CLAREMONT POLYCHEMICAL SUPERFUND SITE
Groundwater Treatment System
Old Bethpage, New York

MONTHLY REPORT
of the
Operations & Maintenance Activities
During
February 2013

WA D006130-19
SITE # 130015

Prepared for the:

New York State Department of Environmental Conservation

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ACRONYMS AND ABBREVIATIONS

AS	air stripping
ASF	air stripper feed
CA	carbon adsorber
CLP	contract laboratories program
DBA	doing business as
DOSR	daily operations summary report
DTW	depth to water
gpd	gallons per day
gpm	gallons per minute
GW	groundwater
GWTP	groundwater treatment plant
GWTS	groundwater extraction, treatment, and reinjection system
HCl	hydrochloric acid
HMI	human-machine interface
HRP	HRP Associates, Inc. dba HRP Engineering, P.C.
HVAC	heating, ventilation, and air conditioning
IG	infiltration gallery
IW	injection well
LGAC, LCA	Liquid phase granular activated carbon
LTRA	Long Term Response Action
MCC	motor control cabinet
MCP	master (main) control panel
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
PDB	Passive Diffusion Bags
PD	plant discharge
PID	photo ionization detector
PLC	programmable logic controller
psi	pressure in pounds per square inch
PW	process water
SAIC	Science Applications International Corporation
SAP	sampling and analysis plan
SOP	standard operating procedure
SSHP	site safety and health plan
USACE	United States Army Corps of Engineers
VGAC, VCA	vapor-phase granular activated carbon
VFD	variable frequency drive
VOCs	volatile organic compounds

1.0 OPERATION AND MAINTENANCE ACTIVITIES

HRP Associates, Inc. dba HRP Engineering, P.C. (HRP) continued its daily operation and maintenance (O&M) of the Claremont Polychemical Superfund Site and its groundwater treatment system (GWTS) during February 2013. This period is defined as 0600 hours, February 1, 2013, through 0600 hours, March 1, 2013. O&M conducted during this reporting period was performed in accordance with the site O&M Manual.

The plant and grounds were maintained for the 28 days in this reporting period although the treatment system was off line for the whole period (40,320 minutes).

During this shutdown, readings of key process parameters were recorded as necessary. These readings were used to monitor various plant maintenance operations. These readings were recorded in the Daily Database which is an electronic file maintained in the monthly operating data folders.

At the end of this report is a list of the manuals, logs, reports, and databases maintained by the treatment plant. The locations of these documents are included.

1.1 Daily Operations Summary Reports

The daily operation of the GWTS is documented in the Daily Operations Summary Reports (DOSR). The DOSRs include a summary of the daily O&M activities and are based on the daily operating logs and worksheets. These worksheets include:

Daily Operating Log – process meter readings (CPS-Form-008)
Daily Activities Summary Report - plant operator activities (CPS-Form-007)
Daily Site Safety Inspection – Site checklist for unsafe conditions (CPS-Form-009)
Employee Sign-In Sheet – employee log in (CPS-Form-11)

1.2 Summary of Maintenance Activities

Maintenance of the treatment system and associated equipment is performed in accordance with the Claremont Groundwater Treatment System O&M Manual. Routine activities and equipment function tests completed during this reporting period are summarized in the Monthly Maintenance Log. This report is electronically filed and is available for review.

System maintenance incorporates the equipment manufacturers' recommendations, operations experience, and good engineering and maintenance practices. A detailed accounting of daily operation and maintenance activities is provided in the plant operator's daily logbook, the site supervisor's daily logbook, the operator's daily activities summary reports, and the site supervisor's daily plant activity notes.

Significant maintenance activities completed during this reporting period included the following:

- Scheduled routine monthly tasks which included injection well (IW) depth soundings, valve function tests, comprehensive site inspections, and infiltration gallery readings.
- Outdoor site maintenance was performed as needed. This included various clean up tasks and grounds keeping.
- Both Settling Tanks, (ST-1, 2) were drained and flushed. The drain screens were brushed and the slots reamed.
- The Liquid Carbon Adsorber Vessels (LCA-1, 2) were dumped to the floor sump and the discharge piping was removed to facilitate the necessary repairs.
- Snow was removed from the paved areas including all exit doors as necessary.
- Welding repairs were made to the LCA vessels. The vessels were leak tested and all appears to be corrected.
- Welding repairs were made to the EQ tank. The tank was leak tested and several additional pinhole leaks were discovered. The tank was emptied and the repairs made. The system was again tested. There are no further leaks at this time.
- Adjustments were made to the plant furnace to get it started. It has run through several cycles without issue.
- Lights were replaced in the shop as necessary.
- The M-4 pump was removed from its hard plumbing and rebuilt. It will be set up for stand-alone usage.
- Repairs were made to the 2" PVC water transfer hoses.
- The Reaction Tank (RX) mixers were activated and the tanks were dumped to the floor. The tanks were rinsed.
- The water seal leak in RCY P1 was repaired.
- The filter press was dried and emptied. The carbon cake collected was ~2/3 drums.
- The in-house truck inspection was completed.
- Various plant doors were prepared and painted.
- The floor sump alarm float switch was temporarily secured until a confined space entry can be made for permanent repairs.
- More vines were cleared from the front gate and around the plant wires.

2.0 MAINTENANCE LOGS

The following operating logbooks are currently in use:

- Well Maintenance Field Log CL-28
- Sampling support Field Log CL-37
- Site Supervisor's Daily Log CL-45
- Plant Operator's Daily Log CL-44

40 completed logbooks are being scanned and delivered to the NYSDEC. All of the logbooks are identified on a master logbook inventory control file and are routinely checked as part of the site quality control program.

3.0 TECHNICAL SUPPORT ACTIVITIES

3.1 HRP Personnel

- There were no HRP personnel at the GWTP during this period but several engineers worked on various aspects of the extraction well system.

