

111 Corning Road, Suite 200 Cary, North Carolina 27518 United States

T +1.919.859.5001

October 25, 2021

Delivered via Trackable Overnight Delivery

Mr. Jeffery E. Mendenhall South Carolina Department of Health and Environmental Control Assessment Section, UST Management Division Bureau of Land and Waste Management 2600 Bull Street Columbia, South Carolina 29201

Subject: Request to Modify Groundwater Monitoring and Reporting Schedule in 2022 Products (SE) Pipe Line Corporation
Lewis Drive Remediation Site
Belton, South Carolina
Site ID #18693, "Kinder Morgan Belton Pipeline Release"

Dear Mr. Mendenhall,

On behalf of Products (SE) Pipe Line Corporation (PPL), Jacobs is submitting this letter to modify the number of groundwater monitoring and reporting events while maintaining the current number of groundwater monitoring locations at PPL's Lewis Drive Remediation Site (Site ID #18693), located in Belton, South Carolina (site).

As you are aware, PPL has worked diligently with the South Carolina Department of Health and Environmental Control (DHEC) over the last seven years to assess, remediate, and monitor conditions at the site, and has compiled a significant body of data that indicates overall decreasing trends in hydrocarbon concentrations and frequency of occurrence as shown in the Second Trimester 2021 Monitoring Report submitted to DHEC on October 1, 2021.

As presented in the Corrective Action Plan Addendum #2 submitted to DHEC on May 24, 2021 and accepted by DHEC on June 29, 2021, PPL is currently expanding the existing air sparge network to include three new horizontal wells to treat areas in the Cupboard Creek Protection Zone and Browns Creek Protection Zone not currently in the direct influence of the air sparge system. The system is tentatively scheduled to begin operating in the first quarter of 2022.

The 2021 monitoring schedule includes 3 site-wide sampling events (1 annual and 2 trimester), 3 mid-trimester sampling events, and monthly surface water sampling events as presented in the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2021 to December 31, 2021) submitted to DHEC on April 29, 2021 and accepted by DHEC on May 5, 2021 and the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2020 to March 31, 2021) submitted to DHEC on April 22, 2020 and accepted by DHEC on August 13, 2020. PPL proposes to reduce groundwater sampling event frequency to 1 annual event, 1 biannual event, and 2 quarterly events.

The proposed 2022 annual event will be based on the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2020 to March 31, 2021) annual event with the addition of MW-31B and MW-33. The proposed 2022 biannual event will be based on the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2021 through December 31, 2021) trimester sampling events. The proposed 2022 quarterly events will be based on the Groundwater and



October 25, 2021

Subject: Request to Modify Groundwater Monitoring and Reporting Schedule in 2022

Surface Water Monitoring and Reporting Plan (April 1, 2021 through December 31, 2021) mid-trimester sampling events with the addition of MW-14 and MW-14B. PPL will continue monthly surface water sampling events.

The proposed 2022 monitoring plan is presented in the attached Table 1. This proposed modification of the monitoring and reporting program, streamlined to include 4 groundwater events and 2 reports (annual and biannual), will allow additional funds to be focused on remediation activities.

Ideally, PPL would like to receive a response to this request prior to December 8, 2021. If approved, the first annual monitoring event would be scheduled for March 14 through 18, 2021.

If you have any questions concerning this request or the project in general, please call me at (919) 859-5789 or Greg Dempsey/PPL at (770) 751-4143.

Regards,

William M. Waldron Program Manager

Copies to: Greg Dempsey, PPL (Digital, greg\_dempsey@kindermorgan.com)

Mary Clair Lyons, Esq., PPL (Digital, Mary Lyons@kindermorgan.com)

## Attachments:

- Table 1 Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)
- Figure 1 Site Overview

Arthu Walden

FES0709201120ATL 2

Table 1. Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)

Lewis Drive Remediation Site, Belton, South Carolina

Frequency <sup>a</sup> :		Sampling and Gaugir	Biodegradation Evaluation	Product Gauging and Recovery		
	Monthly (January 2022 to December 2022)	Quarterly (June 2022 and December 2022)	Biannually <sup>b</sup> (September 2022)	Annually (March 2022)	Annually <sup>c</sup> (March 2022)	Biannually and Annually (March and September 2022)
Analytes:			MTBE, Naphthalene Groundwater Samples Only) <sup>d</sup>		Nitrate <sup>e</sup> , Sulfate <sup>e</sup> , Ferrous Iron <sup>e,f</sup> , Carbon Dioxide <sup>e</sup> , Methane <sup>e</sup> , Alkalinity <sup>e</sup> , and DO <sup>e,f</sup>	Not Analyzed
Feature ID						
Surface Water						
SW-01 <sup>9</sup>	Y	Y	Y	Y		
SW-02 <sup>9</sup>	Υ	Y	Y	Y		
SW-03 <sup>g</sup>	Υ	Y	Υ	Y		
SW-04	Y	Y	Y	Y		
SW-05 <sup>9</sup>	Y	Y	Y	Y		
SW-07	Y	Y	Y	Y		
SW-08 <sup>g</sup>	Y	Y	Υ	Y		
SW-09	Y	Y	Y	Y		
SW-10 <sup>9</sup>	Y	Y	Υ	Y		
SW-11	Y	Y	Υ	Y		
SW-12	Y	Y	Υ	Y		
SW-13	Υ	Y	Υ	Y		
SW-14	Υ	Y	Υ	Y		
Surface Water Subtotal:	13	13	13	13	0	0
Browns Creek Protection Zone						
MW-12			Y	Y	Y	
MW-12B			Υ	Y		
MW-15			Y	Y	Y	
MW-15B		Y	Υ	Y		
MW-24			Υ	Y		
MW-24B			Υ	Y		
MW-25			Y	Y	Y	
MW-25B			Y	Y		
MW-28			Y	Y	Y	
MW-34				Y		
MW-35			Y	Y	Y	
MW-37		Y	Y	Y		
MW-38		Y	Y	Y		
MW-38B		Y	Y	Y		
MW-39		Υ	Y	Y		

