VIRGINIA DEPARTMENT OF HEALTH OFFICE OF DRINKING WATER GROUNDWATER SYSTEM SANITARY SURVEY REPORT

SUBJECT:

Franklin County

WATERWORKS: Lake Forest

PWSID:

5067356

PART I - SYSTEM BACKGROUND GENERAL INFORMATION

| Owner Name: Western Virginia Water Authority | Waterworks Class: 6 |
|--|---------------------|
| Type of Waterworks: Community | |
| Contact Name: Mr. Travis Lane | |
| 2012 South Jefferson St., Roanoke, VA. 24014 | |
| Contact Phone Number: 540-283-8225 | |

| D.O. License Class: 4 | D.O. Has Required License: Yes |
|--------------------------------|---|
| D.O. Legal Name: Mark Petrus * | License No. 1955007142 Exp. Date: 02/17 |

| Inspection By: Jodi Jeanes | Inspection Date: 08/31/2016 | | |
|---|----------------------------------|--|--|
| Time Spent: One Hour | Last Inspection Date: 07/24/2014 | | |
| Date to Reviewer: 10-4-16 | Reviewed by/Date: 10-4-15 | | |
| Date to Reviewer: 10/3/14 | Reviewed by/Date: Novice 10/4/10 | | |
| Inspection Type: Routine | | | |
| Present at Inspection: Mark Petrus and Jodi Jeanes | | | |
| Facilities Inspected: Two wells at one combined entry point tap, Hydro-pneumatic tank, Atmospheric tank, and Distribution system. | | | |

| Operation Permit Effective Date: Permit to be drafted | Waterworks Description Sheet Date: To be drafted | | | |
|---|--|--|--|--|
| Permit Up-to-Date? No | Description Sheet Up-to-Date? No | | | |
| No. Connections: one condo unit/12 houses | Population Served: Approximately 56 | | | |
| Avg. Daily Production: 1,500 gpd Operation Permit Capacity: Unknown | | | | |
| Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months): No If yes, explain: | | | | |
| Treatment Provided: None | | | | |
| SDWIS Inventory Information Current: Yes | | | | |

Comments: The Permit and waterworks description sheet will be updated on or after October 1, 2016 pertaining to the new ownership, Western Virginia Water Authority (WVWA) of the waterworks.

*Licensed operator at the time of the inspection.

COMPLIANCE HISTORY

Shaded Boxes Indicate a potential Significant Deficiency

| BSSP Approved: | Yes | 03/31/201 | | |
|---|-------------------------|----------------|--|--|
| # of routine samples/monitoring period & frequence | cy 1 R | 1 RT/Month | | |
| Is plan current & appropriate for distribution syste population? | m & | Yes | | |
| Is monitoring frequency correct? | | Yes | | |
| Rotates and uses approved sites? | | Yes | | |
| Measures chlorine residual for all samples, if chlor added? | ine is | N/A | | |
| • RTCR Level 1 or 2 Assessments since last Survey? | | No | | |
| Disinfection required? (adequate contact time) | | No | | |
| Source #/ Name (if multiple sources, list) | | N/A | | |
| 4-Log virus inactivation required? | | No | | |
| Source # / Name (if multiple sources, list) |] | N/A | | |
| 4-Log virus inactivation provided? | | No | | |
| Source # / Name (if multiple sources, list) | 1 | N/A | | |
| On-line chlorine analyzers required for chlorine res | sidual? | N/A | | |
| ROUTINE RAW WATER BACTERIOLOGICAL MO | NITORING (checked over | past 12 months | | |
| Required? | | No | | |
| o If "Yes", Frequency: | 1 | N/A | | |
| • # of E. coli positive Samples | 1 | V/A | | |
| # Samples with Total Coliform >50 CFU/100 mL | T I | N/A | | |
| GUDI DETERMINATION | RESULT | DATE | | |
| • Wells #1 & #2 | Not Under the Influence | 01/28/1994 | | |
| SOURCE WATER ASSESSMENT PERFORMED | | | | |
| | No | | | |
| • Wells # 1 & #2 | | | | |
| | | No | | |
| | 1 | No | | |
| OURCE WATER PROTECTION Written source water protection plan? | | No | | |
| Written source water protection plan? | ed) | No I/A | | |
| OURCE WATER PROTECTION • Written source water protection plan? ODBP RULES - (Community & NTNC, Disinfectant Use | ed) | | | |

