AltEn, LLC

Mead, NE

March 12, 2021

10
5
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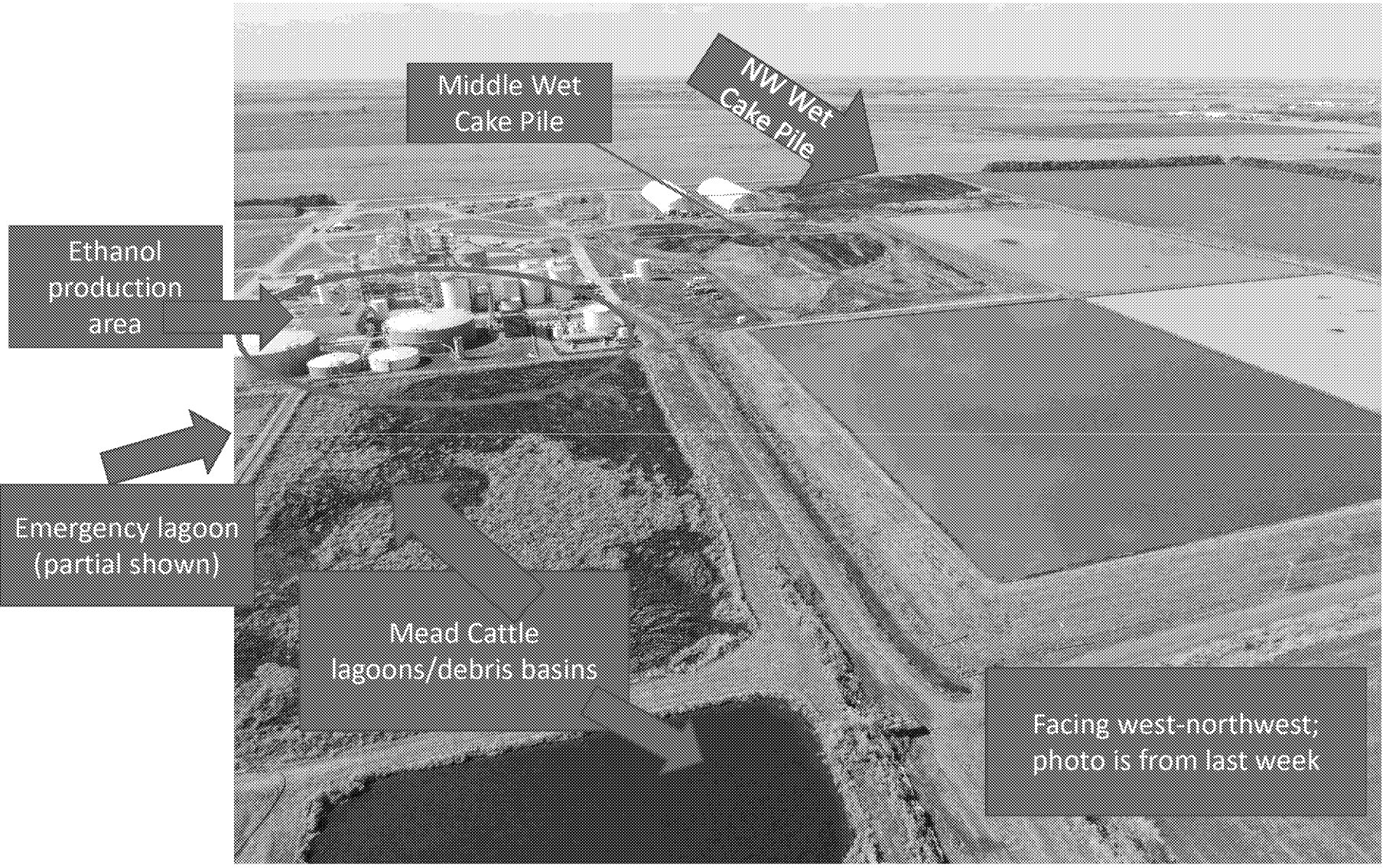
