BLUECAP RESOURCES

Question and answers

Date Received	Question	Date Answered	Answer
13.11.24	The tender states you want an “Agilent 5800 ICP-OES or item with comparable capabilities”. I am assuming you are open to alternative ICP-OES systems? Especially if we can demonstrate the superior performance and data that you can obtain? And how would you want us to demonstrate this?	14.11.24	Indeed we are open to any ICP OES system. In terms of demonstrating superior performance, here are some points the supplier could detail in their proposals: • **OES detection capability:** Wavelength selection technology etc. • **Sensitivity**: Capable of detecting elements in the parts-per-million (ppm) to parts-per-billion (ppb) range. • **Sample Introduction System:** Autosampler, Auto dilution etc. How many samples can be analysed in a run? • **Software**: User-friendly interface with data processing capabilities, calibration management, and elemental library. • **Cooling System**: Integrated or external cooling system. • **Safety Features**: Overload protection, plasma shutoff in the event of abnormal conditions, and environmental monitoring sensors. E.g. Agilents Nebalert (nebuliser safety feature) and EMF feature (see the below bio for more information).

			• **Power Requirements:** The Agilent model can plug into a regular 13amp socket and uses less energy that models that require a 30Amp ring main. • **Extraction requirements:** Agilent model has low extraction needs which translates to lower energy consumption also. • **Productivity enhancement:** valve switching technology etc. • **Ability to handle high TDS (dissolved salt/solids content):** high solids nebuliser and argon humidifier • **Training and service agreements** I would also ask that suppliers familiarise themselves with the Agilent model so they can give quantitative data when defending areas of superior performance. As this will be helpful for us when trying to compare! Here's a quick bio I found on the Agilent page: • IntelliQuant smart software, providing expert level knowledge to identify spectral interferences that can affect accuracy, providing recommendations allowing you to quickly select the best wavelength and preventing unnecessary remeasurement • Early Maintenance Feedback (EMF), utilizing over 100 sensors that monitor and track instrument health, alerting the analyst when

			maintenance is needed, overcoming common reasons for service calls, reducing expense and wasted time • Smart tools such as Fitted Background Correction (FBC), Fast Automated Curve-fitting Technique (FACT) and Inter Element Correction (IEC) to simplify method development when dealing with both routine and complex samples • Neb Alert, continuously monitoring the nebulizer and alerting you when the nebulizer is leaking or needs cleaning, preventing wasted time and the cost of troubleshooting • Vertical Dual View (VDV), offering flexibility between viewing modes to avoid interferences, enhancing the sensitivity and the linear dynamic measurement range • Vertically oriented torch design, reducing cleaning downtime and ensuring fewer replacement torches • Advanced freeform optical design, resulting in a small footprint, saving valuable bench space, reducing warm up and purge times and reducing the cost of ownership

13.11.24	Could I arrange a technical discussion?	14.11.24	We would be delighted if you would like to visit our site to review the envisaged works. PLEASE NOTE – APPPOINTMENTS NEED TO MADE FOR A SITE VISIT
13.11.24	1. We offer a range of different sample introduction options for the 5800 ICP-OES (to cover analyses of samples with high levels of dissolved solid/salt (TDS) and samples in organic matrices). Which (if any) of these options might be needed please? Would it be more helpful to add options into the main quotation or provide a separate quotation (so you can select any that you feel are appropriate) 2. Should we assume that an autosampler is needed please (I don't see a mention of this in the tender specification 3. By default a 5800 ICP-OES is offered with a 12-month full warranty. We offer a range of different Service contracts available at point of sale that provide cover for up to a further 4 years (giving a maximum of 5 years cover in total).	14.11.24	1. Both ideally! Once we know price then we can then make a decision on what's feasible, but we have a history of having samples with both high TDS and in organic matrices (the latter slightly less so, but if doing a solvent extraction strip for example we would be using organics like HDEHPA and octan-1-ol which could extinguish the plasma due to high volatility). An argon humidifier will help with the high TDS and I would definitely like this bolted on if nothing else. 2. Yes please assume 3. A service contract is advisable, and I completely agree that this kind of equipment is less user friendly compared to simpler analytical instruments when it comes to repairs and troubleshooting. If we could get cover that would send an engineer down in the event of a fault/issue as part of the package, this would be good piece of mind.

	Would it be helpful to have a separate quotation for these options (if the projected budget is c £70K (ex VAT) I think that would provide sufficient funds to allow you to add Service cover over and above the 12-month warranty period if desired) 4. How many users might need to be trained to operate the ICP-OES please (and can they all be available at the same time, as this will determine how many days of training we propose)		4. If the suppliers can say whether more heads will be more expensive.