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

| PHASE II/V RULE | | La |
|---|-------------------|-------------------|
| Waivers current for all entry points? | \ \ \ | es |
| CONSUMER CONFIDENCE REPORTS (Community only) | | |
| Final report issued by deadline? | Y | 'es |
| Certification Statement Received? | | 'es |
| LEAD & COPPER RULES (Community & NTNC) | | |
| Materials Survey/Sampling Plan Approved: | Yes | 07/25/2008 |
| Water Quality Parameter (WQP) routine monitoring required? (Mandatory for > 50,000 population) | | lo |
| If yes, WQPs meet quality and frequency requirements? | | |
| Have Action Levels (90%) been exceeded in past? If so, when? | N | lo |
| Public Education requirements met if required? | N/ | /A |
| Optimized Corrosion Control Treatment (OCCT) required? If "Yes", is Operational Control Monitoring performed and acceptable? | No | |
| All consumer notice requirements met? | Yes | |
| CROSS-CONNECTION CONTROL PROGRAM | | - 1 |
| Approved: | Yes | 07/22/2008 |
| Inspected Records This Visit | No, Records local | ted at a differer |
| Program Active | Yes | |
| o Satisfactory | Ye | es |
| MONTHLY) OPERATION REPORTS | | |
| All submitted for past 12 months? | Ye | S |
| Operational treatment parameters monitored? | Ye | PS' |
| All required data reported? | Ye | S |
| EMERGENCY MGMT. PLAN for Extended Power Outage (Com | nmunity only) | |
| Verification received? | Yes | 07/31/2012 |
| • Current? | Ye | |
| ASSET MANAGEMENT (recommendation) | | |
| | No |) |
| Written Plan Developed? | Yes | |

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| ENFORCEMENT | | DATE |
|---|-----|------|
| Administrative/Consent Order in Effect: | No | |
| Violations / Enforcement Actions Since Last Survey: | No | |
| Owner issued Public Notice as required? | N/A | |
| Active Corrective Action Plan? | N/A | N/A |
| o If "Yes", is waterworks on schedule? | N/A | A |
| SDWIS Violation & Enforcement Action, Public Notification data current? | Yes | |
| COMPLAINTS SINCE LAST INSPECTION: No | | |
| If yes, summarize: | | |
| Comments: None | | |

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Chemical Schedule for 5067356 LAKE FOREST

EP001

ENTRY POINT

| EP001 | ENTRY PT SAMPLE TAP | | | | | |
|--|----------------------------|--|-----------------------------------|--|--|----------|
| SOCs - Diqu SOCs - Sem | prinated Acidic Herbicides | <u>Last</u> | Freq. | <u>Next</u> | Waiver <u>Exp. Date</u> 12/31/2019 12/31/2019 12/31/2019 12/31/2019 | Comments |
| Nitrate + Nitr Inorganics Radiological Metals VOC Cyanide | rite (Combined) | 10/26/2015 12/17/2013 12/22/2010 12/24/2013 11/4/2014 5/20/2014 | 12 36 72 36 36 108 | 10/26/2016 12/17/2016 12/22/2016 12/24/2016 11/4/2017 5/20/2023 | 12/31/2019 | |

