

✚Trow

Page. 1 of 1

Shear Strength by

LOG OF BOREHOLE BOREHOLE LOGS.GPJ TROW OTTAWA.GDT 3/10/10

5. This Figure is to read with Trow Associates Inc. report
OTGE00019838B

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Log of Borehole L4



Project No: OTGE00019838B

Project: Geotechnical Investigation, Liquid and Solid Waste Management Facility

Location: Hamlet of Igloodik, Nunavut

Figure No. 5

Page. 1 of 1

Date Drilled: October 1st, 2009

Drill Type: _____

Datum: Estimated Elevation from Contour Lines (Approx)

Logged by: _____ Checked by: _____

Split Spoon Sample ☒
 Auger Sample ☐
 SPT (N) Value ☐
 Dynamic Cone Test ☐
 Shelby Tube ☐
 Shear Strength by Vane Test ☐

Combustible Vapour Reading ☐
 Natural Moisture Content ☒
 Atterberg Limits ☐
 Undrained Triaxial at % Strain at Failure ☐
 Shear Strength by Penetrometer Test ☐

LWG	FORM	SOIL DESCRIPTION	Geodetic Elevation m	Depth m	Standard Penetration Test N Value				Combustible Vapour Reading (ppm)			SAMP	Natural Unit Wt. kN/m ³
					20	40	60	80	250	500	750		
					Shear Strength kPa				Natural Moisture Content %				
					50	100	150	200	20	40	60		
		TUNDRA AND SANDY SILT Organic, drak grey	22.8	0									
				3									
		SANDY SILT TILL Some gravel, thin siltstone seams, grey	22.2										
				18									
		- Frozen below 1.2 m depth		1					X				24.2
				110									
				2									
		WEATHERED SILTSTONE BEDROCK Sound siltstone seams, grey to yellow brown	20.6										26.0
													Run 1
													Run 2
													Run 3
		Terminated @ 2.9 m depth	19.9										

NOTES:
 1. Borehole/Test Pit data requires Interpretation by Trow before use by others
 2. Borehole backfilled upon completion of drilling
 3. Field work supervised by a Trow representative
 4. See Notes on Sample Descriptions
 5. This Figure is to read with Trow Associates Inc. report OTGE00019838B

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	2.18 - 2.36	83	
2	2.36 - 2.72	50	
3	2.72 - 2.87	100	

LOG OF BOREHOLE: BOREHOLE LOGS.GPJ TROW OTTAWA.GDT 3/10/10

Log of Borehole L5



Project No: OTGE00019838B

Project: Geotechnical Investigation, Liquid and Solid Waste Management Facility

Location: Hamlet of Igloolik, Nunavut

Figure No. 6

Page. 1 of 1

Date Drilled: November 4th, 2009

Drill Type: _____

Datum: Estimated Elevation from Contour Lines (Approx)

Logged by: _____ Checked by: _____

Split Spoon Sample ☒
 Auger Sample ☒
 SPT (N) Value ☐
 Dynamic Cone Test ☐
 Shelby Tube ☒
 Shear Strength by Vane Test ☐

Combustible Vapour Reading ☐
 Natural Moisture Content ☒
 Atterberg Limits ☐
 Undrained Triaxial at % Strain at Failure ☐
 Shear Strength by Penetrometer Test ☒

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth m	Standard Penetration Test N Value				Combustible Vapour Reading (ppm)			Natural Unit Wt. kN/m ³	
					20	40	60	80	250	500	750		
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					50	100	150	200		20	40	60	
		TOPSOIL 150 mm	20.7 20.6	0						X			
		SANDY SILT TO SILTY SAND TILL Some gravel, occasional cobbles and boulders, grey brown to golden brown (frozen)								X			
				1						X			
				2						X			
				3						X			
		WEATHERED SILTSTONE BEDROCK Grey to yellow brown (sound below 4 m depth)	17.6										
				4									
		Terminated @ 4.2 m depth	16.5										Run 1

- NOTES:
- Borehole/Test Pit data requires Interpretation by Trow before use by others
 - Borehole backfilled upon completion of drilling
 - Field work supervised by a Trow representative
 - See Notes on Sample Descriptions
 - This Figure is to read with Trow Associates Inc. report OTGE00019838B

WATER LEVEL RECORDS		
Elapsed Time	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	3.13 - 4.24	100	

LOG OF BOREHOLE: BOREHOLE LOGS.GPJ TROW OTTAWA GDT 3/10/10

Log of Borehole L6



Project No: OTGE00019838B

Project: Geotechnical Investigation, Liquid and Solid Waste Management Facility

Location: Hamlet of Igloolik, Nunavut

Figure No. 7

Page. 1 of 1

Date Drilled: September 30, 2009

Drill Type: _____

Datum: Estimated Elevation from Contour Lines (Approx)

Logged by: _____ Checked by: _____

Split Spoon Sample ☒
 Auger Sample ☐
 SPT (N) Value ☐
 Dynamic Cone Test ☐
 Shelby Tube ☐
 Shear Strength by Vane Test ☐

Combustible Vapour Reading ☐
 Natural Moisture Content ☒
 Atterberg Limits ☐
 Undrained Triaxial at % Strain at Failure ☐
 Shear Strength by Penetrometer Test ☐

LWG	SOIL DESCRIPTION	Geodetic Elevation m	Depth m	Standard Penetration Test N Value				Combustible Vapour Reading (ppm)			Natural Unit Wt. kN/m ³
				20	40	60	80	250	500	750	
	SAND AND GRAVEL 250 mm frost at surface. fine to coarse, some silt, brown.	23.7	0								
	SANDY SILT TILL Scattered gravel, slightly cohesive, grey Frozen below 1.0 m depth	23.1	1								
	SANDY SILT Occasional gravel, siltstone seams below 1.6 m depth, brown	22.3									
	Terminated @ 2.0 m depth	21.7	2								

NOTES:
 1. Borehole/Test Pit data requires Interpretation by Trow before use by others
 2. Borehole backfilled upon completion of drilling
 3. Field work supervised by a Trow representative
 4. See Notes on Sample Descriptions
 5. This Figure is to read with Trow Associates Inc. report OTGE00019838B

