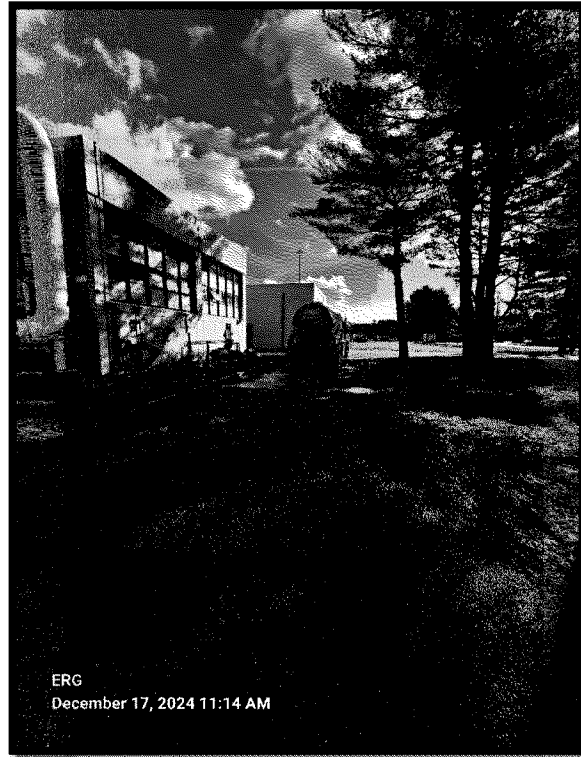


Appendix A

Photograph Log



Photograph 1. Septage receiving station.



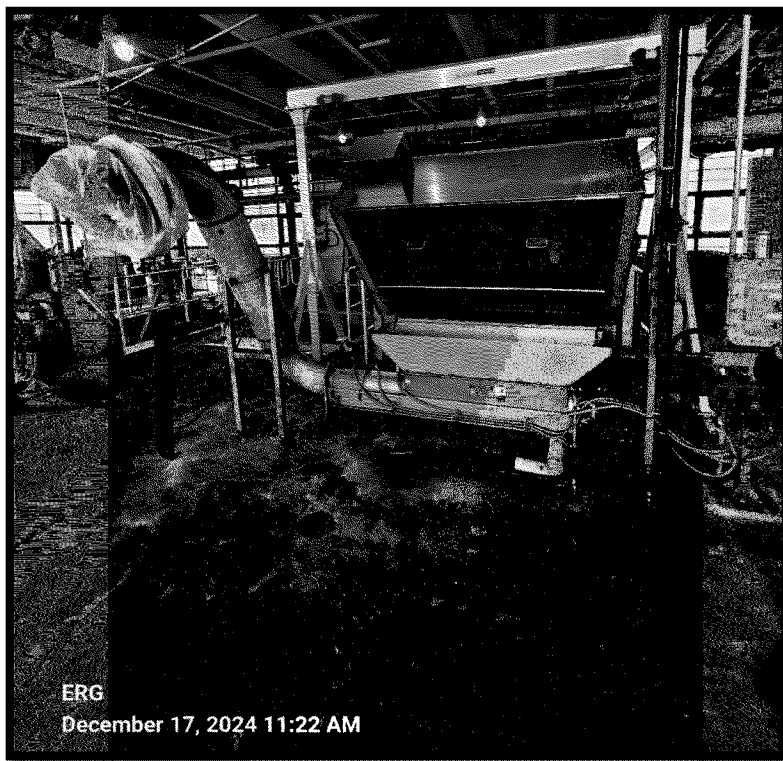
Photograph 2. Septage receiving station.



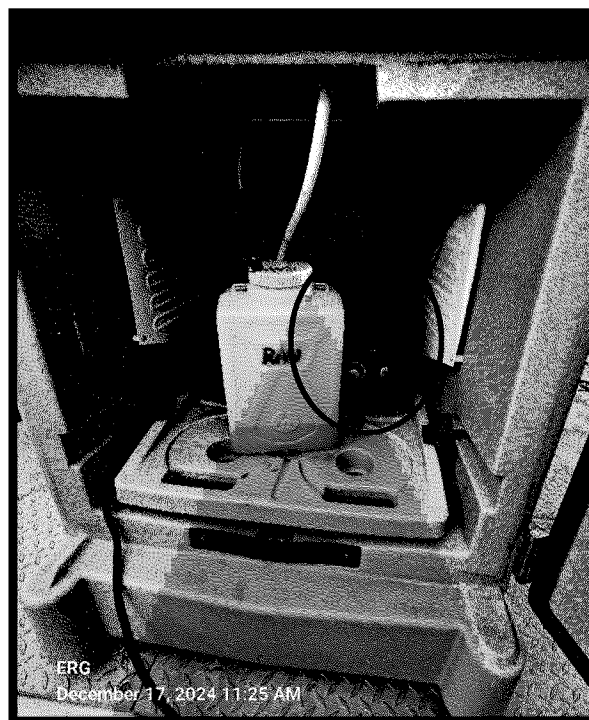
Photograph 3. Offline Step screen, the red arrow added by inspector to indicate a high-water level line.



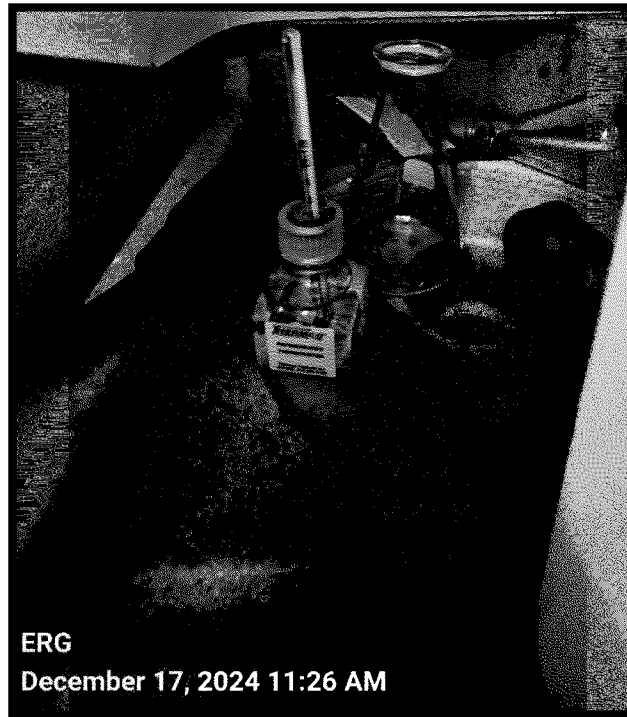
Photograph 4. Aerated grit removal blowers.



