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

MONTHLY REPORT

of the

Operations & Maintenance Activities

During

October 2011

Prepared for the:

New York State Department of Environmental Conservation

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Prepared: November 4, 2011

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ACRONYMS AND ABBREVIATIONS

AS air stripping
ASF air stripper feed
CA carbon adsorber

CLP contract laboratories program

DOSRs daily operations summary reports

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 Associates, Inc.

HVAC heating, ventilation, and air conditioning

IG infiltration gallery
IW injection well

LGAC 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

PD plant discharge

PID photo ionization detector

PLC programmable logic controller

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 vapor-phase granular activated carbon

VFD variable frequency drive VOCs volatile organic compounds

1.0 OPERATION AND MAINTENANCE ACTIVITIES

HRP Associates, Inc. (HRP) continued its daily operation and maintenance (O&M) of the Claremont Polychemical Superfund Site and its groundwater treatment system (GWTS) for October 2011. This period is defined as 0600 hours, October 1, 2011, through 0600 hours, November 1, 2011. O&M conducted during this reporting period was performed in accordance with the site O&M Manual.

The system operated for 31 days in the October reporting period. The plant did not experience downtime during this period, however, the injection pumps were shut off for 76 minutes to perform the injection well falling head test.

Each workday morning, readings of key operational parameters are recorded. These readings are used to monitor the plant's performance and as a basis for adjustments to the plant processes. These records (Daily Data Logs) are kept on-file at the plant.

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. The DOSR and the daily worksheets are kept on file at the plant.

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. These documents are filed on-site.

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

- Scheduled routine monthly tasks were completed and included motor amp loads readings, injection well (IW) depth soundings, IW falling head tests, valve function tests, comprehensive site inspections, and infiltration gallery readings.
- Outdoor site maintenance was performed as needed. This included various landscaping tasks around the plant and in the well field.
- The process pumps were rotated (two on-line, one off) three times during this period as part of the preventive maintenance task.

- The process pH probes were cleaned, inspected, calibrated, and adjusted, as necessary.
- The nozzles on the settling tanks were cleaned by backwashing with compressed air.
- The clarifier baffles were brushed
- The outdoor landscaping project to remove weeds from the stone covered area continued.
- The grass was mowed at the monitoring wells
- The superstructure was removed from the front of the ASF pad
- The non-dedicated pvc and stainless steel bladder pumps were decontaminated, tested and rebuild as possible.
- The monthly plant truck inspection was completed
- Trees blocking the path to well MW-6D were removed with the assistance of golf course personnel.
- Repairs were made to the portable generator
- Repairs were made to sampling support equipment where possible
- The street sign was removed and brought to the vendor for retrofitting.

2.0 MAINTENANCE LOGS

The following operating logbooks are currently in use:

- Site Supervisor's Daily Log CL-39
- Plant Operator's Daily Log CL-40
- Site Supervisor's Daily Log CL-41

Except for log book Nos. 36, 39, 40 and 41, all the system log books were sent to SAIC Harrisburg to be copied into the Project Archives. They are to be returned and kept on file at the GWTP where they will be available for detailed review. 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

Keith Gandarillas was on site (4 days) to assist with groundwater sampling.

3.2 Sub-contractors and Manufacturing Representatives

Ken-Mar was in to inspect the fire extinguishers

3.3 Deliveries

- Mail was delivered on 9 occasions
- Ken-Mar returned 2 extinguishers out for repair and recharge.
- Fed Ex delivered 6 sampling coolers on 3 occasions

- General Welding delivered 6 bottles of nitrogen gas
- Pin Environmental dropped off a replacement Horiba multimeter

3.4 Visitors

- Valerie Egan (NCDPW) was in check on the sampling schedule and returned to sample the BP3 cluster.
- Din Weng (TOB Lab) dropped off sampling vials and returned to pick them up.

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 are routinely performed. These worksheets are also on file.

No safety incidents or accidents occurred during this October 2011 period.

5.0 PLANNED ACTIVITIES AND SCHEDULES

The status of project work and significant corrective maintenance activities is updated on a monthly basis. This Activities Schedule was last updated October 27 and is filed on-site.

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

6.0 MONITORING WELL WATER ELEVATIONS

The quarterly groundwater sampling task was completed in October. After the event, the water level elevations and water quality data were recorded in the database. The updated database is available for review. Another update to the table will be made when the extraction well data is entered at the end of November. The next GW sampling event is scheduled for January at which time the database will be further updated.

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 provided in Table 7-1. The total volume of treated water discharged in October, as measured from 0600 hours on October 1, 2011, to 0600 hours on November 1, 2011, was 16,527,016 gallons. This volume is approximately 110 percent of the monthly targeted treatment goal. The cumulative amount of treated water for this operating year (starting June 1, 2011) is 77,382,252 gallons. This is approximately 5 percent above the

targeted goal for water to be treated. 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.)

