



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

## PROJECT INFORMATION

PROJECT: Phase 2 Wells and April LTM Report

PROJECT NO.: 3202-019

SITE LOCATION: MI

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 4/2/2007 08:15

BOREHOLE FINISHED: 4/2/2007 16:40

## DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

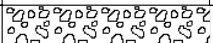
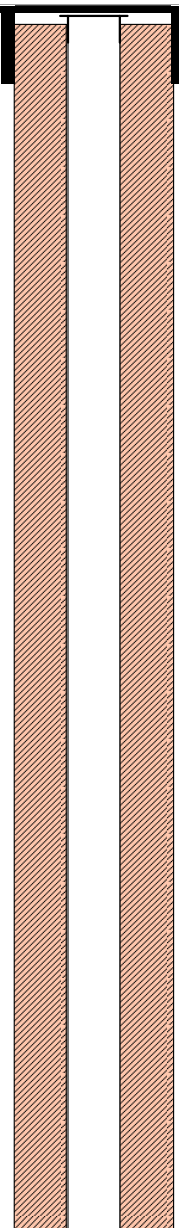




BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 298.36 (ft, msl)

WATER DEPTH/ DATE: 103.73-ft. toc -5/4/07

BOREHOLE USE: Monitoring Well

## NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Gravel and crushed stone.		Grouted Annulus
		CL Silty clay - brown 7.5YR (4/4), medium plasticity, moist.		
10		CL Silty clay - brown 7.5YR (4/4), medium plasticity, moist.		
20		CL Silty clay - very pale brown 10R (7/4), with gray mottling, low plasticity, moist.		
30		CL Sandy clay - red 10R (4/6), with gray mottling, fine grained sand, low plasticity, moist.		

Created By: WTR

Checked By: KMS



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion		Well Description
40		<b>SP</b> Clayey sand - red 5YR (4/6), fine grained sand, poorly graded, moist.			
		<b>SW</b> Gravely sand - strong brown 7.5YR (5/8), fine to medium grained sand, sub-rounded gravel, trace clay, well graded, moist.			
50		<b>SP</b> Clayey sand - red 2.5YR (5/8), fine grained sand, poorly graded, moist.			
		<b>SW</b> Gravely sand - yellow 10YR (7/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.			
60		<b>SM</b> Sandy Silt - light gray 10YR (7/1), fine grained sand, possible siltstone, dry.			

Created By: WTR

Checked By: KMS

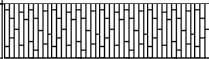

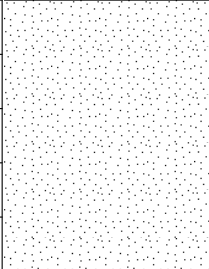
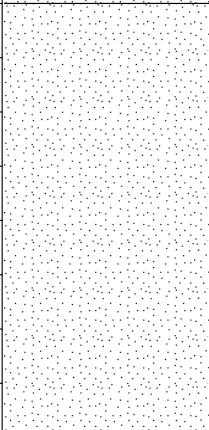
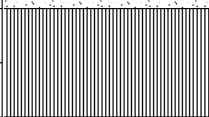
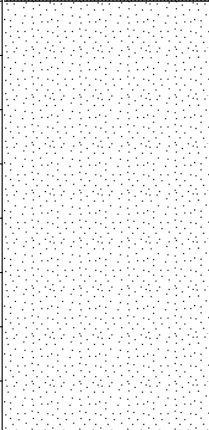
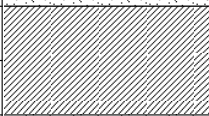
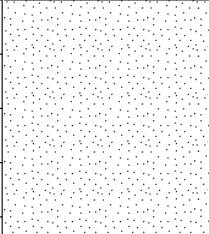
PAGE: 2 of 7



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		<b>SM</b> Silty sand - reddish yellow 7.5YR (7/8), fine grained sand, poorly graded, dry.		
		<b>SW</b> Gravely sand - reddish yellow 7.5YR (6/8), fine to coarse grained sand, sub-rounded gravel, well graded, dry.		
		<b>SW</b> Gravely sand - strong brown 7.5YR (5/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
70		<b>MH</b> Silt - light gray 7.5YR (7/1), dry.		
		<b>SW</b> Gravely sand - yellow 10YR (7/6), with some silt, fine to medium grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
80		<b>CL</b> Sandy clay - pale red 10R (6/4), fine grained sand, medium plasticity, moist.		
		<b>SW</b> Gravely sand - yellowish brown 10YR (5/6), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
90				

Created By: WTR

Checked By: KMS

PAGE: 3 of 7



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		<b>SP</b> Silty sand - light red 2.5YR (6/6), with some clay, fine grained sand, poorly graded, moist.		
		<b>SP</b> Silty sand - reddish yellow 7.5YR (7/8), fine grained sand, poorly graded, moist.		
100				
		<b>SP</b> Silty sand - yellow 10YR (7/8), with little gravel, fine to medium grained sand, sub-rounded gravel, poorly graded, wet.		
110				
		<b>SP</b> Silty sand - yellow 10YR (7/8), with little gravel, fine to medium grained sand, sub-rounded gravel, poorly graded, wet.		
120				

103.73- ft.

Created By: WTR

Checked By: KMS

PAGE: 4 of 7



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
130		<b>SW</b> Gravely sand - yellowish brown 10YR (5/6), fine to coarse grained sand, rounded to sub-rounded gravel, well graded, wet.		
		<b>SW</b> Gravely sand - pinkish gray 7.5YR (7/2), fine to coarse grained sand, sub-rounded gravel, well graded, wet.		
		<b>SW</b> Gravely sand - yellowish red 5YR (5/8), with trace cobbles, fine to coarse grained sand, sub-rounded gravel, well graded, wet.		
140		<b>SW</b> Gravely sand - yellowish red 5YR (5/8), with trace cobbles, fine to coarse grained sand, sub-rounded gravel, well graded, wet.		
		<b>ML</b> Clayey Silt - light gray 10YR (7/1), wet.		
150		<b>SW</b> Gravely sand - yellowish brown 10YR (5/8), fine to coarse grained sand, sub-rounded gravel, well graded, wet.		

Created By: WTR

Checked By: KMS

PAGE: 5 of 7





# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		<b>SW</b> Gravely sand - pinkish gray 7.5YR (7/2), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, wet.		
160		<b>SP</b> Silty sand - light gray 7.5YR (7/1), trace clay, fine grained sand, poorly graded, wet.		
170		<b>SP</b> Silty sand - light gray 7.5YR (7/1), trace clay, fine grained sand, poorly graded, wet.		
180		<b>CH</b> Silty clay - pale yellow 2.5Y (7/3), high plasticity, moist.		
				Bentonite Plug

Created By: WTR

Checked By: KMS

PAGE: 6 of 7



# FIELD BOREHOLE LOG

BOREHOLE NO.: MW-209A

TOTAL DEPTH: 210 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
				Sand Pack
190		<b>SP</b> Silty sand - very pale brown 10YR (7/4), fine grained sand, poorly graded, wet.		Screened Interval
200		<b>SW</b> Gravely sand - very pale brown 10YR (7/4), fine to coarse grained sand, sub-rounded to sub-angular gravel, wet.		
		<b>CL</b> Clay - gray 10YR (6/1), low plasticity, moist.		
210				

Created By: WTR

Checked By: KMS

PAGE: 7 of 7