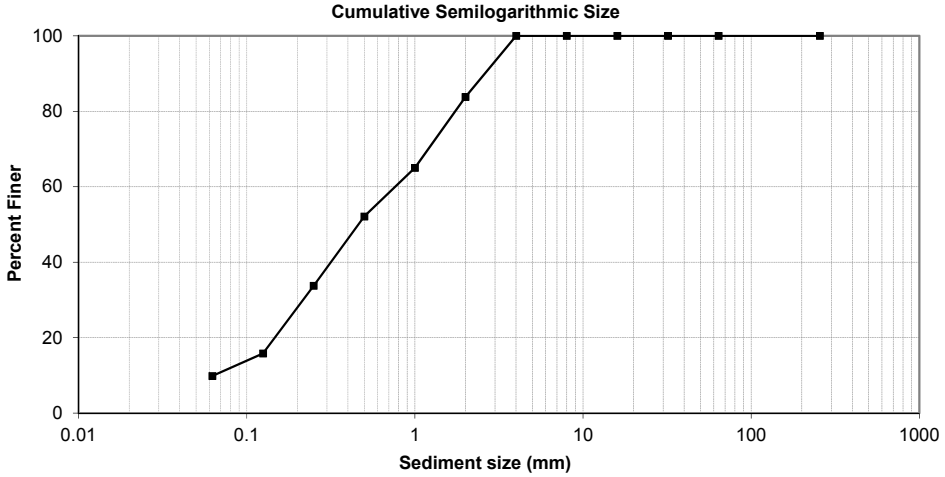
SIEVE ANALYSIS

Sample ID:	BP1_R1
Location:	0 to 2 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	243.6 g
Tare weight:	128.6 g
Net weight:	115.0 g
Gravel weight:	0.0 g
Sand weight:	102.6 g
Portion analyzed:	115.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.3 ft of 5 ft drilled Clay and silt clumps Sub-sample taken from 0 to 5 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	0.0	0.00	100.00		
2	18.4	16.17	83.83	**Very coarse sand**	Clumps of silt clay
1	21.4	18.80	65.03	**Granule**	Clumps of silt clay
0.5	14.7	12.92	52.11	**Coarse sand**	
0.25	20.9	18.37	33.74	**Median sand**	
0.125	20.4	17.93	15.82	**Fine sand**	
0.0625	6.8	5.98	9.84	**Very fine sand**	
<0.0625	11.2	9.84	0.00	**Silt & clays**	
TOTAL	113.8				

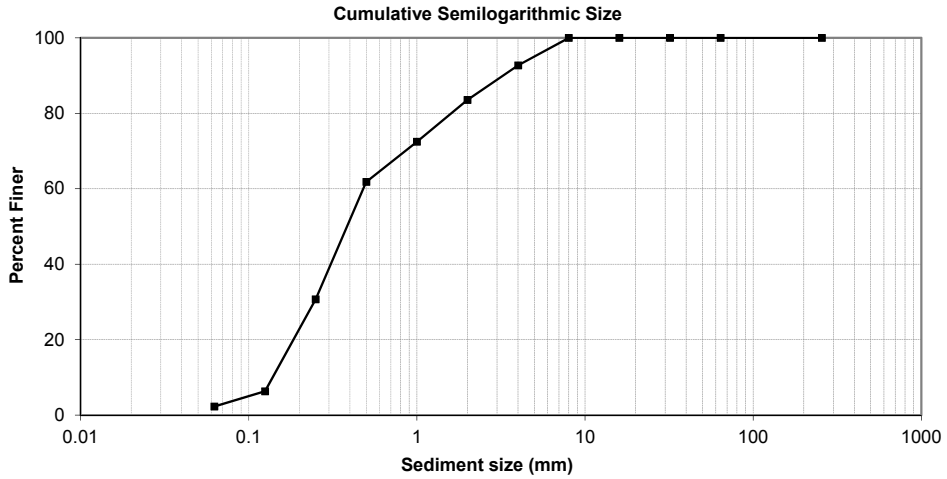


Particle Characteristics			
d_{90}	=	2.61	mm
$d_{84.1}$	=	2.02	mm
d_{65}	=	1	mm
d_{50}	=	0.46	mm
d_{35}	=	0.26	mm
$d_{15.9}$	=	0.13	mm
d_g	=	0.5	mm
σ_g	=	3.94	mm
G	=	1.41	

SIEVE ANALYSIS

Sample ID:	BP1_R2
Location:	2 to 5 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	614.7 g
Tare weight:	128.8 g
Net weight:	485.9 g
Gravel weight:	35.3 g
Sand weight:	437.3 g
Portion analyzed:	485.9 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.3 ft of 5 ft drilled Sub-sample from soil core colelcted from 0 to 5 ft BLS.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	35.3	7.30	92.70		
2	44.2	9.14	83.56	Very coarse sand	
1	53.6	11.08	72.48	Granule	
0.5	51.5	10.65	61.84	Coarse sand	
0.25	150.6	31.14	30.70	Median sand	
0.125	117.9	24.37	6.33	Fine sand	
0.0625	19.5	4.03	2.29	Very fine sand	
<0.0625	11.1	2.29	0.00	Silt & clays	
TOTAL	483.7				

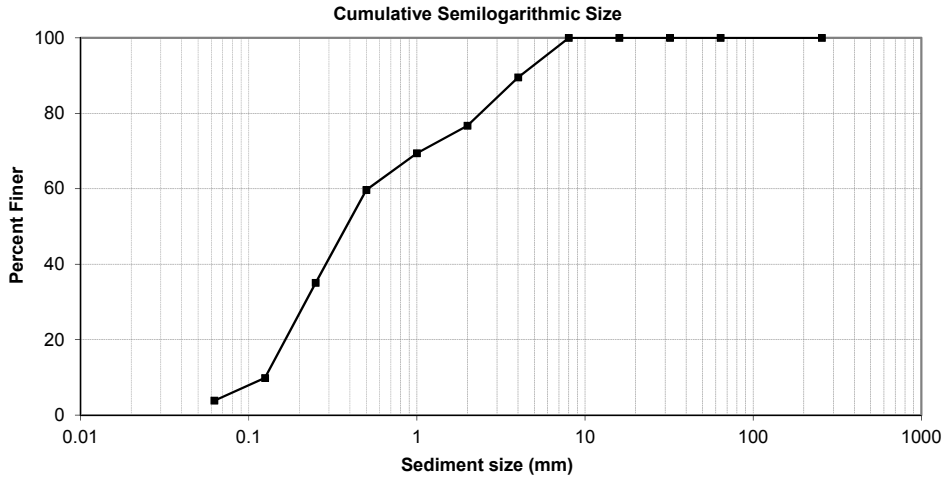


Particle Characteristics			
d_{90}	=	3.26	mm
$d_{84.1}$	=	2.08	mm
d_{65}	=	0.61	mm
d_{50}	=	0.38	mm
d_{35}	=	0.28	mm
$d_{15.9}$	=	0.16	mm
d_g	=	0.6	mm
σ_g	=	3.61	mm
G	=	1.40	

SIEVE ANALYSIS

Sample ID:	BP1_R3
Location:	5 to 8.5 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	808.2 g
Tare weight:	128.7 g
Net weight:	679.5 g
Gravel weight:	70.9 g
Sand weight:	580.9 g
Portion analyzed:	679.5 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.4 ft of 3.5 ft drilled Soil probe taken from 5 to 10 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	70.9	10.46	89.54		
2	86.9	12.82	76.72	Very coarse sand	
1	49.4	7.29	69.43	Granule	
0.5	66.1	9.75	59.68	Coarse sand	
0.25	166.7	24.59	35.08	Median sand	
0.125	171.0	25.23	9.86	Fine sand	
0.0625	40.8	6.02	3.84	Very fine sand	
<0.0625	26.0	3.84	0.00	Silt & clays	
TOTAL	677.8				

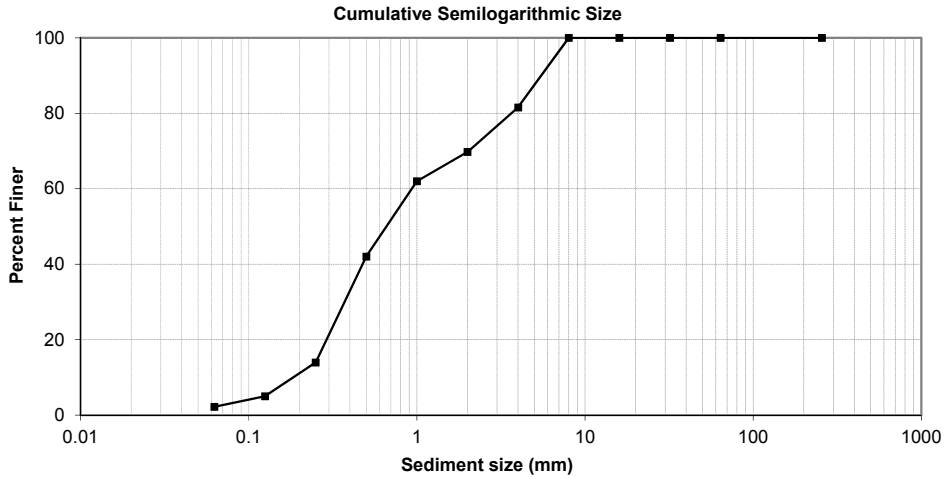


Particle Characteristics			
d_{90}	=	4.12	mm
$d_{84.1}$	=	2.98	mm
d_{65}	=	0.73	mm
d_{50}	=	0.38	mm
d_{35}	=	0.25	mm
$d_{15.9}$	=	0.15	mm
d_g	=	0.7	mm
σ_g	=	4.46	mm
G	=	1.61	

SIEVE ANALYSIS

Sample ID:	BP1_R4
Location:	8.5 to 11 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	728.4 g
Tare weight:	128.7 g
Net weight:	599.7 g
Gravel weight:	110.1 g
Sand weight:	474.5 g
Portion analyzed:	599.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.7 ft of 5 ft drilled Sub-sample from 5 to 10 ft and from 10 to 15 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	110.1	18.42	81.58		
2	70.5	11.80	69.78	**Very coarse sand**	
1	46.6	7.80	61.99	**Granule**	
0.5	119.2	19.94	42.04	**Coarse sand**	
0.25	168.0	28.11	13.94	**Median sand**	
0.125	53.5	8.95	4.99	**Fine sand**	
0.0625	16.7	2.79	2.19	**Very fine sand**	
<0.0625	13.1	2.19	0.00	**Silt & clays**	
TOTAL	597.7				

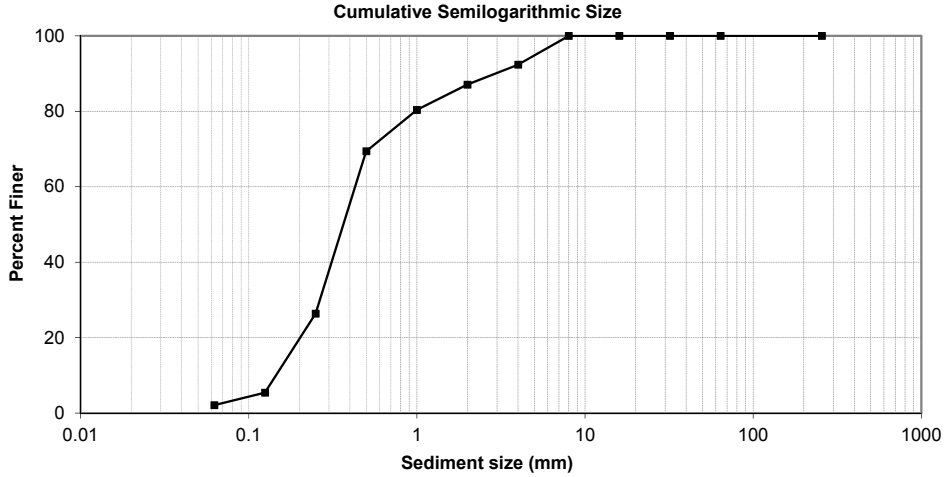


Particle Characteristics			
d_{90}	=	5.49	mm
$d_{84.1}$	=	4.4	mm
d_{65}	=	1.31	mm
d_{50}	=	0.66	mm
d_{35}	=	0.42	mm
$d_{15.9}$	=	0.26	mm
d_g	=	1.1	mm
σ_g	=	4.11	mm
G	=	1.52	

SIEVE ANALYSIS

Sample ID:	BP1_R5
Location:	11 to 15 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	716.3 g
Tare weight:	128.6 g
Net weight:	587.7 g
Gravel weight:	44.8 g
Sand weight:	529.3 g
Portion analyzed:	587.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.7 ft of 5 ft drilled Sub-sample taken from 10 to 15 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	44.8	7.64	92.36		
2	30.9	5.27	87.09	Very coarse sand	
1	39.3	6.70	80.39	Granule	
0.5	64.3	10.96	69.43	Coarse sand	
0.25	252.5	43.05	26.38	Median sand	
0.125	123.0	20.97	5.40	Fine sand	
0.0625	19.3	3.29	2.11	Very fine sand	
<0.0625	12.4	2.11	0.00	Silt & clays	
TOTAL	586.5				

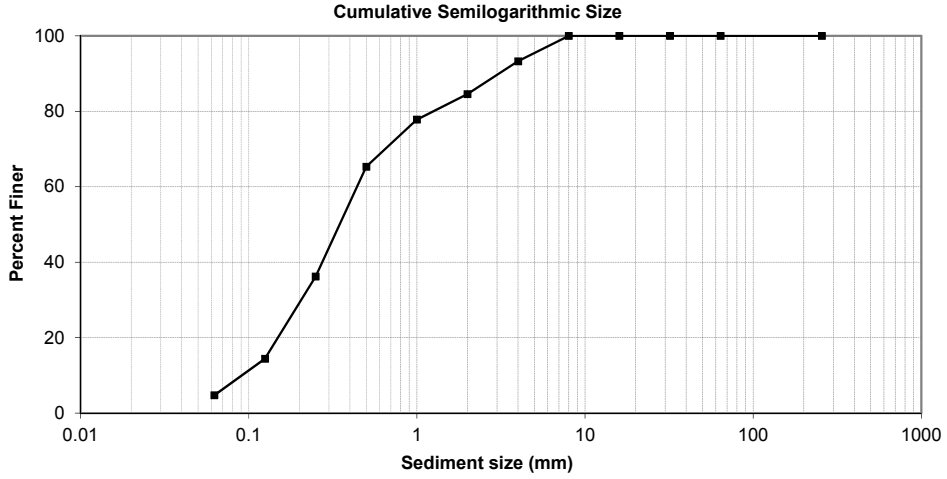


Particle Characteristics			
d_{90}	=	2.93	mm
$d_{84.1}$	=	1.47	mm
d_{65}	=	0.47	mm
d_{50}	=	0.37	mm
d_{35}	=	0.29	mm
$d_{15.9}$	=	0.18	mm
d_g	=	0.5	mm
σ_g	=	2.86	mm
G	=	1.23	

SIEVE ANALYSIS

Sample ID:	BP2_R1
Location:	0 to 5 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	464.2 g
Tare weight:	128.6 g
Net weight:	335.6 g
Gravel weight:	22.4 g
Sand weight:	295.6 g
Portion analyzed:	335.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 1.6 ft of 5 ft drilled Soil sample from 0 to 5 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	22.4	6.71	93.29		
2	29.1	8.72	84.57	Very coarse sand	
1	22.5	6.74	77.83	Granule	
0.5	41.8	12.52	65.31	Coarse sand	
0.25	97.1	29.09	36.22	Median sand	
0.125	72.8	21.81	14.41	Fine sand	
0.0625	32.3	9.68	4.73	Very fine sand	
<0.0625	15.8	4.73	0.00	Silt & clays	
TOTAL	333.8				

