20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 1

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Baccharis halimifolia

50% of Total Cover: 2.5

1 . Spartina patens

2 . Borrichia frutescens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

3 Ludwigia palustris 4 . Marsilea macropoda

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_ 0

0 0

0

0

0

0

0

0

0 0

5

10

0

0

0

0 0

0

0

0\_\_ 0

0

0

0

100

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

5 ✓ \_100.0%\_\_FAC\_\_

0.0%\_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

70\_ 🗸 \_\_\_70.0%\_\_FACW\_\_

15.0% OBL

5.0% OBL

0.0%

\_\_\_10.0%\_\_OBL

0.0%\_

0.0%\_ \_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_ \_

0.0%

0.0%

0.0%

0.0%\_

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Vegetation

Present?

= Total Cover

0.0%\_

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant That are OBL, FACW,			1	(A)
Total Number of Dom Species Across All Str				(В
Percent of Dominant That are OBL, FACW,			14.3%	(A/B)
Prevalence Index v	worksheet:			
Total % Cover	of:	Multip	ly by:	_
OBL species	30	x 1	=30	_
FACW species	70	x 2	= 140	-
FAC species	5	x 3	= 15	-
FACU species	0	x 4	=0	_
UPL species	0	x 5	=0	_
Colum Totals:	115	(A)	525	_ (B)
Prevalence Inc	dex = B/A=		4.565	5
Hydrophytic Veget	ation Indic	atore		
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	e Test is > 5 Index is ≤ ydrophytic	0% 3.0¹ Vegeta	tion¹ (Expl	ain)
1 - Rapid Test 2 - Dominance 3 - Prevalence	e Test is > 5 Index is ≤ ydrophytic ydric soil an	0% 3.0¹ Vegeta	tion¹ (Expl	-
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	e Test is > 5 Index is ≤ ydrophytic v rdric soil and e present, u	0% 3.0¹ Vegeta d wetla inless o	tion¹ (Expl and disturbed o	-
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy	e Test is > 5 Index is ≤ ydrophytic rdric soil and e present, u	0% 3.0¹ Vegeta d wetla unless o	tion¹ (Expl and disturbed o	-
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b	e Test is > 5 Index is ≤ ydrophytic  rdric soil and e present, u  egetation ants, excludi ft (6 m) or	0% 3.0¹ Vegeta d wetlaunless of Strata	tion¹ (Expland disturbed o  i: ody vines, h height an	<b>r</b> d 3 in.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20	e Test is > 5 Index is ≤ ydrophytic  rdric soil and e present, the egetation ants, excludift (6 m) or in diamete plants, excl ft (6 m) or	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre uding v	tion¹ (Expl and disturbed o a: ody vines, n height an east height woody vine	d 3 in. (DBH).
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20	e Test is > 5 Index is ≤ ydrophytic  rdric soil ame e present, u  egetation ants, excludift (6 m) or in diamete plants, excl ft (6 m) or DBH.	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre uding very more in	tion¹ (Expl and disturbed o a: ody vines, n height an east height woody vine n height an	d 3 in. (DBH). s, d less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V	e Test is > 5 Index is ≤ ydrophytic  rdric soil and e present, the egetation ants, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete by the control of t	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre uding very more in as, exclanan 3.2 ding woo	tion¹ (Expland disturbed o  i: ody vines, height an east height woody vine height an uding vines the fight an cody vines to body vines	d 3 in. (DBH). s, d less s, less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V than 3 in. DBH ar  Shrub - Woody pla	e Test is > 5 Index is ≤ sydrophytic of the present, the present, the present, the present, the present of the	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre uding wo more in as, excl nan 3.2 ding wo 6 m) in voody) s of siz	and disturbed o  a: ody vines, n height an east height woody vines n height an uding vines 28 ft (1m) to cody vines, n height.	d 3 in. (DBH). s, d less s, less all.

Remarks:	(If observed,	list morphological	adaptations	below).
	(1. 0000. 100)	not mor priorogreus	adaptation.	

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Yes 🔘

No 💿

SOIL Sampling Point: WP1011\_WET\_PEM

Profile Description	on: (Describe to the d	epth needed to docu	ment the indicator o	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	( Calan (mariet)	Redox Features	La saki sa 2	<b>T.</b>	Ddes
0 - 16	Color (moist) 9 10YR 5/1 10	Color (moist)		Location <sup>2</sup>	Texture	Remarks
	10111 1011					
<sup>1</sup> Type: C=Concentrat	on, D=Depletion, RM=Red	uced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Mir Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) e (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150A) eral (S1) (LRR O, S) atrix (S4)	Thin Dalamy Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	lue Below Surface (S8) ( ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) c: Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) clous Bright Loamy Soils	, T, U) R O) 151) (LRR O, P, T) T, U) ) 50A, 150B) v) (MLRA 149A)	Piedmont Floodplain Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	,				lydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Terminal SPM Project		City/County: San Patricio	Sampling Date:	2/7/2019
Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1012_UP
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township	, Range: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat		Local relief (concave, convex, non		Slope: 1 % 0.6 °
Subregion (LRR): LRR T		• • • •	.ong: -97.193929	Datum: NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent s	James rarely flooded (Na)		assification: PEM1A	TAD 03
Narra Ioani, 0 to 1 percent s	siopes, rarely flooded (Na)	HAMT CIG	assincation. PEMIA	
Are climatic/hydrologic conditions on the site t	ypical for this time of y	ear? Yes 💿 No 🔵 (I	If no, explain in Remarks.)	
Are Vegetation $igsqcup$ , Soil $igsqcup$ , or Hydr	ology signifi	cantly disturbed? Are "Norm	nal Circumstances" present?	Yes   No
Are Vegetation , Soil , or Hydr	ology natura	ally problematic? (If needed	l, explain any answers in Re	marks.)
SUMMARY OF FINDINGS — Attach site ma	ap showing sampling	point locations, transects, in	nportant features, etc.	
Hydrophytic Vegetation Present?	′es   No	la 11-a O la 1 A		
Hydric Soil Present?	′es O No 💿	Is the Sampled A within a Wetland?		No 💿
Wetland Hydrology Present?	′es O No 💿			
Hydric soil and wetland hydrology are not present.  HYDROLOGY	This is not a wetland.			
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one required	d; check all that apply)	Seco	ondary Indicators (Minimum	of 2 required)
Surface Water (A1)	Aquatic Fauna (B	13)	Sparsely Vegetated Concave	e Surface (B8)
High Water Table (A2)	Marl Deposits (B1	·	Drainage Patterns (B10)	(= 0)
Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1)	Oxidized Rhizosph	heres along Living Roots (C3)	Dry Season Water Table (C2	2)
Sediment Deposits (B2)	Presence of Redu	iced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)	Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Visible on Aerial 1	Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface	e (C7)	Geomorphic Position (D2)	
Iron Deposits (B5)	Other (Explain in	Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:				
Surface Water Present? Yes No	Depth (inches	5):		
Water Table Present? Yes No	Depth (inches	5):		
Saturation Present? (includes capillary fringe) Yes No		Weth	and Hydrology Present? Ye	es O No O
Describe Recorded Data (stream gauge, monitor v	vell, aerial photos, previous	s inspections), if available:		

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
e Stratum (Plot Size : 30)		
		Total Number of Dominant Species Across All Strata:2 (B
		Species Across Air Strata.
	0	Percent of Dominant Species (A/D)
		That are OBL, FACW, or FAC: 100.0% (A/B)
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species $0 \times 1 = 0$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
ling or Sapling/Shrub Stratum (Plot Size : 30 )	a 🗆	
		UPL species $15 \times 5 = 75$
		Colum Totals: <u>110</u> (A) <u>270</u> (B)
		Prevalence Index = B/A= 2.455
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is > 50%
	0	3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
ub Stratum (Plot Size : 30)		
_Baccharis halimifolia		<sup>1</sup> Indicators of hydric soil and wetland
Prosopis alandulosa		hydrology must be present, unless disturbed or
	0	Definition of Vegetation Strata:
	0	Tree - Woody plants, excluding woody vines,
	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 5 20% of Total Cover: 2	10 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
b Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
. Spartina patens	90.0% FACW	approximately 20 ft (6 m) or more in height and less
. Chloris cucullata		than 3 in. (7.6 cm) DBH.
	0	
	0	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
		וומו אווי שווי אווי אווי אווי אווי אווי אוו
		Shrub - Woody plants, excluding woody vines,
		approximately 3 to 20 ft (1 to 6 m) in height.
		, , , ,
		Herb - All herbaceous (non-woody) plants, including
		herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately
	0.0%	3 ft (1 m) in height.
•	100 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		vvoody vine - All woody vines, regardless of height.
·	0.0%	
		Understordie
		Hydrophytic Vegetation Yes  No
•	0.0%	Present ?
TOOK of Tabal Cavary 0 2007 of Tabal Cavary 0		
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Í

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1012\_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	r confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1 100				Sandy Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4)  f (A5)  (A6) (LRR P, T, U)  feral (A7) (LRR P, T, U)  (A8) (LRR U)  (LRR P, T)  Dark Surface (A11)  face (A12)  dox (A16) (MLRA 150A)  fieral (S1) (LRR O, S)  latrix (S4)	Thin Date of the Deplete of Tron-M. Umbric Delta C. Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LI Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA ont Floodplain Soils (F1 allous Bright Loamy Soils	5, T, U) 151) ) (LRR O, P, T) T, U) .) 150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rrface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	ss ○ No ●
Remarks:						

Project/Site: Bluewater Term	inal SPM Project	City/County: San Patr	icio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips 66	Pipeline, LLC	State	∷ TX	Sampling Point: \	WP1012_WET_PEM
Investigator(s): B. Bringhurs	st & A. Ostrowski	Section	on, Township, Ran	ge: S N/A T N/A	R N/A
Landform (hillslope, terrace, o	etc.): Flat	Local relief (concave	convex, none): (	Concave	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.93049	Long:	-97.194153	Datum: NAD 83
Soil Map Unit Name: Narta lo	am, 0 to 1 percent slopes, rarely fl	ooded (Na)	NWI Classific	cation: PEM1A	
Are climatic/hydrologic condi	tions on the site typical for thi	s time of year? Yes •	── No ○ (If no,	explain in Remarks.)	
Are Vegetation , So		significantly disturbed?		rcumstances" present?	Yes ● No ○
Are Vegetation, So		naturally problematic?		lain any answers in Re	9 9
- ,	_ , , ,	sampling point locations, to		-	,
Hydrophytic Vegetation Present	t? Yes • No		0		
Hydric Soil Present?	Yes   No		e Sampled Area n a Wetland?	Yes	No 🔾
Wetland Hydrology Present?	Yes   No	$\bigcirc$			
HYDROLOGY	soil, and wetland hydrology are pro	esenic. This is a wegand.			
Wetland Hydrology Indicat					
	m of one required; check all th		Secondar	y Indicators (Minimum	of 2 required)
Surface Water (A1)		tic Fauna (B13)		parsely Vegetated Concave	e Surface (B8)
<ul><li>✓ High Water Table (A2)</li><li>✓ Saturation (A3)</li></ul>		Deposits (B15) (LRR U) ogen Sulfide Odor (C1)		rainage Patterns (B10)	
Water Marks (B1)	_ '	zed Rhizospheres along Living Roots		oss Trim Lines (B16) ry Season Water Table (C2	2)
Sediment Deposits (B2)		nce of Reduced Iron (C4)		rayfish Burrows (C8)	<del>-</del> )
Drift Deposits (B3)		nt Iron Reduction in Tilled Soils (C6)		aturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		eomorphic Position (D2)	5 / ( /
Iron Deposits (B5)	Other	(Explain in Remarks)	Sh	nallow Aquitard (D3)	
Inundation Visible on Aeria	al Imagery (B7)		<b>✓</b> FA	AC-Neutral Test (D5)	
Water-Stained Leaves (B9)	,		☐ Sp	ohagnum moss (D8) (LRR	T, U)
Field Observations:					
		epth (inches):1			
	Yes No • D	epth (inches):			
Saturation Present? (includes capillary fringe)	Yes   No   D	epth (inches):0	Wetland H	lydrology Present? Yo	es • No O
Describe Recorded Data (streat	m gauge, monitor well, aerial phot	os, previous inspections), if availabl	2:		

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 5

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Baccharis halimifolia

50% of Total Cover: 13

1 . Spartina patens 2. Cvperus virens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_ 0

0

0

0

0

0

0

0

0

0 0

25

0

0

0

0

0 0

0

0

0

0\_\_ 0

0

0

0

100

95 🗸

Rel.Strat. Indicator

0.0%\_

0.0%

0.0%\_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

25 🗸 \_\_100.0%\_\_FAC\_\_\_ 0.0%\_ 0.0%

> 0.0% 0.0%

0.0%

= Total Cover

95.0%\_\_FACW

0.0%\_

0.0%

0.0%\_ 0.0%\_ \_ 0.0%\_

0.0%\_

0.0%\_

0.0%

0.0%\_ \_

0.0%

0.0%

0.0%

0.0%

0.0%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

5.0% FACW

0.0%

0.0%

Status

Sampling Po	oint: \	NP1	01	<u></u>	WET_PE	= IVI	
Dominance Test work	sheet:						
Number of Dominant Spe					_		
That are OBL, FACW, ro	FAC:			_	2		(A)
Total Number of Domina	nt						
Species Across All Strata:				_	3		(B
Percent of Dominant Spe	ries						
That are OBL, FACW, or				_	66.7%		(A/B)
Prevalence Index wor	ksheet:						
Total % Cover of:		Mul	tip	ly b	y:		
OBL species	0	х	1	=	0	_	
FACW species	100	x	2	=	200		
FAC species	25	x	3	=	75		
FACU species	0	x	4	=	0	_	
UPL species	0_	x	5	=	0		
Colum Totals:	125	(A	)		275		(B)
Prevalence Index	= B/A=				2,200		
Hydrophytic Vegetatio	<b>-</b> •					-	
✓ 2 - Dominance Te ✓ 3 - Prevalence Inc ✓ Problematic Hydr	st is > 5 dex is ≤ ophytic \	0% 3.0¹ Vege	ta	tio		ain)	
<b>✓</b> 3 - Prevalence Inc	st is > 5 dex is ≤ ophytic \ c soil and	0% 3.0¹ Vege	ta	tio	n¹ (Expla	-	
✓ 3 - Prevalence Inc     ✓ Problematic Hydro     ¹ Indicators of hydrichydrology must be p	st is > 5 dex is ≤ ophytic \ c soil and resent, i	0% 3.0¹ Vege d we	tla tla	tio and	n¹ (Expla	-	
□ Prevalence Inc     □ Problematic Hydro     □ Indicators of hydrichydrology must be p  Definition of Vege	st is > 5 dex is \le sophytic c soil and resent, the control of the contro	0% 3.0¹ Vege d we inles	tla s o	tion and dist	n¹ (Expla turbed o	-	
¹ Indicators of hydrihydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (	st is > 5 dex is ≤ ophytic \( \) c soil and resent, \( \) etation , excludi 6 m) or \( \)	0% 3.0¹ Vege d we inles Stra	tla s o	nnd dist	n¹ (Explaturbed or	r d 3	in.
¹ Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants	st is > 5 dex is ≤ ophytic \( \) c soil and resent, \( \) etation , excludi 6 m) or \( \)	0% 3.0¹ Vege d we inles Stra	tla s o	nnd dist	n¹ (Explaturbed or	r d 3	in.
□ Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in	st is > 5 dex is ≤ ophytic \ c soil and resent, \(\text{t}\) etation , excludi 6 m) or diamete	0% 3.0¹ Vege d we unles Stra ng w more r at t	tla s o	nnd dist	n¹ (Expla turbed or v vines, eight and t height	r d 3 (DB	in.
□ Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (	st is > 5 dex is ≤ ophytic \ c soil and resent, \(\text{c}\) etation , excludi 6 m) or diamete  nts, excl	0% 3.0¹ Vege d we unles Stra ng w more r at t	tla s (	tion and dist	urbed or vines, eight and theight	r d 3 (DB	in. :H).
¹ Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody pla	st is > 5 dex is ≤ ophytic \ c soil and resent, \(\text{c}\) etation , excludi 6 m) or diamete  nts, excl 6 m) or	0% 3.0¹ Vege d we unles Stra ng w more r at t	tla s (	tion and dist	urbed or vines, eight and theight	r d 3 (DB	in. iH).
¹ Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft ((7.6 cm) or larger in  Sapling - Woody plants approximately 20 ft (than 3 in. (7.6 cm) D	st is > 5 dex is ≤ ophytic \( \text{c soil and resent, } \text{c} \) etation , excludi 6 m) or diamete  nts, excl 6 m) or BH.	0% 3.0¹ Vege d we unles Stra ng w more r at b	eta etla s o e ir ore	tion and dist	turbed or vines, eight and t height ody vines	r d 3 (DB s,	in. H).
□ Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft (ft)	st is > 5 dex is ≤ ophytic \( \text{c soil and resent, } \text{c} \) etation , excludi 6 m) or diamete nts, excl 6 m) or diamete bdy plant	0% 3.0¹ Vege d we unles Stra ng w more r at l udin more	tla s (	tion and dist  Ddy heas woodh he	turbed or vines, eight and theight and eight and only vines eight and only vines only vines	r d 3 (DB s, d le:	in. H).
Problematic Hydronymust be p  Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft ((7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woodthan 3 in. DBH and g	st is > 5 dex is ≤ sophytic v c soil and resent, c etation , excludi 6 m) or diamete nts, excl 6 m) or BH. bdy plant greater th	0% 3.0¹ Vege d we inles Stra ng w more r at l udin more	etan	tion and dist Ddy h he seas wood h he udi	turbed or vines, eight and theight and eight and ng vines t (1m) ta	r d 3 (DB s, d le:	in. H).
Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody plants approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woody plants in. DBH and g  Shrub - Woody plants	st is > 5 dex is ≤ 5 ophytic \( \text{c soil and resent, } \( \text{c} \) etation , excludi 6 m) or diamete nts, excl 6 m) or diamete bdy plant greater the	0% 3.0¹ Vege d we unles Stra ng w more r at l udin more	etan	tion and dist  cody heas wood heas	turbed or vines, eight and theight and eight and ng vines t (1m) tally vines,	r d 3 (DB s, d le:	in. H).
Problematic Hydronymust be p  Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft ((7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woodthan 3 in. DBH and g	st is > 5 dex is ≤ 5 ophytic \( \text{c soil and resent, } \( \text{c} \) etation , excludi 6 m) or diamete nts, excl 6 m) or diamete bdy plant greater the	0% 3.0¹ Vege d we unles Stra ng w more r at l udin more	etan	tion and dist  cody heas wood heas	turbed or vines, eight and theight and eight and ng vines t (1m) tally vines,	r d 3 (DB s, d le:	in. H).
Problematic Hydronymust be p  Indicators of hydrichydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody plants approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woody plants in. DBH and g  Shrub - Woody plants approximately 3 to 20	st is > 5 dex is ≤ 5 ophytic \( \text{c soil and resent, } \text{c} \) etation , excludi 6 m) or diamete nts, excl 6 m) or diamete hts, excl bdy plant greater th s, exclud 0 ft (1 to	0% 3.0¹ Vege d we inles Stra ng w more r at t udin more s, e) ding 6 m	etarentia orea ir orea ir orea ir orea ir orea ir orea ir orea ir orea ir orea ir	tion and dist : cody heas work 28 f	turbed or  vines, eight and t height  ng vines t (1m) ta	d 3 (DB s, d le:	in. SH). SSS
Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody plant approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woody plant approximately 3 to 20  Shrub - Woody plant approximately 3 to 20  Herb - All herbaceou herbaceous vines, re	st is > 5 dex is < 5 dex is < 5 dex is < 5 dex is < 6 dex is < 7 d	0% 3.0¹ Vege Stra ng w more r at l udin more s, e) ding 6 m	tlande interest of the control of th	tion and dist  Dody heas wood heas	turbed or vines, eight and theight and theight and theight and theight and theight and theight and theight.	d 3 (DB s, d le: ill.	in. HH). sss sss
Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody plant approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woody plant approximately 3 to 20  Shrub - Woody plant approximately 3 to 20  Herb - All herbaceous herbaceous vines, replants, except woody	st is > 5 dex is < 5 dex is < 5 dex is < 5 dex is < 6 dex is < 7 d	0% 3.0¹ Vege Stra ng w more r at l udin more s, e) ding 6 m	tlande interest of the control of th	tion and dist  Dody heas wood heas	turbed or vines, eight and theight and theight and theight and theight and theight and theight and theight.	d 3 (DB s, d le: ill.	in. HH). sss sss
Problematic Hydrology must be p  Definition of Vege Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody plant approximately 20 ft (than 3 in. (7.6 cm) D  Sapling/Shrub - Woody plant approximately 3 to 20  Shrub - Woody plant approximately 3 to 20  Herb - All herbaceou herbaceous vines, re	st is > 5 dex is < 5 dex is < 5 dex is < 5 dex is < 6 dex is < 7 d	0% 3.0¹ Vege Stra ng w more r at l udin more s, e) ding 6 m	tlande interest of the control of th	tion and dist  Dody heas wood heas	turbed or vines, eight and theight and vines eight and ty vines, eight and ty vines, eight, ants, incliand woo	d 3 (DB s, d le: ill.	in. HH). sss sss
Problematic Hydring Problematic Hydrology must be properly approximately 20 ft (7.6 cm) or larger in Sapling - Woody pland approximately 20 ft (than 3 in. (7.6 cm) Description Sapling/Shrub - Woody pland approximately 3 in. DBH and gestimately 3 to 20 Shrub - Woody plant approximately 3 to 20 Herb - All herbaceous vines, replants, except woody	st is > 5 dex is < 5 dex is < 5 dex is < 5 dex is < 6 dex is < 7 d	0% 3.0¹ Vege Stra ng w more r at l udin more s, e) ding 6 m	tlande interest of the control of th	tion and dist  Dody heas wood heas	turbed or vines, eight and theight and vines eight and ty vines, eight and ty vines, eight, ants, incliand woo	d 3 (DB s, d le: ill.	in. HH). sss sss

D =l	/T6 - b	المعادمات والماسية	adaptations below)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1012\_WET\_PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox Fe	eatures			
(inches)	Color (moist)	% Color (moist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	100				Silty Clay	
¹Tvne: C=Concentrati	on D=Depletion RM=R	educed Matrix, CS=Covered	or Coated S	and Grains	<sup>2</sup> Location: PL=Pore	ining M=Matrix	
Hydric Soil Indica	·	educed Wathy, es-covered	or courcu s	and Grams.	Eccusion. 1 E-1 ore	Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min  Muck Presence (  1 cm Muck (A9)  Depleted Below  Thick Dark Surfa  Coast Prairie Rec	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, U A8) (LRR U) (LRR P, T) Dark Surface (A11)	Thin D Loamy Loamy Peplet Redox Deplet Redox Marl (I Deplet Iron-M Umbrid	ark Surface Mucky Mir Gleyed Ma ed Matrix ( Dark Surfa ed Dark Su Depression F10) (LRR U ed Ochric ( langanese I c Surface (F	F3) ce (F6) rface (F7) ns (F8)	T, U) R O)  51) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
	5) (S6) ') (LRR P, S, T, U)	Reduc Piedm	ed Vertic (F ont Floodpl	-18) (MLRA 15 ain Soils (F19)		unless	nydrology must be present, disturbed or problematic.
Type: Depth (inches):	,				н	ydric Soil Present? Ye	s • No O
Remarks:							

Project/Site: Bluewater Terminal SPM Project	City/County: San Patrio	cio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State	: тх	Sampling Point:	WP1013_UP
Investigator(s): B. Bringhurst & A. Ostrowski	Section	n, Township, Rang	je: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (concave,	convex, none):	onvex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	Lat: 27.931161	, ,	-97 <b>.</b> 189497	Datum: NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent slopes, rarely floor			ation: PEM1A	- IVAD 03
Natra loant, 0 to 1 percent slopes, rarely noot	ueu (Na)	— INVI Classific	TEMIA	
Are climatic/hydrologic conditions on the site typical for this t	ime of year? Yes 💿 🗆	No 🔵 (If no, e	explain in Remarks.)	
Are Vegetation , Soil , or Hydrology	significantly disturbed?	Are "Normal Cire	cumstances" present?	Yes   No
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, expl	ain any answers in Ren	narks.)
SUMMARY OF FINDINGS — Attach site map showing sa	ampling point locations, tra	ansects, import	ant features, etc.	
Hydrophytic Vegetation Present? Yes • No	)			
Hydric Soil Present? Yes No		Sampled Area a Wetland?	Yes 🔘	No •
Wetland Hydrology Present? Yes No	•	a Wolland.		
Hydrophytic vegetation, hydric soil, and wetland hydrology are not p	resent. This is not a wetland.			
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one required; check all that	t apply)	Secondary	Indicators (Minimum	of 2 required)
Surface Water (A1)	Fauna (B13)	Sp	arsely Vegetated Concave	Surface (B8)
High Water Table (A2)	posits (B15) (LRR U)		ainage Patterns (B10)	,
Saturation (A3)	en Sulfide Odor (C1)	☐ Mo	oss Trim Lines (B16)	
Water Marks (B1) Oxidized	Rhizospheres along Living Roots	(C3) Dr	y Season Water Table (C2)	)
Sediment Deposits (B2)	e of Reduced Iron (C4)	Cra	ayfish Burrows (C8)	
Drift Deposits (B3)	Iron Reduction in Tilled Soils (C6)	Sa	turation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)	ck Surface (C7)	Ge	omorphic Position (D2)	
Iron Deposits (B5) Other (E	Explain in Remarks)	Sh	allow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FA	C-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sp	hagnum moss (D8) (LRR 1	Γ, U)
Field Observations:				
Surface Water Present? Yes No • Dept	th (inches):			
Water Table Present? Yes No • Depi	th (inches):			
Saturation Present? (includes capillary fringe) Yes No • Dept	th (inches):	Wetland H	ydrology Present? Ye	s No •
Describe Recorded Data (stream gauge, monitor well, aerial photos, Remarks:	, previous inspections), if available	:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 12

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 \_Cvnodon dactvlon

4 . Borrichia frutescens

50% of Total Cover: 30

50% of Total Cover: 0

Woody Vine Stratum

1.\_\_\_

2 . Spartina patens 3 . Chloris cucullata

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

0.0%

0.0% 0.0%

40 66.7%

\_\_\_16.7%

0.0%

0.0% 0.0%

0

0

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0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

**Absolute** 

% Cover

plants.	Sampling Point: WP1013_UP
Dominant	Dawingues Test weather at
Species?	Dominance Test worksheet:
Rel.Strat. Status	Number of Dominant Species That are OBL, FACW, ro FAC: (A)
0.0%	Total Number of Dominant Species Across All Strata: (B
0.0%_	Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)
0.0%	That are obly then, or the
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species $5 \times 1 = 5$
0.0%	FACW species $10 \times 2 = 20$
= Total Cover	FAC species $0 \times 3 = 0$
	FACU species $40 \times 4 = 160$
0.0%_	UPL species $5 \times 5 = 25$
0.0%_	Colum Totals: <u>60</u> (A) <u>210</u> (B)
0.0%	Prevalence Index = B/A= 3.500
0.0%_	3,300 <u>3,300</u>
0.0%_	Hydrophytic Vegetation Indicators:
0.0%	1 - Rapid Test for Hydrophytic Vegetation
0.0%	✓ 2 - Dominance Test is > 50%
0.0%	3 - Prevalence Index is ≤ 3.01
= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
0.0% 0.0% 0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
0.0%	Definition of Vegetation Strates
0.0%	Definition of Vegetation Strata:
0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
= Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
✓66.7% _FACU16.7% _FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
8.3% UPL 8.3% OBL 0.0%	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0.0%	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
0.0% 0.0% 0.0%	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0.0%	3 ft (1 m) in height.
= Total Cover	Woody vine - All woody vines, regardless of height.
0.0% 0.0% 0.0% 0.0% 0.0%	Hydrophytic Vegetation Yes • No O Present ?

Remarks: (	(If observed,	list mor	phological	adaptations	below).
Cilians, (	(II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1013\_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator	or confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) %	Color (moist)		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 2/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) f (A5) (A6) (LRR P, T, U) feral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) face (A12) dox (A16) (MLRA 150A) feral (S1) (LRR O, S) latrix (S4)	Thin Dalamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Redoxe	lue Below Surface (S8 ark Surface (S9) (LRR Mucky Mineral (F1) (Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLR anganese Masses (F1 as Surface (F13) (LRR F10) (LRR F10) (MLRA 15) ed Vertic (F18) ed Vertic	A 151) 2) (LRR O, P, T) P, T, U) 51)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	s ○ No ●
Remarks:						

Project/Site: Bluewater Ter	minal SPM Project	City/County: 5	San Patricio	Sampling Dat	e: 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1013_WET_PEM
Investigator(s): B. Bringhu	rst & A. Ostrowski		Section, Township, R	Range: S N/A T N	I/A <b>R</b> N/A
Landform (hillslope, terrace	, <b>etc.):</b> Flat	Local relief (co	oncave, convex, none)	: Concave	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T		 <b>Lat:</b> 27.9309	12 <b>Lo</b> r	ng: -97.189312	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, ra	rely flooded (Na)	NWI Class	sification: PEM1A	
Are climatic/hydrologic con	ditions on the site typical fo	or this time of year? Yes		no, explain in Remarks.	)
	oil , or Hydrology	significantly disturbe		Circumstances" presen	
Are Vegetation , S		naturally problemati		explain any answers in	
- ,	_ , ,	ving sampling point locati			-
Hydrophytic Vegetation Prese	nt? Yes	No •			
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	Yes	○ No •
Wetland Hydrology Present?	Yes •	No O			
HYDROLOGY	c soil, and wetland hydrology a	re present. This is a wegand.			
Wetland Hydrology Indica					
,	um of one required; check		Second	dary Indicators (Minimu	m of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Conc	ave Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	
✓ Saturation (A3)  Water Marks (B1)		Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin	a Poots (C3)	Moss Trim Lines (B16)	(C2)
Sediment Deposits (B2)		Oxidized Kilizospheres along Livin Presence of Reduced Iron (C4)	g Roots (C3)	Dry Season Water Table Crayfish Burrows (C8)	(C2)
Drift Deposits (B3)		Recent Iron Reduction in Tilled So	ils (C6)	Saturation Visible on Aeri	al Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2	
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	•
Inundation Visible on Ae		,	✓	FAC-Neutral Test (D5)	
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LF	RR T, U)
Field Observations:					
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes No •	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes   No	Depth (inches): 0	Wetlan	d Hydrology Present?	Yes • No O
Describe Recorded Data (str	eam gauge, monitor well, aeria	I photos, previous inspections), if	available:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

2 Borrichia frutescens

3 . Salicornia bigelovii

50% of Total Cover: 49

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

Spartina patens

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

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0\_\_\_ 0

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0 0

98

Rel.Strat. Indicator

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0%

0.0%

\_\_\_0.0%\_

= Total Cover

70 **✓** \_\_\_71.4% \_\_FACW

25.5% OBL

3.1% OBL

0.0%

0.0%

0.0%\_ 0.0%\_ \_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_ \_

0.0%\_

0.0%

0.0% 0.0%\_

0.0%

= Total Cover

= Total Cover

0.0%

0.0%\_

Status

Number of Dominant Species	
That are OBL, FACW, ro FAC:	(A)
Total Number of Dominant	(A)
Species Across All Strata: 1	(B
Percent of Dominant Species That are OBL, FACW, or FAC:  0.0%	(A/B)
Prevalence Index worksheet:	
Total % Cover of: Multiply by:	_
OBL species $28 \times 1 = 28$	
FACW species $70 \times 2 = 140$	
FAC species $0 \times 3 = 0$	
FACU species $0 \times 4 = 0$	
UPL species $0 \times 5 = 0$	4-5
Colum Totals:60 (A)210	(B)
Prevalence Index = B/A= 3.500	
Hydrophytic Vegetation Indicators:	
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or	
hydrology must be present, unless disturbed or	
hydrology must be present, unless disturbed or  Definition of Vegetation Strata:	
hydrology must be present, unless disturbed or  Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines,	3 in
hydrology must be present, unless disturbed or  Definition of Vegetation Strata:	
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (E	DBH).
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (E Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and	OBH).
hydrology must be present, unless disturbed or  Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (E Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and than 3 in. (7.6 cm) DBH.	DBH). less
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (E Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and	DBH). less less
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (E Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines,	DBH). less less
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (D. Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, include	DBH). less less
Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (D. Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding vines, than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	DBH). less less .

