



United States
Environmental Protection Agency

**Preventive Maintenance Card File for
Small Public Water Systems Using
Ground Water**
Log Cards

Office of Water (4606M)
EPA 816-B-04-002
December 2004
www.epa.gov/safewater

Printed on Recycled Paper

Tools For Preventive Maintenance

These log cards, along with the accompanying guidance notes booklet, provide a schedule of routine operation and maintenance tasks for small ground water systems. The cards and booklet will help you develop a preventive maintenance program for your system. The cards also provide some security measures water systems need to do to help prevent loss of service through terrorist acts, vandalism, or mischief.

The cards are divided into sections that list daily, weekly, and monthly tasks, with individual sections that outline specific tasks for each month of the year. They correspond to the guidance notes in the booklet. Each section of cards contains a list of suggested tasks to be carried out for that time period and log cards to record information. We have not included log cards for every task because some tasks can be completed without recording anything. Tasks that do not have log cards are in *italicized* print.

You should copy all of the blank log cards for future use. Each log card has space for additional comments. A follow-up log card, included at the end of this card set, can be used to record any problems you encounter and to help you keep a schedule for any needed repairs or replacements. Please review the guidance notes in the accompanying booklet, which provide additional information on some tasks. Note that we have not defined all tasks because some are self-explanatory. A contact list is provided in the accompanying cards if you need additional information.

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Emergency Notification/Contact Information

Water System Name _____ PWSID# _____
 _____ Pop. Served _____
 Owner Name _____ Owner Phone _____
 Water System Operator _____ Phone (Day) _____
 Phone (Night) _____ Phone (Cell) _____

Organization	Contact Name	Phone (Day)	Phone (Cell)	Phone (Night)
Safety Officer				
Supervisors				
Ambulance				
Fire Department				

REFERENCE	REFERENCE	REFERENCE	REFERENCE
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Emergency Notification/Contact Information

Organization	Contact Name	Phone (Day)	Phone (Cell)	Phone (Night)
Police Department				
Hospital				
Poison Control				
FBI Field Office				
Health Department				
Primacy Agency				
Well Driller				
Chemical Supplier				
Local Emergency Planning Committee				

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Emergency Notification/Contact Information

Organization	Contact Name	Phone (Day)	Phone (Cell)	Phone (Night)
Designated Water System Spokesperson				
Local Government Official				
Local Hazmat Team				
Other Operators				
Neighboring Water System				
Neighboring Water System				
Television				
Radio				

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Emergency Notification/Contact Information

Organization	Contact Name	Phone (Day)	Phone (Cell)	Phone (Night)
Other:				
Other:				
Other:				

Contacts

For more information, contact:

U.S. EPA Headquarters

Office of Ground Water and Drinking Water
 (202) 564-3750 <http://www.epa.gov/OGWDW/>



U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

EPA Region 1	(617) 918-1584	www.epa.gov/region1/eco/drinkwater/index.html
Connecticut Department of Public Health: Drinking Water Division	(860) 509-7333	www.state.ct.us/dph/BRS/WSS/water_supplies.htm
Maine Maine Department of Human Services: Division of Health Engineering	(207) 287-2070	www.state.me.us/dhs/eng/water/index.htm
Massachusetts Department of Environmental Protection: Drinking Water Program	(617) 292-5770	www.state.ma.us/dep/brp/dws/dwshome.htm

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

New Hampshire Department of Environmental Services: Water Supply Engineering Bureau	(603) 271-2513	www.des.state.nh.us/wseb/
Rhode Island Department of Health: Office of Drinking Water Quality	(401) 222-6867	www.healthri.org/environment/dwq/ home.htm
Vermont Department of Environmental Conservation: Water Supply Division	(802) 241-3400	www.anr.state.vt.us/dec/watersup/ wsd.htm
EPA Region 2	(212) 637-3879	www.epa.gov/region02/water/ drinktop.htm
New Jersey Department of Environmental Protection: Bureau of Safe Drinking Water	(609) 292-5550	www.state.nj.us/dep/ watersupply/safedrnk.htm
New York Department of Health: Bureau of Public Water Supply Protection	(518) 402-7650	www.health.state.ny.us/ nysdoh/water/main.htm

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Puerto Rico Department of Health: Public Water Supply Supervision Program	(787) 977-5870	www.epa.gov/region02/cepd/ prlink.htm
Virgin Islands Department of Planning & Natural Resources: Division of Environmental Protection	(340) 774-3320	www.dpnr.gov.vi/dep/ publicwatersup.htm
EPA Region 3	(215) 814-2300	www.epa.gov/reg3wapd/
Delaware Health & Social Services: Division of Public Health	(302) 739-4731	www.state.de.us/dhss/dph/hsp.htm
District of Columbia Department of Health	(202) 442-5999	www.dchealth.dc.gov/index.asp
Maryland Department of the Environment: Public Drinking Water Program	(410) 631-3702	www.mde.state.md.us/
Pennsylvania Department of Environmental Protection: Bureau of Water Supply Management	(717) 787-5017	www.dep.state.pa.us/dep/deputate/ watermgt/wsm/wsm.htm

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Virginia Department of Health: Division of Drinking Water	(804) 786-5566	www.vdh.state.va.us/ddw/index.htm
West Virginia Bureau for Public Health: Environmental Engineering Division	(304) 558-2981	www.wvdhhr.org/oehs/eed/
EPA Region 4	(404) 562-9345	www.epa.gov/region4/water/
Alabama Department of Environmental Management: Water Supply Branch	(334) 271-7773	www.adem.state.al.us/waterdiv/drinking%20water/dwmaininfo.htm
Florida Department of Environmental Protection: Drinking Water Section	(850) 487-1762	www.dep.state.fl.us/water/drinkingwater/index.htm
Georgia Department of Natural Resources: Water Resources Branch	(404) 656-6328	www.ganet.org/dnr/environ/

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Kentucky Department for Environmental Protection: Drinking Water Branch	(502) 564-3410	water.nr.state.ky.us/dw/
Mississippi Department of Health: Public Water Supply Program	(601) 576-7518	www.msdh.state.ms.us/watersupply/index.htm
North Carolina Department of Environment and Natural Resources: Public Water Supply Section	(919) 715-3232	www.deh.enr.state.nc.us/pws
South Carolina Department of Health & Environmental Control: Bureau of Water	(803) 898-4300	www.scdhec.net/water/html/dwater.html
Tennessee Department of Environment & Conservation: Division of Water Supply	(615) 532-0191	www.state.tn.us/environment/dws/index.html
EPA Region 5	(312) 886-6206	www.epa.gov/region5/water/gwdw
Illinois Environmental Protection Agency: Bureau of Water	(217) 785-8653	www.epa.state.il.us/water/