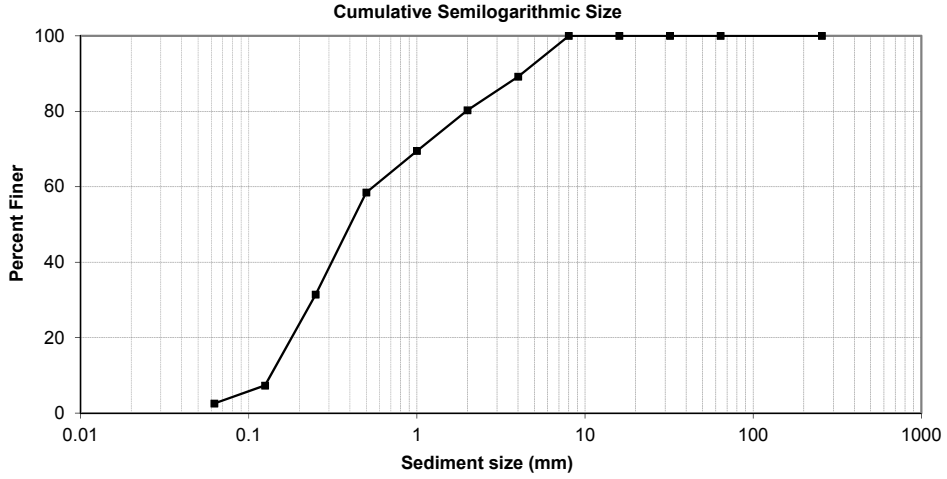


Particle Characteristics			
d_{90}	=	3.08	mm
$d_{84.1}$	=	1.91	mm
d_{65}	=	0.5	mm
d_{50}	=	0.35	mm
d_{35}	=	0.24	mm
$d_{15.9}$	=	0.13	mm
d_g	=	0.5	mm
σ_g	=	3.83	mm
G	=	1.43	

SIEVE ANALYSIS

Sample ID:	BP2_R2
Location:	5 to 8 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	582.9 g
Tare weight:	128.8 g
Net weight:	454.1 g
Gravel weight:	49.0 g
Sand weight:	392.1 g
Portion analyzed:	454.1 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.3 ft of 5 ft drilled Sub-sample from soil core colelcted from 5 to 10 ft BLS.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	49.0	10.82	89.18		
2	40.3	8.90	80.27	**Very coarse sand**	
1	48.7	10.76	69.52	**Granule**	
0.5	50.0	11.04	58.47	**Coarse sand**	
0.25	122.5	27.06	31.41	**Median sand**	
0.125	109.1	24.10	7.31	**Fine sand**	
0.0625	21.5	4.75	2.56	**Very fine sand**	
<0.0625	11.6	2.56	0.00	**Silt & clays**	
TOTAL	452.7				

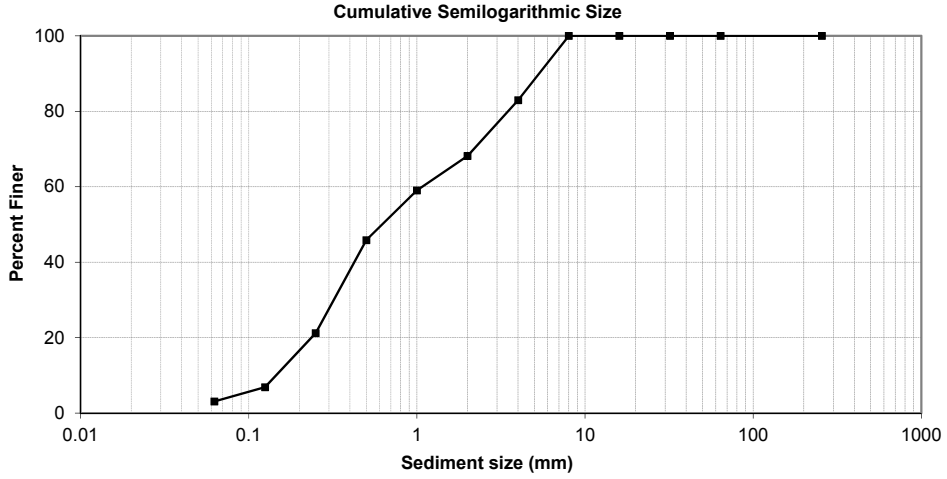


Particle Characteristics			
d_{90}	=	4.22	mm
$d_{84.1}$	=	2.69	mm
d_{65}	=	0.75	mm
d_{50}	=	0.4	mm
d_{35}	=	0.27	mm
$d_{15.9}$	=	0.16	mm
d_g	=	0.7	mm
σ_g	=	4.10	mm
G	=	1.52	

SIEVE ANALYSIS

Sample ID:	BP2_R3
Location:	8 to 10 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	694.9 g
Tare weight:	128.7 g
Net weight:	566.2 g
Gravel weight:	96.1 g
Sand weight:	450.6 g
Portion analyzed:	566.2 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.3 ft of 5 ft drilled Sub-sample from soil core colelcted from 5 to 10 ft BLS.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	96.1	17.04	82.96		
2	83.5	14.80	68.16	**Very coarse sand**	
1	51.5	9.13	59.03	**Granule**	
0.5	74.4	13.19	45.84	**Coarse sand**	
0.25	139.1	24.66	21.18	**Median sand**	
0.125	80.7	14.31	6.88	**Fine sand**	
0.0625	21.4	3.79	3.08	**Very fine sand**	
<0.0625	17.4	3.08	0.00	**Silt & clays**	
TOTAL	564.1				

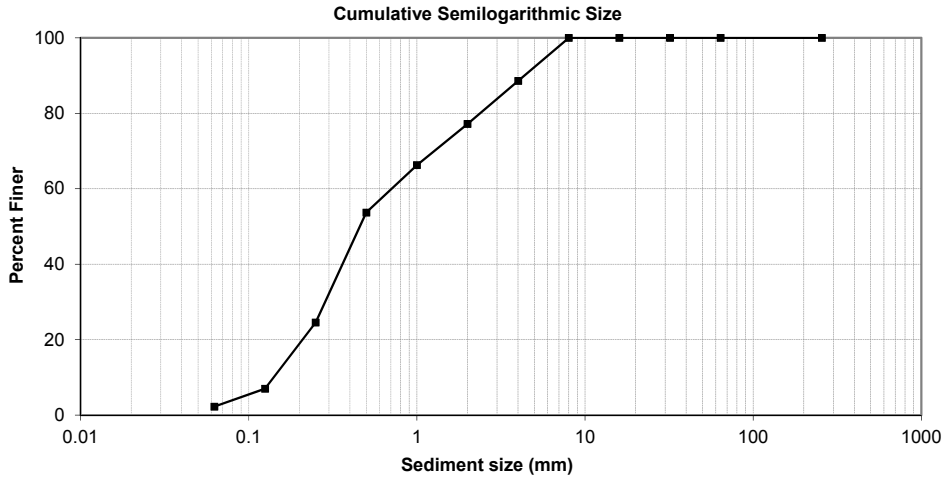


Particle Characteristics			
d_{90}	=	5.33	mm
$d_{84.1}$	=	4.19	mm
d_{65}	=	1.57	mm
d_{50}	=	0.62	mm
d_{35}	=	0.37	mm
$d_{15.9}$	=	0.19	mm
d_g	=	0.9	mm
σ_g	=	4.70	mm
G	=	1.58	

SIEVE ANALYSIS

Sample ID:	BP2_R4
Location:	10 to 15 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	721.1 g
Tare weight:	129.5 g
Net weight:	591.6 g
Gravel weight:	67.2 g
Sand weight:	509.0 g
Portion analyzed:	591.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.1 ft of 5 ft drilled Soil sample from 10 to 15 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	67.2	11.40	88.60		
2	67.3	11.42	77.18	**Very coarse sand**	
1	64.3	10.91	66.28	**Granule**	
0.5	74.1	12.57	53.71	**Coarse sand**	
0.25	171.9	29.16	24.55	**Median sand**	
0.125	103.5	17.56	6.99	**Fine sand**	
0.0625	27.9	4.73	2.26	**Very fine sand**	
<0.0625	13.3	2.26	0.00	**Silt & clays**	
TOTAL	589.5				

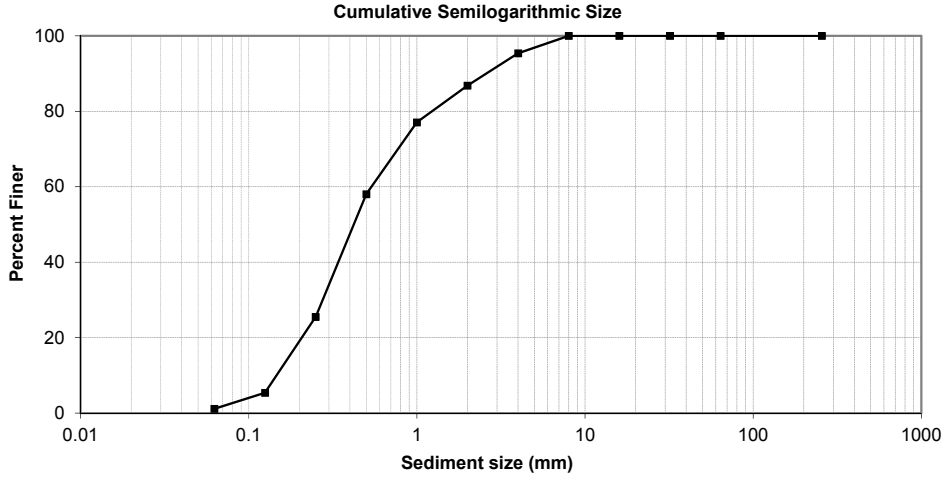


Particle Characteristics			
d_{90}	=	4.36	mm
$d_{84.1}$	=	3.04	mm
d_{65}	=	0.93	mm
d_{50}	=	0.46	mm
d_{35}	=	0.32	mm
$d_{15.9}$	=	0.18	mm
d_g	=	0.7	mm
σ_g	=	4.11	mm
G	=	1.51	

SIEVE ANALYSIS

Sample ID:	BP2_R5
Location:	15 to 17 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	747.2 g
Tare weight:	128.6 g
Net weight:	618.6 g
Gravel weight:	28.4 g
Sand weight:	581.1 g
Portion analyzed:	618.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.9 ft of 4.0 ft drilled Sub-sample from 15 to 19 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	28.4	4.61	95.39		
2	52.8	8.56	86.83	Very coarse sand	
1	60.1	9.75	77.08	Granule	
0.5	117.6	19.08	58.00	Coarse sand	
0.25	200.4	32.51	25.50	Median sand	
0.125	124.1	20.13	5.37	Fine sand	
0.0625	26.1	4.23	1.14	Very fine sand	
<0.0625	7.0	1.14	0.00	Silt & clays	
TOTAL	616.5				

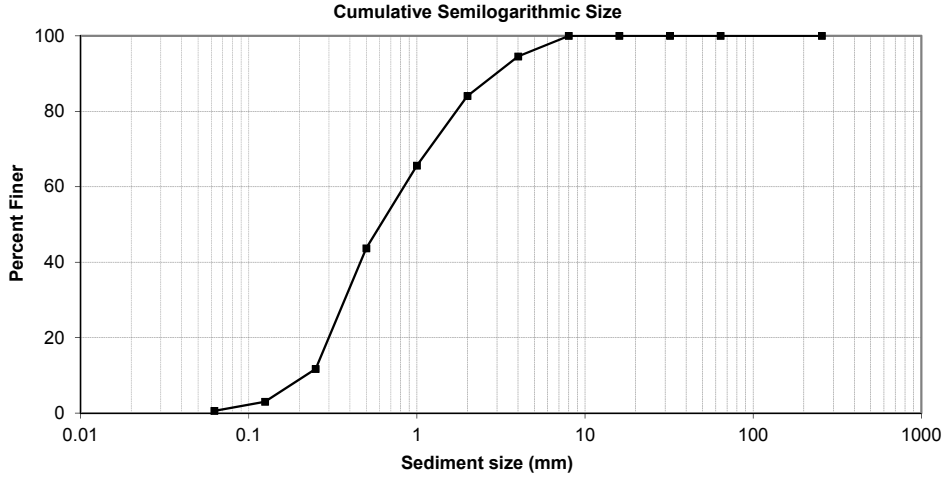


Particle Characteristics			
d_{90}	=	2.59	mm
$d_{84.1}$	=	1.65	mm
d_{65}	=	0.64	mm
d_{50}	=	0.42	mm
d_{35}	=	0.31	mm
$d_{15.9}$	=	0.18	mm
d_g	=	0.5	mm
σ_g	=	3.03	mm
G	=	1.25	

SIEVE ANALYSIS

Sample ID:	BP2_R6
Location:	17 to 20 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	832.7 g
Tare weight:	129.9 g
Net weight:	702.8 g
Gravel weight:	38.1 g
Sand weight:	658.2 g
Portion analyzed:	702.8 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample taken from 15 to 19 ft and from 19 to 20 ft (short run).

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	38.1	5.44	94.56		
2	73.4	10.48	84.08	Very coarse sand	
1	129.3	18.46	65.62	Granule	
0.5	153.7	21.94	43.68	Coarse sand	
0.25	224.0	31.98	11.71	Median sand	
0.125	60.9	8.69	3.01	Fine sand	
0.0625	16.9	2.41	0.60	Very fine sand	
<0.0625	4.2	0.60	0.00	Silt & clays	
TOTAL	700.5				

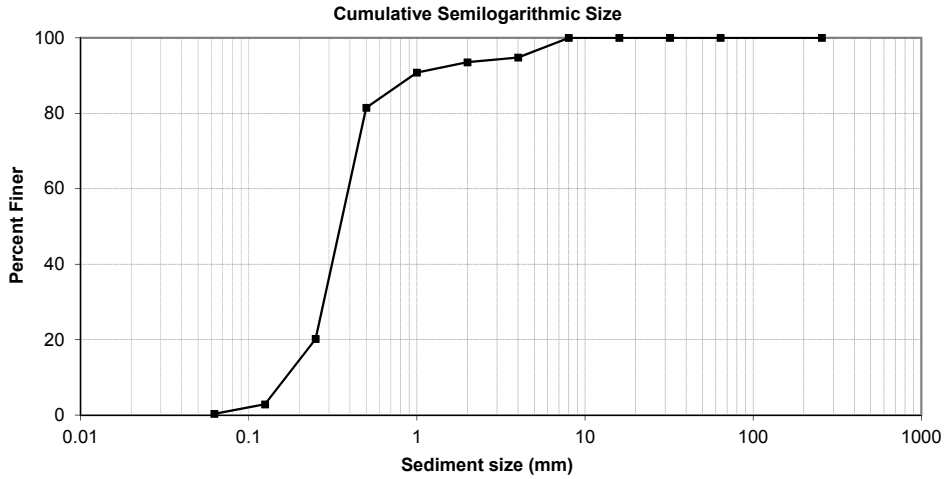


Particle Characteristics			
d_{90}	=	2.96	mm
$d_{84.1}$	=	2	mm
d_{65}	=	0.98	mm
d_{50}	=	0.61	mm
d_{35}	=	0.41	mm
$d_{15.9}$	=	0.27	mm
d_g	=	0.7	mm
σ_g	=	2.72	mm
G	=	1.18	

SIEVE ANALYSIS

Sample ID:	BP2_R7
Location:	20 to 22 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	March 1, 2016
Gross weight:	748.7 g
Tare weight:	129.0 g
Net weight:	619.7 g
Gravel weight:	32.2 g
Sand weight:	585.4 g
Portion analyzed:	619.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.4 ft of 5.0 ft drilled Sub-sample from 20 to 25 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	32.2	5.20	94.80		
2	7.8	1.26	93.54	**Very coarse sand**	
1	16.9	2.73	90.82	**Granule**	
0.5	57.9	9.34	81.47	**Coarse sand**	
0.25	379.7	61.28	20.19	**Median sand**	
0.125	107.4	17.33	2.86	**Fine sand**	
0.0625	15.7	2.53	0.32	**Very fine sand**	
<0.0625	2.0	0.32	0.00	**Silt & clays**	
TOTAL	619.6				

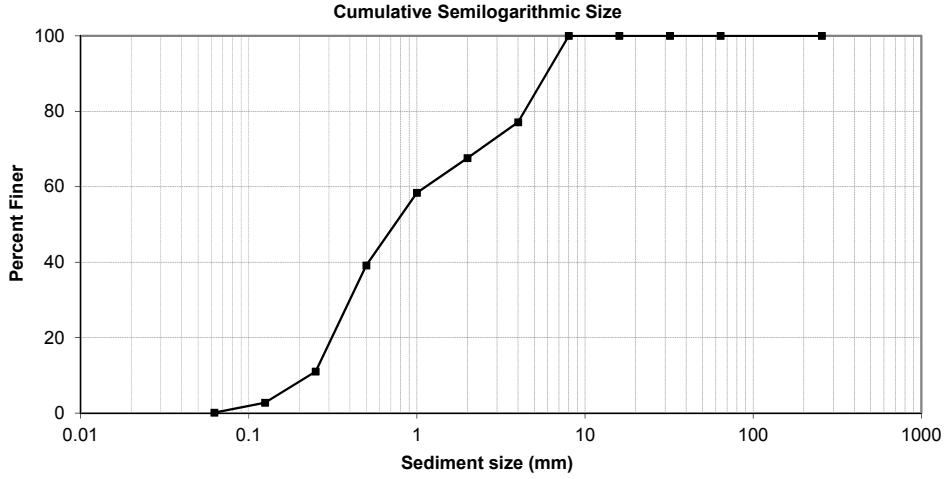


Particle Characteristics			
d_{90}	=	0.94	mm
$d_{84.1}$	=	0.61	mm
d_{65}	=	0.42	mm
d_{50}	=	0.35	mm
d_{35}	=	0.3	mm
$d_{15.9}$	=	0.21	mm
d_g	=	0.4	mm
σ_g	=	1.70	mm
G	=	0.92	

