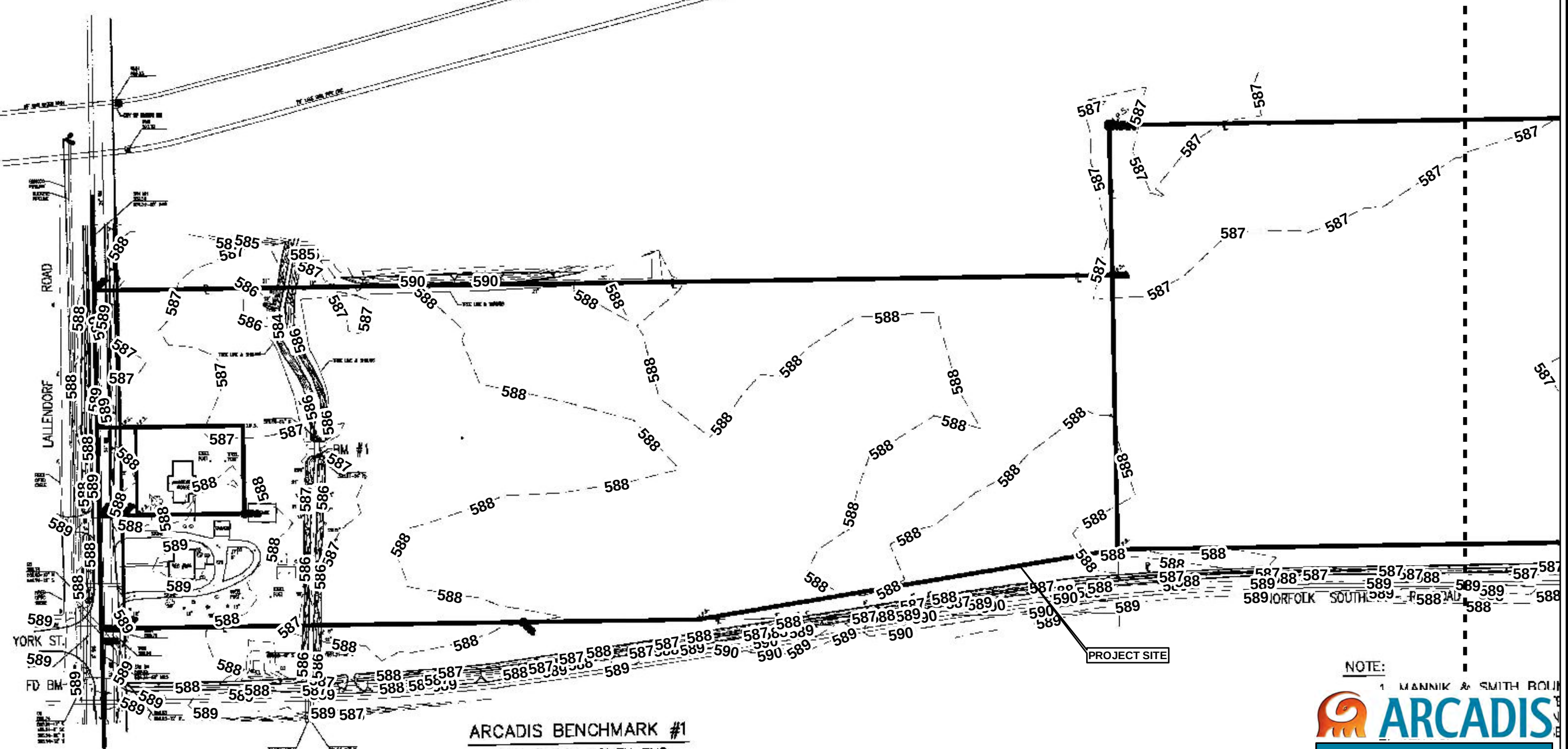


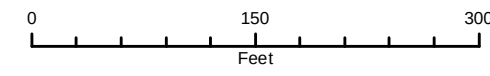
Figures – Section 4906-13-04

- Figure 04-1 – Site Survey Map
- Figure 04-2 – Soils and Floodplain Map
- Figure 04-3– Soil Boring Locations
- Figure 04-4 – Geological Cross-Section
- Figure 04-5 – Wind Rose
- Figure 04-6 – Aquifers, Water Wells, Oil and Gas Wells and Drinking Water Source Protection Areas