3.2 NYSDEC Personnel, sub-contractors and other visitors

- Richard Chandler and Jim Shendalor of East End Renewables were in to discuss the installation of a solar array system in the injection well field.
- Ben Rung and Dave Lates (NYSDEC) were in for a site visit and to discuss logistics with East End renewables.
- National Grid was in to replace the gas meter.
- Emilio Colato of Superweld was onsite to repair the EQ and LCA vessels. (6 mobilizations).
- Valerie Egan of NCDPW was in to check on the sampling schedule

3.3 Deliveries

- Mail was delivered 3 times
- Keith Industries delivered the steel drum order

4.0 HEALTH AND SAFETY

Work at the Claremont Polychemical groundwater treatment plant (GWTP) was conducted in accordance with the approved Site Safety and Health Plan (SSHP). Site safety inspections were performed daily and the reports are filed on-site. In addition to the daily safety inspections, comprehensive safety inspections were performed twice in February. These worksheets are also on file.

The extraction well pump motor controllers and power supplies were locked and tagged out (LOTO). The modules remain locked out.

In February, 2 confined space entries were performed. The authorizations and monitoring worksheets are on file. One entry required the LOTO of the EQ tank mixer.

Hot Work Permits were issued for each day's tank repair welding. These permits are also on file.

No safety incidents or accidents occurred during this February 2013 period.

5.0 PLANNED ACTIVITIES AND SCHEDULES

The status of project work and significant corrective maintenance activities is updated on a monthly basis. This status of plant conditions and concerns was updated February 25 and is electronically filed. It can be found at the end of this report as Table 12-1 – Claremont Corrective Action Summary.

Separate tentative schedules for equipment maintenance events are shown in the O&M Manual and the Sampling and Analysis Plan (SAP).

Currently, the GWTS is off line. It will remain in this mode until the extraction well pumps are re-installed and re-activated. This will be scheduled when an optimized water extraction plan has been developed.

6.0 MONITORING WELL WATER ELEVATIONS

The well system water level elevation data-table was updated after the December quarterly groundwater sampling event. This database is available for review. The water level elevation data is included in the quarterly groundwater monitoring report. The next table update will occur after the next quarterly sample collection.

Due to the stabilized nature of PDB samples, the water quality data will no longer be recorded.

7.0 TREATMENT SYSTEM FLOWS

The volume of treated water discharged by the treatment plant to the injection well field is determined daily from readings of the magnetic flow meter on the plant effluent line. A summary of these meter readings is generally provided in Table 7-1. However, because the GWTS was off line throughout this whole period, there was no plant discharge to record. The total volume of treated water discharged in February, as measured from 0600 hours on February 1, 2013, to 0600 hours on March 1, 2013, was 0 gallons.

The cumulative volume of water discharged for this contract year (June 1, 2012 to present) was 93,525,749 and is ~30% below target. A graphic representation of the daily system flows are provided in Figure 14-1. (Targeted goals are based on a treated water discharge rate of 335 gpm.)

In February, the plant discharge flow averaged 0 gallons per minute (gpm) and 0 gallons per day (gpd).

Month	Flow Average (gpm)	Volume Discharged (gpd)
June ‘12	380	546,715

July '12	357	513,599
August '12	344	495,778
September '12	338	487,288
October '12	320	460,217
November '12	343	493,409
December '12	47	68,313
January '13	0.7	968
February '13	0	0
Goal	**335**	**482,400**

The flow monitoring units for the individual IW systems and infiltration galleries are fully functioning. This allows for reading the flow rate and volume discharged to each system. As indicated above, there was to no discharge in February.

Both galleries have been draining adequately. The plant's total effluent discharge is limited by plumbing constraints, by injection pump capacity and the ability of the wells to accept water.

8.0 CHEMICAL CONSUMPTION

The four chemical feed systems are offline, and their future use is not anticipated. The systems are periodically tested and are operational. With the exception of the permanganate feed tank, the chemical feed tanks and feed tubing contain water for testing and inspection purposes. Currently the KMnO4 tank needs a repair to a cracked drain nozzle.

There are no bulk chemicals onsite.

9.0 CARBON SYSTEMS

9.1 Aqueous-Phase Carbon

The liquid side carbon feed system is off line. The vessels were extensively back washed in December.

No carbon has been added to or removed from the vessels.

9.2 Vapor-Phase Carbon

The Air Stripper system is off line.

No spent vapor-phase carbon was generated during this period, and no carbon was added to the vessels.

10.0 WASTE DISPOSAL

Currently, there are 8 metal drums of non-hazardous carbon waste stored inside the facility. There is no hazardous waste onsite. There was no waste removed from the facility in February.

11.0 MONTHLY DISCHARGE MONITORING REPORT

The plant is currently operating under an equivalency permit from the New York State Department of Environmental Conservation (NYSDEC). While the permit requires periodic submittal of discharge monitoring results, monthly discharge monitoring reporting is not required. A review of previous monthly discharge analytical results indicated all analyzed parameters were below noted permit limits.

The plant's water discharge permit expires December 31, 2013.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

The GWTS is currently offline. The extraction well pumps have not been scheduled for re-installation. The plant start-up will depend on the operation of the pumps.

East End Renewables along with SUNY Farmingdale is planning to install solar panel arrays on ~10 acres in the wellfield. Discussions have included required setbacks and access to the monitoring wells, injection wells, and infiltration galleries.

Other on-going plant maintenance issues are summarized on Table 12-1.

13.0 PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. During February, the following changes were made:

- Confined Space Entry Authorization - Form-025 was revised to rev. D
- Hot Work permit – Form-001 was revised to rev. C

14.0 TREATMENT PLANT AND WELL FIELD MONITORING RESULTS

The Claremont Polychemical GWTS is monitored through the analysis of off-site laboratory analytical data and on-site field data.

14.1 Off-site Analytical Data Results

Monthly plant discharge (PD) samples are taken for organic analysis in compliance with the NYSDEC discharge permit. Quarterly groundwater (GW) samples are taken for organic

analysis, and quarterly process water (PW) samples are taken for organic, inorganic, and generic analysis. In February, there was no sampling activity. However:

- Analytical data was re-submitted to NYSDEC for the Dec '12 EX samples using EED form V3.

