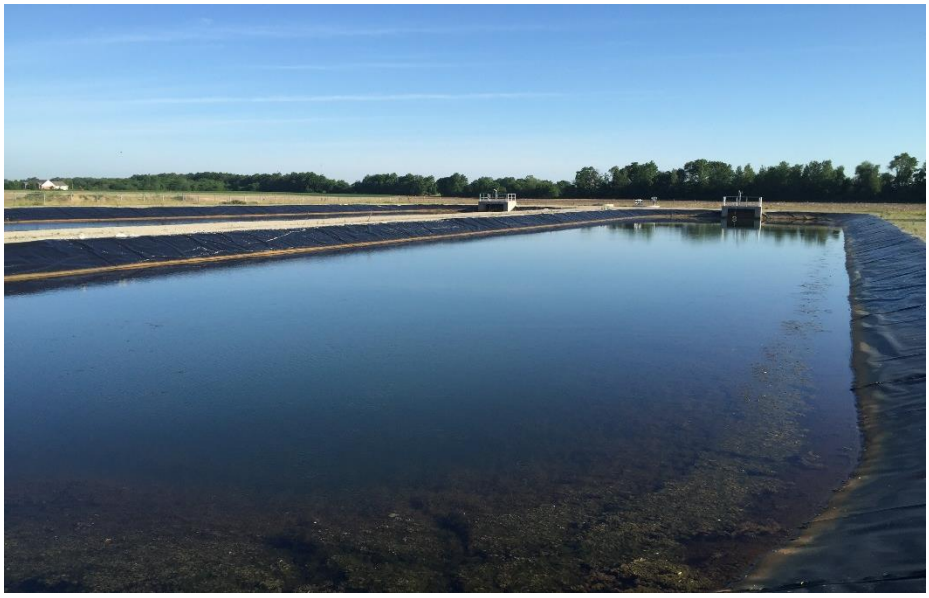
WOODARD &CURRAN



Monthly Operating Report

May 2016

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So. Sangamon

June 21, 2016

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

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EXECUTIVE SUMMARY

Safety is the number one priority at Woodard and Curran. We continue to provide monthly training for employees at the plant, provide weekly safety updates and safety videos are assigned to all employees. There were no lost time accidents in the month of May. Laura Bonk, Joanna Wallace's successor, continues to monitor the progress of the Safety Audit from Portland, Maine. Approximately 85 percent of the items identified in the safety audit performed in May 2015 have been completed.

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for May.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit. The construction permit for this project was received from the Illinois EPA on April 27, 2016. Total cost of the project is estimated to be $43,000. Construction is anticipated to begin in June 2016.

The plant produced 34.1 million gallons of finished water for the month of May.

For the month of May 2016, there were 26 inspections, 9 preventative and 3 corrective maintenance activities completed. There was one alarm that required personnel at the plant after normal operating hours. There was one customer inquiry for the month.

No financial table is included in this monthly report. The exercise to finalize the FY 2015-2016 budget is essentially complete. Woodard and Curran is approximately $2,500 under budget for the year. We have indicated to SSWC this can be refunded to the commission in a check or it can be deducted off the next month's invoice (July 2016). SSWC has elected to have next month's final amount deducted from the July invoice

On March 28, 2016, work began on the Comprehensive Performance Evaluation (CPE). Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings available to the water plant on March 30, 2016. The committee will make formal recommendations to the Illinois EPA at a later date. Once received, the Illinois EPA will formally contact the SSWC with their required and recommendations changes. It is anticipated the formal letter from the Illinois EPA will arrive in the near future.

Woodard and Curran is working with Meco Engineering to update and prioritize the Capital Improvement Plan. The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

1. SAFETY

1.1 SAFETY TRAINING

Woodard and Curran continues to provide safety training for personnel at the plant. This is accomplished by requiring daily safety meetings, weekly safety updates are emailed to the plant and safety videos are assigned to all employees and are required to be completed.

1.2 LOST TIME ACCIDENTS

There were no lost time accidents in the month of May, 2016.

