

**Job Title: Lab Technician**  
**Department: Quality Assurance**  
**Supervisor: Lab Manager**  
**FLSA Status: Full-Time, Non-Exempt**

### **Summary**

Follow best available practices and procedures to assure the highest yields possible during the conversion of starch to ethanol. Perform required quality control testing of water, wastewater and products as required by company standards and state and federal mandates. Individuals assigned to this position will normally be responsible for the day-to-day testing and quality control procedures as identified by the Lab Manager.

### **Essential Responsibilities and Duties**

1. Maintain awareness of plant operations and process conditions.
2. Complete daily rounds sheets and monitoring.
3. Perform quality control tests in all aspects of alcohol production. Examples of these tests include:
  - HPLC analysis on fermenters #1 through #6, Yeast propagators, beer well, thin stillage tank, beer column bottoms, side stripper bottoms, and distillates as needed.
  - Run grain sieve analysis.
  - Determine DE and TS (% solids) of liq and slurry tank.
  - Determine TSS of bottoms of all centrifuges operating.
  - Determine total sugar (brix) and pH of samples
  - Determine rail car proofs, pHe, Karl Fischer and acidity.
4. Properly document all testing results in computer software.
5. Monitor special contamination studies (incubation).
6. Troubleshoot and perform maintenance on all lab equipment.
7. Perform methanator-monitor testing and adjust chemical usage as needed.
8. Perform all required boiler, RO, cooling tower and outfall water tests. Work with water treatment company to continually learn water treatment.
9. Perform weekly samples of distiller's grains, centrifuge (wetcake) and grains for fermentable carbohydrate content and modify distiller's grains as needed.
10. Send weekly feed samples to outside labs for assurance testing.
11. Send quarterly ethanol samples to outside lab for certification testing.
12. Participate in and monitor bench top fermentations and any other plant trials.
13. Prepare statistical spreadsheets and graphs for trend tracking.
14. Ensure that all samples, containers and equipment are properly labeled, disposed of and handled in a safe manner.
15. Perform various operator duties as needed.
16. Assist in maintaining inventory of all supplies.
17. Prepare reagents as needed.
18. Maintain clean work area.
19. Other duties as may be assigned to accomplish the safe and timely day-to-day operations within the plant.

### **Qualifications**

- Prior experience as Lab Technician preferred.
- Requires knowledge of and adherence to standards of good lab practices.
- Good written and verbal communication skills

- Ability to work well with others and work independently
- Attention to detail
- Excellent Microsoft Excel software skills, database, data entry (10 key skills)
- Exemplify the high standards necessary to accomplish the goals of this Company.

**Education and Experience**

- Minimum Associates Degree in related field or related work
- Related work experience & equivalent to 2 years experience in core essential responsibilities and duties.

**Physical Demands**

Ability to lift and /or move up to 50lbs

Ability to climb stairs and ladders

Ability to work in outside conditions and in adverse weather

Walking

Standing

Sweeping

**Working Environment**

While performing the duties of this job, the employee is regularly exposed to Work near moving mechanical parts.

The employee is regularly exposed to dusty conditions.

The employee is regularly exposed to high noise environments.

The employee is regularly exposed to outside weather in all conditions.

The employee will regularly be exposed to chemicals used in the process.