



QGC

AIR QUALITY



THE HEALTH OF THE COMMUNITY AND THE ENVIRONMENT IS A PRIORITY FOR SHELL'S QGC BUSINESS. WE CONSTANTLY MONITOR AIR QUALITY ACROSS OUR AREAS OF OPERATIONS.

Within Environmental Authorities (EAs) required for resource development, the Queensland Government stipulates limits on pollutants, and stringent guidelines for air quality monitoring.

Shell's QGC business works hard to implement measures to mitigate air quality impacts. This includes monitoring and managing air quality emissions in accordance with the State Government's EA.



**CONSTANT
MONITORING
PROVIDES
'AIR QUALITY'
CONFIDENCE**

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HOW DOES SHELL'S QGC BUSINESS MONITOR AND MANAGE AIR QUALITY?

Our business mitigates air quality impacts by managing emissions and constantly monitoring air quality around our operating sites.

In our gas fields a key part of managing air quality emissions and mitigating air quality impacts is focusing on well integrity.

This means constructing gas wells which have no weaknesses, and prevent the flow of liquids or gases from the coal seam into other rock zones, aquifers or into the air. Well integrity is crucial to the design, construction, operation and maintenance of wells, and ensures air quality emissions are minimised.

Prior to any natural gas development, Shell's QGC business prepares a Site Based Management Plan, which includes air quality monitoring. The plan is independently audited, before it is authorised by the Department of Environment and Science (DES).

WHERE DOES SHELL'S QGC BUSINESS REPORT ITS AIR QUALITY DATA?

- ✓ Our air quality data is reported in a number of ways.

Under the *National Greenhouse Gas and Energy Reporting Act 2007*, Greenhouse Gas emissions are reported to the Clean Energy Regulator (CER), and published online.

- ✓ DES sets thresholds for emissions (air, water and land) at natural gas facilities.

If emissions at a facility are greater than the threshold, it must be reported to National Pollutant Inventory (NPI), where it is publicly reported on the NPI website.

- ✓ The EA governs our air quality monitoring requirements and pollution criteria thresholds for business operations on each tenure.

Shell's QGC business monitors air pollution in compliance with the EA and prepares an annual report to DES. DES also audit our annual submission to ensure all criteria are met.



SHELL'S QGC BUSINESS IS COMMITTED TO MINIMISING METHANE EMISSIONS

In 2014, Shell's QGC business joined a host of international oil and gas companies, government and environmental groups in a partnership aimed at helping companies better understand and manage their methane emissions.

DOES FLARING AFFECT AIR QUALITY?

The gas burnt during flaring is predominantly methane. Flaring is an environmentally responsible way of eliminating methane as it breaks it down, minimising greenhouse gas emissions. So flaring minimises the impact to air quality.

During flaring, methane is converted into water vapour and carbon dioxide, which has 1/25th the greenhouse impact compared to releasing unburnt gas.

As carbon dioxide is the by-product of flaring, these emissions are reported under the National Greenhouse and Energy Reporting System set by the Australian Government.

IS IT SAFE TO VENT GAS THROUGH HIGH POINT VENTS?

Yes. Venting of gas from high point vents (HPVs) is controlled by a self-resetting valve. Venting is a short, periodic event which releases a small amount of gas at a time.

High point vents remove gas from produced water gathering pipelines as part of normal operating conditions.

SHELL'S QGC BUSINESS AMBIENT AIR QUALITY MONITORING PROGRAM

Shell's QGC business has engaged third party consultants to continuously monitor ambient air quality for carbon monoxide, nitrogen dioxide and sulfur dioxide levels; as well as meteorological conditions.

Ambient air monitoring results, collected across our area of operations, inform our modelling to determine expected pollutant concentrations at nearby sensitive receptors.

The ambient air monitoring program is assessed by a suitably qualified third party, who prepares a statement of compliance to accompany the monitoring program report.



SINCE IMPLEMENTATION OF OUR AMBIENT AIR MONITORING PROGRAM, SHELL'S QGC BUSINESS HAS CONSISTENTLY MET THE NATIONAL ENVIRONMENT PROTECTION MEASURE AIR QUALITY REQUIREMENT (UNDER THE NATIONAL ENVIRONMENT COUNCIL PROTECTION ACT).