The average discharge flow for October was 383 gallons per minute (gpm) and 551,520 gallons per day (gpd).

The flow monitoring units for the individual IW systems are fully functioning. This allows for reading the flow rate and volume discharged to each well system. The relative flows for October are indicated below:

Injection Well System	Flow Average (gpm)	Volume Discharged (gallons)
IW-1	93	4,138,941
IW-2	96	4,299,171
IW-3	112	5,004,141
IW-4	78	3,463,710
System	379	16,905,963

Flow to infiltration galleries IG-1 and IG-3 is restricted so that flow to IW-1 and IW-3 is maximized. Both galleries are draining adequately. The plant's effluent discharge flow is maximized and is limited by injection pump system capacity.

8.0 CHEMICAL CONSUMPTION

Currently, the four chemical feed systems are offline, and their future use is not anticipated. All systems have been tested and are operational. Currently, the chemical feed tanks and feed tubing contain water.

Following is the inventory of the bulk chemicals at the plant:

	Inventory			
Chemical	No. of Containers	Container Type/Size		
Caustic	7	55-gallon drum		
Hydrochloric Acid (HCI)	1	55-gallon drum		
Citric Acid	1	55-gallon drum, (~200 lbs.)		

9.0 CARBON SYSTEMS

9.1 Aqueous-Phase Carbon

The presence of volatile or semi volatile organic compounds have not been detected in the effluent streams of the liquid-phase Carbon Adsorber (CA) vessels. The influent and effluent streams of the vessels continue to be monitored on a quarterly basis.

Both carbon adsorber vessels were last backwashed in September. As part of the daily monitoring, the differential pressures across the vessels are recorded. The differential pressures are low and backwashing is not required at this time.

No spent carbon was generated by the CA operation and no carbon was added to the vessels.

9.2 Vapor-Phase Carbon

Two vapor-phase Carbon Adsorber vessels are available for the off gas treatment of the air stripping (AS) stream. Currently, VGAC-1 is online. VGAC-2 is offline and ready for service. Monitoring of VOCs in the influent and effluent air stream of the active vessel is performed weekly with a photo-ionization detector (PID). VOCs have not been detected in the effluent air stream during these weekly monitoring events.

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

10.0 WASTE DISPOSAL

- No hazardous waste was generated or disposed of during this reporting period.
- Ten full drums and one partially filled drum of nonhazardous carbon sludge cake are on-site.
- No non-hazardous sludge was disposed of in October. Previously, eight drums had been returned from the CWM TDS facility as unacceptable. A composite sample was sent to SAIC for further analysis and disposition.

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 this permit requires periodic submittal of discharge monitoring results, monthly discharge monitoring reporting is not required. Monitoring data will be provided to the NYSDEC upon request.

A letter requesting an extension of the authorization to discharge treated groundwater to the groundwater aquifer was submitted to Mr. Brian Baker of the NYSDEC Division of Water. The response and permit extension are pending.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

The output of influent pump 1 continues to drift as the VFD keeps the pump in the ramping mode.

The Variable Frequency Drive (VFD) for air stripper feed pump 2 continues to give earth fault errors. When active, P2 is operated through the VFD of the off-line pump.

The disposition of 8 drums of 'non-hazardous' waste is pending

Several ongoing plant-wide issues include:

- Determine long term plan for process pump check valves.
- Repair leaks in injection pump discharge manifold.
- Install snow plow on plant truck.
- Ship out non-hazardous waste.
- Repair VFD of ASF P2
- Replace bathroom fan.
- Replace level transducer for IW-2
- Determine cause of drift in performance of INJ P1
- Update plant documents as necessary
- Complete Novembers' PW sampling task.

13.0 PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. In October:

- Sections 6 and 7 of the O&M manual were updated.
- The Claremont site notebook was revised
- Form-030 (chain of custody) was updated

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.

- The Monthly PD sampling tasks were completed 10/12 and the organic samples were shipped to Test America Edison.
- The quarterly GW sampling tasks were completed 10/27 and the organic samples were shipped to TA-Edison on 10/25 and 10/27.
- November's Pw sampling is scheduled for 11/15 and 16 with TA-Edison performing the organic, inorganic and generic analysis.

14.2 Field Data

Treatment plant effluent is 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. A summary of these data is as follows:

Date	рН	Temperature (°C)
October 3, 2011	6.35	15
October 10, 2011	5.75	14
October 17, 2011	5.95	16
October 24, 2011	6.54	13
October 31, 2011	6.49	13
Monthly Average	6.22	14

The NYSDEC discharge permit requires the PD to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.22 for October and met the monthly average pH discharge requirement.

