



## ASSOCIATION OF OHIO PEDOLOGISTS

OHIO SOIL PROFESSIONALS

[www.ohiopedologist.org](http://www.ohiopedologist.org)

### **Honey Do List:**

- 1. Register for Wilmington Meeting and Training**
- 2. Send Mike Plunkett Up to Date Contact Info and Consulting Status**
- 3. If Late: Pay Dues**

**(For items one and two use forms provided below)**

### **Attachments Include Campus Maps and Tentative Agenda**

This is a reminder to make your reservations for the summer training session at Wilmington College. The blocks of rooms we have will be only held for few more weeks. I have attached the registration form and directions plus more solid agenda (always subject to change). Neil Martin our President-Elect has done a great job getting speakers. Remember we hope to mingle with the future natural resource professionals on campus. I am truly looking forward the session.

### **This is also a bit of a newsletter to keep you up to date on current events**

You all know Norris Williams passed away recently. James Kerr was kind enough to provide me some background on Norris' career. After serving in the US Army, Norris started in Lorain County after graduating with a MS from OSU in soils and geology. Norris was Jim's first boss in Chilicothe working on the Highland County

soil survey starting in 1965. I think these are some of the early “modern soil surveys”. I guess that probably was an affront to the old “old “ timers who had done the original surveys. Now it’s us modern survey guys that are getting gray.

Norris was keen on public awareness and was the one who convinced Jim to help at the Union Scioto conservation camp fifty years ago. It was harder to reach the public at large in the sixties but Norris knew it was just as important as the technical details.

Norris was a training leader I believe for 8 soil scientists. Yes, ODNR and the SCS (NRCS) were actually hiring back then. Norris next was the project leader in Pickaway County. Later transferring to Northeast Ohio to lead the soil survey for ODNR in NE Ohio including the Trumbull County Project survey. He mapped in Guernsey, Adams and Clermont Counties doing scattered farm mapping. Which gave the project leaders some clues when they started those county surveys.

Norris was Army vet and one of the charter members of the AOP. I didn’t know Norris all that well, mostly through our AOP meetings usually during the coldest snowiest day in January each year. But I can tell that Jim truly respected Norris and the work they accomplished. Jim did attend Norris’ family Celebration of Life and offered details of his soil science career.

### ***Caution Editor’s Musings Ahead:***

Writing about Norris has made me contemplate my own career and the careers of those that started in the sixties and the seventies. We are the old guys now and just like in the sixties times are a changin. We all were in the right place at the right time. The newer technology lets us use survey information in ways we never thought of while doing the field work, compilations, hand written manuscripts and correlations.

I was only in the field for nine years. But I clearly remember the work that a survey required. They were the best and worst of my years. The vicious dogs, including the Chihuahua that attacked me and tore my socks. The days of walking through the greenbriar in Pike County, nature’s barbed wire. The days you got soaking wet to the waist from walking through a dewy mature alfalfa field, or the

late summer sweat soaked arm scratches from corn leaves. And of course poison ivy and multi-flora rose fences (Belmont County Hedgerows).

On the other hand, I can also remember the first time I looked at a 320 acre plot and saw it as part of a whole landscape, not just holes with odd shaped lines around them. That was the same day I touched a 120-volt electric fence I thought was turned off. Maybe it was the shock that provided me this clarity.

There were perks, finding Native American artifacts in a newly plowed field. Or finding some wild apple trees or straw berries and later season berries. The thrill of walking the country side in September even if it was too dry to get a soil tube in the ground “damn bucket augers”. Bill Brug taught me how tasty a baby corn ear was or that if you chewed on a handful of almost ripe wheat kernels it was like a short lived chewing gum. These things always gave a lift on a hot afternoon. Bill also taught me how bad the deer flies can be. They could see his bald head from two fields over.

The days of using spades, bucket augers (they work better with both cutting blade intact) and soil probes to do transects up 400-500 ft >60 percent slopes (some even carried spud bars). The auger T-handles were great for grabbing a tree hold. For the guys in the glaciated country it was the challenge of walking through endless wet cultivated fields with 10 pounds of mud on your shoes so you could map it before the corn got any higher and obscured the fine geomorphic details

The days spent almost falling down old high walls obscured by the trees. It was really hard to get aerial photography then. Proper photography required it to be flown on a clear day with no more than 10 to 15 percent clouds, no snow cover, and leaf off. Basically, about 5 good days a year and you needed funding at the right time. We did a lot of initial mapping on unrectified FSA photos. Which you tried not to ruin with arm sweat on a hot day. It was a good thing we could transfer the mapping to the “real” photography later. But I really felt we had done something important when we finished Belmont County.