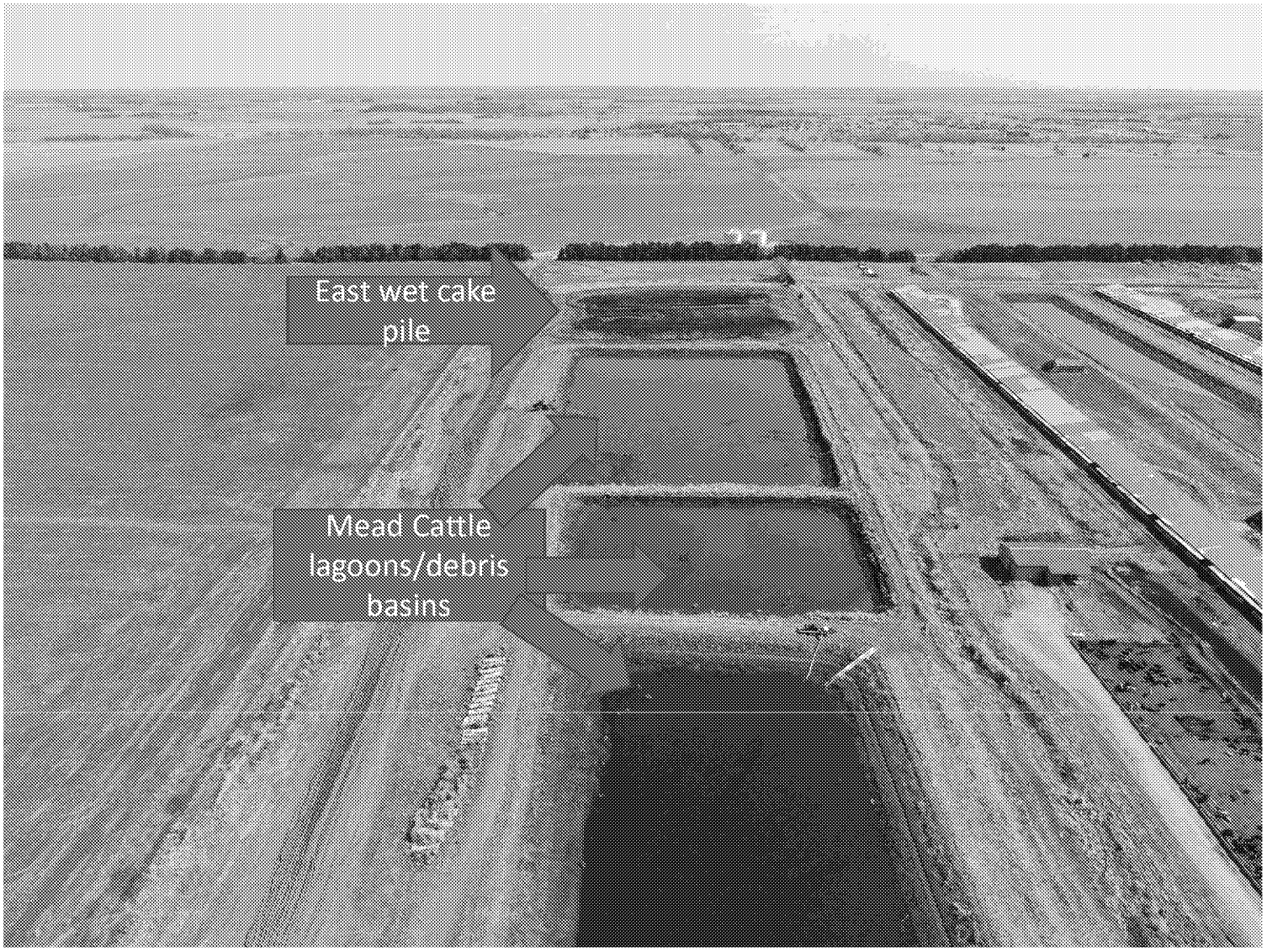
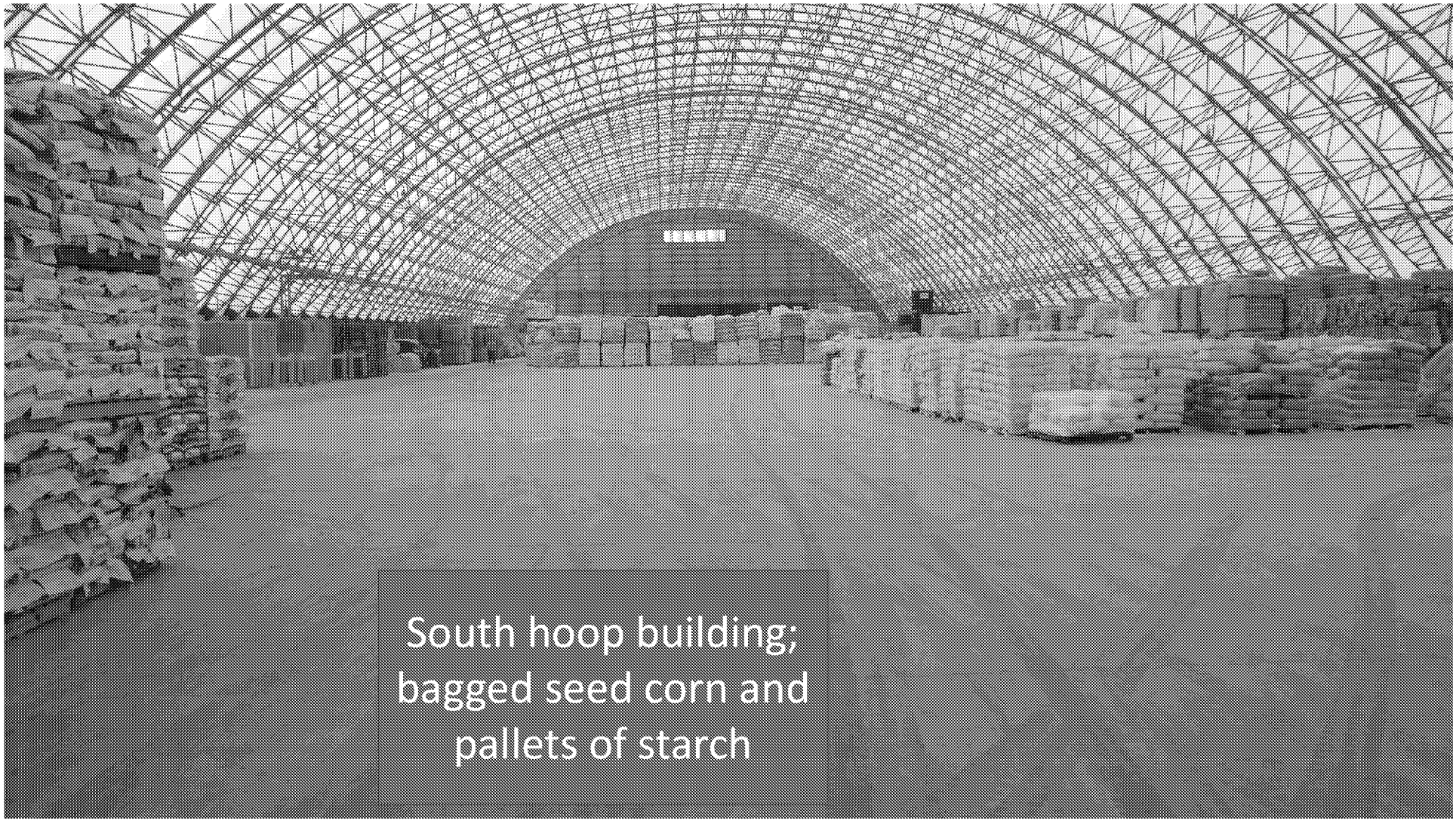
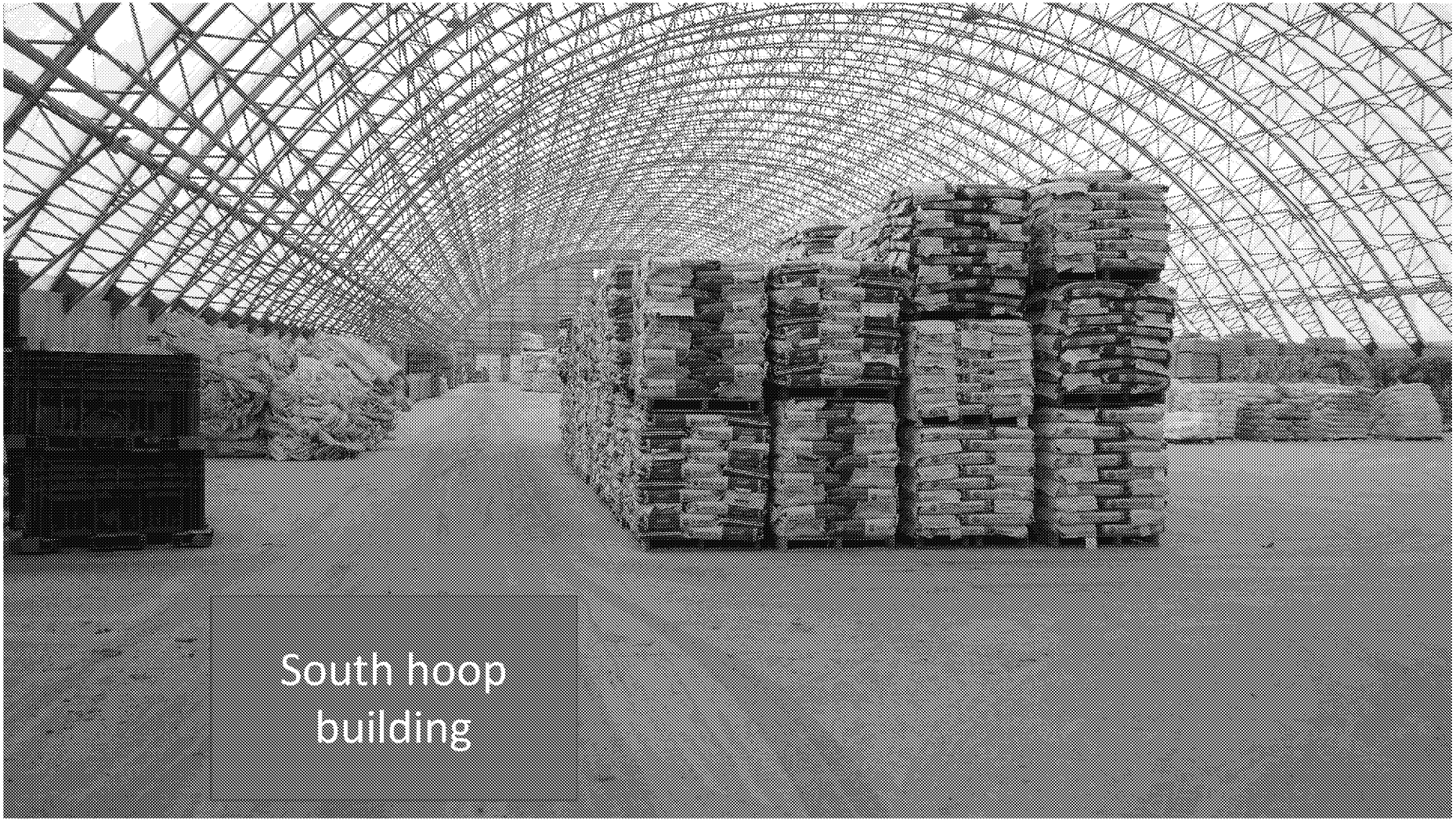
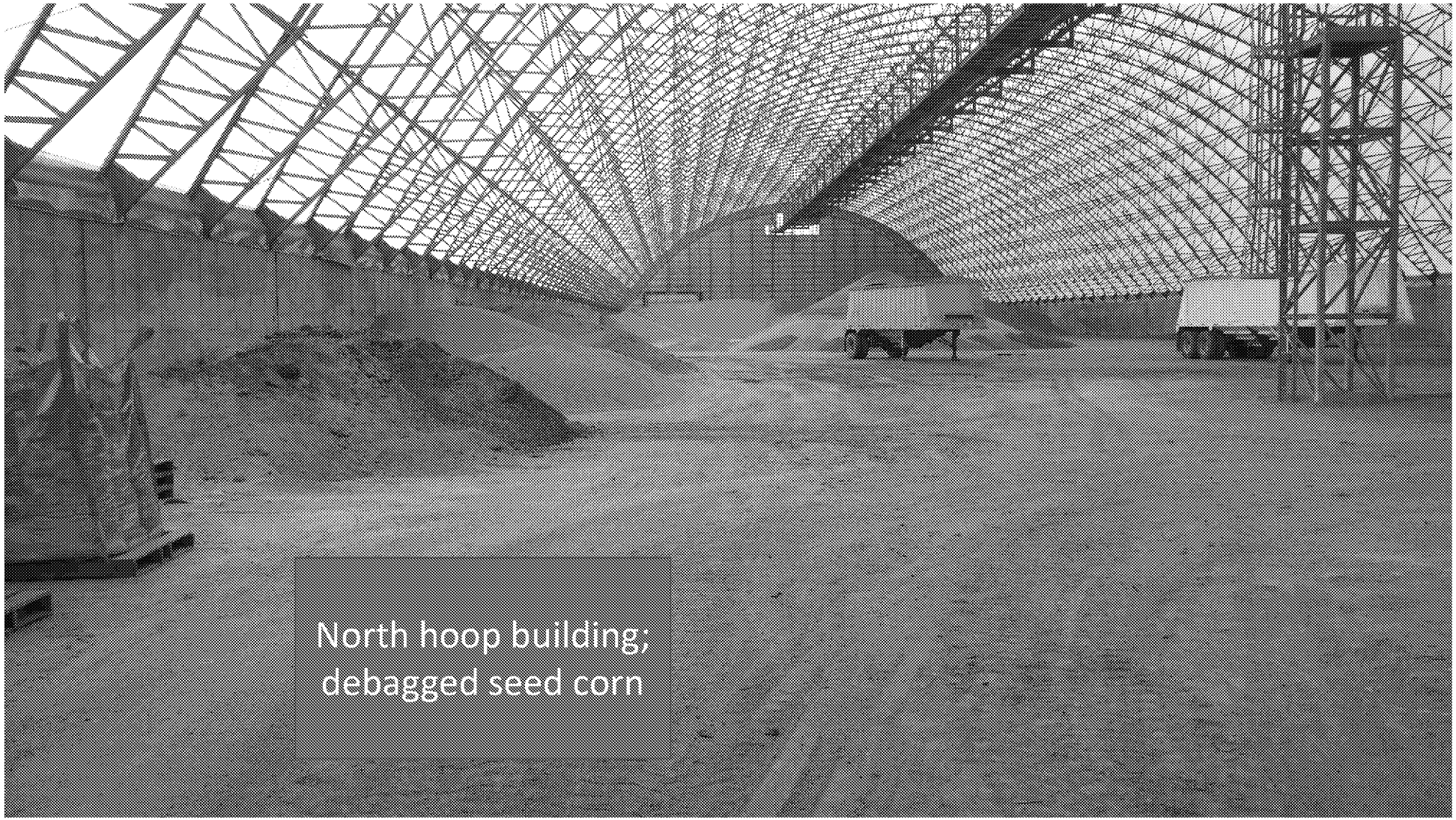
Google Earth