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Indiana Department of Environmental Management: Drinking Water Branch	(317) 308-3282	www.state.in.us/idem/owm/dwb/index.html
Michigan Department of Environmental Quality: Drinking Water Program	(517) 335-9218	www.michigan.gov/deq/0,1607,7-135-3313_3675-,00.html
Minnesota Department of Health: Drinking Water Protection Section	(612) 215-0770	www.health.state.mn.us/divs/eh/water/index.html
Ohio Environmental Protection Agency: Division of Drinking & Ground Waters	(614) 644-2752	www.epa.state.oh.us/ddagw/
Wisconsin Department of Natural Resources: Bureau of Drinking Water and Ground Water	(608) 266-2299	www.dnr.state.wi.us/org/water/dwg/
EPA Region 6	(214) 665-2757	www.epa.gov/region6/
Arkansas Department of Health: Division of Engineering	(501) 661-2623	www.healthyarkansas.com/eng/index.html

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Louisiana Office of Public Health: Center for Environmental Health	(225) 765-5038	www.dhh.state.la.us/OPH/safewtr.htm
New Mexico Environment Department: Drinking Water Bureau	(877) 654-8720	www.nmenv.state.nm.us/dwb/dwbtop.html
Oklahoma Department of Environmental Quality: Water Quality Division	(405) 702-8100	www.deq.state.ok.us/wqdnew/index.htm
Texas Commission on Environmental Quality	(512) 239-4300	www.tnrcc.state.tx.us/permitting/waterperm/pdw/pdw000.html
EPA Region 7	(913) 551-7030	www.epa.gov/region07/water/dwgw.html
Iowa Department of Natural Resources: Water Supply Section	(515) 725-0275	www.state.ia.us/government/dnr/organiza/epd/wtrsuply/wtrsup.htm
Kansas Department of Health & Environment: Public Water Supply Section	(785) 296-5503	www.kdhe.state.ks.us/water/pwss.html

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Missouri Department of Natural Resources: Public Drinking Water Program	(573) 751-5331	www.dnr.state.mo.us/deq/pdwp/homepdwp.htm
Nebraska Health & Human Services System: Public Water Supply Program	(402) 471-2541	www.hhs.state.ne.us/enh/pwsindex.htm
EPA Region 8	(303) 312-6312	www.epa.gov/region08/water/dwhome/dwhome.html
Colorado Department of Public Health & Environment: Drinking Water Program	(303) 692-3500	www.cdphe.state.co.us/wq/drinking_water/drinking_water_program.htm
Montana Department of Environmental Quality: Public Water Supply Section	(406) 444-4400	www.deq.state.mt.us/pcd/csb/pws/index.asp
North Dakota Department of Health: Drinking Water Program	(701) 328-5211	www.ehs.health.state.nd.us/ndhd/environ/mf/index.htm

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

South Dakota Department of Environment & Natural Resources: Drinking Water Program	(605) 773-3754	www.state.sd.us/denr/des/drinking/dwprg.htm
Utah Department of Environmental Quality: Division of Drinking Water	(801) 536-4200	http://drinkingwater.utah.gov
Wyoming EPA Region 8: Wyoming Drinking Water Program	(303) 312-6312	www.epa.gov/region08/water/dwhome/wycon/wycon.html
EPA Region 9	(415) 972-3547	www.epa.gov/region9/water
American Samoa Environmental Protection Agency: American Samoa	(415) 972-3767	www.epa.gov/Region9/cross_pr/islands/samoa.html
Arizona Department of Environmental Quality: Drinking Water Section	(602) 771-4644	www.adeq.state.az.us/environ/water/dw/index.html
California Department of Health Services: Division of Drinking Water & Environmental Management	(916) 323-6111	www.dhs.cahwnet.gov/org/ps/ddwem/

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Contacts

U.S. EPA Regional, State, and Primacy Agency Phone Numbers and Websites

Guam Environmental Protection Agency: Guam	(671) 472-8863	www.epa.gov/region09/cross_pr/islands/guam.html
Hawaii Department of Health: Safe Drinking Water Branch	(808) 586-4258	www.hawaii.gov/health/eh/eiendw00.htm
Nevada Department of Human Resources: Bureau of Health Protection Services	(775) 687-6615	www.state.nv.us/health/bhps/sdwp.htm
EPA Region 10	(206) 553-1893	www.epa.gov/region10/
Alaska Department of Environmental Conservation: Drinking Water & Wastewater Program	(907) 269-7653	www.state.ak.us/dec/deh/safewater.htm
Idaho Department of Environmental Quality: Water Quality	(208) 373-0502	www2.state.id.us/deq/water/water1.htm
Oregon Department of Human Services: Drinking Water Program	(503) 731-4010	www.ohd.hr.state.or.us/dwp/welcome.htm
Washington Department of Health: Division of Drinking Water	(360) 236-3100	www.doh.wa.gov/ehp/dw/

Contacts

Additional Contacts

National Rural Water Association	(580) 252-0629 http://www.nrwa.org/
State Rural Water Associations	For associations listed by State, see: http://www.nrwa.org/2001/members/assnlist.htm
Rural Community Assistance Program	(203) 408-1273 (888) 321-7227 http://www.rcap.org
Rural Utilities Service	(202) 690-2670 http://www.rurdev.usda.gov/rus/index.html
Safe Drinking Water Hotline	1-800-426-4791 hotline-sdwa@epa.gov
EPA National (24-hour)	1-800-424-8802

Contacts

Technical Assistance Centers

Alaska Alaska Training/Technical Assistance Center (ATTAC)	(907) 747-7756	http://www.uas.alaska.edu/attac/
Illinois Midwest Technology Assistance Center MTAC	(217) 333-9321	http://mtac.sws.uiuc.edu
Kentucky Center for Water Resource Studies	(270) 745-5948	http://water.wku.edu/
Mississippi Mississippi Water Resources Research Institute	(662) 325-3620	http://www.wrri.msstate.edu
Missouri Missouri Water Resources Research Center	(573) 882-7564	http://web.missouri.edu/~mowrrc
Montana Montana Water Center	(406) 994-6690	http://water.montana.edu

Contacts

Technical Assistance Centers

New Hampshire New England Water Treatment Technology Assistance Center	(603) 862-4334	http://www.unh.edu/erg/wttac/
Pennsylvania Small Public Water Systems Technology Assistance Center at Penn State Harrisburg	(717) 948-6358	http://www.hbg.psu.edu/spwstac/ main.html
West Virginia National Drinking Water Clearinghouse	(800) 624-8301	http://www.ndwc.wvu.edu

Contacts

Environmental Finance Centers

California Environmental Finance Center Region 9	(510) 749-6867	http://www.greenstart.org/efc9/
Idaho Environmental Finance Center	(208) 426-1567	http://sspa.boisestate.edu/efc/index.htm
Kentucky Southeast Regional Environmental Finance Center	(502) 852-8032	http://cepm.louisville.edu/org/SEEFc/seefc.htm
Maryland The Environmental Finance Center, University of Maryland	(301) 405-6383	http://www.efc.umd.edu/
New Mexico NM Environmental Finance Center	(505) 272-7357	http://efc.nmt.edu/

