APPENDIX A.4
EAST COVE AND (EC-12 THROUGH EC-19) SANDBAR (SAB-01 THROUGH SAB-08) SEDIMENT CORE LOGS

SEDIMENT BORING LOG

SITE ID:	EC-12		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958948.973380
PROJECT NO.:	02181-002-050-0001	EASTING:	508488.022374
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	24-Jun-08
DATE END:	24-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	SI	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	3.25'	0	2.25	Wet	Loose	5	80	20					10YR3/1	very dark gray SAND (f-cs), little silt, trace pea gravel, grades to primarily a f-m sand at bottom of interval, trace v. cs sand in upper 9", poorly sorted
		2.25	2.42	Wet	Soft			20	80				10YR3/1	very dark gray CLAY, little silt, soft
		2.42	3.25	Wet	v. Soft			40	60				10YR2/1	black silty CLAY, sludge-like, very soft, strong odor
4.75 - 7.0'	2.25	4.75	5.75	Wet	v. Soft			40	60				10YR2/1	black silty CLAY, as above
		5.75	6.17	Wet	Soft			30	70				10YR3/1	very dark gray CLAY, little silt, soft - but firmer than previous interval
		6.17	6.58	Wet	Soft/Firm			30	70				10YR3/1	very dark gray CLAY, as above but slightly firmer
		6.58	6.75	Wet	Soft			30	70					dark gray CLAY with thin grayish-white lens of CLAY, "metallic" luster, slight odor.
		6.75	7	Wet	v. Soft			30	70				10YR3/1	very dark gray CLAY, some silt, "metallic" luster, slight odor

G	Gravel
S	Sand
SI	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-13		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958943.318300
PROJECT NO.:	02181-002-050-0001	EASTING:	508496.261744
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	24-Jun-08
DATE END:	24-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	2.9	0	2.5	Wet	Loose	5	90	5					10YR2/1	black SAND (f-cs), becoming finer toward bottom of interval, poorly sorted, slight odor
		2.5	2.67	Wet	Soft			40	60				10YR3/1	very dark gray silty CLAY, some bedding visible, slight odor
		2.67	2.9	Wet	V. Soft			60	40				10YR2/1	black clayey SILT, sludge-like material, very soft, odor
4.75 - 7.0'	2.25	4.75	6.33	Wet	V.Soft			60	40				10YR2/1	SILT, as above
		6.33	6.92	Wet	Soft			30	70				10YR3/1	very dark gray silty CLAY, soft - but firmer than previous interval, some bedding visible in matrix.
		6.92	7	Wet	Soft		5	30	65				10YR3/1	very dark gray silty CLAY with a thin lt. grayish white CLAY, trace v.fine to fine sand, slight odor

G Gravel
S Sand
Sl Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-14
Page	1 of 1

CLIENT:	Confidential	ELEV. (GRND):		DATE BEGIN:	24-Jun-08
SITE NAME:	Cottage Grove, MN	NORTHING:	4958933.653630	DATE END:	24-Jun-08
PROJECT NO.:	02181-002-050-0001	EASTING:	508490.051755		
AREA NAME:	East Cove				
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00		
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3	Total Boring Depth (fbgs)	7.00
SITE TYPE:	Soil Boring				
COMMENTS:					

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	3.2'	0	0.45	Wet	Loose	5	90	5					10YR4/1	dark gray SAND (f-cs), trace fine gravel, trace silt, poorly sorted, sub-angular to sub-round, loose
		0.45	2.5	Wet	Loose		95	5					10YR2/1	black SAND (f-cs), trace silt, poorly sorted, sub-angular to sub-round, loose
		2.5	3.2	Wet	Soft			30	70				10YR2/1	black CLAY, some silt, soft, odor - encountered the very soft SILT/CLAY in the very bottom of the interval.
4.75 - 7.0'	.85	4.75	5.6	Wet	V. Soft			40	60				10YR2/1	black silty CLAY, sludge-like material, very soft, odor. Had thick layer of slough in core sleeve - likely compressed the soft clay layer and prevented it from entering sleeve. -estimated interval of soft clay is 4.75 - 6.75' based on resistance of pushing the core barrel. -in shoe of core barrel is a lt. grayish white CLAY.

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-15		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958939.089900
PROJECT NO.:	02181-002-050-0001	EASTING:	508481.549912
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	24-Jun-08
DATE END:	24-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	SI	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	3.17	0	0.25	Moist	Loose		100						10YR5/6	yellowish-brown SAND (f-cs), very poorly sorted, sub-angular to sub-rounded, loose
		0.25	1.92	Wet	Loose		90	10					10YR2/1	black SAND, trace to little silt, poorly sorted, sub-rounded to sub-angular
		1.92	2.67	Wet	Firm/Soft			35	65				10YR3/1	very dark gray CLAY, some silt, firm, also some interbedded very dark gray CLAY - soft
		2.67	3.17	Wet	v. Soft			60	40				10YR2/1	black clayey SILT, sludge-like, very soft, odor
4.75 - 7.0'	2.25	4.75	6.6	Wet	v. Soft			60	40				10YR2/1	SILT, as above
		6.6	7	Wet	Soft			40	60				10YR4/1	variegated dark gray (10YR4/1) to very dark gray (10YR3/1) silty CLAY, soft - but firmer than previous interval, "metallic" luster, some bedding visible.

