City/County: San Patricio

Sampling Date:

2/12/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1040_WET_PEM
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 (co	oncave, convex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.92846	52 Long: -97.159011 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally flooder	d (GM) NWI Classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation , Soil , or Hydrology isignificantly disturbe	
Are Vegetation , Soil , or Hydrology naturally problemation	c? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present?	within a Wetland?
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.	
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (Minimum of one required; check all that apply)	Secondary Indicators (Minimum of 2 required)
✓ Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2) Marl Deposits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Livin	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled So	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aguitard (D3)
Inundation Visible on Aerial Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations	
Field Observations: Surface Water Present? Yes No Depth (inches): 2	
Saturation Procent?	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe) Yes No Depth (inches): 0	The state of the s
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if	available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 13

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

50% of Total Cover: 33

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Eleocharis montevidensis 2 . Ludwigia palustris

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

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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

60 **✓** __92.3% FACW

7.7% 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

= Total Cover

0.0%

0.0%

Status

Dominance Test	worksheet:			
Number of Domina				
That are OBL, FAC	W, ro FAC:			(A)
Total Number of D Species Across All			3	(B
Percent of Domina That are OBL, FAC			33.3%	(A/B)
Prevalence Inde	x worksheet:			
Total % Cove	er of:	Multipl	y by:	_
OBL species	5_	x 1	=5	
FACW species	60_	x 2 :	120	
FAC species	0	x 3 :	=0	
FACU species	0	x 4	=	
UPL species	0	x 5		
Colum Totals:	70	(A)	265	(B)
Prevalence	Index = B/A =		3.786	
Hydrophytic Veg	etation Indica	ators:		
2 - Dominan 3 - Prevalen Problematic	st for Hydropl ce Test is > 5 ce Index is ≤ Hydrophytic \ hydric soil an	0% 3.0¹ /egetat	ion¹ (Explai	n)
2 - Dominan 3 - Prevalen	ce Test is > 5 ce Index is ≤ Hydrophytic \ hydric soil and	0% 3.0¹ /egetat	ion¹ (Explai nd	n)
2 - Dominan 3 - Prevalen Problematic	ce Test is > 5 ce Index is ≤ Hydrophytic \ hydric soil and t be present, u	0% 3.0¹ /egetat d wetla inless d	ion¹ (Explai nd isturbed or	n)
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must	tee Test is > 5 ce Index is ≤ Hydrophytic \ hydric soil and the present, the present, the present of the prese	Jow 3.01 Vegetat d wetla inless d Strata ng woo more in	ion¹ (Explai nd isturbed or dy vines, height and	3 in.
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately 2	to the present, to the present to the p	0% 3.0¹ /egetat d wetla inless d Strata ng woo more in r at bre uding v	ion¹ (Explaind isturbed or ist	3 in. DBH).
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately (7.6 cm) or large Sapling - Wood approximately (2.4 cm)	to the present, to the present to the p	0% 3.0¹ /egetat d wetla inless d Strata ng woo more in r at bre uding v more in	ion¹ (Explai and isturbed or : dy vines, height and ast height (I voody vines, height and	3 in. DBH). less
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately (7.6 cm) or large Sapling - Wood approximately (8 than 3 in. (7.6 cm) Sapling/Shrub - Sapling/	to the present, to the present to the	0% 3.0¹ /egetat d wetla inless d Strata ng woo more in r at bre uding v more in s, exclunan 3.2 ding woo	ion¹ (Explai nd isturbed or : dy vines, height and ast height (I voody vines, height and uding vines, 8 ft (1m) tall ody vines,	3 in. DBH). less
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody paproximately 2 (7.6 cm) or large Sapling - Wood approximately 2 than 3 in. (7.6 cm) Sapling/Shrub-than 3 in. DBH Shrub - Woody	tee Test is > 5 ce Index is ≤ Hydrophytic \(\) hydric soil and the present, the present, the present, the present of the pre	ob% 3.01 /egetat d wetla inless d Strata ng woo more in r at bre uding v more in s, exclusion 3.2 ding wo 6 m) ir /oody) s of size	ion¹ (Explai ind isturbed or : dy vines, height and ast height (I voody vines, height and uding vines, 8 ft (1m) tall ody vines, height.	3 in. DBH). less less .

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

SOIL Sampling Point: WP1040_WET_PEM

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)	<u> Tvpe¹</u>	Location ²	Texture	Remarks
0 - 16	10YR 7/1 100				Sand	
	ion, D=Depletion, RM=Reduced	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore L	-	
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) feral (S1) (LRR O, S) latrix (S4)	Thin Dalamy Loamy Loamy 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) E Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 151 ent Floodplain Soils (F15) allous Bright Loamy Soils	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (150A, 150B) 9) (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)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	s • No O
Remarks:						

City/County: San Patricio

Sampling Date:

2/12/2019

Applicant/Owner: Phillips	66 Pipeline, LLC			State	e: TX	Sampling Point:		WP104	1_UP
Investigator(s): B. Bringh	urst & A. Ostrowski	i		Section	on, Township,	Range: S N/A	T N/A	RN	I/A
Landform (hillslope, terrace	e, etc.): Flat		Local re	elief (concave,	, convex, none	e): Convex		Slope: 1	% 0.6 °
Subregion (LRR): LRR T			 Lat: 2	27.928092	Lo	ong: -97.156784		Datum:	NAD 83
Soil Map Unit Name: Galve	eston-Mustana com	plex. 0 to 3 r				ssification: PEM1A		_	
					_				
Are climatic/hydrologic con				Yes (•)		no, explain in Rema	-	_	
Are Vegetation, \$	Soil , or H	ydrology	significantly d		Are "Norma	l Circumstances" pro	esent?	Yes 🤄	No 🔾
Are Vegetation, \$	Soil , or H	ydrology	naturally prob	lematic?	(If needed,	explain any answers	s in Ren	narks.)	
SUMMARY OF FINDING	S – Attach site	map show	wing sampling point	locations, ti	ransects, imi	portant features,	etc.		
Hydrophytic Vegetation Pres		Yes •	No O			<u> </u>			
Hydric Soil Present?	ciic:	Yes •	No O		e Sampled Are	ea	Yes O	No 💿	
l '				Withir	n a Wetland?				
Wetland Hydrology Present?		Yes U	No •						
Remarks: Hydrophytic vegetation and v	wetland hydrology:	are not prese	ent. This is not a wetland.						
Tryarophytic vegetation and t	wedana nyarology t	are not prest	sita i i i i i i i i i i i i i i i i i i						
l									
HYDROLOGY									
Wetland Hydrology Indic	atore:								
Primary Indicators (Minin		irad: chack	all that annly)		Secon	ndary Indicators (Mir	nimum <i>(</i>	of 2 require	ad)
	num or one requ	ileu, check	,		<u>36001</u>			-	-
Surface Water (A1) High Water Table (A2)			Aquatic Fauna (B13) Marl Deposits (B15) (LRR	LIN		Sparsely Vegetated		Surface (B8)	
Saturation (A3)			Hydrogen Sulfide Odor (C:	=		Drainage Patterns (E	-		
Water Marks (B1)			Oxidized Rhizospheres alo	-	(C3)	✓ Moss Trim Lines (B1✓ Dry Season Water Tale	-	\	
Sediment Deposits (B2)			Presence of Reduced Iron		(65)	Crayfish Burrows (C)	
Drift Deposits (B3)			Recent Iron Reduction in	• •		Saturation Visible on	-	magany (CQ)	
Algal Mat or Crust (B4)			Thin Muck Surface (C7)	rilled Soils (eo)		Geomorphic Position		nagery (C3)	
Iron Deposits (B5)			Other (Explain in Remarks	1		Shallow Aquitard (D3			
Inundation Visible on Ae	erial Imagery (B7)		Other (Explain in Remarks	7)		FAC-Neutral Test (D	-		
Water-Stained Leaves (E						Sphagnum moss (D8	-	- 11)	
						Spriagram mess (Be) (LIUV I	, 0)	
Field Observations:	V O N-								
Surface Water Present?	Yes O No	•	Depth (inches):	_					
Water Table Present? Saturation Present?	Yes 🔾 No	•	Depth (inches):						
(includes capillary fringe)	Yes O No	\odot	Depth (inches):		Wetlai	nd Hydrology Presen	it? Ye	s O r	4 0 •
Describe Recorded Data (st	ream gauge, monito	or well, aeria	ıl photos, previous inspecti	ons), if available	e:				
Describe Necoraea Data (sa	cam gaage, monte	or vien, dene	ii priotos, previous inspecti	ono,, ii availabi	. .				
Remarks:									

Project/Site: Bluewater Terminal SPM Project

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC: (A)
e Stratum (Plot Size : <u>30</u>)	0 0.0%	Total Number of Dominant
-		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:
		- X
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	17.cm species
		FAC species $0 \times 3 = 0$
<u>lling or Sapling/Shrub Stratum</u> (Plot Size : <u>30</u>)		FACU species $\underline{65} \text{x 4} = \underline{260}$
		UPL species $0 \times 5 = 0$
•		Colum Totals:
		Prevalence Index = B/A= 3.857
•		Hydrophytic Vegetation Indicators:
		✓ 1 - Rapid Test for Hydrophytic Vegetation
	0.0%	2 - Dominance Test is > 50%
	0	3 - Prevalence Index is ≤ 3.0 ¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30) 		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
•		Definition of Vegetation Strate.
		Definition of Vegetation Strata:
	0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
•	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
b Stratum (Plot Size : <u>30</u>)		Sapling - Woody plants, excluding woody vines,
. Cvnodon dactvlon		approximately 20 ft (6 m) or more in height and less
. Eleocharis montevidensis	5	than 3 in. (7.6 cm) DBH.
	0 0.0%	Sapling/Shrub - Woody plants, excluding vines, less
	0 0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
-	0	
·	0	Shrub - Woody plants, excluding woody vines,
	0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
	0	
	0 0.0%	Herb - All herbaceous (non-woody) plants, including
	0.0%	herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
	00.0%	3 ft (1 m) in height.
	0.0%	
50% of Total Cover: 35 20% of Total Cover: 14	70 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		The state of the s
•	0.0%	
•		
•		Hydrophytic
•		Vegetation Yes No Present ?
	0	
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	

SOIL Sampling Point: WP1041_UP

Profile Description	n: (Describe to th	ne depth	needed to docui	nent the	indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 6/1	100					Sand	
[†] Type: C=Concentratio	on, D=Depletion, RM=	-Reduced N	Лatrix, CS=Covered (or Coated :	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
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 Rec Sandy Muck Min Sandy Gleyed Ma Sandy Redox (St Stripped Matrix (e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (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 Mi Gleyed M ed Matrix (Dark Surface Depression 10) (LRR ed Ochric anganese Surface (Su	(F3) ace (F6) urface (F7) ns (F8) U) (F11) (MLRA 1 Masses (F12) F13) (LRR P, - 7) (MLRA 151) F18) (MLRA 1! lain Soils (F19	.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 Rem 3Indicators wetland i	R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) face (TF12)
Restrictive Layer (Type: Depth (inches):	,						lydric Soil Present? Ye	s • No O
Remarks:								

Project/Site: Bluewater T	erminal SPM Pro	ject		City/County: San Patr	icio	Sampling D	Pate: 2/12/2019	9
Applicant/Owner: Phillips	66 Pipeline, LL	С		State	e: TX	Sampling Point:	WP1041_WET_P	PEM
Investigator(s): B. Bringl	nurst & A. Ostro	wski		Section	on, Township, R	tange: S N/A T	N/A R N/A	
 _andform (hillslope, terrac	e, etc.): Flat			Local relief (concave	, convex, none)	: Concave	Slope: 1 %	0.6 °
Subregion (LRR): LRR T				Lat: 27.928143	•	ng: -97.156529	 Datum: NAI	D 83
Soil Map Unit Name: Galv	acton Mustana	complay 0 to 2	norcont clanac is		-	sification: None		
Gaiv	eston-Mustany t	Joinplex, 0 to 5 p	Jercent Slopes, o	occasionally flooded (Girl)	— NWI Class	mication. None		
Are climatic/hydrologic co	nditions on th	e site typical f	or this time of	year? Yes 💿	No (If	no, explain in Remark	s.)	
Are Vegetation ,	Soil , c	or Hydrology	signi	ficantly disturbed?	Are "Normal	Circumstances" prese	ent? Yes 💿 No	io 🔾
Are Vegetation,	Soil , c	or Hydrology	natu	rally problematic?	(If needed, e	explain any answers i	n Remarks.)	
SUMMARY OF FINDING	S – Attach s	site map show	wing samplin	ng point locations, tr	ransects, imp	ortant features, et	С.	
Hydrophytic Vegetation Pre	sent?	Yes 🔘	No •	le the	. Camarala d Ara			
Hydric Soil Present?		Yes 💿	No 🔘		e Sampled Area n a Wetland?	a Ye	es O No 💿	
Wetland Hydrology Present)	Yes •	No O					
Remarks: Hydrophytic vegetation, hyd HYDROLOGY	lric soil, and wet	tland hydrology a	are present. This	s is a wetland.				
Wetland Hydrology Indi	cators							
Primary Indicators (Mini		aguirad: chack	r all that annly	١	Sacono	dary Indicators (Minin	num of 2 required)	
	mum of one is	equired, check		-	Second			
✓ Surface Water (A1)			Aquatic Fauna (I	•		Sparsely Vegetated Co	` ,	
High Water Table (A2)			Marl Deposits (E			Drainage Patterns (B10	•	
✓ Saturation (A3) Water Marks (B1)			Hydrogen Sulfid		(63)	Moss Trim Lines (B16)		
				pheres along Living Roots	(C3)	Dry Season Water Tabl	ie (C2)	
Sediment Deposits (B2)		Presence of Red			Crayfish Burrows (C8)	. ! .!	
Drift Deposits (B3)				duction in Tilled Soils (C6)		Saturation Visible on A		
Algal Mat or Crust (B4)			Thin Muck Surfa	• •		Geomorphic Position (I)2)	
Iron Deposits (B5) Inundation Visible on A	arial Imagon, (E	١٣٠١	Other (Explain i	n Remarks)		Shallow Aquitard (D3)		
	<i>-</i> , ,	57)			•	FAC-Neutral Test (D5)	(100 T 11)	
Water-Stained Leaves (В9)					Sphagnum moss (D8) ((LRR T, U)	
Field Observations:			,					
Surface Water Present?		No 🔾	Depth (inche	es):				
Water Table Present?	Yes 🔾 I	No 💿	Depth (inche	es):				
Saturation Present? (includes capillary fringe)	Yes 1	No O	Depth (inche	es):0	Wetlan	d Hydrology Present?	Yes • No C)
Describe Recorded Data (s Remarks:	cream gauge, m	onitor well, aeria	Il photos, previou	us inspections), if available	e:			

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 18

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

50% of Total Cover: 45

50% of Total Cover: 0

Woody Vine Stratum

1.___

1 . Eleocharis montevidensis 2 . Ludwigia palustris

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

0

90

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

75 ✓ 83.3% FACW

16.7% 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

Present ?

= Total Cover

0.0%

0.0%

Status

Dominance Test wor	ksheet:			
Number of Dominant S That are OBL, FACW, r			0	(A)
Total Number of Domir Species Across All Strat			1	(B
Percent of Dominant Sp That are OBL, FACW, o			0.0%	(A/B)
Prevalence Index we	orksheet:			
Total % Cover of	:	Multip	ly by:	_
OBL species	15_	x 1	=15_	
FACW species	75	x 2	=150_	
FAC species	0	x 3	=0	
FACU species	0	x 4	=0	
UPL species	0	x 5		
Colum Totals:	70	(A)	270	(B)
Prevalence Inde	x = B/A=		3.857	
	Man Toda			
1 - Rapid Test fo 2 - Dominance I 3 - Prevalence I Problematic Hyo	or Hydroph Test is > 50 Index is \le ! Irophytic \text{!} Iric soil and	0% 3.0¹ /egeta	tion¹ (Expla	•
2 - Dominance T 3 - Prevalence I Problematic Hyd	or Hydroph Test is > 50 Index is \le ! Irophytic \text{!} Iric soil and	0% 3.0¹ /egeta	tion¹ (Expla	•
1 - Rapid Test fo 2 - Dominance I 3 - Prevalence I Problematic Hyo	or Hydroph Test is > 50 Index is ≤ 1 Irophytic N Iric soil and present, u	0% 3.0¹ /egeta d wetla	tion¹ (Expla and disturbed or	•
1 - Rapid Test fo 2 - Dominance I 3 - Prevalence I Problematic Hyo 1 Indicators of hyd	or Hydroph Test is > 50 Index is \leq 1 Index is \leq 1 Index is \leq 1 Index is \leq 2 Index	0% 3.0¹ /egeta d wetla inless o Strata ng woo more ii	tion¹ (Expla	3 in.
1 - Rapid Test for 2 - Dominance I 3 - Prevalence I Problematic Hydrology must be Definition of Veg Tree - Woody plan approximately 20 ff	ric soil and present, under the collamon of th	3.01 /egeta d wetlanless of Strata ng woo more in r at bre uding	tion¹ (Explained or library in the l	3 in. DBH).
1 - Rapid Test for 2 - Dominance I 3 - Prevalence I Problematic Hydrology must be 1 Indicators of hydrology must be Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger in Sapling - Woody plan approximately 20 ff approximately 20 ff	ric soil and present, under the diameter than th	0% 3.0¹ /egeta d wetlanless of Strata ng woo more in r at bre uding von more in	tion¹ (Explained disturbed or i: body vines, height and east height (woody vines height and	3 in. DBH). i, less
1 - Rapid Test for 2 - Dominance I 3 - Prevalence I Problematic Hydrology must be 1 Indicators of hydrology must be Definition of Vegorial Tree - Woody plant approximately 20 ff (7.6 cm) or larger in Sapling - Woody plant approximately 20 ff than 3 in. (7.6 cm) Sapling/Shrub - Woody plant approximately 20 ff than 3 in. (7.6 cm)	ric soil and present, u getation ts, excludit (6 m) or in diamete (6 m) or in DBH.	0% 3.0¹ /egeta d wetlanless of Strata ng woo more in r at bre uding von more in s, exclanan 3.2 ding wo	tion¹ (Explained disturbed or i: body vines, height and east height (woody vines height and uding vines, the fit (1m) tal	3 in. DBH). i, less
1 - Rapid Test for 2 - Dominance To 3 - Prevalence I Problematic Hydrology must be Definition of Vego Tree - Woody plant approximately 20 ff (7.6 cm) or larger in Sapling - Woody plant approximately 20 ff than 3 in. (7.6 cm) Sapling/Shrub - Wothan 3 in. DBH and Shrub - Woody plant and Shrub	ric soil and present, u getation ts, excludit (6 m) or u and diamete the cody plant greater the cody plant greater the cody fit (1 to ous (non-weight essent).	ob% 3.01 /egeta d wetlanless of Strata ng woo more in r at bre uding wo more in s, excl nan 3.2 ding wo 6 m) i	tion¹ (Explained or literal li	3 in. DBH). i, less less l.

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

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

SOIL Sampling Point: WP1041_WET_PEM

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	or confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) %	Color (moist)		Location ²	Texture	Remarks
0 - 16	10YR 6/2 100				Sand	
¹ Type: C=Concentrati	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² 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 Do Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	lue Below Surface (S8) ark Surface (S9) (LRR : Mucky Mineral (F1) (L 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) (MLRA langanese Masses (F12 c Surface (F13) (LRR P, Dchric (F17) (MLRA 15) ed Vertic (F18) (MLRA ont Floodplain Soils (F1 alous Bright Loamy Soil	151)) (LRR O, P, T) T, U) L) 150A, 150B) 9) (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)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	s • No O
Remarks:						

City/County: San Patricio

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1042_UP
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, R	ange: S N/A T N	N/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local rel	ief (concave, convex, none)	: Convex	Slope: 2 % 1.1 °
Subregion (LRR): LRR T	Lat: 27	7.928011 Lo r	g: -97.156364	Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang compl	ex, 0 to 3 percent slopes, occasionally	flooded (GM) NWI Class	sification: None	
Are climatic/hydrologic conditions on the site			no, explain in Remarks.	`
			-	
			Circumstances" preser	
Are Vegetation U , Soil U , or Hy	drology naturally probl	ematic? (11 needed, 6	explain any answers in	Kemarks.)
SUMMARY OF FINDINGS – Attach site r	nap showing sampling point l	ocations, transects, imp	ortant features, etc.	ı
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	Yes	O No •
Wetland Hydrology Present?	Yes O No •			
Remarks:				
Hydrophytic vegetation and wetland hydrology a	re not present. This is not a wetland.			
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one requir	ed; check all that apply)	<u>Second</u>	lary Indicators (Minimu	ım of 2 required)
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Conc	cave 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 alon	g 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 Ti	lled Soils (C6)	Saturation Visible on Aer	ial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic Position (D2	<u>'</u>)
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) (LI	RR T, U)
Field Observations:		T		
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes No	Deput (inches).	_		
Saturation Present?	• Depth (inches):	— Wotland	d Hydrology Present?	Yes No •
(includes capillary fringe) Yes No	Depth (inches):	Wedan	a riyarology Fresent:	
Describe Recorded Data (stream gauge, monitor	well, aerial photos, previous inspectio	ns), if available:		
, , , , , ,		,,		
Remarks:				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/12/2019

	ic names of plants.	
	Dominant Species?	Dominance Test worksheet:
	Absolute Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC: 0 (A)
ee Stratum (Plot Size : 30)		T-114 1 65 1 1
. Ouercus virginiana		Total Number of Dominant Species Across All Strata:2(B
•		Species / to ess / to ess / to est attain
•		Percent of Dominant Species That are OBL_FACW_or_FAC: 0.0% (A/B
	0	That are OBL, FACW, or FAC: 0.0% (A/B
	0.0%	Prevalence Index worksheet:
	0	Total % Cover of: Multiply by:
	0	OBL species $0 \times 1 = 0$
	0	FACW species $0 \times 2 = 0$
50% of Total Cover: 15 20% of Total Cover: 6	30 = Total Cover	FAC species $10 \times 3 = 30$
ling or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $80 \times 4 = 320$
		UPL species $0 \times 5 = 0$
	0	Colum Totals: 90 (A) 350 (B)
	0	Prevalence Index = B/A= 3.889
	0	
		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 Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30)		
		¹ Indicators of hydric soil and wetland
		hydrology must be present, unless disturbed or
		Definition of Vegetation Strata:
	0	Tree - Woody plants, excluding woody vines,
	0.0%	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).
b Stratum (Plot Size : <u>30</u>)		Sapling - Woody plants, excluding woody vines,
_Cvnodon dactvlon		approximately 20 ft (6 m) or more in height and less
_Eriaeron philadelphicus		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.
	0.0%	than 5 m. DBH and greater than 5.25 it (1111) tall.
	0.0%	Shrub - Woody plants, excluding woody vines,
	0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
	0	
	0.0%	Herb - All herbaceous (non-woody) plants, including
	0.0%	herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately 3 ft (1 m) in height.
		o it (1 iii) iii noight.
50% of Total Cover: 30 20% of Total Cover: 12	60 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		Woody vine - All woody vines, regardless of height.
	0.0%	
	0	
		Hydrophytic
		Vegetation Yes No
	0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	

SOIL Sampling Point: WP1042_UP

Depth	Ma	trix			Redox	Features			
	Color (moi		% Color	(moist	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16 1	10YR 5	5/1 1	00					Sandy Clay	
oe: C=Concentration,	. D=Depletion	, RM=Re	duced Matrix, CS	=Covered	or Coated	l Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
ric Soil Indicator	•							Indicators for Probler	natic Hydric Soils³:
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (<i>i</i>				Thin D	ark Surfa Mucky M	v Surface (S8) ce (S9) (LRR S fineral (F1) (LF Matrix (F2)	5, T, U)		
Stratified Layers (A Organic Bodies (A6 5 cm Mucky Minera) (LRR P, T, al (A7) (LRR			Deplet Redox	ed Matrix Dark Sur	(F3)			oamy Soils (F20) (MLRA 153B) (TF2)
Muck Presence (A8 1 cm Muck (A9) (Li Depleted Below Da Thick Dark Surface	RR P, T) rk Surface (A11)		Marl (I Deplet		(F11) (MLRA	•	Other (Explain in Re	emarks)
Coast Prairie Redox Sandy Muck Minera Sandy Gleyed Matri	(A16) (MLF al (S1) (LRR			Umbrio Delta (c Surface Ochric (F1	e Masses (F12) (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA 1)	wetlan	rs of hydrophytic vegetation and d hydrology must be present, ss disturbed or problematic.
Sandy Redox (S5) Stripped Matrix (S6 Dark Surface (S7) (•	, U)		Piedm	ont Flood	plain Soils (F19	9) (MLRA 149A) (F20) (MLRA 149A		
trictive Layer (If	observed)	:							
Гуре: Depth (inches):							_ '	Hydric Soil Present?	Yes • No O
narks:									

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patr	icio	Sampling Date:	2/12/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX	Sampling Point: V	VP1042_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section	on, Township, Ra	nnge: S N/A T N/A	R N/A
 Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave	, convex, none):	Concave	Slope: 2 % 1.1 °
Subregion (LRR): LRR T	· · ·	 Lat: 27.927932		g: -97.15634	Datum: NAD 83
	cton Mustana compley. 0 to 2 nor	cent slopes, occasionally flooded (GM)		fication: None	10.15.05
Gaives	ston-Mustarig complex, 0 to 5 per	cent slopes, occasionally hooded (GM)	- NWI Classi	Tication. None	
Are climatic/hydrologic con	ditions on the site typical for	this time of year? Yes •	No (If no	o, 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, ex	cplain any answers in Rei	marks.)
SUMMARY OF FINDINGS	S – Attach site map showi	ng sampling point locations, t	ansects, impo	rtant features, etc.	
Hydrophytic Vegetation Prese	ent? Yes 🔘 I	No •	0 1 1 4		
Hydric Soil Present?	Yes I		e Sampled Area n a Wetland?	Yes C	No 💿
Wetland Hydrology Present?	Yes Yes	No O			
Remarks: Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are	present. This is a wetland.			
Wetland Hydrology Indica	ators:				
	num of one required: check al	I that apply)	Second	ary Indicators (Minimum	of 2 required)
				•	• •
✓ Surface Water (A1) High Water Table (A2)		juatic Fauna (B13) arl Deposits (B15) (LRR U)		Sparsely Vegetated Concave	: Surface (B8)
✓ Saturation (A3)		rdrogen Sulfide Odor (C1)		Drainage Patterns (B10) Moss Trim Lines (B16)	
Water Marks (B1)		ridized Rhizospheres along Living Roots		Dry Season Water Table (C2	N
Sediment Deposits (B2)		esence of Reduced Iron (C4)		Crayfish Burrows (C8)	.)
Drift Deposits (B3)		cent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial I	mageny (C0)
Algal Mat or Crust (B4)		in Muck Surface (C7)		Geomorphic Position (D2)	inagery (C3)
Iron Deposits (B5)		her (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae		ner (Explain in Kemarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B	• , , ,			Sphagnum moss (D8) (LRR ⁻	T. U)
•				opinagnam moss (56) (2.a.c	
Field Observations: Surface Water Present?	Yes • No O	Double (inches)			
Water Table Present?		Depth (inches): 6			
Saturation Present?		Depth (inches):	Wotland	Hydrology Present? Ye	s • No O
(includes capillary fringe)	Yes No	Depth (inches): 0	weciana	nydrology Present? Te	s
Describe Recorded Data (str	ream gauge, monitor well, aerial p	hotos, previous inspections), if available	e:		

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 11

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 . Ludwigia palustris 2 . Eleocharis montevidensis

