WMF #74005tex

SEDIMENT LAB WORK REQUEST

SCIENTIST FERREBEE CRUISE ATLANTIC TWIN 1974

DATE SUBMITTED FEB 25 1976

NUMBER OF SAMPLES ~142 SAMPLE LOCATION CAPE COD BAY

SAMPLE TYPE CORE (CORE, GRAB)

DESALINIZATION NO (YES, NO)

ORGANIC REMOVAL NO (YES, NO)
RECORD AMOUNT ____ (YES, NO)

CARBONATE REMOVAL ACID (PICKING, ACID, NONE)
RECORD AMOUNT YES (YES, NO)

SIZE ANALYSIS 1φ (GRAVEL-SAND-SILT-CLAY, 1φ INTERVAL, ½φ INTERVAL, OTHER-SPECIFY)

ANALYSIS TYPE >63μ RSA (SIEVE, RAPID SEDIMENT ANALYZER)
<63μ CC (PIPET, COULTER COUNTER)

OTHER SEPARATIONS FOR SPECIFIC ANALYSIS NONE (SPECIFY TYPE AND AMOUNT)

REMARKS SAVE SAND FRACTION

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 1-1 5

GRAVEL 4.9 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 52.7 % — P ____ mm. — σ ____

SILT 42.4 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

4.9 / 49.4255 / 133.3821 / 132.8536

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								4.1140	4.9	4.9
SAND	2.000 / 1.000	-1 / 0		0.0		93.3915			43.9660	0.0	4.9
	1.000 / .500	0 / 1		14.5						7.6	12.5
	.500 / .250	1 / 2		7.5						4.0	16.5
	.250 / .125	2 / 3		8.0						4.2	20.7
	.125 / .062	3 / 4		70.0						36.9	57.6
	< .062	4							35.3481		
	> .062	4				97.5055			48.0800		
SILT	.062 TO .031	4 / 5	25 cm.	0 00					21.7	9.2	66.8
	.031 TO .016	5 / 6	10 cm.	0 02					14.2	6.0	72.8
	.016 TO .008	6 / 7	10 cm.	0 08					14.1	6.0	78.8
	.008 TO .004	7 / 8	10 cm.	0 32					12.7	5.4	84.2
CLAY	.004 TO .002	8 / 9	10 cm.	2 08					12.1	5.1	89.3
	.002 TO .001	9 / 10	7 cm.	5 58					10.2	5.3	94.6
	< .001	10	7 cm.	24 00					4.7	2.0	96.6

WEIGHT DISPERSING AGENT x 20 ____

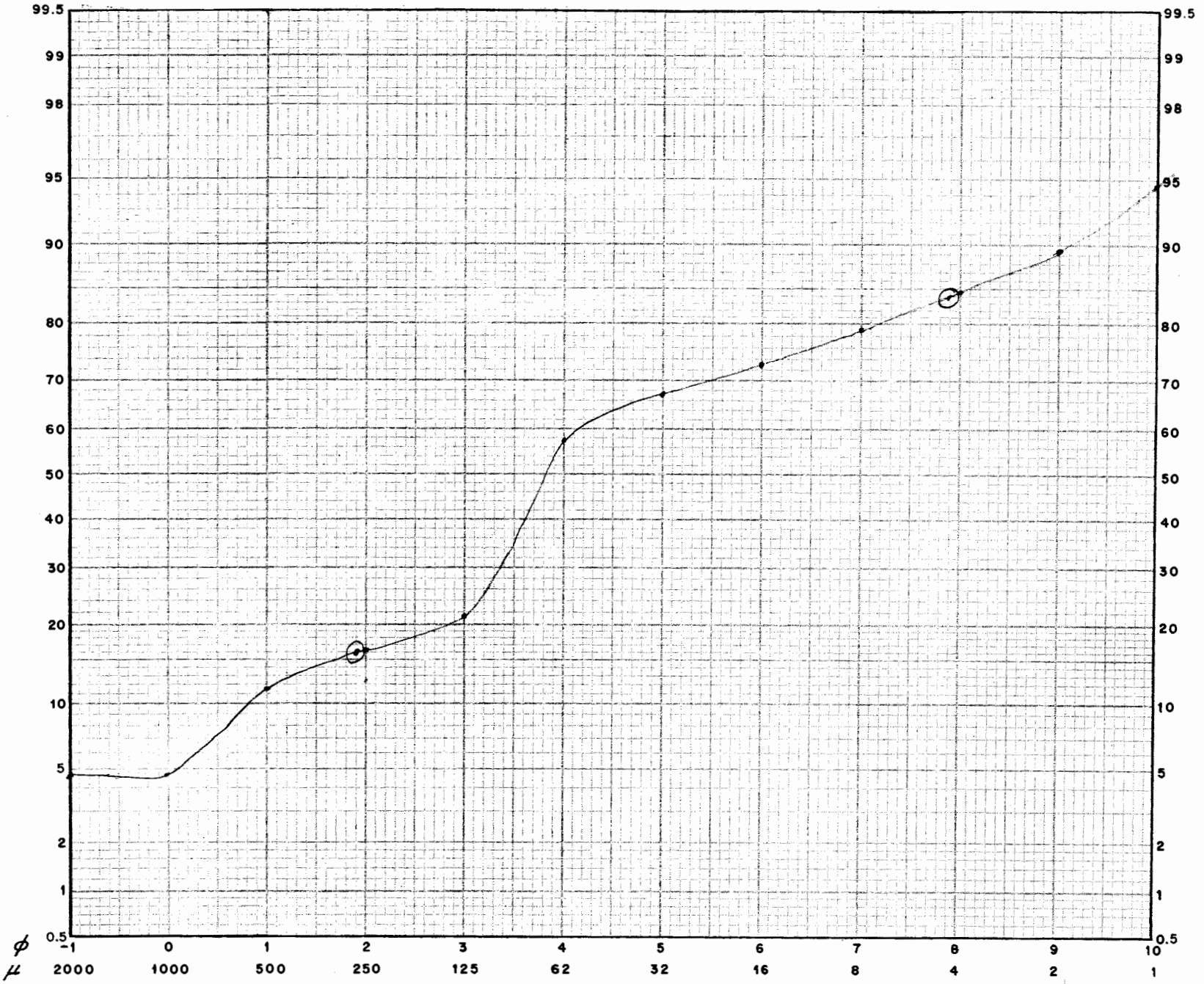
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 83.9566

.5285

83.4281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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 1/1 150

GRAVEL 16.5 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 82.6 % — P ____ mm. — σ ____

SILT 3.9 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

67 / 49.0588 / 136.7168 / 136.2238

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					121.1055			14.3568	16.5	
SAND	2.000 / 1.000	-1 / 0		3						2.5	19.0
	1.000 / .500	0 / 1		36						29.7	48.7
	.500 / .250	1 / 2		47						38.8	87.5
	.250 / .125	2 / 3		12						9.9	97.4
	.125 / .062	3 / 4		3						2.5	99.9
	< .062	4							.7615		
	> .062	4	25 cm.	0 00	135.	4623	86.4035				
SILT	.062 TO .031	5	10 cm.	0 02							100
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

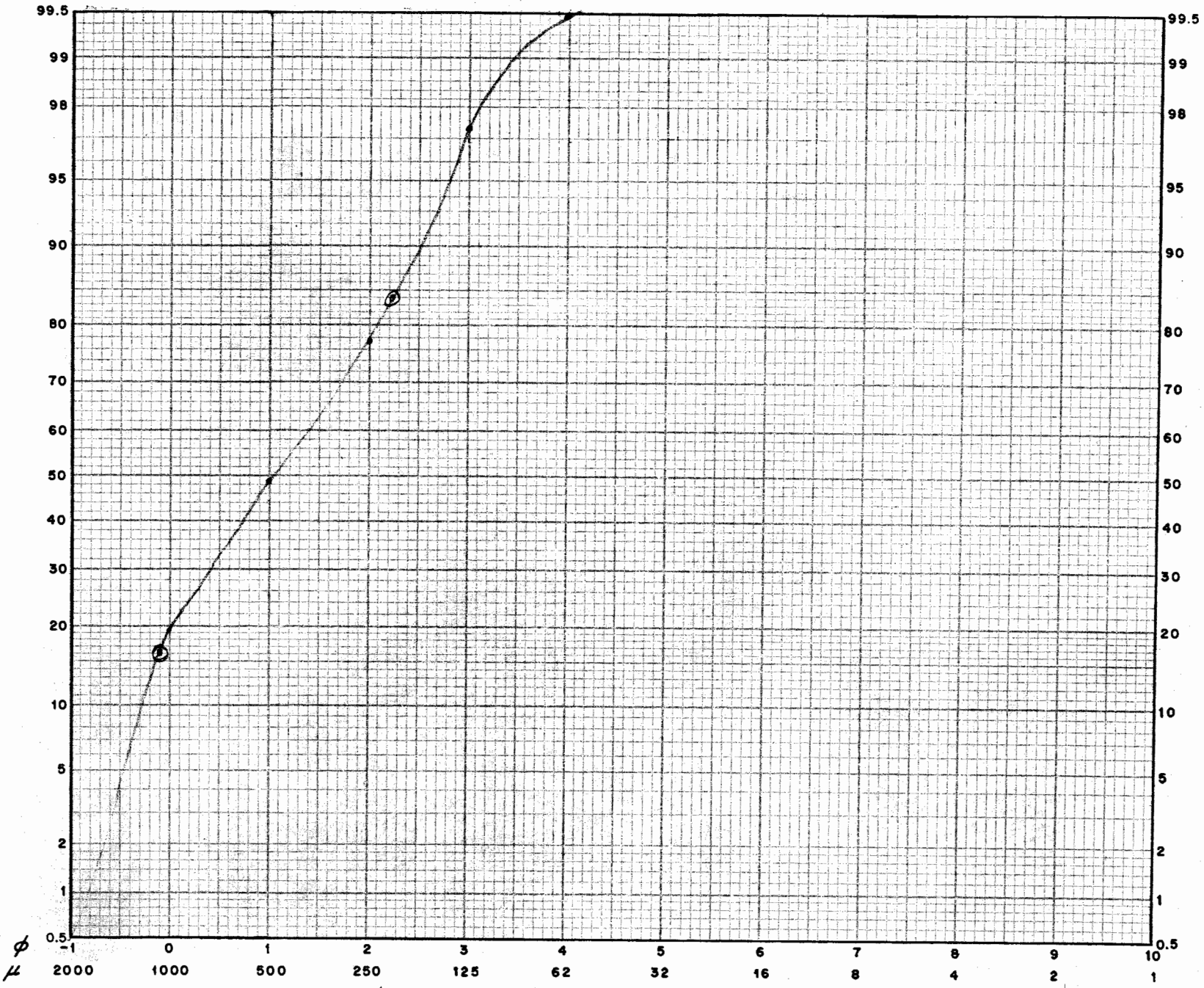
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 87.6580

.4930

87.1650



SAMPLE NO. _____

M_ϕ $\frac{-.1 + 2.2}{2} = \frac{2.1}{2} =$ 1.05

σ_ϕ $\frac{2.2 + .1}{2} - \frac{2.3}{2} =$ 1.15

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 1-2 -10

GRAVEL 1.7 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 16.5 % — P ____ mm. — σ ____

SILT 86.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

110 / 49.6311 / 103.7240 / 103.2110

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.8927	1.7	1.7
SAND	2.000 / 1.000	-1 / 0				55.8042			6.1731	0.0	1.7
	1.000 / .500	0 / 1		10						1.2	2.9
	.500 / .250	1 / 2		18						2.1	5.0
	.250 / .125	2 / 3		22						2.5	7.5
	.125 / .062	3 / 4		50						5.8	13.3
	< .062	4							46.5141		
	> .062	4				56.6969			7.0658		
SILT	.062 TO .031	4 / 5	25 cm.	0 00						5.3	18.6
	.031 TO .016	5 / 6	10 cm.	0 02						9.7	28.3
	.016 TO .008	6 / 7	10 cm.	0 08						13.9	42.2
	.008 TO .004	7 / 8	10 cm.	0 32						20.1	62.3
CLAY	.004 TO .002	8 / 9	10 cm.	2 08						18.7	81.0
	.002 TO .001	9 / 10	7 cm.	5 58						13.0	84.0
	< .001	10	7 cm.	24 00						5.4	99.4

