Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	56' South and 9' West of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Asphalt		
1	6									
2	10	0.0	55		B01-2		ML	Damp, very stiff, fine sandy, clayey SILT. Dark gray with brown, no hydrocarbon odor.	Dp	
	10									
3	14							Damp, dense, silty, clayey, very fine SAND. Brown to dark gray at 3 feet, very faint hydrocarbon odor.	Dp	
	15		95				SM			
4	22									
	16							Moist, dense, silty fine SAND. Brown, no hydrocarbon odor.		
5	18	0.0	90		B01-5		ML		Mst	
	22							Damp, dense, fine sandy, clayey, SILT, laminated. Brown, no hydrocarbon odor.		
6	6								Dp	
	7						ML			
7	11							- becomes dark gray.		
	7									
8	9		100				ML		Dp	
	15							- with sand-filled fractures at 8.2 feet, oxidized orange.		
9	13									
	15		100					Damp, very dense, silty fine to medium SAND. Dark gray, with iron mottling, no hydrocarbon odor.	Dp	
10	28						SM			
	29									
11	26	0.0	100		B01-11				Dp	
	29							Wet, hard, fine sandy clayey SILT interbedded fine sand. Dark gray, no hydrocarbon odor.		
12	14								Wet	
	13		100				ML			
13	20									
	6									
14	13		100						Dp	
	14									
15	12						SM			
	26		100					Damp, very dense, silty fine SAND. Very dark gray (5Y3/1), intertidal odor.	Dp	
16	30				B01-16					
	10									
17	16		100				SM		Dp	
	22							- coarsens downward; no hydrocarbon odor.		
18	10									
	19		100						Dp	
19	19									
	19									
20	22		100						Dp	

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/17/2006
Date Finished: 4/17/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B01 / MW01

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	56' South and 9' West of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	22				B01-20					
21	15 25 32		100				SM	Damp to moist, very dense, silty fine to medium SAND. Dark gray, no hydrocarbon odor.	Dp	
22	13 23 25	0.0	100		B01-23				Dp ▽ ▼	
23										
24	18 36 36		100						Dp/Wet	
25	28 29 30		100						Wet	
26										
27	18 20 30		100						Wet	
28	40 50/2		66						Wet	
29										
30	30 33 50		100				SM	Wet, very dense, silty fine to medium SAND. Dark gray, no hydrocarbon odor.	Wet	
31							ML	Damp, very hard, sandy, clayey, SILT. Dark gray, no hydrocarbon odor.		
32								Boring terminated at 31 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 0.020-slot PVC screen, 10-12 silica sand, and bentonite chips. Renamed MW01.		
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	14' South and 4' West of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	25

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Asphalt		
1	5						SM	Damp, loose, silty fine to medium SAND with gravel. Dark brown (2.5Y 4/2), no hydrocarbon odor.	Dp	
2	4 3		50				OL	Damp, soft, gravelly, sandy, organic SILT. Dark brown (7.5YR 3/2), no hydrocarbon odor.	Dp	
3	6 7 17		100				ML	Damp, medium stiff, clayey, sandy, SILT, interbedded with sand. Dark brown (7.5YR 4/2), no hydrocarbon odor.	Dp	
4	16	0.5			B02-4.5		SM	Damp, dense, silty fine SAND. Dark brown, no hydrocarbon odor.	Dp	
5	24 25		100				ML	Damp, stiff, sandy, clayey, SILT, medium plasticity, interbedded with fine sand. Dark brown, no hydrocarbon odor.	Dp	
6	9 12 14		75						Dp	
7	5						ML	- becomes dark gray (GLEY1 4/N), no hydrocarbon odor		
8	8 10	0.8	100		B02-8		ML	- coarsens downward; becomes dark gray brown, no hydrocarbon odor.	Dp	
9	12 19 30		100					Damp, dense, silty fine SAND. Dark gray brown, no hydrocarbon odor.	Dp	
10	18						SM			
11	19 22	0.1	100		B02-11				Dp	
12	12 12 15		100				ML	Damp, stiff, clayey, sandy, SILT. Dark gray (5Y 4/1), no hydrocarbon odor.	Dp	
13	13						SM	Damp, dense, silty very fine SAND. Grayish brown (2.5Y 5/2), no hydrocarbon odor.	Dp	
14	15 20		100				ML	Damp, stiff, fine sandy SILT. Dark grayish brown (2.5Y 4/2), no hydrocarbon odor.	Dp	
15	17 21 28		100						Dp	
16	14	0.0			B02-16.5		SM			
17	22 28		100					Damp, dense, silty, very fine to fine SAND, dark grayish brown, no hydrocarbon odor, faint sweet odor at 20.5'	Dp	
18	13 19 22		100						Dp	
19		0.4			B02-19		SM	- grades to silty fine to medium SAND; dark gray, no hydrocarbon odor, faint sweet odor.		
20	19 32		100						Dp	

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/17/2006
Date Finished: 4/17/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B02 / MW02

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	14' South and 4' West of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	25

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	35	0.1			B02-20.5		SM			
21	25		100					Moist, dense, silty, fine to medium SAND. Dark olive gray (5Y 3/2), no hydrocarbon odor.	Dp	
22	35 24									
23	30 27 22		100						Dp	
24	29 30 34		100						Mst	
25		0.1			B02-25		SM		▼	
26	26 30 34		90					- becomes wet below 25 feet, no hydrocarbon odor.	Wet	
27	21 31 38		100				SM	- no hydrocarbon odor.	Wet	
28	19									
29	31 42		100						Wet	
30	19 23 26	0.0 0.3	100		B02-29.5 B02-30.5		ML	Damp, stiff, sandy, clayey, SILT, fine grained sand, dark gray, no hydrocarbon odor.	Mst	
31								Boring terminated at 31' below ground surface, back fill with 10/20 silica sand to 28'. Two-inch diameter monitoring well installed as depicted above right, using 0.020-slot PVC screen, 10-12 silica sand, and bentonite chips. Renamed MW02.		
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	65' South and 90' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Concrete
Total Depth:	17.5
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Concrete		
1								- weak hydrocarbon odor.		
2	7 7 7		50				SM	Damp, medium dense, silty medium to fine SAND with gravel. Dark grayish brown, weak hydrocarbon odor.	Dp	
3	9 12 14	24.0	95		B03-3.5			- moderate hydrocarbon odor below 2.5 feet.	Dp	
4	7 14 16	15.2	100		B03-4.5		ML	Damp, hard, fine sandy SILT with lenses of sand. Dark grayish brown, strong hydrocarbon odor, imparts a sheen.	Dp	
5										
6	12 14 12	168	100		B03-6		ML		Dp	
7	8 10 10		100		B03-7.5		ML	- weak hydrocarbon odor below 6 feet. - very faint hydrocarbon odor.	Dp	
8										
9	6 10 18		100				ML	- becomes brown, very faint hydrocarbon odor.	Dp	
10	7 23 30		100				SM	Wet, dense, silty fine to medium SAND. Brown, no hydrocarbon odor.	▽ ▼ Wet	
11										
12	7 11 11	8.7	100		B03-12			- very faint hydrocarbon odor at 12 feet.	Wet	
13	8 11 12		100				ML	Damp, hard, fine sandy SILT. Gray brown with iron mottling, no hydrocarbon odor.	Dp	
14										
15	10 15 18		100				SM	Moist, dense, silty fine SAND. Dark gray, no hydrocarbon odor.	Mst	
16	NR	2.3			B03-16		ML	Damp, dense, fine sandy SILT. Brown, no hydrocarbon odor.		
17	NR NR		100				SM	Damp, dense, silty fine SAND. Brown, no hydrocarbon odor.	Dp	
18								Boring terminated at 17.5' below ground surface, back fill with bentonite to 15.5' below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 0.020-slot PVC screen, 10-12 silica sand, and bentonite chips. Renamed MW03. NR = Blow counts not recorded.		
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/18/2006
Date Finished: 4/18/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B03 / MW03

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	55' South and 95' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Concrete
Total Depth:	29.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete. Hydrocarbon odor beneath concrete slab.		
1	4				B04-01					
2	7	22	80				ML	Moist, medium dense, gravelly, sandy SILT. Dark greenish gray, very faint hydrocarbon odor.		
	9									
3	4	8.2			B04-3		SM	Damp, medium dense, silty medium to fine SAND. Dark greenish gray, no hydrocarbon odor.		
	10		100					Damp, hard, sandy SILT, laminated with fine sand. Dark greenish gray and brown, no hydrocarbon odor.		
4	11									
	10						ML			
5	17		100							
	20									
6	7	0.7			B04-6					
	23		100					- becomes brown with gray mottling, no hydrocarbon odor.		
7	27						ML			
	7									
8	14		100					- becomes gray, no hydrocarbon odor.		
	14						ML			
9	10									
	14		100							
	12						ML	- coarsens downward to fine sandy SILT; brown, no hydrocarbon odor.		
10		2.4			B04-10		SM	Wet, dense, silty fine to medium SAND. Dark gray, no hydrocarbon odor.		
	9						ML	Damp, hard, fine sandy SILT. Brown, no hydrcarbon odor.		
11	11	2.6	100		B04-11		ML	- becomes dark grey, no hydrcarbon odor.		
	12							- becomes brown and gray mottled, no hydrcarbon odor.		
12	8						ML			
	23		100							
13	23							- becomes gray and orange mottled, no hydrocarbon odor.		
	9									
14	14		100				ML			
	14									
15	14									
	20		100							
16	17						SM	Damp, dense, silty fine SAND. Light gray brown, no hydrocarbon odor.		
	14							- grades to silty fine to medium SAND; light grayish brown, no hydrocarbon odor.		
17	23	4.8	100		B04-17					
	27									
18	13						SM			
	24		100							
19	33									
	19									
20	27		100							

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/18/2006
Date Finished: 4/18/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B04 / MW04

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	55' South and 95' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Concrete
Total Depth:	29.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	36						SM			
21	28 31 34		100				SM	- becomes brown, no hydrocarbon odor.		
22	28	3.6			B04-22		SM	- becomes dark gray, no hydrocarbon odor.	▽	
23	36 41	3.2	100		B04-23			- becomes wet below 22.5 feet; dark gray, no hydrocarbon odor.		
24	15 17		100						▼	
25	23 28									
26	42 50/5		100				SM			
27	30 33		100							
28	34 20									
29	40 50	3.5	100		B04-29.5		ML	Damp, very hard, fine sandy SILT. Dark gray, no hydrocarbon odor.		
30								Boring terminated at 29.5 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 0.020-slot PVC screen, 10-12 silica sand, and bentonite chips. Renamed MW04.		
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	47' South and 105' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	29.5
First GW Depth:	24.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Asphalt		
1	4	0.0	60		B05-1.5		OL	Damp, medium stiff, sandy organic SILT. Dark brown, very faint hydrocarbon odor.	Dp	
2	4									
3	6		100				ML	Damp, stiff, fine sandy, clayey SILT, dark greenish gray, very faint hydrocarbon odor	Dp	
4	6									
5	8									
6	7	0.5	100		B05-5		ML	Damp, very stiff, fine sandy, clayey SILT, light olive brown (2.5Y 5/3), no hydrocarbon odor	Dp	
7	10									
8	14									
9	10		100						Dp	
10	15									
11	15									
12	10		95				ML	Damp, hard, silty, clayey very fine SAND, olive gray (5Y 4/2), no hydrocarbon odor Coarsens downward	Dp	
13	16									
14	17									
15	12	0.8	80		B05-9		SM	Moist, dense, silty, clayey medium to fine SAND, dark greenish gray (GLEY1 4/10Y), no hydrocarbon odor	Dp	
16	17									
17	24									
18	10		100					Damp, hard, clayey, fine sandy SILT, olive gray, no hydrocarbon odor Coarsens downward to fine sand	Dp	
19	13									
20	20	1.0			B05-11					
	11		90				ML		Dp	
	17									
	17									
	11		95						Dp	
	11									
	18									
	17		100					Damp, dense, silty medium to fine SAND, olive gray (5Y 4/2), no hydrocarbon odor	Dp	
	20									
	27									
	17									
	27		100						Dp	
	25	1.1			B05-17		SM			
	17									
	29		100						Dp	
	22									
	19									
	30		100						Dp	

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/19/2006
Date Finished: 4/19/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B05 / MW05

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	47' South and 105' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	29.5
First GW Depth:	24.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	47						SM			
21	19 27 30		100					Damp, dense, silty medium to fine SAND, dark gray, no hydrocarbon odor	Dp	
22							SM		▼	
23	27 30 32	7.3	100		B05-22.5				Dp/Mst	
24								(Driller advanced auger past continuous sample interval)	▽	
25	20							Wet, dense, silty medium to fine SAND, dark gray, no hydrocarbon odor		
26	28 30		100					Coarsens downward	Wet	
27	12 22		100				SM		Wet	
28	37 28									
29	33 50/6	1.9	100		B05-29.5		ML	Damp, very hard, fine sandy SILT, dark gray, no hydrocarbon odor	Wet	
30								Boring terminated at 29.5 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using stainless steel, 0.020 slot screen, 10-12 silica sand, and bentonite chips. Renamed MW05.		
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	9' South and 100' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	28.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Asphalt		
1	3 2 2	0.0	60		B06-2		ML	Damp, soft, sandy SILT with gravel, dark greenish gray, weak hydrocarbon odor	Dp	
2										
3	2 2 3		100				ML	Damp, medium stiff, sandy SILT with gravel, mottled dark gray and brown, no hydrocarbon odor	Dp	
4	4 4 5	1.0	80		B06-5		SM	Moist, medium dense, silty medium to fine SAND, brown, no hydrocarbon odor	Mst	
5										
6	3 4 3		80						Mst	
7	5 3 4		100						Dp	
8										
9	4 5 4	1.2	100		B06-9.5		SM	Damp, medium dense, silty, medium to fine SAND with clay, orange brown, no hydrocarbon odor	Dp	
10	5 7 9		100				ML	Damp, very stiff, clayey fine sandy SILT, orange brown, no hydrocarbon odor	Dp	
11										
12	9 9 9		100				ML	Damp, very stiff, silty very fine SAND, orange brown, no hydrocarbon odor	Dp	
13	6 8 7		100				ML	Damp, very stiff, very fine sandy SILT, grayish brown, no hydrocarbon odor	Dp	
14								Moist to damp, stiff, silty very fine SAND, grayish brown, no hydrocarbon odor Coarsens downward to fine sand		
15	12 16 21	1.0	100		B06-15		ML		Dp	
16	13 15 21		100				SM	Damp, dense, silty fine SAND, brown, no hydrocarbon odor Coarsens downward	Dp	
17										
18	15 26 20		100						Dp	
19	15 17		80				SM		Dp	
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/19/2006
Date Finished: 4/19/2006
Logged By: CSC
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B06 / MW06

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	9' South and 100' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Asphalt
Total Depth:	28.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	22									
21	18						SM	Damp, dense, silty medium to fine SAND with trace mica flakes, brown, no hydrocarbon odor	Dp	
	23		80		B06-21.5					
22	25	1.0							▽	
	24							Wet, dense, silty medium to fine SAND, grayish brown, no hydrocarbon odor		
23	26		100						Mst	
	28								▼	
24	15						SM			
	16	1.2	95		B06-24				Wet	
25	18									
	15							Wet, dense, silty medium to fine SAND, dark gray, no hydrocarbon odor		
26	25		95						Wet	
	25						SM			
27	25									
	40		95						Wet	
28	50									
	50/6	0.5	100		B06-28		ML	Damp, very hard, fine sandy, clayey SILT, dark gray, no hydrocarbon odor	Wet	
29								Boring terminated at 28 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 0.020-slot PVC screen, 10-12 silica sand, and bentonite chips. Renamed MW06.		
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2805 West Commodore Way
ASKO Hydraulic

Drilling Co./Driller:	SES / Cassandra
Drilling Method:	Hand Auger
Location:	90' South and 90' East of NW Corner of ASKO Hydraulic Building
Surface Condition:	Concrete
Total Depth:	3.5
First GW Depth:	NE

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Concrete		
1			100				GM	Wet, loose, sandy, silty GRAVEL, brown, weak odor	Wet	
			100					Moist, medium dense, sandy SILT with gravel, greenish gray, moderate odor	Mst	
2			100		B07-1.5		ML	Gravel decreases to trace amounts, moderate odor throughout	Mst	
			100						Mst	
3			100		B07-3				Mst	
4								Boring terminated due to refusal.		
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/20/2006
Date Finished: 4/20/2006
Logged By: CSC
Chk By: DRAFT
SES Project No.: 0440-004

BORING LOG
B07

Log of Exploratory Boring:

Notes
2737 West Commodore Way
New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	70' South and 160' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	30
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1										
2										
3	11 13 19	0.0	100		SB65-2.5'		SM	Moist, medium dense, silty fine to coarse SAND, with gravel and clay. Olive-brown with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
4										
5										
6	13 10 12	0.0	100		SB65-5'		ML	Moist, very stiff, SILT with fine sand, trace clay, low plasticty. Olive-brown to olive-gray, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
7										
8	14 16 18	0.2	100		SB65-7.5'		ML	Moist, very stiff, SILT laminated with fine sand, trace clay, low plasticty. Olive-brown to olive-gray, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
9										
10										
11	9 20 20	1.2	100		SB65-10'		SM	Moist, dense, silty fine SAND, interbedded with SILT (<1 inch thick), micaceous. Gray, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
12										
13	12 16 17	0.9	100		SB65-12.5'		SM	Moist, dense, silty fine SAND. Olive-gray, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
14										
15										
16	14 17 21	0.6	100		SB65-15'		SM	Moist, dense, silty fine SAND. Olive-gray, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
17										
18	15 21 20	0.6	100		SB65-17.5'		SP-SM	Moist, dense, fine to medium SAND with silt, micaceous. Olive-brown, no petroleum hydrocarbon odor, no discoloration.	Mst	
19										
20										

Log of Exploratory Boring:

Notes
2737 West Commodore Way
New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	70' South and 160' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	30
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21	21 31 30	0.3	100		SB65-20'		SP-SM	Moist, very dense, fine to medium SAND with silt, micaceous. Olive-brown, no petroleum hydrocarbon odor, no discoloration.	Mst	
22									▼	
23	20 29 31	0.2	100		SB65-22.5'		SP-SM	Wet, very dense, fine to medium SAND with silt, some coarse-grained sand, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration.	Wet	
24										
25	26 50/6"	0.1	100		SB65-25'		SP-SM	Wet, very dense, fine to coarse SAND with silt, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration.	Wet	
26										
27										
28	29 50/6"	0.0	100		SB65-27.5'		SP-SM	Wet, very dense, fine to coarse SAND with silt, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration.	Wet	
29							ML	Moist, very hard, SILT, some clay, micaceous, low plasticity. Dark-gray, dark-brown natural organic specks, no petroleum hydrocarbon odor, no discoloration.		
30										
31								Boring terminated at 30 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was encountered at 22.5 feet bgs during drilling. Boring was completed as monitoring well 01MW44.		
32										
33										
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37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2737 West Commodore Way
North of New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	5' South and 130' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	27
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (3 inches)		
3	4 11 16	0.2	100		SB66-2.5'		SM	Moist, medium dense, silty fine to coarse SAND, occasional fine to coarse subrounded gravel. Greenish gray, weak petroleum hydrocarbon odor, brown petroleum hydrocarbon discoloration from 2.5 to 3 feet .	Mst	
6	17 25 28	0.2	100		SB66-5'		SM	Moist, dense, silty fine to medium SAND, occasional fine to coarse subrounded gravel. Olive-brown with iron mottling, weak petroleum hydrocarbon odor, brown petroleum hydrocarbon discoloration from 2.5 to 3 feet .	Mst	
8	12 14 15	0.4	100		SB66-7.5'		SP-SM	Moist, medium dense, fine to medium SAND with silt, occasional fine to coarse gravel. Yellow-brown with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
11	12 14 15	0.5	100		SB66-10'		SM	Moist, medium dense, silty fine SAND, with lenses of silt (<0.5 inches thick). Yellow-brown with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
13	17 16 17	0.3	100		SB66-12.5'		SM	Moist, dense, silty fine SAND, laminated with SILT. Yellow-brown with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
16	17 21 16	0.3	100		SB66-15'		SP-SM	Moist, dense, fine SAND with silt, micaceous. Yellow-brown, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
18	36 50/6"	0.1	100		SB66-17.5'		SP-SM	Moist, very dense, fine SAND with silt, micaceous. Yellow-brown, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	

Log of Exploratory Boring:

Notes
2737 West Commodore Way
North of New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	5' South and 130' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	27
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21	33 50/6"	0.2	100		SB66-20'		SP-SM	Moist, very dense, fine to coarse SAND with silt, micaceous. Olive-brown, iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
22									▽	
23	37 50/6"	0.1	100		SB66-22.5'		SP-SM	Wet, very dense, fine to coarse SAND with silt, micaceous. Olive-gray, no petroleum hydrocarbon odor, no discoloration.	Wet	
24									▼	
25	50/6"	0.1	100		SB66-25'		SP-SM	Wet, very dense, fine to coarse SAND with silt, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration.	Wet	
26							ML	Moist, very stiff to hard SILT with clay, low plasticity, micaceous. Dark gray, dark brown natural organic specks, no petroleum hydrocarbon odor, no discoloration.	Dp	
27										
28								Boring terminated at 27 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was encountered at 22.5 feet bgs during drilling. Boring was completed as monitoring well 01MW45.		
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Log of Exploratory Boring:

Notes
2737 West Commodore Way
Northwest of New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	40' South and 210' West of NW Corner of Headquarters Building
Surface Condition:	Gravel
Total Depth:	28.5
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							SM	(Soil Cuttings: Moist, silty fine to coarse SAND, with fine to coarse gravel. Brown. Fill.)		
1										
2										
3	7 16 19	0.6	100		SB67-2.5'		ML	Moist, hard, SILT, with occasional fine gravel and lenses of fine sand (<1 inch thick). Gray, strong petroleum hydrocarbon odor, some brown discoloration.	Mst	
4										
5	11 14 19	0.0	100		SB67-5'		ML	Moist, hard, SILT, with lenses of fine sand (1 to 2 inches thick). Olive brown with iron mottling, weak petroleum hydrocarbon odor, no discoloration.	Mst	
6										
7										
8	20 21 20	0.0	100		SB67-7.5'		ML	Moist, hard, very silty fine SAND. Olive brown interbedded with yellow brown, weak petroleum hydrocarbon odor.	Mst	
9										
10	13 21 25	0.0	100		SB67-10'		ML	Moist, hard, very silty fine SAND. Olive brown interbedded with yellow brown, no hydrocarbon odor.	Mst	
11										
12										
13	23 31 30	0.0	100		SB67-12.5'		SM	Moist, very dense, silty fine SAND, with lenses of silt (<0.5 inches thick), micaceous. Olive-brown to red-brown, with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
14										
15	36 50/6"	0.0	100		SB67-15'		SM	Moist, very dense, silty fine SAND, with lenses of silt, micaceous. Olive-brown to red-brown, with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
16										
17										
18	31 50/6"	0.0	100		SB67-17.5'		SM	Moist, very dense, silty fine SAND, with lenses of silt, micaceous. Olive-brown to red-brown, with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 9/13/2006
Date Finished: 9/13/2006
Logged By: AIS
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
SB67 / 01MW46

Log of Exploratory Boring:

Notes
2737 West Commodore Way
Northwest of New Barrel Shed

Drilling Co./Driller:	Cascade / James
Drilling Method:	Hollow-stem Auger
Location:	40' South and 210' West of NW Corner of Headquarters Building
Surface Condition:	Gravel
Total Depth:	28.5
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21	41 50/6"	0.0	100		SB67-20'		SP-SM	Moist, very dense, fine to coarse SAND with silt, micaceous. Olive-brown to orange-brown, with iron mottling, no petroleum hydrocarbon odor, no discoloration.	Mst	
22										
23	39 50/6"	0.0	100		SB67-22.5'		SP-SM	Wet, very dense, fine to medium SAND with silt, some coarse sand, micaceous. Olive-gray, no petroleum hydrocarbon odor, no discoloration.	▽ Wet	
24										
25	41 50/6"	0.0	100		SB67-25'		SP-SM	Wet, very dense, fine to coarse SAND with silt, some coarse sand, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration.	▼ Wet	
26										
27										
28	42 50/6"	0.0	100		SB67-27.5'		SP-SM ML	Wet, very dense, fine to coarse SAND with silt, some coarse sand, micaceous. Gray, no petroleum hydrocarbon odor, no discoloration. Moist, very hard, SILT with clay, micaceous, low plasticity. Dark gray, dark brown natural organic specks, no petroleum hydrocarbon odor, no discoloration.	Wet	
29								Boring terminated at 28.5 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was encountered at 23.0 feet bgs during drilling. Boring was completed as monitoring well 01MW46.		
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
West Commodore Way Right-of-Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	60' North, 140' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	NE

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (9 inches)		
5	8 9 8	0.0	100		B73-05		SP-SM	Damp, medium dense, fine to medium SAND with silt (10-90-0). Brown, no hydrocarbon odor.	Dp	
6							SM	Damp, medium dense, silty SAND (25-75-0). Gray, no hydrocarbon odor.		
10	5 5 6	0.0	100		B73-10		SM	Damp, medium dense, silty SAND (35-65-0). Brown, on hydrocarbon odor.	Dp	
13	9 10 12	0.0	100		B73-12.5		SM	Damp, medium dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Dp	
15	10 12 12	0.0	100		B73-15		SM	Damp, medium dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Dp	
18	10 13 14	0.0	100		B73-17.5		SM	Damp, medium dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Dp	

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/5/2007
Date Finished: 12/5/2007
Logged By: RAH
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B73/01MW52

Log of Exploratory Boring:

Notes
West Commodore Way Right-of-Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	60' North, 140' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	NE

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21	10 15 18	0.0	100		B73-20		SM	Damp, dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Dp	
22							WOOD	Wood in sampler shoe.		
23	NR NR NR		0					No Recovery.		
24									▼	
25								Obstruction encountered at 25 feet (Tunnel over Sewer).		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Boring terminated at 25 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was not encountered during drilling. Boring was completed as monitoring well 01MW52.

