

# ENGAGING AUSTERITY THROUGH INNOVATION...

## ***A New Addition to the Extreme Endeavors Team***

Extreme Endeavors' Business Manager, Shana Frey, gave birth to a baby boy on August 9th, 2010. One of the perks to working with a small research and development company is that infants can join their mothers at work. While a small business cannot offer the compensation of larger firms, policies such as this one are more valuable to working mothers.

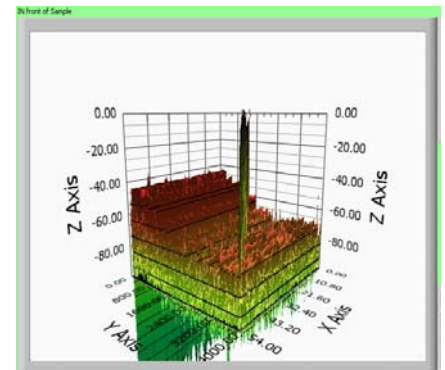
## ***Partnership with Nevada Nano***

Extreme Endeavors established a Memorandum of Understanding with Nevada Nanotech Systems, Inc. (NNTS) to facilitate integration of the company's Molecular Property Spectrometer (MPS) to assist the Department of Defense (DOD) for the detection of explosives, hazardous chemicals and a plethora of other elements. This small "lab on a chip" technology provides tremendous capabilities that extend well beyond the sensing systems currently utilized by the DOD. The MPS technology will allow sensing of multiple elements to provide true intelligence in a structure of systems application. A prime example of this technology would be the detection of people and explosives in a cave. With Extreme Endeavors' experience in designing systems for underground environments and monitoring the micro-climate of underground facilities, this partnership creates an ideal target for solving critical related issues around the world.

## ***Extreme Endeavors and QiGong, Validating Ancient Chinese Healing Techniques***

Extreme Endeavors was recently contacted by researchers looking to validate the healing capabilities of QiGong. The QiGong process utilizes low frequency sound waves as a natural healing method and a pain relief source for such ailments as arthritis and other such chronic conditions. Infrasound is a frequency below 20 Hertz (Hz), which humans cannot hear. In contrast, the more familiar ultrasound has frequencies above 20,000 Hz, which humans also cannot hear.

Extreme Endeavors has the latest technology for sampling sound waves, including: a sound chamber, assemblies for the measurement of acoustical propagation and the latest software for processing and analyzing acoustics in a variety of frequencies. We have performed acoustical measurements for everything from ultrasonic propagation to the low frequency sounds that emanate from a cave. The graph to the right shows a resonant sound measurement taken in the Extreme Endeavors lab. Please contact us for your sound analysis needs; we are always open to new and diverse ideas!



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and Consulting LLC*



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## ***What Is Happening at Hellhole and Schoolhouse Caves?***

During the 2009/2010 winter, Extreme Endeavors was performing some routine maintenance at Hellhole when we noticed two bats flying. This is an abnormal condition for it is rare that bats will fly outside of the cave in the middle of winter. Bats subsist on insects and, without insects to feed on, a bat will starve to death if it leaves the cave during winter months. The Extreme Endeavors team recognized this as a symptom of white nose syndrome, a fungus that awakens bats out of hibernation in the winter months.

While thousands of bats perished as a result of this disease, we have continued our monitoring efforts. During the summer of 2010 Extreme Endeavors entered into Hellhole and replaced our sensors, which had been operating for over four years and were finally showing signs of abuse from countless lightning strikes and the harsh conditions of the cave.

In addition, Extreme Endeavors presented a paper at the forum "Protecting Threatened Bats at Coal Mines." Our paper entitled "***Microclimate Research to Support Endangered Species of Bats in Hellhole and Schoolhouse Caves and Technological Advancements in Monitoring Systems***" is available to anyone interested. Please see below for contact information.

## ***Heat Control System for the Tucker County Courthouse***

Extreme Endeavors will utilize small wireless sensors to transmit the temperature at the Tucker County Courthouse to a computer system. This system will be programmed to read the incoming data and, if required, open the valve on a nearby radiator. Extreme Endeavors will develop specialized valves that are Internet-controlled and will be housed in rustic looking enclosures to insure compliance with historical building standards in West Virginia.

## ***Nodalynx Gears Up!***

Nodalynx, a subsidiary of Extreme Endeavors, has initiated its product offering by providing water monitoring and control for systems in rural West Virginia and in small cities. This system allows small, networked control anywhere, even in remote mountainous regions. Nodalynx LLC is backed by Extreme Endeavors' engineering team and is constantly developing new applications, with the preliminary focus on water. Kofi Annan, Ghanian Diplomat, 7th UN Secretary-General and 2001 Nobel Peace Prize Winner has been quoted as saying:

*"Fierce national competition over water resources has prompted fears that water issues contain the seeds of violent conflict. As I travel around the world, people think the only place where there is potential conflict [over] water is the Middle East, but they are completely wrong. We have the problem all over the world."*

Increasing water rates, leaking water systems and aging infrastructure is a problem not only for the state of West Virginia, but it is a worldwide issue. Nodalynx's goal is to address these needs locally with technology that is developed locally and then expanded worldwide.

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