



**Maryland**  
Department of  
the Environment

Wes Moore, Governor  
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary  
Suzanne E. Dorsey, Deputy Secretary

December 19, 2023

Mr. John Lee  
ExxonMobil Environmental and Property Solutions  
c/o Infineum  
1900 East Linden Avenue, Building 28a  
Linden, NJ 07036

**RE: POST REMEDIATION MONITORING PLAN APPROVAL and  
SELECT MONITORING WELL ABANDONMENT APPROVAL  
Case No. 2006-0303-BA  
Former Exxon R/S No. 2-8077  
14258 Jarrettsville Pike, Phoenix  
Baltimore County, Maryland**

Dear Mr. Lee:

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the *Sampling Reduction, Well Abandonment, and Additional Cycling Work Plan*, dated February 27, 2023; the *Addendum to Sampling Reduction, Well Abandonment, and Additional Cycling Work Plan*, dated April 13, 2023; the *Phase 2 Recovery Well Cycling Report of Results and Request for Post Operation Monitoring Report*, dated July 31, 2023; and the *Third Quarter 2023 Groundwater Monitoring and Remedial Status Report*, dated November 15, 2023.

**Post Remediation Monitoring Plan Proposal**

A request to formally cease operation of the remediation system and enter post remediation monitoring was proposed by Kleinfelder on behalf of ExxonMobil based on the results of the last sequence of recovery well shutdown and cycling assessment of four recovery wells within the Jacksonville study area. A recovery well (RW) cycling assessment was implemented from March 2022 through December 2022, and involved cycling fourteen RWs through predetermined pumping and recharge periods. Based on the data and communication with OCP, Kleinfelder initiated Phase 2, which entailed subsequent cycling and reactivation of the four RWs (MW-38C, MW-54B, MW-187A, and MW-187C). The four RWs were cycled on and off for one month each for two cycles over a four-month period (from January 27, 2023, through June 1, 2023). This cycling assessment was implemented to evaluate the effects of continued pumping of wells with dissolved phase petroleum concentrations located in the intersection of Jarrettsville Pike and Paper Mill Road, and on the properties located at 14307 and 14311 Jarrettsville Road.

Based on the results of the Phase 2 cycling, which included monthly sample collection from the four RWs (i.e., MW-38C, MW-54B, MW 187A, and MW-187C) and select adjacent monitoring wells and continued quarterly sampling of the approved monitoring network, Kleinfelder concluded that

although dissolved phase petroleum concentration trends remained consistent, little to no benefit was derived from continued operation of the remediation system. Concentrations of petroleum constituents are expected to continue to decline through natural attenuation, based on geochemical indicators and microbial data collected in 2022. The overall area of remaining dissolved phase petroleum remains stable through more than nine months of system shutdown, and the cycling events performed between 2022 and 2023. In addition, the recovery system influent concentrations and recovery rates are at levels that showed minimum hydrocarbon recovery and supports shutdown of the remediation system.

As of the 3<sup>rd</sup> Quarter 2023 report, thirteen wells had concentrations of petroleum constituents above groundwater standards and/or state action levels during the period of July 2022 through September 2023. The following summary provides the maximum and the most recent concentrations for the wells during this period. As noted, in some instances specific sampling depths are provided or samples were collected from active recovery wells through the remediation system.

- MW-16R, methyl-tert-butyl-ether (MTBE) was detected at a concentration of 35 parts per billion (ppb) (October 2022), which is above the 20 ppb state action level, and 25 ppb (September 2023).
- MW-38C, MTBE was detected at a concentration of 110 ppb (January 2023) and 3.2 ppb (September 2023), sampling from remediation system.
- MW-40, benzene was detected at a concentration of 17 ppb (June 2023) and 7.3 ppb (September 2023), which is above the 5 ppb groundwater standard.
- MW-45R, MTBE was detected at a concentration of 25 ppb (March 2023).
- MW-54B, benzene was detected at a concentration of 52 ppb (November 2022) and was not detected September 2023, and MTBE was detected at a concentration of 410 ppb (November 2022) and 94 ppb (September 2023).
- MW-54C, samples collected from two sampling interval depths:
  - Benzene was detected at a concentration of 32 ppb (June 2023), and MTBE at a concentration of 59 ppb (April 2023) and 58 ppb (June 2023), sampling depth was 210 feet; and
  - Benzene was detected at a concentration of 31 ppb (April 2023) and 28 ppb (June 2023), and MTBE at a concentration of 66 ppb (April 2023) and 52 ppb (June 2023), sampling depth was 295 to 298 feet.
- MW-82D, MTBE was detected at a concentration of 27 ppb (June 2023), sampling depth was 250 feet.
- MW-139, MTBE was detected at a concentration of 31 ppb (December 2022) and 5.7 ppb (September 2023).

- MW-178C, MTBE was detected at a concentration of 65 ppb (September 2023).
- MW-181C, MTBE was detected at a concentration of 26 ppb (September 2023), sampling depth was 212.5 feet.
- MW-187A, benzene was detected at a concentration of 1,200 ppb (July 2022) and 25 ppb (September 2023), and MTBE was detected at a concentration of 190 ppb (July 2022) and 23 ppb (September 2023), sampling from remediation system.
- MW-187C, MTBE was detected at a concentration of 420 ppb (October 2022) and 180 ppb (September 2023), sampling from remediation system.
- MW-189D, samples collected from two sampling interval depths:
  - MTBE was detected at a concentration of 200 ppb (September 2023), sampling depth not specified; and
  - MTBE was detected at a concentration of 340 ppb (December 2022) and 280 ppb (June 2023), sampling depth was 79 feet.

The proposed post remediation monitoring plan includes shutdown and removal of the pumps in recovery wells MW-38C, MW-54B, MW-187A, and MW-187C, and gauging and sampling of these wells and adjacent monitoring wells MW-54C, MW-178C, and MW-187B monthly for three months. The frequency of monitoring will be reduced to quarterly, thereafter, if results show no rebound or adverse effects. The remediation system will remain at the facility for 1 year following shutdown, although, the rented air compressor units will be removed. MDE has been assured that an air compressor will be rented if system restart is required. If post remediation monitoring results display increases above the most recent 2-year trends, a response criterion has been established to verify and monitor the fluctuations. In accordance with the procedures outlined in the email dated October 4, 2023 (see enclosure), the following criteria would trigger further actions during post remediation monitoring:

- If groundwater concentrations in a monitoring well exceed five times the state action level or groundwater standard (i.e., 25 ppb for benzene and 100 ppb for MTBE), and the concentration is 125% or greater than the maximum concentration detected in that well since 4<sup>th</sup> Quarter 2021, then a confirmatory sample will be collected within one week upon receipt of the sample data.
- If the confirmatory sample results meet or exceed the above criteria, then the sampling frequency will increase to monthly for at least three consecutive months.
- If after three months the data shows a sustained increasing trend, then additional actions will be proposed and discussed with MDE based on the location, history, and concentration trend.

- Sampling frequency will revert to the initial sampling frequency once established trends show a stable or decreasing trend.
- In addition, if liquid phase hydrocarbons (LPH) are detected in any monitoring well, LPH recovery will be implemented including weekly gauging and bailing until LPH are not detected for four consecutive weeks, and then the gauging will revert to a monthly schedule for three months, then quarterly.
- If LPH exists for three months, then alternative approaches will be discussed with OCP.

