

# New Generation of Mapping Proliferates in Tennessee

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HELENWOOD, TN.—Tennessee may see a revival of oil and gas prospecting and new production once prices rebound thanks to a member-driven effort to expand use of a free mapping application and unlock the vaults of geologic information in the state's archives, according to leaders of the Tennessee Oil & Gas Association.

The coronavirus pandemic has cancelled the 2020 TOGA Annual Meeting, which was scheduled for May 10-11, and would have provided an in-depth seminar about an open-source geospatial mapping system called Qgis that rivals more expensive applications or services.

"We want to educate our members so they can better manage their properties, uncover valuable oil and gas data and save money," relates TOGA Chairman Gary Bible.

TOGA past-president Will Goodwin had been chosen lead the seminar, Bible indicates, with technical content for users ranging from those familiar with ArcView to those who have never used a geographic information system-based mapping system. ArcView, now known as ArcGIS Basic, is the entry level version of the mapping system produced and sold by Esri.

In other association news, with the departure of Roxanne Reiley as the top aide to TOGA President, Chuck Laine, TOGA's administrative and communications activities have shifted to Weller Law.

## Qgis Mapping

"I have been using Qgis for six months and I am very pleased with how it runs for my business," Bible affirms. "It is a very powerful program. I have it on my PC and laptop and use it to draw geologic maps and manage production data."

Qgis is described as a project of the Open Source Geospatial Foundation. It allows users to "create, edit, visualize, analyze and publish geospatial information" and is said to run on most operating systems while supporting vector, raster, and database formats and functions. In addition to a desktop GIS, it is said to in-

clude an open source spatial file browser, a server application and web applications.

For attendees, the mapping seminar was to "center on downloading and building a basic operational setup on their own computers," Goodwin describes.

During the session, Goodwin says, he planned to share Internet links to data that could be experimented with to give users a sense for the program's capabilities. He also says he planned to "present examples of operational functions found in Qgis with which some people may be familiar if they have used an ArcView product."

To demonstrate the value of GIS-based data management systems and the economic benefits of an open source program, the seminar was going to have an entry-level focus, Goodwin assures. "We took this approach to make sure everyone who brings a laptop leaves with a basic working GIS map that includes Tennessee oil and gas data," he reports.

## Valuable Data

According to Bible, operators know the value of having the latest information about all the oil and gas wells in their area. Add the ability to overlay satellite imagery, make point-and-click queries about a nearby location and track internal production trends all on the same screen, and better decisions follow, he considers.

"Using Qgis, an operator can set up an inventory of all on-site equipment and match that with his production volumes," Bible notes.

For prospecting, the state's vast storehouse of permits and well logs are available for the asking. Bible describes how rather than travelling to Nashville, Tn., to purchase copies of top-of-formation data from state archives, TDEC now will download digital scans of well files to an operator's portable hard drive.

"Most tops data has been scanned so it is available as an attachment to the well file," Bible notes. "Otherwise, for a small fee, you can get the entire 15,000-well history of oil and gas development in Tennessee on your computer. These days, it's all about better-faster-cheaper. With Qgis, you don't have to spend a ton

of money in order to manipulate the information you want and draw your own map."

As use and understanding of Qgis evolves, a members-only user forum will be available on TOGA's website, Bible reports, with a goal of helping members hone their Qgis skills. "We will be writing procedures for using Qgis and encouraging members to share what they have learned," Bible details. "It is something that is designed by oil people for oil people."

## Staff Changes

After serving for more than a decade as Laine's jack-of-all-trades first mate, Roxanne Reiley resigned from TOGA in December to take a position as the Oil and Gas Supervisor in the Tennessee Department of Environment & Conservation's Division of Water Resources.

Reiley succeeds Mike Burton, who retired from TDEC last summer as oil and gas supervisor after serving since 1996. "Everybody in the industry knew Burton and we are sorry to see him go," Laine says. "For Roxanne, it was a good move and I totally support it."

Laine and TOGA's Board of Directors recognized that the loss of a key staff person such as Reiley meant they faced the tall order of replacing her government relations, organizational and administrative skills, he recounts.

"When Roxanne left to take the job at TDEC, I figured it was time to rearrange how the association does its business," Laine says. That was when he started discussing delegating the association's administrative, communications, event management and other duties to Waller Law. Officially known as Waller Lansden Dortch & Davis, the firm is a multi-practice legal services and advocacy firm headquartered in Nashville, with offices in Austin, Tx., Birmingham, AL, and the Tennessee cities of Chattanooga and Memphis.

"Waller is widely recognized in Tennessee and it specializes in member services for small trades such as our oil and gas association," Laine says. "It has been a TOGA member for several years and

helps sponsor many of our events.”

With a team of government relations experts, Laine suggests Waller is well suited to help TOGA with its primary responsibility, which he characterizes as protecting the industry against adverse rules, regulations and laws.

With a client service agreement in place, Waller has assigned two staff members, Annie Beckstrom and Lauren Faulkner, to manage TOGA's day-to-day activities and plan 2020 events. Beckstrom is an attorney and registered lobbyist in Tennessee and will monitor and engage in the Capitol as needed.

