

Los Gatos Research Analyzer Measures Methane in Gulf of Mexico from Deepwater Horizon Oil Spill

A team of researchers led by John Kessler of Texas A&M deployed LGR's Fast Greenhouse Gas Analyzer to understand the extent of the oil spill through measurements of methane near the Deepwater Horizon disaster area

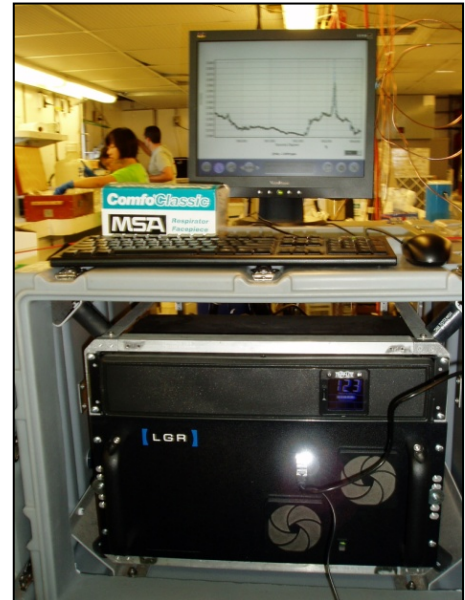
MOUNTAIN VIEW, California, July 16 – Oil soaked beaches and wildlife are visible signs of the oil spill in the Gulf of Mexico, but they do not adequately quantify the extent of the situation. Another method is to measure dissolved methane distributed in the waters of the Gulf. In an opinion article in the *Journal Nature*, Dr. David Valentine of the University of California, Santa Barbara wrote that methane makes up about 40 percent of the leaking petroleum and the vast majority of methane making the long trip to the sea surface from the deep-water spill would dissolve (into the water).

To help quantify this effect, Dr. John Kessler of Texas A&M University sampled waters from the Gulf using an LGR Fast Greenhouse Gas Analyzer, an instrument that accurately measures both methane and carbon dioxide over extremely wide concentration ranges. The Analyzer was used in a recent mission to the waters near the spill site to record measurements of dissolved gases from Gulf water samples.

“Until recently, the only method for making this type of measurement was (gas) chromatography, a relatively slow technique that has limited dynamic range and requires frequent calibration,” said Dr. Doug Baer, President of Los Gatos Research. “However, LGR’s Fast Greenhouse Gas Analyzer can report methane and carbon dioxide measurements 10 times per second with extremely high precision and over a concentration range from parts-per-billion to percent levels.” Baer continued, “Furthermore, its fast response allows researchers to see the effects of changing concentrations that previously would have been missed by slower instruments. In addition, the instrument requires only 100 watts of power and can operate indefinitely without user interaction.”

The FGGA uses Los Gatos Research’s patented laser absorption spectroscopy method called Off-axis ICOS. This technology, a fourth-generation cavity ringdown spectroscopy technique, employs an optical cavity to greatly enhance spectral absorption and enable extremely precise measurements of trace gases and isotopes.

LOS GATOS RESEARCH (www.LGRinc.com) is the market leader in developing and marketing nondestructive, laser-based instruments for measuring trace gases and isotopes. Los Gatos Research’s patented cavity enhanced laser absorption technology enables unparalleled sensitivity, precision, accuracy and stability in an easy to use, rugged and compact package. Los Gatos Research’s technology is applied worldwide for measurements of trace gases, isotopes, greenhouse gases, and much more.



LGR Fast Greenhouse Gas Analyzer reporting continuous measurements on ship near Deepwater Horizon oil spill



Near Deepwater Horizon oil spill (photo courtesy of Texas A&M)



Research team studies Deepwater Horizon oil spill (photo courtesy of Texas A&M)