

PNEUMATIC HAMMER CORE CORE # G-10

PROJECT: Galveston Island Beach Replenishment

STATE PLANNING COORDINATES
 3345309.60
 549502.85
LAT./LONG. COORDINATES
 29°16.673° N
 094°46.738° W
WATER DEPTH
 22'3"
DATE
 5/11/94
START TIME
 1545
END TIME
 1550
CORE DIAMETER
 3"
LENGTH OF BARREL
 20'
PENETRATION DEPTH
 14'10"
LENGTH RECOVERED
 13'5"
SUPPORT VESSEL:
 R/V Lonestar
POSITIONING:
 Trimble Differential GPS
ANALYSIS BY:
 M. Hamilton
 Rice University
ANALYSIS METHODS:
 Visual Logging
 Auto. Settling Tube

DEPTH			LITHOLOGY	DESCRIPTION	GRAIN SIZE (PHI) MEAN	%SAND	%MUD
CM.	IN.	CONTACT					
32	12	12		Muddy sand with abundant shell frags 5Y5/1	3.18	88.46	11.13
		14		Clay 5Y4/1	3.45	29.69	70.31
64	24	24		Muddy sand with abundant shell frags 5Y5/1	3.23	74.42	25.58
		32		Clay 5Y4/1			
96	36	36		Highly laminated muddy very fine sand 5Y5/1-5YR4/1	2.56	68.96	31.04
128	48	56		Interlaminated muddy sand and clay S:C 30:70	3.41	11.65	88.07
160	60	66		Muddy sand with apparent laminae; mod. bioturbation 5YR4/1			
192	72	77		Clay 5Y4/1			
224	84	85		Clayey sand 5Y4/1			
		91					
256	96	96		Clay with very thin lams of clayey very fine sand	3.33	34.09	65.83
		102					
288	108			Interlaminated clayey sand and sandy clay S:C=40:60			
320	120	130					
352	132	137		Muddy very fine sand 5Y5/1			
		142		Clay 5Y4/1			
384	144			Interlaminated clayey sand and sandy clay S:C=30:70			
416	156	160					
448	168						
480	180						
	192						



SAND



MUDDY SAND



MUDDY SAND/CLAY INTERLAM.