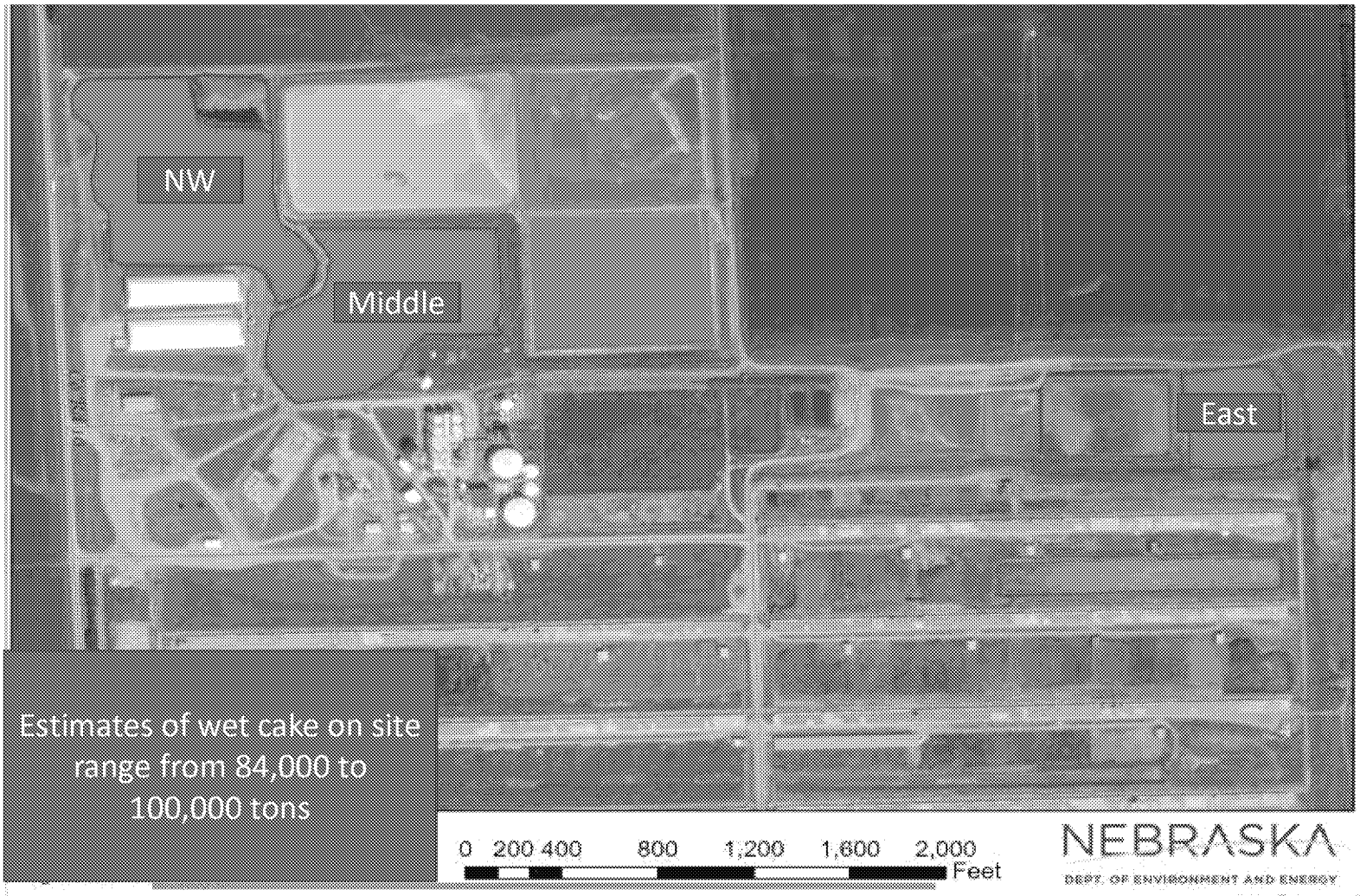

Middle Wet Cake Pile
NW Wet Cake Pile
Ethanol production area
Emergency lagoon (partial shown)
Mead Cattle lagoons/debris basins
Facing west-northwest; photo is from last week


