



T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_C007
					PROJECT NA		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/7/2011	30			PID MiniRAE 20	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	THOD / BIT:	7
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							
*Cored through ~ 0	).6' of con	ncrete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	0
		,,	0.0 - 0.6	Concrete		1_
 _1 _		0.0 0.0	0.6 - 1.8	Yellowish Brown (10YR 5/6) medium SAND, little fine sand, little white (2.5YR 8/1) Clay, loose, dry, no odor (SP)	016_C007_0.6 (0.6' - 1.1')	_1
_2	<u>3.0</u>	0.0 0.0	1.8 - 2.6	Dark Olive Gray (5Y 3/2) fine SAND, some silt, little gray (2.5Y 6/1) clay, dense, dry, no odor (SM)		_2
_3	4.4*	0.0	2.6 - 3.6	Dark Reddish Brown (2.5YR 3/3) Clayey SILT, little medium-fine sand, low plasticity, firm, dry, no odor (ML)		_3
_ _4				(/		_4
_ _5		0.0	50.00	D 1 0 (5)(D 1/4)	1040 0007 5 0 1/5 0L 5 5D	_5
_ _6		0.0 0.0 0.0	5.0 - 8.0	Dark Gray (5YR 4/1) medium-fine SAND, trace silt and medium-fine round quartz gravel, loose, wet, no odor (SP) Transitions into Very Dark Gray fine SAND & SILT (10YR 3/1), soft,	016_C007_5.0 (5.0' - 5.5')	_ _6
_ _7	<u>3.0</u>	0.0 0.0 0.0		wet, slight sulfurous odor (SM)		_ _7
_ _8	5.0 5.0	0.0			016_C007_7.5 (7.5' - 8.0')	_8
_ _9						_9
10		0.0	10.0 - 11.2	Dark Gray (7.5YR 4/1) medium-fine SAND, little silt, trace fine round		10
11		0.0		gravel, loose, wet, slight sulfurous odor (SP)  Dark Gray (5Y 4/1) CLAY, little silt & very fine sand in thin (<1/2")	016_C007_10.7 (10.7' - 11.2')	_1
_ _12	<u>3.7</u>	0.0		lenses, soft, high plasticity, moist-wet, slight sulfurous odor (OH)	Fill/native soil interface at	12
_ _13	5.0	0.0 0.0				_13
14						_14
_ _15		0.0	45.0 40.0	A AL (44 0) 40 70 (010)	040 0007 45 0 (45 0) 45 5()	15
_ _16		0.0		As Above (11.2' - 13.7') (OH)	016_C007_15.0 (15.0' - 15.5')	_ _16
_ _17	4.7	0.0	16.0 - 16.7	As Above (11.2' - 13.7'), hue change to Black (5Y 2.5/1), trace peat, strong sulfurous odor (OH)		_ _17
_ _18	<u>1.7</u> 5.0					18
_ _19						_19
20						20
21		1.6	20.0 - 20.5	Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1) CLAY, soft, low plasticity, wet, strong sulfurous odor (PT)	016_C007_20.0 (20.0' - 20.5') PID bkgd: 1.0 ppm	_ _21
_ _22	0.5					22
23	<u>0.5</u> 5.0					23
24						_ _24
_ _25						_ _25

77-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_C007
7/7/2011 DRILLING CONTRACTOR EPI \ Warren Atkins SAMPLING METHOD: 5' Sleeves, 1.25"				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
							4
COMPLETION DATE:	TOTAL DEF	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/7/2011	30			PID MiniRAE 20	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	ETHOD / BIT:	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							
*Cored through ~ (	).6' of cor	ncrete before	advancing with	geoprobe			

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	3,
(Feet) 	(ieet)	(PPM) 0.0	25.0 - 25.7 Greenish Gray (GLEY2 5/5BG) CLAY, soft, moderate plasticity, moistwet, slight sulfurous odor (OH), Transitions into Reddish Brown	SAMPLE SUMMARY 016_C007_25.0 (25.0' - 25.5')	_25 _ _26
	0.7		(2.5YR 4/4) fine-medium Silty SAND, little fine-medium subangular gravel, trace clay, dense, moist-wet, no odor (SM)		_ _27
_28	<u>0.7</u> 5.0				_28
_29					_2
_30			End of Poving at 201 b at a		_3
_ _31			End of Boring at 30' b.g.s.		_3
_32					_3
_33					_3
_34					_34
_35					_3
36					_3
37					_3
_38					_3
39					_3
40					_4
41					_4
42					_4
43					_4
_44					_ _4
_45					_4 _4
46					_4
_47					_ _4
_48					_ _4
_49					_ _4
_ _50					_ _5

TŁ	011 30  NTRACTOR / DRILLER: DRILLING EQUIF ren Atkinson Geoprobe Tr ETHOD: DEPTH TO GROUNDWATER		CH GEO			Boring No: 016_C009	
	,				PPG Site 016		
COMPLETION DATE:	TOTAL DEF	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/7/2011	30			PID MiniRAE 20	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	ETHOD / BIT:	1
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							
*Cored through ~ (	).5' of cor	ncrete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)	0.0 - 0.5 Con	ncrete	SAMPLE SUMMARY	_0
	<u>2.8</u> 4.5*		0.5 - 1.3 Oliv med 1.3 - 1.6 Dari som dry 1.6 - 2.0 Gra 2.0 - 2.8 Blace		016_C009_0.5 (0.5' - 1.0')	 _1 2  _3  _4 4
_5 _ _6 _7 _ _8 _ _9 _	<u>3.1</u> 5.0	0.0 0.0 0.0	wet, 7.2 - 7.5 Blac sligh 7.5 - 8.1 Dar	rk Reddish Brown (5YR 3/2) medium-fine SAND, little silt, loose, t, slight sulfurous odor (SM) ack (5Y 4/1) Silty CLAY, very soft, moderate plasticity, moist, ght sulfurous odor (OH) rk Gray (2.5Y 4/1) medium-fine SAND, loose, wet, slight sulfurous or (SP/SW)	016_C009_5.0 (5.0' - 5.5') 016_C009_7.6 (7.6' - 8.1')	_5 _ _6 _ _7 _ _8 _ _9 _
	<u>4.0</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	sligh 11.0 - 11.7 As A 11.7 - 12.2 As A 12.2 - 14.0 Dark som	rk Gray (2.5Y 4/1) fine-coarse SAND, trace shells, loose, wet, ght sulfurous odor (SW) Above (10' - 11') except fine SAND, little medium sand (SP) Above (10' - 11') (SW) rk Gray (5Y 4/1) CLAY, little silt, occasional thin (<1/2") lense of me fine-very fine sand, soft, high plasticity, moist, slight sulfurous or (OH)	016_C009_11.7 (11.7' - 12.2') Fill/native soil interface at 12.2'	10 11 12 13 14 15
	<u>4.0</u> 5.0	0.0 0.0 0.0 0.0 0.1 0.5 2.2 7.6	16.2 - 17.1 As A stro 17.1 - 19.0 Dari	Above (12.2' - 14')  Above (15.0' - 15.3'), hue change to Black (5Y 2.5/1), strong ong sulfurous odor (OH)  rk Gray (5Y 4/1) CLAY and Dark Brown (10YR 3/3) PEAT, oderate plasticity, soft, moist, strong sulfurous odor (OH/PT)	016_C009_15.7 (15.7' - 16.2')	
	<u>4.0</u> 5.0	14.5. 10.1 2.3 0.3 0.0 0.0 0.0 0.0	(10 <sup>°</sup> low 21.5 - 22.2 Dari CLA 22.2 - 24.0 Gre	ry Dark Grayish Brown (10YR 3/2) to Dark Yellowish Brown DYR 4/6) PEAT, little to trace Dark Gray (5Y 4/1) Silty CLAY, soft, or plasticity, moist, strong sulfurous odor (PT) rk Gray (10YR 3/1) grading to Greenish Gray (GLEY2 5/5BG) Silty AY, low plasticity, soft grading to stiff, moist, no odor (CL) eenish Gray (GLEY2 6/5BG) very fine SAND, some silt, little fine sand an inse, wet, no odor (SM)	(forgot to collect sample from 20.0 - 20.5)  016_C009_23.5 (23.5' - 24.0')	21 22 23 24 25

TETRA TECH GEO			PROJECT NO.: 117-0509160.01		Boring No: 016_C009		
10				PROJECT NAME:		LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:	TOTAL DEF	PTH OF BOREH	OLE:	MONITORING DEVIC	Œ:	GEOLOGIST / OFFICE:	
7/7/2011	30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							]
*Cored through ~ (	).5' of cor	ncrete befor	e advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 25.5 Greenish Gray (GLEY2 6/5BG) SILT, little very fine sand, some medium-	SAMPLE SUMMARY	_
_ _26		0.0	coarse angular gravel 25.4' - 25.5', stiff, moist, no odor (ML)		_ _26
_ _27		0.0 0.0	25.5 - 26.4 Reddish Brown (2.5YR 4/3) SILT, some clay, low plasticity, stiff, moist, no odor (ML)		_ _27
_	<u>2.7</u> 5.0	0.0	26.4 - 26.7 Dusky Red (2.5YR 3/2) medium-coarse SAND, some fine sand, dense,		
_28	5.0		wet, no odor (SW) 26.7 - 27.1 Reddish Brown (2.5YR 4/3) very fine SAND, some silt, little clay, trace		_28
_ _29			medium sand, dense, wet, no odor (SM)		_ _29
_ _30			27.1 - 27.7 Dark Greenish Gray (GLEY1 4/10Y) CLAY, some silt & coarse-fine subround gravel, low plasticity, stiff, moist, no odor (CL/GC)		_ _30
_			End of Boring at 30' b.g.s.		
_31					_31
_ _32					32
_ _33					_ _33
_					_
_34					_34
_ _35					_35
_ _36					_ _36
_ _37					_ _37
_					
_38					_38
_ _39					_39
_ 40					_ _40
_					
_41 _					_41
_42					_42
_ _43					_ _43
_ _44					_ 44
_ _45					_45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

TŁ	TET		CH GEO	PROJEC		160.01	Boring No: 016_C011 LOCATION SKETCH
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/16/2011				PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							
*Cored through ~ (	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM		DUDMEICTED CYCTEM COULDECCRIPTION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.5 0.5 - 1.0	Concrete  Brownish Yellow (10YR 6/6) fine SAND, little medium sand, trace	016 C011 0.5 (0.5' - 1.0')	<b>-</b> ,
_1		0.0	0.5 - 1.0	medium-fine subround gravel, moist, loose, no odor (SP)	016_C011_0.5 (0.5' - 1.0')	_1
_ _2		0.0	1.0 - 2.0	Dark Gray (5Y 4/1) fine SAND, little silt, mica, & schist gravel, trace		_2
	<u>3.0</u>	0.0		brick fragments, medium-dense, moist, no odor (SM)		
_3	4.5*	0.0	2.0 - 2.4	Very Dark Gray (5Y 3/1) Silty CLAY, trace mica, soft, moist (OH)		_3
		0.0	2.4 - 3.1	Very Dark Gray (5Y 3/1) SILT, little fine sand & clay, trace mica, schist		-,
_4			3.1 - 3.5	gravel, & glass fragments, soft, moist, slight sulfurous odor (ML)  Dark Gray (10YR 4/1) medium-fine SAND, little silt & clay, soft, moist,		_4
_ _5			0.1 - 0.0	no odor (SM/SC)		_ _5
_		0.0	5.0 - 7.5	Dark Gray (10YR 4/1) sandy SILT, little clay, some clay stringers,	016_C011_5.0 (5.0' - 5.5')	
_6		0.0		Brown (7.5YR 4/2) medium-fine sand 5.4'-5.6', trace red siltstone &		_6
<u> </u>		0.0	7.5 0.5	sandstone gravel throughout, firm, moist-wet, no odor (ML)		
_7	<u>3.5</u>	0.0 0.0	7.5 - 8.5	Dark Gray (2.5Y 4/1) fine-very fine SAND, little silt, loose, wet, no odor (SM), Transitions into Brown (7.5YR 4/2) coarse-fine SAND, little fine		_7
_ _8	5.0	0.0		subround gravel & shells, loose, wet, slight sulfurous odor (SW)		_ _8
		0.0				
_9						_9
_10		0.0	10.0 - 11.2	Dark Gray (7.5YR 4/1) medium-fine SAND, little coarse sand, trace		_10
_ 		0.0	10.0 11.2	fine gravel & shells (SW), Transitions into fine-very fine SAND, trace silt,	016_C011_10.7 (10.7' - 11.2')	11
		0.0		wet, loose, slight sulfurous odor (SP)	,	
_12		0.0	11.2 - 13.5	Very Dark Gray (5Y 3/1) CLAY, trace silt & fine-very fine sand, trace peat	Fill/native soil interface	_12
_ 13	<u>3.5</u> 5.0	0.0		13.0' - 13.5', Brown (10YR 4/3) sandy SILT, trace clay at 11.5', 12.2' and	at 11.2'	_ _13
-13	5.0	0.0 0.0		12.5', moist throughout, soft, slight sulfurous odor (OL)		-13
_ 14		0.0				_14
_						
_15		0.0	45.0 40.0	D 1 0 (5)(4(4) 0) A)( (6) (1) (1) (1) (1) (1) (1)	242 2244 45 2445 24 45 50	_15
_ 16		0.0 0.0	15.0 - 16.2	Dark Gray (5Y 4/1) CLAY, soft, moist-wet, slight sulfurous odor (OH)	016_C011_15.0 (15.0' - 15.5')	_ 16
-10		0.0	16.2 - 16.6	Black (5Y 2.5/1) CLAY, soft, moist-wet, slight sulfurous odor (OH)		-10
_ _17		0.2		Very Dark Gray (5Y 3/1) SILT, some fine-very fine sand, little clay,		_17
_	<u>3.0</u>	2.1		abundant shells, trace peat, loose, wet, slight sulfurous odor (ML)		_
_18	5.0	1.7	17.1 - 18.0	Greenish Gray (GLEY2 6/5BG) CLAY, little silt, trace fine sand, soft,		_18
_ _19				moist, slight sulfurous odor (CH), Transitions into medium-fine SAND & coarse-fine GRAVEL, little silty & clay, dense, moist-wet, no odor		_ _19
-19				(GC)		-19
_ _20				(,		_20
		0.0	20.0 - 20.3	Greenish Gray (GLEY2 6/5BG) medium-fine SAND & coarse-fine	016_C011_20.0 (20.0' - 20.5')	
_21		0.0	00.0.04.0	GRAVEL, little silt & clay, dense, moist-wet, no odor (GC)		_21
_ 22		0.0 0.0	20.3 - 21.6	Reddish Brown (5YR 4/4) SILT, some very fine sand, little coarse-fine subangular siltstone gravel, moist, firm, no odor (ML)		_ 22
	<u>3.3</u>	0.0	21.6 - 22.2	Brown (7.5YR 4/4) coarse SAND & fine subangular GRAVEL, some		
23	5.0	0.0		medium sand & medium gravel, little fine sand & silt, loose, wet, no		_23
_				odor (GM)		
_24			22.2 - 23.3	Reddish Brown (2.5YR 4/4) SILT, little very fine sand & fine-coarse		_24
_ _25				angular gravel, moist, stiff, no odor (ML)		_ _25
_25			ļ.			

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_C011
8/16/2011  DRILLING CONTRACTOR  EPI \ John Brass						LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/16/2011	30			PID MiniRAE 20	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	ETHOD / BIT:	7
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"		~ 5.0'				No	
МЕМО:							
*Cored through ~ (	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_25
_ _26			25.0 - 25.3 Red (2.5YR 4/6) coarse-fine angular siltstone GRAVEL, trace fine sand & silt, wet, loose, no odor (GW) 25.3 - 27.9 Brown (7.5YR 5/3) Silty medium-fine SAND, some coarse sand	016_C011_25.3 (25.3' - 25.8')	_ _26
_27	2.9		& fine angular gravel (red & gray siltstone), little coarse-medium gravel, trace clay, medium-dense, wet, no odor (SM), Transitions into SILT,		_27
_28	<u>2.9</u> 5.0		some very fine sand, little medium-fine angular gravel, little clay, very stiff, moist-dry, no odor (ML)		28
_29					_29
_30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_32					32
_33					_33
_34					_34
35 					_3!
_36					_3
_37 -					_3
_38					_3
39					_3 _ 4
_40 _ _41					_4  _  _4
42					_ · _ _4:
43					_ _ _4:
44					_4
45					_ _4
46					_ _4
47					_ _4
48					_ _4
49					_ _4
50					_5

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_C013
			PROJECT NAME: PPG Site 016		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/24/2011	26			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.2'					No		
мемо: '*Cored through ~ 0.5' of concrete before advancing with geoprobe							
Refusal at 5' (1st a	Refusal at 5' (1st attempt), 3' (2nd attempt), then 26' (third attempt)						

DEPTH	RECOVERY (foot)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.5 Concrete	SAMPLE SUMMARY	0
 _1 		0.0	0.5 - 1.0 Olive Yellow (2.5Y 6/6) medium-fine SAND, trace medium-fine subround gravel & coarse sand, loose, moist, no odor (SW)	016_C013_0.5 (0.5' - 1.0')	 _1 
_2 _ _3 _ _4 _ _5	3.1 4.5*	0.0 0.0 0.0 0.0	<ul> <li>1.0 - 2.0 Very Dark Gray (2.5Y 3/1) fine SAND, little medium sand, little gray coarse-fine subangular gravel, medium-dense, dry, no odor (SP)</li> <li>2.0 - 3.2 Black (2.5Y 2/1) SILT, some very fine sand, little coarse-fine gray gravel, trace schist gravel/mica, medium-dense, moist, no odor (ML)</li> <li>3.2 - 3.6 Very Dark Grayish Brown (2.5Y 3/2) fine SAND, little medium sand, trace fine subround quartz gravel, wet, loose, no odor (SP)</li> </ul>	016_C013_3.1 (3.1' - 3.6')	_2 3 4 5
  6		0.0 0.0 0.0	5.0 - 6.5 Very Dark Gray (5Y 3/1) fine-very fine SAND, little silt & coarse-fine subround quartz gravel, wet, loose, slight sulfurous odor (SM)		 
_ _7 _ _ 8	<u>3.4</u> 5.0		6.5 - 7.7 Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace shells & gravel, loose, wet, slight sulfurous odor (SP) 7.7 - 8.0 Dark Gray (2.5Y 4/1) SILT, some very fine sand, little clay, soft,	016_C013_7.5 (7.5' - 8.0')	
_ _ _9 _		0.0	moist-wet, slight sulfurous odor (ML) 8.0 - 8.4 As Above (6.5' - 7.7')		_ _ _9
_10		0.0	10.0 10.7 D 1.0 (10.0 1/4)		10
_ _11 _		0.0 0.0 0.0	<ul> <li>10.0 - 10.7 Dark Gray (10YR 4/1) medium-fine SAND, trace shells &amp; gravel, loose, wet, slight sulfurous odor (SW)</li> <li>10.7 - 11.0 Dark Gray (5Y 4/1) CLAY, soft, moist, slight sulfurous odor (OH)</li> </ul>	016_C013_10.2 (10.2' - 10.7')	_
_12 - 13	<u>1.9</u> 5.0	0.0		Fill/native soil interface at 10.7'	_12 _ _ _13
_ _ _14	0.0				14
_ _15					_ _15
_ _16		0.0 0.0 0.0	15.0 - 16.0 As Above (10.7' - 11')	016_C013_15.0 (15.0 - 15.5')	_ _16
_ _17 _	<u>2.8</u>	0.0 0.0 0.0	<ul> <li>16.0 - 16.4 Very Dark Gray (5Y 3/1) SILT, some very fine sand &amp; clay, little shells, soft, wet, strong sulfurous odor (ML)</li> <li>16.4 - 16.7 Very Dark Brown (10YR 2/2) PEAT, soft, moist, strong sulfurous odor (P</li> </ul>	T)	_ _17
_18 -	5.0	0.0	16.7 - 17.2 Dark Grayish Brown (10YR 4/2) medium-fine subangular-subround grav some coarse-fine sand, trace silt, medium-dense, wet, no odor (GW)	el,	_18
_19 _ _20			17.2 - 17.8 Brown (10YR 5/3) with slight Greenish Gray (GLEY2 6/5BG) mottling SILT, some fine sand, little clay, little coarse-medium subangular brown gravel, medium-dense, mosit-wet, no odor (ML)		_19 _ 20
_ _21		0.0	20.0 - 24.2 Brown (7.5YR 5/4) fine SAND & coarse-fine subangular gravel, some sil trace medium sand & clay, loose, wet, no odor (GM), Transitions into	t, 016_C013_20.0 (20.0 - 20.5')	21
_ _22	<u>4.2</u>	0.0 0.0 0.0	Brown (7.5YR 5/4) SILT, little fine-very fine sand & coarse-fine subangular gravel, dense, moist, no odor (ML)		22
_ _23 _	5.0	0.0 0.0			_23
_24 _ _25		0.0			_24

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_C013
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	ETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC		GEOLOGIST / OFFICE:	7
8/24/2011	26		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.2'				No			
MEMO:							
Refusal at 5' (1st a	Refusal at 5' (1st attempt), 3' (2nd attempt), then 26' (third attempt)						

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	25
(Feet)  _26	(IEEI)	(PPM) 0.0	25.0 - 25.6 Reddish Brown (5YR 4/4) medium-fine SAND & coarse-fine angular	SAMPLE SUMMARY 016_C013_25.0 (25.0 - 25.5')	_25
_			GRAVEL & COBBLES, some silt, loose, wet, no odor (GM)		_26
_27	<u>0.6</u> 5.0				_27
_28	5.0				_28
_29 _					_29
_30					_30
_ _31 _					_ _31 _
_32					_32
_33					_33
_34					_34
_35					_35
_36					_36
37					_37
38					38
39					_39
_ _40					_40
_ _41					_ _41
_42					_ _42
_43					_ _43
_44					_ _44
_ _45					_ _45
_46					_ _4(
_ _47					_4
_ _48					_ _ _48
49					49
5 _ _50					``  5(

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_C016
					PROJECT NA		LOCATION SKETCH
					PPG Site	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/15/2011	9			PID MiniRAE 2000 Jim M		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'						No	
MEMO: *Cored through ~ 0.6' of concrete before advancing with geoprobe							]
Refusal at 9', no m	ore attem	pts					

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	٦,
(Feet)	(leet)	(PPM)	0.0 - 0.6	Concrete	SAMPLE SUMMARY	0
_1		0.0	0.6 - 1.0	Brownish Yellow (10YR 6/8) medium-fine SAND, little subround gravel,	016_C016_0.6 (0.6' - 1.2')	_ _1
_ _2		0.0 0.0	1.0 - 3.0	trace coarse sand, loose, dry, no odor (SW) Dark Yellowish Brown (10YR 4/4) fine SAND, little silt, schist gravel, &		2
_2	2.4	0.0	1.0 - 3.0	mica, red brick gravel @ 1.8', dry, medium-dense, no odor (SM),		
_ _3 _	4.4*			Transitions into coarse-fine schist GRAVEL & MICA, dense, dry, no odor (GW)		_3
_4						_4
_ _5						_5
_ _6		0.0 0.0	5.0 - 5.3	Dark Grayish Brown (10YR 4/2) Silty fine SAND, some schist gravel & mica, medium-dense, moist-wet, no odor (SM)	016_C016_0.6 (5' - 5.5')	_ _6
_0		0.0	5.3 - 5.8	Dark Gray (5Y 4/1) Silty medium-fine SAND, some schist & mica,		
_7	4.0			medium-dense, moist-wet, no odor (SM)		_7
_ _8	<u>1.3</u> 5.0		5.8 - 6.3	Light Greenish Gray (GLEY1 8/10Y) to Greenish Black (GLEY1 2.5/10Y) coarse-fine schist GRAVEL, COBBLES, & mica, dense, dry, no odor		_ _8
_	0.0			(GW)		_
_9			End of Bo	oring at 9' b.g.s. (Refusal)		_9
_ _10			Lina or Bo	and at a signst (iterasal)		_10
_ _11						11
_ _12						_12
_ _13						13
_ _14						_ _14
_ _15						_ _15
_ _16						_ _16
_ _17						_ _17
_ _18						_ _18
_ _19						_ _19
_ _20						20
_ _21						_ _21
_ _22						22
_ _23						23
_ _24						_ _24
_ _25						_ _25

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_C017
					PROJECT NA		LOCATION SKETCH
					PPG Site	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/23/2011	9			PID MiniRAE 2000 Jim M. /		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 5'					No	
мемо: *Cored thr	MEMO: *Cored through ~ 0.4' of concrete before advancing with geoprobe						
Refusal at 1.1 (8/1	7/11), re-a	attempted o	n 8/23/11: refusa	I at 2', then at 9'.	Soil logge	d on 8/23/11	

DEPTH (Fact)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(Feet)	(loot)	(PPIVI)	0.0 - 0.4	Concrete	SAMPLE SUMMARY	<del> </del> -0
_1		0.0	0.4 - 2.7	Dark Grayish Brown (2.5Y 4/2) fine SAND, little silt, trace medium sand,	016_C017_0.4 (0.4' - 0.9')	_1
_ _2	<u>2.3</u>	0.0 0.0 0.0		trace schist gravel 0.4' - 1.2', some schist gravel 1.2' - 2.7', white subround cobbles 2.5' - 2.7', dense, dry, no odor (SP)	(sampled 8/17/2011)	_2
_3	4.6*	0.0				_3
_ _4 _						_4
_5						_5
_ _6		0.0 0.0 0.0	5.0 - 5.3 5.3 - 6.3	Dark Grayish Brown (2.5Y 4/2) medium-fine SAND, little schist gravel, trace coarse sand, wet, loose, no odor (SW) Olive Gray (5Y 4/2) schist GRAVEL & COBBLES, medium-dense, wet,	016_C017_5.0 (5.0' - 5.5') (sampled 8/23/2011)	_ _6
_ _7	<u>1.7</u>	0.0	0.0	no odor (GW)		_ _7
_ _8	4.0		6.3 - 6.7	Dark Gray (2.5Y 4/1) very fine SAND, trace fine sand & mica, wet, loose, slight sulfurous odor (SP)		_ _8
_ _9						_ _9
 _ _10			End of Bo	oring at 9' b.g.s. (Refusal)		10
_ _11						_ _11
_ _12						_ _12
_ _13						13
_ _14						_ _14
_ _15						_ _15
_ _16						_16
_ _17						_ _17
_ _18						_ _18
_ _19						19
_ _20						_20
_ _21						21
_ _22 _						_22
_ _23						_23
_ _24						_ _24
_ _25						_ _25

T-	RATE	CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_D005	
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site	U 10	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/8/2011	30	30		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.0'					No		
MEMO:							1
Stepped out ~ 10 S	Stepped out ~ 10 SE from original location due to utilities						

DEPTH	RECOVERY	OVM		DUDMERSTED OVOTEM COLL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1 _ _2 _	<u>4.4</u> 5.0	0.0 0.0 0.0 0.0 0.0	1.7 - 3.0	Light Grayish Brown (10YR 6/2) fine SAND, some medium sand, little coarse to fine subangular gravel, dense, dry, no odor (SP) Brown (7.5YR 4/2) medium-fine SAND, little subangular gravel, 40% COPR (medium-fine subround gravel) from 1.7' - 2.2' and 2.5' - 3.0', dense, dry, no odor (SP)	016_D005_0.0 (0.0' - 0.5') 016_D005_1.2 (1.2' - 1.7') 016_D005_1.7 (1.7' - 2.2')	_ _1 _ _2 _
_3 - _4 - _5	5.0	0.0 0.0 0.0 0.0		Dark Reddish Gray (5YR 4/2) coarse-medium SAND, trace medium-fine subround gravel (non-COPR), moist-wet, loose, no odor (SW)	016_D005_2.5 (2.5' - 3.0') 016_D005_3.0 (3.0' - 3.5') 40% COPR noted 1.7' - 2.2' & 2.5' - 3.0'	_3 - _4 - _5
_ _6 _7 _ _8 _ _9 _	<u>3.3</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	6.0 - 6.4 6.4 - 6.9 6.9 - 8.3	As Above (3' - 3.5'), Dark Gray (10YR 4/1), moist-wet (SW) Very Dark Gray (5Y 3/1) CLAY, trace silt, soft, moderate plasticity, slight sulfurous odor (OH) Weak Red (2.5YR 4/3) fine SAND, some medium sand, loose, wet, slight sulfurous odor (SP) Dark Gray (2.5Y 4/1) medium-fine SAND, little silt & coarse sand, loose, wet, slight sulfurous odor (SW)	016_D005_7.0 (7.0' - 7.5')	 _6  _7  _8  _9  _10
11 12 13 14 15	<u>4.5</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	10.3 - 12.3	As Above (6.9' - 8.3'), mostly fine SAND (SP) Dark Gray (5Y 4/1) CLAY, high plasticity, soft, moist, slight sulfurous odor (OH) As Above (10.3' - 12.3'), hue change to Black (5Y 2.5/1) (OH)	016_D005_10.0 (10.0' - 10.5') Fill/native soil interface at 10.3'  016_D005_14.0 (14.0' - 14.5')	_ _11 _ _12 _ _13 _ _14 _ _15
_ _16 _ _17 _ _18 _ _19 _ _20	<u>3.3</u> 5.0	0.0 0.0 0.1 0.6 2.2 2.1	16.0 - 18.3	As Above (10.3' - 12.3')  Dark Brown (10YR 3/3) PEAT and Dark Gray (5Y 4/1) CLAY, soft, moderate plasticity, moist, strong sulfurous odor (PT/OH)	016_D005_17.8 (17.8' - 18.3')	_ _16 _ _17 _ _18 _ _19 _
21 22 23 24 25	<u>1.2</u> 5.0	0.0 0.0	21.0 - 21.2	Greenish Gray (GLEY2 5/5BG) Clayey SILT, little subround cobbles & fine-coarse gravel, trace fine sand, stiff, low plasticity, moist, no odor (ML) Reddish-Brown (5YR 4/3) Clayey SILT, little fine-coarse gravel and fine sand, stiff, low plasticity, moist, no odor (ML)		21 22 23 24 24 25

77	TET	TRA TE	RATECH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_D005
16				PROJECT NAME:			LOCATION SKETCH
						016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/8/2011	30			PID MiniRAE 2000 J		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	OUNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.0'				No			
MEMO:							]
Stepped out ~ 10 S	SE from o	riginal locat	ion due to utilities	;			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.2 Reddish Brown (5YR 4/3) Silty medium-fine SAND, little clay, firm,	SAMPLE SUMMARY 016_D005_25.0 (25.0' - 25.5')	_25 _
_26		0.0 0.0	moist-wet, no odor (SM)		_26
27	4.6	0.0 0.0			_27
_ _28	<u>4.6</u> 5.0	0.0			_ _28
_ _29		0.0	28.2 - 28.5 Reddish Brown (5YR 4/3) medium-coarse SAND (SW) 28.5 - 29.6 Red (2.5Y 4/6) SILT, some fine sand, little subround to subangular fine-		_ _29
_ _30		0.0	coarse gravel, stiff, moist, no odor (ML)		_ _30
_ _ _31			End of Boring at 30' b.g.s.		_ _31
32					32
_					
_33					_ _33 _
_34					_34
_35					_35
_ _36					36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ 40					_ _40
_ _ _41					41
					42
_42					
_43					_ _43 _
_44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _ _50					_ _ _50

TETRA TECH GEO						Boring No: 016_D005a	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	1
8/8/2011	30	30		PID MiniRAE 20	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5'				No			
MEMO:		_					
*Cored through ~ 0	).4' of cor	crete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(гееі)	(1001)	(PPIVI)	0.0 - 0.4	Concrete	SAIVIPLE SUIVIVIANT	┨┸
1		0.0	0.4 - 1.6	Yellowish Brown (10YR 5/6) medium SAND, little coarse sand, medium-	016_D005a_0.4 (0.4' - 0.9')	<del> </del> _1
		0.0		fine subround gravel & fine sand, medium-dense, moist, no odor (SW)	(* * * * )	Г
2		0.0	1.6 - 2.2	Dark Gray (5Y 4/1) fine SAND, some silt, little mica & schist gravel,		
	<u>2.4</u>	0.0		dense, moist, no odor (SM)		Г
3	4.6*	0.0	2.2 - 2.8	White to Very Dark Gray (2.5Y 8/1 to 3/1) coarse-fine schist GRAVEL,		
		0.0		COBBLES, and mica, dense, dry, no odor (GW)		Г
1				, , , , , , , , , , , , , , , , , , , ,		
						Γ
5						
		0.0	5.0 - 5.2	As Above (2.2'-2.8'), wet	016_D005a_5.0 (5.0' - 5.5')	Τ
3		0.0	5.2 - 6.7	Very Dark Gray (2.5Y 3/1) Silty fine SAND, little wood fragments &	,	_6
		0.0		organic matter, trace metal fragments, loose, wet, slight sulfurous odor		Г
7		0.0		(SM)		Ŀ
	<u>2.8</u>		6.7 - 7.8	Black (10YR 2.5/1) CLAY & organic SILT, little organic matter, trace		
3	5.0	0.0		metal fragments, soft, moderate plasticity, moist-wet, slight sulfurous		
				odor (OH)		
9				` '		
-						
10						
		0.0	10.0 - 10.3	Brown (7.5YR 4/2) Clayey SILT, low plasticity, firm, moist, slight		恄
1		0.0		sulfurous odor (ML)		
		0.0	10.3 - 11.7	Gray (2.5Y 4/1) medium SAND, little fine & coarse sand, trace shells and		Г
12		0.0		fine subround gravel, loose, wet, slight sulfurous odor (SW)	016_D005a_11.2 (11.2' -11.7')	
	<u>3.5</u>	0.0	11.7 - 12.7	Dark Gray (5Y 4/1) CLAY, soft, moderate plasticity, moist, slight	Fill/native soil interface at 11.7	Г
13	5.0	0.0		sulfurous odor (OH)		
		0.0	12.7 - 13.5	Gray (2.5Y 4/1) fine-very fine SAND, trace silt, wet, loose, slight sulfurous		$\Gamma$
14				odor (SP)		
15						
		0.0	15.0 - 17.5	As Above (11.7' - 12.7')	016_D005a_15.0 (15.0' -15.5')	L
16		0.0				Ŀ
		0.0				
17		0.0				
	<u>3.4</u>	0.0				<u></u>
18	5.0	0.0	17.5 - 18.0	As Above (11.7' - 12.7'), but Black (5Y 2.5/1)		
		0.4	18.0 - 18.4	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)		<u></u>
19				PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		
				(PT)		
20						L
		3.6	20.0 - 21.7	As Above (18'-18.5')	016_D005a_20.0 (20.0' -20.5')	<u> </u>
21		8.8				12
		1.0	21.7 - 21.8	Gray (2.5Y 6/1) fine SAND, little very fine sand & silt, moist-wet, loose,		-
22		0.3		slight sulfurous odor (SM)		_
	<u>3.3</u>	0.0	21.8 - 22.8	Dark Gray (2.5Y 4/1) CLAY, soft, moist, Transitions into Greenish Gray		_
23	5.0	0.0		(GLEY2 6/10BG) CLAY, little silt & very fine sand, soft, moderate		L
				plasticity, moist, slight sulfurous odor (OH/CH)		L
24			22.8 - 23.3	Greenish Gray (GLEY2 6/10BG) Clayey medium-fine SAND, little silt,		L
				some cobbles & coarse gravel, wet, medium-dense, slight sulf. odor (SC)		$\mathbb{L}$
25				- , , ,		

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_D005a
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/8/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5'					No		
MEMO:	•	-		-			1
*Cored through ~ (	*Cored through ~ 0.4' of concrete before advancing with geoprobe						

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet) _ _26	(leet)	(PPM)	25.0 - 28.8 Greenish Gray (GLEY2 6/10BG) Silty CLAY, some very fine-fine sand, trace coarse sand & medium-fine subround gray gravel, stiff, moist-wet,	SAMPLE SUMMARY 016_D005a_25.0 (25.0' -25.5')	_ _ _26
_ _27	0.0		low plasticity, no odor (CL)		_ _27
_ _28	<u>3.3</u> 5.0				_ _28
_ _29 _					_ _29
_30			Find of Daving et 201 b. c. a		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
33					_33
_ _34 _					_ _34 _
_35					_35
_36 _					_36 _
_ _37 _					_37 _
_38					_38
_39					_39
_40 _ _41					_40 _ _41
_41 _ _42					_
2 _ _43					_42 _ _43
_ _ _44					_ _ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

72-	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_D007
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:				MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	†
8/8/2011	30			PID MiniRAE 2000 Jim M. / Whitehouse		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5'					No		
MEMO:							
*Cored through ~ 0.4' of concrete before advancing with geoprobe							

DEPTH	RECOVERY	OVM		DUDMEISTED SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.4	Concrete	1040 7007 04 1/0 4/1 0 0/1	<b>-</b> ,
_1		0.0	0.4 - 1.6	,	016_D007_0.4 (0.4' - 0.9')	_ <sup>1</sup>
_ _2		0.0 0.0	1.6 - 2.1	fine gravel, little fine sand, moist, medium-dense, no odor (SW)  Dark Gray (5Y 4/1) Silty fine SAND, little mica & schist gravel, dense,		-
	<u>3.2</u>	0.0	1.0 - 2.1	moist, no odor (SM)		_2
_ _3	4.6*		2.1 - 2.5	White to Black (GLEY1 8/1 to 2.5/1) coarse-fine schist gravel & mica,		_3
_5	4.0	0.0	2.1 - 2.5	dense, dry, no odor (GW)		-
_ _4		0.0	2.5 - 3.0	Dark Gray (5Y 4/1) SILT, little fine sand & clay, moise, stiff, no odor (ML)		-  4
_			3.0 - 3.6	Black (2.5Y 2.5/1) fine SAND, slightly cemented, little coal fragments,		
_ _5				very dense, dry, no odor (SP)		_5
_		0.0	5.0 - 7.2	Very Dark Gray (2.5Y 3/1) SILT & fine SAND, trace coal & organics,	016_D007_5.0 (5.0' - 5.5')	
_6		0.0		and wood fragments, trace shells, medium-dense, moist, no odor (ML)		_6
_		0.0				_
_7		0.0				_7
'	<u>3.4</u>		7.2 - 7.9	Black (2.5Y 2.5/1) CLAY, little organic silt, trace rootlets, soft, moist,		
_8	5.0	0.0	7.0.0.	slight sulfurous odor, moderate plasticity (OH)		_8
		0.0	7.9 - 8.4	Brown (7.5YR 4/2) SILT & very fine SAND, wet, loose, (ML) Transitions into		- <u>_</u>
_9				medium-fine SAND, moist-wet, loose, slight sulfurous odor (SW/SP)		_9
_ _10						-10
_10		0.0	10.0 - 11.5	Gray (2.5Y 5/1) medium SAND, little fine & coarse sand, trace shells &		_10
_ 11		0.0	10.0 11.0	fine subround gravel, loose, wet, slight sulfurous odor (SW)		11
-''		0.0	11 5 - 12 7	Gray (2.5Y 5/1) fine-very fine SAND, little medium sand & silt, loose, wet,	016_D007_12.2 (12.2' - 12.7')	_
_ 12		0.0	11.0 12.7	no odor (SM)	(fill/native soil interface)	12
	<u>3.3</u>	0.0			(,	
_ _13	5.0	0.0	12.7 - 13.3	Dark Gray (5Y 4/1) CLAY, soft, moist, moderate plasticity, slight		_13
_				sulfurous odor (OH)		_
_14						_14
_15						_15
_		0.0	15.0 - 15.6	Dark Gray (2.5Y 4/1) Clayey SILT, trace very fine sand, very soft, wet,		
_16		0.0	45.0 40.0	slight sulfurous odor (ML)	046 0007 46 0 (46 0) 46 5)	_16
_ 17		0.0 0.0		Olive Gray (5Y 4/2) CLAY, Black (5Y 2.5/1) from 17.5' - 18.6', soft, moist, slight sulfurous odor (OH)	016_D007_16.0 (16.0' - 16.5')	
_1/	4.0	0.0		Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)		_17
_ 18	<u>4.0</u> 5.0	0.0	10.0 - 19.0	PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		18
_10	0.0	0.0		(PT)		-'
_ 19		0.0		(1-1)		_19
_						
_ _20	<u> </u>					_20
		13.6	20.0 - 21.3	As Above (18.6' - 19')	016_D007_20.0 (20.0' - 20.5')	
_21		40.3				_21
		15.3	21.3 - 22.6	Greenish Gray (GLEY2 6/10BG) CLAY, little fine sand & silt, trace gravel,		_
_22		46.6		low plasticity, soft, moist (CL), Transitions into clayey fine SAND, little		_22
	<u>2.6</u>	15.3		silt, medium-dense, moist-wet (SC), then into clayey SILT, stiff, moist (ML)		
_23	5.0					_23
						-24
_24						_24
_ 25						25
_25			ļ.			]_∠၁

TETRA TECH G			CH GEO	117-0509160.01		Boring No: 016_D007	
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site (	J16	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/8/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'				No			
МЕМО:							
*Cored through ~ 0	*Cored through ~ 0.4' of concrete before advancing with geoprobe						

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet) 	(IEEI)	0.0 0.0	25.0 - 28.4 Gray (10YR 5/1) Clayey SILT, little very fine sand & fine round gravel, firm, moist (ML), Transitions into Reddish Brown (5YR 4/3) Clayey SILT,	SAMPLE SUMMARY 016_D007_25.0 (25.0' - 25.5')	_ _26
_ _27 _	<u>3.4</u>	0.0 0.0 0.0	some fine sand, little red subround gravel, stiff, moist, no odor (ML)		_ _27 _
_28	<u>3.4</u> 5.0	0.0 0.0			_28 _
_29 _ _30					_29 _ _30
_ <del></del> _ _31			End of Boring at 30' b.g.s.		_ _ _31
					_32
_33					_33
_ _34					_ _34
_ _35					_ _35
					_ _36
_ _37					_ _37
					_ _38
_ _39					_ _39
_40					_ _40
_ _41					_ _41
_ _42					_ _42
_43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

