

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A005
				PROJECT NAME:			LOCATION SKETCH
				PPG Site 065			
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	/2011 20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLEF	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25" ~ 1.6'		No					
МЕМО:							

DEPTH	RECOVERY	OVM			FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		72.1 23.7	0.0 - 0.6	Dark Gray (2.5Y 4/1) fine SAND, little medium sand, loose, moist, strong solvent odor, wood fragments 0.5' - 0.6' (SP)	065_A005_0.0 (0.0' - 0.5')	_ _1
_		12.9	0.6 - 1.8	Very Dark Gray (2.5Y 3/1) coarse-fine SAND, some coarse-medium gray		_
_2		9.0		angular gravel & cobbles, little silt, medium-dense, moist, wet 1.6' - 1.8',		_2
_	<u>2.8</u>	13.1	4004	strong solvent odor (SW/SM)		_
_3	5.0			Very Dark Gray (2.5Y 3/1) medium-fine SAND, trace coarse sand, trace fine subround gravel, & silt, loose, moist-wet, strong solvent odor (SW/SP)		_3
4				Black (2.5Y 2.5/1) fine SAND, some coarse-medium sand & coarse-		4
			2.1 2.0	medium subangular-subround gravel (coal & slag), little silt, medium-dense,		-
_5				moist-wet, strong solvent odor (SW/SM)		_5
_				As Above (2.1' - 2.8'), Very Dark Gray (2.5Y 3/1) (SW/SM)	065_A005_5.0 (5.0' - 5.5')	1_
_6			5.7 - 6.6	Dark Grayish Brown (2.5Y 4/2) Silty fine SAND & coarse-fine subangular-		_6
		332.0	00.05	subround GRAVEL, very loose, wet, strong solvent odor (GM)		
_7	2.5	167.0 81.0	6.6 - 8.5	Dark Grayish Brown (2.5Y 4/2) Silty medium-fine SAND, little medium-fine subangular to subround gravel, loose, wet, slight solvent odor (SM)		_7
_ 8	<u>3.5</u> 5.0	25.3		Subangular to Subround graver, 1005e, wet, Siight Solvent Odor (Sivi)		_8
	0.0	9.1				
_9						_9
_						_
_10		7.0	10.0 10.0	A AL (0.01, 0.51) L(0M)	205 4005 40 0 (40 0) 40 50	_10
_ _11		7.0 3.8		As Above (6.6' - 8.5'), no gravel (SM) Very Dark Grayish Brown (10YR 3/2) PEAT & SILT, very soft, moist,	065_A005_10.0 (10.0' - 10.5')	_ _11
-''		3.0	10.2 - 10.7	slight sulfurous odor (PT)	Fill/Native soil interface at	-''
_ 12			10.7 - 10.8	Dark Reddish Brown (2.5YR 3/4) Sandstone COBBLES (GP)	10.2'	_12
	<u>1.1</u>		10.8 - 11.1	Greenish Gray (GLEY2 6/5BG) Clayey fine-very fine SAND, little silt, moist,		
_13	5.0			soft, no odor (SC)		_13
						-,,
_14						_14
_ _15						_ _15
		3.1	15.0 - 15.3	Greenish Gray (GLEY2 6/5BG) CLAY, little silt, moderate plasticity, soft,	065_A005_15.0 (15.0' - 15.5')	1
_16		3.5		moist, no odor (CH)	,	_16
_		2.5	15.3 - 15.5	Gray (GLEY1 5/N) medium-fine SAND, little silt, medium-dense,	PID bkgd: 1.4 ppm	_
_17	0.0	1.6	45.5 40.0	moist-wet, no odor (SM)	(high humidity)	_17
_ 18	3.0 5.0	1.6 1.6		Reddish Brown (7.5YR 5/3) medium-fine SAND, trace coarse sand & fine subangular gravel, wet, loose, no odor (SW), Transitions to Reddish Brown	065 A005 17.5 (17.5' - 18.0')	- 18
-10	3.0	1.0		(5YR 4/4) SILT, little very fine sand & coarse-fine red siltstone gravel,	000_A000_11.0](11.0 - 10.0)	-'0
_ _19				trace coarse-fine greenish gray subround gravel, stiff, dry, no odor (ML)		_19
_						
_20			<u> </u>			_20
			End of Bori	ing at 20' bgs.		-
_21						_21
						22
_23						_23
						_
_24						_24
_ _25						_ _25
_20	l	l	<u> </u>			∠၁

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TETRA TECH G		CH GEO	PROJECT NO.: 117-0509160.02		Boring No: 065_A006		
	J				PROJECT NAME: PPG Site 065		LOCATION SKETCH
COMPLETION DATE:	TOTAL DE	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20	20		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 2.0'				No	
МЕМО:							

DEPTH	RECOVERY	OVM			FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		738.0	0.0 - 0.3	Gray (2.5Y 5/1) fine SAND, little medium sand, some light greenish gray	065_A006_0.0 (0.0' - 0.5')	1_
_1		1060.0		sandstone cobbles & coarse-medium sand, loose, moist (SP)		_1
_			0.3 - 1.5	Very Dark Gray (GLEY1 3/N) coarse-medium angular GRAVEL & COBBLES,		_
_2	4.0	1826.0	1.5 - 2.0	some coarse-fine sand, trace silt, dense, moist (GW)	Strong solvent odor in 0' - 5' interval	_2
_ _3	<u>4.3</u> 5.0		2.0 - 3.2	Black (2.5Y 2.5/1) medium-fine SAND, wet, loose (SW) Dark Grayish Brown (10YR 4/2) coarse-fine SAND, little silt & coal, little	in 0 - 5 interval	_ _3
_3	5.0	124.0	2.0 - 3.2	ang. medium-fine gravel, trace slag, wet, loose, slight sheen (SW)		_3
4			3.2 - 3.5	Red (2.5YR 4/6) coarse-fine angular sandstone GRAVEL, some coarse-	065 A006 3.8 (3.8' - 4.2')	_4
				medium SAND, loose, wet, slight sheen (GW)	(gravel at 4.3')	-
_5			3.5 - 4.3	Dark Grayish Brown (10YR 4/2) Silty CLAY, little fine sand & fine	,	_5
_		17.1		subround gravel, firm, moist (OH), Transitions to Dark Gray		1_
_6		20.9		(5Y 4/1) Silty very fine SAND, little clay, loose, moist (SM)		_6
			50 6.3	Dark Grayish Brown (10YR 4/2) Silty medium-fine SAND, some medium-fine		
_7	4.0	10.5	00.00	subround-subangular sandstone gravel, firm, moist-wet (SM)	Slight solvent odor	_7
_ _8	<u>4.0</u> 5.0	13.2 9.1	6.3 - 6.9	Strong Brown (7.5YR 5/6) SILT, some fine sand, little coarse-fine subround- subangular sandstone gravel, firm, moist-wet (ML)	in 5' - 10' interval	_ _8
_6	5.0		6.9 - 8.7	Dark Grayish Brown (2.5Y 4/2) Silty fine SAND, little medium sand, trace		-0
9		7	0.5 0.7	coarse-medium round gravel, medium-dense, moist-wet (SM)	065 A006 8.2 (8.2' - 8.7')	_9
			8.7 - 9.0	White (GLEY1 8/N) coarse GRAVEL & COBBLES (gneiss), pulverized	(cobbles 8.7' - 9', fill/native	
_10				(from drilling) fine sand, loose, dry, no odor (GP)	soil interface btw 9'-10')	_10
_		16.9	10.0 - 11.7	Very Dark Grayish Brown (10YR 3/2) PEAT, little silt, very soft, moist,]_
_11		55.7		slight sulfurous odor (PT)	PID bkgd: 0.7 ppm	_11
-		34.4	44 7 40 0	0 110 (015)0 5/500) 01/4 014)	(high humidity)	-
_12	2.2	0.8	11.7 - 12.2	Greenish Gray (GLEY2 5/5BG) Silty CLAY, trace very fine sand & fine subround gravel 12.1' - 12.2', soft, moderate palsticity, moist, no odor (CH)	065_A006_11.7 (11.7' - 12.2')	_12
_ _13	<u>2.2</u> 5.0			subround graver 12.1 - 12.2, Soft, moderate paisticity, moist, no odor (Ch)		_ _13
_10	0.0					-'0
_ _14						14
_						
_15					_	_15
		0.7	15.0 - 15.5	Grayish Brown (10YR 5/2) Silty fine-very fine SAND, little medium sand,	065_A006_15.0 (15.0' - 15.5')	
_16				very loose, wet, no odor (SM)	DID II I O 7	_16
					PID bkgd: 0.7 ppm	-
_17	0.5					_17
_ _18	5.0					_ _18
	0.0					
_19						_19
_						_
_20						_20
-			End of Bor	ing at 20' bgs.		
_21						_21
_ 22						22
23						_23
_24						_24
_						_
_25						_25

_							
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A007
				PROJECT NAME: PPG Site 065		LOCATION SKETCH	
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20		PID MiniRAE 2000		Jim M. / Whitehouse Station		
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 1.5'				No	
МЕМО:							

DEPTH	RECOVERY	OVM		DUDMEISTED SVETEM SOULDESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		40.7	0.0 - 0.4	Dark Brown (7.5YR 3/2) fine SAND, little medium sand, moist, loose,	065_A007_0.0 (0.0' - 0.5')	_
_1		12.9 73.6	0.4 - 1.8	wood fragments at 0.4' (SP) Black (2.5Y 2.5/1) medium-fine SAND grading into coarse-fine SAND, some		_1
2		865.0	0.4 - 1.0	coarse-fine angular gray gravel & cobbles, trace silt & coal, moist, wet 1.5' -	Strong solvent odor	_2
	3.6	625.0		1.8', sheen/staining 1.5' - 1.8' (SW)	in 0' - 5' interval	_
_3	5.0		1.8 - 2.1	Brown (10YR 4/3) SILT, some fine sand, little medium sand, stiff, moist (ML)		_3
		129.0	2.1 - 3.6	Black (2.5Y 2.5/1) medium-fine SAND, some gravel, little silt, wet, loose,	065_A007_3.1 (3.1' - 3.6')	
_4			3.3 - 3.6	little white (2.5Y 8/1) silty clay stringers, silty clay 3' - 3.3' (SM/CL) Dark Gray (5Y 4/1) medium-fine SAND, little silt & gray angular gravel,		_4
_ _5			3.3 - 3.0	loose, wet, slight staining (SM)		_ _5
		13.7	5.0 - 7.4	Black stained (2.5Y 2.5/1) medium-fine SAND, little coarse-fine angular to	Slight solvent odor	
_6		14.0		subround gravel, trace coal, slag, & glass, white silty clayey medium-fine	in 5' - 10' interval	_6
		5.0		sand at 6.5', less staining 5.8' - 6.5' (Dark Gray 5Y 4/1) (SP/SW)		
_7	2.4	4.6			065_A007_6.9 (6.9' - 7.4')	_7
_ 8	<u>2.4</u> 5.0					_ _8
_					Fill/native soil interface	
_9					between 7.4' - 10', not	_9
_					recovered	-
_10		5.1	10.0 - 11.6	Very Dark Grayish Brown (10YR 3/2) PEAT, little silty clay, very soft, moist,		_10
_ _11		32.8	10.0 - 11.0	strong sulfurous odor (PT)		_11
_		31.0		3		_
_12		0.7	11.6 - 11.9	Greenish Gray (GLEY2 5/5BG) CLAY, soft, moist, moderate plasticity,	065_A007_11.0 (11.0' - 11.5')	_12
_	<u>1.9</u> 5.0			no odor (CH)		_
_13	5.0					_13
_ _14						_ _14
_						
_15						_15
_ 16		0.7 1.2	15.0 - 15.9	As Above (11.6' - 11.9'), Transitions into fine-very fine sand, little clay (CL)	065_A007_15.0 (15.0' - 15.5')	_ _16
_16		1.3	15 9 - 18 4	Brown (7.5YR 5/3) medium-fine SAND, trace coarse sand & fine subangular		_16
_ _17		1.5	10.0 10.1	gravel, loose, wet, no odor (SW), Transitions to Reddish Brown (5YR 4/4)	PID bkgd: 0.7 to 1.3 ppm	_ _17
_	<u>3.4</u>	1.3		SILT, little very fine sand & coarse-fine red sandstone gravel, stiff, moist-	(high humidity)	_
_18	5.0	1.3		dry, no odor (ML)		_18
						_ _19
_19						-19
_20						_ _20
_			End of Bor	ing at 20' bgs.		_
_21						_21
						22
_23						_23
_						_
_24						_24
_ 25						_ 25
_25		l .				20

t							
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A008
			PROJECT NAME: PPG Site 065		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
8/1/2011	1/2011 20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.3'				No			
MEMO:							

DEPTH RECOVERY Green G	0.5')
1	5.5')6 7 7.5')8 9 10
269.0	
116.0	
Slight solvent odor Slight solvent odor Slight solvent odor In 0' - 5' interval	
20.7 loose, wet, faint sheen, staining (SP/OH) 2.1 - 2.5 As Above (1.4' - 1.8') (GW) 2.5 - 3.7 Dark Gray (5Y 4/1) Silty CLAY, soft, moist-wet (OH), Transitions to Olive Gray (5Y 4/2) fine SAND, little medium sand, loose, wet (SP) 14.4 5.0 - 5.5 Olive Gray (5Y 4/2) fine SAND, little medium sand, loose, wet (SP) 5.5 - 7.5 Grayish Brown (2.5Y 5/2) Silty fine SAND, little medium sand & coarse-fine angular gray gravel, trace clay, very loose, wet (SM) Slight solvent odor in 5' - 10' interval 065_A008_7.0 (7.0' - 2.5	4 5 5.5')6 7 7.5')8 9 10
2.1 - 2.5	7.5')
2.5 - 3.7 Dark Gray (5Y 4/1) Silty CLAY, soft, moist-wet (OH), Transitions to Olive Gray (5Y 4/2) fine SAND, little medium sand, loose, wet (SP) 14.4 5.0 - 5.5 Olive Gray (5Y 4/2) fine SAND, little medium sand, loose, wet (SP) 4.8 5.5 - 7.5 Grayish Brown (2.5Y 5/2) Silty fine SAND, little medium sand & coarse-fine angular gray gravel, trace clay, very loose, wet (SM) Slight solvent odor in 5' - 10' interval 065_A008_7.0 (7.0' - 5.0) 5.0 Fill/native soil interface between 7.5' - 10', not recovered 9.6 10.0 - 10.7 Dark Grayish Brown (10YR 4/2) PEAT, little silty clay, very soft, moist, strong sulfurous odor (PT) 10.7 - 10.8 Black (2.5Y 2.5/1) coarse angular GRAVEL (GP) 10.8 - 10.9 Greenish Gray (GLEY2 6/5BG) coarse-medium SAND, little silt & gray	7.5')
Gray (5Y 4/2) fine SAND, little medium sand, loose, wet (SP) 14.4 4.8 5.0 - 5.5 Grayish Brown (2.5Y 5/2) Silty fine SAND, little medium sand & coarse-fine angular gray gravel, trace clay, very loose, wet (SM) Slight solvent odor in 5' - 10' interval 065_A008_7.0 (7.0' - 2.5 5.0) Slight solvent odor in 5' - 10' interval 065_A008_7.0 (7.0' - 2.5 5.0) Fill/native soil interface between 7.5' - 10', not recovered 9.6 10.0 - 10.7 Dark Grayish Brown (10YR 4/2) PEAT, little silty clay, very soft, moist, strong sulfurous odor (PT) 10.7 - 10.8 Black (2.5Y 2.5/1) coarse angular GRAVEL (GP) 10.8 - 10.9 Greenish Gray (GLEY2 6/5BG) coarse-medium SAND, little silt & gray	5.5')
4.8 3.1 4.3 3.1 4.3 5.5 - 7.5 Grayish Brown (2.5Y 5/2) Silty fine SAND, little medium sand & coarse-fine angular gray gravel, trace clay, very loose, wet (SM) Slight solvent odor in 5' - 10' interval 065_A008_7.0 (7.0' - 2.5 5.0 5.0 5.0 65_A008_7.0 (7.0' - 2.5 6.0 6.0 65_A008_7.0 (7.0' - 2.5 6.0 6.0 6.0 6.0 6	5.5')
Slight solvent odor in 5' - 10' interval	7.5')
	7.5')
	7.5')
	8 9 10
between 7.5' - 10', not recovered	
between 7.5' - 10', not recovered	
9.6 10.0 - 10.7 Dark Grayish Brown (10YR 4/2) PEAT, little silty clay, very soft, moist, strong sulfurous odor (PT) 10.7 - 10.8 Black (2.5Y 2.5/1) coarse angular GRAVEL (GP) 10.8 - 10.9 Greenish Gray (GLEY2 6/5BG) coarse-medium SAND, little silt & gray	
_ 10.7 - 10.8 Black (2.5Y 2.5/1) coarse angular GRAVEL (GP) _12 10.8 - 10.9 Greenish Gray (GLEY2 6/5BG) coarse-medium SAND, little silt & gray	40.01
12	- 10.9') _11
	-
	_12
_13 5.0	13
_14	_14
	_ _15
15	
16 0.4 odor (SC), Transitions into Silty medium-fine SAND, trace clay,	
17	_17
L 4.1 0.2 to red-brown), stiff, moist, no odor (ML) (high humidity)	_ _18
	_10
	_19
	_
_20 End of Poring at 20' lags	_20
_ End of Boring at 20' bgs.	_ _21
	_22
	- <u>,</u> ,
	_23
	_
_25	_25

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A009
			PROJECT NAME: PPG Site 065		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20			PID MiniRAE 2000 J		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25" ~ 1.8'				No			
МЕМО:							

DEPTH	RECOVERY	OVM			FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		480.0 1883.0	0.0 - 0.4	Grayish Brown (2.5Y 5/2) fine SAND & coarse gray angular GRAVEL, little fine gray angular gravel, trace silt, loose, dry (GP)	065_A009_0.0 (0.0' - 0.5')	_ _1
_'			0.4 - 0.7	Black (2.5Y 2.5/1) coarse-medium angular GRAVEL some medium-		Ε.
_2		940.0		fine sand, little coal & slag, medium dense, moist (GW)		_2
	<u>2.5</u>	475.0	0.7 - 1.0	Black (2.5Y 2.5/1) medium-fine SAND, little slag & coal, medium-	065_A009_2.0 (2.0' - 2.5')	
_3	5.0		1.0 - 1.8	dense, moist (SW) Black (2.5Y 2.5/1) coarse-medium & medium-fine gravel (coal & slag),	Strong solvent odor	_3
_ 4				little fine sand, medium-dense, wet at 1.8', slight staining/sheen (SW)	in 0' - 5' interval	- 4
			1.8 - 2.5	Gray (2.5Y 6/1) medium SAND, little fine sand, trace coarse sand & fine	in o o interval	I .
_ _5				angular gravel, loose, moist-wet (SW)		_5
_			5.0 - 5.2	Yellowish Red (5YR 5/6) subround sandstone COBBLES, some Dark Gray		_
_6		2.6 2.9	5.2 - 6.1	(2.5Y 4/1) Clayey SILT, medium-dense, moist, slight sulfurous odor (GM) As Above (1.8' - 2.5'), no odor (SW)	065 A009 6.0 (6.0' - 6.5')	_6
_ _7		_	6.1 - 6.5	Black (2.5Y 2.5/1) coarse-medium GRAVEL & COBBLES (coal), some	065_A009_6.0 (6.0 - 6.5)	_ _7
	<u>1.5</u>		0	wood fragments, loose, dry, no odor (GW)		
8	5.0					_8
_						_
_9						_9
_ 10						10
_			10.0 - 15.0	No Recovery	No sample - no recovery	
_11						_11
-						-
_12	0.0					_12
_ _13	5.0					_13
_						
_14						_14
						_ _15
_15		0.0	15.0 - 17.6	Gray (2.5Y 2.5/1) SILT, some very fine sand, little subround coarse-medium	065 A009 15.0 (15.0' - 15.5')	-13
_ _16		0.0	10.0 17.0	gravel & cobbles, stiff, dry, no odor (ML), Transitions into Brown (10YR 5/3)	(10.0)	16
_		0.0		SILT, little very fine sand & medium-fine subround-subangular gray gravel,		
_17		0.0		some coarse-fine gray gravel 16.9' - 17.2' (moist-wet), stiff, dry, no odor (ML)		_17
_ _18	<u>2.6</u> 5.0	0.0				_ _18
_10	5.0					-10
_ _19						_19
_						_
_20			Ford of F	in a st 001 have		_20
_ _21			End of Bori	ing at 20' bgs.		_ _21
						-41
_ _22						_22
_						_
_23						_23
_ 24						_ 24
						-24
_ _25						_25

_							
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A010
				PROJECT NAME: PPG Site 065		LOCATION SKETCH	
COMPLETION DATE:	: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin		_	Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5'				No	
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0 - 0.2 White concrete cobbles, loose, dry (SP)	SAMPLE SUMMARY 065 A010 0.0 (0.0' - 0.5')	_0
_ _1			0.2 - 0.8 Dark Grayish Brown (2.5Y 4/2) fine SAND, little medium sand & medium-	003_A010_0.0 (0.0 - 0.3)	_1
_ _2			fine slag gravel, trace coal fragments, loose, dry, no odor (SP)	PID not working - lamp issue	2
_	0.8			Tib flot working famp 10000	_
_3	5.0				_3
_4					_4
_5			5.0 - 5.2 Black (2.5Y 2.5/1) medium-fine SAND, little slag & coal gravel, little silt,	065_A010_5.0 (5.0' - 5.5')	_5
_ _6			loose, wet, no odor (SM)	005_A010_5.0](5.0 - 5.5)	_ _6
_ _7			5.2 - 5.9 Brown (7.5YR 5/4) SILT, little fine sand, little gray & red subround fine gravel, stiff, dry-moist, no odor (ML)		_ _7
_ _8	<u>0.9</u> 5.0				_ _8
_ _9					_ _9
_ _10					_ _10
_ _11			10.0 - 15.0 No Recovery	No sample - no recovery	_ _11
_ _12					_ _12
_ _13	<u>0.0</u> 5.0				_ _13
_ _14					_ _14
_ _15					_ _15
_ _16			15.0 - 15.3 Brown (7.5YR 4/4) SILT, little very fine sand & subround gray & red gravel, stiff, dry, no odor (ML)	065_A010_15.0 (15.0' - 15.5')	_ _16
_ _17			15.3 - 17.6 Grayish Brown (10YR 5/2) grading to Brown (7.5YR 5/2) SILT, little very fine sand & medium-fine subround-subangular gray gravel, stiff, dry-moist,		_ _17
_ _18	<u>2.6</u> 5.0		no odor (ML)		_ _18
_ _ _19					_ _ _19
_ _20					
_ _ _21			End of Boring at 20' bgs.		
_ _ _22					
_ _ _23					_ _ _23
					24

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TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A011
			PROJECT NAME: PPG Site 065		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/28/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.3'				No			
МЕМО:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
_ _1		0.0 0.4	0.0 - 0.5	Gray (GLEY1 6/N) coarse-fine angular GRAVEL, some medium-fine Dark Grayish Brown (2.5Y 4/2) sand, loose, dry, no odor (GW)	065_A011_0.0 (0.0' - 0.5')	_ _1
-'		3.5	0.5 - 1.1	Dark Gray (2.5Y 4/1) medium SAND, little fine sand & medium-fine gray		-'
_2		5.2		angular gravel & coal, loose, moist, no odor (SP)		_2
_	<u>2.8</u>		1.1 - 1.7	Black (2.5Y 2.5/1) medium-fine SAND, little coarse subround slag sand &		_
_3	5.0	0.3	1.7 - 2.1	medium-fine slag gravel, little coal, loose, moist, no odor (SW) Yellowish Brown (10YR 5/4) coarse-medium SAND & coarse-fine subround		_3
_4			1.7 - 2.1	quartz GRAVEL, loose, moist, no odor (GW)		_4
_			2.1 - 2.8	Dark Gray (10YR 4/1) Silty medium-fine SAND, little subround-subangular		
_5		0.0	5.0 - 5.2	gray gravel, trace slag & coal, loose, wet at 2.3', no odor (SM)	005 4044 5.0 (5.0) 5.51	_5
_ _6		0.0	5.0 - 5.2 5.2 - 5.7	As Above (2.1' - 2.8'), wet (SM) Olive Gray (5Y 5/2) SILT, some very fine sand, little clay, firm, moist-wet,	065_A011_5.0 (5.0' - 5.5')	_ _6
_		0.0	0.2 0	no odor (ML)		_
_7		0.0	5.7 - 6.8	Reddish Brown (5YR 4/3) Silty fine SAND, little medium sand & clay, trace		_7
- 8	<u>2.1</u> 5.0		6.8 - 7.1	fine red subround sandstone gravel, dense, moist-wet, no odor (SM) As Above (5.2' - 5.7')		_ _8
	5.0		0.0 - 7.1	110110010 (0.2 - 0.1)		
_9						_9
_						- 10
_10		0.6	10.0 - 10.5	As Above (5.2' - 5.7'), but Silty CLAY with trace very fine sand, soft, wet,	065_A011_10.0 (10.0' - 10.5')	-10
11		2.6		Brown (10YR 5/3) mottling slight sulfurous odor (CH or OH)	(1010)	_11
		5.0	10.5 - 12.9	Very Dark Grayish Brown (10YR 3/2) PEAT, some Very Dark Gray (5Y 3/1)	Fill/native soil interface	
_12	2.9	6.8 4.9		Silty CLAY, soft, moist, strong sulfurous odor (PT)	at 10.5'	_12
_ _13	5.0	3.7				_ _13
_						_
_14						_14
_ _15						_ _15
_		0.0	15.0 - 18.5	Gray (2.5Y 5/1) Clayey fine SAND, little silt, loose, moist-wet, slight sulfurous	065_A011_15.0 (15.0' - 15.5')	
_16		0.0		odor (SC), Transitions into Reddish Brown (5YR 4/3) SILT, little fine gravel,		_16
_ _17		0.0		trace medium gravel, stiff, moist, no odor (ML)		_ _17
	3.5	0.0				L.,
_18	5.0	0.0				_18
_ _19		0.0			065_A011_18.0 (18.0' - 18.5')	_ _19
_19						_19
_20						_20
_ 21			End of Bor	ing at 20' bgs.		_ 21
1						
_22						_22
_23						_23
_24						_ _24
_25						_25

_			~			-00	
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A012
				PROJECT NAME: PPG Site 065		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Statio		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.0'				No			
МЕМО:]