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

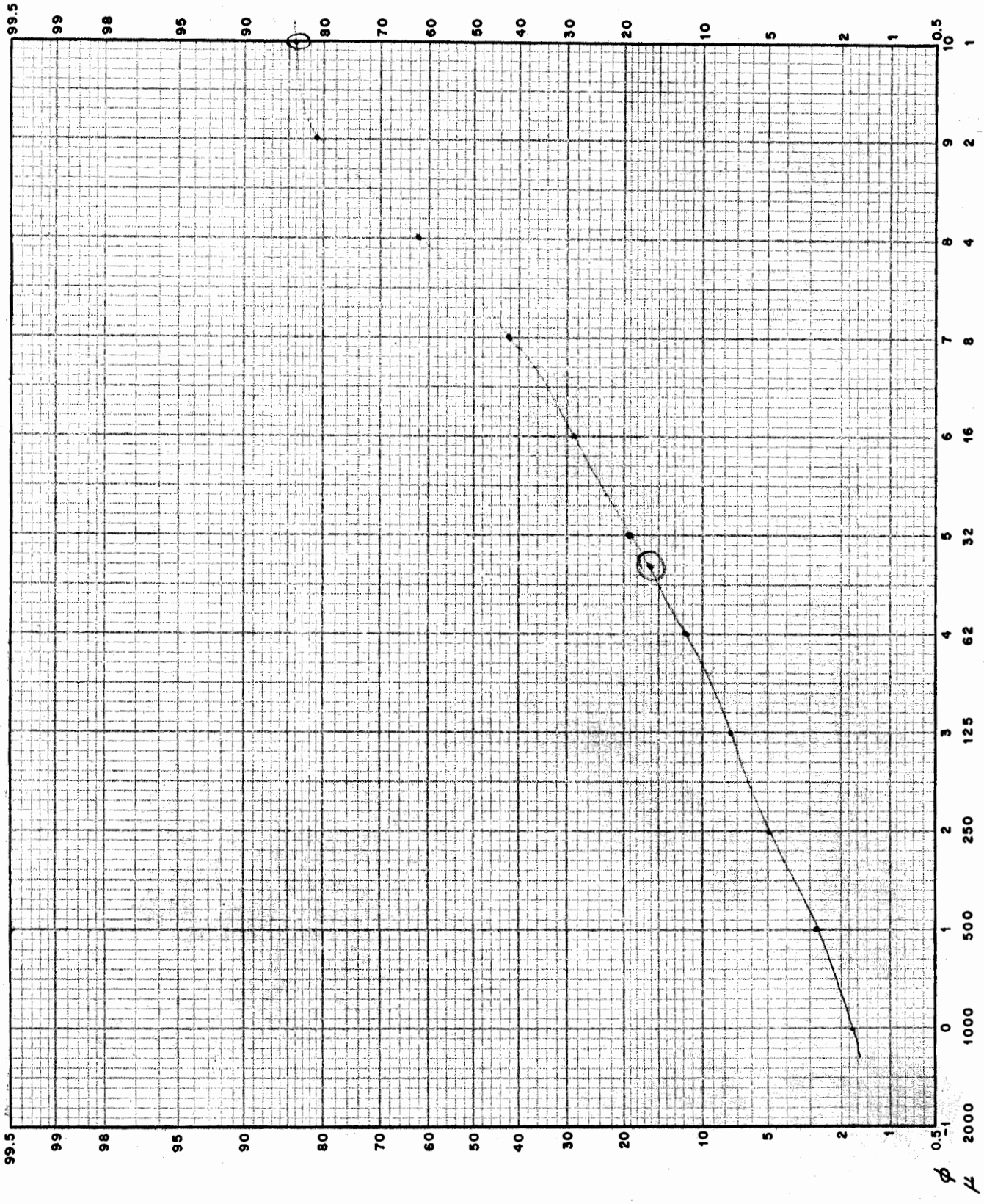
WT. FINE ____

WT. TOTAL SAMPLE 54.0929

.5130

53.5799

SAMPLE NO._____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10 9 8 7 6 5 4 3 2 1 0 -1
1 2 4 8 16 32 62 125 250 500 1000 2000
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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 1-2 50

GRAVEL .5 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 34.9 % — P ____ mm. — σ ____

SILT 64.5 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

79./48.3790 / 105.4856 / 105.3377

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.3044	.5	.5
SAND	2.000 / 1.000	-1				68.3108					
		0		0					19.9318	.0	.5
	1.000 / .500			13						4.5	5.0
	.500 / .250	1		13						4.5	9.5
	.250 / .125	2		14						4.9	14.4
	.125 / .062	3		60						21.0	35.0
	< .062	4							36.7225		
	> .062					68.6152			20.2362		
SILT	.062 TO .031	4	25 cm.	0 00					12.0	7.8	42.8
	.031 TO .016	5	10 cm.	0 02					9.9	6.4	49.2
	.016 TO .008	6	10 cm.	0 08					15.6	10.1	59.3
	.008 TO .004	7	10 cm.	0 32					19.5	12.6	71.9
CLAY	.004 TO .002	8	10 cm.	2 08					20.4	13.2	85.1
	.002 TO .001	9	7 cm.	5 58					15.6	10.1	95.2
	< .001	10	7 cm.	24 00					6.9	4.5	99.7

WEIGHT DISPERSING AGENT x 20 ____

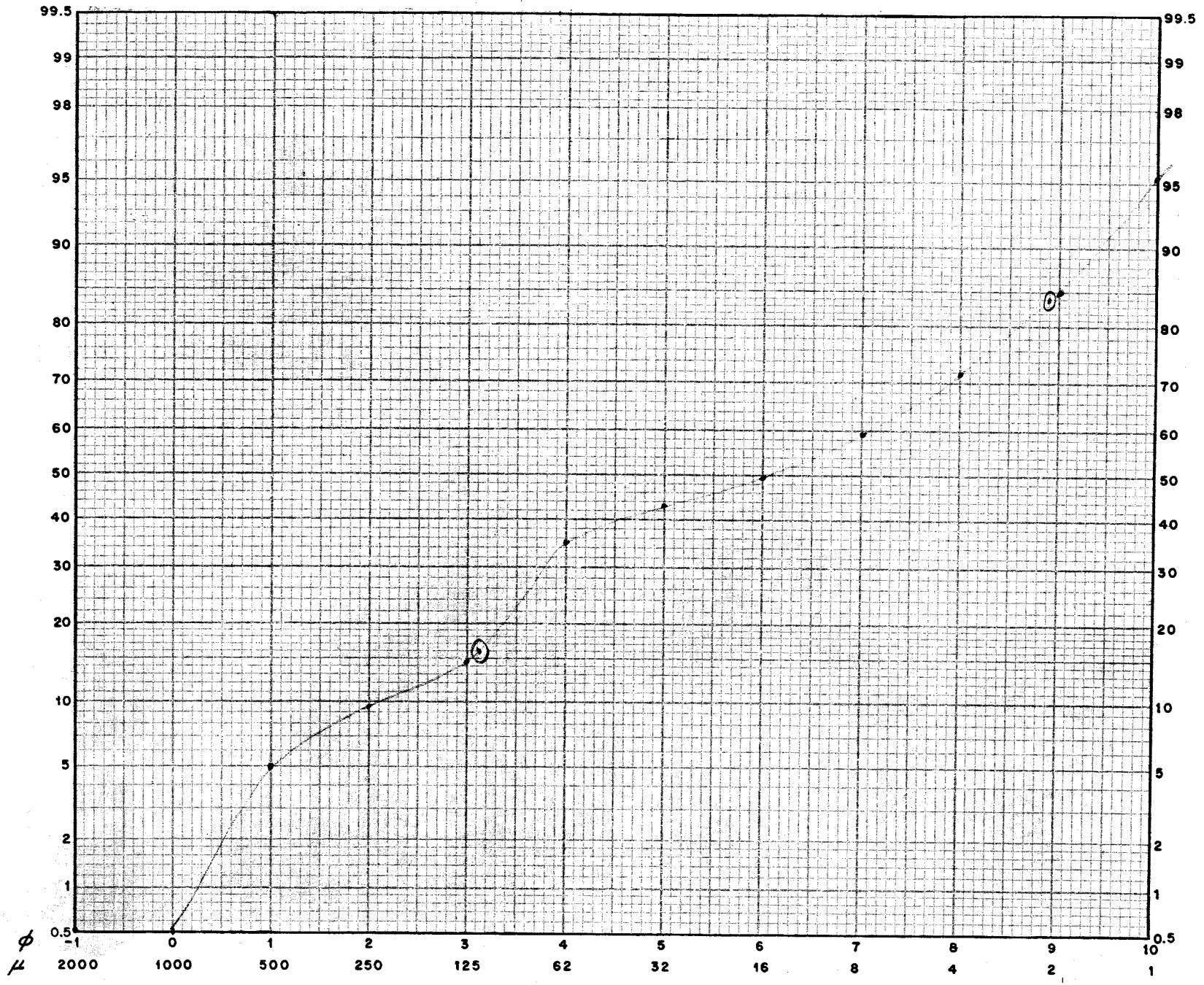
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 57.1066

.1479

56.9587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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 1-2 -150

GRAVEL 1.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 50.9 % — P ____ mm. — σ ____

SILT ~~F~~ 48.1 % — P ____ mm. — Sk. ____

CLAY ~~S~~ ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

93 / 50.1350 / 13266 / 130.5925

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					91.1587			.7733	1.0	1.0
SAND	2.000 / 1.000	−1 / 0								0.0	1.0
	1.000 / .500	0 / 1		8						4.1	5.1
	.500 / .250	1 / 2		15						7.6	12.7
	.250 / .125	2 / 3		10						5.1	17.8
	.125 / .062	3 / 4		67						34.1	51.9
	< .062	4							38.6605		
	> .062	4				91.9320	41.7970				
SILT	.062 TO .031	4	25 cm.	0 00					27.2	13.1	65.0
	.031 TO .016	5	10 cm.	0 02					16.3	7.8	72.8
	.016 TO .008	6	10 cm.	0 08					14.0	6.7	79.5
	.008 TO .004	7	10 cm.	0 32					13.3	6.4	85.9
CLAY	.004 TO .002	8	10 cm.	2 08					12.2	5.9	91.8
	.002 TO .001	9	7 cm.	5 58					10.7	5.1	96.9
	< .001	10	7 cm.	24 00					6.2	3.0	99.9

WEIGHT DISPERSING AGENT x 20 ____

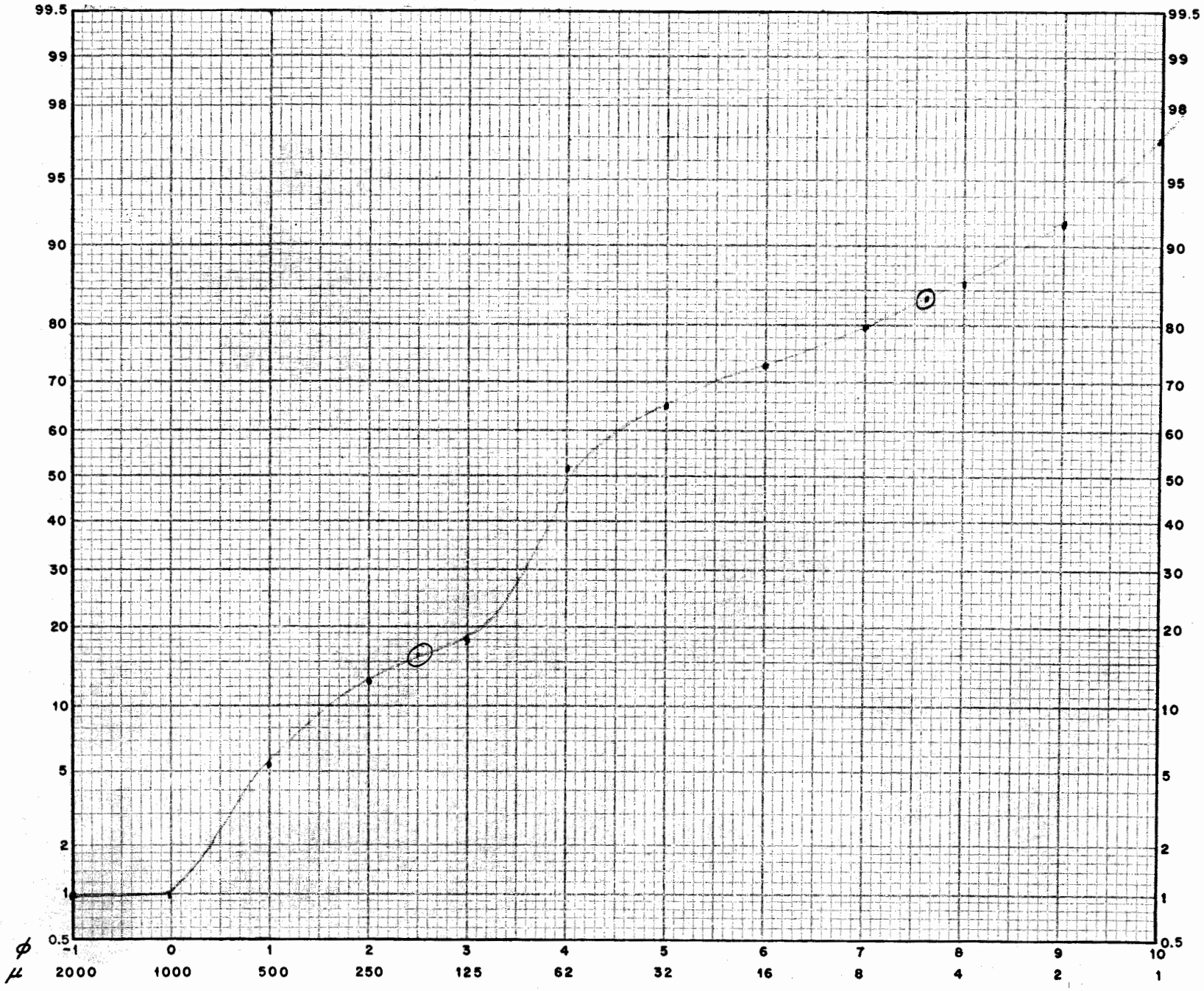
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 82.3916

1.9341

80.4575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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/1 5

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 93.9 % — P ____ mm. — σ ____

SILT ξ 6.1 % — P ____ mm. — Sk. ____

CLAY ξ ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

383 / 49.1130 / 100.8095 / 100.3651

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000			0						0.0	0.0
SAND	2.000 / 1.000	−1 / 0		0						0.0	
	1.000 / .500	0 / 1		0						0.0	
	.500 / .250	1 / 2		0						0.0	
	.250 / .125	2 / 3		45						42.3	42.3
	.125 / .062	3 / 4		55						51.7	94.0
	< .062	4							3.1180		
	> .062	4				97.2474			48.1344		
SILT	.062 TO .031	4	25 cm.	0 00							100.1
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