MUDDY SAND/CLAY INTERBEDS



CLAYEY SAND



SANDY CLAY



SHELLY SAND



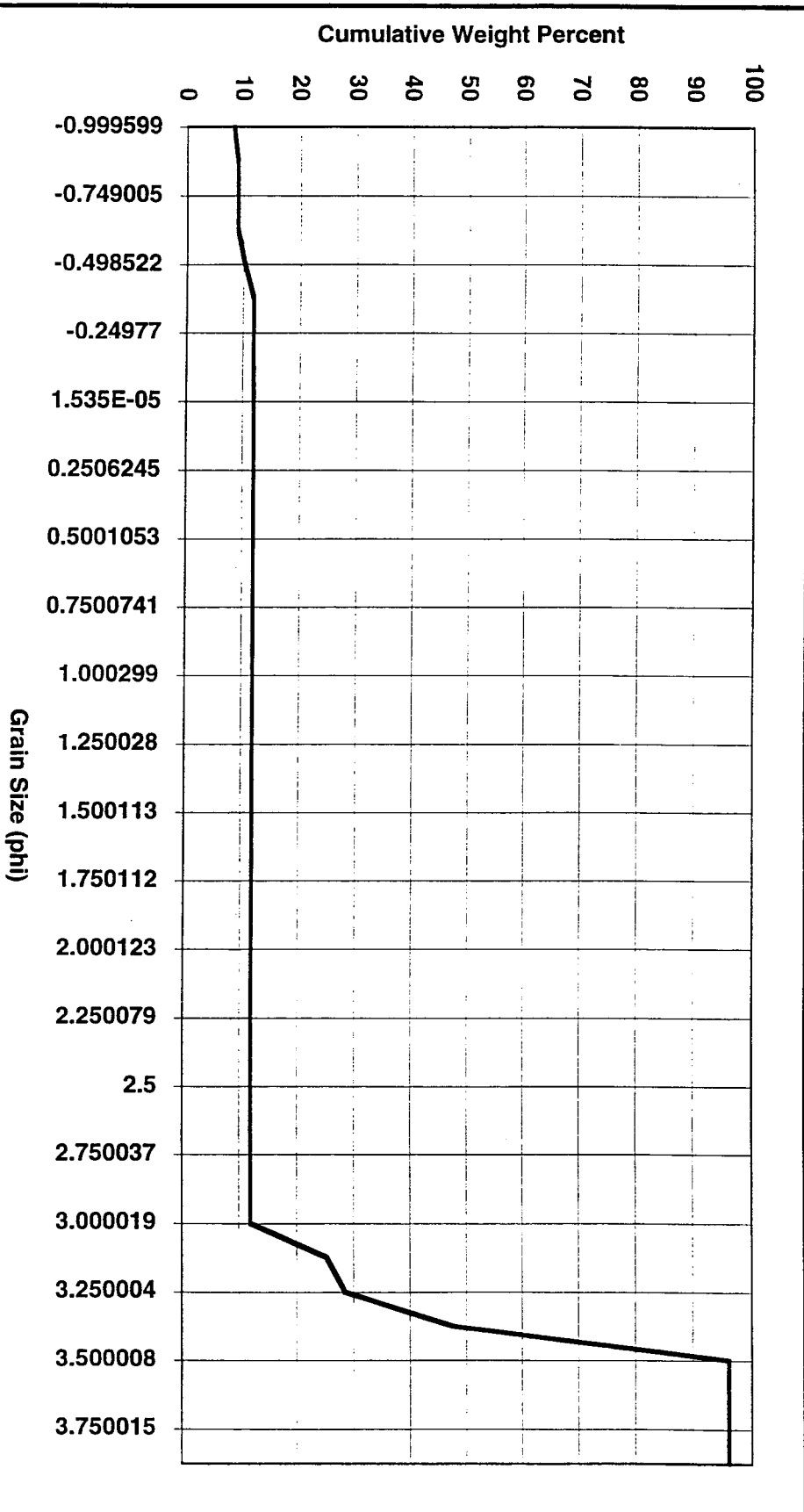
SHELL HASH

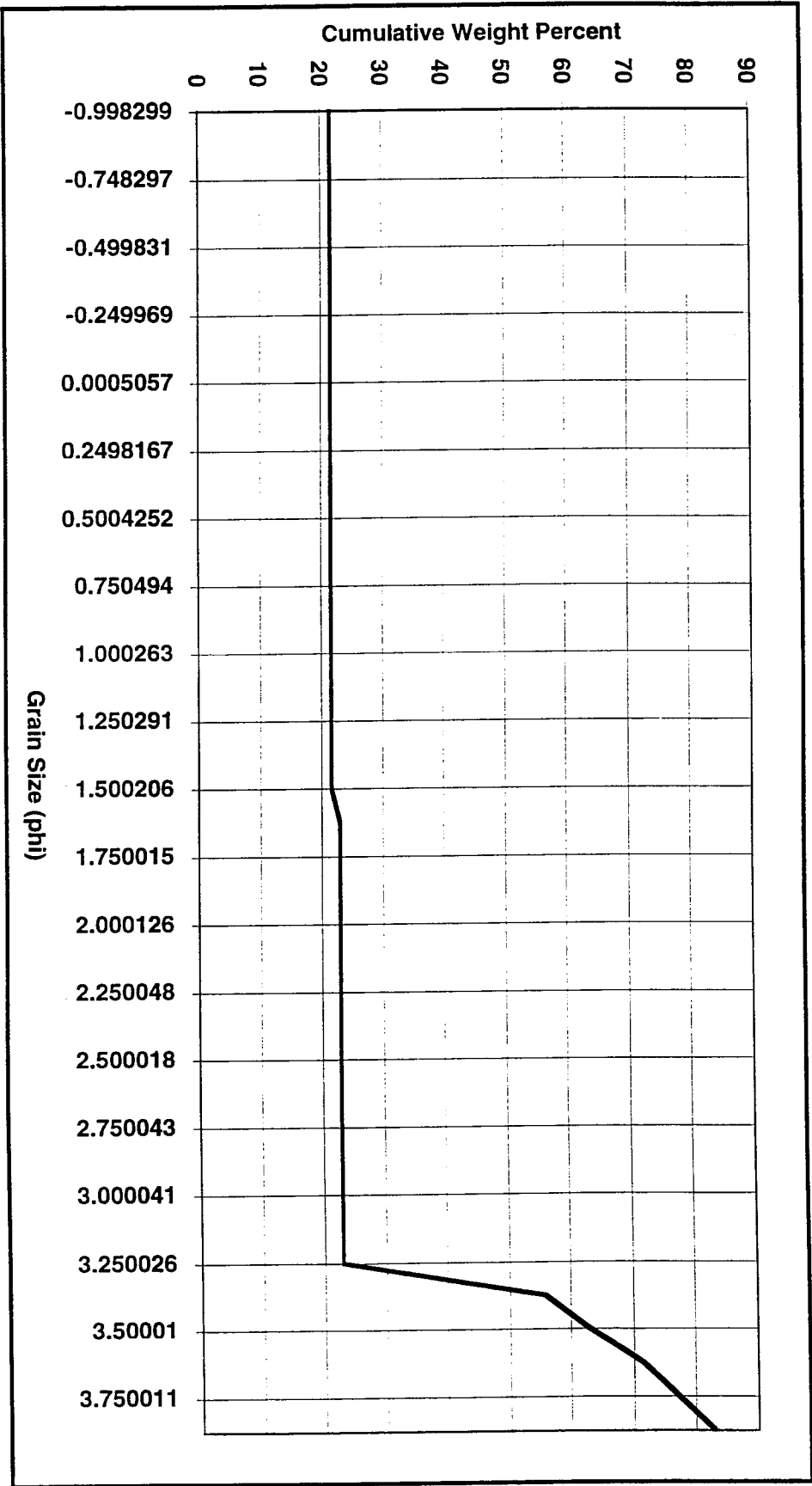


CLAY

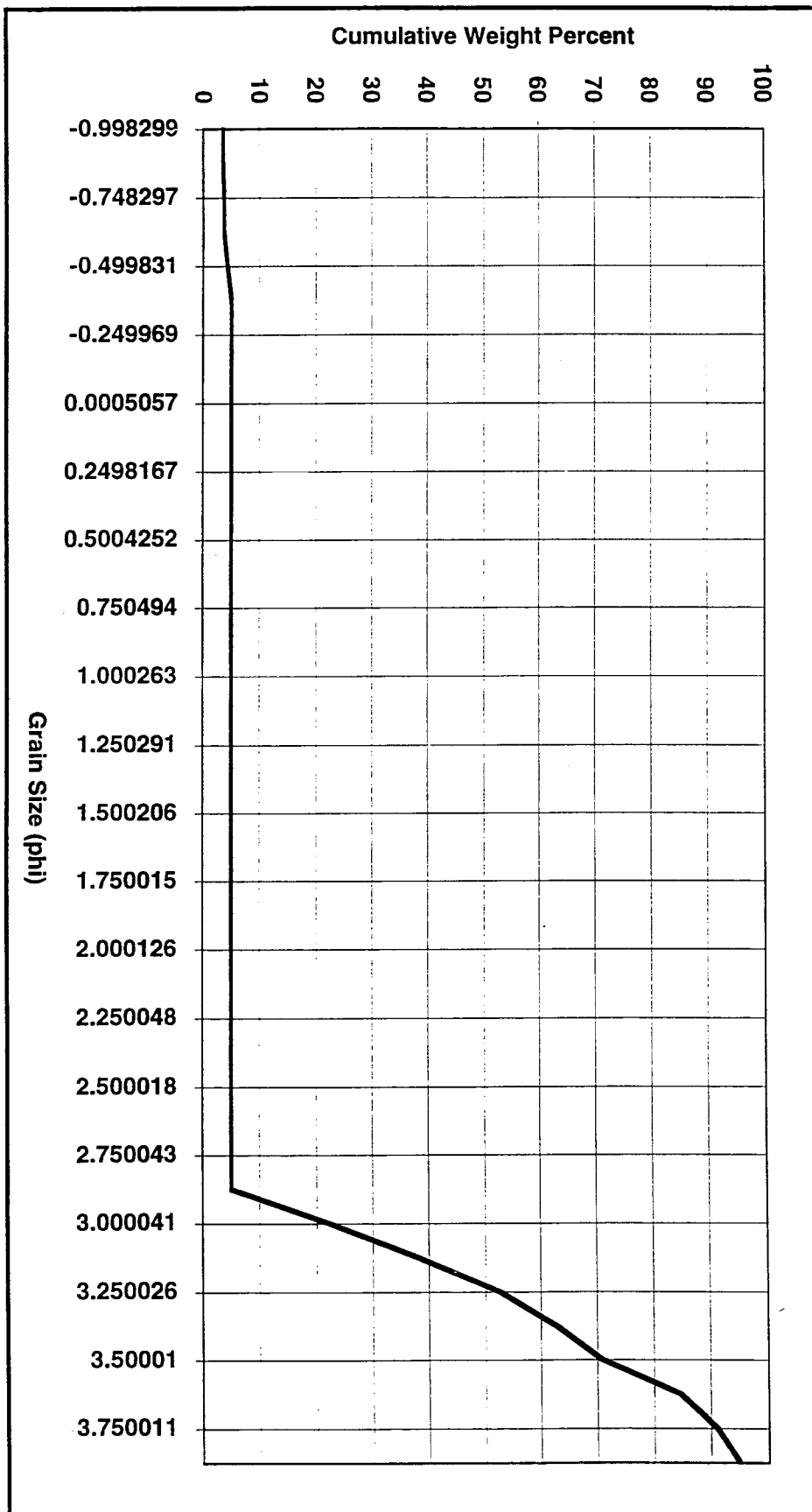


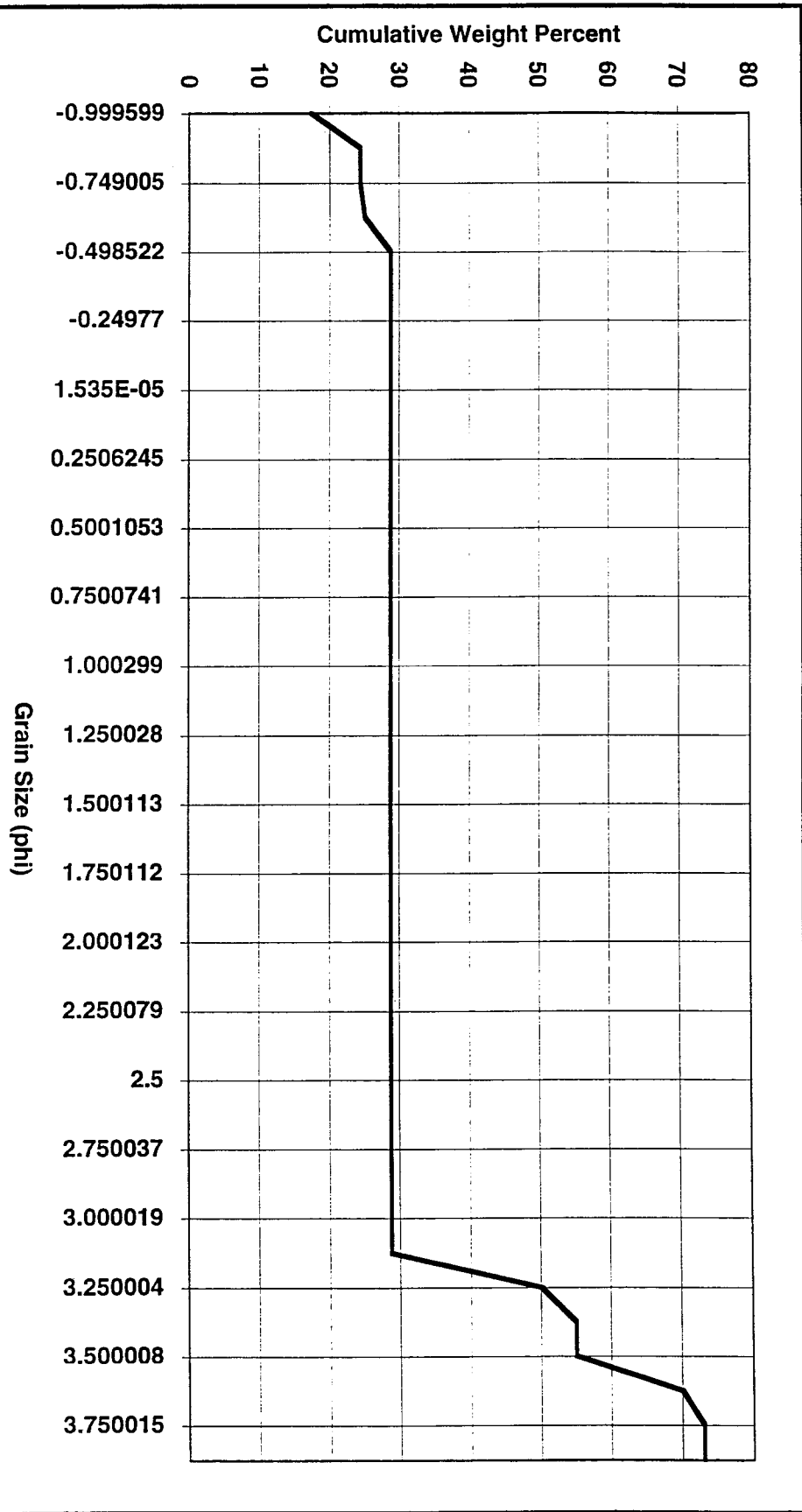
MUD



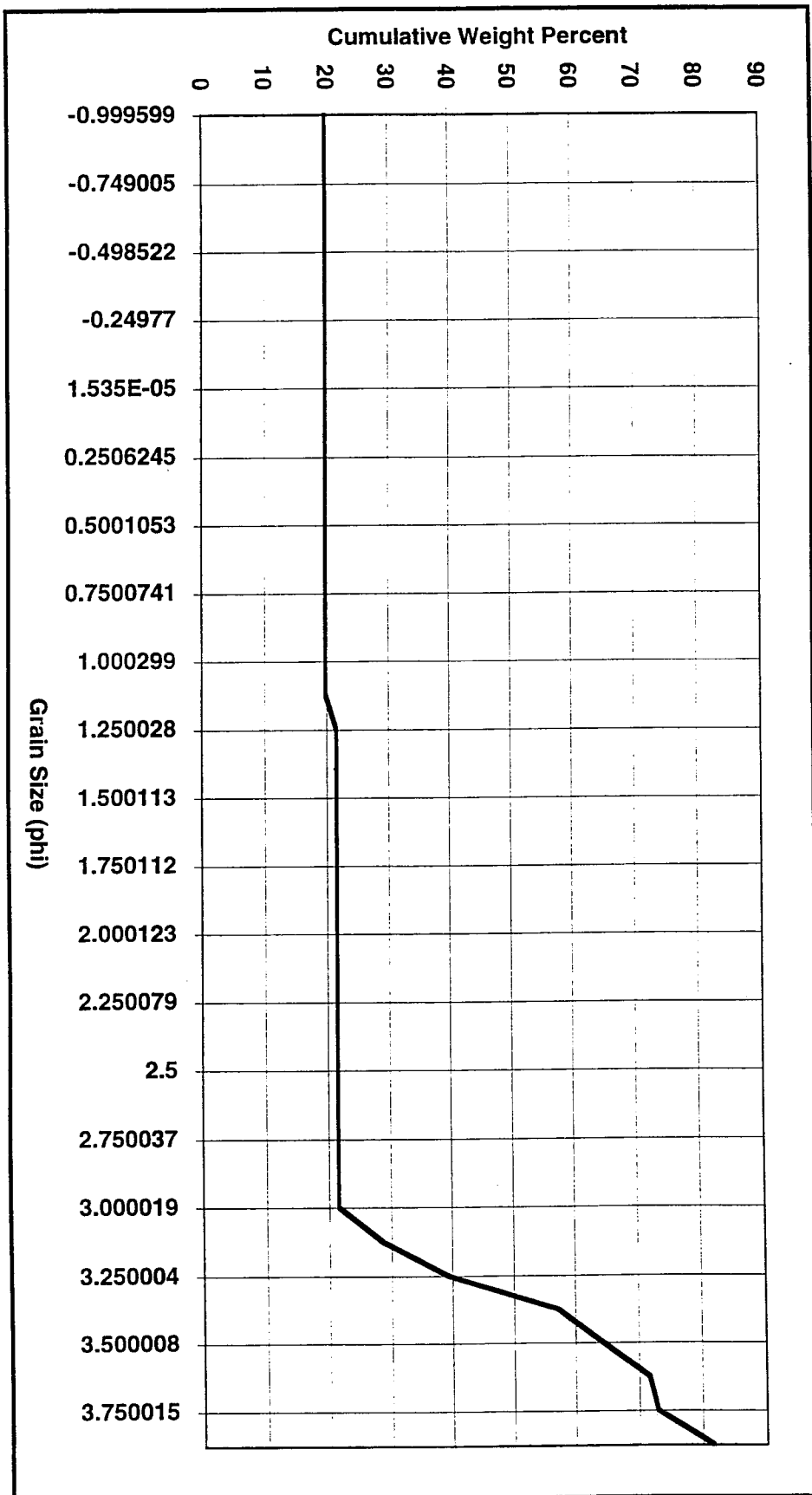


File	a	198010.dat	Date	06-27-1994	
Sample name	g-10-1'6"				
Data collected on	6/16/94				
Total settling time (min)	10.08333				
Settling distance (cm)	140				
Water temperature (degrees C)	21				
CUMULATIVE WEIGHT %			INDIVIDUAL WEIGHT %		
PHI	TIME(SEC)	% VALUE	RANGE		% VALUE
-0.9982994	5.160657	3.4			