Based on the current land use, the available information reviewed for this case including a review of the remediation system recovery rates, results from the recent system cycling studies, the results of the biodegradation studies, historical and current dissolved phase hydrocarbon concentrations, locations of the current pumping wells, and the retention of a comprehensive monitoring well network for continued monitoring during post remediation, MDE approves remediation system shutdown and entering into post remediation monitoring, to include gauging and groundwater sampling, contingent upon the following comments and requirements.

1. Within 24 hours of receiving an analytical laboratory report that shows the detection of a trigger level of concern in a monitoring well, report the sampling results to the OCP case manager. An email is an acceptable format to meet this reporting requirement.
2. If LPH are detected in any monitoring well, report the incident immediately, but not later than 2 hours after detection of the LPH. Detections of LPH must be called into the OCP office at 410-537-3442. In addition, the OCP case manager must be notified by email or telephone of the report.
3. **By no later than January 5, 2024**, update and return Table 1 – *MDE Approved Monitoring Activities*, for final approval.
  - a. Populate the *Specific Trigger Concentration by Well* column with the calculated 125% of the maximum concentration since 4<sup>th</sup> Quarter 2021, to ensure clear evaluation of the petroleum concentrations that warrant trigger actions. Once final approval is received, this criterion must be included in all future analytical summary data tables submitted for OCP review.
  - b. Populate the *Depth Specific Sampling Interval* column with the discrete interval from which samples are collected from any monitoring well designated for fracture specific sampling intervals. All discrete interval sampling must continue to be performed so that concentration trends continue to be monitored at the specified sampling depths.

### **Monitoring Well Abandonment and Sampling Plan Proposal**

In addition to the request to cease remediation system operation and enter post remediation monitoring, ExxonMobil submitted the *Sampling Reduction, Well Abandonment and Additional Cycling Work Plan (Plan)*, dated February 27, 2023, for OCP review. This *Plan* was supplemented

by an *Addendum*, dated April 13, 2023. In accordance with Flowchart 2 of the Order of Resolution, dated June 6, 2018, the *Plan* proposed a substantial number of monitoring wells for abandonment, a monitoring plan for the remaining wells, and a reduction in the private water supply sampling. ExxonMobil’s summary proposal of the monitoring well network reduction is as follows:

- Abandonment of 150 monitoring wells based on groundwater concentrations that have remained below MDE groundwater standards or state action levels for at least 2 years and are not needed for gauging associated with the development of potentiometric surface maps.
- Of the remaining monitoring well network, Kleinfelder proposed to retain 37 MWs as follows: continue monthly sampling of 7 MWs, conduct quarterly sampling of 15 MWs, conduct annual sampling of 11 MWs and retain 4 MWs, however, no sampling or gauging will be performed from these wells.

Based on the current land use, the available information reviewed for this case including a review of the monitoring well network construction details, historical and current dissolved phase hydrocarbon concentrations, locations of the monitoring wells relative to historic LPH and dissolved phase impacts, and the retention of a comprehensive monitoring well network for continued monitoring during post remediation monitoring, MDE approves abandonment of the monitoring wells and monitoring well sampling frequencies as detailed in the enclosed Table 1. A summary of the proposed and approved monitoring activities is provided below.

**Summary of Proposed / Approved Monitoring Activities and Well Abandonments**

	<b>Current Totals</b>	<b>EM Proposed Totals</b>	<b>MDE Approved Totals</b>
Existing Wells	<b>187</b>	<b>37</b>	<b>72</b>
Monitored	119	33	72
- Monthly Sampling for 3 months then revert to Quarterly	0	7	7
- Quarterly Sampling	60	15	30
- Semi-Annual Sampling	59	0	35
- Annual Sampling	0	11	0
Gauge Only	21	0	0
Inactive Status	47	4	0
Abandoned Wells	<b>122</b>	<b>272</b>	<b>237</b>
<b>Total Wells</b>	<b>309</b>	<b>309</b>	<b>309</b>

MDE requires that of the **187** wells currently remaining, **72** monitoring wells are to be retained for continued monitoring (sampling and gauging at specified frequencies); and **115** monitoring wells are approved for proper abandonment.

The monitoring wells approved for abandonment must be properly abandoned by a Maryland-licensed well driller in accordance with all applicable requirements of Code of Maryland Regulations (COMAR) 26.04.04.34—36. Provide copies of the required well abandonment reports

to both OCP (Attn: Ms. Ellen Jackson) and the Baltimore County Department of Environmental Protection and Sustainability (Attn: Mr. Kevin Koepenick). Notify OCP at least five working days prior to performing well abandonment activities so OCP staff has an opportunity to observe the work activities.

This letter is not a not a waiver or limitation of MDE's right to take enforcement action in the future based upon contamination at and around the site. The MDE and the State of Maryland retain all authority and rights to seek all available relief, including equitable relief and damages of any nature, such as compensatory and natural resource damages, for contamination at and around the site.

**Private Water Supply Well Sampling Plan Proposal**

OCP will review the *Private Water Supply Well Sampling Reduction Request* following receipt of the 1<sup>st</sup> Quarter Post Remediation Monitoring Report. This report must be supplemented with a standalone *Private Drinking Water Monitoring Report* and a revised evaluation of proposed private well monitoring reductions based upon the final post remediation monitoring well network to ensure continued protection of public health.

If you have any questions, please contact the case manager, Mr. Matthew Mueller, at 410-537-3574 or [matthew.mueller@maryland.gov](mailto:matthew.mueller@maryland.gov), or the regional supervisor, Ms. Ellen Jackson, at 410-537-3482 or [ellen.jackson@maryland.gov](mailto:ellen.jackson@maryland.gov).

Sincerely,



Susan Bull, Chief  
Remediation Division  
Oil Control Program

Enclosure: Table 1 – MDE Approved Monitoring Activities  
October 4, 2023 email RE: WP Response – additional action trigger situations

cc: Alicyn Craig, Esquire, ExxonMobil Corporation  
Mr. Mark Schaaf, Kleinfelder East, Inc.  
Mr. Kevin Koepenick, Manager, Groundwater Management Section, Balt. County DEPS  
Mr. Matthew Mueller, Case Manager, Remediation Division, Oil Control Program  
Ms. Ellen Jackson, Regional Supervisor, Remediation Division, Oil Control Program  
Julie Kuspa, Esquire, Office of Attorney General  
Mr. Christopher H. Ralston, Program Manager, Oil Control Program