D =l	/T6 - b	المعادمات والماسية	adaptations below)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1013\_WET\_PEM

Profile Description	n: (Describe to th	e depth neede	d to docu	ment th	e indicator o	or confirm the abs	ence of indicators.)	
Depth	Matrix			Redox	Features			
(inches)	Color (moist)	% Colo	(moist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1	97 10YR	4/6	3	С	PL	Clay	
Truno Co Connectorati	on D-Donletion DMA	Dodgood Matrix	S. Causand	or Control	d Canad Crains	<sup>2</sup> location DI-Dava	Links M.Makiy	
Hydric Soil Indica	on, D=Depletion, RM=	Reduced Matrix,	_S=Covered	or Coated	i Sand Grains.	<sup>2</sup> Location: PL=Pore	Indicators for Problema	otic Hudric Coile3:
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies ( 5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M. Sandy Redox (S) Stripped Matrix (	(A2)  e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4) 5) (S6)	0A)	Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbri Delta G Reduc Piedm	oark Surfa Mucky M Gleyed Natrix Dark Sur ted Dark S Depressi F10) (LRR ted Ochric langanese c Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR Sineral (F1) (Li Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) (U) (F11) (MLRA Masses (F12 (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 151 plain Soils (F1	151) () (LRR O, P, T) (T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rrface (TF12)
Restrictive Layer (Type: Depth (inches):	,						Hydric Soil Present? Υε	es • No 🔾
Remarks:								

Project/Site: Bluewater Terminal SPM Project	City/County: San Patricio Sampling Date: 2/8/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1014_UP
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, Range: S N/A T N/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): Flat Slope: 2 % 1.1 °
Subregion (LRR): LRR T	Lat: 27.931165 Long: -97.18887 Datum: NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent slopes, rarely flooded (N	
Are climatic/hydrologic conditions on the site typical for this time o	of year? Yes  No (If no, explain in Remarks.)
	turally problematic? (If needed, explain any answers in Remarks.)
Are regetation	(I needed, explain any answers in remarks)
SUMMARY OF FINDINGS - Attach site map showing sampli	ing point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes • No •	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland?
Wetland Hydrology Present? Yes • No •	
Remarks: Hydrophytic vegetation and hydric soil are not present. This is not a wetlar	nd.
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (Minimum of one required; check all that appl	
Surface Water (A1)  Aquatic Fauna	
	(B15) (LRR U) Drainage Patterns (B10)
✓ Saturation (A3) Hydrogen Sulfi	,
	ospheres along Living Roots (C3)  Dry Season Water Table (C2)
	teduced Iron (C4) Crayfish Burrows (C8)
	Reduction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4)	
☐ Iron Deposits (B5) ☐ Other (Explain	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inc	·
Water Table Present? Yes No Depth (inc	
Saturation Present? (includes capillary fringe) Yes   No   Depth (inc	ches): 0 Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor well, aerial photos, previ	<b>l</b> rious inspections), if available:
Remarks:	

			Dominant		Dominance Test worksheet:
		Absolute % Cover	Species? Rel.Strat. Cover	Indicator Status	Number of Dominant Species That are OBL, FACW, ro FAC:
<u>e Stratum</u>	(Plot Size : <u>30</u> )	0_[	0.0%		Total Number of Dominant
		Г			Species Across All Strata:1 (B
					Percent of Dominant Species
					That are OBL, FACW, or FAC: 0.0% (A/B)
					Prevalence Index worksheet:
					Total % Cover of: Multiply by:
	20% of Total Cover: 0	0	= Total Co		FACW species $0 \times 2 = 0$ FAC species $0 \times 3 = 0$
ling or Sanling /Shrub	Stratum (Blot Size : 20.)				FACU species $2 \times 4 = 8$
	<b>Stratum</b> (Plot Size : <u>30</u> )	0_[	0.0%		UPL species $0 \times 5 = 0$
					Colum Totals: 2 (A) 8 (B)
			0.0 70 0 n n%		Prevalence Index = B/A= 4.000
					Hydrophytic Vegetation Indicators:
					✓ 1 - Rapid Test for Hydrophytic Vegetation
					2 - Dominance Test is > 50%
50% of Total Cover: 0		0	= Total Co		3 - Prevalence Index is ≤ 3.0¹  Problematic Hydrophytic Vegetation¹ (Explain)
		0 0 0 0	0.0% 0.0% 0.0%		hydrology must be present, unless disturbed or  Definition of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Co	over	(7.6 cm) or larger in diameter at breast neight (DBH).
	(Plot Size : <u>30</u> )	0			Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
					Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
		0_	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
		0	0.0% 0.0% 0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
50% of Total Cover: 1	20% of Total Cover: 0.4	2	0.0% = Total Co		Woody vine - All woody vines, regardless of height.
ody Vine Stratum	(Plot Size : <u>30</u> )	_ [	0.004		
					Hydrophytic
					Vegetation Yes  No Present ?
		0	0.0%		· · · · · · · · · · · · · · · · · · ·
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Co	ver	

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1014\_UP

Depth		Matrix			Redox I	Features			
inches)	Color	moist)	%	Color (moist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
- 16	10YR	2/1	40					Sandy Clay	
- 16	10YR	4/1	55	•				Sandy Clay	
- 16	10YR	5/2	5	•				Sandy Clay	

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils3:
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Polyvalue Below Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (If observed):  Type:  Depth (inches):		Hydric Soil Present? Yes No •
Remarks: soil station taken on dirt road		

Project/Site: Bluewater Ter	rminal SPM Project		City/County: San Patr	icio	Sampling D	Pate: 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State	: TX	Sampling Point:	WP1014_WET_E2EM
Investigator(s): B. Bringh	urst & A. Ostrowski		Section	on, Township, R	ange: S N/A T	N/A <b>R</b> N/A
 Landform (hillslope, terrace	e, etc.): Flat		Local relief (concave,	, convex, none)	#Error	Slope: 0 % 0.0
Subregion (LRR): LRR T			Lat: 27.93103	 Lor	ng: -97.188888	Datum: NAD 83
Soil Map Unit Name: Narta	loam 0 to 1 percent clans	os raraly flooded (Na)			sification: PEM1A	10.05
map offic Name. Nama	loam, o to 1 percent slope	s, rarely flooded (Na)		— INWI Class	TEMIA	
Are climatic/hydrologic con	ditions on the site typic	cal for this time of y	rear? Yes 💿	No (If r	no, explain in Remark	S.)
Are Vegetation , 9	Soil , or Hydrolog	gy signif	icantly disturbed?	Are "Normal	Circumstances" pres	ent? Yes • No
Are Vegetation, §	Soil 🗌 , or Hydrolog	gy 🗌 natura	ally problematic?	(If needed, e	explain any answers i	n Remarks.)
SUMMARY OF FINDINGS	5 – Attach site map s	showing sampling	g point locations, tr	ansects, imp	ortant features, et	C.
Hydrophytic Vegetation Prese	ent? Yes	○ No •	la tha	. Canada d Ana		
Hydric Soil Present?	Yes	No		e Sampled Area n a Wetland?	a Ye	es O No 💿
Wetland Hydrology Present?	Yes	No				
Remarks: Hydrophytic vegetation, hydr  HYDROLOGY	ic soil, and wetland hydrold	ogy are present. This i	is a wetland.			
Wetland Hydrology Indica	atore					
Primary Indicators (Minim		ack all that apply)		Socono	dary Indicators (Minin	num of 2 required)
	ium or one requirea; cr	_	40)	Second	,	
Surface Water (A1)		Aquatic Fauna (B	•		Sparsely Vegetated Co	• •
High Water Table (A2)		Marl Deposits (B:			Drainage Patterns (B10	
Saturation (A3)		Hydrogen Sulfide		(C3)	Moss Trim Lines (B16)	
Water Marks (B1)			heres along Living Roots	(C3)	Dry Season Water Tab	le (C2)
Sediment Deposits (B2)		Presence of Redu			Crayfish Burrows (C8)	anial Taranama (CO)
Drift Deposits (B3)  Algal Mat or Crust (B4)			uction in Tilled Soils (C6)		Saturation Visible on A	
Iron Deposits (B5)		✓ Thin Muck Surfac	•		Geomorphic Position (I	J2)
Inundation Visible on Ae	orial Imagon, (R7)	Other (Explain in	Remarks)		Shallow Aquitard (D3)	
				•	FAC-Neutral Test (D5)	(LDD T LL)
Water-Stained Leaves (B	.9) 				Sphagnum moss (D8)	(LRR 1, U)
Field Observations:						
Surface Water Present?	Yes O No	Depth (inche	s):			
Water Table Present?	Yes O No •	Depth (inche	s):			
Saturation Present? (includes capillary fringe)	Yes   No	Depth (inche	s):	Wetland	d Hydrology Present?	Yes • No O
Describe Recorded Data (str	eam gauge, monitor well, :	aerial photos, previou:	s inspections), if available	e:		

Sampling Point:	WP1014_WET_E2EM
Test worksheet:	

	Dominant Species 2	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
Tree Stratum         (Plot Size : 30           1	_	Total Number of Dominant Species Across All Strata:1(B
2		Species Across All Strata:1 (B
3		Percent of Dominant Species
4		That are OBL, FACW, or FAC: 0.0% (A/B)
5		Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7.		OBL species $50 \times 1 = 50$
8.		FACW species $50 \times 2 = 100$
50% of Total Cover: 0 20% of Total Cover:		FAC species $0 \times 3 = 0$
Conline or Conline (Church Church (Dist Circ.)		FACU species $0 \times 4 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30		
1		
2		Colum Totals: $2$ (A) $8$ (B)
3		Prevalence Index = B/A= 4.000
4		Hydrophytic Vegetation Indicators:
5		Trydrophytic vegetation indicators.
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is > 50%
8		3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover:	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Shrub Stratum (Plot Size : 30		
1		<sup>1</sup> Indicators of hydric soil and wetland
2		hydrology must be present, unless disturbed or
3		
4	0	Definition of Vegetation Strata:
5	0	Tree - Woody plants, excluding woody vines,
6	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover:		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30	<u> </u>	Copling Moody plants evaluating woody vines
1 . Spartina patens		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2 . Borrichia frutescens	•	than 3 in. (7.6 cm) DBH.
3 . Monanthochloe littoralis	10 10 00/ 00/	
4 . Salicornia bigelovii	5 5.0% OBL	Sapling/Shrub - Woody plants, excluding vines, less
	0 0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5		
6		Shrub - Woody plants, excluding woody vines,
7		approximately 3 to 20 ft (1 to 6 m) in height.
8		Herb - All herbaceous (non-woody) plants, including
9		herbaceous vines, regardless of size, and woody
10		plants, except woody vines, less than approximately
11		3 ft (1 m) in height.
12 · 50% of Total Cover: 50 20% of Total Cover:	0.0%	
		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30	_	
1		
2		
3		Hydrophytic Vegetation Yes No
4 · 5 ·		Present ?
50% of Total Cover: 0 20% of Total Cover:	0 = Total Cover	
temarks: (If observed, list morphological adaptations	s below).	
Indicator suffix = National status or professional decision as	signed because Regional status not defined by FWS.	

SOIL Sampling Point: WP1014\_WET\_E2EM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features	<del></del> .			
(inches)	Color (moist)%			Location <sup>2</sup>	Texture	Remarks	
0 - 16	10YR 5/1 10	0			Sandy Clay		
	tion, D=Depletion, RM=Redi	uced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore		akia Ukudnia Caila?	
Hydric Soil Indica	ators:				Indicators for Problem	atic Hydric Soils*:	
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surf Coast Prairie Re Sandy Muck Min Sandy Gleyed N Sandy Redox (S Stripped Matrix	de (A4) s (A5) (A6) (LRR P, T, U) neral (A7) (LRR P, T, U) (A8) (LRR U) () (LRR P, T) v Dark Surface (A11) face (A12) edox (A16) (MLRA 150A) neral (S1) (LRR O, S) Matrix (S4) S5)	Thin D. Loamy Loamy Loamy Loamy Loamy Loamy Loamy Loamy Redox Depleta Redox Marl (F Depleta Iron-M Umbric Delta C Redox	lue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) F10) (LRR U) ed Ochric (F11) (MLRA langanese Masses (F12) c Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) slous Bright Loamy Soils	151) (LRR O, P, T) T, U) 50A, 150B)	Piedmont Floodplain Anomalous Bright Lo Red Parent Material ( Very Shallow Dark St Other (Explain in Rer  3Indicators wetland unless	RR S) I (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) (TF2) urface (TF12)	
Restrictive Layer Type: Depth (inches):					lydric Soil Present? Y	es • No 🔾	
Remarks:							

Project/Site: Bluewater Te	erminal SPM Project		City/County: San Patr	icio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State	: TX	Sampling Point:	WP1015_UP
Investigator(s): B. Bringh	nurst & A. Ostrowski		Section	n, Township, R	ange: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	L	ocal relief (concave,	convex, none)	: Convex	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T			<b>Lat:</b> 27.931586	Lor	<b>ng:</b> -97.188365	Datum: NAD 83
Soil Map Unit Name: Arans	sas clay, saline (As)			NWI Class	sification: E2EM1N	
Are climatic/hydrologic cor	nditions on the site typical fo	or this time of ve	ar? Yes 💿	— No ○ (If r	no, explain in Remarks.)	
	Soil . , or Hydrology		antly disturbed?		Circumstances" present?	Yes   No
	Soil , or Hydrology		ly problematic?		explain any answers in Re	9 9
Are vegetation	Jon / Or Hydrology		y problematic.	(II necucu, c	Apidin dily dilawera in ice	marksi)
SUMMARY OF FINDING	S – Attach site map show	wing sampling	point locations, tr	ansects, imp	ortant features, etc.	
Hydrophytic Vegetation Pres	sent? Yes •	No O	le the	Sampled Area		
Hydric Soil Present?	Yes •	No 🔘		n a Wetland?	Yes	) No ⊙
Wetland Hydrology Present?	Yes 🔾	No 💿				
Remarks:						
Wetland hydrology is not pre	esent. This is not a wetland.					
HADDOLOCA						
HYDROLOGY  Wetland Hydrology Indic	rators					
	mum of one reauired: check	all that apply)		Second	dary Indicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B1:	3)	SCCOTE		• •
High Water Table (A2)		Marl Deposits (B15	•		Sparsely Vegetated Concave Drainage Patterns (B10)	з Ѕиггасе (вв)
Saturation (A3)		Hydrogen Sulfide (			Moss Trim Lines (B16)	
Water Marks (B1)		· -	eres along Living Roots	(C3)	Dry Season Water Table (C	2)
Sediment Deposits (B2)	,	Presence of Reduc		(65)	Crayfish Burrows (C8)	-)
Drift Deposits (B3)			tion in Tilled Soils (C6)		Saturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface			Geomorphic Position (D2)	inagery (es)
Iron Deposits (B5)		Other (Explain in R	•		Shallow Aquitard (D3)	
Inundation Visible on A	erial Imagery (B7)	Other (Explain in R	cerriar K5)	•	FAC-Neutral Test (D5)	
Water-Stained Leaves (I	3 , . ,				Sphagnum moss (D8) (LRR	T 11)
					Spriagrium moss (D8) (LRR	1, 0)
Field Observations: Surface Water Present?	Yes ○ No ●	Daniela (in ala sa)				
Water Table Present?		Depth (inches)	-			
Saturation Present?		Depth (inches)	:	144 a.bla	d Hydrology Present? Yo	es No •
(includes capillary fringe)	Yes O No 💿	Depth (inches)	:	wetjan	a nyarology Present? 10	as O NO O
Describe Recorded Data (st	ream gauge, monitor well, aeria	I photos, previous	inspections), if available	e:		
,	,					
Remarks:						

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 10

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Prosopis alandulosa

50% of Total Cover: 25

1 . Borrichia frutescens 2 . Spartina patens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0 0

0 0

0

0

0

0

0

0

0 0

50

0

0

0

0

0 0

0

0

0\_\_ 0

0

0 0 Rel.Strat. Indicator

0.0%

0.0%\_

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

50 ✓ 100.0% UPL 0.0% 0.0%

0.0%

50 **✓** \_\_50.0% OBL

= Total Cover

50.0% FACW

0.0%\_

0.0%\_

0.0%

0.0%\_ 0.0%\_ 0.0%\_

0.0%\_

0.0%\_ 0.0%

0.0%\_ \_

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

= Total Cover

= Total Cover

0.0% 0.0%

0.0%

0.0%\_

0.0%\_

Status

Sampling Point:	VP1015_UP	
<b>Dominance Test worksheet:</b>		
Number of Dominant Species		
That are OBL, FACW, ro FAC:	2	_ (A)
Total Number of Dominant Species Across All Strata:	3	(B
5pccies / 16.1655 / 11.164.444.		_ `
Percent of Dominant Species	66.7%	6 (A/B
That are OBL, FACW, or FAC:		0 (, 4 -
Prevalence Index worksheet:		
Total % Cover of:	Multiply by:	
OBL species 50	^	50_
FACW species50	x 2 =1	00_
FAC species 0	x 3 =	0
FACU species0	x 4 =	0
UPL species50_		50_
Colum Totals: 150	(A) $\frac{4}{}$	<u>00</u> (B)
Prevalence Index = B/A=	2.6	567
I budua ubudia Wasatatian Tudia		
Hydrophytic Vegetation Indic	ators:	
✓ 1 - Rapid Test for Hydropl	nytic Vegetation	1
✓ 2 - Dominance Test is > 5	0%	
✓ 3 - Prevalence Index is ≤	3.0¹	
Problematic Hydrophytic	/egetation1 (Ex	plain)
¹ Indicators of hydric soil an hydrology must be present, t		l or
hydrology must be present, u  Definition of Vegetation	inless disturbed Strata:	
Definition of Vegetation Tree - Woody plants, exclud	Inless disturbed Strata: ng woody vines	5,
hydrology must be present, u  Definition of Vegetation	strata: ng woody vines more in height	s, and 3 in.
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or	strata: ng woody vines more in height	s, and 3 in.
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excludes	Strata:  ng woody vines more in height; r at breast heig uding woody vi	s, and 3 in. ht (DBH). nes,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or approximately 20 ft (6 m) or	Strata:  ng woody vines more in height; r at breast heig uding woody vi	s, and 3 in. ht (DBH). nes,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excludes	Strata:  ng woody vines more in height; r at breast heig uding woody vi	s, and 3 in. ht (DBH). nes,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.	Strata:  ng woody vines more in height a r at breast heig  uding woody vi more in height a	s, and 3 in. ht (DBH). nes, and less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or approximately 20 ft (6 m) or	Strata:  ng woody vines more in height a r at breast heig  uding woody vi more in height a	and 3 in. ht (DBH). nes, and less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the	Strata: ng woody vines more in height a r at breast heig  uding woody vi more in height a s, excluding vir nan 3.28 ft (1m)	s, and 3 in. ht (DBH). nes, and less nes, less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the Shrub - Woody plants, excluding the same should be supposed to the same should be s	Strata:  ng woody vines more in height a r at breast heig  uding woody vine more in height a s, excluding vine nan 3.28 ft (1m) ding woody vine	s, and 3 in. ht (DBH). nes, and less nes, less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the	Strata:  ng woody vines more in height a r at breast heig  uding woody vine more in height a s, excluding vine nan 3.28 ft (1m) ding woody vine	s, and 3 in. ht (DBH). nes, and less nes, less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the Shrub - Woody plants, excludapproximately 3 to 20 ft (1 to	Strata:  ng woody vines more in height: r at breast heig  uding woody vi more in height: s, excluding vir nan 3.28 ft (1m)  ding woody vine 6 m) in height.	s, and 3 in. ht (DBH). nes, and less nes, less ) tall.
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the Shrub - Woody plants, excluding the same should be supposed to the same should be s	Strata:  ng woody vines more in height: r at breast heig  uding woody vi more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, ii	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants than 3 in. DBH and greater the Shrub - Woody plants, exclud approximately 3 to 20 ft (1 to Herb - All herbaceous (non-wherbaceous vines, regardles plants, except woody vines, in the second secon	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and w	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, ancluding roody
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants than 3 in. DBH and greater the Shrub - Woody plants, excludapproximately 3 to 20 ft (1 to Herb - All herbaceous (non-wherbaceous vines, regardles)	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and w	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, ancluding roody
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater than 3 in.	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, heluding roody ximately
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants than 3 in. DBH and greater the Shrub - Woody plants, exclud approximately 3 to 20 ft (1 to Herb - All herbaceous (non-wherbaceous vines, regardles plants, except woody vines, in the second secon	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, heluding roody ximately
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater than 3 in.	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, heluding roody ximately
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater than 3 in.	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, heluding roody ximately
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater than 3 in.	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, heluding roody ximately
hydrology must be present, to  Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter  Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants than 3 in. DBH and greater than	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height.  voody) plants, in s of size, and weess than appro	and 3 in. ht (DBH). nes, and less nes, less tall. es, ncluding roody ximately
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, exclud approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater than 3 in.	Strata:  ng woody vines more in height: r at breast heig  uding woody vine more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height. voody) plants, ii s of size, and w ess than appro	and 3 in. ht (DBH). nes, and less nes, less tall. es, ncluding roody ximately

Remarks: (	If observed	list mor	nhological	adaptations	helow)
verriariks, (	(II ODSELVEU)	HSC IIIOI	priological	auaptations	Delow).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1015\_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	% Colo	(moist)	%	Tvpe1	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1	97 10YR	5/6	3	С	PL	Sandy Clay	
<sup>†</sup> Type: C=Concentrati	ion, D=Depletion, RM=	Reduced Matrix,	:S=Covered	or Coated	d Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	•	Treaded Maching		0. 004104	Touris Grains.	200000000000000000000000000000000000000	Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies ( 5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M. Sandy Redox (S) Stripped Matrix (	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)	Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbri Delta G Reduc	oark Surfa Mucky M Gleyed Natrix Dark Sur ted Dark S Depressi F10) (LRR ted Ochric langanese c Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR Sineral (F1) (L Matrix (F2) (F3) (F3) (F3) (F6) (F7) (F8) (LU) (MLRA PARA PLA PLA PLA PLA PLA PLA PLA PLA PLA PL	151) ) (LRR O, P, T) T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain (Anomalous Bright Loak Red Parent Material (Very Shallow Dark Sure Other (Explain in Ren  3 Indicators wetland unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) Imy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer ( Type: Depth (inches):	(If observed):						Hydric Soil Present? Υε	s • No 🔾
Remarks:								

Project/Site: Bluewater Te	rminal SPM Project	City/Co	ounty: San Patricio	Sampling Da	ate: 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1015_WET_E2EM_A
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township,	Range: S N/A T	N/A <b>R</b> N/A
Landform (hillslope, terrace	e, etc.): Flat	Local re	elief (concave, convex, none	e): Concave	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 2	27.93142 <b>Lo</b>	ong: -97.189029	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, ra	rely flooded (Na)	NWI Clas	ssification: PEM1A	
Are climatic/hydrologic con	ditions on the site typical f	or this time of year?	Yes  No (If	no, explain in Remarks	s.)
	Soil , or Hydrology	significantly o		Il Circumstances" prese	
	Soil , or Hydrology	naturally prob		explain any answers in	0 0
			locations, transects, imp		-
Hydrophytic Vegetation Prese		No O		•	
Hydric Soil Present?	Yes •	No O	Is the Sampled Are within a Wetland?	ea Yes	s • No O
Wetland Hydrology Present?	Yes •	No O	Within a Wottana.		
	ic soil, and wetland hydrology a	are present. This is a wetla	nd.		
HYDROLOGY Wetland Hydrology Indica	ators				
I	num of one reauired: check	all that annly)	Secon	ndary Indicators (Minim	num of 2 required)
Surface Water (A1)	Tam or one required, errest	Aquatic Fauna (B13)	<u>55551</u>	Sparsely Vegetated Cor	. ,
High Water Table (A2)		Marl Deposits (B15) (LRR	U)	Drainage Patterns (B10)	` '
✓ Saturation (A3)		Hydrogen Sulfide Odor (C		Moss Trim Lines (B16)	,
Water Marks (B1)		Oxidized Rhizospheres alo	ng Living Roots (C3)	Dry Season Water Table	e (C2)
Sediment Deposits (B2)		Presence of Reduced Iron	(C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in	Tilled Soils (C6)	Saturation Visible on Ae	erial Imagery (C9)
Algal Mat or Crust (B4)	<b>✓</b>	Thin Muck Surface (C7)		Geomorphic Position (D	)2)
Iron Deposits (B5)		Other (Explain in Remarks	•	Shallow Aquitard (D3)	
Inundation Visible on Ae			✓	FAC-Neutral Test (D5)	
☐ Water-Stained Leaves (E	.9)			Sphagnum moss (D8) (	LRR T, U)
Field Observations:	0 0				
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present? Saturation Present?	Yes No	Depth (inches):		ud Hadaalaaa Daaaada	V (a) N- (
(includes capillary fringe)	Yes   No	Depth (inches):0	wetjar	nd Hydrology Present?	Yes ● No U
Describe Recorded Data (str	eam gauge, monitor well, aeria	il photos, previous inspecti	ons), if available:		

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

Distichlis spicata

2 . Spartina patens

3 . Monanthochloe littoralis

5 . Borrichia frutescens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

4. Marsilea macropoda

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0\_

0\_\_

0

0

0

0

0

0

0

0

0

0

0

0

0

40

20 🗸

5

5

0

0

0 0

0

0

0

0 0

0

0

0

100

0

0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0%

0.0%

40.0% OBL

20.0% OBL

5.0% OBL

5.0% OBL

0.0%\_

0.0%\_ \_ 0.0%\_

0.0%

0.0%

0.0%

0.0%\_ \_

= Total Cover

0.0%

0.0%\_

0.0%

0.0%

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

30.0% FACW

\_\_\_0.0%\_

= Total Cover

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Point: WP101	5_WET_E2EM_A
Dominance Test worksheet:	
Number of Dominant Species That are OBL, FACW, ro FAC:	(A)
Total Number of Dominant Species Across All Strata:	3(B
Percent of Dominant Species That are OBL, FACW, or FAC:	66.7%_ (A/B)
Prevalence Index worksheet:	
Total % Cover of: Multip	
OBL species	
FACW species 30 x 2	
FAC species0 x 3	
FACU species0 x 4	=
UPL species0 x 5	
Colum Totals: 100 (A)	$\frac{130}{}$ (B)
Prevalence Index = B/A=	1.300
Broblematic Hydronbytic Vegeta	tion1 (Evaloin)
Problematic Hydrophytic Vegeta  1 Indicators of hydric soil and wetla hydrology must be present, unless o	and
<sup>1</sup> Indicators of hydric soil and wetla hydrology must be present, unless o	and disturbed or
<sup>1</sup> Indicators of hydric soil and wetla	and disturbed or  I: ody vines, n height and 3 in.
Indicators of hydric soil and wetla hydrology must be present, unless of Definition of Vegetation Strata Tree - Woody plants, excluding wood approximately 20 ft (6 m) or more in	and disturbed or  a: ody vines, n height and 3 in. east height (DBH). woody vines,
Indicators of hydric soil and wetland hydrology must be present, unless of the present of t	and disturbed or  Disturbed or
Indicators of hydric soil and wetland hydrology must be present, unless of the present of t	and disturbed or  i: ody vines, h height and 3 in. east height (DBH).  woody vines, h height and less  uding vines, less ft (1m) tall.
¹ Indicators of hydric soil and wetland hydrology must be present, unless of the present of the	and disturbed or  i: Ddy vines, In height and 3 in. Past height (DBH).  woody vines, In height and less  uding vines, less It (1m) tall.  pody vines, In height.  plants, including Ite, and woody

Domarke: (If ohe	carvad lict mai	rnhological ada	ntations holow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1015\_WET\_E2EM\_A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	<u></u>	Color (moist)	<u></u>	Tvpe1	Location <sup>2</sup> _	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Trues G. Connectivati	ion D-Donlation DM-1	Dodugod Ma	strik CC-Cayanad	as Coated	Soul Casina	21 continue DI - Dono	Haine MMatsir	
	on, D=Depletion, RM=F	Reduced IVI	atrix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Mir  Muck Presence 1 cm Muck (A9)  Depleted Below Thick Dark Surfa  Coast Prairie Re	(A2) ) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 eral (S1) (LRR O, S) atrix (S4)		Thin Date Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Surface chric (F1 ed Vertic (ent Floodp	face (F6) furface (F7) furface (F7) furface (F7) furface (F7) furface (F8) U) (F11) (MLRA 1 furface (F12) (F13) (LRR P, -7) (MLRA 151) (F18) (MLRA 1.51) furface (F18) (MLRA 1.51) furface (F19)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland i	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)				,	(, == ) (, ,== ; , = ; ; ,	,,,	
Restrictive Layer Type: Depth (inches):	. ,						lydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater Te	erminal SPM Project		City/County: San Patr	icio	Sampling D	Date:	2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State	# TX	Sampling Point:	WP1015_V	WET_E2EM_B
Investigator(s): B. Bringh	nurst & A. Ostrowski		Section	on, Township, Ran	ge: S N/A T	ΓN/A F	R N/A
Landform (hillslope, terrace	e, etc.): Flat		Local relief (concave	, convex, none): (	Concave	Slope:	1 % 0.6 °
Subregion (LRR): LRR T			<b>Lat:</b> 27.931322	Long:	-97.188659	Datum:	NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes,	rarely flooded (Na)		NWI Classific	cation: PEM1A	_	
Are climatic/hydrologic cor	nditions on the site typical	for this time of v	rear? Yes (•)	── No ○ (If no,	explain in Remark	(s )	
			<u> </u>		-	_	<b></b>
			icantly disturbed?		rcumstances" pres		No U
Are Vegetation	Soil , or Hydrology		ally problematic?	(11 needed, exp	lain any answers i	ii Kemarks.)	
SUMMARY OF FINDING	S – Attach site map sho	owing sampling	g point locations, t	ansects, import	ant features, et	:C.	
Hydrophytic Vegetation Pres	sent? Yes •	No O	1 - 41-	Compaled Area			
Hydric Soil Present?	Yes •	No 🔘		e Sampled Area n a Wetland?	Ye	es 💿 No	$\circ$
Wetland Hydrology Present?	Yes •	No 🔘					
Remarks:							
Hydrophytic vegetation, hyd	ric soil, and wetland hydrology	are present. This i	is a wetland.				
HYDROLOGY							
Wetland Hydrology India		ale all that ample (		Cocondon	In disabous (Missis	of 2 40 m.	رايم ما)
	mum of one required; chec	1	40)		y Indicators (Minir	•	•
Surface Water (A1)		Aquatic Fauna (B	•		parsely Vegetated Co	•	B8)
High Water Table (A2)  ✓ Saturation (A3)		Marl Deposits (B: Hydrogen Sulfide			rainage Patterns (B10 oss Trim Lines (B16)	-	
Water Marks (B1)		, -	heres along Living Roots		ry Season Water Tab		
Sediment Deposits (B2)	,	Presence of Redu			rayfish Burrows (C8)		
Drift Deposits (B3)		7	action in Tilled Soils (C6)		aturation Visible on A		~a)
Algal Mat or Crust (B4)	<b>✓</b>	1	• •		eomorphic Position (I		25)
Iron Deposits (B5)		Other (Explain in	• •		hallow Aquitard (D3)	•	
Inundation Visible on A	erial Imagery (B7)	Guier (Explain in	remarks		AC-Neutral Test (D5)		
Water-Stained Leaves (F					phagnum moss (D8)		
Field Observations:							
Surface Water Present?	Yes O No •	Depth (inche	s):				
Water Table Present?	Yes No	Depth (inche					
Saturation Present?		Depth (inche		Wetland H	lydrology Present?	? Yes ●	No 🔾
(includes capillary fringe)	Yes ● No ○	Берит (писпе	s):				
Describe Recorded Data (st	ream gauge, monitor well, aer	ial photos, previou	s inspections), if available	e:			
Remarks:							

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 16

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : <u>30</u> )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

 \_Salicornia bigelovii 2 . Monanthochloe littoralis

3 . Borrichia frutescens

50% of Total Cover: 40

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

4 . Spartina patens

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0\_

0 \_

0

0

0

0

0

0

0

0

0

0

0

0

0

10

0 0

0

0 0

0

0

0

80

0

0

0

0

0

0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0%

0.0%

25.0% OBL \_\_\_12.5%\_\_OBL

\_\_\_12.5%\_\_FACW\_\_

0.0%

0.0%

0.0%\_ 0.0%\_

0.0%

0.0%\_

0.0%

0.0%\_ \_

0.0%

0.0%

0.0%

0.0%

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

\_\_\_0.0%\_

= Total Cover

40 **✓** \_\_50.0% OBL

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Point:	WP1015_WE	T_E2EM	_B
Dominance Test worksheet:			
Number of Dominant Species That are OBL, FACW, ro FAC:	2		(A)
Total Number of Dominant Species Across All Strata:	2		В
Percent of Dominant Species That are OBL, FACW, or FAC:	_100	.0%_ (	(A/B)
Prevalence Index worksheet	:		
Total % Cover of:	Multiply by:		
OBL species 70	x 1 =	70_	
FACW species 10	x 2 =	20_	
FAC species 0	x 3 =	0_	
FACU species 0	x 4 =	0_	
UPL species 0	x 5 =	0_	
Colum Totals: 80	(A) _	90_	(B)
Prevalence Index = B/A=	_	1.125	
Problematic Hydrophyti  1 Indicators of hydric soil a hydrology must be present	nd wetland		
Definition of Vegetation	n Strata:		
Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diame	r more in heig	ht and 3 i	
Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH.			ss
Sapling/Shrub - Woody pla than 3 in. DBH and greater			ss
Shrub - Woody plants, excl approximately 3 to 20 ft (1			
Herb - All herbaceous (non herbaceous vines, regardle plants, except woody vines 3 ft (1 m) in height.	ss of size, and	d woody	
Woody vine - All woody vin	es, regardless	of height	

Domorka	/If absorted	list morphological	adaptations below)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1015\_WET\_E2EM\_B

Profile Description	on: (Describe to th	e depth :	needed to docur	nent the	e indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix			Redox F	Features			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u>	Tvpe1	Location <sup>2</sup> _	Texture	Remarks
0 - 16	10YR 6/1	100					Sandy Clay	
Trunc C. Connectivati	ion Deposition PM-	Doduced N	Anthrity CC- Countred	na Control	Sould Capita	21 continue DI - Dono	lising M.Matriy	
	on, D=Depletion, RM=	Keaucea IV	latrix, CS=Covered (	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Min  Muck Presence  1 cm Muck (A9)  Depleted Below  Thick Dark Surfa  Coast Prairie Re	(A2) ) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 eral (S1) (LRR O, S) atrix (S4)		Thin Da Loamy Loamy  ✓ Deplete Redox I  Deplete Redox I  Marl (F  Deplete Iron-Ma Umbric Delta O  Reduce Piedmo	ark Surface Mucky M Gleyed M dd Matrix Dark Surf dd Dark S Depressic 10) (LRR dd Ochric anganese Surface Surface dd Vertic nt Floodp	Face (F6) Surface (F7) Ons (F8) U) (F11) (MLRA 1 Masses (F12) (F13) (LRR P, - 7) (MLRA 151) (F18) (MLRA 1! plain Soils (F19)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Sur Other (Explain in Rem  3Indicators wetland h unless	O) R S) (outside MLRA 150A,B) (oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)			9.	, , , , , , , , , , , , , , , , , , , ,	(, == ) (, ,== ; , = ; ; ,	,,,	
Restrictive Layer Type: Depth (inches):							lydric Soil Present? Ye	s • No O
Remarks:								

Project/Site: Bluewater Te	erminal SPM Project		City/County: San Patr	icio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips	s 66 Pipeline, LLC		State	TX	Sampling Point:	WP1016_UP_A
Investigator(s): B. Bringh	hurst & A. Ostrowski		Section	on, Township, R	ange: S N/A T N/A	R N/A
Landform (hillslope, terrac	c <b>e, etc.):</b> Flat		Local relief (concave,	, convex, none):	Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T			<b>Lat:</b> 27.931257	Lon	<b>g:</b> -97.187885	Datum: NAD 83
Soil Map Unit Name: Aran	sas clay, saline (As)			NWI Class	ification: E2EM1N	
Are climatic/hydrologic co	nditions on the site typical fo	or this time of v	/ear? Yes (●)	── No (	o, explain in Remarks.)	
	Soil , or Hydrology		icantly disturbed?		Circumstances" present?	Yes ● No ○
	Soil , or Hydrology		ally problematic?		xplain any answers in Ren	
Are regetation			any problematic.	(II necaca, e	Apidin dily dilawera in Ker	narksi)
SUMMARY OF FINDING	GS – Attach site map show	ving samplin	g point locations, ti	ansects, impo	ortant features, etc.	
Hydrophytic Vegetation Pres	sent? Yes •	No O	ls the	Sampled Area		
Hydric Soil Present?	Yes O	No 💿		n a Wetland?	Yes C	) No ●
Wetland Hydrology Present?	? Yes 🔾	No 💿				
Remarks:	dric soil, and wetland hydrology a	are not precent T	This is not a wetland			
Hydrophytic vegetation, nyd	inc soil, and wedand hydrology a	ire not present. I	Tils is not a wetland.			
HYDROLOGY						
Wetland Hydrology Indie	cators:					
	mum of one required; check	all that apply)		Second	ary Indicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B			Sparsely Vegetated Concave	. ,
High Water Table (A2)		Marl Deposits (B			Drainage Patterns (B10)	(20)
Saturation (A3)		Hydrogen Sulfide	e Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizosp	heres along Living Roots	(C3)	Dry Season Water Table (C2	<u>'</u> )
Sediment Deposits (B2)	)	Presence of Redu	uced Iron (C4)		Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Red	uction in Tilled Soils (C6)		Saturation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surfac	ce (C7)	✓	Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in	Remarks)		Shallow Aquitard (D3)	
Inundation Visible on A	erial Imagery (B7)				FAC-Neutral Test (D5)	
Water-Stained Leaves (	B9)				Sphagnum moss (D8) (LRR	T, U)
Field Observations:						
Surface Water Present?	Yes O No 💿	Depth (inche	s):			
Water Table Present?	Yes O No •	Depth (inche	s):			
Saturation Present?	Yes O No •	Depth (inche	s):	Wetland	l Hydrology Present? Ye	es O No 💿
(includes capillary fringe)						
Describe Recorded Data (st	tream gauge, monitor well, aeria	l photos, previou	s inspections), if available	e:		
Remarks:						

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 9

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

(Plot Size : <u>30</u> )

**Tree Stratum** 

50% of Total Cover: 0

50% of Total Cover: 0

1 . Prosopis alandulosa

3 . Forestiera anaustifolia

50% of Total Cover: 23

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_

1 . Spartina patens 2 . Borrichia frutescens

2 . Celtis pallida

Shrub Stratum

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0

0

0

0

0

0 0

0

0

0

45

0

0

0 0

0

0 0

0

0

0

0 0

0

0

0

100

0

0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%\_ 0.0%

11.1% UPL

0.0%\_

0.0%

\_\_\_\_0.0%\_\_

= Total Cover

85 **✓** 85.0% FACW

15.0% OBL

0.0%\_

0.0% 0.0%\_

0.0%\_

0.0%\_ 0.0%\_

0.0%

0.0%\_

0.0%

0.0%

0.0%

0.0%

0.0%

0.0%

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

= Total Cover

30 **✓** \_\_\_66.7% \_UPL

10 **✓** \_\_\_22.2% \_\_UPL

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling	Point: \	WP1	01	6_	UP_A	
Dominance Test wo	rksheet:					
Number of Dominant S That are OBL, FACW, I				_	1	(A)
Total Number of Domi Species Across All Stra				_	3	(В
Percent of Dominant S That are OBL, FACW, o				_	33.3%	(A/B)
Prevalence Index w	orksheet:					
Total % Cover o	f:	Mul	tipl	ly Ł	y:	_
OBL species	15	х	1	-	15	
FACW species	85	x	2	=	170	
FAC species	0	x	3	=	0	
FACU species	0	x	4	=	0	
UPL species	45	x	5	=	225	
Colum Totals:	145	(A	)		410	(B)
Prevalence Inde	ex = B/A=				2.828	
Hydrophytic Vegeta	,					
✓ 1 - Rapid Test f 2 - Dominance ✓ 3 - Prevalence ✓ Problematic Hy	Test is > 5 Index is ≤ drophytic	0% 3.0¹ Vege	tai	tio	n¹ (Expla	in)
2 - Dominance 3 - Prevalence	Test is > 5 Index is ≤ drophytic ' dric soil an	0% 3.0¹ Vege d we	tai tla	tio	n¹ (Expla	,
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be	Test is > 5 Index is ≤ drophytic dric soil an e present, i	0% 3.0¹ Vege d we unles	tai	nd lis	n¹ (Expla	,
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hyd	Test is > 5 Index is ≤ drophytic dric soil and present, to getation and fit (6 m) or	0% 3.0¹ Vege d we unles Stra	tla tla ta	nd list	n¹ (Expla  turbed or  vines, eight and	3 in.
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve  Tree - Woody plar approximately 20 f	Test is > 5 Index is ≤ drophytic dric soil and present, to getation ints, excludift (6 m) or in diameter plants, excludift (6 m) or in diameter plants, excludift (6 m) or in diameter plants, excludift (6 m) or	0% 3.0¹ Vege d we unles Stra more r at k	tla tla ta voc e ir	ind list	n¹ (Expla  turbed or  vines, eight and theight (	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve Tree - Woody plar approximately 20 f (7.6 cm) or larger  Sapling - Woody papproximately 20 f	Test is > 5 Index is ≤ drophytic dric soil and present, to getation this, excludiff (6 m) or in diameter olants, excludiff (6 m) or in	0% 3.0¹ Vege d we unles Stra ing w more r at b	tat ta ta voc e ir	nddisi	n¹ (Expla turbed or / vines, eight and theight ( ody vines eight and	3 in. DBH). i, less
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve Tree - Woody plar approximately 20 f (7.6 cm) or larger  Sapling - Woody papproximately 20 f than 3 in. (7.6 cm)  Sapling/Shrub - W	Test is > 5 Index is ≤ drophytic dric soil and expresent, to getation and the property of the	0% 3.0¹ Vege d we unles Stra ing w more r at b uding more ding 3	tate tlas contraction of the irrespondent of t	tio	n¹ (Expla turbed or / vines, eight and theight ( ody vines eight and ing vines, ft (1m) tal	3 in. DBH). i, less
2 - Dominance 2 3 - Prevalence 2 Problematic Hy  1 Indicators of hydhydrology must be  Definition of Ve Tree - Woody plar approximately 20 ft (7.6 cm) or larger  Sapling - Woody papproximately 20 ft than 3 in. (7.6 cm)  Sapling/Shrub - W than 3 in. DBH and Shrub - Woody plate 3 cm.	Test is > 5 Index is < 5 Index	0% 3.0¹ Vege d we unles Stra ing we more r at b uding more ding 6 m	tate tlas (clipres given in second given given in second given given in second given g	tio	n¹ (Expla  turbed or  vines, eight and theight ( ody vines, eight and thy vines, eight.	3 in. DBH). i, less less l.

