MGGB09005039

LABORATORY ITEM 446

117-01
121-82

MGG09005039

A SUMMARY OF SEDIMENT SIZE AND CHEMISTRY OF THREE CORES AND ~~SIXTEEN~~ twenty-five GRABS FROM SAN FRANCISCO BAY AND MAYPORT, FLORIDA RESPECTIVELY. NAVY DIVERS AND NAVY YF #8. FEBRUARY 1973, AND APRIL - MAY 1973.

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Prepared for: Code 7300

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Geological Laboratory
Nearshore Surveys Division
Oceanographic Surveys Department

U. S. NAVAL OCEANOGRAPHIC OFFICE
WASHINGTON, D. C. 20373

The results of the sediment size and composition analyses are printed out in tabular form.

The following is an explanation of the terms encountered on the data printout sheet:

CRUISE	A number assigned to each cruise for identification purposes.
SAMPLE	A consecutive number applied to each core taken successively throughout the cruise.
LATITUDE	Expressed in degrees, minutes, and tenths of minutes.
LONGITUDE	Expressed in degrees, minutes and tenths of minutes.
TAKEN	Date in day, month, and year that core was taken.
CORER TYPE	Letters corresponding to sampling device code below.

Corers		Grabs	
HYP	Hydroplastic piston	SPK	Shipek Sediment Sampler
HYG	Hydroplastic gravity	HLP	Alpine Heavy Duty Grab
KUP	Kullenberg piston	SMS	Small Mud Snapper
KUG	Kullenberg gravity	VVS	Van Veen Grab
PHL	Phlegar gravity	BED	Birge-Ekman Dredge
MEG	Modified Ewing gravity	DLS	Dietz-LaFond Snapper
MEP	Modified Ewing piston	OPG	Orange Peel Grab
VIB	Vibrocorer	SBS	Scoopfish Bottom Sampler
BOM	Boomerang		
EWP	Ewing piston		
EWG	Ewing gravity		

LENGTH	Length of core recorded in centimeters as observed in the laboratory.
PENETRATION	Penetration of coring device recorded in centimeters as observed in the field.
DEPTH	The uncorrected sonic sounding in meters.
ANALYZED	Date in day, month, and year that core was analyzed in the laboratory.
I.D. No.	Three or four digit laboratory project number followed by consecutive number assigned to each subsample analyzed.
INTERVAL	Interval of subsample as measured in centimeters from the top of the core.
MM	Particle diameter size intervals based on Wentworth size grades in millimeters.
PER	Percent of total sample weight within the given size interval.

GRAVEL, SAND SILT, CLAY — Percent of the total sample weight within the four size classes.

Class ranges are:

1. Gravel - coarser than 2 mm
2. Sand - 2 to 0.0625 mm
3. Silt - 0.0625 to 0.0039 mm
4. Clay - finer than 0.0039

MEAN (MM) — The geometric mean of the distribution expressed in millimeters.

MEAN (PHI) — The logarithmic mean of the distribution expressed in phi units ($-\log_2$) of the diameter in millimeters.

STAN DEV — Standard deviation. A measure of the degree of spread or dispersion of the distribution about the mean expressed in phi units.

$$s = \sqrt{\frac{\sum f \quad (X_i - \bar{X})^2}{100}}$$

SKEWNESS — A measure of the asymmetry of the distribution. Positive values denote skewness of the distribution toward the fine particles; negative values denote skewness toward the coarse particles. A normal distribution has a skewness of 0.

$$\text{Skewness} = \frac{2 \sum f \quad (X_i - X)^3}{100 \quad s^3}$$

KURTOSIS — A measure of the peakedness of the distribution. Positive values denote a "leptokurtic" distribution more "peaked" than normal. Negative values denote a "platykurtic" distribution, or a distribution more "flat" than normal. When using the following formula, a normal curve has a kurtosis of 0.

$$\text{Kurtosis} = \left[\frac{\sum f \quad (X_i - \bar{X})^4}{100 \quad s^4} \right] - 3$$

$CACO_3$ — Percent of the total sample weight soluble in 2 N HCL.

ORG CARBON — Percent organic carbon of the total sample weight as determined using a Leco carbon analyzer.

COLOR — Wet sediment color, based on the Geological Society of America Rock-Color Chart, as determined in the laboratory.

NITROGEN — Percent nitrogen of the total sample weight as determined by the Kjeldahl method.