Adventures with stuck in the mud trucks or walking out of the woods at 4:30 and realizing you came down the wrong slope and you are  $\frac{3}{4}$  of mile away from your truck carrying a dubious soils map. Driving downhill on a township road only to find they had given up maintaining the lower half. It is true that gravity works, a

truck coming out of the trees being a shock to the farmer at the bottom of the hill.

The surveys were completed by the Ohio Cooperative Soil Survey Program. We may not always have cooperated but we were able to get the job done. The fact that OARDC, ODNR, SCS(NRCS), and untold county commissioners were able to work on a large scale project for more than 20 years is a testament to people involved. I looked forward to field reviews and mapping inspections (No really). The amount thinking and discussions were extremely educational. A field soil scientist could stay out of the way and be amused by the discussions. "That's a fragipan! Tisn't! Tis! Tisn't." I believe Tis'T may have won that one. But that was the exciting part, professionals with different perspectives and organizational needs trying to solve a common problem. An immeasurable amount of time, work, blood, sweat and a few tears made the Ohio Cooperative Soil Survey.

Office spaces came as part of the county cost share. Excess buildings that had been unoccupied by humans for several years. They were frigid in the winter and steamy hot in the summer. Unless it was heated with a coal furnace that got stoked once a day by the guy from the water dept. 115 degrees in the morning and 60 degrees in the afternoon. These usually old county homes and sanitariums were interesting to look at but not to work in. Sweeping up the dead attic flies on a Monday morning was a great way to start the week.

The main advantage was making friendships that have lasted a life time. Joe Steiger and Neil Rubel were my first supervisors and trainers. Bob Parkinson and I were trainees and roommates for one summer. I still feel bad for Joe. Two city kids at once! We still are friends today even though I left the state two times and the NRCS twice to work in private industry. The first employee I ever supervised was Rich Gehring in Pike County. Two city kids unsupervised! I believe we're still friends, in spite of my managerial quirks. I spent 25 years in the computer business. But I feel first and foremost that **I am** a Soil Scientist. AOP is the glue that makes that possible.

Just as we old guys watched the old guys retire and go into the sunset it behooves our younger members to pick up the probe and mouse and carry on. In the note Jim Kerr sent me he mentioned Norris always ended presentations with a slide

showing the Sun setting on a soil probe and extension, depicting the end of a soil scientist's day.

The Sun is now setting on some of our members. That is why it is so important that we engage a new generation that will have different roles but will have the surveys and better tools to base their work on. Wilmington will give us a chance to play a greater role in their awareness and appreciation of soil science. The training conference will bring us up to speed with the newer tools available and what the current thinking is in the digital world. We environmental scientists need to figure how best to use and not misuse them.

### **Oil and gas drilling rules went into effect July 15, 2015.**

The new rules detail requirements for oil and gas drilling. It covers pad permit requirements below is a link to a pdf of the rules. I have included an excerpt from section C which lists the requirements for the permit application. It requires certification by a licensed engineer. However, there are paragraphs that list skills that we possess. I have included an edited and highlighted a copy of Paragraph C which details the requirements for Drill Site Permit Applications. This would be the time now to find an engineer in the oil and gas business. They are probably looking at the requirements and going Sheesh! There are many, requirements that soil scientists are best suited to provide. There are others within our skill set that can be done at the same time we would do soil identification, hazards and features.

There is currently an industry slowdown because of low oil prices which is a blessing. It gives interested consultants more time to prepare for when it booms again. The consulting engineers need a surveyor and probably a hydraulic engineer but they will also need soil scientists. If there is a need for new skills, hopefully AOP can address that in future training sessions. Co-operative agreements with other consultant engineers or surveyors may provide a more diverse workload. My gut tells me the oil companies will get permits for pads even if they

**don't drill them immediately. The folks from out west have figured out this isn't Texas. But it has taken some failures to open their eyes, thus the rules**

(C) Well site plans. The plans for a proposed well site shall be developed signed, and sealed by a professional engineer. The plans shall be prepared using commonly accepted drafting standards and shall be clear, legible, and drawn to a scale that sufficiently shows all required information. Each plan sheet shall be American National Standards Institute (ANSI) size D, twenty-two by thirty-four inches. All elements required to be contained in the plans under paragraph (C) shall be located horizontally in relation to the North American Datum of 1983 and shall be located vertically in relation to the North American Vertical Datum 1988. The plans shall include the detailed drawings plans and reports required under paragraphs (0)(1) to (C)(5) of this rule.

