Introductory Meeting and Explanation of Cleanup Process

June 7, 2011, Public Meeting

Ohio Environmental Protection Agency
Division of Environmental Response and Revitalization
Central District Office

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Why are we here?

The purpose of tonight's meeting is to provide the public with an outline of the cleanup process for the former Kilgore Manufacturing facility in Westerville.

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History of Kilgore Manufacturing

- 1941 – Kilgore Manufacturing purchased 110-acre farm
  - Performed experimental work and assembled explosives, incendiary items and detonation devises for Army Chemical Warfare Services during World War II
  - Post World War II - continued to make toy cap guns, fireworks, and illuminating flares
- 1961 - Facility closed operations
- 1962 - Property donated to Otterbein College
  - Farming for approximately 20 years

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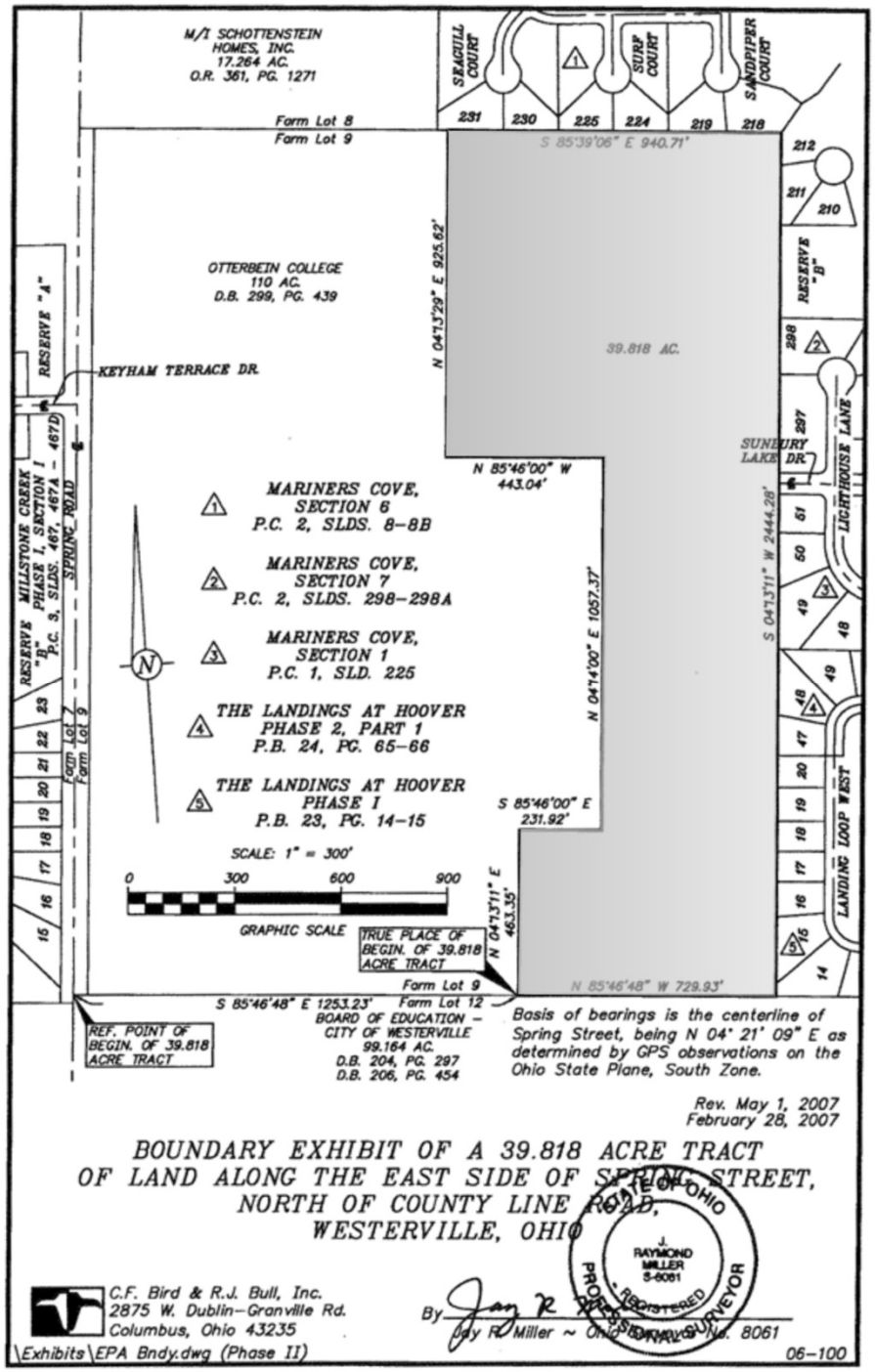
Where is the site?