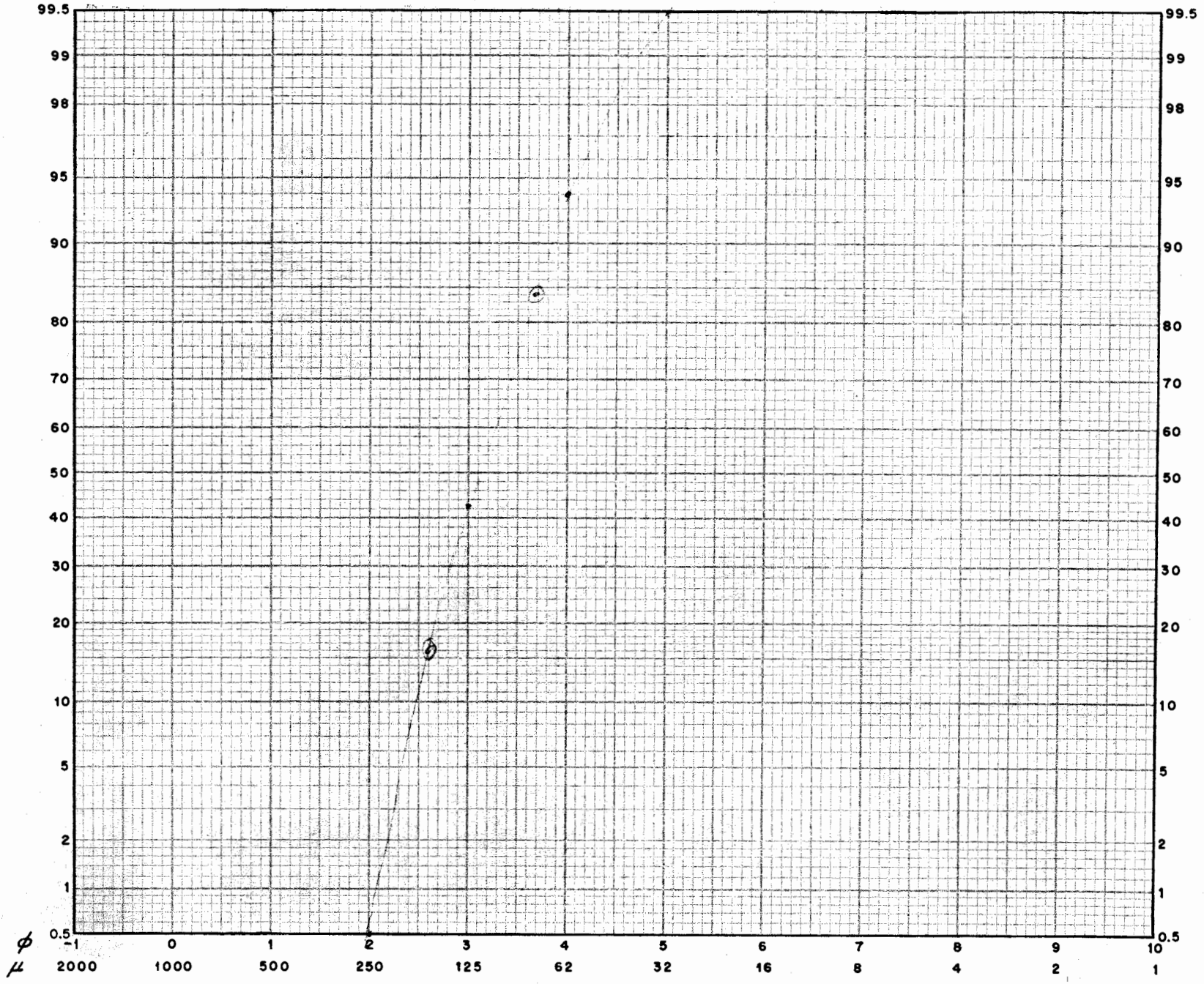
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 51.6965

.4441

51.2524



SAMPLE NO. _____

$M_\phi = \frac{3.7 + 2.5}{2} = \frac{6.2}{2} = 3.15$

$S_\phi = 3.7 - 2.5 = 1.2$

LOCATION OF SAMPLE C C Bay SAMPLE NO. 3/1 100

GRAVEL 4.30 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 89.00 % P ____ mm. σ ____

SILT 3 6.70 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

381 / 49.3419 / 112.9987 / 112.3970

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								2.7092		4.3	4.3
SAND	2.000 / 1.000	-1 / 0				105.4608			56.1189	0.0	0.0	4.3
	1.000 / .500	0 / 1								0.0	0.0	4.3
	.500 / .250	1 / 2								0.0	0.0	4.3
	.250 / .125	2 / 3								61.0	54.3	57.6
	.125 / .062	3 / 4								39.0	34.7	92.3
	< .062	4							4.2270			
	> .062	4				108.1700			58.8281			
SILT	.062 TO .031	4	25 cm.	0 00							99.0	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

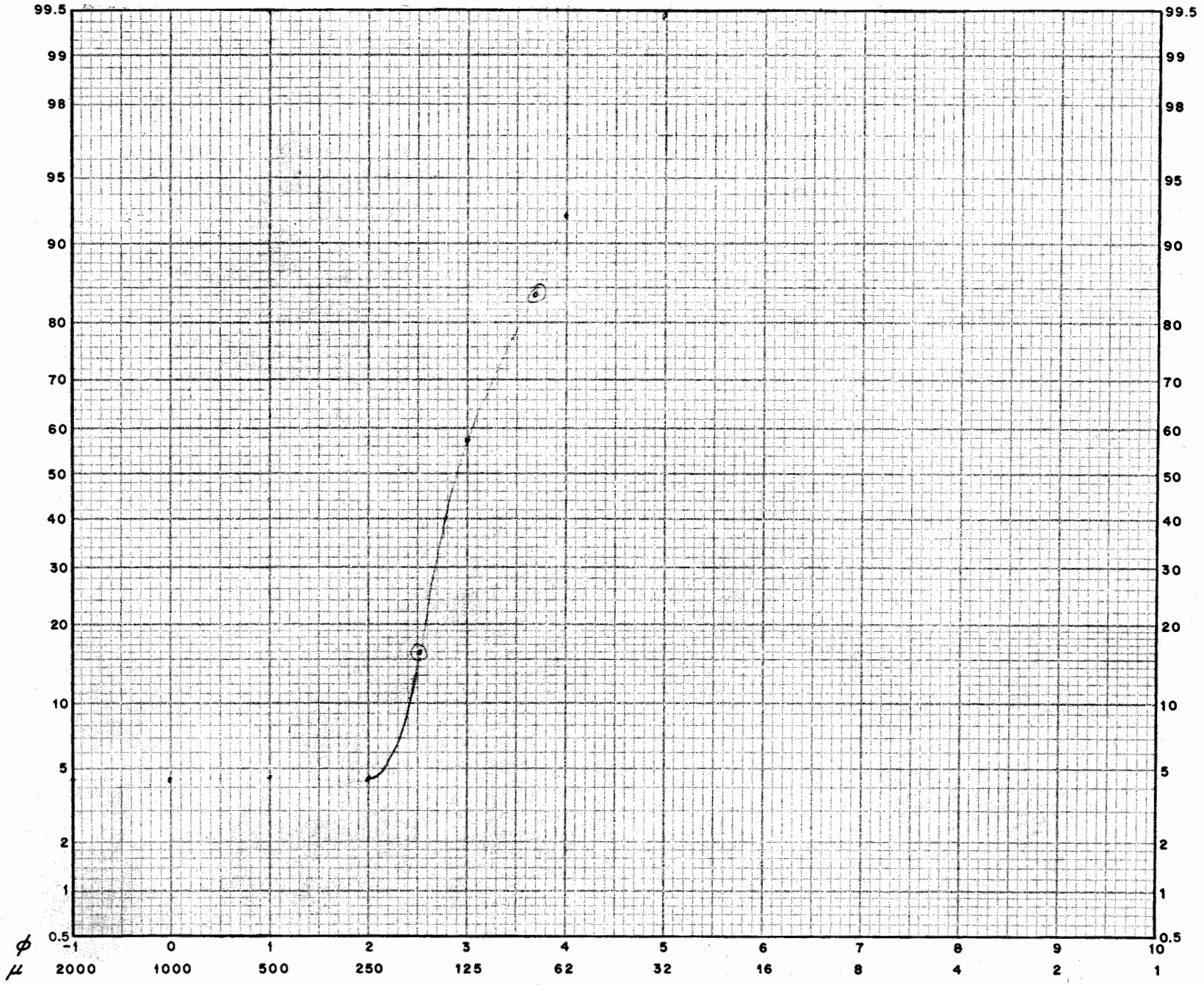
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 63.6568

.6017

63.0551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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 3/4" 110

GRAVEL 69.52 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 28.15 % — P ____ mm. — σ ____

SILT 3 2.33 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

397 / 49.0858 / 152.3860 / 152.1346

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								71.6395		69.5	69.5
SAND	2.000 / 1.000	-1				78.0921			29.0063	35.5	10.0	79.5
	1.000 / .500	0								6.5	1.8	81.3
	.500 / .250	1								9.5	2.7	84.0
	.250 / .125	2								22.5	6.3	90.3
	.125 / .062	3								26.0	7.3	97.6
	< .062	4							2.4030			
	> .062	4				149.7316			100.6458			
SILT	.062 TO .031	4	25 cm.	0 00							99.9	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

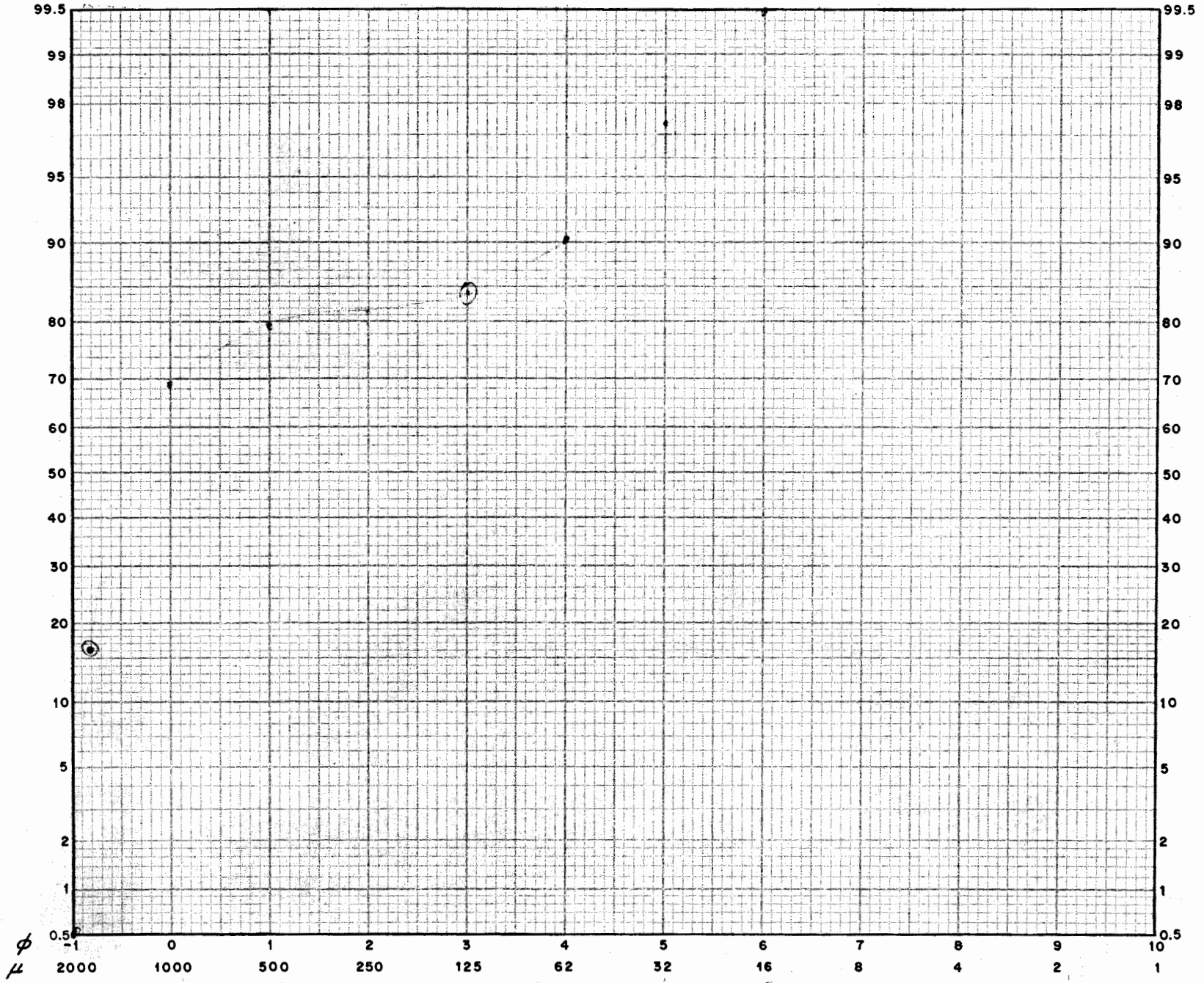
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 103.3002

1.2514

103.0488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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/1 145

GRAVEL 62.16 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 36.16 % — P ____ mm. — σ ____

SILT 1.68 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

398 / 49.5953 / 162.6496 / 161.9457

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000				✓				6.1839		6.2.16	62.2
SAND	2.000 / 1.000	-1 / 0				90.2169			40.6216	25.0	9.0	71.2
	1.000 / .500	0 / 1								32.5	11.8	83.0
	.500 / .250	1 / 2								20.0	7.3	90.3
	.250 / .125	2 / 3								12.0	4.3	94.6
	.125 / .062	3 / 4								5.5	3.0	97.6
	< .062	4			✓				1.8895			
	> .062	4			✓	160.0562			110.4609			
SILT	.062 TO .031	4	25 cm.	0 00							99.5	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

