

**Buell, Thomas**

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**From:** Don Gunster <dgunster@newfields.com>  
**Sent:** Friday, August 23, 2024 4:45 PM  
**To:** Buell, Thomas  
**Cc:** Kerri Sitrler; Don Gunster  
**Subject:** AltEn: Submission of the AltEn Wet Cake RAP ID# 84069  
**Attachments:** 20240823-AltEn-Wet Cake RAP.pdf

Tom:

On behalf of the AltEn Facility Response Group (FRG), NewFields is submitting the attached Remedial Action Plan (RAP) to the Nebraska Department of Environment and Energy (NDEE) for removing and disposing of wet cake remaining at the AltEn Ethanol Facility located at in Mead, Saunders County, Nebraska. Two hard copies of this document will also be submitted via FedEx.

Please let me know if you have any questions.

Thank you,

Don

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Donald G. Gunster, M.E.M.  
Partner/Senior Scientist



## REMEDIAL ACTION PLAN

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**DATE:** August 23, 2024

**TO:** Thomas Buell – Nebraska Department of Environment and Energy

**FROM:** Donald Gunster, Project Coordinator – NewFields

**SUBJECT:** Wet Cake Remedial Action Plan  
AltEn Facility – Mead, Nebraska;  
Facility IIS number: 84069

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On behalf of the AltEn Facility Response Group (FRG), NewFields is submitting this Remedial Action Plan (RAP) to the Nebraska Department of Environment and Energy (NDEE) for removing and disposing of wet cake remaining at the AltEn Ethanol Facility located at 1344 County Road 10 in Mead, Saunders County, Nebraska (Site, see Figure 1).

The FRG was formed after NDEE sought assistance with their efforts to address environmental issues at the Site. The companies joined together to address unsafe conditions created by AltEn's mismanagement of solids and water generated by the ethanol production process and are participating in the Nebraska Voluntary Cleanup Program (VCP) pursuant to a Memorandum of Agreement (MOA). The FRG members do not own the Site, have never operated the ethanol facility, and played no role in AltEn's management of its facility. The Site owner, AltEn, is not a member of the FRG and is not participating in the voluntary measures being implemented by the FRG.

A summary of the proposed remedial action for the wet cake is presented in this RAP, as requested by NDEE. It includes a background, remedial action objectives, remedial action summary, preliminary schedule, and a summary of how NDEE and the community will be updated on progress.

### 1.0 BACKGROUND

Approximately 100,000 tons of wet cake are currently estimated to be present within the Consolidated Wet Cake Pile located at the northwestern corner of the property, as shown in Figure 2. It is currently located within a bermed area and covered with Posi-Shell® to reduce emissions of odor-causing substances and stormwater contact with the wet cake. Wet cake characterization revealed that it contains contemporary pesticides from former AltEn ethanol manufacturing operations. The wet cake is classified as a non-hazardous waste in accordance with the federal *Resource Conservation and Recovery Act* (RCRA) administered by the United States Environmental Protection Agency (USEPA) and Nebraska's *Title 128 - Nebraska Hazardous Waste Regulations*<sup>1</sup>.

Approximately 8,800 tons of raw wet cake were solidified on-site and 10,200 tons (515 truckloads) of solidified wet cake were transported to WM's Pheasant Point Landfill in Fall 2023 as part of the Wet Cake Pilot Project (Pilot). Results from the 2023 Pilot indicated that on-site solidification using

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<sup>1</sup> NewFields (2023-09-29). Wet Cake Classification Memorandum.



a pugmill mixing method and transportation to WM's landfill for disposal is a feasible, but not an efficient process.

The Pilot continued in June and July 2024 to evaluate whether solidification using an in situ mixing method is more efficient and requires less time to complete wet cake removal than the method employed in 2023. A summary of the results are as follows:

- A daily production and transportation rate of 1,000 tons per day of solidified wet cake was achieved.
- Approximately 9,875 tons of raw wet cake were solidified.
- A total of 9,546 tons (472 truckloads) of solidified wet cake were transported to WM's Pheasant Point Landfill.

Results indicated that the in situ mixing method is more efficient than the pugmill mixing method and thus is recommended for continuing wet cake removal.

Wet cake removal has continued since completing the Pilot in July. A total of 19,420 tons (925 truckloads) of solidified wet cake have been transported to the landfill in 2024 through August 19, 2024, which brings the total transported to the landfill to 29,628 tons including the 2023 Pilot.

## **2.0 REMEDIAL ACTION OBJECTIVE**

The remedial action objective is to remove the wet cake from the Site and dispose of it at an off-site landfill. The extent of removal will be to the base of the wet cake pile, which will be determined by visual identification of the interface with native soils.