Table 1. MDE Approved Monitoring Activities

Well ID	Screen Interval (feet below top of casing)	Depth Specific Sampling Interval (feet below top of casing)	Date GW Recovery Activities Ceased	Last Sampling Date (update Quarterly)	Last MTBE Result (ppb)	Trigger Level for Action (ppb)	Current Monitoring Activity	Proposed Monitoring Activity	Exxon Rationale	MDE Approved December 2023	MDE Rationale
MW-1	20-45			11/2/2022	ND		Semi-Annual	Annual	Continued monitoring in SE portion of former Station; below standards >3 yrs (2/25/2019)	Quarterly	Other constituents present / source zone monitoring
MW-1A [R]	35-55		6/10/2019	10/17/2022	ND		Quarterly	Abandon	Below standards for >6 yrs (9/28/2016)	Abandon	
MW-2	20-50			11/2/2022	ND		Semi-Annual	Abandon	Below standards for >11 yrs (12/13/12)	Abandon	
MW-2A [R]	35-55		7/30/2019	10/17/2022	ND		Quarterly	Abandon	Below standards >7 yrs (9/10/2015)	Quarterly	Source zone monitoring
MW-3 [R]	20-50		3/11/2022	12/9/2022	1.1		Quarterly	Quarterly	Continued monitoring NW of former UST area; GW recovery ceased 3/14/22; below standards <1 yr (1/14/2021)	Quarterly	Agreed as proposed
MW-4 [R]	15-50		5/5/2020	12/8/2021	ND		Quarterly	Abandon	Below standards >4 yrs (8/23/2018)	Abandon	
MW-4A	35-55			11/2/2022	ND		Quarterly	Abandon	Below standards >13 yrs (3/10/2009)	Abandon	
MW-6 [R]	20-50		6/10/2019	10/17/2022	ND		Quarterly	Annual	Continued monitoring West of former UST area; below standards >9 yrs (6/14/2013)	Quarterly	Source zone / no annual sampling
MW-7 [R]	20-55		8/4/2020	12/9/2022	ND		Quarterly	Abandon	Below standards >3 yrs (2/22/2019)	Abandon	
MW-8	25-45			10/18/2022	ND		Semi-Annual	Abandon	Below standards >16 yrs (4/16/2006)	Abandon	
MW-9	25-50		9/11/2018	11/2/2022	ND		Semi-Annual	Abandon	Below standards >15 yrs (10/31/2007)	Abandon	
MW-12	20-35			11/10/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Semi-Annual	Source zone perimeter monitoring
MW-13 [R]	25-35		8/4/2020	10/18/2022	1.9		Quarterly	Abandon	Below standards >5 yrs (9/28/2017)	Abandon	
MW-15	15-35			11/10/2022	ND		Semi-Annual	Abandon	Below standards >16 yrs (3/13/2006)	Semi-Annual	Source zone perimeter monitoring
MW-16 [R]	20-38		6/28/2021	10/19/2022	ND		Quarterly	Abandon	Below standards >8 yrs (6/23/2014)	Abandon	
MW-16R [R]	45-60		3/11/2022	12/5/2022	8.7		Quarterly	Quarterly	Continued monitoring NW of former UST area; GW recovery ceased 3/14/22; last above action levels 4/16/2021	Quarterly	Agreed as proposed
MW-17	25-50		9/11/2018	10/18/2022	ND		Quarterly	Annual	Continued monitoring in SW portion of former Station; below standards >14 yrs	Semi-annual	No annual sampling
MW-19 [R]	20-45		10/1/2019	10/18/2022	ND		Quarterly	Abandon	Below standards >6 yrs (3/14/2016)	Quarterly	Source zone perimeter monitoring
MW-20	20-40			N/A	N/A		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW-21	20-45		7/30/2019	11/2/2022	ND		Semi-Annual	Abandon	Below standards >15 yrs (8/17/2007)	Abandon	
MW-22 [R]	20-45		7/8/2019	10/18/2022	ND		Quarterly	Abandon	Below standards >5 yrs (12/27/2017)	Quarterly	Source zone monitoring
MW-23 [R]	20-45		10/4/2019	11/2/2022	0.30J		Semi-Annual	Abandon	Below standards >12 yrs (9/14/2010)	Semi-Annual	Source zone perimeter monitoring
MW-24	20-35		5/6/2015	11/11/2022	ND		Semi-Annual	Abandon	Below standards >14 yrs (5/21/2008)	Abandon	
MW-25	25-55		11/19/2013	11/29/2022	ND		Semi-Annual	Abandon	Below standards >12 yrs (9/14/2010)	Abandon	
MW-26	25-45		5/6/2015	11/11/2022	ND		Semi-Annual	Abandon	Below standards >14 yrs (2/20/2008)	Abandon	
MW-27 [R]	27-43		6/28/2021	11/19/2022	ND		Quarterly	Abandon	Below standards >3 yrs (2/25/2019)	Quarterly	Last pumped 6-28-21, source zone
MW-27B	60-125			10/19/2022	0.90J		Quarterly	Abandon	Below standards >3 yrs (6/13/2019)	Quarterly	Source zone
MW-27R [R]	30-60		7/1/2020	10/19/2022	ND		Quarterly	Annual	Continued monitoring North of former UST area; last above action levels 7/24/2020	Quarterly	Source zone/ no annual sampling
MW-29	10-30		5/6/2015	11/28/2022	ND		Semi-Annual	Abandon	Below standards >5 yrs (12/22/2017)	Abandon	
MW-30	10-35		5/6/2015	11/11/2022	ND		Semi-Annual	Abandon	Below standards >8 yrs (6/16/2014)	Abandon	
MW-31	30-50		12/7/2017	11/7/2022	1.1		Quarterly	Abandon	Below standards >2 yrs (3/9/2020)	Abandon	
MW-32	15-45		12/28/2010	8/25/2022	1.1		Semi-Annual	Abandon	Below standards >9 yrs (3/19/2013)	Abandon	
MW-36C	125-424			8/25/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Abandon	
MW-36R	30-80		10/8/2018	8/25/2022	1.7		Semi-Annual	Abandon	Below standards >4 yrs (3/9/2018)	Quarterly	Depth specific monitoring
MW-37 [R]	40-96		6/30/2020	10/27/2022	ND		Quarterly	Abandon	Below standards >4 yrs (4/5/2018)	Abandon	
MW-38 [R]	23-63		7/31/2019	10/27/2022	ND		Quarterly	Abandon	Below standards >4 yrs (1/15/2018)	Quarterly	Depth specific monitoring
MW-38B	68-125			10/28/2022	ND		Semi-Annual	Abandon	Below standards >8 yrs (4/22/2014)	Quarterly	Depth specific monitoring
MW-38C [R]	125-300		active recovery	12/6/2022	89		Monthly*	Monthly*	Actively cycled RW; currently above for MTBE (12/16/2022)	Monthly / Quarterly	Agreed as proposed
MW-40	5-30		8/31/2015	12/28/2022	ND		Quarterly	Quarterly	Continued monitoring SW of station. Typically below standards with occasional fluctuation above. Below standards <1 yr (11/29/2022).	Quarterly	Agreed as proposed
MW-41A	15-35			2/23/2022	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	

