
Buffalo River Coalition

UPDATE FOR...

Arkansas Pollution Control & Ecology Commission



Buffalo River Watershed Alliance
Ozark Society
Arkansas Canoe Club
National Parks Conservation Association

Buffalo River Coalition

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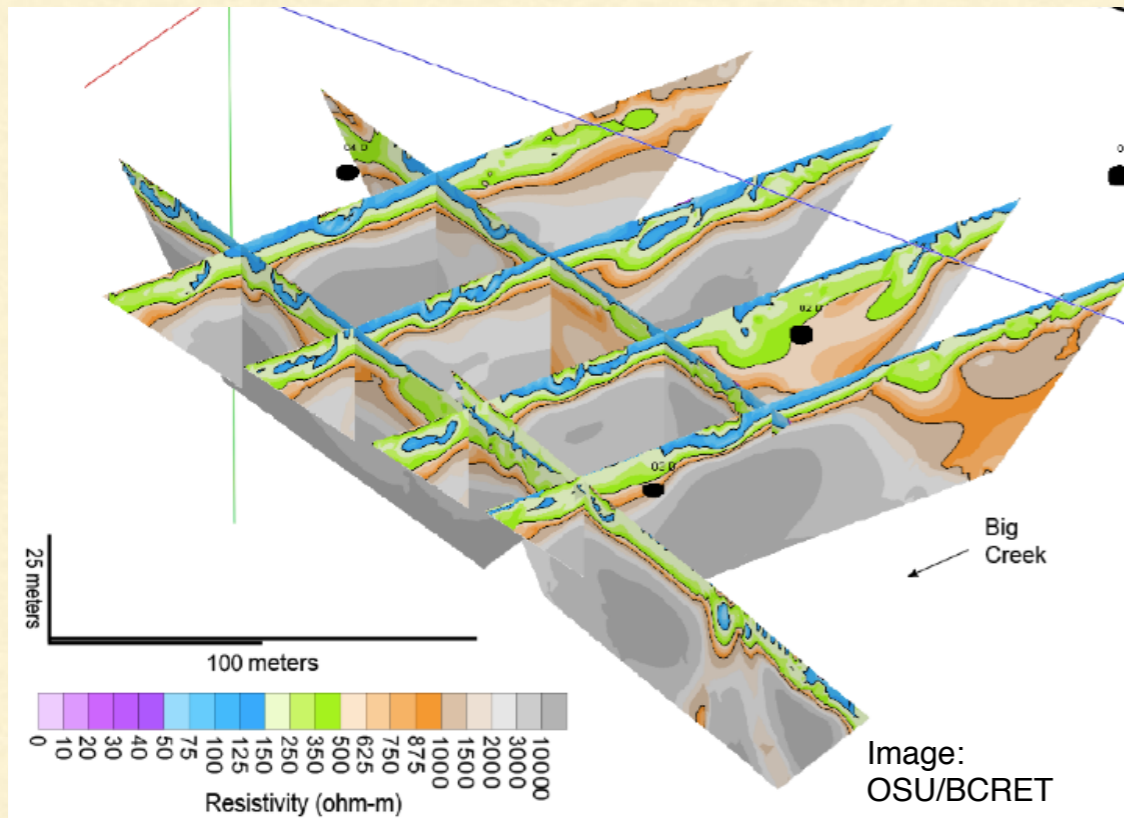
There is evidence of possible contamination beneath the C&H Hog Farm

The quote below is in reference to an electrical resistivity imaging (ERI) survey performed in March 2015 by Todd Halihan of Oklahoma State University. A study commissioned by UACES.

