ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Livestock Facility Inspection Checklist

GENERAL INFORMATION

TYPE OF INSPECTION:
☒ CAFO ☐ COMPLAINT ☐ RECONNAISSANCE ☐ ERU FOLLOW UP ☐ OPERATOR REQUEST ☐ OTHER

FACILITY NAME (LLC, Inc., Corp, Partnership, sole proprietorship, etc.)	INSPECTION DATE	ARRIVAL TIME
Greuel Holdings, LLC (Aka: Greuel Pork Farms)	**May 16, 2012**	**1:40 PM**

ADDRESS	INSPECTOR(s)	DEPARTURE TIME
1285 E. 1300th Street	**S. Fowler**	**3:00 PM**

CITY	STATE	ZIP CODE	ACCOMPANIED BY (if applicable)
Industry	**IL**	**61440**	**Levi & Austin Greuel, TriOak Representatives**

COUNTY	SECTION	TOWNSHIP	RANGE	POLITICAL TOWNSHIP	TEMPERATURE	PRECIPITATION TYPE
McDonough	**29**	**T4N**	**R2W**	**Industry**	**70 F**	**Sunny**

Facility Owner(s):
Exemption 6 and Exemption 7(C) [redacted]

NAME	CONTACTED	PHONE	MOBILE
Levi Greuel	☒ YES ☐ NO	Exemption 6 and Exemption 7(C) [redacted]	

ADDRESS	CITY	STATE	ZIP CODE
Exemption 6 and Exemption 7(C) [redacted]			

NAME	CONTACTED	PHONE	MOBILE
Austin Greuel	☒ YES ☐ NO		

ADDRESS	CITY	STATE	ZIP CODE

Facility Operator(s):
Exemption 6 and Exemption 7(C) [redacted]

NAME	CONTACTED	PHONE	MOBILE
Nick Biggs (TriOak Foods)	☒ YES ☐ NO	Exemption 6 and Exemption 7(C) [redacted]	

ADDRESS	CITY	STATE	ZIP CODE
Exemption 6 and Exemption 7(C) [redacted]			

NAME	CONTACTED	PHONE	MOBILE
Al Muhlenbruck (TriOak Foods)	☒ YES ☐ NO	Exemption 6 and Exemption 7(C) [redacted]	

ADDRESS	CITY	STATE	ZIP CODE
Exemption 6 and Exemption 7(C) [redacted]			

NPDES PERMIT INFORMATION (If no NPDES Permit, skip this section)

1. What type of NPDES permit has been issued? ☐ Individual NPDES Permit ☐ General NPDES Permit	NPDES #	
2. What date was the NPDES permit issued?		
3. What date does the NPDES permit expire?		
4. Is a copy of the NPDES permit onsite?	☐ YES	☐ NO
5. Permitted number of animals (no. & specie)?		
6. Does the NPDES Permit contain a compliance schedule?	☐ YES	☐ NO
7. Have there been any changes made to the production area since the permit was issued?	☐ YES	☐ NO

If "YES", provide a detailed description of those changes.

None

LAND APPLICATION/NUTRIENT MANAGEMENT		
1. How many TOTAL acres are available for land application? **700 Owned; 300 Leased** acres		
2. How many acres are READILY available for land application at the time of inspection? _____ acres		
3. Estimated annual quantities of liquid waste **~2 Mgal** gallons		
4. Estimated annual quantities of solid waste _____ tons		
5. Does the facility have a contractor perform land application? If "YES", Name of Contractor: **Greuel Holdings, LLC**	☐ YES	☒ NO
6. What type of land application equipment is available to the facility? ☒ Umbilical Injection ☐ Honeywagon Injection ☐ Honeywagon Surface ☐ Irrigation ☐ Rotational Gun ☐ Manure Spreader ☐ Vegetative Filter ☐ Other _____		
7. Does the facility calibrate the land application equipment? If "YES", What method is used? **Flow meters used with gallons per minute**	☒ YES	☐ NO
8. Does the facility land apply within the 150 foot setback from any water well? If "YES", Explain	☐ YES	☒ NO
9. Does the facility land apply within the 200 foot setback from any surface water? If "YES", Explain	☐ YES	☒ NO
10. Does the facility land apply near any residences? If "YES", Explain	☒ YES	☐ NO
11. Is livestock waste transferred off-site to another party? If "YES", Are records of manure transfers kept? If "YES", Ask to see records	☒ YES ☐ YES	☐ NO ☐ NO
12. Does the facility have a current NMP or CNMP? If "YES", Does the facility maintain a copy of the nutrient management plan (NMP) onsite?	☐ YES ☐ YES	☐ NO ☐ NO
13. Does the NMP reflect the current operational characteristics (number of animals, cropping, etc.)?	☐ YES	☐ NO
14. Are the number of acres owned/leased consistent with those in the NMP?	☐ YES	☐ NO
15. Is manure and wastewater being applied in accordance with setback/buffer requirements of the NMP?	☐ YES	☐ NO
16. Are all of the records identified in the NMP being maintained and kept current?	☐ YES	☐ NO
17. Are records being maintained at the required frequency?	☐ YES	☐ NO
18. Are records being maintained onsite for the period required by NMP and/or NPDES permit?	☐ YES	☐ NO
19. Is the NMP adequately addressing the storage, handling and application of manure and wastewater to prevent discharges to waters of the U.S.?	☐ YES	☐ NO

LIVESTOCK FACILITY DESCRIPTION

Type of Animals		Number of Animals (currently)	Animal Capacity	Type of Confinement	Number of Structures
SWINE > 55 LBS	North Bld.	992	992	TOTAL CONFINEMENT BDG	1
SWINE > 55 LBS	South Bld.	992	992	TOTAL CONFINEMENT BDG	1
SWINE > 55 LBS	New Bld.	0	992	TOTAL CONFINEMENT BDG	1
	Total	1,984	2,976	TOTAL CONFINEMENT BDG	3

Does the facility have an Illinois Certified Livestock Manager (300 or greater animal units)?	☐ N/A	☐ YES	☒ NO
If greater than 1000 animal units but less than 5000 animal units, does the facility have a waste management plan?	☒ N/A	☐ YES	☐ NO
If greater than 5000 animal units, has the facility submitted a waste management plan to IDOA for review?	☒ N/A	☐ YES	☐ NO
Does the facility have any other locations under common ownership, or where equipment and/or manure is shared, or where the other site shares land application sites? If so, put names and addresses below. **None**		☐ YES	☒ NO

LIVESTOCK WASTE STORAGE

1. Does the facility have any existing livestock waste containment system? ☒ YES ☐ NO
   If NO, then proceed to question 10.