1.3 SAFETY AUDIT

To date, approximately 85 percent of the items identified have been addressed.

1.4 MISCELLANEOUS SAFETY

There were no miscellaneous safety items for the month of May 2016.

2. COMPLIANCE, FLOWS AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for May.

Ms. Ruth Bottrell was at the plant to on May 18, 2016 to review the well sampling protocol used by Mr. Keith Sommers when pulling monthly samples.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit. The construction permit for this project was received on April 27, 2016. The estimated cost for the project is $43,000.

On February 22, 2016, the Illinois Environmental Protection Agency sent a letter to the South Sangamon Water Commission directing them to conduct a Composite Correction Program (CCP). The CCP is requested in light of ongoing consumer concerns expressed by residents within the Chatham community water supply distribution system. The CCP will be performed by a third-party contractor, Curry and Associates, on behalf of the commission. A CCP consists of two elements, a Comprehensive Performance Evaluation (CPE) and a Comprehensive Technical Assistance (CTA):

- The CPE is a thorough review and analysis of the Commission's plant, specifically as to the plant's performance-based capabilities and associated administrative, operation and maintenance practices.

- The CTA is the performance improvement phase that will be implemented if the CPE results indicate improved performance potential.

The CPE is anticipated to take 30 days to complete. On March 28, 2016, work began on the CPE. Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings for the water plant available on March 30, 2016.

The committee has made formal recommendations to the Illinois EPA. It is anticipated that the formal letter from the Illinois EPA will arrive in the near future. The SSWC is reserving the right to comment once they've heard from the Illinois EPA.

2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of May, 2016 was 40.1 MG and the influent parameters were all within the normal range. Please note that at the request of the Illinois EPA, as of February 2016 these numbers now reflect water characteristics prior to Aeration.

The influent flow and loadings are summarized below in Table 2.2

Table 2.2 Influent Concentrations and Flow

Day	pH	Temp	FE	Mn	Fluoride	Hardness	Alkalinity	Well Flow Gals (k)
1	7.42	13.2	0.810	0.420	0.22	360	280	1.131
2	7.50	13.1	0.670	0.404	0.24	362	280	1.247
3	7.44	13.2	0.710	0.407	0.16	360	288	1.127
4	7.46	13.3	0.750	0.410	0.16	364	288	1.045
5	7.53	13.6	0.930	0.397	0.19	366	288	1.103
6	7.46	13.4	0.720	0.401	0.21	366	284	1.412
7	7.38	13.3	0.650	0.399	0.23	364	284	1.182
8	7.45	13.3	0.640	0.395	0.18	370	288	1.248
9	7.38	13.5	0.810	0.393	0.37	368	286	1.160
10	7.39	13.4	0.940	0.405	0.21	364	286	1.188
11	7.43	14.2	1.010	0.405	0.14	368	288	1.126
12	7.39	13.6	0.680	0.387	0.18	364	282	1.158
13	7.43	13.2	0.680	0.420	0.22	366	284	1.445
14	7.37	13.1	0.480	0.397	0.17	368	284	1.001
15	7.41	13.2	0.520	0.395	0.21	366	284	1.217
16	7.40	13.1	0.550	0.413	0.23	368	288	1.259
17	7.36	13.2	0.630	0.394	0.30	362	282	1.236
18	7.40	13.4	0.790	0.368	0.14	360	280	1.192
19	7.36	13.4	0.740	0.426	0.23	360	284	1.459
20	7.46	13.2	0.720	0.397	0.23	364	284	1.373
21	7.54	13.9	0.770	0.387	0.12	368	288	1.608
22	7.50	14.0	0.760	0.376	0.26	368	286	1.342
23	7.51	14.1	0.730	0.412	0.30	362	292	1.747
24	7.68	14.4	0.760	0.396	0.29	364	288	1.452
25	7.72	14.9	0.930	0.403	0.27	360	288	1.370
26	7.47	14.5	0.880	0.403	0.24	362	286	1.216
27	7.58	14.3	0.560	0.399	0.30	366	292	1.415
28	7.38	13.7	0.620	0.386	0.26	360	284	0.966
29	7.40	13.8	0.560	0.402	0.22	360	288	1.674
30	7.43	14.1	0.530	0.396	0.17	362	282	1.671
31	7.35	13.5	0.560	0.414	0.23	364	280	1.352
Max.	**7.72**	**14.9**	**1.010**	**0.426**	**0.37**	**370**	**292**	**1.747**
Min.	**7.35**	**13.1**	**0.480**	**0.368**	**0.12**	**360**	**280**	**0.966**
Avg.	**7.45**	**13.6**	**0.710**	**0.400**	**0.22**	**364**	**285**	**1.294**
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**40,122**

