

**FIELD SAMPLING PROTOCOL FOR THE OKLAHOMA LICENSED
MANAGED FEEDING OPERATIONS (LMFO) MONITORING
PROGRAM**



OKLAHOMA WATER RESOURCES BOARD (OWRB)
WATER QUALITY PROGRAMS DIVISION
3800 NORTH CLASSEN
OKLAHOMA CITY, OKLAHOMA 73118

Standard Operating Procedure (SOP) for Oklahoma Licensed Managed Feeding Operations (LMFO) Program

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Table of Contents

INTRODUCTION	4
Swine LMFO Companies	4
Physical Description of LMFO Monitor Wells and Well Locks/Seals	4
Data Collection and Recording	4
SAMPLING PARAMETERS, ANALYTICAL METHODS AND HOLDING TIMES	5
Sampling Regime (LMFO Operators).....	5
EQUIPMENT, SUPPLIES AND CLEANING AGENTS	6
Laboratory Supplies	6
Other Supplies.....	6
SOP'S FOR LMFO MONITORING	7
Field Prep	7
Calibration/Maintenance of Multiparameter Water Quality Monitoring System	7
Site Orientation and Verification of Monitoring Well ID	7
Clean Hands and Clean Sampling Procedures.....	8
Bottle Labeling.....	8
Number Descriptors to Distinguish Sample Type (Quality Assurance Codes-QA)	8
Measurement of Depth to Water (DTW) and Total Depth of Well (TD)	9
Purge & Sample Extraction Equipment Options.....	9
Stabilization Criteria	10
Sample Collection	11
Quality Assurance Samples.....	11
Preserving and Packing Sample Bottles	11
Decontamination Procedures and Field Equipment Blanks	11
Breakdown of Site	12
SAMPLE DELIVERY AND CHAIN OF CUSTODY SOP	12
OWRB Field Personnel Responsibilities for COC	12
Sample Delivery by Contract Courier Service	13

Standard Operating Procedures for Groundwater Sampling at Swine Licensed Managed Feeding Operations

INTRODUCTION

This SOP is intended for use by OWRB Water Quality-Groundwater staff, ODAFF AEMS Division and the Inorganics Lab staff. It is to be considered the most current version possible and OWRB field staff should be familiar with it and follow it exclusively. For anything else, such as the history of the program, or parameter analysis, please refer to the Quality Assurance Project Plan and the current Work Plan, which is also updated every two years.

Swine LMFO Companies

All licensed LMFO companies, regardless of size, will have to be contacted and appointments established prior to accessing sites. Some of the companies have strict bio-security rules that require a 72-hour cooling off period, meaning that no sampling can occur at their facility if we have sampled at another facility within the last 72 hours. Each company's respective point of contact will provide OWRB field staff with the latest biosecurity order and requirements. Figure 1 displays the general location of all LMFO facilities throughout the state.

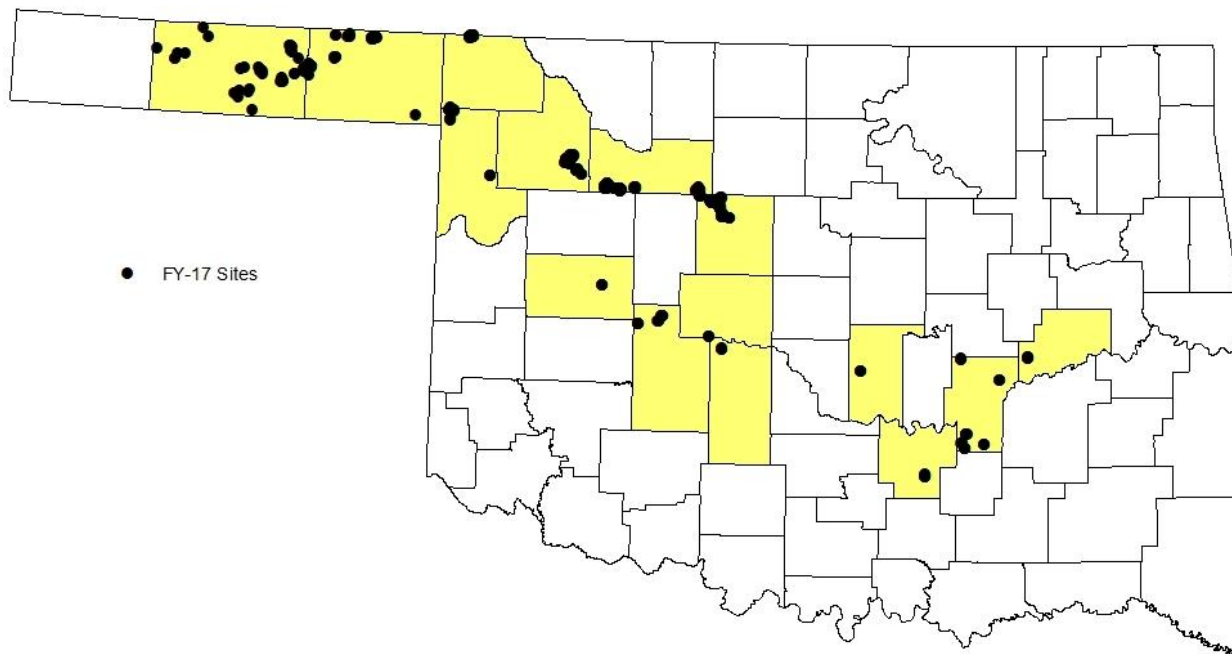
Physical Description of LMFO Monitor Wells and Well Locks/Seals

