04-2012	23:59	0.65		54	51	1	E	2		149	A	51	49	A						
12-05-2012	23:59	0.37		55	52		NW	4		49		56	55			99.1	96.8			
12-06-2012	23:59	0.00		62	48		NW	3		146		57	55			99.3	67.7			
12-07-2012	23:59	0.00		61	39		N	3		220		56	53			100.0	47.7			
12-08-2012	23:59	0.01		61	34		N	4		201		53	51			100.0	52.8			
12-09-2012	23:59	0.00		65	48		N	8		206		53	50			69.2	47.5			
12-10-2012	23:59	0.00		66	40		N	3		225		53	51			100.0	57.4			
12-11-2012	23:59	0.00		53	45		S	4		55		52	50			100.0	77.3			
12-12-2012	23:59	0.00		56	37		NW	4		175		52	50			99.3	56.4			
12-13-2012	23:59	0.00		54	33		NW	3		221		51	49			99.9	53.8			
12-14-2012	23:59	0.00		48	30		SW	2		130		49	46			100.0	80.9			
12-15-2012	23:59	0.20		42	30		SE	2		33		48	46			100.0	99.8			
12-16-2012	23:59	0.03		50	41		SE	6		49		48	47			100.0	85.2			
12-17-2012	23:59	0.00		64	45		SE	8		192		52	48			98.1	50.7			
12-18-2012	23:59	0.00		52	33		N	5		217		51	47			85.8	40.5			
12-19-2012	23:59	0.00		49	27		SE	3		205		48	45			96.4	47.1			
12-20-2012	23:59	0.00		54	36		SE	9		146		47	44			82.9	52.0			
12-21-2012	23:59	0.70		48	41		SE	9		27		47	46			99.3	66.9			
12-22-2012	23:59	0.32		55	43		SE	8		144		48	46			97.6	67.0			
12-23-2012	23:59	0.04	A	53	46	1				168	A	47	45	A						
12-24-2012	23:59	0.08	A	53	36	1				150	A	47	45	A						
12-25-2012	23:59	0.03	A	44	35	1				148	A	46	44	A						
12-26-2012	23:59	0.07	A	50	31	1				137	A	46	44	A						
12-27-2012	23:59	0.08	A	53	30	1				114	A	46	44	A						
12-28-2012	23:59	0.25	A	43	29	1				119	A	47	45	A						
12-29-2012	23:59	0.14	A	53	32	1				132	A	47	45	A						
12-30-2012	23:59	0.08	A	54	30	1				133	A	47	44	A						
12-31-2012	23:59	0.06	A	51	29	1				135	A	47	45	A						

31 records listed