Table 1. MDE Approved Monitoring Activities

Well ID	Screen Interval (feet below top of casing)	Depth Specific Sampling Interval (feet below top of casing)	Date GW Recovery Activities Ceased	Last Sampling Date (update Quarterly)	Last MTBE Result (ppb)	Trigger Level for Action (ppb)	Current Monitoring Activity	Proposed Monitoring Activity	Exxon Rationale	MDE Approved December 2023	MDE Rationale
MW-41B	48-58			12/15/2021	ND		Retained	Abandon	Below standards >7 yrs; only one detection above for MTBE(25) on 12/8/2011	Abandon	
MW-41C	60-350			12/15/2021	ND		Retained	Abandon	Never above standards >16 yrs (4 H/S intervals)	Abandon	
MW-42A	15-35			4/10/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-42B	45-55			2/21/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-42C	60-350			2/21/2019	ND		Retained	Abandon	Never above standards >15 yrs (4 H/S intervals)	Abandon	
MW-43A	20-40		1/31/2013	3/3/2020	ND		Retained	Abandon	Below standards >15 yrs (4/24/2007)	Semi-Annual	Shallow zone monitoring, revisit after 1 yr of monitoring
MW-43B	45-55			12/9/2019	ND		Retained	Abandon	Below standards >16 yrs (8/2/2006)	Semi-Annual	Shallow zone monitoring, revisit after 1 yr of monitoring
MW-44	20-40			N/A	N/A		Retained	Abandon	Below standards >13 yrs (3/12/2009)	Abandon	
MW-45 [R]	53-73		3/11/2022	12/9/2022	8.2		Quarterly	Quarterly	Continued monitoring NE of intersection; GW recovery ceased 3/14/22; below standards <1 yr (3/11/2022)	Quarterly	Agreed as proposed
MW-45R [R]	70-90		3/11/2022	12/9/2022	ND		Quarterly	Quarterly	Continued monitoring NE of intersection; GW recovery ceased 3/14/22; below standards <1 yr (3/20/2022)	Quarterly	Agreed as proposed
MW-46	35-60			N/A	N/A		Gauging only	Abandon	Below standards >14 yrs (4/23/2008)	Abandon	
MW-47A	20-40			2/13/2019	ND		Gauging only	Abandon	Below standards >16 yrs (3/16/2006)	Abandon	
MW-47BB	55-125			10/28/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Semi-Annual	Down dip monitoring
MW-47C	125-300			1/29/2021	ND		Semi-Annual	Abandon	Never above standards >10 yrs (12/19/2012)	Semi-Annual	Down dip monitoring
MW-48A	20-40			2/8/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-48B	45-55			2/8/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-48D	55-403			8/30/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Abandon	
MW-50	20-40			12/14/2017	0.5J		Retained	Abandon	Never above standards >16 yrs	Semi-Annual	Depth specific source monitoring
MW-50B	45-55			2/8/2019	ND		Retained	Abandon	Never above standards >14 yrs	Semi-Annual	Depth specific source monitoring
MW-50C	60-300			2/8/2019	ND		Retained	Abandon	Below standards >16 yrs (5/5/2006) (4 H/S intervals)	Semi-Annual	Depth specific source monitoring
MW-52	20-70			8/25/2022	ND		Semi-Annual	Abandon	Below standards >13 yrs (3/24/2009)	Abandon	
MW-53A	15-35		5/6/2015	12/12/2017	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-53B	45-55			5/10/2019	ND		Retained	Abandon	Below standards >13 yrs (9/22/2009)	Abandon	
MW-53C	60-350			2/18/2019	ND		Retained	Abandon	Never above standards >16 yrs (2 H/S intervals)	Abandon	
MW-54	16-56			10/27/2022	ND		Quarterly	Abandon	Below standards >5 yrs (12/15/2017)	Quarterly	Monitor down gradient of MW-187A
MW-54B [R]	57-125		active recovery	12/6/2022	290		Monthly*	Monthly*	Actively cycled RW; currently above for MTBE (12/6/2022)	Monthly/ Quarterly	Agreed as proposed
MW-54C	125-300			12/21/2022	65		Semi-Annual	Quarterly	Currently above for MTBE (12/21/2022)	Monthly/ Quarterly	Agreed as proposed
MW-56A	15-35			12/12/2017	1		Gauging only	Abandon	Below standards >15 yrs (5/10/2007)	Semi-Annual	On strike, down gradient
MW-56B	45-55			2/21/2019	0.3 J		Retained	Abandon	Below standards >13 yrs (3/10/2009)	Semi-Annual	On strike, down gradient
MW-56C	60-350			10/27/2020	ND		Retained	Abandon	Below standards >8 yrs (3/12/2014) (3 H/S intervals)	Semi-Annual	On strike, down gradient
MW-57	25-65		8/13/2018	10/28/2022	ND		Semi-Annual	Abandon	Below standards >12 yrs (6/10/2010)	Semi-Annual	Revisit after 1 yr of monitoring
MW-58	35-65		3/28/2018	10/28/2022	0.35 J		Semi-Annual	Abandon	Below standards >11 yrs (3/30/2011)	Semi-Annual	Revisit after 1 yr of monitoring
MW-59A	20-40			9/7/2022	0.27 J		Semi-Annual	Abandon	Below standards >11 yrs (9/26/2011)	Abandon	
MW-59B [R]	45-55		8/3/2020	10/28/2022	0.37 J		Quarterly	Abandon	Below standards >3 yrs (10/9/2019)	Abandon	
MW-59D	23-48		7/30/2018	11/15/2022	ND		Semi-Annual	Abandon	Below standards >11 yrs (3/9/2011)	Abandon	
MW-60	10-40		10/12/2011	2/14/2019	ND		Retained	Abandon	Below standards >15 yrs (1/17/2007)	Abandon	
MW-61A	15-35			3/4/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-61B	45-55			3/4/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW-66	5-30			12/13/2017	ND		Retained	Abandon	Never above standards >16 yrs; retain for potential sampling SW and downgradient of station and wells proposed for continued sampling	Abandon	No retention without sampling
MW-67	10-40			N/A	N/A		Gauging only	Retain		Semi-Annual	
MW-68	5-30			N/A	N/A		Gauging only	Abandon	Never above standards >16 yrs	Abandon	



