Message

From: Anderson, Milo [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7D825E9FB1EB4D9E9D0DC576DCD26C52-MANDERSO]
Sent: 6/20/2017 5:02:07 PM
To: Melgin, Wendy [melgin.wendy@epa.gov]; Manoyan, Simon [manoyan.simon@epa.gov]; Burdett, Cheryl [burdett.cheryl@epa.gov]
Subject: Well records I was able to obtain from Wisconsin DNR
Attachments: Wis_AquiferProp_WGNHS_201601_tricounty.xlsx; 20170118143300538.pdf

I followed up with Judy's recommendation below to get well construction reports that includes depth to groundwater information, and I'll forward another email from WDNR in that regard.

From: Ihlenfeldt, Amy B - DNR [mailto:Amy.Ihlenfeldt@wisconsin.gov]
Sent: Wednesday, January 18, 2017 3:17 PM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Hi Milo:
We do have well construction reports (WCRs) for the post-1988 wells. The WCRs would have well log and depth to groundwater information. Sorry but we do not have conductivity and transmissivity. One of my hydrogeologist co-workers tells me you can estimate transmissivity from the specific capacity information on the WCRs. He scanned the attached page with information on this method.

He also gave me the attached spreadsheet of aquifer properties information that WGHNS provided to us, compiled from various sources of information. If you need any more information about either of these documents you can contact my co-worker:
Dave Johnson
(608) 261-6421
Dave.Johnson@wisconsin.gov

To obtain the well construction reports I am going to refer you to another co-worker who works with the well construction report database. She can help determine the best way to provide the well construction report data to you. Her contact info is:
Judy Gifford
(608) 266-0153
Judith.Gifford@wisconsin.gov

I hope this helps!

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Amy Ihlenfeldt
Phone: (608) 266-2955
amy.ihlenfeldt@wisconsin.gov

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Wednesday, January 18, 2017 2:11 PM
To: Ihlenfeldt, Amy B - DNR
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Depth to groundwater too!

From: Anderson, Milo
Sent: Wednesday, January 18, 2017 2:03 PM
To: 'Ihlenfeldt, Amy B - DNR' <Amy.Ihlenfeldt@wisconsin.gov>
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Hi Amy,

I was asked to ask you if you happened to have well log data for the tri-county (Juneau, Wood, Adams) well locations you send me in August. Specifically I was asked if the well log data included aquifer testing information such as conductivity and transmissivity. What I have for well attribution can be seen in the attachment. If this request is an enormous task, I could just select out those wells in my geographical area of interest within the 3 counties and send you just those Well WI unique IDs. Would be a much smaller fraction of all the wells in the 3 counties collectively.

Thank you,

Milo Anderson
Environmental Engineer
U.S. EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
312-886-6096
anderson.milo@epa.gov

From: Ihlenfeldt, Amy B - DNR [mailto:Amy.Ihlenfeldt@wisconsin.gov]
Sent: Tuesday, August 16, 2016 11:14 AM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

My answers below. I should also let you know that we don't always get reports when wells are permanently abandoned, so many of the wells might not actually exist anymore. This is especially true of the pre-1988 private wells.

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Amy Ihlenfeldt
Phone: (608) 266-2955
amy.ihlenfeldt@wisconsin.gov

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Tuesday, August 16, 2016 10:08 AM
To: Ihlenfeldt, Amy B - DNR
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Thank you Amy. That worked, and I am viewing the spatial and tabular components now.

A couple of questions, but first I want a big thank you for making the data more understandable along with your email explanation below. I read through your email while looking at the tabular attribution, and what you described makes sense. Here are my questions:

1) Would you suspect that the 7095 tri-county water supply well records I got from Peter/WGS would be wholly contained as a subset of your 30,123 tri-county well records? Yes I think so – they would mostly be the "SWAP_IMAGE" points, but some of his would DWS rather than SWAP_IMAGE wells, if they are public wells and have been assigned a Wisconsin Unique Well Number.

2) As you mentioned that GRN pulls from several databases, is it possible that some individual wells wound up being accounted for more than once in the resulting 30,123 record table? Yes that is possible. If the records coming in from more than one database have Wisconsin Unique Well Number information, GRN would only include the well once. However, if records are without Wisconsin Unique Well Numbers GRN does not know if they are the same well.

That's it for my questions. I'll let you know if I have anymore.

Thanks, Milo

From: Ihlenfeldt, Amy B - DNR [mailto:Amy.Ihlenfeldt@wisconsin.gov]
Sent: Tuesday, August 16, 2016 9:38 AM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Here it is with .zzz
Let me know if you have questions about the data. GRN pulls in a lot of strange stuff from the various databases sometimes.

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Amy Ihlenfeldt
Phone: (608) 266-2955
amy.ihlenfeldt@wisconsin.gov

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Tuesday, August 16, 2016 8:17 AM
To: Ihlenfeldt, Amy B - DNR
Subject: Could you rename the .zip as a .txt (or .doc or .zzz) and resend?

Thank you very much Amy, and seeing the time the email came in, I really appreciate the work you put into it.

Unfortunately, EPA's email server automatically strips off any attachments with a .zip extension, so could you please rename it with a different extension and resend. Please ignore any warnings you get by renaming with another extension, when I get the attachment, I can simply rename it back with the .zip extension and uncompress. Always works. Any of the 3 example extensions in the subject header will work.