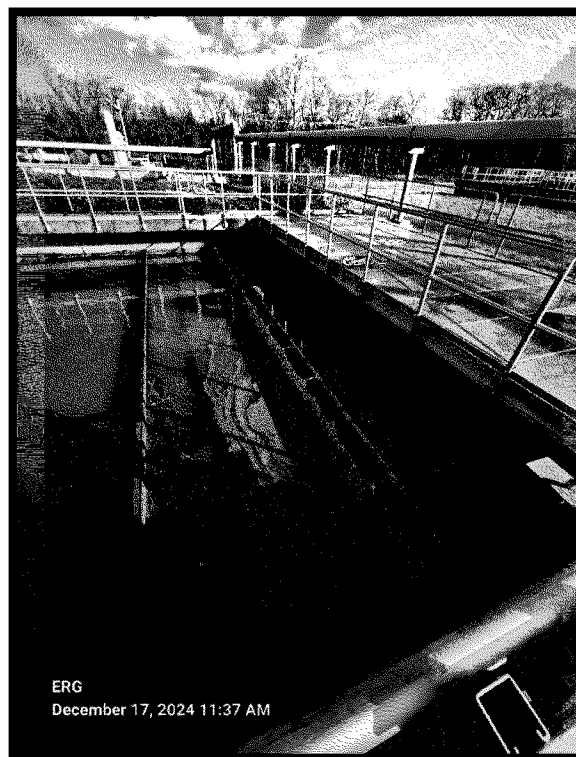
Photograph 5. Rinse stage for the aerated grit removal.



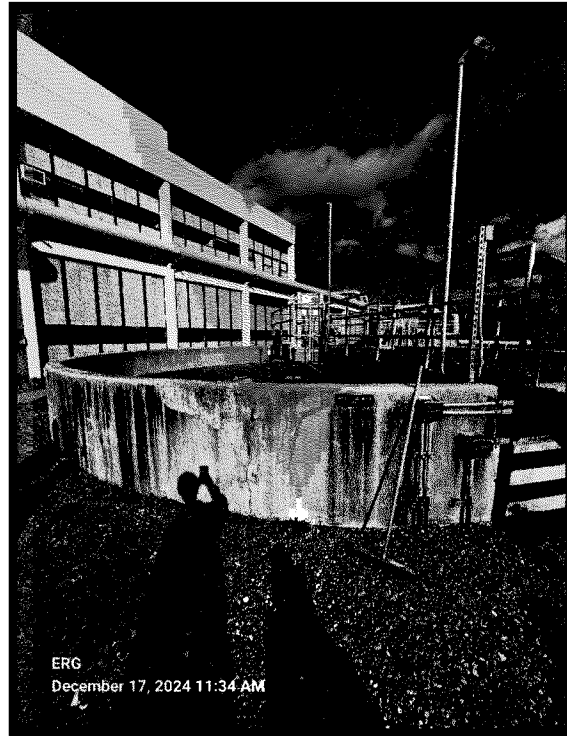
Photograph 6. Interior of the Influent sampler with portable space heater circled in red.



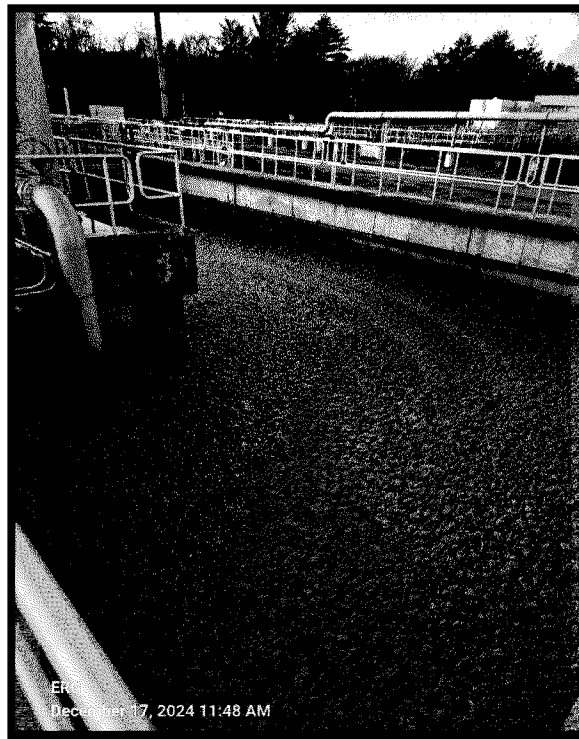
Photograph 7. Interior of the influent sampler, red arrow added by inspector to indicate the 10°C reading on the sampler thermometer.



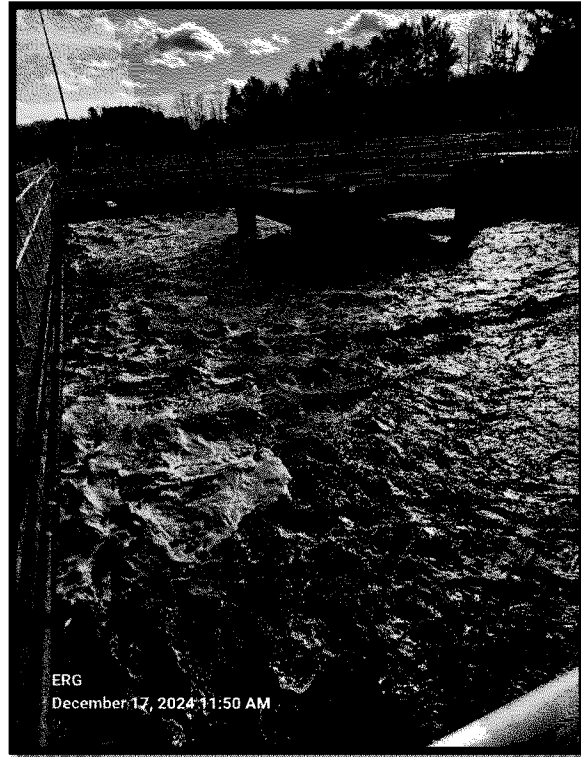
Photograph 8. Primary clarifier scum skimmer and floating sludge.