50% of Total Cover: 28

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

55

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

15 🗸 ___27.3% __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

40 **✓** ___72.7%__OBL

0.0%

0.0%

Status

Dominance Test wo	rksheet:			
Number of Dominant S			0	
That are OBL, FACW, r	o FAC:		0	(A)
Total Number of Domir	nant		_	
Species Across All Stra	ta:		2	(B
Percent of Dominant S That are OBL, FACW, o			0.0%	(A/B)
Prevalence Index w	orksheet:			
Total % Cover of	:	Multip	ly by:	_
OBL species	40	x 1	= 40	
FACW species	15_	x 2	=30	
FAC species	0	x 3	=	
FACU species		x 4	=0	
UPL species	0	x 5		
Colum Totals:	90_	(A)	350	(B)
Prevalence Inde	ex = B/A =		3.889	
1 - Rapid Test fo	Test is > 5 Index is ≤ drophytic	0% 3.0¹ Vegeta	tion¹ (Explai	n)
2 - Dominance I 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be	Test is > 5 Index is ≤ Idrophytic Tric soil and present, to getation	0% 3.0¹ Vegeta d wetla unless o	tion¹ (Explai and listurbed or	n)
2 - Dominance 1 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 Vegeta d wetla inless o Strata ng woo more ir	ind disturbed or : ody vines, n height and	3 in.
2 - Dominance To a series of the series of t	ric soil and present, u getation ts, excludit (6 m) or n diamete lants, excl	0% 3.0¹ Vegeta d wetla unless o Strata ng woo more irr at bre uding v	tion¹ (Explained disturbed or control of the contro	3 in. OBH).
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f	ric soil and present, u getation ts, excludit (6 m) or n diamete lants, excl t (6 m) or DBH.	0% 3.0¹ Vegeta d wetla unless o Strata ng woo more ir r at bre uding v more ir	tion¹ (Explained disturbed or library times, in height and least height (I woody vines in height and least h	3 in. DBH). , less
2 - Dominance I 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f 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. cody plant greater the	0% 3.0¹ Vegeta Vegeta Strata ng woo more ir r at bre uding vegeta s, excl	tion¹ (Explained disturbed or library times, and height and least height (I woody vines and height and least ft (1m) tall body vines,	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 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and	ric soil and present, to getation ts, excludit (6 m) or n diamete to (6 m) or DBH. cody plant greater the present of (1 to course) and the present of the pres	0% 3.0¹ Vegeta Vegeta Strata ng woo more ir r at bre uding v more ir s, excl nan 3.2 ding wo 6 m) ii voody) s of siz	tion¹ (Explained disturbed or library times, in height and library times, in height and library times, in height and library times, in height.	3 in. DBH). , less less

Domorka	/If absorted	list morphological	adaptations below)

SOIL Sampling Point: WP1042_WET_PEM

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 ²	Texture	Remarks
0 - 16	10YR 5/1 100				Sandy Clay	
	ion, D=Depletion, RM=Reduced	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	-	
Hydric Soil Indica	itors:				Indicators for Problema	tic Hydric Soils ³ :
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M	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) fatrix (S4)	Thin Dalta Coamy 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) (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 2	5, T, U) RR O) 151)) (LRR O, P, T) T, U)) L50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland l	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Sandy Redox (S Stripped Matrix			ont Floodplain Soils (F1)		1520 1520)	
	7) (LRR P, S, T, U)	апота	llous Bright Loamy Soils	5 (FZU) (MLKA 149A,	. 133C, 133D)	
Restrictive Layer Type: Depth (inches):	· ,				ydric Soil Present? Ye	s • No
Remarks:						

Project/Site: Bluewater Terr	minal SPM Project	City/Cour	nty: San Patricio	Sampling Date:	2/12/2019
Applicant/Owner: Phillips 6	56 Pipeline, LLC		State: TX	Sampling Point:	WP1043_UP
Investigator(s): B. Bringhu	ırst & A. Ostrowski		Section, Township	, Range: S N/A T N/A	R N/A
Landform (hillslope, terrace,	, etc.): Flat	Local reli	— ef (concave, convex, nor	ne): Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T				.ong: -97.156211	Datum: NAD 83
	stan Mustana samplay 0 to 2			assification: None	TAD 03
Soil Map Unit Name: Galves	ton-Mustarig complex, 0 to 3	percent slopes, occasionally i	HWI CI	assincation. None	
Are climatic/hydrologic cond	litions on the site typical f	or this time of year?	Yes No (1	If no, explain in Remarks.)	
Are Vegetation , S	oil , or Hydrology	significantly dis	turbed? Are "Norm	nal Circumstances" present?	Yes 💿 No 🔾
Are Vegetation, S	oil , or Hydrology	naturally proble	matic? (If needed	l, explain any answers in Rei	marks.)
SUMMARY OF FINDINGS	5 — Attach site map sho	wing sampling point lo	cations, transects, in	nportant features, etc.	
Hydrophytic Vegetation Presei	nt? Yes •	No O			
Hydric Soil Present?	Yes •	No O	Is the Sampled A within a Wetland?		No 💿
Wetland Hydrology Present?	Yes O	No •	within a Welland		
Remarks:					
Hydrophytic vegetation and w	etland hydrology are not pres	ent. This is not a wetland.			
HYDROLOGY					
Wetland Hydrology Indica	itors:				
Primary Indicators (Minim	um of one required; check	call that apply)	Seco	ondary 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)		Drainage Patterns (B10)	Carrace (50)
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 (C	- · · ·	Crayfish Burrows (C8)	,
Drift Deposits (B3)		Recent Iron Reduction in Till	·	Saturation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)	J., (,
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Aer	rial Imagery (B7)	,		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9	9)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:			1		
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No •	Depth (inches):	_		
Saturation Present?			— Wetl	and Hydrology Present? Ye	s No 💿
(includes capillary fringe)	Yes O No •	Depth (inches):	_		
Describe Recorded Data (stre	eam gauge, monitor well, aeria	al photos, previous inspection	s), if available:		
Remarks:					

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Indicato Status	Number of Dominant Species That are OBL, FACW, ro FAC:
ree Stratum (Plot Size : 30)		
1 . Ouercus virginiana	15 🗹100.0%FACU	T Species Across All Strata: 2 (B)
2		. '
3		
4		That are obly those of the
5		
6.		
7		
3	0.0%	FACW species $5 \times 2 = 10$
50% of Total Cover: 7.5 20% of Total Cover: 3	15 = Total Cover	FAC species $0 \times 3 = 0$ FACU species $50 \times 4 = 200$
p ling or Sapling/Shrub Stratum (Plot Size : <u>30</u>)	0	
2 3		
1		
5		1
5		
7.		
3		
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
rub Stratum (Plot Size : 30)		
3		
5		
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	(7.0 cm) of larger in diameter at bleast height (DBH).
erb Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
L _Cvnodon dactvlon		- 1 " 0: (7 ó) PDU
2 Eleocharis montevidensis		
3 . Dichanthelium oligosanthes		Sapling/Shrub - Woody plants, excluding vines, less
1 ·	0.0%	than 3 in DBH and greater than 3.28 ft (1m) tall
·		
5		- I Siliub - Woody plants, excluding woody vines,
·		
3		
9		
)		nlants except woody vines less than approximately
1		` ,
2	0.0%	L.
50% of Total Cover: 20 20% of Total Cover: 8	40 = Total Cover	Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot Size : 30)	0.00/	
1		
	0	
2		
2	0.0%	
2 . 3 . 4 .	0 0.0%	
2 . 3 . 4 . 5 .	0 0.0% 0 0.0% 0 0.0%	Vegetation Yes • No
1	0 0.0%	Vegetation Yes • No

SOIL Sampling Point: WP1043_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u> _	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 6/1	100					Sandy Clay	
¹Type: C=Concentrati	on, D=Depletion, RM=	-Reduced N	/latrix, CS=Covered	or Coated :	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
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 Rec Sandy Muck Min Sandy Gleyed Matrix (Stripped M	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (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 Mi Gleyed M ed Matrix (Dark Surface Depression 10) (LRR ed Ochric anganese Surface (Su	ace (F6) urface (F7) urface (F7) urface (F7) urface (F8) U) (F11) (MLRA 1 Masses (F12) F13) (LRR P, 7 (MLRA 151) F18) (MLRA 151) lain Soils (F19)	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 Rem 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 Ter	rminal SPM Project	City/County: San Patrici	Sampling Date: 2/12/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State:	TX Sampling Point: WP1043_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section,	Township, Range: S N/A T N/A R N/A
 Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave, c	onvex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.928668	Long: -97.156115 Datum: NAD 83
	ston-Mustang complex, 0 to 3 percent s		NWI Classification: None
Gaives	stori-mustarig complex, 0 to 3 percent s	lopes, occasionally flooded (GM)	NVI Classification. None
Are climatic/hydrologic con	ditions on the site typical for this t	ime of year? Yes N	o (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 Remarks.)
SUMMARY OF FINDINGS	S — Attach site map showing sa	ampling point locations, tra	nsects, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes No	• la #b a 6	Name and Associated As
Hydric Soil Present?	Yes No		Sampled Area a Wetland? No
Wetland Hydrology Present?	Yes No		. , , , , , , , , , , , , , , , , , , ,
Remarks: Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are prese	nt. This is a wetland.	
Wetland Hydrology Indica	atore		
	num of one required: check all that	· annly)	Secondary Indicators (Minimum of 2 required)
	. ,	,,	
✓ Surface Water (A1) High Water Table (A2)		Fauna (B13) posits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)		n Sulfide Odor (C1)	Drainage Patterns (B10) Moss Trim Lines (B16)
Water Marks (B1)		Rhizospheres along Living Roots (C	
Sediment Deposits (B2)		e of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)		ron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		ck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)		ex Surface (e7)	Shallow Aguitard (D3)
Inundation Visible on Ae	· · · · · · · · · · · · · · · · · · ·	Aplant in Kemarks)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B	• , , ,		Sphagnum moss (D8) (LRR T, U)
·	-,		opilegian moss (50) (Litt 1, 0)
Field Observations: Surface Water Present?	Yes • No O Dept	de (in de sa)	
Water Table Present?		th (inches): 1	
Saturation Present?	•	th (inches):	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe)	Yes No Depi	th (inches): 0	wedand nydrology Present: Tes 🤟 No
Describe Recorded Data (str	eam gauge, monitor well, aerial photos,	previous inspections), if available:	

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 8

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

50% of Total Cover: 20

50% of Total Cover: 0

Woody Vine Stratum

1.___

1 . Cvperus virens 2._Ludwigia palustris

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

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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%

= 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

30 **✓** __75.0% _FACW

10 ✓ ____ 25.0% ___ 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

= Total Cover

0.0%

0.0%

0.0%

Status

Dominance Test	worksheet:			
Number of Domina				
That are OBL, FAC			0	(A)
				` ,
Total Number of D Species Across All			2	(B
Percent of Domina That are OBL, FAC			0.0%	(A/B)
Prevalence Inde		-		
Total % Cove		Multiply	hv:	
OBL species	10	x 1 =	10	_
FACW species	30	x 2 =		
FAC species	0	x 3 =		
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Colum Totals:	55	(A)	210	(B)
Prevalence	Index = B/A=		3.818	
Hydrophytic Veg	,		5.010	
3 - Prevalen Problematic 1 Indicators of	ce Test is > 5 ce Index is \le index	0% 3.0¹ /egetation	on¹ (Explai d	n)
2 - Dominan 3 - Prevalen Problematic	ce Test is > 5 ce Index is \le index	0% 3.0¹ /egetation	on¹ (Explai d	n)
2 - Dominan 3 - Prevalen Problematic	ce Test is > 5 ce Index is \le 1 Hydrophytic \land hydric soil and t be present, u	0% 3.0¹ /egetation d wetlan	on¹ (Explai d	n)
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must	ce Test is > 50 ce Index is < 1 Hydrophytic N hydric soil and t be present, u Vegetation blants, excludi	0% 3.0¹ /egetation d wetlan inless dia Strata:	on¹ (Explai d sturbed or ly vines,	
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must	ce Test is > 5 ce Index is \le S Hydrophytic \land hydric soil and t be present, u Vegetation blants, excludi 20 ft (6 m) or i	0% 3.0¹ /egetation d wetlanunless dis Strata: ng wood more in	d sturbed or ly vines, height and	3 in.
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately 2	tee Test is > 50 ce Index is ≤ 1 Hydrophytic Note that the present, under the present, under the present of th	0% 3.0¹ /egetation I wetlan inless dia Strata: ng wooc more in r at brea uding we	d sturbed or ly vines, height and st height (E	3 in. DBH).
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately 2 (7.6 cm) or large Sapling - Wood approximately 2 than 3 in. (7.6 cm)	hydric soil and the present, u Vegetation blants, excluding of the month of the present of the	3.01 /egetation I wetlan inless di Strata: ng wood more in r at brea uding we more in	d sturbed or ly vines, height and st height (I body vines, height and	3 in. DBH). less
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately (7.6 cm) or large Sapling - Wood approximately (2.6 cm)	to e Test is > 50 ce Index is ≤ 1 Hydrophytic No. hydric soil and to be present, using the present, using the present of the	3.01 //egetation d wetlan inless dia Strata: ng wooc more in r at brea uding we more in s, exclue	d sturbed or ly vines, height and st height (E cody vines, height and	3 in. DBH). less
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately (7.6 cm) or large Sapling - Wood approximately (2 than 3 in. (7.6 cm) Sapling/Shrub-	to the Test is > 5 ce Index is < 6 ce Index is < 6 ce Index is < 7 ce Index is < 7 ce Index	3.01 //egetation /	d sturbed or ly vines, height and st height (E cody vines, height and ding vines, ft (1m) tall	3 in. DBH). less
2 - Dominan 3 - Prevalen Problematic 1 Indicators of hydrology must Definition of Tree - Woody papproximately (7.6 cm) or large Sapling - Wood approximately (8 than 3 in. (7.6 cm) Sapling/Shrub-than 3 in. DBH Shrub - Woody	hydric soil and to be present, use to be present to be present, use to be p	3.01 /egetatio d wetlan inless di Strata: ng wood more in r at brea uding we more in s, exclud an 3.28 ding wood 6 m) in /oody) p	d sturbed or ly vines, height and st height and ding vines, ft (1m) tall dy vines, height.	3 in. DBH). less less

Remarks: (If observed.	list morphological	adaptations below)
icinancs. (ii obscivcu,	iist moi priologicai	adaptations below	,

SOIL Sampling Point: WP1043_WET_PEM

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)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 7/1	100					Sandy Clay	
¹Type: C=Concentrati	on D-Deplation PM	-Padurad	Matrix CS-Covered	or Costado	Sand Grains	² Location: PL=Pore	Lining M-Matrix	
Hydric Soil Indica	•	-Reduced	iviatrix, C3=Covered	or coated	Sanu Granis.	Location, FL-Fore	Indicators for Problema	atic Hydric Soile3:
Histosol (A1) Histic Epipedon					Surface (S8) (ce (S9) (LRR S		1 cm Muck (A9) (LRR	0)
Black Histic (A3)			Loamy	Mucky M	ineral (F1) (LR	R O)		(outside MLRA 150A,B)
Hydrogen Sulfide	` '		Loamy	Gleyed M	latrix (F2)			Soils (F19) (LRR P, S, T)
Stratified Layers			✓ Deplete	ed Matrix	(F3)		Anomalous Bright Loa	amy Soils (F20) (MLRA 153B)
	(A6) (LRR P, T, U)			Dark Surf			Red Parent Material (TF2)
	eral (A7) (LRR P, T,	U)			urface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (Depressio			Other (Explain in Ren	narks)
1 cm Muck (A9)				10) (LRR				
	Dark Surface (A11)				(F11) (MLRA	•		
Thick Dark Surfa		-0.4.\			Masses (F12)			
	dox (A16) (MLRA 15				(F13) (LRR P,		3Indicators	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	, 153C, 153D)	
□ Dark Surface (S/	7) (LRR P, S, T, U)							
Restrictive Layer (Type: Depth (inches):	,					_	lydric Soil Present? Ye	s • No 🔾
Remarks:						ı		

Project/Site: Bluewater Te	rminal SPM Project	City/Count	:y: Aransas	Sampling Date:	2/13/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1044_UP
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relie	= f (concave, convex, none)	: Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T				ng: -97.151937	Datum: NAD 83
	cton Mustana complay 0 to 2	percent slopes, occasionally flo		sification: None	10.000
			ivvi Class	incation. None	
Are climatic/hydrologic con	ditions on the site typical f	or this time of year?	Yes No (If I	no, explain in Remarks.)	
Are Vegetation , 9	Soil , or Hydrology	significantly dist	urbed? Are "Normal	Circumstances" present?	Yes 💿 No 🔾
Are Vegetation , 9	Soil , or Hydrology	naturally problen	natic? (If needed, e	explain any answers in Rei	marks.)
SUMMARY OF FINDING	S — Attach site map sho	wing sampling point loo	ations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Prese		No O	, , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·	
Hydric Soil Present?	Yes O	No •	Is the Sampled Area	a Yes	No ●
Wetland Hydrology Present?	Yes •	No O	within a Wetland?		
	res 💌	NO U			
Remarks: Hydrophytic vegetation and h	nydric soil are not present. This	s is not a wetland.			
Tryarophytic vegetation and t	Tyuric son are not present This	o is not a wedanar			
HYDROLOGY					
Wetland Hydrology Indic	atore				
	num of one reauired: checl	all that apply)	Socone	dary Indicators (Minimum	of 2 required)
,	num or one required, checi		Second	1	. ,
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 I		Dry Season Water Table (C2	2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4	·	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in Tille	d Soils (C6)	Saturation Visible on Aerial I	magery (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	erial Imagery (B7)			FAC-Neutral Test (D5)	
Water-Stained Leaves (E	39)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:			<u> </u>		
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No •	Depth (inches):	-		
Saturation Present?	Yes No	5 11 (1 1)	Wetlan	d Hydrology Present? Ye	s • No O
(includes capillary fringe)	res 🖭 NO 🔾	Depth (inches): 6	-		
Describe Recorded Data (str	eam gauge, monitor well, aeri	al photos, previous inspections), if available:		
1					
Remarks:					

	Dominant	Dominance Test worksheet:
	Absolute % Cover Cover Status Species? Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC:
e Stratum (Plot Size : 30)		
Ouercus virginiana	30 🗸100.0% FACU	Total Number of Dominant Species Across All Strata: 3 (B
	0.0%	Species Across All Strata:3(B
	0.0%	Percent of Dominant Species
	0.0%	That are OBL, FACW, or FAC: 33.3% (A/I
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species0 x 1 =0
	0.0%	FACW species $0 \times 2 = 0$
50% of Total Cover: 15 20% of Total Cover: 6	30 = Total Cover	FAC species $50 \times 3 = 150$
ling or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $60 \times 4 = 240$
·	0	UPL species $0 \times 5 = 0$
		Colum Totals: 110 (A) 390 (B
		Prevalence Index = B/A= 3.545
		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)
_ Ilex vomitoria _ Ouercus virginiana	30 ✓ 37.5% FACU 0 0.0%	Indicators of hydric soil and wetland 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: 40 20% of Total Cover: 16 b Stratum (Plot Size : <u>30</u>)	80 = Total Cover	
·	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.
	0 0.0%	Sapling/Shrub - Woody plants, excluding vines, less
		than 3 in. DBH and greater than 3.28 ft (1m) tall.
		Observe Wasselson and successful discourse devices
		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.
	0 = Total Cover	Woody vine - All woody vines, regardless of height.
50% of Total Cover: 20% of Total Cover: 0	0 = Total Cover	Woody vine - All woody vines, regardless of height.
		Woody vine - All woody vines, regardless of height.
20% of Total Cover: 0 20% of Total Cover: 0 20% of Total Cover: 0 Ody Vine Stratum (Plot Size : 30)	0	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)	0 0.0%	
oody Vine Stratum (Plot Size : 30)	0	Hydrophytic Vegetation Yes No
	0 0.0% 0 0.0% 0 0.0% 0 0.0%	Hydrophytic

US Army Corps of Engineers

SOIL Sampling Point: WP1044_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)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	100					Sandy Loam	
Turou C-Concontrati	on D-Donlation PM-	-Padusad N	Natriy CS=Covered	or Costado	Sand Grains	Alecation DI-Dara	Liging M-Matriy	
	on, D=Depletion, RM=	-keaucea N	viatrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore		tic Hydric Caile3:
Hydric Soil Indica	tors:						Indicators for Problema	ILIC HYDRIC SOIIS":
Histosol (A1)			Polyval	ue Below	Surface (S8)	(LRR S, T, U)	1 cm Muck (A9) (LRR	O)
Histic Epipedon (` '		Thin Da	ark Surfac	ce (S9) (LRR S	, T, U)	2 cm Muck (A10) (LR	RS)
Black Histic (A3)			Loamy	Mucky M	ineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfide	` '		Loamy	Gleyed M	latrix (F2)		Piedmont Floodplain S	Soils (F19) (LRR P, S, T)
Stratified Layers			Deplete	ed Matrix	(F3)		Anomalous Bright Loa	my Soils (F20) (MLRA 153B)
	A6) (LRR P, T, U)		Redox	Dark Surf	ace (F6)		Red Parent Material (ΓF2)
	eral (A7) (LRR P, T,	U)	Deplete	ed Dark S	urface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (Redox	Depressio	ons (F8)		Other (Explain in Rem	arks)
1 cm Muck (A9)			Marl (F	10) (LRR	U)			
Depleted Below	Dark Surface (A11)		Deplete	ed Ochric	(F11) (MLRA	151)		
Thick Dark Surfa	• •		Iron-Ma	anganese	Masses (F12)	(LRR O, P, T)		
Coast Prairie Rec	dox (A16) (MLRA 15	0A)	Umbric	Surface ((F13) (LRR P,	T, U)		
Sandy Muck Min	eral (S1) (LRR O, S)	1	Delta C	chric (F1	7) (MLRA 151))		of hydrophytic vegetation and nydrology must be present,
Sandy Gleyed Ma	atrix (S4)				(F18) (MLRA 1			disturbed or problematic.
Sandy Redox (S	5)) (MLRA 149A)		
Stripped Matrix ((S6)					(F20) (MLRA 149A	, 153C, 153D)	
Dark Surface (S7	7) (LRR P, S, T, U)			3	,		,	
Restrictive Layer (Type:	(If observed):					١,	lydric Soil Present? Ye	s O No •
Depth (inches):						_ `	,,	
Remarks:								
remano								

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1044_WET_PEM
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 (c	concave, convex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.9265	598 Long: -97.151874 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally floode	ed (GM) NWI Classification: None
	
	s No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturb	, , , , , , , , , , , , , , , , , , , ,
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally problemat	ic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locati	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area yes No •
Wetland Hydrology Present? Yes No	within a wetland?
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.	
HYDROLOGY	
Wetland Hydrology Indicators:	
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)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Livir	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Si	
Algal Mat or Crust (B4)	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): 1	
Water Table Present? Yes No Depth (inches):	
Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0	Wetland Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if	availahle:
besonible recessived batta (Stream gauge, monitor Well, derial priotos, previous inspections), in	available.
Remarks:	

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

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 1.____

Herb Stratum

50% of Total Cover: 0

1._Andropoaon virainicus

3 . Hvdrocotvle umbellata

50% of Total Cover: 48

50% of Total Cover: 0

Woody Vine Stratum

1.___

2 . Panicum virgatum

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

40

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%

___0.0%_

= Total Cover

___42.1%__FAC

25_ **✓** __26.3%__OBL___

31.6% FAC

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

0.0%

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant That are OBL, FACW			1	(A)
Total Number of Don Species Across All St			3	(В
Percent of Dominant That are OBL, FACW			33.3%_	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multipl	y by:	_
OBL species	25_	x 1	<u>25</u>	
FACW species	0	x 2	=	
FAC species	70	x 3	= 210	
FACU species	0	x 4	=	
UPL species	0	x 5		
Colum Totals:	110	(A)	390	(B)
Prevalence In	dex = B/A=		3.545	
1 - Rapid Test 2 - Dominance	for Hydropi	nytic Ve	getation	
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20	for Hydropi e Test is > 5 e Index is ≤ lydrophytic v dric soil and be present, t egetation ants, excludi ft (6 m) or	nytic Ve 0% 3.0¹ /egetat d wetla inless d Strata ng woo more in	nd iisturbed or dy vines, height and	3 in.
1 - Rapid Test 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 largel Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V	for Hydropie = Test is > 5 e Index is ≤ e Index is ≤ e lydrophytic \(\) e getation ents, excludi of (6 m) or r in diamete plants, excl of (6 m) or r on DBH. Woody plant	nytic Ve 0% 3.0¹ Vegetat d wetla inless d Strata ng woo more in r at bre uding v more in	nd ilisturbed or dy vines, height and ast height (I	3 in. DBH). less
1 - Rapid Test 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)	e for Hydropia e Test is > 5 e Index is ≤ e Index is ≤ e Index is ≤ eydric soil and be present, the egetation ants, excluding if (6 m) or in diamete plants, excluding if (6 m) or in DBH. Woody plant had greater the	nytic Ve 0% 3.0¹ /egetat d wetla inless d Strata ng woo more in r at bre uding ve more in s, exclusion 3.2	nd ilisturbed or dy vines, height and ast height (I voody vines, height and	3 in. DBH). less
1 - Rapid Test 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	efor Hydropia Test is > 5 Index is ≤ Index i	wetlander of the control of the cont	nd ilisturbed or dy vines, height and ast height (I voody vines, height and uding vines, fit (1m) tall wody vines, height. plants, inclue, and wood	3 in. DBH). less less .

Domarke	(If obcorred	list morphological	adaptations	holow)
Ciliai ks.	(II Observed,	list moi priologicai	auaptations	Delow).