SIEVE ANALYSIS

Sample ID:	BP2_R8
Location:	22 to 24 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	672.5 g
Tare weight:	128.6 g
Net weight:	543.9 g
Gravel weight:	124.2 g
Sand weight:	417.3 g
Portion analyzed:	543.9 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.4 ft of 5.0 ft drilled Sub-sample from 20 to 25 ft WET SAMPLE

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	124.2	22.91	77.09		
2	51.5	9.50	67.59	Very coarse sand	
1	49.8	9.18	58.41	Granule	
0.5	104.4	19.25	39.16	Coarse sand	
0.25	152.6	28.14	11.01	Median sand	
0.125	44.7	8.24	2.77	Fine sand	
0.0625	14.3	2.64	0.13	Very fine sand	
<0.0625	0.7	0.13	0.00	Silt & clays	
TOTAL	542.2				

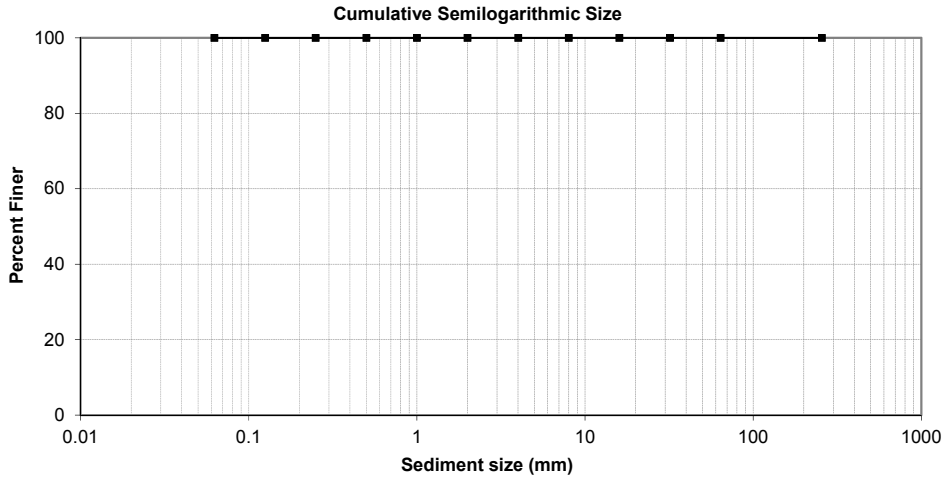


Particle Characteristics			
d_{90}	=	5.91	mm
$d_{84.1}$	=	4.94	mm
d_{65}	=	1.64	mm
d_{50}	=	0.74	mm
d_{35}	=	0.45	mm
$d_{15.9}$	=	0.28	mm
d_g	=	1.2	mm
σ_g	=	4.20	mm
G	=	1.53	

SIEVE ANALYSIS

Sample ID:	BP2_R9
Location:	24 to 25 ft
Date:	December 9, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	422.7 g
Tare weight:	117.6 g
Net weight:	305.1 g
Gravel weight:	0.0 g
Sand weight:	0.0 g
Portion analyzed:	305.1 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe)
	Soil could not be sieved
	Some basalt rock in the samples
	Considered the basalt contact
	Sub-sample from 20 to 25 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	0.0	0.00	100.00		
2	0.0	0.00	100.00	**Very coarse sand**	
1	0.0	0.00	100.00	**Granule**	
0.5	0.0	0.00	100.00	**Coarse sand**	
0.25	0.0	0.00	100.00	**Median sand**	
0.125	0.0	0.00	100.00	**Fine sand**	
0.0625	0.0	0.00	100.00	**Very fine sand**	
<0.0625	305.1	100.00	0.00	**Silt & clays**	Clumps of silt and clay
TOTAL	305.1				

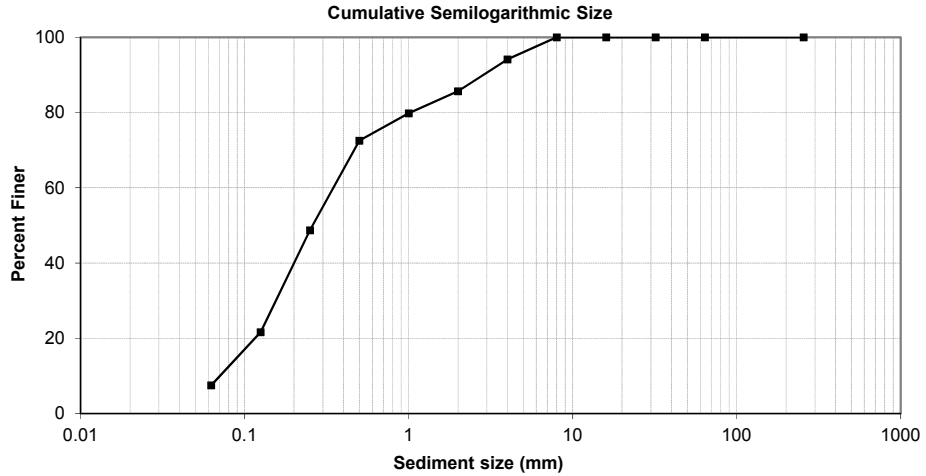


Particle Characteristics			
d_{90}	=	#VALUE!	mm
$d_{84.1}$	=	#VALUE!	mm
d_{65}	=	#VALUE!	mm
d_{50}	=	#VALUE!	mm
d_{35}	=	#VALUE!	mm
$d_{15.9}$	=	#VALUE!	mm
d_{g}	=	#VALUE!	mm
σ_{g}	=	#VALUE!	mm
G	=	#VALUE!	

SIEVE ANALYSIS

Sample ID:	T01_R1
Location:	0 to 5 ft
Date:	Decmeber 10, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	414.0 g
Tare weight:	100.0 g
Net weight:	314.0 g
Gravel weight:	18.4 g
Sand weight:	271.5 g
Portion analyzed:	314.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovery 1.3 ft of 5 ft recovered Sieve analysis run on 100% of recovered sample.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	18.4	5.87	94.13		
2	26.5	8.45	85.68	**Very coarse sand**	
1	18.4	5.87	79.81	**Granule**	
0.5	22.9	7.30	72.50	**Coarse sand**	
0.25	74.5	23.76	48.74	**Median sand**	
0.125	84.9	27.08	21.66	**Fine sand**	
0.0625	44.3	14.13	7.53	**Very fine sand**	
<0.0625	23.6	7.53	0.00	**Silt & clays**	
TOTAL	313.5				

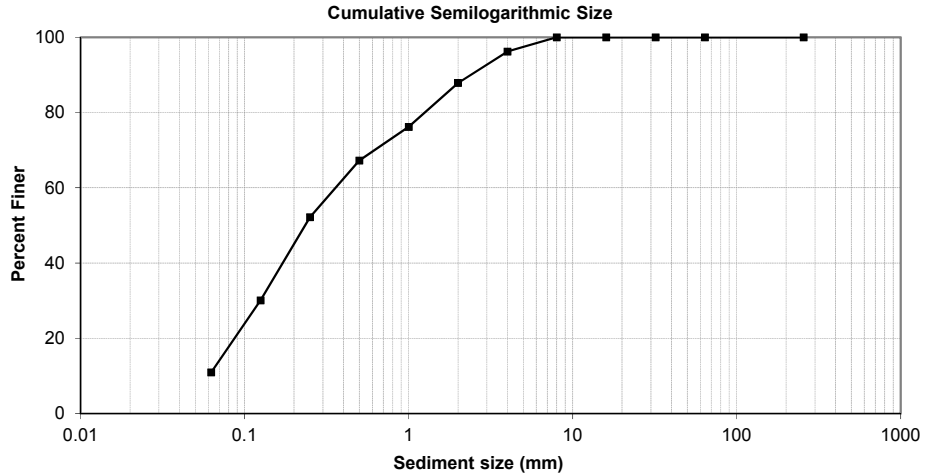


Particle Characteristics			
d_{90}	=	2.85	mm
$d_{84.1}$	=	1.66	mm
d_{65}	=	0.4	mm
d_{50}	=	0.26	mm
d_{35}	=	0.18	mm
$d_{15.9}$	=	0.094	mm
d_g	=	0.4	mm
σ_g	=	4.20	mm
G	=	1.51	

SIEVE ANALYSIS

Sample ID:	T01_R2
Location:	5 to 7.5 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	539.0 g
Tare weight:	100.0 g
Net weight:	439.0 g
Gravel weight:	16.6 g
Sand weight:	373.8 g
Portion analyzed:	439.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Sub-sample taken from soil probe from 5 to 10 ft. Recovered 4.2 ft of 5 ft in liners.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	16.6	3.79	96.21		
2	36.6	8.35	87.86	**Very coarse sand**	
1	51.2	11.68	76.19	**Granule**	
0.5	39.2	8.94	67.24	**Coarse sand**	
0.25	65.9	15.03	52.21	**Median sand**	
0.125	97.0	22.13	30.09	**Fine sand**	
0.0625	83.9	19.14	10.95	**Very fine sand**	
<0.0625	48.0	10.95	0.00	**Silt & clays**	
TOTAL	438.4				

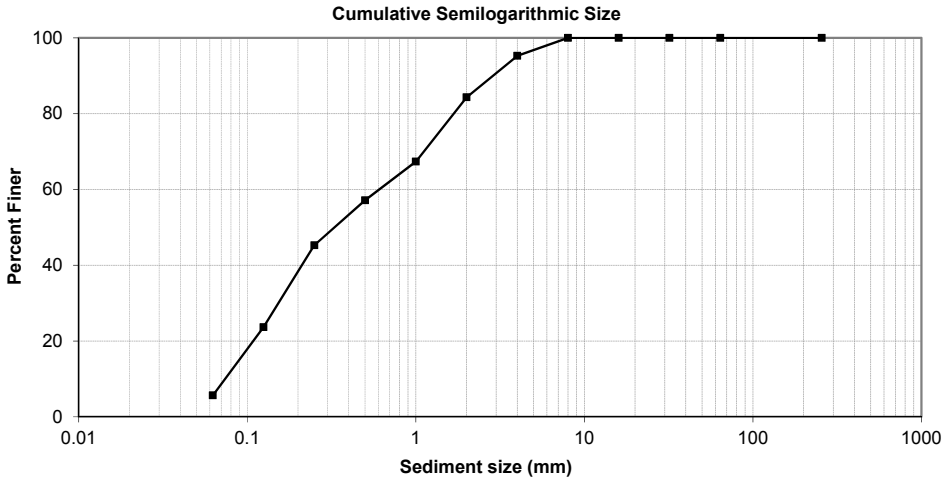


Particle Characteristics			
d_{90}	=	2.39	mm
$d_{84.1}$	=	1.6	mm
d_{65}	=	0.45	mm
d_{50}	=	0.23	mm
d_{35}	=	0.15	mm
$d_{15.9}$	=	0.075	mm
d_g	=	0.3	mm
σ_g	=	4.62	mm
G	=	1.58	

SIEVE ANALYSIS

Sample ID:	T01_R3
Location:	7.5 to 9 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	629.0 g
Tare weight:	100.0 g
Net weight:	529.0 g
Gravel weight:	24.9 g
Sand weight:	473.8 g
Portion analyzed:	529.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Partial sample from 5 to 10 ft Liners split where sediment changed based on visual inspection.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	24.9	4.71	95.29		
2	57.9	10.95	84.34	Very coarse sand	
1	89.8	16.99	67.35	Granule	
0.5	54.0	10.22	57.13	Coarse sand	
0.25	62.7	11.86	45.27	Median sand	
0.125	114.3	21.62	23.65	Fine sand	
0.0625	95.1	17.99	5.66	Very fine sand	
<0.0625	29.9	5.66	0.00	Silt & clays	
TOTAL	528.6				

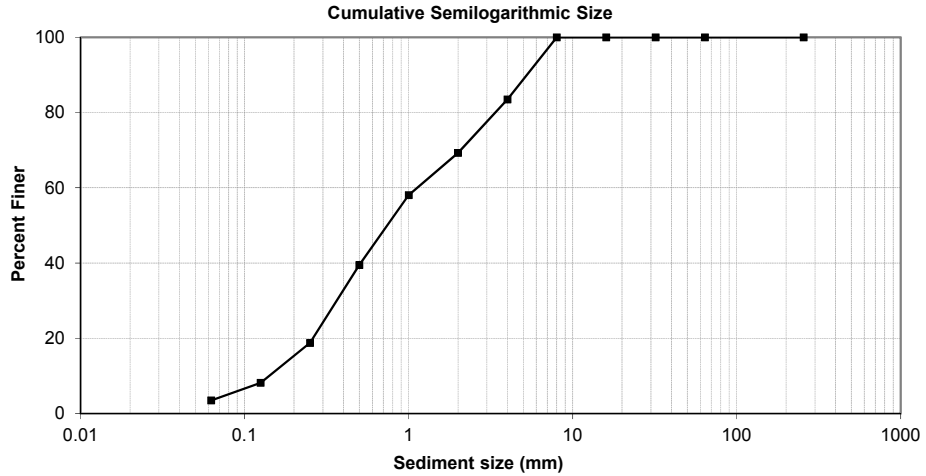


Particle Characteristics			
d_{90}	=	2.86	mm
$d_{84.1}$	=	1.98	mm
d_{65}	=	0.85	mm
d_{50}	=	0.33	mm
d_{35}	=	0.18	mm
$d_{15.9}$	=	0.093	mm
d_g	=	0.4	mm
σ_g	=	4.61	mm
G	=	1.55	

SIEVE ANALYSIS

Sample ID:	T01_R4
Location:	9 to 10 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	410.0 g
Tare weight:	100.0 g
Net weight:	310.0 g
Gravel weight:	51.1 g
Sand weight:	247.6 g
Portion analyzed:	310.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Partial sample from 5 to 10 ft Liners split where sediment changed based on visual inspection.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	51.1	16.51	83.49		
2	44.0	14.21	69.28	**Very coarse sand**	
1	34.7	11.21	58.07	**Granule**	
0.5	57.5	18.57	39.50	**Coarse sand**	
0.25	64.1	20.70	18.80	**Median sand**	
0.125	32.8	10.59	8.20	**Fine sand**	
0.0625	14.5	4.68	3.52	**Very fine sand**	
<0.0625	10.9	3.52	0.00	**Silt & clays**	
TOTAL	309.6				

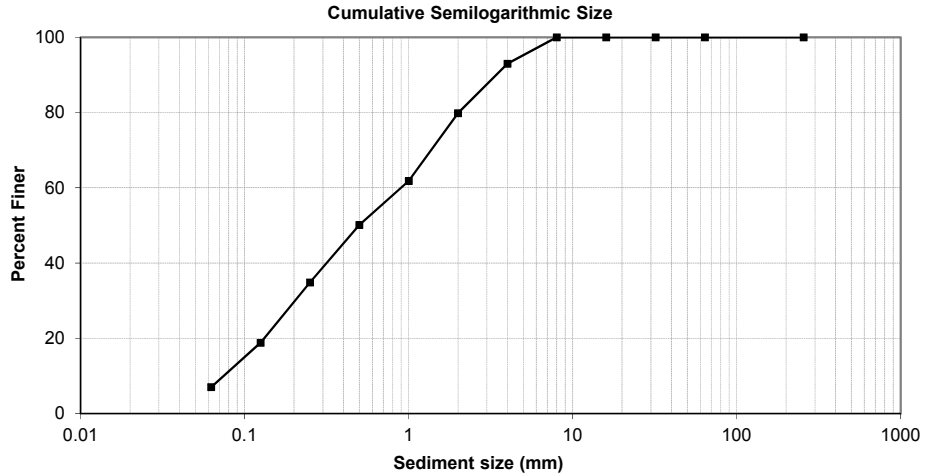


Particle Characteristics			
d_{90}	=	5.26	mm
$d_{84.1}$	=	4.1	mm
d_{65}	=	1.53	mm
d_{50}	=	0.74	mm
d_{35}	=	0.43	mm
$d_{15.9}$	=	0.21	mm
d_g	=	0.9	mm
σ_g	=	4.42	mm
G	=	1.51	

