

MEMORANDUM

To: Mr. Clifton Shannon, Aleutian Housing Authority

W.O.: D59798

From: Maria E. Kampsen, P.E.

Date: June 29, 2007

Subject: Atka Housing

Attached are the final test pit logs for the Atka Housing project in Atka, Alaska. These logs were generated using the results of laboratory analyses on the samples collected and photographs provided by Aleutian Housing Authority (AHA).

The soil classifications presented on the test pit logs are based on visual classifications completed by both a laboratory technician and a geologist. In addition, sieve analyses were conducted on the samples that did not visually classify as peat. The sample depths reported on the logs are based on the information that was written on the sample bag. The samples lengths have been assumed to be 12 inches unless otherwise noted.

The test pit depth and depth to bedrock noted in Test Pit 2 are based on a conversation we had with you on June 18, 2007. Additional samples from Test Pit 2 were provided, however, the specific depths of these samples are unknown and indicated as such on the log.

Also attached is a test pit location map, as provided by AHA, and the results of the laboratory testing.



10

8

10

6

Test Pit #1

Test Pit #1

Test Pit #2

8

ROW

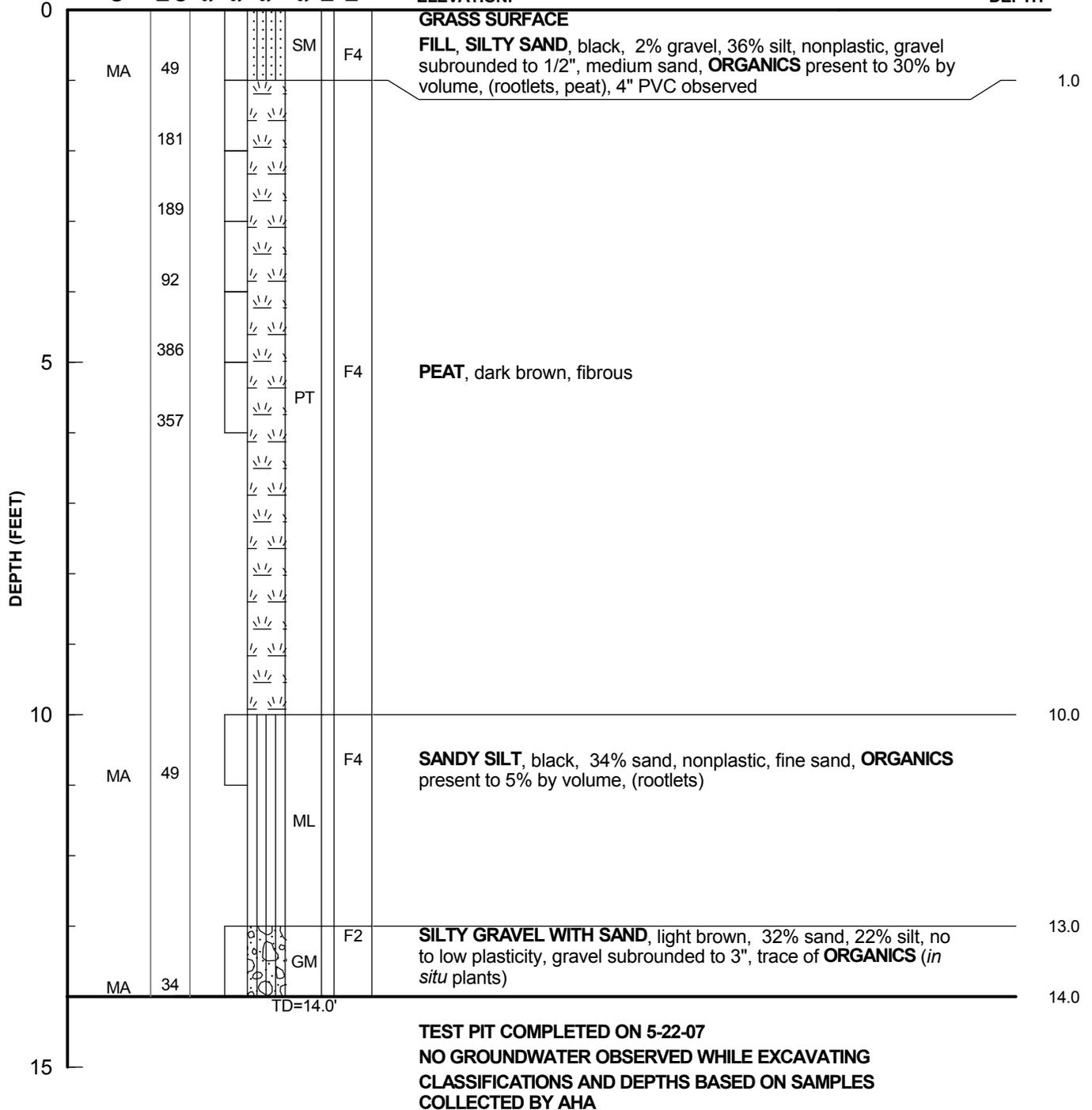
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TEST PIT 1

LOCATION: SEE TEST PIT LOCATION MAP
ELEVATION:

DEPTH



KEY
 MA = Mechanical Analysis
 TD = Total Depth
 □ = Grab Sample
 ▣ = SPT Sample
 ◻ = Shelby Tube - pushed
 ◻ = 2.5" I.D. Spoon Sample
 340# weight, 30" fall

EQUIPMENT: CAT Extendahoe
METHOD: Backhoe

CLIENT: Aleutian Housing Authority
PROJECT: Atka Housing
LOGGED BY: Clifton Shannon
TEST PIT COMPLETED: 5-22-07
W.O. D59798