DEPTH	RECOVERY	OVM		DUDUEIGED OVATEN CON DECODIDATION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		0.0	0.0 - 0.8	Very Dark Gray (10YR 3/1) fine SAND, trace silt, little coarse-fine gray	065_A012_0.0 (0.0' - 0.5')	
_1		0.0 0.0	0.8 - 1.6	subangular gravel, loose, dry, no odor (SP) Very Dark Gray (10YR 3/1) to Yellowish Brown (10YR 5/4) medium-fine		_1
_2		0.0	0.00	SAND, little coarse-medium yellowish brown gravel, medium-dense, moist,		_2
	<u>2.3</u>			no odor (SW)		
_3	5.0		1.6 - 2.3	Olive Gray (5Y 4/2) to Black (5Y 2.5/1) Silty medium-fine SAND, some wood fragments, loose, moist-wet, wet at 2', no odor (SW)		_3
_ _4				riaginants, 1000s, moist wet, wet at 2, no odd (OW)		_4
_5		0.0	5.0 - 5.3	Reddish Brown (2.5Y 5/3) coarse-medium angular brick GRAVEL, some	065_A012_5.0 (5.0' - 5.5')	_5
_ _6		0.0	3.0 - 3.3	Black (2.5Y 2.5/1) medium-fine sand, little slag (coarse sand & fine gravel),	000_A012_0.0 (0.0 - 0.0)	_ _6
_		0.0		loose, wet, no odor (GW)		_
_7		0.0	5.3 - 6.1	Olive (5Y 5/3) Clayey medium-fine SAND, little silt, loose, moist-wet,		_7
_ 8	1		6.1 - 6.9	no odor (SC) Grayish Brown (10YR 5/2) Clayey medium-fine SAND, little silt & coarse		_8
_				sand, trace medium-fine angular gravel, loose, wet, no odor (SC)		
_9						_9
10						10
_		8.1	10.0 - 10.3	Gray (2.5Y 5/1) medium-fine SAND & coarse-fine subround gravel, loose,	065_A012_10.0 (10.0' - 10.5')	1_
_11		27.0 77.1	10 2 12 2	dry-moist, no odor (GW)		_11
_ 12		6.9	10.5 - 15.5	Very Dark Grayish Brown (10YR 3/2) PEAT, little Dark Gray (2.5Y 4/1) Silty CLAY, soft, moist, strong sulfurous odor (PT)		12
_	<u>3.3</u>	42.7		- , · · · , · · · · , · · · · · · · · ·		
_13	5.0	24.8				_13
_ _14						14
_						
_15		0.0	45.0 45.0	One (O.EV. E/A) City and discrete CAND, little along the control of (OM)	005 4040 45 0 (45 0) 45 5)	_15
_ 16		0.0 0.0	15.0 - 15.9	Gray (2.5Y 5/1) Silty medium-fine SAND, little clay, loose, wet, no odor (SM)	065_A012_15.0 (15.0' - 15.5')	16
_		0.2	15.9 - 16.4	Gray (5Y 5/1) Sandy CLAY, some silt, soft, low plasticity, moist-wet, no		
_17	4.0	0.1	40.4.40.0	odor (CL)		_17
_ _18	<u>4.0</u> 5.0	0.0 0.0	16.4 - 19.0	Reddish Brown (5YR 4/4) SILT, little medium-fine subround red gravel, little clay & very fine sand, stiff, firm 18' - 19', dry-moist, moist-wet 18' - 19', no		_ _18
_		0.0		odor (ML)		
_19		0.0			065_A012_18.5 (18.5' - 19.0')	_19
_ _20						_ 20
			End of Bor	ing at 20' bgs.		_
_21						_21
- 22						_ 22
_23						_23
_ 24						_ 24
_25						_25

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TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A013
			PROJECT NAME: PPG Site 065		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/28/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 3.5'				No			
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_ _1		0.0 0.0	0.0 - 0.1 Light Brownish Gray (2.5Y 6/2) fine SAND, little medium sand & coarse-fi light gray gravel, loose, dry, no odor (SP)	ne 065_A013_0.0 (0.0' - 0.5') trace COPR noted 0.1' - 0.5'	1
_'		0.0	0.1 - 3.5 Very Dark Gray (2.5Y 3/1) medium-fine SAND & medium-fine GRAVEL	trace COT K Hoted 0.1 - 0.5	Γ'
_2		0.0	(coal & slag), trace metal fragments & glass, loose,		_2
_ 3	<u>4.1</u> 5.0	0.0 0.0	moist-dry, moist-wet at 3.5', no odor (SW)		_ 3
_3	5.0	0.0	3.5 - 3.8 Dark Gray (10YR 4/1) SILT, some fine sand, little subangular coarse-fine		_3
_ _4		0.0	gravel. Stiff, moist, no odor (ML)		_4
			3.5 - 4.1 Brown (7.5YR 4/2) medium SAND, little fine sand, coarse sand, & medium	n-	
_5		0.0	fine subround gravel, medium-dense, moist-wet, no odor (SW) 5.0 - 5.7 As Above (3.5' - 4.1') but Silty, wet, no odor (SM)	065_A013_5.0 (5.0' - 5.5')	_5
_ _6		0.0	5.7 - 8.3 Very Dark Gray (10YR 3/1) Silty medium-fine SAND, some coarse-fine	,	_ _6
		0.0	angular gravel (coal), trace slag, trace silty clay in small 1" seams, loose,		
_7	3.3	0.0 0.0	wet, no odor (SM)		_7
_8	5.0	0.0			_8
_					_
_9					_9
_ _10					_ _10
		0.0	10.0 - 10.5 As Above (5.7' - 8.3')	065_A013_10.0 (10.0' - 10.5')	
_11		25.1 11.0	10.5 - 12.7 Very Dark Grayish Brown (10YR 3/2) PEAT & Dark Olive Gray (2.5Y 3/2) clay, little silt, soft, moist, strong sulfurous odor (PT/OH)	Fill/native soil interface at 10.5'	_11
_ _12		27.0	oray, made only about, motoring can alload outs. (i. 1701.)	a. 1010	_ _12
_	<u>2.7</u>	140.0			
_13	5.0	126.0			_13
_ _14					_14
_15		54.6	15.0 - 15.9 As Above (10.5' - 12.7')	065_A013_15.0 (15.0' - 15.5')	_15
_ _16		42.2	10.0 10.0 710 710000 (10.0 12.1)	(10.0 10.0)	_ _16
		22.4	15.9 - 17.5 Grayish Brown (2.5Y 5/2) grading to Greenish Gray (GLEY2 6/5BG) clayed	ey	
_17	2.5	7.9 0.6	SILT, some very fine SAND, soft, moist-wet, slight sulfurous odor (ML), Transitions to Brown (10YR 4/3) SILT, some fine sand, little red medium-	065_A013_17.0 (17.0' - 17.5')	_17
_ _18	5.0	0.0	fine sand, firm, moist, no odor (ML)	(17.0)	_ _18
_19					_19
_ _20					_ _20
			End of Boring at 20' bgs.		
_21					_21
_ _22					_ _22
_23					_23
_ _24					_ _24
-					
_25]			_25

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772	TETRA TECH GEO			PROJECT NO.: 117-0509160.02 PROJECT NAME: PPG Site 065		Boring No: 065_A014	
							LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGI		GEOLOGIST / OFFICE:	
8/1/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	t:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.2'				No			
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_ _1		0.0 0.0	0.0 - 1.1 Grayish Brown (2.5Y 5/2) fine SAND, little medium-fine angular gray gravel, trace silt, (SP)	065_A014_0.0 (0.0' - 0.5') Trace COPR noted 0.2' - 1.5'	_ _1
_'		0.0	1.1 - 1.3 Yellowish Brown (10YR 5/6) fine SAND, little medium sand & fine angular	Trace COT IC floted 0.2 - 1.5	
_2		0.0	gray gravel, trace slag, dry, loose, no odor (SP)	065_A014_1.5 (1.5' - 2.0')	_2
_	<u>4.3</u>	0.0	1.3 - 3.4 Very Dark Gray (10YR 3/1) fine SAND & medium-fine GRAVEL (slag & coal),		_
_3	5.0	0.0 0.0	little gray coarse-fine angular gravel, moist, moist-wet 2.2' - 3.4', no odor (GW 3.4 - 4.3 Brown (10YR 4/3) coarse-fine SAND, little gray round cobbles, trace silt,	'	_3
_ _4		0.0	medium-dense, moist-wet, no odor (SW)		_4
_5		0.0	5.0 - 5.5 As Above (3.4' - 4.3') but some silt, trace coal (SM)		_5
_ _6		0.0	5.5 - 6.3 Dark Gray (10YR 4/1) Silty medium-fine SAND, little coarse sand & medium-	065_A014_5.5 (5.5' - 6.0')	_ _6
_		0.0	fine subround gray gravel, medium-dense, moist-wet, no odor (SM)	,	
_7	2.0	0.0	6.3 - 7.0 Very Dark Gray (10YR 3/1) medium-fine SAND, little medium subround		_7
- 8	<u>2.0</u> 5.0		gray gravel, little slag, trace coal & silt, loose, moist-wet, no odor (SW/SP)		_ _8
_					_
_9					_9
- 10					10
		0.0	10.0 - 10.7 As Above (6.3' - 7'), some silt (SM)		
_11			10.7 - 12.3 Very Dark Grayish Brown (10YR 3/2) PEAT, some Dark Olive Gray (2.5Y 3/2)	`	_11
- 12		60.6 121.0	clay, little silt, soft, moist, strong sulfurous odor (PT)	Fill/native soil interface at 10.7'	_ _12
_12	2.3	121.0		at 10.7	-12
_13	5.0				_13
_14					_14
_ _15					_ _15
_		84.4	15.0 - 16.9 As Above (10.7' - 12.3')	065_A014_15.0 (15.0' - 15.5')	_
_16		61.3 393.0			_16
_ _17		0.2	16.9 - 17.2 Light Gray (GLEY1 7/N) coarse-medium SAND & coarse-fine subround		_17
	2.2		sandstone GRAVEL, loose, moist, no odor (GW)	065_A014_16.7 (16.7' - 17.2')	
_18	5.0				_18
_ _19					_ _19
_					_
_20	-		End of Boring at 20' bgs.		_20
- 21			End of Borning at 20 logs.		_ 21
_22					_22
_ _23					
_24					_24
_ 25					_ 25
_23	<u> </u>	l			∠ე

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TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 065_A015
				PROJECT NAME: PPG Site 065		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
8/1/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ AJ Benjamin			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.4'				No			
МЕМО:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
		0.0	0.0 - 0.3 0.3 - 1.2	Asphalt Dary Gravish Brown (2.5Y 4/2) fine SAND, little medium sand & coarse-fine	065_A015_0.0 (0.0' - 0.5')	
_1		0.0	0.3 - 1.2	asphalt gravel, loose, dry-moist, no odor (SP)		_1
_2		0.0	1.2 - 1.4	Light Grayish Brown (2.5Y 6/2) fine SAND, loose, dry, no odor (SP)		_2
	4.2	0.0		As Above (0.3' - 1.2'), no asphalt (SP)		
_3	5.0	0.0	1.6 - 3.5	Very Dark Gray (2.5Y 3/1) coarse-fine SAND, some medium-fine gravel		_3
		0.0		(slag & coal) loose, moist, wet at 2.4', no odor (SW)		
_4		0.0	3.5 - 3.7	Dark Yellowish Brown (10YR 4/4) medium SAND & medium-fine subround gravel, trace silt, moist-wet, loose, no odor (GW)		_4
_ _5			3.7 - 4.2	As Above (1.6' - 3.5'), mostly coal & slag fragments, moist-wet (GW)		_ _5
_0		0.0		As Above (3.7' - 4.2') (GW)	065_A015_5.0 (5.0' - 5.5')	
_ _6		0.0	5.2 - 6.2	Very Dark Gray (2.5Y 3/1) fine SAND, some silt, little glass, coal & slag,	,	_6
_		0.0		red brick cobbles 5.4'-5.5', medium-dense, moist, no odor (SM)		_
_7		0.0		Dark Gray (10YR 4/1) medium-fine SAND, little medium-fine subround gray		_7
- 8	<u>2.3</u> 5.0	0.0		gravel, trace silt, trace glass, red brick cobble & 7.1', loose, moist-wet, no odor (SW)		_ _8
_0	3.0			no odor (Svv)		_0
_9						_9
_						_
_10			100 100	V D 10 (0.7V0/V) (1.00VD 0 (1.00D V/T) (1.00		_10
_ _11		1.0 45.5	10.0 - 10.8	Very Dark Gray (2.5Y 3/1) fine SAND & coarse-fine GRAVEL (slag), some silt, little coal, loose, wet, slight sulfurous odor (GW)	065_A015_10.3 (10.3' - 10.8')	11
-''		251.0	10 8 - 12 2	Very Dark Grayish Brown (10YR 3/2) PEAT, some Dark Olive Gray (2.5Y 3/2)	005_A015_10.5 (10.5 - 10.6)	-''
12		19.0	1010 1212	clay, little silt, soft, moist, strong sulfurous odor (PT)		_ _12
_	<u>2.2</u>				Fill/native soil interface	_
_13	5.0				at 10.8'	_13
						-
_14						_14
_ _15						_ _15
_		103.0	15.0 - 18.5	As Above (10.8' - 12.2')	065_A015_15.0 (15.0' - 15.5')	Ī
_16		66.8				_16
		62.6				
_17	4.5	17.5 37.0				_17
_ _18	5.0	179.0				_ _18
_		35.9				_
_19		147.0		Greenish Gray (GLEY2 6/5BG) fine SAND, some silt, little clay, loose,		_19
		243.0		moist-wet, strong sulfurous odor (SM), Transitions to Silty CLAY, moderate	065_A015_19.0 (19.0' - 19.5')	
_20				plasticity, soft grading to firm, moist-dry, strong sulfurous odor (CH) ing at 20' bgs.		_20
_ 21			LIIU OI BOI	mig at 20 bgs.		_ 21
_22						_22
						<u></u>
_23						_23
_ 24						_ _24
_ _25						_ _25

_							
TETRA TECH GEO			II.	PROJECT NO.: 117-0509160.02		Boring No: 063_B003	
						3	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/22/2011	20			PID MiniRAE 2000 Jim M / Whitehouse Statio		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming		_	Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GF	ROUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.7'				No			
МЕМО:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
_ _1		0.0 4.0	0.0 - 1.0	Gray (10YR 5/1) medium-fine SAND & gray coarse-fine gravel, loose, dry, no odor (SP)	063_B003_0.0 (0.0' - 0.5') 063_B003_0.5 (0.5' - 1.0')	_ _1
-'		0.3	1.0 - 2.8	Black (7.5YR 2.5/1) coarse-fine SAND & medium-fine subangular gravel	063_B003_0.5 (0.5 - 1.0) 063_B003_1.0 (1.0' - 1.5')	-'
_2		0.1	1.0 2.0	(slag), little coal fragments, loose to medium-dense, moist, wet at 2.7',	5% COPR noted 0.2' - 0.5'	_2
_	<u>3.6</u>	0.8		slight solvent odor & staining from 2.5' - 2.8' (SW)	15% COPR noted 0.5' - 1.0'	_
_3	5.0		2.8 - 3.5	Brown (7.5YR 4/2) SILT, little fine sand & clay, firm grading to soft, moist,		_3
		363.0		strong solvent odor & staining (ML)		_ 4
_4						_4
_ _5						_ _5
		525.0	5.0 - 6.1	Brown (7.5YR 4/2) SILT, little fine sand & clay, coarse-fine subround gray	063_B003_5.0 (5.0' - 5.5')	
_6		42.2		gravel, cobbles from 5.5'-5.9', moist, wet from 5.5'-5.9', firm, strong solvent		_6
		22.8	0.4.7.4	odor and staining throughout (ML)		
_7	3.0	6.1 2.7	6.1 - 7.4	Reddish Brown (5YR 5/3) clayey SILT, little fine sand, trace medium-fine Red round sandstone gravel, firm grading to soft, moist to moist-wet, slight	063_B003_6.9 (6.9' - 7.4')	_7
_ 8	5.0	1.0		solvent odor (ML)	Fill/native soil interface	_8
_			7.4 - 8.0	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	at 7.4'	
_9				(5Y 3/1) CLAY, moderate plasticity, soft, moist, abundant plant fibers,		_9
_				strong sulfurous odor (PT)		-
_10		0.6	10.0 - 11.4	As Above (7.4' - 8.0') (PT)		_10
_ _11		0.3	10.0 - 11.4	AS ABOVE (1.4 - 0.0) (1 1)		_11
		3.9			063_B003_11.0 (11.0' - 11.5')	
_12		1.4	11.4 - 12.0	Greenish Gray (GLEY2 5/5BG) Clayey fine SAND, little silt, soft, moist,	-	_12
-	<u>2.0</u>			no odor (SC), Transitions into Reddish Brown (5YR 4/4) fine SAND, some		
_13	5.0			silt, little medium sand, trace fine round sandstone gravel, dense, moist, no odor (SM)		_13
_ _14				odol (SM)		_ _14
_15						_15
-		0.7	15.0 - 15.3	Reddish Brown (2.5YR 5/4) SILT & fine SAND, trace fine red round	063_B003_15.0 (15.0' - 15.5')	-
_16		1.6 0.0	153 - 177	sandstone gravel, dense, dry-moist, no odor (ML) Brown (7.5YR 5/3) fine SAND, some gravel (Gray 7.5YR 5/1 coarse-medium		_16
_ _17		0.0	10.0 - 17.7	round gravel, Red 2.5YR 4/6 flat siltstone, Greenish Gray GLEY1 5/5GY		_ _17
	2.7	0.0		medium-fine subangular sandstone), dense, moist, no odor (SP)		
_18	5.0					_18
-						-
_19						_19
_ _20						_ _20
			End of Bor	ing at 20' bgs.		
_21						_21
_22						_22
_ _23						_ _23
_24						_24
_25	1		1			_25

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_B004
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/21/2011	20			None - PID not working		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMENT	: DRILLING METHOD / BIT:			
EPI \ Bob Fleming		_	Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 1.9'				No			
МЕМО:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
1			0.0 - 0.5	Brown (7.5YR 5/4) medium-fine SAND, little Reddish Brown (2.5YR 4/4) fine subround sandstone gravel, loose, dry, no odor (SP)	063_B004_0.0 (0.0' - 0.5')	_ _1
_'			0.5 - 0.8	Bluish Gray (GLEY2 7/10B) GRAVEL & COBBLES (broken-up concrete)		_'
_2				(GP), Olive Gray (5Y 5/2) fine SAND & SILT from 0.7' - 0.8' (ML), medium-	PID not working - lamp issue	_2
_	<u>3.5</u>		0.0.00	dense/firm, dry, no odor		_
_3	5.0		0.8 - 2.0	Black (10YR 2.5/1) medium-fine SAND & medium-fine subround gravel (Slag) loose, moist, moist-wet at 1.9', strong solvent odor (GP)	063 B004 3.0 (3.0' - 3.5')	_3
_ _4			2.0 - 3.1	Grayish Brown (10YR 5/2) SILT, some fine sand, little medium sand, firm,	(0.0 0.0)	_ _4
_				moist, slight solvent odor (ML)		_
_5			3.1 - 3.5	Very Dark Gray (10YR 3/1) coarse-fine SAND, little silt & fine angular gravel, very loose, wet, strong solvent odor (SW)		_5
_ _6			5.0 - 5.4	As Above (3.1' - 3.5'), some silt, little coarse-fine angular gravel, strong		_ _6
_				solvent odor (SM)		
_7	4.0		5.4 - 6.3	Brown (7.5YR 5/3) SILT & fine SAND, little medium sand, trace medium-fine		_7
_ 8	<u>1.3</u> 5.0			subangular gray gravel, abudant wood fragments (creosote-treated) from 6' to 6.3', firm, moist, strong solvent odor (ML)	Fill/native soil interface not recovered in 5'-10' core.	_ _8
	0.0			c.o., mm, moot, everig content each (m2)	Sampled 10'-10.5' section	_
_9					in native soil	_9
_ 10						- 10
_10			10.0 - 10.5	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	063_B004_10.0 (10.0' - 10.5')	-10
_11				(5Y 3/1) CLAY, moderate plasticity, soft, moist, abundant plant fibers,	,	_11
_ 12			10.5 - 11.5	slight sulfurous odor (PT) Gray (5Y 5/1) Clayey fine SAND, little silt, soft, moderate plasticity, moist,		_ 12
_12	1.5		10.5 - 11.5	no odor (SC), Transitions into Reddish Brown (5YR 5/3) medium-fine SAND,		-12
_ _13	5.0			medium-dense, moist, no odor (SP)		_13
_						_ _14
_14						-14
_ _15						_ _15
_			15.0 - 16.7	Reddish Brown (5YR 5/3) fine SAND, little medium sand & silt, dense, moist,	063_B004_15.0 (15.0' - 15.5')	-40
_16				no odor (SP), Transitions into Brown (7.5YR 4/3) SILT, little fine sand & fine-medium gray angular gravel, abundant from 16' - 16.2', stiff, moist, no odor		_16
_ _17				(ML)		_17
_	<u>1.7</u>					
_18	5.0					_18
_ _19					No sample 19' - 19.5' due to	_ _19
_					low recovery	-
_20			End of Bor	ing at 20' bgs.		_20
_ _21				yy=.		_ _21
_						
_22						_22
_ _23						_ _23
_24						_24
_ _25						_ _25

			~ `			-00	
772	TI	ETRAT	ECH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_B004a
		The Control of the			PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/22/2011	20			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTO	R / DRILLE	R:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		OD / BIT:	
EPI \ Bob Fleming	1		Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~ 2.0'					No		
MEMO:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_C
		0.0	0.0 - 1.0	Dark Brown (10YR 3/3) fine SAND, some medium sand,	063_B004a_0.0 (0.0' - 0.5')	-
.1		4.2		trace fine angular gravel, loose, dry, no odor (SP)	063_B004a_0.5 (0.5' - 1.0')	_1
		7.4	1.0 - 1.2	Light Yellowish Brown (2.5Y 6/4) COBBLES, loose, dry, no odor (GP)	063_B004a_1.2 (1.2' - 1.7')	<u> </u> _
2		0.5	1.2 - 2.5	Black (7.5YR 2.5/1) coarse-fine SAND, little medium-fine subround to	20% COPR noted 0.2' - 1.0'	_2
	<u>3.5</u>	6.0		subangular gravel (Slag), loose, moist, wet at 2', slight solvent odor (SW),		_
3	5.0	15.6		Transitions into coarse-fine SAND & medium-fine subround to aubangular		_3
		6.8		gravel (Slag), loose, wet, slight solvent odor (GW)		_
4			2.5 - 3.5	Brown (7.5YR 4/3) SILT & fine SAND, little medium sand, trace Red medium		_4
				to coarse sandstone gravel, medium-dense, moist-wet, slight solvent		
5				odor (ML)		_5
		0.0	5.0 - 6.8	Dark Grayish Brown (2.5Y 4/2) Silty CLAY, trace fine sand & medium-fine	063_B004a_5.0 (5.0' - 5.5')	
6		0.0		red sandstone gravel, soft, moist-wet, no odor (CL)		_6
		0.0				_
7	_		6.8 - 8.6	Reddish Brown (5YR 4/4) Silty medium-fine SAND, little coarse-fine		_7
_	<u>3.6</u>	0.0		Yellowish-Red (5YR 4/6) sandstone gravel & cobbles, trace Greenish Gray		-
8	5.0	0.0		(GLEY 2 5/5BG) medium-coarse angular shale gravel, medium-dense,	1.	_8
_		0.0		moist-wet, no odor (SM)	063_B004a_8.1 (8.1' - 8.6')	-
9					Fill/native soil interface not	_9
					recovered	-
10		4.0	100 110	DI L (40)/D 0.5(4) DEAT 0		_1
		4.0	10.0 - 11.8	Black (10YR 2.5/1) PEAT & organic SILT, little Very Dark Gray (5Y 3/1)		
11		14.2		CLAY, moderate plasticity, soft, moist, abundant plant fibers, strong		_1
		43.1		sulfurous odor (PT)		-
12		67.7	11.8 - 14.1	Dark Gray (2.5Y 4/1) grading to Greenish Gray (GLEY5 5/5BG) CLAY, some		_1
	<u>4.6</u>	54.2		fine sand, little silt, soft, low to moderate plasticity, moist, slight	063_B004a_12.0 (12.0' - 12.5')	-
13	5.0	43.9		hydrocarbon odor (CL)		_1
		414.0				-
14		1006.0				_1
		639.0	14.1 - 14.6	Reddish Brown (5YR 4/4) medium-fine SAND, little coarse sand & medium		-
15			1= - 15 -	sandstone gravel, medium-dense, moist-wet, strong hydrocarbon odor (SW)		_1
		446.0	15.0 - 18.0	As Above (14.1' - 14.6'), little silt, Transitions into Reddish Brown (5YR 4/4)		-
16		590.0		SILT & fine SAND, little medium-coarse Red (5YR 4/6) subround gravel,		_1
		660.0		firm, moist, strong hydrocarbon odor (ML)	063_B004a_16.0 (16.0' - 16.5')	<u> </u>
17		975.0				_1
	<u>4.7</u>	818.0	400 46-	O 11 D (40)/D 5/0) (1		 - .
18	5.0	914.0	18.0 - 19.7	Grayish Brown (10YR 5/2) fine subangular siltstone GRAVEL & coarse		_1
40		871.0		SAND, little medium gravel & medium sand, trace fine sand & silt, loose,		<u> -</u> .
19		828.0		wet, strong hydrocarbon odor (GW), Transitions into Grayish Brown		_1
00		759.0		(10YR 5/2) medium-fine SAND, little silt, trace medium-fine subangular gray		-
20			E. L.CE	siltstone gravel, loose, wet, strong hydrocarbon odor (SP)		_2
			End of Boi	ring at 20' bgs.		
21						_2
20						-
22						_2
00						
23						_2
0.4						
24						_2
25						_2

TETRA TECH GEO)	PROJECT NO.: 117-0509160.02		Boring No: 063_B005
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:		
7/19/2011	37			PID MiniRAE 2000 Jim M		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	t:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 2.0'				No	
мемо: Hand-dug	2'x2' ho	le to 1.3' to	remove liner.				