SIEVE ANALYSIS

Sample ID:	T01_R5
Location:	10 to 15 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	579.0 g
Tare weight:	100.0 g
Net weight:	479.0 g
Gravel weight:	33.6 g
Sand weight:	411.5 g
Portion analyzed:	479.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 10 to 15 ft Recovered 1.5 ft of 5 ft sample 100% of recovered sampled analyzed.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	33.6	7.02	92.98		
2	62.9	13.14	79.85	**Very coarse sand**	
1	86.4	18.05	61.80	**Granule**	
0.5	56.0	11.70	50.10	**Coarse sand**	
0.25	73.0	15.25	34.86	**Median sand**	
0.125	76.7	16.02	18.84	**Fine sand**	
0.0625	56.5	11.80	7.04	**Very fine sand**	
<0.0625	33.7	7.04	0.00	**Silt & clays**	
TOTAL	478.8				

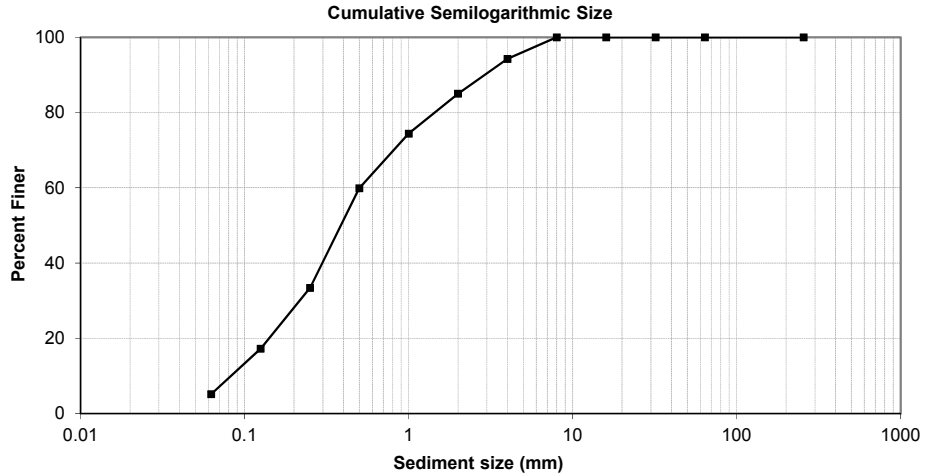


Particle Characteristics			
d_{90}	=	3.42	mm
$d_{84.1}$	=	2.5	mm
d_{65}	=	1.13	mm
d_{50}	=	0.5	mm
d_{35}	=	0.25	mm
$d_{15.9}$	=	0.11	mm
d_g	=	0.5	mm
σ_g	=	4.77	mm
G	=	1.54	

SIEVE ANALYSIS

Sample ID:	T01_R6
Location:	15 to 16.5 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	486.0 g
Tare weight:	100.0 g
Net weight:	386.0 g
Gravel weight:	22.2 g
Sand weight:	343.5 g
Portion analyzed:	386.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 15 to 20 ft Sub-sample 1.5 ft 100% of recovered sampled analyzed.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	22.2	5.76	94.24		
2	35.6	9.23	85.01	**Very coarse sand**	
1	40.9	10.60	74.41	**Granule**	
0.5	56.0	14.52	59.89	**Coarse sand**	
0.25	102.2	26.50	33.39	**Median sand**	
0.125	62.3	16.15	17.24	**Fine sand**	
0.0625	46.5	12.06	5.19	**Very fine sand**	
<0.0625	20.0	5.19	0.00	**Silt & clays**	
TOTAL	385.7				

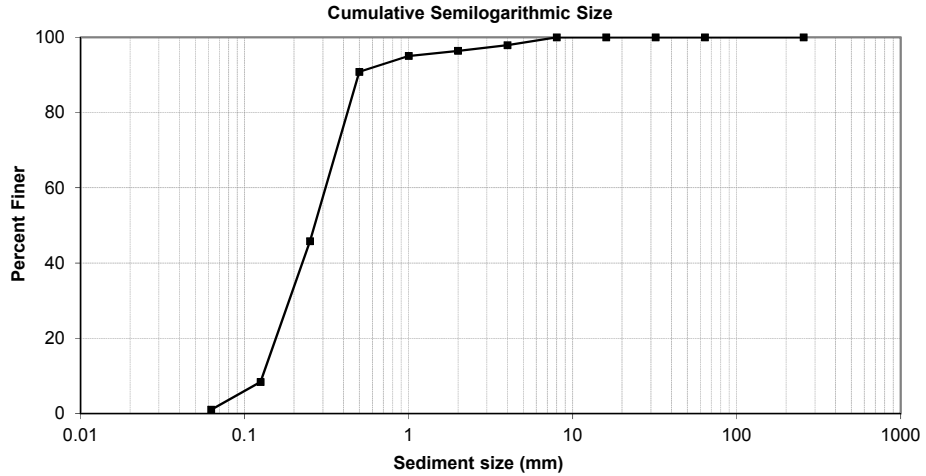


Particle Characteristics			
d_{90}	=	2.91	mm
$d_{84.1}$	=	1.88	mm
d_{65}	=	0.64	mm
d_{50}	=	0.39	mm
d_{35}	=	0.26	mm
$d_{15.9}$	=	0.12	mm
d_g	=	0.5	mm
σ_g	=	3.96	mm
G	=	1.42	

SIEVE ANALYSIS

Sample ID:	T01_R7
Location:	16.5 to 18 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	579.0 g
Tare weight:	100.0 g
Net weight:	479.0 g
Gravel weight:	10.0 g
Sand weight:	479.0 g
Portion analyzed:	479.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Sub-sample taken from 15 to 20 ft Sub-sample 1.5 ft 100% of recovered sampled analyzed.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	10.0	2.09	97.91		
2	7.2	1.50	96.41	**Very coarse sand**	
1	6.5	1.36	95.05	**Granule**	
0.5	20.3	4.24	90.81	**Coarse sand**	
0.25	215.4	44.99	45.82	**Median sand**	
0.125	179.1	37.41	8.42	**Fine sand**	
0.0625	35.3	7.37	1.04	**Very fine sand**	
<0.0625	5.0	1.04	0.00	**Silt & clays**	
TOTAL	478.8				

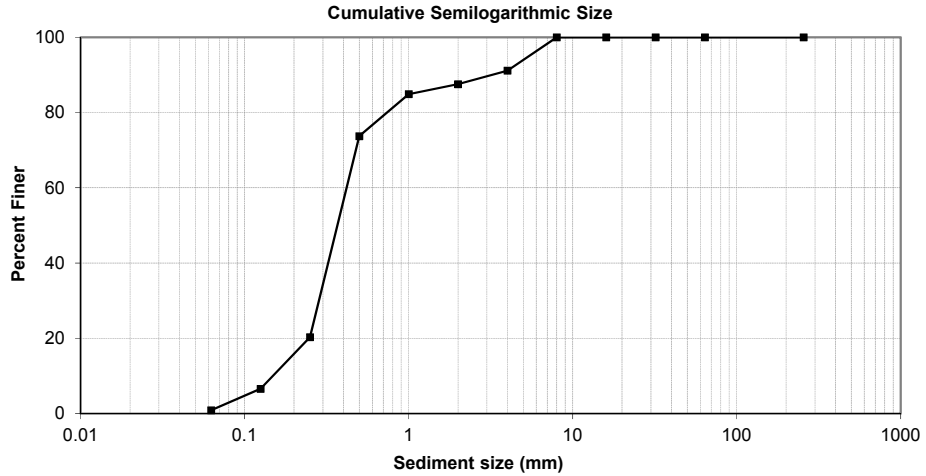


Particle Characteristics			
d_{90}	=	0.49	mm
$d_{84.1}$	=	0.45	mm
d_{65}	=	0.34	mm
d_{50}	=	0.27	mm
d_{35}	=	0.2	mm
$d_{15.9}$	=	0.14	mm
d_g	=	0.3	mm
σ_g	=	1.79	mm
G	=	0.95	

SIEVE ANALYSIS

Sample ID:	T01_R8
Location:	18 to 20 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	687.0 g
Tare weight:	100.0 g
Net weight:	587.0 g
Gravel weight:	52.0 g
Sand weight:	528.9 g
Portion analyzed:	587.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 15 to 20 ft Sub-sample 2 ft 100% of recovered sampled analyzed.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	52.0	8.87	91.13		
2	21.0	3.58	87.55	**Very coarse sand**	
1	15.6	2.66	84.89	**Granule**	
0.5	65.4	11.16	73.73	**Coarse sand**	
0.25	313.0	53.39	20.33	**Median sand**	
0.125	80.5	13.73	6.60	**Fine sand**	
0.0625	33.4	5.70	0.90	**Very fine sand**	
<0.0625	5.3	0.90	0.00	**Silt & clays**	
TOTAL	586.2				

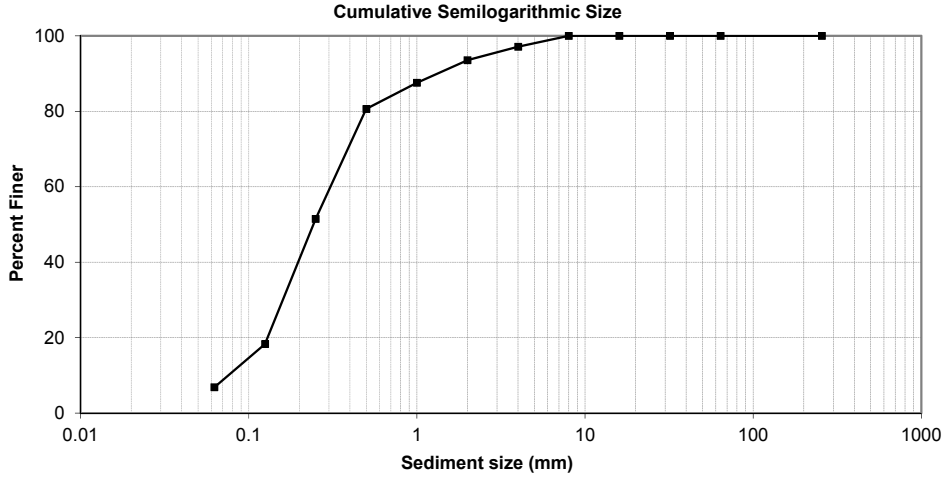


Particle Characteristics			
d_{90}	=	3.21	mm
$d_{84.1}$	=	0.95	mm
d_{65}	=	0.45	mm
d_{50}	=	0.37	mm
d_{35}	=	0.3	mm
$d_{15.9}$	=	0.2	mm
d_g	=	0.4	mm
σ_g	=	2.18	mm
G	=	1.05	

SIEVE ANALYSIS

Sample ID:	T02_R1
Location:	0 to 2.5 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	399.5 g
Tare weight:	114.9 g
Net weight:	284.6 g
Gravel weight:	8.1 g
Sand weight:	255.6 g
Portion analyzed:	284.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 0 to 5 ft From the 5 ft sample 3.1 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	8.1	2.86	97.14		
2	10.1	3.57	93.57	Very coarse sand	
1	17.0	6.00	87.57	Granule	
0.5	19.6	6.92	80.64	Coarse sand	
0.25	82.5	29.14	51.50	Median sand	
0.125	93.9	33.17	18.33	Fine sand	
0.0625	32.5	11.48	6.85	Very fine sand	
<0.0625	19.4	6.85	0.00	Silt & clays	
TOTAL	283.1				

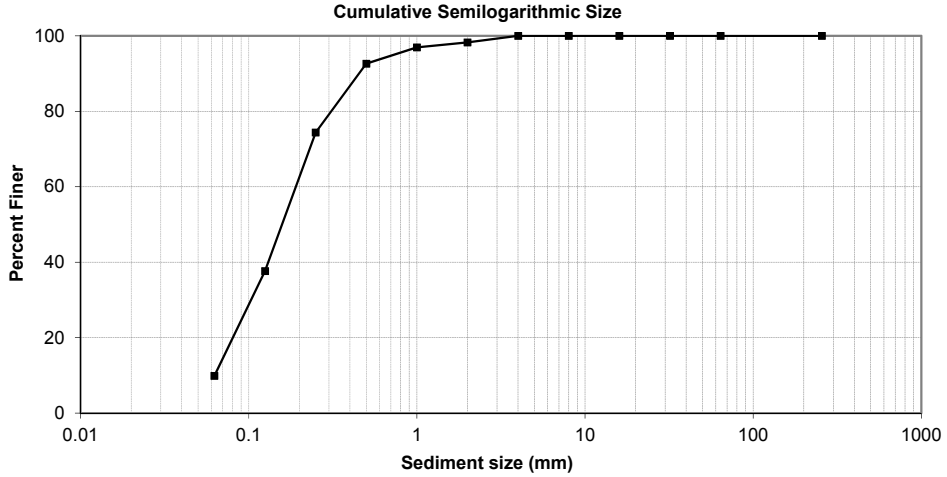


Particle Characteristics			
d_{90}	=	1.32	mm
$d_{84.1}$	=	0.71	mm
d_{65}	=	0.34	mm
d_{50}	=	0.24	mm
d_{35}	=	0.18	mm
$d_{15.9}$	=	0.11	mm
d_g	=	0.3	mm
σ_g	=	2.54	mm
G	=	1.13	

SIEVE ANALYSIS

Sample ID:	T02_R2
Location:	2.5 to 5 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	489.3 g
Tare weight:	114.9 g
Net weight:	374.4 g
Gravel weight:	0.0 g
Sand weight:	336.5 g
Portion analyzed:	374.4 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 0 to 5 ft From the 5 ft sample 3.1 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	0.0	0.00	100.00		
2	6.5	1.74	98.26	Very coarse sand	
1	4.9	1.31	96.95	Granule	
0.5	16.1	4.31	92.64	Coarse sand	
0.25	68.1	18.24	74.40	Median sand	
0.125	137.2	36.74	37.65	Fine sand	
0.0625	103.7	27.77	9.88	Very fine sand	
<0.0625	36.9	9.88	0.00	Silt & clays	
TOTAL	373.4				

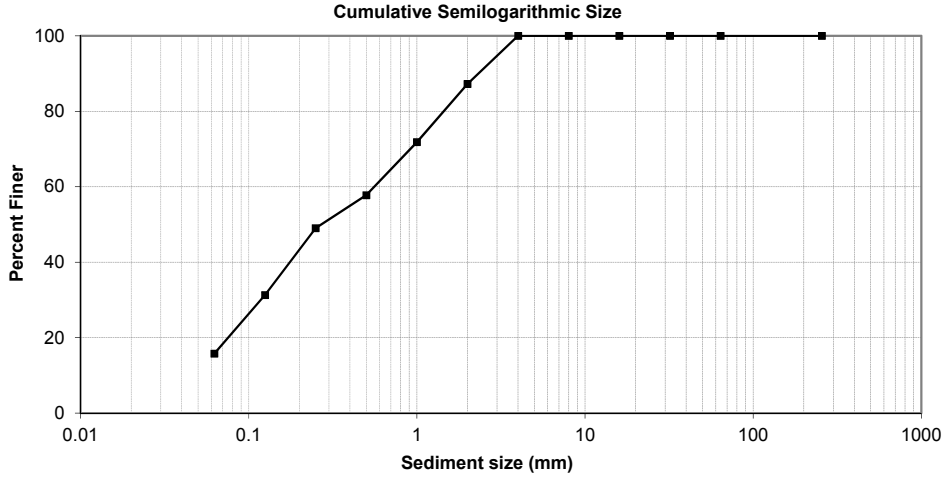


Particle Characteristics			
d_{90}	=	0.45	mm
$d_{84.1}$	=	0.36	mm
d_{65}	=	0.21	mm
d_{50}	=	0.16	mm
d_{35}	=	0.12	mm
$d_{15.9}$	=	0.073	mm
d_g	=	0.2	mm
σ_g	=	2.22	mm
G	=	1.05	

SIEVE ANALYSIS

Sample ID:	T02_R3
Location:	5 to 7.5 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	365.0 g
Tare weight:	100.0 g
Net weight:	265.0 g
Gravel weight:	0.0 g
Sand weight:	219.3 g
Portion analyzed:	265.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe)
	Soil sub-sample from 5 to 10 ft
	From the 5 ft sample 3.1 ft was recovered
	Material was consolidated, attempts were made to break up.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	0.0	0.00	100.00		
2	33.2	12.75	87.25	**Very coarse sand**	Clumps of silt clay
1	40.1	15.40	71.85	**Granule**	Clumps of silt clay
0.5	36.7	14.09	57.76	**Coarse sand**	Clumps of silt clay
0.25	22.7	8.72	49.04	**Median sand**	
0.125	46.2	17.74	31.30	**Fine sand**	
0.0625	40.4	15.51	15.78	**Very fine sand**	
<0.0625	41.1	15.78	0.00	**Silt & clays**	
TOTAL	260.4				