LOG OF EXPLORATION 59798.GPJ BLANK2.GDT 6/29/07



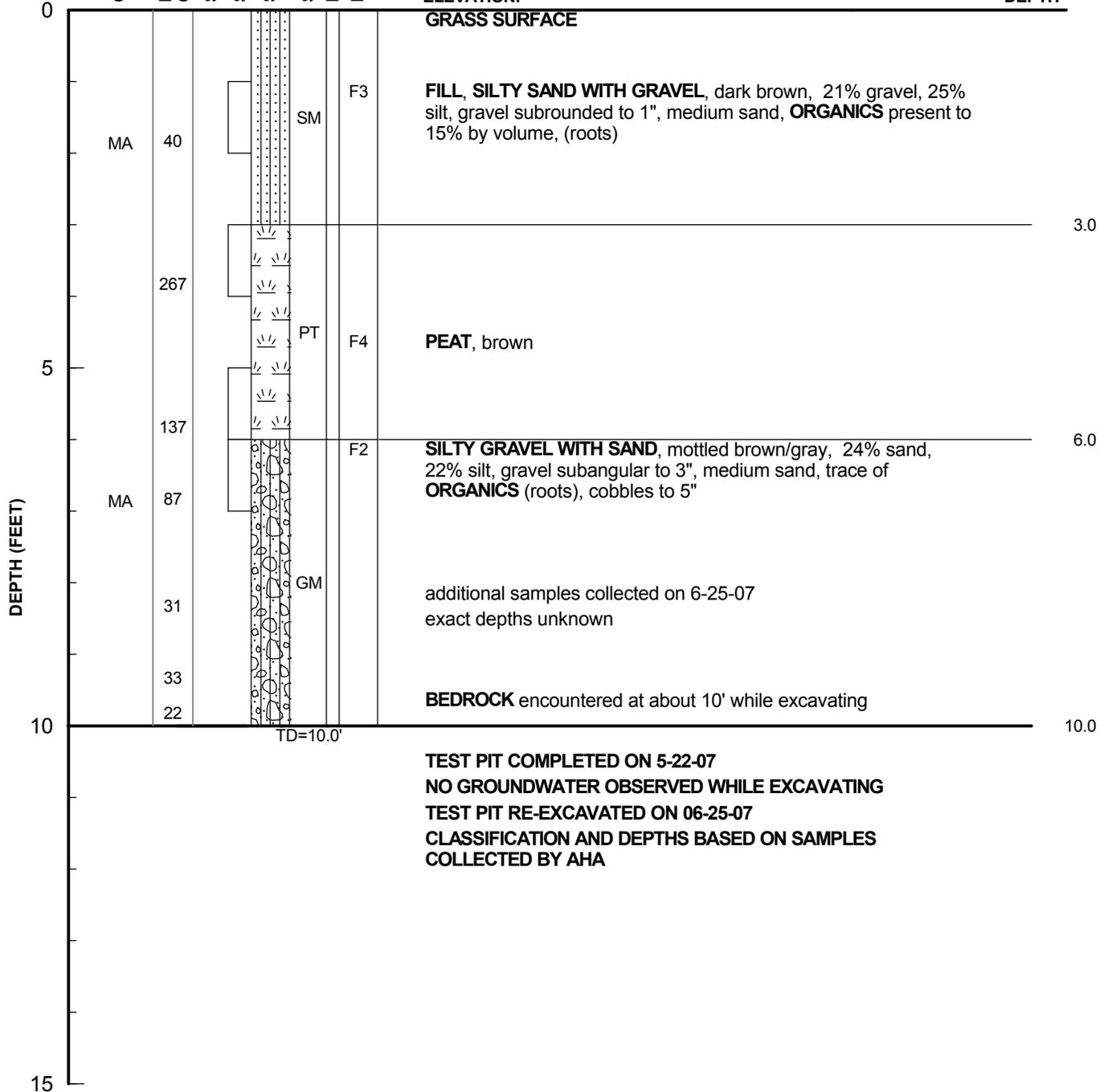
LOG OF TEST PIT 1

FIGURE 1

TEST PIT 2

LOCATION: SEE TEST PIT LOCATION MAP
 ELEVATION:

DEPTH



KEY
 MA = Mechanical Analysis
 TD = Total Depth
 □ = Grab Sample
 ▣ = SPT Sample
 ◻ = Shelby Tube - pushed
 ◻ = 2.5" I.D. Spoon Sample
 340# weight, 30" fall