The chief may waive any item required to be submitted under paragraphs (c)(1) to (C)(5) of this rule upon written request by the applicant. The request shall be signed by the applicant and the professional engineer who prepared the well site plans and shall include a detailed explanation of the basis for the request and of the potential impacts to the proposed well site and the surrounding area. The request for a waiver shall be submitted with the application.

(11 Detailed drawings, The detailed drawings shall include all of the following:

- (a) A title page that contains the name of the applicant; emergency contact information; the name of the proposed well pad; the county township and section or lot number where the proposed well site will be located; coordinates of the entrance intersection of the centerline of the access road at the public right-of-way using latitude and longitude, in a format of decimal degrees, to a minimum of six significant figures, and a sheet index;
- (b) A plan sheet consisting of a color orthorectified aerial image with pixels no larger than one foot showing the location of the proposed well site;
- (c) A plan sheet sealed by a professional surveyor showing the location of the proposed well site boundary. The plan sheet shall include the control points used to generate the map;
- (d) A general layout, plan views, elevations, sections and supplementary views that in conjunction with the specifications provide the working information related to all aspects of the proposed construction;
- (e) The scale in feet, legend, graphical scale, and north arrow;

1501:9-2-02

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(1) The proposed and existing contours with an intermediate contour interval not greater than two feet and an index not greater than ten feet; and

(g) Unless already described in the reports and plans required under paragraph (C) of this rule, the applicant shall disclose the design considerations that were used to address paragraph (g) of this rule. The detailed drawings shall identify and locate all of the following items:

- (i) The classified soil types for the area within one hundred feet of and within the proposed well site boundary. The classification shall be consistent with the United States Department of Agriculture soil series.**
  - (ii) Plugged wells, producing wells and idle and orphaned wells which may be determined using information available from the Ohio Department of Natural Resources and other publically available or readily accessible sources that are located within one hundred feet of and within the proposed well site boundary**
  - (iii) Structural and geotechnical components that are to be located within the proposed well site boundary including those identified in the geotechnical report•**
  - (iv) Geotechnical borings and other geotechnical investigative means which are located within the proposed well site boundary. as identified in the geotechnical report:**
  - (v) Boundaries of parcels of land, existing occupied and unoccupied structures, and existing utilities known to the applicant at the time of the design process that are located within one hundred feet of and within the proposed well site boundary**
- Nil All springs wetlands streams lakes rivers ponds creeks, and water wells, which may be identified using reasonably available public resources and a field review within one hundred feet of and within the proposed well site boundary;**
- (viii) Surface and underground mines which may be determined using information available from the Ohio Department of Natural Resources and other publically available or readily accessible sources that the professional engineer determines may affect design and performance of the well site•**
  - (viii) Any areas the applicant seeks to protect during construction of the proposed well site•all flood hazard areas delineated on the "National Flood Insurance Rate Map" within one hundred feet of and within the proposed well site boundary;**
  - (ix) All locations where materials that result from the construction operation. or plugging of a horizontal well are planned to be used at the well site pursuant to section 1509.074 of the Revised Code and rules adopted under it•**
  - (x) Roads within the proposed well site boundary. including emergency access routes. signage to safely manage traffic flow on the site, the entrance to the well site, and any pull-off areas that may be used to manage excess traffic•**
  - fxii) Pipes ditches and other conveyances and hydraulic control structures located within the well site boundary, as identified in the stormwater hydraulic report and in the sediment and erosion control plan;**

- (xiii) All areas within one hundred feet of and within the proposed well site boundary that are located within the five-year time of travel associated with a public drinking water supply as delineated or endorsed under the "Source Water Assessment and Protection Program"•
- (xiv) All areas within one hundred feet of and within the proposed well site boundary that are located within the emergency management zone of a public water system intake;
- (xv) General location and construction details of the proposed well cellars; and
- (xvi) Any other factors which the professional engineer determines may affect design and performance of the well site.

