

3-D Survey Eyed For Marine Shale

By LOUISE S. DURHAM, EXPLORER Correspondent



Indigo's test well in Vernon Parish, where the "Louisiana Eagle Ford" is underlain by the Edwards limestone rather than the main body of Tuscaloosa sand.

The deep, high-pressured Tuscaloosa Marine shale in central Louisiana has long toyed with many industry explorers, spitting out just enough oil to tease even the most sophisticated geoscientists as operators drilled through it toward other zones.

As a result, there have been on-again, off-again attempts over the years to kick off a Tuscaloosa Marine shale play in central Louisiana.

The current effort involves a number of operators and is in high gear – and it may finally prove or disprove the economic recoverability of the estimated seven billion barrels of oil residing in this rock.

It no doubt will be a challenging task, but some high tech help is in the making in the form of brand new 3-D seismic data, according to AAPG member Clint Moore, vice president of corporate development at ION Geophysical Corp.



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“Here at ION, we’ve developed a plan and are evaluating the technical and commercial scope for what could potentially be a large, multi-thousand-square-mile 3-D multi-component seismic

survey,” Moore said. “It would be the most advanced and extensive ever acquired across central Louisiana.

“Incorporating an image-based survey design and using INOVA’s cableless FireFly seismic acquisition system, we would minimize the environmental impact in the valuable densely-wooded southern pine forests in the region,” he noted, “and we would meet the structural imaging and reservoir characterization needs of operators with acreage positions in the Tuscaloosa Marine Shale play and the (overlying) Austin Chalk play.”

Moore said the seismic data would be processed using ION’s GXT data processing toolkit, which will allow maximum resolution of the sweet spots in both the shale and the chalk.

“Explorationists would be able to technically high grade their acreage and drill the most geologically optimal locations earlier in the drilling program,” he said.

“With the rock property insight gained from our program,” Moore added “the frack engineering teams will be able to optimize completion strategies in these tight, fractured resources.” 