### Years Together

According to Laine, Reiley had been his assistant since they formed an association to represent the state's coal miners in 2008 when they faced strong attacks from the environmental groups. “Every year the environmentalists would bring back what they called the ‘Scenic Vistas Protection Act’ that would have put the coal miners out of business. By the seventh year, we finally got it hammered down,” Laine recounts.

Their work was recognized by members of TOGA's board, who brought on Laine as a lobbyist to push back in the statehouse on the controversy swirling around hydraulic fracturing. Goodwin, who was TOGA president at the time, later asked Laine to add association president to his roster of responsibilities.

According to Laine, the association succeeded in helping add fracking rules to the state's regulations where none existed. “When we found out Tennessee did not have rules specific to fracking, we knew that the environmentalists would be all over us, saying the oilmen would go crazy and do whatever they wanted,” Laine comments. “They easily could have shut us down if we didn't get something in place.”

With the board's assent, Laine convinced TDEC to convene a working group consisting of industry, regulators and environmentalists, to draft the new fracking regulations. “Once we got a resolution through the House, we stayed on it for the next year to keep it moving,” Laine recalls. “It was important to not let it sit on anyone's desk.”

Celebration of the industry's success in heading off a potentially disastrous regulation was short-lived. Within months, oil prices went into a tailspin and several member companies not headquartered in

Tennessee departed. “These days, our members are mostly those who have always been around,” Laine observes.

That is not to say there is no action in the state's oil fields. “We are seeing ongoing activity in Overton and other counties in northeast Tennessee,” he notes.

TDEC records indicate all permits issued by TDEC since January 2019 have been for wells in either Overton, Fentress, Clay or Pickett Counties. Tennessee remains a resource-rich state, Laine indicates, and regardless of the price slump, he predicts natural gas demand will remain strong in the long term. To meet that demand, he says, operators in the Volunteer State will benefit from continued prospecting and by taking second and third looks at previous producing regions. Tennessee's advantages for producers include the availability of untapped gas resources, and—although space is tight—access to external markets through interstate pipelines, Laine assesses.

TOGA will continue working in the interests of Tennessee operators, he emphasizes. It will do so by continuing to interact with state executives and regulators, supporting legislation with positive impacts while opposing harmful bills and providing high-value, low-cost solutions that help members find more oil and gas.

### Abandoned Wells

Like many states with a long history of oil and gas production, Tennessee continues its efforts to reduce the number of abandoned wells that dot state maps. In the meantime, the presence of abandoned wells—of which state records say there are 1,980—tends to draw attention.

Last fall, a study published by the University of Tennessee warned that groundwater risked contamination in areas of the state with older wells drilled prior to existing regulations. It claims that the greatest risk of that lies in eastern and northern Tennessee, but notes that since groundwater is not a primary drinking water source in those areas, “the human population is not greatly affected.”

Instead, the study recommends, TDEC should focus on plugging abandoned wells in certain middle Tennessee counties where contaminated groundwater poses the greatest potential hazard. In her new role as Oil and Gas Supervisor, Reiley oversees the department's abandoned well program. She reports that last year, TDEC managed several contracts for well plugging and that 155 abandoned wells were

properly plugged. Although contracts are not yet in place, she says the department plans to plug a similar number this year.

At TOGA's last convention, the Board of Directors said it would pursue legislation to direct a portion of severance tax revenue to an abandoned well fund. Although no action was taken in the legislature, Laine says the issue remains open for discussion. Otherwise, this year's legislative session has been quiet, with few harmful bills, he describes.

This year, TOGA's priorities are to continue to “promote the oil and gas industry, monitor legislation, look for ways to find more oil while saving money, generally get along with our regulators and stay out of ‘gotcha’ range,” Laine confirms. “If we are doing something wrong, come tell us. We want to do the right thing.”

Laine describes how the abandoned well fund was active prior to the 2008 recession and used the interest it accrued to pay for plugging contracts. However, since the fund principal was not expended during one fiscal year, state accountants declared it inactive, which allowed it to be tapped for other purposes. In the years since, the fund has managed to keep up by using bond forfeitures and temporary abandonment fees. Without raising the severance tax, the state could divert some of that revenue from the state general fund to the abandoned well fund, Laine remarks.

In a report to the association in 2017, now-retired oil and gas supervisor Burton said the state increased plugging bond amounts a few years earlier to recover from the recession drawdown. He also restated the reporting requirements and bond amounts operators must observe.

In addition to a well plugging report on form CN-0217, operators must file a reclamation plan using form CN-0692 within 30 days of plugging and abandonment.

Well plugging bonds are based on well depth. Single well bonds drilled:

- To 2,500 feet are \$2,000;
- From 2,501 to 5,000 feet are \$3,000; and
- Deeper than 5,000 feet are an additional one dollar a foot.

Blanket bonds cover as many as 10 wells. For wells drilled to 5,000 feet the cost is \$20,000; from 5,001 to 10,000 feet the cost is \$30,000. Blanket bonds are unavailable for wells deeper than 10,000 feet. □