Soundings to determine the depth to the bottom of the IWs were taken on October 7. A summary of the historical data is included in Table 14-1. While the wells are stable, this data indicate that since the beginning of monitoring on June 17, 2004, there has been an accumulation of sediment in the four injection wells. IW-1 is the most severe case, with the influx of sand accounting for more than 100 feet of sediment in the bottom of the well. Of this sediment, 78 feet were deposited between April 2008 and March 2009.

Water elevations in the IWs are 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 were active. The transducer for IW-2 continues to generate an unreliable signal.

The injection well falling head test was performed on October 21. A graphic representation of the time required to drop the water level to a static condition is presented in Figure 14-2. Comparisons of baseline data from March 2006 to that of recent tests (Figure 14-3) indicate that all three of four wells are stable. The 4th well, IW-2 appears stable although the transducer is not functioning correctly.

Other data collected during October included:

- The plant air was sampled with PID on 5 occasions.
- The plant sound level readings were recorded twice.
- The depth-to-water readings were recorded for the injection wells.
- The flow-meter readings and the depth of water in the infiltration galleries were recorded.
- The process pump amp-load readings were recorded.
- The water levels of the monitoring wells were recorded.

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

15.1 Influent Process

- Currently, the three extraction well pumps are on-line. The pumps are controlled by water level set points in the wells and in the EQ tank.
- Currently, the three influent pumps are operational with 2 pumps on-line at a time.
- There is some drift in the output of influent pump 1 (the discharge fluctuates 0-15 gpm).
- The seal leak in INF P1 has reappeared.

No other new issues arose with the extraction/influent system. Routine maintenance continues.

15.2 Flow through Aeration Process

Both treatment trains are on-line for the treatment of the influent water.

The polymer, potassium permanganate, caustic, and HCl 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. The reaction tanks and clarifier systems continue to operate as pass-through settling tanks.

15.3 Settling Filter Process

The frequency of air sparging of the discharge nozzles and screens has increased. The tanks are drained and cleaned as necessary. The system is fully functional.

15.4 Air Stripping Process

- The three ASF pumps are operational and are rotated into service two at a time.
- 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.
- Pump #3 emits a high pitched whine, which will require future address.

No other issues arose with the air stripping system. Routine maintenance continues.

15.5 Aqueous-Phase Carbon Treatment Process

- All three CA feed pumps are operational, with two pumps rotated into service at a time.
- Both vessels were backwashed with treated water in September.

Other routine maintenance tasks continued.

15.6 Treated Water Injection Process

The plant's total discharge flow rate and volume are measured by a magnetic flow meter on the injection pump system's main discharge line. Flow sensors and transmitters installed in the discharge line to each injection well system are on-line and connected to the MCP and HMI.

- The plant discharge system is online and fully operational.
- Water levels in the wells are stable.
- All three INJ pumps are operational, with two pumps rotated into service at a time
- The level transducer in IW-2 continues to produce an unreliable signal.
- The galleries are adequately draining.
- There is a leak in the pvc piping at the discharge of pump 2 and in the manifold prior to the main flow monitor

No other issues were encountered with the injection system in October. Routine maintenance tasks continue.