EQUIPMENT: CAT Extendahoe

METHOD: Backhoe

CLIENT: Aleutian Housing Authority

PROJECT: Atka Housing

LOGGED BY: Clifton Shannon

TEST PIT COMPLETED: 5-22-07

W.O. D59798

LOG OF EXPLORATION 59798.GPJ BLANK2.GDT 6/29/07



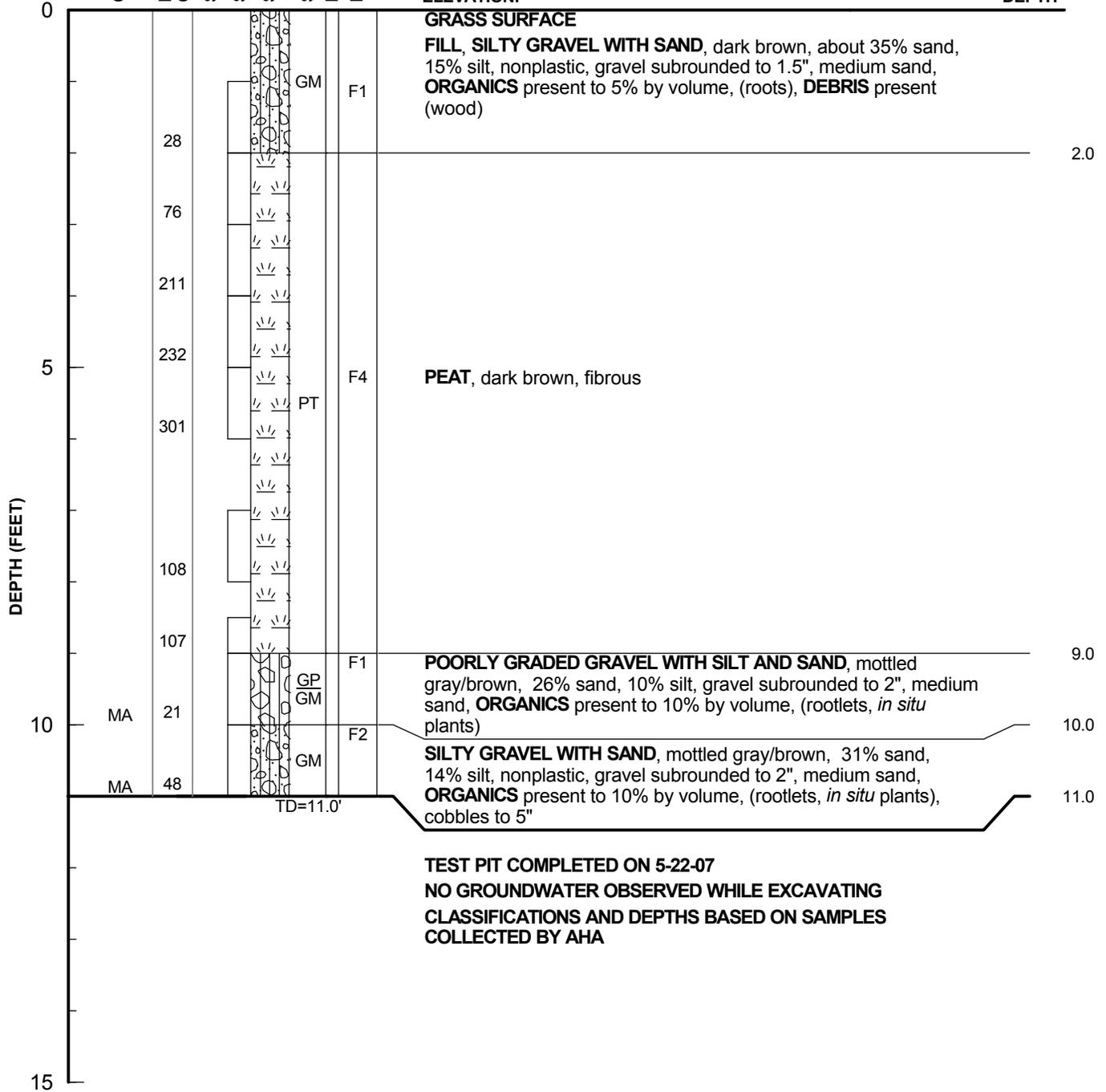
LOG OF TEST PIT 2

FIGURE 2

TEST PIT 3

LOCATION: SEE TEST PIT LOCATION MAP
 ELEVATION:

DEPTH



KEY
 MA = Mechanical Analysis
 TD = Total Depth
 □ = Grab Sample
 ▣ = SPT Sample
 ◻ = Shelby Tube - pushed
 ◻ = 2.5" I.D. Spoon Sample
 340# weight, 30" fall