Previous Cleanups & Environmental Investigations

- 1962 Joliet Ammunition Supply Depot: Initial demilitarization of property
  - before Otterbein's ownership
- 1985 Ohio Fire Marshal/WPAFB: Identify and dispose flare "canisters"
- 1986 U.S. Corps of Engineers: Found and removed additional canisters
- 1988 Lama Excavation: Excavate and dispose metal objects
- 1988 Environmental Site Assessment – SEA Inc.
- 1991 Environmental Audit – Lawhon & Assoc.
- 1996 Wright Patterson AFB: Conducts demilitarization of ordnance
- 1996/1997 Environmental Site Assessment – Lawhon & Assoc.
- 1998 VAP Environmental Site Assessment Amendment – Metcalf & Eddy of Ohio, Inc.
- 2003 VAP Environmental Site Assessment – Metcalf &Eddy of Ohio, Inc.
- 2007 VAP No Further Action Letter and Cleanup Cost Estimate – Brown & Caldwell

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Regulatory Framework

- Otterbein asks Ohio EPA for an administrative framework to investigate and clean up site
- May 2007: Ohio EPA invites Otterbein to negotiate state Administrative Consent Order
- October 2008: Ohio EPA invites Otterbein, and the U.S. Department of Defense to negotiate federal Judicial Consent Order

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Available Information

- Documents are available at
  Otterbein University's Library

  - ***Or*** –

- Ohio EPA's Web Site
  www.epa.ohio.gov/pic/kilgore.aspx

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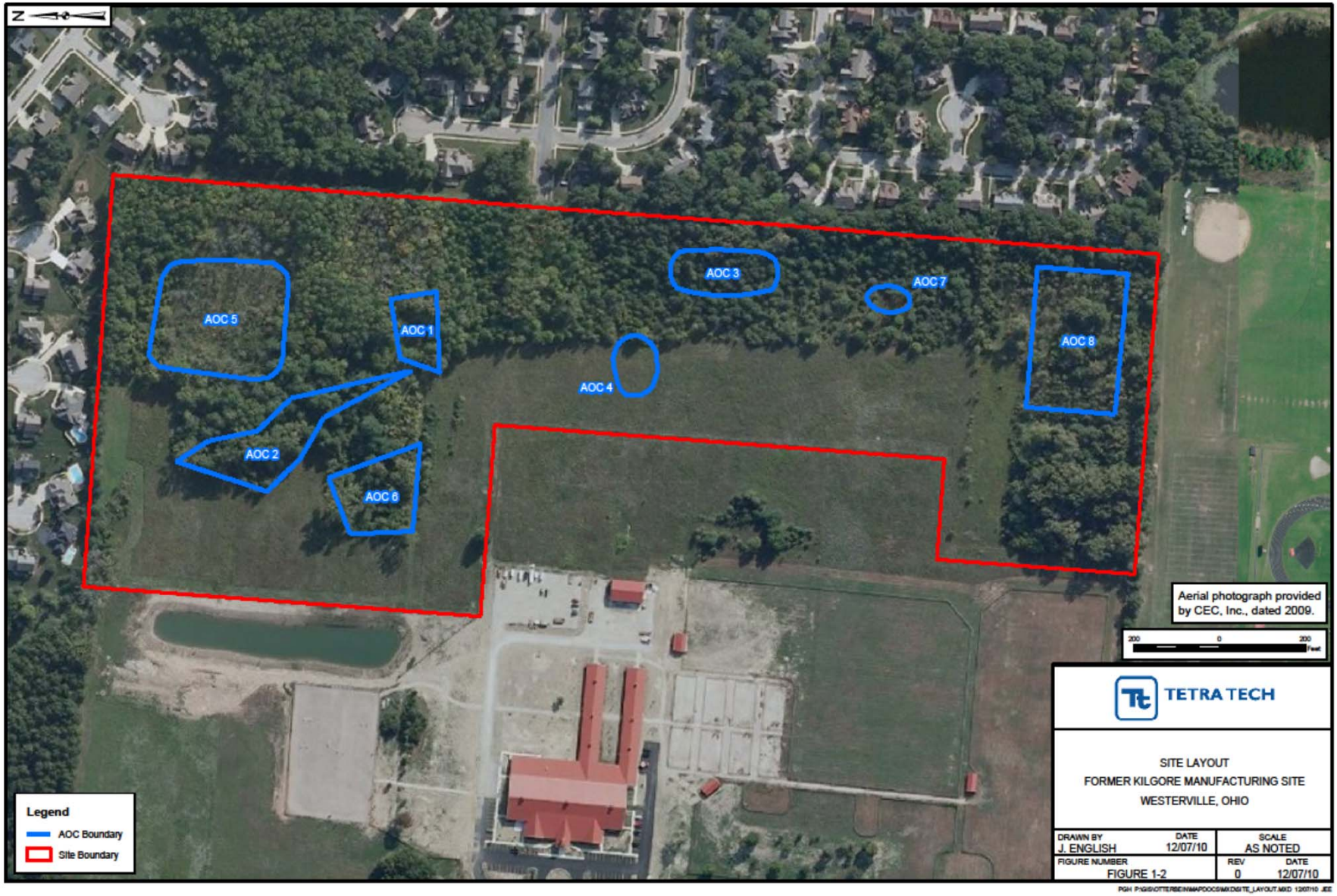
Areas of Concern (AOC) - Map