Th	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_D008
			See Lavi.		PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/10/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'				No			
MEMO:							1
Cored through $\sim$ 0.	4' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.4	Concrete	SAMPLE SUMMARY	0
_ _1		0.0	0.0 - 0.4	Light Olive Brown (2.5Y 5/4) medium-fine SAND, little medium-fine	016_D008_0.4 (0.4' - 0.9')	_ _1
-'		0.0	0.4 - 0.0	subround gravel & coarse sand, moist, medium-dense, no odor (SW)	(0.4 - 0.9)	-'
_ _2		0.0	0.8 - 1.2	Black (2.5Y 2.5/1) coarse-fine SAND & fine subround slag GRAVEL, dry,		_2
	<u>3.4</u>	0.0		medium-dense, no odor (SW/GW)		
_ _3	4.6*	0.0	1.2 - 1.7	Dark Grayish Brown (2.5Y 4/2) fine SAND, trace medium sand & silt,		_3
_		0.0		medium-dense, moist, no odor (SP)		_
_4		0.0	1.7 - 1.9	As Above (0.4'-0.8') but fine SAND, white clay 1.8'-1.9' (SP/CL)		_4
			1.9 - 2.3	Dark Gray (5Y 4/1) fine SAND & SILT, some coarse-fine schist gravel &		
_5			0.0.05	mica, moist, firm, no odor (SM/ML)	040 0000 50 1/501 550	_5
_ _6			2.3 - 2.5 2.5 - 3.8	As Above (0.4' - 0.8') but fine SAND (SP)	016_D008_5.0 (5.0' - 5.5')	
_6		0.0	2.5 - 3.6	Very Dark Gray (2.5Y 3/1) fine SAND, some silt, little coarse-fine schist gravel & mica, dense, dry, no odor (SM)		_6
_ _7		0.0	5.0 - 6.0	As Above (2.5'-3.8'), moist-wet		_ _7
_'	<u>2.7</u>	0.0	6.0 - 6.2	Black (2.5Y 2.5/1) organic SILT & wood fragments, soft, moist-wet,	016_D008_7.2 (7.2' - 7.7')	-'
_ 8	5.0	0.0	0.0 0.2	slight sulfurous odor (ML)	( )	_8
			6.2 - 7.4	Dark Gray (2.5Y 4/1) fine SAND, little medium sand, trace shells, wet,		
_9				loose, slight sulfurous odor (SP), Transitions into Black (2.5Y 2.5/1)		_9
_				CLAY, little silt, very soft, moist-wet, slight sulfurous odor (OH)		_
_10			7.4 - 7.7	Brown (7.5YR 4/2) very fine SAND & SILT, firm, moist (SM/ML)		_10
		0.0	10.0 - 12.4	Gray (2.5Y 5/1) fine SAND, some medium sand, trace shells & coarse		
_11		0.0		sand, wet, loose, slight sulfurous odor (SW), Transitions into very fine		_11
_		0.0		SAND, little fine sand & silt, trace clay, loose, moist-wet, slight sulfurous		-12
_12	4.0	0.0 0.0	124 140	odor (SM) Dark Gray (5Y 4/1) CLAY, fine sand 13.4' - 13.6', soft, moist-wet,	016_D008_11.9 (11.9' - 12.4')	_12
_ 13	<u>4.0</u> 5.0	0.0	12.4 - 14.0	slight sulfurous odor (OH)	Fill/native soil interface at	_ 13
_13	3.0	0.0		slight sulfulous odor (OH)	12.4'	-13
_ 14		0.0				_ 14
_ _15						_ _15
_		0.0	15.0 - 15.4	Dark Gray (5Y 4/1) Clayey SILT, trace very fine sand, wet, very soft,		]_
_16		0.0		slight sulfurous odor (ML)		_16
		0.0	15.4 - 19.3	As Above (12.4' - 14'), grades to Very Dark Grayish Brown (5Y4/2)	016_D008_16.0 (16.0' - 16.5')	
_17		0.0				_17
10	<u>4.6</u> 5.0	0.0				10
_18	5.0	0.0 0.0				_18
_ 19		0.0	193-196	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)		_ 19
-'3		4.5	10.0 - 10.0	PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		-'3
_ 20				(PT)		_ 20
	<u> </u>	42.2	20.0 - 21.6	As Above (19.3' - 19.6'), trace clay (PT)	016_D008_20.0 (20.0' - 20.5')	
_ _21		37.1				_21
_		74.8				_
_22		18.7	21.6 - 23.3	Gray (GLEY1 5/N) CLAY, soft, moist, strong sulfurous odor (OH),		_22
	<u>3.3</u>	42.7		Transitions into Bluish Gray (GLEY2 6/10B) Clayey very fine SAND, little	016_D008_22.8 (22.8' - 23.3')	1—
_23	5.0	19.0		fine sand & silt, medium-dense, moist-wet, strong sulfurous odor (SC)		_23
						-24
_24						_24
_ _25						_ 25
_∠∪	l				1	

TETRA TECH GEO				117-0509160.01		Boring No: 016_D010	
	)				PPG Site 016		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	
8/15/2011	27			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.7'			No				
MEMO:		_					
Cored through ~ 0	Cored through ~ 0.4' of concrete before advancing with geoprobe. Refusal at 27'						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0.04		SAMPLE SUMMARY	_0
		0.0	0.0 - 0.4 0.4 - 1.0	Concrete  Very Dark Gray (10YR 3/1) coal frags. (sand & gravel), loose, dry (GW)	016_D010_0.4 (0.4' - 0.9')	_ _1
-'		0.0	1.0 -1.8	Dark Grayish Brown (2.5Y 4/2) fine SAND, little silt & medium sand,	(0.4 - 0.9)	-'
_2		0.0		trace mica, soft, loose, no odor (SM)		_2
_	<u>3.8</u>	0.0	1.8 - 2.1	White (10YR 8/1) coarse-fine subround quartz gravel & coarse-fine sand,		_
_3	4.6*	0.0		dense, dry, no odor (GW)	016_D010_2.5 (2.5' - 3.0')	_3
		0.0	2.1 - 2.5	Dark Gray (2.5Y 4/1) silty very fine SAND, some mica & schist gravel,	016_D010_3.0 (3.0' - 3.5')	
_4			2.5 - 3.7	dense, dry, no odor (SM) Very Dark Gray (10YR 3/1) Silty fine SAND, little subangular gravel, 15%	016_D010_3.5 (3.5' - 4.0') 15% COPR noted 3.0' - 3.5'	_4
_ _5			2.5 - 5.7	COPR (coarse-fine round gravel) 3' - 2.5', firm, moist, no odor (SM)	15% COFK Hoted 3.0 - 3.5	_ _5
			3.7 - 4.2	Black (2.5Y 2.5/1) Clayey organic SILT, soft, moist-wet, slight	016_D010_5.0 (5.0' - 5.7')	
_ _6		0.0		sulfurous odor (ML)	016_D010_5.7 (5.7' - 6.2')	_6
_		0.0	5.0 - 5.7	Dark Brown (7.5YR 3/2) fine SAND, little silt & medium sand, 50%	50% COPR noted 5.0' - 5.7'	_
_7		0.0		coarse-fine round COPR gravel throughout, wet, loose, no odor (SM)		_7
_ _8	<u>3.2</u> 5.0	0.0 0.0	5.7 - 7.4	Dark Reddish Gray (5YR 4/2) fine-very fine SAND, little silt, loose, wet,		_ _8
_0	5.0	0.0		no odor (SM), Transitions into Dark Gray (5YR 4/1) fine SAND, some medium sand, trace shells & coarse sand, wet, loose, slight sulfurous		_°
_ _9				odor (SW)		_9
_			7.4 - 7.6	Brown (7.5YR 4/3) sandy SILT, little clay, firm, moist-wet (ML)		
_10			7.6 - 8.2	Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells & coarse sand,		_10
<b>-</b>		0.0		wet, loose, slight sulfurous odor (SW)		l
_11		0.0	10.0 - 11.2	As Above (7.6' - 8.1'), Transitions into Dark Gray (10YR 4/1) medium-	016_D010_10.7 (10.7' - 11.2')	_11
_ 12		0.0 0.0		fine SAND, little coarse sand, trace fine gravel & shells, wet, loose, slight sulfurous odor (SW)	Fill/native soil interface at	_ 12
_12	3.8	0.0	11.2 - 12.1	Dark Gray (5Y 4/1) CLAY, soft, moist, slight sulfurous odor (OH)	11.2'	- ' -
13	5.0	0.0		Dark Gray (2.5Y 4/1) Silty very fine SAND, loose, wet, slight sulfurous		_13
		0.0		odor (SM)		_
_14		0.0		As Above (11.2' - 12.1')		_14
			13.4 - 13.8	As Above (12.1' - 12.5')		
_15		0.0	15.0 - 16.8	As Above (11.2' - 12.1'), trace silt & peat, slight sulfurous odor (OH)	016_D010_15.0 (15.0' - 15.5')	_15
_ 16		0.0	13.0 - 10.0	As Above (11.2 - 12.1), trace sit & peat, slight sulfdrous odor (OTI)	010_D010_13.0](13.0 - 13.3)	16
		0.0				
_17						_17
	<u>1.8</u>					
_18	5.0					_18
_ _19						_ _19
_19						-13
_ _20						_20
_		1.8	20.0 - 20.8	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)	016_D010_20.0 (20.0' - 20.5')	1_
_21		0.6		PEAT, Dark Gray (5Y 4/1) CLAY with little shells 20' - 20.1', soft, moist,		_21
		0.0	00.0.01.	strong sulfurous odor (PT)		
_22	26	0.0 0.0	20.8 - 21.1	Dark Grayish Brown (2.5Y 4/2) silty CLAY, soft, wet, slight sulfurous		_22
_ 23	<u>3.6</u> 5.0	0.0	21 1 - 22 7	odor (OH) Greenish Gray (GLEY2 6/10BG) CLAY, soft, moist, no odor (CH),		_ 23
	0.0	0.0		Transitions to clayey medium-fine SAND, little silt, medium-dense,		
_ _24				trace gravel, no odor (SC)		_24
_			22.7 - 23.6	Reddish Brown (5YR 4/3) Silty fine-very fine SAND, little clay & gravel,		_
_25				moist, dense, no odor (SM)		_25

TŁ	TETRA TECH GEO				117-0509160.01		Boring No: 016_D010 LOCATION SKETCH
					PPG Site 016		EGGATION GRETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	7
8/15/2011	27			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.7'			No				
MEMO:						1	
Cored through ~ 0.	.4' of cond	crete before	advancing with g	eoprobe. Refus	al at 27'		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
		0.0	25.0 - 27.0 As Above (22.7' - 23.6'), dense, moist-wet, no odor (SM)	016_D010_25.0 (25.0' - 25.5')	
_26 _	<u>2.0</u> 2.0	0.0 0.0			_26 _
_27		0.0	End of Boring at 27' b.g.s. (refusal)		_27
_28					_28
_ _29					_ _29
_ _30					_30
_ _31					_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
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_ _ _47					_ _ _47
_ _ _48					_ _ _48
_ _ _49					49
_ 10 _ _50					 50

TŁ					PROJECT NO 117-0509	160.01	Boring No: 016_D012
						016	EGGATION GRETOIT
COMPLETION DATE:				MONITORING DEVICE:		GEOLOGIST / OFFICE:	7
8/16/2011	011 18.5			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 5'					No	
мемо: *Cored thr	*Cored through ~ 0.4' of concrete before advan				е		7
Refusal at 18.5'							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.4	Congrete	SAMPLE SUMMARY	_0
 _1 _ _2		0.0 0.0 0.0	0.4 - 1.2	Concrete  Dark Grayish Brown (2.5Y 4/2) fine SAND, trace silt & very fine sand, little medium-fine subround gravel, medium-dense, moist, no odor (SP)  Dark Gray (5YR 4/1) to Reddish Brown (5YR 4/3) Silty fine SAND, little	016_D012_0.4 (0.4' - 0.9')	_ _1 _ _2
_ _3 _ _4	<u>3.2</u> 4.6*	0.0 0.0 0.0	2.5 - 3.6	medium sand, mica, & schist gravel, dense, moist, no odor (SM) Black (2.5Y 2.5/1) SILT, some fine sand, little medium-coarse subround gray gravel, trace slag & schist gravel, trace fine-medium COPR gravel 3.1' - 3.6', firm, moist, no odor (ML)	016_D012_2.6 (2.6' - 3.1') 016_D012_3.1 (3.1' - 3.6') trace COPR noted 3.1' - 3.6'	_ _3 _ _4
_ _5						_5
_ _6		0.0 0.0 0.0	5.0 - 6.1 6.1 - 6.4	As Above (2.5 - 3.6), no COPR, trace slag & schist gravel, firm, moistwet, no odor (ML) Light Gray (10YR 7/1) to Dark Yellowish Brown (10YR 3/4) sandstone	016_D012_5.0 (5.0' - 5.5')	_ _6
	<u>3.5</u>	0.0 0.0		COBBLES & coarse-fine GRAVEL, little coarse sand, dense, moist-wet, no odor (GW)		
_8 _ _9	5.0	0.0 0.0	6.4 - 7.0 7.0 - 7.4	Very Dark Gray (5Y 3/1) SILT, some very fine sand, little clay, soft, moist-wet, slight sulfurous odor (ML) As Above (6.4' - 7') but Brown (7.5YR 4/3) (ML)		_8 _ _9
_10			7.4 - 8.5	Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells, wet, loost, slight sulfurous odor (SW)		10
		0.0 0.0 0.0	10.0 - 13.0	As Above (7.4' - 8.4'), interbedded with Clayey SILT, little very fine sand, soft, wet, slight sulfurous odor (SW/ML)	016_D012_10.0 (10.0' - 10.5')	_ _11
12  13	<u>5.0</u> 5.0	0.0 0.0 0.0			016_D012_12.5 (12.5' - 13.0') Fill/native soil interface	12  13
13  _14	5.0	0.0 0.0 0.0 0.0	13.0 - 15.0	Dark Gray (5Y 4/1) CLAY, occasional thin (< 1/2") lense of clayey silt, moist-wet, soft, slight sulfurous odor (OH)	at 13'	13  14
_ _15		0.0				_15
_ _16		0.0 0.0 0.0	15.0 - 16.5	As Above (13.0' - 15.0')		_ _16
_ _17 	<u>3.2</u> 3.5	0.0 1.2		As Above (13.0' - 15.0'), but Black (5Y 2.5/1)	016_D012_16.5 (16.5' - 17.0')	
_18		3.6	17.4 - 18.2	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2) PEAT, trace CLAY, soft, moist, strong sulfurous odor (PT)		_18
			End of Bor	ring at 18.5' b.g.s. (refusal)		_ _19
20						_20
21						_ _21
22						_22
23						_23
24						_24
_ _25						_ _25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_D014	
					ME: 016	LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:		
8/17/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 6'				No			
MEMO:							
Cored through ~ 0.	.5' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY	OVM	DUDMEIGTED OVOTEM COULDECODIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
			0.0 - 0.5 Concrete		
_1		0.0	0.5 - 1.0 Brownish Yellow (10YR 6/6) medium-fine SAND, trace medium-fine	016_D014_0.5 (0.5' - 1.0')	_1
_ _2		0.0	subround gravel, trace coarse sand, loose, moist, no odor (SW)	016_D014_1.4 (1.4' - 1.9')	_
_2	2.0	0.0 0.0	1.0 - 1.5 Dark Grayish Brown (10YR 4/2) Silty fine SAND, little gray subround gravel, trace schist gravel, medium-dense, dry, no odor (SM)	016_D014_1.4 (1.4 - 1.9) 016_D014_1.9 (1.9' - 2.4')	_2
_ _3	<u>2.8</u> 4.5*		1.5 - 1.8 As Above (0.5' - 1.0'), mostly fine sand, little white clay (SP)	016_D014_1.9 (1.9 - 2.4) 016_D014_2.4 (2.4' - 2.9')	_3
_5	7.5	0.0	1.8 - 3.4 Very Dark Grayish Brown (10YR 3/2) silty fine SAND, little coarse	trace COPR 2.2' - 2.4'	-
_ _4			subroundgravel gravel & cobbles, trace fine subround COPR gravel 2.2'		_4
_			2.4', trace glass fragments, trace red silstone gravel, medium-dense, dry		
_5			no odor (SP)		_5
_		0.0	5.0 - 5.6 Very Dark Grayish Brown (10YR 3/2) SILT, some fine sand, little coarse-		_
_6		0.0	fine subangular gray gravel, stiff, dry, no odor (ML)		_6
_ <b>7</b>			5.6 - 6.7 Black (10YR 2.5/1) fine-medium SAND, little silt & slag (medium-fine	016 D014 6.5 (6.5' - 7.0')	
_7	4.0	0.0 0.0	subround gravel), wet 6' - 6.7', loose, slight sulfurous odor (SW) 6.7 - 9.0 Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace coarse sand,	016_D014_6.5 (6.5' - 7.0')	_7
_ _8	<u>4.0</u> 5.0	0.0	trace shells, wet, loose, slight sulfurous odor (SW)		_8
_0	0.0	0.0	trace drone, wet, recee, engine curared each (evv)		
_ _9		0.0			_9
_					_
_10					_10
		0.0	10.0 - 10.7 As Above (6.7' - 9.0') (SW)	016_D014_10.0 (10.0' - 10.5')	_
_11					_11
_ _12					_ 12
_12	0.7			Fill/native soil interface not	-12
_ _13	5.0			recovered	_ 13
_					
_14					_14
_15		0.0	45.0. 45.0. Ded Over (0.5)/ 4/4) O''. OLAN (1999) Free and a control of the contr		_15
_ _16		0.0 0.0	15.0 - 15.3 Dark Gray (2.5Y 4/1) Silty CLAY, trace fine sand, wet, soft, slight sulfurous odor (OH)		_ 16
_10		0.0	15.3 - 17.0 Black (5Y 4/1) CLAY, little silt, moist-wet, very soft, strong sulfurous		-10
_ _17		0.0	odor (OH)	016_D014_10.0 (16.5' - 17.0')	17
	<u>4.0</u>	0.0	17.0 - 17.7 Dark Gray (2.5Y 4/1) Silty CLAY, some shells, little peat, soft, moist,	(10.0	
_ _18	5.0	0.0	strong sulfurous odor (OH)		_18
_		0.0	17.7 - 18.6 Greenish Gray (GLEY2 6/10BG) with Brown (7.5YR 5/2) and Reddish		_
_19		0.0	Brown (5YR 4/4) mottling Silty CLAY, little fine sand & gray to red-brown		_19
_			gravel, soft grading to firm, moist, slight sulfurous odor (CL)		
_20		0.0	18.6 - 19.0 Grayish Brown (10YR 5/2) medium-fine SAND, some silt, little clay &		_20
_ 21		0.0 0.0	coarse-fine gray gravel, dense, moist-wet, no odor (SM) 20.0 - 20.2 As Above (18.6' - 18.9')		_ 21
'		0.0	20.0 - 20.2 As Above (16.6 - 16.9) 20.2 - 21.5 Brown (7.5YR 4/4) SILT, some coarse-fine gray/red gravel, little fine sand	d, 016_D014_21.0 (21.0' - 21.5')	
_ 22		0.0	stiff, moist, no odor (ML)	2, 0.0_20.1_2.10 (21.0)	_22
_	<u>3.1</u>		21.5 - 22.3 Reddish Brown (5YR 5/3) Silty fine SAND, little gray medium-fine gravel,		
_23	5.0	0.0	medium-dense, wet, no odor (SM)		_23
			22.3 - 22.6 Reddish Brown (5YR 5/3) coarse-fine SAND, some medium-fine gravel,		_
_24			trace silt, medium-dense, wet, no odor (SW)		_24
_			22.6 - 23.1 As Above (21.5' - 22.3') (SM)		
_25					_25

TETRA TECH GEO						Boring No: 016_D014	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:	]	
8/17/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 6'				No			
MEMO:							7
Cored through ~ 0.	.5' of cond	crete before	advancing with g	eoprobe			

	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 25.9 As Above (21.5' - 22.3') (SM)	SAMPLE SUMMARY 016_D014_25.0 (25.0' - 25.5')	_25
_ _26		0.0		(20.0 20.0)	_ _26
_ _27		0.0 0.0	25.9 - 26.9 Reddish Brown (5YR 5/3) coarse-medium SAND & medium-fine subround gray to red-brown GRAVEL, little fine sand, silt, & coarse		_ _27
_ <b>_</b>	<u>2.8</u>	0.0	gravel, medium-dense, wet, no odor (GM)		_21
_28	<u>2.8</u> 5.0		26.9 - 27.2 Pinkish Gray (7.5YR 6/2) flat sandstone COBBLES, wet, dense, no		_28
_ _29			odor (GP) 27.2 - 27.8 Reddish Brown (5YR 5/3) Silty fine SAND, little medium-fine subangular		_ _29
_ _30			gravel, trace medium sand, dense, moist-wet, no odor (SM)		_ _30
_					<u></u>
_31					_31
_ _32					_32
_ _33					_ _33
_					_
_34					_34
_ _35					_ _35
_ _36					_ _36
_					_
_37					_37
38					_38
_ _39					_ _39
_ _ _40					_
					_40
_41					_41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_					_
_50					_50

TETRATE		RATE			PROJECT NO.: 117-0509160.01		Boring No: 016_D016
I IC	-				PROJECT NAME:		LOCATION SKETCH
COMPLETION DATE TOTAL DEPTH OF DO					PPG Site 016		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:		
8/15/2011	2	2		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"	5' Sleeves, 1.25"			No			
MEMO: *Cored thi	EMO: *Cored through ~ 0.4' of concrete before advancing with geoprobe						
Refusal at 2' (1st a	ittempt), re	e-attempted	twice on 8/23/20	)11, hit refusal a	t 2' on both	attempts	

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
— (i. 661)		()	0.0 - 0.4	Concrete	57 WW 22 55 WW 41 T	
_1	<u>1.2</u>		0.4 - 0.8	Dark Brown (7.5YR 3/3) medium-fine SAND, little medium-fine subround	016_D016_0.4 (0.4' - 0.9')	_1
_ _2	1.6*	0.0	0.8 - 1.3	gravel, trace coarse sand, loose, dry, no odor (SW) Dark Yellowish Brown (10YR 4/4) fine SAND, little silt, some schist		_ _2
_ _3			1.3 - 1.6	gravel, medium-dense, dry, no odor (SM) White (GLEY1 8/N) schist COBBLES & coarse-fine GRAVEL,		_3
_ _4			End of Bo	dense, dry, no odor (GW)  oring at 2' b.g.s. (refusal)		_ _4
_ _5						_ _5
_6						_6
_7						_7
_8						_8
_9 _						_9 _
_10 _						_10
_11						_11
_12						_12
_13						13
_14 _ _15						_14 _ _15
_ 13 _ 16						_13 _ _16
10 _ _17						10  17
_ _ _18						_ _ _18
_ _19						_ _19
_ _20						20
_ _21						_ _21
_ _22						22
23						23
_ _24						_ _24
_ _25						_ _25

TETRA TECH GEO						Boring No: 016_D018	
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
						016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/17/2011	14	14		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'				No			
MEMO:						]	
*Cored through ~ 0	).4' of con	crete before	advancing with	geoprobe. Refus	sal at 14'		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
		()	0.0 - 0.4	Concrete	O, u.m. 22 00 mm u.v.	_ <b>"</b>
_1 _ _2	<u>1.6</u>	0.0 0.0 0.0	0.8 - 2.0	Yellowish Brown (10YR 5/6) medium-fine SAND, trace medium-fine subround gravel & coarse sand, loose, dry, no odor (SW) White/Silver/Reddish Brown schist gravel & mica, dense, dry, no odor (GW)	016_D018_0.4 (0.4' - 0.9')	_1 - _2
_ _3 _ _4	4.6*		,			_ _3 _ 4
_ _ _5						_ _ _5
_ _6		0.0 0.0 0.0	,	Brown (10YR 4/3) coarse-fine SAND, schist GRAVEL, & MICA, dense, wet, no odor (GW) As Above (5.0' - 5.6') but Very Dark Gray (2.5Y 3/1)	016_D018_5.0 (5.0' - 5.5')	_ _6
_ _7 _ _8	<u>1.3</u> 5.0		5.9 - 6.3	Dark Gray (2.5Y 4/1) Silty fine SAND, some medium-fine schist gravel, very wet, very loose, slight sulfurous odor (SM)		7 7 8
_0 _ _9	0.0					_0 _ _9
_ _10		0.0	40.0 40.0	Van Dark Casa (C.5V. 4/4) and an adiabatic action and a survival little for	040 D040 40 0 (40 0) 40 5()	_ _10
_ _11 _		0.0 0.0		Very Dark Gray (2.5Y 4/1) coarse-medium subangular gravel, little fine sand, trace silt, dense, wet, slight sulfurous odor (GP) Very Dark Gray (GLEY1 3/N) schist GRAVEL & MICA, little Dark Gray	016_D018_10.0 (10.0' - 10.5')	_ _11
_12 _ _13	<u>0.8</u> 5.0			(2.5Y 4/1) medium-fine sand, dense, wet, slight sulfurous odor (GP)		_12 _ _13
_13 _ _14						_13  - ]_14
_ _15			End of Bori	ng at 14' b.g.s. (refusal)		_ _15
_ _16						_16
_ _17						_ _17
_ _18						_18
_ _19						_19
_ _20 _						_ _20 _
_ _21 _						_ _21 _
						_ _22 _
 _23 _						_23 _
_24 _						_24 _
_25						_25

TETRA TECH GEO			CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_E005
	PROJECT NAME: PPG Site 016						LOCATION SKETCH
						016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	]	
8/8/2011	30			PID MiniRAE 2000 Jim M. / Whitehouse		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5.0'			No				
MEMO:						1	
*Cored through ~ (	Cored through ~ 0.4' of concrete before advancing with geoprobe						

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
			0.0 - 0.4	Concrete		1_
_1		0.0 0.0	0.4 - 1.3	Yellowish Brown (10YR 5/6) medium SAND, little coarse sand & medium to fine subround gravel, little fine sand, moist, medium-dense, no odor	016_E005_0.4 (0.4' - 0.9')	_1
_ _2	0.0	0.0	12 10	(SP/SW)		_2
_ _3	<u>2.9</u> 4.4*	0.0 0.0	1.3 - 1.9	Olive (5Y 5/3) to Olive Yellow (5Y 6/6) medium-fine SAND, trace slag & gray coarse-fine angular gravel, moist, loose, no odor (SP)		_3
_ _4		0.0	1.9 - 2.2	White to black (GLEY1 8/1 - 2.5/1) coarse-fine schist GRAVEL, COBBLES, & mica, dense, dry, no odor (GW)		_ _4
_ _5			2.2 - 3.3	Dark Gray (5Y 4/1) SILT, little fine sand & gray medium-fine gravel, trace red brick or sandstone gravel, firm, moist, no odor (ML)		_ _5
_			5.0 - 6.3	Dark Greenish-Gray (GLEY1 4/10GY) coarse-fine schist GRAVEL,	016_E005_5.0 (5.0' - 5.5')	
_6 _			6.3 - 7.0	COBBLES, & mica, medium-dense, moist, no odor (GW) Olive Brown (2.5Y 4/3) fine SAND & SILT, trace mica, firm, moist, no		_6 _
_7	<u>3.6</u>	0.0 0.0	7.0 - 8.3	odor (ML) Very Dark Gray (5Y 3/1) CLAY, little organic silt & rootlets, moderate		_7
_8	5.0	0.0 0.0	8.3 - 8.6	plasticity, soft, moist-wet, slight sulfurous odor (OH) Brown (7.5YR 4/2) medium-fine SAND, little coarse sand & fine subround	016_E005_8.1 (8.1' - 8.6')	_8
_ _9		0.0	0.5 - 0.0	gravel, loose, wet, slight sulfurous odor (SW)	010_000_0.1 (0.1 - 0.0)	_9
_ _10						_ _10
_ _11		0.0 0.0		Reddish Brown (5YR 4/3) Silty fine-very fine SAND, trace clay, moist, loose, slight sulfurous odor (SM)		_ _11
_ _12		0.0 0.0	10.2 - 11.7	Gray (2.5Y 5/1) medium SAND, little fine & coarse sand, trace shells & fine subround gravel, loose, wet, slight sulfurous odor (SW)	016_E005_11.3 (11.3' - 11.8')	_ _12
_ 13	<u>3.4</u> 5.0	0.0 0.0	11.7 - 13.4	Gray (5Y 4/1) CLAY interbedded with thin lenses of silty very fine sand & medium-fine sand, moist-wet, soft, moderate plasticity, slight sulfurous	(fill/native soil interface)	_ _13
_ _ 		0.0		odor (OH)		_ _ 14
_						
_15		0.0	15.0 17.6	As Above (11.7' - 13.4'), 15.9' - 16.2': SILT & very fine SAND, some clay,		15
_ _16		0.0	13.0 - 17.0	wet at 15-15.6' and 15.9'-16.2', moist otherwise	016_E005_15.5 (15.5' - 16.0')	_ _16
_ _17		0.0 0.0				-  _17
_ _18	<u>3.8</u> 5.0	0.0 0.0	17.6 - 18.4	Very Dark Gray (5Y 3/1) CLAY, soft, moist, strong sulfurous odor (OH)		_ _18
_ _19		0.0 0.0	18.4 - 18.8	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)		_ _19
				PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor (PT)		20
		0.0 26.5	20.0 - 21.4	As Above (18.4' - 18.8')	016_E005_20.0 (20.0' - 20.5')	
_		4.6	21.4 - 22.7	Greenish Gray (GLEY2 6/10BG) CLAY, trace silt, moderate plasticity,		_
_22 _	<u>2.7</u>	0.6 0.6		soft, moist, slight sulfurous odor (CH), Transitions into Greenish Gray (GLEY2 6/10BG) Clayey fine-very fine SAND, some silt, trace fine		_22
_23	5.0			subround white gravel, soft, moist, no odor (SC)		_23
_ _24						_24
_ _25						_ _25

72	TET	RATE			PROJECT NO.: 117-0509160.01		Boring No: 016_E005
10				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
						016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:	1	
8/8/2011	30			PID MiniRAE 2000 Jim M. / Whitehou		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'				No			
MEMO:		_		_	_		1
*Cored through ~ (	).4' of con	crete befor	e advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	ſ
(Feet)	(feet)	(PPM)	25.0 - 26.7 Greenish Gray (GLEY2 5/10BG) Clayey SILT, firm, moist, no odor,	SAMPLE SUMMARY 016_E005_25.0 (25.0' - 25.5')	1
_ _26			increasing medium-fine sand content with depth (ML)	(20.0 25.5)	_ _26
_ _27			26.7 - 27.8 Gray (7.5YR 5/1) Silty medium-fine SAND, little coarse sand & clay, wet, loose, no odor (SM)		_ _27
_	<u>4.7</u> 5.0				_
_28 _	5.0		27.8 - 28.4 Brown (7.5YR 5/2) Silty fine-very fine SAND, little clay, wet, medium-dense, no odor (SM)		_28 _
_29			28.4 - 29.7 As Above (26.7' - 27.8') but Brown (7.5YR 5/3), little fine subangular to subround gravel, trace medium gravel, loose, wet, no odor (SM)		_29
_30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _ _33					_ _ _33
_					_
_34 _					_34 _
_35					_35
_ _36					_36
_ _37					_ _37
_ _38					_ _38
_ 39					_ _39
 _ _40					40
_41					_41
_42					_42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _ _46					_ _ _46
_					_
_47 _					_47 _
_48					_48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO			CH GEO		117-0509160.01		Boring No: 016_E007 LOCATION SKETCH
COMPLETION DATE: 8/10/2011	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE: Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN			1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:	MEMO:						
*Cored through ~ (	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM		DUDMEISTED SYSTEM SOUL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
			0.0 - 0.5	Concrete  Vollaviah Previn (40VP F/C) modium CAND little seems and fine and	040 5007 05 1/05! 4.0!\	<u>-</u>
_1		0.0 0.0	0.5 - 1.5	Yellowish Brown (10YR 5/6) medium SAND, little coarse sand, fine sand, & fine-medium subround gravel, moist, medium-dense, no odor (SW)	016_E007_0.5 (0.5' - 1.0')	_1
2		0.0	1.5 - 3.0	Dark Gray (5Y 4/1) fine SAND & SILT, some coarse-fine schist gravel &		_ _2
	<u>4.0</u>	0.0	1.5 5.0	mica, moist, firm, no odor (SM/ML)		
_3	4.5*		3.0 - 4.0	Yellowish Brown (10YR 5/6) Silty fine SAND, little clay, mica & schist		_3
		0.0		fragments @ 3.6', Light Brownish Gray (10YR 6/2) Silty CLAY 3.8'-4',		
_4		0.0		medium-dense, moist, no odor (SM)		_4
		0.0				
_5		0.0	F 0 F C	As Above (2.0), 4.0), little mice and askipt maintains and askipt	040 5007 50 (50) 55)	_5
_ _6		0.0 0.0	5.0 - 5.6	As Above (3.0' - 4.0'), little mica and schist, moist-wet, medium-dense, no odor (SM)	016_E007_5.0 (5.0' - 5.5')	_ _6
J_°			5.6 - 7.6	Very Dark Grayish Brown (2.5Y 3/2) SILT, little fine sand, trace clay,		-0
_ _7		0.0	0.0 7.0	firm, moist-wet, no odor (ML)		_ _7
	<u>4.0</u>	0.0		, , ,		
_8	5.0	0.0	7.6 - 8.5	Black (10YR 2.5/1) CLAY, little silt, soft, moderate plasticity, moist,		_8
_		0.0		slight sulfurous odor (OH)		_
_9		0.0	8.5 - 9.0	Brown (7.5YR 4/2) medium-fine SAND, loose, wet, slight sulfurous odor		_9
_ _10				(SP/SW)		- 10
_10		0.0	10.0 - 13.0	Dark Gray (2.5Y 4/1) medium-fine sand, trace coarse sand & shells, wet,		-10
_ _11		0.0	10.0 10.0	loose, slight sulfurous odor (SW)		11
		0.0		Today, original and observed the control of the con		
_12		0.0				_12
_	<u>4.7</u>	0.0				_
_13	5.0	0.0	13.0 - 13.3	Gray (10YR 5/1) SILT, some very fine sand, little clay, soft, moist-wet,	016_E007_12.5 (12.5' - 13.0')	_13
-14		0.0	400 440	slight sulfurous odor (ML)	Fill/native soil interface at 13'	
_14		0.0 0.0		Gray (2.5YR 5/1) fine SAND, little silt, wet, loose, slight sulfurous odor (SM) Dark Gray (2.5Y 4/1) CLAY, little silt, soft, moist, moderate plasticity,		_14
_ _15		0.0	14.0 - 14.7	slight sulfurous odor (OH)		_ 15
		0.0	15.0 - 19.1	Dark Gray (5Y 4/1) CLAY grading to Very Dark Gray (5Y 3/1) CLAY (OH),		
_16		0.0		soft, moist, slight sulfurous odor (OH), wet clayey SILT, little very fine		_16
_		0.0		sand from 15.4' - 16.3' (ML)		_
_17		0.0			016_E007_16.5 (16.5' - 17.0')	_17
	<u>4.6</u>	0.0				
_18	5.0	0.0 0.0				_18
_ _19		0.0	19.1 - 19.6	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)		_ 19
		1.7		PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		
_20				(PT)		_20
- <u>-</u> -		13.0	20.0 - 21.4	As Above (19.1' - 19.6')	016_E007_20.0 (20.0' - 20.5')	
_21		38.9	04.4.00.5	Doub Cross (O.F.V. A/A) CLAV troop oils are breather breather.		_21
_ 22		8.8 6.1	21.4 - 22.5	Dark Gray (2.5Y 4/1) CLAY, trace silt, moderate plasticity, soft, moist, stron sulfurous odor (OH), Transitions into Greenish Gray (GLEY2 6/10BG)		_ 22
	4.0	8.9		Clayey fine-very fine SAND, little silt, soft, moist-wet, strong sulfurous		-22
	<u>4.0</u> 5.0	14.5		odor (SC)		
		4.8	22.5 - 24.0	Greenish Gray (GLEY2 6/10BG) SILT, little clay & fine-very fine sand,		
_24		0.0		little subround gravel, stiff, moist, slight sulfurous odor (ML), Transitions	016_E007_23.5 (23.5' - 24.0')	_24
_				into Dark Bluish Gray (GLEY2 4/5PB) SILT, some cobbles & fine		_
_25				subangular gravel, trace fine sand, little clay, moist, stiff, no odor (ML/GM)		_25

72-	TET	TRATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_E009
						ME: 016	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/7/2011	30	30		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin:	son		Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'				Yes - 016_MW04 (on 8/2/2011)			
MEMO:							
*Cored through ~ 0	).5' of cor	ncrete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(1 661)	(,	(FFIVI)	0.0 - 0.5 Concrete	SAMELE SUMMANT	┨
_1		0.0	0.5 - 0.9 Black (2.5Y 2.5/1) medium-fine SAND, some medium-fine gravel, dense, dry, no odor (SW)	016_E009_0.5	_1
_ _2	2.5	0.0	0.9 - 1.8 Dark Reddish Gray (5YR 4/2) medium-fine SAND, some medium-	fine	_2
_ _3	<u>3.5</u> 4.5*	0.0	subround gravel, trace slag, dense, dry, no odor (SW)  1.8 - 2.5 Dark Greenish-Gray (GLEY1 4/10GY) weathered schist: medium-		_3
_ _4		0.0 0.0	SAND, some mica & schist gravel/cobbles, trace silt, dense, dry, r odor (SP)	016_E009_3.5 3.5' - 4.0'	_ _4
_ _5			<ul><li>2.5 - 4.0 Very Dark Grayish Brown (10YR 3/2) fine SAND, little silt, medium , moist, no odor (SP)</li></ul>		_ _5
_ _6		0.0 0.0	5.0 - 7.5 Brown (7.5YR 4/2) medium SAND, little fine & coarse sand, loose, moist-wet, no odor (SW). Transitions into Dark Brown '(7.5 YR 3/2	2) fine	_ _6
_ _7		0.0 0.0	SAND & SILT, soft, wet, slight sulfurous odor (SM), Transitions int Brown (7.5YR 3/2) SILT, little very fine sand, little clay, firm, moist-		_ _7
_ 8	<u>3.5</u> 5.0	0.0 0.0	slight sulfurous odor (ML)	016_E009_7.0 7.0' - 7.5'	8
_ _ _ 9		0.0			_ _ _9
_ _ _10					10
 		0.0 0.0	10.0 - 11.7 Dark Gray (7.5YR 4/1) medium-fine SAND, trace shells, loose, we slight sulfurous odor (SP)	et,	
 _ _12		0.0	11.7 - 15.0 Dark Gray (5Y 4/1) Silty CLAY, occasional thin (< 1/2") lenses of	016_E009_11.2 11.2' - 11.7' (fill/native soil interface)	12
 _ 13	<u>5.0</u> 5.0	0.0	little fine sand, trace shell fragments, soft, moderate to highly plast moist-wet, slight sulfurous odor (OH)	, · · · · · · · · · · · · · · · · · · ·	13
_10  -   14	0.0	0.0 0.0	most wet, slight salidrous each (OTI)		14
- <sup>14</sup>  -   15		0.0 0.0 0.0			- ' <sup>-</sup>  -   15
_13		0.0	15.0 - 17.4 As Above (11.7' - 15.0') (OH)		<del> -</del> '3
_ _16		0.0 0.0		016_E009_15.5	_16
_ _17	<u>4.3</u>	0.0	17.4 - 18.5 As Above (11.3' - 13.8'), hue change to Black (5Y 2.5/1), strong		_17
_ _18	5.0	0.0 0.0	sulfurous odor (OH)  18.5 - 19.3 Dark Brown (10YR 3/3) PEAT, little Dark Gray (5Y 4/1) CLAY, soft	<b>,</b>	18
_ _19		0.0	low plasticity, moist, strong sulfurous odor (PT)	ν,	_19
_ _20		0.0	20.0 20.7 As Above (49.5) 40.2\\ (DT\)	046 5000 20 0 20 0 20 5	
_ _21		0.0	20.0 - 20.7 As Above (18.5' - 19.3') (PT) 20.7 - 22.5 Greenish Gray (GLEY2 5/5BG) Silty CLAY, soft, low to moderate	016_E009_20.0	_ _21
_ _22		0.0	plasticity, moist, slight sulfurous odor (CL), transitions into Greenis Gray (GLEY2 6/5BG) SILT, some fine to very fine sand, little clay,	coarse	22
_ _23	<u>2.5</u> 5.0	0.0	gravel in bottom of sleeve, moist (21' - 22') to dry (22' - 22.5'), firm odor (ML)	, no	23
_ _24					24
_ _25					_ _25

TŁ	TET	TRA TI	<b>CH</b> GEO		PROJECT NO 117-0509	160.01	Boring No: 016_E009
						016	
COMPLETION DATE:	N DATE: TOTAL DEPTH OF BOREHOLE:		OLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	]
7/7/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING METHOD / BIT:		1
EPI \ Warren Atkin	son		Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					Yes - 016_MW04 (on 8/2/2011)		
MEMO:							1

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_25
_	(icely	0.0	25.0 - 27.3 As Above (21' - 22.5'), but with little fine-coarse subround gravel (ML)	016_E009_25.0 25.0 - 25.5	Ī_
_26 _		0.0 0.0	Transitions to Weak Red (2.5YR 4/2) SILT, little fine sand and fine-coarse subround gravel, trace round cobbles, stiff, moist, no odor (ML)		_26 _
_27 _	<u>2.3</u>	0.0			_27
_28	<u>2.3</u> 5.0				_28
_ _29					_29
_ _30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32			016_MW04 Well Information: 016_MW04 installed on 8/2/11 using 8" hollow stem augers equipped on a		_ _32
_ _33			geoprobe track rig		
_ _ _34			2-inch diameter 10-slot SCH40 PVC screen set at 5.0' - 10.0' bgs. 2-inch diameter SCH40 PVC riser from 5.0' bgs. to surface		34
_			#1 Sand from 3.0' to 10.0' bgs.		
_35 _			Cement-bentonite grout from 3.0' to 0.5' Flush-mount completion, cement around outer casing 0.5' to surface		_35
_36 _			DTW: 4.10 b.g.s. measured on 8/30/11		_36
_37					_37
_ _38					_38
_ _39					39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ 43
_ _44					_ 44
 _ _45					45
_					
_46 					_46
_47 _					_47 _
_48					_48
_ _49					_49
_ _50					_ _50

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_E011	
			San Karana and Andrews	PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/16/2011	30	30		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.1'				No			
MEMO:							]
*Cored through ~ 0	Cored through ~ 0.7' of concrete before advancing with geoprobe						

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(leet)	(PPM)	0.0 - 0.7	Concrete	SAMPLE SUMMARY	_0
 _1 _ _2		0.0 0.0 0.0	0.7 - 1.5	Light Olive Brown (2.5Y 5/3) fine SAND, little silt, little Light Gray (2.5Y 7/1) coarse-medium subround gravel, red (2.5YR 4/6) sandstone cobbles 1.2'-1.5', medium-dense, no odor (SM)	016_E011_0.7 (0.7' - 1.2')	_ _1 _ _2
_ _3 _ _4 _ _ _5	<u>3.2</u> 4.3*	0.0 0.0 0.0	1.5 - 2.4 2.4 - 2.6 2.6 - 3.1 3.1 - 3.9	Grayish Brown (2.5Y 5/2) grading to Very Dark Gray (7.5Y 3/1) SILT, some fine sand, little clay, trace mica & gravel, moist, soft (ML) Pale Olive (5Y 6/3) fine SAND, little medium sand, moist, loose (SP) As Above (1.5' - 2.4'), 7.5Y 3/1 Very Dark Brown (10YR 2/2) SILT, some fine sand, little clay, 25% fine-medium COPR gravel throughout, wet, soft, no odor (ML)	016_E011_2.6 (2.6' - 3.1') 016_E011_3.1 (3.1' - '3.9') 25% COPR noted 3.1' - 3.9'	_ _3 _ _4 _ _5
_ _6 _ _7		0.0 0.0 0.0 0.0	5.0 - 7.2	As Above (3.1' - 3.9'), but Very Dark Grayish Brown (10YR 3/2), 25% fine-medium COPR gravel throughout, wet, soft, no odor (ML)	016_E011_5.0 (5.0' - 5.5') 25% COPR noted 5.0' - 7.2'	_ _6 _ _7
_ _8 _ _9 _ _10	<u>4.1</u> 5.0	0.0 0.0 0.0 0.0	7.2 - 7.9 7.9 - 9.1	Brown (7.5YR 4/2) fine-very fine SAND, trace silt, loose, wet, slight sulfurous odor (SP)  Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW)	016_E011_7.2 (7.2' - 7.7')	_ _8 _ _9 _ _10
	<u>4.3</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	12.7 - 13.8	As Above (7.9' - 9.1)  Dark Gray (5Y 4/1) CLAY, occasional thin (<1/2") lenses of silty fine sand, mosit-wet, soft, slight sulfurous odor (OH)  Dark Gray (5Y 4/1) Silty fine-very fine SAND, wet, loose, slight sulfurous	016_E011_12.2 (12.2' - 12.7') Fill/native soil interface at 12.7'	 11  12
_ _15			15.0 - 20.0	odor (SM)  No Recovery		_ 15
_ _16 _ _ 17			10.0 20.0	The Receivery		_ _16 _ 17
 _ _18	<u>0.0</u> 5.0					18
_ _19 						_ _19 
_20 _ _21 _ _22		5.6 1.3 0.0 0.0		Dark Brown (10YR 3/3) PEAT, trace CLAY, soft, low plasticity, moist, strong sulfurous odor (PT) Greenish Gray (GLEY2 6/5BG) clayey fine-very fine SAND, little silt, trace coarse-fine subround gravel, dense, moist, no odor (SC)	016_E011_20.0 (20.0' - 20.5')	20  _21  _22
_ _23 _	<u>2.1</u> 5.0	0.0		and the same same graves, as not, motor, no oder (50)		23
_24 _ _25						_24 _ _25

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_E011
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		OLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/16/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD: DEPTH TO GROUNDWATER		OUNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?		
5' Sleeves, 1.25" ~ 3.1'				No			
MEMO:							]
*Cored through ~ (	).7' of con	crete before	e advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY
_ _26 _	(iooi)	0.0 0.0 0.0 0.0	25.0 - 25.2 Gray (2.5 YR 5/1) Silty fine SAND, trace medium sand & clay, wet, medium-dense, no odor (SM) 25.2 - 27.7 Reddish Brown (5YR 5/4) Silty fine-medium SAND, some coarse sand &	016_E011_25.0 (25.0' - 25.5')
_27 _ _28	<u>2.7</u> 5.0	0.0	fine subangular gravel, trace medium gravel, wet, loose, no odor (SM), Transitions into Brown (7.5YR 4/3) SILT, little fine sand & fine subangular gravel, dense, moist, no odor (ML)	-
_ _29 _				-
_30			End of Boring at 30' b.g.s.	
_31				
 _32 _				
_33				-
_34				
_ _35				-
_36				_
37				
38				_
_ _39				-
_ _40				
_ _41				
_ _42				
_ _43				_
_ _44				-
_ _45				
_ _46				
_ _47				
_ _48				-
_ _49				-
_ _50				_