EQUIPMENT: CAT Extendahoe

METHOD: Backhoe

CLIENT: Aleutian Housing Authority

PROJECT: Atka Housing

LOGGED BY: Clifton Shannon

TEST PIT COMPLETED: 5-22-07

W.O. D59798

LOG OF EXPLORATION 59798.GPJ BLANK2.GDT 6/29/07



LOG OF TEST PIT 3

FIGURE 3



Client: Aleutian Housing Authority

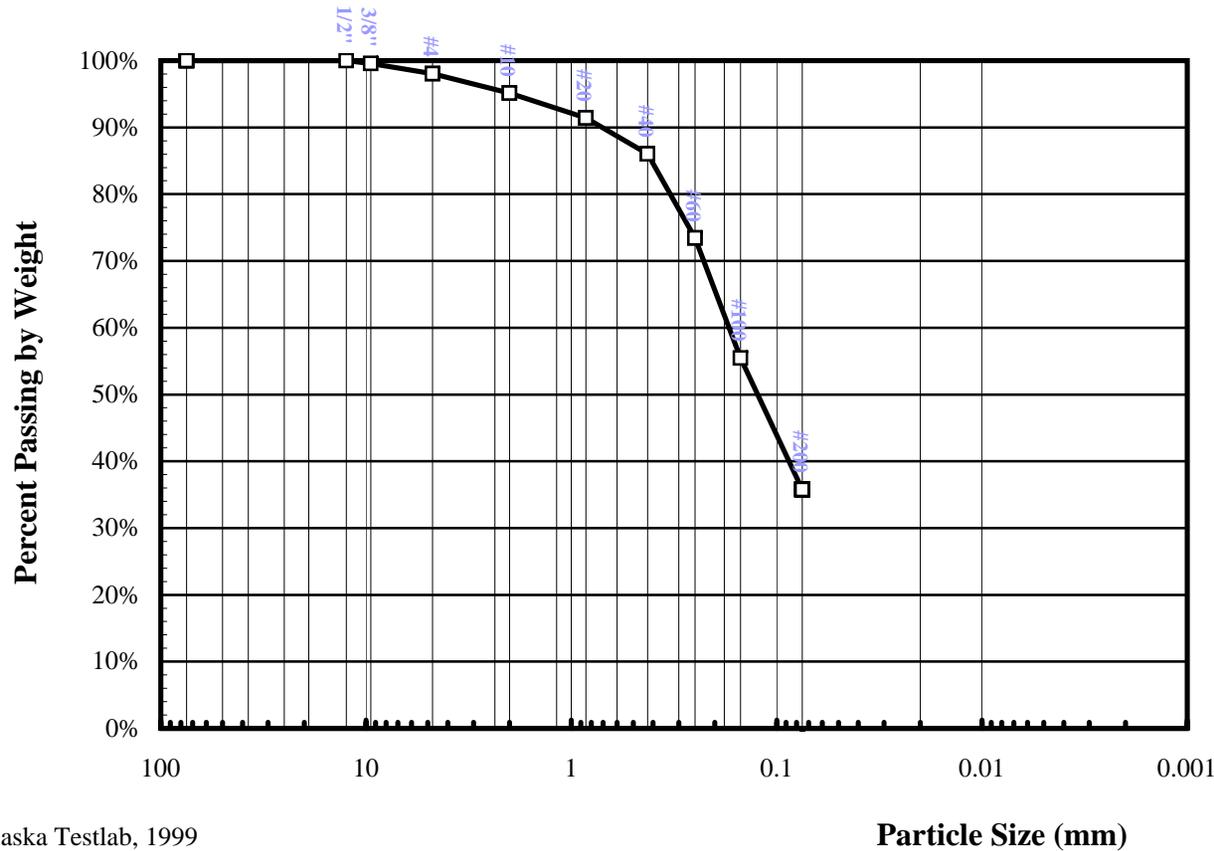
Project: Atka Housing

Location: Test Pit 1

Depth 0'

Engineering Classification: Silty SAND , SM

Frost Classification: Not Measured



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David L Andersen

David L. Andersen, P.E., Technical Advisor

PARTICLE-SIZE

DIST. ASTM D422

W.O. D59798

Lab No. 2007-783

Received: 6/21/07

Reported: 6/26/07

SIZE	PASSING SPECIFICATION
+3 in Not Included in Test = ~%	
3"	
2"	
1 1/2"	
1"	
3/4"	
1/2"	100%
3/8"	100%
No. 4	98%
Total Wt. = 463.3g	
No. 8	
No. 10	95%
No. 16	
No. 20	91%
No. 30	
No. 40	86%
No. 50	
No. 60	73%
No. 80	
No. 100	55%
No. 200	36%
Total Wt. of Fine Fraction = 453.4g	
0.02 mm	



Client: Aleutian Housing Authority

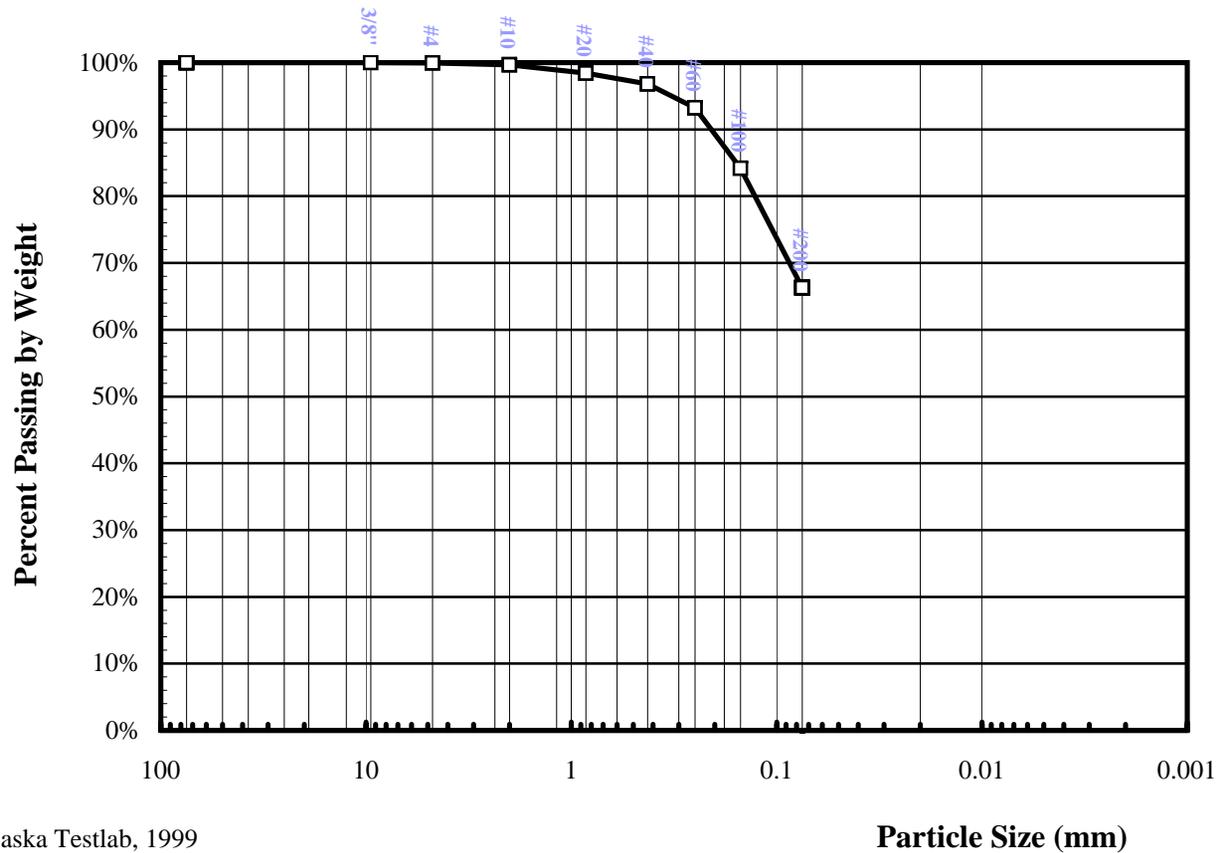
Project: Atka Housing

Location: Test Pit 1

Depth 10'