2.3 EFFLUENT CONCENTRATIONS

The facility produced 34.1 MG during the month with a daily average of 1.10 MG and a min/max of 0.87/1.50 MG.

Table 2.3 Finished Water Quality

Date	Fre CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.4	1.5	7.84	13.4	0.01	0.023	0.86	120	262	0.75
2	1.4	1.5	7.86	13.4	0.01	0.008	0.90	124	264	0.83
3	1.4	1.5	7.72	13.6	0.01	0.014	1.02	124	284	0.92
4	1.5	1.5	7.93	13.5	0.01	0.017	0.82	130	270	0.51
5	1.3	1.3	8.11	14.3	0.00	0.010	0.85	118	276	0.75
6	1.4	1.5	7.81	13.6	0.01	0.014	0.96	120	266	0.76
7	1.3	1.4	7.80	13.9	0.01	0.013	0.83	118	270	0.85
8	1.4	1.5	7.92	13.2	0.01	0.021	0.37	128	260	0.84
9	1.4	1.4	7.78	13.7	0.00	0.008	1.03	120	266	0.51
10	1.4	1.4	7.81	13.7	0.01	0.013	0.88	120	268	0.74
11	1.4	1.5	7.75	13.9	0.01	0.013	0.86	120	270	0.80
12	1.4	1.5	7.81	13.8	0.01	0.016	0.81	120	274	0.62
13	1.4	1.5	7.84	13.2	0.01	0.009	0.77	120	268	0.83
14	1.4	1.5	7.85	13.2	0.01	0.013	0.87	114	268	0.81
15	1.4	1.5	7.85	13.2	0.01	0.014	0.85	118	270	0.74
16	1.5	1.5	7.83	13.1	0.01	0.014	0.53	118	268	0.79
17	1.4	1.5	7.83	13.2	0.01	0.012	0.85	120	264	0.74
18	1.5	1.5	7.84	13.4	0.01	0.002	0.89	124	270	0.82
19	1.4	1.5	7.79	13.5	0.01	0.016	0.97	110	266	0.79
20	1.4	1.5	7.82	13.3	0.01	0.018	0.67	128	270	0.76
21	1.4	1.4	7.92	14.8	0.01	0.017	0.74	120	264	0.79
22	1.4	1.5	7.81	13.9	0.00	0.022	0.79	116	274	0.80
23	1.4	1.5	7.72	14.0	0.01	0.011	0.34	112	276	0.68
24	1.4	1.4	7.77	14.0	0.01	0.012	0.90	116	282	0.89
25	1.4	1.6	7.79	14.7	0.00	0.010	0.92	116	262	0.91
26	1.4	1.4	7.95	14.8	0.00	0.004	0.93	114	266	0.52
27	1.5	1.5	7.80	14.3	0.00	0.012	0.99	118	284	0.50
28	1.4	1.5	7.79	14.4	0.01	0.020	0.91	118	258	0.75
29	1.4	1.5	7.77	14.0	0.01	0.015	0.81	120	270	0.70
30	1.4	1.5	7.82	13.9	0.01	0.016	0.89	122	264	0.73
31	1.5	1.5	7.73	13.8	0.01	0.015	1.01	120	268	0.72
Max	1.5	1.6	8.11	14.8	0.01	0.023	1.03	130	284	0.92
Min	1.3	1.3	7.72	13.1	0.00	0.002	0.34	110	258	0.50
Avg	1.4	1.5	7.83	13.7	0.01	0.014	0.83	120	269	0.75

2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below.