Areas of Concern (AOCs)

- AOC 1 – Unidentified Rectangular Features
- AOC 2- Drainage Ditch Area
- AOC 3 - Burial Area
- AOC 4 - Burn Pit
- AOC 5 – Underground Storage Tank in Former Manufacturing
  - (former heating oil tank) Area
- AOC 6 - Former Experimental Area
- AOC 7 - Cinder Area
- AOC 8 – Southeast Landfill Area

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AOC 1
Unidentified Ditch

- Former manufacturing area
- Green and orange materials (to be tested)
- Contains chromium
- Depths of three feet

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AOC 2
Drainage Ditch

- Former laboratory experimentation area
- Contains glass, debris, ceramics, various materials and stained soils
- Depths of three feet

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AOC 3
Burial Area

- Contains cinders and non-flammable debris
- Soil contains metals and perchlorate
- Depths of five feet

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AOC 4
Burn Pit

- Wastes excavated in late 1990's and buried in AOC 8
- Soil contains arsenic
- Ground water contains thallium
- Depths of ten feet

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AOC 5
UST in Former Manufacturing Area

- Underground Storage Tank used for heating oil was abandoned and later removed
- Soil contains arsenic
- Ground water contains thallium

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AOC 6
Former Experimental Area

- Former experimental area
- Soil contains lead and petroleum hydrocarbons
- Ground water contains thallium and copper
- Depths of two feet

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AOC 7
Cinder Area

- Also contains coal, slag and orange and red materials
- Depths of two feet

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AOC 8
Southeast Landfill

- Contains waste chemicals and rejected materials
- Approx. 20 trenches with depths of 10 feet

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Chemicals

Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium (Total and VI)
Copper
Lead
Mercury
Nickel
Poly Aromatic Hydrocarbons
Perchlorate
Phosphorus
Thallium
Vanadium
Zinc

Testing is planned to measure residual concentrations if present in soil, sediment, surface water and ground water.

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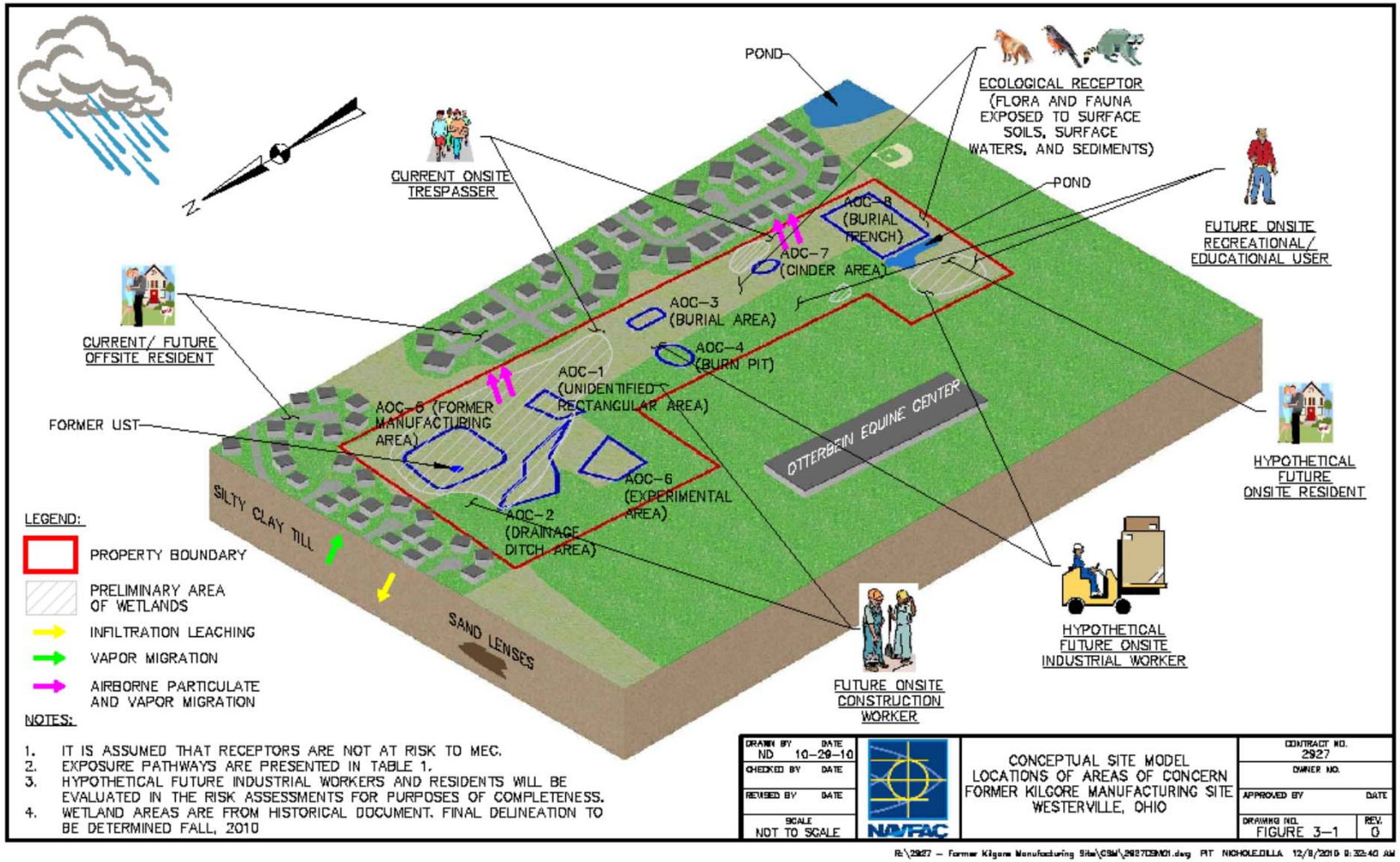
Potential Exposure Pathways