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
_ 1			0.0 - 0.6 0.6 - 1.3	QP Stone (coarse subangular gravel & cobbles) (GP) Olive Gray (5Y 4/2) fine SAND, little m. sand, loose, moist-wet, no odor (SP)		1
 _ _2 _ _ 3	3.0	596.0	1.3 - 2.0	Dark Brown (7.5YR 3/2) coarse-fine SAND, little medium-fine subround gravel (slag) and gray gravel, moist-wet, wet at 2', loose, slight solvent odor (SW) Brown (7.5YR 4/3) SILT & fine SAND, little subangular-subround gray gravel, stiff, moist, strong solvent odor (ML)	063_B005_1.3 (1.3' - 1.8')	
_3	3.7	3999.0		Still, moist, strong solvent odor (ML)		
_4 - 5		1929.0	3.3 - 3.8	Very Dark Gray (10YR 3/1) medium-fine SAND & coarse-fine subangular to subround GRAVEL, little coarse sand & Brown (7.5YR 4/3) silt, strong solvent odor & staining throughout (SW)	063_B005_3.3 (3.3' - 3.8')	_4 _ 5
_5			5.0 - 10.0	No recovery		-
_6 _						_6 _
_7	0.0					_7
_8	<u>0.0</u> 5.0					_8_
_9						_9
_ _10						_10
_ _11		447.0		Reddish Brown (2.5YR 4/3) medium SAND, some fine sand, trace silt, loose, moist-wet, strong solvent odor (SP)		_ _11
_ _12	2.0	23.7 62.1 35.9		Brown (2.5YR 4/3) SILT & fine SAND, trace medium sand, little coarse-fine subangular-subround gray gravel, dense, moist, slight solvent odor (ML) Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	063_B005_11.4 (11.4' - 11.9') Fill/native soil interface	_ _12
_ _13	3.8 5.0	18.2 0.0	11.9 - 12.0	(5Y 3/1) CLAY, moderate plasticity, soft, moist, abundant plant fibers, slight sulfurous odor (PT)	at 11.9'	_13
_ _14		0.0	12.8 - 13.8	Greenish-Gray (GLEY2 6/5BG) Clayey fine SAND, little medium sand & silt, medium-dense, moist, no odor (SC)		_14
_ _15						15
_ _16		53.6 0.0	15.0 - 16.0	Reddish Brown (5YR 5/3) medium-fine SAND, trace subround medium-fine sandstone gravel, dense, moist-wet, slight hydrocarbon odor (SP), Transitions into Reddish Brown (5YR 4/3) SILT, little fine sand, trace	063_B005_15.5 (15.5' - 16.0')	_ _16
_ _17	<u>1.0</u>			medium-fine dark gray angular gravel, dense, dry-moist, no odor (ML)		_17
_ _18 _	5.0					18
_19 _						_19
_20		222.0	20.0.20.2	Dark Gray (10YR 4/1) coarse-fine angular siltstone gravel & coarse sand,	063 B005 20.0 (20.0' - 20.5')	_20
_ _21		14.0		dense, moist-wet, slight hydrocarbon odor (GW) Brown (7.5YR 5/3) SILT, some fine sand, little medium sand & coarse-fine	<u> </u>	_ _21
_ _22	<u>1.4</u>	0.0	20.2 - 21.4	subangular gray siltstone gravel, stiff, wet, slight hydrocarbon odor (ML)		22
_ _23	5.0					_23
_ _24						_24
_ _25						_25

GeoTrans, Inc.					PROJECT NO.: 117-0509160.02		Boring No: 063_B005
Talls, Inc				, Inc.	PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:		
7/19/2011	37			PID MiniRAE 2000 Jim M / Whitehouse Sta		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/DRILLER	:	DRILLING EQUIPMENT	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25" ~ 2.0'					No		
мемо: Hand-dug	2'x2' ho	le to 1.3' to i	remove liner.				
0							

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
		76.2 0.0 14.0 0.0	25.0 - 27.8 Brown (7.5YR 5/3) SILT & Dusky Red (2.5YR 3/2) coarse-fine gravel & cobbles from 25' - 26', little mediuim-fine gravel from 26' - 27.8', little fine sand, trace medium sand, very stiff, moist, slight hydrocarbon odor (GM)	O WIN CE COMMINICO	-
28	<u>2.8</u> 5.0	0.0			-
29 30					
31		0.0 0.0 0.0	30.0 - 30.9 Grayish Brown (10YR 5/2) SILT, some fine sand, little coarse-medium Greenish Gray (GLEY1 5/10Y) siltstone gravel, very stiff, dry, no odor (ML), Transitions into Brown (10YR 4/3) SILT, little Weak Red (10R 4/3) coarse-		
32 33	<u>2.2</u> 5.0	0.0	medium siltstone gravel, very dense, dry, no odor (ML) 30.9 - 32.2 Yellowish Red (5YR 5/6) fine SAND, little very fine & medium sand, trace Weak Red (10R 4/3) stilstone gravel, very dense, moist, no odor (SP)		
34			g. a. c.,		
35					
36	2.3 2.3	0.0 0.0 0.0	35.0 - 37.3 Weak Red (10R 4/3) SILT, little fine sand, little subround coarse-fine siltstone gravel throughout, siltstone cobbles 35' - 35.3', trace Greenish Gray (GLEY1 6/5G) medium-coarse sand & fine subangular sandstone gravel		
37		0.0	35.9'-36.2' and at 37'-37.3' (GLEY1 7/5GY), very dense, dry, no odor (ML) End of Boring at 37.2' bgs. (refusal)		
39					
40					
41 42					
43					
44					
45 46					
40 47					
48					
- _49 - _50					

			~ .			-00	
77	TETRA TECH GEO				PROJECT NO.: 117-0509160.02		Boring No: 063_B006 / 063_MW01
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
OMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
7/15/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	R / DRILLER	t:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Ray Smith			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~1.5'				Yes - 063_MW01			
мемо: Moved 8'	toward E	Burma road f	rom original loca	tion, hand-dug 2	2'x2' hole to 1'	to remove liner. Geoprobe	1
refusal at	2' on two	o attempts (s	stone). Moved 5'	towards original	location and	successfully advanced boring	

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	0
-		(1 1 101)	0.0 - 0.5 QP Stone (coarse subangular gravel & cobbles) (GP)	SAIVII EE SOIVIIVIAITI	<u>-</u>
_1		70.4	0.5 - 1.0 Olive Gray (5Y 4/2) fine SAND, little m. sand, loose, moist-wet, no odor (SP)	000 0000 4 0 (4 0) 4 5)	_1
_ _2			1.0 - 1.5 As Above (0.5'-1'), moist, strong solvent odor (SP) 1.5 - 2.0 Black (7.5YR 2.5/1) coarse-fine SAND & SLAG,	063_B006_1.0 (1.0' - 1.5') 063_B006_1.5 (1.5' - 2.0')	_ _2
		76.1	little medium-fine angular gravel, medium-dense,	063_B006_2.0 (2.0' - 2.5')	_
_3	2.4	44.4	moist-wet, strong solvent odor (SW)	20% COPR noted 1.5' - 1.7'	_3
4	4.0	11.3	2.0 - 3.0 Dark Yellowish Brown (10YR 4/4 solvent odor (ML)		_ _4
			3.0 - 3.4 Dark Brown (10YR 3/3) coarse-fine SAND, some silt, little fine subround		
_5			quartz gravel, medium-dense, moist-wet, slight solvent odor (SM)		_5
_ 6		13.6 1.4	5.0 - 7.0 Dark Brown (10YR 3/3) medium-fine SAND, little silt & gravel, trace wood		_ 6
		1.0	fragments (treated, has strong odor), medium-dense, wet, strong creosote		
_7			or solvent odor (SP)	063_B006_6.5 (6.5' - 7.0')	_7
_ _8	1.4 5.0		7.0 - 8.0 Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray (5Y 3/1) CLAY, moderate plasticity, soft, moist-wet, abundant plant fibers,	Fill/native soil interface at 7.0'	_ _8
	0.0		strong sulfurous odor (PT)	4.7.0	
_9					_9
- 10					_ _10
_		0.5	10.0 - 12.2 As Above (7.0' - 8.0')	063_B006_10.0 (10.0' - 10.5')	
_11		1.3 2.4	12.2 - 13.8 Greenish Gray (GLEY2 5/5BG) Silty CLAY, moderate plasticity, soft, moist,		_11
- 12		3.1	slight hydrocarbon odor (CL/CH), Transitions into Reddish Brown (5YR 4/3) medium-fine SAND, little subround medium-fine gravel (sandstone		12
	<u>3.8</u>	0.9	fragments), dense, moist-wet, slight hydrocarbon odor (SP)	063_B006_12.2 (12.2' - 12.7')	
_13	5.0	3.4			_13
_ 14		10.2			- 14
_					
_15		6.9	15.0 - 18.0 Reddish Brown (5YR 4/3) medium-fine SAND, little subround medium-fine		_15
_ 16		0.0	gravel (sandstone fragments), dense, moist-wet, slight hydrocarbon odor, gray		_ _16
_		0.0	staining at 15.3' (SP), Transitions into Dark Yellowish Brown (10YR 4/4)		
_17	3.0	0.3 0.0	SILT, little medium-fine angular gravel, trace fine sand, some fine-medium sand from 17.2' - 17.4', stiff, moist, no odor (ML)		_17
_ _18	5.0 5.0	0.0	Sand Horri 17.2 - 17.4, Still, Hiolst, No odor (ML)		_ _18
_19					_19
_ _20					_ _20
-			End of Boring at 20' bgs.		
_21			Well Information:		_21
_ _22			2-inch diameter 10-slot SCH40 PVC screen set at 2.0' - 7.0' bgs.		_22
_			2-inch diameter SCH40 PVC riser from 2.0' bgs. to 2.5' above grade		
_23			#1 Sand from 1.5' to 7.0' bgs., Grout from 1.0' to 1.5' 2' x 2' section of PVC liner placed on top of HDPE liner		_23
_ _24			Cemented-in 2' x 2' hole for well pad from 1.0' bgs to surface		_24
			Stick-up completion		
_25				l	_25

_							
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_B007
				PROJECT NAME: PPG Site 063			LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/19/2011	28			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	R / DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:]	
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.8'				No			
мемо: Hand-dug	2'x2' ho	le to 1.0' to i	remove liner.	•]

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
			0.0 - 0.5	QP Stone (coarse subangular gravel & cobbles) (GP)		l
_1		244.0	0.5 - 1.0	Olive Gray (5Y 4/2) fine SAND, little m. sand, loose, moist-wet, no odor (SP)	002 007 4 0 (4 0) 4 5!)	_1
_2		57.3	1.0 - 1.3 1.3 - 1.8	As Above (0.5' - 1.0'), strong solvent odor (SP) Black (10YR 2.5/1) coarse-fine SAND, little fine subround gravel (slag), little	063_B007_1.0 (1.0' - 1.5')	_ _2
		17.6	1.3 - 1.0	coarse-fine angular gravel, loose, moist-wet, strong solvent odor (SW)		-2
_ _3	2.2	81.0	1.8 - 3.2	Brown (7.5YR 4/3) fine SAND, some coarse-fine subangular-subround gravel,		_3
_5	4.0	109.0	1.0 - 3.2	little silt, loose, wet, strong solvent odor (SP), Transitions into Brown		_5
4	1.0	100.0		(7.5YR 4/3) medium-fine SAND, some silt, some coarse-fine subangular to		_4
_				subround gravel, soft grading to firm, wet, strong petroleum odor, petroleum		
_5				staining at 2.5' (SM)		_ _5
_		141.0	5.0 - 6.2	Reddish Brown (5YR 4/3) medium-fine SAND, some silt & coarse-fine	063_B007_5.0 (5.0' - 5.5')	7_
_6		0.0		subangular to subround gravel, Weak Red (10R 4/2) siltstone gravel 6.1'-6.2',		_6
_		42.6		firm, moist-wet, slight solvent odor (SM)		_
_7			6.2 - 7.1	Olive Gray (5Y 5/2) fine to very fine SAND, little silt, loose to medium-dense,	200 200 24 (2.4)	_7
-	<u>2.6</u> 5.0	0.0	74 70	moist-wet, trace shells, no odor (SP/SM)	063_B007_7.1 (7.1' - 7.6')	_
_8	5.0		7.1 - 7.6	Olive Brown (2.5Y 4/4) medium-fine SAND, some silt & coarse-fine angular gravel, Very Dark Grayish Brown (10YR 3/2) Peat in bottom of sleeve,	Fill/native soil interface	_8
_ _9				medium-dense, moist- no odor (SM)	at 7.6'	_ _9
_3				mediam-acrise, moist-no odor (ow)	11.0	-3
_ _10						_10
_		6.6	10.0 - 12.2	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray		
_11		7.9		(5Y 3/1) CLAY, low plasticity, soft, moist-wet, abundant plant fibers,		_11
_		2.2		slight sulfurous odor (PT)	063_B007_11.1 (11.1' - 11.6')	_
_12		1.2	12.2 - 12.7	Greenish Gray (GLEY2 6/5BG) Clayey fine SAND, little medium sand & silt,		_12
-	<u>2.9</u>	0.2		medium-stiff, moist, no odor (SC)		
_13	5.0	0.0	12.7 - 12.9	Reddish Brown (5YR 4/3) medium-fine SAND, little subround medium-fine		_13
- 14				sandstone gravel & coarse sand, dense, moist, no odor (SW)		_ _14
-14						-14
_ _15						_ _15
		0.0	15.0 -18.3	As Above (12.7' - 12.9'), but Brown (7.5YR 4/3), Transitions into Reddish	063_B007_15.0 (15.0' - 15.5')	
_16		0.0		Brown (5YR 4/3) SILT, little fine sand, trace medium-fine angular Dark	(1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_16
_		0.0		Greenish Gray (GLEY1 4/5GY) shale gravel, dense, moist, no odor (ML)		_
_17		0.0				_17
_	<u>3.3</u>	0.0				_
_18	5.0	0.0				_18
-						-40
_19						_19
_ 20						20
_20		0.0	20.0 - 24.0	Reddish Brown (5YR 4/3) SILT, some fine sand, little medium sand & fine-		
_ _21		0.0	20.0 20	medium Dark Gray (GLEY1 4/N) shale gravel, some medium sand 20' - 21',		_21
		0.0		dense, moist, no odor (ML)		
_22		0.0				_22
_	<u>4.0</u>	0.0				_
_23	5.0	0.0				_23
		0.0				
_24		0.0				_24
_ 2F						_ _25
_25	l .		l			∠၁

TETRA TECH GEO					PROJECT NO.: 117-0509160.02 PROJECT NAME: PPG Site 063		Boring No: 063_B007
				LOCATION SKETCH			
COMPLETION DATE:	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:		GEOLOGIST / OFFICE:	
7/19/2011	28			PID MiniRAE 2000 Jim M. / Whitehouse Station		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.8'				No			
MEMO: Hand-dug 2'x2' hole to 1.0' to remove liner.							

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	
_		0.0	25.0 - 28.0 As Above (20' - 24'), some Light Olive Brown (2.5Y 5/6) coarse-medium	Gravit LE GOIVING ACT	
_26	3.0	0.0	SAND & fine gravel from 25' - 25.4', dense, moist, wet at 26.1' & 26.7', no odor (ML)		_26
_ _27	3.0	0.0			_27
_ _28		0.0			28
_ _29			End of Boring at 28.0' (Refusal)		_ _29
					_
_30					_30
_ _31					_3
_ _32					
_ _33					33
_ _ _34					_ _34
_					_
_35 _					_35
_36					_36
_ _37					_37
_ _38					_ _38
_ _39					_39
_ _40					_ _40
_ _41					_ _41
_ _42					_ _42
_ _ _43					_ _ _43
0 _ _44					44
_					_
_45 _					_45
_ _46					_46
_ _47					_47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_B008
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:		GEOLOGIST / OFFICE:		
7/20/2011	20			PID MiniRAE 2000 Jim M / Whitehouse Station		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 1.6'		No					
MEMO: Hand-dug 2'x2' hole to 1.0' to remove liner.							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
_ _1			0.0 - 0.5 0.5 - 1.0	QP Stone (coarse subangular gravel & cobbles) (GP) Olive Gray (5Y 4/2) medium-fine SAND, loose, moist, no odor (SP)		- 1
 _ _2 _		0.0 1.0 599.0	1.0 - 1.6 1.6 - 2.2	As Above (0.5' - 1'), strong solvent odor (SP) Black (10YR 2.5/1) coarse-fine SAND, some medium-fine subround to subangular gravel, loose, moist-wet,	063_B008_1.0 (1.0' - 1.5') 063_B008_1.7 (1.7' - 2.2') 063_B008_2.2 (2.2' - 2.6')	2
_3 _ _4	<u>2.7</u> 4.0	76.3 57.7		strong solvent odor (SW) Grayish Brown (2.5YR 5/2) Silty medium-fine SAND, moist-wet, loose, strong solvent odor (SM)	15% COPR 1.7' - 2.0'	_3 _ _4
_ _5						_5
_ _6 _		0.0 0.0 0.0		Dark Gray (10YR 4/1) medium-fine SAND, little coarse-fine subround gray angular gravel, crushed-up white cobbles 5.5' - 5.6', medium-dense, moist, no odor (SP), Transitions into Light Olive Brown (2.5Y 5/3) SILT & fine SAND,		_ _6 _
_7 - _8	<u>2.0</u> 5.0	0.0		little white medium-coarse gravel & cobbles, abundant from 6.7' - 7.0', firm, moist, no odor (ML)	063_B008_6.5 (6.5' - 7.0')	_7 _ _8
_ _9 						_ _9 _
_10		0.0	10.0 - 10.5	Red (2.5YR 4/6) SILT, little fine sand, stiff, dry, no odor (ML)	063_B008_10.5 (10.5 - 11.0')	_10
11		2.2 6.8		Very Dark Grayish Brown (2.5 YR 2.5/1) PEAT, little Very Dark Gray (5Y 3/1) CLAY, low plasticity, soft, moist-wet, abundant plant fibers.	Fill/native soil interface at 10.5'	_11
_ _12		8.6		slight sulfurous odor (PT)	10.0	_12
_ _13	3.3 5.0	1.3 0.7		Gray (2.5Y 5/1) Clayey fine SAND, little medium sand, soft, moist, no odor (SC), Transitions into Reddish Brown (5YR 4/3) SILT, little fine sand, trace fine angular gravel, stiff, moist, no odor (ML)	063_B008_12.8 (12.8 - 13.3')	_ _13
_14						_14
_ _15						_15
_ _16		0.0 0.0 0.0		Reddish Brown (2.5YR 5/3) SILT, little fine sand, trace fine gravel, stiff, dry, no odor (ML)		_ _16
_17		0.0			063_B008_16.5 (16.5' - 17.0')	_17
_ _18	<u>2.8</u> 5.0	0.0				_ _18
_ _19						_19
_ _20						_20
_ _21			End of Bor	ing at 20' bgs.		_ _21
_ _22						_ _22
_ _23						_ _23
_ _24						24
_ _25						_ _25

	The first of Pengus current he displayed. The fit may have been record,	nnanut, or dated Sorby Burths bit years.	to the convert file and bender.			PROJECT NO.: 117-050916		Boring No: 063_B009 / 063_MW02
						PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLE	COMPLETION DATE: TOTAL DEPTH OF BOREHOLE: M			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1	
7/	7/11/2011 20			PID MiniRAE 2000 Jim M. / Whitehouse Sta		Jim M. / Whitehouse Station		
DRILLIN	G CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI\I	Ray Smith			Geoprobe Track	Rig Direct Push			
SAMPLIN	NG METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Slee	5' Sleeves, 1.25" ~ 2.0'				Yes - 063_MW02			
MEMO:								

(Feet)		OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 542.0	0.0 - 0.3 Wood fragments, strong odor (solvents or creosote)	SAMPLE SUMMARY 063_B009_0.0 (0.0' - 0.5')	_0
_ _1			0.3 - 0.9 Black (10YR 2.5/1) coarse-medium SAND,	063_B009_0.5 (0.5' - 1.0')	_1
_		0.0	little-some slag & coal fragments, loose, moist	75% COPR noted 0.3' - 0.5'	_
_2	2.7	0.0 0.0	odor (SW) 0.9 - 2.7 Very Dark Gray (10YR 3/1) medium-fine SAND, little coarse-fine angular	063_B009_1.7 (1.7' - 2.2')	_2
_ _3	<u>2.7</u> 5.0	0.0	0.9 - 2.7 Very Dark Gray (10YR 3/1) medium-fine SAND, little coarse-fine angular gravel, little silt, loose, moist, wet at 2'	063_6009_1.7](1.7 - 2.2)	_ _3
_ _4					_ _4
_ _5					_ _5
-			5.0 - 9.4 No recovery - drilling difficult and rocky		_
_6					_6
_ _7					_ _7
-	0.7				
_8	5.0				_8
_ _9			9.3 - 9.8 Olive Brown (2.5YR 4/3) Clayey SILT, trace fine sand, little coarse-fine		_ _9
-		0.0	gray angular gravel, soft, low plasticity, moist, no odor (ML)	063_B009_9.3 (9.3' - 9.8')	
_10		1.1 6.4	9.8 - 10.0 Dark Brown (10YR 3/3) PEAT, soft, moist, strong sulfurous odor (PT) 10.0 - 11.7 As Above (9.8' - 10.0')	(fill/native soil interface)	_10
_ _11		3.4			_11
_ _12		0.6	11.7 - 13.7 Gray to Grayish Brown (10YR 5/1 - 5/2) SILT, little fine sand, little		_ _12
_12	3.7	0.4 0.0	coarse-fine angular gravel, firm, moist, no odor (ML)		-12
_ _13	5.0	0.0			_13
_ _14		0.0		063_B009_13.0 (13.0' - 13.5')	_ _14
_14					-14
_15			481 001 N B		_15
_ _16			15' - 20' No Recovery		_ _16
-,_					- <u>,</u> _
_17	0.0				_17
_ _18	5.0				_18
_					-40
_19					_19
_20					_20
_ _21			End of Boring at 20' bgs.		_ _21
_ _ _22			Well Information: 2-inch diameter 10-slot SCH40 PVC screen set at 5.0' - 10.0' bgs.		_ _ _22
			2-inch diameter SCH40 PVC riser from 5.0' bgs. to 2.5' above grade		
_23			#1 Sand from 3.0' to 10.0' bgs., Grout from 1.0' to 3.0'		_23
_ _24			2' x 2' section of PVC liner placed on top of HDPE liner Cemented-in 2' x 2' hole for well pad from 1.0' bgs to surface		_ _24
_ 25			Stick-up completion		_ _25

_			~			-00	
772	TE	TRATE			PROJECT NO.: 117-0509160.02		Boring No: 063_B010
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
OMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:		GEOLOGIST / OFFICE:	1	
7/28/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			1
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.0'				No			
МЕМО:							

DEPTH	RECOVERY	OVM		DUDUSIATED OVATEN OOK DECORPORTOR	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		25.3 7430.0		Light Brownish Gray (2.5Y 6/2) medium-fine SAND, little subround- subangular tan/light gray gravel, loose, dry, slight solvent odor (SW)	063_B010_0.0 (0.0' - 0.5') Trace COPR 0.5' - 0.5'	_ _1
_ _2		327.0	0.5 - 3.3	Very Dark Gray (3.5Y 3/1) medium-fine SAND, some silt, trace subround-subangular medium-fine	063_B010_1.5 (1.5' - 2.0')	_ _2
_ _3	<u>3.6</u> 5.0	438.0 124.0		gray gravel, medium-dense, moist, moist-wet 2' - 3.3', strong solvent odor (GM/SM)	50% COPR 0.5' - 3'	_ _3
_ _4		77.0	3.4 - 3.6	Reddish Brown (5YR 4/4) coarse-medium SAND & medium-fine subround - subangular sandstone GRAVEL, loose, dry, slight solvent odor (GW)	063_B010_3.0 (3.0' - 3.5')	_ _4
_ _5					Strong solvent odor throughout 0' - 5' interval	_ _5
_ _6		3.0	50 5.5	Very Dark Gray (3.5Y 3/1) Silty fine SAND little subround to subangular medium-fine gravel, medium-dense, moist-wet, slight solvent odor (SM)	063_B010_5.0 (5.0' - 5.5')	_ _6
_ _7		2.6	5.5 - 6.4	Dark Grayish Brown (10YR 4/2) grading to Olive Gray (5Y 5/2) Silty fine SAND, trace clay & medium-fine subangular gravel, medium-dense,		_ _7
_ _8	<u>2.8</u> 5.0	0.6	6.4 - 7.8	moist-wet, slight solvent odor (SM) Reddish Brown (5YR 4/4) SILT, some medium-fine SAND, little fine gray	063_B010_7.3 (7.3' - 7.8')	_ _8
_ _9				angular gravel & medium-fine subround red siltstone gravel, stiff, moist, no odor (ML) Dark Brown Peat in bottom of sleeve	Fill/native soil interface at 7.8'	_ _9
_ _10				24.11.2.011.1.1.04.11.1.2010.11.01.01.01.01.01.01.01.01.01.01.01.	4.7.0	_ _10
_ _11		4.9 1.3	10.0 - 11.9	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray (2.5Y 3/1) CLAY, low plasticity, soft, moist-wet, abundant plant fibers,		_ _11
_ _12	2.5	0.7 0.0 0.0	11.9 - 12.1	strong sulfurous odor (PT) Brown (7.5YR 4/2) Clayey SILT, little fine-very fine sand, soft, moist, no	063_B010_11.0 (11.0' - 11.5')	_ _12
_ _13	<u>2.5</u> 5.0	0.0	12.1 - 12.3	odor (ML) Light Greenish Gray/White (GLEY2 8/5BG) coarse-medium SAND & subround sandstone COBBLES, loose, dry no odor (GP)		_ _13
_ _14			12.3 - 12.5	Brown (7.5YR 4/2) SILT, little clay & fine sand, some coarse-medium subround red/gray siltstone gravel, stiff, moist, no odor (ML)		_ _14
_ _15						_ _15
_ _16		0.0	15.0 - 16.7	Grayish Brown (10YR 5/2) SILT, little fine sand, little coarse-fine subround reddish brown & dark gray gravel, stiff, moist, no odor (ML)	063_B010_15.0 (15.0' - 15.5')	_ _16
_ _17	<u>1.7</u>	0.0				_ _17
_ _18	5.0					_ _18
_ _19						_ _19
_20						_20
_ _21			End of Bor	ing at 20' bgs.		_ _21
_ _22						_ _22
_ _23						_ _23
_ _24						_ _24
_ _25						_ _25

_							
77-	TETRA TECH GEO				PROJECT NO.: 117-0509160.02 PROJECT NAME: PPG Site 063		Boring No: 063_B010a
				LOCATION SKETCH			
COMPLETION DATE:	TION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:]
7/27/2011	20			PID MiniRAE 2000 Jin		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMENT	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25"						No	
MEMO:]

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &]
(Feet)	(feet)	(PPM) 46.1	0.0 - 0.3		SAMPLE SUMMARY 063 B010a 0.0 (0.0' - 0.5')	_0
_ _1		74.6	0.3 - 2.7	Black (2.5Y 2.5/1) medium-fine SAND, little coal, trace slag & fine red	(0.0 - 0.5)	_1
_		541.0		subround gravel, moist, wet 1.7' - 2.7'), slight solvent odor (SW)		
_2	4.0	24.7 57.8	2.7 - 3.2	Yellowish Brown (10YR 5/4) coarse-medium SAND & medium-fine subround		_2
_3	5.0	1.1	2.7 0.2	gravel, loose, wet, dark staining 3.0' - 3.2', slight sheen, strong solvent odor (S\	V)	_3
		2.7	3.2 - 4.0	Dark Grayish Brown (10YR 4/2) Silty fine SAND, some fine angular gravel,		
_4		2.5		little coarse-medium gravel, stiff, moist-dry, no odor (SM)		_4
_ _5						_ _5
_ _6		0.7 1.2	5.0 - 8.0	Olive Gray (5Y 5/2) Clayey SILT, trace fine sand & shells, trace glass fragments, firm, low plasticity, moist, no odor (ML), Transitions to	063_B010a_5.0 (5.0' - 5.5')	_ _6
_6		0.4		Clayey SILT, trace glass, soft, moist, slight sulfurous odor (ML)		_6
_7		0.0				_7
_ 8	<u>4.0</u> 5.0	0.0			063 B010a 7.5 (7.5' - 8.0')	_ _8
	0.0	0.0	8.0 - 9.0	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	Fill/native soil interface	
_9		9.2		(2.5Y 3/1) CLAY, low plasticity, soft, moist-wet, abundant plant fibers,	at 8'	_9
_ _10				strong sulfurous odor (PT)		10
		0.4	10.0 - 11.4	As Above (8' - 9')		
_11		0.3				_11
_12		0.0	11.4 - 13.2	Brown (7.5YR 4/2) Clayey fine-very fine SAND, little silt, slight red and gray	063_B010a_11.5 (11.5' - 12.0')	_12
- 13	3.2 5.0	0.0		mottling, trace greenish gray coarse-fine siltstone gravel & medium sand,		- 12
_13	5.0	0.0		loose, moist, slight sulfurous odor (SC), Transitions to Grayish Brown (2.5Y 5/2) SILT, little fine sand, some gray medium-fine angular sandstone		_13
_14				gravel & medium-fine subround reddish-brown siltstone gravel, little clay,		_14
_ _15				trace gray angular gravel, stiff, moist-dry, no odor (ML)		_ _15
		0.0	15.0 - 16.8	Grayish Brown grading to Brown (10YR 5/2-5/3) SILT, little fine sand &	063_B010a_15.0 (15.0' - 15.5')	
_16		0.0		medium-fine gray angular gravel, trace medium sand, Pale Yellow (7.5Y 7/3)	·	_16
_ 17		0.0		coarse-medium sand & coarse subround sandstone flat gravel & cobbles 16' - 16.3', Light Greenish Gray (GLEY1 8/10Y) coarse-medium sand &		_ _17
	<u>1.8</u>			coarse subround flat sandstone gravel & cobbles 16.6' - 16.8', stiff, moist,		
_18	5.0			no odor (ML)		_18
_ _19						_ _19
						_ _20
_20			End of Bor	ing at 20' bgs.		
_21						_21
_ _22						_ _22
-						-
_23						_23
_24						_24
_ _25						_ _25