On Friday October 16 2015 Tim Kresse of the USGS sent an e-mail to Dr. Sharpley. The following is an excerpt:

“...it would be nice to put a well on the west side in the vicinity of where Todd believed he saw a major fracture and movement of waste. This could be critical to resolving the interpretation of the resistivity data. Todd would be willing to assist on getting the drilling done for free.” “Todd is fairly confident of his interpretation” (FOIA from US Geological Survey)

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Example

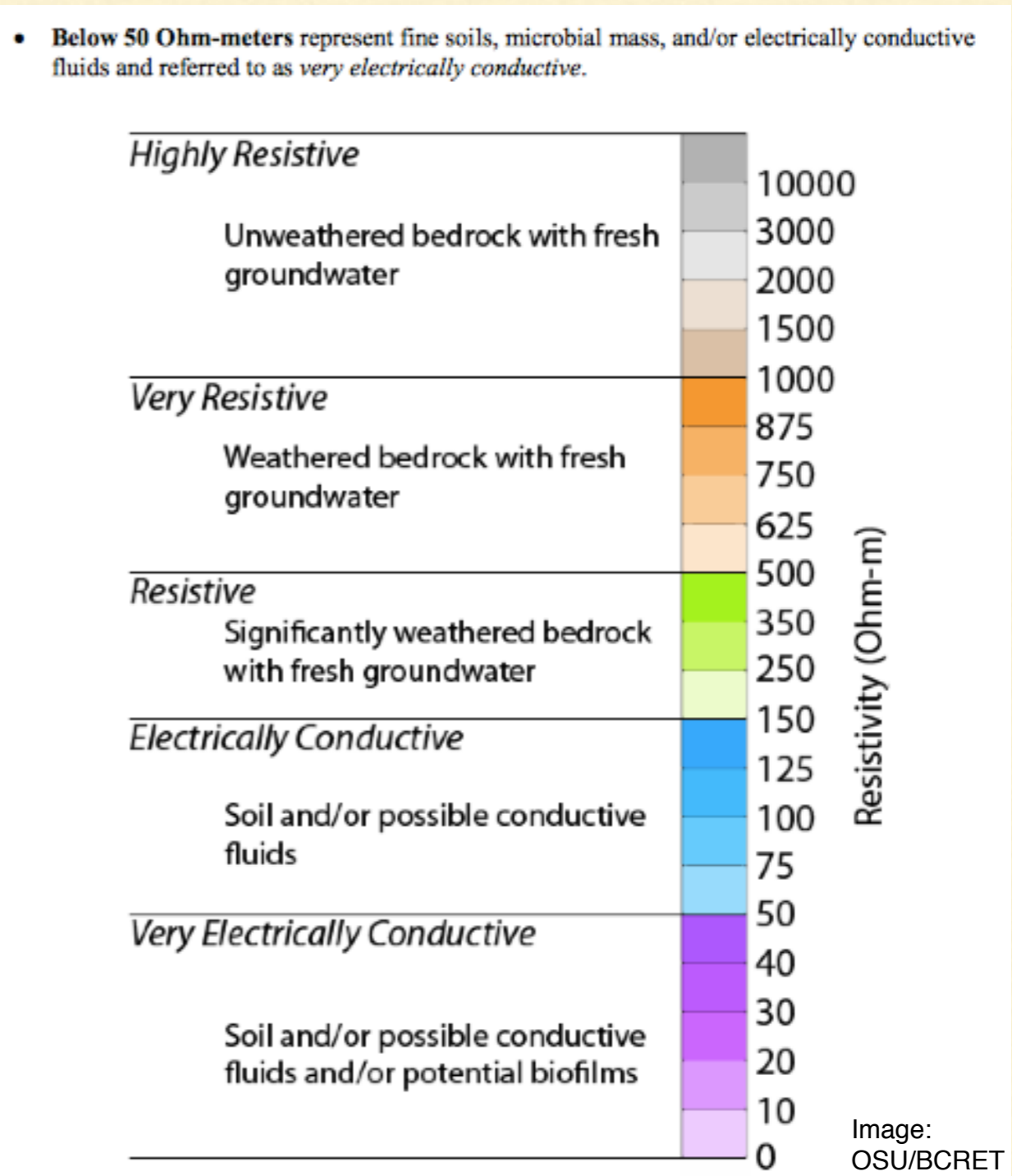
- ERI is a geophysical technique for imaging subsurface structures from electrical resistivity measurements made on the surface.
- Transects are two dimensional views approximately 300 ft wide and 90 ft deep.

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- Grey suggests resistive solids such as bedrock.
- Violet suggests conductive fluids with salts, metals, or other dissolved solids.



