REPORT

FINAL

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

Remedial Investigation Report Volume III of V

July 5, 2001

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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Volume III of V

Appendices

A Geological Boring Logs

Volume IV of V

A Geological Boring Logs (continued)
B Geophysical Borehole Logs
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Volume V of V

D Surface Water/Groundwater Interaction Study Data
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Attachments

I RI/FS Work Plan Data Tables and Select Sampling Location Figures
II Aboveground Storage Tank Data Tables and Location Figures
III I27.7 and Melting Area Investigations – Soil Sampling Data and Sample Location Figures

Appendix A
Geological Boring Logs

Supplemental Investigations – Boring Logs

MW-183WT
MW-184WT

TW-241
TW-242

SB-374
SB-375
SB-376

Date Start-Finish: 07/24/00 - 07/24/00
Drilling Company: Rau Drilling
Driller's Name: A. Rau & N. Emery
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: B45 Truck Mount
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Brian T. Loomis

Well No. MW-183WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										7-in diameter steel protective curb box, locking well cap.
									GROUND SURFACE	
	(0-2')		12 24 25 39	49	1.4	0.8			Dark brown-black fine SAND, trace Gravel. (Fill)	Concrete pad
	(2-4')		12 20 10 13	30	1.0	0.8				Bentonite cement grout 0.5' to 2.5' bgs.
5	(4-6')		2 3 3 4	6	2.0	0.8			Brown fine SAND, trace Silt, trace reddish mottles, moist to wet.	Bentonite seal 2.5 to 3.7' bgs.
	(6-8')		1 2 1 2	3	2.0	0.8				2-in diameter Sch. 40 PVC well casing 2.5' ags to 6.0' bgs.
	(8-10')		1 2 1 2	3	2.0	0.8			Light brown-gray fine to medium SAND, trace Clay & Silt, wet.	Grade #5 silica sand pack 3.7' to 16.0' bgs.
10	(10-12')		1 1 1 1	2	2.0	0.8				2-in diam Sch. 40 PVC 0.01" slot screen 6.0 to 16.0' bgs.
	(12-14')		1 1 1 1	2	2.0	0.8			Brown fine SAND, wet.	
15	(14-16')		1 1	2	2.0	0.8				

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Remarks:
AGS - Above ground surface.
BGS - Below ground surface.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-183WT

Total Depth = 16.0 ft.

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	2.0	0.8			Brown fine SAND, wet.	2-in diam Sch. 40 PVC 0.01" slot screen 6.0 to 16.0' bgs. Grade #5 silica sand pack 3.7' to 16.0' bgs.
									Total depth of boring 16.0 ft. bgs.	
20										
25										
30										
35										

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Remarks:
AGS - Above ground surface.
BGS - Below ground surface.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 07/24/00 – 07/24/00
Drilling Company: Rau Drilling
Driller's Name: A. Rau & N. Emery
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: B45 Truck Mount
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.0 ft.

Geologist: Brian T. Loomis

Well No. MW-184WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										7-in diameter steel protective curb box, locking well cap
									GROUND SURFACE	
	(0-2')		6 7 11 12	18	1.7	0.0			Dark brown-black fine SAND, brick fragments, trace Silt and Clay. (Fill)	Concrete pad; Bentonite cement grout 0.5' to 1.0' bgs.
	(2-4')		13 6 8 10	14	1.6	0.0			Some Concrete fragments.	Bentonite seal 1.0' to 2.0' bgs.
5	(4-6')		2 3 2 2	5	1.2	0.0			Moist to wet. Dark black-brown fine to medium SAND, saturated.	2-in diameter Sch. 40 PVC well casing 2.5' ags to 3.0' bgs.
	(6-8')		NA	NA	NA	NA				Grade #5 silica sand pack 2.5' to 13.0' bgs.
	(8-10')		WOH	NA	0.0	0.0				
10	(10-12')		WOH	NA	0.0	0.0				2-in diameter Sch. 40 PVC 0.01" slot screen 3.0 to 13.0' bgs.
	(12-13')		WOH	NA	0.0	0.0			CLAY/marl, very plastic, moist to wet.	
15									Total depth of boring 13.0 ft. bgs.	

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Remarks:
AGS – Above ground surface.
BGS – Below ground surface.
NA – Not Available/Not Applicable.
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08 Script: GM-well

Date Start-Finish: 07/16/98 - 07/16/98
Drilling Company: Rau Drilling
Driller's Name: Al Rau
Drilling Method: Hollow Stem Auger
Auger Size: -in.
Rig Type:
Spoon Size: 2-in.
Hammer Weight: -lb
Height of Fall: -in.

Borehole Depth: 7 ft.

Geologist: Brian T. Loomis

Well No. TW-241

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	2-in diameter Sch. 40 PVC well casing; Riser 3.0' ags to 2.0' bgs
	(0-1')			21	1	1.4			Dark Brown, well-sorted SAND, trace clay.	
	(1-2')		9						Dark clay.	
	(2-3.5')		10 7 9	17	2	1.5			Brown SAND, some moist clay.	Enviroplug seal 0.0' to 1.5' bgs; 0.01" Sch. 40 PVC screen 2.0' to 7.0' bgs; Grade #5 silica sand pack 1.5' to 7.0' bgs
5	(3.5-7')		4 7 11 14	18	1.75	1.1			White chips stratified within clay. Brown-mottled gray CLAY, saturated.	
									Total depth of boring 7.0 ft. bgs.	
10										
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
7/16/98 / 09:08		4

Project: 276.08 Script: GM-well

Date Start-Finish: 07/16/98 - 07/16/98
Drilling Company: Rau Drilling
Driller's Name: Al Rau
Drilling Method: Hollow Stem Auger
Auger Size: -in.
Rig Type:
Spoon Size: 2-in.
Hammer Weight: -lb
Height of Fall: -in.

Borehole Depth: 7 ft.

Geologist: Brian T. Loomis

Well No. TW-242

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	2-in diameter Sch. 40 PVC well casing; Riser 3.0' ags to 2.0' bgs
	(0-2')		4 5 8 11	13	2	1.8			Black SAND, some gravel, trace clay. Moist	Enviroplug seal 0.0' to 1.5' bgs
	(2-4.5')		14 11 11 8	22	0.8	3.0				0.01" Sch. 40 PVC screen 2.0' to 7.0' bgs
5	(4.5-7')		5 8 11 11	19	1.5	2.1			Brown-gray clay, mottled, saturated.	Grade #5 silica sand pack 1.5' to 7.0' bgs
									Total depth of boring 7.0 ft. bgs.	
10										
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
7/16/98 / 10:07		4

Project: 276.08 Script: GM-well

Date Start/Finish: 07/24/00 - 07/24/00
Drilling Company: Rau Drilling
Driller's Name: A. Rau & D. Emery
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: B45 Truck Mount
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12 ft.

Descriptions by: Brian T. Loomis

Boring No. SB-374

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										GROUND SURFACE	
		(0-2')		NA	NA	NA	NA			Gravel road bed. (Fill)	
		(2-4')		11 19 25 34	44	2.0	0.0			Dark brown-black fine to medium SAND, some Gravel, dry. (Fill) Dark red to black fine to medium SAND and GRAVEL. (Fill)	
5	-5	(4-6')		20 12 5 4	17	1.6	0.0			Dark gray-brown fine Sandy CLAY, some Silt, dry.	Type 1 Portland cement/ bentonite grout 0' to 12' bgs.
		(6-8')		1 2 1 2	3	2.0	0.0				
		(8-10')		1 2 1 1	3	2.0	0.0			Same as above, moist.	
10	-10	(10-12')		1 1 1 1	2	2.0	0.0			Brown-gray fine to medium SAND, trace Silt and Clay, saturated.	
										Total depth of boring 12.0 ft bgs.	
15	-15										

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Remarks:
Soil samples were taken 9.5' to 10.5' bgs. NA - not available. BGS - below ground surface.

Saturated Zones

Date / Time	Elevation	Depth

Project: 276.08 Script: GM-bore

Date Start/Finish: 07/24/00 - 07/24/00
Drilling Company: Rau Drilling
Driller's Name: A. Rau & D. Emery
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: B45 Truck Mount
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Descriptions by: Brian T. Loomis

Boring No. SB-375

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										GROUND SURFACE	
		(0-2')		NA	NA	NA	NA			No soil description 0-2' bgs.	
		(2-4')		10 20 39 34	59	1.6	0.0			Dark brown-black fine to medium SAND, trace Gravel and brick, dry. (Fill)	
5	-5	(4-6')		9 10 15 12	25	2.0	0.0			Same as above, dry to moist.	Type 1 Portland cement/ bentonite grout 0' to 8' bgs.
		(6-8')		2 1 1 1	2	2.0	0.0			Gray-brown, fine to medium SAND, some Silt and Clay, moist to wet. Saturated	
										Total depth of boring 8.0 ft bgs.	
10	-10										
15	-15										

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Remarks:
Soil samples were taken 6.5' to 7.5' bgs. NA - not available. BGS - below ground surface.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 07/25/00 – 07/25/00
Drilling Company: Rau Drilling
Driller's Name: A. Rau & D. Emery
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: B45 Truck Mount
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 10 ft.

Descriptions by: Brian T. Loomis

Boring No. SB-376

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										GROUND SURFACE	
		(0-2')		NA	NA	NA	0.0			Gravel road bed.	
		(2-4')		12 16 35 35	51	0.5	0.0			Dark brown-black fine to medium SAND, trace Silt and Clay and concrete fragment, dry. Same as above, moist.	
5	-5	(4-6')		8 5 2 2	7	1.2	0.0			Dark brown-Gray Sandy CLAY, plastic, moist to wet.	Type 1 Portland cement/ bentonite grout 0' to 10' bgs.
		(6-8')		1 1 1 1	2	2.0	NA			Brown-gray fine to medium Silty SAND, some Clay, moist to wet.	
		(8-10')		WOH WOH 3 2	3	2.0	0.0			Saturated.	
10	-10									Total depth of boring 10.0 ft bgs.	
15	-15										

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Remarks:
Soil samples were taken 7.0' to 8.0' bgs. NA – not available. BGS – below ground surface.

Saturated Zones

Date / Time	Elevation	Depth

Project: 276.08 Script: GM-bore

TW-Series Temporary Wells
Well Construction and Boring Logs

TW-201 WT
TW-202 WT
TW-203 WT
TW-203 S1
TW-203 S2
TW-205 WT
TW-205 S1
TW-205 S2
TW-206 WT
TW-207 WT
TW-208 WT
TW-208 S1
TW-208 S2
TW-209 WT
TW-209 S1
TW-209 S2
TW-210 WT
TW-210 S1
TW-210 S2
TW-211 WT
TW-211 S1
TW-211 S2
TW-212 WT
TW-212 S1
TW-212 S2
TW-213 WT
TW-213 S1
TW-213 S2
TW-214 WT
TW-214 S1
TW-214 S2
TW-215 WT
TW-215 S1
TW-215 S2
TW-215 S3
TW-216 WT
TW-216 S1
TW-216 S2
TW-217 WT
TW-217 S1
TW-217 S2
TW-218 WT
TW-218 S1
TW-218 S2
TW-218 S3
TW-219 WT
TW-219 S1
TW-219 S2
TW-220 WT
TW-220 S1
TW-220 S2
TW-220 S3
TW-221 WT
TW-221 S1
TW-221 S2
TW-221 S3
TW-221 S4
TW-222 WT
TW-222 S1
TW-222 S2
TW-222 S3
TW-223 WT
TW-223 S1
TW-223 S2
TW-224 WT
TW-224 S1
TW-225 WT
TW-225 S1
TW-226 WT
TW-226 S1
TW-227 WT
TW-228 WT
TW-228 S1
TW-229 WT
TW-229 S1
TW-230 WT
TW-231 WT
TW-231 S1
TW-232 WT
TW-232 S1
TW-233 WT
TW-234 WT
TW-235 WT
TW-236 WT
TW-237 WT
TW-238 WT
TW-239 WT
TW-240 WT

Date Start-Finish: 02/02/95 - 02/08/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 22 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-201WT22

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 8 9 2	17	1.6	6.7			Dark brown to black fine to coarse SAND, little fine Gravel, trace slag, medium dense, damp to moist.	
	(2-4')		1 2 3 4	5	1.8	0.5			Dark brown to black SILT, little fine to coarse Sand, trace Clay, medium stiff, moist.	
5	(4-6')		2 3 4 6	7	1.5	0.0			Dark brown fine to coarse SAND, trace Silt, loose, wet.	8.25" Boring
	(6-8')		8 11 13 17	24	1.6	0.0			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel fractures with gray Silty Clay, stiff, damp.	
	(8-10')		2 4 7 8	11	1.0	0.0			Very stiff.	2-in diameter Sch. 40 PVC casing 1.8' ags to 17.0' bgs
10	(10-12')		5 7 13 15	20	1.9	0.0			Brown SILT and CLAY, little fine to coarse Sand, trace fine Gravel, very stiff, damp.	
	(12-14')		3 6 7 9	13	2.0	0.0				
15	(14-16')		1 1	5	1.4	0.0				

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Remarks:
201WT22 water sample taken at a temporary screened interval of 17' to 22' bgs. Following the sampling event, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

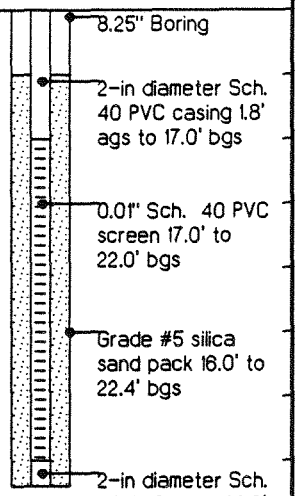
Well No. TW-20INT22

Total Depth = 22 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		4 5	5	1.4	0.0			Brown SILT and CLAY, little fine to coarse Sand, trace fine Gravel, very stiff, damp.
	(16-18')		3 3 4 3	7	1.8	0.0			0.1' seam of brown SILT and fine to coarse SAND, medium stiff, wet.
	(18-20')		1 2 3 2	5	2.0	0.0			Dark gray brown SILT and CLAY, little fine to medium Sand, trace coarse Sand and fine Gravel, soft, moist.
20	(20-22')		WOH 1 2 2	3	2.0	0.0			Trace fine to medium Gravel, soft, moist.
									Total depth of boring 22.0' bgs.
25									
30									
35									

Well Construction



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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/08/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-202WT19

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 3 4 7	7	1.3	4.7			Dark brown SILT, some fine to coarse Sand, trace Clay and organics, loose, damp.	
	(2-4')		3 9 6 8	15	1.6	2.4			Trace fine Gravel, trace glass, medium dense.	
5	(4-6')		1 3 2 2	5	1.5	1.7			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, stiff, dry.	8.25" Boring
	(6-8')		2 2 3 3	5	1.5	2.7			Dark brown to black SILT, some fine to coarse Sand, trace fine Gravel, wood and glass fragments, and roots, damp.	
	(8-10')		3 3 6 7	9	1.6	2.8			Light brownish gray fine to medium SAND, trace coarse Sand, very loose, moist.	2-in diameter Sch. 40 PVC casing 1.8' ags to 14.0' bgs
10	(10-12')		5 6 8 8	14	1.5	1.9			Little Silt.	
	(12-14')		6 9 12 13	21	2.0	2.7			Brown SILT and CLAY, trace fine to coarse Sand, trace fine Gravel, trace fractures filled with gray SILT and Clay, stiff, moist.	
15	(14-16')		2 2	5	1.3	1.6			Very stiff.	Grade #5 silica sand pack 13.0' to 20.0' bgs
									Dark grayish brown SILT and CLAY, little fine to medium Sand, trace	

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Remarks:
Attempted to obtain 202WT19 water sample from a temporary screened interval of 14' to 19' bgs. Due to no water production after six days, temporary well was pulled and boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-202WT19

Total Depth = 20 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 6	5	1.3	1.6			coarse Sand and fine Gravel, medium stiff, damp.	0.01" Sch. 40 PVC screen 14.0' to 19.0' bgs Grade #5 silica sand pack 13.0' to 20.0' bgs 2-in diameter Sch. 40 PVC sump 19.0' to 19.4' bgs
	(16-18')		2 3 5 7	8	1.2	0.6				
	(18-20')		1 3 4 5	7	1.8	2.3				
20									Total depth of boring 20.0' bgs.	
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/03/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-203WT14

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 5 4 2	9	1.2	4.3			Brown SILT, little fine to coarse Sand, trace Clay, medium stiff, moist.	
	(2-4')		1 1 2 2	3	1.0	3.1			Dark brown fine to coarse SAND, trace fine Gravel and slag, damp. Trace red tile.	
5	(4-6')		2 4 5 5	9	1.0	10.8			Dark brown SILT, little fine to coarse Sand, trace Clay, moist. Dark brown and orange fine to coarse SAND, trace fine Gravel, slag, and glass, moist.	8.25" Boring
	(6-8')		2 2 2 2	4	0.2	7.2				
	(8-10')		1 4 5 4	9	1.5	13.0			Moist to wet.	2-in diameter Galvanized casing 1.8' ags to 10.0' bgs
10	(10-12')								Lithology unknown. 203WT14 groundwater sample taken.	0.01" Stainless steel screen 10.0' to 14.0' bgs
	(12-14')									
15									Temporary Stainless steel well point advanced to 14.0' bgs.	2-in diameter Stainless steel sump 14.0' to 14.4' bgs

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Remarks:
203WT14 groundwater sample taken at a temporary screened interval of 10.0' to 14.0' bgs. Fowolling the sampling event, the temporary well point was removed and drilling resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/23/95 - 05/23/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 45 ft.

Geologist: Tim R. Osier

Well No. TW-203S145

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 5 4 2	9	1.2	4.3			Brown SILT, little fine to coarse Sand, trace Clay, medium stiff, moist.	
	(2-4')		1 1 2 2	3	1.0	3.1			Dark brown fine to coarse SAND, trace fine Gravel and slag, damp. Trace red tile.	8.25" boring
5	(4-6')		2 4 5 5	9	1.0	10.8			Dark brown SILT, little fine to coarse Sand, trace Clay, moist. Dark brown and orange fine to coarse SAND, trace fine Gravel, slag, and glass, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.5' bgs
	(6-8')		2 2 2 2	4	0.2	7.2			Moist to wet.	Cement grout
	(8-10')		1 4 5 4	9	1.5	13.0				
10	(10-12')								Lithology unknown. Groundwater sample 203WT14 taken.	2-in diameter Sch. 40 PVC well casing 1.8' to 42' bgs
	(12-14')								A 10-in diameter surface seal casing was installed ground surface to 22.5' bgs, drilling resumed through the casing.	
15	(14-16')									

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Remarks:
Augered continuously from 10.0' to 22.0' bgs and installed surface seal casing.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-203S145

Total Depth = 45 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								A 10-in diameter surface seal casing was installed ground surface to 22.5' bgs, drilling resumed through the casing.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.5' bgs
	(16-18')									
	(18-20')									
20	(20-22')									2-in diameter Sch. 40 PVC well casing 1.8' to 42' bgs
	(22-24')		2 1 1 1	2	NR	0.0			Brown SILT and CLAY, very soft, moist.	
25	(24-26')		2 2 2 2	4	2.0	0.0			Thin lenses of fine Sand.	8.25" boring
	(26-28')		WOH (24")	0	2.0	0.0				
	(28-30')		WOH (18") 2	0	2.0	0.0			Soft.	
30	(30-32')		WOH (18") 2	0	2.0	0.0				
	(32-34')		WOH (24")	0	2.0	0.0			Brown fine to coarse SAND, little Silt, loose, wet.	
35	(34-36')		WOH 2	4	2.0	0.0			At 33.8' bgs brown SILT, some Clay, trace Peat, soft, moist.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-203S145

Total Depth = 45 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2 2	4	2.0	0.0			At 34.0' bgs brown PEAT, some Clay, soft, moist.	8.25" Boring
	(36-38')		1 2 2 1	4	1.8	0.0			SILT and CLAY. Dark Brown PEAT, little Clay.	
	(38-40')		WOH (12") 2 3	2	2.0	0.0			Gray fine SAND, some Silt, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' to 42' bgs
40	(40-42')		3 4 5 6	7	1.2	0.0				
	(42-44')								Temporary Sch. 40 PVC well point advanced to 45.0' bgs. Lithology unknown. Groundwater sample 203S145 taken.	0.01" Sch. 40 PVC well screen 42.0' to 45.0' bgs
	(44-45')									
45									Total depth of boring 45.0' bgs.	2-in diameter Sch. 40 PVC sump 45.0' to 45.4' bgs
50										
55										

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Remarks:
203S145 groundwater sample taken at a tempoary screened interval of 42.0' to 45.0' bgs. Following the sampling event, the temporary well point was removed and drilling resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 05/23/95 - 05/23/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 53 ft.

Geologist: Tim R. Osier

Well No. TW-203S25I

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	
		(0-2')		2 5 4 2	9	1.2	4.3			Brown SILT, little fine to coarse Sand, trace Clay, medium stiff, moist.	
		(2-4')		1 1 2 2	3	1.0	3.1			Dark brown fine to coarse SAND, trace fine Gravel and slag, damp. Trace red tile.	8.25" boring
5		(4-6')		2 4 5 5	9	1.0	10.8			Dark brown SILT, little fine to coarse Sand, trace Clay, moist. Dark brown and orange fine to coarse SAND, trace fine Gravel slag, and glass, moist.	Cement grout
		(6-8')		2 2 2 2	4	0.2	7.2			Moist to wet.	
		(8-10')		1 4 5 4	9	1.5	13.0				10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.5' bgs
10		(10-12')								Lithology unknown. Groundwater sample 203WT14 taken.	2-in diameter Sch. 40 PVC well casing 1.8' to 48' bgs
		(12-14')								A 10-in diameter surface seal casing was installed ground surface to 22.5' bgs, drilling resumed through casing.	
15		(14-16')									

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Remarks:
Augered continuously from 10.0' to 22.0' bgs and installed surface seal casing.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-203S251

Total Depth = 53 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								A 10-in diameter surface seal casing was installed ground surface to 22.5' bgs, drilling resumed through casing.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.5' bgs
	(16-18')									
	(18-20')									
20	(20-22')									2-in diameter Sch. 40 PVC well casing 1.8' to 48' bgs
	(22-24')		2 1 1 1	2	NR	0.0			Brown SILT and CLAY, very soft, moist.	
25	(24-26')		2 2 2 2	4	2.0	0.0				8.25" boring
	(26-28')		WOH (24")	0	2.0	0.0			Thin lenses of fine Sand.	
	(28-30')		WOH (18") 2	0	2.0	0.0			Soft.	
30	(30-32')		WOH (18") 2	0	2.0	0.0				
	(32-34')		WOH (24")	0	2.0	0.0				
	(34-36')		WOH 2	4	2.0	0.0			Brown fine to coarse SAND, little Silt, loose, wet. At 33.8' bgs brown SILT, some Clay, trace Peat, soft, moist.	
35										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-203S251

Total Depth = 53 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		2 2	4	2.0	0.0			At 34.0' bgs brown PEAT, some Clay, soft, moist.	
		(36-38')		1 2 2 1	4	1.8	0.0			SILT and CLAY. Dark Brown PEAT, little Clay.	8.25" Boring
		(38-40')		WOH (12") 2 3	2	2.0	0.0			Gray fine SAND, some Silt, loose, wet.	
40		(40-42')		3 4 5 6	7	1.2	0.0				2-in diameter Sch. 40 PVC well casing 1.8' to 48' bgs
		(42-45')								Lithology unknown. Groundwater sample 203S145 taken.	
45		(45-47')		10 11 15 28	26	2.0	0.0			Gray fine SAND, some Silt, loose. Gray brown SILT, little Clay, some fine Sand, trace fine Gravel, very stiff, moist to wet.	
		(47-49')		7 12 15 25	27	1.8	0.0			Brown fine to coarse SAND and SILT, dense, moist to wet.	Grade #5 silica sand pack 46.0' to 53.0'
50		(49-51')		6 11 12 7	23		0.0			SILT, some Clay, hard, moist. Fine to coarse SAND and SILT, loose, moist, to wet.	0.01" Sch. 40 PVC well screen 48.0' to 51.0' bgs
		(51-53')		4 5 5 4	10	1.9	0.0			Brown fine SAND and SILT, some Clay, hard, moist. Brown SILT, some Clay, hard, moist.	2-in diameter Sch. 40 PVC sump 51.0' to 51.4' bgs
55										Total depth of boring 53.0' bgs.	

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Remarks:
203S251 groundwater sample taken at a temporary screened interval of 48.0' to 51.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 10 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-205WT14

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 4 6 12	10	1.4	27.0			Brown fine SAND and SILT, trace roots, moist.	
	(2-4')		6 24 24 28	48	1.7	204			Dark brown to black SILT, some fine to medium Sand, moist.	
5	(4-6')		10 26 20 10	46	1.8	272			Light brown to gray fine to coarse SAND, little fine Gravel, moist. Dark brown to black fine to coarse SAND, little fine Gravel, trace slag, trace red tile, loose, damp.	2-in diameter Galvanized casing 1.8' ags to 10.0' bgs
	(6-8')		1 1 2 2	3	1.6	5.8			Brown SILT, some Clay, trace fine to coarse Sand, moist.	8.25" Boring
	(8-10')		1 2 1 2	3	1.8	0.0			Brown fine to medium SAND, trace coarse Sand, moist. Dark gray fine to medium SAND, trace Silt, wet.	
10	(10-12')								Lithology unknown. 205WT14 groundwater sample taken.	0.01" Stainless steel screen 10.0' to 14.0' bgs
	(12-14')									2-in diameter Stainless steel sump 14.0' to 14.4' bgs
15									Temporary Stainless steel well point advanced to 14.4' bgs.	

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Remarks:
205WT14 water sample taken at a temporary screened interval of 10' to 14' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-205S142

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		1 4 6 12	10	1.4	27.0			Brown fine SAND and SILT, trace roots, moist.	
	(2-4')		6 24 24 28	48	1.7	204.0			Dark brown to black SILT, some fine to medium Sand, moist.	
5	(4-6')		10 26 20 10	46	1.8	272.0			Light brown to gray fine to coarse SAND, little fine Gravel, moist. Dark brown to black fine to coarse SAND, little fine Gravel, trace slag, trace red tile, loose, damp.	
	(6-8')		1 1 2 2	3	1.6	5.8			Brown SILT, some Clay, trace fine to coarse Sand, moist.	2-in diameter Galvanized casing 1.8' ags to 38.0' bgs
	(8-10')		1 2 1 2	3	1.8	0.0			Brown fine to medium SAND, trace coarse Sand, moist. Dark gray fine to medium SAND, trace Silt, wet.	8.25" Boring
10	(10-12')								Lithology unknown. 205WT14 groundwater sample taken.	
	(12-14')									
15	(14-16')		1 1	3	2.0	3.0			Dark gray fine to medium SAND, trace Silt, wet.	

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Remarks:
205S142 water sample taken at a temporary screened interval of 38' to 42' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-205S142

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	3	2.0	3.0			@ 14.3', Very dark gray SILT, some Clay, trace fine Sand, soft, moist.	
	(16-18')		WOH 1 1 2	2	1.8	2.9				
	(18-20')		WOH 2 1 2	3	1.7	2.1			Dark brown SILT and ORGANICS, wet.	
20	(20-22')		WOH 2 3 3	5	2.0	1.8			Dark gray SILT, some Clay, trace fine Sand, trace shells, moist.	2-in diameter Galvanized casing 1.8' ags to 38.0' bgs
	(22-24')		WOH (12") 1 1	1	2.0	3.5				8.25" Boring
25	(24-26')		WOH (12") 1 (12")	1	1.8	3.8			Dark gray SILT and CLAY, little fine Sand, soft to medium stiff, moist.	
	(26-28')		WOH (18") 1	0	2.0	2.5			<0.01' seam of very fine gray SAND. 0.01' lense of ORGANICS.	
	(28-30')		WOH (12") 1 1	1	2.0	1.9			<0.01' seam of fine gray SAND.	
30	(30-32')		WOH 1 1 2	2	1.6	1.4				
	(32-34')		WOH (12") 1 2	1	2.0	2.8			0.02' seam of gray fine SAND.	
35	(34-36')		WOH (12")	1	2.0	3.4				

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-205S142

Total Depth = 38 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		1 2	1	2.0	3.4			0.01' seam of gray fine SAND and ORGANICS.	2-in diameter Galvanized casing 1.8' ags to 38.0' bgs
	(36-38')		WOH (18") 6	0	2.0	3.3			0.01' seam of gray fine SAND. Gray brown fine to medium SAND, trace coarse Sand, little shell fragments, very loose, wet.	8.25" Boring
	(38-40')								Lithology unknown. 205S142 groundwater sample taken.	0.01" Stainless steel screen 38.0' to 42.0' bgs
40	(40-42.4')									
									Temporary Stainless steel well point advanced to 42.4' bgs.	2-in diameter Stainless steel sump 42.0' to 42.4' bgs
45										
50										
55										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 52 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-205S250

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 4 6 12	10	1.4	27.0			Brown fine SAND and SILT, trace roots, moist.	
	(2-4')		6 24 24 28	48	1.7	204.0			Dark brown to black SILT, some fine to medium Sand, moist.	
5	(4-6')		10 26 20 10	46	1.8	272.0			Light brown to gray fine to coarse SAND, little fine Gravel, moist. Dark brown to black fine to coarse SAND, little fine Gravel, trace slag, trace red tile, loose, damp.	
	(6-8')		1 1 2 2	3	1.6	5.8			Brown SILT, some Clay, trace fine to coarse Sand, moist.	2-in diameter Galvanized casing 1.8' ags to 46.0' bgs
	(8-10')		1 2 1 2	3	1.8	0.0			Brown fine to medium SAND, trace coarse Sand, moist. Dark gray fine to medium SAND, trace Silt, wet.	8.25" Boring
10	(10-12')								Lithology unknown. 205WT14 groundwater sample taken.	
	(12-14')									
15	(14-16')		1 1	3	2.0	3.0			Dark gray fine to medium SAND, trace Silt, wet.	

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Remarks:
205S250 water sample taken at a temporary screened interval of 46' to 50' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-205S250

Total Depth = 52 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	3	2.0	3.0			@ 14.3', Very dark gray SILT, some Clay, trace fine Sand, soft, moist.	
	(16-18')		WOH 1 1 2	2	1.8	2.9			Dark brown SILT and ORGANICS, wet.	
	(18-20')		WOH 2 1 2	3	1.7	2.1			Dark gray SILT, some Clay, trace fine Sand, trace shells, moist.	
20	(20-22')		WOH 2 3 3	5	2.0	1.8				2-in diameter Galvanized casing 1.8' ags to 46.0' bgs
	(22-24')		WOH (12") 1 1	1	2.0	3.5				8.25" Boring
25	(24-26')		WOH (12") 1 (12")	1	1.8	3.8			Dark gray SILT and CLAY, little fine Sand, soft to medium stiff, moist.	
	(26-28')		WOH (18") 1	0	2.0	2.5			<0.01' seam of very fine gray SAND. 0.01' lense of ORGANICS.	
	(28-30')		WOH (12") 1 1	1	2.0	1.9			<0.01' seam of gray fine SAND.	
30	(30-32')		WOH 1 1 2	2	1.6	1.4				
	(32-34')		WOH (12") 1 2	1	2.0	2.8			0.02' seam of gray fine SAND.	
35	(34-36')		WOH (12")	1	2.0	3.4				

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-205S250

Total Depth = 52 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		1 2	1	2.0	3.4			0.01' seam of gray fine SAND and ORGANICS.	
	(36-38')		WOH (18") 6	0	2.0	3.3			0.01' seam of gray fine SAND. Gray brown fine to medium SAND, trace coarse Sand, little shell fragments, very loose, wet.	2-in diameter Galvanized casing 1.8' ags to 46.0' bgs
	(38-40')								Lithology unknown. 205S142 groundwater sample taken.	
40	(40-42')									
	(42-44')		WOH (12") 3 2	3	1.2	3.3			Gray brown fine to medium SAND, trace coarse Sand, little shell fragments, very loose, wet.	8.25" Boring
45	(44-46')		1 1 1 3	2	1.0	5.2			Trace fine to medium Gravel.	
	(46-48')		WOH 1 6 5	7	1.0	4.6				0.01" Stainless steel screen 46.0' to 50.0' bgs
	(48-50')		4 5 4 6	9	1.8	3.1				Grade #5 silica sandpack 45.0' to 52.0' bgs
50	(50-52')		1 1 2 2	3	1.7	2.9			Gray brown SILT, little Clay, trace fine to medium Sand, soft, wet.	2-in diameter Stainless steel sump 50.0' to 50.4' bgs
									Gray SILT and CLAY, trace fine to medium Sand, soft to medium stiff, wet. Total depth of boring 52.0 ft. bgs.	
55										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 02/03/95 – 02/07/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Ron Kuhn

Well No. TW-206WT14

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 4 4 6	8	2.0	5.8			Dark brown and black fine to medium SAND, little Silt, trace green glass, moist.	
	(2-4')		2 4 4 29	8	2.0	8.3			No glass, trace medium Gravel.	
5	(4-6')		1 4 8 6	12	1.4	9.0				
	(6-8')		7 8 11 9	19	1.4	17.8			Black fine to medium SAND, trace fine Gravel, Silt, and metal scraps, wet.	2-in diameter Galvanized casing 1.8' ags to 10.0' bgs
	(8-10')		1 1 2 2	3	1.6	10.9			Brown SILT, trace Clay, organics (roots), and shells, wet to saturated.	8.25" Boring
10	(10-12')								Lithology unknown, 206WT14 groundwater sample taken.	0.01" Stainless steel screen 10.0' to 14.0' bgs
	(12-14')									2-in diameter Stainless steel sump 14.0' to 14.4' bgs
15	(14-16')		0 1	2	0.8	0.0			Brown SILT and CLAY, trace fine Sand, very soft, wet.	

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Remarks:
206WT14 water sample taken at a temporary screened interval of 10.0' to 14.0' bgs. Following the sampling event, the temporary well point removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-206WT14

Total Depth = 42 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		0 1	2	0.8	0.0			some Clay, trace shells and organics (roots).	
	(16-18')		1 1 2 1	3	1.4	0.0			little clay, little organics.	
	(18-20')		WOH (24")	0	2.0	0.0				
20	(20-22')		WOH (24")	0	2.0	0.0			Brown SILT and CLAY, trace fine Sand and organics, very soft, wet.	
	(22-24')		WOH (24")	0	2.0	0.0				
	(24-26')		WOH (24")	0	2.0	0.0			Gray brown SILT and CLAY, very soft, wet.	
25									2-in. brown Peat layer, wet.	
	(26-28')		WOH (24")	0	2.0	0.0			Gray brown SILT and CLAY, very soft, wet.	
	(28-30')		WOH (24")	0	2.0	0.0			Moist and soft.	
30	(30-32')		WOH (24")	0	2.0	0.0				
	(32-34')		WOH (24")	0	2.0	0.0			Trace shells.	
35	(34-36')		WOH (18")	0	2.0	0.0			Gray Silty CLAY, fine Sand seams throughout, soft, moist.	

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Remarks:
Due to the absence of a lower sand unit, no further temporary well points were driven and sampled. WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-206WT14

Total Depth = 42 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2	0	2.0	0.0			Gray Silty CLAY, fine Sand seams throughout, soft, moist.	
	(36-38')		WOH (24")	0	2.0	0.0				
	(38-40')		WOH (12") 2 2	2	2.0	0.0			Trace organics (roots).	
40	(40-42')		WOH (18") 3	0	2.0	0.0			Trace shells.	
									Total depth of boring 42.0 ft. bgs.	
45										
50										
55										

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Remarks:
The boring was backfilled to grade with grout.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/07/95 - 02/07/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14 ft.

Geologist: Ron Kuhn

Well No. TW-207WT14

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 8 14 14	22	2.0	0.0			Dark brown and black fine to medium SAND, trace Silt, fine Gravel, glass, and slag, moist.	
	(2-4')		1 5 8 5	13	2.0	0.4				
5	(4-6')		1 1 2 2	3	1.4	0.0			Little Silt, no glass.	
	(6-8')		0 1 1 2	2	1.4	1.8			Black fine to medium SAND, little Silt, trace slag, damp.	2-in diameter Galvanized casing 1.8' ags to 10.0' bgs
	(8-10')		2 1 2 2	3	1.6	0.0			Brown SILT, little Clay, very soft, wet.	8.25" Boring
10	(10-12')								Lithology unknown. 207WT14 groundwater sample taken.	
	(12-14.4')								Temporary Stainless steel well point advanced to 14.4' bgs.	0.01" Stainless steel screen 10.0' to 14.0' bgs 2-in diameter Stainless steel sump 14.0' to 14.4' bgs
15										

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Remarks:
207WT14 water sample taken at a temporary screened interval of 10.0' to 14.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/14/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 5 ft.

Geologist: Ray Morano

Well No. TW-208WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		45 40 9 10	49	2.0	2.5			Black fine SAND, trace cinders and debris, dry.	2-in diameter Galvanized casing 1.8' ags to 5.0' bgs
	(2-4')		3 3 3 4	6	1.1	5.8			Moist.	8.25" Boring
5	(4-6')		2 3 4 6	7	0.8	1.3			Wet.	0.01" Stainless steel screen 5.0' to 8.0' bgs
	(6-8.4')								Lithology unknown. 208WT8 groundwater sample taken.	
10									Temporary Stainless stell well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:
208WT8 water sample taken at a temporary screened interval of 5.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 02/14/95 – 02/14/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: Ray Morano

Well No. TW-208S119

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		45 40 9 10	49	2.0	2.5			Black fine SAND, trace cinders and debris, dry.	
	(2-4')		3 3 3 4	6	1.1	5.8			Moist.	
5	(4-6')		2 3 4 6	7	0.8	1.3			Wet.	
	(6-8')								Lithology unknown. 208WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(8-10')		1 1 2 2	3	0.7	1.2			Dark gray to black medium to coarse SAND, little cinders, wet. Brown SILT, little fine Sand, wet.	8.25" Boring
10	(10-12')		1 1 1 1	2	1.0	1.1			Gray Clayey SILT, trace fine Sand and shell fragments, wet.	
	(12-14')		WOH 1 2 2	3	1.4	1.2			Trace Peat.	
15	(14-16')		1 2	5	1.2	1.4			Gray SILT, trace Clay, fine Sand and wood and shell fragments, wet.	

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Remarks:
208S119 water sample taken at a temporary screened interval of 16.0' to 19.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-208S119

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 3	5	1.2	1.4			Gray SILT, trace Clay, fine Sand and wood and shell fragments, wet.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(16-18')		2 2 2 3	4	1.0	0.6			Brownish gray fine SAND, little Silt, trace Clay and shell fragments, wet.	0.01" Stainless steel screen 16.0' to 19.0' bgs
	(18-20')								Lithology unknown. 208S119 groundwater sample taken.	
20									Temporary Stainless steel well point advanced to 19.4' bgs.	2-in diameter Stainless steel sump 19.0' to 19.4' bgs
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/14/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Ray Morano

Well No. TW-208S227

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	
		(0-2')		45 40 9 10	49	2.0	2.5			Black fine SAND, trace cinders and debris, dry.	
		(2-4')		3 3 3 4	6	1.1	5.8			Moist.	
5		(4-6')		2 3 4 6	7	0.8	1.3			Wet.	
		(6-8')								Lithology unknown. 208WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
		(8-10')		1 1 2 2	3	0.7	1.2			Dark gray to black medium to coarse SAND, little cinders, wet.	8.25" Boring
10										Brown SILT, little fine Sand, wet.	
		(10-12')		1 1 1 1	2	1.0	1.1			Gray Clayey SILT, trace fine Sand and shell fragments, wet.	
		(12-14')		WOH 1 2 2	3	1.4	1.2			Trace Peat.	
15		(14-16')		1 2	5	1.2	1.4			Gray SILT, trace Clay, fine Sand, and wood and shell fragments, wet.	

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Remarks:
208S227 water sample taken at a temporary screened interval of 24.0' to 27.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-208S227

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		3 3	5	1.2	1.4			Gray SILT, trace Clay, fine Sand and wood and shell fragments, wet.
	(16-18')		2 2 2 3	4	1.0	0.6			Brownish gray fine SAND, little Silt, trace Clay and shell fragments, wet.
	(18-20')								Lithology unknown. 208S119 groundwater sample taken.
20	(20-22')		2 3 5 5	8	1.8	1.6			Gray fine to medium SAND, trace Silt, trace shell fragments, wet.
	(22-24')		2 2 3 4	5	1.8	1.3			
25	(24-26')		1 2 3 3	5	2.0	1.3			Gray SILT, wet.
	(26-28')		WOH (12") 2 3	2	1.5	1.3			Gray fine SAND, little Silt, wet. Gray fine to medium SAND, trace shell fragments, wet.
	(28-30')		1 1 1 1	2	1.3	2.4			Gray Clayey SILT, little fine Sand, wet. Gray fine SAND, wet. Gray Clayey SILT, trace fine Sand, wet.
30									Little fine Sand, trace shell fragments and organic matter. Total depth of boring 30.0' bgs.
35									

Well Construction

- 2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
- 8.25" Boring
- Grade #5 silica sandpack 23.0' to 30.0' bgs
- 0.01" Stainless steel screen 24.0' to 27.0' bgs
- 2-in diameter Stainless steel sump 27.0' to 27.4' bgs

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/14/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 4 ft.

Geologist: James Saxton

Well No. TW-209WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 40 15 5	55	1.6	1.0			Black medium to coarse SAND, little fine Sand, trace Silt, frozen to 0.5', then moist. Trace brick fragments.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		4 6 6 6	12	0.8	4.7			Wet.	8.25" Boring
5	(4-6')								Lithology unknown. 209WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									2-in diameter Stainless steel sump 8.0' to 8.4' bgs
									Temporary Stainless steel well point advanced to 8.4' bgs.	
10										
15										

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Remarks:
209WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 02/14/95 - 02/14/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: James Saxton

Well No. TW-209S120

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 40 15 5	55	1.6	1.0			Black medium to coarse SAND, little fine Sand, trace Silt, frozen to 0.5', then moist.	
	(2-4')		4 6 6 8	12	0.8	4.7			Trace brick fragments. Wet.	
5	(4-6')								Lithology unknown. 209WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(6-8')									
	(8-10')		4 4 4 4	8	NR	2.8			Dark brown SILT, trace Clay.	8.25" Boring
10	(10-12')		WOH (18") 1	0	2.0	0.9				
	(12-14')		2 1 1 1	2	1.9	2.9			Trace Clay alternating with dark brown fine Sand and Silt.	
15	(14-16')		WOH (18")	0	2.0	0.3			Dark brown fine SAND, little to some Silt, wet.	

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Remarks:
209S120 water sample taken at a temporary screened interval of 16.0' to 20.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-209S120

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1	0	2.0	0.3			Dark brown fine SAND, little to some Silt, wet.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(16-18')								Lithology unknown. 209S120 groundwater sample taken.	0.01" Stainless steel screen 16.0' to 20.0' bgs
20	(18-20.4')								Temporary Stainless steel well point advanced to 20.4' bgs.	2-in diameter Stainless steel sump 20.0' to 20.4' bgs
25										
30										
35										

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Remarks:
WOH - Weight of hammer.
NR - No recovery, redrove sampler.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/14/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: James Saxton

Well No. TW-209S229

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 40 15 5	55	1.6	1.0			Black medium to coarse SAND, little fine Sand, trace Silt, frozen to 0.5', then moist.	
	(2-4')		4 6 6 6	12	0.8	4.7			Trace brick fragments. Wet.	
5	(4-6')								Lithology unknown. 209WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 25.0' bgs
	(6-8')									8.25" Boring
	(8-10')		4 4 4 4	8	NR	2.8			Dark brown SILT, trace Clay.	
10	(10-12')		WOH (18") 1	0	2.0	0.9				
	(12-14')		2 1 1 1	2	1.9	2.9			Trace Clay alternating with dark brown fine Sand and Silt.	
15	(14-16')		WOH (18')	0	2.0	0.3			Dark brown fine SAND, little to some Silt, wet.	

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Remarks:
209S229 water sample taken at a temporary screened interval of 25.0' to 29.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

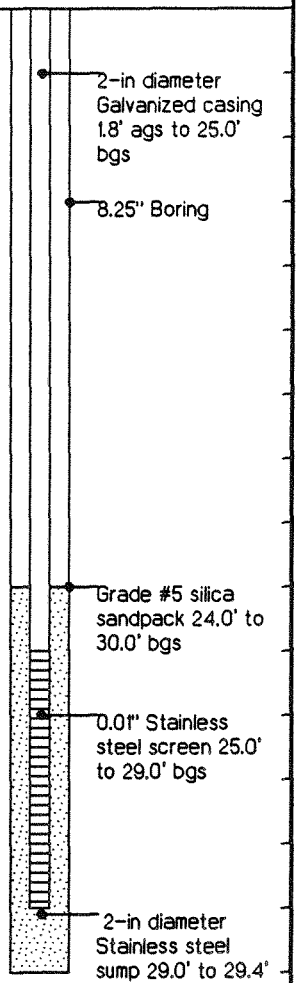
Client:
General Motors Corporation

Well No. TW-209S229

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1	0	2.0	0.3			Dark brown fine SAND, little to some Silt, wet.
	(16-18')								Lithology unknown. 209S120 groundwater sample taken.
	(18-20')								
20	(20-22')		1 1 2 1	3	0.6	1.0			Dark gray fine to medium SAND, trace Silt and shell fragments, wet.
	(22-24')		WOH 1 3 3	4	1.2	1.1			
25	(24-26')		1 (12") 2 2	2	0.3	1.6			
	(26-28')		1 2 3 1	5	1.9	1.0			Dark gray CLAY, some Silt, trace shell fragments.
	(28-30')		1 1 2 1	3	1.0	1.1			Dark gray fine to medium SAND, some Silt. Gray SILT and CLAY, wet.
30									Total depth of boring 30.0' bgs.
35									

Well Construction



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Remarks:
WOH - Weight of hammer.
NR - No Recovery, redrove sampler.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/15/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 4 ft.

Geologist: James Saxton

Well No. TW-210WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		10 21 44 19	65	2.0	0.3			Black fine to medium SAND, some Silt, trace slag and cinders.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		3 2 1 1	3	1.7	9.4				8.25" Boring
5	(4-6')								Green glass fragments (coarse sand size), wet. Lithology unknown. 210WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									
10									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:

210WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/14/95 - 02/15/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: James Saxton

Well No. TW-210S116

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 21 44 19	65	2.0	0.3			Black fine to medium SAND, some Silt, trace slag and cinders.	2-in diameter Galvanized casing 1.8' ags to 12.0' bgs
	(2-4')		3 2 1 1	3	1.7	9.4				
5	(4-6')								Green glass fragments (coarse sand size), wet. Lithology unknown. 210WT8 groundwater sample taken.	8.25" Boring
	(6-8')									
	(8-10')		1 (18") 1	0	1.8	0.4			Dark brown SILT, some fine Sand, trace Clay.	
10	(10-12')		WOH (12") 1 1	1	1.4	1.1			Gray fine SAND and SILT. Gray fine SAND, some Silt.	
	(12-14')								Lithology unknown. 210S116 groundwater sample taken.	0.01" Stainless steel screen 12.0' to 16.0' bgs
15	(14-16.4')									

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Remarks:
210S116 water sample taken at a temporary screened interval of 12.0' to 16.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-210S116

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16.4')								Lithology unknown. 210S116 groundwater sample taken.	2-in diameter Stainless steel sump 16.0' to 16.4' bgs
									Temporary Stainless steel well point advanced to 16.4' bgs.	
20										
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth
		⊽
		⊽
		▽

Date Start-Finish: 02/14/95 - 02/15/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32 ft.

Geologist: James Saxton

Well No. TW-210S230

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 21 44 19	65	2.0	0.3			Black fine to medium SAND, some Silt, trace slag anf cinders.	
	(2-4')		3 2 1 1	3	1.7	9.4				
									Green glass fragments (coarse sand size), wet.	
5	(4-6')								Lithology unknown. 210WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 26.0' bgs
	(6-8')									
	(8-10')		1 (18") 1	0	1.8	0.4			Dark brown SILT, some fine Sand, trace Clay.	8.25" Boring
									Gray fine SAND and SILT.	
10	(10-12')		WOH (12") 1 1	1	1.4	1.1			Gray fine SAND, some Silt.	
	(12-14')								Lithology unknown. 210S116 groundwater sample taken.	
15	(14-16')									

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Remarks:
210S230 water sample taken at a temporary screened interval of 26.0' to 30.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-210S230

Total Depth = 32 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')								Lithology unknown. 210S116 groundwater sample taken.
	(16-18')		1 1 2 1	3	1.3	1.2			Dark brown fine SAND, some Silt, trace shells, faint odor.
	(18-20')		WOH (12") 1 1	1	1.5	NA			
20	(20-22')		1 (12") 2 2	2	1.2	NA			
	(22-24')		WOH (12") 3 4	3	1.4	NA			
25	(24-26')		1 3 3 4	6	1.6	NA			
	(26-28')								Lithology unknown. 210S230 groundwater sample taken.
	(28-30')								
30	(30-32')		WOH (12") 1 1	1	1.0	NA			Dark gray SILT, some Clay, little fine Sand.
									Total depth of boring 32.0' bgs.
35									

Well Construction

- 2-in diameter Galvanized casing 1.8' ags to 26.0' bgs
- 8.25" Boring
- 0.01" Stainless steel screen 26.0' to 30.0' bgs
- 2-in diameter Stainless steel sump 30.0' to 30.4' bgs

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Remarks:
WOH - Weight of hammer.
NA - Not available.
MDNR split-sample taken at 210S230.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 7 ft.

Geologist: Ray Morano

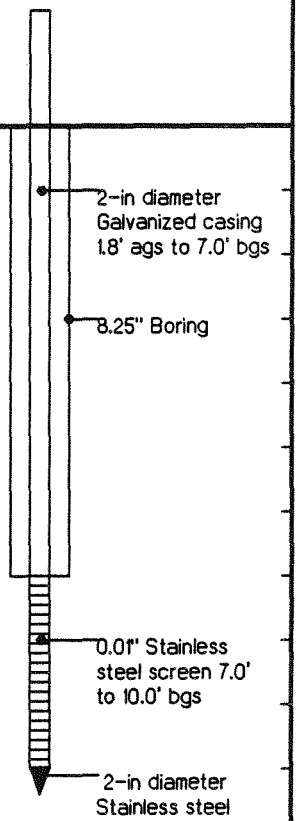
Well No. TW-211WT10

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		20 40 24 17	64	2.0	0.1			Dark brown to black fine SAND and SILT, little cinders, dry.
	(2-4')		2 3 2 3	5	2.0	0.2			Moist.
5	(4-6')		2 2 2 3	4	1.6	0.7			Dark brown to black fine SAND, moist.
	(6-8')		2 2 2 2	4	2.0	2.2			Wet.
10	(8-10.4')		1 1 1 2	2	1.6	2.8			Brownish gray SILT, little Clay, trace shell and wood fragments, wet. Gray SILT, little fine Sand, trace Clay and shell fragments, wet.
15									Temporary Stainless steel well point advanced to 10.4'.

Well Construction



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Remarks:
211WT10 water sample taken at a temporary screened interval of 7.0' to 10.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 22 ft.

Geologist: Ray Morano

Well No. TW-211S122

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		20 40 24 17	64	2.0	0.1			Dark brown to black fine SAND and SILT, little cinders, dry.	
	(2-4')		2 3 2 3	5	2.0	0.2			Moist.	
5	(4-6')		2 2 2 3	4	1.6	0.7			Dark brown to black fine SAND, moist.	
	(6-8')		2 2 2 2	4	2.0	2.2			Wet.	2-in diameter Galvanized casing 1.8' ags to 19.0' bgs
	(8-10')		1 1 1 2	2	1.6	2.8			Brownish gray SILT, little Clay, trace shell and wood fragments, wet. Gray SILT, little fine Sand, trace Clay and shell fragments, wet.	8.25" Boring
10	(10-12')		WOH 1 1 2	2	1.6	3.5				
	(12-14')		1 1 1 1	2	2.0	6.5			Gray Clayey SILT, trace fine Sand and shell fragments. Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.	
15	(14-16')		1 1	2	2.0	1.7				

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Remarks:
211S122 water sample taken at a temporary screened interval of 19.0' to 22.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

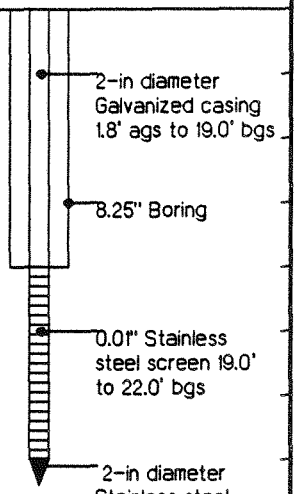
Well No. TW-211S122

Total Depth = 22 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 1	2	2.0	1.7			Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.
	(16-18')		2 3 4 5	7	1.8	1.7			Gray fine SAND, trace wood and shell fragments, wet.
	(18-20')		WOH 1 2 2	3	1.5	2.6			Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.
20									Gray fine SAND, trace shell fragments, wet.
	(20-22.4')		1 2 2 2	4	1.0	2.9			Gray fine to medium SAND, trace shell fragments, wet.
									Temporary Stainless steel well point advanced to 22.4'.
25									
30									
35									

Well Construction



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engineers & scientists

Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32 ft.

Geologist: Ray Morano

Well No. TW-211S230

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		20 40 24 17	64	2.0	0.1			Dark brown to black fine SAND and SILT, little cinders, dry.	
	(2-4')		2 3 2 3	5	2.0	0.2			Moist.	
5	(4-6')		2 2 2 3	4	1.6	0.7			Dark brown to black fine SAND, moist.	2-in diameter Galvanized casing 1.8' ags to 26.5' bgs
	(6-8')		2 2 2 2	4	2.0	2.2			Wet.	
	(8-10')		1 1 1 2	2	1.6	2.8			Brownish gray SILT, little Clay, trace shell and wood fragments, wet. Gray SILT, little fine Sand, trace Clay, trace shell fragments, wet.	8.25" Boring
10	(10-12')		WOH 1 1 2	2	1.6	3.5				
	(12-14')		1 1 1 1	2	2.0	6.5			Gray Clayey SILT, trace fine Sand and shell fragments. Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.	
15	(14-16')		1 1	2	2.0	1.7				

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Remarks:
211S230 water sample taken at a temporary screened interval of 26.5' to 29.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		↧
		▽
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

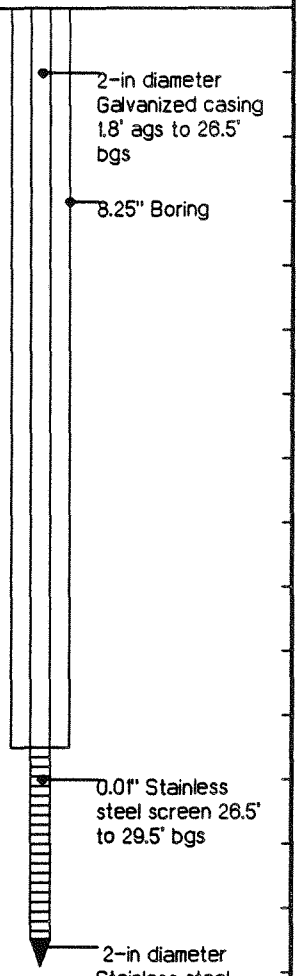
Client:
General Motors Corporation

Well No. TW-211S230

Total Depth = 32 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 1	2	2.0	1.7			Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.
	(16-18')		2 3 4 5	7	1.8	1.7			Gray fine SAND, trace wood and shell fragments, wet.
	(18-20')		WOH 1 2 2	3	1.5	2.6			Dark brown SILT, little fine Sand, trace Clay, wood and shell fragments, and organic matter, wet.
20									Gray fine SAND, trace shell fragments, wet.
	(20-22')		1 2 2 2	4	1.0	2.9			Gray fine to medium SAND, trace shell fragments, wet.
	(22-24')		2 2 4 6	6	1.2	3.1			Gray fine SAND, some Silt, wet.
									Gray fine to medium SAND, trace shell fragments, wet.
25	(24-26')		2 2 3 4	5	2.0	2.0			Dark gray fine SAND, some Silt, wet.
	(26-28')		1 1 1 1	2	2.0	2.7			Gray fine to medium SAND, trace shell fragments, wet.
	(28-30')		1 1 1 1	2	2.0	1.0			
30	(30-32')		WOH 1 1 1	2	0.7	1.0			Gray Silty CLAY, soft, wet.
									Total depth of boring 32.0' bgs.
35									

Well Construction



BBL
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engineers & scientists

Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 6 ft.

Geologist: James Saxton

Well No. TW-212WT10

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		14 22 45 30	67	2.0	0.1			Dark brown red SILT and fine SAND with cinders, trace glass, moist.	2-in diameter Galvanized casing 1.8' ags to 6.0' bgs
	(2-4')		4 5 2 2	7	1.3	0.2			Gray CLAY.	8.25" Boring
5	(4-6')		1 1 2 3	3	1.6	1.2			Green glasslike particles. Wet.	
	(6-8')								Lithology unknown. 212WT10 groundwater sample taken.	0.01" Stainless steel screen 6.0' to 10.0' bgs
	(8-10.4')									
10									Temporary Stainless steel well point advanced to 10.4' bgs.	2-in diameter Stainless steel sump 10.0' to 10.4' bgs
15										

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Remarks:
212WT10 water sample taken at a temporary screened interval of 6.0' to 10.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: James Saxton

Well No. TW-212S118

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		14 22 45 30	67	2.0	0.1			Dark brown red SILT and fine SAND with cinders, trace glass, moist.	
	(2-4')		4 5 2 2	7	1.3	0.2			Gray CLAY.	
5	(4-6')		1 1 2 3	3	1.6	1.2			Green glasslike particles. Wet.	
	(6-8')								Lithology unknown. 212WT10 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 14.0' bgs
	(8-10')									8.25" Boring
10	(10-12')		WOH (12") 1 1	1	2.0	0.1			Dark gray SILT, some fine Sand, wet.	
	(12-14')		WOH 1 1 2	2	2.0	0.2			Grades to SILT and fine SAND, wet.	
									Dark gray fine SAND, little Silt, wet.	
15	(14-16')								Lithology unknown. 212S118 groundwater sample taken.	

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Remarks:
212S118 water sample taken at a temporary screened interval of 14.0' to 18.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-212S118

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Lithology unknown. 212S118 groundwater sample taken.	0.01" Stainless steel screen 14.0' to 18.0' bgs
	(16-18.4")									2-in diameter Stainless steel sump 18.0' to 18.4' bgs
									Temporary Stainless steel well point advanced to 18.4' bgs.	
20										
25										
30										
35										

BBL
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engineers & scientists

Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/15/95 - 02/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 34 ft.

Geologist: James Saxton

Well No. TW-212S232

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		14 22 45 30	67	2.0	0.1			Dark brown red SILT and fine SAND with cinders, trace glass, moist.	
	(2-4')		4 5 2 2	7	1.3	0.2			Gray CLAY.	
5	(4-6')		1 1 2 3	3	1.6	1.2			Green glasslike particles. Wet.	
	(6-8')								Lithology unknown. 212WT10 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 28.0' bgs 8.25" Boring
	(8-10')									
10	(10-12')		WOH (12") 1 1	1	2.0	0.1			Dark gray SILT, some fine Sand, wet.	
	(12-14')		WOH 1 1 2	2	2.0	0.2			Grades to SILT and fine SAND, wet.	
									Dark gray fine SAND, little Silt, wet.	
15	(14-16')								Lithology unknown. 212S118 groundwater sample taken.	

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Remarks:
212S232 water sample taken at a temporary screened interval of 28.0' to 32.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-212S232

Total Depth = 34 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Lithology unknown. 212S118 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 28.0' bgs
	(16-18')									8.25" Boring
	(18-20')		WOH (18") 1	0	1.4	0.0			Dark gray fine SAND, little Silt, wet.	
20	(20-22')		WOH (12") 1 3	1	1.2	0.1			Dark gray fine SAND, some Silt, wet.	
	(22-24')		1 2 3 3	5	1.3	0.0			Dark gray fine SAND, little Silt, wet.	
25	(24-26')		1 2 3 4	5	2.0	0.1				
	(26-28')		2 3 4 3	7	1.3	0.1			Dark gray fine SAND, little Silt, trace medium gravel, wet.	
	(28-30')								Lithology unknown. 212S232 groundwater sample taken.	0.01" Stainless steel screen 28.0' to 32.0' bgs
30	(30-32')									
	(32-34')		WOH (24")	0	2.0	0.0			Dark gray SILT, some Clay, trace shell fragments, wet.	2-in diameter Stainless steel sump 32.0' to 32.4' bgs
35									Total depth of boring 34.0' bgs.	

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/16/95 - 02/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Ray Morano

Well No. TW-213WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 13 10 11	23	2.0	2.0			Black fine SAND and SILT, trace debris, moist.	2-in diameter Galvanized casing 1.8' ags to 5.0' bgs
	(2-4')		2 3 4 2	7	1.5	2.8			Black and orange fine SAND, little cinders, trace glass and debris, moist.	8.25" Boring
5	(4-6')		1 1 1 2	2	1.4	2.0			Brownish gray Clayey SILT, trace organics, wet.	
	(6-8.4')		3 2 3 3	5	1.0	2.6			Dark gray to black Clayey SILT, some organics, wet. Gray Clayey SILT, trace fine SAND and shell fragments, wet.	0.01" Stainless steel screen 5.0' to 8.0' bgs
10									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:
213WT8 water sample taken at a temporary screened interval of 5' to 8' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/16/95 - 02/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 23 ft.

Geologist: Ray Morano

Well No. TW-213S123

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										GROUND SURFACE	
		(0-2')		10 13 10 11	23	2.0	2.0			Black fine SAND and SILT, trace debris, moist.	
		(2-4')		2 3 4 2	7	1.5	2.8			Black and orange fine SAND, little cinders, trace glass and debris, moist.	
5		(4-6')		1 1 1 2	2	1.4	2.0			Brownish gray Clayey SILT, trace organics, wet.	
		(6-8')		3 2 3 3	5	1.0	2.6			Dark gray to black Clayey SILT, some organics, wet. Gray Clayey SILT, trace fine SAND and shell fragments, wet.	2-in diameter Galvanized casing 1.8' ags to 20.0' bgs 8.25" Boring
		(8-10')		1 (12") WOH (12")	1	2.0	4.4				
10		(10-12')		1 (12") 1 1	1	2.0	3.0			Gray SILT, little fine Sand, trace wood and shell fragments, wet.	
		(12-14')		1 1 1 1	2	2.0	4.4			Brownish gray SILT, trace Clay and fine Sand seams. Gray fine SAND, wet.	
15		(14-16')		1 1	2	2.0	3.1			Gray and dark brown banded SILT, little fine Sand, trace fine Sand	

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Remarks:
213S123 water sample taken at a temporary screened interval of 20' to 23' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-213S123

Total Depth = 23 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	2.0	3.1			seams, wood, and shell fragments, wet.	2-in diameter Galvanized casing 1.8' ags to 20.0' bgs
	(16-18')		1 1 1 1	2	1.8	2.3				8.25" Boring
	(18-20')		1 1 1 2	2	1.8	3.4				
20									Gray fine SAND, trace Silt.	
	(20-22')		WOH 1 2 2	3	1.4	2.4			Gray and dark brown banded SILT, little fine Sand, trace fine Sand seams, wood, and shell fragments, wet.	0.01" Stainless steel screen 20.0' to 23.0' bgs
	(22-24')								Gray fine to medium SAND, wet.	
									Temporary Stainless steel well point advanced to 23.4' bgs.	2-in diameter Stainless steel sump 23.0' to 23.4' bgs
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start–Finish: 02/16/95 – 02/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Ray Morano

Well No. TW-213S227

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		10 13 10 11	23	2.0	2.0			Black fine SAND and SILT, trace debris, moist.	
	(2-4')		2 3 4 2	7	1.5	2.8			Black and orange fine SAND, little cinders, trace glass and debris, moist.	
5	(4-6')		1 1 1 2	2	1.4	2.0			Brownish gray Clayey SILT, trace organics, wet.	
	(6-8')		3 2 3 3	5	1.0	2.6			Dark gray to black Clayey SILT, some organics, wet. Gray Clayey SILT, trace fine SAND and shell fragments, wet.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs 8.25" Boring
	(8-10')		1 (12") WOH (12")	1	2.0	4.4				
10	(10-12')		1 (12") 1 1	1	2.0	3.0			Gray SILT, little fine Sand, trace wood and shell fragments, wet.	
	(12-14')		1 1 1 1	2	2.0	4.4			Brownish gray SILT, trace Clay, trace fine Sand seams.	
									Gray fine SAND, wet.	
15	(14-16')		1 1	2	2.0	3.1			Gray and dark brown banded SILT, little fine Sand, trace fine Sand	

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Remarks:
213S227 water sample taken at a temporary screened interval of 24' to 27' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-213S227

Total Depth = 28 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	2.0	3.1			seams, wood, andce shell fragments, wet.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(16-18')		1 1 1 1	2	1.8	2.3				8.25" Boring
	(18-20')		1 1 1 2	2	1.8	3.4			Gray fine SAND, trace Silt.	
20	(20-22')		WOH 1 2 2	3	1.4	2.4			Gray and dark brown banded SILT, little fine Sand, trace fine Sand seams, trace wood, and shell fragments, wet.	
	(22-24')								Gray fine to medium SAND, wet. Lithology unknown. 213S123 groundwater sample taken.	
25	(24-26')		3 5 5 5	10	1.2	2.9			Gray fine to medium SAND, trace Silt and shell fragments, wet.	0.01" Stainless steel screen 24.0' to 27.0' bgs
	(26-28')		1 (12") 1 2	1	2.0	4.5			Brown SILT. Gray fine to medium SAND, trace Silt and shell fragments, wet. Gray Silty CLAY, soft. Total depth of boring 28.0' bgs.	2-in diameter Stainless steel sump 27.0' to 27.4' bgs.
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12 ft.

Geologist: Sabrina Hesford

Well No. TW-214WT12

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 4 11 6	15	1.4	118			Black fine to coarse SAND, moist.	
	(2-4')		2 1 1 1	2	1.2	2.4			Brown SILT, little fine to medium SAND, very soft, wet.	2-in diameter Galvanized casing 1.8' ags to 8.0' bgs
5	(4-6')		WOH (12") 2 1	2	1.1	2.4			Grades to fine to coarse SAND, some Silt, moist.	8.25" Boring
	(6-8')		1 1 2 2	3	1.2	2.4			Brown Clayey SILT, loose, moist.	
	(8-10')		1 1 (12") 1	1	1.0	1.7			Dark gray SILT and fine SAND, trace Clay, wet.	
10	(10-12.4')								Lithology unknown. 214WT12 groundwater sample taken.	0.01" Stainless steel screen 8.0' to 12.0' bgs
									Temporary Stainless steel well point advanced to 12.4' bgs.	2-in diameter Stainless steel sump 12.0' to 12.4' bgs
15										

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Remarks:

214WT12 water sample taken at a temporary screened interval of 8.0' to 12.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: Sabrina Hesford

Well No. TW-214S116

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 4 11 6	15	1.4	116			Black fine to coarse SAND, moist.	
	(2-4')		2 1 1 1	2	1.2	2.4			Brown SILT, little fine to medium SAND, very soft, wet.	
5	(4-6')		WOH (12") 2 1	2	1.1	2.4			Grades to fine to coarse SAND, some Silt, moist.	
	(6-8')		1 1 2 2	3	1.2	2.4			Brown Clayey SILT, loose, moist.	2-in diameter Galvanized casing 1.8' ags to 12.0' bgs
	(8-10')		1 1 (12") 1	1	1.0	1.7			Dark gray SILT and fine SAND, trace Clay, wet.	8.25" Boring
10	(10-12')								Lithology unknown. 214WT12 groundwater sample taken.	
	(12-14')		WOH 1 (12") 1	1	1.4	2.3			Dark gray fine SAND, some Silt, wet.	0.01" Stainless steel screen 12.0' to 16.0' bgs
15	(14-16.4')		WOH (12")	1	1.0	2.4				

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Remarks:
214S116 water sample taken at a temporary screened interval of 12.0' to 16.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-214S118

Total Depth = 16 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16.4')		1 1	1	1.0	2.4			Dark gray fine SAND, some Silt, wet.	2-in diameter Stainless steel sump 16.0' to 16.4' bgs
									Dark gray very fine SAND, trace Silt and shells, very loose, wet.	
									Temporary Stainless steel well point advanced to 16.4' bgs.	
20										
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth
		⊽
		⊽
		▽

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Sabrina Hesford

Well No. TW-214S227

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 4 11 6	15	1.4	116			Black fine to coarse SAND, moist.	
	(2-4')		2 1 1 1	2	1.2	2.4			Brown SILT, little fine to medium SAND, very soft, wet.	
5	(4-6')		WOH (12") 2 1	2	1.1	2.4			Grades to fine to coarse SAND, some Silt, moist.	
	(6-8')		1 1 2 2	3	1.2	2.4			Brown Clayey SILT, loose, moist.	2-in diameter Galvanized casing 1.8' ags to 23.0' bgs
	(8-10')		1 1 (12") 1	1	1.0	1.7			Dark gray SILT and fine SAND, trace Clay, wet.	8.25" Boring
10	(10-12')								Lithology unknown. 214WT12 groundwater sample taken.	
	(12-14')		WOH 1 (12") 1	1	1.4	2.3			Dark gray fine SAND, some Silt, wet.	
15	(14-16')		WOH (12")	1	1.0	2.4				

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Remarks:
214S227 water sample taken at a temporary screened interval of 23.0' to 27.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

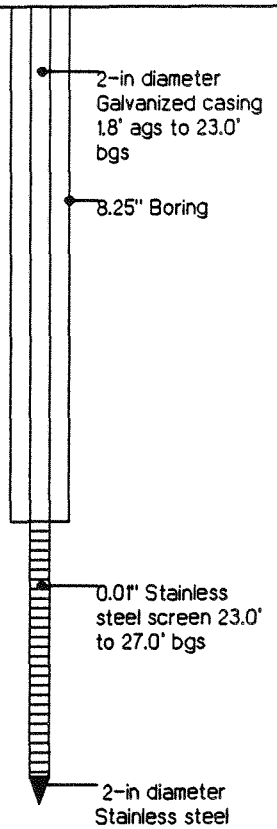
Client:
General Motors Corporation

Well No. TW-214S227

Total Depth = 28 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 1	1	1.0	2.4			Dark gray fine SAND, some Silt, wet.
	(16-18')		1 1 1 2	2	1.0	1.1			Dark gray very fine SAND, trace Silt and shells, very loose, wet.
	(18-20')		1 (12") 1 1	1	1.3	1.5			No shells.
20	(20-22')		WOH 1 1 3	2	1.2	1.7			Trace shells.
	(22-24')		1 2 3 7	5	1.4	1.6			Trace medium Sand and shells, very loose, wet.
25	(24-26')		1 3 3 3	6	1.4	1.1			
	(26-28')		WOH (12") 1 1	1	2.0	1.6			Gray SILT and CLAY, trace fine Sand, moist.
30									Total depth of boring 28.0' bgs.
35									

Well Construction



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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/27/95 – 01/27/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Steve French

Well No. TW-215WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 3 4 5	7	1.8	1.4			Black fine to medium SAND, moist to wet, loose.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		2 2 2 2	4	1.8	2.7				8.25" Boring
5	(4-6')		2 1 2 2	3	1.6	3.1			Wet.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')								Lithology unknown. 215WT8 water sample taken here.	
10									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:
215WT8 water sample taken at a temporary screened interval of 4' to 8' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/27/95 - 01/27/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Steve French

Well No. TW-215S120

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		2 3 4 5	7	1.8	1.4			Black fine to medium SAND, moist to wet, loose.	
	(2-4')		2 2 2 2	4	1.8	2.7			Wet.	
5	(4-6')		2 1 2 2	3	1.6	3.1				
	(6-8')								Lithology unknown. 215WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(8-10')		1 1 1 1	2	0.8	2.1			Black fine to medium SAND, wet, loose. Black SILT, some Clay, trace very fine Sand, soft, wet.	8.25" Boring
10	(10-12')		1 1 1 1	2	1.0	1.8			Gray SILT, some fine Sand, little Clay, soft, wet.	
	(12-14')		2 2 2 2	4	1.3	1.7			Dark gray SILT and CLAY. Gray fine to medium SAND, little Silt, soft, wet.	
15	(14-16')		2 3	6	1.4	1.1			Trace Silt.	

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Remarks:
215S120 water sample taken at a temporary screened interval of 16' to 20' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-215S120

Total Depth = 20 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 2	6	1.4	1.1			Gray fine to medium SAND, trace Silt, soft, wet.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(16-18')		2 2 2 3	4	0.6	0.8				0.01" Stainless steel screen 16.0' to 20.0' bgs
	(18-20.4')								Lithology unknown. 215S120 groundwater sample taken.	
20									Temporary Stainless steel well point advanced to 20.4' bgs.	2-in diameter Stainless steel sump 20.0' to 20.4' bgs
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
		⧩
		⧩
		▽

Date Start-Finish: 01/27/95 - 01/27/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32 ft.

Geologist: Steve French

Well No. TW-215S232

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		2 3 4 5	7	1.8	1.4			Black fine to medium SAND, moist to wet, loose.	
	(2-4')		2 2 2 2	4	1.8	2.7				
5	(4-6')		2 1 2 2	3	1.6	3.1			Wet.	
	(6-8')								Lithology unknown. 215WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 28.0' bgs
	(8-10')		1 1 1 1	2	0.8	2.1			Black fine to medium SAND, wet, loose. Black SILT, some Clay, trace very fine Sand, soft, wet.	8.25" Boring
10	(10-12')		1 1 1 1	2	1.0	1.8			Gray SILT, some fine Sand, little Clay, soft, wet.	
	(12-14')		2 2 2 2	4	1.3	1.7			Dark gray SILT and CLAY. Gray fine to medium SAND, little Silt, soft, wet.	
15	(14-16')		2 3	6	1.4	1.1			Trace Silt.	

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Remarks:
215S232 water sample taken at a temporary screened interval of 28' to 32' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▽
		▽
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

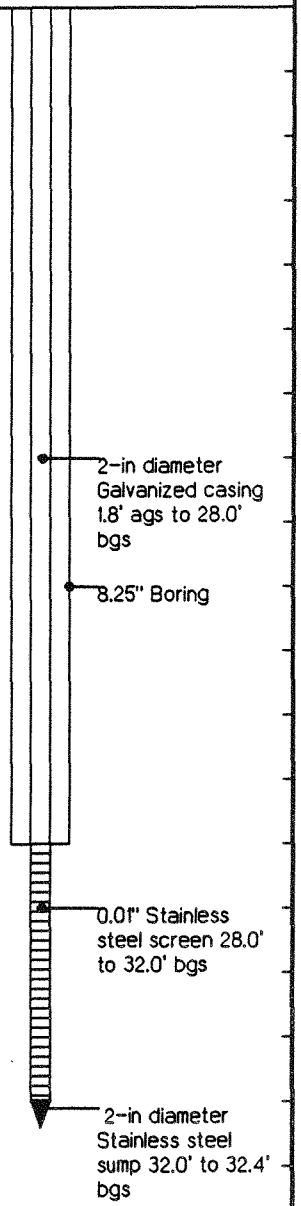
Client:
General Motors Corporation

Well No. TW-215S232

Total Depth = 32 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		3 2	6	1.4	1.1			Gray fine to medium SAND, trace Silt, soft, wet.
	(16-18')		2 2 2 3	4	0.6	0.8			
	(18-20')								Lithology unknown. 215S120 groundwater sample taken.
20	(20-22')		2 3 1 1	4	1.8	1.3			Dark gray fine to medium SAND, little Silt, with 0.2' seams of fine to medium Sand, and fine Sand and Silt, wet.
	(22-24')		1 1 1 1	2	1.7	0.9			Alternating 0.3' seams of fine to medium SAND, little Silt, and fine to medium SAND and SILT, trace Clay and shells.
25	(24-26')		3 2 1 1	3	1.8	1.0			
	(26-28')		1 1 1 1	2	1.7	0.8			Gray fine to medium SAND, little Silt, trace shells, loose, wet.
	(28-30')		2 2 3 3	5	1.2	0.7			
30	(30-32.4')								Lithology unknown. 215S232 groundwater sample taken.
									Temporary Stainless steel well point advanced to 32.4' bgs.
35									

Well Construction



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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/24/97

Date Start-Finish: 01/27/95 - 01/27/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 48 ft.

Geologist: Steve French

Well No. TW-215S348

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 3 4 5	7	1.8	1.4			Black fine to medium SAND, moist to wet, loose.	
	(2-4')		2 2 2 2	4	1.8	2.7				
5	(4-6')		2 1 2 2	3	1.6	3.1			Wet.	
	(6-8')								Lithology unknown. 215WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 44.0' bgs
	(8-10')		1 1 1 1	2	0.8	2.1			Black fine to medium SAND, wet, loose. Black SILT, some Clay, trace very fine Sand, soft, wet.	8.25" Boring
10	(10-12')		1 1 1 1	2	1.0	1.8			Gray SILT, some fine Sand, little Clay, soft, wet.	
	(12-14')		2 2 2 2	4	1.3	1.7			Dark gray SILT and CLAY.	
15	(14-16')		2 3	6	1.4	1.1			Gray fine to medium SAND, little Silt, soft, wet. Trace Silt.	

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Remarks:
215S348 water sample taken at a temporary screened interval of 44' to 48' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-215S348

Total Depth = 48 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 2	6	1.4	1.1			Gray fine to medium SAND, trace Silt, soft, wet.	
	(16-18')		2 2 2 3	4	0.6	0.8				
	(18-20')								Lithology unknown. 215S120 groundwater sample taken.	
20	(20-22')		2 3 1 1	4	1.8	1.3			Dark gray fine to medium SAND, little Silt, with 0.2' seams of fine to medium Sand, and fine Sand and Silt, wet.	
	(22-24')		1 1 1 1	2	1.7	0.9			Alternating 0.3' seams of fine to medium SAND, little Silt, and fine to medium SAND and SILT, trace Clay and shells.	2-in diameter Galvanized casing 1.8' ags to 44.0' bgs
25	(24-26')		3 2 1 1	3	1.8	1.0				8.25" Boring
	(26-28')		1 1 1 1	2	1.7	0.8			Gray fine to medium SAND, little Silt, trace shells, loose, wet.	
	(28-30')		2 2 3 3	5	1.2	0.7				
30	(30-32')								Lithology unknown. 215S232 groundwater sample taken.	
	(32-34')		2 3 4 4	7	1.2	1.0			Light gray fine to medium SAND, trace shells, loose, wet.	
35	(34-36')		2 3	8	0.8	1.8				

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-215S348

Total Depth = 48 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(34-36')		5 6	8	0.8	1.8			Light gray fine to medium SAND, trace shells, loose, wet.
	(36-38')		2 3 5 6	8	0.9	1.5			
	(38-40')		5 7 10 11	17	0.8	1.4			
40	(40-42')		3 4 7 5	11	0.9	1.3			Seam of black fine SAND.
	(42-44')		6 8 14 20	22	1.2	2.1			Trace coarse Sand, medium dense.
45	(44-46')		4 10 20 20	30	1.7	1.5			Dense.
	(46-48')		7 5 3 5	8	1.7	1.0			Dark gray CLAY, some Silt, trace coarse Sand, moist to wet.
50									Total depth of boring 48.0 ft. bgs.
55									

Well Construction

- 2-in diameter Galvanized casing 1.8' ags to 44.0' bgs
- 8.25" Boring
- 0.01" Stainless steel screen 44.0' to 48.0' bgs
- Grade #5 silica sandpack 43.0' to 48.0' bgs
- 2-in diameter Stainless steel sump 48.0' to 48.4' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/10/95 – 05/11/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 9 ft.

Geologist: Steve French

Well No. TW-216WT9

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 5 5 5	10	1.8	5.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 5.0' bgs
	(2-4')		2 2 3 2	5	1.6	6.0			Some mottling, moist to wet.	8.25" Boring
5	(4-6')		WOH 1 WOH 1	1	1.3	3.0			Brown SILT and fine to medium SAND, soft, wet.	
	(6-8')		WOH (12") 1 1	1	1.4	8.0			Brown fine to medium SAND, some Silt, loose, wet.	0.01" Stainless steel screen 5.0' to 9.0' bgs
	(8-10')		WOH (12") 1 1	1	1.2	6.0			Brown SILT and fine to medium SAND.	
10									2-in Sand seam.	2-in diameter Stainless steel sump 9.0' to 9.4' bgs
									Total depth of boring 9.0 ft. bgs.	
15										

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Remarks:
216WT9 water sample taken at a temporary screened interval of 5.0' to 9.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start–Finish: 05/10/95 – 05/11/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 25 ft.

Geologist: Steve French

Well No. TW-216S125

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 5 5 5	10	1.8	5.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft, moist. Some mottling, moist to wet.	
	(2-4')		2 2 3 2	5	1.6	6.0				
5	(4-6')		WOH 1 WOH 1	1	1.3	3.0			Brown SILT and fine to medium SAND, soft, wet.	
	(6-8')		WOH (12") 1 1	1	1.4	8.0			Brown fine to medium SAND, some Silt, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 21.0' bgs; 8.25" Boring
	(8-10')		WOH (12") 1 1	1	1.2	6.0			Brown SILT and fine to medium SAND. 2-in Sand seam. 2-in Sand seam.	
10	(10-12')		WOH 1 WOH 1	2	1.0	5.0			Gray brown fine to medium SAND, little Silt, loose, wet, uniform. Trace shells	
	(12-14')		WOH 1 2 WOH	3	1.7	5.0				
15	(14-16')		1 WOH	1	1.2	6.0			Gray brown fine to medium SAND and SILT, loose, wet, alternating	

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Remarks:
216S125 water sample taken at a temporary screened interval of 21.0' to 25.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-216S125

Total Depth = 25 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 WOH	1	1.2	6.0			1-in Sand seams throughout.
	(16-18')		1 WOH 1 WOH	1	1.3	5.0			Brown SILT, little fine to medium Sand, trace Clay and shells, soft wet.
	(18-20')		WOH (24")	0	1.2	8.0			
20	(20-22')		WOH (24")	0	1.0	15.0			Gray brown fine to medium SAND and SILT, loose, wet, uniform.
	(22-24')								Lithology unknown. 216S125 groundwater sample taken.
	(24-25')								
25									Total depth of boring 25.0 ft. bgs.
30									
35									

Well Construction

- 2-in diameter Galvanized casing 1.8' ags to 21.0' bgs
- 8.25" Boring
- 0.01" Stainless steel screen 21.0' to 25.0' bgs
- 2-in diameter Stainless steel sump 25.0' to 25.4' bgs

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/10/95 - 05/11/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 44 ft.

Geologist: Steve French

Well No. TW-216S241.5

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 5 5 5	10	1.8	5.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft, moist. Some mottling, moist to wet.	
	(2-4')		2 2 3 2	5	1.6	6.0				
5	(4-6')		WOH 1 WOH 1	1	1.3	3.0			Brown SILT and fine to medium SAND, soft, wet.	
	(6-8')		WOH (12") 1 1	1	1.4	8.0			Brown fine to medium SAND, some Silt, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 37.5' bgs
	(8-10')		WOH (12") 1 1	1	1.2	6.0			Brown SILT and fine to medium SAND. 2-in Sand seam. 2-in Sand seam.	8.25" Boring
10	(10-12')		WOH 1 WOH 1	2	1.0	5.0			Gray brown fine to medium SAND, little Silt, loose, wet, uniform. Trace shells	
	(12-14')		WOH 1 2 WOH	3	1.7	5.0				
15	(14-16')		1 WOH	1	1.2	6.0			Gray brown fine to medium SAND and SILT, loose, wet, alternating	

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Remarks:
216S241.5 water sample taken at a temporary screened interval of 37.5' to 41.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-216S241.5

Total Depth = 44 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 WOH	1	1.2	6.0			1-in Sand seams throughout.	
	(16-18')		1 WOH 1 WOH	1	1.3	5.0			Brown SILT, little fine to medium Sand, trace Clay and shells, soft wet.	
	(18-20')		WOH (24")	0	1.2	8.0				
20	(20-22')		WOH (24")	0	1.0	15.0			Gray brown fine to medium SAND and SILT, loose, wet, uniform.	2-in diameter Galvanized casing 1.8' ags to 37.5' bgs
	(22-24')								Lithology unknown. 216S125 groundwater sample taken.	
25	(24-26')									8.25" Boring
	(26-28')		5 3 6 2	9	1.5	18.0			Gray brown fine to coarse SAND and fine GRAVEL, trace medium Gravel, loose, wet.	
	(28-30')		4 5 6 8	11	1.0	16.0			Fine to medium GRAVEL, little fine to coarse Sand. Gray brown fine to coarse SAND, some fine to coarse Gravel, loose, wet.	
30	(30-32')		5 4 5 4	9	0.9	5.0			Little fine to medium Gravel.	
	(32-34')		6 4 7 9	11	1.3	14.0				
35	(34-36')		3 3	12	1.0	9.0				

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-216S241.5

Total Depth = 44 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		9 11	12	1.0	9.0			Gray brown fine to coarse SAND, little fine to medium Gravel, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 37.5' bgs
	(36-38')		10 9 9 10	18	1.2	5.0				
	(38-40')		11 10 12 10	22	1.0	14.0				0.01" Stainless steel screen 37.5' to 41.5' bgs
40	(40-42')		9 5 4 4	9	1.5	16.0			Dark gray brown SILT, some Clay, medium stiff, wet.	Grade #5 silica sand pack 36.0' to 44.0' bgs
	(42-44')		2 2 3 3	5	1.3	5.0				2-in diameter Stainless steel sump 41.5' to 41.9' bgs
45									Total depth of boring 44.0 ft. bgs.	
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/09/95 - 05/10/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Steve French

Well No. TW-217WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 4 4 3	8	1.7	0.0			Brown SILT, little Clay, trace organic material, medium stiff, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		1 1 2 1	3	1.6	0.0			Moist to wet.	8.25" Boring
									Little fine to medium Sand.	
5									Lithology unknown. 217WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
10										2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:
217WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Date Start-Finish: 05/09/95 - 05/10/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24 ft.

Geologist: Steve French

Well No. TW-217S124

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 4 4 3	8	1.7	0.0			Brown SILT, little Clay, trace organic material, medium stiff, moist.	
	(2-4')		1 1 2 1	3	1.6	0.0			Moist to wet.	
5	(4-6')		1 1 1 1	2	1.0	0.0			Little fine to medium Sand.	
	(6-8')		1 1 2 WOH	3	1.8	0.0			Gray brown fine to medium SAND, little Silt, loose, wet. Trace shell. Silt lenses.	2-in diameter Galvanized casing 1.8' ags to 20.0' bgs
	(8-10')		1 WOH (12") 1	0	1.4	0.0				
10	(10-12')		WOH (18") 1	0	1.6	0.0			6-in Silt seam, trace Clay. Gray brown fine to medium SAND, trace Silt and shells, loose, wet.	8.25" Boring
	(12-14')		WOH (12") 1 1	1	1.2	0.0			3-in Silt seam. Gray brown fine to medium SAND, trace Silt and shells.	
15	(14-16')		2 1	2	1.7	0.0				

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Remarks:
217S124 water sample taken at a temporary screened interval of 20.0' to 24.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-217S124

Total Depth = 24 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	1.7	0.0			Gray brown fine to medium SAND, trace Silt and shells.	
									Little to trace Silt.	2-in diameter Galvanized casing 1.8' ags to 20.0' bgs
	(16-18')		WOH (18") 1	0	1.4	0.0			3-in Sand and Silt seam.	
										8.25" Boring
	(18-20')		WOH (24")	0	1.0	0.0			Brown SILT and PEAT, little fine to medium Sand and Clay, very soft, wet.	
20									Lithology unknown. 217S124 water sample taken here.	0.01" Stainless steel screen 20.0' to 24.0' bgs
										2-in diameter Stainless steel sump 24.0' to 24.4' bgs
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/09/95 - 05/10/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Steve French

Well No. TW-217S241

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		1 4 4 3	8	1.7	0.0			Brown SILT, little Clay, trace organic material, medium stiff, moist.	
	(2-4')		1 1 2 1	3	1.6	0.0			Moist to wet.	
5	(4-6')		1 1 1 1	2	1.0	0.0			Little fine to medium Sand.	
	(6-8')		1 1 2 WOH	3	1.8	0.0			Gray brown fine to medium SAND, little Silt, loose, wet. Trace shell. Silt lenses.	2-in diameter Galvanized casing 1.8' ags to 37.0' bgs
	(8-10')		1 WOH (12") 1	0	1.4	0.0				8.25" Boring
10	(10-12')		WOH (18") 1	0	1.6	0.0			6-in Silt seam, trace Clay. Gray brown fine to medium SAND, trace Silt and shells, loose, wet.	
	(12-14')		WOH (12") 1 1	1	1.2	0.0			3-in Silt seam. Gray brown fine to medium SAND, trace Silt and shells.	
15	(14-16')		2 1	2	1.7	0.0				

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Remarks:
217S241 water sample taken at a temporary screened interval of 37.0' to 41.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-217S241

Total Depth = 42 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	1.7	0.0			Gray brown fine to medium SAND, trace Silt and shells.	
	(16-18')		WOH (18") 1	0	1.4	0.0			Little to trace Silt. 3-in Sand and Silt seam.	
	(18-20')		WOH (24")	0	1.0	0.0			Brown SILT and PEAT, little fine to medium Sand and Clay, very soft, wet.	
20	(20-22')								Lithology unknown. 217S124 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 37.0' bgs
	(22-24')									
	(24-26')		WOH (12") 1 WOH	1	1.2	0.0			Gray brown fine to medium SAND, trace shells, loose, wet.	8.25" Boring
	(26-28')		1 2 3 3	5	1.0	0.0				
	(28-30')		3 3 4 6	71	1.0	0.0			Trace coarse Sand.	
30	(30-32')		2 3 6 6	9	0.6	0.0			Trace fine Gravel.	
	(32-34')		6 7 8 9	15	1.2	0.0			Little coarse Sand and fine Gravel.	
35	(34-36')		6 10	20	0.7	0.0				

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth
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Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-217S241

Total Depth = 42 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		10 11	20	0.7	0.0			Gray brown fine to medium SAND, little coarse Sand and fine Gravel, trace shells, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 37.0' bgs
	(36-38')		5 5 6 6	11	1.2	0.0			Some fine to medium Gravel.	0.01" Stainless steel screen 37.0' to 41.0' bgs
	(38-40')		4 8 7 9	15	1.0	0.0				Grade #5 silica sand pack 36.0' to 42.0' bgs
40	(40-42')		3 5 3 3	8	1.2	0.0			Dark gray brown SILT, some Clay, medium stiff, wet.	2-in diameter Stainless steel sump 41.0' to 41.4' bgs
									Total depth of boring 42.0 ft. bgs.	
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/08/95 - 05/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8.4 ft.