East wet cake pile
Mead Cattle lagoons/debris basins


South hoop building;
bagged seed corn and
pallets of starch


South hoop
building


North hoop building;
debagged seed corn

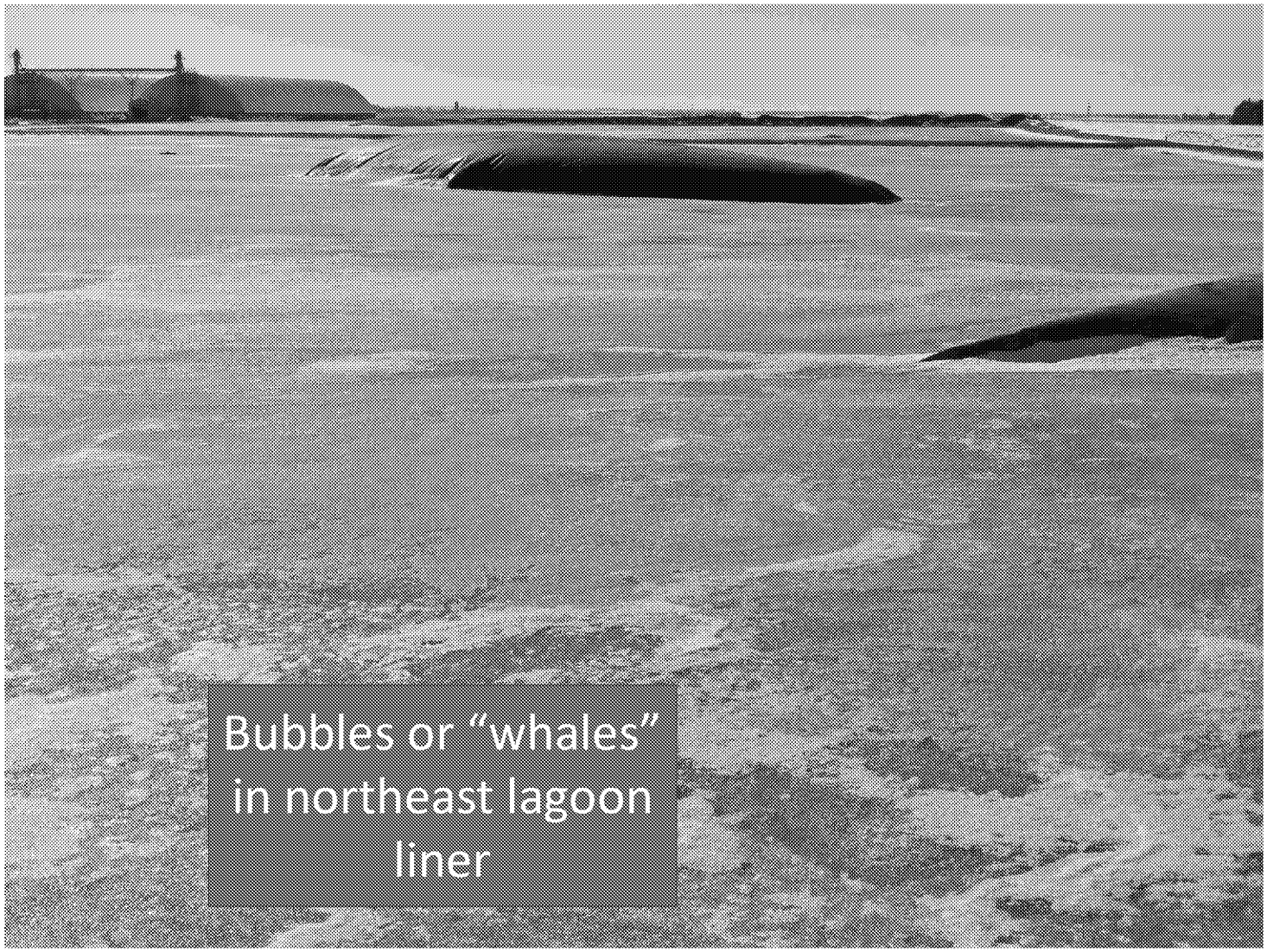

NW
Middle
East
Estimates of wet cake on site range from 84,000 to 100,000 tons
0 200 400 800 1,200 1,600 2,000
Feet
NEBRASKA
DEPT. OF ENVIRONMENT AND ENERGY