LOG FOR CORE SAMPLES

MGG 0 9 0 0 5-0 3 9

4

Project No: 446
Location: SAN FRANCISCO

Logged By J.C. BOWMAN
Date Logged 14 MAY 1973

121-82

	Lab. No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: SAN F. 4 Lat: 38° 03' N. Long: 122° 18' W. Date: Water depth:	446 1	MODERATE YELLOWISH BROWN 10YR 3/2	YES	SILTY CLAY	SAMPLE DEPTH: 0-30.5 FISHY AND OILY ODOR.
Sample No: SAN F. 4 Lat: 38° 03' N. Long: 122° 18' W. Date: Water depth:	446 2	GREENISH BLACK 5G 2/1	YES	CLAYEY SILT	SAMPLE DEPTH: 30.5-96.5
Sample No: SAN F. 4 Lat: 38° 03' N. Long: 122° 18' W. Date: Water depth:	446 3	GREENISH BLACK 5GY 2/1	YES	CLAYEY SILT	SAMPLE DEPTH: 96.5-165.1 OV
Sample No: Lat: Long: Date: Water depth:					LOCATION: MARE ISLAND ALONGSIDE SEAWALL DIRECTLY ACROSS FROM NAVAID FR 2.
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date:					

LOG FOR CORE SAMPLES

MGG 0 9 0 0 5 0 3 9

121-72

Project No: 446
Location: SAN FRANCISCO

Logged By J.C. BOWMAN
Date Logged 14 MAY 1973

	Lab. No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: SAN F. 8 **Lat:** 37° 56' N. **Long:** 122° 04' W. **Date:** **Water depth:**	446 4	MODERATE GREENISH BLACK 5G3/1	YES	CLAYEY SILT	SAMPLE DEPTH: 0-30.5cm.
Sample No: SAN F. 8 **Lat:** 37° 56' N. **Long:** 122° 04' W. **Date:** **Water depth:**	446 5	OLIVE BLACK 5Y2/1	YES	CLAYEY SILT	SAMPLE DEPTH: 30.5-81.3cm
Sample No: SAN F. 8 **Lat:** 37° 56' N. **Long:** 122° 04' W. **Date:** **Water depth:**	446 6	GREENISH BLACK 5G2/1	YES	CLAYEY SILT	SAMPLE DEPTH: 81.3-129.5c
Sample No: **Lat:** **Long:** **Date:** **Water depth:**					LOCATION: NWS CONCORD. MIDWAY ON NORTH SIDE OF PIER No. 4.
Sample No: **Lat:** **Long:** **Date:** **Water depth:**					
Sample No: **Lat:** **Long:** **Date:** **Water depth:**					
Sample No: **Lat:** **Long:** **Date:** **Water depth:**					
Sample No: **Lat:** **Long:** **Date:** **Water depth:**					
Sample No: **Lat:** **Long:** **Date:**					

LOG FOR CORE SAMPLES

Project No: 446
Location: SAN FRANCISCO

MGG 09005039

121-72

Logged By J.C. BOWMAN
Date Logged 14 MAY 1973

	Lab. No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: SAN F. 10 Lat: 37° 27′ N. Long: 122° 02′ W. Date: Water depth:	446 7	GREENISH BLACK 5GY 2/1	YES	SILTY CLAY	SAMPLE DEPTH: 0-305 CM. FISHY ODOR.
Sample No: SAN F. 10 Lat: 37° 27′ N. Long: 122° 02′ W. Date: Water depth:	446 8	GREENISH BLACK 5G2/1	YES	CLAYEY SILT	SAMPLE DEPTH: 305-1168 NOTE: LID CAME OFF SAMPLE CONTAINER DU ING FREEZING. CHEMICA SAMPLE TAKEN AFTER UPPE LAYER HAD BEEN REMOV FOR SIZE.
Sample No: SAN F. 10 Lat: 37° 27′ N. Long: 122° 02′ W. Date: Water depth:	446 9	GREENISH BLACK 5GY 2/1	YES	CLAY	SAMPLE DEPTH: 1168-2032
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date:					