Example of a Potential Pathway:

- Excavation/Trenching Investigation
  - Dust emissions
  - Possible Monitor and Control Methods
    - Health & Safety Officer and UXO Technician
    - air monitoring
    - soil wetting
    - keeping soil stockpile covered
    - restricting working hours
    - personal protective equipment

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Track Mounted GeoProbe™

Field Investigation

- Wetland delineation & cultural / historical resources
  - one-foot test holes by hand shovel
- Soil sampling
- Ground water sampling along property line
- Test-trenches to delineate limits of waste placement
- Sediment/surface water sampling
- Ground water aquifer testing

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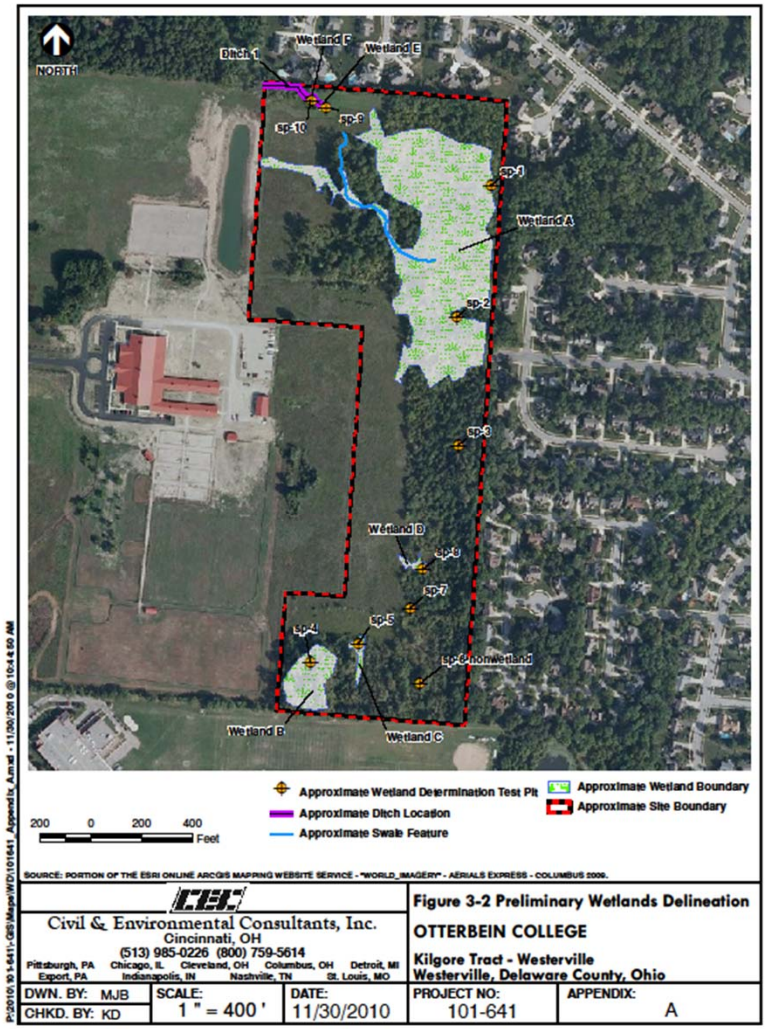
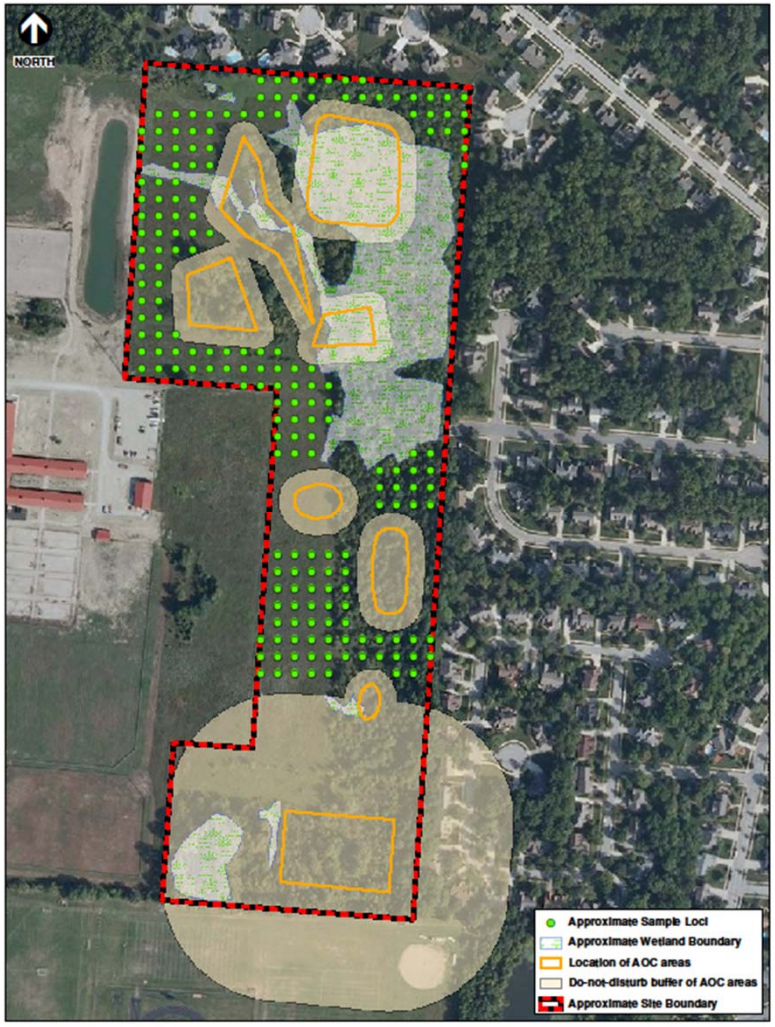
Wetlands