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF BOREHOLE BOREHOLE LOGS GPJ TROW OTTAWA GDT 3/10/10

Log of Borehole L7



Project No: OTGE00019838B

Project: Geotechnical Investigation, Liquid and Solid Waste Management Facility

Location: Hamlet of Igloolik, Nunavut

Date Drilled: September 29, 2009

Drill Type: _____

Datum: Estimated Elevation from Contour Lines (Approx)

Logged by: _____ Checked by: _____

Figure No. 8

Page. 1 of 1

Split Spoon Sample	☒	Combustible Vapour Reading	☐
Auger Sample	☒	Natural Moisture Content	☒
SPT (N) Value	☐	Atterberg Limits	☐
Dynamic Cone Test	☐	Undrained Triaxial at % Strain at Failure	☐
Shelby Tube	☒	Shear Strength by Penetrometer Test	☒
Shear Strength by Vane Test	☐		

GWL	SOIL DESCRIPTION	Geodetic Elevation m	Depth m	Standard Penetration Test N Value				Combustible Vapour Reading (ppm)			S.A.M. Unit mm	Natural Unit Wt. kN/m³	
				20	40	60	80	250	500	750			
				Shear Strength	kPa			Natural Moisture Content % Atterberg Limits (% Dry Weight)					
				50	100	150	200		20	40	60		
	FILL Silty sand, some organics, occasional cobbles, light brown	22.8	0										
			3						X				
			6										
			1							X			
	SANDY SILT TILL Some sand and gravel, occasional cobbles and boulders, light grey - becoming clayey below 3.5 m depth. Frozen below 1.5 m depth.	21.6											
			2							X			24.8
			3							X			
										X			24.7
	SILTSTONE BEDROCK Weathered seams, light grey to brown	19.1											Run 1

NOTES:
1. Borehole/Test Pit data requires Interpretation by Trow before use by others
2. A thermister was installed in the Bottom of the borehole
3. Field work supervised by a Trow representative
4. See Notes on Sample Descriptions
5. This Figure is to read with Trow Associates Inc. report OTGE00019838B

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	3.58 - 3.91	62	
2	3.91 - 4.27	86	

LOG OF BOREHOLE BOREHOLE LOGS GPJ TROW OTTAWA GDT 3/10/10

Log of Borehole L8



Project No: OTGE00019838B

Project: Geotechnical Investigation, Liquid and Solid Waste Management Facility

Location: Hamlet of Igloodik, Nunavut

Figure No. 9

Page. 1 of 1

Date Drilled: September 30, 2009

Drill Type:

Datum: Estimated Elevation from Contour Lines (Approx)

Logged by: Checked by:

Split Spoon Sample ☒ Combustible Vapour Reading ☐
 Auger Sample ☐ Natural Moisture Content ☒
 SPT (N) Value ☐ Atterberg Limits ☐
 Dynamic Cone Test ☐ Undrained Triaxial at ☐
 Shelby Tube ☒ % Strain at Failure ☐
 Shear Strength by ☐ Shear Strength by ☒
 Vane Test ☐ Penetrometer Test ☒

LW	SOIL DESCRIPTION	Geodetic Elevation m	Depth m	Standard Penetration Test N Value				Combustible Vapour Reading (ppm)			Natural Unit Wt. kN/m ³
				20	40	60	80	250	500	750	
				Shear Strength kPa				Natural Moisture Content %			
								Atterberg Limits (% Dry Weight)			
				50	100	150	200	20	40	60	
	GRAVEL Sandy and silty, occasional cobbles, brown	24.6	0					128			
	SANDY SILT TILL Some gravel, siltstone seams or cobbles, yellow brown	24.0						160/50 mm			
	Frozen below 1.4 m depth		1								
			2								
			3								
	SILTSTONE BEDROCK Grey to yellowish brown	21.8									
	Terminated @ 3.5 m depth	21.1									

NOTES:
 1. Borehole/Test Pit data requires Interpretation by Trow before use by others
 2. Borehole backfilled upon completion of drilling
 3. Field work supervised by a Trow representative
 4. See Notes on Sample Descriptions
 5. This Figure is to read with Trow Associates Inc. report OTGE00019838B

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	2.84 - 3.05	75	
2	3.05 - 3.45	81	

