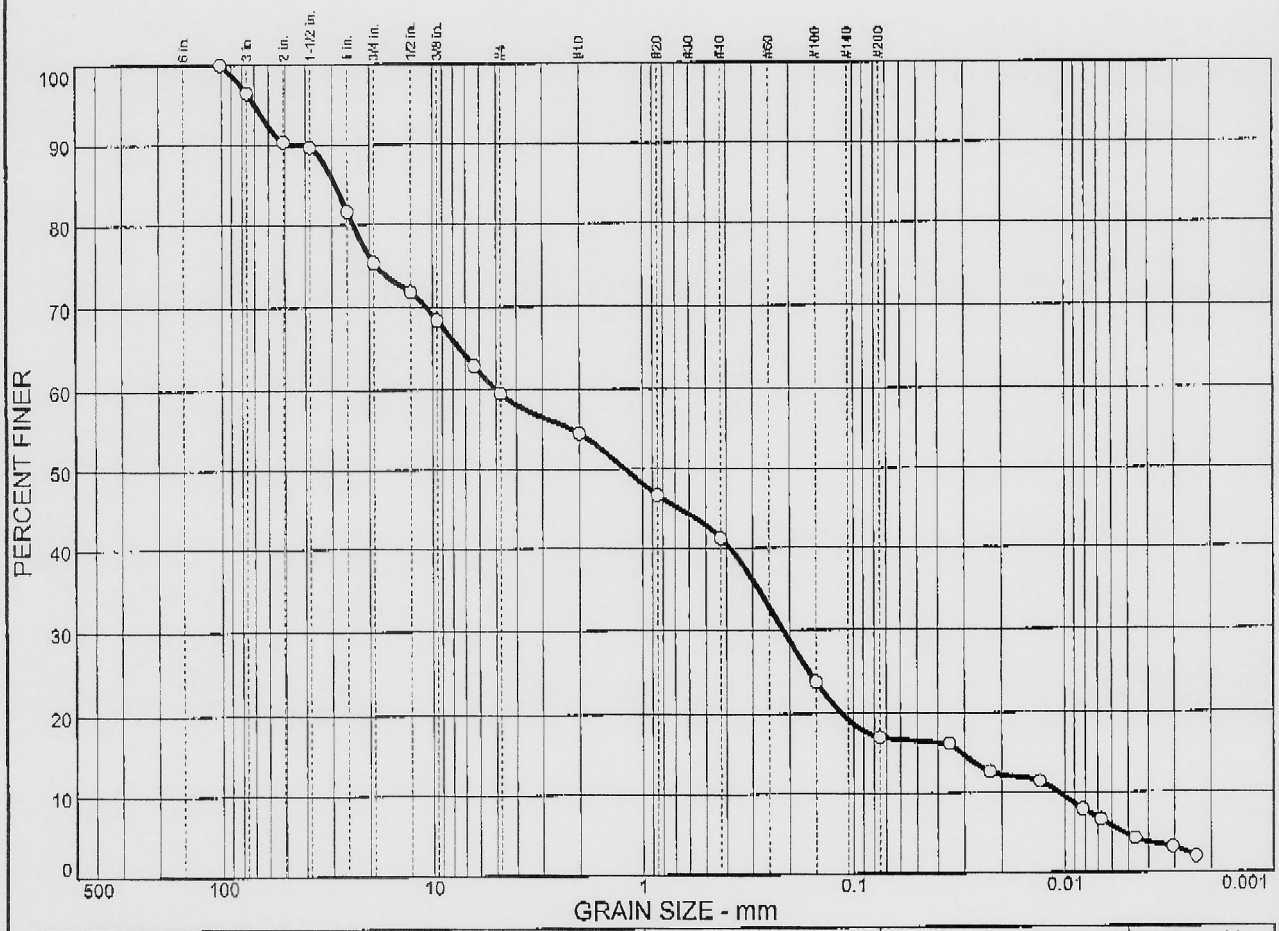
Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
3.5	37.0	42.5	12.3	4.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
4 in.	100.0		
3 in.	96.5		
2 in.	90.3		
1.5 in.	89.6		
1 in.	81.6		
.75 in.	75.3		
.5 in.	71.8		
.375 in.	68.4		
.25 in.	62.9		
#4	59.5		
#10	54.5		
#20	46.7		
#40	41.2		
#100	23.7		
#200	17.0		

* (no specification provided)

Soil Description

COMPOSITE SAMPLE
TP-1 TO TP-3

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 29.1 D_{60}= 4.99 D_{50}= 1.21
D_{30}= 0.215 D_{15}= 0.0312 D_{10}= 0.0107
C_u= 467.65 C_c= 0.87