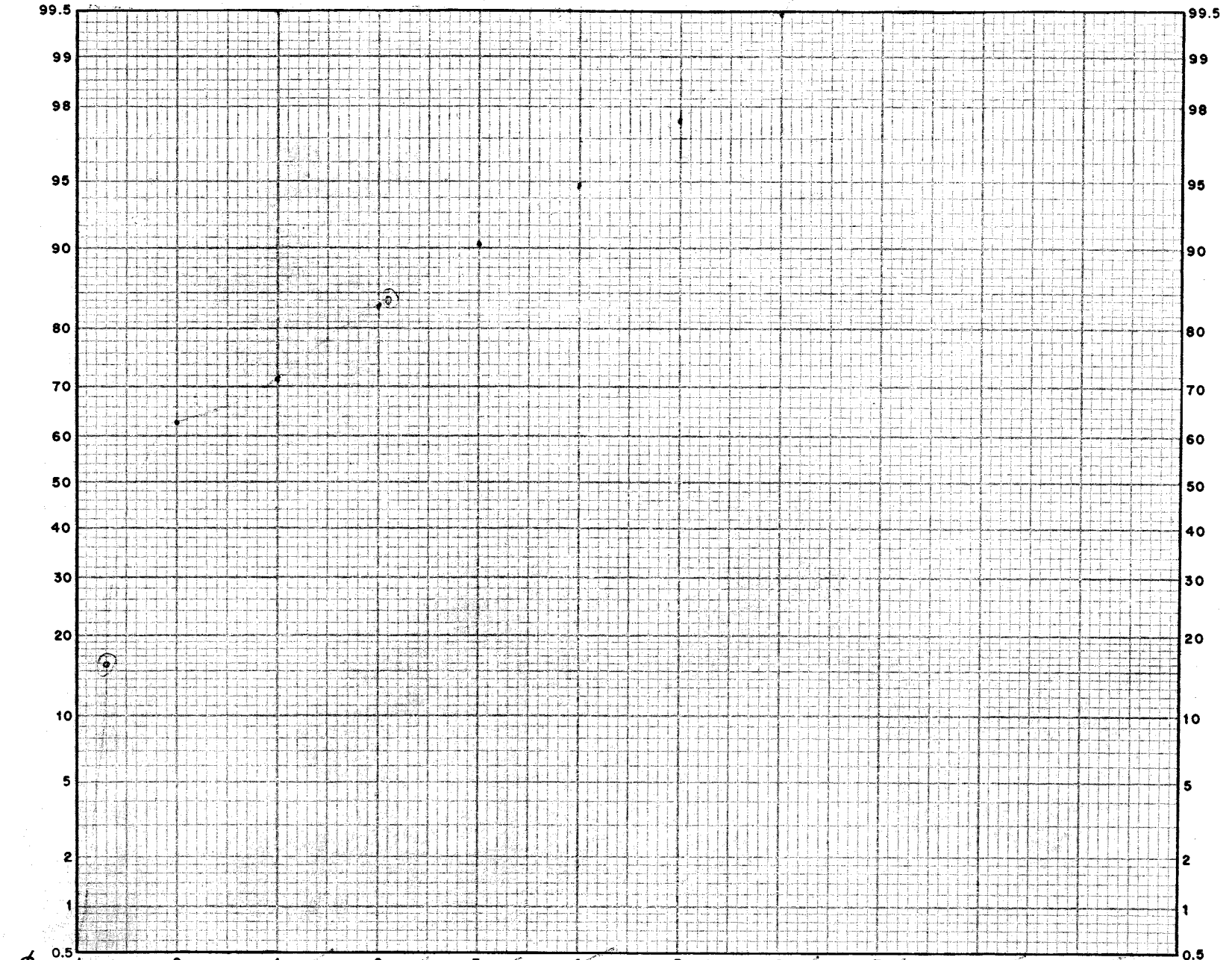
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 113.0543

.7039

112.3504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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/4' 155

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 6.90 % — P ____ mm. — σ ____

SILT 93.10 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

170 / BEAKER 48.8010 / 93.3665 / 92.9665

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								0.0		0.0
SAND	2.000 / 1.000	-1 / 0								4.0	3.7 3.7
	1.000 / .500	0 / 1								12.0	11.2 14.9
	.500 / .250	1 / 2								24.0	22.4 37.3
	.250 / .125	2 / 3								37.5	34.9 72.2
	.125 / .062	3 / 4								22.5	21.0 93.2
	< .062	4							3.0470		
	> .062	4				92.9195 / 48.8010			41.1185		
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100.1
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

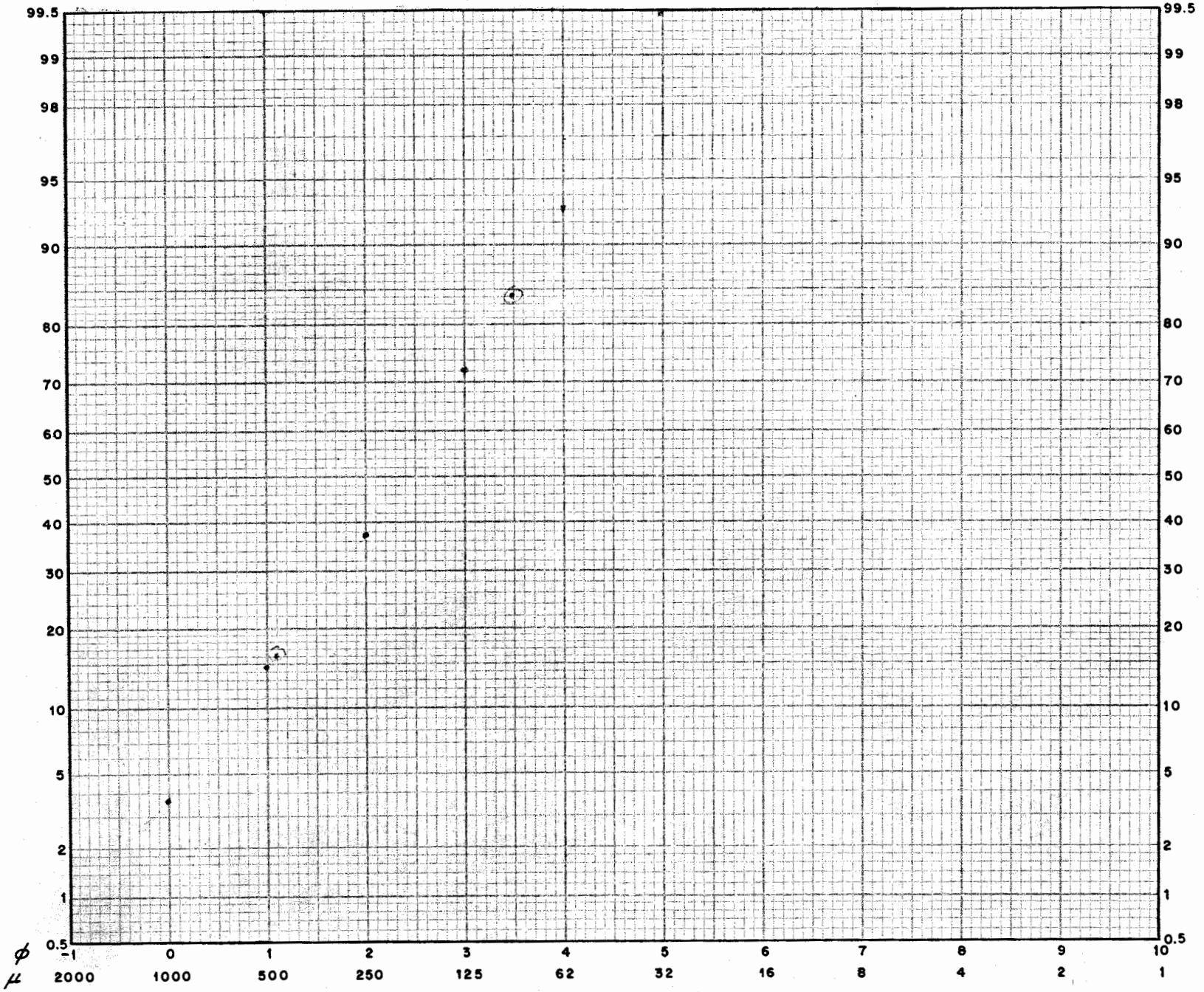
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 44.3655

carbonate .1400

44.1655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SAMPLE NO.

LOCATION OF SAMPLE C C Bay SAMPLE NO. 3/4' 170

GRAVEL 5.5 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 93.6 % P ____ mm. σ ____

SILT 3 .9 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

44 / BEAKER 48.3033 / BULK + BEAKER 116.2473 / 115.6753

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								3.707	5.5	
SAND	2.000 / 1.000	-1 / 0		5		111.3454			63.0421	4.7	
	1.000 / .500	0 / 1		50						46.8	
	.500 / .250	1 / 2		29						27.1	
	.250 / .125	2 / 3		12						11.2	
	.125 / .062	3 / 4		4						3.7	
	< .062	4							.6229		
	> .062					115.0524			66.7491		
SILT	.062 TO .031	4	25 cm.	0 00							
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

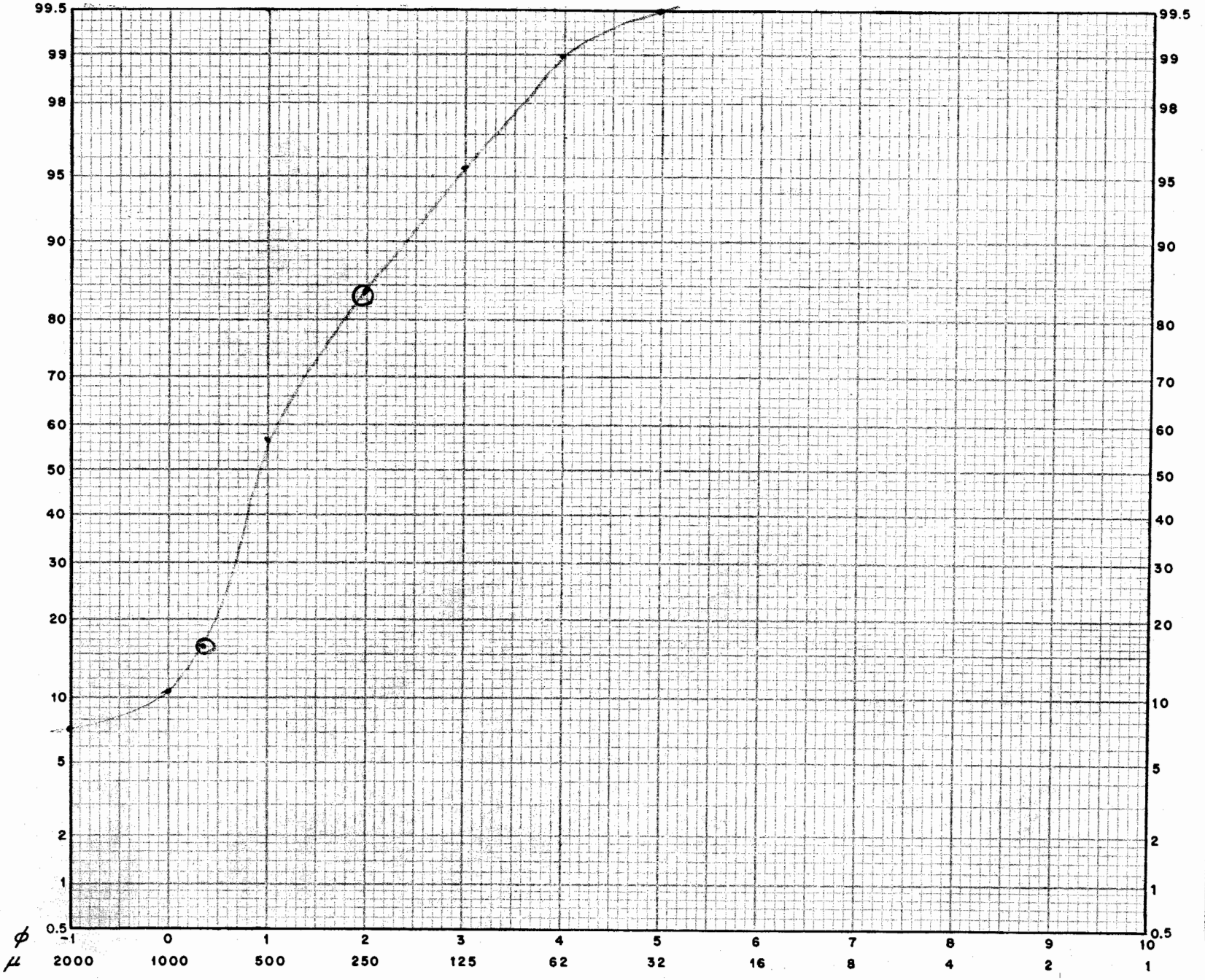
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 67.9440

carbonate .5720

67.3720



SAMPLE NO. _____

$M_\phi = \frac{2.0 + .35}{2} = 1.18$

$\sigma_\phi = 2.0 - .35 = .83$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/4' 185

GRAVEL 1.6 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 96.6 % — P ____ mm. — σ ____

SILT 3 1.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

366 / 49.6684 / 97.4923 / 97.0600

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.7391	1.6	1.6
SAND	2.000 / 1.000	-1		12		95.4345			45.7861	11.6	13.2
	1.000 / .500	0		54						52.2	65.4
	.500 / .250	1		24						23.2	88.6
	.250 / .125	2		8						7.7	96.3
	.125 / .062	3		2						1.9	98.2
	< .062	4							.8864		
	> .062	4				96.1736			46.5052		
SILT	.062 TO .031	4	25 cm.	0 00							100.1
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

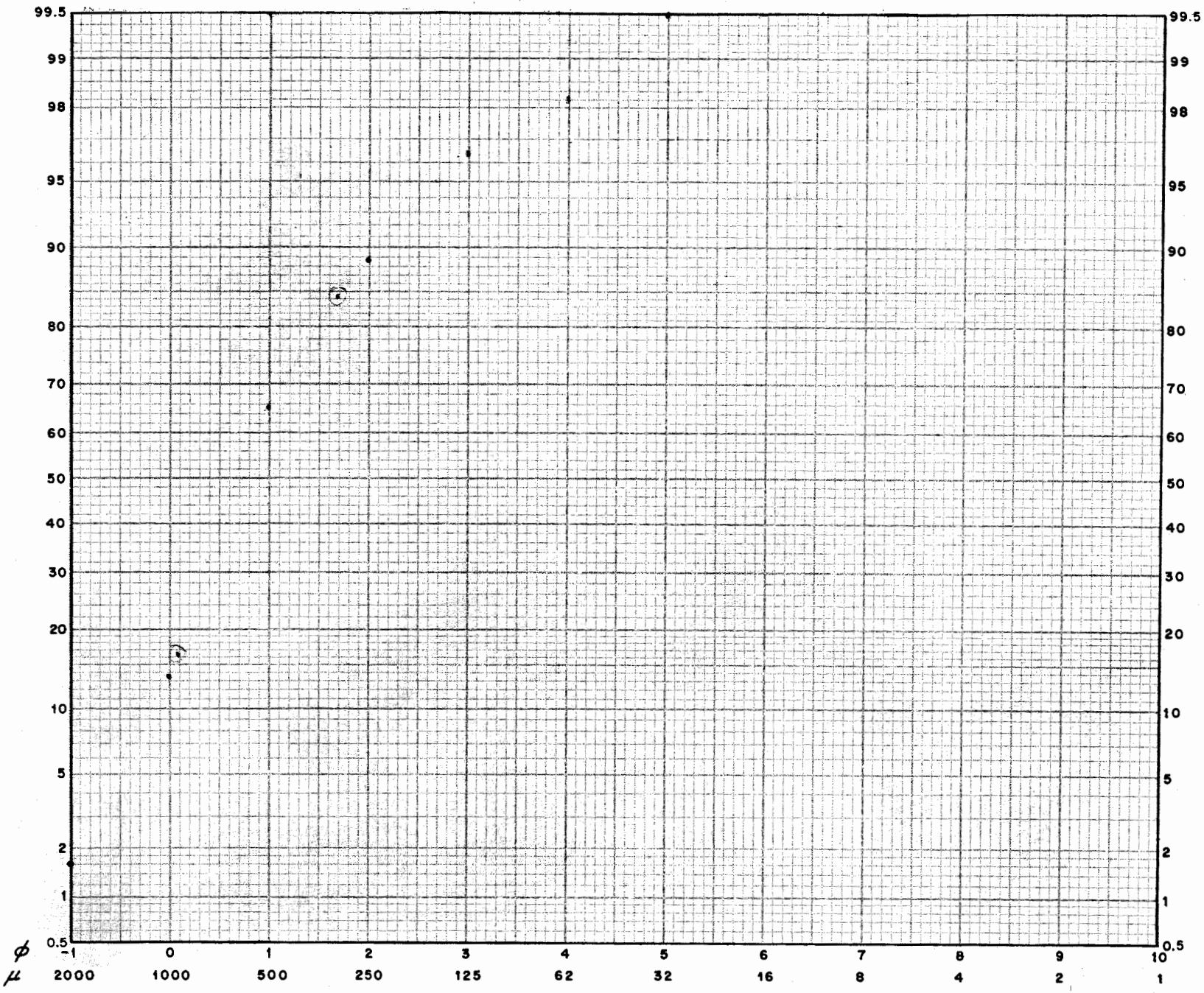
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 47.8239