14.2 Field Data

Treatment plant effluent is normally monitored for pH and temperature on a weekly basis in order to obtain a monthly average in compliance with the NYSDEC discharge permit requirements. These readings are obtained from discharge samples taken from a controlled point with calibrated portable meters. The plant was offline during February and no discharge readings were taken.

The NYSDEC discharge permit requires the plant discharge to have an average monthly pH greater than 5.50. A graph of the plant discharge monthly pH average trend over several months is provided in Table 14-1.

Normally weekly air monitoring readings are taken with a PID of the influent and effluent air streams of the active vapor phase carbon adsorber vessel following the air stripping tower. Both vessels have been offline for all of February. The plant PID readings will resume once the plant is operational

Water elevations in the IWs are normally recorded on a daily basis as is the daily total flow discharged to the well field. These are depicted in Figure 14-1. The IW levels were generally steady while the pumps are active. With the exception of IW-1, the transducers in IW-2, IW-3, and IW-4 are producing unreliable signals. The water levels are physically monitored more frequently. On 2/26/13 the DTW readings for the injection wells were recorded.

	Sounding Depth (ft)	Transducer	Depth to Water (ft)
IW-1	145.70	68.6	99.63
IW-2	199.10	95.8	100.40
IW-3	233.10	101.4	100.10
IW-4	196.76	99.1	101.00

Measurements to determine the well depth from the top of the injection well column to the bottom were also taken on 2/26/13. A summary of the historical data is included in Table 14-2. There has been an accumulation of sediment in all four injection wells, and while relatively stable, there seems to be more sedimentation activity.

The injection well falling head test was not performed in February. A graphic representation of the time required to drop the water level to a static condition is presented in Figure 14-2 for the December test. Comparisons of baseline data from March 2006 to that of recent tests (Figure 14-3) indicate that the performance of IW-1 is unchanged. All wells appear to have been draining adequately.

Other routine data collected during February included:

- The plant sound level readings were recorded twice (2/8, 2/22), (included with the safety inspection sheets)
- Weekly utility meter readings were recorded.
- The plant air was sampled (2/8).
- Extraction Well depth to water and depth to bottom readings were recorded 2/26

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

For all of February, the GWTS was off line. All process pumps were shut off during this period but were operated manually if necessary.

15.1 Extraction and Influent Processes

- The three extraction well pumps were removed from the wells 12/6.
- The 3 extraction well flow monitors were cleaned and are fully functional.
- The multiple leaks in the EQ tank walls were repaired.
- The three influent pumps are operational but off-line.
- There continues to be some drift in the flow control signal to influent pump-1.
- The 2 influent flow controllers are fully functional.
- Routine maintenance continues.

15.2 Flow through Aeration Process

- Both treatment trains are currently off line. Both systems were emptied and cleaned.
- The four chemical feed systems remain out of service as current water conditions make their use unnecessary.
- The flash and flocculation mixers at the clarifiers remain idle due to the discontinued use of the polymer and lack of solids generation.

15.3 Settling Filter Process

- The system is fully functional but offline.
- Both tanks were emptied and cleaned.

15.4 Air Stripping Process

- The three ASF pumps are off line
- The VFD for ASF P2 continues to exhibit an earth ground fault. When on-line, Pump 2 operates through the off line pump's VFD.
- The motor on P3 was replaced.
- The vapor phase carbon beds are drained of condensate as necessary.
- The blower is fully functional. It is also offline.
- The AS air sample ports were reinforced.
- Access ladders were installed at the carbon vessels
- Routine maintenance continues.

15.5 Aqueous-Phase Carbon Treatment Process

- All three feed pumps are fully functional but offline.
- Multiple holes in both vessels' side walls were repaired.
- Other routine maintenance tasks continued.

15.6 Treated Water Injection Process

- The plant discharge system is offline but fully operational.
- All three INJ pumps are functional.
- There is a leak in the pump discharge manifold prior to the plant effluent flow sensor. This leak is minor and no action is required.
- Except for IW-1, the injection well transducers are all producing unreliable signals.
- The PD flow meter was removed and cleaned.
- The IW flow monitoring systems were removed and cleaned
- The galleries are adequately draining.
- Routine maintenance tasks continue.

16.0 GROUNDS

Routine maintenance tasks continue outside the plant. This includes weather related clean up tasks and landscaping duties and well maintenance.

16.1 Plant Perimeter

- General outdoor clean up continues. Including wind-blown debris.
- Snow is removed as necessary
- Vines and brush are removed from the front gate area and power cables as necessary.

16.2 Well Field

- The extraction well pumps, pipes and fixtures were removed from the wells. EX P3 was moved to a more secure location.
- The well areas are routinely inspected.
- The well paths are clear.

16.3 Other

- The monthly in-house inspection of the plant truck was completed (2/25).
- Miscellaneous trips for local purchases were made.

There were no other significant issues outside the plant. Routine maintenance continues.