**(2) Sediment and erosion control plan. The sediment and erosion control plan for the proposed well site shall describe procedures to minimize the discharge of construction related sediment to any area outside of the proposed well site boundary. In addition, the sediment and erosion control plan shall specifically comply with and include all of the following requirements:**

- (a) Sediment and erosion controls shall be suitable for the well site conditions and shall be consistent with generally accepted engineering design criteria and the controls comply with the manufacturer's specifications'
- (b) A sediment basin or sediment trap if the proposed well site is within or includes a total contributing drainage area that is greater than five acres in size. The minimum capacity of the sediment basin or sediment trap shall be one hundred seventeen cubic yards and designed in accordance with the "Ohio Department of Natural Resources Rainwater and Land Development Manual". However, diversionary techniques to decrease drainage area size or sediment controls specifically designed for the equivalent capture efficiency may be used in lieu of the sediment basin or sediment trap•
- (c) An identification of each location of each outlet of a confined discreet conveyance that may leave the proposed well site•
- (d) A delineation of contributing drainage area boundaries and size measured in acres. that will be used to design the proposed sediment and erosion controls•
- (e) A description of the soil stabilization measures, including vegetation mulch, and other means of controlling erosion that will be used at the proposed well site. In addition, the description shall include a schedule of the implementation of the soil stabilization measures; and
- (t) The applicant may submit a schedule that identifies alternate options for implementation of the erosion and sediment controls and measures. The schedule shall identify when and under what criteria the alternate controls would be implemented.

[http://oilandgas.ohiodnr.gov/portals/oilgas/pdf/rules/Oil-and-Gas-Well-Site-Construction-Rules\\_071515.pdf](http://oilandgas.ohiodnr.gov/portals/oilgas/pdf/rules/Oil-and-Gas-Well-Site-Construction-Rules_071515.pdf)

## AOP Web Site Information Update:

The consultants list on the AOP website is out of date due to retirements and sadly the passing of a few members. Prospective clients are looking for site evaluations, fracking site evaluations, the need for micro mapping for intense applications, and wetland determinations and we need to have an up to date list.

Therefore, please respond to me in an e-mail if you wish to be listed as a consultant. Provide certifications, current contact info especially correct e-mail addresses, also list if you have specialization in the type of consulting such as crop advising or wetlands. We'll work with Matt Lane to update the website.

If you are asked by someone looking for our site, tell them to search for "AOP soils" Unfortunately just our acronym of AOP is used by a hundred different organizations. The word Pedologists also works in a search.

## Wilmington Meeting Information:

**Hotel rooms** are being held for our meeting. Tell the hotel you are with the AOP when reserving your room. We have a block of rooms for the 25 and 26<sup>th</sup>. The two hotels are within 2 miles of the college and the farm.

**1. The Hampton Inn:** \$109/night. This includes a breakfast buffet that looked pretty impressive with a large area to eat and socialize. Rooms held till August 12,2015.

**2. Holiday Inn Express:** \$99/night . This has a smaller breakfast, more of a continental breakfast. The dining area is smaller but they have offered us the use of their small conference room to eat in for free. I'd pointed out to them that we'd all be eating breakfast at the same time and we didn't want to overwhelm their other guests with talk of pedons and pixels. Rooms held until August 19, 2015. The 2 hotels are about 100 yards apart on the same road, there is plenty of parking. They are both nice hotels. The Hampton maybe a bit more fancy. They are located on Holiday Drive about 2 miles E of the campus.

I have included an aerial photo from the campus area showing the various locations. Note that the hotels are off the upper right hand corner of the map. Since school will be in session, lot parking will be at a premium but there is adequate parking along the street by Kelly Hall.

#### Downtown Wilmington and Wilmington College



The scale line is 2000 feet

## AUGUST 26,27 2015 TRAINING REGISTRATION

### Registration Fee:

Includes 2 lunches, and morning and afternoon refreshments, facility charges.

\$75 Pre-registration (received by August 19, 2015)

\$90 At the door: check preferred cash accepted.

Mail to Jim at address below.

Name:

Amount Enclosed:

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### 2015 AOP ANNUAL DUES:

Pedologist: \$40 Soils Professional: \$40 Affiliate: \$20 Student: \$20

NAME:

CATERGORY:

DUES:

SCHOLARSHIP FUND:

TOTAL AMOUNT:

TOTAL AMOUNT ENCLOSED:

Make Checks out to AOP

Jim Svoboda, AOP Treasurer

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New Philadelphia, OH 44663