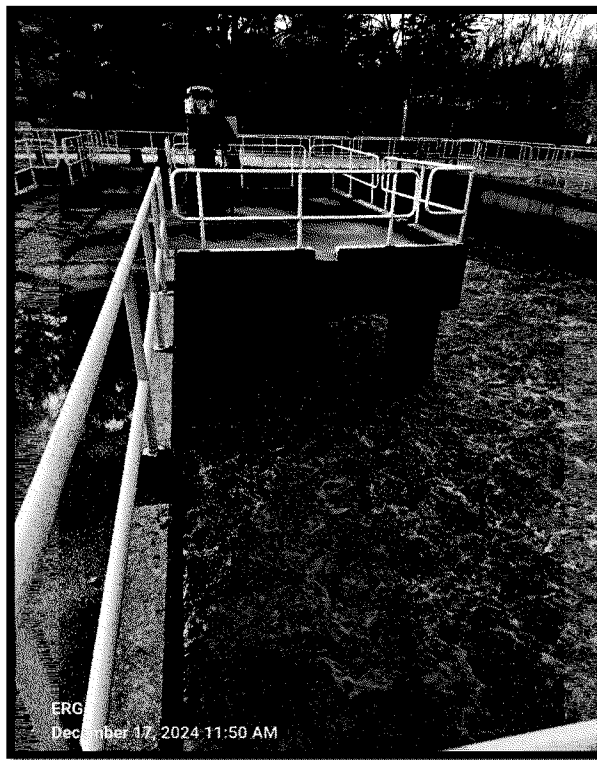
Photograph 9. Primary sludge gravity thickener.



Photograph 10. First aeration basin that was not aerated at the time of the inspection.



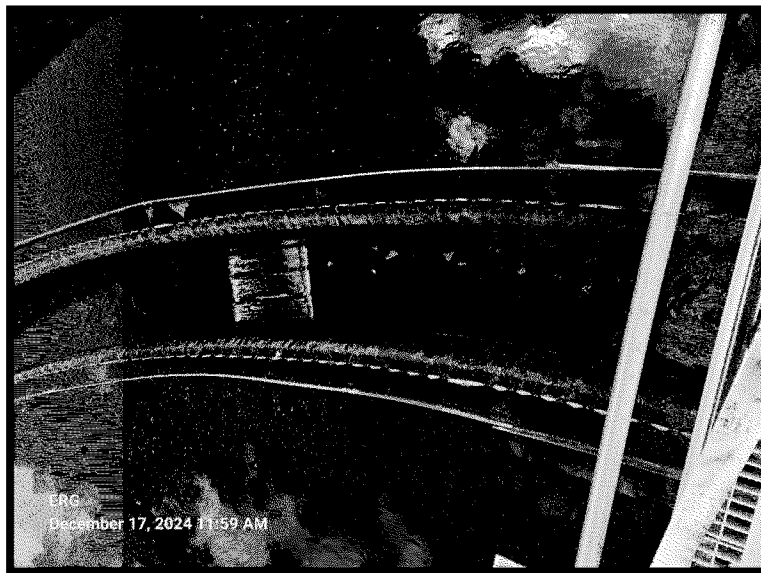
Photograph 11. Second aeration basin.



Photograph 12. Third aeration basin.



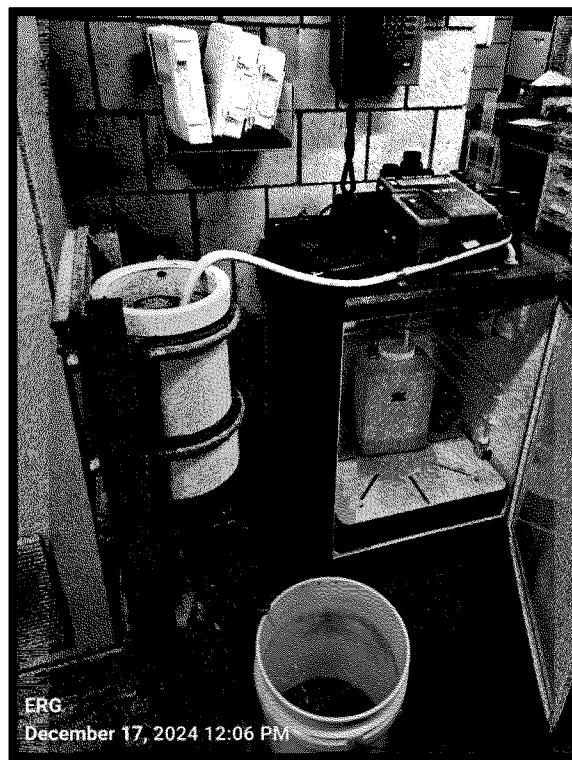
Photograph 13. Aeration basin effluent channel.



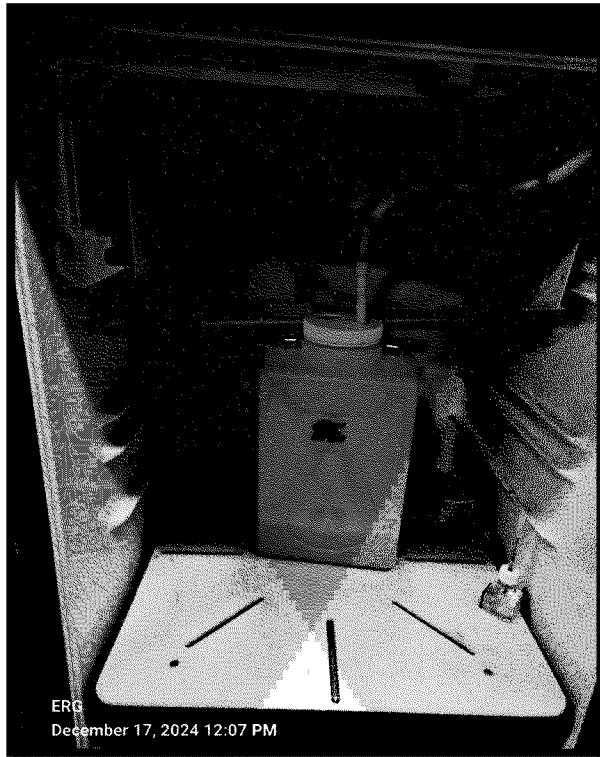
Photograph 14. Secondary clarifier weirs. Note the floating solids on the water surface and algae growth on the weirs.