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_E013
						LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE ELEVATION: WELL INSTALLED?		1	
5' Sleeves, 1.25" ~ 3.0'					No		
MEMO:							
*Cored through ~ (	).5' of con	crete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
_			0.0 - 0.5 Concrete		7_
_1 _ _2 _ _ _3	<u>2.8</u> 4.5*	0.0 0.0 0.0 0.0 0.0	<ul> <li>0.5 - 1.0 Dark Grayish Brown (2.5Y 4/2) fine SAND, little coarse-fine schist gr &amp; mica, trace silt, medium-dense, dry, no odor (SP)</li> <li>1.0 - 1.3 Brownish Yellow (10YR 6/6) medium-fine SAND, little medium-fine subround gravel, trace coarse sand, medium-dense, dry, no odor (SVery Dark Grayish Brown (2.5Y 3/2) fine SAND, little medium sand 8</li> </ul>	W)	-
.5 _4 _5	4.5	0.0	schist gravel, medium-dense, dry, no odor (SP)  2.3 - 3.4 Dark Grayish Brown (2.5Y 4/2) SILT, little very fine sand & clay, root 3' - 3.3', soft, moist 2.3'-3', moist-wet 3' - 3.4', no odor (ML)		-  -  -
		0.0	5.0 - 5.6 Dark Brown (10YR 3/3) PEAT, little silt, some rootlets, very soft, wet	, 016_E013_5.0 (5.0' - 5.5')	-
6		0.0	strong sulfurous odor (PT)	,	
		0.0	5.6 - 5.8 Very Dark Gray (2.5Y 3/1) CLAY, soft, moist, slight sulfurous odor (C	DH)	
7		0.0	5.8 - 5.9 Very Dark Grayish Brown (2.5Y 3/2) coarse-medium SAND, little gra	vel,	-
-	<u>3.3</u>	0.0	loose, wet, slight sulfurous odor (SW)		-
8	5.0	0.0	5.9 - 6.3 Very Dark Grayish Brown (2.5Y 3/2) SILT, some very fine sand, soft		- [.
			wet, slight sulfurous odor (ML)	016_E013_7.8 (7.8' - 8.3')	
9			6.3 - 8.3 Dark Gray (2.5Y 4/1) medium SAND, little fine & coarse sand, trace		-
			gravel & shells, wet, loose, slight sulfurous odor (SW)		-
10					4
		0.0	10.0 - 11.0 As Above (6.3' - 8.3'), but Dark Grayish Brown (10YR 4/2)		
11		0.0	11.0 - 11.5 Dark Gray (2.5Y 4/1) Clayey SILT, little very fine sand, wet, soft, slig	ht	
		0.0	sulfurous odor (ML)		
12		0.0	11.5 - 12.0 Brown (7.5YR 4/2) coarse SAND & fine subround GRAVEL,some	016_E013_11.5 (11.5' - 12.0')	)
	<u>3.6</u>	0.0	medium sand, little medium gravel, loose, wet, slight sulfurous odor	` '	
13	5.0	0.0	12.0 - 13.6 Dark Gray (5Y 4/1) CLAY, occasional thin (< 1/2") lense of silty fine t	0	
		0.0	very fine sand, soft, moist, slight sulfurous odor (OH)		
14					
					-
15		0.0	45 0 40 4 As Abs. (40) 40 C/\ (OLI)		┵
16		0.0 0.0	15.0 - 16.4 As Above (12' - 13.6') (OH)		-
10		0.0	16.4 - 17.6 As Above (12' - 13.6'), but Very Dark Gray (5Y 3/1) (OH)	016_E013_16.0 (16.0' - 16.5')	Ţ
17		0.0	10.7 - 17.0 AS ADOVE (12 - 13.0), DUL VELY DAIK GLAY (31 3/1) (OIT)	010_2013_10.01(10.0 - 10.5)	'
17	3.7	0.0	17.6 - 17.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, fine sand, & shel	le l	ŀ
18	<u>3.7</u> 5.0	0.0	soft, moist-wet, slight sulfurous odor (OL)	13,	ŀ
10	5.0	6.9	17.8 - 18.6 Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YF	3 3/2)	ŀ
19		0.9	PEAT, trace Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous	·	
			(PT)		ŀ
20			\' '/		
		0.0	20.0 - 21.4 Greenish Gray (GLEY2 6/5BG) Clayey SILT, little fine sand, soft, we	t, 016_E013_20.0 (20.0' - 20.5')	7
21		0.0	no odor (ML) Transitions to clayey fine SAND, little silt, trace gravel,	-,	<u> </u>
		0.0	medium-dense, wet, no odor (SC)		
22		0.0	21.4 - 23.6 Brown (7.5YR 4/3) SILT, little clay & medium-fine subangular gravel,		
•	<u>3.6</u>	0.0	trace fine-very fine sand, soft, moist-wet, no odor (ML)		
23	<u>5.0</u> 5.0	0.0	, and a second construction of the constructio		
•		0.0			
24		-			
-					
25					

TŁ	TET	RATE	CH GEO		PROJECT NO 117-0509	9160.01	Boring No: 016_E013
					PPG Site 016		ECCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE		DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:		
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE ELEVATION: WELL INSTALLED?		WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.0'					No		
MEMO:							
*Cored through ~ (	).5' of cor	crete before	advancing with	geoprobe			

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_25
(Feet)	(166t)	(PPM)	25.0 - 30.0 No Recovery	SAMPLE SUMMARY No sample - no recovery	
_26 _					_26
_ _27	0.0				_27
_ _28	<u>0.0</u> 5.0				_28
_ _29					_29
_ _30					
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					
_ _33					
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

77-	TET	RATE	CH GEO		PROJECT NO 117-0509	160.01	Boring No: 016_E015
					PROJECT NA PPG Site (		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	-
8/12/2011	12			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5'					No		
МЕМО:		_					
*Cored through ~ 0	).5' of con	crete before	advancing with	geoprobe. Refus	sal at 12' - r	no more borings attempted	

DEPTH	RECOVERY	OVM	DUDMEIOTED OVOTEM COULDECORUSTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.5 Concrete	040 5045 0 5 1/0 51 4 01	<b>-</b> _
_1		0.0 0.0	0.5 - 0.7 White (10YR 8/1) subround medium-coarse GRAVEL & Yellowish Brown (10YR 5/6) medium-fine sand, little coarse sand, loose, dry, no odor (GP)	016_E015_0.5 (0.5' - 1.0')	_1
_ _2			0.7 - 0.8 Dark Gray (2.5Y 4.1) coarse-fine schist GRAVEL & mica (SW)		_2
_ 	3.0		0.8 - 1.1 Reddish Brown (5YR 5/4) fine SAND, little silt, some siltstone cobbles,		_
_3	4.5*	0.0	medium-dense, dry, no odor (SM)		_3
		0.2	1.1 - 2.0 Very Dark Gray (2.5Y 4/1) fine SAND, little silt & medium sand, some		
_4			subround to subangular coarse-fine gravel & cobbles, medium-dense, dry, no odor (SM)		_4
_ _5			2.0 - 2.2 Black coal fragments, dry, loose, slight hydrocarbon odor (GW)		_ _5
_			2.2 - 3.5 Dark Gray (2.5Y 4/1) fine SAND, trace medium sand, loose,	016_E015_5.0 (5.0' - 5.5')	]_
_6		39.8	moist, slight hydrocarbon odor 3' - 3.5' (SP)		_6
_ _7		174.0 13.0	5.0 - 7.3 Dark Gray (2.5Y 4/1) fine SAND, little medium sand, trace coarse sand & gravel, wet, loose, strong hydrocarbon odor, (SW/SP) Transitions into		_ _7
_ <b>'</b> 	2.3	1.8	medium SAND, little fine sand, trace shells, coarse sand, & gravel, wood		-'
_ _8	5.0		fragments 6.7'-6.8', wet, loose, strong petroleum odor (SW/SP)		_8
ı— _					_
_9					_9
_ _10					_ _10
<u></u> 		0.3	10.0 - 10.5 Dark Gray (2.5Y 4/1) medium SAND, little coarse sand, trace fine gravel	016_E015_10.0 (10.0' - 10.5')	
_11	<u>1.0</u>	0.0	& shells, wet, loose, slight petroleum odor (SW)		_11
	2.0		10.5 - 10.8 Dark Gray (2.5Y 4/1) CLAY, some silt, soft, moist, slight sul. odor (OH)		
_12			10.8 - 11.0 White (2.5Y 8/1) SAND, GRAVEL, & COBBLES (GW)  End of Boring at 12' b.g.s. (Refusal)		_12
_ _13					_13
<b> </b> —					_
_14					_14
_ 15					_ _15
_10					
_ _16					_16
_17					_17
_ _18					_ 18
_ 					
_19					_19
_ 20					_ _20
_20 I					
_ _21					_21
I <sup>-</sup>					
_22					_22
_ _23					_ _23
_24					_24
_25					_25

TE	TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_E017
				PPG Site 016			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:	1	
8/15/2011	8	8		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / B		ETHOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'			No				
MEMO: Refusal at 3' (1st attempt), then at 8' (2nd attempt)					1		
*Cored through ~ 0	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(leet)	(PPM)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	0
 _1 		0.0	0.5 - 1.1	Yellowish Brown (10YR 5/4) medium-fine SAND, little medium-fine subround gravel, moist, loose, no odor (SW)	016_E017_0.5 (0.5' - 1.0')	_ _1 
_2	<u>2.4</u>	0.0 0.0	1.1 - 1.3	Gray (10YR 6/1) mottled Yellowish Brown (10YR 5/6) Silty CLAY, some very fine sand, firm, moist, low plasticity, no odor (CL)		_2
_3	4.5*	0.0	1.3 - 1.8	Dark Yellowish Brown (10YR 4/4) SILT & very fine sand, little/some mica & schist fragments, firm, moist, no odor (ML)		_3
_ _4 _			1.8 - 2.9	Silver/Yellow-Brown/Black medium-coarse schist GRAVEL, COBBLES, and mica, dense, dry, no odor (SW)		_4 _4
_5		0.0	5.0 - 6.6	Dark Gray (5Y 4/1) coarse-medium subangular-angular GRAVEL, some	016_E017_5.0 (5.0' - 5.5')	_5
_ _6	<u>1.6</u>	0.0 0.0 0.0	5.0 - 6.6	coarse sand & fine gravel, little medium-fine sand & silt, loose, wet, no odor (GM)	016_E017_5.0 [(5.0 - 5.5)	_6
_ _7	3.0					_7
_ _8						_ _8
_ _9			End of Bo	oring at 8' b.g.s. (Refusal)		_ _9
_ _10						_10
_ _11						
_ _12						12
_ _13						13
_ _14						_ _14
_ _15						_ _15
_ _16						16
_ _17						17
_ _18						_ _18
_ _19						_ _19
_ _20						20
_ _21						21
_ _22						22
_ _23						23
_ _24						24
_ _25						_ _25

77	TET	RATE	CH GEO	PROJECT NO.: 117-0509160.01		Boring No: 016_E019 / 016_MW01	
IC					PROJECT NA		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:		
8/22/2011	12.5	12.5		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	NG EQUIPMENT:		THOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					Yes - 016_MW01		
MEMO:							
*Cored through ~ (	0.6' of cor	ncrete before	e advancing with	geoprobe. Refus	sal at 12.5'		

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_ _1		0.0	0.0 - 0.6 Concrete  0.6 - 1.0 Yellowish Brown (10YR 5/4) fine-very fine SAND, little silt, trace medium-fine subround gravel, moist-wet (from coring), loose, no odor (SM)	016_E019_0.6 (0.6' - 1.1')	_ _1
_ _2	<u>1.2</u>	0.0	1.0 - 1.4 Light Bluish Gray (GLEY2 8/5PB) coarse-fine schist GRAVEL, some mica & medium-coarse quartz sand, dense, dry, no odor (GW)		_ _2
_ _3	4.4*		1.4 - 1.8 Dark Grayish Brown (10YR 4/2) silty fine-very fine SAND, trace clay, trace schist gravel, medium-dense, moist, no odor (SM)		_3
_ _4			trace cornet graver, meatain defree, molet, ne caer (cm)		_4
_ _5					_5
_ _6		0.0 0.0	5.0 - 5.4 Brown (7.5YR 4/2) SILT, fine SAND, & schist GRAVEL, medium-dense, wet, no odor (GM)	016_E019_5.0 (5.0' - 5.5')	_ _6
_ _7		0.7	5.4 - 6.0 Very Dark Gray (2.5Y 3/1) medium-coarse sandstone GRAVEL & COBBLES, some coarse-fine sand, little schist & mica, trace silt,		_ _7
_ _8	<u>1.7</u> 5.0		medium-dense, wet, no odor (GW) 6.0 - 6.2 Greenish Gray (GLEY2 6/5BG) CLAY, firm, moist, slight sulfurous odor (CH or OH)		_ _8
_ _9			6.2 - 6.7 Very Dark Gray (2.5Y 3/1) PEAT & organic SILT, little clay, trace shell fragments, very soft, moist, strong sulfurous odor (PT)		_9
_ _10			magnicitis, very sort, moist, strong sundrous odor (1-1)		_10
_ _11	<u>1.3</u>	1.5 0.0	10.0 - 10.7 As Above (6.2' - 6.7') (PT) 10.7 - 11.3 Greenish Gray (GLEY1 3/10GY to 6/10GY) coarse-fine schist GRAVEL,	016_E019_10.0 (10.0' - 10.5')	_ _11
_ _12	5.0		some Very Dark Gray (2.5Y 3/1) PEAT & organic SILT, dense, moist, slight sulfurous odor (GM)		_ _12
_ _13			End of Boring at 12.5' b.g.s. (Refusal)		_ _13
_ _14			016_MW01 Well Information:		_ _14
_ _15			016_MW01 installed on 8/22/11 using 8" hollow stem augers equipped on a geoprobe track rig		_ _15
_ _16			2-inch diameter 10-slot SCH40 PVC screen set at 4.5' - 9.5' bgs. 2-inch diameter SCH40 PVC riser from 4.5' bgs. to surface		_ _16
_ _17			#1 Sand from 2.5' to 10.0' bgs.  Cement-bentonite grout from 2.5' to 0.5'		_ _17
_ _18			Flush-mount completion, cement around outer casing 0.5' to surface		_18
_ _19			DTW: 4.10' bgs on 8/23/2011		_19
_ _20					_20
_ _21					_21
_ _22					_22
_ _23					_23
_ _24					_24
_ _25					_ _25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_F005	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	ON DATE: TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1	
7/8/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.3'				No			
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	0.0 - 0.8 Brown (10YR 5/3) grading to very Dark Grayish Brown (10YR 3/1) fin	SAMPLE SUMMARY e- 016_F005_0.0 (0.0' - 0.5')	_0
_1		0.0 0.0 0.0	medium SAND, trace coarse gray angular gravel, loose to medium de , dry, no odor (SP)	` '	_ _1
2	<u>4.4</u>	0.0	0.8 - 2.3 Reddish Brown (2.5YR 4/3) fine-medium SAND, little subround to subangular gravel, moist, medium-dense, moist-wet at 2.3', no odor (	016_F005_1.6 (1.6' - 2.1') SP) 016_F005_2.1 (2.1' - 2.6')	_ _2
_3	5.0		2.3 - 4.4 Very Dark Grayish Brown (10YR 3/2) medium SAND, little fine sand, trace coarse sand & silt, 80% COPR from 1.6' - 2.1', loose to medium	, , , ,	_ _3
_ _4		0.0	dense, moist-wet, no odor (SP)	00% COFIC Hoteu 1.5 - 2.1	_ _4
_ _5					_ _5
_ _6		0.0 0.0	5.0 - 5.4 Reddish Brown (5YR 4/3) medium-fine SAND, little coarse sand, trac silt, loose, moist-wet, no odor (SW)	e 016_F005_5.0 (5.0' - 5.5')	_ _6
_		0.0	5.4 - 6.1 Dark Gray (2.5YR 4/1) medium SAND, some fine sand, trace clay & s	silt	_
_7	1.1		stringers, loose, moist-wet, slight sulfurous odor (SP)		_7
_8	<u>1.1</u> 5.0				_8
_ _9					_ _9
10					_ _10
_ _11		0.0	10.0 - 10.2 As Above (5.4' - 6.1') 10.2 - 14.6 Dark Gray (5Y 4/1) CLAY, little silt, high plasticity, soft, moist,	016_F005_10.0 (10.0' - 10.5') Fill/native soil interface at	_ _11
_ _12		0.0	slight sulfurous odor (OH)	10.5'	_ _12
_ _13	<u>4.6</u> 5.0	0.0			_ _13
_ _14		0.0		242 5225 442 (442) 445)	_ _14
_ _15		0.0		016_F005_14.0 (14.0' - 14.5')	_ _15
_ _ _16		0.0 0.0	15.0 - 16.3 Black (5Y 2.5/1) CLAY, trace peat, soft, high plasticity, moist, slight sulfurous odor (OH)		_ _ _16
_ _ _17		1.2 1.7	16.3 - 18.1 Very Dark Grayish Brown (10YR 3/2) to Dark Yellowish Brown (10YR PEAT, little Dark Gray (5Y 4/1) CLAY throughout, soft, high plasticity,		 _ _17
_	<u>3.1</u>	8.8	moist, strong sulfurous odor (PT)		_
_18	5.0	12.2			_18 _
_19					_19
_20		0.0	20.0. 20.5. Vorus Dords Cross (5V.0/4) Ol AV, transport and best to U.S.	040 5005 00 0 (00 0) 00 50	_20
_ _21		0.0	20.0 - 20.5 Very Dark Gray (5Y 3/1) CLAY, trace peat, moderate to high plasticity, soft, moist, slight sulfurous odor (OH)	016_F005_20.0 (20.0' - 20.5')	_ _21
_ _22		0.0	20.5 - 22.1 Greenish Gray (GLEY2 5/5BG) CLAY, little very fine sand, low plastic grades from soft to stiff, moist, no odor (CL)	eity,	_ _22
_ _23	<u>3.5</u> 5.0	0.0	22.1 - 22.5 Dark Reddish Gray (5YR 4/2) medium SAND, some fine sand, little round cobbles & coarse round sand, medium dense, wet, no odor (SI		_ _23
_ _24		0.0	22.5 - 23.5 Dark Reddish Gray (5YR 4/2) SILT, little coarse-fine subround gravel stiff, moist, no odor (ML)	, 016_F005_23.0 (23.0' - 23.5')	_ _24
_ _25					_ _25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_F005	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			=				4
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/8/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.3'		No					
MEMO:							1

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	7.
(Feet)	(leet)	(PPM) 0.0	25.0 - 28.7 As Above (22.5' - 23.5'), little medium-fine sand throughout (ML)	SAMPLE SUMMARY	
_26 _		0.0 0.0			_26
_ _27	3.7	0.0 0.0			_27
_ _28	<u>3.7</u> 5.0	0.0 0.0			28
_ _29		0.0			29
_ _30					
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _ _47					_ _ _47
_ _ _48					_ _ _48
_ 10 _ _49					13
_					49  50
_50					_50

TETRA TECH GEO					Boring No: 016_F005a		
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1
8/8/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3'					No		
MEMO: Cored through ~ 0.4' of concrete before advancing with geoprobe							
*Refusal @ 3.3' 1s	t attempt,	3.7' on 2nd	attempt (sample	d 0.4' - 0.9'), adv	ance direc	tly to 5' on third attempt	

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	c
(1 001)	, ,	(1 1 111)	0.0 - 0.4	Concrete	O/WII EE GOMMART	1_,
		0.0	0.4 - 1.5	Yellowish Brown (10YR 5/6) medium SAND, little coarse sand & fine-	016_F005a_0.4 (0.4' - 0.9')	1_′
_		0.5		medium subround quartz gravel, little fine sand, dry, medium-dense, no	(taken from second step-out)	_
_2		8.0		odor (SW)		_2
-	<u>3.3</u>	1.6	1.5 - 3.7	Dark Gray (2.5Y 4/1) fine SAND & SILT, trace medium-fine subangular		-
.3	3.3*	1.5		gravel, trace mica, moist, moist-wet 3'-3.7', abundant schist gravel 3.4'-		-
		1.8		3.7', dense, no odor (ML)		-
_4		3.1				-
- 5						
<u>.</u>		0.0	5.0 - 5.3	Silver to Dark Grayish Brown (10YR 4/2) coarse-fine schist GRAVEL,	016_F005a_5.0 (5.0' - 5.5')	╢
6		0.0	0.0 0.0	COBBLES, and mica, dense, dry, no odor (GW)	(taken from third step-out)	
,•			5.3 - 8.0	Dark Gray (2.5Y 4/1) fine SAND & SILT, trace mica, moist, firm, no odor,	(tanon nom time stop sat)	
_ _7		0.8		(ML), Transitions into Very Dark Gray (5Y 3/1) CLAY, trace silt, lense of		
	<u>3.3</u>	0.0		gray fine sand 6.6'-6.8', black organic silt & rootlets 7'-8', wood fragments		
_8	5.0	0.0		(with slight hydrocarbon odor) at 7.3', moderate plasticity, soft, moist-wet,		_{_{8}_{-}}
-				slight sulfurous odor (OH)		L
9			8.0 - 8.3	Brown (7.5YR 4/2) fine SAND, some medium sand, little coarse sand &		_
_				fine subround gravel, loose, wet, slight sulfurous odor (SW)		-
10			100 100			<u> </u> -
		0.0		As Above (8'-8.3'), little silt, trace medium sand & shells		-
11		0.0	10.6 - 12.1	Gray (2.5Y 5/1) medium SAND, little fine & coarse sand, trace shells &		-
12		0.0 0.0		fine subround gravel, loose, wet, slight sulfurous odor (SW)		
_12	15	0.0	121 - 127	Dark Grayish Brown (10YR 4/2) Silty fine-very fine SAND, loose, wet,		H
13	<u>4.5</u> 5.0	0.0	12.1 - 12.7	slight sulfurous odor (SM)	016_F005a_12.2 (12.2' -12.7')	
_10	0.0	0.0	127-145	Dark Gray (5Y 4/1) CLAY, trace silt, occasional thin fine-very fine sand	(fill/native soil interface)	
14		0.0	12	lenses, very soft, moist-wet, slight sulfurous odor (OH)	(taken from third step-out)	
_		0.0		, , , , , , , , , , , , , , , , , , , ,		
15						
-		0.0	15.0 - 18.4	As Above (12.7' - 14.5'), wet 15' - 15.7', SILT & fine SAND 17' - 17.3', hue		_
16		0.0		change to Black (5Y 2.5/1) 18.3' - 19.4' (OH)		
		0.0			016_F005a_16.0 (16.0' -16.5')	-
1/		0.0			(taken from third step-out)	-
18	<u>4.4</u> 5.0	0.0				<u> </u>
10	5.0	0.0 0.0				-
19		0.0				
.10		0.0				-
20		0.0				
		10.3	20.0 - 22.4	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)	016_F005a_20.0 (20.0' -20.5')	1
21		7.7		PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor	(taken from third step-out)	
_		3.1		(PT)		
22		1.4	22.4 - 23.0	Very Dark Gray (10YR 3/1) CLAY, trace silt, soft, moderate plasticity,		
_	<u>3.6</u>	0.5		moist, strong sulfurous odor (OH)		L
23	5.0	0.0	23.0 - 23.6	Greenish Gray (GLEY2 5/5BG) Silty CLAY, moderate plasticity, soft,	<u></u>	_
		0.0		moist, no odor (CH)	016_F005a_23.1 (23.1' -23.6')	
_24					(taken from third step-out)	-
25						1_

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_F007	
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:		DLE:	_		GEOLOGIST / OFFICE:		
8/9/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD		ETHOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.2'			No				
MEMO:							
Cored through ~ 0.	.6' of cond	crete before	advancing with g	eoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
( )		,	0.0 - 0.6	Concrete		
1		0.0 0.0	0.6 - 1.5	Yellowish Brown (10YR 5/6) medium SAND, little coarse sand & medium- fine subround gravel, little fine sand, moist, medium-dense, no odor (SW)	016_F007_0.6 (0.6' - 1.1')	_1
_ _2		0.0	1.5 - 2.2	Dark Grayish Brown (10YR 4/2) fine SAND & SILT, little medium-fine ang.		_2
_ _3	<u>3.0</u> 4.4*	0.0 0.0	2.2 - 2.5	gray gravel & coal, trace mica, medium-dense, dry, no odor (ML)  Dark Gray (5Y 4/1) schist GRAVEL, COBBLES, & mica (GW)		_3
_		0.0	2.5 - 2.7 2.7 - 3.2	Olive Yellow (2.5Y 6/6) medium SAND, loose, moist, no odor (SP)		_
_4 _			3.2 - 3.6	As Above (2.2'-2.5') but with fine SAND & SILT, moist, medium-dense (GM) Dark Grayish Brown (10YR 4/2) fine-very fine SAND, some silt, medium-		_4
_5				dense, moist-wet, no odor (SM)	I	_5
_ _6		0.0	5.0 -6.5	As Above (3.2' - 3.6'), Transitions into medium-fine SAND, little coarse sand, trace shells, loose, wet, slight sulfurous odor (SW)	016_F007_5.0 (5.0' - 5.5')	_ _6
_		0.0	0.5.74	Durante (7.5VD 4/0) assure for a CAND trace about 9 for a substantial arrange		
_7	<u>2.4</u>	0.0 0.0	6.5 - 7.4	Brown (7.5YR 4/2) coarse-fine SAND, trace shells & fine subround gravel, wet, loose, slight sulfurous odor, zone of fine-very fine silty SAND, little		_7
_8	5.0	0.0		clay, from 6.6' - 6.8', Transitions into Dark Gray (7.5YR 4/2) by 7.2' (SW)		_8
_ _9						_ _9
_ _10						_ _1(
_ 11		0.0 0.0	10.0 - 12.0	Dark Gray (2.5Y 4/1) coarse-medium SAND, little fine sand, trace shells & fine gravel (SW), Transitions into fine-very fine SAND, little silt, wet, loose,		_ _11
		0.0		slight sulfurous odor (SM)		_
_12	<u>4.2</u>	0.0 0.0	12.0 - 14.2	Dark Gray (5Y 4/1) CLAY, fine sand & silt 13'-13.5' and at 14', soft, moderate plasticity, moist-wet, no odor (OH)	016_F007_11.5 (11.5' - 12.0' Fill/native soil interface at 12'	_12
_ _13	5.0	0.0		moderate plasticity, moist wet, no odor (Crr)	i ii/riative soii interiace at 12	_13
_ _14		0.0 0.0				_ _14
_ 						_ 15
		0.0	15.0 - 16.0	Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft,	040 5007 45 5 45 5 40 0	
_16		0.0 0.0	16.0 - 18.7	slight sulfurous odor, low plasticity (OL) As Above (12.0' - 14.2'), Black (5Y 2.5/1) CLAY 17.3' - 18.4'	016_F007_15.5 (15.5' - 16.0'	_16
_ _17		0.0	10.0 10.1	7.67.60v6 (12.6 1.1.2), Black (61.2.67.1) 62.11 11.16 16.11		17
_ 18	<u>4.2</u> 5.0	0.0 0.0				_ _18
	0.0	0.0				
_19		1.1	18.7 - 19.2	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		_19
_ _20			<u> </u>	(PT)		20
		14.6	20.0 - 21.5	As Above (18.7' - 19.2')	016_F007_20.0 (20.0' - 20.5'	
_21		8.3 1.6	21 5 - 24 8	Dark Gray (10YR 4/1) CLAY, little silt, moderate plasticity, soft, moist-		_21
22		0.0	21.0 - 24.0	wet, slight sulfurous odor (OH), Transitions into Greenish Gray		_22
	<u>4.8</u>	0.0		(GLEY2 6/5B) Clayey fine-very fine SAND, soft, moist-wet, no odor (SC),		
_23	5.0	0.0 0.0		Transitions into Greenish Gray (GLEY2 6/5B) medium-fine SAND, some silt, trace clay, medium-dense, moist-wet, no odor (SM)		_23
_ _24		0.0		siit, trace clay, medium-dense, moist-wet, no odor (Sivi)		_24
_		0.0			016_F007_24.0 (24.0' - 24.5')	
_25						_2

TŁ	TET	RA TE	CH GEO		117-0509160.01		Boring No: 016_F008 LOCATION SKETCH
					PPG Site 016		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/10/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5.4'					No		
MEMO:							
*Cored through ~ (	0.4' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM		DUDMEISTED SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
 _1 _		0.0 0.0	0.4 - 0.7	Concrete Light Olive Brown (2.5Y 5/3) fine SAND, little medium sand, trace fine- medium subround-subangular gravel, dry, loose, no odor (SP)	016_F008_0.4 (0.4' - 0.9')	_ _1 _
_2	<u>3.2</u>	0.0 0.0		Reddish Brown (2.5YR 4/3) very fine SAND & SILT, some Red (2.5YR 4/6) subround sandstone gravel, dry, dense, no odor (SM/ML)		_2 _
_3	4.6*	0.0 0.0		Dark Gray (2.5Y 4/1) fine SAND & SILT, trace clay, little mica & medium-fine subround schist gravel, medium-dense, moist, no odor (SM/ML)		_3
_4						_4
_5		0.0	50 54	As Above (4.9), 2.6)	046 5000 5 0 (5 0) 5 5')	_5
_ _6			5.4 - 6.7	As Above (1.8' - 3.6') Very Dark Gray (10YR 3/1) SILT, some fine sand, little clay, low plasticity, soft, moist-wet, no odor (ML)	016_F008_5.0 (5.0' - 5.5')	_ _6
_7	<u>3.3</u>		6.7 - 7.3	Gray (2.5Y 5/1) fine-very fine SAND, little silt, wet, loose, slight sulfurous odor (SM)		_7
_8	5.0		7.3 - 8.3	Dark Grayish Brown (10YR 4/2) medium-fine SAND, trace coarse sand & shells, loose, wet, slight sulfurous odor (SW)	016 F008 7.8 (7.8' - 8.3')	_8
_9					(\	_9
_ _10			100 115			_10
_ _11		0.0 0.0 0.0		Gray (2.5Y 5/1) medium SAND, little fine & coarse sand, trace fine gravel and shells, loose, wet, no odor (SW), Transitions into Dark Gray (2.5Y 4/1) medium-fine SAND, trace coarse sand & shells (SW),	016_F008_11.2 (11.2' - 11.7')	_ _11
_ _12	<u>3.2</u>	0.0 0.0	11.7 - 12.3	Dark Gray (2.5Y 4/1) Clayey SILT, trace fine-very fine sand, soft, moist-wet, slight sulfurous odor (ML)	Fill/native soil interface at 11.7'	_ _12
_ _13	5.0	0.0	12.3 - 12.8	Dark Gray (2.5Y 4/1) fine SAND, little silt, wet, loose, slight sulfurous odor (SM)	11.7	_ _13
_ _14			12.8 - 13.2	Dark Gray (5Y 4/1) CLAY, soft, moist-wet, high plasticity, slight sulfurous odor (OH)		_ _14
_ _15				` '		_ _15
_ _16		0.0		Dark Gray (5Y 4/1) Silty CLAY, trace very fine sand, wet, very loose, slight sulfurous odor (OH) As Above (12.8' - 13.2'), some very fine-fine sand 16'-16.1' (OH)	016_F008_15.6 (15.6' - 16.1')	_ _16
_ _17	<u>1.1</u>		15.0 - 10.1	As Above (12.0 - 13.2), some very line-line sand 10-10.1 (OH)		_ _17
_ _18	5.0					_ _18
_ _19						_ _19
_ _20						_ _20
_ _21		4.0 0.3		PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor	016_F008_20.0 (20.0' - 20.5')	_ _21
_ _22	2.7	0.0	21.3 - 23.7	(PT) Greenish Gray (GLEY2 6/5B) CLAY, soft, moderate plasticity, moist-wet,		22
_ _23	<u>3.7</u> 5.0	0.0		slight sulfurous odor (CH), Transitions into Greenish Gray (GLEY2 6/5B) Clayey SILT, trace fine sand, little medium-fine subround gravel, stiff,	016 E009 22 2 (22 2) 22 7\\	_ _23
_ _24		0.0		moist, no odor (ML)	016_F008_23.2 (23.2' - 23.7')	_ _24
_ _25						_ _25

T-	TETRA TECH GEO				117-0509160.01		Boring No: 016_F010
						ME:	LOCATION SKETCH
					PPG Site	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/23/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.3'		No					
MEMO:							1
*Cored through ~ (	).4' of con	crete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(1 2 2 3)		(* * ***)	0.0 - 0.4	Concrete		1
 _1			0.4 - 1.0	Yellowish Brown (10YR 5/6) fine SAND, little medium sand & silt, trace	016_F010_0.4 (0.4' - 0.9')	_ _1
2		0.0 0.0	1.0 - 1.2	medium-fine subround gravel, medium-dense, dry, no odor (SP) Dark Brown (7.5YR 3/2) Sandy SILT, little gray coarse-fine angular gravel,		_ _2
_	<u>3.0</u>	0.0		dense, dry, no odor (ML)	016_F010_2.0 (2.0' - 2.5')	L
_3	4.6*	0.0	1.2 - 1.8	White (GLEY1 8/N) coarse-fine schist GRAVEL & COBBLES, concrete	016_F010_2.5 (2.5' - 3.5')	_3
4		0.0	1.8 - 2.5	cobbles 1.2'-1.3', medium-dense, dry, no odor (GW) Very Dark Grayish Brown (10YR 3/2) Sandy SILT, trace gray medium-	15% COPR noted 2.5' - 3.5'	-  _4
- · -				coarse subround gravel & cobbles, medium-dense, moist, no odor (ML)		
_5		0.0	2.5 - 3.4	Very Dark Grayish Brown (10YR 3/2), little fine sand, 15% medium-fine	040 5040 50 (50) 55)	5
_ _6		0.0 0.0	5.0 - 5.7	round COPR gravel, loose, wet 3.3'-3.5', no odor (SP)  As Above (2.5' - 3.5'), little fine subround quartz gravel, no COPR gravel,	016_F010_5.0 (5.0' - 5.5')	-  _6
		0.0	0.0 0.7	wet, loose, no odor (SP), Dark Gray (GLEY1 4/N) CLAY 5.4'-5.7' (OH)		
_7			5.7 - 7.0	Very Dark Gray (2.5Y 3/1) fine SAND, little medium sand & silt, trace coarse	•	_7
8	<u>3.3</u> 5.0	0.0	6.4 - 7.0	fine subround gravel, loose, wet, no odor (SM), Transitions to Dark Grayish  Brown (10VR 4/2), Siltuyery fine SAND, loose, wet, clight and oder (SM)	016_F010_7.8 (7.8' - 8.3')	-
_0	5.0	0.0	7.0 - 7.6	Brown (10YR 4/2) Silty very fine SAND, loose, wet, slight sul. odor (SM) Brown (7.5YR 4/2) coarse SAND & fine subround GRAVEL, some medium	010_F010_7.6 (7.6 - 6.3)	8
_9				sand, wet, loose, slight sul. odor (SW/GW), Transitions to fine SAND, little		_6 6
-			7000	very fine sand & medium sand, trace gravel, wet, loose (SW)		- <i>,</i>
_10		0.0	7.6 - 8.3	Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace fine gravel & shells, wet, loose, slight sulfurous odor (SP)		_ _1
- _11		0.0	10.0 - 11.4	Dark Gray (2.5Y 4/1) medium-fine SAND, trace coarse sand, gravel, &		_1
_		0.0		shells, wet, loose, slight sulfurous odor (SW)		_
_12	20	0.0	11.4 - 11.7	Dark Gray (2.5Y 4/1) Silty fine-very fine SAND, wet, loose, slight	016_F010_12.3 (12.3' - 12.8')	1
_ 13	<u>3.8</u> 5.0	0.0 0.0	11 7 - 12 1	sulfurous odor (SM) As Above (10.0' - 11.4') (SW)	016_F010_12.3 (12.3 - 12.8)	  _1
	0.0	0.0		As Above (11.4' - 11.7') (SM)	Fill/native soil interface	
_14		0.0		As Above (10.0' - 11.4') (SW)	at 12.8'	_1
_ 15			12.8 - 13.8	Dark Gray (5Y 4/1) CLAY, thin (<1/2") lenses of fine sand at 13.1', 13.3', and 13.7', 13.8', and 13.7', and 13.7'		-
_13		0.0	15.0 - 18.0	and 13.7' - 13.8', soft, moist, slight sulfurous odor (OH)  As Above (12.8' - 13.8'), Very Dark Gray (5Y 3/1) 16.6' - 18', trace shells		+-'
_ _16		0.0	10.0	& peat 16.4' - 18', soft, moist, slight sulfurous odor (OH)		_1
		0.0			016_F010_16.0 (16.0' - 16.5')	
_1/	<u>2.3</u>	2.2				_1
- 18	5.0					1
_			18.0 - 18.3	Very Dark Grayish Brown (10YR 3/2) to Dark Yellowish Brown (10YR 4/6)		
_19				PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor		_1
20				(PT)		-2
		7.9	20.0 - 20.3	As Above (18' - 18.3'), no clay, little black organic silt, very soft, moist-	016_F010_20.0 (20.0' - 20.5')	
_21		0.0		wet, strong sulfurous odor (PT)		_2
22		0.0 0.0	20.3 - 22.0	Grayish Brown (10YR 5/2) CLAY, trace silt, soft, moderate plasticity, moist, slight sulfurous odor (OH), grading into Greenish Gray		
	<u>4.0</u>	0.0		(GLEY2 5/10G) CLAY (OH or CH)		-
_23	5.0	0.0	22.0 - 24.0	(GLEY2 5/10G) Silty CLAY, little fine sand, trace medium-fine subround		_2
		0.0		greenish gray gravel, Greenish Gray (GLEY1 6/10GY) & Reddish Brown		
_24		0.0		(5YR 4/3) mottling 23.2' - 24', firm, moist, low plasticity, no odor (CL)		_2
						_2

TETRA TECH GEO		CH GEO		PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_F010	
						LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:				MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/23/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.3'			No				
MEMO:							
*Cored through $^{\sim}$ (	0.4' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.3 Reddish Brown (5YR 4/3 to 5/3) Silty fine SAND, little medium-fine	SAMPLE SUMMARY 016_F010_25.0 (25.0' - 25.5')	_25
_ _26		0.0 0.0 0.0	reddish brown subround gravel & clay, trace Dark Greenish Gray (GLEY1 4/5G) coarse to fine subround gravel from 25'-25.6', medium-	010_F010_23.0 (23.0 - 25.5)	_ _26
_ _27	3 3	0.0 0.0	dense, moist-wet, no odor (SM/SC), Transitions into Brown (7.5YR 5/3) SILT, some very fine sand, little coarse-fine gray subangular gravel,		27
_ _28	<u>3.3</u> 5.0	0.0	dense, dry-moist, no odor (ML)		_ _28
_ _29					_29
_ _30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_35
_ _36					_36
_ _37					_ _37
_ _38					38
_ _39					_39
_ _40					_ _40
_ _41					_ _41
_ _42					_42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

T-	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_F012
					PROJECT NAME:		LOCATION SKETCH
					PPG Site	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/18/2011	30			PID MiniRAE 2000		Jim M./ Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING MET		ETHOD / BIT:	7
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.0'					No		
MEMO:						1	
Cored through ~ 0.	.5' of cond	crete before	advancing with g	eoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
			0.0 - 0.5	Concrete		1
 _1 _		0.0 0.0	0.5 - 0.8	Yellowish Brown (10YR 5/6) medium-fine SAND, little medium-fine subround gravel, medium-dense, dry, no odor (SW)	016_F012_0.5 (0.5' - 1.0')	_1
_2 _	<u>3.0</u>	0.0 0.0	0.8 - 2.7	Dark Gray (5Y 4/1) grading to Very Dark Gray (2.5Y 3/1) Silty fine SAND, little schist gravel, Reddish Brown (5YR 4/4) Siltstone cobbles	016_F012_2.0 (2.0' - 2.5')	_2 _
_3	4.5*	0.0 0.0	2.7 - 3.0	2.5'-2.5', dense, dry, no odor (SM)  Dark Gray (2.5Y 4/1) fine SAND & fine-medium round COPR GRAVEL	016_F012_3.0 (3.0' - 3.5')	_3
_4 			3.0 - 3.5	(40%), little silt, medium-dense, moist, no odor (SM/GM)  Dark Reddish Brown (5YR 3/4) SILT & fine-medium round COPR  CRAVEL (40%), little fine good, medium dense, wet no oder (ML/CM)	40% COPR noted 2.7' - 3.5'	_4 
_5		0.0	5.0 - 5.5	GRAVEL (40%), little fine sand, medium-dense, wet, no odor (ML/GM) As Above (3' - 3.5')	016_F012_5.1 (5.1' - 5.5')	_5
_ _6		0.0 0.0 0.0	5.5 - 6.3	Very Dark Gray (2.5Y 3/1) medium-fine SAND, wet, loose, no odor (SW), Transitions into Black (2.5Y 2.5/1) fine-very fine SAND, trace silt, loose,	40% COPR noted 5.1' - 5.5'	_ _6
_ _7	<u>2.9</u>	0.0	6.3 - 7.9	wet, no odor (SP)  Dark Grayish Brown (2.5Y 4/2) fine-very fine SAND, little silt (SM),		_ _7
_ _8 _	5.0	0.0		Transitions to medium-fine SAND, trace coarse sand, shells, and fine subround gravel, wet, loose, slight sulfurous odor (SW)	016_F012_7.4 (7.4' - 7.9')	_ _8 _
_9 _						_9 _
_10						_1
_ _11		0.0 0.0 0.0	10.0 - 12.4	Dark Gray (2.5Y 4/1) medium-fine SAND, trace coarse sand, shells, & fine subround gravel, loose, wet, slight sulfurous odor (SW)		_ _1
_ 12		0.0				1
13	<u>2.9</u> 5.0	0.0	12.4 - 12.9	Dark Gray (5Y 4/1) Silty CLAY, trace fine sand, soft, moist-wet, slight sulfurous odor (OL)	016_F012_11.9 (11.9' - 12.4') Fill/native soil interface	_ _ _1
_ _14					at 12.4'	_ _1
_ 15						_ 1
  16			15.0 - 20.0	No Recovery	No sample - no recovery	_ _ _1
_ _17	0.0					_ _1
18	<u>0.0</u> 5.0					_ _1
_ _19 _						_ _1
20						_2
21		0.4		Very Dark Grayish Brown (10YR 3/2) PEAT, soft, moist, low plasticity, strong sulfurous odor (PT)	016_F012_20.0 (20.0' - 20.5')	_ _2
	2.0	0.0 0.0	20.2 - 22.2	Greenish Gray (GLEY2 6/5BG) Sandy CLAY, little silt, trace subround medium-fine gravel, medium-dense, wet, no odor (CL)		_ _2
23	<u>2.2</u> 5.0					_ _2
_ _24						_2
_ _25						_2

T-	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_F012
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOL		DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:		
8/18/2011	30			PID MiniRAE 2000		Jim M./ Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	UIPMENT:		THOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.0'			No				
MEMO:							
Cored through ~ 0.	.5' of cond	crete before	advancing with g	eoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
26		0.0 0.0 0.0	25.0 - 28.7 Greenish Gray (GLEY2 6/5BG) Silty medium-fine SAND, little clay & medium-fine subround-subangular gravel, medium-dense, wet, no odor (SM), Transitions into Reddish Brown (5YR 4/4) Silty fine SAND, some	016_F012_25.0 (25.0' - 25.5')	_ _
27 28	<u>3.7</u> 5.0	0.0 0.0 0.0	clay & fine subround gravel, little medium gravel, loose, wet, no odor (SC)		  -  -
26 29	5.0	0.0			
30					
31			End of Boring at 30' b.g.s.		-
32					-
33					-
34					
35					
6					
37					-
38 39					-
10					-
1					-
2					-
.3					-
4					-
15					-
<del> </del> 6					-
<b>!</b> 7					-
18					-
49					- -

