

Case Study

Improving Air Monitoring Accuracy in the Niger Delta Using Portable Monitoring Solutions

Air quality studies under fire in the Niger Delta.



Project

Niger Delta

Services

Series 500 ENV

Location

Niger Delta

Measurements

NH₃, VOCs, NO₂, CO, H₂S, O₃,
CH₄ and SO₂

Date

Ongoing

Sector

Outdoor



The customer

David Ishmael has worked as an environmental consultant in Nigeria for almost twenty years – and has the battle scars to prove it. Now Managing Director of Prime Mover Consult Limited, David has conducted air quality studies for the oil, mining, and manufacturing industries, as well as lecturing at the local University.

As an air quality expert he has used several types of air quality monitoring equipment ranging from RAE Systems, Industrial Scientific Instruments, Met One Instruments, Eagle Instruments, Elle Equipment, Crowcon, Testo Instruments, and Extech Gas Monitors.

The Problem

Air quality monitoring in Nigeria can be dangerous. As David says, "Hostility from indigenous communities is one of the biggest challenges when embarking on monitoring of air pollutants in the Niger Delta." Armed militants present a major security risk to people and property.

Consequently stationery monitoring equipment is not an option in such places – it wouldn't last five minutes before being vandalised or stolen.

Instead David has to take his measurements and move on as quickly as possible. Yet at the same time, his measurements must be accurate and the equipment reliable. Returning to retake bad measurements is one of David's least favourite activities.



The Solution



Having used equipment from some of the world's leading brands David eventually decided to try the Series 500 ENV from a company called Aeroqual, based in far off New Zealand. It was fair to say he was a little sceptical at first.

David selected sensor heads for measuring NH_3 , VOCs, NO_2 , CO, H_2S , O_3 , CH_4 and SO_2 . Different air quality studies require different gas measurements, and he appreciated the ability to pick and mix as he wished. The equipment has been put to work on several air quality projects to monitor atmospheric pollutants.

So far David has used the Series 500 ENV on a road monitoring project where he conducted an Environmental Impact Assessment, on an Environmental Audit at a power plant, and a study to understand the impact of gas flaring from a petrochemical plant. In addition he has lent the equipment to the students from the local University.

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David Ishmael
Prime Mover Consult Limited

Evaluation

As David puts it, “I have been using air quality equipment from different companies from different parts of the world since 18 years ago but to my surprise Aeroqual gives better results and my joy is that the best air quality equipment was produced in New Zealand.”

He would like to see the speed of response improved so he can spend even less time taking measurements in hostile areas, but otherwise he is very happy with the equipment which he describes as accurate and efficient.

David intends buying more of the Series 500 ENV from the Aeroqual dealer in Nigeria to expand the number of projects he can carry out at any one time.