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

SOIL Sampling Point: WP1044_WET_PEM

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)	%	Tvpe¹	Location ²	Texture	Remarks
0 - 16	10YR 3/1	95 10YR	5/6	5	С	PL, M	Sandy Loam	
¹Tvpe: C=Concentrati	on, D=Depletion, RM=	Reduced Matrix. C	5=Covered	or Coated	I Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	•	Treduced Widelix, e	3-00 v creu	Or cource	Tourid Grains.	Eddardii. TE-T die	Indicators for Problema	atic Hydric Soils ³ :
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 Mi 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 Umbrid Delta G Reduc	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi E10) (LRR ed Ochric langanese 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)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) 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) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer (Type: Depth (inches):	. ,						Hydric Soil Present? Ye	s • No 🔾
Remarks:								

City/County: San Patricio

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1045_UP
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, R	ange: S N/A T N	N/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local rel	ief (concave, convex, none)	: Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	Lat: 27	7.926024 Lor	ig: -97.152366	Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex	x, 0 to 3 percent slopes, occasionally	flooded (GM) NWI Class	sification: None	
Are climatic/hydrologic conditions on the site			no, explain in Remarks.	`
			-	
Are Vegetation , Soil , or Hyd			Circumstances" preser	
Are Vegetation, Soil, or Hyd	rology naturally probl	ematic? (If 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			
Hydric Soil Present?	Yes ● No ○	Is the Sampled Area within a Wetland?	Yes	O No •
Wetland Hydrology Present?	Yes O No •			
Remarks:				
Hydrophytic vegetation and wetland hydrology are	not present. This is not a wetland.			
HYDROLOGY				
Wetland Hydrology Indicators:		_		
Primary Indicators (Minimum of one require		<u>Secono</u>	dary Indicators (Minimu	<u>ım of 2 required)</u>
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Cond	ave 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 alon		Dry Season Water Table	(C2)
Sediment Deposits (B2)	Presence of Reduced Iron (_	Crayfish Burrows (C8)	
Drift Deposits (B3)	Recent Iron Reduction in Ti	lied Soils (Cb)	Saturation Visible on Aer	
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Surface (C7)		Geomorphic Position (D2	2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Shallow Aquitard (D3) FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (L	DD T II)
water stained Leaves (D9)			Spriagrium moss (D6) (L	KK 1, 0)
Field Observations:				
Surface Water Present? Yes No	Depart (inches).	_		
Water Table Present? Yes No	Depth (inches):			0 0
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wetlan	d Hydrology Present?	Yes ∪ No •
Describe Recorded Data (stream gauge, monitor)	vell. aerial photos, previous inspectio	ns) if available:		
Describe Necestaed Data (et earn gauge, monitor)	ven, dendi priocos, previodo mopercio	no), ii avallablei		
Remarks:				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/13/2019

	Absolute % Cover C	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, ro FAC: 3 (A)
ree Stratum (Plot Size : 30)		
1 . Ouercus virginiana		Total Number of Dominant Species Across All Strata:3(B
2	0.0%	Species / tel 655 / till Strate.
3	0.0%	Percent of Dominant Species
1	0	That are OBL, FACW, or FAC: 100.0% (A/B)
5	0	Prevalence Index worksheet:
6	0	Total % Cover of: Multiply by:
7		OBL species $0 \times 1 = 0$
8	0	FACW species $0 \times 2 = 0$
50% of Total Cover: 13 20% of Total Cover: 5	25 = Total Cover	FAC species $55 \times 3 = 165$
upling or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $35 \times 4 = 140$
	0	UPL species $0 \times 5 = 0$
1		Colum Totals: 90 (A) 305 (B)
2		COTUM TOCATS:(A)(B)
3		Prevalence Index = B/A= 3.389
4		Hydrophytic Vegetation Indicators:
5		
6		1 - Rapid Test for Hydrophytic Vegetation
7		✓ 2 - Dominance Test is > 50%
8		3 - Prevalence Index is ≤ 3.0 ¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
nrub Stratum (Plot Size : 30) 1 . Ilex vomitoria	20 🗸66.7%_ FAC	
2 . Ouercus virginiana		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
3 .		nyarology must be present, unless disturbed or
		Definition of Verentalian Charles
4		Definition of Vegetation Strata:
5		Tree Woody plants evaluding woody vince
		Tree - Woody plants, excluding woody vines,
	0	approximately 20 ft (6 m) or more in height and 3 in.
6 50% of Total Cover: 15		
50% of Total Cover: 15 20% of Total Cover: 6	0.0%	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,
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30)) 1 . Panicum virgatum	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC	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
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1. Panicum virgatum	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC	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,
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum virgatum 2 . Smilax bona-nox	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0%	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.
50% of Total Cover: 15 20% of Total Cover: 6 arb Stratum (Plot Size : 30) 1 . Panicum viraatum 2 . Smilax bona-nox 3 . 4 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0%	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
50% of Total Cover: 15 20% of Total Cover: 6 arb Stratum (Plot Size : 30) 1 . Panicum viraatum 2 . Smilax bona-nox 3 . 4 . 5 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0% 0 0.0%	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.
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum viroatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 6 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0% 0 0.0%	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.
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum virgatum 2 . Smilax bona-nox 3	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0% 0 0.0%	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
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum virgatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 6 . 7 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	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,
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum viraatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 7 . 8 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	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
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum viroatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 7 . 8 .	0 0.0% 30 = Total Cover 25	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
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum viraatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 7 . 8 . 9 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 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%	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
50% of Total Cover: 15 20% of Total Cover: 6 erb Stratum (Plot Size : 30) 1 . Panicum viroatum 2 . Smilax bona-nox 3 . 4 . 5 . 6 . 7 . 8 . 9 . 0 .	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 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%	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
50% of Total Cover: 15	0 0.0% 30 = Total Cover 25 ✓ 71.4% FAC 10 28.6% FAC 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% 0 0.0% 0 0.0% 0 0.0%	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.
50% of Total Cover: 15	0 0.0% 30 = Total Cover 25	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
50% of Total Cover: 15	0	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.
50% of Total Cover: 15	0 0.0% 30 = Total Cover 25 √ 71.4% FAC 10 28.6% FAC 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% 35 = Total Cover	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.
50% of Total Cover: 15	0	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.
erb Stratum (Plot Size : 30) 1	0	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. Hydrophytic Vegetation Yes No
50% of Total Cover: 15	0	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.

SOIL Sampling Point: WP1045_UP

Profile Description	n: (Describe to the	depth needed to docu	ment the	indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Fe	eatures			
(inches)	Color (moist)	% Color (moist)	<u>%</u> _	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 5/1	100				Sand	
¹Tvpe: C=Concentrati	on. D=Depletion. RM=R	educed Matrix, CS=Covered	or Coated S	and Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	·	educed Matrix, es-covered	or courcu s	ana Grams.	Education: 1 E=1 ore	Indicators for Problema	ntic 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) ace (A12) dox (A16) (MLRA 150) eral (S1) (LRR O, S) atrix (S4)	Thin D Loamy Loamy Peplet Redox Deplet Redox Marl (f Deplet Iron-M Umbrid Redox	ark Surface Mucky Mir Gleyed Ma ed Matrix (Dark Surfa ed Dark Su Depression F10) (LRR L ed Ochric (langanese I c Surface (F Dchric (F17 ed Vertic (F	F3) cce (F6) rface (F7) ns (F8) J) F11) (MLRA 1 Masses (F12) F13) (LRR P, ⁻) (MLRA 151) F18) (MLRA 15	.51) (LRR O, P, T) (J, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3Indicators wetland	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) Imy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Stripped Matrix () (MLRA 149A) (F20) (MLRA 149A _,	. 153C, 153D)	
Restrictive Layer (Type: Depth (inches):	,				н	lydric Soil Present? Ye	s • No 🔾
Remarks:							

Project/Site: Bluewater Ter	minal SPM Project	City/County: San Patrio	ricio Sampling Date: 2/13/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC	State	e: TX Sampling Point: WP1045_WET_PEM
I nvestigator(s): B. Bringhu	ırst & A. Ostrowski	Section	on, Township, Range: S N/A T N/A R N/A
andform (hillslope, terrace	, etc.): Flat	Local relief (concave,	, convex, none): Concave Slope: 1 % 0.6
Subregion (LRR): LRR T	-	Lat: 27.925969	Long: -97.152317 Datum: NAD 83
	ston-Mustang complex, 0 to 3 percer		NWI Classification: None
Gaives	stori-riustariy complex, o to 3 percer	t slopes, occasionally flooded (GM)	NWI Classification. Notice
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	oil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes ● No ○
Are Vegetation, S	oil , or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS	6 – Attach site map showing	sampling point locations, tr	ransects, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes O No	•	
Hydric Soil Present?	Yes No		e Sampled Area n a Wetland? Yes No •
Wetland Hydrology Present?	Yes No		Ta Wolland
	ic soil, and wetland hydrology are pro	esent. This is a wetland.	
HYDROLOGY			
Wetland Hydrology Indica	num of one required; check all th	aat annly)	Secondary Indicators (Minimum of 2 required)
			Secondary Indicators (Minimum of 2 required)
✓ Surface Water (A1)		tic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3) Water Marks (B1)		ogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Sediment Deposits (B2)		zed Rhizospheres along Living Roots ance of Reduced Iron (C4)	
Drift Deposits (B3)		nt Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		• •	Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Ae		(Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B	• , , ,		Sphagnum moss (D8) (LRR T, U)
Water Stained Leaves (D			Spriagrium moss (Do) (LKK 1, U)
Field Observations:			
Surface Water Present?		epth (inches): 1	
Water Table Present?	Yes No O	epth (inches):	
Saturation Present? (includes capillary fringe)	Yes No D	epth (inches):0	Wetland Hydrology Present? Yes ● No ○
Describe Recorded Data (str	eam gauge, monitor well, aerial phot	cos, previous inspections), if available	e:

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

50% of Total Cover: 0

1 . Panicum virgatum

3 . Ludwigia palustris

4 . Cvperus virens

50% of Total Cover: 25

50% of Total Cover: 0

Woody Vine Stratum

1.__

2 . 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

0

0

0

0

0

0

0

0 0

0

0 0

0

0

0__ 0

0

0 0

50

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

10 🗸 ___20.0% _FACW__

___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

= Total Cover

___10.0%__FACW_

0.0%

30 **✓** __60.0% FAC

0.0%

0.0%_

Status

Dominance Test worksheet:			
Number of Dominant Species			
That are OBL, FACW, ro FAC:		2	(A)
Total Number of Dominant Species Across All Strata:		4	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		50.0%_	(A/B)
Prevalence Index worksheet	:		
Total % Cover of:	Multipl	ly by:	_
OBL species 5	x 1	=5	
FACW species 15	x 2	=30	
FAC species 30	x 3	=90	
FACU species 0	_ x 4	=0	
UPL species 0	_ x 5	=0	
Colum Totals: 90	(A)	305	(B)
Prevalence Index = B/A=		3.389	
Hydrophytic Vegetation Indi			
3 - Prevalence Index is a Problematic Hydrophytic	c Vegeta	ınd	in)
Problematic Hydrophytic	c Vegeta	ınd	in)
Problematic Hydrophytic 1 Indicators of hydric soil a	c Vegeta nd wetla , unless o	ind listurbed or	in)
 Problematic Hydrophytic Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu 	nd wetla nd wetla nulless on Strata ding woo	ind disturbed or :	
Problematic Hydrophytic Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o	nd wetla unless on Strata ding woo	ind disturbed or : ody vines, in height and	3 in.
Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu	nd wetla unless on Strata ding woo	ind disturbed or : ody vines, in height and	3 in.
Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet	nd wetla , unless on n Strata ding wood r more inter at breat	ind disturbed or : ody vines, n height and ast height (3 in. DBH).
Problematic Hydrophytic Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, excluapproximately 20 ft (6 m) o	nd wetla unless on Strata ding woo r more ir ter at bre-	ind disturbed or : ody vines, n height and ast height (3 in. DBH).
Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex	nd wetla unless on Strata ding woo r more ir ter at bre-	ind disturbed or : ody vines, n height and ast height (3 in. DBH).
Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH.	nd wetlad unless of strata ding wood r more inter at bree cluding word r more in the result of the strata bree cluding word r more in the strata bree cluding word r more in the strata bree cluding word results and the strata bree cluding word	ind disturbed or bdy vines, n height and ast height (woody vines n height and	3 in. DBH). ;,
Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o	nd wetland unless of a Strata ding wood report at bree cluding word report at bree cluding with the cluding	ind disturbed or dy vines, height and ast height (woody vines height and	3 in. DBH). , l less
¹ Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater	nd wetlad unless of a Strata ding wood remore inter at bree cluding of remore inter and the strate interest and the strate int	ind disturbed or cody vines, height and east height (woody vines height and uding vines 8 ft (1m) tal	3 in. DBH). , l less
Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	nd wetland unless of a strata ding wood report of the result of the strata ding wood report of the result of the strata ding wood report of the strata ding wood ding	ind iisturbed or ii: ody vines, n height and east height (woody vines n height and uding vines 8 ft (1m) tal	3 in. DBH). , l less
Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, exclu approximately 3 to 20 ft (1 the second content of the second	nd wetlad unless of a strata ding wood rest at bree cluding word rest at bree cluding word rest and the strata	ind isturbed or it ody vines, in height and east height (woody vines in height and uding vines, is ft (1m) tal oody vines, in height.	3 in. DBH). ;, less less
¹ Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, exclusionately 3 to 20 ft (1 the Herb - All herbaceous (non-herbaceous vines, regardle	nd wetland unless of a strata ding wood r more in ter at bree cluding word r more in than 3.2 uding wood of 6 m) in two ody) ass of siz	ind iisturbed or ii: ody vines, in height and iast height (woody vines in height and uding vines, is ft (1m) tal ody vines, in height. plants, inclue, and wood	3 in. DBH) less less l.
¹ Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants han 3 in. DBH and greater Shrub - Woody plants, exclusion approximately 3 to 20 ft (1 the control of t	nd wetland unless of a strata ding wood r more in ter at bree cluding word r more in than 3.2 uding wood of 6 m) in two ody) ass of siz	ind iisturbed or ii: ody vines, in height and iast height (woody vines in height and uding vines, is ft (1m) tal ody vines, in height. plants, inclue, and wood	3 in. DBH) less less l.
Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, exclusion approximately 3 to 20 ft (1 the Herb - All herbaceous (non-herbaceous vines, regardle	nd wetland unless of a strata ding wood r more in ter at bree cluding word r more in than 3.2 uding wood of 6 m) in two ody) ass of siz	ind iisturbed or ii: ody vines, in height and iast height (woody vines in height and uding vines, is ft (1m) tal ody vines, in height. plants, inclue, and wood	3 in. DBH) less less l.
Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants in. DBH and greater Shrub - Woody plants, exclusion approximately 3 to 20 ft (1 the second plants). Herb - All herbaceous (non-herbaceous vines, regardle plants, except woody vines.	nd wetlad unless of a strata ding wood r more in the rat bree cluding word remove in the rat bree cluding word of 6 m) in the rat bree strata 3.2 unding word of 6 m) in the removed by th	ind listurbed or i: ody vines, i height and east height (woody vines in height and uding vines, in height and body vines, in height.	3 in. DBH)

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

SOIL Sampling Point: WP1045_WET_PEM

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)	<u> Tvpe¹</u>	Location ²	Texture	Remarks
0 - 16	10YR 5/1 100				Sandy Loam	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	<u>itic Hydric Soils³:</u>
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 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, Dehric (F17) (MLRA 151) ed Vertic (F18) (MLRA 151)	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (50A, 150B) 9) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland unless	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):			н	ydric Soil Present? Ye	s ● No ○
Remarks:						

Project/Site: Bluewater Terminal SPM Project	City/County: San Patricio	Sampling Date:	2/13/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	WP1046_UP
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, I	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	Lat: 27.926155 Lo	ng: -97.152151	Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, o	occasionally flooded (GM) NWI Clas	sification: None	
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes 🌘 No 🔘 (If	no, explain in Remarks.)	
		Circumstances" present?	Yes ● No ○
	•	explain any answers in Re	
Are regetation room room room room natu	tany problematic. (1) necaca,	explain any answers in Rei	marksi)
SUMMARY OF FINDINGS - Attach site map showing samplin	ng point locations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Yes No	Is the Sampled Are	a	
Hydric Soil Present? Yes No •	within a Wetland?	Yes C) No ●
Wetland Hydrology Present? Yes No •			
Remarks:			
Hydric soil and wetland hydrology are not present. This is not a wetland.			
HADDOLOCA			
HYDROLOGY Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required: check all that apply) Secon	darv Indicators (Minimum	of 2 required)
Surface Water (A1) Aquatic Fauna (7	•
High Water Table (A2) Marl Deposits (8)	· _	Sparsely Vegetated Concave Drainage Patterns (B10)	e Surrace (B8)
Saturation (A3) Hydrogen Sulfid		Moss Trim Lines (B16)	
	pheres along Living Roots (C3)	Dry Season Water Table (C2))
Sediment Deposits (B2) Presence of Rec		Crayfish Burrows (C8)	-)
	duction in Tilled Soils (C6)	Saturation Visible on Aerial I	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa		Geomorphic Position (D2)	imagery (C3)
		Shallow Aquitard (D3)	
☐ Iron Deposits (B5) ☐ Other (Explain i ☐ Inundation Visible on Aerial Imagery (B7)	ii Remarks)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			T 11)
water-stained Leaves (b9)		Sphagnum moss (D8) (LRR	1, U)
Field Observations: Surface Water Present? Yes No Denth (inch			
Sepan (man	· ——		
Caturation Procent?		d Hadaalaaa Baasada V	es No •
(includes capillary fringe) Yes No Depth (inch	es):	id Hydrology Present? Ye	
Describe Recorded Data (stream gauge, monitor well, aerial photos, previo	us inspections), if available:		
	, ,		
Remarks:			

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 10

20% of Total Cover: 6

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

50% of Total Cover: 0

1 . Ouercus virginiana 2 _ Ilex vomitoria

50% of Total Cover: 25

1 . Smilax bona-nox

50% of Total Cover: 15

50% of Total Cover: 0

Woody Vine Stratum

1.__

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

0

50

0

0

0

0 0

0

0

0__ 0

0

0 0

30

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 **✓** __60.0% _FACU

20 🗸 __40.0% FAC 0.0%

0.0%

= Total Cover

30 ✓ _100.0% FAC

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%

0.0%

= Total Cover

= Total Cover

0.0%

0.0%

0.0%_

0.0%

Status

Sampling Point: _V	VP1046_UP	
Dominance Test worksheet:		
Number of Dominant Species		
That are OBL, FACW, ro FAC:		(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 species0	x 1 =0	_
FACW species 0	x 2 =0	
FAC species 50	$x \ 3 = \underline{150}$	
FACU species 30	x 4 = 120	
UPL species0	x 5 =	
Colum Totals: 80	(A) <u>270</u>	(B)
Prevalence Index = B/A=	3.375_	
Hydrophytic Vegetation Indica	tors:	
1 - Rapid Test for Hydroph✓ 2 - Dominance Test is > 50		
3 - Prevalence Index is ≤ 3		
Problematic Hydrophytic \		1)
	egetation (Explain	••
¹ Indicators of hydric soil and hydrology must be present, u		
Definition of Vegetation	Strata:	
Tree - Woody plants, excludi		
approximately 20 ft (6 m) or r		
(7.6 cm) or larger in diameter	at breast neight (D	БП).
Sapling - Woody plants, excl		
approximately 20 ft (6 m) or r	nore in height and I	ess
than 3 in. (7.6 cm) DBH.		
Sapling/Shrub - Woody plants	s, excludina vines I	ess
than 3 in. DBH and greater th		
Shrub - Woody plants, exclude approximately 3 to 20 ft (1 to		
	o m, m neight.	
Herb - All herbaceous (non-w	oody) plants, includ	ling
herbaceous vines, regardless		
plants, except woody vines, lo 3 ft (1 m) in height.	ess than approxima	ıeıy
- ··· (· ···) ··· ··-·-g////		
Woody vine - All woody vines	, regardless of heig	ht.
	_	
Hydrophytic Vegetation Yes Present ?	No O	
_		

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

SOIL Sampling Point: WP1046_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _%	Color (moist)		Location ²	Texture	Remarks
0 - 16	10YR 4/1 100				Sandy Loam	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	-	
Hydric Soil Indica	ntors:				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	be (A4) be (A4) be (A5) c(A6) (LRR P, T, U) ceral (A7) (LRR P, T, U) c(A8) (LRR U) c(LRR P, T) Dark Surface (A11) cace (A12) dox (A16) (MLRA 150A) ceral (S1) (LRR O, S) latrix (S4) c(S6)	Thin Dalta C	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) (10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) (Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) (lous Bright Loamy Soils	, 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	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):	· ,			H	ydric Soil Present? Ye	ns No •
Remarks:				1		

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patricio	Sampling Date: 2/13/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC	State: TX	Sampling Point: WP1046_WET_PEM
I nvestigator(s): B. Bringhu	urst & A. Ostrowski	Section, Township	o, Range: S N/A T N/A R N/A
 _andform (hillslope, terrace,	e, etc.): Flat	Local relief (concave, convex, no	ne): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T		•	Long: -97.15218 Datum: NAD 83
	ston-Mustang complex, 0 to 3 percent slopes		assification: None
Gaives	stori-mustarig complex, o to 3 percent slopes	, occasionally flooded (GM)	assincation. Note
Are climatic/hydrologic cond	ditions on the site typical for this time o	of year? Yes $lacktriangle$ No $igcirc$ (If no, explain in Remarks.)
Are Vegetation , S	Soil . , or Hydrology . sig	nificantly disturbed? Are "Norn	nal Circumstances" present? Yes No
Are Vegetation, S	Soil , or Hydrology nat	turally problematic? (If needed	d, explain any answers in Remarks.)
SUMMARY OF FINDINGS	S — Attach site map showing samp	ling point locations, transects, ir	mportant features, etc.
Hydrophytic Vegetation Prese	ent? Yes • No O		
Hydric Soil Present?	Yes ● No ○	Is the Sampled A within a Wetland	
Wetland Hydrology Present?	Yes ● No ○		
Remarks: Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are present. Tl	nis is a wetland.	
Wetland Hydrology Indica	atore		
	num of one required; check all that app	alv) Sec	ondary Indicators (Minimum of 2 required)
	. , _		
✓ Surface Water (A1) High Water Table (A2)	Aquatic Fauna	a (B13) s (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)		fide Odor (C1)	Drainage Patterns (B10) Moss Trim Lines (B16)
Water Marks (B1)		cospheres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)		Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Su	• •	Geomorphic Position (D2)
Iron Deposits (B5)		n in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aer		Till Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B	• , , ,		Sphagnum moss (D8) (LRR T, U)
Water Stained Leaves (D.			Spriagram moss (Do) (ERR 1, 0)
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	land Hydrology Present? Yes • No
Describe Recorded Data (stre	eam gauge, monitor well, aerial photos, prev	ious inspections), if available:	

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 4

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

1._Andropoaon virainicus

3 . Ludwigia palustris

50% of Total Cover: 10

50% of Total Cover: 0

Woody Vine Stratum

1.___

2 . Eleocharis montevidensis

4 . Smilax bona-nox

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

0

20

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% FACW

___15.0%__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 ?

___10.0%__FAC

0.0%

0.0%

= Total Cover

10 **1** ____ 50.0% ___ FAC

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Point: V	/P1046	6_WET_PEN	/				
Dominance Test worksheet:							
Number of Dominant Species That are OBL, FACW, ro FAC:		2	(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:	Multiply	y by:	_				
OBL species3_	x 1 =	=3					
FACW species <u>5</u>	x 2 =	= 10					
FAC species <u>12</u>	x 3 =	= 36					
FACU species0	x 4 =	=0					
UPL species0	x 5 =						
Colum Totals: <u>20</u>	(A)	49	(B)				
Prevalence Index = B/A=		2.450_					
 ✓ 3 - Prevalence Index is ≤ 3 Problematic Hydrophytic V ¹ Indicators of hydric soil and 	1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or						
Definition of Vegetation S	Strata	:					
Tree - Woody plants, excludir approximately 20 ft (6 m) or n (7.6 cm) or larger in diameter	nore in	height and					
Sapling - Woody plants, excluapproximately 20 ft (6 m) or nthan 3 in. (7.6 cm) DBH.			ess				
Sapling/Shrub - Woody plants than 3 in. DBH and greater th							
Shrub - Woody plants, exclud approximately 3 to 20 ft (1 to							
Herb - All herbaceous (non-w herbaceous vines, regardless plants, except woody vines, le 3 ft (1 m) in height.	of size	e, and woody	/				
Woody vine - All woody vines	, regar	dless of heig	jht.				

	(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: WP1046_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)	<u>%</u> _	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 5/1	100				Sand	
¹Tvpe: C=Concentrati	on. D=Depletion. RM=R	educed Matrix, CS=Covered	or Coated S	and Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	·	educed Matrix, es-covered	or courcu s	ana Grams.	Education: 1 E=1 ore	Indicators for Problema	ntic 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) ace (A12) dox (A16) (MLRA 150) eral (S1) (LRR O, S) atrix (S4)	Thin D Loamy Loamy Peplet Redox Deplet Redox Marl (f Deplet Iron-M Umbrid Redox	ark Surface Mucky Mir Gleyed Ma ed Matrix (Dark Surfa ed Dark Su Depression F10) (LRR L ed Ochric (langanese I c Surface (F Dchric (F17 ed Vertic (F	F3) cce (F6) rface (F7) ns (F8) J) F11) (MLRA 1 Masses (F12) F13) (LRR P, ⁻) (MLRA 151) F18) (MLRA 15	.51) (LRR O, P, T) (J, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3Indicators wetland	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) Imy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Stripped Matrix () (MLRA 149A) (F20) (MLRA 149A _,	. 153C, 153D)	
Restrictive Layer (Type: Depth (inches):	,				н	lydric Soil Present? Ye	s • No 🔾
Remarks:							

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1047_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): Convex Slope: 1 % 0.6
Subregion (LRR): LRR T Lat: 27.92	24927 Long: -97.150529 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally floor	oded (GM) NWI Classification: None
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 distu	
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally problem	auc: (If fleeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes ○ No ●	within a Wetland?
Wetland Hydrology Present?	
Remarks: Hydric soil and wetland hydrology are not present. This is not a wetland. HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (Minimum of one required; check all that apply)	Secondary Indicators (Minimum of 2 required)
Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2) Marl Deposits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Li	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	_ ,
Drift Deposits (B3)	
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 O No O Depth (inches):	
Water Table Present? Yes No Depth (inches):	-
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ●
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections)	. if available:
become need and for early gauge, mental mental process, previous inspections,	, ii didilasisi
Remarks:	

Project/Site: Bluewater Terminal SPM Project

Tree Stratum

1 . Ouercus virginiana

50% of Total Cover: 20

Shrub Stratum 1 . Ilex vomitoria

Herb Stratum

2 . Ouercus virginiana

50% of Total Cover: 13

1 . Panicum virgatum 2 Smilax bona-nox

3 . Andropogon alomeratus

50% of Total Cover: 15

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

(Plot Size : 30)

20% of Total Cover: 8

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

20% of Total Cover: 5

20% of Total Cover: 6

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Dominant Species?

Cover

40 **✓** _100.0% _FACU__

Absolute % Cover

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

30

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

15 **✓** __60.0% FAC

10 40.0% FACU

0.0%

15 **✓** __50.0% FAC

10 ✓ ___33.3%__FAC

= Total Cover

0.0%

0.0%

___16.7%__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

= Total Cover

0.0%

0.0%

Status

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 workshee	t:		
Total % Cover of:	Multi	ply by:	
OBL species 0	_ x 1	=	<u> </u>
FACW species5	_ x 2		_
FAC species 40	_ x 3		_
FACU species 50	_		_
UPL species 0		220	_
Colum Totals: 95	(A)		(B)
Prevalence Index = B/A	=	3.47	<u>4</u> _
1 - Rapid Test for Hydro ✓ 2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt	50% ≤ 3.0¹	ation¹ (Expl	lain)
✓ 2 - Dominance Test is > 3 - Prevalence Index is	· 50% ≤ 3.0¹ ic Vegeta	land	·
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt	· 50% ≤ 3.0¹ ic Vegeta and wet	land disturbed o	·
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt 1 Indicators of hydric soil a	ic Vegetand wet t, unless on Strat uding wo	land disturbed of a: body vines, in height an	or and 3 in.
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, exclusion approximately 20 ft (6 m) of	50% ≤ 3.0¹ ic Veget: and wet t, unless on Strat uding wo or more eter at bi xcluding	land disturbed of the control of the	or and 3 in. (DBH).
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, exclusion approximately 20 ft (6 m) of (7.6 cm) or larger in diameter approximately 20 ft (6 m) of approxi	50% ≤ 3.0¹ ic Veget: and wet t, unless on Strat uding we or more eter at be xcluding or more ants, excepts	land disturbed contacts a: boody vines, in height arreast height woody vine in height arreast	or and 3 in. (DBH).
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt Indicators of hydric soil a hydrology must be present Definition of Vegetation Tree - Woody plants, exclus approximately 20 ft (6 m) of (7.6 cm) or larger in diamed Sapling - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH.	ic Veget: and wet t, unless on Strat uding wo or more eter at bi xcluding or more ants, exc r than 3.	land disturbed of the control of the	or and 3 in. (DBH). es, d less s, less all.
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyt Indicators of hydric soil a hydrology must be present Definition of Vegetation Tree - Woody plants, exclus approximately 20 ft (6 m) of (7.6 cm) or larger in diamed (7.6 cm) or larger in diamed (7.6 cm) DBH. Sapling - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, exapproximately 20 ft (6 m) of than 3 in. DBH and greated (5 m) or larger in diamed (5 m) or larger in diamed (6 m) or larger in diamed (6 m) or larger in diamed (7 m) or larger in diamed (8 m) or larger in diamed (8 m) or larger in diamed (9 m) or l	ic Veget: and wet t, unless on Strat uding wo or more eter at bi xcluding w cr than 3. lluding w to 6 m) n-woody ess of si	land disturbed of the control of the	and 3 in. (DBH). es, and less s, less all.