LOG OF BOREHOLE BOREHOLE LOGS.GPJ TROW OTTAWA GDT 3/10/10

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Penetrometer Test ▲

LOG OF BOREHOLE BOREHOLE LOGS.GPJ TROW OTTAWA.GDT 3/10/10

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✚Trow

Penetrometer Test

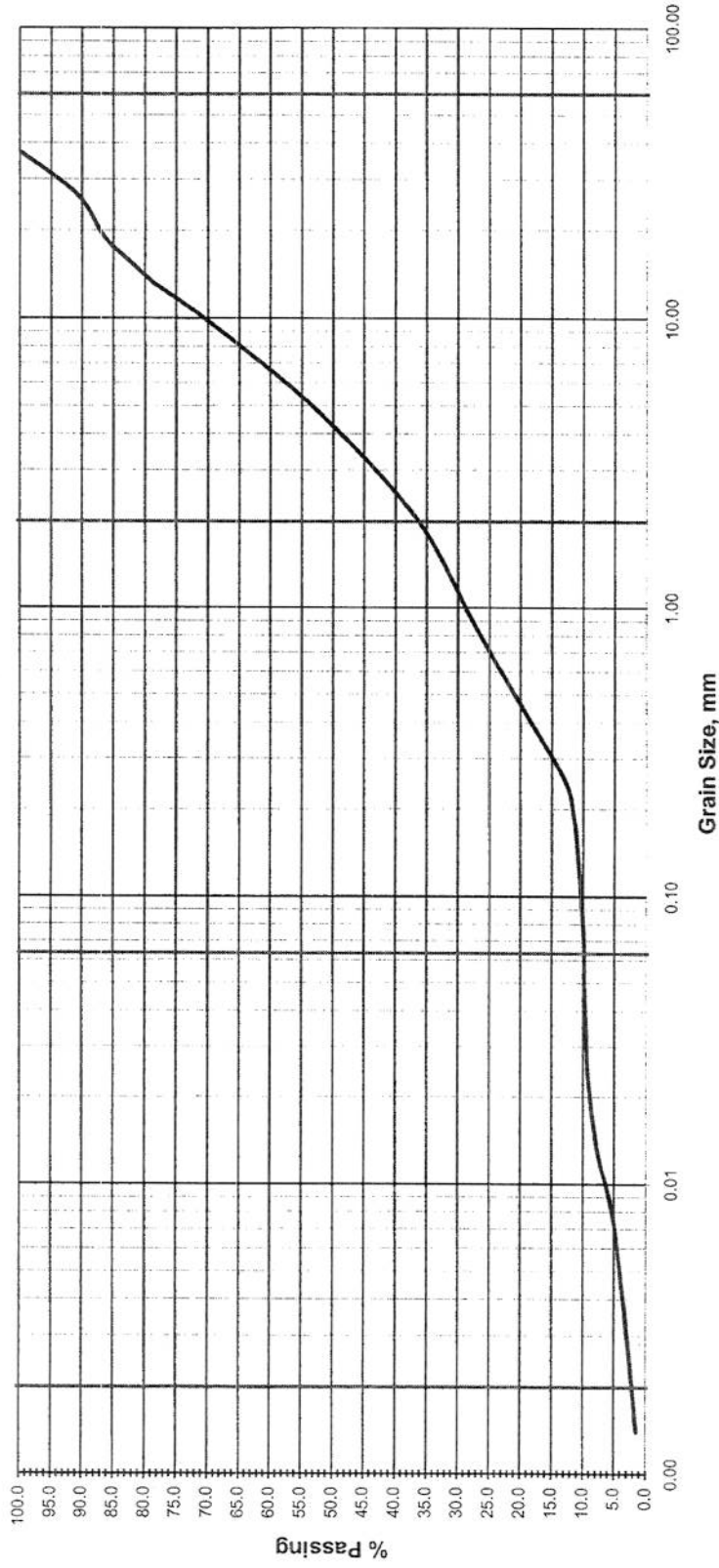
CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %

OG OF BOREHOLE BOREHOLE LOGS.GPJ TROW OTTAWA.GDT 3/10/10

Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

Grain Size Distribution Curve



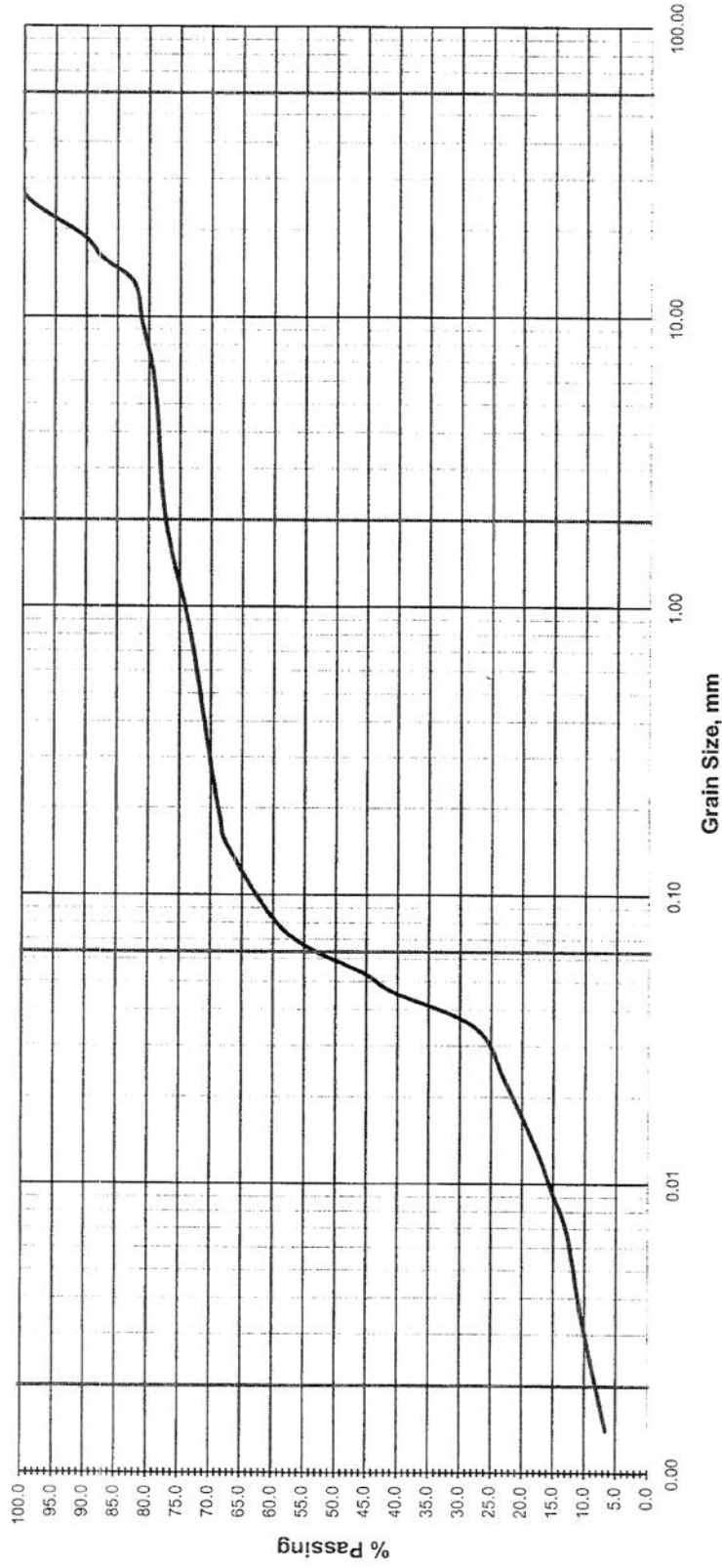
CLAY	Modified M.I.T. Classification					
	Fine	Medium	Coarse	Fine	Medium	Coarse
	SILT			SAND		
				GRAVEL		

Trow Project No.:	OTGEO0019838B	Project Name :	Geotechnical Investigation Liquid and Solid Waste Management			
Client :	Government of Nunavut	Project Location :	Hamlet, Igloodik, Nunavut			
Date Sampled :	November 3, 2009	Borehole No.:	BH L1	Sample No.:	SS 2	Depth (m) : 0.6 to 1.2
Sample Description :	Sandy Gravel, trace Silt and Clay					Figure : 13

Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

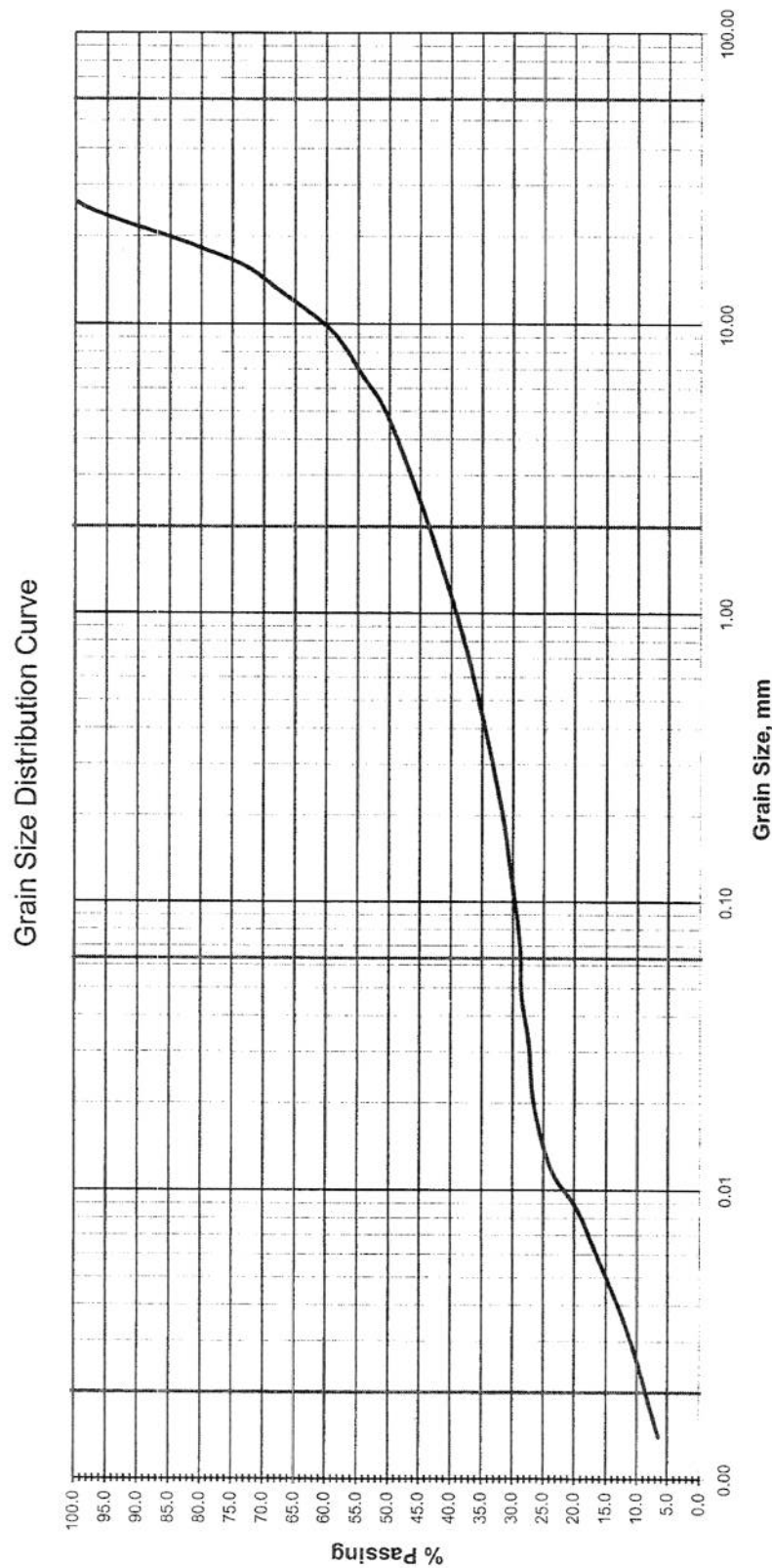
Grain Size Distribution Curve



CLAY	SILT			SAND			GRAVEL		
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse
Modified M.I.T. Classification									

Trow Project No.:	OTGEO0019838B	Project Name :	Geotechnical Investigation Liquid and Solid Waste Management						
Client :	Government of Nunavut	Project Location :	Hamlet, Igloodlik, Nunavut						
Date Sampled :	November 3, 2009	Borehole No.:	BH L2	Sample No.:	SS 3	Depth (m) :	1.0 to 1.2		
Sample Description :	Sandy, Gravelly Silt, trace Clay					Figure :	14		

MTO Test Method LS - 702, Rev. No. 19



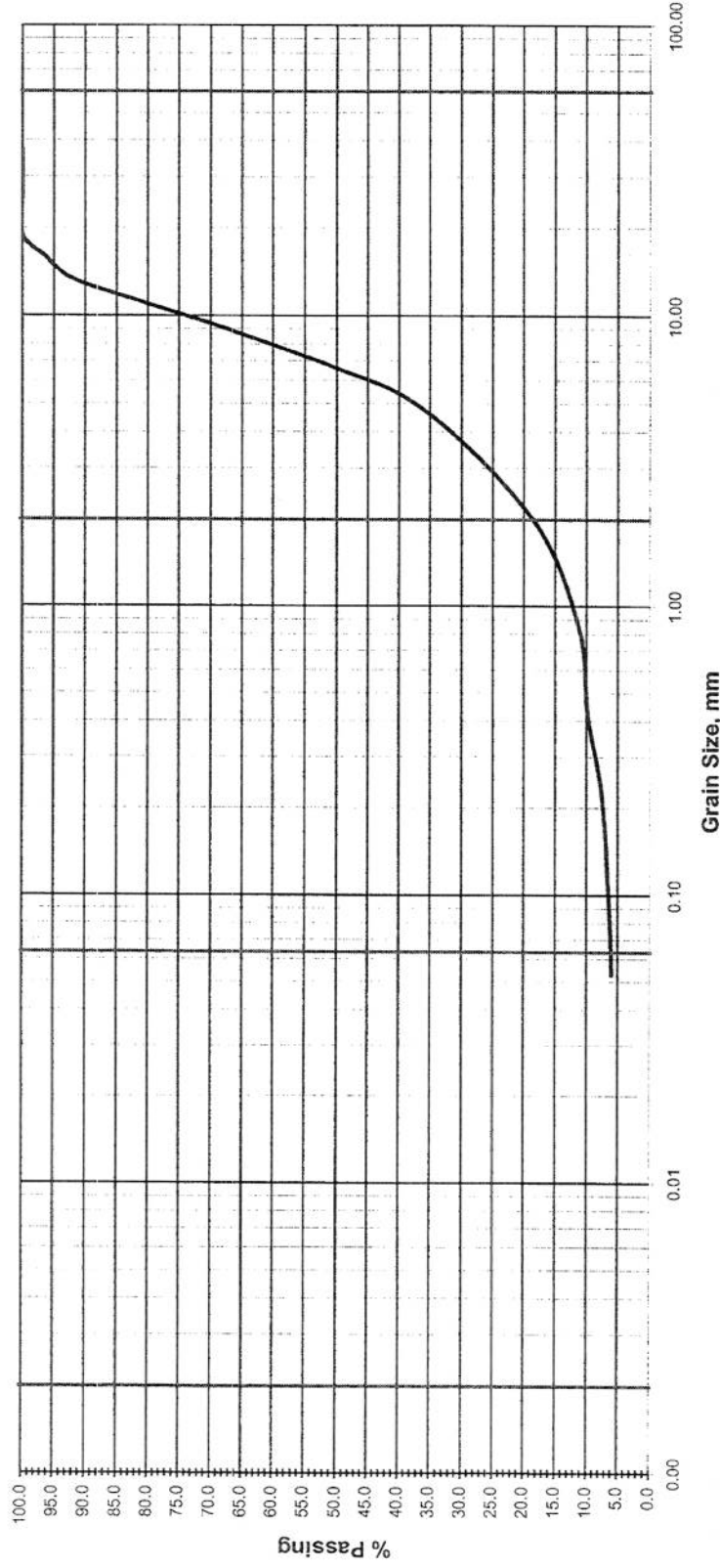
CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			
	Modified M.I.T. Classification						

Trow Project No.:	OTGEO0019838B	Project Name :	Geotechnical Investigation, Liquid and Solid Waste Management	
Client :	Government of Nunavut	Project Location :	Hamlet, Igloodlik, Nunavut	
Date Sampled :	November 3, 2009	Borehole No.:	BH L2	Sample No.: SS 8
Sample Description :	Silty, Sandy Gravel, trace Clay			
			Depth (m) :	2.3 to 2.5
			Figure :	15

Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

Grain Size Distribution Curve



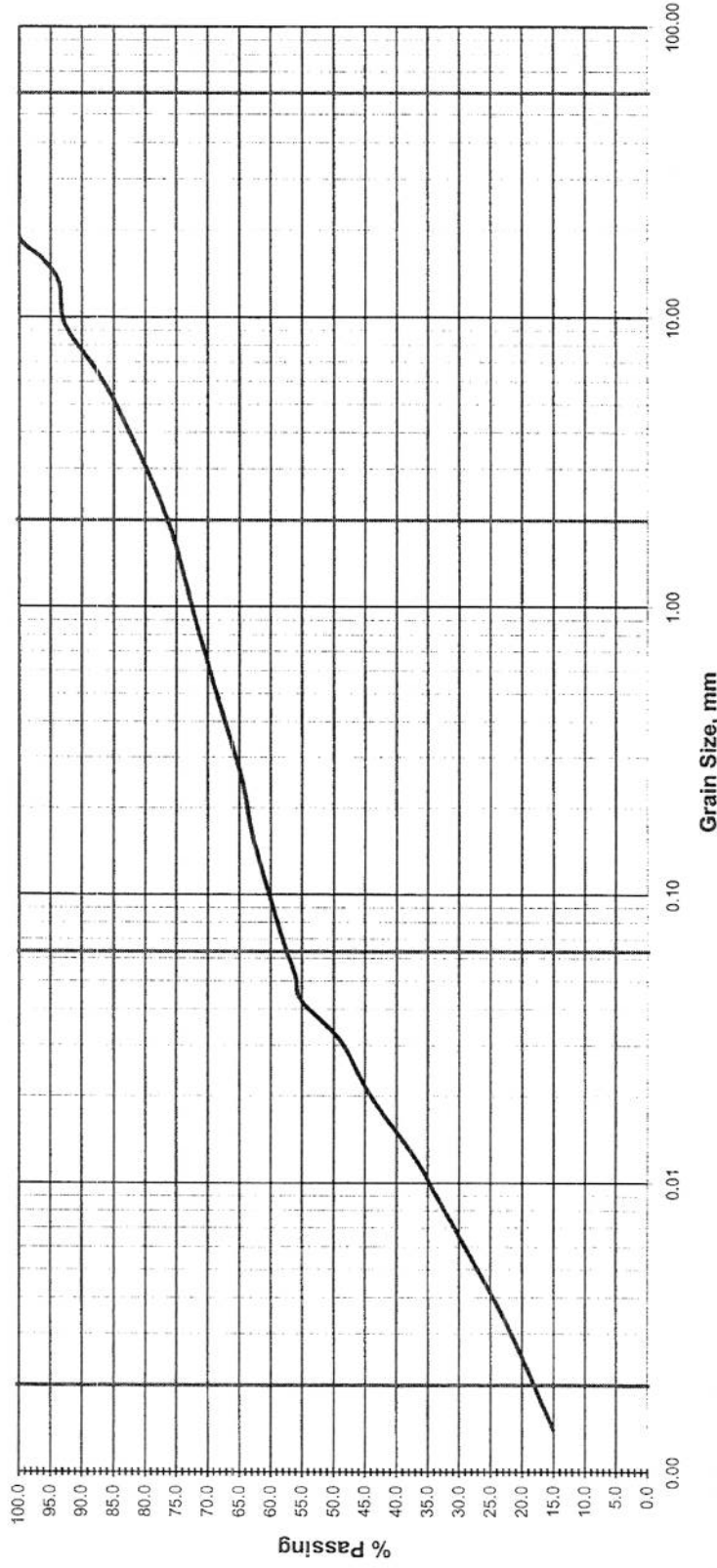
CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse
	SILT			SAND			GRAVEL		
Modified M.I.T. Classification									

Trow Project No.:	OTGEO0019838B	Project Name :	Geotechnical Investigation, Liquid and Solid Waste Management						
Client :	Government of Nunavut	Project Location :	Hamlet, Igloodik, Nunavut						
Date Sampled :	November 3, 2009	Borehole No.:	BH L8	Sample No.:	SS 2	Depth (m) :	0.6 to 0.8		
Sample Description :	Sandy Gravel			Figure :			16		

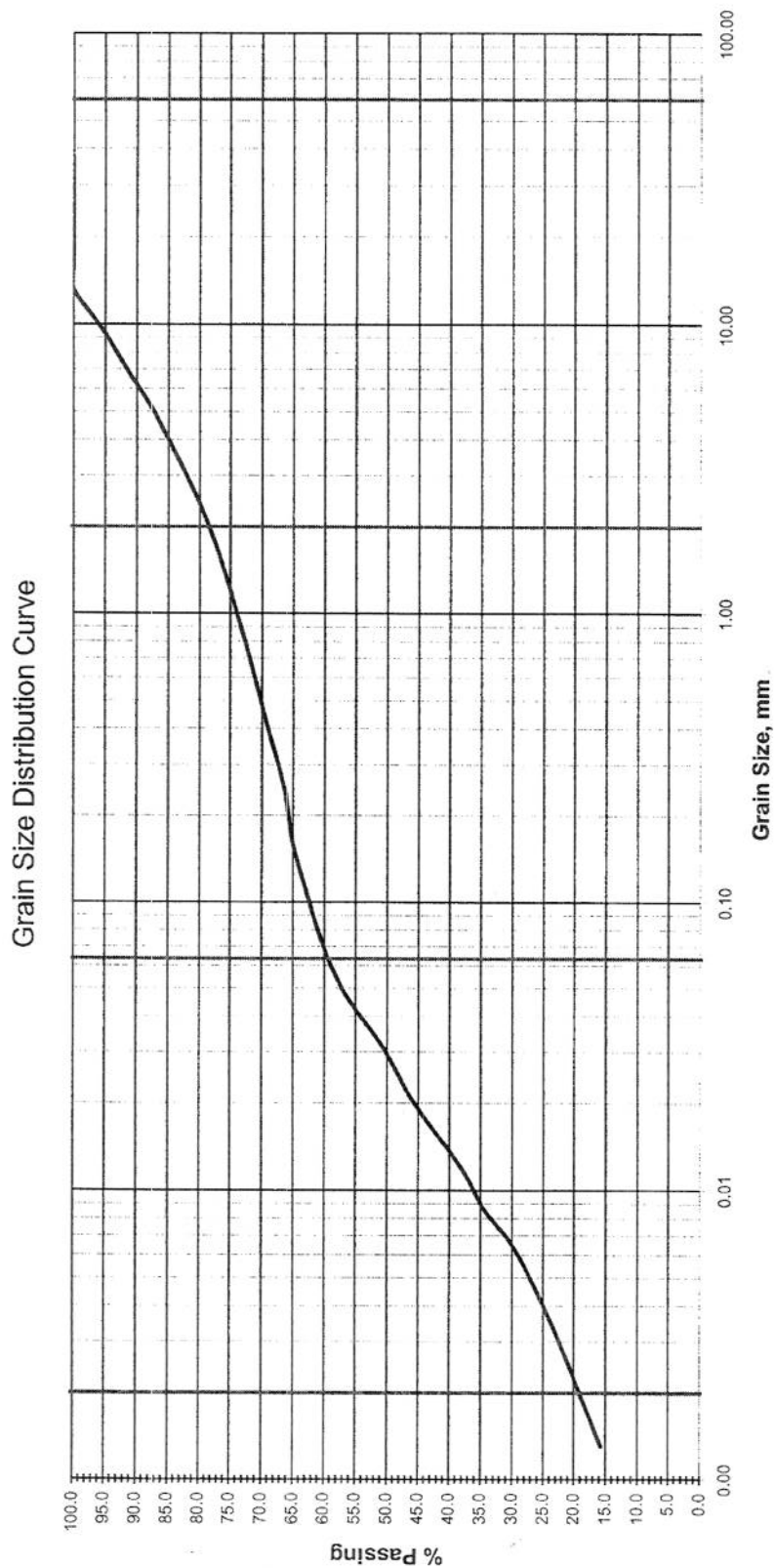
Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

Grain Size Distribution Curve



MTO Test Method LS - 702, Rev. No. 19



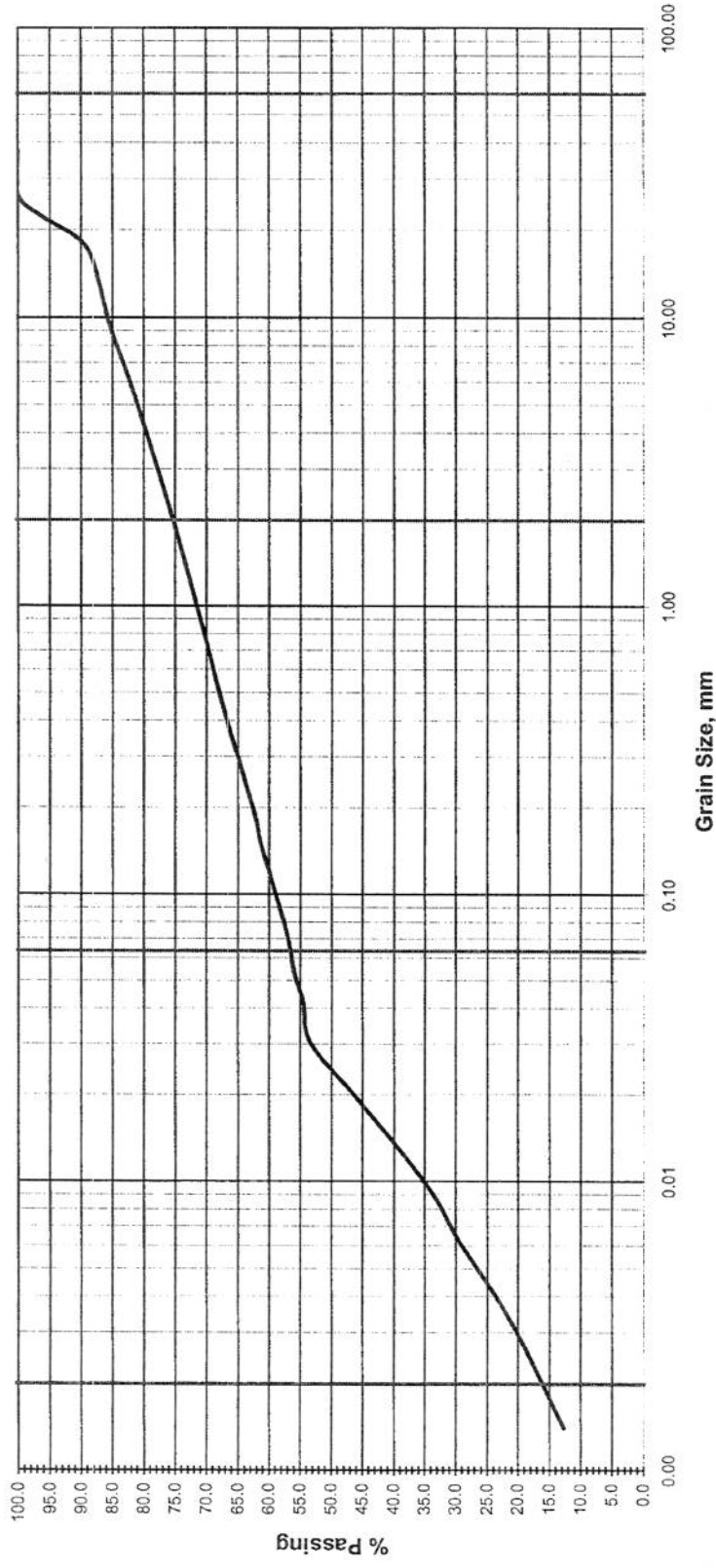
CLAY	SILT			SAND			GRAVEL		
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse
Modified M.I.T. Classification									

Trow Project No.:	OTGEO0019838B	Project Name :	Geotechnical Investigation, Liquid and Solid Waste Management	
Client :	Government of Nunavut	Project Location :	Hamlet, Igloodlik, Nunavut	
Date Sampled :	November 3, 2009	Borehole No.:	BH L7	Sample No.: SS 7
Sample Description :	Sandy Silt, some Clay and Gravel			
			Depth (m) :	2.8 to 3.2
			Figure :	18

Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

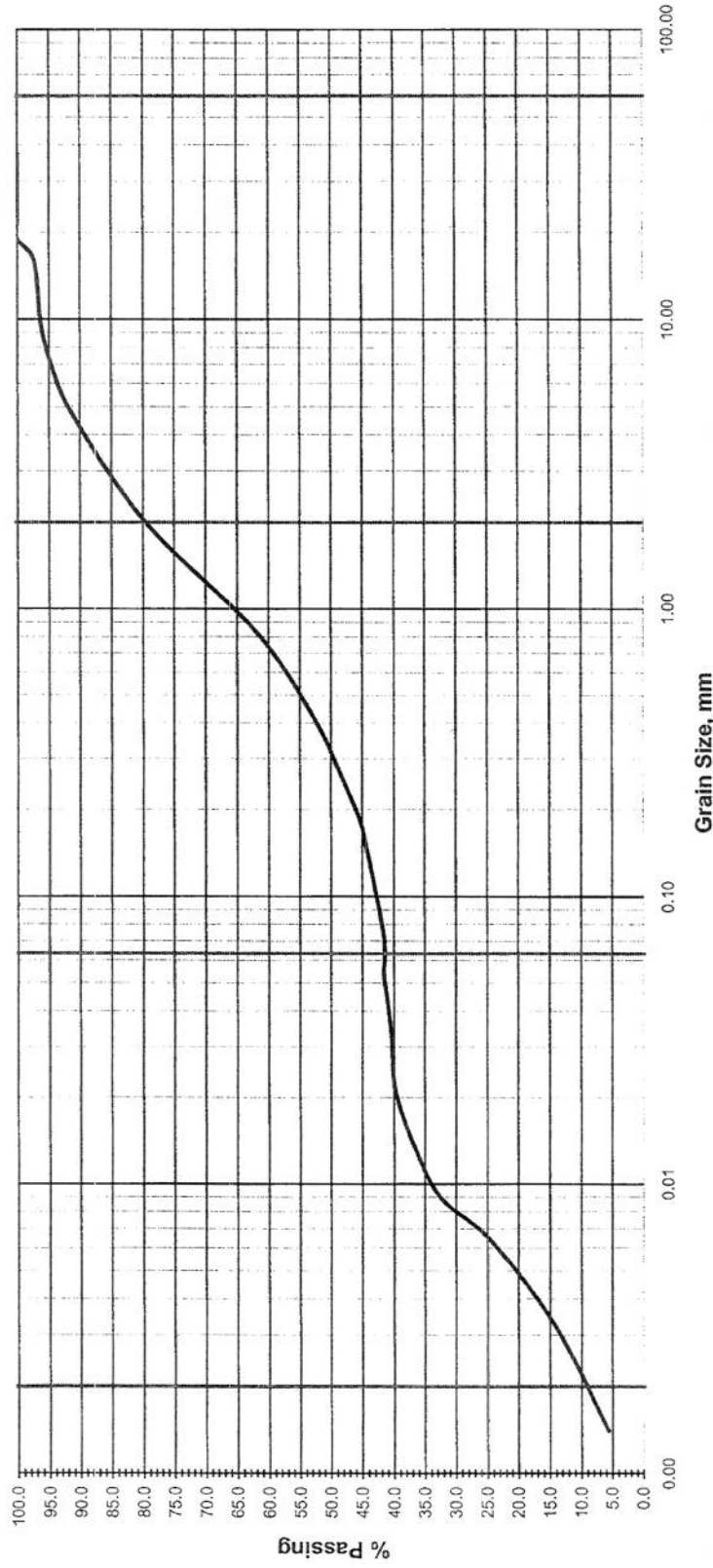
Grain Size Distribution Curve



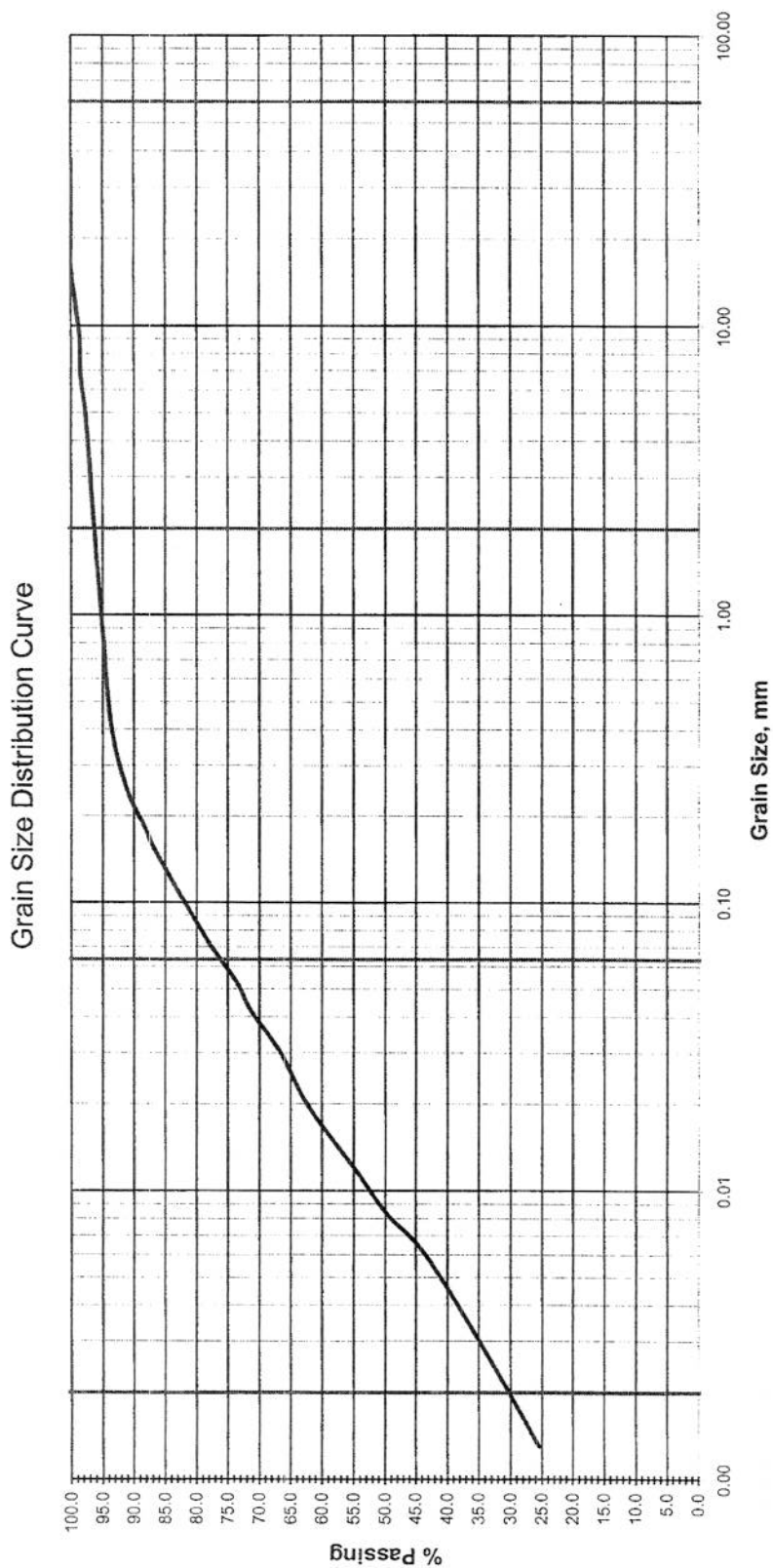
Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

Grain Size Distribution Curve



MTO Test Method LS - 702, Rev. No. 19



CLAY	SILT			SAND			GRAVEL		
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse
Modified M.I.T. Classification									

Trow Project No.:	OTGEO0019838B	Project Name :			Geotechnical Investigation, Liquid and Solid Waste Management	
Client :	Government of Nunavut	Project Location :			Hamlet, Igloodlik, Nunavut	
Date Sampled :	November 3, 2009	Borehole No.:	BH L9	Sample No.:	SS 6	Depth (m) : 2.1 to 2.6
Sample Description :		Clayey Silt, some Sand, trace Gravel				
		Figure : 21				

Method of Test for Particle Size Analysis of Soil

MTO Test Method LS - 702, Rev. No. 19

Grain Size Distribution Curve