Classification

USCS= AASHTO=

Remarks

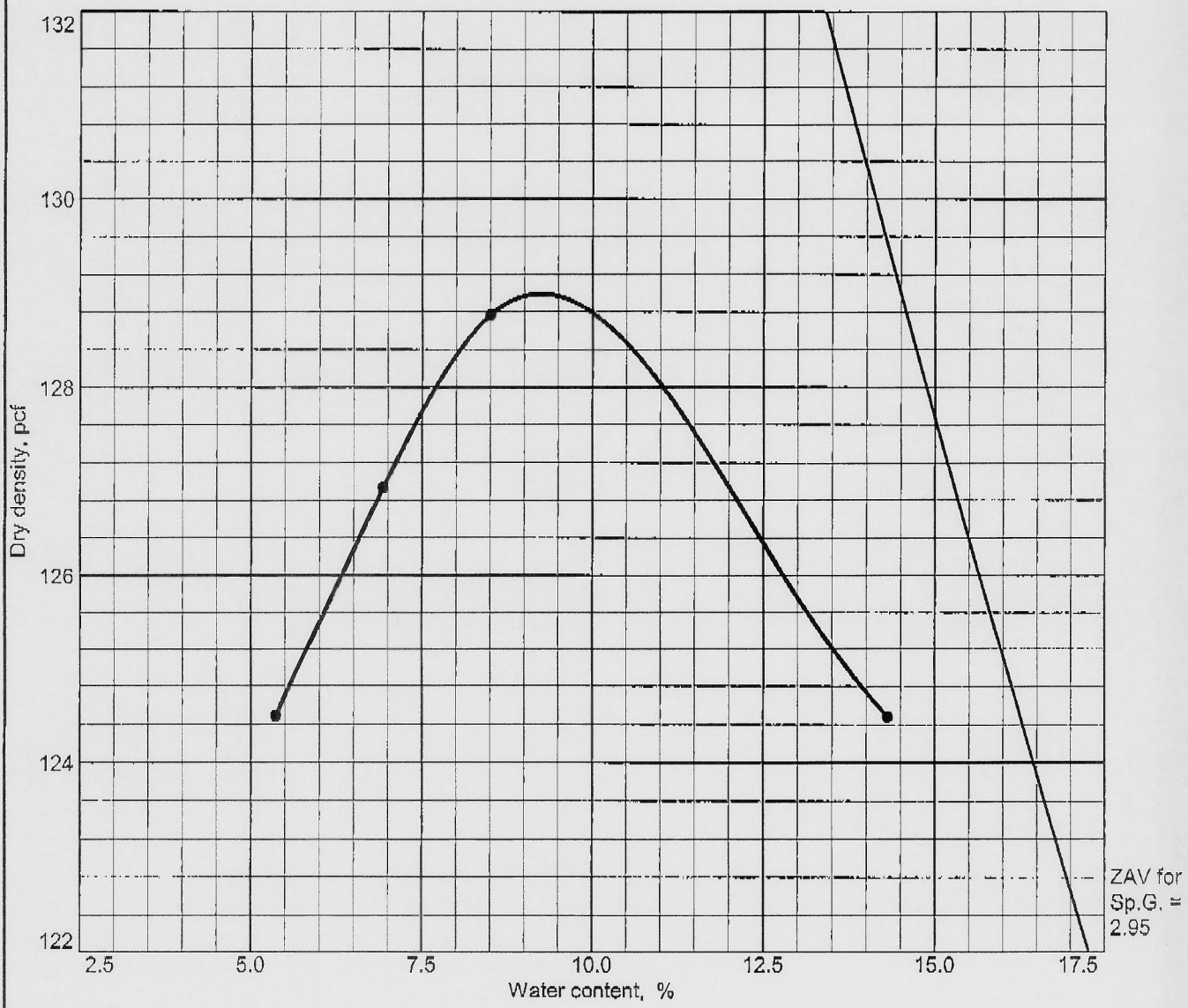
SAMPLE NUMBER: BT-08-977

Sample No.: 08-977 **Source of Sample:** TP-1 TO TP-3 **Date:** 10/24/08
Location: COMPOSITE SAMPLE **Elev./Depth:**

SJB SERVICES, INC.