Contacts

Environmental Finance Centers

New York Environmental Finance Center at Syracuse University's Maxwell School of Citizenship and Public Affairs	(315) 443-3759	http://www.maxwell.syr.edu/efc/
North Carolina UNC Environmental Finance Center	(919) 843-4956	http://www.unc.edu/depts/efc/
Ohio Great Lakes Environmental Finance Center	(216) 687-2188	http://www.csuohio.edu/glefc/

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Commonly Used Conversion Factors

1 foot = 12 inches	
1 pint = 16 ounces	
1 pound = 16 ounces	
1 quart = 2 pints = 32 ounces	
1 gallon = 3.785 liters	1 liter = .264 gallons
1 square foot (sq. ft.) = 144 square inches (sq. in.)	
1 cubic foot (cu. ft.) = 7.48 gallons (gal.)	
1 acre foot (ac. ft.) = 43,560 cu. ft. = 325,829 gal.	

Commonly Used Conversion Factors

1 gallon per minute (gpm) = 1,440 gallons per day (gpd)
1 cubic foot per second (cfs) = 646,272 gpd = 448.8 gpm
1 million gallons per day (MGD) = 1.55 cfs = 694.4 gpm
1 part per million (ppm) = 1 milligram per liter (mg/L) = 8.34 pounds per million gallons
1.0 pounds per square inch (psi) = 2.31 feet of head
1.0 feet head = 0.433 psi
1 horsepower = 550 foot-pounds per second

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Commonly Used Formulas

Area = Length x Width
Chemical dosage: pounds per day (lbs./day) = MGD x ppm x 8.34 lbs./gal.
Circular area = πr^2 (π 3.14) OR circular area = 0.785 x diameter (D) ²
Circular volume = Width x Length x Height
Circumference = $2\pi r$ (where π 3.14; r = radius)
CT = Chlorine concentration (mg/L) x time (minutes)
Detention time = $\frac{\text{tank volume (gallons)}}{\text{Flow (gpm or gpd)}}$
Perimeter (of rectangle) = 2(length) + 2(width)
Perimeter for other shapes= add lengths of all sides

REFERENCE	REFERENCE	REFERENCE	REFERENCE
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Commonly Used Formulas

Flow rate (Q, ft. ³ /sec.) = Velocity (ft./sec.) X Area (ft. ²)
Force = Pressure (psi) x Area (in. ²)
Pounds per gallon (not water) = Specific Gravity x 8.34
Specific capacity = $\frac{\text{flow (gpm)}}{\text{drawdown (ft.)}}$
Water horsepower = $\frac{Q \text{ (flow in gpm)} \times H \text{ (feet head)}}{3,960}$

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Water Line Repairs Log*

<i>Date</i>	<i>Location</i>	<i>Size</i>	<i>Replaced/Repaired</i>	<i>Comments</i>

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 4*

REFERENCE	REFERENCE	REFERENCE	REFERENCE
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<i>Date</i>	<i>Location</i>	<i>Size</i>	<i>Replaced/Repaired</i>	<i>Comments</i>

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 4*

DAILY

DAILY

DAILY

DAILY

Recommended Daily Operational Duties

- ' Check water meter readings and record water production.
- ' Check chemical solution tanks and record amounts used.
- ' Check and record water levels in storage tanks.
- ' Inspect chemical feed pumps.
- ' Check and record chlorine residual at the point of application.
- ' Check and record chlorine residual in the distribution system.
- ' Inspect booster pump stations.
- ' Check and record fluoride concentration in the distribution system.
- ' Record well pump running times and pump cycle starts.

(Continued on other side of card.)

See Guide Book Pages 5 - 11

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DAILY

DAILY

DAILY

DAILY

Recommended Daily Operational Duties (cont.)

- ' Check instrumentation for proper signal input/output.
 - C Chlorine residual
 - C Fluoride

- ' Investigate customer complaints. Use special "Telephone Threat" card to record threats or suspicious activity.

- ' Complete a daily security check.
 - C Check all windows, doors, hatches, seals and vents for evidence of vandalism or tampering.
 - C Check all well caps, seals, and vents to ensure that they are intact and sealed.
 - C Check all security lighting to ensure proper operation.

- ' *Inspect heater operation during winter months.*

- ' *Inspect well pumps, motors, and controls.*

See Guide Book Pages 11 & 12
(Reminder: italicized tasks do not have log cards)

DAILY	DAILY	DAILY	DAILY
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Daily Water Production Log Card* Month/Year _____

<i>Date</i>	<i>Meter Reading</i>	<i>Amount of Water Used</i>	<i>Notes or Comments</i>
15 th			
14 th			
13 th			
12 th			
11 th			
10 th			
9 th			
8 th			
7 th			
6 th			
5 th			
4 th			
3 rd			
2 nd			
1 st **			

**Remember to photocopy the log card for future use before filling it out. **The first value should go here.*

See Guide Book Page 5

DAILY	DAILY	DAILY	DAILY
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<i>Date</i>	<i>Meter Reading</i>	<i>Amount of Water Used</i>	<i>Notes or Comments</i>
<i>Total Water Produced***</i>			
31 st			
30 th			
29 th			
28 th			
27 th			
26 th			
25 th			
24 th			
23 rd			
22 nd			
21 st			
20 th			
19 th			
18 th			
17 th			
16 th			

***Subtract reading from the 1st of the month from last reading of the month.
See Guide Book Page 5

DAILY	DAILY	DAILY	DAILY
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Daily Chemical Solution Usage Log Card*

Chemical Pump Settings: Speed _____ Stroke _____ Month/Year _____

Date	Water Prod. (From Prod. Card)	Chlorine Solution Used	Chlorine Used per _____ gal water produced	Any Cl ₂ Dosage Failures & Duration	Fluoride Solution Used	Fluoride Used per _____ gal water produced
15 th				yes/no		
14 th				yes/no		
13 th				yes/no		
12 th				yes/no		
11 th				yes/no		
10 th				yes/no		
9 th				yes/no		
8 th				yes/no		
7 th				yes/no		
6 th				yes/no		
5 th				yes/no		
4 th				yes/no		
3 rd				yes/no		
2 nd				yes/no		
1 ^{st**}				yes/no		

*Remember to photocopy the log card for future use before filling it out.**The first value of the month should go here.
 See Guide Book Page 5 33

DAILY		DAILY		DAILY		DAILY	
Date	Water Prod. (From Prod. Card)	Chlorine Solution Used	Chlorine Used per _____ gal Water Produced	Any Cl ₂ Dosage Failures & Duration	Fluoride Solution Used	Fluoride Used per _____ gal Water Produced	
31 th				yes/no			
30 th				yes/no			
29 th				yes/no			
28 th				yes/no			
27 th				yes/no			
26 th				yes/no			
25 th				yes/no			
24 th				yes/no			
23 rd				yes/no			
22 nd				yes/no			
21 st				yes/no			
20 th				yes/no			
19 th				yes/no			
18 th				yes/no			
17 th				yes/no			
16 th				yes/no			
15 th				yes/no			