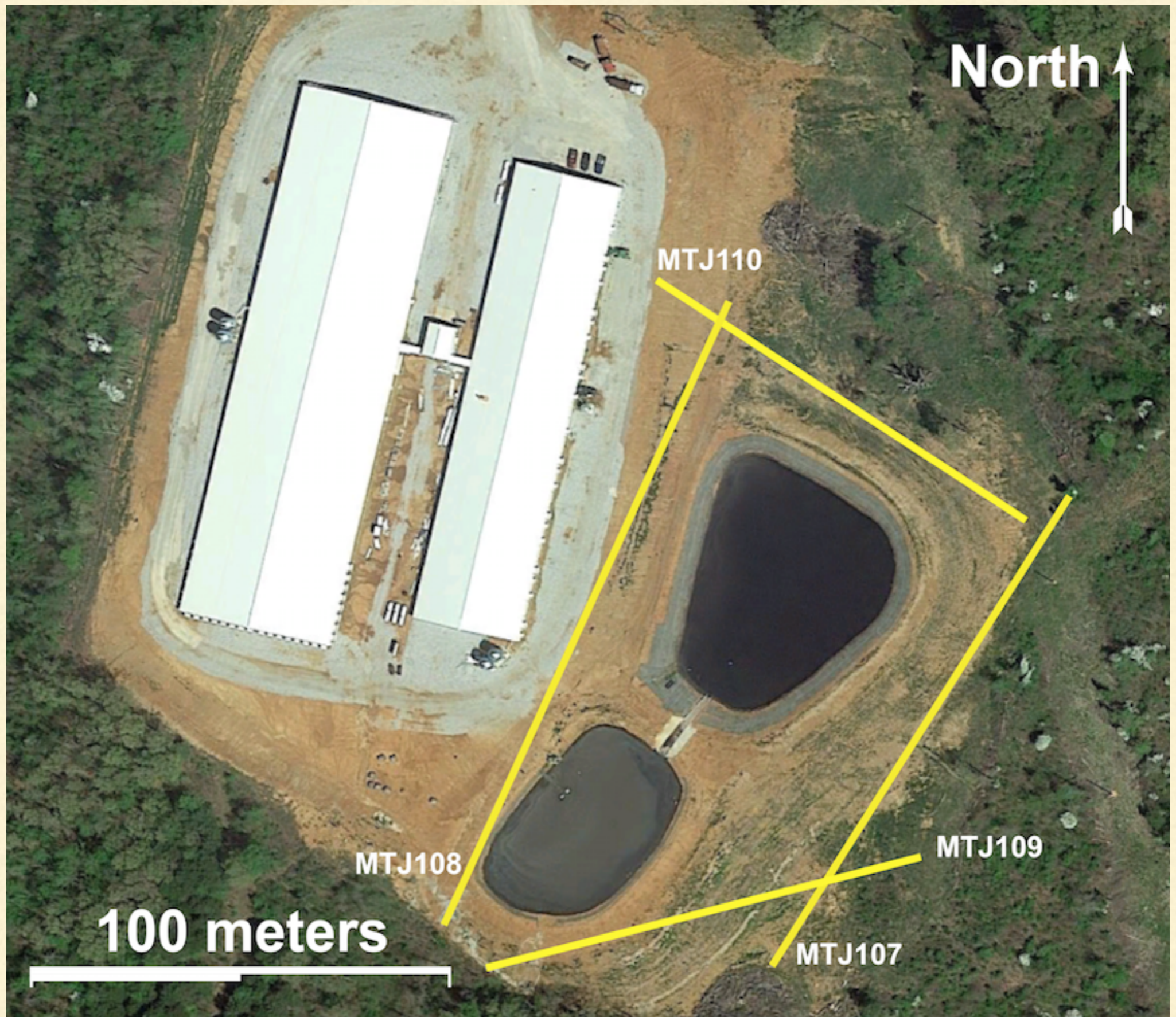
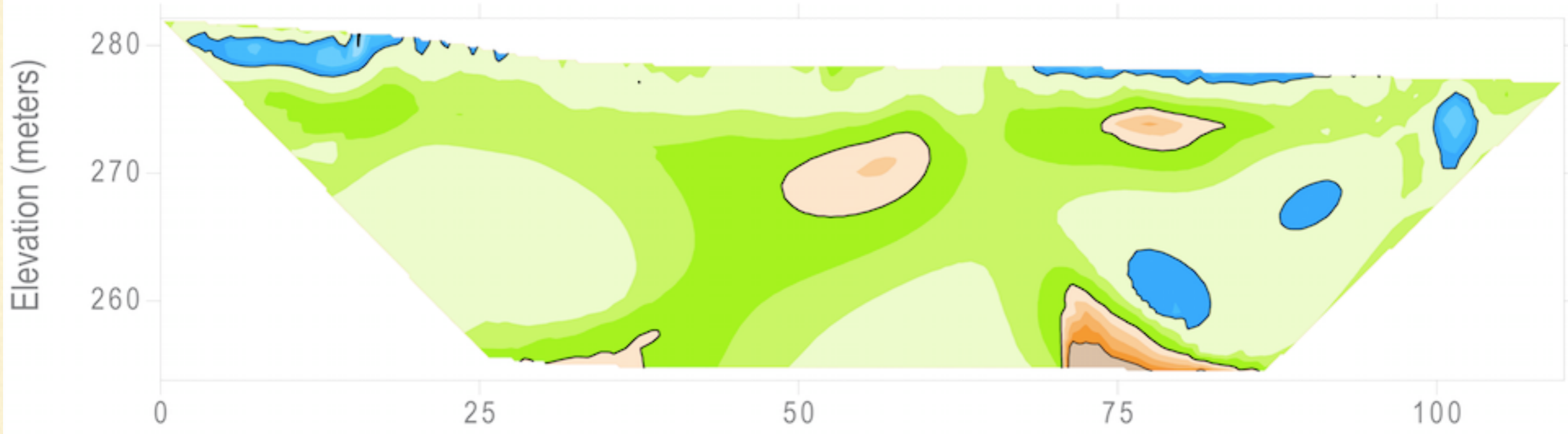


