

Air quality assessments involve calculation of emissions and the analysis of the potential impacts of these emissions on air quality, the environment and human health. Assessments are required for new or expanded facilities and for major transportation infrastructure improvements. Levelton has strong in-house meteorology, modelling, emission analysis and emission control capabilities for assessing and mitigating potential air quality impacts. Our meteorologists have many years of experience with modelling and assessing air quality impacts in Alberta, B.C., Québec and the US to meet the needs of industry, government regulators and the public.

Levelton applies simple screening models to the most advanced regional models to assess the impacts of:

- industrial stacks, vents and fugitive emissions;
- storage stockpiles and roads;
- lagoons and cooling towers;
- motor vehicles and locomotives;
- storage tanks; and
- emergency releases.

### Air Quality

#### **Oil and Gas Production, Refining and Petrochemical Sectors**

Gas processing plants, well and plant flares, compressors, pipeline failures, refineries and petrochemical plants; equipment failures, etc.

#### **Forest Products Sector**

Pulp and paper mills, oriented strand-board and medium density fibreboard plants, sawmills, dry kilns, incinerators and power facilities.

#### **Power Plants**

Simple cycle, cogeneration and combined cycle gas turbine power plants, upset conditions, and cooling towers. Diesel, coal-fired and wood-fired power plants.

#### **Cement Industry**

Cement plant modernization and expansion, materials handling, and effects of fuel switching.

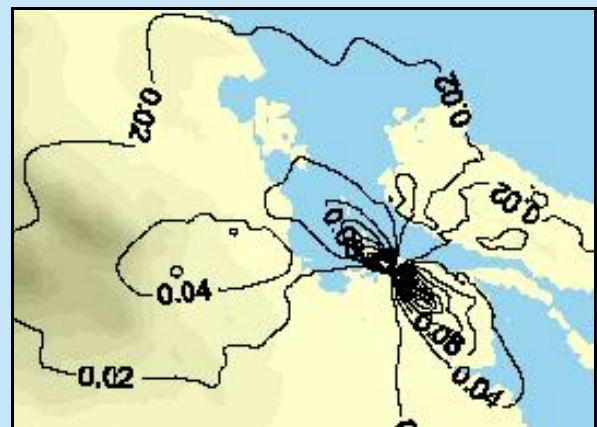
#### **Coal and Mineral Mining and Processing**

Open-pit coal mines, diamond mines, haul roads, overburden and material stockpiles, warehouse storage facilities, materials loading/unloading and shipping facilities.

#### **Transportation Infrastructure**

Highways, bridges, interchanges, urban road systems, marine terminals and land developments, with particular emphasis on diesel particulate matter, health risks and mitigation strategies.

Air quality models are used to predict ground-level pollutant concentrations arising from proposed and existing emission sources. Pollutant concentrations are estimated using meteorological data appropriate for the site and are usually shown in the form of contour plots, draped over a map of the surrounding terrain, as illustrated below.



Our engineers are familiar with process and combustion sources and pollution control equipment. We specialize in analyzing and solving air pollution issues and in helping industry and government assess the potential impacts of industrial and infrastructure projects. Results of the analysis are used for environmental approvals, permits and resolution of environmental concerns.



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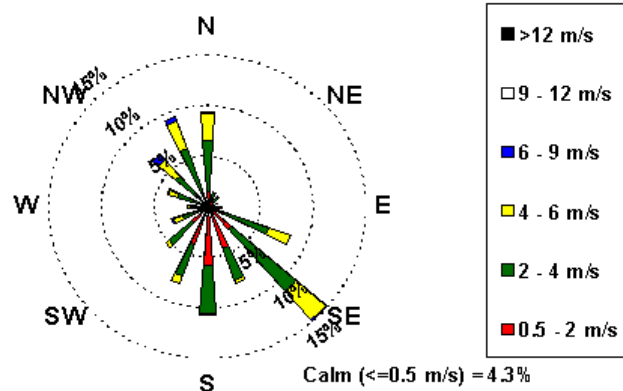
### Assessment of Well Test Flares

Levelton is the leading air quality specialist for the assessment of well test and development flares, as currently required in the BC oil and gas sector. These capabilities provide an integrated assessment of potential flaring impacts and identify the best conditions to proceed with flaring activities. We provide:

- air quality modeling and impact assessments needed for OGC and BC Environment approvals;
- on-site meteorological stations with real-time reporting via the internet;
- weather forecasting during flaring;
- post flare modelling and assessment; and
- real-time air quality modelling.

### Meteorological Monitoring

We offer a full range of services to measure and analyze meteorological and climatological data for urban and remote sites. This includes: system design, equipment procurement or rental, installation and start-up, operation and audits, data interpretation, as well as data acquisition. Data can be acquired by cellular or satellite communications, processed and then ported to a secure internet web browser for review and decision-making, if desired.



### Ambient Air Quality and Meteorological Data Systems

Levelton designs, installs and operates ambient air quality monitoring systems needed to develop air quality baseline data or for compliance with environmental approvals. Our services include set up of the monitoring system, on-going data acquisition, reporting and quality control/quality assurance. Results can be provided via the internet to make them easily available for monitoring of potential concerns.

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To see a list of our office locations and contact numbers in Western Canada, please visit <http://www.levelton.com/contact.html>