Table 1. MDE Approved Monitoring Activities

Well ID	Screen Interval (feet below top of casing)	Depth Specific Sampling Interval (feet below top of casing)	Date GW Recovery Activities Ceased	Last Sampling Date (update Quarterly)	Last MTBE Result (ppb)	Trigger Level for Action (ppb)	Current Monitoring Activity	Proposed Monitoring Activity	Exxon Rationale	MDE Approved December 2023	MDE Rationale
MW- 72	10-40		8/31/2015	11/2/2022	ND		Semi-Annual	Annual	Continued monitoring SW of Station and downgradient of MW-40; below standards >12 yrs (12/20/2010)	Semi-Annual	No annual sampling
MW- 73	25-65			6/6/2022	1.7		Retained	Abandon	Below standards >16 yrs (8/15/2006 - only exceedance)	Abandon	
MW- 73C	125-300		3/11/2022	12/9/2022	6.1		Quarterly	Quarterly	Continued monitoring NE of Station; GW recovery ceased 3/14/22; below standards >2 yrs (6/22/2020)	Quarterly	Agreed as proposed
MW- 75 [R]	25-50		10/2/2019	11/1/2022	ND		Quarterly	Abandon	Below standards >8 yrs (12/10/2014)	Abandon	
MW- 76	20-56		5/21/2018	11/15/2022	0.28 J		Semi-Annual	Abandon	Below standards >15 yrs (2/19/2007)	Abandon	
MW- 77A	10-25		9/12/2018	9/7/2022	0.21 J		Semi-Annual	Abandon	Below standards >9 yrs (9/26/2013)	Abandon	
MW- 77B	33-43		11/7/2018	9/7/2022	ND		Semi-Annual	Abandon	Below standards >14 yrs (12/18/2008)	Abandon	
MW- 78A	2-20			8/9/2022	ND		Quarterly	Abandon	Below standards >14 yrs (4/23/2008)	Abandon	
MW- 78C	60-300			8/9/2022	ND		Quarterly	Abandon	Below standards >16 yrs (7/20/2006)	Abandon	
MW- 80A	5-30		11/19/2013	9/7/2022	ND		Semi-Annual	Abandon	Below standards >14 yrs (3/13/2008)	Abandon	
MW- 80B	38.5-48.5		12/13/2013	9/7/2022	ND		Semi-Annual	Abandon	Below standards >12 yrs (7/26/2010)	Abandon	
MW- 81	5-25		5-25	2/25/2019	ND		Gauging only	Abandon	Below standards >16 yrs (3/17/2006)	Abandon	
MW- 82	5-25		11/7/2018	11/1/2022	ND		Quarterly	Abandon	Below standards >9 yrs (12/17/2013)	Abandon	
MW- 82B [R]	50-125		8/30/2020	11/1/2022	2.2		Quarterly	Quarterly	Continued monitoring NE of station; below standards < 1 yr (2/21/2022)	Quarterly	Agreed as proposed
MW- 82D [R]	125-380		6/30/2021	12/6/2022	ND		Quarterly	Quarterly	Continued monitoring NE of station; below standards >3 yrs (2/25/2019)	Quarterly	Agreed as proposed
MW- 82R [R]	3-38		6/30/2020	11/1/2022	ND		Quarterly	Abandon	Below standards >3 yrs (1/9/2019)	Abandon	
MW- 83	10-25			2/25/2019	ND		Gauging only	Abandon	Below standards >15 yrs (6/6/2007)	Abandon	
MW- 83R	20-50			2/25/2019	ND		Retained	Abandon	Below standards >16 yrs (8/22/2006)	Abandon	
MW- 84	40-60		11/7/2018	9/9/2022	ND		Semi-Annual	Abandon	Below standards >9 yrs (3/28/2013)	Abandon	
MW- 85	40-60		9/12/2018	8/25/2022	ND		Semi-Annual	Abandon	Below standards for 5 yrs (9/19/2017)	Quarterly	Intersection monitoring
MW- 87	40-60		10/8/2018	8/25/2022	ND		Semi-Annual	Abandon	Below standards >10 yrs (1/23/2012)	Abandon	
MW- 88	37.5-57.5		6/30/2020	9/9/2022	ND		Semi-Annual	Abandon	Below standards >15 yrs (9/17/2007)	Abandon	
MW- 89 [R]	10-40		6/30/2020	11/1/2022	ND		Quarterly	Abandon	Below standards >4 yrs (4/4/2018)	Abandon	
MW- 91	42-72			10/28/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Abandon	
MW- 91C [R]	80-297.4		6/12/2019	12/6/2022	0.52 J		Quarterly	Annual	Continued monitoring NE of station; below standards >8 yrs (5/5/2014)	Quarterly	Fracture monitoring
MW- 91D	400-420			10/28/2022	ND		Semi-Annual	Abandon	Never above standards >12 yrs	Abandon	
MW- 92A	20-40			6/18/2019	ND		Gauging only	Abandon	Never above standards >15 yrs	Abandon	
MW- 94	17-32			2/25/2019	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW- 95	2-20			3/6/2019	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW- 96A	4-24			N/A	N/A		Gauging only	Abandon	Below standards >14 yrs (5/14/2008)	Abandon	
MW- 97	4-24			N/A	N/A		Gauging only	Abandon	Below standards >16 yrs (3/22/2006)	Abandon	
MW- 99A	3-15			11/1/2022	ND		Quarterly	Abandon	Never above standards >16 yrs	Abandon	
MW- 100B	31-41		12/15/2009	6/23/2022	ND		Retained	Abandon	Below standards >16 yrs (7/25/2006)	Abandon	
MW- 101A	3-15			11/1/2022	ND		Quarterly	Abandon	Never above standards >16 yrs	Abandon	
MW- 105	25-47			11/2/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Abandon	
MW- 106	8.5-28.5			9/7/2022	ND		Semi-Annual	Abandon	Never above standards >16 yrs	Abandon	
MW- 107	15-45			5/13/2019	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW- 108	35-55			5/14/2019	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW- 109	30-70		12/13/2013	8/25/2022	ND		Retained	Abandon	Below standards >15 yrs (8/16/2007)	Abandon	
MW- 110	25-60		9/12/2018	9/7/2022	ND		Semi-Annual	Abandon	Below standards >11 yrs (11/8/2011)	Abandon	
MW- 121 [R]	35-60		7/1/2020	12/9/2022	ND		Quarterly	Abandon	Below standards >3 yrs (3/4/2019)	Abandon	
MW- 125	32-55			11/29/2022	ND		Semi-Annual	Abandon	Below standards >10 yrs (3/22/2012)	Abandon	
MW- 131A	5-20			8/9/2017	ND		Retained	Abandon	Below standards >14 yrs (5/15/2008) no access	Abandon	
MW- 131B	30-35			8/9/2017	ND		Retained	Abandon	Below standards >14 yrs (4/29/2008) no access	Abandon	
MW- 131C	60-359			8/9/2017	ND		Retained	Abandon	Never above standards >14 yrs (7 H/S intervals) no access	Abandon	
MW- 133A	15-30			2/28/2019	ND		Gauging only	Abandon	Never above standards >16 yrs	Abandon	
MW- 133B	40-50			2/28/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW- 133C	60-200			2/28/2019	ND		Retained	Abandon	Below standards >13 yrs (6/25/2009) (3 H/S intervals)	Abandon	
MW- 135A	20-40			2/13/2019	ND		Retained	Abandon	Never above standards >16 yrs	Abandon	
MW- 135B	50-60			2/13/2019	ND		Retained	Abandon	Below standards >16 yrs (5/18/2006)	Abandon	
MW- 135C	60-397			8/30/2022	ND		Retained	Abandon	Never above standards >12 yrs	Abandon	
MW- 137	15-45		10/8/2018	11/15/2022	ND		Semi-Annual	Abandon	Below standards >14 yrs (2/18/2006)	Abandon	