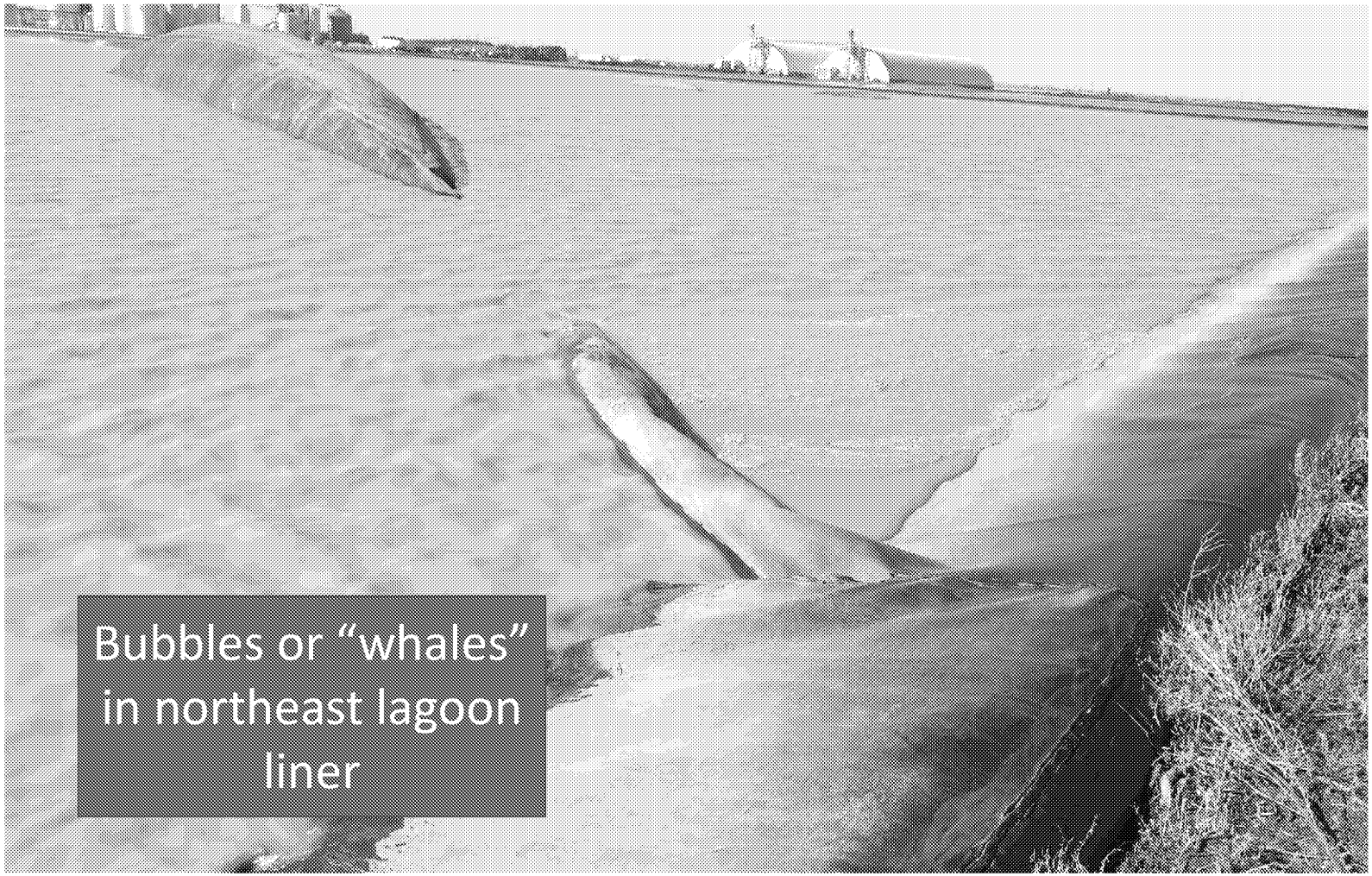
NW Wet Cake Piles

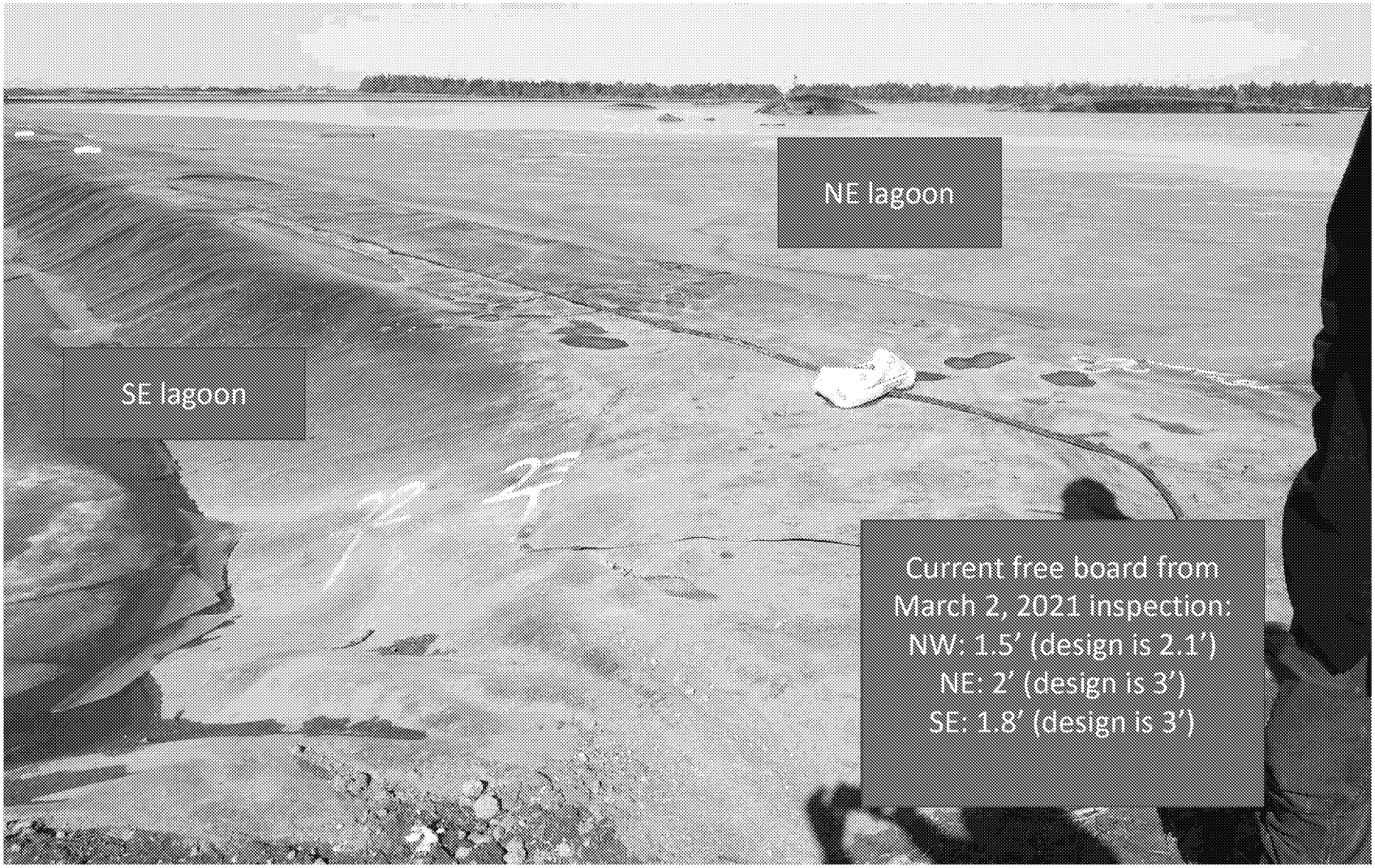
Middle Wet Cake Pile

East Wet Cake Pile

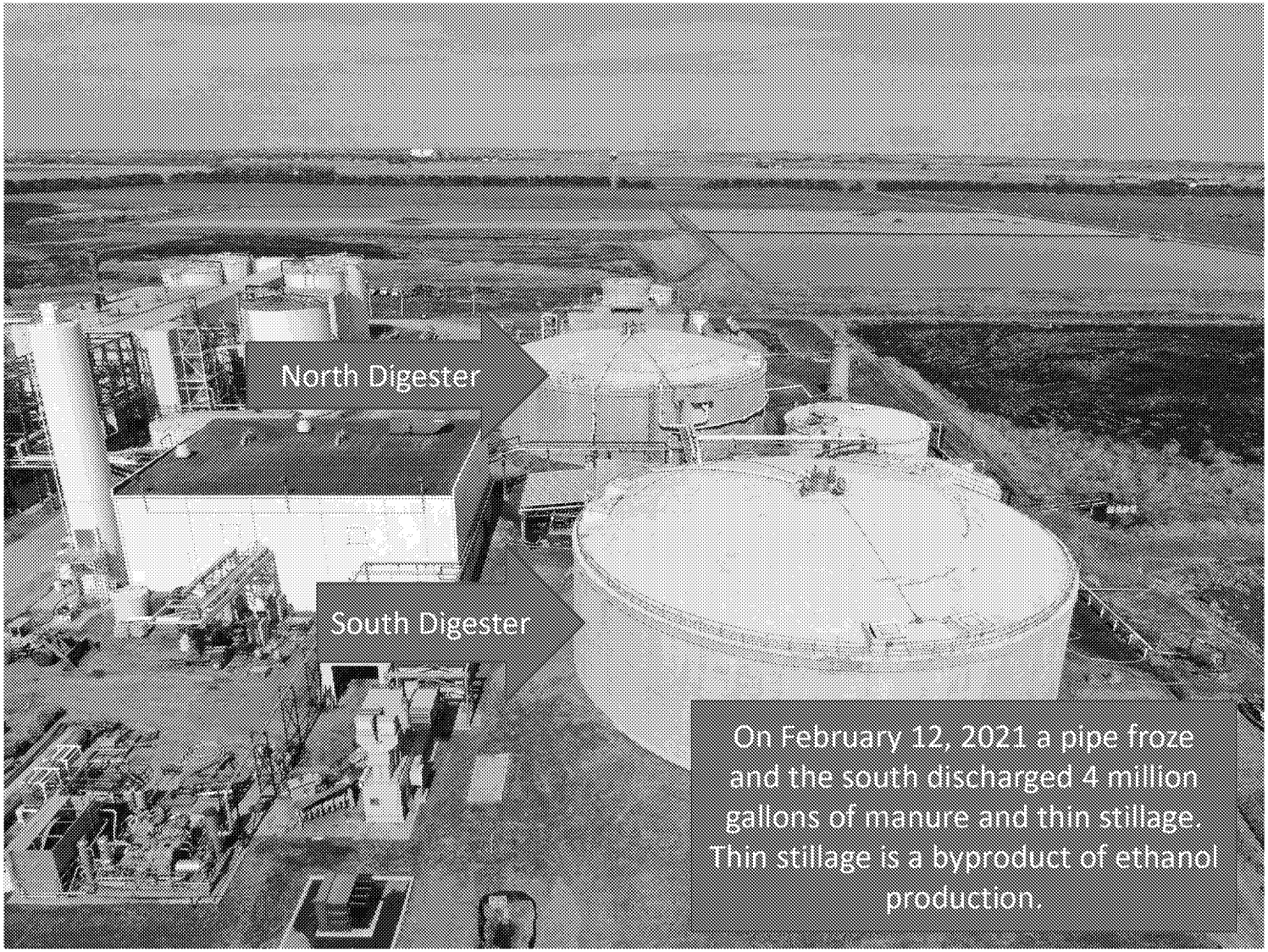
NW
lagoon
NE
lagoon
SE lagoon

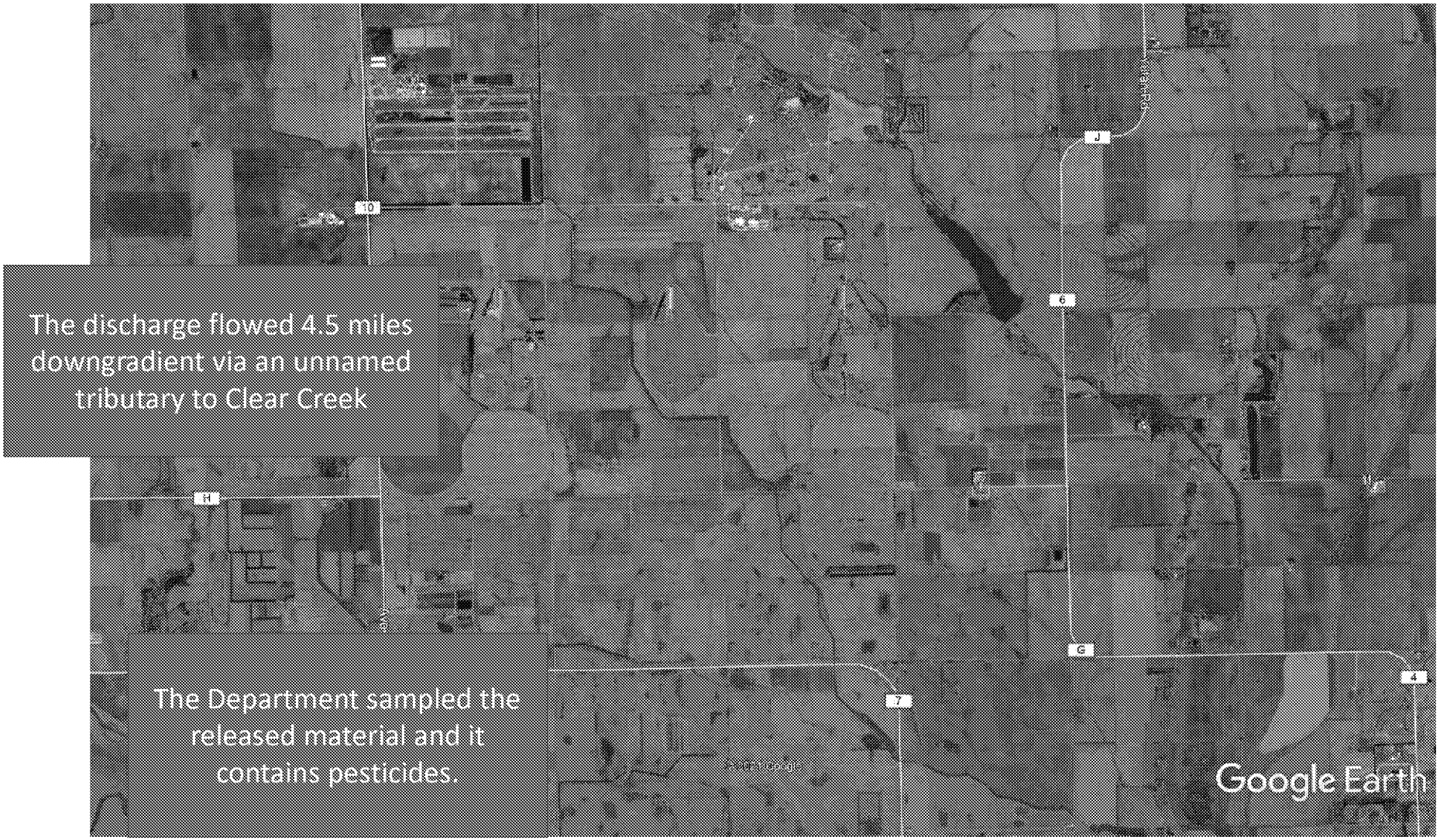