Damarke: (If ohearva	d list morphological	adantations holow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1016\_UP\_A

0 - 16	Color (moist)	%	Color (moist) % Type1	Location <sup>2</sup>	Texture	Remarks
	10YR 4/1	100			Sandy Clay	
oe: C=Concentratio		/l=Reduced	Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Lo	ocation: PL=Pore	Lining, M=Matrix.  Indicators for Problema	ntic Hydric Soils³:
Histosol (A1) Histic Epipedon (ABlack Histic (A3) Hydrogen Sulfide Stratified Layers (AB) Granic Bodies (AB) Com Mucky Mine Muck Presence (AB) Com Muck (A9) (COM) Depleted Below COM Thick Dark Surface	(A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T A8) (LRR U) (LRR P, T) Dark Surface (A11		Polyvalue Below Surface (S8) (LRI Thin Dark Surface (S9) (LRR S, T, Loamy Mucky Mineral (F1) (LRR C Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151 Iron-Manganese Masses (F12) (LF	U) ))	Piedmont Floodplain S	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) IMY Soils (F20) (MLRA 153B) TF2) rface (TF12)
Coast Prairie Redo Sandy Muck Mine Sandy Gleyed Ma Sandy Redox (S5 Stripped Matrix (S Dark Surface (S7)	ox (A16) (MLRA 1 eral (S1) (LRR O, 5 trix (S4) ) S6)	S)	Umbric Surface (F13) (LRR P, T, L Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A Piedmont Floodplain Soils (F19) (I Anomalous Bright Loamy Soils (F2	J) A, 150B) MLRA 149A)	wetland I unless	of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
strictive Layer (1 Type: Depth (inches): _		_		_	lydric Soil Present? Ye	s No •

Project/Site: Bluewater Terminal SPM Project	City/County: San Patricio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	WP1016_UP_B
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, R	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none)	: Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		ng: -97.185723	Datum: NAD 83
Soil Map Unit Name: Dietrich loamy fine sand, 0 to 1 percent slopes, very		sification: PEM1J	10.05 05
Dietrich loanly line said, 0 to 1 percent slopes, very	Tarely flooded (Dt)	mication. PEMIJ	
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes 💿 No 🔾 (If i	no, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology signi	ificantly disturbed? Are "Normal	Circumstances" present?	Yes   No
Are Vegetation , Soil , or Hydrology natu	ırally problematic? (If needed, e	explain any answers in Re	marks.)
SUMMARY OF FINDINGS — Attach site map showing samplin	ng point locations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Yes No	<u>, , , , , , , , , , , , , , , , , , , </u>	·	
Hydric Soil Present? Yes • No	Is the Sampled Area	a Yes	No ●
Wetland Hydrology Present? Yes No	within a Wetland?		
Remarks: Hydrophytic vegetation and wetland hydrology are not present. This is not a	a wetland		
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply	<u>/)</u> Secon	dary Indicators (Minimum	of 2 required)
Surface Water (A1) Aquatic Fauna (	(B13)	Sparsely Vegetated Concave	Surface (B8)
High Water Table (A2)  Marl Deposits (I		Drainage Patterns (B10)	, our 1000 (50)
Saturation (A3) Hydrogen Sulfic		Moss Trim Lines (B16)	
	spheres along Living Roots (C3)	Dry Season Water Table (C2	2)
	duced Iron (C4)	Crayfish Burrows (C8)	-,
	duction in Tilled Soils (C6)	Saturation Visible on Aerial I	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa	ace (C7)	Geomorphic Position (D2)	3 / ( )
Iron Deposits (B5) Other (Explain i		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	,	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR	T, U)
Field Observations:			
Surface Water Present? Yes No Depth (inch	nes):		
Water Table Present? Yes No Depth (inch	· ———		
Caturation Procent?	Watlan	d Hydrology Present? Ye	es O No 💿
(includes capillary fringe)  Yes No   Depth (inch	les):		
Describe Recorded Data (stream gauge, monitor well, aerial photos, previo	ous inspections), if available:		
Remarks:			

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 5

20% of Total Cover: 17

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

(Plot Size : <u>30</u> )

**Tree Stratum** 

50% of Total Cover: 0

50% of Total Cover: 0

1 . Forestiera anaustifolia 2 \_ Prosopis alandulosa

50% of Total Cover: 13

2 . Andropogon gerardii

3 . Ambrosia artemisiifolia

4 . Solanum triguetrum

50% of Total Cover: 43

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1 . Spartina patens

Shrub Stratum

3. Celtis pallida

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_

0

0

0

0

0

0

0 0

0

0 0

25

0 0

0

0 0

0

0

0\_\_ 0

0

0

0

85

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0% 0.0%

= Total Cover

10 **✓** \_\_40.0% \_UPL

5 🗸 \_\_\_\_ 20.0% \_\_UPL\_\_\_\_

0.0%

= Total Cover

45 **✓** 52.9% FACW

\_\_\_17.6%\_\_FACU\_\_

0.0%\_

0.0%

0.0%\_ 0.0%\_

0.0%\_

0.0%\_ 0.0%

0.0%

0.0%

0.0%

0.0%

0.0%\_

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

5.9% UPL

20 🗸 \_\_\_23.5%\_\_FAC

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

Status

				_	
Dominance Test wor					
Number of Dominant Sp That are OBL, FACW, ro			_	1	(A)
Total Number of Domin Species Across All Strat			_	3	(В
Percent of Dominant Sp That are OBL, FACW, o			3:	3.3%	(A/B)
Prevalence Index wo	orksheet:				
Total % Cover of:	:	Multipl	y by:		_
OBL species	0	x 1		0_	
FACW species	45	x 2		90_	
FAC species	20	x 3		60_	
FACU species	15	x 4		60_	
UPL species	30	x 5		150_	
Colum Totals:	145	(A)	-	410	(B)
Prevalence Inde	x = B/A=			2.828	
Hydrophytic Vegetat	ion maic	ators:			
1 - Rapid Test fo 2 - Dominance T 3 - Prevalence I Problematic Hyd	est is > 5 ndex is ≤	0% 3.0¹	-		1)
2 - Dominance T 3 - Prevalence I	est is > 5 ndex is ≤ Irophytic ric soil an	.0% 3.0¹ Vegetat	cion¹ nd	(Explair	1)
2 - Dominance T  3 - Prevalence Is Problematic Hyd	est is > 5 ndex is ≤ Irophytic ric soil an present, (	3.0 <sup>1</sup> Vegetat d wetla	ion¹ nd listu	(Explair	n)
2 - Dominance T  3 - Prevalence I  Problematic Hyd  1 Indicators of hydrology must be	rest is > 5 Index is ≤ Irophytic Iric soil an Irresent,	0% 3.0¹ Vegetat d wetla unless c Strata ing woo	nd listui : ody v	(Explaination of the control of the	3 in.
2 - Dominance T  3 - Prevalence II  Problematic Hyd  1 Indicators of hydrology must be  Definition of Veg  Tree - Woody plant approximately 20 ft	rest is > 5 Index is ≤ Irophytic  ric soil an present, i  getation is, exclud (6 m) or in diamete ants, exc (6 m) or	0% 3.0¹ Vegetat d wetla unless c Strata ing woo more ir or at bre luding v	nd listur : ody v r heiq ast h	(Explain rbed or ines, ght and (D peight (D	3 in. 9BH).
2 - Dominance T  3 - Prevalence II  Problematic Hyd  1 Indicators of hydrology must be  Definition of Veg  Tree - Woody plant approximately 20 ft (7.6 cm) or larger ir  Sapling - Woody plant approximately 20 ft approximately 20 ft proximately 20 ft approximately 20 ft proximately 2	rest is > 5 Index is ≤ Irophytic  ric soil an present, i  getation is, exclud (6 m) or in diamete ants, exc (6 m) or DBH.	0% 3.0¹ Vegetat d wetla unless c Strata ing woo more ir or at bre luding v more ir	nd listur : ody v r heiç ast h	ched or ines, ght and an ineight (Day vines, ght and I grown vines, I grown vines, I grown vines, I grown vines, I	3 in. 9BH). ess
2 - Dominance T  3 - Prevalence II  Problematic Hyd  1 Indicators of hydrology must be  Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger ir  Sapling - Woody plant approximately 20 ft (7.6 cm)  Sapling - Woody plant approximately 20 ft (7.6 cm)  Sapling - Woody plant approximately 20 ft (7.6 cm)  Sapling - Woody plant approximately 20 ft (7.6 cm)	ric soil an present, ric soil an present, ric soil an in diameter ants, excluding (6 m) or DBH.	0% 3.0¹ Vegetat d wetla unless c Strata ing woo more ir r at bre luding v more ir ts, excluding v ding woo	nd listur : ody v o heig ast h voodd uding 8 ft (	ched or ines, ght and a peight (Day vines, ght and I am) tall.	3 in. 9BH). ess
2 - Dominance T  3 - Prevalence II  Problematic Hyd  1 Indicators of hydrology must be  Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger ir  Sapling - Woody plant approximately 20 ft than 3 in. (7.6 cm)  Sapling/Shrub - Wothan 3 in. DBH and  Shrub - Woody plant and	rest is > 5 Index is ≤ Irophytic  ric soil an present, i  getation as, exclud (6 m) or diamete ants, exc (6 m) or DBH.  rody plan greater t  ats, exclu 20 ft (1 to	O% 3.0¹ Vegetat d wetla unless c Strata ing woo more ir r at bre luding v more ir ds, exclution 3.2 ding woo f 6 m) ir voody) s of siz	nd listur : ody v o heig ast h wood o heig udingges a ft (	ched or  ines, ght and 3 neight (D y vines, I 1m) tall. vines, ght.	3 in. 9BH). ess ess

	(7.6 )	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1016\_UP\_B

Profile Description	n: (Describe to t	he depth	needed 1	to docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)	%	Color (ı	moist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	95	10YR	5/6	5	С	PL, M	Sandy Clay	
¹Type: C=Concentrati	on D=Depletion RM	1=Reduced	Matriy CS=	:Covered	or Coatego	d Sand Grains	<sup>2</sup> Location: PL=Pore	Lining M=Matriy	
Hydric Soil Indica	•	i-Neducea	iviatrix, C3-	Covereu	Or Coated	i Saliu Grailis.	Location. FL-Fore	Indicators for Problem	atic Hydric Soils³:
Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (Gorganic	(A2) e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 1) eral (S1) (LRR O, S atrix (S4)	) 50A)		Thin D Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta ( Reduce Piedmo	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi F10) (LRR ed Ochric langanese Surface Ochric (F1 ed Vertic ont Flood	face (F6) Surface (F7) ons (F8) t U) c (F11) (MLRA e Masses (F12) (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 1	5, T, U) RR O)  151) (LRR O, P, T) T, U) )	1 cm Muck (A9) (LRF 2 cm Muck (A10) (LF Reduced Vertic (F18) Piedmont Floodplain Anomalous Bright Lo Red Parent Material ( Very Shallow Dark St Other (Explain in Rer	R O) RR S) I (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) (TF2) urface (TF12)
Restrictive Layer ( Type: Depth (inches):								Hydric Soil Present? Yo	es • No 🔾
Remarks:									

<b>Project/Site:</b> Bluewater Terminal SPM P	roject	City/County: San Patricio	Sampling Da	ate: 2/8/2019
Applicant/Owner: Phillips 66 Pipeline, L	.LC	State: TX	Sampling Point:	WP1016_WET_E2EM_A
Investigator(s): B. Bringhurst & A. Ostr	rowski	Section, Town	nship, Range: S N/A T	N/A <b>R</b> N/A
Landform (hillslope, terrace, etc.):	at	Local relief (concave, convex	<b>k, none):</b> Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.931466	<b>Long: -</b> 97.187642	Datum: NAD 83
Soil Map Unit Name: Aransas clay, saline	e (As)	NV	WI Classification: E2EM1N	
Are climatic/hydrologic conditions on t	the site typical for this time of	year? Yes 💿 No 🔾	(If no, explain in Remarks	s.)
		•	'Normal Circumstances" prese	
		•	eeded, explain any answers in	0 0
Are regetation		rumy problematic. (11 in	seaca, explain any answers in	r Kemarksiy
SUMMARY OF FINDINGS — Attach	site map showing samplin	ng point locations, transect	ts, important features, etc	C
Hydrophytic Vegetation Present?	Yes O No •	Is the Sampl	led Area	
Hydric Soil Present?	Yes   No	within a Wet		s ○ No ●
Wetland Hydrology Present?	Yes   No			
Remarks:	vatland budralogy are precent. This	s is a wotland		
Hydrophytic vegetation, hydric soil, and w	etiand hydrology are present. This	s is a wetland.		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one	required; check all that apply	)	Secondary Indicators (Minim	num of 2 required)
Surface Water (A1)	Aquatic Fauna (	B13)	Sparsely Vegetated Cor	. ,
High Water Table (A2)	Marl Deposits (I	•	Drainage Patterns (B10	` '
Saturation (A3)	Hydrogen Sulfic		Moss Trim Lines (B16)	,
Water Marks (B1)	Oxidized Rhizos	pheres along Living Roots (C3)	Dry Season Water Table	e (C2)
Sediment Deposits (B2)	Presence of Rec	duced Iron (C4)	Crayfish Burrows (C8)	` ,
Drift Deposits (B3)	Recent Iron Re	duction in Tilled Soils (C6)	Saturation Visible on Ae	erial Imagery (C9)
Algal Mat or Crust (B4)	✓ Thin Muck Surfa	ace (C7)	✓ Geomorphic Position (D	
Iron Deposits (B5)	Other (Explain i	n Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery		,	✓ FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (	LRR T, U)
Field Observations:				
Surface Water Present? Yes	No   Depth (inch	es):		
Water Table Present? Yes	No Depth (inch	es):		
Saturation Present? (includes capillary fringe) Yes	No   Depth (inch	es):	Wetland Hydrology Present?	Yes   No
(includes capillary fringe)				
Describe Recorded Data (stream gauge,	monitor well, aerial photos, previo	us inspections), if available:		
Remarks:				

Sampling Point:	WP1016	WFT	F2FM	Δ
oumping rome	**1 1010	4 4 L I		_

	Dominant Species 2	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:  (A)
Tree Stratum         (Plot Size : 30)           1	0	Total Number of Dominant Species Across All Strata:5(B
2		Species Across Ali Strata.
3		Percent of Dominant Species
4	0	That are OBL, FACW, or FAC: 40.0% (A/B)
5	0	Prevalence Index worksheet:
6	0	Total % Cover of: Multiply by:
7	0	OBL species 10 x 1 = 10
8	0	FACW species $90 \times 2 = 180$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30 )		FACU species $0 \times 4 = 0$
1	0	UPL species $0 \times 5 = 0$
2		Colum Totals: 110 (A) 360 (B)
3.		Distribution Indian D/A
4		Prevalence Index = B/A= 3.273
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is > 50%
8	0.0%	3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
<b>Shrub Stratum</b> (Plot Size : <u>30</u> )		
1		<sup>1</sup> Indicators of hydric soil and wetland
2		hydrology must be present, unless disturbed or
3		
4		Definition of Vegetation Strata:
5		Tree - Woody plants, excluding woody vines,
6		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Herb Stratum (Plot Size : 30)	80 🗸80.0% _FACW_	Sapling - Woody plants, excluding woody vines,
Spartina patens     Monanthochloe littoralis		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
0 0 111 1	10 00/ 510//	
		Sapling/Shrub - Woody plants, excluding vines, less
4	0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5	0.0%	
7.		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
8.		approximately 5 to 20 it (1 to 6 iii) iii neight.
9		Herb - All herbaceous (non-woody) plants, including
10		herbaceous vines, regardless of size, and woody
11.	0.0%	plants, except woody vines, less than approximately 3 ft (1 m) in height.
12.	0 0.0%	3 it (1 m) in neight.
50% of Total Cover: 50 20% of Total Cover: 20	100 = Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30 )	_	
1	0	
2		
3	0	Hydrophytic
4		Vegetation Yes No • Present ?
5	0	Present :
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Remarks: (If observed, list morphological adaptations below)	).	
*Indicator suffix = National status or professional decision assigned be	ecause Regional status not defined by EMS	
	seese regional seetus not denned by I WS.	

SOIL Sampling Point: WP1016\_WET\_E2EM\_A

Profile Description	on: (Describe to th	e depth	needed to	o docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)	<u> </u>	Color (n	noist)	<u>%</u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1	97	10YR	5/6	3	С	PL	Sandy Clay	
<sup>1</sup> Type: C=Concentrati	ion, D=Depletion, RM=	Reduced N	Matrix, CS=0	Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
5 cm Mucky Min  Muck Presence  1 cm Muck (A9)  Depleted Below  Thick Dark Surfa  Coast Prairie Re  Sandy Muck Min  Sandy Gleyed M  Sandy Redox (S  Stripped Matrix	(A2) ) e (A4) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) hace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) hatrix (S4) 5	0A)		Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi 10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR 9) lineral (F1) (Li latrix (F2) (F3) face (F6) fourface (F7) ons (F8) U) c (F11) (MLRA e Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA	151) ) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland I unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):							lydric Soil Present? Ye	s • No
Remarks:									

Project/Site: Bluewater Te	rminal SPM Project	City/County: San Patrio	cio Sampling Date: 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State:	:: TX Sampling Point: WP1016_WET_E2EM_B
Investigator(s): B. Bringh	urst & A. Ostrowski	Section	n, Township, Range: S N/A T N/A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave,	convex, none): Flat Slope: 1 % 0.6
Subregion (LRR): LRR T		Lat: 27.931544	Long: -97.186574 Datum: NAD 83
	cae clay calina (Ac)	271331311	NWI Classification: E2EM1N
Soil Map Unit Name: Arans	sas ciay, saiirie (AS)		TWI Classification.
Are climatic/hydrologic cor	nditions on the site typical for this tir	me of year? Yes 💿 I	No (If no, explain in Remarks.)
Are Vegetation ,	Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes   No
Are Vegetation ,	Soil , or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDING	S — Attach site map showing sa	mpling point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes • No		
Hydric Soil Present?	Yes   No		e Sampled Area n a Wetland?
Wetland Hydrology Present?	Yes   No	)	ra vvenana:
Remarks: Hydrophytic vegetation, hyd	ric soil, and wetland hydrology are preser	at. This is a wetland.	
Wetland Hydrology Indic	ators:		
	num of one required; check all that	annly)	Secondary Indicators (Minimum of 2 required)
Surface Water (A1)	. ,	auna (B13)	
High Water Table (A2)		osits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)
✓ Saturation (A3)		Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)		Rhizospheres along Living Roots (	
Sediment Deposits (B2)		of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)		on Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		k Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)		plain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on A	•	plant in Kemarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (F	· · · ·		Sphagnum moss (D8) (LRR T, U)
	,		spragram mass (56) (Elike 1, 6)
Field Observations: Surface Water Present?	Yes No • Depth	· (in all and)	
Water Table Present?		(inches):	
Saturation Present?	•	n (inches):	Wetland Hydrology Present? Yes   No
(includes capillary fringe)	Yes   No   Depth	n (inches):	wedand nydrology Present: Tes S No S
Describe Recorded Data (st	ream gauge, monitor well, aerial photos,	previous inspections), if available	

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

 \_Monanthochloe littoralis\_\_\_ 2 . Borrichia frutescens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_

0

0

0

0

0

0

0

0

0 0

0

0

95

0

0

0 0

0

0 0

0

0

0

0 0

0

0

0

100

0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0% 0.0% 0.0%\_

0.0%

95.0% OBL

0.0%

0.0% 0.0%\_

0.0%

0.0%\_ \_ 0.0%\_

0.0%\_

0.0%\_

0.0%

0.0%\_

0.0%

0.0%

0.0%

0.0%

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

5.0% OBL

\_\_\_0.0%\_

= Total Cover

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling F	Point: \\	WP10	16_WET_	E2E	M_B
Dominance Test work					
Number of Dominant Sp That are OBL, FACW, ro			1_	_	(A)
Total Number of Domina Species Across All Strata			1_	_	(B
Percent of Dominant Sports That are OBL, FACW, or			100.0%	<u>.</u>	(A/B)
Prevalence Index wo	rksheet:				
Total % Cover of:		Multip	ly by:		
OBL species	100	x 1	= 1	00_	
FACW species	0_	x 2		0	
FAC species	0_	x 3		0	
FACU species	0	x 4		0_	
UPL species	0	x 5		0_	
Colum Totals:	100	(A)	1	00_	(B)
Prevalence Index	c = B/A=		1.0	000	
<ul> <li>✓ 1 - Rapid Test for</li> <li>✓ 2 - Dominance To</li> <li>✓ 3 - Prevalence In</li> <li>Problematic Hydronia</li> </ul>	est is > 5 idex is ≤	0% 3.0¹			)
<ul><li>✓ 2 - Dominance To</li><li>✓ 3 - Prevalence In</li></ul>	est is > 5 idex is ≤ rophytic \ ic soil and	0% 3.0¹ Vegeta	ition¹ (Ex	plain	)
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr	est is > 5 Idex is \le  Irophytic Verice  In the soil and  Iropesent, the  Iropesent  Ir	0% 3.0¹ Vegeta d wetk inless Strata	ntion¹ (Ex and disturbed	plain or	)
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr hydrology must be p	est is > 5  Idex is \le s  Index is \le s  Ind	0% 3.0¹ Vegeta d wetla inless Strata ing wo more i	and disturbed 3: ody vines n height a	plain l or	B in.
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr hydrology must be p  Definition of Veg Tree - Woody plants approximately 20 ft	est is > 5  Index is ≤  Index is <  Index	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bro uding	and disturbed 3: ody vines n height a east heig	plain  I or  S,  and 3  ht (D	3 in. BH).
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr hydrology must be p  Definition of Veg Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft	est is > 5  Index is ≤ rophytic \( \)  Index is zero roph	0% 3.0¹ Vegeta d wetla inless Strata ing wo more i r at bro uding more i	and disturbed 3: ody vines n height a east heig woody vin n height a	plain l or s, and 3 ht (D nes, l	3 in. BH).
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr hydrology must be p  Definition of Veg Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft than 3 in. (7.6 cm) [5]  Sapling/Shrub - Woody Pla	est is > 5  Index is < 5  Index is < 7  Index is < 7  Index is < 9  Inde	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bro uding more i as, exc nan 3.2 ding w	and disturbed  3: ody vines in height a east heigh woody vine in height a luding vir 28 ft (1m) oody vine	plain l or s, nes, and lees, tall.	3 in. BH). ess
2 - Dominance To 3 - Prevalence In Problematic Hyde  1 Indicators of hydr hydrology must be p  Definition of Veg Tree - Woody plants approximately 20 ft (7.6 cm) or larger in  Sapling - Woody pla approximately 20 ft than 3 in. (7.6 cm) D  Sapling/Shrub - Woo than 3 in. DBH and	est is > 5  Index is < 5  Index is < 5  Index is < 7  Index is < 9  Inde	o% 3.0¹ Vegeta d wetla inless Strata ing wo more i r at bro uding more i as, exc nan 3.2 ding w 6 m) i voody) s of siz	and disturbed  3: ody vines in height a east height woody vine in height a luding vir 28 ft (1m) oody vine in height.  plants, in te, and w	plain  or  s, and s  ht (D  nes, and l  tall.	B in. BH). ess ess

	(7.6 )	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1016\_WET\_E2EM\_B

Profile Description	on: (Describe to th	e depth	needed to docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	0/	Calan (maint)		Features	Location?	Tandonia	Damadra
0 - 16	10YR 4/1	. <b>_%</b> 97	Color (moist) 10YR 7/1	<b>%</b> 3	Tvpe <sup>1</sup>	<u>Location<sup>2</sup></u> M	Texture Sandy Clay	Remarks
•	ion, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coated	l Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)		Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbri Delta (I Reduc	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi =10) (LRR ed Ochric langanese C Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR Sineral (F1) (Li Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) (U) (F11) (MLRA Masses (F12 (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 151)	151) ) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3 Indicators wetland I unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):						•	Hydric Soil Present? Ye	es • No
Remarks:								

Project/Site: Bluewater Te	rminal SPM Project	City/County: San Patri	icio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX	Sampling Point: WP	1016_WET_E2EM_C
Investigator(s): B. Bringh	ırst & A. Ostrowski	Section	n, Township, Ra	nge: S N/A T N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat	Local relief (concave,	convex, none):	Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.931226		: -97.1868	Datum: NAD 83
	ch loamy fine sand, 0 to 1 percent slo			fication: None	10.000
John Map Offic Name. Dieur	cirioanty line sand, o to 1 percent sic	opes, very rarely flooded (Dt)	— INVI CIASSII	None	
Are climatic/hydrologic con	ditions on the site typical for thi	s time of year? Yes •	No (If no	, explain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology	significantly disturbed?	Are "Normal C	Circumstances" present?	Yes   No
Are Vegetation , 9	Soil , or Hydrology	naturally problematic?	(If needed, ex	plain any answers in Ren	narks.)
SUMMARY OF FINDING	5 — Attach site map showing	sampling point locations, tr	ansects, impo	rtant features, etc.	
Hydrophytic Vegetation Prese	ent? Yes • No	0	0 1 14		
Hydric Soil Present?	Yes   No		Sampled Area a Wetland?	Yes   •	No 🔾
Wetland Hydrology Present?	Yes   No	0			
Hydrophytic vegetation, hydr	ic soil, and wetland hydrology are pro	esent. This is a wetland.			
Wetland Hydrology Indic	ators:				
Primary Indicators (Minin	num of one required; check all th	hat apply)	Seconda	ry Indicators (Minimum	of 2 required)
Surface Water (A1)	Aguat	tic Fauna (B13)		Sparsely Vegetated Concave	Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)		Drainage Patterns (B10)	
✓ Saturation (A3)		ogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		zed Rhizospheres along Living Roots		Dry Season Water Table (C2	)
Sediment Deposits (B2)	Prese	ence of Reduced Iron (C4)		Crayfish Burrows (C8)	•
Drift Deposits (B3)	Recer	nt Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial I	magery (C9)
✓ Algal Mat or Crust (B4)	Thin I	Muck Surface (C7)		Geomorphic Position (D2)	5 , . ,
Iron Deposits (B5)	Other	(Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae			<b>✓</b> 1	FAC-Neutral Test (D5)	
Water-Stained Leaves (E	9)			Sphagnum moss (D8) (LRR 1	Γ, U)
Field Observations:					
Surface Water Present?	Yes ○ No ● D	epth (inches): 1			
Water Table Present?		epth (inches):			
Saturation Present? (includes capillary fringe)		epth (inches): 0	Wetland	Hydrology Present? Ye	s • No O
Describe Recorded Data (str	eam gauge, monitor well, aerial phot	tos, previous inspections), if available	e:		

Sampling Point:	WP1016	WFT	F2FM	C

	Dominant	Dominance Test worksheet:
	Absolute Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
Tree Stratum         (Plot Size : 30 )           1.	0	Total Number of Dominant
2.		Species Across All Strata:1 (B
3.		Percent of Dominant Species
4.		That are OBL, FACW, or FAC: 100.0% (A/B)
5		Prevalence Index worksheet:
6.		Total % Cover of: Multiply by:
7.		
8.		
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Sapling or Sapling/Shrub Stratum (Plot Size : 30 )	0.00/	
1		
2		Colum Totals: <u>65</u> (A) <u>-/5</u> (B)
3		Prevalence Index = $B/A = 1.154$
4		Hydrophytic Vegetation Indicators:
5		
6		✓ 1 - Rapid Test for Hydrophytic Vegetation
7		✓ 2 - Dominance Test is > 50%
8	0	3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0  Shrub Stratum (Plot Size : 30)	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1	0	
2.		Indicators of hydric soil and wetland     hydrology must be present, unless disturbed or
3.		nyurology must be present, unless disturbed of
		Definition of Venetation Streets
4		Definition of Vegetation Strata:
5		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
6 50% of Total Cover: 0 20% of Total Cover: 0		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30 )	0 = Total Cover	
1. Monanthochloe littoralis	45 🗹69.2%OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2 . Spartina patens	10 15.4% FACW	than 3 in. (7.6 cm) DBH.
3 . Borrichia frutescens	5 7.7% OBL	
	5	Sapling/Shrub - Woody plants, excluding vines, less
	0 0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5		
6		Shrub - Woody plants, excluding woody vines,
7		approximately 3 to 20 ft (1 to 6 m) in height.
8		Herb - All herbaceous (non-woody) plants, including
9		herbaceous vines, regardless of size, and woody
10	0.0%	plants, except woody vines, less than approximately
11	0.0%	3 ft (1 m) in height.
12.	0.0%	
50% of Total Cover: 33 20% of Total Cover: 13	65 = Total Cover	Woody vine - All woody vines, regardless of height.
<u>Woody Vine Stratum</u> (Plot Size : <u>30</u> )  1	0	
2		
3		Hydrophytic Vegetation Yes  No
4		Present ?
5 50% of Total Cover: 0 20% of Total Cover: 0		
	0 = Total Cover	
Remarks: (If observed, list morphological adaptations below)		
*Indicator cuffix = National status or professional decision	cauco Pogional status not defined by EMC	
*Indicator suffix = National status or professional decision assigned be	cause negional status not defined by FWS.	

