Daily Water Duties

Well # 9 (Shop): Record on log at well house; meter reading, chlorine residual from CL17 and daily usage(b then numbers on display)Then hit RST to reset.
Record on daily sheet; meter reading, chart status, reagent status and chlorine level in pounds on daily sheet

Well # 11(Midland Ave.): Record on log at well house; daily usage and chlorine residual from CL17,
Record on daily sheet; chart status, reagent status, chlorine levels (as ok or added) and daily usage
press "rst" on the "FLOW METER" to reset meter to zero. There is no cumulative reading for this meter therefore it is **necessary** to record the daily readings and re-set the flow meter.

Well # 13(School): Record on log at well house; meter reading and chlorine residual from CL17.
Record on daily sheet; Meter reading, chart status, reagent status and chlorine levels as ok or added.

Filter Plant combo X then X then X then X then X

1. At the HMI (computer screen) go to Graphics then to Plant Data transfer data from "Accumulated Filtrate Flow Yesterday", "Water Waste Yesterday" to daily sheet and notebook at computer

2. Click Main to get back to main menu. Click on "RACK A". Click on "Rack" to access RF or Integrity Test (IT). Click RF to get discharge sample. After clicking "RF" go across street and collect sample for discharge sample.

3. Check "Alarm Summary" and add any alarms to Daily sheet if none write "none".

4. Add "Flow Yesterday and Waste Yesterday" and lowest Chlorine reading from across the street, to notebook located to the right of monitor.

5. Check Turbidity Readings

NOTE: It is not necessary that you record the Turbidity. Only do step 6 if you are sure you will not close the wrong document. Check Turbidity Readings

If the lower tool bar is not available press the key that looks like a window. It is located next to the Alt key near the space bar on the keyboard

1. Click "Start" in the lower left corner
2. Click "Computer"
3. Double click "Local disk C"
4. Double click "Reports"
5. Double click "Historical Daily Reports"

- DO NOT CLOSE Basalt Daily Report or it will not record data

In the main room of the Filter Plant

6. Drain both compressor valves Use Hearing Protection provided.
7. Empty dehumidifier reservoir.
8. Read the upper pressure zone meter
9. Take a grab sample from the filtrate turbidimeter line
   - Write value from Filtrate Turb on daily Turbidimeter sheet

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- Clean and oil the three Gelex Standards
- Place the 0-10 NTU into 2100P and press “Read” record value on daily log
- Place the 0-100 NTU into 2100P and press “Read” record value on daily log
- Place the 0-1000 NTU into 2100P and press “Read” record value on daily log
- Compare values to previous days. Calibrate if necessary. Instructions on clipboard
- Use indexed cell on towel or rack to collect a grab sample of “Filtrate Turb.”
- Wipe clean
- Place a drop of silicone oil on cell and wipe to distribute the oil evenly.
- Make sure there are NO air bubbles
- Place sample in 2100P and press “Read”
- Compare grab sample to “Filtrate Turb” water
- Rinse with distilled water and place upside down on towel or rack to dry

10. Go across the street and enter the CL2 building. Combo XXXX.
11. Check ATI chart. If the value on the chart or the grab sample is below 0.20mg/l or above 4.0mg/l call the Operator in Charge (ORC) for instructions. XXXX 123-4567
12. If necessary change ATI chart. Press key with circular symbol in lower left hand corner, press the down arrow key to move pen off chart. Remove used chart and install new chart, press down arrow to re-initiate pen
13. Read XXXXX Springs meter. Record on Daily Log. Scroll to daily production (b) and press reset.
14. Read CL2 Meter. Record on Daily Log
15. Transfer Chlorine reading from ATI onto “Log” sheet.

Check chlorine residual on the “system water” and the “discharge” water

NOTE: Prior to sampling Always rinse beakers and/or sample cells with water to be sampled
NOTE: Always have lid on colorimeter when “zeroing”, “reading” or when not in use

- To create a “blank”, <u>either TB for discharge water</u> or <u>FB for system water</u>, fill a sample cell so the lower curvature of the water is at the 10ml line. Cap
- Fill a second cell, T for discharge and F for system, to the 10ml line with sample water.
- Use the Swiftest dispenser, pulling the “trigger” once to the sample. Make sure the blue button pops out. **<u>Free reagent for “system water”. Total reagent for “discharge water”</u>**
- Cap sample cell & gently shake
- Wipe cell clean with chem. wipe to remove any water, roll to remove any bubbles from side of cell.
- Insert “Blank” sample cell into Colorimeter with the diamond mark facing the keypad.
- Press the blue “zero” key. Make sure you have a 0.00 reading on the instrument.
- Insert sample into Colorimeter. Press the √ key to read. Make sure there are little or no air bubbles.
- **Read the “free” System water within 1 minute (or as soon as the air bubbles dissipate).**
- **<u>Read the discharge water after 3 minutes but before 6 minutes for the “total” discharge water.</u>**

16. <u>Record “System Water” reading on log in Chlorine Building. Reading should be between 0.24 and 0.40 if out of that range call ORC</u>

17. <u>Record “Discharge Water” reading on calendar in Chlorine Building and on “daily sheet”. The reading should be between 0.04 but not exceed 0.54 if out of that range call ORC</u>

18. Compare “System water” grab reading to ATI reading. If readings vary more than a few numbers apart open ATI and adjust small screw located at the top of the instrument (open door behind chart)

19. Rinse sample bottles completely using bottle brush.

20. Add lowest chlorine reading from the ATI chart to daily sheet and also transfer to notebook at the computer at filter plant.

pH Readings.

21. Turn on pH meter
22. Pour enough 4.01 and 7.00 pH buffer solution to submerge end of probe (covering small holes) into separate small cups.
23. Remove bottle containing pH storage solution from end of probe. NOTE: Replace storage solution when low
24. Rinse probe with distilled water, shake like a thermometer, and blot dry with a chem. wipe
25. Place probe into 4.01 buffer solution. Stir. press "Calibrate" press "Read" wait for probe to stabilize.
26. Rinse probe with distilled water and blot dry.
27. Place probe in 7.00 buffer solution. Stir. press "Read" wait for probe to stabilize.
28. Make sure the "lock" is present and the meter does NOT say "Slope out of range"

NOTE: If meter reads "Slope out of range" go back to step 24 and start again

29. Press "Done" press "Store"
30. Rinse probe with distilled water and blot dry.
31. Rinse and fill 250mL beaker with enough water ("System Water") to cover lower portion of probe. At least 1 inch
32. Place probe in sample. Stir. Press "Read" Wait until probe has "stabilized". Record reading on "Daily Log" as pH
33. Rinse probe with distilled water and blot dry.
34. Use water collected from discharge.
35. Rinse and fill 250mL beaker with sample water from "Discharge" for pH reading for Discharge. Cover lower portion of probe. At least 1 inch
36. Place probe in sample. Stir. Press "Read" Wait until probe has "stabilized". Record reading on calendar and on "Daily Sheet".
    The Discharge Water sample must be above 6.5. and below 9. If out of that range call ORC

37. Rinse probe with distilled water, shake and blot dry
38. Replace probe in vial/bottle of storage solution

39. In Chlorine Room check that Chlorine is being injected into the system by making sure that the ball is floating. Record chlorine level in pounds on Daily Sheet. NOTE: If the plant is off line chlorine will not be injected.

Before Leaving the Filter Plant

RACK should read Auto and FLTR.

If Plant is not running. Click on RACK, click START AUTO FILTER, Click CONFIRM on HV screen, wait for Fill cycle and make sure RACK reads Auto FLTR

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