Geologist: Stephen D. French

Well No. TW-218WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 6 7 8	13	1.3	0.0			Brown SILT, little Clay, trace fine to medium sand and organic material, soft to medium stiff, moist to wet.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		WOH 1 2 1	3	1.7	0.0				8.25" Boring
5	(4-6')		WOH (24")	NA	1.8	0.0			Wet.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8')		WOH (18") 2	NA	1.7	0.0			Grades with little alternating fine Sand seams.	
10									Brown fine to medium SAND, little to trace Silt, loose, wet.	
15									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs

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Remarks:
218WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/08/95 - 05/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24.4 ft.

Geologist: Stephen D. French

Well No. TW-218S124

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	
		(0-2')		4 6 7 8	13	1.3	0.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft to medium stiff, moist to wet.	2-in diameter Galvanized casing 1.8' ags 20.0' bgs
		(2-4')		WOH 1 2 1	3	1.7	0.0				8.25" Boring
5		(4-6')		WOH (24")	0	1.8	0.0			Wet.	
		(6-8')		WOH (18") 2	0	1.7	0.0			Grades with little alternating fine sand seams.	
		(8-10')		WOH (18") 1	0	1.0	0.0			Brown fine to medium SAND, little to trace Silt, loose, wet.	
10		(10-12')		WOH 1 1 2	2	1.5	0.0			Some Silt.	
		(12-14')		WOH (12") 1 1	1	1.7	0.0			Trace Silt and shells.	
15		(14-16')		1 3	4	1.7	0.0				

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Remarks:
218S124 water sample taken at a temporary screened interval of 20.0' to 24.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
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Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-218S124

Total Depth = 24.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 3	4	1.7	0.0			Brown fine to medium SAND, trace Silt and shells, loose, wet.
	(16-18')		1 1 1 WOH	2	1.8	0.0			Brown PEAT.
	(18-20')		WOH (24")	0	1.0	0.0			Brown fine to medium SAND, little Silt, loose, wet. SILT, little fine Sand, trace organic material. Brown fine to medium SAND, little Silt, loose, wet.
20	(20-22')								Lithology unknown. 218S124 groundwater sample taken.
	(22-24.4')								
25									Temporary Stainless steel well point advanced to 24.4' bgs.
30									
35									

Well Construction

- 2-in diameter Galvanized casing 1.8' ags 20.0' bgs
- 8.25" Boring
- 0.01" Stainless steel screen 20.0' to 24.0' bgs
- 2-in diameter Stainless steel sump 24.0' to 24.4' bgs

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/08/95 – 05/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 35.0 ft.

Geologist: Stephen D. French

Well No. TW-218S235

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		4 6 7 8	13	1.3	0.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft to medium stiff, moist to wet.	
	(2-4')		WOH 1 2 1	3	1.7	0.0				
	(4-6')		WOH (24")	0	1.8	0.0			Wet.	
5	(6-8')		WOH (18") 2	0	1.7	0.0			Grades with little alternating fine Sand seams.	2-in diameter Galvanized casing 1.8' ags to 31.0' bgs
	(8-10')		WOH (18") 1	0	1.0	0.0			Brown fine to medium SAND, little to trace Silt, loose, wet.	
10	(10-12')		WOH 1 1 2	2	1.5	0.0			Some Silt.	8.25" Boring
	(12-14')		WOH (12") 1 1	1	1.7	0.0			Trace Silt and shells.	
15	(14-16')		1 3	4	1.7	0.0				

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Remarks:
218S235 water sample taken at a temporary screened interval of 31.0' to 35.0' bgs. Following the sampling event, the temporary well was removed and drilling resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-218S235

Total Depth = 35.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 3	4	1.7	0.0			Brown fine to medium SAND, trace Silt and shells, loose, wet.	
	(16-18')		1 1 1 WOH	2	1.8	0.0			Brown PEAT.	
	(18-20')		WOH (24")	0	1.0	0.0			Brown fine to medium SAND, little Silt, loose, wet. SILT, little fine Sand, trace organic material.	
20	(20-22')								Brown fine to medium SAND, little Silt, loose, wet. Lithology unknown. 218S124 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 31.0' bgs
	(22-24')									
25	(24-26')		WOH 1 WOH 2	1	1.2	0.0			Gray brown fine to medium SAND, trace Silt and shells, loose, wet.	8.25" Boring
	(26-28')		WOH 2 2 2	4	1.2	0.0				
	(28-30')		WOH 1 2 5	3	1.6	0.0			Trace fine Gravel.	
30	(30-32')		1 2 9 16	11	1.6	0.0			Little coarse Sand.	
	(32-34')		3 3 2 4	5	1.4	0.0			Gray brown fine to coarse SAND, trace fine Gravel and shells, loose, wet.	0.01" Stainless steel screen 31.0' to 35.0' bgs
35	(34-35')								Lithology unknown. 218S235 groundwater sample taken.	Grade #5 silica sand pack 29.0' to 35.0' bgs.

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Remarks:
Total depth of boring 35.0' bgs.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/08/95 - 05/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 44.0 ft.

Geologist: Stephen D. French

Well No. TW-218S343

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									GROUND SURFACE	
		(0-2')		4 6 7 8	13	1.3	0.0			Brown SILT, little Clay, trace fine to medium Sand and organic material, soft to medium stiff, moist to wet.	
		(2-4')		WOH 1 2 1	3	1.7	0.0				
		(4-6')		WOH (24")	0	1.8	0.0			Wet.	
5		(6-8')		WOH (18") 2	0	1.7	0.0			Grades with little alternating fine Sand seams.	2-in diameter Galvanized casing 1.8' ags to 39.0' bgs
		(8-10')		WOH (18") 1	0	1.0	0.0			Brown fine to medium SAND, little to trace Silt, loose, wet.	
10		(10-12')		WOH 1 1 2	2	1.5	0.0			Some Silt.	8.25" Boring
		(12-14')		WOH (12") 1 1	1	1.7	0.0			Trace Silt and shells.	
15		(14-16')		1 3	4	1.7	0.0				

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Remarks:
218S343 water sample taken at a temporary screened interval of 39.0' to 43.0' bgs. Following the sampling event, the temporary well was removed and the borehole grouted.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-218S343

Total Depth = 44.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 3	4	1.7	0.0			Brown fine to medium SAND, trace Silt and shells, loose, wet.	
	(16-18')		1 1 1 WOH	2	1.8	0.0				
									Brown PEAT.	
	(18-20')		WOH (24")	0	1.0	0.0			Brown fine to medium SAND, little Silt, loose, wet.	
									SILT, little fine Sand, trace organic material.	
20									Brown fine to medium SAND, little Silt, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 39.0' bgs
	(20-22')								Lithology unknown. 218S124 groundwater sample taken.	
	(22-24')									
	(24-26')		WOH 1 WOH 2	1	1.2	0.0			Gray brown fine to medium SAND, trace Silt and shells, loose, wet.	
25										8.25" Boring
	(26-28')		WOH 2 2 2	4	1.2	0.0				
	(28-30')		WOH 1 2 5	3	1.6	0.0			Trace fine Gravel.	
30									Little coarse Sand.	
	(30-32')		1 2 9 16	11	1.6	0.0				
	(32-34')		3 3 2 4	5	1.4	0.0			Gray brown fine to coarse SAND, trace fine Gravel and shells, loose, wet.	
	(34-36')								Lithology unknown. 218S235 groundwater sample taken.	
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-218S343

Total Depth = 44.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')								Lithology unknown. 218S235 groundwater sample taken.	
	(36-38')		2 3 8 7	11	1.5	0.0			Gray brown fine to coarse SAND, trace fine Gravel and shells, loose, wet. Trace fine to medium Gravel.	2-in diameter Galvanized casing 1.8' ags to 39.0' bgs; 8.25" Boring
	(38-40')		2 2 2 7	4	1.4	0.0				
40	(40-42')		6 2 3 3	5	1.0	0.0			Fine to medium GRAVEL. Gray brown fine to coarse SAND, trace fine Gravel and shells, loose, wet.	0.01" Stainless steel screen 39.0' to 43.0' bgs; Grade #5 silica sand pack 38.5' to 43.0' bgs.
	(42-44')		1 2 2 2	4	1.5	0.0			Dark gray brown SILT, some Clay, trace fine Sand, soft, wet.	2-in diameter Stainless steel sump 43.0 to 43.4' bgs
45									Total depth of boring 44.0' bgs.	
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Ron Kuhn

Well No. TW-219WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		0 2 3 2	5	1.4	0.0			Brown SILT and CLAY, trace fine SAND, soft, wet.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		WOH (24")	0	0.8	0.0				8.25" Boring
5	(4-6')								Lithology unknown. 219WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									2-in diameter Stainless steel sump 8.0' to 8.4' bgs
10									Temporary Stainless steel well point advanced to 8.4' bgs.	
15										

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Remarks:
219WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Ron Kuhn

Well No. TW-219S128

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		0 2 3 2	5	1.4	0.0			Brown SILT and CLAY, trace fine SAND, soft, wet.	
	(2-4')		WOH (24")	0	0.8	0.0				
5	(4-6')								Lithology unknown. 219WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(6-8')									
	(8-10')		WOH 1 WOH (12")	1	1.4	0.4			Gray fine SAND and SILT, saturated.	8.25" Boring
10	(10-12')		WOH (24")	0	1.4	0.3			Gray CLAY, little fine Sand, very soft, wet.	
	(12-14')		1 WOH 1 WOH	1	1.2	0.0			Gray fine SAND, some Clay, very soft, wet.	
15	(14-16')		WOH (24")	0	1.4	0.0			Gray fine SAND, trace Silt and shells, saturated.	

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Remarks:
219S128 water sample taken at a temporary screened interval of 24.0' to 28.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-219S128

Total Depth = 28 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		WOH (24")	0	1.4	0.0			Gray fine SAND, trace Silt and shells, very soft, saturated.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(16-18')		1 (18") 1	1	1.4	0.0			Dark gray CLAY, trace fine Sand, very soft, wet.	8.25" Boring
	(18-20')		WOH (18") 2	0	1.4	0.0			Black PEAT, saturated.	
20	(20-22')		WOH (24")	0	1.8	0.0			Gray CLAY, trace fine Sand, very soft, wet.	
	(22-24')		WOH (24")	0	0.2	0.0				
25	(24-26')		WOH 3 5 9	8	1.4	0.0			Gray fine SAND, trace Silt, saturated. Gray fine to medium SAND, trace fine to medium Gravel and Silt, saturated.	0.01" Stainless steel screen 24.0' to 28.0' bgs
	(26-28.4')								Lithology unknown. 219S128 groundwater sample taken.	
30									Temporary Stainless steel well point advanced to 28.4' bgs.	2-in diameter Stainless steel sump 28.0' to 28.4' bgs
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/26/95 - 01/27/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Ron Kuhn

Well No. TW-219S241.5

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		0 2 3 2	5	1.4	0.0			Brown SILT and CLAY, trace fine SAND, soft, wet.	
	(2-4')		WOH (24")	0	0.8	0.0				
5	(4-6')								Lithology unknown. 219WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 37.5' bgs
	(6-8')									
	(8-10')		WOH 1 WOH (12")	1	1.4	0.4			Gray fine SAND and SILT, saturated.	8.25" Boring
10	(10-12')		WOH (24")	0	1.4	0.3			Gray CLAY, little fine Sand, very soft, wet.	
	(12-14')		1 WOH 1 WOH	1	1.2	0.0			Gray fine SAND, some gray Clay, very soft, wet.	
15	(14-16')		WOH (24")	0	1.4	0.0			Trace Silt and shells, saturated.	

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Remarks:
219S241.5 water sample taken at a temporary screened interval of 37.5' to 41.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-219S241.5

Total Depth = 42 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		WOH (24")	0	1.4	0.0			Gray fine SAND, trace Silt and shells, very soft, saturated.	
	(16-18')		1 (18") 1	1	1.4	0.0			Dark gray CLAY, trace fine Sand, very soft, wet.	
	(18-20')		WOH (18") 2	0	1.4	0.0			Black PEAT, saturated.	
20	(20-22')		WOH (24")	0	1.8	0.0			Gray CLAY, trace fine Sand, very soft, wet.	
	(22-24')		WOH (24")	0	0.2	0.0				2-in diameter Galvanized casing 1.8' ags to 37.5' bgs
	(24-26')		0 3 5 9	8	1.4	0.0			Gray fine SAND, trace Silt, saturated. Gray fine to medium SAND, trace fine to medium Gravel and Silt, saturated.	8.25" Boring
25	(26-28')								Lithology unknown. 219S128 sample taken here.	
	(28-30')		4 3 6 5	9	1.4	1.4			Gray fine to medium SAND, trace fine Gravel, Silt, and shells, saturated.	
30	(30-32')		4 3 5 3	8	1.8	1.0				
	(32-34')		1 4 6 9	10	1.8	0.7			No fine Gravel.	
35	(34-36')		2 2	6	1.8	0.9			Gray fine to medium SAND, trace fine Gravel, saturated.	

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-219S241.5

Total Depth = 42 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		4 4	6	1.8	0.9			Gray fine to medium SAND, trace fine Gravel, saturated.	
	(36-38')		8 4 7 9	11	1.6	0.9			No fine Gravel.	0.01" Stainless steel screen 37.5' to 41.5' bgs
	(38-40')		2 5 6 8	11	1.8	0.7				Grade #5 silica sandpack 37.0' to 41.5' bgs
40	(40-42')		0 2 4 3	6	1.6	0.4			Gray CLAY, very soft, wet.	2-in diameter Stainless steel sump 41.5' to 41.9' bgs
									Total depth of boring 42.0 ft. bgs.	
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Ron Kuhn

Well No. TW-220WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		WOH 2 3 3	5	0.2	0.0			Brown Clayey SILT, trace fine Gravel, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		1 1 1 1	2	0.6	0.4			Trace organics (roots), wet.	8.25" Boring
5	(4-6')								Lithology unknown. 220WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									2-in diameter Stainless steel sump 8.0' to 8.4' bgs
10									Temporary Stainless steel well point advanced to 8.4' bgs.	
15										

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Remarks:
220WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 01/30/95 - 01/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Ron Kuhn

Well No. TW-220S128

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		WOH 2 3 3	5	0.2	0.0			Brown Clayey SILT, trace fine Gravel, moist.	
	(2-4')		1 1 1 1	2	0.6	0.4			Trace organics (roots), wet.	
5	(4-6')								Lithology unknown. 220WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(6-8')									
	(8-10')		WOH (12") 1 WOH	1	1.8	NA			Gray fine to medium SAND, trace Silt, saturated.	8.25" Boring
10	(10-12')		WOH 1 2 1	3	1.6	0.9				
	(12-14')		WOH (24")	0	0.4	1.1				
15	(14-16')		WOH 1	1	1.8	1.2				

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Remarks:
220S128 water sample taken at a temporary screened interval of 24.0' to 28.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-220S128

Total Depth = 28 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		(12") 2	1	1.8	1.2			Gray fine to medium SAND, trace Silt, saturated.	
	(16-18')		WOH (12") 1 1	1	1.8	1.5			Trace shells.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(18-20')		WOH (24")	0	1.6	1.1			Gray fine SAND and PEAT, saturated.	8.25" Boring
20	(20-22')		WOH 1 1 1	2	1.4	1.3				
	(22-24')		WOH (24")	0	2.0	1.1			Gray CLAY, trace Silt, very soft, high plasticity, wet.	
25	(24-26')		WOH (24")	0	1.8	1.3			Gray fine to medium SAND, trace fine Gravel and shells, saturated.	0.01" Stainless steel screen 24.0' to 28.0' bgs
	(26-28.4')								Lithology unknown. 220S128 groundwater sample taken.	
30									Temporary Stainless steel well point advanced to 28.4' bgs.	2-in diameter Stainless steel sump 28.0' to 28.4' bgs
35										

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Remarks:
WOH - Weight of hammer.
NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 44 ft.

Geologist: Ron Kuhn

Well No. TW-220S242.5

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		WOH 2 3 3	5	0.2	0.0			Brown Clayey SILT, trace fine Gravel, moist.	
	(2-4')		1 1 1 1	2	0.6	0.4			Trace organics (roots), wet.	
5	(4-6')								Lithology unknown. 220WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 38.5' bgs
	(6-8')									
	(8-10')		WOH (12") 1 WOH	1	1.8	NA			Gray fine to medium SAND, trace Silt, saturated.	8.25" Boring
10	(10-12')		WOH 1 2 1	3	1.6	0.9				
	(12-14')		WOH (24")	0	0.4	1.1				
15	(14-16')		WOH 1	1	1.8	1.2				

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Remarks:
220S242.5 water sample taken at a temporary screened interval of 38.5' to 42.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-220S242.5

Total Depth = 44 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		WOH 1	1	1.8	1.2			Trace shells.	
	(16-18')		WOH (12") 1 1	1	1.8	1.5				
	(18-20')		WOH (24")	0	1.6	1.1			Gray fine SAND and PEAT, saturated.	
20	(20-22')		WOH 1 1 1	2	1.4	1.3				
	(22-24')		WOH (24")	0	2.0	1.1			Gray CLAY, trace Silt, very soft, high plasticity, wet.	2-in diameter Galvanized casing 1.8' ags to 38.5' bgs
25	(24-26')		WOH (24")	0	1.8	1.3			Gray fine to medium SAND, trace fine Gravel and shells, saturated.	8.25" Boring
	(26-28')								Lithology unknown. 220S128 groundwater sample taken.	
	(28-30')		WOH 1 WOH 2	1	1.6	1.2			Gray fine to medium SAND, trace fine Gravel and shells, saturated.	
30	(30-32')		3 2 4 4	6	1.6	1.2				
	(32-34')		6 4 3 4	7	1.4	1.9				
35	(34-36')		6 3	9	1.8	0.8				

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Remarks:
WOH - Weight of hammer.
NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

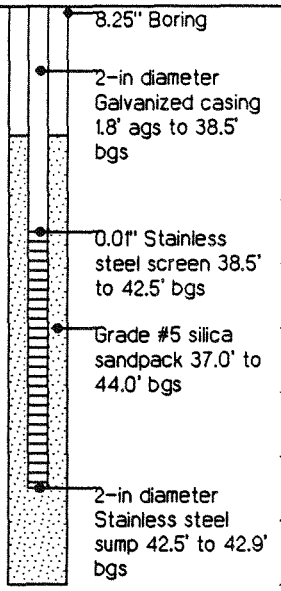
Client:
General Motors Corporation

Well No. TW-220S242.5

Total Depth = 44 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(34-36')		6 10	9	1.8	0.8			Gray fine to medium SAND, trace fine Gravel and shells, saturated.
	(36-38')		6 4 6 6	10	1.8	1.3			
	(38-40')		3 4 4 5	8	1.4	1.5			
40	(40-42')		2 1 2 10	3	1.8	1.0			
	(42-44')		1 1 1 1	2	2.0	NA			Gray CLAY, very soft, high plasticity, wet.
45									Total depth of boring 44.0 ft. bgs.
50									
55									

Well Construction



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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

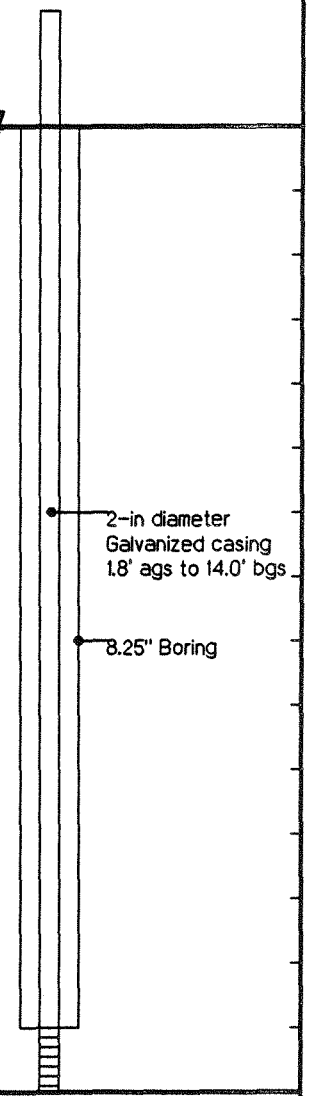
Geologist: Ron Kuhn

Well No. TW-220S318

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		WOH 2 3 3	5	0.2	0.0			Brown Clayey SILT, trace fine Gravel, moist.	
	(2-4')		1 1 1 1	2	0.6	0.4			Trace organics (roots), wet.	
5	(4-6')								Lithology unknown. 220WT8 sample taken here.	
	(6-8')									
	(8-10')		WOH (12") 1 WOH	1	1.8	NA			Gray fine to medium SAND, trace Silt, saturated.	
10	(10-12')		0 1 2 1	3	1.6	0.9				
	(12-14')		WOH (24")	0	0.4	1.1				
15	(14-16')		NA	1	1.8	1.2				



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Remarks:
220S318 water sample obtained from a boring 10.0' west of original TW-220 boring. Stratigraphic description taken from boring log TW-220S128. WOH - Weight of hammer. NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-220S318

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		NA	1	1.8	1.2			Gray fine to medium SAND, trace Silt, saturated.	0.01" Stainless steel screen 14.0' to 18.0' bgs
	(16-18.4')		NA	1	1.8	1.5			Trace shells.	
									Temporary Stainless steel well point advanced to 18.4' bgs.	2-in diameter Stainless steel sump 18.0' to 18.4' bgs
20										
25										
30										
35										

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Remarks:
220S318 water sample taken at a temporary screened interval of 14.0' to 18.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/31/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Tim Osier

Well No. TW-221WT7

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		2 2 2 3	4	1.1	1.0			Dark brown fine SAND and SILT, some Clay, trace roots, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		1 (12") 1 1	1	1.3	0.4			Dark brown fine to medium SAND, some Silt, trace Clay, soft, moist.	8.25" Boring
5	(4-6')								Brown fine to coarse SAND, some Silt, trace Clay, soft, wet. Lithology unknown. 221WT7 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 7.0' bgs
	(6-7.4')									2-in diameter Stainless steel sump 7.0' to 7.4' bgs
10									Temporary Stainless steel well point advanced to 7.4' bgs.	
15										

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Remarks:
221WT7 water sample taken at a temporary screened interval of 4.0' to 7.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Date Start–Finish: 01/30/95 – 01/31/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 27 ft.

Geologist: Tim Osier

Well No. TW-221S127

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 2 2 3	4	1.1	1.0			Dark brown fine SAND and SILT, some Clay, trace roots, soft, moist. Dark brown fine to medium SAND, some Silt, trace Clay, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(2-4')		1 (12") 1 1	1	1.3	0.4				
5	(4-7')								Brown fine to coarse SAND, some Silt, trace Clay, soft, wet. Lithology unknown. 221WT7 groundwater sample taken.	
	(7-9')		WOH 2 2 3	4	1.5	1.0			Brown fine to medium SAND, little Silt, loose, wet. Gray, trace Silt.	
10	(9-11')		2 2 3 4	5	1.1	0.8				
	(11-13')		1 1 1 1	2	0.9	1.0				8.25" Boring
	(13-15')		1 2 1 2	3	1.3	1.1			Some Clay.	
15										

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Remarks:
221S127 water sample taken at a temporary screened interval of 24.0' to 27.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-221S127

Total Depth = 27 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(15-17')		WOH 1 1 1	2	2.0	1.0			Gray fine to medium SAND, some Clay, trace Silt, loose, wet.
	(17-19')		WOH (12") 1 NA	1	2.0	0.6			Brown to gray SILT and CLAY, soft, moist. Some wood pieces.
20	(19-21')		WOH (12") 1 1	1	2.0	1.1			Black PEAT, little Clay, soft, moist.
	(21-23')		WOH (12") 1 1	1	2.0	1.2			Brown SILT and CLAY, trace fine Sand, soft, moist.
	(23-25')								Brown fine to coarse SAND, little Silt, loose, wet. Lithology unknown. TW221S127 groundwater sample taken.
25	(25-27.4')								
30									Temporary Stainless Steel well point advanced to 27.4' bgs.
35									

Well Construction

0.01" Stainless steel screen 24.0' to 27.0' bgs

2-in diameter Stainless steel sump 27.0' to 27.4' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/31/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 40 ft.

Geologist: Tim Osier

Well No. TW-221S240

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 2 2 3	4	1.1	1.0			Dark brown fine SAND and SILT, some Clay, trace roots, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 37.0' bgs
	(2-4')		1 (12") 1 1	1	1.3	0.4			Dark Brown fine to medium SAND, some Silt, trace Clay, soft, moist.	
									Brown fine to coarse SAND, some Silt, trace Clay, soft, wet.	
5	(4-7')								Lithology unknown. 221WT7 groundwater sample taken.	
	(7-9')		WOH 2 2 3	4	1.5	1.0			Brown fine to medium SAND, little Silt, loose, wet.	
									Gray, trace Silt.	
10	(9-11')		2 2 3 4	5	1.1	0.8				
	(11-13')		1 1 1 1	2	0.9	1.0				8.25" Boring
	(13-15')		1 2 1 2	3	1.3	1.1			Some Clay.	
15										

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Remarks:
221S240 water sample taken at a temporary screened interval of 37.0' to 40.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-221S240

Total Depth = 40 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(15-17')		WOH 1 1 1	2	2.0	1.0			Gray fine to medium SAND, some Clay, trace Silt, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 37.0' bgs
	(17-19')		WOH (12") 1 NA	1	2.0	0.6			Brown to Gray SILT and CLAY, soft, moist. Some wood pieces.	8.25" Boring
20	(19-21')		WOH (12") 1 1	1	2.0	1.1			Black PEAT, little Clay, soft, moist.	
	(21-23')		WOH (12") 1 1	1	2.0	1.2			Brown SILT and CLAY, trace fine Sand, soft, moist.	
	(23-25')								Brown fine to coarse SAND, little Silt, loose, wet. Lithology unknown. TW221S127 groundwater sample taken.	
25	(25-27')									
	(27-29')		2 2 3 4	5	NR	NA			Brown fine to coarse SAND, little Silt, loose, wet.	
30	(29-31')		2 2 3 4	5	1.0	0.8			Some Silt.	
	(31-33')		2 3 4 8	7	1.1	0.4				
	(33-35')		3 4 6 10	10	1.6	0.5				
35										

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Remarks:
NR - No Recovery.
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-221S240

Total Depth = 40 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(35-37')		4 4 7 9	11	1.0	0.7			Brown fine to coarse SAND, some Silt, loose, wet.	
	(37-39')		7 7 14 19	21	1.1	0.6			Lithology unknown. TW221S240 groundwater sample taken.	0.01" Stainless steel screen 37.0' to 40.0' bgs
40	(39-40.4')								Temporary Stainless Steel well point advanced to 40.4' bgs.	2-in diameter Stainless steel sump 40.0' to 40.4' bgs
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/31/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Tim Osier

Well No. TW-221S342

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		2 2 2 3	4	1.1	1.0			Dark brown fine SAND and SILT, some Clay, trace roots, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		1 (12") 1 1	1	1.3	0.4			Dark brown fine to medium SAND, some Silt, trace Clay, soft, moist.	
									Brown fine to coarse SAND, some Silt, trace Clay, soft, wet.	
5	(4-7')								Lithology unknown. 221WT7 groundwater sample taken.	8.25" Boring
	(7-9')		WOH 2 2 3	4	1.5	1.0			Brown fine to medium SAND, little Silt, loose, wet. Gray, trace Silt.	
10	(9-11')		2 2 3 4	5	1.1	0.8				
	(11-13')		1 1 1 1	2	0.9	1.0				
	(13-15')		1 2 1 2	3	1.3	1.1			Some Clay.	
15										

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Remarks:
221S342 water sample taken at a temporary screened interval of 39.0' to 42.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-221S342

Total Depth = 42 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(15-17')		WOH 1 1 1	2	2.0	1.0			Gray fine to medium SAND, some Clay, trace Silt, loose, wet.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(17-19')		WOH (12") 1 NA	1	2.0	0.6			Brown to gray SILT and CLAY, soft, moist. Some wood pieces.	8.25" Boring
20	(19-21')		WOH (12") 1 1	1	2.0	1.1				
	(21-23')		WOH (12") 1 1	1	2.0	1.2			Black PEAT, little Clay, soft, moist. Brown SILT and CLAY, trace fine Sand, soft, moist. Brown fine to coarse SAND, little Silt, loose, wet.	
	(23-25')								Lithology unknown. TW221S127 groundwater sample taken.	
25	(25-27')									
	(27-29')		2 2 3 4	5	NR	NA			Brown fine to coarse SAND, little Silt, loose, wet.	
30	(29-31')		2 2 3 4	5	1.0	0.8				
	(31-33')		2 3 4 8	7	1.1	0.4			Some Silt.	
	(33-35')		3 4 6 10	10	1.6	0.5				
35										

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Remarks:
NR - No Recovery.
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-221S342

Total Depth = 42 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(35-37')		4 4 7 9	11	1.0	0.7			Brown fine to coarse SAND, some Silt, loose, wet.	Bentonite seal 36.0' to 38.0' bgs
	(37-39')		7 7 14 19	21	1.1	0.6				Grade #2 sandpack 38.0' to 42.0' bgs
	(39-40')								Lithology unknown. TW221S240 groundwater sample taken.	
40	(40-42')		2 2 3 3	5	2.0	0.6			Brown fine to coarse SAND, little Silt, loose, wet.	0.01" Stainless steel screen 39.0' to 42.0' bgs
									Gray CLAY, little Silt, soft, moist.	
									Temporary stainless steel well point advanced to 42.4' bgs.	2-in diameter Stainless steel sump 42.0' to 42.4' bgs
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/30/95 – 01/31/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Tim Osier

Well No. TW-221S418

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0–2')		2 2 2 3	4	1.1	1.0			Dark brown fine SAND and SILT, some Clay, trace roots, soft, moist.	2-in diameter Galvanized casing 1.8' ags to 15' bgs
	(2–4')		1 (12") 1 1	1	1.3	0.4			Dark brown fine to medium SAND, some Silt, trace Clay, soft, moist.	
5	(4–7')								Brown fine to coarse SAND, some Silt, trace Clay, soft, wet. Lithology unknown. 221WT7 groundwater sample taken.	
	(7–9')		WOH 2 2 3	4	1.5	1.0			Brown fine to medium SAND, little Silt, loose, wet. Gray, trace Silt.	8.25" Boring
10	(9–11')		2 2 3 4	5	1.1	0.8				
	(11–13')		1 1 1 1	2	0.9	1.0				
	(13–15')		1 2 1 2	3	1.3	1.1			Some Clay.	
15										

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Remarks:
221S418 water sample taken at a temporary screened interval of 15.0' to 18.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-221S418

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(15-17')		WOH 1 1 1	2	2.0	1.0			TW221S127 groundwater sample taken.	0.01" Stainless steel screen 15.0' to 18.0' bgs
	(17-18.4')		WOH (12")	1	2.0	0.6			Brown to gray SILT and CLAY, soft, moist. Temporary Stainless Steel well point advanced to 18.4' bgs.	2-in diameter Stainless steel sump 18.0' to 18.4' bgs
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 01/31/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Ron Kuhn

Well No. TW-222WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		1 2 3 3	5	1.4	0.0			Brown SILT, little Clay, trace roots, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		1 (12") 2 1	2	1.8	0.0			Light brown fine SAND, some Clay, trace shells, wet.	8.25" Boring
5	(4-6')								Lithology unknown. 222WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									
									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
10										
15										

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Remarks:
222WT8 water sample taken at a temporary screened interval of 4' to 8' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/31/95 – 01/31/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Ron Kuhn

Well No. TW-222S128

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		1 2 3 3	5	1.4	0.0			Brown SILT, little Clay, trace roots, moist.	
	(2-4')		1 (12") 2 1	2	1.8	0.0			Light brown fine SAND, some Clay, trace shells, wet.	
5	(4-6')					NA			Lithology unknown. 222WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(6-8')					NA				8.25" Boring
	(8-10')		WOH 1 (12") 1	1	1.4	0.0			Gray fine SAND, little Silt, saturated.	
10	(10-12')		1 (12") 1 1	1	1.0	0.0			Trace shells.	
	(12-14')		1 1 1 1	2	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	
	(14-16')		WOH (12")	1	1.4	0.0				
15										

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Remarks:
222S128 water sample taken at a temporary screened interval of 24' to 28' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-222S128

Total Depth = 28 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	
	(16-18')		5 4 4 5	8	1.8	0.0				2-in diameter Galvanized casing 1.8' ags to 24.0' bgs
	(18-20')		3 2 3 6	5	2.0	0.0				8.25" Boring
20	(20-22')		4 1 3 6	4	1.4	0.0			222S322 groundwater sample taken @ 18' to 22' bgs.	
	(22-24')		11 8 7 7	15	1.4	0.0				
25	(24-26')								Lithology unknown. 222S128 groundwater sample taken.	0.01" Stainless steel screen 24.0' to 28.0' bgs
	(26-28.4')									2-in diameter Stainless steel sump 28.0' to 28.4' bgs
30									Temporary Stainless steel well point advanced to 28.4' bgs.	
35										

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Remarks:
WOH - Weight of hammer.
MDNR split sample taken at 222S128
MS/MSD sample taken at 222S128

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/31/95 – 01/31/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38 ft.

Geologist: Ron Kuhn

Well No. TW-222S234.5

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		1 2 3 3	5	1.4	0.0			Brown SILT, little Clay, trace roots, moist.	
	(2-4')		1 (12") 2 1	2	1.8	0.0			Light brown fine SAND, some Clay, trace shells, wet.	
5	(4-6')								Lithology unknown. 222WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 30.5' bgs
	(6-8')									8.25" Boring
	(8-10')		WOH 1 (12") 1	1	1.4	0.0			Gray fine SAND, little Silt, saturated.	
10	(10-12')		1 (12") 1 1	1	1.0	0.0			Trace shells.	
	(12-14')		1 1 1 1	2	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	
15	(14-16')		WOH (12")	1	1.4	0.0				

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Remarks:
222S234.5 water sample taken at a temporary screened interval of 30.5' to 34.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-222S234.5

Total Depth = 38 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	
	(16-18')		5 4 4 5	8	1.8	0.0				
	(18-20')		3 2 3 6	5	2.0	0.0				
20	(20-22')		4 1 3 6	4	1.4	0.0			222S322 groundwater sample taken @ 18' to 22' bgs.	2-in diameter Galvanized casing 1.8' ags to 30.5' bgs
	(22-24')		11 8 7 7	15	1.4	0.0				8.25" Boring
25	(24-26')								Lithology unknown. 222S128 groundwater sample taken.	
	(26-28')									
	(28-30')		3 5 2 4	7	1.8	0.0			Gray fine to medium SAND, trace Silt, saturated.	
30	(30-32')		WOH (12") 2 4	2	1.6	0.0				0.01" Stainless steel screen 30.5' to 34.5' bgs
	(32-34')		1 2 4 7	6	1.8	0.0			Trace fine Gravel.	Grade #5 silica sandpack 30.0' to 38.0' bgs
	(34-36')		6 6	12	2.0	0.0				2-in diameter Stainless steel sump 34.5' to 34.9' bgs
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-222S234.5

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		6 7	12	2.0	0.0			@34.6', Brown fine SAND and SILT, little Clay, trace fine Gravel, moist, stiff.	Grade #5 silica sandpack 30.0' to 38.0' bgs
	(36-38')		2 5 6 8	11	1.6	0.0			Brown CLAY and SILT, trace fine Sand, moist, stiff.	
									Total depth of boring 38.0 ft. bgs.	
40										
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 01/31/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 22 ft.

Geologist: Ron Kuhn

Well No. TW-222S322

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		1 2 3 3	5	1.4	0.0			Brown SILT, little Clay, trace roots, moist.	
	(2-4')		1 (12") 2 1	2	1.8	0.0			Light brown fine SAND, some Clay, trace shells, wet.	
5	(4-6')								Lithology unknown. 222WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 18.0' bgs
	(6-8')									8.25" Boring
	(8-10')		WOH 1 (12") 1	1	1.4	0.0			Gray fine SAND, little Silt, saturated.	
10	(10-12')		1 (12") 1 1	1	1.0	0.0			Trace shells.	
	(12-14')		1 1 1 1	2	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	
15	(14-16')		WOH (12")	1	1.4	0.0				

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Remarks:
222S322 water sample taken at a temporary screened interval of 18' to 22' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-222S322

Total Depth = 22 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	1.4	0.0			Gray fine to medium SAND, little Silt, saturated.	2-in diameter Galvanized casing 1.8' ags to 18.0' bgs
	(16-18')		5 4 4 5	8	1.8	0.0				8.25" Boring
	(18-20')		3 2 3 6	5	2.0	0.0				0.01" Stainless steel screen 18.0' to 22.0' bgs
20	(20-22.4')		4 1 3 6	4	1.4	0.0				2-in diameter Stainless steel sump 22.0' to 22.4' bgs
									Temporary Stainless steel well point advanced to 22.4' bgs.	
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 02/01/95 – 02/01/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Ron Kuhn

Well No. TW-223WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		0 2 2 2	4	1.6	0.0			Brown SILT and fine SAND, trace roots, moist.	2-in diameter Galvanized casing 1.8' ags to 4.0' bgs
	(2-4')		WOH (18") 2	0	1.6	0.0			Trace Clay, wet.	8.25" Boring
5	(4-6')								Lithology unknown. 223WT8 groundwater sample taken.	0.01" Stainless steel screen 4.0' to 8.0' bgs
	(6-8.4')									
10									Temporary Stainless steel well point advanced to 8.4' bgs.	2-in diameter Stainless steel sump 8.0' to 8.4' bgs
15										

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Remarks:
223WT8 water sample taken at a temporary screened interval of 4.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start-Finish: 02/01/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Ron Kuhn

Well No. TW-223S120

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									GROUND SURFACE	
		(0-2')		0 2 2 2	4	1.6	0.0			Brown SILT and fine SAND, trace roots, moist.	
		(2-4')		WOH (18") 2	0	1.6	0.0			Trace Clay, wet.	
5		(4-6')								Lithology unknown. 223WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
		(6-8')									8.25" Boring
		(8-10')		WOH (18") 1	0	1.4	0.0			Gray fine to medium SAND, trace Silt, saturated.	
10		(10-12')		WOH (24")	0	1.8	0.0			Gray CLAY and SILT, some fine Sand, very soft, wet. Trace shells.	
		(12-14')		WOH (18") 1	0	1.4	0.0			Gray fine to medium SAND, little Silt, trace shells, saturated.	
15		(14-16')		WOH (24")	0	1.6	0.0			Gray fine SAND, some Clay, trace shells, wet.	

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Remarks:
223S120 water sample taken at a temporary screened interval of 16.0' to 20.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-223S120

Total Depth = 20 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')			0	1.6	0.0			Gray fine SAND, some Clay, trace shells, wet.	2-in diameter Galvanized casing 1.8' ags to 16.0' bgs
	(16-18')		WOH (18") 1	0	2.0	0.0			Gray fine to medium SAND, trace to little Silt, trace shells, saturated.	0.01" Stainless steel screen 16.0' to 20.0' bgs
	(18-20.4')								Lithology unknown. 223S120 groundwater sample taken.	
20									Temporary Stainless steel well point advanced to 20.4' bgs.	2-in diameter Stainless steel sump 20.0' to 20.4' bgs
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/01/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 34 ft.

Geologist: Ron Kuhn

Well No. TW-223S232.5

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		0 2 2 2	4	1.6	0.0			Brown SILT and fine SAND, trace roots, moist.	
	(2-4')		WOH (18") 2	0	1.6	0.0			Trace Clay, wet.	
5	(4-6')								Lithology unknown. 223WT8 groundwater sample taken.	2-in diameter Galvanized casing 1.8' ags to 28.5' bgs
	(6-8')									8.25" Boring
	(8-10')		WOH (18") 1	0	1.4	0.0			Gray fine to medium SAND, trace Silt, saturated.	
10	(10-12')		WOH (24")	0	1.8	0.0			Gray CLAY and SILT, some fine Sand, very soft, wet. Trace shells.	
	(12-14')		WOH (18") 1	0	1.4	0.0			Gray fine to medium SAND, little Silt, trace shells, saturated.	
15	(14-16')		WOH (24")	0	1.6	0.0			Gray fine SAND, some Clay, trace shells, wet.	

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Remarks:
223S232.5 water sample taken at a temporary screened interval of 28.5' to 32.5' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

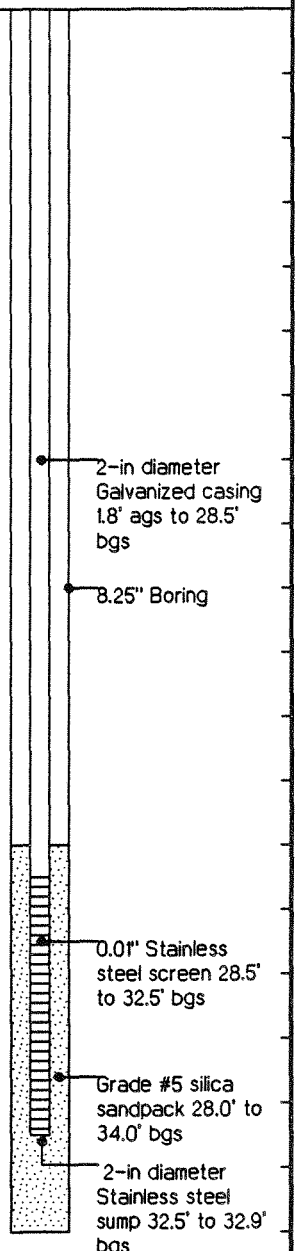
Well No. TW-223S232.5

Total Depth = 34 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')			0	1.6	0.0			Gray fine SAND, some Clay, trace shells, wet.
	(16-18')		WOH (18") 1	0	2.0	0.0			Gray fine to medium SAND, trace to little Silt, trace shells, saturated.
	(18-20')								Lithology unknown. 223S120 groundwater sample taken.
20	(20-22')		1 1 2 2	3	1.8	NA			Gray fine to coarse SAND, trace Silt, saturated.
	(22-24')		2 1 3 4	4	1.8	0.0			Trace fine Gravel and shells.
25	(24-26')		5 7 6 9	13	2.0	0.0			Little fine to medium Gravel, trace Silt and shells, saturated.
	(26-28')		6 5 6 5	11	2.0	0.0			
	(28-30')		4 1 4 4	5	1.6	0.0			Gray fine to medium SAND, trace fine Gravel and Silt, saturated.
30	(30-32')		3 2 6 8	8	2.0	0.0			Gray fine to coarse SAND, little fine to medium Gravel, trace Silt, saturated.
	(32-34')		6 5 9 11	14	2.0	0.0			Brown CLAY and SILT, trace fine Sand and fine to medium Gravel, stiff, moist.
35									Total depth of boring 34.0 ft. bgs.

Well Construction



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Remarks:
WOH - Weight of hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/30/95 – 01/30/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Tim Osier

Well No. TW-224WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	2-in diameter PVC casing 1.8' ags to 4.0' bgs
	(0-2')		1 2 2 2	4	1.1	0.0			Dark brown fine to medium SAND, some Silt and Clay, soft, moist.	8.25" Boring
	(2-4')		1 1 1 1	2	1.6	0.0			Tan fine to medium SAND and SILT, trace white shells, red staining, soft, moist.	Bentonite seal 1.0' to 2.0' bgs
5	(4-6')								Wet at 3.5'. Lithology unknown. 224WT8 water sample taken here.	Grade #2 sandpack 2.0' to 8.4' bgs
	(6-8.4')									0.01" PVC screen 3.0' to 8.0' bgs
10									Temporary PVC well set from 3.0' to 8.0' bgs.	2-in diameter PVC sump 8.0' to 8.4' bgs.
15										

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Remarks:
224WT8 water sample taken at a temporary screened interval of 3.0' to 8.0' bgs. Following the sampling event, the temporary well was removed and drilling resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/30/95 – 01/30/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Tim Osier

Well No. TW-224S118

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 2 2 2	4	1.1	0.0			Dark brown fine to medium SAND, some Silt and Clay, soft, moist.	
	(2-4')		1 1 1 1	2	1.6	0.0			Tan fine to medium SAND and SILT, trace white shells, red staining, soft, moist.	
5	(4-6')								Wet at 3.5' Lithology unknown. 224WT8 sample taken here.	2-in diameter Galvanized casing 1.8' ags to 15.0' bgs
	(6-8')									
	(8-10')		WOH (12") 1 NA	1	0.1	0.0			Brown fine SAND and SILT, trace Clay, loose, wet.	8.25" Boring
10	(10-12')		WOH (12") 1 2	1	0.8	0.0				
	(12-14')		1 1 NA 2	1	0.5	0.0				
15	(14-16')		2 3	7	1.6	0.0			No Clay, some gray streaking at 14 feet.	Bentonite seal 13.0' to 15.0' bgs

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Remarks:
224S118 water sample taken at a temporary screened interval of 15.0' to 18.0' bgs. Following the sampling event, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-224S118

Total Depth = 20 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		4 4	7	1.6	0.0			Brown fine SAND and SILT, loose, wet.	0.006" Stainless steel screen 15.0' to 18.0' bgs
	(16-18')		2 3 3 3	6	1.8	0.0			Brown SILT, some Clay, soft, damp.	Grade #2 Sandpack 15.0' to 20.0' bgs
	(18-20')		2 2 2 2	4	1.8	1.1			Brown SILT and CLAY, soft, damp.	2-in diameter Stainless steel sump 18.0' to 18.4' bgs
20									Total depth of boring 20.0' bgs.	
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/1/95 - 02/3/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8 ft.

Geologist: Tim Osier/Ray Moreno

Well No. TW-225WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	2-in diameter PVC riser 1.8' ags to 3.0' bgs
	(0-2')		1 1 2 3	3	1.5	0.0			Dark brown fine SAND, some Silt and Clay, soft, moist.	8.25" Boring
	(2-4')		WOH 2 3 4	5	1.0	0.0			Tan fine SAND and SILT, loose, moist.	Bentonite seal 1.0' to 2.0' bgs
5	(4-6')		1 (12") 2 (12")	2	1.0	0.0			Grades to gray, wet, with some wood pieces.	Grade #2 sandpack 2.0' to 8.4' bgs
	(6-8.4')		1 1 1 1	2	1.0	0.0			Gray fine SAND, loose, wet.	0.01" Sch. 40 PVC well screen 3.0' to 8.0' bgs
									Brown fine SAND and SILT, soft, wet.	
10									Temporary PVC well installed to 8.4' bgs.	2-in diameter Sch. 40 PVC sump 8.0' to 8.4' bgs
15										

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Remarks:
225WT8 water sample taken at a temporary screened interval of 3.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start-Finish: 02/1/95 - 02/3/95
Drilling Company: Mateco
Driller's Name: Norm
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Tim Osier/Ray Moreno

Well No. TW-225S118

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		1 1 2 3	3	1.5	0.0			Dark Brown fine SAND, some silt and clay, soft, moist.	2-in diameter Galvinized rod casing 1.8' ags to 15.0' bgs
	(2-4')		WOH 2 3 4	5	1.0	0.0			Tan fine SAND and SILT,loose, moist.	
5	(4-6')		1 (12") 2 (12")	2	1.0	0.0			Grades to gray, wet, some wood pieces. TW225WT8 groundwater sample taken from 3.0' to 8.0' bgs.	8.25" Boring
	(6-8')		1 1 1 1	2	1.0	0.0			Gray fine SAND, loose, wet. Brown fine SAND and SILT, soft, wet.	
	(8-10')		WOH (12") 1 (12")	1	0.2	NA			Gray SILT, very soft.	
10	(10-12')		WOH (24")	0	NR	NA			No Recovery.	
	(12-14')		WOH (18") 1	1	2.0	NA			Gray SILT, trace fine Sand. Gray Clayey SILT, trace fine Sand.	Bentonite seal 12.0' to 14.0' bgs
									Gray Silty CLAY, trace fine Sand.	
15	(14-16')		1 1	3	1.8	NA			Gray SILT, little fine Sand, trace shell fragments and wood, soft	

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Remarks:
225S118 water sample taken at a temporary screened interval of 15.0' to 18.0' bgs. Following the sample event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. TW-225S118

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	3	1.8	NA			At 14.7' bgs., Gray Clayey SILT, trace fine Sand.	0.006" Stainless steel screen 15.0' to 18.0' bgs
	(16-18')		WOH 2 3 4	5	1.6	NA			Gray Silty CLAY, trace fine Sand, soft. Gray fine SAND. Gray SILT, trace fine Sand and shell fragments.	Grade #2 silica sand pack 14.0' to 18.4' bgs
	(18-20')		5 6 8 14	14	1.5	NA			Gray Clayey SILT, some Silty Clay. Brown fine SAND, little fine to medium Gravel, trace Silt, loose.	2-in diameter Stainless steel sump 18.0' to 18.4' bgs
20									Gray/Brown CLAY, some silt, trace fine to coarse sand and fine gravel. Temporary well point installed to 18.4' bgs.	
25										
30										
35										

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Remarks:
WOH - Weight of hammer.
NR - No recovery.
NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/02/95 - 02/02/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

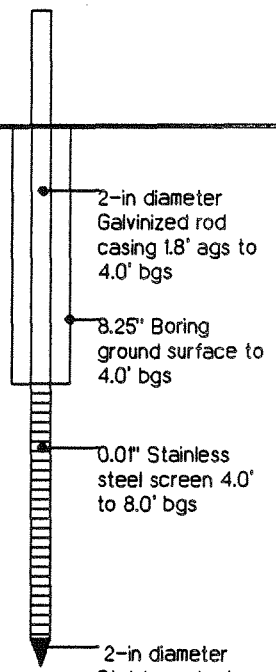
Geologist: Ron Kuhn

Well No. TW-226WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		3 4 6 6	10	2.0	0.4			Brown SILT, trace fine Sand and organics, medium stiff, moist.	
	(2-4')		5 6 6 5	12	2.0	0.5			Light brown fine to medium Sand, trace Silt, medium dense, moist. Wet.	
5	(4-6')								Lithology unknown. 226WT8 screen interval from 4.0' to 8.0' bgs.	
	(6-8')									
	(8-10')		WOH (24")	0	2.0	0.5			Gray fine to medium SAND, little Silt, trace shells, very loose, saturated. Gray CLAY and SILT, trace fine Sand and fine Gravel, moist, medium stiff.	
10	(10-12')		WOH 1 3 3	4	1.4	0.8			Very stiff.	
	(12-14')		3 7 8 12	15	0.0	0.7			Trace medium Gravel, very stiff.	
15	(14-16')		3 3	12	1.8	0.4				



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Remarks:
A temporary well was installed with a screened interval of 4.0' to 8.0' bgs. The well bailed dry after removing 5 gallons. The well was removed and drilling resumed.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-226WT8

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		9 11	12	1.8	0.4			Gray CLAY and SILT, trace fine Sand and fine Gravel, moist, medium stiff.	
									Total depth of boring 16.0' bgs.	
20										
25										
30										
35										

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Remarks:
Due to lack of further sand units, boring was grouted to grade.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/02/95 - 02/02/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: Ron Kuhn

Well No. TW-226S18.4

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		3 4 6 6	10	2.0	0.4			Brown SILT, trace fine Sand and organics, medium stiff, moist.	
	(2-4')		5 6 6 5	12	2.0	0.5			Light brown fine to medium Sand, trace Silt, medium dense, moist. Wet.	2-in diameter Sch. 40 PVC casing 1.8' ags to 3.4' bgs; 8.25" Boring ground surface to 8.4' bgs
5	(4-6')								226S18.4 water sample taken at a temporary screened interval of 3.4' to 8.4' bgs.	0.01" Slotted Sch. 40 PVC screen 3.4' to 8.4' bgs
	(6-8')									Grade #5 silica sand pack 3.0' to 8.4' bgs
10				0					Total depth of boring 8.4' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.	
				4						
				15						
15				12						

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Remarks:
Moved boring approximately 5.0' east of TW-226WT8 and drilled continuously to a total depth of 8.4' bgs. Soil descriptions were taken from boring log TW-226WT8.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-226S18.4

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
				12						
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
		⊻
		∇
		∇

Date Start-Finish: 02/02/95 - 02/03/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12 ft.

Geologist: Ron Kuhn

Well No. TW-227WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		3 5 5 6	10	2.0	0.3			Brown fine SAND and SILT, trace organics (roots), moist.	2-in diameter Sch. 40 PVC casing 1.8' ags to 3.0' bgs
	(2-4')		1 2 4 2	6	1.6	0.5			Brown SILT, some fine Sand, trace shells, medium stiff, moist. Little Clay, trace fine Sand.	8.25" Boring
5	(4-6')		2 2 2 3	4	1.6	0.6			Orange to brown CLAY and SILT, trace fine Sand, fine Gravel, and shells, medium stiff, moist.	0.01" Sch. 40 PVC screen 3.0' to 8.0' bgs
	(6-8')		2 4 7 8	11	1.6	0.9				Grade #5 silica sand pack 2.0' to 8.5' bgs.
	(8-10')		1 4 9 10	13	2.0	0.7			Brown CLAY and SILT, trace fine Sand and fine Gravel, very stiff, moist.	2-in diameter Sch. 40 PVC sump 8.0' to 8.4' bgs
10	(10-12')		2 3 7 9	10	2.0	0.5				Bentonite seal 8.5' to 12.0' bgs
									Total depth of boring 12.0' bgs.	
15										

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Remarks:
227WT8 water sample taken at a temporary screened interval of 3.0' to 8.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 01/31/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 11 ft.

Geologist: Ray R. Moreno

Well No. TW-228WT11

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		6 6	12	0.8	0.0			Concrete pavement and subbase.	
	(2-4')		7 8 5 4	13	1.3	0.0			Red fine SAND, some tan fine Sand and slag, medium dense, dry.	2-in diameter Sch. 40 PVC casing 1.8' ags to 11.0' bgs
5	(4-6')		5 7 10 11	17	1.0	9.4			Tan to brown fine SAND, medium dense, dry. Dark gray to red fine SAND, medium dense, dry. Dark reddish brown to black SAND, glass, slag, and cinders, medium dense, dry.	8.25" Boring
	(6-8')		2 2 4 4	6	1.5	0.0			Dark gray to black fine SAND, slag, loose. Wet.	0.01" Sch. 40 PVC well screen 6.0' to 11.0' bgs
	(8-10')								Black fine SAND (logged from auger cuttings).	Grade #5 silica sand pack 5.0' to 11.4' bgs
10	(10-11')								Temporary PVC well was set at 6.0' to 11.0' bgs.	2-in diameter Sch. 40 PVC sump 11.0' to 11.4' bgs
15										

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Remarks:
228WT11 water sample taken at a temporary screened interval of 6.0' to 11.0' bgs. Following the sampling event, the temporary well was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 01/31/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Ray R. Moreno

Well No. TW-228S118

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		- - 6 6	12	0.8	0.0			Concrete pavement and subbase.	
									Red fine SAND, some tan fine Sand and slag, medium dense, dry.	2-in diameter Sch. 40 PVC casing 1.8' ags to 11.0' bgs
	(2-4')		7 8 5 4	13	1.3	0.0			Tan to brown fine SAND, medium dense, dry.	
									Dark gray to red fine SAND, medium dense, dry.	
5	(4-6')		5 7 10 11	17	1.0	9.4			Dark reddish brown to black SAND, glass, slag, and cinders, medium dense, dry.	8.25" Boring
	(6-8')		2 2 4 4	6	1.5	0.0			Dark gray to black fine SAND, slag, loose.	
									Wet.	
	(8-10')								Black fine SAND (logged from auger cuttings).	
10	(10-12')									
	(12-14')		2 5 7 7	12	1.5	0.0			Black fine SAND, medium dense, wet.	0.01" Sch. 40 PVC well screen 11.0' to 16.0' bgs
									Black fine SAND, some wood fragments, soft.	Grade #5 silica sand pack 10.0' to 18.0' bgs
15	(14-16')		2 2	4	1.3	0.0			Gray Silty CLAY, black staining, soft, wet.	

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Remarks:
228S118 water sample taken at a temporary screened interval of 11.0' to 16.0' bgs. Following the sampling event, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-228S118

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	4	1.3	0.0			Gray Silty CLAY, soft.	
	(16-18')		WOH (12") 2 2	4	1.0	0.0			Gray Silty CLAY, little fine Sand, wood fragments in upper 0.5", soft, wet.	2-in diameter Sch. 40 PVC sump 16.0' to 16.4' bgs
									Total depth of boring 18.0 ft. bgs.	
20										
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 02/01/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15 ft.

Geologist: Ray R. Moreno

Well No. TW-229WT15

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		- - 19 20	39	1.0	0.0			Concrete pavement and subbase.	2-in diameter Galvanized rod casing 1.8' ags to 12.0' bgs
	(2-4')		20 29 31 21	60	1.0	102.0			Dark reddish brown to black fine SAND, trace Gravel and glass, dense, dry. Dark brown to reddish brown to black fine SAND, some Gravel, cindes, slag, glass, very dense, dry.	
5	(4-6')		7 9 6 6	15	0.6	9.0				8.25" Boring
	(6-8')		2 3 3 4	6	1.3	3.9				
	(8-10')		5 5 5 5	10	1.2	1.2			Dark gray to black SHALE and slag, some fine Sand, medium dense, wet.	
10	(10-12')		2 3 2 3	5	1.5	15.0			Wet.	
	(12-14')		2 4 5 6	9	0.2	26.5			Dark gray to black SHALE, loose, wet.	0.01" Stainless steel screen 12.0' to 14.6' bgs
15	(14-15')								Temporary stainless steel well point advanced to 15.0' bgs.	2-in diameter Stainless steel sump 14.6' to 15.0' bgs

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Remarks:
229WT15 water sample taken at a temporary screened interval of 12.0' to 15.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
01/31/95		9.9 ▼
		▼
		▽

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start–Finish: 01/30/95 – 02/01/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Ray R. Moreno

Well No. TW-229S118

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	
	(0-2')		1 1 19 20	39	1.0	0.0			Concrete pavement and subbase. Dark reddish brown to black fine SAND, trace Gravel and glass, dense, dry.	2-in diameter Sch. 40 PVC casing 1.8' ags to 15.5' bgs
	(2-4')		20 29 31 21	60	1.0	102.0			Dark brown to reddish brown to black fine SAND, some Gravel, cindes, slag, glass, very dense, dry.	
5	(4-6')		7 9 6 6	15	0.6	9.0				8.25" Boring
	(6-8')		2 3 3 4	6	1.3	3.9				
	(8-10')		5 5 5 5	10	1.2	1.2			Dark gray to black SHALE and slag, some fine Sand, medium dense, wet.	
10	(10-12')		2 3 2 3	5	1.5	15.0			Wet.	
	(12-14')		2 4 5 6	9	0.2	26.5			Dark gray to black SHALE, loose, wet.	
15	(14-16')								229WT15 groundwater sample taken.	

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Remarks:
229S120 water sample taken at a temporary screened interval of 15.5' to 18.0' bgs. Following the sampling event, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-229S118

Total Depth = 20 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Dark gray to black SHALE, loose, wet.	Grade #5 Silica sand pack 15.0' to 20.0' bgs
	(16-18')		1 1 1 1	2	NR	NA			No Recovery. Heavy sheen on sampler.	0.01" Sch. 40 PVC well screen 15.5' to 18.0' bgs
	(18-20')		WOH (12") 2 2	4	2.0	6.9			Gray Silty CLAY, little Peat, very soft, wet. Brown PEAT, trace Shale fragments, very soft, wet. Gray Silty CLAY, trace black Shale, soft, wet. Total depth of boring 20.0 ft. bgs.	2-in diameter Sch. 40 PVC sump 18.0' to 18.4' bgs
20										
25										
30										
35										

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Remarks:
WOH - Weight of hammer.
NR - No recovery.
NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start-Finish: 01/31/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-230WT10

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		- - 6 7	13	1.3	9.8			Concrete.	
	(2-4')		11 8 12 9	20	1.7	60.4			Dark brown to black fine to coarse SAND, little fine Gravel, medium dense, dry. Red brown fine to coarse SAND, medium dense. Moist.	
5	(4-6')		1 10 11 10	21	1.4	75.3				
	(6-8')		2 3 4 2	7	1.6	7.3			Wet.	
	(8-10')		2 5 7 7	12	1.0	0.0			Gray SILT and CLAY, trace fine Sand and fine Gravel, very stiff, dry to damp. Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, fractures infilled with gray Silty Clay, very stiff, dry to damp.	
10	(10-12')		3 (12") 10 13	17	2.0	0.0				
	(12-14')		3 7 11 13	18	1.7	0.0				
15	(14-16')		3 6	15	1.9	0.0				

2-in diameter Galvinized rod casing 1.8' ags to 6.0' bgs
8.25" Boring
Grade #5 silica sand pack 5.0' to 10.0' bgs
0.01" Stainless steel screen 6.0' to 10.0' bgs
2-in diameter Stainless steel sump 10.0' to 10.4' bgs

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Remarks:
A perched water table well was installed with a screened interval of 6' to 10' bgs. The well did not produce any water. The temporary well was removed, the sandpack was augered out and the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-23OWT10

Total Depth = 24 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		9 11	15	1.9	0.0			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, fractures infilled with gray Silty Clay, very stiff, dry to damp.	
	(16-18')		4 8 10 12	18	2.0	0.0				
	(18-20')		2 5 8 9	13	1.8	0.0				
20	(20-22')		1 4 6 8	10	2.0	0.0				
	(22-24')		1 4 5 6	9	1.7	0.0				
									Total depth of boring 24.0 ft. bgs.	
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 7 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-23WT7

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
	(0-2')		3 2 3 2	5	1.8	0.0			Dark brown to black fine to medium SAND, trace coarse Sand and fine Gravel, very loose, dry.	2-in diameter Galvanized rod casing 1.8' ags to 4.0' bgs
	(2-4')		2 2 2 2	4	1.0	0.0			Wet.	8.25" Boring
5	(4-6')		WOH (12") 1 1	1	1.0	0.0			Wet.	0.01" Stainless steel screen 4.0' to 7.0' bgs
	(6-7')			10	1.0	0.0			Total depth of boring 7.0 ft. bgs.	2-in diameter Stainless steel sump 7.0' to 7.4' bgs
10										
15										

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Remarks:
A perched water table sample was taken at a temporary screened interval of 4.0' to 7.0' bgs. Following the sampling event, the temporary well point was removed and drilling was resumed.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 01/31/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-231S121

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		3 3 3 2	5	1.8	0.0			Dark brown to black fine to medium SAND, trace coarse Sand and fine Gravel, very loose,dry.	2-in diameter Sch. 40 PVC casing 1.8' ags to 16.0' bgs
	(2-4')		2 2 2 2	4	1.0	0.0			Wet.	
5	(4-6')		WOH (12") 1 1	1	1.0	0.0			Wet.	8.25" Boring
	(6-8')		- - 4 6	10	1.0	0.0			231WT7 groundwater sample taken.	
	(8-10')		3 7 9 13	16	0.7	0.0			Brown SILT and CLAY, little fine to coarse Sand, trace fine Gravel, very stiff, dry, hairline fractures infilled with a Silty Clay.	
10	(10-12')		3 5 9 13	14	2.0	0.0				
	(12-14')		3 5 6 9	11	2.0	0.0				
	(14-16')		1 3	9	2.0	0.0				
15										

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Remarks:

A temporary well was installed with a screened interval of 16.0' to 21.0' bgs. After 24-hrs. the well did not produce any water. The well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-231S121

Total Depth = 20 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14–16')		6 8	9	2.0	0.0			Dark grayish brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, medium stiff, damp.	2-in diameter Sch. 40 PVC casing 1.8' ags to 16.0' bgs
	(16–18')		2 4 5 6	9	2.0	0.0			Soft, moist.	Grade #5 silica sand pack 15.5' to 21.4' bgs
	(18–20')		1 2 3 4	5	2.0	0.0				0.01" Sch. 40 PVC well screen 16.0' to 21.0' bgs
20									Total depth of boring 20.0 ft. bgs.	2-in diameter Sch. 40 PVC sump 21.0' to 21.4' bgs
25										
30										
35										

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Remarks:
WOH – Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/30/95 – 02/02/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 9 ft.

Geologist: Hillary Hollister-Hinge

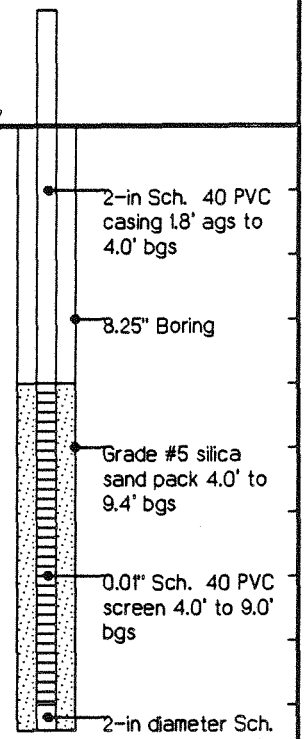
Well No. TW-232WT9

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0–2')		15 11 8 6	19	1.7	1.3			Dark brown fine to coarse SAND, little fine Gravel, medium dense, dry.
	(2–4')		1 2 2 2	4	1.2	0.8			Brown fine to medium SAND, little coarse Sand and fine Gravel, loose, dry.
5	(4–6')		1 2 2 5	4	1.5	0.5			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, medium stiff, moist to wet, hairline fractures infilled with Silt, Clay, and organic material. Moist to wet around embedded Gravel.
	(6–8')		4 6 9 11	15	1.7	0.6			
	(8–10')		4 6	13	2.0	0.2			Total depth of boring 9.0 ft. bgs.
10									
15									

Well Construction



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Remarks:

A perched water table well was installed with a screened interval of 4' to 9' bgs. The well did not produce any water. The temporary well was removed, the sandpack was augered out and the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 02/02/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-232S117

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									GROUND SURFACE	
	(0-2')		15 11 8 6	19	1.7	1.3			Dark brown fine to coarse SAND, little fine Gravel, medium dense, dry.	
	(2-4')		1 2 2 2	4	1.2	0.8			Brown fine to medium SAND, little coarse Sand and fine Gravel, loose, dry.	
5	(4-6')		1 2 2 5	4	1.5	0.5				2-in diameter Galvinized rod casing 1.8' ags to 13.0' bgs
	(6-8')		4 6 9 11	15	1.7	0.6			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, medium stiff, moist to wet, hairline fractures infilled with Silt, Clay, and organic material. Moist to wet around embedded Gravel.	
	(8-10')		4 6 7 9	13	2.0	0.2				8.25" Boring
10	(10-12')		4 5 7 9	12	2.0	1.4				
	(12-14')		1 2 2 3	4	1.8	0.4			Gray brown SILT and CLAY, trace fine Sand and fine Gravel, soft, moist to wet, no fractures.	
15	(14-16')		WOH 2	5	1.6	0.7				Grade #5 silica sand pack 13.0' to 16.0' bgs

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Remarks:
A temporary monitoring well was installed with a screened interval of 13' to 17' bgs. The well did not produce any water. The temporary well was removed, the sandpack was augered out and the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-232S117

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 3	5	1.6	0.7			Gray brown SILT and CLAY, trace fine Sand and fine Gravel, soft, moist to wet, no fractures.	0.01" Stainless steel screen 13.0' to 17.0' bgs
									Total depth of boring 16.0 ft. bgs.	2-in diameter Stainless steel sump 17.0' to 17.4' bgs
20										
25										
30										
35										

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/01/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Hillery Hollister-Hinge

Well No. TW-233WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 2 3 4	5	1.2	1.1			Concrete. Dark brown fine to coarse SAND, trace fine Gravel, loose, dry, coal fragments.	
	(2-4')		4 5 6 10	11	2.0	0.0			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, very stiff, dry to damp. Gray Silty Clay infilling of hairline fractures.	
5	(4-6')		3 7 11 16	18	1.2	0.0				
	(6-8')		4 7 8 9	15	1.8	0.0				Type 1 Portland cement/5% bentonite 1.0' to 19.8' bgs
	(8-10')		4 6 8 10	14	1.8	0.0				
10	(10-12')		4 5 6 7	11	2.0	0.0			Grayish brown Silty Clay infilling of hairline fractures.	
	(12-14')		2 3 3 4	6	1.7	0.0			Dark grayish brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, medium stiff, moist.	
15	(14-16')		2 3	7	1.9	0.0			Soft, moist.	

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Remarks:
A perched water table was not encountered.
The temporary well was not installed.
Upon completion, the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-233WT

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		4 5	7	1.9	0.0			Dark grayish brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, medium stiff, moist.	
	(16-18')		WOH 2 3 3	5	2.0	0.0				
	(18-20')		WOH 2 2 2	4	1.5	0.0				
20	(20-22')		WOH (12") 2 2	2	2.0	0.0			Little fine Sand, very soft.	Type 1 Portland cement/5% bentonite 1.0' to 19.8' bgs
	(22-24')		WOH 1 2 1	3	2.0	0.0				
25	(24-26')		WOH (12") 1 1	1	2.0	0.0				
	(26-28')		WOH (12") 1 2	1	2.0	0.0				
	(28-30')		WOH (18") 2	0	2.0	0.0				
30									Total depth of boring 30.0' bgs.	
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 01/30/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Ray Morano

Well No. TW-234WT19

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		- - 4 4	4	1.0	10.1			Concrete pavement and sub-base.	
									Dark brown to black fine SAND.	
	(2-4')		1 3 4 8	7	1.2	9.7			Orange to brown Silty CLAY, trace fine Gravel, thin vertical fractures, stiff.	
5	(4-6')		8 9 12 19	21	1.5	10.0			Trace coarse Sand.	2-in diameter Sch. 40 PVC casing 1.8' ags to 15.0' bgs
	(6-8')		10 12 14 15	26	1.5	10.1			Brown Silty CLAY, little gray mottling along thin vertical fractures, trace coarse Sand, trace fine Gravel, moist.	8.25" Boring
	(8-10')		11 9 18 22	27	1.5	11.2				
10	(10-12')		7 9 10 14	19	1.5	10.2				
	(12-14')		4 8 10 11	18	2.0	7.6			Grayish brown Silty CLAY, trace coarse Sand and fine Gravel, stiff, very moist.	
15	(14-16')		5 5	10	2.0	8.2				

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Remarks:
234WT sample not obtained due to lack of water production after a three day time period. Following the sampling attempt, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-234WT19

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		5 5	10	2.0	8.2			@14.5', Gray CLAY, trace coarse Sand and fine Gravel, soft, wet.	0.01" Sch. 40 PVC screen 15.0' to 19.0' bgs Grade #5 silica sand pack 14.0' to 19.4' bgs. 2-in diameter Sch. 40 PVC sump 19.0' to 19.4' bgs
	(16-18')		4 4 6 8	10	2.0	5.0			Gray Silty CLAY, trace coarse Sand and fine Gravel, wet.	
	(18-19')								Total depth of boring 19.0' bgs.	
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/30/95 - 02/01/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-235WT18

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		5 7 6 18	13	1.3	0.8			Dark brown to brown fine to coarse SAND, little Silt, trace fine Gravel, mottling evident, medium dense, dry.	
	(2-4')		2 2 3 3	5	0.4	0.8			Brown SILT and CLAY, trace fine Sand and fine Gravel, medium stiff, damp, mottling, hairline fractures infilled with gray Clayey Silt.	
5	(4-6')		2 3 6 6	9	1.5	0.4			Stiff.	2-in diameter Sch. 40 PVC casing 1.8' ags to 12.0' bgs
	(6-8')		4 6 10 13	16	1.6	0.8			Very stiff.	
	(8-10')		1 4 6 8	10	0.8	0.8				8.25" Boring
10	(10-12')		1 2 5 7	7	1.5	0.9				
	(12-14')		2 3 4 3	7	1.2	0.9			Dark grayish brown SILT and CLAY, trace fine Sand and fine Gravel, soft, moist.	0.01" Sch. 40 PVC screen 12.0' to 16.0' bgs
	(14-16')		1 2	5	2.0	0.8				Grade #5 Silica sand pack 12.0' to 16.4' bgs.
15										

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Remarks:

235WT sample not obtained due to lack of water production after a three day time period. Following the sampling attempt, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-235WT16

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 2	5	2.0	0.8			Dark grayish brown SILT and CLAY, trace fine Sand and fine Gravel, soft, moist.	2-in diameter Sch. 40 PVC sump 16.0' to 16.4' bgs Bentonite seal 16.4' to 18.0' bgs.
	(16-18')		WOH 2 2 2	4	2.0	0.8			Total depth of boring 18.0' bgs.	
20										
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/31/95 - 02/01/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Ray Morano

Well No. TW-236WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		2 2 3 2	5	1.5	0.0			Gray GRAVEL, dry. Tan fine SAND, dry. Brown to gray Silty CLAY, little Sand, soft, moist.	
	(2-4')		2 3 5 8	8	1.1	0.0			Black stained Silty CLAY, little Sand, moist to wet.	
5	(4-6')		10 15 20 28	35	2.0	0.0			Brown Silty CLAY, trace Sand and fine Gravel, stiff, moist, thin vertical fractures infilled with gray Silty CLAY. Brown fine SAND, wet.	Type 1 Portland cement/5% bentonite grout 0' to 20' bgs.
	(6-8')		8 8 12 16	20	2.0	0.0			Brown to gray Silty CLAY, little Sand, wet. Dark brown to black Silty CLAY. Gray Silty CLAY, soft. Brown CLAY, stiff.	
	(8-10')		4 5 6 10	11	1.3	0.0			Brown Silty CLAY, trace fine Sand and fine Gravel, thin vertical fractures infilled with gray Silty CLAY, stiff, moist.	
10	(10-12')		5 6 6 8	12	2.0	0.0			0.1' gray CLAY and GRAVEL, soft, wet. Very moist.	
	(12-14')		5 7 9 10	16	2.0	0.0				
15	(14-16')		3 6	13	2.0	0.0				

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Remarks:
236WT sample not obtained due to the lack of a water producing unit. Upon completion, the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. TW-236WT

Total Depth = 20 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		7 8	13	2.0	0.0			Brown to gray Silty CLAY, trace coarse Sand and fine Gravel, moist.	Type 1 Portland cement/5% bentonite grout 0' to 20' bgs.
	(16-18')		3 4 5 6	9	2.0	0.0				
	(18-20')		2 2 4 5	6	2.0	0.0				
20									Total depth of boring 20.0' bgs.	
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/01/95 - 02/02/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

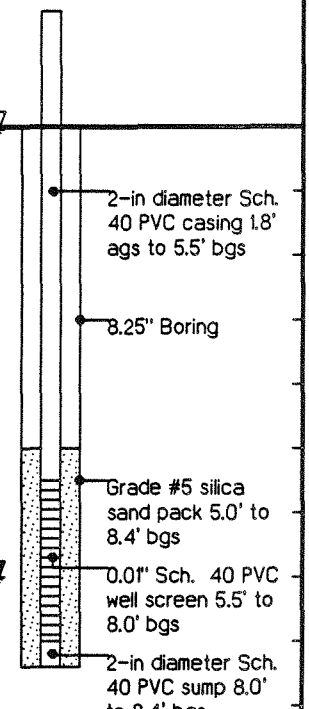
Geologist: Ray R. Moreno

Well No. TW-237WT8

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		1 1 1 4	4	0.5	0.0			Concrete pavement and subbase.	
	(2-4')		2 2 2 2	4	2.0	0.0			Dark brown to black fine SAND, very loose, dry.	
5	(4-6')		2 2 2 2	4	1.1	0.0			Very loose, wet.	
	(6-8')		1 1 REF	2	1.0	0.0			Concrete debris. Refusal. Augered continuously to 10.0' bgs.	
	(8-10')									
10	(10-12')		4 6 8 10	14	1.5	0.0			Brown Silty CLAY, trace fine to coarse Sand and fine Gravel, stiff, moist, little gray mottling.	
	(12-14')		4 5 5 6	10	1.7	0.0			Stiff, very moist to wet.	
15	(14-16')		5 6	15	2.0	0.0			Stiff, very moist to wet, soft, little gray mottling along thin vertical fractures.	



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Remarks:

A temporary well was installed with a screened interval of 5.5' to 8.0' bgs. The well bailed dry after removing half a gallon. The well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth
02/03/95		7.0 ▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-237WT8

Total Depth = 20 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		9 10	15	2.0	0.0			Gravel lenses at 14.5' to 14.6' bgs.	
	(16-18')		4 5 6 9	11	2.0	0.0				
	(18-20')		2 2 3 4	5	2.0	0.0			Gray Silty CLAY, trace fine to coarse Sand and fine Gravel, soft, wet, gray mottling.	
20									Total depth of boring 20.0 ft. bgs.	
25										
30										
35										

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Remarks:
REF - Refusal on concrete debris at 7.0' bgs, augered through to 10.0' bgs.

Water Levels

Date / Time	Elevation	Depth
02/03/95		7.0 ▼
		▽
		▽

Date Start–Finish: 02/01/95 – 02/02/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25–in.
Rig Type: CME 75
Spoon Size: 2–in.
Hammer Weight: 140–lb
Height of Fall: 30–in.

Borehole Depth: 30 ft.

Geologist: Hillary Hollister–Hinge

Well No. TW–238WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.54 ft.										**GROUND SURFACE**	
		(0–2')		NA NA 4 5	9	1.0	0.5			Concrete.	
	590	(2–4')		1 2 1 1	3	1.3	1.7			Gray, reddish brown and dark brown fine to coarse SAND, trace fine Gravel, very loose, dry. Abundant slag.	
5		(4–6')		1 2 2 2	4	1.4	0.0			Black SILT, some fine Sand, trace Clay, soft, damp. Dark grayish brown SILT, some Clay, little fine Sand, soft, moist.	Type 1 Portland cement/5% bentonite grout 0' to 30' bgs.
	585	(6–8')		3 4 5 5	9	1.8	0.0			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, stiff, dry to damp.	
		(8–10')		7 8 11 15	19	1.6	0.0			Fractures infilled with gray Silt and Clay, very stiff.	
10		(10–12')		2 6 9 11	15	1.8	0.0			Little coarse Sand and fine Gravel, stiff.	
	580	(12–14')		2 7 8 10	15	1.8	0.0			Trace medium Gravel fragment, stiff.	
15		(14–16')		2 5	13	2.0	0.0			Trace fine Gravel, stiff.	

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Remarks:
A perched water table was not encountered.
The temporary well was not installed.
Upon completion, the boring was backfilled with grout to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-238WT

Total Depth = 30 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		8 8	13	2.0	0.0			Brown SILT and CLAY, trace fine to coarse Sand and fine Gravel, stiff, dry to damp.	Type 1 Portland cement/5% bentonite grout 0' to 30' bgs.
		(16-18')		3 4 7 7	11	2.0	0.0				
	575									Dark grayish brown SILT and CLAY, stiff.	
		(18-20')		1 2 3 4	5	2.0	0.9			Little fine to coarse Sand, trace fine to medium Gravel, medium stiff, moist.	
20		(20-22')		1 1 3 4	4	2.0	0.0				
	570	(22-24')		WOH 1 5 5	6	2.0	0.0				
										Very soft.	
25		(24-26')		WOH 1 1 3	2	2.0	0.0				
										Trace medium Gravel (limestone), soft.	
		(26-28')		WOH (12") 2 2	2	2.0	0.0				
	565										
		(28-30')		WOH (12") 1 1	1	2.0	0.0				
30										Total depth of boring 30.0 ft bgs.	
	560										
35											

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/02/95 - 02/02/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15 ft.

Geologist: Ray R. Moreno

Well No. TW-239WT15

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	
	(0-2')		NA NA 6 6	12	0.5	9.7			Concrete pavement and subbase. Black fine SAND, medium dense, dry.	2-in diameter Sch. 40 PVC casing 1.8' ags to 9.0' bgs
	(2-4')		2 3 5 5	8	1.5	19.9			Black fine SAND and SILT, loose, moist, hydrocarbon odor.	
5	(4-6')		5 7 10 10	17	1.5	117			Medium dense, NAPL noticed on soil, hydrocarbon odor.	8.25-in diameter boring
	(6-8')		4 2 2 2	4	2.0	114			Dark gray SILT, soft, wet, strong hydrocarbon odor.	
	(8-10')		WOH (12") 2 2	2	1.3	75.0			Wet, odor.	Grade #5 silica sand pack 8.0' to 15.0' bgs
10	(10-12')		1 1 1 1	2	2.0	47.0			Wet, black staining, strong odor. Dark gray Clayey SILT, very soft, wet, strong odor.	0.01" Sch. 40 PVC well screen 9.0' to 14.6' bgs
	(12-14')		2 2 1 1	3	1.0	36.5			Dark gray SILT, soft, wet, strong hydrocarbon odor, heavy sheen. No sample taken from TW-239WT15 below 14.0 ft bgs.	2-in diameter Sch. 40 PVC sump 14.6' to 15.0' bgs
15	(14-15')								Total depth of boring 15.0 ft bgs.	

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Remarks:
239WT15 water sample taken at a temporary screened interval of 9.0' to 15.0' bgs. Following the sampling event, the temporary well was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/02/95 - 02/08/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24 ft.

Geologist: Hillary Hollister-Hinge

Well No. TW-240WT19

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										**GROUND SURFACE**	
		(0-2')		2 4 5 5	9	1.3	0.0			Dark brown to black SILT, some Clay, little fine to coarse Sand, trace roots, trace slag, dry.	
		(2-4')		5 5 9 11	14	1.7	0.0			Brown SILT and CLAY, little fine to coarse Sand, damp.	
5		(4-6')		3 6 12 15	18	1.5	0.0			Trace fine to coarse Sand and fine to coarse Gravel, stiff, fractures infilled with gray Silt and Clay, damp.	2-in diameter Sch. 40 PVC casing 1.8' ags to 14.0' bgs
		(6-8')		5 8 10 11	18	1.7	0.0			Very stiff, trace fine to medium Gravel.	
		(8-10')		6 10 13 16	23	1.7	0.0				8.25" Boring
10		(10-12')		5 12 13 14	25	1.6	0.0				
		(12-14')		5 5 9 9	14	2.0	0.0			Brown SILT and CLAY, little fine to coarse Sand, trace fine to medium Gravel, very stiff, damp.	Grade #5 Silica sand pack 12.5' to 19.5' bgs
15		(14-16')		3 6	13	2.0	0.0				

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Remarks:
240WT19 water sample taken at a temporary screened interval of 14.0' to 19.0' bgs. Following the sampling event, the temporary well point was removed and the boring was grouted to grade.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. TW-240WT18

Total Depth = 24 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		7 8	13	2.0	0.0			Dark grayish brown SILT and CLAY, little fine to medium Sand, trace fine Gravel and coarse Sand, moist.	0.01" Slotted Sch. 40 PVC well screen 14.0' to 19.0' bgs
	(16-18')		2 2 2 3	4	2.0	0.0			Soft.	
	(18-20')		1 2 3 3	5	2.0	0.0			Trace medium Limestone Gravel.	2-in diameter Sch. 40 PVC sump 19.0' to 19.4' bgs
20	(20-22')		WOH 2 3 2	5	2.0	0.0				Bentonite seal 19.5' to 24.0' bgs
	(22-24')		WOH (12") 2 2	2.5	2.0	0.0			Total depth of boring 24.0' bgs.	
25										
30										
35										

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Remarks:
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

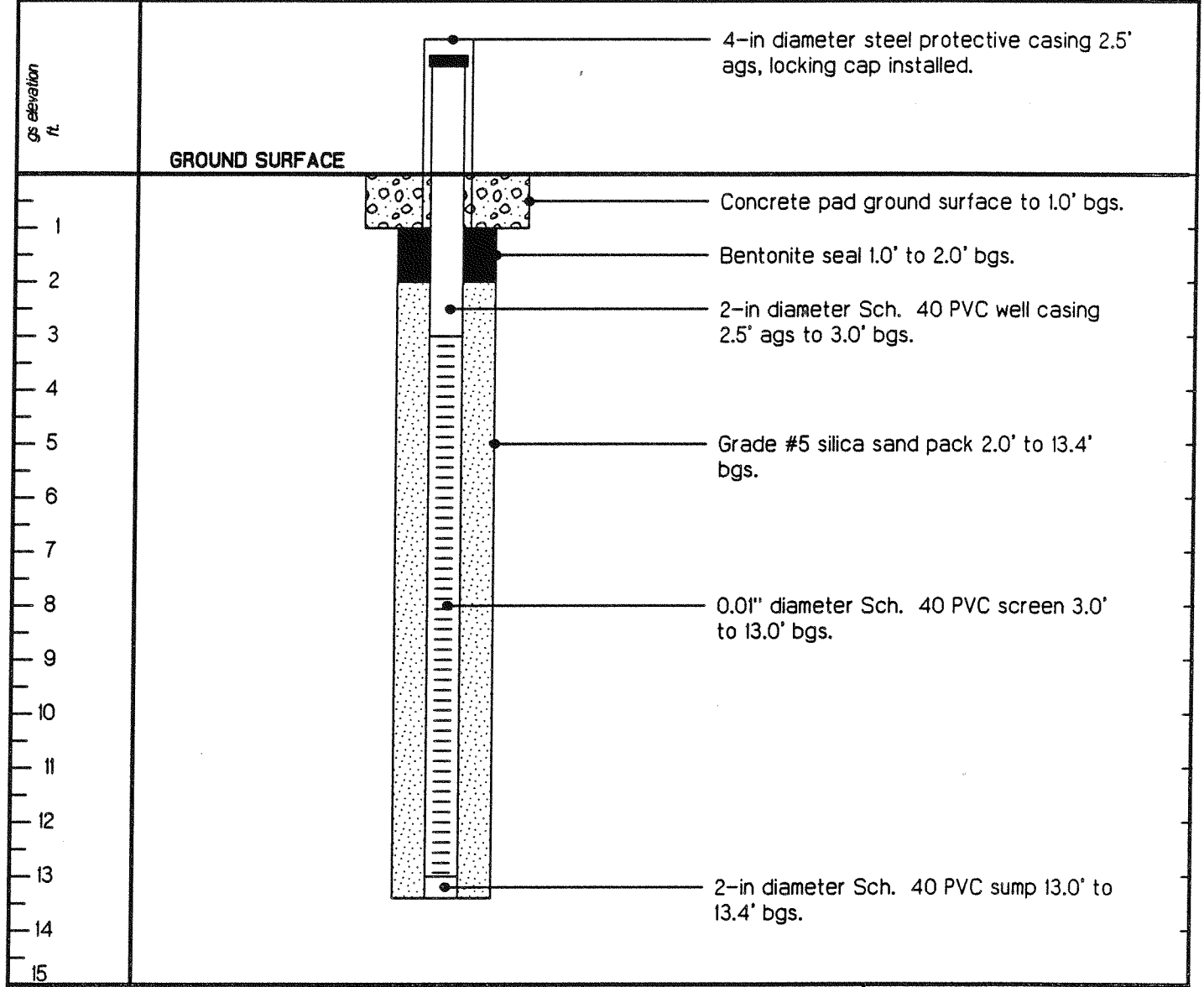
B-Series Monitoring Wells
Well Construction and Boring Logs

B-1R (replacement)
B-1B (Aug)
B-1C (Aug)
B-1D (Aug)
B-2R
B-2B (Aug)
B-3R (replacement)
B-3 (Aug) - Boring only
B-3B (Aug)
B-4AR (replacement)
B-4BR (replacement)
B-4C (Aug)
B-4D (Aug)
B-5R (replacement)
B-5B (Aug)
B-5C (Aug)
B-6R (replacement)
B-6B (Aug)
B-6C (Aug)
B-6D (Aug)
B-7R (replacement)
B-7B (Aug)
B-7C (Aug)

Date Start/Finish: 05/18/95 - 05/18/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 13.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-1R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft. / ELEVATION gs elevation ft.