***Remember to photocopy the log card for future use before filling it out.**The first value of the month should go here.
See Guide Book Page 5**

DAILY DAILY DAILY DAILY

Daily Chemical Solution Usage Log Card - Other*

Chemical Pump Settings: Speed _____ Stroke _____ Month/Year _____

Date	Water Prod. (From Prod. Card)	Solution Used	Solution Used per _____ gal Water Produced	Test Results Raw & Treated	Backwash meter reading and/or cycles
14 th					
13 th					
12 th					
11 th					
10 th					
9 th					
8 th					
7 th					
6 th					
5 th					
4 th					
3 rd					
2 nd					
1 st **					

**Remember to photocopy the log card for future use before filling it out. **The first value of the month should go here.
See Guide Book Page 7*

DAILY		DAILY		DAILY	
<i>Date</i>	<i>Water Prod. (From Prod. Card)</i>	<i>Solution Used</i>	<i>Solution Used per _____ gal Water Produced</i>	<i>Test Results Raw & Treated</i>	<i>Backwash meter reading and/or cycles</i>
31 st					
30 th					
29 th					
28 th					
27 th					
26 th					
25 th					
24 th					
23 rd					
22 nd					
21 st					
20 th					
19 th					
18 th					
17 th					
16 th					
15 th					

**Remember to photocopy the log card for future use before filling it out. **The first value of the month should go here.
See Guide Book Page 7*

DAILY	DAILY	DAILY	DAILY
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Daily Storage Tank Water Level Log Card* Tank No. _____

Month/Year _____ Normal Operational Range of Tank Levels (High & Low) _____

Date	Water Level (in ft.)	Action Taken	System Pressure (at tank)	Time of Reading
1 st				
2 nd				
3 rd				
4 th				
5 th				
6 th				
7 th				
8 th				
9 th				
10 th				
11 th				
12 th				
13 th				
14 th				

*Remember to photocopy the log card for each tank and for future use before filling it out.
See Guide Book Page 7

DAILY DAILY DAILY DAILY

<i>Date</i>	<i>Water Level (in ft.)</i>	<i>Action Taken</i>	<i>System Pressure (at tank)</i>	<i>Time of Reading</i>
15 th				
16 th				
17 th				
18 th				
19 th				
20 th				
21 st				
22 nd				
23 ^d				
24 th				
25 th				
26 th				
27 th				
28 th				
29 th				
30 th				
31 st				

**Remember to photocopy the log card for each tank and for future use before filling it out.
See Guide Book Page 7*

DAILY DAILY DAILY DAILY

Daily Pressure Tank Water Level Log Card* Tank No. _____

Month/Year _____ Normal Operational Range of Tank Levels (High & Low) _____

Date	Water Level (in ft.)	System Pressure (at tank)	Time of Reading	Action Taken
1 st				
2 nd				
3 rd				
4 th				
5 th				
6 th				
7 th				
8 th				
9 th				
10 th				
11 th				
12 th				
13 th				
14 th				
15 th				

*Remember to photocopy the log card for each tank and for future use before filling it out.
See Guide Book Page 7

DAILY		DAILY		DAILY		DAILY	
<i>Date</i>	<i>Water Level (in ft.)</i>	<i>System Pressure (at tank)</i>	<i>Time of Reading</i>	<i>Action Taken</i>			
16 th							
17 th							
18 th							
19 th							
20 th							
21 st							
22 nd							
23 rd							
24 th							
25 th							
26 th							
27 th							
28 th							
29 th							
30 th							
31 st							

**Remember to photocopy the log card for each tank and for future use before filling it out.
See Guide Book Page 7*

Daily Chemical Feed Pump Log Card* Month/Year _____

Dosage Calculation = (a x b)/c = d (Make sure to include units of measurement.)

Day	Concentration of Chemical Solution (a)	Volume of Solution Pumped (b)	Volume of Water Treated (c)	Calculated Dosage (mg/L) (d)	Expected Dosage
14 th					
13 th					
12 th					
11 th					
10 th					
9 th					
8 th					
7 th					
6 th					
5 th					
4 th					
3 rd					
2 nd					
1 st **					

**Remember to photocopy the log card for future use before filling it out. **First Value of month should go here.*

See Guide Book Page 8

DAILY		DAILY		DAILY	
<i>Day</i>	<i>Concentration of Chemical Solution (a)</i>	<i>Volume of Solution Pumped (b)</i>	<i>Volume of Water Treated (c)</i>	<i>Calculated Dosage (mg/L) (d)</i>	<i>Expected Dosage</i>
15 th					
16 th					
17 th					
18 th					
19 th					
20 th					
21 st					
22 nd					
23 rd					
24 th					
25 th					
26 th					
27 th					
28 th					
29 th					
30 th					
31 st					

See Guide Book Page 8

Daily Chlorine Residual Log Card* Month/Year _____

Location _____

Day	Chlorine Residual (in mg/L) at Point of Application Target Level ___mg/L to ___mg/L	Chlorine Residual (in mg/L) in Distribution System (include sample location)	Notes or Comments
1 st			
2 nd			
3 rd			
4 th			
5 th			
6 th			
7 th			
8 th			
9 th			
10 th			
11 th			
12 th			
13 th			
14 th			

*Remember to photocopy the log card for future use and for multiple sampling locations before filling it out.
See Guide Book Page 9

DAILY	DAILY	DAILY	DAILY
-------	-------	-------	-------

<i>Day</i>	<i>Chlorine Residual (in mg/L) at Point of Application Target Level ___mg/L to ___mg/L</i>	<i>Chlorine Residual (in mg/L) in Distribution System (include sample location)</i>	<i>Notes or Comments</i>
15 th			
16 th			
17 th			
18 th			
19 th			
20 th			
21 st			
22 nd			
23 rd			
24 th			
25 th			
26 th			
27 th			
28 th			
29 th			
30 th			
31 st			

See Guide Book Page 9

DAILY DAILY DAILY DAILY

Daily Booster Pump Log Card* Month/Year _____

Day	Are Pump Operating Times Equalized?	Meter Readings		Pressure Gauge Readings		
		Run Time	Starts	Suction Side	Discharge Side	Pump on/off
1 st	Yes/No					
2 nd	Yes/No					
3 rd	Yes/No					
4 th	Yes/No					
5 th	Yes/No					
6 th	Yes/No					
7 th	Yes/No					
8 th	Yes/No					
9 th	Yes/No					
10 th	Yes/No					
11 th	Yes/No					
12 th	Yes/No					
13 th	Yes/No					
14 th	Yes/No					
15 th	Yes/No					