SOIL Sampling Point: WP1016\_WET\_E2EM\_C

Profile Description	on: (Describe to th	e depth	needed to	o docui	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)	<u> </u>	Color (n	noist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	97	10YR	5/6	3	С	PL	Sandy Clay	
<sup>1</sup> Type: C=Concentrati	ion, D=Depletion, RM=	Reduced N	/latrix, CS=0	Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	ntors:							Indicators for Problema	tic Hydric Soils <sup>3</sup> :
5 cm Mucky Min  Muck Presence  1 cm Muck (A9)  Depleted Below  Thick Dark Surfa  Coast Prairie Re  Sandy Muck Min  Sandy Gleyed M  Sandy Redox (S  Stripped Matrix	be (A4) c (A5) (A6) (LRR P, T, U) cleral (A7) (LRR P, T, (A8) (LRR U) c (LRR P, T) Dark Surface (A11) cace (A12) dox (A16) (MLRA 15 ceral (S1) (LRR O, S) latrix (S4)	0A)		Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi 10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR 9) lineral (F1) (Li latrix (F2) (F3) face (F6) fourface (F7) ons (F8) U) c (F11) (MLRA e Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA	151) ) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland i	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	,							lydric Soil Present? Ye	s ● No ○
Remarks:									

Project/Site: Bluewater Ter	minal SPM Project	Cit	ty/County: San Patricio		Sampling Da	<b>te:</b> 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: T	χ Sam	pling Point:	WP1016_WET_E2EM_D
Investigator(s): B. Bringh	ırst & A. Ostrowski		Section, T	Township, Range:	S N/A T	N/A <b>R</b> N/A
 Landform (hillslope, terrace	, etc.): Flat	Lo	cal relief (concave, cor	nvex, none): Flat		<b>Slope:</b> 0 % 0.0 °
Subregion (LRR): LRR T			Lat: 27.931949	Long: -97.	185736	<b>Datum:</b> NAD 83
Soil Map Unit Name: Dietric	ch loamy fine cand. O to 1 no		-	NWI Classification		
	<u> </u>	. , ,		NWI Classificatio	EZEMIIN	
Are climatic/hydrologic con	ditions on the site typica	I for this time of year	r? Yes   No	(If no, expl	ain in Remarks	.)
Are Vegetation , 9	Soil , or Hydrology	/ significa	ntly disturbed? A	re "Normal Circum	stances" prese	nt? Yes 💿 No 🔾
Are Vegetation, \$	Soil 🗌 , or Hydrology	/ naturally	problematic? (1	If needed, explain	any answers in	Remarks.)
SUMMARY OF FINDINGS	5 – Attach site map sh	nowing sampling p	oint locations, trans	sects, important	features, etc	
Hydrophytic Vegetation Prese	<u> </u>			, ,	•	
Hydric Soil Present?	Yes	_		mpled Area Wetland?	Yes	No
Wetland Hydrology Present?	Yes		within a v	welland?		
Remarks:	103	5 140 0				
Hydrophytic vegetation, hydr	ic soil, and wetland hydrolog	gy are present. This is a	wetland.			
HYDROLOGY						
Wetland Hydrology Indica						
Primary Indicators (Minim	num of one required; che	eck all that apply)		Secondary Inc	dicators (Minim	um of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparse	ly Vegetated Con	cave Surface (B8)
High Water Table (A2)		Marl Deposits (B15)	(LRR U)	Draina	ge Patterns (B10)	
✓ Saturation (A3)		Hydrogen Sulfide Oc	lor (C1)	Moss T	rim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospher	es along Living Roots (C3)	) Dry Se	ason Water Table	(C2)
Sediment Deposits (B2)		Presence of Reduced		Crayfis	h Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction	on in Tilled Soils (C6)	Satura	tion Visible on Aei	rial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (	C7)		orphic Position (Da	2)
Iron Deposits (B5)		Other (Explain in Re	marks)		v Aquitard (D3)	
Inundation Visible on Ae				✓ FAC-N	eutral Test (D5)	
Water-Stained Leaves (B	9)			Sphagi	num moss (D8) (L	RR T, U)
Field Observations:						
Surface Water Present?	Yes O No •	Depth (inches):				
Water Table Present?	Yes O No •	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes   No	Depth (inches):	0	Wetland Hydro	logy Present?	Yes   No
Describe Recorded Data (str	eam gauge, monitor well, a	erial photos, previous in	spections), if available:			
Remarks:						
Remarks:						

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 18

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : <u>30</u> )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

3 . Borrichia frutescens

50% of Total Cover: 45

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1 . Spartina patens 2 . Monanthochloe littoralis

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_ 0

0

0

0

0

0

0

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0

0

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0

0\_\_ 0

0

0

0

90

Rel.Strat. Indicator

0.0%\_

0.0%

0.0%\_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

= Total Cover

45 **✓** \_\_50.0% FACW

\_\_\_11.1%\_\_OBL\_\_\_

0.0%\_

0.0%

0.0%\_ \_ 0.0%\_

0.0%\_

0.0%\_ 0.0%

0.0%\_

0.0%

0.0%

0.0%

0.0%

0.0%

= Total Cover

Vegetation

Present ?

= Total Cover

0.0%

35 **✓** \_\_38.9% \_OBL

0.0%

0.0%

Status

Dominance Test worksl	heet:				
Number of Dominant Spec That are OBL, FACW, ro FA			2	_	(A)
Total Number of Dominant Species Across All Strata:	ī		2	_	(В
Percent of Dominant Speci That are OBL, FACW, or FA			_100.	0%_	(A/B)
Prevalence Index work	sheet:				
Total % Cover of:		Multip	ly by:		
OBL species	45	x 1		45_	
FACW species	45	x 2		90_	
FAC species	0_	x 3		0	
FACU species	0_	x 4		0	
UPL species	0_	x 5			
Colum Totals:	90_	(A)	_	135	(B)
Prevalence Index =	B/A=			1.500	
Hydrophytic Vegetation	n Indica				
✓ 1 - Rapid Test for F ✓ 2 - Dominance Test ✓ 3 - Prevalence Inde  Problematic Hydro	t is > 50 ex is ≤ 3	)% 3.0¹			)
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde	t is > 50 ex is ≤ 3 phytic V soil and	)% 3.0¹ ′egeta l wetla	tion¹ (	Explain	)
2 - Dominance Test 3 - Prevalence Inde Problematic Hydro  1 Indicators of hydric	t is > 50 ex is ≤ 3 phytic V soil and esent, u	0% 3.0¹ /egeta   wetla nless (	tion¹ ( and disturb	Explain	)
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde  Problematic Hydro  ¹ Indicators of hydric hydrology must be pre  Definition of Veget  Tree - Woody plants,	t is > 50 ex is < 3 phytic V soil and esent, u ation 9 excluding	9% 8.01 Yegeta I wetla nless o	tion¹ (  and disturb	ed or es,	
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde  Problematic Hydro   ¹ Indicators of hydric hydrology must be pre	t is > 50 ex is < 3 phytic V soil and esent, u extion 9 excludin m) or r	9% 8.01 Vegeta I wetla nless o Strata ng woo	nnd disturb I: ody vin	ed or es, at and 3	3 in.
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde  Problematic Hydro  ¹ Indicators of hydric hydrology must be pre  Definition of Veget  Tree - Woody plants, approximately 20 ft (6	t is > 50 ex is < 3 phytic V soil and esent, u  ation ( excludin m) or r iameter ts, exclum) or r	9% 3.01 Vegeta I wetlanless of Strata Ing wood Ing wood Ing wood I wetlang wood I	nnd disturb :: ody vin n heigh east he	ed or es, at and 3 eight (D	3 in. BH).
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde  Problematic Hydro  ¹ Indicators of hydric hydrology must be pre  Definition of Veget  Tree - Woody plants, approximately 20 ft (6 (7.6 cm) or larger in d  Sapling - Woody plant approximately 20 ft (6	t is > 50 ex is < 3 phytic V soil and esent, u  ation ( excludin m) or r iameter ts, exclu m) or r 3H.	9% 8.01 I wetland wetland wetland work in at bree linners in architecturing work in archite	nnd disturb :: ody vin heigh east he woody h heigh	ed or es, it and 3 ight (D vines, it and l	3 in. BH). ess
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde ✓ Problematic Hydro  ¹ Indicators of hydric hydrology must be pre  Definition of Veget Tree - Woody plants, approximately 20 ft (6 (7.6 cm) or larger in d  Sapling - Woody plant approximately 20 ft (6 than 3 in. (7.6 cm) DB  Sapling/Shrub - Wood  Sapling/Shrub - Wood	soil and essent, u  soil and essent, u  sation sexcluding m) or riameter m) or riameter th, excluding the control of the contr	9% 8.01 I wetland wetland wetland work in at breading work in at breading work in a wo	tion¹ ( and disturb cody vin heigh east he woody heigh uding v 8 ft (1)	ed or  es, it and 3 ight (D vines, it and livines, livine	3 in. BH). ess
✓ 2 - Dominance Test ✓ 3 - Prevalence Inde ✓ Problematic Hydro  ¹ Indicators of hydric hydrology must be pre  □ Definition of Veget  Tree - Woody plants, approximately 20 ft (6 (7.6 cm) or larger in d  Sapling - Woody planta approximately 20 ft (6 than 3 in. (7.6 cm) DB  Sapling/Shrub - Woody than 3 in. DBH and green shrub - Woody plants	soil and essent, u  soil and essent, u  sation sexcluding m) or riameter ts, excluding m) or riameter the sexcluding m, excluding m, ex	9% 8.01 I wetland wetland wetland wetland wood wetland wood wetland wood wetland wetla	tion¹ ( and disturb  i: ody vin heigh east he woody heigh uding vin heigh cody vin heigh	ed or  es, it and 3 ight (D vines, It and II vines, It ines, it. , includ woody	Bin. BH). ess

Remarks: (	(If observed,	list mor	phological	adaptations	below).
Cilians, (	(II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1016\_WET\_E2EM\_D

Profile Description	on: (Describe to the d	epth needed to docu	ment the indicator o	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	( Colon (model)	Redox Features	1 1 2	<b>T-</b>	Ddes
0 - 16	Color (moist) 9/	•		Location <sup>2</sup>	Sandy Clay	Remarks
	20.11					
¹Type: C=Concentrati	ion, D=Depletion, RM=Red	uced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	itors:				Indicators for Problema	tic Hydric Soils <sup>3</sup> :
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) f (A5) (A6) (LRR P, T, U) feral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) face (A12) dox (A16) (MLRA 150A) feral (S1) (LRR O, S) feral (S4)	Thin D Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LF Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) alous Bright Loamy Soils	, T, U) (R O)  151) (LRR O, P, T) T, U) ) 50A, 150B) O) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	·				lydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Terr	minal SPM Project	Ci	ity/County: San Patrici	0	Sampling D	Pate: 2/8/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC		State:	TX Sam	pling Point:	WP1016_WET_E2USP_A
Investigator(s): B. Bringhu	rst & A. Ostrowski		Section	, Township, Range:	S N/A T	N/A <b>R</b> N/A
Landform (hillslope, terrace,	etc.): Flat	Lo	ocal relief (concave, c	convex, none): Flat		Slope: 0 % 0.0 °
Subregion (LRR): LRR T			<b>Lat:</b> 27.931466	Long: -97.	186326	Datum: NAD 83
Soil Map Unit Name: Aransa	s clay, saline (As)			NWI Classification	on: E2EM1N	
Are climatic/hydrologic cond	ditions on the site typical fo	or this time of vea	ır? Yes 🖜 N	─ lo	lain in Remark	(S <sub>1</sub> )
Are Vegetation , Se			intly disturbed?	Are "Normal Circum		
Are Vegetation , Se			y problematic?	(If needed, explain	•	
SUMMARY OF FINDINGS	_ , ,					-
Hydrophytic Vegetation Preser	nt? Yes •	No O				
Hydric Soil Present?	Yes •	No 🔘		Sampled Area a Wetland?	Ye	es   No
Wetland Hydrology Present?	Yes •	No O				
Remarks: Hydrophytic vegetation, hydric  HYDROLOGY	c soil, and wetland hydrology a	are present. This is a	a wetland.			
Wetland Hydrology Indica	itors:					
	um of one required; check	all that apply)		Secondary Inc	dicators (Minir	num of 2 required)
✓ Surface Water (A1)	•	Aquatic Fauna (B13	)	Sparse	ly Vegetated Co	ncave Surface (B8)
High Water Table (A2)		Marl Deposits (B15)	(LRR U)	Draina	ge Patterns (B10	0)
Saturation (A3)		Hydrogen Sulfide O			Γrim Lines (B16)	
Water Marks (B1)		•	res along Living Roots (0		ason Water Tab	le (C2)
Sediment Deposits (B2)		Presence of Reduce			sh Burrows (C8)	
Drift Deposits (B3) Algal Mat or Crust (B4)			ion in Tilled Soils (C6)			erial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (	•		orphic Position (I w Aquitard (D3)	J2)
Inundation Visible on Aer		Other (Explain in Re	emarks)		eutral Test (D5)	
Water-Stained Leaves (B9	5 , . ,				num moss (D8)	(LRR T, U)
•						(=::::, =)
Field Observations: Surface Water Present?	Yes   No	Depth (inches):	1			
Water Table Present?	Yes O No •	Depth (inches):				
Saturation Present?	Yes   No	Depth (inches):	0	Wetland Hydro	ology Present?	Yes   No
(includes capillary fringe)	163 🧼 110 🔘	Depair (menes).				
Describe Recorded Data (stre	eam gauge, monitor well, aeria	al photos, previous ir	nspections), if available:			
Remarks:						
mud flat						

|--|

	Dominant	Dominance Test worksheet:
	Absolute % Cover Status Species? Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
<u>Tree Stratum</u> (Plot Size : <u>30</u> )  1	0	Total Number of Dominant Species Across All Strata:1(B
2		Species Across All Strata.
3		Percent of Dominant Species
4	0	That are OBL, FACW, or FAC: 100.0% (A/B)
5		Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7	0	OBL species $5 \times 1 = 5$
8	0	FACW species $0 \times 2 = 0$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30 )		FACU species $0 \times 4 = 0$
1	0	UPL species $0 \times 5 = 0$
2	0 0.0%	Colum Totals: $5$ (A) $5$ (B)
	0 0.0%	(B)
3	0.0%	Prevalence Index = B/A=1.000_
4		Hydrophytic Vegetation Indicators:
5		
6		1 - Rapid Test for Hydrophytic Vegetation
7	0 0.0%	<b>✓</b> 2 - Dominance Test is > 50%
8		3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Shrub Stratum (Plot Size : 30 )	0.0%	
1		¹ Indicators of hydric soil and wetland
2		hydrology must be present, unless disturbed or
3		D (1) 11 (1) (1)
4		Definition of Vegetation Strata:
5		Tree - Woody plants, excluding woody vines,
6	0	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.0 cm) of larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
1 . Distichlis spicata	5 <u> 100.0%</u> OBL	approximately 20 ft (6 m) or more in height and less
2	0	than 3 in. (7.6 cm) DBH.
3	0	
4	0	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5		than 3 iii. DBH and greater than 3.26 it (1iii) tali.
6	0	Shrub - Woody plants, excluding woody vines,
7.	0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
8	0.0%	
9.	0.0%	Herb - All herbaceous (non-woody) plants, including
10	0.0%	herbaceous vines, regardless of size, and woody
11	0 0.0%	plants, except woody vines, less than approximately 3 ft (1 m) in height.
12	0 0.0%	3 it ( i m) in neight.
50% of Total Cover: 2.5 20% of Total Cover: 1	5 = Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30)		
1	0	
2	0	
3	0	Hydrophytic
4	0	Vegetation Yes • No
5	0	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Remarks: (If observed, list morphological adaptations below).		
Indicator suffix = National status or professional decision assigned bec	cause Regional status not defined by FWS.	

SOIL Sampling Point: WP1016\_WET\_E2USP\_A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features				
(inches)		Color (moist)	% Tvpe¹	Location <sup>2</sup>	Texture	Remarks	
0 - 16	10YR 6/2 1	00			Sandy Clay		
¹Type: C=Concentrat	on, D=Depletion, RM=Re	duced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	Lining, M=Matrix.		
Hydric Soil Indica	tors:				Indicators for Problema	tic Hydric Soils <sup>3</sup> :	
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Mir Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) (A5) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A2) (doc (A12) (A3) (LRR U) (A4) (A4) (A5) (A5) (A6)	Thin D Loamy Loamy  Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LF Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 151 ent Floodplain Soils (F19) solous Bright Loamy Soils	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (50A, 150B) 2) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland I unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)	
Restrictive Layer Type: Depth (inches):	· ,				ydric Soil Present? Ye	s ● No ○	
Remarks:							

Project/Site: Bluewater Ter	rminal SPM Project	City/Cou	unty: San Patricio	Sampling	<b>Date:</b> 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1016_WET_E2USP_B
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, F	Range: S N/A	T N/A R N/A
Landform (hillslope, terrace	, etc.): Flat	Local re	lief (concave, convex, none)	 <b>):</b> Flat	<b>Slope:</b> 0 % 0.0 °
Subregion (LRR): LRR T			7.931795 <b>Lo</b>	ng: -97.18585	Datum: NAD 83
Soil Map Unit Name: Dietric	ch loamy fine sand, 0 to 1 perc	ent slopes, very rarely flood	led (Dt) <b>NWI Clas</b>	sification: E2USP	
Are climatic/hydrologic con	ditions on the site typical f	or this time of vear?	Yes   No (If	no, explain in Remai	rks.)
	Soil , or Hydrology	significantly di		Circumstances" pre	
	Soil , or Hydrology	naturally probl		explain any answers	
SUMMARY OF FINDINGS	_ ,				-
Hydrophytic Vegetation Prese	ent? Yes •	No O			
Hydric Soil Present?	Yes •	No O	Is the Sampled Are within a Wetland?	a ,	Yes   No
Wetland Hydrology Present?	Yes •	No O	William a Wolland.		
Remarks: Hydrophytic vegetation, hydr  HYDROLOGY	ic soil, and wetland hydrology a	are present. This is a wetlar	nd.		
Wetland Hydrology Indica	ators:				
	num of one reauired: check	all that apply)	Secon	darv Indicators (Min	imum of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated C	Concave Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U	J)	Drainage Patterns (B	` '
✓ Saturation (A3)		Hydrogen Sulfide Odor (C1	)	Moss Trim Lines (B16	<b>5</b> )
Water Marks (B1)		Oxidized Rhizospheres alor	ng Living Roots (C3)	Dry Season Water Ta	ible (C2)
Sediment Deposits (B2)		Presence of Reduced Iron		Crayfish Burrows (C8	)
Drift Deposits (B3)		Recent Iron Reduction in T	illed Soils (C6)	Saturation Visible on	
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position	
☐ Iron Deposits (B5)☐ Inundation Visible on Ae	urial Imagany (P7)	Other (Explain in Remarks)		Shallow Aquitard (D3	
Water-Stained Leaves (B			_	FAC-Neutral Test (D5 Sphagnum moss (D8	•
				Spriagnum moss (D8	) (LRR 1, U)
Field Observations: Surface Water Present?	Yes No	Donth (inches)			
Water Table Present?	Yes No •	Depth (inches): Depth (inches):	_		
Saturation Present?			Wetlan	d Hydrology Present	t? Yes • No
(includes capillary fringe)	Yes   No	Depth (inches): 2	_	,,	🤍 🤍
Describe Recorded Data (str Remarks: mud flat	eam gauge, monitor well, aeria	ll photos, previous inspectio	ons), if available:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 1

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 . Salicornia bigelovii

50% of Total Cover: 2.5

**Woody Vine Stratum** 

1.\_

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0

0

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0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0% 0.0%\_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

5 ✓ \_100.0% \_OBL

0.0%

0.0%

0.0%

0.0% 0.0% 0.0%\_ \_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_ \_

= Total Cover

0.0%

0.0%

0.0%

Status

Sampling Point: WP1016_WET_E2USP_B
Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, ro FAC:
Total Number of Dominant Species Across All Strata: (B
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species $\underline{}$ $x 1 = \underline{}$
FACW species $0 \times 2 = 0$
FAC species $0 \times 3 = 0$
FACU species $0 \times 4 = 0$
UPL species $0 \times 5 = 0$
Colum Totals: $5$ (A) $5$ (B)
Prevalence Index = B/A= 1.000
Hydrophytic Vegetation Indicators:
<ul> <li>✓ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>✓ 2 - Dominance Test is &gt; 50%</li> <li>✓ 3 - Prevalence Index is ≤ 3.0¹</li> <li>Problematic Hydrophytic Vegetation¹ (Explain)</li> <li>¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or</li> </ul>
Definition of Vegetation Strata:
Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Woody vine - All woody vines, regardless of height.

3	0 0.0%	Hydrophytic Vegetation	Yes • No (	
5	0 0.0% 0 = Total Cover	Present ?		
and a CTE also and list or such also is also dente tions below.				

Remarks: (If observed, list morphological adaptations below).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1016\_WET\_E2USP\_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix					Features				
(inches)	Color (moist)	<u></u> —	Color (n		<u>%</u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks	
0 - 16	10YR 5/1	97	10YR	5/6	3		PL, M	Sandy Clay		
¹Type: C=Concentratio	on, D=Depletion, RM=	Reduced	Matrix, CS=	Covered	or Coate	d Sand Grains.	<sup>2</sup> Location: PL=Pore	e Lining, M=Matrix.		
Hydric Soil Indica	· · · · · · · · · · · · · · · · · · ·							Indicators for Problems	atic Hydric Soils <sup>3</sup> :	
	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T,	U)		Thin D Loamy Loamy Deplete Redox Deplete	ark Surfa Mucky M Gleyed I ed Matrix Dark Sur ed Dark I	rface (F6) Surface (F7)	S, T, U)	Piedmont Floodplain Anomalous Bright Loo Red Parent Material ( Very Shallow Dark Su	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) urface (TF12)	
1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Mine Sandy Gleyed Ma Sandy Redox (SS Stripped Matrix (	(LRR P, T) Dark Surface (A11) cce (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)		Marl (F Deplete Iron-M Umbrid Delta ( Reduce Piedmo	F10) (LRF ed Ochric anganes Surface Ochric (F ed Vertic ont Flood	c (F11) (MLRA e Masses (F12 (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA 1 lplain Soils (F1	) (LRR O, P, T) T, U) .) 150A, 150B) 9) (MLRA 149A)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer ( Type: Depth (inches):	` <i>'</i>							Hydric Soil Present? Υ	es • No O	
Remarks:										

Project/Site: Bluewater Te	erminal SPM Project	City/	County: San Patricio	Sampling	<b>Date:</b> 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1016_WET_E2USP_C
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Tov	wnship, Range: S N/A	T N/A R N/A
Landform (hillslope, terrace	e, etc.): #Error	Local	relief (concave, conv	ex, none): #Error	<b>Slope:</b> 0 % 0.0 °
Subregion (LRR): LRR T		Lat	<b>:</b> 27 <b>.</b> 931389	<b>Long:</b> -97.185934	Datum: NAD 83
Soil Map Unit Name: Dietri	ich loamy fine sand, 0 to 1 perc	ent slopes, very rarely fl	ooded (Dt)	IWI Classification: E2USP	
Are climatic/hydrologic con	nditions on the site typical f	or this time of year?	Yes (•) No (	(If no, explain in Remar	
	Soil , or Hydrology	_		"Normal Circumstances" pre	••
	Soil , or Hydrology	naturally pr	•	needed, explain any answers	
Are regetation	Join / or rivatology		oblematic. (II)	necaca, explain any answers	iii Kemarksiy
SUMMARY OF FINDING	S – Attach site map sho	wing sampling poi	nt locations, transe	cts, important features, e	tc.
Hydrophytic Vegetation Pres	ent? Yes •	No O	Is the Sam	nlad Araa	
Hydric Soil Present?	Yes •	No O	within a We		∕es ● No ○
Wetland Hydrology Present?	Yes •	No O			
Remarks: Hydrophytic vegetation, hydi	ric soil, and wetland hydrology	are present. This is a we	tland.		
		•			
HYDROLOGY					
Wetland Hydrology Indic	ators:				
Primary Indicators (Minin	mum of one required; check	<u>c all that apply)</u>		Secondary Indicators (Min	mum of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated C	oncave Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LR	· ·	Drainage Patterns (B	•
✓ Saturation (A3)		Hydrogen Sulfide Odor	• •	Moss Trim Lines (B16	
Water Marks (B1)		Oxidized Rhizospheres		Dry Season Water Ta	• •
Sediment Deposits (B2)		Presence of Reduced Ir		Crayfish Burrows (C8	
Drift Deposits (B3)		Recent Iron Reduction i	• •	Saturation Visible on	= : : :
✓ Algal Mat or Crust (B4)		Thin Muck Surface (C7)		✓ Geomorphic Position	
Iron Deposits (B5)		Other (Explain in Rema	rks)	Shallow Aquitard (D3	
Inundation Visible on Ae				✓ FAC-Neutral Test (D5	)
Water-Stained Leaves (E	39)			Sphagnum moss (D8)	(LRR T, U)
Field Observations:					
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No 💿	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes   No	Depth (inches):	2	Wetland Hydrology Present	:? Yes • No ·
	ream gauge, monitor well, aeria	al photos, previous inspe	ctions), if available:		
Describe Necestada Data (eta	ream gaage, memeer well, acris	ar priotos, previous mope	ociono), ii availablei		
Remarks:					
mud flat					

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0.6

20% of Total Cover: 0

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

1 . Salicornia bigelovii

50% of Total Cover: 1.5

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

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0 \_

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0

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Rel.Strat. Indicator

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0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0% 0.0% 0.0%\_

0.0%

0.0%

= Total Cover

3 ✓ \_100.0% \_OBL

0.0%

0.0%\_

0.0% 0.0%

0.0%

0.0%\_ \_ 0.0%

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= Total Cover

0.0%

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= Total Cover

0.0%

\_\_\_0.0%\_\_\_

= Total Cover

0.0%

Status

Sampling Point:	WP1016_WET_E2U	SP_C				
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC:		(A)				
Total Number of Dominant Species Across All Strata:	1	(B				
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%	(A/B)				
Prevalence Index worksheet:						
Total % Cover of:	Multiply by:					
OBL species 3	x 1 =3					
FACW species 0	x 2 =0					
FAC species 0	x 3 = 0					
FACU species 0	x 4 = 0					
UPL species 0	x = 0					
Colum Totals: 3	(A) <u>3</u>	(B)				
Prevalence Index = B/A=	1.000					
Hydrophytic Vegetation Indicators:  ✓ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0¹						
Problematic Hydrophytic  1 Indicators of hydric soil an hydrology must be present,	d wetland	,				
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diamete	ing woody vines, more in height and 3					
Sapling - Woody plants, exc approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.		ess				
Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.						
Shrub - Woody plants, exclu approximately 3 to 20 ft (1 to						
Herb - All herbaceous (non-wherbaceous vines, regardles plants, except woody vines, 3 ft (1 m) in height.	s of size, and woody					

D =l	/T6 - b	المعادمات والماسية	adaptations below)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

Woody vine - All woody vines, regardless of height.

Hydrophytic

Vegetation

Present ?

SOIL Sampling Point: WP1016\_WET\_E2USP\_C

Profile Descriptio	n: (Describe to th	e depth	needed t	o docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix					Features			
(inches)	Color (moist)	<u></u>	Color (n		<u></u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 6/1	70	10YR	5/6	30	<u>C</u>	PL, M	Sandy Clay	
¹Type: C=Concentration	on, D=Depletion, RM=	Reduced	Matrix, CS=	Covered	or Coated	l Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
5 cm Mucky Mine Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec	(A2)  (A5)  (A6) (LRR P, T, U)  eral (A7) (LRR P, T,  A8) (LRR U)  (LRR P, T)  Dark Surface (A11)	·		Thin D Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbrid	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi (10) (LRR ed Ochric anganese (1) Surface	face (F6) Surface (F7) ons (F8) U) C (F11) (MLRA	5, T, U) RR O) 151) ) (LRR O, P, T) T, U)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren	(O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Sandy Gleyed Ma Sandy Redox (SS Stripped Matrix ( Dark Surface (S7	5)			Reduce Piedmo	ed Vertic ont Flood	(F18) (MLRA : plain Soils (F1		unless	disturbed or problematic.
Restrictive Layer ( Type: Depth (inches):	•						•	Hydric Soil Present? Ye	es   No
Remarks:									

Project/Site: Bluewater Term	inal SPM Project	City/County	: San Patricio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips 66	Pipeline, LLC		State: TX S	Sampling Point:	WP1017_UP
Investigator(s): B. Bringhurs	st & A. Ostrowski		Section, Township, Rang	je: S N/A T N/A	R N/A
Landform (hillslope, terrace, e	etc.): Flat	Local relief	(concave, convex, none): Fl	at	<b>Slope:</b> 0 % 0.0 °
Subregion (LRR): LRR T			32002 <b>Long:</b> -	97.185221	Datum: NAD 83
Soil Map Unit Name: Dietrich	loamy fine sand, 0 to 1 percer	t slopes, very rarely flooded	(Dt) NWI Classifica	ation: PEM1J	<u> </u>
Are climatic/hydrologic condi	tions on the site typical for	this time of year?	 ∕es ● No	explain in Remarks.)	
Are Vegetation , Soi		significantly distu		cumstances" present?	Yes ● No ○
Are Vegetation , Soi		naturally problem		ain any answers in Re	9 9
Are regention		naturally problem	atic. (Il liceacu, expi	um umy umswers m ke	marksi)
SUMMARY OF FINDINGS -	- Attach site map show	ing sampling point loca	ations, transects, importa	ant features, etc.	
Hydrophytic Vegetation Present	t? Yes •	No O	Is the Sampled Area		
Hydric Soil Present?	Yes 🔾	No •	within a Wetland?	Yes	) No 🖭
Wetland Hydrology Present?	Yes O	No •			
Remarks:	and the second second				
Hydric soil and wetland hydrolo	gy are not present. This is not	a wetland.			
HYDROLOGY					
Wetland Hydrology Indicate	ors:				
Primary Indicators (Minimu		all that apply)	Secondary	Indicators (Minimum	of 2 required)
Surface Water (A1)	. , _	quatic Fauna (B13)	_	arsely Vegetated Concave	• •
High Water Table (A2)		larl Deposits (B15) (LRR U)		ainage Patterns (B10)	y carrace (po)
Saturation (A3)	☐ F	ydrogen Sulfide Odor (C1)		ss Trim Lines (B16)	
Water Marks (B1)		xidized Rhizospheres along L		/ Season Water Table (C2	2)
Sediment Deposits (B2)	P	resence of Reduced Iron (C4)		ayfish Burrows (C8)	,
Drift Deposits (B3)	□ R	ecent Iron Reduction in Tillec	Sat Soils (C6)	curation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)	□т	hin Muck Surface (C7)		omorphic Position (D2)	
Iron Deposits (B5)	c	ther (Explain in Remarks)	Sha	allow Aquitard (D3)	
Inundation Visible on Aeria			FAG	C-Neutral Test (D5)	
Water-Stained Leaves (B9)			Spl	hagnum moss (D8) (LRR	T, U)
Field Observations:					
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No 💿	Depth (inches):			
Saturation Present?	Yes O No •	Depth (inches):	Wetland Hy	/drology Present? Ye	es O No 💿
(includes capillary finige)			•		
Describe Recorded Data (strea	m gauge, monitor well, aerial	photos, previous inspections)	, if available:		
Remarks:					

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 19

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

Distichlis spicata

2. Spartina patens

3 . Opuntia lindheimeri

4 . Sabatia campestris 5 . Nothoscordum bivalve

6 . Helenium amarum

50% of Total Cover: 47

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_\_

**Herb Stratum** 

10.\_\_\_

1.\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_ 0

0 0

0

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0 0 Rel.Strat. Indicator

0.0%

0.0%\_

0.0%

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%\_

10.6% FACW

2.1% FACU

2.1% FACU

2.1% FACU

0.0%\_ \_\_\_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_

0.0%\_

0.0%\_

0.0% 0.0%

0.0%\_

= Total Cover

= Total Cover

3.2% UPL

\_\_\_0.0%\_

= Total Cover

75 **✓** \_\_\_79.8%\_\_OBL

0.0%\_

Status

	WP1017_UP	
Dominance Test worksheet:		
Number of Dominant Species That are OBL, FACW, ro FAC:	1_	_ (A)
		(//
Total Number of Dominant Species Across All Strata:	_1_	(B
Percent of Dominant Species That are OBL, FACW, or FAC:	_100.0%	<u>6</u> (A/B
Prevalence Index worksheet:		
Total % Cover of:	Multiply by:	
OBL species 75	x 1 =	75
FACW species10_	^	20
FAC species0	^ 3	0
FACU species 6	^	24
UPL species 3	^ -	15
Colum Totals: 94	(·)	34 (B)
Prevalence Index = B/A=	1.4	126_
Hydrophytic Vegetation Indic		
✓ 1 - Rapid Test for Hydrop	nytic Vegetation	1
✓ 2 - Dominance Test is > 5	-	
✓ 3 - Prevalence Index is ≤	3.0¹	
Problematic Hydrophytic	Vegetation¹ (Ex	plain)
<sup>1</sup> Indicators of hydric soil an hydrology must be present, i		l or
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or	Inless disturbed Strata: ing woody vines more in height	s, and 3 in.
Definition of Vegetation Tree - Woody plants, exclud	Strata: ing woody vines more in height: r at breast heig uding woody vi	s, and 3 in. ht (DBH). nes,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excapproximately 20 ft (6 m) or	Strata: ing woody vines more in height: r at breast heig uding woody vi more in height:	and 3 in. ht (DBH). nes, and less
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excapproximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	Strata: ing woody vines more in height i r at breast heig uding woody vi more in height i s, excluding vir nan 3.28 ft (1m) ding woody vines	s, and 3 in. ht (DBH). nes, and less nes, less ) tall.
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excapproximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plant than 3 in. DBH and greater the Shrub - Woody plants, excluding the same should be presented to	Strata: ing woody vines more in height a r at breast heig uding woody vi more in height a s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height. woody) plants, in s of size, and w	es, and 3 in. ht (DBH).  nes, and less  nes, less ) tall.  es,
Definition of Vegetation Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excapproximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants than 3 in. DBH and greater than 3 in. DBH and greater than 3 in. DBH and greater than 3 in. Woody plants, exclus approximately 3 to 20 ft (1 to the baceous vines, regardles plants, except woody vines, to the same plants of the present than 3 in. DBH and greater than 3 in. DBH and gr	Strata: ing woody vines more in height: r at breast heig uding woody vi more in height: s, excluding vir nan 3.28 ft (1m) ding woody vine 6 m) in height. woody) plants, in s of size, and w ess than appro	es, and 3 in. ht (DBH).  nes, and less  nes, less of tall.  es, necluding roody ximately

Remarks: (	(If observed,	list mor	phological	adaptations	below).
Cilians, (	(II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1017\_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	r confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/3 100				Sandy Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4)  f (A5)  (A6) (LRR P, T, U)  feral (A7) (LRR P, T, U)  (A8) (LRR U)  (LRR P, T)  Dark Surface (A11)  face (A12)  dox (A16) (MLRA 150A)  fieral (S1) (LRR O, S)  latrix (S4)	Thin Date of the Deplete of Tron-M. Umbric Delta C. Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LI Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 2) ont Floodplain Soils (F1 allous Bright Loamy Soils	5, T, U) 151) ) (LRR O, P, T) T, U) .) 150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rrface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	es ○ No ●
Remarks:						

Project/Site: Bluewater	r Terminal SPM Projec	t		City/County: San Patr	icio	Sampling Dat	<b>te:</b> 2/8	8/2019
Applicant/Owner: Phill	lips 66 Pipeline, LLC			State	e: TX San	mpling Point:	WP1017_W	ET_E2EM
Investigator(s): B. Brii	nghurst & A. Ostrows	ki		Section	on, Township, Range:	S N/A T N	N/A <b>R</b> N	i/A
Landform (hillslope, terr	r <b>ace, etc.):</b> Flat			Local relief (concave	, convex, none): Flat		Slope: 0	% 0.0 °
Subregion (LRR): LRR T				<b>Lat:</b> 27.932023	Long: -97	.18546	Datum:	NAD 83
Soil Map Unit Name: Di		d. 0 to 1 perc	cent slopes, verv	rarely flooded (Dt)	NWI Classification			
_	, , , , , , , , , , , , , , , , , , ,				_		`	
Are climatic/hydrologic		ite typical f				olain in Remarks.	_	
Are Vegetation	, Soil , or I	Hydrology	signi	ficantly disturbed?	Are "Normal Circur	nstances" presen	nt? Yes 🗨	No 🔾
Are Vegetation	, Soil , or I	Hydrology	natu	rally problematic?	(If needed, explain	any answers in	Remarks.)	
SUMMARY OF FINDII	NGS — Attach sit	e map sho	wing samplir	ng point locations, t	ransects, important	t features, etc.	ı	
Hydrophytic Vegetation P	······································	Yes •	No O					
Hydric Soil Present?		Yes •	No O		e Sampled Area n a Wetland?	Yes	No	
Wetland Hydrology Prese	ent?	Yes •	No O	Within	i a vvetianu:			
Remarks:				I				
Hydrophytic vegetation, h	nydric soil, and wetlar	nd hydrology	are present. This	s is a wetland.				
HYDROLOGY								
Wetland Hydrology In	dicators:							
Primary Indicators (M		uired: checl	k all that apply	)	Secondary In	ndicators (Minimu	ım of 2 reauire	d)
Surface Water (A1)	•		Aquatic Fauna (	•		ely Vegetated Conc	•	•
High Water Table (A	.2)		Marl Deposits (	•		age Patterns (B10)	.ave Surface (Do)	
Saturation (A3)			Hydrogen Sulfid			Trim Lines (B16)		
Water Marks (B1)				pheres along Living Roots		eason Water Table	(C3)	
Sediment Deposits (	B2)		Presence of Rec	•			(C2)	
Drift Deposits (B3)	52)			duction in Tilled Soils (C6)		ish Burrows (C8)	ial Imagam, (CO)	
	24)			• •		ation Visible on Aeri		
Algal Mat or Crust (E	) <del>1</del> )		Thin Muck Surfa			norphic Position (D2	1)	
Iron Deposits (B5)	- A L T (DZ)		Other (Explain i	n Remarks)		ow Aquitard (D3)		
	n Aerial Imagery (B7)					Neutral Test (D5)		
Water-Stained Leave	s (B9)				Sphag	gnum moss (D8) (LI	RR T, U)	
Field Observations:								
Surface Water Present?	Yes 🔾 No	$\odot$	Depth (inch	es):				
Water Table Present?	Yes 🔾 No	$\odot$	Depth (inch	es):				
Saturation Present?	Yes  No	0	Depth (inch	es): 4	Wetland Hydr	ology Present?	Yes • N	<b>6</b>
(includes capillary fringe	•)			· ——				
Describe Recorded Data	(stream gauge, moni	tor well, aeri	al photos, previo	us inspections), if available	e:			
Remarks:								

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 10

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

1 . Monanthochloe littoralis

50% of Total Cover: 25

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

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Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0%\_ 0.0%

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0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0%\_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

50 **✓** \_100.0% \_OBL 0.0%

0.0%

0.0% 0.0%

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0.0%\_ 0.0%\_

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\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling			_	7_WET_E2	_171
Dominance Test we					
Number of Dominant That are OBL, FACW,					(A)
Total Number of Dom Species Across All Str					(В
Percent of Dominant That are OBL, FACW,				100.0%	(A/B)
Prevalence Index v	worksheet:				
Total % Cover	of:	Mult	ipľ	y by:	_
OBL species	50_	x	1 :	=50_	
FACW species	0	X	2 :		
FAC species	0	X	3 :		
FACU species	0	X	4 :	=0	
UPL species	0	X	5 :		
Colum Totals:	50	(A	)	50	(B)
Prevalence Inc	dex = B/A=			1.000	
Hydrophytic Veget	ation Indic	ators			
✓ 2 - Dominance ✓ 3 - Prevalence  Problematic H	Index is ≤ ydrophytic	0% 3.0¹ Vege	tat	ion¹ (Expla	in)
✓ 2 - Dominance ✓ 3 - Prevalence	Test is > 5 Index is ≤ ydrophytic  dric soil an	0% 3.0¹ Vege	tat	ion¹ (Expla nd	ŕ
2 - Dominance 3 - Prevalence Problematic H	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, i	3.01 Vege d we	tla tla	ion¹ (Expla nd listurbed or	ŕ
2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation nts, exclud ft (6 m) or	3.01 Vege d we unles	tat	nd listurbed or : dy vines, height and	3 in.
2 - Dominance 3 - Prevalence Problematic Honoromy Indicators of hyhydrology must b  Definition of Very Tree - Woody pla approximately 20	e Test is > 5 Index is ≤ ydrophytic  rdric soil an e present, the egetation nts, exclud ft (6 m) or in diamete  plants, exc ft (6 m) or	ow 3.01 Vege d we unles Stra ing w more er at b	tat ta ta oc in ore	nd iisturbed or  dy vines, height and ast height ( voody vines	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic Hr  Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20	e Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation ints, excluding ft (6 m) or in diameter plants, exc ft (6 m) or in DBH.	3.01 Vege d wee stra ing w more r at b	tat ta ta ocin ore	nd isturbed or  dy vines, height and ast height ( voody vines, height and	3 in. DBH). , l less
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic Homeonic	e Test is > 5 Index is ≤ ydrophytic  rdric soil an e present, the egetation ints, excluding ft (6 m) or in diameter plants, exc ft (6 m) or in DBH.  Voody plant in digreater the egetation ints, excluding ants, excluding antis, excluding	3.01 Veger d were unless Stra ing w more for at b luding more ding 3	tat ta ta orine ore ore orin	nd iisturbed or  idy vines, height and ast height ( woody vines height and uding vines, 8 ft (1m) tal	3 in. DBH). , l less
2 - Dominance 3 - Prevalence Problematic Hr  Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - W than 3 in. DBH and	e Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation and the present of the egetation and the egetation are in diameter of the egetation and greater th	3.01 Veger d were unles Stra ing w more tts, ex han 3 ding g 6 6 m woody s of s	tat tla tat tat of in cluster in cluster tat tat of in cluster tat tat tat tat tat tat tat tat tat ta	nd isturbed or  dy vines, height and ast height ( woody vines, height and uding vines, f (1m) tal wody vines, height.	3 in. DBH).  i, less less l.