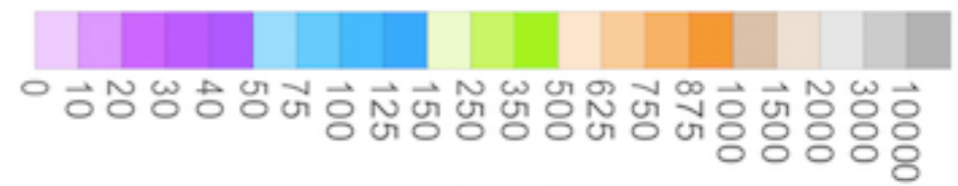
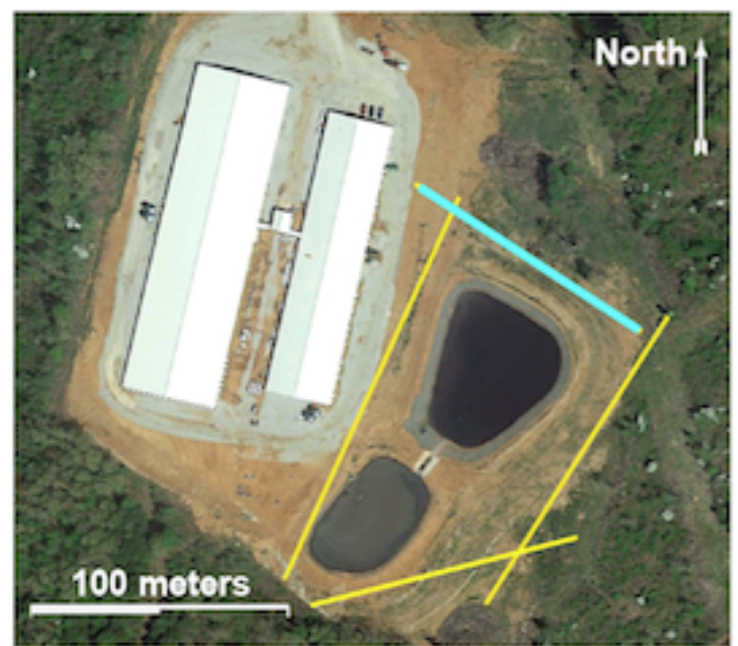
Image:
OSU/BCRET

Northwest

Southeast



Distance (meters)