-0.8747208	5.517602	3.4	-1.	-0.875	0
-0.748297	5.916911	3.6	-0.875	-0.75	0.1999998
-0.624169	6.346457	3.6	-0.75	-0.625	0
-0.4998313	6.818354	4.2	-0.625	-0.5	0.5999999
-0.3737053	7.344702	4.9	-0.5	-0.375	0.7000003
-0.2499688	7.913401	4.9	-0.375	-0.25	0
-0.1246694	8.548652	4.9	-0.25	-0.125	0
5.06E-04	9.250454	4.9	-0.125	0	0
0.1251883	10.02486	4.9	0.	0.125	0
0.2498167	10.89001	4.9	0.125	0.25	0
0.3752411	11.84591	4.9	0.25	0.375	0
0.5004252	12.91676	4.9	0.375	0.5	0
0.6250972	14.1086	4.9	0.5	0.625	0
0.750494	15.45171	4.9	0.625	0.75	0
0.8752092	16.9521	4.9	0.75	0.875	0
1.000263	18.64611	4.9	0.875	1	0
1.125242	20.5578	4.9	1	1.125	0
1.250291	22.72374	4.9	1.125	1.25	0
1.375171	25.18004	4.9	1.25	1.375	0
1.500206	27.98123	4.9	1.375	1.5	0
1.625015	31.1756	4.9	1.5	1.625	0
1.750015	34.84189	4.9	1.625	1.75	0
1.875066	39.05887	4.9	1.75	1.875	0
2.000126	43.92308	4.9	1.875	2	0
2.125031	49.54357	4.9	2	2.125	0
2.250048	56.07149	4.9	2.125	2.25	0
2.375074	63.67023	4.9	2.25	2.375	0
2.500018	72.53357	4.9	2.375	2.5	0
2.625001	82.90919	4.9	2.5	2.625	0
2.750043	95.0878	4.9	2.625	2.75	0
2.875031	109.4019	4.9	2.75	2.875	0
3.000041	126.2693	22.1	2.875	3	17.2
3.12503	146.1739	37.9	3	3.125	15.8
3.250026	169.7028	52.5	3.125	3.25	14.6