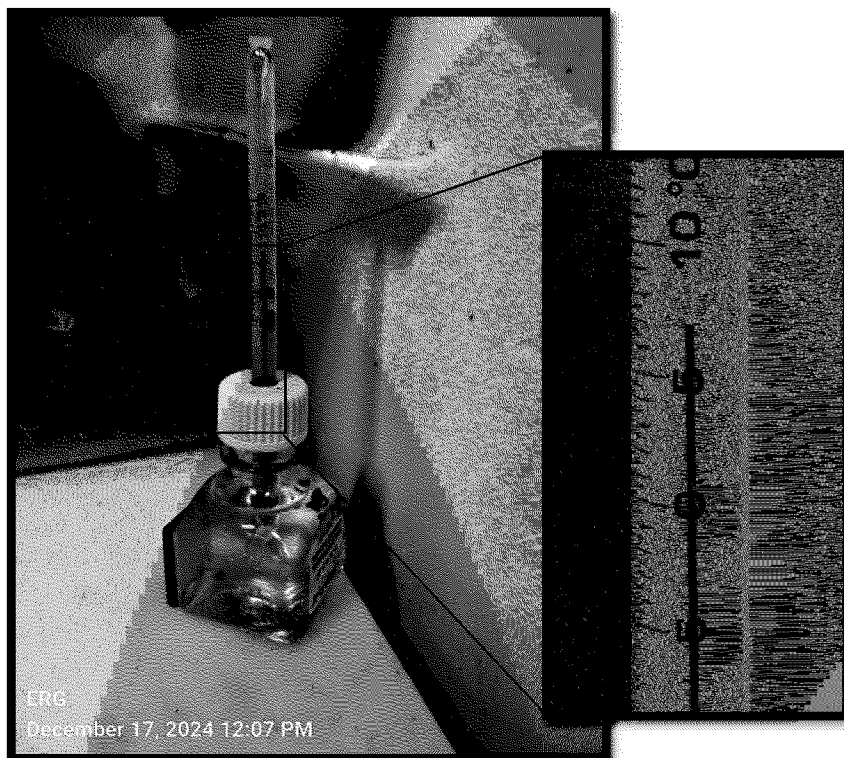
Photograph 15. Secondary clarifier scum skimmer arms. Note the floating solids on the water surface.



Photograph 16. Effluent sampler.



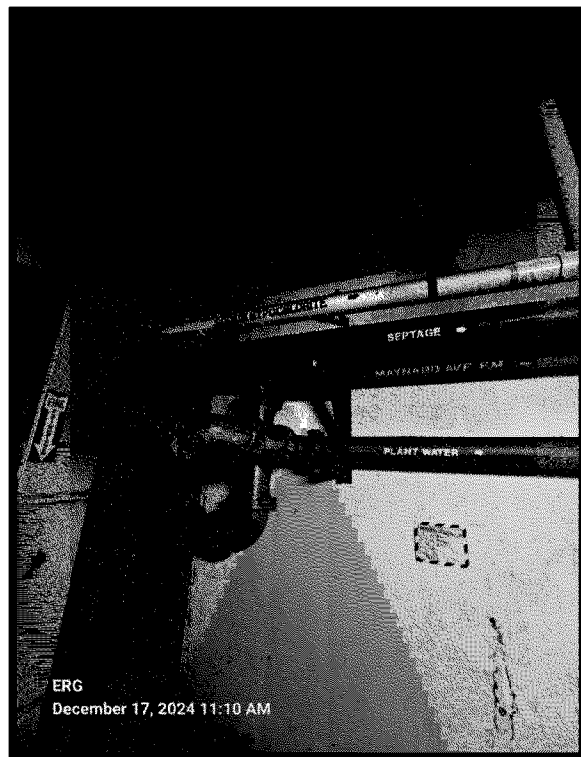
Photograph 17. Interior of the effluent sampler.



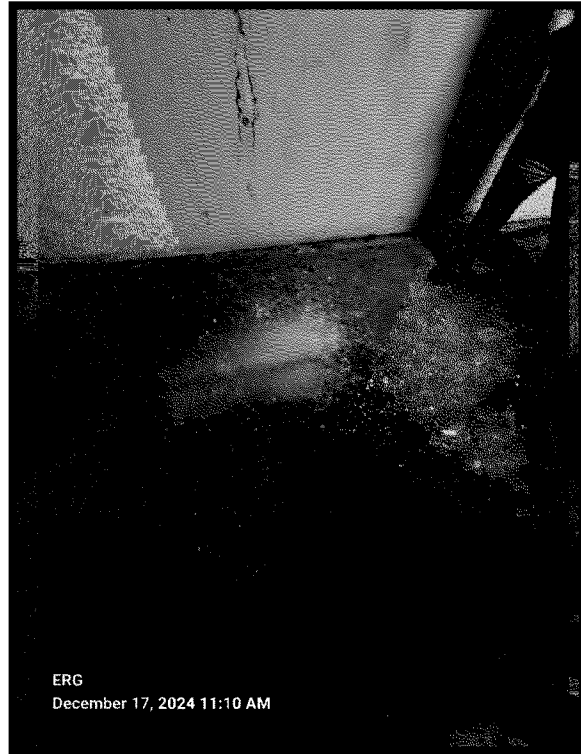
Photograph 18. Effluent sampler thermometer. The reading of the thermometer has been enlarged in the smaller photograph for easier reading of the temperature.



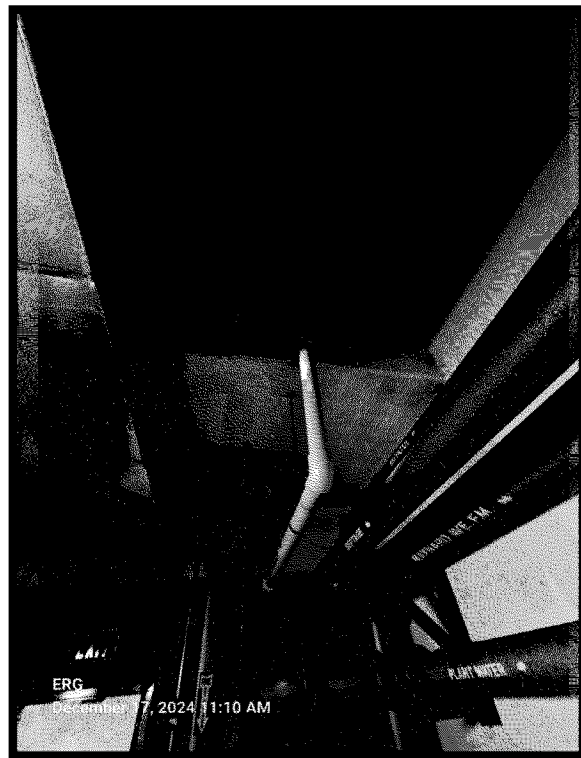
Photograph 19. Effluent sample chamber. Note the solids accumulated on the interior walls. The red arrow indicates the intake tube for the effluent auto sampler.