5 Lead and Copper Samples due 8/31/2017

Lake Forest - 5067356

| A. WELL # 2 | | C. STORAGE - PNUEMATIC TANK(S) | | id). Iddasynandia | cim(o)si |
|---|------------|--|---------------------|---|-----------------------------|
| Sanitary Casing Seal /Cap | Yes | 2,000 Gallon Bladder Tank in Control Building | | tillamiligten | |
| Elbowed Casing Vent/Screened | Yes | | | Alderfeld Controlled Michigan Anapolica visitat (Controlled | |
| 12" Casing Extension | Yes | Type: Pre-Pressurized or Hydro-Pneumatic | Hydro- pneumatic | Resolution of this pro- | |
| Concrete Pad (6' Square) | Yes | Drain Protected from | Yes | i. Sjopnio i Paroli i 1120 gantij 184nic | |
| Well Lot Condition (50 ft Radius) | Good | Contamination | | Legisipe Vestin directors | |
| Protected from Flood Waters/ | Yes | Pressure Gauge/Reading | 45 psi | en. Kanamanga itangketa kan sika | |
| Runoff | | Pressure Operating Range | 4-60 psi | (Classication States Constallator | |
| Discharge Check Valve | Yes | Sight Glass/ | Yes | Begggeredam i jame Campelform | |
| Discharge Shut-Off Valve | Yes | Level Indicator | 7. | l Hestolate Statilot (1965, 1966) | |
| Valved Blow-Off | Yes | Sample Tap Available | Yes | Skouthetiteur Wiereile Constitution | |
| Raw Water Sample Tap | Yes | Pressurizing System | Yes | ("godhaqiyado" il short: E armonicia | |
| Water Level Gauge or | Yes | Vacuum Relief Valve | Yes | ificaciótem Angilo mitemal/ ipicalimipos | |
| Transducer | Yes | Pressure Relief Valve | Yes | Withing (fields a) A charm | |
| Operable Water Meter/Reading | | Air Relief Valve | Yes | Dispetier (CICI) Stockt | |
| Permitted Capacity (gpd) | In Process | Exterior Condition | Fair | Adagan (Arago is until (C) / fine atoms | |
| Pumping Rate Observed (gpm) | N/O | Normal Pump Cycling | Yes | ((Gyas (Chelly)) | |
| Pumping Average hrs/day | 4.4 Hours | Tank Watertight, | Yes | Proposed Prince (1) | |
| Permitted Source Capacity Exceeded? | No | Structurally Sound | | Kangretungi II in Englishman in i | |
| Discharge Head Observed (psi) | No | Flushed/Cleaned Date | Every 6 Mo. | (Minuse the spoon divined to some of | |
| All Weather Access | Yes | Dept. of Labor & Industry Exp. Date (>120 gal.) | 04/2017 | Participal Action of Mikilar managements | |
| B. WELL HOUSE | | D. CHEM. FEED SYSTEMS SAFETY/GENERAL | | F. NEW ACTIV POLLUTION S within 1000 ft radius of w significant/acute h | SOURCES rell that present a |
| | | Do any chemical storage and | | Activity or Pollution Source | Approx. Distance |
| Adequate Protection | Yes | handling facilities offer potential for explosions? | No | | from Well |
| Proper Storage Only (Non-toxic & Non-explosive) | Yes | Is adequate safety equipment | Yes | es de la | TO SEPTEMBER : |
| Cross-Connections Exist? | No | provided for chemical handling (i.e. rubber gloves, | | | |
| Lighting | Yes | breathing apparatus, goggle, | | | |
| Heating | Yes | aprons, etc.)? | | | |
| Electrical Wiring (Safety) | Yes | Are Material Data Safety Sheets (MSDS) available? | Yes | | |
| Floor Drain | Yes | Are hazardous chemical | | | |
| All-Weather Access | Yes | containers labeled? | Yes | | |
| Wellhead Accessible | Yes | Is adequate chemical storage | Yes | | |
| Locked | Yes | area provided? | 1 03 | | |
| Clean/Uncluttered | Yes | Are there approved backflow | | | |
| Emergency Power Available | No | prevention devices installed to isolate process water from | Yes | | |
| | | finished water? Does the waterworks have | Yes | | |

Lake Forest - 5067356

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| J. DISTRIBUTION SYSTEM EVALUATION | |
|---|---------------------|
| Pipe Material(s): PVC and Galvanized Steel | |
| Individual Service Meters provided? | No |
| o If yes, routine calibration & replacement program in effect? | N/A |
| Flushing Provisions (hydrants, blow-offs, etc.) available? | Yes |
| Routine Flushing Program in practice? | Yes |
| o If yes, describe: | Every Six Months |
| Isolation valves exercised? | Yes |
| o If yes, describe: | Every Six Months |
| Air/vacuum relief valves checked for operability? | Yes |
| o If yes, describe: | Every Six Months |
| Pressure monitoring of distribution system? | Yes |
| o If yes, describe: | As Needed |
| Adequate Pressure Maintained Throughout? (>20 psi @ peak flow) | |
| Problems/Complaints in past year: No | erruptions other |
| Pipe Repair - proper disinfection/sampling procedures used? | As Needed |
| Re-chlorination practiced? (If yes, see separate Re-chlorination table in this report.) | N/A |
| FIRE PROTECTION PROVIDED? | No |
| How often are Fire Flow Tests conducted (with fire dept.)? | N/A |
| How often are hydrants checked for operability? | N/A |
| Are fire hydrants "NFPA-coded" to indicate maximum available fire flow? | N/A |
| o If yes, is operator familiar with fire hydrant "code"? | N/A |
| Are operators familiar with tank levels necessary to provide target fire flow for target duration? | N/A |
| Does waterworks have routine procedures for contacting local fire department(s) to verify available fire flow and duration? | N/A |
| MANAGEMENT | |
| Plans/Sketches/Maps with valve & master meter locations? | Yes |
| Records maintained (should be kept for 3 years minimum): Repairs Flushing Hydrant Testing Fire Flow Tests Water | Audits Complaints |
| How often are Water Audits conducted? | No Water Meters |
| Leakage rates > 30%? Explain: | No The last |
| Comments: None | |

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