Resistivity (Ohm-m)

Image: OSU/BCRET

Southwest

Northeast

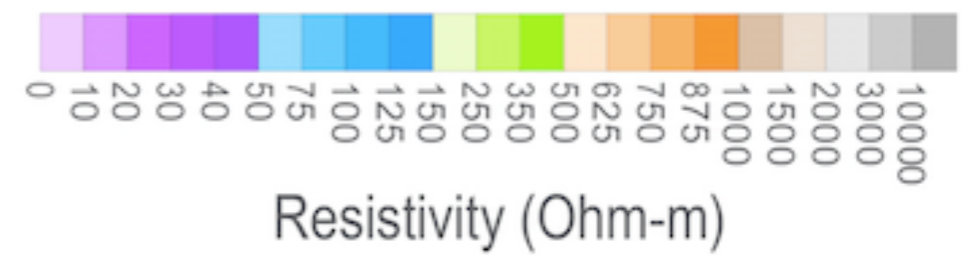
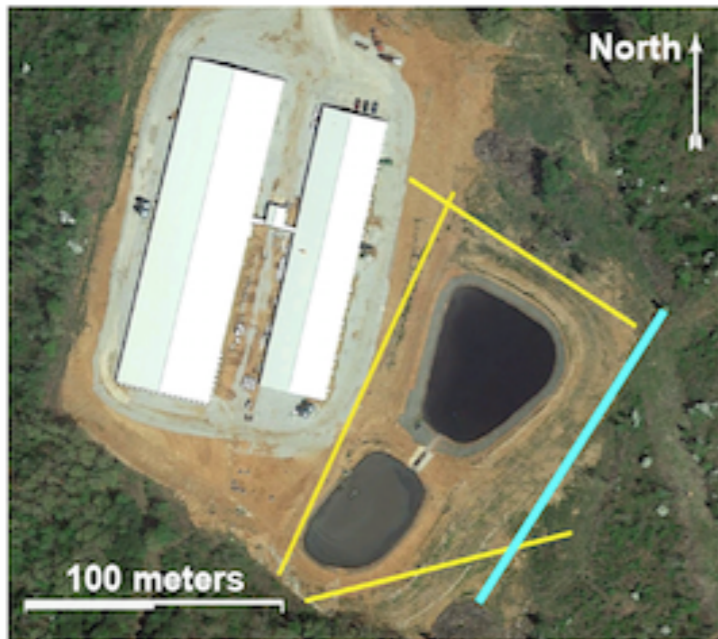
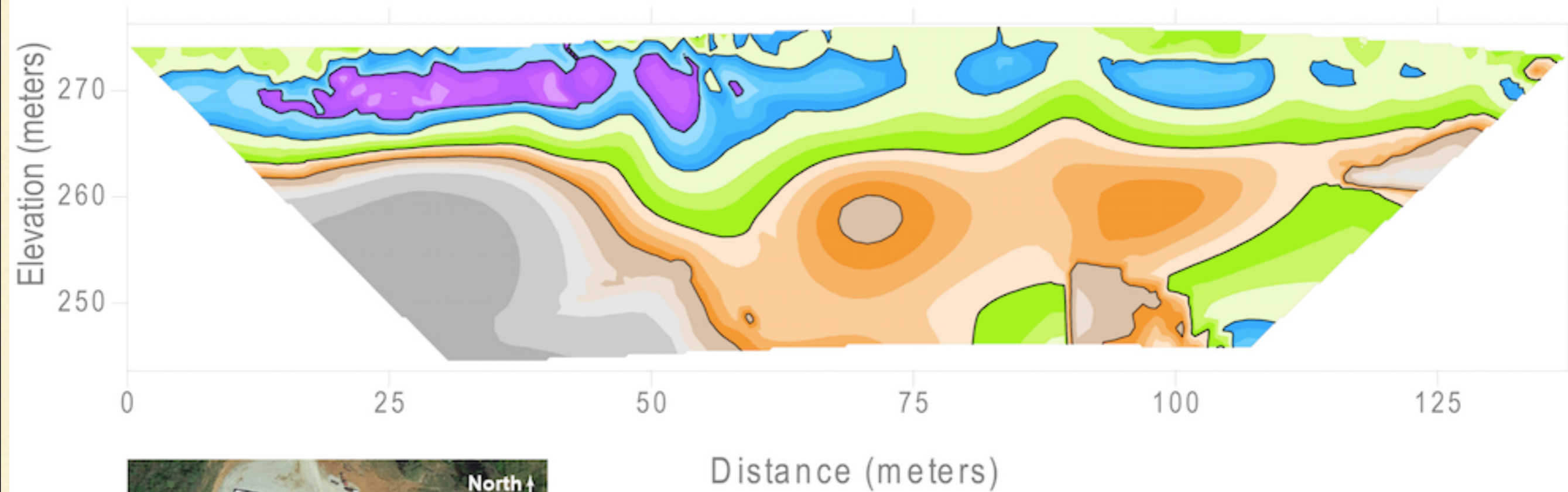
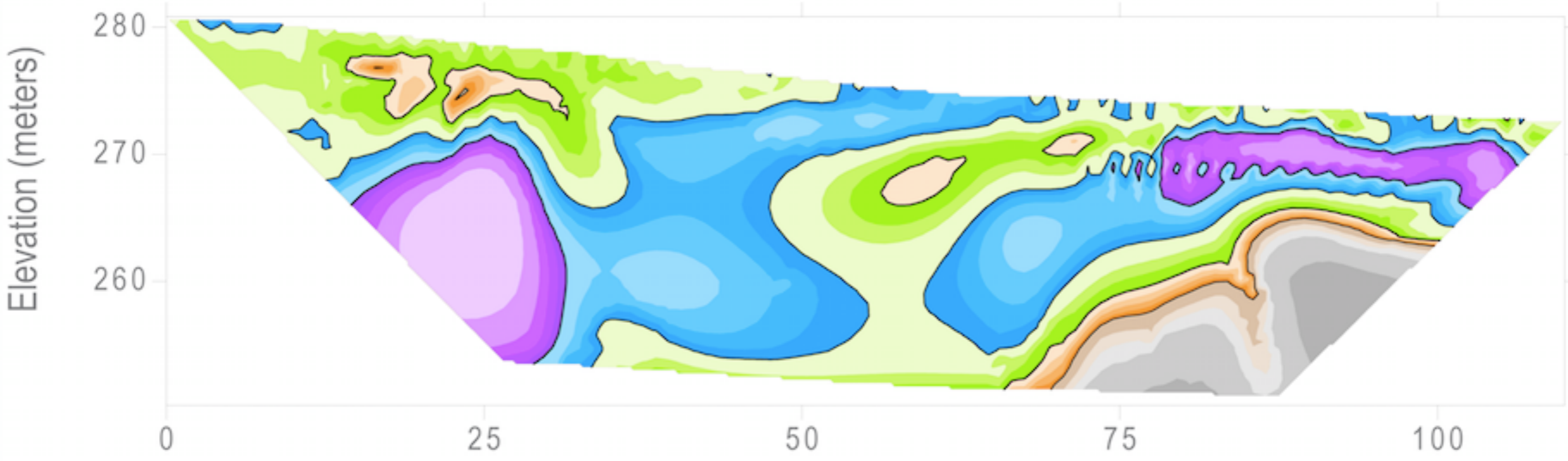