_			~			-00	
TETRA TECH GE				PROJECT NO.: 117-0509160.02		Boring No: 063_B011	
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / C		GEOLOGIST / OFFICE:	1	
7/28/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	t:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			1
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.2				No			
МЕМО:							

DEPTH	RECOVERY	OVM			FIELD NOTES &	
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		261.0	0.0 - 1.8	Black medium-fine SAND, little fine slag gravel & coal, trace silt, some gray	063_B011_0.0 (0.0' - 0.5')	_
_1		724.0		coarse-fine angular gravel 0'-0.5',	063_B011_0.5 (0.5' - 1.0')	_1
_		50.6	40.00	medium-dense, dry, strong solvent odor (SP)	30% COPR 0.2' - 0.5'	_
_2	3.1	8.5 4.5	1.8 - 2.2	Yellowish Brown (10YR 5/6) coarse-fine SAND & coarse-fine subround gravel, moist, wet at 2.2', loose, slight solvent odor (SW)		_2
_ _3	5.0		2.2 - 3.1	Dark Gray (10YR 4/1) Silty medium-fine SAND, some coarse-fine gravel		_3
	0.0	0.0	2.2 0.1	(slag & coal), loose, wet, slight solvent odor (SM)		
_ _4				(3 , , , , , -		_4
_						_
_5				7 TVD (10) 011: (1 OAND 11::1		_5
_ 6		2.3 8.7	5.0 - 6.5	Brown (7.5YR 4/2) Silty fine SAND, little clay, trace fine angular gray gravel & glass fragments, medium-dense, moist-wet, slight solvent odor (SM)	063_B011_5.0 (5.0' - 5.5')	_ _6
_6		40.8		graver & grass fragments, medium-dense, moist-wer, slight solvent odor (SM)		_6
_ _7			6.5 - 7.9	Olive Gray (5Y 5/2) SILT, some very fine sand & clay, dark gray staining		_ _7
	2.9	5.8		6.4' - 6.8', soft, moist, slight solvent odor (ML)		Ε.
_8	5.0	4.0				_8_
-						
_9						_9
- 10						10
_10		0.4	10.0 - 10.3	Dark Gravish Brown (2.5Y 4/2) SILT & Dark Reddish Grav (5YR 4/2)	063 B011 10.0 (10.0' - 10.5')	-10
_ _11		0.5		siltstone COBBLES, little very fine sand, trace clay, stiff, dry, no odor (GM)	Fill/native soil interface	_11
_		1.1		Very Dark Grayish Brown (10YR 3/2) PEAT, little Olive Gray (5Y 4/2)	at 10.3'	_
_12		0.7		CLAY, low plasticity, soft, moist-wet, abundant plant fibers,		_12
_	<u>3.4</u> 5.0	4.3	100 101	slight sulfurous odor (PT)		-42
_13	5.0	0.5 0.0		Greenish Gray (GLEY2 6/10BG) CLAY, some medium-fine SAND, little silt, trace medium-fine subround gravel, little Yellowish Red (5YR 4/6) mottling,		_13
_ _14		0.0		loose, moist-wet, no odor (CL/SC)		_ _14
_				(,		
_15					<u> </u>	_15
		0.2	15.0 - 15.8	Gray (7.5YR 5/1) Clayey medium-fine SAND, little silt, little coarse-fine gray	063_B011_15.0 (15.0' - 15.5')	
_16		0.2 0.0	150 105	angular gravel, loose, moist-wet, no odor (SC) Pale Brown (10YR 6/3) SILT, some fine sand, little coarse-fine gray angular		_16
_ _17		0.0	13.0 - 10.3	gravel, abundant 16.2'-16.5' & 17'-17.3', trace clay, stiff, moist, no odor (ML)		_ _17
_ , ,	3.5	0.0		graver, abundant 10.2 10.5 & 17 17.5, trace day, 5tin, most, no odor (wiz)		,
_ _18	5.0	0.1				_18
_		0.0			063_B011_18.0 (18.0' - 18.5')	_
_19						_19
_ _20						20
_20			End of Bor	ing at 20' bgs.		_ZU
_ _21						21
_						_
_22						_22
_23						_23
_ 24						_ 24
_ _25						_ _25

The Mintel Progression for displayed. The Shirting has short-throad	revenuel, or Admini Yorky that the little gelebile the	Recent Spot South			PROJECT NO.: 117-0509160.02		Boring No: 063_B012 / 063_MW03
					PROJECT NAME: PPG Site 063		LOCATION SKETCH
OMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GE		GEOLOGIST / OFFICE:		
7/11/2011	7/11/2011 20			PID MiniRAE 2000 Jin		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER:	:	DRILLING EQUIPMEN	T:	DRILLING METHO	7	
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25" ~2.4'				Yes - 063_MW03			
мемо: Moved 8'	SW from	original loc	ation due to prop	osed location of	gas pipeline		

	DEPTH	RECOVERY	OVM	DUDUEIATED QUATELLOGU DEGODIETION	FIELD NOTES &	1
1	(Feet)	(feet)	\ /	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
1	_				063_B012_0.0 (0.0' - 0.5')	
2 0.0 medium-dense, dry, no odor (SP) 1.0 medium-fine gray round gravel (non-COPR) (SP) 2.0 - 2.3 Olive (2.5 * 54) medium-fine SAND, trace medium-fine gray round gravel (non-COPR) (SP) 2.3 - 3.2 As Above (1.2 - 2.0), (SP) Transitioning into Dark Gray (2.5 * 4/1) Silty fine SAND, little medium sand, loose, moist-wet, no odor (SM) 5.0 - 5.5 Reddish Brown (5YR 4/3) SILT, some fine sand, little clay, firm, moist, no odor (fML) 5.5 - 5.8 Dark Gray (SYR 4/1) SILT, ittle fine SAND, little clay, trace fine gray angular gravel, soft, moist-wet, no odor (ML) 5.5 - 5.8 Dark Gray (SYR 4/4) SILT, ittle fine SAND, little clay, trace fine gray angular gravel, soft, moist-wet, no odor (ML) 1.5 Dark Gray (SYR 4/4) Clayey SILT, trace fine sand, low plasticity, soft, soft, moist-wet, no odor (ML) 1.5 Dark Grayish Brown (2.5YR 4/3) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT) 1.1 Dark Grayish Brown (10YR 4/2) clayey fine SAND, little silt, trace gravel, moist-wet, loose, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, loose, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, loose, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (2.5YR 6/6) fine-medium SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (10YR 4/2) clayey fine SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (10YR 4/2) clayey fine SAND, some clay, little silt, moist-wet, slight sulfurous odor (SC) 1.4 Dark Grayish Brown (10YR 4/2) cl	-'					-'
3	_2			medium-dense, dry, no odor (SP)		_2
2.3 - 3.2 Ås Above (1.2 - 2.0), (SP) Transitioning into Dark Gray (2.5Y 4/1) Silty fine SAND, little medium sand, loose, moist-wet, no odor (SM) 5.0 0.0 0.0 5.0 - 5.5 Reddish Brown (SYR 4/3) SILT, some fine sand, little clay, firm, moist, no odor (ML) 5.5 - 5.8 Dark Gray (SPR 4/1) SILT, little fine SAND, little clay, trace fine gray angular gravel, soft, moist-wet, no odor (ML) 8 5.0 Dark Gray (SPR 4/1) SILT, little fine SAND, little clay, trace fine gray angular gravel, soft, moist-wet, no odor (ML) 10 0.0 10.0 - 10.5 Reddish Brown (2.5YR 4/4) Clayey SILT, trace fine sand, low plasticity, soft, moist-wet, no odor (ML) 11 1 1.5 3.6 10.5 - 12.5 Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT) 11 1 2 2.7 5.0 12.5 - 12.7 Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT) 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				, , ,		
A SAND, little medium sand, loose, moist-wet, no odor (SM) 5 6 0.0 5.0 - 5.5 Reddish Brown (SYR 4/3) SILT, some fine sand, little clay, firm, moist, no odor (ML) 5.5 - 5.8 Dark Gray (SYR 4/1) SILT, little fine SAND, little clay, trace fine gray angular gravel, soft, moist-wet, no odor (ML) 10 10 10 10 10 10 10 10 10 1	_3	5.0	0.0	, , ,		_3
S	_ _4				·	_ _4
0.0	_					_
Continue	_5		0.0	5.0. 5.5. Poddich Proup (SVP 4/2) SILT come fine cond little clay firm maint no	062 P012 F.0 (F.0' F.F')	_5
Solution	_ 6			, , , , , , , , , , , , , , , , , , , ,	003_B012_5.0 (5.0 - 5.5)	_ 6
Solution	_				ır	_
S	_7	0.0		gravel, soft, moist-wet, no odor (ML)		_7
Section Page	- 8					- 8
10	_				Fill/native soil interface not	_
11	_9				recovered - sampled 10'-10.5'	_9
11	- 10					- 10
3.6 10.5 - 12.5 Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT) 12 12 13 1.6 12.5 - 12.7 Dark Grayish Brown (10YR 4/2) clayey fine SAND, little silt, trace gravel, moist-wet, loose, slight sulfurous odor (SC) 14 15.0 - 17.5 Greenish-Gray (GLEY2 6/6BG) fine-medium SAND, some clay, little silt, loose, moist-wet, slight sulfurous odor (SC), Transitions into Reddish Brown (2.5YR 5/3) SILT, little fine sand & medium-fine subangular gray gravel, stiff, moist, no odor (ML) 17 18 19 19 19 19 19 19 19			0.0	10.0 - 10.5 Reddish Brown (2.5YR 4/4) Clayey SILT, trace fine sand, low plasticity, sof	i, 063_B012_10.0 (10.0' - 10.5')	
12	_11					_11
13	- 12					- 12
The content of the	_ ' ' _	2.7		plant libers, low plasticity, sont, moist wet, strong sundrous each (1-1)		_''
	_13	5.0				_13
				moist-wet, loose, slight sulfurous odor (SC)		-11
15.0 - 17.5 Greenish-Gray (GLEY2 6/6BG) fine-medium SAND, some clay, little silt, loose, moist-wet, slight sulfurous odor (SC), Transitions into Reddish Brown (2.5YR 5/3) SILT, little fine sand & medium-fine subangular gray gravel, stiff, moist, no odor (ML) 0.0	-14					-14
	_ _15					_ _15
Composition	_		-		`	_
	_16					_16
	_ _17				''	_17
			0.0		063_B012_17.0 (17.0' - 17.5')	
End of Boring at 20' bgs. 21 Well Information: 22 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 2.5' above grade 23 #1 Sand from 3.0' to 10.0' bgs., Bentonite from 3.0' to surface Stick-up completion with cement protective pad 24 —————————————————————————————————	_18	5.0				_18
End of Boring at 20' bgs. 21 Well Information: 22 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 2.5' above grade 23 #1 Sand from 3.0' to 10.0' bgs., Bentonite from 3.0' to surface Stick-up completion with cement protective pad 24 —————————————————————————————————	_ _19					_ _19
End of Boring at 20' bgs. 21 Well Information: 22 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 2.5' above grade 23 #1 Sand from 3.0' to 10.0' bgs., Bentonite from 3.0' to surface Stick-up completion with cement protective pad 24 —————————————————————————————————						
	_20			End of Boring at 20' bgs		 _20
Well Information: 22	_ _21			is in soming at 20 bys.		_ _21
2-inch diameter SCH40 PVC riser from 5.0' bgs. to 2.5' above grade 23 #1 Sand from 3.0' to 10.0' bgs., Bentonite from 3.0' to surface Stick-up completion with cement protective pad 24	_					_
_23	_22			· · · · · · · · · · · · · · · · · · ·		_22
Stick-up completion with cement protective pad	23					- 23
	_			9 :		
- 25	_24					_24
	_ 25					- 25

Sil Paris	ted image cannot be adoptiqued. The file may have been missed,	remarked, are districted below the patient of	its the content file and its other.			PROJECT NO.:		Boring No:
						117-050916	60.02	063_B013
						PROJECT NAME:		LOCATION SKETCH
						PPG Site 06	3	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIS		GEOLOGIST / OFFICE:			
7/28	7/28/2011 20			PID MiniRAE 2000 Jim M. / Whitehouse Station				
DRILLING C	CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	Γ:	DRILLING METHO	OD / BIT:	
EPI \ Bo	b Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING	METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleev	5' Sleeves, 1.25" ~ 3.3'				No			
МЕМО:	·				•			1

DEPTH	RECOVERY	OVM		DUDMENTED OVOTEM COLL DECODIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1		0.0 0.0 0.0		Dark Brown (7.5YR 3/2) medium-fine SAND little medium-fine angular sandstone/siltstone gravel, dense, dry, no odor (GW), Transitions to Black (10YR 2.5/1) medium-fine SAND &	063_B013_0.0 (0.0' - 0.5') 063_B013_1.0 (1.0' - 1.5')	_ _1
_ _2 _	<u>3.9</u>	0.0 0.0		some medium-fine slag gravel, little coal & cinders, medium-dense, moist, moist-wet 3.3'-3.9', no odor (GW)	50% COPR 0.2' - 3.9'	_2
_3 	5.0	0.0		Yellowish Brown (10YR 5/4) medium SAND & medium-fine round COPR	063_B013_3.0 (3.0' - 3.5')	_3
_4 _ 5		0.0		GRAVEL (50%), some coarse sand & fine subround quartz gravel, trace medium quartz gravel, loose, moist-wet, no odor (GW)		_4 - 5
 _ _6		0.0 0.0	5.0 - 5.4	Yellowish Brown (10YR 5/4) medium SAND, some coarse sand & fine subround gravel, trace medium gravel, no COPR, loose, moist-wet, no odor	063_B013_5.0 (5.0' - 5.5')	 _6
_ _7	1.8	0.0		(SW) Black (2.5Y 2.5/1) medium-fine SAND & medium-fine subround gravel (slag), little coal, trace silt, moist-wet, medium-dense, no odor (GW)		_ _7
_ _8 _	5.0		6.0 - 6.8	Dark Gray (2.5Y 4/1) medium-fine SAND, little silt & medium-fine slag gravel, trace shells, loose, wet, no odor (SW)		_ _8 _
_9						_9
_10		0.0		As Above (6' - 6.8')	063_B013_10.0 (10.0' - 10.5')	_10
_11		0.0 30.1		Olive (5Y 5/3) SILT, some very fine sand, little clay, low plasticity, soft, moist, no odor (ML)	Fill/native soil interface at 10.5'	_11
_12 - _13	<u>1.0</u> 5.0			Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT)		_12
_ _ _14						_ _ _14
_ _15						_ _15
_ _16		1.0 0.0 1.7		As Above (10.6' - 11') Greenish Gray (GLEY2 6/5BG) to Gray (2.5Y 5/1) Clayey fine SAND, little silt, soft, moist, slight sulfurous odor (SC), Transitions to fine SAND, little	063_B013_15.0 (15.0' - 15.5')	16
_ _17	<u>3.4</u>	0.0		silt, trace clay, loose, moist, no odor (SM), Transitions to Brown (10YR 4/3) SILT, some fine sand, little red medium-fine subround sandstone gravel,		_ _17
_ _18 _	5.0	0.0 0.0		firm, moist, no odor (ML)		_ _18
_19						_19
_20			End of Bori	ing at 20' bgs.		_20
_21						_21
_22 - _23						_22 _ _23
_23 _ _24						24
_ _25						_ _25

The field all image current for digital to the file may have been record	contrast, or manual Study Phartha his paints to	e the commit the anti-faculties.			PROJECT NO.:		Boring No:
					117-0509160.02		063_B014
					PROJECT NAME:		LOCATION SKETCH
					PPG Site 063		
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GE		GEOLOGIST / OFFICE:		
8/1/2011	8/1/2011 42.0'			PID MiniRAE 2000 Jim M. / Whitehouse Station		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T:	DRILLING METHO		
EPI \ Bob Fleming		_	Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	DUNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 5.4'				No			
MEMO:							
Boring for deep ge	ological	exploration.	Refusal at 42'				

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &]
(Feet)	(feet)	(PPM)	0.0 4.4		SAMPLE SUMMARY	_0
_ 1		0.0	0.0 - 4.1	Dark Grayish Brown (2.5Y 4/2) fine SAND, little medium sand & fine gray angular gravel, trace silt, white	063_B014_0.0 (0.0' - 0.5') 25% COPR 0.2' - 1.0'	1
		0.0		concrete cobbles 1.9' - 2.2', wood fragments 1.7' - 1.9', medium-dense,	063_B014_1.25 (1.25' - 1.75')	Ε.
_2		0.0		dry-moist, no odor (SP)		_2
_	<u>4.7</u>	0.0			063_B014_2.25 (2.25' - 2.75')	-
_3	5.0	0.0			40% COPR 2.0' - 3.0' 063_B014_3.0 (3.0' - 3.5')	_3
_4		0.0	4.1 - 4.7	Black (2.5Y 2.5/1) medium-fine subround GRAVEL (slag), little coal, loose,	(0.0 0.0)	_4
_		0.0		moist, no odor (SW)		_
_5		0.0	5.0 - 5.2	As Above (4.1' - 4.7')		_5
_ _6		0.0	5.2 - 6.0	Yellowish Brown (10YR 5/4) medium SAND, some coarse sand & coarse-		_ _6
_		0.0		fine round quartz gravel, trace fine sand, loose, wet 5.4' - 6', no odor (SW)		_
_7	4.0	0.0	6.0 - 9.2	Black (2.5Y 2.5/1) medium-fine SAND, little silt & medium-fine black	000 0044 7.0 (7.0) 7.5)	_7
_ 8	<u>4.2</u> 5.0	0.0		angular gravel (lignite & coal), Light Gray (GLEY1 7/N) CLAY 6.5' - 6.7', loose, wet, slight sulfurous odor 8.8' - 9.2' (SM)	063_B014_7.0 (7.0' - 7.5')	_ _8
	0.0	0.0		10000, Wol, diight duhdhada adar a.a a.z (am)		
_9		1.6				_9
_ 10						- 10
_10		3.1	11.0 - 11.7	As Above (6' - 9.2') but medium-fine SAND & medium-fine black angular		-10
_11		0.7		gravel (lignite & coal), wet, slight sulfurous odor (SW/GW)		_11
_		0.4	44 7 40 0	Name Dank Cray inh Drawn (2.5VD 2/2) DEAT come Van Dank Cray (5V 2/4)	063_B014_11.2 (11.2' - 11.7') Fill/native soil interface	-40
_12	3.3	339.0	11.7 - 13.3	Very Dark Grayish Brown (2.5YR 3/2) PEAT, some Very Dark Gray (5Y 3/1) CLAY, moderate plasticity, soft, moist-wet, very strong sulfurous odor (PT)	at 11.7'	_12
_13	5.0	365.0				_13
_14						_14
_ _15						_ _15
			15.0 - 18.2	As Above (11.7' - 13.3'), very strong sulfurous odor (PT)	063_B014_15.0 (15.0' - 15.5')	l
_16		442.0 552.0				_16
_ _17		625.0				17
_	<u>3.8</u>	818.0				
_18	5.0	755.0	100 107	Creatish Cray (CLEV2 F/FDC) aloves fine CAND little cit 9 medium cond		_18
_ _19		457.0	18.2 - 18.7	Greenish Gray (GLEY2 5/5BG) clayey fine SAND, little silt & medium sand, trace fine subround gravel, soft, moist-wet, strong sulfurous odor (SC)		_ _19
				(00)		
_20		4.0	00.0.01.0	Orestick Ores (OLEVO F/FDO) for OAND Park	000 0044 00 0 (00 0) 00 75	_20
_ 21		1.0 3.6	∠0.0 - 21.6	Greenish Gray (GLEY2 5/5BG) fine SAND, little clay & medium sand, trace silt & fine subround gravel (SC), medium-dense, moist-wet, strong sulfurous	063_B014_20.0 (20.0' - 20.5')	_ 21
'		56.1		odor (SC)		
_22		3.7	21.6 - 23.2	Brown (7.5YR 5/2) Silty medium-fine SAND, trace clay & fine round gravel,		_22
-	<u>4.7</u>	0.3		loose, moist-wet, no odor (SM)		-
_23	5.0		23.2 - 24.7	Brown (7.5YR 5/4) SILT little fine sand & fine subround gravel, some medium-		_23
_ _24				fine sand 23.9' - 24.3' (wet & medium-dense), firm, moist, no odor (ML)		_ _24
-						
_25			1			_25

_								
The behaviorage	province to displayed. The file may have been moved, so	market, or deleted. Strilly that the lies points to t	to send facilitation			PROJECT NO.:		Boring No:
						117-050916	60.02	063_B014
						PROJECT NAME:		LOCATION SKETCH
					PPG Site 063	3		
COMPLETIO	OMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:		
8/1/2	8/1/2011 41.7'				PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CO	ONTRACTOR	/ DRILLER	:	DRILLING EQUIPMENT	T:	DRILLING METHO	OD / BIT:	
EPI \ Bob	Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING N	METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeve	5' Sleeves, 1.25" ~ 5.4'				No			
MEMO:								
Boring for	r deep ge	ological	exploration.	Refusal at 42'				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	25.0 - 26.0 Reddish Brown (5YR 5/4) Silty medium-fine SAND, little coarse-fine	SAMPLE SUMMARY	=
_26		0.0	subround gray gravel, loose, wet, no odor (SM)		_26
_ _27		0.0	26.0 - 28.0 Reddish Brown (5YR 5/4) SILT, some fine sand little coarse-fine subround gray to dark red-gray gravel & cobbles, soft grading to firm, moist-wet,		_ _27
_	<u>4.8</u>	0.0	no odor (ML)		
_28	5.0	0.0	28.0 - 29.8 Brown (7.5YR 5/3) SILT, little fine sand & coarse-fine subround gray gravel,		_28
_ _29		0.0	stiff, moist, no odor (ML)		_ _29
_ _30		0.0			_ _30
_30		0.0	30.0 - 34.7 As Above (28.0 - 29.8) but with some fine sand, moist-wet, soft/firm, grading		- -30
_31		0.0	to Reddish Brown (5YR 4/4) SILT, little medium-fine gravel, little/trace fine sand, stiff, moist-dry, no odor (ML)		_31
_ _32		0.0	Sand, Still, Moist-dry, No odol (ML)		_ _32
_	<u>4.7</u> 5.0	0.0			
_33	5.0	0.0			_33
_34		0.0			_34
_ _35		0.0			35
-		0.0	35.0 - 37.5 Brown (7.5YR 4/3 to 4/2) SILT, some/little fine sand, little coarse-fine		
_36		0.0	subangular gray gravel, moist-wet throughout, firm, no odor (ML)		_36
_37	2.0	0.0			_37
	<u>3.6</u> 5.0	0.0	37.5 - 38.6 Brown (7.5YR 4/2) SILT & coarse-fine dark gray GRAVEL & COBBLES,		_38
_ 39		0.0	little/trace fine sand, wet, dense, no odor (GM/ML)		_ 39
_39					_39
_40		0.0	40.0 - 41.7 Brown (7.5YR 4/3) Silty fine SAND & Dark Gray coarse SAND & coarse-fine		_40
_ _41	1.7	0.0	GRAVEL, little dark gray cobbles, medium-dense to loose, wet, no odor (GM)		_ _41
-40	2.0	0.0			
_42			End of Boring at 42' bgs. (Refusal)		42
_43					_43
_ _44					_ _44
_45					_45
_46					_46
_ _47					_ _47
_ _48					_ _48
_ _49					_ _49
_ _50					_ _50

72	TE	TRATE	ATECH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_B015 / 063_MW04			
	J				PROJECT NAME: PPG Site 063		LOCATION SKETCH			
COMPLETION DATE:	ION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:				
7/14/2011	20			PID MiniRAE 2	000	Jim M. / Whitehouse Station				
DRILLING CONTRACTOR	R / DRILLER	₹:	DRILLING EQUIPMEN	T:	DRILLING METH	OD / BIT:				
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push					
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?				
5' Sleeves, 1.25" ~ 3.5'					Yes - 063_MW04					
MEMO:		•								
Used combination	of hang	augering, sl	hoveling, and air	knifing with vac	uum to soft d	ig to 5' bgs.				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			0
		0.0	0.0 - 0.2 Grayish Brown (10YR 5/2) fine SAND, little coarse gray gravel & cobbles, trace medium-fine gravel & medium sand, dry, loose, no compared to the compared to the coarse gray gravel and coarse gray gray gravel and coarse gray gray gravel and coarse gray gray gray gray gray gray gray gray	063_B015_0.0 (0.0' - 0.5')	1
_1			0.2 - 0.3 Concrete (shoveled out)		1
_2	N/A	0.0	0.3 - 0.5 As Above (0' - 0.2'), little slag, loose, dry, no odor (SP)		2
_		0.0	0.5 - 1.0 Brown (10YR 4/3) medium-fine SAND, little subround & angular co		
_3		0.0	gravel, trace slag, loose, dry, no odor (SP)		3
_ 4			1.0 - 2.0 As Above (0.5' - 1'), moist, trace slag (SP) 2.0 - 2.5 No auger recovery - rocky, used air-knife to vacuum to 2.5'	-	4
-4		0.0	2.5 - 4.0 Black (2.5Y 2.5/1) coarse-fine GRAVEL (slag), some coal, little cine		4
_ _5		0.0	brown medium-fine sand, moist, moist-wet 3.5' - 4', loose, no odor		5
_			4.0 - 4.5 Yellowish Brown (10YR 5/6) medium SAND, some coarse-	_	
_6			medium gravel & cobbles, loose, moist-wet, no odor (SW)		6
- 7		0.0	4.5 - 5.0 Auger refusal at 4.5', used air knife to vacuum to 5' 5.0 - 5.3 Brown (10YR 4/3) medium-fine SAND, little silt, loose, wet, slight si		7
-'	2.8	0.0	odor (SM)		'
_8	5.0		5.3 - 7.8 Black (2.5Y 2.5/1) medium-fine SAND, some medium-fine gravel, li	ittle silt, 063_B015_7.3 (7.3' - 7.8')	8
-			loose, wet, slight sulfurous odor (SM)	_	
_9				-9	9
- 10				-	10
		0.0	10.0 - 11.0 As Above (5.3' - 7.8')		
_11		0.0		\	11
-		3.2	11.0 - 13.2 Very Dark Grayish Brown (2.5YR 3/2) PEAT, some Very Dark Gray	` '	40
_12	3.2	38.3 12.4	CLAY, moderate plasticity, soft, moist-wet, strong sulfurous odor (F	-	12
13	5.0	67.9			13
_14					14
_ _15				-	15
_15		76.8	15.0 - 17.3 Very Dark Grayish Brown (2.5YR 3/2) PEAT, some Very Dark Gray		15
_ _16		846.0	CLAY, moderate plasticity, soft, moist-wet, very strong sulfurous of	· / · / _	16
_		107.0		_	
_17	0.0	222.0	47.0. 47.0. D. L.O. (40)/D. 4/4) OL. (5. OAND 1941 19. 6/4	_	17
_ _18	<u>2.8</u> 5.0	1041.0	17.3 - 17.8 Dark Gray (10YR 4/1) Clayey fine SAND, little silt, soft/loose, moist strong sulfurous odor (SC)	· — — — — —	18
_10	3.0		Strong Sullutous odor (SO)	000_0010_17.0](17.0 - 17.0)	10
_19					19
				-	
_20			End of Boring at 20' bgs.	 	20
_ 21			End of Borning at 20 bys.	-	21
			Well Information:		
_22			2-inch diameter 10-slot SCH40 PVC screen set at 5.0' - 10.0' bgs.		22
-			2-inch diameter SCH40 PVC riser from 5.0' bgs. to 2.5' above grade	-	00
_23			#1 Sand from 3.0' to 10.0' bgs., Bentonite from 3.0' to surface Stick-up completion with cement protective pad	-	23
_ _24			ones, ap completion with coment protective pau		24
_25					25