Table 2.4 Weekly Grab Sample Analysis Results

Lagoon Effluent Results						
Date	**Fe (mg/l)**	**Mn (mg/l)**	**Chloride (mg/l)**	**Cl^2 (mg/l)**	**pH (S.U.)**	**TSS (mg/l)**
May 2, 2016	0.696	0.481	277	0.264	7.78	0.00
May 9, 2016	0.221	0.125	250	0.194	7.74	0.00
May 16, 2016	0.299	0.118	252	0.116	7.94	0.00
May 23, 2016	0.731	0.687	274	0.774	7.89	4.50
May 31, 2016	0.684	0.827	251	0.903	7.94	0.00
Minimum	0.221	0.118	250	0.116	7.74	0.00
Maximum	0.731	0.827	277	0.903	7.94	4.50
Average	0.490	0.350	261	0.450	7.86	0.90
Monthly Avg Limit	***2.0***	***1.0***	***-***	***-***	***-***	***15***
Daily Limit	***4.0***	***2.0***	***500***	***0.05***	***6.0-9.0***	***30***

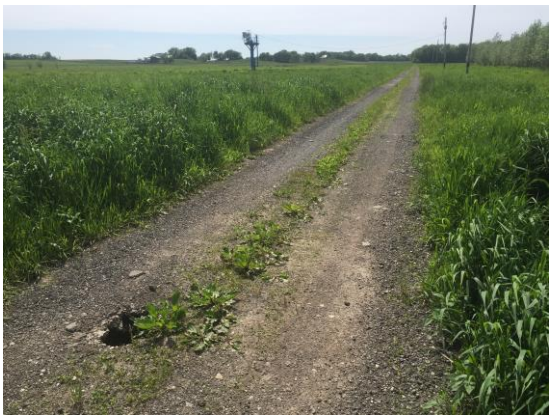
The Chloride sample for the month of May 2016, performed by the Springfield Metropolitan Sanitary District, was 14,500 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

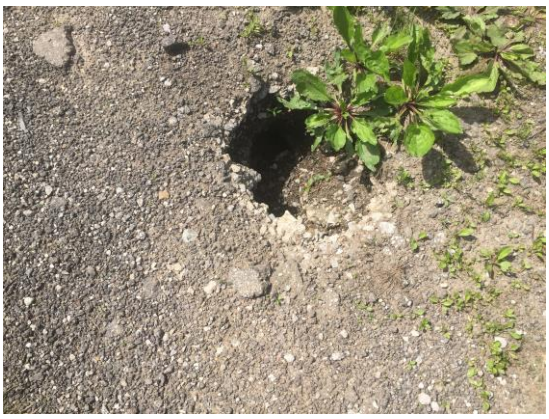
3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Brotcke Well and Pump was on-site May 16, 2016 to rehabilitate Well #2. This work was completed on May 19, 2016. Rehabilitation work began on Well #1 on May 24, 2016. That work was completed on May 26, 2016.

While doing routine sampling in the wellfield, a hole was discovered in the culvert on Marsch Road about 500 feet west of the intersection with Leach Road. Failure of the culvert would make it difficult to access Wells 3 and 5. Pictures of the hole in the road are included below:





3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- Henson Robinson was here on May 11, 2016 to assist in the cleaning and changing of the anodes on the hot water heater.

- Henson Robinson was here on May 19, 2016 to do annual testing of the RPZ units in the plant.