ARCADIS BENCHMARK #1
BOX CUT IN SOUTH END
OF 84" RCP
ELEV: 587.57

Legend
- - Match Line



NOTE:

1. MANNIK & SMITH ROUTE



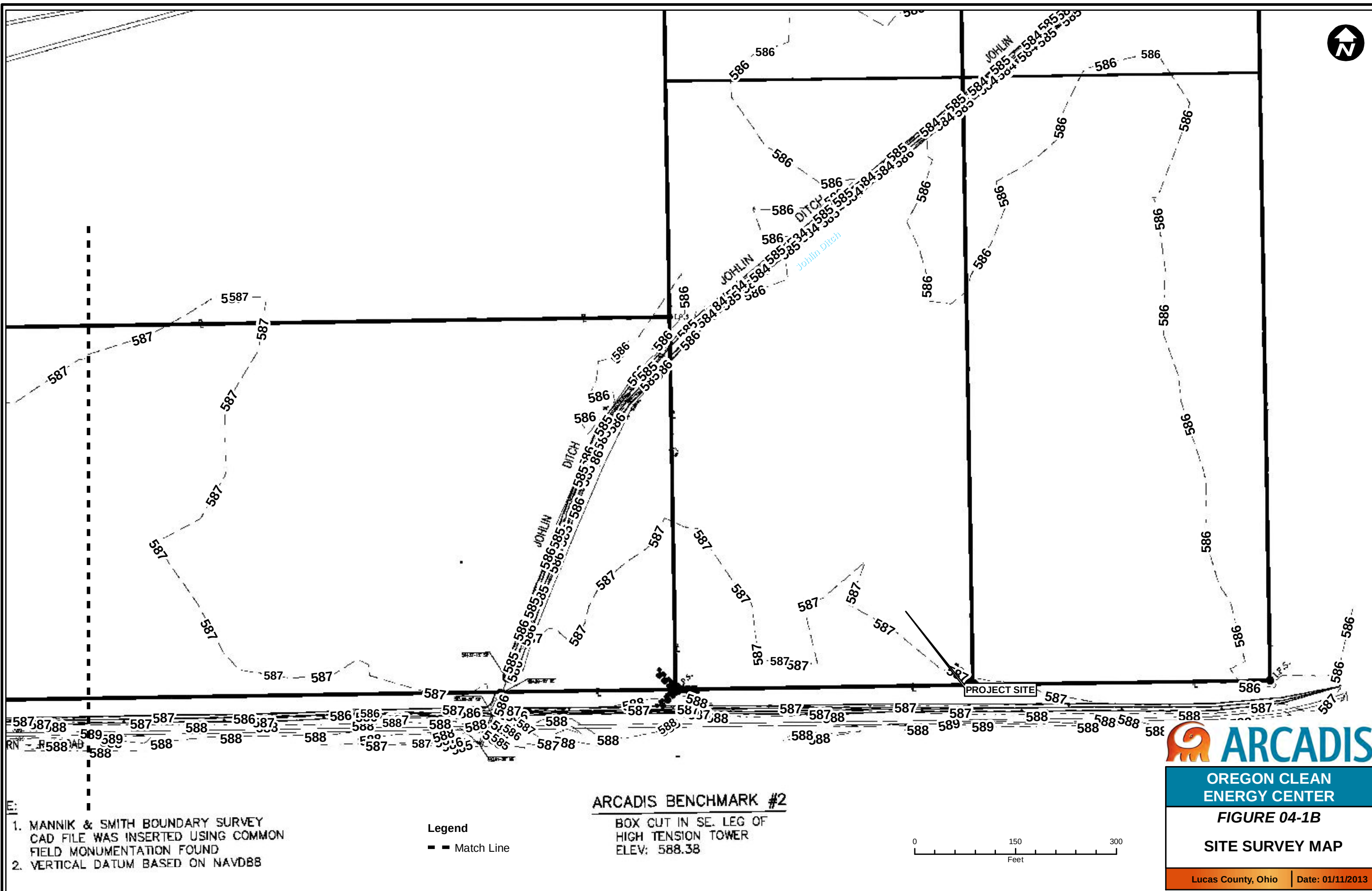
**OREGON CLEAN
ENERGY CENTER**

FIGURE 04-1A

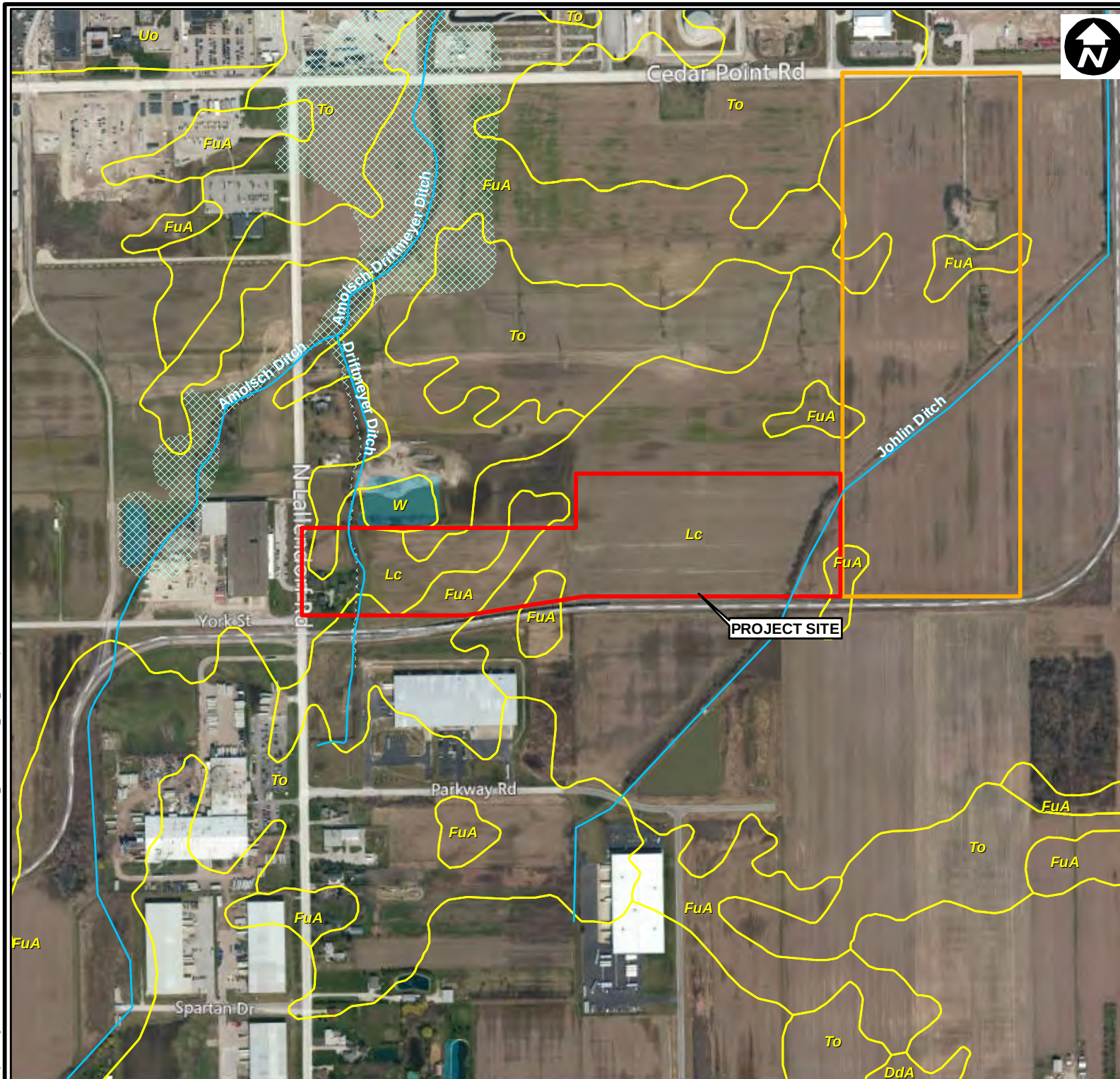
SITE SURVEY MAP

Lucas County, Ohio | Date: 01/11/2013

C:\Chicago\Author\Minnesota\Path\PROJECTS\OCE\MD\OPS\B_20130104\04-1_OCE_SiteSurveyB.mxd



1. MANNIK & SMITH BOUNDARY SURVEY
CAD FILE WAS INSERTED USING COMMON