A typical LMFO monitoring well is constructed with 2-inch ID PVC casing and is protected with a steel casing guard. A concrete surface pad envelops the casing guard/ casing. Most well sites have metal posts set at the corners of the pad to protect the well from vehicular traffic. Most wells are made tamper resistant being secured with a master lock (LMFO Co. lock) and/or a numbered wire seal (secured to all wells) that must be cut off and replaced by OWRB personnel. The old and new seal numbers are recorded.

Data Collection and Recording

All field data is recorded in Survey123 Esri field maps. OWRB staff use this to navigate to sites, enter data such as water level, purge volume calculation, and water quality parameters. This allows us to upload data in the field, reducing the risk of data loss of missing traditional hard copy forms, either in the field, the office, or interagency mail.

Figure 1 LMFO Monitoring Well Sites



PERSONNEL

OWRB Personnel:

- Jet Stine, Water Quality Programs Division Quality Assurance Officer
- Chris Adams, Groundwater Monitoring Section Head, LMFO Project Coordinator
- Harold Robertson, Environmental Programs Manager

ODAFF Personnel:

- Lynette Jordan, Assistant Director, 405-522-1871
- Elena Lyon, Inorganics Laboratory Manager 405-317-2449
- Inorganics Lab Main Number 405-522-5444

SAMPLING PARAMETERS, ANALYTICAL METHODS AND HOLDING TIMES

LMFO monitoring wells will be assessed for field parameters (described below) and all parameters included in the sampling regime.

Sampling Regime (LMFO Operators)

- Nitrate-Nitrogen, Total Phosphorus (500ml wide mouth bottle no preservation)
- Ammonia-Nitrogen (500ml wide mouth bottle with H₂SO₄ preservative)
- Fecal Coliform (100ml sterile Coliform sample bottle)

Table 1 ODAFF Lab Reference Methods, Reporting Limits, and Holding Times

Parameters	Reference Method	Reporting Limit	Holding Time
Ammonia-Nitrogen	EPA 350.1 (Flow Injection)	0.11 mg/L	28 Days
Coliform, Fecal	SM-9222-D	1 CFU/100 mL	24 Hours
Spec. Conductivity(SC)	EPA 120.1/SM-2510-B	23 µS/cm	28 Days
Nitrate-Nitrogen	EPA 9056/EPA 300.1	0.05 mg/L	48 Hours
pH*	EPA 150.1/SM-4500H-B	N/A	N/A
Phosphorus, Total	EPA 365.1 (Flow Injection)	0.02 mg/L	28 Days

*Required by ODAFF Project Management. Results will be flagged. EPA requires pH determination within 15 minutes of sample collection.