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Remarks:

Soil descriptions from 0.0' to 25.0' bgs are given on boring log B-1 by Residuals Management Technology, Inc. on November 27, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 01/24/95 - 01/25/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24.9 ft.

Geologist: Ron Kuhn

Well No. B-1B (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		3 8 9 20	17	1.8	3.7			Black fine to medium SAND, trace Silt and fine to medium Gravel, medium dense, damp.	Concrete pad ground surface to 1.0' bgs
	(2-4')		5 7 6 4	13	2.0	17.4			Trace fine Gravel and slag.	
5	(4-6')		1 1 2 3	3	1.8	0.9			Saturated.	Type 1 Portland cement/5% bentonite grout 1.0' to 17.0' bgs
	(6-8')		2 5 7 6	12	1.8	1.2				
	(8-10')		1 1 2 2	3	1.6	0.7				
10	(10-12')		1 1 1 1	2	1.6	0.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 19.5' bgs
	(12-14')		WOH (18") 2	1	0.6	0.9			Gray CLAY, little Silt, soft to very soft, wet.	
15	(14-16')		WOH (24")	0	0.8	0.7			Trace fine Sand and organics (wood).	

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Remarks:
Soil descriptions taken from boring log B-1D (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-18 (Aug)

Total Depth = 24.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')			0	0.8	0.7			Gray CLAY, trace fine Sand and organics (wood), very soft, wet.	Type I Portland cement/5% bentonite grout 1.0' to 17.0' bgs
	(16-18')		WOH (24")	0	1.8	0.7				2-in diameter Sch. 40 PVC well casing 1.8' ags to 19.5' bgs
	(18-20')		WOH (12") 4 4	4	1.6	0.8				Bentonite seal 17.0' to 19.0' bgs
20	(20-22')		WOH 1 2 4	3	1.6	0.6			Gray fine to medium SAND, trace Silt, loose, saturated.	
	(22-24')		1 2 5 6	7	2.0	1.3			Loose, trace shells.	0.01" Sch. 40 PVC screen 19.5' to 24.5' bgs
25	(24-26')		2 1 3 4	4	2.0	0.8			Total depth of boring 24.9 ft bgs.	Grade #5 silica sand pack 19.0' to 24.9' bgs
										2-in diameter Sch. 40 PVC sump 24.5' to 24.9' bgs
30										
35										

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Remarks:
Soil descriptions taken from boring log B-1D (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▼
		▽

Date Start-Finish: 05/18/95 - 05/18/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 37.4 ft.

Geologist: Ron Kuhn

Well No. B-1C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		3 8 9 20	17	1.8	3.7			Black fine to medium SAND, trace fine to medium Gravel and Silt, medium dense, damp.	Concrete pad ground surface to 2.0' bgs
	(2-4')		5 7 6 4	13	2.0	17.4			Trace fine Gravel and slag.	
5	(4-6')		1 1 2 3	3	1.8	0.9				Type 1 Portland cement/5% bentonite grout 2.0' to 28.0' bgs
	(6-8')		2 5 7 6	12	1.8	1.2			Saturated.	
	(8-10')		1 1 2 2	3	1.6	0.7				
10	(10-12')		1 1 1 1	2	1.6	0.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	(12-14')		WOH (18") 2	1	0.6	0.9			Gray CLAY, little Silt, very soft, wet.	
	(14-16')		WOH (24")	0	0.8	0.7			Trace fine Sand and organic material (wood) very soft, wet.	
15										

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Remarks:
Soil descriptions taken from boring log B-1D (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-1C (Aug)

Total Depth = 37.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')			0	0.8	0.7			Gray CLAY, trace fine Sand and organic material (wood) very soft, wet.	
		(16-18')		WOH (24")	0	1.8	0.7				
		(18-20')		WOH (12") 4 4	4	1.6	0.8			Gray fine to medium SAND, trace Silt, very loose, saturated.	
20		(20-22')		WOH 1 2 4	3	1.6	0.6				Type 1 Portland cement/5% bentonite grout 1.0' to 28.0' bgs
		(22-24')		1 2 5 6	7	2.0	1.3			Loose, trace shells	
25		(24-26')		2 1 3 4	4	2.0	0.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
		(26-28')		1 2 3 4	5	1.8	1.0				
		(28-30')		1 3 4 5	7	2.0	0.9				Bentonite seal 28.0' to 30.0' bgs
30		(30-32')		0 2 4 4	6	2.0	0.0			Loose, no shells.	Grade #5 silica sand pack 30.0' to 37.4' bgs
		(32-34')		WOH (12") 1 3	1	2.0	0.0				0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
35		(34-36')		2 1	3	1.8	0.0				

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Remarks:
Soil descriptions taken from boring log B-1D (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. B-1C (Aug)

Total Depth = 37.4 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2 1	3	1.8	0.0			Gray fine to medium SAND, trace Silt, very loose, saturated.	0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
	(36-38')		WOH 3 7 5	10	1.4	0.0			Total depth of boring 37.4 ft bgs.	2-in diameter Sch. 40 PVC sump 37.0' to 37.4' bgs
40										
45										
50										
55										

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Remarks:
Soil descriptions taken from boring log B-1D (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/25/95 - 01/25/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Ron Kuhn

Well No. B-1D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing 2.0' ags, locking cap installed.
									GROUND SURFACE	
	(0-2')		3 8 9 20	17	1.8	3.7			Black fine to medium SAND, trace fine to medium Gravel and Silt, medium dense, damp.	Concrete pad ground surface to 1.0' bgs
	(2-4')		5 7 6 4	13	2.0	17.4			Trace fine to medium Gravel and Slag.	
5	(4-6')		1 1 2 3	3	1.8	0.9			Saturated.	Type 1 Portland cement/5% bentonite grout 1.0' to 40.0' bgs
	(6-8')		2 5 7 6	12	1.8	1.2				
	(8-10')		1 1 2 2	3	1.6	0.7				
10	(10-12')		1 1 1 1	2	1.6	0.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.0' bgs
	(12-14')		WOH (18") 2	1	0.6	0.9			Gray CLAY, little Silt, very soft, wet.	
15	(14-16')		WOH (24")	0	0.8	0.7			Gray CLAY, trace fine Sand and organic material (wood) very soft, wet.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-1D (Aug)

Total Depth = 60 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')			0	0.8	0.7			Gray CLAY, trace fine Sand and organic material (wood) very soft, wet.	
	(16-18')		WOH (24")	0	1.8	0.7				
	(18-20')		WOH (12") 4 4	4	1.6	0.8			Gray fine to medium SAND, trace Silt, very loose, saturated.	
20	(20-22')		WOH 1 2 4	3	1.6	0.6				Type 1 Portland cement/5% bentonite grout 1.0' to 40.0' bgs
	(22-24')		1 2 5 6	7	2.0	1.3			Loose, trace shells.	
25	(24-26')		2 1 3 4	4	2.0	0.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.0' bgs
	(26-28')		1 2 3 4	5	1.8	1.0				
	(28-30')		1 3 4 5	7	2.0	0.9				
30	(30-32')		0 2 4 4	6	2.0	0.0			Loose, no shells.	
	(32-34')		WOH (12") 1 3	1	2.0	0.0				
35	(34-36')		2 1	3	1.8	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-10 (Aug)

Total Depth = 80 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2 1	3	1.8	0.0			Gray fine to medium SAND, trace Silt, very loose, saturated.	Type 1 Portland cement/5% bentonite grout 1.0' to 40.0' bgs
	(36-38')		WOH 3 7 5	10	1.4	0.0				
	(38-40')		7 10 16 16	26	1.8	0.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.0' bgs
40	(40-42')		2 2 5 7	7	1.8	0.0			Gray fine to coarse SAND, trace fine to coarse gravel.	Bentonite seal 40.0' to 42.0' bgs
	(42-44')		4 9 9 8	18	1.6	0.0			Little fine to coarse Gravel and Silt, medium dense, saturated.	
45	(44-46')		3 6 9 6	15	1.4	0.0			Gravel ranges from subangular to subrounded.	0.01" Sch. 40 PVC screen 44.0' to 49.0' bgs
	(46-48')		7 6 8 11	14	0.4	0.0			Trace fine to medium Gravel and Silt.	Grade #5 silica sand pack 42.0' to 49.0' bgs
	(48-50')		11 8 5 5	13	1.8	0.0			Gray Silty CLAY, trace fine Sand, soft, moist.	2-in diameter Sch. 40 PVC sump 49.0' to 49.4' bgs
50	(50-52')		1 1 1 1	2	1.8	0.0			Gray Clay, very soft, wet, plastic.	
	(52-54')		WOH (18") 3	3	2.0	0.0				Bentonite seal 49.4' to 60.0' bgs
55	(54-56')		WOH 1	4	2.0	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. B-ID (Aug)

Total Depth = 60 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(54-56')		WOH 1	4	2.0	0.0			Gray Clay, very soft, wet, high plasticity.	Bentonite seal 49.4' to 60.0' bgs
	(56-58')		WOH 1 3 2	4	2.0	0.0			Soft.	
	(58-60')		1 1 2 2	3	2.0	0.0				
60									Total depth of boring 60.0 ft bgs.	
65										
70										
75										

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Remarks:
WOH - Weight of Hammer.

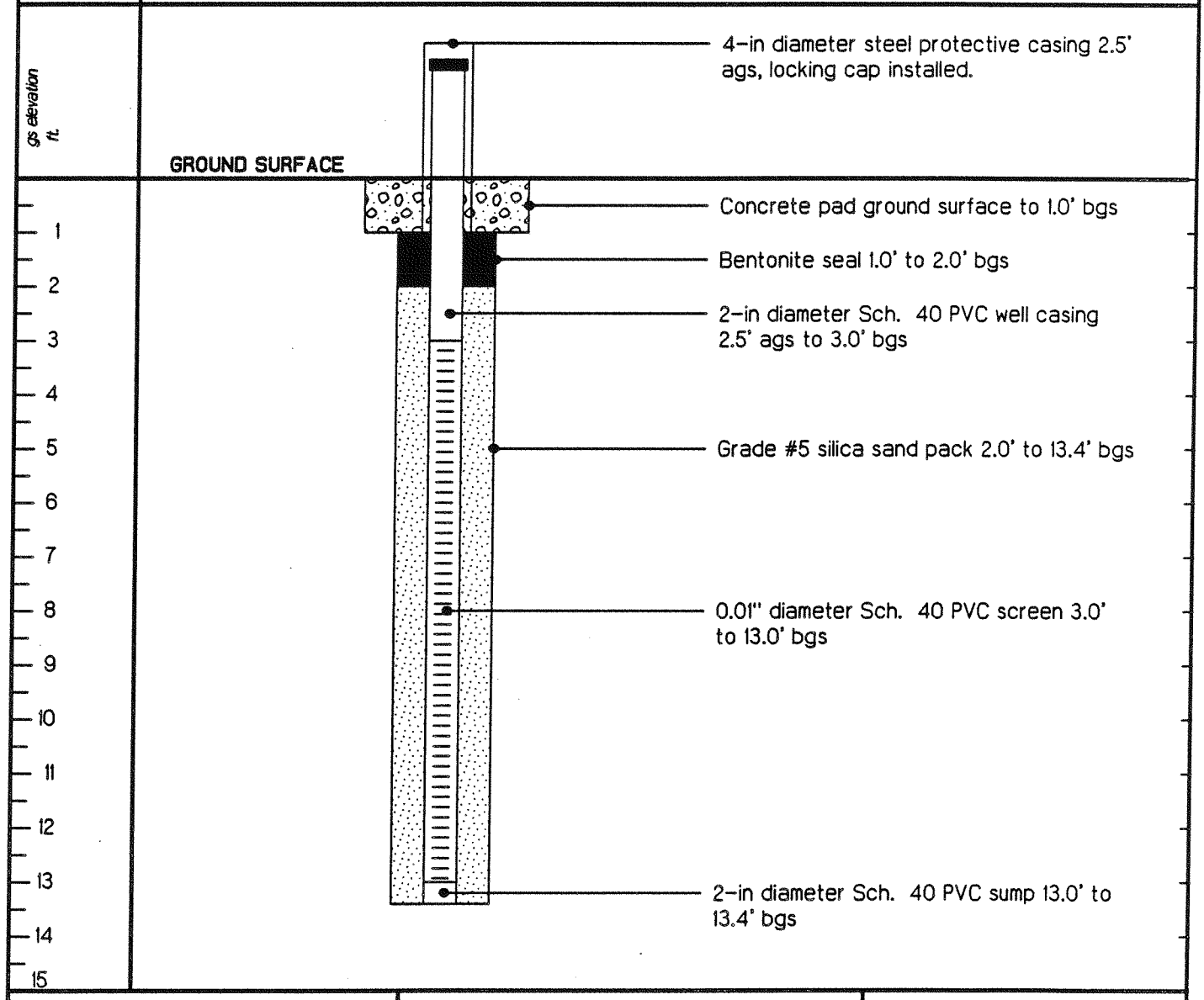
Water Levels

Date / Time	Elevation	Depth
01/24/95		6.0 ▼
		▼
		▽

Date Start/Finish: 05/19/95 - 05/19/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 13.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-2R** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft. / ELEVATION gs elevation ft.



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Remarks:

Soil descriptions from 0.0' to 30.0' bgs are given on boring log B-2 by Residuals Management Technology, Inc. on November 28, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start–Finish: 01/14/95 – 01/14/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Steve French

Well No. B-28 (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.85 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		4 6 12 20	18	1.2	4.3			Orange brown to black fine to medium SAND, medium dense, moist.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		11 12 5 4	17	0.1	NA			Trace medium Gravel.	
5		(4-6')		4 5 5 6	10	0.0	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 16.0' bgs
		(6-8')		6 7 4 4	11	1.3	3.5			Black to brown fine to medium SAND, medium dense, moist.	
	585	(8-10')		4 5 4 4	9	1.3	5.0			Brown fine to medium SAND, trace shells, loose, wet.	
10		(10-12')		1 1 2 2	3	0.9	2.7			Gray fine to medium SAND, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
	580	(12-14')		4 4 4 4	8	1.3	2.5			Gray to brown fine to medium SAND, loose, wet.	
15		(14-16')		3 3	5	1.3	3.4			Gray fine to medium SAND, loose, wet.	

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Remarks:
NA – Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-28 (Aug)

Total Depth = 28 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 1	5	1.3	3.4			Gray fine to medium SAND, little Silt, very loose, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 16.0' bgs
		(16-18')		WOH (12") 1 1	1	1.4	3.9				Bentonite seal 16.0' to 18.0' bgs
	575									Trace Silt, very loose, wet.	
		(18-20')		1 1 1 1	2	1.2	3.5				2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
20										Loose, wet.	
		(20-22')		1 2 2 2	4	1.5	3.4				0.01" Sch. 40 PVC screen 20.0' to 25.0' bgs
	570	(22-24')		5 6 7 8	13	0.2	NA				Grade #5 silica sand pack 18.0' to 25.2' bgs
25		(24-26')		4 5 7 8	12	1.2	2.0			Gray to brown CLAY, some Silt, little fine to medium Sand, firm, wet.	2-in diameter Sch. 40 PVC sump 25.0' to 25.2' bgs
		(26-28')		5 6 7 7	13	1.5	1.0			Brown CLAY, trace coarse Sand, some mottling, medium stiff, moist.	Bentonite seal 25.2' to 28.0' bgs
	565									Total depth of boring 28.0 ft bgs.	
30											
	560										
35											

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

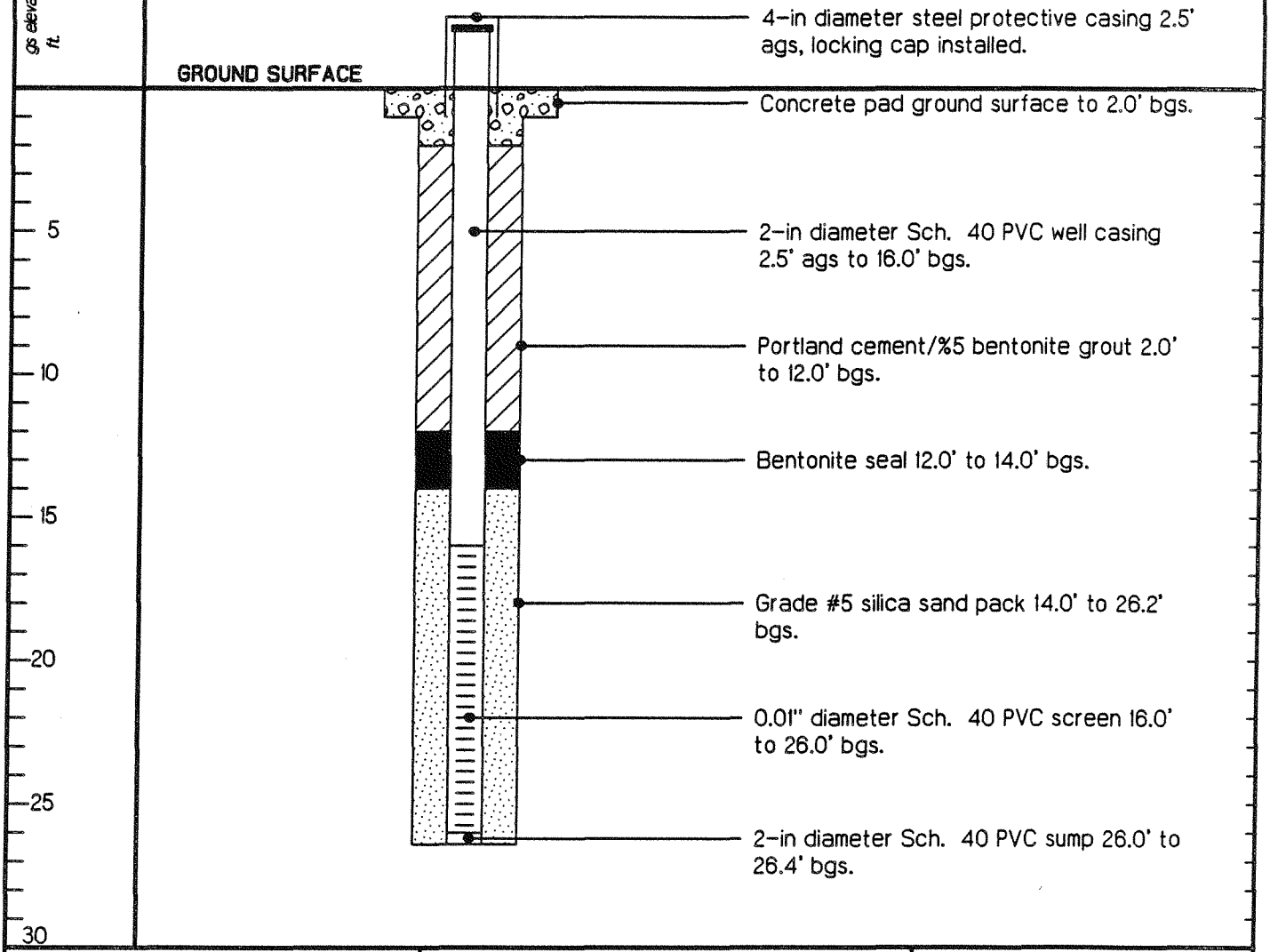
Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/22/95 - 05/22/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 26.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-3R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH / ELEVATION (gs elevation ft.)



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Remarks:

Soil descriptions from 0.0' to 30.0' bgs are given on boring log B-3 by Residuals Management Technology, Inc. on November 28, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 01/24/95 - 01/25/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: CME 850 ATV
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Descriptions by: Sabrina Hesford

Boring No. B-3 (Aug) - Boring only

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										**GROUND SURFACE**	
		(0-2')		1 2 2 2	4	1.7	3.4			Black fine to medium SAND, trace slag, moist.	
		(2-4')		5 10 14 17	24	1.5	7.6				
5	-5	(4-6')		4 2 2 6	4	1.4	3.6			Orange fine to medium SAND, some Silt, slightly cohesive, moist.	
		(6-8')		3 4 5 5	9	0.8	4.2			Trace black, green and red glass.	Type I Portland cement/5% bentonite grout 0' to 18.0' bgs
		(8-10')		7 10 4 4	14	1.0	48.9			Sheen noticed.	
10	-10	(10-12')		1 3 2 2	5	1.5	28.2				
		(12-14')		1 1 1 1	2	1.0	3.4			Black SILT, soft, wet, trace sheen.	
15	-15	(14-16')		1 2	4	0.5	16.3				

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Remarks:
Due to the fact that a significant sheen was noticed during drilling, the boring was terminated at 18.0' bgs and the boring was grouted to grade. No well was installed.

Saturated Zones

Date / Time	Elevation	Depth
01/24/95		9.0

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. B-3 (Aug) – Boring of

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
	(14–16')		2 2	4	0.5	16.3			Dark gray SILT, little to some Clay, trace fine Sand, moist.	
	(16–18')		1 1 2 2	3	2.0	4.5			Gray SILT, little Clay, trace fine Sand, soft, moist.	Type 1 Portland cement/5% bentonite grout 0' to 18.0' bgs
									Total depth of boring 18.0 ft bgs.	
20 / -20										
25 / -25										
30 / -30										
35 / -35										

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Remarks:
Apparent Conductivity graph is off-scale from 3.2 to 7.9 feet.

Saturated Zones

Date / Time	Elevation	Depth
01/24/95		9.0

Date Start-Finish: 05/30/95 - 05/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32 ft.

Geologist: Ronald D. Kuhn

Well No. B-38 (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 594.02 ft.										4-in diameter steel protective casing 2.0' ags, locking well cap installed
										GROUND SURFACE	
		(0-2')		1 2 2 2	4	1.7	3.4			Black fine to medium SAND, trace slag, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 16.0' bgs
		(2-4')		5 10 14 17	24	1.5	7.6				
	590									Orange fine to medium SAND, some Silt, slightly cohesive, moist.	
5		(4-6')		4 2 2 6	4	1.4	3.6				
		(6-8')		3 4 5 5	9	0.8	4.2			Trace black, green and red glass.	Type 1 portland cement/5% bentonite grout 1.0' to 18.0' bgs
	585	(8-10')		7 10 4 4	14	1.0	48.9				
10		(10-12')		1 3 2 2	5	1.5	28.2				2-in diameter Sch. 40 PVC casing 1.8' ags to 22.2' bgs
		(12-14')		1 1 1 1	2	1.0	3.4			Black SILT, soft, wet.	
	580										
15		(14-16')		1 2	4	0.5	16.3				

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Remarks:
Soil descriptions from 0-18' bgs were taken from boring log B-3 (Aug).
Apparent Conductivity graph is off-scale from 3.2 to 7.9 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

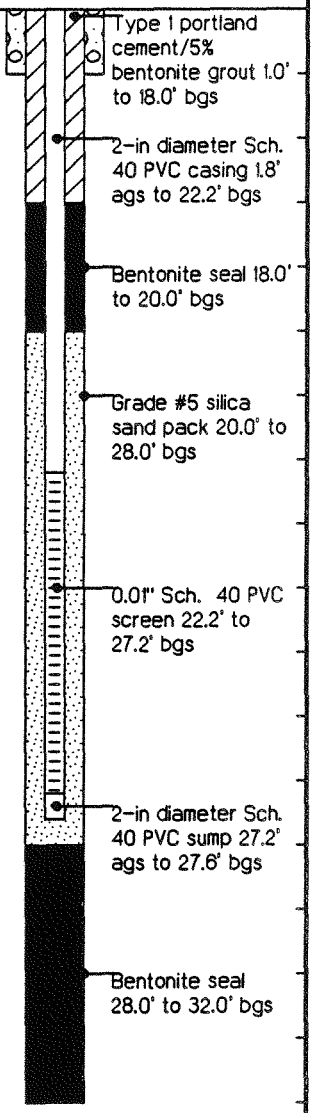
Client:
General Motors Corporation

Well No. B-3B (Aug)

Total Depth = 32 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		2 2	4	0.5	16.3			Dark gray SILT, little to some Clay, trace fine Sand, moist.
		(16-18')		1 1 2 2	3	2.0	4.5			Gray SILT, little Clay, trace fine Sand, soft, moist.
	575	(18-20')		9 2 1 2	3	1.6	0.0			Brown fine SAND, trace Silt, very loose, wet.
20		(20-22')		2 2 1 1	3	1.6	0.0			
		(22-24')		1 1 1 5	2	1.8	0.0			Brown SILT, little Clay, soft, moist.
	570	(24-26')		9 4 5 9	9	2.0	0.0			Brown fine to medium SAND, trace fine Gravel, loose, saturated.
25		(26-28')		5 5 4 5	9	2.0	0.0			
	565	(28-30')		2 6 10 12	16	2.0	0.0			Brown SILT and CLAY, trace fine Gravel, hard, moist.
30		(30-32')		2 5 8 11	13	2.0	0.0			
	560									Total depth of boring 32.0 ft bgs.
35										

Well Construction



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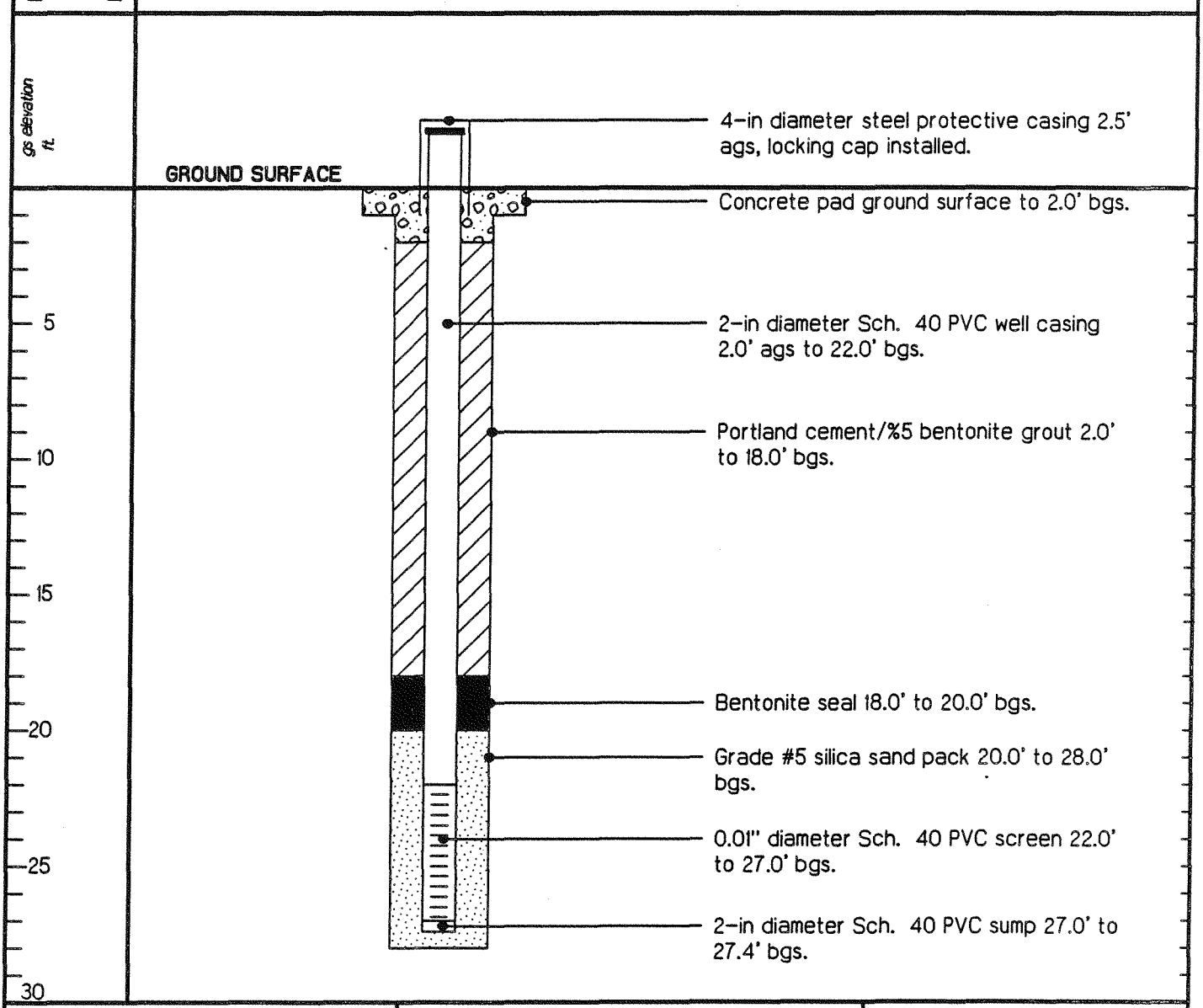
Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/23/95 - 05/23/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 28.0 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-4AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 25.0' bgs are given on boring log B-4A by Residuals Management Technology, Inc. on November 27, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 06/16/95 - 06/16/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 36.9 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-4BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ELEVATION

gs elevation ft.

GROUND SURFACE

4-in diameter steel protective casing 2.5' ags, locking cap installed.

Concrete pad ground surface to 2.0' bgs.

2" diameter Sch. 40 PVC well casing 2.0' ags to 31.2' bgs.

Portland cement/%5 bentonite grout 2.0' to 28.0' bgs.

Bentonite seal 28.0' to 30.0' bgs.

5
10
15
20
25
30

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Remarks:

Soil descriptions from 0.0' to 40.0' bgs are given on boring log B-4B by Residuals Management Technology, Inc. on November 27, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

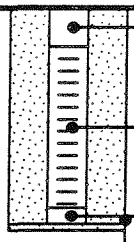
Client:
General Moters Coprporation

Well No. B-4BR (replacement)

Total Depth = 36.9 ft.

DEPTH / ELEVATION

Well Construction Details



- 2" diameter Sch. 40 PVC well casing 2.0' ags to 31.2' bgs.
- 0.01" diameter Sch. 40 PVC screen 31.2' to 36.2' bgs.
- 2-in diameter Sch. 40 PVC sump 36.2' to 36.7' bgs.
- Grade #5 silica sand pack 30.0' to 36.7' bgs.

35
40
45
50
55
60
65
70

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Remarks:

Saturated Zones		
Date / Time	Elevation	Depth

Project: 276.08
Script:gmwlcons
Date: 10/02/97

Date Start-Finish: 06/15/95 - 06/15/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 53.6 ft.

Geologist: Ron D. Kuhn

Well No. B-4C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 606.47 ft.											4-in diameter steel protective casing 2.5' ags, locking cap installed
										GROUND SURFACE	
	605	(0-2')		3 4 3 6	7	1.6	0.0			Dark brown to black fine SAND, little Silt, trace organic material, grass roots, loose, damp.	Concrete pad ground surface to 2.0' bgs
		(2-4')		2 7 12 12	19	1.8	0.6			Trace fine to medium Gravel and brick material, medium dense, damp.	
5		(4-6')		4 7 18 16	25	1.8	17.0			Black fine to medium SAND, little Silt, trace fine Gravel, medium dense, damp.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 32.0' bgs
	600	(6-8')		2 5 5 3	10	2.0	34.3			Medium Gravel-size porous glass-like material.	
		(8-10')		2 4 3 3	7	1.6	19.1			Brown fine to medium SAND, trace Silt and fine Gravel, loose, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 44.0' bgs
10		(10-12')		1 2 21 11	23	1.8	4.7			Black fine to medium SAND, little cinders and glass-like fragments, medium dense, damp.	
	595	(12-14')		5 9 4 3	13	1.6	3.5			Brown/orange/black fine to medium SAND, little Silt, medium dense, damp.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 48.2' bgs
15		(14-16')		9 4	7	1.8	2.4			Brown to black fine to medium SAND, little Silt, loose, damp.	

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Remarks:
Soil descriptions taken from boring log B-4D (Aug)

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

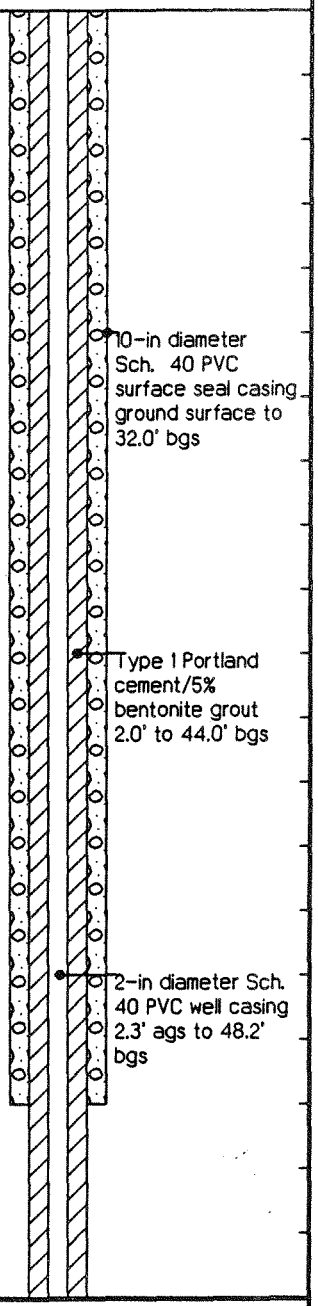
Client:
General Motors Corporation

Well No. B-4C (Aug)

Total Depth = 53.8 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		3 3	7	1.8	2.4			Trace orange fine to medium SAND.
	590	(16-18')		15 19 19 16	38	0.8	23.7			No orange SAND.
		(18-20')		9 19 25 21	44	1.8	4.1			Brown fine to medium SAND, little Silt and glass-like porous material, trace fine to medium Gravel, dense.
20		(20-22')		10 14 39 32	53	1.6	4.8			Brown SILT and fine to medium SAND, little Clay and brick-like material, hard, moist.
	585									Brown black fine to medium SAND, little Silt, dense, moist.
		(22-24')		12 8 8 6	16	1.6	2.2			Trace fine to medium Gravel, medium dense, wet to saturated.
25		(24-26')		9 7 9 7	16	1.4	3.8			Black fine to medium SAND, trace Silt and fine Gravel, medium dense, saturated.
	580	(26-28')		1 2 2 1	4	1.6	3.7			Gray SILT, some fine Sand, trace shells and wood fragments, soft, wet.
		(28-30')		6 17 4 2	21	1.4	0.0			Brown SILT, trace shells, soft, wet.
30		(30-32')		1 2 3 3	5	2.0	0.0			
	575									Brown fine SAND, little Silt, trace shells, loose, wet.
		(32-34')		WOH 1 2 1	3	2.0	0.0			Little to trace fibric organic material (reeds), very loose, wet to saturated.
35		(34-36')		2 1	3	2.0	0.0			Brown to gray fine SAND, little Silt, trace shells and organic material (reeds), very loose, saturated.

Well Construction



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Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from boring log B-4D (Aug).

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-4C (Aug)

Total Depth = 53.6 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		2 2	3	2.0	0.0			No organic material.
	570	(36-38')		1 1 1 2	2	2.0	0.0			
		(38-40')		2 2 2 3	4	2.0	0.0			Seams of organic material.
40		(40-42')		1 2 3 2	6	2.0	0.0			Brown SILT and fine SAND, seams of gray fine to medium Sand.
	565	(42-44')		WOH 1 1 1	2	2.0	0.0			
45		(44-46')		WOH (12") 2 1	2	2.0	0.0			Gray brown CLAY and SILT, trace shells, soft, moist.
	560	(46-48')		WOH (12") 1 2	1	2.0	0.0			
		(48-50')		WOH (12") 2 1	2	2.0	0.0			
50		(50-52')		WOH (18") 2	0	2.0	0.0			
	555	(52-54')		2 3 3 3	6	2.0	0.0			Gray fine to coarse SAND, trace shells, loose, saturated.
										Brown SILT, little fine Sand, trace shells, soft, wet.
55										Total depth of boring 53.6 ft. bgs

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 44.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 48.2' bgs
- Bentonite seal 44.0' to 46.0' bgs
- Grade #5 silica sand pack 46.0' to 53.6' bgs
- 0.01" Sch. 40 PVC screen 48.2' to 53.2' bgs
- 2-in diameter Sch. 40 PVC sump 53.2' to 53.6' bgs

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Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from boring log B-4D (Aug)

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/23/95 - 05/31/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 76 ft.

Geologist: Ron D. Kuhn

Well No. B-4D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 606.96 ft									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed
	605	(0-2')		3 4 3 6	7	1.6	0.0			Dark brown to black fine SAND, little Silt, trace organic material, grass roots, loose, damp.	Concrete pad ground surface to 2.0' bgs
		(2-4')		2 7 12 12	19	1.8	0.6			Trace fine to medium Gravel and brick material, medium dense, damp.	
5		(4-6')		4 7 18 16	25	1.8	17.0			Black fine to medium SAND, little Silt, trace fine Gravel, medium dense, damp.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 32.0' bgs
	600	(6-8')		2 5 5 3	10	2.0	34.3			Medium Gravel-size porous glass-like material.	
		(8-10')		2 4 3 3	7	1.6	19.1			Brown fine to medium SAND, trace Silt and fine Gravel, loose, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 60.0' bgs
10		(10-12')		1 2 21 11	23	1.8	4.7			Black fine to medium SAND, little cinders and glass-like fragments, medium dense, damp.	
	595	(12-14')		5 9 4 3	13	1.6	3.5			Brown/orange/black fine to medium SAND, little Silt, medium dense, damp.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 64.5' bgs
15		(14-16')		9 4	7	1.8	2.4			Brown to black fine to medium SAND, little Silt, loose, damp.	

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-40 (Aug)

Total Depth = 78 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 3	7	1.8	2.4			Trace orange fine to medium SAND.	
	590	(16-18')		15 19 19 16	38	0.8	23.7			No orange SAND.	
		(18-20')		9 19 25 21	44	1.8	4.1			Brown fine to medium SAND, little Silt and glass-like porous material, trace fine to medium Gravel, dense.	
20		(20-22')		10 14 39 32	53	1.6	4.8			Brown SILT and fine to medium SAND, little Clay and brick-like material, hard, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 32.0' bgs
	585									Brown black fine to medium SAND, little Silt, dense, moist.	
		(22-24')		12 8 8 6	16	1.6	2.2			Trace fine to medium Gravel, medium dense, wet to saturated, slight odor.	
25		(24-26')		9 7 9 7	16	1.4	3.8			Black fine to medium SAND, trace Silt and fine Gravel, medium dense, saturated, sheen.	Type 1 Portland cement/5% bentonite grout 2.0' to 60.0' bgs
	580	(26-28')		1 2 2 1	4	1.6	3.7			Gray SILT, some fine Sand, trace shells and wood fragments, soft, wet.	
		(28-30')		6 17 4 2	21	1.4	0.0			Brown SILT, trace shells, soft, wet.	
30		(30-32')		1 2 3 3	5	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 64.5' bgs
	575									Brown fine SAND, little Silt, trace shells, loose, wet.	
		(32-34')		WOH 1 2 1	3	2.0	0.0			Little to trace fibric organic material (reeds), very loose, wet to saturated.	
35		(34-36')		2 1	3	2.0	0.0			Brown to gray fine SAND, little Silt, trace shells and organic material (reeds), very loose, saturated.	

BBL
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Remarks:
Apparent Conductivity graph is off-scale from 25.7 to 26.9 feet.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-4D (Aug)

Total Depth = 76 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		2 2	3	2.0	0.0			No organic material.	
	570	(36-38')		1 1 1 2	2	2.0	0.0			Seams of organic material.	
		(38-40')		2 2 2 3	4	2.0	0.0				
40		(40-42')		1 2 3 2	6	2.0	0.0			Brown SILT and fine SAND, seams of gray fine to medium Sand.	
	565	(42-44')		WOH 1 1 1	2	2.0	0.0				
45		(44-46')		WOH (12") 2 1	2	2.0	0.0			Gray brown CLAY and SILT, trace shells, soft, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 60.0' bgs
	560	(46-48')		WOH (12") 1 2	1	2.0	0.0				
		(48-50')		WOH (12") 2 1	2	2.0	0.0				
50		(50-52')		WOH (18") 2	0	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 64.5' bgs
	555	(52-54')		2 3 3 3	6	2.0	0.0			Gray fine to coarse SAND, trace shells, loose, saturated.	
		(54-56')		WOH (24")	0	2.0	0.0			Brown SILT, little fine Sand, trace shells, soft, wet.	
55										Brown SILT and fine SAND, soft	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-40 (Aug)

Total Depth = 76 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		WOH (24")	0	2.0	0.0			wet.	Type I Portland cement/5% bentonite grout 2.0' to 60.0' bgs
	550	(56-58')		1 2 1 1	3	2.0	0.0			Brown fine SAND, little Silt, loose, saturated.	
		(58-60')		WOH (24")	0	2.0	0.0			Some to little Silt.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 64.5' bgs
60		(60-62')		WOH 3 3 3	6	1.4	0.0			Little to trace Silt, loose, saturated.	
	545	(62-64')		4 3 2 3	5	2.0	0.0				Bentonite seal 60.0' to 62.5' bgs
65		(64-66')		3 6 8 6	14	2.0	0.0			Some to little Silt.	Grade #5 silica sand pack 62.5' to 70.5' bgs
	540	(66-68')		5 8 8 8	16	2.0	0.0			Little Silt.	0.01" Sch. 40 PVC screen 64.5' to 69.5' bgs
		(68-70')		5 10 5 5	15	2.0	0.0				
70		(70-72')		WOH 1 1 3	2	2.0	0.0			Gray brown CLAY and SILT, very soft, high plasticity, wet.	2-in diameter Sch. 40 PVC sump 69.5' to 69.9' bgs
	535	(72-74')		WOH 1 3 4	4	2.0	0.0				Bentonite seal 70.5' to 74.0' bgs
75		(74-76')		WOH (12")	2	2.0	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-4D (Aug)

Total Depth = 78 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(74-76')		2 3	2	2.0	0.0			Gray brown CLAY and SILT, very soft, high plasticity, wet.	Bentonite seal 70.5' to 74.0' bgs
										Total depth of boring 76.0 ft. bgs	
80	530										
85	525										
90	520										
95	515										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

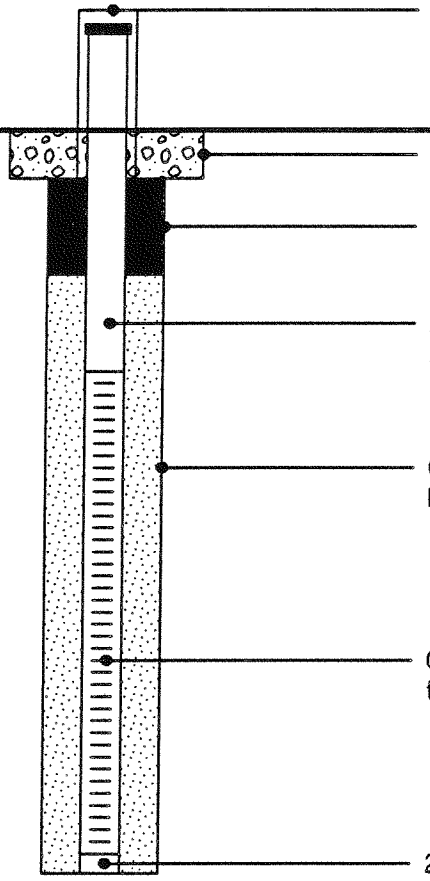
Date Start/Finish: 05/23/95 - 05/23/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 15.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-5R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft / ELEVATION ft

gs elevation

GROUND SURFACE



- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- Concrete pad ground surface to 1.0' bgs.
- Bentonite seal 1.0' to 3.0' bgs.
- 2-in diameter Sch. 40 PVC well casing 2.5' ags to 5.0' bgs.
- Grade #5 silica sand pack 3.0' to 15.4' bgs.
- 0.01" diameter Sch. 40 PVC screen 5.0' to 15.0' bgs.
- 2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs.

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Remarks:

Soil descriptions from 0.0' to 30.0' bgs are given on boring log B-5 by Residuals Management Technology, Inc. on November 27, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 01/23/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 52 ft.

Geologist: Jim Saxton

Well No. B-5B (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.05 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		3 4 9 10	13	2.0	7.7			Black fine to medium SAND, moist.	Concrete pad ground surface to 2.0' bgs
	590										
		(2-4')		3 6 3 4	9	1.5	13.7			Brown to gray SILT, trace Clay and fine Sand, mottled, moist.	
5		(4-6')		2 3 3 4	6	1.6	2.9				Type 1 Portland cement/5% bentonite grout 2.0' to 30.0' bgs
	585	(6-8')		1 2 3 2	5	1.3	1.6			Black and orange fine to medium SAND, moist. Wet.	
		(8-10')		1 1 (12") 1	1	1.5	2.4				
10		(10-12')		WOH (12") 1 1	1	1.3	7.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.0' bgs
	580									Gray fine to medium SAND, wet.	
		(12-14')		WOH 1 2 1	3	1.6	3.5			Brown SILT, little Peat, wet.	
15		(14-16')		WOH 1	1	0.8	2.3				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-5B (Aug)

Total Depth = 52 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		(12") 1	1	0.8	2.3			Brown SILT, mottled, some Clay, trace fine Sand, wet.	
	575	(16-18')		1 (12") 1 1	2	1.6	0.2				
		(18-20')		WOH (18") 1	0	1.7	0.0				
20		(20-22')		WOH (18") 1	0	2.0	0.2				Type 1 Portland cement/5% bentonite grout 2.0' to 30.0' bgs
	570	(22-24')		WOH (18") 1	0	2.0	0.6				
25		(24-26')		WOH (12") 1 1	1	1.8	0.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.0' bgs
	565	(26-28')		WOH (18") 1	0	2.0	0.0				
		(28-30')		WOH (12") 1 1	1	2.0	0.0				
30		(30-32')		WOH (12") 2 1	2	2.0	0.0				Bentonite seal 30.0' to 32.0' bgs
	560	(32-34')		1 2 3 2	5	0.6	0.4			Gray fine to medium SAND, wet.	Grade #5 silica sand pack 32.0' to 41.0' bgs
35		(34-36')		WOH 1	2	1.0	0.6			Gray medium to coarse SAND, trace fine Sand, wet.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-58 (Aug)

Total Depth = 52 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		1 2	2	1.0	0.6			Gray medium to coarse SAND, trace fine Sand, wet.	Grade #5 silica sand pack 32.0' to 41.0' bgs
	555	(36-38')		1 1 2 3	3	1.5	0.8			Gray fine to medium SAND, trace coarse Sand, wet.	0.01" Sch. 40 PVC screen 35.0' to 40.0' bgs
		(38-40')		1 (12") 4 5	5	1.5	1.1			Gray coarse SAND, trace medium Sand, wet.	
40		(40-42')		1 4 7 8	11	1.0	1.1				2-in diameter Sch. 40 PVC sump 40.0' to 40.4' bgs
	550	(42-44')		WOH 3 6 11	9	1.1	1.2				
45		(44-46')		3 13 11 9	24	1.0	0.6				Bentonite seal 41.0' to 52.0' bgs
	545	(46-48')		4 8 22 12	30	1.5	1.3			Gray fine to medium SAND, little medium Gravel, wet.	
		(48-50')		5 2 3 2	5	1.1	0.3			Brown CLAY, some Silt, trace fine to coarse Sand, wet.	
50		(50-52')		WOH 1 2 2	3	2.0	0.7				
	540									Total depth of boring 52.0 ft bgs.	
55											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/23/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 48 ft.

Geologist: Jim Saxton

Well No. B-5C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.00 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		3 4 9 10	13	2.0	7.7			Black fine to medium SAND, moist.	Concrete pad ground surface to 2.0' bgs
	590										
		(2-4')		3 6 3 4	9	1.5	13.7			Brown to gray SILT, trace Clay and fine Sand, mottled, moist.	
5		(4-6')		2 3 3 4	6	1.6	2.9				Type 1 Portland cement/5% bentonite grout 2.0' to 38.5' bgs
	585	(6-8')		1 2 3 2	5	1.3	1.6			Black and orange fine to medium SAND, moist. Wet.	
		(8-10')		1 1 (12") 1	1	1.5	2.4				
10		(10-12')		WOH (12") 1 1	1	1.3	7.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
	580									Gray fine to medium SAND, wet.	
		(12-14')		WOH 1 2 1	3	1.6	3.5			Brown SILT, little Peat, wet.	
15		(14-16')		WOH 1	1	0.8	2.3				

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Remarks:
Soil descriptions taken from boring log B-5B (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-5C (Aug)

Total Depth = 48 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		(12") 1	1	0.8	2.3			Brown SILT, mottled, some Clay, trace fine Sand, wet.	
	575	(16-18')		1 (12") 1 1	2	1.6	0.2				
		(18-20')		WOH (18") 1	0	1.7	0.0				
20		(20-22')		WOH (18") 1	0	2.0	0.2				Type 1 Portland cement/5% bentonite grout 2.0' to 38.5' bgs
	570	(22-24')		WOH (18") 1	0	2.0	0.6				
25		(24-26')		WOH (12") 1 1	1	1.8	0.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
	565	(26-28')		WOH (18") 1	0	2.0	0.0				
		(28-30')		WOH (12") 1 1	1	2.0	0.0				
30		(30-32')		WOH (12") 2 1	2	2.0	0.0				
	560	(32-34')		1 2 3 2	5	0.6	0.4			Gray fine to medium SAND, wet.	
35		(34-36')		WOH 1	2	1.0	0.6			Gray medium to coarse SAND, trace fine Sand, wet.	

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Remarks:
Soil descriptions taken from boring log B-5B (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-5C (Aug)

Total Depth = 48 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		1 2	2	1.0	0.6			Gray medium to coarse SAND, trace fine Sand, wet.
	555	(36-38')		1 1 2 3	3	1.5	0.8			Gray fine to medium SAND, trace coarse Sand, wet.
		(38-40')		1 (12") 4 5	5	1.5	1.1			Gray coarse SAND, trace medium Sand, wet.
40		(40-42')		1 4 7 8	11	1.0	1.1			
	550	(42-44')		WOH 3 6 11	9	1.1	1.2			
45		(44-46')		3 13 11 9	24	1.0	0.6			
	545	(46-48')		4 8 22 12	30	1.5	1.3			Gray fine to medium SAND, little medium Gravel, wet.
										Total depth of boring 48.0 ft bgs.
50										
	540									
55										

Well Construction

- Type I Portland cement/5% bentonite grout 2.0' to 38.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
- Bentonite seal 38.5' to 40.5' bgs
- Grade #5 silica sand pack 40.5' to 48.0' bgs
- 0.01" Sch. 40 PVC screen 42.5' to 47.5' bgs
- 2-in diameter Sch. 40 PVC sump 47.5' to 47.9' bgs

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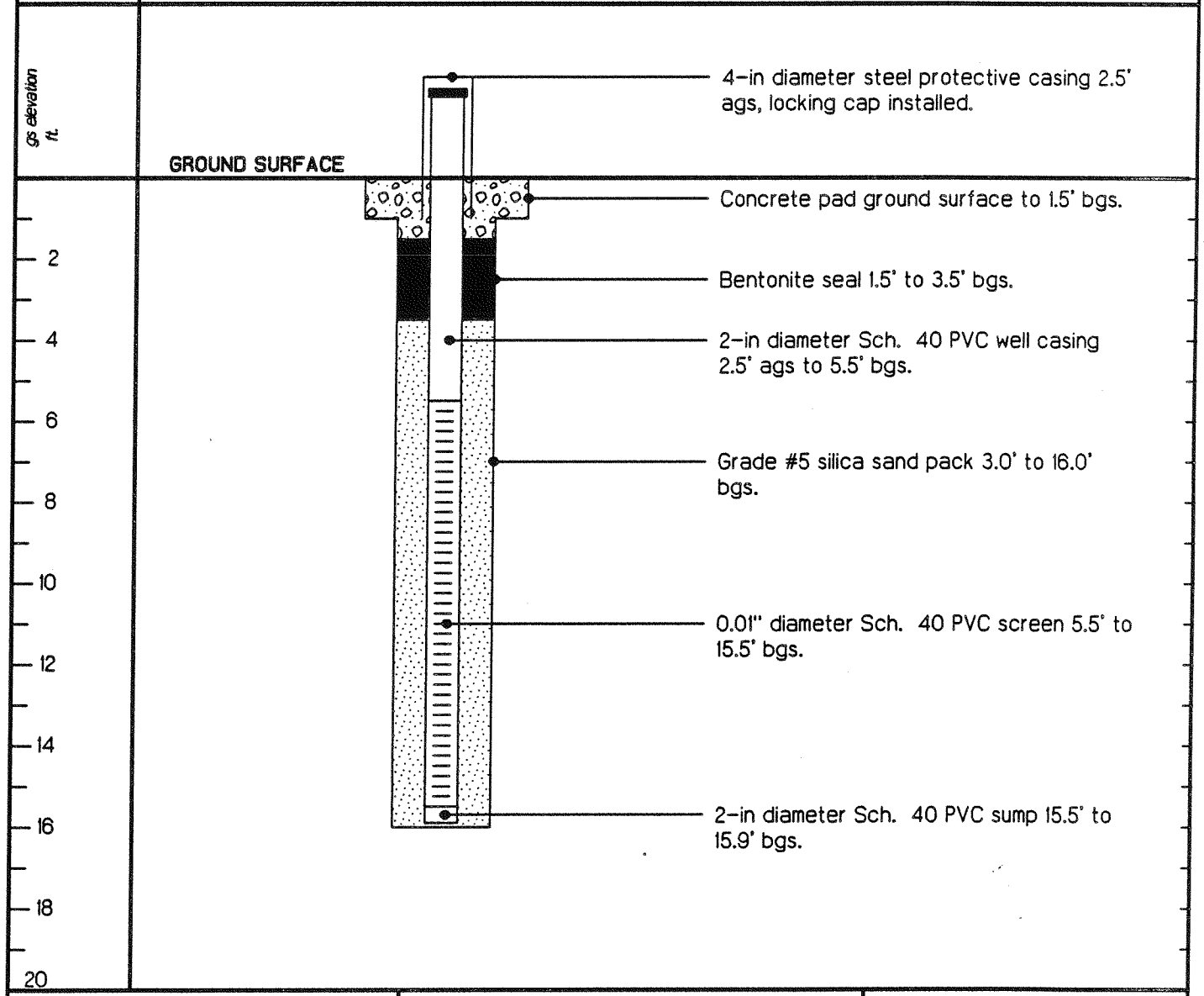
Remarks:
Soil descriptions taken from boring log B-5B (Aug).
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/25/95 - 05/25/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 16.0 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-6R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 35.0' bgs are given on boring log B-6 by Residuals Management Technology, Inc. on November 26, 1979.

Saturated Zones		
Date / Time	Elevation	Depth

Date Start-Finish: 05/25/95 - 05/25/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Ron D. Kuhn
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Jim Saxton

Well No. B-6B (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.28 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		3 5 7 8	12	2.0	2.0			Black and orange fine to medium SAND, some iron concretions, trace fine to medium Gravel, medium dense.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		4 14 19 15	33	2.0	6.9				
5		(4-6')		9 11 25 4	40	2.0	37.2			Wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 20.5' bgs
	585	(6-8')		1 2 1 3	3	1.5	1.0			Brown CLAY and SILT, some medium to coarse Sand, trace fine Gravel, soft.	
		(8-10')		2 4 2 3	6	1.2	3.2			Black fine to medium SAND, loose.	
10		(10-12')		1 2 3 2	5	1.2	2.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.5' bgs
	580	(12-14')		1 2 2 1	4	1.1	1.5			Gray fine SAND, some Silt, trace Clay and shells, loose, wet.	
15		(14-16')		WOH 1	2	1.3	0.5			Gray SILT, some Clay, soft.	

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Remarks:
Soil descriptions taken from boring log B-6C (Aug).
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

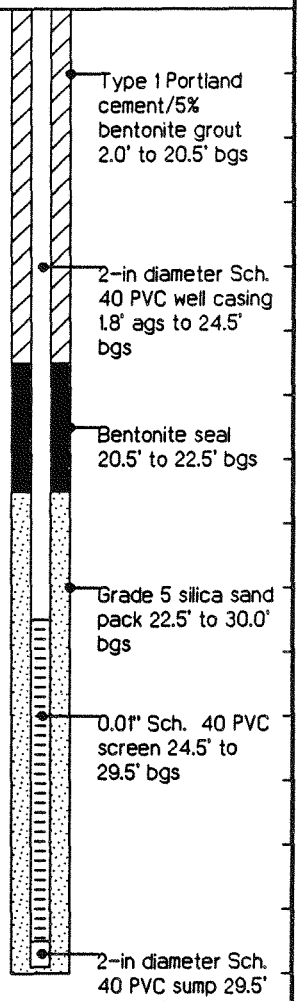
Client:
General Motors Corporation

Well No. B-6B (Aug)

Total Depth = 30 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1 1	2	1.3	0.5			@ 14.9', Brown PEAT, some Silt, moist.
	575	(16-18')		1 (18") 1	1	2.0	0.1			Gray SILT, some fine to medium Sand, little Clay, very soft, wet.
		(18-20')		1 (18") 1	1	2.0	0.2			
20		(20-22')		1 (18") 1	1	2.0	0.2			Gray fine to medium SAND, trace Silt, little shells, wet. Gray SILT, little Clay, trace shell fragments, very soft, wet.
	570	(22-24')		WOH 1 1 1	2	2.0	0.2			
25		(24-26')		WOH 1 1 4	2	2.0	0.2			
	565	(26-28')		WOH 1 3 6	4	0.6	0.3			Gray fine to medium SAND, trace coarse Sand and Silt, loose, wet.
		(28-30')		WOH 2 3 3	5	1.0	0.4			
30										Total depth of boring 30.0 ft bgs.
	560									
35										

Well Construction



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Remarks:
Soil descriptions taken from boring log B-6C (Aug)
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/24/95 - 01/24/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38 ft.

Geologist: Jim Saxton

Well No. B-6C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.23 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		3 5 7 8	12	2.0	2.0			Black and orange fine to medium SAND, some iron concretions, trace fine to medium Gravel, medium dense.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		4 14 19 15	33	2.0	6.9				
5		(4-6')		9 11 25 4	40	2.0	37.2			Wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 28.0' bgs
	585	(6-8')		1 2 1 3	3	1.5	1.0			Brown CLAY and SILT, some medium to coarse Sand, trace fine Gravel, soft.	
		(8-10')		2 4 2 3	6	1.2	3.2			Black fine to medium SAND, loose.	
10		(10-12')		1 2 3 2	5	1.2	2.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	580	(12-14')		1 2 2 1	4	1.1	1.5			Gray fine SAND, some Silt, trace Clay and shells, loose, wet.	
15		(14-16')		WOH 1	2	1.3	0.5			Gray SILT, some Clay, soft.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-6C (Aug)

Total Depth = 38 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	1.3	0.5			@ 14.9', Brown PEAT, some Silt, moist.	
	575	(16-18')		1 (18") 1	1	2.0	0.1			Gray SILT, some fine to medium Sand, little Clay, very soft, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 28.0' bgs
		(18-20')		1 (18") 1	1	2.0	0.2				
20		(20-22')		1 (18") 1	1	2.0	0.2			Gray fine to medium SAND, trace Silt, little shells, wet. Gray SILT, little Clay, trace shell fragments, very soft, wet.	
	570	(22-24')		WOH 1 1 1	2	2.0	0.2				2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
25		(24-26')		WOH 1 1 4	2	2.0	0.2				
	565	(26-28')		WOH 1 3 6	4	0.6	0.3			Gray fine to medium SAND, trace coarse Sand and Silt, loose, wet.	
		(28-30')		WOH 2 3 3	5	1.0	0.4				Bentonite seal 28.0' to 30.0' bgs
30		(30-32')		WOH 1 7 8	8	1.5	0.2				Grade 5 silica sand pack 30.0' to 38.0' bgs
	560	(32-34')		1 1 4 5	5	0.5	0.3				0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
35		(34-36')		WOH 2	6	0.3	0.2				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
		↧
		↧
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-8C (Aug)

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		4 7	6	0.3	0.2			Gray fine to medium SAND, trace coarse Sand and Silt, loose, wet.	0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
555	(36-38')		3 5 6 8	11	0.6	0.5				2-in diameter Sch. 40 PVC sump 37.0' to 37.4' bgs
									Total depth of boring 38.0 ft bgs.	
40										
550										
45										
545										
50										
540										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/25/95 – 05/25/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Ronald D. Kuhn

Well No. B-6D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.20 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		3 5 7 8	12	2.0	2.0			Black and orange fine to medium SAND, some iron concretions, trace fine to medium Gravel, medium dense.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		4 14 19 15	33	2.0	6.9				
5		(4-6')		9 11 25 4	40	2.0	37.2			Wet.	Type I Portland cement/5% bentonite grout 2.0' to 40.5' bgs
	585	(6-8')		1 2 1 3	3	1.5	1.0			Brown CLAY and SILT, some medium to coarse Sand, trace fine Gravel, soft.	
		(8-10')		2 4 2 3	6	1.2	3.2			Black fine to medium SAND, loose.	
10		(10-12')		1 2 3 2	5	1.2	2.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.5' bgs
	580	(12-14')		1 2 2 1	4	1.1	1.5			Gray fine SAND, some Silt, trace Clay and shells, loose, wet.	
15		(14-16')		WOH 1	2	1.3	0.5			Gray SILT, some Clay, soft.	

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Remarks:
Soil descriptions from 0.0 to 36.0' bgs were taken from boring log B-6C (Aug). Apparent Conductivity graph is off-scale from 2.1 to 4.2 feet. WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-6D (Aug)

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	1.3	0.5			@ 14.9', Brown PEAT, some Silt, moist.	
	575	(16-18')		1 (18") 1	1	2.0	0.1			Gray SILT, some fine to medium Sand, little Clay, very soft, wet.	
		(18-20')		1 (18") 1	1	2.0	0.2				
20		(20-22')		1 (18") 1	1	2.0	0.2			Gray fine to medium SAND, trace Silt, little shells, wet. Gray SILT, little Clay, trace shell fragments, very soft, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 40.5' bgs
	570	(22-24')		WOH 1 1 1	2	2.0	0.2				
25		(24-26')		WOH 1 1 4	2	2.0	0.2				2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.5' bgs
	565	(26-28')		WOH 1 3 6	4	0.6	0.3			Gray fine to medium SAND, trace coarse Sand and Silt, loose, wet.	
		(28-30')		WOH 2 3 3	5	1.0	0.4				
30		(30-32')		WOH 1 7 8	8	1.5	0.2				
	560	(32-34')		1 1 4 5	5	0.5	0.3				
35		(34-36')		WOH 2	6	0.3	0.2				

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Remarks:
Soil descriptions from 0.0 to 36.0' bgs were taken from boring log B-6C (Aug). Apparent Conductivity graph is off-scale from 28.6 to 29.4 feet. WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-6D (Aug)

Total Depth = 60 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		4 7	6	0.3	0.2			Gray fine to medium SAND, trace coarse Sand and Silt, loose, wet.
	555	(36-38')		6 4 7 4	11	1.6	0.5			Gray fine to coarse SAND, trace Silt and shells, loose, saturated.
		(38-40')		2 1 1 3	2	1.6	0.0			
40		(40-42')		7 13 15 26	28	1.6	0.0			Gray fine to medium SAND, trace coarse Sand and Silt, medium dense, saturated. Trace fine Gravel.
	550	(42-44')		0 2 3 7	5	1.8	0.0			
45		(44-46')		6 4 6 7	10	1.8	0.0			Gray fine to coarse SAND, little fine Gravel, trace Silt, loose, saturated.
	545	(46-48')		18 8 5 4	13	1.8	0.0			Gray fine to coarse SAND and fine to medium GRAVEL, medium dense, saturated.
		(48-50')		11 4 3 4	7	1.8	0.0			Gray fine to coarse SAND, little fine Gravel, loose, saturated.
50		(50-52')		1 1 1 2	2	1.6	0.0			Gray CLAY and SILT, trace fine Gravel, medium stiff, moist. Gray CLAY, very soft, wet, high plasticity.
	540	(52-54')		WOH (18") 3	0	2.0	0.0			
55		(54-56')		WOH (12")	1	2.0	0.0			

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 40.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.5' bgs
- Bentonite seal 40.5' to 42.5' bgs
- Grade 5 silica sand pack 42.5' to 51.0' bgs
- 0.01" Sch. 40 PVC screen 44.5' to 49.5' bgs
- 2-in diameter Sch. 40 PVC sump 49.5' to 49.9' bgs
- Bentonite seal 40.5' to 42.5' bgs

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Remarks:
Soil descriptions from 0.0 to 36.0' bgs were taken from boring log B-6C (Aug).
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. B-60 (Aug)

Total Depth = 60 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		1 3	1	2.0	0.0			Gray CLAY, very soft, wet, high plasticity.	
	535	(56-58')		WOH (12") 3 3	3	2.0	0.0				Bentonite seal 40.5' to 42.5' bgs
		(58-60')		WOH (12") 2 3	2	2.0	0.0				
60										Total depth of boring 60.0 ft bgs.	
	530										
65											
	525										
70											
	520										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

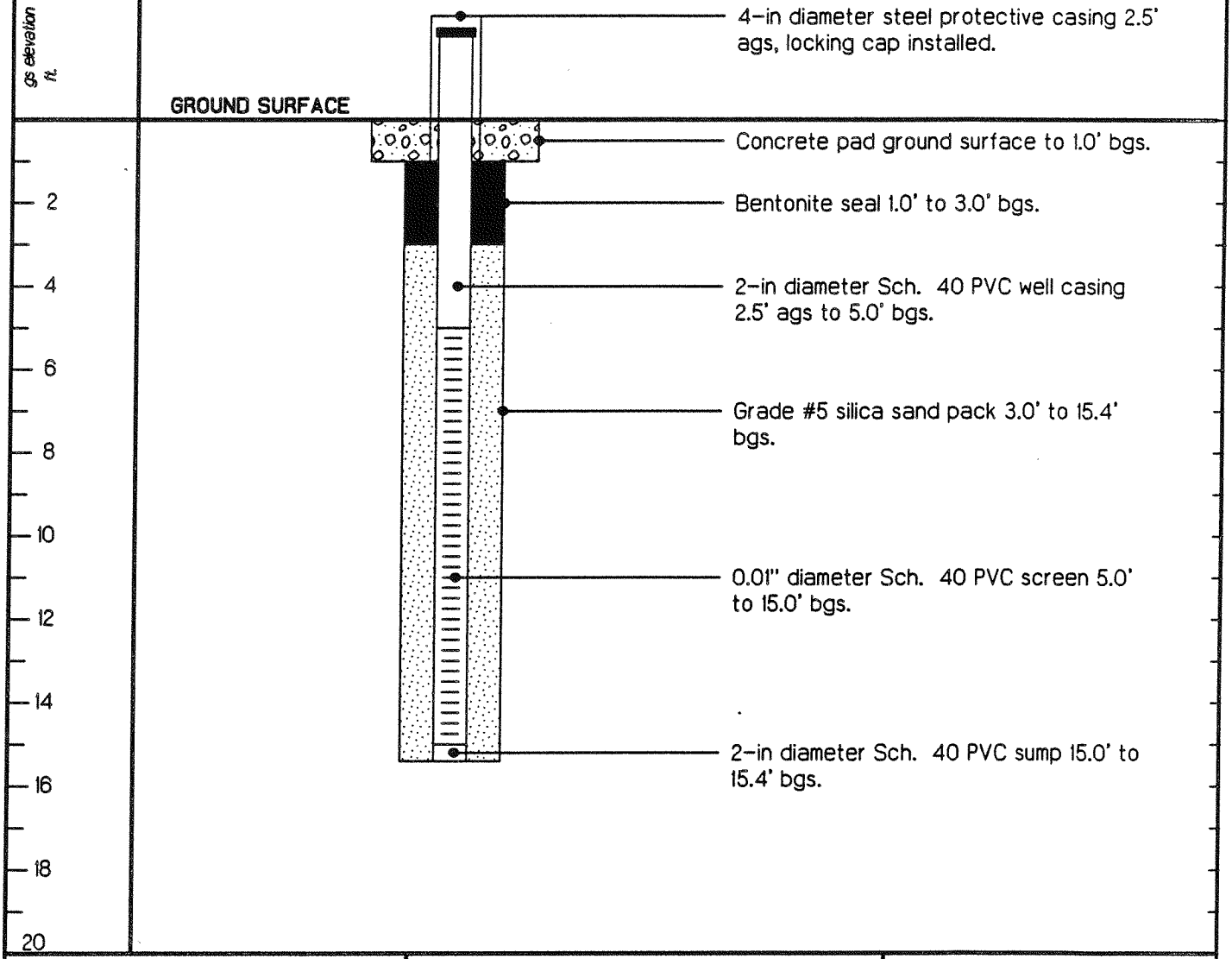
Date / Time	Elevation	Depth

Date Start/Finish: 05/18/95 - 05/18/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 15.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B-7R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ELEVATION

gs elevation ft.



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Remarks:

Soil descriptions from 0.0' to 30.0' bgs are given on boring log B-7 by Residuals Management Technology, Inc. on November 28, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 06/08/95 - 06/08/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42.9 ft.

Geologist: Ronald D. Kuhn

Well No. B-7B (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0.0' to 32.0' are given on boring log B-7 by Residuals Management Technology, Inc. on November 28, 1979.	Concrete pad ground surface to 2.0' bgs
5										Type 1 Portland cement/5% bentonite grout 2.0' to 33.5' bgs
										2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
10										10-in diameter Sch. 40 PVC surface seal casing ground surface to 33.0' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

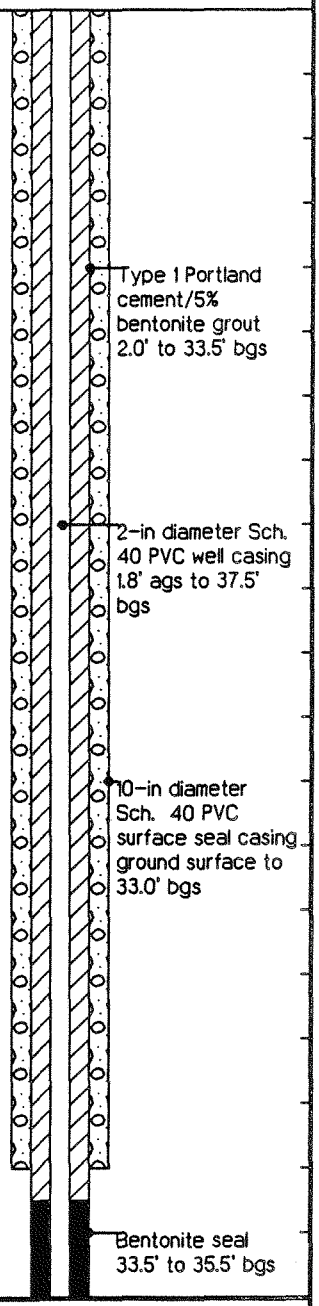
Client:
General Motors Corporation

Well No. B-7B (Aug)

Total Depth = 42.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
									Soil descriptions from 0.0' to 32.0' are given on boring log B-7 by Residuals Management Technology, Inc. on November 28, 1979.
20									
25									
30									
	(32-34')		10 20 9 7	29	0.6	6.5			Dark gray CLAY and SILT, trace fine Sand and shells, very soft, wet.
35	(34-36')		3 4	7	1.0	5.1			

Well Construction



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Remarks:
Soil descriptions from 32.0 to 42.9' bgs were taken from boring log B-7C (Aug).

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-7B (Aug)

Total Depth = 42.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		3 4	7	1.0	5.1			Dark gray CLAY and SILT, trace fine Sand and shells, very soft, wet.	Bentonite seal 33.5' to 35.5' bgs
	(36-38')		3 1 1 1	2	2.0	3.4			Gray fine to medium SAND, little Silt, trace shells, very loose, saturated.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
	(38-40')		3 2 2 2	4	1.6	3.1			Trace Peat, grades with some Silt.	Grade 5 silica sand pack 35.5' to 42.9' bgs
40	(40-42')		2 4 2 2	6	1.6	3.0			Gray fine SAND, some to little Silt, trace shells, seams of Peat, loose, wet.	0.01" Sch. 40 PVC screen 37.5' to 42.5' bgs
	(42-43')		WOH 3	3	0.8	2.8			Gray fine to medium SAND, little Silt, trace Peat and shells, loose, saturated.	2-in diameter Sch. 40 PVC sump 42.5' to 42.9' bgs
45									Total depth of boring 42.9 ft bgs.	
50										
55										

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Remarks:
Soil descriptions from 32.0 to 42.9' bgs were taken from boring log B-7C (Aug).
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/08/95 - 06/08/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 58 ft.

Geologist: Ronald D. Kuhn

Well No. B-7C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 589.80 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										Soil descriptions from 0.0' to 32.0' are given on boring log B-7 by Residuals Management Technology, Inc. on November 28, 1979.	Concrete pad ground surface to 2.0' bgs
5	585										Type 1 Portland cement/5% bentonite grout 2.0' to 39.8' bgs
											2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.3' bgs
10	580										
											10-in diameter Sch. 40 PVC surface seal casing ground surface to 33.0' bgs
15	575										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

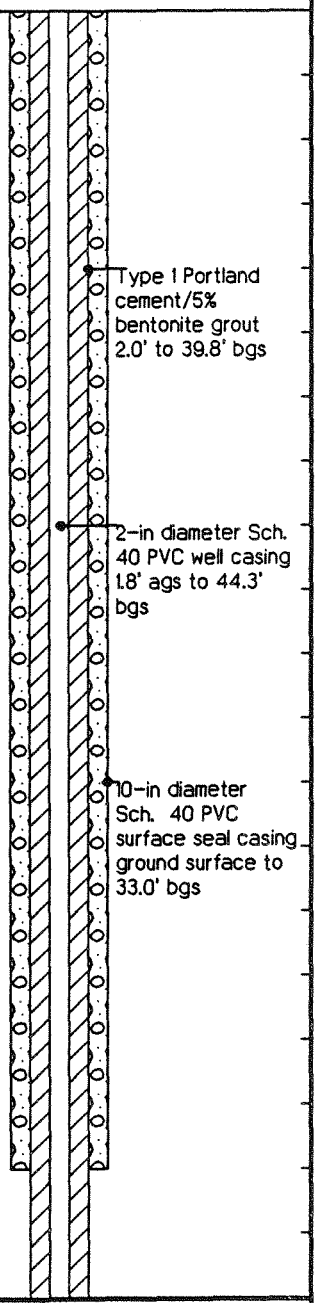
Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-7C (Aug)

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										Soil descriptions from 0.0' to 32.0' are given on boring log B-7 by Residuals Management Technology, Inc. on November 28, 1979.
20	570									
25	565									
30	560									
		(32-34')		10 20 9 7	29	0.6	6.5			Dark gray CLAY and SILT, trace fine Sand and shells, very soft, wet.
35	555	(34-36')		3 4	7	1.0	5.1			



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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. B-7C (Aug)

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		3 4	7	1.0	5.1			Dark gray CLAY and SILT, trace fine Sand and shells, very soft, wet.
		(36-38')		3 1 1 1	2	2.0	3.4			Gray fine to medium SAND, little Silt, trace shells, very loose, saturated.
		(38-40')		3 2 2 2	4	1.6	3.1			Trace Peat, grades with some Silt.
40	550	(40-42')		2 4 2 2	6	1.6	3.0			Gray fine SAND, some to little Silt, trace shells, seams of Peat, loose, wet.
		(42-44')		WOH 3 3 3	6	1.6	2.8			Gray fine to medium SAND, little Silt, trace Peat and shells, loose, saturated.
45	545	(44-46')		2 6 4 5	10	2.0	1.4			
		(46-48')		3 2 5 7	7	2.0	2.6			Gray fine to medium SAND, trace Silt, loose, saturated.
		(48-50')		5 5 4 4	9	2.0	2.8			Gray fine to coarse SAND and fine to medium GRAVEL, medium dense, saturated.
50	540	(50-52')		WOH 4 4 5	8	2.0	1.4			Gray CLAY and SILT, trace fine Sand, medium stiff, moist.
		(52-54')		1 3 3 3	6	2.0	1.6			Trace fine Gravel.
55	535	(54-56')		2 4	8	2.0	2.9			Medium stiff

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 39.8' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 44.3' bgs
- Bentonite seal 39.8' to 41.8' bgs
- Grade 5 silica sand pack 41.8' to 51.0' bgs
- 0.01" Sch. 40 PVC screen 44.3' to 49.3' bgs
- 2-in diameter Sch. 40 PVC sump 49.3' to 49.7' bgs
- Bentonite seal 51.0' to 58.0' bgs

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. B-7C (Aug)

Total Depth = 58 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		4 5	8	2.0	2.9			Gray CLAY and SILT, trace fine Sand, medium stiff, moist.	Bentonite seal 51.0' to 58.0' bgs
		(56-58')		6 7 8 9	15	2.0	NA			Stiff.	
										Total depth of boring 58.0 ft bgs.	
60	530										
65	525										
70	520										
75	515										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

MW-Series Monitoring Wells
Well Construction and Boring Logs

MW-1C (Aug)
MW-2C (Aug)
MW-5 (Aug) - Boring only
MW-6C (Aug)
MW-6D (Aug)
MW-101 WT
MW-102 WT
MW-102 S1
MW-103 WT
MW-103 S1
MW-103 S2
MW-104 WT
MW-104 S1
MW-104 S2
MW-105 WT
MW-105 S1
MW-105 S2
MW-106 WT
MW-106 S1
MW-106 S2
MW-107 WT
MW-107 S1
MW-107 S2
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MW-139 - Boring only
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MW-140 S2
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MW-159 WT
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MW-161 WT
MW-162 WT
MW-163 WT
MW-164 WT
MW-165 WT
MW-166 WT
MW-167 WT
MW-168 WT
MW-169 WT
MW-170 WT
MW-171 WT
MW-172 WT
MW-173 WT
MW-174 WT
MW-175 WT
MW-176 WT
MW-177 WT
MW-178 WT
MW-179 WT
MW-180 WT
MW-181 WT
MW-182 WT

Date Start-Finish: 05/04/95 - 05/04/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 45 ft.

Geologist: Tim R. Osier

Well No. MW-1C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 582.98 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										Soil descriptions from 0 - 25.0' are given on test boring log MW-1B by Residuals Management Technology, Inc. (RMT) on March 23, 1988.	Concrete pad ground surface to 2.5' bgs
	580										
5											Type 1 Portland cement/5% bentonite grout 2.5' to 32.3' bgs
	575										
10											2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
	570										
15											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-1C (Aug)

Total Depth = 45 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Soil descriptions from 0 – 25.0' are given on test boring log MW-1B by Residuals Management Technology, Inc. (RMT) on March 23, 1988.	
	565										
20											Type 1 Portland cement/5% bentonite grout 2.5' to 32.3' bgs
	560										
25		(25–27')		2 1 2 1	2	0.5	0.0			Gray SILT, some fine Sand, little Clay, soft, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
	555	(27–29')		WOH (24")	0	2.0	0.0			Some thin fine Sand lenses, very soft.	
30		(29–31')		WOH (12") 2 1	2	2.0	0.0			Gray fine SAND, some Silt, very loose, wet.	
		(31–33')		1 1 WOH 1	1	1.8	0.0			Brown fine SAND, very loose, wet.	Bentonite seal 32.3' to 35.4' bgs
	550	(33–35')		2 1 5 7	6	2.0	0.0			Grades to fine to coarse SAND, trace fine to medium Gravel, loose,	
35											

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Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-1C (Aug)

Total Depth = 45 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(35-37')		6 5 7 6	12	1.2	0.0			Fine to coarse SAND, trace fine to medium Gravel, loose, wet.
										Brown fine to medium GRAVEL, loose, wet.
	545	(37-39')		7 5 8 9	13	1.6	0.0			Brown fine to coarse SAND, some fine to medium Gravel, loose, wet.
40		(39-41')		8 4 5 9	9	1.8	0.0			
		(41-43')		9 6 5 5	11	2.0	0.0			
	540									Brown SILT, some Clay, stiff, moist.
		(43-45')		7 2 3 4	6	2.0	0.0			
45										Total depth of boring 45.0 ft. bgs.
	535									
50										
	530									
55										

Well Construction

- Bentonite seal 32.3' to 35.4' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
- 0.01" Sch. 40 PVC screen 37.5' to 42.5' bgs
- Grade #5 silica sand pack 35.4' to 43.0' bgs
- 2-in diameter Sch. 40 PVC sump 42.5' to 43.0' bgs
- Bentonite seal 43.0' to 45.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 10/02/97

Date Start-Finish: 05/03/95 - 05/03/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Tim R. Osier

Well No. MW-2C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0 - 20.0' are given on test boring log MW-2B by Residuals Management Technology, Inc. (RMT) on March 28, 1988.	Concrete pad ground surface to 2.5' bgs
5										Type 1 Portland cement/5% bentonite grout 2.5' to 20.0' bgs
10										2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.0' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-2C (Aug)

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Soil descriptions from 0 – 20.0' are given on test boring log MW-2B by Residuals Management Technology, Inc. (RMT) on March 28, 1988.	Type I Portland cement/5% bentonite grout 2.5' to 20.0' bgs; 2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.0' bgs
20	(20-22')		2 2 1 1	3	1.3	0.0			Gray SILT, some fine Sand, soft, wet.	Bentonite seal 20.0' to 22.0' bgs
	(22-24')		WOH (18") 1	0	1.5	0.0			Gray fine SAND, some Silt, very loose, wet.	
25	(24-26')		WOH 1 WOH (12")	1	1.4	0.0				0.01" Sch. 40 PVC screen 24.0' to 29.0' bgs; Grade #5 silica sand pack 22.0' to 30.0' bgs
	(26-28')		2 1 1 1	2	1.8	0.0				
	(28-30')		WOH (12") 1 WOH	1	1.8	0.0				2-in diameter Sch. 40 PVC sump 29.0' to 29.5' bgs
30									Total depth of boring 30.0 ft. bgs.	
35										

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Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 06/05/95 - 06/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: CME 850 ATV
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Descriptions by: Ron Kuhn

Boring No. MW-5 (Aug) - Boring only

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										GROUND SURFACE	
										Soil descriptions from 0.0 to 34.0' bgs are given on boring log MW-5A by Residuals Management Technology, Inc. on March 23, 1988.	Type 1 Portland cement/5% bentonite grout ground surface to 60.0' bgs
5	-5										10-in diameter Sch. 40 PVC surface seal casing ground surface to 34.0' bgs
10	-10										
15	-15										

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Remarks:
The augmentation monitoring well was not installed due to an insuffient thickness of sand.

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-5 (Aug) – Boring C

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
										Soil descriptions from 0.0 to 34.0' bgs are given on boring log MW-5A by Residuals Management Technology, Inc. on March 23, 1988.	Type 1 Portland cement/5% bentonite grout ground surface to 60.0' bgs
20	-20										10-in diameter Sch. 40 PVC surface seal casing ground surface to 34.0' bgs
25	-25										
30	-30										
35	-35	(34-36')		11 3	4	1.4	0.0			Gray Silty CLAY, soft, wet.	

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-5 (Aug) – Boring C

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(34-36')		1 1	4	1.4	0.0			Gray Silty CLAY, soft, wet.	
		(36-38')		WOH (24")	0	2.0	0.0			Two fine Sand seams.	Type I Portland cement/5% bentonite grout ground surface to 60.0' bgs
		(38-40')		WOH (12") 1 2	1	2.0	0.0			Very soft.	
40	-40	(40-42')		1 (18") 2	0	2.0	0.0				
		(42-44')		WOH (18") 2	0	2.0	0.0				
45	-45	(44-46')		WOH 1 1 1	2	2.0	0.0				
		(46-48')		WOH (18") 1	0	2.0	0.0				
		(48-50')		1 4 6 6	10	2.0	11.3			Gray fine to medium SAND, trace Silt and shells, loose, saturated.	
50	-50	(50-52')		WOH 1 2 3	3	1.6	11.2			Gray SILT and CLAY, trace fine Sand, soft, moist.	
		(52-54')		2 3 5 6	8	2.0	11.2			Medium stiff.	
55	-55	(54-56')		1 2	6	2.0	11.6				

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Remarks:
WOH – Weight of Hammer

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-5 (Aug) - Boring c

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(54-56')		4 4	6	2.0	11.6			Gray SILT and CLAY, trace fine Sand, medium stiff, moist.	Type 1 Portland cement/5% bentonite grout ground surface to 60.0' bgs
		(56-58')		2 3 5 5	8	2.0	11.7				
		(58-60')		1 3 6 8	9	2.0					
60	-60									Total depth of boring 60.0 ft bgs.	
65	-65										
70	-70										
75	-75										

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Remarks:
The boring was backfilled to grade with grout upon completion.

Saturated Zones

Date / Time	Elevation	Depth

Date Start–Finish: 06/05/95 – 06/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 43 ft.

Geologist: Ron Kuhn

Well No. MW-6C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0.0 to 36.0' bgs are given on boring log MW-6B by Residuals Management Technology, Inc. on March 22, 1988.	Concrete pad ground surface to 1.0' bgs
5										10-in diameter Sch. 40 PVC surface seal casing ground surface to 36.0' bgs
10										Type 1 Portland cement/5% bentonite grout 1.0' to 33.5' bgs
										2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-6C (Aug)

Total Depth = 43 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Soil descriptions from 0.0 to 36.0' bgs are given on boring log MW-6B by Residuals Management Technology, Inc. on March 22, 1988.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 36.0' bgs Type 1 Portland cement/5% bentonite grout 1.0' to 33.5' bgs 2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.5' bgs Bentonite seal 33.5' to 35.5' bgs

20
25
30
35

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

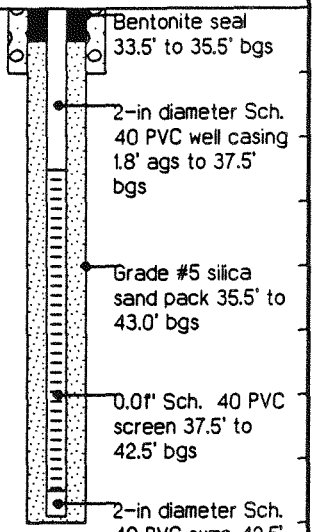
Client:
General Motors Corporation

Well No. MW-6C (Aug)

Total Depth = 43 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(36-38')		WOH (18") 1	0	2.0	15.1			Gray Silty CLAY, very soft, wet.
	(38-40')		1 WOH 1 3	1	1.8	14.7			Gray fine to medium SAND, very loose, saturated. Trace Silt.
40	(40-42')		1 1 1 2	2	1.4	13.4			Trace coarse Sand and shells.
	(42-43')		3 2	4	2.0	13.7			Loose.
									Total depth of boring 43.0 ft bgs.
45									
50									
55									

Well Construction



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Remarks:
Soil descriptions from 36.0' to 43.0' bgs are from boring log MW-6D (Aug).
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/05/95 - 06/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: Ron Kuhn

Well No. MW-6D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 588.44 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										Soil descriptions from 0.0 to 36.0' bgs are given on boring log MW-6B by Residuals Management Technology, Inc. on March 22, 1988.	Concrete pad ground surface to 1.0' bgs
5	585										10-in diameter Sch. 40 PVC surface seal casing ground surface to 36.0' bgs
10	580										Type I Portland cement/5% bentonite grout 1.0' to 43.0' bgs
											2-in diameter Sch. 40 PVC well casing 1.8' ags to 47.8' bgs
15	575										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-6D (Aug)

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Soil descriptions from 0.0 to 36.0' bgs are given on boring log MW-6B by Residuals Management Technology, Inc. on March 22, 1988.	
	570										
20											10-in diameter Sch. 40 PVC surface seal casing ground surface to 36.0' bgs
	565										
25											Type 1 Portland cement/5% bentonite grout 1.0' to 43.0' bgs
	560										
30											2-in diameter Sch. 40 PVC well casing 1.8' ags to 47.8' bgs
	555										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-6D (Aug)

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(36-38')		WOH (18") 1	0	2.0	15.1			Gray Silty CLAY, very soft, wet.
	550	(38-40')		1 WOH 1 3	1	1.8	14.7			Gray fine to medium SAND, very loose, saturated. Trace Silt.
40		(40-42')		1 1 1 2	2	1.4	13.4			Trace coarse Sand and shells.
		(42-44')		3 2 2 1	4	2.0	13.7			Loose.
	545									
45		(44-46')		1 1 4 4	5	2.0	12.7			Fine SAND, little Silt, loose, saturated.
		(46-48')		2 3 2 3	5	2.0	12.8			Two seans of Peat.
	540	(48-50')		2 3 3 4	6	1.8	12.6			Gray fine SAND, little Silt, trace Peat, loose, saturated.
50		(50-52')		1 1 3 4	4	1.6	12.1			Gray fine to medium SAND, trace Silt, loose, saturated. Trace Peat seam.
		(52-54')		4 3 1 2	4	2.0	16.7			Gray CLAY and SILT, very soft, moist, high plasticity.
	535									
55		(54-56')		2 1	3	1.6	16.1			

Well Construction:
- 10-in diameter Sch. 40 PVC surface seal casing ground surface to 36.0' bgs
- Type I Portland cement/5% bentonite grout 1.0' to 43.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 47.8' bgs
- Bentonite seal 43.0' to 45.2' bgs
- Grade #5 silica sand pack 45.2' to 52.8' bgs
- 0.01" Sch. 40 PVC screen 47.8' to 54.0' bgs
- 2-in diameter Sch. 40 PVC sump 52.8' to 53.2' bgs
- Bentonite seal 54.0' to 62.0' bgs

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-8D (Aug)

Total Depth = 82 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		2 2	3	1.6	16.1			Gray CLAY and SILT, very soft, moist, high plasticity.	
		(56-58')		1 1 2 2	3	1.6	13.7			Medium stiff.	Bentonite seal 54.0' to 62.0' bgs
	530	(58-60')		2 2 3 4	5	1.6	12.9				
60		(60-62')		3 3 5 6	8	1.8	NA				
										Total depth of boring 62.0 ft bgs.	
	525										
65											
	520										
70											
	515										
75											

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

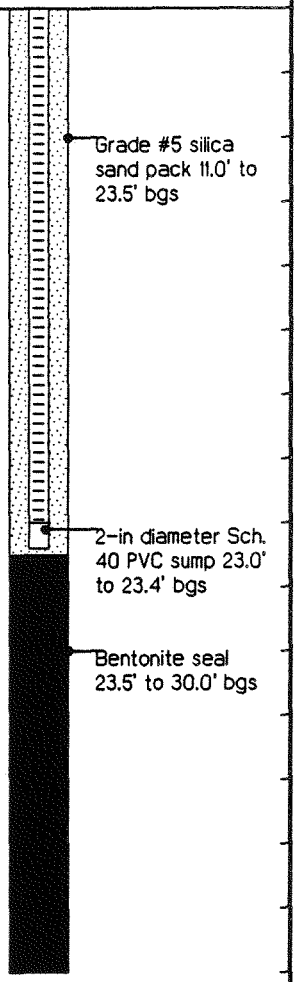
Client:
General Motors Corporation

Well No. MW-101 WT

Total Depth = 30 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	585	(14-16')		9 2	14	2.0	0.7			Dark brown CLAY, some Silt, little fine Sand, medium stiff, moist.
		(16-18')		4 5 5 5	10	2.0	0.7			Grayish brown SILT and CLAY, some fine Sand, trace fine Gravel, medium stiff, wet.
		(18-20')		1 2 3 4	5	2.0	0.6			
20	580	(20-22')		2 3 3 5	6	2.0	0.7			
		(22-24')		WOH 1 2 2	3	2.0	0.6			
		(24-26')		WOH 2 2 3	4	2.0	0.3			Less sand.
25	575	(26-28')		WOH 1 1 2	1	2.0	0.4			
		(28-30')		WOH (12") 1 2	1	2.0	0.1			
30	570									Total depth of boring 30.0 ft. bgs.
35										

Well Construction



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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/18/95
Drilling Company: Stearns
Driller's Name: Bryan Marsahll
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: James Saxton

Well No. MW-101 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 600.86 ft.										GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
	600	(0-2')		3 6 6 6	12	1.0	0.1			Dark brown SAND and CLAY, some Silt and pieces of wood.	Concrete pad ground surface to 2.0'
		(2-4')		7 9 16 20	25	NR	0.3				Type I Portland cement/5% bentonite grout 2.0' to 9.0' bgs
5		(4-6')		2 8 11 13	19	2.0	0.4				2-in diameter Sch. 40 PVC well casing 2.3' ags to 13.0' bgs
	595	(6-8')		5 6 8 11	14	2.0	0.4				
		(8-10')		4 7 10 15	17	2.0	0.5				
10											Bentonite seal 9.0' to 11.0' bgs
	590	(10-12')		3 6 12 15	18	2.0	0.6				
		(12-14')		4 9 13 13	22	2.0	0.4			Dark brown CLAY, some Silt, little fine Sand, medium stiff, moist.	0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs
15		(14-16')		3 5	14	2.0	0.7				

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Remarks:
WOH - Weight of Hammer
NR - No Recovery

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/19/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 19 ft.