NR = Blow counts not recorded.

Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.

Log of Exploratory Boring:

Notes
2752 W. Commodore Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	140' North, 165' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Gravel Drive
Total Depth:	16.4
First GW Depth:	10

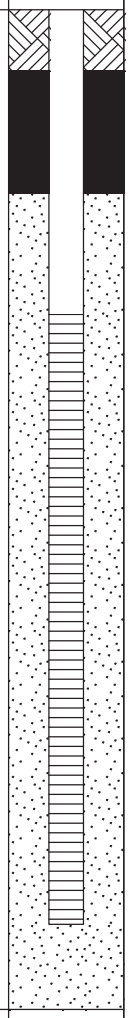
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0								Grass and gravel at ground surface.	
3	3 3 5		0					No Recovery.	
5	5 7 9	0.0	100		B74-05		SM	Moist, medium dense, silty SAND (35-65-0). Brown with iron mottling, no hydrocarbon odor.	Mst
10	15 18 31	0.0	100		B74-10		SM	Wet, very dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Wet
13	11 15 31	0.0	100		B74-12.5		ML	Damp, hard, sandy SILT (60-40-0). Gray, no hydrocarbon odor.	Dp
15	18 35 50/3	0.0	100		B74-15		ML	Damp, very hard, sandy SILT (60-40-0). Gray, no hydrocarbon odor.	Dp
17								Boring terminated at 16.4 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was encountered at 10 feet bgs during drilling. Boring was completed as monitoring well 02MW13.	
19								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil	

Well Detail



Log of Exploratory Boring:

Notes
2752 W. Commodore Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	140' North, 165' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Gravel Drive
Total Depth:	16.4
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20								classifications and textural descriptions.		
21										
22										
23										
24										
25										
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27										
28										
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39										
40										

Log of Exploratory Boring:

Notes
West Commodore Way Right-of-Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	60' North, 225' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	41.5
First GW Depth:	23.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (6 inches)		
1										
2							SM	(Soil Cuttings: Moist, silty SAND. Brown. Fill.)		
3										
4										
5	5									
6	5 6	0.0	100		B75-05.0		ML	Moist, stiff, SILT, some fine- to coarse-grained sand and fine subrounded gravel, organics (80-10-10). Dark brown to gray, creosote or hydrocarbon odor, gray discoloration.	Mst	
7										
8										
9										
10										
11	6 11 15	0.0	100		B75-10.0		SM ML	Moist, medium dense, silty fine SAND laminated with fine SAND with silt. Olive, with iron mottling, no hydrocarbon odor, no discoloration. Moist, stiff, fine sandy SILT. Olive-brown, no hydrocarbon odor.	Mst	
12										
13	6 9 11	0.0	80		B75-12.5		SP-SM	Moist, medium dense, fine SAND with silt, with plant matter. Red-brown with iron mottling, no odor, no discoloration.	Mst	
14										
15	11									
16	13 17	0.0	50		B75-15.0		SP-SM	Moist, dense, fine to medium SAND with silt (10-90-0). Red-brown, no odor, no discoloration.	Mst	
17										
18	9 11 12	0.0	100		B75-17.5		SP-SM SM	Moist, medium dense, fine to medium SAND. Red-brown, no odor, no discoloration. Moist, medium dense, silty fine to medium SAND (30-70-0). Red-brown, no hydrocarbon odor, no discoloration.	Mst	
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/5/2007
Date Finished: 12/5/2007
Logged By: AIS
Chk By: DHG
SES Project No.: 0440-004

BORING LOG
B75/01MW53

Log of Exploratory Boring:

Notes
West Commodore Way Right-of-Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	60' North, 225' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	41.5
First GW Depth:	23.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	12									
21	12 13	0.0	100		B75-20.0		SM	Moist, medium dense, silty fine to medium SAND (30-70-0). Olive-gray, no hydrocarbon odor, no discoloration.	Mst	
22										
23	12 13 15	0.0	100		B75-22.5		SM	Wet, medium dense, silty fine to coarse SAND (30-70-0), micaceous. Gray, no hydrocarbon odor, no discoloration.	Wet ▼	
24										
25	12									
26	13 17	0.0	100		B75-25.0		SP-SM	Wet, dense, fine to coarse SAND with silt. Gray, no odor, no discoloration.	Wet	
27							ML	Moist, hard, SILT with trace fine sand. Gray, no odor.		
28	12 17 26	0.0	100		B75-27.5		ML	Moist, hard, SILT with trace fine sand. Gray with iron mottling, no odor, no discoloration.	Mst	
29										
30	14									
31	17 19	0.0	100		B75-30.0		ML	Moist to wet, hard, sandy SILT, micaceous, laminated with 0.25-inch layers of silty fine SAND. Gray, no odor, no discoloration.	Mst	
32										
33	15 19 26	0.0	100				SM	Moist to wet, dense, silty fine to medium SAND (30-70-0), micaceous. Gray, no odor, no discoloration.	Mst	
34										
35	19									
36	22 29	0.0	100		B75-35.0		SM	Moist, very dense, silty SAND with trace fine gravel (30-65-5). Gray, no odor, no discoloration.	Mst	
37										
38	15 20 27	0.0	100				SM	Moist, very dense, silty SAND with trace gravel. Gray, no odor.	Mst	
39							ML	Moist, hard, SILT with trace fine sand. Gray with iron mottling, no odor, no discoloration.		
40										

Log of Exploratory Boring:

Notes
West Commodore Way Right-of-Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	60' North, 225' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	41.5
First GW Depth:	23.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
40	16 22 30	0.0	100		B75-40.0		SM	Moist to wet, very dense, silty fine to medium SAND interbedded with 0.5- to 2-inch layers of SILT. Gray to olive-gray, no odor, no discoloration.	Wet	
41										
42								Boring terminated at 41.5 feet below ground surface (bgs). Groundwater was encountered at 23.5 feet bgs during drilling. Boring was completed as two-inch diameter monitoring well 01MW53 as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and medium bentonite chips. Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
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Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	155' W of TOC headquarters
Surface Condition:	Asphalt
Total Depth:	45.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick).		
5	5 9 17	31.1	100		B76-05		ML	Damp, very stiff, SILT with fine- to coarse-grained sand, gray with tan-brown mottling, no hydrocarbon odor.	Dmp	
10	17 20 23	95.6	100		B76-10		ML	Moist, hard, SILT with clay and trace fine-grained sand, gray with slight tan mottling, no hydrocarbon odor.	Mst	
15	22 24 26	43.2	100		B76-15		SM	Damp, medium dense, silty fine-grained SAND, gray with some brown mottling, no hydrocarbon odor.	Dmp	
20	29 30 32	35.6	100		B76-20		SM	Damp, very dense, fine-grained SAND with some silt, gray, no hydrocarbon odor.	Dmp	
22									▽	
23	27 33 37	31.2	100		B76-22.5		SM	Wet, very dense, fine- to medium-grained SAND with silt, gray, no hydrocarbon odor.	Wet	
25										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 11/13/2008
Date Finished: 11/13/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B76/ 01MW54

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	155' W of TOC headquarters
Surface Condition:	Asphalt
Total Depth:	45.5
First GW Depth:	22

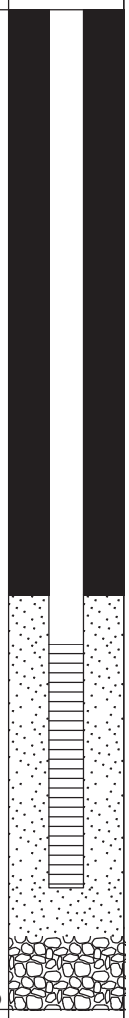
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
25	32 35 39	19.5	100		B76-25		SM	Wet, dense, fine-grained SAND with some silt, some silt rich-zones, gray, no hydrocarbon odor.	Wet
27	33 50/5"	13.1	100		B76-27.5		ML / SM	Wet, hard, SILT, gray, no hydrocarbon odor. / Wet, dense, silty, fine- to medium-grained SAND with trace mica, gray, no hydrocarbon odor.	Wet
30	29 50/4"	11.7	100		B76-30		ML	Moist, hard, SILT with trace very fine-grained sand, gray, no hydrocarbon odor.	Mst
32	30 50/5"	15.8	100		B76-32.5		ML	Moist, hard, SILT with clay and trace fine-grained sand, gray, no hydrocarbon odor.	Mst
35	25 50/6"	15.0	100		B76-35		ML	Moist, hard, SILT with clay and trace fine- to medium-grained sand, sand lens at 35.5' below ground surface (bgs), gray, no hydrocarbon odor.	Mst
37	32 50/4"	10.3	100		B76-37.5		SM	Wet, very dense, silty, fine- to medium-grained SAND with coarse- to medium-grained sand lens at 37.5' bgs, gray, very faint hydrocarbon odor.	Wet
40	17 23 25	11.8	100		B76-40		SM	Wet, dense, fine- to medium-grained SAND with some silt, gray, no hydrocarbon odor.	Wet
42	36 50/5"	13.9	100		B76-42.5		SM / ML	Moist, very dense, silty SAND, gray, no hydrocarbon odor. / Moist, hard, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst
45	55/6"	6.3	100		B76-45		SM	Damp, very dense, silty, fine- to medium-grained SAND, gray, no hydrocarbon odor. Boring terminated at 45.5' bgs and converted to 2" PVC monitoring well 01MW54 with 0.010 slot screen 37' to 42' bgs.	Dmp
50									

Well Detail



Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	155' W of TOC headquarters, 27' S of 01MW54
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	20

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							GP	Asphalt (2 inches thick).		
2							SM	Wet, fine- to coarse GRAVEL with silt and sand, brown, no hydrocarbon odor. (Fill)		
3								Wet, silty, fine-grained SAND, no hydrocarbon odor. (Fill)		
4										
5	9				B77-05					
6	17	19.9	100				SM	Damp, dense, silty, fine-grained SAND with some fine gravel, gray with appearance of oxidation, moderate hydrocarbon and solvent odor.	Dmp	
7	23									
8										
9										
10	17				B77-10					
11	20	39.3	100				ML	Damp, hard, SILT with trace fine-grained sand and clay, gray lens with the appearance of red and orange oxidation, moderate hydrocarbon odor.	Dmp	
12	26									
13										
14										
15	18				B77-15					
16	26	71.0	100				SM	Damp, very dense, silty fine-grained SAND, brown with gray and appearance of oxidation, slight hydrocarbon odor.	Dmp	
17	27									
18										
19										
20	14				B77-20		SM		▽	
21	17	11.7	100				ML	Damp, dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Dmp	
22	19							Damp, very stiff, SILT grading to silt with some sand, no hydrocarbon odor.		
23	15				B77-22.5				▼	
24	19	7.9	100				SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, slight hydrocarbon odor.	Wet	
25	22									
26	19				B77-25					
27	20	8.2	100				SM	Wet, medium dense, SAND with some silt, gray, no hydrocarbon odor.	Wet	
28	23									
29	22				B77-27.5					
30	30	3.4	100				SM	Wet, very dense, SAND with some silt, gray with appearance of oxidation, faint hydrocarbon odor.	Wet	
31	32									
32	32				B77-30		SM			
33	50/4"	1.8	100				ML	Wet, very dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp	
34								Damp, hard, SILT with trace sand, gray, no odor.		
35								Boring terminated 31' below ground surface (bgs) and converted to 2" diameter PVC monitoring well 01MW55 with 0.010 slot screen from 16' to 31' bgs.		

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 11/13/2008
Date Finished: 11/13/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B77/ 01MW55

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	18' W of paved lot, 54' E of Asko fence
Surface Condition:	Gravel
Total Depth:	28.5
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0-2							SP	Sand and gravel with organics (6 inches thick). (Fill)		
5-7	14 14 16	0.5	75		B78-05		SM	Moist, medium dense, silty fine- to medium-grained SAND, some fine gravel and trace organics (coal), brown to tan and gray with some oxidation, no hydrocarbon odor.	Mst	
10-12	12 16 14	0.9	100		B78-10		SM	Dry to moist, medium dense, silty fine-grained SAND, some fine gravel, light brown, no hydrocarbon odor.	Dry-Ms	
15-17	16 19 22	1.4	100		B78-15		SM	Moist, dense, fine-grained SAND with some silt, light brown, no hydrocarbon odor.	Mst	
20-22	16 16 19	1.1	100		B78-20		SW-SM	Damp, dense, fine-grained SAND with trace silt, medium gray with 0.5-inch thick bands of orange mottling, no hydrocarbon odor.	Dmp	
23	34 50/4"	1.1	75		B78-22.5		SW-SM	Wet, very dense, fine- to medium-grained SAND with trace silt, dark gray, no hydrocarbon odor.	▼ Wet	
25-26	29 50/4"	0.5	100		B78-25		SW-SM ML	Wet, very dense, fine to medium-grained SAND with trace silt, dark gray, no hydrocarbon odor.	Wet	
27								Wet, hard, SILT with trace fine-grained sand, dark gray, no hydrocarbon odor.		
28	27 50/5"	0.0	100		B78-27,5		ML	Moist, hard, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
29-35								Boring terminated at 28.5' below ground surface(bgs) and converted to 2" diameter PVC monitoring well 01MW56 with 0.010 slot screen from 26.5' to 16.5' bgs.		

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Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B78/ 01MW56

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	53' E of Asko building 47' S of NE corner of Asko building.
Surface Condition:	Asphalt
Total Depth:	41.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							SM	Asphalt (2 inches thick). Silty SAND, Gray, no hydrocarbon odor. (Fill)		
2										
3										
4										
5	10				B79-05					
6	11	0.4	100				MH	Damp, very stiff, SILT with clay and trace sand and organics, massive with no visible bedding, gray with tan mottling, faint hydrocarbon odor.	Dmp	
7	11									
8										
9										
10	15				B79-10					
11	15	0.0	100				MH	Damp, hard, SILT with clay and trace sand and organics (wood), gray with some orange mottling, no hydrocarbon odor.	Dmp	
12	20						SM	Damp, dense, silty fine-grained SAND, light brown, no hydrocarbon odor.		
13										
14										
15	16				B79-15					
16	19	0.1	100				SM	Damp, dense, silty fine-grained SAND, light brown, no hydrocarbon odor.	Dmp	
17	23									
18										
19										
20	14				B79-20					
21	19	0.6	75				SM	Moist, dense, fine-grained SAND with some silt, dark gray, no hydrocarbon odor.	Mst	
22	22								▽	
23	19				B79-22.5					
24	20	4.4	50				SP	Wet, dense, fine-grained SAND with trace silt, dark gray, no hydrocarbon odor.	Wet	
25	22									

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2737-2805 West Commodore Way
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Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B79/ 01MW57

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	53' E of Asko building 47' S of NE corner of Asko building.
Surface Condition:	Asphalt
Total Depth:	41.5
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
25	19 20 23	4.4	100		B79-25		SP	Wet, dense, fine-grained SAND with trace silt, dark gray, faint hydrocarbon odor.	Wet ▼	
27	23 25 27	0.0	100		B79-27.5		SM	Moist, dense, silty fine-grained SAND interbedded with SILT with sand, dark gray, faint hydrocarbon odor.	Mst	
30	20 22 24	0.1	100		B79-30		MH	Moist, hard, SILT with some sand, grading to silt with trace sand, dark gray, no hydrocarbon odor.	Mst	
33	23 27 29	0.3	100		B79-32.5		SM	Moist, very dense, silty fine-grained SAND, dark gray, faint hydrocarbon odor.	Mst	
35	14 23 26	0.1	100		B79-35		MH	Wet, hard, SILT with some fine-grained sand, dark gray, faint hydrocarbon odor.	Wet	
38	29 30 32	0.0	100		B79-37.5		SP	Wet, dense, SAND with trace silt, dark gray, faint hydrocarbon odor.	Wet	
40	31 30 36	0.0	100		B79-40		SP / MH	Wet, very dense, SAND with trace silt, dark gray, faint hydrocarbon odor. / Moist, hard, SILT with trace sand, dark gray, no hydrocarbon odor.	Mst	
42								Boring terminated at 41.5' below ground surface (bgs) and converted to 2" diameter PVC monitoring well 01MW57 with 0.010 slot screen from 35.5' to 40.5' bgs.		
50										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	125' SW of 01MW54
Surface Condition:	Gravel
Total Depth:	36.5
First GW Depth:	27

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							SM	Moist, loose, silty SAND with fine to coarse gravel and organics, dark brown, no hydrocarbon odor. (Fill)		
5	8 12 22	0.1	100		B80-05		ML	Damp, hard, SILT with trace sand, sandy silt lens at 6.5' below ground surface (bgs), medium to dark gray, no hydrocarbon odor. (Native)	Dmp	
10	19 20 24	0.2	100		B80-10		ML	Damp, hard, SILT with trace fine-grained sand, sandy silt lens at 11.5' bgs, dark gray, no hydrocarbon odor.	Dmp	
15	17 20 21	0.1	100		B80-15		SM	Damp, dense, fine-grained SAND with some silt, brown, no hydrocarbon odor.	Dmp	
16							ML	Damp, stiff, SILT with trace fine-grained sand, brown, no hydrocarbon odor.		
20										

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2737-2805 West Commodore Way
Seattle, Washington

Date Started: 11/14/2008
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Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B80/ 01MW58

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	125' SW of 01MW54
Surface Condition:	Gravel
Total Depth:	36.5
First GW Depth:	27

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	17 19 19	0.3	80		B80-20		SM	Damp, dense, silty fine-grained SAND, dark gray, no hydrocarbon odor.	Dmp	
22	15 19 23	0.1	100		B80-22.5		SM	Moist, dense, fine-grained SAND with some silt, gray, no hydrocarbon odor.	Mst	
25	17 20 22	0.0	100		B80-25		SM	Moist, dense, fine-grained SAND with some silt, gray, no hydrocarbon odor.	Mst ▼ ▽	
28	21 23 27	0.1	100		B80-27.5		SP	Wet, dense, fine-grained SAND with trace silt, gray, faint hydrocarbon odor.	Wet	
30	27 50/4"	0.1	100		B80-30		SP	Wet, very dense, fine-grained SAND with trace silt, dark gray, faint hydrocarbon odor.	Wet	
33	32 50/3"	0.1	100		B80-32.5		SP	Wet, very dense, fine-grained SAND with trace silt, dark gray, no hydrocarbon odor.	Wet	
35	21 23 26	0.0	100		B80-35		SP	Wet, dense, fine-grained SAND with trace silt, dark gray, no hydrocarbon odor.	Mst	
							ML	Moist, very stiff, SILT with trace sand, dark gray, no hydrocarbon odor.		
37								Boring terminated at 36.5' bgs and converted to 2" diameter PVC monitoring well 01MW58 with 0.010 slot screen from 35.5' to 25.5' bgs.		
40										

SOUND ENVIRONMENTAL STRATEGIES
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Seattle, Washington

Date Started: 11/14/2008
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Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B80/ 01MW58

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	68' S, 22.5' W of SW corner of building down the hill.
Surface Condition:	Grass
Total Depth:	29
First GW Depth:	20

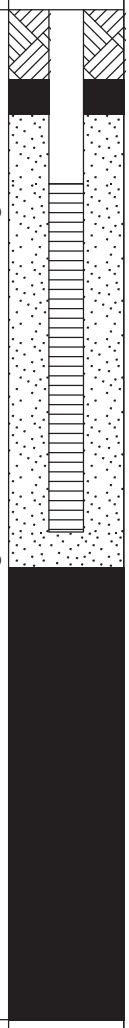
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0									
1							SM	Topsoil (5 inches thick). Damp, loose, silty SAND, brown, no hydrocarbon odor. (Fill)	
2									
3									
4									
5	6								
6	9	3.8	100		B81-05		SM	Damp, medium dense, silty fine-grained SAND with silt interbeds, light brown with appearance of oxidation, no hydrocarbon odor.	Dmp
7	9								
8									
9									
10	16				B81-10		SM		
11	20	6.0	100					Moist, medium dense, fine-grained SAND with some silt, light brown, no hydrocarbon odor.	▼Mst
12	22						MH	Moist, hard, SILT with trace fine-grained sand, dark gray, no hydrocarbon odor.	
13									
14									
15	19				B81-15				
16	20	4.1	100				MH	Damp, hard, SILT with trace fine-grained sand, dark gray, faint hydrocarbon odor.	Dmp
17	26								
18									
19									
20	24				B81-20				▽
21	27	8.2	100				SM	Moist, very dense, silty fine-grained SAND, dark gray, no hydrocarbon odor.	Wet
22	29								
23	23				B81-22.5				
24	27	7.9	100				SM	Wet, dense, fine-grained SAND with some silt, dark gray, no hydrocarbon odor.	Wet
25	29								
26	18				B81-25				
27	27	6.7	100				SM	Wet, very dense, fine-grained SAND with some silt, gray, no hydrocarbon odor.	Wet
28	29								
29	21				B81-27.5				
30	25	6.3	100				MH	Moist, hard, SILT with fine-grained sand, gray, no hydrocarbon odor.	Mst
31	29						SM	Moist, very dense, fine-grained SAND with some silt, gray, no hydrocarbon odor.	
32								Boring terminated at 29' below ground surface (bgs) and converted to 2" diameter PVC monitoring well 02MW14 with 0.010 slot screen from 5' to 15' bgs.	
33									
34									
35									

Well Detail



SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 11/17/2008
Date Finished: 11/17/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B81/ 02MW14

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	41' S, 44' W of NW corner of TOC headquarters.
Surface Condition:	Concrete
Total Depth:	28.5
First GW Depth:	20

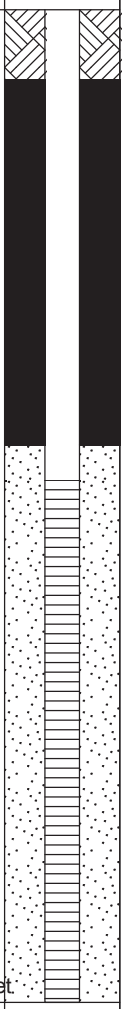
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0-1							SM	Concrete (6 inches thick) Silty SAND, gray, strong hydrocarbon odor. (Fill)	
2-4	5 7 7	338	100		B81-02.5		SM	Damp, loose, silty, fine-grained SAND, trace gravel and 3-inch charcoal layer at 3 feet below ground surface (bgs), gray, strong hydrocarbon odor. (Fill)	Dmp
5-6	5 7 9	764	100		B81-05		ML	Moist, very stiff, fine-grained sandy SILT with trace gravel and organics (roots), brown, strong hydrocarbon odor. (Fill)	Mst
10-11	14 16 19	243	100		B81-10		ML	Moist, loose, fine-grained sandy SILT, gray, strong hydrocarbon odor.	Mst
14									▼
15-16	19 20 23	24.0	100		B81-15		ML SM	Damp, hard, SILT with some fine-grained sand and trace coal, brownish gray, faint hydrocarbon odor. Damp, dense, fine-grained SAND with silt, gray-brown, no hydrocarbon odor.	Dmp
20									▽
20-21	21 26 29	19.7	100		B81-20		SM	Wet, dense, fine-grained SAND with some silt, gray, no odor.	Wet
22-23	23 27 30	19.0	100		B81-22.5		SM	Faint hydrocarbon odor.	Wet
25-26	26 29 29	25.7	100		B81-25		SM	Wet, dense, fine-grained SAND with some silt, gray, moderate hydrocarbon odor.	Wet
27-28	14 23 21	32.7	100		B81-27.5		SM ML	Wet, dense, fine-grained SAND with some silt, gray, faint hydrocarbon odor. Moist, hard, SILT with trace fine-grained sand, gray, faint hydrocarbon odor.	Mst-wet
29								Boring terminated at 28.5 feet bgs and converted to 2-inch-diameter PVC monitoring well 01MW59 with 0.010 slot screen from 13.5 to 28.5 feet bgs.	

