TOPCON

Surveyors tap technology for mapping wells

Sylvan Surveys' Mike Aimonetti (left) and Roy Boyd (right) of Boyd Instrument & Supply Co.

Over the last century, the sands of the Allegheny National Forest in the Southern Tier of New York State and adjacent Pennsylvania have yielded impressive volumes of oil — with a projected 160 million barrels still remaining. As a result, there are now more than 8,000 active wells in the region, with about another 1,200 being added each year.

Servicing the scores of oil and gas companies holding leases on mineral rights in the forest has become a focus for a number of surveying firms in the area, including Bradford, PA-based Lang Surveying. Owner Chuck Lang says that, while he also does boundary and topographic work, better than 95% of their business is well related.

"I am currently working with 15 different oil and gas companies," he says. "We get our clients to a point where a well can be permitted and drilled, and doing so can differ from one client to another."

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Companies: Lang Surveying; Bradford, PA; Sylvan Surveys, Inc., Mt. Jewett, PA

Project: Use of GPS technology to locate existing gas and oil wells, establish new ones and file the permitting for both.

Location: Allegheny National Forest, Pennsylvania

Topcon Products:

GR-3 multi-constellation receiver

HiPer Lite+ receiver

FC-2000 controllers

GMS-2 GIS mapping field controller

Topcon Dealer:
Boyd Instrument & Supply
Philadelphia, PA.
www.boydinstrument.com

AT WORK

Surveyors tap technology for mapping wells

'I am one surveyor working alone, and on a single day last week I did eight wells using the Topcon system. In years gone by, using a traditional approach, it would have taken me up to a week to do a single well. It's that much quicker.' – Mike Aimonetti, owner, Sylvan Surveys, Inc.

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In the past, Lang says he used conventional traverse surveying methods to map wells — a lengthy, time-consuming process. That all changed for him with the advent of GPS.

"Early on, I began to see the benefits that GPS could offer," he says. "So, about ten years ago, I spoke to my equipment supplier, Roy Boyd from Boyd Instrument & Supply, and made the switch — first leasing equipment, then, about five years later, purchasing my own. I'd been using Topcon's Legacy E receivers for the last several years, but recently upgraded to a Topcon GR-3 GPS+ receiver. It wouldn't be overstating the case to say GPS has revolutionized our business."

The advantages of GPS in his line of work center around speed, accuracy and reliability. He says nailing down property corners, tying in to old wells, etc., is easily three times as fast. "Utilizing GPS allows us to get a lot of work done in a much shorter period of time — without forsaking quality," he says. "And that makes everyone happy."

Roughly 20 miles south of Lang's location, Mike Aimonetti is seeing an equally heavy workload driven by oil and gas customers. As owner of Sylvan Surveys, Inc., he specializes in doing well plats and preparing applications for his customers. He says he really appreciates the reliability of his Topcon equipment.

Using the FC-2000 controller and GR-3, Lang's crew can quickly and accurately move from data collection to well-staking.

"Though we try to do a lot of our GPS work either in spring before leaf-out or in the fall when leaves have fallen, even in heavily wooded areas, the Topcon HiPer Lite+ receiver holds its signal lock better than any other equipment I've ever used."

The increase in drilling activity over the last couple years has placed some serious workload demands on Aimonetti — demands, he says, that he could not possibly meet without GNSS receivers and data collectors.

"On a single day last week — working alone — I did eight wells using the Topcon system. In years gone by, using a traditional approach, it would have taken me up to a week to do a single well. It's that much quicker."

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Topcon's GR-3

Topcon's GR-3 with its wide array of advanced design features is truly a revolutionary receiver– two steps ahead of any other receiver technology available!

Topcon's GR-3 receiver, the next generation of system design and tracking technology, is now available with a completely new digital UHF radio system utilizing DSP technology. This technological advancement delivers far greater reliability and performance than older analog UHF technology of the past and sets new standards for performance, accuracy and innovative design.