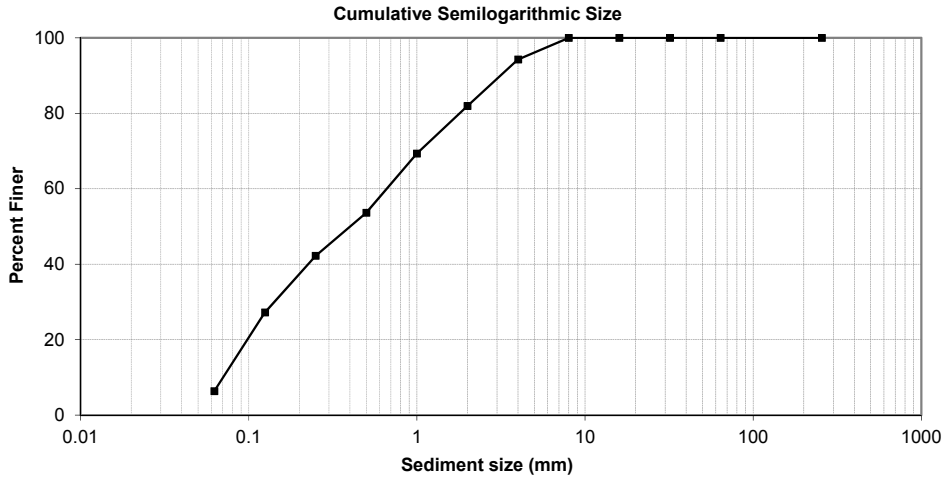


Particle Characteristics			
d_{90}	=	2.32	mm
$d_{84.1}$	=	1.74	mm
d_{65}	=	0.71	mm
d_{50}	=	0.27	mm
d_{35}	=	0.14	mm
$d_{15.9}$	=	0.063	mm
d_g	=	0.3	mm
σ_g	=	5.26	mm
G	=	1.64	

SIEVE ANALYSIS

Sample ID:	T02_R4
Location:	7.5 to 10 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	540.4 g
Tare weight:	115.2 g
Net weight:	425.2 g
Gravel weight:	24.2 g
Sand weight:	372.0 g
Portion analyzed:	425.2 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 5 to 10 ft From the 5 ft sample 3.1 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	24.2	5.72	94.28		
2	52.2	12.33	81.95	**Very coarse sand**	
1	53.3	12.59	69.35	**Granule**	
0.5	66.5	15.71	53.64	**Coarse sand**	
0.25	48.3	11.41	42.23	**Median sand**	
0.125	63.5	15.00	27.22	**Fine sand**	
0.0625	88.2	20.84	6.38	**Very fine sand**	
<0.0625	27.0	6.38	0.00	**Silt & clays**	
TOTAL	423.2				

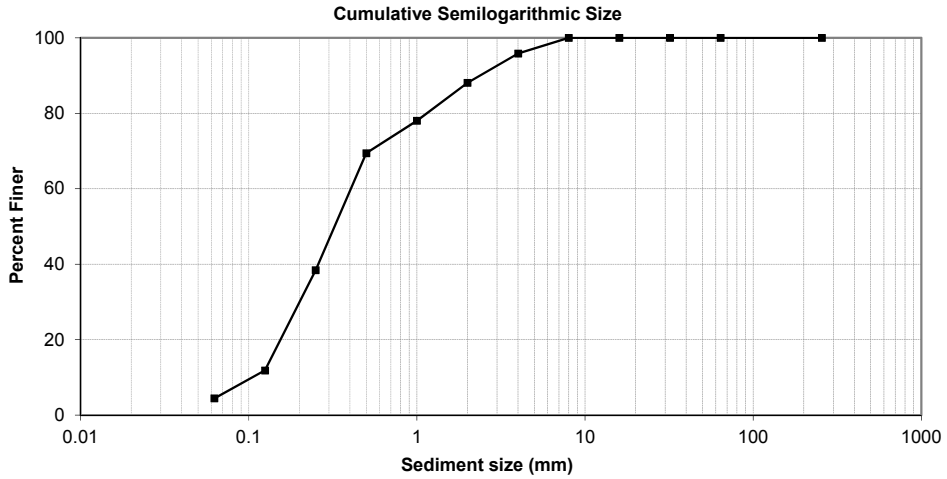


Particle Characteristics			
d_{90}	=	3.14	mm
$d_{84.1}$	=	2.26	mm
d_{65}	=	0.83	mm
d_{50}	=	0.4	mm
d_{35}	=	0.18	mm
$d_{15.9}$	=	0.086	mm
d_g	=	0.4	mm
σ_g	=	5.13	mm
G	=	1.60	

SIEVE ANALYSIS

Sample ID:	T02_R5
Location:	10 to 12 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	588.3 g
Tare weight:	114.8 g
Net weight:	473.5 g
Gravel weight:	19.6 g
Sand weight:	431.3 g
Portion analyzed:	473.5 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 10 to 14 ft From the 4 ft sample 4 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	19.6	4.15	95.85		
2	36.6	7.76	88.09	**Very coarse sand**	
1	47.4	10.05	78.04	**Granule**	
0.5	40.6	8.61	69.44	**Coarse sand**	
0.25	146.3	31.01	38.43	**Median sand**	
0.125	125.4	26.58	11.85	**Fine sand**	
0.0625	35.0	7.42	4.43	**Very fine sand**	
<0.0625	20.9	4.43	0.00	**Silt & clays**	
TOTAL	471.8				

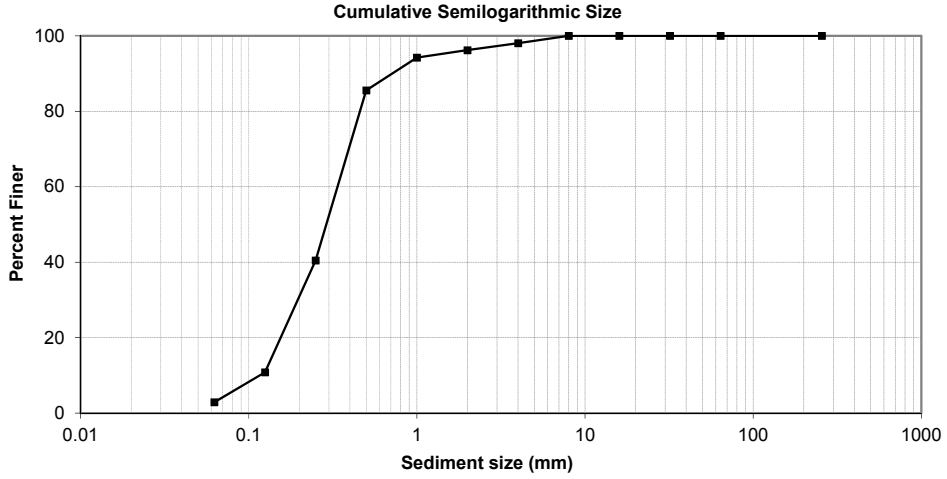


Particle Characteristics			
d_{90}	=	2.37	mm
$d_{84.1}$	=	1.52	mm
d_{65}	=	0.45	mm
d_{50}	=	0.32	mm
d_{35}	=	0.23	mm
$d_{15.9}$	=	0.14	mm
d_g	=	0.5	mm
σ_g	=	3.30	mm
G	=	1.33	

SIEVE ANALYSIS

Sample ID:	T02_R6
Location:	12 to 14 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	599.5 g
Tare weight:	114.8 g
Net weight:	484.7 g
Gravel weight:	9.4 g
Sand weight:	460.1 g
Portion analyzed:	484.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 10 to 14 ft From the 4 ft sample 4 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	9.4	1.94	98.06		
2	8.9	1.84	96.22	Very coarse sand	
1	9.5	1.96	94.25	Granule	
0.5	42.1	8.71	85.54	Coarse sand	
0.25	217.9	45.07	40.48	Median sand	
0.125	143.5	29.68	10.80	Fine sand	
0.0625	38.2	7.90	2.90	Very fine sand	
<0.0625	14.0	2.90	0.00	Silt & clays	
TOTAL	483.5				

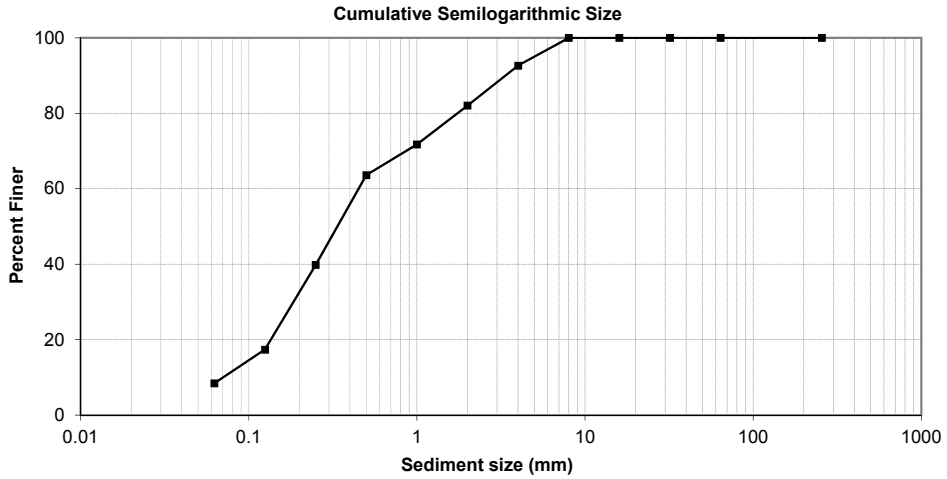


Particle Characteristics			
d_{90}	=	0.71	mm
$d_{84.1}$	=	0.49	mm
d_{65}	=	0.36	mm
d_{50}	=	0.29	mm
d_{35}	=	0.22	mm
$d_{15.9}$	=	0.14	mm
d_g	=	0.3	mm
σ_g	=	1.87	mm
G	=	0.97	

SIEVE ANALYSIS

Sample ID:	T02_R7
Location:	14 to 15 ft
Date/Time:	December 10, 2014
Analyzed by:	Brian Twining
Date/Time:	January 27, 2016
Gross weight:	513.4 g
Tare weight:	115.1 g
Net weight:	398.3 g
Gravel weight:	29.2 g
Sand weight:	334.6 g
Portion analyzed:	398.3 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 14 to 15 ft From the 1 ft sample 1 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	29.2	7.35	92.65		
2	42.1	10.59	82.06	Very coarse sand	
1	40.9	10.29	71.77	Granule	
0.5	32.4	8.15	63.61	Coarse sand	
0.25	94.5	23.78	39.83	Median sand	
0.125	89.3	22.47	17.36	Fine sand	
0.0625	35.4	8.91	8.45	Very fine sand	
<0.0625	33.6	8.45	0.00	Silt & clays	
TOTAL	397.4				

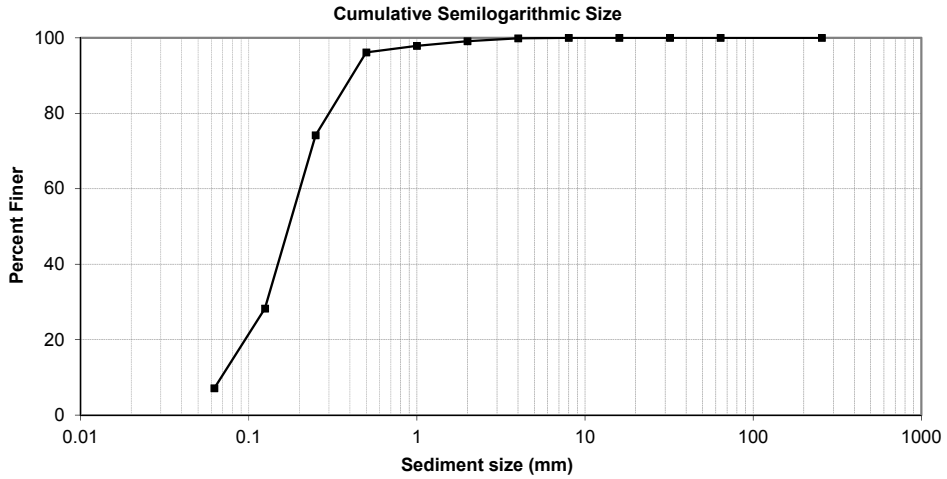


Particle Characteristics			
d_{90}	=	3.36	mm
$d_{84.1}$	=	2.29	mm
d_{65}	=	0.56	mm
d_{50}	=	0.34	mm
d_{35}	=	0.22	mm
$d_{15.9}$	=	0.11	mm
d_g	=	0.5	mm
σ_g	=	4.56	mm
G	=	1.57	

SIEVE ANALYSIS

Sample ID:	TW1_R1
Location:	0 to 5 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	537.7 g
Tare weight:	122.9 g
Net weight:	414.8 g
Gravel weight:	0.5 g
Sand weight:	384.4 g
Portion analyzed:	414.8 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 2.5 ft of 5 ft drilled Sieve analysis run on 100% of recovered sample.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	0.5	0.12	99.88		
2	3.1	0.75	99.13	**Very coarse sand**	
1	5.2	1.25	97.88	**Granule**	
0.5	7.2	1.74	96.14	**Coarse sand**	
0.25	91.0	21.96	74.18	**Median sand**	
0.125	190.4	45.95	28.23	**Fine sand**	
0.0625	87.5	21.11	7.12	**Very fine sand**	
<0.0625	29.5	7.12	0.00	**Silt & clays**	
TOTAL	414.4				

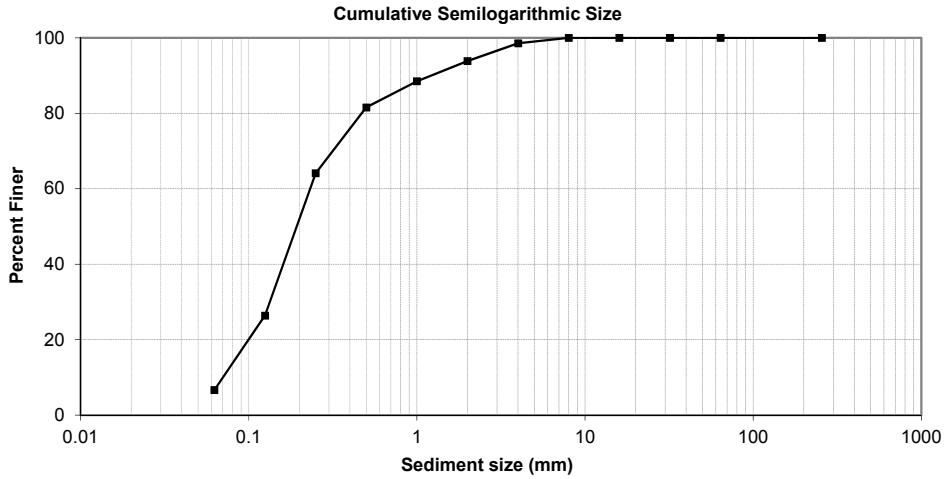


Particle Characteristics			
d_{90}	=	0.41	mm
$d_{84.1}$	=	0.34	mm
d_{65}	=	0.22	mm
d_{50}	=	0.17	mm
d_{35}	=	0.14	mm
$d_{15.9}$	=	0.083	mm
d_{g}	=	0.2	mm
σ_{g}	=	2.02	mm
G	=	1.01	

SIEVE ANALYSIS

Sample ID:	TW1_R2
Location:	5 to 7.5 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	552.7 g
Tare weight:	122.9 g
Net weight:	429.8 g
Gravel weight:	6.1 g
Sand weight:	394.8 g
Portion analyzed:	429.8 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5 ft of 5 ft drilled Sub-sample from soil core taken from 5 to 10 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	6.1	1.42	98.58		
2	20.3	4.73	93.85	**Very coarse sand**	
1	22.9	5.33	88.52	**Granule**	
0.5	29.8	6.94	81.58	**Coarse sand**	
0.25	75.0	17.47	64.11	**Median sand**	
0.125	162.1	37.75	26.36	**Fine sand**	
0.0625	84.7	19.73	6.64	**Very fine sand**	
<0.0625	28.5	6.64	0.00	**Silt & clays**	
TOTAL	429.4				

