



May 25, 2004

Laura Eldred  
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via email: [laura\\_eldred@dec.state.ak.us](mailto:laura_eldred@dec.state.ak.us)

Re: Amendments to Quality Assurance Project Plan Revision 2.0

Laura,

Amendments to sampling protocols in Revision 2.0 of the Quality Assurance Project Plan (QAPP) for the Lake Lucille and Big Lake Water Quality Monitoring are provided below. These amendments were provided in Sampling Reports submitted to ADEC on May 10 and May 17, 2004 and accepted via verbal communication by Kent Patrick-Riley or yourself.

Amendment 1: Sampling events will be scheduled over three days rather than two. The second sampling event will occur on May 29, 30 and 31 (Memorial Day weekend), as activity on both lakes is expected over all three days. Big Lake will be sampled on Saturday and Sunday and Lake Lucille will be sampling on Monday. The last sampling event at Big Lake will occur on June 12 and 13 and at Lake Lucille on June 19.

***QAPP Section B1, Sampling Process Design  
Table 3, Sample Dates and Locations***

Amendment 2: Nutrients and bacteria samples will be collected separately so that the bacteria samples can be analyzed within their holding times. For sampling events at Lake Lucille to be conducted on Saturdays, nutrients will be collected first, followed by bacteria samples so that all samples are received within their holding times. At Big Lake, all of the bacteria samples will be collected first and taken to the lab immediately thereafter to meet their holding times. Nutrients and bacteria at Big Lake will be collected on Sundays. Nutrient samples can be taken to the lab Monday morning within 24 hours of their holding times.

***QAPP Section B2, Sampling Methods***

Amendment 3: Colorimetric "wet chemistry" field kits will be used to measure dissolved oxygen at 5m intervals at the USGS sampling locations in the deepest areas of both lakes. The field kits are easy-to-use, accurate, colorimetric tests used to measure dissolved oxygen in the field. The Kemmerer water sampling bottle will be used to collect water samples at the 5m intervals. Agitation during the sample collection procedure will be minimized to avoid mixing of the sample with air prior to addition of the colorimetric reagent.

***QAPP Section B2, Sampling Methods***

***QAPP Section B8, Inspection/Acceptance of Supplies and Consumables***

Amendment 4: Handheld pH field meters will be used to measure pH of samples recovered from the 5m intervals by the Kemmerer bottle. The meters will be calibrated using a pH 7.0 buffer solution prior to each sampling event.

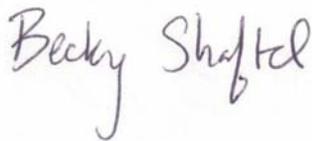
***QAPP Section B2, Sampling Methods***

***QAPP Section B7, Instrument/Equipment Calibration and Frequency***

***QAPP Section B8, Inspection/Acceptance of Supplies and Consumables***

Sincerely,

**Oasis Environmental, Inc.**

A handwritten signature in cursive script that reads "Becky Shafte".

Becky Shafte  
Project Manager  
[becky@oasisenviro.com](mailto:becky@oasisenviro.com)

cc: Pat Athey, OASIS Project Director  
Max Schwenne, OASIS Principal