Client: NYS DEPT OF ENV. CONSERVATION
Project: BELLEAYRE MOUNTAIN - PROPOSED POND
Project No: AD-08-051 **Plate**

COMPACTION TEST REPORT



Test specification: ASTM D 698-02 Procedure C Standard
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.75			24.7	17.0

ROCK CORRECTED TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 129.0 pcf Optimum moisture = 9.2 %	COMPOSITE SAMPLE TP-1 TO TP-3

Project No. AD-08-051 **Client:** NYS DEPT OF ENV. CONSERVATION
Project: BELLEAYRE MOUNTAIN - PROPOSED POND
● **Location:** COMPOSITE SAMPLE

Remarks:
SAMPLE NUMBER: BT-08-977

COMPACTION TEST REPORT

SJB SERVICES, INC.

Plate

PERMEABILITY TEST REPORT

TEST DATA:

Specimen Height (cm): 11.61
Specimen Diameter (cm): 10.15
Dry Unit Weight (pcf): 122.4
Moisture Before Test (%): 9.1
Moisture After Test (%): 9.7
Run Number: 1 ● 2 ▲
Cell Pressure (psi): 95.0

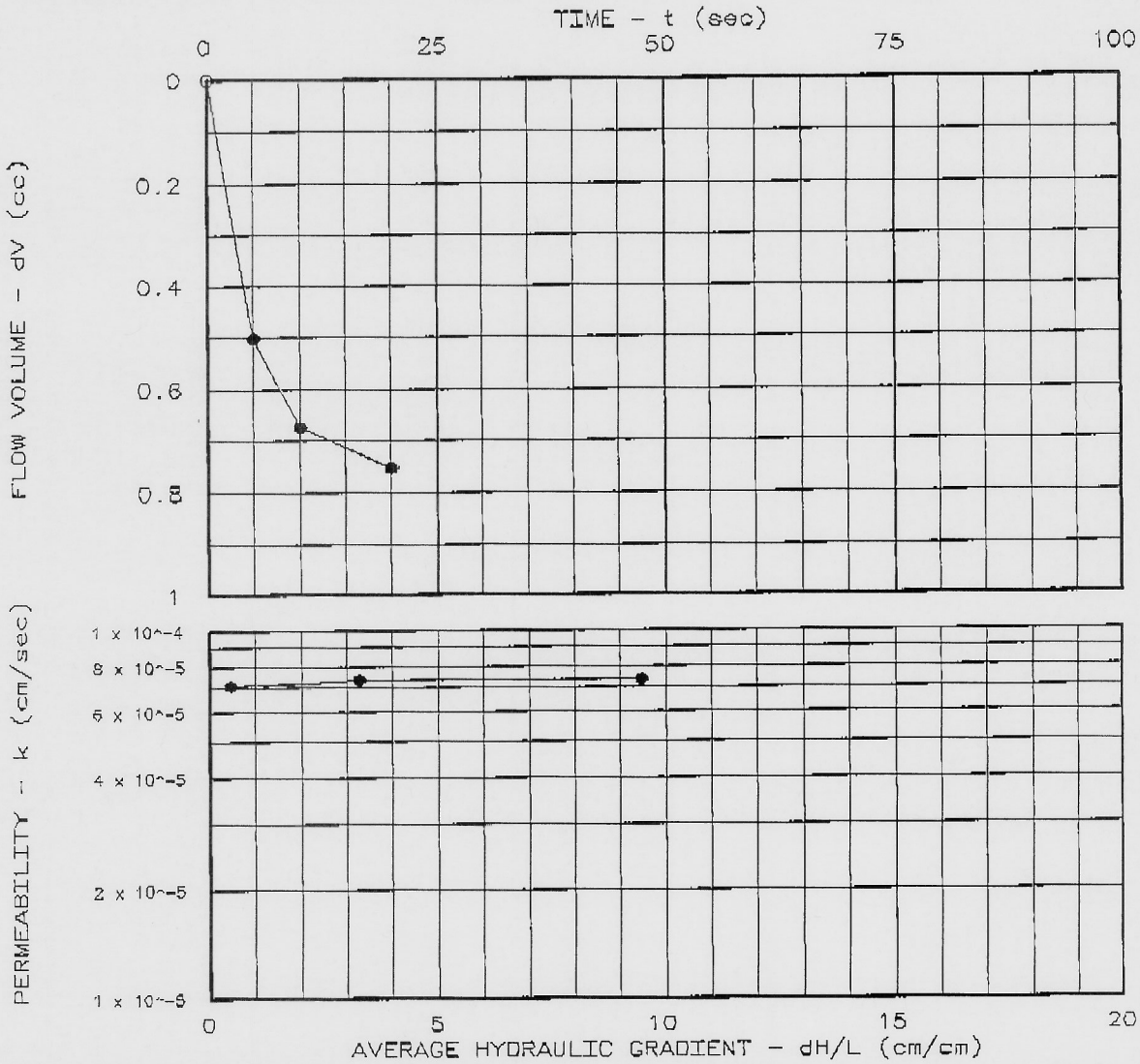
Sat. Pressure (psi): 80.0
Diff. Head (psi): 2.3