Geologist: Ron Kuhn

Well No. MW-102 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 594.07 ft.										GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
		(0-2')		2 4 5 6	9	2.0	1.5			Brown SILT, some fine Sand, trace Clay and organic matter (roots), soft to medium stiff, damp.	Concrete pad ground surface to 1.0'
		(2-4')		2 5 10 9	15	1.0	1.3			Brown fine to medium SAND, little Silt, trace fine to medium Gravel and slag, loose, damp.	Type 1 Portland cement/5% bentonite grout 1.0' to 5.0' bgs
	590									Trace clear and brown glass.	
5		(4-6')		2 3 5 7	8	1.4	2.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 9.0' bgs
		(6-8')		1 3 6 6	9	1.8	1.5			Gray fine to medium SAND, trace fine to medium Gravel and Silt, loose, moist.	Bentonite seal 5.0' to 7.0' bgs
	585	(8-10')		3 4 5 6	9	1.4	2.2			Black fine to medium SAND, trace fine to medium Gravel and Silt, loose, moist to wet.	
10		(10-12')		2 4 5 3	9	1.6	2.2				0.01" Sch. 40 PVC screen 9.0' to 19.0' bgs
		(12-14')		1 1 2 1	3	1.6	0.9			Gray fine to medium SAND, little Silt, trace fine to medium Gravel, very loose, saturated.	
	580										Grade #5 silica sand pack 7.0' to 19.0' bgs
		(14-16')		1 (18")	1	0.6	0.8			Some Silt.	
15											

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Remarks:
Soil descriptions taken from boring log MW102-S1.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-102 WT

Total Depth = 19 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1	1	0.6	0.8			Gray fine to medium SAND, little Silt, saturated.	0.01" Sch. 40 PVC screen 9.0' to 19.0' bgs
		(16-18')		1 2 1 2	3	1.4	0.8			Little medium Sand.	Grade #5 silica sand pack 7.0' to 19.0' bgs
	575	(18-19')		1 1 1 1	2	1.8	0.6			Total depth of boring 19.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 19.0' to 19.4' bgs
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/19/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Ron Kuhn

Well No. MW-102 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 593.91 ft.										GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
		(0-2')		2 4 5 6	9	2.0	1.5			Brown SILT, some fine Sand, trace Clay and organic matter (roots), soft to medium stiff, damp.	Concrete pad ground surface to 1.0'
		(2-4')		2 5 10 9	15	1.0	1.3			Brown fine to medium SAND, little Silt, trace fine to medium Gravel, trace slag, loose, damp.	
	590										
5		(4-6')		2 3 5 7	8	1.4	2.0			Trace clear and brown glass.	Type 1 Portland cement/5% bentonite grout 1.0' to 23.0' bgs.
		(6-8')		1 3 6 6	9	1.8	1.5			Gray fine to medium SAND, trace fine to medium Gravel and Silt, loose, moist.	
	585	(8-10')		3 4 5 6	9	1.4	2.2			Black fine to medium SAND, trace fine to medium Gravel and Silt, loose, moist to wet.	
10		(10-12')		2 4 5 3	9	1.6	2.2				2-in diameter Sch. 40 PVC well casing 2.3' ags to 27.0' bgs
		(12-14')		1 1 2 1	3	1.6	0.9			Gray fine to medium SAND, little Silt, trace fine to medium Gravel, very loose, saturated.	
	580										
15		(14-16')		1 (18")	1	0.6	0.8			Some Silt.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-102 SI

Total Depth = 42 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1	1	0.6	0.8			Gray fine to medium SAND, little Silt, saturated.
		(16-18')		1 2 1 2	3	1.4	0.8			
	575	(18-20')		1 1 1 1	2	1.8	0.6			Little medium Sand.
20		(20-22')		1 2 2 2	4	0.2	0.4			
		(22-24')		1 1 1 2	2	1.4	0.7			Trace Silt.
	570	(24-26')		0 3 2 1	5	2.0	0.3			Trace shells and wood.
25		(26-28')		WOH (12') 1 1	1	1.0	0.5			Without trace wood.
	565	(28-30')		WOH 1 1 3	2	1.6	0.9			
30		(30-32')		1 1 1 2	2	2.0	0.7			
		(32-34')		3 4 5 6	9	2.0	0.5			Gray SILT and CLAY, trace fine to medium Gravel, hard, moist to wet.
	560	(34-36')		1 2	8	2.0	0.6			
35										

Well Construction

- Type 1 Portland cement/5% bentonite grout 1.0' to 23.0' bgs.
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 27.0' bgs
- Bentonite seal 23.0' to 25.0' bgs
- 0.01" Sch. 40 PVC screen 27.0' to 32.0' bgs
- Grade #5 silica sand pack 25.0' to 32.5' bgs
- 2-in diameter Sch. 40 PVC sump 32.0' to 32.4' bgs
- Bentonite seal 32.5' to 42.5' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-102 S1

Total Depth = 42 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		6 7	8	2.0	0.6			Gray SILT and CLAY, trace fine to medium Gravel, hard, moist to wet.	Bentonite seal 32.5' to 42.5' bgs
		(36-38')		2 5 8 10	13	2.0	0.5				
	555	(38-40')		4 7 9 11	16	2.0	0.6				
40		(40-42')		3 3 5 7	8	2.0	0.5				
										Total depth of boring 42.0 ft. bgs.	
	550										
45											
	545										
50											
	540										
55											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/18/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 22 ft.

Geologist: Sabrina Hesford

Well No. MW-103 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 593.26 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		4 5 6 5	11	1.0	0.0			Dark brown fine SAND and SILT, loose, moist.	Concrete pad ground surface to 2.5' bgs
	590	(2-4')		NA NA NA NA	NA	2.0	0.0			Dark brown fine SAND and SILT, little glass, pottery and wire, moist.	Type I Portland cement/5% bentonite grout 2.5' to 4.0' bgs
5		(4-6')		4 8 12 14	20	1.5	0.6			Little red cinders, slag, loose, moist.	Bentonite seal 4.0' to 6.0' bgs
		(6-8')		9 11 12 14	23	0.8	1.1				2-in diameter Sch. 40 PVC well casing 2.3' ags to 8.0' bgs
	585	(8-10')		6 6 2 3	8	0.9	7.5			Little green glass.	
10		(10-12')		1 2 4 3	6	0.6	7.1			Petroleum odor, discontinuous sheen, loose, wet.	
	580	(12-14')		1 3 1 1	4	0.5	3.6				0.01" Sch. 40 PVC screen 8.0' to 18.0' bgs
15		(14-16')		1 2	3	NR	NR			No Recovery.	

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Remarks:
NA - Hand augered from 2.0' to 4.0' bgs.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

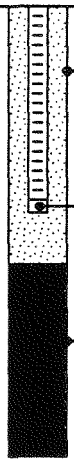
Client:
General Motors Corporation

Well No. MW-103 WT

Total Depth = 22 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1 2	3	NR	NR			No Recovery.
		(16-18')		2 3 5 3	8	0.1	2.7			Dark brown fine SAND and SILT, wet.
	575	(18-20')		4 2 2 3	4	0.4	0.2			Brown SILT, some Clay, soft, wet.
20		(20-22')		1 (12") 1 1	1	2.0	0.0			Dark gray SILT and CLAY, very soft, moist.
										Total depth of boring 22.0 ft. bgs
	570									
25										
	565									
30										
	560									
35										

Well Construction



- Grade #5 silica sand pack 6.0' to 19.0' bgs
- 2-in diameter Sch. 40 PVC pump 18.0' to 18.2' bgs
- Bentonite seal 19.0' to 22.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/21/97

Date Start-Finish: 05/17/95 - 05/17/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 37.9 ft.

Geologist: Ronald Kuhn

Well No. MW-103 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 593.38 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		4 5 6 5	11	1.0	0.0			Dark brown fine SAND and SILT, loose, moist.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		NA NA NA NA	NA	2.0	0.0			Dark brown fine SAND and SILT, little glass, pottery and wire, moist.	
5		(4-6')		4 8 12 14	20	1.5	0.6			Little red cinders, slag, loose, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
		(6-8')		9 11 12 14	23	0.8	1.1				
	585	(8-10')		6 6 2 3	8	0.9	7.5			Little green glass.	Type 1 Portland cement/5% bentonite grout 2.0' to 28.5' bgs
10		(10-12')		1 2 4 3	6	0.6	7.1			Loose, wet.	
	580	(12-14')		1 3 1 1	4	0.5	3.6				2-in diameter Sch. 40 PVC well casing 2.3' ags to 32.5' bgs
15		(14-16')		1 2	3	NR	NR			No Recovery.	

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Remarks:
Stratigraphic description from 0-22' is from boring log MW-103 WT.
NA - Hand augered from 2.0-4.0' bgs.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-103 S1

Total Depth = 37.9 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1 2	3	NR	NR			No Recovery.
		(16-18')		2 3 5 3	8	0.1	2.7			Dark brown fine SAND and SILT, wet.
	575	(18-20')		4 2 2 3	4	0.4	0.2			Brown SILT, some Clay, soft, wet.
20		(20-22')		1 (12") 1 1	1	2.0	0.0			Dark gray SILT and CLAY, very soft, moist.
		(22-24')		11 4 1 1	5	1.1	0.0			Brown, soft, moist.
	570	(24-26')		3 1 WOH (12")	1	2.0	0.0			
25		(26-28')		3 1 WOH (12")	1	2.0	0.0			
	565	(28-30')		2 3 1 1	4	1.1	0.0			
30		(30-32')		2 4 1 1	5	1.6	0.0			Thin layer of marl.
	560	(32-34')		2 6 7 7	13	1.1	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.
35		(34-36')		19 14	25	NR	NR			No recovery - PVC plug in tip of spoon.

Well Construction

- 10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
- Type I Portland cement/5% bentonite grout 2.0' to 28.5' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 32.5' bgs
- Bentonite seal 28.5' to 30.5' bgs
- Grade #5 silica sand pack 30.5' to 37.9' bgs
- 0.01" Sch. 40 PVC screen 32.5' to 37.5' bgs

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Remarks:
WOH - Weight of Hammer.
Stratigraphic description from 22 to 37.9' is from boring log MW-103 S2.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-103 S1

Total Depth = 37.9 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		11 9	25	NR	NR			No recovery.	0.01" Sch. 40 PVC screen 32.5' to 37.5' bgs Grade #5 silica sand pack 30.5' to 37.9' bgs 2-in diameter Sch. 40 PVC sump 37.5' to 37.9' bgs
		(36-38')		13 9 10 12	19	1.1	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.	
	555									Total depth of boring 37.9 ft. bgs	
40											
	550										
45											
	545										
50											
	540										
55											

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Remarks:
Stratigraphic description from 22 to 37.9' is from boring log MW-103 S2.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/17/95 – 05/17/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 64 ft.

Geologist: Timothy R. Osier

Well No. MW-103 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 593.27 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		4 5 6 5	11	1.0	0.0			Dark brown fine SAND and SILT, loose, moist.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		NA NA NA NA	NA	2.0	0.0			Dark brown fine SAND and SILT, little glass, pottery and wire, moist.	
5		(4-6')		4 8 12 14	20	1.5	0.6			Little red cinders, slag, loose, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
		(6-8')		9 11 12 14	23	0.8	1.1				
	585	(8-10')		6 6 2 3	8	0.9	7.5			Little green glass.	Type I Portland cement/5% bentonite grout 2.0' to 44.0' bgs
10		(10-12')		1 2 4 3	6	0.6	7.1			Loose, wet.	
	580	(12-14')		1 3 1 1	4	0.5	3.6				2-in diameter Sch. 40 PVC well casing 2.3' ags to 47.8' bgs
15		(14-16')		1 2	3	NR				No Recovery.	

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Remarks:
Stratigraphic description from 0-22' is from boring log MW-103 WT.
NA – Hand augered from 2.0-4.0' bgs.
NR – No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-103 S2

Total Depth = 84 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	3	NR				No Recovery.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
		(16-18')		2 3 5 3	8	0.1	2.7			Dark brown fine SAND and SILT, wet.	
	575	(18-20')		4 2 2 3	4	0.4	0.2			Brown SILT, some Clay, soft, wet.	
20		(20-22')		1 (12") 1 1	1	2.0	0.0			Dark gray SILT and CLAY, very soft, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 44.0' bgs
	570	(22-24')		11 4 1 1	5	1.1	0.0			Brown, soft, moist.	
25		(24-26')		3 1 WOH (12")	1	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 47.8' bgs
		(26-28')		3 1 WOH (12")	1	2.0	0.0				
	565	(28-30')		2 3 1 1	4	1.1	0.0				
30		(30-32')		2 4 1 1	5	1.6	0.0			Thin layer of marl.	
	560	(32-34')		2 6 7 7	13	1.1	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.	
35		(34-36')		19 14	25	NR				No recovery - PVC plug in tip of spoon.	

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Remarks:
Apparent Conductivity graph is off-scale from 0.0 to 0.8, 5.5 to 6.4, and 9.3 to 15 feet.
WOH - Weight of Hammer.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

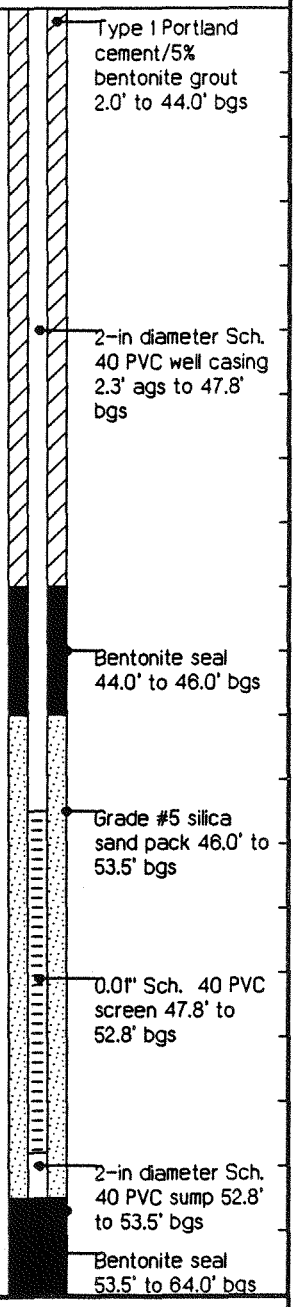
Client:
General Motors Corporation

Well No. MW-103 S2

Total Depth = 64 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		11 9	25	NR				No recovery.
		(36-38')		13 9 10 12	19	1.1	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.
	555	(38-40')		3 4 6 10	10	1.1	0.0			Dark brown, trace fine Gravel.
40		(40-42')		2 3 4 4	7	1.0	0.0			
	550	(42-44')		3 2 3 4	5	1.1	0.0			
45		(44-46')		2 4 4 4	8	1.2	0.0			
		(46-48')		1 8 9 10	17	1.1	0.0			Brown fine SAND, trace Silt, loose, wet. Brown fine to coarse SAND, trace fine Gravel and Silt, loose, wet. Some fine to coarse Gravel.
	545	(48-50')		2 4 13 23	17	1.3	0.0			Brown SILT, some Clay, soft, moist. Brown fine SAND, some Silt, loose, wet.
50		(50-52')		8 17 17 19	34	0.8	0.0			Brown fine to coarse SAND, some Silt, loose, wet. Brown fine SAND, some Silt, loose, wet.
	540	(52-54')		2 1 1 2	2	2.0	0.0			Gray brown SILT and CLAY, soft, moist.
55		(54-56')		1 1	2	1.5	0.0			

Well Construction



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Remarks:
Apparent Conductivity graph is off-scale at 42.5 feet
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-103 S2

Total Depth = 64 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		1 2	2	1.5	0.0			Gray brown SILT and CLAY, soft, moist.	
		(56-58')		1 1 1 1	2	2.0	0.0				
	535	(58-60')		WOH (12") 1 1	1	2.0	0.0				
60		(60-62')		WOH (12") 2 1	2	2.0	0.0				Bentonite seal 53.5' to 64.0' bgs
	530	(62-64')		WOH (12") 2 1	2	2.0	0.0				
65										Total depth of boring 64.0 ft. bgs	
	525										
70											
	520										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/21/97

Date Start-Finish: 01/23/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Ron Kuhn

Well No. MW-104 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		2 5 6 4	11	2.0	2.3			Brown fine to medium SAND, little Silt, trace fine Gravel, Clay, and glass, damp.	Concrete pad ground surface to 1.0' bgs
	(2-4')		2 3 3 2	6	1.4	4.0			No glass, orange staining, moist.	Type 1 portland cement/5% bentonite grout 1.0' to 3.0' bgs
5	(4-6')		1 0 1 6	1	NR	NA			No Recovery.	Bentonite seal 3.0' to 5.0' bgs
	(6-8')		WOH (18") 1	0	0.8	14.2			Black and orange fine to medium SAND, trace Silt, fine Gravel, and glass, damp.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 7.0' bgs
	(8-10')		0 1 1 1	2	1.8	6.8			Grades to black fine to medium SAND, trace Silt and glass, wet.	Grade #5 silica sand pack 5.0' to 17.4' bgs
10	(10-12')		WOH (12") 1 2	1	1.8	11.2			Saturated.	
	(12-14')		0 1 1 1	2	1.6	18.7			Black fine to medium SAND, trace Silt, saturated (slight sheen noticed).	0.01" Sch. 40 PVC screen 7.0' to 17.0' bgs
15	(14-16')		NA	NA	NR	NA			No Recovery.	

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Remarks:
WOH - Weight of Hammer.
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-104 WT

Total Depth = 18 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		NA	NA	NR	NA			No Recovery.	0.01" Sch. 40 PVC screen 7.0' to 17.0' bgs
	(16-18')		0 1 1 1	2	2.0	6.5			Black fine to medium SAND, trace Silt, saturated.	2-in diameter Sch. 40 PVC sump 17.0' to 17.4' bgs
									Gray Silty CLAY, very soft, wet.	Bentonite seal 17.4' to 18.0' bgs
									Total depth of boring 18.0 ft bgs.	
20										
25										
30										
35										

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Remarks:
WOH - Weight of Hammer.
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/12/95 - 05/12/95
Drilling Company: Mateco
Driller's Name: Rich
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38.4 ft.

Geologist: Ronald Kuhn

Well No. MW-104 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		2 5 6 4	11	2.0	2.3			Brown fine to medium SAND, little Silt, trace fine Gravel, Clay, and glass, damp. No glass, orange staining, moist.	Concrete pad ground surface to 1.0' bgs
	(2-4')		2 3 3 2	6	1.4	4.0				
5	(4-6')		1 0 1 6	1	NR	NA			No Recovery,	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
	(6-8')		WOH (18") 1	0	0.8	14.2			Black and orange fine to medium SAND, trace Silt, fine Gravel, and glass, damp. Grades to black fine to medium SAND, trace Silt and glass, wet.	
	(8-10')		0 1 1 1	2	1.8	6.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 7.0' bgs
10	(10-12')		WOH (12") 1 2	1	1.8	11.2			Saturated. Black fine to medium SAND, trace Silt, saturated.	
	(12-14')		0 1 1 1	2	1.6	18.7				Type 1 portland cement/5% bentonite grout 1.0' to 29.0' bgs
15	(14-16')		NR	NA	NR	NA			No Recovery.	

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Remarks:
Stratigraphic description from 0-18' bgs is from boring log MW-104 WT.
WOH - Weight of Hammer. NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-104 S1

Total Depth = 38.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		NR	NA	NR	NA			No Recovery.
	(16-18')		0 1 1 1	2	2.0	6.5			Black fine to medium SAND, trace Silt, saturated.
									Gray Silty CLAY, very soft, wet.
	(18-20')								Advanced surface seal casing to 22.0' bgs and drilled to that depth.
20	(20-22')								
	(22-24')		WOH (24")	0	2.0	0.0			Gray SILT and CLAY,very soft, moist. Fine Sand lenses.
25	(24-26')		WOH (18") 1	0	2.0	0.0			Fine Sand lenses.
	(26-28')		WOH (24")	0	2.0	0.0			
	(28-30')		WOH (18") 1	0	2.0	0.0			
30	(30-32')		WOH (24")	0	2.0	0.0			Fine Sand lenses. Trace organic material.
	(32-34')		WOH 4 4 6	8	2.0	0.0			Brown fine to coarse SAND, trace Silt, loose, wet, layers of Marl.
35	(34-36')		2 1	3	0.8	0.0			

Well Construction

- 10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 7.0' bgs
- Type I portland cement/5% bentonite grout 1.0' to 29.0' bgs
- Bentonite seal 29.0' to 31.0' bgs
- Grade #5 silica sand pack 31.0' to 38.4' bgs
- 0.01" Sch. 40 PVC screen 33.0' to 38.0' bgs

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Remarks:
Stratigraphic description from 18-38.4' bgs is from boring log MW-104 S2.
WOH - Weight of Hammer. NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-104 S1

Total Depth = 38.4 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2 3	3	0.8	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.	Grade #5 silica sand pack 31.0' to 38.4' bgs
	(36-38')		4 7 10 13	17	0.5	0.0				0.01" Sch. 40 PVC screen 33.0' to 38.0' bgs
	(38-38.4')		4			0.0			Brown fine to medium SAND, little Silt, loose, wet.	2-in diameter Sch. 40 PVC sump 38.0' to 38.4' bgs
									Total depth of boring 38.4 ft bgs.	
40										
45										
50										
55										

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Remarks:
Stratigraphic description from 18-38.4' bgs is from boring log MW-104 S2.
WOH - Weight of Hammer. NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/12/95 - 05/12/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Tim R. Osier

Well No. MW-104 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.67 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	590	(0-2')		2 5 6 4	11	2.0	2.3			Brown fine to medium SAND, little Silt, trace fine Gravel Clay, and glass, damp. No glass, orange staining, moist.	Concrete pad ground surface to 1.0' bgs
		(2-4')		2 3 3 2	6	1.4	4.0				
5		(4-6')		1 0 1 6	1	NR	NA			No Recovery.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
	585	(6-8')		WOH (18") 1	0	0.8	14.2			Black and orange fine to medium SAND, trace Silt, fine Gravel, and glass, damp. Grades to black fine to medium SAND, trace Silt and glass, wet.	
		(8-10')		0 1 1 1	2	1.8	6.8				2-in diameter Sch. 40 PVC well casing 1.8' ags to 45.0' bgs
10		(10-12')		WOH (12") 1 2	1	1.8	11.2			Saturated.	
	580	(12-14')		0 1 1 1	2	1.6	18.7			Black fine to medium SAND, trace Silt, saturated.	Type 1 portland cement/5% bentonite grout 1.0' to 41.5' bgs
15		(14-16')		NA	NA	NR	NA			No Recovery.	

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Remarks:
Stratigraphic description from 0-18' bgs is from boring log MW-104 WT. NR - No Recovery. WOH - Weight of Hammer. NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-104 S2

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		NA	NA	NR	NA			No Recovery.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
	575	(16-18')		0 1 1 1	2	2.0	6.5			Black fine to medium SAND, trace Silt, saturated.	
										Gray Silty CLAY, very soft, wet.	
		(18-20')								Advanced surface seal casing to 22.0' bgs and drilled to that depth.	
20											2-in diameter Sch. 40 PVC well casing 1.8' ags to 45.0' bgs
		(20-22')									
	570										
		(22-24')		WOH (24")	0	2.0	0.0			Gray SILT and CLAY, very soft, moist. Fine Sand lenses.	
25		(24-26')		WOH (18") 1	0	2.0	0.0			Fine Sand lenses.	Type 1 portland cement/5% bentonite grout 1.0' to 41.5' bgs
	565	(26-28')		WOH (24")	0	2.0	0.0				
		(28-30')		WOH (18") 1	0	2.0	0.0				
30		(30-32')		WOH (24")	0	2.0	0.0			Fine Sand lenses. Trace organic material.	
	560	(32-34')		WOH 4 4 6	8	2.0	0.0			Brown fine to coarse SAND, trace Silt, loose, wet, layers of Marl.	
35		(34-36')		2 1	3	0.8	0.0				

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Remarks:
Apparent Conductivity graph is off-scale from 12.1 to 13.5 feet.
WOH - Weight of Hammer. NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-104 S2

Total Depth = 60 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		2 3	3	0.8	0.0			Brown fine to coarse SAND, trace Silt, loose, wet.
	555	(36-38')		4 7 10 13	17	0.5	0.0			
		(38-40')		4 7 10 13	17	NA	0.0			Brown fine to medium SAND, little Silt, loose, wet.
40		(40-42')		4 7 10 10	17	0.9	0.0			Little coarse SAND.
	550	(42-44')		5 6 8 10	14	1.1	0.0			
		(44-46')		3 6 11 19	17	1.2	0.0			Trace fine to medium Gravel.
45	545	(46-48')		11 13 12 8	25	1.1	0.0			
		(48-50')		2 3 4 6	7	1.1	0.0			
50		(50-52')		2 2 3 3	5	1.8	0.0			Brown SILT, some Clay, soft, moist.
	540	(52-54')		2 2 2 2	4	2.0	0.0			Brown CLAY, trace Silt, soft, moist. Grades to a Gray color.
55		(54-56')		2 2	4	2.0	0.0			

Well Construction

- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 45.0' bgs
- Type I portland cement/5% bentonite grout 1.0' to 41.5' bgs
- Bentonite seal 41.5' to 42.5' bgs
- Grade #5 silica sand pack 42.5' to 50.7' bgs
- 0.01" Sch. 40 PVC screen 45.0' to 50.0' bgs
- 2-in diameter Sch. 40 PVC sump 50.0' to 50.7' bgs
- Bentonite seal 50.7' to 60.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-104 S2

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		2 2	4	2.0	0.0			Brown CLAY, trace Silt, soft, moist.	
	535	(56-58')		WOH (12") 2 3	2	2.0	0.0				Bentonite seal 50.7' to 60.0' bgs
		(58-60')		2 1 1 1	2	2.0	0.0				
60										Total depth of boring 60.0 ft bgs.	
	530										
65											
	525										
70											
	520										
75											

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Remarks:
Apparent Conductivity graph is off-scale at 46.4 feet.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/18/95 – 01/23/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28.0 ft.

Geologist: Ron Kuhn

Well No. MW-105 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		5 2 3 4	5	1.4	0.2			Brown SILT, some fine to medium Sand, trace fine to medium Gravel, trace Clay, soft, damp.	Concrete pad ground surface to 1.5' bgs
	(2-4')		3 7 15 9	22	1.8	15.8				Bentonite seal 1.5' to 3.0' bgs
5	(4-6')		2 2 2 2	4	0.6	0.7			Black SILT, some fine to medium Sand, soft, moist to wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 5.0' bgs
	(6-8')		1 1 2 3	3	0.6	6.8			Little fine to medium Gravel, trace Clay.	0.01" Sch. 40 PVC screen 5.0' to 15.0' bgs
	(8-10')		3 6 1 1	7	1.2	19.6			Black fine to medium SAND, little Silt, loose, saturated.	Grade #5 silica sand pack 3.0' to 16.0' bgs
10	(10-12')		1 2 1 1	3	1.6	39.6			Trace shell fragments.	
	(12-14')		2 6 0 0	6	1.4	25.6			Black SILT, trace fine Sand and fine to medium Gravel, loose, saturated.	
15	(14-16')		1 1	2	1.4	4.3			Gray SILT, some Clay, soft, wet.	

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Remarks:
Soil descriptions taken from boring log MW-105 S2.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 WT

Total Depth = 28.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	1.4	4.3			Gray SILT, some Clay, soft, wet.	2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs
	(16-18')		WOH (24")	0	2.0	3.9			Gray SILT and CLAY, trace shell fragments, soft, wet.	
	(18-20')		1 1 1 2	2	2.0	2.6				
20	(20-22')		0 1 1 2	2	2.0	1.3			No shell fragments.	Bentonite seal 16.0' to 28.0' bgs
	(22-24')		WOH (24")	0	2.0	1.2				
25	(24-26')		0 1 1 1	2	2.0	0.6				
	(26-28')		1 1 1 2	2	2.0	0.5				
									Total depth of boring 28.0 ft. bgs.	
30										
35										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 41.9 ft.

Geologist: Ron Kuhn

Well No. MW-105 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		5 2 3 4	5	1.4	0.2			Brown SILT, some fine to medium Sand, trace fine to medium Gravel trace clay, soft, damp.	Concrete pad ground surface to 1.0' bgs
	(2-4')		3 7 15 9	22	1.8	15.8				
5	(4-6')		2 2 2 2	4	0.8	0.7			Black SILT, some fine to medium Sand, soft, moist to wet.	Type 1 Portland cement/5% bentonite 1.0' to 34.5' bgs
	(6-8')		1 1 2 3	3	0.8	6.8			Little fine to medium Gravel, trace Clay.	
	(8-10')		3 6 1 1	7	1.2	19.6			Black fine to medium SAND, little Silt, loose, saturated.	
10	(10-12')		1 2 1 1	3	1.6	39.6			Trace shell fragments.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.5' bgs
	(12-14')		2 6 0 0	6	1.4	25.6			Black SILT, trace fine Sand and fine to medium Gravel, loose, saturated.	
15	(14-16')		1 1	2	1.4	4.3			Gray SILT, some CLAY, soft, wet.	

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Remarks:
Soil descriptions taken from boring log MW-105 S2.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 S1

Total Depth = 41.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	1.4	4.3			Gray SILT, some CLAY, soft, wet.	
	(16-18')		WOH (24")	0	2.0	3.9			Gray SILT and CLAY, trace shell fragments, soft, wet.	
	(18-20')		1 1 1 2	2	2.0	2.6				
20	(20-22')		0 1 1 2	2	2.0	1.3			No shell fragments.	Type 1 Portland cement/5% bentonite 1.0' to 34.5' bgs
	(22-24')		WOH (24")	0	2.0	1.2				
25	(24-26')		0 1 1 1	2	2.0	0.6				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.5' bgs
	(26-28')		1 1 1 2	2	2.0	0.5				
	(28-30')		NA NA NA NA	NA	NR	NA			No Recovery.	
30	(30-32')		2 2 2 2	4	1.6	0.0			Dark Brown SILT, trace Clay, trace fine Sand, trace roots, soft, wet.	
	(32-34')		WOH (12") 2 1	2	2.0	0.0			Gray SILT and CLAY, trace fine Sand, soft, wet.	
35	(34-36')		WOH (18")	0	2.0	0.0				

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Remarks:
WOH - Weight of Hammer
NR - No Recovery
NA - Augered from 28.0' TO 30.0' bgs.
Soil descriptions taken from boring log MW-105 S2.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 S1

Total Depth = 41.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		3	0	2.0	0.0			Gray SILT and CLAY, trace fine Sand, soft, wet.	Bentonite seal 34.5' to 36.0' bgs
	(36-38')		WOH (12") 4 6	4	2.0	0.0			Gray medium to coarse SAND, trace Gravel, very loose, saturated.	0.01" Sch. 40 PVC screen 36.5' to 41.5' bgs
	(38-40')		WOH (18") 3	0	2.0	0.0			Gray fine to medium SAND, trace shells, very loose, saturated.	Grade #5 silica sand pack 36.0' to 41.9' bgs
40	(40-42')		3 2 2 3	4	2.0	0.0				2-in diameter Sch. 40 PVC sump 41.5' to 41.9' bgs
									Total depth of boring 42.0 ft. bgs.	
45										
50										
55										

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Remarks:
WOH - Weight of Hammer
Soil descriptions taken from boring log MW-105 S2.

Water Levels

Date / Time	Elevation	Depth
		▼
		▽
		▽

Date Start-Finish: 01/18/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 58 ft.

Geologist: Ron Kuhn

Well No. MW-105 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 591.63 ft.										4-in diameter steel protective casing 2.0' ags, locking cap installed
										GROUND SURFACE	
	590	(0-2')		5 2 3 4	5	1.4	0.2			Brown SILT, some fine to medium Sand, trace fine to medium Gravel, trace Clay, soft, damp.	Concrete pad ground surface to 1.0' bgs
		(2-4')		3 7 15 9	22	1.8	15.8				
5		(4-6')		2 2 2 2	4	0.6	0.7			Black SILT, some fine to medium Sand, soft, moist to wet.	Type 1 Portland cement/5% bentonite 1.0' to 40.5' bgs
	585	(6-8')		1 1 2 3	3	0.6	6.8			Little fine to medium Gravel, trace Clay.	
		(8-10')		3 6 1 1	7	1.2	19.6			Black fine to medium SAND, little Silt, loose, saturated.	
10		(10-12')		1 2 1 1	3	1.6	39.6			Trace shell fragments.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 43.0' bgs
	580	(12-14')		2 6 0 0	6	1.4	25.6			Black SILT, trace fine Sand and fine to medium Gravel, loose, saturated.	
15		(14-16')		1 1	2	1.4	4.3			Gray SILT, some Clay, soft, wet.	

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Remarks:
Apparent Conductivity graph is off-scale at 2, 4, 9, and 13 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	2	1.4	4.3			Gray SILT, some Clay, soft, wet.	
	575	(16-18')		WOH (24")	0	2.0	3.9			Gray SILT and CLAY, trace shell fragments, soft, wet.	
		(18-20')		1 1 1 2	2	2.0	2.6				
20		(20-22')		0 1 1 2	2	2.0	1.3			No shell fragments.	Type 1 Portland cement/5% bentonite 1.0' to 40.5' bgs
	570	(22-24')		WOH (24")	0	2.0	1.2				
25		(24-26')		0 1 1 1	2	2.0	0.6				2-in diameter Sch. 40 PVC well casing 1.8' ags to 43.0' bgs
	565	(26-28')		1 1 1 2	2	2.0	0.5				
		(28-30')		NA NA NA NA	NA	NR	NA			No Recovery.	
30		(30-32')		2 2 2 2	4	1.6	0.0			Dark Brown SILT, trace Clay, trace fine Sand, trace roots, soft, wet.	
	560	(32-34')		WOH (12") 2 1	2	2.0	0.0			Gray SILT and CLAY, trace fine Sand, soft, wet.	
35		(34-36')		WOH (18")	0	2.0	0.0				

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Remarks:
WOH - Weight of Hammer
NR - No Recovery
NA - Augered from 28.0' TO 30.0' bgs.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		3	0	2.0	0.0			Gray SILT and CLAY, trace fine Sand, soft, wet.
	555	(36-38')		WOH (12") 4 6	4	2.0	0.0			Gray medium to coarse SAND, trace Gravel, very loose, saturated.
		(38-40')		WOH (18") 3	0	2.0	0.0			Gray fine to medium SAND, trace shells, very loose, saturated.
40		(40-42')		3 2 2 3	4	2.0	0.0			
	550	(42-44')		WOH (12") 2 3	5	1.6	0.0			
45		(44-46')		2 1 4 5	5	1.6	0.0			
	545	(46-48')		2 7 12 10	19	1.6	0.0			
		(48-50')		5 6 5 6	11	1.8	0.0			Gray CLAY, little Silt, medium stiff, wet.
50		(50-52')		3 3 5 6	8	1.6	0.0			
	540	(52-54')		0 1 2 2	3	2.0	0.0			
55		(54-56')		WOH (18")	0	2.0	0.0			

Well Construction

- Type 1 Portland cement/5% bentonite 1.0' to 40.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 43.0' bgs
- Bentonite seal 40.5' to 42.5' bgs
- 0.01" Sch. 40 PVC screen 43.0' to 48.0' bgs
- Grade #5 silica sand pack 42.5' to 48.6' bgs
- 2-in diameter Sch. 40 PVC sump 48.0' to 48.4' bgs
- Bentonite seal 48.6' to 58.0' bgs

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-105 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		3	0	2.0	0.0			Gray CLAY, little Silt, medium stiff, wet.	Bentonite seal 48.6' to 58.0' bgs
	535	(56-58')		WOH (18") 3	0	2.0	0.0				
60										Total depth of boring 58.0 ft. bgs.	
	530										
65											
	525										
70											
	520										
75											

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/17/95 - 01/18/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.4 ft.

Geologist: Ron Kuhn

Well No. MW-106 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
	(0-2')		4 10 14 15	24	2.0	7.1			Black fine to medium SAND, trace Silt and fine Gravel, medium dense, damp.	Concrete pad ground surface to 1.0' bgs
	(2-4')		5 9 13 11	22	2.0	3.0				Type I Portland cement/5% bentonite grout 1.0' to 4.0' bgs
5	(4-6')		3 4 4 4	8	2.0	2.2			Loose.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 8.0' bgs
	(6-8')		2 2 3 2	5	2.0	0.9			Trace shells.	Bentonite seal 4.0' to 6.0' bgs
	(8-10')		0 1 1 2	2	1.8	0.7			Wet.	Grade #5 silica sand pack 6.0' to 13.0' bgs
10	(10-12')		WOH (12") 1 2	1	1.8	0.7			Black fine to medium SAND, little Silt, trace fine Gravel and shells, very loose, saturated.	0.01" Sch. 40 PVC screen 8.0' to 13.0' bgs
	(12-14')		1 (12") 1 (12")	1	2.0	0.7			Brown SILT, little fine Sand, trace Clay, very soft, wet.	
15									Total depth of boring 13.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 13.0' to 13.4' bgs

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Remarks:
Soil description taken from boring log MW-106 S2.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/21/97

Date Start-Finish: 01/17/95 - 01/18/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 19.4 ft.

Geologist: Ron Kuhn

Well No. MW-108 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		4 10 14 15	24	2.0	7.1			Black fine to medium SAND, trace Silt andace fine Gravel, medium dense, damp.	Concrete pad ground surface to 1.0' bgs
		(2-4')		5 9 13 11	22	2.0	3.0				
5		(4-6')		3 4 4 4	8	2.0	2.2			Loose.	Type I Portland cement/5% bentonite grout 1.0' to 15.0' bgs
		(6-8')		2 2 3 2	5	2.0	0.9			Trace shells.	
		(8-10')		0 1 1 2	2	1.8	0.7			Wet.	
10		(10-12')		WOH (12") 1 2	1	1.8	0.7			Black fine to medium SAND, little Silt, trace fine Gravel and shells, very loose, saturated.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 16.5' bgs
		(12-14')		1 (12") 1 (12")	1	2.0	0.7			Brown SILT, little fine Sand, trace Clay, very soft, wet.	
15		(14-16')		0 1	2	1.6	0.8				

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Remarks:
Soil description taken from boring log MW-108 S2.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-106 S1

Total Depth = 19.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	1.6	0.8			Brown SILT, little fine Sand, trace Clay, very soft, wet.	Bentonite seal 15.0' to 16.0' bgs
	(16-18')		1 (18") 1	1	2.0	0.6			Brown fine SAND, some Silt, very loose, saturated.	Grade #5 silica sand pack 16.0' to 19.0' bgs
	(18-20')		1 (18") 2	2	1.2	0.7			Brown fine to medium SAND, little Silt, saturated.	0.01" Sch. 40 PVC screen 16.5' to 19.0' bgs
20									Total depth of boring 19.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 19.0' to 19.4 bgs
25										
30										
35										

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Remarks:
Soil description taken from boring log MW-106 S2.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/17/95 - 01/18/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 36 ft.

Geologist: Ron Kuhn

Well No. MW-108 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.70 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
	590	(0-2')		4 10 14 15	24	2.0	7.1			Black fine to medium SAND, trace Silt and fine Gravel, medium dense, damp.	Concrete pad ground surface to 1.0' bgs
		(2-4')		5 9 13 11	22	2.0	3.0				
5		(4-6')		3 4 4 4	8	2.0	2.2			Loose.	Type 1 Portland cement/5% bentonite grout 1.0' to 20.0' bgs
	585	(6-8')		2 2 3 2	5	2.0	0.9			Trace shells.	
		(8-10')		0 1 1 2	2	1.8	0.7			Wet.	
10	580	(10-12')		WOH (12") 1 2	1	1.8	0.7			Black fine to medium SAND, little Silt, trace fine Gravel and shells, very loose, saturated.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 23.0' bgs
		(12-14')		1 (12") 1 (12")	1	2.0	0.7			Brown SILT, little fine Sand, trace Clay, very soft, wet.	
15		(14-16')		0 1	2	1.6	0.8				

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S2

Total Depth = 36 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		1 2	2	1.6	0.8			Brown SILT, little fine Sand, trace Clay, very soft, wet.	
		(16-18')		1 (18") 1	1	2.0	0.6			Brown fine SAND, some Silt, very loose, saturated.	Type 1 Portland cement/5% bentonite grout 1.0' to 20.0' bgs
		(18-20')		1 (18") 2	1	1.2	0.7			Brown fine to medium SAND, little Silt, saturated.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 23.0' bgs
20	570	(20-22')		1 (12") 1 2	1	1.4	0.7			Brown fine to medium SAND, saturated. Trace shells.	Bentonite seal 20.0' to 21.0' bgs
		(22-24')		2 1 3 3	4	1.6	0.6				Grade #5 silica sand pack 21.0' to 26.0' bgs
25		(24-26')		WOH (12") 1 1	1	2.0	0.7				0.01" Sch. 40 PVC screen 23.0' to 25.5' bgs
	565	(26-28')		1 1 1 1	2	1.6	0.6			Gray CLAY, some Silt, trace fine Sand, soft, wet. No fine Sand.	2-in diameter Sch. 40 PVC sump 25.5' to 25.9' bgs
		(28-30')		1 (12") 1 1	1	1.8	0.8				
30	560	(30-32')		WOH (24")	0	2.0	0.8				Bentonite seal 26.0' to 36.0' bgs
		(32-34')		0 1 1 1	2	2.0	0.8				
35		(34-36')		2 2	3	2.0	0.8				

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-106 S2

Total Depth = 36 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	555	(34-36')		1 1	3	2.0	0.8			Gray SILT and CLAY, trace fine Sand, soft, wet.	Bentonite seal 26.0' to 36.0' bgs
										Total depth of boring 36.0 ft. bgs.	
40	550										
45	545										
50	540										
55											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 12/22/94 - 12/23/94
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 9.25 ft.

Geologist: James Saxton

Well No. MW-107 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
									GROUND SURFACE	
	(0-2')		5 7 10 10	17	0.5	NA			Black SILT and fine SAND, trace roots, loose. Black medium to coarse SAND, trace fine to medium Gravel, loose, moist.	Concrete pad ground surface to 1.0' bgs
	(2-4')		6 6 5 5	11	1.2	NA			Black and orange very fine SAND, loose, moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 4.0' bgs Bentonite seal 1.0' to 3.0' bgs
5	(4-6')		5 4 3 2	7	0.25	NA			Black medium SAND, trace fine Gravel, loose, wet at tip of sampler.	0.01" slotted Sch. 40 PVC screen from 4.0' to 9.0' bgs
	(6-8')		9 10 13 13	23	2.0	NA			Black medium to coarse SAND, little Silt, medium dense, wet.	Grade #5 silica sand pack from 3.0' to 9.25' bgs
	(8-10')		4 2 2 1	4	2.0	NA			Gray SILT, some Clay, very soft.	2-in diameter Sch. 40 PVC sump 9.0' to 9.25' bgs
10									Total depth of boring 9.25 ft. bgs.	
15										

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Remarks:
Soil descriptions taken from boring log MW-107 S2.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 12/22/94 - 12/22/94
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 17.75 ft.

Geologist: James Saxton

Well No. MW-107 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
	(0-2')		5 7 10 10	17	0.5	NA			Black SILT and fine SAND, trace roots, loose. Black medium to coarse SAND, trace fine to medium Gravel, loose, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		6 6 5 5	11	1.2	NA			Black and orange very fine SAND, loose, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 9.0' bgs
5	(4-6')		5 4 3 2	7	0.25	NA			Black medium SAND, trace fine Gravel, loose, wet at tip of sampler.	
	(6-8')		9 10 13 13	23	2.0	NA			Black medium to coarse SAND, little Silt, medium dense, wet.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 12.5' bgs
	(8-10')		4 2 2 1	4	2.0	NA			Gray SILT, some Clay, very soft.	
10	(10-12')		2 2 1 1	3	1.0	NA				Bentonite seal 9.0' to 11.0' bgs
	(12-14')		WOH (12") 1 2	1	0.5	NA			Gray fine to medium SAND, some Silt, very loose, wet.	0.01" slotted Sch. 40 PVC screen 12.5' to 17.5' bgs
15	(14-16')		2 2	4	0.8	NA				

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Remarks:
Soil descriptions taken from boring log MW-107 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-107 S1

Total Depth = 17.75 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	4	0.8	NA			Gray fine to medium SAND, some Silt, very loose, wet.	Grade #5 silica sand pack 11.0' to 17.75' bgs
	(16-18')		2 3 4 5	7	0.7	NA			Gray fine SAND, trace Silt, very loose, wet.	2-in diameter Sch. 40 PVC sump 17.5' to 17.75' bgs
									Total depth of boring 17.75 ft. bgs.	
20										
25										
30										
35										

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Remarks:
Soil descriptions taken from boring log MW-107 S2.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 12/22/94 – 12/22/94
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 40 ft.

Geologist: James Saxton

Well No. MW-107 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 589.02 ft.										4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
										GROUND SURFACE	
		(0-2')		5 7 10 10	17	0.5	NA			Black SILT and fine SAND, trace roots, loose. Black medium to coarse SAND, trace fine to medium Gravel, loose, moist.	Concrete pad ground surface to 2.5' bgs
		(2-4')		6 6 5 5	11	1.2	NA			Black and orange very fine SAND, loose, moist.	
	585										Type 1 Portland cement/5% bentonite grout 2.5' to 16.5' bgs
5		(4-6')		5 4 3 2	7	0.25	NA			Black medium SAND, trace fine Gravel, loose, wet at tip of sampler.	
		(6-8')		9 10 13 13	23	2.0	NA			Black medium to coarse SAND, little Silt, medium dense, wet. Slight odor.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 21.33' bgs
	580	(8-10')		4 2 2 1	4	2.0	NA			Gray SILT, some Clay, very soft, slight odor.	
10		(10-12')		2 2 1 1	3	1.0	NA				
		(12-14')		WOH (12") 1 2	1	0.5	NA			Gray fine to medium SAND, some Silt, very loose, wet.	
	575										
15		(14-16')		2 2	4	0.8	NA				

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Remarks:
WOH – Weight of Hammer.
NA – Not Available.
Apparent Conductivity graph is off-scale from 0.0 to 1.4 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-107 S2

Total Depth = 40 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 2	4	0.8	NA			Gray fine to medium SAND, some Silt, very loose, wet.	Type I Portland cement/5% bentonite grout 2.5' to 16.5' bgs
		(16-18')		2 3 4 5	7	0.7	NA			Gray fine SAND, trace Silt, very loose, wet.	Bentonite seal 16.5' to 19.0' bgs
	570	(18-20')		2 4 5 6	9	1.0	NA				
20		(20-22')		4 5 7 6	12	1.3	NA			Trace shell fragments.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 21.33' bgs
		(22-24')		3 4 5 7	9	0.7	NA				0.01" slotted Sch. 40 PVC screen 21.33' to 26.33' bgs
	565	(24-26')		4 4 5 6	9	1.0	NA				Grade #5 silica sand pack 19.0' to 27.0' bgs
25		(26-28')		WOH 1 1 1	2	2.0	NA			Gray CLAY, some Silt, some very fine Sand, very soft, wet.	2-in diameter Sch. 40 PVC sump 26.33' to 26.58' bgs
	560	(28-30')		WOH (12") 1 1	1	1.0	NA				
30		(30-32')		WOH (24")	0	1.5	NA			Trace very fine Sand.	Bentonite seal 27.0' to 40.0 bgs
		(32-34')		WOH (24")	0	2.0	NA			Occasional 0.12" to 0.25" thick Sand seams, moist.	
	555	(34-36')		WOH (18")	0	2.0	NA				
35											

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-107 S2

Total Depth = 40 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		2	0	2.0	NA			Gray CLAY, some Silt, some very fine Sand, very soft, wet.	Bentonite seal 27.0' to 40.0 bgs
		(36-38')		WOH (12") 2 2	2	1.5	NA			Little very fine Sand.	
	550	(38-40')		WOH (24")	0	2.0	NA				
40										Total depth of boring 40.0 ft. bgs.	
	545										
45											
	540										
50											
	535										
55											

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 12/20/94 - 12/20/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8.25 ft.

Geologist: James Saxton

Well No. MW-108 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
	(0-2')		2 4 7 7	11	0.8	NA			Black SILT, some fine Sand, loose. Black and red very fine SAND, trace slag, loose, moist.	Concrete pad ground surface to 1.5' bgs
	(2-4')		3 2 1 1	3	1.5	NA			Black fine SAND, little Clay, very loose, wet.	Bentonite seal 1.5' to 2.5' bgs 2-in diameter Sch. 40 PVC well casing 2.1' ags to 3.0' bgs
5	(4-6')		1 1 1 1	2	2.0	NA				0.01" slotted Sch. 40 PVC screen 3.0' to 8.0' bgs
	(6-8')		2 1 1 1	2	1.3	NA			Light gray SILT, little Clay, very soft, wet.	Grade #5 silica sand pack from 2.5' to 8.25' bgs
	(8-10')		1 1 1 1	2	1.3	NA			Dark gray fine SAND, little Silt, loose, wet. Total depth of boring 8.75 ft. bgs.	2-in. diameter Sch. 40 PVC sump 8.0' to 8.25' bgs
10										
15										

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Remarks:
Soil descriptions taken from boring log MW-108 S2.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 12/20/94 - 12/20/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14 ft.

Geologist: James Saxton

Well No. MW-108 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
	(0-2')		2 4 7 7	11	0.8	NA			Black SILT, some fine Sand, loose. / Black and red very fine SAND, trace slag, loose, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 2 1 1	3	1.5	NA			Black fine SAND, little Clay, very loose, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 5.0' bgs
5	(4-6')		1 1 1 1	2	2.0	NA				
	(6-8')		2 1 1 1	2	1.3	NA			Light gray SILT, little Clay, very soft, wet.	Bentonite seal 5.0' to 7.9' bgs
	(8-10')		1 1 1 1	2	1.3	NA			Dark gray fine SAND, little Silt, loose, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 8.7' bgs
10	(10-12')		WOH 1 1 1	2	0.3	NA				0.01" slotted Sch. 40 PVC screen 8.7' to 13.7' bgs
	(12-14')		WOH (24")	0	1.0	NA				Grade #5 silica sand pack 7.9' to 14.0' bgs
									Total depth of boring 14.0 ft bgs.	2-in. diameter Sch. 40 PVC sump 13.7' to 13.95' bgs
15										

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Remarks:
Soil descriptions taken from boring log MW-108 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 12/21/94 - 12/21/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 40 ft.

Geologist: James Saxton

Well No. MW-108 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
	(0-2')		2 4 7 7	11	0.8	NA			Black SILT, some fine Sand, loose. / Black and red very fine SAND, trace slag, loose, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 2 1 1	3	1.5	NA			Black fine SAND, little Clay, very loose, wet.	
5	(4-6')		1 1 1 1	2	2.0	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 18.0' bgs
	(6-8')		2 1 1 1	2	1.3	NA			Light gray SILT, little Clay, very soft, wet.	
	(8-10')		1 1 1 1	2	1.3	NA			Dark gray fine SAND, little Silt, loose, wet.	
10	(10-12')		WOH 1 1 1	2	0.3	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 22.8 bgs
	(12-14')		WOH (24")	0	1.0	NA				
15	(14-16')		1 1	2	2.0	NA			Little organic matter.	

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Remarks:
MDNR sample taken at 2.0' and 6.0' bgs.
WOH - Weight of Hammer
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S2

Total Depth = 40 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	2.0	NA			Gray fine to medium SAND, trace Silt, very loose, wet.	Type I Portland cement/5% bentonite grout 2.0' to 18.0' bgs
	(16-18')		NA NA NA NA	NA	1.4	NA			Dark gray medium to coarse SAND, trace green glass-like particles.	
	(18-20')		1 1 1 1	2	1.0	NA			No glass-like particles.	Bentonite seal 18.0' to 20.0' bgs
20	(20-22')		1 2 4 4	6	1.2	NA				
	(22-24')		3 4 6 6	10	1.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 22.8' bgs
25	(24-26')		3 4 4 5	8	1.0	NA				0.01" slotted Sch. 40 PVC screen 22.8' to 27.8' bgs
	(26-28')		2 3 4 4	7	2.0	NA				Grade #5 silica sand pack 20.0' to 28.3' bgs
	(28-30')		WOH 1 1 1	2	1.0	NA			Gray SILT, some Clay, trace shell fragments, soft Gray CLAY, some Silt, very loose, wet.	2-in. diameter Sch. 40 PVC sump 27.8' to 28.05' bgs Grade #7 silica sand 28.3' to 29.0' bgs
30	(30-32')		1 1 1 1	2	0.8	NA				Bentonite seal 29.0' to 30.0' bgs
	(32-34')		WOH (24")	0	2.0	NA			Trace shell fragments, moist.	Type I Portland cement/5% bentonite grout 30.0' to 40.0' bgs
35	(34-36')		WOH (24")	0	2.0	NA				

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Remarks:
WOH - Weight of Hammer
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
		▽
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-108 S2

Total Depth = 40 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')			0	2.0	NA			Gray CLAY, some Silt, very loose, wet.	Type 1 Portland cement/5% bentonite grout 30.0' to 40.0' bgs
	(36-38')		WOH 1 1 1	2	2.0	NA			A 0.5" gray fine to medium Sand seam (Does not appear to be water bearing).	
	(38-40')		1 1 1 1	2	2.0	NA			Occasional 0.12" to 0.25" Sand seams.	
40									Total depth of boring 40.0 ft bgs.	
45										
50										
55										

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Remarks:
WOH - Weight of Hammer
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/12/94 - 06/12/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 855 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 45.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-108 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
									GROUND SURFACE	
	(0-2')		2 4 7 7	11	0.8	NA			Black SILT, some fine Sand, loose. Black and red very fine SAND, trace slag, loose, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 2 1 1	3	1.5	NA			Black fine SAND, little Clay, very loose, wet.	
5	(4-6')		1 1 1 1	2	2.0	NA				10-in diameter Sch. 40 PVC surface seal casing ground surface to 26.0' bgs
	(6-8')		2 1 1 1	2	1.3	NA			Light gray SILT, little Clay, very soft, wet.	
	(8-10')		1 1 1 1	2	1.3	NA			Dark gray fine SAND, little Silt, loose, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 36.0' bgs
10	(10-12')		WOH 1 1 1	2	0.3	NA				
	(12-14')		WOH (24")	0	1.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 39.8' bgs
	(14-16')		1 1	2	2.0	NA			Little organic matter.	
15										

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Remarks:
Soil descriptions from 0.0' to 40.0' bgs were taken from boring log MW-108 S2 and 40.0' to 45.5' bgs were taken from boring log MW-108 S4. NA - Not Available.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S3

Total Depth = 45.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	2.0	NA			Gray fine to medium SAND, trace Silt, very loose, wet.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 26.0' bgs
	(16-18')		NA NA NA NA	NA	1.4	NA			Dark gray medium to coarse SAND, trace green glass-like particles.	
	(18-20')		1 1 1 1	2	1.0	NA			No glass-like particles.	
20	(20-22')		1 2 4 4	6	1.2	NA				
	(22-24')		3 4 6 6	10	1.0	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 36.0' bgs
25	(24-26')		3 4 4 5	8	1.0	NA				
	(26-28')		2 3 4 4	7	2.0	NA				
	(28-30')		WOH 1 1 1	2	1.0	NA			Gray SILT, some Clay, trace shell fragments, soft. Gray CLAY, some Silt, very loose, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 39.8' bgs
30	(30-32')		1 1 1 1	2	0.8	NA			Trace shell fragments, moist.	
	(32-34')		WOH (24")	0	2.0	NA				
35	(34-36')		WOH (24")	0	2.0	0.0				

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S3

Total Depth = 45.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')			0	2.0	0.0			Gray CLAY, some Silt, very loose, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 39.8' bgs
	(36-38')		WOH 1 1 1	2	2.0	0.0				Bentonite seal 36.0' to 38.0' bgs
	(38-40')		1 1 1 1	2	2.0	0.0			A 0.5" gray fine to medium Sand seam (Does not appear to be water bearing). Dark CLAY and SILT, soft, moist.	
40	(40-42')		6 4 4 4	8	1.4	0.0			Gray fine to medium SAND, trace Silt, loose, saturated. Trace shells.	Grade #5 silica sand pack 38.0' to 45.5' bgs
	(42-44')		3 4 3 3	7	1.45	0.0			Trace organic material.	0.01" slotted Sch. 40 PVC screen 39.8' to 44.8' bgs
45	(44-46')		3 1 2 4	3	1.6	0.0			Total depth of boring 45.5 ft bgs.	2-in. diameter Sch. 40 PVC sump 44.8' to 45.2' bgs
50										
55										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/01/94 - 06/01/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 855 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Ronald D. Kuhn

Well No. MW-108 S4

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed
									GROUND SURFACE	
	(0-2')		2 4 7 7	11	0.8	NA			Black SILT, some fine Sand, loose. Black and red very fine SAND, trace slag, loose, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 2 1 1	3	1.5	NA			Black fine SAND, little Clay, very loose, wet.	
5	(4-6')		1 1 1 1	2	2.0	NA				10-in diameter Sch. 40 PVC surface seal casing ground surface to 26.0' bgs
	(6-8')		2 1 1 1	2	1.3	NA			Light gray SILT, little Clay, very soft, wet.	
	(8-10')		1 1 1 1	2	1.3	NA			Dark gray fine SAND, little Silt, loose, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.0' bgs
10	(10-12')		WOH 1 1 1	2	0.3	NA				
	(12-14')		WOH (24")	0	1.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 45.0' bgs
15	(14-16')		1 1	2	2.0	NA			Little organic matter.	

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Remarks:
Soil descriptions from 0.0' to 40.0' bgs are taken from boring log MW-108 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S4

Total Depth = 80 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	2.0	NA			Gray fine to medium SAND, trace Silt, very loose, wet.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 26.0' bgs
	(16-18')		NA NA NA NA	NA	1.4	NA			Dark gray medium to coarse SAND, trace green glass-like particles.	
	(18-20')		1 1 1 1	2	1.0	NA			No glass-like particles.	
20	(20-22')		1 2 4 4	6	1.2	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 41.0' bgs
	(22-24')		3 4 6 6	10	1.0	NA				
25	(24-26')		3 4 4 5	8	1.0	NA				
	(26-28')		2 3 4 4	7	2.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 45.0' bgs
	(28-30')		WOH 1 1 1	2	1.0	NA			Gray SILT, some Clay, trace shell fragments, soft. Gray CLAY, some Silt, very loose, wet.	
30	(30-32')		1 1 1 1	2	0.8	NA			Trace shell fragments, moist.	
	(32-34')		WOH (24")	0	2.0	NA				
35	(34-36')		WOH (24")	0	2.0	0.0				

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-108 S4

Total Depth = 60 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')			0	2.0	0.0			Gray CLAY, some Silt, very loose, wet.	Type I Portland cement/5% bentonite grout 2.0' to 41.0' bgs
	(36-38')		WOH 1 1 1	2	2.0	0.0			A 0.5" gray fine to medium Sand seam (Does not appear to be water bearing).	
	(38-40')		1 1 1 1	2	2.0	0.0			Dark CLAY and SILT, soft, moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 45.0' bgs
40	(40-42')		6 4 4 4	8	1.4	0.0			Gray fine to medium SAND, trace Silt, loose, saturated. Trace shells.	Bentonite seal 41.0' to 43.0' bgs
	(42-44')		3 4 3 3	7	1.45	0.0			Trace organic material.	
45	(44-46')		3 1 2 4	3	1.6	0.0				Grade #5 silica sand pack 43.0' to 51.0' bgs
	(46-48')		5 17 18 8	35	1.6	0.0			Gray fine to coarse SAND and fine to medium GRAVEL, trace SIlt, dense, saturated.	0.01" slotted Sch. 40 PVC screen 45.0' to 50.0' bgs
	(48-50')		6 3 3 4	6	NR	NA			No Recovery.	
50	(50-52')		3 1 4 4	5	1.6	0.0			Gray CLAY and SILT, trace coarse Sand, medium stiff, moist.	2-in. diameter Sch. 40 PVC sump 50.0' to 50.4' bgs
	(52-54')		5 3 5 4	8	2.0	0.0			Soft, moist to wet.	Bentonite seal 51.0' to 60.0' bgs
	(54-56')		1 3	8	1.6	0.0				
55										

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Remarks:
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-108 S4

Total Depth = 60 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(54-56')		5 6	8	1.6	0.0			Gray CLAY and SILT, trace coarse Sand, soft, moist to wet.	
	(56-58')		2 2 2 2	4	2.0	0.0			Gray CLAY, some SIlt, very soft, high plasticity.	Bentonite seal 51.0' to 60.0' bgs
	(58-60')		3 2 3 3	5	2.0	0.0				
60									Total depth of boring 60.0 ft bgs.	
65										
70										
75										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/21/97

Date Start-Finish: 12/21/94 - 12/21/94
Drilling Company: Mateco
Driller's Name: Bob Dryer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 10 ft.

Geologist: James Saxton

Well No. MW-109 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 588.57 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed; Concrete pad ground surface to 1.5'
		(0-2')		2 3 3 4	6	2.0	NA			Black SILT, some very fine Sand, very loose.	2-in diameter Sch. 40 PVC well casing 1.8'ags to 3.0' bgs
										Black very fine Sand.	
										Trace slag and cinders.	Bentonite seal 1.5' to 2.5' bgs
	585	(2-4')		3 2 2 1	4	1.5	NA			Orange.	
										Trace cinders and glass particles, wet at tip of sampler.	0.01" slotted Sch. 40 PVC screen 3.0' to 8.0' bgs
5		(4-6')		1 2 3 4	5	0.7	NA			Gray coarse SAND, some Clay, very loose.	
		(6-8')		WOH (12") 1 1	1	1.5	NA			Dark gray fine SAND and SILT, loose, wet.	Grade #5 silica sand pack 2.5' to 10.0' bgs
	580	(8-10')		WOH (24")	0	1.7	NA			Dark gray SILT and CLAY, little organic material, very soft.	2-in diameter Sch. 40 PVC sump 8.0'bgs to 8.25' bgs
10										Gray SILT and SAND, little Clay, very soft, wet.	
										End of Boring @ 10 ft. bgs.	
	575										
15											

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Remarks:
WOH - Weight of Hammer. NA - Not Available. MDNR samples taken from 2-4 ft. bgs, 4-6 ft. bgs, and 8-10 ft. bgs. Apparent Conductivity graph is off-scale due to steel surface casing.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 12/21/94 - 12/21/94
Drilling Company: Mateco
Driller's Name: Bob Dryer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 10 ft.

Geologist: James Saxton

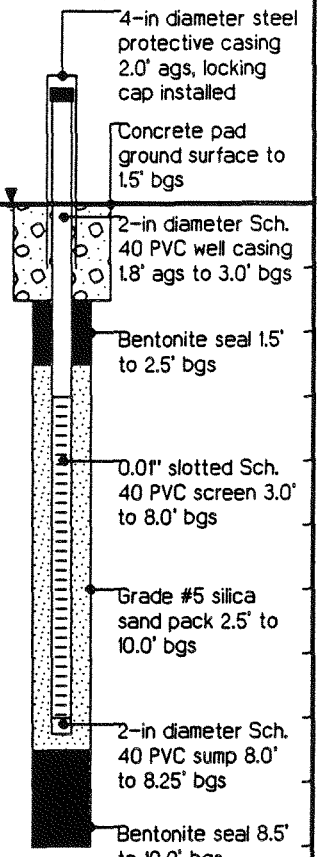
Well No. MW-110 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.										GROUND SURFACE
		(0-2')		3 4 18 18	22	0.8	NA			Black fine SAND, trace roots, medium dense, moist, concrete in tip of sampler.
		(2-4')		3 3 3 3	6	2.0	NA			
5		(4-6')		1 2 2 3	4	1.5	NA			Bronze colored from 4-4.5 ft. Wet.
		(6-8')		1 1 1 1	2	2.0	NA			Dark gray organic SILT, little Sand, very soft, several thin peaty layers.
		(8-10')		1 1 1 1	2	1.4	NA			Gray SILT and SAND, very soft, moist.
10										End of Boring @ 10 ft. bgs.
15										

Well Construction



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Remarks:
MDNR samples taken from 2.5-3 ft. bgs and 5-6 ft. bgs. NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/21/97

Date Start-Finish: 01/04/95 - 01/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 10.9 ft.

Geologist: Hillary Hollister-Hinge

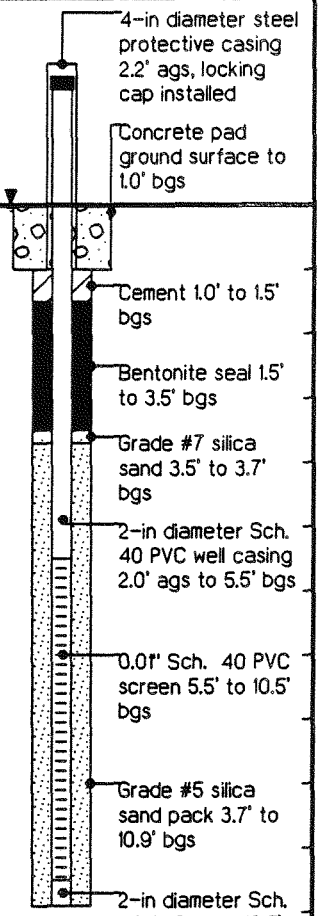
Well No. MW-111 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									GROUND SURFACE
	(0-2')		2 3 3 5	6	2.0	NA			Dark brown fine to medium SAND, trace coarse Sand, loose, dry.
	(2-4')		3 4 4 2	8	1.4	NA			Dark brown and green fine to coarse SAND, little red brown coarse Sand and fine Gravel, loose, dry.
5	(4-6')		1 2 2 1	4	1.5	NA			
	(6-8')		1 1 1 1	2	1.5	NA			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, wet at tip of sampler.
	(8-10')		1 (12") WOH 1	1	1.1	NA			A 0.01' lense of fine SAND, moist to wet.
10	(10-12')		WOH (12") 1 (12")	1	0	NA			Total depth of boring 10.9 ft. bgs.
15									

Well Construction



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Remarks:
Soil descriptions taken from Boring Log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/04/95 – 01/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25–in.
Rig Type: CME 75
Spoon Size: 2–in.
Hammer Weight: 140–lb
Height of Fall: 30–in.

Borehole Depth: 17.4 ft.

Geologist: Hillary Hollister–Hinge

Well No. MW–111 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0–2')		2 3 3 5	6	2.0	NA			Dark brown fine to medium SAND, trace coarse Sand, loose, dry.
	(2–4')		3 4 4 2	8	1.4	NA			Dark brown and green fine to coarse SAND, little red brown coarse Sand and fine Gravel, loose, dry.
5	(4–6')		1 2 2 1	4	1.5	NA			
	(6–8')		1 1 1 1	2	1.5	NA			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, wet at tip of sampler.
	(8–10')		1 (12") WOH 1	1	1.1	NA			A 0.01' lense of fine SAND, moist to wet.
10	(10–12')		WOH (12") 1 (12")	1	1.9	NA			
	(12–14')		1 (12") 2 1	2	1.8	NA			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, moist to wet.
	(14–16')		WOH (12")	0	1.8	NA			Gray very fine to fine SAND, trace shells, very loose, wet. Trace Silt, abundent shells.
15									

Well Construction

- 4–in diameter steel protective casing 2.0' ags, locking cap installed
- Concrete pad ground surface to 1.0' bgs
- Type 1 Portland cement/5% bentonite grout 1.0' to 9.5' bgs
- 2–in diameter Sch. 40 PVC well casing 1.8' ags to 12.0' bgs
- Bentonite seal 9.5' to 11.5' bgs
- Grade #7 silica sand 11.5' to 11.7' bgs
- 0.01" Sch. 40 PVC screen 12.0' to 17.0' bgs

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Remarks:
Soil descriptions taken from Boring Log MW–111 S2.
WOH – Weight of Hammer.
NA – Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-111 S1

Total Depth = 17.4 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 (12")	0	1.8	NA			Gray very fine to fine SAND, trace Silt, very loose, wet, abundent shells.	Grade #5 silica sand pack 11.7' to 17.4' bgs
	(16-18')		WOH 1 (12") 1	1	1.6	NA			Total depth of boring 17.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 17.0' to 17.4' bgs
20										
25										
30										
35										

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Remarks:
Soil descriptions taken from Boring Log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/04/95 - 01/07/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: Hillary Hollister-Hinge

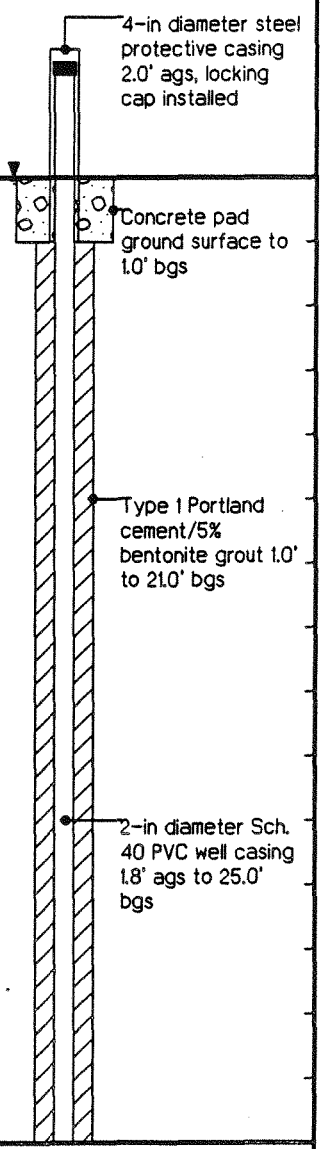
Well No. MW-111 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		2 3 3 5	6	2.0	NA			Dark brown fine to medium SAND, trace coarse Sand, loose, dry.
	(2-4')		3 4 4 2	8	1.4	NA			Dark brown and green fine to coarse SAND, little red brown coarse Sand and fine Gravel, loose, dry.
5	(4-6')		1 2 2 1	4	1.5	NA			
	(6-8')		1 1 1 1	2	1.5	NA			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, wet at tip of sampler.
	(8-10')		1 (12") WOH 1	1	1.1	NA			A 0.01' lense of fine Sand, moist to wet.
10	(10-12')		WOH (12") 1 (12")	1	1.9	NA			
	(12-14')		1 (12") 2 1	2	1.8	NA			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, moist to wet.
	(14-16')		WOH (12")	1	1.8	NA			Gray very fine to fine SAND, trace shell fragments, very loose, wet.
15									

Well Construction



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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S2

Total Depth = 82 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 (12")	1	1.8	NA			@14.0', trace Silt, abundent shell fragments.	Type 1 Portland cement/5% bentonite grout 1.0' to 21.0' bgs
	(16-18')		WOH 1 (12") 1	1	1.6	NA				
	(18-20')		WOH (18") 1	0	2.0	NA				2-in diameter Sch. 40 PVC well casing 1.8' ags to 25.0' bgs
20	(20-22')		WOH (18") 2	0	2.0	NA			Trace medium Sand.	
	(22-24')		WOH (12") 2 3	2	2.0	NA			Little medium Sand.	Bentonite seal 21.0' to 23.0' bgs
25	(24-26')		2 2 3 4	5	2.0	NA				Grade #7 silica sand 23.0' to 23.2' bgs
	(26-28')		1 1 2 2	3	2.0	NA			A 0.2' lense of SILT and CLAY.	0.01" Sch. 40 PVC screen 25.0' to 30.0' bgs
	(28-30')		1 1 1 2	2	2.0	NA			Nose of sampler contained dark gray SILT, some Clay, trace fine Sand, organic material.	Grade #5 silica sand pack 23.2' to 30.5' bgs
30	(30-32')		1 2 2 1	4	1.3	NA			Dark gray SILT and CLAY, black mottling, organic material, soft, moist.	2-in diameter Sch. 40 PVC sump 30.0' to 30.4' bgs
	(32-34')		WOH 1 1 1	2	1.5	NA			Gray fine SAND, little medium Sand, very loose, wet. / Dark gray SILT and CLAY, black mottling, organic material, soft, moist.	Bentonite seal 30.5' to 62.0' bgs
35	(34-36')		WOH (18")	0	1.5	NA			Wet.	

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-111 S2

Total Depth = 62 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2	0	1.5	NA			Moist.	
									Wet.	
	(36-38')		2 2 1 2	3	2.0	NA			Gray fine SAND, trace medium Sand, very loose, wet.	
	(38-40')		1 1 1 1	2	2.0	NA				
40									Gray very fine to fine SAND and SILT, very loose, wet.	
	(40-42')		1 2 3 3	5	1.8	NA			Organic material.	
	(42-44')		1 1 1 1	2	1.9	NA				Bentonite seal 30.5' to 62.0' bgs
									A 0.2' lense of Clayey SILT.	
45	(44-46')		1 (12") 2 3	2	1.7	NA				
	(46-48')		1 3 3 4	6	1.5	NA			Gray very fine to fine SAND, loose, wet.	
	(48-50')		1 1 2 4	3	1.4	NA				
50										
	(50-52')		1 1 2 2	3	1.0	NA			Dark gray SILT and CLAY, trace fine Sand, very soft, moist to wet, with a 0.05' lense of fine Sand.	
	(52-54')		WOH 1 1 2	2	1.5	NA			Trace fine to coarse Sand, moist.	
									Soft.	
55	(54-56')		1 1	3	1.8	NA				

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S2

Total Depth = 62 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(54-56')		2 2	3	1.8	NA			Dark gray SILT and CLAY, trace fine Sand, soft.	
	(56-58')		WOH (12") 3 3	3	2.0	NA				Bentonite seal 30.5' to 62.0' bgs
	(58-60')		1 3 3 4	6	2.0	NA				
60	(60-62')		2 4 5 7	9	2.0	NA			A 0.01' lense of fine SAND, medium stiff.	
									Total depth of boring 62.0 ft. bgs.	
65										
70										
75										

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/06/95 - 06/06/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 41.4 ft.

Geologist: Ronald D. Kuhn

Well No. MW-111 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		2 3 3 5	6	2.0	NA			Dark brown fine to medium SAND, trace coarse Sand, loose, dry.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 4 4 2	8	1.4	NA			Dark brown and green fine to coarse SAND, little red brown coarse Sand and fine Gravel, loose, dry.	
5	(4-6')		1 2 2 1	4	1.5	NA				10-in diameter Shc. 40 PVC surface seal casing ground surface to 34.0' bgs
	(6-8')		1 1 1 1	2	1.5	NA			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, wet at tip of sampler.	
	(8-10')		1 (12") WOH 1	1	1.1	NA			A 0.01' lense of fine Sand, moist to wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 31.0' bgs
10	(10-12')		WOH (12") 1 (12")	1	1.9	NA				
	(12-14')		1 (12") 2 1	2	1.8	NA			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, moist to wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.4' bgs
	(14-16')		WOH (12")	1	1.8	NA			Gray very fine to fine SAND, trace shell fragments, very loose, wet.	
15										

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engineers & scientists

Remarks:
Soil descriptions taken from boring log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S3

Total Depth = 41.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 (12")	1	1.8	NA			@14.0', trace Silt, abundent shell fragments.
	(16-18')		WOH 1 (12") 1	1	1.6	NA			
	(18-20')		WOH (18") 1	0	2.0	NA			
20	(20-22')		WOH (18") 2	0	2.0	NA			Trace medium Sand.
	(22-24')		WOH (12") 2 3	2	2.0	NA			Little medium Sand.
25	(24-26')		2 2 3 4	5	2.0	NA			
	(26-28')		1 1 2 2	3	2.0	NA			A 0.2' lense of SILT and CLAY.
	(28-30')		1 1 1 2	2	2.0	NA			Nose of sampler contained dark gray SILT, some Clay, trace fine Sand, organic material.
30	(30-32')		1 2 2 1	4	1.3	NA			Dark gray SILT and CLAY, black mottling, organic material, soft, moist.
	(32-34')		WOH 1 1 1	2	1.5	NA			Gray fine SAND, little medium Sand, very loose, wet. Dark gray SILT and CLAY, black mottling, organic material, soft, moist.
35	(34-36')		WOH (18")	0	1.5	NA			Wet.

Well Construction

- 10-in diameter Shc. 40 PVC surface seal casing ground surface to 34.0' bgs
- Type 1 Portland cement/5% bentonite grout 2.0' to 31.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.4' bgs
- Bentonite seal 31.0' to 33.0' bgs
- Grade #5 silica sand pack 33.0' to 41.4' bgs

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engineers & scientists

Remarks:
Soil descriptions taken from boring log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S3

Total Depth = 41.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2	0	1.5	NA			Moist.	Grade #5 silica sand pack 33.0' to 41.4' bgs
									Wet.	
	(36-38')		2 2 1 2	3	2.0	NA			Gray fine SAND, trace medium Sand, very loose, wet.	0.01" Sch. 40 PVC screen 35.4' to 40.4' bgs
	(38-40')		1 1 1 1	2	2.0	NA				
40									Gray very fine to fine SAND and SILT, very loose, wet.	
	(40-42')		1 2 3 3	5	1.8	NA			Organic material.	2-in diameter Sch. 40 PVC sump 40.4' to 40.8' bgs
									Total depth of boring 41.4 ft. bgs.	
45										
50										
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/02/95 - 06/02/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 51.4 ft.

Geologist: Ronald D. Kuhn

Well No. MW-111 S4

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 589.94 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
		(0-2')		2 3 3 5	6	2.0	NA			Dark brown fine to medium SAND, trace coarse Sand, loose, dry.	Concrete pad ground surface to 2.0' bgs
		(2-4')		3 4 4 2	8	1.4	NA			Dark brown and green fine to coarse SAND, little red brown coarse Sand and fine Gravel, loose, dry.	
5	585	(4-6')		1 2 2 1	4	1.5	NA				10-in diameter Sch. 40 PVC surface seal casing ground surfce to 24.0' bgs
		(6-8')		1 1 1 1	2	1.5	NA			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, wet at tip of sampler.	
		(8-10')		1 (12") WOH 1	1	1.1	NA			A 0.01' lense of fine Sand, moist to wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.5' bgs
10	580	(10-12')		WOH (12") 1 (12")	1	1.9	NA				
		(12-14')		1 (12") 2 1	2	1.8	NA			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, moist to wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.0' bgs
		(14-16')		WOH (12")	1	1.8	NA			Gray very fine to fine SAND, trace shell fragments, very loose, wet.	
15	575										

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Remarks:
Soil descriptions taken from boring log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S4

Total Depth = 51.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 (12")	1	1.8	NA			@14.0', trace Silt, abundent shell fragments.	
		(16-18')		WOH 1 (12") 1	1	1.6	NA				
		(18-20')		WOH (18") 1	0	2.0	NA				10-in diameter Sch. 40 PVC surface seal casing ground surfce to 24.0' bgs
20	570	(20-22')		WOH (18") 2	0	2.0	NA			Trace medium Sand.	
		(22-24')		WOH (12") 2 3	2	2.0	NA			Little medium Sand.	
25	565	(24-26')		2 2 3 4	5	2.0	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 41.5' bgs
		(26-28')		1 1 2 2	3	2.0	NA			A 0.2' lense of SILT and CLAY.	
		(28-30')		1 1 1 2	2	2.0	NA			Nose of sampler contained dark gray SILT, some Clay, trace fine Sand, organic material.	
30	560	(30-32')		1 2 2 1	4	1.3	NA			Dark gray SILT and CLAY, black mottling, organic material, soft, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.0' bgs
		(32-34')		WOH 1 1 1	2	1.5	NA			Gray fine SAND, little medium Sand, very loose, wet. Dark gray SILT and CLAY, black mottling, organic material, soft, moist.	
35	555	(34-36')		WOH (18")	0	1.5	NA			Wet.	

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Remarks:
Soil descriptions taken from boring log MW-111 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-111 S4

Total Depth = 51.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		2	0	1.5	NA			Moist. Wet.
		(36-38')		2 2 1 2	3	2.0	NA			Gray fine SAND, trace medium Sand, very loose, wet.
		(38-40')		1 1 1 1	2	2.0	NA			
40	550	(40-42')		1 2 3 3	5	1.8	NA			Gray very fine to fine SAND and SILT, very loose, wet. Organic material.
		(42-44')		1 1 1 1	2	1.9	NA			
45	545	(44-46')		1 (12") 2 3	2	1.7	NA			A 0.2' lense of Clayey SILT.
		(46-48')		1 3 3 4	6	1.5	NA			Gray very fine to fine SAND, loose, wet.
		(48-50')		1 1 2 4	3	1.4	NA			
50	540	(50-52')		1 1 2 2	3	1.0	NA			Dark gray SILT and CLAY, trace fine Sand, very soft, moist to wet, with a 0.05' lense of fine Sand. Total depth of boring 51.4 ft. bgs.
55	535									

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 41.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.0' bgs
- Bentonite seal 41.5' to 44.0' bgs
- Grade #5 silica sand pack 44.0' to 51.4' bgs
- 2-in diameter Sch. 40 PVC screen 46.0' to 51.0' bgs
- 2-in diameter Sch. 40 PVC sump 51.0' to 51.4' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/09/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-112 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation 589.08 ft.										**GROUND SURFACE**
		(0-2')		1 3 5 18	8	1.0	20.5			Dark brown fine to coarse SAND, trace fine Gravel and slag, loose, dry.
		(2-4')		7 10 18 25	28	2.0	3.5			Trace Silt, loose to medium dense.
	585									
5		(4-6')		10 13 10 6	23	2.0	184.0			Red brown fine to medium Sand, loose, wet at nose of sampler.
		(6-8')		2 2 2 1	4	2.0	0.0			Very loose, wet.
	580	(8-10')		WOH 1 1 1	2	1.1	0.0			Dark gray SILT, little Clay, trace fine Sand and organics, very soft, moist to wet.
10		(10-12')		WOH 1 1 1	2	2.0	0.2			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, moist to wet.
										End of Boring @ 12 ft. bgs.
	575									
15										

Well Construction

- 4-in diameter steel protective casing 2.0' ags, locking cap installed
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 3.5' bgs
- Concrete surface pad 0.0' to 1.0' bgs
- Cement/5% bentonite grout 1.0' to 1.5' bgs
- Bentonite seal 1.5' to 3.0' bgs
- Grade #7 silica sand 3.0' to 3.2' bgs
- 0.01" Sch. 40 PVC screen 3.5' to 8.5' bgs
- Grade #5 silica sand pack 3.2' to 9.0' bgs
- Sch. 40 PVC sump 8.5' to 8.9' bgs
- Bentonite seal 9.0' to 12.0'bgs

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/09/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-113 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation 588.81 ft.										**GROUND SURFACE**
		(0-2')		2 3 3 3	6	2.0	3.0			Dark brown fine to coarse SAND, trace fine Gravel, very loose, dry.
		(2-4')		3 2 2 3	4	1.5	3.0			
	585									
5		(4-6')		2 2 2 1	4	1.0	14.0			Wet.
		(6-8')		WOH (18") 1	0	2.0	0.0			Dark gray SILT, little Clay, trace fine to coarse Sand, very soft, moist to wet.
	580	(8-10')		WOH (24")	0	2.0	0.0			Wet.
10		(10-12')		WOH (18") 1	0	1.9	0.0			
		(12-14')		1 1 1 1	2	1.5	0.0			Dark gray very fine to fine SAND and SILT, trace Clay, very loose, wet.
	575									Gray very fine to fine SAND, trace medium Sand, very loose, wet.
15										Total depth of boring 14.0 ft. bgs.