Image:
OSU/BCRET

Southwest

Northeast



Distance (meters)

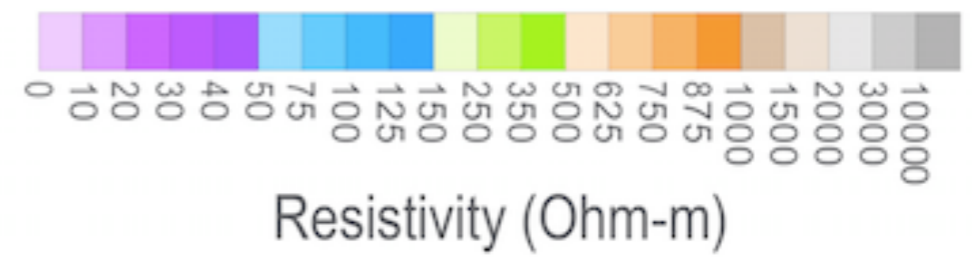
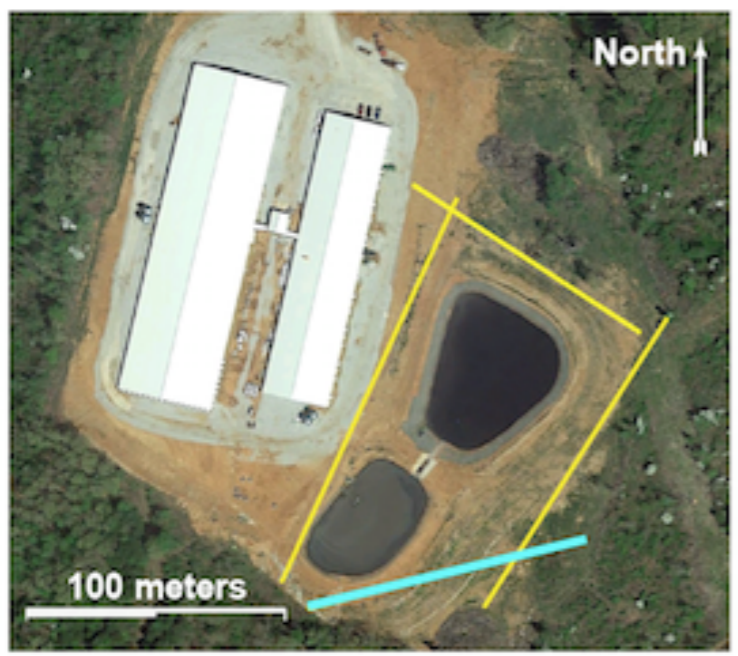
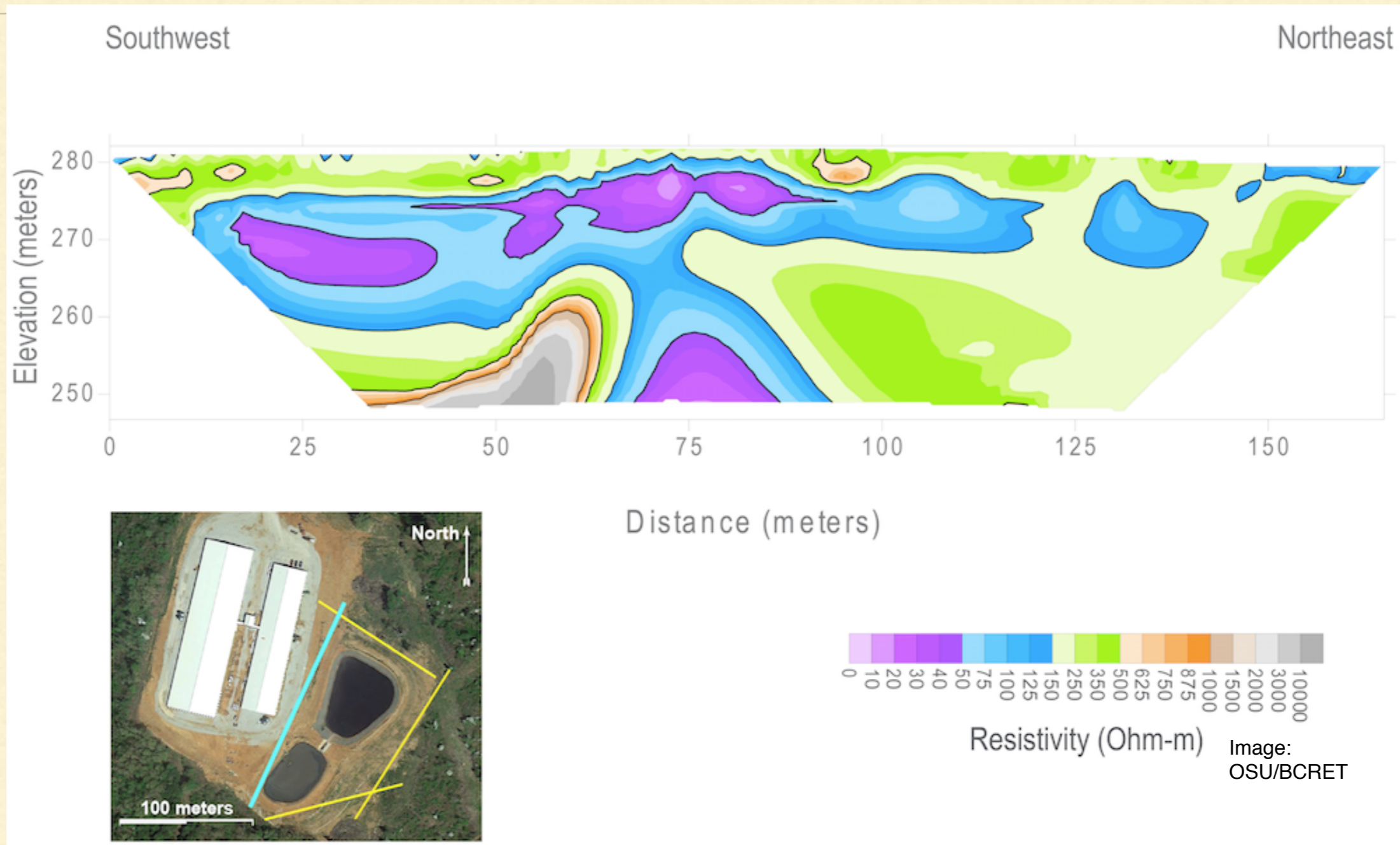


