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## The Science of Sound / Noise Abatement brings Success to Local Company

by Michele Abbott

FARMINGTON. In his Saturday column March 3, Daily Times Editor Barry Heifner opined that a fine line exists between keeping the oil and gas industry happy and thriving thus ensuring a healthy local economy and sustaining the tranquil beauty of wilderness areas in the Four Corners. Heifner allowed that he didn't have an easy answer to noise abatement issues. When he invited anyone who did to give him a call, Tony Wootton took him seriously. Construction project manager for Kelco Inc., a local oil and gas operations and consulting company, Wootton was on the phone the next business day. We don't have a possible answer, he said. We have the answer. As proof, Wootton sited what can't be heard at a residential compressor site which, just one year ago, was a serious bone of contention and the subject of a series of homeowner meetings. All is peaceful now at the Cross Timbers well site near Crestwood Drive ; and Wootton and Steve Kellenaers, Kelco's company president, said it's because of 40-year-old technology long in use in Canada and the northeast United States. It's not a matter of deflecting or containing the sound, Kellenaers said. You have to absorb it. Mass plus weight equals sound absorption ... the Canadians are



A well compressor in the heart of a northeast Farmington neighborhood is in compliance with what engineers have described as the toughest standards they've ever had to meet for industrial noise control.

very strict with their noise ordinances, so this is nothing new for them. Kellenaers said acoustical engineers developed a system of double-walled, interlocking steel panels, manufactured by Kinetics Noise Control in Ontario, Canada, and Dublin, Ohio. The custom-designed panels are fabricated with a solid galvanized steel outer skin and a combined solid/perforated galvanized inner skin. The technology extends to acoustical doors and windows, ventilation systems like the one necessary at the Crestwood location, and other structural needs. Kellenaers said paperwork was pending a signature today that will make Kelco the authorized Kinetics distributor for the Rocky Mountain oil and gas region.

That's in addition to the 3-year-old company's primary role of production work and consultation. Design of each individual noise abatement system takes into account a

variety of factors, not the least of which is topography. Kellenaers said the Crestwood site had to be completely contained to prevent the sound from emanating up to nearby homes built at a higher ground level than the well. The pitch of various industrial sounds is also a factor. Kellenaers said higher tones create shorter sound waves and, as such, are easier to disrupt. People think deep tones would be harder to hear, but they make long sound waves, which are harder to block, he said. Whatever the science and technology involved, the system was built to what engineers termed the toughest standards they'd ever had to meet. City officials imposed permit requirements stating that compressor noise cannot measure more than 42 decibels compared to the sound level of two voices engaged in a normal conversation at 50 feet from the source, nor can it exceed 1 decibel over the neighborhood's ambient nighttime noise

level at 200 feet from the source. A half-dozen homes are that close to the site. And the technology works. Cross Timbers has done a good job of living up to their promises, said a resident of one of the closest lots. The individual, who asked that their name not be used, said "Sometimes you can hear it late at night, but only very distantly ... I wasn't for it. I signed the petition against it, but I'm pretty happy with the way things have worked out." The homeowner added that Cross Timbers has been also been quick to respond whenever contacted with questions or problems. Wootton said local noise abatement efforts have been helped by the fact that major players have a real interest in responding to public concerns. I think they all try to be good neighbors. Locally, Cross Timbers, Merrion Oil and a few others are leading the way.

#### Wilderness efforts pending federal limits

Kellenaers and Wootton both said they believe it's only a matter of time before such technological improvements make their way into the wilderness. The problem at this point, however, is waiting for federal authorities to decide what they want noise limits to be. This is going to spread to noise-sensitive areas, Kellenaers said, adding that the issue is relatively new to the area since compressors weren't generally part of the production phase until the early to mid-1990s. What a lot of producers are waiting on now is for the federal government to set what their limits are going to be. Once (federal agencies) make up their minds, people will know what they have to work with. In August of last year, of-

ficials at the Farmington office of the Bureau of Land Management released a proposed policy in the San Juan Basin for development in noise-sensitive areas. The policy establishes setbacks and boundaries for development in the county's inhabited, recreational, archeological and/or remote areas; and identifies noise-sensitive areas as those which have been deemed necessary to protect from unwanted sound and include the presence of human habitation, recreational resources, endangered species, designated wildlife and wilderness lands or archeological resources. Authorities have identified nearly 60 such areas within boundaries of the Farmington field office, which covers San Juan County, western Rio Arriba County, and northern McKinley County. Proposed regulations would set standards at a maximum of 48.6 decibels within a 300-foot circle surrounding the noise source. Once effective, the rules will apply to all newly installed noise sources. Those already in place will have to incorporate necessary upgrades into the regular maintenance schedule, with a maximum time of five years to reach compliance.

While by no means complete, a listing of major impacted areas in San Juan County include more than 44,000 acres of the Bisti/De-na-zin Wilderness Area, at least 12,000 acres adjacent to Navajo Lake; 10,240 acres surrounding the Angel Peak National Recreation Site and a little more than 2,700 acres in the Fossil Forest Research Natural Area. Points along the county's rivers also are being considered with an eye toward birds nesting in those areas. Industry representatives had expected those rules to

be implemented this year, and they might still, but when is anybody's guess. BLM field manager Lee Otteni said last week that a draft of proposed regulations was held back to allow for the change in administration in Washington,. Otteni said officials want to give the new interior secretary, Gale Norton, an opportunity to study the proposal and its many details in depth. We want her to understand the rationale behind the proposals, Otteni said. He said officials will send the plan to Washington soon, possibly as early as this month. Locally, I would like to have a policy implemented that speaks to interfacing with private lands and special management areas, Otteni said. The only controls in place are self controls from the industry. They've had pretty good cooperation (but) we want to have the same kind of considerations that oil and gas has shown to private land owners. Otteni said he is hoping for policy approval sometime this year, but isn't estimating any kind of time frame at this point. This is a new administration and they have thousands of issues to deal with, he said.

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