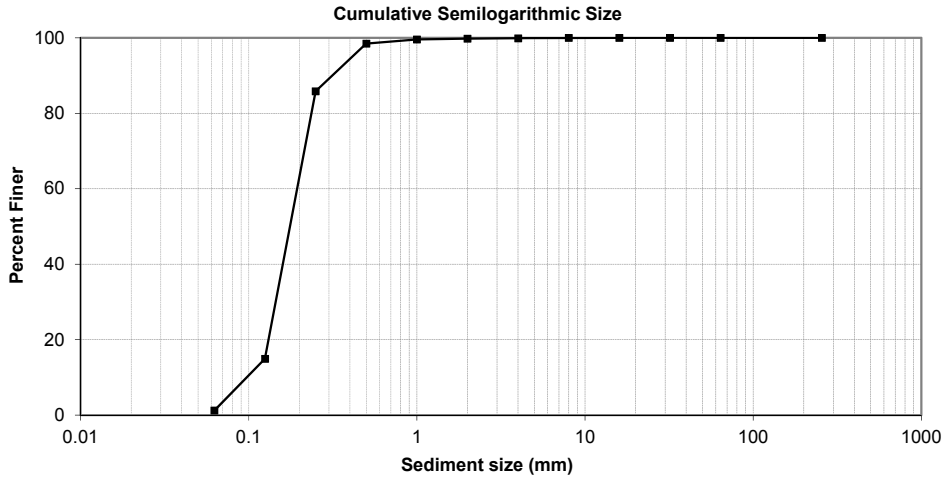


Particle Characteristics			
d_{90}	=	1.21	mm
$d_{84.1}$	=	0.64	mm
d_{65}	=	0.26	mm
d_{50}	=	0.19	mm
d_{35}	=	0.15	mm
$d_{15.9}$	=	0.087	mm
d_g	=	0.2	mm
σ_g	=	2.71	mm
G	=	1.18	

SIEVE ANALYSIS

Sample ID:	TW1_R3
Location:	7.5 to 10 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	546.9 g
Tare weight:	122.5 g
Net weight:	424.4 g
Gravel weight:	0.5 g
Sand weight:	417.9 g
Portion analyzed:	424.4 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5 ft of 5 ft drilled Sub-sample from soil core taken from 5 to 10 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	0.5	0.12	99.88		
2	0.4	0.09	99.79	**Very coarse sand**	
1	0.8	0.19	99.60	**Granule**	
0.5	4.8	1.13	98.47	**Coarse sand**	
0.25	53.5	12.63	85.84	**Median sand**	
0.125	300.4	70.92	14.92	**Fine sand**	
0.0625	58.0	13.69	1.23	**Very fine sand**	
<0.0625	5.2	1.23	0.00	**Silt & clays**	
TOTAL	423.6				

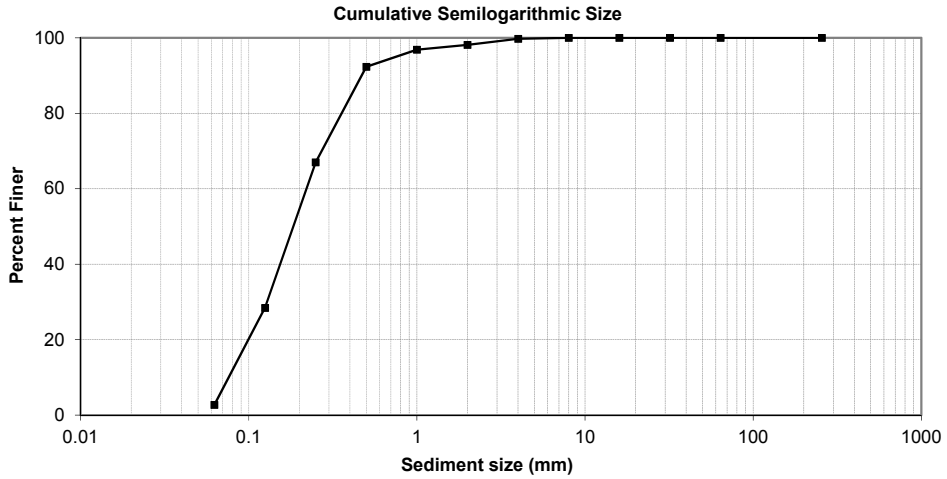


Particle Characteristics			
d_{90}	=	0.31	mm
$d_{84.1}$	=	0.25	mm
d_{65}	=	0.2	mm
d_{50}	=	0.18	mm
d_{35}	=	0.15	mm
$d_{15.9}$	=	0.13	mm
d_g	=	0.2	mm
σ_g	=	1.39	mm
G	=	0.83	

SIEVE ANALYSIS

Sample ID:	TW1_R4
Location:	10 to 12.5 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	581.2 g
Tare weight:	122.6 g
Net weight:	458.6 g
Gravel weight:	1.1 g
Sand weight:	444.0 g
Portion analyzed:	458.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 2.4 ft of 2.5 ft drilled Soil core sample taken from 10 to 12.5 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	1.1	0.24	99.76		
2	7.4	1.62	98.14	**Very coarse sand**	
1	5.8	1.27	96.88	**Granule**	
0.5	20.8	4.55	92.33	**Coarse sand**	
0.25	115.8	25.31	67.02	**Median sand**	
0.125	176.6	38.59	28.43	**Fine sand**	
0.0625	117.6	25.70	2.73	**Very fine sand**	
<0.0625	12.5	2.73	0.00	**Silt & clays**	
TOTAL	457.6				

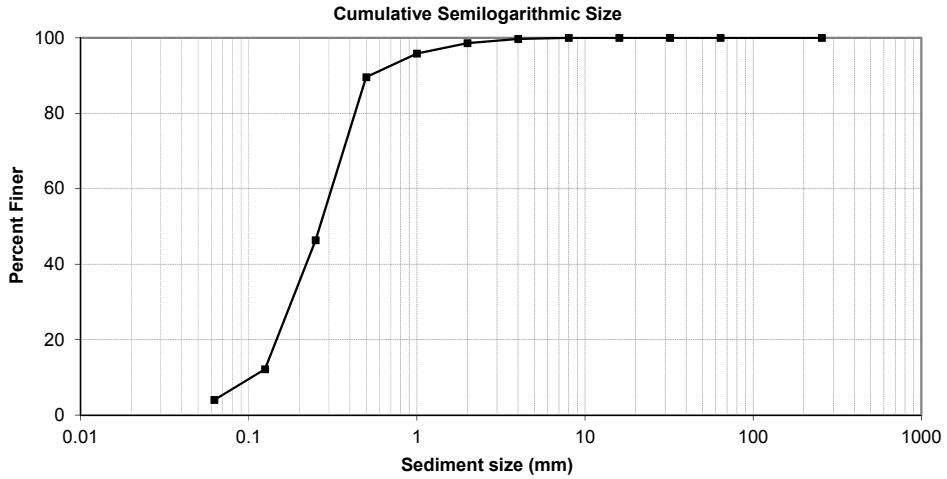


Particle Characteristics			
d_{90}	=	0.47	mm
$d_{84.1}$	=	0.4	mm
d_{65}	=	0.24	mm
d_{50}	=	0.18	mm
d_{35}	=	0.14	mm
$d_{15.9}$	=	0.089	mm
d_g	=	0.2	mm
σ_g	=	2.12	mm
G	=	1.03	

SIEVE ANALYSIS

Sample ID:	TW1_R5
Location:	12.5 to 15 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	675.6 g
Tare weight:	122.6 g
Net weight:	553.0 g
Gravel weight:	1.6 g
Sand weight:	527.0 g
Portion analyzed:	553.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 2.5 ft of 2.5 ft drilled Soil sample taken from 12.5 to 15 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	1.6	0.29	99.71		
2	6.0	1.09	98.62	**Very coarse sand**	
1	15.3	2.78	95.84	**Granule**	
0.5	34.4	6.25	89.60	**Coarse sand**	
0.25	238.2	43.25	46.34	**Median sand**	
0.125	188.1	34.16	12.18	**Fine sand**	
0.0625	45.0	8.17	4.01	**Very fine sand**	
<0.0625	22.1	4.01	0.00	**Silt & clays**	
TOTAL	550.7				

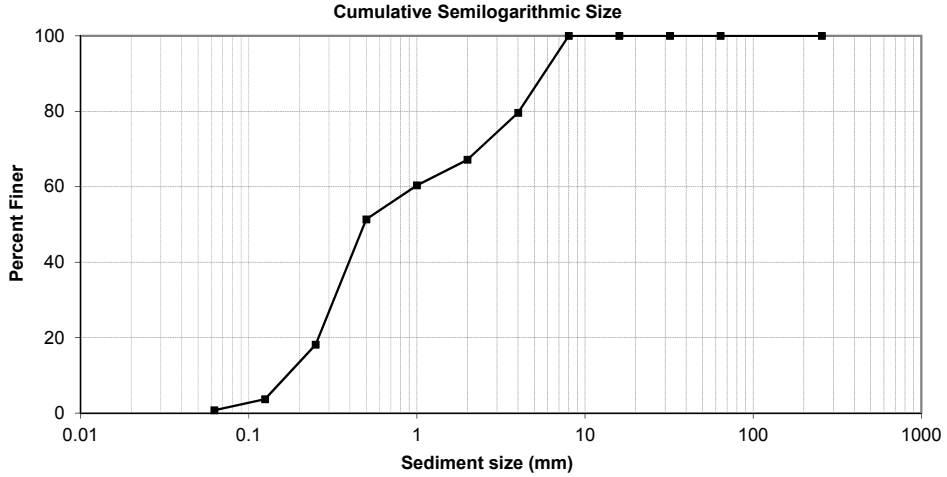


Particle Characteristics			
d_{90}	=	0.52	mm
$d_{84.1}$	=	0.46	mm
d_{65}	=	0.34	mm
d_{50}	=	0.27	mm
d_{35}	=	0.2	mm
$d_{15.9}$	=	0.13	mm
d_g	=	0.2	mm
σ_g	=	1.88	mm
G	=	0.97	

SIEVE ANALYSIS

Sample ID:	TW1_R6
Location:	15 to 18 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	765.1 g
Tare weight:	129.5 g
Net weight:	635.6 g
Gravel weight:	129.3 g
Sand weight:	499.5 g
Portion analyzed:	635.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.0 ft of 3.0 ft drilled Soil sample taken from 15 to 18 ft

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	129.3	20.41	79.59		
2	78.7	12.42	67.17	**Very coarse sand**	
1	43.0	6.79	60.39	**Granule**	
0.5	57.2	9.03	51.36	**Coarse sand**	
0.25	210.4	33.21	18.15	**Median sand**	
0.125	91.6	14.46	3.69	**Fine sand**	
0.0625	18.6	2.94	0.76	**Very fine sand**	
<0.0625	4.8	0.76	0.00	**Silt & clays**	
TOTAL	633.6				

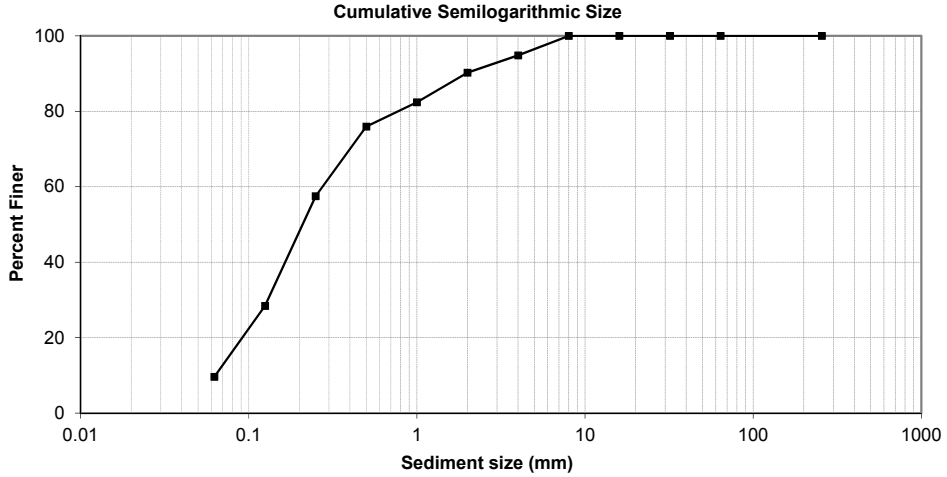


Particle Characteristics			
d_{90}	=	5.7	mm
$d_{84.1}$	=	4.66	mm
d_{65}	=	1.6	mm
d_{50}	=	0.49	mm
d_{35}	=	0.36	mm
$d_{15.9}$	=	0.22	mm
d_g	=	1.0	mm
σ_g	=	4.60	mm
G	=	1.71	

SIEVE ANALYSIS

Sample ID:	TW2_R1
Location:	0 to 5 ft
Date:	December 15, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	341.2 g
Tare weight:	122.6 g
Net weight:	218.6 g
Gravel weight:	11.3 g
Sand weight:	186.4 g
Portion analyzed:	218.6 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 1.5 ft of 5 ft drilled Soil sample taken from 0 to 5 ft Entire sample run

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	11.3	5.16	94.84		
2	10.0	4.57	90.27	Very coarse sand	
1	17.2	7.86	82.40	Granule	
0.5	14.1	6.44	75.96	Coarse sand	
0.25	40.4	18.46	57.50	Median sand	
0.125	63.6	29.07	28.43	Fine sand	
0.0625	41.1	18.78	9.64	Very fine sand	
<0.0625	21.1	9.64	0.00	Silt & clays	
TOTAL	218.8				

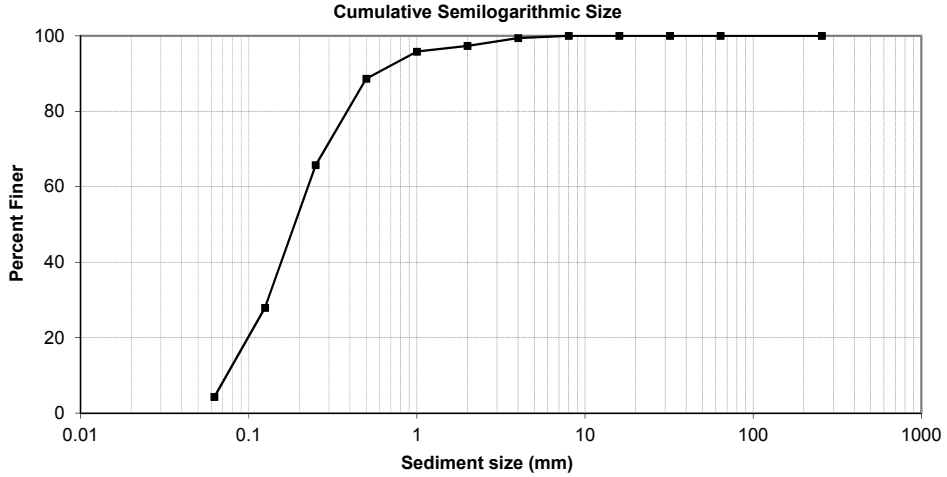


Particle Characteristics			
d_{90}	=	1.95	mm
$d_{84.1}$	=	1.16	mm
d_{65}	=	0.33	mm
d_{50}	=	0.21	mm
d_{35}	=	0.15	mm
$d_{15.9}$	=	0.079	mm
d_g	=	0.3	mm
σ_g	=	3.83	mm
G	=	1.43	

SIEVE ANALYSIS

Sample ID:	TW2_R2
Location:	5 to 7.5 ft
Date:	December 15, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	509.9 g
Tare weight:	120.8 g
Net weight:	389.1 g
Gravel weight:	2.3 g
Sand weight:	369.9 g
Portion analyzed:	389.1 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5 ft of 5 ft drilled Soil sample taken from 5 to 10 ft Sub-sample from interval

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	2.3	0.59	99.41		
2	8.0	2.06	97.35	Very coarse sand	
1	5.9	1.52	95.83	Granule	
0.5	28.0	7.20	88.63	Coarse sand	
0.25	89.0	22.89	65.75	Median sand	
0.125	147.1	37.82	27.92	Fine sand	
0.0625	91.9	23.63	4.29	Very fine sand	
<0.0625	16.7	4.29	0.00	Silt & clays	
TOTAL	388.9				