Table 1. Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)

Lewis Drive Remediation Site, Belton, South Carolina

Frequency <sup>a</sup> :		Sampling and Gaugi	Biodegradation Evaluation	Product Gauging and Recovery		
	Monthly (January 2022 to December 2022)	Quarterly (June 2022 and December 2022)	Biannually <sup>b</sup> (September 2022)	Annually (March 2022)	Annually <sup>c</sup> (March 2022)	Biannually and Annually (March and September 2022)
Analytes:	BTEX, MTBE, Naphthalene (and 1,2-DCA for Groundwater Samples Only) <sup>d</sup>				Nitrate <sup>e</sup> , Sulfate <sup>e</sup> , Ferrous Iron <sup>e,f</sup> , Carbon Dioxide <sup>e</sup> , Methane <sup>e</sup> , Alkalinity <sup>e</sup> , and DO <sup>e,f</sup>	Not Analyzed
MW-40		Y	Υ	Y	Y	
MW-41		Y	Υ	Y		
MW-42			Y	Y	Y	
MW-43				Y		
MW-43B				Y		
MW-49				Y		
Brown's Creek Subtotal:	0	7	17	21	7	0
Cupboard Creek Protection Zone	9					
MW-19			Y	Y	<b>Y</b>	
MW-20		Y	Y	Y	Y	
MW-23		Y	Y	Y	·	
MW-23B			Y	Y		
MW-26			Y	Y		
MW-26B			Y	Y		
MW-29			Y	Y		
MW-46			Υ	Y		
MW-56		Y	Y	Y	Y	
MW-57		Y	Y	Y		
MW-58		Y	Y	Y		
MW-59		Y	Y	Y		
MW-60		Y	Y	Y		
MW-61B		Y	Υ	Y		
MW-62		Y	Y	Y		
MW-63		Y	Y	Y		
Cupboard Creek Subtotal:	0	10	14	16	3	0
Hayfield Zone		Reserved to the second				
MW-02				Y	<b>Y</b>	
MW-02B				· Y	·	
MW-03				Y	Y	
MW-04			Υ	Y	Y	
MW-05			-	Y	•	
MW-06				Y		

Table 1. Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)

Lewis Drive Remediation Site, Belton, South Carolina

Frequency <sup>a</sup> :		Sampling and Gaugi	Biodegradation Evaluation	Product Gauging and Recovery		
	Monthly (January 2022 to December 2022)	Quarterly (June 2022 and December 2022)	Biannually <sup>b</sup> (September 2022)	Annually (March 2022)	Annually <sup>c</sup> (March 2022)	Biannually and Annually (March and September 2022)
Analytes:	Analytes:  BTEX, MTBE, Naphthalene  (and 1,2-DCA for Groundwater Samples Only) <sup>d</sup>				Nitrate <sup>e</sup> , Sulfate <sup>e</sup> , Ferrous Iron <sup>e,f</sup> , Carbon Dioxide <sup>e</sup> , Methane <sup>e</sup> , Alkalinity <sup>e</sup> , and DO <sup>e,f</sup>	Not Analyzed
MW-06B			Υ	Y		
MW-07		Y	Υ	Y		
MW-08			·	Y	Y	
MW-09			Υ	Y	Y	
MW-09B			Y	Y		
MW-10			-	Y	Y	
MW-13			Υ	Y		
MW-13B			Υ	Y		
MW-14		Y <sup>h</sup>	Υ	Y		
MW-14B		Y <sup>h</sup>	Υ	Y		
MW-16				Y		
MW-17			Y	Y		
MW-17B		Y	Y	Y		
MW-18			Υ	Y	Y	
MW-21			Y	Y		
MW-30				Y		
MW-31				Y		
MW-31B				Y <sup>i</sup>		
MW-32			Y	Y	Y	
MW-33				Y		
MW-33T			Υ	Y		
MW-36		Y	Y	Y		
MW-36B			Y	Y		
MW-45		Y	Y	Y		
MW-45B			Y	Y		
MW-47			Υ	Y		
MW-48B			Y	Y		
MW-50B			Υ	Y		
MW-51			Y	Y		
MW-52			Υ	Y		
MW-53			Υ	Y		
MW-54			Υ	Y		
MW-55			Υ	Y		
Hayfield Subtotal:	0	6	27	39	8	0