77-	TET	RATE		PROJECT NO.: 117-0509160.01		Boring No: 016_F014	
					PROJECT NAME:		LOCATION SKETCH
					PPG Site 016		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/12/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.5'				No			
MEMO:				_			]
Cored through $\sim$ 0.	4' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(1001)	(PPM)	0.0 - 0.4	Concrete	SAMPLE SUMMARY	_0
		0.0	0.4 - 0.9	Brownish Yellow (10YR 6/6) medium SAND, little fine sand & fine	016_F014_0.4 (0.4' - 0.9')	_ _1
_ _2		0.0 0.0	0.9 - 1.1	subround gravel, medium-dense, moist-wet, no odor (SP) Black (2.5Y 2.5/1) very fine SAND & SILT, loose, dry, no odor (SM/ML)		_2
_	<u>3.3</u>	0.0	1.1 - 2.3	As Above (0.4' - 0.9') but Yellowish Brown (10YR 5/4), moist (SP)	016_F014_1.8 (1.8' - 2.3')	_
_3	4.4*	0.0 0.0	2.3 - 2.4	Black (2.5Y 2.5/1) fine SAND, some coarse-fine subround gravel, 30% COPR (fine round gravel), medium-dense, dry, no odor (SP)	016_F014_2.3 (2.3' - 3.1')	_3
_4			2.4 - 3.1	Reddish Brown (5YR 4/4) SILT, little fine sand, 30% COPR (fine round	016_F014_3.1 (3.1' - 3.6') 30% COPR noted 2.3' - 3.1'	_4
_ _5			3.1 - 3.7	gravel) 2.4' - 2.9', firm, moist, no odor (ML)  Dark Gray (GLEY1 4/N) medium-fine SAND, trace medium-fine subround	30% COPR floted 2.3 - 3.1	_ _5
_ _6		0.0 0.0	5.0 - 8.4	quartz gravel, moist, moist-wet 3.5' - 3.7', no odor (SW)  Dark Gray (GLEY1 4/N) coarse-fine SAND, trace fine subround gravel,		_ _6
_0 -		0.0	3.0 - 0.4	wet, moist, no odor (SW), Transitions into Dark Gray (2.5Y 4/1) medium		_
_7	<u>3.4</u>	0.0 0.0		SAND, little coarse & fine sand, trace fine subround gravel & shells, wet, loose, slight sulfurous odor (SW)	016_F014_7.0 (7.0' - 7.5')	_7
_ _8	5.0	0.0		loose, siigitt saiitarous odor (CVV)	(7.0 7.0)	_8
_ _9		0.0				_ _9
_ _10						1
=		0.0	10.0 - 11.2	Dark Gray (2.5Y 4/1) medium SAND, little coarse & fine sand, trace fine		
_11		0.0		subround gravel & shells, wet, loose, slight sulfurous odor (SW)  Transitions into Gray (10YR 5/1) coarse SAND, some medium sand &	016_F014_10.7 (10.7' - 11.2')	_1
_12	1.0			fine subround gravel, trace shells & medium subround gravel, loose, wet,	Fill/native soil interace	_1
_ _13	<u>1.2</u> 5.0			slight sulfurous odor (SW)	not recovered	_ _1
- 14						_ _1.
_						
_15 _		0.0	15.0 - 16.0	Gray (10YR 5/1) coarse SAND, some medium sand & fine gravel, trace		_1
_16		0.0 0.0	16.0 - 16.0	shells & medium subround gravel, loose, wet, slight sulfurous odor (SW) Dark Gray (5Y 4/1) Silty CLAY, trace very fine sand (OH), Transitions	016_F014_15.5 (15.5' - 16.0')	_1
- _17		0.0	10.0 - 10.9	into CLAY, trace silt, soft, moist-wet, moderate plasticity, slight sulfurous		_1
_ 18	<u>3.1</u> 5.0	0.0 0.1	16.9 - 17.6	odor (OH) Very Dark Gray (5Y 3/1) CLAY, trace peat & shells, moist, soft, strong		_ 1
_		•		sulfurous odor (OH)		
_19				Dark Gray (5Y 4/1) CLAY, soft, moist, slight sulfurous odor (OH) Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1)		_1
_20		2.4		CLAY, soft, moist, strong sulfurous odor (PT)	046 5044 20 0 (20 0) 20 50	_2
21		2.1 0.1		Very Dark Grayish Brown (10YR 3/2) PEAT & Black (2.5Y 2.5/1) organic SILT, trace clay, very soft, moist-wet, strong sulfurous odor (PT)	016_F014_20.0 (20.0' - 20.5')	_2
22			20.5 - 21.1	Gray (10YR 5/1) Silty CLAY, trace subangular-subround fine gravel, soft, moist, low plasticity, slight sulfurous odor (OL), Transitions into Brown		2
_	<u>1.2</u> 5.0			(7.5YR 4/4) SILT, some very fine sand, trace subangular fine gravel, stiff,		
_23	5.0			moist, no odor (ML)		_2
_24						_2
_ _25						_2

TI-	TET	RATE	CH GEO		PROJECT NO 117-0509	9160.01	Boring No: 016_F014
					PPG Site 016		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	†
8/12/2011	30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.5'					No		
MEMO:							
Cored through ~ 0.	.4' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_25
(Feet) _ _26	(1001)	(PPM) 0.0 0.0	25.0 - 26.2 Brown (7.5YR 4/4) SILT & fine-very fine SAND, little coarse-fine subround gravel, stiff, moist-wet, no odor (ML/SM)	SAMPLE SUMMARY 016_F014_25.0 (25.0' - 25.5')	
_20 _ _27		0.0	graver, start, moist wet, no oder (MESW)		_27
_27 _ _28	<u>1.2</u> 5.0				 
_20 _ _29	3.0				29
_23 _ _30					30
_30 _ _31			End of Boring at 30' b.g.s.		_31
_					_31
_32 _ _33					_32
_					_33 _ _34
_34					_
_35					_35
_36					_36
_37					37 
_38					_38
_39					_39
_40					_ _40 _
_41					_ _41 _
_42 _					_42 _
_ _43 _					_ _43 _
_ _44 _					_ _44 _
_ _45 _					_ _45 _
_ _46 _					_ _46 _
_ _47 _					_ _47 _
_48					_ _48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_F016
					PROJECT NAME:		LOCATION SKETCH
)				PPG Site 016			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/18/2011	8		PID MiniRAE 2000 J		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.3'					No		
мемо: *Cored through ~ 0.5' of concrete before advancing with geoprobe							
Refyusal at 8'							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	٦.
(Feet)	(feet)	(PPM)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	0
 _1 _ _2		0.0	0.5 - 0.8	Yellowish Brown (10YR 5/6) medium-fine SAND, little medium-fine subround gravel, medium-dense, moist, no odor (SW) As Above (0.5' - 0.8') but Light Olive Brown (2.5Y 5/4) (SW)	016_F016_0.5 (0.5' - 1.0')	_ _1 _ 2
_ _3	<u>2.9</u> 4.5*		1.0 - 1.3 1.3 - 2.1 2.1 - 2.2	White (GLEY1 8/N) schist GRAVEL & COBBLES, dense, dry (GW) As Above (0.8' - 1.0') As Above (1.0' - 1.3')		_3
_ _4 		0.0	2.2 - 3.4	Yellowish Brown (10YR 5/4) Silty fine SAND, little clay & medium-fine subround gravel, moist-wet at 3.3', firm, no odor (SM)		_ _4 
_5		0.0	5.0 - 5.3	Dark Grayish Brown (2.5Y 4/2) fine-very fine SAND, little silt, some	016_F016_5.5 (5.0' - 5.5')	_5
_ _6 	1.0	0.0	5.3 - 6.0	coarse-fine subround gravel, medium-dense, moist-wet, no odor (SM) Dark Gray (2.5Y 4/1) fine-very fine SAND, little silt, some coarse-fine		_6 
_7 _ _8	3.0			schist gravel & mica, very dense, moist, no odor (SM)		_7 _ _8
_ _9			End of Bo	oring at 8' b.g.s. (Refusal)		_ _9
_ _10						_10
11						_11
12						_12
_13						_13
14						_14
_ _15 _						_ _15
_16						_16
_ _17						_17
18						_18
19						_19
						_20
_ _21 _						_21
_ _22 _						22
						_23
						_24
_ _25						

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G005
						ME:	LOCATION SKETCH
					PPG Site		-
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:		
7/6/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkins	son		Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~6.0'					No		
MEMO:							
Cored through $\sim$ 0.	50' of cor	ncrete. Hand	l-augered down t	o 1.5' - hit refusa	al		

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	_0
_ _1 _		0.0 0.0	0.5 - 1.0	Yellowish Brown (10YR 5/6) medium-fine SAND, little coarse-fine subround gravel, trace slag, trace clay, loose, dry-moist, no odor (SP)	016_G005_0.5 (0.5' - 1.0')	_ _1 _
_2 _ _3			1.0 - 1.5	Very Dark Gray (10YR 3/1) medium-coarse SAND, some coal & slag, loose, dry, no odor (SW)  As Above (1.0' - 1.5'), mostly coal & slag fragments (GW)		_2 _ _3
0  _4  _5	2.5 3.5*			Very Dark Greenish-Gray (GLEY1 3/10GY) weathered schist: fine SAND, some mica & schist gravel/cobbles, little silt, trace medium sand, dense, dry, no odor (SP)	016_G005_3.5 (3.5' - 4.0')	0  _4  _5
_5 _ _6 _		0.0 0.0 0.0	5.0 - 5.5 5.5 - 7.0	As Above (1.7' - 4.0'), slight sulfurous odor (SP) Black (10YR 2/1) medium-fine SAND, medium-dense, moist, slight slight sulfurous odor (SP), Transitions into Very Dark Gray (10YR 3/1)		5 _ _6 _
_7 _ _8	<u>2.9</u> 5.0	0.0 0.0 0.0	7.0 - 7.9	medium-fine SAND, moist-wet (at 6'), medium-dense, slight sulfurous odor (SP)  Dark Gray (10YR 4/1) medium-fine SAND, little silt, loose, moist-wet, slight sulfurous odor (SP), Transitions into fine SAND, little silt (SP)	016_G005_7.4 (7.4' - 7.9')	_7 - _8
_ _9 _ _10				Singific Sumurous odor (Or ), Transmons into time O/MVD, intile sin (Or )		_ _9 _ 10
_ _ _11		0.0 0.0 0.0		Dark Gray (10YR 4/1) very fine SAND, some silt, little fine sand, loose, moist-wet, slight sulfurous odor (SM)  Dark Gray (5Y 4/1) CLAY, occasional thin (< 1/2") lenses of	016_G005_10.5 (10.5' - 11.0')	
_12 _ _ _13	<u>3.6</u> 5.0	0.0 0.0 0.0		little fine sand, very soft, moderate to highly plastic, moist-wet, slight sulfurous odor (OH)	Fill/native soil interface at 11'	_12 _ _ _13
_ _14 _		0.0				_ _14 _
_15		0.0	15.0 - 16.0	As Above (11' - 13.6')	016_G005_15.0 (15.0' - 15.5')	_15
_ _16		0.0		Black (5Y 2.5/1) CLAY, little silt, trace shells, soft, moderate to	(10.0 10.0)	_ _16
_ _17		0.0		high plasticity, moist, strong sulfurous odor (OH)		_ _17
_ _18	<u>2.8</u> 5.0	0.0				_ _18
_ _19 _						_ _19
_20		0.0	00.0.00.7	A. Abarra (40) 47 0)	040, 0005, 00 0 (00 0), 00 5"	_20
_ _21		0.0	20.0 - 22.7	As Above (16' - 17.8')	016_G005_20.0 (20.0' - 20.5')	_ _21
_ _22		0.0				_ _22
_ _23	<u>3.4</u> 5.0	0.0	22.7 - 23.4	Dark Grayish Brown (10YR 4/2) medium-fine SAND, little coarse sand &		23
_ _24		0.0		subangular coarse gravel, dense, moist-wet, no odor (SW)		24
_ _25						_ _25

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G005
						ME: 016	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC	PPG Site	GEOLOGIST / OFFICE:	1
7/6/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son	_	Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~6.0'					No		
MEMO:							
Cored through ~ 0.	.50' of co	ncrete. Hand	l-augered down t	o 1.5' - hit refusa	al		

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(ioot)	(PPM)	25.0 - 30.0 No Recovery	SAMPLE SUMMARY	
_26 _					_26
_27	0.0				_27
_ _28	<u>0.0</u> 5.0				_28
_ _29					_29
_ _30					30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					36
_ _37					_ _37
_ _38					
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _ _47					_ _ _47
_ _ _48					_ _ _48
 _ _49					49
_ <del>+</del> 3 _ _50					50

Tt-	TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_G007
					PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	7
8/9/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.2'					No		
MEMO:							
*Cored through ~ (	0.4' of cor	crete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(1 661)	( /	(1 1 101)	0.0 - 0.4	Concrete	SAWII EL GOWINIARTI	┨_ॅ
1			0.4 - 0.9	Very Dark Gray (10YR 3/1) fine SAND & medium-fine subround slag	016_G007_0.4 (0.4' - 0.9')	_1
2		0.0 0.0	0.9 - 1.1	GRAVEL, loose, dry, no odor (GP/SP) Yellowish Brown (10YR 5/6) medium SAND, little fine sand, loose, dry,		_ _2
3	<u>3.2</u> 4.6*	0.0 0.0	1.1 - 3.0	no odor (SP) Dark Grayish Brown (7.5YR 4/2) fine SAND & SILT, little coarse-fine gray		_ _3
_		0.0		subangular gravel, trace mica, medium-dense, moist, no odor (ML)		_
_4 _			3.0 - 3.2 3.2 - 3.6	Dark Gray (7.5YR 4/1) Silty CLAY, soft, moist, moderate plasticity (OH) Dark Grayish Brown (10YR 4/2) fine-very fine SAND, trace silt, trace mica,		_4
_5		0.0	5.0 - 6.2	loose, moist-wet, no odor (SP) As Above (3.2'-3.6'), wet, Transitions into Dark Grayish Brown (10YR 4/2)	016_G007_5.0 (5.0' - 5.5')	_5
_ _6		0.0		medium-fine SAND, loose, wet, no odor (SP/SW)	010_G007_5.0 ](5.0 - 5.5)	_ _6
_ 7		0.0 0.0	6.2 - 7.8	Dark Gray (10YR 4/1) medium SAND, some fine sand, trace coarse sand & shells (SW), Transitions to Dark Grayish Brown (10YR 4/2) SILT, little		-   7
_ <b>'</b> _	<u>3.6</u>	0.0		clay and very fine sand, soft, wet, slight sulfurous odor (ML)		_'
_8	5.0	0.0	7.8 - 8.6	Dark Reddish Gray (5YR 4/2) medium-fine SAND, trace coarse sand &	040, 0007, 0.4, (0.4), 0.0)	_8
_ _9		0.0		shells, loose, wet, slight sulfurous odor (SW)	016_G007_8.1 (8.1' - 8.6')	_ _9
_ _10						_ 10
 _ 		0.0 0.0	10.0 - 12.7	As Above (7.8'-8.6') but Dark Gray (2.5Y 4/1) (SW)		
_		0.0				
_12	<u>4.2</u>	0.0 0.0			016_G007_12.2 (12.2' - 12.7')	_12
13	5.0	0.0	12.7 - 14.2	Very Dark Gray (5Y 3/1) CLAY, little silt & very fine sand 14'-14.2', soft,	Fill/native soil interface at	_13
_ _14		0.0 0.0		moderate plasticity, slight sulfurous odor (OH)	12.7'	_ _14
_ 15						_ 15
		0.0	15.0 - 18.1	As Above (12.7' - 14.2'), little silt & wet from 15' - 15.5', trace peat 17'-18.1'		
_16		0.0 0.0			016_G007_16.0 (16.0' - 16.5')	_16
_ _17		0.0			(16.6)	_17
_ _18	<u>4.1</u> 5.0	0.0 0.0				_ _18
_ 19		0.0 0.0	18.1 - 19.2	As Above (12.7' - 14.2') but Verk Dark Gray (5Y 3/1), trace peat, abundant peat in bottom of sleeve (19.2')		_ _19
_ _ _20						_ _ _20
_20		1.4	20.0 - 22.1	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2)	016_G007_20.0 (20.0' - 20.5')	-ZU
_21		3.3 0.0		PEAT, little Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor (PT)		_21
_22		0.1	22.1 - 22.8	Dark Gray (2.5Y 4/1) CLAY, trace silt, moderate plasticity, soft, moist,		_22
23	<u>3.6</u> 5.0	0.0 0.0	22.8 - 23.6	slight sulfurous odor (OH) Greenish Gray (GLEY2 5/10B) Silty CLAY, some fine-very fine sand, little		
_ _ _24		0.0		medium-fine subround green-gray sandstone gravel, soft, moist, no odor (CL), Transitions into Dark Grayish Brown (7.5YR 4/2) Silty fine-very fine	016_G007_23.1 (23.1' - 23.6')	_ _ _24
_				SAND, little clay, soft grading to firm, moist-wet, no odor (SM)		
_25			<u> </u>			_25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_G008	
						ME: D16	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/10/2011	30			PID MiniRAE 2000 J		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.4'				No			
MEMO:							
*Cored through ~ (	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(leet)	(PPM)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	_0
 _1		0.0	0.5 - 1.2	Light Yellowish Brown (2.5Y 6/4) fine SAND, trace silt & fine round quartz	016_G008_0.5 (0.5' - 1.0')	_1
_ _2		0.0 0.0	1.2 - 2.2	gravel, little white clay stringers, medium-dense, moist, no odor (SP)  Dark Gray (7.5YR 4/1) fine SAND & SILT, little Reddish Brown (2.5Y 4/4)		_ _2
_	<u>3.1</u> 4.5*	0.0	22.20	medium-fine subround-subangular gravel, dense, dry, no odor (SM/ML)		_
_3 _	4.5	0.0 0.0	2.2 - 2.8	Very Dark Grayish Brown (10YR 3/2) Silty fine SAND, little fine subround schist gravel, trace mica, moist, dense, no odor (SM)		_3
_4			2.8 - 2.9 2.9 - 3.5	Light bluish gray (GLEY2 8/5PB) concrete cobbles (GP)  Dark Gray (2.5YR 4/1) Silty medium-fine SAND, little schist gravel & mica,		_4
_ _5				medium-dense, moist-wet 3.4' - 3.5', no odor (SM)		_ _5
_ _6		0.0 0.0	5.0 - 6.3	Black (2.5Y 2.5/1) fine SAND & SILT, trace COPR (medium-fine round gravel) 5.2' - 6', little clay, firm, moist-wet, no odor (ML)	016_G008_5.0 (5.0' - 6.0') 016_G008_6.0 (6.0' - 6.5')	_ _6
_		0.0	6.3 - 8.2	Dark Gray (2.5Y 4/1) fine SAND, trace medium sand & silt, loose, wet,	Trace COPR noted 5.2' - 6.0'	
_7	<u>3.2</u>	0.0 0.0		slight sulfurous odor (SP), Transitions into Reddish Brown (5YR 5/3) fine SAND, some medium sand, little very fine sand, wet, loost, trace shells,		_7
_8	5.0	0.0		slight sulfurous odor (SW)	016_G008_7.7 (7.7' - 8.2')	_8
_ _9						_ _9
_ _10						_ _10
_ 		0.0 0.0	10.0 - 11.7	Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace coarse sand & shells (SP/SW), Transitions into fine SAND, some medium sand, trace		_ 11
_		0.0		shells & coarse sand, wet, loose, slight sulfurous odor (SW)	016_G008_11.2 (11.2' - 11.7')	
_12	<u>3.5</u>	0.0 0.0	11.7 - 13.5	Dark Gray (5Y 4/1) CLAY, occasional (< 1/2") lense of SILT & very fine SAND, soft, moderate plasticity, moist-wet, slight sulfurous odor (OH)	Fill/native soil interface at 11.7'	_12
_ _13	5.0	0.0		(		_13
_ _14		0.0				_ _14
_ 15						_ _15
<del>_</del> _		0.0	15.0 - 15.8	Dark Gray (5Y 4/1) Silty CLAY, trace very fine SAND, wet, very loose,	242 2222 47 7 42 20	1_
_16		0.0 0.0	15.8 - 18.9	slight sulfurous odor (OH) As Above (11.2' - 13.5'), hue change to Black (5Y 2.5/1) 17.9' - 18.9',	016_G008_15.5 (15.5' - 16.0')	_16
_ _17	2.0	0.0		trace shells 18'-18.9', soft, moderate plasticity, moist-wet, slight		_17
_ _18	<u>3.9</u> 5.0	0.0 0.0		sulfurous odor (OH)		_ _18
_ _19		0.0 0.0				_ 19
_		0.0		As Above (15.8' - 18.9'), strong sulfurous odor	016_G008_20.0 (20.0' - 20.5')	
_21		0.0 12.8	20.4 - 21.8	Greenish Gray (GLEY2 6/5BG) Silty CLAY, little fine-very fine sand, little fine subround-subangular gravel, moist-wet, soft, no odor (CL)		_21
_ _22	4.0	0.0		can can any and grand, more work out, no odd (ob)		_22
_ _23	<u>1.8</u> 5.0					_ _23
_ _24						_ _24
_ _25						_ 25

TŁ	TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_G008 LOCATION SKETCH
						ME: 016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/10/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.4'					No		
MEMO:	MEMO:						
*Cored through ~ (	Cored through ~ 0.5' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	Ī
(Feet)	(feet)	(PPM) 0.0	25.0 - 25.8 As Above (20.4' - 21.8')	SAMPLE SUMMARY 016_G008_25.0 (25.0' - 25.5')	_
_ _26		0.0	25.8 - 27.4 Grayish Brown (10YR 5/2) Silty CLAY, some very fine sand, trace fine	(,)	_26
_ _27		0.0 0.0	subround-subangular gravel, stiff, moist, no odor (CL)		_ _27
_ _28	<u>4.0</u> 5.0	0.0 0.0	27.4 - 29.0 Reddish Brown (5YR 4/4) SILT, little fine sand & clay, trace medium-fine subround gravel, very dense, dry-moist, no odor (ML)		_ _28
_	5.0	0.0	Subround graver, very derise, dry-moist, no odor (ML)		_
_29		0.0			_29
_30			E. L. (D. view of 001), v. c		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
					_
_33 _					_33
_34					_34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _ _47					_ _ _47
_ _ _48					_ _ _48
_ _ _49					_ _ _49
 _ _50					0 _ _50

TETRA TECH			CH GEO	H GEO		: 160.01	Boring No: 016_G009
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
7/7/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 6.5'					No		
MEMO:	MEMO:						
Cored through ~ 0.	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(leet)	(PPM)	0.0 - 0.6	Concrete	SAMPLE SUMMARY	0
 _1		0.0	0.6 - 1.1	Dark Yellowish Brown (10YR 4/4) sandstone fragments (GW)		_1
		0.0	1.1 - 1.6	Dark Reddish Gray (5YR 4/2) medium-fine SAND, some fine-medium	016_G009_1.1 (1.1' - 1.6')	
_2		0.0		subround quartz gravel, trace slag, dense, dry, no odor (SP)	(could not sample 0.6' - 1.1'	_2
_	<u>3.4</u>	0.0	1.6 - 2.6	Dark Greenish-Gray (GLEY1 4/10GY) weathered schist: medium-fine	due to gravel)	_
_3	4.4*	0.0		SAND, some mica & schist gravel/cobbles, trace silt, dense, dry, no		_3
_ 4			2.6 - 4.0	odor (SP) Very Dark Grayish Brown (10YR 3/2) fine SAND, some silt, mostly		4
_4			2.0 - 4.0	silt by 2.9', trace medium-coarse subround quartz gravel, medium-dense,		-4
_ _5				dry-moist, no odor (SM/ML)		_5
_ <b></b>		0.0	5.0 - 6.5	Very Dark Grayish Brown (10YR 3/2) SILT & fine SAND, subangular	016_G009_5.0 (5.0' - 5.5')	
_6		0.0		gray gravel (broken-up cobbles) 5.1' - 5.3', trace slag, moist, firm,	,	_6
_		0.0		no odor (ML)		_
_7			6.5 - 8.3	Dark Reddish Gray (5YR 4/2) medium SAND, little fine sand, trace		_7
_	<u>3.3</u>	0.0		coarse sand, loose, wet, slight sulfurous odor (SP)		- <u>`</u>
_8	5.0	0.0				_8
_ _9						_9
_0						
_ _10						10
		0.0	10.0 - 11.2	Dark Reddish Gray (5YR 4/2) fine SAND, little silt, trace medium sand,	016_G009_10.0 (10.0' - 10.5')	
_11		0.0		loose, wet, slight sulfurous odor (SP)		_11
_		0.0	11.2 - 12.0	Dark Gray (2.5Y 4/1) SILT, little fine sand, soft, moist, slight sulfurous		,
_12	2.0	0.0 0.0	12.0 12.0	odor (ML)  Dark Gray (2.5Y 4/1) fine to very fine SAND grading to medium-fine		_12
_ 13	<u>3.9</u> 5.0	0.0	12.0 - 13.0	SAND, little shells, loose, wet, slight sulfurous odor (SP)	016_G009_12.5 (12.5' - 13.0)	13
_10	0.0	0.0	13.0 - 13.9	Dark Gray (5Y 4/1) CLAY, soft, high plasticity, moist, slight	Fill/native soil interface at 13'	-'`
_ _14		0.0		sulfurous odor (OH)		_14
_						_
_15						15
_		0.0	15.0 - 17.6	Dark Gray (5Y 4/1) Silty CLAY, occasional thin (< 1/2") lenses of		-  16
_16		0.0 0.0		little fine sand, trace shell fragments, soft, moderate to highly plastic, moist-wet, slight sulfurous odor (OH)		-10
_ 17		0.0		most-wet, siight suhurous odor (Orr)	016_G009_16.5 (16.5' - 17.0)	17
,	3.8	0.0			(10.0000_10.0)	- '
_ _18	5.0	0.0	17.6 - 18.8	As Above (11.3' - 13.8'), hue change to Black (5Y 2.5/1), trace peat,		_18
_		0.0		strong sulfurous odor (OH)		_
_19						_19
_ 20						20
_20		8.8	20.0 - 22.0	Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1)		<del> </del> -2\
_ _21		12.7	20.0 22.0	CLAY, moderate plasticity, soft, moist, strong sulurous odor (PT)	016_G009_20.5 (20.5' - 21.0)	_2
		15.4		,		
_ _22		1.1				_22
_	<u>3.1</u>	0.0	22.0 - 23.1	Greenish Gray (GLEY 2 5\5B) Clayey SILT, some fine-very fine sand,		_
_23	5.0	0.0		soft grading to stiff with depth, little coarse-medium round gravel, moist,		_23
_				no odor (ML)		_
_24						_24
_ _25						_25

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G009
			PROJECT NAME: PPG Site 016			LOCATION SKETCH	
COMPLETION DATE. TOTAL DEPTH OF POPENIOLE							4
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
7/7/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 6.5'					No		
MEMO:						1	
Cored through ~ 0.	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_25
(Feet) _ _26	(leet)	(PPM) 0.0 0.0	25.0 - 26.1 Greenish Gray (GLEY2 5\5BG) fine SAND, some medium sand, little clay and silt, dense, wet, no odor (SM)	SAMPLE SUMMARY 016_G009_25.0 (25.0' - 25.5)	_25
_ _ _27					_ _ _27
_ _28	<u>1.1</u> 5.0				_ _28
_ _29					_ _29
_ _30					_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
33					_ _33
34					_ _34
_ _35					_ _35
_ _36					_36
37					_37
_38					_38
_39					_39
_40					_ _40
_41					_ _41
_42					_42
_43					_ _43 _
_44					_ _44 _
_45 _					_ _45 _
_46 _					_ _46 _
_47 _					_ _47 _
_48 _					_ _48 _
_49 _					_ _49 _
_50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G010
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	_	
8/11/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 4'					No		
MEMO:							7
*Cored through ~ (	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
		0.0	0.0 - 0.6	Concrete	1040, 0040, 0.0, 1/0.0, 4.41)	╌
_1		0.0 0.0	0.6 - 2.6	Dark Gray (2.5Y 4/1) SILT, little fine sand, some coarse-fine angular gravel, trace schist gravel & mica, dense, dry, no odor (ML)	016_G010_0.6 (0.6' - 1.1')	-1
_ _2		0.0		graver, trace scriist graver & mica, derise, dry, no odor (ML)		_2
	<u>3.8</u>		2.6 - 3.5	Brown (10YR 5/3) SILT, little very fine sand & coarse-fine gray gravel,		-
_ _3	4.4*	0.0	2.0 0.0	trace fine subangular red sandstone gravel, dry, dense, no odor (ML)		_3
			3.5 - 4.4	Very Dark Gray (2.5Y 3/1) fine SAND & SILT, trace clay, 15% COPR	016_G010_3.0 (3.0' - 3.5')	
_4		0.0		(fine-medium round gravel) 3.5' - 4.4', firm grading to soft, moist-wet	15% COPR noted 3.5' - 4.4'	_4
_		0.0		4'-4.4', no odor (SM)	016_G010_3.9 (3.9' - 4.4')	_
_5						_5
		0.0	5.0 - 6.1	Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace coarse sand,	016_G010_5.0 (5.0' - 5.5')	
_6		0.0		loose, wet, no odor (SW), Transitions into medium-fine SAND, trace coarse		_6
_ _7		0.0 0.0	6.1 - 7.4	sand, wet, loose, slight sulfurous odor (SW) Brown (7.5YR 4/2) coarse-medium SAND, little fine subround gravel, wet,		-
_'	3.4	0.0	0.1 - 7.4	loose, slight sulfurous odor (SW), Transitions into medium SAND, trace		-'
_ _8	<u>3.4</u> 5.0	0.0		fine & coarse sand (SP)		_8
	0.0	0.0	7.4 - 8.4	Dark Gray (2.5Y 4/1) medium SAND, some coarse sand, little shells &	016_G010_7.9 (7.9' - 8.4')	
_ _9				fine subround gravel, loose, wet, slight sulfurous odor (SW)	,	_9
_						_
_10						_10
		0.0		Dark Gray (2.5Y 4/1) coarse-medium SAND, little fine subround gravel,		<b> </b>
_11		0.0		trace medium gravel, little shells, loose, wet, slight sulfurous odor (SW)		_11
_		0.0		Transitions into fine SAND, little medium sand, wet, loose, slight		-,
_12	2.4	0.0 0.0		sulfurous odor (SP)		_12
_ 13	<u>3.4</u> 5.0	0.0				_ _13
	0.0	0.0			016_G013_12.9 (12.9' - 13.4')	-'`
_ _14					Fill/native soil interface not	_14
_					recovered	
_15						_15
		0.0	15.0 - 15.7	Dark Gray (5Y 4/1) Clayey SILT, trace fine sand, wet, very soft, slight		_
_16		0.0	45 7 47 4	sulfurous odor (ML)		_16
_ 17		0.0	15.7 - 17.4	Dark Gray (5Y 4/1) CLAY, trace silt & peat, soft, moist, slight sulfurous		
_17	2.2	0.0		odor (OH)	016_G013_17.0 (17.0' - 17.5')	_17
_ _18	<u>3.2</u> 5.0	0.0 0.0	174-182	As Above (15.7' - 17.4') but Very Dark Gray (5Y 3/1), trace peat & shells,	[010_G013_17.0](17.0 - 17.5)	-  _18
	0.0	0.0	17.4 10.2	slight sulfurous odor (OH)		-'`
_ _19				J		_19
_						
_20						_20
		0.0	20.0 - 20.6	Dark Gray (5Y 4/1) Clayey SILT, trace fine sand, wet, very soft, strong		
_21		9.8		sulfurous odor (ML)	2000 200 200 200 200 200 200 200 200 20	_2
_		19.2	20.6 - 22.1	Dark Brown (10YR 3/3) PEAT, trace Dark Gray (5Y 4/1) CLAY, soft,	016_G013_21.0 (21.0' - 21.5')	-
_22	4.0	0.0	22.4 24.0	low plasticity, moist, strong sulfurous odor (PT)  Groonich Groy (GLEY2 6/5P) Clayov SILT trace fine year fine sand		_22
	<u>4.0</u> 5.0	0.0 0.0	22.1 - 24.0	Greenish Gray (GLEY2 6/5B) Clayey SILT, trace fine-very fine sand, trace cobbles & coarse-fine gravel, soft, moist-wet, slight sulfurous odor		_ _2:
_23	3.0	0.0		(ML), Transitions into Greenish Gray (GLEY1 6/10GY) fine-very fine SAND,		-4
_ 24		0.0		little silt, medium-dense, moist, no odor (SM)		_24
		0.0		2, 2555,563, 110 5351 (511)		
_ _25			1			_2

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_G010	
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	LETION DATE: TOTAL DEPTH OF BOREHOLE:		DLE:			GEOLOGIST / OFFICE:	_
8/11/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 4'				No			
MEMO:							
*Cored through ~ (	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.8 Greenish Gray (GLEY1 6/5GY) fine SAND, little silt, some coarse-fine	SAMPLE SUMMARY 016_G013_25.0 (25.0' - 25.5')	_
_26		0.0	greenish-gray subangular-subround gravel,trace clay 25' - 25.5', dense,	,	_26
_ _27		0.0 0.0	moist-wet, no odor (SM) 26.8 - 28.1 Gray (10YR 5/1) Silty medium-fine SAND, little medium-fine greenish-		_ _27
_	<u>4.1</u>	0.0	gray subangular-subround gravel, medium-dense, moist-wet, no odor (SM)		_
_28	5.0	0.0 0.0	Transitions into Grayish Brown (10YR 5/2) SILT, some fine SAND, little greenish-gray subangular-subround gravel, stiff, moist, no odor (ML)		_28
_29		0.0			_29
_ _30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_					_
_32					_32
_33					_33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
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49					49
					50
_50					<u>_</u> 50

TETRA TECH GEO			CH GEO		PROJECT NO.:  117-0509160.01  PROJECT NAME:  PPG Site 016		Boring No: 016_G011 LOCATION SKETCH
COMPLETION DATE: 8/11/2011	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE: Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN			1	
EPI \ John Brass			Geoprobe Track	Rig	<b>Direct Pus</b>	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5'					No		
MEMO:	MEMO:						
Cored through ~ 0.	.7' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(IEEL)	(PPM)	0.0 - 0.7	Concrete	SAMPLE SUMMARY	_0
 _1 		0.0	0.7 - 1.8	Olive Yellow (2.5Y 6/6) medium-fine SAND, little medium-fine subround gravel & coarse sand, medium-dense, moist-wet (from coring) (SW)	016_G011_0.7 (0.7' - 1.2')	_ _1 1
_2 _ _3	3.4 4.3		1.8 - 2.3 2.3 - 2.4	Grayish Brown (2.5Y 5/2) fine SAND, little medium sand, trace silt, little fine subround schist gravel, trace mica, loose, moist, no odor (SP) Gray (2.5Y 6/1) Silty CLAY, dry, firm, no odor (CL)	016_G011_2.3 (2.3' - 2.8')	_2 _ _3
_ _4 _ _5		0.0	2.4 - 2.8 2.8 - 4.1	Light Olive Brown (2.5Y 5/4) medium-fine SAND, loose, moist, no odor (SP) Very Dark Gray (10YR 3/1) SILT & fine SAND, 30% medum-fine round COPR gravel, trace gray fine angular gravel, trace coal frags., medium-dense, moist, no odor (SM)	016_G011_3.6 (3.6' - 4.1') 30% COPR noted 2.8' - 4.1'	_ _4 _ _5
_ <del></del>  6		0.0 0.0 0.0	5.0 - 6.1 6.1 - 8.6	Very Dark Gray (2.5Y 3/1) fine-very fine SAND, trace silt, wet, loose, no odor (SP) Reddish Brown (5YR 4.3) coarse-fine SAND, little fine subround gravel &	016_G011_5.0 (5.0' - 5.5')	
	<u>3.6</u> 5.0	0.0 0.0 0.0	0.1 0.0	shells, wet, loose (SW), Transitions into Dark Gray (2.5Y 4/1) coarsemedium SAND, little fine sand & shells, trace subround fine gravel, wet, loose, slight sulfurous odor (SW)		_ _7 _ _8
_ _9 _		0.0				_ _9 _
_10						_10
_ _11		0.0 0.0 0.0	10.0 - 12.2	Dark Gray (2.5Y 4/1) medium-fine SAND, trace silt, coarse sand, & shells, loose, wet, slight sulfurous odor (SW)		_ _11
_ _12 _ _13	<u>4.5</u> 5.0	0.0 0.0		Dark Gray (5Y 4/1) Clayey SILT, little very fine sand, soft, moist-wet, slight sulfurous odor (ML)	016_G011_11.7 (11.7' - 12.2')	_12 _ _ _13
_ 13 _ _14	5.0	0.0 0.0 0.0 0.0	12.9 - 13.9	Dark Gray (5Y 4/1) very fine SAND, little fine sand & silt, wet, loose, slight sulfurous odor (SM) As Above (12.2' - 12.6') (ML) As Above (12.6' - 12.9') (SM)		_13 _ _14
_ _15		0.0	10.5 14.0	7.67.6000 (12.6 12.6) (6.00)		_ _15
_ _ _16		0.0 0.0 0.0		As Above (12.6' - 12.9') (SM)  Dark Gray (5Y 4/1) SILT, some fine-very fine sand, little clay, soft, wet, slight sulfurous odor (ML)	016_G011_16.0 (16.0' - 16.5')	_ _16
_ _17 _ _18	<u>3.8</u> 5.0	0.0 0.0 0.0		Dark Gray (5Y 4/1) Silty CLAY, soft, moist-wet, low plasticity, slight sulfurous odor (OL) Dark Gray (5Y 4/1) CLAY, trace silt, soft, moderate plasticity, moist,	,	_ _17 _ _ _18
19	0.0	0.0 0.0	17.0 10.0	slight sulfurous odor (OH)		19
_ _20						_ 20
 _ _21		1.1 10.5		Dark Gray (5Y 4/1) Clayey SILT, trace very fine sand, very loose, wet, slight sulfurous odor (ML)	016_G011_20.0 (20.0' - 20.5')	
_ _22 _	<u>2.2</u>	3.7 0.3		Very Dark Grayish Brown (10YR 3/2) PEAT, trace Dark Gray (5Y 4/1) CLAY throughout, soft, low plasticity, moist, strong sulfurous odor (PT) Gray (2.5Y 5/1) Silty CLAY, firm, low plasticity, moist, slight sulfurous		_ _22 _
_23 _ _24	5.0			odor (OL), Transitions into Greenish Gray (GLEY2 6/5BG) medium-fine SAND, trace fine subround gravel, dense, wet, no odor (SP)		_23 _ _ 24
_24 _ _25						24  25

TETRA TECH GEO					PROJECT NO 117-0509		Boring No: 016_G011
				PROJECT NAME:		LOCATION SKETCH	
				•	PPG Site	J16	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/11/2011	30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 5'					No	
МЕМО:							7
Cored through $\sim$ 0.	7' of cond	crete before	advancing with g	eoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_25
_	(1001)	(PPIVI)	25.0 - 30.0 No Recovery	SAMPLE SUMMARY	_
_26					_26
_ _27 _	<u>0.0</u> 5.0				_27
_28 _	5.0				_28
_29 _					_29
_30			End of Boring at 30' b.g.s.		30
_ _31					_31
_ _32					32
_ _33					33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					
_ _39					
_ _40					_ _40
_ _41					_ _41
_ _ _42					_ _ _42
43					43
44					44
_44 _ _45					_ <del>44</del> _ _45
					_45 _ _46
_ _46 _					
_ _47 _					_ _47 _
_ _48 _					_ _48 _
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G012
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/11/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 3.1'			No			
MEMO:	MEMO:						
*Cored through $\sim$ (	0.6' of con-	crete before	advancing with	geoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
		()	0.0 - 0.6	Concrete	2 == 00	1_
 _1 _		0.0	0.6 - 1.5	Light Olive Brown (2.5Y 5/6) Silty medium-fine SAND, little medium-fine subround gravel, mosit-wet (from coring), medium-dense, no odor (SM)	016_G012_0.6 (0.6' - 1.1')	_1
_2	<u>3.3</u>	0.0	1.5 - 2.5	Grayish Brown (10YR 5/2) fine SAND & SILT, little schist gravel, trace gray medium-fine angular gravel, dense, dry, no odor (SM/ML)		_2
_ _3	4.4*	0.0 0.0	2.5 - 3.5	Light Yellowish Brown (2.5Y 6/4) medium SAND, loose, moist-wet 3.1' - 3.5', no odor (SP)	016_G012_2.9 (2.9' - 3.4')	_3
_ _4 _		0.0	3.5 - 4.0	Very Dark Gray (2.5Y 3/1) medium-fine SAND, trace coarse sand & fine subround gravel, wet, loost, no odor (SW)	016_G012_3.4 (3.4' - 2.9') 40% COPR noted 3.4' - 3.5'	_ _4 _
_5		0.0	5.0 - 6.1	As Above (3.5' - 4.0')	016_G012_5.0 (5.0' - 5.5')	_5
_ _6		0.0 0.0	6.1 - 8.3	Brown (7.5YR 4/3) coarse-fine SAND, trace fine subround gravel, wet,	(6.6 6.6)	_6
_ _7	<u>3.3</u>	0.0 0.0 0.0	0.1 - 0.5	loose, no odor (SW), Transitions into Dark Gray (2.5Y 4/1) medium SAND, little fine & coarse sand, trace shells & fine gravel, loose, wet, slight		_ _7
_ _8	5.0	0.0		sulfurous odor (SW)	016_G012_7.8 (7.8' - 8.3')	_8
_ _9					(7.0 0.0)	_9
_ _10		0.0	10.0 - 13.7	Dark Gray (2.5Y 4/1) medium SAND, some fine sand, trace coarse sand		_1(
_ _11		0.0 0.0	10.0 - 13.7	& shells (SW), Transitions into Gray (2.5Y 6/1) fine SAND, some very fine sand, trace silt, loose, wet, slight sulfurous odor (SP)		_1
_ _12	<u>3.7</u>	0.0 0.0		Sand, trace siit, 10050, wet, siight sandrous odor (Or )		12
_ _13	5.0	0.0 0.0			016_G012_13.2 (13.2' - 13.7')	_13
_ _14		0.0			Fill/native soil interface not	_ _14
_ _15			150 100		recovered	 15
_ _16		0.0		Dark Gray (2.5Y 4/1) Silty fine SAND, little medium sand & clay, loose, wet, slight sulfurous odor (SM)		_ _16
_ _17		0.0	16.0 - 17.7	Dark Gray (5Y 4/1) CLAY, trace silt, moderate plasticity, soft, moist, slight sulfurous odor (OH)		_ _17
_ _18	<u>3.5</u> 5.0	0.0	17.7 - 18.5	As Above (16.0' - 17.7') except Very Dark Gray (5Y 3/1), trace shells	016_G012_17.0 (17.0' - 17.5')	18
_ _19		0.0		(OH)		_19
20		4.0	00.0.000	Doub Const (EV 4/4) City OI AV Puls on English III		_ _20
_ _21		1.2 2.3		Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, trace shells, wet, very soft, slight sulfurous odor (OH)	040, 0040, 04, 01, 04, 51,	_21
_ _22	4.0	0.1 0.0		Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1) CLAY throughout, soft, low plasticity, moist, strong sulfurous odor (PT)	016_G012_21.0 (21.0' - 21.5')	22
_ _23	<u>1.8</u> 5.0		20.9 - 21.8	Bluish Gray (GLEY2 5/10B) Silty CLAY, trace very fine sand, firm, moist, low plasticity, slight sulfurous odor (CL), Transitions into Bluish Gray		23
_ _24				(GLEY2 5/10B) fine SAND, little medium sand, trace silt, medium-dense, moist-wet, no odor (SP)		_ _24
_ _25						_ _25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_G012	
					PROJECT NA	LOCATION SKETCH	
				PPG Site			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/11/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			7
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 3.1'			No			
MEMO:							7
*Cored through ~ (	*Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_25
_  _26	, ,	(1 1 111)	25.0 - 30.0 No Recovery	OANN EE COMMAN	
_27 	<u>0.0</u> 5.0				_27
_28 _	5.0				_28 _
_ _29 _					_29 _
_30			End of Boring at 30' b.g.s.		
_31					_31
_32					_32
_ _33					33
_ _34					34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _ _43					_ _ _43
_ _ _44					_ _ _44
_ · · · _ _45					45
46 _ _46					46 46
_ _47 _					_47 _
_ _48 _					_ _48 _
_ _49 _					_ _49 _
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_G013
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/11/2011	011 30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			7
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"	5' Sleeves, 1.25" ~ 3.2'				No		
MEMO:	•			-		-	7
*Cored through ~ (	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_(
,			0.0 - 0.6	Concrete		1
1 	<u>3.6</u>	0.0 0.0 0.0 0.0	0.6 - 3.2	Light Olive Brown (2.5Y 5/4) medium SAND, little fine sand & medium-fine subround gravel (SP), 1.5' - 1.8': Dark Gray (2.5Y 4/1) SILT, some fine sand, little schist gravel & mica (ML), moist-wet (from coring), medium-dense, no odor (SP)	016_G013_0.6 (0.6' - 1.1')	_  -  -  -
- _3 - _4 - _5	<u>3.0</u> 4.4*	0.0 0.0 0.0 0.0	3.2 - 3.8 3.8 - 4.1	Olive Brown (2.5YR 4/4) SILT, little fine sand & clay, 30% COPR (fine-medium round gravel) throughout, moist-wet, firm, no odor (ML) Very Dark Gray (2.5Y 3/1) medium SAND, little coarse sand, trace fine gravel & fine sand, loose, moist-wet, no odor (SW)	016_G013_2.7 (2.7' - 3.2') 016_G013_3.2 (3.2' - 3.7') 016_G013_3.8 (3.8' - 4.1') 20% COPR noted 3.2' - 3.8"	
<u>-5</u> - _6		0.0	5.0 - 5.8	Dark Gray (2.5YR 4/1) fine-very fine SAND, little silt, loose, wet, no odor (SM), Transitions into Silty very fine SAND, trace fine sand & clay, loose,		  -  _(
- _7 - _8 - _9	<u>3.5</u> 5.0	0.0 0.0 0.0 0.0 0.0	5.8 - 8.5	wet, no odor (SM) Dark Gray (2.5YR 4/1) ,medium SAND, little coarse sand, trace fine gravel, shells, & fine sand, wet, loose, slight sulfurous odor (SW)	016_G013_7.0 (7.0' - 7.5')	
_10						11
_ _11 _ _12 _	<u>3.3</u>	0.0 0.0 0.0 0.0 0.0	10.0 - 13.3	As Above (5.8' - 8.5'), Transitions into fine SAND, some medium sand, trace shells & coarse sand, loose, wet, slight sulfurous odor (SW)		  -    -
_13 - _14 - _15	5.0	0.0			016_G013_12.8 (12.8' - 13.3') Fill/native soil interface not recovered	)  -  -  -
16		0.0		Dark Gray (5Y 4/1) CLAY, little silt, moderate plasticity, soft, wet, slight sulfurous odor (OH)		  -  -
17	<u>4.7</u>	0.0 0.0 0.0		Dark Gray (5Y 4/1) Clayey SILT, little fine sand, very loose, wet, slight sulfurous odor (ML)  Dark Gray (5Y 4/1) CLAY, trace silt & peat, moderate plasticity, moist,	016_G013_17.0 (17.0' - 17.5')	  - 
18	5.0	0.0 0.0		soft, slight sulfurous odor (OH) Very Dark Gray (5Y 3/1) CLAY, trace peat & shells (abundant 19.4' -	(	_
_19 _ _20		0.0		19.7'), moderate plasticity, moist, soft, slight sulfurous odor (OH)		
_20 _ _21		1.4 6.6		Dark Gray (5Y 4/1) silty CLAY, very loose, wet, slight sulfurous odor (OH) Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (5Y 4/1)		_ ;
	3.0	3.4 0.0 0.0	21.8 - 23.0	CLAY throughout, soft, low plasticity, moist, strong sulfurous odor (PT) Greenish Gray (GLEY2 5/5BG) CLAY, trace silt, soft, moderate plasticity, no odor (CH), Transitions into Greenish Gray (GLEY2 5/5BG) medium-	016_G013_21.0 (21.0' - 21.5')	)
_23	<u>3.0</u> 5.0	0.0		fine SAND, trace silt, moist-wet, medium-dense, no odor (SW/SP)		-  -  -
_24						