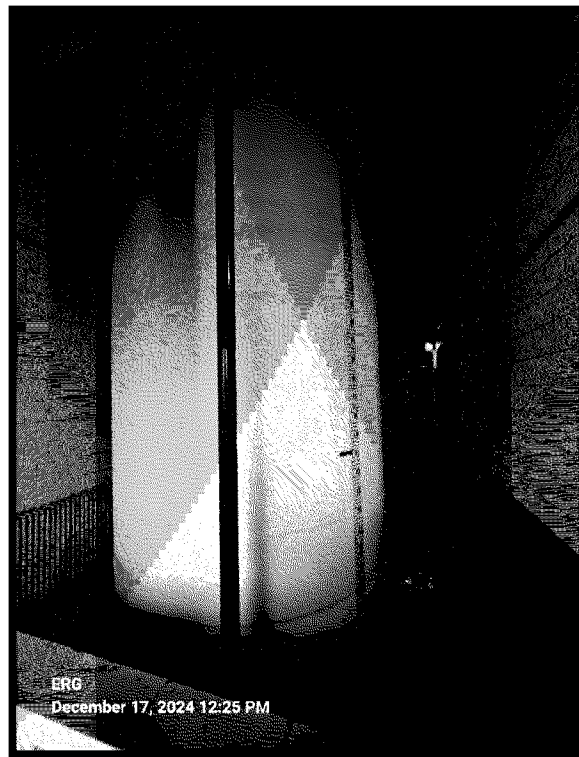
Photograph 20. Sodium hypochlorite line.



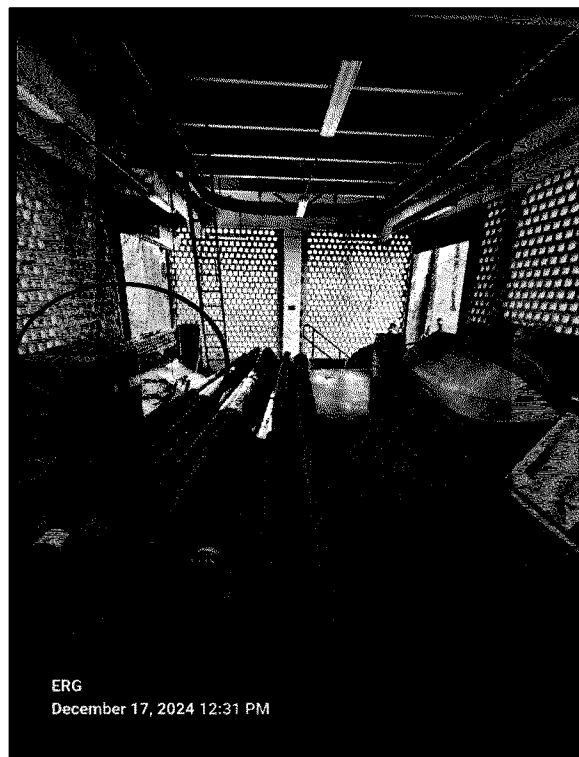
Photograph 21. Powdery white substance on the Pump Gallery floor beneath the sodium hypochlorite line.



Photograph 22. Sodium hypochlorite line. The red arrow indicates where brown corrosion was observed.



Photograph 23. Chlorine storage tanks



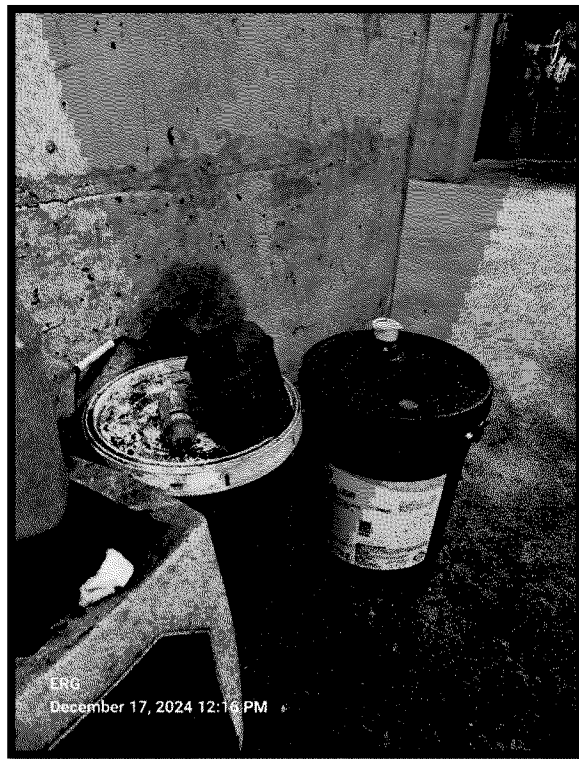
Photograph 24. Chlorine receiving bay. 55-gallon drums of sodium hypochlorite circled in red.



Photograph 25. Effluent step aeration. The red arrow indicated foam that was observed.



Photograph 26. Wet weather sewage outfall 034 signage.



Photograph 27. Oil bucket without containment.



Photograph 28. Buckets of ProChlo stored on a pallet containment located between the gravity thickening area and the sludge blending area.



Photograph 29. Buckets and drums of oil and lubricants stored in the stock room without containment. Note the pathway of oil from the floor drain to the nearest 55-gallon drum.



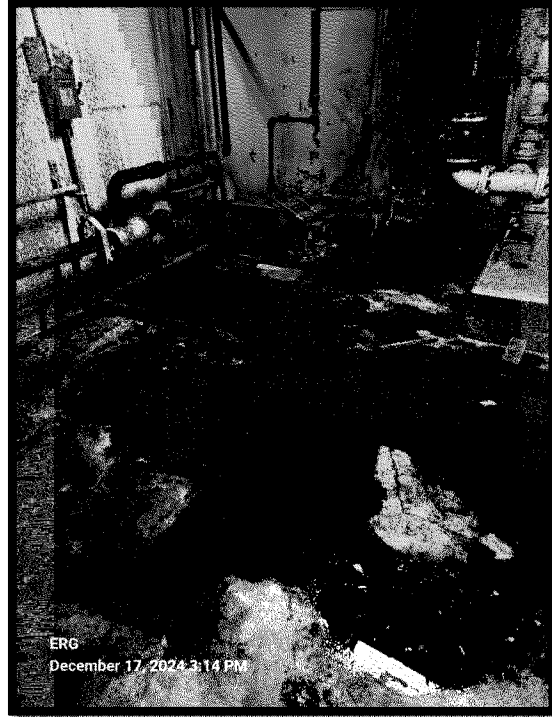
Photograph 30. Barrels filled with lubricant stored without containment. Note the brown staining down the side of the white bag on the pallet and the staining on the floor.