HOW CAN I CHECK THE AIR QUALITY IN MY AREA?

Live air quality data is available online, at any time.

DES constantly samples the air for substances that can impact the community and the environment.

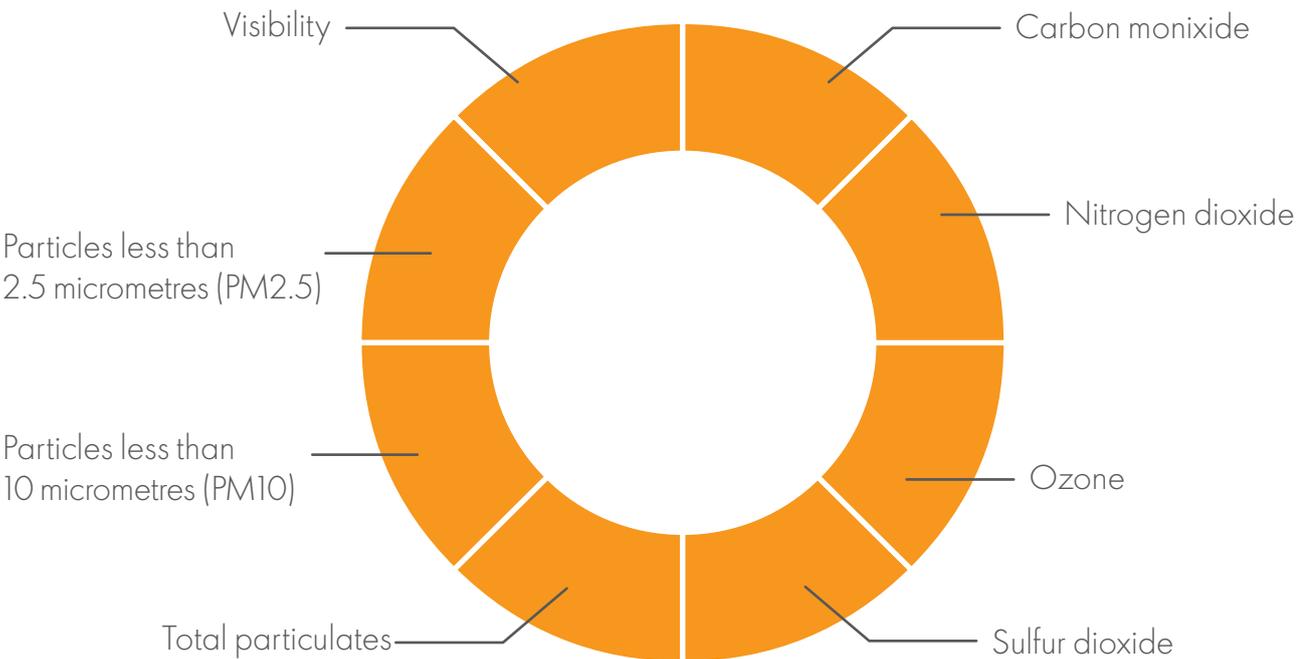
In the Western Downs, a network of four ambient air monitoring stations is located at Burncluth, Miles Airport, Hopeland and Tara.

Monitoring at these stations include visibility and meteorological conditions. You can visit the live stream, 24/7, to ascertain if the daily air quality conditions are deemed "good", "fair" and "poor" for each parameter: www.apps.des.qld.gov.au/air-quality

CSIRO through the Gas Industry Social & Environmental Research Alliance (GISERA) also leads an independent study which includes collection of air quality measurements through a network of collection stations. This data is also accessible through the Department's website.

The Ambient Air Quality in the Surat Basin report was released by CSIRO in March 2017 and is publicly available on their website gisera.csiro.au/project/ambient-air-quality-in-the-surat-basin

Live ambient air data assesses air quality hourly for eight different parameters:



AIR MONITORING DATA WEBSITES

www.apps.des.qld.gov.au/air-quality

www.gisera.csiro.au/research/greenhouse-gas-and-air-quality

www.qld.gov.au/environment/pollution/monitoring/air-monitoring/swq

CONTACT DETAILS

Please contact your Land Access Advisor or a member of the community engagement team for more information.

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