

PNEUMATIC HAMMER CORE CORE # G-17

PROJECT: Galveston Island Beach Replenishment

STATE PLANNING COORDINATES

3342598.13

548913.89

LAT./LONG COORDINATES

29°16.592° N

094°47.252° W

WATER DEPTH

20'8"

DATE

5/12/94

START TIME

1300

END TIME

1307

CORE DIAMETER

3"

LENGTH OF BARREL

20'

PENETRATION DEPTH

13'5"

LENGTH RECOVERED

12'4"

SUPPORT VESSEL:

R/V Lonestar

POSITIONING:

Trimble Differential GPS

ANALYSIS BY:

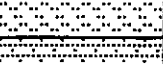
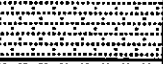
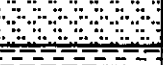
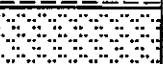
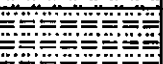
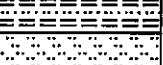
M. Hamilton

Rice University

ANALYSIS METHODS:

Visual Logging

Auto. Settling Tube

DEPTH		LITHOLOGY	DESCRIPTION	GRAIN SIZE (PHI) MEAN	%SAND	%MUD
CM.	IN. contact					
	4		Shell hash in mud matrix			
32	12		Very muddy sand; moderate bioturbation 5YR4/1	2.90	88.30	11.37
	18		Clay 5Y4/1			
64	24		Muddy sand with clay lams 5Y4/1			
	32		Interbedded and interbedded clay and clayey sand			
96	36					
	46		Slightly muddy sand with discrete clay beds 5Y4/1			
128	48					
	60			3.07	96.45	3.06
160	60					
	72					
192	72					
	84		Clay 5Y5/1			
	85		Muddy sand with abundant textural laminae			
224	88					
	96		Interbedded clayey sand and sandy clay			
	104					
256	108		Muddy sand; textural laminae 5Y4/1			
	115		Interbedded, laminated clayey sand and sandy clay			
288	120			3.26	85.96	13.76
	129		Mud 5YR3/4			
320	132					
	136					
352	144					
	151					
384	156					
	168					
416	180					
448	180					
480	192					



SAND



MUDDY SAND



MUDDY SAND/CLAY
INTERLAM.