NORTH
Ditch 1
Wetland F
Wetland E
sp-10
sp-9
sp-1
Wetland A
sp-2
sp-3
Wetland D
sp-8
sp-7
sp-5
sp-4
sp-6 Non-Wetland
Wetland B
Wetland C
Approximate Wetland Determination Test Pit
Approximate Ditch Location
Approximate Swale Feature
Approximate Wetland Boundary
Approximate Site Boundary
200 0 200 400
Feet
SOURCE: PORTION OF THE ESRI ONLINE ARCGIS MAPPING WEBSITE SERVICE - "WORLD_IMAGERY" - AERIALS EXPRESS - COLUMBUS 2009.
Civil & Environmental Consultants, Inc.
Cincinnati, OH
(513) 985-0226 (800) 759-5614
Pittsburgh, PA Chicago, IL Cleveland, OH Columbus, OH Detroit, MI
Export, PA Indianapolis, IN Nashville, TN St. Louis, MO
Figure 3-2 Preliminary Wetlands Delineation
OTTERBEIN COLLEGE
Kilgore Tract - Westerville
Westerville, Delaware County, Ohio
DWN. BY: MJB
CHKD. BY: KD
SCALE: 1 " = 400 '
DATE: 11/30/2010
PROJECT NO: 101-641
APPENDIX: A


NORTH
Approximate Sample Loci
Approximate Wetland Boundary
Location of AOC areas
Do-not-disturb buffer of AOC areas
Approximate Site Boundary

Investigation Process

- June-July 2011 - Cultural / Historical Resources holes for wetland permit

- ASAP - Completion of 3-party consent order
  - Ohio EPA – Comments on proposed Work Plan
  - 60-Days of Ohio EPA approval of Work Plan
    - 3-Weeks Field Investigation – Completed in 2011
  - Draft investigation report by March of 2012
  - Final reports by December 2012

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Cleanup Process

- Estimated Completion within Approx. 2 – 5 years
  - Ohio EPA prepares Preferred Plan
  - Public Notice of Preferred Plan
    - Public Hearing and comment period
  - Ohio EPA prepares Decision Document
  - Remedial Design / Remedial Action Consent Order
    - Implementation of site cleanup

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After the Investigation: Example Cleanup Alternatives

No Action Alternative – site meets acceptable risk levels

Institutional Controls - areas with waste/contamination in place may be addressed with an Environmental Covenant

- Example: prohibition of using on-site ground water (site-wide) and prohibiting on-site soil excavation

Excavation / Disposal – off-site landfill

Construction of Engineering Controls

- Example: installation of engineered cover to cap wastes in place with possible surface and ground water controls

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Public Process

- Ohio EPA issues **Preferred Plan** with remedial alternatives and preferred remedy
- Public notice in the local newspaper
- 45 day public comment period
- **Public Hearing**
- After comments are received and reviewed, Ohio EPA prepares a responsiveness summary - includes written comments received before the deadline
- After considering comments, Ohio EPA issues the **Decision Document** with selected site remedy as a final action of the Director