FIGURES

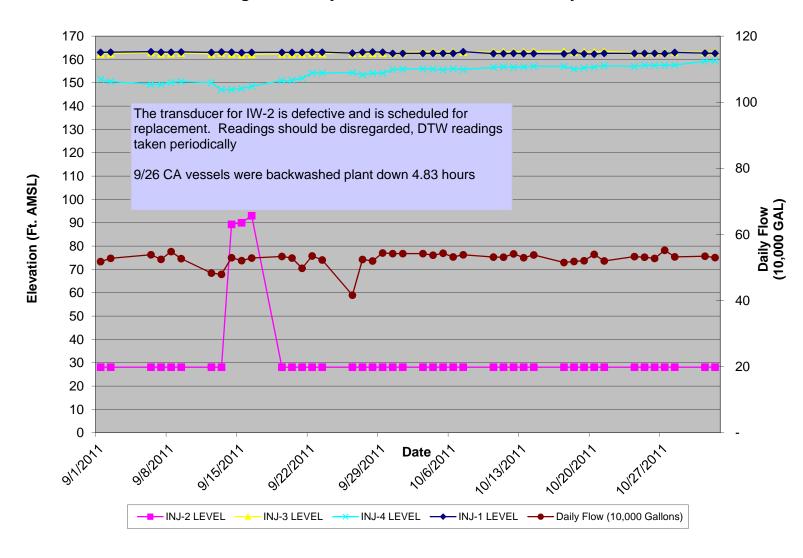
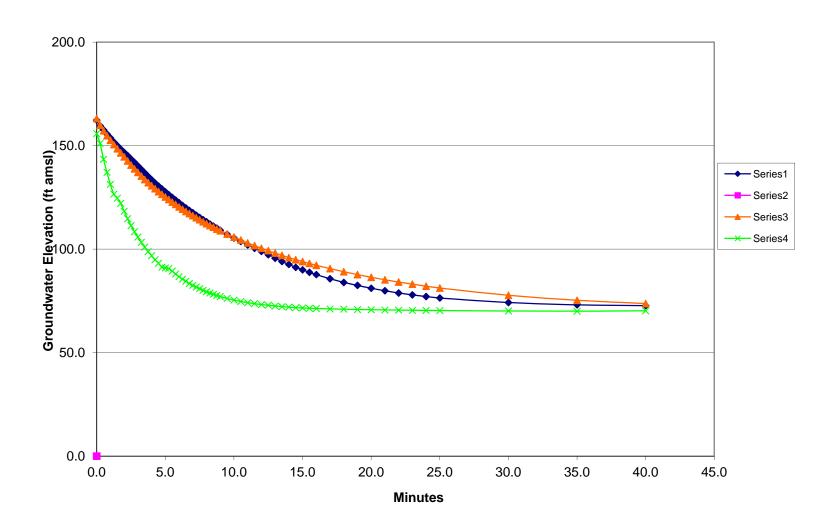


Figure 14-1 Injection Well Elevations and Daily Flow

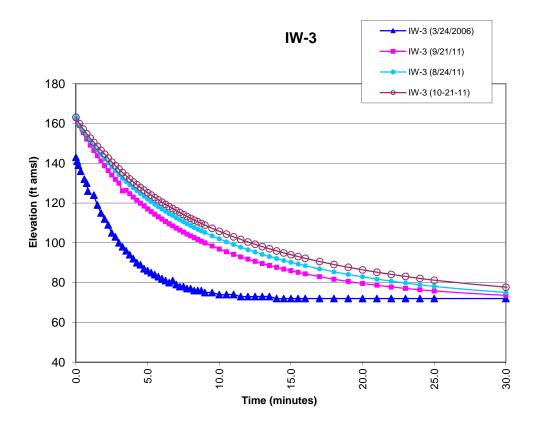
Figure 14-2 Injection Well Falling Head Test October 21, 2011

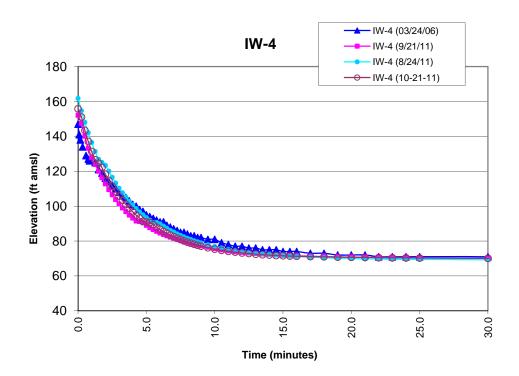


IW-1 IW-1 (3/24/2006) IW-1 (9/21/11) IW-1 (8/24/11) 180 O IW-1 (10-21-11) 160 Elevation (ft amsI) 120 100 80 60 40 10.0 20.0 25.0 5.0 15.0 Time (minutes) - IW-2 (3/24/2006) IW-2 IW-2 (9/21/11) IW-2 (8/24/11) 160 - IW-2 (7-20-11) 140 Elevation (ft amsl) 120 100 80 60 40 10.0 15.0 25.0 30.0 0.0 Time (minutes)

Figure 14-3 Comparison of Falling Head Tests

HRP Associates, Inc.





TABLES

TABLE 7-1

Magnetic Flowmeter Daily Totalizer Readings

October 2011

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
10/1/2011	428230716	1119284	389
10/3/2011	429350000	560000	389
10/4/2011	429910000	520000	361
10/5/2011	430430000	540000	375
10/6/2011	430970000	530000	368
10/7/2011	431500000	1630000	377
10/10/2011	433130000	520000	361
10/11/2011	433650000	530000	368
10/12/2011	434180000	540000	375
10/13/2011	434720000	530000	368
10/14/2011	435250000	1620000	375
10/17/2011	436870000	510000	354
10/18/2011	437380000	520000	361
10/19/2011	437900000	520000	361
10/20/2011	438420000	540000	375
10/21/2011	438960000	1560000	361
10/24/2011	440520000	530000	368
10/25/2011	441050000	530000	368
10/26/2011	441580000	530000	368
10/27/2011	442110000	550000	382
10/28/2011	442660000	1600000	370
10/31/2011	444260000	497732	346
11/1/2011	444757732		
Oct. 2011 TOTAL TREATED WATER		16,527,016	
Oct. 2011 AVG. GALLONS PER MINUTE DISCHARGED			383