.4323

47.3916



SAMPLE NO. _____

$M_\phi = \frac{1.7 + .1}{2} = \frac{1.8}{2} = .9$

$\sigma_\phi = 1.7_{-.1} = .8$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/1 195

GRAVEL 14.62 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 83.43 % — P ____ mm. — σ ____

SILT 1.95 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / Buck + Beaker

395 / 49.2499 / 130.8364 / 130.3015

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								11.8534		14.6	14.6
SAND	2.000 / 1.000	-1				116.8750			67.6251	4.5	3.8	18.4
	1.000 / .500	0								28.0	23.4	41.8
	.500 / .250	1								30.0	25.0	66.8
	.250 / .125	2								31.0	25.9	92.7
	.125 / .062	3								6.5	5.4	98.1
	< .062	4							1.5731			
	> .062	4				128.7284			79.4785			
SILT	.062 TO .031	4	25 cm.	0 00						2.0	100.1	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

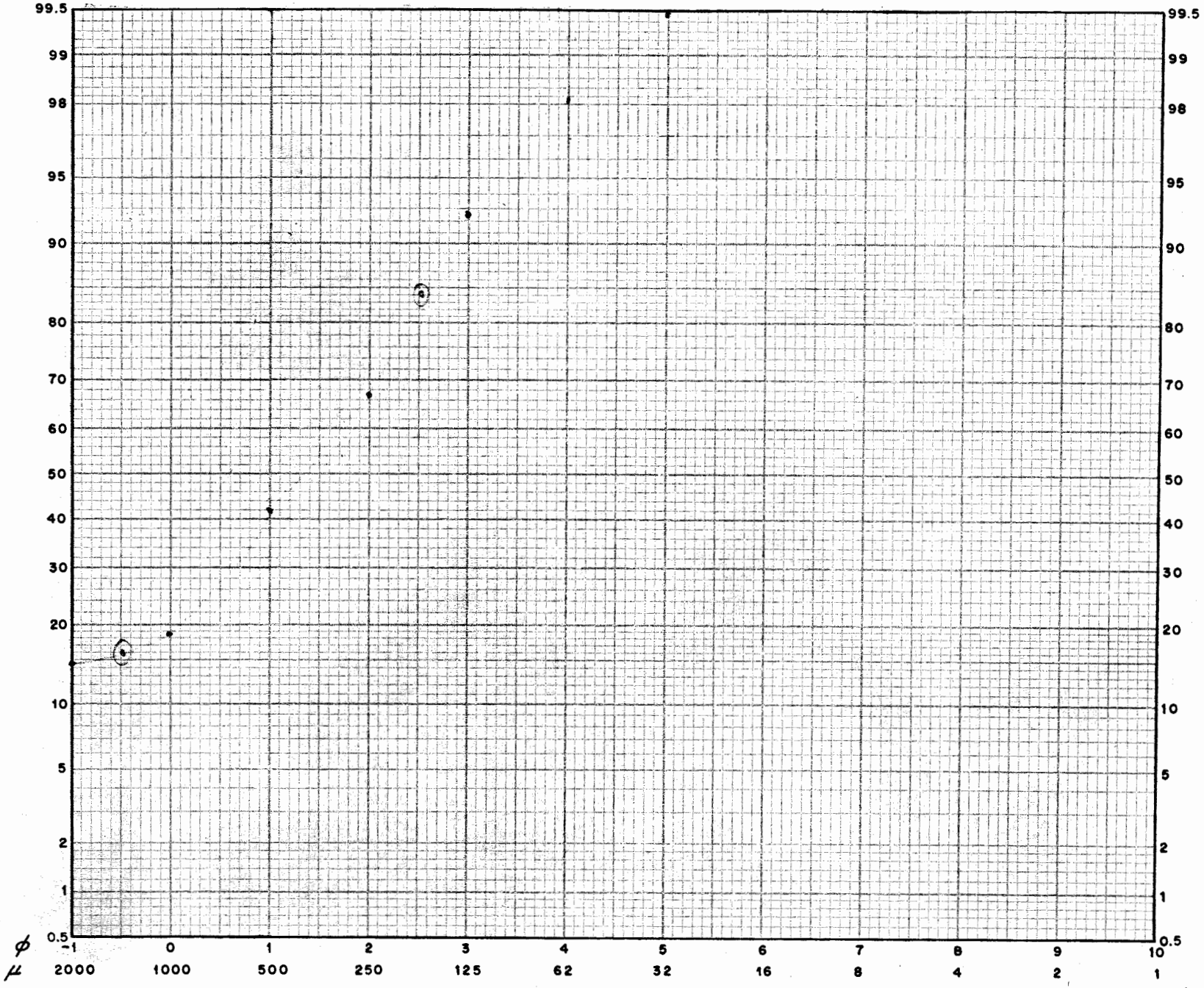
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 81.5865

.5349

81.0516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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 3-2-5

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 86.4 % — P ____ mm. — σ ____

SILT 13.6 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

101 / 49.8534 / 93.7487 / 93.1270

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000	−1									
SAND	2.000 / 1.000	0									
	1.000 / .500	1									
	.500 / .250	2									
	.250 / .125	3		33						28.5	28.5
	.125 / .062	4		67						57.9	86.4
	< .062								5.8890		
	> .062	4	25 cm.	0 00		87.2400	37.3846				
SILT	.062 TO .031	5	10 cm.	0 02						2.4	88.8
	.031 TO .016	6	10 cm.	0 08						2.1	90.9
	.016 TO .008	7	10 cm.	0 32						2.2	93.1
	.008 TO .004	8	10 cm.	2 08						2.4	95.5
CLAY	.004 TO .002	9	7 cm.	5 58						2.1	97.6
	.002 TO .001	10	7 cm.	24 00						1.6	99.2
	< .001									0.7	99.9

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

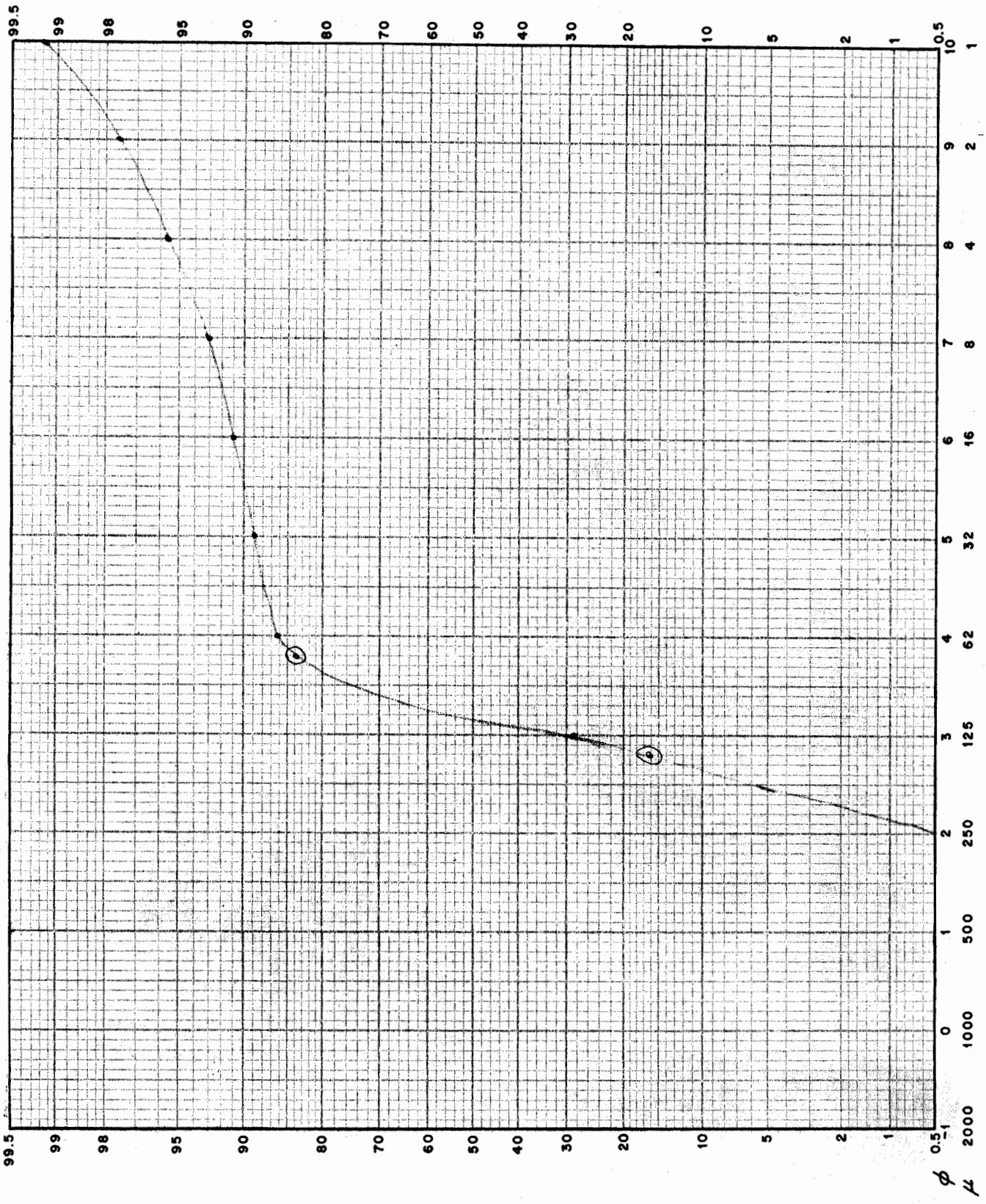
WT. FINE ____

WT. TOTAL SAMPLE 43.8953

.6217

43.2736

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3/2 100

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 90.0 % — P ____ mm. — σ ____

SILT ~~3~~ 10.0 % — P ____ mm. — Sk. ____

CLAY ~~3~~ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

373 / BEAKER 48.7842 / BULK + BEAKER 113.4431 / 112.8800

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1								0.0	
	1.000 .500	0								0.0	
	.500 .250	1								0.0	
	.250 .125	2		33						29.7	29.7
	.125 .062	3		67						60.3	90.0
	< .062	4							61.3856		
	> .062	4				10.64944			57.7102		
SILT	.062 TO .031	4	25 cm.	0 00							100.0
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

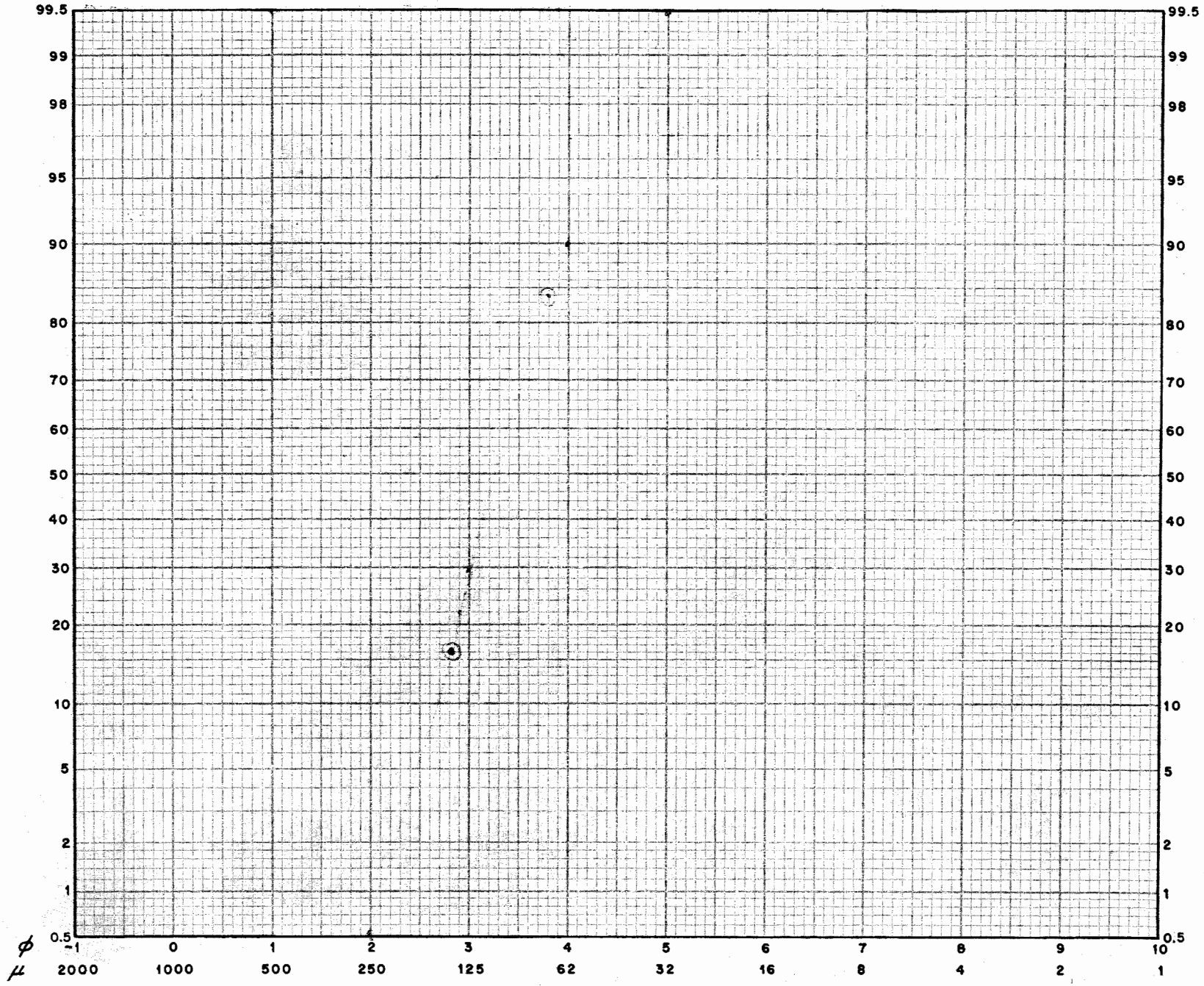
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 64.6589