Bubbles or “whales” in northeast lagoon liner

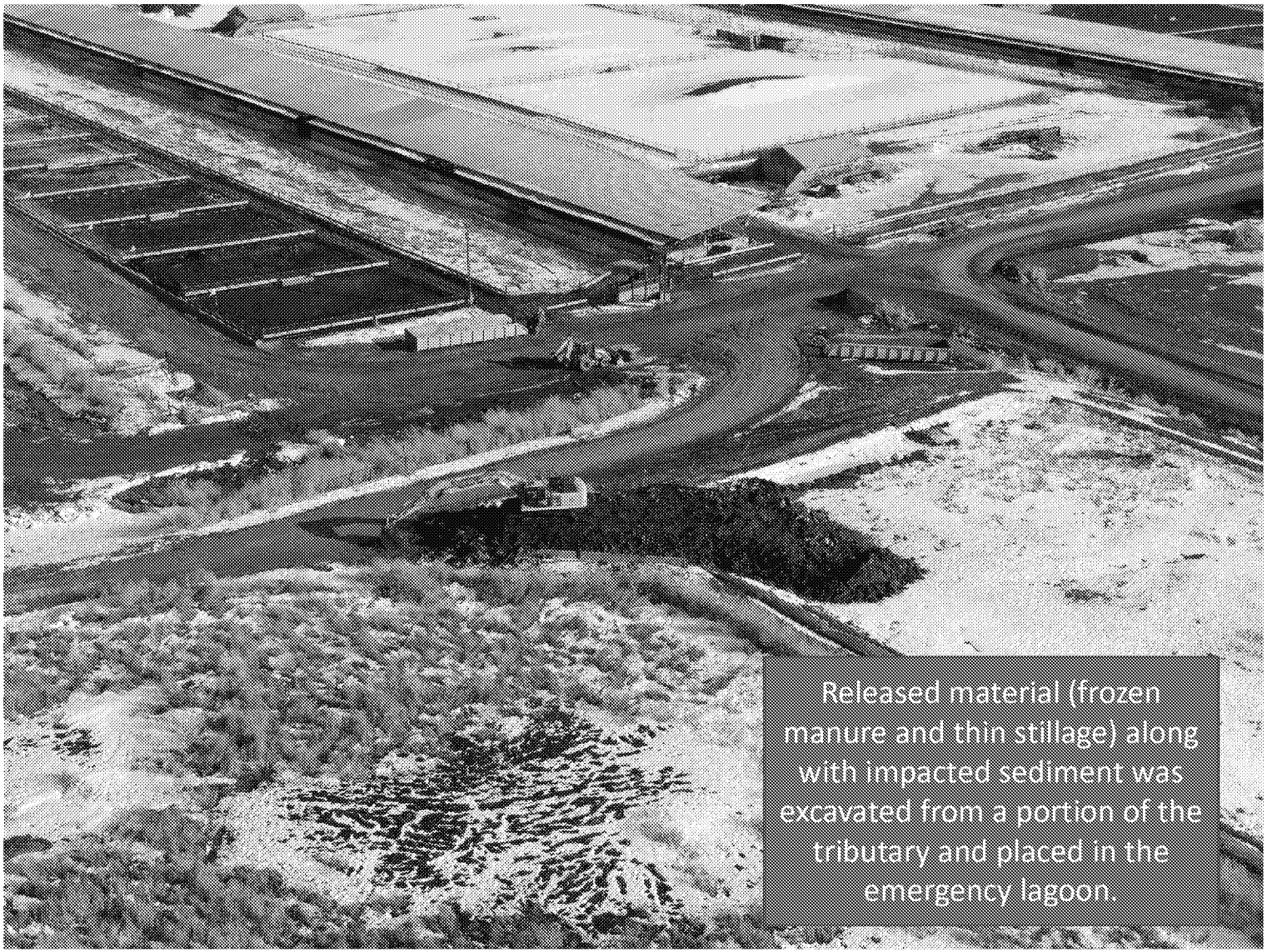

Bubbles or "whales" in northeast lagoon liner


NE lagoon
SE lagoon
Current free board from
March 2, 2021 inspection:
NW: 1.5′ (design is 2.1′)
NE: 2′ (design is 3′)
SE: 1.8′ (design is 3′)