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Page 10

DAILY		DAILY		DAILY		DAILY
Day	Are Pump Operating Times Equalized?	Meter Readings		Pressure Gauge Readings		
		Run Time	Starts	Suction Side	Discharge Side	Pump on/off
16 th	Yes/No					
17 th	Yes/No					
18 th	Yes/No					
19 th	Yes/No					
20 th	Yes/No					
21 st	Yes/No					
22 nd	Yes/No					
23 rd	Yes/No					
24 th	Yes/No					
25 th	Yes/No					
26 th	Yes/No					
27 th	Yes/No					
28 th	Yes/No					
29 th	Yes/No					
30 th	Yes/No					
31 st	Yes/No					

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Page 10

DAILY	DAILY	DAILY	DAILY
-------	-------	-------	-------

Daily Fluoride Concentration Log Card*

Predetermined Concentration _____ Month/Year _____

Sample Point Location _____

Day	Fluoride Concentration in Distribution System	Adjustment Needed +/-	Notes or Comments
1 st			
2 nd			
3 rd			
4 th			
5 th			
6 th			
7 th			
8 th			
9 th			
10 th			
11 th			
12 th			
13 th			
14 th			

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Page 10

DAILY	DAILY	DAILY	DAILY
-------	-------	-------	-------

<i>Day</i>	<i>Fluoride Concentration in Distribution System</i>	<i>Adjustment Needed +/-</i>	<i>Notes or Comments</i>
15 th			
16 th			
17 th			
18 th			
19 th			
20 th			
21 st			
22 nd			
23 ^d			
24 th			
25 th			
26 th			
27 th			
28 th			
29 th			
30 th			
31 st			

See Guide Book Page 10

DAILY	DAILY	DAILY	DAILY
-------	-------	-------	-------

Daily Well Pump Log Card*

Month/Year _____

Date	Running Time (in Hrs.)	Number of Cycle Starts	Notes or Comments
1 st			
2 nd			
3 rd			
4 th			
5 th			
6 th			
7 th			
8 th			
9 th			
10 th			
11 th			
12 th			
13 th			
14 th			
15 th			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 11

DAILY			
<i>Date</i>	<i>Running Time (in Hrs.)</i>	<i>Number of Cycle Starts</i>	<i>Notes or Comments</i>
16 th			
17 th			
18 th			
19 th			
20 th			
21 st			
22 nd			
23 rd			
24 th			
25 th			
26 th			
27 th			
28 th			
29 th			
30 th			
31 st			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 11

DAILY	DAILY	DAILY	DAILY
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Daily Instrumentation Equipment Check Log Card*

Type of Equipment _____ *Date* _____

- C Check to make sure the instrument is working—input/output signal.
- C Check to make sure proper flow is going to the instrument.

Per Manufacturer Specifications:

(Review operation manual and set the following per recommendations. Use this list for daily checks.)

Equipment Check	Operation Manual Settings Notes
<i>Verify all signals.</i>	
<i>Calibrate input/output.</i>	
<i>Clean as recommended.</i>	
<i>Replace all standby batteries/power (as needed).</i>	

*Remember to photocopy the log card for each piece of equipment and for future use before filling it out.

See Guide Book Page 11

Other Instrumentation Equipment Notes or Comments

**Remember to photocopy the log card for each piece of equipment and for future use before filling it out.
See Guide Book Page 11*

Customer Complaint Log Card*

<i>Date</i>	<i>Questions, Concerns, or Potential Problems</i>	<i>Customer Name and Information</i>	<i>Person Assigned/ Action Taken</i>	<i>Compliant Resolved/ Researched</i>
	1. <i>Time Complaint Made</i> _____			 <i>Time resolved</i> _____
	2. <i>Time Complaint Made</i> _____			 <i>Time resolved</i> _____

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 11

DAILY		DAILY		DAILY	
<i>Date</i>	<i>Questions, Concerns, or Potential Problems</i>	<i>Customer Name and Information</i>	<i>Person Assigned/ Action Taken</i>	<i>Compliant Resolved/ Researched</i>	
	3. <i>Time Complaint Made</i> _____				<i>Time resolved</i> _____
	4. <i>Time Complaint Made</i> _____				<i>Time resolved</i> _____

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 11

Water System Telephone Threat Identification Checklist*

<p>1. Types of Tampering/Threat:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <input type="checkbox"/> Contamination <input type="checkbox"/> Biological <input type="checkbox"/> Chemical </td> <td style="width: 50%; border: none;"> <input type="checkbox"/> Threat to tamper <input type="checkbox"/> Bombs, explosives, etc. <input type="checkbox"/> Other (explain) </td> </tr> </table>	<input type="checkbox"/> Contamination <input type="checkbox"/> Biological <input type="checkbox"/> Chemical	<input type="checkbox"/> Threat to tamper <input type="checkbox"/> Bombs, explosives, etc. <input type="checkbox"/> Other (explain)	<p>2. Call Received By (Name, Address, and Telephone Number):</p> <p>Date and Time of Call Received:</p>						
<input type="checkbox"/> Contamination <input type="checkbox"/> Biological <input type="checkbox"/> Chemical	<input type="checkbox"/> Threat to tamper <input type="checkbox"/> Bombs, explosives, etc. <input type="checkbox"/> Other (explain)								
<p>3. Location of Tampering:</p> <input type="checkbox"/> Distribution Line <input type="checkbox"/> Water Storage Facilities <input type="checkbox"/> Treatment Plant <input type="checkbox"/> Raw Water Source <input type="checkbox"/> Treatment Chemicals <input type="checkbox"/> Other	<p>4. Contaminant Source and Quantity:</p> <p>Date and Time of Tampering/Threat:</p> <p>Caller's Name/Alias, Address, and Telephone Number:</p>								
<p>5. Is the Connection Clear? (Could it have been a wireless or cell phone?)</p>	<p>6. Is the Caller (check all that apply):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Male</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Well Spoken</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Female</td> <td style="border: none;"><input type="checkbox"/> Irrational</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Impolite</td> <td style="border: none;"><input type="checkbox"/> Incoherent</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Illiterate</td> <td></td> </tr> </table>	<input type="checkbox"/> Male	<input type="checkbox"/> Well Spoken	<input type="checkbox"/> Female	<input type="checkbox"/> Irrational	<input type="checkbox"/> Impolite	<input type="checkbox"/> Incoherent	<input type="checkbox"/> Illiterate	
<input type="checkbox"/> Male	<input type="checkbox"/> Well Spoken								
<input type="checkbox"/> Female	<input type="checkbox"/> Irrational								
<input type="checkbox"/> Impolite	<input type="checkbox"/> Incoherent								
<input type="checkbox"/> Illiterate									