2. General description of the waste containment system (include solid and liquid manure handling, mortality, and feed storage areas).

   This facility currently has two total confinement buildings each with 8′ deep total pits for manure storage. There is currently a third confinement building being built between the other two, this new building will also be equipped with an 8′ deep total pit. All three of these buildings are built with perimeter tiles that connect to the same outfall.

   The mortalities on-site are composted in a mortality compost unit located near the North Total Confinement Building.

Type of Storage	Total Storage Capacity (Specify Units)
☐ Anaerobic Lagoon	
☐ Covered Lagoon	
☐ Holding Pond	
☐ Above Ground Storage Tank ("Slurrystore")	
☐ Below Ground Storage Tank	
☐ Settling Basin	
☐ Roofed Storage Shed	
☐ Concrete Pad	
☐ Impervious Soil Pad	
☒ Underfloor Pits	**Each Building has an 8' deep total pit**
☐ Anaerobic Digester	
☐ Manure Stacks	
☐ Vegetative Filter	
☐ Other _____	
☐ None	

3. Do the storage structures have depth markers or staff gauges? ☐ YES ☐ NO

4. Are levels of manure in the storage structures recorded and records kept? ☐ YES ☐ NO

5. Do the storage structures have adequate freeboard? ☐ YES ☐ NO

6. Estimated final stage storage structure freeboard _____ in. of total depth _____ in.

7. Do facility personnel perform routine visual inspections of the storage structures? ☐ YES ☐ NO

8. Are the routine visual inspections documented? ☐ YES ☐ NO

9. Does the system have an outfall or discharge point? ☐ YES ☒ NO

If "YES", please provide a description (overflow pipe, spill way, etc. Include a description the area receiving the discharge).
None

The three buildings do have perimeter tiles that discharge to the same outfall.

10. Are there any portions of the production area where runoff is not controlled? ☐ YES ☒ NO

If "YES", provide a detailed description of the area(s) of concern:
None

MORTALITIES MANAGEMENT

1. How are mortalities managed? (Composted, buried, burned, rendering service, other)
A mortality compost unit is located near the North Total Confinement Building.

2. Are mortalities documented and are records kept? ☒ YES ☐ NO

FACILITY WATER SOURCES

1. What type of method is used to provide drinking water for the animals?

   ☐ Overflow waters ☐ Tip Tanks ☒ Nipple waters ☐ Water Bowls ☒ Other **Cups**

2. How is the water for animals obtained?

   ☐ Community PWS ☒ On-Site Well ☐ On-Site Impoundment ☐ Other **1-1160' Deep Well**

3. Is a mist cooling system used? ☒ YES ☐ NO

   How is mist water contained?

   All the water from this system is captured in the pits beneath the buildings. This was reported as working well and does not cause problems with pit capacities.

DAIRY OPERATION (If No Dairy, skip this section)

1. How many times per day are cows milked? _____

2. Describe how the dairy's non-contact cooling water is contained (Example: it is reused for drinking water for the animals).

   None

3. Describe how the milking parlor is cleaned (hose or flush) and where the process wastewater goes and how it is contained.

   None

4. Describe how the tank(s) are washed and where the process wastewater goes and how it is contained.

   None

5. Describe where process wastewater from the plate cooler goes and how it is contained.

   None

BEDDING (If No Bedding, skip this section)

1. Describe what type of bedding is used for the animals.

   None

2. Describe how bedding is collected and how often.

   None

3. What is done with the used bedding? ☐ Reused ☐ Land Applied

MANURE COLLECTION

1. How is manure collected?

   ☒ Under Floor Pit
   ☐ Scraped: ☐ Automatic ☐ Manual
   ☐ Flush
   ☐ Solids Separator
   ☐ Other: _____
   ☐ None

2. If manure collection system uses either clean or reused water to flush, describe where this water goes and how it is contained.

   None

FEED STORAGE CONTAINMENT

1. Describe how feed (silage, hay, etc) is contained.

   ☒ Bulk Bins
   ☐ Silage Pit
   ☐ Ag Bags
   ☐ Hay: ☐ Barn ☐ Outdoor
   ☐ Other: _____

2. Describe how feed (silage, hay, etc) runoff is contained.

   ☒ Not Applicable – Feed totally enclosed
   ☐ Other: _____
   ☐ None

RECEIVING SURFACE WATERS

1. Provide a description of the flow path from the facility to the nearest named surface water.

   The discharge from the perimeter tiles enters an unnamed tributary to Carter Creek on the southeast side of the site. Carter Creek is tributary to Grindstone Creek.

2. What is the name of the receiving stream?

   Unnamed tribuatry to Carter Creek.

3. Status of the named surface water: ☒ Intermittent ☐ Perennial

4. Are any unnatural bottom deposits observed in the receiving stream: ☐ YES ☐ NO

   If "YES", provide a description of the deposits: **Not observed during inspection.**

DISCHARGES		
1. Have there been any documented discharges of livestock waste to surface water ***in the past year***? If "NO" proceed to question 2.	☐ YES	☒ NO
a. If "YES", specify the date(s). _____		
b. What was the reason for the discharge?		
c. Was the discharge the result of a 25 year-24 hour rainfall event?	☐ YES	☐ NO
d. What was the precipitation amount? *(if applicable)*		
e. Was IEMA notified of the discharge?	☐ YES	☐ NO
f. Has the facility taken corrective action to remedy the situation which caused the discharge(s)?	☐ YES	☐ NO
If "YES", describe actions taken: **None**		
2. Is the facility currently discharging livestock waste from the production area? If "NO" proceed to next section.	☐ YES	☒ NO
a. Was the discharge the result of a 25 year-24 hour rainfall event?	☐ YES	☐ NO
b. What was the precipitation amount? *(if applicable)*		
c. What is the reason for the discharge?		
d. Were water quality samples taken?	☐ YES	☐ NO
e. If "YES", how many? _____		
f. What parameter(s) tested? ☐ pH ☐ Ammonia ☐ Nitrate ☐ Nitrite ☐ Phosphorus ☐ BOD_5 ☐ Total Susp Solids ☐ Fecal ☐ Diss O_2 ☐ Other _____		