Damarke: (If ohearva	d list morphological	adantations holow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1017\_WET\_E2EM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Colon (modes)		Features	1 12 2		P
(inches)	Color (moist)	<u> </u>	Color (moist)	<u>%</u> -	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	85	10YR 5/6	15	<u>C</u>	PL, M	Sandy Clay	
<sup>1</sup> Type: C=Concentrat	tion, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coatec	d Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	ators:						<b>Indicators for Problem</b>	atic Hydric Soils <sup>3</sup> :
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surf Coast Prairie Re Sandy Muck Min Sandy Gleyed N Sandy Redox (S Stripped Matrix	de (A4) s (A5) (A6) (LRR P, T, U) neral (A7) (LRR P, T, (A8) (LRR U) ) (LRR P, T) Dark Surface (A11) face (A12) edox (A16) (MLRA 15 neral (S1) (LRR O, S) Matrix (S4)	0A)	Thin Da Loamy Loamy  Loamy  ✓ Deplete  Redox  Marl (F  Deplete  Iron-Ma  Umbric  Delta C  Reduce  Piedmo	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi E10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont Flood	rface (F6) Surface (F7) ions (F8) R U) c (F11) (MLRA e Masses (F12 (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA :	5, T, U) RR O)  151) ) (LRR O, P, T) T, U)	Piedmont Floodplain Anomalous Bright Lo Red Parent Material Very Shallow Dark St Other (Explain in Rer  3Indicators wetland unless	RR S) ) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) (TF2) urface (TF12)
Restrictive Layer Type: Depth (inches):		_		_			Hydric Soil Present? Yo	es • No 🔾
Remarks:								

Project/Site: Bluewater Ter	minal SPM Proj	ect		City/County: San Patr	icio	Sampling [	<b>Date:</b> 2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC			State	e: TX	Sampling Point:	WP1018_WET_PEM
Investigator(s): B. Bringhu	ırst & A. Ostrov	vski		Section	on, Township, R	tange: S N/A	T N/A R N/A
Landform (hillslope, terrace	, etc.): Flat			Local relief (concave	, convex, none)	: Concave	Slope: 1 % 0.6
Subregion (LRR): LRR T				<b>Lat:</b> 27.9313		ng: -97.182809	Datum: NAD 83
Soil Map Unit Name: Dietric	ch loamy fing ca	and 0 to 1 per	cent clones very			sification: None	
	· ·			, , ,	_		
Are climatic/hydrologic con	ditions on the	site typical 1	for this time of	year? Yes (●)	No (If i	no, explain in Remarl	(S.)
Are Vegetation , S	Soil , o	r Hydrology	signi	ificantly disturbed?	Are "Normal	Circumstances" pres	sent? Yes 💿 No 🔾
Are Vegetation , S	Soil , o	r Hydrology	natu	rally problematic?	(If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDINGS	5 – Attach si	ite map sho	wing samplir	ng point locations, t	ransects, imp	ortant features, el	tc.
Hydrophytic Vegetation Prese	:nt?	Yes 💿	No O	le the	e Sampled Area	2	
Hydric Soil Present?		Yes 💿	No 🔘		n a Wetland?	a Y	es   No
Wetland Hydrology Present?		Yes 💿	No O				
Hydrophytic vegetation, hydri	c soil, and wetl	and hydrology	are present. This	s is a wetland.			
Wetland Hydrology Indica	ators:						
Primary Indicators (Minim	num of one re	quired; chec	k all that apply	)	Second	dary Indicators (Minii	mum of 2 required)
✓ Surface Water (A1)			Aquatic Fauna (	(B13)		Sparsely Vegetated Co	oncave Surface (B8)
High Water Table (A2)			Marl Deposits (I	•		Drainage Patterns (B1	• •
✓ Saturation (A3)			Hydrogen Sulfic			Moss Trim Lines (B16)	•
Water Marks (B1)			· -	spheres along Living Roots	(C3)	Dry Season Water Tab	
Sediment Deposits (B2)			Presence of Red	duced Iron (C4)		Crayfish Burrows (C8)	
Drift Deposits (B3)			Recent Iron Rec	duction in Tilled Soils (C6)		Saturation Visible on A	
Algal Mat or Crust (B4)			Thin Muck Surfa	ace (C7)		Geomorphic Position (	
Iron Deposits (B5)			Other (Explain i	in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae	rial Imagery (B	7)		•	✓	FAC-Neutral Test (D5)	)
Water-Stained Leaves (B	9)					Sphagnum moss (D8)	(LRR T, U)
Field Observations:							
Surface Water Present?	Yes   N	lo O	Depth (inch	nes): 3			
Water Table Present?	Yes O N	lo	Depth (inch				
Saturation Present? (includes capillary fringe)	Yes   N	o ()	Depth (inch		Wetlan	d Hydrology Present?	? Yes • No O
Describe Recorded Data (str		onitor well, aeri	al photos, previo	us inspections), if availabl	e:		
Remarks:							

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

1 . Spartina patens 2 . Distichlis spicata

3 . Eleocharis minima

4 . Panicum virgatum

5 . Marsilea macropoda

50% of Total Cover: 43

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0

0

0

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Rel.Strat. Indicator

0.0%\_

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0.0% 0.0%

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0%\_ 0.0%

0.0%

0.0%

0.0% = Total Cover

50 **✓** \_\_58.8%\_\_FACW

23.5% OBL 5.9%\_\_OBL

5.9% FAC

5.9% OBL

0.0%

0.0%\_ \_ 0.0%\_

0.0%\_

0.0%\_ 0.0%

0.0%\_ \_

0.0%

0.0%

0.0%

0.0%

0.0%

= Total Cover

Vegetation

Present ?

= Total Cover

0.0%

0.0%

Status

Dominance Test wor	ksheet:		<del></del>	
Number of Dominant Sp	oecies			
That are OBL, FACW, ro	FAC:		2	(A)
Fotal Number of Domina	ant			
Species Across All Strata	а:		2	(B
Percent of Dominant Sp That are OBL, FACW, or			100.0%	(A/B)
Prevalence Index wo	rksheet:			
Total % Cover of:		Multipl	y by:	_
OBL species	30	x 1		
FACW species	50	x 2	45	
FAC species	5	x 3		
FACU species	0	x 4		
JPL species	0	x 5		
Colum Totals:	85	(A)	145	(B)
Prevalence Index	x = B/A=		1.706	
<ul> <li>✓ 1 - Rapid Test fo</li> <li>✓ 2 - Dominance To</li> <li>✓ 3 - Prevalence Ir</li> </ul>	r Hydroph est is > 50	ytic Ve	egetation	
<ul><li>✓ 1 - Rapid Test fo</li><li>✓ 2 - Dominance Telephone</li></ul>	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, u	ytic Ve 0% 3.01 (egetal l wetla nless c	tion¹ (Explai nd listurbed or	in)
	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, un etation S s, excludir (6 m) or n	ytic Ve 0% 3.0 <sup>1</sup> Yegetal I wetla nless c 6trata ng woo nore in	ind listurbed or : ody vines,	3 in.
	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, un retation S s, excludir (6 m) or n n diameter ants, exclu (6 m) or n	ytic Ve 0% 3.01 Vegetal I wetlanless concerning wood nore in at breauding wood	ind listurbed or  cody vines, height and last height (l	3 in. DBH).
	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, un retation S s, excludir (6 m) or n n diameter ants, exclu (6 m) or n DBH.	ytic Ve 0% 3.01 Vegetal I wetlan nless concretion at breachers in at breachers in	ind listurbed or  cody vines, height and last height (last height and	3 in. DBH). , less
	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, un etation S s, excludir (6 m) or n n diameter ants, exclu (6 m) or n DBH. rody plants greater th nts, exclud	ytic Ve 0% 3.01 Vegetal I wetlan nless concerning wood nore in at breading wood uding wood and an	ind listurbed or  cody vines, height and last height (listurbed or height and last height (listurbed or listurbed or listu	3 in. DBH). , less
✓ 2 - Dominance Town of the problematic Hyden of the Hyden o	r Hydroph est is > 50 ndex is ≤ 3 rophytic V ric soil and present, un estation S s, excludir (6 m) or n odiameter ants, exclud (6 m) or n DBH. rody plants greater th nts, exclud 20 ft (1 to un egardless	ytic Ve 0% 3.01 Vegetal I wetlan nless concerning wood nore in at breading wood and 3.2 ling wood 6 m) in oody) of size	ind listurbed or  cody vines, height and last height (listurbed or  disturbed or  cody vines, height and last height (listurbed or  listurbed or  cody vines, height and listurbed or  l	3 in. DBH). , less less l. ding

	_		
Remarks: (If observed,	list morphological adaptati	ons below).	

20% of Total Cover: 0

20% of Total Cover: 17

(Plot Size : 30 )

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1018\_WET\_PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix	( Colon (model)	Redox Features	1 1 2	<b>T.</b>	Ddes	
0 - 16	Color (moist) 9/	•		Location <sup>2</sup>	Sandy Clay	Remarks	
	20.11						
¹Type: C=Concentrati	ion, D=Depletion, RM=Red	uced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.		
Hydric Soil Indica	itors:				Indicators for Problema	tic Hydric Soils <sup>3</sup> :	
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) f (A5) (A6) (LRR P, T, U) feral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) face (A12) dox (A16) (MLRA 150A) feral (S1) (LRR O, S) feral (S4)	Thin D Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LF Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) alous Bright Loamy Soils	, T, U) (R O)  151) (LRR O, P, T) T, U) ) 50A, 150B) O) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)	
Restrictive Layer Type: Depth (inches):	·				lydric Soil Present? Ye	s • No 🔾	
Remarks:							

City/County: San Patricio

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1019_UP
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, R	ange: S N/A T i	N/A <b>R</b> N/A
Landform (hillslope, terrace, etc.): Flat	Local reli	— ief (concave, convex, none)	: Convex	<b>Slope:</b> 2 % 1.1 °
Subregion (LRR): LRR T		.931486 <b>Lo</b> r	<b>ig:</b> -97.182893	Datum: NAD 83
Soil Map Unit Name: Dietrich loamy fine sand, 0	to 1 percent slopes, very rarely floods	ed (Dt) <b>NWI Class</b>	sification: None	
Are climatic/hydrologic conditions on the site	tunical for this time of year?	Yes  No (If r	no, explain in Remarks.	١
Are Vegetation, Soil, or Hyd	J		Circumstances" preser	
Are Vegetation, Soil, or Hyd	rology naturally proble	ematic? (IT needed, 6	explain any answers in	Kemarks.)
SUMMARY OF FINDINGS — Attach site m	ap showing sampling point l	ocations, transects, imp	ortant features, etc.	•
Hydrophytic Vegetation Present?	Yes   No			
	Yes O No 💿	Is the Sampled Area within a Wetland?	Yes	O No •
Wetland Hydrology Present?	Yes O No •	Willim a Wolland.		
Remarks:				
Hydrophytic vegetation, hydric soil, and wetland h	ydrology are not present. This is not a	wetland.		
, , , , , , , ,				
LIVERGLOCY				
HYDROLOGY				
Wetland Hydrology Indicators:  Primary Indicators (Minimum of one require	du chook all that apply)	Cogone	lan, Indicators (Minim	um of 2 required)
		<u>Second</u>	dary Indicators (Minimu	• •
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Cond	cave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U		Drainage Patterns (B10)	
Saturation (A3)  Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	(63)
Sediment Deposits (B2)	Oxidized Rhizospheres along Presence of Reduced Iron (	_	Dry Season Water Table	(C2)
Drift Deposits (B3)	Recent Iron Reduction in Til	_	Crayfish Burrows (C8)	ial Imagam, (CO)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Saturation Visible on Aer Geomorphic Position (D2	
Iron Deposits (B5)	Other (Explain in Remarks)		Shallow Aquitard (D3)	-)
Inundation Visible on Aerial Imagery (B7)	Ctrer (Explain in Remarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (L	RR T II)
			- Springrium mess (20) (2	
Field Observations:				
Surrace Water Western Feb 5 116	Depth (inches):	_		
Water Table Present? Yes No Saturation Present?	Depth (inches):		d Hydrology Present?	Voc. O No O
(includes capillary fringe) Yes No	Depth (inches):	wetland	a nyarology Present:	Yes ∪ No •
Describe Recorded Data (stream gauge, monitor	well, aerial photos, previous inspection	ns), if available:		
	, , , , , , , , , , , , , , , , , , , ,	,,		
Remarks:				

**Project/Site:** Bluewater Terminal SPM Project

Sampling Date:

2/8/2019

	Dominant	
	Species? Absolute Rel.Strat. Indicator	Dominance Test worksheet:  Number of Dominant Species
<u>e Stratum</u> (Plot Size : <u>30</u> )	% Cover Cover Status	That are OBL, FACW, ro FAC: (A)
•	00.0%	Total Number of Dominant Species Across All Strata: 2 (B
		Species Across All Strata: 2 (B
		Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/
-		That are obly then, of the
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $82 \times 3 = 246$
ling or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $10 \times 4 = 40$
	00.0%	UPL species $10 \times 5 = 50$
		Colum Totals: <u>102</u> (A) <u>336</u> (E
		Prevalence Index = B/A= 3.294
		Hydrophytic Vegetation Indicators:
		✓ 1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
ub Stratum (Plot Size : 30 )		
Prosopis alandulosa	10 🗸100.0%UPL	1 Todisakova of hudris asil and wetland
		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
		Definition of Vegetation Strata:
	0	Tree - Woody plants, excluding woody vines,
	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 5 20% of Total Cover: 2	10 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH)
<b>b Stratum</b> (Plot Size : <u>30</u> )		Sapling - Woody plants, excluding woody vines,
. Panicum viraatum	80_ 🗹87.0%_ FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Lvsimachia arvensis		than 3 iii. (7.6 cm) DBH.
. Andropogon virginicus	2 2.2% FAC	Sapling/Shrub - Woody plants, excluding vines, less
	0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
-		
		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
-		
		Herb - All herbaceous (non-woody) plants, including
		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
		3 ft (1 m) in height.
	0	, , ,
50% of Total Cover: 46 20% of Total Cover: 18	92 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		
-		
		Hydrophytic
-		Vegetation Yes • No Present ?
	0.0%	
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1019\_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox Features				
(inches)	Color (moist) _ %	Color (moist)		Location <sup>2</sup>	Texture	Remarks	
0 - 16	10YR 4/3 100				Sandy Clay		
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-		
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils³:	
5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4)  f (A5)  (A6) (LRR P, T, U)  feral (A7) (LRR P, T, U)  (A8) (LRR U)  (LRR P, T)  Dark Surface (A11)  face (A12)  dox (A16) (MLRA 150A)  fieral (S1) (LRR O, S)  latrix (S4)	Thin Date of the Deplete of Tron-M. Umbric Delta C. Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LI Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 2) ont Floodplain Soils (F1 allous Bright Loamy Soils	5, T, U) 151) ) (LRR O, P, T) T, U) .) 150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rrface (TF12)	
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	es ○ No ●	
Remarks:							

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patri	icio	Sampling Date:	2/8/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX	Sampling Point: W	P1019_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section	on, Township, Ran	ge: S N/A T N/A	R N/A
 Landform (hillslope, terrace	e, <b>etc.):</b> Flat	Local relief (concave,	convex, none):	Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.931604	-	-97.183096	Datum: NAD 83
	ch loamy fine sand, 0 to 1 percent :			cation: None	1775 05
Dieure	cirioanty line sand, o to 1 percent s	siopes, very rarely flooded (Dt)	— NWI Classific	TONE	
Are climatic/hydrologic con	ditions on the site typical for t	his time of year? Yes   •	No (If no,	explain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology	significantly disturbed?	Are "Normal Ci	rcumstances" present?	Yes 💿 No 🔾
Are Vegetation, S	Soil , or Hydrology	naturally problematic?	(If needed, exp	lain any answers in Rem	arks.)
SUMMARY OF FINDINGS	S – Attach site map showin	g sampling point locations, tr	ansects, import	tant features, etc.	
Hydrophytic Vegetation Prese	ent? Yes N	0 •	Committed Area		
Hydric Soil Present?	Yes   N		e Sampled Area n a Wetland?	Yes 🔘	No 💿
Wetland Hydrology Present?	Yes   N				
Hydrophytic vegetation, hydr  HYDROLOGY	ic soil, and wetland hydrology are p	oresent. This is a wetland.			
Wetland Hydrology Indica	ators:				
	num of one required; check all	that apply)	Secondar	v Indicators (Minimum o	f 2 required)
✓ Surface Water (A1)		iatic Fauna (B13)		parsely Vegetated Concave S	. ,
High Water Table (A2)		l Deposits (B15) (LRR U)		rainage Patterns (B10)	burrace (bo)
✓ Saturation (A3)		lrogen Sulfide Odor (C1)		oss Trim Lines (B16)	
Water Marks (B1)		dized Rhizospheres along Living Roots		ry Season Water Table (C2)	
Sediment Deposits (B2)		sence of Reduced Iron (C4)		rayfish Burrows (C8)	
Drift Deposits (B3)		ent Iron Reduction in Tilled Soils (C6)		aturation Visible on Aerial In	nagery (C9)
Algal Mat or Crust (B4)		n Muck Surface (C7)		eomorphic Position (D2)	lagery (es)
Iron Deposits (B5)		er (Explain in Remarks)		hallow Aquitard (D3)	
Inundation Visible on Ae		er (Explain in Ternano)		AC-Neutral Test (D5)	
Water-Stained Leaves (B	9)			phagnum moss (D8) (LRR T	, U)
Field Observations					,
Field Observations: Surface Water Present?	Yes   No	Depth (inches): 1			
Water Table Present?		Depth (inches): 1			
Saturation Present?			Wetland H	lydrology Present? Yes	• No
(includes capillary fringe)	Yes   No	Depth (inches): 0	Weekana n	rydrology i resent: Tes	
Describe Recorded Data (str	eam gauge, monitor well, aerial ph	otos, previous inspections), if available	e:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 . Spartina patens

2. Eleocharis minima 3 . Marsilea macropoda

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_ 0

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100

90 🗸

Rel.Strat. Indicator

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%\_

90.0% FACW

3.0% OBL

7.0% OBL

0.0%

0.0%\_

0.0%\_ 0.0%\_ \_ 0.0%

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0.0%\_ 0.0%

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0.0% 0.0%\_

0.0%

= Total Cover

= Total Cover

\_\_\_0.0%\_

= Total Cover

0.0%

0.0%\_

Status

Dominance Test w	orksheet:			
Number of Dominant				
That are OBL, FACW	, ro FAC:			(A)
Total Number of Dor	ninant			
Species Across All St			2	(B
Percent of Dominant	Species			
That are OBL, FACW			50.0%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multip	y by:	_
DBL species	10	x 1	=10	
ACW species	90	x 2	=180	
AC species	0	x 3	=0	
ACU species	0	x 4		
JPL species	0	x 5		
Colum Totals:	102	(A)	336	(B)
Prevalence In	dex = B/A=		3.294	
Hydrophytic Vege	tation India	ators		
2 - Dominance 3 - Prevalence Problematic H	e Index is ≤ lydrophytic \	3.0¹ Vegeta		n)
3 - Prevalence Problematic H	e Index is ≤ lydrophytic \ ydric soil and	3.0¹ Vegeta	ind	n)
3 - Prevalence Problematic H  1 Indicators of hydrology must b	e Index is ≤ lydrophytic \ ydric soil and pe present, u	3.0¹ Vegeta d wetla inless o	ind listurbed or	n)
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b	e Index is ≤ lydrophytic \ ydric soil and be present, u egetation	3.0¹ Vegeta  d wetla inless o	nd disturbed or	n)
3 - Prevalence Problematic H  1 Indicators of hydrology must b  Definition of V  Tree - Woody pla	e Index is \( \leq \) lydrophytic \( \leq \) lydric soil and the present, the present, the legetation ants, excluding the legetation and the legetatio	3.01 Vegeta  d wetla inless o  Strata	ind disturbed or :	
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b	e Index is \( \leq \) lydrophytic \( \leq \) lydric soil and the present, the legetation ants, excluding the legetation of the legetation and the	3.01 Vegeta d wetla inless o Strata ng woo more ir	and disturbed or : ody vines, n height and	3 in.
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or large	e Index is ≤ lydrophytic v ydric soil and be present, t  egetation ants, excludi of (6 m) or r in diamete	d wetlands of wetl	ind disturbed or : ody vines, n height and east height (l	3 in. OBH).
3 - Prevalence Problematic H  1 Indicators of hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody	e Index is <a href="#">Index is <a href="#">Index is <a href="#">Index in Index in I</a></a></a>	3.01 Vegetar d wetlaunless of Strata ing woo more irr at bre uding v	and disturbed or :: ody vines, n height and east height (I	3 in. OBH).
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or large	e Index is ≤ lydrophytic \ lydric soil and loe present, the loe present, the loe present is leave to the look of	3.01 Vegetar d wetlaunless of Strata ing woo more irr at bre uding v	and disturbed or :: ody vines, n height and east height (I	3 in. OBH).
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large  Sapling - Woody approximately 20 than 3 in. (7.6 cm)	e Index is <a href="#">Index is <a href="#">Index is <a href="#">Index in Index in I</a></a></a>	3.01 Vegeta d wetla inless o  Strata ng woo more ir r at bre uding v	and disturbed or ody vines, a height and east height (I woody vines a height and	3 in. DBH).
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm	e Index is ≤ lydrophytic \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3.0¹ Vegeta d wetla unless o  Strata ng woo more ir r at bre uding v more ir	and disturbed or d	3 in. DBH). , less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large  Sapling - Woody approximately 20 than 3 in. (7.6 cm)	e Index is ≤ lydrophytic \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3.0¹ Vegeta d wetla unless o  Strata ng woo more ir r at bre uding v more ir	and disturbed or d	3 in. DBH). , less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH and	e Index is ≤ lydrophytic volume for present, to egetation ants, excluding from the plants, excluding from the plants of the pla	d wetla inless of Strata ng woo more ir r at bre uding woo more ir	and disturbed or i: ody vines, in height and east height (I woody vines in height and uding vines, 8 ft (1m) tall pody vines,	3 in. DBH). , less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - W than 3 in. DBH and	e Index is ≤ lydrophytic volume for present, to egetation ants, excluding from the plants, excluding from the plants of the pla	d wetla inless of Strata ng woo more ir r at bre uding woo more ir	and disturbed or i: ody vines, in height and east height (I woody vines in height and uding vines, 8 ft (1m) tall pody vines,	3 in. DBH). , less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - Woody pla approximately 3 the same shrub - Woody pla approximately -	e Index is ≤ lydrophytic v lydric soil and be present, t lydric soil and be present, t lydric soil and be present, t lydric soil and lydric s	d wetland wetlandess of trata ng woo more ir at breading woo more ir s, excluding wood of m) in the control of m) in the control of the contr	and disturbed or  by cody vines, a height and cody vines a height and uding vines, 8 ft (1m) tall cody vines, a height.	3 in. DBH). , less less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - Woody pla Shrub - Woody pla approximately 3 therb - All herbace	e Index is ≤ lydrophytic volume lydric soil and be present, to legetation legetation ants, excludion of the form of the following plants, excludion of the following plants of the following plants, excludion of the following plants of the	d wetlandess of the second of	and listurbed or  i: ody vines, in height and east height (I woody vines in height and uding vines, 8 ft (1m) tall body vines, in height.	3 in. DBH). , less less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm  Sapling/Shrub - V than 3 in. DBH and Shrub - Woody p approximately 3 the same of t	e Index is <a href="#">Index is <a href="#">Index is <a href="#">Index in <a href="#">Index i</a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a>	d wetlandess of the second of	and listurbed or  i: ody vines, in height and east height (I woody vines, in height and uding vines, 8 ft (1m) tall body vines, in height.  plants, inclue, and wood	3 in. DBH). , less less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm  Sapling/Shrub - V than 3 in. DBH and Shrub - Woody p approximately 3 the same of t	e Index is <a href="#">Index is <a href="#">Index is <a href="#">Index in <a href="#">Index i</a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a>	d wetlandess of the second of	and listurbed or  i: ody vines, in height and east height (I woody vines, in height and uding vines, 8 ft (1m) tall body vines, in height.  plants, inclue, and wood	3 in. DBH). , less less
3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm  Sapling/Shrub - V than 3 in. DBH and Shrub - Woody p approximately 3 the same of t	e Index is ≤ lydrophytic v lydric soil and lyd	d wetland wetland wetland wetland some in the wetland	and disturbed or  by cody vines, a height and east height (I woody vines, a height and uding vines, 8 ft (1m) tall body vines, a height.  plants, inclue, and wood an approxima	3 in. DBH). , less less less ,

	(7.6 )	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1019\_WET\_PEM

Profile Description	on: (Describe to the de	epth needed to docu	ment the indicator or	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	Colon (moist)	Redox Features	Leastieu2	Tantuna	Damanka
0 - 16	Color (moist)		Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture Silty Clay	Remarks
	ion, D=Depletion, RM=Redu	uced Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore	-	
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2) ) e (A4) s (A5) (A6) (LRR P, T, U) deral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) doc (A12) dox (A16) (MLRA 150A) deral (S1) (LRR O, S) latrix (S4) 5	Thin D Loamy Loamy  Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	ue Below Surface (S8) ( ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) e10) (LRR U) ed Ochric (F11) (MLRA 1 anganese Masses (F12) e1 Surface (F13) (LRR P, 1 cohric (F17) (MLRA 151) e1 Vertic (F18) (MLRA 151)	, T, U) R O)  151) (LRR O, P, T) T, U) ) 50A, 150B) v) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):					lydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Terminal SPI	M Project	City/County: San Patr	icio	Sampling Date:	2/11/2019
Applicant/Owner: Phillips 66 Pipelin	ie, LLC	State	: TX	Sampling Point:	WP1020_UP
Investigator(s): B. Bringhurst & A. (	Ostrowski	Section	on, Township, Ra	ange: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave,	, convex, none):	Convex	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.930113	Long	g: -97.182068	Datum: NAD 83
Soil Map Unit Name: Dietrich loamy	fine sand, 0 to 1 percent slopes, ve	ery rarely flooded (Dt)	NWI Classi	fication: None	
Are climatic/hydrologic conditions o	on the site typical for this time	of year? Yes 💿	— No ○ (If no	o, explain in Remarks.)	
Are Vegetation, Soil		gnificantly disturbed?	9 -	Circumstances" present?	Yes ● No ○
Are Vegetation , Soil		aturally problematic?		xplain any answers in Rei	
Are regetation		rearrany problematic.	(II liceacu, c.	cpium uny unswers in Rei	narksi)
SUMMARY OF FINDINGS — Atta	ich site map showing samp	ling point locations, to	ansects, impo	rtant features, etc.	
Hydrophytic Vegetation Present?	Yes   No	ls the	Sampled Area		
Hydric Soil Present?	Yes No •		n a Wetland?	Yes C	) No ●
Wetland Hydrology Present?	Yes No •				
Remarks:					
Hydric soil and wetland hydrology are	not present. This is not a wetland.				
LIVEROLOGY					
HYDROLOGY					
Wetland Hydrology Indicators:  Primary Indicators (Minimum of o	one required, check all that an	alv)	Socond	arv Indicators (Minimum	of 2 required)
, , ,		• •		,	. ,
Surface Water (A1) High Water Table (A2)	Aquatic Faun	na (B13) s (B15) (LRR U)		Sparsely Vegetated Concave	: Surface (B8)
Saturation (A3)		Ilfide Odor (C1)		Drainage Patterns (B10) Moss Trim Lines (B16)	
Water Marks (B1)		zospheres along Living Roots		Dry Season Water Table (C2	2)
Sediment Deposits (B2)		Reduced Iron (C4)		Crayfish Burrows (C8)	y
Drift Deposits (B3)		Reduction in Tilled Soils (C6)		Saturation Visible on Aerial I	imagery (C9)
Algal Mat or Crust (B4)	Thin Muck So	• •		Geomorphic Position (D2)	magery (cs)
Iron Deposits (B5)		in in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Image		iii iii Kemarkoj		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)	, , ,			Sphagnum moss (D8) (LRR	T, U)
Field Observations:		Ī			
Surface Water Present? Yes	No • Depth (ir	nches):			
Water Table Present? Yes	r · · ·	, ————————————————————————————————————			
Caturation Procent?	• •		Wetland	Hydrology Present? Ye	es O No 💿
(includes capillary fringe) Yes	No • Depth (ir	ncnes):		,	
Describe Recorded Data (stream gaug	ge, monitor well, aerial photos, pre	vious inspections), if available	e:		
Remarks:					

	Dominant Species? Absolute Bol Street Indicator	Dominance Test worksheet:
	% Cover Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
Stratum (Plot Size : 30)	0.00/	Total Number of Dominant
	0.0%	Species Across All Strata: 2 (B
		Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/E
		That are OBE, FACW, OF FAC.
		Prevalence Index worksheet:
	0	Total % Cover of: Multiply by:
	0	OBL species <u>45</u> x 1 = <u>45</u>
	0	FACW species $5 \times 2 = 10$
% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $50 \times 3 = 150$
ng or Sapling/Shrub Stratum (Plot Size : 30 )		FACU species $0 \times 4 = 0$
	0.0%	UPL species $0 \times 5 = 0$
		Colum Totals: 100 (A) 205 (B)
		Prevalence Index = B/A= 2.050
		Hydrophytic Vegetation Indicators:
		✓ 1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is > 50%
0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	3 - Prevalence Index is ≤ 3.0¹
		Problematic Hydrophytic Vegetation¹ (Explain)
Stratum (Plot Size : 30)		
		<sup>1</sup> Indicators of hydric soil and wetland
		hydrology must be present, unless disturbed or
	0	Definition of Vegetation Strata:
	0	Tree - Woody plants, excluding woody vines,
	0 0.0%	approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
Stratum (Plot Size : 30 )		Sapling - Woody plants, excluding woody vines,
Distichlis spicata	45 🗸 45.0% OBL	approximately 20 ft (6 m) or more in height and less
Panicum virgatum	40 <b>✓</b> 40.0% _FAC	than 3 in. (7.6 cm) DBH.
Andropogon gerardii	1010.0%FAC	
Spartina patens	5.0% FACW	Sapling/Shrub - Woody plants, excluding vines, less
Sociality Baccing		than 3 in. DBH and greater than 3.28 ft (1m) tall.
		Shrub - Woody plants, excluding woody vines,
		approximately 3 to 20 ft (1 to 6 m) in height.
		I lank All banks are described by the described by
		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately
		3 ft (1 m) in height.
	0	
9% of Total Cover: 50 20% of Total Cover: 20	100 = Total Cover	Woody vine - All woody vines, regardless of height.
dy Vine Stratum (Plot Size : 30)		
		Hydrophytic
	0	Vegetation Yes • No
		Present ?
	0	

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1020\_UP

Profile Description	on: (Describe to the	e depth ne	eded to docur	nent the	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				eatures			
(inches)	Color (moist)		olor (moist)	<u></u> _	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/3	95 10	OYR 4/6	5		M	Sandy Clay	
'Type: C=Concentrati	on, D=Depletion, RM=F	Reduced Mat	rix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore	Indicators for Problem	
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfid Stratified Layers Organic Bodies ( 5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 eral (S1) (LRR O, S) atrix (S4)		Thin Da Loamy Loamy Deplete Redox   Marl (F Deplete Iron-Ma Umbric Delta O Reduce	ark Surface Mucky M Gleyed M d Matrix Dark Surf d Dark S Depressic 10) (LRR d Ochric anganese Surface ( chric (F1 d Vertic)	ce (S9) (LRR Sineral (F1) (LF) flatrix (F2) (F3) face (F6) furface (F7) fons (F8) U) (F11) (MLRA Masses (F12) (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA 1	151) ) (LRR O, P, T) T, U)	1 cm Muck (A9) (LRF 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain Anomalous Bright Lo. Red Parent Material ( Very Shallow Dark Su Other (Explain in Rer	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) urface (TF12)
	7) (LRR P, S, T, U)					s (F20) (MLRA 149 <i>A</i>	, 153C, 153D)	
Type: Depth (inches):						'	Hydric Soil Present? Yo	es No •
Remarks:								

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patricio	Sampling Date:	2/11/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: T	( Sampling Point: W	P1020_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section, To	ownship, Range: S N/A T N/A	R N/A
 _andform (hillslope, terrace	e, etc.): Flat	Local relief (concave, con	vex, none): Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	. ,	<b>Lat:</b> 27.930256	Long: -97.182467	Datum: NAD 83
	ch loamy fine sand, 0 to 1 percent slopes, v		NWI Classification: PEM1A	10.15 03
			TWY Classification. FEMIA	
Are climatic/hydrologic con	nditions on the site typical for this time	e of year? Yes   No	(If no, explain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology si	ignificantly disturbed? Ar	re "Normal Circumstances" present?	Yes 💿 No 🔾
Are Vegetation, S	Soil , or Hydrology n	aturally problematic? (I	f needed, explain any answers in Rem	arks.)
SUMMARY OF FINDINGS	S – Attach site map showing sam	pling point locations, trans	ects, important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes • No	la tha Cau		
Hydric Soil Present?	Yes   No	within a V	mpled Area Vetland?	No O
Wetland Hydrology Present?	Yes   No		. 0.13.1.2	
Remarks: Hydrophytic vegetation, hydr  HYDROLOGY	ric soil, and wetland hydrology are present.	This is a wetland.		
Wetland Hydrology Indica	ators:			
	num of one required: check all that ap	inly)	Secondary Indicators (Minimum o	of 2 required)
✓ Surface Water (A1)	Aquatic Fau	• • • •		•
High Water Table (A2)		na (B13) ts (B15) (LRR U)	Sparsely Vegetated Concave S  Drainage Patterns (B10)	surface (BB)
✓ Saturation (A3)		ulfide Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1)		izospheres along Living Roots (C3)		
Sediment Deposits (B2)		Reduced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Im	nagery (C9)
Algal Mat or Crust (B4)	Thin Muck S	` '	Geomorphic Position (D2)	lagery (es)
Iron Deposits (B5)		ain in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Ae		an in remarks)	✓ FAC-Neutral Test (D5)	
Water-Stained Leaves (B	39)		Sphagnum moss (D8) (LRR T,	, U)
Field Observations:				•
Surface Water Present?	Yes   No   Depth (i	inches): 1		
Water Table Present?	Yes No Depth (i			
Saturation Present?	, ,		Wetland Hydrology Present? Yes	No O
(includes capillary fringe)	Yes   No   Depth (i	(nches):		J 1.2
Describe Recorded Data (str	ream gauge, monitor well, aerial photos, pre	evious inspections), if available:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

2 . Eleocharis montevidensis

3 . Andropogon alomeratus

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1 . Spartina patens

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

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100

Rel.Strat. Indicator

0.0%\_

0.0%

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%\_

0.0%\_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

90 **✓** 90.0% FACW

8.0% FACW

2.0% FACW

0.0%

0.0%

0.0%\_ 0.0%\_ \_ 0.0%\_

0.0%

0.0%\_

0.0%

0.0%\_

0.0%

0.0%\_

0.0%

0.0%

0.0%

= Total Cover

Vegetation

Present ?