**Remember to photocopy this card and ensure copies are available for use.*

See Guide Book Page 11

<p>7. Is the Caller's Voice (Check all that apply):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">/ Soft</td> <td style="width: 20%;">/ Calm</td> <td style="width: 20%;">/ Angry</td> <td style="width: 20%;">/ Slow</td> <td style="width: 20%;">/ Rapid</td> </tr> <tr> <td>/ Slurred</td> <td>/ Loud</td> <td>/ Laughing</td> <td>/ Crying</td> <td>/ Normal</td> </tr> <tr> <td>/ Deep</td> <td>/ Nasal</td> <td>/ Clear</td> <td>/ Lispering</td> <td>/ Stuttering</td> </tr> <tr> <td>/ Old</td> <td>/ High</td> <td>/ Cracking</td> <td>/ Excited</td> <td>/ Young</td> </tr> </table> <p>/ Familiar (who did it sound like?)</p> <p>/ Accented (which region or nationality?)</p>	/ Soft	/ Calm	/ Angry	/ Slow	/ Rapid	/ Slurred	/ Loud	/ Laughing	/ Crying	/ Normal	/ Deep	/ Nasal	/ Clear	/ Lispering	/ Stuttering	/ Old	/ High	/ Cracking	/ Excited	/ Young
/ Soft	/ Calm	/ Angry	/ Slow	/ Rapid																
/ Slurred	/ Loud	/ Laughing	/ Crying	/ Normal																
/ Deep	/ Nasal	/ Clear	/ Lispering	/ Stuttering																
/ Old	/ High	/ Cracking	/ Excited	/ Young																
<p>8. Are There Background Noises?</p> <p>/ Street noises (what kind) _____</p> <p>/ Machinery (what type?) _____</p> <p>/ Voices (describe) _____</p> <p>/ Children (describe) _____</p> <p>/ Animals (what kind?) _____</p> <p>/ Computer Keyboard, Office _____</p> <p>/ Motors (describe) _____</p> <p>/ Music (what kind?) _____</p> <p>/ Other _____</p>																				

**Remember to photocopy this card and ensure copies are available for use.
See Guide Book Page 11*

Daily Security Checklist* Date _____

- /' Hatches - closed, locked
- /' Doors - closed, locked
- /' Windows - closed, intact, locked
- /' Gates - closed, locked
- /' Fences - intact
- /' Well caps, seals, & vents - intact, sealed
- /' Signs - visible, in good repair
- /' Lights - working, available
- /' Alarms - on, functioning
- /' Work needed:

**Remember to photocopy this card and ensure copies are available for future use.*

See Guide Book Page 12

Other Notes and Comments

Other Notes and Comments

Other Notes and Comments

WEEKLY

WEEKLY

WEEKLY

WEEKLY

Recommended Weekly Operational Duties

- ' Inspect chlorine and fluoride testing equipment.
- ' Clean pump house and grounds. Make sure fire hydrants are accessible.
- ' Record pumping rate for each well or source water pump.
- ' Conduct weekly security check.
 - C *Inspect all pump house plumbing for leaks.*
 - C *Check all sump pumps for proper operation.*
 - C *Check all station alarms.*
 - C *Check backup power source to ensure it will operate when needed.*
 - C *Inspect fencing and gates.*

See Guide Book Pages 13 - 15

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WEEKLY	WEEKLY	WEEKLY	WEEKLY
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Weekly Chemical Equipment Testing Log Card*

Equipment _____ Month/Year _____

Week (Date)	Is Equipment Calibrated Properly?	Are Reagents Clearly Marked and Safely Stored?	Are Reagents Expired?	Amount of Reagent on Hand	Notes or Comments
1 st	Yes/No	Yes/No	Yes/No		
2 nd	Yes/No	Yes/No	Yes/No		
3 rd	Yes/No	Yes/No	Yes/No		
4 th	Yes/No	Yes/No	Yes/No		
5 th	Yes/No	Yes/No	Yes/No		

*Photocopy a log card for each chemical feeder. Remember to make copies for future use before filling log card out.

See Guide Book Page 13

WEEKLY WEEKLY WEEKLY WEEKLY

Weekly Chemical Equipment Testing Log Card*

Equipment _____ Month/Year _____

Week (Date)	Is Equipment Calibrated Properly?	Are Reagents Clearly Marked and Safely Stored?	Are Reagents Expired?	Amount of Reagent on Hand	Notes or Comments
1 st	Yes/No	Yes/No	Yes/No		
2 nd	Yes/No	Yes/No	Yes/No		
3 rd	Yes/No	Yes/No	Yes/No		
4 th	Yes/No	Yes/No	Yes/No		
5 th	Yes/No	Yes/No	Yes/No		

*Photocopy a log card for each chemical feeder. Remember to make copies for future use before filling log card out.

See Guide Book Page 13

Weekly Cleanliness Log Card*

Month/Year _____

Week (Date)	Are Pump House and Grounds Clean?	Are Fire Hydrants Accessible?	Notes or Comments
1 st	Yes/No	Yes/No	
2 nd	Yes/No	Yes/No	
3 rd	Yes/No	Yes/No	
4 th	Yes/No	Yes/No	
5 th	Yes/No	Yes/No	

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Pages 13 & 14

Weekly Cleanliness Log Card*

Month/Year _____

Week (Date)	Are Pump House and Grounds Clean?	Are Fire Hydrants Accessible?	Notes or Comments
1 st	Yes/No	Yes/No	
2 nd	Yes/No	Yes/No	
3 rd	Yes/No	Yes/No	
4 th	Yes/No	Yes/No	
5 th	Yes/No	Yes/No	

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Pages 13 & 14

WEEKLY	WEEKLY	WEEKLY	WEEKLY
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Weekly Pumping Rate Log Card*

Well _____ Month/Year _____

Week (Date)	Pumping Rate/Flow	Notes or Comments
1 st		
2 nd		
3 rd		
4 th		
5 th		

**Photocopy a log card for each well. Remember to make copies for future use before filling log card out.
See Guide Book Page 14*

WEEKLY	WEEKLY	WEEKLY	WEEKLY
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Weekly Pumping Rate Log Card*

Well _____ Month/Year _____

<i>Week (Date)</i>	<i>Pumping Rate/Flow</i>	<i>Notes or Comments</i>
1st		
2nd		
3rd		
4th		
5th		

**Photocopy a log card for each well. Remember to make copies for future use before filling log card out.
See Guide Book Page 14*

WEEKLY WEEKLY WEEKLY WEEKLY

Weekly Security Check Log Card*

Month/Year _____

<i>Week (Date)</i>	<i>Are Security Measures in Good Condition?</i>	<i>Repairs/Changes</i>	<i>Notes</i>
1st	Yes/No		
2nd	Yes/No		
3rd	Yes/No		
4th	Yes/No		
5th	Yes/No		

Weekly Security Check Log Card*

Month/Year _____

<i>Week (Date)</i>	<i>Are Security Measures in Good Condition?</i>	<i>Repairs/Changes</i>	<i>Notes</i>
1st	Yes/No		
2nd	Yes/No		
3rd	Yes/No		
4th	Yes/No		
5th	Yes/No		