TABLE 14-1 Injection Well soundings

	Injection	n Well 1	Injection	on Well 2	Injection	on 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	
8/16/2004	247.90	0.07	248.18	0.01	251.00	0.20	203.40	0.10	
9/14/2004	247.95	-0.05	248.15	0.03	251.10	-0.10	203.95	-0.55	
10/28/2004	247.79	0.16	248.20	-0.05	251.20	-0.10	203.15	0.80	
11/15/2004	247.40	0.39	248.26	-0.06	251.03	0.17	204.03	-0.88	
12/29/2004	247.87	-0.47	248.33	-0.07	250.82	0.21	204.40	-0.37	
1/10/2005	247.83	0.04	248.12	0.21	250.54	0.28	204.70	-0.30	
2/16/2005	247.50	0.33	248.25	-0.13	250.45	0.09	204.36	0.34	
3/18/2005	247.82	-0.32	248.10	0.15	250.40	0.05	204.43	-0.07	
4/5/2005	247.78	0.04	248.13	-0.03	250.47	-0.07	204.20	0.23	
5/10/2005	247.81	-0.03	248.14	-0.01	250.45	0.02	204.22	-0.02	
6/30/2005	247.62	0.19	247.25	0.89	250.36	0.09	204.04	0.18	
7/26/2005	247.67	-0.05	246.82	0.43	249.93	0.43	204.11	-0.07	
8/29/2005	247.71	-0.04	246.50	0.32	249.78	0.15	204.17	-0.06	
9/27/2005	247.77	-0.06	246.29	0.21	249.77	0.01	203.90	0.27	
10/24/2005	247.78	-0.01	246.00	0.29	249.44	0.33	203.84	0.06	
11/14/2005	247.51	0.27	246.19	-0.19	249.10	0.34	203.57	0.27	
12/27/2005	247.60	-0.09 0.09	245.70	0.49	249.32	-0.22	203.83	-0.26	
1/27/2006 2/16/2006	247.51 247.50	0.09	246.09 245.69	-0.39 0.40	249.21 249.19	0.11	203.98	-0.15 0.00	
3/23/2006*	247.59	-0.09	245.65	0.40	249.19	-0.41	203.96	0.00	
4/28/2006	247.59	0.05	243.68	1.97	249.50	0.10	203.78	-0.03	
5/24/2006	247.38	0.16	243.61	0.07	249.57	-0.07	203.90	-0.03	
6/20/2006	247.47	-0.09	243.70	-0.09	249.46	0.11	203.14	0.76	
7/28/2006	247.44	0.03	243.37	0.33	249.52	-0.06	203.33	-0.19	
8/21/2006	247.34	0.10	243.19	0.18	249.42	0.10	202.88	0.45	
9/22/2006	247.36	-0.02	242.70	0.49	249.27	0.15	203.05	-0.17	
10/30/2006	247.16	0.20	242.64	0.06	249.48	-0.21	203.92	-0.87	
11/29/2006	247.32	-0.16	242.50	0.14	249.22	0.26	203.19	0.73	
12/29/2006	247.22	0.10	242.52	-0.02	249.29	-0.07	203.15	0.04	
1/30/2007	247.44	-0.22	242.60	-0.08	249.47	-0.18	203.35	-0.20	
2/21/2007	247.63	-0.19	242.56	0.04	249.42	0.05	203.32	0.03	
3/29/2007	247.11	0.52	242.54	0.02	249.22	0.20	201.55	1.77	
4/20/2007	247.17	-0.06	242.29	0.25	249.19	0.03	201.24	0.31	
5/25/2007	246.85	0.32	242.86	-0.57	249.11	0.08	201.24	0.00	
6/28/2007	246.63	0.22	242.15	0.71	248.80	0.31	200.96	0.28	
7/26/2007	245.88	0.75	242.13	0.02	248.78	0.02	200.80	0.16	
8/23/2007	245.96	-0.08	242.03	0.10	248.73	0.05	200.22	0.58	
9/27/2007	245.79	0.17	241.96	0.07	246.80	1.93	200.29	-0.07	
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	