MUDDY SAND/CLAY
INTERBEDS



CLAYEY
SAND



SANDY
CLAY



SHELLY SAND



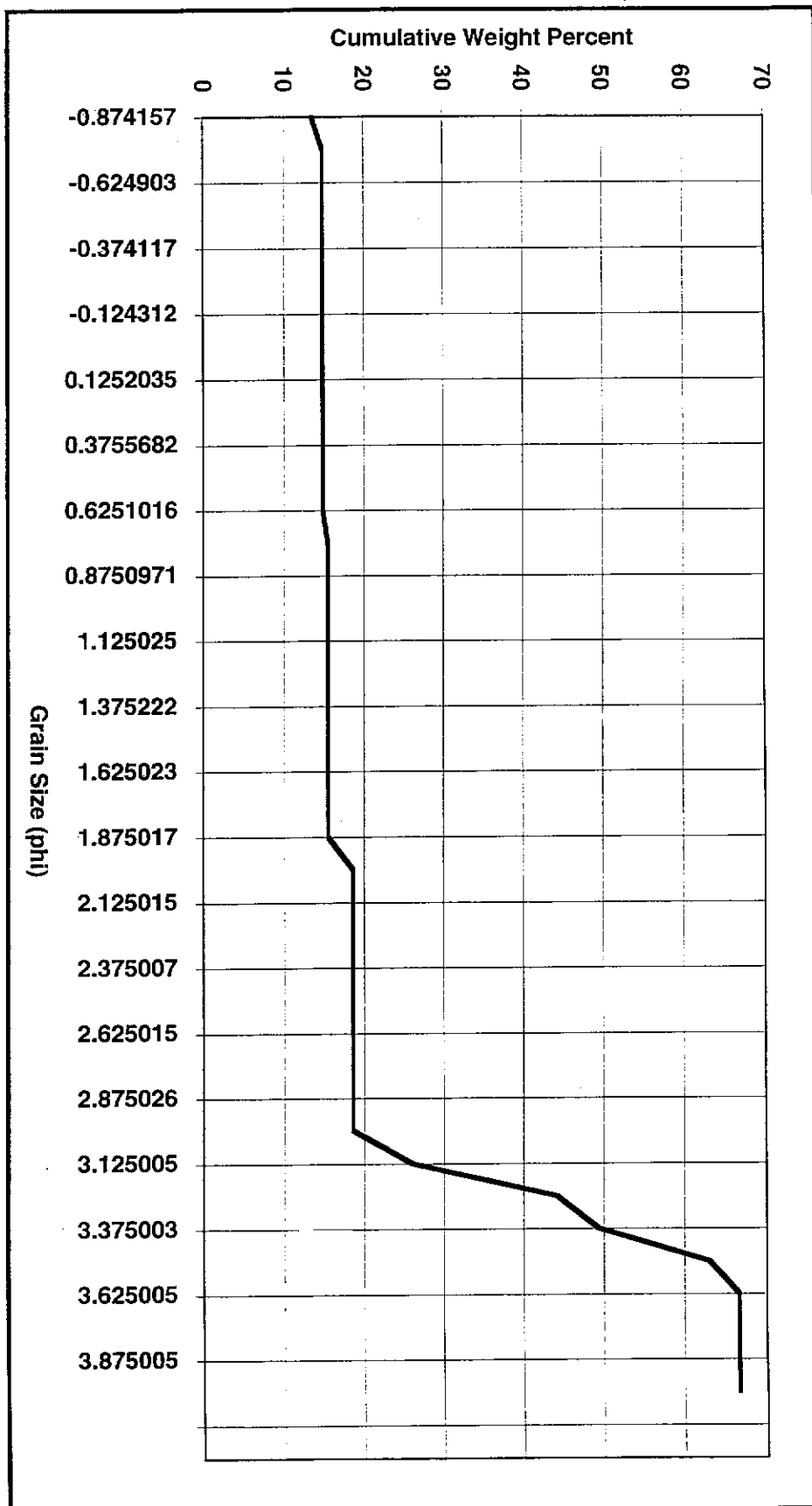
SHELL HASH



CLAY

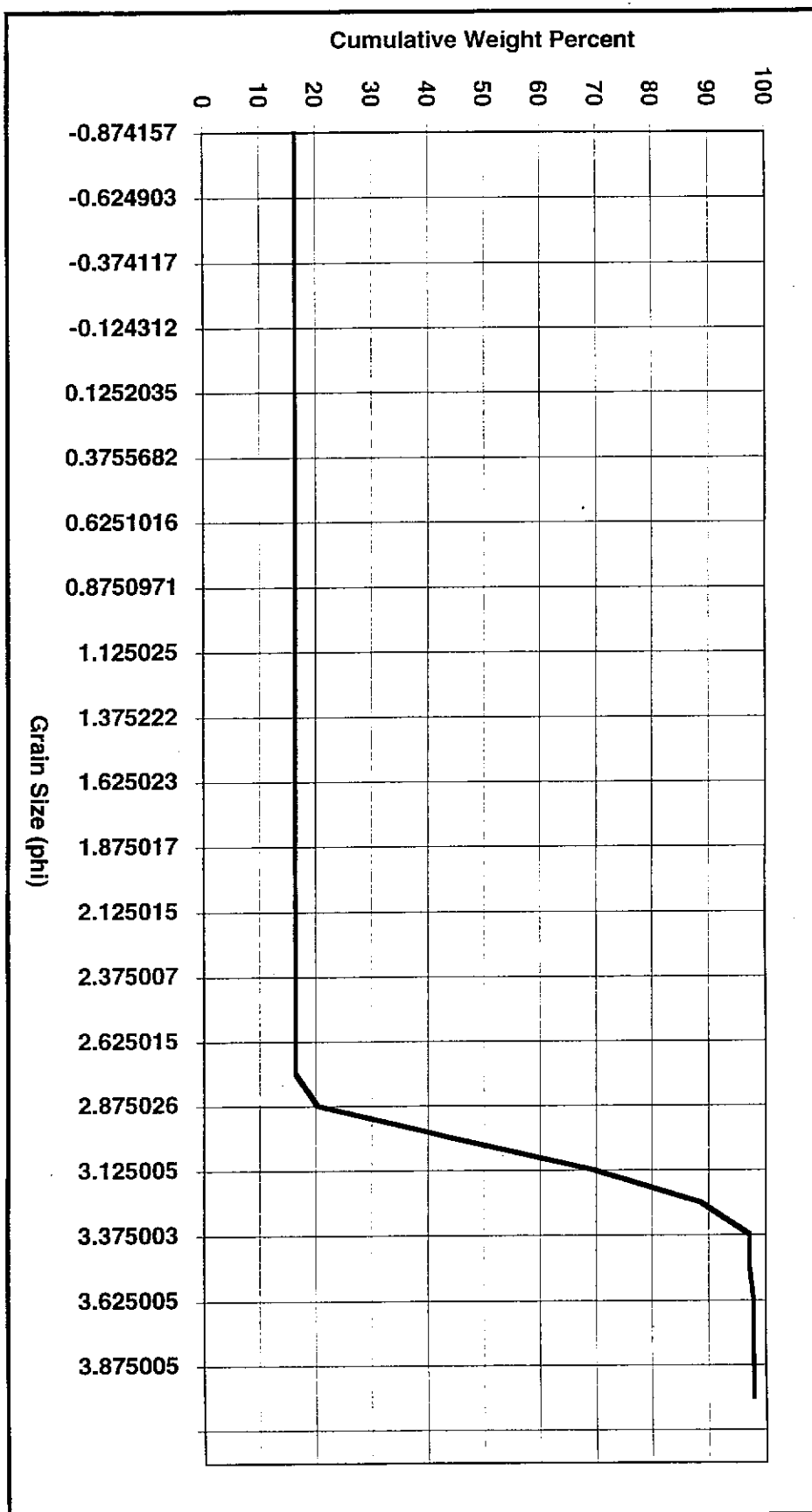


MUD

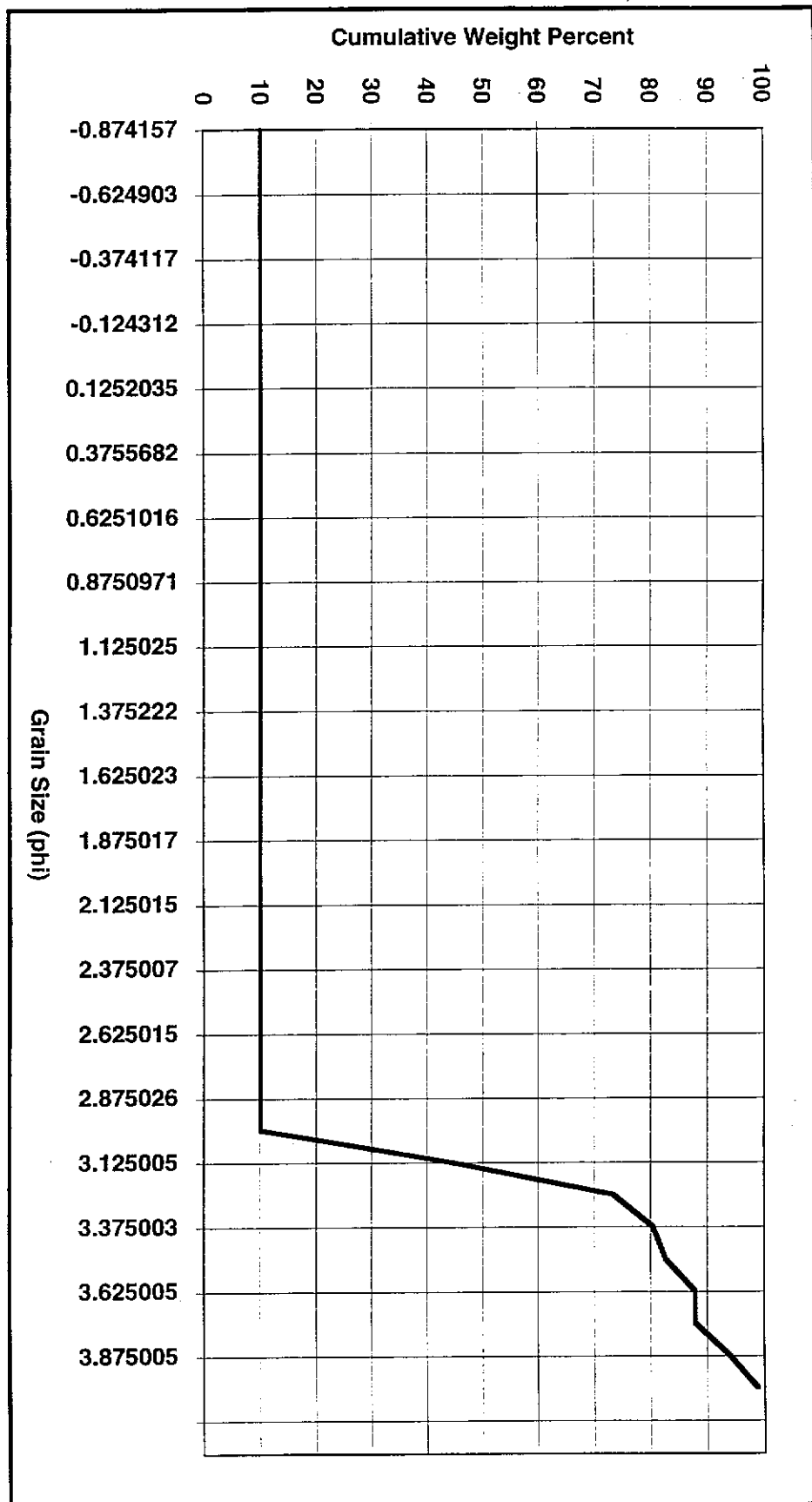


File	c	t139017.dat	Date	06-28-1994
Sample name	g-17-5'5"			
Date collected on	1/1/80			
Total settling time (min)	8.083333			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
		CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9983899	5.180407	16.3		
-0.8741565	5.519304	16.3	-1	-0.875
-0.7497373	5.912152	16.3	-0.875	-0.75
-0.6249025	6.343801	16.3	-0.75	-0.625
-0.4996436	6.819101	16.3	-0.625	-0.5
-0.3741167	7.342902	16.3	-0.5	-0.375
-0.2495951	7.915204	16.3	-0.375	-0.25
-0.1243118	8.550557	16.3	-0.25	-0.125
2.51E-04	9.248951	16.3	-0.125	0
0.1252035	10.02496	16.3	0	0.125
0.2504074	10.88826	16.3	0.125	0.25
