TOGA Leaders See Chance Of New Resource Play

By Del Torkelson

KNOXVILLE, TN.—It is an exciting time to be part of the Volunteer State's oil and natural gas industry, Tennessee Oil & Gas Association leaders indicate.

The association's reorganization, rising generation of leaders and strategic cooperation with the Tennessee Mining Association are a few high points, says TOGA President Chuck Laine. TOGA Chairman Gary Bible echoes those examples while also pointing to an enticing drilling target.

As a consulting geologist and president of Cougar Dome LLC in Helenwood, Tn., Bible has spent decades in the state's industry and has seen more than a few Tennessee prospects. Does the potential for a play in the Catheys formation stand among the best he has seen?

"Oh absolutely," he affirms. "This ranks at the top."

Hidden In Plain Sight

Bible credits his initial interest in the Catheys formation largely to isopach and



"If people made tons of money in Ohio with 120 feet of Point Pleasant, what could they potentially do in Tennessee, where it is 200 feet or thicker?"

> —Gary Bible TOGA Chairman

digital elevation maps of the Point Pleasant formation (Figures 1 and 2) that originate with petroleum engineer Ralph Williams and his daughter, Danielle Leighton. Bible mentions that the maps originate from a slide in Williams' presentation at a 2013 American Association of Petroleum Geologists meeting in Pittsburgh. "He gave me permission to use the maps in my report on a property in Brimstone, Tn.," Bible re-

counts. "Some patterns really jump out."

Bible says he expanded and refined the maps as part of that report. The current versions are based on about 130,000 well-bore data points and numerous correlation programs. They encompass the Point Pleasant formation from one edge to the other, across the Appalachian, Michigan and Illinois basins. When Bible saw them, he says, he realized the Ordovician interbedded carbonate and shale known in Tennessee as the Catheys formation is the stratigraphic equivalent of the Point Pleasant, which has yielded significant production in Southeast Ohio.

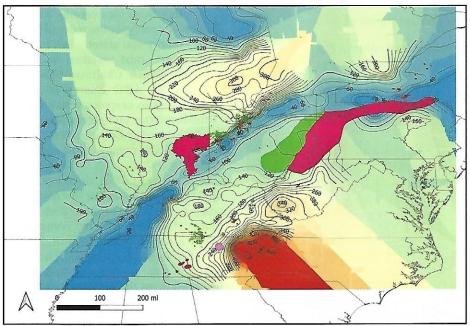
The Catheys sits below Tennessee's Chattanooga Shale, Bible describes. At Brimstone, he notes, the Chattanooga Shale is about 3,500 deep and covers 38,622 contiguous acres, while the Catheys accounts for 45,077 contiguous acres.

"The Chattanooga Shale is essentially a gas factory," he characterizes. "You drill to the top of the shale, deviate the well to the northwest and—if you use the proper treatment method—the best wells will make about 1.6 billion cubic feet of natural gas over a 30-year decline curve. That is pretty good from shallow depths."

But it's the deeper horizon that excites Bible. He notes that scattered production from around the area indicates the formation is oil prone, which concurs with U.S. Geological Survey analysis. "Where in Ohio are you going to find a block of 45,000 contiguous acres available for leasing?" he poses. "The Point Pleasant

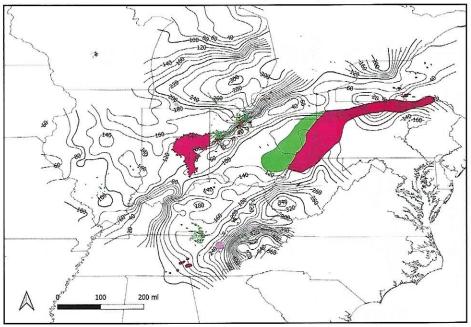
FIGURE 1

Point Pleasant Digital Elevation Map



Contour intervals in this map are 20 feet. It has been reproduced with permission from Ralph Williams and prepared by Gary Bible, copyright 2/7/2023.

Point Pleasant Isopach Map



Contour intervals in this map are 20 feet. It has been reproduced with permission from Ralph Williams and prepared by Gary Bible, copyright 2/7/2023.

thickens in Southeast Kentucky and Northeast Tennessee. If people made tons of money in Ohio with 120 feet of Point Pleasant, what could they potentially do in Tennessee, where it is 200 feet or thicker?"

Players Wanted

Although Tennessee's tiny independents may launch the first forays, Bible suggests that the ideal scenario will include some newcomers. "Tennessee tends to be dominated by companies like mine, which has two people," he relates. "Companies here may drill and promote four-five wells a year, so it is too a big a bite to finance 15-20 wells a year to get a resource play into high gear."

Nevertheless, he predicts a major

Nevertheless, he predicts, a major drilling play will be a boon not only for the newcomers, but also a shot in the arm for the state's mainstays. "It will attract service companies, stimulate activity and appeal to investors," Bible relates. "Tennessee offers some key advantages as a very pro-business state with commonsense drilling regulations that protect the environment but do not saddle operators with onerous burdens."

And, of course, there remains the significant draw of extensive open acreage. "There are a few large tracts and then the rest of the plateau is dominated by 100- and 200-acre tracts," Bible describes. "Diversified Gas & Oil is one of the area's dominant operators, but it does not drill. There is a lot of acreage available for a Point Pleasant/Catheys play, because activity generally has focused on shallow Chattanooga Shale drilling."

Like much of the Appalachian Basin, the terrain is hilly and forested, Bible acknowledges. However, the area's defunct strip-mining operations have left behind excellent prospective drilling locations, a network of gravel roads and numerous artificial ponds.