= Total Cover

0.0%

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant	Species			
That are OBL, FACW,	, ro FAC:		2	(A)
Total Number of Don			2	(B
Species Across All St	rata:			(D
Percent of Dominant That are OBL, FACW			100.0%	(A/B)
Prevalence Index				
Total % Cover		Multip	_	_
OBL species	0	x 1	200	
FACW species	100	x 2		
FAC species	0	x 3		
FACU species	0	x 4	-	
UPL species Colum Totals:	100	x 5	200	(D)
corum rocars.	100	(A)	200	(B)
Prevalence In	dex = B/A=		2.000	
1 - Rapid Test  ✓ 2 - Dominance ✓ 3 - Prevalence  Problematic H	e Test is > 5 • Index is ≤ ydrophytic	0% 3.0¹ Vegeta	tion¹ (Expla	in)
2 - Dominance 3 - Prevalence	e Test is > 5 • Index is ≤ ydrophytic ydric soil an	0% 3.0¹ Vegeta	tion¹ (Expla	ŕ
✓ 2 - Dominance ✓ 3 - Prevalence  Problematic H  ¹ Indicators of hy	e Test is > 5 Index is ≤ ydrophytic ydric soil an oe present, u	0% 3.0¹ Vegeta d wetla	tion¹ (Expla and disturbed or	ŕ
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hy hydrology must b	e Test is > 5 e Index is ≤ e ydrophytic  ydric soil an ee present, u	0% 3.0¹ Vegeta d wetla unless o	tion¹ (Expla and disturbed or a:	ŕ
✓ 2 - Dominance ✓ 3 - Prevalence  Problematic H  ¹ Indicators of hyhydrology must b	e Test is > 5 e Index is ≤ e ydrophytic  ydric soil an oe present, u  egetation ants, exclud ef (6 m) or	0% 3.0¹ Vegeta d wetlaunless of Strata	tion¹ (Expla and disturbed or a: ody vines, n height and	3 in.
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody	e Test is > 5 Index is ≤ Index is > 5	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre	tion¹ (Expla and disturbed or a: ody vines, n height and east height ( woody vines	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic H  Indicators of hy hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or larger	e Test is > 5 e Index is ≤ e ydrophytic  ydric soil an e present, u  egetation ents, exclud ft (6 m) or in diamete  plants, excl tt (6 m) or	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre	tion¹ (Expla and disturbed or a: ody vines, n height and east height ( woody vines	3 in. DBH).
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 (20 pproximately 20 pproximately	e Test is > 5 e Index is ≤ e ydrophytic  ydric soil an e present, u  egetation ents, exclud ef (6 m) or in diamete  plants, excl ef (6 m) or in DBH.  Voody plant	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre luding von more in	and disturbed or a: ody vines, n height and east height ( woody vines n height and	3 in. DBH). , l less
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hy hydrology must b  Definition of V. Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V than 3 in. DBH and	e Test is > 5 e Index is ≤ sydrophytic  ydric soil an be present, the present, the present of th	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre luding of more in is, excl	and disturbed or a: ody vines, n height and east height ( woody vines n height and uding vines,	3 in. DBH). , l less
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V	e Test is > 5 e Index is ≤ e ydrophytic  ydric soil an e present, the egetation ents, exclud of (6 m) or in diamete plants, exclud of (6 m) or in diamete plants, exclud of (6 m) or in diamete the lants, exclud lants, exclud lants, exclud	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more in r at bre luding v more in as, exclanan 3.2 ding wo	and disturbed or a: ody vines, n height and east height ( woody vines n height and uding vines, 28 ft (1m) tal	3 in. DBH). , l less
✓ 2 - Dominance ✓ 3 - Prevalence ✓ Problematic H  ¹ Indicators of hy hydrology must b  Definition of V  Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V than 3 in. DBH ar  Shrub - Woody p	e Test is > 5 e Index is ≤ sydrophytic  ydric soil an be present, the present, the present, the present of the	O% 3.0¹ Vegeta  d wetlaunless of Strata ing woo more in r at bre luding v more in as, excl han 3.2 ding wo 6 m) i voody) s of siz	and disturbed or a: ody vines, n height and east height ( woody vines, n height and uding vines, n height and uding vines, n height, loody vines, n height.	3 in. DBH).  i, less less l.

Remarks: (	(If observed,	list mor	phological	adaptations	below).
Cilians, (	(II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1020\_WET\_PEM

Profile Description	on: (Describe to th	e depth neede	d to docu	ment th	e indicator o	or confirm the abs	ence of indicators.)	
Depth	Matrix			Redox	Features			
(inches)	Color (moist)	% Colo	(moist)	%	Tvpe1	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1	97 10YR	5/6	3	С	PL	Silty Clay	
¹Tvpe: C=Concentrati	ion, D=Depletion, RM=	Reduced Matrix.	S=Covered	or Coated	d Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	•	Treduced Widerix,	5- <b>cov</b> ered	or coatea	Tourid Grains.	Editation. TE-1 die	Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies ( 5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M. Sandy Redox (S) Stripped Matrix (	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)	Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbri Delta ( Reduc	oark Surfa Mucky M Gleyed Natrix Dark Sur ted Dark S Depressi F10) (LRR ted Ochric langanese c Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR Sineral (F1) (Li Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) (U) (F11) (MLRA Masses (F12 (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 151 plain Soils (F1	151) ) (LRR O, P, T) T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain (Anomalous Bright Loak Red Parent Material (Very Shallow Dark Sure Other (Explain in Ren  3 Indicators wetland unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer ( Type: Depth (inches):	. ,						Hydric Soil Present? Ye	es   No
Remarks:								

City/County: San Patricio

Sampling Date:

2/11/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1021_UP
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, Range: S N/A T N/A R N/A
Landform (hillslope, terrace, etc.): Flat Local reli	ief (concave, convex, none): Convex Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27	.930521 <b>Long:</b> -97.181256 <b>Datum:</b> NAD 83
Soil Map Unit Name: Papalote fine sandy loam, 0 to 1 percent slopes (PaA)	NWI Classification: PEM1A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes  No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly dis	
Are Vegetation, Soil, or Hydrology naturally proble	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point to	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	
Hydric Soil Present? Yes No •	Is the Sampled Area  Yes No
Wetland Hydrology Present?	within a Wetland?
Trestanta riyarenegy ricesenta	
Remarks:  Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a	wetland.
Tryanophysic regetation, nyane son, and rectains rivariously are not present this is not a	Tredation
HADBOLOCA	
HYDROLOGY	
Wetland Hydrology Indicators:	Consider Tradicateur (Minimum of 2 manimud)
Primary Indicators (Minimum of one required; check all that apply)	Secondary Indicators (Minimum of 2 required)
Surface Water (A1)  Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (LRR U)	
Saturation (A3) Hydrogen Sulfide Odor (C1)	
Water Marks (B1) Oxidized Rhizospheres along Sediment Deposits (B2) Presence of Reduced Iron (i	
Drift Deposits (B3)  Recent Iron Reduction in Til	
Algal Mat or Crust (B4)  Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)  Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
. ,	- P
Field Observations:	
Surface Water Present? Yes No Depth (inches):	_
Water Table Present? Yes No Depth (inches):  Saturation Present?	Wetland Hydrology Present? Yes No •
(includes capillary fringe)  Yes  No  Depth (inches):	Wetland Hydrology Present? Yes ○ No ●
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection	ns). if available:
	,
Remarks:	

**Project/Site:** Bluewater Terminal SPM Project

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 2

20% of Total Cover: 19

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Prosopis glandulosa

50% of Total Cover: 5

2 . Panicum virgatum

3 . Distichlis spicata

4 . Ambrosia artemisiifolia

5 . Geranium carolinianum

8 . Lantana urticoides

50% of Total Cover: 48

Woody Vine Stratum

50% of Total Cover: 0

1.\_\_

6 . Lvsimachia arvensis 7 . Solanum elaeagnifolium

1 . Dichanthelium oligosanthes

2 . Celtis pallida

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

0.0% 0.0% 0.0% 0.0% 0.0%

0.0%

0.0% 0.0%

0.0% \_\_\_\_0.0%\_

<u>5</u> **✓** <u>50.0%</u>

<u>5</u> **✓** \_\_50.0%

0.0%

0.0%

25 🗸 \_\_\_ 26.3%\_

20 🗸 \_\_21.1%\_

20 🗸 \_\_21.1%\_

\_\_\_\_0.0%\_ 0.0%

= Total Cov

0.0%

0

0

0

0

0

0

0

0

0 0

10

10

5

5

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0

0

0

0

0

0

95

0.0%

0

0

Absolute

% Cover

lants.		Sampling Point: WP	1021_UP
Dominant		Dominance Test worksheet:	
Species? Rel.Strat.	Indicator	Number of Dominant Species	
Cover	Status	That are OBL, FACW, ro FAC:	(A)
0.0%		Total Number of Dominant	
		Species Across All Strata:	5(B
		Percent of Dominant Species	
		That are OBL, FACW, or FAC:	40.0% (A/B)
		Prevalence Index worksheet:	
			ultiply by:
			20
0.0%			1 = 20 $2 = 0$
= Total Co			
			3 = 60 4 = 180
0.00/			100
			3
		Colum Totals: 105 (	A) <u>360</u> (B)
0.0%		Prevalence Index = B/A=	3.429
		Hydrophytic Vegetation Indicator	rs:
0.0%			
0.0%		1 - Rapid Test for Hydrophytic	<del>-</del>
0.0%		2 - Dominance Test is > 50%	
0.0%		3 - Prevalence Index is ≤ 3.0	
= Total Co	ver	Problematic Hydrophytic Veg	etation¹ (Explain)
50.0%_	_UPL	1 Tudicators of budgic sail and w	atland
50.0%	UPL	<sup>1</sup> Indicators of hydric soil and w hydrology must be present, unle	
0.0%			
		Definition of Vegetation Str	ata:
		Tree - Woody plants, excluding	
		approximately 20 ft (6 m) or mor	
= Total Co	ver	(7.6 cm) or larger in diameter at	breast height (DBH).
		Sapling - Woody plants, excludi	ng woody vines,
26.3%_	FACU	approximately 20 ft (6 m) or mor	e in height and less
21.1%_	FAC	than 3 in. (7.6 cm) DBH.	
21.1%		Sanling/Shruh Waadu plasts	avoluding vinos Jaca
10.5%_		Sapling/Shrub - Woody plants, e than 3 in. DBH and greater than	
5.3%_	UPL	and ground than	
5.3%_	FACU	Shrub - Woody plants, excluding	
5.3%_	UPL	approximately 3 to 20 ft (1 to 6 n	
5.3%_	FACU	l	
0.0%		Herb - All herbaceous (non-wood	
0.0%		herbaceous vines, regardless of plants, except woody vines, less	
0.0%		3 ft (1 m) in height.	
0.0%_			
= Total Co	ver	Woody vine - All woody vines, re	egardless of height.
0.00/			
0.0%			
		Hydrophytic	a No O
0.0%		Vegetation Yes ( Present ?	No ()
0.0%_ = Total Co			
	ver	1	

	(7.6 )	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1021\_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) s (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) here (A12) dox (A16) (MLRA 150A) heral (S1) (LRR O, S) latrix (S4) (S6)	Thin Dalta C	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Ochric (F17) (MLRA 151 ed Vertic (F18) (MLRA 151 ed Vertic (F18) (MLRA 151 ent Floodplain Soils (F19)	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (50A, 150B) 2) (MLRA 149A)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (If observed):  Type:  Depth (inches):			н	ydric Soil Present? Ye	s ○ No ●	
Remarks:						

Project/Site: Bluewater	Terminal SPM	Project		City/County: San Pati	ricio	Sampling D	ate:2	/11/2019
Applicant/Owner: Phillip	os 66 Pipeline,	LLC		State	e: TX	Sampling Point:	WP1021_W	/ET_PEM_A
Investigator(s): B. Bring	ghurst & A. Os	strowski		Section	on, Township, Rar	nge: S N/A T	N/A R	N/A
Landform (hillslope, terra	ice, etc.): F	=lat		Local relief (concave	, convex, none):	Concave	Slope:	1 % 0.6 °
Subregion (LRR): LRR T	_			<b>Lat:</b> 27.930316	Long:	: -97.181243	Datum:	NAD 83
Soil Map Unit Name: Pap	alote fine san	dv loam, 0 to	1 percent slopes (Pa/	4)		ication: PEM1A	_	
_					_		- >	
Are climatic/hydrologic c				-		, explain in Remark	-	
_	, Soil	, or Hydrolo		ificantly disturbed?		ircumstances" pres		No
Are Vegetation	, Soil	, or Hydrolo	gy natu	rally problematic?	(If needed, exp	plain any answers i	n Remarks.)	
SUMMARY OF FINDIN	GS – Attac	h site map	showing sampli	ng point locations, t	ransects, impor	tant features, et	C.	
Hydrophytic Vegetation Pro	esent?	Yes	○ No •			-		
Hydric Soil Present?		Yes			e Sampled Area n a Wetland?	Ye	s O No 🤄	•
Wetland Hydrology Presen	t?	Yes	• No O	WILLIII	ii a vvelianu:			
Remarks:	-	103		l				
Hydrophytic vegetation, hy	dric soil, and	wetland hydro	logy are present. Thi	s is a wetland.				
HYDROLOGY								
Wetland Hydrology Ind	icators:							
Primary Indicators (Mir	nimum of on	e required; c	heck all that apply	·)	Secondar	ry Indicators (Minin	num of 2 requir	<u>red)</u>
✓ Surface Water (A1)			Aquatic Fauna	(B13)		parsely Vegetated Co	ncave Surface (B	8)
High Water Table (A2	)		Marl Deposits (	B15) (LRR U)		Prainage Patterns (B10	))	
✓ Saturation (A3)			Hydrogen Sulfic	de Odor (C1)	M	loss Trim Lines (B16)		
Water Marks (B1)			Oxidized Rhizos	spheres along Living Roots	(C3)	ry Season Water Tabl	e (C2)	
Sediment Deposits (B	2)		Presence of Re	duced Iron (C4)		Crayfish Burrows (C8)		
Drift Deposits (B3)			Recent Iron Re	duction in Tilled Soils (C6)	S	aturation Visible on A	erial Imagery (C9	))
Algal Mat or Crust (B4	I)		Thin Muck Surf	ace (C7)		Geomorphic Position (E	02)	
Iron Deposits (B5)			Other (Explain	•		Shallow Aquitard (D3)	,	
Inundation Visible on	Aerial Imager	y (B7)		,		AC-Neutral Test (D5)		
Water-Stained Leaves	(B9)					Sphagnum moss (D8) (	(LRR T, U)	
Field Observations:								
Surface Water Present?	Yes •	No O	Depth (inch	nes): 1				
Water Table Present?	Yes 🔾	No •	Depth (inch					
Saturation Present?	Yes •		Depth (inch		Wetland I	Hydrology Present?	Yes •	No O
(includes capillary fringe)	Yes 💌	No O	Берит (шсі	nes):				
Describe Recorded Data (	stream gauge	, monitor well,	aerial photos, previo	ous inspections), if availabl	e:			
Remarks:								

Sampling Point:	WP1021_V	VET_PEM_A
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	Dominant	Dominance Test worksheet:
	Species? Absolute Rel.Strat, Indicator	Number of Dominant Species
	% Cover Cover Status	That are OBL, FACW, ro FAC: (A)
Tree Stratum (Plot Size : <u>30</u> )		Total Number of Dominant
1		Species Across All Strata: 5 (B
2		
3		Percent of Dominant Species That are OBL, FACW, or FAC: 40.0% (A/B)
4		mat are obly mony or men
5		Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7		OBL species $4 \times 1 = 4$
8		FACW species $93 \times 2 = 186$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $3 \times 3 = 9$
Sapling or Sapling/Shrub Stratum (Plot Size : 30 )		FACU species $0 \times 4 = 0$
1	0	UPL species $0 \times 5 = 0$
2	0	Colum Totals: <u>105</u> (A) <u>360</u> (B)
3		Prevalence Index = B/A= 3.429
4	0	
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is > 50%
8	0	3 - Prevalence Index is ≤ 3.01
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Shrub Stratum (Plot Size : 30)		
1	0	<sup>1</sup> Indicators of hydric soil and wetland
2		hydrology must be present, unless disturbed or
3	0	
4	0	Definition of Vegetation Strata:
5	0	Tree - Woody plants, excluding woody vines,
6	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30)	<del></del>	Sapling - Woody plants, excluding woody vines,
1 . Spartina patens	90 🗸90.0% FACW_	approximately 20 ft (6 m) or more in height and less
2 . Ludwigia palustris	44.0% OBL	than 3 in. (7.6 cm) DBH.
3 . Andropogon alomeratus	33.0% FACW	
4Baccharis halimifolia		Sapling/Shrub - Woody plants, excluding vines, less
5.	0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
6.	0	Shrub - Woody plants, excluding woody vines,
7		approximately 3 to 20 ft (1 to 6 m) in height.
8		
9		Herb - All herbaceous (non-woody) plants, including
10		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
11		3 ft (1 m) in height.
12	0	
50% of Total Cover: 50 20% of Total Cover: 20	100 = Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30 )	<del></del>	
1.	0	
2.		
3		Hydrophytic
4		Vegetation Yes No •
5	0	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Remarks: (If observed, list morphological adaptations below)		1
	•	
*Indicator suffix = National status or professional decision assigned be	cause Regional status not defined by FWS.	

SOIL Sampling Point: WP1021\_WET\_PEM\_A

Profile Description	on: (Describe to th	e depth	needed t	o docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)	<u> </u>	Color (n	noist)	<u>%</u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 4/1	97	10YR	5/6	3	С	PL	Silty Clay	
¹Type: C=Concentrat	ion, D=Depletion, RM=	Reduced N	Matrix, CS=0	Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.	
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Mir Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2) ) e (A4) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) hace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) hatrix (S4) 5			Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	ark Surfa Mucky M Gleyed Ned Matrix Dark Sur ed Dark S Depressi (10) (LRR ed Ochric anganese (1) Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR 9) lineral (F1) (Li latrix (F2) (F3) face (F6) fourface (F7) ons (F8) U) c (F11) (MLRA e Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA	151) ) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):							lydric Soil Present? Ye	s ● No ○
Remarks:									

Project/Site: Bluewater Te	erminal SPM Project	City/Co	unty: San Patricio	Sampling Date:	2/11/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: W	P1021_WET_PEM_B
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, F	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local re	 lief (concave, convex, none)	): Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		 <b>Lat:</b> 2	7.930145 <b>Lo</b> i	ng: -97.179788	Datum: NAD 83
Soil Map Unit Name: Papal	lote fine sandy loam, 0 to 1 per	cent slopes (PaA)		sification: PEM1A	
	nditions on the site typical fo	or this time of year?	Yes () No () (If	no, explain in Remarks.)	
	Soil , or Hydrology	significantly d		Circumstances" present?	Yes ● No ○
	Soil , or Hydrology	naturally prob		explain any answers in Rer	
,	_ ,				nanoi,
			locations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Pres		No O	Is the Sampled Area	a Yes •	No O
Hydric Soil Present?	Yes •	No O	within a Wetland?	res 🕓	y INO O
Wetland Hydrology Present?  Remarks:	Yes •	No U			
	ric soil, and wetland hydrology a	are present. This is a wetlar	nd.		
HYDROLOGY Wetland Hydrology Indic	cators:				
	num of one reauired: check	all that apply)	Second	darv Indicators (Minimum	of 2 required)
Surface Water (A1)	num or one required, eneck	Aquatic Fauna (B13)	Second	Sparsely Vegetated Concave	. ,
High Water Table (A2)		Marl Deposits (B15) (LRR l	J)	Drainage Patterns (B10)	: Surface (Bo)
✓ Saturation (A3)		Hydrogen Sulfide Odor (C1	·	Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres alor	ng Living Roots (C3)	Dry Season Water Table (C2	<u>'</u> )
Sediment Deposits (B2)		Presence of Reduced Iron	(C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in T	illed Soils (C6)	Saturation Visible on Aerial I	imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)	
Iron Deposits (B5)	uial Imagan (DZ)	Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on A			<b>✓</b>	FAC-Neutral Test (D5)	T 11)
Water-Stained Leaves (E	39)			Sphagnum moss (D8) (LRR	1, U)
Field Observations:	Yes • No O	5 4 6 4 3			
Surface Water Present? Water Table Present?		Depth (inches): 2	_		
Saturation Present?		Depth (inches):	Wetlan	d Hydrology Present? Ye	es • No
(includes capillary fringe)	Yes   No	Depth (inches): 0		a myarology i resent:	<i>2</i>
Describe Recorded Data (st	ream gauge, monitor well, aeria	al photos, previous inspection	ons), if available:		
Remarks:					

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 20

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

Spartina patens 3. Tvpha domingensis

50% of Total Cover: 50

**Woody Vine Stratum** 

1.\_

1 . Eleocharis montevidensis

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0

0

0

0

0

0

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0 0

0

0

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0

0 0

0

0

Rel.Strat. Indicator

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0% 0.0%\_ 0.0%

> 0.0% 0.0%

0.0% = Total Cover

65 **✓** \_\_65.0%\_\_FACW

25 **✓** \_\_25.0% FACW

\_\_\_10.0%\_\_OBL\_\_\_

0.0%

0.0%\_ 0.0%\_ 0.0%\_

0.0%\_

0.0% 0.0%

0.0%\_ \_

= Total Cover

0.0%

0.0%\_

0.0%

0.0%\_

Status

	<del></del> =			
Dominance Test wor				
Number of Dominant S That are OBL, FACW, re			2	(A)
Total Number of Domir Species Across All Strat			2	(В
Percent of Dominant Sp That are OBL, FACW, o			100.0%	(A/B)
Prevalence Index we	orksheet:			
Total % Cover of	:	Multiply	y by:	_
OBL species	10_	x 1 :	=10	
FACW species	90_	x 2 =	180	
FAC species	0	x 3 =	=0	
FACU species	0	x 4 =	=	
UPL species	0	x 5 =	0	
Colum Totals:	100_	(A)	190	(B)
Prevalence Inde	ex = B/A=		1.900	
Hydrophytic Vegeta	tion Indic	ators:		
✓ 1 - Rapid Test fo ✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyo	Test is > 5 ndex is ≤ drophytic	0% 3.0¹ Vegetat	ion¹ (Explai	n)
✓ 2 - Dominance T ✓ 3 - Prevalence I	Test is > 5  Index is ≤  Irophytic Y  Iric soil and	0% 3.0¹ Vegetat d wetla	ion¹ (Explai nd	in)
✓ 2 - Dominance I ✓ 3 - Prevalence I  Problematic Hyd  1 Indicators of hyd	Test is > 5 Index is ≤ Irophytic Telephytic	0% 3.0¹ Vegetat d wetla unless d	ion¹ (Explai nd isturbed or	in)
✓ 2 - Dominance I ✓ 3 - Prevalence I  Problematic Hyd  1 Indicators of hyd hydrology must be	ric soil and present, u getation ts, excludit (6 m) or	0% 3.0¹ Vegetat d wetlaunless d Strata ing woo more in	ion¹ (Explaind isturbed or dy vines, height and	3 in.
2 - Dominance I 3 - Prevalence I Problematic Hyd  1 Indicators of hyd hydrology must be  Definition of Veg Tree - Woody plan approximately 20 ff	ric soil and present, u  getation ts, excludit (6 m) or n diamete lants, excl	0% 3.0¹ Vegetat d wetlan unless d  Strata ing woo more in er at brea	ion¹ (Explaind isturbed or ist	3 in. DBH).
2 - Dominance T  3 - Prevalence I  Problematic Hyd  1 Indicators of hyd hydrology must be  Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger if  Sapling - Woody plan approximately 20 ff	ric soil and present, u  getation ts, excludit (6 m) or n diamete lants, excl t (6 m) or DBH.	d wetlanunless d  Strata ing woo more in r at brea	ion¹ (Explaind isturbed or ist	3 in. DBH). , less
✓ 2 - Dominance T ✓ 3 - Prevalence I ✓ Problematic Hyd  ¹ Indicators of hyd hydrology must be  Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger in  Sapling - Woody plan approximately 20 ff than 3 in. (7.6 cm)  Sapling/Shrub - Wo	ric soil and present, u getation ts, excludit (6 m) or n diamete lants, excludit (6 m) or DBH.  body plant greater th	d wetlanunless d Strata ing woo more in r at brea luding w more in ts, excluding woo	ion¹ (Explaind isturbed or isturbed or isturbed or isturbed or isturbed or isturbed or isturbed on isturbed on isturbed or ist	3 in. DBH). , less
2 - Dominance T  3 - Prevalence I  Problematic Hyd  1 Indicators of hyd hydrology must be  Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger in  Sapling - Woody plan approximately 20 ff than 3 in. (7.6 cm)  Sapling/Shrub - Wo than 3 in. DBH and	ric soil and present, u  getation ts, excludit (6 m) or n diamete t (6 m) or DBH.  body plant greater th total greater th tot	d wetlan unless d  Strata ing woo more in at breats, excluding woo for more in the more in	ion¹ (Explained isturbed or isturbed or isturbed or isturbed or isturbed or isturbed or isturbed on is	3 in. DBH). , less less l. ding

2	0		
3	0	Hydrophytic	
4	0	Vegetation	Yes   No
5	0	Present ?	
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover		
narks: (If observed, list morphological adaptations below).			

Ren

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1021\_WET\_PEM\_B

Profile Description	on: (Describe to th	e depth n	eeded to docui	nent the	e indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Truss C. Connectivati	ion De Doubtion DM	Dadwod M	atrii: CC-Causand	an Control	Soul Cooling	21 castian DI - Dava	lising M.Matriy	
	on, D=Depletion, RM=	Reduced IVI	atrix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Mir  Muck Presence 1 cm Muck (A9)  Depleted Below Thick Dark Surfa  Coast Prairie Re	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)	Thin Da Loamy Loamy  Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Surface ichric (F1 ed Vertic int Floodg	face (F6) furface (F7) furface (F7) furface (F7) furface (F8) U) (F11) (MLRA 1 Masses (F12) (F13) (LRR P, 7) (MLRA 151) (F18) (MLRA 1 Dlain Soils (F19)	.T, U) R O) 151) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (1 Very Shallow Dark Sur Other (Explain in Rem  3 Indicators of wetland he unless of	O) R S) (outside MLRA 150A,B) (oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type:	. ,						lydric Soil Present? Ye	s • No 🔾
Depth (inches):						·		
Remarks:								

Project/Site: Bluewater Te	rminal SPM Project	City/County: San Patricio	Sampling Date: 2/11/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: T	X Sampling Point: WP1021_WET_PEM_C
Investigator(s): B. Bringh	urst & A. Ostrowski	Section, To	ownship, Range: S N/A T N/A R N/A
 Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave, con	vex, none): Flat Slope: 1 % 0.6
Subregion (LRR): LRR T		<b>Lat:</b> 27.930546	<b>Long:</b> -97.179635 <b>Datum:</b> NAD 83
	ote fine sandy loam, 0 to 1 percent slopes	_	NWI Classification: PEM1A
таран	ote fine sandy loant, 0 to 1 percent slopes	(ran)	TWI Classification. PEMIA
Are climatic/hydrologic con	ditions on the site typical for this time	e of year? Yes   No	(If no, explain in Remarks.)
Are Vegetation , S	Soil $\ \square$ , or Hydrology $\ \square$ s	ignificantly disturbed? A	re "Normal Circumstances" present? Yes $ullet$ No $ullet$
Are Vegetation, \$	Soil 🗌 , or Hydrology 🔲 r	naturally problematic? (I	f needed, explain any answers in Remarks.)
SUMMARY OF FINDING	S — Attach site map showing sam	pling point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes • No	1 11 0	
Hydric Soil Present?	Yes   No	within a V	mpled Area  Ves  No  Vetland?
Wetland Hydrology Present?	Yes ● No ○	""""	. 516.16
Hydrophytic vegetation, hydr HYDROLOGY	ric soil, and wetland hydrology are present.	This is a wetland.	
Wetland Hydrology Indic	ators:		
	num of one required; check all that a	(vlac	Secondary Indicators (Minimum of 2 required)
Surface Water (A1)	Aquatic Fau	<del></del>	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		its (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3)		Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)		nizospheres along Living Roots (C3)	
Sediment Deposits (B2)		f Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iror	Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck	Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Exp	lain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Ae		,	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (E	39)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No Depth (	inches):	
Water Table Present?		inches):	
Saturation Present?			Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe)	res No Depuir	inches):	
Describe Recorded Data (str	eam gauge, monitor well, aerial photos, pr	evious inspections), if available:	

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 15

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

1 . Monanthochloe littoralis 2 . Distichlis spicata

3 . Spartina patens 4 . Borrichia frutescens

50% of Total Cover: 38

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0\_

0 \_

0

0

0

0

0

0

0

0

0

0

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0

0

0

75

0

0

Rel.Strat. Indicator

0.0%\_

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0%

0.0%

\_\_\_13.3%\_\_FACW\_\_

\_\_\_13.3%\_\_OBL\_\_\_

0.0%\_

0.0%

0.0%\_ 0.0%\_

0.0%\_

0.0%\_

0.0%

0.0%

0.0%

0.0%

0.0%

0.0%

\_\_\_0.0%\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

\_\_\_0.0%\_

= Total Cover

30 **✓** 40.0% OBL

25 **✓** \_\_\_33.3%\_\_OBL

0.0%

0.0%

= Total Cover

0.0%

Status

Samplin	g Point: \	WP1	02	1 W	ET PE	M C
Dominance Test w			_			
Number of Dominant						
That are OBL, FACW,	ro FAC:			_	2	(A)
Total Number of Dom Species Across All Str				_	2	(B
Percent of Dominant That are OBL, FACW,				_10	0.0%	(A/B)
Prevalence Index v						
Total % Cover	of:	Mul	ipl	y by:		_
OBL species	65_	X	1		65	
FACW species	10_	X	2		20	
FAC species	0	X	3		0	
FACU species	0	X	4	-	0	ı
UPL species	0	x	5	-	0	ı
Colum Totals:	75	(A	)	-	85	(B)
Prevalence Inc	dex = B/A=			-	1.133	
<ul> <li>✓ 1 - Rapid Test</li> <li>✓ 2 - Dominance</li> <li>✓ 3 - Prevalence</li> <li>Problematic H</li> </ul>	Test is > 5 Index is ≤	0% 3.0¹				in)
✓ 2 - Dominance ✓ 3 - Prevalence	Test is > 5 Index is ≤ ydrophytic \ dric soil an	0% 3.0¹ Vege d we	tat	cion¹	(Explai	in)
2 - Dominance 3 - Prevalence Problematic H	rest is > 5 Index is ≤ ydrophytic  redric soil and e present, the egetation nts, excludi ft (6 m) or in diamete  plants, excl ft (6 m) or	0% 3.0¹ Vege d we unles Stra ing w more r at t	tat ta ta voc in	nd listu	(Explainment of the control of the c	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20	e Test is > 5 Index is ≤ ydrophytic or dric soil and e present, under the present, under the plants, excludiff (6 m) or in diamete plants, excludiff (6 m) or in diameter plants, e	0% 3.0¹ Vege d we unles Stra ing w more r at b	tat ta ta voce in	nd listu : ody v i heig ast l	rbed or rines, ght and neight ( ly vines ght and	3 in. DBH). , less
2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V	e Test is > 5 Index is ≤ ydrophytic varies soil and e present, uegetation nts, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete voluments, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete voluments, excludift (a m) or in diamete voluments, excludift (6 m) or in diameter voluments, excludift (6 m) or in diameter voluments, excludiff (6 m) or in diameter voluments, exc	0% 3.0¹ Vege d we unles Stra ing w more r at b uding more diss, ex	tat tat ta ta voce ir g w	nd listu : ody v i heig ast l vooc uding 8 ft (	rbed or rines, ght and neight ( ly vines ght and g vines, 1m) tal vines,	3 in. DBH). , less
2 - Dominance 3 - Prevalence Problematic H  1 Indicators of hy hydrology must b  Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - V than 3 in. DBH ar  Shrub - Woody pl	e Test is > 5 Index is ≤ ydrophytic or dric soil and e present, to egetation nts, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete o	0% 3.0¹ Vege d we unles Stra ing we more r at b uding more ding 6 m	tat tlas ta ta voc in g vol in size	nd listu : ody v i hei ast l wood i hei uding 8 ft (	rbed or rines, ght and neight ( ly vines, 1m) tal vines, ght. ts, included wood	3 in. DBH). , less less l.