,5631

64.0958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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 3-2 120

GRAVEL 6.8 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 80.4 % — P ____ mm. — σ ____

SILT ξ 12.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

389 / 48.8767 / 111.7379 / 111.3086

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								4.2123	6.7	6.7
SAND	2.000 / 1.000	-1 / 0		0.0		99.0489			50.1722	0.0	6.7
	1.000 / .500	1		7.0						5.6	12.3
	.500 / .250	2		19.0						15.3	27.6
	.250 / .125	3		31.5						25.3	52.9
	.125 / .062	4		42.5						34.2	87.1
	< .062								8.0474		
	> .062	4	25 cm.	0 00		103.2612			54.3845		
SILT	.062 TO .031	5	10 cm.	0 02					18.1	2.3	89.4
	.031 TO .016	6	10 cm.	0 08					14.1	1.8	91.2
	.016 TO .008	7	10 cm.	0 32					12.1	1.6	92.8
	.008 TO .004	8	10 cm.	2 08					15.9	2.1	94.9
CLAY	.004 TO .002	9	7 cm.	5 58					17.3	2.2	97.1
	.002 TO .001	10	7 cm.	24 00					14.5	1.9	99.0
	< .001								7.9	1.0	100.0

WEIGHT DISPERSING AGENT x 20 ____

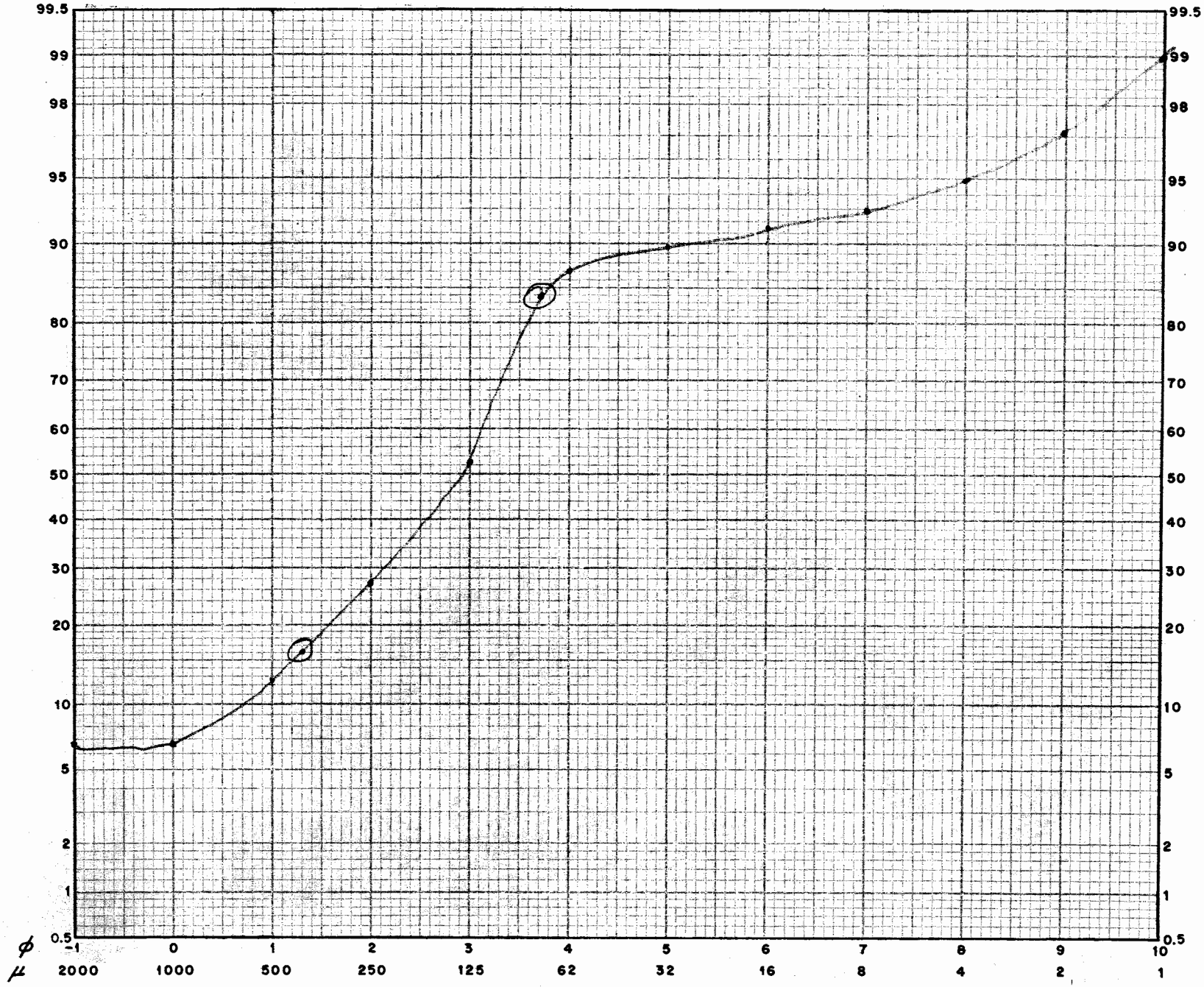
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 62.8612

.4293

62.4319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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 3-2 195

GRAVEL ____ % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 10.7 % — P ____ mm. — σ ____

SILT 3 89.3 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

380 / 49.9401 / 117.4051 / 117.0346

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		38.5						4.1	4.1
	.125 / .062	3		61.5						6.6	10.7
	< .062	4							7.1628		
	> .062	4	25 cm.	0 00		109.8718			59.9317		
SILT	.062 TO .031	5	10 cm.	0 02					17.6	15.7	26.4
	.031 TO .016	6	10 cm.	0 08					21.2	18.9	45.3
	.016 TO .008	7	10 cm.	0 32					14.7	13.1	58.4
	.008 TO .004	8	10 cm.	2 08					13.7	12.2	70.6
CLAY	.004 TO .002	9	7 cm.	5 58					12.9	11.5	82.1
	.002 TO .001	10	7 cm.	24 00					13.4	12.0	94.1
	< .001								6.7	6.0	100.1

WEIGHT DISPERSING AGENT x 20 ____

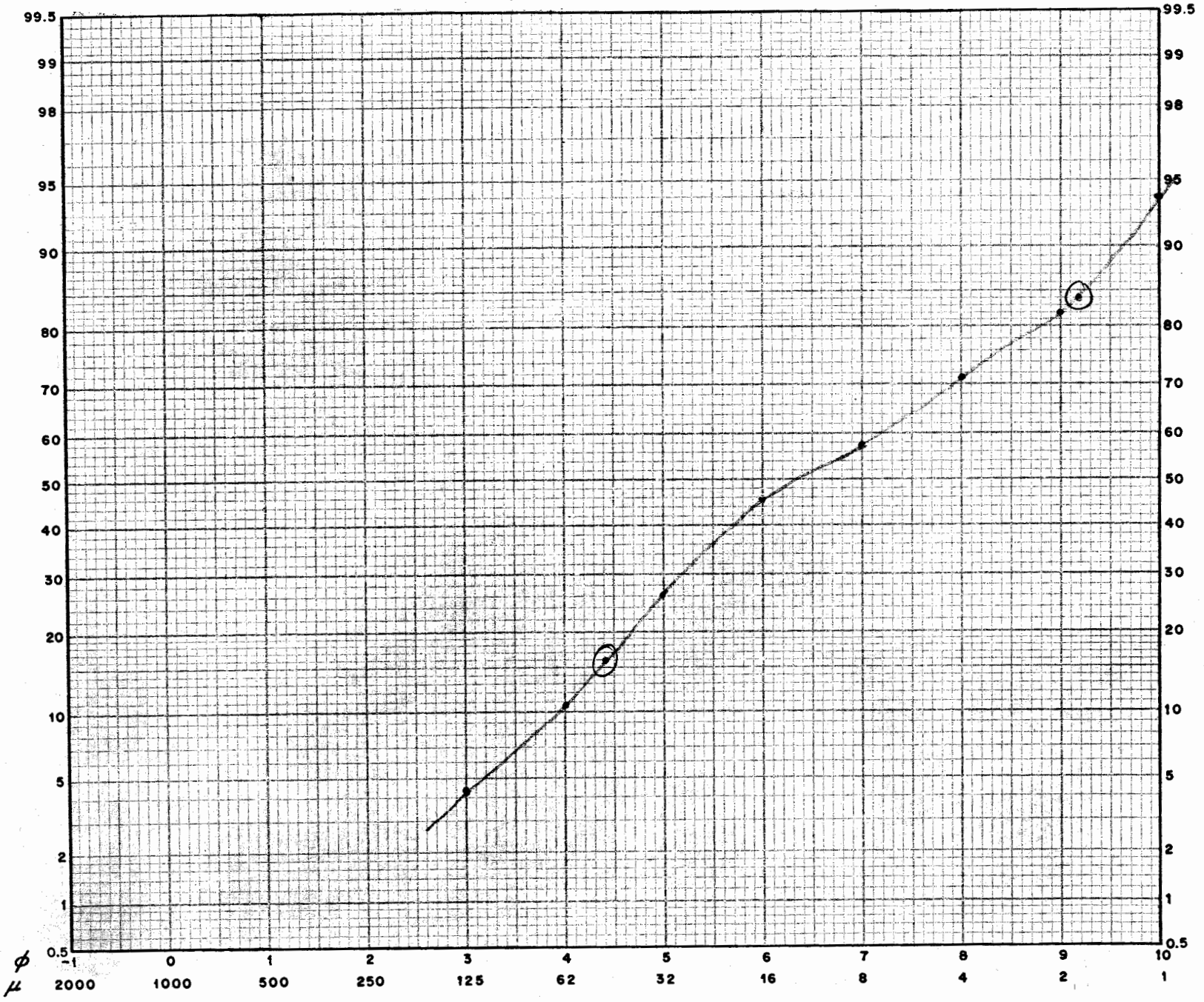
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 67.4650

.3705

67.0945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SAMPLE NO._____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 4-1 5cm

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 62.6 % — P ____ mm. — σ ____

SILT 37.4 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

410 / 49.4694 / 100.4809 / 99.8231

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		76						47.6	47.6
	.125 / .062	3		24						15.0	62.6
	< .062	4							18.8193		
	> .062	4	25 cm.	0 00		81.0038			31.5344		
SILT	.062 TO .031	5	10 cm.	0 02					10.8	4.0	66.6
	.031 TO .016	6	10 cm.	0 08					12.1	4.5	71.1
	.016 TO .008	7	10 cm.	0 32					15.8	5.9	76.0
	.008 TO .004	8	10 cm.	2 08					20.9	7.8	83.8
CLAY	.004 TO .002	9	7 cm.	5 58					19.0	7.1	90.9
	.002 TO .001	10	7 cm.	24 00					14.0	5.2	96.1
	< .001								7.5	2.8	98.9