EQUIPMENT, SUPPLIES AND CLEANING AGENTS

- Redi-flo 2 Sampling System
- In-Situ AquaTROLL 600 water quality multiparameter sonde with flow cells.
- Disposable 1- and 2-liter purge and sampling bailers
- GPS equipment
- Solinst Water Level Meters / Steel Tape (200 ft)
- Bailing twine
- Numbered security seals
- Ice chests
- Bottles (500 mL, 100 mL) – Enough for 40 total samples per team
- Waste acid container and general waste container
- Spray bottles of Liquinox & DI
- 5-gallon carboys filled with Type I DI
- 5-gallon carboys of 1% solution of Liquinox
- 5-gallon buckets for purge water
- Gallon jugs of tap/deionized water
- Rolls of 3/8" polyethylene tubing
- Decontamination containers (wells) for cleaning, rinsing and equipment blank preparations
- Zip lock bags
- 9V batteries for Solinst, size D cell batteries for multiparameter instrument
- Bolt cutters
- Lab gloves
- Needle-nose pliers, screwdrivers, crescent wrench, knife
- Kimwipes®, paper towels, plastic bags
- pH and SC stock solutions for calibration

Laboratory Supplies

- OWRB will serve as primary source of Type I DI - ODAFF Lab will provide Type I DI as needed
- ODAFF Lab will provide 2 mL vials of sulfuric acid as needed
- ODAFF Lab will provide wide mouth 500 mL bottles & sterile 100 mL bottles as needed

Other Supplies

- OWRB SOPs for LMFO Monitoring
- Laptop, cell phone, or tablet with ESRI Field Maps and Survey123
- LMFO Monitoring Well Purge and Sampling Data eForms
- Historical well data populated on eForm survey
- Chain of Custody forms

- Equipment operation manuals/calibration procedures
- EPA approved QAPP
- Sample bottle labels

SOP'S FOR LMFO MONITORING

Field Prep

Pre-arrange sampling appointment time and who you may be meeting. Get confirmation with their coordinator that the wells you want to sample can be sampled. Determine if there are bio-security issues that we must work around. For example:

- Do they have preferences as to the order in which you are going to sample (i.e., if your weekly sampling is going to cover a variety of types of facilities: sow, nursery, finisher etc.)?
- Does the LMFO operator have a policy that you cannot sample their wells if you have been to another LMFO site (other than theirs) in the last 72 hours?

You will also want to look at historical information contained in last year's sampling forms. Note such things as:

- What were past depth to water (DTW) and total depth measurements (TD)?
- Was the well wet/dry?
- Was the well purged dry but then recharged so that a sample could be taken or simply purged dry with no sample collected?

Also, when scheduling the prospective sites/wells to sample for any given week, keep in mind that our sampling workweek is restricted to Monday through Wednesday to allow the ODAFF environmental laboratory sufficient time to process samples and meet parameter holding time requirements. Samples collected on Wednesday should be delivered to the ODAFF laboratory Wednesday afternoon whenever possible, otherwise first thing Thursday morning and never later than 10:00 a.m. on Thursday. Keep lab personnel informed regarding schedules. If there were going to be a break (weeks/months) where they would not be handling our samples, they would appreciate knowing that. Conversely, if we are starting up with them after a long quiet period, again give them a heads up. Alert them if the workload (number of samples) is going to be greater than 40.

Calibration/Maintenance of Multiparameter Water Quality Monitoring System

Specific conductance, pH, dissolved oxygen (DO), and temperature are critical parameters for sampling LMFO monitoring wells. Of these 4, only temperature, which is factory set, requires no calibration. When in continuous use, a weekly calibration will be in effect for specific conductance and pH unless field measured variables fall outside expected ranges. DO will be calibrated upon arriving at the first sample site of the day. If a storm front comes through during the week of sampling, DO should be recalibrated to account for the potential/actual change in barometric pressure. Calibrate instruments using the manufacturer's operations manual. Make sure to perform routine cleaning of instrument sensors described in operations manual. A log is kept in the laboratory of all calibrations, maintenance cleanings and calibration summaries are disseminated weekly to Project Managers. Consult the operations manual for details on the connection of the display to the sonde and on their operation (Note: All field personnel prior to going to the field will receive training on the operation, calibration, and care of this expensive piece of equipment.)