BIOSECURITY – Inspection Activities			
1. Were biosecurity measures discussed with the facility prior to inspection?		☒ YES	☐ NO
2. Has there been 24-hours downtime between inspections for all IEPA personnel present?		☒ YES	☐ NO
3. Was the order of inspection conducted from high risk to low risk?	☒ N/A	☐ YES	☐ NO
4. Did all personnel stay outside livestock management and livestock waste handling facilities as defined in 35 IAC 501.285 and 35 IAC 501.300? If "YES" skip to question 7.		☒ YES	☐ NO

BIOSECURITY – Personal Protection Equipment			
5. Was sanitary footwear donned prior to entering the livestock management/waste handling facility(s)?	☒ N/A Did not Enter	☐ YES	☐ NO
6. Were disposable coveralls donned prior to entering the livestock management/waste handling facility(s)?	☒ N/A Did not Enter	☐ YES	☐ NO
7. Was sanitary footwear used during the inspection?		☒ YES	☐ NO
8. Was disposable sanitary outerwear disposed at the facility?		☐ YES	☒ NO

BIOSECURITY – Vehicle			
9. Was the vehicle parking location discussed with the facility prior to inspection?		☒ YES	☐ NO
10. Was the vehicle washed since the inspection prior to current? If "YES" skip to question 12.		☐ YES	☒ NO
11. Was the vehicle parked >300-feet from the livestock management/waste handling facility? Explain where vehicle was parked: **Vehicle was parked at previously discussed location.**	☐ N/A	☐ YES	☒ NO
12. Was IEPA vehicle used on site?		☒ YES	☐ NO
13. Was facility vehicle used on site?		☐ YES	☒ NO
BIOSECURITY – Inspection Equipment			
14. Was all equipment wiped down with anti-bacterial wipes?		☐ YES	☒ NO
15. Was sample cooler kept inside vehicle during inspection? If "YES" skip question 16.		☒ YES	☐ NO
16. Was sample cooler wiped down with antibacterial wipes before placing back into vehicle?	☒ N/A	☐ YES	☐ NO

OTHER COMMENTS/NOTES

New pens and paper were used during the inspection.

Please reference Inspection Report dated May 16, 2012.

Check all attachments: ☒ Narrative ☒ Photos ☒ Site Plan ☐ Sample Results

INSPECTOR'S SIGNATURE	**REPORT DATE**
	May 16, 2012

Cc: BOW/DWPC/RU

Attachments:_____

Revised March 2012

IEPA - BOW - *Peoria*

Inspection Report

Subject:	McDonough County (Industry)	Greuel Pork Farms TriOak Foods
To:	DWPC/FOS & RU	
From:	Star M. Fowler	DWPC-FOS, Peoria Region
Date:	May 16, 2012	

On May 16, 2012 at 1:40 PM I visited Greuel Pork Farms to inspect the soon to be 2,976 head swine wean to finish facility. Levi Greuel and Austin Greuel, the owners and operators of the facility, Nick Biggs, with TriOak Foods, and Al Muhlenbruck the Marketing & Relations Manager with TriOak Foods, accompanied me during my inspection. A plan view, drawing of the site, business card, and digital photographs of the area are attached to this report. Weather conditions for the day were sunny and the temperature was approximately 70°F. The following paragraphs provide further details of the field visit that compliment the CAFO Checklist. An update on the facility was given by Levi Greuel through a telephone conversation on June 25, 2012.

Location:
This facility is located approximately 3 miles southwest of Industry, Illinois in McDonough County, as shown in Figure 1. The legal description is W 1/4, Section 29, T4N-R2W, (Industry Township) in McDonough County. The discharge from the sites building's perimeter tiles enters an unnamed tributary to Carter Creek on the southeast side of the site. Carter Creek is tributary to Grindstone Creek. Below is the contact information for the facility and TriOak Foods:

Greuel Pork Farms
1285 E. 1300th Street
Industry, IL 61440

TriOak Foods Phone: Exemption 6 and Exemption 7(C) [redacted]
Exemption 6 and Exemption 7(C) [redacted]
103 W. Railroad Street
Oakville, IA 52646

Levi Greuel Phone: Exemption 6 and Exemption 7(C) [redacted]
Exemption 6 and Exemption 7(C) [redacted]

Biosecurity:
Biosecurity was previously discussed with Levi Greuel during a telephone conversation on May 14, 2012. Mr. Greuel was satisfied with just the protective booties being worn. Parking was discussed. Mr. Greuel stated that the vehicle could be parked at the South Finishing Building.

A state issued vehicle was used as transportation to the facility. The vehicle was parked at previously discussed location, as above. The required 24-Hour downtime between inspections of the same species was observed. Protective booties were worn during the inspection. All other biosecurity measures were waived.

Overview:
Greuel Pork Farms is a wean to finish facility that contract feeds for TriOak Foods. During the inspection the facility was operating at capacity with approximately 1,984 swine on-site. The facility is owned and operated by Levi and Austin Greuel.

This facility currently has two total confinement buildings each with 8' deep total pits for manure storage. There is currently a third confinement building being built between the other two, this new building will also be equipped with an 8' deep total pit. All three of these buildings are built with perimeter tiles that connect to the same outfall.

The new total confinement building is scheduled for a start-up date of July 1, 2012. Once this building has begun production that facility will have a total capacity of 2,976 head swine.

On-Site Water Source:
The water for the facility is taken from the 1 well located on-site. This well was reported as being 1,160' deep. No problems with the well were reported.

Cooling System:
This site uses a cooling misting system inside the buildings along with tunnel vents to lower the temperature in the total confinement buildings. All the water from this system is captured in the pits beneath the buildings. This is reported to work well and is reported to not create any issues with pit capacity. The system was reported as working only 1 minute every 10 minutes when the system is used.

Total Confinement Buildings:
This facility has 2 total confinement buildings on site with a third building being constructed. Below is a summary of the two buildings located on-site with estimated dimensions and capacities. Please see Figure 2 for locations on site.