FIGURES

Figure 14-1 Injection Well Elevations and Daily Flow

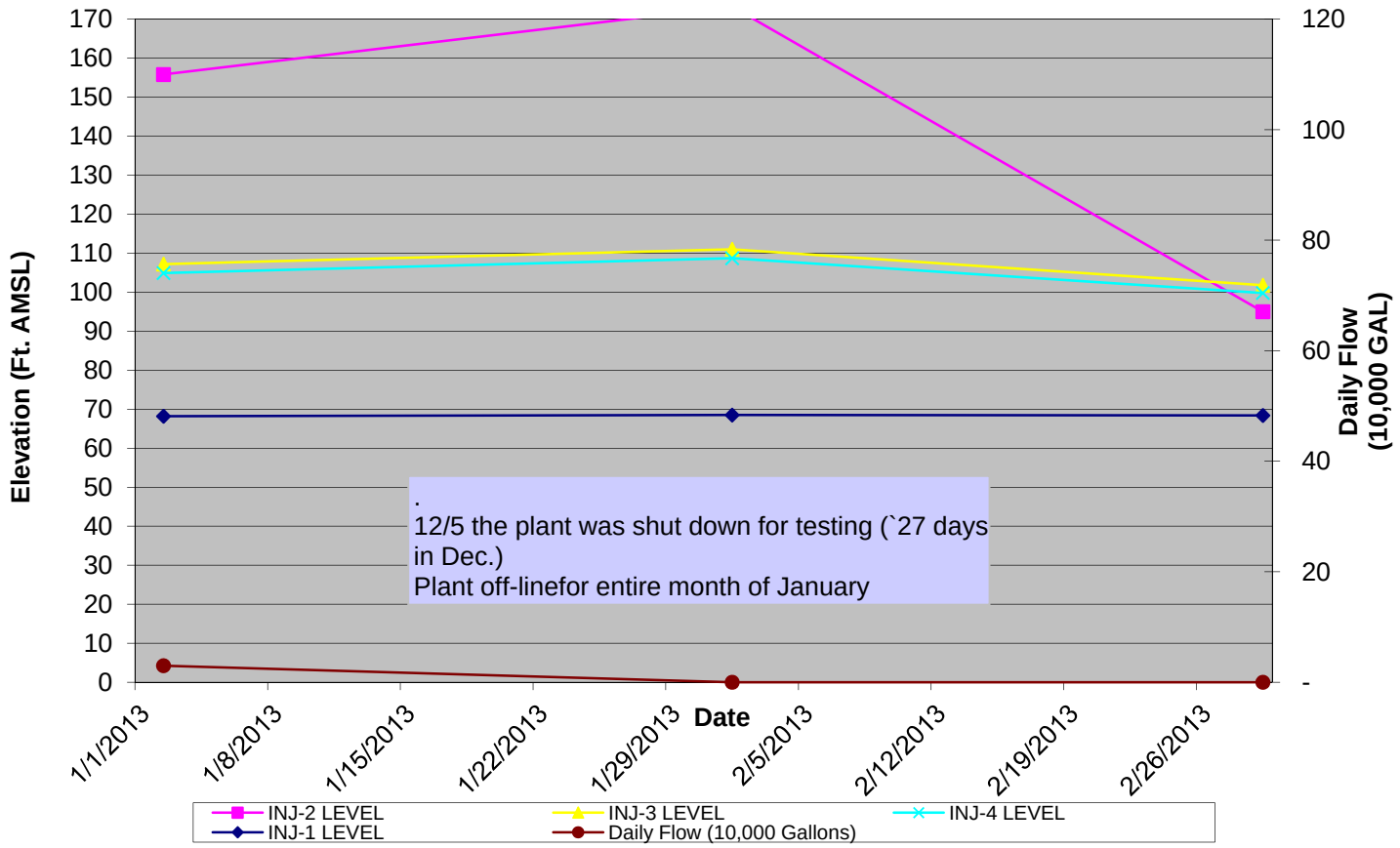


Figure 14-2 Injection Well Falling Head Test - December 19, 2012