_							
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_C003
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	1	
7/21/2011	20			None - PID not working Jim M. / Whitehouse Station		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T:	T: DRILLING METHOD / BIT:]
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.6'				No			
MEMO:]	
PID not working - I	amp iss	ue					

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
			0.0 - 0.2	Grayish Brown (2.5Y 5/2) fine SAND & coarse gray angular gravel, little	063_C003_0.0 (0.0' - 0.5')	
_1			0.2 - 0.8	medium sand, dry, loose, no odor (GP) Black (2.5Y 2.5/1) SAND, little medium sand,	063_C003_0.5 (0.5' - 1.0') 30% COPR 0.2' - 0.5'	_1
_2			0.2 - 0.0	dry, loose, no odor (SP)	30 % COFK 0.2 - 0.5	_ _2
	3.7		0.8 - 1.2	Brown (7.5YR 4/2) SILT, some fine sand, firm, dry, no odor (ML)		
_3	5.0		1.2 - 1.6	Black (2.5Y 2.5/1) coarse-fine SAND, some fine subround slag gravel, loose,		_3
				moist, no odor (SW)		
_4			1.6 - 3.7	Dark Grayish Brown (2.5Y 4/2) SILT, some fine sand, trace coarse-fine gray subround gravel, little wood fragments, firm grading to soft, moist-wet,		_4
_ 5				strong solvent odor (ML)		- 5
			5.0 - 7.2	Grayish Brown (2.5Y 5/2) CLAY, some silt, trace fine sand,	063_C003_5.0 (5.0' - 5.5')	
_6				moderate plasticity, soft, moist-wet, slight solvent odor (OH/CH)		_6
_7	2.7		7.2 - 8.6	Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant	063_C003_6.7 (6.7' - 7.2')	_7
_ 8	<u>3.7</u> 5.0		7.2 - 0.0	plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT)	Fill native soil interface	_ _8
	0.0			plant nois, for planting, son, most noi, onong canalicae cae. (17)	at 7.2'	
_9						_9
_						_
_10			10.0 - 11.0	Dark Gray (5Y 4/1) Clayey fine SAND, little silt, moist, soft, no odor (SC)		_10
_ _11			10.0 - 11.0	Daik Gray (31 4/1) Grayey line GAND, little Silt, Moist, 30tt, No Guor (50)	063_C003_10.5 (10.5' - 11.0')	11
_			11.0 - 12.5	Reddish Brown (5YR 4/3) fine SAND, some silt, little medium sand, medium-	,	
_12				dense, moist-dry, no odor, little coarse-fine Greenish Gray (GLEY1 5/10GY)		_12
_	3.7 5.0		10 5 10 0	gravel 12.4' - 12.8', no odor (SM)		
_13	5.0		12.5 - 13.0	Brown (7.5YR 4/3) Silty medium-fine SAND, moist-wet, dense, no odor, little angular Greenish Gray GLEY1 5/5GY coarse gravel & cobbles (shale) (SM)		_13
_ _14			13.0 - 13.6	Red (2.5YR 4/6) coarse-fine flat sandstone GRAVEL & COBBLES, loose,		_ 14
_				dry, no odor (GW)		_
_15						_15
_ 16			15.0 - 15.2	Dark Greenish Gray (GLEY1 4/5G) medium SAND, some fine sand, little silt, loose, moist, no odor (SM)	063_C003_15.5 (15.0' - 15.5')	- 16
_10			15.2 - 16.0	Brown (7.5YR 4/3) SILT, some medium-fine sand, little medium-fine		_10
_17				subround gray gravel, firm, moist-wet, no odor (ML)		_17
_	<u>3.2</u>		16.0 - 17.2	Brown (7.5YR 4/3) SILT, little fine sand, trace coarse-fine subround gray		_
_18	5.0		470 477	gravel & cobbles, firm, moist, no odor (ML)		_18
_ _19			17.2 - 17.7	Gray subangular coarse GRAVEL & COBBLES, little fine sand & silt, wet, loose, no odor (GM)		_ _19
			17.7 - 18.7	As Above (16' - 17.2')		_'3
_ _20				,		_20
			End of Bor	ing at 20' bgs.		
_21						_21
_ 22						- 22
_23						_23
_24						_24
_ _25						_ 25
	l		l		1	10

TETRA TECH GEO				117-0509160.02		Boring No: 063_C004	
						LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/21/2011	20			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR / DRILLER: DRILLING EQUIPMEN			T: DRILLING METHOD / BIT:				
EPI \ Bob Fleming Geoprobe Track			Rig Direct Push				
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	1
5' Sleeves, 1.25"	/es, 1.25" ~ 2.2'			No			
МЕМО:							

DEPTH	RECOVERY	OVM		DUDNEJATED OVETEN CON DECODITION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
			0.0 - 0.2	Grayish Brown (2.5Y 5/2) fine SAND & coarse gray angular gravel, little	063_C004_0.2 (0.2' - 0.7')	
_1			0.2 - 0.7	medium sand, dry, loose, no odor (GP) Dark Brown (7.5YR 3/2) fine SAND, little medium sand, trace silt, trace	063_C004_0.7 (0.7' - 1.2') 063_C004_1.2 (1.2' - 1.7')	_1
_2				medium-fine gray ang. Gravel, loose, dry, no odor (SP)	20% COPR 0.2' - 0.7'	_ _2
	3.1			As Above (0.2' - 0.7'), bright yellow-green hue to some of the	40% COPR 0.7' - 1.2'	_
_3	5.0			gravel (SP)		_3
				Dark Brown (7.5YR 3/2) Silt, some fine-medium sand, little coarse-fine gray		- .
_4				angular gravel, m. dense, moist, no odor (ML) Dark Yellowish Brown (10YR 4/4) SILT, some fine sand, little medium-fine		_4
_ 5			1.0 - 2.2	gray angular gravel, dense, dry, no odor (ML)		- 5
			2.2 - 3.1	Dark Grayish Brown (10YR 4/2) SILT, some fine sand, wet, soft,	1	
_ _6				wood fragments with strong creosote/solvent odor, staining (ML)		_6
_				Reddish Gray (5YR 5/2) Silty CLAY, some reddish brown medium-fine flat	063_C004_5.7 (5.7' - 6.2')	_
_7				siltstone gravel, firm grading to soft, moist, slight solvent odor (CL)	Fill/s stire and interference of C. 41	_7
_ 8	<u>1.4</u> 5.0			Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant plant fibers, low plasticity, soft, moist-wet, strong sulfurous odor (PT)	Fill/native soil interface at 6.4'	_ _8
_0	0.0			plant libers, low plasticity, sort, most wet, strong sundrous such (1-1)		_0
_9						_9
_10			100 103	As Above (6.2' - 6.4')	063 C004 10.0 (10.0' - 10.5')	_10
_ _11				Greenish Gray (GLEY2 6/5BG) CLAY, some fine sand & silt, soft, moist,	063_C004_10.0](10.0 - 10.5)	11
			10.0 11.0	no odor (CL)		Ε
_12			11.5 - 11.9	Reddish Brown (5YR 4/4) medium-fine SAND, little clay & silt, little medium-		_12
	<u>2.7</u>			fine subangular gravel, medium-dense, moist-wet, no odor (SC)		
_13	5.0			Grayish Brown (10YR 5/2) coarse-medium GRAVEL & COBBLES, little		_13
_ _14				medium-fine sand & silt, loose, wet, no odor (GM)		- 14
						-'-
_15						_15
				Brown (7.5YR 4/3) medium-fine SAND, some silt, little coarse-fine gray	063_C004_15.0 (15.0' - 15.5')	l
_16				angular gravel, medium-dense, moist-wet, no odor (SM)		_16
_ _17						_ _17
	<u>1.1</u>					L''
_ _18	5.0					_18
						-
_19						_19
_ _20						_ 20
			End of Bori	ing at 20' bgs.		1
_21						_21
_22						_22
_ 23						23
_24						_24
_25						_25

_			~ .			-00	
772	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_C004a
	J				PROJECT NAME: PPG Site 063	3	LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: G		GEOLOGIST / OFFICE:	
7/21/2011	20	20		PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR / DRILLER: DRILLING EQUIPMEN		T: DRILLING METHOD / BIT:]			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25"		~ 1.5'				No	
МЕМО:]

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
_ _1		0.0	0.0 - 0.2 0.2 - 0.8	Asphalt Dark Brown (10YR 3/3) medium-fine SAND, little metal fragments,	063_C004a_0.2 (0.2' - 0.7') 063_C004a_0.7 (0.7' - 1.2')	_ _1
-'		0.0	0.2 - 0.6	trace fine angular gravel, loose, dry, no odor (SW)	15% COPR 0.2' - 0.7'	-'
_2		0.7	0.8 - 1.6	Black (2.5Y 2.5/1) coarse-fine SAND, some medium-fine slag gravel, loose,		_2
_	<u>3.1</u>	90.2		moist, wet at 1.5', no odor (SW)		_
_3	5.0		1.6 - 3.1	Dark Grayish Brown (10YR 4/2) Silty medium-fine SAND, trace medium-		_3
_ 4				fine subround gravel (non-COPR), loose, wet, no odor (SM), Transitions to Dark Brown (5Y 4/1) SILT, some fine sand, little subround medium-fine gravel,		_ 4
				medium-dense, moist-wet, strong hydrocarbon odor (ML)		
_ _5				, ,		_5
-		_	5.0 - 7.2	Dark Grayish Brown (10YR 4/2) Silty CLAY, some fine sand, trace fine		<u> </u>
_6		117.0		round gravel, soft, moist-wet, slight hydrocarbon odor (CL)		_6
_ _7		48.8 17.5			063_C004a_6.7 (6.7' - 7.2')	_ _7
	3.4	24.5	7.2 - 8.4	Very Dark Grayish Brown (2.5YR 3/2) PEAT, trace clay & silt, abundant	(6.7 7.2)	
_8	5.0	22.4		plant fibers, low plasticity, soft, moist-wet, slight hydrocarbon odor (PT)		_8
		26.4				_
_9						_9
_ 10						10
_		34.1	10.0 - 11.2	As Above (7.2' - 8.4'), Transitions to Dark Gray (2.5Y 4/1) CLAY, some fine		1_
_11		32.0		sand, little silt, soft, moist, slight hydrocarbon odor (OL)	200 2004 44 2 44 2 44 2 1	_11
_ _12		977.0 903.0	11.2 - 13.0	Reddish Brown (2.5YR 5/4) SILT, some fine sand, little medium-fine subround red/gray siltstone gravel, stiff, moist, slight hydrocarbon odor (ML),	063_C004a_11.0 (11.0' - 11.5')	- 12
_12	3.4	855.0		Transitions to Dark Gray (5YR 4/1) to Brown (7.5YR 4/3) coarse SAND &		_12
_ _13	5.0	716.0		coarse-fine subround sandstone & siltstone GRAVEL, little medium-fine sand,		_13
_		788.0		loose, wet, strong hydrocarbon odor (GW).		_
_14			13.0 - 13.4	Weak Red (2.5YR 4/2) SILT, some fine SAND, firm, moist-wet, strong		_14
_ _15				hydrocarbon odor (ML)		_ _15
_10		815.0	15.0 - 16.5	Brown (7.5YR 4/3) SILT, some fine sand, little medium sand & medium-	063 C004a 15.0 (15.0' - 15.5')	-''
_ _16		890.0		fine subangular gray gravel, stiff, moist-wet, strong hydrocarbon odor (ML)		_16
l		1106.0				l
_17	1.6					_17
_ _18	<u>1.6</u> 5.0					_ _18
_						
_19						_19
_						_ 20
_20			End of Bor	ing at 20' bgs.		20
_ _21			2.10 0. 50.	g ut 20 bgo.		21
_						
_22						_22
_ 23						_ _23
_23						
_ _24						_24
_25			1			_25

72	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_C005
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:		GEOLOGIST / OFFICE:	
7/13/2011	20			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T:	DRILLING METHO	OD / BIT:	
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?]
5' Sleeves, 1.25"		~ 4'				No	
мемо: *Hand-du	g 2'x2' h	ole to 1' to re	emove liner.				

es) (GP) e, moist, no odor (SP) (SP) d, medium-dense, moist, some fine SAND (ML) fine sand, trace gray angular odd in bottom of sleeve (ML) sand, firm, moist-wet, slight trace clay & silt, abundant ong sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT, ht hydrocarbon odor (ML)
(SP) d, medium-dense, moist, m
d, medium-dense, moist, 063_C005_2.0 (2.0' - 2.5') 063_C005_2.5 (2.5' - 3.0') 60% COPR 2.0' - 2.4' 60% COPR 2.0' - 2.4' 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
nedium-dense, moist, some fine SAND (ML) fine sand, trace gray angular ood in bottom of sleeve (ML) sand, firm, moist-wet, slight trace clay & silt, abundant ong sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT,
some fine SAND (ML) fine sand, trace gray angular odd in bottom of sleeve (ML) sand, firm, moist-wet, slight trace clay & silt, abundant ong sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT,
fine sand, trace gray angular and in bottom of sleeve (ML) sand, firm, moist-wet, slight trace clay & silt, abundant ong sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT,
fine sand, trace gray angular and in bottom of sleeve (ML) sand, firm, moist-wet, slight trace clay & silt, abundant ang sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT,
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trace clay & silt, abundant ong sulfurous odor (PT) ay (GLEY2 5/6BG) Clayey SILT,
ong sulfurous odor (PT) ray (GLEY2 5/6BG) Clayey SILT,
ay (GLEY2 5/6BG) Clayey SILT,
ay (GLEY2 5/6BG) Clayey SILT,
SAND, trace fine shale gravel,
n odor (SW) 063_C005_11.5 (11.5' - 12.0')
, trace fine shale gravel,
-
e sand, stron hydrocarbon odor
063_C005_15.5 (15.5' - 16.0') ND, race fine angular
, medium-dense, moist, strong
,oa.a aaaa,aa, aaag
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TETRA TECH GEO				PROJECT NO.: 117-0509160.02 PROJECT NAME: PPG Site 063		Boring No: 063_C006	
						LOCATION SKETCH	
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/13/2011	18			PID MiniRAE 2000 Jim M / Whitehouse Station			
DRILLING CONTRACTOR / DRILLER: DRILLING EQUIPMEN			T: DRILLING METHOD / BIT:				
EPI \ Ray Smith	EPI \ Ray Smith Geoprobe Track		Rig Direct Push				
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE ELEVATION:		WELL INSTALLED?	
5' Sleeves, 1.25"		~ 1.75'				No	
мемо: *Hand-duç	g 2'x2' h	ole to 1' to re	emove liner.	•			

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
			0.0 - 0.5	QP Stone (coarse subangular gravel & cobbles) (GP)		
_1		2464 0	0.5 - 1.0 1.0 - 1.5	Olive Gray (5Y 4/2) medium-fine SAND, loose, moist, no odor (SP) As Above (0.5'-1'), moist, strong solvent odor (SP)	063_C006_1.0 (1.0' - 1.5')	_1
_2			1.5 - 1.75	Dark Brown (7.5YR 3/2) fine SAND & SILT, medium-dense, moist, strong	(1.0 - 1.5)	_
_		43.7		solvent odor (ML)	063_C006_1.75 (1.75' - 2.25')	
_3	3.0	41.8	1.75 - 2.25	Black (7.5YR 2.5/1) coarse-fine SAND & SLAG, loose, wet,	063_C006_2.25 (2.25' - 2.75')	_3
_	4.0*	23.9		slight solvent odor (SP)	30% COPR noted 2.25'-2.75'	_
_4		244.0	2.3 - 4.0	Brown (10YR 4/3) fine SAND & SILT, little clay & medium-fine gray angular		_4
				gravel, treated wood fragments in bottom of sleeve (creosote odor), soft		- 5
_5		16.1	5.0 - 8.0	grading to firm, moist, strong solvent odor throughout (ML) Brown (7.5YR 4/3) SILT, some fine sand, little medium-fine gray angular		_5
_ _6		4.5	3.0 - 0.0	gravel, stiff, moist, strong odor (solvents?) (ML), Transitions into Olive Gray		_ _6
_		1.1		(5Y 5/2) SILT, little clay & fine sand, soft, moist, slight solvent odor (ML)	063_C006_6.5 (6.5' - 7.0')	_
_7		0.3			,	_7
_	<u>4.0</u>	1.0				_
_8	5.0	1.8		V D L C L L D (40)(D 0/0) DEAT D L C (EV. 4/1)	063_C006_7.5 (7.5' - 8.0')	_8
_ 9		16.1 16.6	8.0 - 9.0	Very Dark Grayish Brown (10YR 3/2) PEAT, trace Dark Gray (5Y 4/1) CLAY, moderate plasticity, soft, moist-wet, strong sulfurous odor (PT)	(fill/native soil interface)	_ _9
_9		10.0		CLAT, moderate plasticity, sort, moist-wet, strong sunurous odor (PT)		_9
10						10
_		18.0	10.0 - 11.7	Dark Brown (10YR 3/3) PEAT grading to Greenish Gray (GLEY2 6/5BG)		
_11		10.9		SILT, some fine sand & clay, soft, moist, slight hydrocarbonodor (ML)		_11
			11.7 - 12.1	Reddish Brown (5YR 4/4) medium-fine SAND, loose, wet, strong hydrocarbon		
_12	0.4	1580.0	40.4.40.4	odor (SW)	063_C006_11.5 (11.5' - 12.0')	_12
_ _13	3.4 5.0	124.0	12.1 - 13.4	Yellowish Red (5YR 5/6) SILT, little fine sand & clay, trace medium-fine angular gray gravel, stiff, slight hydrocarbon odor (ML)		_ _13
_13	3.0	11.4		angular gray graver, stiff, slight flydrocarbor odor (wie)		-'
_14						_14
_						_
_15						_15
-		0.8	15.0 - 18.0	As Above (12.1' - 13.4'), some fine sand from 16.5' - 17.2', refusal at 18'	063_C006_15.5 (15.5' - 16.0')	-46
_16	3.0	0.8 2.4		(gravel & cobbles)	063_C006_15.5 (15.5 - 16.0)	_16
_ _17	3.0	2.2				_ _17
	0.0	1.1				L.,
_18		0.7				_18
			End of Bor	ing at 18' bgs. (refusal)		
_19						_19
_ 20						_ 20
_20						_20
_ _21						21
_22						_22
_23						_23
_ 24						_ 24
25						_25

TETRA TECH		CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_C007	
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	E: TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE: GEOLOGIST / OFFICE		GEOLOGIST / OFFICE:		
7/14/2011	20		PID MiniRAE 2000 Jim M / Whitehouse Station		Jim M / Whitehouse Station		
DRILLING CONTRACTOR	R / DRILLER	t:	DRILLING EQUIPMEN	T:	DRILLING METH	OD / BIT:	1
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 1.7'				No	
мемо: *Hand-du	g 2'x2' h	ole to 1' to re	emove liner.				

317.0 1.5 - 1.7 Very Dark Grayish Brown (7.5YR 3/2) Silty fine SAND, dry, medium-dense, slight solvent odor (SM) 063_C007_2.3 063_C007_2.3 063_C007_2.8 063_C	(1.0' - 1.5')
	(1.0' - 1.5')2 (2.3' - 2.8') (2.8' - 3.3')3 3' - 2.8'4
25.2 1.0 - 1.5 As Above (0.5'-1'), moist, strong solvent odor (SP) 1.5 - 1.7 Very Dark Grayish Brown (7.5YR 3/2) Silty fine SAND, dry, medium-dense, slight solvent odor (SM) 063_C007_2.3 06	(1.0' - 1.5')2 (2.3' - 2.8') (2.8' - 3.3')3 3' - 2.8'4
2	[2] (2.3' - 2.8') (2.8' - 3.3') 3' - 2.8'
_ 3	[(2.8' - 3.3')
_ 44.4 loose, wet, slight solvent odor (GW) Trace COPR 2.3 _4 3.2 2.8 - 5.0 Brown (10YR 4/3) SILT, little fine sand & clay, trace gray angular gravel, stiff, moist, slight solvent odor (ML) _5 31.6 30.0 5.0 - 8.0 As Above (2.8' - 5'), Transitions to Olive Gray (5Y 5/2) SILT, some fine sand, soft, moist, slight solvent odor (ML)	3' - 2.8' 4
	_4 _4
_ 5.2 stiff, moist, slight solvent odor (ML) _5 31.6 _ 30.0 5.0 - 8.0 As Above (2.8' - 5'), Transitions to Olive Gray (5Y 5/2) SILT, some fine sand, soft, moist, slight solvent odor (ML)	
_5	_
30.0 5.0 - 8.0 As Above (2.8' - 5'), Transitions to Olive Gray (5Y 5/2) SILT, some fine sand, soft, moist, slight solvent odor (ML)	_5
	_6
_ 7.1	_
$\begin{bmatrix} -7 & 0.3 \\ 3.5 & 4.4 \end{bmatrix}$	_7
3.5 1.1	_ _8
0.3 CLAY, moderate plasticity, soft, moist-wet, strong sulfurous odor (PT)	
_9 Fill/native soil int	, –
	_
_10	
_ 0.0 10.0 - 11.3 As Above (8' - 8.5'), Transitions to Greenish Gray (GLEY2 6/5BG) SILT, little clay & fine sand, soft, moist, no odor (ML)	_ _11
0.0 clay & line sand, soit, moist, no odor (ML)	-''
12 0.0 11.3 - 13.3 Yellowish Red (5YR 5/6) SILT, little fine sand & clay, trace medium-fine	
_13 5.0 0.0	_13
	_ 14
_14	-14
	15
0.0 15.0 - 20.0 As Above (11.3' - 13.3'), some medium-fine sand, soft, moist-wet at 16' - 18.5',	_
_16 0.0 otherwise stiff, dry, no odor (MI)	_16
063_C007_16.0	, , , , , , , , , , , , , , , , , , , ,
_17	_17
$\begin{bmatrix} - & 5.0 & 0.0 \\ -18 & 5.0 & 0.0 \end{bmatrix}$	
_19 0.0	_19
0.0	
_20	20
End of Borning at 20 bys.	_ _21
	_
	_23
	_ _24
	_24

772	TE	TRATE			PROJECT NO.: 117-0509160.02		Boring No: 063_C008
	J				PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	MONITORING DEVICE: GEOLOGIST / C		
7/20/2011	20			PID MiniRAE 2000 Jim M / Whitehouse Station		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 1.5'				No	
мемо: *Hand-du	g 2'x2' h	ole to 1' to re	emove liner.				