G	Gravel
S	Sand
SI	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-16		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958954.656660
PROJECT NO.:	02181-002-050-0001	EASTING:	508502.271555
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	25-Jun-08
DATE END:	25-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	3.08	0	2.67	Wet	Loose	5	85	10					10YR4/1	dark gray SAND (f-cs), trace silt, trace v. coarse sand and pea gravel, sub-angular to sub-rounded, poorly sorted, vegetation present at surface.
		2.67	3.08	Wet	v. Soft			40	60				10YR3/1	very dark gray (10YR3/1) to black (10YR2/1) silty CLAY, sludge-like, odor
4.75 - 7.0'	2.25	4.75	5.58	Wet	v. Soft			40	60				10YR2/1	black silty CLAY, as above
		5.58	6.25	Wet	Soft		10	15	70	5			10YR2/1	black CLAY, little silt, trace v. fine to fine sand, trace wood fragments in matrix, firmer than previous interval
		6.25	6.5	Wet	Soft			30	70				10YR7/1	light gray (10YR7/1) to very dark gray (10YR3/1) CLAY, soft - sludge like, "metallic" luster, slight odor
		6.5	7	Wet	Soft		10	20	70				10YR4/2	dark grayish-brown CLAY, little silt, trace v. fine sand, moderate plasticity

G Gravel
S Sand
Sl Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-17
Page	1 of 1

CLIENT:	Confidential	ELEV. (GRND):		DATE BEGIN:	24-Jun-08
SITE NAME:	Cottage Grove, MN	NORTHING:	4958917.355960	DATE END:	24-Jun-08
PROJECT NO.:	02181-002-050-0001	EASTING:	508477.132430		
AREA NAME:	East Cove				
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.20		
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3	Total Boring Depth (fbgs)	7.00
SITE TYPE:	Soil Boring				
COMMENTS:					

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	4.2	0	3.8	Wet	Loose		90	5		5			10YR2/1	black SAND (f-med), trace silt, trace plant fragments in top of interval, poorly sorted, sub-round to sub-angular, slight odor,
		3.8	4.2	Wet	V. Soft			60	40				10YR2/1	black clayey SILT, sludge-like material, very soft, strong odor
4.75 - 7.0'	2.1	4.75	6.5	Wet	V. Soft		5	60	35				10YR2/1	black clayey SILT, as above with trace v.fine to fine sand.
		6.5	6.8	Wet	Soft			40	60				10YR2/1	black silty CLAY, soft but firmer than previous interval, thin layer of gray clay in upper 0.1' of interval.
														Collect sample at 0945.

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-18		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958912.845160
PROJECT NO.:	02181-002-050-0001	EASTING:	508491.843160
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	24-Jun-08
DATE END:	24-Jun-08
Total Boring Depth (fbgs)	7.20

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.75'	2.92	0	2.5	Wet	Loose		95	5					10YR2/1	black SAND (f-cs), trace silt, poorly sorted, sub-angular to sub-rounded, slight odor
		2.5	2.92	Wet	v. Soft			60	40				10YR2/1	black clayey SILT, sludge-like, very soft, runny, odor
4.75 - 7.2'	2.2	4.75	6.5	Wet	v. Soft			60	40				10YR2/1	SILT, as above
		6.5	6.75	Wet	Soft			25	75				10YR4/1	dark gray CLAY with dark grayish-brown CLAY, some silt, interbedded, soft, "pasty"
		6.75	6.95	Wet	Soft		10	15	75				10YR3/1	dark gray CLAY, little silt and sand, sand is v.fine to fine, soft - but firmer than previous interval

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	EC-19		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958910.361040
PROJECT NO.:	02181-002-050-0001	EASTING:	508510.011238
AREA NAME:	East Cove		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.20
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	23-Jun-08
DATE END:	23-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0 - 4.5'	4	0	4	Wet	Loose	5	90	5					10YR4/1	dark gray SAND (f-cs), trace pea-sized gravel, trace silt, plant fragments in top of interval, poorly sorted, sub-round to sub-angular, loose.
4.5 - 7.0	2.5	4.5	6.6	Wet	V. Soft		5	60	35				10YR3/1	black SILT, some clay, trace v.fine to fine sand, very soft - sludge like material, metallic luster, slight odor
		6.6	7	Moist	Soft		5	30	65				10YR3/2	dark gray-brown CLAY, little silt, trace v.fine to fine sand, soft, but firmer than previous interval, slight odor.