Engineering Classification: Sandy SILT, ML

Frost Classification: F4



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PARTICLE-SIZE

DIST. ASTM D422

W.O. D59798

Lab No. 2007-784

Received: 6/21/07

Reported: 6/26/07

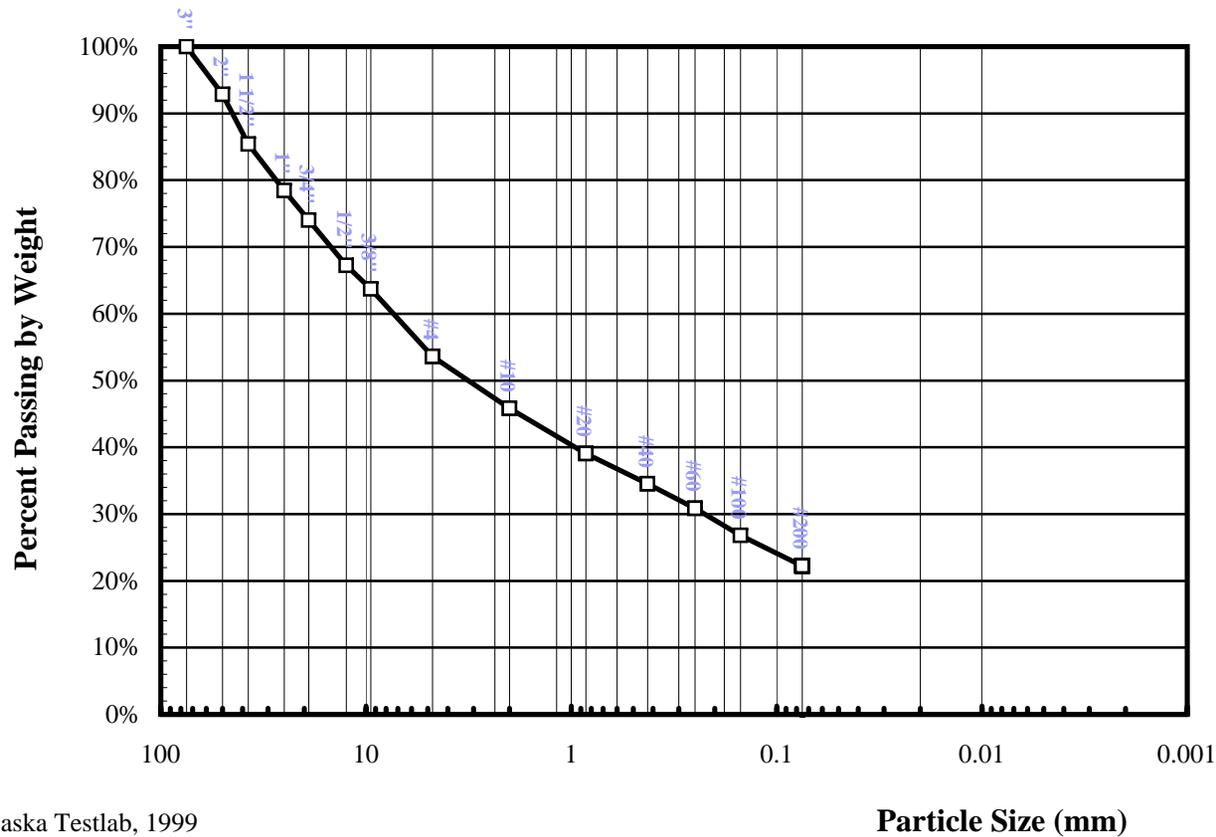
SIZE	PASSING	SPECIFICATION
+3 in Not Included in Test = ~%		
3"		
2"		
1 1/2"		
1"		
3/4"		
1/2"		
3/8"	100%	
No. 4	100%	
Total Wt. = 766.4g		
No. 8		
No. 10	100%	
No. 16		
No. 20	98%	
No. 30		
No. 40	97%	
No. 50		
No. 60	93%	
No. 80		
No. 100	84%	
No. 200	66%	
Total Wt. of Fine Fraction = 362.8g		
0.02 mm		

Location: Test Pit 1

Depth 13'

Engineering Classification: Silty GRAVEL with Sand, GM

Frost Classification: Not Measured



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DIST. ASTM D422

W.O. D59798

Lab No. 2007-785

Received: 6/21/07

Reported: 6/26/07

SIZE	PASSING SPECIFICATION
+3 in Not Included in Test = ~%	
3"	100%
2"	93%
1 1/2"	85%
1"	78%
3/4"	74%
1/2"	67%
3/8"	64%
No. 4	54%
Total Wt. = 3372g	
No. 8	
No. 10	46%
No. 16	
No. 20	39%
No. 30	
No. 40	35%
No. 50	
No. 60	31%
No. 80	
No. 100	27%
No. 200	22%
Total Wt. of Fine Fraction = 475.1g	
0.02 mm	