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

SOIL Sampling Point: WP1047_UP

Depth	Mat	rix:		Redox	Features			
(inches)	Color (mois		Color (moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/	/1 100					Sand	
oe: C=Concentra	tion. D=Depletion.	RM=Reduced	d Matrix, CS=Covered	or Coated	d Sand Grains.	² Location: PL=Pore	Lining. M=Matrix.	
ric Soil Indic			<u> </u>				Indicators for Problema	tic Hydric Soils³:
Histosol (A1)			Polyval	ue Belov	v Surface (S8) ((LRR S, T, U)	1 cm Muck (A9) (LRR	0)
Histic Epipedon	n (A2)				ice (S9) (LRR S		2 cm Muck (A10) (LRF	
Black Histic (A3	•		Loamy	Mucky N	Mineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfic					Matrix (F2)		Piedmont Floodplain S	oils (F19) (LRR P, S, T)
Stratified Layer	` '	11)		ed Matrix	. ,			my Soils (F20) (MLRA 153B)
-	(A6) (LRR P, T, I neral (A7) (LRR F				face (F6)		Red Parent Material (T	•
Juck Presence		, 1, 0)			Surface (F7)		Very Shallow Dark Sur	
. cm Muck (A9				Depress 10) (LRF	ions (F8)		Other (Explain in Rem	arks)
	v Dark Surface (A	(11)			c (F11) (MLRA :	151)		
· Thick Dark Surf					e Masses (F12)	•		
Coast Prairie Re	edox (A16) (MLR	A 150A)			(F13) (LRR P,			
Sandy Muck Mi	neral (S1) (LRR (O, S)			17) (MLRA 151)			of hydrophytic vegetation and ydrology must be present,
Sandy Gleyed N	Matrix (S4)				(F18) (MLRA 1		unless	disturbed or problematic.
Sandy Redox (S	S5)) (MLRA 149A)		
Stripped Matrix	. ,		Anoma	lous Brig	ıht Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)	
Dark Surface (S	57) (LRR P, S, T,	U)						
trictive Laver	r (If observed):	<u> </u>						
Гуре:						+	Hydric Soil Present? Yes	No •
epth (inches):								
arks:								
aiks.								

Project/Site: Bluewater	Геrminal SF	PM Project	:		City/County: Aransas	:	Sampling	Date:	2/13/	2019
Applicant/Owner: Phillip	os 66 Pipeli	ne, LLC			Stat	e: TX	Sampling Point:	WP	1047_WET	_PEM_A
Investigator(s): B. Bring	ghurst & A.	Ostrowski	j		Section	on, Township, Ra	inge: S N/A	T N/A	R N/A	4
Landform (hillslope, terra	ce, etc.):	Flat			Local relief (concave	e, convex, none):	Concave	:	Slope: 2	% 1.1 °
Subregion (LRR): LRR T					Lat: 27.925238	Long		_	Datum:	NAD 83
Soil Map Unit Name: Mu	stang fine s	sand, 0 to	1 percent sl	lopes, occasional	lv flooded, frequently pon		fication: PEM1C		_	
_										
Are climatic/hydrologic c					•	<u> </u>	o, explain in Remar	-		<u> </u>
Are Vegetation	, Soil	, or H	lydrology		ificantly disturbed?	Are "Normal C	Circumstances" pre	sent?	Yes 💿	No 🔾
Are Vegetation	, Soil	, or H	lydrology	natu	rally problematic?	(If needed, ex	cplain any answers	in Rem	arks.)	
SUMMARY OF FINDIN	GS – Att	ach site	map sho	wing sampli	ng point locations, t	ransects, impo	rtant features, e	tc.		
Hydrophytic Vegetation Pro	esent?		Yes •	No O						
Hydric Soil Present?			Yes •	No O		e Sampled Area n a Wetland?	Y	′es 💿	No 🔘	
, Wetland Hydrology Presen	t?		Yes •	No O	Within	ir a Welland:				
Remarks:					L					
Hydrophytic vegetation, hy	dric soil, a	nd wetland	d hydrology	are present. This	s is a wetland.					
HYDROLOGY										
Wetland Hydrology Ind	icators:									
Primary Indicators (Mir	imum of	one requ	ired; checl	k all that apply	<u>)</u>	Seconda	ary Indicators (Mini	mum o	f 2 required))
✓ Surface Water (A1)		•		Aquatic Fauna ((B13)		Sparsely Vegetated C	oncave !	Surface (B8)	
High Water Table (A2)			Marl Deposits (•		Drainage Patterns (B1		sarrace (bo)	
✓ Saturation (A3)	•			Hydrogen Sulfic			Moss Trim Lines (B16	-		
Water Marks (B1)				· -	spheres along Living Roots		Dry Season Water Tal	•		
Sediment Deposits (B)	2)				duced Iron (C4)		Crayfish Burrows (C8)			
Drift Deposits (B3)	-)				duction in Tilled Soils (C6)		Saturation Visible on		220m/ (CO)	
Algal Mat or Crust (B4	1)								lagely (C9)	
)			Thin Muck Surfa	• •		Geomorphic Position	-		
Iron Deposits (B5)	A suist Tass	· (DZ)		Other (Explain	in Remarks)		Shallow Aquitard (D3)			
Inundation Visible on	-	gery (B/)					FAC-Neutral Test (D5			
Water-Stained Leaves	(B9)						Sphagnum moss (D8)	(LRR T,	, U)	
Field Observations:										
Surface Water Present?	Yes		\circ	Depth (inch	nes): 6					
Water Table Present?	Yes	O No	\odot	Depth (inch	nes):					
Saturation Present? (includes capillary fringe)	Yes 🤄	No	0	Depth (inch	nes): 0	Wetland	Hydrology Present	? Yes	No	\circ
. , , ,										
Describe Recorded Data (stream gau	uge, monit	or well, aeria	al photos, previo	ous inspections), if available	le:				
Remarks:										

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 20

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

50% of Total Cover: 50

Woody Vine Stratum

1.___

1.____

Herb Stratum

1 . Tvpha latifolia 2 . Panicum virgatum

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

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%

= 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%_ _

= Total Cover

0.0%

0.0%

5.0% FAC

0.0%

= Total Cover

0.0%

0.0%

0.0%

Status

	P1047_WET_PEM_A
Dominance Test worksheet:	
Number of Dominant Species That are OBL, FACW, ro FAC:	3 (A)
Total Number of Dominant Species Across All Strata:	5 (B
Percent of Dominant Species That are OBL, FACW, or FAC:	60.0%_ (A/B)
Prevalence Index worksheet:	
Total % Cover of:	fultiply by:
	x 1 = 95
	x 2 = 0
	x 3 = 15
	$x 4 = \frac{0}{1}$
	x = 5 = 0
	(A) 110 (B)
Prevalence Index = B/A=	1.100
Hydrophytic Vegetation Indicate	ors:
 ✓ 3 - Prevalence Index is ≤ 3. Problematic Hydrophytic Ve Indicators of hydric soil and hydrology must be present, unline 	getation¹ (Explain) wetland
Definition of Vegetation St	rata:
Tree - Woody plants, excluding approximately 20 ft (6 m) or mo (7.6 cm) or larger in diameter a	g woody vines, ore in height and 3 in.
Sapling - Woody plants, excludapproximately 20 ft (6 m) or mother than 3 in. (7.6 cm) DBH.	
Sapling/Shrub - Woody plants, than 3 in. DBH and greater tha	
Shrub - Woody plants, excludir approximately 3 to 20 ft (1 to 6	
Herb - All herbaceous (non-wo- herbaceous vines, regardless of plants, except woody vines, les 3 ft (1 m) in height.	of size, and woody
Woody vine - All woody vines,	regardless of height.

3	0.0%	Hydrophytic	
4	0	Vegetation Present ?	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).

SOIL Sampling Point: WP1047_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>	r (moist)	<u>%</u>	Tvpe1	Location ²	Texture	Remarks
0 - 16	10YR 3/1	95 10Y	5/6	5	<u>C</u>	М	Sand	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indica	ntors:						Indicators for Problema	atic Hydric Soils ³ :
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	be (A4) c (A5) (A6) (LRR P, T, U) cleral (A7) (LRR P, T, (A8) (LRR U) c (LRR P, T) Dark Surface (A11) clece (A12) dox (A16) (MLRA 15 cleral (S1) (LRR O, S) latrix (S4)	0A)	Thin I Loamy Loamy Deple Redox Marl (Deple Iron-N Umbri Delta Reduc Piedm	Dark Surfa / Mucky M / Gleyed N ted Matrix Dark Sur ted Dark S / Depressi F10) (LRR ted Ochric Anganese c Surface Ochric (F: ed Vertic cont Flood	face (F6) Surface (F7) Sons (F8) S U) C (F11) (MLRA E Masses (F12 (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA 2	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 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):	,						lydric Soil Present? Ye	es • No 🔾
Remarks:								

Project/Site: Bluewater Ter	rminal SPM Project	City/County: Aransas	Sampling Date: 2/13/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: TX	Sampling Point: WP1047_WET_PEM_B
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section, Township	, Range: S N/A T N/A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave, convex, non	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		_	.ong: -97.150514
	ing fine sand, 0 to 1 percent slopes, occasion		assification: PEM1C
Son Map Offic Name: Musta	ing time sand, o to 1 percent slopes, occasion	many nooded, frequently pointe	
Are climatic/hydrologic con	ditions on the site typical for this time	of year? Yes $lacktriangle$ No $lacktriangle$ (1	(f no, explain in Remarks.)
Are Vegetation , S	Soil , or Hydrology si	gnificantly disturbed? Are "Norm	nal Circumstances" present? Yes No
Are Vegetation, S	Soil , or Hydrology n	aturally problematic? (If needed	l, explain any answers in Remarks.)
SUMMARY OF FINDINGS	S — Attach site map showing sam	pling point locations, transects, in	nportant features, etc.
Hydrophytic Vegetation Prese	ent? Yes • No	la the Complet A	•••
Hydric Soil Present?	Yes No	Is the Sampled A within a Wetland?	
Wetland Hydrology Present?	Yes No		
Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are present.	This is a wetland.	
Wetland Hydrology Indica	ators:		
Primary Indicators (Minim	num of one required; check all that ap	ply) Seco	ondary Indicators (Minimum of 2 required)
✓ Surface Water (A1)	Aquatic Fau	na (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		ts (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3)	Hydrogen S	ulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rh	izospheres 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 S	furface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Expla	nin in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Ae	rial Imagery (B7)		✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B	39)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No Depth (i	nches): 4	
Water Table Present?	Yes No Depth (i		
Saturation Present? (includes capillary fringe)	Yes No Depth (i	Wetl	and Hydrology Present? Yes No
Describe Recorded Data (str	ream gauge, monitor well, aerial photos, pre	evious inspections), if available:	

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 18

(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 . Sesbania herbacea

3 . Andropoaon alomeratus

50% of Total Cover: 45

Woody Vine 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

90

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%

= Total Cover

0.0%

0.0%

0.0% 0.0%

0.0%

0.0%

5.6% FACW

5.6% FACW 0.0%

0.0% 0.0%_ 0.0%_ _ 0.0%_

0.0%_

0.0%_ 0.0%

0.0%

= Total Cover

0.0%

= Total Cover

80 **✓** __88.9% OBL

0.0%

0.0%

= Total Cover

0.0%

Status

Daminana Tart	Point: \				
Dominance Test wor					
Number of Dominant S That are OBL, FACW, re			1		(A)
Total Number of Domir Species Across All Strat			1	_	(В
Percent of Dominant Sp That are OBL, FACW, o			_100	.0%_	(A/B)
Prevalence Index wo	orksheet:				
Total % Cover of	:	Multipl	y by:		_
OBL species	80	x 1		80_	
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:	90_	(A)	_	100_	(B)
Prevalence Inde	x = B/A=		_	1.111	
✓ 1 - Rapid Test for ✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyo	Test is > 5 ndex is ≤	0% 3.0¹			1)
✓ 2 - Dominance T ✓ 3 - Prevalence I	Test is > 5 Index is ≤ Irophytic Y Iric soil and	0% 3.0¹ Vegeta	tion¹ ((Explain	1)
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be	Test is > 5 Index is ≤ Idrophytic \(\) Iric soil and present, \(\) Iric setation	0% 3.0¹ Vegetat d wetla unless c	tion¹ (ind listurl	(Explain	n)
✓ 2 - Dominance T ✓ 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 Vegetal d wetla unless o Strata ing woo more ir	ind listuri	(Explain bed or nes, ht and 3	3 in.
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft	ric soil and present, u getation ts, excludit (6 m) or n diamete lants, excl	3.01 Vegetal d wetlaunless of Strata ing woo more irr at bre-	ind disturi	bed or nes, ht and 3 eight (D	3 in. BH).
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody pl approximately 20 ft	ric soil and present, u getation ts, excludit (6 m) or n diamete lants, excl t (6 m) or DBH.	3.0¹ Vegetal d wetlaunless o Strata ing woo more ir r at brea	nnd listurl : ody vin heig woody n heig	mes, ht and 3 eight (Do vines, ht and I vines, I	3 in. BH). ess
✓ 2 - Dominance T ✓ 3 - Prevalence I ✓ Problematic Hyd ¹ Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger it Sapling - Woody pl approximately 20 ft than 3 in. (7.6 cm) Sapling/Shrub - Wo	ric soil and present, to getation to diamete to DBH. cody plant greater the present to the pres	d wetlaunless of Strata ing woo more ir at breath and see in the s	nnd listurl : ody vin heig ast he woody heig 8 ft (1	hed or nes, ht and 3 eight (D vines, ht and I vines, I Im) tall.	3 in. BH). ess
✓ 2 - Dominance T ✓ 3 - Prevalence I ✓ Problematic Hyd ¹ Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody plant approximately 20 ft 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 wetlaunless of Strata ing woodyn more irrusts, excluding woodyn in woodyn s of siz	nnd listurl : ody vin heig ast he woody heig toody v heig	nes, ht and 3 eight (D vines, I m) tall. vines, included woody	3 in. BH). ess ess

1	0			
2	00.0%			
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).

SOIL Sampling Point: WP1047_WET_PEM_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix				Redox I	Features			
(inches)	Color (moist)_	<u> </u>	Color (m	noist)	<u>%</u>	Type1	Location ²	Texture	Remarks
0 - 16	10YR 4/1	95	10YR	5/6	5		М	Sand	
¹ Type: C=Concentrati	ion, D=Depletion, RM=	Reduced M	1atrix, CS=C	Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
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) (A5) (A6) (LRR P, T, U) (A6) (LRR P, T, U) (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) (A7) (LRR P, T) (A7)			Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surfar Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depression (10) (LRR ed Ochricanganese Surface Ochric (F1 ed Vertic ont Flood	face (F6) Surface (F7) Surface (F7) Surface (F8) U) (F11) (MLRA Masses (F12) (F13) (LRR P, 7) (MLRA 151) (F18) (MLRA 151)	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 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? Ye	es • No 🔾
Remarks:									

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1048_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): Convex Slope: 2 % 1.1 °
Subregion (LRR): LRR T Lat: 27.92	24497 Long: -97.150205 Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, freq	
	Yes No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly distu	rrbed? Are "Normal Circumstances" present? Yes ● No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present?	WILLIIIT A WELIATU:
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a w	retland.
HYDROLOGY	
Wetland Hydrology Indicators:	
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)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along L	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	
Drift Deposits (B3)	
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):	
Water Table Present? Yes No Depth (inches):	h
Saturation Present?	Wetland Hydrology Present? Yes ○ No ●
(includes capillary fringe) Yes No Depth (inches):	-
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections)	, if available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

		Dominant	Dominance Test worksheet:
	Absolute	Species?	
	% Cover	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:1(B
•			
	0	0.0%_	Percent of Dominant Species That are OBL FACW, or FAC: 0.0% (A/E
	0	0.0%_	That are OBL, FACW, or FAC: 0.0% (A/E
	0	0.0%_	Prevalence Index worksheet:
	0	0.0%_	Total % Cover of: Multiply by:
	0	0.0%_	OBL species 15 x 1 = 15
	0	0.0%_	FACW species $5 \times 2 = 10$
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	FAC species $0 \times 3 = 0$
line on Conline (Church Church (Plat Circ. 20.)			FACU species $50 \times 4 = 200$
ling or Sapling/Shrub Stratum (Plot Size : 30)	0	0.00/	
		0.0%	
		0.0%	Colum Totals: <u>85</u> (A) <u>300</u> (B)
		0.0%	Prevalence Index = B/A= 3.529
			Hydrophytic Vegetation Indicators:
-		0.0%_	Hydrophytic vegetation indicators:
	0	0.0%_	✓ 1 - Rapid Test for Hydrophytic Vegetation
	0	0.0%_	2 - Dominance Test is > 50%
	0	0.0%_	3 - Prevalence Index is ≤ 3.01
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30)		_	
	0	0.0%	¹ Indicators of hydric soil and wetland
	0	0.0%_	hydrology must be present, unless disturbed or
	0	0.0%_	
	0	0.0%_	Definition of Vegetation Strata:
		0.0%_	Tree - Woody plants, excluding woody vines,
		0.0%	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).
b Stratum (Plot Size : <u>30</u>)			Sapling - Woody plants, excluding woody vines,
_Schizachvrium scoparium	50	✓ 58.8% FACU	approximately 20 ft (6 m) or more in height and less
Distichlis spicata		17.6% OBL	than 3 in. (7.6 cm) DBH.
. Helianthus argophyllus	15	17.6%UPL	
Andropogon alomeratus	5	5.9% FACW	Sapling/Shrub - Woody plants, excluding vines, less
-		0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
		0.0%	
-		0.0%	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
		0.0%	approximately 5 to 20 it (1 to 0 iii) iii neight.
			Herb - All herbaceous (non-woody) plants, including
		0.0%	herbaceous vines, regardless of size, and woody
		0.0%	plants, except woody vines, less than approximately
		0.0%	3 ft (1 m) in height.
		0.0%	
50% of Total Cover: 43 20% of Total Cover: 17	85	= Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		0.00/	
		0.0%	
		0.0%	
		0.0%_	Hydrophytic
	0_	0.0%_	Vegetation Yes • No
	0	0.0%	Present ?

SOIL Sampling Point: WP1048_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 ²	Texture	Remarks
0 - 16	10YR 5/3 100				Sand	
	ion, D=Depletion, RM=Reduc	ed Matrix, CS=Covered	or Coated Sand Grains.	² 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) s (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) latrix (S4) 5) (S6)	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) clous Bright Loamy Soils	151) (LRR O, P, T) T, U) 50A, 150B) O) (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) urface (TF12)
Restrictive Layer Type: Depth (inches):	· ,			н	ydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Te	rminal SPM Project	City/County:	Aransas	Sampling Date	e: 2/13/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1048_WET_PEM
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	Range: 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			542 Lo r	ng: -97.150124	Datum: NAD 83
Soil Map Unit Name: Musta	ang fine sand, 0 to 1 percent slop	es, occasionally flooded, freque	ently ponde NWI Class	sification: None	
Are climatic/hydrologic con	nditions on the site typical for	this time of year? Ye	es (● No () (If i	no, explain in Remarks.)	
	Soil , or Hydrology	significantly distur	· ·	Circumstances" present	
	Soil , or Hydrology	naturally problema		explain any answers in F	
Are regetation			de. (Il liceaeu)	Apidin dily dilawera in i	cemarksiy
SUMMARY OF FINDING	S – Attach site map show	ing sampling point local	tions, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Prese		No •	Is the Sampled Area	a	
Hydric Soil Present?	Yes •	No O	within a Wetland?	Yes	○ No ●
Wetland Hydrology Present?	Yes •	No O			
Remarks:	ric soil, and wetland hydrology ar	e present. This is a wetland			
Trydrophlydd vegetadon, ffydi	ic soil, and wedand hydrology ar	e present. This is a wedand.			
HYDROLOGY					
Wetland Hydrology Indic	ators:				
Primary Indicators (Minin	mum of one required; check a	all that apply)	Second	dary Indicators (Minimu	m of 2 required)
✓ Surface Water (A1)		quatic Fauna (B13)		Sparsely Vegetated Conca	ave Surface (B8)
High Water Table (A2)		1arl Deposits (B15) (LRR U)		Drainage Patterns (B10)	, ,
✓ Saturation (A3)		lydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres along Liv	ing Roots (C3)	Dry Season Water Table ((C2)
Sediment Deposits (B2)	P	resence of Reduced Iron (C4)		Crayfish Burrows (C8)	
Drift Deposits (B3)	F	ecent Iron Reduction in Tilled S	Soils (C6)	Saturation Visible on Aeria	al Imagery (C9)
Algal Mat or Crust (B4)	T	hin Muck Surface (C7)		Geomorphic Position (D2))
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae	erial Imagery (B7)		✓	FAC-Neutral Test (D5)	
Water-Stained Leaves (E	39)			Sphagnum moss (D8) (LR	RR T, U)
Field Observations:					
Surface Water Present?	Yes No	Depth (inches): 1			
Water Table Present?	Yes O No •	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches): 0	Wetlan	d Hydrology Present?	Yes • No O
. , , , ,			£: - - -		
Describe Recorded Data (str	ream gauge, monitor well, aerial	priotos, previous irispections), i	i avallable:		
Remarks:					

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

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

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

Distichlis spicata

2 . Andropogon glomeratus

3 . Sesbania herbacea

50% of Total Cover: 48

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

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%

0.0%

= Total Cover

25 **✓** __26.3% FACW

___10.5%__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

60 **✓** __63.2% OBL

0.0%

0.0%

Status

Dominance Test worksh	eet:			
Number of Dominant Specie	es			
That are OBL, FACW, ro FA	C:			(A)
Total Number of Dominant Species Across All Strata:			_1_	(В
Percent of Dominant Specie That are OBL, FACW, or FA			0.0%	(A/B)
Prevalence Index works	heet:			
Total % Cover of:		Multipl		_
OBL species	60	x 1	70	
FACW species	35_	x 2		
FAC species		x 3		
FACU species		x 4		
UPL species Colum Totals:	0	x 5	300	(5)
Corum rocars.	85_	(A)		(B)
Prevalence Index =	B/A=		3.529	
1 - Rapid Test for Home 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop	is > 50° x is ≤ 3. hytic Ve	% .0¹ egetal	cion¹ (Expla	in)
1 - Rapid Test for Home 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric shydrology must be presented.	is > 50° x is ≤ 3° hytic Ve soil and sent, un	% .0¹ egetat wetla iless c	cion¹ (Expla nd listurbed or	in)
2 - Dominance Test 3 - Prevalence Inde Problematic Hydrop 1 Indicators of hydric s hydrology must be pres	is > 50° x is ≤ 3 hytic Ve soil and sent, un	% .0¹ egetat wetla iless c	nd listurbed or	in)
1 - Rapid Test for Home 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric shydrology must be presented.	is > 50° x is ≤ 3. Sollytic Version and sent, un ation Sexcludin m) or m	% .0¹ wetla iless c trata g woo	nd listurbed or cody vines, height and	3 in.
1 - Rapid Test for He 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric s hydrology must be pres Definition of Vegeta Tree - Woody plants, e approximately 20 ft (6)	is > 50° x is ≤ 3. hytic Versial and sent, un ation Sexcludin m) or m ameter s, exclu m) or m	wetlades control in the control in t	nd listurbed or cody vines, height and ast height (3 in. DBH).
1 - Rapid Test for Home 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric shydrology must be present the present the second plants, eapproximately 20 ft (6 (7.6 cm) or larger in dia sapproximately 20 ft (6 sapprox	is > 50° x is ≤ 3. hytic Versial and sent, unation Sexcludin m) or mameter s, exclumn) or m l.	% .01 wetla less c trata g wocore ir at bre ding v ore ir	nd listurbed or cody vines, height and ast height (voody vines height and	3 in. DBH). , less
1 - Rapid Test for Ho 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric s hydrology must be pres Definition of Vegeta Tree - Woody plants, e approximately 20 ft (6 (7.6 cm) or larger in dia Sapling - Woody plants approximately 20 ft (6 than 3 in. (7.6 cm) DBI Sapling/Shrub - Woody	is > 50° x is ≤ 3. hytic Versial and sent, unation Sexcludin m) or mameter s, exclumn) or m l. / plants excludin excludin	wetladeless coore irrata bree irrata 3.2	nd listurbed or cody vines, height and ast height (voody vines height and uding vines, 8 ft (1m) tal	3 in. DBH). , less
1 - Rapid Test for He 2 - Dominance Test 3 - Prevalence Index Problematic Hydrop 1 Indicators of hydric shydrology must be present to the present to the property of the property of the property of the proximately 20 ft (6 (7.6 cm) or larger in dialectic approximately 20 ft (6 (6 than 3 in. (7.6 cm) DBI Sapling/Shrub - Woody than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub - Woody plants, when the proximately 20 ft (6 than 3 in. DBH and green shrub) when the proximately 20 ft (6 than 3 in. DBH and green shrub) when the proximately 20 ft (6 than 3 in. Under the proximately 20 ft (6	is > 50° x is ≤ 3. hytic Versial and sent, unation Sexcludin m) or mameter s, exclumn) or m H. / plants excludin tit (1 to 6 consection) (non-weardless	wetladeless covered to the covered t	nd listurbed or cody vines, height and ast height (voody vines, height and uding vines, f (1m) tal cody vines, height.	3 in. DBH). , less less l.

5	0	Present?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
emarks: (If observed, list morphological adaptations below)		

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

20% of Total Cover: 19

(Plot Size : 30)

SOIL Sampling Point: WP1048_WET_PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix				Features			
(inches) 0 - 16	10YR 4/1	<u> </u>	Color (moist) 10YR 5/6	<u></u> -	Tvpe ¹	Location ²	Texture	Remarks
	10YR 4/1	97	10YR 5/6	3		М	Sand	
¹Type: C=Concentrati	on, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coated	Sand Grains.	² 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) (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 Loamy Deplet Redox Deplet Redox Marl (F Deplet Iron-M Umbric Delta (Reducc	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi (10) (LRR ed Ochric anganese (1) 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, (F1) (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	is • No 🔾
Remarks:								

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1049_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 rel	lief (concave, convex, none): Convex Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27	7.921886 Long: -97.144945 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally	
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 isignificantly di	
Are Vegetation , Soil , or Hydrology naturally probl	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No No
Wetland Hydrology Present? Yes No	within a vvetiand:
Remarks:	
Hydric soil and wetland hydrology are not present. This is not a wetland.	
HYDROLOGY	
Wetland Hydrology Indicators:	
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 alon	
Sediment Deposits (B2) Presence of Reduced Iron (
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Ti	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations	
Field Observations: Surface Water Present? Yes No Depth (inches):	
	_
Coturation Descent?	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 inspectio	ns), if available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

	Absolute Re	ominant pecies? el,Strat, Indicator	Dominance Test worksheet: Number of Dominant Species
		Cover Status	That are OBL, FACW, ro FAC: (A)
ee Stratum (Plot Size : 30)	0	0.00/	Total Number of Dominant
		0.0%	Species Across All Strata:3 (B
		0.0%	Percent of Dominant Species
		0.0%	That are OBL, FACW, or FAC: 66.7% (A/B)
		0.0%	Prevalence Index worksheet:
		0.0%	
		0.0%	Total % Cover of: Multiply by:
		0.0%	OBL species $0 \times 1 = 0$
50% of Total Cover: 0 20% of Total Cover: 0		Total Cover	FACW species $3 \times 2 = 6$
		- Total Cover	FAC species $25 \times 3 = 75$
pling or Sapling/Shrub Stratum (Plot Size : 30)	•	0.00/	FACU species $\underline{}$
•		0.0%	UPL species $0 \times 5 = 0$
		0.0%	Colum Totals: <u>88</u> (A) <u>321</u> (B)
		0.0%	Prevalence Index = B/A= 3.648
•		0.0%	Hydrophytic Vegetation Indicators:
		0.0%	
		0.0%	✓ 1 - Rapid Test for Hydrophytic Vegetation
7 -		0.0%	✓ 2 - Dominance Test is > 50%
3 50% of Total Cover: 0 20% of Total Cover: 0		0.0%_ = Total Cover	3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)
		0.0% 0.0% 0.0%	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
1.		0.0%	Definition of Vegetation Strata:
5		0.0%	Tree - Woody plants, excluding woody vines,
5		0.0%	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover: 0		Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
			(710 only of larger in diameter at product height (PD11)1
rb Stratum (Plot Size : 30)			Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
rrb Stratum (Plot Size : 30)	60 🗸	72.3% FACU	Sapling - Woody plants, excluding woody vines,
trb Stratum (Plot Size : 30) 1 . Schizachvrium scoparium 2 . Smilax bona-nox	60 🗸	72.3% FACU 24.1% FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
erb Stratum (Plot Size : 30) 1 . Schizachvrium scoparium 2 . Smilax bona-nox	60 🗸	72.3% FACU 24.1% FAC 3.6% 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. Sapling/Shrub - Woody plants, excluding vines, less
rrb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropodon glomeratus	60 v 20 v 3 0	72.3% FACU 24.1% FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
crb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4.	60 V 20 V 3 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0%	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.
crb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4.	60 V 20 V 3 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0%	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
rrb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4.	60 V 20 V 3 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0%	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. Shrub - Woody plants, excluding woody vines,
erb Stratum (Plot Size : 30) 1 . Schizachvrium scoparium 2 . Smilax bona-nox 3 . Andropogon glomeratus 4	60 V 20 V 3 0 0 0 0 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0%	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. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including
Perb Stratum (Plot Size : 30) 1Schizachvrium scoparium 2Smilax bona-nox	60 V 20 V 3 0 0 0 0 0 0 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0%	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. 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
crb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropodon dlomeratus 4	60 V 20 V 3 0 0 0 0 0 0 0 0 0 0 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	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. 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
arb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4	60 V 20 V 3 0 0 0 0 0 0 0 0 0 0 0 0 0	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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
Perb Stratum (Plot Size: 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4	60 V 20 V 3	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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
rrb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4	60	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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.
rrb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4	60	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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.
Perb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4. 5. 6. 7. 88 99 99 99 99 99 99 99 99 99 99 99 99	60 V 20 V 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 83 =	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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.
erb Stratum (Plot Size : 30) 1 . Schizachvrium scoparium 2 . Smilax bona-nox 3 . Andropogon glomeratus 4	60 V 20 V 3	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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.
Property Stratum 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4	60	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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. Hydrophytic Vegetation Yes No
rb Stratum (Plot Size : 30) 1. Schizachvrium scoparium 2. Smilax bona-nox 3. Andropogon glomeratus 4. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	60	72.3% FACU 24.1% FAC 3.6% FACW 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	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. 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.