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Take Away Points

- Ohio EPA is charged with the responsibility to protect human health, safety and the environment
- There is a comprehensive investigation and cleanup process for this site
- You have been informed of what we know and of what to expect during this project

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Public Information & Ohio EPA Contacts

- Web Links
  - www.epa.ohio.gov/pic/kilgore.aspx
- Ohio EPA Contacts
  - jed.thorp@epa.ohio.gov 614-644-2160
  - robin.roth@epa.ohio.gov 614-466-2476
- Mailing Address

  Robin Roth
  Ohio EPA
  DERR-CDO
  P. O. Box 1049
  50 W. Town Street, Suite 700
  Columbus, Ohio 43216-1049

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QUESTIONS?

Thank you for sharing your time with us.

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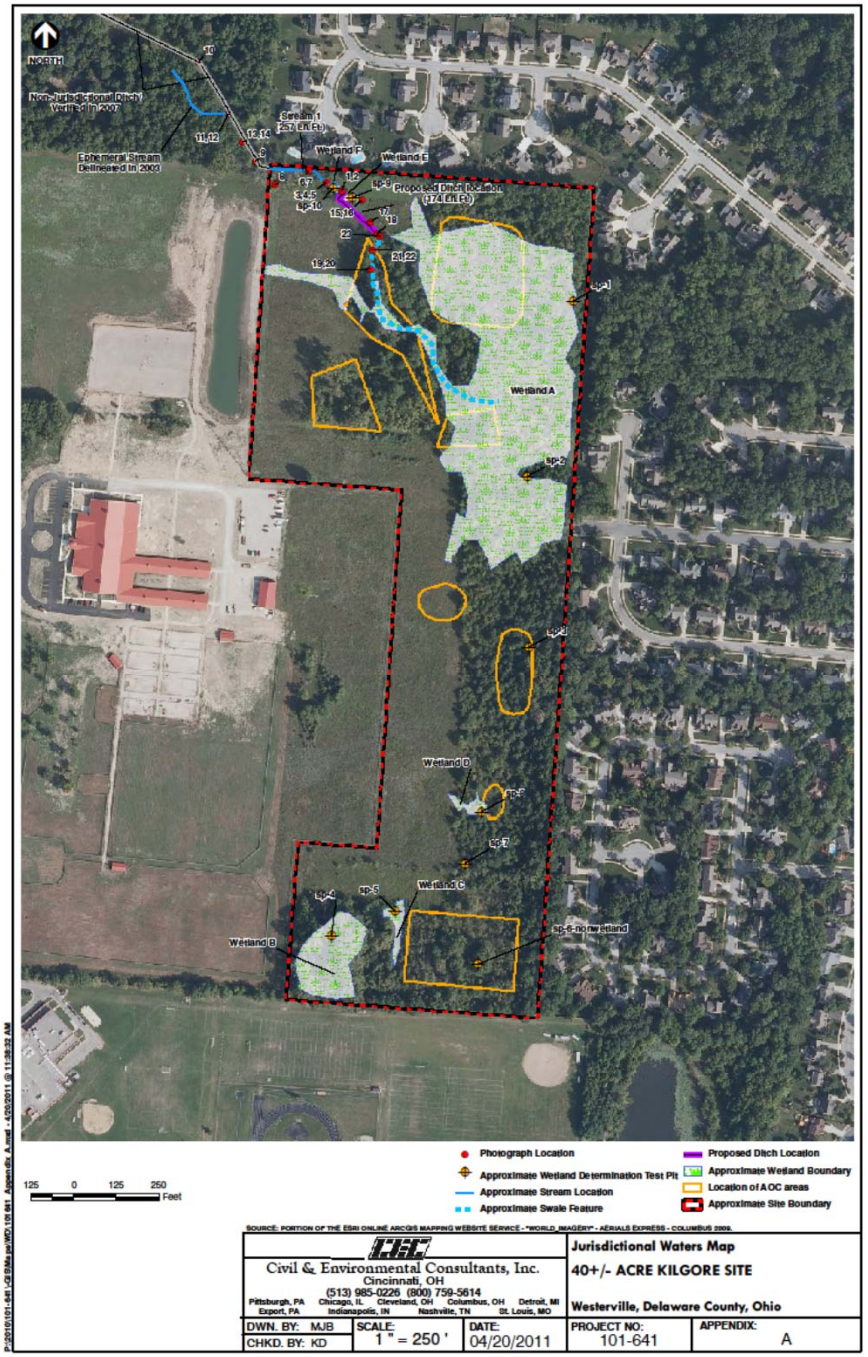