MGG09005039

LOG FOR GRAB SAMPLES

Project No: 446
Location: MAYPORT III

Logged By J.C. BOWMAN
Date Logged 15 MAY 1973

117-01

	Lab No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: 34a Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 10	MODERATE OLIVE BROWN 5Y4/4	YES	SAND	SHELL FRAGMENTS.
Sample No: 39d Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 11	DARK GRAYISH OLIVE GREEN 5GY2/2	YES	SANDY SILT	~ 75 ML. FREE H_2O. SHELL FRAGMENTS. FISHY ODOR.
Sample No: 40b Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 12	GREENISH BLACK 5G2/1	YES	SILT	SHELL FRAGMENTS. METHANE AND FISHY ODOR.
Sample No: 41a Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 13	GREENISH BLACK 5G2/1	YES	SANDY SILT	
Sample No: 45a Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 14	MODERATE OLIVE BROWN 5Y4/4	YES	SAND	SHELL FRAGMENTS.
Sample No: 46b Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 15	MODERATE OLIVE BROWN 5Y6/6	YES	SAND	SHELL FRAGMENTS.
Sample No: 47b Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 16	LIGHT OLIVE BROWN 5Y5/6	YES	SAND	SHELL FRAGMENTS.
Sample No: 48a Lat: 30° 21' N. Long: 81° 18' W. Date: Water depth:	446 17	OLIVE BROWN 5Y3/4	YES	SAND	SHELL FRAGMENTS.
Sample No: 49b Lat: 30° 21' N. Long: 81° 18' W. Date:	446 18	OLIVE BLACK 5Y2/1	YES	SANDY SILT	SHELL FRAGMENTS.

LOG FOR GRAB SAMPLES

MGG09005039

Project No: 446
Location: MAYPORT III

Logged By J.C. BOWMAN
Date Logged 15 MAY 1973

117-01

	Lab. No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: 50a Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 19	LIGHT OLIVE BROWN 5Y5/6	YES	SAND	SHELL FRAGMENTS.
Sample No: 51c Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 20	DUSKY OLIVE BROWN 5Y6/6	YES	SAND	SHELL FRAGMENTS.
Sample No: 53a Lat: 30° 21′ N. Long: 81° 18 W. Date: Water depth:	446 21	MODERATE OLIVE GRAY 5Y4/2	YES	SAND	SHELL FRAGMENTS.
Sample No: 54a Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 22	LIGHT GRAYISH OLIVE 10Y5/2	YES	SAND	SHELL FRAGMENTS.
Sample No: 56a Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 23	LIGHT GRAYISH OLIVE 10Y5/2	YES	SAND	SHELL FRAGMENTS.
Sample No: 57a Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 24	GREENISH BLACK 5G2/1	YES	SILT	SHELL FRAGMENTS.
Sample No: 59c Lat: 30° 21′ N. Long: 81° 18′ W. Date: Water depth:	446 25	MODERATE GRAYISH OLIVE 10Y3/2	YES	SAND	SHELL FRAGMENTS.
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 34A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 10

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.086
-1 TO 0	2.000 TO 1.000	.291
0 TO 1	1.000 TO .500	2.793
1 TO 2	.500 TO .250	42.358
2 TO 3	.250 TO .125	52.176
3 TO 4	.125 TO .063	2.262
4 TO 5	.063 TO .031	.034
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.000

GRAVEL (>2.0 MM)	.086
SAND (2.0-.063 MM)	99.880
SILT (.063-.004 MM)	.034
CLAY (<.004 MM)	.000
MEAN (MM)	.2446
MEAN (PHI)	2.032
STANDARD DEVIATION	.616
SKEWNESS	-.253
KURTOSIS	1.043
CALCIUM CARBONATE	8.000
ORGANIC CARBON	.042
NITROGEN (KJELDAHL)	.011
COLOR (GSA)	5Y4/4

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 39D DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 11

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.021
-2 TO -1	4.000 TO 2.000	.213
-1 TO 0	2.000 TO 1.000	.577
0 TO 1	1.000 TO .500	2.607
1 TO 2	.500 TO .250	12.553
2 TO 3	.250 TO .125	41.271
3 TO 4	.125 TO .063	30.702
4 TO 5	.063 TO .031	1.771
5 TO 6	.031 TO .016	.708
6 TO 7	.016 TO .008	.822
7 TO 8	.008 TO .004	.496
8 TO 9	.004 TO .002	.411
9 TO 10	.002 TO .001	.425
>10	<.001	7.424

GRAVEL (>2.0 MM)	.234
SAND (2.0-.063 MM)	87.709
SILT (.063-.004 MM)	3.797
CLAY (<.004 MM)	8.260
MEAN (MM)	.0970
MEAN (PHI)	3.365
STANDARD DEVIATION	2.319
SKEWNESS	1.078
KURTOSIS	4.260
CALCIUM CARBONATE	12.000
ORGANIC CARBON	.275
NITROGEN (KJELDAHL)	.048
COLOR (GSA)	5GY2/2

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 40B DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 12