## **3.0 PROPOSED REMEDIAL ACTION**

The proposed remedial action includes the following components:

- Solidifying the wet cake on-site so that it can be safely loaded into trucks, transported off-site, and disposed of in a landfill; and
- Transporting the solidified wet cake to and disposing of it in a landfill permitted by NDEE to receive this material.

Wet cake will be removed based on a visual performance standard. Removal will be considered complete when no visible wet cake remains that requires removal with heavy earth-moving equipment.

Solidification will be performed using the in situ mixing method based on the 2024 Pilot results. Opportunities for improving this process will continue to be evaluated and implemented during wet cake removal that could consist of modifying the mixing method, reagent, reagent dosage, cure times, quality assurance and control testing methodology, and performance criteria.

Trucks moving solidified wet cake to the landfill will use routes approved by the State of Nebraska Department of Transportation (NDOT) and will comply with NDOT requirements and weight restrictions. The transportation contractor will have a contingency plan for emergency situations that will include notification procedures and emergency contacts for the contractor and NewFields.

Environmental protection measures that will be implemented during the remedial action, as implemented during the Pilot, include the following:

- **Stormwater Management** – Stormwater will be captured within the wet cake work areas through a network of berms and sumps for future treatment using either the current on-



site water treatment system or other means of treatment to meet applicable Nebraska regulatory requirements and standards.

- **Dust Control** – Dust control measures will be taken to reduce the potential for visible dust beyond the property boundary during implementation of the remedial action. Measures may include, but not be limited to, water suppression using sprayers and/or misters and application of Posi-Shell® over material stockpiles. Other measures include water spraying and controlling vehicle/equipment speeds on gravel roadways.
- **Odor Control** – The wet cake contains odor-causing substances, and the proposed remedial action will potentially increase emissions of these substances and the potential for an increase in detectable odors off-site. Measures to reduce the emissions to the extent practicable consist of applying Posi-Shell® possibly combined with Odor-Shell® on open excavation faces on the wet cake pile and solidified wet cake piles at the end of every workday.
- **Air Quality Monitoring** – Continuous fence line air quality monitoring will continue to be performed as it was during the Pilot. Monitoring will be performed using the same air quality monitoring units for ammonia, methane, hydrogen sulfide, particulate matter (PM1, PM2.5, PM10), total reduced sulfur, and volatile organic compounds combined with field monitoring and sample collection and laboratory analysis. Air monitoring fence line action levels for individual constituents will be reassessed for a longer operating period relative to the Pilot and adjustments will be made as necessary to be protective of human health.
- **Truck Lining** – Truck beds will be lined with plastic before loading the solidified wet cake. Once loaded, the plastic will be wrapped over top of the material and covered with the truck's tarp.
- **Truck Tire Washing** – Trucks transporting solidified wet cake to the landfill will be washed with water before exiting the Site.
- **Truck Inspections** – Each truck will be visually inspected before exiting the Site. A log of trucks will be maintained throughout the remedial action and will include the date and time, truck identification, and a time-stamped photograph of the truck leaving the Site.
- **Road Cleaning** – The section along County Road 10 at the Site entrance/exit will be cleaned as necessary throughout the remedial action to remove accumulated sediment that may be tracked off-site, using a conventional street cleaner or other means.

## 4.0 SCHEDULE

The schedule for wet cake removal is summarized as follows:

TASK	SCHEDULE	COMMENTS
2024 Solidification, Transportation, and Disposal	July-Nov 2024	Weather may dictate when 2024 work ends.
Winter Pause	Nov 2024 – Mar 2025	Freezing temperatures impact ability to perform the work effectively and efficiently.



TASK	SCHEDULE	COMMENTS
2025 Solidification, Transportation, and Disposal	Mar – Aug 2025	Weather will dictate when the work begins.

Wet cake removal will include working Monday through Saturday. Work may also be performed on Sundays but will be limited to non-wet cake handling activities such as general Site and equipment maintenance. Work will be modified or suspended upon the community's request during public activities that may be negatively impacted by the Site activities.

The above schedule is subject to change depending on multiple factors beyond the FRG's control. These include weather delays, unexpected equipment breakdowns, reagent supply interruptions, unexpected conditions encountered in localized portions of the wet cake pile, local traffic conditions, and other unknown conditions that could impact the ability to perform the work. The FRG will evaluate and implement contingency measures to reduce the potential for delays to the extent practicable. Schedule changes will be communicated to NDEE and the community.

## 5.0 NDEE AND COMMUNITY UPDATES

Remedial action progress and schedule updates will be communicated to NDEE during routine project status calls.

