Drill Rig 1-hour NO_2 Emissions and Air Quality Study

May 1, 2014 – contact: Tom Moore (970.491.8837 or tmoore@westar.org)

The Western Regional Air Partnership (WRAP), the federal Bureau of Land Management (BLM), and the American Petroleum Institute (API) are collaborating to financially sponsor a study of Drill Rig 1-hour NO_2 emissions and air quality impacts. This is a collaborative Study, also involving state and EPA air regulators and federal land managers in addition to the sponsoring agencies and organizations. There is potential to add other sponsors.

The purpose of this Study is to collect ambient measurements adjacent to drilling rigs to evaluate actual 1-hour NO_2 impacts from drilling operations in the Western U.S. In addition, sufficient data would be collected regarding drilling operations that could be used to verify NO_2 air quality models. The Study is designed to focus on short term episodes as opposed to a long term monitoring program. Longer-term monitoring is not practical because of the short duration that a drilling rig is at a single location.

Study Schedule

Nov. 2013 to April 2014	Workgroup formation, schedule and overall study workplan development
March to May 2014	Development of a field study design for 2 to 4 western U.S. Basins, including specifications for the sampling protocol and quality assurance/control plans – leading to a Request for Proposal for field data collection and subsequent data analysis effort for all Study sites.
May to Sept. 2014	Field data collection
Sept. 2014 to early 2015	Data analysis, model evaluation, and reporting

The project will provide accurate scientific data that would otherwise not be available; this study is a rare and infrequent opportunity to systematically collect and evaluate data for drilling operations. API and BLM have voluntarily sponsored this effort and in addition to the budget resources shown below, are providing in-kind assistance. In addition, regulators, while constrained by limited budgets, will benefit from much better data as input into their air quality planning and regulatory decisions. Industry benefits from accurate data that takes into account changes in production in the different basins over time, rather than assumptions about levels of production and potential to emit calculations which often assume an unrealistically high worst case scenario. Both industry and regulators are better able to discuss and determine how to manage air quality and provide meaningful reductions in air emissions in a more efficient, economical manner.

Work has already begun on the Study Design for the Alaska North Slope site. The study collaborators are also interested in sites in the lower 48, including Greater Green River and Denver-Julesburg Basins, and are interested in specific locations and times when operators can provide access to drilling operations in these or other Basins. The D-J Basin is a desirable location, and there is an opportunity to synchronize field work for this study with the DISCOVER-AQ, FRAPPÉ, and other related air quality studies planned there in July-August 2014. All of the Study goals require support from operators with logistics as well as additional funding to bring them to fruition. Below is a prioritized cost estimate for each remaining aspect of this Study. We are asking companies to consider helping to fund one or more of these phases of the project. We believe the funding will return tangible value to both companies and regulators as use of these data increases and the consideration of regulatory actions under existing and new standards are addressed.

Current funding commitments:

API	$ 20,000	Study / contract management by WRAP - workplan development,
BLM	$120,000	field study / analysis contract management, and coordination of
Total on hand	$140,000	Study activities.

Expected funding needs from 2014 through early 2015:

Additional funding of $210,000 to $260,000

Grand Total needed: $350,000 to $400,000