Table 1. MDE Approved Monitoring Activities

Well ID	Screen Interval (feet below top of casing)	Depth Specific Sampling Interval (feet below top of casing)	Date GW Recovery Activities Ceased	Last Sampling Date (update Quarterly)	Last MTBE Result (ppb)	Trigger Level for Action (ppb)	Current Monitoring Activity	Proposed Monitoring Activity	Exon Rationale	MDE Approved December 2023	MDE Rationale
MW-138	14-44			9/8/2022	ND		Semi-Annual	Abandon	Below standards > 13 yrs (12/22/2009) Continued monitoring NE of Station; GW recovery ceased 3/14/22; below standards >1 yr (12/13/2021). Minimal variation across 10 H/S discrete sample intervals, therefore proposed change to 3 H/S samples from shallow (115' to 120'), intermediate (230' to 235'), and deep (350' to 355') intervals of open borehole.	Abandon	
MW-138D (R)	60-404		3/11/2022	12/28/2022	0.68 J		Quarterly	Quarterly		Quarterly	Agreed as proposed
MW-139	60-80		6/23/2017	12/5/2022	31		Quarterly	Quarterly	Continued monitoring North of former UST area; currently above for MTBE (12/5/2022)	Quarterly	Agreed as proposed
MW-140A	10-30			N/A	N/A		Gauging only	Abandon	Below standards >16 yrs (10/18/2006)	Abandon	
MW-140B	40-55			12/14/2021	ND		Retained	Abandon	Below standards >16 yrs (11/10/2006)	Abandon	
MW-143	30-65			5/14/2019	0.6 J		Retained	Abandon	Below standards >14 yrs (5/22/2008)	Abandon	
MW-144	25-60		SVE Ceased 4/12/2017	11/2/2022	ND		Semi-Annual	Abandon	Below standards >8 yrs (9/17/2014)	Abandon	
MW-146	35-60			2/14/2018	ND		Retained	Abandon	Never above standards >16 yrs; no access	Semi-Annual	Down dip monitoring of source area and nearby PSWs
MW-146B	60-126.5			2/14/2018	ND		Retained	Abandon	Never above standards >16 yrs; no access	Semi-Annual	Down dip monitoring of source area and nearby PSWs
MW-146C	125-300			2/27/2018	ND		Retained	Abandon	Never above standards >8 yrs; (2 H/S intervals) no access	Semi-Annual	Down dip monitoring of source area and nearby PSWs
MW-151 (R)	35-60		8/4/2020	10/18/2022	3.3		Quarterly	Abandon	Below standards >10 yrs (8/7/2012)	Abandon	
MW-152 (R)	35-60		6/10/2019	12/9/2022	ND		Quarterly	Abandon	Below standards >15 yrs (12/27/2017)	Abandon	
MW-154	20-60		5/6/2015	11/29/2022	ND		Semi-Annual	Abandon	Below standards > 14 yrs (1/9/2008)	Abandon	
MW-159	30-70			11/10/2022	ND		Semi-Annual	Abandon	Below standards >12 yrs (6/8/2010)	Abandon	
MW-160	20-70			11/2/2022	ND		Semi-Annual	Abandon	Below standards >10 yrs (3/22/2012)	Abandon	
MW-162A	35-45			2/28/2019	ND		Retained	Abandon	Never above standards >14 yrs	Abandon	
MW-162B	55-65			2/28/2019	ND		Retained	Abandon	Never above standards >14 yrs (4 H/S intervals)	Abandon	
MW-162C	60-300			3/11/2019	ND		Retained	Abandon	Never above standards >14 yrs (4 H/S intervals)	Abandon	
MW-166A	40-60			5/14/2019	ND		Gauging only	Abandon	Never above standards >15 yrs	Abandon	
MW-166C	60-615			3/11/2019	ND		Retained	Retain	Never above standards >14 yrs (6 H/C intervals); retain for potential sampling East and sidegradient of station, inactive private supply well	Semi-Annual	No retention without sampling
MW-167	30-60			3/3/2020	0.2 J		Retained	Abandon	Below standards >13 yrs (6/12/2009)	Abandon	
MW-168	65-250		9/27/2018	8/26/2022	ND		Semi-Annual	Quarterly	Continued monitoring NE of Station; below standards >7 yrs (11/3/2015)	Quarterly	Agreed as proposed
MW-169 (R)	39-150		4/26/2019	10/20/2022	ND		Quarterly	Abandon	Below standards >10 yrs (7/24/2012)	Abandon	
MW-170 (R)	35-150		10/1/2019	10/20/2022	ND		Quarterly	Abandon	Below standards >10 yrs (7/24/2012)	Abandon	
MW-171	36-130			8/25/2022	1.4		Semi-Annual	Abandon	Below standards >6 yrs (1/28/2016)	Semi-Annual	Fracture monitoring
MW-171C	125-415			8/30/2022	1.6		Semi-Annual	Abandon	Below standards >12 yrs (8/23/2010)	Abandon	Fracture monitoring
MW-176 (R)	125-250.1		8/5/2020	10/20/2022	9.9		Quarterly	Abandon	Below standards >5 yrs (3/24/2017)	Semi-Annual	Fracture monitoring
MW-176CC	250-300			8/26/2022	0.26 J		Semi-Annual	Abandon	Never above standards <=11 yrs (10/18/2012)	Abandon	Fracture monitoring
MW-177	125-250.5			11/29/2022	1.3		Semi-Annual	Abandon	Below standards >10 yrs	Semi-Annual	Fracture monitoring
MW-178A	43-73			5/20/2019	ND		Gauging only	Abandon	Never above standards >12 yrs	Abandon	
MW-178B	75-125			10/20/2022	1.4		Quarterly	Abandon	Continued monitoring NE of Station; below standards >3 yrs (12/6/2019)	Semi-Annual	No annual sampling
MW-178C (R)	125-300		1/27/2023	12/5/2022	59		Monthly*	Monthly*	Continued monitoring NE of station and immediately downgradient of actively cycled RWs; currently above for MTBE (12/5/2022); GW recovery ceased 1/27/23	Monthly/ Quarterly	Agreed as proposed
MW-179A	40-80			1/13/2020	ND		Gauging only	Abandon	Below standards >10 yrs (8/22/2012)	Abandon	
MW-179C	80-250			11/29/2022	8.5		Semi-Annual	Abandon	Below standards >4 yrs (10/16/2018)	Semi-Annual	Fracture monitoring
MW-180A	35-75			8/25/2022	ND		Semi-Annual	Abandon	Below standards >12 yrs (11/29/2010)	Abandon	
MW-180C	125-300			8/25/2022	0.75 J		Semi-Annual	Abandon	Below standards >11 yrs (9/21/2011)	Abandon	

