



U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 2

June 21, 2019

BY ELECTRONIC MAIL

Robert Law, Ph.D.
de maximis, inc.
186 Center Street, Suite 290
Clinton, New Jersey 08809

Re: Re: Diamond Alkali OU4 - Lower Passaic River Study Area– Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study (Agreement) CERCLA Docket No. 02-2007-2009

Dear Dr. Law:

The U.S. Environmental Protection Agency (EPA) reviewed the *draft Current Conditions Monitoring Program Physical Water Column Monitoring Quality Assurance Project Plan (QAPP)/Field Sampling Plan (FSP)*, prepared by Anchor QEA on behalf of the Cooperating Parties Group (CPG) for the Lower Passaic River Study Area (LPRSA) Remedial Investigation (RI)/Feasibility Study (FS).

In accordance with Section X, Paragraph 44(d) of the Agreement, EPA has enclosed an evaluation of CPG's *draft QAPP/FSP* with this letter. Please proceed with revisions consistent with the enclosed comment evaluations. If there are any questions or clarifications needed on EPA's enclosed comment evaluations, please contact me to discuss.

Sincerely,

A handwritten signature in black ink, appearing to read "Diane Salkie".

Diane Salkie, Remedial Project Manager
Lower Passaic River Study Area RI/FS
Enclosure

Cc: Zizila, F. (EPA)
Sivak, M. (EPA)
Hyatt, B. (CPG)
Potter, W. (CPG)

EPA COMMENTS

Draft Current Conditions Physical Water Column Monitoring Quality Assurance Project Plan/Field Sampling Plan dated May 2019

No.	Section	General or Specific	Page No.	Comment
1	N/A	General	N/A	The QAPP lists Operable Unit (OU) 2 as the relevant OU. OU2 refers to the lower 8.3 miles of the Lower Passaic River (LPR). Since the QAPP pertains to sampling in the upper 9 miles of the LPR to support the upper 9 Interim Remedy (IR), the OU listed in the QAPP should be OU4.
2	N/A	General	N/A	Include a section, either in the QAPP or FSP describing lessons-learned from the past PWCM sampling effort.
3	N/A	General	N/A	<p>Variations from the 2009 QAPP/FSP were noted in the 2019 QAPP/FSP, including:</p> <ul style="list-style-type: none"> • The 2009 QAPP/FSP included wet weather suspended solids sampling events at tributaries of the LPR • The 2009 QAPP/FSP included two 3-month deployments (fall and spring) to capture low and high flows characteristic of those periods, whereas the 2019 QAPP/FSP describes one 6-month deployment (beginning in the summer) • The 2009 QAPP/FSP attempted to collect transects during spring and neap tides, whereas the 2019 QAPP/FSP describes transect collection during four flow conditions • The 2009 QAPP/FSP included meters set at 3 feet below water surface and 3 feet above river bottom, whereas the 2019 QAPP/FSP includes meters set at 3 feet below water surface and 2 feet above river bottom • The 2009 QAPP/FSP included POC/DOC measurement at a reduced rate relative to SSC measurement, whereas the 2019 QAPP/FSP describes both collected at equal frequency <p>An explanation for these variations needs to be provided.</p>
4	1.21	Specific	2	Measurements of SSC, DOC, POC and Chlorophyll-a should be made at the time of initiation and termination of the PWCM instrument data logging, and at each servicing event that does not overlap with a CWCM sampling event. Also make consistent edits in Worksheet 14
5	QAPP Worksheet 3	Specific	11	Please update the telephone number for William Sy to (732) 321-6648.
6	QAPP Worksheet 11	Specific	28	The QAPP incorrectly states the DQOs are presented in Appendix A. This reference should be revised to state that DQOs are presented in Appendix B.
7	QAPP Worksheet 14	Specific	41	Include additional information on what the duplicate frequency will be for the ADCP (boat-based) data.
8	QAPP Worksheet 19	Specific	49	Since the laboratory will be filtering the samples for POC/DOC determination, it appears that the referenced SOP should be the laboratory SOP. The worksheet referenced a field SOP. Please verify. Also verify the footnotes numbering provided. There are two footnotes labeled as 1.

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No.	Section	General or Specific	Page No.	Comment
9	QAPP Worksheet 20	Specific	50	Rinsate blanks should be included in the total number of samples sent to the lab. Also, clarify how rinsate blanks will be collected (field SOPs describe sampling using tubing, Van Dorn samplers, etc., and not all methods are equally appropriate to collect rinsate samples from).
10	QAPP Worksheet 29	Specific	68	Provide additional information as to the conditions when duplicate ADCP data will be collected as indicated under the discussion for Data Analysis.
11	QAPP Worksheet 35	Specific	78	Please provide the data validation SOPs that will be used.
12	Field Sampling Plan, Section 1	Specific	1	The introduction states that the PWCM data will be used to establish baseline conditions for the IR. Please note that additional sampling events are planned to establish baseline conditions for the IR.
13	Field Sampling Plan, Section 2.1	Specific	2	The second paragraph of this section states that the RM 15.8 meter will be deployed approximately 3 feet below the surface. Elsewhere in the FSP and in the QAPP, it is described as being placed approximately mid-depth in the column. Please revise the location so it is consistent with the rest of the QAPP.
14	Field Sampling Plan, Section 2.2	Specific	4	The FSP requires the targeted river flows to be maintained for 7 days antecedent to the survey, except for the high flow event. Please justify the 7-day requirement and describe the protocol when the antecedent condition is met, but flow conditions change during the sampling event.
15	Field Sampling Plan, Section 2.3.2	Specific	6	The reference to Figure 2 for an example location of the along river transects should be verified. It appears that it should be Figure 3.
16	Field Sampling Plan, Table 2	Specific	1	Table 2 includes a cross-channel transect at RM 15.8. Elsewhere in the FSP and QAPP, only 4 cross-channel transects are described (RM 8.4, RM 10.2, RM 12, and RM 13.5). Either revise Table 2 to delete the extra transect or revise the relevant sections of the QAPP to include a RM 15.8 transect.
17	Field Sampling Plan, Figure 2a	Specific	6	The cross-channel sampling locations shown on Figure 2a are numbered beginning on the east side of the river, while the numbering shown on Figures 2b-2d begin numbering on the west side of the river. Please revise to be consistent.
18	Appendix B, DQOs	Specific	1	The word turbidity is misspelled (spelled as turbity) in the second bullet of the right hand column of Step 3. Please correct.

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19	Field SOPs, Navigation/ Positioning SOP	Specific	3	The procedure to establish position at a location includes a step where the HYPACK system is configured with the “target ring” or maximum allowable offset based on task-specific requirements listed in the QAPP. However, the QAPP does not include the requirements. Please revise either the QAPP or SOP to include the requirements.