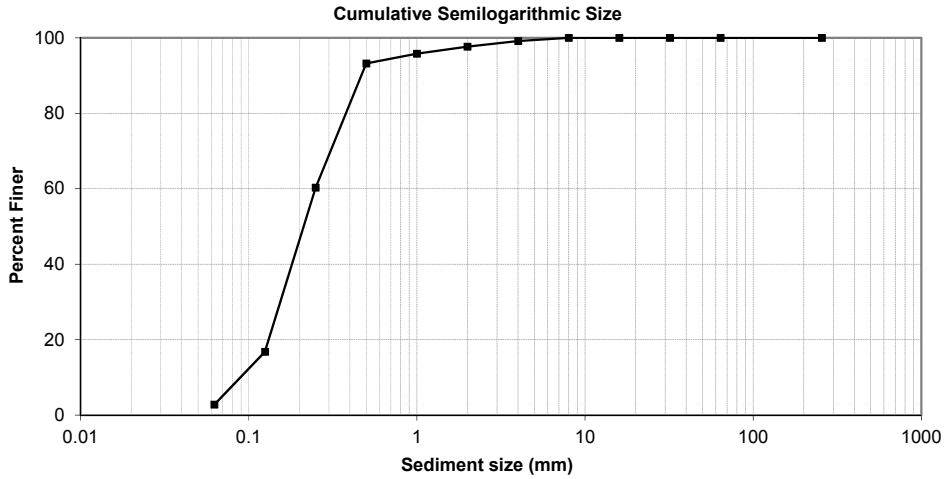


Particle Characteristics			
d_{90}	=	0.57	mm
$d_{84.1}$	=	0.44	mm
d_{65}	=	0.25	mm
d_{50}	=	0.19	mm
d_{35}	=	0.14	mm
$d_{15.9}$	=	0.088	mm
d_{g}	=	0.2	mm
σ_{g}	=	2.24	mm
G	=	1.06	

SIEVE ANALYSIS

Sample ID:	TW3_R3
Location:	7.5 to 11 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	676.4 g
Tare weight:	122.7 g
Net weight:	553.7 g
Gravel weight:	4.6 g
Sand weight:	532.9 g
Portion analyzed:	553.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5 ft of 5 ft drilled Sample from two intervals 5 to 10 ft and from 10 to 15 ft. Soil seperated based on visual inspection.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	4.6	0.83	99.17		
2	8.2	1.48	97.69	**Very coarse sand**	
1	10.3	1.86	95.82	**Granule**	
0.5	14.4	2.60	93.22	**Coarse sand**	
0.25	182.0	32.91	60.31	**Median sand**	
0.125	240.7	43.53	16.78	**Fine sand**	
0.0625	77.3	13.98	2.80	**Very fine sand**	
<0.0625	15.5	2.80	0.00	**Silt & clays**	
TOTAL	553.0				

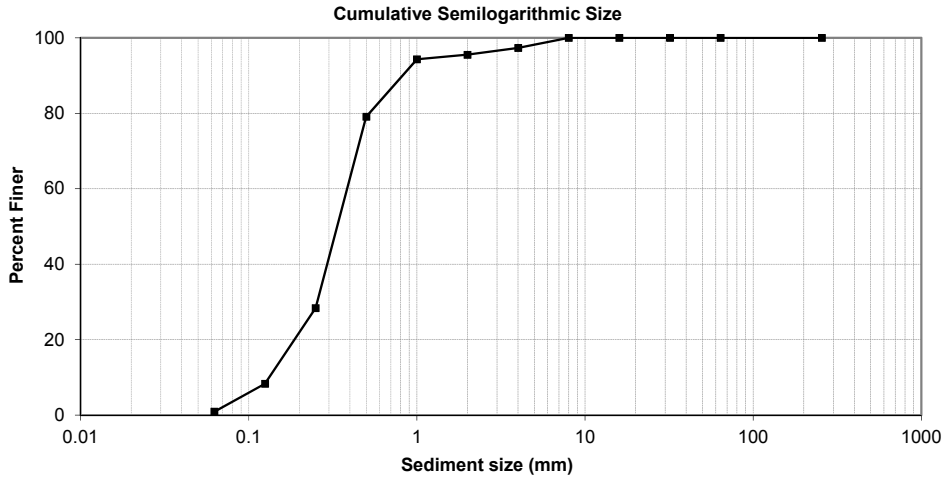


Particle Characteristics			
d_{90}	=	0.47	mm
$d_{84.1}$	=	0.41	mm
d_{65}	=	0.28	mm
d_{50}	=	0.21	mm
d_{35}	=	0.17	mm
$d_{15.9}$	=	0.12	mm
d_g	=	0.2	mm
σ_g	=	1.85	mm
G	=	0.96	

SIEVE ANALYSIS

Sample ID:	TW2_R4
Location:	11 to 15 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	686.2 g
Tare weight:	122.7 g
Net weight:	563.5 g
Gravel weight:	14.9 g
Sand weight:	540.0 g
Portion analyzed:	563.5 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.9 ft of 5 ft drilled Soil probe sub-sample taken from 10 to 15 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	14.9	2.66	97.34		
2	10.1	1.80	95.54	**Very coarse sand**	
1	6.8	1.21	94.32	**Granule**	
0.5	85.2	15.21	79.11	**Coarse sand**	
0.25	284.2	50.75	28.36	**Median sand**	
0.125	112.2	20.04	8.32	**Fine sand**	
0.0625	41.5	7.41	0.91	**Very fine sand**	
<0.0625	5.1	0.91	0.00	**Silt & clays**	
TOTAL	560.0				

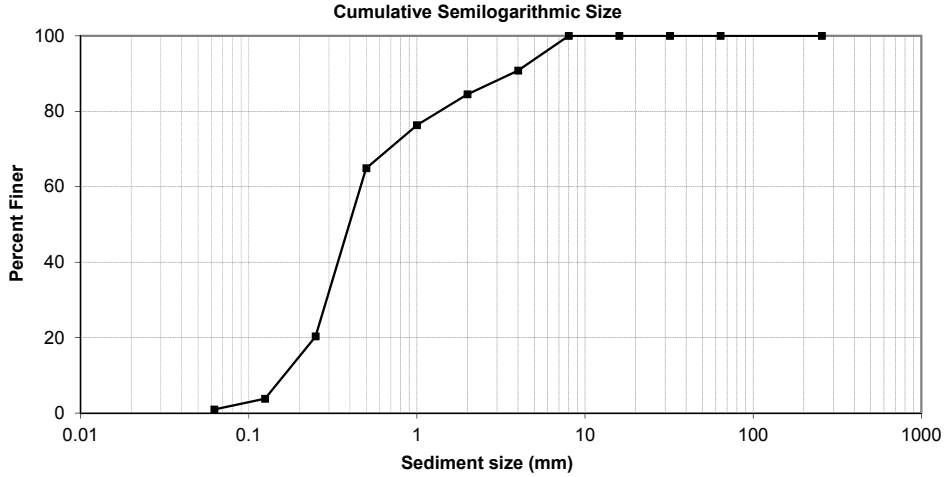


Particle Characteristics			
d_{90}	=	0.82	mm
$d_{84.1}$	=	0.63	mm
d_{65}	=	0.41	mm
d_{50}	=	0.34	mm
d_{35}	=	0.27	mm
$d_{15.9}$	=	0.16	mm
d_g	=	0.3	mm
σ_g	=	1.98	mm
G	=	1.00	

SIEVE ANALYSIS

Sample ID:	TW2_R5
Location:	15 to 20 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	804.6 g
Tare weight:	122.6 g
Net weight:	682.0 g
Gravel weight:	62.8 g
Sand weight:	612.3 g
Portion analyzed:	682.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.9 ft of 5.0 ft drilled Soil sample taken from soil probe 15 to 20 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	62.8	9.21	90.79		
2	42.8	6.28	84.51	Very coarse sand	
1	55.8	8.18	76.33	Granule	
0.5	77.8	11.41	64.92	Coarse sand	
0.25	303.9	44.57	20.34	Median sand	
0.125	112.8	16.54	3.80	Fine sand	
0.0625	19.2	2.82	0.98	Very fine sand	
<0.0625	6.7	0.98	0.00	Silt & clays	
TOTAL	681.8				

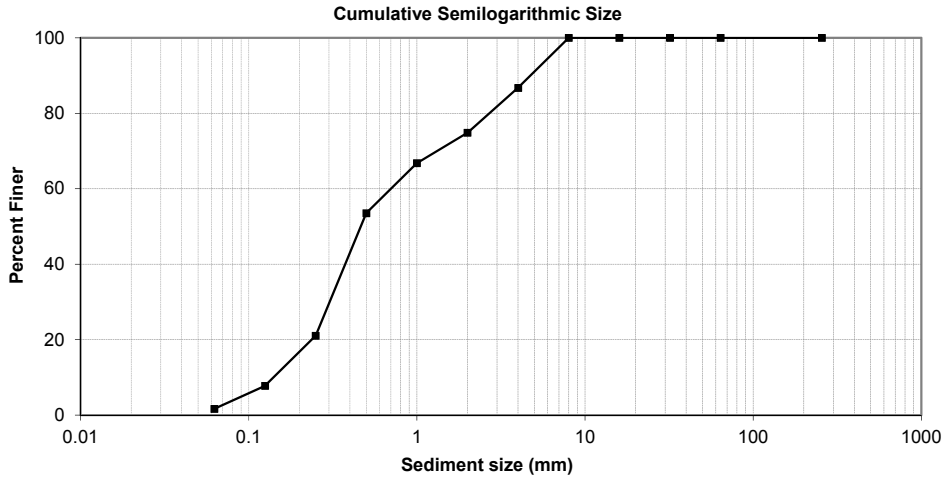


Particle Characteristics			
d_{90}	=	3.67	mm
$d_{84.1}$	=	1.93	mm
d_{65}	=	0.5	mm
d_{50}	=	0.4	mm
d_{35}	=	0.31	mm
$d_{15.9}$	=	0.21	mm
d_g	=	0.6	mm
σ_g	=	3.03	mm
G	=	1.30	

SIEVE ANALYSIS

Sample ID:	TW2_R6
Location:	20 to 25 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	778.0 g
Tare weight:	129.5 g
Net weight:	648.5 g
Gravel weight:	85.6 g
Sand weight:	550.0 g
Portion analyzed:	648.5 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 4.7 ft of 5.0 ft drilled Soil sample taken from probe 20 to 25 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	85.6	13.24	86.76		
2	76.8	11.88	74.87	**Very coarse sand**	
1	52.1	8.06	66.81	**Granule**	
0.5	86.0	13.31	53.50	**Coarse sand**	
0.25	209.9	32.48	21.03	**Median sand**	
0.125	85.8	13.28	7.75	**Fine sand**	
0.0625	39.4	6.10	1.66	**Very fine sand**	
<0.0625	10.7	1.66	0.00	**Silt & clays**	
TOTAL	646.3				

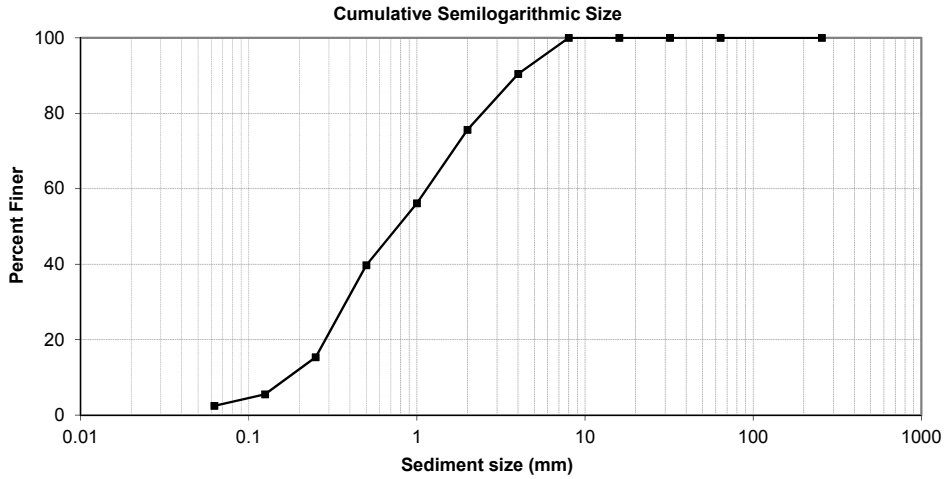


Particle Characteristics			
d_{90}	=	4.74	mm
$d_{84.1}$	=	3.43	mm
d_{65}	=	0.91	mm
d_{50}	=	0.46	mm
d_{35}	=	0.34	mm
$d_{15.9}$	=	0.19	mm
d_g	=	0.8	mm
σ_g	=	4.25	mm
G	=	1.57	

SIEVE ANALYSIS

Sample ID:	TW2_R7
Location:	25 to 30 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	March 1, 2016
Gross weight:	738.8 g
Tare weight:	122.7 g
Net weight:	616.1 g
Gravel weight:	58.9 g
Sand weight:	540.1 g
Portion analyzed:	616.1 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.4 ft of 5.0 ft drilled Soil sample taken from 25 to 30 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	58.9	9.59	90.41		
2	90.7	14.77	75.64	**Very coarse sand**	
1	119.6	19.48	56.16	**Granule**	
0.5	100.8	16.41	39.75	**Coarse sand**	
0.25	149.8	24.39	15.36	**Median sand**	
0.125	60.4	9.84	5.52	**Fine sand**	
0.0625	18.8	3.06	2.46	**Very fine sand**	
<0.0625	15.1	2.46	0.00	**Silt & clays**	
TOTAL	614.1				

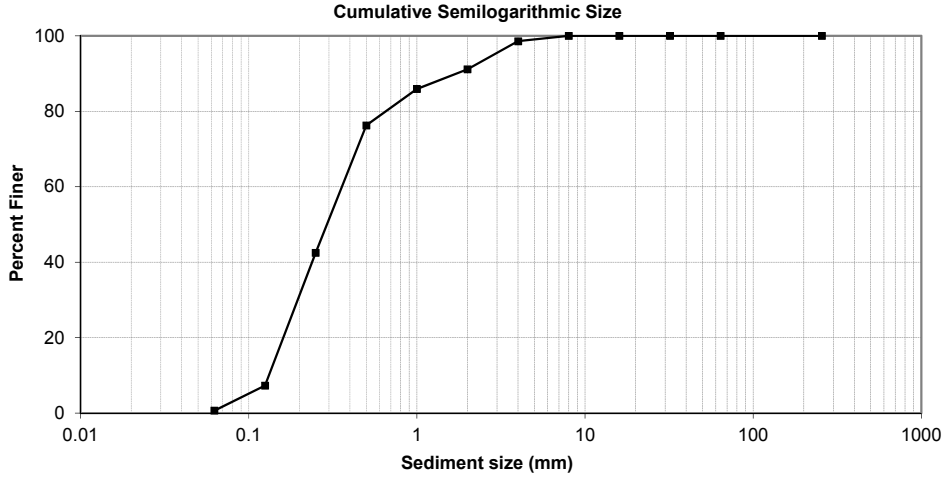


Particle Characteristics			
d_{90}	=	3.92	mm
$d_{84.1}$	=	2.97	mm
d_{65}	=	1.37	mm
d_{50}	=	0.77	mm
d_{35}	=	0.44	mm
$d_{15.9}$	=	0.25	mm
d_g	=	0.9	mm
σ_g	=	3.45	mm
G	=	1.32	

SIEVE ANALYSIS

Sample ID:	TW2_R9
Location:	33 to 35 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	514.6 g
Tare weight:	117.6 g
Net weight:	397.0 g
Gravel weight:	5.6 g
Sand weight:	388.6 g
Portion analyzed:	397.0 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5.0 ft of 5.0 ft drilled Soil sub-sample from 30 to 35 ft. Clumps of clay collected in larger sieves

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	5.6	1.41	98.59		
2	29.6	7.46	91.13	Very coarse sand	
1	20.7	5.22	85.91	Granule	
0.5	38.3	9.65	76.26	Coarse sand	
0.25	134.0	33.77	42.49	Median sand	
0.125	139.6	35.18	7.31	Fine sand	
0.0625	26.4	6.65	0.66	Very fine sand	
<0.0625	2.6	0.66	0.00	Silt & clays	
TOTAL	396.8				

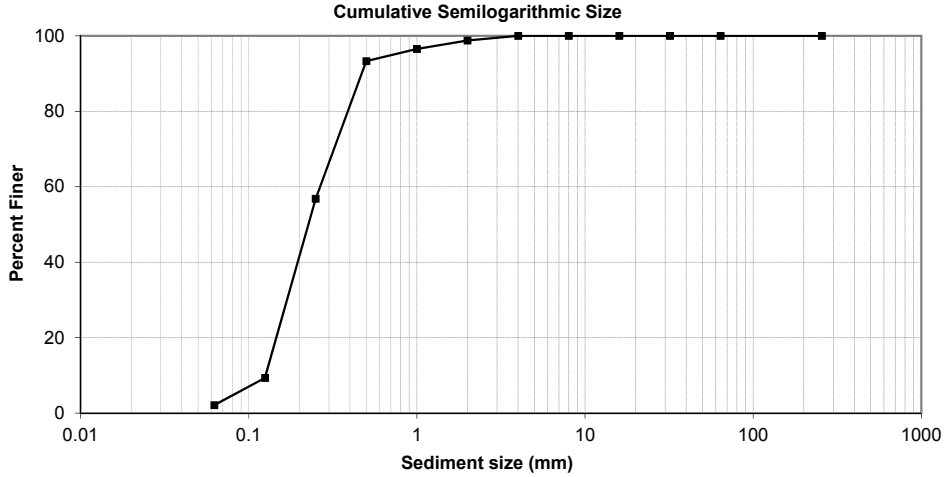


Particle Characteristics			
d_{90}	=	1.72	mm
$d_{84.1}$	=	0.88	mm
d_{65}	=	0.4	mm
d_{50}	=	0.29	mm
d_{35}	=	0.22	mm
$d_{15.9}$	=	0.15	mm
d_g	=	0.4	mm
σ_g	=	2.42	mm
G	=	1.11	