Site Orientation and Verification of Monitoring Well ID

You will probably want to back your pick-up as close to the well as possible. The tailgate can serve as a workbench. Study the site maps and after reviewing the spatial orientation of the wells in relation to the lagoon and barns, verify that you are at the correct site and that the well and corresponding well number agrees with the data in the map and in the previous year's sample form (during subsequent sampling trips, verification can be made from GPS'd site information). All critical data will be recorded on the "LMFO Monitoring Well" Purge and Sampling Data eForm (MWDeF) shown at the

end of this document. Critical data for LMFO Monitoring is listed in Table 2. Once you have established the correct well and corresponding well ID, open the padlock with an LMFO company key on the metal casing guard lid (if it is so equipped) and cut off the ODAFF security seal with needle nose pliers. The seal is numbered, and this “old seal” number needs to be recorded on the MWDeF. Remove the monitoring well top cap.

Clean Hands and Clean Sampling Procedures

It is critical to data quality objectives that field sampling crews adhere to strict rules of hygiene when working with sampling equipment and utilize rigorous protocols to clean equipment after each sampling event. Prevention of potential contaminant carryover between monitor wells and provability (demonstration) of that capability is critical to establishing representativeness and comparability of results.

Equipment should be kept from contacting the ground. For instance, gloves used to pre-clean the water level measurement probe should not be in use during sample collection; gloves used for sample collection should not be used for equipment decontamination (decon) procedures. If working with generators, fuel/oil or other “dirty” items, gloves should be replaced. The rule of thumb would be to change gloves any time the work task changes (which would also include restroom or food breaks).

Bottle Labeling

Printed labels are provided for field sampling with the following information already filled in:

- LMFO company name
- Name of the facility
- Well number
- Preservation method

Field to be filled out by sampling technician:

On Label

- Facility Name
- Well ID
- QA Code (Quality Assurance Code)
- Date
- Sample Time
- Samper’s Initials

On lid

- Well ID
- QA code
- Preservative Method (Acid/Ice)

Number Descriptors to Distinguish Sample Type (Quality Assurance Codes-QA)

Environmental – QA 1

Replicate – QA 2

Trip Blank - QA 3

Field-Equipment Blank - QA 4

Measurement of Depth to Water (DTW) and Total Depth of Well (TD)

Put on clean, powder-free latex or nitrile gloves. Prepare Solinst water level meter for measurement use by spraying Liquinox cleaner and wipe with Kimwipes, spray any residue off with DI water and wipe off. Using the Solinst water level meter measure the DTW and TD, if needed, from top of the casing to the nearest .01 foot; their difference (TD-DTW) represents the initial column water height (CW, ft). Record the values for DTW, TD and CW on the MWDeF. For 2-inch diameter wells, the initial well volume (WV) in gallons is determined by multiplying the CW by 0.163 (CF-volumetric conversion factor, feet to gallons). The purge volume criteria before sample collection is 3 well volumes. Multiply the WV (gal) by a factor of 3 to determine the purge volume for the well. These instructions are replicated on the MWDeF. A calculator is handy for the simple math. Record these values on the MWDeF.

Table 2 Critical Data for LMFO Monitoring Program

Non-Measured Critical Data	Measured Critical Data
<ul style="list-style-type: none">• Company-facility name (combined)• License number of facility• OWRB sampling staff• OWRB sample numbers• Date and time of sample collection• Legal location• Facility description (e.g., sow, finisher)• ODAFF well ID• New and old ODAFF seal number• Purge and sample method• Field measurement method• Multiparameter instrument ID number	<p>Purge Parameters</p> <ul style="list-style-type: none">• Depth to water (ft)• Total depth (ft)• Initial column water height (ft)• Well volume (gal)• Purge volume (gal)• Drawdown (ft) <p>Water Quality Stability Parameters</p> <ul style="list-style-type: none">• Temperature (°C)• pH• Specific Conductance (µS/cm)• Dissolved Oxygen (mg/L)

Purge & Sample Extraction Equipment Options

Wells can be purged either through bailing with disposable bailers or pumping with pre-blanked Grundfos Redi-flo 2 pumps. These two options are discussed below.