US Army Corps of Engineers

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

SOIL Sampling Point: WP1049_UP

Depth	Ma	atrix		Redox	Features			
(inches)	Color (mo	oist) 9	6 Color (moist)	%	Tvpe1	Location ²	Texture	Remarks
0 - 16	10YR -	4/2 10	00				Sandy Loam	
ne: C=Concentra:	ation D=Depletion	n RM=Red	uced Matrix, CS=Covered	or Coated	d Sand Grains	² Location: PL=Pore	Lining M=Matrix	
ric Soil Indic	·	.,,	acca manny co coverca			2004101111211010	Indicators for Problemat	ic Hydric Soils³:
Histosol (A1)	<u>.ators.</u>		Debage	luo Bolov	v Surface (S8) ((LDD C T LI)		
Histic Epipedon	n (A2)				ace (S9) (LRR S		1 cm Muck (A9) (LRR (2 cm Muck (A10) (LRR	
Black Histic (A3	3)				4ineral (F1) (LR		Reduced Vertic (F18) (•
Hydrogen Sulfic	de (A4)				Matrix (F2)		Piedmont Floodplain Sc	•
Stratified Layer			Deplet	ed Matrix	(F3)			ny Soils (F20) (MLRA 153B)
-	s (A6) (LRR P, T		Redox	Dark Su	rface (F6)		Red Parent Material (Ti	- 2)
•	ineral (A7) (LRR	(P, T, U)	Deplet	ed Dark :	Surface (F7)		Very Shallow Dark Surf	ace (TF12)
Muck Presence			Redox	Depress	ions (F8)		Other (Explain in Rema	rks)
L cm Muck (A9			Marl (F	10) (LRF	RU)			
	w Dark Surface ((A11)			c (F11) (MLRA	•		
Thick Dark Surf					e Masses (F12)			
	edox (A16) (ML	•			(F13) (LRR P,		³ Indicators o	f hydrophytic vegetation and
	ineral (S1) (LRR	(O, S)			17) (MLRA 151)		wetland hy	drology must be present,
Sandy Gleyed N					(F18) (MLRA 1		unless d	sturbed or problematic.
Sandy Redox (S) (MLRA 149A)		
Stripped Matrix	. ,	- 118	Anoma	ılous Brig	ht Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)	
Dark Surface (S	S7) (LRR P, S, T	, U)						
trictive Layer	r (If observed)):						
Гуре:	<u> </u>					+	Hydric Soil Present? Yes	O No •
Depth (inches):								
narks:								

Project/Site: Bluewater Ter	rminal SPM Project	City/Count	:y: Aransas	Sampling Date	2/13/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1049_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski		Section, Township, R	tange: S N/A T N/	'A R N/A
Landform (hillslope, terrace	, etc.): Flat	Local relief	= f (concave, convex, none)	: Concave	Slope: 2 % 1.1 °
Subregion (LRR): LRR T			21808 Lor	ng: -97.145069	Datum: NAD 83
Soil Map Unit Name: Galves	ston-Mustang complex, 0 to 3	percent slopes, occasionally flo	oded (GM) NWI Class	sification: None	
Are climatic/hydrologic con	ditions on the site typical f	or this time of vear?	Yes ● No ((If r	no, explain in Remarks.)	
	Soil , or Hydrology	significantly dist		Circumstances" present	? Yes • No
	Soil , or Hydrology	naturally problen		explain any answers in R	
SUMMARY OF FINDINGS	_ ,				,
Hydrophytic Vegetation Prese	ent? Yes •	No O			
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	a Yes	No
Wetland Hydrology Present?	Yes •	No O	William a Vi Guana		
Remarks: Hydrophytic vegetation, hydr HYDROLOGY	ic soil, and wetland hydrology a	are present. This is a wetland.			
Wetland Hydrology Indica	ators:				
	num of one required; check	all that apply)	Second	dary Indicators (Minimur	m of 2 reauired)
✓ Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Conca	ve 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 L	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 Tille		Saturation Visible on Aeria	l Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)	✓	Geomorphic Position (D2)	
Iron Deposits (B5)	urial Imagany (P7)	Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae			•	FAC-Neutral Test (D5)	D.T. II)
☐ Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LR	K I, U)
Field Observations: Surface Water Present?	Yes • No	5 11 (1 1)			
Water Table Present?		Depth (inches): 6			
Saturation Present?		Depth (inches):	_ Wetlan	d Hydrology Present?	Yes • No O
(includes capillary fringe)	Yes • No O	Depth (inches): 0	_	a riyarology i reselle.	
,	eam gauge, monitor well, aeria	ll photos, previous inspections), if available:		
Remarks:					

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 . Sesbania herbacea

2. Ludwigia palustris

3 . Panicum virgatum 4 . Tvpha latifolia

50% of Total Cover: 37

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%_

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%

___0.0%_

= Total Cover

25 **✓** __34.2% FACW

20 **✓** __27.4% _FAC

34.2% OBL

4.1% 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%

0.0%

= Total Cover

0.0%

Status

Dominance Test wo	rksheet:			
Number of Dominant S That are OBL, FACW, r	•		2	(A)
Total Number of Domir Species Across All Stra			3	(В
Percent of Dominant S That are OBL, FACW, o			66.7%	(A/B)
Prevalence Index w	orksheet:			
Total % Cover of	:	Multip	ly by:	_
OBL species	28	x 1	=28	_
FACW species	25_	x 2	=50	_
FAC species	20	x 3		_
FACU species	0	x 4		_
UPL species		x 5		_
Colum Totals:	73	(A)	138	(B)
Prevalence Inde	ex = B/A=		1.890	<u>)</u>
1 - Rapid Test for ✓ 2 - Dominance Town ✓ 3 - Prevalence Iow Problematic Hydrox ¹ Indicators of hydrox	Fest is > 50 Index is ≤ 3 drophytic \	0% 3.0¹ /egeta	tion¹ (Expl	ain)
✓ 2 - Dominance 1 ✓ 3 - Prevalence I	Test is > 50 Index is ≤ 3 Idrophytic \	0% 3.0¹ /egeta	tion¹ (Expl	·
✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyd 1 Indicators of hyd	Test is > 50 Index is ≤ 3 Idrophytic \ Iric soil and present, u	0% 3.0¹ /egeta d wetla inless o	tion¹ (Expl and disturbed o	·
2 - Dominance T 3 - Prevalence I Problematic Hydrology must be Definition of Veg Tree - Woody plan	Test is > 50 Index is < 3 Idrophytic Notes of the present, ungertation at the present of the pre	0% 3.0¹ /egeta d wetla inless o Strata	ind disturbed o)r
2 - Dominance T 3 - Prevalence I Problematic Hydrology must be Definition of Veg	Test is > 50 Index is < 3 Idrophytic Notes of the present, under the present of t	0% 3.0¹ /egeta d wetla inless o Strata ng woo more ir	tion¹ (Expl and disturbed o :: ody vines, n height an	or ad 3 in.
2 - Dominance T 3 - Prevalence I Problematic Hydrology must be Definition of Veg Tree - Woody plan approximately 20 f	Fest is > 56 Index is < 5 Idrophytic Notes in the present, up getation is ts, excluding t (6 m) or in diameter in the present	ow 3.01 /egeta d wetla inless o Strata ng woo more ir r at bre uding v	tion¹ (Expl and disturbed on t: body vines, a height an east height woody vine	of 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 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f	Fest is > 50 Index is < 3 Idrophytic N Iric soil and Ipresent, u Iric soil and Ipresent, u Iric soil and Iric soil	0% 3.0¹ /egeta /egeta strata ng woo more ir r at bre uding v more ir	tion¹ (Expl and disturbed on t: body vines, in height an woody vines in height an	d 3 in. (DBH). es, d less
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Wo	Fest is > 50 Index is < 3 Idrophytic N Iric soil and present, u getation (1) ts, excluding t (6 m) or (1) n diameter lants, excluding t (6 m) or (1) DBH. Dody plant I greater the	d wetlanless of Stratang woomore irrat brewore irras, exclanan 3.2	tion¹ (Expland disturbed of the cody vines, a height an east height an east height and the cody vines and the cody vines and the cody vines and the cody vines are cody vines	d 3 in. (DBH). es, d less s, less all.
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and	rest is > 50 Index is < 3 Index	oody) s of siz	tion¹ (Expland disturbed of the cody vines, a height an east height an east height and the cody vines are the cody vines are the cody vines and the cody vines are th	d 3 in. (DBH). es, d less s, less all.

Domarks: (If observed	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: WP1049_WET_PEM

Profile Description	n: (Describe to th	e depth needed	to docu	ment the	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix			Redox I	Features			
(inches)	Color (moist)	% Color	(moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 3/1	97 10YR	5/6	3		М	Sandy Loam	
¹ Type: C=Concentrati	on, D=Depletion, RM=	Reduced Matrix, CS	=Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
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 Rec Sandy Muck Min Sandy Gleyed Matrix (Stripped Matrix (Stripped Matrix)	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ice (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	[[[0A)	Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (F Deplet Iron-M Umbrid Delta (Reducc	ark Surface Mucky M Gleyed M ed Matrix Dark Surface Depressice Ochrice Country	ce (S9) (LRR Sineral (F1) (Ll datrix (F2) (F3) face (F6) Surface (F7) ons (F8) U) (F11) (MLRA Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA 251)	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 unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer of Type: Depth (inches):	,						Hydric Soil Present? Ye	s • No O
Remarks:								

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1050_UP_A
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, Range: S N/A T N/A R N/A
Landform (hillslope, terrace, etc.): Flat Local re	lief (concave, convex, none): Convex Slope: 2 % 1.1 °
Subregion (LRR): LRR T Lat: 2'	7.920003 Long: -97.141396 Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, 1	frequently ponde NWI Classification: None
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 di	
Are Vegetation , Soil , or Hydrology naturally probl	lematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No •	William a Violana.
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not	a wetland.
HYDROLOGY	
Wetland Hydrology Indicators:	
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 L	
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)
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 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):	
Water Table Present? Yes No Depth (inches):	_
Caturation Dresent?	Wetland Hydrology Present? Yes ○ No ●
(includes capillary fringe) Yes No Depth (inches):	— Vectoria Hydrology Frescrict Fest (1800)
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspectic	ons), if available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

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

1 . Rubus trivialis

50% of Total Cover: 0

2. Helianthus argophyllus 3 . Smilax bona-nox

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

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Rel.Strat. Indicator

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0.0%_

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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%

0.0%

= Total Cover

85 **✓** 85.0% FACU

10.0% UPL

0.0%

0.0%

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

Vegetation

Present ?

= Total Cover

5.0% FAC 0.0%

0.0%

0.0%

= Total Cover

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant				
That are OBL, FACW			3	(A)
Total Number of Dor			_	
Species Across All St	rata:		3	(B
Percent of Dominant That are OBL, FACW			_100.0%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multip		_
OBL species	0	x 1		_
FACW species	0	x 2		-
FAC species	5	x 3		-
FACU species	85	x 4	= 340	-
UPL species	10	x 5	= 50	_
Colum Totals:	100	(A)	405	_ (B)
Prevalence In	idex = B/A=		4.050	<u>)</u>
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	: for Hydrop e Test is > 5 e Index is ≤ lydrophytic ydric soil an	hytic V 0% 3.0¹ Vegeta	tion¹ (Expl	·
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must i	for Hydropi e Test is > 5 e Index is ≤ lydrophytic ydric soil an pe present, i	hytic V 0% 3.0¹ Vegeta d wetk	tion¹ (Expl and disturbed o	·
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must i	e Test is > 5 e Index is ≤ lydrophytic ydric soil an be present, i	hytic Vo 0% 3.0¹ Vegeta d wetla unless	tion¹ (Expl and disturbed o	·
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must i	e Test is > 5 e Index is ≤ e Index is ≤ lydrophytic ydric soil an be present, i egetation ants, exclud	hytic Volume Vol	and disturbed o	r
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must i	e Test is > 5 e Index is ≤ e Index is ≤ lydrophytic ydric soil an be present, i egetation ants, exclud of (6 m) or	hytic Vo 0% 3.0 ¹ Vegeta d wetlaunless Strata ing womore in	and disturbed o	r d 3 in.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must i Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large	e Test is > 5 e Index is ≤ e Index is ≤ elydrophytic ydric soil an be present, u egetation ants, exclud of (6 m) or r in diamete	hytic Vo 0% 3.0¹ Vegeta d wetlaunless Strata ing womore in	and disturbed o a: ody vines, n height an east height	r d 3 in. (DBH).
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must i Definition of V Tree - Woody pla approximately 20	e Test is > 5 e Index is ≤ e Index is ≤ elydrophytic ydric soil and be present, if egetation ants, exclud of (6 m) or r in diamete plants, exc	hytic Vo 0% 3.0¹ Vegeta d wetlaunless Strata ing wor more in r at bre	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 Indicators of hydrology must i Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody	e Test is > 5 e Index is ≤ e Index is ≤ elydrophytic ydric soil and be present, u egetation ants, exclud of (6 m) or r in diamete plants, exc of (6 m) or	hytic Vo 0% 3.0¹ Vegeta d wetlaunless Strata ing wor more in r at bre	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 Indicators of hydrology must i Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm)	e Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e I	hytic Vo 0% 3.01 Vegeta d wetlaunless Strata ing womore in r at bre luding in	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 Indicators of hydrology must I Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20	e Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e I	hytic V. 0% 3.0¹ Vegeta d wetlaunless of Strata ing won more in r at bre luding more in	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 Indicators of hydrology must i 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 Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e In	hytic Vo 0% 3.01 Vegeta d wetlaunless of Strata ing womore in r at bre luding in more in	and disturbed o a: ody vines, n height an east height woody vine n height an uding vines 28 ft (1m) ta	d 3 in. (DBH). s, d less s, less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must if 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 - N	e Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e In	hytic V. 0% 3.0¹ Vegeta d wetla unless o Strata ing woo more in r at bre luding wo more in as, exclana 3.2 ding wo	and disturbed o a: ody vines, n height an east height woody vine n height an uding vines 28 ft (1m) ta	d 3 in. (DBH). s, d less s, less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must i 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 papproximately 3 in approximately 3 in approximatel	e Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e In	hytic Vo 0% 3.01 Vegeta d wetlaunless Strata ing wo- more in r at bro luding more in ts, excl han 3.2 ding wo-	and disturbed o a: ody vines, n height an east height woody vine n height an uding vines 28 ft (1m) ta oody vines, n height.	d 3 in. (DBH). s, d less s, less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must is 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 plans and Shrub - Woody pla	e Test is > 5 e Index is ≤ e Index is < e Index is ≤ e Index is < e In	wetlanders of the second of th	and disturbed o a: ody vines, n height an east height woody vine n height an uding vines 28 ft (1m) ta body vines, n height.	d 3 in. (DBH). s, d less s, less all.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must if 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 pla approximately 3 than 3 in. All herbacherbaceous vinesplants, except woods	e for Hydrop e Test is > 5 e Index is ≤ lydrophytic ydric soil an be present, i egetation ants, exclud of t (6 m) or r in diamete plants, exc oft (6 m) or n) DBH. Woody plant nd greater ti llants, exclu to 20 ft (1 to eous (non-ves, regardles) body vines, i	wetlander in the second of the	and disturbed o a: ody vines, n height an east height woody vines n height an uding vines 28 ft (1m) ta ody vines, n height.	d 3 in. (DBH). s, d less s, less all.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must if 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 pla approximately 3 than 3 in. Herb - All herbace herbaceous vines	e for Hydrop e Test is > 5 e Index is ≤ lydrophytic ydric soil an be present, i egetation ants, exclud of t (6 m) or r in diamete plants, exc oft (6 m) or n) DBH. Woody plant nd greater ti llants, exclu to 20 ft (1 to eous (non-ves, regardles) body vines, i	wetlander in the second of the	and disturbed o a: ody vines, n height an east height woody vines n height an uding vines 28 ft (1m) ta ody vines, n height.	d 3 in. (DBH). s, d less s, less all.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must if 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 pla approximately 3 than 3 in. All herbacherbaceous vinesplants, except woods	e Test is > 5 e Index is ≤ e In	d wetlanders of the state of th	and disturbed o a: ody vines, n height an east height woody vines n height an uding vines 28 ft (1m) ta oody vines, n height. plants, include, and wood an approxim	d 3 in. (DBH). s, d less s, less all. luding

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: WP1050_UP_A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox F	eatures			
(inches)	Color (moist)	% Color (moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	100				Sand	
¹Tvne: C=Concentrati	on D=Depletion RM=F	Reduced Matrix, CS=Covere	d or Coated	Sand Grains	² Location: PL=Pore	lining M=Matrix	
Hydric Soil Indica	•	teduced Matrix, 65–60vere	a or coulcu	Suria Granis.	Editation: 1 E=1 die	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) ce (A12) dox (A16) (MLRA 150	Thin Loam Loam Deple Redo Redo Marl Deple Iron-	Dark Surfac y Mucky Mi y Gleyed M eted Matrix x Dark Surf eted Dark S x Depressic (F10) (LRR eted Ochric Manganese	(F3) Face (F6) Face (F7) Fons (F8)	, T, U) R O) 151) (LRR O, P, T)	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) narks)
Sandy Gleyed Marix (Stripped Matrix (5)	Redu Piedn	ced Vertic (nont Floodp			wetland unless	of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Restrictive Layer (Type: Depth (inches):	,					lydric Soil Present? Ye	No •
Remarks:							

Project/Site: Bluewate	r Terminal SPM Project	t	City/County: Aransas		Sampling Date:	2/13/2019
Applicant/Owner: Phi	llips 66 Pipeline, LLC		State	e: TX	Sampling Point:	WP1050_UP_B
Investigator(s): B. Br	inghurst & A. Ostrowsk	i	Section	on, Township, Ra	nge: S N/A T N/A	R N/A
 Landform (hillslope, ter	race, etc.): Flat		Local relief (concave	, convex, none):	Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR			. Lat: 27.919955		1: -97.140626	Datum: NAD 83
		-lev 0 to 2			fication: None	TVAD 03
oon Map Onit Name.	aiveston-Mustang com	plex, 0 to 3 percent slopes,	occasionally flooded (GM)	— NWI Classi	Tication. None	
Are climatic/hydrologic	conditions on the si	ite typical for this time o	f year? Yes 💿	No (If no	o, explain in Remarks.)	
Are Vegetation	, Soil , or H	lydrology sigi	nificantly disturbed?	Are "Normal (Circumstances" present?	Yes 💿 No 🔾
Are Vegetation	, Soil 🗌 , or H	lydrology 🗌 nat	urally problematic?	(If needed, ex	cplain any answers in Rer	marks.)
SIIMMADY OF FINDT	NGS — Attach site	man showing sampl	ing point locations, ti	ransects imno	rtant features etc	
				ansects, impo	rtant reatures, etc.	
Hydrophytic Vegetation	?resent?	Yes No •	Is the	e Sampled Area	Yes C	No •
Hydric Soil Present?		Yes O No •	withir	n a Wetland?	163	/ NO ©
Wetland Hydrology Pres	ent?	Yes O No •				
Remarks:	hydric soil, and wetlan	d hydrology are not present	This is not a wetland			
rrydrophlytic vegetation,	Tryunc son, and wedan	u nyurology are not present	. This is not a wedand.			
HYDROLOGY						
Wetland Hydrology I	ndicators					
		ired: check all that appl	٧١	Second	arv Indicators (Minimum	of 2 required)
	illillidili oi one requ					•
Surface Water (A1)	12)	Aquatic Fauna			Sparsely Vegetated Concave	Surface (B8)
High Water Table (A	12)		(B15) (LRR U)		Drainage Patterns (B10)	
Saturation (A3)		Hydrogen Sulf			Moss Trim Lines (B16)	`
Water Marks (B1)	(D2)		ospheres along Living Roots		Dry Season Water Table (C2)
Sediment Deposits	(DZ)		educed Iron (C4)		Crayfish Burrows (C8)	
Drift Deposits (B3) Algal Mat or Crust (D4)		eduction in Tilled Soils (C6)		Saturation Visible on Aerial I	magery (C9)
Iron Deposits (B5)	D 1)	Thin Muck Sur	• •		Geomorphic Position (D2)	
_	on Aerial Imagery (B7)	Other (Explain	in Remarks)		Shallow Aquitard (D3)	
Water-Stained Leave	• , , ,				FAC-Neutral Test (D5)	T 11)
water-stained Leave	35 (D9)				Sphagnum moss (D8) (LRR 1	I, U)
Field Observations:						
Surface Water Present?		Depth (inc				
Water Table Present?	Yes O No	Depth (inc	:hes):			
Saturation Present? (includes capillary fringe	e) Yes O No	Depth (incl	:hes):	Wetland	Hydrology Present? Ye	s O No 🗨
	<u> </u>	rou wall gowiel photog provi	in un ingraphians) if available			
Describe Recorded Data	i (stream gauge, monit	tor well, aerial photos, previ	ious inspections), if available	e:		
Remarks:						
Remarks.						

Tree Stratum

1 . Ouercus virginiana

50% of Total Cover: 20

Shrub Stratum 1 . Ilex vomitoria

Herb Stratum

50% of Total Cover: 15

50% of Total Cover: 25

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Schizachvrium scoparium

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

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

(Plot Size : 30)

20% of Total Cover: 8

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

20% of Total Cover: 6

20% of Total Cover: 10

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Dominant Species?

Cover

40 **✓** _100.0% _FACU__

Absolute % Cover

0

0 🔲 _

0

0 0

0

0

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30

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0

0

50

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

30 ✓ _100.0%__FAC___ 0.0%_ 0.0%

0.0%_

0.0%

0.0%

= Total Cover

50 **✓** 100.0% FACU 0.0%

0.0%

0.0% 0.0%_

0.0% 0.0%_ _ 0.0%_

0.0%_

0.0%_ 0.0%

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____0.0%____

= Total Cover

= Total Cover

0.0%

Status

Dominanas Tast		WP10	_	_	
Dominance Test we Number of Dominant					
That are OBL, FACW,			_	0	(A)
Total Number of Dom Species Across All Str			_	1	(В
Percent of Dominant That are OBL, FACW,			_	0.0%	(A/B)
Prevalence Index v	worksheet:				
Total % Cover of	of:	Multip	ly by	" :	_
OBL species	0	x 1	= .	0	
FACW species	0	x 2	= .	0	
FAC species	30_	x 3	= .	90	
FACU species	90	x 4	= .	360	
UPL species	0	x 5	= .	405	
Colum Totals:	100	(A)		405	(B)
Prevalence Inc	dex = B/A=			4.050	
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	Test is > 5 Index is ≤ ydrophytic	0% 3.0¹ Vegeta	ition		n)
2 - Dominance 3 - Prevalence	Test is > 5 Index is ≤ ydrophytic v dric soil an	0% 3.0¹ Vegeta	ntion	¹ (Explai	n)
2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ ydrophytic dric soil and e present, t	0% 3.0¹ Vegeta d wetl	ation and distu	¹ (Explai	n)
2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b	Test is > 5 Index is ≤ ydrophytic \(\text{dric soil and e present, u} \) egetation nts, excludift (6 m) or	0% 3.0¹ Vegeta d wetl inless Strata ing wo more i	and distu	1 (Explainument of the control of th	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 and e present, the egetation nts, excludift (6 m) or in diamete plants, excl ft (6 m) or	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding	and distu	rbed or vines, ight and height (E	3 in. OBH).
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 of the present, the present, the present, the present of the	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding more i	and distu- a: ody n he east woo n he	vines, ight and height (Edy vines, ight and and wines, ight and arg vines, ight and arg 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 of the present, to the present, to the present, to the present of the presen	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding more i as, exchan 3.2 ding w	and disturbed in the control of the	vines, ight and height (If dy vines, ight and large) (1m) tall	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 and	Test is > 5 Index is ≤ ydrophytic of the present, the present, the present, the present, the present of the pr	o% 3.01 Vegeta d wetlanless Strata ing wo more i r at bra uding more i as, exchan 3.2 ding w 6 m) i woody) s of siz	a: ody n he east woo n he ludir 28 ft oody n he	vines, ight and height (Edw) vines, ight and height (Im) tall vines, ight.	3 in. DBH). less less

Damarke: (If ohearva	d list morphological	adantations holow)

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

Yes 🔘

Present?