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.074
-1 TO 0	2.000 TO 1.000	.300
0 TO 1	1.000 TO .500	2.618
1 TO 2	.500 TO .250	7.282
2 TO 3	.250 TO .125	26.547
3 TO 4	.125 TO .063	33.461
4 TO 5	.063 TO .031	.903
5 TO 6	.031 TO .016	1.733
6 TO 7	.016 TO .008	2.876
7 TO 8	.008 TO .004	2.710
8 TO 9	.004 TO .002	2.065
9 TO 10	.002 TO .001	1.364
>10	<.001	18.067

GRAVEL (>2.0 MM)	.074
SAND (2.0-.063 MM)	70.208
SILT (.063-.004 MM)	8.222
CLAY (<.004 MM)	21.496
MEAN (MM)	.0389
MEAN (PHI)	4.683
STANDARD DEVIATION	3.177
SKEWNESS	.481
KURTOSIS	-.583
CALCIUM CARBONATE	17.000
ORGANIC CARBON	1.177
NITROGEN (KJELDAHL)	.137
COLOR (GSA)	5G2/1

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 41A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 13

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.028
-2 TO -1	4.000 TO 2.000	.391
-1 TO 0	2.000 TO 1.000	2.191
0 TO 1	1.000 TO .500	7.116
1 TO 2	.500 TO .250	13.278
2 TO 3	.250 TO .125	30.395
3 TO 4	.125 TO .063	13.473
4 TO 5	.063 TO .031	.8[illegible]8
5 TO 6	.031 TO .016	1.801
6 TO 7	.016 TO .008	2.734
7 TO 8	.008 TO .004	2.560
8 TO 9	.004 TO .002	1.736
9 TO 10	.002 TO .001	1.323
>10	<.001	22.107

GRAVEL (>2.0 MM)	.419
SAND (2.0-.063 MM)	66.453
SILT (.063-.004 MM)	7.962
CLAY (<.004 MM)	25.167
MEAN (MM)	.0427
MEAN (PHI)	4.551
STANDARD DEVIATION	3.648
SKEWNESS	.361
KURTOSIS	-1.036
CALCIUM CARBONATE	20.000
ORGANIC CARBON	1.311
NITROGEN (KJELDAHL)	.189
COLOR (GSA)	5G2/1

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 45A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 14

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.938
-2 TO -1	4.000 TO 2.000	1.265
-1 TO 0	2.000 TO 1.000	16.492
0 TO 1	1.000 TO .500	45.614
1 TO 2	.500 TO .250	31.457
2 TO 3	.250 TO .125	3.098
3 TO 4	.125 TO .063	1.134
4 TO 5	.063 TO .031	.002
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.000

GRAVEL (>2.0 MM)	2.203
SAND (2.0-.063 MM)	97.795
SILT (.063-.004 MM)	.002
CLAY (<.004 MM)	.000
MEAN (MM)	.6189
MEAN (PHI)	.692
STANDARD DEVIATION	.897
SKEWNESS	-.083
KURTOSIS	1.293
CALCIUM CARBONATE	6.000
ORGANIC CARBON	.063
NITROGEN (KJELDAHL)	.012
COLOR (GSA)	5Y4/4

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 46B DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 15

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	2.141
-3 TO -2	8.000 TO 4.000	.211
-2 TO -1	4.000 TO 2.000	.700
-1 TO 0	2.000 TO 1.000	11.720
0 TO 1	1.000 TO .500	48.453
1 TO 2	.500 TO .250	32.689
2 TO 3	.250 TO .125	3.317
3 TO 4	.125 TO .063	.766
4 TO 5	.063 TO .031	.003
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.000

GRAVEL (>2.0 MM)	3.052
SAND (2.0-.063 MM)	96.945
SILT (.063-.004 MM)	.003
CLAY (<.004 MM)	.000

MEAN (MM)	.6185
MEAN (PHI)	.693
STANDARD DEVIATION	.999
SKEWNESS	-.694
KURTOSIS	5.237

CALCIUM CARBONATE	68.000
ORGANIC CARBON	.059
NITROGEN (KJELDAHL)	.012
COLOR (GSA)	5Y6/6

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 47B DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 16

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.961
-3 TO -2	8.000 TO 4.000	2.133
-2 TO -1	4.000 TO 2.000	1.410
-1 TO 0	2.000 TO 1.000	8.484
0 TO 1	1.000 TO .500	40.674
1 TO 2	.500 TO .250	39.014
2 TO 3	.250 TO .125	4.766
3 TO 4	.125 TO .063	.986
4 TO 5	.063 TO .031	.0.5
5 TO 6	.031 TO .016	.062
6 TO 7	.016 TO .008	.062
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	1.248
9 TO 10	.002 TO .001	.062
>10	<.001	.062