Building	Dimensions	Pit Depth	Manure Capacity
North Building	71' Wide X 280' Long	8' Deep	~1.2 Million Gallons
South Building	71' Wide X 280' Long	8' Deep	~1.2 Million Gallons

Comprehensive Nutrient Management Plan:
This facility is in the process of having a Comprehensive Nutrient Management Plan (CNMP) developed. Frank & West Environmental Engineers Inc has been hired to complete the CNMP for the facility.

Manure Management:
The land application of the liquid manure is completed by the Greuel's under the company name Greuel Holding, LLC. The manure is applied using a 2 and 3/8 mile 6 inch diameter dragline supply system. The dragline is connected to a 30' toolbar with 12 Dietrich no-till direct injection knives that inject the manure 6 inches below the soil surface. Manure is removed from the facility twice a year, every spring and fall.

The Greuel's began doing land application the spring of 2010. At that time all new equipment was purchased for the dragline system. The Greuel's reported that during land application there are always three people involved: one at the tractor, one at the main pump from the building, and the third to check the line during application and/or watch a booster pump.

Manure is removed from the facility twice a year, every spring and fall. The manure is land applied on the 700 acres of crop land that the Greuel's own and 300 acres that are leased. All this land is designated for manure application from this facility only.

Mortality Compost Area:
The mortalities on-site are composted in a 4 bay compost unit located on the east side of the North Building. All four bays are being used to compost mortalities. Each bay is approximately 20' wide by 40' deep, with approximately 4' tall side walls. The carbon source, saw dust, is being stored adjacent to the mortality compost unit. With the new building being built this mortality compost unit is going to be re-designed and be expanded. This mortality compost unit currently does not have a roof installed.

At the time of the inspection, there was no leachate observed as being released from the compost area. See Photographs #4-6. There were some exposed larger bones, such as hip bones, observed inside the compost unit. It was stated to the facility that the bones should be covered. The unit was stated to have no issues with varmints at this time. There were several rodent traps observed around the confinement buildings.

This facility keeps records on the mortalities. At the time of the inspection the mortality rate was stated to be approximately 3-7%.

Perimeter Tiles:
The two buildings on-site are both equipped with 8' deep manure collection pits that have perimeter tiles around them. There are sampling ports located on the east side of the buildings. The third new total confinement building will also has an 8' deep manure collection pit with a perimeter tile. All three of these building's perimeter tiles are connected to the same drainage tile and discharge at the same outfall located on the southeast side of the facility. These perimeter tiles are sampled quarterly.

Generator:
There is one generator located on-site. It was located near the South Building. The generator is an LP generator and was reported having not been used in 4 years.

Illinois Certified Livestock Manager:
Currently the Greuel's are working on obtaining the necessary certification to become Illinois Certified Livestock Manager's.

Summary:
During this inspection there was no runoff observed from the site. A CNMP is in the process of being developed for the site. The recommendation of covering the exposed large bones in the mortality compost unit was given to the facility during the inspection.

Telephone Update- June 25, 2012:
On June 25, 2012 at approximately 1:15 PM Levi Greuel contacted me by telephone to discuss a facility update. Mr. Greuel had just left a meeting earlier in the day with NRCS in which he was able to obtain the necessary funding for a CNMP for the facility. The plans for the mortality compost unit were discussed. Mr. Greuel is not planning on covering the mortality compost unit at this time, but is going to expand the existing unit and install a sloped pad to help contain any leachate from being released.

Mr. Greuel discussed some of the improvements for the facility. The new total confinement building is scheduled to be operational in approximately 3 weeks. Since the inspection another generator has been added to the facility. The facility now has one permanent generator located at the South Building and one generator that is located on a trailer that is stored at the South Building. Both of these generators are LP driven.

This report is submitted for your information.