TETRA TECH GEO					PROJECT NO.:  117-0509160.01  PROJECT NAME:		Boring No: 016_G013 LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE: 30					J16 GEOLOGIST / OFFICE: Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN Geoprobe Track				
SAMPLING METHOD: DEPTH TO GROUNDWATER 5' Sleeves, 1.25" ~ 3.2'		DUNDWATER			WELL INSTALLED? No		
MEMO: *Cored through ~ (	0.6' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0		SAMPLE SUMMARY 016_G013_25.0 (25.0' - 25.5')	_25
_26		0.0 0.0	medium-dense, no odor (SW/SP), Transitions into Greenish Gray (GLEY2 6/5BG) very fine SAND, little silt, trace fine sand (SM), then to		_26
_ _27		0.0	fine SAND, little medium & very fine SAND, dense, moist-wet, no odor (SW)		_ _27
_ _28	<u>4.4</u> 5.0	0.0 0.0	27.0 - 29.4 Dark Grayish Brown (10YR 4/2) fine SAND, little very fine SAND, trace medium sand, medium-dense, wet, no odor (SW), Transitions into		_ _28
_ _ _29		0.0 0.0	Brown (7.5YR 4/3) SILT & medium-fine SAND, little medium-fine subround		_ _ _29
_		0.0	to subangular gray to red-brown gravel, dense, moist, no odor (SM)		_
_30			End of Boring at 30' b.g.s.		_30
_31					_31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
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_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO							Boring No: 016_G014
IC .			PROJECT NAME: PPG Site 016		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/18/2011	30	30		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.8'				No			
MEMO:							]
*Cored through ~ 0	*Cored through ~ 0.5' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM		RUDMEIOTED OVOTEM COULDECORDITION	FIELD NOTES &	]
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.5	Concrete  Vollaviah Previn (40VP 5/C) modium fine CAND little modium fine	046 6044 0.5 1(0.5) 4.0)	
_1		0.0 0.0	0.5 - 1.0	Yellowish Brown (10YR 5/6) medium-fine SAND, little medium-fine subround gravel, medium-dense, dry, no odor (SW)	016_G014_0.5 (0.5' - 1.0')	_1
_2		0.0	1.0 - 1.6	Very Dark Grayish Brown (10YR 3/2) fine SAND, little silt & medium-		_2
	<u>3.4</u>	0.0		fine subround gray gravel, dense, dry, no odor (SM)	016_G014_2.0 (2.0' - 2.5')	
_3	4.5*	0.0	1.6 - 2.4	Olive Yellow (2.5Y 6/6) fine SAND, little medium sand & white clay,	016_G014_2.5 (2.5' - 3.2')	_3
		0.0		dense, dry, no odor (SC)	016_G014_3.2 (3.2' - 3.7')	
_4		0.0	2.4 - 2.8	Black (10YR 2.5/1) medium-fine SAND & medium-fine round COPR gravel 2.5' - 2.8' (40%), loose, moist, no odor (GP)	40% COPR noted 2.5' - 3.2'	_4
_ _5			2.8 - 3.2	Reddish Brown (2.5YR 4/4) Silty fine SAND & medium-fine round COPR		_ _5
_				gravel 2.8' - 3.2' (40%), medium-dense, wet, no odor (GM)		
_6			3.2 - 3.9	Black (10YR 2.5/1) medium-fine SAND, loose, moist, (GW)		_6
			4.0 - 5.4	Very Dark Gray (2.5Y 3/1) medium-fine SAND, loose, wet, no odor (SW)		
_7	<u>3.4</u>	0.0 0.0	5.4 - 8.4	Dark Gray (2.5Y 4/1) medium-fine SAND, trace coarse sand, gravel, & shells, wet, loose, slight sulfurous odor (SW)	016_G014_7.0 (7.0' - 7.5')	_7
_ _8	5.0	0.0		choic, wor, 10000, digni oundroud out (CVV)	(1.0 7.0)	_ _8
_		0.0				_
_9						_9
_ _10						_ 10
_10		0.0	10.0 - 12.4	Dark Reddish Gray (5YR 4/2) coarse-medium SAND, little fine gravel &	016_G014_10.0 (10.0' - 10.5')	-10
_11		0.0		shells, trace fine sand, slight sulfurous odor (SW)		_11
		0.0				
_12	4.4	0.0	10 / 10 0	Dark Croy (EV 4/1) fine years fine SAND little city trace challe wet alight		_12
_ 13	<u>4.4</u> 5.0	0.0 0.0	12.4 - 13.6	Dark Gray (5Y 4/1) fine-very fine SAND, little silt, trace shells, wet, slight sulfurous odor (SM)		13
	0.0	0.0		Culturous Gast (Citt)	016_G014_13.3 (13.3' - 13.8')	
_14		0.0	13.8 - 14.4	Dark Gray (5Y 4/1) Clayey SILT, trace very fine sand, wet, soft, slight	Fill/native soil interface	_14
		0.0		sulfurous odor (ML)	at 13.8'	
_15			15.0 - 20.0	No Recovery	No sample - no recovery	_15
_ 16			15.0 - 20.0	No recovery	No sample - no recovery	_ 16
_17						_17
_ 18	<u>0.0</u> 5.0					_ 18
-10	5.0					-10
_ _19						_ _19
_						_
_20		0.0	20.0.24.0	Dork Croy (EV 4/4) City CLAV yorg loose wat alight sulfivour and		_20
_ _21		0.0 0.0	20.0 - 21.0	Dark Gray (5Y 4/1) Silty CLAY, very loose, wet, slight sulfurous odor (OL)		_ _21
'		12.2	21.0 - 22.0	Very Dark Grayish Brown (10YR 3/2) PEAT, little black organic silt,	016_G014_21.0 (21.0' - 21.5')	'
_22		6.1		trace clay, very soft, wet, strong sulfurous odor (PT)	(\	_22
	<u>3.8</u>	0.4	22.0 - 23.3	Dark Grayish Brown (10YR 4/2) CLAY, little silt, very soft, moist-wet,		
_23	5.0	0.0 0.0		moderate plasticity (OH), Transitions into Greenish Gray (GLEY2 6/10BG) CLAY, trace silt, soft, moist, no odor (CH)		_23
_ 24		0.0	23.3 - 23.8	Greenish Gray (GLEY2 6/10BG) fine SAND, little medium sand & silt,		_ _24
		0.0		dense, wet, no odor (SM)		
_25						_25

TI-	TET	RATE	CH GEO		PROJECT NO 117-0509	9160.01	Boring No: 016_G014
	COMPLETION DATE. TOTAL DEPTH OF POPULOIS.			PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	7
8/18/2011	30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass		_	Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.8'				No			
MEMO:							
*Cored through ~ (	0.5' of cor	ncrete before	advancing with	geoprobe			

DEPTH	RECOVERY (foot)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	25
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.8 As Above (23.3' - 23.8'), Transitions into Reddish Brown (5YR 4/4) SILT,	SAMPLE SUMMARY 016_G014_25.0 (25.0' - 25.5')	
_26		0.0 0.0	some clay, little coarse-fine sand & fine angular gravel, firm, moist-wet, no odor (ML)		_26
_ _27	2.0	0.0	ine eder (init)		_27
_ _28	<u>3.8</u> 5.0	0.0			_ _28
_ _29		0.0 0.0			_ _29
_ _30					_ _30
 _ _31			End of Boring at 30' b.g.s.		_ _ _31
_					_
_32 _					_32
_33 _					_33
_34					_34
_ _35					_35
_ _36					_36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					40
_ _41					_ _41
_ _ _42					_ _ _42
2 _ _43					43
					_
_ _44 _					_44
_ _45 _					_45 _
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

Th	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01 PROJECT NAME: PPG Site 016		Boring No: 016_G016 / 016_MW02
			San Are Carri				LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:		
8/15/2011	12		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" 3.9' (measured from well)		red from well)			Yes - 016_MW02		
MEMO: *Cored thr							1
Very poor recovery	overall. I	Refusal at 1:	2'				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0 - 0.6 Concrete	SAMPLE SUMMARY	_0
1		0.0	0.6 - 1.1 Dark Grayish Brown (10YR 4/2) medium-fine SAND, little silt & medium-fine subround gravel & schist gravel, medium-dense, moist, no odor (SM)	016_G015_0.6 (0.6' - 1.1')	_1
2	<u>0.5</u>		iline subrodina graver & scriist graver, mediam-derise, moist, no odor (owi)		_2
_3	4.4*				_3
_4					_ _4
_ _5			5.0 - 10.0 No Recovery		_5
_ _6			13.0 - 10.0 No Necovery		_ _6
_ _7	<u>0.0</u>				_7
_8	5.0				_8
_9					_9
10		0.0	10.0 - 10.3 Dark Gray (2.5Y 4/1) medium SAND, little fine sand, trace coarse sand	016_G015_10.0 (10.0' - 10.5')	10
_ _11	<u>0.3</u> 5.0	0.0	& fine subround gravel & shells, loose, wet, slight sulfurous odor (SW)	010_0015_10.0](10.0 - 10.5)	11
_ _12	5.0		End of Poving at 421 b. g. a. (Potugal)		12
_ _13			End of Boring at 12' b.g.s. (Refusal)		13
_ _14			016_MW02 Well Information: 016_MW02 installed on 8/18/11 using 8" hollow stem augers equipped on a		_ _14
_ _15			geoprobe track rig		_ _15
_ _16			2-inch diameter 10-slot SCH40 PVC screen set at 4.5' - 9.5' bgs. 2-inch diameter SCH40 PVC riser from 4.5' bgs. to surface		_ _16
_ _17			#1 Sand from 2.5' to 10.0' bgs.  Cement-bentonite grout from 2.5' to 0.5'		_ _17
_ _18			Flush-mount completion, cement around outer casing 0.5' to surface		18
_ _19			DTW: 3.9' bgs on 8/19/2011		_ _19
20					_20
_ _21					_ _21
22					22
_ _23					23
_ _24					_ _24
_ _25					_ _25

TŁ	TET	RATE	CH GEO				Boring No: 016_G016 LOCATION SKETCH
	COMPLETION DATE: TOTAL DEPTH OF BORE				PPG Site		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	7
8/12/2011	10	10		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5'					No		
мемо: *Cored thr	NEMO: *Cored through ~ 0.6' of concrete before advancing with geoprobe					1	
Refusal at 10' on 1	st attemp	t, 2nd atten	npt at 5', 3rd atter	mpt at 3'			

DEPTH	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] ,
(Feet)	(leet)	(PPM)	0.0 - 0.6	Concrete	SAMPLE SUMMARY	_0
_1		0.0	0.6 - 1.3	Yellowish Brown (10YR 5/6) medium-fine SAND, little medium-fine	016_G016_0.6 (0.6' - 1.1')	_1
_ _2		0.0 0.0	1.3 - 2.5	subround gravel & coarse sand, medium-dense, dry, no odor (SW) Light Brownish Gray (10YR 6/2) medium-fine SAND, trace coarse sand &		2
_ <b>_</b> _	<u>2.5</u>	0.0	1.5 - 2.5	fine subangular-subround gravel, shell fragments at 1.3', dry, loose, no odor		
_3	4.4*	0.0	25 24	(SW)		_3
_ _4			2.5 - 3.1	Gray (10YR 6/1) medium-fine SAND & mica flakes, little medium-fine subround schist gravel, loose, dry, no odor (SP/SW)		_ _4
_ _5						_ _5
_ე _		0.0	5.0 - 5.1	Dark Grayish Brown (2.5Y 4/2) fine SAND, little silt, trace mica, loose,	016_G016_5.0 (5.0' - 5.5')	
_6		0.0	F 4 F 7	wet, no odor (SM)		_6
_ _7			5.1 - 5.7	Dark Gray (5Y 4/1) fine SAND & SILT, some mica & schist gravel, loose, wet, no odor (SM)		_ _7
_	<u>1.0</u> 5.0		5.7 - 6.0	Dark Gray (5Y 4/1) coarse-fine subangular gravel, some fine sand, little		_
_8	5.0			silt, loose, wet, no odor (GW)		_8
_ _9						_9
_ _10						_ _10
_ _11			End of Bo	oring at 10' b.g.s. (refusal)		
_ 12						_ _12
_ _ _13						_ _ _13
0 _ _14						14
_ ' <del>'</del> _ _15						
						_15
_16						_16
_ _17						_17
_ _18						_18
_ _19						_19
_ _20						_20
_ _21						_ _21
_ _22						_ _22
_ _23						23
_ _24						_ _24
_ _25						_ _25

TETRA TEC				PROJECT NO.: 117-0509160.01		Boring No: 016 G017	
10-	ILEI	KAIL	CH GEO	117-0303100.01			010_G017
1					PROJECT NA	ME:	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BODE						016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/22/2011	15	15		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5'					No		
мемо: *Cored through ~ 0.6' of concrete before advancing with geoprobe. Refusal at 15'							
Refusal at 3' on 1s	t attempt,	, refusal at 1	5' on 2nd attemp	t			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.6 Concrete	SAMPLE SUMMARY	0
 _1 2 3 4 4	<u>2.4</u> 4.4*	0.0 0.0 0.0	<ul> <li>O.6 - 0.7 Yellowish Brown (10YR 5/6) medium-fine SAND, loose, moist (SW)</li> <li>O.7 - 2.8 Dark Grayish Brown (10YR 4/2) medium SAND, little fine sand, trace fine subround quartz gravel, trace reddish brown medium-fine COPR gravel, little schist gravel 2.5' - 2.8', loose, moist, no odor (SP)</li> <li>2.8 - 3.0 Light Greenish Gray (GLEY1 8/10Y) coarse-fine schist GRAVEL &amp; COBBLES, medium-dense, moist, no odor (GW)</li> </ul>	016_G017_0.6 (0.6' - 1.1') 016_G017_1.1 (1.1' - 2.1') Trace COPR 1.1' - 2.1'	
_5 _ _6 _7 _ _8 _ _9 _	<u>1.3</u> 5.0	0.0 0.0	<ul> <li>5.0 - 5.3 Brown (7.5YR 4/2) SILT, fine SAND, &amp; schist GRAVEL, medium-dense, wet, no odor (GM)</li> <li>5.3 - 6.3 Light to Dark Bluish Gray (GLEY2 7/5PB to 3/5PB) coarse-fine schist GRAVEL &amp; MICA, trace medium-fine sand &amp; schist cobbles, some medium-fine sand 5.8' - 6.3', dense, wet, no odor (GW)</li> </ul>	016_G017_5.8 (5.8' - 6.3')	5 6 7 8 9 10
	<u>2.6</u> 5.0	2.6 1.3 0.5 5.6 6.7	10.0 - 12.6 Very Dark Gray (2.5Y 3/1) PEAT & organic SILT, little clay, trace shell fragments, very soft, moist, strong sulfurous odor (PT)	016_G017_10.0 (10.0' - 10.5')	11 12 13 14 15
_ _16 _ _17 _ _18			End of Boring at 15' b.g.s. (Refusal)		_ _16 _ _17 _ _18
_19 _ _20 _ _21					_19 _ _20 _ 21
22 23 24 25					22 23 24 25

TE	TET	RATE	CH GEO		PROJECT NO. 117-0509	9160.01	Boring No: 016_H005 LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BODE					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/5/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Dingo		Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
4' Sleeves, 2" ~ 5.5'			No				
MEMO:							
Cored through ~ 0.	.5' of cond	crete before	advancing with g	jeoprobe			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(i eei)	(****)	(FFIVI)	0.0 - 0.5	Concrete	SAMPLE SUMMANT	┨╴
1		0.0	0.5 - 1.5	Black (7.5 YR 2.5/1) coarse-fine GRAVEL, some fine sand & silt, little coarse sand, very loose, wet, no odor (GM)	016_H005_0.5 (0.5' - 1.0')	-  _1
_2		0.0	1.5 - 2.0	Black (7.5 YR 2.5/1) fine SAND & SILT, soft, moist, no odor (ML)		2
		0.0	2.0 - 3.7	Very Dark Greenish-Gray (GLEY1 3/10GY) weathered schist: fine-		- <u>,</u>
_3	<u>1.7</u> 2.0	0.0		medium SAND, some mica & schist gravel, trace silt, loose, moist, no	046 H005 3.2 (3.2) 3.7)	_3
_ _4	2.0	0.0		odor (SP)	016_H005_3.2 (3.2' - 3.7')	
		0.0	4.0 - 5.5	As Above (2.0' - 3.7')		1
_5		0.0	F F C O	Dork Daddish Brown (EVD 2/2) fine round CDAVEL (notantial CODD	016_H005_5.0 (5.0' - 5.5') 016_H005_5.5 (5.5' - 6.0')	_5
_6	2.0	0.0 0.0	5.5 - 6.0	Dark Reddish Brown (5YR 3/2) fine round GRAVEL (potential COPR, 50%), some fine SAND, little silt, soft to firm, moist, moist-wet	016_H005_5.5 (5.5 - 6.0) 016_H005_6.0 (6.0' - 6.5')	_
_0	<u>2.9</u> 4.0	0.0		at 6', slight sulfurous odor (GP)	010_11003_0.0 1(0.0 - 0.5)	-
7		0.0	6.0 - 6.9	Very Dark Gray (2.5Y 3/1) medium SAND, little fine sand,	potential COPR - 50%	-7
_				trace coarse sand, loose, moist-wet, slight sulfurous odor (SP)	5.5' - 6.0'	
_8						8
_		0.0	8.0 - 9.0	Dark Reddish Brown (5YR 3/2) coarse-fine SAND, little silt & fine gravel,		-,
_9		0.0 0.0	9.0 - 12.0	very loose, wet, slight sulfurous odor (SW)  Dark Reddish Brown (5YR 3/2) medium SAND, trace fine & coarse sand,		_6
	4.0	0.0	3.0 12.0	trace shells, loose, wet, slight sulfurous odor (SP)		
	<u>4.0</u> 4.0	0.0		(1)		
_11		0.0				_1
		0.0			016_H005_11.5 (11.5' - 12.0')	
_12		0.0	12.0 12.6	Dark Cray (EV 4/4) Silty CLAV trace fine and moderate planticity	(fill/native soil interface?)	_1_1
_ 13		0.0 0.0	12.0 - 12.6	Dark Gray (5Y 4/1) Silty CLAY, trace fine sand, moderate plasticity, very soft, moist-wet, slight sulfurous odor (OH)		1
_10		0.0	12.6 - 14.4	As Above (9' - 12') (SP)		- '
14	<u>4.0</u>	0.0		, (- )		<u> </u> _1
_	4.0	0.0				_
_15		0.0	14.4 - 16.0	Dark Reddish Brown (5Y 3/2) coarse-fine SAND, some coarse-fine		_1
_ 16		0.0 0.0		subround gravel, little silt, very loose, wet, slight sulfurous odor (SW)	016_H005_15.5 (15.5' - 16.0')	  - 
_10		0.0	16.0 - 19.0	As Above (14.4' - 16'), possibly cave-in (SW)		┪╴
_ _17		0.0				_1
_		0.0				
_18	<u>3.0</u>	0.0			No sample	_1
10	4.0	0.0				-
_19		0.0				_1
_20						2
		0.0	20.0 - 23.0	As Above (14.4' - 16'), possibly cave-in (SW)		-
_21		0.0				_2
	<u>3.5</u>	0.0 0.0				_2
_ <b></b>	<u>3.5</u> 4.0	0.0				-
_23		0.0	23.0 - 23.5	Dark Gray (7.5Y 4/1) Silty CLAY, trace fine sand, moderate plasticity,		_2
_		0.0		very soft, moist-wet, slight sulfurous odor (OH)	016_H005_23.0 (23.0 - 23.5)	
_24						
_			End of Bor	ring at 24' b.g.s.		<u> </u>

TŁ	TETRA TECH GEO			117-0509160.01 PROJECT NAME:		Boring No: 016_H007 LOCATION SKETCH	
7/6/2011				PID MiniRAE 2000 Jin		GEOLOGIST / OFFICE: Jim M / Whitehouse Station	
EPI \ Warren Atkin			Geoprobe Track				
SAMPLING METHOD: DEPTH TO GROUNDWATER 5' Sleeves, 1.25" ~ 5.8'		DUNDWATER			WELL INSTALLED? No		
MEMO: *Cored through ~ (							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
 _1 _ _2 _	3.5	0.0 0.0 0.0	<ul> <li>0.0 - 0.5 Concrete</li> <li>0.5 - 1.3 Black (10YR 2.5/1) SLAG &amp; COAL fragments, loose, moist (from coring), no odor (GW)</li> <li>1.3 - 3.1 Dark Yellowish Brown (10YR 4/4) fine-medium SAND, little red brick fragments throughout, broken-up concrete at 1.9', stiff, dry, no odor (SAL 4.0) North Park Crew (40YR 9/4) fine-park little readings and transported.</li> </ul>	016_H007_0.5 (0.5' - 1.0') (Below concrete)	_ _1 _ _2 _
_3 - _4 - _5	4.5*	0.0 0.0 0.0	3.1 - 4.0 Very Dark Gray (10YR 3/1) fine sand, little medium sand, trace mica and fine schist gravel, trace rootlets, medium dense, moist, no odor (SP)	016_H007_3.5 (3.5' - 4.0')	_3 _ _4 _ _5
_ _6 _ _7 _	<u>3.2</u> 5.0	0.0 0.0 0.0 0.0	<ul> <li>5.0 - 5.6 As Above (3.1' - 4.0'), some silt, Dark Reddish Brown sandstone fragments 5.4' - 5.6' (SM/GP)</li> <li>5.6 - 7.0 Very Dark Gray (10YR 3/1) fine-medium SAND, trace silt, loose, moist-wet at 5.8', loose, slight sulfurour odor (SP)</li> <li>7.0 - 8.2 Dark Grayish Brown (10YR 4/2) fine-coarse SAND, trace silt and shell trace fine subround grayish loose, wat alight sulfurous oder (SM)</li> </ul>		_ _6 _ _7 _
_8 _ _9 _ _10	5.0	0.0	trace fine subround gravel, loose, wet, slight sulfurous odor (SW)	016_H007_7.5 (7.5' - 8.0')	_8 _ _9 _ _10
11 12 13 14 15	<u>3.5</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	10.0 - 13.5 Dark Gray (10YR 4/1) fine SAND, little medium and very fine sand, abundant shells, medium-dense, wet, slight sulfurous odor (SW)	016_H007_11.5 (11.5' - 12.0')	_ _11 _ _12 _ _13 _ _ _14 _
13  16  _17  _18  19 20	<u>3.4</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	<ul> <li>15.0 - 15.5 As Above (10.0' - 13.5') (SW)</li> <li>15.5 - 17.2 Dark Gray (5Y 4/1) CLAY, very soft, moderate-high plasticity, moist, slight sulfurous odor (OH)</li> <li>17.2 - 18.4 Black (5Y 2.5/1) CLAY, little silt, trace peat &amp; shells, moderate to high plasticity, soft, moist, strong sulfurous odor (OH)</li> </ul>	016_H007_15.0 (15.0' - 15.5') (fill/native soil interface)	16  _17  _18  _19 20
_ _21 _ _22 _ _23	3.8 5.0	0.0 0.0 0.0 0.0 0.0 0.0	<ul> <li>20.0 - 22.7 Dark Brown (10YR 3/3) PEAT, some Very Dark Gray (5Y 3/1) CLAY from 20.0' - 22.5', low to moderate plasticity, soft, moist, strong sulfurous odor (PT)</li> <li>22.7 - 23.4 Greenish Gray (GLEY 2 5/5BG) Silty CLAY, soft, moderate to low</li> </ul>	016_H007_20.0 (20.0' - 20.5')	_ _21 _ _22 _ _23
_ _24 _ _25		0.0	plasticity, moist, slight sulfurous odor (CL) 23.4 - 23.8 Greenish Gray (GLEY 2 5/5BG) medium-coarse SAND, little coarse subangular gravel & cobbles, dense, wet, no odor (SW)	016_H007_23.3 (23.3' - 23.8')	_ _24 _ _25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_H007	
			PROJECT NAME: PPG Site 016		LOCATION SKETCH		
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:		
7/6/2011	30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5.8'				No			
мемо: 0							
*Cored through ~ (	).5' of con	crete befor	e advancing with	geoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.5 Reddish Brown (5YR 4/3) fine SAND, some silt, little medium sand &	SAMPLE SUMMARY	_25
_ _26		0.0	very fine sand, loose to medium-dense, wet, no odor (SM), Transitions		_ _26
_ _27		0.0 0.0	into Reddish Brown (5YR 4/3) very fine SAND, some silt, little fine sand, medium-dense, loose, no odor (SM)		_ _27
_ _28	<u>3.5</u> 4.0	0.0 0.0		016_H007_27.5 (27.5' - 28.0')	L
_	4.0	0.0		010_11001_21.3 (21.3 - 20.0)	L
_29 _					_29 _
_30			End of Boring at 30' b.g.s.		_30
_ _31			Life of Borning at 30 B.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_H008
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1
8/10/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.0'				No			
MEMO:							
*Cored through ~ 0	).4' of con	crete before	advancing with	geoprobe			

	DEPTH	RECOVERY	OVM		DUDMEISTED SVSTEM SOUL DESCRIPTION	FIELD NOTES &	
1	(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
2							<u> </u>
2	_1			0.4 - 1.1	· · · · · · · · · · · · · · · · · · ·	016_H008_0.4 (0.4' - 0.9')	_1
3 4.6° 0.0 18 - 2.7 Sarwel, trace fine subround red sandstone gravel, stiff, moist (ML) 0.0 0.0 18 - 2.7 Sarwel, trace fine subround schist gravel & mica, medium-dense, moist, no odor (SP) 0.0 0.0 2.7 - 3.0 Dark Gray (2.5 V 41) medium-fine SAND, trace fine round schist gravel & coarse sand, 20% COPR (f-m round gravel) 2.7 - 3, moist, medium-dense, no odor (SW) 2.7 - 3.0 Dark Gray (2.5 V 41) medium-fine SAND, trace fine sand, trace fine gray angular gravel. 20% COPR (f-m round gravel) 3-3.2 .  8 0.0 0.0 5.0 - 7.0 Dark Gray (2.5 V 41) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW) 7.0 - 8.5 Dark Gray (2.5 V 41) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW) 7.0 - 8.5 Dark Gray (2.5 V 41) silly cLAY, trace very fine sand, very soft, wet, loose, slight sulfurous odor (SW) 12.2 - 13.5 Dark Gray (2.5 V 41) line sand, little very fine sand, very soft, wet, sight sulfurous odor (OH) 12.2 - 13.5 Dark Gray (2.5 V 41) line sand, little very fine sand, very soft, wet, sight sulfurous odor (OH) 12.5 - 14.0 Dark Gray (2.5 V 41) line sand, little very fine sand, very soft, slight sulfurous odor (OH) 13.5 - 14.0 Dark Gray (2.5 V 41) Silly CLAY, indict, moist, moderate plasticity, slight sulfurous odor (OH) 15.0 - 15.8 Dark Gray (2.5 V 41) Silly CLAY, little very fine sand, very soft, slight sulfurous odor (OH) 15.5 - 15.8 Dark Gray (5.7 V 1) CLAY, soft, moist, moderate plasticity, slight sulfurous odor (OH) 15.5 - 15.5 Dark Gray (5.7 V 1) CLAY, soft, moist, moderate plasticity, trace brown peat throughout, abundant shells 21' - 21.5'; strong sulfurous odor (OH) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to Black (6Y 2.5/1) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to Black (6Y 2.5/1) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to Black (6Y 2.5/1) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to Black (6Y 2.5/1) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to Black (6Y 2.5/1) 17.1 - 17.5 As Above (13.5' - 14.0'), hue change to B	_			11 10	• • • • • • • • • • • • • • • • • • • •		-
3	_2	28		1.1 - 1.0	· · · · · · · · · · · · · · · · · · ·		
1	_ 3			1.8 - 2.7		016 H008 2.2 (2.2' - 2.7')	_ 3
Dark Gray (2.5 Y 4/1) medium-fine SAND, trace fine round schist gravel & coarse sand, 20% COPR (-m round gravel) 2.7'-3', moist, medium-dense no odor (SW)  Reddish Brown (SYR 4/4) SLIT, little very fine sand, trace fine gray angular gravel, 20% COPR (-m round gravel) 3'-3.2', moist-wet, firm, no odor (ML)  Reddish Brown (SYR 4/4) SLIT, little very fine sand, trace fine gray angular gravel, 20% COPR (-m round gravel) 3'-3.2', moist-wet, firm, no odor (ML)  Solvential of the complete of the	_•	""			· · · · · · · · · · · · · · · · · · ·		
5   3.0 - 3.2   Reddish Brown (SYR 4/4) SiLT, little very fine sand, trace fine gray angular gravel, 20% COPR (f-m round gravel) 3'-3.2', moist-wet, firm, no odor (ML)   5.0 - 7.0   Dark Gray (2.5' 4'1) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW), Transitions into Brown (7.5'YR 4/2) medium-fine SAND trace shells & coarse sand, wet, loose, slight sulfurous odor (SW)   7.0 - 8.5   Dark Gray (2.5' 4'1) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW)   7.0 - 8.5   Dark Gray (2.5' 4'1) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW)   10.0 - 11.8   As Above (7 - 8.5')   9   10   10   10.0 - 11.8   As Above (7 - 8.5')   10   10   11   10   10   11   10   10   11   10   10   11   10   10   11   10   10   11   10   10   11   10   10   11   10   10   10   11   10   10   10   11   10	_4		0.0	2.7 - 3.0			_4
Solution	_				& coarse sand, 20% COPR (f-m round gravel) 2.7'-3', moist, medium-dense		_
gray angular gravel, 20% COPR (f-m round gravel) 3'-3.2',	_5						_5
0.0	_			3.0 - 3.2		016_H008_5.0 (5.0' - 5.5')	_
7.	_6						_6
8	_ 7			50-70			-   7
8	<b>-</b> '	3.5		0.0 - 1.0			-'
sulfurous odor (SW) 7.0 - 8.5 Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells & coarse sand, wet, loose, slight sulfurous odor (SW)  10  10  10  11  10  10  11  10  10  1	_ _8	5,0			, ,		_8
wet, loose, slight sulfurous odor (SW)  10		<b> </b>				016_H008_8.0 (8.0' - 8.5')	
10	_9			7.0 - 8.5			_9
11					wet, loose, slight sulfurous odor (SW)		
11	_10		0.0	400 440	A. Abarra (71 O.51)		_10
12	_ 11			10.0 - 11.8	AS Above (7 - 8.5)		11
12	-''						-''
13	_ 12			11.8 - 12.2	Dark Gray (2.5Y 4/1) Silty CLAY, trace very fine sand, very soft, wet.	016 H008 11.3 (11.3' - 11.8')	<sup>-</sup> 12
13		<u>4.0</u>					
14	_13	5,0		12.2 - 13.5	· · · · · · · · · · · · · · · · · · ·	11.8'	_13
13.5 - 14.0 Dark Gray (5Y 4/1) CLAY, soft, moist, moderate plasticity, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 4/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 14/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 14/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 14/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  15.0 - 15.8 Dark Gray (5Y 14/1) Silty CLAY, little very fine sand, wet, very soft, slight sulfurous odor (OH)  16.0 - 16.							
15	_14		0.0	40.5 44.5			_14
1.1	_ 15			13.5 - 14.0	• • • • • • • • • • • • • • • • • • • •		15
16   0.0   sulfurous odor (OH)   0.0   15.8 - 17.1   As Above (13.5' - 14.0')   -16   -17   -17   -18   -18   -18   -19	_13		0.0	15.0 - 15.8			-13
1.7	_ _16			10.0		016 H008 15.5 (15.5' - 16.0')	_ 16
17				15.8 - 17.1		(1010 1010)	
18 5.0	_ _17						_17
20	_	<u>2.5</u>	0.0	17.1 - 17.5	As Above (13.5' - 14.0'), hue change to Black (5Y 2.5/1)		_
20	_18	5.0					_18
20	_						-10
1.1 20.0 - 23.0 Very Dark Gray (5Y 3/1) CLAY, soft, moist, high plasticity, trace brown peat throughout, abundant shells 21' - 21.5', strong sulfurous odor (OH)  22 3.8 0.0 0.0 23.0 - 23.8 Gray (5Y 5/1) CLAY, soft, moist (OH/CH), Transitions into Gray (5Y 5/1) very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight sulfurous odor (ML)  1.1 0.6 016_H008_20.0 (20.0' - 20.5')  2.2 2.2 2.3 3.8 0.0 0.0 0.0 very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight sulfurous odor (ML)  2.3 0.6 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	_19						-19
1.1 20.0 - 23.0 Very Dark Gray (5Y 3/1) CLAY, soft, moist, high plasticity, trace brown peat throughout, abundant shells 21' - 21.5', strong sulfurous odor (OH)  22 3.8 0.0 0.0 23.0 - 23.8 Gray (5Y 5/1) CLAY, soft, moist (OH/CH), Transitions into Gray (5Y 5/1) very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight sulfurous odor (ML)  1.1 0.6 016_H008_20.0 (20.0' - 20.5')  2.2 2.2 2.3 3.8 0.0 0.0 0.0 very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight sulfurous odor (ML)  2.3 0.6 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	_ 20						<sup>-</sup> 20
21			1.1	20.0 - 23.0	Very Dark Gray (5Y 3/1) CLAY, soft, moist, high plasticity, trace brown	016_H008_20.0 (20.0' - 20.5')	
22	_ _21					,	_21
3.8 0.0 0.0 0.0 0.0 23.0 - 23.8 Gray (5Y 5/1) CLAY, soft, moist (OH/CH), Transitions into Gray (5Y 5/1) very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight sulfurous odor (ML) 016_H008_23.3 (23.3' - 23.8') 24	_						<u> </u> _
23	_22						_22
very fine SAND & SILT, some clay, firm grading to soft, moist-wet, slight 0.0 sulfurous odor (ML) 016_H008_23.3 (23.3' - 23.8')		3.8		00.0.00.0	Crow/EV E/A) CLAV and maint (OLI/CLI). Transitions into One (EV E/A)		
24 0.0 sulfurous odor (ML) 016_H008_23.3 (23.3' - 23.8') 24	_23	5.0		23.0 - 23.8			_23
.	_ 24				, , , , , , , , , , , , , , , , , , , ,	016 H008 23.3 (23.3' - 23.8')	<sup>-</sup> 24
			0.0			2.0_1.000_20.0 (20.0 20.0)	
	_ _25						_25

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_H009
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/19/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5'				No			
MEMO:							
Cored through ~ 0.	Cored through ~ 0.4' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
 _1		0.0	0.0 - 0.4 0.4 - 1.6	Concrete Yellowish Brown (10YR 5/6) medium-fine SAND, little medium-fine	016_H009_0.4 (0.4' - 0.9')	<del>-</del>  -,
_'		0.0	0.4 - 1.6	subround gravel, slag (sand & medium-fine black gravel) 0.6' - 1.1', loose,	016_H009_0.4 ](0.4 - 0.9)	_1
_ _2		0.0		dry, no odor (SW)		_2
_	<u>3.4</u>	0.0	1.6 - 1.9	Dark Grayish Brown (10YR 4/2) fine SAND, some silt, little schist gravel,		_
_3	4.4*	0.0		medium-dense, dry, no odor (SM)		_3
_ _4		0.0 0.0	1.9 - 2.6 2.6 - 3.2	Dark Brown (10YR 3/3) Silty fine SAND, some schist gravel, dense, dry (SM	1) I	_ _4
_4		0.0	2.0 - 3.2	Very Dark Gray (2.5Y 3/1) SILT, little clay & very fine sand, trace rootlets, firm, moist, no odor (ML)		-4
_ _5			3.2 - 3.9	Very Dark Gray (2.5Y 3/1) medium-fine SAND, little silt, moist, loose, no odd	or (SM)	_ _5
_		0.0	5.0 - 7.2	Dark Reddish Gray (5YR 4/2) coarse-fine SAND, trace fine gravel & ,	016_H009_5.0 (5.0' - 5.5')	]_
_6		0.0		rootlets, loose, wet, no odor (SW)		_6
		0.0				
_7	<u>3.0</u>	0.0 0.0	7.2 - 8.0	Dark Gray (2.5Y 4/1) medium SAND, little fine sand & shells, trace coarse		_7
_ _8	5.0	0.0	7.2 0.0	sand & fine subround gravel, loose, wet, slight sulfurous odor (SW)		_8
_						
_9						_9
_						10
_10		0.0	10.0 - 10.4	As Above (7.2' - 8.0')	016_H009_10.0 (10.0' - 10.5')	
_ _11		0.0		Dark Gray (2.5Y 4/1) very fine SAND, little silt & fine sand, wet, loose,	(10.0 10.0)	_11
_				slight sulfurous odor (SM)	Fill/native soil interface not	
_12					recovered	_12
_ 13	<u>1.1</u> 5.0					_ _13
_13	5.0					-13
_ 14						_ 14
_						
_15			45.0.00.0	N.		_15
_ _16			15.0 - 20.0	No recovery	No sample - no recovery	_ 16
_10						-10
_ _17						_17
_	<u>0.0</u> 5.0					_
_18	5.0					_18
_ _19						_ _19
_19						-13
_ _20						_20
_		0.0	20.0 - 20.8	Greenish Gray (GLEY2 6/5BG) SILT, little clay, little greenish gray	016_H009_20.0 (20.0' - 20.5')	
_21				fine-medium subround gravel, trace fine sand, stiff, dry, no odor (ML)		_21
						22
	<u>0.8</u>					
_ _23	5.0					_23
_						
_24						_24
_ 25						_ _25
_25						∠≎

TŁ	TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_H009
				PPG Site 016			
COMPLETION DATE:	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:		DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/19/2011	8/19/2011 30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5'					No		
МЕМО:							
Cored through ~ 0.	Cored through ~ 0.4' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &
(Feet)	(feet)	(PPM) 0.0	25.0 - 25.5 Brown (7.5YR 5/2) fine-very fine SAND, little silt & clay, trace medium-	SAMPLE SUMMARY25 016_H009_25.0 (25.0' - 25.5')
_ _26		0.0	fine subround gravel, medium-dense, moist-wet, no odor (SC)	20.0 20.0
_		0.0	25.5 - 25.7 Brown (7.5YR 5/2) and Reddish Brown (2.5Y 5/3) coarse-fine angular	-
_27	<u>3.0</u>	0.0 0.0	GRAVEL, trace very fine sand & silt, loose, wet, no odor (GW) 25.7 - 25.9 Brown (7.5YR 5/2) Silty fine-very fine SAND, little coarse-fine reddish-	_2
_28	5.0	0.0	brown (5YR 4/4) gravel, trace clay, moist-wet, dense, no odor (SM)	
_ _29			25.9 - 26.1 Dark Reddish Brown (2.5Y 3/3) coarse SAND & medium-fine subangular GRAVEL, trace silt, wet, medium-dense, no odor (GW)	
_			26.1 - 28.0 As Above (25.7' - 25.9') (SM)	_
_30			End of Boring at 30' b.g.s.	_3
_ _31			Life of Borning at oo Big.s.	_3
_ _32				
_				_
_33				_3:
_ _34				
_ 35				
_				
_36				_31
_ _37				_3
_ 				
_				
_39				_3:
_ _40				_4
_ 41				
_				
_42				_4
_ _43				
_ _44				
_45				_4
_ _46				
_ _47				4
				_
_48				_4
_ _49				
_ _50				

TETRA TECH GEO					PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_H010 LOCATION SKETCH
				PPG Site			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/17/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.2'				No			
MEMO:							
*Cored through ~ 0	).5' of con	crete before	advancing with	geoprobe			