GRAVEL (>2.0 MM)	4.504
SAND (2.0-.063 MM)	93.924
SILT (.063-.004 MM)	.200
CLAY (<.004 MM)	1.372
MEAN (MM)	.5281
MEAN (PHI)	.921
STANDARD DEVIATION	1.393
SKEWNESS	.897
KURTOSIS	12.669
CALCIUM CARBONATE	67.000
ORGANIC CARBON	.042
NITROGEN (KJELDAHL)	.014
COLOR (GSA)	5YS/6

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 48A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 17

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	1.350
-2 TO -1	4.000 TO 2.000	.995
-1 TO 0	2.000 TO 1.000	7.757
0 TO 1	1.000 TO .500	49.739
1 TO 2	.500 TO .250	35.315
2 TO 3	.250 TO .125	2.037
3 TO 4	.125 TO .063	.770
4 TO 5	.063 TO .031	.083
5 TO 6	.031 TO .016	.059
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.059
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.118
>10	<.001	1.717

GRAVEL (>2.0 MM)	2.345
SAND (2.0-.063 MM)	95.618
SILT (.063-.004 MM)	.201
CLAY (<.004 MM)	1.836
MEAN (MM)	.5099
MEAN (PHI)	.972
STANDARD DEVIATION	1.546
SKEWNESS	2.040
KURTOSIS	23.676
CALCIUM CARBONATE	4.000
ORGANIC CARBON	.041
NITROGEN (KJELDAHL)	.013
COLOR (GSA)	5Y3/4

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 498 DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 18

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.000
-1 TO 0	2.000 TO 1.000	.018
0 TO 1	1.000 TO .500	.272
1 TO 2	.500 TO .250	1.067
2 TO 3	.250 TO .125	2.906
3 TO 4	.125 TO .063	8.018
4 TO 5	.063 TO .031	1.287
5 TO 6	.031 TO .016	.294
6 TO 7	.016 TO .008	6.105
7 TO 8	.008 TO .004	2.758
8 TO 9	.004 TO .002	8.901
9 TO 10	.002 TO .001	4.597
>10	<.001	63.776

GRAVEL (>2.0 MM)	.000
SAND (2.0-.063 MM)	12.281
SILT (.063-.004 MM)	10.445
CLAY (<.004 MM)	77.274
MEAN (MM)	.0020
MEAN (PHI)	8.938
STANDARD DEVIATION	2.583
SKEWNESS	-.772
KURTOSIS	1.031
CALCIUM CARBONATE	30.000
ORGANIC CARBON	3.516
NITROGEN (KJELDAHL)	.409
COLOR (GSA)	5Y2/1

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 50A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 19

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.325
-3 TO -2	8.000 TO 4.000	.601
-2 TO -1	4.000 TO 2.000	.569
-1 TO 0	2.000 TO 1.000	8.734
0 TO 1	1.000 TO .500	34.605
1 TO 2	.500 TO .250	44.145
2 TO 3	.250 TO .125	8.580
3 TO 4	.125 TO .063	.770
4 TO 5	.063 TO .031	.012
5 TO 6	.031 TO .016	.059
6 TO 7	.016 TO .008	.119
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.119
9 TO 10	.002 TO .001	.119
>10	<.001	1.244

GRAVEL (>2.0 MM)	1.494
SAND (2.0-.063 MM)	96.835
SILT (.063-.004 MM)	.190
CLAY (<.004 MM)	1.481
MEAN (MM)	.4470
MEAN (PHI)	1.162
STANDARD DEVIATION	1.452
SKEWNESS	1.734
KURTOSIS	21.558
CALCIUM CARBONATE	5.000
ORGANIC CARBON	.043
NITROGEN (KJELDAHL)	.011
COLOR (GSA)	5Y5/6

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 51C DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 20

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	2.646
-3 TO -2	8.000 TO 4.000	2.871
-2 TO -1	4.000 TO 2.000	3.001
-1 TO 0	2.000 TO 1.000	15.924
0 TO 1	1.000 TO .500	39.539
1 TO 2	.500 TO .250	30.159
2 TO 3	.250 TO .125	3.107
3 TO 4	.125 TO .063	1.146
4 TO 5	.063 TO .031	.248
5 TO 6	.031 TO .016	.118
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.059
9 TO 10	.002 TO .001	.059
>10	<.001	1.122