2.56 5.88 6.08 7.200 6.3.95 7.95 7.95 7.95 7.97 7.97 7.97 7.97 7	241.98 242.12 241.90 242.02 241.90 241.95 242.20 241.90 241.93 241.88 242.12 242.10 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50 241.80	-0.42 -0.14 0.22 -0.12 0.12 -0.05 -0.25 0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -1.00	249.63 249.82 249.80 249.60 249.47 249.50 249.68 249.72 249.52 249.54 249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.90 248.90 248.90	-0.01 -0.19 0.32 -0.10 0.13 -0.03 -0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	200.03 199.52 199.30 198.98 198.65 198.65 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 197.95 198.00	0.05 0.51 0.22 0.32 0.33 0.00 -0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
6.08 -2.00 3.95 -0.05 3.62 7.95 4.63 1.72 2.63 19.76 10.79 16.30 2.52 0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.00 0.30 0.00 0.30 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	241.90 242.02 241.90 241.95 242.20 241.90 241.93 241.88 242.12 242.10 241.90 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.50 242.50	0.22 -0.12 0.12 -0.05 -0.25 0.30 -0.03 -0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.50 249.60 249.47 249.50 249.68 249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 248.90 248.90 248.90 248.90	0.32 -0.10 0.13 -0.03 -0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	199.30 198.98 198.65 198.65 198.68 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 197.92 197.90 198.00 198.00 197.95 198.00	0.22 0.32 0.33 0.00 -0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
-2.00 3.95 -0.05 3.62 7.95 4.63 1.72 5.2.63 19.76 10.79 16.30 2.52 1.0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.00 0.00	242.02 241.90 241.95 242.20 241.90 241.93 241.88 242.12 242.10 241.90 242.00 241.67 241.67 241.64 241.60 242.40 241.55 241.50 241.50 242.50	-0.12 0.12 -0.05 -0.25 0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.60 249.47 249.50 249.68 249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 249.00 248.90 248.90 248.90 248.50 248.53	-0.10 0.13 -0.03 -0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.98 198.65 198.65 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95 198.00	0.32 0.33 0.00 -0.03 0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
3.95 -0.05 3.62 7.95 4.63 1.72 2.63 19.76 10.79 16.30 2.52 0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.00 0.00	241.90 241.95 242.20 241.93 241.93 241.88 242.12 242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44	0.12 -0.05 -0.25 0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.47 249.50 249.68 249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 249.00 249.05 248.90 248.90 248.90 248.50 248.53	0.13 -0.03 -0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.65 198.68 198.68 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 197.92 197.90 198.00 197.95 198.00	0.33 0.00 -0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.05
-0.05 3.62 7.95 4.63 1.72 2.63 19.76 10.79 16.30 2.52 10.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.00 0.00	241.95 242.20 241.90 241.93 241.88 242.12 242.10 241.90 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	-0.05 -0.25 0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.50 249.68 249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 249.05 249.00 248.90 248.90 248.90 248.50 248.53	-0.03 -0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.65 198.68 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 197.92 197.90 198.00 197.95 198.00	0.00 -0.03 0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00
3.62 7.95 4.63 1.72 2.63 19.76 10.79 16.30 2.52 10.16 10.92 10.10 10.30 10.00 1	242.20 241.90 241.93 241.88 242.12 242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44	-0.25 0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.68 249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.90 248.50 248.53	-0.18 -0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.68 198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95 198.00	-0.03 0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
7.95 4.63 1.72 1.72 1.72 1.75 1.77 1.77 1.77 1.77 1.77 1.77 1.77	241.90 241.93 241.88 242.12 242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.50 242.50	0.30 -0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.72 249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 249.00 248.90 248.90 248.90 248.50	-0.04 0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.65 198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 197.92 197.90 198.00 197.95 198.00	0.03 0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00
4.63 1.72 2.63 19.76 10.79 16.30 2.52 0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.00 0.30 0.00 0.30 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.30 0.3	241.93 241.88 242.12 242.10 241.90 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.50 242.50	-0.03 0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06	249.52 249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	0.20 0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.60 198.59 198.64 198.30 198.28 198.80 198.28 198.10 197.92 197.90 198.00 198.00 197.95	0.05 0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
1.72 2.63 19.76 10.79 16.30 2.52 10.16 10.92 10.10 10.30 10.00	241.88 242.12 242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50	0.05 -0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.50 249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.50	0.02 -0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.59 198.64 198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95	0.01 -0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.00