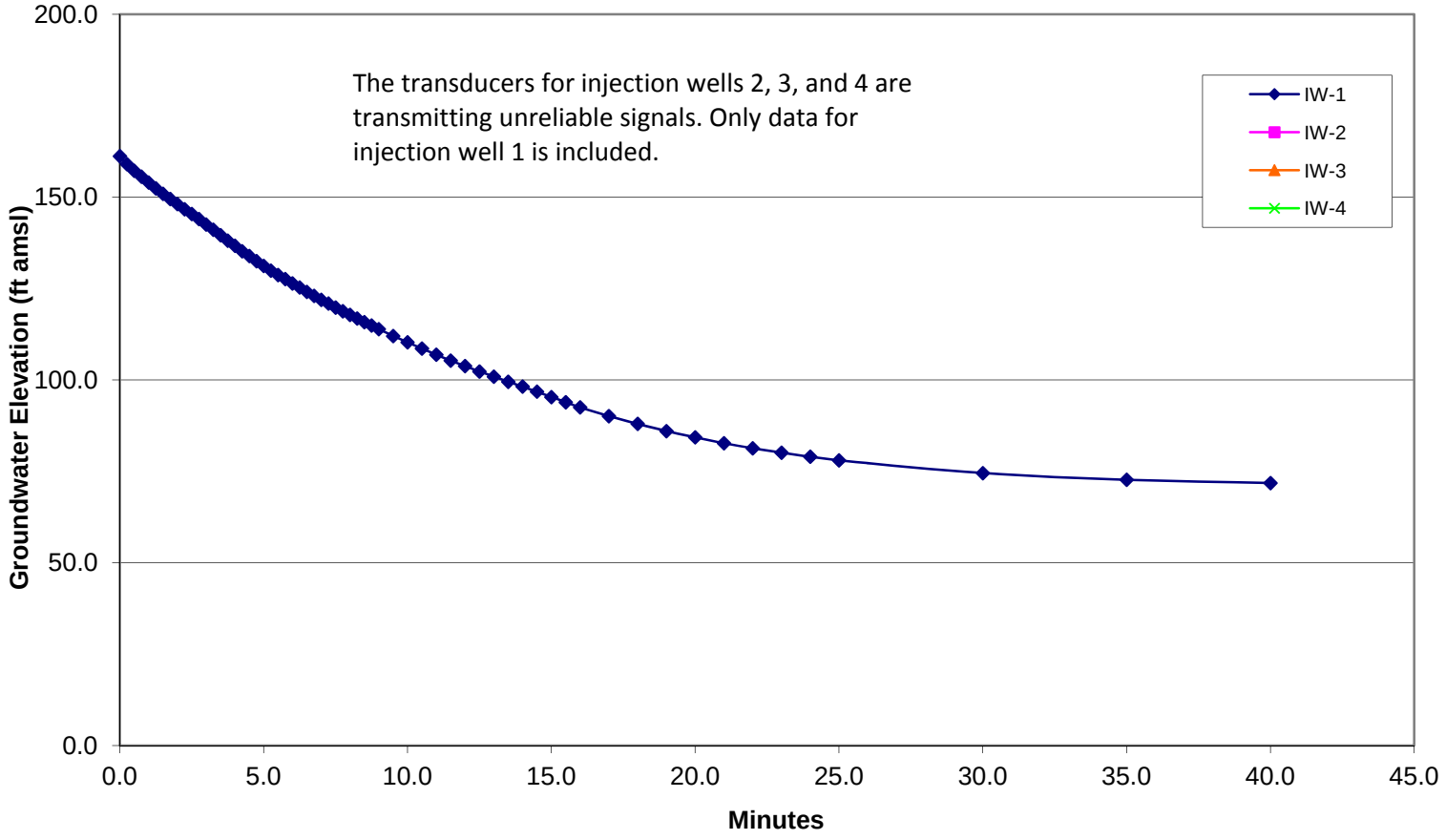
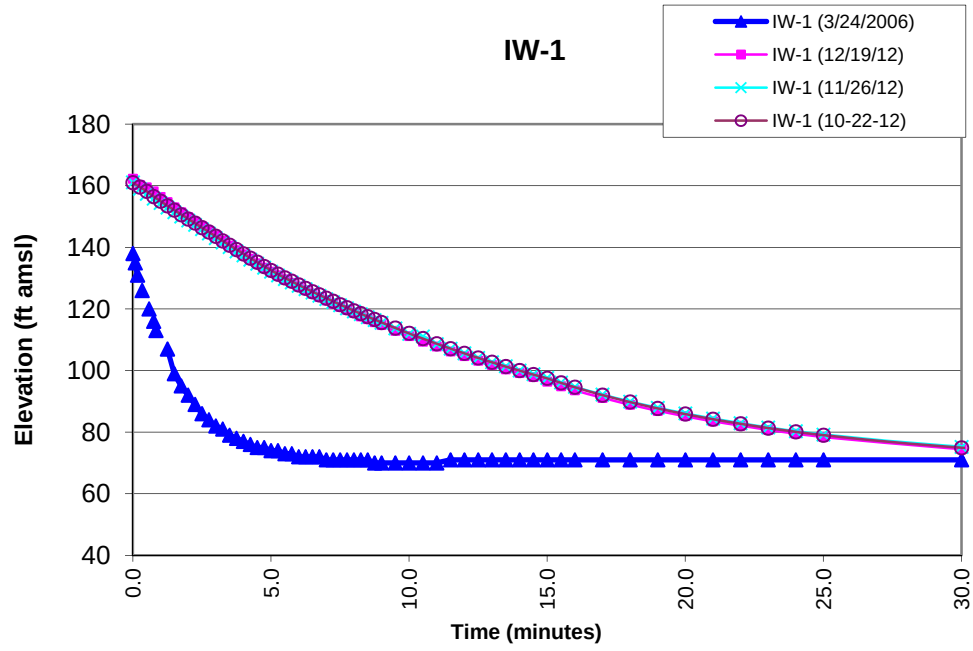
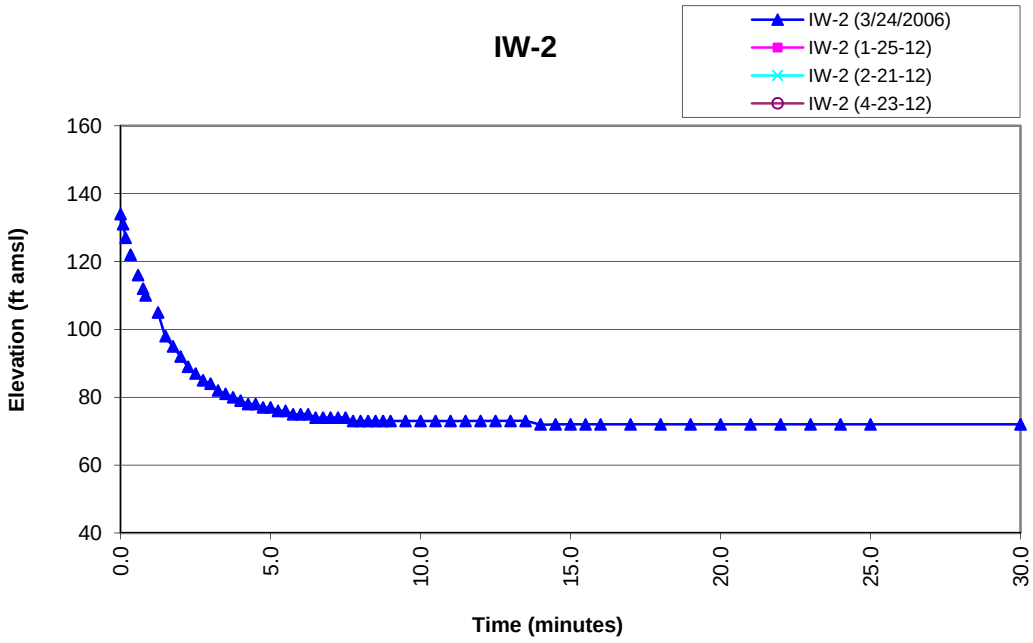
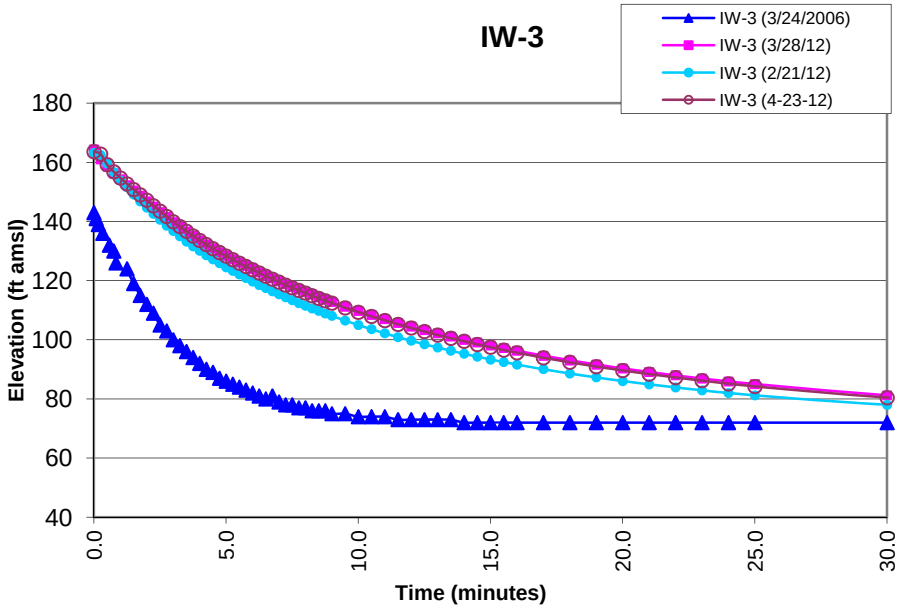
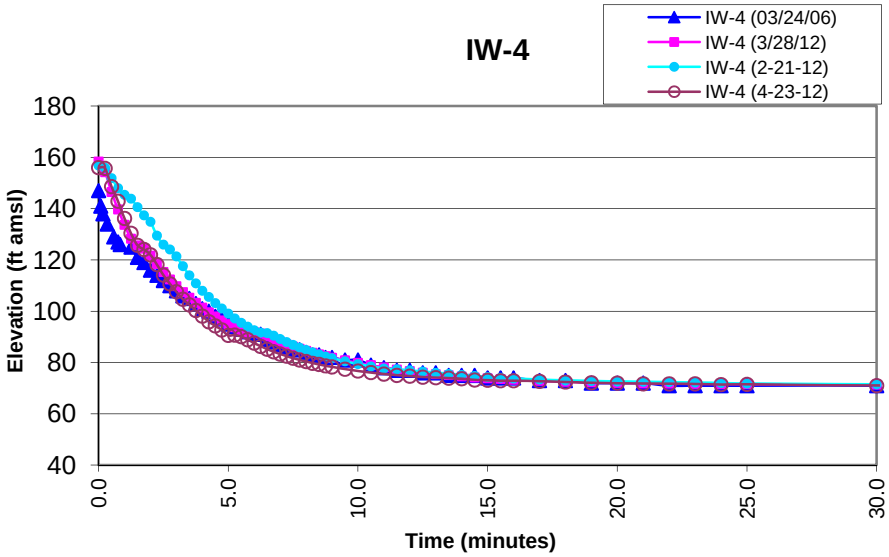