FIELD MONUMENTATION FOUND
2. VERTICAL DATUM BASED ON NAVD88



LUCAS COUNTY, OHIO

Legend

- Project Site
- Construction Laydown Parcel
- NHD Flowline
- Flood Hazard Zone A
- Soil Map Unit

MAP UNIT NAME
DdA - Del Rey loam, 0 to 3 percent slopes
DeA - Del Rey loam, sandy substratum, 0 to 2 percent slopes
FuA - Fulton silty clay loam, 0 to 2 percent slopes
FuB - Fulton silty clay loam, 2 to 6 percent slopes
Lc - Laty s lty d a
To - Toledo silty clay
Uo - Udorthents, loamy
W - Water

AERIAL SOURCE:
2011 1-foot digital orthophotography acquired from State of Ohio Office of Information Technology, Ohio Geographically Referenced Information Program

DATA SOURCES:
Soils: USDA Natural Resources Conservation Services

Flowline: National Hydrology Dataset

Flood Hazard: FEMA Map Service

0 500 1,000
Feet

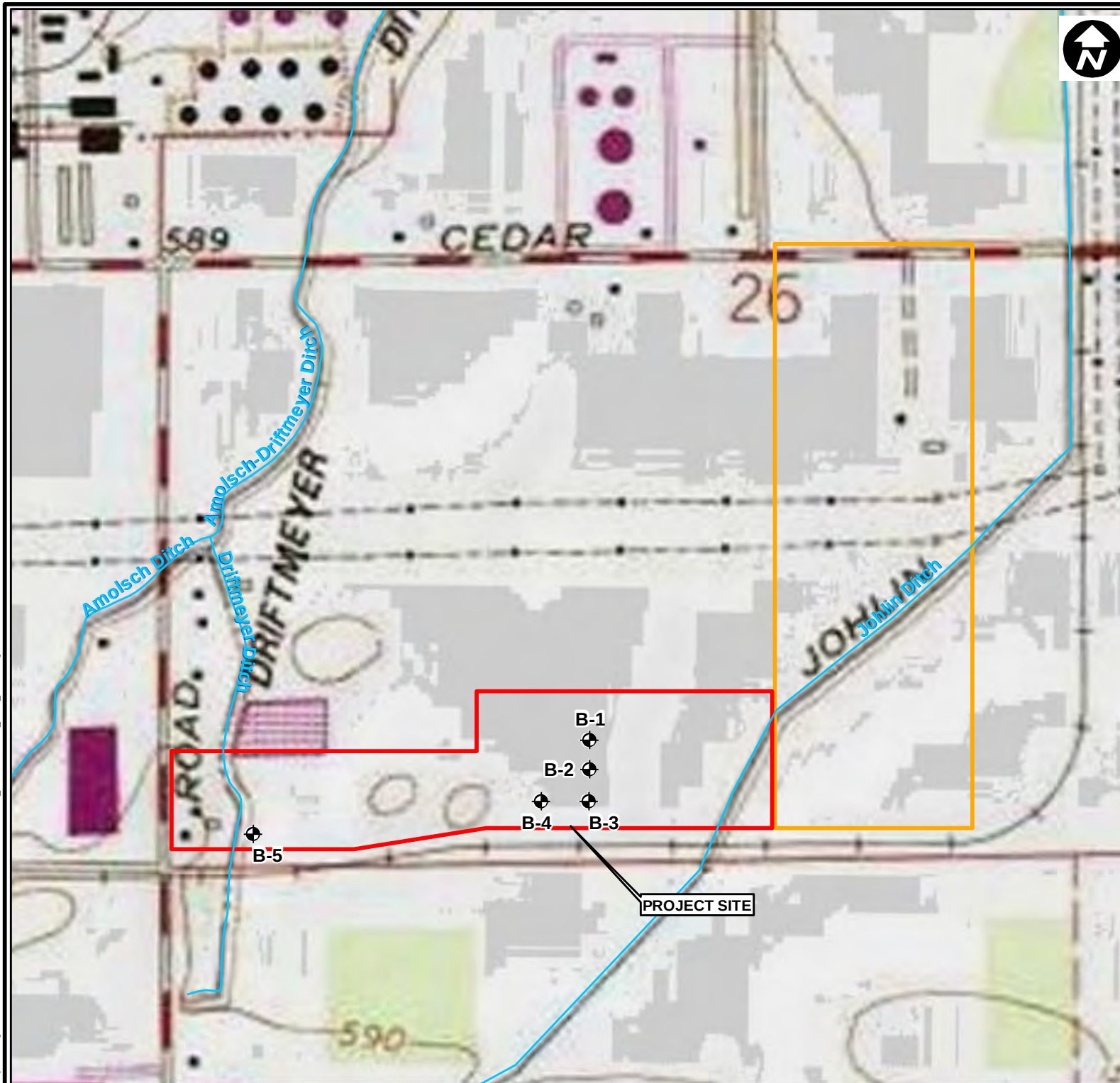
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**OREGON CLEAN
ENERGY CENTER**