DEPTH (Feet)	RECOVERY (feet)	OVM (PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES & SAMPLE SUMMARY	0
(i eet)	. ,	(i i ivi)	0.0 - 0.5	QP Stone (coarse subangular gravel & cobbles) (GP)	SAMPLE SUMMART	
_1			0.5 - 1.0	Olive Gray (5Y 4/2) medium-fine SAND, loose, moist, no odor (SP)		_1
_ _2			1.0 - 1.5 1.5 - 2.2	As Above (0.5'-1'), moist, strong solvent odor (SP) Black (2.5Y 2.5/1) coarse-medium SAND & medium-fine slag GRAVEL, little	063_C008_1.0 (1.0' - 1.5')	2
	2.2	246.0	1.5 - 2.2	silt, loose, moist-wet, slight solvent odor (GM)		-2
_3	4.0		2.2 - 3.2	Dark Grayish Brown (10YR 4/2) SILT, little fine sand, trace medium-fine		_3
		641.0		subangular gravel, moist, stiff, slight solvent odor, some sandstone gravel		- .
_4				(Light Grayish Brown 2.5Y 6/2) 3' - 3.2', (ML)		_4
_ _5						_ _5
		0.0	5.0 - 7.2	As Above (2.2' - 3.2') but Silty CLAY, trace fine sand, no gravel,	063_C008_5.0 (5.0' - 5.5')	_
_6		0.0		moderate plasticity, soft, moist, Olive Gray (5Y 5/2) Silty CLAY 5.8' - 5.9' (CH)		_6
_ 7		0.0			063_C008_6.7 (6.7' - 7.2')	_7
_	<u>3.2</u>	0.3	7.2 - 8.1	Very Dark Grayish Brown (10YR 3/2) PEAT, trace Dark Gray (5Y 4/1)	Fill/native soil interface at 7.2'	_
_8	5.0	1.5		clay, low plasticity, soft, moist-wet, strong sulfurous odor (PT)		_8
_ 9						_ _9
_						_
_10		0.0	40.0 44.5	Decree (7.5)/D.5(0) and live for OAND little day to a sent dol. 40.41		10
_ _11		0.0	10.0 - 11.5	Brown (7.5YR 5/2) medium-fine SAND, little clay, trace sand, peat 10' - 10.1', medium-dense, moist-wet, trace Dusky Red (2.5YR 3/2) siltstone gravel		_ _11
		0.0		(SC)	063_C008_11.0 (11.0' - 11.5')	
_12		0.0	11.5 - 13.3	Reddish Brown (5YR 4/3) SILT, little fine sand, trace medium-fine angular		_12
_ _13	3.3 5.0	0.0		flat shale gravel, stiff, moist, no odor (ML), Transitions to Strong Brown (7.5YR 5/6) SILT, little fine sand, Light Greenish Gray (GLEY1 7/5GY) coarse		_ _13
_13	3.0	0.0		sandstone fragments & medium sand 2' - 2.4', stiff, moist, no odor (ML)		-'3
_ _14						_14
_ _15						_ _15
_13		0.0	15.0 - 17.2	as Above (11.5' - 13.3') but Brown (10YR 5/3), coarse Weak Red (10R 4/2)	063_C008_15.0 (15.0' - 15.5')	
_ _16		0.0		subround to subangular siltstone gravel 16.8' - 17.1', stiff, dry, no odor (ML)	(_16
		0.0				-,-
_17	2.2	0.0				_17
_ _18	5.0					_18
_						-,
_19						_19
_ _20						_20
			End of Bor	ing at 20' bgs.		
_21						_21
_ _22						_22
_23						_23
_ _24						_24
_25						_25

772	TE	TETRA TECH GEO			PROJECT NO.: 117-0509160.02		Boring No: 063_C009
					PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	TOTAL DE	TOTAL DEPTH OF BOREHOLE:		MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/20/2011	20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 1.7'				No	
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
1			0.0 - 0.5 QP Stone (coarse subangular gravel & cobbles) (GP) 0.5 - 1.0 Olive Gray (5Y 4/2) medium-fine SAND, loose, moist, no odor (SP)		1
_		3527.0	1.0 - 1.7 As Above (0.5'-1'), moist, strong solvent odor (SP)	063_C009_1.0 (1.0' - 1.5')	_
_2			1.7 - 2.4 Black (10YR 2.5/1) medium-fine SAND, little slag gravel, loose, moist-wet,		_2
_	<u>3.1</u>	711.0	strong solvent odor (SW)		
_3	4.0	457.0 3756.0	2.4 - 2.7 Very Dark Grayish Brown (10YR 3/2) coarse-fine SAND & medium-fine slag GRAVEL, wet, loose, strong solvent odor (GW)		_3
4		3730.0	2.7 - 4.0 Olive Gray (5Y 4/2) SILT, some fine sand, trace fine angular gravel, moist,		4
			firm, stron solvent odor (ML), Transitions to Dark Grayish Brown (10YR 4/2)		
_5			Silty fine SAND, little medium sand, moist-wet, loose, stron solvent odor (SM)		_5
_			5.0 - 7.0 Grayish Brown (10YR 5/2) Silty CLAY, soft grading to firm, moist, strong	063_C009_5.0 (5.0' - 5.5')	_
_6		4044.0 3891.0	solvent odor (CH)		_6
7		463.0		063_C009_6.5 (6.5' - 7.0')	_7
_	3.0	14.0	7.0 - 8.0 Very Dark Grayish Brown (10YR 3/2) PEAT, trace Dark Gray (5Y 4/1)	(,	
_8	5.0		clay, low plasticity, soft, moist-wet, slight solvent odor (PT)		_8
_					_
_9					_9
_ _10					_ _10
]
_11					_11
- 12					_ _12
_''	0.8		Poor recovery - geology representative more of 14' then 10' based on nearby borings		_'2
_13	5.0		3		_13
_14		0.0	44.0. 45.0. Dark Daddish Cray (EVP 2/2) CHT came along little madium fine rad	063_C009_14.0 (14.0' - 14.5')	_14
_ _15		0.0	14.0 - 15.0 Dark Reddish Gray (5YR 3/2) SILT, some clay, little medium-fine red angular siltstone gravel, soft-firm, moist, no odor (ML)	063_0009_14.0 (14.0 - 14.5)	- _15
_10		0.0	15.0 - 16.1 As Above (14' - 15') (ML), Transitions to Light Olive Brown (2.5Y 5/4) coarse-fir	e	 -'0
_ _16		0.0	sandstone angular GRAVEL, some coarse-medium sand, trace silt & fine		_16
			sand, Very Dark Grayish Brown (10YR 3/2) Siltstone fgravel at 15.6', loose,		
_17	1 1		wet, no odor (GW)		_17
_ _18	1.1 5.0				_ _18
_19					_19
_ _20					
_20			End of Boring at 20' bgs.		- -20
_ _21			2.1.4 0.1 201.11g 4: 20 2go.		21
_					
_22					_22
_ _23					
_23					
_ _24					_24
_25					_25

			~ .			-00	
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_C009a
					PROJECT NAME: PPG Site 063	3	LOCATION SKETCH
COMPLETION DATE:	TION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/27/2011	20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMENT	Γ:	DRILLING METHO	DD / BIT:	
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"						No	
MEMO:]

DEPTH	RECOVERY	OVM		DUDNESSTED OVOTELLOGU DESCONIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0		Light Grayish Brown (2.5Y 6/2) fine SAND, little coarse light gray	063_C009a_0.0 (0.0' - 0.5')	
_1		0.9		subangular gravel, loose, dry, no odor (SP)		_1
_ _2		67.3		Dark Yellowish Brown (10YR 4/4) fine SAND, little coarse light gray gravel, dry, loose, slight solvent odor (SP)		_ _2
	2.1	07.5		Very Dark Gray (5Y 3/1) medium SAND, little fine sand, trace fine slag		
_3	5.0			gravel & coal, little wood fragments, moist, wet at 1.8', strong solvent odor (SP)		_3
_				Dark Gray (2.5Y 4/1) fine SAND, little medium sand, trace silt & mica,		
_4				medium-dense, wet, strong solvent odor (SP), Transitions to Dark Grayish		_4
				Brown (2.5Y 4/2) SILT, little very fine sand, firm, moist-wet, slight		
_5		37.3		solvent odor (ML) As Above (1.8' - 2.1') (ML), Transitions to Olive Gray (5Y 5/2) Silt CLAY,		_5
_ _6		5.8		very soft, moist-wet, slight solvent odor (CH), then to Brown (7.5YR 4/3)		_6
_		54.3		SILT, some fine sand, trace red sandstone gravel, firm, moist, slight solvent		
_7		162.0		odor (ML)	063_C009a_6.4 (6.4' - 6.9')	_7
	<u>2.7</u>	41.1		Black (10YR 2.5/1) organic SILT, very soft, moist-wet, low plasticity, trace		
_8	5.0			peat, slight solvent odor (ML), Transitions to Grayish Brown (10YR 5/2) SILT,		_8
_ _9				some clay, little fine sand, some red & green-gray mottling, soft, wet, slight solvent odor (ML)		_ _9
_5				SOLVENII GOOF (ME)		
_10						_10
		1.3		Reddish Brown (10YR 4/3) SILT, little fine sand & clay, little medium-fine	063_C009a_10.0 (10.0' - 10.5')	
_11		3.8		red angular siltstone gravel, soft, moist-wet, no odor (ML)		_11
- 12		40.1 13.7		Light Greenish Gray (GLEY1 7/5GY) siltstone & shale GRAVEL & COBBLES (GW)		_ _12
_12	2.8	-		Dark Grayish Brown (10YR 4/2) SILT, some fine sand, little greenish-gray &		-12
_ _13	5.0	10.0		red siltstone gravel, stiff, dry, no odor (ML)		_13
_						_
_14						_14
_15		34.3	15.0 - 24.7	Grayish Brown (10YR 5/2) SILT, some medium-fine gray angular gravel, little	063 C009a 15.0 (15.0' - 15.5')	_15
_ 16		6.5		very fine sand, white-gray sandstone cobbles & gravel 15.6' - 16', red	003_C009a_13.0 (13.0 - 13.3)	16
		26.4		siltstone gravel 16' - 16.3', stiff, dry, no odor (ML), Transitions to Brown		
_17		17.0		(7.5YR 5/4) SILT, some fine sand, little gray & red-gray subangular siltstone		_17
	<u>4.7</u>	21.8		gravel, stiff, moist, no odor (ML)	No odor in 15' - 20' interval	
_18	5.0	17.1			high PID response likely due to	_18
_ _19		22.5 17.6			high humidity	_ _19
-13		19.3				-'3
_ _20						_20
_			End of Bori	ing at 20' bgs.		_
_21						_21
_						_
_22						_22
_ 23						23
_24						_24
_25						_25

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TETRA TECH GE				PROJECT NO.: 117-0509160.02		Boring No: 063_C010	
	J				PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	1
7/21/2011	20			PID MiniRAE 2000 Jir		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:		1	
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 1.6'				No	
МЕМО:							

DEPTH	RECOVERY	OVM		DUDUSIONED OVERTINA CON DECODINATION	FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_ _1 _		432.0 22.6 33.5	0.0 - 0.7	Dark Gray (2.5Y 4/1) fine SAND & medium-coarse subangular gray gravel, trace silt & medium sand, greenish gray stilstone gravel 0.6' - 0.7', dry, loose, slight solvent odor (GP)	063_C010_0.0 (0.0' - 0.5') 063_C010_0.7 (0.7' - 1.2') 063_C010_1.2 (1.2 - 1.7')	_ _1 _
_2	<u>3.5</u>	20.2	0.7 - 2.0	Black (2.5Y 2.5/1) medium-fine SAND & medium-fine slag GRAVEL, coal, medium-dense, wet at 1.7',	50% COPR 0.7' - 1.2'	_2
_3	5.0	38.5 145.0	2.0 - 3.5	slight solvent odor (GW) Olive Gray (5Y 4/2) Clayey SILT with Reddish Brown (5YR 4/4) mottling		_3
_4 _ 5				from 3'-3.5', little subround red sandstone gravel, firm, moist, slight solvent odor (ML)		_4 - 5
_5		89.3	5.0 - 6.9	Olive Gray (5Y 5/2) Clayey SILT, trace very fine sand, moist, soft-firm, trace		
_6 _		13.5 16.1		shells, slight solvent odor (ML)		_6 _
_7	2.0	2.8 2.3	6.9 - 8.0	Name Doub Crowing Drown (40VD 2/2) DEAT trace Doub Crow (5V 4/4)	063_C010_6.4 (6.4 - 6.9')	_7
_8	<u>3.0</u> 5.0	0.3	6.9 - 8.0	Very Dark Grayish Brown (10YR 3/2) PEAT, trace Dark Gray (5Y 4/1) clay, low plasticity, soft, moist-wet, strong sulfurous odor odor (PT)		_8
_ _9						_9
_10						_10
_ _11		0.0 0.0 0.0		Brown (7.5YR 4/3) SILT, little fine sand & medium-fine angular red siltstone gravel, abundant 10.3' - 10.5', stiff, moist, no odor (ML0	063_C010_10.5 (10.5 - 11.0')	_ _11
_ _12	3.0	0.0 0.0 0.0	10.7 - 13.0	Grayish Brown (10YR 5/2) SILT, little fine sand & medium-fine gray & greenish gray angular gravel, stiff, moist, no odor (ML)		_ _12
_ _13	5.0	0.0				_13
_ _14 _						_14
_15			150 150			_15
_ _16		0.0 0.0 0.0	15.0 - 17.0	As Above (10.7' - 13') but Brown (10YR 5/3), abundant light gray sandstone cobbles 15.0' - 15.4' (ML)	063_C010_15.0 (15.0 - 15.5')	_ _16
17	<u>2.0</u>	0.0				_17
_18	5.0					_18
_ _19 _						_ _19
_20			End of D	ing at 201 has		_20
_ _21			Ena of Bor	ing at 20' bgs.		_ _21
_ _22						22
_ _23						_23
_ _24						24
_ _25						_ _25

_			~			-00	
TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_C011
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/25/2011	35			PID MiniRAE 2000 Jim N		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"		~ 2.2'				No	
мемо: Boring for	deep ge	eological exp	loration]

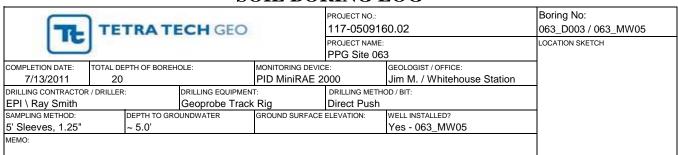
DEPTH	RECOVERY	OVM		DUDNEJOTED OVATEN CON DECODIDATION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.5	0.0 - 0.4	Grayish Brown (10YR 5/2) coarse GRAVEL & COBBLES, loose, dry (GP)	1	
_1			0.4 - 1.2	Dark Yellowish Brown (10YR 3/4) fine SAND, some medium sand &	063_C011_0.4 (0.4' - 0.9')	_1
_ _2		276.0 21.5		medium-fine subround gravel, white cobbles 0.5' - 0.6', loose, dry, slight solvent odor (SW)	063_C011_0.9 (0.9' - 1.4') 063_C011_1.4 (1.4' - 1.9')	_2
	3.9	_	1.2 - 2.6	Black (2.5Y 2.5/1) medium-fine SAND, little fine subround slag gravel, loose,	25% COPR 0.9' - 1.2'	
_3	4.0	1099.0		moist-wet, slight solvent odor (SW), Transitions to coarse-fine SAND &		_3
_		49.6		medium-fine slag GRAVEL, wet at 2.2', loose, strong solvent odor & staining		_
_4		16.5		(GW)		_4
		425.0	2.6 - 3.9	Olive Gray (5Y 5/2) very fine SAND, some silt, little clay, slight reddish brown		
_5		648.0	5.0 - 7.2	& gray mottling, firm, moist, slight solvent odor (SM) Olive Clayey SILT, trace fine sand & shells, low palsticity, moist, soft,	063_C011_5.0 (5.0' - 5.5')	_5
_ 6		238.0	5.0 - 7.2	strong solvent odor (CL)	(5.0 - 5.5)	_6
		99.3		Guong 65176111 6451 (62)		
_7		32.2				_7
-	<u>3.5</u>	37.1	7.2 - 8.5	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray (5Y 3/1)	063_C011_6.7 (6.7' - 7.2')	
_8	4.0	5.3		clay, low plasticity, soft, moist-wet, strong sulfurous odor odor (PT)	Fill/native soil interface at 7.2'	_8
_ 9		4.0 2.0				_9
_9		2.0				_9
10						10
		0.4	10.0 - 10.3	As Above (7.2' - 8.5') (PT)		1_
_11		0.4	10.3 - 13.5	Brown (10YR 4/3) Silty CLAY, little/trace fine sand, trace coarse-fine dark	063_C011_10.5 (10.5' - 11.0')	_11
		0.4		red subround siltstone gravel, very soft, no odor (CL), Transitions to Olive		
_12	2.5	0.4 0.4		Brown (2.5Y 4/3) Silty coarse-fine SAND, some fine gray angular gravel, little coarse-medium angular gravel & cobbles, medium-dense, wet,	PID bkgd: 0.4 ppm	_12
_ _13	<u>3.5</u> 4.0	0.4		no odor (SW)	PID bkga. 0.4 ppm	13
	1.0	0.4		110 0001 (011)		I,
_ _14						_14
_						_
_15			450 400	D ((0)(D) = T(0)(D)(0)		_15
_ 16		0.4 0.4	15.0 - 18.3	Brown (10YR to 7.5YR 4/3) coarse angular to subround GRAVEL &	063_C011_15.0 (15.0' - 15.5')	16
_10		0.4		COBBLES, little dark red-gray gravel & coarse-medium sand, trace fine sand & silt, loose, wet, no odor (GW)		-10
_ _17		0.4		Sand a Sin, 18888, 118, 118 Sast (STT)		_17
	3.3	0.4			PID bkgd: 0.4 ppm	
_18	4.0	0.4				_18
		0.4				
_19						_19
_ _20						20
		0.4	20.0 - 24.2	As Above (15' - 18.3'), Transitions to Brown (7.5YR 4/3) Silty medium-fine		1
_ _21		0.4		SAND, some medium-fine angular gravel, trace coarse gravel & cobbles,		_21
_		0.4		medium-dense, moist-wet, no odor (SM)		-
_22		0.4			PID bkgd: 0.4 ppm	_22
_	4.2	0.4				-
_23	4.0	0.4 0.4				_23
_ 24		0.4				- 24
_25						_25

77-	TE	TRATE	RATECH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_C011
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	LETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/25/2011	35			PID MiniRAE 20	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	7
5' Sleeves, 1.25"		~ 2.2'				No	
мемо: Boring for 0	deep ge	eological exp	loration				

DEPTH (Fact)	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet) _ _26	(.501)	0.4 0.4	25.0 - 26.7 Brown (7.5YR 4/3) Silty medium-fine SAND, some gravel, medium-dense, moist-wet, no odor (SM), Transitions to Reddish Brown (5YR 5/4 to 2.5YR 4/3)	SAMPLE SUMMARY	 _ _26
_20 _ _27		0.4 0.4	SILT, some fine sand, little reddish brown medium-fine angular gravel &		_20 _ _27
_	3.3 4.0	0.4	reddish-brown gravely clay (weathered siltstone), stiff, dry-moist, no odor (ML)	PID bkgd: 0.4 ppm	_
_28	4.0	0.4			_28
_29 _					_29 _
_30		0.4	30.0 - 34.6 Reddish Brown (2.5YR 4/3) SILT, little fine sand & medium-fine angular		_30
_31		0.4 0.4	siltstone gravel, some dusky red (2.5YR 3/2) medium-fine sand 30' - 30.8', some reddish brown (5YR 4/3) medium-fine sand 33' - 33.3', very stiff, dry,		_31
_32	<u>4.6</u>	0.4 0.4	no odor (ML)	PID bkgd: 0.4 ppm	_32
33	4.0	0.4 0.4		I 10 bkgd. 0.4 ppm	_33
_ _34		0.4			34
_ _35		0.4			_ _35
_ _36			End of Boring at 35' bgs. (Refusal)		_ _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

_	2012 20111 (0 200									
)				PROJECT NO.:		Boring No:			
TETRA TECH GEO					117-0509160.02		063_C012			
TC .			PROJECT NAME: PPG Site 063		LOCATION SKETCH					
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:					GEOLOGIST / OFFICE:	1				
7/28/2011	20			PID MiniRAE 2000		Jim M. / Whitehouse Station				
DRILLING CONTRACTOR	R / DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:						
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push					
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?				
5' Sleeves, 1.25" ~ 2.0'					No					
MEMO:		•	•]					
l										

DEPTH	RECOVERY	OVM		DUDUE/ATER QUATER CON PERCONDITION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.8	Brown (7.5YR 4/2) medium-fine SAND, little subangular coarse gravel, loose,	063_C012_0.0 (0.0' - 0.5')	
_1		0.0	0.8 - 1.4	dry, no odor (SW) Light Yellowish Brown (2.5Y 6/3) grading to Dark Grayish Brown (2.5Y 4/2)		_1
_ _2		0.0	0.6 - 1.4	medium SAND, little fine sand, trace coarse sand, loose, moist, no odor (SP)		_2
	3.4	0.0	1.4 - 3.4	Black (2.5Y 2.5/1) medium-fine SAND & coarse-fine subround slag GRAVEL,		_
_ _3	5.0	0.0		little coal, silt & fine sand 2.9' - 3.4', moist, wet at 2', no odor (SW)		_3
_		0.0				_
_4						_4
_ 5						_ 5
_5		0.0	5.0 - 6.1	Dark Gray (10YR 4/1) SILT, little fine sand & fine subround gray gravel, stiff,		-1-3
_ _6		0.0	0.0 0	moist-wet, no odor (ML)		_6
		0.0	6.1 - 6.6	Reddish Brown (5YR 4/3) SILT, little fine sand & coarse-fine gray angular		
_7		0.0		gravel & coarse-medium red sandstone gravel, stiff, moist, no odor (ML)	063_C012_6.4 (6.4' - 6.9')	_7
_	<u>1.9</u>		6.6 - 6.9	Olive Gray (5Y 4/2) SILT, some clay, little fine sand, soft, low plasticity,		_
_8	5.0			slight sulfurous odor (ML)		_8
_ 9						_9
_5						
_ _10						_10
_		1.1	10.0 - 11.9	Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray (5Y 3/1)		_
_11		0.5		clay, low plasticity, soft, moist-wet, strong sulfurous odor odor (PT)	063_C012_10.5 (10.5' - 11.0')	_1
_		0.3	11 0 12 1	Reddish Gray (5YR 5/2) Clayey fine SAND, some silt & coarse-fine		-,,
_12	2.2	0.0	11.9 - 12.1	subround red sandstone gravel, firm, moist-wet, slight sulfurous odor (SC)		_12
_ _13	5.0			Subfound fed Sandstone graver, mm, moist-wet, slight Sundfous Odor (50)		_13
_14						_14
- <u>, -</u>						
_15		0.0	450 457	Dark Craviah Braum (40VB 4/2) access fine subsequilar CBAVEL 9 CORDI EC		_15
_ 16		0.0	15.0 - 15.7	Dark Grayish Brown (10YR 4/2) coarse-fine subangular GRAVEL & COBBLES, some fine sand & silt, medium-dense, wet, no odor, abundant coarse gray	1	16
_10		0.0		gravel & cobbles 15.5' - 15.7' (GM)	063_C012_15.8 (15.8' - 16.3')	
_ _17			15.7 - 16.3	Light Brown (7.5YR 6/3) SILT, little clay & fine sand, little medium-fine gray	(**************************************	_17
_	<u>1.3</u>			subround/subangular gravel, firm, moist, no odor (ML)		
_18	5.0					_18
-						
_19						_19
_ _20						- 20
			End of Bor	ing at 20' bgs.		1
_21						_2′
_						_
_22						_22
_23						_23
_ 24						- 24
_ _25						_25



DEPTH	RECOVERY	OVM		FIELD NOTES &	
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY _0)
-		0.0	0.0 - 0.2 coarse angular gray gravel (GP)	063_D003_0.0 (0.0' - 0.5')	
_1		0.0	0.2 - 1.4 Brown (7.5YR 4/2) medium-fine SAND, little silt, trace medium	m-fine angular1	
_2		1.1 0.3	gray gravel, medium-dense, dry, no odor (SM) 1.4 - 1.7 Black (2.5Y 2.5/1) medium-fine SAND & medium-fine slag (GRAVEL, dry,	,
	4.1	0.8	loose, no odor (GW)		•
_3	5.0		1.7 - 4.1 Brown (10YR 4/2) SILT, some fine sand, soft, moist, no odd	r (ML) _3	}
_ _4				063_D003_3.8 (3.8' - 4.2')4	ł
_ _5					ŝ
_		0.0 0.3	5.0 - 5.5 Brown (7.5YR 4/3) SILT, some fine sand & coarse-fine angu		
_6		0.3	Reddish Brown (2.5YR 4/4) gravel 5.1' - 5.4', moist-wet, firm sulfurous odor odor (ML)	, slight6	,
_7		0.5	5.5 - 6.4 Dark Brown (7.5YR 4/1) coarse-medium SAND, some silt, k	oose, wet, slight 063_D003_6.7 (6.7' - 7.2')7	,
_ 8	<u>2.2</u> 5.0		sulfurous odor (SM) 6.4 - 7.2 Brown (7.5YR 4/3) fine SAND, some silt, medium sand, & m	edium-fine8	,
_0	5.0		subangular gray to red brown gravel, medium-dense, moist,		,
_9			J	_9)
_ _10					0
-		30.8	10.0 - 11.2 Greenish Gray (GLEY2 5/5BG) Clayey SILT, little fine sand,		
_11		210.0 16.5	soft, moist, strong hydrocarbon odor (ML) 11.2 - 13.4 Brown (7.5YR 4/2) SILT, some fine sand, little subangular g	_1	1
_ _12		5.7	cobblew 11.6' 0 11.8', stiff, moist, slight hydrocarbon odor (I	-	2
_	<u>3.4</u>	1.1			
_13	5.0	0.5 0.5			3
_ _14		0.0		10.00 10.0 10.0 10.0 10.0 10.0 10.0 10.	4
_ _15					15
10		0.0	15.0 - 18.3 Brown (7.5YR 5/2 coarse-medium SAND & fine subangula		J
_16		0.0	silt, trace fine sand, wet, loose, no odor (GW), Transitions to		6
- 17		0.0	(2.5YR 4/3) SILT, little fine sand, trace medium sand & med subangular gravel, stiff, moist, no odor (ML), coarse-fine sa	3 , I	17
-17	3.3	0.0	gravel in bottom of sleeve	063 D003 17.0 (17.0' - 17.5')	′
_18	5.0	0.0	9.4		8
_ _19					۱۵
_ 13					J
_20			End of Boring at 20' bgs.		20
_ _21			End of Borning at 20 bys.		21
_ 22			Well Information: 2-inch diameter 10-slot SCH40 PVC screen set at 2.0' - 7.0.0' bgs.		2
_			2-inch diameter SCH40 PVC riser from 2.0' bgs. to 0' bgs.		
_23			#1 Sand from 1.0' to 2.0' bgs., Grout from 1.0' to surface Flush mount completion with cement protective pad	_2	:3
_ _24			idan modific completion with centent protective pad		24
_ _25					25

					,		
772	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_D004
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	ON DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/25/2011	32			PID MiniRAE 2000 J		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Rig Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.0'			No				
мемо: Boring for	MEMO: Boring for deep geological exploration						
Refusal at 18' 1st	attempt.	refusal at 3	2' second attemp	t. 2nd boring att	emp logged 8	k sampled	

DEPTH	RECOVERY	OVM			FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		0.2	0.0 - 0.5	Brown (10YR 5/3) medium-fine SAND & dark gray asphalt gravel, loose,	063_D004_0.0 (0.0' - 0.5')]_
_1		0.5		dry, no odor (SW)	063_D004_0.5 (0.5' - 1.0')	_1
_		0.8	0.5 - 1.0	Black (2.5Y 2.5/1) coarse-fine SAND, trace slag gravel & coal,	063_D004_1.0_(1.0' - 1.5')	
_2	2.4	0.5	10 10	dry, loose, no odor (SW)	Trace COPR 0.5' -1.0'	_2
_ _3	3.4 5.0	2.8 3.0	1.0 - 1.2 1.2 - 2.0	Light Gray (10YR 7/2) medium SAND, trace fine sand, loose, moist (SP) Black (2.5Y 2.5/1) coarse-fine SAND & fine-medium slag GRAVEL, little silt,		_3
_3	5.0	1.2	1.2 - 2.0	medium-dense, moist-wet at 2', slight hydrocarbon odor (GW)		_3
4		1.2	2.0 - 3.4	Black (2.5Y 2.5/1) SILT, some fien sand, trace fine angular gravel, firm,		4
			2.0 0.1	moist-wet, slight solvent odor (ML), Transitions to Brown (7.5YR 4/4) SILT,		Ι.
_5				some fine sand, soft, moist-wet, slight hydrocarbonodor (ML)		_5
_		2.0	5.0 - 7.2	Dark Gray (10YR 4/1) SILT, some fine sand, little clay, trace fine gravel &	063_D004_5.0 (5.0' - 5.5')	L
_6		7.4		shells, soft grading to firm, moist-wet, strong hydrocarbon odor & staining	_	_6
_		9.0		5.7' - 5.9' (ML), Transitions to Olive (5Y 5/3) Clayey SILT, little fine sand &		_
_7		0.7		coarse-fine subround gravel, soft, moist, slight hydrocarbon odor (ML)	063_D004_6.7 (6.7' - 7.2')	_7
_	3.8 5.0	10.4	7.2 - 8.8	Brown (7.5YR 4/3) Silty medium-fine SAND, some coarse-fine gray	Fill/native soil interface at 7.2	- 8
_8	5.0	21.9 3.8		angular gravel, trace cobbles, greenish-gray shale fragments & clay 8.2' - 8.5', dense, moist, slight hydrocarbon odor (SM)	no meadow mat	_8
_ 9		3.0		6.5, dense, moist, siight hydrocarbon odor (GW)	no meadow mat	_ _9
_5						-"
_ _10						_10
_		2.7	10.0 -13.2	Brown (7.5YR 4/3) SILT, some fine sand, little fine angular gray to greenish	063_D004_10.5 (10.5' - 11.0')	1_
_11		6.7		gray gravel throughout, trace strong brown (7.5YR 5/6) medium-fine round		_11
_		1460.0		sandstone gravel 10'-11', greenish-gray coarse-fine sand & fine gravel at 10.5',		_
_12		50.9		Silty fine sand 10.5' - 12', some dark greenish gray coarse siltstone gravel		_12
_	3.2 5.0	8.7		12.5' - 13.2', white medium sand & sandstone cobbles 12.1' - 12.3',		-42
_13	5.0	1.0		moist-wet & stiff throughout, stron hydrocarbon odor (ML)		_13
_ _14						- 14
						-'-'
_ _15						_15
_		0.8	15.0 - 19.0	Brown (10YR 5/3) Silty medium-fine SAND, some coarse sand & medium-	063_D004_15.0 (15.0' - 15.5)	L
_16		0.1		fine angular gravel, loose grading to medium-dense, wet, slight hydrocarbon		_16
_		0.2		odor 15' - 16' (SM)		-
_17		0.2			515	_17
- 10	<u>5.0</u> 5.0	0.2			PID background:	-40
_18	5.0	0.2 0.2			0.2 ppm	_18
_ _19		0.2	19.0 - 20.0	Brown (7.5YR 5/4) SILT, some fine sand, little medium-fine angular dark		_ _19
		0.2		gray gravel, very dense, moist, no odor (ML)		-"
_20		0.2		5 , 5 , . ,		_20
_		0.0	20.0 - 23.0	Brown (7.5YR 5/4) Silty medium-fine SAND, some medium-fine gray angular		1_
_21		0.0		gravel, moist-wet, loose, no odor (SM), Transitions to SILT, some fine sand,		_21
		0.0		moist, very dense, little gravel, no odor (ML)		-
_22		0.0				_22
-	<u>3.0</u>	0.0				
_23	5.0	0.0				_23
_ 24						- 24
						-24
25						25
_ _25]-

