



Joe Fisher January 21, 2014

Austin Chalk Lessons Being Applied in Buda Limestone

Armed with modern drilling technologies and results from vertical wells past, operators have been returning to the Buda Limestone Formation, a downstairs neighbor of the Eagle Ford Shale, and plying it with horizontal wells and lessons from the revitalization of the similar and shallower Austin Chalk.

Dallas-based Gulf Coast Western LLC is one such company. It recently acquired 3,500 acres in Wilson County, TX, and is in discussions to lease more (see Shale Daily, Jan. 9). Geologist Rod Einspanier, principal of Dallas-based Einex Energy Inc., is working with Gulf Coast Western.

“The Buda’s been drilled vertically for years,” Einspanier told NGI’s Shale Daily. “People have established good vertical production, especially in the area where we’re about to drill in...We’ve got a tremendous amount of vertical logs and data...”

Horizontal drilling in Wilson County has been on an upswing for awhile. Last year the Railroad Commission of Texas (RRC) approved about 98 drilling permits in the county, the vast majority of them for horizontal wells, which was on par with 2012 activity but up sharply from seven permit approvals in 2011.

Einspanier is a veteran of the revitalization of the Austin Chalk, which lies above the Eagle Ford, that took place during the 1990s. “I’d say the difference between the Chalk and the Buda is the Chalk has a little bit better porosity. It’s a little thinner, and the fractures may be more consistent,” he said.

During the 1990s in the Austin Chalk, Einspanier and his colleagues would look for areas that had good production from vertical wells. “That told you one thing: that there was fracturing present in the area,” he said. “I’d never go drill a [horizontal] well in an area that didn’t have somewhat good to decent vertical production. That’s a key.”

The geologist said the Gulf Coast Western acreage has a “very thick” 80- to 100-foot pay zone, compared with 10-15 feet in the Chalk. So today he finds himself with a much larger zone and much better drilling technology to guide the drillbit within it. Back in the days of the Chalk’s revitalization, “...we were trying to stay in [the zone] with basically no technology at the time. We were just drilling to see how far we could get out, and that was about it.

“Now with technology, the tools are better, the MWD [measurement while drilling] tools are better, the steering tools are better, bits are better. There’s probably an 80-foot zone but maybe a 20-foot window you want to stay in while drilling. We’ve got the capability now to stay within a foot or two of where we want to be at all times.”

Over the last year or so, a number of operators have been drawn to “this nice thick section of Buda that is a proven productive trend and certainly was proved-up by the vertical wells,” Gulf Coast Western CEO Matthew Fleegeer told NGI’s Shale Daily. “You’ve got some companies that have a lot of experience out there that have had some good success.”

Among these are Everest Resource Co. and Vistar Oil Texas, both of which “have drilled some very good wells out there,” according to Fleeger.

He said Everest had been looking at one of his company’s deals in Louisiana but decided to devote its resources to the Buda oil play. “At the time I didn’t have any more knowledge than that, but when Rod approached me with this [Buda] project, I put two and two together, and we had a lot of additional information that became available to us through our relationships that we felt justified the large investment that we’ve made out there to secure the position that we’ve got.”

The decision has been affirmed as the cost of Buda acreage has gone up about four-fold in just the last few months, Fleeger said.

While the Buda doesn’t offer the same production upside as the prolific Eagle Ford, it costs much less to drill and complete a well because the Buda is naturally fractured. No costly hydraulic fracturing is necessary in the Buda.

The area of the Buda leased by Gulf Coast Western is just north of the Eagle Ford activity, which is separated by a fault. “You can see a clear dividing line between where the Eagle Ford wells stop and the Buda wells start,” Einspanier said. “Anything north of this fault in the Eagle Ford is either too thin to drill or not productive. There have been Eagle Ford wells drilled in this area that haven’t had any success because the Eagle Ford runs about 20-25 feet thick around here, and down where the good [Eagle Ford] wells are being made it’s 50-100 feet thick.

“It’s good for us in the sense that it’s worked out like that because it’s allowed us to lease some acreage while the Eagle

Ford activity is going on,” he added. “Indeed, the geology is set up so as to draw perhaps more deep-pocketed operators to the bigger payoffs in the larger and more expensive Eagle Ford, giving cover to smaller fry that are more than happy to be in the smaller, lower-cost Buda.

“We’re working on a lot of deals,” Fleeger said. “We’re aggressively pursuing more opportunities. We’ll start [Buda] drilling in the first quarter, and I think it’s a function of the results that we experience, which will dictate the desire that we have to continue acquiring more acreage than what we’re currently in the process of leasing.

“...[A]s long as we’re able to successfully secure acreage in what I’ll call the sweet spot or the trend that we’re in that we believe has good vertical well control and establishes the type of formation thickness that we think is critical to success out here, then we would continue to acquire as much as we can.”