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9/27/2023

Stacie Wassell
Deputy Associate Director
Office of Water Quality
Division of Environmental Quality

RE: Arkadelphia Water Utilities Lab Audit Comments
AFIN: 10-00463 Permit: AR0020605

Dear Ms. Wassell,

General Record Keeping

1. We will update the Standard Operating Procedures with the current reference materials. The estimated time to complete this should be the beginning of 2024.
2. We will as soon as possible implement daily temperature readings on incubators, ovens and refrigerators instead of recording just on the days of use. Immediately.
3. We will asap implement training records for lab procedure and training for each analyst. Immediately.
4. We will asap implement a new calibration record for the only balance we have on the day it is used. Immediately.
5. On sample days the person collecting the sample is the person responsible for performing all laboratory tests for the day. Field analysis is performed and recorded each sample day. The same laboratory analysis is performed each sample day which is 3 times per week. Immediately.
6. We will asap begin initializing the flow form. Immediately.
7. We are a very small lab and all corrective action has been verbal between the 2 people with the knowledge of performing lab analysis. Immediately.
8. Documented training for technicians and Managers will begin January 1, 2024.
9. We will review our current SOPs for necessary changes. Immediately.
10. We will use the NIST traceable thermometer for annual recertification. Immediately.

pH

11. We will add a SOP for pH when updating. Immediately.
12. We will asap indicate the second source location for pH. Immediately.
13. Upon receipt of results a new pH sample was ordered from NSI Lab Solutions. Analysis was performed, reported and found acceptable. The best of our knowledge the test results were sent to QA officer from NSI.
14. An email was sent to the QA officer concerning corrective action with no response.

15. Upon receipt of results a new pH sample was ordered from NSI Lab Solutions. Analysis was performed, reported and found to be acceptable. To the best of our knowledge the test results were sent to the QA Officer from NSI.
16. No corrective action was taken retesting the new sample that was found to be acceptable.
17. We will begin recording the time for each grab sample taken instead of using one grab's time. Immediately.
18. Unless there was a mistake that a calibration wasn't recorded, all meters are calibrated and recorded on the days of use.

TSS

19. We will add daily calibration checks, maintenance of a temperature log for oven and lab control spike of microcellulose when updating. Immediately.
20. We will asap use a standard with each batch samples. Immediately.
21. Only one balance is used for analysis.
22. Time in and out of the oven will be included on the bench sheet for each weighing. Immediately.
23. Forceps will be included in Apparatus and Equipment in the TSS SOP. Immediately.
24. There will be more information concerning analysis preparation. Immediately.

5-day BOD

25. We will asap indicate seed, buffers and GGA lot numbers on the bench sheets. Immediately.
26. Bench Sheet does indicate incubation end date and time. The time is recorded when the samples are taken from the incubator to prepare for final analysis.
27. We will asap replace the digital thermometer (that was recommended by an ADEQ inspector) with a calibrated and certified thermometer with daily readings. Immediately.
28. We will asap add the seed information to Preparation and Procedure when updating the SOP. Will add back method reference. It was recommended by an ADEQ inspector to list the edition of the Standard Methods book only. We will add any pH adjustments when needed to the bench sheet. Seed addition is on every bench sheet. Immediately.
29. We were informed by a former ADEQ inspector that the largest volume of ml sample must deplete by at least half to be acceptable.
30. Dilution water is prepared the day of use. Usually it is used within 2 hours and is stored at 20°C.

Fecal Coliform Bacteria

31. We will asap add analyst initials and that is a "GRAB" for the FCB collection. Immediately.
32. A blank and duplicates are used with each batch.
33. We will add the specified information to preparation of water check while updating the SOP. Water bath temperature is recorded when the sample is added to it. We will add a second temperature reading at least eight (8) hours apart. The SOP will be corrected to say 44.5°C +/- 0.2 and not two (2) while updating. Immediately.
34. We will asap add lot numbers for the filters, reagents, etc.. on the bench sheets.
35. Forceps are sterilized with alcohol.

Dissolved Oxygen

36. We will asap begin adding barometric pressure and temperature to the dissolved oxygen calibration information. Immediately.
37. An SOP will be added for total residual chlorine when updating.