Figure 14-3 Comparison of Falling Head Tests






IW-3
IW-3 (3/24/2006)
IW-3 (3/28/12)
IW-3 (2/21/12)
IW-3 (4-23-12)
Elevation (ft amsl)
180
160
140
120
100
80
60
40
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (minutes)


IW-4
IW-4 (03/24/06)
IW-4 (3/28/12)
IW-4 (2-21-12)
IW-4 (4-23-12)
Elevation (ft amsl)
180
160
140
120
100
80
60
40
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (minutes)

TABLES

TABLE 7-1

MAGNETIC FLOWMETER DAILY TOTALIZER READINGS

February 2013

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
2/1/2013	652430000	0	0
2/15/2013	652430000	0	0
3/1/2013	652430000		
Feb.'13 Treated Water Volume		**0**	
Feb. '13 Avg. GPM Discharged			**0**

TABLE 12-1

Claremont Corrective Action Summary

Plant conditions and concerns (updated 2/25/13)

Date	Condition to be corrected	Status	Priority	Notes
2007	PD manifold leak	Leave as is	3	Leak is monitored and deemed to be not serious
2008	Check Valve failures	Valves are manually controlled	2	Plant wide – 13 units, this situation creates problems for any remote control of the processes.
2008	Injection Pump shut off valve failure	Leave as is	2	Minimum 4 units. Pumps cannot be isolated
Aug '08	Air Compressor overhaul	Run system on an 'as needed' basis	4	This method has been working well. A failure may prevent some tasks.
2009	EQ tank shut off valve failure	Leave as is	2	The tank cannot be isolated
2009	Filter press hydraulic fluid leak	Add fluid as needed	4	The hydraulic pump system will require outside service.
2009	Sludge tank transfer piping replacement	Use M-8 pump and hoses	4	Hoses and an M-8 are being used in place of the hard plumbed system.
Aug '10	IWs transducer replacement	Leave as is and manually measure water levels	3	3 units, only the transducer in IW-1 gives a reliable signal
Aug '10	Access stairs from plant to wellfield	Leave as is	4	Need to generate a plan with costs
May '11	pH meter failures at RX1, 2, and ASF	Leave as is	3	pH control is no longer required
June '11	ASF P2 VFD repair	Leave out of service	2	P-2 is run on off-line pump's VFD
June '11	ASF P3 motor replacement	**Replaced motor with one removed from P2 (1/18/11)**	2	**Has not been tested under load**
July '11	INF P1 VFD repair	Leave as is	2	Pump flow is controlled by throttling the P-1 discharge valve
Dec '11	LCA vessel 2 - pin hole leaks	Repaired 2/14	3	**Fully functional**
Jan '12	INF P2 motor noise	Await failure	4	Replace motor at failure
Apr '12	INJ P2 leak	Leave as is	2	Shut down item – replace seal
Apr '12	Permanganate tank repair	Leave as is	4	Off line, tank is not needed
Sept '12	Optimize PD flow	Leave as is	4	-Change extraction containment flow requirements -change discharge & manifold plumbing -change out pump impellers -resize pumps
Nov. '12	Clean Process tanks	Clean when possible **EQ , RX-1, RX-2, ST-1**	4	Plant shutdown items: ASF,GACF, TW
Dec '12	Plant heater failure	**The heater was adjusted and is now functional**	3	**Fully Functional**
Dec. '12	LCA vessel 1 pinhole leaks	**Repaired 2/15**	3	**Fully functional**
Dec. '12	EQ tank pin hole leaks	**Repaired 2/19**	2	**Fully functional**
Ongoing	Non-Hazardous Waste Accumulation	Indoor storage	3	Waste removal will be scheduled when sufficient quantity is accumulated.