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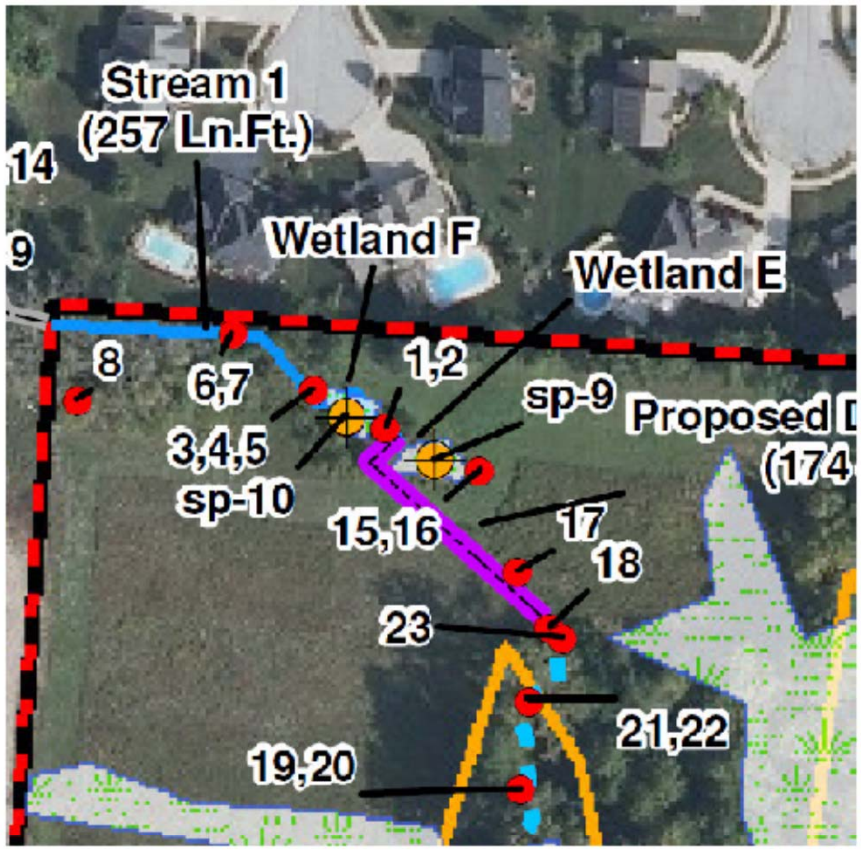

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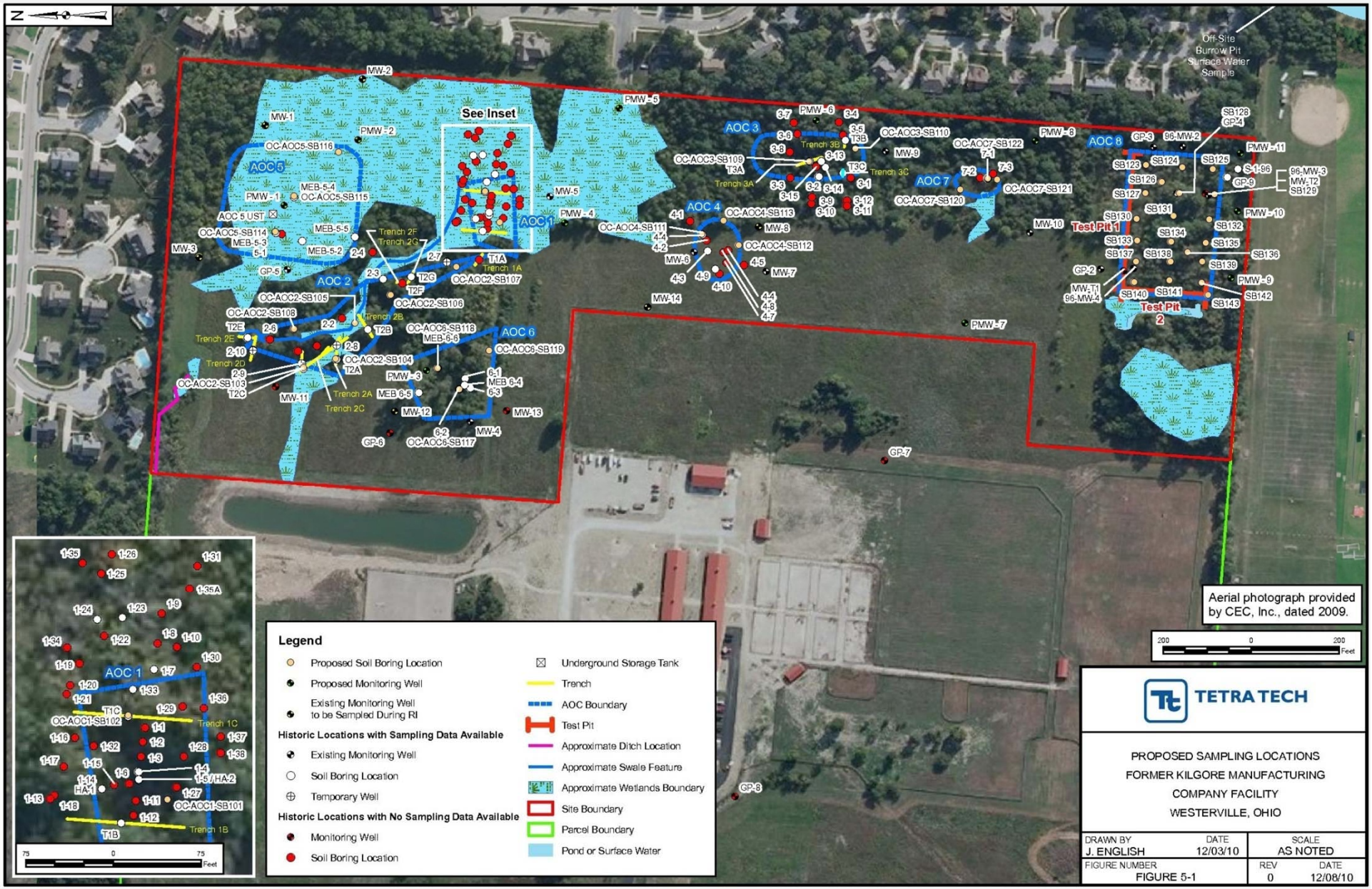