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

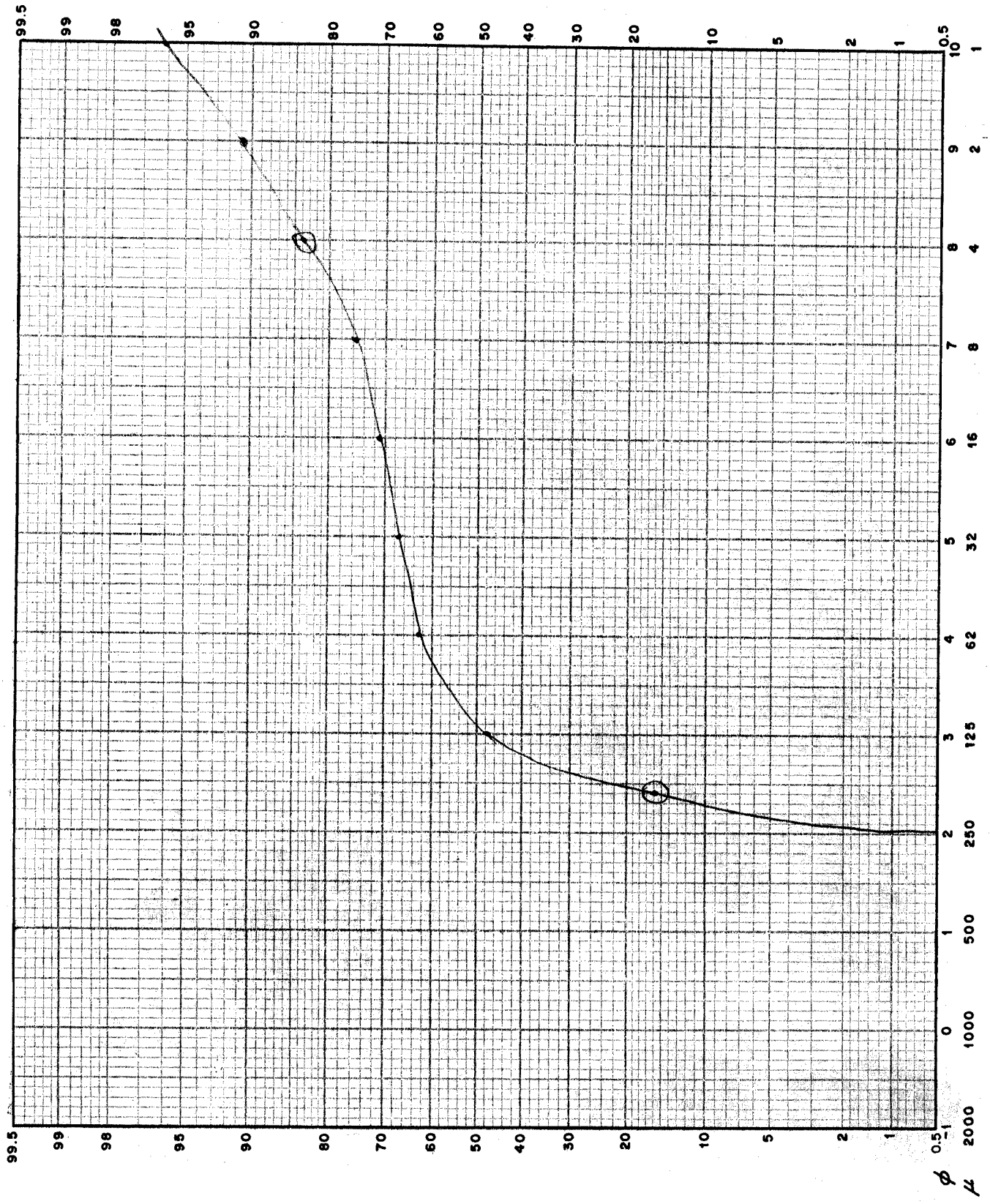
WT. FINE ____

WT. TOTAL SAMPLE 51.0115

.16578

50.3537

SAMPLE NO._____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LOCATION OF SAMPLE CC Bay — SAMPLE NO. 4-1 25

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 24.2 % — P ____ mm. — σ ____

SILT 75.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

9 / 48.7072 / 105.9780 / 105.5140

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		29						7.0	
	.125 / .062	3		71						17.2	24.2
	< .062	4							43.0607		
	> .062	4	25 cm.	0 00		62.4533			13.7461		
SILT	.062 TO .031	5	10 cm.	0 02					6.9	5.2	29.4
	.031 TO .016	6	10 cm.	0 08					13.3	10.0	39.4
	.016 TO .008	7	10 cm.	0 32					21.0	15.9	55.3
	.008 TO .004	8	10 cm.	2 08					23.4	17.7	73.0
CLAY	.004 TO .002	9	7 cm.	5 58					19.6	14.9	87.9
	.002 TO .001	10	7 cm.	24 00					10.9	8.3	96.2
	< .001								4.9	3.7	99.9

WEIGHT DISPERSING AGENT x 20 ____

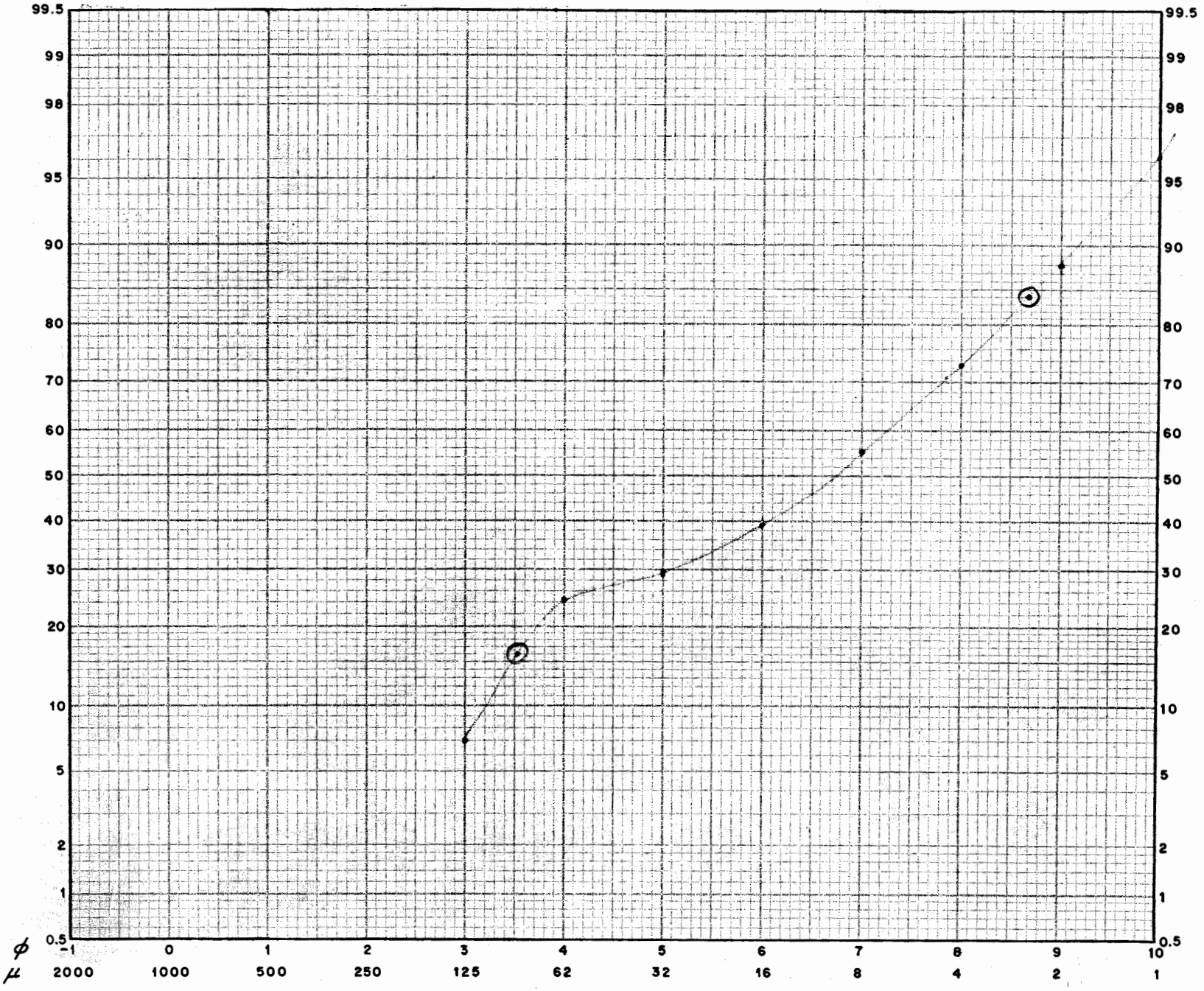
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 57.2708

.4640

56.8068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SAMPLE NO._____

LOCATION OF SAMPLE CC 844 — SAMPLE NO. 4-1 180

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 61.5 % — P ____ mm. — σ ____

SILT ~~3~~ 38.5 % — P ____ mm. — Sk. ____

CLAY ~~3~~ ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

187 / 48.8180 / 106.2060 / 105.6578

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		4						2.5	2.5
	.250 / .125	2		28						17.2	19.7
	.125 / .062	3		68						41.8	61.5
	< .062	4							21.8720		
	> .062	4				83.7858			34.8678		
SILT	.062 TO .031	4	25 cm.	0 00					30.5	11.7	73.2
	.031 TO .016	5	10 cm.	0 02					17.6	6.8	80.0
	.016 TO .008	6	10 cm.	0 08					13.4	5.2	85.2
	.008 TO .004	7	10 cm.	0 32					12.3	4.7	89.9
CLAY	.004 TO .002	8	10 cm.	2 08					12.5	4.8	94.7
	.002 TO .001	9	7 cm.	5 58					9.6	3.7	98.4
	< .001	10	7 cm.	24 00					4.2	1.6	100.0

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

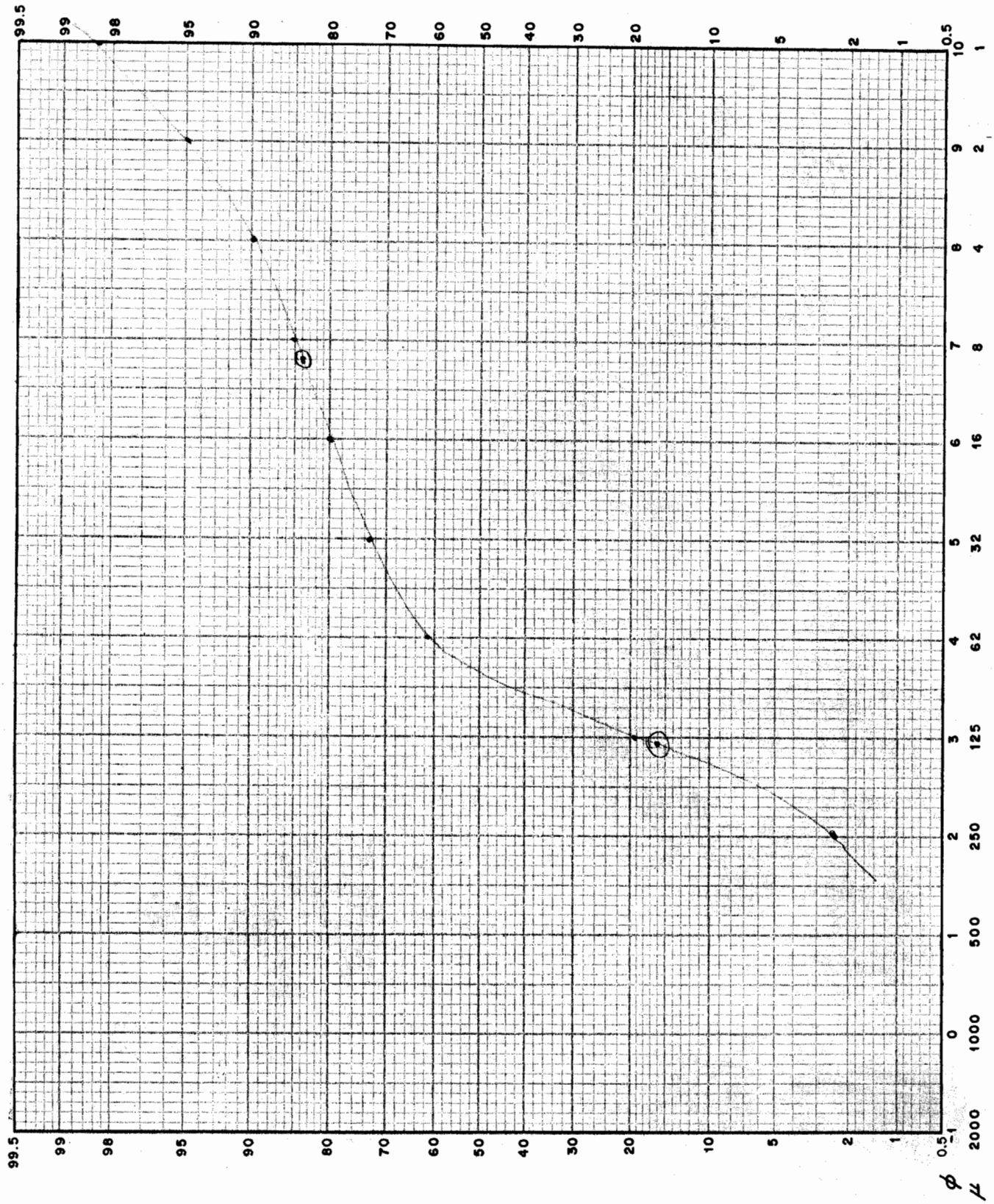
WT. FINE ____

WT. TOTAL SAMPLE 57.3880

.5482

56.8398

SAMPLE NO._____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LOCATION OF SAMPLE C C BAY — SAMPLE NO. 4-2 5

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 1.3 % — P ____ mm. — σ ____

SILT ≈ 98.7 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

151 / 49.4558 / 124.4884 / 124.2461

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2									
	.125 / .062	3								1.3	1.3
	< .062	4							72.8110		
	> .062	4	25 cm.	0 00		50.4331			.9793		
SILT	.062 TO .031	5	10 cm.	0 02					1.4	1.4	2.7
	.031 TO .016	6	10 cm.	0 08					10.1	10.0	12.7
	.016 TO .008	7	10 cm.	0 32					26.3	26.0	38.7
	.008 TO .004	8	10 cm.	2 08					29.9	29.5	68.2
CLAY	.004 TO .002	9	7 cm.	5 58					15.9	15.7	83.9
	.002 TO .001	10	7 cm.	24 00					9.4	9.3	93.2
	< .001								7.1	7.0	100.2