Bailing

Bailing will be accomplished by deployment of clear, weighted, bailers. Bailers will be lowered and retrieved with heavy polyethylene twine either manually (using a windmill method to avoid contaminating the twine) or with a 12V electric reel. The bailer should be lowered through and retrieved out of the water column gently to limit mixing of fresh and stagnant water zones and to minimize stirring of bottom sediments. Monitoring of water quality parameters with bailing techniques will be accomplished by pouring sample water into the sonde's cup, ensuring probes are completely submerged. Because ambient air temperature will rapidly influence temperature of the sample, observe, and record the stable temperature reading first (within ~ 15 seconds or less of the sensors immersion). Observe pH and SC until they stabilize and record the values on the MWDeF (to measure DO, record its lowest or highest point before the readings begin to move back in the opposite direction). Before each successive reading is taken, the contents of the preceding sample will be poured out into a purge bucket. The sensors and the vessel will be primed with the fresh sample of water and their contents emptied into a purge bucket. The vessel will be refilled, and the sensors submerged again, repeating the steps previously described. A few wells do not recharge rapidly enough to determine stabilization or even take a sample with formation water. This water is not considered characteristic of formation water but is considered acceptable by ODAFF when sampling of the formation water cannot be achieved within a reasonable timeframe.

Pumping

Option 2 utilizes a multi-parameter field instrument with a flow cell to capture field water quality parameters in a sealed environment (minimizing atmospheric effects on the sample). For Grundfos systems, unpack and/or offload pump and reel, VFD, generator (if applicable), multiparameter sonde/flow cell, and tubing. If using a generator, it should be positioned downwind from the well and work area. Also, fuel/oil needs of the generator should be taken care of before you reach the site. Connect polyethylene tubing to the hose barb on the top of the pump. Lower pump/power lead and tubing into the well. Place pump 15-20 feet below measured DTW. Leave enough tubing protruding from the top of the well for connection to flow cell. Connect pump power lead to VFD, and then VFD to power inverter or generator. Start power source and VFD. Dial up the Hz on the VFD so water will pump through the flow cell and began observing readings. Adjust the flow, as needed, to the flow cell through VFD unit (pump flow rate) so that a steady flow without entrained air in the lines is achieved. Once this has been established, the pump rate should not be adjusted for the remainder of the purge and sampling process.

Pumping systems to purge/sample wells require more equipment than bailing and to maintain a clean work environment, equipment must be kept off the ground and stored away from environmental influence when not in use.

Stabilization Criteria

Whether using bailing or pumping techniques, water quality field parameters will be measured at least twice per well volume. However, for wells where six total readings cannot be collected due to insufficient available water (half a well purge volume is less than one bailer volume), then 1 reading will be collected for every bailer volume. Precision criteria for field parameter stabilization will have slightly different levels of precision when using bailing versus pumping techniques (Table 3). Bailing techniques expose the sample to the atmosphere and will introduce more variability. DO is also not considered a good indicator of stabilization for bailed samples because of the variability inherent in both sampling and recording techniques.

Table 3 Precision of WQ Field Parameters to Meet Stable Purge Water Objectives

	Criteria for Bailed Sites	Criteria for Pumped Sites
Specific Conductance	± 5% $\mu\text{S}/\text{cm}$	± 3% $\mu\text{S}/\text{cm}$
pH	± 0.1 standard units	± 0.1 standard units
Temperature	± 0.5°C	± 0.2°C
Dissolved Oxygen	N/A	± 0.3 mg/L

Readings are collected throughout the purging cycle twice for every well volume purged. However, stabilization is determined to be achieved only if all applicable parameters recorded during the last 2 successive readings meet abovementioned criteria. If criteria cannot be met, purge another well volume (or up to one half of one well volume for bailed wells). If stabilization is not achieved during additional purging, collect 3 readings, and calculate their mean. The mean value will be reported on the front page of the MWDeF as the final field stability reading(s).

One notable exception to the above stabilization criteria is wells that do not recharge quickly. Wells that recharge within 24 hours are purged completely of stagnant water, then the bailer is hung and the well capped until recharged and ready to sample. In this case, the water is considered to be representative of the formation and a final reading is recorded before sampling.

Another exception relates to the inability to achieve parameter stabilization for one or all the purge parameters after three well volumes have been removed. From previous experience, this inability to reach stability criteria seems to manifest itself more in wells that are poorly developed and have excessive turbidity (suspended material). If water quality parameters do not stabilize after 3 well

volumes, an additional well volume will be removed. During this time, collect two readings. The second reading will be recorded as the “final” reading on the MWDeF.

Cautionary about the multiparameter sonde: The sonde is fairly durable, and the sensors are well protected when they are stored in the storage cup or when secure inside the flow cell. However, this is a very expensive piece of equipment so use due diligence in its care. The sensors must always remain in a moist environment, typically a damp sponge in the storage cup is sufficient.

