



Maryland
Department of
the Environment

Larry Hogan, Governor
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Horacio Tablada, Deputy Secretary

May 24, 2019

Ms. Jamila Chillemi
Project Manager
ExxonMobil Environmental Services
1900 East Linden Avenue, Building 28A
Linden, New Jersey 07036

**RE: APPROVAL OF SEQUENTIAL CONVERSION OF SELECT WELLS
REPORT OF RESULTS AND WORK PLAN
Case No. 2006-0303-BA
Former Exxon R/S No. 2-8077
14258 Jarrettsville Pike, Phoenix
Baltimore County, Maryland**

Dear Ms. Chillemi:

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the case file for the above-referenced property, including the *Sequential Conversion of Select Wells Report of Results and Proposed Work Plan*, dated Mar. 25, 2019 (Work Plan). A total of 4 sequential recovery well shutdowns were completed over the period of 2010 through 2015 in the southwest area. Based on the lack of significant rebound of dissolved phase petroleum concentrations or any adverse impacts from southwest area sequential shutdown events, a proposal to perform a sequential shutdown on 18 recovery wells in the northeast area was proposed in Sept. 2017 and approved by MDE in July 2018.

The northeast area sequential shutdown was performed in 4 groups. Recovery wells in each defined group were simultaneously shut down with one group shut down per month. Following each recovery well shutdown sequence, well pumps were removed, the wells were redeveloped, and monthly groundwater gauging and sampling (i.e. monitoring) was performed for a period of 3 months, beginning 2 weeks after well redevelopment. Subsequent monitoring after the three month period reverted back to the previously approved monitoring schedule. The first group of wells was shutdown in Aug. 2018 and the final group of wells was shut down in Nov. 2018. The list of recovery wells included in the shutdown events includes:

- Group 1: MW-181B, MW-57, MW-59D, MW-76, MW-32, MW-43A;
- Group 2: MW-85, MW-110, MW-58, MW-77A;
- Group 3: MW-87, MW-36R, MW-137, MW-77R; and
- Group 4: MW-84, MW-58R, MW-77B, MW-82.

In addition, 16 surrounding monitoring wells were gauged and sampled on a monthly basis (MW-86, MW-84P, MW-45P, MW-36, MW-57P, MW-58P, MW-142, MW-143, MW-138, MW-48A, MW-83R, MW-106, MW-80A, MW-80B, MW-101A, and MW-101B). The sampling results indicated no adverse impacts or rebound after the sequential shutdowns, with the following exceptions. MW-32 reported an increase in methyl tertiary-butyl ether (MTBE) concentrations above the state action level of 20 parts per billion (ppb) during the Dec. 2018 (40 ppb) and Jan. 2019 (80 ppb) sampling events. Monthly sampling of MW-32 has continued and the results will be evaluated to determine if reactivation of the recover well is warranted, pursuant to Flowchart 1. All other wells will remain in a monitoring status and be sampled in accordance with the *Approval of Groundwater Monitoring Reduction and Well Abandonment Request*, dated March 29, 2019.

A proposal to convert 18 additional recovery wells in the northeast area, including wells on the ExxonMobil property, was included in the *Work Plan*. These wells meet the criteria for rebound assessment as outlined in Flowchart 1 since they demonstrate concentrations of petroleum constituents at, or below, groundwater standards for 1 year or more. Similar to the previous northeast shutdown procedure, the recovery wells are broken into 4 groups that will be sequentially shut down and subsequently monitored on a monthly basis for 3 months. If no adverse conditions are observed, the wells will remain as monitoring wells and future sampling will revert back to the pre-shutdown monitoring schedule. The following groups of recovery wells are proposed:

- Group 1: MW-1A, MW-6, MW-91C, and MW-152
- Group 2: MW-16, MW-22, MW-74, and MW-185
- Group 3: MW-2A, MW-21, MW-38, and MW-169
- Group 4: MW-19, MW-23, MW-75, MW-170, and MW-183

In addition, increased monitoring of 10 nearby monitoring wells was proposed to be performed on a monthly basis (MW-1, MW-2, MW-4A, MW-17, MW-38P, MW-43B, MW-52, MW-59A, MW-84P, and MW-168). After completion of shutdown and the post-shutdown monitoring event, provided that no adverse conditions are observed, the converted recovery wells will remain as monitoring wells. Gauging and groundwater sampling will revert back to the pre-shutdown monitoring schedule.

The MDE approves the request to perform shutdown of select recovery wells in the northeast as proposed, contingent upon the following modifications and requirements.

- 1) If adverse conditions occur during implementation of the approved *Work Plan* (e.g., rebound of dissolved petroleum concentrations in monitoring wells or private supply wells, petroleum constituents detected at or above groundwater standards in monitoring wells, other unanticipated results), ExxonMobil must notify the OCP immediately and postpone any subsequent recovery well shutdowns. Following notification, the OCP will review relevant site data and make a determination regarding the need for reactivation of recovery wells, if some other modified monitoring program is appropriate, or if continuation of the *Work Plan* may proceed.

Ms. Jamilla Chillemi
Case No. 2006-0303-BA
Page 3

- 2) Include wells MW-46, MW-47BB, MW-47C, MW-90, MW-109, and MW-167 in the surrounding monitoring well network for monthly gauging and sampling (in addition to the 10 wells proposed).
- 3) A final *Report of Results* with all data must be submitted within 45 days upon completion of all recovery well shutdown and post-shutdown monitoring activities associated with the *Work Plan*.

Notify the Oil Control Program at least 5 working days prior to implementation of the approved *Work Plan*. If you have any questions, please contact Ms. Ellen Jackson at 410-537-3482 or ellen.jackson@maryland.gov.

Sincerely,



Andrew B. Miller, Chief
Remediation and State-Lead Division
Oil Control Program

cc: Carlos Bollar, Esquire, Archer & Greiner, P.C.
Ms. Cindy Allen, M & T Bank
Mr. Christian G. Hayes, 14307 Jarrettsville Pike, Phoenix
Mr. and Mrs. Justin and Gina Laupert, 3503 Hampshire Glen Court, Phoenix
Dr. Michael Lynch, 14240 Jarrettsville Pike, Phoenix
Mr. Mark Schaaf, Project Manager, Kleinfelder East, Inc.
Mr. Kevin Koepenick, Manager, Groundwater Management Section, Baltimore County DEPS
Ms. Ellen Jackson, Northern Region Supervisor, Remediation Division, Oil Control Program
Mr. Christopher H. Ralston, Program Manager, Oil Control Program
Matthew Zimmerman, Esquire, MDE Office of Attorney General
Ms. Kaley Laleker, Director, Land and Materials Administration