**Remember to photocopy the log card for future use before filling it out.*

Other Notes and Comments

Other Notes and Comments

MONTHLY

MONTHLY

MONTHLY

MONTHLY

Recommended Monthly Operational Duties

- ' Read electric meter at pump house and record.
- ' Take appropriate monthly water quality samples.
- ' Check and record static and pumping levels of each well.
- ' *Read all customer meters and compare against total water produced for the month.*
- ' *Inspect well heads.*
- ' *Lubricate locks.*
- ' *Check on-site readings against lab results.*
- ' *Confirm submittal of monthly reports.*

See Guide Book Pages 17 - 19

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Monthly Electric Meter Log Card* Year _____

<i>Month (Date)</i>	<i>Electric Meter Reading</i>	<i>Monthly Water Production (if pumping is major use of energy)</i>	<i>Notes or Comments</i>
<i>Jan.</i>			
<i>Feb.</i>			
<i>March</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 17

MONTHLY	MONTHLY	MONTHLY	MONTHLY
---------	---------	---------	---------

Monthly Electric Meter Log Card*

Year _____

<i>Month (Date)</i>	<i>Electric Meter Reading</i>	<i>Monthly Water Production (if pumping is major use of energy)</i>	<i>Notes or Comments</i>
<i>April</i>			
<i>May</i>			
<i>June</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 17

Monthly Electric Meter Log Card* Year _____

<i>Month (Date)</i>	<i>Electric Meter Reading</i>	<i>Monthly Water Production (if pumping is major use of energy)</i>	<i>Notes or Comments</i>
<i>July</i>			
<i>Aug.</i>			
<i>Sept.</i>			

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 17*

MONTHLY	MONTHLY	MONTHLY	MONTHLY
---------	---------	---------	---------

Monthly Electric Meter Log Card*

Year _____

<i>Month (Date)</i>	<i>Electric Meter Reading</i>	<i>Monthly Water Production (if pumping is major use of energy)</i>	<i>Notes or Comments</i>
<i>Oct.</i>			
<i>Nov.</i>			
<i>Dec.</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 17

MONTHLY	MONTHLY	MONTHLY	MONTHLY
---------	---------	---------	---------

Monthly Water Quality Sampling Log Card* Year_____

<i>Month</i>	<i>Take Coliform Sample (U)</i>	<i>Take Other Samples (U)</i>	<i>Notes or Comments</i>
<i>Jan.</i>			
<i>Feb.</i>			
<i>March</i>			
<i>April</i>			
<i>May</i>			
<i>June</i>			
<i>July</i>			
<i>Aug.</i>			
<i>Sept.</i>			
<i>Oct.</i>			
<i>Nov.</i>			
<i>Dec.</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 17

MONTHLY	MONTHLY	MONTHLY	MONTHLY
---------	---------	---------	---------

Monthly Water Quality Sampling Log Card* Year_____

<i>Month</i>	<i>Take Coliform Sample (U)</i>	<i>Take Other Samples (U)</i>	<i>Notes or Comments</i>
<i>Jan.</i>			
<i>Feb.</i>			
<i>March</i>			
<i>April</i>			
<i>May</i>			
<i>June</i>			
<i>July</i>			
<i>Aug.</i>			
<i>Sept.</i>			
<i>Oct.</i>			
<i>Nov.</i>			
<i>Dec.</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 17

MONTHLY MONTHLY MONTHLY MONTHLY

Monthly Static (S) and Pumping (P) Level Log Card*

Well _____ Year _____

Month	S & P Level (in ft)	Recharge Time	Notes or Comments
Jan.	S:		
	P:		
Feb.	S:		
	P:		
March	S:		
	P:		
April	S:		
	P:		
May	S:		
	P:		
June	S:		
	P:		

*Remember to photocopy the log card for future use and for each well before filling it out.

See Guide Book Page 18

MONTHLY MONTHLY MONTHLY MONTHLY

Monthly Static (S) and Pumping (P) Level Log Card cont.*
 Well _____ Year _____

Month (Date)	S & P Level (in ft)	Recharge Time	Notes or Comments
July	S:		
	P:		
Aug.	S:		
	P:		
Sept.	S:		
	P:		
Oct.	S:		
	P:		
Nov.	S:		
	P:		
Dec.	S:		
	P:		

**Remember to photocopy the log card for future use and for each well before filling it out.*

See Guide Book Page 18

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes and Comments

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes and Comments

Recommended January Operational Duties

- ' **Overhaul chemical feed pumps (O rings, check valves, and diaphragms).**
- ' **Inspect and clean chemical feed lines and solution tanks.**
- ' **Calibrate chemical feed pumps after overhaul.**
- ' **Begin Safety Equipment Repair Log. Maintain log continuously throughout the year.**
- ' **Operate all valves inside the treatment plant and pump house. Maintain log continuously throughout the year.**
- ' ***Review emergency response plans.***

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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MONTHLY	MONTHLY	MONTHLY	MONTHLY
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January Task Log Card* Feed Pump: _____ Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
Overhaul chemical feed pumps:		
<i>Feeder head cleaned.</i>		
<i>O rings and valves checked for wear.</i>		
<i>Worn-out parts replaced (e.g., diaphragms).</i>		
Inspect and clean:		
<i>Chemical feed lines.</i>		
<i>Solution tanks.</i>		
<i>Calibrate chemical feed pumps after overhaul.</i>		

*Remember to photocopy the log card for each piece of equipment and for future use before filling it out.
 See Guide Book Pages 20 & 21

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Feed Pump Notes or Comments*

<i>Maintenance Needs:</i>
<i>Supplier Information:</i>
<i>Age of Equipment:</i>
<i>Changes or Repairs:</i>

**Remember to photocopy the log card for each piece of equipment and for future use before filling it out.
See Guide Book Pages 20 & 21*

MONTHLY MONTHLY MONTHLY MONTHLY

Safety Equipment Repair Log* Year _____

Date	Equipment: (SCBA, air monitor, fire extinguisher, etc.)	Maintenance or Repair Completed: (calibrated, cleaned, etc.)	Notes or Comments:

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Page 21

MONTHLY MONTHLY MONTHLY MONTHLY

<i>Date</i>	<i>Equipment: (SCBA, air monitor, fire extinguisher, etc.)</i>	<i>Maintenance or Repair Completed: (calibrated, cleaned, etc.)</i>	<i>Notes or Comments:</i>

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 21*

Valve Log Card* Year _____

When exercising the valves, be sure to record the time, type of valve, if the valve functions properly, and valve position.

Date	Time	Valve Number	Location	Type: (gate, plug, etc.)	Position: (open full, open partial, or closed; # turns)	Comments: (ok, repairs needed, will not seat, etc.)