GRAVEL (>2.0 MM)	8.517
SAND (2.0-.063 MM)	89.876
SILT (.063-.004 MM)	.366
CLAY (<.004 MM)	1.240
MEAN (MM)	.6484
MEAN (PHI)	.625
STANDARD DEVIATION	1.659
SKEWNESS	1.010
KURTOSIS	13.708
CALCIUM CARBONATE	13.000
ORGANIC CARBON	.048
NITROGEN (KJELDAHL)	.017
COLOR (GSA)	5Y6/6

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE S3A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 21

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.405
-2 TO -1	4.000 TO 2.000	.932
-1 TO 0	2.000 TO 1.000	2.026
0 TO 1	1.000 TO .500	4.498
1 TO 2	.500 TO .250	15.721
2 TO 3	.250 TO .125	30.713
3 TO 4	.125 TO .063	39.060
4 TO 5	.063 TO .031	1.378
5 TO 6	.031 TO .016	.608
6 TO 7	.016 TO .008	.203
7 TO 8	.008 TO .004	.203
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.405
>10	<.001	3.849

GRAVEL (>2.0 MM)	1.337
SAND (2.0-.063 MM)	92.018
SILT (.063-.004 MM)	2.391
CLAY (<.004 MM)	4.254
MEAN (MM)	.1316
MEAN (PHI)	2.925
STANDARD DEVIATION	1.958
SKEWNESS	.999
KURTOSIS	7.065
CALCIUM CARBONATE	7.000
ORGANIC CARBON	.056
NITROGEN (KJELDAHL)	.011
COLOR (GSA)	5Y4/2

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH .0 ANALYZED 0MAY73
SAMPLE 54A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 22

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.158
-3 TO -2	8.000 TO 4.000	1.722
-2 TO -1	4.000 TO 2.000	2.774
-1 TO 0	2.000 TO 1.000	18.623
0 TO 1	1.000 TO .500	30.101
1 TO 2	.500 TO .250	31.576
2 TO 3	.250 TO .125	14.032
3 TO 4	.125 TO .063	1.011
4 TO 5	.063 TO .031	.003
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.000

GRAVEL (>2.0 MM)	4.654
SAND (2.0-.063 MM)	95.343
SILT (.063-.004 MM)	.003
CLAY (<.004 MM)	.000
MEAN (MM)	.5636
MEAN (PHI)	.827
STANDARD DEVIATION	1.157
SKEWNESS	-.197
KURTOSIS	.204
CALCIUM CARBONATE	9.000
ORGANIC CARBON	.054
NITROGEN (KJELDAHL)	.011
COLOR (GSA)	10Y5/2

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-0 LENGTH .0 ANALYZED 0MAY73
SAMPLE 56A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 23

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	1.916
-2 TO -1	4.000 TO 2.000	2.676
-1 TO 0	2.000 TO 1.000	9.287
0 TO 1	1.000 TO .500	22.406
1 TO 2	.500 TO .250	41.288
2 TO 3	.250 TO .125	19.232
3 TO 4	.125 TO .063	1.293
4 TO 5	.063 TO .031	.073
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.073
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.073
9 TO 10	.002 TO .001	.000
>10	<.001	1.682

GRAVEL (>2.0 MM)	4.592
SAND (2.0-.063 MM)	93.506
SILT (.063-.004 MM)	.146
CLAY (<.004 MM)	1.755
MEAN (MM)	.4023
MEAN (PHI)	1.314
STANDARD DEVIATION	1.666
SKEWNESS	1.250
KURTOSIS	13.856
CALCIUM CARBONATE	13.000
ORGANIC CARBON	.049
NITROGEN (KJELDAHL)	.015
COLOR (GSA)	10Y5/2

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-0 LENGTH .0 ANALYZED 0MAY73
SAMPLE 57A DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 24

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.034
-1 TO 0	2.000 TO 1.000	.136
0 TO 1	1.000 TO .500	.272
1 TO 2	.500 TO .250	.782
2 TO 3	.250 TO .125	8.158
3 TO 4	.125 TO .063	18.253
4 TO 5	.063 TO .031	1.903
5 TO 6	.031 TO .016	.306
6 TO 7	.016 TO .008	4.623
7 TO 8	.008 TO .004	5.438
8 TO 9	.004 TO .002	5.269
9 TO 10	.002 TO .001	3.331
>10	<.001	51.496