2.63 19.76 10.79 16.30 2.52 1 0.16 0 0.92 0 0.10 0 0.30 0 0.00 0 0.00 0 0.00 0 0.30 0 0.20	242.12 242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.50 242.50	-0.24 0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.54 249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	-0.04 0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.64 198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95	-0.05 0.34 0.02 -0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
19.76 10.79 16.30 2.52 10.16 10.92 10.10 10.30 10.00 1	242.10 241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.02 0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06	249.15 248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.50 248.53	0.39 0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.30 198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95	0.34 0.02 -0.52 0.52 0.18 0.00 0.18 0.02 -0.10 0.00
10.79 16.30 2.52 10.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.00 0.30 0.00 0.00 0.00 0.30	241.90 242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.20 -0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06	248.87 248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	0.28 0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.28 198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95	0.02 -0.52 0.52 0.18 0.00 0.18 0.02 -0.10 0.00
16.30 2.52 2.0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.30 0.00 0.00 0.30 0.00 0.20	242.00 241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	-0.10 0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	248.80 248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	0.07 -0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.80 198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95	-0.52 0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
2.52 0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.00 0.00 0.00 0.00 0.20	241.87 241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.13 0.20 0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	248.94 249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	-0.14 -0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.28 198.10 198.10 197.92 197.90 198.00 198.00 197.95 198.00	0.52 0.18 0.00 0.18 0.02 -0.10 0.00 0.05
0.16 0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.00 0.30 0.00 0.30	241.67 241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.20 0.03 0.04 -0.80 0.85 0.05 0.06	249.00 249.05 248.95 249.00 248.90 248.90 248.50 248.53	-0.06 -0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.10 198.10 197.92 197.90 198.00 198.00 197.95 198.00	0.18 0.00 0.18 0.02 -0.10 0.00
0.92 0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.30	241.64 241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.03 0.04 -0.80 0.85 0.05 0.06 -0.06	249.05 248.95 249.00 248.90 248.90 248.50 248.53	-0.05 0.10 -0.05 0.10 0.00 0.40 -0.03	198.10 197.92 197.90 198.00 198.00 197.95 198.00	0.00 0.18 0.02 -0.10 0.00 0.05
0.10 0.30 0.00 0.00 0.00 0.00 0.30 0.30	241.60 242.40 241.55 241.50 241.44 241.50 242.50	0.04 -0.80 0.85 0.05 0.06 -0.06	248.95 249.00 248.90 248.90 248.50 248.53	0.10 -0.05 0.10 0.00 0.40 -0.03	197.92 197.90 198.00 198.00 197.95 198.00	0.18 0.02 -0.10 0.00 0.05
0.30 0.00 0.00 0.00 0.00 0.30 0.30 0.20	242.40 241.55 241.50 241.44 241.50 242.50	-0.80 0.85 0.05 0.06 -0.06	249.00 248.90 248.90 248.50 248.53	-0.05 0.10 0.00 0.40 -0.03	197.90 198.00 198.00 197.95 198.00	0.02 -0.10 0.00 0.05
0.00 0.00 0.00 0.00 0.30 0.30 0.20	241.55 241.50 241.44 241.50 242.50	0.85 0.05 0.06 -0.06	248.90 248.90 248.50 248.53	0.10 0.00 0.40 -0.03	198.00 198.00 197.95 198.00	-0.10 0.00 0.05
0.00 0.00 0.30 0.50 0.20	241.50 241.44 241.50 242.50	0.05 0.06 -0.06	248.90 248.50 248.53	0.00 0.40 -0.03	198.00 197.95 198.00	0.00
0.00 0.30 0.50 0.20	241.44 241.50 242.50	0.06 -0.06	248.50 248.53	0.40 -0.03	197.95 198.00	0.05
0.30 -0.50 0.20	241.50 242.50	-0.06	248.53	-0.03	198.00	
-0.50 0.20	242.50					-0.05
0.20		-1.00	249.20			
	241.80			-0.67	198.10	-0.10
-0.08		0.70	248.50	0.70	198.00	0.10
-0.00	241.20	0.60	245.45	3.05	198.00	0.00
2.33	241.60	-0.40	248.30	-2.85	198.00	0.00
-2.30	241.65	-0.05	247.70	0.60	198.00	0.00
-0.03	241.80	-0.15	248.00	-0.30	198.00	0.00
0.10	241.72	0.08	248.80	-0.80	198.00	0.00
2.68	241.10	0.62	248.90	-0.10	198.00	0.00
-2.45	241.70	-0.60	249.05	-0.15	198.00	0.00
0.95	241.70	0.00	249.10	-0.05	198.00	0.00
0.10	241.65	0.05	249.10	0.00	198.00	0.00
1.44	241.60	0.05	249.00	0.10	198.00	0.00
-1.37	241.60	0.00	249.10	-0.10	198.00	0.00
1.33	241.60	0.00	249.10	0.00	197.98	0.02
-1.30	241.60	0.00	248.90	0.20	198.00	-0.02
0.00	241.60	0.00	248.50	0.40	197.50	0.50
-3.00	241.60	0.00	248.40	0.10	197.50	0.00
3.00	241.60	0.00	248.00	0.40	197.83	-0.33
-1.48	241.60	0.00	247.70	0.30	197.80	0.03
	241.50	0.10	248.25	-0.55	197.80	0.00
1.43	244.40	0.40	248.25	0.00	197.73	0.07
	241.10	0.40				
	3 -1.37 0 1.33 0 -1.30 0 0.00 0 -3.00 0 3.00 8 -1.48 5 1.43	3 -1.37 241.60 0 1.33 241.60 0 -1.30 241.60 0 0.00 241.60 0 -3.00 241.60 0 3.00 241.60 8 -1.48 241.60 5 1.43 241.50	3 -1.37 241.60 0.00 0 1.33 241.60 0.00 0 -1.30 241.60 0.00 0 0.00 241.60 0.00 0 -3.00 241.60 0.00 0 3.00 241.60 0.00 0 3.00 241.60 0.00 0 1.48 241.60 0.00 0 1.43 241.50 0.10	3 -1.37 241.60 0.00 249.10 0 1.33 241.60 0.00 249.10 0 -1.30 241.60 0.00 248.90 0 0 0.00 241.60 0.00 248.50 0 -3.00 241.60 0.00 248.40 0 3.00 241.60 0.00 248.00 0 -1.48 241.60 0.00 247.70 5 1.43 241.50 0.10 248.25	3 -1.37 241.60 0.00 249.10 -0.10 0 1.33 241.60 0.00 249.10 0.00 0 -1.30 241.60 0.00 248.90 0.20 0 0.00 241.60 0.00 248.50 0.40 0 -3.00 241.60 0.00 248.40 0.10 0 3.00 241.60 0.00 248.00 0.40 8 -1.48 241.60 0.00 247.70 0.30 5 1.43 241.50 0.10 248.25 -0.55	3 -1.37 241.60 0.00 249.10 -0.10 198.00 0 1.33 241.60 0.00 249.10 0.00 197.98 0 -1.30 241.60 0.00 248.90 0.20 198.00 0 0.00 241.60 0.00 248.50 0.40 197.50 0 -3.00 241.60 0.00 248.40 0.10 197.50 0 3.00 241.60 0.00 248.00 0.40 197.83 8 -1.48 241.60 0.00 247.70 0.30 197.80 5 1.43 241.50 0.10 248.25 -0.55 197.80