Well Detail



SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 11/17/2008
Date Finished: 11/17/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B82/ 01MW59

Log of Exploratory Boring:

Notes
Behind warehouse.

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	3' S of concrete wall and ~5 feet West of SE corner of barrel shed
Surface Condition:	Grass
Total Depth:	40
First GW Depth:	32.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							SM	Damp, silty fine-grained SAND with some organics, brown, no hydrocarbon odor. (Fill)		
2							SM	Damp, silty fine- to medium-grained SAND with fine- to coarse-grained gravel and some cobbles, brown, no hydrocarbon odor.		
5	23 50/6"	773	100		B083-05		ML SM	Damp, very stiff, SILT with fine-grained sand, gray with brown, strong hydrocarbon odor. Moist, medium dense, silty fine-grained SAND, noticable sheen on soil and water in sampler, gray, strong hydrocarbon odor.	Dmp	
8	21 50/6"	2,014	75		B083-07.5		ML	Damp, very stiff, SILT with fine-grained sand stringer (~0.5 inches thick), brown with gray, moderate hydrocarbon odor.	Dmp	
10	20 50/6"	114	100		B083-10		ML	Damp, very stiff, SILT with fine-grained sand, gray, faint hydrocarbon odor.	Dmp	
13	21 50/6"	6.1	100		B083-12.5		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, very faint hydrocarbon odor.	Dmp	
15	19 50/6"	0.1	100		B083-15		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, faint hydrocarbon odor.	Dmp	
18	23 50/6"	17.0	100		B083-17.5		SP-SM	Damp, medium dense, silty fine-grained SAND that grades to a poorly-graded sand, gray, faint hydrocarbon odor.	Dmp	
20	50/6"	5.3	50		B083-20		ML	Damp, very stiff, SILT with some fine-grained sand, gray, no hydrocarbon odor.	Dmp	

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004

BORING LOG
B83/01MW60

Log of Exploratory Boring:

Notes
Behind warehouse.

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	3' S of concrete wall and ~5 feet West of SE corner of barrel shed
Surface Condition:	Grass
Total Depth:	40
First GW Depth:	32.5

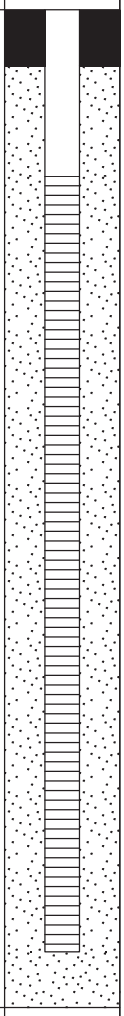
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
22									
23	20 50/6"	43.0	100		B083-22.5		SM	Damp, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp
24									
25	50/6"	13.6	25		B083-25		SM	Damp, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp
26									
27									
28	50/6"	27.9	25		B083-27.5		SM	Moist, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Mst
29									
30	50/6"	9.0	25		B083-30		SM	Moist, medium dense, silty fine-grained SAND, gray, faint hydrocarbon odor.	▼ Mst
31									
32									
33	20 50/6"	6.3	75		B083-32.5		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	▽ Wet
34									
35	50/6"	0.9	100		B083-35		SM	Wet, medium dense, silty fine to medium-grained SAND, gray, faint hydrocarbon odor.	Wet
36									
37									
38	50/6"	0.8	100		B083-37.5		ML	Wet, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor. No Recovery.	Wet
39									
40									
41								Boring terminated at 40 feet below ground surface (bgs) and backfilled to 39.5 feet bgs with sand. Converted to 2-inch-diameter PVC monitoring well 01MW60 with 0.010 slot screen from 25 to 39 feet bgs.	
42									
43									
44									

Well Detail



Log of Exploratory Boring:

Notes
Behind warehouse.

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	~5' S and 13' E of SW corner of warehouse
Surface Condition:	Grass
Total Depth:	38
First GW Depth:	30

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							SM	(Boring hand augered to 3 feet below ground surface [bgs]). Moist, silty, fine- to coarse-grained SAND with fine- to coarse gravel and organics. (Fill)		
5	5 20 28	60.3	100		B084-05		SM	Damp, medium dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Dmp	
6							ML	Damp, very stiff, SILT with fine-grained sand, brown, strong hydrocarbon odor.		
8	29 30 45	3.2	100		B084-07.5		SM	Damp, dense, silty, fine-grained SAND grading to silt with fine-grain sand, brown, faint hydrocarbon odor.	Dmp	
10	26 50/6"	2.9	100		B084-10		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Dmp	
13	23 50/6"	3.1	100		B084-12.5		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Dmp	
15	50/6"	3.1	100		B084-15		ML	Damp, very stiff, SILT with trace sand, gray, no hydrocarbon odor.	Dmp	
18	50/3"	3.0	25		B084-17.5		SM	Damp, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp	
20	20 50/6"	3.4	75		B084-20		ML	Damp, very stiff, SILT with some fine-grained sand, gray, no hydrocarbon odor.	Dmp	
22										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004

BORING LOG
B84/01MW61

Log of Exploratory Boring:

Notes
Behind warehouse.

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	~5' S and 13' E of SW corner of warehouse
Surface Condition:	Grass
Total Depth:	38
First GW Depth:	30

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
22										
23	27 50/6"	3.7	50		B084-22.5		SM	Damp, medim dense, silty fine-grained SAND, gray, faint hydrocarbon odor.	Dmp	
24										
25	50/6"	3.4	25		B084-25		SM	Damp, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp	
26										
27										
28	29 50/6"	2.5	75		B084-27.5		SM	Damp, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	Dmp	
29										
30	50/6"	3.1	25		B084-30		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	▽ Wet	
31										
32										
33	50/6"	3.3	100		B084-32.5		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	Wet	
34										
35	50/6"	3.5	100		B084-35		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	Wet	
36										
37	50/5"	3.6	50		B084-37.5		ML	Wet, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Wet	
38								No Recovery. Boring terminated at 38' below ground surface (bgs) and backfilled to 37.5' bgs with sand. Converted to 2-inch-diameter PVC monitoring well 01MW61 with 0.010 slot screen from 22' to 37.5' bgs.		
39										
40										
41										
42										
43										
44										

Log of Exploratory Boring:

Notes
On landing in front of storage containers

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	~8' S of NE corner of easterly-most container
Surface Condition:	Grass
Total Depth:	40
First GW Depth:	32.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	(Boring hand augered to 3 feet below ground surface [bgs]). Moist, silty fine-grained SAND with fine- to coarse-grained gravel and organics, brown, no hydrocarbon odor. (Fill)		
2										
3										
4										
5	50/6"	8.3	25		B085-05		FILL	Damp, medium dense, silty, fine- to coarse-grained SAND with gravel, brownish gray, no hydrocarbon odor. (Fill)	Dmp	
6										
7										
8	50/6"	1.6	100		B085-07.5		ML	Damp, very stiff, SILT with some fine- to medium-grained sand, gray, no hydrocarbon odor.	Dmp	
9										
10	19 50/6"	0.0	75		B085-10		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Dmp	
11										
12										
13	21 50/6"	2.8	100		B085-12.5		ML	Damp, very stiff, SILT with some fine-grained sand, gray, no hydrocarbon odor.	Dmp	
14										
15	20 50/6"	1.1	30		B085-15		ML	Damp, very stiff, SILT with some fine-grained sand, gray, no hydrocarbon odor.	Dmp	
16										
17										
18	19 50/6"	157	100		B085-17.5		ML	Damp, very stiff, SILT with trace fine-grained sand, gray, faint hydrocarbon odor.	Dmp	
19										
20	19 50/6"	78.7	90		B085-20		ML	Damp, very stiff, SILT with trace fine- to medium-grained sand, gray, faint hydrocarbon odor.	Dmp	
21										
22										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004

BORING LOG
B85/01MW62

Log of Exploratory Boring:

Notes
On landing in front of storage containers

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	~8' S of NE corner of easterly-most container
Surface Condition:	Grass
Total Depth:	40
First GW Depth:	32.5

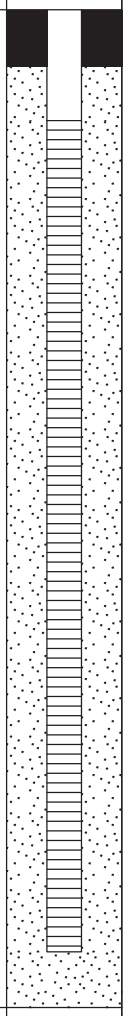
Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
22									
23	50/6"	2.9	100		B085-22.5		ML	Damp, very stiff, SILT with trace fine- to medium-grained sand, gray, no hydrocarbon odor.	Dmp
24									
25	50/6"	31.1	25		B085-25		ML	Damp, very stiff, SILT with some fine-grained sand, gray, no hydrocarbon odor. Lower 2-inches of sample: Damp, medium dense, silty fine to medium SAND. Gray. No hydrocarbon odor.	Dmp
26									
27									
28	50/6"	11.9	50		B085-27.5		SM	Damp, medium dense, silty fine-grained SAND, gray, no hydrocarbon odor.	Dmp
29									
30	50/6"	13.9	50		B085-30		SM	Moist, medium dense, silty fine- to medium-grained SAND, gray, faint hydrocarbon odor.	Mst
31									
32									
33	50/6"	2.4	75		B085-32.5		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, faint organic odor.	▽ Wet
34									
35	50/6"	2.0	50		B085-35		SP-SM	Wet, medium dense, silty fine- to coarse-grained medium SAND, gray, no hydrocarbon odor.	Wet
36									
37									
38	50/6"	3.2	100		B085-37.5		SM	Wet, medium dense, silty, fine- to medium-grained SAND, gray, no hydrocarbon odor. Lower 2-inches: Damp, very stiff, SILT, trace fine-grained sand, gray, no hydrocarbon odor. No Recovery.	Wet
39									
40									
41								Boring terminated at 40' bgs and backfilled with sand to 39' bgs. Converted to 2-inch-diameter PVC monitoring well 01MW62 with 0.010 slot screen from 24' to 39' bgs.	
42									
43									
44									

Well Detail



Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	3.11' W of Western barrel shed wall, and 8.1' N of Northern container wall.
Surface Condition:	Concrete
Total Depth:	33
First GW Depth:	12

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content
0								Concrete (5" thickness).	
1								(Boring hand augered to 3 feet below ground surface [bgs]).	
2							SM	Moist, silty, fine- to coarse-grained SAND with fine to coarse gravel, brown, faint hydrocarbon odor (Fill).	
3									
4									
5	40 50/6"	2.5	50		B086-05		SM	Damp, medium dense, silty fine- to medium-grained SAND, gray, strong hydrocarbon odor.	Dmp
6									
7									
8	50/6"	4.5	50		B086-07.5		SM	Moist, medium dense, silty, fine- to medium-grained SAND with trace fine gravel and silt-rich interbeds, gray, strong hydrocarbon odor.	Mst
9									
10	20 50/6"	2.4	90		B086-10		ML	Moist, very stiff, SILT with fine-grained sand and trace fine to coarse gravel, moderate hydrocarbon odor.	Mst
11									
12									▽
13	17 50/6"	3.8	100		B086-12.5		SM	Wet, medium dense, silty fine- to coarse-grained SAND with trace gravel, brown, moderate hydrocarbon odor.	Wet
14									
15	20 50/6"	4.5	100		B086-15		SM	Moist, medium dense, silty, fine- to medium-grained SAND, brown, no hydrocarbon odor.	Mst
16									
17									
18	50/6"	61.5	50		B086-17.5		ML	Moist, very stiff, SILT with trace fine-grained sand, gray, moderate hydrocarbon odor.	Mst
19									
20									

Well Detail



SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004

BORING LOG
B86/01MW63

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Curtis
Drilling Method:	LA HSA
Location:	3.11' W of Western barrel shed wall, and 8.1' N of Northern container wall.
Surface Condition:	Concrete
Total Depth:	33
First GW Depth:	12

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	50/6"	25.0	75		B086-20		ML	Moist, very stiff, SILT with trace fine-grained sand, gray, moderate hydrocarbon odor.	Mst	
21										
22										
23	28 50/6"	18.3	100		B086-22.5		ML	Moist, very stiff, SILT with trace sand. 2-inch silt lens, gray, no hydrocarbon odor.	Mst	
24										
25	50/6"	2.4	100		B086-25		SM	Moist, medium dense, silty fine- to medium-grained SAND with silt-rich lenses, gray, no hydrocarbon odor.	Mst	
26									▼	
27										
28	50/6"	3.1	80		B086-27.5		SM	Moist to wet, medium dense, silty fine- to medium-grained SAND, gray, no hydrocarbon odor.	Mst	
29										
30	50/6"	1.1	100		B086-30		SM	Wet, medium dense, silty fine- to medium-grained SAND, gray, faint hydrocarbon odor.	Wet	
31										
32										
33	50/6"	4.0	100		B086-32.5		ML	Moist, very stiff, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
34								Boring terminated at 33' bgs. Converted to 2-inch-diameter PVC monitoring well 01MW63 with 0.010 slot screen from 19.5' to 32' bgs.		
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	10.6' N and 3' W of 01MW55
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	18

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (3" thickness).		
1								Damp, silty SAND, dark gray, no hydrocarbon odor.		
2		44.8			B87-02		SM	Same as above, moderate hydrocarbon odor.	Dmp	
3										
4		13.0						Same as above, gray, slight hydrocarbon odor.		
5					B87-05			Damp, SILT, dark gray, slight hydrocarbon odor.		
6		26.5					ML	Same as above, brown, no hydrocarbon odor.	Dmp	
7		3.5								
8		1.7							Dmp	
9		31.6					SM	Damp, silty SAND, gray, slight hydrocarbon odor.		
10		58.1			B87-10			Same as above, moderate hydrocarbon odor.	Dmp	
11							SP-SM	Damp, fine-grained SAND with silt, gray with red mottling, slight hydrocarbon odor.		
12		7.2								
13								Damp, silty SAND, gray, no hydrocarbon odor.		
14		74.6			B87-14				Dmp	
15										
16					B87-16		SM			
17								Same as above, slight hydrocarbon odor.		
18		76.7			B87-18			Same as above, wet.	▽ Wet	
19		51.3						Same as above, damp.		
20		18.4								
21								Boring terminated at 20' below ground surface and backfilled with bentonite chips.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: RAH
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B87

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	17.35' E and 8.40 N of 01MW55
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							FILL	Asphalt (3"thickness)		
1								Fill with woodwaste.		
2		16.1					SM	Damp, silty SAND, strong hydrocarbon odor.	Dmp	
3								Same as above, gray, no hydrocarbon odor.		
4		19.0			B88-04				Dmp	
5		12.9					ML	Damp, SILT, grayish brown, slight hydrocarbon odor.	Dmp	
6										
7		79.9			B88-07		SM	Damp, silty SAND, trace fine subrounded gravel, grayish brown, no hydrocarbon odor.	Dmp	
8		21.4					ML	Damp, SILT, grayish brown, no hydrocarbon odor.	Dmp	
9										
10		3800			B88-10		SP-SM	Damp, fine-grained SAND with silt, brownish gray with red mottling, no hydrocarbon odor.	Dmp	
11								Damp, SILT, some fine-grained sand, brown, slight hydrocarbon odor.		
12		15.0			B88-12				Dmp	
13		9.5					ML	Damp, SILT, some sand, dark gray, slight hydrocarbon odor.	Dmp	
14		16.5							Dmp	
15										
16		18.8			B88-16				Dmp	
17								No recovery, liner stuck.		
18										
19										
20								Boring terminated at 20' below ground surface and backfilled with bentonite chips.		
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: RAH
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B88

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	10 .92' N and 38' E of 01MW55
Surface Condition:	Asphalt
Total Depth:	14
First GW Depth:	11

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							SP	Asphalt (3" thickness). Damp, medium-grained SAND with silt, dark brown, no hydrocarbon odor.		
2		78.0			B89-02			Damp, silty SAND, gray, moderate hydrocarbon odor.	Dmp	
3							SM			
4		3.7						Same as above, slight hydrocarbon odor.	Dmp	
5		0.8			B89-05			Same as above, moist.	Mst	
6								Damp, SILT, brownish gray, no hydrocarbon odor.		
7		0.0						Same as above, gray.	Dmp	
8		8.9			B89-08		ML		Dmp	
9										
10		0.0						Wet, silty SAND, gray, strong hydrocarbon odor.	Dmp	
11		238			B89-11			Same as above, damp, slight hydrocarbon odor.	▽ Wet	
12							SM	Same as above, wet, free product in sample, strong hydrocarbon odor.		
13		2,651			B89-13				Dmp	
14		262							Wet	
15								Boring terminated at 14' below ground surface and backfilled with bentonite.		
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: RAH
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B89

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	4.07' S and 47' E of 01MW55
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							SP	Asphalt (3" thickness).		
1								Damp, fine- to medium-grained SAND with crushed rock. (Fill)		
2								Damp, silty SAND, dark brown, no hydrocarbon odor.	Dmp	
3		138			B90-03			Same as above, gray, free product observed on soil, moderate hydrocarbon odor.		
4								Same as above, no product observed.		
5		45.7			B90-05			Same as above, brown, product visible on soil at 5 feet below ground surface (bgs).		
6								Same as above, gray, moderate hydrocarbon odor.		
7		8.4			B90-07			Same as above, brown, slight hydrocarbon odor.	Mst	
8								Same as above, moist.		
9							SM		Dmp	
10		2.5			B90-10					
11										
12		4.5			B90-12			Same as above, gray, no hydrocarbon odor.		
13										
14		1.3			B90-14					
15		4.0								
16					B90-16					
17								Damp, fine-grained SAND with silt, gray, no hydrocarbon odor.	Dmp	
18		1.8			B90-18		SP-SM		Dmp	
19										
20		1.9			B90-20					
21								Boring terminated at 20' bgs and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: RAH
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B90

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	31.95' N and 34.08' E of 01MW55
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							SP	Asphalt (3" thickness). Damp, SAND with silt, some fine subangular gravel, brown, no hydrocarbon odor (Fill).		
2		750			B91-02			Damp, silty SAND, brown, no hydrocarbon odor.	Dmp	
3										
4		7.2								
5										
6		72.0			B91-06		SM		Dmp	
7								Same as above, brown with gray mottling.		
8		23.3								
9										
10		25.1			B91-10			Same as above, moderate hydrocarbon odor.	Dmp	
11										
12		3.5						Damp, fine-grained SAND with silt, brown, slight hydrocarbon odor.		
13								Same as above, no hydrocarbon odor.	Dmp	
14		2.3			B91-14					
15							SP-SM		Dmp	
16		1.4								
17									Dmp	
18		0.0			B91-18			Same as above, brown with gray mottling.		
19									Dmp	
20		0.0			B91-20					
21								Boring terminated at 20' below ground surface and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2008
Date Finished: 12/29/2008
Logged By: RAH
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B91

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	14' N of cement dock, 0.5' E of gravel-asphalt interface
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							GP	Gravel (fill).		
1							SM	Moist to wet (surface water runoff), silty SAND, some gravel, gray, no hydrocarbon odor (Fill).		
2		24			B92-02				Mst	
3								Moist, silty, fine- to coarse-grained SAND, brown, no hydrocarbon odor.		
4		10.8			B92-04		SM	Moist, silty, fine-grained SAND, brown, no hydrocarbon odor.		
5								Moist, silty SAND, trace gravel, brown with oxidation.	Mst	
6		45.5			B92-06					
7							ML	Moist to damp, fine sandy SILT, tan to gray with mottling, faint solvent odor.	Mst	
8		49.4			B92-08					
9								Moist, SILT, some fine-grained sand, no hydrocarbon odor.	Mst	
10		100.6			B92-10		CL-ML	Moist, SILT with clay, gray, no hydrocarbon odor.		
11								Moist, SILT, some fine-grained sand, gray with some brown oxidation, no hydrocarbon odor.	Mst	
12		12.7								
13							ML	Moist, SILT, to silt with clay, zones of silty sand at 13.2 feet below ground surface (bgs), no hydrocarbon odor.	Mst	
14		163			B92-14					
15								Moist to damp, SILT, some fine-grained sand, gray, no hydrocarbon odor.	Mst	
16		93			B92-16					
17							SM	Moist to damp, silty, fine-grained SAND, tan to brown, no hydrocarbon odor.	Mst	
18										
19		24.2			B92-19		SP	Moist to damp, fine-grained SAND, some silt, tan to light gray, no hydrocarbon odor.	Mst	
20										
21								Boring terminated at 20' bgs and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B92