Star M. Fowler

Att: -CAFO Checklist
-Figures 1-2
-Business card
-Photographs

cc: -Bruce Yurdin, BOW
-Peoria Files
-Levi Greuel, Owner of the Facility

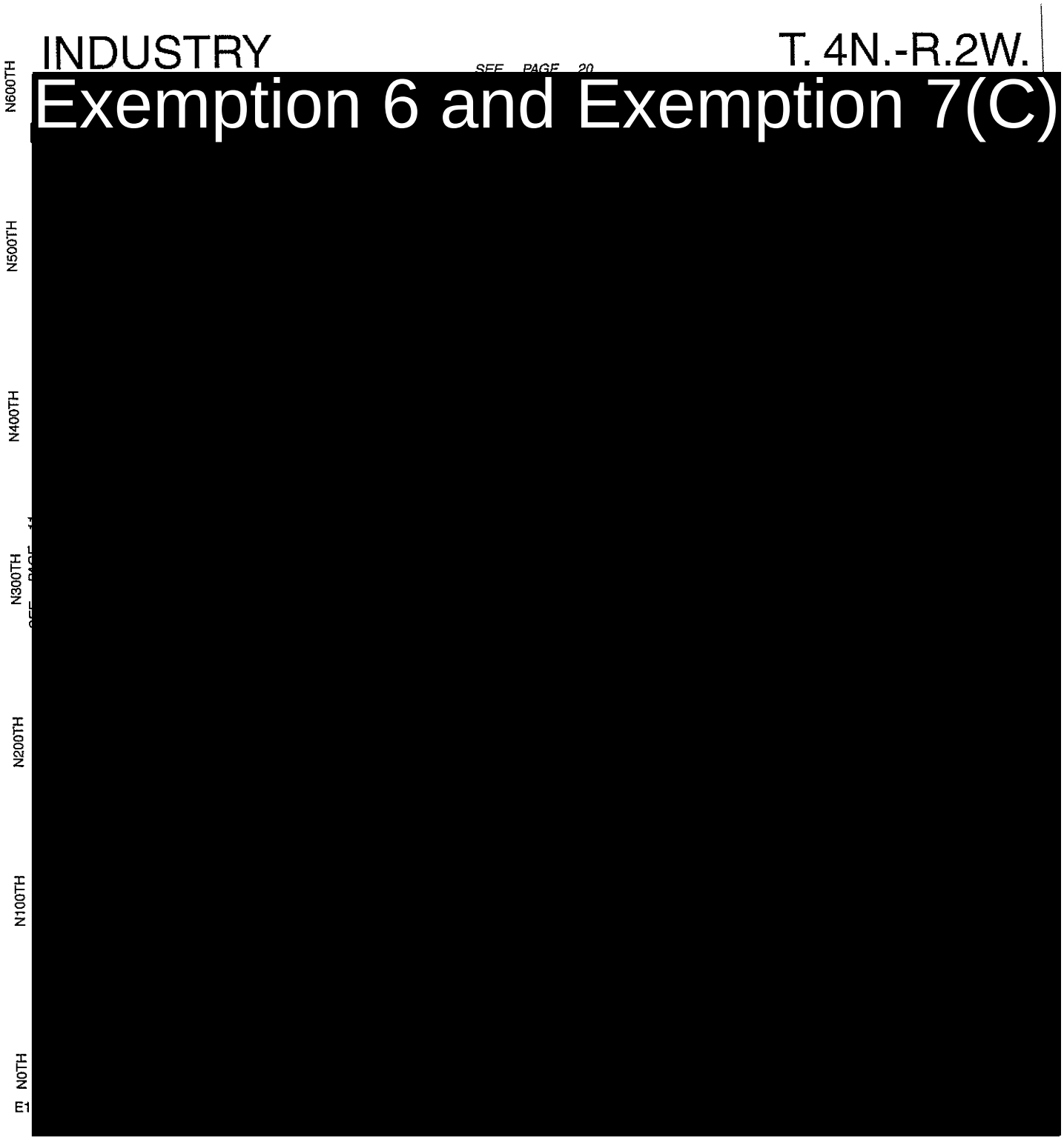


Figure 1. Location Map of Greuel Holdings, LLC near Industry in McDonough County on May 16, 2012.

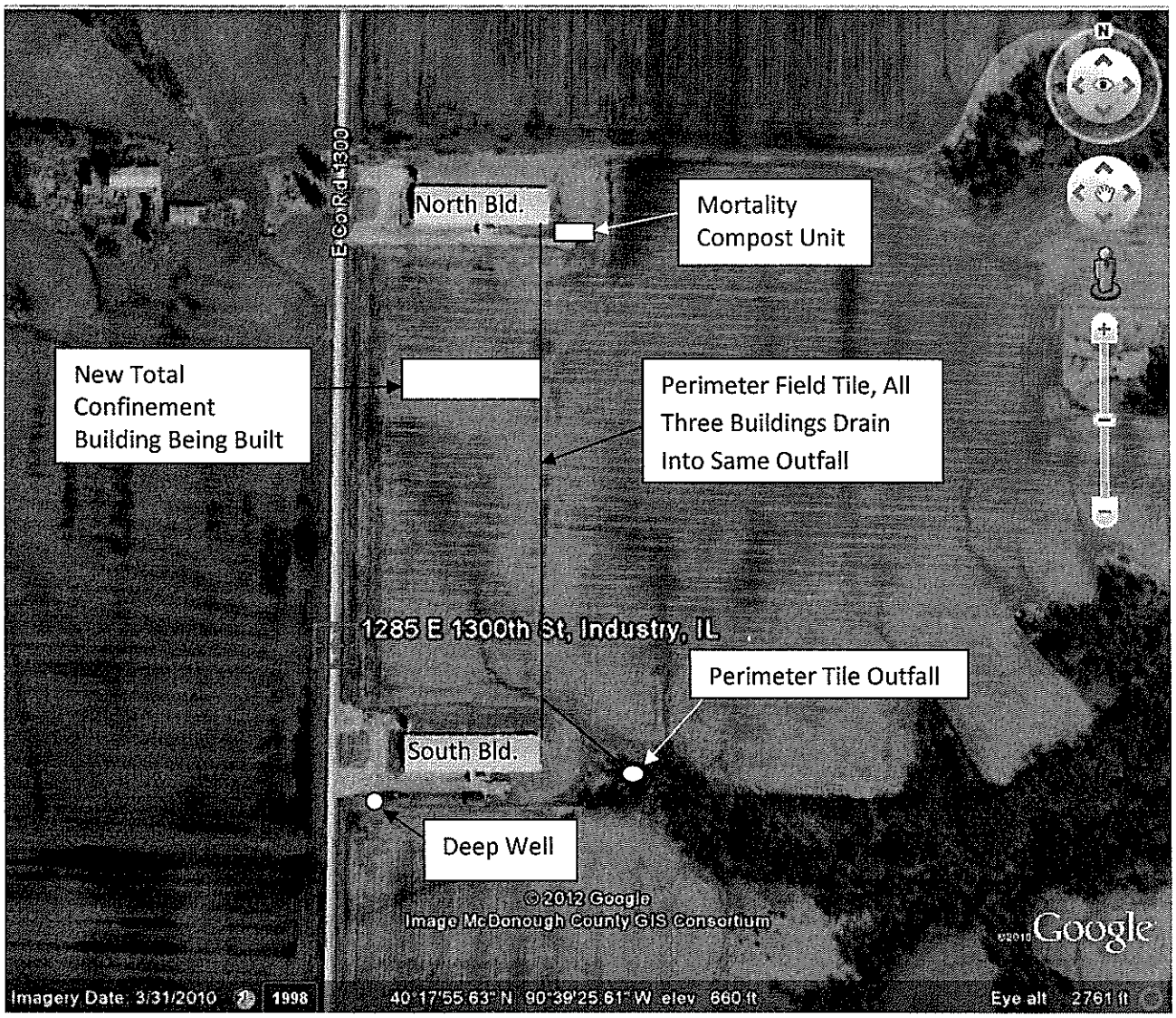


Figure 2. Plan View From Google Earth of Greuel Holdings, LLC located near Industry in McDonough County on May 16, 2012.