 list morphological adaptations below)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1021\_WET\_PEM\_C

Profile Description	on: (Describe to th	e depth n	eeded to docui	nent the	e indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u>	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Truss C. Connectivati	ion De Doubtion DM	Dadwod M	atrii: CC-Causand	an Control	Soul Cooling	21 castian DI - Dava	lising M.Matriy	
	on, D=Depletion, RM=	Reduced IVI	atrix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Mir  Muck Presence 1 cm Muck (A9)  Depleted Below Thick Dark Surfa  Coast Prairie Re	(A2) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)	Thin Da Loamy Loamy  Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Surface ichric (F1 ed Vertic int Floodg	face (F6) furface (F7) furface (F7) furface (F7) furface (F8) U) (F11) (MLRA 1 Masses (F12) (F13) (LRR P, 7) (MLRA 151) (F18) (MLRA 1 Dlain Soils (F19)	.T, U) R O) 151) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (1 Very Shallow Dark Sur Other (Explain in Rem  3 Indicators of wetland he unless of	O) R S) (outside MLRA 150A,B) (oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type:	. ,						lydric Soil Present? Ye	s • No 🔾
Depth (inches):						·		
Remarks:								

erminal SPM Project		City/County: San Patri	cio	Sampling Date:	2/11/2019
66 Pipeline, LLC		State	: TX	Sampling Point:	WP1022_UP_A
nurst & A. Ostrowski		Sectio	n, Township, Ra	ange: S N/A T N/A	A R N/A
e, etc.): Flat		Local relief (concave,	convex, none):	Convex	Slope: 1 % 0.6 °
· /					Datum: NAD 83
loto fino candy loam. O to	1 percent clanes (DaA)			,	10/15/03
lote fine sarity loam, o to	o i percent slopes (PaA	)	- IAMI CIGSSI	TICATION: PENTA	
nditions on the site typ	pical for this time of	year? Yes 💿	No (If no	o, explain in Remarks.)	
Soil , or Hydro	logy signi	ficantly disturbed?	Are "Normal (	Circumstances" present?	Yes • No 🔾
Soil , or Hydro	logy natu	rally problematic?	(If needed, ex	xplain any answers in Re	emarks.)
S – Attach site ma <sub>l</sub>	showing samplin	ng point locations, tr	ansects, impo	ortant features, etc.	
sent? Ye	s   No				
	s O No •			Yes	○ No •
Ye	s O No •	Within	ra vvolana.		
ric soil, and wetland hydr	ology are not present.	This is not a wetland.			
	check all that apply	)	Seconda	arv Indicators (Minimum	of 2 required)
		•		Sparsely Vegetated Concay	ve Surface (B8)
		•		. , .	e surface (Bo)
	Oxidized Rhizos	pheres along Living Roots		• •	(2)
)	Presence of Red	luced Iron (C4)		•	•
	Recent Iron Rec	duction in Tilled Soils (C6)		Saturation Visible on Aerial	Imagery (C9)
	Thin Muck Surfa	ace (C7)		Geomorphic Position (D2)	
	Other (Explain in	n Remarks)		Shallow Aquitard (D3)	
erial Imagery (B7)				FAC-Neutral Test (D5)	
B9)				Sphagnum moss (D8) (LRR	RT, U)
		I			
Yes O No •	Depth (inche	es):			
Yes O No •	Depth (inche	es):			
Yes O No •			Wetland	Hydrology Present? Y	res No •
ream gauge, monitor we	ll, aerial photos, previou	us inspections), if available	2:		
	nditions on the site types oil of the property	cators: mum of one required; check all that apply appl	State  State  State  Support	State: TX  Pourst & A. Ostrowski  Section, Township, Ra  See, etc.): Flat  Local relief (concave, convex, none):  Lat: 27.930619  Long  Soli	State: TX

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 6

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Prosopis glandulosa

50% of Total Cover: 15

1 . Monanthochloe littoralis

3 . Ambrosia artemisiifolia

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

2 . Opuntia lindheimeri

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0 0

0

0

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0

0

0

0

0 0

30

0

0 0

0 0

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0

100

Rel.Strat. Indicator

0.0%\_

0.0%

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%

0.0%

0.0%

= Total Cover

30 ✓ 100.0% UPL 0.0%\_ 0.0%

0.0%

80 **✓** \_\_80.0% \_OBL

= Total Cover

17.0% UPL

0.0% 0.0%\_

0.0%\_ \_ 0.0%\_ \_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_

0.0%

0.0%

0.0%\_

0.0%

0.0%

= Total Cover

Present?

= Total Cover

3.0%\_\_FACU\_\_

0.0%\_ 0.0%

0.0%

0.0%

Status

Dominance Test worksheet:			
Number of Dominant Species That are OBL, FACW, ro FAC:	1	_	(A)
Total Number of Dominant Species Across All Strata:	2	_	(В
Percent of Dominant Species That are OBL, FACW, or FAC:	50.0	1%_	(A/B)
Prevalence Index worksheet:			
Total % Cover of: Mul	tiply by:		
OBL species 80 x	1 =	80_	
	2 =		
	3 =	12	
	4 =	12 235	
		327	(5)
Colum Totals: <u>130</u> (A	, —	327	(B)
Prevalence Index = $B/A=$	2	.515	
<ul> <li>✓ 1 - Rapid Test for Hydrophytic</li> <li>2 - Dominance Test is &gt; 50%</li> <li>✓ 3 - Prevalence Index is ≤ 3.0¹</li> <li>Problematic Hydrophytic Vege</li> <li>¹ Indicators of hydric soil and we</li> </ul>	Vegetatio tation¹ (E tland	Explain)	
1 - Rapid Test for Hydrophytic     2 - Dominance Test is > 50%     3 - Prevalence Index is ≤ 3.0¹     Problematic Hydrophytic Vege  ¹ Indicators of hydric soil and we hydrology must be present, unles	Vegetation tation tland s disturbe	Explain)	
2 - Dominance Test is > 50%  ✓ 3 - Prevalence Index is ≤ 3.0¹  Problematic Hydrophytic Vege  ¹ Indicators of hydric soil and we hydrology must be present, unles  Definition of Vegetation Stra	Vegetation tation tland s disturbe	ed or	
1 - Rapid Test for Hydrophytic     2 - Dominance Test is > 50%     3 - Prevalence Index is ≤ 3.0¹     Problematic Hydrophytic Vege  ¹ Indicators of hydric soil and we hydrology must be present, unles	Vegetation tation taland s disturbe ta: voody vine	ed or es, t and 3	in.
1 - Rapid Test for Hydrophytic     2 - Dominance Test is > 50%     3 - Prevalence Index is ≤ 3.0¹     Problematic Hydrophytic Vege     ¹ Indicators of hydric soil and we hydrology must be present, unless  Definition of Vegetation Strater - Woody plants, excluding vapproximately 20 ft (6 m) or more	tation¹ (E tland s disturbe ta: voody vine e in height breast hei	ed or es, t and 3 ght (DB	in. BH).
1 - Rapid Test for Hydrophytic     2 - Dominance Test is > 50%     3 - Prevalence Index is ≤ 3.0¹     Problematic Hydrophytic Vege     ¹ Indicators of hydric soil and we hydrology must be present, unles  Definition of Vegetation Stra Tree - Woody plants, excluding wapproximately 20 ft (6 m) or more (7.6 cm) or larger in diameter at large specific	tation¹ (E  tland s disturbe  ta: voody vine e in height breast hei g woody v e in height	ed or es, t and 3 ght (DB vines, t and les	in. 8H). sss
1 - Rapid Test for Hydrophytic     2 - Dominance Test is > 50%     3 - Prevalence Index is ≤ 3.0¹     Problematic Hydrophytic Vege  ¹ Indicators of hydric soil and we hydrology must be present, unles  Definition of Vegetation Stra Tree - Woody plants, excluding wapproximately 20 ft (6 m) or more (7.6 cm) or larger in diameter at I Sapling - Woody plants, excludin approximately 20 ft (6 m) or more than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding than 3 in. (7.6 cm) DBH.	tland s disturbed the in height oreast height calleding volume and the inheight called inheight call	ed or es, t and 3 ght (DB vines, t and le: ines, le: n) tall.	in. 8H). ss
1 - Rapid Test for Hydrophytic 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vege ¹ Indicators of hydric soil and we hydrology must be present, unles  Definition of Vegetation Stra Tree - Woody plants, excluding wapproximately 20 ft (6 m) or more (7.6 cm) or larger in diameter at It Sapling - Woody plants, excludin approximately 20 ft (6 m) or more than 3 in. (7.6 cm) DBH.  Sapling/Shrub - Woody plants, excluding wapproximately 20 ft (6 m) or more than 3 in. (7.6 cm) DBH.	tation¹ (E  tland s disturbe  ta: voody vine e in height preast hei g woody v e in height scluding v 3.28 ft (1n woody vir ) in heigh	ed or es, t and 3 ght (DB vines, t and les ines, les n) tall. nes, t. includir woody	in. BH). sss sss

marks: (If observed, list morphological adaptations below).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1022\_UP\_A

Profile Description	on: (Describe to the o	lepth needed to docur	ment the indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix	_	Redox Features			
(inches)	_Color (moist)	Color (moist)	% Type¹	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/2 1	00			Sandy Clay	
• •	•	duced Matrix, CS=Covered o	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	tic Hydric Soils³:
5 cm Mucky Min Muck Presence ( 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Ree Sandy Muck Min Sandy Gleyed M Sandy Redox (S) Stripped Matrix	e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150A) eral (S1) (LRR O, S) atrix (S4)	Thin Da Loamy Loamy Deplete Redox I Deplete Redox I Marl (F: Deplete Iron-Ma Umbric Delta O Reduce Piedmo	ue Below Surface (S8) ( Irk Surface (S9) (LRR S, Mucky Mineral (F1) (LR Gleyed Matrix (F2)  Ind Matrix (F3) (Ind Matrix (F11) (MLRA 15) (Ind Matrix (F17) (MLRA 151) (Ind Matrix (F17) (MLRA 151) (Ind Vertic (F18) (MLRA 151) (Ind Vertic (F18) (MLRA 151) (Ind Floodplain Soils (F19) (Ind Matrix (In	.51) (LRR O, P, T) (, U) 50A, 150B) ) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (T Very Shallow Dark Sur Other (Explain in Rem  3 Indicators of wetland h unless of	R S) (outside MLRA 150A,B) oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) F2) face (TF12)
Restrictive Layer Type: Depth (inches):				н	ydric Soil Present? Ye	s O No •
Remarks:						

Project/Site: Bluewater Te	erminal SPM Project	Ci	ity/County: San Patri	cio	Sampling Date:	2/11/2019
Applicant/Owner: Phillips	s 66 Pipeline, LLC		State	: TX	Sampling Point:	WP1022_UP_B
Investigator(s): B. Bringh	hurst & A. Ostrowski		Sectio	n, Township, Rai	nge: S N/A T N/A	R N/A
Landform (hillslope, terrac	c <b>e, etc.):</b> Flat	Le	ocal relief (concave,	convex, none):	Convex	<b>Slope:</b> 2 % 1.1 °
Subregion (LRR): LRR T			<b>Lat:</b> 27.93044	Long	: -97.178166	Datum: NAD 83
Soil Map Unit Name: Papa	alote fine sandy loam, 0 to 1 perc	ent slopes (PaA)		NWI Classif		
Are climatic/hydrologic co	onditions on the site typical fo	r this time of yes	ar? Yes 💿	── No ○ (If no	, explain in Remarks.)	
	Soil , or Hydrology		antly disturbed?		ircumstances" present?	w @ w O
	Soil , or Hydrology		y problematic?		plain any answers in Rer	Yes • No ·
Are vegetation,	John , or mydrology		y problematic:	(II lieeded, ex	piani any answers in Ker	iidi k5.)
SUMMARY OF FINDING	GS — Attach site map shov	ving sampling <sub>l</sub>	point locations, tr	ansects, impor	tant features, etc.	
Hydrophytic Vegetation Pres	sent? Yes •	No O	le the	Sampled Area		
Hydric Soil Present?	Yes 🔾	No •		a Wetland?	Yes C	No 💿
Wetland Hydrology Present?	? Yes 🔾	No 💿				
Remarks:						
Hydrophytic vegetation, hyd	dric soil, and wetland hydrology a	re not present. This	s is not a wetland.			
LIVEROLOGY						
HYDROLOGY						
Wetland Hydrology Indic	cators: imum of one required: check	all that annly)		Seconda	rv Indicators (Minimum	of 2 required)
					•	•
Surface Water (A1) High Water Table (A2)		Aquatic Fauna (B13 Marl Deposits (B15)	-		Sparsely Vegetated Concave Orainage Patterns (B10)	Surface (B8)
Saturation (A3)		Hydrogen Sulfide O			Moss Trim Lines (B16)	
Water Marks (B1)		· -	res along Living Roots		Ory Season Water Table (C2	)
Sediment Deposits (B2)		Presence of Reduce			Crayfish Burrows (C8)	,
Drift Deposits (B3)			ion in Tilled Soils (C6)		Saturation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface			Geomorphic Position (D2)	magery (es)
Iron Deposits (B5)		Other (Explain in Re	• •		Shallow Aquitard (D3)	
Inundation Visible on A		Other (Explain in Re	cinantoj		FAC-Neutral Test (D5)	
Water-Stained Leaves (	- · · ·				Sphagnum moss (D8) (LRR <sup>-</sup>	Τ, U)
Field Observations:			Т			
Surface Water Present?	Yes O No •	Depth (inches):				
Water Table Present?	Yes O No •	Depth (inches):				
Saturation Present?				Wetland	Hydrology Present? Ye	s O No O
(includes capillary fringe)	Yes No	Depth (inches):			, <b>,</b> ,	
Describe Recorded Data (st	tream gauge, monitor well, aeria	photos, previous in	nspections), if available	e:		
						_
Remarks:						

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 2

20% of Total Cover: 14

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

**Herb Stratum** 

1 . Prosopis glandulosa

50% of Total Cover: 5

1 . Dichanthelium oligosanthes

2. Heterotheca subaxillaris

3 . Monanthochloe littoralis

5 . Nothoscordum bivalve

50% of Total Cover: 36

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_

4 . Spartina patens

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0\_\_\_

0

0\_

0 \_

0

0\_\_\_

0

0

0

0

0

0

0

0

0

0

0

10

10

2

0

0

0 0

0

0

0

72

0\_\_ 0

0

0

0

Rel.Strat. Indicator

0.0%\_

0.0%

0.0%\_ 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0%

0.0%

0.0%\_ 0.0%

= Total Cover

10 ✓ \_100.0%\_\_UPL 0.0% 0.0%

0.0%\_

0.0%

0.0%

30 **✓** \_\_41.7%\_\_FACU

\_\_\_13.9%\_\_OBL

0.0%

0.0%\_ \_ 0.0%\_

0.0%\_

0.0%\_

0.0%

0.0%\_ \_

0.0%

0.0%

0.0%

0.0%\_

0.0%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

\_\_\_13.9%\_\_FACW\_

2.8%\_\_FACU

20 **✓** \_\_27.8% \_UPL

= Total Cover

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling	y rollit:	WP10	۷۷_L	ור_ם	
Dominance Test we	orksheet:				
Number of Dominant That are OBL, FACW,			_	1	(A)
Total Number of Dom Species Across All Str			_	2	(В
Percent of Dominant : That are OBL, FACW,			_	50.0%	(A/B)
Prevalence Index v	vorksheet:				
Total % Cover of	of:	Multi	oly by	<i>r</i> :	_
OBL species	10	x 1	_	10	
FACW species	10	x 2	=	20	
FAC species	0	x 3	=	0	
FACU species	32	x 4	=	128	
UPL species	30	x 5	=	150	
Colum Totals:	130	(A)		327	(B)
Prevalence Inc	lex = B/A=			2.515	
Hydrophytic Veget		_			
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ ydrophytic	0% 3.0¹ Vegeta	ation		n)
2 - Dominance 3 - Prevalence	Test is > 5 Index is ≤ ydrophytic dric soil an	0% 3.0¹ Vegeta	ation	¹ (Explai	n)
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hy hydrology must b	Test is > 5 Index is ≤ ydrophytic dric soil an e present,	3.0 <sup>1</sup> Vegeta d wetl	ation and dist	¹ (Explai	n)
2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation nts, exclud ft (6 m) or	d wetlunless Strating wo	and distr a: ody n he	urbed or vines,	3 in.
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, regetation nts, exclud ft (6 m) or in diameter plants, exc	d wetlunless Strating wore er at br	and distriction	urbed or vines, eight and height (E	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation ints, exclud ft (6 m) or in diameter plants, exc ft (6 m) or ) DBH.  //oody plant	d wetlunless Strat ing wo more er at br	and distriction of the control of th	vines, eight and height (I dy vines, eight and height and ang vines, eight and ang vines,	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - Woody	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation ints, excluding ft (6 m) or in diameter ft (6 m) or in DBH.  /oody plant d greater the ents, excluding the ents, excluding the ents of t	d wetlunless Strat ing womore er at brilluding more tts, exchan 3. ding wind more tts, exchan 3.	and distribution and distribution a: mody n he east woo on he lludir 28 ft	vines, eight and height (I dy vines, (1m) tall y vines,	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hy hydrology must b  Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger  Sapling - Woody approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - W than 3 in. DBH an	Test is > 5 Index is ≤ ydrophytic  dric soil an e present, the egetation ints, exclud ft (6 m) or in diameter for the egetation of egetation of the egetation of the egetation of the egetation of egetation of the egetation of the egetation of the egetation of e	d wetlunless  Strat ing womore r at brilluding more ts, exchan 3. ding woody s of si	and distribution of the control of t	vines, eight and height (Implementation) tall y vines, eight.	3 in. DBH). less less .

	(7.6 )	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1022\_UP\_B

Profile Description	on: (Describe to th	e depth	needed to docui	nent the	indicator or	confirm the abs	sence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u></u>	Color (moist)	%	Tvpe <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/3	100					Sand	
¹Type: C=Concentrati	on D=Depletion RM=	-Reduced N	Matrix CS=Covered	or Coated	Sand Grains	<sup>2</sup> Location: PL=Pore	· Lining M=Matrix	
Hydric Soil Indica	•	-Neduced I	viatrix, C3-Covered	or coated	Sand Granis.	Location. FL-Fore	Indicators for Problema	atic Hydric Soils³:
Histosol (A1)	<del>1013.</del>			P. !	C	(LDD C T ! )		-
Histosol (A1) Histic Epipedon (	(42)				Surface (S8) (		1 cm Muck (A9) (LRR	
Black Histic (A3)	` '				ce (S9) (LRR S		2 cm Muck (A10) (LR	
Hydrogen Sulfide					ineral (F1) (LR	RO)		(outside MLRA 150A,B)
Stratified Layers	` ,				latrix (F2)			Soils (F19) (LRR P, S, T)
	(A6) (LRR P, T, U)			ed Matrix	. ,			amy Soils (F20) (MLRA 153B)
	eral (A7) (LRR P, T,	LIN		Dark Surf	` '		Red Parent Material (	<i>'</i>
Muck Presence (		0)			urface (F7)		Very Shallow Dark Su	
1 cm Muck (A9)				Depressio	. ,		Other (Explain in Ren	narks)
	Dark Surface (A11)			10) (LRR		454)		
Thick Dark Surfa					(F11) (MLRA	•		
	dox (A16) (MLRA 15	:0Λ)				(LRR O, P, T)		
					(F13) (LRR P,		<sup>3</sup> Indicators	of hydrophytic vegetation and
	eral (S1) (LRR O, S)				7) (MLRA 151)		wetland	hydrology must be present,
Sandy Gleyed Ma					F18) (MLRA 1		unless	disturbed or problematic.
Sandy Redox (St						) (MLRA 149A)		
Stripped Matrix (			Anoma	lous Brigh	nt Loamy Soils	(F20) (MLRA 149A	A, 153C, 153D)	
Dark Surface (S7	7) (LRR P, S, T, U)							
Restrictive Layer (	(If observed):							
Туре:						'	Hydric Soil Present? Ye	es O No o
Depth (inches):								
Remarks:								

Project/Site: Bluewater	Terminal SPM Project		City/County: San Patricio	Samplin	<b>pg Date:</b> 2/11/2019
Applicant/Owner: Phill	ips 66 Pipeline, LLC		State: T	χ Sampling Point	t: WP1022_UP_C
Investigator(s): B. Brir	ghurst & A. Ostrowski		Section, T	ownship, Range: S N/A	<b>T</b> N/A <b>R</b> N/A
 Landform (hillslope, terr	ace, etc.): Flat		Local relief (concave, cor		Slope: 2 % 1.1 °
Subregion (LRR): LRR T	11.00		Lat: 27.93142	Long: -97.176554	<b>Datum:</b> NAD 83
	nalata fina candy laam	, 0 to 1 percent slopes (PaA		NWI Classification: None	Datami NAD 03
on Map Offic Name.	paiote fine sandy loam	, o to 1 percent slopes (PaA		None	
Are climatic/hydrologic	conditions on the sit	e typical for this time of	year? Yes • No	(If no, explain in Rem	arks.)
Are Vegetation	, Soil , or Hy	/drology signi	ficantly disturbed? A	re "Normal Circumstances" p	resent? Yes • No O
Are Vegetation	, Soil , or Hy	/drology natu	rally problematic? (1	If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDI	IGS — Attach site	map showing samplin	ng point locations, trans	ects, important features,	etc.
Hydrophytic Vegetation P	resent?	Yes O No •	la tha Ca	la d Aa	
Hydric Soil Present?		Yes O No 💿	within a V	mpled Area Vetland?	Yes O No •
Wetland Hydrology Prese	nt?	Yes O No 💿			
HYDROLOGY	yaric soil, and wetland	hydrology are not present.	This is not a Wetland.		
Wetland Hydrology In	dicators:				
Primary Indicators (Mi	<u>nimum of one requi</u>	red; check all that apply)	)	Secondary Indicators (M	inimum of 2 required)
Surface Water (A1)		Aquatic Fauna (	B13)	Sparsely Vegetated	d Concave Surface (B8)
High Water Table (A	2)	Marl Deposits (E	315) (LRR U)	Drainage Patterns (	(B10)
Saturation (A3)		Hydrogen Sulfid	le Odor (C1)	Moss Trim Lines (B	s16)
Water Marks (B1)		Oxidized Rhizos	pheres along Living Roots (C3)	Dry Season Water	Table (C2)
Sediment Deposits (I	32)	Presence of Red	duced Iron (C4)	Crayfish Burrows (0	C8)
Drift Deposits (B3)		Recent Iron Rec	duction in Tilled Soils (C6)	Saturation Visible of	on Aerial Imagery (C9)
Algal Mat or Crust (B	4)	Thin Muck Surfa	ace (C7)	Geomorphic Position	on (D2)
Iron Deposits (B5)		Other (Explain in	n Remarks)	Shallow Aquitard ([	D3)
Inundation Visible or	Aerial Imagery (B7)			FAC-Neutral Test (I	D5)
Water-Stained Leave	s (B9)			Sphagnum moss (D	08) (LRR T, U)
Field Observations:					
Surface Water Present?	Yes O No	Depth (inche)	es):		
Water Table Present?	Yes O No	Depth (inche)	es):		
Saturation Present? (includes capillary fringe)	Yes O No	Depth (inche)	es):	Wetland Hydrology Prese	ent? Yes No •
Describe Recorded Data  Remarks:	(stream gauge, monito	or well, aerial photos, previou	us inspections), if available:		

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 19

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum 1.\_\_\_\_

**Herb Stratum** 

50% of Total Cover: 0

1 \_Cvnodon dactvlon

3 . Spartina patens

2 . Ambrosia artemisiifolia

50% of Total Cover: 48

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

4 . Dichanthelium oligosanthes

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0 0

0

0

0\_\_ 0

0

0

0

95

Rel.Strat. Indicator

0.0%\_

0.0%

0.0%\_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0%

0.0%

26.3% FACU

\_\_\_15.8%\_\_FACU\_\_

0.0%

0.0%

0.0%\_ \_ 0.0%

0.0%\_

0.0%\_ 0.0%

0.0%\_

0.0%

0.0%

0.0%

0.0%

\_\_\_0.0%\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

= Total Cover

35 **✓** \_\_36.8% FACU

20 **✓** \_\_21.1%\_\_FACW\_\_

0.0%

0.0%

Status

Sampling	Point:	WP10	22_	UP_C	
Dominance Test wo	rksheet:				
Number of Dominant S That are OBL, FACW,				0	(A)
Total Number of Domi Species Across All Stra				3	(B
•			_		(_
Percent of Dominant S That are OBL, FACW,			-	0.0%	(A/B)
Prevalence Index w	orksheet:				
Total % Cover o	f:	Mult	ply	by:	_
OBL species	0	x :	. =	0	
FACW species	20	x 2	! =	40	
FAC species	0	<b>x</b> 3	=	0_	
FACU species	75	x 4	-	300	
UPL species	0	x !	i =	0	
Colum Totals:	82	(A)		308	(B)
Prevalence Ind	ex = B/A=			3.756	
Hydrophytic Vegeta		_			
1 - Rapid Test 1 2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ drophytic	60% 3.0¹ Veget	atio	on¹ (Explai:	n)
2 - Dominance 3 - Prevalence	Test is > 5 Index is ≤ drophytic	i0% 3.0¹ Vegel	atio	on¹ (Explai: d	n)
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hyd	Test is > 5 Index is ≤ drophytic dric soil and e present,	3.0 <sup>1</sup> Veget d wet unless	atio	on¹ (Explai: d	n)
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be	Test is > 5 Index is ≤ strophytic dric soil and present, getation ats, exclude ft (6 m) or	3.01 Veget  d wetunless  Strating w more	land dis	d sturbed or y vines, neight and	3 in.
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve  Tree - Woody plar approximately 20	Test is > 5 Index is ≤ 5 Index is ≤ 6 Index is ≤ 7 Index	3.01 Veget  d wetunless  Strating w more er at b	land discontinuity	d sturbed or y vines, neight and st height (E	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve Tree - Woody plar approximately 20 (7.6 cm) or larger  Sapling - Woody papproximately 20 approximately 20 approxi	Test is > 5 Index is ≤ 5 Index is ≤ 6 Index is ≤ 7 Index	3.01 Veget d wete unless Strating w more at b	land discool in h reas	d sturbed or y vines, neight and st height (E	3 in. DBH). Iess
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve Tree - Woody plar approximately 20 (7.6 cm) or larger  Sapling - Woody papproximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - W	Test is > 5 Index is ≤ 5 Index is ≤ 5 Index is ≤ 6 Index	3.01 Veget d wet ing w more at b luding more	lands dis	d  y vines, neight and st height (E  ody vines, neight and fit (1m) tall dy vines,	3 in. DBH). Iess
2 - Dominance 3 - Prevalence Problematic Hy  1 Indicators of hydrology must be  Definition of Ve Tree - Woody plar approximately 20 (7.6 cm) or larger  Sapling - Woody papproximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - W than 3 in. DBH and	Test is > 5 Index is ≤ 5 Index is ≤ 5 Index is ≤ 6 Index is ≤ 6 Index is ≤ 6 Index is ≤ 6 Index is ≤ 7 Index	3.01 Veget d wete ing w more at b luding more tts, ex han 3 ding v o 6 m)	ational lands disconnection in the cluck case where	d sturbed or y vines, neight and st height (E and vines, ft (1m) tall. dy vines, neight. ants, including vines, and vines, and wood;	3 in. DBH). less less

Remarks:	(If observed,	list morphological	adaptations below).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Yes 🔘

SOIL Sampling Point: WP1022\_UP\_C

Profile Description	on: (Describe to the dep	oth needed to docu	ment the indicator or	r confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist)%_	Color (moist)_		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 5/3 100				Sandy Loam	
	ion, D=Depletion, RM=Reduc	ed Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	e (A4) s (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) hace (A12) dox (A16) (MLRA 150A) heral (S1) (LRR O, S) hatrix (S4)	Thin Danies Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Redox Redox	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) folous Bright Loamy Soils	151) (LRR O, P, T) T, U) 50A, 150B) O) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)					
Restrictive Layer Type: Depth (inches):	· ,				ydric Soil Present? Ye	ns O No •
Remarks:						

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patricio	Sampling Date:	2/11/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC	State:	Σ Sampling Point:	WP1022_UP_D
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section, 7	Fownship, Range: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave, co	nvex, none): Flat	<b>Slope:</b> 1 % 0.6 °
Subregion (LRR): LRR T		<b>Lat:</b> 27.93327	Long: -97.173362	Datum: NAD 83
Soil Map Unit Name: Aransa	as clay saline (As)		NWI Classification: None	
Are climatic/hydrologic con	ditions on the site typical for this t	me of year? Yes (•) No	(If no, explain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" present?	Yes   No
Are Vegetation, S	Soil , or Hydrology	naturally problematic? (	If needed, explain any answers in Ren	narks.)
SUMMARY OF FINDINGS	S – Attach site map showing sa	impling point locations, trans	sects, important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes No	• la tha Ca		
Hydric Soil Present?	Yes O No		ampled Area Wetland?	No 💿
Wetland Hydrology Present?	Yes   No			
Hydrophytic vegetation and h	nydric soil are not present. This is not a	wetland.		
Wetland Hydrology Indica	ators:			
	num of one required: check all that	apply)	Secondary Indicators (Minimum	of 2 required)
✓ Surface Water (A1)	. ,	Fauna (B13)	Sparsely Vegetated Concave	• •
High Water Table (A2)		posits (B15) (LRR U)	Drainage Patterns (B10)	Surface (DO)
✓ Saturation (A3)		n Sulfide Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1)		Rhizospheres along Living Roots (C3		1
Sediment Deposits (B2)		e of Reduced Iron (C4)	Crayfish Burrows (C8)	,
Drift Deposits (B3)		ron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		ck Surface (C7)	Geomorphic Position (D2)	5 / ( /
Iron Deposits (B5)		xplain in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Ae	-	,	FAC-Neutral Test (D5)	
Water-Stained Leaves (B	39)		Sphagnum moss (D8) (LRR 1	-, U)
Field Observations:				
Surface Water Present?	Yes   No Dept	h (inches): 1		
Water Table Present?		th (inches):		
Saturation Present?			Wetland Hydrology Present? Yes	s   No
(includes capillary fringe)	res ino Depi	h (inches):		
Describe Recorded Data (stre	eam gauge, monitor well, aerial photos,	previous inspections), if available:		

20% of Total Cover: 0

(Plot Size : 30 )

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 . Cvnodon dactvlon 2 . Spartina patens

50% of Total Cover: 50

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0

0

0

0

0

0

0

0

0

0

0

0

0

0 0

0

0

0

0

0

0

Rel.Strat. Indicator

0.0%

0.0%\_

0.0% 0.0%

0.0% 0.0%\_

0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0%\_ 0.0%

0.0%

0.0%

95.0% FACU

0.0%

0.0%\_

0.0% 0.0%\_\_ 0.0%\_ 0.0%\_

0.0%

0.0%\_ 0.0%

0.0%\_ \_

0.0%

0.0%

0.0%\_

0.0%

\_\_\_0.0%\_\_

= Total Cover

= Total Cover

5.0% FACW

0.0%

= Total Cover

0.0%

0.0%

Status

Sampling	, <b>v</b>	*1 1022	P_UP_D	
Dominance Test wo				
Number of Dominant That are OBL, FACW,			1	/A\
,,				(A)
Total Number of Dom Species Across All Stra			3	(B
				(5
Percent of Dominant S That are OBL, FACW,			33.3%	(A/B)
Prevalence Index w	vorksheet:			
Total % Cover o	of:	Multiply	by:	
OBL species	0	x 1 =	0_	
FACW species	5	x 2 =	10	
FAC species	0_	x 3 =		
FACU species	95_	x 4 =		
UPL species	0	x 5 =	=0_	
Colum Totals:	95_	(A)	340	(B)
Prevalence Ind	lex = B/A=		3.579	
Hydrophytic Vegeta	ation Indica	tors:		
Problematic Hy     Indicators of hydroxymatics			ion¹ (Explai nd	n)
	dric soil and	l wetlar	nd	n)
¹ Indicators of hy	dric soil and e present, u	l wetlar nless di	nd isturbed or	n)
<sup>1</sup> Indicators of hydrology must be Definition of Ve	dric soil and e present, u egetation s	I wetlar nless di Strata:	nd isturbed or dy vines,	
¹ Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20	dric soil and e present, u egetation s nts, excludin ft (6 m) or r	I wetlar nless di Strata: ng woo nore in	nd isturbed or dy vines, height and	3 in.
<sup>1</sup> Indicators of hydrology must be Definition of Ve	dric soil and e present, u egetation s nts, excludin ft (6 m) or r	I wetlar nless di Strata: ng woo nore in	nd isturbed or dy vines, height and	3 in.
¹ Indicators of hydrology must be  Definition of Ve Tree - Woody platapproximately 20 (7.6 cm) or larger  Sapling - Woody	dric soil ance present, une present, une present, une present segetation seg	I wetlar nless di Strata: ng woon nore in r at brea	nd isturbed or dy vines, height and ast height (I	3 in. OBH).
¹ Indicators of hydrology must be Definition of Ve Tree - Woody plat approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	dric soil and e present, u egetation s nts, excluding ft (6 m) or r in diameter blants, excluding ft (6 m) or r	I wetlar nless di Strata: ng woon nore in r at brea	nd isturbed or dy vines, height and ast height (I	3 in. OBH).
¹ Indicators of hydrology must be  Definition of Ve Tree - Woody platapproximately 20 (7.6 cm) or larger  Sapling - Woody p	dric soil and e present, u egetation s nts, excluding ft (6 m) or r in diameter blants, excluding ft (6 m) or r	I wetlar nless di Strata: ng woon nore in r at brea	nd isturbed or dy vines, height and ast height (I	3 in. OBH).
¹ Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm Sapling/Shrub - W	egetation strategies and the present, under the present, under the present of the	Strata: ng woonore in at breauding woonore in	nd isturbed or dy vines, height and ast height (I coody vines height and ding vines,	3 in. DBH). less
1 Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm)	egetation strategies and the present, under the present, under the present of the	Strata: ng woonore in at breauding woonore in	nd isturbed or dy vines, height and ast height (I coody vines height and ding vines,	3 in. DBH). less
1 Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - W than 3 in. DBH and Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - W than 3 in. DBH and Sapling/Shrub - W than 3	egetation segetation s	Strata: ng woo nore in at brea uding w nore in	dy vines, height and ast height (I roody vines height and ding vines, 3 ft (1m) tall	3 in. DBH). less
¹ Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm Sapling/Shrub - W	egetation segetation s	Strata:  Strata:  ng woon  nore in  at brea  uding won  nore in  s, exclu	dy vines, height and ast height (I roody vines, height and ding vines, 3 ft (1m) tall	3 in. DBH). less
1 Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm Sapling/Shrub - Withan 3 in. DBH and Shrub - Woody plan approximately 3 to 10 to 1	e present, u egetation s ents, excluding ft (6 m) or r in diameter colants, excluding ft (6 m) or r b) DBH.  Coody plants d greater the ents, exclude color ft (1 to	Strata: ng woonore in at breauding wonore in at breauding wonore in an 3.28 ling woo 6 m) in	dy vines, height and ast height and ding vines, at (1m) tall ody vines, height.	3 in. DBH). less
1 Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm Sapling/Shrub - Woody plan 3 in. DBH an Shrub - Woody plan 3 in. DBH an Shrub - Woody plan 3 in.	egetation segetation s	Strata:  Strata:  ng woon  nore in  at brea  uding won  s, exclu  an 3.28  ling woo  6 m) in	dy vines, height and ast height (I roody vines, height and ding vines, 3 ft (1m) tall ody vines, height.	3 in. DBH). less less
¹ Indicators of hydrology must be  Definition of Ve Tree - Woody plant approximately 20 (7.6 cm) or larger  Sapling - Woody plant approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - Woody plant and 3 in. DBH an	dric soil and e present, u egetation segetation segetat	Strata:  Strata:  ng woon  nore in  at brea  uding won  s, exclu  an 3.28  ling woo  6 m) in  oody) p	dy vines, height and ast height (I roody vines, height and ding vines, ft (1m) tall ody vines, height.	3 in. DBH). less less .
1 Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm Sapling/Shrub - Whan 3 in. DBH and Shrub - Woody plan approximately 3 to Herb - All herbace	dric soil and e present, u egetation segetation segetat	Strata:  Strata:  ng woon  nore in  at brea  uding won  s, exclu  an 3.28  ling woo  6 m) in  oody) p	dy vines, height and ast height (I roody vines, height and ding vines, ft (1m) tall ody vines, height.	3 in. DBH). less less .
Definition of Ve Tree - Woody plan approximately 20 (7.6 cm) or larger  Sapling - Woody plan approximately 20 than 3 in. (7.6 cm)  Sapling/Shrub - W than 3 in. DBH an  Shrub - Woody plan approximately 3 to  Herb - All herbace herbaceous vines plants, except wood 3 ft (1 m) in height	e present, u egetation s estation s ents, excluding t (6 m) or r in diameter collants, excluding t (6 m) or r blants, excluding t (6 m) or r collants, excluding t (6	Strata:  ong woomore in the at breat and an 3.28 ling woo 6 m) in coody) process that	dy vines, height and ast height and ding vines, height and ding vines, height and ody vines, height.	3 in. DBH). less less . ding y ately
¹ Indicators of hydrology must be	e present, u egetation s estation s ents, excluding t (6 m) or r in diameter collants, excluding t (6 m) or r blants, excluding t (6 m) or r collants, excluding t (6	Strata:  ong woomore in the at breat and an 3.28 ling woo 6 m) in coody) process that	dy vines, height and ast height and ding vines, height and ding vines, height and ody vines, height.	3 in. DBH). less less . ding y ately
Definition of Verice - Woody plant approximately 20 (7.6 cm) or larger Sapling - Woody papproximately 20 than 3 in. (7.6 cm) Sapling/Shrub - Woody plant approximately 3 to the sapling - Woody plant - W	e present, u egetation s estation s ents, excluding t (6 m) or r in diameter collants, excluding t (6 m) or r blants, excluding t (6 m) or r collants, excluding t (6	Strata:  ong woomore in the at breat and an 3.28 ling woo 6 m) in coody) process that	dy vines, height and ast height and ding vines, height and ding vines, height and ody vines, height.	3 in. DBH). less less . ding y ately

	_		
Remarks: (If observed,	list morphological adaptation	ns below).	