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	26.7' N of 01MW54
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2" thickness).		
1								Silty, fine-grained SAND with gravel, brown (Fill).		
2		4.3			B93-02		SM	Moist, silty, fine-grained SAND, some gravel and silt-rich zones, brown to gray (Fill).	Mst	
3										
4		2.1						Moist, silty, fine-grained SAND, with silt-rich interbeds, medium gray, no hydrocarbon odor.		
5									Mst	
6		2.2			B93-06		SM			
7								Moist, silty, fine-grained SAND, some gravel, no hydrocarbon odor.	Mst	
8		5.0			B93-08					
9								Moist, fine-grained SAND, some silt, tan to brown, no hydrocarbon odor.	Mst	
10		14.2			B93-10					
11							SP-SM		Mst	
12										
13									Mst	
14		4.5			B93-14					
15							SM	Moist to damp, silty, fine-grained SAND, tan to brown, no hydrocarbon odor.	Mst	
16					B93-16					
17								Moist, fine-grained, sandy SILT with clay, brown grading to gray, no hydrocarbon odor.	Mst	
18		30.3			B93-18		ML			
19									Mst	
20		5.5			B93-20					
21								Boring terminated at 20' below ground surface and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B93

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	36.1' N of cement dock, 14' E of 01MW55
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2" thickness).		
1							SM	Moist, silty, fine-grained SAND, gray with some oxidation, faint solvent odor.		
2		13.5			B94-02				Mst	
3							SM	Moist, silty, fine-grained SAND grading to more silt-rich, gray with some oxidation, faint solvent odor.		
4		4.1								
5									Mst	
6		5.5			B94-06		ML	Moist, fine-grained, sandy SILT with some gravel, brown, no hydrocarbon odor.		
7		72.5			B94-07			Damp to moist, fine-grained, sandy SILT grading to silt, gray to tanish brown with oxidation, some solvent odor.	Mst	
8							ML	Moist, SILT, some clay, tan to brown.		
9									Mst	
10		2.5			B94-10			Moist, fine-grained, sandy SILT, tan to gray with oxidation, faint odor.		
11									Mst	
12		10.8					ML	Moist, fine, sandy SILT to silt, gray with oxidation, no hydrocarbon odor.		
13									Mst	
14		13.5			B94-14			Moist to damp, silty, fine-grained SAND, tan to brown, no hydrocarbon odor.		
15							SM		Mst	
16		3.5						Moist, fine-grained SAND, some silt, tan to brown with oxidation, no hydrocarbon odor.		
17									Mst	
18		3.7					SP-SM			
19									Mst	
20		2.3			B94-20			Boring terminated at 20' below ground surface and backfilled with bentonite.		
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/20/2008
Date Finished: 12/20/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B94

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	24.6' N of cement dock, 22.5' W of 01MW44
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0–1							SM	Gravel surface underlain by moist, silty, fine- to medium-grained SAND with gravel and trace charcoal, gray to tan, no hydrocarbon odor (Fill).		
2		2.7	90		B95-02				Mst	
3							SM	Moist, silty, fine-grained SAND, tan to brown with oxidation, no hydrocarbon odor.		
4										
5		2.4	100					Moist, SILT with clay and trace sand, gray with minor oxidation, no hydrocarbon odor.		
6		7.2			B95-06					
7		3.6	100				CL-ML	Moist, SILT with clay and sand-rich lenses, olive to gray with some oxidation, no hydrocarbon odor.	Mst	
8										
9		25.6	100				ML	Moist to damp, fine-grained, sandy SILT, tan grading to dark gray, no hydrocarbon odor.		
10					B95-10					
11			100				ML	Moist to wet, SILT, olive gray, no hydrocarbon odor.	Mst	
12		14.2					SP	Wet, fine-grained SAND with trace silt, tan to brown with some oxidation, no hydrocarbon odor.		
13		39.1	100				CL-ML	Moist, SILT with clay, tanish brown grading to dark gray, no hydrocarbon odor.		
14					B-95-14					
15			100				ML	Moist, SILT, dark gray, no hydrocarbon odor.	Mst	
16		17.5								
17			100				SM	Moist, silty, fine-grained SAND, dark gray, no hydrocarbon odor.		
18		6.8								
19			100				SP	Moist, fine-grained SAND with some silt, gray, no hydrocarbon odor.	Mst	
20		11.8			B95-20					
21–25								Boring terminated at 20' below ground surface and backfilled with bentonite.		

SOUND ENVIRONMENTAL STRATEGIES
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2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B95

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	19.11' W of 01MW54, 2' S of B93
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	12

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							FILL	Gravel surface.		
1								Moist, silty fine-grained SAND with some gravel and charcoal, tan to brown with appearance of oxidation (Fill), last 6" possibly native.		
2		0.7	80		B96-02		FILL		Mst	
3										
4		3.4						Moist, fine-grained sandy SILT grading to silty fine-grained sand with some gravel, gray with appearance of oxidation, no hydrocarbon odor.		
5			50				ML		Mst	
6		2.5			B96-06					
7			100						Mst	
8		15.1						Moist, fine-grained sandy SILT, olive brown, no hydrocarbon odor.		
9			100				ML		Mst	
10		15.2			B96-10			Moist SILT with trace fine-grained sand, olive brown, no hydrocarbon odor.		
11			100				ML		Mst	
12		22.5							▽	
13			100				SM	Wet to moist, fine-grained sandy SILT grading to silty fine-grained sand, tan with appearance oxidation, no hydrocarbon odor.	Mst	
14		23.6			B96-14		SP	Moist, fine-grained SAND, tan to brown.		
15			100				ML	Moist SILT with trace fine-grained sand.	Mst	
16		35.5					SP	Moist, fine-grained SAND with trace silt, gray, no hydrocarbon odor.		
17			100				ML	Moist SILT with clay, gray, no hydrocarbon odor.	Mst	
18		51.5					SP	Moist, fine-grained SAND with trace silt, brown with appearance of oxidation.		
19		3.3	100		B96-20				Mst	
20								Boring terminated at 20' below ground surface and backfilled with bentonite.		
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B96

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	82.8' W of TOC headquarters building, 50.5' N of cement dock
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (3" thickness).		
1							FILL	Moist, silty, fine-grained SAND with some gravel.		
2		17.1	80		B97-02		FILL	Damp, fine-grained sandy SILT, gray with appearance of oxidation, hydrocarbon odor at 2' below ground surface (bgs).	Mst	
3										
4		32.7								
5			100				ML	Damp, fine-grained sandy SILT, gray, strong hydrocarbon odor.	Mst	
6		2,200			B97-06					
7			75				SP-SM	Damp, fine-grained SAND with trace silt grading to sandy silt, strong hydrocarbon odor.	Mst	
8		31								
9			100				ML	Moist SILT with some fine-grained sandy lenses, brown, faint hydrocarbon odor.	Mst	
10		3.1			B97-10					
11			100				ML	Moist SILT with some fine-grained sand, brown with appearance of oxidation.	Mst	
12		4.5								
13			100				SM	Moist, silty fine-grained SAND, brown, no hydrocarbon odor.	Mst	
14		4.5			B97-14					
15			100				SM	Moist, silty fine-grained SAND grading to fine-grained sand with some silt, brown, no hydrocarbon odor.	Mst	
16		1.0								
17			100					Moist, fine-grained SAND with some silt, brown, no hydrocarbon odor.	Mst	
18		1.5					SP			
19			100						Mst	
20					B97-20			Boring terminated at 20' bgs and backfilled with bentonite.		
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2009
Date Finished: 12/30/2009
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B97

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	24.1' E and 23.2' N of 01MW54
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (2" thickness).		
1							FILL	Moist, silty fine-grained SAND with gravel and some charcoal, no hydrocarbon odor.		
2		3.6	85		B98-02				Mst	
3							FILL	Moist, silty fine-grained SAND with gravel and some charcoal, moderate to strong hydrocarbon odor.		
4		97.1								
5			100				ML	Moist SILT with clay and sand interbeds grading to sandy silt, tan to gray, no hydrocarbon odor.	Mst	
6		0.0			B98-06					
7			100				SM	Moist, silty fine-grained SAND with gravel, medium brown with appearance oxidation, no hydrocarbon odor.	Mst	
8		3.1								
9			75				ML	Moist, fine-grained sandy SILT with some gravel, tan to brown, no hydrocarbon odor.	Mst	
10		3.8			B98-10					
11			50				SP	Moist, fine-grained SAND with silt, brown with appearance of oxidation.	Mst	
12		0.0								
13			100				SM	Moist, silty, fine-grained SAND, gray with appearance of oxidation, no hydrocarbon odor.	Mst	
14		15.3			B98-14					
15			100				SP	Moist, fine-grained SAND with some silt, gray with appearance of oxidation, no hydrocarbon odor.	Mst	
16		7.7					ML	SILT with clay, no hydrocarbon odor.		
17			100				ML	Moist SILT with clay and sand with silt at bottom of sample.	Mst	
18		2.6					SP	Moist SAND with some silt, brown, no hydrocarbon odor.		
19			100				SP	Moist, fine-grained SAND with some silt. No hydrocarbon odor.		
20		0.6			B98-20					
21								Boring terminated at 20' below ground surface and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: CCC
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B98

Log of Exploratory Boring:

Notes
Boring terminated at 10' bgs due to sampler falling into boring.

Drilling Co./Driller:	Cascade / Eli
Drilling Method:	Geoprobe 420
Location:	Under shed on platform, in center of Northern grate.
Surface Condition:	Concrete
Total Depth:	10
First GW Depth:	4.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0		268			B99-0.5		CONC	Concrete (0.5' thickness)	Wet	
1			100				FILL	Wet, silty, fine-grained SAND, gray with brown mottling, strong hydrocarbon odor.		
							FILL	Damp, fine- to coarse-grained SAND with silt and trace fine gravel, moderate hydrocarbon odor.		
2									Dmp	
							ML	Damp SILT with some fine-grained sand, brownish gray, faint hydrocarbon odor.		
3		6.7			B99-03					
							ML	Moist SILT with fine- to coarse-grained sand, brown with gray mottling, moderate hydrocarbon odor.	Mst	
4										
			100						▽ Wet	
5		153			B99-05		SM	Wet, silty fine- to coarse-grained SAND with trace fine gravels, grayish brown, moderate hydrocarbon odor.		
									Mst	
6		53.7					SM	Moist, silty fine-grained SAND with silt lenses and trace fine gravel, light brown, faint hydrocarbon odor.		
7		1.1	100		B99-07				Wet	
							SM	Moist, silty fine-grained SAND with trace fine gravel grading to silt in the last 3", brown, faint hydrocarbon odor.		
8		0.0							Wet	
								Wet SILT with fine-grained sand, gray, faint hydrocarbon odor.		
9		1.7	100		B99-09		ML			
		1.4								
10								Boring terminated at 10' below ground surface and backfilled with bentonite.		
11										
12										
13										
14										
15										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B99

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Geoprobe
Location:	Under shed in center of Southern grate
Surface Condition:	Concrete
Total Depth:	18
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0		6.3			B100-0.5		CONC	Concrete (0.5' thickness).		
1			100				SM	Wet, silty, fine- to coarse-grained SAND with trace fine gravel, brown, strong hydrocarbon odor, visible sheen at 0.5' below ground surface (bgs).	Wet	
2										
3		5.0			B100-03					
4			100		B100-04.5		ML	Moist SILT with trace fine-grained sand, reddish brown with gray mottling, no hydrocarbon odor.	Mst	
5		2.4								
6		1.3						Damp SILT with trace fine-grained sand, dark gray, no hydrocarbon odor.		
7		1.0			B100-07					
8			100				ML		Dmp	
9		0.4						Damp SILT with trace fine-grained sand, dark gray, no hydrocarbon odor.		
10		0.2			B100-10					
11			100				ML		Dmp	
12		6.6								
13							SM	Moist, silty, fine-grained SAND, dark gray, very faint hydrocarbon odor.		
14		6.8	100		B100-14				Mst	
15							ML	Damp, SILT with trace fine-grained sand, contacts visible, no hydrocarbon odor.		
16							SM	Damp, silty, fine-grained SAND with silt lenses, gray, no hydrocarbon odor.		
17		4.7	100		B100-17				Dmp	
18								Boring terminated 18' bgs due to refusal. Backfilled with bentonite.		
19										
20										
21										
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/30/2008
Date Finished: 12/30/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B100

Log of Exploratory Boring:

Notes
NE = not encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Eli
Drilling Method:	LA HSA
Location:	23.2' N and 43.9' E of 01MW54
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	NE

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (3" thickness).		
1							FILL	Moist, silty, fine-grained SAND with trace organics and some charcoal, dark brown, no hydrocarbon odor. (Fill)		
2		3.7	100		B101-02				Dmp	
3							FILL	Damp, silty, fine-grained SAND with trace fine gravel, gray, no hydrocarbon odor. (Fill)		
4		1.5								
5								Damp, silty, fine-grained SAND with some coarse sand and few subrounded to angular fine gravels, tan to brown with gray mottling, no hydrocarbon odor.		
6		4.1	100		B101-06		SP-SM		Dmp	
7										
8		1.2								
9							SM	Damp, silty fine to medium SAND, light brown, no hydrocarbon odor.		
10		2.4	100		B101-10		ML	Dry SILT with trace fine-grained sand, light brown, no hydrocarbon odor.	Dmp Dry	
11							SM	Damp, silty fine- to medium-grained SAND, light brown, no hydrocarbon odor.		
12								Damp, silty fine SAND [with orange and red laminations (0.5" thick)], grades to silt with fine-grained sand at 14' below ground surface (bgs), brown to gray, no hydrocarbon odor.		
13			100				SM			
14		2.9			B101-14			Wood (2" thick at 13' bgs).	Dmp	
15										
16								Damp, silty, fine-grained SAND, light brown with sparse gray mottling, no hydrocarbon odor.		
17		0.3	100		B101-17		SM		Dmp	
18										
19			100				SM	Damp, silty fine-grained SAND, gray with orange mottling, no hydrocarbon odor.		
20		0.2			B101-20				Dmp	
21								Boring terminated at 20' bgs and backfilled with bentonite.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/20/2008
Date Finished: 12/20/2008
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B101

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Dirt/grass
Total Depth:	40
First GW Depth:	32.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							ML	Moist, medium dense SILT with some fine- to medium-grained sand, trace fine to coarse gravel, rootlets, brown, no hydrocarbon odor.		
1										
2										
3	16 30 35	1,069	90		B102-02.5		ML	Moist, medium dense, fine-grained sandy SILT with trace fine to coarse gravel, rootlets, gray, moderate hydrocarbon odor. Brown.	Mst	
4										
5					B102-05					
6	20 24 38	71.2	90				ML SM	Moist, medium dense, sandy SILT with trace fine to coarse gravel, rootlets, brown to reddish-brown, no hydrocarbon odor. Moist, medium dense, silty, fine-grained SAND with trace fine to coarse gravel, gray, no hydrocarbon odor.	Mst	
7										
8	8 11 12	114	90		B102-07.5		ML	Moist, medium dense SILT with trace fine-grained sand and trace fine gravel, gray, no hydrocarbon odor.	Mst	
9										
10					B102-10					
11	12 18 23	14.8	90				ML	Moist, medium dense SILT with trace fine-grained sand and trace gravel, gray, no hydrocarbon odor.	Mst	
12										
13	12 24 36	27.8	90		B102-12.5		ML	Moist, medium dense SILT with trace fine-grained sand and trace fine gravel, gray, no hydrocarbon odor.	Mst	
14										
15					B102-15					
16	22 23 27	10.2	80				ML	Moist, medium dense SILT with trace fine-grained sand and trace fine gravel, gray, no hydrocarbon odor.	Mst	
17										
18	17 24 26	11.6	85		B102-17.5		SM SP	Moist, medium dense, silty SAND with trace fine to coarse gravel, gray, no hydrocarbon odor. Moist, medium dense SAND with trace silt and trace fine to coarse gravel, brown, no hydrocarbon odor.	Mst	
19										
20					B102-20					
21	17 17 18	17.8	80				ML	Moist, medium dense SILT with some fine-grained sand and trace fine gravel, gray, no hydrocarbon odor.	Mst	
22										
23	30 33 37	24.2	80		B102-22.5		SM	Moist, medium dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Mst	
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: BAJ
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B102/01MW64

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Dirt/grass
Total Depth:	40
First GW Depth:	32.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
25	22 28 30	20.7	80		B102-25		SM	Moist, medium dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Mst	
26										
27										
28	26 50/6"	6.0	66		B102-27.5		SP	Moist, dense, fine-grained SAND with some silt, trace fine gravel, gray, no hydrocarbon odor.	Mst	
29										
30	26 50/6"	5.7	66		B102-30		SP	Moist, dense, fine-grained SAND with some silt, trace fine gravel, gray, no hydrocarbon odor.	Mst	
31										
32									▽	
33	20 25 27		80				SP	Wet, medium dense, fine-grained SAND with some silt and trace fine gravel, gray, no hydrocarbon odor.	Wet	
34										
35	18 36 40		800				SP	Wet, medium dense, fine-grained SAND with some silt and trace fine gravel, gray, no hydrocarbon odor.	Wet	
36										
37										
38	18 35 40		90				SP	Wet, medium dense, fine-grained SAND with some silt and trace fine gravel, gray, no hydrocarbon odor.	Wet	
39										
40			90		B102-39.5		SP ML	Wet, medium dense, fine-grained SAND with some silt and trace fine gravel, gray, no hydrocarbon odor. Moist, medium dense SILT with trace fine-grained sand, gray, no hydrocarbon odor. Boring terminated at 40' below ground surface (bgs). Converted to 2" diameter PVC monitoring well 01MW64 with 0.010 slot screen from 25' to 40' bgs.	Wet	
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										

Log of Exploratory Boring:

Notes
*PID readings appeared to be anomalous. After these readings a different PID was used.
Conductor casing installed from 0' to 34' bgs with a bentonite seal from 30.5' to 34' bgs.

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Asphalt
Total Depth:	99
First GW Depth:	24

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (0.5' thickness).		
5	10 12 12	117*	85		B103-05		SM	Moist, medium dense, silty, fine-grained SAND with trace fine gravel, brown, no hydrocarbon odor.	Mst	
10	6 11 14	140*	90		B103-10		SM ML	Moist, medium dense, silty, fine-grained SAND with trace fine gravel, brown, no hydrocarbon odor. Moist, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
15	16 24 26	261*	80		B103-15		SM	Moist, medium dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Mst	
20	12 22 24	6.6	90		B103-20		SM	Moist, medium dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Mst	
22	20 23 26	1.3	80					Moist, medium dense, fine-grained SAND with silt and trace fine gravel, gray, no hydrocarbon odor.	Mst	
24	18 20		80						▽Mst	
25	23 20		80				SP	Wet.	Wet	
26	23 26									
27	20 24		85						Wet	
28	26		90						Wet	
29	30 31									
30			90						Wet	

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/18/2009
Logged By: BAJ
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B103/01MW65

Log of Exploratory Boring:

Notes
*PID readings appeared to be anomalous. After these readings a different PID was used.
Conductor casing installed from 0' to 34' bgs with a bentonite seal from 30.5' to 34' bgs.

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Asphalt
Total Depth:	99
First GW Depth:	24

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
30	33				B103-30					
31	14							Moist, medium dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.		
	20	1.3	80		B103-31.5				Mst	
32	23									
	21									
33	25	1.5	85				ML		Mst	
	28									
34	23	1.3	90		B103-34				Mst	
	25									
35	28									
	15	1.3	90		B103-36				Mst	
36	18						SM	Moist, medium dense, silty, fine- to medium-grained SAND, no hydrocarbon odor.		
37	25									
	12				B103-37.5					
38	20	31.3	90				SM	Moist, medium dense, silty, fine- to medium-grained silty SAND, no hydrocarbon odor.	Mst	
39	25									
	12									
40	23				B103-40					
	26	42.6	66				SM	Moist, dense, silty, fine- to medium-grained SAND, gray, no hydrocarbon odor.	Mst	
41	28									
	50/6"									
42										
	38				B103-42.5		SM			
43	50/6"	19.3	66				ML	Moist, dense, silty, fine- to medium-grained SAND, gray, no hydrocarbon odor.	Mst	
44								Moist, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.		
45					B103-45					
	36						ML	Moist, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
46	50/6"	14.1	66							
47										
	27				B103-47.5					
48	33	21.6	80						Damp	
49	35									
50					B103-50					
	35		66				ML	Damp, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Damp	
51	50/6"									
52										
					B103-52.5					
53	42		66				SP	Moist, dense, fine- to medium-grained SAND with trace silt, gray, no hydrocarbon odor.	Mst	
54	50/6"									
55					B103-55					
	41						SP	Moist, dense, fine- to medium-grained SAND with trace silt, gray, no hydrocarbon odor.	Mst	
56	50/6"	1.1	66							
57										
					B103-57.5					
58	39	0.4	66				SP	Moist, dense, fine- to medium-grained SAND with trace silt, gray, no hydrocarbon odor.	Mst	
59	50/6"									
60										

Log of Exploratory Boring:

Notes
*PID readings appeared to be anomalous. After these readings a different PID was used.
Conductor casing installed from 0' to 34' bgs with a bentonite seal from 30.5' to 34' bgs.

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Asphalt
Total Depth:	99
First GW Depth:	24

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
60	42 50/6"	0.5	66		B103-60		SM	Damp, dense, silty, fine-grained SAND, gray, no hydrocarbon odor.	Damp	
61										
62					B103-62.5					
63	36 50/6"	0.7	66				ML	Damp, dense SILT with some fine-grained sand, gray, no hydrocarbon odor.	Damp	
64										
65	34 50/6"	0.6	66		B103-65		ML	Damp, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Damp	
66										
67					B103-67.5					
68	34 50/6"	0.6	66				ML	Damp, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Damp	
69										
70	18 50/6"	0.6	66		B103-70		ML	Damp, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Damp	
71										
72					B103-72.5					
73	38 50/6"	0.5	66				ML	Moist, dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
74										
75	33 50/6"	0.7	66		B103-75		ML	Moist, dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
76										
77					B103-77.5					
78	16 34 35	0.5	85				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
79										
80	26 45 31	0.5	90				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
81										
82	24 33 37	0.4	85				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
83										
84	24 33 37	0.4	80				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
85										
86					B103-87.5					
87	21 33 35	0.2	80				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
88										
89										
90										

Log of Exploratory Boring:

Notes
*PID readings appeared to be anomalous. After these readings a different PID was used.
Conductor casing installed from 0' to 34' bgs with a bentonite seal from 30.5' to 34' bgs.