Photograph 31. Standing water on the ground near the WAS pumps. System representatives said it was due to ground water seepage.



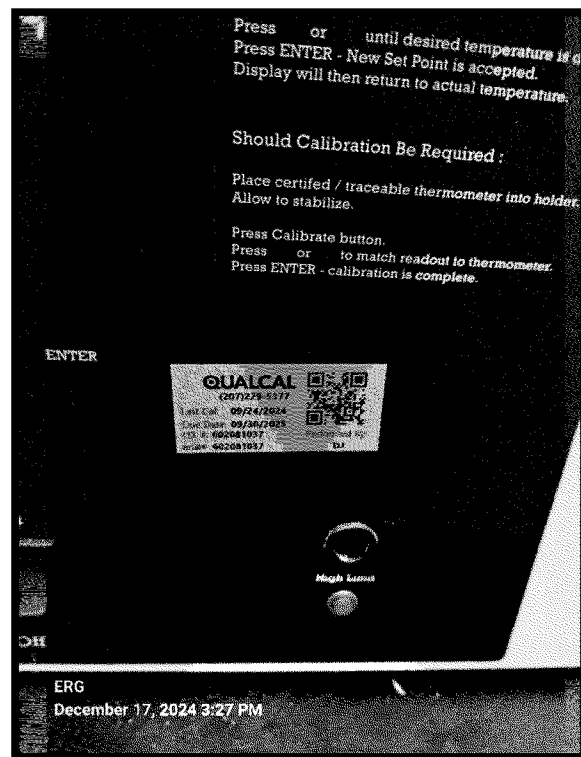
Photograph 32. Additional area of standing water on the ground in the pump room.



Photograph 33. Another instance of standing water observed in the pump room.



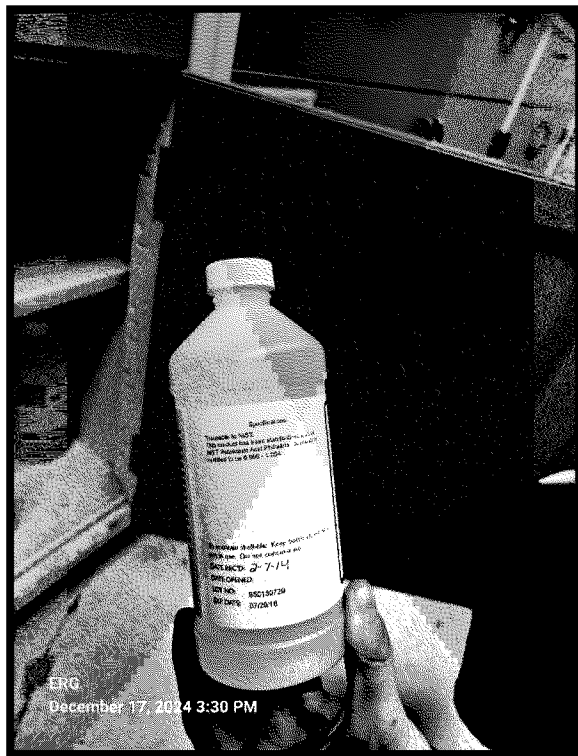
Photograph 34. Standing water on the ground in the pipe gallery.



Photograph 35. Calibration sticker from QUALCAL for the incubator. QUALCAL calibrates much of the equipment in the laboratory.



Photograph 36. Sulfuric Acid Standard in the laboratory expired in March 2016.



Photograph 37 Sulfuric Acid Standard in the laboratory, expired July 29, 2016.

ERG
December 17, 2024 3:41 PM

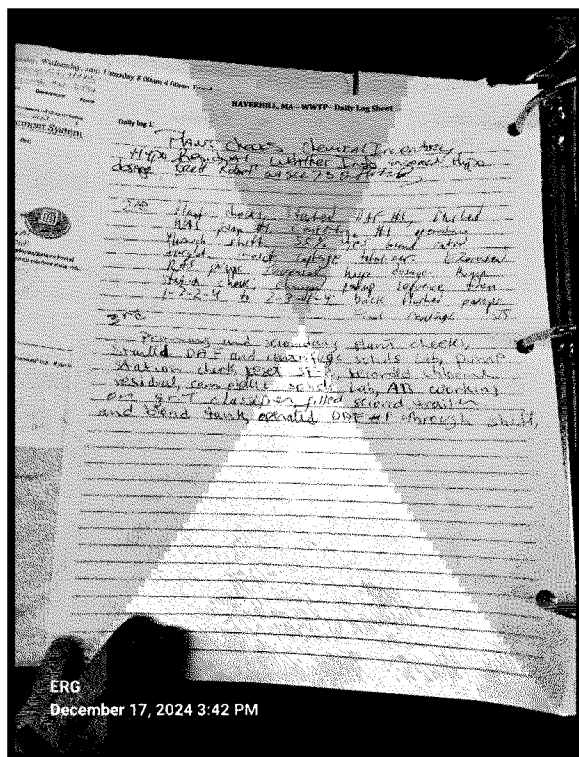
Photograph 38. Biochemical Oxygen Demand (BOD) lab sheet recording test results. Note the whiteout used for corrections.

[illegible]

Photograph 39. BOD lab sheet recording test results. Note the whiteout used for corrections as well as some entries crossed-off and corrected without analyst initials.

[illegible]

Photograph 40. Daily Log Sheet. Note the whiteout used to make corrections.



Photograph 41. Daily Log Sheet. Note the date of entry is missing.

