US EPA, Region 9
NPDES/DMR, ENF-4-1
75 Hawthorne Street
San Francisco, CA 94105-3901
Attn: Beth Aubuchon

July 14, 2017

RE: March 8-9, 2017 Clean Water Act Inspection, Sections II & III Clarification

Dear Ms. Aubuchon,

Pursuant to your request and as a follow up to our phone conversation on June 29, 2017, this letter is being sent to clarify some of the facts presented in Sections II and III of the EPA's report. The numbers in this letter directly correspond to those from the EPA report, or, where numbers are not used, pages and paragraphs are provided. Words with strikethrough are replaced with inserts in italic font. Additional information is included in italics as well.

SECTION II – FACILITY/SITE DESCRIPTION

II.2 Wastewater Sources

(Page 3, ¶ 2)
"Produced water is a by-product of crude oil and natural gas extraction on Platform Ellen. Produced water flows up through the producing well heads and on to Platform Elly for treatment and ~~discharge~~" *waterflood reinjection, a secondary enhanced oil recovery process.*

(Page 4, ¶ 2)
"Beta ~~produces~~ *uses* Well Treatment Completion and Workover Fluids when Beta operators conduct well treatments and workovers." *These specific weight brine waters are purchased from third party suppliers for use during well maintenance activities.*

II.3 Wastewater Treatment

II.3.i Produced Water

(Page 4, ¶ 5)
From the WEMCO..... "Platform Elly has three booster pumps (P-21A, P-20A and P-20B) that pump produced water to the *injection pumps (P-07A, P-10A and P-10B) which pump the water to the* injection wells. When the injection pumps fail and tank S-03 exceeds capacity, treated produced water is routed to the ~~Pacific Ocean/~~Emergency Sump." *Simultaneous pump failure and exceedance of tank capacity is infrequent and rarely endures for more than an hour.*

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SECTION III – NARRATIVE & OBSERVATIONS

Produced Water (Discharge 002)

6. According to Jamie Cool and Mr. Zumaran….According to DMR cover letters, sources of domestic waste that do not flow to the disposal well also flow to S-03. *To clarify further, the domestic waste stream, spent laundry water, is discharged to the platform drain system that flows to the water sump and ultimately is shipped back to the front of the production train where the water is processed with bulk fluids in the oil/water separators and returned to Platform Ellen for injection into the reservoir. The domestic waste does not directly flow to the disposal well or S-03 tank.*

7. Beta maintains records of the effectiveness of the WEMCO by taking daily measurements of the concentration of oil *in water* entering the WEMCO and oil *in water* exiting the WEMCO. These measurements are conducted ~~using~~ *by platform operators* using a *spectroscopy field test method for 'oil in water by solvent extraction' which is similar but not equivalent to the gravimetric EPA method 1664. The field 'oil in water' test is a fairly simple test intended to give operators real time performance results for the WEMCO unit. The field test is a* non-approved EPA method.

11. During normal operations, the produced water mixture in tank S-03 is pumped from Platform Elly to the injection wells on Platforms Ellen *and Eureka.*

17. According to Ms. Lang, ice is not used after sample collection to avoid contamination of sample. *Ms. Lang explained that it is possible melted ice water can enter a container if screw top lids are not tightly sealed and the container is tipped over during transport thus compromising sample integrity. Samples from Discharge 002 are approximately 140 degrees-Fahrenheit when collected from the discharge sample point and are capable of rapidly melting ice or worse, breaking the sample jars as a result of the temperature differential. To avoid any potential for contamination, Ms. Lang recommended allowing the samples to cool before placing on ice or using an alternative to ice such as reusable ice packs.*

20. Ms. Lang said that typically only one sample gets analyzed and the other three are discarded by the laboratory if no other analyses are requested by Beta. *The other three samples are retained for 28 days, and then discarded, in accordance with the holding limit in EPA Method 1664.*

Preventative Maintenance

46. Mr. Cool said that all assets with moving parts (i.e. pumps) were currently listed with PM schedules. Other assets (i.e. tanks) are listed in the Avantis system, but do not currently have any PM scheduled. The required certification schedule for tanks is maintained elsewhere. *All inspections for tanks and vessels are currently kept in a network folder. Beta is currently centralizing all the data into an Inspection Data Management System.*

Beta appreciates EPA's detailed inspection report, and would like to thank you for the opportunity to further clarify certain facts presented therein. Beta Offshore is dedicated to being a responsible offshore operator, and a cooperative and conscientious business partner with the EPA and other

regulatory agencies as well as the community in which we operate. We take compliance, protection and safety of our people and the environment very seriously.

Please feel free to contact me if you have any question or require further information.

Sincerely,

Diana Lang

Diana Lang
Beta Offshore
HSE Manager

cc: Eric Willis – General Counsel

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