FALLING-HEAD PERMEABILITY TEST WITH CONSOLIDOMETER

DATE _____

PROJECT _____

BORING NO. _____

SAMPLE OR SPECIMEN NO.

WT IN GRAMS	TARE PLUS DRY SOIL			DIAMETER OF SPECIMEN, CM	D		
	TARE			AREA OF SPECIMEN, SQ CM	A		
	DRY SOIL	W_S		INITIAL HEIGHT OF SPECIMEN, CM	L		
SPECIFIC GRAVITY		G_S		INITIAL VOL OF SPEC, CC = AL	V		
VOL OF SOLIDS, CC = $W_s \div G_s$		V_S		INITIAL VOID RATIO = $(V - V_S) \div V_S$	e		
AREA OF STANDPIPE, SQ CM		a		CONSTANT = (2.303 X a) ÷ A	C		
CAPILLARY RISE, CM		h_c		INITIAL DIAL READING, IN.	D_o		
HEIGHT OF TAILWATER, CM		h_t		CORRECTED TAILWATER, CM, $h_t + h_c$	Δh		

TEST NO.		1	2	3
LOAD INCREMENT, T/SQ FT	P			
DIAL READING AT START, IN.	D_1			
CHANGE IN HT OF SPEC, IN. = $D_o - D_t$	ΔD			
HT OF SPEC, CM = L - 2.54Δ D	L			
VOID RATIO = $(AL - V_s) \div V_s$	e			

		1a	1b	2a	2b	3a	3b
INITIAL TIME	t_o						
FINAL TIME	t_f						
ELAPSED TIME, SEC = $t_f - t_o$	t						
INITIAL HEIGHT, CM	h_1						
FINAL HEIGHT, CM	h_2						
WATER TEMPERATURE, ^oC	T						
VISCOSITY CORRECTION FACTOR (1)	R_T						
COEFFICIENT OF PERMEABILITY, (2) CM/SEC	k_{20}						
	AVG						

(1) CORRECTION FACTOR FOR VISCOSITY OF WATER AT 20 C OBTAINED FROM TABLE VII-1.

(2) $k_{20} = 2.303 \frac{a}{A} \frac{L}{t} \left(\text{LOG} \frac{h_1 - \Delta h}{h_2 - \Delta h}\right) \quad R_T = \frac{CL}{t} \left(\text{LOG} \frac{h_1 - \Delta h}{h_2 - \Delta h}\right) R_T$

REMARKS _____

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TECHNICIAN _____ COMPUTED BY _____ CHECKED BY _____