Well Construction

- 4-in diameter steel protective casing 2.2' ags, locking cap installed
- 2-in diameter Sch. 40 PVC well casing 2.0' ags to 3.5' bgs
- Concrete surface pad 0.0' to 1.0' bgs
- Cement/5% bentonite 1.0' to 1.5' bgs
- Bentonite seal 1.5' to 3.0' bgs
- Grade #7 silica sand 3.0' to 3.2' bgs
- 0.01" Sch. 40 PVC screen 3.5' to 8.5' bgs
- Grade #5 silica sand pack 3.2' to 9.0' bgs
- 2-in diameter Sch. 40 PVC sump 8.5' to 8.9' bgs
- Bentonite seal 9.0' to 14.0'

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Remarks:
WOH - Weight of Hammer
Apparent Conductivity graph is off-scale due to steel surface casing.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/10/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 8.9 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-114 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed 2-in diameter Sch. 40 PVC well casing 2.3' ags to 3.5' bgs
	(0-2')		8 8 8 9	16	2.0	9.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete surface pad 0.0' to 1.0' bgs Cement 1.0' to 1.5' bgs Bentonite seal 1.5' to 3.0' bgs
	(2-4')		1 6 6 7	12	1.8	1.2				Grade #7 silica sand 3.0' to 3.2' bgs
5	(4-6')		1 2 2 1	4	1.8	0.2			Light brown SILT, little very fine Sand, trace Clay and shells, soft, moist.	0.01" Sch. 40 PVC screen 3.5' to 8.5' bgs
	(6-8')		WOH (18") 1	0	1.5	0.0			Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	Grade #5 silica sand pack 3.2' to 8.9' bgs
	(8-10')		WOH (24")	0	1.5	0.0			Moist.	2-in diameter Sch. 40 PVC sump 8.5' to 8.9' bgs
10									Total depth of boring 8.9 ft. bgs.	
15										

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Remarks:
Soil description taken from Boring Log MW-114 S2.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/10/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.1 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-114 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed
	(0-2')		8 8 8 9	16	2.0	9.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	(2-4')		1 6 6 7	12	1.8	1.2				Type 1 Portland cement/5% bentonite grout 1.0' to 8.2' bgs
5	(4-6')		1 2 2 1	4	1.8	0.2				
	(6-8')		WOH (18") 1	0	1.5	0.0			Light brown SILT, little very fine Sand, trace Clay and shells, soft, moist. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 10.7' bgs
	(8-10')		WOH (18") 1	0	1.5	0.0			Moist.	Bentonite seal 8.2' to 10.2' bgs
10	(10-12')		1 1 1 1	2	2.0	0.1			Gray very fine to fine SAND, little Silt, loose, wet. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	Grade #7 silica sand 10.2' to 10.4' bgs
	(12-14')		WOH 1 1 1	2	1.5	0.0			Gray very fine to fine SAND, little Silt, loose, wet, organic material.	0.01" Sch. 40 PVC screen 10.7' to 15.7' bgs
15	(14-16')		WOH (12")	1	2.0	0.2			Shell fragments at nose of sampler.	Grade #5 silica sand pack 10.4' to 16.1' bgs

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Remarks:
Soil description taken from Boring Log MW-114 S2.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-114 S1

Total Depth = 16.1 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	2.0	0.2			No shell fragments.	2-in diameter Sch. 40 PVC sump 15.7' to 16.1' bgs
									Total depth of boring 16.1 ft. bgs.	
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/10/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 36 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-114 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
	(0-2')		8 8 8 9	16	2.0	9.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	(2-4')		1 6 6 7	12	1.8	1.2				
5	(4-6')		1 2 2 1	4	1.8	0.2				Type 1 Portland cement/5% bentonite grout 1.0' to 18.5' bgs
	(6-8')		WOH (18") 1	0	1.5	0.0			Light brown SILT, little very fine Sand, trace Clay and shells, soft, moist. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	
	(8-10')		WOH (18") 1	0	1.5	0.0			Moist.	
10	(10-12')		1 1 1 1	2	2.0	0.1			Gray very fine to fine SAND, little Silt, loose, wet. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 22.5' bgs
	(12-14')		WOH 1 1 1	2	1.5	0.0			Gray very fine to fine SAND, little Silt, loose, wet, organic material.	
15	(14-16')		WOH (12")	1	2.0	0.2			Shell fragments at nose of sampler.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-114 S2

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	2.0	0.2			No shell fragments.	Type 1 Portland cement/5% bentonite grout 1.0' to 18.5' bgs
	(16-18')		WOH 1 1	2	2.0	0.3			A 0.3'thick lense of gray SILT, some Clay, trace fine Sand.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 22.5' bgs
	(18-20')		WOH (12") 1 1	1	2.0	0.0			Gray very fine to fine SAND, little Silt, loose, wet. Gray brown very fine to fine SAND, very loose, wet.	Bentonite seal 18.5' to 20.5' bgs
20	(20-22')		WOH (12") 1 1	1	1.5	0.2			Gray fine SAND, very loose, wet.	Grade #7 silica sand 20.5' to 20.7' bgs
	(22-24')		WOH (12") 1 1	1	1.5	0.0			Trace medium Sand, 0.05' lense of dark gray Silt, some Clay. A 0.05' lense of dark gray Silt, some Clay. Little medium Sand.	0.01" Sch. 40 PVC screen 22.5' to 27.5' bgs
25	(24-26')		WOH (18") 1	0	1.5	0.2				Grade #5 silica sand pack 20.7' to 28.0' bgs
	(26-28')		WOH (12") 1 1	1	1.6	0.0				
	(28-30')		WOH (24")	0	1.5	0.0			Gray SILT and CLAY, soft to medium stiff, moist.	2-in diameter Sch. 40 PVC sump 27.5' to 27.9' bgs
30	(30-32')		WOH (12") 1 1	1	1.5	0.0			Gray fine SAND, little medium Sand, very loose, wet.	Bentonite seal 28.0' to 36.0' bgs
	(32-34')		WOH (12") 1 3	1	1.0	0.0			Gray SILT and CLAY, soft, moist.	
35	(34-36')		1 WOH	0	1.0	0.0			Gray fine SAND, trace Silt and Clay, loose, wet.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-114 S2

Total Depth = 36 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		WOH 1	0	1.0	0.0			Gray fine SAND, trace Silt and Clay, loose, wet.	Bentonite seal 28.0' to 36.0' bgs
									Total depth of boring 36.0 ft. bgs.	
40										
45										
50										
55										

BBL
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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/09/95 - 06/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 41 ft.

Geologist: Ron D. Kuhn

Well No. MW-114 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed
	(0-2')		8 8 8 9	16	2.0	9.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 2.0' bgs
	(2-4')		1 6 6 7	12	1.8	1.2				
5	(4-6')		1 2 2 1	4	1.8	0.2				10-in diameter Sch. 40 PVC surface seal casing ground surface to 32.0' bgs
	(6-8')		WOH (18") 1	0	1.5	0.0			Light brown SILT, little very fine Sand, trace Clay and shells, soft, moist. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	
	(8-10')		WOH (18") 1	0	1.5	0.0			Moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 33.0' bgs
10	(10-12')		1 1 1 1	2	2.0	0.1			Gray very fine to fine SAND, little Silt, loose, wet. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	
	(12-14')		WOH 1 1 1	2	1.5	0.0			Gray very fine to fine SAND, little Silt, loose, wet, organic material. Shell fragments at nose of sampler.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 35.5' bgs
15	(14-16')		WOH (12")	1	2.0	0.2				

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Remarks:
Stratigraphic descriptions from 0.0' to 32.0' bgs are taken from Boring Log MW-114 S2 and 32.0' to 41.0' bgs are taken from Boring Log MW-114 S4.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-114 S3

Total Depth = 41 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	2.0	0.2			No shell fragments.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 32.0' bgs
	(16-18')		WOH 1 1	2	2.0	0.3			A 0.3'thick lense of gray SILT, some Clay, trace fine Sand.	
	(18-20')		WOH (12") 1 1	1	2.0	0.0			Gray very fine to fine SAND, little Silt, loose, wet.	
20	(20-22')		WOH (12") 1 1	1	1.5	0.2			Gray brown very fine to fine SAND, very loose, wet.	
	(22-24')		WOH (12") 1 1	1	1.5	0.0			Gray fine SAND, very loose, wet.	
	(24-26')		WOH (18") 1	0	1.5	0.2			Trace medium Sand, 0.05' lense of dark gray Silt, some Clay.	Type I Portland cement/5% bentonite grout 2.0' to 33.0' bgs
25	(26-28')		WOH (12") 1 1	1	1.6	0.0			A 0.05' lense of dark gray Silt, some Clay.	
	(28-30')		WOH (24")	0	1.5	0.0			Little medium Sand.	
30	(30-32')		WOH (12") 1 1	1	1.5	0.0			Gray SILT and CLAY, soft to medium stiff, moist.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 35.5' bgs
	(32-34')		3 3 4 3	7	1.4	18.5			Gray fine SAND, little medium Sand, very loose, wet.	
	(34-36')		WOH (12")	1	2.0	0.0			Gray SILT and CLAY, soft, moist.	Bentonite seal 33.0' to 35.0' bgs
35										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-114 S3

Total Depth = 41 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		1 1	1	2.0	0.0			Gray fine SAND, trace Silt, shells, and organic material (reeds), very loose, wet.	
	(36-38')		WOH (12") 1 1	1	2.0	0.0			Little Silt.	
	(38-40')		WOH 1 WOH 2	1	2.0	0.0			Little organic material (reeds and wood).	
40	(40-41')		1 2	5	2.0	1.4			0.25" to 0.5" seams of Peat throughout section from 40.0 to 48.0' bgs.	
									Total depth of boring 41.0 ft. bgs.	
45										
50										
55										

Well Construction:
- Grade #5 silica sand pack 35.0' to 41.0' bgs
- 0.01" Sch. 40 PVC screen 35.5' to 40.5' bgs
- 2-in diameter Sch. 40 PVC sump 40.5' to 40.9' bgs

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Remarks:
WOH = Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/02/95 - 06/02/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Ron D. Kuhn

Well No. MW-114 S4

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 589.30 ft.										**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		8 8 8 9	16	2.0	9.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 2.0' bgs
		(2-4')		1 6 6 7	12	1.8	1.2				
	585	(4-6')		1 2 2 1	4	1.8	0.2				10-in diameter Sch. 40 PVC surface seal casing ground surface to 30.2' bgs
5		(6-8')		WOH (18") 1	0	1.5	0.0			Light brown SILT, little very fine Sand, trace Clay and shells, soft, moist. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	
		(8-10')		WOH (18") 1	0	1.5	0.0			Moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.8' bgs
	580										
10		(10-12')		1 1 1 1	2	2.0	0.1			Gray very fine to fine SAND, little Silt, loose, wet. Dark gray brown SILT, little very fine to fine Sand and Clay, soft, wet, organic material.	
		(12-14')		WOH 1 1 1	2	1.5	0.0			Gray very fine to fine SAND, little Silt, loose, wet, organic material. Shell fragments at nose of sampler.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 45.8' bgs
	575	(14-16')		WOH (12")	1	2.0	0.2				
15											

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Remarks:
The stratigraphic descriptions from 0.0' to 32.0' bgs are taken from Boring Log MW-114 S2.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-114 S4

Total Depth = 60 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	1	2.0	0.2			No shell fragments.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 30.2' bgs
		(16-18')		WOH 1 1	2	2.0	0.3			A 0.3'thick lense of gray SILT, some Clay, trace fine Sand.	
		(18-20')		WOH (12") 1	1	2.0	0.0			Gray very fine to fine SAND, little Silt, loose, wet.	
	570			1						Gray brown very fine to fine SAND, very loose, wet.	
20		(20-22')		WOH (12") 1	1	1.5	0.2			Gray fine SAND, very loose, wet.	
		(22-24')		WOH (12") 1	1	1.5	0.0			Trace medium Sand, 0.05' lense of dark gray Silt, some Clay.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.8' bgs
	565			1						A 0.05' lense of dark gray Silt, some Clay.	
25		(24-26')		WOH (18")	0	1.5	0.2			Little medium Sand.	
		(26-28')		WOH (12") 1	1	1.6	0.0				
		(28-30')		WOH (24")	0	1.5	0.0			Gray SILT and CLAY, soft to medium stiff, moist.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 45.8' bgs
	560										
30		(30-32')		WOH (12") 1	1	1.5	0.0			Gray fine SAND, little medium Sand, very loose, wet.	
		(32-34')		3 3 4 3	7	1.4	18.5			Gray SILT and CLAY, soft, moist.	
	555										
35		(34-36')		WOH (12")	1	2.0	0.0			Gray fine SAND, trace Silt, shells, and organic material (reeds), very loose, wet.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

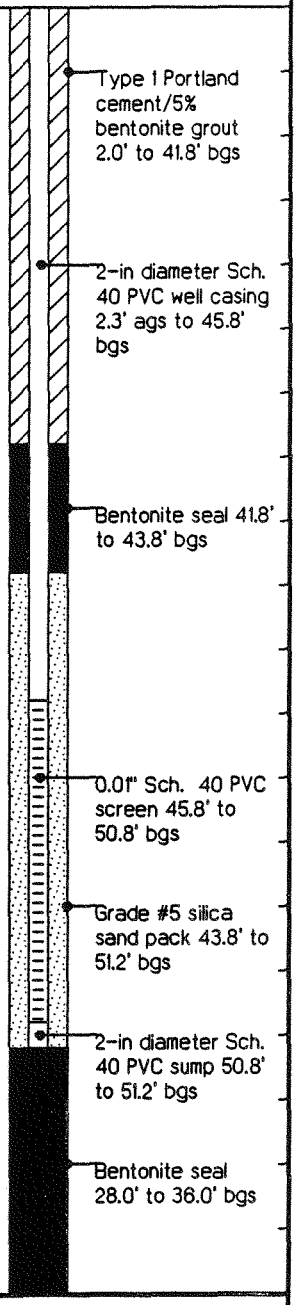
Client:
General Motors Corporation

Well No. MW-114 S4

Total Depth = 80 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		1 1	1	2.0	0.0			Little Silt.
		(36-38')		WOH (12") 1 1	1	2.0	0.0			
	550	(38-40')		WOH 1 WOH 2	1	2.0	0.0			Little organic material (reeds and wood).
40		(40-42')		1 2 3 5	5	2.0	1.4			0.25" to 0.5" seams of Peat throughout section from 40.0 to 48.0' bgs.
		(42-44')		1 1 3 3	4	2.0	0.0			
	545	(44-46')		3 4 6 4	10	2.0	0.0			
45		(46-48')		2 5 5 6	10	2.0	0.0			Trace Silt, loose, saturated.
	540	(48-50')		2 2 4 4	6	2.0	0.0			
50		(50-52')		4 4 3 2	7	2.0	0.0			Gray CLAY and SILT, very soft, high plasticity, wet.
		(52-54')		1 1 1 1	2	2.0	0.0			
	535	(54-56')		1 1	2	2.0	0.0			
55										

Well Construction



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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-114 S4

Total Depth = 60 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		1 2	2	2.0	0.0			Gray CLAY and SILT, very soft, high plasticity, wet.	
		(56-58')		WOH (12") 1 3	1	2.0	0.0				Bentonite seal 28.0' to 36.0' bgs
	530	(58-60')		WOH (12") 1 2	1	2.0	0.0				
60										Total depth of boring 60.0 ft. bgs.	
	525										
65											
	520										
70											
	515										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/10/95 – 01/11/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30.0-in.

Borehole Depth: 12.9 ft.

Geologist: Hillary Hollister-Hinge

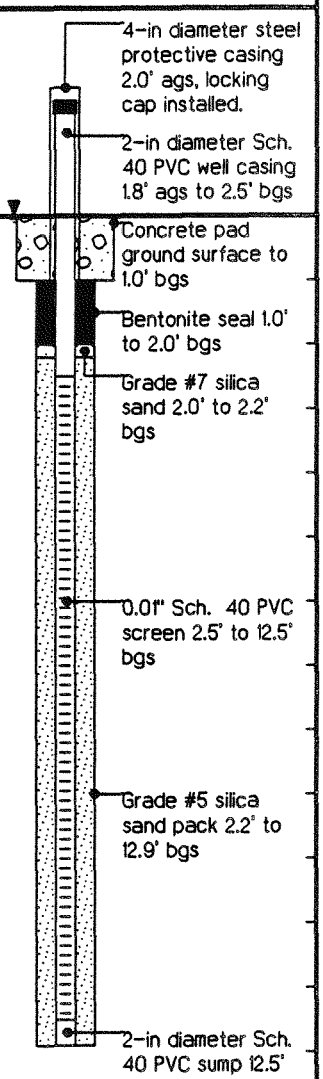
Well No. MW-115 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		3 5 5 8	10	2.0	0.3			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.
	(2-4')		3 4 2 2	6	1.5	0.0			
5	(4-6')		1 1 2 2	3	1.7	0.0			Dark gray SILT, little Clay, trace fine Sand, soft, moist, organic material.
									Dark gray very fine SAND and SILT, trace Clay, soft, moist, organic material.
	(6-8')		1 1 1 1	2	1.2	0.0			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, organic material.
	(8-10')		WOH 1 1 1	2	1.0	0.0			Dark gray SILT and CLAY, trace fine Sand and shell fragments, soft to medium stiff, wet, organic material.
10	(10-12')		WOH (18") 1	0	1.8	0.0			Gray brown very fine to fine SAND and SILT, trace Clay and shell fragments, very loose, wet.
	(12-14')		WOH (18") 1	0	2.0	0.0			Gray brown SILT, some Clay, trace fine Sand, very soft, wet, organic material, with a 0.05' seam of gray fine Sand.
15									Total depth of boring 12.9 ft. bgs.

Well Construction



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Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 25.4 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-115 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		3 5 5 8	10	2.0	0.3			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	(2-4')		3 4 2 2	6	1.5	0.0				
5	(4-6')		1 1 2 2	3	1.7	0.0			Dark gray SILT, little Clay, trace fine Sand, soft, moist, organic material.	Type I Portland cement/5% bentonite grout 1.0' to 16.0' bgs
	(6-8')		1 1 1 1	2	1.2	0.0			Dark gray very fine SAND and SILT, trace Clay, moist, soft, organic material.	
	(8-10')		WOH 1 1 1	2	1.0	0.0			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, organic material.	
10	(10-12')		WOH (18") 1	0	1.8	0.0			Dark gray SILT and CLAY, trace fine Sand and shell fragments, soft to medium stiff, wet, organic material.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
	(12-14')		WOH (18") 1	0	2.0	0.0			Gray brown very fine to fine SAND and SILT, trace Clay and shell fragments, very loose, wet.	
	(14-16')		WOH 1	1	2.0	0.0			Gray brown SILT, some Clay, trace fine Sand, very soft, wet, organic material, with a 0.05' seam of gray fine Sand.	
15									A 0.1' seam of gray fine SAND.	

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engineers & scientists

Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

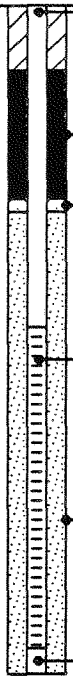
Client:
General Motors Corporation

Well No. MW-115 S1

Total Depth = 25.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		(12") 1	1	2.0	0.0			Gray brown SILT, some Clay, trace fine Sand, very soft, wet, organic material, with a 0.05' seam of gray fine Sand.
	(16-18')		WOH 1 2 1	3	2.0	0.0			A 0.5' lense of gray fine SAND and a 0.2' seam.
	(18-20')		WOH (12") 1 (12")	1	1.8	0.0			Gray fine SAND, little medium Sand, trace shell fragments, very loose, wet.
20	(20-22')		WOH (12") 1 1	1	1.6	0.0			
	(22-24')		2 1 1 1	2	2.0	0.0			Little Silt, trace Clay, loose.
25	(24-26')		WOH (12") 1 1	1	1.5	0.0			Gray fine to medium SAND, very loose, wet, with a 0.01' seam of Clayey SILT.
									Total depth of boring 25.4 ft. bgs.
30									
35									

Well Construction



- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
- Bentonite seal 16.0' to 18.0' bgs
- Grade #7 silica sand 18.0' to 18.2' bgs
- 0.01" Sch. 40 PVC screen 20.0' to 25.0' bgs
- Grade #5 silica sand pack 18.2' to 24.4' bgs
- 2-in diameter Sch. 40 PVC sump 25.0' to 25.4' bgs

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Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 37.9 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-115 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft									**GROUND SURFACE**
	(0-2')		3 5 5 8	10	2.0	0.3			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.
	(2-4')		3 4 2 2	6	1.5	0.0			
5	(4-6')		1 1 2 2	3	1.7	0.0			Dark gray SILT, little Clay, trace fine Sand, soft, moist, organic material.
									Dark gray very fine SAND and SILT, trace Clay, moist, soft, organic material.
	(6-8')		1 1 1 1	2	1.2	0.0			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, organic material.
	(8-10')		WOH 1 1 1	2	1.0	0.0			Dark gray SILT and CLAY, trace fine Sand and shell fragments, soft to medium stiff, wet, organic matterial.
10	(10-12')		WOH (18") 1	0	1.8	0.0			Gray brown very fine to fine SAND and SILT, trace Clay and shell fragments, very loose, wet.
	(12-14')		WOH (18") 1	0	2.0	0.0			Gray brown SILT, some CLAY, trace fine Sand, very soft, wet, organic material, with a 0.05' seam of gray fine Sand.
15	(14-16')		WOH 1	1	2.0	0.0			A 0.1' seam of gray fine SAND.

Well Construction:
- 4-in diameter steel protective casing 2.0' ags, locking cap installed
- Concrete pad ground surface to 1.0' bgs
- Type 1 Portland cement/5% bentonite grout 1.0' to 30.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.5' bgs

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engineers & scientists

Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-115 S2

Total Depth = 37.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		(12") 1	1	2.0	0.0			Gray brown SILT, some CLAY, trace fine Sand, very soft, wet, organic material, with a 0.05' seam of gray fine Sand.	
	(16-18')		WOH 1 2 1	3	2.0	0.0			A 0.5' lense of gray fine SAND and a 0.2' thick seam.	
	(18-20')		WOH (12") 1 (12")	1	1.8	0.0			Gray fine SAND, little medium Sand, trace shell fragments, very loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.5' bgs
20	(20-22')		WOH (12") 1 1	1	1.6	0.0				
	(22-24')		2 1 1 1	2	2.0	0.0			Little Silt, trace Clay, loose.	Type 1 Portland cement/5% bentonite grout 1.0' to 30.0' bgs
25	(24-26')		WOH (12") 1 1	1	1.5	0.0			Gray fine to medium SAND, very loose, wet, with a 0.01' seam of Clayey Silt.	
	(26-28')		1 (12") WOH (12")	1	1.7	0.0			Dark gray SILT and CLAY, trace fine Sand, very soft, wet, organic material.	
	(28-30')		1 (12") 1 1	1	1.8	0.0				
30	(30-32')		WOH (12") 1 1	1	2.0	0.0			Gray fine to medium SAND, very loose, wet.	Bentonite seal 30.0' to 32.0' bgs
									Dark gray SILT and CLAY, trace shell fragments and organic material, soft to medium stiff, moist.	
	(32-34')		WOH (18") 1	0	2.0	0.0			Gray fine SAND, trace medium Sand, very loose, wet.	Grade #7 silica sand 32.0' to 32.2' bgs
									Gray very fine to fine SAND and SILT, trace Clay, loose, wet.	0.01" Sch. 40 PVC screen 32.5' to 37.5' bgs
35	(34-36')		WOH 1	2	2.0	0.0			Gray fine SAND, little medium Sand, loose, wet.	

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Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-115 S2

Total Depth = 37.9 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		1 1	2	2.0	0.0			Gray very fine to fine SAND, trace Silt, loose, wet.	Grade #5 silica sand pack 32.2' to 37.9' bgs
	(36-38')		WOH (24")	0	1.0	0.0			Total depth of boring 37.9 ft. bgs.	2-in diameter Sch. 40 PVC sump 37.5' to 37.9' bgs
40										
45										
50										
55										

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Remarks:
Soil description taken from Boring Log MW-115 S3.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/10/95 – 01/11/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25–in.
Rig Type: CME 75
Spoon Size: 2–in.
Hammer Weight: 140–lb
Height of Fall: 30–in.

Borehole Depth: 56 ft.

Geologist: Hillary Hollister–Hinge

Well No. MW–115 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 588.82 ft.											4–in diameter steel protective casing 2.0' ags, locking cap installed
										GROUND SURFACE	
		(0–2')		3 5 5 8	10	2.0	0.3			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
		(2–4')		3 4 2 2	6	1.5	0.0				
	585									Dark gray SILT, little Clay, trace fine Sand, soft, moist, organic material.	
5		(4–6')		1 1 2 2	3	1.7	0.0			Dark gray very fine SAND and SILT, trace Clay, soft, moist, organic material.	Type 1 Portland cement/5% bentonite grout 1.0' to 37.5' bgs
		(6–8')		1 1 1 1	2	1.2	0.0			Dark gray SILT, little Clay, trace fine Sand, very soft, moist, organic material.	
	580	(8–10')		WOH 1 1 1	2	1.0	0.0			Dark gray SILT and CLAY, trace fine Sand, soft to medium stiff, wet, shell fragments, organic matterial.	
10		(10–12')		WOH (18") 1	0	1.8	0.0			Gray brown very fine to fine SAND and SILT, trace Clay, very loose, wet, shell fragments.	2–in diameter Sch. 40 PVC well casing 1.8' ags to 41.5' bgs
		(12–14')		WOH (18") 1	0	2.0	0.0			Gray brown SILT, some Clay, trace fine Sand, very soft, wet, organic material, with a 0.05' thick seam of gray fine Sand.	
	575										
15		(14–16")		WOH (18")	0	2.0	0.0			A 0.1' thick seam of gray fine Sand.	

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engineers & scientists

Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-115 S3

Total Depth = 58 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1	0	2.0	0.0			Gray brown SILT, some Clay, trace fine Sand and organic material, very soft, wet.	
		(16-18')		WOH 1 2 1	3	2.0	0.0			A 0.5' thick lense of gray fine Sand and a 0.2' thick seam.	
	570	(18-20')		WOH (12") 1 (12")	1	1.8	0.0			Gray fine SAND, little medium Sand, very loose, wet, shell fragments.	
20		(20-22')		WOH (12") 1 1	1	1.6	0.0				Type 1 Portland cement/5% bentonite grout 1.0' to 37.5' bgs
		(22-24')		2 1 1 1	2	2.0	0.0				
	565									Little Silt, trace Clay, loose.	
25		(24-26')		WOH (12") 1 1	1	1.5	0.0			Gray fine to medium SAND, very loose, wet, with a 0.01' thick seam of Clayey Silt.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 41.5' bgs
		(26-28')		1 (12") WOH (12")	1	1.7	0.0			Dark gray SILT and CLAY, trace fine Sand, very soft, wet, organic material.	
	560	(28-30')		1 (12") 1 1	2	1.8	0.0				
30		(30-32')		WOH (12") 1 1	1	2.0	0.0			Gray fine to medium SAND, very loose, wet.	
										Dark gray SILT and CLAY, soft to medium stiff, moist, organic material, shell fragments.	
		(32-34')		WOH (18") 1	0	2.0	0.0			Gray fine SAND, trace medium Sand, very loose, wet.	
	555									Gray very fine to fine SAND and SILT, trace Clay, loose, wet.	
35		(34-36')		WOH 1	2	2.0	0.0			Gray fine SAND, little medium Sand, loose, wet.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-115 S3

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		1 1	2	2.0	0.0			Gray very fine to fine SAND, trace Silt, loose, wet at 33.7 feet bgs.	Type I Portland cement/5% bentonite grout 1.0' to 37.5' bgs
		(36-38')		WOH (24")	0	1.0	0.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 41.5' bgs
	550	(38-40')		WOH (12") 1 (12")	1	1.0	0.0			A 0.02-0.05' thick seam of Silt and Clay.	Bentonite seal 37.5' to 39.5' bgs
40		(40-42')		WOH 1 2 3	3	1.4	0.0				Grade #7 silica sand 39.5' to 39.7' bgs
		(42-44')		1 3 4 3	7	2.0	0.0				0.01" Sch. 40 PVC screen 41.5' to 46.5' bgs
	545	(44-46')		WOH 1 1 2	2	1.0	0.0			Gray brown fine to medium SAND, loose, wet.	Grade #5 silica sand pack 39.7' to 47.0' bgs
45		(46-48')		1 2 2 3	4	1.8	0.0			A 0.02' thick lense of coarse Sand and fine Gravel. Dark gray brown SILT and CLAY, trace fine Sand, soft to medium stiff, wet.	2-in diameter Sch. 40 PVC sump 46.5' to 46.9' bgs
	540	(48-50')		1 2 2 3	4	1.0	0.0			Gray brown fine to medium SAND, trace coarse Sand and fine Gravel, loose, wet, with a 0.05' thick lense of fine Sand.	
50		(50-52')		1 2 2 3	4	2.0	0.0			Dark gray brown SILT and CLAY, trace fine Sand, soft to medium stiff, moist. Trace fine Gravel.	
		(52-54')		1 2 4 4	6	2.0	0.0				Bentonite seal 47.0' to 56.0' bgs
	535	(54-56')		1 1	3	2.0	0.0			Trace fine to coarse Sand, soft, moist.	
55											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-115 S3

Total Depth = 58 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		2 4	3	2.0	0.0			Dark gray brown SILT and CLAY, trace fine Sand, soft to medium stiff, moist.	Bentonite seal 47.0' to 56.0' bgs
										Total depth of boring 56.0 ft. bgs.	
	530										
60											
	525										
65											
	520										
70											
	515										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/02/95 - 05/03/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.5 ft.

Geologist: Timothy R. Osier

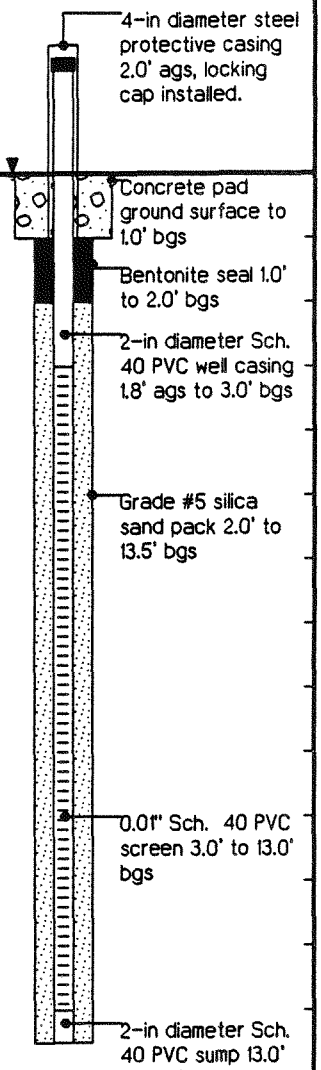
Well No. MW-117 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		2 2 3 4	5	1.1	0.0			Dark brown SILT and CLAY, soft, moist.
	(2-4')		1 2 2 2	4	1.3	0.0			Color grades to a green.
5	(4-6')		WOH 1 WOH (12")	1	1.3	0.0			Dark gray fine SAND and SILT, some Clay, very soft, moist.
	(6-8')		WOH (12") 2 1	2	1.1	0.0			
	(8-10')		1 1 1 1	2	1.2	0.0			Gray fine SAND, some Silt, very loose, wet.
10	(10-12')		2 WOH 1 1	1	1.3	0.0			Gray fine SAND and SILT, some Clay, soft, wet.
	(12-13.5')		WOH (18")	0	1.1	0.0			Gray fine SAND, some Silt, very loose, wet.
15									Total depth of boring 13.5 ft. bgs.

Well Construction



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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-117 S2.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/02/95 – 05/03/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 29.7 ft.

Geologist: Timothy R. Osier

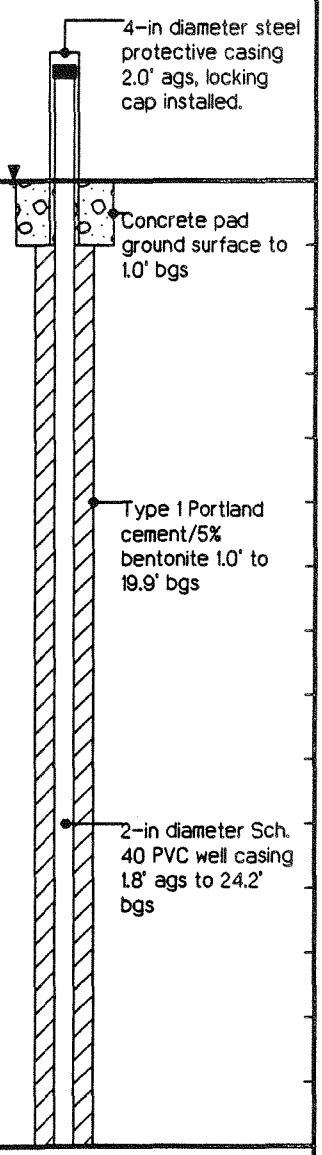
Well No. MW-117 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		2 2 3 4	5	1.1	0.0			Dark brown SILT and CLAY, soft, moist.
	(2-4')		1 2 2 2	4	1.3	0.0			Color grades to a green.
5	(4-6')		WOH 1 WOH (12")	1	1.3	0.0			Dark gray fine SAND and SILT, some Clay, very soft, moist.
	(6-8')		WOH (12") 2 1	2	1.1	0.0			
	(8-10')		1 1 1 1	2	1.2	0.0			Gray fine SAND, some Silt, very loose, wet.
10	(10-12')		2 WOH 1 1	1	1.3	0.0			Gray fine SAND and SILT, some Clay, soft, wet. Gray fine SAND, some Silt, very loose, wet.
	(12-14')		WOH (18") 1	0	1.1	0.0			
15	(14-16')		2 1	1	1.2	0.0			Lenses of Silt and Clay throughout.

Well Construction



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Remarks:
WOH – Weight of Hammer.
Soil description taken from boring log MW-117 S2.

Water Levels

Date / Time	Elevation	Depth
		⊻
		⊻
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

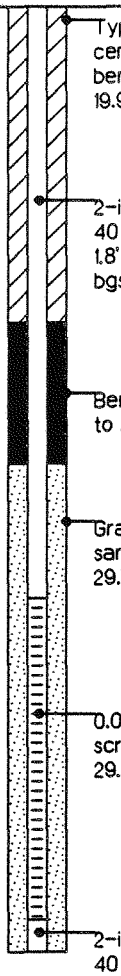
Client:
General Motors Corporation

Well No. MW-117 S1

Total Depth = 29.7 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		WOH 1	1	1.2	0.0			Gray fine SAND, some Silt, very loose, wet.
	(16-18')		WOH (24")	0	1.8	0.0			
	(18-20')		WOH (24")	0	1.5	0.0			Some Clay and Silt lenses.
20	(20-22')		WOH (18") 1	0	1.1	0.0			
	(22-24')		2 1 1 WOH	2	1.0	0.0			Some shell fragments.
25	(24-26')		1 2 1 2	3	1.3	0.0			
	(26-28')		2 1 1 3	2	1.1	0.0			
	(28-29.7')		2 3 4 6	7	1.8	0.0			Gray fine to coarse SAND, trace Silt, loose, wet.
30									Total depth of boring 29.7 ft. bgs.
35									

Well Construction



- Type I Portland cement/5% bentonite 1.0' to 19.9' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.2' bgs
- Bentonite seal 19.9' to 22.1' bgs
- Grade #5 silica sand pack 22.1' to 29.7' bgs
- 0.01" Sch. 40 PVC screen 24.2' to 29.2' bgs
- 2-in diameter Sch. 40 PVC sump 29.2' to 29.7' bgs

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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-117 S2.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/02/95 - 05/03/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 50 ft.

Geologist: Tim R. Osier

Well No. MW-117 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 581.23 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
	580	(0-2')		2 2 3 4	5	1.1	0.0			Dark brown SILT and CLAY, soft, moist.	Concrete pad ground surface to 1.0' bgs
		(2-4')		1 2 2 2	4	1.3	0.0			Color grades to a green.	
5		(4-6')		WOH 1 WOH (12")	1	1.3	0.0			Dark gray fine SAND and SILT, some Clay, very soft, moist.	Type 1 Portland cement/5% bentonite 1.0' to 31.5' bgs
	575	(6-8')		WOH (12") 2 1	2	1.1	0.0				
		(8-10')		1 1 1 1	2	1.2	0.0			Gray fine SAND, some Silt, very loose, wet.	
10		(10-12')		2 WOH 1 1	1	1.3	0.0			Gray fine SAND and SILT, some Clay, soft, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.0' bgs
	570									Gray fine SAND, some Silt, very loose, wet.	
		(12-14')		WOH (18") 1	0	1.1	0.0				
15		(14-16')		2 1	1	1.2	0.0			Lenses of Silt and Clay throughout.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-117 S2

Total Depth = 50 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		WOH 1	1	1.2	0.0			Gray fine SAND, some Silt, very loose, wet.	
	565	(16-18')		WOH (24")	0	1.8	0.0				
		(18-20')		WOH (24")	0	1.5	0.0			Some Clay and Silt lenses.	
20		(20-22')		WOH (18") 1	0	1.1	0.0				Type 1 Portland cement/5% bentonite 1.0' to 31.5' bgs
	560	(22-24')		2 1 1 WOH	2	1.0	0.0			Some shell fragments.	
25		(24-26')		1 2 1 2	3	1.3	0.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 35.0' bgs
	555	(26-28')		2 1 1 3	2	1.1	0.0				
		(28-30')		2 3 4 6	7	1.8	0.0			Gray fine to coarse SAND, trace Silt, loose, wet.	
30		(30-32')		4 2 5 9	7	1.9	0.0				
	550	(32-34')		8 4 6 9	10	1.6	0.0			Trace fine to medium Gravel.	Bentonite seal 31.5' to 33.1' bgs
		(34-36')		5 4	10	1.8	0.0				Grade #5 silica sand pack 33.1' to 41.0' bgs
35											

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-117 S2

Total Depth = 50 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		6 9	10	1.8	0.0			Gray fine to coarse SAND, trace Silt, loose, wet.	
	545	(36-38')		7 7 7 34	14	1.3	0.0			Fine to medium GRAVEL, loose, wet.	
		(38-40')		7 9 5 3	14	1.5	0.0			Red SILT, some Clay, medium stiff.	
40										Brown SILT and CLAY, soft, moist.	
	540	(40-42')		7 2 2 3	4	2.0	0.0			Shelby tube sample taken.	
		(42-44')			ST					Very soft.	
45		(44-46')		1 WOH 1 1	1	2.0	0.0				
	535	(46-48')		WOH (24")	0	2.0	0.0				
		(48-50')		WOH (12") 2 2	2	2.0	0.0				
50										Total depth of boring 50.0 ft. bgs.	
	530										
55											

Well Construction:
- 0.01" Sch. 40 PVC screen 35.0' to 40.0' bgs
- Grade #5 silica sand pack 33.1' to 41.0' bgs
- 2-in diameter Sch. 40 PVC sump 40.0' to 40.5' bgs
- Bentonite seal 41.0' to 50.0' bgs

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Remarks:
WOH - Weight of Hammer
ST - Shelby tube sample taken.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/03/95 - 01/10/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.2 ft.

Geologist: Steve French

Well No. MW-116 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed.
										2-in diameter Sch. 40 PVC well casing 2.3' ags to 2.0' bgs
	(0-2')		4 5 19 10	24	1.5	NA			Light brown SAND. Brown, black, and red SAND, medium dense.	Concrete pad ground surface to 1.0' bgs
	(2-4')		3 4 4 5	8	1.2	NA			Medium to coarse SAND, loose, wet.	Type I Portland cement/5% bentonite grout 1.0' to 1.2' bgs
5	(4-6')		2 3 3 3	6	1.25	NA			Brown SILT, some fine Sand, soft, wet, seams of medium to coarse Sand.	Bentonite seal 1.2' to 1.7' bgs
	(6-8')		2 2 2 2	4	1.0	NA			Light gray fine to medium SAND, little to trace coarse Sand, trace Silt, fine Gravel, and shells, very loose, wet.	0.01" Sch. 40 PVC screen from 2.0' to 12.0' bgs
	(8-10')		2 2 2 2	4	1.2	NA			Gray SILT, little Clay, little to trace fine Sand, very soft, wet.	Grade #5 silica sand pack from 1.7' to 12.2' bgs
10	(10-12')		2 2 2 2	4	0	NA			Gray black SILT, some Clay, trace fine Sand, very soft.	
	(12-14')		1 1 1 1	2	1.2	NA			Gray brown CLAY, some Silt, trace fine Sand, very soft, wet. Total depth of boring 12.2 ft. bgs.	2-in diameter Sch. 40 PVC sump 12.0' to 12.2' bgs
15										

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Remarks:
Soil descriptions taken from boring log MW-116 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
		▽
		▽
		▽

Date Start-Finish: 01/03/95 - 01/10/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32.2 ft.

Geologist: Steve French

Well No. MW-118 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.2' ags, locking cap installed.
	(0-2')		4 5 19 10	24	1.5	NA			Light brown SAND. Brown, black, and red SAND, medium dense.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 4 4 5	8	1.2	NA			Medium to coarse SAND, loose, wet.	
5	(4-6')		2 3 3 3	6	1.25	NA			Brown SILT, some fine Sand, soft, wet, seams of medium to coarse Sand.	Type 1 Portland cement/5% bentonite grout 2.0' to 23.5' bgs
	(6-8')		2 2 2 2	4	1.0	NA			Light gray fine to medium SAND, little to trace coarse Sand, trace Silt, fine Gravel, and shells, very loose, wet.	
	(8-10')		2 2 2 2	4	1.2	NA			Gray SILT, little Clay, little to trace fine Sand, very soft, wet.	
10	(10-12')		2 2 2 2	4	0	NA			Gray black SILT, some Clay, trace fine Sand, very soft.	2-in diameter Sch. 40 PVC well casing 2.3'ags to 27.0' bgs
	(12-14')		1 1 1 1	2	1.2	NA			Gray brown CLAY, some Silt, trace fine Sand, very soft, wet.	
15	(14-16')		1 1	2	0	NA			Brown SILT and CLAY, wet, very soft, with a 0.05' thick seam of	

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Remarks:
Soil descriptions taken from boring log MW-118 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

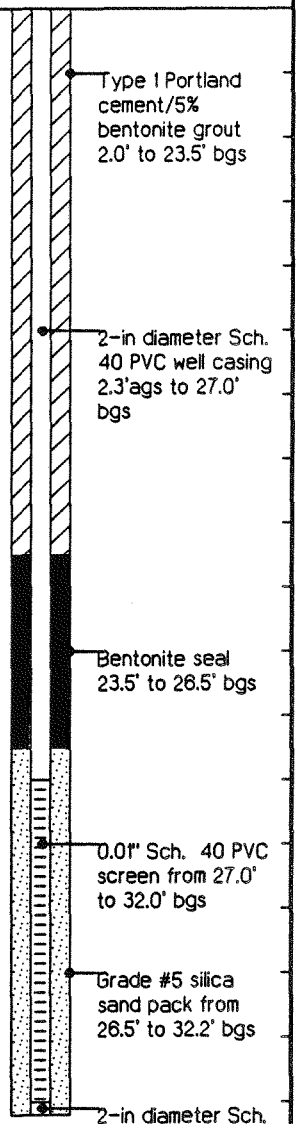
Well No. MW-116 S1

Total Depth = 32.2 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 WOH	2	0	NA			fine Sand.
	(16-18')		1 1 1 1	2	1.2	NA			Gray brown SILT, some Clay, very soft, wet. A 1-in. thick seam of fine Sand. Occasional seams of fine Sand, wet.
	(18-20')		WOH (18") 1	0.5	1.25	NA			
20	(20-22')		WOH (18") 1	0.5	1.25	NA			
	(22-24')		1 1 1 1	2	0.2	NA			Low recovery, 1.0-in. piece of Silt and Clay in tip of sampler.
25	(24-26')		1 2 2 2	4	1.6	NA			Dark brown PEAT, some to little Silt. Gray brown CLAY, some Silt, very soft, moist.
	(26-28')		WOH 4 8 10	12	1.0	NA			Light gray fine to medium SAND, little to trace coarse Sand, trace shells, loose, wet.
	(28-30')		4 3 8 10	11	1.0	NA			
30	(30-32')		3 4 7 8	11	1.25	NA			
	(32-34')		5 5 5 5	10	0.8	NA			Gray brown medium to coarse SAND, little fine Sand, trace fine Gravel, trace shells, loose, wet. Total depth of boring 32.2 ft. bgs.
35									

Well Construction



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Remarks:
Soil descriptions taken from boring log MW-116 S2.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/03/95 - 01/09/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: Steve French

Well No. MW-118 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.42 ft.											4-in diameter steel protective casing stick-up 2.2' ags, locking cap installed.
										GROUND SURFACE	
	590	(0-2')		4 5 19 10	24	1.5	NA			Light brown SAND. Brown, black, and red SAND, medium dense.	Concrete pad ground surface to 2.0' bgs
		(2-4')		3 4 4 5	8	1.2	NA			Medium to coarse SAND, loose, wet.	
5	585	(4-6')		2 3 3 3	6	1.25	NA			Brown SILT, some fine Sand, soft, wet, seams of medium to coarse Sand.	Type 1 Portland cement/5% bentonite grout 2.0' to 35.0' bgs
		(6-8')		2 2 2 2	4	1.0	NA			Light gray fine to medium SAND, little to trace coarse Sand, trace Silt, fine Gravel, and shells, very loose, wet.	
		(8-10')		2 2 2 2	4	1.2	NA			Gray SILT, little Clay, little to trace fine Sand, very soft, wet.	
10	580	(10-12')		2 2 2 2	4	0	NA			Gray black SILT, some Clay, trace fine Sand, very soft.	2-in diameter Sch. 40 PVC well casing 2.3'ags to 44.0' bgs
		(12-14')		1 1 1 1	2	1.2	NA			Gray brown CLAY, some Silt, trace fine Sand, very soft, wet.	
15		(14-16')		1 1	2	0	NA			Brown SILT and CLAY, very soft, wet, with a 0.05' thick seam	

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.
Apparent Conductivity graph is off-scale at 7 and 8 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-116 S2

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		1 WOH	2	0	NA			of fine Sand.	
		(16-18')		1 1 1 1	2	1.2	NA			Gray brown SILT, some Clay, very soft, wet. A 1-in. thick seam of fine Sand.	
		(18-20')		WOH (18") 1	0	1.25	NA			Occasional seams of fine Sand, very soft, wet.	
20	570	(20-22')		WOH (18") 1	0	1.25	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 35.0' bgs
		(22-24')		1 1 1 1	2	0.2	NA			Low recovery, 1.0-in. piece of Silt and Clay in tip of sampler.	
25	565	(24-26')		1 2 2 2	4	1.6	NA			Dark brown PEAT, some to little Silt. Gray brown CLAY, some Silt, very soft, moist.	2-in diameter Sch. 40 PVC well casing 2.3'ags to 44.0' bgs
		(26-28')		WOH 4 3 10	12	1.0	NA			Light gray fine to medium SAND, little to trace coarse Sand, trace shells, loose, wet.	
		(28-30')		4 3 8 10	11	1.0	NA				
30	560	(30-32')		3 4 7 8	11	1.25	NA				
		(32-34')		5 5 5 5	10	0.8	NA			Gray brown medium to coarse SAND, little fine Sand, trace fine Gravel, trace shells, loose, wet.	
35		(34-36')		3 3	4	0.9	NA			Light gray fine to medium SAND and SILT, trace coarse Sand and fine	

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-116 S2

Total Depth = 62 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	555	(34-36')		1 1	4	0.9	NA			Gravel, very loose, wet.
		(36-38')		5 6 10 13	16	0.8	NA			Gray brown medium to coarse SAND, little fine Sand, trace fine Gravel, loose, wet.
		(38-40')		6 10 14 16	24	0.8	NA			Grades to fine to medium SAND, medium dense.
40	550	(40-42')		4 6 10 17	16	1.25	NA			
		(42-44')		4 5 8 16	13	0.9	NA			
45	545	(44-46')		5 6 10 15	16	0.5	NA			
		(46-48')		5 7 9 12	16	1.1	NA			
		(48-50')		5 4 4 5	8	1.4	NA			Gray medium to coarse SAND, little fine Sand, trace fine to medium Gravel, very loose.
50	540									Gray brown CLAY, some Silt, trace coarse Sand, soft, wet.
		(50-52')		4 5 7 9	12	0.8	NA			Gray medium to coarse SAND, little fine Sand, trace fine Gravel, loose, wet.
		(52-54')		8 4 4 5	8	1.25	NA			Brown CLAY, some Silt, trace fine to coarse Sand, soft, moist to wet.
55		(54-56')		3 3	7	1.75	NA			

Well Construction

- Bentonite seal 35.0' to 38.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3'ags to 44.0' bgs
- 0.01" Sch. 40 PVC screen from 44.0' to 49.0' bgs
- Grade #5 silica sand pack 38.0' to 50.0' bgs
- 2-in diameter Sch. 40 PVC sump 49.0' to 49.2' bgs
- Bentonite seal 50.0' to 62.0' bgs

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-118 S2

Total Depth = 62 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	535	(54-56')		4 4	7	1.75	NA			Brown CLAY, some Silt, trace fine to coarse Sand, soft, moist to wet.	
		(56-58')		2 3 3 4	6	1.75	NA				
		(58-60')		4 4 5 6	9	1.9	NA				Bentonite seal 50.0' to 62.0' bgs
60	530	(60-62')		4 6 9 12	15	1.25	NA			Gark gray CLAY, little Silt, trace fine to coarse Sand and fine to medium Gravel, medium stiff, moist.	
										Total depth of boring 62.0 ft. bgs.	
65	525										
70	520										
75											

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.5 ft.

Geologist: James Saxton

Well No. MW-119 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										2-in diameter Sch. 40 PVC well casing 1.8' ags to 2.0' bgs
	(0-2')		1 2 2 2	4	1.2	0.0			Brown SILT, some Clay, trace fine Sand, soft, moist.	Concrete pad ground surface to 1.2' bgs
										Bentonite seal 1.2' to 1.7' bgs
	(2-4')		WOH 1 1 1	2	1.7	0.0			Brown SILT and CLAY, some fine Sand, very soft, wet.	
5	(4-6')		WOH (12") 1 1	1	0.25	12.8				
	(6-8')		WOH 1 1 (12")	1	1.3	2.0			Gray fine to medium SAND, very loose. Gray SILT and CLAY, very soft.	0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
	(8-10')		1 (18") 1	1	1.25	3.1			Gray fine to medium SAND, very loose. Gray CLAY, some Silt, very soft. Gray fine to medium SAND, trace Silt, very loose.	Grade #5 silica sand pack 1.7' to 12.5' bgs
10	(10-12')		1 (12") 1 1	1	2.0	19.1				
									Total depth of boring 12.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs
15										

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Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from boring log MW-119 S2.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 29.5 ft.

Geologist: James Saxton

Well No. MW-119 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		1 2 2 2	4	1.2	0.0			Brown SILT, some Clay, trace fine Sand, soft, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		WOH 1 1 1	2	1.7	0.0			Brown SILT and CLAY, some fine Sand, very soft, wet.	
5	(4-6')		WOH (12") 1 1	1	0.25	12.8				Type 1 Portland cement/5% bentonite grout 2.0' to 21.5' bgs
	(6-8')		WOH 1 1 (12")	1	1.3	2.0			Gray fine to medium SAND, very loose. Gray SILT and CLAY, very soft. Gray fine to medium SAND, very loose.	
	(8-10')		1 (18") 1	1	1.25	3.1			Gray CLAY, some Silt, very soft. Gray fine to medium SAND, trace Silt, very loose.	
10	(10-12')		1 (12") 1 1	1	2.0	19.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.0' bgs
	(12-14')		WOH (18") 2	0	1.4	15.2			Little Silt.	
15	(14-16')		WOH 1	2	1.4	7.8			Trace Clay.	

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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-119 S2.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

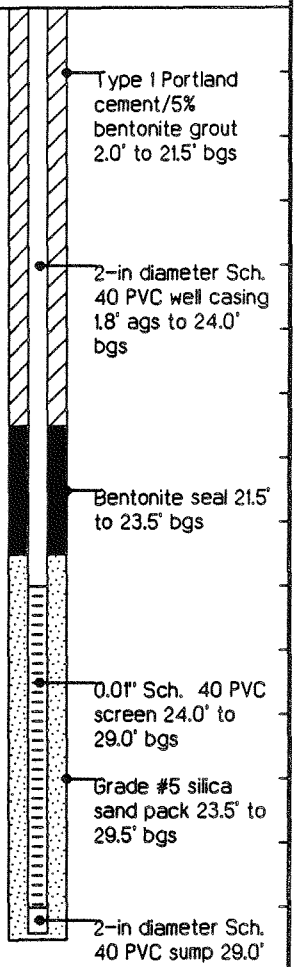
Client:
General Motors Corporation

Well No. MW-119 S1

Total Depth = 29.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 2	2	1.4	7.8			Gray fine to medium SAND, trace Silt, very loose.
	(16-18')		1 1 1 1	2	1.5	10.1			Dark gray SILT and CLAY, trace fine Gravel, very soft, moist.
	(18-20')		WOH (24")	0	1.4				Gray fine to medium SAND, trace Silt, very loose. Brown SILT and SAND, trace clay.
20	(20-22')		WOH (24")	0	1.6	3.8			Black PEAT. Gray CLAY, some Silt, very loose, moist.
	(22-24')		WOH (24")	0	2.0	5.4			Gray to brown CLAY, some Silt, trace shells, very soft, wet.
25	(24-26')		1 (24")	1	2.0	32.5			Gray fine to medium SAND, trace Silt and shells. Trace coarse Sand.
	(26-28')		3 1 3 6	4	2.0	5.9			
	(28-30')		1 1 2 3	3	2.0	15.5			Gray medium to coarse SAND, little fine Gravel, trace fine Sand, very loose.
30									Total depth of boring 29.5 ft. bgs.
35									

Well Construction



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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-119 S2.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 52 ft.

Geologist: James Saxton

Well No. MW-119 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 581.65 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
	580	(0-2')		1 2 2 2	4	1.2	0.0			Brown SILT, some Clay, trace fine Sand, soft, moist.	Concrete pad ground surface to 2.0' bgs
		(2-4')		WOH 1 1 1	2	1.7	0.0			Brown SILT and CLAY, some fine Sand, very soft, wet.	
5		(4-6')		WOH (12") 1 1	1	0.25	12.8				Type 1 Portland cement/5% bentonite grout 2.0' to 29.0' bgs
	575	(6-8')		WOH 1 1 (12")	1	1.3	2.0			Gray fine to medium SAND, very loose. Gray SILT and CLAY, very soft.	
		(8-10')		1 (18") 1	1	1.25	3.1			Gray fine to medium SAND, very loose. Gray CLAY, some Silt, very soft. Gray fine to medium SAND, trace Silt, very loose.	
10		(10-12')		1 (12") 1 1	1	2.0	19.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.5' bgs
	570	(12-14')		WOH (18") 2	1	1.4	15.2			Little Silt. Trace Clay.	
15		(14-16')		WOH 1	2	1.4	7.8				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-119 S2

Total Depth = 52 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	2	1.4	7.8			Gray fine to medium SAND, trace Silt, very loose.	
	565	(16-18')		1 1 1 1	2	1.5	10.1			Dark gray SILT and CLAY, trace fine Gravel, very soft, moist.	
		(18-20')		WOH (24")	0	1.4	NA			Gray fine to medium SAND, trace Silt, very loose. Brown SILT and SAND, trace Clay.	
20		(20-22')		WOH (24")	0	1.6	3.8			Black PEAT Gray CLAY, some Silt, moist, very loose	Type 1 Portland cement/5% bentonite grout 2.0' to 29.0' bgs
	560	(22-24')		WOH (24")	0	2.0	5.4			Gray to brown CLAY, some Silt, trace shells, wet, very soft	
25		(24-26')		1 (24")	1	2.0	32.5			Gray fine to medium SAND, trace Silt and shells	2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.5' bgs
	555	(26-28')		3 1 3 6	4	2.0	5.9			Trace coarse Sand	
		(28-30')		1 1 2 3	3	2.0	15.5			Gray medium to coarse SAND, little fine Gravel, trace fine Sand, very loose	
30		(30-32')		2 2 2 4	4	2.0	9.6			Gray fine to medium SAND, little coarse Sand, trace Silt, very loose	Bentonite seal 29.0' to 33.0' bgs
	550	(32-34')		3 1 1 2	2	2.0	16.4				Grade #5 silica sand pack 33.0' to 42.0' bgs
35		(34-36')		5 3	9	1.7	12.1			Gray coarse SAND and fine GRAVEL, trace medium Sand, very loose	

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-119 S2

Total Depth = 52 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		6 10	9	1.7	12.1			Gray fine to medium SAND, trace Silt, loose	2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.5' bgs
	545	(36-38')		1 4 8 10	12	2.0	21.9			Gray coarse SAND and fine GRAVEL, trace medium Sand, loose Trace medium Gravel	0.01" Sch. 40 PVC screen 36.5' to 41.5' bgs
		(38-40')		5 3 5 8	8	1.3	24.1				Grade #5 silica sand pack 33.0' to 42.0' bgs
40		(40-42')		4 5 3 3	8	2.0	7.6				
	540	(42-44')		WOH 1 2 1	3	NA	0.1			Gray to brown CLAY, some Silt, wet, soft	2-in diameter Sch. 40 PVC sump 41.5' to 41.9' bgs
45		(44-46')		ST		0.75					Bentonite seal 47.0' to 56.0' bgs
	535	(46-48')		ST		2.0					
		(48-50')		WOH 1 1 2	2	2.0	0.0			Trace coarse Sand and fine Gravel	
50		(50-52')		WOH (12") 2 2	2	2.0	0.0				
	530									Total depth of boring 52.0 ft. bgs	
55											

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Remarks:
ST - Shelby tube sample from 44' to 48' bgs.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15 ft.

Geologist: Sabrina T. Hesford

Well No. MW-120 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed; 2-in diameter Sch. 40 PVC well casing 1.8' ags to 4.0' bgs
	(0-2')		3 2 2 2	4	1.6	10.1			Dark brown SILT, trace fine Sand, very soft, damp to moist.	Concrete pad ground surface to 2.5' bgs
	(2-4')		1 1 2 1	3	0.5	2.6				Bentonite seal 2.5' to 3.5' bgs
5	(4-6')		1 1 2 1	3	0.9	2.5			SILT, trace fine Sand, very soft, moist, trace wood, 0.2' layer of gray fine to medium Sand.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
	(6-8')		1 2 2 2	4	1.3	3.3			Grades to gray SILT and fine SAND, trace Clay, soft, moist, organic material.	
	(8-10')		1 1 1 1	2	0.8	2.5			Gray fine to medium SAND, wet. Gray fine SAND and SILT, trace to little Clay, wet. Gray fine to medium SAND, wet.	
10	(10-12')		1 2 2 1	4	1.2	0.4			Seam of dark brown fine Sand and Silt.	Grade #5 silica sand pack 3.5' to 15.0' bgs
	(12-14')		1 1 1 1	2	0.7	0.7			A 0.4' layer of gray fine Sand and Silt, trace Clay, wet, plant material and wood.	2-in diameter Sch. 40 PVC sump 14.0' to 14.2' bgs
15	(14-15')		2 1	2	0.8	0.7			Total depth of boring 15.0 ft. bgs.	

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Remarks:
Soil descriptions taken from boring log MW-120 S2.

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▼
		▼
		▽

Date Start–Finish: 01/16/95 – 01/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Sabrina T. Hesford

Well No. MW-120 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		3 2 2 2	4	1.6	10.1			Dark brown SILT, trace fine Sand, very soft, damp to moist.	Concrete pad ground surface to 2.5' bgs
	(2-4')		1 1 2 1	3	0.5	2.6				
5	(4-6')		1 1 2 1	3	0.9	2.5			SILT, trace fine Sand, very soft, moist, trace wood, 0.2' layer of gray fine to medium Sand.	Type 1 Portland cement/5% bentonite grout 2.5' to 21.5' bgs
	(6-8')		1 2 2 2	4	1.3	3.3			Grades to gray SILT and fine SAND, trace Clay, soft, moist, organic material.	
									Gray fine to medium SAND, wet.	
	(8-10')		1 1 1 1	2	0.8	2.5			Gray fine SAND and SILT, trace to little Clay, wet.	
10									Gray fine to medium SAND, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.0' bgs
	(10-12')		1 2 2 1	4	1.2	0.4			Seam of dark brown fine SAND and SILT.	
	(12-14')		1 1 1 1	2	0.7	0.7			A 0.4' layer of gray fine Sand and Silt, trace Clay, wet, plant material and wood.	
15	(14-16')		2 1	2	0.8	0.7				

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Remarks:
Soil descriptions taken from boring log MW-120 S2.

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-120 S1

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	2	0.8	0.7			Gray fine to medium SAND, wet.	Type 1 Portland cement/5% bentonite grout 2.5' to 21.5' bgs
	(16-18')		2 (12") 1 2	2	1.3	0.5			Dark gray SILT, mixed with plant material, trace shells, very soft, moist.	
	(18-20')		1 1 1 1	2	2.0	1.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 24.0' bgs
20	(20-22')		WOH (12") 1 (12")	1	1.4	0.7			Very thin dark brown organic layer. Gray SILT, little fine Sand, trace Clay, soft, very soft, wet.	Bentonite seal 21.5' to 23.5' bgs
	(22-24')		2 2 2 3	4	2.0	0.4				
25	(24-26')		3 4 5 7	9	1.2	4.4			Fine to coarse SAND, wet, loose. Trace fine Gravel.	0.01" Sch. 40 PVC screen 24.0' to 29.0' bgs
	(26-28')		10 14 25 18	39	1.2	23.8			Trace shell fragments.	Grade #5 silica sand pack 23.5' to 30.0' bgs
	(28-30')		5 8 9 9	17	0.8	13.8				2-in diameter Sch. 40 PVC sump 29.0' to 29.2' bgs
30									Total depth of boring 30.0 ft. bgs.	
35										

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Remarks:
Soil descriptions taken from boring log MW-120 S2.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▽
		▽
		▽

Date Start-Finish: 01/16/95 - 01/17/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 52 ft.

Geologist: Sabrina T. Hesford

Well No. MW-120 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 582.59 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		3 2 2 2	4	1.6	10.1			Dark brown SILT, trace fine Sand, very soft, damp to moist.	Concrete pad ground surface to 2.5' bgs
	580	(2-4')		1 1 2 1	3	0.5	2.6				
5		(4-6')		1 1 2 1	3	0.9	2.5			SILT, trace fine Sand, very soft, moist, trace wood, 0.2' layer of gray fine to medium Sand.	Type 1 Portland cement/5% bentonite grout 2.5' to 30.5' bgs
		(6-8')		1 2 2 2	4	1.3	3.3			Grades to gray SILT and fine SAND, trace Clay, soft, moist, organic material.	
	575									Gray fine to medium SAND, wet.	
		(8-10')		1 1 1 1	2	0.8	2.5			Gray fine SAND and SILT, trace to little Clay, wet.	
10										Gray fine to medium SAND, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.0' bgs
		(10-12')		1 2 2 1	4	1.2	0.4			Seam of dark brown fine SAND and SILT.	
	570	(12-14')		1 1 1 1	2	0.7	0.7			A 0.4' layer of gray fine Sand and Silt, trace Clay, wet, plant material and wood.	
15		(14-16')		2 1	2	0.8	0.7				

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Remarks:
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▼

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-120 S2

Total Depth = 52 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	2	0.8	0.7			Gray fine to medium SAND, wet.	
	565	(16-18')		2 (12") 1 2	1	1.3	0.5			Dark gray SILT, mixed with plant material, trace shells, very soft, moist.	
		(18-20')		1 1 1 1	2	2.0	1.0				Type 1 Portland cement/5% bentonite grout 2.5' to 30.5' bgs
20		(20-22')		WOH (12") 1 (12")	1	1.4	0.7			Very thin dark brown organic layer. Gray SILT, little fine Sand, trace Clay, soft, very soft, wet.	
	560	(22-24')		2 2 2 3	4	2.0	0.4				
		(24-26')		3 4 5 7	9	1.2	4.4			Fine to coarse SAND, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.0' bgs
25		(26-28')		10 14 25 18	39	1.2	23.6			Trace fine Gravel.	
	555	(28-30')		5 8 9 9	17	0.8	13.8			Trace shell fragments.	
30		(30-32')		3 6 8 9	14	0.9	6.6				Bentonite seal 30.5' to 34.0' bgs
	550	(32-34')		4 8 10 11	18	0.9	13.7			Trace fine Gravel and shells.	
35		(34-36')		4 4	11	0.7	16.8				Grade #5 silica sand pack 34.0' to 41.5' bgs

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Remarks:
WOH - Weight of Hammer.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-120 S2

Total Depth = 52 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		7 10	11	0.7	16.8			Grades coarser, gray fine to coarse SAND, little fine to medium Gravel, medium dense, wet.
	545	(36-38')		5 9 13 14	22	0.6	16.8			
		(38-40')		4 7 10 14	17	0.5	10.0			
40		(40-42')		5 4 4 4	8	0.1	12.1			Gray brown CLAY, some Silt, little fine to coarse Sand, trace fine to medium Gravel, loose, wet.
	540	(42-44')		2 2 2 3	4	2.0	10.6			Trace brown Silt and fine Sand seams, soft, wet.
45		(44-46')		1 1 2 3	3	2.0	14.6			
		(46-48')		1 2 2 3	4	1.8	14.0			
	535	(48-50')		2 2 2 2	4	1.7	11.4			No seams of brown Silt.
50		(50-52')		2 2 3 3	5	1.2	6.3			
	530									Total depth of boring 52.0 ft. bgs.
55										

Well Construction

- 0.01" Sch. 40 PVC screen 36.0' to 41.0' bgs
- Grade #5 silica sand pack 34.0' to 41.5' bgs
- 2-in diameter Sch. 40 PVC sump 41.0' to 41.2' bgs
- Bentonite seal 41.5' to 52.0' bgs

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Remarks:
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/17/95		7.0 ▼

Date Start-Finish: 01/12/95 - 01/16/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.7 ft.

Geologist: Sabrina T. Hesford

Well No. MW-121 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')				1.2	67.7			Dark brown SILT, trace Clay, soft, roots.	Concrete pad ground surface to 2.5' bgs
	(2-4')		2 2 1 1	3	0.6	15.1				2-in diameter Sch. 40 PVC well casing 1.8' ags to 3.5' bgs
5	(4-6')		1 (12") 2 (12")	1	1.5	22.6			A 1" seam of gray fine Sand and Silt, trace wood and plant fibers.	Bentonite seal 2.5' to 3.0' bgs
	(6-8')		1 1 3 3	4	1.5	11.6			Gray fine SAND, little Silt, trace shells, very loose, wet.	0.01" Sch. 40 PVC screen 3.5' to 13.5' bgs
	(8-10')		1 2 2 3	4	1.0	5.1				Grade #5 silica sand pack 3.0' to 13.7' bgs
10	(10-12')		1 1 1 2	2	1.1	6.8			Seams of brown Silt, very soft, moist.	
	(12-14')		1 2 1 2	3	1.0	7.1			Seams of brown Silt, very soft, moist.	
15									Total depth of boring 13.7 ft. bgs.	2-in diameter Sch. 40 PVC sump 13.5' to 13.7' bgs

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Remarks:
Soil description taken from boring log MW-121 S2.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼
		▼
		▽

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 27 ft.

Geologist: Sabrina T. Hesford

Well No. MW-121 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		NA NA NA NA		1.2	67.7			Dark brown SILT, trace Clay, soft, roots.	Concrete pad ground surface to 2.0' bgs
		(2-4')		2 2 1 1	3	0.6	15.1				
5		(4-6')		1 (12") 2 (12")	1	1.5	22.6			A 1" seam of gray fine Sand and Silt, trace wood and plant fibers.	Type 1 Portland cement/5% bentonite grout 2.0' to 18.7' bgs
		(6-8')		1 1 3 3	4	1.5	11.6			Gray fine SAND, little Silt, trace shells, very loose, wet.	
		(8-10')		1 2 2 3	4	1.0	5.1				
10		(10-12')		1 1 1 2	2	1.1	6.6			Seams of brown Silt, very soft, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 21.6' bgs
		(12-14')		1 2 1 2	3	1.0	7.1			Seams of brown Silt, very soft, wet.	
15		(14-16')		WOH (12")		1.0	4.5			Gray fine Sand, little shell fragments and whole small shells, trace wood and plant material.	

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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-121 S2.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼
		▽
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

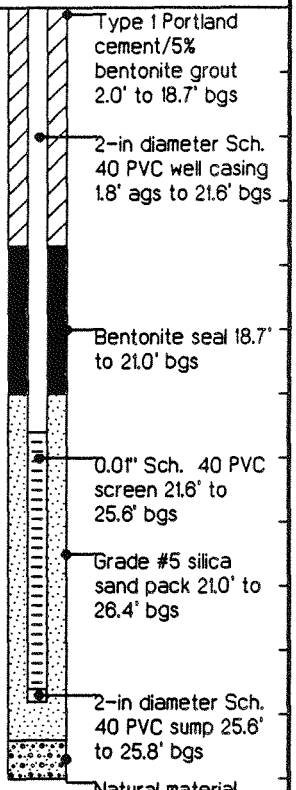
Client:
General Motors Corporation

Well No. MW-121 S1

Total Depth = 27 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 (12")		1.0	4.5			Gray fine Sand.
	(16-18')		1 1 1 1	2	2.0	6.0			Brown SILT, plant material, very soft, wet. Gray fine to medium SAND, wet. Gray brown SILT, little fine Sand, very soft, wet. soft
	(18-20')		1 (12") 1 (12")	1	1.5	4.1			Trace Clay. Gray SILT, some fine Sand, very soft, wet.
20	(20-22')		5 7 8 9	15	1.2	4.3			Seans of brown Silt, moist. Gray fine to coarse SAND, trace rounded fine Gravel, loose, wet.
	(22-24')		5 8 10 11	18	0.9	6.1			
25	(24-26')		3 3 4 5	7	1.2	5.4			
	(26-28')		4 5 9 10	14	1.0	2.6			Grades to fine to medium SAND, loose. Total depth of boring 27.0 ft. bgs.
30									
35									

Well Construction



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Remarks:
Soil description taken from boring log MW-121 S2.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼
		▼
		▼

Date Start-Finish: 01/12/95 - 01/12/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 50 ft.

Geologist: Sabrina T. Hesford

Well No. MW-121 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 582.23 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')				1.2	67.7			Dark brown SILT, trace Clay, soft, roots.	Concrete pad ground surface to 2.5' bgs
	580	(2-4')		2 2 1 1	3	0.6	15.1				
5		(4-6')		1 (12") 2 (12")	1	1.5	22.6			A 1" seam of gray fine Sand and Silt, trace wood and plant fibers.	Type 1 Portland cement/5% bentonite grout 2.5' to 31.0' bgs
	575	(6-8')		1 1 3 3	4	1.5	11.6			Gray fine SAND, little Silt, trace shells, very loose, wet.	
		(8-10')		1 2 2 3	4	1.0	5.1				
10		(10-12')		1 1 1 2	2	1.1	6.6			Seams of brown Silt, very soft, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 34.8' bgs
	570	(12-14')		1 2 1 2	3	1.0	7.1			Seams of brown Silt, very soft, wet.	
15		(14-16')		WOH (12")	1	1.0	4.5			Gray fine Sand, little shell fragments and whole small shells, trace wood and plant material.	

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Remarks:
WOH - Weight of Hammer.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-121 S2

Total Depth = 50 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 (12")	1	1.0	4.5			Gray fine Sand.	
	565	(16-18')		1 1 1 1	2	2.0	6.0			Brown SILT, plant material, very soft, wet. Gray fine to medium SAND, wet. Gray brown SILT, little fine Sand, very soft, wet. Trace Clay.	
		(18-20')		1 (12") 1 (12")	1	1.5	4.1			Gray SILT, some fine Sand, very soft, wet. Seams of brown Silt, moist.	
20		(20-22')		5 7 8 9	15	1.2	4.3			Gray fine to coarse SAND, trace rounded fine Gravel, loose, wet.	Type 1 Portland cement/5% bentonite grout 2.5' to 31.0' bgs
	560	(22-24')		5 8 10 11	18	0.9	6.1				
25		(24-26')		3 3 4 5	7	1.2	5.4				2-in diameter Sch. 40 PVC well casing 1.8' ags to 34.8' bgs
	555	(26-28')		4 5 9 10	14	1.0	2.6			Grades to fine to medium SAND, loose.	
		(28-30')		1 7 9 11	16	0.8	1.9			Trace coarse Sand.	
30		(30-32')		4 5 6 6	11	1.0	3.1				
	550	(32-34')		5 6 9 10	15	1.0	2.0				Bentonite seal 31.0' to 33.0' bgs
35		(34-36')		4 5	12	0.8	NA			Seams of dark brown Silt and fine Sand, trace Clay, cohesive.	Grade #5 silica sand pack 33.0' to 40.5' bgs

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Remarks:
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

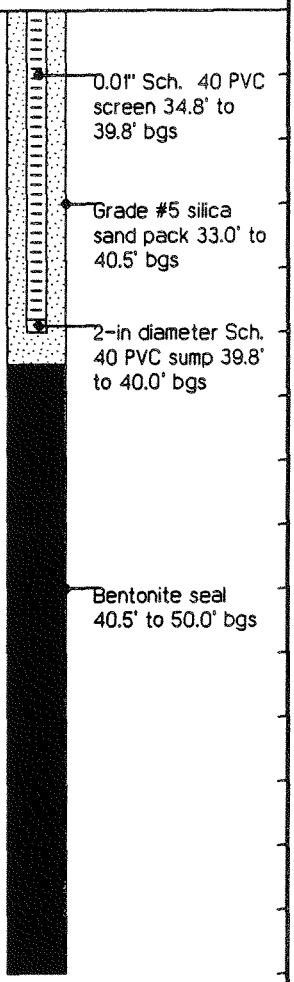
Well No. MW-121 S2

Total Depth = 50 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		7 9	12	0.8	NA			Fine to medium SAND, loose.
	545	(36-38')		3 3 6 9	9	1.0	3.2			
		(38-40')		2 2 2 3	4	0.6	3.0			Grades with two 1" seams of Silt and fine to coarse Sand, little rounded Gravel.
40		(40-42')		1 1 1 1	2	1.25	3.0			Gray brown CLAY, very soft,wet.
	540	(42-44')		2 3 1 2	4	1.8	2.4			
45		(44-46')		1 (24")	0.25	2.0	2.4			
	535	(46-48')		NA	NA	1.6	2.1			
		(48-50')		1 1 2 2	3	2.0	2.0			
50										Total depth of boring 50.0 ft. bgs.
	530									
55										

Well Construction



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engineers & scientists

Remarks:
NA - Not available.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth
01/12/95		5.5 ▼

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.5 ft.

Geologist: Sabrina T. Hesford

Well No. MW-122 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		2 2 2 2	4	0.3	0.4			Dark brown fine SAND and SILT, trace Clay, loose/soft, moist to wet.
	(2-4')		1 1 1 1	2	1.4	0.3			Grades with little gray fine Sand, trace shells, wood, and plant material, very soft, wet.
5	(4-6')		WOH (12") 1 1	1	1.7	0.9			Brown fine SAND and SILT, very soft, wet. From 4.0' to 10.0' there are 1" thick peat layers every 1.0'.
	(6-8')		1 (24")	1	1.75	1.1			Dark gray SILT, little to trace Clay, trace fine Sand, very soft, wet.
	(8-10')		1 (24")	1	2.0	0.8			Trace shells.
10	(10-12')		1 (24")	1	1.0	0.8			
	(12-14')		WOH 1 1 1	2	1.0	0.7			Peat. Total depth of boring 12.5 ft. bgs.
15									

Well Construction

- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 2.0' bgs
- Concrete pad ground surface to 1.0'
- Bentonite seal 1.0' to 1.5' bgs
- 0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
- Grade #5 silica sand pack 1.5' to 12.5' bgs
- 2-in diameter Sch. 40 PVC sump 12.0' to 12.2' bgs

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engineers & scientists

Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from boring log MW-122 S2.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 24 ft.

Geologist: Sabrina T. Hesford

Well No. MW-122 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed.
	(0-2')		2 2 2 2	4	0.3	0.4			Dark brown fine SAND and SILT, trace Clay, loose/soft, moist to wet.	Concrete pad ground surface to 2.5'
	(2-4')		1 1 1 1	2	1.4	0.3			Grades with little gray fine Sand, trace shells, wood, and plant material, very soft, wet.	
5	(4-6')		WOH (12") 1 1	1	1.7	0.9			Brown fine SAND and SILT, very soft, wet. From 4.0' to 10.0' there are 1" thick peat layers every 1.0'.	Type 1 cement/5% bentonite grout 2.5' to 15.1' bgs
	(6-8')		1 (24")	1	1.75	1.1			Dark gray SILT, little to trace Clay, trace fine Sand, very soft, wet.	
	(8-10')		1 (24")	1	2.0	0.8			Trace shells.	
10	(10-12')		1 (24")	1	1.0	0.8				2-in diameter Sch. 40 PVC well casing 2.3' ags to 18.1' bgs
	(12-14')		WOH 1 1 1	2	1.0	0.7			Peat. Brown fine to medium SAND, some Silt, very loose, wet.	
15	(14-16')		1 1	3	1.5	0.8			A 0.5' layer of fine to medium Sand.	

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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-122 S2.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

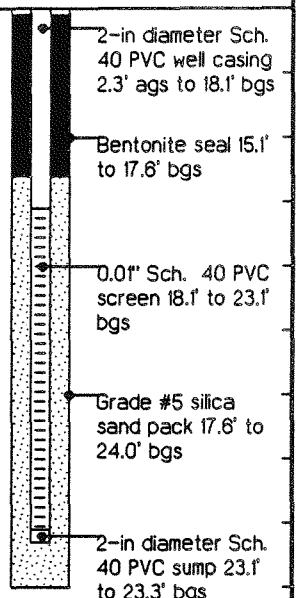
Client:
General Motors Corporation

Well No. MW-122 S1

Total Depth = 24 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		2 1	3	1.5	0.8			Brown fine to medium SAND, some Silt, very loose, wet.
	(16-18')		WOH (12") 2 2	2	1.0	0.9			Gray brown fine SAND and SILT, little organic material, very loose/very soft, wet.
	(18-20')		1 2 2 1	4	1.0	0.8			Gray brown fine to medium SAND, very loose, wet. Trace fractions of fine Sand and Silt, shells, organic material. Grades to little Silt.
20	(20-22')		WOH (24")	0	0.7	0.9			
	(22-24')		1 (24")	1	1.2	1.3			
25									Total depth of boring 24.0 ft. bgs.
30									
35									

Well Construction



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Remarks:
WOH - Weight of Hammer.
Soil description taken from boring log MW-122 S2.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42 ft.

Geologist: Sabrina T. Hesford

Well No. MW-122 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 583.07 ft.										4-in diameter steel protective casing stick-up 2.5' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		2 2 2 2	4	0.3	0.4			Dark brown fine SAND and SILT, trace Clay, loose/soft, moist to wet.	Concrete pad ground surface to 2.5'
	580	(2-4')		1 1 1 1	2	1.4	0.3			Grades with little gray fine Sand, trace shells, wood, and plant material, very soft, wet.	
5		(4-6')		WOH (12") 1 1	1	1.7	0.9			Brown fine SAND and SILT, very soft, wet. From 4.0' to 10.0' there are 1" thick peat layers every 1.0'.	Type 1 Portland cement/5% bentonite grout 2.5' to 21.5' bgs
		(6-8')		1 (24")	1	1.75	1.1			Dark gray SILT, little to trace Clay, trace fine Sand, very soft, wet.	
	575	(8-10')		1 (24")	1	2.0	0.8			Trace shells.	
10		(10-12')		1 (24")	1	1.0	0.8				2-in diameter Sch. 40 PVC well casing 2.5' ags to 25.8' bgs
	570	(12-14')		WOH 1 1 1	2	1.0	0.7			Peat. Brown fine to medium SAND, some Silt, very loose, wet.	
15		(14-16')		1 1	3	1.5	0.8			A 0.5' layer of fine to medium Sand.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-122 S2

Total Depth = 42 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 1	3	1.5	0.8			Brown fine to medium SAND, some Silt, very loose, wet.	Type 1 Portland cement/5% bentonite grout 2.5' to 21.5' bgs
		(16-18')		WOH (12") 2 2	2	1.0	0.9			Gray brown fine SAND and SILT, little organic material, loose/very soft, wet.	
	565	(18-20')		1 2 2 1	4	1.0	0.8			Gray brown fine to medium SAND, very loose, wet. Trace fractions of fine Sand and Silt, shells, organic material. Grades to little Silt.	2-in diameter Sch. 40 PVC well casing 2.5' ags to 25.8' bgs
20		(20-22')		WOH (24")	0	0.7	0.9				
	560	(22-24')		1 (24")	1	1.2	1.3				Bentonite seal 21.5' to 23.9' bgs
		(24-26')		1 (12") 2 3	2	1.1	0.9			Trace coarse Sand.	
25		(26-28')		3 4 8 11	12	1.0	0.8				0.01" Sch. 40 PVC screen 25.8' to 30.8' bgs
	555	(28-30')		5 8 10 9	18	1.0	0.4			Grades to gray very fine SAND, medium dense. Trace rounded fine Gravel. Trace fine to coarse Sand and fine Gravel.	Grade #5 silica sand pack from 23.9' to 31.5' bgs
30		(30-32')		5 7 9 10	16	1.25	0.5			Gray SILT, little to trace Clay, trace fine to coarse Sand and fine Gravel, very stiff, moist. Trace fine to medium Gravel, stiff.	2-in diameter Sch. 40 PVC sump 30.8' to 31.0' bgs
	550	(32-34')		4 5 7 8	12	1.4	0.4				Bentonite seal 31.0' to 42.0' bgs
35		(34-36')		3 3	9	1.2	0.4			Grades to little Clay, trace fine to coarse Sand, no Gravel, medium stiff.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-122 S2

Total Depth = 42 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		6 8	9	1.2	0.4				
		(36-38')		3 3 2 3	5	2.0	0.6			Gray brown SILT, some Clay, trace coarse Sand, soft, wet.	
	545									Soft, moist.	Bentonite seal 31.0' to 42.0' bgs
		(38-40')		1 1 3 4	4	2.0	0.6				
40										Very soft, wet.	
		(40-42')		WOH (12") 2 1	2	1.8	0.6				
										Total depth of boring 42.0 ft. bgs.	
	540										
45											
	535										
50											
	530										
55											

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engineers & scientists

Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.5 ft.

Geologist: James Saxton

Well No. MW-123 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										**GROUND SURFACE**	4-in diameter steel protective casing 2.1' ags, locking cap installed.
											2-in diameter Sch. 40 PVC well casing 2.1' ags to 2.0' bgs
		(0-2')		1 2 3 2	5	1.25	NA			Dark brown SILT, little fine to medium Sand, trace fine Gravel, soft, moist, roots.	Concrete pad ground surface to 1.3' bgs
		(2-4')		1 1 1 1	2	NR	NA			Brown SILT, little Clay, trace fine Sand, soft, wet @ 2.5'.	Bentonite seal 1.3' to 1.8' bgs
5		(4-6')		1 (12") 1 (12")	1	2.0	NA			Dark brown PEAT, very soft.	0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
		(6-8')		WOH (24")	0	2.0	NA			Brown CLAY, some Silt, trace fine Sand, very soft, wet.	Grade #5 silica sand pack 1.8' to 12.5' bgs
		(8-10')		WOH (18") 1	0	2.0	NA				
10		(10-12')		1 (24")	1	1.4	NA			Dark gray fine to medium SAND, some Silt, little Clay and shell fragments, very loose, wet.	
		(12-14')		WOH (12") 1	1	1.6	NA			Gray CLAY and fine SAND, little Silt, very soft, wet, trace shell fragments.	2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs
15										Total depth of boring 12.5 ft. bgs.	

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Remarks:
Soil description taken from boring log MW-123 S1.
WOH - Weight of Hammer.
NR - No recovery, redrove sampler.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 01/09/95 - 01/09/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: James Saxton

Well No. MW-123 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 583.51 ft.										4-in diameter steel protective casing 2.1' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		1 2 3 2	5	1.25	NA			Dark brown SILT, little fine to medium Sand, trace fine Gravel, soft, moist, roots.	Concrete pad ground surface to 2.0' bgs
		(2-4')		1 1 1 1	2	NR	NA			Brown SILT, little Clay, trace fine Sand, soft, wet @ 2.5'.	
	580										
5		(4-6')		1 (12") 1 (12")	1	2.0	NA			Dark brown PEAT, very soft.	Type 1 cement/5% bentonite grout 2.0' to 13.5' bgs
										Brown CLAY, some Silt, trace fine Sand, very soft, wet.	
		(6-8')		WOH (24")	0	2.0	NA				
	575	(8-10')		WOH (18") 1	0	2.0	NA				
10										Dark gray fine to medium SAND, some Silt, little Clay and shell fragments, very loose, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 16.5' bgs
		(10-12')		1 (24")	1	1.4	NA			Gray CLAY and fine SAND, little Silt, very soft, wet, trace shell fragments	
		(12-14')		WOH (12") 1 1	1	1.6	NA				
	570										Bentonite seal 13.5' to 15.7' bgs
15		(14-16')		1 3	6	1.75	NA				

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engineers & scientists

Remarks:
WOH - Weight of Hammer.
NA - Not Available.
NR - No recovery, redrove sampler.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

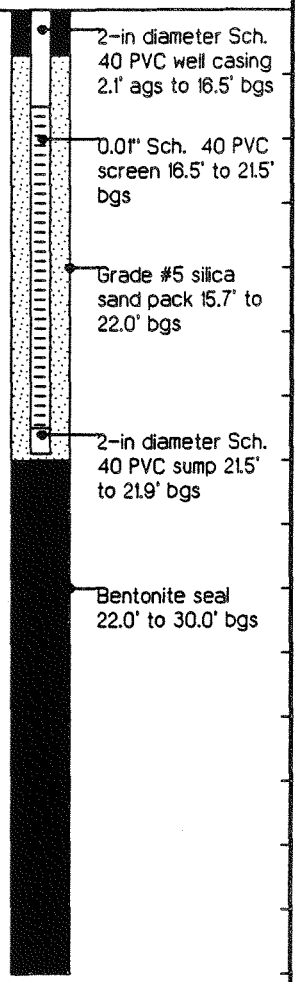
Client:
General Motors Corporation

Well No. MW-123 SI

Total Depth = 30 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		3 5	6	1.75	NA			Gray SILT, some fine Sand, soft, moist.
		(16-18')		1 4 4 41	8	2.0	NA			Gray fine to medium SAND, little Silt, loose, wet.
	565	(18-20')		2 4 6 5	10	1.5	NA			Little fine to medium Gravel, wet.
20		(20-22')		3 4 8 10	12	1.2	NA			Gray CLAY and SILT, little medium to coarse Sand, soft, wet. Trace fine Sand and fine Gravel, moist.
	560	(22-24')		3 6 10 13	16	NR	NA			
25		(24-26')		3 2 7 12	9	1.25	NA			
		(26-28')		4 7 12 13	19	1.6	NA			
	555	(28-30')		3 6 11 11	17	1.5	NA			
30										Total depth of boring 30.0 ft. bgs.
	550									
35										

Well Construction



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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 01/06/95 - 01/06/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 7.5 ft.

Geologist: James Saxton

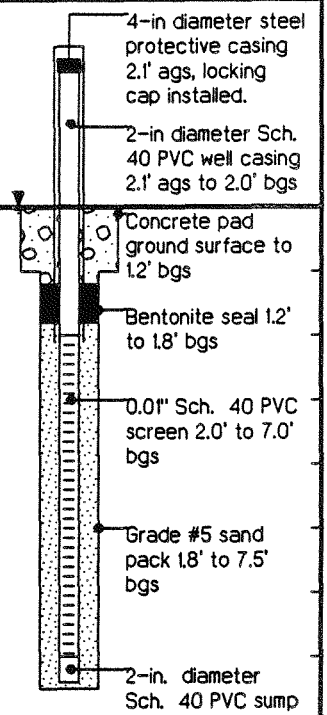
Well No. MW-124 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft									GROUND SURFACE
	(0-2')		3 3 3 3	6	1.1	NA			Brown SILT, some fine Sand, soft, trace roots. Brown fine to medium SAND, little Silt, very loose, moist.
	(2-4')		8 5 6 5	22	0.8	NA			Wet.
5	(4-6')		2 2 1 1	3	1.25	NA			Dark gray fine to medium SAND, little Silt, very loose, wet trace shell fragments.
	(6-8')		2 3 WOH 1	3	1.2	NA			
10									Total depth of boring 7.5 ft. bgs.
15									

Well Construction



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Remarks:
Soil descriptions taken from boring log MW-124 S1.
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/06/95 - 01/06/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: James Saxton

Well No. MW-124 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 583.83 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.1' ags, locking cap installed.
		(0-2')		3 3 3 3	6	1.1	NA			Brown SILT, some fine Sand, soft, trace roots.	Concrete pad ground surface to 2.0' bgs
										Brown fine to medium SAND, little Silt, very loose, moist.	
		(2-4')		8 5 6 5	22	0.8	NA			Wet.	Type I cement/5% bentonite grout 2.0' to 7.5' bgs
	580										
5		(4-6')		2 2 1 1	3	1.25	NA			Dark gray fine to medium SAND, little Silt, trace shell fragments, very loose, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 11.5' bgs
		(6-8')		2 3 WOH 1	3	1.2	NA				
	575	(8-10')		1 (12") 1 1	2	NR	NA			No Recovery.	Bentonite seal 7.5' to 9.5' bgs
10		(10-12')		WOH (18") 2	0	1.75	NA			Dark gray fine to medium SAND, little Silt, trace shell fragments, very loose, wet.	0.01" Sch. 40 PVC screen 11.5' to 16.5' bgs
										Little Clay.	
		(12-14')		3 2 2 4	4	1.0	NA				Grade #5 sand pack 9.5' to 17.0' bgs
	570										
15		(14-16')		3 2	4	1.5	NA			Brown fine SAND and CLAY, trace fine Gravel, very loose, wet.	