SOIL Sampling Point: WP1050_UP_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth Matrix	Re	dox Features			
(inches) Color (moist) %	Color (moist)	%Tvpe¹	Location ²	Texture	Remarks
0 - 16 10YR 4/1 70				Sand	
0 - 16 10YR 5/1 30				Sand	
¹ Type: C=Concentration, D=Depletion, RM=Reduced	Matrix, CS=Covered or C	Coated Sand Grains.	² Location: PL=Pore I	Lining, M=Matrix.	
Hydric Soil Indicators:				Indicators for Problema	atic Hydric Soils ³ :
Histosol (A1)	Polyvalue	Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR	. 0)
Histic Epipedon (A2)	Thin Dark	Surface (S9) (LRR S,	T, U)	2 cm Muck (A10) (LR	
Black Histic (A3)	Loamy Mu	ıcky Mineral (F1) (LRI	R O)		(outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gle	eyed Matrix (F2)			Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted I	Matrix (F3)		Anomalous Bright Loa	amy Soils (F20) (MLRA 153B)
Organic Bodies (A6) (LRR P, T, U)	Redox Dar	rk Surface (F6)		Red Parent Material (TF2)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted [Dark Surface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (A8) (LRR U)	Redox Dep	pressions (F8)		Other (Explain in Ren	narks)
1 cm Muck (A9) (LRR P, T)	Marl (F10)	(LRR U)			
Depleted Below Dark Surface (A11)		Ochric (F11) (MLRA 1			
Thick Dark Surface (A12)	Iron-Mang	janese Masses (F12)	(LRR O, P, T)		
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Su	ırface (F13) (LRR P, T	-, U)	3Indicators	of hydrophytic vegetation and
Sandy Muck Mineral (S1) (LRR O, S)	Delta Ochi	ric (F17) (MLRA 151)			hydrology must be present,
Sandy Gleyed Matrix (S4)	Reduced \	/ertic (F18) (MLRA 15	50A, 150B)	unless	disturbed or problematic.
Sandy Redox (S5)	Piedmont	Floodplain Soils (F19)) (MLRA 149A)		
Stripped Matrix (S6)	Anomalou	s Bright Loamy Soils	(F20) (MLRA 149A,	, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)					
Restrictive Layer (If observed):					
Туре:			н	lydric Soil Present? Ye	No •
Depth (inches):					
Remarks:			<u> </u>		

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1050_WET_PEM_A
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): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.920	D706 Long: -97.141667 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally floor	ded (GM) NWI Classification: PEM1A
Are climatic/hydrologic conditions on the site typical for this time of year? You	es No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturb	
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally problema	tic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point loca	tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.	
HYDROLOGY	
Wetland Hydrology Indicators:	
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)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Liv	ring Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Soils (C6) Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4)	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): 6	
Water Table Present? Yes No Depth (inches):	
Saturation Procent?	Wetland Hydrology Present? Yes No
(includes capillary fringe) Yes No Depth (inches): 0	,
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections),	if available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

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

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 . Panicum virgatum

2. Andropogon glomeratus

3 . Eleocharis montevidensis

50% of Total Cover: 43

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

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

5.9% FACW

5.9% FACW

0.0%

0.0%

0.0% 0.0%_ _ 0.0%_

0.0%_

0.0%_ 0.0%

0.0%_ _

= Total Cover

0.0%

75 **✓** 88.2% FAC

0.0%

0.0%

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant That are OBL, FACW,	•		_1_	(A)
Total Number of Don Species Across All St			3	(В
Percent of Dominant That are OBL, FACW,			33.3%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multipl	y by:	_
OBL species FACW species FAC species FACU species	0 10 75 0		= 20 = 225	
UPL species Colum Totals:	120	x 5 (A)	= <u>0</u> 450	. (в)
Prevalence In		(A)	3.750	
Hydrophytic Veget	tation Tadia	ators:		_
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	e Test is > 5 e Index is ≤ ydrophytic	0% 3.0¹ Vegetat	tion¹ (Expla	ain)
2 - Dominance 3 - Prevalence	e Test is > 5 • Index is ≤ ydrophytic \ ydric soil an	0% 3.0¹ Vegetat	tion¹ (Expla	·
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	e Test is > 5 e Index is ≤ e Index is ≤ eydrophytic eydric soil and ee present, the egetation ents, excludi ft (6 m) or r in diamete plants, excl	0% 3.0¹ Vegetal d wetla inless c Strata ng woo more ir r at bre uding v	ind listurbed or : ody vines, n height and east height	d 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 than 3 in. (7.6 cm)	e Test is > 5 e Index is ≤ e Index is ≤ eydrophytic eydric soil and the present, the egetation ents, excluding the form of the indiamete plants, excluding the indiameter plants.	0% 3.0¹ Vegetal d wetla inless c Strata ng woo more ir r at bre uding v more ir	ind listurbed or body vines, height and ast height woody vines	d 3 in. (DBH). s, d less
2 - Dominance 3 - Prevalence Problematic H 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 e Index is ≤ e Index is ≤ eydrophytic eydric soil and the present, the egetation ents, excludi of (6 m) or r in diamete plants, excl of (6 m) or n) DBH. Voody plant	0% 3.0¹ Vegetal d wetla inless c Strata ng woc more ir r at bre uding v more ir	ind listurbed or by vines, height and east height voody vines height and	d 3 in. (DBH). s, d 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 e Index is ≤ e Index is ≤ e ydrophytic e ydric soil and be present, to e egetation ents, excluding the first (6 m) or in diamete e plants, excluding the first (6 m) or in diamete e plants, excluding the first (6 m) or in DBH. Voody plant and greater the lants, excluding the first exclusion and	0% 3.0¹ Vegetal d wetla unless c Strata ng woo more ir r at bre uding v more ir s, exclusion 3.2 ding woo	ind listurbed or body vines, height and ast height voody vines height and uding vines ft (1m) ta	d 3 in. (DBH). s, d 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 p	e Test is > 5 e Index is ≤ e Index is ≤ e ydrophytic e ydric soil and be present, to e egetation ents, excluding the first (6 m) or rindiamete e plants, excluding the first (6 m) or rindiamete e p	0% 3.0¹ Vegetal d wetla unless c Strata ng woo more ir r at bre uding v more ir s, exclusion 3.2 ding wo 6 m) ir voody) s of siz	ind listurbed or cody vines, height and height and height and voody vines height and height and height and height and height, height.	d 3 in. (DBH). s, d less , less ll.

2.	0.070			
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).		I.		_

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

20% of Total Cover: 17

(Plot Size : 30)

SOIL Sampling Point: WP1050_WET_PEM_A

Profile Description	on: (Describe to the o	lepth needed to docu	ment the indicator or	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	(Colon (model)	Redox Features		T.	Ddes
(inches) 0 - 16		6 Color (moist) 00		Location ²	Sandy Loam	Remarks
	2011 0/2 2					
¹Type: C=Concentrati	on, D=Depletion, RM=Red	luced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
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) (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 Danies Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	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) £10) (LRR U) ed Ochric (F11) (MLRA 1 anganese Masses (F12) £1 Surface (F13) (LRR P, Cochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) lous Bright Loamy Soils	, 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 Rem 3Indicators wetland l 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 Ter	minal SPM Project	:	City/C	County: Aransas		Sampling D	ate:	2/13/2019
Applicant/Owner: Phillips	66 Pipeline, LLC			State: TX		Sampling Point:	WP1050	_WET_PEM_B
Investigator(s): B. Bringhu	ırst & A. Ostrowsk	i		Section	, Township, R	ange: S N/A T	N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat		Local	relief (concave, c	convex, none)	: Concave	Slope:	1 % 0.6 °
Subregion (LRR): LRR T			 Lat:	27.920363	Lon	ng: -97.14149	Datun	m: NAD 83
Soil Map Unit Name: Musta	ng fine sand, 0 to	1 percent slop				sification: None		
			· ·		_			
Are climatic/hydrologic con			•			no, explain in Remark	-	
		lydrology	significantly			Circumstances" pres		es 💿 No 🔾
Are Vegetation, S	Soil , or H	lydrology	naturally pro	oblematic?	(If needed, e	explain any answers i	n Remarks.)	
SUMMARY OF FINDINGS	5 – Attach site	map show	ing sampling poin	t locations, tra	nsects, imp	ortant features, et	С.	
Hydrophytic Vegetation Prese	ent?	Yes 💿	No O	la tha S	Sampled Area	`	_	_
Hydric Soil Present?		Yes 💿	No O		Sampled Area a Wetland?	Υe	es 💿 No	0
Wetland Hydrology Present?		Yes 💿	No O					
Remarks: Hydrophytic vegetation, hydri	ic soil, and wetlan	d hydrology ar	e present. This is a wet	land.				
Trydrophydd Vegetadolly llydii	e son, and wedan	a nyarology ar	e presenti This is a Wee	idila.				
HYDROLOGY								
Wetland Hydrology Indica	ators:							
Primary Indicators (Minim	ıum of one requ	iired; check a	all that apply)		Second	dary Indicators (Minin	num of 2 rec	quired)
✓ Surface Water (A1)		✓ A	quatic Fauna (B13)			Sparsely Vegetated Co	ncave Surface	: (B8)
High Water Table (A2)		M	larl Deposits (B15) (LRI	R U)		Drainage Patterns (B10))	
✓ Saturation (A3)			lydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	-	
Water Marks (B1)			xidized Rhizospheres a	long Living Roots (0	C3)	Dry Season Water Tabl		
Sediment Deposits (B2)		P	resence of Reduced Iro	n (C4)		Crayfish Burrows (C8)	,	
Drift Deposits (B3)			ecent Iron Reduction in			Saturation Visible on A	erial Imagery	(C9)
✓ Algal Mat or Crust (B4)			hin Muck Surface (C7)	(,		Geomorphic Position (I	= -	(05)
Iron Deposits (B5)			other (Explain in Remarl	νε)		Shallow Aquitard (D3)	<i>,</i>	
Inundation Visible on Ae	rial Imagery (B7)		uner (Explain in Remain	(5)	•	FAC-Neutral Test (D5)		
Water-Stained Leaves (B						Sphagnum moss (D8)	(I DD T II)	
·				Т		Spriagram moss (Do)		
Field Observations: Surface Water Present?	Yes • No	\bigcirc	Depth (inches):					
Water Table Present?	Yes O No	•	Depth (inches):	6				
Saturation Present?					Wetland	d Hydrology Present?	Yes (•)	No O
(includes capillary fringe)	Yes • No	0	Depth (inches):	0		, a. o.og, coc		
Describe Recorded Data (str	eam gauge, monit	or well, aerial	photos, previous inspec	tions), if available:				
Remarks:								

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 20

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

1.____

Herb Stratum

50% of Total Cover: 0

1 _Smilax bona-nox

50% of Total Cover: 50

Woody Vine Stratum

1._

2 . Eleocharis montevidensis

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

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%

= Total Cover

60 **✓** 60.0% FAC

40 **✓** 40.0% FACW

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%

0.0%

Status

Sampling Po	V	VF 10.		WET_PEN	N_D
Dominance Test works	heet:				
Number of Dominant Spec That are OBL, FACW, ro F			_	1	(A)
Total Number of Dominan Species Across All Strata:	t		_	1	(В
Percent of Dominant Spec That are OBL, FACW, or F				100.0%	(A/B)
Prevalence Index work	sheet:				
Total % Cover of:		Multip	ly b	y:	_
OBL species	0	x 1	=	0	
FACW species	40	x 2	=	80	
FAC species	60	x 3	=	180_	
FACU species	0	x 4	=	0_	
UPL species	0	x 5	=	0_	
Colum Totals:	100	(A)		260	(B)
Prevalence Index =	= B/A=			2.600	
2 - Dominance Tes 3 - Prevalence Ind Problematic Hydro	t is > 50 ex is ≤ 3)% 3.0¹		etation n¹ (Explair	1)
✓ 3 - Prevalence Ind	t is > 50 ex is ≤ 3 phytic V soil and	0% 3.0¹ /egeta	itioi	n¹ (Explair	1)
 ✓ 3 - Prevalence Ind Problematic Hydro ¹ Indicators of hydric 	ex is > 50 ex is ≤ 3 ephytic V soil and esent, u	0% 3.0¹ /egeta I wetla nless	and dist	n¹ (Explair	1)
✓ 3 - Prevalence Ind Problematic Hydro ¹ Indicators of hydric hydrology must be pr	ex is > 50 ex is ≤ 3 ephytic V soil and esent, u	0% 3.0¹ /egeta I wetla nless o	and dist	n¹ (Explaii curbed or	n)
	t is > 50 ex is < 3 ex phytic V soil and esent, u tation S excludin m) or n)% 3.01 Vegeta I wetla nless of Strata ng woo	and dist	urbed or vines, eight and i	3 in.
■ 3 - Prevalence Ind ■ Problematic Hydro ¹ Indicators of hydric hydrology must be properties. Definition of Veget Tree - Woody plants, approximately 20 ft (6)	t is > 50 ex is ≤ 3 phytic V soil and esent, u tation (3 excludin 3 m) or n liameter its, excludin 3 m) or n	Jow 3.01 Jegeta I wetlanless of Stratang womore in	and dist Ody n he	curbed or vines, eight and it theight (E	3 in. 9BH).
□ Prevalence Ind □ Problematic Hydro □ Indicators of hydric hydrology must be properties. □ Definition of Veget Tree - Woody plants, approximately 20 ft (6 (7.6 cm) or larger in company of the second plants.) Sapling - Woody plant approximately 20 ft (6 to 1) approximately 20 ft (6 to 1).	tis > 50 ex is ≤ 3 phytic V soil and esent, u tation S excludir S m) or n diameter uts, excludir S m) or n BH.	9% 3.01 Vegeta I wetla nless of more in at bre more in	and dist ody n he eas woo	curbed or vines, eight and it theight (E	3 in. DBH). dess
■ Trevalence Ind ■ Problematic Hydro ■ Indicators of hydric hydrology must be properties. □ Definition of Veget Tree - Woody plants, approximately 20 ft (6 (7.6 cm) or larger in days approximately 20 ft (6 than 3 in. (7.6 cm) Descriptions.)	soil and esent, u tation S excluding m) or n liameter tts, excluding m) or n BH. dy plants eater th s, excluding, excluding	9% 3.01 Vegeta I wetla Inless of the second	and dist	eurbed or vines, eight and it theight (E ody vines, eight and it thy vines, theight (1m) tall.	3 in. DBH). dess
Problematic Hydro ¹ Indicators of hydric hydrology must be properties. ¹ Indicators of hydric hydrology must be properties. □ Definition of Veget Tree - Woody plants, approximately 20 ft (€ (7.6 cm) or larger in consumption of the second plants approximately 20 ft (€ than 3 in. (7.6 cm) DE Sapling/Shrub - Woody plants of the second plants	soil and esent, u tation S excluding my or n liameter the second of the	9% 3.01 Vegeta I wetla nless of the second o	and dist	eurbed or vines, eight and it height (E ody vines, eight and it t (1m) tall. ly vines, eight.	3 in. DBH). less

3 . 4 . 5 . 50% of Total Cover: 0 20% of Total Cover: 0	0 0.0% 0 0.0% 0 0.0% 0 = Total Cover	Hydrophytic Vegetation Present ?	Yes No
Remarks: (If observed, list morphological adaptations below).	Decimal status and defined by DMC		

SOIL Sampling Point: WP1050_WET_PEM_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth	Depth Matrix Redox Features											
(inches)	(inches) Color (moist) %		Color (n	noist)	<u>%</u>	Type1	Location ²	Texture	Remarks			
0 - 16	10YR 3/2	95	10YR	5/6	5		М	Sandy Loam				
•	¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.											
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Straiffied Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T) Depleted Below Dark Surface (F7) Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Medox (S5) Piedmont Floodplain Soils (F19) (MLRA 150A) Polyvalue Below Surface (S8) (LRR S, T, U) Polyvalue Below Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Mucky Mineral (F1) (LRR O) Depleted Matrix (F2) Depleted Matrix (F3) Peleted Dark Surface (F6) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Tron-Manganese Masses (F12) (LRR O, P, Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150A) Stripped Matrix (S6)					151)) (LRR O, P, T) T, U) 150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su 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)					
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches):					Hydric Soil Present? Ye	es • No O						
Remarks:												

Project/Site: Bluewater Terr	minal SPM Project	City/County: Aransas	Sampling Date: 2/13/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC	State: T	Sampling Point: WP1050_WET_PEM_C
Investigator(s): B. Bringhu	rst & A. Ostrowski	Section, 7	Township, Range: S N/A T N/A R N/A
 Landform (hillslope, terrace,	, etc.): Flat	Local relief (concave, co	nvex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.920351	Long: -97.140949 Datum: NAD 83
	ag fine cand. 0 to 1 percent clanes	occasionally flooded, frequently ponde	NWI Classification: None
Musical	ig fine sand, o to 1 percent slopes,	occasionally flooded, frequently poride	Note
Are climatic/hydrologic cond	ditions on the site typical for th	is time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , S	oil , or Hydrology	significantly disturbed? A	Are "Normal Circumstances" present? Yes No
Are Vegetation, S	oil , or Hydrology	naturally problematic? (3	If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS	— Attach site map showin	g sampling point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Prese	nt? Yes • No) O	ampled Area
Hydric Soil Present?	Yes No		ampled Area Wetland? Yes ● No ○
Wetland Hydrology Present?	Yes No		
Hydrophytic vegetation, hydri	c soil, and wetland hydrology are p	resent. This is a wetland.	
Wetland Hydrology Indica	itors:		
Primary Indicators (Minim	um of one required; check all	that apply)	Secondary Indicators (Minimum of 2 required)
✓ Surface Water (A1)	Aqu	atic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3)		rogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)		lized Rhizospheres along Living Roots (C3	
Sediment Deposits (B2)	Pres	sence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Rec	ent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4)	Thir	Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Oth	er (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aer		,	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (BS	∍)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No	Depth (inches): 6	
Water Table Present?		Depth (inches):	
Saturation Present?		Depth (inches): 0	Wetland Hydrology Present? Yes No
(includes capillary fringe)	163 0 110 0		
Describe Recorded Data (stre	am gauge, monitor well, aerial pho	otos, previous inspections), if available:	

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 8

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 . Panicum repens 3 . Paspalum plicatulum

50% of Total Cover: 20

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

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%

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

25 **✓** 62.5% FACW

25.0% FACW

___12.5%__FAC 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%____

= Total Cover

0.0%_

0.0%

= Total Cover

0.0%

Status

Sampling Point: V	WP1050 WET PEN	4 C							
	7VP1030_VVE1_PEN	<u></u>							
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 0	x 1 = 0	-							
FACW species 35	$x = \frac{70}{1000}$								
FAC species 5	x 3 = 15								
	~ 3								
	^								
UPL species0	^ 3								
Colum Totals: 40	(A) <u>85</u>	(B)							
Prevalence Index = B/A=	2.125								
1 - Rapid Test for Hydropl 2 - Dominance Test is > 5 3 - Prevalence Index is ≤ Problematic Hydrophytic 1 Indicators of hydric soil and	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or								
Definition of Vegetation	Strata:								
Tree - Woody plants, excludi approximately 20 ft (6 m) or (7.6 cm) or larger in diamete	ing woody vines, more in height and 3								
Sapling - Woody plants, excl approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.		ess							
Sapling/Shrub - Woody plant than 3 in. DBH and greater th		ess							
Shrub - Woody plants, excludation approximately 3 to 20 ft (1 to									
Herb - All herbaceous (non-v herbaceous vines, regardles plants, except woody vines, I 3 ft (1 m) in height.	s of size, and woody	/							

	_	_
Remarks: (If observed,	list morphological	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: WP1050_WET_PEM_C

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>	olor (moist)	%	Tvpe ¹	Location ²	Texture	Remarks			
0 - 16	10YR 5/1	100					Sand				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.											
Hydric Soil Indica	ators:						Indicators for Problema	ntic Hydric Soils ³ :			
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Buck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F6) 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 Redox (S5) Polyvalue Below Surface (S8) (LRR S, T, U) Loamy Mucky (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Pepleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150 Anomalous Bright Loamy Soils (F20) (MLR Anomalous Bright Loamy Soils (F20) (MLRA 151) Dark Surface (S7) (LRR P, S, T, U)					, T, U) R O) L51) (LRR O, P, T) T, U) 50A, 150B)) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators 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):							Hydric Soil Present? Ye	is • No 🔾			
Remarks:											

Project/Site: Bluewater Te	rminal SPM P	roject		City/County: Aransas		Sampling D)ate:	2/13/2019	
Applicant/Owner: Phillips	66 Pipeline, L	_LC		State	e: TX	Sampling Point:	WP1050	0_WET_PEM	4_ D
Investigator(s): B. Bringh	urst & A. Osti	rowski		Section	on, Township, Rar	nge: S N/A T	Γ N/A	R N/A	
Landform (hillslope, terrace	e, etc.): Fi	at		Local relief (concave	, convex, none):	Concave	Slope	e: 0 %	0.0 °
Subregion (LRR): LRR T	_			Lat: 27.920142	Long	: -97.140435	—— Datu	um: NAD	83
Soil Map Unit Name: Galve	eston-Mustano	complex, 0 to	3 percent slopes, oc			ication: None	_		
							>		
Are climatic/hydrologic cor					<u> </u>	, explain in Remark	-		
Are Vegetation,	Soil ,	, or Hydrolog		cantly disturbed?	Are "Normal Ci	ircumstances" pres	ent? y	Yes 💿 No	
Are Vegetation,	Soil,	, or Hydrolog	y natura	ally problematic?	(If needed, exp	plain any answers i	n Remarks.	.)	
SUMMARY OF FINDING	S — Attach	site map s	howing sampling	point locations, t	ransects, impor	tant features, et	:C.		
Hydrophytic Vegetation Pres	ent?	Yes	• No O						
Hydric Soil Present?		Yes	_		e Sampled Area n a Wetland?	Ye	es 💿 No	o ()	
Wetland Hydrology Present?			● No ○	Within	n a welland!				
Remarks:		100							
Hydrophytic vegetation, hydi	ric soil, and w	etland hydrolo	gy are present. This i	s a wetland.					
HYDROLOGY									
Wetland Hydrology Indic	ators:								
Primary Indicators (Minir	num of one	required; ch	eck all that apply)		<u>Seconda</u>	ry Indicators (Minir	num of 2 re	equired)	
✓ Surface Water (A1)			Aquatic Fauna (B	13)		Sparsely Vegetated Co	oncave Surfac	ce (B8)	
High Water Table (A2)			Marl Deposits (B1	.5) (LRR U)		Drainage Patterns (B10	0)		
✓ Saturation (A3)			Hydrogen Sulfide	Odor (C1)		Moss Trim Lines (B16)	•		
Water Marks (B1)			Oxidized Rhizospl	heres along Living Roots		Ory Season Water Tab			
Sediment Deposits (B2)			Presence of Redu	iced Iron (C4)		Crayfish Burrows (C8)			
Drift Deposits (B3)			_	uction in Tilled Soils (C6)		Saturation Visible on A		v (C9)	
✓ Algal Mat or Crust (B4)		Ì	Thin Muck Surfac	• •		Geomorphic Position (, (05)	
Iron Deposits (B5)			Other (Explain in			Shallow Aquitard (D3)	-		
Inundation Visible on A	erial Imagery	(B7)	Other (Explain in	Kelliai K5)		FAC-Neutral Test (D5)			
Water-Stained Leaves (E		(57)				Sphagnum moss (D8)			
						priagrium moss (56)	(LKK 1, U)		
Field Observations:	v (a)	N .		,					
Surface Water Present?	Yes •	No O	Depth (inches						
Water Table Present?	Yes 🔾	No 💿	Depth (inches	;):					
Saturation Present? (includes capillary fringe)	Yes 💿	No O	Depth (inches	s):	Wetland I	Hydrology Present?	'Yes 🖲	No U	
Describe Recorded Data (st	ream gauge.	monitor well. a	erial photos, previous	s inspections), if available	e:				
Describe Recorded Data (30	cum gaage,	monitor well, c	ieriai priotos, previous	inspections), ii availabi	c.				
Remarks:									
Kenidiks.									

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 9

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. Ludwigia palustris

3 . Eleocharis montevidensis 4 . Sesbania herbacea

50% of Total Cover: 23

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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0

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0

0

0

0

20 🗸

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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% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%_

0.0% 0.0%

0.0%

0.0%

44.4% OBL

22.2% OBL

___11.1%__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

10 ✓ 22.2% FACW

0.0%

0.0%

= Total Cover

0.0%

Status

Dominance Test wor	keheeti			
Number of Dominant S				
That are OBL, FACW, re		,	3	(A)
Total Number of Domir Species Across All Strat			3	(B
Percent of Dominant Sp That are OBL, FACW, o		,	100.0%	(A/B)
Prevalence Index wo	orksheet:			
Total % Cover of	:	Multiply	by:	_
OBL species	30	x 1 =	30	
FACW species	15	x 2 =	30_	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Colum Totals:	45	(A)	60_	(B)
Prevalence Inde	x = B/A=		1.333	
✓ 1 - Rapid Test fo ✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyo	est is > 5 ndex is ≤	3.0¹		n)
✓ 2 - Dominance T ✓ 3 - Prevalence I	est is > 5 ndex is ≤ Irophytic ric soil an	0% 3.0¹ Vegetati d wetlan	on¹ (Explai:	n)
2 - Dominance T 3 - Prevalence I Problematic Hyc	rest is > 5 Index is ≤ Irophytic Iric soil an Iric soil	3.01 Vegetati d wetlan unless di Strata: ing wood more in	on¹ (Explained or a sturbed or	3 in.
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft	rest is > 5 Index is ≤ Irophytic ric soil an present, getation is, exclude (6 m) or n diamete ants, exc	3.01 Vegetati d wetlan unless di Strata: ing wood more in er at brea	on¹ (Explained or the sturbed or the	3 in. DBH).
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger it Sapling - Woody pl approximately 20 ft	rest is > 5 Index is ≤ Irophytic ric soil an present, getation is, exclude (6 m) or n diamete ants, exc (6 m) or DBH.	3.01 Vegetati d wetlan unless di Strata: ing wood more in er at brea luding wi more in	on¹ (Explained or a sturbed or	3 in. DBH). less
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger it Sapling - Woody pl approximately 20 ft than 3 in. (7.6 cm) Sapling/Shrub - Wo	rest is > 5 ndex is ≤ lrophytic ric soil an present, r getation ts, exclude (6 m) or n diamete ants, exc (6 m) or DBH. cody plan greater t nts, exclu	d wetlan unless di Strata: ing wood more in er at brea luding women in ts, excluding wood ding w	on¹ (Explained or described or	3 in. DBH). less
2 - Dominance T 7 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody plant approximately 20 ft than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and	rest is > 5 Index is ≤ Irophytic ric soil an present, regetation ts, exclude (6 m) or n diameter ants, exclude (6 m) or DBH. rody plan greater t ants, exclude (1 to bus (non-vegardles)	d wetlan unless di Strata: ing wood more in er at brea luding wimore in ts, excluding wood 6 m) in woody) ps of size	on¹ (Explained or leading vines, height and leading vines, ft (1m) tall. ody vines, height.	3 in. DBH). less less

	(7.6)	D. J. L. J. J. J.	adaptations below)
≀emarks'	(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: WP1050_WET_PEM_D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			Redox F	Features			
(inches)	Color (moist)		Color (moist)	<u></u>	Tvpe ¹	Location ²	Texture	Remarks
0-0	10YR 5/1	100					Sand	
¹ Type: C=Concentrat	ion, D=Depletion, RM=I	Reduced Ma	trix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	itors:						Indicators for Problema	tic Hydric Soils ³ :
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) s (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150 heral (S1) (LRR O, S) latrix (S4)		Thin Dalamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	ark Surface Mucky M Gleyed M ed Matrix Dark Surf ed Dark S Depressic 10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont 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 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):	. ,						lydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater Te	erminal SPM Proje	ect		City/County: Aransas		Sampling I	Date:	2/13/	2019
Applicant/Owner: Phillips	66 Pipeline, LLC			State	e: TX	Sampling Point:	WP1	L050_WET	_PEM_E
Investigator(s): B. Bringh	urst & A. Ostrow	<i>ı</i> ski		Section	on, Township, Ra	nge: S N/A	T N/A	R N/A	1
Landform (hillslope, terrac	e, etc.): Flat			Local relief (concave	, convex, none):	Concave	S	lope: 1	% 0.6 °
Subregion (LRR): LRR T	_			Lat: 27.919715	Long		— ,	Datum:	NAD 83
Soil Map Unit Name: Galve	eston-Mustang co	mplex. 0 to 3	percent slopes, or			fication: None		_	
_		· ·		-					
Are climatic/hydrologic cor	iditions on the	site typical i			No (If no	o, explain in Remarl	KS.)		
Are Vegetation,	Soil , or	Hydrology	signif	icantly disturbed?	Are "Normal C	Circumstances" pres	sent?	Yes 💿	No 🔾
Are Vegetation,	Soil , or	Hydrology	natur	ally problematic?	(If needed, ex	cplain any answers	in Rema	rks.)	
SUMMARY OF FINDING	S – Attach si	te map sho	wing samplin	g point locations, t	ransects, impo	rtant features, e	tc.		
Hydrophytic Vegetation Pres	ent?	Yes •	No O				-		
Hydric Soil Present?		Yes 💿	No O		e Sampled Area n a Wetland?	Y	es 💿	No 🔘	
, Wetland Hydrology Present?		Yes •	No O	VVICINI	ii a Welland:				
Remarks:									
Hydrophytic vegetation, hyd	ric soil, and wetl	and hydrology	are present. This	is a wetland.					
HYDROLOGY									
Wetland Hydrology Indic	ators:								
Primary Indicators (Minir	num of one re	<u>quired; chec</u>	k all that apply)		Seconda	ary Indicators (Mini	<u>mum of</u>	2 required)	į.
✓ Surface Water (A1)			Aquatic Fauna (E	313)		Sparsely Vegetated Co	oncave Si	urface (B8)	
High Water Table (A2)			Marl Deposits (B	15) (LRR U)		Drainage Patterns (B1	.0)		
✓ Saturation (A3)			Hydrogen Sulfide	e Odor (C1)		Moss Trim Lines (B16))		
Water Marks (B1)			Oxidized Rhizosp	heres along Living Roots	s (C3)	Dry Season Water Tab	ole (C2)		
Sediment Deposits (B2)			Presence of Red	uced Iron (C4)		Crayfish Burrows (C8))		
Drift Deposits (B3)			Recent Iron Red	uction in Tilled Soils (C6)		Saturation Visible on A	Aerial Ima	agery (C9)	
Algal Mat or Crust (B4)			Thin Muck Surfa	ce (C7)		Geomorphic Position ((D2)		
Iron Deposits (B5)			Other (Explain in	• •		Shallow Aquitard (D3)			
Inundation Visible on A	erial Imagery (B7	7)	(,		FAC-Neutral Test (D5)			
Water-Stained Leaves (I	39)					Sphagnum moss (D8)		U)	
Field Observations:									
Surface Water Present?	Yes N	o ()	Depth (inche	es): 4					
Water Table Present?	Yes O N	o	Depth (inche						
Saturation Present?			Depth (inche		Wetland	Hydrology Present	? Yes	No	\circ
(includes capillary fringe)	Yes 🖭 No		Берит (піспе	es):					
Describe Recorded Data (st	ream gauge, mo	nitor well, aeri	al photos, previou	ıs inspections), if availabl	e:				
Remarks:									

Sampling Point:	WP1050	WET	PEM	Ε

	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 : 30)		
1	0	Total Number of Dominant Species Across All Strata: (B
2		Species / in our data
3		Percent of Dominant Species That are OBL FACW or FAC: 100.0% (A/B)
4		That are OBL, FACW, or FAC:
5	0	Prevalence Index worksheet:
6	0	Total % Cover of: Multiply by:
7	0	OBL species 15 x 1 = 15
8	0.0%	FACW species $35 \times 2 = 70$
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: 50 (A) 85 (B)
		(B)
3		Prevalence Index = B/A=1.700_
4		Hydrophytic Vegetation Indicators:
5		
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	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Shrub Stratum (Plot Size : <u>30</u>)		
1		¹ 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.
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)		Sapling - Woody plants, excluding woody vines,
1Eleocharis montevidensis	35 🗸70.0% _FACW	approximately 20 ft (6 m) or more in height and less
2 . Distichlis spicata	15 🗸30.0% _OBL	than 3 in. (7.6 cm) DBH.
3	0	
4		Sapling/Shrub - Woody plants, excluding vines, less
5	0	than 3 in. DBH and greater than 3.28 ft (1m) tall.
6		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
11.		plants, except woody vines, less than approximately 3 ft (1 m) in height.
12.	0.0%	o k (1 m) in noight.
50% of Total Cover: 25 20% of Total Cover: 10	50 = Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30)	_	
1	0	
2.		
3.		Hydrophytic
4.		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)		1
	•	
*Indicator suffix = National status or professional decision assigned be	cause Regional status not defined by FWS.	