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	0
1		0.0	0.0 - 0.5	Light Olive Brown (10YR 5/6) medium-fine SAND, little medium-fine	016_H010_0.5 (0.5' - 1.0')	_ _1
		0.0		gravel, trace coarse sand, moist, loose, no odor (SW)	<u> </u>	
_2			0.7 - 1.0	Black (GLEY1 2.5/N) medium-fine GRAVEL (coal & slag), loose, dry, (SW)		_2
_ _3	<u>3.1</u> 4.5*	0.0 0.0	1.0 - 1.7 1.7 - 2.9	White (GLEY1 8/1) GRAVEL & COBBLES (concrete), dense, dry (SW) Very Dark Grayish Brown (2.5Y 3/1) fine SAND, some silt & gray	016_H010_2.4 (2.4' - 2.9')	3
-3	4.5	0.0	1.7 - 2.9	medium-fine angular gravel, cobbles at 2.4', dense, dry, no odor (SM)	016_H010_2.4 (2.4 - 2.9) 016_H010_2.9 (2.9' - 3.4')	_3
_4			2.9 - 3.3	Dark Reddish Brown (5YR 3/2) SILT, some fine sand, 20% medium-fine	016_H010_3.4 (3.4' - 3.7')	_4
_				COPR gravel 2.9' - 3.3', wet 3.2' - 3.3', firm, no odor (ML)	20% COPR noted 3.4' - 3.7'	_
_5		0.0	3.3 - 3.6	Very Dark Gray (10YR 3/1) medium-fine SAND, wet, loose, no odor (SW)		_5
_ _6		0.0 0.0	5.0 - 5.8	Very Dark Gray (10YR 3/1) coarse-fine SAND, little fine round quartz gravel, trace glass fragments, wet, loose, no odor (SW)		_ _6
			5.8 - 7.2	Dark Grayish Brown (10YR 4/2) coarse-medium SAND, little fine-coarse		
_7		0.0		subround gravel & medium sand, loose, wet, no odor (SW)		_7
_	<u>3.5</u>	0.0	7.2 - 8.5	Dark Gray (2.5Y 4/1) medium-fine SAND, trace gravel, coarse sand, &		_
_8	5.0	0.0 0.0		shells, wet, slight sulfurous odor (SW)	016_H010_7.5 (7.5' - 8.0')	_8
_ _9		0.0				_ _9
						_
_10		0.0	40.0 40.7	A. Al. (7.0) 0.5) (OM)		_10
_ 11		0.0 0.0	10.0 - 12.7	As Above (7.2' - 8.5') (SW)		_ 11
-''		0.0				-''
_12		0.0				_12
	<u>3.7</u>	0.0			016_H010_12.2 (12.2' - 12.7')	_
_13	5.0	0.0 0.0	12.7 - 13.7	Dark Gray (5Y 4/1) CLAY, fine sand at 13.5', soft, moist, slight sulfurous odor (OH)		_13
_ 14		0.0		odol (OH)		_ 14
_15						_15
-   16		0.0 0.0	15.0 - 17.1	As Above (12.7' - 13.7') (OH)		_ 16
-10		0.0			016_H010_16.0 (16.0' - 16.5)	-10
17		0.0			(	_17
	<u>2.5</u>	0.0	17.1 - 17.5	As Above (12.7' - 13.7'), but Very Dark Gray (5Y 3/1) (OH)		
_18	5.0					_18
_ 19						_ _19
_20		0.0	00.0.01=	D 1 1 1 1 D (40) (D 4/0) ( ) 1   D 1	040 11040 00 0 1/00 01 00 =	_20
21		0.0 11.2	20.0 - 21.7	Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown (10YR 3/2) PEAT, trace CLAY, soft, moist, strong sulfurous odor (PT)	016_H010_20.0 (20.0' - 20.5)	_ _21
'		7.8		(10 11 0/2) 1 EAT, HAGE OLAT, SOIL, HOISE, SHOTING SUITUTOUS OUDT (FT)		
_22		0.0	21.7 - 23.6	Bluish Gray (GLEY2 5/5PB) CLAY, little silt, low plasticity, soft, moist-		_22
	<u>3.6</u>	0.0		wet, no odor (CL), Transitions into Greenish Gray (GLEY2 6/5BG)		
_23	5.0	0.0 0.0		clayey fine-very fine SAND, little silt, medium-dense, moist, no odor (SC)		_23
_ 24		0.0				24
_25						_25

TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_H010	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:						GEOLOGIST / OFFICE:	-
8/17/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.2'				No			
MEMO:							
*Cored through ~ (	Cored through ~ 0.5' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.3 Grayish Brown (10YR 5/2) clayey fine-very fine SAND, little silt, medium-	SAMPLE SUMMARY 016_H010_25.0 (25.0' - 25.5)	_25
_ _26		0.0	dense, moist, no odor (SC), Transitions into Clayey SILT, low plasticity,	010_11010_23.0 ](23.0 - 23.3)	_ _26
_ _27		0.0 0.0	firm, moist, no odor (ML) 26.3 - 28.2 Grayish Brown (10YR 5/2) medium SAND, little fine sand, trace fine		_ _27
_	<u>3.7</u>	0.0	subround gravel, loose, wet, no odor (SP)		_
_28	5.0	0.0 0.0	28.2 - 28.7 Reddish Brown (5YR 4/3) medium SAND, some fine subround gravel, little fine sand & medium gravel, trace silt, wet, loost, no odor (SP)		_28
_ _29		0.0	intile interesting a mediani graver, trace ent, tree, leeet, ne each (et )		_ _29
_ _30					_ _30
			End of Boring at 30' b.g.s.		_ _31
_					_
_32					_32
_33					_33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_H011 / 016_MW03
16				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	ETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	7
8/16/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.6'				Yes - 016_MW03			
MEMO:							7
*Cored through ~ (	*Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)	0.0 - 0.6	Concrete	SAMPLE SUMMARY	_0
		0.0	0.6 - 1.6	Brownish Yellow (10YR 6/6) fine-medium SAND, little medium-fine	016_H011_0.6 (0.6' - 1.1')	- _1
		0.0	1.6 - 2.5	subround gravel, cobbles at 1.6', medium-dense, moist, no odor (SW)	016_H011_1.1 (1.1' - 1.6')	
_2	<u>3.1</u>	0.0 0.0	1.0 - 2.5	Dark Gray (2.5Y 4/1) fine SAND, little silt, trace fine round COPR gravel 1.6'-1.7', little schist gravel & mica, dense, moist, no odor (SM)	016_H011_1.6 (1.6' - 2.1') 016_H011_2.2 (2.2' - 2.7')	_2
_3	4.4*		2.5 - 2.7	Pale Olive (5Y 6/4) fine SAND, little medium sand, loose, moist (SP)	016_H011_2.7 (2.7' - 3.2')	_3
_ _4		0.0	2.7 - 2.9	Black (10YR 2.5/1) fine SAND, trace silt, 30% fine round COPR gravel, medium-dense, moist, no odor (SP)	016_H011_3.2 (3.2' - 3.7') 15% COPR 1.6' - 1.7'	_ _4
_			2.9 - 3.2	Reddish Brown (5YR 4/4) SILT and medium-fine round COPR GRAVEL	30% COPR 2.7' - 2.9'	_
_5			3.2 - 3.7	(70%), little fine sand, medium-dense, moist, no odor (GM)  Very Dark Gray (2.5Y 3/1) medium-fine SAND, wet @ 3.6' (SW)	70% COPR 2.9' - 3.2'	5
_6		0.0	5.0 - 8.5	Dark Grayish Brown (10YR 4/2) medium SAND, some fine sand, trace		_6
_ 7		0.0 0.0		coarse sand, shells, & fine gravel, loose, wet, no odor (SW), Transitions to Dark Gray (2.5Y 4/1) coarse-medium SAND, some fine subround		_ 7
_	<u>3.5</u>	0.0		gravel, little shells, trace fine sand, wet, loose, slight sulfurous odor (SW)		<u> </u>
_8	5.0	0.0 0.0			016_H011_8.0 (8.0' - 8.5')	_8
_9					,	_9
_ _10						_ 10
_ 11			10.0 - 15.0	No Recovery	No sample - no recovery	_ _11
_						
_12	0.0					_12
_13	5.0					_13
_ _14						14
_ 15						-  15
_			15.0 - 20.0	No Recovery	No sample - no recovery	1_
_16						_16
_17	0.0					_17
_ _18	<u>0.0</u> 5.0					_ _18
_ _19						_ 
_20			20.0 - 25.0	No Recovery	No sample - no recovery	20
_ _21			20.0 20.0	The Receivery	The campio The receivery	_21
_ _22						
	<u>0.0</u> 5.0					<u> </u>
_23	5.0					_23
_24						_24
_ _25						_ _25

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_H011 / 016_MW03		
				PROJECT NAME:			LOCATION SKETCH		
				T	PPG Site	016			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:			
8/16/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:					
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?			
5' Sleeves, 1.25" ~ 3.6'				Yes - 016_MW03					
MEMO:									
*Cored through ~ (	0.6' of cor	ncrete before	advancing with	Cored through ~ 0.6' of concrete before advancing with geoprobe					

DEPTH (Fact)	RECOVERY (feet)	OVM (DDM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	25
(Feet)	(leet)	(PPM) 0.0	25.0 - 26.1 Greenish Gray (GLEY2 6/5BG) Silty medium-fine SAND, little medium-	SAMPLE SUMMARY 016_H011_25.0 (25.0' - 25.5')	_25 _
_26		0.0 0.0	fine subround gravel, loose, wet, no odor (SM) Transitions into SILT, some very fine sand, moist, firm, no odor (ML)		_26
_ _27		0.0	26.1 - 27.8 Greenish Gray (GLEY2 5/5BG) grading to Reddish Gray (5YR 5/2) fine		_ _27
_ _28	<u>3.6</u> 5.0	0.0 0.0	SAND, wet, loose, no odor (SP),		_ _28
	0.0	0.0	27.8 - 28.6 Reddish Brown (5YR 5/3) medium-fine SAND, little fine subangular gravel		_
_29 _			& coarse sand, trace silt & medium gravel, dense, wet, no odor (SW)		_29
_30			End of Davis and 201 have		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32			016_MW03 Well Information: 016_MW03 installed on 8/17/11 using 8" hollow stem augers equipped on a		_ _32
_			geoprobe track rig		_
_33			2-inch diameter 10-slot SCH40 PVC screen set at 4.5' - 9.5' bgs.		_33
_ _34			2-inch diameter SCH40 PVC riser from 4.5' bgs. to surface		_34
_ _35			#1 Sand from 2.5' to 10.0' bgs. Cement-bentonite grout from 2.5' to 0.5'		_ _35
_ _36			Flush-mount completion, cement around outer casing 0.5' to surface		_ 36
_			DTW: 4.2' bgs on 8/17/2011		
_37 _					_37
_38					_38
_ _39					39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_H012	
				PROJECT NAME: PPG Site 016			LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/26/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h		
SAMPLING METHOD:		DEPTH TO GRO	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7	
5' Sleeves, 1.25"				No				
MEMO:								
*Cored through $\sim$ 0	Cored through ~ 0.5' of concrete before advancing with geoprobe.							

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(. 551)		(1 1 111)	0.0 - 0.5	Concrete	5, wiii 22 55, wiii 24, w	_~
 _1		0.0	0.5 - 1.2	Light Yellowish Brown (10YR 6/6) medium-fine SAND, little subround medium-fine gravel, medium-dense, dry, no odor (SW)	016_H012_0.5 (0.5' - 1.0')	_1
_ _2		0.0	1.2 - 1.8	Yellowish Brown (10YR 5/6) fine SAND, little medium sand, trace silt,		_2
_ _3	<u>3.5</u> 4.5*	0.0 0.0	1.8 - 2.3	unknown black granular material 1.7'-1.8', medium-dense, dry (SP) Dark Grayish Brown (2.5Y 4/2) very fine SAND, some silt, little schist	016_H012_2.2 (2.2' - 2.7') 016_H012_2.7 (2.7' - 3.3')	_ _3
_		0.0		gravel & mica, medium-dense, dry, no odor (SM)	016_H012_3.3 (3.3' - 3.8')	
_4 _		0.0	2.3 - 2.7 2.7 - 3.3	Light Brown (10YR 5/3) medium-fine SAND, loose, moist, no odor (SW) Very Dark Grayish Brown (10YR 3/2) grading to Reddish Brown	50% COPR noted 2.7' - 3.3'	_4
_5				(2.5YR 4/4) medium-fine subround COPR GRAVEL & fine SAND, some silt, moist, moist-wet 3' - 3.3', dense, no odor (GM)		_5
_ _6			3.3 - 4.0	Brown (7.5YR 4/2) medium SAND, some fine sand, trace		_ _6
_ _7		0.0	5.0 - 8.5	sand & gravel, wet, loose, no odor (SW)  As Above (3.3' - 4'), Transitions to Dark Gray (2.5Y 4/1) medium SAND,	016_H012_6.5 (6.5' - 7.0')	_ _7
_ 8	<u>3.5</u> 5.0	0.0 0.0		some fine sand, trace subround gravel & shells, abundant shells 6.7' to 6.8', loose, wet, slight sulfurous odor (SW)		_ _8
_	3.0	0.0		o.b., 1003c, wet, slight sulfations odol (Ovv)		_
_9						_9
_10		0.0	10.0 12.7	Dark Grayish Brown (10YR 4/2) medium SAND, little coarse & fine sand,		_10
_ _11		0.0	10.0 - 12.7	trace gravel & shells, wet, loose, slight sulfurous odor (SW)		_ _11
_ 12		0.0 0.0				_ 12
_ _ 	<u>2.9</u> 5.0	0.0 0.0	107 100	Dark Gray (5Y 4/1) CLAY, soft, moist-wet, slight sulfurous odor (OH)	016_H012_12.2 (12.2' - 12.7')	_ _ _13
	3.0	0.0	12.7 - 12.9	Dark Gray (31 4/1) CEAT, Soit, Moist-wet, Slight Sullufous Odor (Off)		
_14						_14
_ _15		0.0	45.0 47.0	As About (42.7), 42.00 (OU)		15
_ _16		0.0 0.0	15.0 - 17.0	As Above (12.7' - 12.9') (OH)		_ _16
_ 17		0.0 0.0			016_H012_16.0 (16.0' - 16.5')	_ 17
_	<u>3.0</u>	0.0	17.0 - 18.0	As Above (12.7' - 12.9') but Very Dark Gray (5Y 3/1), trace shells		
_18	5.0	0.0		17.8' - 18' (OH)		_18
_19						_19
_20		2.0	00.0.00.5	A. Al (40.7) 40.00 (OL)	040 11040 00 0 1/00 01 00 ="	_20
_ _21		0.0 1.7	20.0 - 20.8	As Above (12.7' - 12.9') (OH)	016_H012_20.0 (20.0' - 20.5')	_ _21
		16.6 1.1	20.8 - 21.7	Dark Brown (10YR 3/3) PEAT, trace clay, moist-wet, soft, strong sulfurous odor (PT)		_
_	<u>2.0</u> 5.0		21.7 - 22.0	Greenish Gray (GLEY2 6/5BG) SILT, some fine-very fine sand, little clay,		
_23	5.0			firm, moist-wet, slight sulfurous odor (ML)		_23
_24						_24
_ _25						_ _25

77-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_H012
					PROJECT NAME:		LOCATION SKETCH
					PPG Site	U16	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/26/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		0				No	
MEMO:						_	
*Cored through ~ 0	).5' of con-	crete before	advancing with	geoprobe.			

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_25
(Feet) _ _26	(leet)	(PPM) 0.0 0.0 0.0	25.0 - 28.5 As Above (21.7' - 22'), Transitions to fine SAND, little medium sand, trace silt, medium-dense, moist-wet, no odor (SP), then to Brown (7.5YR 4/2) fine SAND, little medium sand, medium-dense, wet, no	SAMPLE SUMMARY 016_H012_25.0 (25.0' - 25.5')	_25 _ _26
_ _27 _	<u>3.8</u> 5.0	0.0 0.0	odor (SP)		_ _27 _ _28
_28 _ _29	5.0	0.0 0.0		-	_20 _ _29
_ _30				-	_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35				-	_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_H013		
				PROJECT NAME: PPG Site 016			LOCATION SKETCH		
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:			
8/24/2011	30			PID MiniRAE 2000		JM / Whitehouse Station			
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:					
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?			
5' Sleeves, 1.25" ~ 3.3'					No				
MEMO:									
Cored through ~ 0.	.6' of cond	crete before	Cored through ~ 0.6' of concrete before advancing with geoprobe						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0.00		SAMPLE SUMMARY	_0
1	-	0.0	0.0 - 0.6 0.6 - 1.2	Concrete Olive Yellow (2.5Y 6/6) medium-fine SAND, little medium-fine subround	016_H013_0.6 (0.6' - 1.1')	_ _1
<u> </u>		0.0		gravel, trace white clay & coarse sand, medium-dense, dry (SW)	(0.0)	
_2		0.0	1.2 - 1.6	Dark Greenish Gray (GLEY1 3/10Y) SILT, fine SAND, & coarse-medium		_2
_ 3	<u>3.1</u> 4.4*	0.0	1.6 - 2.1	gray angular GRAVEL, dense, dry, no odor (GM)	016_H013_2.3 (2.3' - 2.8') 016 H013 2.8 (2.8' - 3.1')	_
_ <sup>3</sup>	4.4	0.0 0.0	1.0 - 2.1	Dark Grayish Brown (2.5Y 4/2) very fine SAND, little silt, schist gravel/mica, dense, dry, no odor (SM)	016_H013_2.6 (2.8 - 3.1) 016_H013_3.1 (3.1' - 3.6')	_3
_4		0.0	2.1 - 2.8	As Above (0.6' - 1.2') (SW), Pale Yellow (2.5Y 7/3) Clayey Silt 2.5'-2.8'	30% COPR 2.8' - 3.1'	_4
_			2.8 - 3.3	Dark Brown (7.5YR 3/2) fine SAND, little silt, 30% medium-fine subround		_
_5			0007	COPR gravel 2.8' -3.1', medium-dense, moist, no odor (SM)		_5
-   6			3.3 - 3.7	Very Dark Grayish Brown (10YR 3/2) medium-fine SAND, trace subround fine gravel (non-COPR), wet, loose, no odor (SW)		_ _6
		0.0	5.0 - 5.3	Very Dark Gray (2.5Y 3/1) SILT, some very fine-fine sand, loose, wet,		
_7		0.0		no odor (ML)		_7
_	<u>3.6</u>	0.0	5.3 - 5.9	Dark Grayish Brown (10YR 4/2) medium-coarse SAND, little fine	016_H013_7.0 (7.0' - 7.5')	_
_8	5.0	0.0 0.0	5.9 - 8.6	subround gravel, wet, loose, slight sulfurous odor (SW)  Dark Grayish Brown (10YR 4/2) medium SAND, little fine sand, trace		_8
_ _9		0.0	0.0	gravel & shells, wet, loose, slight sulfurous odor (SP)		_9
_						_
_10		0.0	100 105	Dark Gray (10YR 4/1) coarse-fine SAND, trace gravel & shells, wet,		_10
-   11		0.0 0.0	10.0 - 12.5	loose, slight sulfurous odor (SW)		_ _11
[		0.0		Toose, slight saliarous sacritery		[
_12		0.0				_12
_ 13	<u>2.5</u> 5.0	0.0			016_H013_12.0 (12.0' - 12.5')	_ 13
-13	5.0				Fill/native soil interface	-13
_14					not recovered	_14
_15			15.0 20.0	No Dogovory	No comple no recovery	_15
-  16			15.0 - 20.0	No Recovery	No sample - no recovery	_ 16
_17						_17
_ _18	<u>0.0</u> 5.0					_ 18
_10	5.0					-10
_ _19						_19
_20		0.0	20.0. 20.4	Dark Brown (10YR 3/3) CLAY, little shells, soft, moist, strong sulfurous	016_H013_20.0 (20.0' - 20.5')	_20
_ _21		0.0	20.0 - 20.4	odor, moderate plasticity (OH)	016_H013_20.0 (20.0 - 20.5)	_ _21
<u></u>		0.0	20.4 - 21.3	Greenish Gray (GLEY2 6/5BG) CLAY, trace silt, soft, moist, moderate		
_22		0.0		plasticity, no odor (CH)		_22
	<u>2.3</u> 5.0		21.3 - 21.7	Greenish Gray (GLEY2 6/5BG) very fine SAND, some silt, little clay,		
_23	5.0		21.7 - 22 3	medium-dense, moist-wet, no odor (SM) As Above (20.4 - 21.3), Silty CLAY, firm, moist, low plasticity (CL)		_23
_ _24				(20.1. 2.1.0), c.i.ly delivit, iiiii, iiiolot, low plactionly (de)		_24
_						_
_25						_25

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_H013
				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC		GEOLOGIST / OFFICE:	
8/24/2011	30			PID MiniRAE 2000 JM / WI		JM / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.3'					No		
MEMO:							
Cored through ~ 0.	.6' of cond	crete before	advancing with g	eoprobe			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	[
(Feet)	(feet)	(PPM) 0.0	25.0 - 27.8 Greenish Gray (GLEY2 6/5BG) very fine SAND, little silt & clay,	SAMPLE SUMMARY 016_H013_25.0 (25.0' - 25.5')	_25
_26		0.0 0.0	medium-dense, moist-wet, no odor (SM), Transitions to Dark Gray (10YR 4/1) fine-very fine SAND, little silt, trace medium sand, medium-	` ` `	_26
_ _27	<u>3.6</u>	0.0 0.0 0.0	dense, moist-wet, no odor (SM)		_ _27
_ _28	5.0 5.0		27.8 - 28.6 Dark Reddish Gray (5Y 4/2) fine-very fine SAND, trace coarse-medium subround gravel, dense, moist-wet, no odor (SP)		_ _28
_ _29		0.0			_ _29
_30			Estad Devise at 2014 as a		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_33
_34					_34
_ _35					_35
_ _36					_36
_ _37					_37
_ _38 _					_38
_39					_39
_40					_40
_41					_41
_42					_42
_43					_43
_44					_44
_ _45 _					_ _45 _
_ _46 _					_ _46 _
_47 _					_47 _
_48 _					_48 _
_ _49					_ _49
_ _50					_50

72-	TETRA TECH GEO		CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_H014
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	TOTAL DEF	TH OF BOREH	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 2'				No	
MEMO:		_					
*Cored through ~ (	0.4' of cor	crete before	e advancing with	geoprobe.			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)	0.0 - 0.4 Concrete	SAMPLE SUMMARY	_0
_1			0.4 - 1.1 Light Olive Brown (2.5YR 5/3) fine SAND, little silt & coarse-medium	016_H014_0.4 (0.4' - 0.9')	_ _1
_ _2	0.0	0.0	gray angular gravel, trace medium sand, medium-dense, dry, no odor (SM 1.1 - 1.3 Dark Grayish Brown (2.5Y 4/2) medium-fine SAND, little subround	)	_ _2
_ _3	<u>2.2</u> 4.6*	0.0	medium-fine gravel (non-COPR), medium-dense, dry, no odor (SW) 1.3 - 2.0 Yellow (2.5Y 7/8) fine SAND, little medium sand & white silty clay,		_3
_ _4			medium-dense, moist, no odor (SC) 2.0 - 2.6 Very Dark Gray (10YR 3/1) Silty fine SAND, soft, moist-wet, no odor (SM)		_ _4
_ _5					_ _5
_ _6		0.0	5.0 - 8.3 Dark Grayish Brown (10Y 4/2) medium SAND, little coarse & fine sand, trace gravel & shells, loose, wet, slight sulfurous odor (SW)	016_H014_5.0 (5.0' - 5.5')	_ _6
_ _7	2.2	0.0 0.0 0.0			_ _7
_ _8	<u>3.3</u> 5.0	0.0			_8
_ _9					_9
_ _10					_10
_ _11		0.0	10.0 - 11.6 As Above (5' - 8.3') except Dark Gray (10YR 4/1), some coarse sand (SW)		_ _11
_ _12	17	0.0		016_H014_11.1 (11.1' - 11.6') Fill/native soil itnerface	_ _12
_ _13	<u>1.7</u> 5.0			not recovered	13
_ _14					_14
_ _15					_ _15
_ _16		0.0	15.0 - 16.8 Dark Gray (5Y 4/1) CLAY, soft, moist, moderate plasticity, slight sulfurous odor (OH)	016_H014_15.0 (15.0' - 15.5')	16
_ _17	<u>3.7</u>	0.0 0.0 0.0	16.8 - 18.3 As Above (15' - 16.8'), but Black (5Y 2.5/1) (OH)		_ _17
_ _18	5.0	0.0 0.0	18.3 - 18.7 As Above (15' - 16.8'), but with little shells (OH)		_18
19		0.0	10.0 10.7 7.0 7.0000 (10 10.0), But with little should (011)		_19
_20					20
_ _21		0.9	20.0 - 20.8 As Above (15' - 16.8'), trace silt (OH) 20.8 - 21.2 Dark Yellowish Brown (10YR 4/6) to Very Dark Grayish Brown	016_H014_20.0 (20.0' - 20.5')	21
_ _22	4.5	0.0	(10YR 3/2) PEAT, trace CLAY, soft, moist, strong sulfurous odor (PT) 21.2 - 21.5 Greenish Gray (GLEY2 6/10BG) CLAY, firm, moist, slight sulfurous		22
_ _23	<u>1.5</u> 5.0		odor, moderate plasticity (CH)		23
_ _24					_ _24
_ _25					_ _25

72	TET	RATE	CH GEO				Boring No: 016_H014
				## The state of th	LOCATION SKETCH		
					PPG Site (	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREH	DLE:	MONITORING DEVICE	E:	GEOLOGIST / OFFICE:	
8/25/2011	30			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 2'				No	
МЕМО:	-						
*Cored through ~ (	.4' of con	crete before	e advancing with	geoprobe.			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.9 Greenish Gray (GLEY2 6/5BG) fine-very fine SAND, little silt & clay,	SAMPLE SUMMARY 016_H014_25.0 (25.0' - 25.5')	_25
_26		0.0	medium-dense, moist-wet, no odor (SC), Transitions to fine SAND, little	,	_26
_ _27		0.0 0.0	very fine sand, medium-dense, wet, no odor (SP) 26.9 - 28.5 Dark Gray grading to Brown (7.5YR 4/1 - 4/3) medium-fine SAND, some		_ _27
_ _28	<u>3.6</u> 5.0	0.0 0.0	coarse sand, little reddish brown coarse-fine angular gravel, slight mottling - Greenish Gray (GLEY2 6/5BG) 28' - 28.3', gray cobbles 27.7'		_ _28
_	0.0	0.0	- 27.9', medium-dense, wet, no odor (SW)		_
_29 _					_29 _
_30			End of Boring at 30' b.g.s.		_30
_ _31			End of Borning at 50 b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _ _34					34
					_
_35					_35
_36					_36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _ _41					_ _ _41
_ _ _42					_ _ _42
_ _ _43					_ _ _43
 _ _44					44
 _ _45					 _ _45
_					
_46 _					_46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

72	7/6/2011 5.3 PI		PROJECT NO.: 117-0509160.01		Boring No: 016_H016		
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	TOTAL DEF	PTH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/6/2011	5.3	5.3		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	ETHOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5'				No	
МЕМО:							
*Cored through ~ 0	).6' of cor	ncrete before	advancing with	geoprobe. Refus	sal at 5.3'		

DEPTH	RECOVERY	OVM		DUDMEISTED SVSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.6 0.6 - 1.1	Concrete Dark Reddish Brown (5YR 3/2) fine SAND & medium-fine subround	016_H016_Core (0.0' - 0.6') 016_H016_0.6 (0.6' - 1.1')	 _1
_'		0.0	0.0 - 1.1	COPR GRAVEL, little silt, loose, dry, no odor (GM)	016_H016_1.1 (1.1' - 1.6')	'
_2		0.0	1.1 - 2.7	Light Yellowish Brown (2.5Y 6/3) medium SAND, trace fine sand &	40% COPR noted 0.6' - 1.1'	_2
_ _3	<u>2.8</u> 3.4*	0.0 0.0		coarse-fine gravel, loose, dry, no odor (SP)	Took core sample from	_ _3
		0.0			concrete foundation, no	_
_4					discoloration or COPR	_4
_ _5					nodules noted in sample	_ _5
_	0.3 / 0.3	0.0	5.0 - 5.3	Brown (10YR 4/3) medium SAND, little fine sand & coarse-fine subround	016_H016_5.0 (5.0' - 5.3')	
_6			End of Do	gravel, loose, wet, no odor (SP)		_6
_ _7			Elia oi Bo	oring at 5.3' b.g.s. (Refusal)		_ _7
_						
_8						_8
_ _9						_ _9
_ _10						_ _10
_10						_10
_11						_11
_ _12						_ _12
_13						_13
_ 14						_ 14
_15						_15
_ _16						_16
_ 17						_ _17
_17 _						_''
_18						_18
_ _19						_ _19
_20						_20
_ _21						_ _21
_						
_22						_22
_ _23						_23
_ _24						_ _24
_24						_24
_ _25						_ _25

77-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_I005
	,				PROJECT NA		LOCATION SKETCH
	-	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1
7/6/2011	30			PID MiniRAE 20	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	ETHOD / BIT:	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							
*Cored through ~ 1	of conc	rete. Attemp	ted to hand auge	r but hit immedia	ate refusal		

DEPTH (Foot)	RECOVERY (feet)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_0
(Feet)	(1001)	(PPM)	0.0 - 1.0	Concrete	PID bkgd: 4.6 ppm	1_
_1 - _2 - _3 - _4	1.3 4.0*	0.0 5.4 5.6	1.0 - 1.5 1.5 - 2.3	Very Dark Grayish Brown (10YR 3/2) fine SAND, some medium sand & silt, loose, moist, slight sulfurous odor (SM) Very Dark Grayish Brown (10YR 3/2) fine-coarse SAND, some silt, little fine gravel, loose, wet (likely water from coring), slight sulfurous odor (SM)	016_I005_1.0 (1.0' - 1.5') 016_I005_1.8 (1.8' - 2.3')	_1 _2 _ _3  _4
_ _5						5
_ <del></del>  6		7.6 6.3 6.5	5.0 - 5.4 5.4 - 7.3	Very Dark Grayish Brown (10YR 3/2) fine-coarse SAND, some silt, little fine gravel, loose, moist-wet, slight petroleum odor, no staining (SM) Very Dark Gray (10YR 3/1) fine SAND, little very fine sand & silt, trace	PID bkgd: 4.7 ppm	6
	<u>2.3</u> 5.0	7.5	0.4 7.0	medium sand, loose to medium-dense, trace shell fragments, slight sulfurous odor (SP)	016_1005_6.8 (6.8' - 7.3')	
_0 _ _9	0.0					_0 _ _9
_ _10		0.7	100 110	A. Al (5.4), 7.0)) (OD)	DID II I I I I I I	10
_ _11		6.7 7.3		As Above (5.4' - 7.3') (SP)	PID bkgd: 4.7 ppm 016_1005_10.8 (10.8' - 11.3')	_ _11
_ _12 _	<u>3.8</u>	8.0 7.7 7.7	11.3 - 13.8	Dark Gray (5Y 4/1) Silty CLAY, occasional thin (< 1") lenses of little fine sand, trace shell fragments, soft, moderate to highly plastic, moist-wet, slight sulfurous odor (OH)	Fill/native soil interface at 11.3'	_ _12
_ _13 _ _ _14	5.0	7.8 7.6 7.3				_ _ _ _ _14
_ _ _15						_ _ 
_		0.4	15.0 - 16.3	As Above (11.3' - 13.8') (OH)	PID bkgd: 0.0 ppm (zeroed)	1_
_16 -		0.8 0.6	16.3 - 17.4	As Above (11.3' - 13.8'), hue change to Black (5Y 2.5/1), strong	016_1005_15.0 (15.0' - 15.5')	_16
_17 _	<u>3.5</u>	1.2 1.7	17.4 - 18.0	sulfurous odor (OH) Dark Gray (5Y 4/1) CLAY, little silt, trace shells, soft, moist,		_17  _
_18	5.0	0.6 0.8	18.0 - 18.5	moderate plasticity, strong sulfurous odor (OH) As Above (17.4' - 18.0') but with some peat (OH)		_18
_ _19						_19
_ _20		4.4	22.2.24.2	Ded Valle 1st December (40)/D 0/0) DEAT come Ded Van Occ	DID III I I O O I I I I	20
_ _21		1.4 2.1	20.0 - 21.3	Dark Yellowish Brown (10YR 3/6) PEAT, some Dark Very Gray (5Y 3/1) Silty CLAY, soft to medium-stiff, moderate plasticity,	PID bkgd: 0.0 ppm 016_1005_20.0 (20.0' - 20.5')	_ _21
_ _22			21.3 - 22.6	moist, strong sulfurous odor (PT) Greenish Gray (GLEY2 5/5BG) Silty CLAY, firm, moderate to low plasticity,		22
_ _23	<u>2.6</u> 5.0	0.2		moist, no odor (CL). Transitions into fine-medium SAND, some silt and clay, medium-dense, moist-wet, no odor (SM)		
_ _ _24				· ·		_ _ _24
 _ _25						

72-	TET	RA TI	ECH GEO				Boring No: 016_I005
		LOCATION SKETCH					
					PPG Site	J16	
COMPLETION DATE:	TOTAL DEP	TH OF BORE	IOLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/6/2011	30			PID MiniRAE 2	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	
EPI \ Warren			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GF	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5.0'				No	
MEMO:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.2	25.0 - 26.6 Greenish Gray (GLEY2 6/5BG) fine-medium SAND, loose, wet, no odor	SAMPLE SUMMARY PID bkgd: 0.0 ppm	_25
_ _26		0.4	(SP), Transitions to coarse SAND, some medium sand, little fine	016_I005_25.0 (25.0' - 25.5')	_ _26
_ _27		1.2 1.3	subangular gravel, loose, moist, no odor (SW) 26.6 - 27.4 Greenish Gray (GLEY2 6/5BG) fine SAND, little medium sand, trace silt,		_ _27
_	<u>4.6</u> 5.0	2.1	loose, wet, no odor (SP)		_
_28	5.0	0.0 0.0	27.4 - 29.0 Weak Red (2.5YR 4/2) medium SAND, some to little fine sand, loose, moist-wet, no odor (SP)		_28
_29		0.0 0.0			_29
_ _30		0.0	29.0 - 29.6 Red (2.5YR 4/8) SILT, little clay, stiff, low plasticity, moist, no odor (ML)		_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_					_
_32					_32
_33					_33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

72	TET	RATE	CH GEO				Boring No: 016_I006 / 016_MW05
7/6/2011 30 PID MiniRAE 2000  DRILLING CONTRACTOR / DRILLER: DRILLING EQUIPMENT: DRILLING ME EPI \ Warren Atkinson Geoprobe Track Rig Direct Pus  SAMPLING METHOD: DEPTH TO GROUNDWATER GROUND SURFACE ELEVATION: 5' Sleeves, 1.25" ~ 3.2'  MEMO:		LOCATION SKETCH					
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/6/2011	30			PID MiniRAE 20	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T:	DRILLING ME	THOD / BIT:	1
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 3.2'				Yes - 016_MW05 (on 8/2/11)	
MEMO:							]
Cored through ~ 0.	.6' of cond	crete before	advancing with g	eoprobe. Hand	augered to	1.1' - hit refusal	

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(i eet)	(****)	(FFIVI)	0.0 - 0.6	Concrete	SAWFLE SUMMANT	┨
1		0.0	0.6 - 1.1	Dark Brown (7.5YR 3/2) fine-coarse SAND, some fine-coarse subround-	016_I006_0.6   0.6' - 1.1'	1
		0.0		subangular gravel, trace silt, loose, moist-wet (from coring), no odor (SW)		
_2		0.0	1.1 - 1.8	Weak Red (10R 4/3) fine-coarse GRAVEL (broken-up siltstone), little		_2
_		0.0		coarse sand, loose, dry, no odor (GW)		_
_3	<u>2.8</u>	0.0	1.8 - 2.5	Olive Brown (2.5YR 4/3) medium SAND, trace coarse sand & subround		_3
_	3.9*	0.0		fine-medium gravel, trace fine sand, loose, moist, no odor (SP)		_
_4		0.0	2.5 - 3.2	Very Dark Gray (5Y 3/1) SILT, some fine sand, little clay, trace wood	016_1006_3.4 3.4' - 3.9'	_4
				fragments, very soft, low plasticity, moist (ML)		I
_5			3.2 - 3.9	Black (2.5Y 2.5/1) fine-medium SAND, little wood fragments & Reddish		!
_		0.0	50.70	Brown (2.5Y 4/3) Silty CLAY, loose, wet, slight sulfurous odor (SP)		l-,
_6		0.0	5.0 - 7.0	Dark Reddish Brown (5YR 3/2) fine-coarse SAND, little fine subround		_6
- <b>-</b>		0.0		gravel, loose, wet, slight sulfurous odor (SW)		<u> -</u>
_7	2.4	0.0	70 04	Dayle Crace (40VD 4/4) fine modified CAND trace shall frequency		-
_8	<u>3.4</u> 5.0	0.0 0.0	7.0 - 8.4	Dark Gray (10YR 4/1) fine-medium SAND, trace shell fragments, Transitions into Dark Gray (10YR 4/1) fine to very fine SAND, loose, wet,	016_1006_7.5 7.5' - 8.0'	
_0	5.0	0.0		slight sulfurous odor (SP)	010_1000_7.5	-
9		0.0		slight sulfitious odor (or )		
_5						-
10						
		0.0	10.0 - 11.2	Dark Gray (10YR 4/1) fine to very fine SAND, some silt, loose, wet,		十
11		0.0		slight sulfurous odor (SM)	016_1006_10.7   10.7' - 11.2'	
-		0.0	11.2 - 12.9	Dark Gray (5Y 4/1) Silty CLAY, occasional thin (< 1/2") lenses of little	Fill/native soil interface at	
12		0.0		fine sand, soft, moderate to highly plastic, moist, slight sulfurous	11.2'	
_	<u>2.9</u>	0.0		odor (OH)		
_13	5.0	0.0				
_						_
_14						<u> </u>
_						_
_15						<u>_</u>
		0.0		As Above (11.2' - 12.9') (OH)	016_1006_15.0 15.0' - 15.5'	-
_16		0.0	15.6 - 18.0	As Above (11.2' - 12.9'), hue change to Black (5Y 2.5/N), little silt,		-
-		0.0		trace shells, strong sulfurous odor (OH)		<u> </u> -
_1/	2.0	0.0				-
- 18	<u>3.0</u> 5.0	0.0				
_10	5.0	0.0				-
19						_
_13						-
20						
		3.3	20.0 - 21.3	Dark Brown (10YR 3/4) PEAT, little Dark Gray (5Y 4/1) CLAY, low	016_1006_20.0   20.0' - 20.5'	Ħ
21		6.1		plasticity, soft, moist, strong sulfurous odor (PT)	2.0000_20.0 20.0	
		0.4	21.3 - 22.6	Greenish Gray (GLEY2 5/5BG) SILT, some clay and fine sand, low		Γ
22		0.0		plasticity, soft, moist, slight sulfurous odor (ML), Transitions into Greenish		
-	<u>2.6</u>	0.0		Gray (GLEY2 6/5BG) Silty fine-medium SAND, little clay, medium-dense,		
23	5.0			moist-wet, no odor (SM)		
_						
_24						
_						L
25						1.