**FIGURE 04-2
SOIL AND
FLOODPLAIN MAP**

Lucas County, Ohio Date: 01/04/2013



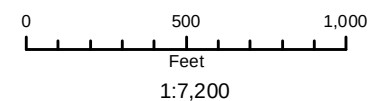
LUCAS COUNTY, OHIO

Legend

- Project Site
- Construction Laydown Parcel
- Soil Boring Location
- NHD Flowline

SOURCE:
TTL Associates, Inc.

US Topographic Image Source: ArcGIS Online Services, Access date: 01/09/2013, via ArcGIS v10. This image is not for re-sale or distribution outside of the use of this PDF.

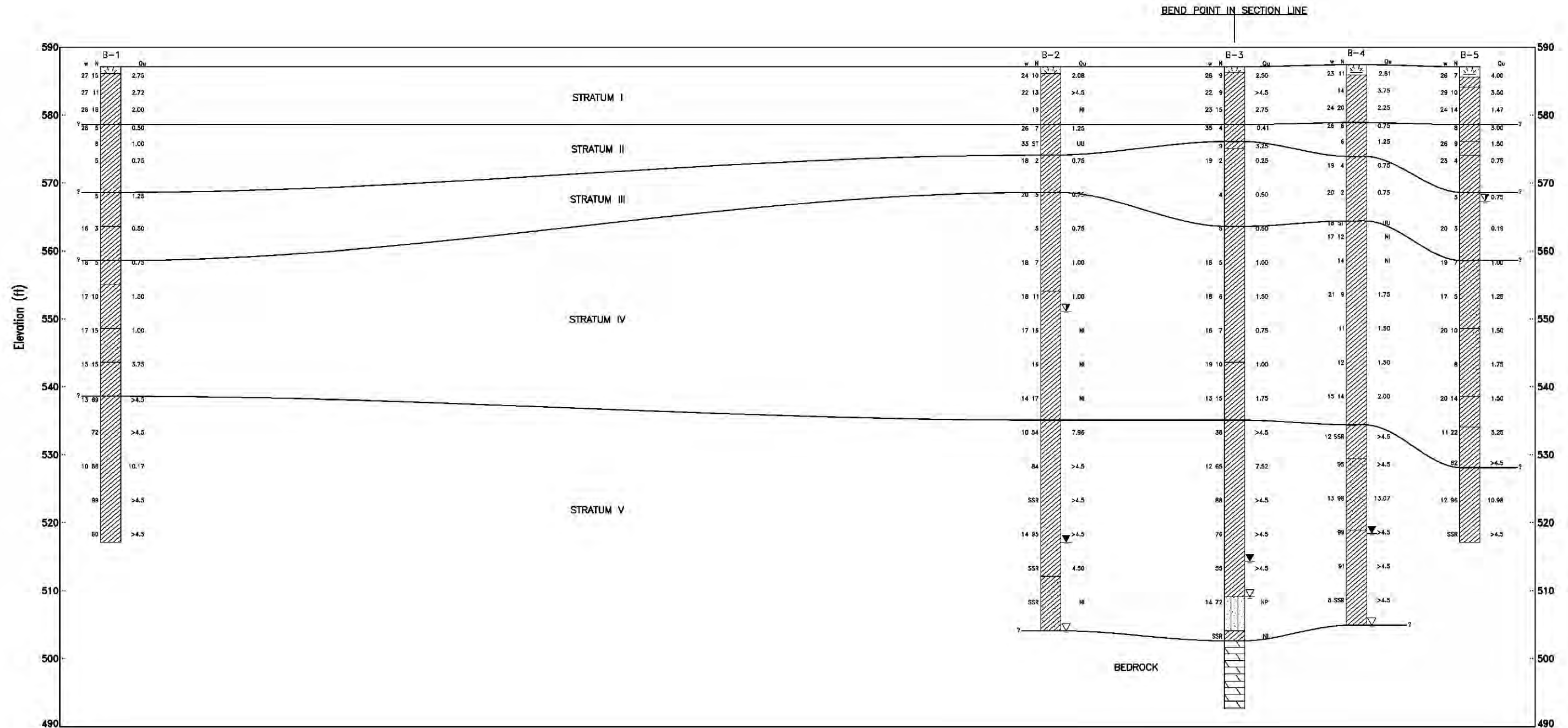


OREGON CLEAN
ENERGY CENTER

FIGURE 04-3
SOIL BORING
LOCATIONS

Lucas County, Ohio Date: 01/09/2013

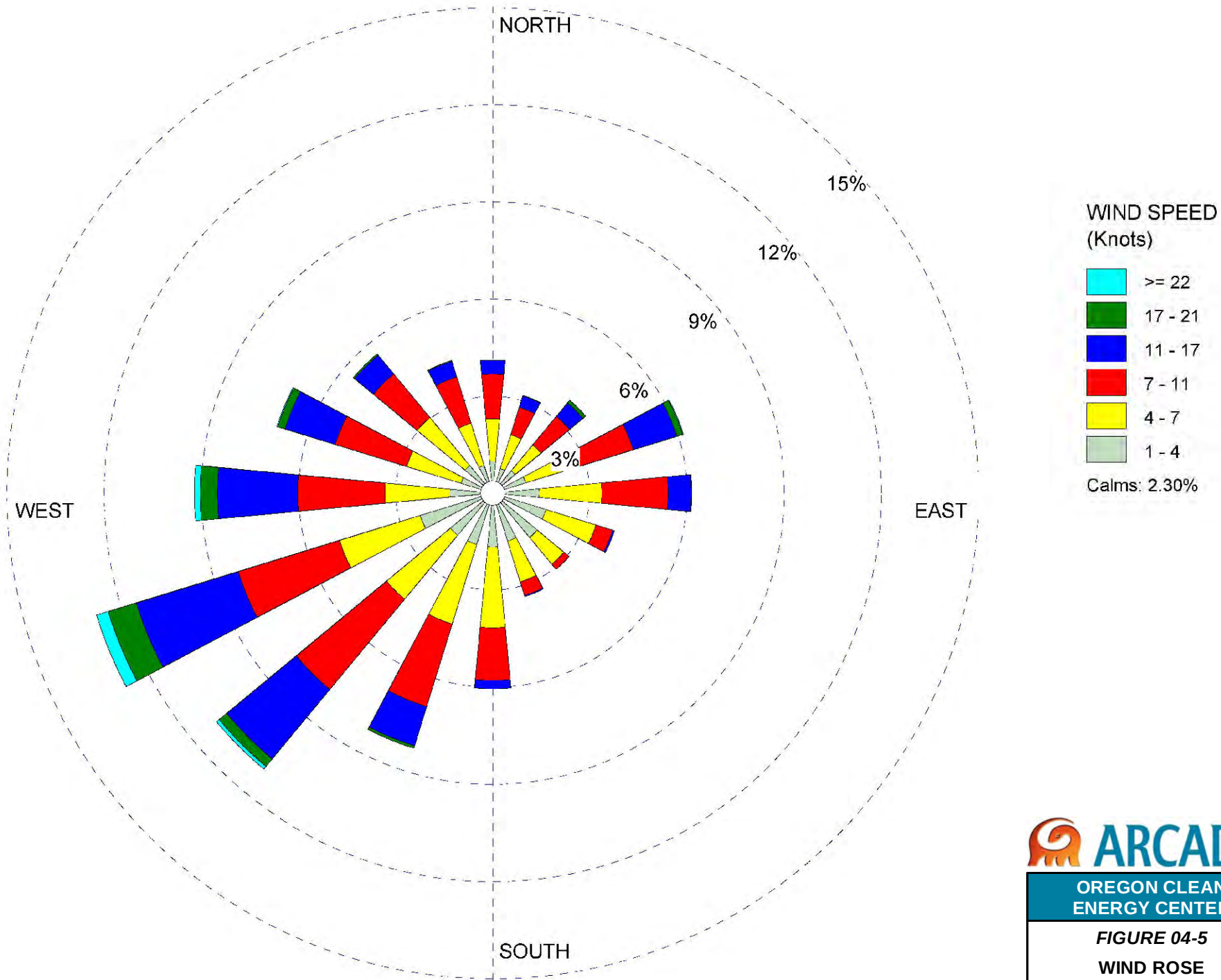
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**OREGON CLEAN
ENERGY CENTER**