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engineers & scientists

Remarks:
WOH - Weight of Hammer.
NA - Not Available.
NR - No Recovery.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

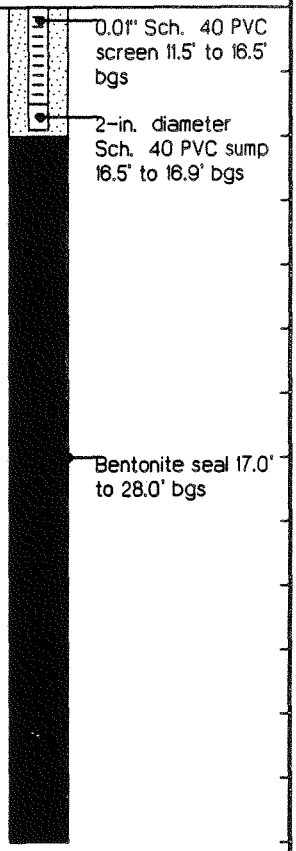
Client:
General Motors Corporation

Well No. MW-124 SI

Total Depth = 28 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		3 4	4	1.5	NA			Brown fine SAND and CLAY, trace fine Gravel, very loose, wet.
		(16-18')		4 7 10 10	17	1.5	NA			Brown CLAY, some SILT, little fine Sand, trace Gravel, medium stiff, moist.
	565	(18-20')		2 4 5 8	9	1.0	NA			
20		(20-22')		3 8 10 11	18	2.0	NA			
		(22-24')		4 6 8 9	14	1.9	NA			
	560	(24-26')		4 4 8 10	13	2.0	NA			
25		(26-28')		4 6 7 7	13	0.9	NA			
										Total depth of boring 28.0 ft. bgs.
	555									
30										
	550									
35										

Well Construction



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Remarks:
NA - Not Available.
Apparent Conductivity graph is off-scale.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/04/95 - 01/04/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: James Saxton

Well No. MW-125 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.1' ags, locking cap installed.
										2-in diameter Sch. 40 PVC well casing 2.1' ags to 2.5' bgs
	(0-2')		2 2 5 5	7	1.0	NA			Dark gray SILT, some Clay, soft, moist, trace tree roots, wood pieces.	Concrete pad ground surface to 1.5' bgs
	(2-4')		2 4 3 4	7	1.5	NA				Bentonite seal 1.5' to 2.5' bgs
5	(4-6')		1 1 2 2	3	1.8	NA			Brown CLAY, some fine to medium Sand, little shell fragments, very soft, wet.	
	(6-8')		1 1 2 2	3	1.7	NA			Gray CLAY, some Silt and fine Gravel, very soft, wet.	0.01" Sch. 40 PVC screen from 2.5' to 12.5' bgs
	(8-10')		1 3 3 4	6	2.0	NA				
10	(10-12')		1 3 5 8	8	2.0	NA			moist.	Grade #5 silica sand pack 2.0' to 13.0' bgs
	(12-14')		6 9 12 15	21	2.0	NA			Brown CLAY, some Silt, stiff, moist.	2-in. diameter Sch. 40 PVC sump 12.5' to 12.9' bgs
15	(14-16')		5 7	16	1.2	NA				Bentonite seal 13.0' to 30.0' bgs

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-125 WT

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		9 10	16	1.2	NA			Brown CLAY, some Silt, stiff, moist.	Bentonite seal 13.0' to 30.0' bgs
	(16-18')		5 8 9 11	17	2.0	NA			Little fine Sand, wet.	
	(18-20')		4 7 8 8	15	NR	NA				
20	(20-22')		1 2 4 6	6	2.0	NA				
	(22-24')		2 3 4 4	7	2.0	NA				
25	(24-26')		3 3 4 4	7	1.5	NA				
	(26-28')		1 2 3 3	5	2.0	NA				
	(28-30')		1 2 2 2	4	2.0	NA				
30									Total depth of boring 30.0 ft. bgs.	
35										

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Remarks:
NA - Not Available.
NR - No recovery, redrove sampler.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 02/08/95 – 02/08/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 20 ft.

Geologist: Ron Kuhn

Well No. MW-126 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed. Concrete pad ground surface to 1.5' bgs
		(0-2')		16 8 5 6	13	2.0	18.7			Black fine to medium SAND, trace Silt, damp. Brown SILT and CLAY, trace fine Sand and organics (roots), damp.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 3.0' bgs
		(2-4')		1 1 1 3	2	1.4	12.6			Becomes soft, moist.	Bentonite seal 1.5' to 2.0' bgs
5		(4-6')		1 1 1 2	2	1.2	64.7			Saturated.	Grade #5 silica sand pack 2.0' to 13.4' bgs
		(6-8')		WOH (12") 1 2	1	1.2	54.3				
		(8-10')		0 2 2 2	4	1.8	14.3			Gray fine to medium SAND, trace Silt and shells, saturated.	0.01" Sch. 40 PVC screen 3.0' to 13.0' bgs
10		(10-12')		1 5 12 12	17	2.0	23.0			Brown SILT and CLAY, trace fine SAND, trace fine to medium Gravel and organics (roots), medium stiff, moist.	
		(12-14')		2 3 5 6	8	2.0	8.8				2-in diameter Sch. 40 PVC sump 13.0' to 13.4' bgs
15		(14-16')		3 4	15	2.0	NA			No organics, very stiff.	

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Remarks:
WOH – Weight of Hammer.
NA – Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-128 WT

Total Depth = 20 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		11 14	15	2.0	NA			Brown SILT and CLAY, trace fine Gravel, very stiff, moist.	Bentonite seal 13.4' to 20.0' bgs
	(16-18')		2 4 9 12	13	2.0	3.6			Fractures noticed with gray Silt.	
	(18-20')		1 3 6 10	9	2.0	3.3				
20									Total depth of boring 20.0 ft. bgs.	
25										
30										
35										

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 01/11/95 - 01/12/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.5 ft.

Geologist: James Saxton

Well No. MW-127 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft									**GROUND SURFACE**
	(0-2')		0 1 2 3	3	1.7	0.1			Dark brown SILT, little Clay, trace fine Sand, soft.
	(2-4')		WOH 1 (12") 1	1	NA	0.2			Brown fine to medium SAND, some Silt, very loose. Dark gray fine to medium SAND, some Silt, very loose, wet.
5	(4-6')		1 (24")	1	NA	0.1			Gray fine SAND and CLAY, several thin peat layers, very loose, wet.
	(6-8')		WOH (24")	0	1.3	0.1			No peat layers.
	(8-10')		WOH (24")	0	1.2	0.0			Gray fine to medium SAND, little Silt, some shells, very loose. Gray SILT, little Clay, some fine Sand.
10	(10-12')		WOH (24")	0	1.4	0.1			Gray SAND and SILT, stringers of gray Clay, very loose/very soft, wet.
	(12-14')		1 (18") 2	0	1.1	0.0			Total depth of boring 12.5 ft. bgs.
15									

Well Construction

- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 2.0' bgs
- Concrete pad ground surface to 1.2' bgs
- Bentonite seal 1.2' to 1.7' bgs
- 0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
- Grade #5 silica sand pack 1.7' to 12.5' bgs
- 2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.
Soil description taken from boring log MW-127 S1.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/11/95 - 01/12/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 34 ft.

Geologist: James Saxton

Well No. MW-127 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation 581.56 ft.										GROUND SURFAC
		(0-2')		0 1 2 3	3	1.7	0.1			Dark brown SILT, little C , trace fine Sand, soft.
	580									Brown fine to medium SA some Silt, very loose.
		(2-4')		WOH 1 (12") 1	1	NA	0.2			Dark gray fine to medium ND, some Silt, very loose, we
5		(4-6')		1 (24")	1	NA	0.1			Gray fine SAND and CLA several thin peat layers, very loc , wet.
	575	(6-8')		WOH (24")	0	1.3	0.1			No peat layers.
		(8-10')		WOH (24")	0	1.2	0.0			Gray fine to medium SAN ttle Silt, some shells, very loose.
10										Gray SILT, little Clay, so fine Sand.
		(10-12')		WOH (24")	0	1.4	0.1			Gray SAND and SILT, str ers of gray Clay, very loose/ve soft, wet.
	570									
		(12-14')		1 (18") 2	1	1.1	0.0			
15		(14-16')		1 1	2	1.3	0.1			

Well Construction

- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- Concrete pad ground surface to 2.0' bgs
- Type 1 Portland cement/5% bentonite grout 2.0' to 14.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 16.5' bgs
- Bentonite seal 14.0' to 16.0' bgs

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-127 S1

Total Depth = 34 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1 3	2	1.3	0.1			Gray SAND and SILT, stringers of gray Clay, very loose/very soft, wet.
	565	(16-18')		1 (12") 4 4	4	1.5	0.0			
		(18-20')		WOH (18") 2	0	0.5	0.0			Brown fine to medium SAND, some Silt, loose.
20		(20-22')		2 1 1 2	2	1.8	0.0			
	560									Gray SILT and CLAY, little to some fine Sand, very soft, moist.
		(22-24')		2 8 10 14	18	1.0	0.0			
25		(24-26')		ST	NA	2.0	0.0			Gray fine to medium SAND, little Silt.
	555	(26-28')		ST	NA	1.2	NA			Gray SILT and CLAY.
		(28-30')		2 4 8 10	12	NA	0.0			Dark gray CLAY, some Silt, trace coarse Sand and fine Gravel.
30		(30-32')		ST	NA	NA	0.0			
	550	(32-34')		ST	NA	2.0	NA			
35										Total depth of boring 34.0 ft. bgs.

Well Construction



- Bentonite seal 14.0' to 16.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 16.5' bgs
- 0.01" slotted Sch. 40 PVC screen 16.5' to 21.5' bgs
- Grade #5 silica sand pack 16.0' to 22.0' bgs
- 2-in diameter Sch. 40 PVC sump 21.5' to 21.9' bgs
- Bentonite seal 22.0' to 34.0' bgs

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.
ST - Shelby tube sample taken 24' to 28' bgs and 30' to 34' bgs.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/11/95 - 01/11/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.5 ft.

Geologist: James Saxton

Well No. MW-128 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		WOH 1 1 1	2	2.0	2.5			Black fine SAND, trace Silt, very loose, moist.
	(2-4')		1 1 1 1	2	1.5	4.3			
5	(4-6')		1 1 1 2	2	1.5	0.1			Black PEAT, little Silt, very soft, wet.
	(6-8')		WOH 1 1 1	2	1.8	0.2			Brown SILT and CLAY, trace fine to medium Sand and fine Gravel, very soft, moist.
	(8-10')		1 (24")	1	0.5	0.2			Gray CLAY, some Silt, soft, wet.
10	(10-12')		WOH (18") 3	0	1.5	0.1			Gray fine to medium SAND, little Silt, trace Clay, some shells, very loose, wet.
	(12-14')		WOH (24")	0	1.4	0.2			Grades to some Silt, little Clay, very loose.
15									Total depth of boring 13.5 ft. bgs.

Well Construction

- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 3.0' bgs
- Concrete pad ground surface to 1.5' bgs
- Bentonite seal 1.5' to 2.5' bgs
- 0.01" slotted Sch. 40 PVC screen 3.0' to 13.0' bgs
- Grade #5 silica sand pack 2.5' to 13.5' bgs
- 2-in diameter Sch. 40 PVC sump 13.0' to 13.4' bgs

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Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from boring log MW-128 S1.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/11/95 – 01/11/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 34 ft.

Geologist: James Saxton

Well No. MW-128 SI

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 584.39 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed.
		(0-2')		WOH 1 1 1	2	2.0	2.5			Black fine SAND, trace Silt, very loose, moist.	Concrete pad ground surface to 2.0' bgs
		(2-4')		1 1 1 1	2	1.5	4.3				
	580	(4-6')		1 1 1 2	2	1.5	0.1			Black PEAT, little Silt, very soft, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 16.0' bgs
5										Brown SILT and CLAY, trace fine to medium Sand and fine Gravel, very soft, moist.	
		(6-8')		WOH 1 1 1	2	1.8	0.2			Gray CLAY, some Silt, soft, wet.	
		(8-10')		1 (24")	1	0.5	0.2				
	575										
10		(10-12')		WOH (18") 3	0	1.5	0.1				2-in diameter Sch. 40 PVC well casing 2.3' ags to 18.5' bgs
		(12-14')		WOH (24")	0	1.4	0.2			Gray fine to medium SAND, little Silt, trace Clay, some shells, very loose, wet. Grades to some Silt, little Clay, very loose.	
	570	(14-16')		1 (18")	1	1.5	0.0			@ 14.5', gray and brown fine SAND and SILT, some Clay.	
15											

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Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-128 SI

Total Depth = 34 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		1	1	1.5	0.0			Gray CLAY, little fine Sand and Silt, very soft.
		(16-18')		WOH (12") 1 2	1	1.2	0.1			Gray and brown SILT and CLAY, some fine Sand.
	565	(18-20')		1 1 1 1	2	1.5	0.0			Alternating 4" thick layers of gray Clay, some Silt, little fine Sand.
20		(20-22')		WOH 1 3 13	4	2.0	0.0			Gray fine to medium SAND, little Silt, trace coarse Sand.
		(22-24')		WOH 3 5 6	8	2.0	0.0			Coarse SAND, some fine Gravel.
	560	(24-26')		3 8 13 15	21	1.1	0.0			Brown SILT and CLAY, trace fine Sand.
25		(26-28')		2 3 5 9	8	1.4	0.0			
		(28-30')		1 4 9 11	13	1.5	0.0			
	555	(30-32')		WOH 2 8 11	10	1.7	0.0			
30		(32-34')		2 3 4 4	7	1.7	0.0			
	550									Total depth of boring 34.0 ft. bgs.
35										

Well Construction

- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 18.5' bgs
- Bentonite seal 16.0' to 18.0' bgs
- 0.01" slotted Sch. 40 PVC screen 18.5' to 23.5' bgs
- Grade #5 silica sand pack 18.0' to 24.0' bgs
- 2-in diameter Sch. 40 PVC sump 23.5' to 23.9' bgs
- Bentonite seal 24.0' to 34.0' bgs

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/17/95 - 01/17/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 34 ft.

Geologist: Ron Kuhn

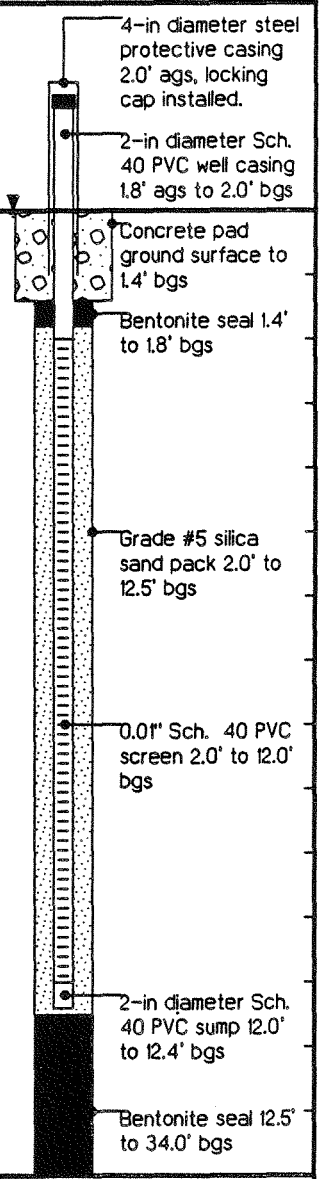
Well No. MW-129 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft									**GROUND SURFACE**
	(0-2')		NA	NA	2.0	0.0			Brown SILT, some fine Sand, trace organics (roots), saturated.
	(2-4')		NA	NA	1.4	0.0			
5	(4-6')		0 2 5 8	7	1.5	0.0			Brown fine to medium SAND, trace Silt, saturated. Trace fine Gravel and shells.
	(6-8')		3 6 6 7	12	1.5	0.0			
	(8-10')		3 6 7 7	13	1.1	0.0			Brown SILT, little fine Sand, trace Clay and fine Gravel, dense, moist.
10	(10-12')		2 3 8 10	11	1.9	0.0			Little Clay.
	(12-14')		3 6 10 13	16	1.8	0.0			Trace fine to medium Gravel.
15	(14-16')		3 6	16	1.8	0.0			

Well Construction



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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-129 WT

Total Depth = 34 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		10 13	16	1.8	0.0			Brown SILT, little Clay, trace fine to medium Gravel, dense, moist.	
	(16-18')		3 6 9 11	15	1.6	0.0				
	(18-20')		2 3 6 6	9	2.0	0.0				
20	(20-22')		2 3 4 4	7	2.0	0.0				Bentonite seal 12.5' to 34.0' bgs
	(22-24')		2 3 4 5	7	2.0	0.0			Brown SILT, some Clay, trace fine to medium Gravel, moist.	
25	(24-26')		1 3 3 3	6	2.0	0.0			Brown Silty CLAY, soft, moist, high plasticity.	
	(26-28')		NA	NA	2.0	0.0				
	(28-30')		1 1 1 1	2	2.0	0.0				
30	(30-32')		WOH (24")	0	1.3	0.0				
	(32-34')		WOH (18") 1	0	1.5	0.8				
35									Total depth of boring 34.0 ft. bgs.	

BBL
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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.5 ft.

Geologist: James Saxton

Well No. MW-130 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.86 ft.										GROUND SURFACE	4-in diameter steel protective casing 2.6' ags, locking cap installed. 2-in diameter Sch. 40 PVC well casing 2.3' ags to 3.0' bgs
	590	(0-2')		8 8 21 13	29	1.5	33.7			ASPHALT and SUBBASE. Black very fine to medium SAND, trace Silt, loose. Medium dense.	Concrete pad ground surface to 1.5' bgs
		(2-4')		14 9 17 17	26	1.8	10.2				Bentonite seal 1.5' to 2.5' bgs
5		(4-6')		4 11 18 18	29	1.7	2.8			Green glass fragments, medium dense.	
	585	(6-8')		2 1 2 1	3	1.5	2.3			Very loose, wet.	0.01" slotted Sch. 40 PVC screen 3.0' to 13.0' bgs
		(8-10')		1 1 (12") 1	1	1.8	0.3				Grade #5 silica sand pack 2.5' to 13.5' bgs
10	580	(10-12')		WOH 1 (18") 1	1	1.3	0.4				
		(12-14')		WOH 1 (12")	1	1.7	1.5			Total depth of boring 13.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 13.0' to 13.4' bgs
15											

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Remarks:
WOH - Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 31.5 ft.

Geologist: James Saxton

Well No. MW-130 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.80 ft.											4-in diameter steel protective casing 2.7' ags, locking cap installed.
										GROUND SURFACE	
	590	(0-2')		8 8 21 13	29	1.5	33.7			ASPHALT and SUBBASE.	Concrete pad ground surface to 2.0' bgs
		(2-4')		14 9 17 17	26	1.8	10.2			Black very fine to medium SAND, trace Silt, loose. Medium dense.	
5		(4-6')		4 11 18 18	29	1.7	2.8			Green glass fragments, medium dense.	Type 1 Portland cement/5% bentonite grout 2.0' to 23.5' bgs
	585	(6-8')		2 1 2 1	3	1.5	2.3			Very loose, wet.	
		(8-10')		1 1 (12") 1	1	1.8	0.3				
10		(10-12')		WOH 1 (18") 1	1	1.3	0.4				2-in diameter Sch. 40 PVC well casing 2.5' ags to 26.0' bgs
	580	(12-14')		WOH 1 (12") 1	1	1.7	1.5				
		(14-16')		WOH 1	1	1.5	3.0			Very loose. Black SILT, trace fine Sand.	
15											

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Remarks:
WOH - Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S1

Total Depth = 31.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	575	(14-16')		(12") 1	1	1.5	3.0			Gray CLAY and SILT, very soft.
		(16-18')		WOH (12") 1 1	1	1.2	0.0			Gray SILT and fine SAND, with peaty layers.
		(18-20')		WOH 1 1 1	2	1.8	0.0			Gray SILT, some fine Sand, very soft, moist.
20	570	(20-22')		WOH (12") 1 (12")	1	2.0	0.0			Gray SILT and CLAY, very soft, moist.
		(22-24')		WOH (12") 1 (12")	1	2.0	0.0			
25		(24-26')		1 (12") 1 1	1	2.0	0.0			
	565	(26-28')		WOH (24")	0	0.5	0.0			Medium to coarse SAND, trace fine Gravel, very loose, wet.
		(28-30')		WOH (12") 1 1	1	1.2	0.0			Gray brown fine to medium SAND, trace Silt and shells, very loose.
30	560	(30-32')		WOH (12") 1 3	1	1.5	0.0			Total depth of boring 31.5 ft. bgs.
35										

Well Construction

- Type I Portland cement/5% bentonite grout 2.0' to 23.5' bgs
- 2-in diameter Sch. 40 PVC well casing 2.5' ags to 26.0' bgs
- Bentonite seal 23.5' to 25.5' bgs
- 0.01" slotted Sch. 40 PVC screen 26.0' to 31.0' bgs
- Grade #5 silica sand pack 25.5' to 31.5' bgs
- 2-in diameter Sch. 40 PVC sump 31.0' to 31.4' bgs

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Remarks:
WOH - Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/16/95 – 01/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 41.5 ft.

Geologist: James Saxton

Well No. MW-130 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.79 ft.											4-in diameter steel protective casing 3.6' ags, locking cap installed.
										GROUND SURFACE	
										ASPHALT and SUBBASE.	Concrete pad ground surface to 2.0' bgs
	590	(0-2')		8 8 21 13	29	1.5	33.7			Black very fine to medium SAND, trace Silt, loose.	
		(2-4')		14 9 17 17	26	1.8	10.2			Medium dense.	
5		(4-6')		4 11 18 18	29	1.7	2.8			Green glass fragments, medium dense.	Type 1 Portland cement/5% bentonite grout 2.0' to 32.0' bgs
	585	(6-8')		2 1 2 1	3	1.5	2.3			Very loose, wet.	
		(8-10')		1 1 (12") 1	1	1.8	0.3				
10		(10-12')		WOH 1 (18") 1	1	1.3	0.4				2-in diameter Sch. 40 PVC well casing 3.3' ags to 36.0' bgs
	580	(12-14')		WOH 1 (12") 1	1	1.7	1.5				
		(14-16')		WOH 1	1	1.5	3.0			Very loose.	
15										Black SILT, trace fine Sand.	

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Remarks:
WOH – Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S2

Total Depth = 41.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		(12") 1	1	1.5	3.0			Gray CLAY and SILT, very soft.	
		(16-18')		WOH (12") 1 1	1	1.2	0.0			Gray SILT and fine SAND, with peaty layers.	Type I Portland cement/5% bentonite grout 2.0' to 32.0' bgs
		(18-20')		WOH 1 1 1	2	1.8	0.0			Gray SILT, some fine Sand, very soft, moist.	
20	570	(20-22')		WOH (12") 1 (12")	1	2.0	0.0			Gray SILT and CLAY, very soft, moist.	2-in diameter Sch. 40 PVC well casing 3.3' ags to 36.0' bgs
		(22-24')		WOH (12") 1 (12")	1	2.0	0.0				
25		(24-26')		1 (12") 1 1	1	2.0	0.0				
	565	(26-28')		WOH (24")	0	0.5	0.0			Medium to coarse SAND, trace fine Gravel, very loose, wet.	
		(28-30')		WOH (12") 1 1	1	1.2	0.0			Gray brown fine to medium SAND, trace Silt and shells, very loose.	
30	560	(30-32')		WOH (12") 1 3	1	1.5	0.0				
		(32-34')		WOH 1 3 1	4	1.5	0.0				Bentonite seal 32.0' to 34.0' bgs
35		(34-36')		WOH 2	3	1.8	0.0				

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Remarks:
WOH - Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S2

Total Depth = 41.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	555	(34-36')		1 3	3	1.8	0.0			Trace fine Gravel in last 2" of sampler.	2-in diameter Sch. 40 PVC well casing 3.3' ags to 36.0' bgs
		(36-38')		WOH 1 4 4	5	1.5	0.0				0.01" slotted Sch. 40 PVC screen 36.0' to 41.0' bgs
		(38-40')		WOH 1 5 5	6	0.5	0.0			Gray coarse SAND and fine GRAVEL.	Grade #5 silica sand pack 34.0' to 41.5' bgs
40	550	(40-42')		WOH 8 12 16	20	1.0	0.0			Some fine to medium Sand.	
										Total depth of boring 41.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 41.0' to 41.4' bgs
45	545										
50	540										
55											

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Remarks:
WOH - Weight of Hammer
Soil description taken from boring log MW-130 S3.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/16/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: James Saxton

Well No. MW-130 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.75 ft.											4-in diameter steel protective casing 2.6' ags, locking cap installed.
										GROUND SURFACE	
	590	(0-2')		8 8 21 13	29	1.5	33.7			ASPHALT and SUBBASE Black very fine to medium SAND, trace Silt, faint petroluem odor, loose.	Concrete pad ground surface to 2.0' bgs
		(2-4')		14 9 17 17	26	1.8	10.2			No odor, medium dense.	
5		(4-6')		4 11 18 18	29	1.7	2.8			Green glass fragments, medium dense.	Type 1 Portland cement/5% bentonite grout 2.0' to 42.0' bgs
	585	(6-8')		2 1 2 1	3	1.5	2.3			Very loose, wet.	
		(8-10')		1 1 (12") 1	1	1.8	0.3				
10		(10-12')		WOH 1 (18") 1	1	1.3	0.4				2-in diameter Sch. 40 PVC well casing 2.3' ags to 46.0' bgs
	580	(12-14')		WOH 1 (12") 1	1	1.7	1.5				
		(14-16')		WOH 1	1	1.5	3.0			Petroleum odor, very loose. Black SILT, trace fine Sand.	
15											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S3

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		(12") 1	1	1.5	3.0			Gray CLAY and SILT, very soft.	
		(16-18')		WOH (12") 2 (12")	2	1.2	0.0			Gray SILT and fine SAND, with peaty layers.	
		(18-20')		WOH 1 1 1	2	1.8	0.0			Gray SILT, some fine Sand, very soft, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 42.0' bgs
20	570	(20-22')		WOH (12") 1 (12")	1	2.0	0.0			Gray SILT and CLAY, very soft, moist.	
		(22-24')		WOH (12") 1 (12")	1	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 46.0' bgs
25	565	(24-26')		1 (12") 1 1	1	2.0	0.0				
		(26-28')		WOH (24")	0	0.5	0.0			Medium to coarse SAND, trace fine gravel, very loose, wet.	
		(28-30')		WOH (12") 1 1	1	1.2	0.0			Gray brown fine to medium SAND, trace Silt and shells, very loose.	
30	560	(30-32')		WOH (12") 1 3	1	1.5	0.0				
		(32-34')		WOH 1 3 1	4	1.5	0.0				
35		(34-36')		WOH 2	3	1.8	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S3

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	555	(34-36')		1 3	3	1.8	0.0			Trace fine gravel in last 2" of sampler.	Type 1 Portland cement/5% bentonite grout 2.0' to 42.0' bgs
		(36-38')		WOH 1 4 4	5	1.5	0.0				
		(38-40')		WOH 1 5 5	6	0.5	0.0			Gray coarse SAND and fine GRAVEL.	
40										Some fine to medium Sand.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 46.0' bgs
	550	(40-42')		WOH 8 12 18	20	1.0	0.0				
		(42-44')		1 6 8 8	14	1.5	0.0				Bentonite seal 42.0' to 44.0' bgs
45		(44-46')		1 4 5 6	9	1.7	0.0				
	545	(46-48')		WOH 3 8 8	11	1.7	0.0				0.01" Sch. 40 PVC screen 46.0' to 51.0' bgs
		(48-50')		WOH 6 7 10	13	1.2	0.0				Grade #5 silica sand pack 44.0' to 51.5' bgs
50											
	540	(50-52')		1 4 4 5	8	1.7	2.2			Brown SILT and CLAY, soft, wet.	2-in diameter Sch. 40 PVC sump 51.0' to 51.4' bgs
		(52-54')		1 1 2 2	3	1.5	7.7				Bentonite seal 51.5' to 62.0' bgs
55		(54-56')		WOH (12")	2	1.5	4.7				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-130 S3

Total Depth = 62 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	535	(54-56')		2 2	2	1.5	4.7			Brown SILT and CLAY, soft, wet.	Bentonite seal 51.5' to 62.0' bgs
		(56-58')		WOH 1 1 1	2	2.0	0.0				
		(58-60')		WOH 1 2 3	3	2.0	1.1				
60	530	(60-62')		WOH (12") 2 2	2	2.0	0.0			Trace coarse Sand.	
										Total depth of boring 62.0 ft. bgs.	
65	525										
70	520										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.4 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-131 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.35 ft.										**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed.
											2-in diameter Sch. 40 PVC well casing 2.2' ags to 2.0' bgs
	590	(0-2')		2 4 4 4	8	1.7	0.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry, organic material.	Concrete pad Ground surface to 1.0' bgs
		(2-4')		1 4 5 5	9	1.4	11.1			Wet, no organic material.	Bentonite seal 1.0' to 1.5' bgs
											Grade #7 silica sand 1.5' to 1.7' bgs
5	585	(4-6')		1 3 2 2	5	1.3	9.5				0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
		(6-8')		2 2 2 3	4	1.0	0.6			Dark gray to black SILT, some Clay, trace fine to coarse Sand and fine Gravel, soft, moist.	
		(8-10')		2 2 2 2	4	1.0	0.4			Soft to medium stiff, organic material.	Grade #5 silica sand pack 1.7' to 12.4' bgs
10	580	(10-12')		1 1 1 1	2	1.2	0.2			Trace fine to medium Sand, no fine Gravel, shell fragments.	
		(12-14')		WOH (24")	0	1.4	0.0			No organic material.	2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs
15										Total depth of boring 12.4 ft. bgs.	

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Remarks:
Soil descriptions taken from Boring Log MW-131 S2.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 45.4 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-131 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.05 ft.											4-in diameter steel protective casing 2.5' ags, locking cap installed.
	590									**GROUND SURFACE**	
		(0-2')		2 4 4 4	8	1.7	0.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry, organic material.	Concrete pad ground surface to 1.0' bgs
		(2-4')		1 4 5 5	9	1.4	11.1			Wet, no organic material.	
5	585	(4-6')		1 3 2 2	5	1.3	9.5				Type 1 Portland cement/5% bentonite grout 1.0' to 39.0' bgs
		(6-8')		2 2 2 3	4	1.0	0.6			Dark gray to black SILT, some Clay, trace fine to coarse Sand and fine Gravel, soft, moist.	
		(8-10')		2 2 2 2	4	1.0	0.4			Soft to medium stiff, organic material.	
10	580	(10-12')		1 1 1 1	2	1.2	0.2			Trace fine to medium Sand, no fine Gravel, trace shell fragments.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 42.5' bgs
		(12-14')		1 (12") 1 (12")	1	1.4	0.0			No organic material.	
		(14-16')		WOH (12")	1	1.4	0.0			Light gray very fine to fine SAND, some Silt, trace Clay, trace shell fragments, very loose, wet.	
15										Dark gray brown SILT, some Clay, trace fine Sand, very soft, moist.	

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Remarks:
Soil description taken from Boring Log MW-131 S2.
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-131 SI

Total Depth = 45.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		1 (12") 1	1	1.4	0.0			Trace organic material, shell fragments.	
		(16-18')		WOH 1 (12") 1	1	2.0	0.0			A 0.1' gray fine Sand seam.	
		(18-20')		WOH (12") 2 1	2	2.0	0.0			Little fine Sand, very soft to soft, wet.	Type 1 Portland cement/5% bentonite grout 1.0' to 39.0' bgs
20	570	(20-22')		WOH (18") 1	0	2.0	0.0				
		(22-24')		WOH 1 2 1	3	1.3	0.0			Gray brown very fine to fine SAND and SILT, trace shell fragments, organic material, loose, wet.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 42.5' bgs
25	565	(24-26')		WOH 1 1 (12")	2	1.3	0.0			Gray brown SILT, some Clay, little fine Sand, soft, wet. A 0.1' gray fine Sand seam. A 0.1' gray fine Sand seam.	
		(26-28')		WOH (12") 1 1	1	2.0	0.0			A 0.1' gray fine Sand seam. A 0.1' gray fine Sand seam. A 0.1' gray fine Sand seam.	
		(28-30')		WOH (24")	0	2.0	0.0				
30	560	(30-32')		WOH 1 2 1	3	2.0	0.0			Trace shell fragments.	
		(32-34')		1 1 1 1	2	2.0	0.0			Medium stiff, moist. Gray very fine to fine SAND, trace shell fragments, very loose, wet.	
35		(34-36')		WOH (24")	0	2.0	0.0			Gray brown SILT, some Clay, little fine Sand, very soft.	

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engineers & scientists

Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-131 SI

Total Depth = 45.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	555	(34-36')			0	2.0	0.0			@ 34.0', Very soft to medium stiff, moist to wet.
		(36-38')		WOH (12") 1 1	1	2.0	0.0			Wet. Very soft to soft, wet.
		(38-40')		WOH (24")	0	2.0	0.0			Gray brown SILT, some Clay, little fine Sand, very soft.
40	550	(40-42')		WOH 1 1 1	2	2.0	0.0			
		(42-44')		1 2 6 7	8	1.1	0.0			Gray fine to coarse SAND, trace fine Gravel and shell fragments, loose, wet.
45	545	(44-46')		1 3 4 5	7	1.1	0.0			Total depth of boring 45.4 ft. bgs.
50	540									
55										

Well Construction

- Type I Portland cement/5% bentonite grout 1.0' to 39.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 42.5' bgs
- Bentonite seal 39.0' to 42.0' bgs
- Grade #7 silica sand 42.0' to 42.2' bgs
- Grade #5 silica sand pack 42.2' to 45.4' bgs
- 0.01" Sch. 40 PVC screen 42.5' to 45.0' bgs
- 2-in diameter Sch. 40 PVC sump 45.0' to 45.4' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/12/95 - 01/13/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-131 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.05 ft.											4-in diameter steel protective casing 2.5' ags, locking cap installed.
	590									GROUND SURFACE	
		(0-2')		2 4 4 4	8	1.7	0.2			Dark brown and red brown fine to coarse SAND, trace fine Gravel, loose, dry, organic material.	Concrete pad ground surface to 1.0' bgs
		(2-4')		1 4 5 5	9	1.4	11.1			Wet, no organic material.	
5	585	(4-6')		1 3 2 2	5	1.3	9.5				Type 1 Portland cement/5% bentonite grout 1.0' to 45.5' bgs
		(6-8')		2 2 2 3	4	1.0	0.6			Dark gray to black SILT, some Clay, trace fine to coarse Sand and fine Gravel, soft, moist.	
		(8-10')		2 2 2 2	4	1.0	0.4			Soft to medium stiff, organic material.	
10	580	(10-12')		1 1 1 1	2	1.2	0.2			Trace fine to medium Sand, no fine Gravel, trace shell fragments.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 49.5' bgs
		(12-14')		1 (12") 1 (12")	1	1.4	0.0			No organic material.	
		(14-16')		WOH (12")	1	1.4	0.0			Light gray very fine to fine SAND, some Silt, trace Clay, trace shell fragments, very loose, wet.	
15										Dark gray brown SILT, some Clay, trace fine Sand, very soft, moist.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-131 S2

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		1 (12")	1	1.4	0.0			Trace organic material, shell fragments.	
		(16-18')		WOH 1 (12") 1	1	2.0	0.0			A 0.1' gray fine Sand seam.	
		(18-20')		WOH (12") 2 1	2	2.0	0.0			Little fine Sand, very soft to soft, wet.	Type 1 Portland cement/5% bentonite grout 1.0' to 45.5' bgs
20	570	(20-22')		WOH (18") 1	0	2.0	0.0				
		(22-24')		WOH 1 2 1	3	1.3	0.0			Gray brown very fine to fine SAND and SILT, trace shell fragments, organic material, loose, wet.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 49.5' bgs
25	565	(24-26')		WOH 1 1 (12")	2	1.3	0.0			Gray brown SILT, some Clay, little fine Sand, soft, wet. A 0.1' gray fine Sand seam.	
		(26-28')		WOH (12") 1 1	1	2.0	0.0			A 0.1' gray fine Sand seam. A 0.1' gray fine Sand seam. A 0.1' gray fine Sand seam.	
		(28-30')		WOH (24")	0	2.0	0.0			A 0.1' gray fine Sand seam.	
30	560	(30-32')		WOH 1 2 1	3	2.0	0.0			Trace shell fragments.	
		(32-34')		1 1 1 1	2	2.0	0.0			Medium stiff, moist. Gray very fine to fine SAND, trace shell fragments, very loose, wet.	
35		(34-36')		WOH (24")	0	2.0	0.0			Gray brown SILT, some Clay, little fine Sand, very soft.	

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-131 S2

Total Depth = 62 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	555	(34-36')			0	2.0	0.0			@ 34.0', Very soft to medium stiff, moist to wet.	
		(36-38')		WOH (12") 1 1	1	2.0	0.0			Wet. Very soft to soft, wet.	Type I Portland cement/5% bentonite grout 1.0' to 45.5' bgs
		(38-40')		WOH (24")	0	2.0	0.0			Gray brown SILT, some Clay, little fine Sand, very soft.	
40	550	(40-42')		WOH 1 1 1	2	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 49.5' bgs
		(42-44')		1 2 6 7	8	1.1	0.0			Gray fine to coarse SAND, trace fine Gravel and shell fragments, loose, wet.	
45	545	(44-46')		1 3 4 5	7	1.1	0.0				Bentonite seal 45.5' to 47.5' bgs
		(46-48')		1 4 10 10	14	1.0	0.0			Little fine Gravel.	Grade #7 silica sand 47.5' to 47.7' bgs
		(48-50')		1 1 2 4	3	1.2	0.0				Grade #5 silica sand pack 47.7' to 52.5' bgs
50	540	(50-52')		4 4 8 9	12	1.0	0.0				0.01" Sch. 40 PVC screen 49.5' to 52.0' bgs
		(52-54')		WOH (12") 2 2	2	1.0	0.0			Gray SILT and CLAY, trace fine to coarse Sand and fine Gravel, soft to medium stiff, moist.	2-in diameter Sch. 40 PVC sump 52.0' to 52.4' bgs
55		(54-56')		WOH (12")	2	2.0	0.0			No fine Gravel.	Bentonite seal 52.5' to 62.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-131 S2

Total Depth = 62 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	535	(54-56')		2 2	2	2.0	0.0			Gray SILT and CLAY, trace fine to coarse Sand, soft to medium stiff, moist.	Bentonite seal 52.5' to 62.0' bgs
		(56-58')		2 4 5 4	9	2.0	0.0				
		(58-60')		1 2 3 4	5	2.0	0.0				
60	530	(60-62')		3 3 4 8	7	2.0	0.0				
										Total depth of boring 62.0 ft. bgs.	
65	525										
70	520										
75											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/19/95 - 01/20/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14.5 ft.

Geologist: James Saxton

Well No. MW-132 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation 591.96 ft.										**GROUND SURFACE**
										Gray concrete.
		(0-2')		NA 1 3 4	4	1.5	0.0			Black and brown fine to medium SAND, trace Silt, moist.
	590									
		(2-4')		WOH 1 1 1	2	2.0	0.0			
		(4-6')		WOH 1 2 2	3	1.5	0.7			
5										
	585	(6-8')		WOH 1 2 2	3	1.5	0.7			Black SILT, some fine Sand, trace roots, moist.
										Gray fine SAND, trace Silt, wet.
		(8-10')		WOH 3 5 6	8	1.5	0.3			Gray fine SAND, trace Silt and fine Gravel, wet.
10										Trace shells.
		(10-12')		WOH 1 2 2	3	1.5	0.4			
	580									
		(12-14')		WOH 1 (12") 1	1	1.0	0.2			
15										Total depth of boring 14.5 ft bgs.

Well Construction

- 4-in diameter steel protective casing 2.6' ags, locking cap installed.
- Concrete pad ground surface to 1.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 4.0' bgs
- Bentonite seal 1.0' to 3.0' bgs
- 0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
- Grade #5 silica sand pack 3.0' to 14.5' bgs
- 2-in diameter Sch. 40 PVC sump 14.0' to 14.4' bgs

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Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from MW-132 S1 boring log.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start-Finish: 01/19/95 - 01/20/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38.0 ft.

Geologist: James Saxton

Well No. MW-132 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.00 ft.											4-in diameter steel protective casing 2.5' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		NA 1 3 4	4	1.5	0.0			Gray concrete. Black and brown fine to medium SAND, trace Silt, moist.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		WOH 1 1 1	2	2.0	0.0				
5		(4-6')		WOH 1 2 2	3	1.5	0.7				Type 1 Portland cement/5% bentonite grout 2.0' to 18.0' bgs
	585	(6-8')		WOH 1 2 2	3	1.5	0.7			Black SILT, some fine Sand, trace roots, moist. Gray fine SAND, trace Silt, wet.	
		(8-10')		WOH 3 5 6	8	1.5	0.3			Gray fine SAND, trace Silt and fine Gravel, wet.	
10		(10-12')		WOH 1 2 2	3	1.5	0.4			Trace shells.	2-in diameter Sch. 40 PVC well casing 2.2' ags to 22.0' bgs
	580	(12-14')		WOH 1 (12") 1	1	1.0	0.2				
15		(14-16')		WOH 1	1	1.0	0.3				

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-132 S1

Total Depth = 38.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		(12") 1	1	1.0	0.3			Gray fine SAND, trace Silt, fine Gravel, and shells, wet.
	575	(16-18')		WOH (18") 1	0	2.0	0.3			
		(18-20')		WOH 1 (12") 1	1	2.0	0.1			
20		(20-22')		WOH 1 1 1	2	2.0	0.4			
	570	(22-24')		WOH 1 2 1	3	1.5	0.8			Brown to black PEAT, some Silt, moist.
										Gray CLAY and SILT, moist.
25		(24-26')		WOH 2 2 3	4	1.5	0.4			Brown fine to medium SAND, some Silt, wet.
										Gray CLAY and SILT, moist.
	565	(26-28')		1 4 5 7	9	1.7	0.2			Brown fine to medium SAND, some Silt, wet.
										Brown CLAY, some SILT, trace fine Gravel, moist.
		(28-30')		2 6 9 14	15	1.5	0.3			
30		(30-32')		2 8 15 15	23	1.0	0.4			
	560	(32-34')		3 9 11 13	20	1.5	2.7			
		(34-36')		3 5	12	2.0	0.6			
35										

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 18.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.2' ags to 22.0' bgs
- Bentonite seal 18.0' to 20.0' bgs
- 0.01" Sch. 40 PVC screen 22.0' to 27.0' bgs
- Grade #5 silica sand pack 20.0' to 28.0' bgs
- 2-in diameter Sch. 40 PVC sump 27.0' to 27.4' bgs
- Bentonite seal 28.0' to 38.0' bgs.

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-132 SI

Total Depth = 38.0 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		7 7	12	2.0	0.6			Brown CLAY, some SILT, trace fine Gravel, moist.	Bentonite seal 28.0' to 38.0' bgs.
	555	(36-38')		4 5 7 8	12	2.0	7.8				
										Total depth of boring 38.0 ft bgs.	
40											
	550										
45											
	545										
50											
	540										
55											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14.5 ft.

Geologist: Steve French

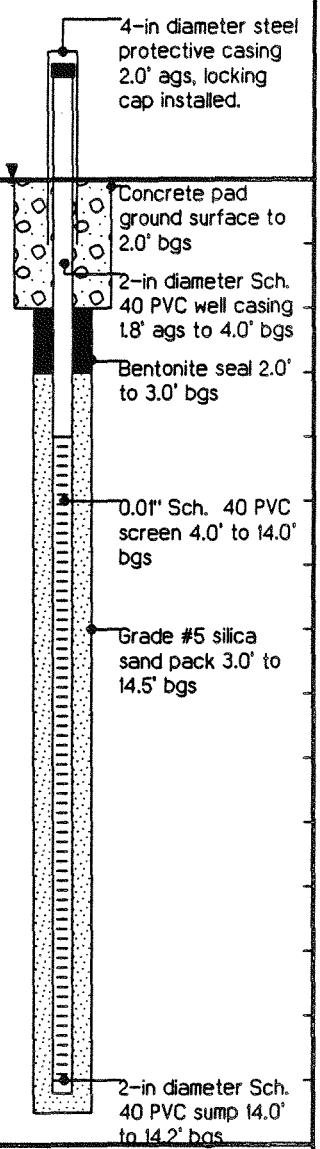
Well No. MW-133 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft									GROUND SURFACE
	(0-2')		5 3 12 17	15	1.9	7.0			Dark brown to black fine to medium SAND, moist.
	(2-4')		10 12 15 28	27	1.8	170.0			Yellow and black discoloration, trace slag.
5	(4-6')		2 2 2 2	4	1.1	102.0			Black fine to medium SAND, trace glass, moist.
	(6-8')		3 4 4 5	8	0.7	140.0			
	(8-10')		NA	NA	1.4	90.0			Black fine to medium SAND, little Silt, wet.
10	(10-12')		4 4 4 3	8	0.4	130.0			
	(12-14')		WOH (12") 1 1	1	1.2	8.5			Gray black SILT and CLAY, moist to wet.
									0.2' gray fine Sand lense.
15									Total depth of boring 14.5 ft. bgs

Well Construction



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Remarks:
WOH - Weight of Hammer
Soil descriptions taken from MW-133 S2 boring log

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/10/95 - 01/11/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42.2 ft.

Geologist: Steve French

Well No. MW-133 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		5 3 12 17	15	1.9	7.0			Dark brown to black fine to medium SAND, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		10 12 15 28	27	1.8	170.0			Yellow and black discoloration, trace slag.	
5	(4-6')		2 2 2 2	4	1.1	102.0			Black fine to medium SAND, trace glass, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 34.0' bgs
	(6-8')		3 4 4 5	8	0.7	140.0				
	(8-10')		NA	NA	1.4	90.0			Black fine to medium SAND, little Silt, wet.	
10	(10-12')		4 4 4 3	8	0.4	130.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.0' bgs
	(12-14')		WOH (12") 1 1	1	1.2	8.5			Gray black SILT and CLAY, moist to wet.	
	(14-16')		WOH (24")	0	0.1	NA			0.2' gray fine Sand lense.	
15										

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engineers & scientists

Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from MW-133 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-133 S1

Total Depth = 42.2 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')			0	0.1	NA			Gray black SILT and CLAY, moist to wet.	
	(16-18')		WOH (24")	0	0.7	5.0			Gray brown SILT, little fine Sand and Clay, wet.	
	(18-20')		WOH (18") 1	0	1.0	12.0			0.08' seams of little fine SAND throughout 18.0' - 21.2' interval.	Type I Portland cement/5% bentonite grout 2.0' to 34.0' bgs
20	(20-22')		WOH (24")	0	1.8	8.0				
	(22-24')		WOH (24")	0	1.7	6.5			Dark gray CLAY, some Silt, trace fine Sand, moist to wet. 0.04' to 0.06' seams of gray fine SAND throughout 22.0' - 35.1' interval.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 37.0' bgs
25	(24-26')		WOH (24")	0	1.7	6.3				
	(26-28')		WOH (24")	0	1.8	8.2				
	(28-30')		WOH (24")	0	1.8	4.8				
30	(30-32')		WOH 1 1 1	2	1.7	4.5				
	(32-34')		WOH (12") 1 1	1	2.0	3.5				Bentonite seal 34.0' to 36.5' bgs
35	(34-36')		WOH 1	2	1.8	3.8				

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engineers & scientists

Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from MW-133 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-133 S1

Total Depth = 42.2 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		1 1	2	1.8	3.6			Gray fine to medium SAND, trace Silt and shells, wet.	Bentonite seal 34.0' to 36.5' bgs
	(36-38')		WOH (12") 1 2	1	1.7	7.0			0.08' seams of little to some SILT throughout 38.0' - 44.0' interval.	0.01" Sch. 40 PVC screen 37.0' to 42.0' bgs
	(38-40')		WOH 1 2 4	3	1.7	6.0				Grade #5 silica sand pack 36.5' to 42.5' bgs
40	(40-42')		2 4 6 8	10	2.0	4.6			Total depth of boring 42.5 ft bgs.	2-in diameter Sch. 40 PVC sump 42.0' to 42.2' bgs
45										
50										
55										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
WOH - Weight of Hammer.
Soil descriptions taken from MW-133 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/10/95 – 01/11/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 64 ft.

Geologist: Steve French

Well No. MW-133 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.40 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		5 3 12 17	15	1.9	7.0			Dark brown to black fine to medium SAND, moist.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		10 12 15 28	27	1.8	170.0			Yellow and black discoloration, trace slag.	
5		(4-6')		2 2 2 2	4	1.1	102.0			Grades to black fine to medium SAND, trace glass, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 44.0' bgs
	585	(6-8')		3 4 4 5	8	0.7	140.0				
		(8-10')		NA	NA	1.4	90.0			Black fine to medium SAND, little Silt, wet.	
10		(10-12')		4 4 4 3	8	0.4	130.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 49.0' bgs
	580	(12-14')		WOH (12") 1 1	1	1.2	8.5			Gray black SILT and CLAY, moist to wet.	
15		(14-16')		WOH (24")	0	0.1	NA			0.2' gray fine Sand lense.	

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Remarks:
WOH – Weight of Hammer.
Apparent Conductivity graph is off-scale from 2.5 to 9.8 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-133 S2

Total Depth = 84 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')			0	0.1	NA				
		(16-18')		WOH (24")	0	0.7	5.0			Gray brown SILT, little fine Sand and Clay, wet.	
	575									0.08' seams of little fine SAND throughout 18.0' - 21.2' interval.	Type I Portland cement/5 % bentonite grout 2.0' to 44.0' bgs
		(18-20')		WOH (18") 1	0	1.0	12.0				
20		(20-22')		WOH (24")	0	1.8	8.0			Dark gray CLAY, some Silt, trace fine Sand, moist to wet.	
	570	(22-24')		WOH (24")	0	1.7	6.5			0.04' to 0.06' seams of gray fine SAND throughout 22.0' - 35.1' interval.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 49.0' bgs
25		(24-26')		WOH (24")	0	1.7	6.3				
		(26-28')		WOH (24")	0	1.8	8.2				
	565	(28-30')		WOH (24")	0	1.8	4.8				
30		(30-32')		WOH 1 1 1	2	1.7	4.5				
	560	(32-34')		WOH (12") 1 1	1	2.0	3.5				
35		(34-36')		WOH 1	2	1.8	3.6				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-133 S2

Total Depth = 84 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		1 1	2	1.8	3.6			Gray fine to medium SAND, trace Silt and shells, wet.	Type 1 Portland cement/5 % bentonite grout 2.0' to 44.0' bgs
	555	(36-38')		WOH (12") 1 2	1	1.7	7.0			0.08' seams of little to some SILT throughout 38.0' - 44.0' interval.	
		(38-40')		WOH 1 2 4	3	1.7	6.0				2-in diameter Sch. 40 PVC well casing 1.8' ags to 49.0' bgs
40		(40-42')		2 4 6 8	10	2.0	4.6				
	550	(42-44')		2 3 4 7	7	1.7	5.0				
		(44-46')		2 2 2 3	4	1.7	3.5			Gray fine to coarse SAND, trace Silt, trace fine Gravel, trace shells, wet.	Bentonite seal 44.0' to 47.0' bgs
45		(46-48')		1 5 7 10	12	0.8	8.0				
	545	(48-50')		4 8 10 17	18	1.2	16.0			Color changes to dark gray.	
50		(50-52')		3 7 8 12	15	1.0	NA				0.01" Sch. 40 PVC screen 49.0' to 54.0' bgs
	540	(52-54')		5 10 16 10	26	1.1	8.3				Grade #5 silica sand pack 47.0' to 54.3' bgs
55		(54-56')		2 4	9	1.8	13.1			Dark gray CLAY and SILT, trace fine to coarse Sand, trace fine	2-in diameter Sch. 40 PVC sump 54.0' to 54.2' bgs

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-133 S2

Total Depth = 64 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(54-56')		5 8	9	1.8	13.1			Gravel, moist to wet. Grades to some Silt.	Bentonite seal 54.3' to 64.0' bgs
535	(56-58')		5 6 9 12	15	1.0	6.3				
	(58-60')		5 6 7 8	13	1.8	6.7				
60	(60-62')		WOH (12") 3 3	3	1.8	6.7				
530	(62-64')		WOH (12") 3 4	3	1.8	6.8			Dark gray CLAY, some Silt, moist to wet.	
									Total depth of boring 64.0 ft. bgs	
65										
525										
70										
520										
75										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/04/95 - 01/09/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 12.6 ft.

Geologist: Sabrina Hesford

Well No. MW-134 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed. Concrete pad ground surface to 1.0' bgs
	(0-2')		2 2 3 4	5	1.8	NA			Dark brown to black fine to coarse SAND, trace green glass, trace iron material, damp to moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 2.0' bgs
	(2-4')		12 17 26 25	43	2.0	NA				Bentonite seal 1.0' to 1.5' bgs
5	(4-6')		6 7 12 3	19	1.2	NA				Grade #5 silica sand pack 1.5' to 12.6'bgs
	(6-8')		6 4 3 3	7	0.5	NA				0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
	(8-10')		3 4 3 3	7	1.8	NA			Gray to dark gray SILT, little Clay, moist. / Black fine to coarse SAND, little Silt, trace slag, wet.	
10	(10-12')		3 3 3 3	6	1.0	NA			Black PEAT and SILT, soft, moist. / Gray fine to medium SAND, little Silt, trace shells, wet.	
	(12-14')		2 2 3 3	5	1.9	NA			Dark gray Clayey SILT, wet. / Total depth of boring 12.6 ft. bgs	2-in diameter Sch. 40 PVC sump 12.0' to 12.2' bgs
15										

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Remarks:
NA - Not Available.
WOH - Weight of Hammer
Soil descriptions taken from MW-134S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/04/95 - 01/09/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 40 ft.

Geologist: Sabrina Hesford

Well No. MW-134 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing 2.0' ags, locking cap installed.
									GROUND SURFACE	
	(0-2')		2 2 3 4	5	1.8	NA			Dark brown to black fine to coarse SAND, trace green glass, trace iron material, damp to moist.	Concrete pad ground surface to 2.5' bgs
	(2-4')		12 17 26 25	43	2.0	NA				
5	(4-6')		6 7 12 3	19	1.2	NA				
	(6-8')		6 4 3 3	7	0.5	NA				
	(8-10')		3 4 3 3	7	1.8	NA			Gray to dark gray SILT, little Clay, moist. / Black fine to coarse SAND, little Silt, trace slag, wet. / Black PEAT and SILT, soft, moist.	
10	(10-12')		3 3 3 3	6	1.0	NA			Gray fine to medium SAND, little Silt, trace shells, wet.	Type I Portland cement/5% bentonite grout 2.5' to 31.9' bgs
	(12-14')		2 2 3 3	5	1.9	NA			Dark gray Clayey SILT, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 34.5' bgs
15	(14-16')		1 2	4	1.6	NA				

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.
Soil descriptions taken from MW-134 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-134 S1

Total Depth = 40 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	4	1.6	NA			Dark gray Clayey SILT, wet.	
	(16-18')		1 (12") 2 2	2	1.5	NA				
	(18-20')		WOH 1 2 2	3	0.5	NA				
20	(20-22')		WOH (24")	0	2.0	NA				Type 1 Portland cement/5% bentonite grout 2.5' to 31.9' bgs
	(22-24')		WOH (24")	0	1.8	NA				
25	(24-26')		WOH (24")	0	1.8	NA				
	(26-28')		WOH (24")	0	2.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 34.5' bgs
	(28-30')		WOH (18") 2	0	2.0	NA				
30	(30-32')		NA NA NA NA	NA	NA	NA				
	(32-34')		WOH 1 2 1	3	1.8	NA				Bentonite seal 31.9' to 34.0' bgs
35	(34-36')		2 3	6	0.8	NA			Dark gray fine to medium SAND, little Silt, loose, wet.	

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.
Soil descriptions taken from MW-134 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-134 S1

Total Depth = 40 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		3 3	6	0.8	NA			Dark gray fine to medium SAND, little Silt, loose, wet.	Grade #5 silica sand pack 34.0' to 40.0'bgs
	(36-38')		3 5 5 5	10	2.0	NA				0.01" Sch. 40 PVC screen 34.5' to 39.5' bgs
	(38-40')		4 4 7 7	11	0.7	NA				2-in diameter Sch. 40 PVC sump 39.5' to 39.7' bgs
40									Total depth of boring 40.0 ft. bgs	
45										
50										
55										

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.
Soil descriptions taken from MW-134 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/04/95 - 01/09/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 62 ft.

Geologist: Sabrina Hesford

Well No. MW-134 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 590.83 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	590	(0-2')		2 2 3 4	5	1.8	NA			Dark brown to black fine to coarse SAND, trace green glass, trace iron material, damp to moist.	Concrete pad ground surface to 4.0' bgs
		(2-4')		12 17 26 25	43	2.0	NA				
5		(4-6')		6 7 12 3	19	1.2	NA				
	585	(6-8')		6 4 3 3	7	0.5	NA				
		(8-10')		3 4 3 3	7	1.8	NA			Gray to dark gray SILT, little Clay, moist. / Black fine to coarse SAND, little Silt, trace slag, wet.	
10										Black PEAT and SILT, soft, moist.	Type 1 Portland cement/5% bentonite grout 4.0' to 38.0' bgs
	580	(10-12')		3 3 3 3	6	1.0	NA			Gray fine to medium SAND, little Silt, trace shells, wet.	
		(12-14')		2 2 3 3	5	1.9	NA			Dark gray Clayey SILT, wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 46.4' bgs
15		(14-16')		1 2	4	1.6	NA				

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-134 S2

Total Depth = 82 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16')		2 2	4	1.6	NA			Dark gray Clayey SILT, wet.	
		(16-18')		1 (12") 2 2	2	1.5	NA				
		(18-20')		WOH 1 2 2	3	0.5	NA				
20	570	(20-22')		WOH (24")	0	2.0	NA			Dark gray Clayey SILT, wet.	Type 1 Portland cement/5% bentonite grout 4.0' to 38.0' bgs
		(22-24')		WOH (24")	0	1.8	NA				
25		(24-26')		WOH (24")	0	1.8	NA				
	565	(26-28')		WOH (24")	0	2.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 46.4' bgs
		(28-30')		WOH (18") 2	0	2.0	NA				
30	560	(30-32')		NA NA NA NA	NA	NA	NA				
		(32-34')		WOH 1 2 1	3	1.8	NA				
35		(34-36')		2 3	6	0.8	NA			Dark gray fine to medium SAND, little Silt, loose, wet.	

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-134 S2

Total Depth = 82 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	555	(34-36')		3 3	6	0.8	NA			Dark gray fine to medium SAND, little Silt, loose, wet.	Type I Portland cement/5% bentonite grout 4.0' to 38.0' bgs
		(36-38')		3 5 5 5	10	2.0	NA				2-in diameter Sch. 40 PVC well casing 2.1' ags to 46.4' bgs
		(38-40')		4 4 7 7	11	0.7	NA				
40	550	(40-42')		2 3 5 7	8	1.0	NA			Dark gray fine to medium SAND, little Silt, loose, wet.	Bentonite seal 38.0' to 43.5' bgs
		(42-44')		8 12 16 16	28	0.0	NA				
45	545	(44-46')		3 3 4 5	7	0.6	NA				Grade #5 silica sand pack 43.5' to 52.0'bgs
		(46-48')		6 6 11 10	17	0.6	NA				
		(48-50')		7 4 9 7	13	1.0	NA				0.01" Sch. 40 PVC screen 46.4' to 51.4' bgs
50	540	(50-52')		6 6 5 7	11	1.7	NA			Dark gray SILT and CLAY, trace fine Sand, soft, wet.	2-in diameter Sch. 40 PVC sump 51.4' to 51.6' bgs
		(52-54')		2 3 3 4	6	1.5	NA				Bentonite seal 52.0' to 62.0' bgs
55		(54-56')		1 (12")	1	0.3	NA				

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-134 S2

Total Depth = 62 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	535	(54-56')		1 1	1	0.3	NA			Dark gray SILT and CLAY, trace fine Sand, soft, wet.	
		(56-58')		WOH (12") 2 2	2	1.5	NA				Bentonite seal 52.0' to 62.0' bgs
		(58-60')		WOH (12") 2 2	2	2.0	NA				
60	530	(60-62')		WOH (24")	0	2.0	NA				
										Total depth of boring 62.0 ft. bgs	
65	525										
70	520										
75											

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.5 ft.

Geologist: Tim Osier

Well No. MW-135 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed. Concrete pad ground surface to 1.0' bgs
	(0-2')		6 10 20 21	30	1.6	60.2			Brown fine to coarse SAND, some fine Gravel, loose, dry.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 5.0' bgs
	(2-4')		4 4 1 3	5	0.8	0.6			Dark Brown to black fine to medium SAND, some slag, trace metal pieces, loose, dry. Brown to tan, with some coal and slag.	Type 1 Portland cement/20 % bentonite grout 1.0' to 3.0' bgs
5	(4-6')		10 18 1 1	19	0.3	83.9			Dark Brown fine to coarse SAND, some Silt, little coal, slag, and glass, loose, dry.	Bentonite seal 3.0' to 4.0' bgs; Grade #7 silica sand 4.0' to 4.5' bgs
	(6-8')		6 8 7 6	15	1.8	2.7			Brown fine SAND, some red staining.	
	(8-10')		6 6 3 3	9	1.0	5.2			Brown to black fine to coarse SAND, some Silt, little coal and slag, loose, moist. Some fine Gravel, trace Silt, wet.	0.01" Sch. 40 PVC screen 5.0' to 15.0' bgs
10	(10-12')		4 4 3 1	7	1.8	0.1			Black fine to medium SAND, some Silt, loose, wet.	
	(12-14')		1 1 2 3	3	1.1	1.1			Dark gray fine SAND and SILT, some Clay, organic material, soft, moist.	Grade #5 silica sand pack 4.5' to 15.5' bgs
15	(14-16')		1 2	4	1.5	1.2			Black staining at 14' to 14.5' bgs.	

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 WT

Total Depth = 15.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 3	4	1.5	1.2			Total depth of boring 15.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 15.0' to 15.5' bgs

20

25

30

35

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 – 02/07/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 28 ft.

Geologist: Tim Osier

Well No. MW-135 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		6 10 20 21	30	1.6	60.2			Brown fine to coarse SAND, some fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	(2-4')		4 4 1 3	5	0.8	0.6			Dark brown to black fine to medium SAND, some slag, trace metal pieces, loose, dry. Brown to tan, with some coal and slag.	
5	(4-6')		10 18 1 1	19	0.3	83.9			Dark brown fine to coarse SAND, some Silt, little coal, slag, and glass, loose, dry.	Type I Portland cement/5% bentonite grout 1.0' to 21.0' bgs
	(6-8')		6 8 7 6	15	1.8	2.7			Brown fine SAND, some red staining.	
	(8-10')		6 6 3 3	9	1.0	5.2			Brown to black fine to coarse SAND, some Silt, little coal and slag, loose, moist. Some fine Gravel, trace Silt, wet.	
10	(10-12')		4 4 3 1	7	1.8	0.1			Black fine to medium SAND, some Silt, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 23.6' bgs
	(12-14')		1 1 2 3	3	1.1	1.1			Dark gray fine SAND and SILT, some Clay, soft, moist, organic material.	
15	(14-16')		1 2	4	1.5	1.2			Black staining at 14' to 14.5' bgs.	

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S1

Total Depth = 28 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		2 3	4	1.5	1.2			1.5-in. Dark brown fiberous organic lense.
	(16-18')		WOH (24")	0	1.6	0.0			Gray SILT and CLAY, soft, moist.
	(18-20')		WOH (24")	0	2.0	0.0			2.5-in. Dark brown fiberous organic lense.
20	(20-22')		1 1 2 3	3	NR	0.0			
	(22-24')		WOH 1 1 1	2	2.0	0.0			1.5-in. Fine to medium Sand lense.
									Gray SILT, trace Clay, loose, wet.
									Brown SILT, some Clay, soft, moist.
25	(24-26')		1 2 3 4	5	1.8	0.0			Brown fine SAND and SILT, loose, wet.
	(26-28')		4 5 5 6	10	1.5	0.0			
	(28-30')		1 1 2 3	3	1.5	0.0			Total depth of boring 29.0 ft. bgs.
30									
35									

Well Construction

- Type 1 Portland cement/5% bentonite grout 1.0' to 21.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 23.6' bgs
- Bentonite seal 21.0' to 23.0' bgs
- Grade #7 silica sand 23.0' to 23.5' bgs
- 0.01" Sch. 40 PVC screen 23.6' to 28.6' bgs
- Grade #5 silica sand pack 23.5' to 29.0' bgs
- 2-in diameter Sch. 40 PVC sump 28.6' to 29.0' bgs

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 37.4 ft.

Geologist: Tim Osier

Well No. MW-135 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		6 10 20 21	30	1.6	60.2			Brown fine to coarse SAND, some fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	(2-4')		4 4 1 3	5	0.8	0.6			Dark brown to black fine to medium SAND, some slag, trace metal pieces, loose, dry. Grades to tan, with some coal and slag.	
5	(4-6')		10 18 1 1	19	0.3	83.9			Dark brown fine to coarse SAND, some Silt, little coal, slag, and glass, loose, dry.	Type 1 Portland cement/5% bentonite grout 1.0' to 30.0' bgs
	(6-8')		6 8 7 6	15	1.8	2.7			Brown fine SAND, some red staining.	
	(8-10')		6 6 3 3	9	1.0	5.2			Brown to black fine to coarse SAND, some Silt, little coal and slag, loose, moist. Some fine Gravel, trace Silt, wet.	
10	(10-12')		4 4 3 1	7	1.8	0.1			Black fine to medium SAND, some Silt, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	(12-14')		1 1 2 3	3	1.1	1.1			Dark gray fine SAND and SILT, some Clay, soft, moist, organic material.	
15	(14-16')		1 2	4	1.5	1.2			Black staining at 14' to 14.5' bgs.	

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S2

Total Depth = 37.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 3	4	1.5	1.2			1.5-in. Dark brown fiberous organic lense.	
	(16-18')		WOH (24")	0	1.6	0.0			Gray SILT and CLAY, soft, moist. 2.5-in. Dark brown fiberous organic lense.	
	(18-20')		WOH (24")	0	2.0	0.0				
20	(20-22')		1 1 2 3	3	NR	0.0				Type 1 Portland cement/5% bentonite grout 1.0' to 30.0' bgs
	(22-24')		WOH 1 1 1	2	2.0	0.0			1.5-in. Fine to medium Sand lense. Gray SILT, trace Clay, loose, wet.	
25	(24-26')		1 2 3 4	5	1.8	0.0			Brown SILT, some Clay, soft, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	(26-28')		4 5 5 6	10	1.5	0.0			Brown fine SAND and SILT, loose, wet.	
	(28-30')		1 1 2 3	3	1.5	0.0			Brown fine SAND, some Silt, loose, wet.	
30	(30-32')		4 5 6 10	11	2.0	0.0				Bentonite seal 30.0' to 31.0' bgs Grade #7 silica sand 31.0' to 31.5' bgs
	(32-34')		6 8 9 9	17	1.1	0.0				
35	(34-36')		3 3	6	1.8	0.0				0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S2

Total Depth = 37.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		3 3	6	1.8	0.0			Brown fine SAND, some Silt, loose, wet.	Grade #5 silica sand pack 31.5' to 37.4' bgs
	(36-38')		2 3 4 5	7	1.6	0.0			Total depth of boring 37.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 37.0' to 37.4' bgs
40										
45										
50										
55										

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Remarks:
Soil descriptions taken from MW-135 S3 boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/03/95 - 02/07/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 58 ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-135 S3

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.74 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		6 10 20 21	30	1.6	60.2			Brown fine to coarse SAND, some fine Gravel, loose, dry.	Concrete pad ground surface to 1.0' bgs
	590	(2-4')		4 4 1 3	5	0.8	0.6			Dark brown to black fine to medium SAND, some slag, trace metal pieces, loose, dry. Grades to tan, with some coal and slag.	
5		(4-6')		10 18 1 1	19	0.3	83.9			Dark brown fine to coarse SAND, some Silt, little coal, slag, and glass, loose, dry.	Type 1 Portland cement/5% bentonite grout 1.0' to 38.5' bgs
		(6-8')		6 8 7 6	15	1.8	2.7			Brown fine SAND, some red staining.	
	585	(8-10')		6 6 3 3	9	1.0	5.2			Brown to black fine to coarse SAND, some Silt, little coal and slag, loose, moist. Some fine Gravel, trace Silt, wet.	
10		(10-12')		4 4 3 1	7	1.8	0.1			Black fine to medium SAND, some Silt, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
	580	(12-14')		1 1 2 3	3	1.1	1.1			Dark gray fine SAND and SILT, some Clay, soft, moist, organic material.	
15		(14-16')		1 2	4	1.5	1.2			Black staining at 14' to 14.5' bgs.	

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Remarks:
Apparent Conductivity graph is off-scale from 3 to 8 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S3

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 3	4	1.5	1.2			1.5-in. Dark brown fiberous organic lense.	
		(16-18')		WOH (24")	0	1.6	0.0			Gray SILT and CLAY, soft, moist.	
	575	(18-20')		WOH (24")	0	2.0	0.0			2.5-in. Dark brown fiberous organic lense.	Type 1 Portland cement/5% bentonite grout 1.0' to 38.5' bgs
20		(20-22')		1 1 2 3	3	NR	0.0				
	570	(22-24')		WOH 1 1 1	2	2.0	0.0			1.5-in. Fine to medium Sand lense.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
										Gray SILT, trace Clay, loose, wet.	
25		(24-26')		1 2 3 4	5	1.8	0.0			Brown SILT, some Clay, soft, moist.	
		(26-28')		4 5 5 6	10	1.5	0.0			Brown fine SAND and SILT, loose, wet.	
	565										
		(28-30')		1 1 2 3	3	1.5	0.0			Brown fine SAND, some Silt, loose, wet.	
30		(30-32')		4 5 6 10	11	2.0	0.0				
	560	(32-34')		6 8 9 9	17	1.1	0.0				
35		(34-36')		3 3	6	1.8	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S3

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		3 3	6	1.8	0.0			Brown fine SAND, some Silt, loose, wet.
		(36-38')		2 3 4 5	7	1.6	0.0			
	555									Black stained streak at 37.5' bgs.
		(38-40')		3 3 2 4	5	1.6	0.0			
40										
		(40-42')		3 2 4 6	6	2.0	0.0			
	550	(42-44')		4 5 6 6	11	2.0	0.5			
45		(44-46')		4 5 5 10	10	2.0	0.8			
		(46-48')		1 1 2 3	3	2.0	0.0			Gray SILT and CLAY, some fine sand, soft, moist, some red staining.
	545									Brown.
		(48-50')		2 2 2 2	4	2.0	0.0			
50										Trace fine Gravel.
		(50-52')		1 2 2 2	4	2.0	0.0			
	540	(52-54')		1 1 2 2	3	2.0	0.1			
		(54-56')		2 2	4	2.0	0.0			
55										

Well Construction

- Type 1 Portland cement/5% bentonite grout 1.0' to 38.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 42.5' bgs
- Bentonite seal 38.5' to 40.5' bgs
- Grade #7 silica sand 40.5' to 40.7' bgs
- 0.01" Sch. 40 PVC screen 42.5' to 47.5' bgs
- Grade #5 silica sand pack 40.7' to 48.0' bgs
- 2-in diameter Sch. 40 PVC sump 47.5' to 47.9' bgs
- Bentonite seal 48.0' to 58.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-135 S3

Total Depth = 58 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(54-56')		2 2	4	2.0	0.0			Gray SILT and CLAY, some fine sand, trace fine Gravel, soft, moist, some red staining.	Bentonite seal 48.0' to 58.0' bgs
535	(56-58')		2 2 2 2	4	2.0	0.0			Total depth of boring 58.0 ft. bgs.	
60										
530										
65										
525										
70										
520										
75										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/17/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 23.2 ft.

Geologist: Steve French

Well No. MW-136 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		2 3 4 5	7	1.8	79			Brown fine to medium SAND, some Silt, moist.	Concrete pad ground surface to 2.0' bgs
		(2-4')		4 4 3 3	7	1.8	8.5			Yellow brown to black fine to medium SAND, little Silt and Clay, moist.	
5		(4-6')		2 2 2 3	4	0.4	23				Type 1 Portland cement/5% bentonite grout 2.0' to 10.0' bgs
		(6-8')		4 4 4 4	8	1.6	7.6			Brown mottled SILT, little fine to medium Sand, trace to little Clay, trace glass, hard.	
		(8-10')		6 8 10 13	18	0.5	8.5			Black fine to medium SAND, trace glass, trace burned organics, moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 13.0' bgs
10		(10-12')		4 2 2 5	4	0.5	1.1			Brown mottled SILT, little Clay, trace fine to medium Sand and Gravel, trace glass, moist.	Bentonite seal 10.0' to 12.0' bgs
		(12-14')		14 9 8 8	17	1.3	11			Brown to black fine to medium SAND, porcelian fragments, moist.	Grade #5 silica sand pack 12.0' to 23.2' bgs
15		(14-16')		1 2	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.	0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs

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Remarks:
Soil descriptions taken from MW-136 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

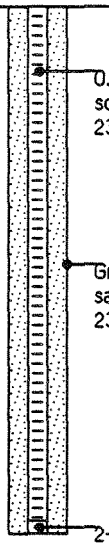
Client:
General Motors Corporation

Well No. MW-136 WT

Total Depth = 23.2 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		3 3	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.
	(16-18')		NA NA NA NA	NA	0.4	7.6			Low recovery. Wood fragments, metal wire, wet. WOOD.
	(18-20')		20 29 30 30	59	0.2	13			
20	(20-22')		20 19 10 10	29	0.4	NA			
	(22-24')		2 2 2 2	4	NR	NA			No Recovery. Total depth of boring 23.2 ft. bgs.
25									
30									
35									

Well Construction



0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs

Grade #5 silica sand pack 12.0' to 23.2' bgs

2-in diameter Sch. 40 PVC sump 23.0' to 23.2' bgs

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Remarks:
Soil descriptions taken from MW-136 S2 boring log.
NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/17/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 42.2 ft.

Geologist: Steve French

Well No. MW-136 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		2 3 4 5	7	1.8	79			Brown fine to medium SAND, some Silt, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		4 4 3 3	7	1.8	8.5			Yellow brown to black fine to medium SAND, little Silt and Clay, moist.	
5	(4-6')		2 2 2 3	4	0.4	23				
	(6-8')		4 4 4 4	8	1.6	7.6			Brown mottled SILT, little fine to medium Sand, trace to little Clay, trace glass, hard.	Type 1 Portland cement/5% bentonite grout 2.0' to 33.5' bgs
	(8-10')		6 8 10 13	18	0.5	8.5			Black fine to medium SAND, trace glass, trace burned organics, moist.	
10	(10-12')		4 2 2 5	4	0.5	1.1			Brown mottled SILT, little Clay, trace fine to medium Sand and Gravel, trace glass, moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 37.0' bgs
	(12-14')		14 9 8 8	17	1.3	11			Brown to black fine to medium SAND, porcelian fragments, moist.	
15	(14-16')		1 2	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.	

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Remarks:
Soil descriptions taken from MW-136 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-136 S1

Total Depth = 42.2 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 3	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.	
	(16-18')		NA	NA	0.4	7.8			Low recovery. Wood fragments, metal wire, wet.	
	(18-20')		20 29 30 30	59	0.2	13			WOOD.	Type I Portland cement/5% bentonite grout 2.0' to 33.5' bgs
20	(20-22')		20 19 10 10	29	0.4	NA				
	(22-24')		2 2 2 2	4	NR	NA			No Recovery.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 37.0' bgs
25	(24-26')		2 2 2 2	4	NR	NA				
	(26-28')		WOH 1 1 1	2	1.8	45			Dark gray CLAY, some Silt, porcelian fragments, moist to wet.	
	(28-30')		WOH (12") 1 1	1	1.4	287			Trace wood fragments and glass.	
30	(30-32')		WOH (24")	0	1.5	33			Wood fragments.	
	(32-34')		WOH 2 2 2	4	1.8	4.9			Gray to brown fine to coarse SAND, little Silt, wet.	
	(34-36')		2 2	5	1.8	0.3			Brown SILT and mottled Organic material, moist.	Bentonite seal 33.5' to 36.5' bgs
35										

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Remarks:
Soil descriptions taken from MW-136 S2 boring log.
WOH - Weight of Hammer.
NA - Not Available.
NR - No Recovery.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-136 S1

Total Depth = 42.2 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(34-36')		3 4	5	1.8	0.3			Brown SILT and mottled Organic material, moist.
	(36-38')		1 2 2 3	4	1.6	3.6			Gray to brown fine to medium SAND, trace Silt, wet. Trace shells.
	(38-40')		4 5 6 6	11	1.6	1.9			
40	(40-42')		4 5 7 8	12	1.9	46			Some coarse SAND 40.6' to 41.2'.
									Total depth of boring 42.2 ft. bgs.
45									
50									
55									

Well Construction

- Bentonite seal 33.5' to 36.5' bgs
- 2-in diameter Sch. 40 PVC well casing 2.1' ags to 37.0' bgs
- Grade #5 silica sand pack 36.5' to 42.2' bgs
- 0.01" Sch. 40 PVC screen 37.0' to 42.0' bgs
- 2-in diameter Sch. 40 PVC sump 42.0' to 42.2' bgs

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Remarks:
Soil descriptions taken from MW-136 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/16/95 - 01/17/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 58 ft.

Geologist: Steve French

Well No. MW-138 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 596.93 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	595	(0-2')		2 3 4 5	7	1.8	79			Brown fine to medium SAND, some Silt, moist.	Concrete pad ground surface to 2.0' bgs
		(2-4')		4 4 3 3	7	1.8	8.5			Yellow brown to black fine to medium SAND, little Silt and Clay, moist.	
5		(4-6')		2 2 2 3	4	0.4	23				
	590	(6-8')		4 4 4 4	8	1.6	7.6			Brown mottled SILT, little fine to medium Sand, trace to little Clay, trace glass, hard.	Type I Portland cement/5% bentonite grout 2.0' to 37.5' bgs
		(8-10')		6 8 10 13	18	0.5	8.5			Black fine to medium SAND, trace glass, trace burned organics, moist.	
10		(10-12')		4 2 2 5	4	0.5	1.1			Brown mottled SILT, little Clay, trace fine to medium Sand and Gravel, trace glass, moist.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 44.0' bgs
	585	(12-14')		14 9 8 8	17	1.3	11			Brown to black fine to medium SAND, porcelian fragments, moist.	
15		(14-16')		1 2	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.	

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Remarks:
Apparent Conductivity graph is off-scale from 7.8 to 9.2 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-138 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 3	5	1.2	7.5			Black SILT and Organics, little Clay, trace fine to medium Sand.	
	580	(16-18')		NA	NA	0.4	7.6			Low recovery. Wood fragments, metal wire, wet.	
		(18-20')		20 29 30 30	59	0.2	13			WOOD.	
20		(20-22')		20 19 10 10	29	0.4	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 37.5' bgs
	575	(22-24')		2 2 2 2	4	NR	NA			No Recovery.	
25		(24-26')		2 2 2 2	4	NR	NA				
	570	(26-28')		WOH 1 1 1	2	1.8	45			Dark gray CLAY, some Silt, porcelian fragments, moist to wet.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 44.0' bgs
		(28-30')		WOH (12") 1 1	1	1.4	287			Trace wood fragments and glass.	
30		(30-32')		WOH (24")	0	1.5	33			Wood fragments.	
	565	(32-34')		WOH 2 2 2	4	1.8	4.9			Gray to brown fine to coarse SAND, little Silt, wet. Brown SILT and mottled ORGANIC material, moist.	
35		(34-36')		2 2	5	1.8	0.3				

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.
NR - No Recovery.
Apparent Conductivity graph is off-scale from 18.5 to 18.0 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-136 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		3 4	5	1.8	0.3			Brown SILT and mottled ORGANIC material, moist.	Type I Portland cement/5% bentonite grout 2.0' to 37.5' bgs
	560	(36-38')		1 2 2 3	4	1.6	3.6			Gray to brown fine to medium SAND, trace Silt, wet. Trace shells.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 44.0' bgs
		(38-40')		4 5 6 6	11	1.6	1.9				Bentonite seal 37.5' to 40.5' bgs
40		(40-42')		4 5 7 8	12	1.9	46			Some coarse SAND 40.6' to 41.2'.	
	555	(42-44')		3 3 4 6	7	1.2	0.2			Trace shells.	Grade #5 silica sand pack 40.5' to 50.0'bgs
45		(44-46')		4 6 7 12	13	1.7	4.9				0.01" Sch. 40 PVC screen 44.0' to 49.0' bgs
	550	(46-48')		6 8 14 12	22	1.2	2.5				
		(48-50')		4 5 6 8	11	1.7	0.4			Dark gray CLAY, some Silt, trace fine to coarse Sand, moist to wet.	2-in diameter Sch. 40 PVC sump 49.0' to 49.2' bgs
50		(50-52')		5 7 9 12	16	0.3	0.0				
	545	(52-54')		3 3 4 5	7	2.0	0.0			Dark gray CLAY, some Silt, moist to wet.	Bentonite seal 50.0' to 58.0' bgs
55		(54-56')		4 5	11	1.8	3.0				

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-138 S2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		6 7	11	1.8	3.0			Dark gray CLAY, some Silt, moist to wet.	
										Trace coarse Gravel.	Bentonite seal 50.0' to 58.0' bgs
	540	(56-58')		4 3 5 6	8	1.7	3.3				
										Total depth of boring 58.0 ft. bgs.	
60											
	535										
65											
	530										
70											
	525										
75											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/20/95 - 01/23/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32.0 ft.

Geologist: Steve French

Well No. MW-137 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed Concrete pad ground surface to 2.0' bgs
	(0-2')		NA	NA	1.0	23			Brown Silty TOPSOIL, damp. Black fine to medium SAND, trace Silt, damp. Trace metal fragment.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 4.0' bgs
	(2-4')		2 3 4 6	7	1.0	0.9			Brown mottled CLAY, some Silt, trace fine Sand, medium stiff, moist.	Type 1 Portland cement/5% bentonite grout 2.0' to 2.5' bgs
5	(4-6')		6 8 9 10	17	1.3	1.1			Vertical CLAY fractures, stiff.	Bentonite seal 2.5' to 3.5' bgs
	(6-8')		8 7 9 12	16	1.2	0.5			Trace medium Gravel.	Grade #5 silica sand pack 3.5' to 14.4' bgs
	(8-10')		5 6 7 8	13	1.6	1.8				
10	(10-12')		5 7 9 10	16	1.8	1.0				0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
	(12-14')		5 6 7 8	13	1.3	0.5			Brown CLAY, some Silt, trace fine Gravel, medium stiff, moist to wet.	
15	(14-16')		3 4	9	2.0	1.3				2-in diameter Sch. 40 PVC sump 14.0' to 14.2' bgs

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-137 WT

Total Depth = 32.0 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		5 6	9	2.0	1.3			Trace mottling.	Bentonite seal 14.4' to 32.0' bgs
	(16-18')		2 3 4 5	7	1.3	0.9				
	(18-20')		2 2 3 4	5	2.0	0.3			Dark gray CLAY, little Silt, trace coarse Sand, trace fine Gravel, soft, moist to wet.	
20	(20-22')		2 2 2 2	4	2.0	1.8				
	(22-24')		WOH 1 2 2	3	2.0	1.0				
25	(24-26')		2 2 2 2	4	1.8	0.9				
	(26-28')		1 1 1 1	2	1.8	1.0			0.2' lense Gray fine Sand.	
	(28-30')		1 2 1 1	3	1.7	1.3			0.4' seam Clay and fine to medium Sand, little Silt.	
30	(30-32')		1 2 2 2	4	1.6	1.3			Dark gray CLAY, little fine to medium Sand, trace fine Gravel, soft, moist to wet.	
									Total depth of boring 32.0 ft. bgs.	
35										

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/18/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30.0 ft.

Geologist: James Saxton

Well No. MW-138 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		6 4 6 15	10	1.5	1.5			Dark gray SILT, little coarse Sand, trace wood and cinders.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 3 3 4	6	1.25	0.4			Gray CLAY and SILT, little fine Sand, brown mottling.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 14.0' bgs
5	(4-6')		1 1 5 8	6	1.25	0.4				Type 1 Portland cement/5% bentonite grout 2.0' to 10.0' bgs
	(6-8')		4 9 13 16	22	1.5	0.3			Vertical fractures filled with gray Clay.	
	(8-10')		4 8 12 15	20	1.5	0.4				
10	(10-12')		4 9 13 17	22	1.7	0.6				Bentonite seal 10.0' to 12.0' bgs
	(12-14')		4 7 13 13	20	NA	0.5				Grade #5 silica sand pack 12.0' to 24.5' bgs
15	(14-16')		3 6	16	NA	0.5				

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Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

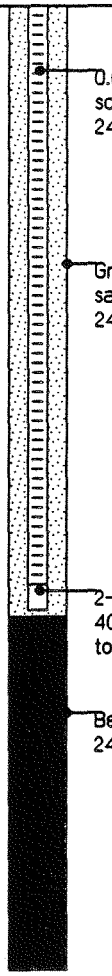
Client:
General Motors Corporation

Well No. MW-138 WT

Total Depth = 30.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		10 2	16	NA	0.5			
	(16-18')		1 2 4 7	6	2.0	0.7			Wet. Gray CLAY and SILT, little fine Sand, trace fine Gravel, wet.
	(18-20')		2 4 5 5	9	2.0	0.4			
20	(20-22')		2 3 4 4	7	2.0	0.5			
	(22-24')		WOH (12") 2 2	2	2.0	0.4			
25	(24-26')		WOH 2 2 3	4	2.0	0.5			
	(26-28')		WOH (18") 2	0	2.0	0.5			
	(28-30')		WOH (12") 1 2	1	2.0	0.6			
30									Total depth of boring 30.0 ft. bgs.
35									

Well Construction



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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 02/24/95 - 02/24/95
Drilling Company: Mateco
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 95
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 23.3 ft.

Geologist: Ron Kuhn

Well No. MW-139 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

gs elevation 598.37 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										GROUND SURFACE
		(0-2')		1 1 5 13	5	0.7	0.0			Black ASPHALT.
										Wood.
										Gray and brown mottled SILT, damp.
	595	(2-4')		3 3 3 3	6	1.2	0.1			Black fine to medium SAND, damp.
5		(4-6')		3 9 12 14	21	1.7	0.0			Brown and gray mottled CLAY, some Silt, trace coarse Sand and fine Gravel, occasional vertical fractures, moist.
		(6-8')		5 10 12 14	22	1.8	0.0			
	590	(8-10')		4 6 9 10	15	1.5	0.2			
10		(10-12')		4 6 8 8	14	1.6	0.1			Fewer fractures.
		(12-14')		5 5 6 8	11	1.8	0.0			No mottling, Clay becomes wetter.
	585									
15		(14-16')		2 3	6	2.0	0.1			

Well Construction

- 4-in diameter steel protective casing 2.5' ags, locking cap installed
- Concrete pad ground surface to 1.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.1' ags to 13.0' bgs
- Type I Portland cement/5% bentonite grout 1.0' to 9.0' bgs
- Bentonite seal 9.0' to 11.0' bgs
- Grade #5 silica sand pack 11.0' to 23.3' bgs
- 0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs

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Remarks:
Soil descriptions taken from 139 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-139 WT

Total Depth = 23.3 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 3	6	2.0	0.1			Brown CLAY, some Silt, little fine Sand, trace fine Gravel, wet.	0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs
		(16-18')		3 3 3 4	6	1.2	0.0			Trace coarse Sand.	
	580	(18-20')								Obtained shelby tube sample 18.0' to 20.0'.	Grade #5 silica sand pack 11.0' to 23.3' bgs
20		(20-22')								Cone penetrometer tests 20.0' to 25.0'.	
		(22-24')									
	575									Total depth of boring 23.3 ft. bgs.	2-in diameter Sch. 40 PVC sump 23.0' to 23.2' bgs
25											
	570										
30											
	565										
35											

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Remarks:
Soil descriptions taken from 139 boring log.
Shelby tube sample taken 18.0'-20.0' bgs.
Cone penetrometer tests from 20.0'- 25.0' bgs.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 02/21/95 - 02/23/95
Drilling Company: Mateco
Driller's Name:
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: CME 95
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 88 ft.

Descriptions by: James Saxton

Boring No. MW-139 - Boring only

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft.											
0										GROUND SURFACE	
		(0-2')		5 13	5	0.7	0.0			Black ASPHALT. Wood.	Asphalt from 0' to 1' bgs.
		(2-4')		3 3 3 3	6	1.2	0.1			Gray and brown mottled SILT, damp. Black fine to medium SAND, damp.	
5	-5	(4-6')		3 9 12 14	21	1.7	0.0			Brown and gray mottled CLAY, some Silt, trace coarse Sand and fine Gravel, occasional vertical fractures, moist.	Type 1 Portland cement/5% bentonite grout 1.0' to 88.0' bgs
		(6-8')		5 10 12 14	22	1.8	0.0				
		(8-10')		4 6 9 10	15	1.5	0.2				
10	-10	(10-12')		4 6 8 8	14	1.6	0.1			Fewer fractures.	
		(12-14')		5 5 6 8	11	1.8	0.0			No mottling, Clay becomes wetter.	
15	-15	(14-16')		2 3	6	2.0	0.1				

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-139 - Boring only

Total Depth = 88 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(14-16')		3 3	6	2.0	0.1			Brown CLAY, some Silt, little fine Sand, trace fine Gravel, wet.	
		(16-18')		3 3 3 4	6	1.2	0.0			Trace coarse Sand.	
		(18-20')								Obtained shelby tube sample 18.0' to 20.0'.	
20	-20	(20-22')								Cone penetrometer tests 20.0' to 25.0'.	Type I Portland cement/5% bentonite grout 1.0' to 88.0' bgs
		(22-24')									
25	-25	(24-26')		WOH (18") 2	0	2.0	0.0			Gray CLAY, some Silt, trace coarse Sand and fine Gravel, soft, high plasticity, wet.	
		(26-28')		WOH (24")	0	2.0	0.0				
		(28-30')		WOH (18") 3	0	2.0	0.0			Little fine Sand.	
30	-30	(30-32')		WOH (24")	0	2.0	0.0				
		(32-34')		2 2 3 3	5	2.0	0.0				
35	-35	(34-36')		2 2	4	2.0	0.0				

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Remarks:
WOH - Weight of Hammer. Shelby tube sample taken 18.0'-20.0' bgs.
Cone penetrometer tests from 20.0'- 25.0' bgs.