SOIL Sampling Point: WP1050_WET_PEM_E

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)		Location ²	Texture	Remarks
0 - 16	10YR 6/1	100			Sand	
¹Type: C=Concentra	tion, D=Depletion, RM=Re	educed Matrix, CS=Covered	d or Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indic	ators:				Indicators for Problem	atic Hydric Soils³:
5 cm Mucky Mi Muck Presence 1 cm Muck (A9 Depleted Below Thick Dark Surf Coast Prairie Re Sandy Muck Mi 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)	Thin I Loam Loam Peple Redox Marl (Deple Iron-I Delta Redox	alue Below Surface (S8) Dark Surface (S9) (LRR S Mucky Mineral (F1) (LF Gleyed Matrix (F2) ted Matrix (F3) Dark Surface (F6) ted Dark Surface (F7) Depressions (F8) F10) (LRR U) ted Ochric (F11) (MLRA Manganese Masses (F12 C Surface (F13) (LRR P, Ochric (F17) (MLRA 151 Ded Vertic (F18) (MLRA 2 Dont Floodplain Soils (F1 Balous Bright Loamy Soils	151)) (LRR O, P, T) T, U) 150A, 150B) 9) (MLRA 149A)	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	rminal SPM Pr	roject		City/County: Aransas		Sampling I	Date:	2/13/2019
Applicant/Owner: Phillips	66 Pipeline, L	LC		State	e: TX	Sampling Point:	WP1050	0_WET_PSS_A
Investigator(s): B. Bringh	urst & A. Ostr	owski		Section	on, Township, Rai	nge: S N/A	T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Fla	et		Local relief (concave	, convex, none):	Concave	Slope	1 % 0.6 °
Subregion (LRR): LRR T	_			Lat: 27.920305	Long	: -97.141299	 Datu	ım: NAD 83
Soil Map Unit Name: Musta	ang fine sand.	0 to 1 percer	nt slopes, occasionally	flooded, frequently pon-			_	
							\	
Are climatic/hydrologic cor						, explain in Remarl	_	
		or Hydrolog		ficantly disturbed?		ircumstances" pres	-	ſes ● No ○
Are Vegetation,	Soil ,	or Hydrolog	gy ∟ natur	ally problematic?	(If needed, ex	plain any answers	in Remarks.)
SUMMARY OF FINDING	S — Attach	site map s	showing samplin	g point locations, t	ransects, impor	tant features, e	tc.	
Hydrophytic Vegetation Pres	ent?	Yes	• No O					
Hydric Soil Present?		Yes			e Sampled Area n a Wetland?	Υ	es 💿 No	· ()
Wetland Hydrology Present?			● No ○	Within	ii a vvelianu:			
Remarks:				L				
Hydrophytic vegetation, hydi	ric soil, and w	etland hydrold	ogy are present. This	is a wetland.				
HYDROLOGY								
Wetland Hydrology Indic	ators:							
Primary Indicators (Minir	num of one	required; ch	neck all that apply)	!	<u>Seconda</u>	ry Indicators (Mini	mum of 2 re	<u>equired)</u>
Surface Water (A1)			✓ Aquatic Fauna (E	•		Sparsely Vegetated Co	oncave Surfac	e (B8)
High Water Table (A2)			Marl Deposits (B			Orainage Patterns (B1	0)	
Saturation (A3)			Hydrogen Sulfide			Moss Trim Lines (B16))	
Water Marks (B1)			Oxidized Rhizosp	pheres along Living Roots	(C3)	Ory Season Water Tab	ole (C2)	
Sediment Deposits (B2)			Presence of Red	uced Iron (C4)		Crayfish Burrows (C8)		
Drift Deposits (B3)			Recent Iron Red	uction in Tilled Soils (C6)		Saturation Visible on A	Aerial Imagery	y (C9)
✓ Algal Mat or Crust (B4)			Thin Muck Surfa	ce (C7)		Geomorphic Position ((D2)	
Iron Deposits (B5)			Other (Explain in	n Remarks)		Shallow Aquitard (D3)		
Inundation Visible on A	erial Imagery	(B7)			✓ F	AC-Neutral Test (D5))	
Water-Stained Leaves (E	39)					Sphagnum moss (D8)	(LRR T, U)	
Field Observations:								
Surface Water Present?	Yes •	No O	Depth (inche	es): 6				
Water Table Present?	Yes 🔘	No •	Depth (inche					
Saturation Present?	Yes •	No O	Depth (inche		Wetland I	Hydrology Present	? Yes 💿	No O
(includes capillary fringe)	163 🕝	110	Верит (тепе					
Describe Recorded Data (st	ream gauge, r	monitor well,	aerial photos, previou	ıs inspections), if availabl	e:			
Remarks:								
1								

20% of Total Cover: 0

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

20% of Total Cover: 8

20% of Total Cover: 5

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum 1 . Sesbania herbacea

Herb Stratum

50% of Total Cover: 20

2 . Smilax bona-nox

50% of Total Cover: 13

50% of Total Cover: 0

Woody Vine Stratum

1.___

1 . Eleocharis montevidensis

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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0 0

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25

0

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0 0 Rel.Strat. Indicator

0.0%_

0.0%_

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

40 **✓** _100.0% _FACW 0.0% 0.0%

0.0%

0.0%

0.0%

= Total Cover

15 **✓** 60.0% 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

40.0% FAC

0.0%_

0.0%

= Total Cover

Status

Sampling Point:	WP1050_WET_PS	S_A					
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 species0							
FACW species 55							
FAC species 10							
FACU species 0							
UPL species0	x 5 =0						
Colum Totals: 65	(A) <u>140</u>	(B)					
Prevalence Index = B/A=	2.154						
Hydrophytic Vegetation Indic	cators:						
 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland 							
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).							
Sapling - Woody plants, exc approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.							

than o m. (1.0 om) bbm
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.

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: WP1050_WET_PSS_A

	on: (Describe to the	•		Ded	Continues		-	
Depth (inches)	Matrix Color (moist)	% Col	or (moist)	Kedox	Features Type ¹	Location ²	Texture	Remarks
0 - 16	10YR 3/2	95 10Y		5	C	M	Sandy Loam	Remarks
Гуре: C=Concentrat	tion, D=Depletion, RM=	=Reduced Matrix	, CS=Covered	or Coated	l Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
ydric Soil Indica	ators:						Indicators for Problema	tic Hydric Soils³:
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfi Coast Prairie Re Sandy Muck Mir Sandy Gleyed M 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) v Dark Surface (A11) face (A12) edox (A16) (MLRA 15 neral (S1) (LRR O, S) Matrix (S4)	50A)	Thin ID Loamy Loamy Deplet Redox Deplet Redox Marl (i Deplet Iron-N Umbri Delta Reduc Piedm	oark Surfa Mucky M Gleyed Natrix Dark Sur Ed Dark S Depressi F10) (LRR Ed Ochric Anganese C Surface Ochric (F2 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) I (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loai Red Parent Material (T Very Shallow Dark Sur Other (Explain in Rem 3Indicators of wetland h unless of	(SS) (outside MLRA 150A,B) oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) (F2) face (TF12)
strictive Layer Type: Depth (inches):	(If observed):						lydric Soil Present? Yes	s • No O
emarks:								

Project/Site: Bluewater Ter	minal SPM Project	Cit	cy/County: Aransas	Sampling Date: 2/13/2019	9
Applicant/Owner: Phillips 6	66 Pipeline, LLC		State: TX	Sampling Point: WP1050_WET_PS	SS_B
Investigator(s): B. Bringhu	rst & A. Ostrowski		Section, Township	p, Range: S N/A T N/A R N/A	
 Landform (hillslope, terrace,	etc.): Flat	Loc	cal relief (concave, convex, no	one): Concave Slope: 1 %	0.6 °
Subregion (LRR): LRR T	-				AD 83
Soil Map Unit Name: Mustar	ng fine cand 0 to 1 nc			lassification: None	
on Map Offic Name. Musical	ig fille salid, 0 to 1 pe	rcent slopes, occasionally floo	Juea, frequently portue	None	
Are climatic/hydrologic cond	litions on the site ty	pical for this time of year	? Yes No ((If no, explain in Remarks.)	
Are Vegetation , S	oil , or Hydro	ology significan	ntly disturbed? Are "Norr	mal Circumstances" present? Yes $lacktriangle$ N	lo 🔾
Are Vegetation, S	oil 🗌 , or Hydro	ology naturally	problematic? (If neede	ed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS	— Attach site ma	p showing sampling po	oint locations, transects, ir	mportant features, etc.	
Hydrophytic Vegetation Prese	nt? Y	es No	la the Campled /	A von	
Hydric Soil Present?	Y	es No	Is the Sampled A within a Wetland		
Wetland Hydrology Present?	Y	es No			
Hydrophytic vegetation, hydri HYDROLOGY	c soil, and wetland hyd	Irology are present. This is a	wetland.		
Wetland Hydrology Indica	tors:				
Primary Indicators (Minim	um of one required	; check all that apply)	<u>Sec</u>	condary Indicators (Minimum of 2 required)	
✓ Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2)		Marl Deposits (B15) (Drainage Patterns (B10)	
✓ Saturation (A3)		Hydrogen Sulfide Odd	or (C1)	Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizosphere	es along Living Roots (C3)	Dry Season Water Table (C2)	
Sediment Deposits (B2)		Presence of Reduced	l Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reductio	on in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)	
✓ Algal Mat or Crust (B4)		Thin Muck Surface (C	27)	Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Ren	marks)	Shallow Aquitard (D3)	
Inundation Visible on Aer	ial Imagery (B7)			✓ FAC-Neutral Test (D5)	
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LRR T, U)	
Field Observations:					
Surface Water Present?	Yes No	Depth (inches):	8		
Water Table Present?	Yes O No •	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	0 Wet	land Hydrology Present? Yes No)
Describe Recorded Data (stre	am gauge, monitor w	ell, aerial photos, previous ins	spections), if available:		

20% of Total Cover: 0

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

20% of Total Cover: 8

20% of Total Cover: 1

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Sesbania herbacea

50% of Total Cover: 20

1 . Eleocharis montevidensis

50% of Total Cover: 2.5

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

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0 0

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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

40 **✓** _100.0% _FACW 0.0%_ 0.0%

> 0.0% 0.0%

0.0%

_100.0%__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%

0.0%

Hydrophytic Vegetation

Present ?

= Total Cover

= Total Cover

0.0%

0.0%

Status

Sampling I		WP1050		_
Dominance Test wor				
Number of Dominant Sp That are OBL, FACW, ro			1	(A)
Total Number of Domin Species Across All Strat			1	(В
Percent of Dominant Sp That are OBL, FACW, o			100.0%	(A/B)
Prevalence Index wo	orksheet:			
Total % Cover of:	:	Multiply	by:	_
OBL species	0	x 1 =	0	
FACW species	45	x 2 =	90	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Colum Totals:	45	(A)	90	(B)
Prevalence Inde	x = B/A=		2.000	
Hydrophytic Vegetat	ion Indic	ators:		
✓ 1 - Rapid Test fo ✓ 2 - Dominance T ✓ 3 - Prevalence I ☐ Problematic Hyd	est is > 5 ndex is ≤ Irophytic	60% 3.0¹ Vegetatio	on¹ (Explair	n)
✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyd	est is > 5 ndex is ≤ Irophytic ric soil an	0% 3.0¹ Vegetatio	on¹ (Explair d	n)
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hydi	est is > 5 ndex is ≤ Irophytic ric soil an present, i	3.01 Vegetation d wetlan	on¹ (Explair d	n)
✓ 2 - Dominance T ✓ 3 - Prevalence In Problematic Hyd ¹ Indicators of hydrology must be	rest is > 5 Index is ≤ Irophytic ric soil an present, i getation as, exclud (6 m) or	3.01 Vegetation d wetlan unless dis Strata: ing wood more in l	on¹ (Explair d sturbed or ly vines, neight and 3	3 in.
2 - Dominance T 3 - Prevalence II Problematic Hyd 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	3.01 Vegetation d wetlan unless dis Strata: ing wood more in ler at brea	d sturbed or ly vines, neight and 3 st height (D	3 in. 9BH).
2 - Dominance T 3 - Prevalence II Problematic Hyd 1 Indicators of hydindrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger ir Sapling - Woody plant approximately 20 ft (20 cm) or larger ir	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.	3.01 Vegetation d wetlan unless dis Strata: ing wood more in ler at brea luding wo more in l	d sturbed or ly vines, neight and 3 st height (D body vines, neight and I	3 in. 9BH). ess
✓ 2 - Dominance T ✓ 3 - Prevalence II ☐ Problematic Hyd ¹ Indicators of hydin hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in 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 present, ric soil an present, ric soil an diamete ants, exc (6 m) or DBH.	d wetlan unless dis Strata: ing wood more in I ler at brea luding we more in I sts, excluding wood ding wood din wood ding wood ding wood ding wood ding wood ding wood ding woo	d sturbed or ly vines, neight and 3 st height (D body vines, neight and I ft (1m) tall. dy vines,	3 in. 9BH). ess
✓ 2 - Dominance T ✓ 3 - Prevalence II ☐ Problematic Hyd ¹ Indicators of hydin 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, in getation is, exclud (6 m) or in diamete ants, exc (6 m) or DBH. ricody plant greater to greater to the color of the	d wetlan unless dis Strata: ing wood more in I let at brea luding we more in I let at s, excluding wood 6 m) in let woody) pls of size,	d sturbed or ly vines, neight and 3 st height (D body vines, neight and I ft (1m) tall. dy vines, height.	3 in. 9BH). ess ess

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 because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1050_WET_PSS_B

Profile Description	on: (Describe to the	depth needed to docu	ment the indicator o	confirm the abse	ence of indicators.)	
Depth (inches)	Matrix	Onlaw (mariet)	Redox Features	1 1 2	-	D
0 - 16		Color (moist) 00		Location ²	Sand	Remarks
	10111 3/1 1				School	
¹Type: C=Concentrati	ion, D=Depletion, RM=Re	duced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	ining, M=Matrix.	
Hydric Soil Indica	tors:				Indicators for Problema	tic Hydric Soils ³ :
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) (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 Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	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)	, 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 Rem 3Indicators wetland b unless	R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type: Depth (inches):	· ,			н	ydric Soil Present? Ye	s • No 🔾
Remarks:						

City/County: Aransas

Sampling Date:

2/13/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1050_WET_PSS_C
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 (c	oncave, convex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.9202	.54 Long: -97.140797 Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally floode	ed (GM) NWI Classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	s No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed.	
Are Vegetation , Soil , or Hydrology naturally problemati	ic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locati	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Willia Woland.
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are present. This is a wetland.	
HYDROLOGY	
Wetland Hydrology Indicators:	
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)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Livir	ng Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	oils (C6) Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4)	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): 6	
Water Table Present? Yes No Depth (inches):	
Saturation Present?	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe) Yes No Depth (inches): 0	
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if	available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

20% of Total Cover: 0

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

20% of Total Cover: 8

20% of Total Cover: 3

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum 1 . Sesbania herbacea

Herb Stratum

50% of Total Cover: 20

1 . Distichlis spicata

50% of Total Cover: 7.5

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___

0

0_

0 _

0

0___ 0

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15

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

40 **✓** _100.0% _FACW 0.0%_ 0.0%

> 0.0% 0.0%

0.0%

= Total Cover

15 ✓ _100.0% _OBL 0.0%

0.0%

0.0% 0.0%_

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%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

0.0%

Status

	Point:			
Dominance Test work				
Number of Dominant Sp That are OBL, FACW, ro			2	(A)
Total Number of Domina Species Across All Strata			2	(В
Percent of Dominant Spo That are OBL, FACW, or			100.0%	(A/B)
Prevalence Index wo	rksheet:			
Total % Cover of:		Multiply	by:	_
OBL species	15	x 1 =	15	
FACW species	40	x 2 =	80_	
FAC species	0	x 3 =	0	
FACU species	0_	x 4 =	0	
UPL species	0	x 5 =	0_	
Colum Totals:	55	(A)	95	(B)
Prevalence Index	c = B/A=		1.727	
	•			
✓ 1 - Rapid Test for ✓ 2 - Dominance Te ✓ 3 - Prevalence In Problematic Hydr ¹ Indicators of hydr	est is > 5 idex is ≤ rophytic ic soil an	0% 3.0¹ Vegetati d wetlar	ion¹ (Expla nd	·
✓ 2 - Dominance To ✓ 3 - Prevalence In Problematic Hyde	est is > 5 idex is ≤ rophytic ic soil an	0% 3.0¹ Vegetati d wetlar	ion¹ (Expla nd	·
2 - Dominance To 3 - Prevalence In Problematic Hydrology must be p	est is > 5 Idex is ≤ Irophytic Ic soil anoresent, I	0% 3.0¹ Vegetati d wetlar unless di Strata:	ion¹ (Expla nd isturbed or	·
✓ 2 - Dominance To ✓ 3 - Prevalence In Problematic Hydi 1 Indicators of hydr hydrology must be p	est is > 5 Index is \le rophytic Index is soil and the resent, the resent, the resent of the resen	0% 3.0¹ Vegetati d wetlar unless di Strata: ing woor more in	ion¹ (Expla nd isturbed or dy vines, height and	I 3 in.
2 - Dominance To 3 - Prevalence In Problematic Hydrology must be p Definition of Veg Tree - Woody plants approximately 20 ft	est is > 5 Index is \(\le \) Index is \(\le \le \) Index is \(\le \) Index is \(\le \) Index is \(\le \le \) Index is \(\le \) Index	0% 3.0¹ Vegetati d wetlar unless di Strata: ing woo more in er at brea	ion¹ (Explaind isturbed or dy vines, height and ast height (roody vines)	i 3 in. DBH).
✓ 2 - Dominance To ✓ 3 - Prevalence In Problematic Hydro ¹ Indicators of hydrology must be positive and the positive of the	est is > 5 Index is ≤ rophytic Index is ≤ rophyti	3.01 Vegetati d wetlan unless di Strata: ing woo more in or at brea luding w more in	ion¹ (Explaind isturbed or dy vines, height and doody vines height and ding vines	I 3 in. DBH). I less
✓ 2 - Dominance To ✓ 3 - Prevalence In ✓ Problematic Hydro ¹ Indicators of hydrology must be positive and the positive of th	est is > 5 Index is ≤ rophytic Index is ≤ rophyti	d wetlan unless di Strata: ing woom more in er at breat luding wom more in ts, excluding wond an 3.28 ding wood ding	ion¹ (Explained on isturbed or dy vines, height and height and ding vines of ft (1m) tallody vines, height and ding vines, and tallody	I 3 in. DBH). I less
✓ 2 - Dominance To ✓ 3 - Prevalence In ✓ Problematic Hydro ¹ Indicators of hydrology must be possible of the	est is > 5 Index is ≤ rophytic Index is ≤ rophyti	O% 3.0¹ Vegetati d wetlan unless di Strata: ing woo more in er at brea luding w more in ts, exclu han 3.28 ding woo 6 m) in voody) p s of size	dy vines, height and ding vines height and ding vines, height and ding vines, height.	1 3 in. DBH). 3, I less , less II.

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: WP1050_WET_PSS_C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth (inches)	Matrix	Onlaw (mariet)	Redox Features	1 1 2	-	D
0 - 16		Color (moist) 00		Location ²	Sand	Remarks
	10111 3/1 1				School	
¹Type: C=Concentrati	ion, D=Depletion, RM=Re	duced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	ining, M=Matrix.	
Hydric Soil Indica	tors:				Indicators for Problema	tic Hydric Soils ³ :
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) (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 Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	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)	, 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 Rem 3Indicators wetland b unless	R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type: Depth (inches):	· ,			н	ydric Soil Present? Ye	s • No 🔾
Remarks:						

City/County: Aransas

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	WP1051_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	: Convex	Slope: 1 % 0.6
Subregion (LRR): LRR T Lat: 27.919)233 Lo	ng: -97.136436	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, frequency	ently ponde NWI Clas	ssification: None	-
		no, explain in Remarks.)	
		I Circumstances" present?	
Are Vegetation , Soil , or Hydrology significantly disturb		•	
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally problema	tic? (11 needed,	explain any answers in Rei	marks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point loca	tions, transects, imp	oortant features, etc.	
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes ○ No ●	Is the Sampled Are within a Wetland?	ea Yes C	No •
Wetland Hydrology Present? Yes No			
Remarks: Hydric soil is not present. This is not a wetland.			
HYDROLOGY			
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (Minimum of one required; check all that apply)	Socon	odary Indicators (Minimum	of 2 required)
	<u>Secon</u>	dary Indicators (Minimum	
Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LRR U)		Sparsely Vegetated Concave Drainage Patterns (B10)	3 Surface (B8)
✓ Saturation (A3) Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Liv	ina Roots (C3)	Dry Season Water Table (C2))
Sediment Deposits (B2) Presence of Reduced Iron (C4)		Crayfish Burrows (C8)	-7
Drift Deposits (B3)	Soils (C6)	Saturation Visible on Aerial I	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)		Geomorphic Position (D2)	5 , . ,
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):			
Water Table Present? Yes No • Depth (inches):			
Saturation Present? (includes capillary fringe) Yes No Depth (inches): 2		nd Hydrology Present? Ye	es • No O
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections),	if available:		
Remarks:			
Nemans.			

Project/Site: Bluewater Terminal SPM Project

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 11

20% of Total Cover: 14

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

50% of Total Cover: 0

1 . Ouercus virginiana 2 . Schinus terebinthifolia

50% of Total Cover: 28

1 . Panicum virgatum

2 . Cvnodon dactvlon

3 . Hvdrocotvle umbellata 4 . Ambrosia artemisiifolia

50% of Total Cover: 35

50% of Total Cover: 0

Woody Vine Stratum

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

55

0

0

0

0 0

0

0

0__ 0

0

0 0

70

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

30 **✓** __54.5% _FACU

25 🗸 ___ 45.5% __FAC 0.0%

0.0%

45 **✓** 64.3% FAC

= Total Cover

0.0%

0.0%

___14.3%__FACU__

7.1% FACU

0.0%_

___14.3%__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%_

= Total Cover

= Total Cover

0.0%_

Status

Dominance Test we	nrksheet:			
Number of Dominant				
That are OBL, FACW,	•	_	2	(A)
				(, ,)
Total Number of Dom Species Across All Str			3	(B
5pecies / ici 655 / iii 64		_		`
Percent of Dominant : That are OBL, FACW,		-	66.7%	(A/B)
Prevalence Index v	vorksheet:			
Total % Cover of	of:	Multiply	by:	_
OBL species	10	x 1 =	10	
FACW species	0	x 2 =		
FAC species	70	x 3 =	400	
FACU species	45	x 4 =		
UPL species Colum Totals:	0	x 5 =	400	(=)
Colum Totals.	125	(A)	100	(B)
Prevalence Inc	dex = B/A=		3.200	
Hydrophytic Veget	ation Indica	ators:		
Problematic Hy 1 Indicators of hy				1)
¹ Indicators of hy hydrology must b	dric soil and e present, u	/egetation d wetland	d	1)
¹ Indicators of hy hydrology must b Definition of Ve	dric soil and e present, u	/egetation d wetland unless dis	d sturbed or	1)
¹ Indicators of hy hydrology must b	dric soil and e present, u egetation nts, excludi ft (6 m) or	d wetland inless disserting wood more in I	d sturbed or y vines, neight and	3 in.
¹ Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20	dric soil and e present, u egetation nts, excludi ft (6 m) or in diamete plants, excl ft (6 m) or	d wetland wetl	d sturbed or y vines, neight and st height (Doody vines,	3 in. 0BH).
¹ Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	dric soil and e present, uegetation nts, excluding ft (6 m) or in diamete plants, excluding ft (6 m) or in DBH.	d wetlanders disconnected with the second word of the second word of the second word of the second word of the second with the second word of the second word word of the second word word word of the second word word word word word word word wor	d sturbed or y vines, neight and st height (Doody vines, neight and	3 in. DBH). Iess
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	dric soil and e present, u egetation nts, excludi ft (6 m) or i in diamete plants, excl ft (6 m) or i) DBH.	d wetland wetl	d sturbed or y vines, neight and st height (E cody vines, neight and ding vines, ft (1m) tall.	3 in. DBH). Iess
Definition of Very Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - Woody approximately 20 than 3 in. DBH and Shrub - Woody pl	dric soil and e present, under present, under present, under present, under present, under present pre	d wetlanders disconnected with the second word in the second word word in the second word word in the second word word word word in the second word word word word word word word wor	d sturbed or y vines, neight and st height (E cody vines, neight and ding vines, ft (1m) tall. dy vines, neight. ants, includant wood,	3 in. DBH). less less
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 and Shrub - Woody plapproximately 3 to Herb - All herbace herbaceous vines plants, except woods	dric soil and e present, under the present, under the plants, excluding the first of the plants, excluding the plants of the present t	d wetland wetl	d sturbed or y vines, neight and st height (E cody vines, neight and ding vines, height. ants, including vines, and woody approximal	3 in. DBH). less less