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Drilling Co./Driller:	Cascade / Scotty
Drilling Method:	Hollow-stem Auger
Location:	
Surface Condition:	Asphalt
Total Depth:	99
First GW Depth:	24

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
90										
91	12 25 32	0.3	80				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
92										
93	36 50/6"	0.4	66				ML	Moist, dense SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
94										
95	24 38 40	0.3	90				ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
96										
97										
98	24 30 39	0.4	85		B103-99		ML	Moist, medium dense, SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
99								Boring terminated at 99' below ground surface (bgs) and backfilled to 64' bgs with bentonite chips. Converted to 2-inch diameter PVC monitoring well 01MW65 with 0.010 slot screen from 62' to 52' bgs.		
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							ML	Damp, very stiff, SILT with trace sand and subrounded gravel, light brown, no hydrocarbon odor.	Dmp	
2		0.5	100		B104-02		SP	Damp, very stiff, fine- to medium-grained SAND with some fine gravel, light brown, no hydrocarbon odor.	Dmp	
3										
4		0.4			B104-04					
5										
6		1.0			B104-06			Dry, hard SILT with fine- to medium-grained sand, light brown, no hydrocarbon odor.	Dry	
7			100							
8							ML			
9		2.1			B104-08.5			Damp, hard, SILT with trace fine sand. Gray, no hydrocarbon odor.	Dmp	
10		5.3			B104-10					
11			100				SM	Damp, hard, silty, fine- to medium-grained SAND, brown, no hydrocarbon odor.	Dmp	
							ML	Damp, hard SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Dmp	
12		2.3			B104-12		SM	Damp, hard, silty, fine- to medium-grained SAND, brown, no hydrocarbon odor.	Dmp	
13							ML	Damp, hard SILT, gray to medium brown, no hydrocarbon odor.	Dmp	
14		19.0			B104-14		SM	Moist, hard SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Mst	
								Moist, hard, silty, fine-grained SAND, brown, no hydrocarbon odor.	Mst	
15			100				ML	Moist, hard SILT with fine-grained sand, gray, faint hydrocarbon odor.	Mst	
16		2.2			B104-16					
17								Moist, dense, silty fine-grained SAND, brown, no hydrocarbon odor.	Mst	
18		9.9			B104-18		SM	Damp, dense, silty fine- to medium-grained SAND, brown, faint hydrocarbon odor.	Dmp	
19			100							
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B104

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20		5.2			B104-20			Moist, dense, silty fine-grained SAND, brown, no hydrocarbon odor.	Mst	
21										
22		12.8			B104-22			Wet, very dense, silty, fine- to medium-grained SAND, gray, faint hydrocarbon odor.	Wet ▽	
23			100				SM			
24		20.7			B104-24					
25								Boring terminated at 25' below ground surface and backfilled with bentonite.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	22
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1							FILL	Damp, dense, silty, fine- to medium-grained SAND with some fine to coarse gravel and asphalt, brown, no hydrocarbon odor.	Dmp	
2			100					Damp, dense, silty, fine-grained SAND with trace subrounded fine gravel, brown, no hydrocarbon odor.		
3		1.1			B105-03				Dmp	
4										
5		1.5			B105-05			Damp, stiff SILT with some fine-grained sand, brown with gray mottling, no hydrocarbon odor.	Dmp	
6								Moist, stiff SILT with trace fine-grained sand, brown with gray mottling, no hydrocarbon odor.	Mst	
7		1.5			B105-07					
8			100				ML	Wet, very stiff.	Wet	
9		2.6			B105-08.5			Dry, hard SILT with trace fine-grained sand, brown with gray mottling, no hydrocarbon odor.	Dry	
10		2.4			B105-10			Moist, stiff SILT with trace fine-grained sand, brown, no hydrocarbon odor.	Mst	
11										
12			100				SM	Damp, dense, silty, fine- to medium-grained SAND, brown, no hydrocarbon odor.	Dmp	
13		3.3			B105-13					
14								Dry, hard SILT with trace sand, brown, no hydrocarbon odor.	Dry	
15		7.7			B105-15		ML	Damp, hard SILT with trace fine-grained sand, gray, no hydrocarbon odor.	Dmp	
16			100							
17		6.7			B105-17					
18							SM	Moist, dense, silty, fine-grained SAND, gray to light brown, no hydrocarbon odor.	Mst	
19							ML	Moist, hard SILT with trace sand, brown, no hydrocarbon odor.	Mst	
20							SM			

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B105

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	22
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20		4.2	100		B105-20		SM	Moist, silty, fine- to medium-grained SAND, gray, no hydrocarbon odor.	Mst	
21										
22		3.1			B105-22			Boring terminated at 22' below ground surface and backfilled flush to surface with bentonite chips.	▽	
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (0.5' thickness).		
1							FILL	Damp, dense, silty, fine- to coarse-grained SAND with trace fine gravel, gray, faint hydrocarbon odor.	Dmp	
2		2.5	90		B106-02					
3								Moist, dense, silty, fine- to coarse-grained SAND with trace fine gravel, brown, no hydrocarbon odor.	Mst	
4		1.7			B106-04					
5							SM	Damp, dense, silty fine- to coarse-grained SAND with trace fine gravel, brown, no hydrocarbon odor.	Dmp	
6		1.6			B106-06					
7			100				ML	Moist, hard SILT with trace fine to coarse gravel, brown, no hydrocarbon odor.	Mst	
8		2.5			B106-08					
9										
10		6.8					SM	Wet, dense, silty, fine- to coarse-grained SAND, brown, no hydrocarbon odor.	Wet	
11										
12		40.1			B106-12					
13			100							
14					B106-14		ML		Mst	
							SM	Moist, hard SILT with trace sand, gray, no hydrocarbon odor.		
15								Wet, dense, silty, fine- to coarse-grained SAND, brown, no hydrocarbon odor.	Wet	
								Damp, hard SILT, gray, no hydrocarbon odor.	Dmp	
16		54.6			B106-16		ML	Moist, hard SILT, gray, moderate hydrocarbon odor.	Mst	
17										
18		35.1	100		B106-18					
19							SM	Moist, dense, silty, fine-grained SAND, brown, no hydrocarbon odor.	Mst	
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B106

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20		52.0			B106-20			Moist, dense, silty, fine-grained SAND, gray, faint hydrocarbon odor.	Mst	
21										
22			50							
23									▽	
24										
25		9.0			B106-25			Boring terminated at 25' below ground surface and backfilled flush to surface with bentonite chips and a concrete plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (2" thickness).		
1								Moist, dense, silty, fine- to coarse-grained SAND with fine to coarse gravel, dark brown, no hydrocarbon odor.		
2							FILL			
3		3.2	80		B107-03			Damp, dense, silty, fine- to coarse-grained SAND with trace fine gravel and organics, brown, no hydrocarbon odor.		
4								Damp, dense, silty fine-grained SAND, gray, faint hydrocarbon odor.		
5		1.4			B107-05		SM	Dry, dense, silty, fine- to coarse-grained SAND with trace fine gravel, brown, no hydrocarbon odor.		
6										
7		14.2			B107-07					
8			100				ML	Dry, stiff SILT with some fine-grained sand and trace fine gravel, brown, faint hydrocarbon odor.		
9		3.6			B107-09			Dry, dense, fine- to coarse-grained SAND with trace fine gravel, brown, no hydrocarbon odor.		
10										
11		3.4			B107-11		SM	Dry, dense, silty, fine-grained SAND, brown, no hydrocarbon odor.		
12										
13		31.2	100		B107-13			Dry, hard SILT with trace sand, gray, no hydrocarbon odor.		
14										
15							ML	Damp, hard SILT with trace fine-grained sand grading to some fine-grained sand, brown to gray, no hydrocarbon odor.		
16										
17		37.8			B107-17					
18			100							
19		6.8			B107-19		SP	Damp, dense, fine-grained SAND with some silt, brown, no hydrocarbon odor.		
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B107

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21							ML	Damp, hard SILT with trace sand, gray, no hydrocarbon odor.		
22		9.1	100		B107-22					
23							SM	Wet, silty, fine-grained SAND, gray, faint hydrocarbon odor.	▽	
24										
25					B107-25			Boring terminated at 25' below ground surface and backfilled flush to surface with bentonite chips and an asphalt plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	19

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Moist, dense, silty fine- to coarse-grained SAND with trace fine gravel and asphalt. Brown, no hydrocarbon odor.		
2		0.2	100		B108-02		FILL			
3										
4		0.1			B108-04					
5							ML	Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor.		
6		0.4			B108-06		SM	Moist, dense, silty fine-grained SAND. Brown, no hydrocarbon odor.		
7								Damp, hard, SILT with trace fine-grained sand. Brown to gray, no hydrocarbon odor.		
8		0.5	100		B108-08					
9										
10							ML			
11								Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor.		
12		0.0			B108-11.5					
13			100							
14		1.2			B108-14		SM	Moist, dense, silty fine-grained SAND. Brown, no hydrocarbon odor.		
15								Moist, hard, SILT with fine-grained sand. Gray, faint hydrocarbon odor.		
16		0.2			B108-16		ML			
17								Moist to wet, dense, silty fine-grained SAND. Gray, no hydrocarbon odor.		
18		0.4	90		B108-18		SM			
19									▽	
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B108

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	19

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20								Boring terminated at 20' below ground surface. Boring was backfilled flush to surface with bentonite chips.		
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Moist, dense, silty fine- to coarse-grained SAND with fine to medium gravel, some organics. Dark brown, no hydrocarbon odor.		
2			100		B109-02					
3							FILL			
4					B109-04					
5								Moist, dense, silty fine-grained SAND with trace fine to coarse gravel. Brown, no hydrocarbon odor.		
6					B109-06					
7										
8			100		B109-08		ML	Moist, hard, SILT with trace fine-grained sand. Light brown, no hydrocarbon odor.		
9										
10		0.5			B109-10			Moist, dense, silty fine- to coarse-grained SAND. Light brown, no hydrocarbon odor.		
11							SM	Damp, dense, silty fine- to medium-grained SAND with trace fine gravel. Brown, no hydrocarbon odor.		
12		4.3			B109-12					
13			100					Damp, hard, SILT with trace fine-grained sand. Brown to dark gray, no hydrocarbon odor.		
14							ML	Sand rich zone.		
15		3.8			B109-15					
16							SM	Damp, dense, silty fine- to medium-grained SAND. Dark brown, no hydrocarbon odor.		
17		0.5			B109-17		ML	Damp, hard, SILT with trace fine-grained sand. dark gray, no hydrocarbon odor.		
18			100							
19							SM	Damp, dense, silty fine- to medium-grained SAND. Red to light brown, no hydrocarbon odor.		
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/17/2009
Date Finished: 3/17/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B109

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20		0.9			B109-20			Damp, dense, silty fine- to medium-grained SAND. Red to light brown, no hydrocarbon odor. Gray.	▽	
21										
22			100				SM	Wet to moist, silty fine- to medium-grained SAND. Gray to light brown, no hydrocarbon odor.		
23		4.1			B109-23					
24										
25								Boring terminated at 25' below ground surface. Boring was backfilled flush to surface with bentonite chips and an asphalt plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Damp, dense, silty fine- to coarse-grained SAND with few fine to coarse gravel, trace organics. dark brown, no hydrocarbon odor.		
2		0.9	100		B110-02		FILL			
3										
4		1.8			B110-04			Damp, dense, silty fine-grained SAND. Dark brown, faint hydrocarbon odor.		
5								Poor recovery.		
6								Damp, dense, silty fine to medium SAND. Brown with red mottling, no hydrocarbon odor.		
7		0.6			B110-07					
8			30				SM			
9										
10										
11		1.3			B110-11			Damp, dense, silty fine- to medium-grained SAND with trace coarse gravel. Light brown with orange mottling, no hydrocarbon odor.		
12										
13		0.5	100		B110-13					
14								Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor.		
15										
16		9.3			B110-16		ML			
17										
18		1.8	100		B110-18					
19							SM	Damp, dense, silty fine- to medium-grained SAND. Brown, no hydrocarbon odor.		
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
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Date Started: 3/17/2009
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Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B110

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	25
First GW Depth:	22

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21		0.1			B110-21		ML	Damp, dense, SILT with trace sand. Gray, no hydrocarbon odor.		
22									▽	
23			100				SM	Moist to wet, silty fine- to medium-grained SAND. Brown to gray, no hydrocarbon odor.		
24		1.1			B110-24					
25								Boring terminated at 20' below ground surface. Boring was backfilled flush to surface with bentonite chips.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Moist, dense, silty fine-grained to coarse SAND with few fine to coarse gravel, trace organics. Green to gray, strong hydrocarbon odor.		
2			30				FILL			
3		7.4			B111-03					
4										
5								No recovery.		
6										
7			0							
8										
9										
10								Wet, dense, silty fine-grained SAND with few fine to medium gravel. Brown, faint hydrocarbon odor.		
11							SM			
12		2.8			B111-12			Damp, hard SILT with fine-grained sand. Gray, very faint hydrocarbon odor.		
13			100							
14		1.2			B111-14		ML			
15								Wet, hard, SILT with fine- to medium-grained sand. gray, no hydrocarbon odor.		
16		3.9			B111-16					
17								Moist, dense, silty fine- to medium-grained SAND. Brown, no hydrocarbon odor.		
18		28.6	100		B111-18		SM			
19							ML	Moist, hard, SILT with fine-grained sand. Gray, no hydrocarbon odor.		
20							SM			

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/18/2009
Date Finished: 3/18/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B111

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	23

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21		15.9			B111-21			Damp, dense, silty fine-grained SAND. Gray, no hydrocarbon odor. Moist to wet, silty fine- to medium-grained SAND. Gray, faint hydrocarbon odor.		
22			100				SM			
23									▽	
24		26.7			B111-24					
25								Boring terminated at 25' below ground surface. Boring was backfilled flush to surface with bentonite chips and a concrete plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	21

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt.		
1								Moist, loose, silty fine- to coarse-grained SAND with few fine to coarse gravel, trace rootlets. Brown, no hydrocarbon odor.		
2			100							
3		0.8			B112-03					
4										
5		1.3			B112-05		FILL	Moist, dense, silty fine- to coarse-grained SAND with few fine gravel, trace organics. Brown, no hydrocarbon odor.		
6										
7		6.1			B112-07					
8			100							
9		4.4			B112-09			Damp, dense, silty fine-grained SAND. Light brown, no hydrocarbon odor.		
10										
11		5.0			B112-11			Damp, dense, silty fine- to coarse-grained SAND with trace fine gravel, trace silt rich zones. Light brown, no hydrocarbon odor.		
12							SM			
13			100		B112-13					
14										
15								Damp, dense, silty fine-grained SAND. Light brown, no hydrocarbon odor.		
16		32.8			B112-16			Damp, hard, SILT with fine-grained sand, sand rich zones. Gray to brown, no hydrocarbon odor.		
17							ML			
18		3.5	100		B112-18			Damp, dense, silty fine-grained SAND. Gray with brown mottling, no hydrocarbon odor.		
19							SM			
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/18/2009
Date Finished: 3/18/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B112

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Asphalt
Total Depth:	25
First GW Depth:	21

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21		7.2			B112-21			Damp, dense, silty fine-grained SAND. Gray with brown mottling, no hydrocarbon odor.	▽	
22			100				SM	Moist, dense, silty fine-grained SAND with silt rich zones. Brown, no hydrocarbon odor.		
23								Wet to moist, dense, silty fine- to medium-grained SAND. Brown to gray, no hydrocarbon odor.		
24										
25								Faint hydrocarbon odor.		
26								Boring terminated at 25' below ground surface. Boring was backfilled flush to surface with bentonite chips and an asphalt plug.		
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	20

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Damp, dense, silty fine- to medium-grained SAND with some fine to medium gravel, trace organics. Brown, no hydrocarbon odor.		
2			100				FILL			
3										
4		0.6			B113-04					
5										
6								Damp, dense, silty fine- to medium-grained SAND with silt rich zones, trace medium gravel. Brown, no hydrocarbon odor.		
7							SM			
8		0.5	100		B113-08					
9							ML	Damp, hard, SILT with trace fine-grained sand. Brown, no hydrocarbon odor.		
10		0.7					SM	Damp, dense, silty fine- to coarse-grained SAND with trace fine gravel. Brown, no hydrocarbon odor.		
11										
12		6.9			B113-11.5		ML	Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor.		
13			100							
14		3.5			B113-13.5		SM	Damp, dense, silty fine- to medium-grained SAND. Brown to orange, no hydrocarbon odor.		
15							ML	Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor. Moist.		
16		2.0			B113-16		SM	Damp, silty fine-grained SAND. Brown, no hydrocarbon odor.		
17							ML	Moist, hard, SILT with trace sand. Gray, no hydrocarbon odor.		
18		0.8	100		B113-18					
19							SM	Moist to wet, dense, silty fine- to medium-grained SAND. Brown with gray mottling, no hydrocarbon odor.	▽	
20										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Gravel
Total Depth:	20
First GW Depth:	20

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20								Boring terminated at 20' below ground surface. Boring was backfilled flush to surface with bentonite chips.		
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Damp, dense, silty fine- to coarse-grained SAND with fine to medium gravel, trace coal. Brown to gray, no hydrocarbon odor.		
2										
3			20				FILL			
4		0.1			B114-04					
5										
6								Damp to moist, dense, silty fine- to medium-grained SAND. Brown to light brown, faint hydrocarbon odor.		
7							SM			
8		0.0	100		B114-08					
9								Damp, hard, SILT with trace fine-grained sand. Brown grading to gray, no hydrocarbon odor.		
10		0.0								
11							ML	Damp, hard, SILT with few fine-grained sand. Gray, no hydrocarbon odor.		
12		0.1			B114-12					
13			100							
14		0.0			B114-14					
15							SM	Wet, dense, silty fine-grained SAND. Gray, no hydrocarbon odor.		
16		0.6			B114-16		ML	Moist, dense, silty fine-grained SAND with silt rich zones. Gray, no hydrocarbon odor.		
17		0.9					SM	Damp, dense, silty fine- to medium-grained SAND. Brown, no hydrocarbon odor.		
18		8.5	100		B114-18		ML	Damp, hard, SILT with some fine-grained sand. Gray, faint hydrocarbon odor.		
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
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TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/18/2009
Date Finished: 3/18/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B114

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20		1.5						Damp, hard, SILT with some fine-grained sand. Gray, faint hydrocarbon odor.		
21		4.3			B114-21		ML	Damp to moist, SILT with some fine-grained sand. Gray, faint hydrocarbon odor.		
22		2.0			B114-22				▽	
23			100					Moist to wet, dense, silty fine-grained SAND. Gray, no hydrocarbon odor.		
24							SM			
25								Boring terminated at 25' below ground surface. Boring was backfilled flush to surface with bentonite chips and an concrete plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	21

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (2.5" thickness).		
1								Moist, dense, silty fine- to coarse-grained SAND with fine to coarse gravel. Gray with zones of green and orange, strong hydrocarbon odor.		
2										
3		63.3	20		B115-03		FILL			
4										
5								Damp, hard, SILT with trace fine-grained sand. Gray, no hydrocarbon odor.		
6										
7										
8		6.7	80		B115-08		ML			
9										
10								Wet, dense, silty fine-grained SAND. Brown, no hydrocarbon odor.		
11										
12		6.9			B115-12		SM			
13			100					Damp, hard, SILT with trace sand. Gray, no hydrocarbon odor.		
14		6.0			B115-14					
15							ML			
16		2.1			B115-16					
17							SM	Damp, dense, silty fine- to medium-grained SAND. Brown with zones of orange, no hydrocarbon odor.		
18		2.3	100		B115-18					
19							ML	Damp, hard, SILT with trace fine-grained sand, sand rich zones. gray, no hydrocarbon odor.		
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/18/2009
Date Finished: 3/18/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B115

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Concrete
Total Depth:	25
First GW Depth:	21

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20										
21		0.9			B115-21			Damp, dense, silty fine- to medium-grained SAND with sand rich zones. gray, no hydrocarbon odor.	▽	
22			100				SM	Wet.		
23										
24										
25								Boring terminated at 25' below ground surface. Boring was backfilled flush to surface with bentonite chips and an concrete plug.		
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Grass
Total Depth:	35
First GW Depth:	30

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Moist, dense, silty fine- to coarse-grained SAND with fine to coarse gravel, few organics. Brown to gray, no hydrocarbon odor.		
2										
3		1.2	40		B116-03		FILL	Bluish-gray, strong hydrocarbon odor.		
4										
5										
6								Wet, hard, SILT with trace fine- to medium-grained sand. Gray, no hydrocarbon odor.		
7		0.6			B116-07					
8			100				ML			
9										
10		0.8			B116-10			Moist, hard, SILT with fine-grained sand. Brown, no hydrocarbon odor.		
11										
12							SM	Moist, dense, silty fine-grained SAND. Brown with orange banding, no hydrocarbon odor.		
13		0.8	100		B116-13		ML	Moist, hard, SILT with trace fine- to medium-grained sand. Gray, no hydrocarbon odor.		
14										
15							SM	Wet, silty fine- to medium-grained SAND. Gray, no hydrocarbon odor.		
16		0.7			B116-16		ML	Damp, hard, SILT with trace sand. Gray, no hydrocarbon odor.		
17										
18		0.7	100		B116-18		SM	Damp, dense, silty fine-grained SAND. Gray with brown-orange band, no hydrocarbon odor.		
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 3/18/2009
Date Finished: 3/18/2009
Logged By: JAB
Chk By: APH
SES Project No.: 0440-004-19

BORING LOG
B116

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Kasey
Drilling Method:	Geoprobe 6600
Location:	
Surface Condition:	Grass
Total Depth:	35
First GW Depth:	30

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20							ML	Damp, hard, SILT with trace sand. Gray, no hydrocarbon odor.		
21										
22		0.7	100		B116-22		SM	Damp, dense, silty fine-grained SAND. Gray, no hydrocarbon odor.		
23							ML	Damp, hard, SILT with sand. Gray, no hydrocarbon odor.		
24								Damp, dense, silty fine-grained SAND. Gray, no hydrocarbon odor.		
25		1.2			B116-25			Moist.		
26							SM			
27			100							
28		1.1			B116-28					
29										
30									▽	
31								Driller advanced boring to 35' below ground surface (bgs) to install temporary well. No samples collected.		
32										
33										
34										
35										
36								Boring terminated at 35' bgs. Temporary well installed as depicted above-right. Screened from 31 to 35 feet bgs. Collected reconnaissance groundwater sample B116-20090318. Boring was backfilled flush to surface with bentonite chips.		
37										
38										
39										
40										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / David
Drilling Method:	Hollow-stem Auger
Location:	4' North of 01MW55
Surface Condition:	Asphalt
Total Depth:	30.5
First GW Depth:	

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0–1							GP	Boring hand cleared to 2' below ground surface (bgs). Wet, fine to coarse GRAVEL and COBBLES, gray, no hydrocarbon odor (Fill).		
5	9 10 12		100				ML	Damp, very stiff, SILT, some fine-grained SAND, light brown, no hydrocarbon odor.		
10	13 19 21		100		B131-10		ML	Same as above, hard.		
13	14 20 21		100					Soil cuttings were not logged between 12.5' and 30.5' feet bgs. Soil samples were collected in brass sleeves to a maximum depth of 30.5' bgs.		
15	18 19 23		100							
18	10 13 21		100							
20	16 22 25		100							
23	17 50/6		66							
25	15 50/6		66							
28	50/6		33							
30	16 50/5		66							
31								Boring terminated at 30.5' bgs. Boring backfilled with bentonite chips to surface grade.		