SIEVE ANALYSIS

Sample ID:	TW2_R8
Location:	30 to 33 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	March 1, 2016
Gross weight:	646.0 g
Tare weight:	122.6 g
Net weight:	523.4 g
Gravel weight:	0.0 g
Sand weight:	511.0 g
Portion analyzed:	523.4 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 5.0 ft of 5.0 ft drilled WET SAMPLE

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	0.0	0.00	100.00		
2	6.3	1.21	98.79	**Very coarse sand**	
1	11.8	2.26	96.53	**Granule**	
0.5	16.9	3.24	93.30	**Coarse sand**	
0.25	190.3	36.45	56.85	**Median sand**	
0.125	248.2	47.54	9.31	**Fine sand**	
0.0625	37.5	7.18	2.13	**Very fine sand**	
<0.0625	11.1	2.13	0.00	**Silt & clays**	
TOTAL	522.1				

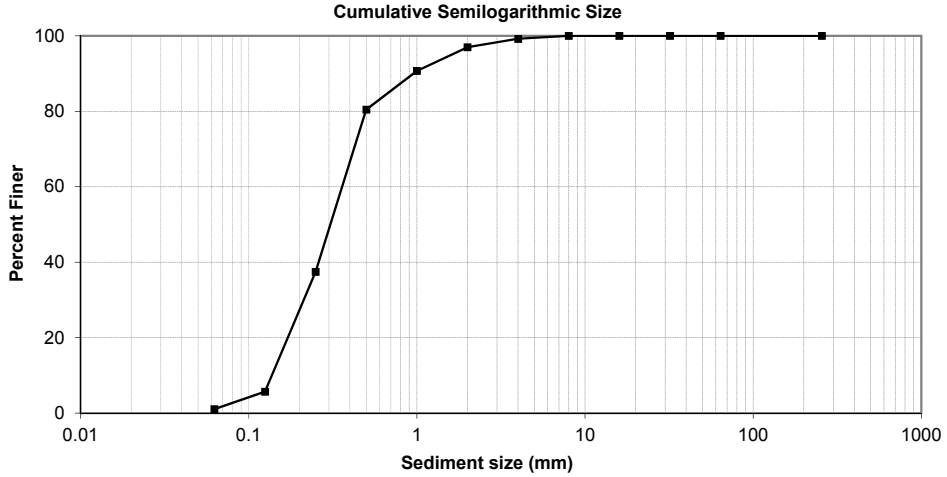


Particle Characteristics			
d_{90}	=	0.47	mm
$d_{84.1}$	=	0.42	mm
d_{65}	=	0.29	mm
d_{50}	=	0.23	mm
d_{35}	=	0.18	mm
$d_{15.9}$	=	0.14	mm
d_g	=	0.2	mm
σ_g	=	1.73	mm
G	=	0.93	

SIEVE ANALYSIS

Sample ID:	TW2_R10
Location:	35 to 38.5 ft
Date:	December 16, 2014
Analyzed by:	Brian Twining
Date:	January 27, 2016
Gross weight:	683.3 g
Tare weight:	117.6 g
Net weight:	565.7 g
Gravel weight:	4.4 g
Sand weight:	555.5 g
Portion analyzed:	565.7 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Recovered 3.5 ft of 3.5 ft drilled Soil probe sample from 35 to 38.5 ft.

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	4.4	0.78	99.22		
2	12.5	2.21	97.01	Very coarse sand	
1	35.7	6.31	90.71	Granule	
0.5	58.0	10.25	80.46	Coarse sand	
0.25	243.3	42.99	37.46	Median sand	
0.125	179.8	31.77	5.69	Fine sand	
0.0625	26.2	4.63	1.06	Very fine sand	
<0.0625	6.0	1.06	0.00	Silt & clays	
TOTAL	565.9				

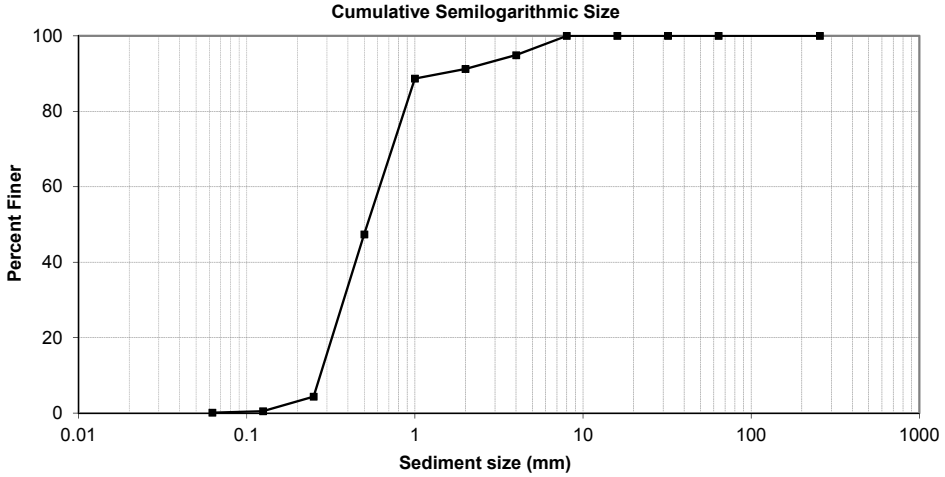


Particle Characteristics			
d_{90}	=	0.95	mm
$d_{84.1}$	=	0.64	mm
d_{65}	=	0.39	mm
d_{50}	=	0.31	mm
d_{35}	=	0.24	mm
$d_{15.9}$	=	0.16	mm
d_g	=	0.3	mm
σ_g	=	2.00	mm
G	=	1.00	

SIEVE ANALYSIS

Sample ID:	SH1_R1
Location:	0 to 5 ft
Date/Time:	December 15, 2014
Analyzed by:	Brian Twining
Date/Time:	January 28, 2016
Gross weight:	561.2 g
Tare weight:	115.0 g
Net weight:	446.2 g
Gravel weight:	22.6 g
Sand weight:	419.9 g
Portion analyzed:	445.2 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 0 to 5 ft From the 5 ft sample 3.1 ft was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	22.6	5.10	94.90		
2	16.3	3.68	91.22	**Very coarse sand**	
1	11.2	2.53	88.69	**Granule**	
0.5	183.0	41.30	47.39	**Coarse sand**	
0.25	190.6	43.02	4.38	**Median sand**	
0.125	17.1	3.86	0.52	**Fine sand**	
0.0625	1.7	0.38	0.14	**Very fine sand**	
<0.0625	0.6	0.14	0.00	**Silt & clays**	
TOTAL	443.1				

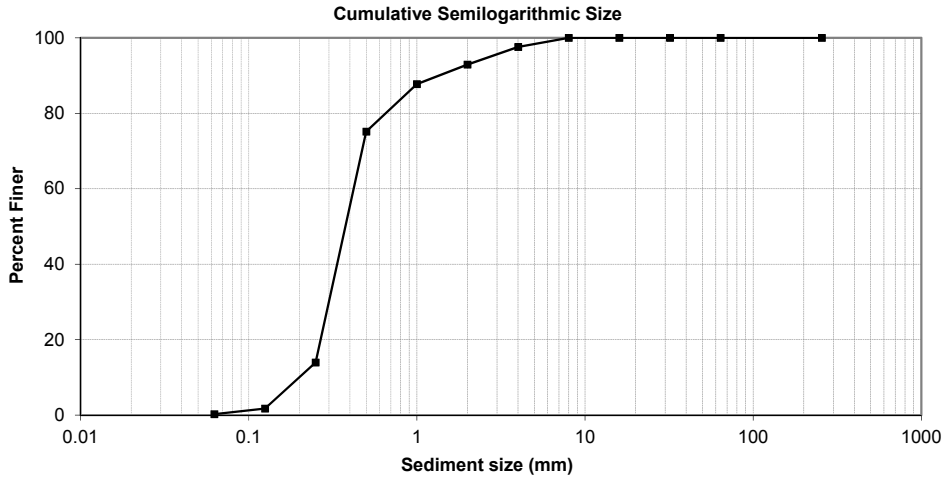


Particle Characteristics			
d_{90}	=	1.43	mm
$d_{84.1}$	=	0.93	mm
d_{65}	=	0.67	mm
d_{50}	=	0.52	mm
d_{35}	=	0.41	mm
$d_{15.9}$	=	0.3	mm
d_g	=	0.5	mm
σ_g	=	1.76	mm
G	=	0.94	

SIEVE ANALYSIS

Sample ID:	SH1_R2
Location:	5 to 7.5 ft
Date/Time:	December 15, 2014
Analyzed by:	Brian Twining
Date/Time:	March 1, 2016
Gross weight:	517.9 g
Tare weight:	129.0 g
Net weight:	388.9 g
Gravel weight:	9.4 g
Sand weight:	377.8 g
Portion analyzed:	388.9 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe)
	Soil sample from 5 to 7.5 ft
	Recovered 1.9 of 2.5 ft sampled
	Soil was sieved twice - wet first time

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	9.4	2.42	97.58		
2	18.1	4.66	92.92	**Very coarse sand**	
1	20.0	5.15	87.76	**Granule**	
0.5	48.9	12.60	75.17	**Coarse sand**	
0.25	237.6	61.21	13.96	**Median sand**	
0.125	47.5	12.24	1.73	**Fine sand**	
0.0625	5.7	1.47	0.26	**Very fine sand**	
<0.0625	1.0	0.26	0.00	**Silt & clays**	
TOTAL	388.2				

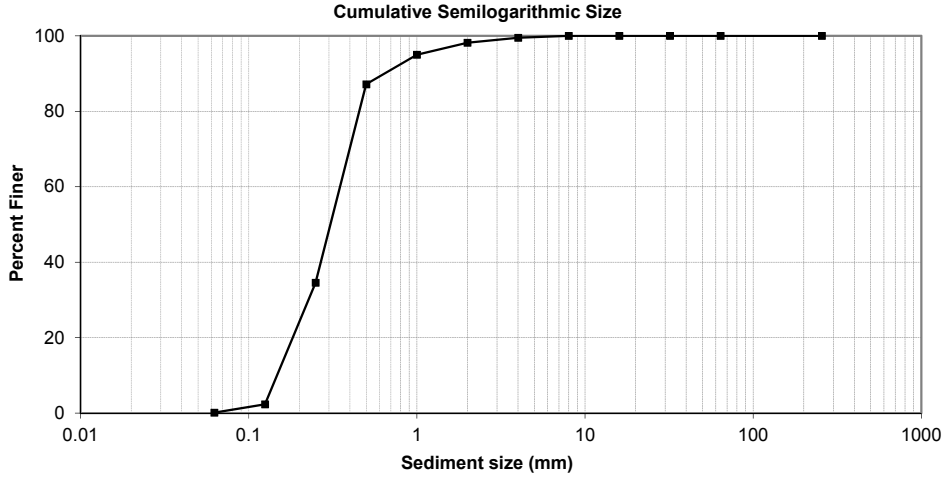


Particle Characteristics			
d_{90}	=	1.35	mm
$d_{84.1}$	=	0.82	mm
d_{65}	=	0.45	mm
d_{50}	=	0.38	mm
d_{35}	=	0.32	mm
$d_{15.9}$	=	0.26	mm
d_g	=	0.5	mm
σ_g	=	1.78	mm
G	=	0.95	

SIEVE ANALYSIS

Sample ID:	SH1_R3
Location:	7.5 to 9 ft
Date/Time:	December 15, 2014
Analyzed by:	Brian Twining
Date/Time:	March 1, 2016
Gross weight:	575.7 g
Tare weight:	122.6 g
Net weight:	453.1 g
Gravel weight:	2.3 g
Sand weight:	450.3 g
Portion analyzed:	453.1 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sub-sample from 7.5 to 10 ft 100% of sample was recovered Soil was run a second time

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
				Boulders	
8192					
4096					
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	Cobble	
32	0.0	0.00	100.00	Pebble	
16	0.0	0.00	100.00		
8	0.0	0.00	100.00		
4	2.3	0.51	99.49		
2	5.9	1.30	98.19	Very coarse sand	
1	14.4	3.18	95.01	Granule	
0.5	35.5	7.83	87.18	Coarse sand	
0.25	238.3	52.59	34.58	Median sand	
0.125	146.1	32.24	2.34	Fine sand	
0.0625	10.1	2.23	0.11	Very fine sand	
<0.0625	0.5	0.11	0.00	Silt & clays	
TOTAL	453.1				

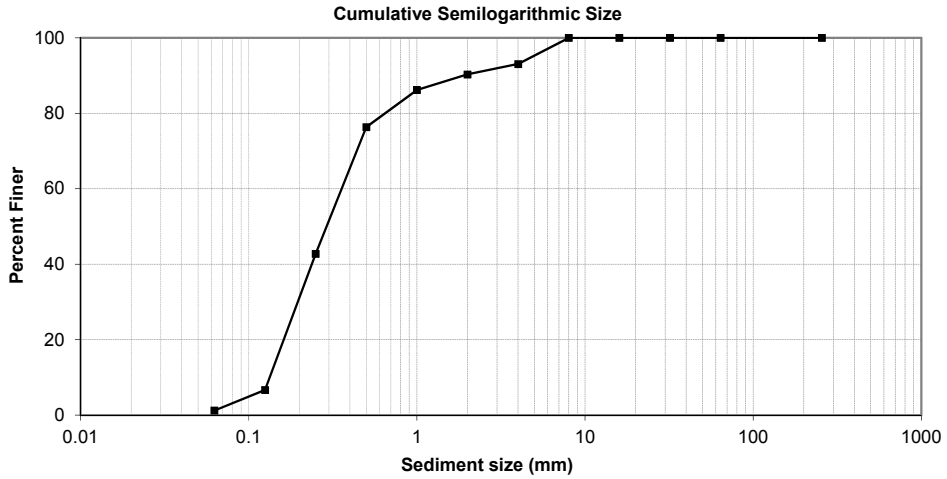


Particle Characteristics			
d_{90}	=	0.64	mm
$d_{84.1}$	=	0.48	mm
d_{65}	=	0.37	mm
d_{50}	=	0.31	mm
d_{35}	=	0.25	mm
$d_{15.9}$	=	0.17	mm
d_g	=	0.3	mm
σ_g	=	1.68	mm
G	=	0.92	

SIEVE ANALYSIS

Sample ID:	SH1_R4
Location:	9 to 10 ft
Date/Time:	December 15, 2014
Analyzed by:	Brian Twining
Date/Time:	January 28, 2016
Gross weight:	624.1 g
Tare weight:	122.7 g
Net weight:	501.4 g
Gravel weight:	34.7 g
Sand weight:	460.2 g
Portion analyzed:	501.4 g
Remarks:	Soil samples taken from Geoprobe™ liners - tooling DT22 (2.25 in. Probe) Soil sample from 9 to 10 ft 100% of sample was recovered

Sieve Size (mm)	Weight (g)	Percent Finer	Cumulative Percent Finer	Size Class	Remarks
8192					
4096				**Boulders**	
2048					
1024					
512					
256	0.0	0.00	100.00		
64	0.0	0.00	100.00	**Cobble**	
32	0.0	0.00	100.00		
16	0.0	0.00	100.00	**Pebble**	
8	0.0	0.00	100.00		
4	34.7	6.93	93.07		
2	13.8	2.75	90.32	**Very coarse sand**	
1	20.8	4.15	86.17	**Granule**	
0.5	49.2	9.82	76.35	**Coarse sand**	
0.25	168.3	33.59	42.75	**Median sand**	
0.125	180.9	36.11	6.65	**Fine sand**	
0.0625	27.2	5.43	1.22	**Very fine sand**	
<0.0625	6.1	1.22	0.00	**Silt & clays**	
TOTAL	501.0				



Particle Characteristics			
d_{90}	=	1.9	mm
$d_{84.1}$	=	0.86	mm
d_{65}	=	0.4	mm
d_{50}	=	0.29	mm
d_{35}	=	0.22	mm
$d_{15.9}$	=	0.15	mm
d_g	=	0.4	mm
σ_g	=	2.39	mm
G	=	1.11	