G Gravel
S Sand
Sl Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-01
Page	1 of 1

CLIENT:	Confidential	ELEV. (GRND):		DATE BEGIN:	26-Jun-08
SITE NAME:	Cottage Grove, MN	NORTHING:	4958880.876710	DATE END:	26-Jun-08
PROJECT NO.:	02181-002-050-0001	EASTING:	508411.822314		
AREA NAME:	East Cove Sandbar				
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00		
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3	Total Boring Depth (fbgs)	8.00
SITE TYPE:	Soil Boring				
COMMENTS:					

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-4.0'	2.67'	0	1.83	Moist/Wet	Loose	5	95						10YR5/4	yellowish-brown SAND (m-cs), some v. fine to fine sand, becoming
														finer toward bottom of interval, poorly sorted, sub-angular to
														sub-rounded - some rounded sand. At 1.3' is a 0.5" thick layer
														of very coarse sand.
		1.83	2.67	Wet	Loose		95	5					10YR2/2	very dark-brown SAND (f-med), trace silt, sand is sub-angular to
														sub-rounded, poorly sorted, slight odor
		2.67	4											NO RECOVERY
4-8.0'	1.5'	4	5.5	Wet	Loose/Soft	10	20	35	35				10YR2/2	very dark brown sandy SILT and CLAY, some sludge-like
														material in very bottom of interval, shoe of spoon is primarily
														gravel, odor.
		5.5	8											NO RECOVERY

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-02
Page	1 of 1

CLIENT:	Confidential	ELEV. (GRND):		DATE BEGIN:	26-Jun-08
SITE NAME:	Cottage Grove, MN	NORTHING:	4958870.384870	DATE END:	26-Jun-08
PROJECT NO.:	02181-002-050-0001	EASTING:	508426.789130		
AREA NAME:	East Cove Sandbar				
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00		
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3	Total Boring Depth (fbgs)	8.00
SITE TYPE:	Soil Boring				
COMMENTS:					

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	SI	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-4'	1.67	0	0.8	Moist/Wet	Loose		80			20			10YR5/4	variegated yellowish-borwn to dark yellowish-brown (10YR4/4)
														to very dark brown (10YR2/2) SAND (f-med), some plant fragments
														and wood in matrix, some coarse sand, moderately to poorly sorted,
														sub-round to sub-angular.
		0.8	1.67	Wet	Loose		90	10					10YR2/1	black SAND (f-cs), trace silt, poorly sorted, slight odor
4-8'	2.67	4	6.33	Wet	Loose		90	10					10YR2/2	very dark-brown to black (10YR2/1) SAND (f-cs), poorly
														sorted, sub-round to sub-angular, slight odor
		6.33	6.67	Wet	Soft		20	70	10				10YR5/1	gray SILT, some v-fine to fine sand, trace clay, soft, slight odor.

G	Gravel
S	Sand
SI	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-03		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958858.487180
PROJECT NO.:	02181-002-050-0001	EASTING:	508432.575211
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	26-Jun-08
DATE END:	26-Jun-08
Total Boring Depth (fbgs)	8.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	SI	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-4'	2.0	0	1.25	Moist/Wet	Loose	5	95						10YR5/4	yellowish-brown SAND (f-med), little coarse sand, trace pea-sized gravel, moderately sorted, loose
		1.25	2	Wet	Loose		85	15					10YR2/1	black SAND (v.fine-fine), little silt, slight odor, moderately sorted
4-8'	2.3	4	6.3	Wet	Loose		80	20					10YR2/2	very dark brown SAND (f-med), some v.fine sand and silt, wet, slight odor, moderately sorted

G Gravel
S Sand
SI Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-04		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958845.885660
PROJECT NO.:	02181-002-050-0001	EASTING:	508434.865424
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.40
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	25-Jun-08
DATE END:	25-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	SI	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-2.5'	2.08	0	1.17	Wet	Loose		90	10					10YR5/2	grayish-brown SAND (f-cs), trace silt, becoming coarser with depth, sub-angular to sub-rounded, poorly sorted.
		1.17	2.08	Wet	Loose		90	10					10YR2/1	black SAND, similar lithology as above, just a color change
2.5-7.0'	4	2.5	5.8	Wet	Loose		90	10					10YR2/1	black SAND, as above
		5.8	6	Wet	v. Soft			40	60				10YR2/1	black silty CLAY, sludge-like material, odor, very soft
		6	6.5	Moist	Soft		10	30	60				10YR4/1	dark gray CLAY, some silt, trace v. fine sand, soft, moderate plasticity