Recently completed Tasks	Condition	Remedy		
12/14/12	ASF Tank Level alarm faults	Units cleaned and returned to service.		Plant is down so effectiveness of remedy has not been tested
11/15/12	Out Door Heat Trace controllers	Two units for the 3 tanks have been installed and actuated		
11/15/12	IW-2 high water level	Reduced plant flow and several shut down periods righted the problem		
11/14/12	Plant truck emission test	Truck passed		
12/6/12	PID failure	New unit purchased and in use		
12/11/12	INJ Flow meter errors	Cleaned flow elements and piping spool pieces		
12/12/12	EX flow meters	Cleaned flow elements and piping spool pieces		
12/4/12	Plow pump leaks	Unit was rebuilt		
12/20	Clean EQ strainer	Cleaned when tank was emptied		
Sept '12	Emergency light failure NE door	New unit installed 1/30/13	2	Fully functional
Nov. '12	Clean process flow monitoring systems	Ex cleaned 12/12 PD cleaned 1/3 IW cleaned12/11	3	Plant shutdown items: PD, INJ, INF, EX
Dec. '12	AST media evaluation	Tower opened and media inspected 1/14	4	Iron sludge coating, media open - OK
Dec. '12	Valve Actuators on Settling tanks are a potential hazard	Actuators removed 1/18	3	Controllers disconnected, actuators stowed

Priority Level 1- urgent and must be done
2- not urgent but must be done
3- not urgent but should be done
4- not urgent but would like done

TABLE 14-1

Month	$pH_{AVG.}$
May '11	6.25
June '11	6.33
July '11	6.12
Aug '11	6.39
Sept '11	6.38
Oct '11	6.22
Nov '11	6.62
Dec '11	6.60
Jan '12	6.58
Feb '12	6.50
Mar '12	6.57
Apr '12	6.52
May '12	6.28
June '12	6.32
July '12	6.54
Aug '12	6.32
Sept '12	6.20
Oct '12	6.15
Nov '12	6.39
Dec '12	6.11
Jan '13	6.35

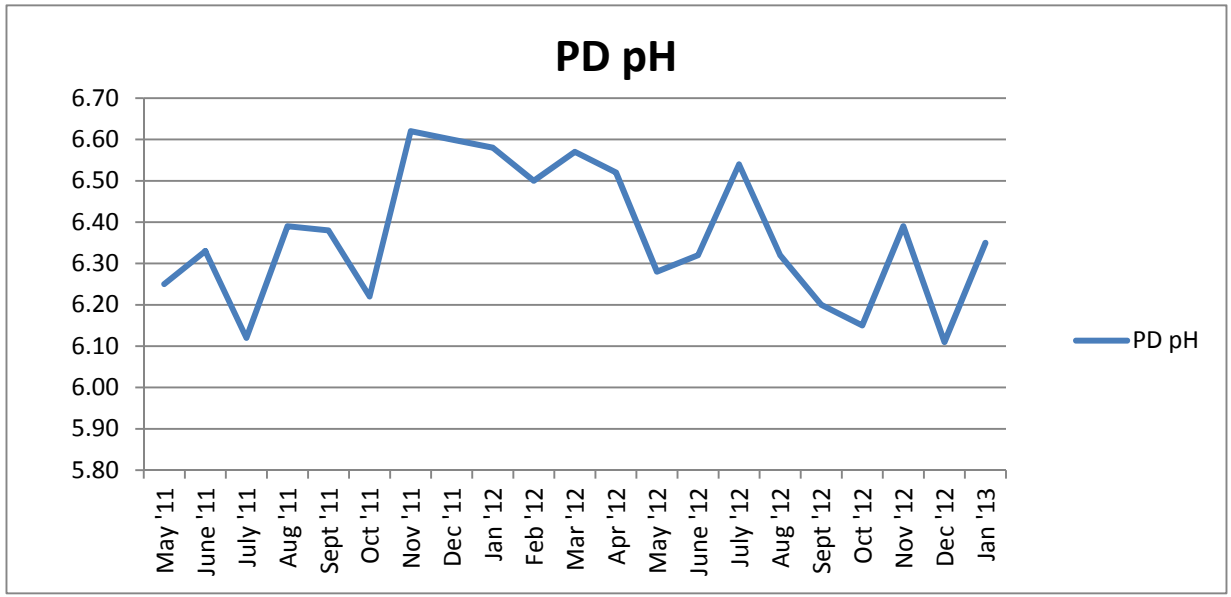


TABLE 14-2 Injection Well Soundings

	Injection Well 1		Injection Well 2		Injection Well 3		Injection Well 4	
Date	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference
6/17/2004	248.50	--	248.50	--	253.20	--	205.00	--
7/23/2004	247.97	-0.53	248.19	-0.31	251.20	-2.00	203.50	-1.50
2/16/2006	247.50	-0.01	245.69	-0.40	249.19	-0.02	203.98	0.00
3/23/2006*	247.59	0.09	245.65	-0.04	249.60	0.41	203.75	-0.23
10/25/2007	244.69	-1.10	242.08	0.12	248.73	1.93	200.14	-0.15
11/19/2007	242.20	-2.49	242.00	-0.08	249.60	0.87	201.05	0.91
12/21/2007	235.02	-7.18	241.56	-0.44	249.62	0.02	200.08	-0.97
1/29/2008	232.46	-2.56	241.98	0.42	249.63	0.01	200.03	-0.05
2/29/2008	226.58	-5.88	242.12	0.14	249.82	0.19	199.52	-0.51
3/27/2008	220.50	-6.08	241.90	-0.22	249.50	-0.32	199.30	-0.22
4/29/2008	222.50	2.00	242.02	0.12	249.60	0.10	198.98	-0.32
5/30/2008	218.55	-3.95	241.90	-0.12	249.47	-0.13	198.65	-0.33
11/20/2008	198.05	-2.63	242.12	0.24	249.54	0.04	198.64	0.05
12/29/2008	178.29	-19.76	242.10	-0.02	249.15	-0.39	198.30	-0.34
1/26/2009	167.50	-10.79	241.90	-0.20	248.87	-0.28	198.28	-0.02
2/25/2009	151.20	-16.30	242.00	0.10	248.80	-0.07	198.80	0.52
3/13/2009	148.68	-2.52	241.87	-0.13	248.94	0.14	198.28	-0.52
9/21/2011	145.90	0.05	241.10	-0.40	248.25	0.00	197.73	-0.07
10/7/2011	144.30	-1.60	239.95	-1.15	247.90	-0.35	197.75	0.02
11/17/2011	145.70	1.40	236.70	-3.25	248.72	0.82	197.70	-0.05
12/2/2011	145.95	0.25	233.80	-2.90	248.30	-0.42	194.65	-3.05
1/5/2012	148.80	2.85	233.20	-0.60	247.98	-0.32	197.70	3.05
2/2/2012	145.85	-2.95	224.45	-8.75	248.10	0.12	197.60	-0.10
3/7/2012	147.85	2.00	223.30	-1.15	248.10	0.00	197.50	-0.10
4/2/2012	148.80	0.95	218.80	-4.50	247.97	-0.13	197.50	0.00
5/18/2012	145.80	-3.00	217.95	-0.85	247.78	-0.19	197.49	-0.01
6/26/2012	144.30	-1.50	205.70	-12.25	217.00	-30.78	197.40	-0.09
7/20/2012	145.85	1.55	205.55	-0.15	248.00	31.00	197.40	0.00
8/16/2012	144.90	-0.95	205.70	0.15	248.10	0.10	197.20	-0.20
9/20/2012	145.84	0.94	205.70	0.00	248.09	-0.01	197.10	-0.10
11/1/2012	145.95	0.11	205.15	-0.55	248.00	-0.09	197.00	-0.10
11/16/2012	144.30	-1.65	203.90	-1.25	248.15	0.15	197.00	0.00
1/2/2013	145.90	1.60	202.65	-1.25	248.10	-0.05	197.05	0.05
1/29/2013	145.90	0.00	200.80	-1.85	247.78	-0.32	196.78	-0.27
2/26/2013	145.70	-0.20	199.10	-0.9	233.10	-14.68	196.76	-0.02