Table 1. MDE Approved Monitoring Activities

Well ID	Screen Interval (feet below top of casing)	Depth Specific Sampling Interval (feet below top of casing)	Date GW Recovery Activities Ceased	Last Sampling Date (update Quarterly)	Last MTBE Result (ppb)	Trigger Level for Action (ppb)	Current Monitoring Activity	Proposed Monitoring Activity	Exxon Rationale	MDE Approved December 2023	MDE Rationale
MW- 181A [R]	30-60		6/30/2021	11/1/2022	14		Quarterly	Quarterly	Continued monitoring NE of Station; below standards >3 yrs (5/21/2019)	Quarterly	Agreed as proposed
MW- 181B	60-125		10/23/2017	8/25/2022	3.4		Semi-Annual	Annual	Continued monitoring NE of Station; below standards >8 yrs (8/20/2014)	Semi-Annual	No annual sampling
MW- 181C	125-300			12/28/2022	19		Quarterly	Annual	Continued monitoring NE of Station; below standards >4 yrs (8/24/2018)	Semi-Annual	No annual sampling
MW- 182	100-300			10/30/2022	17		Quarterly	Abandon	Below standards >3 yrs (3/18/2019)	Semi-Annual	Fracture monitoring
MW- 183 [R]	100-300		3/11/2022	12/9/2022	5.9		Quarterly	Quarterly	Continued monitoring NE of Station; GW recovery ceased 3/14/22; below standards <1 yr (6/24/2022)	Quarterly	Agreed as proposed
MW- 184 [R]	100-300		8/5/2020	10/30/2022	5.2		Quarterly	Abandon	Below standards >2 yrs (4/16/2020)	Semi-Annual	Fracture monitoring
MW- 185 [R]	100-300		4/26/2019	7/28/2022	ND		Quarterly	Abandon	Below standards >6 yrs (2/8/2016)	Abandon	
MW- 186D	70-428			3/14/2019	ND		Retained	Abandon	Never above standards >9 yrs H/S	Abandon	
MW- 187A [R]	25-60		active recovery	12/5/2022	62		Monthly*	Monthly*	Actively cycled RW; currently above for Benzene and MTBE (12/5/2022)	Monthly/ Quarterly	Agreed as proposed
MW- 187B [R]	60-125		3/11/2022	12/5/2022	9.3		Monthly*	Monthly*	Continued monitoring North of station and within intersection; below standards <1 yr (6/6/2022); GW recovery ceased 3/14/22	Monthly/ Quarterly	Agreed as proposed
MW- 187C [R]	125-300		active recovery	12/6/2022	260		Monthly*	Monthly*	Actively cycled RW; currently above for MTBE (12/6/2022)	Monthly/ Quarterly	Agreed as proposed
MW- 188D	125-436			8/29/2022	0.20 J		Quarterly	Abandon	Below standards >4 yrs	Quarterly	Down dip monitoring
MW- 189D (79)	35-384			12/21/2022	340		Quarterly	Quarterly	Continued monitoring NE of Station; currently above for MTBE (12/21/2022)	Quarterly	Agreed as proposed
PW- 14311	20-300			2/11/2019	ND		Retained	Retain	Retained as inactive supply well; never above standards >13 yrs	Semi-Annual	No retention without sampling
PW- 3501	27-425			12/9/2022	ND		Retained	Retain	Retained as inactive supply well; never above i-flag	Semi-Annual	No retention without sampling
SVE- 1 [R]	24-69		3/11/2022	12/9/2022	2.2		Quarterly	Quarterly	Continued monitoring North of former UST area; below standards <1 yr (4/27/2022); GW recovery ceased 3/14/22	Quarterly	Agreed as proposed
SVE- 2 [R]	25-70.75		8/4/2020	10/19/2022	16		Quarterly	Annual	Continued monitoring within former UST area; below standards >3 yrs (2/4/2019)	Semi-Annual	No annual sampling
SVE- 3 [R]	24-69		3/11/2022	12/9/2022	ND		Quarterly	Annual	Continued monitoring within former UST area; below standards >3 yrs (11/6/2019); GW recovery ceased 3/14/22	Semi-Annual	No annual sampling

\* Monthly sampling during cycling assessment; reverts to quarterly thereafter.  
H/S = HydraSleeves\* discrete depth sampler  
[R] = Recovery Well

**RE: Inactive Exxon Facility 28077 / Phoenix, MD - WP Response - additional action trigger situations**  
message

Mark Schaaf <MSchaaf@kleinfelder.com>

Wed, Oct 4, 2023 at 4:37 P

To: Susan Bull -MDE- <susan.bull@maryland.gov>, Ellen Jackson <ellen.jackson@maryland.gov>  
Cc: "Burghardt, Michael J" <michael.j.burghardt@exxonmobil.com>, "Lee, John J" <john.j.lee@exxonmobil.com>, Chris Ralston <chris.ralston@maryland.gov>, Leslie Steele <LSteele@kleinfelder.com>

Hi Ellen and Susan.

Thanks for your time Monday to discuss the workplans under review by the MDE.

As discussed, and per your email below, MDE is requesting specific trigger situations during the post-operational monitoring period that would prompt additional sampling or remedial activities which would be implemented prior to MDE responding to that specific situation. Below are proposed trigger situations and responses which would be implemented without prior MDE approval. Note: if any of these situations occur, the agreed actions will be implemented and concurrently MDE will be notified and additional actions may be implemented beyond those described below with MDE approval.

**Significant rebound in concentrations at a monitoring well**

If a groundwater petroleum constituent concentration in a monitoring well exceeds five times the MDE action level (e.g. 25 ppb benzene, 100 ppb MTBE) and the concentration is 125% or greater than the maximum concentration detected in that well since 4Q2021, then that well will be resampled within one week of receiving the elevated result. If the resample results confirm elevated concentration(s) (exceed five times the MDE action level and 125% of maximum concentration detected since 4Q2021), the sampling frequency will be increased to monthly for at least 3 consecutive months. If at the end of the three months, the concentration demonstrates a sustained increasing trend, additional actions appropriate for the well(s) of concern's location, history, and concentration trend, will be proposed for discussion with MDE and implemented following MDE approval. Once concentrations have stabilized or a decreasing trend has been re-established, sampling will revert to the prior MDE-approved frequency.

**Detection of light non-aqueous phase liquid (LNAPL) in a well**

If LNAPL is detected in any monitoring well, LNAPL recovery activities will be implemented, including weekly gauging and bailing of the affected well until LNAPL is not observed for 4 consecutive weeks, at which time monthly gauging would be conducted for 3 months before reverting to quarterly. If at any time during gauging LNAPL is observed, weekly bailing will resume. Note that the existing remediation system is not designed to handle LNAPL as it has not been recovered by the system since 2006. Therefore interim LNAPL recovery activities would include manual bailing or skimming into portable drums or tanks prior to offsite disposal. If LNAPL persists for 3 months or more, additional remedial action to address the LNAPL will be proposed for discussion with MDE and implemented following MDE approval.

Please let us know if you have questions or require additional information.

Thanks.

Mark

**Mark Schaaf**

Senior Program Manager

1745 Dorsey Road

Suite J,

Hanover, MD 21076

o| +1 410-850-0404

m| +1 845-325-1616

*This email may contain confidential information. If you have received this email—including any attachments—in error, please notify the sender promptly and delete the email and any attachments from all of your systems.*

**From:** Susan Bull -MDE- <[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)>  
**Sent:** Tuesday, October 3, 2023 11:20 AM  
**To:** Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)>; Leslie Steele <[LSteele@kleinfelder.com](mailto:LSteele@kleinfelder.com)>  
**Cc:** Ellen Jackson <[ellen.jackson@maryland.gov](mailto:ellen.jackson@maryland.gov)>; Burghardt, Michael J <[michael.j.burghardt@exxonmobil.com](mailto:michael.j.burghardt@exxonmobil.com)>; Lee, John J <[john.j.lee@exxonmobil.com](mailto:john.j.lee@exxonmobil.com)>; Chris Ralston <[chris.ralston@maryland.gov](mailto:chris.ralston@maryland.gov)>; Susan Bull -MDE- <[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)>  
**Subject:** Re: Inactive Exxon Facility 28077 / Phoenix, MD - meeting request

**External Email**

Mark and Leslie,

Thanks for taking the time to speak with us yesterday. Per our conversation, OCP is in the final stages of completing our reviews of the multiple documents submitted for the Exxon Jacksonville project during this calendar year and preparing a written response to the reduction and the post operation shut down requests.