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

TOC Holdings Co. Facility No. 01-600
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 12/29/2009
Date Finished: 12/29/2009
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B131

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / David
Drilling Method:	Hollow-stem Auger
Location:	4' North of 01MW65
Surface Condition:	Asphalt
Total Depth:	30.5
First GW Depth:	

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1										
2										
3										
4	7									
5	7						ML	Moist, hard, SILT with few fine-grained sand, brown, no hydrocarbon odor (90-10-0).		
6	9									
7										
8										
9										
10	14				B132-10		ML	Same as above, wood fragments.		
11	17									
12	18									
13	8							Soil cuttings were not logged between 12.5' and 30.5' below ground surface (bgs). Soil samples were collected in brass sleeves to a maximum depth of 30.5' bgs.		
14	17									
15	17									
16	12									
17	16									
18	20									
19	9									
20	14									
21	32									
22	7									
23	19									
24	20									
25	24									
26	50/6									
27	16									
28	20									
29	24									
30	26									
31	50/6							Boring terminated at 30.5' below ground surface. Boring backfilled with bentonite chips and finished flush to surface grade.		
32										
33										
34										
35	29									
	50/6									

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Limited Access HSA
Location:	2' North of 01MW65 and 5.5' West of 01MW65
Surface Condition:	Asphalt
Total Depth:	16
First GW Depth:	None Encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (3" thickness).		
1								(Boring hand cleared to 2.5' below ground surface [bgs]).		
2							SP-SM	Fine- to coarse-grained SAND with silt and fine to coarse gravel, light brown, trace organics (rootlets), possible white paint flecks, no hydrocarbon odor (30-45-25) (Fill).		
3										
4										
5	32	5.2	30		B135--05		SM	Moist, medium dense, silty, fine- to coarse-grained SAND, trace fine		
6	50/4							gravel, light brown with some dark brown mottling, no hydrocarbon odor (40-55-5).		
7										
8										
9										
10	32	45.3	100		B135-10.5		SM	Moist, medium dense, silty, fine-grained SAND, gray, faint hydrocarbon		
11	50/4						ML	odor (45-55-0). Damp, stiff, SILT, trace fine-grained sand, gray, no hydrocarbon odor (95-5-0).		
12										
13										
14										
15	30	123.3	50		B135-15		SP	Moist, medium dense, fine-grained SAND with silt, light brown, no		
16	50/6							hydrocarbon odor (10-90-0).		
17								Boring terminated at 16 feet bgs. Soil vapor extraction well 01SVE01 screened from 5' to 13' bgs with 2-inch-diameter PVC with 0.010 slot screen.		
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

ASKO Hydraulic Area
2805 West Commodore Way
Seattle, Washington

Date Started: 2/11/2010
Date Finished: 2/11/2010
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B135/01SVE01

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Limited Access HSA
Location:	15' North of 01MW64 and 25' East of 01MW64
Surface Condition:	Grass
Total Depth:	20.5
First GW Depth:	None Encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								(Boring hand cleared to 3' below ground surface [bgs]).		
1								Wet to moist, silty, fine- to coarse-grained SAND with fine to coarse		
2							SM	gravel, medium to dark brown, trace organics (rootlets), no hydrocarbon		
3		1.20			B134-02.5			odor (40-50-10) (Fill).		
4										
5	19									
6	50/5	1.11	100		B134-05.5		SM	Damp, medium dense, silty, fine- to coarse-grained SAND, trace fine gravel, medium gray, no hydrocarbon odor (45-50-5).		
7										
8										
9										
10	4						SP-SM			
11	3	1.10	100		B134-10.5		SM	Wet, very loose, fine-grained SAND with silt, brown, no hydrocarbon odor (40-60-0).		
12	4							Wet, very loose, silty, fine-grained SAND, gray, no hydrocarbon odor (50-50-0).		
13										
14										
15	55/6	0.12	100		B134-15		ML	Dry, very stiff, SILT, trace fine-grained sand, gray, no hydrocarbon odor (95-5-0).		
16										
17										
18										
19										
20	50/6	0.50	100		B134-20		ML	Same as above.		
21								Boring terminated at 20.5' bgs. Monitoring well 01MW70 screened from 5 to 20 feet bgs with 2-inch-diameter PVC with 0.010 slot screen.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

ASKO Hydraulic Area
2805 West Commodore Way
Seattle, Washington

Date Started: 2/11/2010
Date Finished: 2/11/2010
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
01MW70/01SVE02

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Limited Access HSA
Location:	10' North of 01MW62 and 11' West of 01MW62
Surface Condition:	Grass
Total Depth:	20.5
First GW Depth:	None Encountered

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								(Boring hand cleared to 3' below ground surface [bgs]).		
1								Moist, silty, fine- to coarse-grained SAND with fine gravel, light brown, no		
2		0.0					SM	hydrocarbon odor (45-45-10) (Fill).		
3										
4								Hard drilling through gravel.		
5	36									
6	50/4	32.5	95		B133-05.5		SM	Moist, medium dense, silty, fine- to medium-grained SAND, some fine angular gravel, medium brown, no hydrocarbon odor (40-52-8) (Fill).		
7										
8										
9										
10	10									
11	12	0.13	100		B133-11		SM	Wet, loose, silty, fine- to medium-grained SAND, light gray, no hydrocarbon odor (40-60-0).		
12	14									
13										
14										
15	60/6	0.28	100		B133-15		ML	Damp, very stiff, SILT, trace fine-grained sand, gray, no hydrocarbon odor		
16								(95-5-0).		
17										
18								Hard drilling.		
19										
20	50/6	734	100		B133-20		ML	Dry, very stiff, SILT, trace fine-grained sand, gray, no hydrocarbon odor (95-5-0).		
21								Boring terminated at 20.5' bgs. Monitoring well 01MW71 screened from 5' to 20' bgs with 2-inch-diameter PVC with 0.010 slot screen.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
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ASKO Hydraulic Area
2805 West Commodore Way
Seattle, Washington

Date Started: 2/11/2010
Date Finished: 2/11/2010
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
01MW71/01SVE03

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	5' South of 01MW44 and 1.3' East of 01MW44
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (3" thickness).		
1							SM	(Boring hand cleared to 3' below ground surface [bgs]). Moist, silty, fine- to coarse-grained SAND with fine to coarse gravel, medium brown, trace organics (rootlets), no hydrocarbon odor (35-45-20) (Fill).		
2		2.4								
3										
4										
5		25.8			B136-05					
6	5 16 60		100				ML	Damp, hard, SILT with fine-grained sand, trace coarse gravel, light brown, no hydrocarbon odor (75-20-5).		
7										
8										
9										
10										
11	16 19 32		100				ML	Same as above.		
12		270			B136-11.5		SP-SM	Damp, dense, SAND with silt, light brown, no hydrocarbon odor (10-90-0).		
13										
14										
15										
16	19 23 30	1,426	100		B136-16		SM	Damp, very dense, silty, poorly graded, fine-grained SAND, medium gray, orange mottling at 15 feet bgs, faint hydrocarbon odor (40-60-0).		
17										
18										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

ASKO Hydraulic Area
2805 West Commodore Way
Seattle, Washington

Date Started: 2/12/2010
Date Finished: 2/12/2010
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B136/01IW09

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	5' South of 01MW44 and 1.3' East of 01MW44
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
18										
19										
20	8						SM	Same as above, medium brown, no hydrocarbon odor.		
21	23 28	146	100		B136-21		SP-SM	Damp, very dense, sand with silt, light brown with orange mottling, no hydrocarbon odor (15-85-0).		
22									▽	
23	26 32 39	84.6	100		B136-23		SP	Wet, very dense, poorly graded, fine-grained SAND, trace silt, gray, faint hydrocarbon odor (5-95-0).		
24										
25								Drill to 30' bgs without sampling to reduce heave.		
26										
27										
28										
29										
30		3.36			B136-30					
31	32 50/6		100				ML	Damp, hard, SILT, trace fine-grained sand, gray, no hydrocarbon odor (95-5-0).		
32								Boring terminated at 31' bgs. Injection well 01IW09 screened from 24' to 29' bgs with 2-inch-diameter PVC with 0.010 slot screen.		
33										
34										
35										
36										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	5' South of 01MW44 and 0.7' West of 01MW44
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Asphalt (3" thickness).		
1							SM	(Boring hand cleared to 3' below ground surface [bgs]). Moist, silty, fine- to coarse-grained SAND with fine to coarse gravel, dark to medium brown, trace organics (rootlets), no hydrocarbon odor (35-50-15) (Fill).		
2		10.0								
3										
4										
5	16 18 18	7.31	100		B137-05.5		ML	Dry, hard, SILT with fine-grained sand grading to SILT with trace fine-grained sand, light brown with orange mottling, no hydrocarbon odor (85-15-0).		
6										
7										
8										
9										
10	10 16 17	651	100		B137-11		ML	Dry, stiff, SILT, some fine- to medium-grained sand, poorly graded sand stringers, grayish-brown, no hydrocarbon odor.		
11							SM	Moist, medium dense, silty, poorly graded, fine- to medium-grained SAND, light brown, faint hydrocarbon odor (50-50-0).		
12										
13										
14										
15	10 20 28	282	100		B137-15.5		SM	Damp, very dense, silty, poorly graded, fine-grained SAND, light gray with slight brown staining at 15.5' bgs, no hydrocarbon odor (40-60-0).		
16										
17										
18										

SOUND ENVIRONMENTAL STRATEGIES
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ASKO Hydraulic Area
2805 West Commodore Way
Seattle, Washington

Date Started: 2/12/2010
Date Finished: 2/12/2010
Logged By: JAB
Chk By: JAC
SES Project No.: 0440-004

BORING LOG
B137/01IW10

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade / Steve
Drilling Method:	Hollow-stem Auger
Location:	5' South of 01MW44 and 0.7' West of 01MW44
Surface Condition:	Asphalt
Total Depth:	31
First GW Depth:	22.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
18										
19										
20	16 17 19	118	100		B137-21		SP-SM	Moist, dense, poorly graded, fine- to medium-grained SAND with silt, light brown, faint hydrocarbon odor (15-85-0).		
21										
22									▽	
23	16 17 30	420	100		B137-23		SP	Wet, very dense, poorly graded, fine-grained SAND, trace silt, gray, no hydrocarbon odor (5-95-0).		
24										
25								Drill to 30' bgs without sampling to reduce heave.		
26										
27										
28										
29										
30	27 50/5	11.5	90		B137-30.5		SP	Wet, very dense, fine- to medium-grained SAND, trace silt, gray, no hydrocarbon odor (5-95-0).		
31							ML	Hard, SILT, trace fine-grained sand, gray, no hydrocarbon odor (95-5-0).		
32								Boring terminated at 31' bgs. Injection well 01IW10 screened from 24' to 29' bgs with 2-inch-diameter PVC with 0.010 slot screen.		
33										
34										
35										
36										

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	2/28/11
Surface Conditions:	Asphalt
Well Location N/S:	47 feet South
Well Location E/W:	183 feet East
Reviewed by:	P. Kingston
Date Completed:	2/28/11

BORING LOG **B171** 01MW76

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 36 feet bgs
Water Depth After Completion: 26.05 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (2 inches thick).**	
								Logged from soil cuttings: Damp, SILT, some fine sand, gray and brown, no solvent or hydrocarbon odor.	
5		30 32 12	100	5.5	B171-05	**SM**		**Damp, very dense, silty fine SAND, light brown, no solvent or hydrocarbon odor. (30-70-0)**	
10		10 20 21	100	5.3	B171-10	**MLS**		**Damp, dense, silty fine SAND, light brown with minor oxidation, no solvent or hydrocarbon odor. (45-55-0)**	
15									

Drilling Co./Driller:	Cascade/Steve		**Well/Auger Diamter:**	2 /4 1/4, 10 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	35 to 40	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	41	feet bgs	**Surface Seal:**	Concrete w/ asphalt cap	
Total Well Depth:	40	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 076		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	2/28/11
Surface Conditions:	Asphalt
Well Location N/S:	47 feet South
Well Location E/W:	183 feet East
Reviewed by:	P. Kingston
Date Completed:	2/28/11

BORING LOG B171 01MW76

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 36 feet bgs
Water Depth After Completion: 26.05 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50 50/6	100	2.2	B171-15	SM		**Damp, very dense, silty fine to medium SAND, light brown, no solvent or hydrocarbon odor. (20-80-0)**	
		26 50/6	100	10.3	B171-17.5	SM		**Same as above, brown.**	
20		20 50/6	100	10.6	B171-20	SM		**Same as above, brownish-gray.**	
		32 50/6	100	8.8	B171-22.5	SM		**Same as above, brown.**	
						SP		**Damp to moist, very dense, silty fine to medium SAND, gray, no solvent or hydrocarbon odor. (15-85-0)**	
		31 50/6	100	7.7	B171-24	SP		**Same as above, wet.**	
25		37 50/6	100	0.0		SP		**Same as above, trace gravel.**	
						ML		**Damp, hard, fine sandy SILT, massive, gray, no solvent or hydrocarbon odor. (70-30-0)**	
		50/6	100	0.0		ML		**Same as above.**	
30									

Drilling Co./Driller:	Cascade/Steve		
Drilling Equipment:	Hollow-Stem Auger		
Sampler Type:	2 1/2" Split Spoon		
Hammer Type/Weight:	300	lbs	
Total Boring Depth:	41	feet bgs	
Total Well Depth:	40	feet bgs	
State Well ID No.:	BHB 076		

Well/Auger Diamter:	2 /4 1/4, 10 1/4	inches
Well Screened Interval:	35 to 40	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Silica Sand	
Surface Seal:	Concrete w/ asphalt cap	
Annular Seal:	Bentonite Chips	
Monument Type:	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	2/28/11
Surface Conditions:	Asphalt
Well Location N/S:	47 feet South
Well Location E/W:	183 feet East
Reviewed by:	P. Kingston
Date Completed:	2/28/11

BORING LOG **B171** 01MW76

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 36 feet bgs
Water Depth After Completion: 26.05 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		17 50/6	100	0.0		ML		**Same as above, damp to moist.**	
		27 50/6	100	0.0		ML		**Moist, hard, fine sandy SILT with silty fine to medium sand stringers (up to 2 inches thick), gray, no solvent or hydrocarbon odor. (65-35-0)**	
35		32 50/6	100	0.0		ML		**Same as above.**	
						SP		**Wet, very dense, fine to medium SAND, some silt, gray, no solvent or hydrocarbon odor. (15-85-0)**	
		37 50/6	100	0.0		SP		**Same as above.**	
40		50/6	100	0.0		SP		**Same as above.**	
		50/6	100	0.0		ML		**Damp, hard, fine sandy SILT, gray, no odor.**	

Boring terminated at 41 feet below ground surface (bgs) and completed as monitoring well 01MW76 as shown in well construction detail. Conductor casing installed from 0 to 28 feet bgs. Bentonite chips hydrated from 23 to 28 feet bgs.

Drilling Co./Driller:	Cascade/Steve		
Drilling Equipment:	Hollow-Stem Auger		
Sampler Type:	2 1/2" Split Spoon		
Hammer Type/Weight:	300	lbs	
Total Boring Depth:	41	feet bgs	
Total Well Depth:	40	feet bgs	
State Well ID No.:	BHB 076		

Well/Auger Diamter:	2 /4 1/4, 10 1/4	inches
Well Screened Interval:	35 to 40	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Silica Sand	
Surface Seal:	Concrete w/ asphalt cap	
Annular Seal:	Bentonite Chips	
Monument Type:	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

Project:	TOC Holdings Co. Facility No. 01-600	BORING LOG	**B172** 01MW77
Project Number:	0440-004-24		
Logged by:	D. Mendel	Site Address:	2805 West Commodore Way Seattle, Washington
Date Started:	3/1/11		
Surface Conditions:	Asphalt		
Well Location N/S:	139 feet South		
Well Location E/W:	192 feet East		
Reviewed by:	P. Kingston	Water Depth At Time of Drilling:	37.5 feet bgs
Date Completed:	3/1/11	Water Depth After Completion:	30.03 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (2 inches thick).** **Boring advanced to 15 feet below ground surface (bgs) prior to sampling.**	
								Logged from soil cuttings: Silty sand, some gravel, brown.	
5									
								Logged from soil cuttings: Silt content increasing, dark brown.	
10									
								Logged from soil cuttings: silty, dark gray.	
15									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2 /4 1/410 1/4	inches	**Notes/Comments:**	
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	36 to 41	feet bgs	Boring location measured from northeast corner of the ASKO Industrial Repair building.	
Sampler Type:	2 1/2" Solit Spoon		**Screen Slot Size:**	0.010	inches		
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand			
Total Boring Depth:	42	feet bgs	**Surface Seal:**	Concrete			
Total Well Depth:	41	feet bgs	**Annular Seal:**	Bentonite Chips			
State Well ID No.:	BHB 077		**Monument Type:**	Flush Mount			

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/1/11
Surface Conditions:	Asphalt
Well Location N/S:	139 feet South
Well Location E/W:	192 feet East
Reviewed by:	P. Kingston
Date Completed:	3/1/11

BORING LOG B172
01MW77

Site Address: 2805 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 37.5 feet bgs
Water Depth After Completion: 30.03 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		14 15 17	100	43.2	B172-15	ML		Damp, hard, fine sandy SILT to silty fine SAND, grayish-brown, no odor.	
						SP		Damp, dense, fine to medium SAND, some silt, red and gray, faint solvent odor to 15.8 feet bgs.	
						ML		Damp, hard, fine sandy SILT, gray, no odor.	
20		13 23 30	100	32.0	B172-20	SM		Damp, very dense, silty, fine to medium SAND, gray, no solvent or hydrocarbon odor. (20-80-0)	
		20 23 25	100		B172-22.5 B172-23 B172-23.5	SM		Brass tubes collected for soil properties testing. Soil observed at end of brass tubes appears wet, very dense, silty, fine to medium SAND, dark gray. (20-80-0)	
25		19 50/6	100		B172-25 B172-25.5 B172-26	SM		Brass tubes collected for soil properties testing. Soil observed at end of brass tubes appears same as above.	
		20 50/6	100	0.0	B172-27.5	SM		Moist to wet, very dense, silty, fine to medium SAND, dark gray, no solvent or hydrocarbon odor. (20-80-0)	
		24 50/5	100	0.0		SP-SM		SILT/SAND interbeds.	
30						ML		Damp, hard, fine sandy SILT, dark gray, no solvent or hydrocarbon odor. (70-30-0)	

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2 /4 1/410 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	36 to 41	feet bgs
Sampler Type:	2 1/2" Solit Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	42	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	41	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 077		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/1/11
Surface Conditions:	Asphalt
Well Location N/S:	139 feet South
Well Location E/W:	192 feet East
Reviewed by:	P. Kingston
Date Completed:	3/1/11

BORING LOG **B172** 01MW77

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 37.5 feet bgs
Water Depth After Completion: 30.03 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description
30								
		47 50/6	100	0.0		ML		**Damp, hard, fine sandy SILT, gray, no solvent or hydrocarbon odor. (70-30-0)**
35		50/6	100	0.0		SM		**Damp to moist, very dense, silty fine SAND, gray, no solvent or hydrocarbon odor. (35-65-0)**
		50/6	100	0.0		SM		**Wet, very dense, silty fine SAND, gray, no solvent or hydrocarbon odor. (20-80-0)**
40		50/5	100	0.0		SM		**Same as above. Split spoon sample shoe has damp, fine sandy silt, gray.**
		50/6	100	0.0		ML		**Damp, hard, fine sandy SILT, massive, gray, no solvent or hydrocarbon odor. (70-30-0)**

Boring terminated at 42 feet bgs and completed as monitoring well 01MW77 as shown in well construction detail. Conductor casing installed from 0 to 30 feet bgs. Bentonite chips hydrated from 25 to 30 feet bgs.

Well Construction Detail

Drilling Co./Driller:	Cascade/David		
Drilling Equipment:	Hollow-Stem Auger		
Sampler Type:	2 1/2" Solit Spoon		
Hammer Type/Weight:	300	lbs	
Total Boring Depth:	42	feet bgs	
Total Well Depth:	41	feet bgs	
State Well ID No.:	BHB 077		

Well/Auger Diamter:	2 /4 1/410 1/4	inches
Well Screened Interval:	36 to 41	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Silica Sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite Chips	
Monument Type:	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/2/11
Surface Conditions:	Grass/Mud
Well Location N/S:	209 feet South
Well Location E/W:	121 feet East
Reviewed by:	P. Kingston
Date Completed:	3/2/11

BORING LOG B173 01MW78

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 45 feet bgs
Water Depth After Completion: 37.75 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Boring advanced to 7.5 feet below ground surface (bgs) prior to sampling.**	
5								**Logged from soil cuttings: Damp, sandy SILT and silty SAND.**	
		17 19 21	100	57.3	B173-07.5	SM		**Moist, dense, silty fine to medium SAND, trace fine gravel, dark brown with minor oxidation, faint solvent odor. (30-65-5)**	
10		9 9 11	100	0.0	B173-10	SM		**Same as above, damp, medium dense, some fine to medium subrounded gravel, gray, no solvent or hydrocarbon odor. (35-55-10)**	
		5 7 15	100	0.0	B173-12.5	ML		**Damp, very stiff, fine sandy SILT, massive, gray, no solvent or hydrocarbon odor. (75-25-0)**	
15		5 8 21	100	5.2	B173-15	ML		**Same as above.**	
20									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2 /4 1/4, 10 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	45 to 50	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	50.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	50	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 078		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/2/11
Surface Conditions:	Grass/Mud
Well Location N/S:	209 feet South
Well Location E/W:	121 feet East
Reviewed by:	P. Kingston
Date Completed:	3/2/11

BORING LOG B173 01MW78

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 45 feet bgs
Water Depth After Completion: 37.75 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
20									
		12 50/6	100	25.2	B173-22.5	ML		**Same as above, hard.**	
25		50/6	100	106.8	B173-25	ML		**Same as above, faint solvent odor.**	
		50/6	100	115.9	B173-27.5	SM		**Damp, very dense, silty fine SAND, gray, faint solvent odor. (25-75-0)**	
30									
		50/6	100	0.0		SM		**Same as above, wet.**	
35		16 18 20	100	0.0		SM		**Same as above, moist, dense to very dense, no solvent or hydrocarbon odor. (20-80-0)**	
		50/6	100	0.0					
		50/6	100	0.0		ML		**Damp, hard, fine sandy SILT, massive, gray, no solvent or hydrocarbon odor. (70-30-0)**	
40									

						Notes/Comments:
Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2 /4 1/4, 10 1/4	inches	Boring location measured from northeast corner of the ASKO Industrial Repair building.
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	45 to 50	feet bgs	
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand		
Total Boring Depth:	50.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	50	feet bgs	**Annular Seal:**	Bentonite Chips		
State Well ID No.:	BHB 078		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/2/11
Surface Conditions:	Grass/Mud
Well Location N/S:	209 feet South
Well Location E/W:	121 feet East
Reviewed by:	P. Kingston
Date Completed:	3/2/11

BORING LOG B173 01MW78

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 45 feet bgs
Water Depth After Completion: 37.75 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
40									
45		50/6	100	0.0		SM		**Damp, very dense, silty fine SAND, gray, no solvent or hydrocarbon odor. (30-70-0)**	
		19 50/6	100	0.0		SM		**Same as above, wet.**	
50		50/6	100	0.0		ML		**Damp, hard, fine sandy SILT, massive, gray, no solvent or hydrocarbon odor (70-30-0).**	

Boring terminated at 50.5 feet bgs and completed as monitoring well 01MW78 as shown in well construction detail. Conductor casing installed from 0 to 39 feet bgs. Hydrated bentonite chips from 34 to 39 feet bgs.