Client: Aleutian Housing Authority

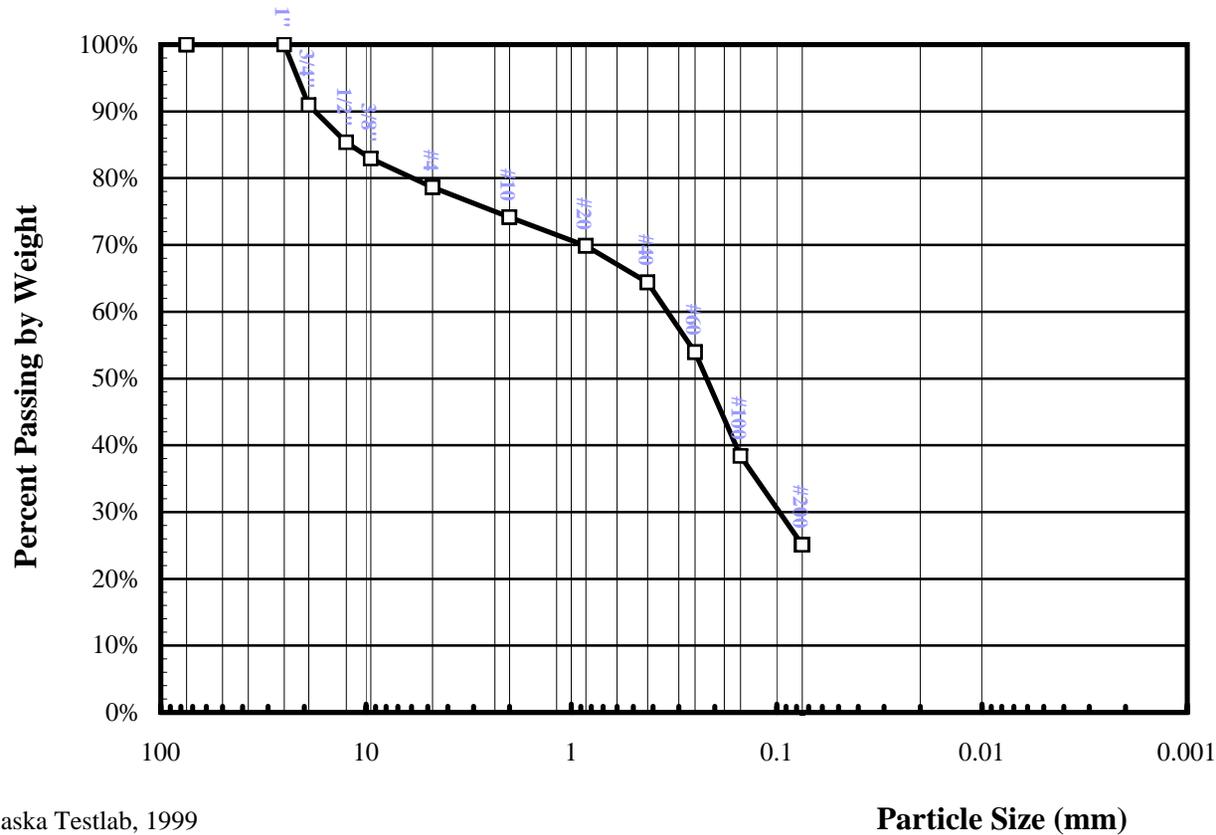
Project: Atka Housing

Location: Test Pit 2

Depth 1'

Engineering Classification: Silty SAND with Gravel, SM

Frost Classification: Not Measured



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W.O. D59798

Lab No. 2007-786

Received: 6/21/07

Reported: 6/26/07

SIZE	PASSING	SPECIFICATION
+3 in Not Included in Test = ~%		
3"		
2"		
1 1/2"		
1"	100%	
3/4"	91%	
1/2"	85%	
3/8"	83%	
No. 4	79%	
Total Wt. = 539.4g		
No. 8		
No. 10	74%	
No. 16		
No. 20	70%	
No. 30		
No. 40	64%	
No. 50		
No. 60	54%	
No. 80		
No. 100	38%	
No. 200	25%	
Total Wt. of Fine Fraction = 423.9g		
0.02 mm		