**Remember to photocopy the log card for future use before filling it out.*

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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<i>Date</i>	<i>Time</i>	<i>Valve Number</i>	<i>Location</i>	<i>Type: (gate, plug, etc.)</i>	<i>Position: (open full, open partial, or closed; # turns)</i>	<i>Comments: (ok, repairs needed, will not seat, etc.)</i>

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 22*

MONTHLY

MONTHLY

MONTHLY

MONTHLY

Recommended February Operational Duties

- ' **Inspect chemical safety equipment and repair or replace as needed.**

- ' **Operate all valves inside the treatment plant and pump house.**

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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MONTHLY MONTHLY MONTHLY MONTHLY

February Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Number and Direction of Turns</i>	<i>Notes or Comments</i>
<i>Check chemical safety equipment and repair or replace as needed.</i>		<i>Not Applicable</i>	
<i>Operate all valves inside the treatment plant and pump house.</i>			

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 23

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Recommended March Operational Duties

- ‘ Inspect, clean, and repair control panels in pump house and treatment plant.**
- ‘ Exercise half of all mainline valves.**

See Guide Book Page 24

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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March Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Valves Exercised</i>	<i>Condition of Valves</i>	<i>Date Scheduled for Repair</i>	<i>Number and Direction of Turns to Close</i>
<i>Inspect, clean, and repair control panels in pump house and treatment plant.</i>		<i>Not Applicable</i>	<i>Not Applicable</i>		<i>Not Applicable</i>
<i>Exercise half of all mainline valves.</i>					

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 24*

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Recommended April Operational Duties

- ' **Inspect and clean chemical feed lines and solution tanks.**
- ' **Calibrate chemical feed pumps.**

See Guide Book Pages 25 & 26

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April Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Exercise/check all fire hydrant valves.</i>		
<i>Inspect and clean:</i>		
<i>Chemical feed lines</i>		
<i>Solution tanks</i>		
<i>Calibrate chemical feed pumps.</i>		

*Remember to photocopy the log card for future use before filling it out.

See Guide Book Pages 25 & 26

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

Recommended May Operational Duties

- ' Inspect storage tanks for defects and sanitary deficiencies.**
- ' Clean storage tanks if necessary.**

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May Task Log* Year_____

Task	Date Completed	Notes or Comments
<i>Inspect Storage Tank #_____</i>		
<i>Check vents and screens.</i>		
<i>Check water level measuring devices.**</i>		
<i>Check hatch seals/locks.**</i>		
<i>Check for deterioration.</i>		
<i>Inspect Storage Tank #_____</i>		
<i>Check vents and screens.</i>		
<i>Check water level measuring devices .**</i>		
<i>Check hatch seals/locks .**</i>		
<i>Clean Storage Tanks.</i>		

Remember to photocopy the log card for future use and additional tanks before filling it out.These security checks should also be conducted daily.*

See Guide Book Pages 27 & 28

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Recommended June Operational Duties

- ' Flush the distribution system and exercise/check all fire hydrant valves.**
- ' Perform preventive maintenance on treatment plant and pump house buildings.**

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June Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Flush the distribution system.</i>		
<i>Paint:</i>		
<i>Plant piping</i>		
<i>Buildings</i>		
<i>Tanks</i>		
<i>Safely store:</i>		
<i>Pipes</i>		
<i>Plumbing fittings</i>		
<i>Chemicals</i>		
<i>Tools</i>		
<i>Check fan operation.</i>		

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 29

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

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Recommended July Operational Duties

- ‘ Inspect and clean chemical feed lines and solution tanks.**
- ‘ Calibrate chemical feed pumps.**

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July Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Inspect and clean:</i>		
<i>Chemical feed lines</i>		
<i>Solution tanks</i>		
<i>Calibrate chemical feed pumps.</i>		

*Remember to photocopy the log card for future use before filling it out.

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Other Notes or Comments

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Recommended August Operational Duties

- ' Operate all valves inside the treatment plant and pump house.**

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August Task Log Card* Year _____

<i>Task</i>	<i>Date Completed</i>	<i>Number and Direction of Turns</i>	<i>Notes or Comments</i>
<i>Operate all valves inside the treatment plant and pump house.</i>			

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 31*

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

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Recommended September Operational Duties

- ' Exercise mainline valves that were not exercised in March.
- ' Prepare system for winter operation.
This task may be postponed until October or November, based on local conditions.
- ' *Make sure unnecessary equipment is properly decommissioned.*

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September Task Log Card* Year_____

<i>Task</i>	<i>Date Completed</i>	<i>Valves Exercised</i>	<i>Number of Failures</i>	<i>Date Scheduled for Repair</i>	<i>Direction and Number of Turns to Close</i>
<i>Exercise mainline valves that were not exercised in March.</i>					

Prepare System for Winter Operation		
<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Check that all exposed facilities are properly insulated.</i>		
<i>Check that all heaters are operable.</i>		
<i>Check that all vents are closed.</i>		

**Remember to photocopy the log card for future use before filling it out.*

See Guide Book Page 32

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Other Notes or Comments

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Recommended October Operational Duties

- ' **Inspect and clean chemical feed lines and solution tanks.**
- ' **Calibrate chemical feed pumps.**

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October Task Log Card* Year_____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Inspect and clean:</i>		
<i>Chemical feed lines</i>		
<i>Solution tanks</i>		
<i>Calibrate chemical feed pumps.</i>		

**Remember to photocopy the log card for future use before filling it out.*

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Other Notes or Comments

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Recommended November Operational Tasks

- ' **Prepare system for winter operation if not completed in September or October.**

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November Task Log Card* Year_____

Prepare System for Winter Operation		
<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Check that all exposed facilities are properly insulated.</i>		
<i>Check that all heaters are operable.</i>		
<i>Check that all vents are closed.</i>		

**Remember to photocopy the log card for future use before filling it out.*

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Other Notes or Comments

MONTHLY	MONTHLY	MONTHLY	MONTHLY
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Recommended December Operational Duties

- ' Contact an electrician to check running amps on well pumps.**

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December Task Log Card* Year_____

<i>Task</i>	<i>Date Completed</i>	<i>Notes or Comments</i>
<i>Contact an electrician to check running amps on well pumps.</i>		

**Remember to photocopy the log card for future use before filling it out.
See Guide Book Page 35*

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Other Notes or Comments

Follow-Up Log Card*

<i>Questions, Concerns, or Potential Problems</i>	<i>Date</i>	<i>Lead Person/Action Plan</i>

**Remember to photocopy the log card for future use before filling it out.*

MONTHLY MONTHLY MONTHLY MONTHLY

<i>Questions, Concerns, or Potential Problems</i>	<i>Date</i>	<i>Lead Person/Action Plan</i>

**Remember to photocopy the log card for future use before filling it out.*

Other Notes or Comments

****Remember to photocopy the log card for future use before filling it out.***

Other Notes or Comments

****Remember to photocopy the log card for future use before filling it out.***