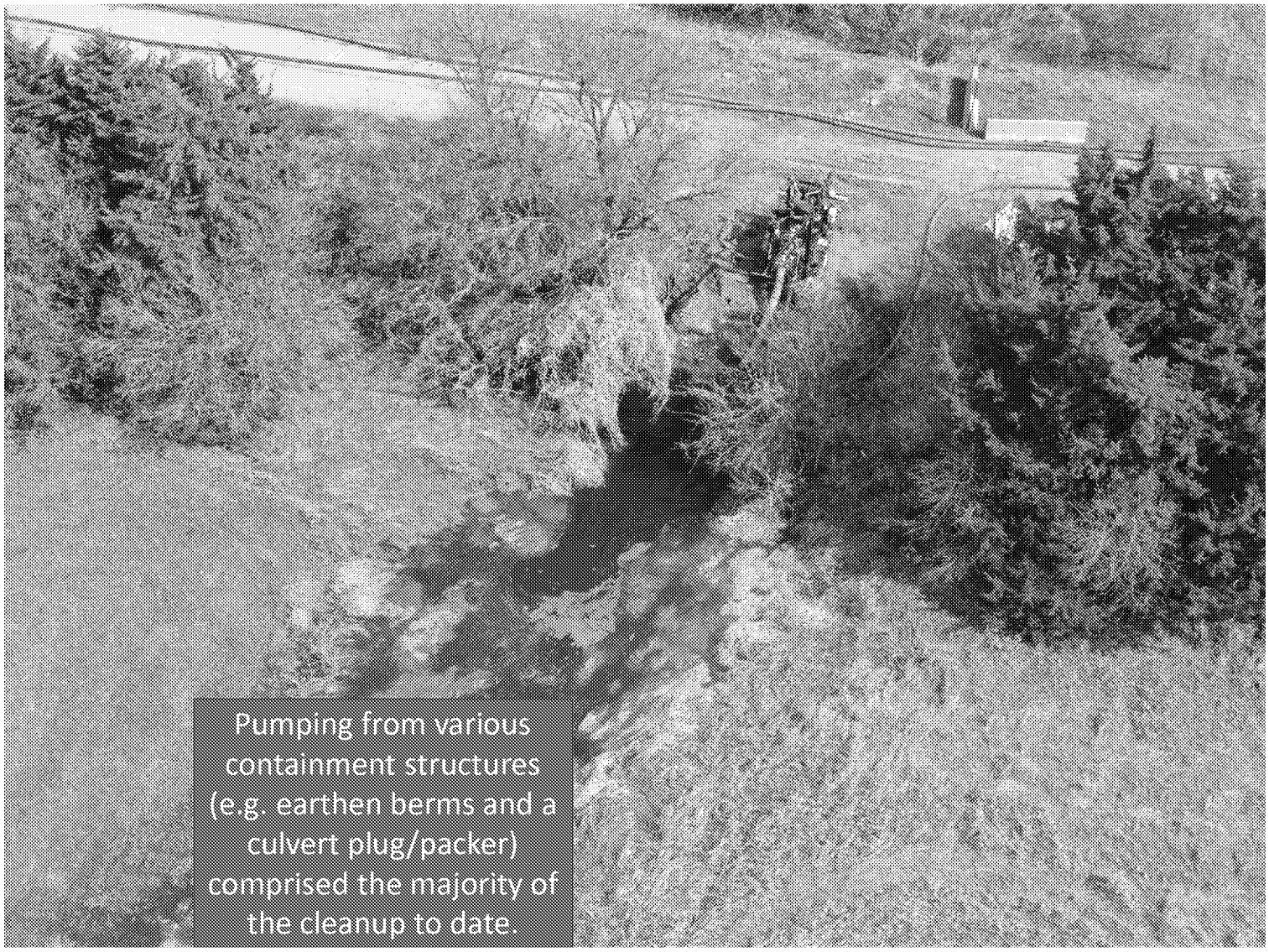
NE lagoon; note whales and NDEE staff for scale

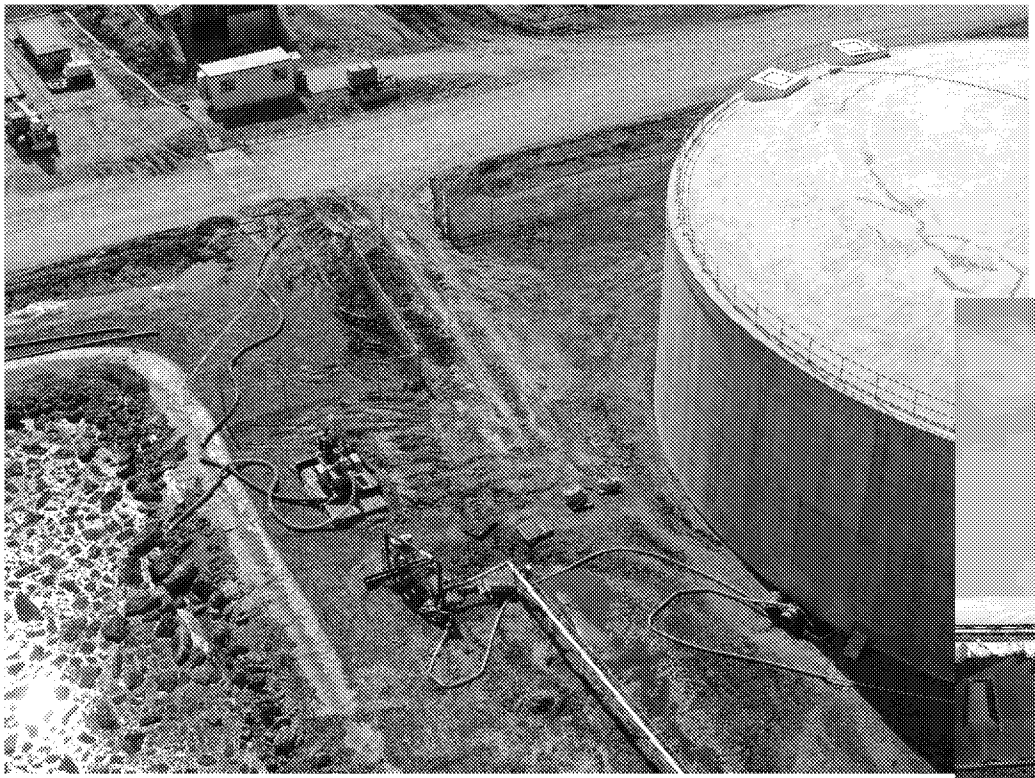

North Digester
South Digester
On February 12, 2021 a pipe froze and the south discharged 4 million gallons of manure and thin stillage. Thin stillage is a byproduct of ethanol production.


