

Case Study: Hunt Oil Company

Noise Solutions Achieves Zero Net Increase in Noise



[Hunt Oil Company](#), a privately held exploration and production company with operations in North

and South America, Europe, Australia and the Middle East, had plans to install more than 1400 HP of gas compression within its inlet facility on Shell's Caroline Gas Plant based, near Sundre in Alberta, Canada. Hearing about Noise Solutions unparalleled products and services, Hunt Oil chose the company to carry out the challenging task of adding zero noise to the site, which was mandated by Alberta's Energy Utilities Board (now [Alberta Energy Regulator](#)) and the [Sundre Petroleum Operators Group](#) (SPOG).

When the installation of Hunt Oil's powerful gas compressor was proposed, the Sundre-Caroline community expressed unease with the site development, but both Hunt Oil and Noise Solutions were committed to achieving the goal of zero noise and zero impact to the community. Also adding to the challenge was the sour gas on site, which meant the ventilation system would need to be completely reworked, and the entire noise suppression unit would need to be custom designed to compensate for the sheer size of the compressor building.

To effectively attenuate the high frequency noise and the challenging low frequency noise of the new compressor unit, Noise Solutions and Hunt Oil agreed that complete sound-suppression would be necessary and the challenges continued to grow. The Air-X-Changers 168EF Cooler had a 14 foot diameter fan – the largest Noise Solutions had ever worked on. This posed both design and shipping

challenges. To remedy the noise produced by this fan, Noise Solutions used a customized Cooler Fan Silencer Package, including a Cooler Inlet and Outlet Silencer and Cooler Plenum Walls to trap any noise that could potentially escape.



The compressor engine, a Waukesha L5794LT at 1,445 HP, was also equipped with customized Noise Suppression Equipment. This included a full Zeron® Engine Exhaust Silencer package, Induced Draft Acoustical Building Inlet Ventilation and Fan Forced Acoustical Building Outlet Ventilation, as well as an Acoustical Building Enclosure. The combination of this powerful Noise Solutions equipment achieved the goal of zero noise, meeting all regulations.

“Our goal was to put 1445 horse power worth of compression on the Caroline Gas Plant without adding any noise to the existing ambient noise that came from the plant,” says Joe MacLean, Facilities Engineer at Hunt Oil Company. “I thought it was a pretty steep goal, but the acoustical assessment and Noise Solutions said it was achievable, so that seemed like the best viable option to go for. We did it and we met the goal of zero adder.

Our operators were telling me later, when you stand outside the door in that building on the platform you couldn't tell whether the compressor was running or not. So that's pretty fantastic, really!”

With a job of this scope, open communication and calculated attention to detail is of upmost importance. Noise Solutions rose to the challenge and provided Hunt Oil with the quality products and service it's known for.

"It was fairly smooth working with Noise Solutions throughout the entire project and I would absolutely recommend them to other companies," says Joe MacLean, Facilities Engineer at Hunt Oil. "As far as I know, Noise Solutions is the best in the industry... and they helped us achieve a zero noise add."



Several parts of equipment were custom-designed to effectively meet the requirements of Hunt's machinery. Noise Solutions direct and amenable approach to the challenges faced at Hunt Oil's Caroline Gas Compressor site allowed for quick and efficient shipping, delivery and installation, to fully meet and surpass the regulations set forth by [SPOG](#) and the EUB. This resulted in a final dBA of 39.5, a zero noise impact and complete success of the project.