Our goal for post-remedial monitoring is to ensure that we have planned for the most likely situations that trigger either enhanced monitoring or restart of the system. We do not want to enter a situation where your team has identified a critical data point of concern and delays occur while awaiting the "MDE to evaluate whether resuming pumping or other remedial action is warranted". Please submit a document to address these trigger situations and Exxon/ Klinefelder's proposed course of action to each identified trigger. As discussed yesterday, OCP intends to include this as part of our written response to the post remedial shut down letter. Once we receive this plan we will be able to finalize our letter.

If you have any additional questions, please feel free to contact me.

**Susan R. Bull**  
Chief, Remediation Division  
Oil Control Program, Land and Materials Administration  
Maryland Department of the Environment

Baltimore, Maryland 21230

[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)

410-537-3499 (O)

410-365-9813 (C)

[Website](#) | [Facebook](#) | [Twitter](#)

Click here to complete a three question [customer experience survey](#).

On Fri, Sep 29, 2023 at 5:30 PM Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)> wrote:

Hi Susan.

Catching up on emails late Friday.. another crazy day.

What time Monday are you available to chat? I am available 10 to 1130am or 1pm to 230pm. Thoughts?

Thanks.

Mark

Best regards,

**Mark Schaaf**

Senior Program Manager

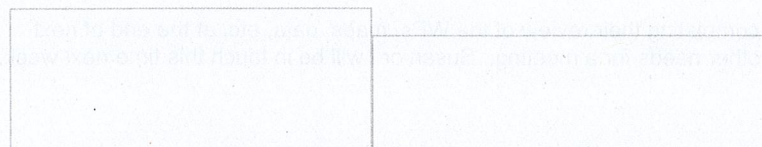
1745 Dorsey Road

Suite J,

Hanover, MD 21076

o| +1 410-850-0404

m| +1 845-325-4646



*This email may contain confidential information. If you have received this email—including any attachments—in error, please notify the sender promptly and delete the email and any attachments from all of your systems.*

**From:** Susan Bull -MDE- <[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)>

**Sent:** Friday, September 29, 2023 2:41 PM

**To:** Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)>

**Cc:** Ellen Jackson <[ellen.jackson@maryland.gov](mailto:ellen.jackson@maryland.gov)>; Burghardt, Michael J <[michael.j.burghardt@exxonmobil.com](mailto:michael.j.burghardt@exxonmobil.com)>; Lee, John J <[john.j.lee@exxonmobil.com](mailto:john.j.lee@exxonmobil.com)>; Leslie Steele <[LSteele@kleinfelder.com](mailto:LSteele@kleinfelder.com)>; Susan Bull -MDE- <[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)>; Chris Ralston

External Email

Mark,

I reached out to you earlier today and left you a message. I was hoping to discuss the progress of our review. In the event we are unable to touch base before 3:30 when I clock out today, I will try to connect with you on Monday.

**Susan R. Bull**

Chief, Remediation Division  
Oil Control Program, Land and Materials Administration  
Maryland Department of the Environment  
[1800 Washington Boulevard](#)  
[Baltimore, Maryland 21230](#)  
[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)  
410-537-3499 (O)  
410-365-9813 (C)  
[Website](#) | [Facebook](#) | [Twitter](#)

Click here to complete a three question [customer experience survey](#).

On Fri, Sep 22, 2023 at 3:27 PM Chris Ralston -MDE- <[chris.ralston@maryland.gov](mailto:chris.ralston@maryland.gov)> wrote:

Mark,

We definitely appreciate the offer for a meeting. Susan and Ellen are completing their review of the WPs, maps, data, etc. at the end of next week. We will know after that if there are any remaining questions or other needs for a meeting. Susan or I will be in touch this time next week.

**Christopher Ralston**

Program Manager, Oil Control Program  
Land and Materials Administration  
Maryland Department of the Environment  
[1800 Washington Boulevard, Ste. 620](#)  
[Baltimore, Maryland 21230](#)  
[chris.ralston@maryland.gov](mailto:chris.ralston@maryland.gov)

O - 410-537-3470

Click here to complete a three question [customer experience survey](#).

On Fri, Sep 22, 2023 at 12:09 PM Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)> wrote:

Hi Chris.

Were you able to select a date that works for your team?

Thanks.

Mark

---

**From:** Chris Ralston -MDE- <[chris.ralston@maryland.gov](mailto:chris.ralston@maryland.gov)>

**Sent:** Monday, September 18, 2023 12:55 PM

**To:** Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)>

**Cc:** Ellen Jackson <[ellen.jackson@maryland.gov](mailto:ellen.jackson@maryland.gov)>; Susan Bull <[susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)>; Burghardt, Michael J <[michael.j.burghardt@exxonmobil.com](mailto:michael.j.burghardt@exxonmobil.com)>; Lee, John J <[john.j.lee@exxonmobil.com](mailto:john.j.lee@exxonmobil.com)>; Leslie Steele <[LSteele@kleinfelder.com](mailto:LSteele@kleinfelder.com)>

**Subject:** Re: Inactive Exxon Facility 28077 / Phoenix, MD - meeting request

**External Email**

---

Mark,

Thanks for the email. Susan is out the first part of this week. We'll get back to you towards the end of the week on this.

**Christopher Ralston**

Program Manager, Oil Control Program

Land and Materials Administration

Maryland Department of the Environment

1800 Washington Boulevard, Ste. 620

Baltimore, Maryland 21230

[chris.ralston@maryland.gov](mailto:chris.ralston@maryland.gov)

O - 410-537-3470

C - 443-324-1699

[Website](#) | [Facebook](#) | [Twitter](#)

Click here to complete a three question [customer experience survey](#).

On Fri, Sep 15, 2023 at 6:07 PM Mark Schaaf <[MSchaaf@kleinfelder.com](mailto:MSchaaf@kleinfelder.com)> wrote:

Hi Ellen, Susan, and Chris.

Thank you for your calls this week to discuss the site progression. As we discussed, MDE-OCP is getting close to completing the workplan review and related response letter including details with respect to the post-remedial sampling plan and well abandonments. As you



subsequent MDE-OCP response letter.

ExxonMobil and Kleinfelder would like to schedule an in-person meeting to discuss either final questions/concerns related to the workplan response letters or discuss/review details of the response letter if drafted/completed.

We propose the following dates for near-term in-person meeting in Baltimore:

Tues Oct 10

Wed Oct 11

Mon Oct 16 or

Tues Oct 17

Please advise regarding availability. Likely best for a 1pm start time for any of the listed dates.

Thanks and have a good weekend.

Mark

**Mark J. Schaaf**

Senior Program Manager

1745 Dorsey Road. Suite J

Hanover, MD 21076

o| +1 410-850-0404

m| +1 845-325-4646

*This email may contain confidential information. If you have received this email—including any attachments—in error, please notify the sender promptly and delete the email and any attachments from all of your systems.*

[Click here to complete a three question customer experience survey.](#)

[Click here to complete a three question customer experience survey.](#)

[Click here to complete a three question customer experience survey.](#)

[Click here to complete a three question customer experience survey.](#)