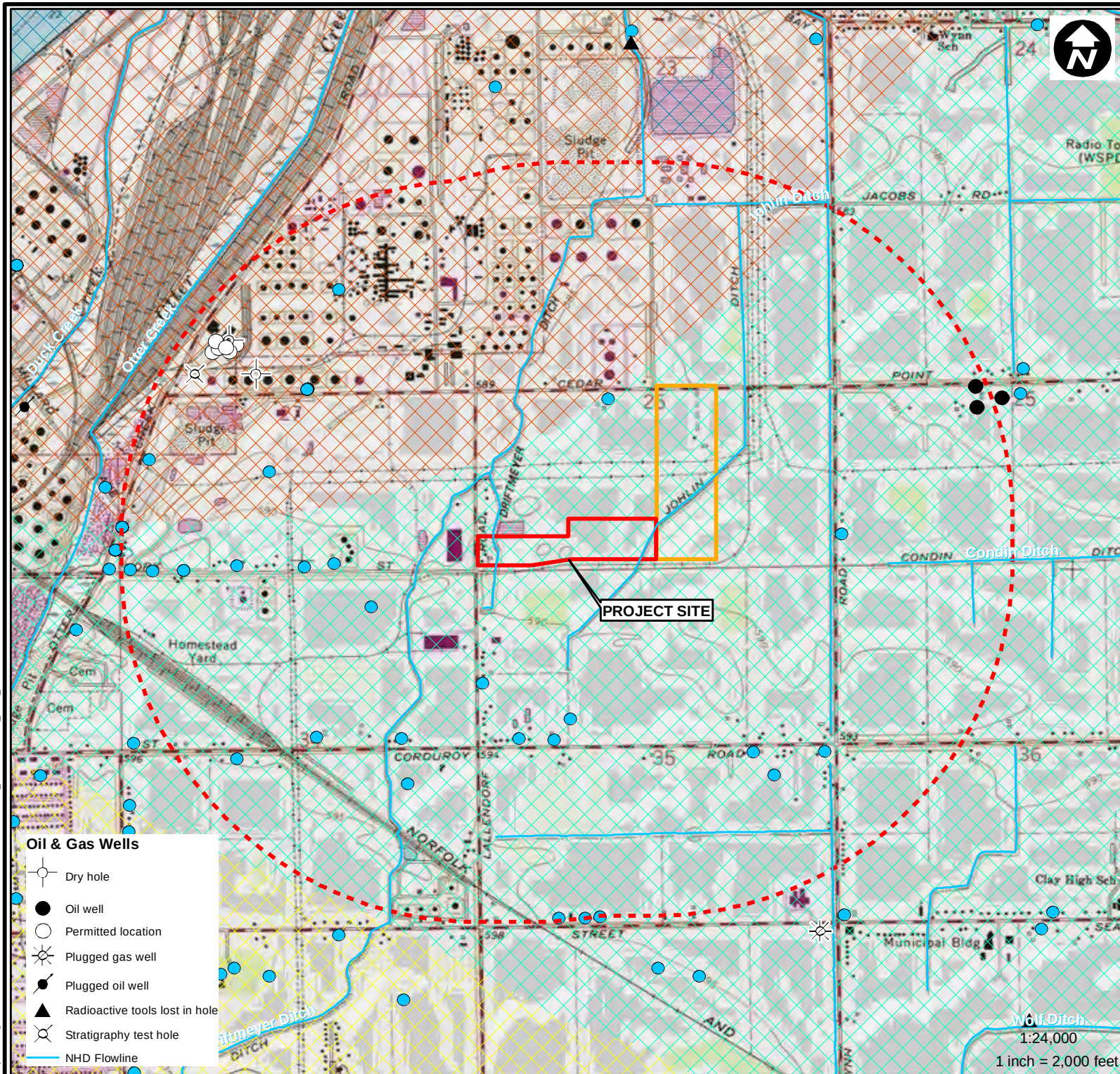
**FIGURE 04-4
GEOLOGIC CROSS-SECTION**

Lucas County, Ohio | Date: 01/09/2013



**OREGON CLEAN
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**FIGURE 04-5
WIND ROSE**



LUCAS COUNTY, OHIO

Legend

- Project Site
- One-Mile Radius
- Construction Laydown Parcel
- Water Well Log Locations

Ground Water Resources

- Code 1
- Code 3
- Code 4
- Code 6

CODE	DESCRIPTION
1	Yield 100 - 500 gallons per minute. Industrial and municipal supplies developed at depths of 100 to 500 feet in the carbonate bedrock aquifer. Hardness and hydrogen sulfide content generally increase with depth. Farm and domestic supplies are usually available at depths of less than 100 feet
3	Yield 25 - 100 gallons per minute. Yields of up to 100 gallons per minute, from the carbonate bedrock aquifer, may require drilling to depths in excess of 400 feet. Hardness and hydrogen sulfide content generally increase rapidly with depth. Supplies sufficient for domestic use can often be obtained at depths less than 100 feet.
4	Yield 5 - 15 gallons per minute. Thin discontinuous sand and gravel lenses interbedded in thick clay fill part of a preglacial valley. Yields of 10 to 20 gallons per minute are generally available at depths of 120 feet or less. Higher yields are available from the underlying carbonate aquifer.
6	Surface Water Bodies

Topographic Base Image Source: ArcGIS Online Services, Access date: 01/04/2013, via ArcGIS v10. This image is not for re-sale or distribution outside of the use of this PDF.

DATA SOURCES:

Water Wells and Ground Water Resources: Ohio Department of Natural Resources
Oil & Gas Wells: Ohio Department of Natural Resources

0 1,000 2,000
Feet



**OREGON CLEAN
ENERGY CENTER**

**FIGURE 04-6
WATER USE AND
OIL & GAS WELLS**

Lucas County, Ohio Date: 01/09/2013

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

1/17/2013 2:04:04 PM

in

Case No(s). 12-2959-EL-BGN

Summary: Application Section 4906-13-04 Figures electronically filed by Teresa Orahod on behalf of Oregon Clean Energy, LLC