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-139 – Boring only

Total Depth = 88 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(34-36')		2 3	4	2.0	0.0				
		(36-38')		2 2 2 3	4	2.0	0.0				
		(38-40')		1 1 2 2	3	2.0	0.0				
40	-40	(40-42')		WOH (12") 2 3	2	2.0	0.0			Gray CLAY, some Silt, little fine Sand, trace coarse Sand and fine Gravel, soft, wet.	Type I Portland cement/5% bentonite grout 1.0' to 88.0' bgs
		(42-44')		2 3 3 4	6	2.0	0.0				
45	-45	(44-46')		2 2 2 3	4	2.0	0.0				
		(46-48')		3 3 3 4	6	2.0	0.0				
		(48-50')		2 2 2 3	4	2.0	0.0				
50	-50	(50-52')		2 2 3 3	5	2.0	0.0				
		(52-54')		2 3 4 4	7	2.0	0.0				
55	-55	(54-56')		2 4	8	2.0	0.0				

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Remarks:
WOH - Height of Hammer.

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-139 - Boring only

Total Depth = 88 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(54-56')		4 3	8	2.0	0.0				
		(56-58')		WOH 3 3 3	6	2.0	0.0				
		(58-60')		2 3 6 6	9	2.0	0.0				
60	-60	(60-62')		2 3 6 6	9	2.0	0.0			Gray CLAY, some Silt, some fine to medium Sand, trace coarse Sand and fine Gravel, soft, wet.	Type 1 Portland cement/5% bentonite grout 1.0' to 88.0' bgs
		(62-64')		7 7 8 11	15	2.0	0.0			Grayish brown fine to medium SAND and CLAY, trace coarse Sand and fine Gravel.	
65	-65	(64-66')		3 4 6 6	10	2.0	0.0			Gray CLAY, some Silt, little fine Sand, trace coarse Sand and fine Gravel, very stiff.	
		(66-68')		WOH 2 4 4	6	2.0	0.0			Stiff.	
		(68-70')		1 2 2 2	2	2.0	0.0				
70	-70	(70-72')		WOH (12") 2 4	2	2.0	0.0			Gray CLAY, some Silt, little fine Sand, soft.	
		(72-74')		WOH (12") 2 4	2	2.0	0.0				
75	-75	(74-76')		WOH (12")	3	2.0	0.0			Gray CLAY, some Silt, little fine Sand, trace coarse Sand, soft.	

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Remarks:
WOH - Weight of Hammer.

Saturated Zones

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. MW-139 - Boring only

Total Depth = 88 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description
		(74-76')		3 3	3	2.0	0.0			Gray CLAY, some Silt, little fine Sand, trace coarse Sand, soft.
		(76-78')		3 4 5 9	9	2.0	0.0			Pinkish gray SILT, some Clay.
		(78-80')		9 11 24 28	35	2.0	0.0			Gray fine SAND and SILT, dense, moist.
80	-80	(80-82')		8 16 29 39	45	1.5	0.0			Dark gray SILT, little fine Sand, little coarse Sand, little fine Gravel, dense, moist.
		(82-84')		19 25 26 34	51	1.2	0.0			
85	-85	(84-86')		10 16 20 50	36	1.7	0.0			
		(86-88')		100 (0.4")	REF	0.2	0.0			Dark gray weathered SHALE with faint laminations. Sample breaks on parallel planes.
										Total depth of boring 88.0 ft. bgs.
90	-90									
95	-95									

Boring Construction

Type 1 Portland cement/5% bentonite grout 1.0' to 88.0' bgs

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Remarks:
REF = Refusal.

Saturated Zones

Date / Time	Elevation	Depth
		▽
		▽
		▽

Date Start-Finish: 01/18/95 - 01/19/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 21.2 ft.

Geologist: Stephen D. French

Well No. MW-140 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										4-in diameter steel protective casing 2.5' ags, locking cap installed.
									GROUND SURFACE	
	(0-2')		4 6 12 4	18	1.1	10			Dark brown SILT, little fine Sand, trace coarse Sand and fine Gravel, stiff, moist. Red brown, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		3 4 8 9	12	1.2	7.8			Dark brown with red mottling, trace Clay, stiff.	
5	(4-6')		2 3 4 4	7	1.8	7.9			Red brown fine to medium SAND, trace Silt, loose. Gray fine to medium SAND, little Silt, loose.	Type 1 Portland cement/5% bentonite grout 2.0' to 8.0' bgs
	(6-8')		1 1 2 2	3	2.0	3.2			Gray to brown fine to medium SAND, very loose, moist, black discoloration, 2" Silt seam.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 11.0' bgs
	(8-10')		1 2 3 4	5	2.0	0.0			Less black discoloration, moist.	Bentonite seal 8.0' to 10.0' bgs
10	(10-12')		2 4 5 6	9	1.2	0.0			Trace organics.	
	(12-14')		2 2 3 4	5	1.5	0.0			A 2" seam of Silt.	0.01" slotted Sch. 40 PVC screen 11.0' to 21.0' bgs
	(14-16')		1 2	5	2.0	0.0			Dark gray CLAY, some Silt, little fine Sand, medium stiff.	
15										

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Remarks:
Soil descriptions taken from MW-140 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-140 WT

Total Depth = 21.2 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 4	5	2.0	0.0			@14.9', Gray fine to medium SAND, little Silt, very loose.	
	(16-18')		1 1 2 3	3	1.2	0.0			Dark gray CLAY and SILT, soft, moist to wet.	
	(18-20')		1 1 2 2	3	2.0	0.0			Dark gray CLAY, some Silt, trace shells, 1" peat seam, soft. Moist to wet.	
20	(20-22')		WOH 1 2 2	3	1.8	0.0			Total depth of boring 21.2 ft. bgs.	Grade #5 silica sand pack 10.0' to 21.2' bgs 2-in diameter Sch. 40 PVC sump 21.0' to 21.2' bgs
25										
30										
35										

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Remarks:
Soil descriptions taken from MW-140 S2 boring log.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/19/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 33.7 ft.

Geologist: Stephen D. French

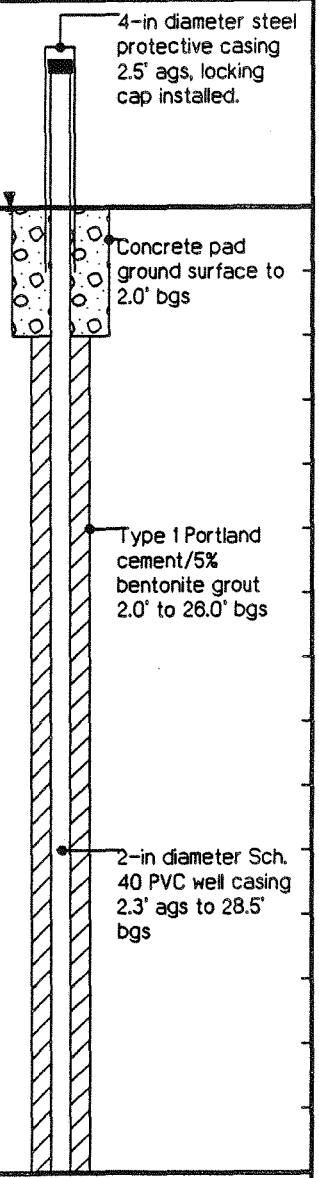
Well No. MW-140 S1

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	gs elevation ft.									**GROUND SURFACE**
		(0-2')		4 6 12 4	18	1.1	10			Dark brown SILT, little fine Sand, trace coarse Sand and fine Gravel, stiff, moist. Red brown, moist.
		(2-4')		3 4 8 9	12	1.2	7.8			Dark brown with red mottling, trace Clay, stiff.
5		(4-6')		2 3 4 4	7	1.8	7.9			Red brown fine to medium SAND, trace Silt, loose. Gray fine to medium SAND, little Silt, loose.
		(6-8')		1 1 2 2	3	2.0	3.2			Gray to brown fine to medium SAND, very loose, moist, black discoloration, 2" Silt seam.
		(8-10')		1 2 3 4	5	2.0	0.0			Less black discoloration, moist.
10		(10-12')		2 4 5 6	9	1.2	0.0			Trace organics.
		(12-14')		2 2 3 4	5	1.5	0.0			A 2" seam of Silt.
15		(14-16')		1 2	5	2.0	0.0			Dark gray CLAY, some Silt, little fine Sand, medium stiff.

Well Construction



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Remarks:
Soil description taken from MW-140 S2 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-140 S1

Total Depth = 33.7 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		3 4	5	2.0	0.0			@ 14.9', Gray fine to medium SAND, little Silt, very loose.
	(16-18')		1 1 2 3	3	1.2	0.0			Dark gray CLAY and SILT, soft, moist to wet. Dark gray CLAY, some Silt, trace shells, 1" peat seam, soft. Moist to wet.
	(18-20')		1 1 2 2	3	2.0	0.0			
20	(20-22')		WOH 1 2 2	3	1.8	0.0			
	(22-24')		WOH 1 2 2	3	1.8	0.0			
	(24-26')		WOH (24")	0	1.9	0.0			
25	(26-28')		WOH (12") 2 2	2	1.8	0.0			
	(28-30')		WOH (24")	0	1.3	0.0			Gray fine to medium SAND, very loose. Dark gray CLAY, some Silt, very soft, moist to wet. Gray brown fine SAND, trace medium Sand and shells, loose, wet.
30	(30-32')		2 3 4 5	7	1.6	0.0			
	(32-34')		6 8 10 12	18	1.3	0.0			Gray fine to medium SAND, trace coarse Sand and shells, medium dense, wet. Total depth of boring 33.7 ft. bgs.
35									

Well Construction

- Type 1 Portland cement/5% bentonite grout 2.0' to 26.0' bgs
- 2-in diameter Sch. 40 PVC well casing 2.3' ags to 28.5' bgs
- Bentonite seal 26.0' to 28.0' bgs
- 0.01" slotted Sch. 40 PVC screen 28.5' to 33.5' bgs
- Grade #5 silica sand pack 28.0' to 33.7' bgs
- 2-in diameter Sch. 40 PVC sump 33.5' to 33.7' bgs

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Remarks:
Soil description taken from MW-140 S2 boring log.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/18/95 - 01/19/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 60 ft.

Geologist: Stephen D. French

Well No. MW-140 S2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 593.28 ft.											4-in diameter steel protective casing 2.5' ags, locking cap installed.
										GROUND SURFACE	
		(0-2')		4 6 12 4	18	1.1	10			Dark brown SILT, little fine Sand, trace coarse Sand and fine Gravel, stiff, moist. Red brown, moist. Dark brown with red mottling, trace Clay, stiff.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		3 4 8 9	12	1.2	7.8				
5		(4-6')		2 3 4 4	7	1.8	7.9			Red brown fine to medium SAND, trace Silt, loose. Gray fine to medium SAND, little Silt, loose. Gray to brown fine to medium SAND, very loose, moist, black discoloration, 2" Silt seam.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.0' bgs
		(6-8')		1 1 2 2	3	2.0	3.2				
	585	(8-10')		1 2 3 4	5	2.0	0.0			Less black discoloration, moist.	
10		(10-12')		2 4 5 6	9	1.2	0.0			Trace organics.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 45.5' bgs
										A 2" seam of Silt.	
	580	(12-14')		2 2 3 4	5	1.5	0.0				
15		(14-16')		1 2	5	2.0	0.0			Dark gray CLAY, some Silt, little fine Sand, medium stiff.	

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-140 S2

Total Depth = 80 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 4	5	2.0	0.0			@ 14.9', Gray fine to medium SAND, little Silt, very loose.	
		(16-18')		1 1 2 3	3	1.2	0.0			Dark gray CLAY and SILT, soft, moist to wet. Dark gray CLAY, some Silt, trace shells, 1" peat seam, soft.	
	575	(18-20')		1 1 2 2	3	2.0	0.0			Moist to wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 41.0' bgs
20		(20-22')		WOH 1 2 2	3	1.8	0.0				
	570	(22-24')		WOH 1 2 2	3	1.8	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 45.5' bgs
25		(24-26')		WOH (24")	0	1.9	0.0				
		(26-28')		WOH (12") 2 2	2	1.8	0.0				
	565	(28-30')		WOH (24")	0	1.3	0.0			Gray fine to medium SAND, very loose. Dark gray CLAY, some Silt, very soft, moist to wet.	
30		(30-32')		2 3 4 5	7	1.6	0.0			Gray brown fine SAND, trace medium Sand and shells, loose, wet.	
	560	(32-34')		6 8 10 12	18	1.3	0.0			Gray fine to medium SAND, trace coarse Sand and shells, medium dense, wet. Trace fine Gravel.	
35		(34-36')		4 5	11	1.2	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-140 S2

Total Depth = 60 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		6 6	11	1.2	0.0			Gray fine to medium SAND, trace coarse Sand and shells, medium dense, wet.	Type I Portland cement/5% bentonite grout 2.0' to 41.0' bgs
		(36-38')		WOH 2 3 2	5	1.6	0.0				
	555	(38-40')		6 8 10 12	18	1.8	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 45.5' bgs
40		(40-42')		3 6 8 12	14	1.6	0.0			Grades with little to trace fine Gravel.	
	550	(42-44')		8 4 8 11	12	1.1	0.0				Bentonite seal 41.0' to 43.0' bgs
45		(44-46')		8 10 13 14	23	1.0	0.0				
		(46-48')		2 4 7 8	11	1.0	0.0				0.01" slotted Sch. 40 PVC screen 45.5' to 50.5' bgs
	545	(48-50')		6 4 4 4	8	0.8	0.0				Grade #5 silica sand pack 43.0' to 51.0' bgs
50		(50-52')		3 2 2 4	4	1.9	0.0			Dark gray CLAY, some Silt, trace fine to coarse Sand, soft, moist to wet. No Sand.	2-in diameter Sch. 40 PVC sump 50.5' to 50.7' bgs
	540	(52-54')		1 1 1 1	2	1.8	0.0				Bentonite seal 51.0' to 60.0' bgs
55		(54-56')		WOH 2	4	2.0	0.0				

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-140 S2

Total Depth = 60 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		2 3	4	2.0	0.0			Dark gray CLAY, some Silt, soft, moist to wet.	Bentonite seal 51.0' to 60.0' bgs
		(56-58')		WOH 2 2 2	4	2.0	0.0			Little Silt, very cohesive.	
	535	(58-60')		2 2 2 3	4	2.0	0.0				
60										Total depth of boring 60.0 ft. bgs.	
	530										
65											
	525										
70											
	520										
75											

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 01/12/95 – 01/13/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 50 ft.

Geologist: Stephen D. French

Well No. MW-141 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
											2-in diameter Sch. 40 PVC well casing 1.8' ags to 4.0' bgs
		(0-2')		7 8 10 7	18	1.2	0.5			Brown Silty topsoil. Light gray to brown fine to medium SAND, medium dense, moist.	Concrete pad ground surface to 2.0' bgs
		(2-4')		6 7 7 9	14	1.4	0.0			Dark brown to black fine to medium SAND, medium dense, with a 2" Silt seam.	Bentonite seal 2.0' to 3.0' bgs
5		(4-6')		6 7 8 5	15	NR	NA			No Recovery.	
		(6-8')		2 2 4 3	6	1.5	0.0			Brown to black fine to medium SAND, loose. Gray fine to medium SAND, loose.	0.01" slotted Sch. 40 PVC screen 4.0' to 14.0' bgs Grade #5 silica sand pack 3.0' to 14.2' bgs
		(8-10')		2 2 3 3	5	1.2	0.0				
10		(10-12')		6 8 10 15	18	1.7	0.0			Fine to medium SAND and SILT, loose, moist. Gray SILT, some fine Sand, trace shells, soft, wet. Dark gray CLAY, some Silt, trace fine to coarse Sand and fine to medium Gravel, very stiff, moist, some mottling, till-like.	
		(12-14')		6 8 10 14	18	1.7	0.0				
15		(14-16')		6 7	16	1.8	0.0			Moist, no mottling.	2-in diameter Sch. 40 PVC sump 14.0' to 14.2' bgs

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Remarks:
MW-141 WT approximatly 10' south of original boring. Original boring grouted to grade.
NR – No Recovery
NA – Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-141 WT

Total Depth = 50 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		9 13	16	1.8	0.0			Little Silt, stiff.	
	(16-18')		5 7 9 10	16	1.2	0.1			Gray brown CLAY, stiff, moist to wet.	
	(18-20')		3 4 7 7	11	1.8	0.2				
20	(20-22')		4 5 7 8	12	2.0	0.3				
	(22-24')		3 3 4 6	7	2.0	0.3			Medium stiff.	
25	(24-26')		4 4 4 4	8	2.0	0.3			Soft.	
	(26-28')		WOH (12") 3 5	3	2.0	0.4			Trace medium Gravel, very soft.	
	(28-30')		WOH (12") 2 2	2	2.0	0.3			A 2" seam of medium Gravel.	
30	(30-32')		1 2 3 4	5	2.0	0.7				
	(32-34')		1 1 2 4	3	2.0	0.3			Trace fine Gravel.	
35	(34-36')		WOH 1	3	2.0	0.2				

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-141 WT

Total Depth = 50 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		2 3	3	2.0	0.2			Gray brown CLAY, trace fine Gravel, very soft, moist to wet.	
	(36-38')		WOH (12") 2 2	2	2.0	4.3				
	(38-40')		WOH (12") 1 1	1	2.0	0.2				
40	(40-42')		WOH (12") 1 4	1	2.0	0.3				
	(42-44')		WOH (12") 3 3	3	2.0	0.3				
45	(44-46')		WOH 2 3 4	5	2.0	0.3				
	(46-48')		2 2 2 3	4	2.0	0.3				
	(48-50')		2 2 2 3	4	2.0	0.8				
50									Total depth of boring 50.0 ft. bgs.	
55										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start–Finish: 02/08/95 – 02/08/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25–in.
Rig Type: CME 75
Spoon Size: 2–in.
Hammer Weight: 140–lb
Height of Fall: 30–in.

Borehole Depth: 13.4 ft.

Geologist: Hillary Hollister–Hinge

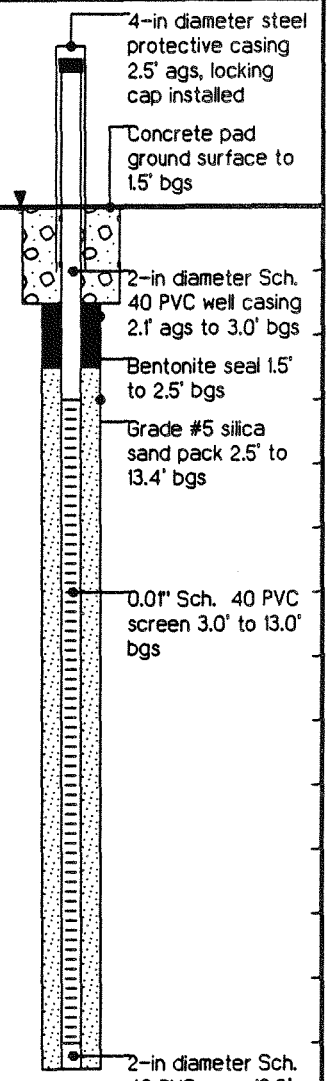
Well No. MW–142 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									GROUND SURFACE
	(0–2')		8 8 6 14	14	1.4	2.0			Light brown fine to medium SAND, medium dense, dry.
	(2–4')		16 28 17 8	45	1.5	14.8			Dark brown fine to coarse SAND, trace fine Gravel and slag, dry.
5	(4–6')		1 4 10 7	14	1.6	18.2			Dark brown fine to coarse SAND, trace fine to medium Gravel and slag, slight odor, dry. Becomes moist, no medium Gravel.
	(6–8')		6 3 1 1	4	0.8	27.1			Black SILT, some fine to medium Sand, loose, wet.
	(8–10')		1 1 (12") 1	1	1.8	15.6			Black fine to medium SAND, trace Silt, very loose, wet.
10	(10–12')		WOH 1 2 3	3	1.5	15.9			Sand becomes grayish brown, trace shell fragments.
	(12–14')		WOH 1 1 1	2	1.0	5.2			
									Total depth of boring 13.4 ft bgs.
15									

Well Construction



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Remarks:
WOH – Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/06/95 - 06/06/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 17.4 ft.

Geologist: Ron D. Kuhn

Well No. MW-143WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')								Black fine to medium SAND, moist.	Concrete ground surface to 2.0' bgs
	(2-4')									Bentonite seal 2.0' to 4.0' bgs
5	(4-6')								Orange fine to medium SAND, some Silt, slightly cohesive, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 6.0' bgs
	(6-8')									
	(8-10')									Grade #5 silica sand pack 4.0' to 16.4' bgs
10	(10-12')									0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	(12-14')								Black SILT, soft, wet.	
15	(14-16')									

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Remarks:
Augered continuously to 17.4'.
Soil descriptions taken from boring log B-3B (AUG).

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-143WT

Total Depth = 17.4 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Dark gray SILT, little to some Clay, trace fine Sand, moist.	2-in diameter Sch. 40 PVC sump 16.0' to 16.4'bgs
	(16-17.4')								Gray SILT, little Clay, trace fine Sand, soft, moist.	Bentonite seal 16.4' to 17.4' bgs
									Total depth of boring 17.4 ft. bgs.	
20										
25										
30										
35										

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Remarks:
Augered continuously to 17.4'.
Soil descriptions taken from boring log B-3B (AUG).

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/07/95 - 06/07/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13 ft.

Geologist: Ron D. Kuhn

Well No. MW-144 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed; Concrete pad ground surface to 1.0' bgs
	(0-2')		9 14 9 9	23	2.0				Black/brown fine to medium SAND, little Silt, trace fine Gravel, wood, and organic material, medium dense, damp.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 1.0' bgs
	(2-4')		4 31 18 7	49	1.6				Brown SILT and CLAY, trace fine Sand and fine Gravel, stiff, damp.	Bentonite seal 1.0' to 1.5' bgs
									Black/brown fine to medium SAND, little Silt, medium dense, damp.	
									Gray concrete/brick material.	
5	(4-6')		2 3 7 7	10	0.6				Black fine to medium SAND, little fine to medium Gravel, trace glass, loose, saturated, slight odor, no sheen.	Grade #5 silica sand pack 1.5' to 13.0' bgs
	(6-8')		1 WOH 1 WOH	1	1.0				No glass, very loose.	
	(8-10')		2 3 5 4	8	1.0				Gray SILT and CLAY, litte fine to medium Gravel, medium stiff, wet.	0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
10	(10-12')		2 3 3 4	6	2.0					
	(12-13')								Augered from 12.0' to 13.0' bgs.	2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs
									Total depth of boring 13.0 ft. bgs.	
15										

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/08/95 - 06/08/95
Drilling Company: Stearns
Driller's Name: Rick Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Ronald D. Kuhn

Well No. MW-145 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed.
	(0-2')		4 5 6 7	11	2.0	0.0			Light brown fine to medium SAND, little Silt, trace fine Gravel, medium dense, damp.	Concrete pad ground surface to 2.0' bgs
	(2-4')		2 5 7 4	12	2.0	0.0			Dark brown/black fine to medium SAND, little Silt, trace fine Gravel and slag, damp.	Bentonite seal 2.0' to 4.5' bgs
5	(4-6')		6 7 7 9	14	2.0	4.5			Dark brown/black fine to medium SAND, Glass, and Brick. Dark brown/black fine to medium SAND, little Silt, glass, and brick, medium dense, moist.	
	(6-8')		3 3 5 7	8	1.6	4.1			Trace fine Gravel, loose, wet.	2-in diameter Sch. 40 PVC well casing 2.3' ags to 7.0' bgs
	(8-10')		3 2 1 4	3	1.6	11.7				0.01" slotted Sch. 40 PVC screen 7.0' to 17.0' bgs
10	(10-12')		1 1 WOH 1	1	0.6	4.9			Trace glass, very loose, wet to sarutrated.	
	(12-14')		1 WOH 1 WOH	1	0.3	1.2			Poor recovery due to high percentage of scrap material, sheen on split-spoon sampler.	Grade #5 silica sand pack 4.5' to 18.0' bgs
15	(14-16')		1 3	5	0.4	5.6			Black fine to coarse SAND, loose, saturated, heavy sheen.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-145 WT

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	5	0.4	5.6			Black fine to coarse SAND, loose, saturated, heavy sheen.	0.01" slotted Sch. 40 PVC screen 7.0' to 17.0' bgs
	(16-18')		1 1 7 1	8	0.4	7.3				2-in diameter Sch. 40 PVC sump 17.0' to 14.4' bgs
									Total depth of boring 18 ft. bgs.	
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/08/95 - 06/08/95
Drilling Company: Stearns
Driller's Name: Rick Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Geologist: Ronald D. Kuhn

Well No. MW-148 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.40 ft.										GROUND SURFACE	4-in diameter steel protective casing 3.2' ags, locking cap installed.
		(0-2')		4 6 5 5	11	1.6	0.4			Brown SILT and fine SAND, trace organic material (roots), dry.	Concrete pad ground surface to 2.0' bgs
	590	(2-4')		3 4 5 3	9	1.6	0.2			Black/brown/orange fine to medium SAND, little Silt, some clear glass, loose, dry. Trace clear glass.	Bentonite seal 2.0' to 4.5' bgs
5		(4-6')		1 1 4 7	5	0.6	0.0			Trace concrete, moist.	
	585	(6-8')		2 1 WOH 1	1	0.5	0.1			Trace charred paper, very loose.	2-in diameter Sch. 40 PVC well casing 2.8' ags to 7.0' bgs
		(8-10')		WOH (12") 2 7	2	1.1	0.5			Trace Wire.	0.01" slotted Sch. 40 PVC screen 7.0' to 17.0' bgs
10		(10-12')		1 13 4 7	17	0.9	27.2			Trace nails, sheen, loose, sarutrated.	
	580	(12-14')		3 5 5 3	10	0.8	21.5			Black fine to medium SAND and SILT, trace fine Gravel, glass, wire, loose, saturated.	Grade #5 silica sand pack 4.5' to 18.0' bgs
15		(14-16')		3 2	3	0.6	44.6			Black SILT and Glass, heavy sheen, soft, saturated.	

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-146 WT

Total Depth = 18 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 2	3	0.6	44.6			Black SILT and Glass, heavy sheen, soft, saturated.	0.01" slotted Sch. 40 PVC screen 7.0' to 17.0' bgs
575	(16-18')		3 1 1 2	2	0.3	33.7				2-in diameter Sch. 40 PVC sump 17.0' to 17.4' bgs
									Total depth of boring 18.0 ft. bgs.	
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 06/14/95 – 06/14/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.4 ft.

Geologist: Ronald D. Kuhn

Well No. MW-147WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.35 ft.									GROUND SURFACE	9-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')								Concrete pavement and subbase.	Concrete pad
										Black fine SAND, medium dense, dry.	Grade #5 silica sand drain 0.4' to 1.0' bgs
	590	(2-4')								Black fine SAND and SILT, loose, moist.	Bentonite seal 1.0' to 3.0' bgs
5		(4-6')								Medium dense.	2-in diameter Sch. 40 PVC well casing 0.3' to 5.0' bgs
	585	(6-8')								Dark gray SILT, soft, wet.	
		(8-10')									Grade #5 silica sand pack 3.0' to 15.4' bgs
10		(10-12')								Dark gray Clayey SILT, very soft, wet.	0.01" Sch. 40 PVC screen 5.0' to 15.0' bgs
	580	(12-14')								Dark gray SILT, soft, wet.	
15										No sample taken from TW-239WT15 below 14.0' bgs.	

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Remarks:
Augered continuously to 15.4' bgs.
Soil descriptions were taken from temporary well log TW-239WT15.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-147WT

Total Depth = 15.4 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Total depth of boring 15.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs

575
20
570
25
565
30
560
35

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 06/14/95 - 06/14/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16 ft.

Geologist: Ronald D. Kuhn

Well No. MW-148 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.29 ft.										GROUND SURFACE	9-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')		23 14 8 9	22	1.8	16.6			Gray fine to medium GRAVEL, little Silt and fine to medium Sand, medium dense, dry.	Concrete pad
	590									Dark brown fine to medium SAND, little Silt, trace fine Gravel, medium dense, damp.	Grade #5 silica sand drain 0.4' to 1.0' bgs
		(2-4')		3 5 25 10	30	1.6	114			Black fine SAND and SILT, trace fine Gravel, stiff, damp.	Bentonite seal 1.0' to 3.0' bgs
5		(4-6')		2 2 3 1	5	1.4	52.8			Trace charred material and slag.	2-in diameter Sch. 40 PVC well casing 0.3' to 5.0' bgs
	585	(6-8')		2 1 1 1	2	1.8	23.7			Dark brown fine to coarse SAND and SILT, trace fine Gravel, loose, moist.	
										Brown SILT, trace fine Sand and organic material, soft, wet.	0.01" slotted Sch. 40 PVC screen 5.0' to 15.0' bgs
		(8-10')		1 WOH 1 1	1	1.8	26.1			Grades to gray fine to medium SAND, little Silt, loose, saturated, sheen, odor.	
10		(10-12')		1 WOH 1 WOH	1	1.5	10.6				
	580	(12-14')		WOH (24")	0	1.8	7.7			Grades to gray fine SAND and SILT, loose, wet to saturated, slight sheen.	Grade #5 silica sand pack 3.0' to 16.0' bgs
15		(14-16')		WOH 1	5	1.8	3.7			Gray fine to medium SAND, little	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-148 WT

Total Depth = 16 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		4 6	5	1.8	3.7			to trace fine Gravel, trace Silt, loose, saturated.	2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs
										Gray SILT and CLAY, trace fine Gravel, very stiff, moist.	
										Total depth of boring 16.0 ft. bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 09/21/95 - 09/21/95
Drilling Company: Mateco
Driller's Name: Steve Rapulski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 17.5 ft.

Geologist: Ron Kuhn

Well No. MW-149WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing stick-up 2.5' ags, locking well cap installed
	(0-2')								Dark brown and black fine to medium SAND, trace Silt, trace fine Gravel, trace glass, trace slag, moist.	Concrete pad ground surface to 1.0' bgs
	(2-4')									Type I Portland cement/5% bentonite grout 1.0' to 2.5' bgs
									Little Silt, no glass.	Bentonite seal 2.5' to 5.0' bgs
5	(4-6')									
	(6-8')								Black fine to medium SAND, little Silt, trace slag, damp.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 7.0' bgs
	(8-10')								Brown SILT, little Clay, very soft, wet.	
10									Lithology unknown.	0.01" Sch. 40 PVC screen 7.0' to 17.0' bgs
	(10-12')									
	(12-14')									Grade #5 silica sand pack 5.0' to 17.5' bgs
15	(14-16')									

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Remarks:
The boring was continuously augered to 17.5' bgs. Soil descriptions were taken from boring log TW-207WT.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-149WT

Total Depth = 17.5 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Lithology unknown.	0.01" Sch. 40 PVC screen 7.0' to 17.0' bgs; Grade #5 silica sand pack 5.0' to 17.5' bgs; 2-in diameter Sch. 40 PVC sump 17.0' to 17.5' bgs
	(16-18')								Total depth of boring 17.5 ft. bgs.	
20										
25										
30										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 09/21/95 - 09/21/95
Drilling Company: Mateco
Driller's Name: Steve Rapulski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 13.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-150WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing stick-up 2.5' ags, locking well cap installed
		(0-2')								Black fine to medium SAND, moist to wet, loose.	Concrete pad ground surface to 1.0'
		(2-4')									Bentonite seal 1.0' to 2.0' bgs
											2-in diameter Sch. 40 PVC well casing 1.8' ags to 3.0' bgs
5		(4-6')								Wet.	
		(6-8')								Lithology unknown. 215WT8 water sample taken here.	0.01" Sch. 40 PVC screen 3.0' to 13.0' bgs
		(8-10')								Black fine to medium SAND, wet, loose.	
										Black SILT, some Clay, trace very fine Sand, soft, wet.	
10		(10-12')								Gray SILT, some fine Sand, little Clay, soft, wet.	Grade #5 silica sand pack 2.0' to 13.5' bgs
		(12-14')								Dark gray SILT and CLAY.	
										Gray fine to medium SAND, little Silt, soft, wet.	2-in diameter Sch. 40 PVC sump 13.0' to 13.5' bgs
15										Total depth of boring 13.5 ft. bgs.	

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Remarks:
The boring was continuously augered to 13.5' bgs. Soil descriptions were taken from boring log TW-215WT.

Water Levels

Date / Time	Elevation	Depth
		▼
		▼
		▽

Date Start–Finish: 09/22/95 – 09/22/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25–in.
Rig Type: CME 750 ATV
Spoon Size: 2–in.
Hammer Weight: 140–lb
Height of Fall: 30–in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW–15IWT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.34 ft.										**GROUND SURFACE**	7–in diameter steel protective curb box with sand drain, locking well cap
		(0–2')								Black and brown fine to coarse SAND and fine to medium GRAVEL, trace Silt, loose, dry.	Concrete pad
	590									Red Slag.	
		(2–4')								Brown SILT, some coal pieces, medium hard, dry.	Grade #5 silica sand drain 0.5' to 1.5' bgs
										Grades with little Clay.	Bentonite seal 1.5' to 4.0' bgs
5		(4–6')									2–in diameter Sch. 40 PVC well casing 1.0' to 6.0' bgs
		(6–8')								Black fine to coarse SAND, trace fine Gravel, loose, dry.	
	585										
		(8–10')								Brown fine SAND and SILT, loose, wet.	
10										Trace Shells.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(10–12')									
	580										
		(12–14')									Grade #5 silica sand pack 4.0' to 16.5' bgs
15		(14–16')									

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Remarks:
The boring was continuously augered to 16.5' bgs. Soil descriptions were taken from boring log SB–334. A sheen was observed during well development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-15WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')								Brown fine SAND and SILT, loose, wet.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
										Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 09/22/95 - 09/22/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-152NT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.32 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
										The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.	Concrete pad
	590										Grade #5 silica sand drain 0.4' to 1.5' bgs
											Bentonite seal 1.5' to 4.0' bgs
5											2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs
	585										
10											0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580										
											Grade #5 silica sand pack 4.0' to 16.5' bgs
15											

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-152WT

Total Depth = 18.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
20									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 09/28/95 - 09/28/95
Drilling Company: Mateco
Driller's Name: Steve Rempalski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45 Skid Rig
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-153WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.44 ft.										**GROUND SURFACE**	4-in diameter steel protective casing stick-up 3.0' ags, locking cap installed
										The boring was continuously augered to 16.5' bgs. Refer to boring logs SB-362 and TW-239 for closest lithologic descriptions.	Concrete pad ground surface to 1.5' bgs
	590										Bentonite seal 1.5' to 4.0' bgs
5											2-in diameter Sch. 40 PVC well casing 2.7' ags to 6.0' bgs
	585										0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
10											
	580										Grade #5 silica sand pack 4.0' to 16.5' bgs
15											

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring logs SB-362 and TW-239 for closest lithologic descriptions.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-153WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										The boring was continuously augered to 16.5' bgs. Refer to boring logs SB-362 and TW-239 for closest lithologic descriptions.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
										Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 09/27/95 - 09/27/95
Drilling Company: Mateco
Driller's Name: Steve Rempalski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-154WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.27 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.	Concrete pad
590										Grade #5 silica sand drain 0.5' to 1.5' bgs
										Bentonite seal 1.5' to 4.0' bgs
5										2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs
585									Based on auger cuttings, soils at the screened interval appeared to be dark brown SILT, little fine Sand, wet. No evidence of LNAPL was detected.	
10										0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580										Grade #5 silica sand pack 4.0' to 16.5' bgs
15										

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-154WT

Total Depth = 18.5 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575									Based on auger cuttings, soils at the screened interval appeared to be dark brown SILT, little fine Sand, wet. No evidence of LNAPL was detected.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
20									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 09/29/95 - 09/29/95
Drilling Company: Mateco
Driller's Name: Steve Rapulski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-155WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

gs elevation 592.56 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										GROUND SURFACE	8-in diameter steel protective curb box with sand drain, locking well cap
										Concrete.	Concrete pad
		(0-2')								Brown fine SAND and SILT, trace fine Gravel, medium dense, damp.	Grade #5 silica sand drain 0.5' to 1.5' bgs
	590	(2-4')									Bentonite seal 1.5' to 4.0' bgs
5		(4-6')									2-in diameter Sch. 40 PVC well casing 0.3' to 6.0' bgs
		(6-8')									
	585	(8-10')								Dark gray fine SAND, trace Silt, very loose. Wet, no sheen. Gray, little Silt, saturated, no sheen.	
10		(10-12')									0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580	(12-14')									Grade #5 silica sand pack 4.0' to 16.5' bgs
		(14-16')								Gray CLAY and SILT, very soft, moist to wet.	
15											

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Remarks:
The boring was continuously augered to 16.5' bgs. Soil descriptions were taken from boring log SB-335. A sheen was noticed on auger cuttings during MW-155WT installation.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-155WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')								Dark brown SILT and PEAT, little fine Sand, very soft.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
										Gray fine SAND, little Silt, trace shells, very loose, wet.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
										Total depth of boring 16.5 ft bgs.	
20	575										
25	570										
30	565										
35	560										

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Remarks:
Well MW-155WT was abandoned and replaced on 01/18/96. No sheen was noticed on groundwater during well development, nor during the replacement well development.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 09/27/95 - 09/27/95
Drilling Company: Mateco
Driller's Name: Steve Rempalski
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-156WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.60 ft.										**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
										The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.	Concrete pad
	590										Grade #5 silica sand drain 0.4' to 1.5' bgs
											Bentonite seal 1.5' to 4.0' bgs
5											2-in diameter Sch. 40 PVC well casing 0.3' to 6.0' bgs
	585										
10											0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580										Grade #5 silica sand pack 4.0' to 16.5' bgs
15											

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description. A sheen was noticed on groundwater during well development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-158WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.	Grade #5 silica sand pack 4.0' to 16.5' bgs
										Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 1/18/96 - 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-157WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.9 ft.										GROUND SURFACE	8-in diameter steel protective curb box with sand drain, locking well cap
										Concrete.	Concrete pad
		(0-2')		NA	NA	NA	NA			Black fine SAND, damp.	
	590	(2-4')		16 18 31 15	49	1.8	13.2			Trace fine Gravel. Gray.	Grade #5 silica sand drain 0.6' to 1.5' bgs Bentonite seal 1.5' to 4.0' bgs
5		(4-6')		3 2 6 3	8	1.6	8.2			Dark brown fine SAND, trace fine Gravel, trace Slag, damp. At 5.1-5.6', a layer of brown to orange fine SAND.	2-in diameter Sch. 40 PVC well casing 0.5' to 6.0' bgs
	585	(6-8')		1 1 1 2	2	1.7	10.6			Gray fine SAND, little Silt, trace natural organics (roots), moist to wet, NAPL evident in soil at tip of spoon.	
		(8-10')		2 2 3 4	5	2.0	5.4			Little to some Silt, NAPL evident on inside of spoon.	
10		(10-12')		1 1 1 2	2	2.0	5.7			Saturated, NAPL not as evident.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580	(12-14')		WOH (24")	0	NR	NA			No recovery.	Grade #5 silica sand pack 4.0' to 16.5' bgs
		(14-16')		1 1	2	2.0	1.8			Gray Silty CLAY, trace fine Sand, trace Shells, moist.	
15											

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Remarks:
NA - Not Available. NR - No recovery.
WOH - Weight of Hammer.
Soil samples submitted for grain size analyses were obtained from 8-10' bgs and 14-16' bgs.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-157WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	2.0	1.8			Gray Silty CLAY, trace fine Sand, trace Shells, moist.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(16-16.5')		3	3	0.5	1.2			Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 1/18/96 - 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-158WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.17 ft.									**GROUND SURFACE**	8-in diameter steel protective curb box with sand drain, locking well cap
									Based on auger cuttings, black foundry SAND from 0.0-10.0' bgs.	Concrete pad
590										Grade #5 silica sand drain 0.6' to 1.5' bgs
										Bentonite seal 1.5' to 4.0' bgs
5										2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs
585										
10									Based on auger cuttings, soils below 10.0' bgs, within the screened interval, appeared to be gray fine SAND, trace Silt, trace shell fragments. A sheen was noticed on the auger cuttings.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580										Grade #5 silica sand pack 4.0' to 16.5' bgs
15										

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Remarks:
The boring was continously augered to 16.5' bgs. A sheen was noticed on groundwater during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-158WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Based on auger cuttings, soils below 10.0' bgs, within the screened interval, appeared to be gray fine SAND, trace Silt, trace shell fragments. A sheen was noticed on the auger cuttings.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	575									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Soil samples submitted for grain size analyses were obtained from native material auger cuttings.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 1/18/96 - 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.5 ft.

Geologist: Ronald D. Kuhn

Well No. MW-159WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.25 ft.									GROUND SURFACE	Steel protective casing 3.0' ags, locking cap installed
		(0-2')		NA	NA	2.0	NA			Medium GRAVEL.	Concrete pad ground surface to 1.5' bgs
	590	(2-4')		3 7 9 9	16	2.0	2.4			Black fine SAND, damp.	Bentonite seal 1.5' to 4.0' bgs
5		(4-6')		REF	NA	NR	NA			Refusal of split spoon, augered 4.0-6.0' bgs.	2-in diameter Sch. 40 PVC well casing 2.4' to 6.0' bgs
	585	(6-8')		6 4 4 5	8	1.6	85.7			Black fine SAND, moist. Gray fine SAND, trace natural organics (roots), slight odor, wet.	
		(8-10')		5 4 4 5	8	1.2	44.0			Gray fine SAND, little Silt, trace shell fragments, trace sheen, slight odor, saturated.	
10		(10-12')		5 3 2 2	5	1.6	5.1			No sheen.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580	(12-14')		1 1 1 1	2	1.4	3.6			No shell fragments.	Grade #5 silica sand pack 4.0' to 16.5' bgs
15		(14-16')		WOH (18")	1	2.0	3.2				

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Remarks:
NA - Not Available. NR - No Recovery.
WOH - Weight of Hammer. REF - Refusal.
A sheen was noticed on groundwater during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-159WT

Total Depth = 16.5 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1	1	2.0	3.2			Gray fine SAND, little Silt, slight odor, saturated.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(16-16.5')		1	1	0.5	7.8			Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
A soil sample submitted for grain size analysis was obtained from 10-12' bgs.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 4/23/96 - 4/23/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-180WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.85 ft.										GROUND SURFACE	7-in diameter steel protective curb box with sand drain, locking well cap
										Concrete.	Concrete pad
		(0-2')		7 10 11	17	2.0	4.1			Black fine SAND, some Silt, damp.	Grade #5 silica sand drain 1.0' to 2.0' bgs
	590	(2-4')		7 9 8 10	17	2.0	2.9				Bentonite seal 2.0' to 3.0' bgs
5		(4-6')		4 6 10 12	16	2.0	14.0				2-in diameter Sch. 40 PVC well casing 0.5' to 3.5' bgs
	585	(6-8')		4 2 2 2	4	1.3	10.6				
		(8-10')		2 1 2 1	3	0.5	10.6			Wet.	
10		(10-12')		1 2 2 2	4	0.5	11.4			Trace coarse Sand.	0.01" Sch. 40 PVC screen 3.5' to 13.5' bgs
	580	(12-14')		4 2 1 1	3	0.5	50.2			Fine to coarse SAND, some black fine Sand and Silt, loose, wet. Black fine SAND and SILT, wet.	Grade #5 silica sand pack 3.0' to 16.0' bgs
15		(14-16')		1 1	2	1.0	13.1				2-in diameter Sch. 40 PVC sump 13.5' to 14.0' bgs

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Remarks:
A sheen was observed during drilling.
A sheen was observed on groundwater purged during well development.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1757		7.71 ▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-180WT

Total Depth = 16.0 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	1.0	13.1			Gray SILT and CLAY, soft, wet.	Grade #5 silica sand pack 3.0' to 16.0' bgs
										Total depth of boring 16.0 ft. bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Geotechnical soil sample from 10-12' bgs was submitted for grain size, moisture content, and bulk density analyses.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1757		7.71 ▼

Date Start-Finish: 5/01/96 - 5/01/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.0 ft.

Geologist: Ronald D. Kuhn

Well No. MW-18IWT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

gs elevation 592.31 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										GROUND SURFACE
	590	(0-2')								Boring was augered continuously to 14' bgs, a split-spoon sample was taken at 14-15' bgs to determine presence of Gravel deposits associated with the 42" sewer line.
		(2-4')								
5		(4-6')								
	585	(6-8')								
		(8-10')								
10		(10-12')								
	580	(12-14')								
										At 14.0' bgs, Black fine SAND and
15		(14-15')		NA	NA	1.0	NA			SILT, little medium Gravel, wet, gray fine to medium SAND in tip of spoon.

Well Construction

- 7-in diameter steel protective curb box with sand drain, locking well cap
- Concrete pad
- Grade #5 silica sand drain 0.6' to 1.5' bgs
- Bentonite seal 1.5' to 3.0' bgs
- 2-in diameter Sch. 40 PVC well casing 0.5' to 5.2' bgs
- 0.01" Sch. 40 PVC screen 5.2' to 14.7' bgs
- Grade #5 silica sand pack 3.0' to 15.0' bgs
- 2-in diameter Sch. 40 PVC sump 14.7' to 15.0' bgs

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Remarks:
Total depth of boring 15.0 ft. bgs.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
5/01/96		7.90

Date Start-Finish: 4/23/96 - 4/23/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-182WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

gs elevation 594.88 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										GROUND SURFACE
		(0-2')		- 5 14 10	19	2.0	14.0			Concrete. Gray fine to medium SAND, some fine Gravel, loose, dry.
	590									Black fine SAND and SILT, loose, dry.
		(2-4')		3 5 5 5	10	1.5	17.0			White to tan brick residue, crumbles, loose, dry.
										Black fine SAND, some Silt, trace Gravel, loose, damp.
5		(4-6')		6 6 4 4	10	0.3	11.5			Gray to black fine to coarse SAND, some coarse Gravel, loose, dry.
	585	(6-8')		3 3 3 4	6	0.4	19.3			Trace slag.
		(8-10')		1 3 6 6	9	1.5	21.5			Black fine SAND and SILT, some brown mottling, medium dense, wet. Brown to tan fine SAND, some Silt, medium dense, wet.
10		(10-12')		5 5 5 5	10	1.8	15.1			Black fine SAND and SILT, loose, wet. Tan fine SAND, some shell fragments, medium dense, wet.
	580	(12-14')		1 1 1 1	2	2.0	20.0			
15		(14-16')		2 1	2	2.0	14.8			

Well Construction

- 7-in diameter steel protective curb box with sand drain, locking well cap
- Concrete pad
- Grade #5 silica sand drain 1.0' to 2.0' bgs
- Bentonite seal 2.0' to 3.5' bgs
- 2-in diameter Sch. 40 PVC well casing 0.24' to 4.0' bgs
- 0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
- Grade #5 silica sand pack 3.5' to 16.0' bgs
- 2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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Remarks:
Geotechnical soil sample from 8-10' bgs was submitted for grain size, moisture content, and bulk density analyses.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1801		7.28

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-182WT

Total Depth = 18.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	2.0	14.8			Tan fine SAND, some shell fragments, medium dense, wet.	Grade #5 silica sand pack 3.5' to 16.0' bgs
										Total depth of boring 16.0 ft. bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1801		7.28 ▼

Date Start-Finish: 4/24/96 - 4/24/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-183WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.31 ft.										GROUND SURFACE	7-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')		8 22 14 15	36	2.0	7.1			Gray fine to coarse SAND, some fine Gravel, loose, dry.	Concrete pad
										Black fine SAND and SILT, trace metal pieces, brown staining, loose, dry.	Grade #5 silica sand drain 1.0' to 2.5' bgs
	590	(2-4')		5 6 5 8	11	NR	NA			No Recovery.	Bentonite seal 2.5' to 3.5' bgs
5		(4-6')		5 4 2 4	6	1.2	7.0			Black fine SAND and SILT, orange and brown mottling, loose, damp.	2-in diameter Sch. 40 PVC well casing 0.3' to 4.0' bgs
	585	(6-8')		3 1 3 4	4	0.3	7.1			Moist.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
		(8-10')		6 3 5 6	8	1.0	5.9			Tan to gray fine SAND, medium dense, wet.	
10		(10-12')		3 3 2 3	5	2.0	8.5			Abundant shell fragments.	Grade #5 silica sand pack 3.5' to 16.0' bgs
	580	(12-14')		2 1 1 2	2	2.0	8.3			Loose.	
15		(14-16')		1 1	2	2.0	7.9				2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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Remarks:
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1807		7.22 ▼

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-183WT

Total Depth = 16.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	2.0	7.9			Grades to trace shell fragments.	Grade #5 silica sand pack 3.5' to 16.0' bgs
										Total depth of boring 16.0 ft. bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1807		7.22 ▼

Date Start-Finish: 4/24/96 - 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-184WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.58 ft.										GROUND SURFACE	7-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')								The boring was continuously augered to to 8.0' bgs. See boring log SB-325 for nearest stratigraphic description.	Concrete pad
	590	(2-4')									Grade #5 silica sand drain 0.5' to 1.5' bgs
5		(4-6')									Bentonite seal 1.5' to 2.5' bgs
		(6-8')									2-in diameter Sch. 40 PVC well casing 0.4' to 4.0' bgs
	585	(8-10')		4 3 3 5	6	0.3	32.5			Black fine SAND and SILT, some medium to coarse Sand, loose, damp.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
10		(10-12')		4 2 2 3	4	1.5	32.8			Tan fine SAND and SILT, medium dense, wet.	Grade #5 silica sand pack 2.5' to 16.0' bgs
	580	(12-14')		2 1 1 2	2	2.0	26.1			Trace shell fragments, loose.	2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs
15		(14-16')		1 1	3	2.0	18.2				

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Remarks:
Geotechnical soil sample from 14-16' bgs was submitted for grain size, moisture content, and bulk density analyses.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1810		8.38 ▼

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-184WT

Total Depth = 18.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 1	3	2.0	18.2			Tan fine SAND and SILT, trace shell fragments, loose, wet.	Grade #5 silica sand pack 2.5' to 16.0' bgs
									Total depth of boring 16.0 ft. bgs.	
575										
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1810		8.38 ▼

Date Start-Finish: 4/25/96 - 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-185WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.9 ft.										**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
										The boring was continuously augered to to 8.0' bgs. See boring log SB-333 for nearest stratigraphic description.	Concrete pad
	590	(0-2')									Grade #5 silica sand drain 0.5' to 1.5' bgs
		(2-4')									Bentonite seal 1.5' to 2.5' bgs
5		(4-6')									2-in diameter Sch. 40 PVC well casing 0.4' to 4.0' bgs
	585	(6-8')									
		(8-10')		3 9 3 4	12	1.3	17.5			Black fine SAND and SILT, loose, moist. Wet.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
10		(10-12')		7 5 4 4	9	1.1	27.5			Fine to coarse GRAVEL, angular, wet. Brown SILT, trace medium Sand, gray mottling, hard, moist.	Grade #5 silica sand pack 2.5' to 16.0' bgs
	580	(12-14')		3 6 8 11	14	1.2	24.7			Light brown to gray SILT, some Clay and fine to coarse Gravel, damp.	
15		(14-16')		6 8	14	1.0	21.2				2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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Remarks:
Geotechnical soil sample from 14-16' bgs was submitted for grain size, moisture content, and bulk density analyses.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1817		8.30

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-165WT

Total Depth = 18.0 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		8 12	14	1.0	21.2			Light brown to gray SILT, some Clay and fine to coarse Gravel, damp.	Grade #5 silica sand pack 2.5' to 16.0' bgs
									Total depth of boring 16.0 ft. bgs.	
575										
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1817		8.30 ▼

Date Start-Finish: 4/25/96 - 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Scott A. Powlin

Well No. MW-186WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

gs elevation 592.59 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace
		(0-2')		5 7 8 9	15	1.3	13.2
	590	(2-4')		5 8 7 5	15	1.5	25.1
5		(4-6')		2 2 2 3	4	0.2	29.2
	585	(6-8')		1 1 1 1	2	1.0	26.3
		(8-10')		1 1 1 1	2	1.3	25.3
10		(10-12')		WOH (12") 1 1	1	1.0	26.0
	580	(12-14')		1 1 1 4	2	2.0	27.0
15		(14-16')		3 3	9	1.0	27.6

Geotechnical Test | Geologic Column

Stratigraphic Description

GROUND SURFACE

Gray fine to coarse GRAVEL, some fine to coarse Sand, loose, dry.

Brown fine SAND, medium dense, damp.

Black fine SAND and SILT, medium dense, damp.

Brown fine to coarse GRAVEL, some fine to medium Sand, loose, wet.

Black fine SAND and SILT, some metal debris, medium dense, dry.

Loose, moist.

Medium dense, wet.

Olive brown SILT, some Clay and root fibers, soft, wet.

Olive brown fine SAND and SILT, medium dense, wet.

Loose, wet.

Some shell fragments, medium dense.

Some black mottling.

Brown SILT and CLAY, hard.

Well Construction

7-in diameter steel protective curb box with sand drain, locking well cap

Concrete pad

2-in diameter Sch. 40 PVC well casing 0.3' to 4.0' bgs

Grade #5 silica sand drain 1.0' to 2.5' bgs

Bentonite seal 2.5' to 3.5' bgs

0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs

Grade #5 silica sand pack 3.5' to 16.0' bgs

2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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Remarks:
WOH - Weight of Hammer.
Sheen was observed during drilling.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1813		8.65 ▼

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-166WT

Total Depth = 18.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		6 6	9	1.0	27.6			Brown SILT and CLAY, hard.	Grade #5 silica sand pack 3.5' to 16.0' bgs
										Total depth of boring is 16.0' bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1813		8.65 ▼

Date Start–Finish: 5/02/96 – 5/02/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Ronald D. Kuhn

Well No. MW-187WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.31 ft.									GROUND SURFACE	7-in diameter steel protective curb box with sand drain, locking well cap.
		(0-2')		8 9 4 4	13	1.4	9.0			Gray fine to coarse SAND and fine to medium GRAVEL, little Silt, damp. Dark gray fine SAND, little Silt, trace fine Gravel, moist.	Concrete pad. Grade #5 silica sand drain 0.4' to 1.5' bgs.
	590	(2-4')		1 1 2 1	3	1.4	2.0			Dark gray fine SAND and SILT, trace coarse Sand, damp.	Bentonite seal 1.5' to 3.0' bgs.
5		(4-6')		1 2 2 1	4	1.6	1.2			Brown fine to medium SAND, trace Silt, damp.	2-in diameter Sch. 40 PVC well casing 0.4' to 5.2' bgs.
	585	(6-8')		1 1 1 1	2	1.0	0.9			Dark gray fine SAND and SILT, moist to wet at tip of spoon.	
		(8-10')		2 1 1 2	2	1.4	11.4			Odor, wet.	0.01" Sch. 40 PVC screen 5.2' to 14.7' bgs.
10		(10-12')		2 1 2 1	3	1.8	1.2				Grade #5 silica sand pack 3.0' to 16.0' bgs.
	580	(12-14')		2 1 1 2	2	2.0	1.3			Dark gray SILT, trace fine Sand and shells, very soft, moist.	
15		(14-16')		2 1	3	2.0	0.7			Dark gray Silty CLAY, trace fine	2-in diameter Sch. 40 PVC sump 14.7' to 15.0' bgs.

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Remarks:
Analytical soil samples taken at 8–10' and 14–16' bgs were submitted for TCL VOCs, TCL SVOCs, TCL PCBs, and TAL metals analysis.
A sheen was observed during drilling.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1825		8.25 ▼

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-187WT

Total Depth = 18.0 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 1	3	2.0	0.7			Sand, very soft, slight odor, moist.	Grade #5 silica sand pack 3.0' to 16.0' bgs.
									Total depth of boring 16.0 ft. bgs.	
575										
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/98/1825		8.25 ▼

Date Start-Finish: 5/08/96 - 5/08/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Ronald D. Kuhn

Well No. MW-188WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.42 ft.										GROUND SURFACE	8-in diameter steel protective curb box with sand drain, locking well cap.
		(0-2')		9 8 17 10	25	1.6	4.6			Brown fine to medium SAND, little fine to medium Gravel, trace Silt, damp.	Concrete pad.
	590									Black fine to medium SAND, trace fine Gravel, odor, damp.	Grade #5 silica sand drain 0.5' to 1.5' bgs.
		(2-4')		5 7 REF	7	1.5	NA			Black fine to medium SAND, trace Silt, odor, wet.	Bentonite seal 1.5' to 4.0' bgs.
										Refusal. Possible quench oil pipe line, moved boring 2.0' north.	
5		(4-6')		5 3 4 4	7	1.6	23.8			Black fine to medium SAND, trace fine Gravel and slag, odor, moist.	2-in diameter Sch. 40 PVC well casing 0.3' to 6.2' bgs.
										Driller indicates coarse Gravel at 5.5' bgs while augering.	
	585	(6-8')		13 7 4 4	11	0.4	0.0			Gray brown fine to medium SAND and fine to medium GRAVEL, damp (Suspected bedding material for 42" sewer line).	
		(8-10')		2 4 7 7	11	1.4	10.3			Brown black fine to medium SAND, trace to little fine to medium Gravel, odor.	0.01" Sch. 40 PVC screen 6.2' to 15.7' bgs.
10										Wet.	
		(10-12')		2 6 4 3	10	1.6	6.9			Black fine to medium SAND, trace Silt and shells, saturated, odor.	
	580	(12-14')		3 2 1 1	3	1.8	1.7			Gray fine SAND, little Silt, saturated.	Grade #5 silica sand pack 4.0' to 16.0' bgs.
		(14-16')		1 1	2	0.3	3.7				
15											

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Remarks:
REF - Refusal.
NA - Not available.
A sheen was observed when soil was mixed with water and shaken.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-188WT

Total Depth = 18.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	2	0.3	3.7			Gray fine SAND, little Silt, saturated.	2-in diameter Sch. 40 PVC sump 15.7' to 16.0' bgs.
										Total depth of boring 16.0 ft. bgs.	
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 5/09/96 - 5/09/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.0 ft.

Geologist: Ronald D. Kuhn

Well No. MW-169WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.24 ft.										GROUND SURFACE	9-in diameter steel protective curb box with sand drain, locking well cap.
										Concrete.	Concrete pad.
		(0-2')		NA 4 6 8	10	1.4	0.8			Black fine SAND, trace Silt, medium dense, damp.	Grade #5 silica sand drain 0.5' to 1.5' bgs.
	590										Bentonite seal 1.5' to 3.5' bgs.
		(2-4')		3 6 7 7	13	2.0	0.8			Brown fine to medium SAND, trace Silt and fine Gravel, medium dense, damp.	
5		(4-6')		5 6 6 6	12	2.0	0.9				2-in diameter Sch. 40 PVC well casing 0.4' to 5.2' bgs.
										Loose, moist.	
	585	(6-8')		4 5 4 3	9	1.4	1.1				0.01" Sch. 40 PVC screen 5.2' to 14.7' bgs.
		(8-10')		3 2 2 2	4	1.8	0.5			Driller indicates Gravel at 8.0' bgs while augering. Black fine SAND, trace Silt and fine to medium Gravel, loose, saturated.	
10		(10-12')		1 1 1 1	2	1.6	1.3			Black fine SAND, little Silt, very loose, saturated.	Grade #5 silica sand pack 3.5' to 16.0' bgs.
	580										
		(12-14')		8 3 3 4	6	1.4	2.9			Black fine SAND, trace fine Gravel, loose, odor.	
15		(14-15')		5 5	10	0.6	1.2			Black fine SAND, little Silt, trace medium Gravel, loose.	2-in diameter Sch. 40 PVC sump 14.7' to 15.0' bgs.

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Remarks:
A sheen was observed when soil was mixed with water and shaken.
A sheen was observed during drilling.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 5/09/96 - 5/09/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Ronald D. Kuhn

Well No. MW-17OWT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	GS elevation 589.14 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking well cap.
		(0-2')								Augered continuously to 6.0' bgs.	Concrete pad.
		(2-4')									Bentonite seal 1.5' to 4.0' bgs.
	585	(4-6')									2-in diameter Sch. 40 PVC well casing 2.1' ags to 6.2' bgs.
5		(6-8')		9 14 7 6	21	2.0	NA			Black fine SAND, little Silt, medium dense, damp to moist.	
	580	(8-10')		5 7 7 7	14	0.6	NA			Odor, wet.	0.01" Sch. 40 PVC screen 6.2' to 15.7' bgs.
10		(10-12')		1 2 1 2	3	2.0	NA			Very loose, saturated.	
		(12-14')		1 (12") 1 2	1	1.1	NA			Black stained SILT and CLAY, trace natural organics, soft, moist.	Grade #5 silica sand pack 4.0' to 16.0' bgs.
	575	(14-16')		1 (12")	2	2.0	NA			Gray SILT and CLAY, trace fine SAND and shells, soft.	
15											

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Remarks:
NA - Not available.
A sheen was observed when soil was mixed with water and shaken.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-17OWT

Total Depth = 16.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 2	2	2.0	NA			Gray SILT and CLAY, trace fine SAND and shells, soft.	2-in diameter Sch. 40 PVC sump 15.7' to 16.0' bgs.
										Total depth of boring 16.0 ft. bgs.	
20	570										
25	565										
30	560										
35	555										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 06/24/96 – 06/24/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.2 ft.

Geologist: Jeff D. Conrad

Well No. MW-17WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.36 ft.											7-in diameter steel protective curb box, locking well cap
										GROUND SURFACE	
										(Augered continuously to 8.0' bgs.) White coarse GRAVEL, little brown, fine to medium Sand.	Concrete pad
	590										Grade #5 silica sand drain 0.80' to 1.5' bgs
										Dry black fine to medium SAND.	Bentonite seal 1.5' to 4.0' bgs
5		(0–8')		NA	NA	NA	NA				2-in diameter Sch. 40 PVC well casing 0.7' to 6.7' bgs
	585										
		(8–10')		NA	NA	1.2	0.0			Black fine to medium SAND, little angular medium Gravel, moist.	0.01" Sch. 40 PVC slot screen 6.7' to 16.2' bgs
10		(10–12')		WOH (12") 1 1	2	1.3	0.0			Black and dark brown, very loose, fine to medium SAND, wet, trace, angular Gravel, black stain 0.5" thick.	
	580									Grayish brown, very loose, fine to medium SAND, wet, trace shells, trace to little fines, light sheen during shake test.	Grade #5 silica sand pack 4.0' to 16.2' bgs.
		(12–16')		NA	NA	NA	NA			No spoon samples taken from 12–16' bgs.	
15											

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Remarks:
NA – Not available.
WOH – Weight of hammer.
Slight sheen observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-171WT

Total Depth = 16.2 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(12-16')		NA	NA	NA	NA				
										Total depth of boring 16.2 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.2' to 16.8' bgs.
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Well located north of 42" sanitary sewer line.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 06/25/96 - 06/25/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-172WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 591.94 ft.									GROUND SURFACE	7-in diameter steel protective curb box, locking well cap
0	590	(0-6')		NA	NA	NA	NA			(Augered continuously to 6.0' bgs.) Concrete 0.0' to 0.7' bgs. Black, fine to medium SAND, trace fine Gravel.	Concrete pad; Grade #5 silica sand drain 0.8' to 1.5' bgs; Bentonite seal 1.5' to 4.0' bgs; 2-in diameter Sch. 40 PVC well casing 0.4' to 6.5' bgs
5	585	(6-8')		3 3 3 3	6	0.0	NA			No recovery, dry.	
		(8-10')		WOH (18") 1	1	2.0	0.0			Black fine to medium SAND, dry to moist, trace fine to medium angular Gravel, sheens on soil, hydrocarbon odor. Saturated at 9.0' bgs.	0.01" Sch. 40 PVC slot screen 6.5' to 16.0' bgs
10	580	(10-14')		NA	NA	NA	NA			Medium GRAVEL, some black fine to medium Sand, strong hydrocarbon odor , sheen. No spoons samples taken from 10' to 14' bgs.	Grade #5 silica sand pack 4.0' to 16.0' bgs
15		(14-16')		WOH (12")	3	2.0	0.0			Loose, black fine to medium SAND, wet, little fine to medium Gravel.	

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Remarks:
NA - Not available.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. MW-172WT

Total Depth = 16.0 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 3	3	2.0	0.0			Light olive gray, very loose, fine SAND and very soft SILT seams within a very soft light gray Silty Clay, trace shells, trace organic fibers, wet.	
	575									Total depth of boring 16.0 ft. bgs.	2-in diameter Sch. 40 PVC conical sump 16.0' to 16.6' bgs.
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
LNAPL and hydrocarbon odors were observed on groundwater purged during well development. Well is located near abandoned quench oil line.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/25/96 - 06/25/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.6 ft.

Geologist: Jeff D. Conrad

Well No. MW-173WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.42 ft.									GROUND SURFACE	7-in diameter steel protective curb box, locking well cap
		(0-2')								(Augered continuously to 7.5' bgs.) Fine to coarse GRAVEL, some brown fine to medium Sand.	Concrete pad
	590	(2-4')		NA	NA	NA	NA			Black fine to medium SAND.	Grade #5 silica sand drain 0.8' to 1.5' bgs
5		(4-6.5')									Bentonite seal 1.5' to 4.0' bgs
		(6.5-7.5')								Very loose, some Cobbles, little fine to coarse angular Gravel.	2-in diameter Sch. 40 PVC well casing 0.7' to 6.1' bgs
	585	(7.5-9.5')		1 1 2 4	3	2.0	10.5			Little angular fine Gravel, moist. Some Silty CLAY, little Gravel, saturated, strong sheens and strong hydrocarbon odor.	
10		(9.5-11.5')		2 2 2 2	4	2.0	0.0			Soft gray Silty CLAY, some fine to medium Sand, trace shells, hydrocarbon odor, stained.	0.01" Sch. 40 PVC slot screen 6.1' to 15.6' bgs
	580	(11.5-13.5')		WOH (24")	1	1.7	0.0			Very loose gray fine to medium SAND, grading to fine, little shells. Little sheens observed in shake test.	
		(13.5-15.5')		WOH (12") 1	1	1.8	0.0			Sheens on soil and strong sheens in shake test. 0.2' gray Silty CLAY seam.	Grade #5 silica sand pack 4.0' to 15.5' bgs.
15											

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Remarks:
NA - Not available.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-173WT

Total Depth = 15.6 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(13.5-15.5')			1	1.8	0.0			(At 14.5' bgs) a 0.2' gray Silty CLAY seam. Slight sheens in shake test. Total depth of boring 15.6 ft. bgs.	2-in diameter Sch. 40 PVC sump 15.6' to 16.2' bgs.
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Well located south of 42" sanitary sewer line. Hydrocarbon odor and a sheen were noticed on ground water purged during well development.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/25/96 - 06/25/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-174WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	7-in diameter steel protective curb box, locking well cap
5	(0-6')		NA	NA	NA	NA			(Augered continuously to 6.0' bgs.) Dry fine to coarse GRAVEL and very loose, black fine to medium SAND. Brown and black, fine to medium SAND, some white fine Gravel, twisted aluminum sheet, trace cobble, hydrocarbon odor. Black fine to medium SAND, some fine Gravel, damp, hydrocarbon odor. SAA, some red fine gravel-sized brick, some white fine Gravel.	Concrete pad Grade #5 silica sand drain 0.8' to 1.5' bgs Bentonite seal 1.5' to 4.0' bgs 2-in diameter Sch. 40 PVC well casing 0.5' to 5.9' bgs
	(6-8')		3 3 1 1	4	1.9	6.2			SAA, brown and black, strong hydrocarbon odor, sheens on soil. Saturated at 7.1' bgs, LNAPL phase present.	
10	(8-10')		1 1 2 3	3	0.9	18.0			Black and light gray, fine SAND and Silty CLAY, stained. Wet very soft fine SAND, some olive Silty Clay, some fine Gravel.	0.01" Sch. 40 PVC slot screen 5.9' to 15.4' bgs
	(10-12')		2 2 2 2	4	1.6	6.6			0.2' seam of gray, fine SAND, some Silty Clay, hydrocarbon odor and staining. No Gravel, no Clay.	
	(12-14')		WOR (12") WOH (12")	0	0.7	36.0			Very soft olive-gray Silty CLAY, slight hydrocarbon odor. And gray fine SAND, sheens.	Grade #5 silica silica sand pack 4.0' to 16.0' bgs
15	(14-16')		1 2	5	0.8	12.0				

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Remarks:
NA - Not available.
WOH - Weight of hammer.
WOR - Weight of rod.
No sheens or odors were noticed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. MW-174WT

Total Depth = 16.0 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		3 2	5	0.8	12.0			(At 14.0' bgs) Very soft, gray, fine SAND and olive Silty CLAY, saturated. (At 14.3' bgs) brown fine SAND, wet. Total depth of boring 16.0 ft. bgs.	2-in diameter Sch. 40 PVC conical sump 15.4' to 16.0' bgs
20										
25										
30										
35										

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Remarks:
Due to sloughing of clay, reaugered to 18' bgs, put in second sand pack.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 06/26/96 - 06/26/96
Drilling Company: Mateco
Driller's Name: Terry Howes and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 17.1 ft.

Geologist: Jeff D. Conrad

Well No. MW-175WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 594.73 ft.											7-in diameter steel protective curb box, locking well cap
										GROUND SURFACE	
										(Augered continuously to 6.0' bgs.)	Concrete pad
										Black asphalt 0.0' to 1.0' bgs.	
	590									Tan, coarse GRAVEL.	Grade #5 silica sand drain 0.8' to 1.5' bgs
		(0-6')		NA	NA	NA	NA			Black fine to medium SAND, some rounded fine Gravel, little to trace 3-in slag fragments with cobble sized brick.	Bentonite seal 1.5' to 4.0' bgs
5										1-in diameter aluminum pipe at 4.0' bgs, possibly electric, though not recognized by electricians, more cobble sized brick and slag.	2-in diameter Sch. 40 PVC well casing 0.5' to 5.9' bgs
	585	(6-8')		2 6 16 0	22	1.0	0.0			Fine to medium SAND, some fine to medium Gravel sized metal fragments, moist, pale green fine Gravel fragments.	
		(8-10')		4 5 8 10	13	1.0	15.0			0.2' layer of red and tan "fire" brick at 8.3' bgs.	0.01" Sch. 40 PVC slot screen 5.9' to 15.8' bgs
10										Little coarse angular Gravel, wet.	
		(10-12')		10 7 6 6	13	0.3	4.9			Black, fine to medium SAND, wet, little fine, angular Gravel, drillers indicates Cobble, wet, sheens on soil throughout.	
	580									Trace coarse Sand, trace fine Gravel, sheens.	Grade #5 silica sand pack 4.0' to 17.1' bgs.
		(12-14')		10 7 9 14	16	1.6	9.4			Little to some coarse Sand and fine Gravel, sheens.	
										0.2' seam of medium to coarse SAND, little fine angular Gravel, sheens, moist.	
15		(14-16')		6 8	15	1.4	0.0				

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Remarks:
NA - Not available.
Slight sheen was observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-175WT

Total Depth = 17.1 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		7 1	15	1.4	0.0			(At 13.1' bgs) 0.1' lens of brown to red, fine SAND, not saturated. (At 14.5' bgs) No sheens. (At 14.6'-14.8' bgs) Tan and red brick, coarse sand sized fragments. Soft, black stained, olive-gray, Silty CLAY, trace organic fibers, trace fine Sand sized white shell fragments. Total depth of boring 16.0 ft. bgs.	2-in diameter Sch. 40 PVC Flat-end sump 15.8' to 16.0' bgs.
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Well is north of 42" sanitary sewer line.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 07/01/96 - 07/01/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-176WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 592.69 ft.									GROUND SURFACE	7-in diameter steel protective curb box, locking well cap
		(0-2')		4 4 5 5	9	1.3	0.0			Brown to black, fine to medium SAND, little Clay, trace organics, trace concrete, soft.	Concrete pad
	590	(2-4')		1 1 2 2	3	0.9	0.0			Brown medium to coarse SAND, loose, trace fine Gravel, moist.	Grade #5 silica sand 0.8' to 1.5' bgs
5		(4-6')		1 1 2 3	3	0.8	0.0			Light gray CLAY, some fine Gravel-sized angular brick fragments, soft, moist.	Bentonite seal 1.5' to 4.8' bgs
		(6-8')		WOH (12") 2 2	2	1.3	0.0			Gray fine to medium SAND, trace fine shell fragments and silt, soft, moist, slight hydrocarbon odor.	2-in diameter Sch. 40 PVC well casing 0.3' to 7.0' bgs
	585									SAA, trace wood.	
		(8-10')		1 1 2 3	3	1.3	0.0			CLAY, trace shell fragments, medium stiffness.	0.01" Sch. 40 PVC slot screen 7.0' to 16.5' bgs
10		(10-12')		NA	NA	1.2	0.0			Gray fine to medium SAND, some fine to medium angular Gravel, saturated. Trace slag at 10.3' bgs.	
	580	(12-14')		WOH (12") 1 1	1	1.5	0.0			Slight hydrocarbon odor at 10.8' bgs. Wood fragments (PEAT), moist. Gray fine to medium SAND, trace shells, saturated.	Grade #5 silica sand pack 4.8' to 18.0' bgs
15		(14-16')		3 3	6	1.2	0.0				

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Remarks:
NA - Not available.
WOH - Weight of hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-176WT

Total Depth = 18.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 3	6	1.2	0.0			Gray fine to medium SAND, trace shells, saturated.	
										Wood fragments.	
		(16-18')		3 3 4 5	7	1.7	0.0			Medium to coarse SAND, little shell fragments, trace fine to medium Gravel.	2-in diameter Sch. 40 PVC conical sump 16.5' to 17.1' bgs
	575									Total depth of boring 18.0 ft. bgs.	
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/23/97

Date Start-Finish: 07/01/96 - 07/01/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 17.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-177WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 595.20 ft.										GROUND SURFACE	7-in diameter steel protective curb box, locking well cap
										Augered continuously to 6.0' bgs. Aged asphalt 0.0' to 0.5' bgs.	Concrete pad
	590										Grade #5 silica sand 1.0' to 2.0' bgs
		(0-6')		NA	NA	NA	NA				Bentonite seal 2.0' to 4.0' bgs
5											2-in diameter Sch. 40 PVC well casing 0.5' bgs to 6.5' bgs
	585	(6-8')		4 3 4 4	7	1.5	0.0			Black fine SAND, little fine angular Gravel fragments, trace organics, trace red brick, trace shells.	
										Coarse GRAVEL, wet.	
		(8-10')		2 1 1 1	2	1.2	0.0			Flour-like yellow SAND.	0.01" Sch. 40 PVC slot screen 6.5' to 16.0' bgs
										Medium Gravel.	
10										Fine black SAND, little gravel fragments, trace brown SAND fingers, saturated, slight hydrocarbon odor.	
	580	(10-12')		3 4 6 6	10	0.8	9.7			Strong hydrocarbon odor.	
										Aluminum metal fragments, saturated.	Grade #5 silica sand pack 4.0' to 16.0' bgs
		(12-14')		4 3 2 2	5	1.7	0.0			Brown SILT and fine SAND, little medium Gravel, sheens, strong hydrocarbon odor.	
		(14-16')		2 2	3	1.4	0.0			Brown SILT and CLAY, very soft, trace organics, stained.	
15											

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Remarks:
NA - Not available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-177WT

Total Depth = 17.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	3	1.4	0.0			Brown SILT and CLAY, very soft, trace organics, stained.	
	575									Total depth of boring 16.0 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0 to 16.5' bgs
20	570										
25	565										
30	560										
35											

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Remarks:
A sheen was observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 07/02/96 - 07/02/96
Drilling Company: Mateco
Driller's Name: Terry Howes and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-178WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 594.3 ft.										7-in diameter steel protective curb box, locking well cap
										GROUND SURFACE	
	590									Augered continuously to 6.0' bgs. Aged asphalt 0.0' to 0.5' bgs.	Concrete pad
		(0-6')		NA	NA	NA	NA				Grade #5 silica sand 1.0' to 2.0' bgs
5											Bentonite seal 2.0' to 4.0' bgs
	585										2-in diameter Sch. 40 PVC well casing 0.8' bgs to 5.8' bgs
		(6-8')		14 2 2 2	4	1.7	28.1			Black fine SAND, wood fibers, dry. Moist, slight hydrocarbon odor. Some medium angular Gravel, wet.	
		(8-10')		4 4 2 1	6	0.8	31.3				0.01" Sch. 40 PVC slot screen 5.8' to 15.3' bgs
10										Coarse GRAVEL, trace wood fibers.	
	580	(10-12')		4 4 4 4	8	2.0	0.0			Brown fine to medium SAND, little coarse SAND, saturated, sheen on soil.	
										SAA, loose.	Grade #5 silica sand pack 4.0' to 16.0' bgs
		(12-14')		1 1 1 1	2	2.0	0.0			Some Silt. Moist, trace organics.	
										Brown to olive CLAY, some Silt, high organic content, soft.	
		(14-16')		2 2	4	2.0	0.0				
15											

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Remarks:
NA - Not available.
No sheens were observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-178WT

Total Depth = 16.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 2	4	2.0	0.0			Brown to olive CLAY, some Silt, high organic content, soft.	2-in diameter Sch. 40 PVC conical sump 15.3' to 15.9' bgs
	575									Total depth of boring 16.0 ft. bgs.	
20	570										
25	565										
30	560										
35											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 07/03/96 - 07/03/96
Drilling Company: Mateco
Driller's Name: Jim Priest and Bob Dreyer
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 16.0 ft.

Geologist: Jeff D. Conrad

Well No. MW-179WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	7-in diameter steel protective curb box, locking well cap
	(0-6')		NA	NA	NA	NA			Augered continuously to 6.0' bgs. Aged asphalt 0.0' to 0.5' bgs.	Concrete pad; Grade #5 silica sand 0.8' to 2.0' bgs; Bentonite seal 2.0' to 4.0' bgs; 2-in diameter Sch. 40 PVC well casing 0.5' bgs to 5.5' bgs
5	(6-8')		2 3 4 4	7	1.7	0.0			Fine to medium GRAVEL, little fine to coarse Sand, slag fragments, dry	
	(8-10')		4 2 1 1	3	1.3	0.0			Moist, black, fine to medium SAND, little coarse SAND. SAA, saturated, little fine to medium angular Gravel.	0.01" Sch. 40 PVC slot screen 5.5' to 15.0' bgs
10	(10-12')		1 1 1 1	2	1.8	0.0			Trace sheen on soils, trace organic wood fibers. SAA, very loose. Black stained, SILT and CLAY, trace wood fibers.	
	(12-14')		1 1 1 1	2	1.2	0.0			Trace organics, very soft, wood fragment in spoon. Color change to olive.	Grade #5 silica sand pack 4.0' to 16.0' bgs
15	(14-16')		1 1	2	0.8	0.0			Black loose fine to medium SAND, saturated. Olive CLAY, no sheen.	

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Remarks:
NA - Not available.
No sheens were observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-179WT

Total Depth = 18.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	0.8	0.0			Olive CLAY, no sheen.	2-in diameter Sch. 40 PVC conical sump 15.0' to 15.5' bgs
									Total depth of boring 16.0 ft. bgs.	
20										
25										
30										
35										

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Remarks:
Well is north of the 42" sanitary sewer line as determined by location of borings.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 07/31/96 - 07/31/96
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45A
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.0 ft.

Geologist: Scott A. Powlin

Well No. MW-180WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.98 ft.										GROUND SURFACE	7-in diameter steel protective curb box, locking well cap
	590	(0-4')		NA	NA	NA	NA			Augered continuously to 4.0' bgs. Aged asphalt 0.0' to 0.5' bgs.	Concrete pad; Grade #5 silica sand 0.5' to 1.5' bgs; Bentonite seal 1.5' to 3.0' bgs; 2-in diameter Sch. 40 PVC well casing 0.3' bgs to 4.0' bgs
5		(4-6')		1 1 1 1	NA	NA	NA			No recovery. Brown fine to coarse SAND and GRAVEL in tip of spoon.	
	585	(6-8')		6 5 5 5	10	2.0	4.5			Light brown fine to coarse SAND, some silt and fine to medium Gravel, dry, loose.	
		(8-10')		6 2 2 2	4	1.3	4.5			Black fine SAND and SILT, moist. Wet, firm.	0.01" Sch. 40 PVC slot screen 4.0' to 14.0' bgs
10	580	(10-12')		1 1 2 3	3	2.0	3.8			Olive-green SILT, trace shell fragments, moist, firm.	
		(12-15')		NA	NA	NA	NA			Augered continuously from 12.0' to 15.0' bgs.	Grade #5 silica sand pack 3.0' to 15.0' bgs; 2-in diameter Sch. 40 PVC conical sump 14.0' to 14.5' bgs
15											

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Remarks:
NA - Not available.
No sheens were observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 7/30/96 - 7/31/96
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45A
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 14.0 ft.

Geologist: Scott A. Powlin

Well No. MW-18WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 589.67 ft.											4-in diameter steel protective casing 3.0' ags, locking well cap.
										GROUND SURFACE	
		(0-3')		NA	NA	NA	NA			Augered continuously to 3.0' bgs.	Concrete pad.
											Bentonite seal 1.0' to 2.0' bgs.
		(3-5')		7 8 3 2	11	1.2	14.8			Coarse GRAVEL, dry, loose.	2-in diameter Sch. 40 PVC well casing 2.8' ags to 3.0' bgs.
										Black fine SAND, some medium Sand and Silt, moist, loose.	
	585									Black fine SAND, some medium to coarse Gravel, wet, loose.	
5		(5-7')		3 5 9 5	14	1.0	3.6				
		(7-9')		3 3 2 3	5	1.0	3.5			Black fine SAND, some Silt, wet, loose.	0.01" Sch. 40 PVC screen 3.0' to 13.0' bgs.
	580									Augered continuously from 9.0' to 14.0' bgs.	
10											Grade #5 silica sand pack 4.0' to 14.0' bgs.
		(9-14')		NA	NA	NA	NA				
											2-in diameter Sch. 40 PVC sump 13.0' to 13.5' bgs.
	575									Total depth of boring 14.0 ft. bgs.	
15											

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Remarks:
NA - Not available.
No sheen was observed when soil was mixed with water and shaken.
No sheen observed on groundwater purged during development.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/23/97

Date Start-Finish: 08/28/96 - 08/28/96
Drilling Company: Mateco Drilling
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 45A
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 15.0 ft.

Geologist: Karen A. Goldenberg

Well No. MW-182WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 590.69 ft.										7-in diameter steel protective curb box, locking well cap
										GROUND SURFACE	
	590	(0-2')		4 6 7 11	13	1.8	0.0			Dark brown fine SAND.	Concrete pad
										Light brown SILT, some fine Sand.	Grade #5 silica sand pack 0.5' to 1.0' bgs
										Dark brown fine SAND, little fine gravel.	Bentonite seal 1.0' to 3.0' bgs
		(2-4')		3 4 5 8	9	1.4	0.0			Light brown SILT, some fine Sand.	
										Gray and black mottled CLAY, competent, bits of white slag, black organic matter.	2-in diameter Sch. 40 PVC well casing 3.1' bgs to 3.9' bgs
										Black fine SAND, some white slag.	
5		(4-6')		6 9 12 15	21	1.2	0.0			CLAY, little fine Sand.	
	585									Red/brown fine SAND, medium dense. At 2.8' bgs Black fine SAND, trace white slag.	Grade #5 silica sand pack 3.0' to 15.0' bgs
		(6-8')		6 6 5 7	11	2.0	0.0			Brown fine to medium SAND, some white/brown slag. Red/orange brick at 4.1'. Black slag at 4.2	
										Brown fine SAND, organic material.	
										Gray CLAY, soft, wet.	0.01" Sch. 40 PVC slot screen 3.9' to 13.9' bgs
		(8-10')		1 2 1 1	3	2.0	0.0			Black fine SAND, moist, 0.5-in. layer of wood.	
10										Dark brown fine SAND, slag.	
	580									Black fine SAND, wet to saturated.	Grade #5 silica sand pack 3.0' to 15.0' bgs
		(10-12')		1 2 2 2	4	1.3	0.0			Black fine SAND and SILT, sat.	
										Gray/black CLAY, wet.	0.01" Sch. 40 PVC slot screen 3.9' to 13.9' bgs
										Black fine SAND, saturated.	
		(12-14')		1 1 1 1	2	1.5	0.0			1-in. layer of fine GRAVEL.	
										Gray CLAY, competent, moist, bits of organic material, roots.	2-in diameter Sch. 40 PVC conical sump 13.9' to 14.2' bgs
15		(14-15')		NA	NA	NA	NA				

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Remarks:

Water Levels

Date / Time	Elevation	Depth

UST-Series Monitoring Wells
Well Construction and Boring Logs

UST-MWS1
UST-MWS2

Date Start-Finish: 06/06/95 - 06/06/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 32.5 ft.

Geologist: Stephan D. French

Well No. UST-MW51

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap installed
	(0-2')		6 7 6	13	1.2	0.1			4-in Asphalt. Crushed stone subbase fill. Brown medium SAND, trace fine Sand, loose, dry.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 21.0' bgs
	(2-4')		3 4 5 4	9	1.3	0.0				
5	(4-6')		1 4 4 5	8	1.25	0.0				Type 1 Portland cement/5% bentonite grout 0.8' to 23.0' bgs
	(6-8')		3 4 3 3	7	1.7	0.0			Gray fine GRAVEL and fine to medium SAND, loose. Black fine to medium SAND, loose, moist.	
	(8-10')		2 2 2 18	4	1.8	0.0				
10	(10-12')		REF	NA	NA	NA			Sampler hit an obstruction. Drilled to 12'.	2-in diameter Sch. 40 PVC well casing 0.4' to 27.0' bgs
	(12-14')		5 2 1 1	3	0.8	1.8			Dark brown SILT and fine to medium SAND, trace Clay, soft, moist.	
15	(14-16')		1 WOH	1	NR	NA			No Recovery. Sheen on sampler.	

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Remarks:
WOH - Weight of Hammer.
REF - Refusal.
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. UST-MWS1

Total Depth = 32.5 ft.

DEPTH / ELEVATION	Sample / Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		(12") 1	1	NR	NA			No Recovery. Sheen on sampler.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 21.0' bgs
	(16-18')		WOH (12") 2 1	1	0.2	2.8			Dark gray SILT, some fine Sand, trace Clay, very soft, moist, sheen.	
	(18-20')		WOH (12") 2 1	2	0.4	4.8			Dark gray SILT and gray brown fine to medium SAND, very soft, sheen.	Type 1 Portland cement/5% bentonite grout 0.8' to 23.0' bgs
20	(20-22')		WOH (18") 1	0	0.2	4.6			Dark gray SILT, little Clay, trace fine Sand, wet, no sheen.	
									Black PEAT, soft, dry.	2-in diameter Sch. 40 PVC well casing 0.4' to 27.0' bgs
	(22-24')		2 1 WOH (12")	1	1.6	0.0			Gray SILT and CLAY, soft, moist. Green gray.	
25	(24-26')		2 1 1 1	2	1.6	0.0			Trace fine Sand, wood in tip of spoon.	Bentonite seal 23.0' to 25.0' bgs
	(26-28')		4 1 1 1	2	1.3	0.0				Grade #5 silica sand pack 25.0' to 32.5' bgs
	(28-30')		7 8 2 3	10	1.5	0.0			Brown fine SAND and SILT, little Clay, very loose, wet.	0.01" Sch. 40 PVC screen 27.0' to 32.0' bgs
30	(30-32')		1 WOH 1 2	1	1.5	0.0			Brown fine to medium SAND, some white shells, loose, wet.	
									Gray brown SILT, some Clay, very soft, moist.	
									Dark brown PEAT,	2-in diameter Sch. 40 PVC sump 32.0' to 32.4' bgs
									Gray SILT and CLAY mixed with dark brown Peat.	
35									Total depth of boring 32.5 ft bgs.	

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Remarks:
WOH - Weight of Hammer.
NR - No Recovery.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 07/24/97

Date Start-Finish: 05/18/95 - 05/18/95
Drilling Company: Mateco
Driller's Name: Jim Page
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 750
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 56 ft.