3.375	197.5449	62.7	3.25	3.375	10.2
3.50001	230.5413	70.8	3.375	3.5	8.100002
3.625012	269.6671	84.5	3.5	3.625	13.7
3.750011	316.0946	91	3.625	3.75	6.5
3.875009	371.2162	95	3.75	3.875	4
4.000007	436.6895	95.7	3.875	4	0.6999969
4.125002	514.4802	96.9	4	4.125	1.200005
SEDIMENT STATISTICS					
GROUPED MOMENT MEASURES (McBride, 1971)					
	.125 CHI	.125 PHI			
Mean	6.940449	3.229212			
Standard deviation	0.7606727	0.5577559			
Skewness	-3.116575	-4.806135			
Kurtosis	22.30362	33.78845			
GRAPHIC MEASURES (Folk and Ward, 1957)					
	.125 CHI	.125 PHI			
Mean	6.934981	3.252849			
Standard deviation	0.5348884	0.3047006			
Skewness	0.3587636	0.3350591			
Kurtosis	0.7607455	0.7489856			
MODES					
Number	Velocity	CHI	PHI	Freq. %	
1	1.180637	6.40429	2.945595	2.173915	
2	1.03769	6.59048	3.056903	1.863355	
3	0.6592734	7.244907	3.433751	1.242235	
4	1.107201	6.496939	3.00124	1.242235	
5	0.2342155	8.737947	4.238495	1.242233	
PARAMETERS USED					
Number of data points	1000				
Gibbs eq. constants	0.055804	0.003114	4.5	8.71E-03	
Dynamic viscosity (poises)	0.01				
Acceleration of gravity (cm/s)	979.21				
Fluid density (g/ml)	0.998				
Particle density (g/cm3)	2.65				
Size conversion using Komar FORAM correction, RD	0.9859				