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_D004
10			PROJECT NAME: PPG Site 063		LOCATION SKETCH		
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/25/2011	32			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 2.0'		No					
МЕМО:							

DEPTH	RECOVERY (feet)	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(reet)	(PPM) 0.0	25.0 - 28.4 Brown (7.5YR 5/4) Silty medium-fine SAND, little medium-fine gray angular	SAMPLE SUMMARY	
_26		0.0	gravel, medium-dense, wet, no odor (SM), Transitions to SILT, little fine sand, little coarse-fine gy angular gravel & cobbles, stiff, moist, no odor (ML)		_26
_ _27		0.0	inde course line gy drigdid graver a cobsice, still, most, no oder (ME)		_ _27
_ _28	<u>3.4</u> 5.0	0.0			_ _28
_ _29		0.0			_ _29
_ _30					_ _30
_ _31	1 4	0.0	20.0 - 31.4 Brown (7.5YR 4/4) fine to very fine SAND, trace silt, loose, wet, no odor (SM), Transitions to Brown (7.5YR 4/2) coarse-medium SAND, trace fine sand & silt,		
_32	1.4 2.0	0.0	trace fine subround gravel, loose, wet, no odor (SW)		32
_ <u></u>					
_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
_ _50					50

TETRA TECH GEO					PROJECT NO.: 117-0509160.02		Boring No: 063_D005
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE:	DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/14/2011	20			PID MiniRAE 2000		Jim M / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Ray Smith			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.3'		No					
МЕМО:							

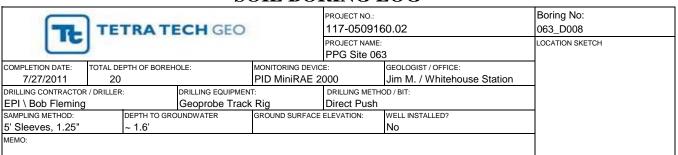
DEPTH	RECOVERY	OVM	DUDMEICTED CYCTEM COIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
		0.0	0.0 - 0.9 Grayish Brown (10YR 5/2) medium-fine SAND, trace silt & coarse-fine	063_D005_0.0 (0.0' - 0.5')	
_1		77.7 1.2	Dark Gray (10YR 4/1) angular gravel, dry, loose, no odor (SP) 0.9 - 1.3 Gray (GLEY1 6/N) coarse-medium SAND & GRAVEL (concrete) (GP)	063_D005_0.8 (0.8' - 1.3')	_1
_2			1.3 - 1.6 Black (10YR 2/1) coarse-medium SAND, some slag,	063 D005 1.3 (1.3' - 1.8')	_2
	2.8	19.0	medium-dense, moist-wet, strong solvent odor, (SW)	063_D005_1.8 (1.8' - 2.3')	
_3	4.0		1.6 - 2.8 Brown (7.5YR 4/3) SILT, little fine sand & coarse-fine gray angular gravel	50% COPR noted 1.4' - 1.7'	_3
			(ML), Transitions into Brown (7.5YR 4/3) fine SAND & SILT, firm, moist,		
_4			slight solvent odor (ML)		_4
_ _5					_ _5
_			5.0 - 6.5 Dark Grayish Brown (2.5Y 4/2) Clayey fine SAND, little silt, treated wood		_
_6		243.0	fragments with creosote odor at 5.8', medium-stiff, moist-wet, strong solvent		_6
7		364.0	odor (SC) 6.5 - 6.9 Black (10YR 2/1) CLAY, some fine sand, little silt, soft, moist, strong solvent	063_D005_6.0 (6.0' - 6.5') (fill/native soil interface)	_ _7
-'	3.0	596.0	odor, low to moderate plasticity (OL)	(Illi/Ilative soli litteriace)	-'
_8	5.0		6.9 - 7.3 Greenish Gray (GLEY2 5/5BG) Clayey fine SAND, little silt, soft, moist-wet,		_8_
-,			strong solvent odor (SC)		
_9			7.3 - 8.0 Reddish Brown (5YR 5/3) SILT, little fine sand & fine-medium gray angular gravel, trace clay, trace Olive (5Y 5/6) gravel (sandstone fragments), stiff,		_9
10			moist-wet, slight hydrocarbon (ML)		10
		42.2	10.0 - 13.0 As Above (7.3' - 8.0'), Transitions into Brown (10YR 4/3) SILT & fine SAND,	063_D005_10.0 (10.0' - 10.5')	
_11		1487.0	some Olive (5Y 5/4) & Reddish Brown (5YR 4/4) subround sandstone gravel	,	_11
-		1278.0	and Dark Gray (GLEY1 4/N) angular gravel, trace clay, stiff, dry-moist,		
_12	3.0	466.0 564.0	strong hydrocarbon odor, gray petroleum staining in bottom of sleeve (ML)		_12
_ 13	5.0 5.0	58.3			- 13
_					
_14					_14
_ _15					_ _15
_13		176.0	15.0 - 15.9 Dark Gray (7.5 YR 4/1) coarse-fine SAND & coarse-fine angular to subround	063_D005_15.0 (15.0' - 15.5')	-13
_16		1008.0	gravel (Olive 5Y 5/4, Reddish Brown 5YR 4/4, & Dark Gray GLEY1 4/N),	(****	_ _16
_		29.4	very dense, moist, slight hydrocarbon odor (GW)		_
_17	2.5	2.1	15.9 - 18.5 Brown (10YR 5/3) fine SAND & SILT, little medium-fine dark gray angular		_17
_ _18	<u>3.5</u> 5.0	1.0 2.8	gravel, stiff, dry, no odor (ML)		_ _18
	0.0	0.5			
_19					_19
_20			End of Boring at 20' bgs.		_20
_ _21			End of Borning at 20 bys.		_ _21
_					_
_22					_22
_ _23					23
_23					_23
_24					_24
					_
_25					_25

TETRA TECH GEO					PROJECT NO.: 117-0509160.02 PROJECT NAME: PPG Site 063		Boring No: 063_D006 / 063_MW06
				LOCATION SKETCH			
COMPLETION DATE:	LETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/12/2011	17			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Ray Smith			Geoprobe Track	Rig Direct Push			
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25" ~ 1.6'				Yes - 063_MW06			
мемо: Hand-dug	2'x2' ho	ole to 1.0' to r	remove liner.				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
1			 0.0 - 0.5 QP Stone (coarse subangular gravel & cobbles) (GP) 0.5 - 1.0 Olive Gray (5Y 4/2) fine SAND, little m. sand, loose, moist-wet, no odor (SP) 		1
_		0.0	1.0 - 1.6 As Above (0.5' - 1.0'), slight solvent odor (SP)	063_D006_1.0 (1.0' - 1.5')	1
_2	2.4	4.4	1.6 - 2.5 Black (2.5Y 2.5/1) medium-fine SAND & medium-fine slag GRAVEL,		_2
_ 3	3.4 4.0	0.0	loose, moist-wet, slight solvent odor (GW) 2.5 - 4.4 Reddish Brown (5YR 4/4) SILT, little fine sand, trace medium-fine subangular		_ _3
	1.0	0.0	gravel, trace clay, moist, firm, no odor (ML), Transitions to Olive Gray		_
_4		0.0	(5Y 5/2) Silty CLAY, little fine sand, trace subangular coarse-fine gravel,		_4
_ _5		0.0	soft, moist, no odor (CL)		_ _5
		0.0	5.0 - 6.8 Olive Gray (5Y 5/2) Silty CLAY, little fine sand, trace subangular coarse-	063_D006_5.0 (5.0' - 5.5')	
_6		0.0	fine gravel, soft, moist-wet, no odor (CL)		_6
_ 7		0.0	7.0- 7.9 Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	063_D006_6.5 (6.5' - 7.0')	_ _7
_'	3.0	0.0	(2.5Y 3/1) CLAY, low plasticity, soft, moist-wet, abundant plant fibers,	(0.3 - 7.0)	′
_8	5.0	0.0	slight sulfurous odor (PT)	Fill/native soil interface	_8
_ 9			7.9 - 8.1 Brown (10YR 5/3) fine SAND, loose, moist-wet, no odor (SP)	at 7'	_ _9
_3					_3
_10					_10
_ _11		0.0	10.0 - 12.5 As Above (7.9' - 8.1'), Transitions to Reddish Brown (2.5YR 4/3) SILT, little subround-subangular coarse-fine gravel, white cobbles at 11.8', dry,	063_D006_10.0 (10.0' - 10.5')	_ _11
		0.0	very stiff, no odor (ML)		-''
_12		0.0			_12
_ 13	<u>2.5</u> 5.0	0.0			- 13
_13	3.0				_13
_14					_14
_ _15					_ _15
_13		1800.0	15.0 - 17.0 Brown (10YR 4/3) Silty medium-fine SAND, trace clay & medium-fine	063_D006_15.0 (15.0' - 15.5')	-13
_16	2.0	1500.0	subround-aubangular gravel, strong hydrocarbon odor (SM)	, ,	_16
- 17	2.0	850.0 1371.0			- 17
		137 1.0	End of Boring at 17' bgs. (Refusal)		''
_18					_18
_ _19			Well Information:		_ _19
_ ' 3			2-inch diameter 10-slot SCH40 PVC screen set at 2.0' - 7.0' bgs.		
_20			2-inch diameter SCH40 PVC riser from 2.0' bgs. to 2.57' above grade		_20
_ 21			#1 Sand from 1.5' to 7.0' bgs., Grout from 1.0' to 1.5' 2' x 2' section of PVC liner placed on top of HDPE liner		_ 21
			Cemented-in 2' x 2' hole for well pad from 1.0' bgs to surface		
_22			Stick-up completion		_22
_ _23					_ _23
_23					_23
_24					_24
-					_ 25
_25					_25

_	5012 20111 (
) TE	TDATE	CHICEO		PROJECT NO.: 117-050916	30.02	Boring No: 063 D007			
TETRA TECH GEO					117 0303100.02		_			
				PROJECT NAME:		LOCATION SKETCH				
	,				PPG Site 063	3				
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:				
7/27/2011	20			PID MiniRAE 2000 Jin		Jim M. / Whitehouse Station				
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:						
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push					
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?				
5' Sleeves, 1.25"		~ 1.5'				No				
MEMO:										

1	DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
1078.0	(Feet)	(feet)					_0
10.8 0.7 - 1.0 Green (GLEY2 & 10G) coarse-fine GRAVEL, loose, dry, no odor (GW) 2.8 10.19 Black (2.5Y £5/11) medium sand, trace fine slag gravel, loose, well at 1.5 strong subvent odor (SP), Transitions to fine SAND & coarse-fine subround slag GRAVEL, some slit & coal, loose, well at 1.5 strong subvent odor (GW) 5.8 strong subvent odor (GW) 5.9 Section (GW) 5	_			0.0 - 0.7	, ,	063_D007_0.0 (0.0' - 0.5')	
2	-'			0.7 - 1.0			-'
3.6 1.9	_2						_2
1.6	_	<u>3.6</u>	1.9		loose, moist-wet, strong solvent odor (SP), Transitions to fine SAND &		_
1,9 - 3.6 Olive Gray (67 5/2) Silty CLAY, soft, moist, moderate plasticity, slight sulfurous odor (CH) 1,7 mastinos to Brown (7,5 YR 3/3) Silty CLAY, firm, moist, trace shells, moderate plasticity, slight sulfurous odor (CH) 5 5 5 5 5 5 5 5 5	_3	5.0					_3
Social Content of the Content of t			1.6		` ,		
Section	_4						_4
0.0	_ _5						_ _5
2.8	_		0.0	5.0 - 6.2	Olive Gray (5Y 4/2) CLAY, little silt, trace shells, wood fragments at 6.2',		1_
2.8	_6				, , , , , , , , , , , , , , , , , , , ,	`	_6
8 2.8 5.0 7.2 - 7.8 Pinkish Gray (7.5YR 6/2) Clayey fine SAND, little silt, medium-dense, moist, slight sulfurous odor (SC) 8 9 10 0.0 10.0 - 12.6 Reddish Gray (5YR 5/2) Silty medium-fine SAND, trace subround medium-fine sandstone gravel, dense, moist-wet, no odor (SM), Transitions to Light Reddish Brown (5YR 6/3) SILT, some very find sand, stiff, moist, no odor (ML) 0.0 0.0 11 12 <td></td> <td></td> <td></td> <td>6.2 - 7.2</td> <td></td> <td> Fill/native soil interface at 6.2'</td> <td></td>				6.2 - 7.2		Fill/native soil interface at 6.2'	
8 5.0 moist, slight sulfurous odor (SC)	-1	2.8		7.2 - 7.8	• ,		
10	_8		0.0				_8
10	_				•		_
11	_9						_9
11	-						-10
	_10		0.0	10.0 - 12.6	Reddish Grav (5YR 5/2) Silty medium-fine SAND, trace subround medium-	063 D007 10.0 (10.0' - 10.5')	-10
	11					(1010 1011)	_11
	_				Light Reddish Brown (5YR 6/3) SILT, some very find sand, stiff, moist,		_
	_12	0.0			no odor (ML)		_12
	- 13		0.0				- 12
	_13	3.0					_13
	_ _14						_14
	_						_
	_15		0.0	45.0.40.4	Davier (7.5)/D.5/0) OHT Parts for a second 0 and diversity for a second	000 0007 45 0 (45 0) 45 50	_15
0.0	- 16			15.0 - 19.4		063_D007_15.0 (15.0 - 15.5)	16
	_10				0 0 , ()		-10
	_ _17		0.0				_17
	_18	5.0					_18
	_ 19						- 19
21 21 22 22 23 23 24 24	_20						_20
	-			End of Bori	ing at 20' bgs.		
	_21						_21
	_ 22						
	_23						_23
	-						
	_24						_24
	_ 25						_ 25



	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	0.0 - 0.6		SAMPLE SUMMARY	_0
_ _1		0.0	0.0 - 0.6	Light Olive Brown (2.5YR 5/3) fine SAND, little medium sand & medium-fine angular gravel, trace silt, loose, dry, no odor (SP)	063_D008_0.0 (0.0' - 0.5')	_ _1
		0.0	0.6 - 2.0	Black (2.5Y 2.5/1) medium-fine SAND (slag, coal, & ash), little coarse		
_2		0.0		subround slag gravel, some medium-fine subround slag gravel 1.7' - 2', loose,		_2
_ 3	<u>3.6</u> 5.0	0.0	2.0 - 2.3	moist, wet at 1.6', no odor (SW/SP) Reddish Brown (5YR 4/3) SILT, some very fine sand, little round gray gravel		_ 3
_3	5.0	0.0	2.0 - 2.3	& subround fine red sandstone gravel, soft, moist-wet, no odor (ML)		_3
_ _4		0.0	2.3 - 3.6	Olive Gray (5Y 5/2) Silty CLAY, trace shells, soft, moderate palsticity,		_4
_				moist-wet, slight sulfurous odor (CH or OH)		_
_5		0.0	5.0 - 5.5	Very Dark Gray (10YR 3/1) CLAY, little silt, moderate plasticity, trace	063 D008 5.0 (5.0' - 5.5')	_5
_ _6		0.0	3.0 - 3.3	shells, soft, moist, slight sulfurous odor (OH)	(native soil?)	_ _6
_		0.0	5.5 - 6.8	Olive Gray (5Y 5/2) Clayey SILT, soft, moist, low palsticity, slight sulfurous	,	_
_7		0.0		odor (ML), Transitions to Clayey SILT, little very fine sand, soft, moist (ML)		_7
_ 8	<u>3.0</u> 5.0	0.0	6.8 - 8.0	Reddish Gray (5YR 5/2) to Brown (7.5YR 5/2) Silty fine SAND, little medium sand & coarse-fine red (2.5YR 4/6) sandstone gravel, moist, dense, no odor		_ _8
_0	5.0	0.0		(SM)		_0
_9				\-\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		_9
_						_
_10		0.0	10.0 - 10.4	As Above (6.8' - 8')	063 D008 10.0 (10.0' - 10.5')	_10
_ _11		0.0		Yellowish Brown (10YR 5/4) grading to Light Brown (7.5YR 6/3)	(10.0 - 10.5)	_11
_		0.0		medium-fine SAND, some silt, coarse sand, & fine subround/subangular		_
_12	0.0	0.0	40.0 40.0	gray & red siltstone gravel, moist-wet, dense, no odor (SM)		_12
_ 13	<u>2.9</u> 5.0	0.0	12.3 - 12.9	Dark Grayish Brown (2.5Y 4/2) coarse angular GRAVEL & COBBLES, some shale, trace silt & fine sand (Light Brownish Gray, 2.5Y 5/2), loose, wet,		- 13
	0.0	0.0		no odor (GP)		
_14						_14
_ _15						_ _15
_13		0.0	15.0 - 15.2	As Above (12.3' - 12.9'), coarse-medium SAND & medium-fine angular	063_D008_15.0 (10.5' - 15.5')	-13
_ _16		0.0		GRAVEL, medium-dense, wet, no odor (SW)	(**************************************	_ _16
		0.0	15.2 - 18.3	Brown (7.5YR 5/4) SILT, little fine-medium sand, some medium-fine gray		
_17	<u>3.3</u>	0.0		angular gravel, trace red-gray siltstone gravel, stiff, moist, no odor (ML), Transitions to Yellowish Brown (10YR 5/4) SILT, little fine sand & clay, little		_17
_ _18	5.0	0.0		medium-coarse subangular gray to red-gray gravel, stiff, moist, no odor (ML)		_ _18
_						
_19						_19
_ _20						
			End of Bori	ing at 20' bgs.		1
_21						_21
_ 22						
						_23
_24						_24
_ 25						_ 25

			~		,	-00	
72	TE	TRATE	RA TECH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_D009 / 063_MW07
	J				PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/12/2011	20			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER	₹:	DRILLING EQUIPMEN	T:	DRILLING METH		
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 1.5'				Yes - 063_MW07			
MEMO:							
*Hand-du	g 2'x2' h	ole to 1.5' to	remove liner.				

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)	0.0 - 0.5 QP Stone (coarse subangular gravel & cobbles) (GP)	SAMPLE SUMMARY	_0
_ _1			0.5 - 1.5 Olive Gray (5Y 4/2) medium-fine SAND, loose, moist, no odor (SP)		_1
_2		0.0	1.5 - 2.5 Black (2.5Y 2.5/1) coarse-fine slag SAND & fine subround slag GRAVEL, loose, moist-wet, no odor (SW)	063_D009_1.5 (1.5' - 2.0')	_2
_3	2.7 3.5*	0.0	2.5 - 4.2 Olive Gray (5Y 5/2) Silty CLAY, little fine sand & subangular coarse- fine gravel, soft, moist, no odor (CL/OL)		_3
_4		0.0			_4
_5		0.0		000 0000 5 0 (5 0) 5 5)	_5
_ _6		0.0	5.0 - 5.7 As Above (2.5' - 4.2'), no gravel, trace fine sand, soft, moist, no odor (CH) 5.7 - 6.5 Very Dark Grayish Brown (10YR 3/2) organic SILT, some fine sand, little	063_D009_5.0 (5.0' - 5.5') Fill/native soil itnerface at	_ _6
_ _7	<u>2.7</u>	0.0 0.0 0.0	clay, low plasticity, moist, soft, slight sulfurous odor (ML) 6.5 - 7.7 Brown (7.5YR 4/2) SILT, little fine sand & clay, little coarse-fine subround- subangular gravel, firm, moist, no odor (ML)	5.7'	_ _7
_8	5.0	0.0	Subangular graver, mm, moist, no odor (ML)		_8
_ _9					_9
_ _10					_10
_ _11		0.0	10.0 - 12.0 Yellowish Brown (10YR 5/6) grading to Yellowish Red(5YR 5/6) Silty medium-to fine SAND, little clay, wet, medium-dense, no odor (SM)	063_D009_10.0 (10.0' - 10.5')	_ _11
_ _12	2.7	0.0	42.0. 42.7 Prove (40VD 5/2) CHT little fire cond 2 coarse fire subscribe subscribe		_ _12
_ _13	<u>3.7</u> 5.0	0.0 0.0 0.0	12.0 - 13.7 Brown (10YR 5/3) SILT, little fine sand & coarse-fine subangular-subround gravel, stiff, moist, no odor (ML)	063_D009_13.2 (13.2' - 13.7')	_ _13
_ _14		0.0		063_0009_13.2](13.2 - 13.7)	_ _14
_ _15					_ _15
_ _16		0.0	15.0 - 18.6 As Above (12' - 13.7'), some medium-fine sand & coarse-fine gravel 16.8' - 17.4' (wet), otehrwise moist, stiff, no odor 9ML)		_ _16
_ _17	0.0	0.0			_ _17
_ _18	<u>3.6</u> 5.0	0.0 0.0 0.0			_ _18
_ _19		0.0			_19
_ _20					_20
_ _21			End of Boring at 20' bgs.		_ _21
_ _22			Well Information: 2-inch diameter 10-slot SCH40 PVC screen set at 5.0' - 10.0' bgs.		_ _22
_ _23			2-inch diameter SCH40 PVC riser from 5.0' bgs. to 2.5' above grade #1 Sand from 3.0' to 10.0' bgs., Grout from 1.0' to 3.0'		23
_ _24			2' x 2' section of PVC liner placed on top of HDPE liner Cemented-in 2' x 2' hole for well pad from 1.0' bgs to surface		_ _24
_ _25			Stick-up completion		_ _25

_							
772	TRATE	CH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_D010	
				PROJECT NAME: PPG Site 063		LOCATION SKETCH	
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GE		GEOLOGIST / OFFICE:		
7/26/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T:	DRILLING METHO		
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 2.0'				No	
МЕМО:							

DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	
(Feet)	(feet)	(PPM)			SAMPLE SUMMARY	_0
1		0.0 1.2	0.0- 1.2	Grayish Brown (10YR 5/2) fine SAND, little medium sand & coarse-fine subangular gravel, dry, loose, no odor (SP)	063_D010_0.0 (0.0' - 0.5') 063_D010_0.5 (0.5' - 1.0')	_1
-'		3.5	1.2 - 1.8	Very Dark Gray (10YR 3/1) medium-fine SAND, little silt & medium-coarse	Trace COPR 0.2' - 0.5'	-'
_2		0.0	1.2 1.0	gray angular gravel (SM)	11400 001 11 0.2	_2
_	<u>3.7</u>	0.0	1.8 - 3.3	Black (10YR 2.5/1) medium-fine SAND, little fine subround slag gravel,		_
_3	5.0	0.0		Grayish-Brown Silt 2.3' - 2.7', loose, moist, wet 2' - 3.3' (SW/SP)		_3
4		0.0	3.3 - 3.7	Olive Gray (5Y 5/2) SILT, some very fine sand, some reddish-brown to		- 4
_4				gray mottling, stiff, moist, no odor (ML)		_4
_ _5						_5
_		0.0	5.0 - 5.6	Olive Gray (5Y 5/2) SILT, little fine sand & clay, firm, moist, no odor (ML)	063_D010_5.1 (5.1' - 5.6')	_
_6		6.8	5.6 - 6.4	Very Dark Gray (10YR 3/1) Clayey organic SILT, soft, moist, strong	Fill/native soil interface at 5.6'	_6
- 7		109.0 51.0	6.4 - 8.8	sulfurous odor (ML) Grayish Brown (2.5YR 5/2) Clavey fine SAND, little silt, soft, moist-wet,		_ _7
-'	3.8	45.5	0.4 - 0.0	strong sulfurous odor (SC), Transitions to Brown (10YR 5/3) SILT, little fine		-'
_8	5.0	10.6		sand & subround medium-fine gray gravel, firm, moist, strong sulfurous odor		_8_
-		3.7		(ML), then to Grayish Brown (10YR 5/2) SILT, little fine SAND & medium-fine		
_9				subround red-yellow sandstone gravel, subround gray gravel, subround gray		_9
- 10				gravel, & greenish-gray fine subangular gravel, stiff, moist, slight sulfurous odor (ML)		10
_10		34.1	10.0 - 13.7	Grayish Brown (10YR 5/2) SILT, little fine SAND & medium-fine gravel	063_D010_10.0 (10.0' - 10.5')	-10
_11		5.5		(as above), stiff, moist, slight sulfurous odor (ML), Transitions to Strong	`	_11
		0.3		Brown (7.5YR 4/6) Silty fine SAND, some medium sand, little medium-fine		
_12	0.7	0.0		gray angular gravel & subround red siltstone gravel, medium-dense,		_12
- 13	<u>3.7</u> 5.0	0.0		moist-wet, no odor (SM)		- 13
	0.0	0.0				
_14						_14
_15		0.0	15.0 10.4	Strong Brown (7.5YR 4/6) SILT, some fine sand, little medium sand &	063_D010_15.0 (15.0' - 15.5')	_15
_ 16		0.0	15.0 - 19.4	medium-fine gray angular gravel & subround red siltstone gravel, stiff,	063_D010_15.0 (15.0 - 15.5)	_ _16
		0.0		moist, no odor (ML), Transitions to Silty medium-fine sand, little gravel,		
_17		0.0		dense, moist-wet, no odor (SM)		_17
-	<u>4.4</u>	0.0				-
_18	5.0	0.0				_18
_ _19		0.0				_ _19
		0.0				
_20						_20
_ 21			End of Bor	ing at 20' bgs.		_ 21
_21						_21
_ _22						22
_						_
_23						_23
_ 24						_ _24
_24						_24
_ _25			<u> </u>			_ _25

	1				PROJECT NO.:		Boring No:
73-	TRATE	CH GEO		117-0509160.02 PROJECT NAME: PPG Site 063		063_D011	
						LOCATION SKETCH	
COMPLETION DATE:	OMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVIC	E:	GEOLOGIST / OFFICE:	
7/28/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	t:	DRILLING EQUIPMEN	T:	DRILLING METH	OD / BIT:	
EPI \Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 1.4'				No			
MEMO:							