To communicate the details of the remedial action progress to the public, the FRG will continue the following:

- Meeting with Community Leaders and NDEE monthly to share information about the remedial action progress and path forward and provide them the opportunity to share their observations, comments, and requests.
- Providing monthly updates on the AltEn web site (<https://alteninfo.com/>) to share current information regarding remedial action progress and other Site-related information.



Engineer in Responsible Charge

08/23/24

*Randall W. Grachek*



## FIGURES

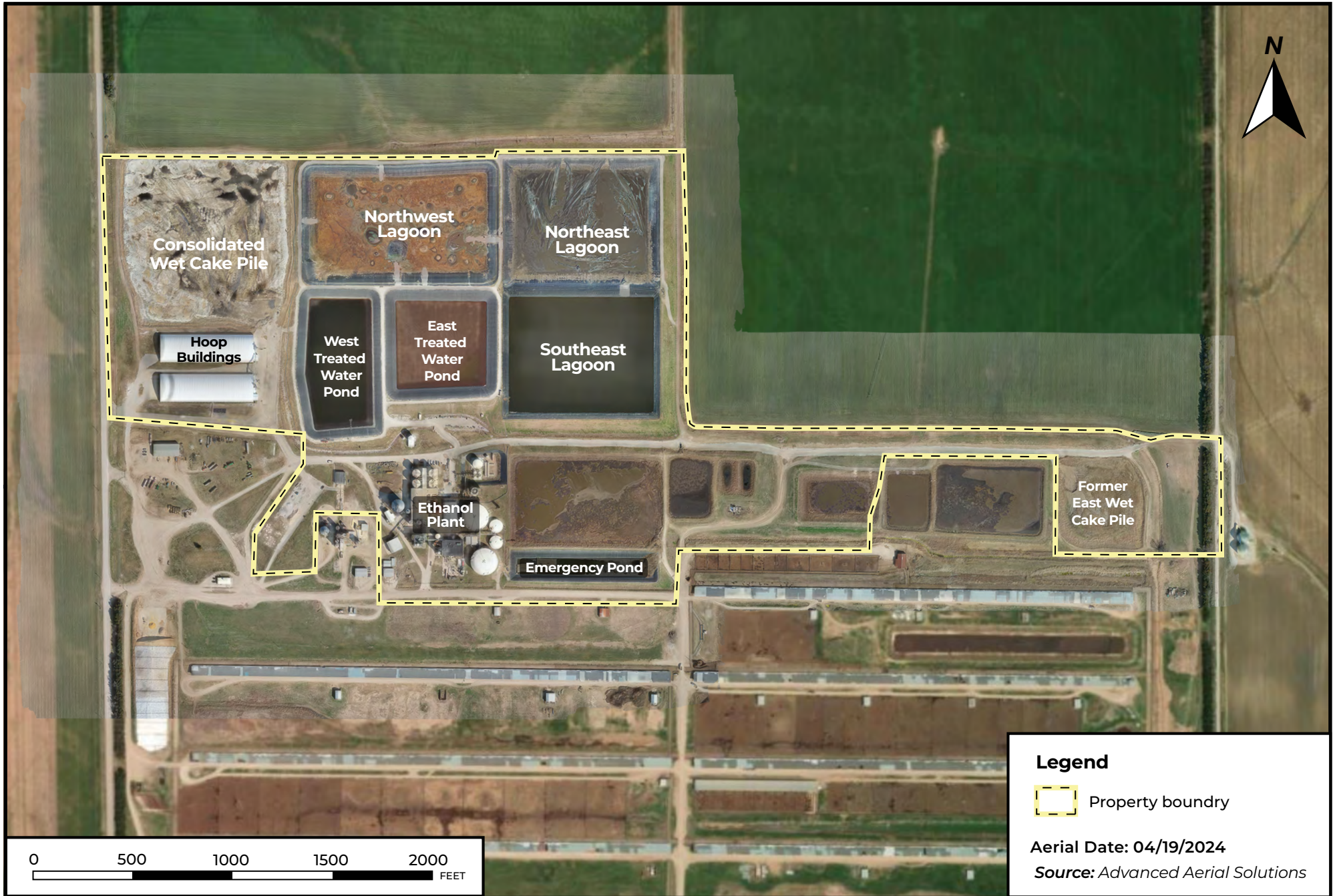


Figure 1

Site Location Map







**Legend**  
[Yellow dashed box] Property boundary  
Aerial Date: 04/19/2024  
Source: Advanced Aerial Solutions

**Figure 2**

**Site Map**