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1022\_UP\_D

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator	or confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location <sup>2</sup>	Texture	Remarks
0 - 16	10YR 3/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pore I	-	
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils <sup>3</sup> :
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4)  f (A5)  (A6) (LRR P, T, U)  feral (A7) (LRR P, T, U)  (A8) (LRR U)  (LRR P, T)  Dark Surface (A11)  face (A12)  dox (A16) (MLRA 150A)  fieral (S1) (LRR O, S)  latrix (S4)	Thin Do Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	lue Below Surface (S8 ark Surface (S9) (LRR Mucky Mineral (F1) ( Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLR anganese Masses (F1 E Surface (F13) (LRR F Dehric (F17) (MLRA 15 ed Vertic (F18) (MLRA ant Floodplain Soils (F allous Bright Loamy So	A 151) 2) (LRR O, P, T) P, T, U) 51)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Ren  3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):				ydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Te	erminal SPM Pro	oject		City/County: San Patr	ricio	Sampling [	Date:	2/11/2019
Applicant/Owner: Phillips	66 Pipeline, LL	.C		State	e: TX	Sampling Point:	WP1022	_WET_PEM_A
Investigator(s): B. Bringh	urst & A. Ostro	wski		Section	on, Township, Ra	nge: S N/A	T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	:		Local relief (concave	, convex, none):	Concave	Slope	: 1 % 0.6 °
Subregion (LRR): LRR T	_			<b>Lat:</b> 27.930192	Long		 Datur	m: NAD 83
Soil Map Unit Name: Papal	ote fine sandv	loam, 0 to 1 per	rcent slopes (PaA			fication: PEM1A	_	
				_	_		I \	
Are climatic/hydrologic cor						o, explain in Remarl	_	
		or Hydrology		ficantly disturbed?		Circumstances" pres	-	es • No 🔾
Are Vegetation,	Soil , c	or Hydrology	natu	rally problematic?	(If needed, ex	plain any answers	in Remarks.)	l
SUMMARY OF FINDING	S – Attach s	site map sho	wing samplin	ng point locations, t	ransects, impo	rtant features, e	tc.	
Hydrophytic Vegetation Pres	 ent?	Yes O	No •					
Hydric Soil Present?		Yes •	No O		e Sampled Area n a Wetland?	Υ	es No	•
Wetland Hydrology Present?		Yes •	No O	Within	n a welland:			
Remarks:				L				
Hydrophytic vegetation, hydi	ric soil, and wet	tland hydrology	are present. This	is a wetland.				
HYDROLOGY								
Wetland Hydrology Indic	ators:							
Primary Indicators (Minir	num of one r	equired; checl	k all that apply)	)	<u>Seconda</u>	ary Indicators (Minii	mum of 2 re	<u>quired)</u>
✓ Surface Water (A1)		<b>✓</b>	Aquatic Fauna (	•		Sparsely Vegetated Co	oncave Surface	e (B8)
High Water Table (A2)			Marl Deposits (E	315) (LRR U)		Drainage Patterns (B1	0)	
Saturation (A3)			Hydrogen Sulfid			Moss Trim Lines (B16)	)	
Water Marks (B1)			Oxidized Rhizos	pheres along Living Roots	(C3)	Dry Season Water Tab	ole (C2)	
Sediment Deposits (B2)			Presence of Rec	luced Iron (C4)		Crayfish Burrows (C8)		
Drift Deposits (B3)			Recent Iron Rec	duction in Tilled Soils (C6)		Saturation Visible on A	Aerial Imagery	(C9)
Algal Mat or Crust (B4)			Thin Muck Surfa	ace (C7)		Geomorphic Position (	(D2)	
Iron Deposits (B5)			Other (Explain i	n Remarks)		Shallow Aquitard (D3)		
Inundation Visible on A	erial Imagery (E	37)			<b>✓</b> i	FAC-Neutral Test (D5)	)	
Water-Stained Leaves (E	39)					Sphagnum moss (D8)	(LRR T, U)	
Field Observations:								
Surface Water Present?	Yes	No 🔘	Depth (inch	es): 1				
Water Table Present?	Yes 🔾	No •	Depth (inch					
Saturation Present?		No O	Depth (inch		Wetland	Hydrology Present?	? Yes 💿	No O
(includes capillary fringe)	163 🕝 1	110	Deput (men					
Describe Recorded Data (st	ream gauge, m	ionitor well, aeri	al photos, previo	us inspections), if available	e:			
Remarks:								

Sampling Point:	WP1022	WET	PEM A

	Dominant Species?	Dominance Test worksheet:
	Absolute % Cover Status Species? Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
<u>Tree Stratum</u> (Plot Size : <u>30</u> ) 1	0	Total Number of Dominant Species Across All Strata:1(B
2		Species Across All Strata:1 (B
3		Percent of Dominant Species
4		That are OBL, FACW, or FAC: 0.0% (A/B)
5	_	Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7		OBL species $5 \times 1 = 5$
8	0.0%	FACW species $90 \times 2 = 180$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
Carling or Carling (Church Church Church)		FACU species $0 \times 4 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30 )	0	UPL species $0 \times 5 = 0$
1	0.0%	Colum Totals: 100 (A) 390 (B)
2	_	Cordin rocars. 100 (A) 550 (B)
3		Prevalence Index = B/A= 3.900
4	0.0%	Hydrophytic Vegetation Indicators:
5	0.0%	
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is > 50%
8		3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
50% of Total Cover: 0 20% of Total Cover: 0  Shrub Stratum (Plot Size : 30)	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
1	0	
2		Indicators of hydric soil and wetland     hydrology must be present, unless disturbed or
3.		invariously infact be presently unless distarbed of
4.		Definition of Veretation Strate.
5		Definition of Vegetation Strata:
6.	0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover: 0		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30 )	0 = Total Cover	
1 . Spartina patens	90 🗸 94.7% FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2 . Ludwigia palustris	5.3% OBL	than 3 in. (7.6 cm) DBH.
3	0.0%	
4.	0.0%	Sapling/Shrub - Woody plants, excluding vines, less
	0 0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5		
6		Shrub - Woody plants, excluding woody vines,
7		approximately 3 to 20 ft (1 to 6 m) in height.
8		Herb - All herbaceous (non-woody) plants, including
9	0.0%	herbaceous vines, regardless of size, and woody
10	0.0%	plants, except woody vines, less than approximately
11	0.0%	3 ft (1 m) in height.
12	0.0%	
50% of Total Cover: 48 20% of Total Cover: 19  Woody Vine Stratum (Plot Size : 30)	95 = Total Cover	Woody vine - All woody vines, regardless of height.
1	0	
2		
3.		Under white
4		Hydrophytic Vegetation Yes No
5	0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
Remarks: (If observed, list morphological adaptations below).		<u> </u>
nemarks. (11 observed, list morphological adaptations below).		
*Indicator suffix = National status or professional decision assigned bed	cause Regional status not defined by FWS.	

SOIL Sampling Point: WP1022\_WET\_PEM\_A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix Redox Features								
(inches)	Color (moist)	<u></u>	Color (moist)	<u></u>	Tvpe1	Location <sup>2</sup> _	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Trues G. Connectivati	ion D-Donlation DM-1	Dodgood Ma	strik CC-Cayanad	as Coated	Soul Casina	21 continue DI - Dono	Haine MMatsir	
	on, D=Depletion, RM=F	Reduced IVI	atrix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Mir  Muck Presence 1 cm Muck (A9)  Depleted Below Thick Dark Surfa  Coast Prairie Re	(A2) ) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 eral (S1) (LRR O, S) atrix (S4)		Thin Date Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Surface chric (F1 ed Vertic (ent Floodp	face (F6) furface (F7) furface (F7) furface (F7) furface (F7) furface (F8) U) (F11) (MLRA 1 furface (F12) (F13) (LRR P, -7) (MLRA 151) (F18) (MLRA 1.51) furface (F18) (MLRA 1.51) furface (F19)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland i	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)				,	(, == ) (, ,== ; , = ; ; ,	,,,	
Restrictive Layer Type: Depth (inches):	. ,						lydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater Ter	minal SPM Pro	oject		City/County: San Patr	icio	Sampling D	ate:	2/11/2019
Applicant/Owner: Phillips 6	66 Pipeline, LL	_C		State	e: TX	Sampling Point:	WP1022	_WET_PEM_B
Investigator(s): B. Bringhu	ırst & A. Ostro	owski		Section	on, Township, R	Range: S N/A T	N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat	t		Local relief (concave	, convex, none)	: Concave	Slope:	1 % 0.6 °
Subregion (LRR): LRR T	,			Lat: 27.930099		<b>ng:</b> -97.177605	 Datum	
Soil Map Unit Name: Papalo	ato fino candy	loam 0 to 1 no	rcont clanac (DaA			sification: None		10.15.05
Tapaic	nte fille sariuy	ioaiii, o to 1 pe	rcent slopes (FaA		— NWI Class	- None		
Are climatic/hydrologic con	ditions on th	ne site typical	for this time of	year? Yes 💿	No (If	no, explain in Remark	s.)	
Are Vegetation , S	Soil 🗌 ,	or Hydrology	signi	ficantly disturbed?	Are "Normal	Circumstances" pres	ent? Ye	es 💿 No 🔾
Are Vegetation, S	ioil 🗌 ,	or Hydrology	natu	rally problematic?	(If needed, e	explain any answers i	n Remarks.)	
SUMMARY OF FINDINGS	SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Prese	ent?	Yes •	No O		0 1 1 4			
Hydric Soil Present?		Yes 💿	No 🔘		e Sampled Area n a Wetland?	a Ye	es 💿 No	$\circ$
Wetland Hydrology Present?		Yes 💿	No 🔘					
Hydrophytic vegetation, hydri  HYDROLOGY	c soil, and we	etland hydrology	are present. This	s is a wetland.				
Wetland Hydrology Indica	ators:							
Primary Indicators (Minim		reauired: chec	k all that apply	)	Second	darv Indicators (Minin	num of 2 rec	auired)
✓ Surface Water (A1)			Aquatic Fauna (	•		Sparsely Vegetated Co	•	
High Water Table (A2)			Marl Deposits (E	·		Drainage Patterns (B10		(50)
✓ Saturation (A3)			Hydrogen Sulfid			Moss Trim Lines (B16)	-	
Water Marks (B1)				pheres along Living Roots	(C3)	Dry Season Water Tabl		
Sediment Deposits (B2)			Presence of Rec			Crayfish Burrows (C8)	0 (02)	
Drift Deposits (B3)				duction in Tilled Soils (C6)		Saturation Visible on A	erial Imagery (	(C9)
Algal Mat or Crust (B4)			Thin Muck Surfa			Geomorphic Position (I		()
Iron Deposits (B5)			Other (Explain i	•		Shallow Aquitard (D3)	•	
Inundation Visible on Ae	rial Imagery (	B7)		,	✓	FAC-Neutral Test (D5)		
Water-Stained Leaves (B	9)					Sphagnum moss (D8)	(LRR T, U)	
Field Observations:								
Surface Water Present?	Yes •	No O	Depth (inch	es): 1				
Water Table Present?		No •	Depth (inch					
Saturation Present?		No O	Depth (inch		Wetlan	d Hydrology Present?	Yes •	No O
(includes capillary fringe)								
Describe Recorded Data (str	eam gauge, m	nonitor well, aer	ial photos, previo	us inspections), if available	e:			
D I								
Remarks:								

Sampling Point:	WP1022_WET_PEM_B
e Test worksheet:	

		Dominant Species?	Dominance Test worksheet:
	Absolute % Cover	Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC: (A)
Tree Stratum (Plot Size : 30)	Г		Total Number of Dominant
1	0		Species Across All Strata:1 (B
2	0	0.0%	
3	0		Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)
4	0	0.0%	
5	0	0.0%	Prevalence Index worksheet:
6	0	0.0%	Total % Cover of: Multiply by:
7	0	0.0%	OBL species $35 \times 1 = 35$
8 50% of Total Cover: 0 20% of Total Cover: 0	0		FACW species $50 \times 2 = 100$
50% of Total Cover: 0 20% of Total Cover: 0		= Total Cover	FAC species $0 \times 3 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30)	Г		FACU species $0 \times 4 = 0$
1	0		UPL species $0 \times 5 = 0$
2	0		Colum Totals: <u>85</u> (A) <u>135</u> (B)
3	0	0.0%	Prevalence Index = B/A= 1.588
4	0	0.0%	Hydrophytic Vegetation Indicators:
5	0	0.0%	
6	0	0.0%	1 - Rapid Test for Hydrophytic Vegetation
7	0	0.0%	2 - Dominance Test is > 50%
8			3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0		= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Shrub Stratum (Plot Size : 30)	. [		
1	0		<sup>1</sup> Indicators of hydric soil and wetland
2	0	0.0%	hydrology must be present, unless disturbed or
3	0		- fi fil
4	0		Definition of Vegetation Strata:
5	0	0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
6	0		(7.6 cm) or larger in diameter at breast height (DBH).
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	(**************************************
Herb Stratum (Plot Size : 30 )	[		Sapling - Woody plants, excluding woody vines,
1 . Spartina patens	50		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2Borrichia frutescens	10	11.8%OBL	than 3 m. (7.0 dm) DBM.
3 . Monanthochloe littoralis	10_ 5	11.8%OBL	Sapling/Shrub - Woody plants, excluding vines, less
4 . Marsilea macropoda	5	5.9%OBL 5.9%OBL	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5 . Ludwigia palustris 6 . Batis maritima	5	5.9% OBL	
7 ·	0	0.0%	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
8.	0	0.0%	approximately 3 to 20 ft (1 to 6 fff) in height.
9.	0	0.0%	Herb - All herbaceous (non-woody) plants, including
10.	0	0.0%	herbaceous vines, regardless of size, and woody
11 .	0	0.0%	plants, except woody vines, less than approximately 3 ft (1 m) in height.
12.	0	0.0%	3 it (1 m) in neight.
50% of Total Cover: 43 20% of Total Cover: 17	85	= Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30 )	_		Woody ville - All woody villes, regardless of height.
1	0	0.0%	
2.	0	0.0%	
3.	0	0.0%	Hydrophytic
4	0	0.0%	Hydrophytic Vegetation Yes No
5.	0	0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	
Compelies (If observed list mountains I doubt time I doubt			l
Remarks: (If observed, list morphological adaptations below).			
*Indicator suffix = National status or professional decision assigned bec	ause Regional s	tatus not defined by FWS.	

SOIL Sampling Point: WP1022\_WET\_PEM\_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix Redox Features								
(inches)	Color (moist)	<u></u>	Color (moist)	<u></u>	Tvpe1	Location <sup>2</sup> _	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Trues G. Connectivati	ion D-Donlation DM-1	Dodgood Ma	strik CC-Cayanad	as Coated	Soul Casina	21 continue DI - Dono	Haine MMatsir	
	on, D=Depletion, RM=F	Reduced IVI	atrix, CS=Covered	or Coated	Sand Grains.	<sup>2</sup> Location: PL=Pore		
5 cm Mucky Mir  Muck Presence 1 cm Muck (A9)  Depleted Below Thick Dark Surfa  Coast Prairie Re	(A2) ) e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 eral (S1) (LRR O, S) atrix (S4)		Thin Date Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Surface chric (F1 ed Vertic (ent Floodp	face (F6) furface (F7) furface (F7) furface (F7) furface (F7) furface (F8) U) (F11) (MLRA 1 furface (F12) (F13) (LRR P, -7) (MLRA 151) (F18) (MLRA 1.51) furface (F18) (MLRA 1.51) furface (F19)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  3Indicators wetland i	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)				,	(, == ) (, ,== ; , = ; ; ,	,,,	
Restrictive Layer Type: Depth (inches):	. ,						lydric Soil Present? Ye	s • No 🔾
Remarks:								

vestigator(s): B. Bringhurst & A. Ostrowski  Section, Township, Range: S N/A T N/A R N/A  Indform (hillslope, terrace, etc.): Flat  Local relief (concave, convex, none): Convex  Slope: 1 % 0.6 °  shregion (LRR): LRR T  Lat: 27.931112  Long: -97.17669  Datum: NAD 83  India Map Unit Name: Papalote fine sandy loam, 0 to 1 percent slopes (PaA)  NWI Classification: None  Recilimatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)  JMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No   Is the Sampled Area within a Wetland?  Wetland Hydrology Present? Yes No   Wetland?  Wetland Hydrology Present? Yes No   Wetland?  Wetland Hydrology Present? Yes No   Wetland?	Project/Site: Bluewater Ter	minal SPM Pro	ject		City/County: San Patr	ricio	Sampling D	ate:	2/11/2019
Interpretation (LRR): LRR T	Applicant/Owner: Phillips (	56 Pipeline, LL	С		State	e: TX	Sampling Point:	WP1022	_WET_PEM_C
Lat: 27.931112   Long: -97.17669   Datum: NAD 83     Map Unit Name:   Papalote fine sandy loam, 0 to 1 percent slopes (PaA)   NWI Classification: None	Investigator(s): B. Bringhu	urst & A. Ostro	wski		Section	on, Township, R	Range: S N/A T	N/A	R N/A
Lat: 27.931112   Long: -97.17669   Datum: NAD 83     Map Unit Name:   Papalote fine sandy loam, 0 to 1 percent slopes (PaA)   NWI Classification: None	 Landform (hillslope, terrace	, etc.): Flat			Local relief (concave	, convex, none)	: Convex	Slope:	1 % 0.6 °
Are Vegetation   , Soil   , or Hydrology   significantly disturbed?   Are "Normal Circumstances" present?   Yes   No   (If no, explain in Remarks.)   Are Vegetation   , Soil   , or Hydrology   significantly disturbed?   Are "Normal Circumstances" present?   Yes   No   Are Vegetation   , Soil   , or Hydrology   significantly disturbed?   Are "Normal Circumstances" present?   Yes   No   Are Vegetation   , Soil   , or Hydrology   significantly disturbed?   Are "Normal Circumstances" present?   Yes   No	Subregion (LRR): LRR T							— Datun	1: NAD 83
e climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology   significantly disturbed? Are "Normal Circumstances" present? Yes No    Are Vegetation , Soil , or Hydrology   naturally problematic? (If needed, explain any answers in Remarks.)  JMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.  Hydrology Pesent? Yes No   Is the Sampled Area within a Wetland? Yes No   Wetland? Yes No    Wetland Hydrology Present? Yes No   Wetland? Yes No   Yes Yes No   Wetland? Yes No   Wetland? Yes No   Wetland? Yes No   Wetland		nte fine sandy '	loam 0 to 1 per	cent slones (PaA				_	
Are Vegetation					·	_			
Are Vegetation	Are climatic/hydrologic con	ditions on the	e site typical f	or this time of	year? Yes ●	No (If i	no, explain in Remark	s.)	
JMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes  No  Is the Sampled Area within a Wetland? Yes  No  Wetland Hydrology Present? Yes  No  Wetland Hydrology Present? Yes  No  Secondary Indicators:  Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.  WYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (Minimum of one required; check all that apply)  Secondary Indicators (Minimum of 2 required)  Surface Water (A1)	Are Vegetation, S	ioil 🗌 , o	or Hydrology	signi	ficantly disturbed?	Are "Normal	Circumstances" prese	ent? Ye	s 💿 No 🔾
Hydrophytic Vegetation Present?  Yes No Wettand Hydrology Indicators:  Primary Indicators (Minimum of one required; check all that apply)  If surface Water (A1) High Water Table (A2) High Water Table (A2) Marl Deposits (B15) (LRR U) Hydrogen Sulfide Odor (C1) Wotaration (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Sediment Deposits (B2) Diff Deposits (B3) Recent Iron Reduction in Tilled Solls (C6) Diff To Deposits (B3) Inundation Visible on Aerial Imagery (B7) Water Table Present? Ves No Depth (inches): Saturation Present? Ves No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Obescribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Are Vegetation, S	ioil , c	or Hydrology	natu	rally problematic?	(If needed, e	explain any answers i	n Remarks.)	
Hydric Soil Present?  Wetland Hydrology Present?  Yes No No Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.  WETUROLOGY  Wetland Hydrology Indicators:  Secondary Indicators:  Minimum of 2 required)  Secondary Indicators:  Minimum of 2 required)  Secondary Indicators:  Minimum of 2 required)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows:  Dry Season Water Table (C2)  Crayfish Burrows:  Dry Season Water Table:  Dry Season Water Table:	SUMMARY OF FINDINGS	5 – Attach s	site map sho	wing samplin	ng point locations, t	ransects, imp	ortant features, etc	C.	
Hydric Soil Present?  Wetland Hydrology Present?  Yes No No Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.  WETUROLOGY  Wetland Hydrology Indicators:  Winimum of 2 required)  Secondary Indicators:  Minimum of 2 required)  Secondary Indicators:  No Secondary Indicators:  Minimum of 2 required)  Secondary Indicators:  No	Hydrophytic Vegetation Prese	ent?	Yes •	No O					
Wetland Hydrology Present? Yes No No No North No			Yes •	No O			a Ye	s 💿 No	$\bigcirc$
Remarks: Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.  WDROLOGY  Wetland Hydrology Indicators: Primary Indicators (Minimum of one required; check all that apply)  Secondary Indicators (Minimum of 2 required)  Joseph Water (A1)  Joseph Water (A1)  Water Apple (A2)  High Water Table (A2)  Mard Deposits (B15)  Water Marks (B1)  Direction (A3)  Recent Iron Reduction in Tilled Solls (C6)  Iron Deposits (B3)  Iron Deposits (B3)  Thin Muck Surface (C7)  Direction (A3)  Water Table (A2)  Direction (A3)  Recent Iron Reduction in Tilled Solls (C6)  Thin Muck Surface (C7)  Direction (A3)  Water Table (A2)  Direction (A3)  Recent Iron Reduction in Tilled Solls (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	•				Within	i a welland:			
Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.    YOROLOGY									
Wetland Hydrology Indicators:  Primary Indicators (Minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Water Marks (B1)  Davidized Rhizospheres along Living Roots (C3)  Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Present?  Yes  No  Depth (inches):  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:  Secondary Indicators (Minimum of 2 required)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Observious inspections), if available:		ic soil, and wet	tland hydrology	are present. This	is a wetland.				
Wetland Hydrology Indicators:  Primary Indicators (Minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Water Marks (B1)  Davidized Rhizospheres along Living Roots (C3)  Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Present?  Yes  No  Depth (inches):  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:  Secondary Indicators (Minimum of 2 required)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Observious inspections), if available:									
Wetland Hydrology Indicators:  Primary Indicators (Minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Water Marks (B1)  Davidized Rhizospheres along Living Roots (C3)  Diffic Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Present? Yes No Depth (inches):  Secondary Indicators (Minimum of 2 required)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Surface Water Present? Yes No Depth (inches):  On Wetland Hydrology Present? Yes No									
Primary Indicators (Minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Marl Deposits (B15) (LRR U)  Water Marks (B1)  Oxidized Rhizospheres along Living Roots (C3)  Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  In Deposits (B5)  In Inundation Visible on Aerial Imagery (B7)  Water Staircation Research?  Water Present?  Yes  No  Depth (inches):  Saturation research?  (includes capillary fringe)  Prevince (A1)  Aquatic Fauna (B13)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Prainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes  No  Depth (inches):  Omega Patterns (B10)  Prainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes  No  Depth (inches):  Omega Patterns (B10)  Prainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes  No  Depth (inches):  Omega Patterns (B10)  Depth (inches):  O	HYDROLOGY								
✓ Surface Water (A1)       ✓ Aquatic Fauna (B13)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Marl Deposits (B15) (LRR U)       Drainage Patterns (B10)         ✓ Saturation (A3)       Hydrogen Sulfide Odor (C1)       Moss Trim Lines (B16)         Water Marks (B1)       Oxidized Rhizospheres along Living Roots (C3)       Dry Season Water Table (C2)         Sediment Deposits (B2)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         I ron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         I undation Visible on Aerial Imagery (B7)       FAC-Neutral Test (D5)         Water-Stained Leaves (B9)       Sphagnum moss (D8) (LRR T, U)     Wetland Hydrology Present? Yes No Depth (inches):  Output (inches):  Depth (inches):  Output (inches):  Ou	Wetland Hydrology Indica	ators:							
High Water Table (A2)  Marl Deposits (B15) (LRR U)  Saturation (A3)  Hydrogen Sulfide Odor (C1)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Sediment Deposits (B1)  Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  FIGURE Observations:  Surface Water Present?  Yes  No  Depth (inches):  Saturation Present?  Yes  No  Depth (inches):  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Primary Indicators (Minim	num of one re	equired; checl	<u>call that apply)</u>	)	Second	dary Indicators (Minin	num of 2 rec	juired)
High Water Table (A2)  Marl Deposits (B15) (LRR U)  Vaturation (A3)  Hydrogen Sulfide Odor (C1)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Sediment Deposits (B2)  Drift Deposits (B3)  Recent Iron Reduction in Tilled Soils (C6)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	✓ Surface Water (A1)		<b>✓</b>	Aquatic Fauna (	B13)		Sparsely Vegetated Cor	ncave Surface	(B8)
✓ Saturation (A3)       Hydrogen Sulfide Odor (C1)       Moss Trim Lines (B16)         Water Marks (B1)       Oxidized Rhizospheres along Living Roots (C3)       Dry Season Water Table (C2)         Sediment Deposits (B2)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         Iron Deposits (B5)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Inundation Visible on Aerial Imagery (B7)       FAC-Neutral Test (D5)         Water-Stained Leaves (B9)       Sphagnum moss (D8) (LRR T, U)     Field Observations:  Surface Water Present?  Yes No Depth (inches):  Depth (inches):  Saturation Present?  Yes No Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Output (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Output (inches):  No Depth (inches):  Depth (inches):  Depth (inches):  Output (inches):  No Depth (inches):  Output (inches):  No Depth (inches):  No Depth (inches):  No Depth (inches):  No Depth (inches):  Output (inches):  No Depth (inches):	High Water Table (A2)			Marl Deposits (E	315) (LRR U)				,
Sediment Deposits (B2)	✓ Saturation (A3)			Hydrogen Sulfid	e Odor (C1)		Moss Trim Lines (B16)		
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Geomorphic Position (D2) Shallow Aquitard (D3) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes No Depth (inches): Gincludes capillary fringe)  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Water Marks (B1)			Oxidized Rhizos	pheres along Living Roots	(C3)		e (C2)	
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Field Observations: Surface Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes No Depth (inches): Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes No Depth (inches): Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)  Wetland Hydrology Present? Yes No Depth (inches): Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)	Sediment Deposits (B2)			Presence of Red	luced Iron (C4)			,	
Algal Mat or Crust (B4)	Drift Deposits (B3)			Recent Iron Rec	duction in Tilled Soils (C6)			erial Imagery (	(C9)
Iron Deposits (B5)									()
Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  FAC-Neutral Test (D5)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches): 2  Water Table Present? Yes No Depth (inches): 0  Wetland Hydrology Present? Yes No Depth (inches): 0  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:								/	
Water-Stained Leaves (B9)  Sphagnum moss (D8) (LRR T, U)  Field Observations:  Surface Water Present? Yes No Depth (inches): 2  Water Table Present? Yes No Depth (inches): 5  Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0  Depth (inches): 0  Wetland Hydrology Present? Yes No No Depth (inches): 1  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:		rial Imagery (E	37)	Other (Explain ii	ir Kemarks)	<b>✓</b>			
Field Observations:  Surface Water Present? Yes No Depth (inches): 2  Water Table Present? Yes No Depth (inches): 5  Saturation Present? Yes No Depth (inches): 0  Depth (inches): 0  Wetland Hydrology Present? Yes No Depth (inches): 1  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:		<i>5</i> , \	<i>,,</i>				, ,	(IRR T II)	
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 5 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0  Depth (inches): 0  Wetland Hydrology Present? Yes No No Depth (inches): 0							Spriagram moss (56) (	Litte 1, 0)	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe)  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  No Depth (inches):  Depth (inches):  No Depth (inches):  Depth (inches):  O  Wetland Hydrology Present? Yes No  No Depth (inches):  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:		Vac (a)	No.	Donth (inch	200				
Saturation Present? (includes capillary fringe)  Yes No Depth (inches): 0  Wetland Hydrology Present? Yes No No Depth (inches): 10  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:			_						
(includes capillary fringe)  Yes  No  Depth (incnes):  0  Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:			, <b>10</b>			Wetlan	d Hydrology Present?	Voc 🜘	No.
		Yes 💌 N	No O	Depth (inche	es):	Wecian	a riyarology Fresent:	165	140
Remarks:	Describe Recorded Data (stro	eam gauge, m	onitor well, aeri	al photos, previou	us inspections), if available	e:			
Remarks:		5 5 ,			, ,,				
Remarks:									
	Remarks:								

20% of Total Cover: 0

(Plot Size : <u>30</u> )

20% of Total Cover: 0

20% of Total Cover: 17

20% of Total Cover: 0

(Plot Size : 30 )

(Plot Size : 30 )

**Tree Stratum** 

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

3 . Monanthochloe littoralis

5 . Eleocharis montevidensis

4. Borrichia frutescens

50% of Total Cover: 43

50% of Total Cover: 0

**Woody Vine Stratum** 

1.\_\_\_

1 . Spartina patens 2 . Distichlis spicata

1.\_\_\_\_

**Herb Stratum** 

Sapling or Sapling/Shrub Stratum (Plot Size : 30 )

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0\_

0 \_

0

0 0

0

0

0

0

0

0

0

0

0

0

0

10

5

5

0

0

0 0

0

0

85

0

0

0

0

Rel.Strat. Indicator

0.0%\_

0.0%

0.0%\_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%\_

0.0% 0.0%

0.0%

0.0%

0.0%

= Total Cover

45 **✓** \_\_52.9% FACW

23.5% OBL \_\_\_11.8%\_\_OBL

5.9% OBL

0.0%

0.0%\_ 0.0%

0.0%\_

0.0%\_ 0.0%

0.0%\_

0.0%

0.0%

0.0%

0.0%

\_\_\_\_0.0%\_\_\_\_

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

5.9% FACW

0.0%

0.0%

Status

Sampling Point:	WP1022_WET_PEM	_c				
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC:	2	(A)				
Total Number of Dominant Species Across All Strata:	2	(B				
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%_	(A/B)				
Prevalence Index worksheet	•					
Total % Cover of:	Multiply by:					
OBL species 35	x 1 = 35					
FACW species 50						
FAC species 0	•					
FACU species 0	x 4 = 0					
UPL species0	x = 0					
Colum Totals: 85	(A) <u>135</u>	(B)				
Prevalence Index = B/A=	1.588					
Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or						
Definition of Vegetation	Strata:					
Tree - Woody plants, excludapproximately 20 ft (6 m) or (7.6 cm) or larger in diamet	more in height and 3					
Sapling - Woody plants, exapproximately 20 ft (6 m) on than 3 in. (7.6 cm) DBH.		ess				
Sapling/Shrub - Woody plar than 3 in. DBH and greater		ess				
Shrub - Woody plants, excluapproximately 3 to 20 ft (1 t						
Herb - All herbaceous (non- herbaceous vines, regardle: plants, except woody vines, 3 ft (1 m) in height.	ss of size, and woody	_				
Woody vine - All woody vine	es, regardless of heigh	nt.				

	_	
Remarks: (If observed,	, list morphological	adaptations below).

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O