South Coast Air Quality Management District
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Report on air and soil samples at Aliso Canyon and Porter Ranch

On May 13, 2016, LA County Department of Public Health released a report on the indoor environmental sampling study and health effects evaluation of households in the Porter Ranch neighborhood. The report noted that several metals were found in the Porter Ranch homes that were consistent with the metals found in drilling fluids, such as those used by SoCal Gas to plug the leaking well. As a follow-up, SCAQMD staff collected a limited number of outdoor air and surface soil samples to screen for the presence of the same metals found in the homes.

Samples of "surface soil", i.e. the first 2 inches of soil on the ground, were collected at 7 locations in the Porter Ranch community, 1 location in a residential neighborhood in Granada Hills near the "control homes" used in the LAC DPH indoor environmental sampling study, and 3 locations on site at the SoCal Gas Aliso Canyon facility. Two "duplicate" samples were also collected for quality control purposes, for a total of 13 samples. The samples were dried uniformly in the SCAQMD laboratory, and analyzed using a spectrometer. This analytic method has an overall uncertainty of ±15%.

- Most of the metals (antimony, arsenic, barium, chromium, cobalt, copper, lead, manganese, nickel, vanadium and zinc) were found at levels that are within the range typically found in soil in the Western US region.
- Barium, which is an additive to drill fluids and was detected in the LAC DPH indoor wipe samples, was found at levels that are within the range typically found in Western US soil. The levels of barium in the Porter Ranch soil were higher than the average concentrations of non-urban California soil and Western US soil, but were similar to the levels found in the Granada Hills location.
- Cadmium levels at 2 out of 7 residential sites in Porter Ranch were found to be just above the DTSC screening levels for residential soil (5.2 ppm), and the 3 samples taken from the SoCal Gas facility were just above the DTSC screening levels for industrial soil (7.3 ppm). Because the detected levels are only slightly above the DTSC and EPA screening levels within measurement uncertainty, this could impact the interpretation of the results.
- Lead levels at the Granada Hills site were found to be above the DTSC screening level for residential soil (80 ppm), but below their action levels.

SCAQMD staff have shared the report with both the LA County Department of Public Health, the California Department of Toxic Substances Control (DTSC) and U.S. EPA for their review. It should be noted that sample size of the tested sites is too small to serve as the basis for conclusions as to health impacts. The SCAQMD has not yet received official comment from the County or State on our sampling results.