TriOak Foods

www.trioak.com

Exemption 6 and Exemption 7(C)

Oakville, Iowa 52646

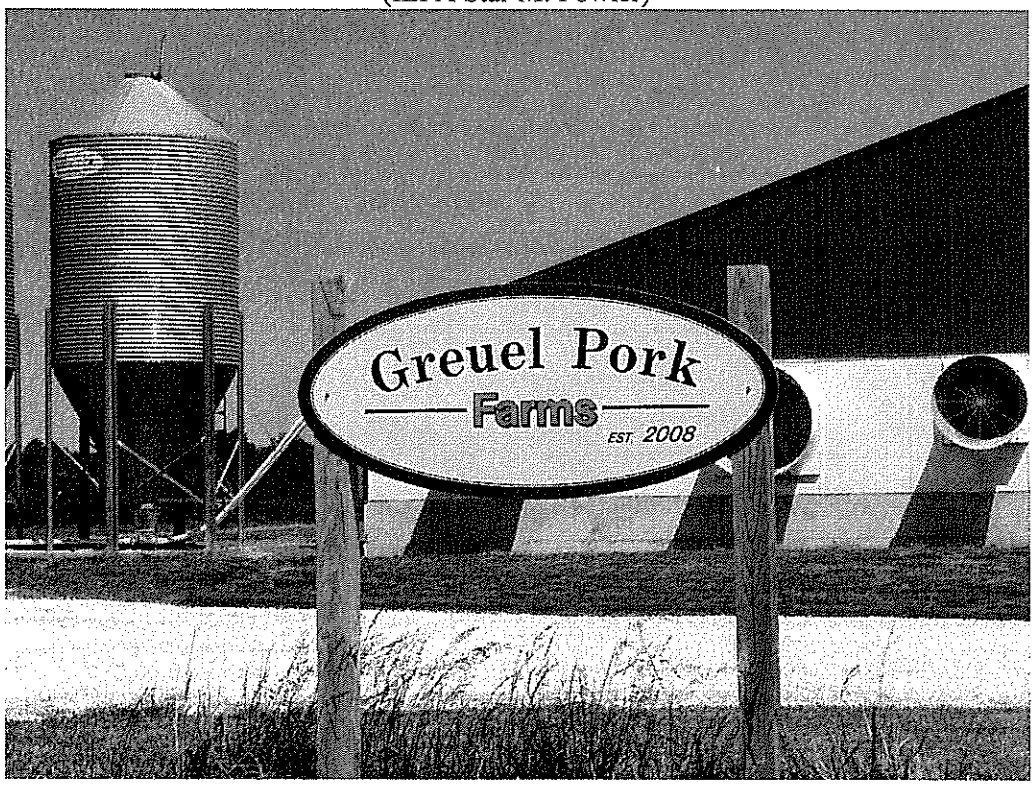
Al Muhlenbruck
Marketing & Relations Manager

Ph: Exemption 6 and Exemption 7(C)

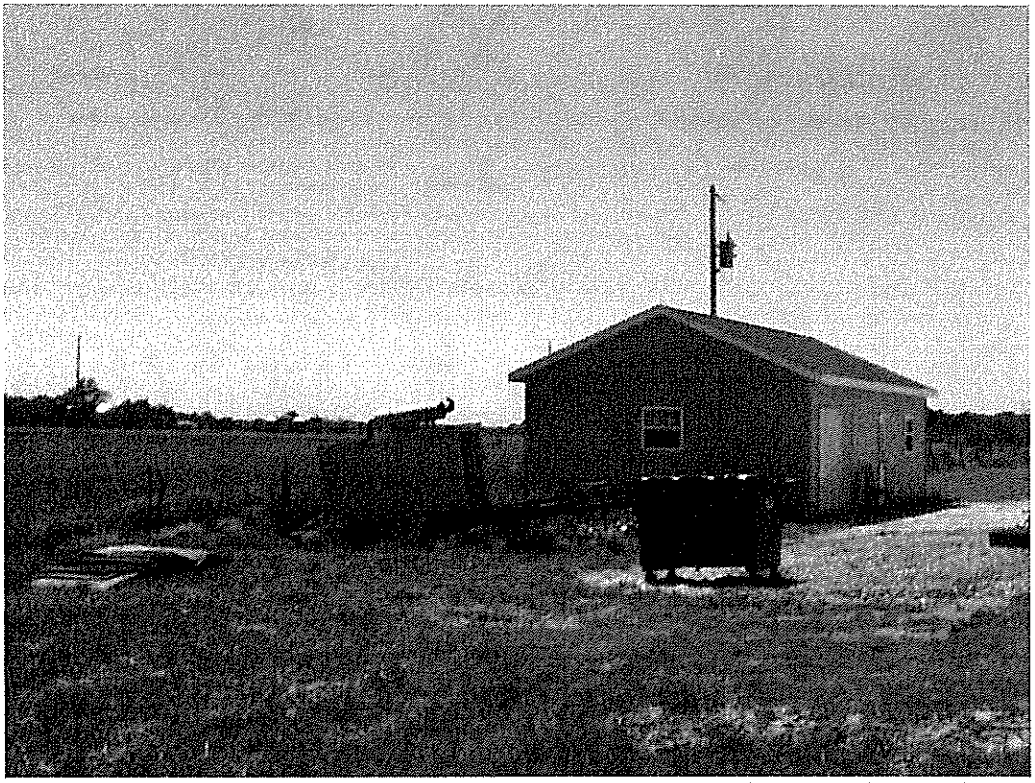
Exemption 6 and Exemption 7(C)

Exemption 6 and Exemption 7(C)

Greuel Holdings, LLC
McDonough County
May 16, 2012
(IEPA Star M. Fowler)