City of Haverhill WWTP Laboratory

pH and Chlorine Residual

ph: Standard Methods: 4500-H+ B
 Chlorine Residual: Standard Methods: 4500-Cl G

Date: 12/17/24 Analyst: PJ

Source	Raw	PE	SE	ML-1	ML-2	ML-3	RAS-1	RAS-2	RAS-3
Temp.	16.2	15.3	16.1	16.2	16.5	16.5	17.0	17.2	17.3
pH	7.29	6.36	6.46	5.72	5.58	6.21	6.22	6.25	6.31

Source	Raw	PE	SE	ML-1	ML-2	ML-3
Temp.						
DO						

SE pH: 6.46
 Time Sampled: 7:38
 Time Analyzed: 7:59

pH Buffers	Temp	pH	Slope %
4.00	22.1	4	98.9%
7.00	22.3	7	
10.00	22.4	10	

Notes: 12:26
 8:59

SE Grab
 Total Residual Chlorine: .76

Sodium Thiosulfate Added: Yes

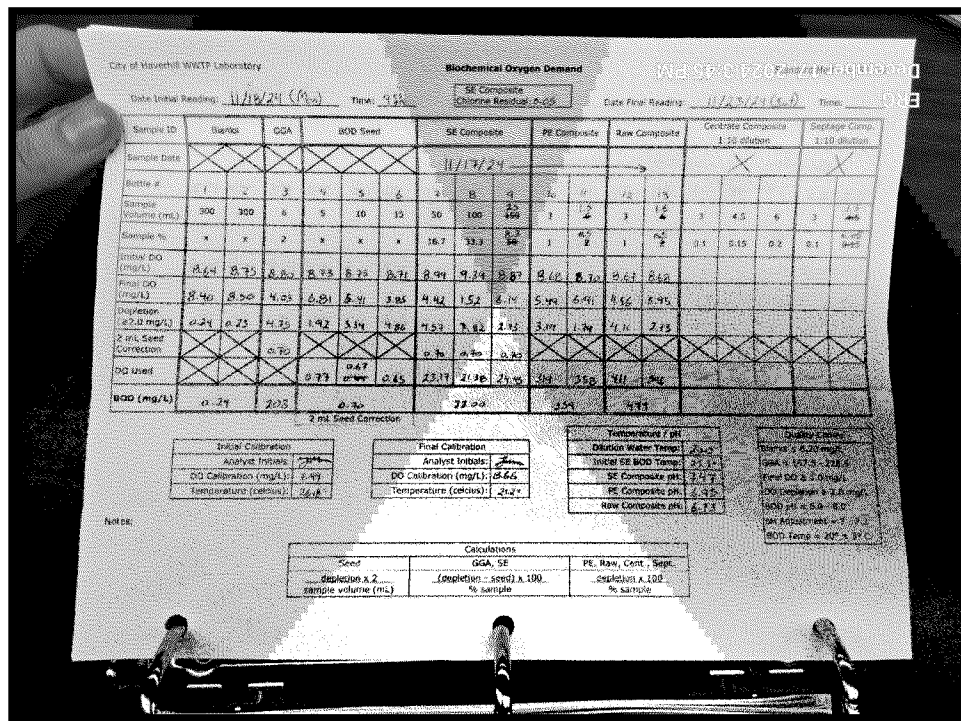
Buffers	4.00	7.00	10.00
Exp Date:	1/1/2023	12/31/2022	2/3/2023
Lot #:	84423111	84720122	850210201

Yesterday's Fecal MPN: 241

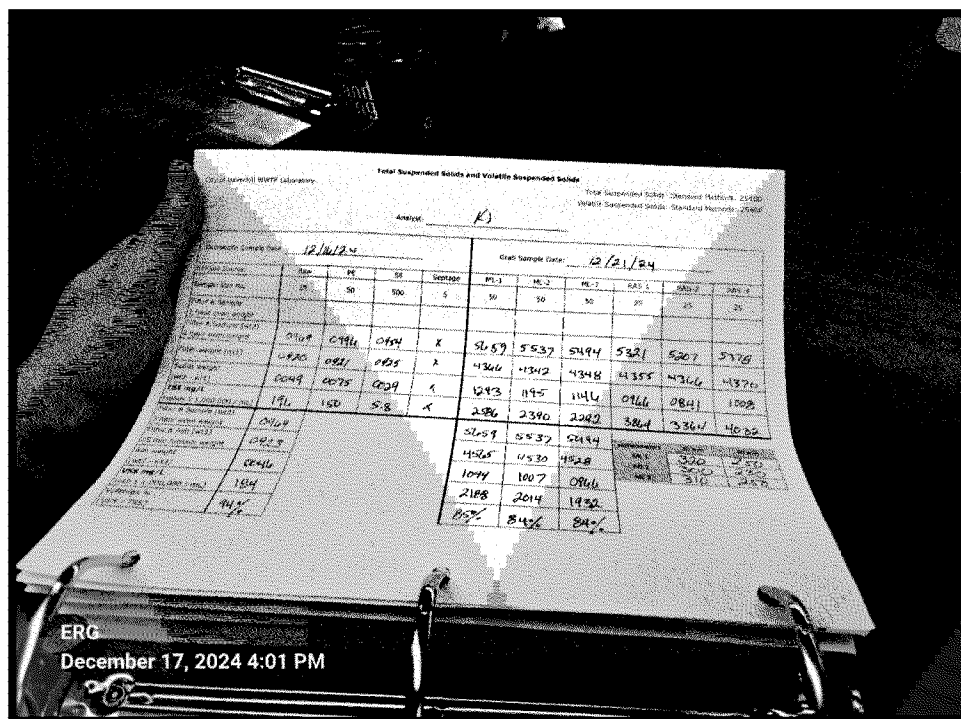
Quality Control
 Slope = 95% - 102%
 SE pH = 0.5 - 0.5
 TRC = 0.51 mg/L (daily)
 TRC = 0.35 mg/L (monthly)

ERG
 December 17, 2024 3:44 PM

Photograph 42. pH and chlorine residual log sheet.



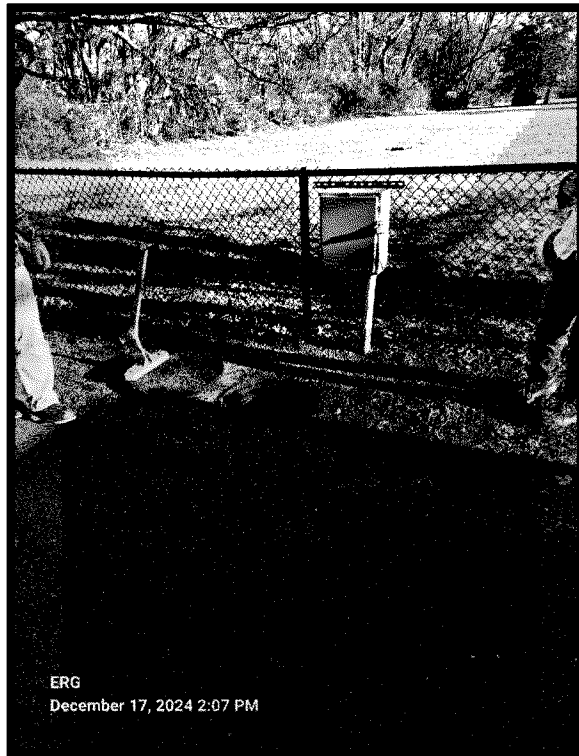
Photograph 43. BOD log sheet. Note the corrections made to log sheet without analyst initials and missing the time of the final DO reading.