Perm. (cm/sec): 7.25 x 10^-5

SAMPLE DATA:

Sample Identification: COMPOSITE SAMPLE TP-1 TO TP-3
Visual Description: COMPOSITE SAMPLE TP-1 TO TP-3
Remarks: ASTM D2434

Maximum Dry Density (pcf): 129.0
Optimum Moisture Content (%): 8.2
ASTM(D698)
Percent Compaction: 94.9%
Permeameter type:
Sample type: re-molded



Project: BELLEAYRE MOUNTAIN - PROPOSED POND
Location:
Date: 10/24/08

PERMEABILITY TEST REPORT

SJB SERVICES, INC.

Project No.: AD-08-051
File No.: BT-08-977
Lab No.: BT-08-977
Tested by: pg
Checked by: pg
Test: CV - Constant volume

GeoTesting express

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Client:	SJB Services, Inc.		
Project Name:	Belleayre Mountain - Proposed Pond		
Project Location:	Highmount, NY		
GTX #:	8627		
Start Date:	10/31/08	Tested By:	bfs
End Date:	11/04/08	Checked By:	rmt
Soil ID:	BT-08-977 (TP-1 to TP-3)		
Soil Description:	Moist, olive gray silt with gravel		

Direct Shear Test Series by ASTM D 3080

Soil Preparation:	Target Compaction: 122.6 pcf at 9.2% moisture content (values provided by client).		
Compaction Characteristics:	Maximum Dry Density	--- pcf	
	Optimum Moisture Content	--- %	
	Compaction Test Method	---	
Test Equipment:	Top box = 12 in x 12 in; Bottom box = 16 in x 12 in; Load cells and LVDTs connected to data acquisition system for shear force, normal load and horizontal displacement readings; surface area = 144 in^2		
Maximum Particle Size Used, in:	1.5	Horizontal Displacement, in/min:	0.02
Soil Height, in:	3	Test Condition:	inundated
Gap Between Boxes, in:	1		

Parameter	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Initial Moisture Content, %	9.3	9.3	9.3	---	---	---
Initial Dry Density, pcf	122	122	122	---	---	---
Percent Compaction, %	---	---	---	---	---	---
Normal Compressive Stress, psi	10	20	40	---	---	---
Peak Shear Stress, psi	7.1	14	28	---	---	---
Post Peak Shear Stress, psi	---	---	---	---	---	---
Final Moisture Content, %	11.9	11.4	10.6	---	---	---

Notes:

Peak Friction Angle:	**35**	**degrees**
Peak Cohesion:	**0.1**	**psi**
Post Peak Friction Angle:	**---**	**degrees**
Post Peak Cohesion:	**---**	**psi**

Figure a. Shear Force vs. Horizontal Displacement

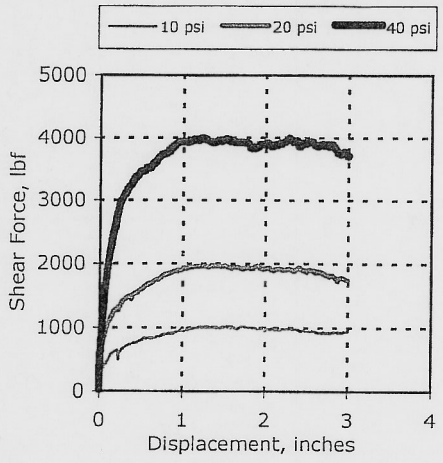
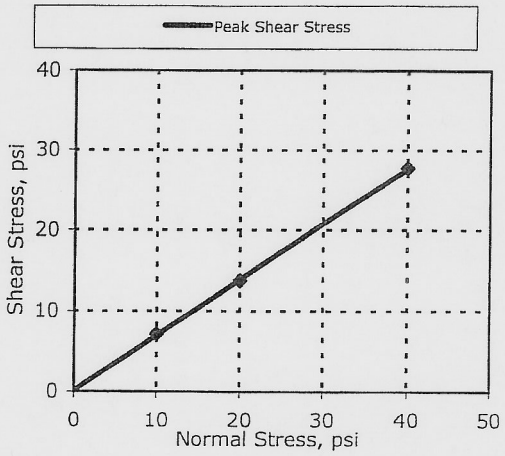


Figure b. Shear Stress vs. Normal Stress



Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material. Values for cohesion and friction angle determined from best-fit straight line to the data for the specific test conditions. Actual strength parameters may vary and should be determined by an engineer for site-specific conditions.