Client: Aleutian Housing Authority

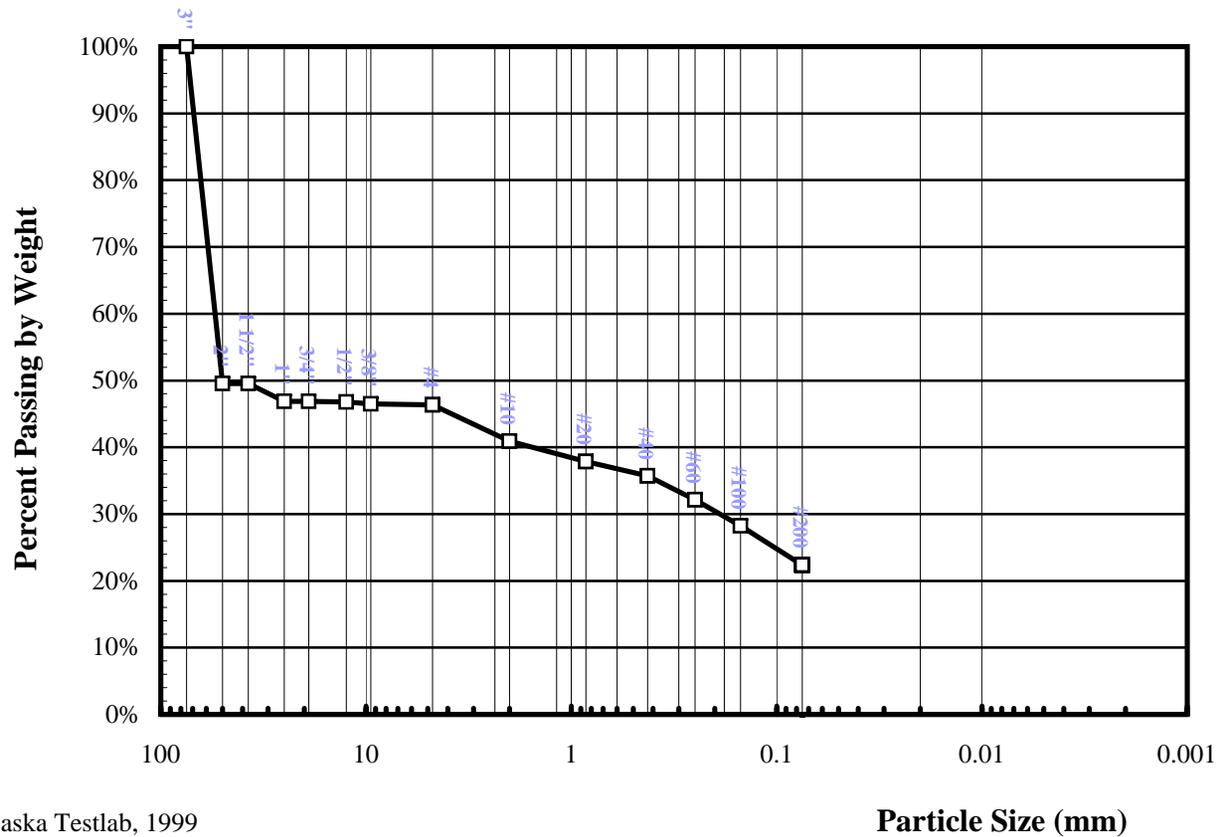
Project: Atka Housing

Location: Test Pit 2

Depth 6'

Engineering Classification: Silty GRAVEL with Sand, GM

Frost Classification: Not Measured



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PARTICLE-SIZE

DIST. ASTM D422

W.O. D59798

Lab No. 2007-787

Received: 6/21/07

Reported: 6/26/07

SIZE	PASSING	SPECIFICATION
+3 in Not Included in Test = ~%		
3"	100%	
2"	50%	
1 1/2"	50%	
1"	47%	
3/4"	47%	
1/2"	47%	
3/8"	47%	
No. 4	46%	
Total Wt. = 1144g		
No. 8		
No. 10	41%	
No. 16		
No. 20	38%	
No. 30		
No. 40	36%	
No. 50		
No. 60	32%	
No. 80		
No. 100	28%	
No. 200	22%	
Total Wt. of Fine Fraction = 389.8g		
0.02 mm		



Client: Aleutian Housing Authority

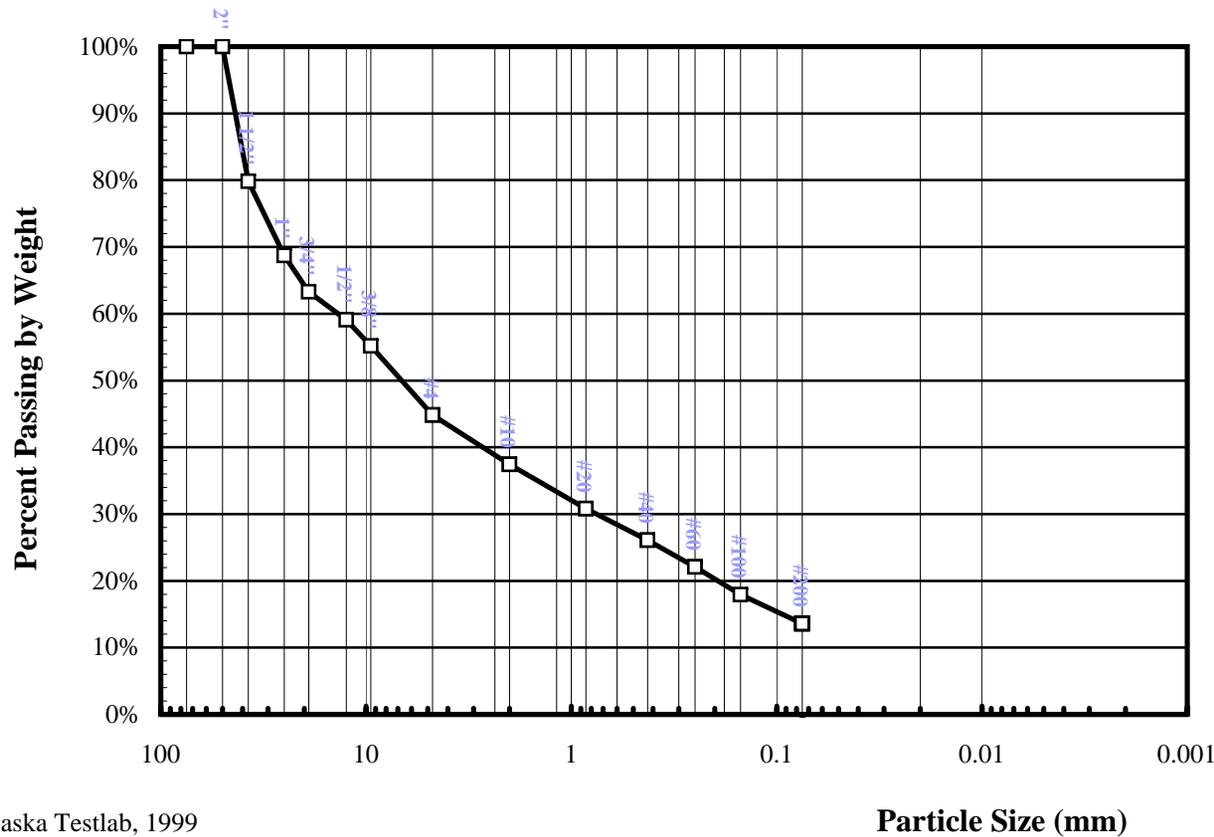
Project: Atka Housing

Location: Test Pit 3

Depth 10'