This table contains selected dates and data

Change From 6/17/04 to Present	**-102.60**	**-45.85**	**-5.10**	**-7.95**
Change 4/08 to present	**-76.60**	**-39.37**	**-1.50**	**-1.93**

Associated and Referenced Documents

Document	Location
Daily Worksheets Daily Operating Log Daily activities Summary Report Daily Site Safety Inspection Employee Sign-in Sheet	Original paper copies in monthly file folders at plant. Electronic copies on Farmington Server: >Claremont Data>year>month>month daily worksheets
Supporting Worksheets Visitor/Subcontractor Sign-in Sheet Air Monitoring Log Sound Monitoring Worksheet Daily Plant Activity Notes Comprehensive Site Safety Inspections	Original paper copies in monthly file folders at plant. Electronic copies on Farmington Server: -with daily worksheets -with monthly filings -with monthly filing >operating data>Daily Plant Activity Notes>yr>month >with monthly filing.
Plant Operator's Daily Log Book	Current book issued to operator, completed books on file in shop cabinet
Site Supervisor's Daily Log Book	Current book issued to supervisor, completed books on file in shop cabinet
Daily Database	Current database is an Electronic file on site, in Claremont Docs/Claremont Ops Data/ monthly folder. Past docs on server: > Claremont Data>yr>month>
Daily Operations Summary Report	Current report is an Electronic file on site, in Claremont Docs/Claremont Ops Data/ monthly folder. Past docs on server: > Claremont Data>yr>month>
Monthly O&M Report	Electronic file on server: >Claremont Data>yr>month>
Monthly Maintenance Log	Electronic file on server: > Claremont Data>yr>month>
Project Status Report formerly Activities Schedule	Electronic file on server: >Claremont Data>yr>month>
Groundwater Elevation and Water Quality Database	Electronic file on server: >Operating data
Monthly Plant Truck Inspection Worksheet	Electronic file on server: >Claremont Data>yr>month>
Stand Alone Documents Claremont O&M Manual Site Safety and Health Plan Standard Operating Procedures and Instruction manual Sampling and Analysis Plan Log of Operating System Drawings	Bindered copies in control room, electronic copies on server> Stand Alone Documents
Sampling forms	Electronic file on server: >Sampling> Sampling Forms
Chain of Custody Documents	Electronic File on server: >Sampling> yr>mo
Claremont Site Notebook	Electronic file on server : >Stand alone documents> Claremont notebook

Farmington Server Path: HRP CT Server: J drive/N/Newen…./Claremont Polychemical.../Operating Data (4-6-12)

ATTACHMENT 1

Maintenance and project tasks proposed for the upcoming extended plant process shutdown:

Task	Equipment	Sub tasks
Clean Process Flow Sensors	Plant Discharge Injection well Influent Extraction well	Isolate units Remove flow sensor element Remove pipe section Clean pipe Reassemble Calibrate as necessary
Clean Process tanks	Train 1 Train 2 ASF if necessary GACF if necessary VCA	Empty tanks and Flush/vacuum to sump Clean clarifier baffles and pump out sludge Power wash screens on settling tank drains
Backwash LCA Vessels	LCA-1 LCA-2	Perform multiple cycles for each vessel over several days to allow for water volume disposition
Evaluate leak at INJ P2	Determine if gasket leak or mechanical seal issue (Seal will need to be purchased ~$300)	Remove motor Remove pump head Evaluate surfaces.
PM check valves	ASF GACF INF INJ	Remove covers Clean an lubricate surfaces Note what more extensive work is required.
Refurbish isolation valves on INJ Pumps	P1 and P2	Remove valve Evaluate Clean as possible
Clean EQ tank Strainer	EQ Tank	Isolate and remove strainer Clean unit reinstall
Evaluate ASF Tank level monitors	LAHH-2-1-1-1 LAHH-2-1-1-2	Remove units Clean as possible reinstall
Evaluate AS Tower Media		Open tower man-ways Inspect media Determine further action

<u>Items not requiring shutdown</u>:

- Install motor at ASF P-3 using motor taken from P2 in 2011
- Cut grass at monitoring wells
- Post storm – clean paths to monitoring wells
- Clean mold on metal surfaces
- General plant and equipment painting
- Remove actuators from discharge valves of settling tanks
- Continuing adding fill to BP-3 well path