GRAVEL (>2.0 MM)	.034
SAND (2.0-.063 MM)	27.600
SILT (.063-.004 MM)	12.271
CLAY (<.004 MM)	60.095
MEAN (MM)	.0044
MEAN (PHI)	7.837
STANDARD DEVIATION	3.229
SKEWNESS	-.332
KURTOSIS	-1.260
CALCIUM CARBONATE	27.000
ORGANIC CARBON	2.504
NITROGEN (KJELDAHL)	.306
COLOR (GSA)	5G2/1

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE MYPT-3 TAKEN 0 0 LATITUDE 30 21.00 N MARSDEN SQUARE 117-0 LENGTH .0 ANALYZED 0MAY73
SAMPLE 59C DEPTH .0 LONGITUDE 81 18.00 W CORER TYPE EKD PENETRATION .0

SUBSAMPLE ID. 446 25

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.377
-2 TO -1	4.000 TO 2.000	.784
-1 TO 0	2.000 TO 1.000	2.159
0 TO 1	1.000 TO .500	23.419
1 TO 2	.500 TO .250	57.944
2 TO 3	.250 TO .125	13.002
3 TO 4	.125 TO .063	1.236
4 TO 5	.063 TO .031	.075
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.063
7 TO 8	.008 TO .004	.126
8 TO 9	.004 TO .002	.126
9 TO 10	.002 TO .001	.000
>10	<.001	.690

GRAVEL (>2.0 MM)	1.161
SAND (2.0-.063 MM)	97.760
SILT (.063-.004 MM)	.264
CLAY (<.004 MM)	.816
MEAN (MM)	.3730
MEAN (PHI)	1.423
STANDARD DEVIATION	1.146
SKEWNESS	1.830
KURTOSIS	28.634
CALCIUM CARBONATE	9.000
ORGANIC CARBON	.029
NITROGEN (KJELDAHL)	.011
COLOR (GSA)	10Y3/2

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE DIVERS TAKEN 0 0 LATITUDE 38 3.00 N MARSDEN SQUARE 121-82 LENGTH 165.1 ANALYZED 0MAY73
SAMPLE SF-4 DEPTH .0 LONGITUDE 122 18.00 W CORER TYPE DOC PENETRATION .0

DIAM (PHI)	DIAM (MM)	PERCENT	PERCENT	PERCENT
SUBSAMPLE ID.		446 1	446 2	446 8
DEPTH INTERVAL		.0- 30.5	30.5- 96.5	96.5-165.1
<-4	>16.000	.000	.000	.000
-4 TO -3	16.000 TO 8.000	.000	.000	.000
-3 TO -2	8.000 TO 4.000	.000	.000	.000
-2 TO -1	4.000 TO 2.000	.000	.120	.038
-1 TO 0	2.000 TO 1.000	.000	.015	.211
0 TO 1	1.000 TO .500	.000	.060	.659
1 TO 2	.500 TO .250	.000	.060	3.025
2 TO 3	.250 TO .125	.000	.081	3.121
3 TO 4	.125 TO .063	.250	.137	1.915
4 TO 5	.063 TO .031	.884	.717	.536
5 TO 6	.031 TO .016	4.634	3.556	3.179
6 TO 7	.016 TO .008	11.248	10.697	7.851
7 TO 8	.008 TO .004	13.795	13.057	10.340
8 TO 9	.004 TO .002	11.389	10.757	8.885
9 TO 10	.002 TO .001	8.737	8.904	6.587
>10	<.001	49.024	51.841	53.653
	GRAVEL (>2.0 MM)	.000	.120	.038
	SAND (2.0-.063 MM)	.290	.353	8.931
	SILT (.063-.004 MM)	30.560	28.027	21.906
	CLAY (<.004 MM)	69.150	71.501	69.125
	MEAN (MM)	.0019	.0018	.0029
	MEAN (PHI)	9.016	9.112	8.691
	STANDARD DEVIATION	1.732	1.745	2.585
	SKEWNESS	-.384	-.579	-.759
	KURTOSIS	-.660	1.504	1.533
	CALCIUM CARBONATE	18.000	20.000	18.000
	ORGANIC CARBON	1.329	1.395	1.156
	NITROGEN (KJELDAHL)	.183	.180	.162
	COLOR (GSA)	10YR3/2	5G2/1	5GY2/1

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE DIVERS TAKEN 0 0 LATITUDE 37 56.00 N MARSDEN SQUARE 121-72 LENGTH 129.5 ANALYZED 0MAY73
SAMPLE SF-8 DEPTH .0 LONGITUDE 122 4.00 W CORER TYPE DOC PENETRATION .0