Thanks again, and sorry I didn't foresee the need to warn you up front not to send as a .zip file.

Milo
312-886-6096

From: Ihlenfeldt, Amy B - DNR [mailto:Amy.Ihlenfeldt@wisconsin.gov]
Sent: Monday, August 15, 2016 6:40 PM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Well Construction Data for Central Wis

Hi Milo:
I am attaching a shapefile of wells from our Groundwater Retrieval Network (GRN). I included a few attributes that might be useful. I also created a field called "Sensitive". These are all wells in our public water systems and all wells with high capacity well numbers. We ask people not to publish or share the well locations considered sensitive.

I also included a couple of fields that might require some explaining. DATA_OWNER is an indication of where the well record came from –GRN is pulling well data from several databases. The DATA_OWNER field tells you which data system added the well to GRN first, although the well may be in more than one database.
DWS – Drinking Water System (mainly public wells)
GEMS – landfill monitoring wells
GRN –well records added directly to GRN, often pre-1988 private wells where monitoring has been done for some reason.
LDES – wells coming in from Lab Data Entry System. Could be any type of well where we receive sample results before we have the well in another database.
SWAMP – WPDES permit (wastewater) monitoring wells
SWAP_IMAGE – pre-1988 wells where we have a scanned well construction report
WATR – Well and Test Results (well construction report database)

The WELL_USE field is GRN's attempt to determine the well use. GRN looks at what information there is about each well in the database it came from, and classifies the well use based on that information. It isn't a perfect system – there are many that GRN just calls "Various/Miscellaneous" when it can't determine a well use – but it might help you screen out some that you might not be interested in.

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Amy Ihlenfeldt
Phone: (608) 266-2955
amy.ihlenfeldt@wisconsin.gov

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Monday, August 15, 2016 2:46 PM
To: Ihlenfeldt, Amy B - DNR
Subject: RE: Well Construction Data for Central Wis

Thank you Amy.

Milo

From: Ihlenfeldt, Amy B - DNR [mailto:Amy.Ihlenfeldt@wisconsin.gov]
Sent: Monday, August 15, 2016 2:44 PM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Well Construction Data for Central Wis

Hi Milo:
Sorry I got a little swamped. It's true most pre-1988 wells have no information in our database except for the locations. We did go back and enter the pre-1988 public wells into the database but not any others.

It looks like Pete sent you the scanned well construction report pdf files. The only way to know what the well use is would be to go through one-by-one and look for well use information on those reports.

I'm not sure how often the WGNHS gets well layer updates, but I probably do have more recent post-1988 wells than what they have.
I'll work on getting that to you this afternoon.

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Amy Ihlenfeldt
Phone: (608) 266-2955
amy.ihlenfeldt@wisconsin.gov

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Monday, August 15, 2016 1:26 PM
To: Ihlenfeldt, Amy B - DNR
Cc: Ihlenfeldt, Amy B - DNR
Subject: FW: Well Construction Data for Central Wis

Amy,

Could you please verify that WDNR would not be able to offer any distinction between water supply wells that are for drinking water vs. another water supply use for wells 1988 and older?

Thanks, Milo

From: Schoephoester, Peter [mailto:peter.schoephoester@wgnhs.uwex.edu]
Sent: Monday, August 15, 2016 11:14 AM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Well Construction Data for Central Wis

With the newer post-1988 data from the DNR, yes, but unfortunately not with these.

Pete.

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Monday, August 15, 2016 11:10 AM
To: Schoephoester, Peter <peter.schoephoester@wgnhs.uwex.edu>
Subject: RE: Well Construction Data for Central Wis

Is it possible to query out just those used as a potential drinking water source, leaving out those strictly for irrigation or industrial water supply?

From: Schoephoester, Peter [mailto:peter.schoephoester@wgnhs.uwex.edu]
Sent: Monday, August 15, 2016 11:05 AM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Well Construction Data for Central Wis

They are water supply wells, including both private and public, as well as irrigation and industrial water supply. They do not include boreholes not finished as wells, and do not including monitoring wells.

Pete.

From: Anderson, Milo [mailto:anderson.milo@epa.gov]
Sent: Monday, August 15, 2016 11:03 AM
To: Schoephoester, Peter <peter.schoephoester@wgnhs.uwex.edu>
Subject: RE: Well Construction Data for Central Wis

Peter,

Just to confirm, these are drinking water wells only, or do they represent all bore holes regardless of purpose? (I finished downloading).

Milo

From: Schoephoester, Peter [mailto:peter.schoephoester@wgnhs.uwex.edu]
Sent: Monday, August 15, 2016 7:58 AM
To: Anderson, Milo <anderson.milo@epa.gov>
Subject: RE: Well Construction Data for Central Wis

Milo,

Here is the link to download the bundle of well construction report PDFs and a shapefile of their generalized point locations. Let me know if you have any questions.

https://uwmadison.box.com/s/dn4bbfrsm0zbmf3enc2ls8cmd4cltyer

Pete.

From: Schoephoester, Peter
Sent: Friday, August 12, 2016 4:25 PM
To: 'anderson.milo@epa.gov' <anderson.milo@epa.gov>
Subject: Well Construction Data for Central Wis

Hi Milo,

I compiled the data and am uploading in now, but it will be a little while before it is all ready for you (700 GB). On Monday I'll send a link for the download.

Thanks,

Pete.

++++++++++++++++++++++++++
Peter Schoephoester
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