G Gravel
S Sand
SI Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-05		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958848.054360
PROJECT NO.:	02181-002-050-0001	EASTING:	508444.414594
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	25-Jun-08
DATE END:	25-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-2.5'	2.0	0	2	Moist/Wet	Loose		90	10					10YR5/2	gray-brown SAND (f-cs), trace silt, trace fine black sand, poorly sorted, wet at approx. 8" bgs., sub-rounded.
2.5-7.0'	4.0	2.5	4	Wet	Loose		90	10					10YR5/2	SAND, as above
		4	7	Wet	Loose		95	5					10YR4/2	dark gray-brown SAND (f-cs), some v. coarse angular quartz sand, trace silt, poorly sorted, slight odor

G Gravel
S Sand
Sl Silt
C Clay
O Organics

WESTON MANAGERS DESIGNERS CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-06
Page	1 of 1

CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958862.917090
PROJECT NO.:	02181-002-050-0001	EASTING:	508449.375383
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	26-Jun-08
DATE END:	26-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-2.5'	1.0	0	1	Wet	Loose		95	5					10YR5/4	yellowish-brown SAND (m-v.cs), trace silt, some zones in matrix
														are 100% sand, poorly sorted, sub-angular - some sand elongated,
														sands grains are quartz, feldspar, trace v.fine to fine black clasts.
2.5-7.0'	4.0	2.5	4.6	Wet	Loose		100						10YR2/2	very dark brown to black (10YR2/1) SAND (f-med), trace to little
														coarse sand, moderately sorted, sub-angular to sub-rounded
		4.6	6.5	Wet	V. Soft			50	50				10YR2/2	very dark brown to black (10YR2/2) CLAY/SILT, sludge-like
														texture, metallic luster, odor

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-07		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958853.103620
PROJECT NO.:	02181-002-050-0001	EASTING:	508468.367671
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	26-Jun-08
DATE END:	26-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-2.5'	1.75	0	1.58	Moist/wet	Loose		85	10		5			10YR4/1	variegated dark gray (10YR4/1) to grayish-brown (10YR5/2)
														SAND (f-cs), trace silt, trace roots in top of interval, poorly
														sorted, sub-rounded to sub-angular
		1.58	1.75	Wet	Soft		10	10	80				10YR3/1	very dark gray CLAY, trace v. fine sand, slight odor, wet
2.5-7.0'	2.58	2.5	5.08	Wet	Loose		85	15					10YR2/2	very dark brown SAND (f-cs), little silt, sub-round to sub-angular,
														slight odor

G	Gravel
S	Sand
Sl	Silt
C	Clay
O	Organics

WESTON MANAGERS DESIGNERS & CONSULTANTS

SEDIMENT BORING LOG

SITE ID:	SAB-08		
Page	1 of 1		
CLIENT:	Confidential	ELEV. (GRND):	
SITE NAME:	Cottage Grove, MN	NORTHING:	4958856.854000
PROJECT NO.:	02181-002-050-0001	EASTING:	508483.445421
AREA NAME:	East Cove Sandbar		
LOGGED BY:	Dave Cairns, Dana Armstrong	Surface Water Depth (ft)	0.00
DRILL METHOD:	Macro-Core (Matrix Environmental)	Borehole Diameter (in)	3
SITE TYPE:	Soil Boring		
COMMENTS:			

DATE BEGIN:	26-Jun-08
DATE END:	26-Jun-08
Total Boring Depth (fbgs)	7.00

CORE INTERVAL	RECOVERY	DESC. DEPTH INTERVAL (Feet bgs) from	to	MOISTURE	STRENGTH	SOIL TEXTURE G	S	Sl	C	O	COLUMN	Sample Interval	Munsell Code	LITHOLOGIC DESCRIPTION
0-2.5'	1.67'	0	1.67	Wet	Loose		90			10			10YR5/2	grayish-brown SAND (f-cs) with very dark brown (10YR2/2) SAND, some pieces of wood in matrix, plant fragments/roots in top of interval, poorly sorted, sub-angular to sub-rounded, loose
2.5-7.0'	4.0	2.5	4.5	Wet	Loose		90	10					10YR2/1	black SAND (f-cs), becoming finer toward bottom of interval (f-m), trace to little silt, poorly sorted, sub-angular to sub-rounded, loose
		4.5	4.75	Wet	Loose		50	50					10YR2/1	black SILT and SAND (v.fine to fine), sand is moderately well sorted, wet
		4.75	4.8	Wet	V. Soft			50	50				10YR2/1	black SILT/CLAY, very soft - sludge like texture, odor.
		4.8	6.5	Wet	Loose		95			5			10YR4/2	dark grayish-brown SAND (f-med.), trace coarse sand, trace wood fragments in matrix, moderately sorted

G Gravel
S Sand
Sl Silt
C Clay
O Organics

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