fic&h
engineers • scientists • architects • constructors
fishbeck, thompson, carr & huber, inc.

BOREHOLE LOG

BORING/WELL ID: **MW-122S**

TOTAL DEPTH (ft.): **174'**

PROJECT: Pall Life Sciences
SITE LOCATION: Ann Arbor, Michigan
PROJECT NO.: F96502
PROJECT MANAGER: James W. Brode, Jr., CPG
LOGGED BY: Todd C. Campbell, CPG

START DATE: 12/4/08
END DATE: 12/5/08
TOC ELEV.: 941.37'
GROUND ELEV.: approx. 942'
STATIC WATER LVL.: 72.21'

DRILLING CO.: Stearns Drilling
DRILLER: Jerry, Pat, Sam, Tony
RIG TYPE: CME 95
METHOD OF DRILLING: Hollow Stem Auger
SAMPLING METHODS: Split Spoon, Simulprobe

NOTES: 5' West of MW-122D. Descriptions based on PLS-08-05

▼ Static Water Level

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Revovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
TOPSOIL: Sand; Silt. Dark brown, dry			0					Sand Pack
DIAMICTON: Silt; Sand, fine grained (30%); Clay (20%). Brown, moderately sorted, very stiff, dry			2					
			4					
			6					
			8					
as above			10		2.0'		3,9,10,10	
			12					
			14					
			16					
			18					
SAND: Sand, fine to medium grained (90%); Gravel, fine (10%). Brown, well sorted, medium dense, dry			20		2.0'		7,8,10,11	
			22					
			24					
			26					Bentonite Grout
			28					2" Galvanized Casing
DIAMICTON: Silt; Clay (20%); Sand, fine grained (20%); trace Gravel, fine. Grayish brown, moderately sorted, stiff, dry			30		1.7'		4,7,7,8	
			32					
			34					
			36					
			38					
Silt; Sand, fine grained (30%); Clay (20%); Gravel, fine (10%). Gray, well sorted, stiff, dry			40		2.0'		4,5,5,6	
			42					
			44					
			46					
			48					
as above			50		1.8'		6,9,9,10	
			52					
			54					
			56					
			58					
as above			60		1.9'		11,25, 30,20	
			62					
			64					
			66					
			68					
as above, decreasing clay content			70		1.8'		9,16,22,20	

fTC&h
engineers • scientists • architects • constructors
fishbeck, thompson, carr & huber, inc.

BOREHOLE LOG

BORING/WELL ID: **MW-122S**

TOTAL DEPTH (ft.): **174'**

PROJECT: Pall Life Sciences
SITE LOCATION: Ann Arbor, Michigan
PROJECT NO.: F96502
PROJECT MANAGER: James W. Brode, Jr., CPG
LOGGED BY: Todd C. Campbell, CPG

START DATE: 12/4/08
END DATE: 12/5/08
TOC ELEV.: 941.37'
GROUND ELEV.: approx. 942'
STATIC WATER LVL.: 72.21'

DRILLING CO.: Stearns Drilling
DRILLER: Jerry, Pat, Sam, Tony
RIG TYPE: CME 95
METHOD OF DRILLING: Hollow Stem Auger
SAMPLING METHODS: Split Spoon, Simulprobe

NOTES: 5' West of MW-122D. Descriptions based on PLS-08-05

▼ Static Water Level

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Revovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
as above			80		1.9'		8,17,20,21	
SAND: Driller notes Sand			90		1.6'		5,11,21,25	
Infer Sand, fine to medium grained (from drilling and from heave in "AW" rods observed while pulling Simulprobe sampler)			100		0'		5,9,21	Simulprobe sample 99'-100.5' (4 ug/L)
								Bentonite Grout 2" Galvanized Casing
Sand, very fine to fine grained with trace medium grains. Grayish brown, well sorted, wet			110		0.6'		29,70, 50 (3")	Simulprobe sample 109'-110.5' (2 ug/L) Added approximately 30 gallons of water to augers
								Simulprobe sample 119'-120.5' (2 ug/L)
Sand, fine to medium grained. Brown, well sorted, wet Gravel seams throughout			120		0.5'		27,59, 50 (2")	Added approximately 30 gallons of water to augers
								Simulprobe sample 129'-130.5' (2 ug/L)
As above with Gravel, fine (10%)			130		<0.1'		5,7,11	Added approximately 30 gallons of water to augers
								Simulprobe sample 139'-140.5' (2 ug/L)
Sand, fine grained with trace medium grains; trace Gravel, fine.			140					Added approximately

fTC&h
engineers • scientists • architects • constructors
fishbeck, thompson, carr & huber, inc.

BOREHOLE LOG

BORING/WELL ID: **MW-122S**

TOTAL DEPTH (ft.): **174'**

PROJECT: Pall Life Sciences
SITE LOCATION: Ann Arbor, Michigan
PROJECT NO.: F96502
PROJECT MANAGER: James W. Brode, Jr., CPG
LOGGED BY: Todd C. Campbell, CPG

START DATE: 12/4/08
END DATE: 12/5/08
TOC ELEV.: 941.37'
GROUND ELEV.: approx. 942'
STATIC WATER LVL.: 72.21'

DRILLING CO.: Stearns Drilling
DRILLER: Jerry, Pat, Sam, Tony
RIG TYPE: CME 95
METHOD OF DRILLING: Hollow Stem Auger
SAMPLING METHODS: Split Spoon, Simulprobe

NOTES: 5' West of MW-122D. Descriptions based on PLS-08-05

▼ Static Water Level

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Revovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
Grayish brown, well sorted, wet (sample obtained from Sand bailer)			140		0.1'		16,18,29	30 gallons of water to augers
			142					
			144					
			146					Simulprobe sample 149'-150.5' (2 ug/L)
			148					
Sand, fine grained with trace medium grains. Grayish brown, well sorted, wet			150		<0.1'		25,22,48	Added approximately 30 gallons of water to augers
			152					
			154					Bentonite Grout
			156					2" Galvanized Casing
			158					Simulprobe sample 159'-160.5' (3 ug/L)
Sand, medium to fine grained with trace coarse grains; trace Gravel, fine. Grayish brown, moderately sorted, wet (sample obtained from Sand bailer)			160		0'		75,150	Added approximately 30 gallons of water to augers
			162					
			164					#6 Sand Pack
			166					
			168					Simulprobe sample 169'-170.5' (33 ug/L)
as above			170		1.2'		37,57, 100 (3")	2" Stainless Steel Screen (10 slot) set between 169 and 174 feet bgs
			172					
			174					