72	TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_I006 / 016_MW05
					PROJECT NAME:		LOCATION SKETCH
					PPG Site 016		
COMPLETION DATE:	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/6/2011	7/6/2011 30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.2'			Yes - 016 MW05 (on 8/2/11)				
MEMO:						•	]
Cored through ~ 0.	.6' of cond	crete before	advancing with g	eoprobe. Hand	augered to	1.1' - hit refusal	

DEPTH	RECOVERY (foot)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.7 Dark Grayish Brown (2.5Y 4/4) grading to Dark Yellowish Brown	SAMPLE SUMMARY 016_I006_25.0   25.0' - 25.5'	_
_26		0.0	(2.5Y 4/4) medium SAND, some fine sand, medium-dense, moist-wet,		_26
_ _27		0.0 0.0	no odor (SP)		_ _27
_	<u>3.7</u> 5.0	0.0			_
_28 _	5.0	0.0 0.0			_28
_29					_29
_ _30					_ _30
_ _31			End of Boring at 30' b.g.s.		
_			016_MW05 Well Information:		_
_32			016_MW05 installed on 8/2/11 using 8" hollow stem augers equipped on a geoprobe track rig		_32
_ _33					_33
_ _34			2-inch diameter 10-slot SCH40 PVC screen set at 5.0' - 10.0' bgs. 2-inch diameter SCH40 PVC riser from 5.0' bgs. to surface		_ _34
_			#1 Sand from 3.0' to 10.0' bgs.		_
_35			Cement-bentonite grout from 3.0' to 0.5' Flush-mount completion, cement around outer casing 0.5' to surface		_35
_ _36					_36
_ _37			DTW: 3.20' below TIC, measured on 8/5/2011		_ _37
_ _38					
_					
_39					_39
_ _40					_ _40
_ _41					_ _41
_					_
_42					_42
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_ _44					_ _44
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_ _49					_ _49
_ _50					_ 50

72-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_I006a
						ME: 016	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVIC		GEOLOGIST / OFFICE:	
7/6/2011	7/6/2011 30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5.0'			No		No		
МЕМО:							
*Cored through ~ (	).7' of cor	crete before	advancing with	geoprobe. Hand	-augered to	o 1.2' - hit refusal	

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
(1 001)	, ,	(1 1 141)	0.0 - 0.7	Concrete	O WILL GOVERN	1
1		0.0	0.7 - 1.2	Very Dark Grayish Brown (10YR 3/2) fine-coarse SAND, some fine-	016_l006a_0.7   0.7' - 1.2'	1_
_		0.0		coarse subangular gravel, little mica, trace silt, dry, loose, no odor (SW)		-
_2		0.0	1.2 - 3.1	Black (2.5Y 2.5/1) fine-medium SAND, little coarse sand, fine-medium		-
-	0.5	0.0		subround gravel from 1.2' - 1.5' (SW)		-
_3	<u>2.5</u> 3.8*	0.0 0.0	3.1 - 3.4	Dark Greenish-Gray (GLEY1 4/10GY) weathered schist: fine SAND,	016_l006a_2.9   2.9' - 3.4'	-
_4	3.0	0.0	3.1 - 3.4	some mica & schist gravel/cobbles,little medum sand, trace silt, dense,	016_1006a_2.9	
				dry, no odor (SP)		-
5						
_		0.0	5.0 - 6.2	Dark Reddish Brown (5YR 3/2) medium SAND, little fine & coarse sand,		+
_6		0.0		trace fine round gravel, loose, wet, slight sulfurous odor (SP)		_
		0.0	6.2 - 8.2	Dark Gray (10YR 4/1) fine-medium SAND, little coarse sand, trace silt,		-
_7	0.0	0.0		loose, wet, slight sulfurous odor (SW)		-
- 8	<u>3.6</u> 5.0	0.0 0.0			016_l006a_7.7   7.7' - 8.2'	
_0	5.0	0.0	8.2 - 8.6	Dark Gray (5Y 4/1) Silty CLAY, soft, moderate to high plasticity,	Fill/native soil interface at 8.2	-
9		0.0	5.2 5.0	very soft, wet, slight sulfurous odor (OH)		
- · -				, , , , , , , , , , , , , , , , , , , ,		
_10						
-		0.0	10.0 - 12.8	As Above (8.2' - 8.6') (OH)		-
_11		0.0				-
_ 12		0.0 0.0			016_l006a_11.5	-
_14	<u>3.1</u>	0.0			010_1000a_11.5]11.5 - 12.0	-
_ 13	5.0	0.0	12.8 - 13.1	Black (5Y 2.5/1) CLAY, little silt, moderate plasticity, very soft,		-
_				moist, strong sulfurous odor (OH)		
_14						
						_
_15		0.0	45.4.45.0	A. Al. (40.0), 40.40, (see al. III. (see al. (OH))		-
_ 16		0.0 0.0	15.1 - 15.8	As Above (12.8' - 13.1'), trace shells fragments (OH)	016_I006a_15.5	
_10		0.0	15.8 - 18.0	Very Dark Gray (5Y 3/1) CLAY, little silt, little peat from 17.6'-18',	010_1000a_13.3 13.3 - 16.0	-
- 17		0.0	10.0	trace shells, moderate to high plasticity, very soft, moist, strong		
	<u>3.0</u>	0.0		sulfurous odor (OH)		
18	5.0	0.0		` '		
_						_
_19						-
20						
		1.1	20.0 - 20.5	As Above (15.8' - 18') with some peat (OH/PT)	016_I006a_20.0 20.0' - 20.5'	十
		0.0		Greenish Gray (GLEY2 5/5BG) Clayey SILT, trace very fine sand,	2.00004_20.0 20.0	
_		0.0		moderate plasticity, firm, moist, no odor (ML)		
_22		0.0	21.5 - 22.5	Greenish Gray (GLEY2 6/5BG) Silty CLAY, moderate plasticity, soft to		
_	<u>3.4</u>	0.0		firm, moist, no odor (CL)		-
	5.0	0.0	22.5 - 23.4	Olive Brown (2.5Y 4/3) medium SAND, some fine sand, trace coarse		-
_23		0.0	1	sand, medium-dense, moist-wet, no odor (SP)	1	
_		0.0				- [ -
_23 _ _24		0.0				

72-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_I006a
						ME: 016	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/6/2011	30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	NT: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							
*Cored through ~ (	).7' of con	crete before	e advancing with	geoprobe. Hand	-augered to	o 1.2' - hit refusal	

ecovery - driller noted running sands	SAMPLE SUMMARY	
i 30' b.g.s.		
t 30' b.g.s.		_ _31 _ _32 _
		_ _32 _
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		_33
		_34
		_35
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		_ _43
		_ _44
		_ _45
		_ _46 _ _47
		_ _ _48
		49
		49 _ 50

TETRA TECH G						Boring No: 016_I009	
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:				MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/9/2011	/9/2011 30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	ENT: DRILLING		ETHOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3'					No		
МЕМО:							

DEPTH	RECOVERY	OVM		DUDMEISTED SYSTEM SOULDESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0.0.	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1 _		0.0 0.0	0.0 - 0.1 0.1 - 2.9	Asphalt Dark Grayish Brown (2.5Y 4/2) fine SAND, some silt & gray coarse-fine angular to round gravel, little schist gravel & mica, dense, dry, no odor	016_1009_0.0 (0.0' - 0.5')	_ _1 _
_2	<u>3.8</u>	0.0 0.0		(SM)		_2
_ _3 _	5.0		2.9 - 3.8	Brown (7.5YR 4/2) coarse-medium SAND, trace fine subround gravel, loose, wet 3' - 3.8', no odor (SW)		_3
_4 _		0.0				_4 _
_5		0.0	5.0 - 8.3	As Above (2.9' - 3.8'), grades into Dark Gray (7.5YR 4/1) medium SAND,	016_1009_5.0 (5.0' - 5.5')	_5
_ _6		0.0 0.0 0.0	5.0 - 6.5	some fine sand, trace coarse sand & fine subround gravel, trace shells, loose, wet, slight sulfurous odor (SW)	010_1009_3.0	_ _6
_7	<u>3.3</u>	0.0				_7
_8	5.0	0.0				_8
_9 _						_9 _
_10		0.0	10.0 12.0	Dark Gray (7.5YR 4/1) medium SAND, some fine sand, trace coarse		_10
_ _11		0.0 0.0 0.0	10.0 - 12.0	sand, fine subround gravel, & shells, wet, loose, slight sulfurous odor (SW)		_ _11
_ _12	0.0	0.0	400 400	Ded One (5)(A(A) Ol A)( transmitted as a faith fine and faith	016_1009_11.5 (11.5' - 12.0')	_12
_ _13	<u>3.2</u> 5.0	0.0 0.0	12.0 - 13.2	Dark Gray (5Y 4/1) CLAY, trace silt, lense of silty fine-very fine sand, little clay at 12.6' and 12.8'-13', moist, soft, slight sulfurous odor (OH)	Fill/native soil interface at 12'	_ _13
_ _14						_ _14
_ _15						_ _15
_ _16		0.0	15.0 - 16.5	As Above (12'-13.2') (OH)	016_1009_15.5 (15.5' - 16.0')	_ _16
_ _17	<u>1.9</u>	0.0 0.0	16.5 - 16.9	As Above (12'-13.2'), hue change to Very Dark Gray (5Y 3/1), little organic silt and shell fragments (OH)		_ _17
_ _18	5.0			organic sitt and shell fragments (OH)		_18
_ _19						_19
_ _20						20
_ _21		0.6 0.3	20.0 - 21.5	As Above (12.0' - 13.2'), trace peat, strong sulfurous odor (OH)	016_1009_20.0 (20.0' - 20.5')	_ _21
_ _22	22	0.0 0.0	21.5 - 22.2	Greenish Gray (GLEY2 6/10BG) CLAY, trace silt, high plasticity, soft,		_ _22
_ _23	<u>2.2</u> 5.0			moist, no odor (CH), Transitions into Grayish Brown (10YR 5/2) fine-very fine SAND, little silt, medium-dense, moist, no odor (SP/SM)		_ _23
_ _24						_ _24
_ _25						_ _25

TI-	TETRA TECH GEO				PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_I009 LOCATION SKETCH
	)						
				ī	PPG Site	016	<u></u>
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/9/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	EQUIPMENT: [		ETHOD / BIT:	1
EPI \ John Brass			Geoprobe Track	robe Track Rig		h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3'			No				
MEMO:							7

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 25.4 Grayish Brown (10YR 5/2) mottled Greenish Gray (GLEY2 6/10BG) and	SAMPLE SUMMARY 016_I009_25.0 (25.0' - 25.5')	-
_ _26		0.0 0.0	Olive (5Y 5/4) fine-very fine SAND, little silt, medium-dense, moist, no odor (SP/SM)	010_1003_23.0 (23.0 23.3)	_ _26
_ _27	3.9		25.4 - 28.9 Dark Grayish Brown (10YR 4/2) coarse-medium SAND, trace fine sand & fine subround-subangular gravel, loose, wet, no odor (SW)		_ _27
_ _28	<u>3.9</u> 5.0	0.0			_28
_ _29 _		0.0			_ _29
_30			Fr. Laf Davis and 2011, and		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_33
_ _34					_34
_ _35					_35
_ _36 _					_36
_37 _					_37 _
_38 _					_38 _
_39 _					_39 _
_40 _					_40 _
_41					_41
_42 _ _43					_42
_43 _ _44					_43 _ _44
_ <del>44</del> _ _45					_ <del>44</del> _ _45
_ <del>4</del> 3 _ _46					_45 _ _46
40 _ _47					47 _ _47
, _ _48					, _ _48
_ _ _49					_ _ _49
_ _ _50					_ _ _50

77-	TET	RATE	CH GEO		PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_I011
							LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			DLE:	PPG Site 0		GEOLOGIST / OFFICE:	1
8/17/2011	30		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:		THOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.3'			No				
МЕМО:		_					
*Cored through ~ 0	).5' of con	crete before	advancing with	geoprobe.			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	_0
(Feet)	(1001)	(PPIVI)	0.0 - 0.5	Concrete	SAMPLE SUMMARY	<del>-</del>  -"
 _1		0.0 0.0	0.5 - 1.5	Strong Brown (7.5YR 5/8) fine SAND, little medium sand, little medium- fine subround gravel, medium-dense, moist-dry, no odor (SP)	016_l011_0.5	_1
_ _2	0.4	0.0	1.5 - 1.8	Dark Grayish Brown (10YR 4/2) fine SAND, some coarse-fine subangular		_2
_ _3	3.4 4.5*		1.8 - 2.5	gravel, little silt, dense, dry, no odor (SM) Brown (7.5YR 4/2) Silty fine SAND, little gravel, dense, dry, no odor (SM)	016_I011_2.8 2.8' - 3.3'	_3
_ _4		0.0 0.0	2.5 - 2.7 2.7 - 3.3	Pale Olive (5Y 6/3) medium SAND, little fine sand, moist, loose (SP) Dark Greenish Gray (GLEY1 4/5GY) medum-fine SAND, some gray	016_I011_3.3   3.3' - 3.5' 016_I011_3.5   3.5' - 3.9'	_ _4
_ _5			3.3 - 3.5	angular gravel & coarse sand, moist, dense, no odor (SW) Reddish Brown (5YR 4/3) sandy SILT, 40% COPR (medium-fine gravel),	40% COPR noted 3.3' - 3.5'	_ _5
 _ _6			3.5 - 3.9	medium-dense, moist-wet, no odor (ML)  Dark Gray (7.5YR 4/1) medium-fine SAND, wet, loose, (SW)		
_			5.0 - 8.0	Brown (7.5YR 4/3) coarse-fine SAND, trace fine gravel, wet, loose, no		
_7 _	<u>3.0</u>	0.0 0.0		odor (SW), Transitions into Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells, fine gravel, & coarse sand, wet, loose, slight sulfurous		_7
_8	5.0	0.0		odor (SW)	016_l011_7.5 7.5' - 8.0'	_8
_ _9						_9
_ _10		0.0	100 100	D   0 (0.5)(4/4)   F (0.00)D (1.11)   F (0.00)D (1.		_ 10
_ _11		0.0 0.0	10.0 - 12.0	Dark Gray (2.5Y 4/1) medium-fine SAND, trace shells, fine gravel, & coarse sand, wet, loose, slight sulfurous odor (SW)		_ _11
_ _12		0.0 0.0			016_l011_11.5 11.5' - 12.0'	_ _12
_ _13	<u>2.0</u> 5.0				Fill/native soil interface	13
_ 14					not recovered	_ 14
_ _ 						_ _ 
<del></del>			15.0 - 20.0	No Recovery	No sample - no recovery	
_ _, <b>_</b>						I
_1 <i>/</i> _	0.0					_17  _
_18	5.0					_18
_ _19						_19
20		0.0	20.0 20.7	Crossish Crov (CLEV2 6/10P) CLAV trass silt moderate plasticity	016   1011   20.0   20.0' - 20.5'	20
_ _21		0.0	20.0 - 20.7	Greenish Gray (GLEY2 6/10B) CLAY, trace silt, moderate plasticity, soft, moist-wet, no odor (CH)	010_1011_20.0  20.0 - 20.5	21
_ _22						22
_ _23	<u>0.7</u> 5.0					23
_ _24						_ _24
_ _ _25						_ _ _25

T-	TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_I011
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site 016		
COMPLETION DATE:	LETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/17/2011	8/17/2011 30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	NT: DRILLING METHOD / BIT:		ETHOD / BIT:	1
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.3'			No				
МЕМО:							7
*Cored through ~ (	0.5' of con	crete before	advancing with	geoprobe.			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_25
	()	0.0	25.0 - 26.5 As Above (20.0' - 20.7'), Transitions into Clayey SILT, little very fine	016_I011_25.0 25.0' - 25.5'	_
_26 _		0.0 0.0	sand, stiff, wet, no odor (ML)		_26
_27	<u>3.5</u>	0.0 0.0	26.5 - 28.5 Bluish Gray (GLEY2 6/10B) fine SAND, little silt, trace clay, medium- dense, wet, no odor (SM), Transitions into Dark Gray (10YR 4/1) fine		_27
_ _28	5.0	0.0	SAND, little medium sand, trace silt, medium-dense, wet, no odor (SP)		28
_ _29		0.0			_ _29
_ _30					_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					
					_33
_					_
_34					_34
_35					_35
_36					_36
_37					_37
38					_38
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					_ <del>-</del> 45 _ _46
_46					
_47					_ _47 _
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_ _49					_ _49
_ _50					_ _50

72	TET	RATE	CH GEO		PROJECT NO.:  117-0509160.01  PROJECT NAME:		Boring No: 016_I012
16	-						LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREH						016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/24/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	DRILLING EQUIPMENT:		ETHOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 2.7'					No		
MEMO:							
*Cored through $\sim$ (	0.4' of con	crete before	advancing with	geoprobe.			

DEPTH	RECOVERY (fact)	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] _
(Feet)	(feet)	(PPM)	0.0 - 0.4	Concrete	SAMPLE SUMMARY	_0
 _1		0.0	0.4 - 0.9	Pale Brown (2.5Y 6/3) fine SAND, little medium sand & medium-fine	016_l012_0.4 (0.4' - 1.1')	_1
_		0.0		subround gravel, loose, dry, no odor (SP)		_
_2			0.9 - 1.9	Dark Grayish Brown (2.5Y 4/2) fine SAND, little silt & coarse-fine white		_2
_	<u>3.3</u> 4.6*	0.0	1.9 - 2.5	gravel & gray angular gravel, trace schist, medium-dense, moist (SM) Brownish Yellow (10YR 6/6) medium-fine SAND, little medium-fine	016_1012_2.0 (2.0' - 2.5')	_ _3
_3	4.0	0.0 0.0	1.9 - 2.5	subround quartz gravel, medium-dense, moist, no odor (SW)	016_I012_2.5 (2.5' - 3.1') 016_I012_3.1 (3.1' - 3.5')	_S
_ _4		0.0	2.5 - 3.1	Dark Reddish Brown (5YR 3/2) fine SAND & 40% medium-fine round	40% COPR noted 2.5' - 3.1'	_4
_				COPR GRAVEL, some silt, medium-dense, wet 2.7' - 3.1', no odor (SM/GM		
_5			3.1 - 3.7	Grayish Brown (10YR 5/2) medium-fine SAND, trace coarse sand, wet, loos	se, no odor (SW)	_5
_		0.0 0.0	5.0 - 7.0	Dark Grayish Brown (10YR 4/2) medium SAND, little fine sand & coarse		_
_6		0.0		sand, trace gravel & shells, wet, loose, slight sulfurous odor (SW)		_6
_ _7		0.0				_7
_	<u>3.5</u>	0.0	7.0 - 8.5	Dark Gray (2.5YR 4/1) medium SAND, little fine sand & coarse	016_l012_7.0 (7.0' - 7.5')	
_8	5.0	0.0		sand, trace gravel & shells, wet, loose, slight sulfurous odor (SW)		_8
_		0.0				_
_9						_9
_ _10						10
_		0.0	10.0 - 12.8	As Above (7' - 8.5')		
_11		0.0				_11
_ 12		0.0 0.0				_ 12
_12	2.8	0.0				-12
_ _13	5.0				016_l012_12.3 (12.3' - 12.8')	_13
_						_
_14					Fill/native soil interface	_14
_ 15					not recovered	_ 15
_10			15.0 - 20.0	No recovery		<del> </del> -'`
_ _16				· · · · · · · · · · · · · · · · · · ·		_16
					No sample - no recovery	
_17	0.0					_17
_ 18	<u>0.0</u> 5.0					_ _18
_10	0.0					
_ _19						_19
_						
_20		6.7	20.0 20.1	Dark Gray (5Y 4/1) CLAY, soft, moist, strong sulfurous odor (OH)	016_I012_20.0 (20.0' - 20.5')	_20
_ _21		2.8		Dark Yellowish Brown (10YR 3/4) PEAT, trace clay, soft, moist, low	(20.0 - 20.5)	21
_ <b>-</b> . _		0.2		plasticity, strong sulfurous odor (PT)		
_22		0.0	21.1 - 22.5	Gray (10YR 5/1) CLAY, trace silt, soft, moist, moderate plasticity (OH),		_22
_	<u>2.5</u>	0.0		Transitions into Greenish Gray (GLEY2 6/5BG) Silty CLAY, stiff,		
_23	5.0			low plasticity, moist, no odor (CL)		_23
24						24
_ <del>-</del> ·						Ľ-,
_25						_25

TI-	TETRATECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_I012
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:				MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
8/24/2011	30		i e	PID MiniRAE 2000		Jim M. / Whitehouse Station	_
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		ETHOD / BIT:	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	]
5' Sleeves, 1.25" ~ 2.7'			No				
MEMO:							
*Cored through $^{\sim}$ (	).4' of con	crete before	advancing with	geoprobe.			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.2 Greenish Gray (GLEY2 6/5BG) Silty CLAY, stiff, low plasticity, moist,	SAMPLE SUMMARY 016_I012_25.0 (25.0' - 25.5')	_25
_ _26		0.0	no odor (CL)	010_1012_23.0 (23.0 - 23.3)	_ _26
_ _27		0.0 0.0	26.2 - 28.7 Dark Grayish Brown (10YR 4/2) fine-very fine SAND, little silt, trace medium-fine subround gravel, medium-dense, wet, no odor (SM),		_ _27
_	<u>3.7</u> 5.0	0.0	Transitions to medium-fine SAND, trace coarse sand & gravel, loose,		_
_28	5.0	0.0 0.0	wet, no odor (SW)		_28
_ _29		0.0			_ _29
_ _30					_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_					_
_32					_32
_33					_33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					50

T-	TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_I013
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE: 19			DLE:	MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
			Induiting former			Jim M. / Whitehouse Station	-
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN				
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	sh	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.1'			No				
MEMO:							
*Cored through $^{\sim}$ (	).7' of con	crete before	advancing with	geoprobe. Refus	sal at 19'		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
(гееі)	(loot)	,	0.0 - 0.7 Concrete	SAMPLE SUMMARY	−՝՝
 _1			0.7 - 1.0 Light Yellowish Brown (2.5Y 6/4) fine SAND, little medium-fine subround gravel, medium-dense, dry, no odor (SP)	016_l013_0.7 (0.7 - 1.2') 016_l013_1.2 (1.2 - 1.7')	_1
_ _2	0.4	0.0	1.0 - 1.9 Grayish Brown (2.5Y 5/2) fine SAND, little silt, some coarse-fine gray	016_l013_1.7 (1.7 - 2.2')	_2
_ _3	3.4 4.3*	0.0 0.0	subangular gravel, dense, dry, no odor (SM) 1.9 - 2.7 Dark Brown (7.5YR 3/3) fine SAND, 20% medium-fine round COPR	016_I013_2.2 (2.2 - 2.7') 20% COPR noted 1.9' - 2.1'	_3
_ _4		0.0 0.0	gravel 1.9'-2.1', little gray gravel 2.1'-2.7', dry, medium-dense (SP) 2.7 - 3.1 White (GLEY1 8/N) concrete GRAVEL & COBBLES, dry, dense (GW)	016_I013_3.0 (3.0 - 3.7') 016_I013_3.7 (3.7 - 4.1')	_ _4
_ _5			3.1 - 3.7 Reddish Brown (5YR 4/4) medium-fine round COPR GRAVEL (60%), some silt, little fine sand, medium-dense, wet, no odor (GM)	60% COPR noted 3.1' - 3.7'	_ _5
_ _6			3.7 - 4.1 Gray (5Y 5/1) medium SAND, little coarse & fine sand, trace fine gravel, loose, wet, no odor (SW)		_ _6
_ _ _7		0.0 0.0	5.0 - 8.0 Dark Grayish Brown (10YR 4/2) grading to Dark Brown (10YR 4/1) medium SAND, some fine sand, trace coarse sand, fine gravel, & shells,		_ _7
_ <i>.</i> _ 8	<u>3.0</u> 5.0	0.0 0.0	loose, wet, slight sulfurous odor (SW)	016_l013_7.5 (7.5' - 8.0')	_ _ _8
_	3.0	0.0		010_1013_7.5 ](7.5 - 6.0)	_
_9					_9
_10 _		0.0	10.0 - 11.0 As Above (5.0' - 8.0')		
_11		0.0 0.0	11.0 - 11.7 Dark Grayish Brown (10YR 4/2) coarse SAND & fine subround GRAVEL,		_11
_ _12	<u>2.6</u>	0.0	some medium gravel, trace medium sand & coarse gravel, trace shells, loose, wet, slight sulfurous odor (GW)	016_l013_11.9 (11.9' - 12.4')	12
_ _13	5.0	0.0	11.7 - 12.4 As Above (5.0' - 8.0')	Fill/native soil interface	′  - _13
_ _14			12.4 - 12.6 Dark Gray (2.5Y 4/1) Silty CLAY, some fine-very fine SAND, very soft, low palsticity, wet, slight sulfurous odor (OL)	at 12.4'	_ _14
_ _15					_ 15
_ _16			15.0 - 19.0 No recovery	No sample - no recovery	16
_ _17	<u>0.0</u>				_ _17
_ _18	5.0				18
_ _19					_ _19
_ _20			End of Boring at 19' b.g.s. (Refusal)		_ _20
_ _21					21
_ _ _22					
					24
_2 <del>-</del> _ _25					25

72-	TETRA TECH GEO				PROJECT NO.: 117-0509160.01		Boring No: 016_I014
					PROJECT NAME:		LOCATION SKETCH
				PPG Site 016			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ John Brass			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 2.7'					No		
МЕМО:		-		-			7
*Cored through $^\sim$ (	).5' of con	crete before	advancing with	geoprobe.			

DEPTH	RECOVERY	OVM		DUDMEISTED SYSTEM SOUL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
 _1		0.0	0.0 - 0.5 0.5 - 1.5	Concrete  Brownish Yellow (10YR 6/6) fine SAND, little medium sand & medium-	016_l014_0.5 (0.5' - 1.0')	1
_		0.0		fine subround gravel, medium-dense, moist, no odor (SP)	(6.6)	
_2	2.2	0.0 0.0	1.5 - 2.5	Yellowish Brown grading to Dark Yellowish Brown (10Y 5/4 - 3/4) Silty fine-very fine SAND, little clay, little coarse-fine angular gray gravel, trace		_2
_ _3	2.3 4.5*	0.0		fine round COPR gravel 2.0' - 2.5', medium-dense, moist, no odor (SM)	016_l014_1.5 (1.5' - 2.0')	_ _3
			2.5 - 2.8	Dark Grayish Brown (2.5Y 4/2) fine SAND, little silt, trace medium sand,	016_1014_2.0 (2.0' - 2.5')	
_4				trace gravel, loose, moist-wet at 2.7' - 2.8', no odor (SM)	016_I014_2.5 (2.5' - 2.8') Trace COPR noted 2' - 2.5'	_4
_ _5						_ _5
_ _6		0.0 0.0	5.0 - 8.3	Dark Grayish Brown (2.5Y 4/2) medium-fine SAND, loose, wet, no odor (SW), Transitions to Brown (7.5YR 4/2) coarse-medium SAND, trace fine	016_I014_5.0 (5.0' - 5.5')	_ _6
_0  _		0.0		sand, little fine gravel & shells, wet, loose, slight sulfurous odor (SW)		_0
_7	2.2	0.0				_7
_ _8	<u>3.3</u> 5.0	0.0 0.0				_ _8
_					016_I014_7.8 (7.8' - 8.3')	_
_9						_9
_10						_10
_ _11		0.0 0.0	10.0 - 11.4	Dark Gray (2.5Y 4/1) coarse SAND & fine subround GRAVEL, some medium sand, trace medium gravel, loose, wet, slight sulfurous odor (SW)		_ _11
_		0.0		Transitions to Brown (7.5YR 4/2) medium SAND, little fine sand &	016_I014_10.8 (10.8' - 11.4')	
_12	1 1			coarse sand, trace gravel, loose, wet, slight sulfurous odor (SW)		_12
_ _13	<u>1.4</u> 5.0					_ _13
_ 						_ _14
- <sup>14</sup>  -						- <sup>14</sup>  -
_15		0.0	45.0 40.0	Ded One (5)( 4(4) OLAY) translately a figure (figure)	040 1044 45 0 (45 0) 45 5)	_15
_ _16		0.0 0.0	15.0 - 16.2	Dark Gray (5Y 4/1) CLAY, trace shells, soft, moist, slight sulfurous odor (OH)	016_1014_15.0 (15.0' - 15.5')	_ _16
_						
_17	12					_17
_ _18	<u>1.2</u> 5.0					18
_ _19						_ _19
_						
_20		0.0	20.020.0	As Above (15' - 16.2')	016_I014_20.0 (20.0' - 20.5')	_20
_ _21		0.0		Dark Yellowish Brown (10YR 3/4) PEAT, trace clay, soft, moist, low	016_1014_20.0	_ _21
_		9.6		plasticity, strong sulfurous odor (PT)		_
_22	<u>1.9</u>	1.9	21.7 - 21.9	Greenish Gray (GLEY2 6/5BG) CLAY, soft, moist-wet, moderate plasticity, slight sulfurous odor (CH)		_22
23	5.0					_23
_ 24						_ 24
_						
_25						_25

TETRA TECH GEO			CH GEO		PROJECT NO.: 117-0509160.01		Boring No: 016_I014
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	ATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/25/2011	11 30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		THOD / BIT:	7
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 2.7'			No				
МЕМО:							7
*Cored through ~ (	0.5' of con	crete before	e advancing with	geoprobe.			

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.5 As Above (21.7' - 21.9'), Transitions to Greenish Gray (GLEY2 6/5BG)	SAMPLE SUMMARY 016_I014_25.0 (25.0' - 25.5')	_25
_ _26		0.0	clayey fine SAND, little silt, medium-dense, wet, no odor (SC),	(20.0)	_ _26
_ _27		0.0 0.0	then to Brown (7.5YR 4/3) fine SAND, little medium sand, medium-dense, wet, no odor (SP)		_ _27
_ _28	<u>3.5</u> 5.0	0.0 0.0			_ _28
_	3.0	0.0			_
_29 _					_29 _
_30			End of Boring at 30' b.g.s.		_30
_ _31			Life of Borning at 50 b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_					_
_35 _					_35 _
_36					_36
_37					_37
_ _38					_38
_ _39					_ _39
_ 40					_ _40
_ _41					_ _41
_					_
_42 _					_42 _
_ _43					_43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _ _48					_ _ _48
					_
_ _49 _					_49 _
_ _50					_50

TETRA TECH GEO					PROJECT NO.: 117-0509160.01		Boring No: 016_I015
				PROJECT NAME: PPG Site 016			LOCATION SKETCH
COMPLETION DATE:	IPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC		GEOLOGIST / OFFICE:	1
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5'		No					
МЕМО:		_					1
*Cored through ~ 0	Cored through ~ 0.7' of concrete before advancing with geoprobe.						

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
		0.0	0.0 - 0.7	Concrete  Vollowish Prown (10VP 5/4) modium fine SAND trace modium fine	016_I015_Core 016_I015_0.7 (0.7' - 0.9')	
_1		0.0 0.0	0.7 - 0.9	Yellowish Brown (10YR 5/4) medium-fine SAND, trace medium-fine subround gravel, trace medium-fine round COPR gravel, loose, moist-wet	016_I015_0.7 (0.7' - 0.9') 016_I015_0.9 (0.9' - 1.4')	_1
_ _2		0.0		(from coring), no odor (SW)	Trace COPR noted 0.7' ' 0.9'	_2
	<u>1.1</u>		0.9 - 1.7	Dark Gray (2.5Y 4/1) medium SAND, some fine sand, trace coarse		
_3	4.3*			sand, wet (from coring), loose, no odor (SW)	Took core sample from	_3
_ _4					concrete foundation, no discoloration or COPR	_ _4
_4					nodules noted in sample	-4
_ _5					linearies netea in sample	_ _5
_		0.0	5.0 - 7.9	As Above (0.9' - 1.7'), trace medium-fine gravel & shells 6' - 7.9', loose,	016_I015_5.0 (5.0' - 5.5')	]_
_6		0.0		wet, slight sulfurous odor (GW)		_6
_ _7		0.0 0.0				7
-'	<u>2.9</u>	0.0				-'
_8	5.0	0.0			016_I015_7.4 (7.4' - 7.9')	_8
_						_
_9						_9
_ _10						_10
_		0.0	10.0 - 12.0	Brown (10YR 4/3) coarse SAND & fine subround gravel, some medium		]_
_11		0.0		sand & shells, trace medium gravel, loose, wet, slight sulfurous odor (SW)		_11
_ 12		0.0 0.0		Transitions to Very Dark Grayish Brown (10YR 3/2) medium-fine SAND, trace coarse sand & shells, loose, wet, slight sulfurous odor (SW)	016_I015_11.5 (11.5' - 12.0')	_ 12
_ ' <i>-</i>	<u>2.0</u>	0.0		trade coards dand a criolic, 1866s, wet, eligin canalede caer (evv)	(11.0	
_13	<u>2.0</u> 5.0					_13
_ 14					Fill/native soil interface	-  14
_14					not recovered	-14
_ _15						_ _15
			15.0 - 20.0	No Recovery	No Sample - no recovery	]
_16						_16
_ 17						17
	0.0					
_18	5.0					_18
_ _19						_ _19
_19						19
_ _20						_20
		0.3	20.0 - 20.5	Dark Gray (5Y 4/1) CLAY, little silt, soft, moist-wet, strong sulfurous	016_I015_20.0 (20.0' - 20.5')	
_21		7.8	20.5 24.2	odor (OH)  Porte Brown (40VB 3/2) BEAT, little Borte Crove (5V 4/4) CLAV Jour		_21
_ 22		1.3 0.0	20.5 - 21.2	Dark Brown (10YR 3/3) PEAT, little Dark Gray (5Y 4/1) CLAY, low plasticity, soft, moist, strong sulfurous odor (PT)		22
	<u>2.5</u>	0.0	21.2 - 22.3	Greenish Gray (GLEY2 6/5BG) CLAY, little silt, soft, moist-wet, moderate		
_23	5.0			plasticity, slight sulfuruous odor (CH), Transitions into Greenish Gray		_23
			00.0.00.5	(GLEY2 7/5BG) CLAY, firm, moist, moderate plasticity, no odor (CH)		
_24			22.3 - 22.5	Greenish Gray (GLEY2 6/5BG) Silty fine-very fine SAND, trace clay, medium-dense, wet, no odor (SM)		_24
_ _25						25

T-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_I015
					PROJECT NAME:		LOCATION SKETCH
				PPG Site 016			
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/25/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 5'			No				
МЕМО:							7
*Cored through ~ 0.7' of concrete before advancing with geoprobe.							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.7 Greenish Gray (GLEY2 6/5BG) fine SAND, medium-dense, wet, no odor	SAMPLE SUMMARY 016_I015_25.0 (25.0' - 25.5')	_25
_ _26		0.0 0.0	(SP)	(20.0 20.0)	_ _26
_ _27	2.5		26.7 - 27.0 Light Greenish Gray (GLEY2 3/10BG) coarse-medium angular SAND, some fine angular gravel, dense, moist-wet, no odor (GW)		_ _27
_ _28	<u>2.5</u> 5.0	0.0	27.0 - 27.6 Brown (7.5YR 4/3) fine SAND, some coarse-fine subangular gravel, little silt, dense, moist, no odor (SM)		28
_ _29			mate ont, deriver, melot, ne eder (ent)		_ _29
_30					_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					_ _32
_ _33					_ _33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

72	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_J005
				PROJECT NAME:			LOCATION SKETCH
					PPG Site	J16	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
7/8/2011	30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		THOD / BIT:	7
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							1

DEPTH	RECOVERY	OVM	T .		FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		0.0 0.0 0.0	0.0 - 2.0	Brown (10YR 5/3 grading to 7.5YR 4/3) medium-fine SAND, trace coarse to fine gray angular gravel, broken-up white cobbles (concrete) at 1.7', medium-stiff, dry, no odor (SP)	016_J005_0.0 (0.0' - 0.5')	_ _1
_2	<u>3.2</u>	0.0 0.0	2.0 - 2.7	Very Dark Grayish Brown (10YR 2/3) medium-fine SAND, trace fine subround gravel & coarse sand, medium-dense, moist, no odor (SP)	016_J005_2.2 (2.2' - 2.7')	_2
_ _3 _	5.0	52.0	2.7 - 3.2	Black (2.5Y 2.5/1) medium-fine SAND, 50% COPR (fine-medium subround gravel) from 2.9' - 3.2', strong petroleum odor & thick petroleum	016_J005_2.7 (2.7' - 3.2') 50% COPR noted from	_ _3 _
_4 _				product, moist-wet, medium-dense (SW)	2.9' - 3.2'	_4 _
_5		40.7	F 0 F 0	Daddish Drawn (FVD 4/2) Cilty madism fine CAND F00/ CODD	040 1005 5 0 1/5 01 5 51)	_5
_ _6		10.7 4.5 3.0	5.0 - 5.9	Reddish Brown (5YR 4/3) Silty medium-fine SAND, 50% COPR throughout, little coarse-medium subround gravel, slight petroleum odor and black staining, medium-dense, wet (SM)	016_J005_5.0 (5.0' - 5.5') 016_J005_5.9 (5.9' - 6.4') 50% COPR noted from	_ _6
_ _7		3.7	5.9 - 8.6	Very Dark Gray (2.5Y 3/1) medium-fine SAND, loose, wet, slight	5.0' - 5.9'	_7
_ _8	<u>3.6</u> 5.0	2.5 0.5		petroleum odor and staining. No petroleum staining from 7.0' - 8.6' (2.5Y 4/1) (SP)		_ _8
_ _9		0.0				_ _9
_ _10						_ _10
_ _11		0.0		Dark Gray (2.5Y 4/1) coarse-fine SAND, trace shells, loose, wet, no slight sulfurous odor (SW)	016_J005_10.0 (10.0' - 10.5')	_ _11
_ _12	<u>2.8</u>	0.0 0.0 0.0	10.5 - 12.6	Dark Gray (5Y 4/1) CLAY, little silt, soft, high plasticity, moist, slight sulfurous odor (OH)	Fill/native soil interface at 10.5'	_ _12
_ _13 _	5.0	0.0				_ _13 _
_14 -						_14 _
_15		0.0	450 400	As Above (40.5), 42.0% (OH)	040 1005 45 0 (45 0) 45 5!)	_15
_ _16		0.0 0.0 0.0		As Above (10.5' - 13.0') (OH)  As Above (10.5' - 13.0'), hue change to Black (5Y 2.5/1), little peat,	016_J005_15.0 (15.0' - 15.5')	_ _16
_ _17	<u>2.7</u>	0.0		strong sulfurous odor (OH) As Above (10.5' - 13.0'), strong sulfurous odor (OH)		_17
_18	5.0	0.0	10.0	Total figure (10.0 ), strong danations out (Crity		18
_ _19 _						_ _19 _
_20						_20
_ _21		4.6 16.2 1.1		Dark Grayish Brown (10YR 4/2) PEAT, little Very Dark Gray (5Y 3/1) CLAY, moderate plasticity, soft, moist, strong sulfurous odor (PT) Gray (GLEY1 5/N) Clayey SILT, some fine sand, low plasticity, grades	016_J005_20.0 (20.0' - 20.5')	_ _21
	0.5	0.0	21.4-22.1	from soft to stiff with depth, moist, no odor (ML)		22
23	<u>2.5</u> 5.0	0.0				_ _23
24						_ _24
_ _25						_ _25

72	TET	TRA TE	CH GEO		PROJECT NO 117-0509		Boring No: 016_J005
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site (	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
7/8/2011	30			PID MiniRAE 2000 Jim M / Whitehouse Station			
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	NG EQUIPMENT:		THOD / BIT:	]
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							]

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
_  _26	(iooi)	(PPIVI)	25.0 - 30.0 No Recovery	SAMPLE SUMMANT	
					_26 
_ _27 _	<u>0.0</u> 5.0				_27
_28 _	5.0				_28
_29					_29
_30			End of Boring at 30' b.g.s.		_30
_ _31			Lind of Borning at 30 b.g.s.		31
_ _32					_ _32
_ _33					33
_ _34					_ _34
_ _35					_ _35
_ _36					_ _36
_ _37					_ _37
_ _38					_ _38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _ _47					_ _ _47
48					48
_40 _ _49					_49
_49 _ _50					
_50	<u> </u>				

TETRA TECH GEO					PROJECT NO.: 117-0509160.01 PROJECT NAME:		Boring No: 016_J014
				PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	LETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1
8/9/2011	25			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ John Brass			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.3'					No		
MEMO:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_ _1 _ _2		0.0 0.0 0.0 0.0	0.0 - 0.7 Asphalt GRAVEL (GP) 0.7 - 2.3 Yellowish Brown (10YR 5/4) medium SAND, trace fine sand & shells, Transitions into Brown (10YR 5/3) medium-fine SAND, trace shells, wet 2.1'-2.3', loose, no odor (SP)	016_J014_0.7 (0.7' - 1.2')	_ _1 _ _2
_ _ _3	<u>3.8</u> 5.0		2.3 - 3.8 Gray (10YR 5/1) coarse-medium SAND, some fine round to subround gravel, trace medium subround gravel and fine sand, loose, wet, no odor (SW)		_3
_ _4 _ _5		0.0			_4 _ _ _5
 _ _6 _		0.0 0.0 0.0	5.0 - 7.2 Brown (7.5YR 4/2) coarse-medium SAND, little medium-fine subround gravel, trace fine sand and shells, loose, wet, slight sulfurous odor (SW)	016_J014_5.0 (5.0' - 5.5')	_ _6 _
_7 _ _8	<u>2.2</u> 5.0	0.0			_7 - _8
_ _ _9					_9
_ _10					_10
_ _11 _			10.0 - 15.0 No Recovery - rod jammed	No sample - no recovery	_ _11
_12 _ 13	<u>0.0</u> 5.0				_12 - 13
_10 _ _14	3.0				14
_ 15					_ 15
		0.0 0.0 0.0	15.0 - 16.5 Black (5Y 2.5/1) CLAY, little silt, trace fine sand, very soft, moderate plasticity, slight sulfurous odor (OH)	016_J014_15.0 (15.0' - 15.5')	
_ _17 	<u>1.5</u>	0.0			_ _17 
_18 _ _19	5.0				_18 _ _19
_ _ _20		2.0	20.0. 20.4. Very Dark Brown (40VR 2/2) Organia SILT little aloy and past some	046 1044 20.01/20.01 20.51	_ _ _20
_ _21 _		2.8 0.5 0.0	<ul> <li>20.0 - 20.4 Very Dark Brown (10YR 2/2) Organic SILT, little clay and peat, some shells @ 20.5', very soft, wet, strong sulfurous odor (ML/PT)</li> <li>20.4 - 23.3 Bluish Gray (GLEY2 6/10B) Silty CLAY, moderate plasticity, soft, moist-</li> </ul>	016_J014_20.0 (20.0' - 20.5')	_21 _
_22 _ _23	<u>3.8</u> 5.0	0.0 0.0 0.0	wet, slight sulfurous odor (CH), Transitions into Greenish Gray (GLEY2 6/ fine sand, little silt & clay, medium-dense, moist-wet, no odor (SC)	5BG)	_22 _ _23
		0.0	23.3 - 23.7 Gray (2.5Y 5/1) fine-very fine SAND, little silt, medium-dense, moist-wet, (SM) Transitions into Gray (2.5Y 4/1) medium-fine SAND, trace coarse subround sand & fine gravel, medium-dense, wet, no odor (SW)	016_J014_23.3 (23.3' - 23.8')	
_ _25					25

77	TETRAT	ECH GEO	H GEO		: 160.01	Boring No: 016_K007 / 016_MW06
				PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE: TO	OTAL DEPTH OF BORE	HOLE:	MONITORING DEVICE	E:	GEOLOGIST / OFFICE:	7
8/3/2011	30		PID MiniRAE 2000 Ji		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR / I	DRILLER:	DRILLING EQUIPMEN	IT: DRILLING METHOD / BIT:		THOD / BIT:	7
EPI \ AJ Benjamin		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:	DEPTH TO G	ROUNDWATER	GROUND SURFACE	ELEVATION: WELL INSTALLED?		7
5' Sleeves, 1.25" ~ 4'					Yes - 016_MW06	
MEMO:						

DEPTH	RECOVERY	OVM			FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_			0.0 - 0.2	Gray (GLEY 1 5/N) coarse-fine GRAVEL & COBBLES, loose, dry (GW)	016_K007_0.0 (0.0' - 0.5')	<u> </u>
_1			0.2 -0.5	Greenish Gray (GLEY2 6/5BG) flat subround COBBLES, some coarse-		_1
		0.0		medium gravel, little very fine sand, dry, loose, no odor (GW)		
_2	4.0		0.5 - 2.3	Olive Gray (5Y 5/2) medium-fine SAND & mica, some coarse-fine schist	45% COPP 4 - 4 0 0 0 0 0	_2
_ _3	<u>4.0</u> 5.0	0.0 0.0	2.3 - 3.3	gravel, dry, loose, no odor (SW)	15% COPR noted 2.8'-3.3' 016_K007_2.3 (2.3' - 2.8')	_ _3
_3	5.0	0.0	2.3 - 3.3	Reddish Brown (5YR 4/4) SILT & very fine-fine SAND, some light gray coarse gravel & cobbles from 2.3'-2.8', 15% COPR (m-f round gravel) from	016_K007_2.8 (2.8' - 3.3')	_3
_ _4		0.0		2.8'-3.3', little Olive Yellow (2.5Y 6/6) to Pale Yellow (2.5Y 7/3) coarse	016_K007_3.3 (3.3' - 3.8')	_ _4
		0.0		gravel & medium-fine sand, medium-dense, moist, no odor (ML/SM)	016_K007_3.8 (3.8' - 4.0')	ļ
_5			3.3 - 3.8	Gray (2.5Y 6/1) coarse-fine SAND, some coarse-fine white subround-	40% COPR noted 3.8'-4.0'	_5
_		$\setminus$		subangular quartz gravel, loose, dry, no odor (SW/GW)	016_K007_5.0 (5.0 - 5.5')	<u> </u>
_6			3.3 - 4.0	Reddish Brown (5YR 4/3) fine SAND, some gray coarse-fine		_6
				sand, 40% COPR (fine round gravel), moist-wet @ 4', loose,		
_7	2.5	\	5.0 - 6.2	no odor (SW)  Grayish Brown (10YR 5/2) medium-fine SAND, little coarse sand, trace		_7
_ _8	<u>3.5</u> 5.0	0.0 0.0	5.0 - 6.2	shells, wet, loose, no odor (SW). Transitions in Very Dark Gray (10YR 3/1),		_ _8
-"	5.0	0.0		same lithology, slight sulfurous odor (SW)		-0
_ _9			6.2 - 8.5	Grayish Brown (10YR 5/2) medium SAND, some coarse sand, little fine		_9
				sand, trace fine subround gravel, loose, wet (SW), Transitions into Gray		
_10				(2.5Y 5/1) medium-fine SAND, trace coarse sand, trace shells, loose, wet, s	light sulfurous odor (SW)	_10
<b>L</b>		0.0	10.0 - 11.9	Gray (2.5Y 5/1) fine SAND, little medium sand, trace shells, fine round		<b>-</b>
_11		0.0		gravel, & coarse sand, wet, loose, slight sulfurous odor (SW)		_11
_ 12		0.0 0.0	11 0 11 2	Dark Cray (EV 4/4) CLAV trace silt moderate to high placticity soft to	016_K007_11.4 (11.4 - 11.9')	_ 12
_12	<u>4.3</u>	0.0	11.9 - 14.3	Dark Gray (5Y 4/1) CLAY, trace silt, moderate to high plasticity, soft to firm, fine sand 12.3' - 12.6', medium-fine sand 13.3'-13.5', moist, slight	016_K007_11.4](11.4 - 11.9)	-12
_ 13	5.0	0.0		sulfurous odor (OH)	Fill/native soil interface at	_ _13
	0.0	0.0			11.9'	
_14		0.0				_14
_						_
_15						_15
		0.0	15.0 - 16.1	As Above (11.9' - 14.3') (OH)	040 1007 45 5 (45 5) 40 0)	
_16		0.0 0.0	161 170	As Above (11.9' - 14.3'), but Black (5Y 2.5/1) (OH)	016_K007_15.5 (15.5' - 16.0')	_16
_ _17		0.0	10.1 - 17.0	AS Above (11.9 - 14.3), but black (51 2.5/1) (OH)		_ _17
-''	3.0	0.0	17.0 - 18.0	As Above (11.9' - 14.3'), trace shells (OH)		-''
_18	5.0	0.0		(0.1)		_18
						_
_19						_19
_20		0.9	20.0 24.0	As Above (11.9' - 14.3'), trace shells, abundant 20.8'-21', trace peat,	016_K007_20.0 (20.0' - 20.5')	_20
_ _21		1.8	20.0 - 21.0	strong sulfurous odor (OH)	016_K007_20.0 (20.0 - 20.5)	_ _21
'		2.3	21 0 - 21 9	Dark Brown (7.5YR 3/3) PEAT & Black (10YR 2.5/1) organic SILT, trace		'
22		0.0		clay, moist-wet, very soft, strong sulfurous odor (PT)		_22
_	<u>3.2</u>	0.0	21.9 - 22.8	Greenish Gray (GLEY2 6/10BG) Clayey SILT, some very fine sand, firm,		<u></u>
_23	5.0	0.0		moist, slight sulfurous odor (ML), Transitions into Greenish Gray		_23
				(GLEY2 6/10BG) Silty CLAY, stiff, moist, low plasticity, no odor (CL)		
_24			22.8 - 23.2	Light Olive Brown (2.5Y 5/3) very fine SAND, some silt, little clay, medium-		_24
_ _25				dense, moist, no odor (SM)		_ _25
_20		<u> </u>	<u> </u>			]_25