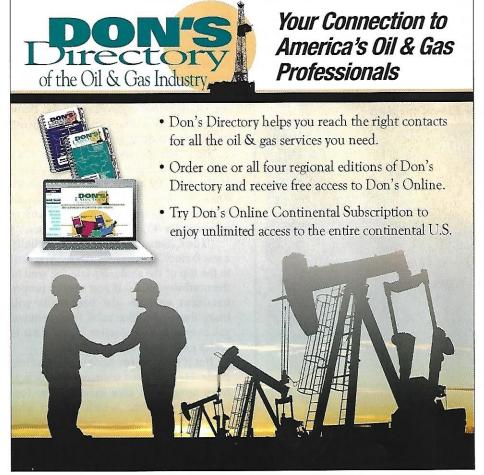
Ultimately, he suggests, a new resource play may take flight in Tennessee, providing another testament to the industry's ingenuity, creativity and persistence.

Crypto Mining

Another fresh idea coming to life in Tennessee leverages the mutually beneficial synergy that arises when the right components come together. According to Laine, TOGA Chairman-Elect Matt Adkins with ABG Energy is selling stranded gas to cryptocurrency miners. "Running those computers requires so much electricity," Laine observes. "Now we have several cryptocurrency operators in the state."

According to Bible, the setup entails one shipping container to house the computer unit and climate control system, and another shipping container to house a natural gas generator. "It is a clever system," he praises. "They haul everything in, place it next to the wellhead, hook up the generator and away they go."

Although such operations remain small for now, Bible points out that some area natural gas purchasers have been declining



high-Btu gas, which means operators cannot sell it until they strip it or mix it with lower-Btu gas, a task sometimes beyond small operators' means. "A lot of gas wells that will produce 10-15 Mcf a day of 1,300 Btu** gas are shut in," he says. "One of the solutions has been cryptocurrency, for which the generators can be set up to run on any Btu content."

"We are looking at different ways to operate," Laine considers. "Fossil fuels are not going away anytime soon."

Common Interests

Tennessee's 113th General Assembly has been in session since mid-January and will continue into early May, but Laine indicates the lone item on TOGA's legislative wish list is to avoid harm to the industry. "As usual, our goal is to make sure nothing passes that makes it harder to drill or run our businesses," he maintains. "If we see anything like that, we always do our best to kill it. That is the mode we are in right now."

Republicans control a supermajority in the Tennessee statehouse, he notes, and TOGA enjoys good relationships with and support from the state's legislative leaders. "Some people oppose fossil fuels, but it seems unlikely anything hostile will pass," Laine assesses. "We are a well-liked industry."

Meanwhile, he observes, the state's industry has emerged from an ill-fitting regulatory situation that held sway for about a decade since the Tennessee Department of Environment and Conservation did away with its Division of Oil and Gas and moved its functions under the Division of Water Resources. "That is not where we belong, so we worked very hard to change that," he recounts. "Several months ago, our state created a Division of Mining and placed our state's Oil and Gas Supervisor in there, which is where our industry belongs."

"That is important," Bible concurs. "We like this much better."

Last year, Laine notes, TOGA held its annual meeting in conjunction with the Tennessee Mining Association. The 2022 event was so successful, he reports, the groups are planning more joint events, including a 2023 TOGA/TMA Annual Meeting, scheduled for Oct. 1-3 at the Park Vista in Gatlinburg.

"The annual meeting worked very well," Laine comments. "There were joint sessions that dealt with things held in common, such as presentations from the TDEC. We also had breakout sessions for subjects specific to mining or oil and gas."

Although oil and gas and mining

have a reputation for rivalry, especially in Appalachia, Bible says he has seen none of that. "Our experience has been exactly the opposite," he describes. "We have a lot of common interests, and the meeting was excellent, so we decided to do it again."

Feedback from both associations' members especially lauded the opportunity to meet and chat with other attendees, including regulators who the industry rarely gets to interact with in an informal setting.

"The annual meeting offers a lot of opportunities to get to know each other, as well as chances to visit with regulators," Laine details. "We are all in the fossil fuel business and are facing some of the same challenges. When it was over, the TMA chairman said we ought to do it again. In a separate conversation, Gary (Bible) said the same thing."

Both groups are all too familiar with efforts to resist their activities and artificially limit consumers' ability to use their products, he adds, which lends itself to a natural affinity. "We are all facing the same big problems," Laine reflects. "That is a good reason to team together, get to know each other and cooperate."

New Blood

According to Laine, TOGA's Board of Directors has refreshed its composition. "We have added some younger people and lowered dues significantly," he reports. "We also have formed a Membership Committee, which is chaired by Stephanie Cross of Tennessee Real Properties, and a Convention Committee, which is chaired by attorney John Nesbitt."

The Board of Directors also tapped ABG Energy's Matt Adkins to succeed Bible when his term expires in spring 2024. "By the time I am done it will have been eight years," he reflects. "Chuck (Laine) and others in the organization have been very good to work with and it has been a lot of fun, but I am 73. Part of leadership is knowing when the time has come to bring in new blood.

"And frankly," he adds, "I want to devote myself to doing a lot of additional mapping work on this Catheys/Point Pleasant play."

However, he concludes, should such a play pull outside companies into Tennessee, those newcomers should do their part to uphold the association that has kept the industry's torch burning all the while. "We all need to protect our interests together," Bible says. "We are trying to attract everyone into TOGA."



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