3.2.1 Emergency Call-outs

- At approximately 5:00 pm on Friday, May 19, 2016, the Balance of Plant (BOP) PLC lost communications with the SCADA network causing the SCADA computer, Tonka PLC, and the WesTech PLC to stop communicating with the BOP PLC. Subsequently, the high service pump continued to run but the plant was not producing any water. Around 9:30 pm, Mr. Keith Sommers happen to log into the system but couldn't get in. Dan Held also attempted to log in and was unsuccessful. A call was placed to the village of Chatham and the valve was shut at the Chatham Reservoir. After everything was reset and rebooted, the plant was restarted and the valve was opened around 1:00 am.

See Attachment A for a complete copy of Mr. Ray Giguere report and recommendations. Mr. Giguere is with Woodard and Curran's SCADA group.

3.3 CUSTOMER INQUIRIES

A series of emails were received from Mr. Lee Winston regarding water quality in the village of Chatham.

4. MAINTENANCE AND REPAIR

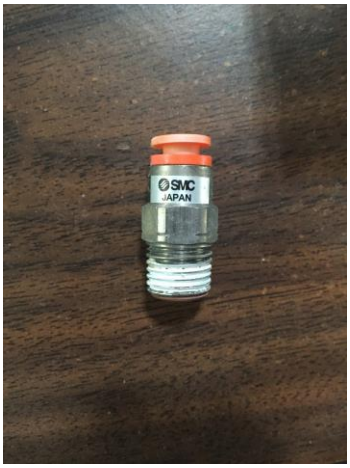
4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of May 2016, there were 26 inspections, 9 preventative and 3 corrective maintenance activities completed.

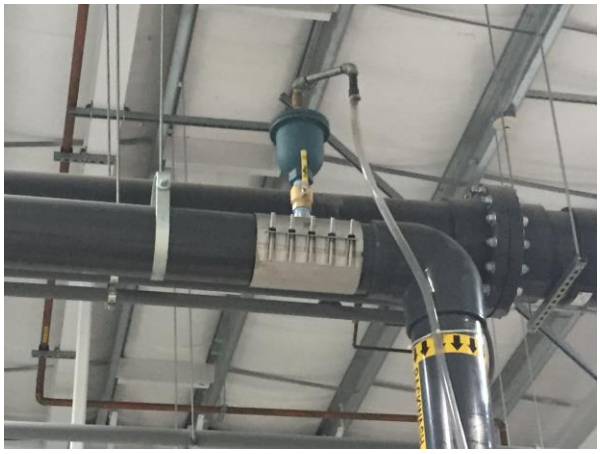
Hydrants on the main transmission line between the plant and the Chatham Reservoir were flushed during the week of May 23 through May 27, 2016.

4.2 CORRECTIVE REPAIRS

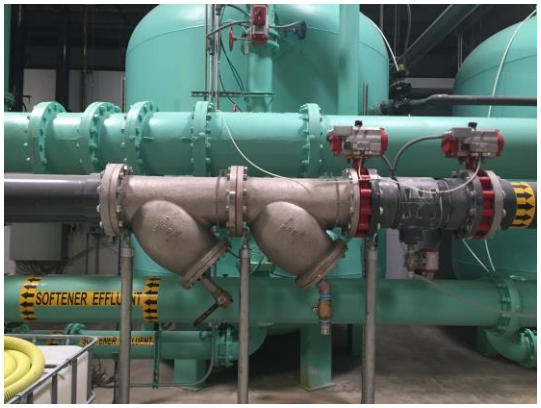
The check valves on Filtration Banks 2 and 3 were replaced. Please note there are two valves on each white filter module, and there are 22 modules per skid for a total of nearly 90 valves. Each check valve is approximately $20 each.

