

The Agronomic Monitoring and Protection Program (AMPP)

The Agronomic Monitoring and Protection Program (AMPP) is a soil and crop testing program developed to better understand the potential effects of coalbed natural gas (CBNG) production on the soil and crops in the Tongue River drainage area of southeastern Montana. Data collected through this program will create a baseline of information to determine what — if any — impacts occur from the discharge of water production in association with CBNG development.

AMPP was designed by Neal Fehringer, Certified Professional Agronomist; Kevin Harvey, Certified Professional Soil Scientist; and, Dr. Bill Schafer, Soil Scientist. Fidelity Exploration & Production Company, a coalbed natural gas producer operating in Montana, is the sponsor of the program.

Neal Fehringer

Mr. Fehringer is a Certified Professional Agronomist and has been providing agronomic services in the region for over 20 years. He was accredited as a Certified Crop Advisor in 1995, and a Certified Professional Agronomist in 1998 by the American Society of Agronomy. He also served on the Montana Agricultural Experiment Station State Advisory Commission from 1996 to 1999 and on the Southern Montana Agricultural Experiment Station Advisory Committee from 1990 to 1999.

Test Results

Preliminary results of the Agronomic Monitoring and Protection Program (AMPP) are available on the Energy Laboratories website. The laboratory testing of the soil and crop samples is the responsibility of Energy Laboratories, Inc. (ELI). ELI is a commercial laboratory offering technical services under both price schedule and contract arrangements. They are an independent laboratory founded in 1952 and provide independent, quality controlled, high confidence analytical services in chemical and

environmental testing. With six laboratories located in four western states, ELI offers broad-based analytical and advisory services to a national clientele.

According to Neal Fehring, the published results reflect two types of data. Fehring notes that Tier 1 is a two-depth sample set at 0 to 6 inches and 6 to 24 inches. Twenty-five fields were sampled under the Tier 1 program. Tier 2 testing involved 16 fields: 12 irrigated from the Tongue; 2 dryland soils from the Tongue drainage; and 1 each irrigated from Prairie Dog Creek, Otter Creek, Yellowstone River, and Big Horn River. Tier 2 fields have 6 different sampling depths down to eight feet. In addition, Tier 2 fields also have data from sampling in the soil pits and duplicates.

This year's data collected through this voluntary program will establish a baseline that will help determine if changes occur to soil and crop conditions from water discharged from coalbed natural gas (CBNG) production. As a result, the baseline data will help area ranchers and irrigators, along with CBNG producers and the State and Federal Agencies who monitor CBNG development, better understand the potential effects of water discharges on soils and irrigated crops.

Data from this comprehensive agronomic assessment is available to participants allowing them to better understand their own soil chemistry and methods of crop management complete with consultation and interpretation from the three scientists involved in the program. This agronomic assessment will be repeated in the future enabling participants to monitor and further understand the impacts of water discharges from CBNG production.