Engineering Classification: Silty GRAVEL with Sand, GM

Frost Classification: Not Measured



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PARTICLE-SIZE
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W.O. D59798

Lab No. 2007-789

Received: 6/26/07

Reported: 6/21/07

SIZE	PASSING	SPECIFICATION
+3 in Not Included in Test = ~%		
3"		
2"	100%	
1 1/2"	80%	
1"	69%	
3/4"	63%	
1/2"	59%	
3/8"	55%	
No. 4	45%	
Total Wt. = 823g		
No. 8		
No. 10	37%	
No. 16		
No. 20	31%	
No. 30		
No. 40	26%	
No. 50		
No. 60	22%	
No. 80		
No. 100	18%	
No. 200	14%	
Total Wt. of Fine Fraction = 368.9g		
0.02 mm		



Client: Aleutian Housing Authority

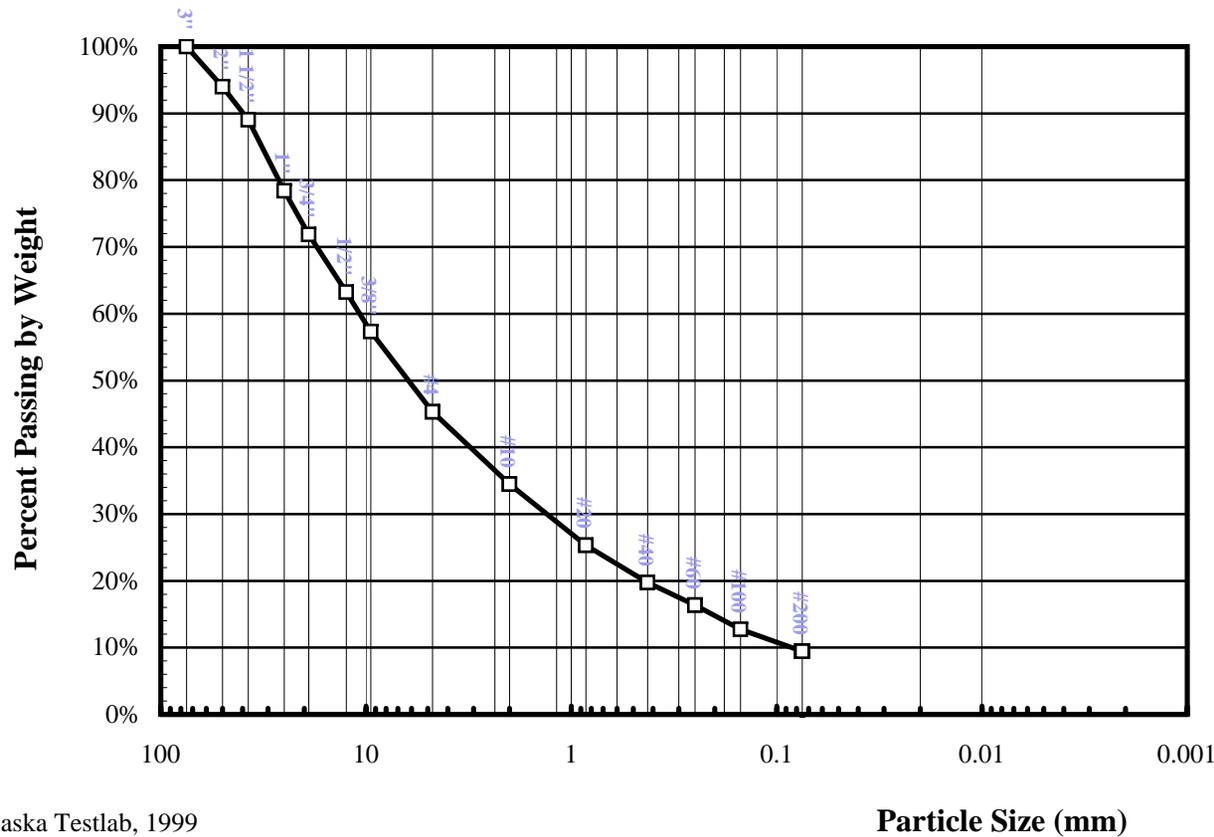
Project: Atka Housing

Location: Test Pit 3

Depth 10' (bucket)

Engineering Classification: Well Graded GRAVEL with Silt and Sand, GW-GM

Frost Classification: Not Measured



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PARTICLE-SIZE

DIST. ASTM D422

W.O. D59798

Lab No. 2007-790

Received: 6/21/07

Reported: 6/21/07

SIZE	PASSING	SPECIFICATION
+3 in Not Included in Test = ~%		
3"	100%	
2"	94%	
1 1/2"	89%	
1"	78%	
3/4"	72%	
1/2"	63%	
3/8"	57%	
No. 4	45%	
Total Wt. = 13546g		
No. 8		
No. 10	34%	
No. 16		
No. 20	25%	
No. 30		
No. 40	20%	
No. 50		
No. 60	16%	
No. 80		
No. 100	13%	
No. 200	9.5%	
Total Wt. of Fine Fraction = 409.8g		
0.02 mm		