Table 1. Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)

Lewis Drive Remediation Site, Belton, South Carolina

Frequency <sup>a</sup> :		Sampling and Gaugir	Biodegradation Evaluation	Product Gauging and Recovery		
	Monthly (January 2022 to December 2022)	Quarterly (June 2022 and December 2022)	Biannually <sup>b</sup> (September 2022)	Annually (March 2022)	Annually <sup>c</sup> (March 2022)	Biannually and Annually (March and September 2022)
Analytes:		BTEX, MTBE, Naphthal (and 1,2-DCA for Groundwater Sa	Nitrate <sup>e</sup> , Sulfate <sup>e</sup> , Ferrous Iron <sup>e,f</sup> , Carbon Dioxide <sup>e</sup> , Methane <sup>e</sup> , Alkalinity <sup>e</sup> , and DO <sup>e,f</sup>	Not Analyzed		
Shallow Bedrock Zone						
MW-01			Y	Y	Y	
MW-01B			Y	Y	·	
MW-11		Y	Y	Y	Y	
MW-22			Y	Y	Y	
MW-27			Y	Y		
MW-27B			Υ	Y		
MW-44				Y		
MW-44B				Y		
Shallow Bedrock Subtotal:		1	6	8	3	0
Product Recovery Feature						
RW-01						Y
RW-02						Yh
RW-03						Yh
RW-04						Y <sup>h</sup>
RW-05						Y <sup>h</sup>
RW-06						Y
RW-07						Ϋ́h
RW-08						Y
RW-09						Y
RW-10						Y <sup>h</sup>
RW-11						Y
RW-12						Y
RW-14						Y
RW-15						Yh
RT-1A						Y
RT-1B						Y
RT-1C						Y
RS-01						Y <sup>h</sup>
RS-02						Y <sup>h</sup>
RS-04						Y
RS-05						Y <sup>h</sup>
RS-06						Y

Table 1. Groundwater and Surface Water Monitoring and Reporting Plan (January 1, 2022 to December 31, 2022)

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

		Sampling and Gaugir	Biodegradation Evaluation	Product Gauging and Recovery		
Frequency <sup>a</sup> :	Monthly (January 2022 to December 2022)	Quarterly (June 2022 and December 2022)	Biannually <sup>b</sup> (September 2022)	Annually (March 2022)	Annually <sup>c</sup> (March 2022)	Biannually and Annually (March and September 2022)
Analytes:		BTEX, MTBE, Naphthal (and 1,2-DCA for Groundwater Sa	Nitrate <sup>®</sup> , Sulfate <sup>®</sup> , Ferrous Iron <sup>e,f</sup> , Carbon Dioxide <sup>®</sup> , Methane <sup>®</sup> , Alkalinity <sup>®</sup> , and DO <sup>e,f</sup>	Not Analyzed		
RS-07						Υ
RS-08						Y
RS-09						Y
RS-10						Y
RS-11						Y
RS-12						Y
RS-13						Y
RS-14						Y <sup>h</sup>
RS-15						Y
RS-16						Y
RS-17						Y
RS-18						Y
RS-20						Y
Product Recovery Subtotal:						Υ
Grand Totals:	13	37	77	97	21	36

## Notes

1,2-DCA = 1,2-dichloroethane

BTEX = benzene, toluene, ethylbenzene, and xylenes

DO = dissolved oxygen

EPA = U.S. Environmental Protection Agency

MTBE = methyl tertiary butyl ether

Y = yes

a Frequency: Any alterations to the monitoring frequency will be proposed to the South Carolina Department of Health and Environmental Control prior to December 31, 2022.

<sup>&</sup>lt;sup>b</sup> The biannual report will follow the September 2022 monitoring event.

<sup>&</sup>lt;sup>c</sup> The annual report will follow the March 2022 monitoring event.

<sup>&</sup>lt;sup>d</sup> Sampling and Gauging: BTEX, MTBE, naphthalene, and 1,2-DCA by EPA Method 8260D.

<sup>&</sup>lt;sup>e</sup> Biodegradation Evaluation: Nitrate and Sulfate by EPA Method 9056A, ferrous iron and dissolved oxygen by field test analysis, carbon dioxide by method SM4500-CO2 D, methane by method RSK-175, and alkalinity by method SM2320B.

Parameter collected in the field.

<sup>&</sup>lt;sup>9</sup> Surface water location to be gauged at staff gauge.

h Indicates wells added to the quarterly event based on mid-trimester sampling events from the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2021 through December 31, 2021).

indicates wells added to the annual event based on annual sampling events from the Groundwater and Surface Water Monitoring and Reporting Plan (April 1, 2020 through March 31, 2021).

h Product recovery feature deployed in well.