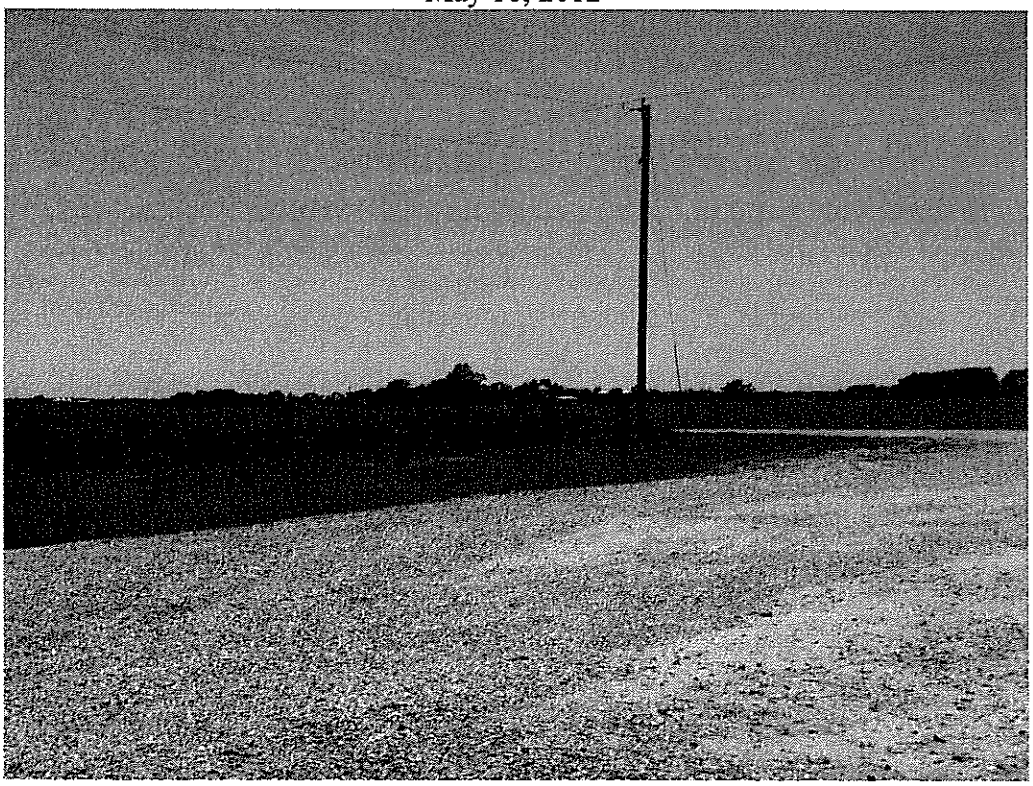


Photograph #1. Facility Sign.

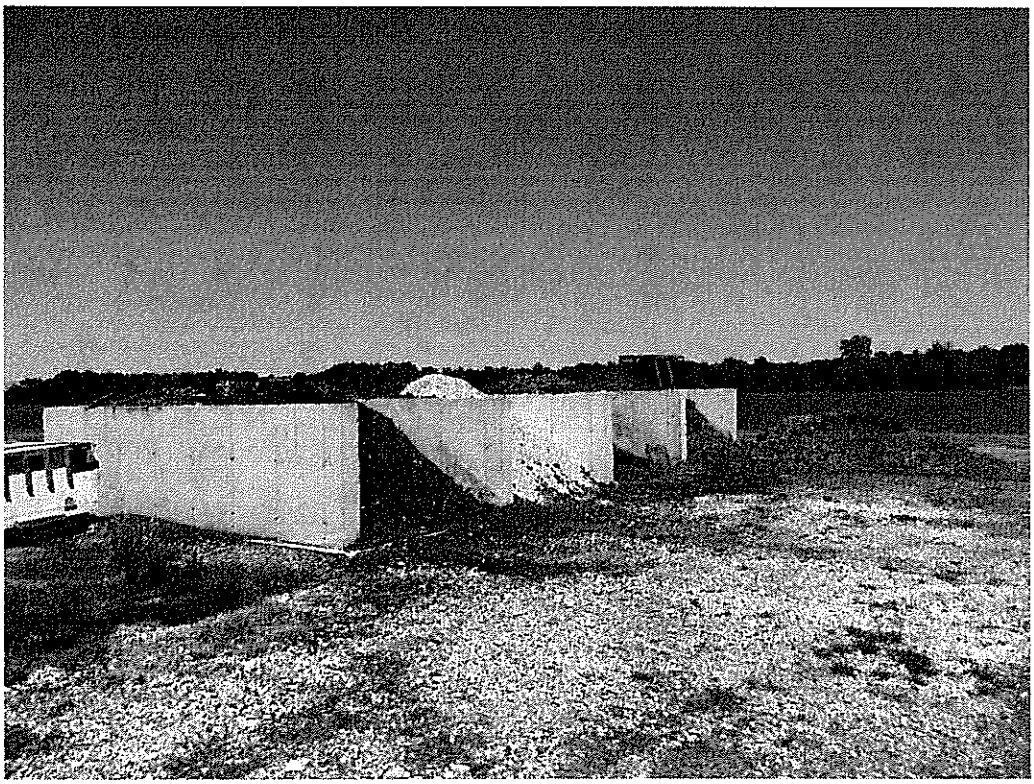


Photograph #2. On-site generator located to the south of the South Building.

Greuel Holdings, LLC
McDonough County
May 16, 2012

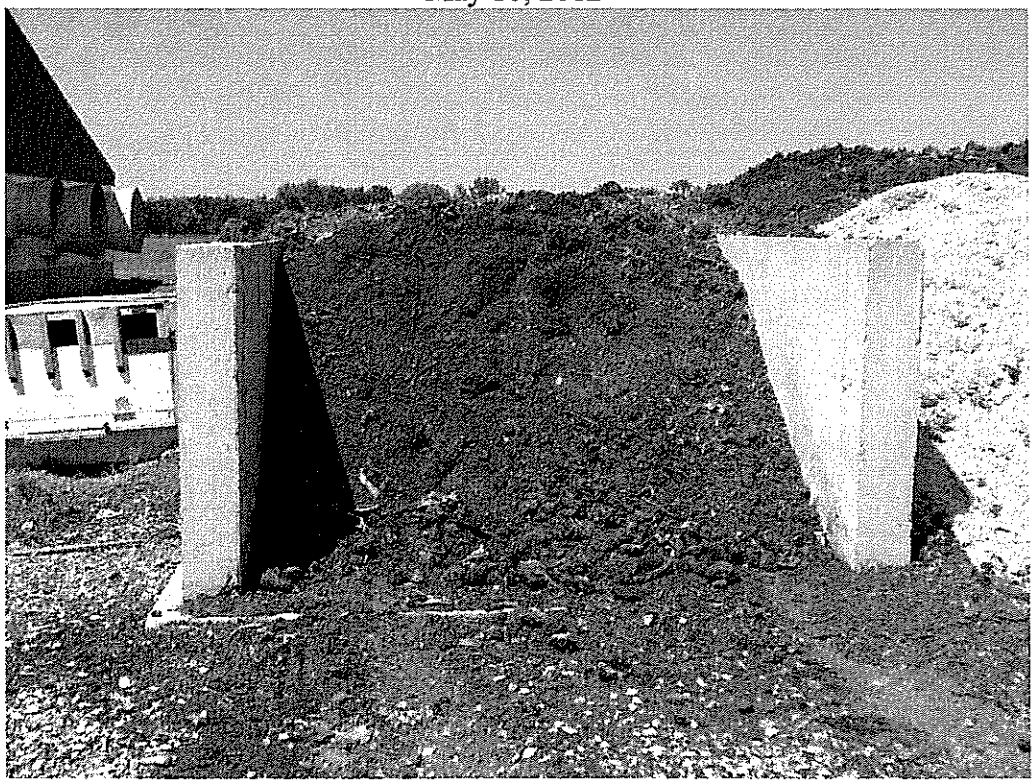


Photograph #3. The one deep well located adjacent to the South Building.