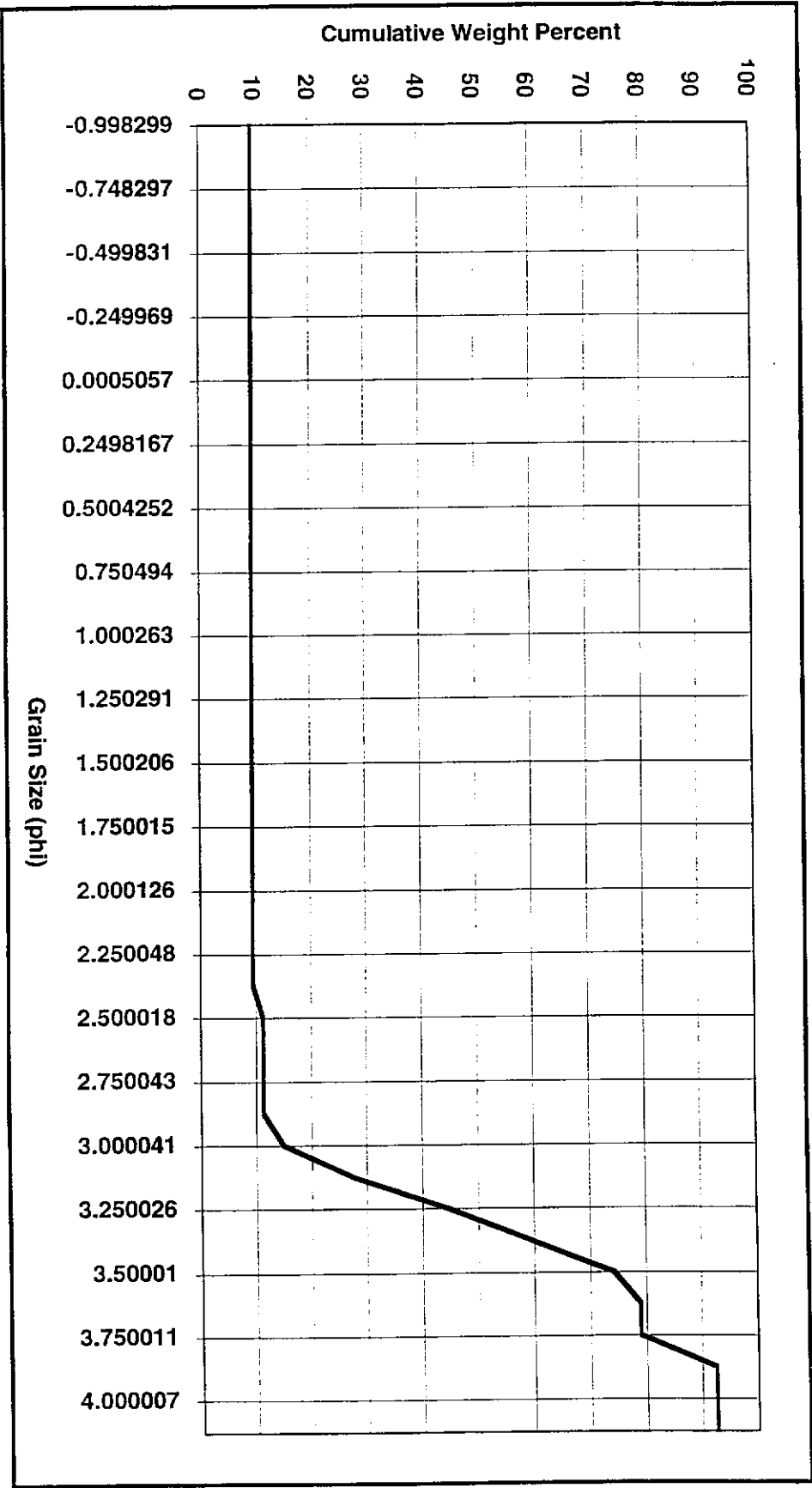




File	a	t10010.dat	Date	06-27-1994
Sample name	g-10-5'			
Data collected on	6/15/94			
Total settling time (min)	10.1			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
CUMULATIVE WEIGHT %				
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9995988	5.157067	19.7		
-0.873707	5.520661	19.7	-1	-0.875
-0.7490051	5.914571	19.7	-0.875	-0.75
-0.6246192	6.344827	19.7	-0.75	-0.625
-0.4985216	6.823564	19.7	-0.625	-0.5
-0.3737008	7.344722	19.7	-0.5	-0.375
-0.2497699	7.914361	19.7	-0.375	-0.25
-0.1242921	8.550662	19.7	-0.25	-0.125
1.53E-05	9.247563	19.7	-0.125	0
0.1258686	10.02931	19.7	0	0.125
0.2506245	10.88983	19.7	0.125	0.25
0.375414	11.84731	19.7	0.25	0.375
0.5001053	12.91386	19.7	0.375	0.5
0.625006	14.10768	19.7	0.5	0.625
0.7500741	15.44695	19.7	0.625	0.75
0.8750312	16.94983	19.7	0.75	0.875
1.000299	18.64663	19.7	0.875	1
1.125096	20.55543	19.7	1	1.125
1.250028	22.71889	21.4	1.125	1.25
1.375133	25.17924	21.4	1.25	1.375
1.500113	27.979	21.4	1.375	1.5
1.625126	31.17865	21.4	1.5	1.625
1.750112	34.84495	21.4	1.625	1.75
1.875008	39.05676	21.4	1.75	1.875
2.000123	43.92294	21.4	1.875	2
2.125095	49.54666	21.4	2	2.125
2.250079	56.07325	21.4	2.125	2.25
2.375015	63.66637	21.4	2.25	2.375
2.5	72.53223	21.4	2.375	2.5
2.625039	82.91265	21.4	2.5	2.625
2.750037	95.08716	21.4	2.625	2.75
2.875024	109.401	21.4	2.75	2.875
3.000019	126.266	21.4	2.875	3
3.125026	146.1732	28.6	3	3.125
3.250004	169.6982	39.3	3.125	3.25
3.375024	197.5505	57.1	3.25	3.375
3.500008	230.5408	64.3	3.375	3.5
3.625005	269.6645	71.5	3.5	3.625
3.750015	316.096	72.8	3.625	3.75
3.875012	371.2178	81.6	3.75	3.875
4.000008	436.69	81.6	3.875	4
4.125006	514.4825	89.3	4	4.125
SEDIDAT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	7.252574	3.407507		
Standard deviation	0.4529845	0.4633414		
Skewness	1.098509	-2.34301		
Kurtosis	3.821836	13.43118		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	4.304468	-0.1680145		
Standard deviation	4.209425	5.070542		
Skewness	-0.8411365	-0.9815635		
Kurtosis	6.358686	13.99315		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.3774887	8.049351	3.874291	5.357162
2	0.2527605	8.628014	4.180937	5.357132
3	0.2891403	8.434014	4.078867	5.357132
4	0.2409	8.69735	4.217262	3.571442
5	0.246031	8.666945	4.201342	3.571442
PARAMETERS USED				
Number of data points	1000			
Gibbs eq. constants	0.055804	0.003114	4.5	8.71E-03
Dynamic viscosity (poises)	0.01			
Acceleration of gravity (cm/s)	979.21			
Fluid density (g/ml)	0.998			
Particle density (g/cm3)	2.65			
Size conversion using Komer FORAM correction, RD	0.9859			