The discharge flowed 4.5 miles downgradient via an unnamed tributary to Clear Creek
The Department sampled the released material and it contains pesticides.
Google Earth

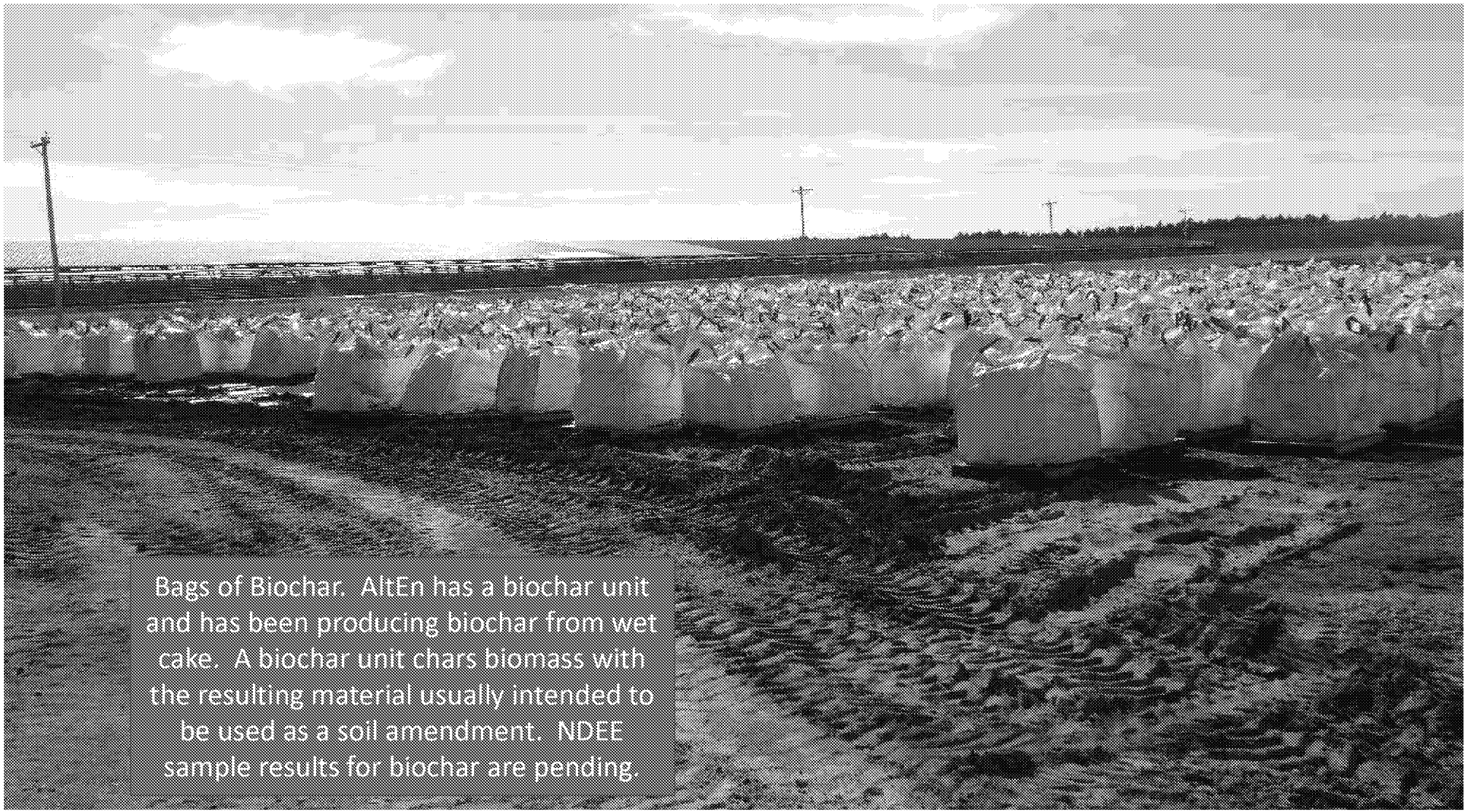


Released material (frozen manure and thin stillage) along with impacted sediment was excavated from a portion of the tributary and placed in the emergency lagoon.


Pumping from various containment structures (e.g. earthen berms and a culvert plug/packer) comprised the majority of the cleanup to date.

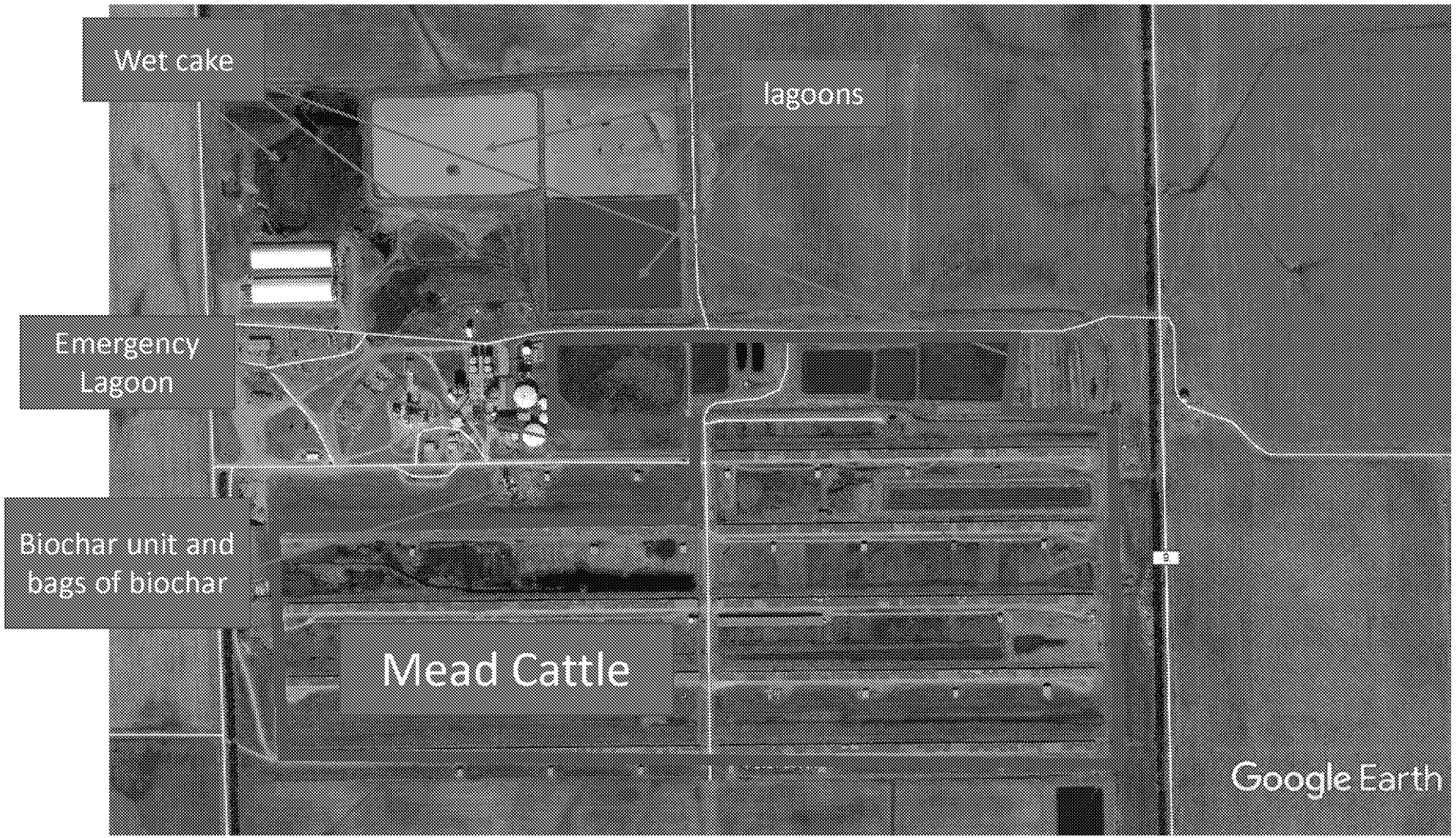


Wastewater is being pumped from the emergency lagoon to a portable treatment system. A temporary tank was constructed. Additional recovered wastewater is being stored in the digester; repairs were made to the frozen pipe.



Bags of Biochar. AltEn has a biochar unit and has been producing biochar from wet cake. A biochar unit chars biomass with the resulting material usually intended to be used as a soil amendment. NDEE sample results for biochar are pending.

Questions?


Wet cake
lagoons
Emergency Lagoon
Biochar unit and bags of biochar
Mead Cattle
Google Earth