Image:
OSU/BCRET

West Side



“...it would be nice to put a well on the west side in the vicinity of where Todd believed he saw a **major fracture and movement of waste**. This could be critical to resolving the interpretation of the resistivity data. Todd would be willing to assist on getting the drilling done for free.” “Todd is fairly confident of his interpretation” (FOIA information from US Geological Survey)

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Experts Agree that the ERI Findings Are Important

“In my opinion, interpretation of the holding pond data implies groundwater contamination to a depth of at least 120 ft, most logically from leakage of the hog manure storage pond. According to the Arkansas state geology map, the Mount Judea area is underlain by the Mississippian Boone limestone formation. This introduces the possibility of rapid and distant groundwater transport through weathered limestone pathways.”

Prof. Christopher Liner
Maurice F. Storm Endowed Chair
Department of Geosciences
University of Arkansas

“In my professional opinion the resistivity profiles in the vicinity of the hog manure ponds (developed by Dr. Todd Halihan, School of Geology, Oklahoma State University) and the comments by Tim Kresse are a matter of significant concern. The data strongly suggest that there is appreciable leakage downward out of the manure ponds. Such leakage not only introduces pollutants into the groundwater system but in this karst setting may also lead to subsidence or collapse of the ponds. At a minimum the data indicate that an adequate drilling program is needed prior to the installation of a liner in the ponds. Such a program is in the interest of C&H Hog Farm, various state and federal agencies, and those people and groups concerned with the protection of the Buffalo National River.”

Tom Aley
Arkansas Professional Geologist #1646
Ozark Underground Laboratory, Inc.

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These transects represent evidence of contamination
being release from C&H hog farm.

This raises the following questions

1. Do these transects represent evidence of karst including possible weak areas beneath the ponds?
2. Why were no drill samples taken to allow for definitive interpretation of the transects? OSU was willing to drill for free.
3. When did BCRET become aware of this data?
4. Has ADEQ been informed?
5. Why was this data and the risk it represents not mentioned in the Environmental Assessment or the BCRET Project Reports?

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BRWA Requests these actions of the Commission

1. Immediately halt farm operations until an investigation can evaluate damage and risk.
2. Immediately halt the ADEQ permitted installation of pond liners. *“A thin synthetic liner lacks the strength to span even a relatively small subsidence or sinkhole feature” - Tom Aley*
3. Immediately order subsurface drilling to complete a scientific assessment of geologic conditions beneath the ponds. Sampling and analysis should be performed by the OSU Team or by an independent third party competent in the field with results to be promptly released to the public.
4. Instruct BCRET to promptly and fully disclose to ADEQ and the public any and all evidence that it may have now or in the future of any release or potential for release from the facility.

Based on this information, we ask that you take appropriate corrective action. To do less could be viewed by the public as negligence.

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Questions ?