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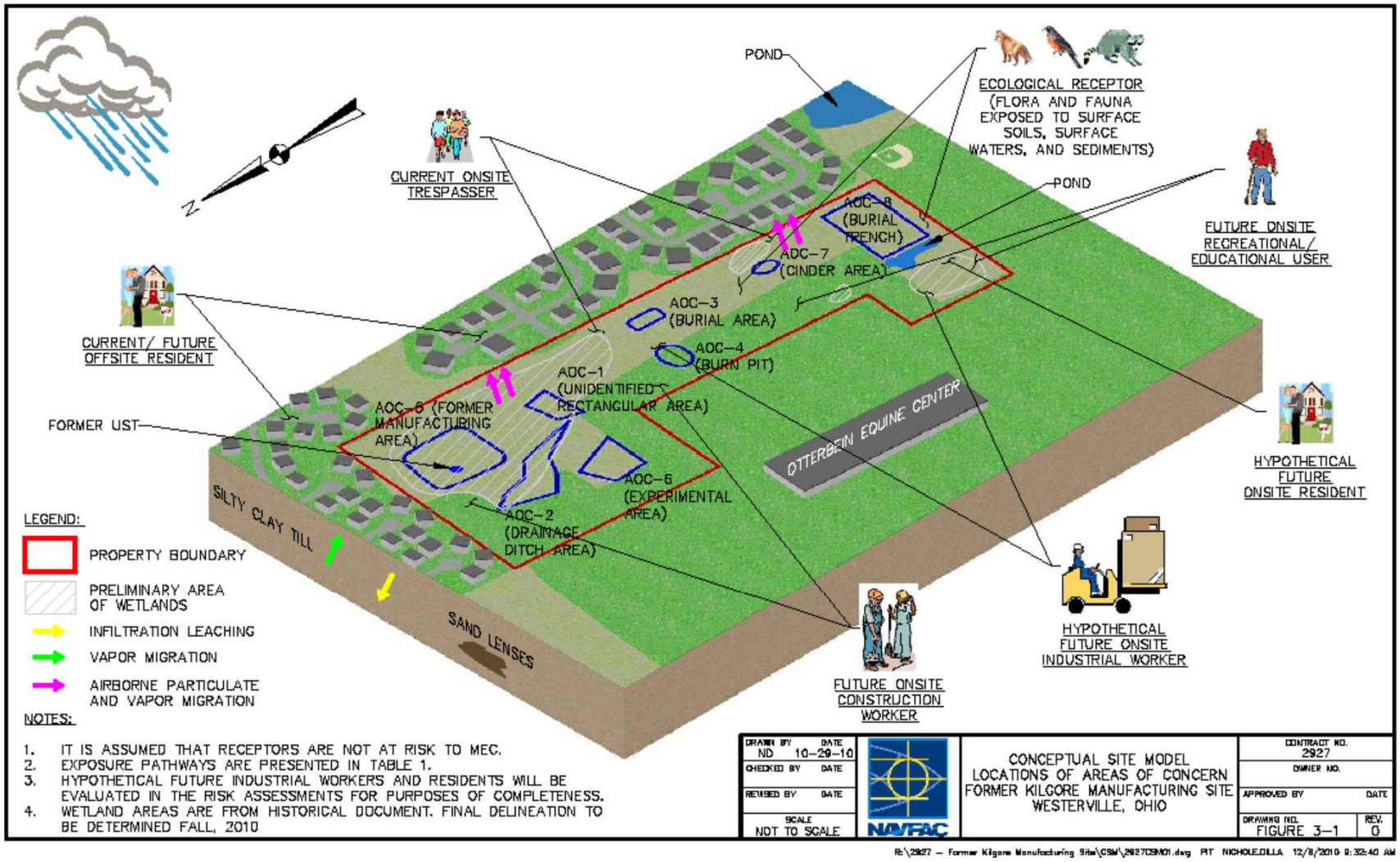

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