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2 /4 1/4, 10 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	45 to 50	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	50.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	50	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 078		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/3/11
Surface Conditions:	Concrete
Well Location N/S:	153 feet South
Well Location E/W:	175 feet East
Reviewed by:	P. Kingston
Date Completed:	3/3/11

BORING LOG B174 01MW79

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 12 feet bgs
Water Depth After Completion: 8.70 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete slab (4 inches thick).**	
								Logged from soil cuttings: Damp, sandy SILT.	
		14 14 14	100	3.4	B174-02.5	SM		**Damp, medium dense, silty SAND, some fine sub-rounded gravel, pockets of well-sorted medium sand, gray with red-staining, moderate solvent odor.**	
5		9 13 40	100	19.8	B174-05	SM-ML		**Damp, very dense, silty SAND, gray with red-staining, faint solvent odor. (40-60-0)**	
		16 20 21	100	0.3	B174-07.5	SM		**Damp, very dense, silty fine SAND, brown with red-staining, faint solvent odor. (25-75-0)**	
		12 14 15	100	0.4	B174-09	ML		**Damp, very stiff, CLAY/SILT, trace sand, massive. (90-10-0)**	
10		12 12 15	100	0.6	B174-10.5	SM SM		**Moist to wet, medium dense, silty fine SAND, brown with red, no solvent or hydrocarbon odor. (25-75-0)** **Damp, medium dense, interbedded silty fine SAND and sandy SILT, brown with red, no solvent or hydrocarbon odor.**	
		10 10 15	100	0.8	B174-12	SP-SM		**Same as above, wet, medium dense, predominantly SAND layers, brown.**	
15									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2/4 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	5 to 19	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	19	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 079		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/3/11
Surface Conditions:	Concrete
Well Location N/S:	153 feet South
Well Location E/W:	175 feet East
Reviewed by:	P. Kingston
Date Completed:	3/3/11

BORING LOG B174 01MW79

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 12 feet bgs
Water Depth After Completion: 8.70 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		10 11 18	100	1.5		SM-ML		**Same as above, very stiff, predominantly silt layers up to 4 inches thick, sand 1 to 2 inches thick.**	
		18 18 20	100	1.6		ML		**Damp, hard, fine sandy SILT/CLAY, gray, no solvent or hydrocarbon odor. (85-15-0)**	
20								**Boring terminated at 19 feet below ground surface and completed as monitoring well 01MW79 as shown in well construction detail.**	
25									
30									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	2/4 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	5 to 19	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	19	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	BHB 079		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/3/11
Surface Conditions:	Concrete
Well Location N/S:	147 feet South
Well Location E/W:	96 feet East
Reviewed by:	P. Kingston
Date Completed:	3/3/11

BORING LOG B175 --

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: -- feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete slab (4 inches thick).**	
		10 12 17	100	0.0	B175-02.5	SM		**Damp, medium dense, silty fine SAND, brown with some gray, minor red stains, no solvent or hydrocarbon odor. (35-65-0)**	
5		6 12 15	100	0.2	B175-05	ML		**Damp, very stiff, fine sandy SILT, light brown, moderate solvent odor. (80-20-0)**	
		7 9 18	100	0.2	B175-07.5	SM		**Moist, medium dense, silty fine to medium SAND, reddish-brown to brown, no solvent or hydrocarbon odor. (25-75-0)**	
		10 11 14	100	0.1	B175-09	ML		**Damp, very stiff, sandy SILT, 1-inch-thick sand stringers, brown to gray, no solvent or hydrocarbon odor. (80-20-0)**	
10									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	--/4 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	--	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	18.4	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	D. Mendel
Date Started:	3/3/11
Surface Conditions:	Concrete
Well Location N/S:	147 feet South
Well Location E/W:	96 feet East
Reviewed by:	P. Kingston
Date Completed:	3/3/11

BORING LOG B175 --

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: -- feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
10									
		6 8 14	100	0.3	B175-11			**Damp, very stiff, fine sandy CLAY/SILT, gray, no solvent or hydrocarbon odor. (80-20-0)**	
		7 8 10	100	0.0	B175-13			**Same as above, stiff, some 1-inch- thick sand stringers.**	
		4 9 9	100	0.2	B175-15			**Same as above, no sand stringers.**	
15		18 18 20	100	1.0	B175-16.5				
						SM		**Damp, dense, silty fine SAND, reddish-brown, no solvent or hydrocarbon odor.**	
		18 18 20	100	0.1	B175-18	ML		**Damp, hard, fine sandy SILT, gray, no solvent or hydrocarbon odor. (70-30-0)**	
		50/5	100						
								Boring terminated at 18.5 feet bgs, back-filled with bentonite chips, and capped with concrete to surface grade.	
20									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diamter:**	--/4 1/4	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	--	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	18.4	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	28 feet South
Well Location E/W:	79 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

BORING LOG B188
01MW80

Site Address: 2805 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 25 feet bgs
Water Depth After Completion: 23.91 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (2 inches thick).**	
		6 6 5	80	2.2	B188-02.5	ML		**Moist, stiff, fine sandy SILT, some fine gravel, brown, faint ydrocarbon odor. (60-30-10)**	
5		3 5 9	75	8.3	B188-05	ML		**Moist, stiff, fine sandy SILT, gray, no solvent or hydrocarbon odor. (80-20-0)**	
						ML		**Moist, stiff, fine sandy SILT, gray, no solvent or hydrocarbon odor. (70-30-0)**	
		6 6 7	90	41.1	B188-07.5	SM		**Moist, medium dense, silty fine SAND, gray, strong hydrocarbon odor. (30-70-0)**	
						ML		**Moist, stiff, fine sandy SILT, gray, strong hydrocarbon odor. (80-20-0)**	
10		9 15 14	100	5.2	B188-10	ML		**Moist, very stiff, SILT, some fine sand, gray with brown oxidation, no solvent or hydrocarbon odor. (90-10-0)**	
		16 15 15	100	0.0	B188-12.5	ML		**Moist, very stiff, SILT, some fine sand, color change from brown to dark gray at 15.5 feet below ground surface (bgs), no solvent or hydrocarbon odor. (90-10-0)**	
15									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	20 to 28	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	28.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	28	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 246		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	28 feet South
Well Location E/W:	79 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

BORING LOG B188 01MW80

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 25 feet bgs
Water Depth After Completion: 23.91 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		18 21 24	100	0.0	B188-15	ML		**Moist to dry, hard, SILT, some fine sandy lenses, gray with brown oxidation layers, no solvent or hydrocarbon odor. (90-10-0)**	
		12 15 18	75	0.0	B188-17.5	SM		**Moist, dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
20		20 22 24	100	0.0	B188-20	SM		**Moist, very dense, silty fine SAND, brown, some orange oxidation, no solvent or hydrocarbon odor. (20-80-0)**	
		14 22 24	75	0.0	B188-22.5	SM		**Moist, very dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
		20 30 28	100	0.0					
25		14 19 27	100	0.0					
		12 15 17	100	0.0		ML		**Moist to dry, hard, SILT, some fine sand, gray, no solvent or hydrocarbon odor. (90-10-0)**	
								Boring terminated at 28.5 feet bgs and completed as monitoring well 01MW80 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	20 to 28	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	28.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	28	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 246		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	50 feet South
Well Location E/W:	47 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

BORING LOG B189 01MW81

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 23 feet bgs
Water Depth After Completion: 21.46 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (3 inches thick)**	
						ML		**Augered to 7.5 feet below ground surface (bgs) before collecting first sample. Logged from soil cuttings: Damp, soft, SILT, some sand and gravel, color change from black to gray within the first foot bgs.**	
5						ML		**Logged from soil cuttings: color change from gray to brown at approximately 6 feet bgs. Color change to gray at approximately 7.5 feet bgs.**	
		15 21 24	50	0.0	B189-07.5	SM		**Moist, very dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (15-85-0)**	
10		10 12 14	90	0.0	B189-10	ML-SM		**Moist, very stiff, SILT with variable amounts of fine sand, color change from brown to gray at 10.5 feet bgs, no solvent or hydrocarbon odor. (90-10-0 to 50-50-0)**	
		7 14 20	90	0.0	B189-12.5	ML		**Moist, hard, sandy SILT, color change from gray to brown at 13 feet bgs, no solvent or hydrocarbon odor. (60-40-0)**	
15									

Drilling Co./Driller:	Cascade/Curtis		
Drilling Equipment:	Hollow-Stem Auger		
Sampler Type:	2 1/2" Split Spoon		
Hammer Type/Weight:	300	lbs	
Total Boring Depth:	28.5	feet bgs	
Total Well Depth:	28.5	feet bgs	
State Well ID No.:	--		

Well/Auger Diamter:	4" / 10"	inches
Well Screened Interval:	19.5 to 28.5	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Silica Sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	50 feet South
Well Location E/W:	47 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

BORING LOG B189 01MW81

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 23 feet bgs
Water Depth After Completion: 21.46 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		18 30 25	75	0.0	B189-15	SM		**Moist, very dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (15-85-0)**	
		18 50/6	90	0.0	B189-17.5	SM		**Moist, very dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (15-85-0)**	
20		17 24 24	50	0.0	B189-20	SM		**Moist, very dense, silty fine SAND, dark brown to gray, no solvent or hydrocarbon odor. (15-85-10)**	
		18 21 20	60	17		SM		**Wet, dense to very dense, silty fine to medium SAND, dark gray, no solvent or hydrocarbon odor. (15-85-0)**	
		18 19 20	60	0.7					
25		12 16 18	80	0.0					
		15 16 17	80	0.0					
30								**Boring terminated at 28.5 feet bgs and completed as monitoring well 01MW81 as shown in well construction detail.**	

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	4" / 10"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	19.5 to 28.5	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	28.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	28.5	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	52 feet South
Well Location E/W:	53 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

BORING LOG B190 01MW82

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 24 feet bgs

Water Depth After Completion: 21.16 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (3 inches thick)**	
								Augered to 22 feet below ground surface (bgs) before collecting samples.	
5				0.0					
10				0.0		SM		**Logged from soil cuttings: moist, silty fine SAND, grayish-brown. (20-80-0)**	
				0.0		SM		**Logged from soil cuttings: Color change from gray to brown at approximately 12.5 feet bgs.**	
15									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	4" / 10"	inches	**Notes/Comments:**
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	19.5 to 28.5	feet bgs	Boring location measured from northeast corner of the ASKO Industrial Repair building.
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand		
Total Boring Depth:	28.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	27	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/18/11
Surface Conditions:	Asphalt
Well Location N/S:	52 feet South
Well Location E/W:	53 feet East
Reviewed by:	P. Kingston
Date Completed:	4/18/11

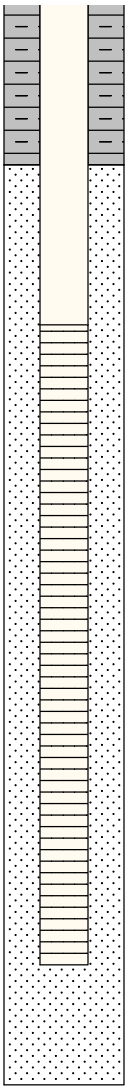
BORING LOG B190 01MW82

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 24 feet bgs
Water Depth After Completion: 21.16 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description
15				0.0		ML		**Logged from soil cuttings: Moist, sandy SILT, grayish-brown. (60-40-0)**
				0.0				
20				0.0				
		17 20 24	60	17		SM		**Moist to wet, very dense, silty fine SAND, dark gray, no solvent or hydrocarbon odor. (15-85-0)**
		11 20 22	85	0.7		SP-SM		**Wet, very dense, fine to medium SAND, some silt, dark gray, no solvent or hydrocarbon odor. (10-90-0)**
25				0.0				
		11 14 15	90	0.0		ML		**Moist, very stiff, SILT, grayish-brown, no solvent or hydrocarbon odor.**
30								**Boring terminated at 28.5 feet bgs and completed as monitoring well 01MW82 as shown in well construction detail.**

Well Construction Detail



Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	4" / 10"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	19.5 to 28.5	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	28.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	27	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/19/11
Surface Conditions:	Gravel
Well Location N/S:	160 feet East
Well Location E/W:	160 feet East
Reviewed by:	P. Kingston
Date Completed:	2" / 8.25"

BORING LOG B191
01MW83

Site Address: 2805 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 22 feet bgs
Water Depth After Completion: 21.31 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
5		11 9 7	10	0.0	B191-05	ML		**Moist, stiff, fine sandy SILT, some gravel, brown, no solvent or hydrocarbon odor. (60-30-10)**	
		5 7 11	75	0.0	B191-07.5	ML		**Moist, stiff, fine sandy SILT, some gravel, trace coarse sand, brown, some black coloration, no solvent or hydrocarbon odor. (60-30-10)**	
10		5 7 10	75	0.0	B919-10	ML		**Moist, stiff, fine sandy SILT, trace fine gravel, increasing sand content towards bottom of sample, brown with some oxidation and black coloring, no solvent or hydrocarbon odor. (70-25-5)**	
		8 26 22	80	0.0	B919-12.5	SM		**Moist, medium dense, silty fine SAND, brown, no hydrocarbon odor. (40-60-0)**	
15									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	14 to 24	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	24	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 249		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/19/11
Surface Conditions:	Gravel
Well Location N/S:	160 feet East
Well Location E/W:	160 feet East
Reviewed by:	P. Kingston
Date Completed:	2" / 8.25"

BORING LOG B191 01MW83

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 22 feet bgs
Water Depth After Completion: 21.31 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		30 50/6	75	0.0	B191-15	SM		**Moist, dense, silty fine SAND, brown, no solvent or hydrocarbon odor (25-75-0).**	
		20 50/6	100	0.0	B191-17.5	SM		**Same as above.**	
20		16 50/6	75	0.0	B191-20	SM		**Same as above, some orange oxidation.**	
		17 50/6	100	0.0	B191-22.5	SM		**Wet, silty fine sand, gray, no solvent or hydrocarbon odor (20-80-0).**	
		20 50/6	100	0.0		ML		**Moist, very stiff, SILT with fine sand, gray, no solvent or hydrocarbon odor (90-10-0).**	
25		20 50/6	100	0.0					
								Boring terminated at 25.5 feet bgs and completed as monitoring well 01MW83 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	14 to 24	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	24	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 249		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/20/11
Surface Conditions:	Asphalt
Well Location N/S:	7 feet North
Well Location E/W:	46 feet East
Reviewed by:	P. Kingston
Date Completed:	4/20/11

BORING LOG | B193 01MW85

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 25 feet bgs
Water Depth After Completion: 23.57 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
		7 5 4	50		B193-02.5	SM		**Moist, loose, silty fine SAND, brown, no solvent or hydrocarbon odor. (25-75-0)**	
5		2 2 2	70	0.0	B193-05	SM		**Moist, very loose, silty fine SAND, brown, no solvent or hydrocarbon odor. (25-75-0)**	
						ML		**Moist, soft, fine sandy SILT, dark brown, no solvent or hydrocarbon odor. (80-20-0)**	
		5 6 4	90	0.0	B193-07.5	SM		**Moist, loose, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
						ML		**Moist, stiff, SILT, some fine sand, gray with some oxidation, no solvent or hydrocarbon odor. (85-15-0)**	
10		5 5 5	100	0.0	B193-10	ML		**Moist, stiff, SILT, some fine sand, grayish-brown with some oxidation, no solvent or hydrocarbon odor. (85-15-0)**	
		12 13 13	60	0.0	B193-12.5	SM		**Moist, medium dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
15					B193-15				

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	18 to 27	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	27	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	27	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 251		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	L. Forbes
Date Started:	4/20/11
Surface Conditions:	Asphalt
Well Location N/S:	7 feet North
Well Location E/W:	46 feet East
Reviewed by:	P. Kingston
Date Completed:	4/20/11

BORING LOG B193 01MW85

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 25 feet bgs
Water Depth After Completion: 23.57 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		12 12 14	100	0.0		SM		**Moist, medium dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
		17 22 23	100	0.0	B193-17.5	SM		**Moist, very dense, silty fine SAND, brown to gray, no solvent or hydrocarbon odor. (15-85-0)**	
20		20 20 20	100	0.0	B193-20	SM		**Moist, dense, silty fine SAND, gray to brown, no solvent or hydrocarbon odor. (15-85-0)**	
		14 19 20		0.0		SM		**Brass tubes collected for soil properties testing. Soil observed at end of brass tubes appears moist, dense, silty fine SAND, brown.**	
		22 25 29		0.0				**Brass tubes collected for soil properties testing. Soil observed at end of brass tubes appears same as above, wet.**	
25		18 25 12		0.0				**Brass tubes collected for soil properties testing. Soil observed at end of brass tubes appears moist, stiff, fine sandy SILT, gray.**	
						ML		**Moist, stiff, fine sandy SILT, gray, no odor.**	
								Boring terminated at 27 feet bgs and completed as monitoring well 01MW85 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	18 to 27	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	27	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	27	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHB 251		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/21/11
Surface Conditions:	Asphalt
Well Location N/S:	12 feet North
Well Location E/W:	169 feet East
Reviewed by:	P. Kingston
Date Completed:	Hollow-Stem Auger

BORING LOG B197 01MW89

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 24 feet bgs

Water Depth After Completion: 23.54 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
		6 7 9	50	0.0	B197-02.5	ML		**Moist, stiff, SILT, some fine sand, brown, no solvent or hydrocarbon odor. (90-10-0)**	
5		6 12 13	50	0.0	B197-05	ML		**Moist, stiff, SILT with cm-scale interbeds of silty fine sand, brown, no solvent or hydrocarbon odor. (90-10-0 and 30-70-0).**	
		14 17 20	100	0.0	B197-07.5	ML		**Moist, very stiff, fine sandy SILT, brown with mottled oxidation, no solvent or hydrocarbon odor. (70-30-0)**	
10		12 13 14	80	0.0	B197-10	ML		**Moist, very stiff, fine sandy SILT, brown with mottled oxidation, no solvent or hydrocarbon odor. (70-30-0)**	
		20 50/6	100	0.0	B197-12.5	SM		**Moist, dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
15									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	18 to 26	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	27	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	26	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-24
Logged by:	A. Leaf
Date Started:	4/21/11
Surface Conditions:	Asphalt
Well Location N/S:	12 feet North
Well Location E/W:	169 feet East
Reviewed by:	P. Kingston
Date Completed:	Hollow-Stem Auger

BORING LOG B197 01MW89

Site Address: 2805 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 24 feet bgs
Water Depth After Completion: 23.54 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		20 50/6	80	0.0	B197-15	SM		**Moist, dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
		20 50/6	100	0.0	B197-17.5	SM		**Moist, dense, silty fine SAND, brown, no solvent or hydrocarbon odor. (20-80-0)**	
20		20 50/6	100	0.0	B197-20	SM		**Moist, dense, silty fine SAND, grayish-brown, no solvent or hydrocarbon odor. (20-80-0)**	
		25 35 50/6	100	0.0	B197-22.5	SM		**Moist to wet, dense, silty fine to medium SAND, grayish-brown, no solvent or hydrocarbon odor. (10-90-0)**	
		24 30 13	100	0.0		SM-SP		**Wet, medium dense, fine to medium SAND, some silt, grayish-brown, color change to dark gray at 24.75 feet below ground surface (bgs), no solvent or hydrocarbon odor. (15-85-0)**	
25		20 50/6	80	0.0		ML		**Moist, hard, SILT, dark gray, no solvent or hydrocarbon odor. (100-0-0)**	
								Boring terminated at 27 feet bgs and completed as monitoring well 01MW89 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diamter:**	2" / 8.25"	inches
Drilling Equipment:	Hollow-Stem Auger		**Well Screened Interval:**	18 to 26	feet bgs
Sampler Type:	2 1/2" Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	#2/12 Silica Sand	
Total Boring Depth:	27	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	26	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

Boring location measured from northeast corner of the ASKO Industrial Repair building.