0.3755682	11.84866	16.3	0.25	0.375
0.5002926	12.91556	16.3	0.375	0.5
0.6251016	14.10865	16.3	0.5	0.625
0.7501019	15.44726	16.3	0.625	0.75
0.8750971	16.95067	16.3	0.75	0.875
1.000072	18.64336	16.3	0.875	1
1.125025	20.55427	16.3	1	1.125
1.250206	22.72218	16.3	1.125	1.25
1.375222	25.18113	16.3	1.25	1.375
1.500138	27.9796	16.3	1.375	1.5
1.625023	31.17583	16.3	1.5	1.625
1.750034	34.84249	16.3	1.625	1.75
1.875017	39.05711	16.3	1.75	1.875
2.000092	43.92166	16.3	1.875	2
2.125015	49.54277	16.3	2	2.125
2.250037	56.07092	16.3	2.125	2.25
2.375007	63.66588	16.3	2.25	2.375
2.500056	72.53645	16.3	2.375	2.5
2.625015	82.9105	16.3	2.5	2.625
2.750009	95.08424	16.3	2.625	2.75
2.875026	109.4013	20.2	2.75	2.875
3.000012	126.2651	43.8	2.875	3
3.125005	146.1695	69.4	3	3.125
3.250022	169.7019	88.5	3.125	3.25
3.375003	197.5455	97.2	3.25	3.375
3.500006	230.5401	97.2	3.375	3.5
3.625005	269.6649	97.9	3.5	3.625
3.75001	316.0943	97.9	3.625	3.75
3.875005	371.2144	97.9	3.75	3.875
4.000007	436.6894	97.9	3.875	4
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.614203	3.074602		
Standard deviation	0.2184027	0.1408064		
Skewness	0.6578398	0.4127568		
Kurtosis	2.92824	3.214994		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	3.90829	-0.2692979		
Standard deviation	3.657882	4.613334		
Skewness	-0.9634564	-1.042866		
Kurtosis	12.97115	28.92577		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	1.0093	6.630501	3.080566	3.125004
2	1.093408	6.515024	3.012042	3.125002
3	1.183032	6.401367	2.943831	2.604167
4	1.324127	6.238814	2.844862	2.604167
5	0.9495388	6.718557	3.132318	2.083344
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			

