

February 8, 2016

Attn: Mr. Joshua Cwikla Los Angeles Regional Water Quality Control Board 320 West 4th St, Suite 200 Los Angeles, CA 90013

> RE: Response to Investigative Order R4-2015-0420 under California Water Code Section 13267 to Provide a Technical Report

Dear Mr. Cwikla:

Breitburn Operating LP (Breitburn) is responding to your Investigative Order R4-2015-0420 (Order) under California Water Code Section 13267 to submit a Technical Report (Report) (Attachment A). The initial due date for the Report was January 18, 2016. By letter dated January 19, 2016, your office granted an extension for the submittal of the Report to February 8, 2016 (Attachment B). The Report is to provide information regarding "the management of the discharge of waste to land during drilling and completion of oil and gas wells and the discharge of fluids associated with oil and gas production and to assess the threat to water quality from such discharges" (page 1 of Order) during the period of ownership and/or operatorship of each of its facilities.

This Report is to cover all Breitburn operations in the Division of Oil, Gas, and Geothermal Resources (DOGGR) Districts 1 and 2. Table 1 lists the Breitburn operations in DOGGR District 1, along with the acquisition dates. Breitburn did not have any operations before those times at the respective locations. Breitburn neither owns nor operates any facilities in District 2.

We have reviewed our operations and determined that, since acquisition and operatorship of these properties, Breitburn has not had any discharges to "sumps" as described in your Order at any of its facilities.

Breitburn produces a considerable amount of produced water as part of its oil recovery operations. Most of this produced water is reinjected into injection wells permitted by the DOGGR. Some of our sites have Industrial Wastewater Discharge Permits from the Los Angeles County Sanitation Districts (LACSD) for the discharge of some smaller portion of the produced water under permitted conditions. Table 1 includes the average annual barrels of produced water from our facilities based on 2015 data. Also noted on this table are the facilities which hold LACSD Industrial Wastewater Discharge Permits.



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For well work and drilling operations, Breitburn utilizes aboveground mobile lined steel bins or portable tanks for collecting and managing drill cutting and workover fluids. The spent drilling fluids are transported, under proper chain-of-custody protocol to a State of California approved disposal or recycling facility where the facility may remove additional solids, if necessary, and the liquids are injected into their permitted disposal well.

With respect to "historical" sumps, it is important to understand that our operations in District 1 are in fields which at one time often covered much more surface use than is or has ever been operated or owned by us. Over the decades surface areas which may have been used previously for oil field purposes were sold off and developed. Presumably the developer or previous operator removed or remediated any historical sumps. These areas have been built over and are not within our knowledge. Because these areas were not part of what we acquired beginning in the 1990's and because these areas have been developed with buildings, our files do not contain details of historical features which could include previously abandoned sumps or which would allow a response as requested (including exact locations, dates of construction, predecessor company practices, nature of use, dimensions, etc.).

One of the areas that we acquired in the 1990's was a portion of the Santa Fe Springs Field in the city of Santa Fe Springs. The SFS Field was originally owned by many different companies and covered a much larger surface area than we acquired. Prior to our acquisition of an interest in this field, the oil companies operating in the area and the City of Santa Fe Springs jointly created and funded an Oil Field Reclamation Project ("OFRP"). The OFRP studied, investigated and tested the entire Santa Fe Springs oil field area and coordinated remediation efforts with respect to prior oil field activities. It is our understanding that this investigation and remediation work was done in coordination with the Regional Water Quality Control Board. It is further our understanding that at the conclusion of the OFRP work, the Regional Board made a finding that there was no groundwater contamination related to oil field activities in the Santa Fe Springs field (there were other non-oil field related sources impacting ground water which were identified or confirmed). Over the past decade, portions of surface areas within the oil field have been redeveloped for commercial and residential purposes. In those cases of which we are aware any needed remediation has been conducted by the developers and any contamination which was discovered was removed



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and remediated in conjunction with grading. This work was supervised and overseen by various regulatory agencies and it is our understanding that the Regional Board was involved or consulted. We cooperated and assisted with some of that work in cooperation with the developers. It is our understanding that testing further confirmed the findings of the OFRP and Regional Board that there were no oil field related impacts to groundwater identified. We are not aware of any sumps or sump-like features remaining in the area we operate.

Finally, our Seal Beach facility in Orange County contains five bermed rainwater ponds. Oilfield processes are not discharged to these rain water ponds. The purpose of these features is to assist in rainwater control of the island so that the middle of the "island" (lowest elevation) does not get flooded during rain events and to keep rainwater from flowing out to the wetlands areas. All rainwater is collected from these ponds and the water is processed and reinjected into oil wells on site.

In summary, except as indicated above, at the time of Breitburn's acquisition of its properties in District 1 and currently, there were and are no physical signs of historic sumps or sump-like features on any of the properties owned or operated by Breitburn.

Please do not hesitate to contact me should you have any comments or questions regarding this matter.

I, Martha Brock, certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Martha Brock

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