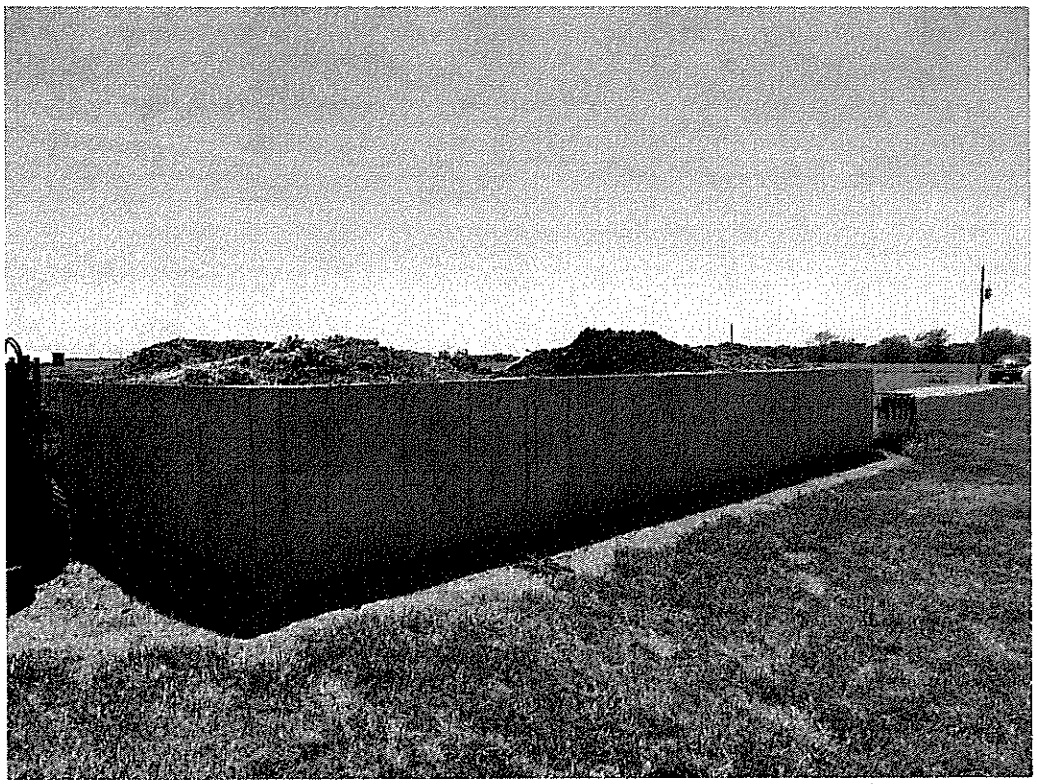


Photograph #4. Mortality Compost Unit for the facility located near the North Building.

Greuel Holdings, LLC
McDonough County
May 16, 2012

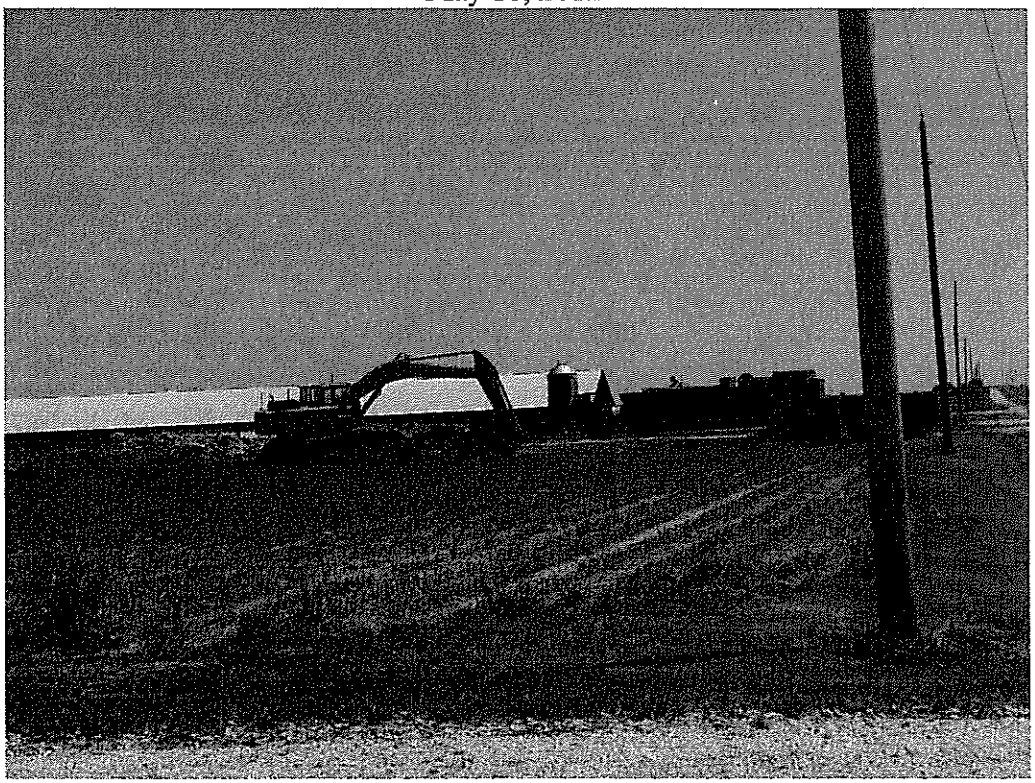


Photograph #5. West bin of the Mortality Compost Unit.



Photograph #6. North side of the Mortality Compost Unit.

Greuel Holdings, LLC
McDonough County
May 16, 2012



Photograph #7. New Total Confinement Building under construction.
View is south taken from North Building.

Photograph #8. New Total Confinement Building under construction.
View is southeast taken from North Building.