139017



File	c	t140017.dat	Date	06-28-1994
Sample name	g-17-10'3"			
Date collected on	1/1/80			
Total settling time (min)	8.083333			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
	CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %	
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9983899	5.160407	10		
-0.8741565	5.518304	10	-1	-0.875
-0.7497373	5.912152	10	-0.875	-0.75
-0.6249025	6.343801	10	-0.75	-0.625
-0.4996436	6.819101	10	-0.625	-0.5
-0.3741167	7.342902	10	-0.5	-0.375
-0.2495951	7.915204	10	-0.375	-0.25
-0.1243118	8.550557	10	-0.25	-0.125
2.51E-04	9.248951	10	-0.125	0
0.1252035	10.02496	10	0	0.125
0.2504074	10.88826	10	0.125	0.25
0.3755682	11.84856	10	0.25	0.375
0.5002926	12.91556	10	0.375	0.5
0.6251016	14.10865	10	0.5	0.625
0.7501019	15.44726	10	0.625	0.75
0.8750971	16.95067	10	0.75	0.875
1.000072	18.64336	10	0.875	1
1.125025	20.55427	10	1	1.125
1.250206	22.72218	10	1.125	1.25
1.375222	25.18113	10	1.25	1.375
1.500138	27.9796	10	1.375	1.5
1.625023	31.17583	10	1.5	1.625
1.750034	34.84249	10	1.625	1.75
1.875017	39.05711	10	1.75	1.875
2.000092	43.92166	10	1.875	2
2.125015	49.54277	10	2	2.125
2.250037	56.07092	10	2.125	2.25
2.375007	63.66588	10	2.25	2.375
2.500056	72.53645	10	2.375	2.5
2.625015	82.9105	10	2.5	2.625
2.750009	95.08424	10	2.625	2.75
2.875026	109.4013	10	2.75	2.875
3.000012	126.2651	10	2.875	3
3.125005	146.1695	44.4	3	3.125
3.250022	169.7019	73.3	3.125	3.25
3.375003	197.5455	80.3	3.25	3.375
3.500006	230.5401	82.6	3.375	3.5
3.625005	269.6649	87.8	3.5	3.625
3.75001	316.0943	87.8	3.625	3.75
3.875005	371.2144	94	3.75	3.875
4.000007	436.6894	98.9	3.875	4
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.913855	3.262303		
Standard deviation	0.4189451	0.2641383		
Skewness	1.874596	1.470236		
Kurtosis	5.64532	3.886606		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	6.846428	3.205417		
Standard deviation	1.714798	1.996146		
Skewness	-2.922744	-7.67184		
Kurtosis	11.89237	24.88467		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	1.012841	6.625448	3.077583	4.44445
2	0.9372071	6.737416	3.143346	2.222219
3	0.3302743	8.24212	3.977206	1.666672
4	0.4238763	7.882141	3.7843	1.666672
5	0.60263	7.374512	3.506163	1.666664
PARAMETERS USED				
Number of data points	1000			
Gibbs eq. constants	0.055804	0.003114	4.5	6.71E-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			



140017

G-17

1/3 2/3 3/3