Groundwater Treatment System O&M Activities
Claremont Polychemical Superfund Site

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Claremont Polychemical S	uperfund Site			October 2011
Change From 6/17/04 to Present	104.20	8.55	5.30	7.25
Change From 6-04 thru 2- 06	1.00	2.81	4.01	1.02
*Injection wells IW-2 and IW-	3 redeveloped du	ring week ending 3/17/2006		
Change from 3-06 thru 10/07	2.90	3.57	0.87	3.61
Injection wells IW-1 and IW-3	3 were redevelope	ed during week ending 11/9/07		
Change 11-07 thru 3/08	21.70	0.10	0.10	1.75
Injection wells IW-1 and IW-3	3 were redevelope	ed during week ending 4/25/08		
Change 4/08 to present	78.20	2.07	1.70	1.23

Associated and Referenced Documents

Document	Location
Daily Data Logs and Worksheets	Monthly file folders
Daily Operating Log	
Daily activities Summary Report	
Daily Site Safety Inspection	
Employee Sign-in Sheet	
Supporting Worksheets	Monthly file folders
Visitor/Subcontractor Sign-in Sheet	
Air Monitoring Log	
Sound Monitoring Worksheet	
Daily Plant Activity Notes	
Comprehensive Site Safety Inspections	
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	Electronic file in Claremont Docs/Claremont Ops
	Data/ monthly operating data folder and on
	server
Daily Operations Summary Report	Electronic file in Claremont Docs/Claremont Ops
	Data/ monthly operating data folder and on
	server
Monthly Operations Report	Electronic file in Claremont Docs/Claremont Ops
	Data/ monthly operating data folder and on
	server
Monthly Maintenance Log	Electronic file in Claremont Docs/Claremont Ops
	Data/ monthly operating data folder and on
	server
Activities Schedule	Electronic file in Claremont Docs/Claremont Ops
	Data/ monthly operating data folder and on
	server
Groundwater Elevation and Water Quality	Electronic file in Claremont Docs folder
Database	101.51
Monthly Plant Truck Inspection Worksheet	JSJ files
Stand Alone Documents	Bindered copies in control room, electronic
Claremont O&M Manual	copies on server
Site Safety and Health Plan	
Standard Operating Procedures and Instruction	
manual	
Sampling and Analysis Plan	
Claremont Site Notebook	Electronic file on server