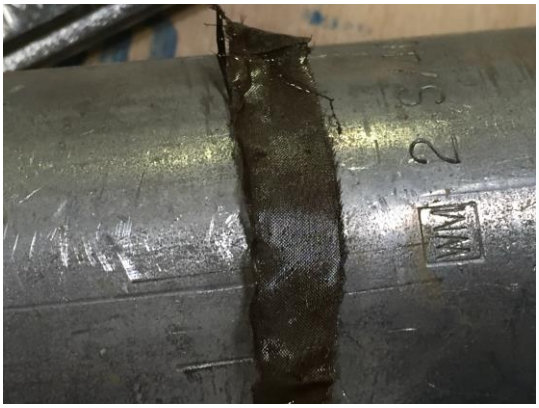


Henson Robinson was on-site May 5, 2016 to replace the Air Expeller saddle on the backwash line to the filtration units. The new unit is shown below:



During normal routine maintenance it was discovered the mesh screen in the stainless steel filters was in need of replacement. Pictured below is a sample of the mesh screen that was replaced.





Heartland Fire Protection was on-site May 19, 2016 to do the annual testing of the plant fire alarm system.

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5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Woodard and Curran continues to train and provide staffing to the plant as needed.

5.2 CORPORATE SUPPORT

- Mr. Dan Held and Mr. Keith Sommers participated in a conference call with Mr. Joe Hurley, Mr. Marc Thomas and Mr. Ray Giguere regarding Capital Improvement Program costs for Priority 1 projects.
- Mr. Dan Held and Mr. Keith Sommers met with Mr. Joel Sanders, Mr. Max Middendorf, Mr. Marc Thomas regarding Capital Improvement Program Priority 1 projects.
- Mr. Dan Held and Mr. Keith Sommers along with Mr. Marc Thomas participated in the monthly South Sangamon Water Commission meeting held on May 17, 2016.
- Mr. Dan Held met with Commissioner Ruth Bottrell on May 20, 2016 to discuss all Capital Improvement Program projects and associated costs.
- Mr. Dan Held and Mr. Keith Sommers participated in a conference call with Mr. Marc Thomas, Mr. Joe Hurley, Mr. Ray Giguere and Mr. Keith Sommers to discuss the cause of computer failure on May 20, 2016.
- Mr. Dan Held participated in the Midwest Project Manager's Conference call on May 19, 2016.
- Mr. Dan Held, Mr. Keith Sommers, Mr. Marc Thomas and Mr. Troy Kepley participated in a conference call on May 19, 2016 regarding flushing of the main between the plant and the Chatham Reservoir.

5.3 BUDGET

The twelve's month financial summary estimated Woodard and Curran to be $2,500 under budget for the year to date.

Table 5.3 Budget Table

No table available at this time.

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Engineering for the removal of Chlorine of the Lagoon discharge water has been completed and submitted to the Illinois Environmental Protection Agency (EPA) for approval. EPA has a 45-day waiting period requirement before an inquiry can be made regarding the status of the project.

6.2 DRAFT CAPITAL IMPROVEMENT PLAN

The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years.

The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

Summary of the SCADA communications loss on 5/20/16

1. 4:28:00 PM – BOP PLC lost communications with the SCADA network causing the SCADA computer, Tonka PLC, and the Westech PLC to stop communicating with the BOP PLC.

2. 4:28:27 PM – WIN-911 modem failed. (Because WIN-911 failed no alarms were sent to the operators). I suspect that the reason WIN-911 failed is because the modem got overloaded trying to process all of the SCADA alarms from the HMI.

3. 9:50:00 PM – I had the operator cycle power on the control panel because the PLC wasn't faulted and the status on the Ethernet module was ok. I suspected that one of the Ethernet switches in the panel was locked up causing the SCADA network issue. After the panel was back up and running all communications on the SCADA network were back.

4. Worked with the operator to get the wells, high service pumps, and chemical feed pumps to operate in auto. The reason the equipment didn't start is because when the PLC is re-restarted the plant control modes are not selected and the well communications is disabled. (had to manually set the control modes and enable the communications for each well).

SCADA Recommendations

1. Install a backup alarm dialer that is hard wired to the BOP PLC so when the SCADA communications goes down or the BOP PLC fails the alarm dialer will alert the operators if WIN-911 is not functioning. Having a backup alarm dialer will make the operators aware of the issue so it can be addressed right away.

2. Review all the PLC logic with the operators to make sure there are interlocks in place to prevent equipment from running in case of a system failure.