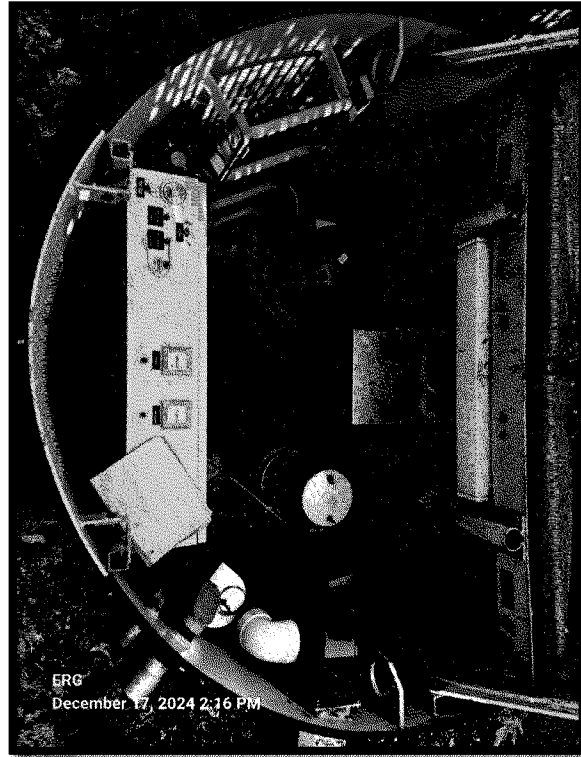
Photograph 44. Total suspended solids and volatile suspended solids lab sheet. Note that the date the photograph was taken was on December 17, 2024, while the grab sample is dated December 21, 2024.



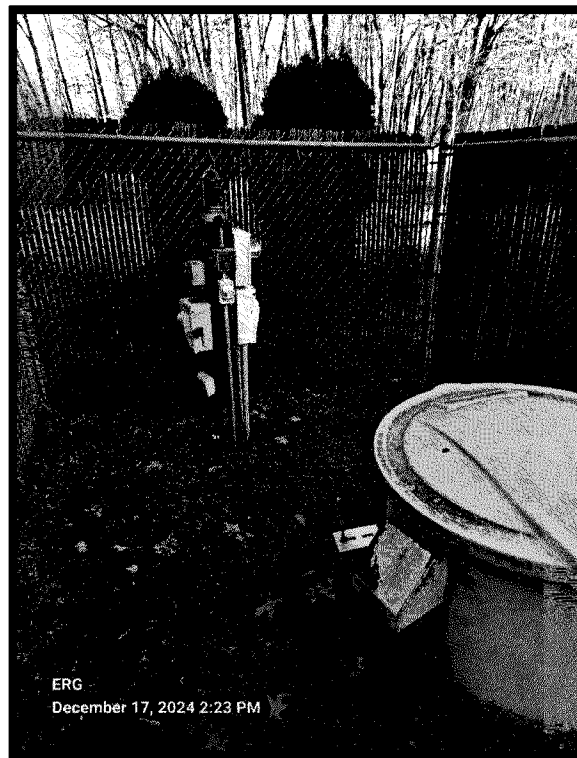
Photograph 45. South Webster combined sewer overflow manhole interior.



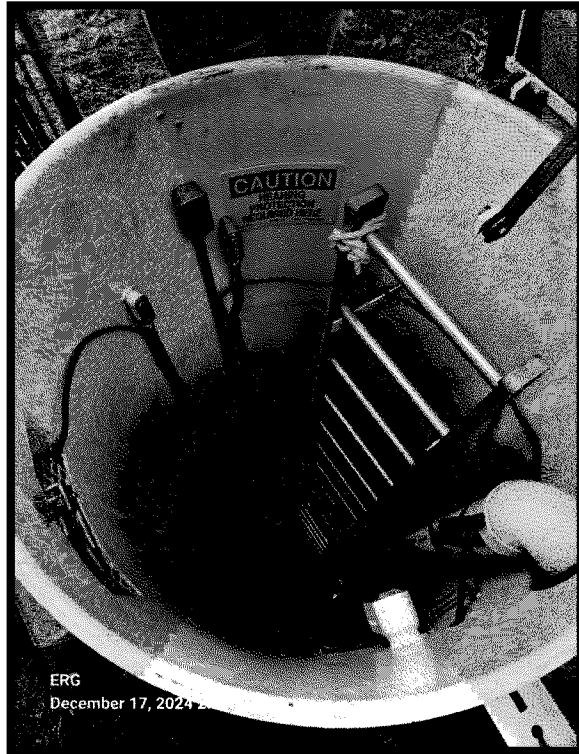
Photograph 46. South Webster combined sewer overflow manhole.



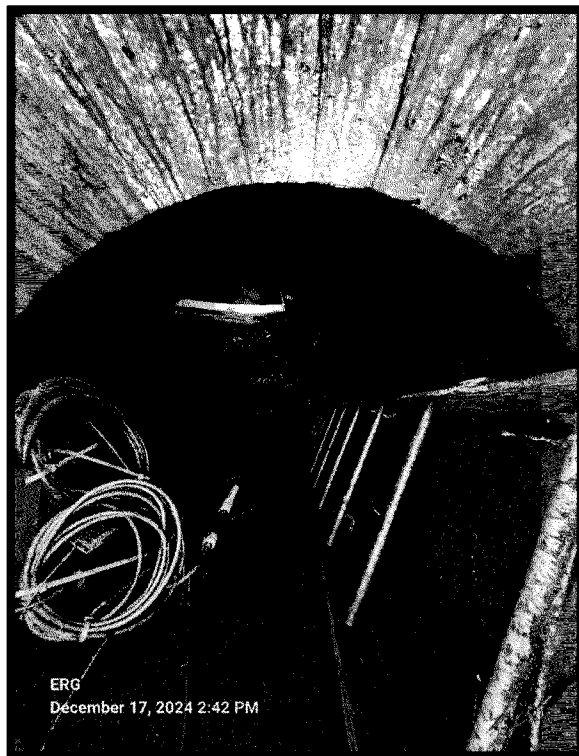
Photograph 47. Hyatt Avenue lift station interior.



Photograph 48. Calewood lift station exterior. Note the missing lock on the far side of the hatch.



Photograph 49. Calewood lift station interior.



Photograph 50. Combined Sewer Overflow 034.