72-	TET				PROJECT NO.: 117-0509160.01		Boring No: 016_K007 / 016_MW06
						ME: 016	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
8/3/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ AJ Benjamin			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 4'		Yes - 016_MW06					
MEMO:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.3 As Above (22.8' - 23.2'), Transitions into Light Olive Brown (2.5Y 5/3)	SAMPLE SUMMARY 016_K007_25.0 (25.0' - 25.5')	_25
_ _26		0.0	Clayey SILT, little very fine SAND, firm, moist-wet, no odor (ML)	(==== )	_ _26
_ _27		0.0 0.0	26.3 - 27.7 Brown (7.5YR 5/2) medium SAND, some fine sand, trace silt, medium-dense, wet, no odor (SW/SP), Transitions into fine SAND, some silt,		_ _27
_	<u>4.6</u>	0.0	trace clay, medium-dense, moist-wet, no odor (SM)		
_28	5.0	0.0 0.0	27.7 - 29.1 Brown (7.5YR 5/2) medium SAND, some fine sand, little coarse sand, trace subround gravel, wet, medium-dense, no odor (SW)		_28
_ _29		0.0			_ _29
_ _30		0.0	29.1 - 29.6 Reddish Brown (5YR 5/3) fine SAND, some medium sand, medium- dense, wet, no odor (SW/SP)		_ _30
			End of Boring at 30' b.g.s.		1_
_31			016_MW07 Well Information:		_31
_ _32			016_MW07 installed on 8/3/11 using 8" hollow stem augers equipped on a		_32
_ _33			geoprobe track rig		_ _33
_			2-inch diameter 10-slot SCH40 PVC screen set at 4.0' - 9.0' bgs.		_
_34			2-inch diameter SCH40 PVC riser from 4.0' bgs. to surface #1 Sand from 2.0' to 10.0' bgs.		_34
_ _35			Cement-bentonite grout from 2.0' to 0.5'		_ _35
_ _36			Flush-mount completion with concrete protective padding around casing		_ 36
			DTW: 2.79' bgs, measured on 8/05/11		
_37					_37
_ _38					_38
_ 39					
_40					_40
_41					_41
_ _42					_ _42
_ _43					_ _43
					_
_44					_44
_ _45					_ _45
_ _46					_ _46
_					_
_47					_47
_ _48					_ _48
_ 49					_ 49
_50					_50

					PROJECT NO.:		Boring No:
	TET	<b>TRAT</b>	A TECH GEO		117-0509160.01		016_K009
IC					PROJECT NAME:		LOCATION SKETCH
	,			PPG Site 016			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/8/2011	30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO G	ROUNDWATER	GROUND SURFACE	GROUND SURFACE ELEVATION: WELL INSTAL		1
5' Sleeves, 1.25" ~ 3.5'				No			
MEMO:					_	_	]

DEPTH	RECOVERY	OVM	DUDMEIOTED OVOTEM CON DECODIOTION	FIELD NOTES &
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY _0
_ _1 _ _2		0.0 0.0 0.0 0.0	<ul> <li>Dark Greenish-Gray (GLEY1 4/10GY) weathered schis SAND, some mica &amp; schist gravel/cobbles, trace silt, d odor (SP)</li> <li>Yellowish Brown (10YR 5/6) fine SAND, Light Gray (GI</li> </ul>	dense, dry, no1
 _3 _ _4 _ _5	<u>4.0</u> 5.0	0.0 0.0	COBBLES (broken-up concrete) from 1.2' - 1.5', 35% (little slag and gray angular gravel, dry, dense, no odor Reddish Gray (5YR 5/2) coarse-medium SAND, little fil gravel, loose, moist-wet at 3.5', no odor (SW)	COPR 2.1' - 2.4', 016_K009_1.9 (1.9' - 2.4') (SP) 016_K009_2.4 (2.4' - 2.9') _3
	<u>3.1</u> 5.0	0.0 0.0 0.0 0.0 0.0	As Above (2.4' - 4.0'), Transitions into Dark Gray (2.5Y SAND, little fine sand, trace coarse sand & shells, loos (SP)	7R 4/1) medium 5e, wet, no odor
	<u>3.3</u> 5.0	0.0 0.0 0.0 0.0 0.0 0.0	<ul> <li>0.0 - 11.2 Dark Gray (5YR 4/1) fine SAND, little medium sand, log sulfurous odor (SP)</li> <li>1.2 - 13.3 Dark Gray (5Y 4/1) CLAY, occasional thin (&lt;1") lense of fine sand, soft, high plasticity, moist, slight sulfurous occasional thin (&lt;0.000)</li> </ul>	016_K009_10.7 (10.7' - 11.2') _11 of little very Fill/native soil interface
_ _16 _ _17 _ _18 _ _19 19 20	<u>3.3</u> 5.0	0.0 0.0 0.0	<ul> <li>5.0 - 16.3 As Above (11.2' - 13.3') (OH)</li> <li>6.3 - 16.7 As Above (11.2' - 13.3'), hue change to Black (5Y 2.5/1 strong sulfurous odor (OH)</li> <li>6.7 - 17.1 Black (GLEY1 2.5/N) Lignite fragments, loose, dry, stro (GW)</li> <li>7.1 - 18.3 As Above (11.2' - 13.3'), little shells, strong sulfurous o</li> </ul>	ong sulfurous odor  odor (OH) 181920
	<u>3.1</u> 5.0	0.0	<ul> <li>20.0 - 21.0 As Above (11.2' - 13.3'), abundant shell fragments from strong sulfurous odor (OH)</li> <li>21.0 - 22.1 Dark Grayish Brown (10YR 4/2) PEAT, little Dark Gray CLAY, moderate plasticity, soft, moist, strong sulfurous</li> <li>22.1 - 23.1 Dark Gray (GLEY2 4/N) Silty CLAY, soft, moderate pla moist (CL), Transitioning into Greenish Gray (GLEY2 6 fine sand, little fine sand &amp; clay, stiff, moist-wet, no odo</li> </ul>	

TŁ	TET	TRA TE	ECH GEO		PROJECT NO 117-0509 PROJECT NA	160.01	Boring No: 016_K009 LOCATION SKETCH
	,				PPG Site (	016	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/8/2011	30			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.5'				No			
MEMO:							]

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(reet)	(PPM) 0.0		SAMPLE SUMMARY 016_K009_25.0 (25.0' - 25.5')	1
_ _26		0.0		(2010 2010)	_26
_ _27		0.0 0.0			_ _27
_	<u>4.6</u> 5.0	0.0	27.2 - 29.6 Reddish Brown (5YR 4/3) Clayey SILT, low plasticity (ML), Transitioning		_
_28	5.0	0.0 0.0	into Reddish Brown (5YR 4/3) Silty fine SAND, trace clay, dense, wet (SM), Transitioning into Reddish Gray (5YR 5/2) coarse SAND & fine subrou		_28
_ _29		0.0	GRAVEL, little medium sand, trace medium-coarse gravel, loose, wet,		_29
_ _30		0.0	no odor (SW/GW)		_ _30
_ _31			End of Boring at 30' b.g.s.		_ _31
_					_
_32					_32
_ _33					_33
_ _34					_ _34
_ _35					_ _35
_					_
_36					_36
_ _37					_37
_ _38					38
_ _39					_ _39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

77	TET	TRA TE			PROJECT NO.: 117-0509160.01		Boring No: 016_K013 / 016_MW08
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:		GEOLOGIST / OFFICE:	
8/3/2011	30	30		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GRO	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.5'					Yes - 016_MW08		
МЕМО:							

DEPTH	RECOVERY	OVM		DUDMEIOTED OVOTEM COULDECODIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		0.0 0.0	0.0 - 0.9 0.9 - 1.2	Gray (GLEY 1 5/N) coarse-fine GRAVEL & COBBLES, loose, dry (GW) Light Greenish Gray (GLEY1 8/10Y) coarse-medium subround sandstone	Due to high gravel content, no sample taken 0' - 0.5'	_ _1
_ _2		0.0	1.2 - 2.1	GRAVEL & COBBLES, little medium-fine sand, dry, medium dense (GW)	016_K013_1.2 (1.2' -1.7') 25% COPR noted 1.2' - 2.1'	2
	<u>3.6</u>	0.0 0.0	1.2 - 2.1	Yellowish Red (5YR 5/6) SILT & fine SAND, 25% COPR (medium-fine round gravel) throught, trace fc subangular gray gravel, moist, loose,	016_K013_2.1 (2.1' -2.6')	
_3	5.0	0.0	0.4.00	no odor (ML)	,	_3
_ _4		0.0	2.1 - 3.6	Reddish Gray (5YR 5/2) medium SAND, some fine sand, trace coarse sand & fine subround gravel, moist, wet 3.5'-3.6', loose, no odor (SW)		_ _4
_ _5						_ _5
_		0.0	5.0 - 7.5	Dark Gray (2.5Y 4/1) medium-fine SAND, little silt, trace shells, wet,		
_6		0.0 0.0		loose, slight sulfurous odor (SM), Transitions into Dark Reddish Gray (5YR 4/2) coarse-medium SAND, little fine subround to subangular gravel,	016_K013_6.0 (6.0' -6.5)	_6
_ _7		0.0		trace shells, loose, wet, slight sulfurous odor (SW)	(0.0 0.0)	_7
_ _8	<u>2.5</u> 5.0	0.0				_ _8
	0.0					_
_9						_9
_10		0.0	100 110	Dork Croy (10VD 1/1) cores modium CAND little fine cond trace fine		_10
_ _11		0.0	10.0 - 11.8	Dark Gray (10YR 4/1) coarse-medium SAND, little fine sand, trace fine subround gravel & shells, loose, wet, slight sulfurous odor (SW),		11
_ _12		0.0		Transitions into (10YR 4/1) Dark Grayish Brown (10YR 4/2) medium-fine SAND, little silt, trace shells, loose, wet, slight sulfurous odor (SM)	016_K013_11.3 (11.3' -11.8)	12
	1.8			e, a.e., mae em, adee eneme, recee, wet, engin edinarede eder (e.m)		
_13	5.0				Fill/native soil interface not recovered	_13
_14						_14
_ _15						_ _15
_ 			15' - 20'	No Recovery		_ 
_17	0.0					_17
_18	5.0					_18
_ _19						_ _19
_ 						20
		0.0	20.0 - 21.3	Dark Gray (5Y 4/1) CLAY, little silt & shells, very soft, moist-wet,	016_K013_20.0 (20.0' -20.5)	1_
_21		0.0 1.8	21.3 - 22.4	moderate plasticity, slight sulfurous odor (OH)  Dark Brown (10YR 3/3) PEAT, trace Dark Gray (5Y 4/1) CLAY, soft,		_21
22	0.0	12.5		low plasticity, moist, strong sulfurous odor (PT)		_22
_ _23	<u>3.2</u> 5.0	0.4 0.0	22.4 - 23.2	Dark Gray (10YR 4/1) CLAY, trace peat, moderate to high plasticity, soft, moist, slight sulfurous odor (OH), Transitions into Greenish Gray		
_ _ _24				(GLEY2 6/5BG) very fine SAND, little clay & silt, medium-dense,		_ _ _24
_ <del></del>				moist-wet, no odor (SC)		_ <del>_</del>
_25						_25

72-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_K013 / 016_MW08
					PROJECT NAME: PPG Site 016		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
8/3/2011	30			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		7	
EPI \ AJ Benjamin			Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 3.5'					Yes - 016_MW08		
MEMO:							

DEPTH	RECOVERY (foot)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 27.6 Greenish Gray (GLEY2 6/5BG) CLAY, little silt, moderate plasticity,	SAMPLE SUMMARY 016_K013_25.0 (25.0' -25.5)	_25
_26		0.0	firm, moist, no odor (CH), Transitions into fine-very fine SAND, little silt	,	_26
_ _27		0.0 0.0	& clay, medium-dense, moist-wet, no odor (SC)		_ _27
_ _28	<u>3.6</u> 5.0	0.0 0.0	27.6 - 28.6 Grayish Brown (10YR 5/2) fine SAND, little very fine sand & silt, medium-dense, moist-wet, no odor (SM), Transitions into Gray (10YR 5/1) coarse-		_ _28
		0.0	medium SAND, little fine sand, trace fine subround gravel, wet, loose,		
_29 _			no odor (SW)		_
_30			End of Boring at 30' b.g.s.		_30
31					_31
_ _32			016_MW08 Well Information: 016_MW08 installed on 8/3/11 using 8" hollow stem augers equipped on a		_ _32
_ _33			geoprobe track rig		
			2-inch diameter 10-slot SCH40 PVC screen set at 3.5' - 8.5' bgs.		_
_34			2-inch diameter SCH40 PVC riser from 3.5' bgs. to surface #1 Sand from 1.5' to 10.0' bgs.		_34
_35			Cement-bentonite grout from 1.5' to 0.5' Flush-mount completion with concrete protective padding around casing		_35
_ _36					_36
_ _37			DTW: 4.0' bgs, measured on 8/09/11		_ _37
_ 					_ 
_ _ 					_ _ 
_40					_40
_41					_41
_ _42					_ _42
_ _43					_ _43
_ _44					_ _44
_ _45					_ _45
_ _46					_ _46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GE			CH GEO	PROJECT NO.: 117-0509160.01		Boring No: 016_L005	
				PROJECT NAME:		LOCATION SKETCH	
					PPG Site (	J16	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/8/2011	30	30		PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	DRILLING METHOD / BIT:		THOD / BIT:	1
EPI \ Warren Atkin	son		Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GR	OUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							1

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	0.0 - 2.0	Pale Brown (10YR 6/3) grading to Very Dark Grayish Brown (10YR 3/2)	SAMPLE SUMMARY 016 L005 0.0 (0.0' - 0.5')	_0
_ _1		0.0	0.0 - 2.0	medium-fine SAND, trace coarse gray angular gravel, loose to medium	010_000_0.0 (0.0 - 0.5)	_ _1
_ _2		0.0		dense, dry, no odor (SP)		_
	<u>2.5</u>	0.0 0.0	2.0 - 2.5	Light Gray (10YR 7/1) COBBLES & GRAVEL (broken-up concrete), dry,		_2
_3	3.0			loose, no odor (GW)		_3
_ _4						_ _4
_						
_5		0.0	5.0 - 7.7	Brown (10YR 4/2) medium SAND, little coarse sand, trace fine sand,	016_L005_5.0 (5.0' - 5.5')	_5
_6		0.0		loose, wet, no odor (SP). Zone of Dark Reddish Gray (2.5YR 4/1)	,	_6
_ _7		0.0 0.0		Clayey SILT from 6.6' - 7.0' (ML)		_ _7
_	<u>2.7</u>	0.0				_
_8	5.0					_8
_ _9						_9
_ _10						_ _10
_		0.0	10.0 - 11.3	Dark Gray (10YR 4/1) fine SAND, little medium sand, trace shells, loose,	242 1 225 42 7 44 20	
_11		0.0 0.0		wet, slight sulfurous odor (SP). Transitions to Dark Gray (10YR 4/1) coarse-medium SAND & fine subround GRAVEL, loose, wet, slight	016_L005_10.7 (10.7' - 11.3') Fill/native soil interface	_11
_12	0.0	0.0		sulfurous odor (GW/SW)	at 11.3'	_12
_ 13	<u>2.2</u> 5.0		11.3 - 12.2	Dark Gray (5Y 4/1) CLAY, little silt, soft, high plasticity, moist, slight sulfurous odor (OH)		_ _13
_						
_14						_14
_15		0.0	450 450	Doub Conv. /FV 4/4) Ol AV vorus of the products relativity and interest	040 1005 45 0 (45 0) 45 5)	_15
_ _16		0.0 0.0		Dark Gray (5Y 4/1) CLAY, very soft, moderate plasticity, moist, slight sulfurous odor (OH)	016_L005_15.0 (15.0' - 15.5')	_ _16
_ 		0.0		As Above (15.0' - 15.3'), hue change to Black (5Y 2.5/1), little peat,		_
_17 _	2.0	0.0		strong sulfurous odor (OH)		_1/
_18	5.0					_18
_ _19						_ _19
_ 						_
_		2.3	20.0 - 21.3	Dark Grayish Brown (10YR 4/2) PEAT, little Very Dark Gray (5Y 3/1)	016_L005_20.0 (20.0' - 20.5')	_20
_21		5.5		CLAY, moderate plasticity, soft, moist, strong sulfurous odor (PT)	,	_21
_ _22		0.3 0.0	21.3 - 22.6	Dark Gray (5Y 4/1) Silty CLAY, soft, moderate plasticity, moist (CL) Transitioning to Greenish Gray (GLEY2 6/5BG) SILT, little fine sand & clay,		_ _22
_ 	<u>2.6</u> 5.0	0.0		firm, low plasticity, moist, no odor (ML)		23
_	5.0					 
_24						_24
_ _25						_ _25

TI-	TET	RATE	CH GEO		PROJECT NO 117-0509	160.01	Boring No: 016_L005
	)				PROJECT NA		LOCATION SKETCH
				1	PPG Site	016	4
COMPLETION DATE:	TOTAL DEF	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/8/2011	30			PID MiniRAE 20	000	Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	IT:	DRILLING ME	ETHOD / BIT:	1
EPI \ Warren Atkin	son		Geoprobe Track	Rig	Direct Pus	h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 5.0'					No		
MEMO:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	25.0 - 28.4 Greenish Gray (GLEY2 6/5BG) SILT, little fine sand & clay, firm,	SAMPLE SUMMARY 016_L005_25.0 (25.0' - 25.5')	1_
_26		0.0	low plasticity, moist, no odor (ML), transitions into Dark Reddish Gray	,	_26
_ _27	3 4	0.0 0.0 0.0	(5YR 4/2) medium-coarse SAND, little fine subround gravel, trace fine sand, loose, wet, no odor (SW)		_ _27
_ _28	<u>3.4</u> 5.0	0.0 0.0			28
_ _29 _					_ _29
_30			End of Daving at 201h as		_30
_ _31			End of Boring at 30' b.g.s.		_ _31
_ _32					32
_ _33					33
_ _34					_34
_ _35					_ _35
_ _36					_36
_ _37					_37
_38					_38
_ _39					_39
_40 _					_40 _
_41					_41
_42 _					_42
_ _43 _					_43
_ _44 _					_44
_45 _					_45 _
_ _46 _					_ _46 _
_ _47 _					_ _47 _
_ _48 _					_ _48 _
_ _49 _					_ _49 _
_50					_50

72	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_L010 / 016_MW07
I.C				PROJECT NAME:		LOCATION SKETCH	
					PPG Site	016	
COMPLETION DATE:	TOTAL DEP	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/3/2011	30			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.5'					Yes - 016_MW07		
МЕМО:							
Cored through ~ 0.	4' of cond	crete before	advancing with g	jeoprobe			

DEPTH	RECOVERY	OVM	DUDMEIOTED OVOTE	M COUL DECODIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		M SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	• • • • • • • • • • • • • • • • • • • •	medium-fine SAND & mica flakes, some	016_L010_0.0 (0.0' - 0.5')	
_1		0.0 0.0	<del>_</del>	cobbles 0.4' -0.5', loose, dry, no odor (SP) fine SAND, trace gray subround fine		-1
_ _2		0.0	· · · · · · · · · · · · · · · · · · ·	medium-dense, dry, no odor (SM)	016_L010_1.6 (1.6' -2.1')	_2
	<u>4.5</u>		<del>-</del>	ne SAND, little subangular gravel, loose,	016_L010_2.1 (2.1' -2.6')	
_3	5.0	0.0		(medium-fine subround gravel) 2.1'-2.2'	016_L010_2.6 (2.6' -3.1')	_3
			· · · · · · · · · · · · · · · · · · ·	T, little very fine sand, 20% COPR	20% COPR noted 2.1' - 2.5'	<u>_</u>
_4		0.0	(medium-fine round gravel) 2.2			_4
_ _5		0.0	- · · · · · · · · · · · · · · · · · · ·	se SAND, some medium sand, little shells gravel, moist-wet, wet at 3.5', loose, no odor	(SW)	_ _5
		0.0		medium-fine subround gravel, Transitions	016_L010_5.0 (5.0' - 5.5')	
_ _6		0.0	· · · · · · · · · · · · · · · · · · ·	edium SAND, trace medium-fine	,	_6
_		0.0	subround gravel, fine sand, & s	hells, loose, wet, slight sulfurous odor (SW)		_
_7	4.0	0.0				_7
_ _8	<u>4.0</u> 5.0	0.0 0.0				_ _8
_0	5.0	0.0				_0
_9		0.0				_9
_						_
_10		0.0	0.0. 42.6. Crov (7.5VD.5/4) cooree mediu	um CAND trace medium fine authround	046 1 040 40 0 (40 0) 40 5'\	_10
_ _11		0.0 0.0	0.0 - 12.6 Gray (7.5YR 5/1) coarse-mediu	e, wet, slight sulfurous odor (SW)	016_L010_10.0 (10.0' - 10.5')	_ _11
-''		0.0	<u> </u>	Y 4/1) medium SAND, some fine sand,	Fill/native soil interface not	l
_ _12		0.0	- · · · · · · · · · · · · · · · · · · ·	nd gravel, & shells, loose, wet, slight	recovered	_12
	<u>2.6</u>	0.0	sulfurous odor (SW)			
_13	5.0					_13
_ _14						_ _14
-'-						-'-
_ _15						15
		0.0	5.0 - 15.5 Dark Gray (2.5Y 4/1) medium-f		016_L010_15.0 (15.0' - 15.5')	
_16		0.0	<del>_</del>	e, wet, slight sulfurous odor (SW)		_16
_ 17		0.0 0.0	5.5 - 17.7 Dark Gray (5Y 4/1) CLAY, trace	change to Very Dark Gray (5Y 3/1) from		_ _17
-''	<u>2.7</u>	0.0	16.4' - 16.8'	onange to very bank cray (or o/1) nom		-''
_ _18	5.0					_18
_19						_19
_ 20						20
		0.0	0.0 - 22.1 As Above (15.5' - 17.7'), little fir	ne-very fine sand 20.4' - 20.5' (OH)	016_L010_20.0 (20.0' - 20.5')	
_ _21		0.3	, , , , , ,			_21
_		0.1				
_22	2.0		2.1 - 22.7 Dark Brown (7.5YR 3/3) PEAT			_22
_ 23	<u>3.2</u> 5.0	0.0 0.2	dark gray clay, soft, moist, stror 2.7 - 23.2 Bluish Gray (GLEY2 6/10B) Cla			23
	0.0	5.2	moist-wet, slight sulfurous odor			
_24			, 5			_24
						_
_25						_25

72-	TET	RATE	CH GEO		PROJECT NO 117-0509		Boring No: 016_L010 / 016_MW07
IC				PROJECT NAME: PPG Site 016		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEF	TH OF BOREHO	DLE:	MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/3/2011	30			PID MiniRAE 20	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER:		DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push		h	
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 3.5'					Yes - 016_MW07		
MEMO:							

DEPTH	RECOVERY (foot)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	]
(Feet)	(feet)	(PPM) 0.0	25.0 - 27.5 Greenish Gray (GLEY2 5/5BG) CLAY, little silt, firm, moist-wet, moderate	SAMPLE SUMMARY 016_L010_25.0 (25.0' - 25.5')	_25
_26		0.0 0.0	plasticity, slight sulfurous odor (CH), Transitions into Clayey SILT, some fine-very fine sand, soft, moist-wet, low plasticity, no odor (ML)		_26
_ _27		0.0			_ _27
_ _28	<u>4.3</u> 5.0	0.0 0.0	27.5 - 29.3 Brown (7.5YR 5/2) Silty fine-very fine SAND, little clay, medium-dense, moist-wet, no odor (SM), Transitions into medium-fine SAND, trace coarse		_ _28
_	0.0	0.0	sand & fine subround gravel, medium-dense, moist-wet, no odor (SW)		
_29 _		0.0			_29 _
_30			End of Boring at 30' b.g.s.		_30
_ _31					_ _31
_ _32			016_MW07 Well Information: 016_MW07 installed on 8/3/11 using 8" hollow stem augers equipped on a		_ _32
_			geoprobe track rig		_
_33 _			2-inch diameter 10-slot SCH40 PVC screen set at 3.5' - 8.5' bgs.		_33
_34			2-inch diameter SCH40 PVC riser from 3.5' bgs. to surface #1 Sand from 1.5' to 10.0' bgs.		_34
_ _35			Cement-bentonite grout from 1.5' to 0.5'		_ _35
_ _36			Flush-mount completion with concrete protective padding around casing		_ _36
_ 37			DTW: 3.87' bgs, measured on 8/19/11		_ 37
_					
_38					_38
_ _39					_39
_ _40					_ _40
_ _41					_ _41
_42 _					_42 _
_43					_43
_ _44					_ _44
_ _45					_ _45
_ _46					_ 46
_					
_47 _					_47
_ _48					_48
_ _49					_ _49
_ _50					50



TETRA TECH GEO	PROJECT NO 1941-8214	Boring No:
	PROJECT NAME: PPG SITE 16	LOCATION SKETCH
	VITORING DEVICE   GEOLOGIST/OFFICE   PAUS KOT	
DRILLING CONTRACTOR/DRILLER: DRILLING EQUIPMENT:	De Direct push	
	DUND SURFACE ELEVATION: WELL INSTALLED?	
MEMO:		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	7 。
1		0	0-1' DK brown m-f SAND w   silt and		1
_ _2	4.3		little m-c subvounded gravel, dense, chy-moist no odor 1-2' Grong m-f SAND w/ mica frogments 2-5 Ovange-red-brown med SAND w/ little selt and rounded gravel, furm, dense	016-F005-1.0 016-F005-20	_2
_ _3	5.0	0	1-2' Grow met SAND w/ mica fragments	016-1005-20	_3
_4	3,0	0	2-5 Orange-red-brown med SAND w/ little		_4
_5			no oder		_5
_6					_6
_7			ESB @ 5' bgs		_7
_8					_8
_9		Ti .			_9
_10					10
11					_11
_ _12					_12
_13					_13
_14					_14
_15					15
_16					_16
_17					_17
_18			8		_18
_19					_19
_20					
_21					_21
_ _22					_22
23					_23
_ _24					_24
_ _25					_ 25

TŁ	TETRA TECH GEO	PROJECT NO.:	214	Boring No: 016- G020
	}	PROJECT NAME:		LOCATION SKETCH
COMPLETION DATE	TOTAL DEPTH OF BOREHOLE	MONITORING DEVICE	GEOLOGIST/OFFICE:	
DRILLING CONTRACTOR		1		
SAMPLINGMETHOD: 5'slowne	DEPTH TO GROUNDWATER	GROUND SURFACE ELEVATION:	WELL INSTALLED?	
мемо;				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	٦.
(Feet)	(feet)	(PPM)	O OF DY GOOD (1003) D CON SAND	SAMPLE SUMMARY	1_0
_1		0	0-0.5' DK brown (10/R3/2) m-f sity SAND, regetation rear top of sleene.	016-G020-00	1_1
_2	0.8		regulation near top of science.		_2
_ _3	5.0	0	0.5-0.8' Cray (loye 6/1) muscovite fragments		_3
_ _4			Loose, dry		4
			, 3		-
=		0	5-10' DK brown grand love the ) rates have	016-6020-5.0	
_6	1		5-10' DK brown - gray (10/24/2) mica fraga,		_6
_7	2.0		some met silty sand, loose, most		_7
_8	5.0		(File), med-coarse gravel throughout.		_8
_9					_9
_ _10					_10
- 11		O	10-15 DK brown m-c mica band, some sit	016-G020_10.0	11
_ _12	1.1		loose, very morst-wet, trace		_12
	5.0		colddes at ~ 11.0' bgs		_
_13			g		_13
_14					_14
_15					_15
_16		O	15-16.2' DK gray-brown m-c gravel and	016-6020_20.0	_ _16
_17	1.7		coldes, some med sand and silt,		-  _17
_ _18	5.0		ned loose		18
19		0	16-2-20 Black mica red sound, very morest		19
_			(Fill)		_
_20		0	20-207' Block med mica SAND, Loose, moist	016-G020_20.5	_20
_21			<u>,                                      </u>	016 2000-20-3	_21
_22	3.3	0	207-25 DK brown CLAY (10/2/1) some		_22
_23	5.0		silt and vegetation, trace shells		_23
_ _24			very most, soft, light suffer order		_24
_ _25			Fill votine interface at 2207' bgs		_ 25

	PROJECT NO.: 194-8214	Boring No:
	PROJECT NAME: PPG	LOCATION SKETCH
	ITORING DEVICE: GEOLOGIST / OFFICE TO PAUS FOT	
DRILLING CONTRACTOR/DRILLER: O DRILLING EQUIPMENT:	DIRECT OUSh.	
SAMPLING METHOD: DEPTH TO GROUNDWATER \ GROUNDWATER \	OUND SURFACE ELEVATION: WE'L INSTALLED?	
MEMO:		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	]
_ _26		0	25-25.8' Pent	016-6020- 2510	_ _26
_ _27	4.0	0	25.8-26.3 Green-gray (GLEY 24/10G) CLAY,		27
_ _28	5.0		26.3-27.7 Gray Silty CLAY w/ some moist m-f SAND 27.7-30' Red Brown (7.5 y R74) med SAND, trace		_28
_ _29		0	27.7-30' Red Torown (7.5 y R34) med SAND, trace	016-6020_29.5	_ _29
_30			fine sand, wet, transition to coarse SAND 30-31.1' Red brown (4.54 R46) n-f SILT w/ some	016-0620_21.3	_30
_ _31		0	30-31.1' Red brown (4.54 R46) n-f SILT w/ some		31
_32	2.2	0	sand and gravel, dense, moist. 31.1-31.5 Red brown (7.54R46) med SAND,		_32
	5.0		trace sit, loose, wet		_33
_ _34		0	31.5-35' Red brown 7.54R4(a) SILT w/ med		34
_ _35			sand and gravel, dense very morest. EOB@ 35' bgs		35
_ _36			EOB@ 35 bgs		36
37					_ _37
_ _38				,	_ _38
			41	5	_ _39
_ _40					_ _40
_41				3	_ _41
_ _42				) i	_42
_ _43					- _43
_44					_44
_ _45					_ _45
_ _46					_ _46
_ _47				1	_ _47
_ _48					_ _48
_ _49				1	_49
_ _50					_ _50

Th-	TETRA TECH GEO		PROJECT NO.	8214	Boring No: Ole-1019
1	)		PROJECT NAME	PPG SITE 16	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE	MONITORING DEVIC	E;	GEOLOGIST/OFFICE	1
DRILLING CONTRACTOR	7/DRILLER: DRILLING EQUIPMEN	T <sub>i</sub>	DRILLING METHO	DD / BIT:	-
EDI BOB	DEPTH TO GROUNDWATER	GROUND SURFACE	کا ترک ELEVATION:	WELL INSTALLED?	-
5' sleeve	<u> -                                    </u>			_	_
MEMO:					

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	٦,
1	(117)	<u>(۲,۲,۳,۳)</u>	0-1 DK gray m-f SAND, trace silt,	016_1019_0=0	
_'  _2	3.0		med firm, med-loose, moist to wet		-'
_	5.0		no ader.		-
_3	),0	0	1-5 Gray brown m-f SAND, trace rounded gravel, med-firm, wet, no odor.		_3
_4			3,100,000		_4
_5 _		02	5-9 DK gray med SAND, trace five sand,		5
_6 _			loose, wet, no odor		_6 _
_7	3.41	0	i e		_7
_8	5.0	O	9-10 DK gray m-f SAND, little self, med-dense, wet.	011- 1019 5.0'	_8
_9			William Gorace, World	016-1019-5.0	_9
_10		_			_10
_11		0	10-13 DK gray med SAND, trace Silt, clense- loose, saturated, no odor.		_11
_12	5.0	م			_12
_13	5.0	0	13-14 DK gray fine SAND, med-dense,		_13
_14		_	saturated, no odor		_14
_15		0	H=145 DK gray organic Silt/soft selty-		15
116			clay, malleable, moist, no odor		_16
_ <del>\</del>		0	14.5-15 Black silty CLAY, soft, moist,		_17
_1/8\			slight hydrocarbon odor		_18
/ <sub>19</sub> \					_19
_20					
<u>\$</u> 1 /		0	15-19 DK gray CLAY, little selt, soft,	016-3019_15.0	21
20/			moist, no odor		22
_ <sub>2</sub> 3\		0	19-20 Gray CLAY, little self, soft, moist,		
124			MC 8900 A		
25		0	PEAT in last 2" of slewe.		25

	PROJECT NO. 194-8214	Boring No: 016_ 019
	PROJECT NAME: PPG SITE 16	LOCATION SKETCH
COMPLETION DATE TOTAL DEPTH OF BOREHOLE MONITORING DEV	GEOLOGIST/OFFICE:	
DRILLING CONTRACTOR/DRILLER: DRILLING EQUIPMENT:	DRIECT DUSK	
SAMPLING METHOD DEPTH TO GROUNDWATER GROUND SURFACE	CE ELEVATION: WELL INSTALLED?	
MEMO:		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
<u> 1</u> 26 /		0	20-21 PEAT, some vegetation, moist, both,		
-\ -\az / 1			butur oder.		27
_ _28		0	21-24 Gray five silty SAND, trace		
/ \			clay, med-dense, moest		
_30		0	21-24 Gray five silty SAND, trace clay, ned-dense, moist 24-25 Gray CLAY, some silt, med-moist med = firm, no odor		_30
_ _31			med=firm, no odor		_31
_ _32			EOB @ 25' bgs.		_32
_ _33					_33
_ _34					_34
_ _35					_35
_ _36					_36
_ _37					_37
_38					_38
_39					_39
_40					_40
_41					_41
_42					_42
_43					_43
_44					_44
_45	:				_45
_46					_46
_ _47					_47
_ _48					_48
_ _49 _					_49
_50					_50

TETRA TECH GEO	PROJECT NO.	8214	Boring No: UND KOOT
	PROJECT NAM	PPG SITE 16	LOCATION SKETCH
COMPLETION DATE TOTAL DEPTH OF BOREHOLE	MONITORING DEVICE	GEOLOGIST / OFFICE	1
12-20-12 5 694	PID	TRAVIS KET	
DRILLING CONTRACTOR / DRILLER: O DRILLING EQUIPMEN	T: DRIFLING MET	HOD / BIT:	
EDI/BOD GEODIO	be Dire	et push	
SAMPLING METHOD: DEPTH TO GROUNDWATER	GROUND SURFACE ELEVATION:	WELL INSTALLED?	
5 sleeves		_	
MEMO:			1

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	7.
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_1 _ _2	3.0	O	med-coarse subvounded gravel (File)		_1 _ _2
_ _3 _ _ _4	5.0	0	0-2 Light brown f-m SAND, little silt med-coarse subrounded gravel (Fill) loose, dry 2-5 DK brown mf SAND, some silt, firm, med-dense, moist, no odor	016-10-10	_3 _4
_ · _ _5			(1.50 (2.5) 1.50 (3.5)		5
_ <del></del> _ 6			EOB @ 5' bgd-		6
_			Leo G S Sga		_
_7 _					_7
_8 _					_8
_ _9 _					_9
_10					10
_11					_11
_12					_12
_13					_13
_ _14					_14
15					_15
_ _16					_16
_ _17					_17
_ _18					18
_ _19					_19
_20					
21					_ _21
_ _22					
					24
_2 <del>4</del> _ _25					

(Ta-	TETRA TECH GEO	PROJECT NO: 1948214	Boring No: ONG KO13
عن ا		PROJECT NAME: PPG SITE OIL	LOCATION SKETCH
COMPLETION DATE	TOTAL DEPTH OF BOREHOLE	MONITORING DEVICE: GEOLOGIST/OFFICE: PID TRANSPORT	
DRILLING CONTRACTOR			
SAMPLING METHOD: 5 SLEEVES	DEPTH TO GROUNDWATER \	GROUND SURFACE ELEVATION: WELL INSTALLED?	
мемо:			

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	_0
_1		0	0-0.5' DK brown mf Silty SAND, some gravel,	Collected	3
_ _2	3.75		mont, no oder	016-K013-0.0	_2
3	50	0	0.5-1.3' Red brown (5423/4) SILT, trace fire sand and gravel, dense, low morsture		_3
_ 		0	1.3-5' Brown (10424/2) med SAND, Loose, morst		_4
5			wet from 3-5'	21	_5
-6		0	5-6.5 Gray brown (10423/1) med-coarse SAND,		_6
7	1 70		some stells, loose, saturated		7
8	3.75 5.0	0	65-10 (104241) Med SAHD, trace shells and fine		8
9	3,0		grovel, loase, wet, no odor		9
_10			-	i	10
_11		0	10-11.83' Save as above (SAA)		11
12	3.25	0	11.83-12' DK gray (10483/1) CLAY, trace sand,		12
_13	5.0		loase, saturated, no odor.		13
14		0	12-15 Brown gray (10483/2) coarse SAND		_ _ _14
			transitioning to fine SAND, bate vated.		_ _ _15
		0	15-15.75' SAA FILL / nature interface at 15.75'	Collected	_16
	2.58	0	15.75-20 DK groy (GLEY 13/N) Lity CLAY, loose,	016-K013-19.5	17
	5.0		very morst, trace shells, slight		18
			sollor odor.		19
					20
21		_	20-21,33' SAA		_21
	3.08	0	21.33-22.33 Peat, abundant vegetation		
	5.0		Sulfur oder, moist		23
_24		0	22.33-25 Groy (GLEY 13/H) Gray SILT, Loose,	Collected .	_24
25			mores	016-K013-24	_25
			· · · · · · · · · · · · · · · · · · ·		

	PROJECT NO: 194-8214	Boring No:
	PROJECT NAME: PPG OILO	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE: MONITORING DEVICE PLD	GEOLOGIST/OFFICE	
DRILLING CONTRACTOR/DRILLER: DRILLING EQUIPMENT:  EDI / BOB FLEMING Geodobe	DRILLING METHOD/BIT	
SAMPLING METHOD: DEPTH TO GROUNDWATER GROUND SURFACE	ELEVATION: WELL INSTALLED?	;
MEMO:		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
		0	25-28' Gray SILT (CILEY 14/N) some trace day		
27	441		morst med dense		_ _27
_ _28	5.0		28-30'(5 y 23/1) ned SAND, some SILT, LOOSE		
29			wet, fluid sands restrict firther depth.		_ _29
_ _30			EOB@ 30' has.		_30
_ _31					31
_32			MW-10: River from 3' ags - 29' bgs		
_ _33			Screen from 29-34 logs.		
_ _34			2" PVC.		
_ _35					35
_ _36					
_37	į				_ _37
_39					
_40					_40
_ _41					_ _41
_42					_ _42
_ _43					_43
_44					_44
_ _45					_45
_ _46					_ _46
_47					_ _47
_ _48					_ _48
_49					_ _49
_ _50					_ _50

TETRA TECH GEO	PROJECT NO.	194-8214	Boring No: 016 - K013
	PROJECT NAME	PPG SITE	LOCATION SKETCH
COMPLETION DATE TOTAL DEPTH OF BOREHOLE  12-20-12 5' bas-	MONITORING DEVICE	GEOLOGIST/OFFICE:	
DRILLING CONTRACTOR/DRILLER: DRILLING EQUIPMEN	1	1	
	GROUND SURFACE ELEVATION:	WELL INSTALLED?	
MEMO:			

(feel)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY
		0-2' DK brown m-f selty SAND and	-
110		subangular gravel and wood	
4.3		throughout, med firm, dry moust oder.	=
5,0	0		_
		med and well morest-wet no oder	<u>-</u>
	0		-  -
		saturated in last 6" of slewe.	<u>-</u> -
		Es & 5.0 bgs	
			-` 
			_
			-
			-  -
			-
			- -
			-
			<u>-</u> .
			[-
			_ <u>-</u> 2
		1	_;
			-
	5.0	5.0	

TETRA TECH GEO	PROJECT NO: 194-8214	Boring No: O16 LO13
ie i i i i i i i i i i i i i i i i i i	PROJECT NAME:  PPG SITE OIL	LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:	MONITORING DEVICE: GEOLOGIST/OFFICE:	-
DRILLING CONTRACTOR/DRILLER: DBILLING EQUIPMENT BOY BOB	T: DRILLING METHOD / BIT:	
	GROUND SURFACE ELEVATION: WELL INSTALLED?	
MEMO:		

DEPTH	RECOVERY	ОУМ		FIELD NOTES &	7
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_1		0	0-1.75' DK brown Silty SAND and brick, gravel (FILL)	Callected 016_6013_0.0	_1
_2	4.0				_2
3	5.0	0	175-5' Brown (5ye4/2) med SAND, trace Sitt,		-3
_			loose, very morst.		
_4					_4
_5					_5
_ _6		0	5-6-5 (54R4/2) med SAND, some silt, loose, wet	Collected	_6
_7	3.0	0	6.5-10 (7.54R3/2) red-coarse SAND, trace SIH	016_L013_5.0	_7
8	5.0		loose wet		8
_	0.0		,000		=
_9					_9
_10					_10
_11		0	10-13 (7.54R31) DK brown f-c SAND, trace	016_6013_10.0	_11
_ _12	3.58		Sitt, wet, ned loose, no odor.		_12
13	5,0	0	13-15 DKgroy-brown (2.54225/1) Silty CLAY		13
14			trace fine sand, loose, wet.		14
_					
_15	_	_	15 11/2 1 2/2 1 3/2		_15
_16		0	15-16' (DK brown) (2.54R3/1) med SAMD, trace	016_L013_15.5'	_16
_17	2110		sit, loose, wet. (Fill/nature ~ 16 bgs).		_17
18	3.66	0	16-20' DK brown to block (5 y 2.5/1) Silty CLAY,		18
_	50		loose, soft-morst, hydrocarbon order		19
_19					
_20			(5.25/2)	-11 (-12 -0.0)	_20
_21		0	20-21.75' DK gray (5y2.5/1) with CLAY,	016-613-20.0	_21
_ _22	3.0		soft, morst	016-6013-24.0	_22
_ _23	5.0	0	21.75-25' Reat, abundant vegetation, soft,		_23
	).0		dense, moist, sulfur odor.		24
_			1		25
_25		<u> </u>	F08 25 bgs	<u> </u>	]_25

TETRA TECH GEO	PROJECT NO.	Boring No: O 16_L020
	PROJECT NAME	LOCATION SKETCH
COMPLETION DATE TOTAL DEPTH OF BOREHOLE	MONITORING DEVICE GEOLOGIST / OFFICE TRAVIS FOT	
DRILLING CONTRACTOR/DRILLER: DRILLING EQUIPMEN	1	
SAMPLING METHOD: DEPTH TO GROUNDWATER \	GROUND SURFACE ELEVATION WALL INSTALLED?	2
MEMO:		

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	] 。
_1	4.0	0	0-1' Brown-black mot Silly SAND, some	016-1020-05-1	_1
_2	30		gravel, med deuse, mount	(1-5°10 COPE)	2
_ _3	5.0	0	1-6' (7.5 ye 3/3) Brown - oronge med SAND,	06-6020-00-05	3
			1-5' (7.5 ye 3/3) Brown - oronge med SAND, trace fine SAND and subangular-rounded gravel, loose, very wet at 3.5' bgs.	016_100_1.0-1.5	-4
5			gravel, loose, very wet at 3.5'bgs.		5
6		0	5-10 (7.5 YR3/2) Brown m-c SAND, some shells		-6
7	3.0		at 5.8-6.7', saturated, med dense,	0.0200000000000000000000000000000000000	-7
8	5.0		have fine sand at 7.5-10'.		-
9					_0
10					-10
_10		0	10-10,6 (54R41) DK gray SILTY CLAY, SOFT	av. 1 as a 10 a	_10 
-	3,7		very moist	016-620-10.0	=11 -
_12	50				-12 -
_13	20		10.60-15' (2.54 9/2) DK gray-brown Chay, trace silt, trace stells, sulfur odor		_13
_14			Fill nature interface at a 10' bgs		_14
_15		0	15-15.8' (10/R 4/2) Brown m-c SAND, trace sitt,		_15
_16	25			016_620_15.0	_16
_17 _	37	0	some shells, loade, wet 15.8-18.2'(104242) Brook mas SAND trace Silt		_17
_18	5.0	<u> </u>	(5.8-18.2'(10424/2) Brown m-c SAND trace silt and med rounded gravel, loose, wet	mul 1 maa 19 n	_18
_19		0	16.2-20 (10424/2) Gray brown SILT, trace clay,	016_6020_19.0	_19
_20			78017, WC1		_20
_21			ESB @ 20' 6gs.		_21
_22			MWI-9: ~3' well stickup 3'		_22
_23			2" PVC ruser from +3' - & bgs		_23
_ _24			Protest from 3'-8' bgs		_24
_ _25					_25