Sample Collection (put on fresh clean gloves)

Samples should be collected as soon as possible after the purging process is deemed complete based on water quality purge stability criteria to maintain the representativeness of the sample. . Sample bottles will remain capped prior to sample collection. Fecal coliform samples are collected first, followed by the 500mL ice preservation sample (nitrate-nitrogen), then finally, the 500mL acid preservation sample (ammonia-nitrogen). The 100 mL bottle (for fecal coliform analysis) should not be pre-rinsed and should be filled to its neck. The 500 mL pre-labeled sample bottles will be pre-rinsed, or primed, (3 times) with groundwater (from bailer or pump sample tubing) by filling 1/3 full, capping and swirling the rinse water to contact all interior surfaces. After shaking out residue tilt bottle and slowly fill each 500 mL bottle to neck of bottle.

Quality Assurance Samples

To determine if quality objectives are being achieved through the usage of clean handling procedures and uniform sampling methodologies, quality assurance replicate, and blank samples will be collected. Replicate sampling entails sequential filling of two bottles for each analysis from the same source, i.e., 500 mL environmental sample-preserved with acid, followed by 500 mL replicate sample-preserved with acid, etc. Replicate samples will be collected at approximately 10% of the wet monitoring well sites (~ 40). A weekly trip blank from Type I DI source water will be a check on the source water sampling crews use to prepare blanks and/or to decon equipment with. Each sample team will prepare field equipment blanks (1) monthly prior to deployment of a pump for the purge sampling process and (2) at the end of every sample week following the last deployment of the pump for that week. This rate of equipment blank collection will continue throughout the sampling season

Preserving and Packing Sample Bottles

The ammonia-nitrogen sample, red-labeled bottle, is preserved with sulfuric acid (<2 pH) immediately after sample collection. Lids are secured and the 500 mL sample bottles are placed at the bottom of the chests and completely imbedded with crushed ice. The 100mL fecal coliform bottles are stored in a Ziplock bag and submerged in ice, so ODAFF lab staff can easily locate them. Ensure that all samples are submerged in ice for preservation and to stabilize the sample bottles, reducing the likelihood of movement during transport.

Decontamination Procedures and Field Equipment Blanks (put on fresh clean gloves)

The following series of scenarios describing cleaning procedures for specific equipment and supplies and associated field blanks to test the procedures:

The Grundfos pump and power lead are cleaned as follows: The submerged portion of the power lead, usually around 15-20 feet, can be cleaned with Liquinox and DI (spray and wipe). The pump will be placed in a deep, narrow vessel and immersed with Liquinox (~ ½ -1 gallon). Before powering up, select the lowest frequency setting possible for flow with the VFD . Once started, cycle the cleaner through the pump for 2-3 minutes; repeat this step in separate vessels, using two DI rinses. Cooling water inside the pump is also susceptible to contamination and should be changed at the beginning of each sampling day. To run an equipment blank, use a 4th pre-cleaned and bagged vessel (field blank

vessel), place the pump into the vessel, pour Type I DI water into the vessel, then pump this blank into the field blank sample bottles (do not forget to prime the 500-mL bottles).

Breakdown of Site

Secure the well with company padlock and/or new ODAFF security seal. Record the number on the MWDeF. The purge water will be containerized until the end of the purge and sample collection process. Discharge purge water on the ground at least 30 feet down slope from the well. For new wells (not previously sampled by OWRB staff), collect GPS position and altitude features. Currently, the OWRB is utilizing improved GPS technology that may yield at least foot accuracies for horizontal and vertical measurements). In the absence of this equipment, the collection of Lat/Long data on a mobile application, such as Google Maps or Apple Maps, would be sufficient.

SAMPLE DELIVERY AND CHAIN OF CUSTODY SOP

ODAFF Lab Delivery Window: Monday-Thursday 7:30 AM to 2:00 PM

The majority of LMFO monitoring sites are between 100 and 250 miles from the ODAFF Laboratory in Oklahoma City that precludes OWRB field crews from delivering the samples. This necessitates use of a contracted courier for samples collected Monday and Tuesday with next day service. In most cases (Monday-Tuesday) sample collection will occur between 8:00 a.m-5 p.m. The courier service delivers samples next day within 24 hours of sample collection time.