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: WP1051_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 ²	Texture	Remarks
0 - 16	10YR 3/1 100				Sandy Loam	
¹ Type: C=Concentrati	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² 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) (A6) (LRR P, T, U) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A2) (A16) (MLRA 150A) (A3) (A16) (MLRA 0, S) (A3) (A16) (A16) (A16) (A16) (A3) (A16) (A16) (A16) (A3)	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 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 alous Bright Loamy Soils	151) (151) (151) (151) (150, P, T) (150, 150) (150, 150) (150, 150)	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)
Restrictive Layer Type: Depth (inches):	,			н	ydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Ter	rminal SPM Project	City/County: Aransas		Sampling Date: 2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX Sampl	ing Point: WP1051_WET_PEM
Investigator(s): B. Bringhu	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): Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.919213	Long: -97.13	
	and fine cand 0 to 1 percent clans	es, occasionally flooded, frequently pond		
Musta	ing fine sand, o to 1 percent slope	s, occasionally flooded, frequently ponc		None
Are climatic/hydrologic con	ditions on the site typical for	this time of year? Yes •	No 🦳 (If no, explai	n in Remarks.)
Are Vegetation , S	Soil , or Hydrology	significantly disturbed?	Are "Normal Circumst	ances" present? Yes No
Are Vegetation , S	Soil , or Hydrology	naturally problematic?	(If needed, explain an	y answers in Remarks.)
SUMMARY OF FINDINGS	S – Attach site map showi	ng sampling point locations, tr	ansects, important fe	eatures, etc.
Hydrophytic Vegetation Prese	ent? Yes •	No O	Camanda d Ana a	
Hydric Soil Present?	Yes •		Sampled Area a Wetland?	Yes No
Wetland Hydrology Present?	Yes •	No O		
Hydrophytic vegetation, hydr HYDROLOGY	ric soil, and wetland hydrology are	present. This is a wetland.		
Wetland Hydrology Indica	ators:			
·	num of one required: check a	ll that apply)	Secondary Indic	ators (Minimum of 2 required)
✓ Surface Water (A1)		juatic Fauna (B13)		Vegetated Concave Surface (B8)
High Water Table (A2)		arl Deposits (B15) (LRR U)		Patterns (B10)
✓ Saturation (A3)		drogen Sulfide Odor (C1)	_	n Lines (B16)
Water Marks (B1)		kidized Rhizospheres along Living Roots		on Water Table (C2)
Sediment Deposits (B2)		esence of Reduced Iron (C4)		Burrows (C8)
Drift Deposits (B3)		ecent Iron Reduction in Tilled Soils (C6)		n Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		nin Muck Surface (C7)		hic Position (D2)
Iron Deposits (B5)		ther (Explain in Remarks)		Aquitard (D3)
Inundation Visible on Ae		rer (Explain in Remarks)	✓ FAC-Neut	
Water-Stained Leaves (B				m moss (D8) (LRR T, U)
Field Observations	<u> </u>			
Field Observations: Surface Water Present?	Yes No	Depth (inches): 2		
Water Table Present?	Yes No •	Depth (inches): 2 Depth (inches):		
Saturation Present?			Wetland Hydrolo	gy Present? Yes No
(includes capillary fringe)	Yes No	Depth (inches): 0	Wedana Hyarolo	
Describe Recorded Data (str	eam gauge, monitor well, aerial p	hotos, previous inspections), if available		

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

 Distichlis spicata 2 . Eleocharis montevidensis

3 . Hvdrocotvle umbellata

50% of Total Cover: 45

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

0 0

0

0

0 0

0

0

90

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%

___11.1%__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%_

0.0%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

= Total Cover

70 🗸 ___ 77.8%_ OBL

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling	Point:	WP1	051	I_WET_PEN	1		
Dominance Test wor	ksheet:						
Number of Dominant S That are OBL, FACW, ro			,	2	(A)		
Total Number of Domin Species Across All Strat				3	(В		
Percent of Dominant Sp That are OBL, FACW, o				66.7%	(A/B)		
Prevalence Index wo	orksheet:						
Total % Cover of		Mul	tiply	/ by:			
OBL species	80	X	1 =	80			
FACW species	10_	x	2 =				
FAC species	0	x	3 =	=0			
FACU species	0	x	4 =	0			
UPL species	0	x	5 =	0_			
Colum Totals:	90	(A)	100	(B)		
Prevalence Inde	x = B/A=			1.111			
✓ 2 - Dominance T ✓ 3 - Prevalence I Problematic Hyd 1 Indicators of hydr	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or						
Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody pl approximately 20 ft than 3 in (7.6 cm)	es, exclud (6 m) or diamete ants, exc (6 m) or	ing w more er at b	/oo e in orea g w	dy vines, height and 3 ast height (D voody vines,	BH).		
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 wood 3 ft (1 m) in height. Woody vine - All wo				••	•		

	(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: WP1051_WET_PEM

Profile Descripti	ion: (Describe to th	e depth i	needed to docu			or confirm the abs	sence of indicators.)	
Depth (inches)	Matrix				Features	 .		
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 3/1	97	10YR 5/6	3	C	M	Sand	
¹Type: C=Concentrat	tion, D=Depletion, RM=	Reduced M	latrix, CS=Covered	or Coated	d Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	ators:						Indicators for Problem	atic Hydric Soils ³ :
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) v Dark Surface (A11) face (A12) edox (A16) (MLRA 15 neral (S1) (LRR O, S) Matrix (S4)		Thin Dalamy 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 E10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont Flood	face (F6) Surface (F7) ions (F8) R U) C (F11) (MLRA E Masses (F12 (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA 1	151) (LRR O, P, T) T, U)	Piedmont Floodplain Anomalous Bright Lo Red Parent Material Very Shallow Dark S Other (Explain in Red 3 Indicators 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? Υ	es • No 🔾
Remarks:								

City/County: Aransas

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	WP1052_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 (o	concave, convex, none	e): Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.918	607 Lo	ng: -97.135366	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, freque		ssification: None	
		no, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly disturb		I Circumstances" present?	Yes • No
Are Vegetation , Soil , or Hydrology naturally problemate	tic? (If needed,	explain any answers in Re	marks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locat	ions, transects, imp	oortant features, etc.	
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes ○ No ●	Is the Sampled Are within a Wetland?	ea Yes	○ No •
Wetland Hydrology Present? Yes ○ No ●	within a Wetland!		
Remarks:			
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a wet	land.		
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply)	Secon	ndary Indicators (Minimum	of 2 required)
Surface Water (A1) Aquatic Fauna (B13)	2233	Sparsely Vegetated Concave	. ,
High Water Table (A2) Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	s Surface (Bo)
Saturation (A3) Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Livi	ng Roots (C3)	Dry Season Water Table (Ca	2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)		Crayfish Burrows (C8)	-)
Drift Deposits (B3)	Soils (C6)	Saturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)		Geomorphic Position (D2)	5 , (,
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):			
Water Table Present? Yes No Depth (inches):			
Saturation Present?	Wetlar	nd Hydrology Present? Yo	es No 💿
(includes capillary fringe) Yes No Depth (inches):			
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), i	f available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

	Absolute % Cover	Dominant Species? Rel.Strat. Cover Status	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, ro FAC:
ee Stratum (Plot Size : 30)			Total Number of Dominant
•	Г		Species Across All Strata:2 (B
•		0.0%	
•		0.0%_	Percent of Dominant Species That are OBL, FACW, or FAC:50.0% (A/B)
-		0.0%_	Trial are OBL, FACW, OF FAC.
•	0	0.0%	Prevalence Index worksheet:
	0	0.0%	Total % Cover of: Multiply by:
	0	0.0%_	OBL species $10 \times 1 = 10$
•	0	0.0%	FACW species $20 \times 2 = 40$
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	FAC species $10 \times 3 = 30$
ling or Sapling/Shrub Stratum (Plot Size : 30)			FACU species $40 \times 4 = 160$
- · ·	0	0.0%	UPL species $20 \times 5 = 100$
			240
		0.0%	Colum Totals: 100 (A) 340 (B)
		0.0%	Prevalence Index = B/A= 3.400
		0.0%	Hydrophytic Vegetation Indicators:
		0.0%	✓ 1 - Rapid Test for Hydrophytic Vegetation
		0.0%	2 - Dominance Test is > 50%
	0	0.0%_	3 - Prevalence Index is ≤ 3.01
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30)	0_[0.0%_	¹ Indicators of hydric soil and wetland
		0.0%	hydrology must be present, unless disturbed or
		0.0%	
		0.0%	Definition of Vegetation Strata:
		0.0%	Tree - Woody plants, excluding woody vines,
		0.0%	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).
b Stratum (Plot Size : 30)			Sanling Woody plants, evaluding woody vines
	30	✓30.0%FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
			than 3 in. (7.6 cm) DBH.
. Hvdrocotvle umbellata	10	10.0% OBL	
Panicum virgatum	10	10.0% FAC	Sapling/Shrub - Woody plants, excluding vines, less
_Medicago lupulina	10	10.0% UPL	than 3 in. DBH and greater than 3.28 ft (1m) tall.
	5		
		5.0% PACU	Shrub - Woody plants, excluding woody vines,
		5.0% UPL	approximately 3 to 20 ft (1 to 6 m) in height.
Helianthus argophyllus	5		Harb All harbaccous (non woody) plants including
_Galium aparine		5.0%FACU	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
			plants, except woody vines, less than approximately
	0	0.0%	3 ft (1 m) in height.
	0	0.0%_	
60% of Total Cover: 50 20% of Total Cover: 20	100	= Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)			
		0.0%	
	0	0.0%	Hydrophytic
	0	0.0%	Vegetation Yes • No
	0	0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	
50% of Total Cover. 0 20% of Total Cover. 0	U	= rotar Cover	

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

SOIL Sampling Point: WP1052_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 ²	Texture	Remarks
0 - 16	10YR 3/1 100				Sandy Loam	
¹ Type: C=Concentrati	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² 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) (A6) (LRR P, T, U) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A2) (A16) (MLRA 150A) (A3) (A16) (MLRA 0, S) (A3) (A16) (A16) (A16) (A16) (A3) (A16) (A16) (A16) (A3)	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 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 alous Bright Loamy Soils	151) (151) (151) (151) (150, P, T) (150, 150) (150, 150) (150, 150)	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)
Restrictive Layer Type: Depth (inches):	,			н	ydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Ter	minal SPM Proje	ect		City/County: Aransas		Sampling I	Date: 2/14/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC			State	e: TX	Sampling Point:	WP1052_WET_PEM
I nvestigator(s): B. Bringhu	rst & A. Ostrow	<i>ı</i> ski		Section	on, Township, R	tange: S N/A	ΓN/A RN/A
 _andform (hillslope, terrace,	etc.): Flat			Local relief (concave	, convex, none)		Slope: 1 % 0.6 °
Subregion (LRR): LRR T				Lat: 27.918454	Lor	ng: -97.135375	Datum: NAD 83
Soil Map Unit Name: Mustar	na fine cand 0	to 1 percent clu	ones occasionally			sification: None	
	,		. ,		_		
Are climatic/hydrologic cond	litions on the	site typical f	or this time of y	year? Yes 💿	No (If	no, explain in Remarl	ks.)
Are Vegetation , S	oil , oı	r Hydrology	signif	ficantly disturbed?	Are "Normal	Circumstances" pres	sent? Yes • No
Are Vegetation , S	oil 🗌 , oı	r Hydrology	natur	ally problematic?	(If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDINGS	– Attach si	te map sho	wing samplin	g point locations, t	ransects, imp	ortant features, et	tc.
Hydrophytic Vegetation Prese	nt?	Yes 🔘	No •	1. 0.	. 0 l l A	_	
Hydric Soil Present?		Yes •	No O		e Sampled Area n a Wetland?	a Y	es O No 💿
Wetland Hydrology Present?		Yes •	No O		ira vvoliana.		
Remarks: Hydrophytic vegetation, hydri	soil, and wetl	and hydrology a	are present. This	is a wetland.			
HYDROLOGY							
Wetland Hydrology Indica			Habita A. I. X			d Table La Zhatat	
Primary Indicators (Minim	um of one re	quired; cneck		-	Second	dary Indicators (Minii	• •
✓ Surface Water (A1)			Aquatic Fauna (E	•		Sparsely Vegetated Co	• •
High Water Table (A2)			Marl Deposits (B			Drainage Patterns (B1	•
Saturation (A3)			Hydrogen Sulfide		(20)	Moss Trim Lines (B16)	
Water Marks (B1)			•	oheres along Living Roots	(C3)	Dry Season Water Tab	• •
Sediment Deposits (B2)			Presence of Red			Crayfish Burrows (C8)	
Drift Deposits (B3)				luction in Tilled Soils (C6)		Saturation Visible on A	
✓ Algal Mat or Crust (B4)			Thin Muck Surfa	• •		Geomorphic Position (· · · · ·
Iron Deposits (B5)	rial Imagaan / (D ⁻	7)	Other (Explain in	n Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Aer		')			•	FAC-Neutral Test (D5)	
Water-Stained Leaves (B	")					Sphagnum moss (D8)	(LRR T, U)
Field Observations:							
Surface Water Present?	Yes 💿 N	_	Depth (inche	es):4			
Water Table Present?	Yes O N	lo 💿	Depth (inche	es):			
Saturation Present? (includes capillary fringe)	Yes N	o ()	Depth (inche	es): 0	Wetlan	d Hydrology Present?	? Yes ● No ○
Describe Recorded Data (stre	am gauge, mo	nitor well, aeria	al photos, previou	us inspections), if available	e:		

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

50% of Total Cover: 0

Distichlis spicata

2. Spartina patens

3 Ludwigia palustris 4 . Eleocharis montevidensis

5. Sesbania herbacea

50% of Total Cover: 38

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

10

5

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

0.0%

0.0%

0.0%_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

25 🗸 ___33.3% _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%

= Total Cover

6.7%__FACW

6.7% FACW

30 **✓** 40.0% OBL

0.0%

0.0%

Status

Dominance Test worksheet:			
Number of Dominant Species			
That are OBL, FACW, ro FAC:			(A)
Total Number of Dominant Species Across All Strata:		2	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		50.0%	(A/B)
Prevalence Index worksheet	•		
Total % Cover of:	Multip		_
OBL species 40	L	70	
FACW species 35			
FAC species 0			
FACU species 0			
UPL species 0 Colum Totals: 100		340	(5)
Colum Totals: 100	(A)	310	(B)
Prevalence Index = B/A=		3.400	
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is s Problematic Hydrophytic	50% ≦ 3.0¹ : Vegeta	ition¹ (Explai	in)
2 - Dominance Test is > 3 - Prevalence Index is : Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present,	50% 3.0¹ Vegeta nd wetla unless	ntion¹ (Explai and disturbed or	in)
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is : Problematic Hydrophytic	50% § 3.0¹ E Vegeta Ind wetla unless In Strata ding wo In more i	and disturbed or a: ody vines, n height and	3 in.
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is s Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, excluapproximately 20 ft (6 m) o	50% 5 3.0¹ c Vegeta and wetla unless a Strata ding wo more i er at bro	and disturbed or a: ody vines, n height and east height ()	3 in. DBH).
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is s Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o	50% 5 3.0¹ c Vegeta and wetla unless a Strata ding wo more i er at bro cluding more i more i	and disturbed or a: ody vines, n height and east height () woody vines n height and	3 in. DBH). , less
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is s Problematic Hydrophytic ¹ Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	s 3.01 c Vegeta and wetla unless a Strata ding wo more i er at bro cluding more i hts, excl	and disturbed or a: ody vines, n height and east height (I woody vines n height and luding vines, 28 ft (1m) tal oody vines,	3 in. DBH). , less
1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index is 3 Problematic Hydrophytic 1 Indicators of hydric soil a hydrology must be present, Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, exclusion.	s 3.01 c Vegeta and wetla unless a Strata ding wo more i er at bro cluding more i than 3.2 uding w o 6 m) i ewoody) ss of siz	and disturbed or a: ody vines, n height and east height (I woody vines n height and luding vines, 28 ft (1m) tal oody vines, n height.	3 in. DBH). , less less l. ding

5	0	Present r
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
emarks: (If observed list morphological adaptations below)		

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

20% of Total Cover: 15

(Plot Size : 30)

SOIL Sampling Point: WP1052_WET_PEM

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)	<u> Tvpe¹</u>	Location ²	Texture	Remarks
0 - 16	10YR 5/1 100				Sandy Loam	
	ion, D=Depletion, RM=Reduced	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	-	
Hydric Soil Indica	tors:				Indicators for Problema	<u>itic Hydric Soils³:</u>
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 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, Dehric (F17) (MLRA 151) ed Vertic (F18) (MLRA 151)	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (50A, 150B) 9) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland unless	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):			н	ydric Soil Present? Ye	s ● No ○
Remarks:						

City/County: Aransas

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1053_UP_A
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): Convex Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.91	.7826 Long: -97.134723 Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, frequency	uently ponde NWI Classification: None
	(es • No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology isignificantly distu	
Are Vegetation , Soil , or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland? Yes No No
Wetland Hydrology Present?	within a wedante:
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a we	etland.
HYDROLOGY	
Wetland Hydrology Indicators:	
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)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Li	
Sediment Deposits (B2) Presence of Reduced Iron (C4)	
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled	
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	
Field Observations: Surface Water Present? Yes No Depth (inches):	
Depart (menes).	
Catuation December	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 inspections),	, if available:
Remarks:	

Project/Site: Bluewater Terminal SPM Project

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

2 . Spartina patens

3 . Lvsimachia arvensis

6 . Opuntia lindheimeri 7 . Panicum virgatum

50% of Total Cover: 43

50% of Total Cover: 0

Woody Vine Stratum

4. _Ambrosia artemisiifolia

5 . Andropogon glomeratus

1 . Schizachvrium scoparium

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

0

0

0

0

0

0

0

0

5

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%_

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%_

___11.8%__FACW

5.9% FACW 5.9% UPL

5.9% FAC 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%

= Total Cover

40 **✓** 47.1% FACU

10 ✓ __11.8%__FACU

10 ✓ ____11.8%___FACU

0.0%

0.0%

= Total Cover

0.0%

Status

tal Number of Dominant Species at are OBL, FACW, ro FAC: tal Number of Dominant species at are OBL, FACW, or FAC: treent of Dominant Species at are OBL, FACW, or FAC: tal Worksheet: Total % Cover of: Multiply by: SL species 0 x 1 = 0 CW species 15 x 2 = 30 CC species 5 x 3 = 15 CCU species 60 x 4 = 240 CPL species 5 x 5 = 25
tal Number of Dominant ecies Across All Strata: 4 (B) recent of Dominant Species at are OBL, FACW, or FAC: 25.0% (A/E) revalence Index worksheet: Total % Cover of: Multiply by: SL species 0 x 1 = 0 CW species 15 x 2 = 30 CC species 5 x 3 = 15 CC species 60 x 4 = 240
receies Across All Strata: 4 (B recent of Dominant Species at are OBL, FACW, or FAC: 25.0% (A/E revalence Index worksheet: Total % Cover of: Multiply by: BL species 0 x 1 = 0 ACW species 15 x 2 = 30 ACW species 5 x 3 = 15 ACU species 60 x 4 = 240
recent of Dominant Species last are OBL, FACW, or FAC: 25.0% 25.0% (A/E evalence Index worksheet: Total % Cover of: Multiply by: SL species 0 x 1 = 0 CW species 15 x 2 = 30 CC species 5 x 3 = 15 CC species 60 x 4 = 240
evalence Index worksheet: Total % Cover of: BL species 0 x 1 = 0 x 2 = 30 x 3 = 15 x 4 = 240 x 4 = 240
evalence Index worksheet: Total % Cover of: Multiply by: SL species 0 x 1 = 0 ACW species 15 x 2 = 30 ACS species 5 x 3 = 15 ACU species 60 x 4 = 240
Total % Cover of: Multiply by: SL species $0 \times 1 = 0$ CW species $15 \times 2 = 30$ CC species $5 \times 3 = 15$ CCU species $60 \times 4 = 240$
SL species $0 \times 1 = 0$ ACW species $15 \times 2 = 30$ ACS species $5 \times 3 = 15$ ACU species $60 \times 4 = 240$
15
CC species
CCU species 60 x 4 = 240
3F
240
olum Totals: <u>85</u> (A) <u>310</u> (B
Prevalence Index = B/A= 3.647
ydrophytic Vegetation Indicators:
Indicators of hydric soil and wetland lydrology must be present, unless disturbed or
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines,
nydrology 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 3 in. 7.6 cm) or larger in diameter at breast height (DBH).
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. Tree - Woody plants, excluding woody vines,
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. To capling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in 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.
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. To 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
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. Total Composition of Larger in diameter at breast height (DBH). Despling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Despling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. To capling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less and 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less and 3 in. DBH and greater than 3.28 ft (1m) tall.
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. Total Composition of Larger in diameter at breast height (DBH). Despling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Despling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
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, pproximately 3 to 20 ft (1 to 6 m) in height.
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. Total Repling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in 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 erbaceous vines, regardless of size, and woody
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, pproximately 3 to 20 ft (1 to 6 m) in height.
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Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. To can be read to

Remarks:	(If observed.	list morphological	adaptations	below).
ixcilialits.	(II ODSCIVEU,	ilat illoi priologicai	adaptations	DCIOVY).

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

SOIL Sampling Point: WP1053_UP_A

Profile Description	on: (Describe to the dept	h needed to document	the indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix		ox Features			
(inches)	Color (moist) %	Color (moist) %	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 3/1 100				Sandy Loam	
¹Type: C=Concentrati	on, D=Depletion, RM=Reduce	d Matrix, CS=Covered or Coa	ated Sand Grains.	² Location: PL=Pore I	Lining, M=Matrix.	
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 Rec Sandy Muck Min Sandy Gleyed Matrix (Stripped M	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 Dark Su Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Marl (F10) (L Depleted Oc Iron-Mangar Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	Surface (F6) rk Surface (F7) essions (F8) LRR U) hric (F11) (MLRA 1 nese Masses (F12) ace (F13) (LRR P, (F17) (MLRA 151) rtic (F18) (MLRA 1 podplain Soils (F19)	, T, U) R O) L51) (LRR O, P, T) T, U) 50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (** Very Shallow Dark Sui Other (Explain in Rem 3Indicators wetland h unless	R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) face (TF12)
Restrictive Layer (Type: Depth (inches):				н	lydric Soil Present? Ye	s ○ No ●
Remarks:						

City/County: Aransas

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1053_UP_B
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, R	ange: S N/A T	N/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local rel	ief (concave, convex, none)	Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		7.916979 Lo n	g: -97.134507	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 pe	rcent slopes, occasionally flooded, f	requently ponde NWI Class	ification: None	
Are climatic/hydrologic conditions on the site ty			o, explain in Remarks	. 1
Are Vegetation , Soil , or Hydro			Circumstances" prese	
Are Vegetation, Soil, or Hydro	ology naturally probl	ematic? (IT needed, e	xplain any answers in	Kemarks.)
SUMMARY OF FINDINGS — Attach site ma	p showing sampling point l	ocations, transects, imp	ortant features, etc	
Hydrophytic Vegetation Present? Ye	es O No •			
· · · · · -	es • No O	Is the Sampled Area within a Wetland?	Ye:	s ○ No ●
Wetland Hydrology Present?	es O No 💿	within a wolland.		
Remarks:				
Wetland hydrology is not present. This is not a wetla	and.			
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one required	: check all that apply)	Second	ary Indicators (Minim	um of 2 required)
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Cor	cave 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 alon	g 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 Ti	lled Soils (C6)	Saturation Visible on Ae	rial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic Position (D	
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) (_RR T, U)
F. H. Ohman all and		<u> </u>		, ,
Field Observations: Surface Water Present? Yes No No	Donth (inches)			
	Depth (inches):	_		
Water Table Present? Yes No • Saturation Present?	Depth (inches):		l Urrdualaan Draaant?	Vac Ala (a)
(includes capillary fringe) Yes No	Depth (inches):	— wetiand	d Hydrology Present?	Yes ∪ No •
Describe Recorded Data (stream gauge, monitor we	ell, aerial photos, previous inspectio	ns), if available:		
J	, p, p	,,		
Remarks:				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/14/2019

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 12

20% of Total Cover: 7

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. Schinus terebinthifolia

2 . Tamarix chinensis

50% of Total Cover: 30

1 . Panicum virgatum 2 . Distichlis spicata

50% of Total Cover: 18

50% of Total Cover: 0

Woody Vine Stratum

1.___

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

60

0

0

0

0

0 0

0

0

35

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%

0.0%

0.0%

0.0%

0.0%

20 **✓** __57.1% FAC

15 ✓ 42.9% 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%_

0.0% 0.0%

0.0%

= Total Cover

Present?

= Total Cover

= Total Cover

= Total Cover

50 🗸 ___83.3% __FAC__ ___16.7%__FACW__

0.0%

0.0%

Status

Dominance Test w	orksheet:				
Number of Dominant That are OBL, FACW,			_	1	(A)
Total Number of Don Species Across All Str			_	4	(В
Percent of Dominant That are OBL, FACW,			_	25.0%	(A/B)
Prevalence Index v	worksheet:				
Total % Cover	of:	Multip	oly b	y:	_
OBL species	15	x 1	=	15	
FACW species	10	x 2	=	20	
FAC species	70	x 3	=	210	
FACU species	0	x 4	=		
UPL species	0	x 5	=	0	
Colum Totals:	85_	(A)		310	(B)
Prevalence Inc	dex = B/A=			3.647	
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	Test is > 5 Index is ≤	0% 3.0¹	-		n)
2 - Dominance 3 - Prevalence	e Test is > 5 Index is ≤ ydrophytic	0% 3.0¹ Vegeta	ntio	n¹ (Explaiı	n)
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	e Test is > 5 Index is ≤ ydrophytic ydric soil an ie present, i	0% 3.0¹ Vegeta d wetl	ntio and dist	n¹ (Explaiı	n)
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy	e Test is > 5 Index is ≤ ydrophytic rdric soil an he present, the egetation hnts, exclud ft (6 m) or	0% 3.0¹ Vegeta d wetl inless Strata ing wo more i	and dist	n¹ (Explain turbed or v vines, eight and	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 an he present, the egetation hits, exclud ft (6 m) or in diamete plants, excl ft (6 m) or	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding	and distant	n¹ (Explain turbed or vines, eight and t height (E	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 an pe present, u egetation ants, exclud ft (6 m) or in diamete plants, excl ft (6 m) or n) DBH. Voody plant	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding more i	and distant ody n h eas woo	turbed or vines, eight and t height (E ody vines, eight and	3 in. DBH). 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 an be present, the egetation ants, exclud ft (6 m) or in diamete plants, exclud ft (6 m) or in diamete the loop blant diamete the lants, exclud lants, exclud	0% 3.0¹ Vegeta d wetlanless Strata ing wo more i r at bra uding more i as, exchan 3.2 ding w	and distant on heast work on h	n¹ (Explain turbed or vines, eight and t height (E ody vines, eight and ing vines, it (1m) tall.	3 in. DBH). 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	e Test is > 5 Index is ≤ sydrophytic rdric soil an be present, the present, the present, the present of the p	O% 3.01 Vegeta d wetlanless Strata ing wo more i r at bra uding more i as, exc nan 3.2 ding w 6 m) i voody) s of siz	and distant on the coordination of the coordin	turbed or vines, eight and t height (E ody vines, eight and ing vines, it (1m) tall. dy vines, eight.	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.

SOIL Sampling Point: WP1053_UP_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth	Matrix		Redox Features	<u>: </u>		
(inches)	Color (moist)	% Color (moist)	<u> </u>	Location ²	Texture	Remarks
0 - 16	10YR 6/1	100			Sand	
Tuna: C-Consentrati	on D-Donlation PM-PM	adusad Matrix CS-Covered	or Coated Sand Gra	ins 21 ocation: DI - Poro	Lining M-Matrix	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :						
	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, U	☐ Thin D ☐ Loamy ☐ Loamy ✔ Deplet ☐ Redox ☐ Deplet	lue Below Surface ark Surface (S9) (I Mucky Mineral (F2 Gleyed Matrix (F2 ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F Depressions (F8)	L) (LRR O)	Piedmont Floodplain	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M Sandy Redox (St Stripped Matrix (Dark Surface (A11) Ice (A12) Idox (A16) (MLRA 150/ eral (S1) (LRR O, S) atrix (S4)	Marl (F Deplet Iron-M Umbric Delta C Reduce	F10) (LRR U) ed Ochric (F11) (M anganese Masses c Surface (F13) (LF Dchric (F17) (MLRA ed Vertic (F18) (MI ont Floodplain Soils	(F12) (LRR O, P, T) RR P, T, U) A 151)	³ Indicators wetland unless	of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Restrictive Layer of Type: Depth (inches):	,				lydric Soil Present? Ye	s • No O
Remarks:						