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/16/12
Surface Conditions:	Grass/soil mixture
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/16/12

BORING LOG B258
01MW92

Site Address: Mile Post 5.53
Seattle, WA

Water Depth At Time of Drilling: 10 feet bgs
Water Depth After Completion: 10.11 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
			100	0.9	B258-0.5	SM		**Silty SAND (fine to coarse) with gravel (fine to coarse), dry to moist, brown, trace organics, no solvent or hydrocarbon odor (30-50-20).**	
					B258-1.5			**Same as above, black (30-40-30).**	
		8/9/10	100	3.4	B258-2.5	SM		**Silty SAND (fine to coarse), few gravel (fine), moist, mottled gray and brown, loose, no solvent or hydrocarbon odor (40-50-10).**	
5				17.4	B258-5	SM		**Silty SAND (fine), few gravel (fine), moist, brown to gray (at 6 feet below ground surface), stiff, no organics, no solvent or hydrocarbon odor (45-50-5).**	
		8/9/10	100						
		8/9/10	100	1.6	B258-7.5	ML		**Sandy SILT (fine), few gravel (fine), moist, brown with gray mottling, stiff, no solvent or hydrocarbon odor (60-35-5).**	
						SM		**Silty SAND, moist, no solvent or hydrocarbon odor (25-75-0).**	
10				2.1	B258-10	SM		**Silty SAND (fine to coarse), few gravel (fine), moist to wet, brown with gray mottling, stiff, no solvent or hydrocarbon odor (40-50-10).**	
		14/9/8	100			ML		**Sandy SILT (fine), becomes fine sand, moist, gray, no solvent or hydrocarbon odor (60-35-5).**	

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.5	inches	**Notes/Comments:**
Drilling Equipment:	CME75		**Well Screened Interval:**	6 to 16	feet bgs	DRAFT
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 silica sand		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Cement Concrete		
Total Well Depth:	16	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHS228		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/16/12
Surface Conditions:	Grass/soil mixture
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/16/12

BORING LOG **B258** 01MW92

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 10 feet bgs

Water Depth After Completion: 10.11 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description
		8/8/9	100	0.6	B258-12.5	SM		**Silty SAND (fine), moist, gray, stiff, no solvent or hydrocarbon odor (45-55-0).**
						ML		**SILT with sand (fine), moist, gray, stiff, no solvent or hydrocarbon odor (80-20-0).**
15				1.9	B258-15	ML		**SILT, few fine sand, dry to moist, gray, very stiff, cohesive, no solvent or hydrocarbon odor (100-0-0).**
		8/15/17	100					
				2.1	B258-17.5	ML		**Same as above (95-5-0).**
		9/16/17	100			SM-ML		**Sandy SILT to silty SAND, dry to moist, gray, very stiff, cohesive no solvent or hydrocarbon odor (50-50-0).**
20								**Boring B258 was terminated at 19 feet below ground surface (bgs) and backfilled with bentonite to 16.5 feet bgs. Two-inch diameter well 01MW92 was installed to a depth of 16 feet bgs, screened from 6 to 16 feet bgs, silica sand from 5 to 16.5 feet bgs, bentonite seal from 2 to 5 feet bgs, concrete from 0 to 2 feet bgs, and finished at surface grade with a flushmount monument.**

Well Construction Detail

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.5	inches
Drilling Equipment:	CME75		**Well Screened Interval:**	6 to 16	feet bgs
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 silica sand	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Cement Concrete	
Total Well Depth:	16	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHS228		**Monument Type:**	Flushmount	

Notes/Comments:
DRAFT

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/16/12
Surface Conditions:	Soil
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/16/12

BORING LOG B259
01MW93

Site Address: Mile Post 5.53
Seattle, WA

Water Depth At Time of Drilling: 31.5 feet bgs
Water Depth After Completion: 30.73 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
			100	1.1	B259-0.5	GM		**Silty GRAVEL (fine to coarse) with sand (fine to medium), dry to moist, brown, organics (roots), no solvent or hydrocarbon odor (20-35-45).**	
		12/18/18	50	4.2	B259-02.5	GP-GM		**GRAVEL (fine to coarse) with silt and sand (fine to medium) dry to moist, brown, dense, no solvent or hydrocarbon odor (10-25-65).**	
5				4.7	B259-05	SM		**Silty SAND (fine to medium), few gravel (fine), moist, brown, medium dense, no solvent or hydrocarbon odor (45-50-5).**	
		8/11/12	100					**Same as above, becomes gray, unknown odor (35-65-0).**	
		10/11/12	100	24.6	B259-07.5	SM		**Silty SAND (fine to medium) with gravel (fine), moist, brown, slight odor (35-50-15).**	
								Silty SAND (fine to medium), moist, gray, loose, odor (35-65-0).	
10				1.9	B259-10	ML		**SILT, moist, gray, stiff, no solvent or hydrocarbon odor (100-0-0).**	
		5/12/13	100						
		8/12/14	100	3.2	B259-12.5	ML		**Same as above, very stiff (95-5-0).**	
15									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches	**Notes/Comments:**
Drilling Equipment:	CME75		**Well Screened Interval:**	23.5 to 38.5	feet bgs	DRAFT
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand		
Total Boring Depth:	39	feet bgs	**Surface Seal:**	Cement Concrete		
Total Well Depth:	38.5	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHS229		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-26
Logged by: TSB
Date Started: 08/16/12
Surface Conditions: Soil
Well Location N/S:
Well Location E/W:
Reviewed by: JAC/PJK
Date Completed: 08/16/12

BORING LOG **B259** 01MW93

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 31.5 feet bgs
Water Depth After Completion: 30.73 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		16/18/18	100	2.7	B259-15	ML		**Same as above (100-0-0).**	
				1.9	B259-17.5	SM		**Silty SAND (fine), moist, gray, medium dense, no solvent or hydrocarbon odor (30-70-0).**	
		8/15/19	100			ML		**Sandy SILT (fine), moist, gray, very stiff, no solvent or hydrocarbon odor (60-40-0).**	
20		5/18/20	100	2.9	B259-20	ML		**SILT, few sand (fine), moist, gray, hard, no solvent or hydrocarbon odor (90-10-0).**	
		9/14/15	100	1.1	B259-22.5	ML		**Same as above, very stiff (90-10-0).**	
25		14/20/21	60	1.9	B259-25	SM		**Silty SAND (fine), moist, gray, dense, no solvent or hydrocarbon odor (35-65-0).**	
				2.1	B259-27.5	SM		**Same as above.**	
		12/12/13	100			ML		**Sandy SILT, moist, gray, very stiff, no solvent or hydrocarbon odor (60-40-0).**	
30									

Drilling Co./Driller: Cascade Drilling/Scott K.
Drilling Equipment: CME75
Sampler Type: DD/CA Split Spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 39 feet bgs
Total Well Depth: 38.5 feet bgs
State Well ID No.: BHS229

Well/Auger Diamter: 2/8.25 inches
Well Screened Interval: 23.5 to 38.5 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Cement Concrete
Annular Seal: Bentonite
Monument Type: Flushmount

Notes/Comments:
DRAFT

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-26
Logged by: TSB
Date Started: 08/16/12
Surface Conditions: Soil
Well Location N/S:
Well Location E/W:
Reviewed by: JAC/PJK
Date Completed: 08/16/12

BORING LOG **B259** 01MW93

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 31.5 feet bgs
Water Depth After Completion: 30.73 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30									
		15/23/25	100	1.2	B259-30	SM		**Silty SAND (fine), moist, gray, medium dense, no solvent or hydrocarbon odor (35-65-0).**	
		16/18/35	100	1.1	B259-32.5	SM		**Same as above, becomes wet (30-70-0).**	
35		28/35/50	100	0.9	B259-35	SM		**Same as above, fine to medium sand, very dense (35-65-0).**	
		13/18/19	100	0.8	B259-37.5	SM		**Same as above.**	
						ML		**SILT, few sand (fine), moist, gray, no solvent or hydrocarbon odor (100-0-0).**	
40								**Boring B259 was terminated at 39 feet below ground surface (bgs) and backfilled with sand to 38.5 feet bgs. Two-inch diameter well 01MW93 was installed to a depth of 38.5 feet bgs, screened from 23.5 to 38.5 feet bgs, silica sand from 22.5 to 38.5 feet bgs, bentonite seal from 5 to 22.5 feet bgs, concrete from 0 to 5 feet bgs, and finished at surface grade with a flushmount monument.**	
45									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches
Drilling Equipment:	CME75		**Well Screened Interval:**	23.5 to 38.5	feet bgs
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand	
Total Boring Depth:	39	feet bgs	**Surface Seal:**	Cement Concrete	
Total Well Depth:	38.5	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHS229		**Monument Type:**	Flushmount	

Notes/Comments:
DRAFT

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B260 01MW94

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 31.0 feet bgs

Water Depth After Completion: 31.27 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0			100	0.0	B260-0.5	GP-GM		**GRAVEL (fine to coarse) with silt and sand, moist, brown, no solvent or hydrocarbon odor (10-40-50).**	
		18/20/20	100	0.0	B260-02.5	SM		**Silty SAND (fine to coarse) with gravel, moist, brown, medium dense, no solvent or hydrocarbon odor (35-50-15).**	
5		8/20/13	100	0.0	B260-05	ML		**SILT with sand (fine), moist, gray with brown mottling, medium dense, no solvent or hydrocarbon odor (80-20-0).**	
		7/9/10	100	0.0	B260-07.5	ML		**Sandy SILT, fine sand, moist, gray with brown mottling, stiff, no solvent or hydrocarbon odor (60-40-0).**	
10		7/8/9	100	0.0	B260-10	SM		**Silty SAND (fine), moist to wet, gray with brown mottling, medium dense, no solvent or hydrocarbon odor (45-55-0).**	
				1.3	B260-12.5	SM		**Silty SAND (fine to medium), moist, gray with brown mottling, slight unknown odor (40-60-0).**	
		7/8/11	100			ML		**SILT with clay, moist, gray, stiff, cohesive, no solvent or hydrocarbon odor (100-0-0).**	
15									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches	**Notes/Comments:**
Drilling Equipment:	CME 75		**Well Screened Interval:**	28 to 40	feet bgs	DRAFT
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand		
Total Boring Depth:	41.5	feet bgs	**Surface Seal:**	Cement Concrete		
Total Well Depth:	40	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHS230		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B260 01MW94

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 31.0 feet bgs
Water Depth After Completion: 31.27 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15									
		11/13/15	100	0.0	B260-15	ML		**Same as above, very stiff (100-0-0).**	
		11/13/18	100	1.6	B260-17.5	ML		**Same as above (100-0-0).**	
20									
		11/11/13	100	1.1	B260-20	ML		**Same as above, few sand (fine), stiff (100-0-0).**	
		15/18/18	100	0.6	B260-22.5	ML		**Same as above, very stiff (90-10-0).**	
25									
		7/15/18	100	0.6	B260-25	ML		**Same as above (95-5-0).**	
				0.3	B260-27.5	SM		**Silty SAND (fine), moist to wet, gray, medium dense, no solvent or hydrocarbon odor (40-60-0).**	
		12/15/15	100			ML		**Sandy SILT (fine), moist, gray, very stiff, cohesive, no solvent or hydrocarbon odor (70-30-0).**	
30									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches
Drilling Equipment:	CME 75		**Well Screened Interval:**	28 to 40	feet bgs
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand	
Total Boring Depth:	41.5	feet bgs	**Surface Seal:**	Cement Concrete	
Total Well Depth:	40	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHS230		**Monument Type:**	Flushmount	

Notes/Comments:
DRAFT

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B260 01MW94

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 31.0 feet bgs
Water Depth After Completion: 31.27 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		18/23/25	100	0.9	B260-30	ML		**SILT, few sand (fine), moist, gray, very stiff, cohesive, no solvent or hydrocarbon odor (95-5-0).**	
						SM		**Silty SAND (fine to medium), wet, gray, dense, no solvent or hydrocarbon odor (35-65-0).**	
		18/23/24	100	1.6	B260-32.5	SM		**Same as above (35-65-0).**	
35		18/22/24	100	4.2	B260-35	SM		**Same as above (25-75-0).**	
		15/20/17	100	3.4	B260-37.5	SM		**Same as above (25-75-0).**	
40		30/35/38	100	2.9	B260-40	SM		**Same as above.**	
						ML		**SILT, few sand (fine), moist, gray, hard, cohesive, no solvent or hydrocarbon odor (90-10-0).**	
45								**Boring B260 terminated at 41.5 feet below ground surface (bgs) and backfilled with sand to 40 feet bgs. Two-inch diameter well 01MW94 was installed to a depth of 40 feet bgs, screened from 28 to 40 feet bgs, silica sand from 27 to 40 feet bgs, bentonite seal from 5 to 27 feet bgs, concrete from 0 to 5 feet bgs, and finished at surface grade with a flushmount monument.**	

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches
Drilling Equipment:	CME 75		**Well Screened Interval:**	28 to 40	feet bgs
Sampler Type:	DD/CA Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand	
Total Boring Depth:	41.5	feet bgs	**Surface Seal:**	Cement Concrete	
Total Well Depth:	40	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHS230		**Monument Type:**	Flushmount	

Notes/Comments:
DRAFT

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B261
01MW95

Site Address: Mile Post 5.53
Seattle, WA

Water Depth At Time of Drilling: 27.0 feet bgs
Water Depth After Completion: 30.37 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0			100	12.7	B261-0.5	SM		**Silty SAND (fine to coarse), few gravel (fine), moist, brown, slight odor (15-80-5).**	
				21.9	B261-02.5	SM		**Same as above.** **Silty SAND (fine), moist, gray, medium dense.**	
		16/17/15	100			ML		**SILT, few sand (fine), moist, stiff, brown and gray mottling, no solvent or hydrocarbon odor (90-10-0).**	
5		9/19/20	100	319	B261-05	ML		**SILT, few sand (fine), moist, gray, very stiff, cohesive, gray, no solvent or hydrocarbon odor (95-5-0).**	
		6/10/12	100	1.1	B261-07.5	ML		**Same as above, trace sand (fine), becomes stiff (100-0-0).**	
10		10/18/19	100	3.3	B261-10	ML		**Same as above, becomes medium plastic (100-0-0).**	
		8/13/14	100	2.2	B261-12.5	ML		**Same as above.**	
15									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches	**Notes/Comments:**
Drilling Equipment:	CME75		**Well Screened Interval:**	27-37	feet bgs	DRAFT
Sampler Type:	DD/C Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand		
Total Boring Depth:	39	feet bgs	**Surface Seal:**	Cement Concrete		
Total Well Depth:	37	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHS231		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B261 01MW95

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 27.0 feet bgs
Water Depth After Completion: 30.37 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		16/13/18	100	6.5	B261-15	ML		**SILT with sand (fine), gray, moist, no solvent or hydrocarbon odor (85-15-0).**	
						SM		**Silty SAND (fine), moist, gray, dense, no odor.**	
						ML		**SILT, few sand (fine), moist, gray, very stiff, slightly plastic (90-10-0).**	
		12/15/16	100	0.0	B261-17.5	ML		**Same as above, medium plastic (95-5-0).**	
20		12/15/15	100	0.9	B261-20	ML		**SILT with clay, moist, gray, very stiff, cohesive, medium plastic, no solvent or hydrocarbon odor (100-0-0).**	
		9/14/15	100	0.1	B261-22.5	ML		**SILT with clay, few sand (fine), moist, gray, slightly cohesive, plastic, no solvent or hydrocarbon odor (90-10-0).** **SILT with sand (fine), moist, gray, slightly cohesive, plastic, no solvent or hydrocarbon odor (85-15-0).**	
25		12/14/15	100	0.0	B261-25	SM		**Silty SAND (fine), moist, gray, medium dense, no solvent or hydrocarbon odor (30-70-0).**	
		15/20/24	100	0.3	B261-27.5	SM		**Same as above**	
30									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches	**Notes/Comments:**
Drilling Equipment:	CME75		**Well Screened Interval:**	27-37	feet bgs	DRAFT
Sampler Type:	DD/C Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand		
Total Boring Depth:	39	feet bgs	**Surface Seal:**	Cement Concrete		
Total Well Depth:	37	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHS231		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project:	BNSF Parcel
Project Number:	0440-004-26
Logged by:	TSB
Date Started:	08/17/12
Surface Conditions:	--
Well Location N/S:	
Well Location E/W:	
Reviewed by:	JAC/PJK
Date Completed:	08/17/12

BORING LOG B261
01MW95

Site Address: Mile Post 5.53
Seattle, WA

Water Depth At Time of Drilling: 27.0 feet bgs
Water Depth After Completion: 30.37 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30									
		18/25/26	100	0.0	B261-30	SM		**Same as above (35-65-0).**	
		28/30/30	100	0.0	B261-32.5	SM		**Same as above (30-70-0).**	
35		14/30/30	90	0.0	B261-35	SM		**Same as above.**	
				0.0	B261-37.5	SM		**Same as above.**	
		20/25/28	100			ML		**SILT with sand (fine), moist, gray, very stiff, slightly cohesive, no solvent or hydrocarbon odor.**	
40								**Boring B261 terminated at 39 feet below ground surface (bgs) and backfilled with sand to 37 feet bgs. Two-inch diameter well 01MW95 was installed to a depth of 37 feet bgs, screened from 27 to 37 feet bgs, with silica sand from 26 to 37 feet bgs, bentonite seal from 5 to 26 feet bgs, concrete from 0 to 5 feet bgs, and finished at surface grade with a flushmount monument.**	
45									

Drilling Co./Driller:	Cascade Drilling/Scott K.		**Well/Auger Diamter:**	2/8.25	inches
Drilling Equipment:	CME75		**Well Screened Interval:**	27-37	feet bgs
Sampler Type:	DD/C Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Silica Sand	
Total Boring Depth:	39	feet bgs	**Surface Seal:**	Cement Concrete	
Total Well Depth:	37	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHS231		**Monument Type:**	Flushmount	

Notes/Comments:
DRAFT

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG | B264
01MW96

Site Address: Mile Post 5.53
Seattle, WA

Water Depth At Time of Drilling: 12.5 feet bgs
Water Depth After Completion: 13.6 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
		11 11 11	100	5.1 15.8	B264-02.5	SM		**Silty SAND (fine to medium), trace gravel, moist, medium dense, dark brown, no solvent or hydrocarbon odor (15-80-5).**	
						ML		**SILT with fine sand, moist, medium-dense, blue-gray, hydrocarbon odor (80-20-0).**	
5		3 5 5	100	139	B264-05	ML		**Same as above (85-15-0).**	
						SM		**Silty SAND (fine), moist, medium-dense, blue-gray, hydrocarbon odor, free product, sheen (30-70-0).**	
		4 5	100	199	B264-07.5	SM		**Silty SAND (fine), moist, medium-dense, strong hydrocarbon odor, free product, sheen (45-55-0).**	
		5				CL		**CLAY with trace sand, moist, medium dense, blue-gray, hydrocarbon odor (95-5-0).**	
10		5 7 8	100	11.2	B264-10	CL		**CLAY with trace fine sand, 1 to 2-inch-thick lens of sandy silt at 11 feet below ground surface (bgs), moist, medium dense, blue-gray, faint hydrocarbon odor (95-5-0).**	
		4 5 10	100	7.3	B264-12.5	SM		**Silty SAND (fine), wet, medium dense, no solvent or hydrocarbon odor (25-75-0).**	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 21.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: BIC 238

Well/Auger Diameter: 2"/8.25" inches
Well Screened Interval: 5 to15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flushmount

Notes/Comments:

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG B264 01MW96

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 12.5 feet bgs
Water Depth After Completion: 13.6 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		4 5 10	100	14.2	B264-15	ML		**SILT with trace fine sand, moist, medium-dense, gray, no solvent or hydrocarbon odor (95-5-0).**	
		5 5 5	100	11.3		ML		**Same as above, no solvent or hydrocarbon odor (95-5-0).**	
20		3 5 5	50	12.1		ML		**Same as above, blue-gray (95-5-0).**	
					B264-21	SM		**Silty SAND (fine), moist, medium dense, no solvent or hydrocarbon odor (30-70-0).**	
								Boring B264 was terminated at 21.5 feet bgs and backfilled with bentonite to 15 feet bgs. Two-inch-diameter well 01MW96 was installed to a depth of 15 feet bgs, screened from 5 to 15 feet bgs, silica sand from 3 to 15 feet bgs, bentonite seal from 1.5 to 3 feet bgs, concrete from 0 to 1.5 feet bgs, and finished at surface grade with a flushmount monument.	
25									
30									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diameter:**	2"/8.25"	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to15	feet bgs	
Sampler Type:	Dames and Moore		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	21.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BIC 238		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG | B265 01MW97

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 8 feet bgs
Water Depth After Completion: 11.93 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
		3 5 7	100	9.7	B265-03	SM		**Silty SAND (fine to medium) with gravel, moist, medium-dense, no solvent or hydrocarbon odor.**	
						ML		**SILT with fine sand, trace gravel, moist, medium dense, gray with orange oxidation bands, no solvent or hydrocarbon odor (75-20-5).**	
						SM		**Silty SAND, medium dense, gray with brown-orange oxidation, no solvent or hydrocarbon odor (30-70-0).**	
5		4 5 5	100	4.6	B265-06	SP		**Poorly graded SAND (fine) with silt, moist, medium dense, brown, no solvent or hydrocarbon odor (10-90-0).**	
				15.8		SM		**Silty SAND (fine), moist, medium dense, gray, hydrocarbon odor (15-85-0).**	
		7 10 11	100	49.3	B265-08.5	SM		**Silty SAND (fine), moist to wet, medium dense, gray to brown with some gray bands, faint hydrocarbon odor (15-85-0).**	
10									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diameter:**	2"/8.25"	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs	
Sampler Type:	Dames and Moore		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BIC 239		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG | B265 01MW97

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 8 feet bgs
Water Depth After Completion: 11.93 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
10		5 6 7	100	52.1	B265-11	SP		**Poorly graded SAND (fine) with silt, moist to wet, medium dense, faint hydrocarbon odor (10-90-0).**	
						ML		**SILT with trace fine sand, moist, gray, medium dense, no solvent or hydrocarbon odor (95-5-0).**	
		5 7 7	100	17.5		ML		**Same as above, SILT to clay (95-5-0).**	
15		5 7 7	80	10.2	B265-16	ML		**Same as above (95-5-0).**	
								Boring B265 was terminated at 16.5 feet bgs and backfilled with silica sand to 15 feet bgs. Two-inch-diameter well 01MW97 was installed to a depth of 15 feet bgs, screened from 5 to 15 feet bgs, silica sand from 3 to 15 feet bgs, bentonite seal from 1.5 to 3 feet bgs, concrete from 0 to 1.5 feet bgs, and finished at surface grade with a flushmount monument.	
20									

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diameter:**	2"/8.25"	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs	
Sampler Type:	Dames and Moore		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BIC 239		**Monument Type:**	Flushmount		

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG **B265** 01MW97

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 8 feet bgs
Water Depth After Completion: 11.93 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
20									
25									
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 16.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: BIC 239

Well/Auger Diameter: 2"/8.25" inches
Well Screened Interval: 5 to 15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flushmount

Notes/Comments:

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG | B266 01MW98

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 10 feet bgs
Water Depth After Completion: 6.7 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0									
		6 8 8	90	10.7	B266-03.5	SM		**Silty SAND (fine) with gravel, dry, medium dense, brown, organic matter, no solvent or hydrocarbon odor (15-70-15).**	
								Silty SAND (fine), moist, medium dense, increasing silt content, hydrocarbon odor (25-75-0).	
5		5 5 5	100	128		SM		**Same as above.**	
					B266-06			**Silty SAND (fine), moist, medium dense, gray with brown oxidation, hydrocarbon odor (45-55-0).**	
								Silty SAND (fine), moist, medium dense, blue-gray, strong hydrocarbon odor, sheen (20-80-0).	
		5 7 8	100	89.6	B266-08	SM		**Silty SAND (fine), moist to wet, medium dense, gray with brown banding at 8 feet below ground surface (bgs), hydrocarbon odor (20-80-0).**	
						ML		**SILT, few fine sands, medium dense, gray (90-10-0).**	
10									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 16.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: BIC 240

Well/Auger Diameter: 2"/8.25" inches
Well Screened Interval: 5 to 15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flushmount

Notes/Comments:

SoundEarth Strategies

Project: BNSF Parcel
Project Number: 0440-004-33
Logged by: EBF
Date Started: 5/7/13
Surface Conditions: Grass
Well Location N/S:
Well Location E/W:
Reviewed by: PJK
Date Completed: 5/7/13

BORING LOG | B266 01MW98

Site Address: Mile Post 5.53 Seattle, WA

Water Depth At Time of Drilling: 10 feet bgs
Water Depth After Completion: 6.7 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
10		4 7 8	100	25.5	B266-11	SP-SM		**Poorly graded SAND (fine to coarse) with silt, wet, medium dense, brown-gray, faint hydrocarbon odor (10-90-0).**	
		7 9 9	100	41.3	B266-13	SM		**Silty SAND (fine), wet, medium dense, no solvent or hydrocarbon odor (15-85-0).**	
15		7 9 10	100	8.7	B266-16	ML		**SILT, trace fine sand, moist, medium dense, gray, no solvent or hydrocarbon odor (95-5-0).**	

Boring B266 was terminated at 16.5 feet bgs and backfilled with silica sand to 15 feet bgs. Two-inch-diameter well 01MW98 was installed to a depth of 15 feet bgs, screened from 5 to 15 feet bgs, silica sand from 3 to 15 feet bgs, bentonite seal from 1.5 to 3 feet bgs, concrete from 0 to 1.5 feet bgs, and finished at surface grade with a flushmount monument.

Drilling Co./Driller:	Cascade/Curtis		**Well/Auger Diameter:**	2"/8.25"	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs	
Sampler Type:	Dames and Moore		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BIC 240		**Monument Type:**	Flushmount		