DIAM (PHI)	DIAM (MM)	PERCENT	PERCENT	PERCENT
	SUBSAMPLE ID.	446 4	446 5	446 6
	DEPTH INTERVAL	.0- 30.5	30.5- 81.3	81.3-129.5
<-4	>16.000	.000	.000	.000
-4 TO -3	16.000 TO 8.000	.000	.000	.000
-3 TO -2	8.000 TO 4.000	.000	.000	.000
-2 TO -1	4.000 TO 2.000	.167	.095	.020
-1 TO 0	2.000 TO 1.000	.084	.192	.061
0 TO 1	1.000 TO .500	.484	.397	.143
1 TO 2	.500 TO .250	1.755	1.026	.491
2 TO 3	.250 TO .125	5.329	5.537	1.840
3 TO 4	.125 TO .063	27.416	19.168	7.832
4 TO 5	.063 TO .031	6.408	5.801	13.292
5 TO 6	.031 TO .016	8.500	17.911	22.127
6 TO 7	.016 TO .008	8.852	10.367	8.916
7 TO 8	.008 TO .004	7.619	7.169	5.971
8 TO 9	.004 TO .002	5.219	4.919	4.294
9 TO 10	.002 TO .001	3.413	4.037	2.474
>10	<.001	24.752	23.381	32.536
	GRAVEL (>2.0 MM)	.167	.095	.020
	SAND (2.0-.063 MM)	35.069	26.320	10.368
	SILT (.063-.004 MM)	31.380	41.248	50.307
	CLAY (<.004 MM)	33.384	32.337	39.305
	MEAN (MM)	.0119	.0108	.0069
	MEAN (PHI)	6.388	6.539	7.187
	STANDARD DEVIATION	2.994	2.819	2.676
	SKEWNESS	.083	.066	.026
	KURTOSIS	-1.364	-1.190	-1.372
	CALCIUM CARBONATE	13.000	10.000	6.000
	ORGANIC CARBON	.998	1.634	.731
	NITROGEN (KJELDAHL)	.105	.122	.053
	COLOR (GSA)	5G3/1	5Y2/1	5G2/1

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE DIVERS TAKEN 0 0 LATITUDE 37 27.00 N MARSDEN SQUARE 121-72 LENGTH 203.2 ANALYZED 0MAY73
SAMPLE SF10 DEPTH .0 LONGITUDE 122 2.00 W CORER TYPE DOC PENETRATION .0

	SUBSAMPLE ID.	446 7	446 8	446 9
	DEPTH INTERVAL	.0- 30.5	30.5-116.8	116.8-203.2
DIAM (PHI)	DIAM (MM)	PERCENT	PERCENT	PERCENT
<-4	>16.000	.000	.000	.000
-4 TO -3	16.000 TO 8.000	.000	.000	.000
-3 TO -2	8.000 TO 4.000	.464	.000	.000
-2 TO -1	4.000 TO 2.000	.416	.097	.275
-1 TO 0	2.000 TO 1.000	.434	.179	.092
0 TO 1	1.000 TO .500	.208	.179	.183
1 TO 2	.500 TO .250	.182	.165	.703
2 TO 3	.250 TO .125	.139	.179	3.054
3 TO 4	.125 TO .063	.139	.384	1.436
4 TO 5	.063 TO .031	1.995	.430	.794
5 TO 6	.031 TO .016	11.623	10.075	5.192
6 TO 7	.016 TO .008	12.100	10.792	9.743
7 TO 8	.008 TO .004	10.973	11.151	11.148
8 TO 9	.004 TO .002	7.937	8.462	9.163
9 TO 10	.002 TO .001	6.939	7.350	7.697
>10	<.001	46.450	50.556	50.519
	GRAVEL (>2.0 MM)	.880	.097	.275
	SAND (2.0-.063 MM)	1.102	1.086	5.467
	SILT (.063-.004 MM)	36.692	32.449	26.878
	CLAY (<.004 MM)	61.326	66.368	67.379
	MEAN (MM)	.0027	.0022	.0023
	MEAN (PHI)	8.542	8.856	8.739
	STANDARD DEVIATION	2.350	2.021	2.325
	SKEWNESS	-.696	-.538	-.705
	KURTOSIS	2.926	.970	1.709
	CALCIUM CARBONATE	19.000	10.000	17.000
	ORGANIC CARBON	1.027	1.634	1.411
	NITROGEN (KJELDAHL)	.160	.122	.165
	COLOR (GSA)	5GY2/1	5Y2/1	5GY2/1

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