OWRB Field Personnel Responsibilities for COC

For each well sample submitted for analysis, the following COC information will be included:

- LMFO company name, facility name, license number and well ID number(s); ODAFF requires different chain of custody forms at license number level even if it is the same company.
- The sampler(s) name (printed) and signature
- The date and time the samples were relinquished to the courier or the lab
- List of analytical parameters (Table 1)
- Preservative type(s)
- The QA code which corresponds to sample type (environmental, replicate or split etc.)
- The sample date and time for each corresponding sample
- The total number of sample containers that accompany the COC
- Sample delivery mode (by courier or field sampling crew)
- Mailing address of LMFO company for billing purposes and for analytical results delivery

Space must be provided on the COC so that ODAFF laboratory personnel may perform/record the following operations:

- Sign, date and record the time of sample delivery
- Login the sample and assign their internal sample tracking number and record this on the COC
- Insert comments that relate to sample integrity or security and/or labeling or transcription errors by OWRB personnel or non-agreement in count of total sample containers reported by OWRB on COC to the number of sample containers in the ice chest, etc.
- Insert bottle and acid lot numbers in the comments section for QA/QC tracking purposes.

Sample Delivery by Contract Courier Service

When samples are delivered by the contract courier service, the process for sample transfer, sample delivery and chain of custody is as follows.

- Meet courier at pre-determined pickup location to transfer samples within ice chest(s)
- Place completed COC in Ziplock bag and tape on the inside lid of ice chest(s)
- Wrap ice chest(s) three continuous times with duct tape, overlap ¼ inch only per wrap
- Sign tape wraps across the overlapping area with sampler signature so ODAFF receiving staff can identify possible tampering
- Include ODAFF address, if needed, for courier staff: 2800 N. Lincoln Blvd OKC
- Ensure drain plug is tightly sealed to prevent leaking of water in vehicle
- Inform courier of possible pickup that may occur the following day, if applicable, as a courtesy
- Courier needs to have samples dropped off at ODAFF as early as possible, at least 1 hour before first sample was collected

LMFO MONITORING WELL – PURGE & SAMPLING DATA eFORM and Chain of Custody example (Year 24; 22/23)

The link and/or QR code below will take you to an example MWDeF survey.

<https://arcg.is/1eqPmz>



State of Oklahoma
 Department of Agriculture
 Laboratory Services Division

Chain of Custody
 Monitoring Program Year 24 (2022-2023)

P.O. Box 528804
 Oklahoma City, OK 73152-8804
 (405) 522-5431

Licensed Facility Name Seaboard Farms Anderson Finisher (317)		License Number 970042		Contractor Responsible for Sample Collection: Oklahoma Water Resources Board 3800 N. Classen Blvd. Oklahoma City, OK 73118 Ph. # 405 530 8800, Fax # 405 530 8900 Contact: Jason Shiever, Project Coordinator				
Samplers Name (orint):		Project Name LMFO Monitoring Well Sampling		ODAFF Environmental Laboratory Assessment Package A Nitrate-Nitrogen, Ammonia-Nitrogen, Total Phosphorus, Fecal Coliform, Specific				
Samplers (signature):								
ODAFF Sample Login #	Monitoring Well Number	Facility Site ID	Date	Time	# of Bottles	Preservatives	OWRB Sample ID	QA Type
	153	F317				Ice or Ice/Acid	CF141:153	
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
						Ice or Ice/Acid		
***NOTE: REPORTING OUT OF LABORATORY ANALYTICAL SAMPLE RESULTS SHOULD INCLUDE THE LICENSED FACILITY NAME, MONITORING WELL NUMBER AND FACILITY SITE ID (IF AVAILABLE).								
Laboratory Reports Remitted To		INVOICE TO:		Total # of Sample Bottles:		Courier:		
Teena Gunter, ODAFF AEMS Division		Seaboard Foods, Inc.		>>>>>>>>>>				
Chris Adams, DWRB Groundwater Mgr.		2801Hurliman Road		Samples Preserved on Ice: Yes or No				
Company	Seaboard Foods, Inc.	Guymon, OK 73342						
RELINQUISHED BY: (Signature)			DATE	TIME	RECEIVED BY: (Signature)		DATE	TIME
RELINQUISHED BY: (Signature)			DATE	TIME	RECEIVED FOR LAB BY: (Signature)		DATE	TIME
Remarks:								