File	a	t10110.dat	Date	06-27-1994
Sample name	g-10-8.5'			
Data collected on	06-10-1994			
Total settling time (min)	10.08333			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
CUMULATIVE WEIGHT %				
PHI	TIME(SEC)	% VALUE	RANGE	INDIVIDUAL WEIGHT %
-0.9982994	5.160657	9.4		
-0.8747208	5.517602	9.4	-1	-0.875
-0.748297	5.916911	9.4	-0.875	-0.75
-0.624189	6.346457	9.4	-0.75	-0.625
-0.4998313	6.818354	9.4	-0.625	-0.5
-0.3737053	7.344702	9.4	-0.5	-0.375
-0.2499688	7.913401	9.4	-0.375	-0.25
-0.1246694	8.548652	9.4	-0.25	-0.125
5.06E-04	9.250454	9.4	-0.125	0
0.1251883	10.02486	9.4	0	0.125
0.2498167	10.89001	9.4	0.125	0.25
0.3752411	11.84591	9.4	0.25	0.375
0.5004252	12.91676	9.4	0.375	0.5
0.6250972	14.1086	9.4	0.5	0.625
0.750494	15.45171	9.4	0.625	0.75
0.8752092	16.9521	9.4	0.75	0.875
1.000263	18.64611	9.4	0.875	1
1.125242	20.5578	9.4	1	1.125
1.250291	22.72374	9.4	1.125	1.25
1.375171	25.18004	9.4	1.25	1.375
1.500206	27.98123	9.4	1.375	1.5
1.625015	31.1756	9.4	1.5	1.625
1.750015	34.84189	9.4	1.625	1.75
1.875066	39.05887	9.4	1.75	1.875
2.000126	43.92308	9.4	1.875	2
2.125031	49.54357	9.4	2	2.125
2.250048	56.07149	9.4	2.125	2.25
2.375074	63.67023	9.4	2.25	2.375
2.500018	72.53357	11.1	2.375	2.5
2.625001	82.90919	11.1	2.5	2.625
2.750043	95.0878	11.1	2.625	2.75
2.875031	109.4019	11.1	2.75	2.875
3.000041	126.2693	14.8	2.875	3
3.12503	146.1739	27.4	3	3.125
3.250026	169.7028	44.4	3.125	3.25
3.375	197.5449	59.3	3.25	3.375
3.50001	230.5413	74.1	3.375	3.5
3.625012	269.6671	78.8	3.5	3.625
3.750011	316.0946	78.8	3.625	3.75
3.875009	371.2162	92.6	3.75	3.875
4.000007	436.6895	92.6	3.875	4
4.125002	514.4802	92.6	4	4.125
SEDIDAT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	7.126266	3.333834		
Standard deviation	0.4476439	0.2861393		
Skewness	0.8223354	-8.87E-02		
Kurtosis	2.603031	3.58554		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	4.333454	5.19E-02		
Standard deviation	3.906048	4.657065		
Skewness	-0.8757604	-1.000837		
Kurtosis	6.879855	15.03416		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	1.244113	6.328739	2.899824	7.407415
2	0.4038481	7.951972	3.821969	5.555573
3	1.473917	6.084201	2.749067	5.555557
4	0.4390986	7.831239	3.75676	5.555542
5	0.2380709	8.714393	4.226179	3.703716
PARAMETERS USED				
Number of data points	1000			
Gibbs eq. constants	0.055804	0.003114	4.5	9.71E-03
Dynamic viscosity (poises)	0.01			
Acceleration of gravity (cm/s)	979.21			
Fluid density (g/ml)	0.998			
Particle density (g/cm3)	2.65			
Size conversion using Komer FORAM correction, RD	0.9859			



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