DEPTH	RECOVERY	OVM		DUDNESSTER SVOTEN AGU DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		0.0		Very Dark Grayish Brown (10YR 3/2) medium-fine SAND, little silt &	063_D011_0.0 (0.0' - 0.5')	
_1		0.0		subangular medium-fine gravel, loose, dry, no odor (SM) Black (2.5Y 2.5/1) medium-fine SAND, little fine subround slag gravel,		_1
_2		0.0		race coal, loose, moist, moist-wet at 1.4', no odor (SW/SP)		_2
_	<u>2.4</u>	0.0	1.6 - 2.4 D	Dark Grayish Brown (2.5Y 4/2) SILT, little fine sand & coarse-fine gray		
_3	5.0		а	angular gravel, light gray concrete 1.9' - 2.1', moist, firm, no odor (ML)		_3
_ 4						- 4
_ _5						_ _5
		0.0		As Above (1.6' - 2.4')	063_D011_5.0 (5.0' - 5.5')	
_6		0.0		Dlive Gray (5Y 5/2) Clayey SILT, little fine-very fine sand, low palsticity, irm, moist, no odor (ML), Transitions to Dark Gray (2.5Y 4/1) Clayey SILT,		_6
7		0.0		race shells, soft, moist, slight sulfurous odor (ML)		_ _7
	3.3	0.0		Very Dark Grayish Brown (10YR 3/2) PEAT, little Very Dark Gray	063_D011_7.0 (7.0' - 7.5')	
8	5.0	0.0	(5Y 3/1) CLAY, low plasticity, soft, moist-wet, slight sulfurous odor (PT)	Fill/native soil interface	_8_
_					at 7.5'	_
_9						_9
_ _10						_10
_		0.0		As Above (7.5' - 8.3')		_
_11		0.0		Grayish Brown (10YR 4/2) SILT, some fine sand & coarse-fine subround red	000 0044 44 0 (44 0) 44 50	_11
_ 12		0.0		siltstone gravel, stiff, moist, no odor (ML), Transitions to Brown (10YR 5/3) SILT, little very fine sand & medium-fine subangular gray to greenish-gray	063_D011_11.0 (11.0' - 11.5')	- _12
_12	2.2	0.0		gravel, stiff, moist, no odor (ML)		-12
_ _13	5.0			, , , , ,		_13
_14						_14
_ _15						15
		0.0	15.0 - 16.8 E	Brown (10YR 5/3) SILT, little very fine sand & medium-fine subangular	063_D011_15.0 (15.0' - 15.5')	
_16		0.0		gray to greenish-gray gravel, stiff, moist, no odor (ML), Transitions to		_16
-		0.0		Brown (7.5YR 5/4) SILT, some very fine sand, little coarse-fine subround		
_17	1.8		g	gray gravel, firm, moist, no odor (ML)		_17
_ _18	5.0					_18
_						_
_19						_19
_ _20						_ 20
			End of Borin	ng at 20' bgs.		1_20
_ _21				-		_21
_22						_22
_ 23						23
_24						_24
_25						_25

TI-	TE	TRATE	CH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_E003
					PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE: GEOLOGIST / OFFICE:			
7/26/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	t:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 5'				No	
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM) 0.0	0.0 -3.1 Dark Yellowish Brown (10YR 3/4) to Dark Brown (7.5YR 4/3) medium-fine	SAMPLE SUMMARY 063 E003 0.0 (0.0' - 0.5')	_0
1		0.0	SAND, little silt, trace subangular medium-fine gravel, white concrete cobble		_ _1
_		0.0	3' - 3.1', dry-moist, loose, no odor (SM)		
_2	2.2	0.0			_2
_3	<u>3.2</u> 5.0	0.0			_3
_ _4					_ _4
_ _5					_ _5
_		6.6	5.0 - 7.0 Very Dark Grayish Brown (10YR 3/2) coarse-fine SAND & coarse-fine	063_E003_5.0 (5.0' - 5.5')	_
_6		21.6 54.2	angular to subround GRAVEL, Dark gray shale gravel 5.9' - 6.1' (dry), pink/gray flat siltstone gravel 6.5'-7' (dry), trace silt, wet, loose, slight	063_E003_6.0 (6.0' - 6.5')	_6
_ _7		94.5	hydrocarbon odor (SW)	(6.0 6.0)	_ _7
_	<u>2.9</u>		7.0 - 7.9 Dark Grayish Brown (10YR 4/2) SILT, some fine sand, little medium sand &	Fill/native soil interface at 7'	
_8	5.0	149.0	coarse-fine subround-subangular gray gravel, little clay, firm, moist-wet, slig hydrocarbon odor (ML)	nt	_8
_9			Hydrocarbon odor (WE)		_ _9
10					- 10
_			10.0 - 13.7 As Above (7' - 7.9') (ML), Transitions to Brown (10YR 5/2) Silty fine-medium		
_11		42.7	SAND, little coarse-fine subangular gray gravel, little clay, dense, moist-wet		_11
- 12		334.0 120.0	slight hydrocarbon odor (SM)		_ _12
	3.3	56.7			
_13	5.0	38.3			_13
_ _14		6.6			_ _14
_15			47.0 40.7 D (40)/D 7(0) 0(1) (1) (1) (1) (1) (1) (1) (1) (1)		_15
_ 16		5.7 81.9	15.0 - 19.7 Brown (10YR 5/2) Silty fine-medium SAND, little coarse-fine subangular gray gravel, abundant gravel & wet 15'-15.2', little clay, dense, moist-wet, sl	063_E003_15.0 (15.0' - 15.5')	_ _16
		5.5	hydrocarbon odor (SM), Transitions to Brown (7.5YR 5/4) Silty fine SAND, s		
_17		433.0	medium sand & moist-wet 17.2' - 19.2'; SILT, little fine sand 19.3' - 19.7',		_17
_ _18	<u>4.7</u> 5.0	14.7 2.9	medium-dense grading to dense, moist, slight hydrocarbon odor (SM)		_ _18
_10	0.0	2.6			
_19		3.4			_19
_ _20		2.1 11.0			_ _20
_			End of Boring at 20' bgs.		_
_21 _					_21 _
_22					_22
23					_23
_ _24					_ _24
_ _25					_ _25

_							
77-	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_E004
					PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE: TOTAL DEPTH OF BOREHOLE:			MONITORING DEVICE:		GEOLOGIST / OFFICE:		
7/26/2011	20			PID MiniRAE 2000 Jim M. / Whitehouse Station			
DRILLING CONTRACTOR	/ DRILLER	l:	DRILLING EQUIPMEN	T:	DRILLING METHO	OD / BIT:	
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25" ~ 2.3'				No			
МЕМО:					•		

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_ _1		0.0	0.0 - 1.2 Dark Grayish Brown (10YR 4/2) to Strong Brown (7.5YR 4/6) medium-fir SAND, little subangular-subround medium-fine gravel, trace glass, dry,	ne <u>063_E004_0.0</u> (0.0' - 0.5')	_ _1
<u> </u>		0.0	loose, no odor (SW)		Ε'
_2		0.0	1.2 - 1.9 Black (2.5Y 2.5/1) coarse SAND & fine-medium GRAVEL (slag & coal),	loose,	_2
_ 3	<u>2.9</u> 5.0	0.0	moist, no odor (GW) 1.9 - 2.3 Brown (7.5YR 4/3) SILT, some fine sand, trace red coarse-medium sub-	round	_ 3
_3	3.0	0.0	sandstone gravel, mosit, firm, no odor (ML)	dulid	_3
_4			2.3 - 2.9 Brown (10YR 4/3) Silty coarse-fine SAND, some coarse-fine		_4
_ _5			subround -angular gravel & cobbles, loose, wet, no odor (SW)		_ _5
_5		0.0	5.0 - 7.2 As Above (2.3' - 2.9') but Dark Gray (10YR 4/1) to Dark Grayish Brown,		
_6		0.0	loose, wet, slight hydrocarbon odor 6.0 - 7.2'		_6
- 7		23.2 121.0		063 E004 6.5 (6.5' - 7.0')	_ _7
-'	2.2	13.7		003_E004_6.5](6.5 - 7.0)	-1
_8	5.0				_8
_ 9					_ _9
_9					_9
_10					_10
_ _11		7.3 21.3	10.0 - 11.5 Dark Gray (10YR 4/1) Coarse-fine SAND & fine subround GRAVEL, sor coarse-medium gravel, little silt, loose, wet, slight hydrocarbon odor (GM)		_ _11
		62.7	Transitions to Dark Grayish Brown (10YR 4/2) Silty medium-fine SAND,	063_E004_11.0 (11.0' - 11.5')	L''
_12		12.6	some fine gravel, little medium gravel, wet, moist, slight hydrocarbon od	` '	_12
- 13	3.5 5.0	2.1 3.0	11.5 - 13.5 Brown (7.5YR 4/2) Clayey SILT, little fine sand, very soft, very wet, sligh hydrocarbon odor (ML), Transitions to Brown (7.5YR 5/3) SILT, some	ıt	- 13
	0.0	1.0	medium-fine sand, moist, soft grading to firm, little medium-fine subangu	ular	_ '
_14		1.6	gray gravel, no odor (ML)		_14
_ _15					_ _15
_10		0.0	15.0 - 16.5 Brown (7.5YR 5/3) SILT, some fine sand, little medium sand & medium-	063_E004_15.0 (15.0' - 15.5')	
_16		0.0	fine subangular gray gravel, stiff, dry, no odor (ML), Transitions to Stron	~	_16
_ _17		0.0	Brown (7.5YR 5/6) Silty medium-fine SAND, little medium-fine subangul- gray gravel, dense, moist-wet, no odor (SM)	ar	_ _17
_''	3.8	0.0	gray graver, derise, moist-wet, no odor (own)		_''
_18	5.0	0.0			_18
_ _19		0.0		063_E004_18.3 (18.3' - 18.8')	_ _19
		0.0		335_E354_16.5 (16.5 - 16.6)	
_20			Fund of Desires at 001 have		_20
_ 21			End of Boring at 20' bgs.		_ 21
_22					_22
_ _23					_ _23
_24					_24
_ 25					_ 25
	l	l			1-20

			~ `			-00	
77	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_E005
IL					PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:	TOTAL DE	PTH OF BOREH	OLE:	MONITORING DEVICE	E:	GEOLOGIST / OFFICE:	
7/26/2011	20			PID MiniRAE 2	000	Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	/ DRILLER	₹:	DRILLING EQUIPMEN	T:	DRILLING METHO	OD / BIT:	
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"		~ 2.0'				No	
МЕМО:		•		•]

DEPTH	RECOVERY	OVM			FIELD NOTES &	7
(Feet)	(feet)	(PPM)		BURMEISTER SYSTEM SOIL DESCRIPTION	SAMPLE SUMMARY	_0
_		0.0	0.0 - 1.3	Dark Grayish Brown (2.5YR 4/2) medium-fine SAND, little medium-coarse	063_E005_0.0 (0.0' - 0.5')	<u> </u>
_1		0.0		subangular gravel, Transitions to Dark Grayish Brown (10YR 4/2) medium	063_E005_0.5 (0.5' - 1.0')	_1
_		0.0	40.00	sand, loose, moist, no odor, shell fragments 0.7' - 0.8' (SP)	Trace COPR 0.2' - 0.5'	-
_2	3.6	0.0	1.3 - 2.2	Black (2.5Y 2.5/1) coarse-medium SAND & medium-fine subround slag GRAVEL, moist, wet at 2', loose, no odor (GW)		_2
_ _3	5.0 5.0	0.0	2.2 - 3.6	Dark Grayish Brown (2.5YR 4/2) grading to Olive Gray (5Y 5/2) SILT, some		_3
_0	0.0	85.6	2.2 0.0	fine sand, little coarse-fine gray angular gravel, firm, moist, slight		
_ _4				hydrocarbon odor 3.3' - 3.6'		_4
_						_
_5				OIL O (TV T/O) OIL T IIII (_5
_		68.9 144.0	5.0 - 6.5	Olive Gray (5Y 5/2) SILT, little fine sand & clay, soft, moist-wet, strong		
_6		_	6.5 - 7.2	hydrocarbon odor (ML) Dark Reddish Gray (5YR 4/2) SILT, little fine sand & subround to subangular	063 E005 6.0 (6.0' - 6.5')	_6
_ _7		1141.0		medium-fine gravel, firm, moist, slight hydrocarbon odor (ML)	Fill/native soil interface	_ _7
_,	3.8	_	7.2 - 8.1	Dark Reddish Gray (5YR 4/2) Silty medium-fine SAND, little medium-fine	at 6.5'	I-'
_ _8	5.0	31.4		subround gravel, light greenish-gray siltstone gravel 7.6'-7.9', medium-dense,		_8
_		16.6		moist-wet, slight hydrocarbon odor (SM)		-
_9		7.0	8.1 - 8.8	Yellowish Brown (10YR 5/6) Silty medium-fine SAND, little medium-fine		_9
-				subround to subangular sandstone gravel, trace silt, medium-dense, moist,		
_10		0.0	10.0 - 11.7	slight hydrocarbon odor (SM) As Above (8.1' - 8.8')	063_E005_10.0 (10.0' - 10.5')	_10
_ _11		0.0	10.0 - 11.7	A3 Above (0.1 - 0.0)	(10.0 - 10.5)	_11
		0.0				
_12		0.0	11.7 - 12.5	Brown (10YR 5/3) Silty fine SAND, some fine angular gravel, little medium		_12
_	<u>2.9</u>	0.0		sand, dense, moist, no odor (SM)		_
_13	5.0	0.0	12.5 - 12.9	Weak Red (10R 4/2) thin-bedded shale fragments, dry, dense, no odor (GW)		_13
_ _14						- 14
_14						-14
_ _15						_15
_		0.0	15.0 - 16.4	as Above (11.7' - 12.5'), moist, trace coarse-medium red siltstone (SM)	063_E005_15.0 (15.0' - 15.5')	<u>_</u>
_16		0.0				_16
		0.0	16.4 - 17.7	Brown (7.5YR 5/4) Silty medium-fine SAND, little coarse-fine subround to		-,-
_17	2.7	0.0		subangular gray siltstone gravel, medium-dense grading to dense, wet grading to moist, no odor (SM)		_17
_ _18	<u>2.7</u> 5.0	0.0		grading to moist, no odor (SM)		_ _18
	0.0					
_19						_19
_						_
_20			End of D	ing at 201 has		_20
_ _21			End of Bor	ing at 20' bgs.		_ _21
_∠ 1						-41
_ 22						22
_23						_23
_24						_24
_ _25						_ _25
_20	l		l		1	

772	TE	TRA TE	CH GEO		PROJECT NO.: 117-0509160.02		Boring No: 063_E006
	MPLETION DATE: TOTAL DEPTH OF BOREHOLE:				PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:					E:	GEOLOGIST / OFFICE:	
7/26/2011	7/26/2011 20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHOD / BIT:			
EPI \ Bob Fleming			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	1
5' Sleeves, 1.25"						No	
МЕМО:				•			

	DEPTH	RECOVERY	OVM		BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
1	(Feet)	(feet)					_0
1.1 1.5 Black (2.5 \(2.5 \) 2.5 1	_			0.0 -1.1	, , , , , , , , , , , , , , , , , , , ,	063_E006_0.0 (0.0' - 0.5')	
2	-'			1.1 - 1.5			-'
3.7 0.0 5.0	_2						_2
March Marc	_	<u>3.7</u>	0.0		fine sand, loose, wet, no odor (GW)		_
4	_3	5.0		2.0 - 3.7			_3
S			0.0		moderate plasticity, moist, slight sulfurous odor (OH)		
Company Comp							
Colive (SY 5/3) CLAY, little silt, moderate plasticity, soft, moist, slight suffurous odor (OH) Colive (SY 5/3) CLAY, little silt, moderate plasticity, soft, moist, slight suffurous odor (OH) Colive (SY 5/3) medium-fine SAND, some silt, little subangular-subround red siltstone gravel, medium-dense, moist-wet, no odor (SM), Transitions to Reddish Brown (SY 5/3) SLIT, some fine sand, little subround-subangular siltstone gravel, dry, stiff, no odor (ML) Sy 5/3 Clay, some fine sand, little gray subround-subangular subangular fine gravel, stiff, moist, no odor (ML), Transitions to Brown (7.5YR 5/4) SLIT, some fine sand, little gray subround-subangular gravel, on the subangular gravel of greenish gray gravel, dry, very stiff, no odor (ML), Transitions to Brown (7.5YR 5/4) SLIT, some fine sand, little medium-fine subangular gravel or greenish gray gravel, dry, very stiff, no odor (ML) Si 5.0 Color (Sy 5/5) SLIT, some fine sand, little medium-fine subangular gravel or greenish gray gravel, dense, moist-wet, no odor (SM), Transitions to SILT, little fine sand, little subangular gravel, very stiff, moist, no odor (ML) Si 5/5 Color (ML) Si 5	_ _5						_ _5
0.0	_				,		_
7	_6			5.7 - 6.6	. , ,	063 E006 6.0 (6.0' - 6.5')	_6
3.8 0.0 red siltstone gravel, medium-dense, moist-wet, no odor (SM), Transitions to Reddish Brown (SYR 5/3) SiLT, some fine sand, little subround-subangular siltstone gravel, dry, stiff, no odor (ML)	7			6.6 - 8.8	` '		7
	_	3.8			, ,		_
9 10	_8	5.0			, , , ,		_8
	_		0.0		siltstone gravel, dry, stiff, no odor (ML)		_
11	_9						_9
	_ _10						_ _10
				10.0 - 12.5		063_E006_10.0 (10.0' - 10.5')	
	_11						_11
	- 12				, , ,		12
-14		2.5			g.coc. g.a, g.a.o, a.,, .o., c, cac. (/		
	_13						_13
	_14						_14
	_ _15						_ _15
	_			15.0 - 18.0		063_E006_15.0 (15.0' - 15.5')	_
	_16						_16
	- 17						17
	-''	3.0			odol (INL)		-''
	_ _18						_18
	_19						_19
	_ _20						_ _20
	_			End of Bor	ing at 20' bgs.		_
	_21						_21
	- 22						-22
	_23						_23
	_24						_24
	_ 25						- 25

			~ .			-00	
772	TE	TRATE	CH GEO		PROJECT NO.: 117-050916	60.02	Boring No: 063_E007
	J				PROJECT NAME: PPG Site 063		LOCATION SKETCH
COMPLETION DATE:				MONITORING DEVICE:		GEOLOGIST / OFFICE:	
7/27/2011	20			PID MiniRAE 2000		Jim M. / Whitehouse Station	
DRILLING CONTRACTOR	R / DRILLER	l:	DRILLING EQUIPMEN	T: DRILLING METHO		OD / BIT:	
EPI \ Ray Smith			Geoprobe Track	Rig	Direct Push		
SAMPLING METHOD:		DEPTH TO GRO	UNDWATER	GROUND SURFACE	ELEVATION:	WELL INSTALLED?	
5' Sleeves, 1.25"				No		No	
МЕМО:							

DEPTH	RECOVERY	OVM	BURMEISTER SYSTEM SOIL DESCRIPTION	FIELD NOTES &	1
(Feet)	(feet)	(PPM)		SAMPLE SUMMARY	_0
_1		0.0 0.0	0.0 - 0.8 Brown (10YR 5/3) fine SAND, little medium sand & silt, little medium-fine gray subangular gravel, loose, dry, no odor (SP)	063_E007_0.0 (0.0' - 0.5')	_ _1
_'		0.0	0.8 - 1.7 Black (2.5Y 2.5/1) medium-fine SAND, some coarse sand & medium-fine		<u> </u>
_2		0.0	slag gravel, moist, wet at 1.5', loose, no odor (SW)		_2
_	<u>3.5</u>	0.0	1.7 - 2.0 Very Dark Gray (5Y 3/1) CLAY, little silt, trace shells, moderate plasticity,		_
_3	5.0	0.0 0.0	soft, moist-wet, slight sulfuroud odor (OH) 2.0 - 3.5 Olive (5Y 5/3) CLAY with slight Reddish Brown (5Y 5/3) mottling, little silt,		_3
_4		0.0	moderate plasticity, trace shells, moist, slight sulfurous odor (OH/CH)		_4
_			•		_
_5		0.0	5.0 - 5.5 As Above (2' - 3.5'), slight sulfurous odor (OH/CH)	063_E007_5.0 (5.0' - 5.5')	_5
_ _6		0.0	5.5 - 8.0 Olive Gray (5Y 5/2) Silty CLAY, soft, moist, moderate plasticity, slight	(3.0 - 3.3)	_ _6
_		1.3	sulfurous odor (OH/CH), Transitions to Brownish Yellow (10YR 6/6) SILT,	Fill/native soil interface	L
_7	0.0	0.0	some very fine sand, little clay, firm, moist, no odor (ML), Transitions to	at 5.5'	_7
- 8	3.0 5.0	0.0 0.0	Yellowish Red (5YR 5/6) medium-fine SAND, some silt, little Dark Reddish Brown (5YR 3/3) medium-fine sand & medium-fine gray angular gravel &		_ _8
	0.0	0.0	fine-medium round red siltstone gravel, medium-dense, moist-wet, no		
_9			odor (SM)		_9
10					10
_10		0.0	10.0 -11.2 Yellowish Red (5YR 5/6) medium-fine SAND, some silt, little Dark Reddish	063_E007_10.0 (10.0' - 10.5')	
_11		0.0	Brown (5YR 3/3) medium-fine sand & medium-fine gravel, medium-dense,		_11
- 12		0.0 0.0	moist-wet, no odor (SM) 11.2 - 11.5 Light Gray (10YR 7/2) coarse-medium subround sandstone GRAVEL &		_ _12
_12	2.9	0.0	COBBLES, some coarse-medium sand, loose, dry, no odor (GW)		-12
_ _13	5.0	0.0	11.5 - 12.9 Brown (7.5YR 5/4) Silty medium-fine SAND, little medium-fine gray		_13
			angular gravel, medium-dense, moist-wet, no odor (SM)		
_14					_14
_ _15					_ _15
		0.0	15.0 - 17.9 Brown (7.5YR 5/4) Silty coarse-fine SAND, some fine subangular gravel,	063_E007_15.0 (15.0' - 15.5')	Ī
_16		0.0 0.0	little medium gravel, loose, wet, no odor (SM), Transitions to SILT, some fine sand, little subround to subangular grayish brown medium-fine gravel,		_16
_ _17		0.0	trace medium sand, stiff, moist, no odor (ML)		_ _17
_	<u>2.9</u>	0.0	, , , , , , , , , , , , , , , , , , , ,		
_18	5.0	0.0			_18
_ _19					_ _19
_					
_20			End of Paying at 201 has		_20
_ 21			End of Boring at 20' bgs.		_ 21
_22					_22
_ _23					
_24					_24
_ 25					_ 25
_25	l	l			

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

Page 1 of 12

Depth (ft)	063_B003	063_B004	063_B004a	063_B005	063_B006/063_MW01	063_B007	063_B008
0							
0.1							
0.2	COPR		COPR				
0.3	COPR		COPR				
0.4	COPR		COPR				
0.5	COPR		COPR				
0.6	COPR		COPR				
0.7	COPR		COPR				
8.0	COPR		COPR				
0.9	COPR		COPR				
1	COPR	_	COPR				
1.1							
1.2							
1.3							
1.4							
1.5					COPR		
1.6					COPR		
1.7					COPR		COPR
1.8							COPR
1.9							COPR
2							COPR
2.1							
2.2							
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2.4							
2.5							
2.6							
2.7							
2.8							
2.9							
3							
3.1							
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COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

Page 2 of 12

Depth (ft)	063_B003	063_B004	063_B004a	063_B005	063_B006/063_MW01	063_B007	063_B008
3.3							
3.4							
3.5							
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6.9							
7							

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

Page 3 of 12

Depth (ft)	063_B009/063_MW02	063_B010	063_B010a	063_B011	063_B012/063_MW03	063_B013	063_B014	063_B015/063_MW04
0								
0.1								
0.2				COPR		COPR	COPR	
0.3	COPR			COPR		COPR	COPR	
0.4	COPR			COPR		COPR	COPR	
0.5	COPR	COPR		COPR		COPR	COPR	
0.6		COPR				COPR	COPR	
0.7		COPR				COPR	COPR	
8.0		COPR				COPR	COPR	
0.9		COPR				COPR	COPR	
1		COPR	_			COPR	COPR	
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1.2		COPR				COPR		
1.3		COPR				COPR		
1.4		COPR				COPR		
1.5		COPR				COPR		
1.6		COPR				COPR		
1.7		COPR				COPR		
1.8		COPR				COPR		
1.9		COPR				COPR		
2		COPR				COPR	COPR	
2.1		COPR				COPR	COPR	
2.2		COPR				COPR	COPR	
2.3		COPR				COPR	COPR	
2.4		COPR				COPR	COPR	
2.5		COPR				COPR	COPR	
2.6		COPR				COPR	COPR	
2.7		COPR				COPR	COPR	
2.8		COPR				COPR	COPR	
2.9		COPR				COPR	COPR	
3		COPR				COPR	COPR	
3.1						COPR		
3.2						COPR		

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_B009/063_MW02	063_B010	063_B010a	063_B011	063_B012/063_MW03	063_B013	063_B014	063_B015/063_MW04
3.3						COPR		
3.4						COPR		
3.5						COPR		
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7								

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

Page 5 of 12

Depth (ft)	063_C003	063_C004	063_C004a	063_C005	063_C005a	063_C006*	063_C007	063-C008	063_C009	063_C009a	063_C010
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0.1											
0.2	COPR	COPR	COPR								
0.3	COPR	COPR	COPR								
0.4	COPR	COPR	COPR								
0.5	COPR	COPR	COPR								
0.6		COPR	COPR								
0.7		COPR	COPR								COPR
0.8		COPR									COPR
0.9		COPR									COPR
1		COPR									COPR
1.1		COPR									COPR
1.2		COPR									COPR
1.3											
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1.5											
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1.8											
1.9											
2				COPR							
2.1				COPR							
2.2				COPR		COPR					
2.3				COPR		COPR	COPR				
2.4				COPR		COPR	COPR				
2.5						COPR	COPR				
2.6						COPR	COPR				
2.7						COPR	COPR				
2.8							COPR				
2.9											
3											
3.1											
3.2											

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_C003	063_C004	063_C004a	063_C005	063_C005a	063_C006*	063_C007	063-C008	063_C009	063_C009a	063_C010
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COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_C010a	063_C011	063_C011a	063_C012	063_D003/063_MW05	063_D004	063_D005	063_D006/063_MW06	063_D007	063_D008
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0.5						COPR				
0.6						COPR				
0.7						COPR				
0.8						COPR				
0.9		COPR				COPR				
1	COPR	COPR				COPR				
1.1	COPR	COPR								
1.2	COPR	COPR								
1.3	COPR									
1.4	COPR						COPR			
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COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_C010a	063_C011	063_C011a	063_C012	063_D003/063_MW05	063_D004	063_D005	063_D006/063_MW06	063_D007	063_D008
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6.9										
7										<u> </u>

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_D009/063_MW07	063_D010	063-D011	063_E003	063_E004	063_E005	063_E006	063_E007	065_A005	065_A006
0										
0.1										
0.2		COPR				COPR				
0.3		COPR				COPR				
0.4		COPR				COPR				
0.5		COPR				COPR				
0.6										
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3										
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COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	063_D009/063_MW07	063_D010	063-D011	063_E003	063_E004	063_E005	063_E006	063_E007	065_A005	065_A006
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7										

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	065_A007	065_A008	065_A009	065_A010	065_A011	065_A012	065_A013	065_A014	065_A015
0									
0.1							COPR		
0.2							COPR	COPR	
0.3							COPR	COPR	
0.4							COPR	COPR	
0.5							COPR	COPR	
0.6								COPR	
0.7								COPR	
0.8								COPR	
0.9								COPR	
1								COPR	
1.1								COPR	
1.2								COPR	
1.3								COPR	
1.4								COPR	
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2.7									
2.8									
2.9									
3									
3.1									
3.2									

COPR Table, Initial Investigation

Sites 063 and 065 Remedial Investigation Report PPG Industries, Inc. Jersey City, New Jersey

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Depth (ft)	065_A007	065_A008	065_A009	065_A010	065_A011	065_A012	065_A013	065_A014	065_A015
3.3									
3.4									
3.5									
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