Geologist: Tim R. Osier

Well No. UST-MWS2

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 594.07 ft.										GROUND SURFACE	7-in Diameter steel protective curb box with sand drain, locking well cap installed
										4-in Asphalt.	
		(0-2')		6 7 6	13	1.2	0.1			Crushed stone subbase fill.	
										Brown medium SAND, trace fine Sand, loose, dry.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
		(2-4')		3 4 5 4	9	1.3	0.0				
	590										
5		(4-6')		1 4 4 5	8	1.25	0.0				Type 1 Portland cement/5% bentonite grout 0.8' to 36.5' bgs
		(6-8')		3 4 3 3	7	1.7	0.0			Gray fine GRAVEL and fine to medium SAND, loose.	
										Black fine to medium SAND, loose, moist.	
	585	(8-10')		2 2 2 18	4	1.8	0.0				
10											2-in diameter Sch. 40 PVC well casing 0.4' to 40.1' bgs
		(10-12')		REF	NA	NA	NA			Sampler hit an obstruction. Drilled to 12'.	
		(12-14')		5 2 1 1	3	0.8	1.8			Dark brown SILT and fine to medium SAND, trace Clay, soft, moist.	
	580										
15		(14-16')		1 WOH	1	NR	NA			No Recovery.	

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Remarks:
Soil descriptions from 0-20' bgs were taken from boring log UST-MWS1. NR - No Recovery.
REF - Refusal. NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. UST-MWS2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		(12") 1	1	NR	NA			No Recovery.
		(16-18')		WOH (12") 2 1	1	0.2	2.8			Dark gray SILT, some fine Sand, trace Clay, very soft, moist.
	575	(18-20')		WOH (12") 2 1	2	0.4	4.8			Dark gray SILT and gray brown fine to medium SAND, very soft.
20		(20-22')		3 2 2 2	4	0.2	0.0			Gray SILT and CLAY, soft, moist. Black PEAT, soft, dry.
		(22-24')		2 1 WOH (12")	1	1.6	0.0			Gray SILT and CLAY, soft, moist. Green gray.
	570	(24-26')		2 1 1 1	2	1.6	0.0			Trace fine Sand, wood in tip of spoon.
25		(26-28')		4 1 1 1	2	1.3	0.0			Brown fine SAND and SILT, little Clay, very loose, wet.
	565	(28-30')		7 8 2 3	10	1.5	0.0			Brown fine to medium SAND, some white shells, loose, wet.
30		(30-32')		1 WOH 1 2	1	1.5	0.0			Gray brown SILT, some Clay, very soft, moist.
		(32-34')		2 2 1 1	3	1.3	0.0			Dark brown PEAT, Gray SILT and CLAY mixed with dark brown PEAT.
	560	(34-36')		4 8	15	0.6	0.0			Brown fine SAND and SILT, little Clay, very loose.
35										

Well Construction

- 10-in diameter Sch. 40 PVC surface seal casing ground surface to 22.0' bgs
- Type 1 Portland cement/5% bentonite grout 0.8' to 36.5' bgs
- 2-in diameter Sch. 40 PVC well casing 0.4' to 40.1' bgs

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Remarks:
Soil descriptions from 0-20' bgs were taken from boring log UST-MWS1. NR - No Recovery.
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. UST-MWS2

Total Depth = 58 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test
		(34-36')		7 7	15	0.6	0.0	
		(36-38')		4 3 5 8	8	1.1	0.0	
	555	(38-40')		3 3 11 14	14	1.1	0.0	
40		(40-42')		4 7 5 6	12	1.1	0.0	
		(42-44')		6 15 19 19	34	1.8	0.0	
	550	(44-46')		3 3 3 3	6	1.7	0.0	
45		(46-48')		1 1 1 2	2	1.5	0.0	
	545	(48-50')		2 2 2 2	4	NR	0.0	
50		(50-52')		4 5 5 6	10	0.2	0.0	
		(52-54')		2 3 2 3	5	1.3	0.0	
	540	(54-56')		2 1	3	1.5	0.0	
55								

Geologic Column / Stratigraphic Description

- Brown fine SAND and SILT, little Clay, very loose.
- MARL.
- Fine SAND and SILT, loose, wet.
- SILT and CLAY.
- Fine SAND and SILT.
- SILT and CLAY.
- Fine SAND, some Silt.
- SILT, some Clay, medium stiff.
- Fine SAND, some Silt, loose, wet.
- Gray SILT and CLAY, soft.
- Dark brown PEAT.
- Brown fine SAND and SILT, medium dense, wet, streaks of black Peat.
- Brown fine to medium SAND, some Silt, loose, wet.
- Brown fine to coarse SAND, loose, wet.
- Brown SILT and CLAY, soft, moist.
- Trace fine to medium Gravel.

Well Construction

- Type I Portland cement/5% bentonite grout 0.8' to 36.5' bgs
- Bentonite seal 36.5' to 38.5' bgs
- 2-in diameter Sch. 40 PVC well casing 0.4' to 40.1' bgs
- Grade #5 silica sand pack 38.5' to 45.8' bgs
- 0.01" Sch. 40 PVC screen 40.1' to 45.1' bgs
- 2-in diameter Sch. 40 PVC sump 45.1' to 45.8' bgs
- Bentonite seal 45.8' to 56.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. UST-MWS2

Total Depth = 56 ft.

Client:
General Motors Corporation

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(54-56')		2 4	3	1.5	0.0			Brown SILT and CLAY, trace fine to medium Gravel, soft, moist.	Bentonite seal 45.8' to 56.0' bgs
										Total depth of boring 56.0 ft bgs.	
	535										
60											
	530										
65											
	525										
70											
	520										
75											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08

Script: GM-well
Date: 07/24/97

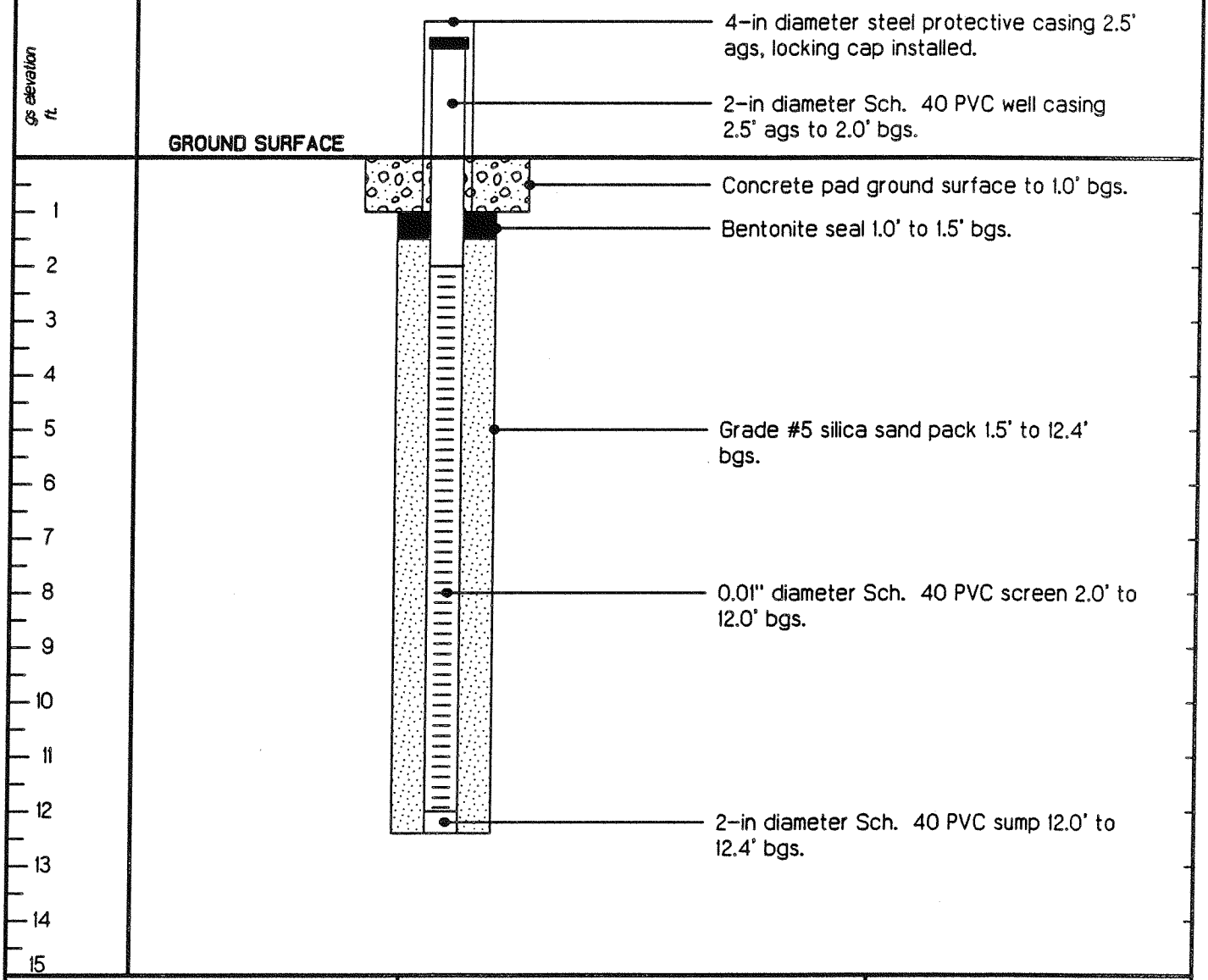
X-Series Monitoring Wells
Well Construction and Boring Logs

X-1CR (replacement)
X-1CR2 (replacement)
X-2D (Aug)
X-3AR (replacement)
X-3BR (replacement)
X-3C (Aug)
X-4C (Aug)
X-5CR (replacement)
X-7BR (replacement)
X-7C (Aug)
X-7D (Aug)
X-9AR (replacement)
X-9BR (replacement)
X-9C (Aug)
X-10BR (replacement)
X-10CR
X-10D (Aug)
X-11 (Aug) – Boring only
X-11AR (replacement)
X-12AR (replacement)
X-12C (Aug)
X-13AR (replacement)
X-13C (Aug)
X-14C (Aug)
X-15AR (replacement)
X-15BR (replacement)
X-17R (replacement)
X-19AR (replacement)

Date Start/Finish: 01/10/95 - 01/10/95 **Drilling Company:** Stearns **Driller's Name:** Bryan Marshall **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 12.4 ft. **Geologist:** James I. Saxton	**Well No. X-1CR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft. / ELEVATION gs elevation ft.



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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-1 by Residuals Management Technology, Inc. on June 02, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/26/95 - 05/26/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 49.1 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-1CR2 (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH / ELEVATION

gs elevation ft.

GROUND SURFACE

4-in diameter steel protective casing 2.5' ags, locking cap installed.

Concrete pad ground surface to 2.0' bgs.

2-in diameter Sch. 40 PVC well casing 2.5' ags to 43.7' bgs.

Portland cement/%5 bentonite grout 2.0' to 38.5' bgs.

5
10
15
20
25
30

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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-1 by Residuals Management Technology, Inc. on June 02, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

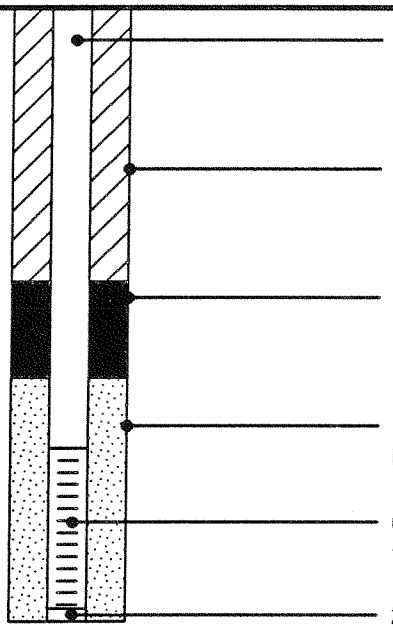
Client:
General Moters Coprporation

Well No. X-1CR2 (replacement)

Total Depth = 49.1 ft.

DEPTH / ELEVATION

Well Construction Details



- 2-in diameter Sch. 40 PVC well casing 2.5' ags to 43.7' bgs.
- Portland cement/%5 bentonite grout 2.0' to 38.5' bgs.
- Bentonite seal 38.5' to 41.5' bgs.
- Grade #5 silica sand pack 41.5' to 49.1' bgs.
- 0.01" diameter Sch. 40 PVC screen 43.7' to 48.7' bgs.
- 2-in diameter Sch. 40 PVC sump 48.7' to 49.1' bgs.

35 40 45 50 55 60 65 70

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start–Finish: 01/19/95 – 01/19/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 38 ft.

Geologist: Jim Saxton

Well No. X-2D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		2 3 6 4	9	2.0	13.3			Black and orange fine to medium SAND, some concretions and pieces of refractory brick, loose.	Concrete pad ground surface to 2.0' bgs
	(2-4')		13 8 10 10	18	1.5	1.5				
5	(4-6')		6 10 11 13	21	1.2	12.7			Black coarse SAND, trace cinders and slag, medium dense, wet. Black and brown coarse SAND, trace cinders and slag, medium dense, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 28.0' bgs
	(6-8')		11 10 15 18	25	1.4	14.7				
	(8-10')		3 10 6 5	16	0.6	14.7				
10	(10-12')		1 1 1 1	2	1.3	7.8			Dark gray SILT, trace Clay, soft, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	(12-14')		WOH 1 2 1	3	1.2	7.8				
15	(14-16')		WOH (12")	1	2.0	2.8			Gray SILT, some Clay, very soft, wet.	

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Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-20 (Aug)

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	1	2.0	2.8			Lense of shell fragments.	
	(16-18')		WOH (18") 1	0	2.0	5.0			Gray fine SAND, some Silt, very loose, wet.	
	(18-20')		WOH (18") 2	0	2.0	0.6				
20	(20-22')		WOH 1 2 2	3	2.0	0.6				Type 1 Portland cement/5% bentonite grout 2.0' to 28.0' bgs
	(22-24')		WOH (12") 3 3	3	2.0	0.8				
25	(24-26')		WOH 1 3 4	4	1.5	0.6				2-in diameter Sch. 40 PVC well casing 1.8' ags to 32.0' bgs
	(26-28')		WOH (18") 2	0	1.2	0.3				
	(28-30')		WOH 1 2 2	3	1.4	0.4				Bentonite seal 28.0' to 30.0' bgs
30	(30-32')		WOH 1 1 1	2	1.5	0.4				Grade #5 silica sand pack 30.0' to 38.0' bgs
	(32-34')		WOH (12") 1 2	1	2.0	0.7			Occasional layers of gray medium Sand.	0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
35	(34-36')		NA	NA	2.0	NA				

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Remarks:
NA - Not Available.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-2D (Aug)

Total Depth = 38 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		NA	NA	2.0	NA			Gray fine SAND, some Silt, very loose, wet.	0.01" Sch. 40 PVC screen 32.0' to 37.0' bgs
	(36-38')		NA	NA	NA	NA				2-in diameter Sch. 40 PVC sump 37.0' to 37.4' bgs
									Total depth of boring 38.0 ft. bgs	
40										
45										
50										
55										

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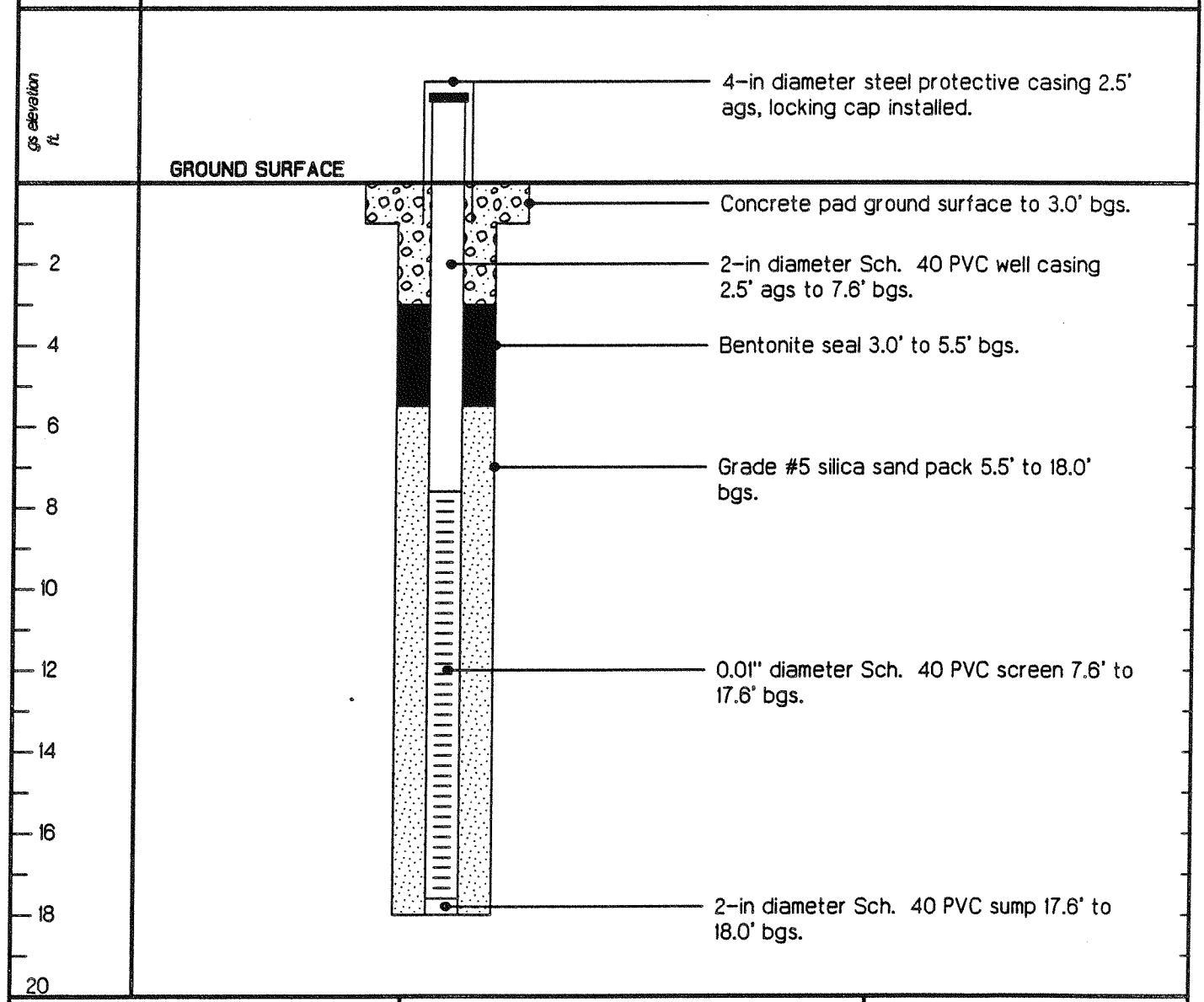
Remarks:
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/17/95 - 05/17/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 18.0 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-3AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

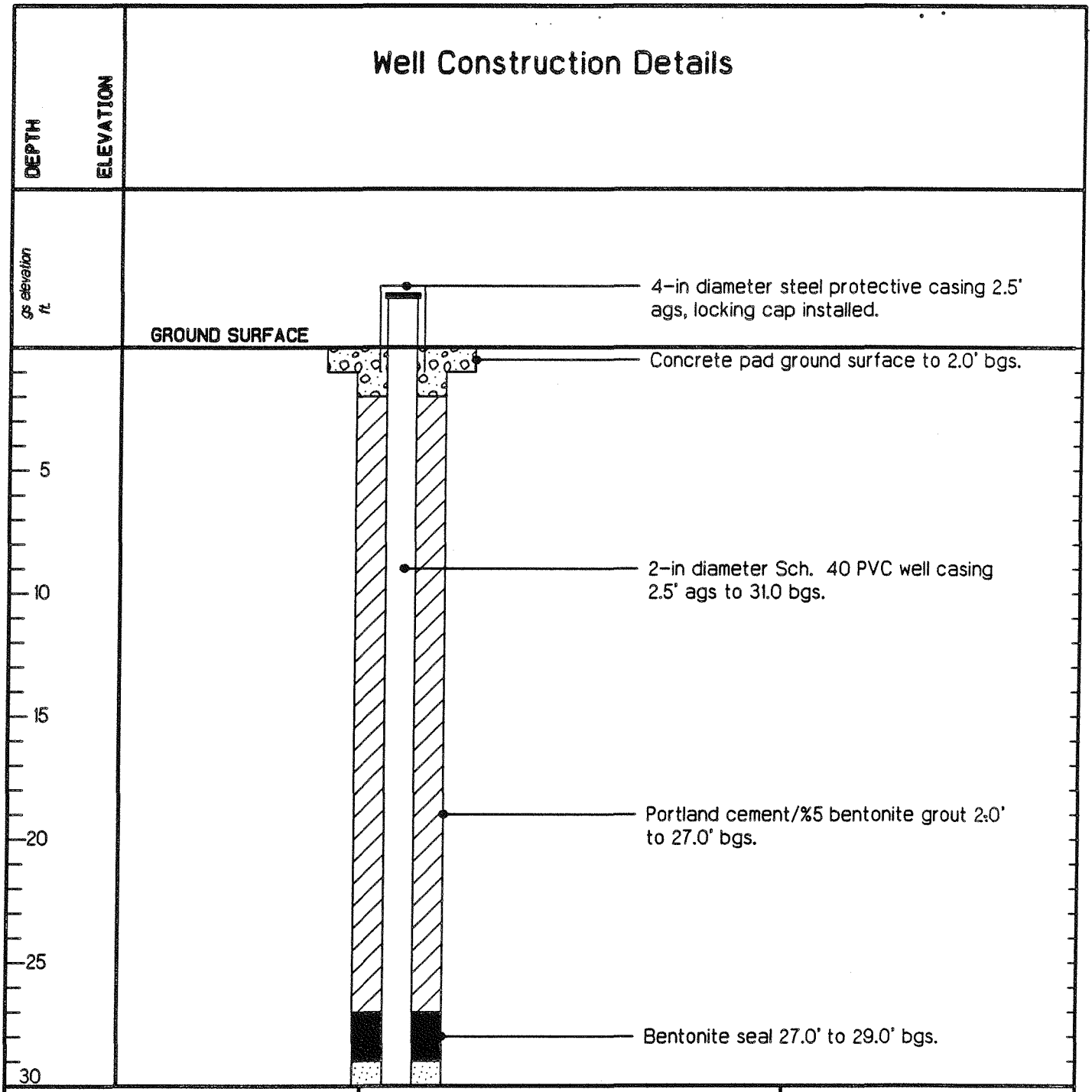
Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-3 by Residuals Management Technology, Inc. on June 03, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/17/95 - 05/17/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 36.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-3BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-3 by Residuals Management Technology, Inc. on June 03, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

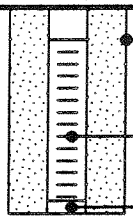
Client:
General Moters Coprporation

Well No. X-3BR (replacement)

Total Depth = 38.4 ft.

DEPTH / ELEVATION

Well Construction Details



Grade #5 silica sand pack 29.0' to 36.4' bgs.

0.01" diameter Sch. 40 PVC screen 31.0' to 36.0' bgs.

2-in diameter Sch. 40 PVC sump 36.0' to 36.4' bgs.

35
40
45
50
55
60
65
70

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 05/16/95 - 05/16/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 54 ft.

Geologist: Ron Kuhn

Well No. X-3C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 593.23 ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										Soil descriptions from 0.0 to 40.0' bgs are given on boring log X-3A by Residuals Management Technology, Inc. on June 03, 1980.	Concrete pad ground surface to 1.0' bgs
	590										
5											Type 1 Portland cement/5% bentonite grout 1.0' to 40.5' bgs
	585										
10											2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.5' bgs
	580										
15											

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Remarks:
Apparent Conductivity graph is off-scale from 14.0 to 20.0 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-3C (Aug)

Total Depth = 54 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Soil descriptions from 0.0 to 40.0' bgs are given on boring log X-3A by Residuals Management Technology, Inc. on June 03, 1980.	
	575										
20											Type 1 Portland cement/5% bentonite grout 1.0' to 40.5' bgs
	570										
25											
	565										
30											2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.5' bgs
	560										
35											

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Remarks:
Apparent Conductivity graph is off-scale from 14.0 to 20.0 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-3C (Aug)

Total Depth = 54 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										Soil descriptions from 0.0 to 40.0' bgs are given on boring log X-3A by Residuals Management Technology, Inc. on June 03, 1980.
	555									
40		(40-42')		2 1 WOH 4	1	2.0	NA			Gray fine to medium SAND, trace coarse Sand and fine Gravel, very loose, saturated
	550	(42-44')		3 3 6 12	9	2.0	NA			
45		(44-46')		3 7 9 10	16	1.6	NA			Gray fine to coarse SAND, little fine to medium Gravel, medium dense, saturated.
		(46-48')		4 5 8 7	13	0.6	NA			
	545	(48-50')		7 9 10 12	19	2.0	NA			
50		(50-52')		5 6 15 6	21	2.0	NA			Gray Silty CLAY, stiff.
	540	(52-54')		3 4 2 2	6	2.0	NA			Soft, wet, high plasticity.
55										Total depth of boring 54.0 ft bgs.

Well Construction

- Type I Portland cement/5% bentonite grout 1.0' to 40.5' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.5' bgs
- Bentonite seal 40.5' to 43.5' bgs
- Grade #5 silica sand pack 43.5' to 52.0' bgs
- 0.01" Sch. 40 PVC screen 46.5' to 51.5' bgs
- 2-in diameter Sch. 40 PVC sump 51.5' to 51.9' bgs
- Bentonite seal 52.0' to 54.0' bgs

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Remarks:
WOH - Weight of Hammer.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/05/95 - 05/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 25 ft.

Geologist: Tim R. Osier

Well No. X-4C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 583.66 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
										Soil descriptions from 0 - 15.0' are given on test boring log X-4 by Residuals Management Technology, Inc. (RMT) on June 04, 1980.	Concrete pad ground surface to 2.5' bgs
	580										
5											Type 1 Portland cement/5% bentonite grout 2.5' to 14.3' bgs
	575										
10											2-in diameter Sch. 40 PVC well casing 1.8' ags to 18.0' bgs
	570										
15											Bentonite seal 14.3' to 16.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

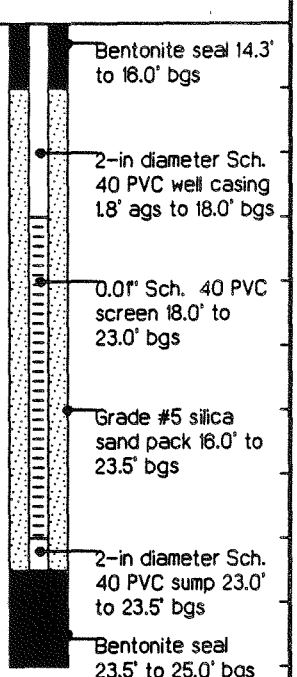
Client:
General Motors Corporation

Well No. X-4C (Aug)

Total Depth = 25 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(15–17')		2 WOH 1 1	1	1.5	0.0			Brown fine SAND, some Silt, very loose, wet.
		(17–19')		2 1 WOH 1	1	1.6	0.0			Trace shells.
	565									
20		(19–21')		1 3 4 4	7	1.6	0.0			
		(21–23')		8 6 3 1	9	1.6	0.0			
	560	(23–25')		2 1 WOH 1	1	1.8	0.0			Gray SILT, some Clay, soft, wet.
25										Total depth of boring 25.0 ft. bgs.
	555									
30										
	550									
35										

Well Construction



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Remarks:
WOH – Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/09/95 - 01/10/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 46 ft.

Geologist: James Saxton

Well No. X-5CR (replacement)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed
	(0-2')		14 50 100 54	150	1.6	27.5			Black fine to medium SAND, trace slag, very dense.	Concrete pad ground surface to 2.0' bgs
	(2-4')		10 10 10 9	20	1.25	22.0				
5	(4-6')		3 35 93 43	128	1.5	37.0				Type 1 Portland cement/5% bentonite 2.0' to 35.5' bgs
	(6-8')		9 15 15 100	30	1.6	44.2			Slight odor.	
	(8-10')		2 30 35 30	65	1.3	8.1			Saturated.	
10	(10-12')		4 12 8 7	20	0.7	36.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 40.0' bgs
	(12-14')		3 3 6 4	9	1.0	0.1			Light gray fine SAND, little shells, trace Silt, loose, saturated.	
15	(14-16')		2 1	3	1.0	0.1			Dark brown fine SAND, some Silt, very loose, saturated.	

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-5CR (replacement)

Total Depth = 46 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 2	3	1.0	0.1			Dark brown fine SAND, some Silt, very loose, saturated.	
	(16-18')		1 1 1 1	2	2.0	0.3				
	(18-20')		WOH 6 3 3	9	1.4	0.1			Gray CLAY, some Silt, little fine to medium Gravel, medium stiff, moist.	
20	(20-22')		ST	NA	1.7	NA			Shelby tube sample taken from 20.0' to 22.0' bgs for geotechnical analyses.	Type 1 Portland cement/5% bentonite 2.0' to 35.5' bgs
	(22-24')		2 3 9 14	12	1.4	0.1				
25	(24-26')		4 7 12 19	29	2.0	0.2			Brown CLAY, some Silt, little fine to medium Gravel, medium stiff, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 40.0' bgs
	(26-28')		3 7 11 14	18	1.8	0.0				
	(28-30')		3 7 11 14	18	2.0	0.0				
30	(30-32')		5 6 10 11	16	1.7	0.0				
	(32-34')		2 3 5 8	8	1.5	0.0				
35	(34-36')		3 4	10	2.0	0.0			Dark brown CLAY, some Silt, little fine to medium Sand, stiff, moist.	

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Remarks:
WOH - Weight of Hammer.
ST - Shelby tube used from 20.0' to 22.0' bgs.
NA - Not Available.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-5CR (replacement)

Total Depth = 46 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(34-36')		6 7	10	2.0	0.0			Dark brown CLAY, some Silt, little fine to medium Sand, stiff, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 40.0' bgs
	(36-38')		2 3 5 6	8	2.0	0.0				Bentonite seal 35.5' to 37.7' bgs
	(38-40')		2 5 5 7	10	2.0	0.0				Grade #5 silica sand pack 37.7' to 46.0' bgs
40	(40-42')		WOH 3 3 5	6	2.0	0.0			Saturated.	
	(42-44')		3 3 4 3	7	2.0	0.0				0.01" Sch. 40 PVC screen 40.0' to 45.0' bgs
45	(44-46')		WOH 2 2 4	4	2.0	0.0				2-in diameter Sch. 40 PVC sump 45.0' to 45.5' bgs
									Total depth of boring 46.0 ft. bgs.	
50										
55										

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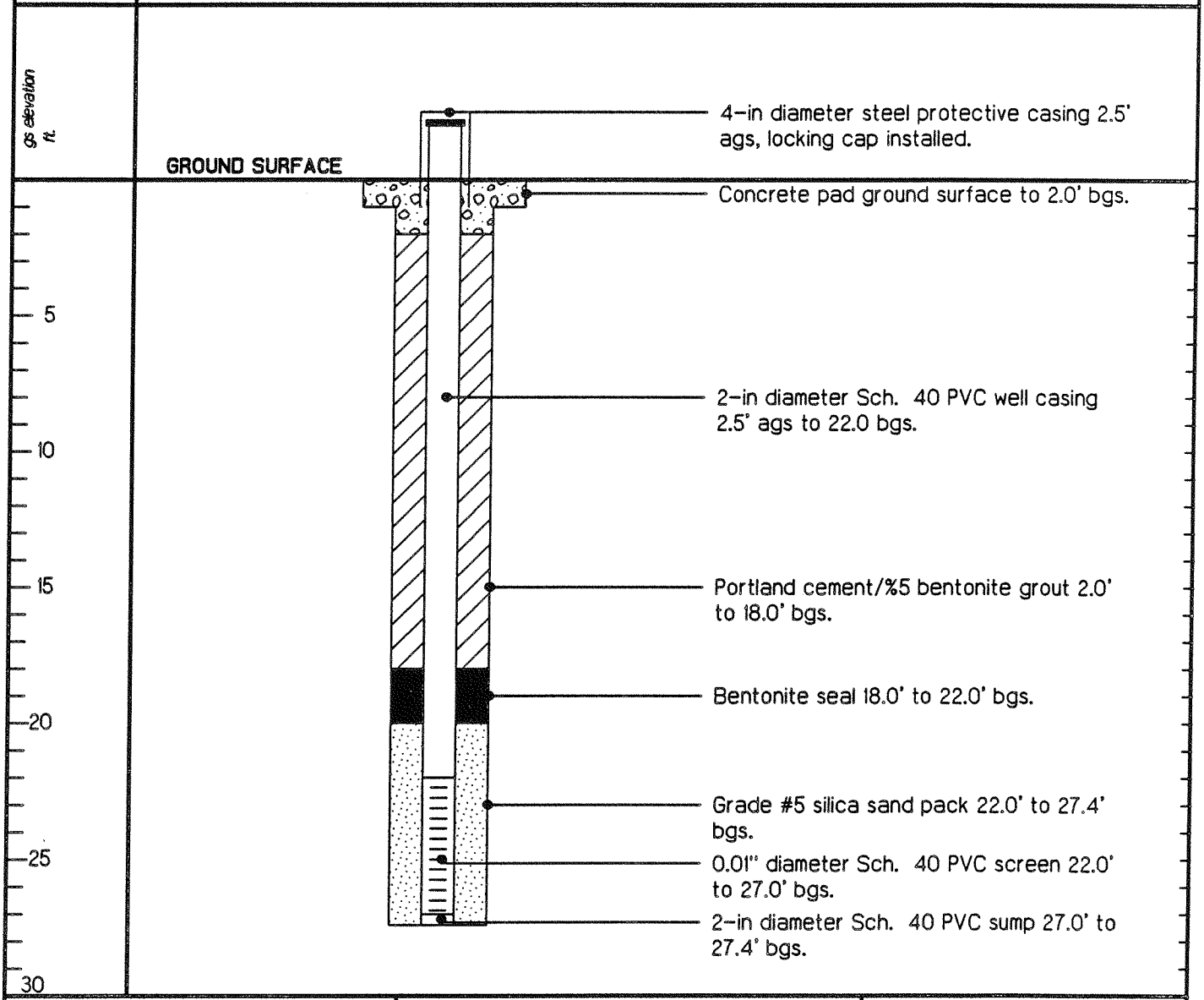
Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/16/95 - 05/16/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 27.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-7BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-7 by Residuals Management Technology, Inc. on June 10, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start–Finish: 05/16/95 – 05/16/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 39.4 ft.

Geologist: Ronald D. Kuhn

Well No. X-7C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0 – 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.	Concrete pad ground surface to 2.5' bgs
5										Type 1 Portland cement/5% bentonite grout 2.5' to 29.5' bgs
10										2-in diameter Sch. 40 PVC well casing 1.8' ags to 34.0' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-7C (Aug)

Total Depth = 39.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Soil descriptions from 0 - 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.	

20

25

30

35

Type 1 Portland cement/5% bentonite grout 2.5' to 29.5' bgs

2-in diameter Sch. 40 PVC well casing 1.8' ags to 34.0' bgs

Bentonite seal 29.5' to 31.6' bgs

Grade #5 silica sand pack 31.6' to 39.4' bgs

0.01" Sch. 40 PVC screen 34.0' to 39.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-7C (Aug)

Total Depth = 39.4 ft.

DEPTH / ELEVATION	Sample · Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Soil descriptions from 0 – 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.	Grade #5 silica sand pack 31.6' to 39.4' bgs 0.01" Sch. 40 PVC screen 34.0' to 39.0' bgs 2-in diameter Sch. 40 PVC sump 39.0' to 39.4' bgs
	(38-39.4')		4 1 2	3	1.8	0.0			Brown fine to coarse SAND, some Silt, loose wet.	
40									Total depth of boring 39.4 ft. bgs.	
45										
50										
55										

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Remarks:
Soil description from 38.0' to 39.4' was taken from boring log X-7D (Aug).

Water Levels

Date / Time	Elevation	Depth

Date Start–Finish: 05/05/95 – 05/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 54 ft.

Geologist: Tim R. Osier

Well No. X-7D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 593.26 ft.										4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
										Soil descriptions from 0 – 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.	Concrete pad ground surface to 2.5' bgs
	590										
5											Type I Portland cement/5% bentonite grout 2.5' to 41.0' bgs
	585										
10											2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.0' bgs
	580										
15											

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-7D (Aug)

Total Depth = 54 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Soil descriptions from 0 - 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.	
	575										
20											Type I Portland cement/5% bentonite grout 2.5' to 41.0' bgs
	570										
25											2-in diameter Sch. 40 PVC well casing 1.8' ags to 46.0' bgs
	565										
30											
	560										
35											

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Remarks:
Apparent Conductivity graph is off-scale from 13.0 to 25.0 feet.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

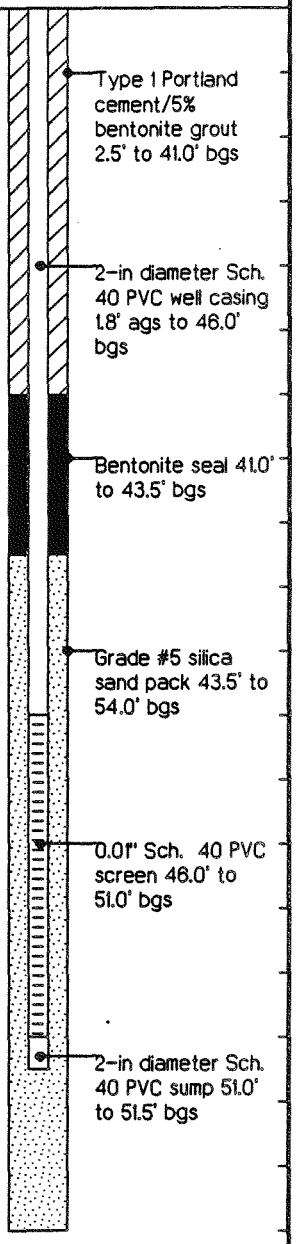
Client:
General Motors Corporation

Well No. X-7D (Aug)

Total Depth = 54 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
										Soil descriptions from 0 – 38.0' are given on test boring log X-7B by Residuals Management Technology, Inc. (RMT) on June 10, 1980.
	555	(38-40')		4 1 2 6	3	1.8	0.0			Brown fine to coarse SAND, some Silt, loose, wet.
40		(40-42')		3 2 3 4	5	1.9	0.0			Browm fine to coarse SAND and fine to medium GRAVEL, loose, wet.
	550	(42-44')		4 4 6 7	10	1.9	0.0			Fine to coarse SAND, some fine to medium Gravel, trace Silt, loose, wet.
45		(44-46')		6 5 6 8	11	2.0	0.0			
		(46-48')		4 3 5 9	8	2.0	0.0			
	545	(48-50')		3 5 7 9	12	2.0	0.0			
50		(50-52')		5 3 3 3	6	2.0	0.0			Brown SILT and CLAY, soft, moist.
	540	(52-54')		3 1 2 1	3	1.5	0.0			
55										Total depth of boring 54.0 ft. bgs.

Well Construction



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Remarks:

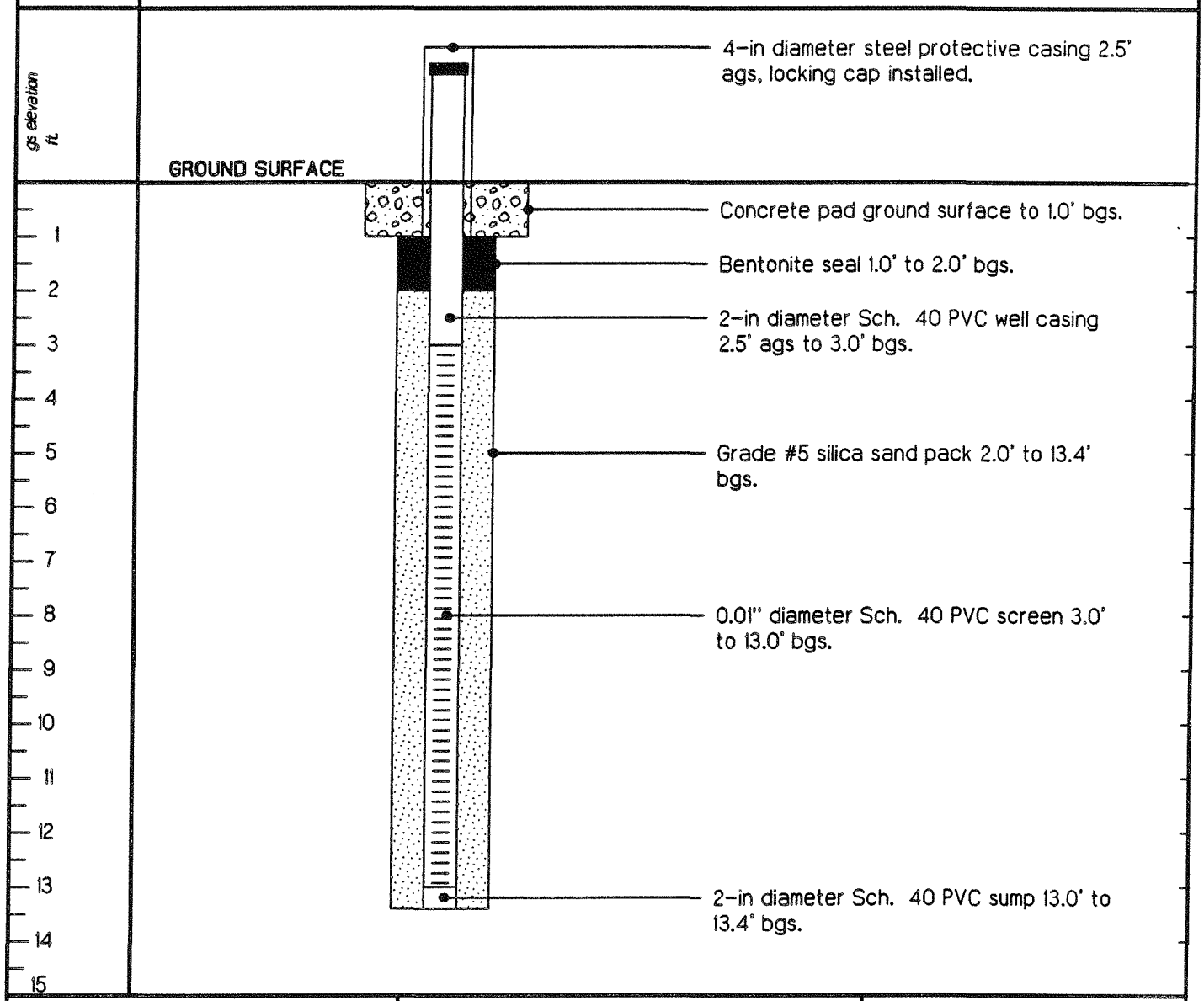
Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/26/95 - 05/26/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 13.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-9AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft. / ELEVATION gs elevation ft.



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Remarks:

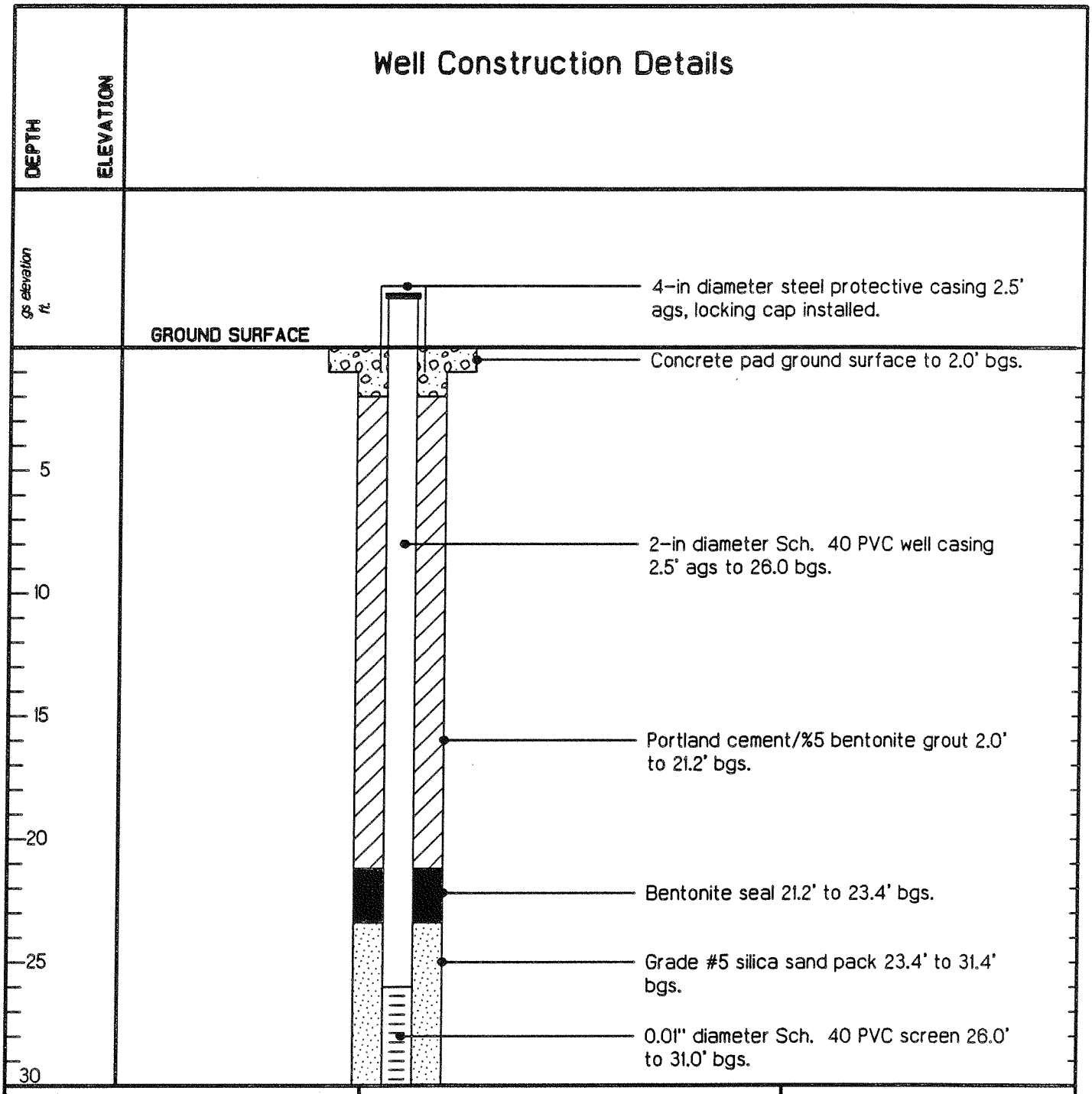
Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-9 by Residuals Management Technology, Inc. on June 03, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/17/95 - 05/17/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 31.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-9BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-9 by Residuals Management Technology, Inc. on June 03, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

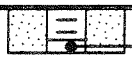
Client:
General Moters Coprporation

Well No. X-98R (replacement)

Total Depth = 31.4 ft.

DEPTH / ELEVATION

Well Construction Details



2-in diameter Sch. 40 PVC sump 31.0' to 31.4' bgs.

35
40
45
50
55
60
65
70

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Remarks:

Saturated Zones		
Date / Time	Elevation	Depth

Date Start-Finish: 05/05/95 - 05/05/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 26 ft.

Geologist: Tim R. Osier

Well No. X-9C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0 - 18.0' are given on test boring log X-9B by Residuals Management Technology, Inc. (RMT) on June 03, 1980.	Concrete pad ground surface to 2.5' bgs
5										Type 1 Portland cement/5% bentonite grout 2.5' to 16.3' bgs
10										2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

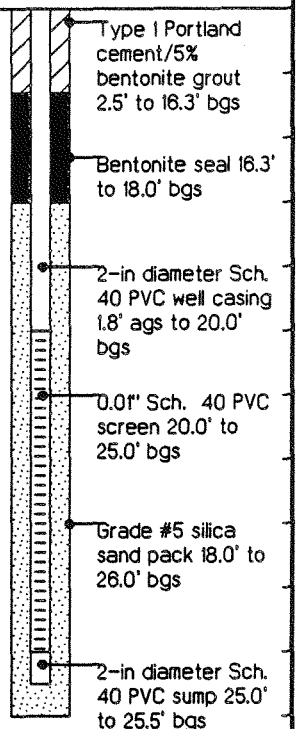
Client:
General Motors Corporation

Well No. X-8C (Aug)

Total Depth = 26 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(18-20')		WOH (12") 1 2	1	1.8	0.0			Brown fine SAND, some Silt, trace shells, very loose, wet.
20	(20-22')		WOH (24")	0	1.8	0.0			
	(22-24')		1 2 2 3	4	1.6	0.0			
	(24-26')		1 WOH 1 1	1	1.8	0.0			Gray SILT and CLAY, soft, moist.
25									Total depth of boring 26.0 ft. bgs.
30									
35									

Well Construction



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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/15/95 - 05/15/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 31.7 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-10BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ELEVATION

gs elevation ft.

GROUND SURFACE

4-in diameter steel protective casing 2.5' ags, locking cap installed.

Concrete pad ground surface to 2.0' bgs.

2-in diameter Sch. 40 PVC well casing 2.5' ags to 26.3 bgs.

Portland cement/%5 bentonite grout 2.0' to 22.5' bgs.

Bentonite seal 22.5' to 24.5' bgs.

Grade #5 silica sand pack 24.5 to 31.7' bgs.

0.01" diameter Sch. 40 PVC screen 26.3' to 31.3' bgs.

5 10 15 20 25 30

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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-10 by Residuals Management Technology, Inc. on June 06, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Moters Coprporation

Well No. X-10BR (replacement)

Total Depth = 31.7 ft.

DEPTH / ELEVATION

Well Construction Details



2-in diameter Sch. 40 PVC sump 31.3' to 31.7' bgs.

35
40
45
50
55
60
65
70

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Remarks:

Saturated Zones		
Date / Time	Elevation	Depth

Date Start-Finish: 01/19/95 - 01/20/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 44 ft.

Geologist: Sabrina Hesford

Well No. X-10CR

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		1 2 3 5	5	2.0	0.2			Black very fine to fine SAND, trace Clay, loose, moist.	Concrete pad ground surface to 2.5' bgs
	(2-4')		3 4 5 5	9	2.0	0.8			Black and orange medium SAND, trace slag and glass, loose.	
5	(4-6')		3 6 8 10	14	2.0	0.2				Type 1 Portland cement/5% bentonite grout 2.5' to 32.6' bgs
	(6-8')		WOH 1 1 1	2	1.8	0.3			Very loose, moist.	
	(8-10')		1 2 2 2	4	1.5	0.2				
10	(10-12')		2 2 3 4	5	1.1	0.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.4' bgs
	(12-14')		2 3 2 2	5	1.4	0.1			Gray SILT, little Clay, damp.	
	(14-16')		1 1	2	1.2	0.3			Gray CLAY, little Silt, little fine Sand and shells, soft, moist.	
15									Some Silt and fine Sand, little shells and wood, soft, moist.	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well No. X-10CR

Total Depth = 44 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	1.2	0.3			Gray CLAY, some Silt and fine Sand, little shells and wood, soft, moist.	
	(16-18')		1 2 1 (12")	2.5	1.0	0.3			Gray fine to medium SAND, very loose, wet.	
	(18-20')		1 (12") 5 7	5.5	1.2	0.3			Gray SILT, some Clay, trace fine to medium Sand, soft.	
20	(20-22')		1 (12") 4 6	4.5	1.6	0.3				Type 1 Portland cement/5% bentonite grout 2.5' to 32.6' bgs
	(22-24')		2 2 3 4	5	0.5	0.2			Brown and gray fine to medium SAND, loose, wet.	
25	(24-26')		2 2 3 4	5	0.4	0.6				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.4' bgs
	(26-28')		2 2 5 8	7	0.5	0.6			Loose, trace shells.	
	(28-30')		3 4 7 9	11	0.7	0.6				
30	(30-32')		4 5 7 12	12	0.9	0.5				
	(32-34')		4 6 7 8	13	0.5	0.8			Trace coarse Sand.	Bentonite seal 32.6' to 34.6' bgs
35	(34-36')		7 4	8	0.6	0.6				

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

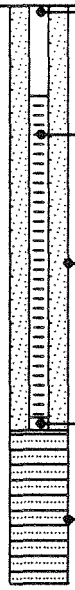
Well No. X-10CR

Total Depth = 44 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(34-36')		4 7	8	0.6	0.6			Brown and gray fine to medium SAND, trace coarse Sand, loose, wet.
	(36-38')		2 3 4 6	7	0.4	0.3			
	(38-40')		2 3 5 6	8	0.4	0.5			Little coarse Sand, trace fine to medium Gravel, loose, wet.
40	(40-42')		7 8 8 20	16	0.8	0.7			
	(42-44')		5 8 14 18	22	0.4	0.1			Gray Silty CLAY, very stiff, moist.
45									Total depth of boring 44.0 ft. bgs.
50									
55									

Well Construction



- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.4' bgs
- 0.01" Sch. 40 PVC screen 36.4' to 41.4' bgs
- Grade #5 silica sand pack 34.6' to 41.6' bgs
- 2-in diameter Sch. 40 PVC sump 41.4' to 41.6' bgs
- Backfilled with native soil 41.6' to 44.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 01/19/95 - 01/20/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 27.5 ft.

Geologist: Sabrina Hesford

Well No. X-10D (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		1 2 3 5	5	2.0	0.2			Black very fine to fine SAND, trace Clay, loose, moist.	Concrete pad ground surface to 2.5' bgs
	(2-4')		3 4 5 5	9	2.0	0.8			Black and orange medium SAND, trace slag and glass, loose.	
5	(4-6')		3 6 8 10	14	2.0	0.2				Type 1 Portland cement/5% bentonite grout 2.5' to 19.5' bgs
	(6-8')		WOH 1 1 1	2	1.8	0.3			Very loose, moist.	
	(8-10')		1 2 2 2	4	1.5	0.2				
10	(10-12')		2 2 3 4	5	1.1	0.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 22.0' bgs
	(12-14')		2 3 2 2	5	1.4	0.1			Gray SILT, little Clay, soft, damp.	
	(14-16')		1 1	2	1.2	0.3			Gray CLAY, little Silt, fine Sand and shells, soft, moist.	
15									Some Silt and fine Sand, little shells, and wood, soft, moist.	

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Remarks:
Soil descriptions taken from X-10CR boring log.
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

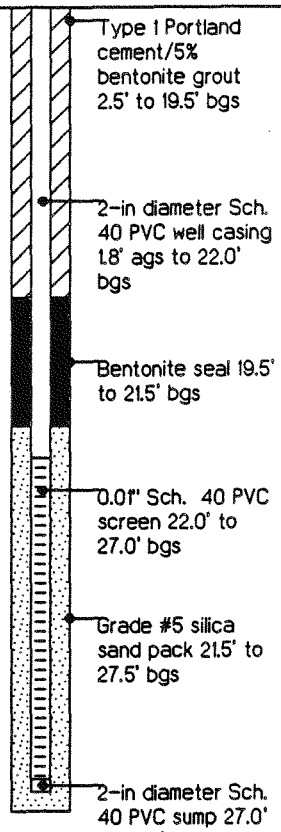
Client:
General Motors Corporation

Well No. X-100 (Aug)

Total Depth = 27.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		1 1	2	1.2	0.3			Gray CLAY, some Silt and fine Sand, little shells and wood, soft, moist.
	(16-18')		1 2 1 (12")	3	1.0	0.3			Gray fine to medium SAND, very loose, wet.
	(18-20')		1 (12") 5 7	6	1.2	0.3			Gray SILT, some Clay, trace fine to medium Sand, soft.
20	(20-22')		1 (12") 4 6	5	1.6	0.3			
	(22-24')		2 2 3 4	5	0.5	0.2			Brown and gray fine to medium SAND, loose, wet.
25	(24-26')		2 2 3 4	5	0.4	0.6			
	(26-28')		2 2 5 8	7	0.5	0.6			Trace shells.
30									Total depth of boring 27.5 ft. bgs.
35									

Well Construction



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Remarks:
Soil descriptions taken from X-10CR boring log.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 01/23/95 - 01/23/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: CME 850 ATV
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Descriptions by: Ron Kuhn

Boring No. X-11 (Aug) - Boring only

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
ge elevation ft.											
0										**GROUND SURFACE**	
		(0-2')		1 2 3 3	5	2.0	15.8			Brown fine to medium SAND, trace Silt, loose, wet.	
		(2-4')		1 1 2 2	3	1.4	6.8			Trace shells, very loose.	Type 1 Portland cement/5% bentonite grout 0' to 30.0' bgs
5	-5	(4-6')		WOH 3 3 3	6	1.5	2.9			Loose, saturated.	
		(6-8')		1 6 10 14	16	1.5	1.9			Brown CLAY and SILT, trace fine to medium Gravel, very stiff, moist.	
		(8-10')		2 2 6 12	8	1.1	1.8				
10	-10	(10-12')		4 8 10 13	18	1.9	1.1			Fractures noticed with gray Silt, stiff.	
		(12-14')		2 3 10 10	13	1.8	2.0			Little fine Sand, no fractures, stiff.	
15	-15	(14-16')		1 2	10	1.8	1.0			Brown CLAY and SILT, trace fine to medium Gravel, stiff, damp, trace fractures.	

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Remarks:
No well was set at this location. Expected sand units were not encounterd. WOH- Weight of hammer.

Saturated Zones

Date / Time	Elevation	Depth
01/23/95		4.0

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. X-11 (Aug) – Boring on

Total Depth = 30 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description
		(14-16')		8 12	10	1.8	1.0			No fractures, stiff.
		(16-18')		2 5 7 10	12	1.6	2.9			Trace fine Sand, stiff.
		(18-20')		4 5 6 6	11	2.0	1.5			
20	-20	(20-22')		2 3 4 4	7	2.0	1.4			Gray-brown CLAY, little Silt, medium stiff, moist.
		(22-24')		1 3 4 4	7	2.0	0.6			Trace Silt, medium stiff, wet.
25	-25	(24-26')		1 2 3 2	5	2.0	0.3			
		(26-28')		1 1 1 3	2	2.0	1.3			
		(28-30')		WOH (18") 3	3	2.0	1.0			
30	-30									Total depth of boring 30.0 ft. bgs.
35	-35									

Boring Construction

Type 1 Portland cement/5% bentonite grout 0' to 30.0' bgs

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Remarks:
WOH- Weight of hammer. Soil boring was grouted to grade upon completion.

Saturated Zones

Date / Time	Elevation	Depth
01/23/95		4.0

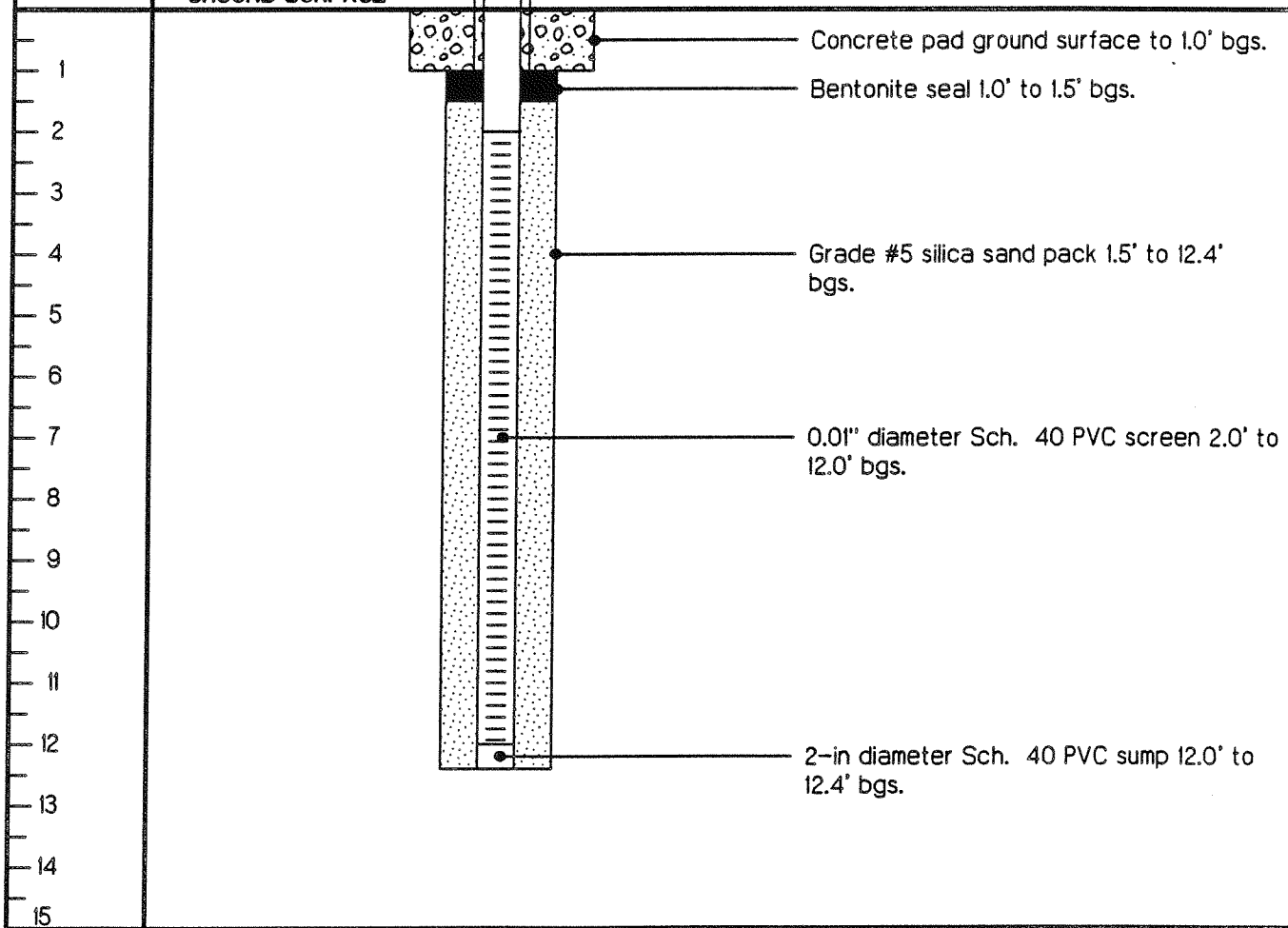
Date Start/Finish: 05/24/95 - 05/24/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 12.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-11AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH / ELEVATION

gs elevation ft

GROUND SURFACE



4-in diameter steel protective casing 2.5' ags, locking cap installed.

2-in diameter Sch. 40 PVC well casing 2.5' ags to 2.0' bgs.

Concrete pad ground surface to 1.0' bgs.

Bentonite seal 1.0' to 1.5' bgs.

Grade #5 silica sand pack 1.5' to 12.4' bgs.

0.01" diameter Sch. 40 PVC screen 2.0' to 12.0' bgs.

2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs.

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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-11 by Residuals Management Technology, Inc. on June 05, 1980.

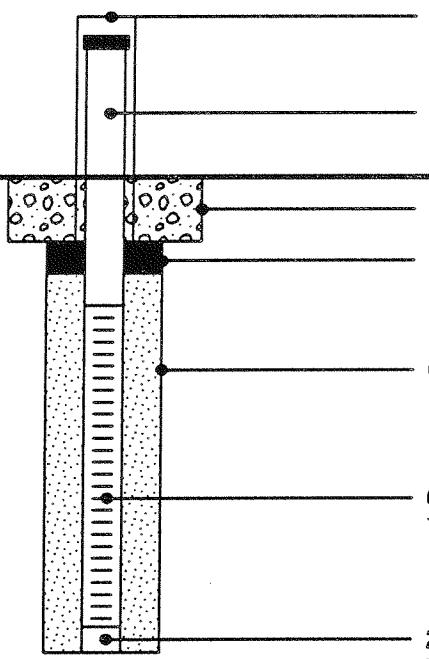
Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/15/95 - 05/15/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 7.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-12AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft. / ELEVATION gs elevation ft.



GROUND SURFACE

- 4-in diameter steel protective casing 2.5' ags, locking cap installed.
- 2-in diameter Sch. 40 PVC well casing 2.5' ags to 2.0' bgs.
- Concrete pad ground surface to 1.0' bgs.
- Bentonite seal 1.0' to 1.5' bgs.
- Grade #5 silica sand pack 1.5' to 7.4' bgs.
- 0.01" diameter Sch. 40 PVC screen 2.0' to 7.0' bgs.
- 2-in diameter Sch. 40 PVC sump 7.0' to 7.4' bgs.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-12 by Residuals Management Technology, Inc. on June 04, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 01/24/95 - 01/24/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30 ft.

Geologist: Ron Kuhn

Well No. X-12C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.										GROUND SURFACE	4-in diameter steel protective casing 2.0' ags, locking cap installed.
		(0-2')		3 6 5 5	11	1.4	2.7			Brown fine to medium SAND, trace Clay, loose, damp. Brown fine to medium SAND, trace Silt, loose, wet to saturated.	Concrete pad ground surface to 1.0' bgs
		(2-4')		2 3 1 1	4	1.4	2.1				
5		(4-6')		1 (12") WOH (12")	1	1.6	1.8			Brown Silty CLAY, trace fine Sand, very soft, saturated. Brown fine to medium SAND, trace Silt, very loose, saturated.	Type 1 Portland cement/5% bentonite grout 1.0' to 14.0' bgs
		(6-8')		WOH (24")	0	1.8	1.0			Brown CLAY, trace fine Sand, Silt, and shells, very soft, wet.	
		(8-10')		WOH (24")	0	1.4	1.2				
10		(10-12')		WOH (24")	0	1.4	1.0			No shells, high plasticity, very soft.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 17.5' bgs
		(12-14')		WOH 1 2 2	3	1.6	1.0			Brown Silty CLAY, trace fine Sand, soft, wet. Grades to medium stiff.	
15		(14-16')		1 2	5	1.6	1.3				Bentonite seal 14.0' to 16.0' bgs

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth
01/24/95		2.0 ▼
		▼
		▽

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

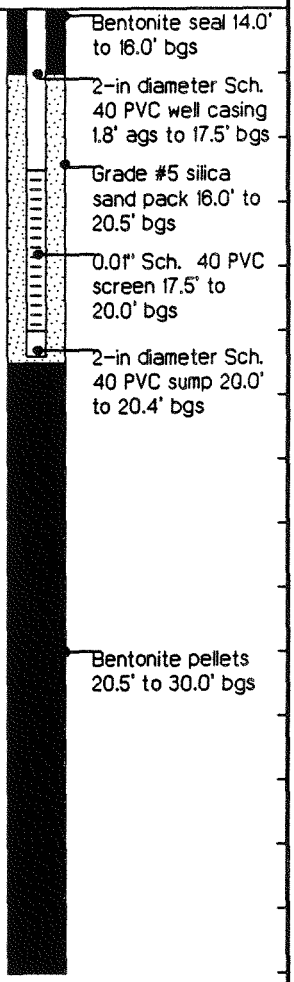
Client:
General Motors Corporation

Well No. X-12C (Aug)

Total Depth = 30 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
	(14-16')		3 3	5	1.6	1.3			Brown Silty CLAY, trace fine Sand, soft, wet.
	(16-18')		1 5 7 6	12	1.6	1.4			Brown fine SAND, little Silt, medium dense, saturated.
	(18-20')		WOH (12") 4 4	4	1.4	1.4			Grades to fine to coarse SAND, some fine to coarse Gravel, trace shells, loose, saturated.
20	(20-22')		2 4 7 9	11	1.6	1.7			Brown Silty CLAY, trace fine to medium Gravel and fine Sand, stiff, wet. Trace fine Gravel, very stiff, moist.
	(22-24')		3 6 9 10	15	1.4	1.5			
25	(24-26')		3 8 12 15	20	1.8	1.0			
	(26-28')		3 6 10 12	16	2.0	1.1			
	(28-30')		3 6 9 10	15	2.0	1.1			
30									Total depth of boring 30.0 ft. bgs.
35									

Well Construction



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Remarks:
WOH - Weight of Hammer.

Water Levels

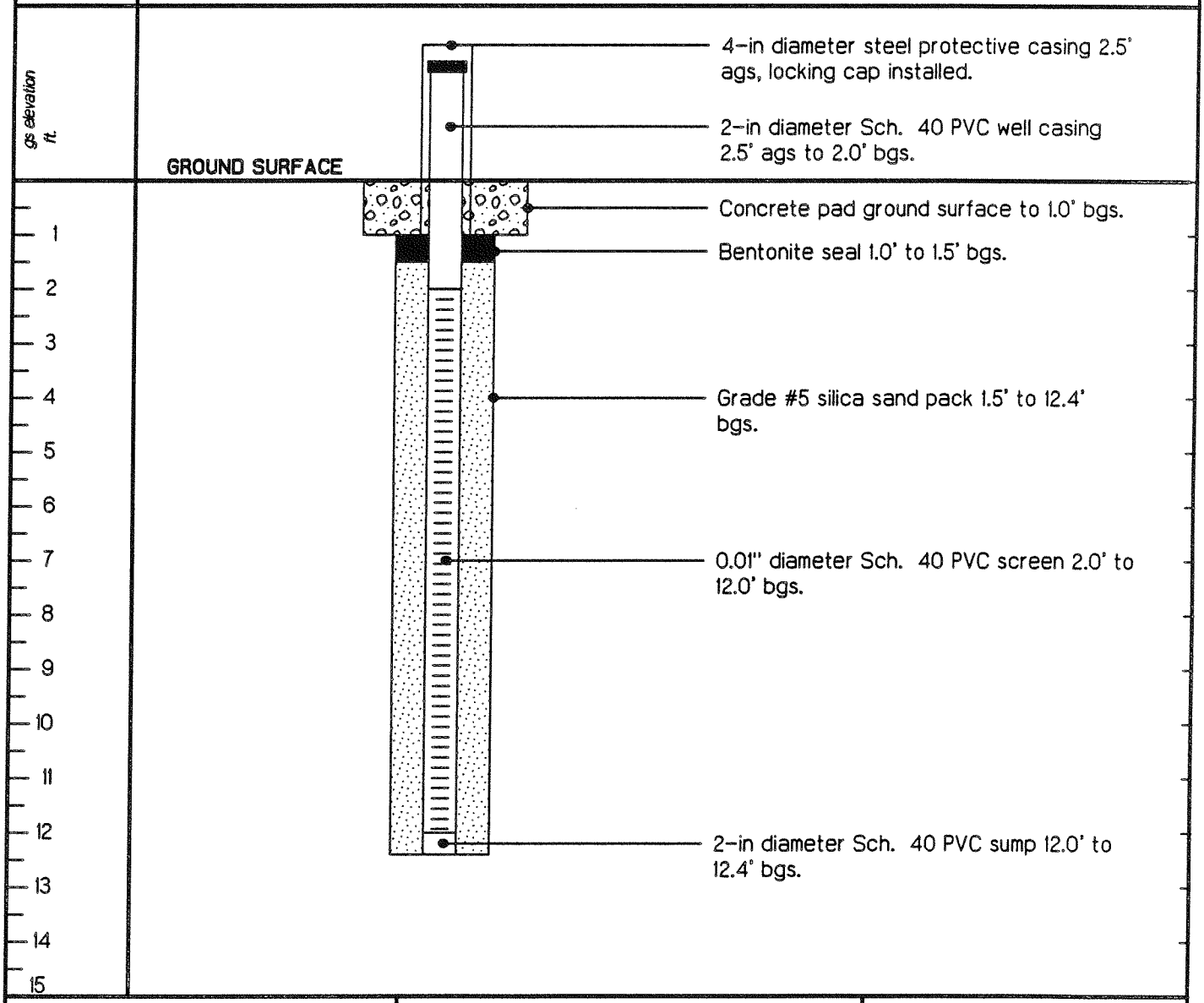
Date / Time	Elevation	Depth
01/24/95		2.0 ▼
		▼
		▽

Date Start/Finish: 05/24/95 - 05/24/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 12.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-13AR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH / ELEVATION

gs elevation ft.



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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-13 by Residuals Management Technology, Inc. on June 05, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 01/23/95 - 01/24/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 44 ft.

Geologist: Sabrina Hesford

Well No. X-13C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 581.68 ft.											4-in diameter steel protective casing 2.0' ags, locking cap installed.
										GROUND SURFACE	
	580	(0-2')		2 2 2 2	4	1.0	0.3			Dark brown SILT, little Clay, soft, moist.	Concrete pad ground surface to 2.5' bgs
		(2-4')		1 1 2 2	3	1.0	0.3			Gray to brown fine to medium SAND, trace shells, loose, moist.	
5		(4-6')		1 (12") 1 2	1	1.6	0.6			Dark brown SILT, little fine Sand, trace organics, very soft, wet.	Type 1 Portland cement/5% bentonite grout 2.5' to 31.8' bgs
	575	(6-8')		2 1 2 1	3	1.1	0.4			Dark gray fine SAND, little to some Silt, very loose, wet.	
		(8-10')		2 1 1 1	2	1.3	0.4				
10		(10-12')		1 1 1 1	2	1.0	0.6				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.2' bgs
	570	(12-14')		1 1 2 2	3	1.1	0.6			Trace Clay, very loose.	
15		(14-16')		1 (12")	1	1.4	0.5			Dark gray very fine to fine SAND, little Silt, trace Clay, trace	

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-13C (Aug)

Total Depth = 44 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 2	1	1.4	0.5			shells, very loose, wet.	
	565	(16-18')		WOH (12") 1 1	2	2.0	0.6			Dark gray SILT, some organics, trace shells and Clay, soft, wet.	
		(18-20')		WOH 1 2 1	3	2.0	0.6			Grades to little Clay, soft.	
20		(20-22')		1 1 1 1	2	1.5	0.5			Dark gray CLAY, little Silt, trace shells, soft.	Type 1 Portland cement/5% bentonite grout 2.5' to 31.8' bgs
	560	(22-24')		WOH (24")	0	1.0	0.7			Gray fine SAND, little Silt, very loose, wet.	
25		(24-26')		1 (12") 2 3	2	0.5	0.3				2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.2' bgs
	555	(26-28')		6 5 6 9	11	1.0	0.8			Gray fine to coarse SAND, trace fine Gravel, medium dense, wet.	
		(28-30')		5 7 9 12	16	1.0	0.9				
30		(30-32')		5 8 10 12	18	0.8	1.0				
	550	(32-34')		4 5 7 8	12	1.0	1.3			Gray fine to medium SAND, trace fine Gravel, medium dense, wet.	Bentonite seal 31.8' to 33.8' bgs
35		(34-36')		3 5	12	1.0	1.4				Grade #5 silica sand pack 33.8' to 41.5' bgs

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Remarks:
WOH - Weight of Hammer.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

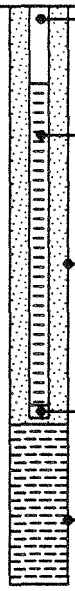
Client:
General Motors Corporation

Well No. X-13C (Aug)

Total Depth = 44 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(34-36')		7 9	12	1.0	1.4			Gray fine to medium SAND, trace fine to medium Gravel, medium dense, wet.
	545	(36-38')		4 5 6 6	11	0.9	1.2			
		(38-40')		5 8 10 12	18	1.0	1.5			
40		(40-42')		5 8 9 4	17	0.8	1.6			Little fine to medium Gravel, medium dense.
	540	(42-44')		1 1 1 2	2	2.0	0.7			Gray CLAY, little Silt, soft, wet.
45										Total depth of boring 44.0 ft. bgs.
	535									
50										
	530									
55										

Well Construction



- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 36.2' bgs
- 0.01" Sch. 40 PVC screen 36.2' to 41.2' bgs
- Grade #5 silica sand pack 33.8' to 41.5' bgs
- 2-in diameter Sch. 40 PVC sump 41.2' to 41.4' bgs
- Backfilled with native soils 41.5' to 44.0' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start-Finish: 05/19/95 - 05/19/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 31.4 ft.

Geologist: Ronald D. Kuhn

Well No. X-14C (Aug)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
									Soil descriptions from 0 - 31.4' are given on test boring log X-14 by Residuals Management Technology, Inc. (RMT) on June 05, 1980.	Concrete pad ground surface to 2.0' bgs
5										Type 1 Portland cement/5% bentonite grout 2.0' to 22.0' bgs
10										2-in diameter Sch. 40 PVC well casing 1.8' ags to 26.0' bgs
15										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: GM-well
Date: 10/02/97

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. X-14C (Aug)

Total Depth = 31.4 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									Soil descriptions from 0 – 31.4' are given on test boring log X-14 by Residuals Management Technology, Inc. (RMT) on June 05, 1980.	Type 1 Portland cement/5% bentonite grout 2.0' to 22.0' bgs 2-in diameter Sch. 40 PVC well casing 1.8' ags to 26.0' bgs Bentonite seal 22.0' to 24.0' bgs Grade #5 silica sand pack 24.0' to 31.4' bgs 0.01" Sch. 40 PVC screen 26.0' to 31.0' bgs 2-in diameter Sch. 40 PVC sump 31.0' to 31.4' bgs
20										
25										
30									Total depth of boring 31.4 ft. bgs.	
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 05/24/95 - 05/24/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: 8.25-in.
Rig Type: CME 850 ATV

Borehole Depth: 12.4 ft.

Geologist: Ronald D. Kuhn

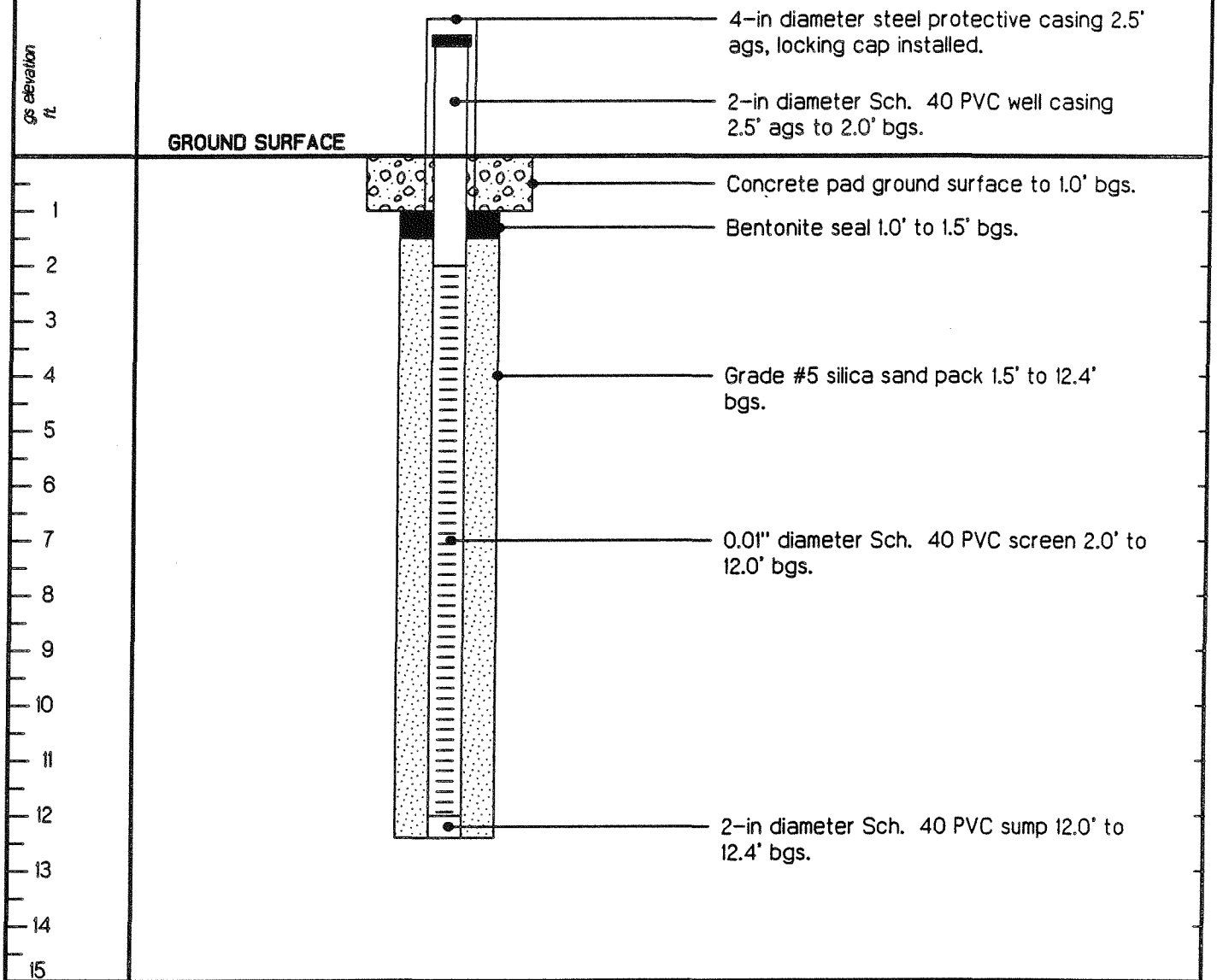
Well No. X-15AR (replacement)

Client:
General Moters Coprporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ft | ELEVATION gs elevation ft



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Remarks:

Soil descriptions from 0.0' to 40.0' bgs are given on boring log X-15 by Residuals Management Technology, Inc. on June 05, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 06/19/95 - 06/19/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 40.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-15BR (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH / ELEVATION

gs elevation ft.

GROUND SURFACE

4-in diameter steel protective casing 2.5' ags, locking cap installed.

Concrete pad ground surface to 2.0' bgs.

2-in diameter Sch. 40 PVC well casing 2.5' ags to 35.0' bgs.

Portland cement/%5 bentonite grout 2.0' to 31.0' bgs.

5
10
15
20
25
30

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Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-15 by Residuals Management Technology, Inc. on June 05, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Moters Coprporation

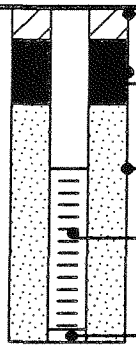
Well No. X-15BR (replacement)

Total Depth = 40.4 ft.

Well Construction Details

DEPTH / ELEVATION

35
40
45
50
55
60
65
70



Portland cement/%5 bentonite grout 2.0' to 31.0' bgs.

Bentonite seal 31.0' to 33.0' bgs.

Grade #5 silica sand pack 33.0' to 40.4' bgs.

0.01" diameter Sch. 40 PVC screen 35.0' to 40.0' bgs.

2-in diameter Sch. 40 PVC sump 40.0' to 40.4' bgs.

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Remarks:

Saturated Zones

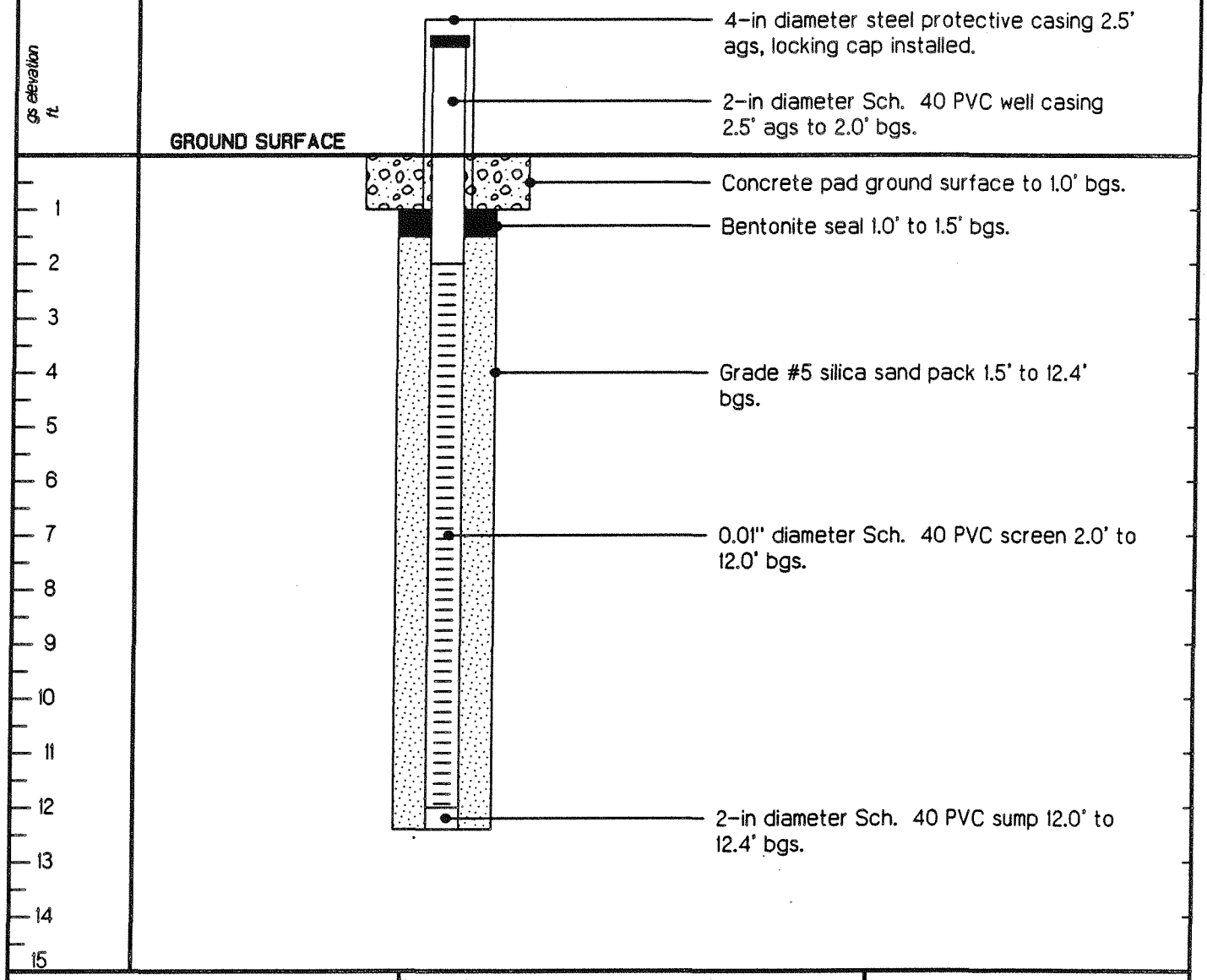
Date / Time	Elevation	Depth

Date Start/Finish: 05/18/95 - 05/18/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25-in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 12.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. X-17R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details

DEPTH ELEVATION

gs elevation ft



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Remarks:

Soil descriptions from 0.0' to 40.0' bgs are given on boring log X-17 by Residuals Management Technology, Inc. on February 20, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start-Finish: 05/19/95 - 05/19/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 30.0 ft.

Geologist: Ronald Kuhn

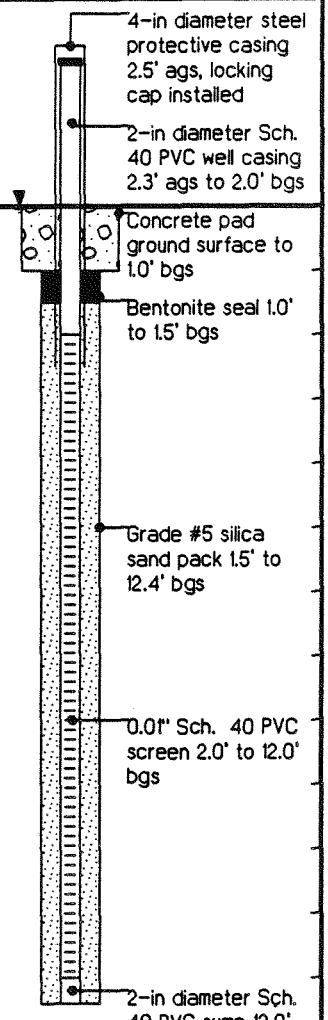
Well No. X-19AR (replacement)

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.									**GROUND SURFACE**
	(0-2')		WOH (18") 1	0	0.6	18.8			Black SILT, little organic material, very soft, moist.
	(2-4')		WOH (12") 1 2	1	1.4	11.2			Gray fine SAND and SILT, trace shells, very loose, moist. / Black SILT, little organic material, soft, moist.
5	(4-6')		WOH 1 2 3	3	1.6	4.6			Dark gray fine SAND, little Silt, trace shells, very loose, saturated. / Brown SILT and CLAY, trace fine Sand and fine Gravel, medium stiff.
	(6-8')		3 4 6 6	10	2.0	8.8			Stiff.
	(8-10')		1 5 7 9	12	1.6	8.5			
10	(10-12')		4 7 11 14	18	1.8	0.0			Very stiff.
	(12-14')		4 6 5 6	11	2.0	0.0			
15	(14-16')		3 5	11	1.8	0.0			

Well Construction



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Remarks:
WOH - Weight of Hammer.
The boring was grouted to grade and monitoring well X-19R was installed approximately 10 ft. east of boring.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Well No. X-19AR (replacement)

Total Depth = 30.0 ft.

Client:
General Motors Corporation

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		6 8	11	1.8	0.0			Brown SILT and CLAY, trace fine Sand and fine Gravel, very stiff.	
	(16-18')		1 1 2 3	3	2.0	0.0			Brown CLAY, little Silt, trace fine Gravel, wet, soft.	
	(18-20')		2 3 4 4	7	2.0	0.0				
20	(20-22')		1 1 3 4	4	2.0	0.0			Trace fine to medium Gravel.	
	(22-24')		31 4 4 4	8	2.0	0.0			Gray CLAY and SILT, little fine Sand, wet, soft.	
25	(24-26')		1 1 3 4	4	2.0	0.0				
	(26-28')		1 2 2 2	4	2.0	0.0			Trace fine Sand.	
	(28-30')		5 4 2 2	6	2.0	0.0			Gray CLAY, trace fine Sand, very soft, moist to wet.	
30									Total depth of boring 30.0 ft. bgs	
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth