

McINTOSH • LALANI ENGINEERING LTD.

March 25, 2008

AC Ltd.
Box 607
Okotoks, Alberta
T1F 1A7

M•L 3861

Attention: Mr. Brian McCaughan

Dear Sir:

**Subject: Preliminary Geotechnical Evaluation
55 Acres Residential Development
Lac St. Anne County, Alberta**

This letter report serves to present the results of the preliminary geotechnical evaluation, particle size analysis and near surface groundwater testing completed by McIntosh•Lalani Engineering Ltd. (M•L) at the above noted site. The site is located on Lot B, Plan 4722TR within the N.E. ¼ of Section 30-54-15-W5M and is heavily treed and undulating with cut lines running throughout the property and a high pressure gas line running northwest to southeast across the site.

Nine (9) subsurface investigation boreholes were drilled on January 23 and January 24, 2008 using a solid stem auger drill rig contracted from Mobile Augers and Research Ltd. of Calgary, Alberta. The nine (9) boreholes were drilled to depths ranging from 3.0 to 9.1 metres below the existing ground surface. Bulk samples of soil were obtained from the drill cutting and returned to the laboratory for testing. In addition, Standard Penetration Testing (SPT) was conducted on select boreholes to aid in classifying the soil strengths. Slotted PVC standpipes were installed in all of the boreholes to allow for future monitoring of groundwater levels. The borehole locations were selected by M•L and the approximate locations of the boreholes are presented in the attached Figure No. 1. Laboratory tests including natural moisture contents, soluble sulphate concentrations and hydrometer tests were conducted on select soil samples recovered from the boreholes. The laboratory test results are presented on the attached borehole logs and elsewhere in the text of this letter.

It is M•L's understanding that this project includes the development of the 55 acres into country residential lots. The project will consist of some site grading and the construction of new roadways and individual lot specific septic tile fields. This preliminary geotechnical evaluation serves for the purpose of design and subdivision approval. Prior to subdivision construction a complete geotechnical evaluation and percolation testing program should be completed to fully assess site conditions prior to final design. All recommendations given within this letter should be confirmed prior to subdivision construction upon completion of a complete geotechnical evaluation.

A surficial layer of topsoil was encountered in all nine (9) boreholes and ranged in thickness from 50 to 600 mm. The topsoil thicknesses are known only at discrete borehole locations and as such should not be used for tendering purposes. Beneath the topsoil interbedded layers of silts, sands and silty clays were encountered which extended beyond the maximum depth of 9.1 metres below the existing ground surface to which the boreholes were drilled. These silts, sands and silty clays were generally compact/stiff, damp, low plastic, medium grain, brown or grey in colour and contained traces of sand, gravel, clay, silt and cobbles. At the time this report was prepared, information on subsurface stratigraphy was available only at discrete borehole locations. Conditions were extrapolated and interpolated from the borehole locations to develop recommendations. Adequate monitoring should be provided during construction to check that these assumptions are reasonable.

Upon completion of drilling, all boreholes remained dry. Groundwater levels were obtained on February 5, 2008 and at that time groundwater levels ranged from 2.1 to dry to 9.1 metres below the existing ground surface.

Based on the results of the preliminary geotechnical investigation, conventional strip and spread footings may be used for residential structures within this development. The footings within native soils or on "general engineered" fill should be designed for a soil bearing capacity of 100 kPa. Bearing certificates should be prepared for all footings placed in fill by a qualified geotechnical engineers. Footings within heated structures should be founded at a depth of 1.4 metres below grade and for unheated structures at a depth of 2.1 metres below grade to protect against the effect of frost heaving.

Preliminary testing for soluble sulphate content has revealed sulphate levels of 0.014 percent, which indicates a negligible risk of sulphate attack on exposed concrete. Based upon this result Type GU (Normal Portland) cement with a maximum w/cm ratio of 0.5 and air entrainment of 4-7 percent by volume (based on 14-20 mm aggregate) may be used for this development. This results should be confirmed by further soluble sulphate testing upon completion of a complete geotechnical evaluation.

The composition and consistency of the site soils are such that conventional hydraulic excavators should be suitable to remove the soils. Due to groundwater levels, excavations may encounter groundwater infiltration and require dewatering. Sumps equipped with submersible pumps is considered a feasible method of dewatering and should effectively control the groundwater infiltration. Some cuts and fills may be required within this development. All organic topsoil and

vegetation should be removed from areas to be filled. The backfill should be "general engineered" fill placed in uniform lifts compacted to a minimum of 98 percent of Standard Proctor Density at a moisture content in the range of optimum to 3 percent above optimum.

M•L has completed a preliminary groundwater monitoring program on site. The groundwater levels range from 2.1 to dry to 9.1 metres below ground surface. A subsurface weeping tile subdrain system placed around the perimeter of all residential housing foundations is required as the measured groundwater level is within 2.1 metres of lowest top of footing. The weeping tile should be placed at the elevation of the underside of the footing. M•L should review the weeping tile requirements and final site grades prior to final design.

To determine the viability of septic tile field across the site, particle size analyses were conducted on select samples recovered from the boreholes. These particle size analyses were conducted rather than percolation testing due to frost conditions exceeding deeper than 45 cm below the ground surface. Four of the five hydrometer tests returned acceptable results with a maximum of 55 percent sand and a maximum of 19 percent clay while the fifth hydrometer conducted on Sample No. 1-1 from Borehole No. 1 returned a result of 82 percent sand and 11 percent clay indicating that percolation testing must be conducted in the vicinity of Borehole No. 1 after the frost has left the ground. The Alberta Environmental Protection's (AEP) guidelines for an acceptable range for soil particle size is a maximum of 70 percent sand and 35 percent clay. The result of the testing within the boreholes indicate that the particle size across the majority of the site is within the AEP's acceptable range for conventional septic field development purposes. This should be confirmed by percolation testing across the site once the frost has left the ground. All particle size analyses were conducted according to ASTM D-422, Standard Test Method for Particles - Size Analysis of Soils. The results of the hydrometer testing can be found on the borehole logs attached.

The AEP guidelines define a high groundwater table as any where the water table is within 1.8 metres of the ground surface during the frost free period up until the end of August, and within 2.4 metres of the ground surface during the remainder of the year. The water level was measured on February 5, 2008 and in eight of the nine boreholes was recorded to be dry at a depth of 3.0 metres below the existing ground level. The remaining borehole, Borehole No. 8, recorded a groundwater level of 2.1 metres below the existing ground surface. Based upon the borehole information, this groundwater reading is believed to be due to perched water located on or near the surface of the silty clay. This is believed to be a localized condition were water is perched on the silty clay and not a regional condition. This should be confirmed by more extensive groundwater monitoring conducted during a complete geotechnical evaluation. The groundwater readings are presented in the attached borehole logs.

Recommendations presented herein are based on a preliminary geotechnical evaluation of the findings in nine boreholes. This report has been prepared in accordance with generally accepted soil and foundation engineering practices. No warranty is expressed or implied.

We trust the enclosed meets with your present requirements. Should you have questions please contact our office.

Respectfully submitted,

McIntosh•Lalani Engineering Ltd.



Nicholas R. Payne, E.I.T

/clc

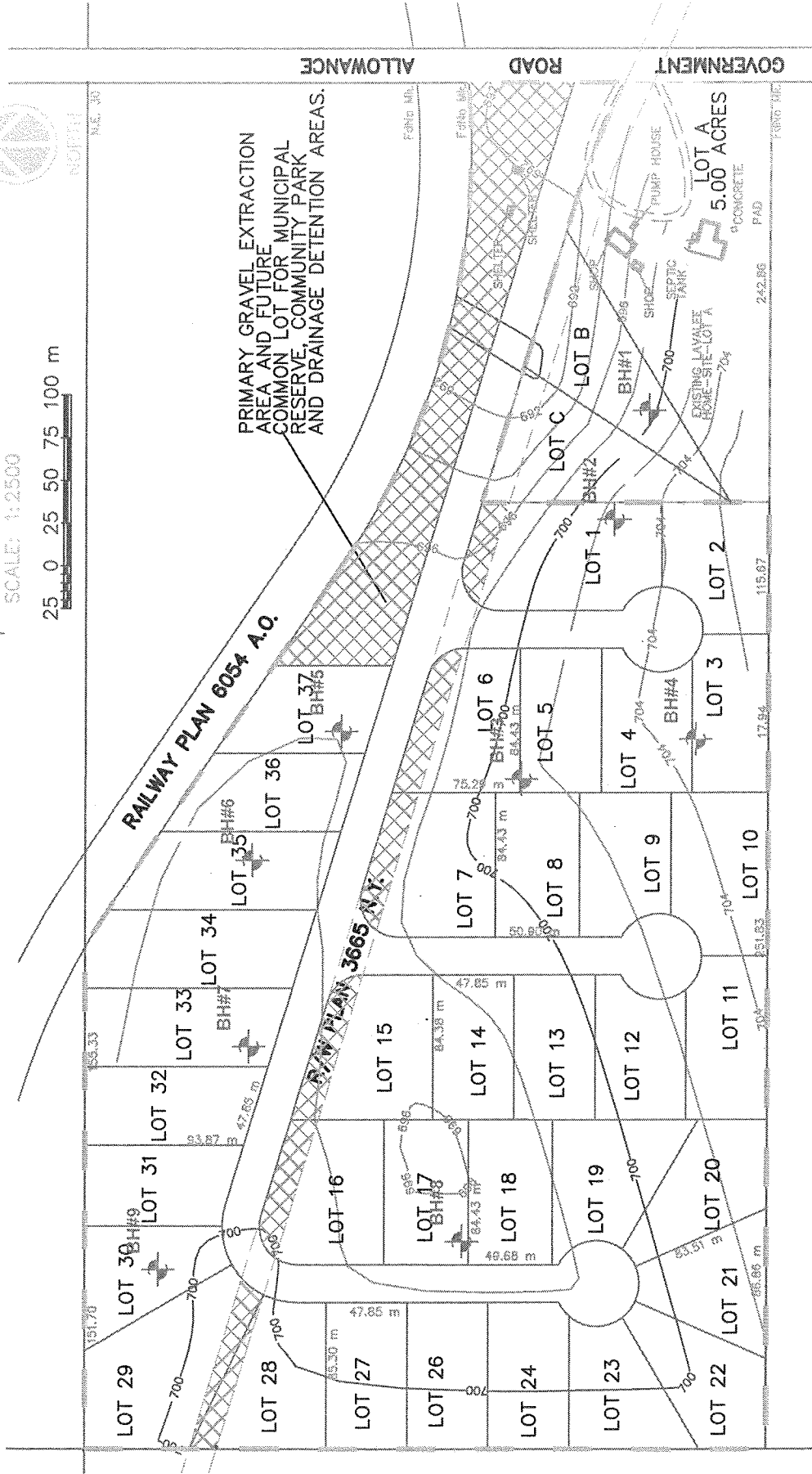


Marty D. Ward, P.Eng.
Senior Project Engineer

1 SITE PLAN

SCALE: 1:2500

25 0 25 50 75 100 m



— AREA OF PROPOSED FUTURE SUBDIVISION



— COMMON LOT FOR MUNICIPAL RESERVE, COMMUNITY PARK AND DRAINAGE DETENTION AREAS.

Client:	AC Ltd.	Date:	Feb. 20, 2008	Job#:	ML-3861	Figure:	Figure No. 1
Project:	55 Acre Parcel Residential Development	Scale:	N.T.S.				
Title:	Borehole Locations						

McIntosh Lalani Engineering Ltd.

Project: 55 Acre Residential Development		Drilling Information:			Borehole No.:1												
Client: AC Ltd.		Mobile Augers & Research Ltd.			Project No.:ML-3861												
M10 SS-Auger		Elevation:699.5															
SAMPLE TYPE		SHELBY TUBE		CORE SAMPLE		SPT SAMPLE		GRAB SAMPLE		AUGER SAMPLE		NO RECOVERY					
BACKFILL TYPE		BENTONITE		PEA GRAVEL		SLOUGH		GROUT		DRILL CUTTINGS		SAND					
Depth (m) Water Level	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USCS	BLOWS /150 mm	PLASTIC		M.C.	LIQUID	BLOW COUNT				OTHER DATA	SLOTTED PIEZOMETER	Elevation (m)
							10	20			10	20	30	40			
0		Topsoil-(Approx. 50mm Thick) Sand- medium grain, damp, compact, medium brown.			TPSL												699
1		-moist.		1-1			16.3							Clay = 11% Silt = 7% Sand = 82%		698	
2				1-2	SA	7-9-11										697	
3				1-3			21.8									696	
4		-water flowing. -silty clay lenses, medium plastic, trace fine gravel, moist. -medium grain sand, damp.		1-4	CI	3-3-6	21.0									695	
5		Silty Clay(Till)- low plastic, some sand, trace fine gravel, damp, stiff, dark grey.		1-5	SA											694	
6				1-6		3-4-5										693	
7				1-7												692	
8				1-8		6-8-12										691	
9				1-9	CL-ML											690	
				1-10		4-5-7										690	
				1-11												690	
		END OF HOLE AT 9.1M. Dry upon completion. 25mm PVC standpipe installed. Groundwater Readings: February 5,2008; 5.20M.															

ML STANDARD AUGER 3861.ONOWAY.GPJ M-L STANDARD.GDT 3/12/08



McIntosh Lalani Engineering
Calgary, AB
(403) 291-2345

Logged By: Ryan Stickel

Reviewed By: Marty Ward

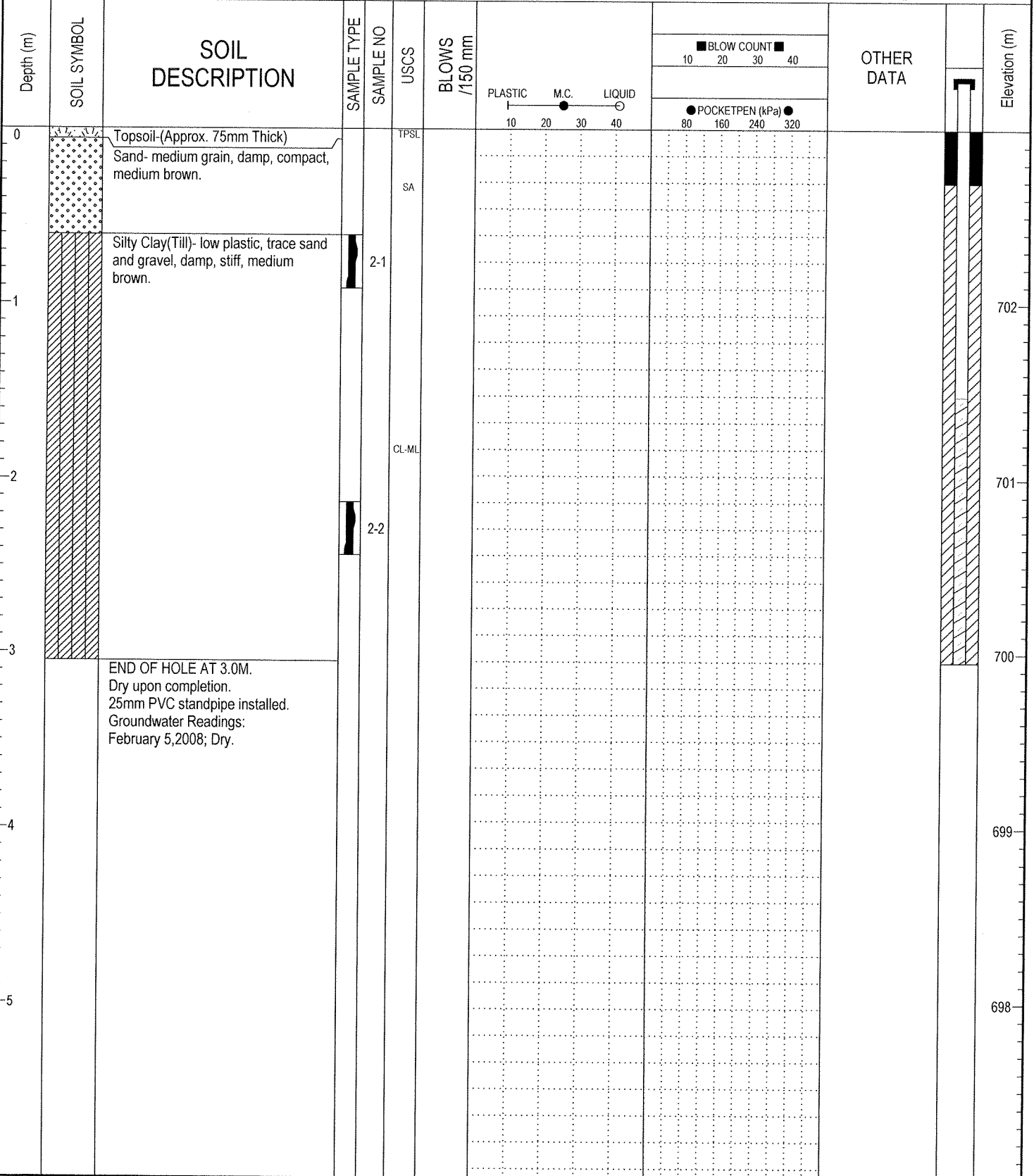
Groundwater Depth: 5.2 m

Completion Depth: 30 ft

Drilled on: 1/23/2008

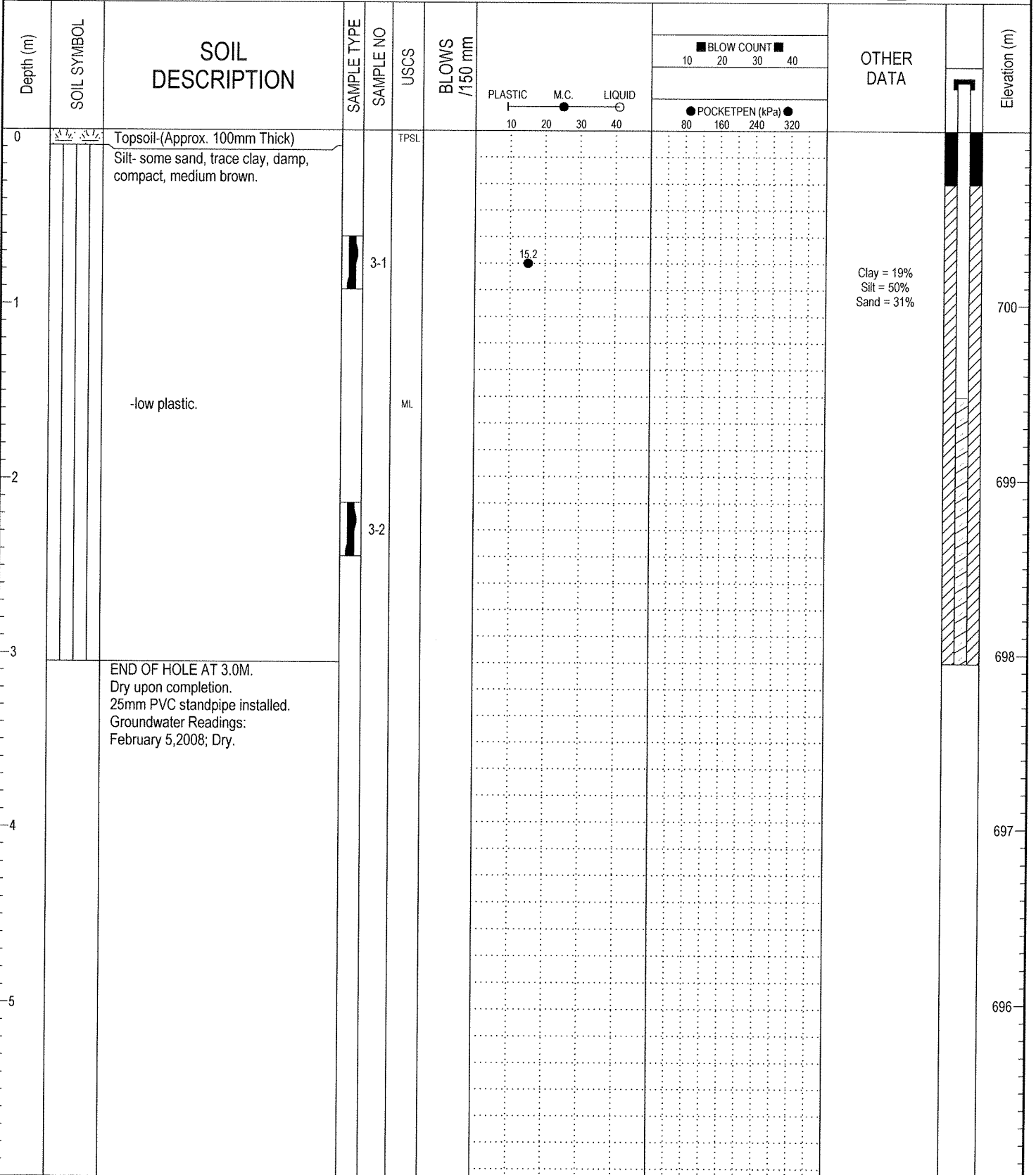
Page 1 of 1

Project: 55 Acre Residential Development		Drilling Information:		Borehole No.:2	
Client: AC Ltd.		Mobile Augers & Research Ltd.		Project No.:ML-3861	
M10 SS-Auger		Elevation:703			
SAMPLE TYPE <input checked="" type="checkbox"/> SHELBY TUBE <input type="checkbox"/> CORE SAMPLE <input checked="" type="checkbox"/> SPT SAMPLE <input type="checkbox"/> GRAB SAMPLE <input type="checkbox"/> AUGER SAMPLE <input type="checkbox"/> NO RECOVERY BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND					



ML STANDARD AUGER 3861.ONOWAY.GPJ M-L STANDARD.GDT 3/12/08

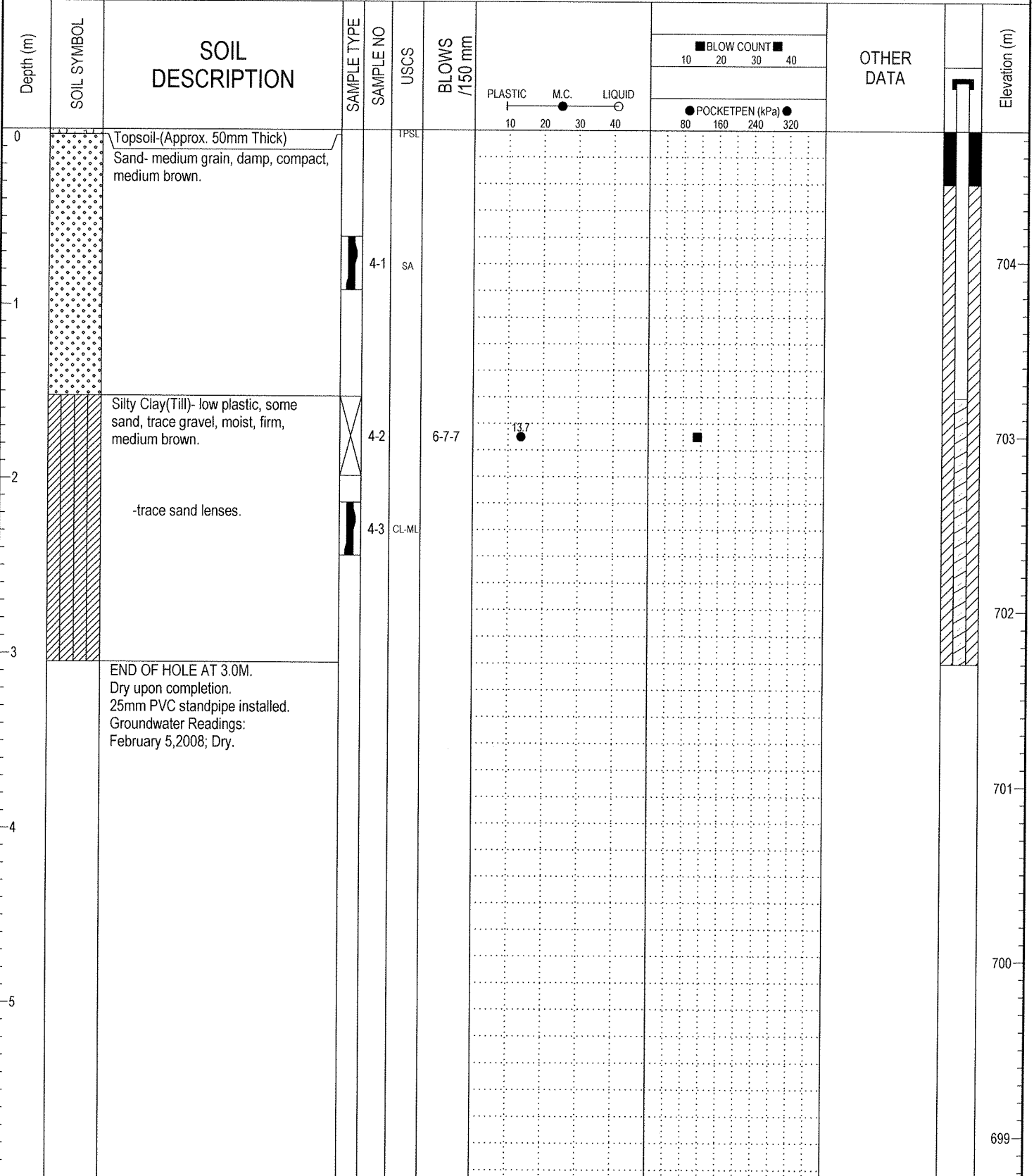
Project: 55 Acre Residential Development		Drilling Information:		Borehole No.:3			
		Mobile Augers & Research Ltd.		Project No.:ML-3861			
Client: AC Ltd.		M10 SS-Auger		Elevation:701			
SAMPLE TYPE		<input checked="" type="checkbox"/> SHELBY TUBE	<input type="checkbox"/> CORE SAMPLE	<input type="checkbox"/> SPT SAMPLE	<input type="checkbox"/> GRAB SAMPLE	<input type="checkbox"/> AUGER SAMPLE	<input type="checkbox"/> NO RECOVERY
BACKFILL TYPE		<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND



ML STANDARD AUGER 3861.ONOWAY.GPJ M-L STANDARD.GDT 3/12/08

	McIntosh Lalani Engineering Calgary, AB (403) 291-2345	Logged By: Ryan Stickel	Completion Depth: 10 ft
		Reviewed By: Marty Ward	Drilled on: 1/24/2008
		Groundwater Depth: m	Page 1 of 1

Project: 55 Acre Residential Development		Drilling Information:		Borehole No.:4		
		Mobile Augers & Research Ltd.		Project No.:ML-3861		
Client: AC Ltd.		M10 SS-Auger		Elevation:704.75		
SAMPLE TYPE	<input checked="" type="checkbox"/> SHELBY TUBE	<input type="checkbox"/> CORE SAMPLE	<input checked="" type="checkbox"/> SPT SAMPLE	<input type="checkbox"/> GRAB SAMPLE	<input type="checkbox"/> AUGER SAMPLE	<input type="checkbox"/> NO RECOVERY
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND



ML STANDARD AUGER 3861 ONOWAY.GPJ M-L STANDARD.GDT 3/12/08

Project: 55 Acre Residential Development		Drilling Information:		Borehole No.:5	
Client: AC Ltd.		Mobile Augers & Research Ltd.		Project No.:ML-3861	
		M10 SS-Auger		Elevation:698	
SAMPLE TYPE		<input checked="" type="checkbox"/> SHELBY TUBE	<input type="checkbox"/> CORE SAMPLE	<input checked="" type="checkbox"/> SPT SAMPLE	<input type="checkbox"/> GRAB SAMPLE
BACKFILL TYPE		<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT
		<input type="checkbox"/> AUGER SAMPLE	<input type="checkbox"/> NO RECOVERY	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

Depth (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USCS	BLOWS /150 mm	PLASTIC	M.C.	LIQUID	BLOW COUNT		OTHER DATA	Elevation (m)
										10	20		
0		Topsoil-(Approx. 75mm Thick) Sand- medium grain, damp, compact, medium brown.			TPSL								698
0.75		Silt- some sand, trace medium plastic clay lenses, damp, compact, medium brown.		5-1	SA								697
1.5				5-2	ML								696
3.0		END OF HOLE AT 3.0M. Dry upon completion. 25mm PVC standpipe installed. Groundwater Readings: February 5,2008; Dry.											695

ML STANDARD AUGER 3861.ONOWAY.GPJ M-L STANDARD.GDT 3/12/08



McIntosh Lalani Engineering
Calgary, AB
(403) 291-2345

Logged By: Ryan Stickel
Reviewed By: Marty Ward
Groundwater Depth: m

Completion Depth: 10 ft
Drilled on: 1/24/2008
Page 1 of 1

Project: 55 Acre Residential Development			Drilling Information:			Borehole No.:6					
Client: AC Ltd.			Mobile Augers & Research Ltd.			Project No.:ML-3861					
M10 SS-Auger			Elevation:699.7								
SAMPLE TYPE			<input checked="" type="checkbox"/> SHELBY TUBE <input type="checkbox"/> CORE SAMPLE <input checked="" type="checkbox"/> SPT SAMPLE <input type="checkbox"/> GRAB SAMPLE <input type="checkbox"/> AUGER SAMPLE <input type="checkbox"/> NO RECOVERY								
BACKFILL TYPE			<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND								
Depth (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USCS	BLOWS /150 mm	PLASTICITY		POCKETPEN (kPa)	OTHER DATA	Elevation (m)
							PLASTIC	M.C.			
0		Topsoil-(Approx. 50mm Thick) Silty Sand- damp, compact, medium brown.			TPSL						
0.5				6-1	SM		15.9			Clay = 15% Silt = 38% Sand = 47%	699
1.5		Silty Clay(Till)- low plastic, some sand lenses throughout, trace gravel, damp, stiff, medium brown.		6-2	4-4-4						698
2.5				6-3	CL-ML						697
3.0		END OF HOLE AT 3.0M. Dry upon completion. 25mm PVC standpipe installed. Groundwater Readings: February 5,2008; Dry.									696
4.0											695
5.0											694

ML STANDARD AUGER 3861. ONOWAY GPJ M-L STANDARD GDT 3/12/08



McIntosh Lalani Engineering
Calgary, AB
(403) 291-2345

Logged By: Ryan Stickel
Reviewed By: Marty Ward
Groundwater Depth: m

Completion Depth: 10 ft
Drilled on: 1/24/2008
Page 1 of 1

Project: 55 Acre Residential Development			Drilling Information:			Borehole No.:7				
			Mobile Augers & Research Ltd.			Project No.:ML-3861				
Client: AC Ltd.			M10 SS-Auger			Elevation:699				
SAMPLE TYPE			■ SHELBY TUBE	▬ CORE SAMPLE	⊗ SPT SAMPLE	⊗ GRAB SAMPLE	▬ AUGER SAMPLE	▬ NO RECOVERY		
BACKFILL TYPE			■ BENTONITE	▬ PEA GRAVEL	▬ SLOUGH	▬ GROUT	▬ DRILL CUTTINGS	▬ SAND		
Depth (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USCS	BLOWS /150 mm	PLASTIC M.C. LIQUID		OTHER DATA	Elevation (m)
							10 20 30 40	10 20 30 40		
0		Topsoil-(Approx. 75mm Thick) Sand- medium grain, some silt, damp, compact, medium brown.			TPSL					
1		Silty Clay(Till)- medium plastic, trace sand, moist, very stiff, medium brown.		7-1	SA					698
2				7-2	CI					697
3		END OF HOLE AT 3.0M. Dry upon completion. 25mm PVC standpipe installed. Groundwater Readings: February 5,2008; Dry.								696
4										695
5										694

ML STANDARD AUGER 3861, ONOWAY GPJ M-L STANDARD GDT 3/12/08



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Calgary, AB
(403) 291-2345

Logged By: Ryan Stickel	Completion Depth: 10 ft
Reviewed By: Marty Ward	Drilled on: 1/24/2008
Groundwater Depth: m	Page 1 of 1

Project: 55 Acre Residential Development			Drilling Information:			Borehole No.:8						
Client: AC Ltd.			Mobile Augers & Research Ltd.			Project No.:ML-3861						
SAMPLE TYPE			M10 SS-Auger			Elevation:697						
<input checked="" type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> CORE SAMPLE <input checked="" type="checkbox"/> SPT SAMPLE <input checked="" type="checkbox"/> GRAB SAMPLE <input checked="" type="checkbox"/> AUGER SAMPLE <input type="checkbox"/> NO RECOVERY			BACKFILL TYPE			<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND						
Depth (m) Water Level	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USCS	BLOWS /150 mm	PLASTICITY INDEX		POCKETPEN (kPa)		OTHER DATA	Elevation (m)
							PLASTIC	M.C.	LIQUID	80		
0		Topsoil-(Approx. 600mm Thick)			TPSL							
0.8		Sand- trace silt, moist, compact, dark grey. -dilatent.		8-1	SA	22.3					Clay = 14% Silt = 31% Sand = 55%	696
2.1		Silty Clay(Lacusterine)- low plastic with trace medium plastic lenses, trace sand, moist, soft, medium grey.		8-2	CL-ML							695
3.0		END OF HOLE AT 3.0M. Dry upon completion. 25mm PVC standpipe installed. Groundwater Readings: February 5,2008; 2.10M.										694
4.0												693
5.0												692

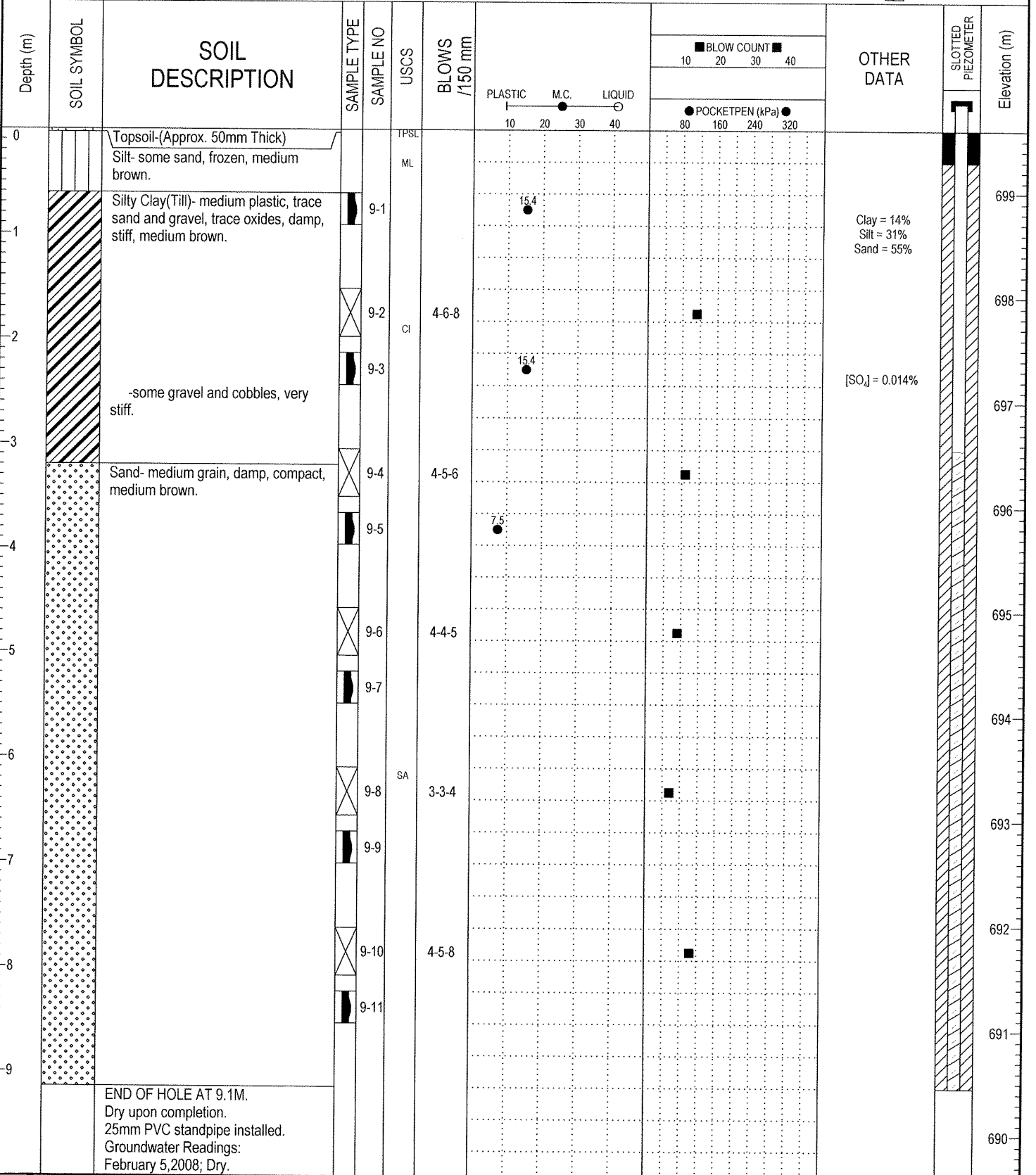
ML STANDARD AUGER 3861.ONOWAY.GPJ M-L STANDARD.GDT 3/12/08



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Logged By: Ryan Stickel	Completion Depth: 10 ft
Reviewed By: Marty Ward	Drilled on: 1/24/2008
Groundwater Depth: 2.1 m	Page 1 of 1

Project: 55 Acre Residential Development		Drilling Information:		Borehole No.:9		
Client: AC Ltd.		Mobile Augers & Research Ltd.		Project No.:ML-3861		
M10 SS-Auger		Elevation:699.6				
SAMPLE TYPE	■ SHELBY TUBE	▨ CORE SAMPLE	⊗ SPT SAMPLE	☞ GRAB SAMPLE	▩ AUGER SAMPLE	▭ NO RECOVERY
BACKFILL TYPE	■ BENTONITE	▨ PEA GRAVEL	▨ SLOUGH	☞ GROUT	▨ DRILL CUTTINGS	▭ SAND



END OF HOLE AT 9.1M.
 Dry upon completion.
 25mm PVC standpipe installed.
 Groundwater Readings:
 February 5,2008; Dry.

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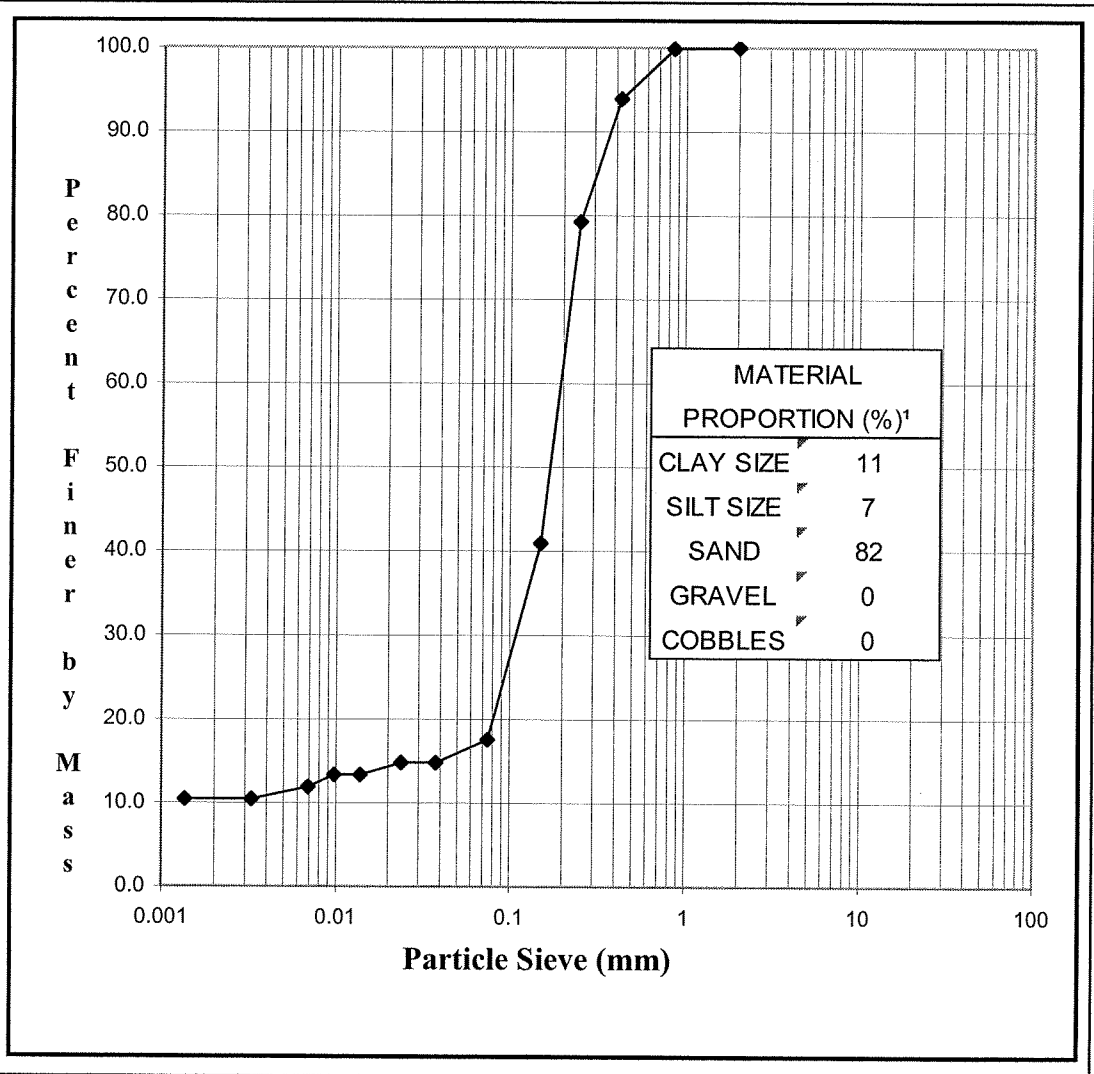
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STANDARD TEST METHOD FOR PARTICLE SIZE

(Test Method ASTM D422)

PROJECT: **55 ACRE PARCEL**
 CLIENT: AC LTD.
 PROJECT NO.: ML-3861
 LOCATION: BH 1-1
 SAMPLE NO.: 11147
 DEPTH:
 DESCRIPTION: Sand, Trace Silt, & Clay

PARTICLE SIZE	PERCENT PASSING
100 mm	
75 mm	
50 mm	
38 mm	
25 mm	
19 mm	
12.5 mm	
10 mm	
5 mm	
2 mm	100.0
850 µm	99.9
425 µm	93.9
250 µm	79.3
150 µm	40.9
75 µm	17.6
38 µm	14.8
24 µm	14.8
14 µm	13.4
10 µm	13.4
7 µm	11.9
3 µm	10.5
1 µm	10.5



Reviewed by: *Wats Wong* P.Eng.

Note 1: Classified by the Modified Unified Soil Classification System

Data presented hereon is for the sole use of the stipulated client. ML is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of ML.

The testing services reported herein have been performed by an ML technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, ML will provide it upon written request.



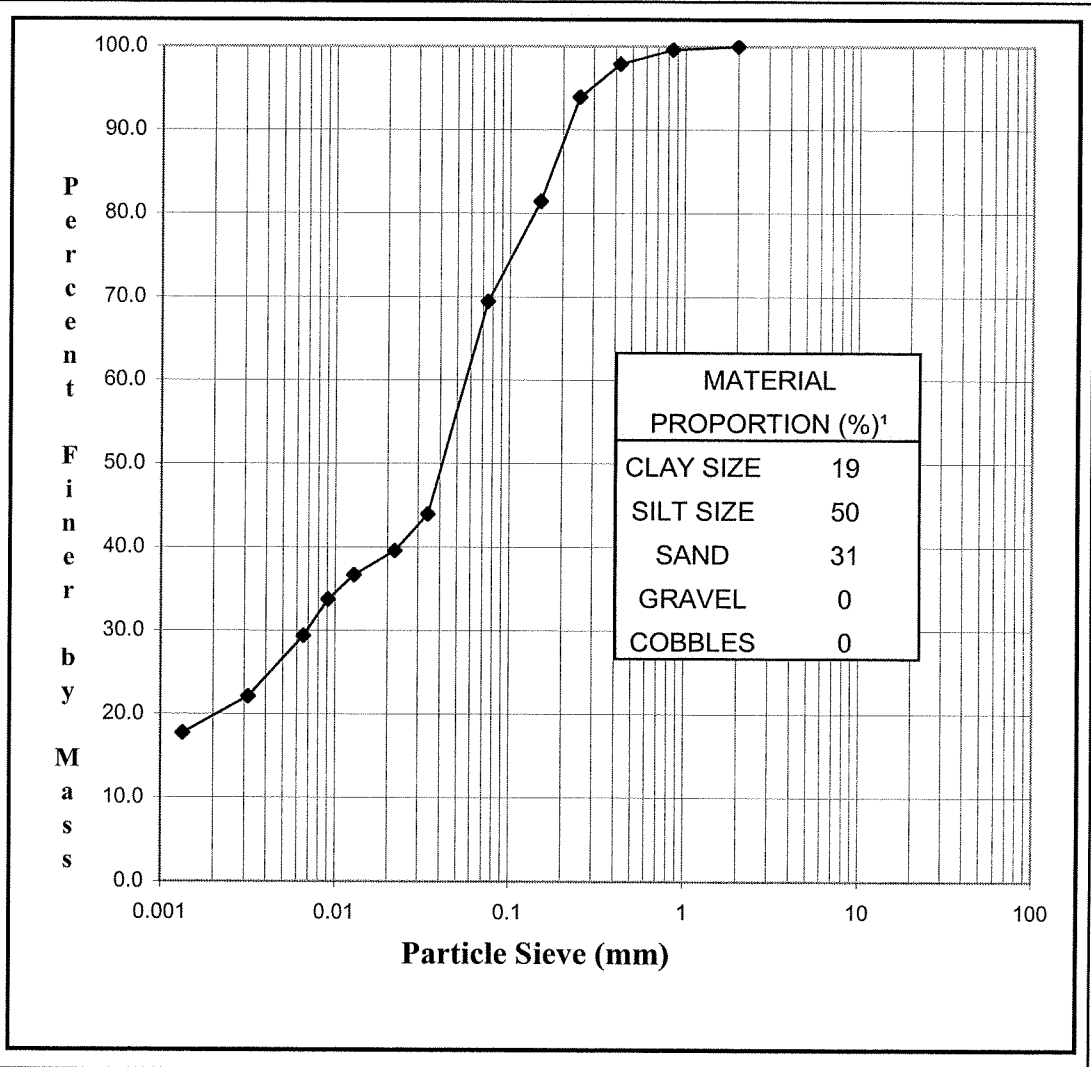
McINTOSH LALANI ENGINEERING LTD.

STANDARD TEST METHOD FOR PARTICLE SIZE

(Test Method ASTM D422)

PROJECT: **55 ACRE PARCEL**
 CLIENT: AC LTD.
 PROJECT NO.: ML-3861
 LOCATION: BH 3-1
 SAMPLE NO.: 11147
 DEPTH:
 DESCRIPTION: SILT, Some Sand & Clay

PARTICLE SIZE	PERCENT PASSING
100 mm	
75 mm	
50 mm	
38 mm	
25 mm	
19 mm	
12.5 mm	
10 mm	
5 mm	
2 mm	100.0
850 µm	99.6
425 µm	97.9
250 µm	93.9
150 µm	81.4
75 µm	69.5
34 µm	43.9
22 µm	39.6
13 µm	36.7
9 µm	33.8
7 µm	29.4
3 µm	22.1
1 µm	17.8



Reviewed by: *[Signature]* P.Eng.

Note 1: Classified by the Modified Unified Soil Classification System

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The testing services reported herein have been performed by an ML technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, ML will provide it upon written request.



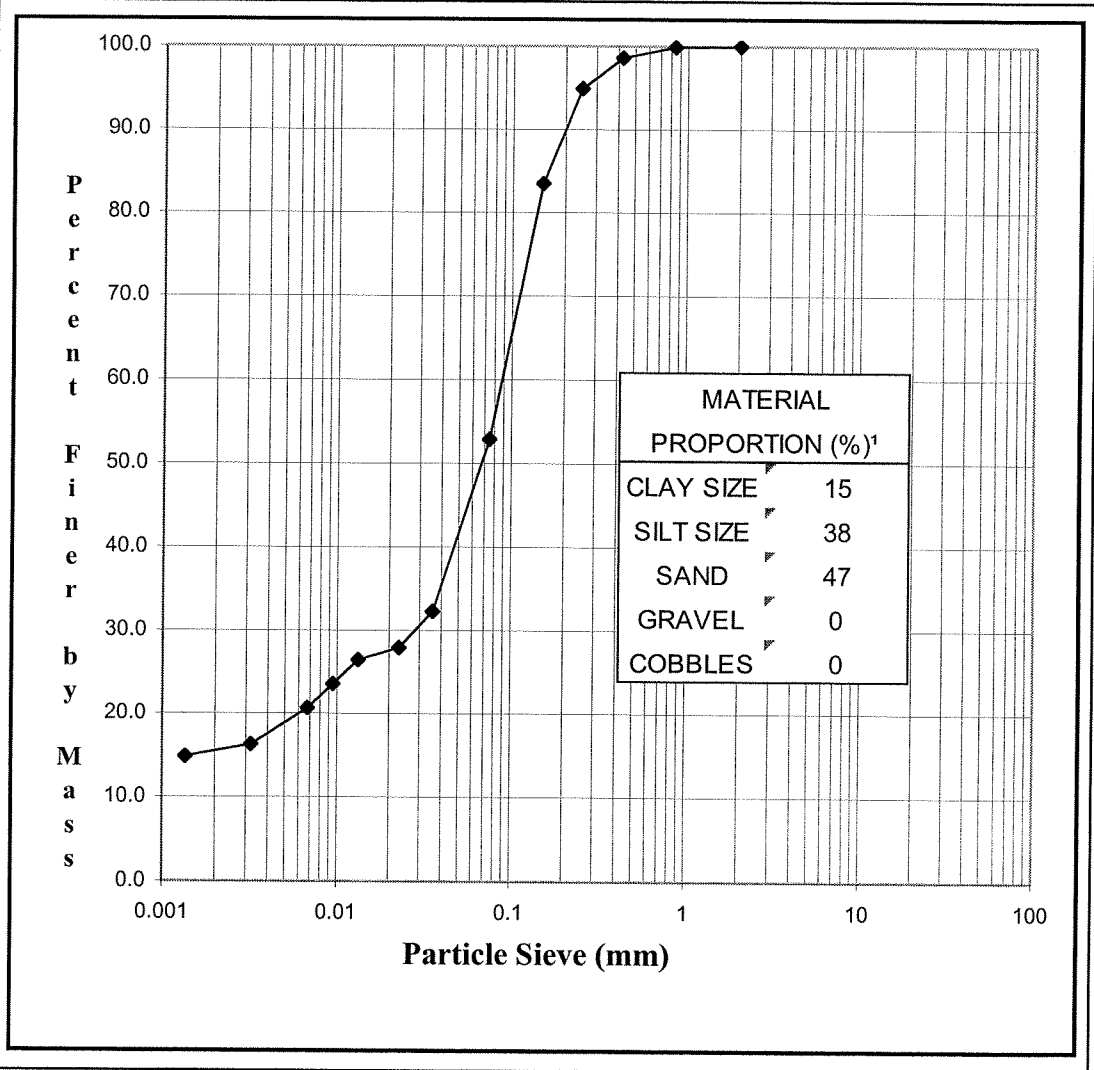
McINTOSH LALANI ENGINEERING LTD.

STANDARD TEST METHOD FOR PARTICLE SIZE

(Test Method ASTM D422)

PROJECT: **55 ACRE PARCEL**
 CLIENT: AC LTD.
 PROJECT NO.: ML-3861
 LOCATION: BH 6-1
 SAMPLE NO.: 11147
 DEPTH:
 DESCRIPTION: Silty Sand, Some Clay

PARTICLE SIZE	PERCENT PASSING
100 mm	
75 mm	
50 mm	
38 mm	
25 mm	
19 mm	
12.5 mm	
10 mm	
5 mm	
2 mm	100.0
850 μm	99.9
425 μm	98.6
250 μm	94.9
150 μm	83.5
75 μm	52.9
36 μm	32.3
23 μm	27.9
13 μm	26.5
9 μm	23.6
7 μm	20.7
3 μm	16.3
1 μm	14.8



Reviewed by: *W. S. D.* P.Eng.

Note 1: Classified by the Modified Unified Soil Classification System

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The testing services reported herein have been performed by an ML technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, ML will provide it upon written request.



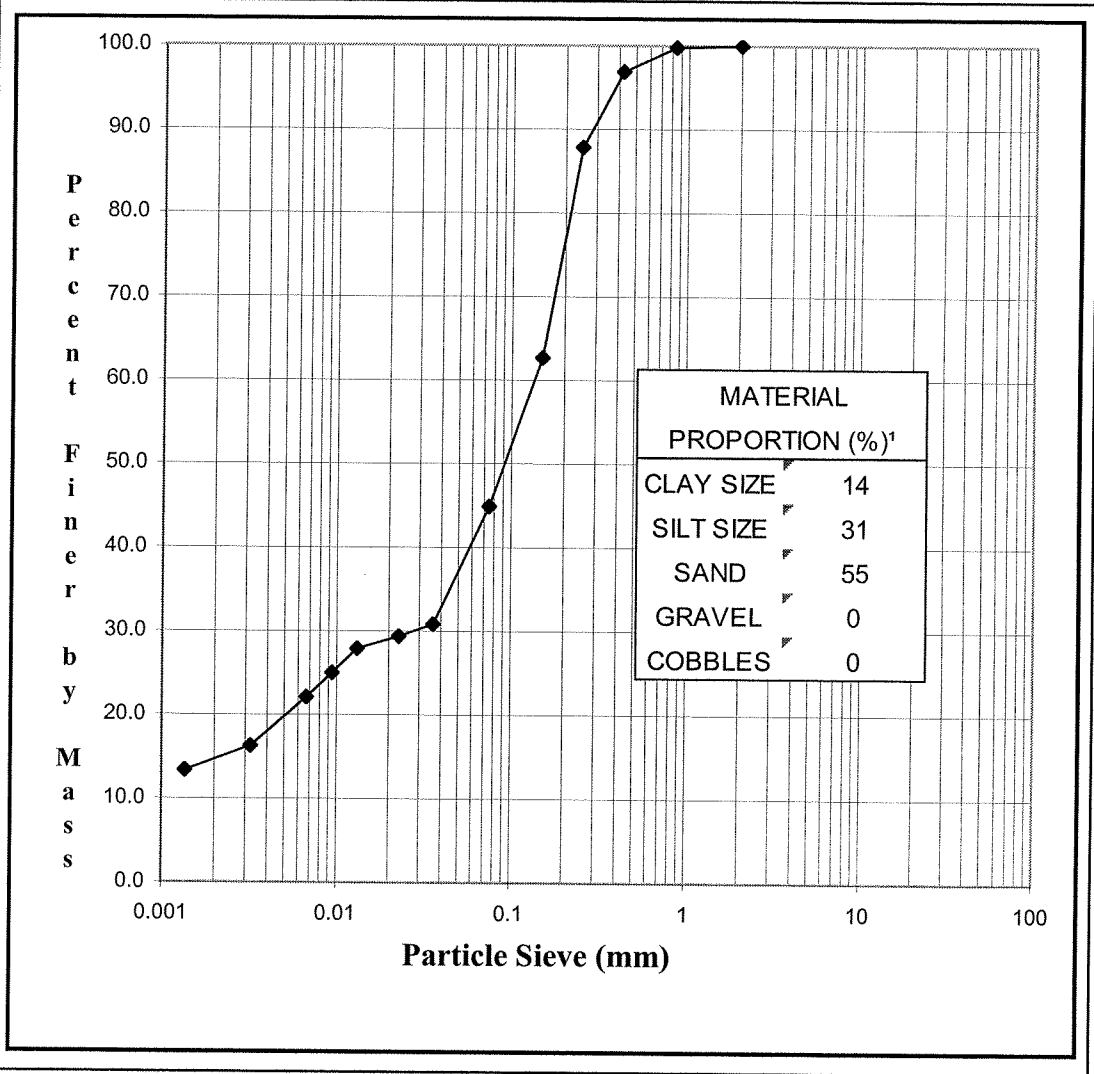
McINTOSH LALANI ENGINEERING LTD.

STANDARD TEST METHOD FOR PARTICLE SIZE

(Test Method ASTM D422)

PROJECT: **55 ACRE PARCEL**
 CLIENT: AC LTD.
 PROJECT NO.: ML-3861
 LOCATION: BH 8-1
 SAMPLE NO.: 11147
 DEPTH:
 DESCRIPTION: Sand, Some Silt & Clay

PARTICLE SIZE	PERCENT PASSING
100 mm	
75 mm	
50 mm	
38 mm	
25 mm	
19 mm	
12.5 mm	
10 mm	
5 mm	
2 mm	100.0
850 µm	99.8
425 µm	96.9
250 µm	87.8
150 µm	62.7
75 µm	44.9
36 µm	30.8
23 µm	29.4
13 µm	27.9
9 µm	25.0
7 µm	22.1
3 µm	16.3
1 µm	13.4



Reviewed by: *[Signature]* P.Eng.

Note 1: Classified by the Modified Unified Soil Classification System

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The testing services reported herein have been performed by an ML technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, ML will provide it upon written request.



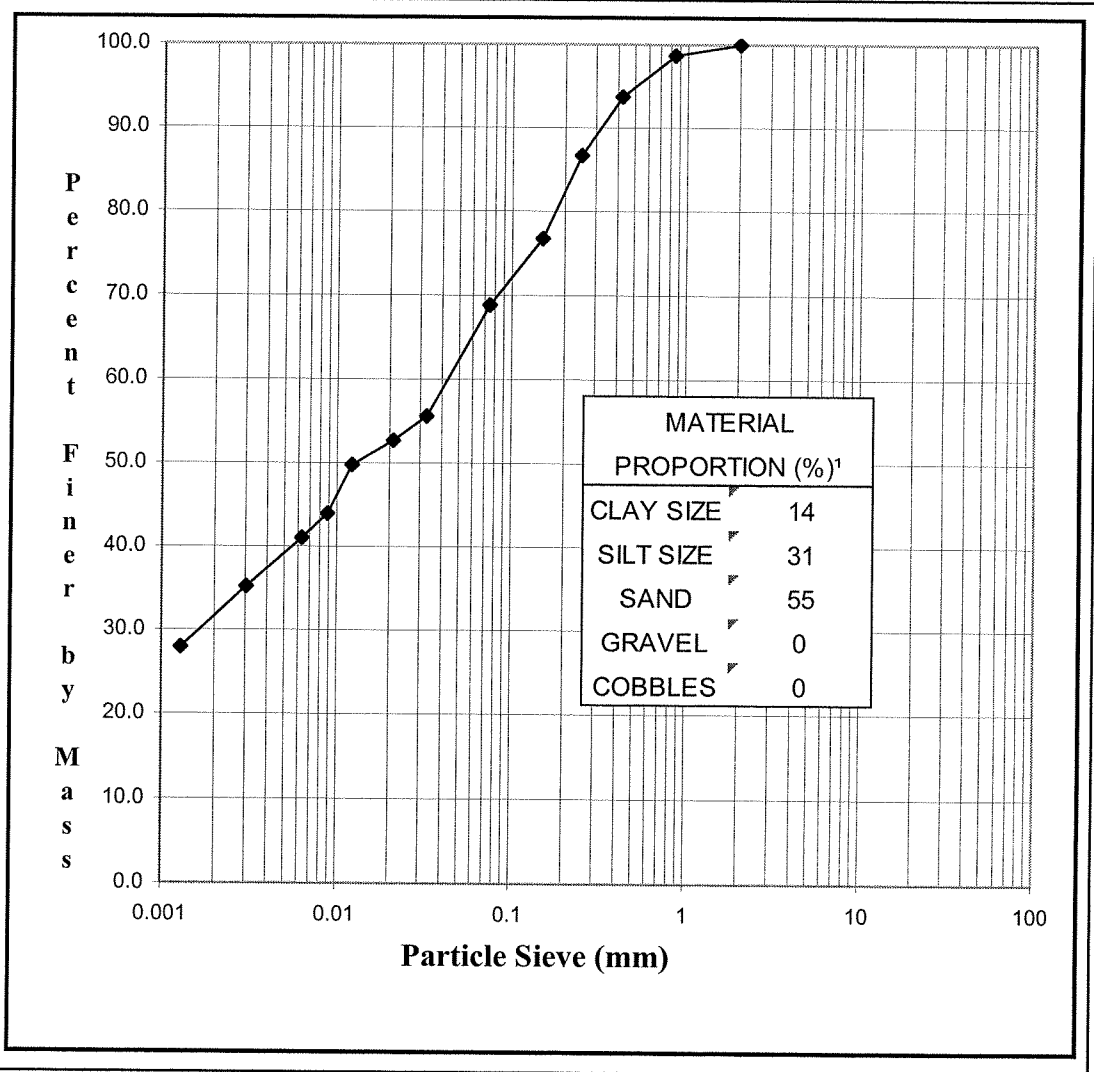
McINTOSH LALANI ENGINEERING LTD.

STANDARD TEST METHOD FOR PARTICLE SIZE

(Test Method ASTM D422)

PROJECT: **55 ACRE PARCEL**
 CLIENT: AC LTD.
 PROJECT NO.: ML-3861
 LOCATION: BH 9-1
 SAMPLE NO.: 11147
 DEPTH:
 DESCRIPTION: Sand, Some Silt & Clay

PARTICLE SIZE	PERCENT PASSING
100 mm	
75 mm	
50 mm	
38 mm	
25 mm	
19 mm	
12.5 mm	
10 mm	
5 mm	
2 mm	100.0
850 μm	98.7
425 μm	93.7
250 μm	86.7
150 μm	76.7
75 μm	68.8
33 μm	55.6
21 μm	52.7
12 μm	49.8
9 μm	43.9
6 μm	41.0
3 μm	35.2
1 μm	27.9



Reviewed by: *Ma S Ward* P.Eng.

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