



SCIENCE & ENGINEERING

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## Medical Gas Analysis

RPC's air quality laboratory employs highly qualified scientists and utilizes cutting edge technology for the analysis of various medical gases. These gases include nitrous oxide, oxygen, nitrogen, carbon dioxide and medical air. The air quality laboratory at RPC is accredited by the Standards Council of Canada for the analysis of medical gases to the requirements of the CAN/CSA Z7396.1 standards. These standards require that a medical gas be tested for safety and purity at least every six months.

Following a prompt analysis of your sample, RPC's air quality laboratory will provide a certificate of analysis which indicates the sample's conformance or non-conformance to the requirements of the standard. Furthermore, the laboratory analysts will provide a friendly reminder of when your certificate expires and will arrange a retest. This ensures that you, as our valued client, do not have to be concerned about your certificate expiring before a sample is retested. An example of RPC's certificate of analysis can be seen below.

RPC's Engineering department also provides accredited medical gas pipeline inspections and sample collection. RPC currently provides inspection service at hospitals throughout Atlantic Canada.

### EXAMPLE REPORT Analysis of Medical Nitrous Oxide to CAN/CSA Z7396.1: Table D.4

Component	Allowable Maximum	Sample
Nitrous oxide	≥ 99%	> 99%
Carbon monoxide	5 ppmv	< 0.5 ppmv
Carbon dioxide	500 ppmv	4 ppmv
Methane	100 ppmv	< 1 ppmv
Total non-methane hydrocarbons	10 ppmv	< 0.5 ppmv
Total halogenated hydrocarbons	1 ppmv	< 0.5 ppmv
Oil mist	0.5 mg/m <sup>3</sup>	< 0.3 mg/m <sup>3</sup>
Particulate matter	0.3 mg/m <sup>3</sup>	< 0.3 mg/m <sup>3</sup>
Dew point	-45 °C	-59 °C
Odour	No pronounced odour	None

**Based on the above analysis, the submitted sample MEETS the requirements of the Standard.**

#### Contact

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RPC's Quality Management System is registered to ISO 9001:2015.

[www.rpc.ca](http://www.rpc.ca)