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

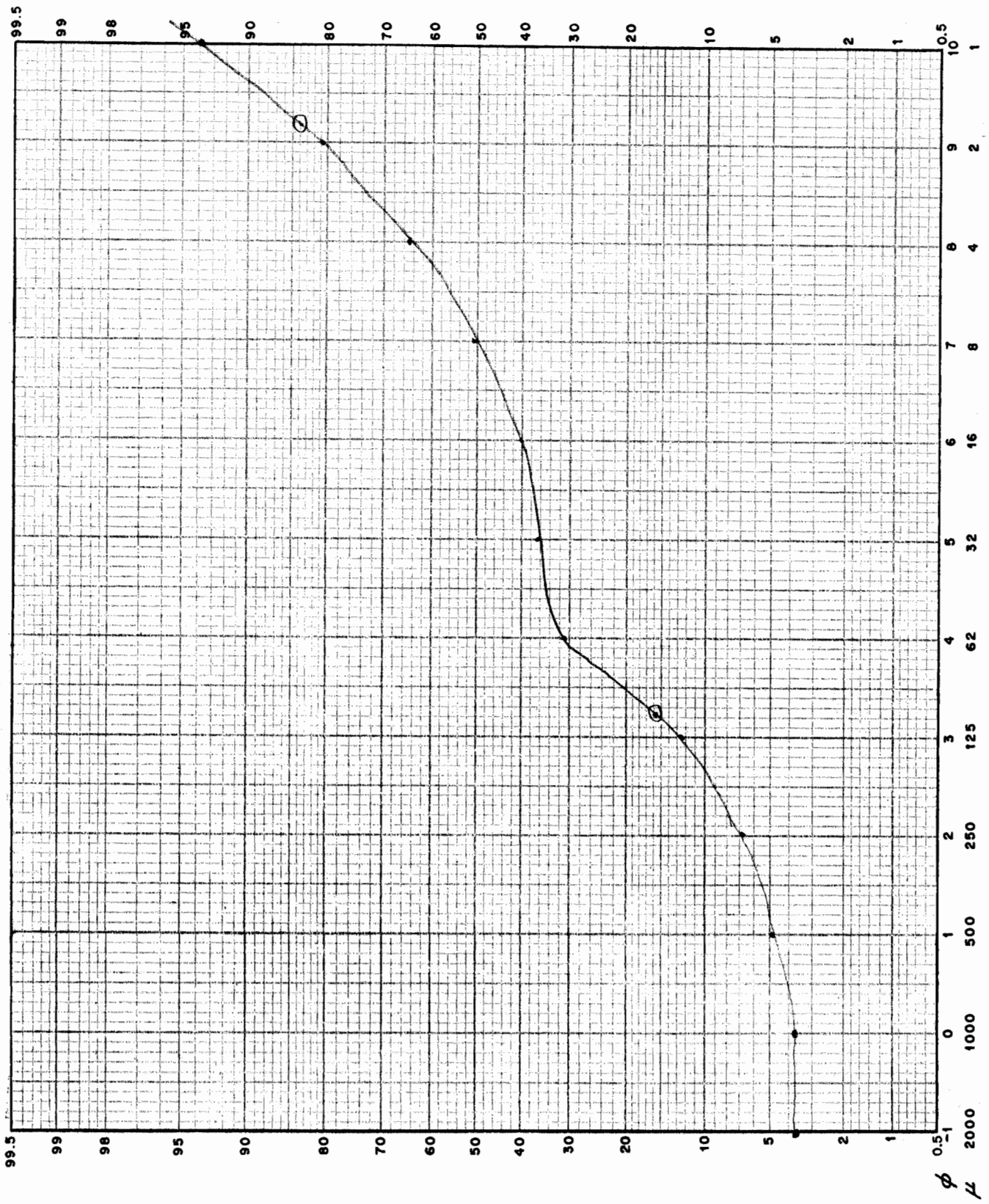
WT. FINE ____

WT. TOTAL SAMPLE 74.0326

.1247

73.7903

SAMPLE NO._____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LOCATION OF SAMPLE _____ SAMPLE NO. 4-2-62

GRAVEL 3.6 % MEDIAN ____ mm. CLASSIFICATION _____

SAND 26.9 % P ____ mm. σ _____

SILT ? 69.5 % P ____ mm. Sk. _____

CLAY ? ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY _____ TEMP. ____ °C

430 / 49.4784 / 97.2148 / 96.5548

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					62.1527			1.7019	3.6	3.6
SAND	2.000 / 1.000	-1 / 0		0						0.0	3.6
	1.000 / .500	0 / 1		5						1.3	4.9
	.500 / .250	1 / 2		7						1.9	6.8
	.250 / .125	2 / 3		21						5.6	12.4
	.125 / .062	3 / 4		67						18.0	30.4
	< .062	4							32.7002		
	> .062	4				63.8546	14.3762				
SILT	.062 TO .031	4	25 cm.	0 00					5.1	3.6	34.0
	.031 TO .016	5	10 cm.	0 02					8.3	5.8	39.8
	.016 TO .008	6	10 cm.	0 08					15.4	10.7	50.5
	.008 TO .004	7	10 cm.	0 32					20.4	14.2	64.7
CLAY	.004 TO .002	8	10 cm.	2 08					22.5	15.6	80.3
	.002 TO .001	9	7 cm.	5 58					19.4	13.5	93.8
	< .001	10	7 cm.	24 00					9.0	6.3	100.1

WEIGHT DISPERSING AGENT x 20 _____

WT. COARSE _____

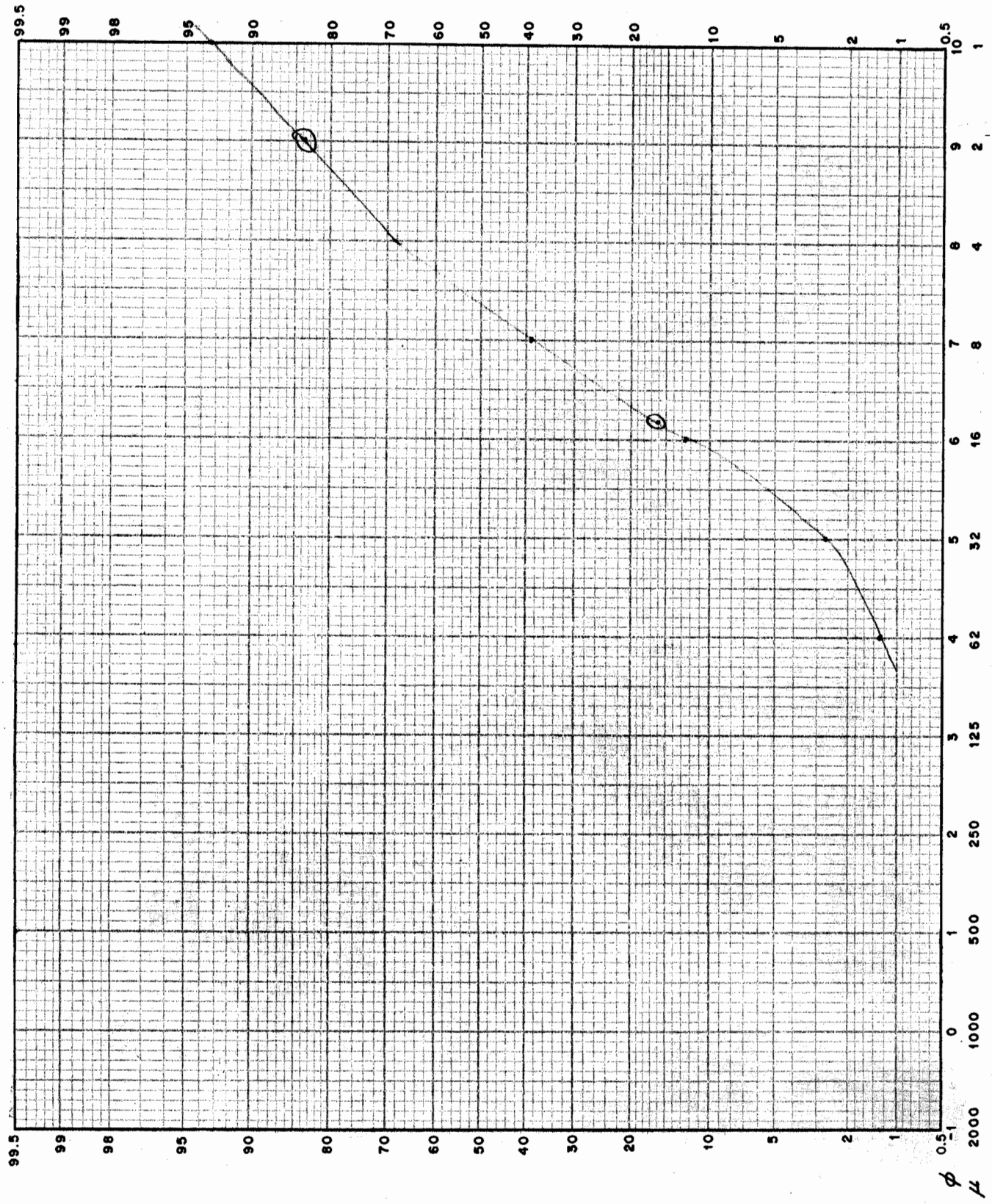
WT. FINE _____

WT. TOTAL SAMPLE 47.7364

.6600

47.0764

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. SA-1 5

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 57.8 % — P ____ mm. — σ ____

SILT ξ 42.2 % — P ____ mm. — Sk. ____

CLAY ξ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

364 / 49.1160 / 114.0427 / 112.9260

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 1.000	−1									
	1.000 .500	0									
	.500 .250	1		9.0						5.6	5.6
	.250 .125	2		31.5						19.7	25.3
	.125 .062	3		52.0						32.5	57.8
	< .062	4							26.9102		
	> .062	4	25 cm.	0 00		86.0158			36.8998		
SILT	.062 TO .031	5	10 cm.	0 02						8.4	66.2
	.031 TO .016	6	10 cm.	0 08						8.0	74.2
	.016 TO .008	7	10 cm.	0 32						6.2	80.4
	.008 TO .004	8	10 cm.	2 08						6.7	87.1
CLAY	.004 TO .002	9	7 cm.	5 58						6.6	93.7
	.002 TO .001	10	7 cm.	24 00						4.7	98.4
	< .001									0.9	99.3

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

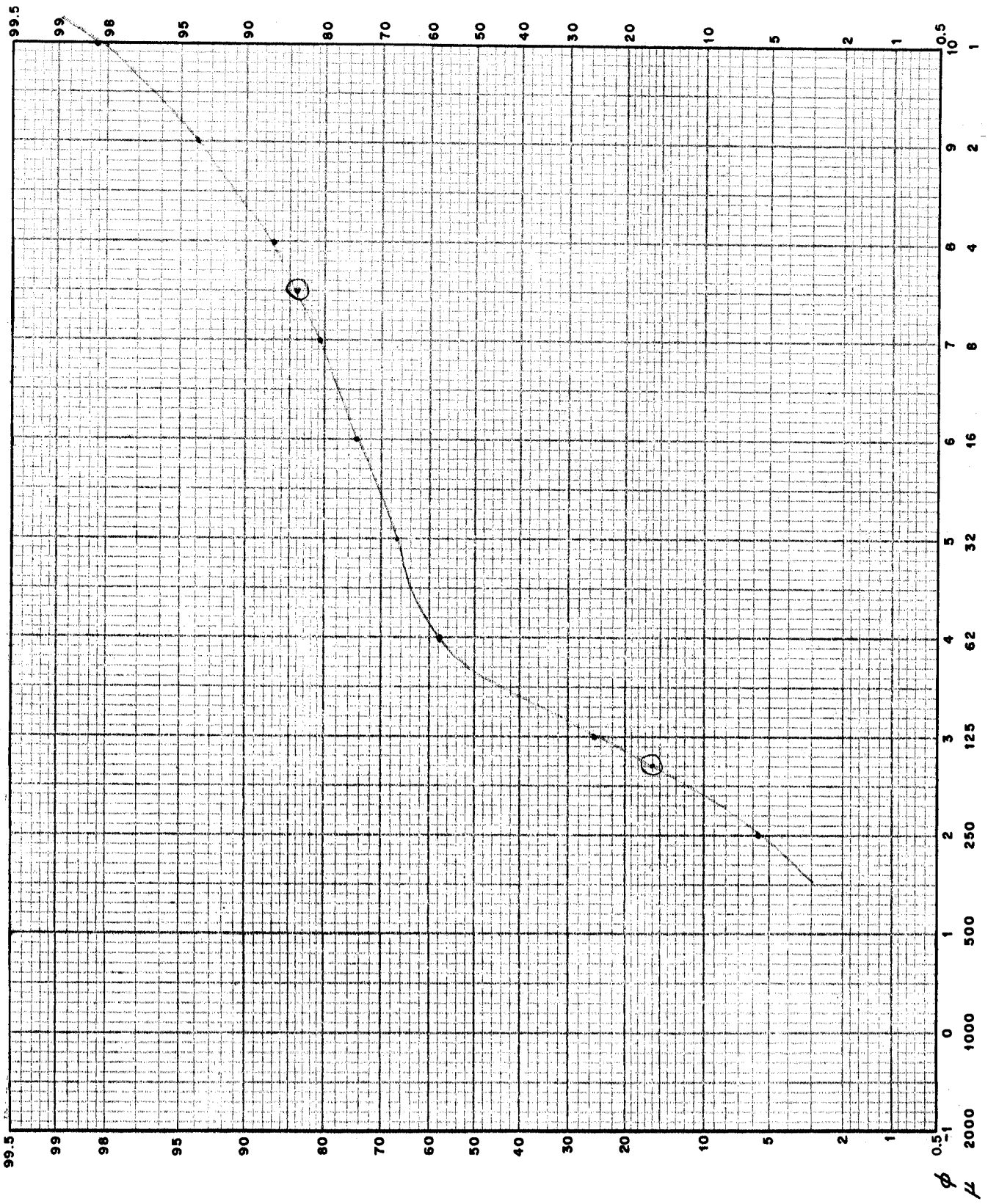
WT. FINE ____

WT. TOTAL SAMPLE 64.9267

1.1167

63.8100

SAMPLE NO._____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8
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32
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125
250
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LOCATION OF SAMPLE CC Bay — SAMPLE NO. SA-1 137

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 38.1 % — P ____ mm. — σ ____

SILT ~~3~~ 61.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

407 / 49.3261 / 97.4421 / 96.6757

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
	2.000	-1									
	1.000										
SAND	1.000	0									
	.500			6.5						2.5	2.5
	.500	1									
	.250			5.0						1.9	4.4
	.250	2									
	.125			19.5						7.4	11.8
	.125	3									
	.062			69						26.3	38.1
	< .062	4							29.2895		
	> .062					67.3862			18.0601		
	.062 TO .031	4	25 cm.	0 00					50.5	31.3	69.4
	.031 TO .016	5	10 cm.	0 02					15.5	9.6	79.0
SILT	.016 TO .008	6	10 cm.	0 08					9.0	5.6	84.6
	.008 TO .004	7	10 cm.	0 32					8.9	5.5	90.1
	.004 TO .002	8	10 cm.	2 08					8.1	5.0	95.1
CLAY	.002 TO .001	9	7 cm.	5 58					5.5	3.4	98 5
	< .001	10	7 cm.	24 00					2.4	1.5	100.0

WEIGHT DISPERSING AGENT x 20 ____

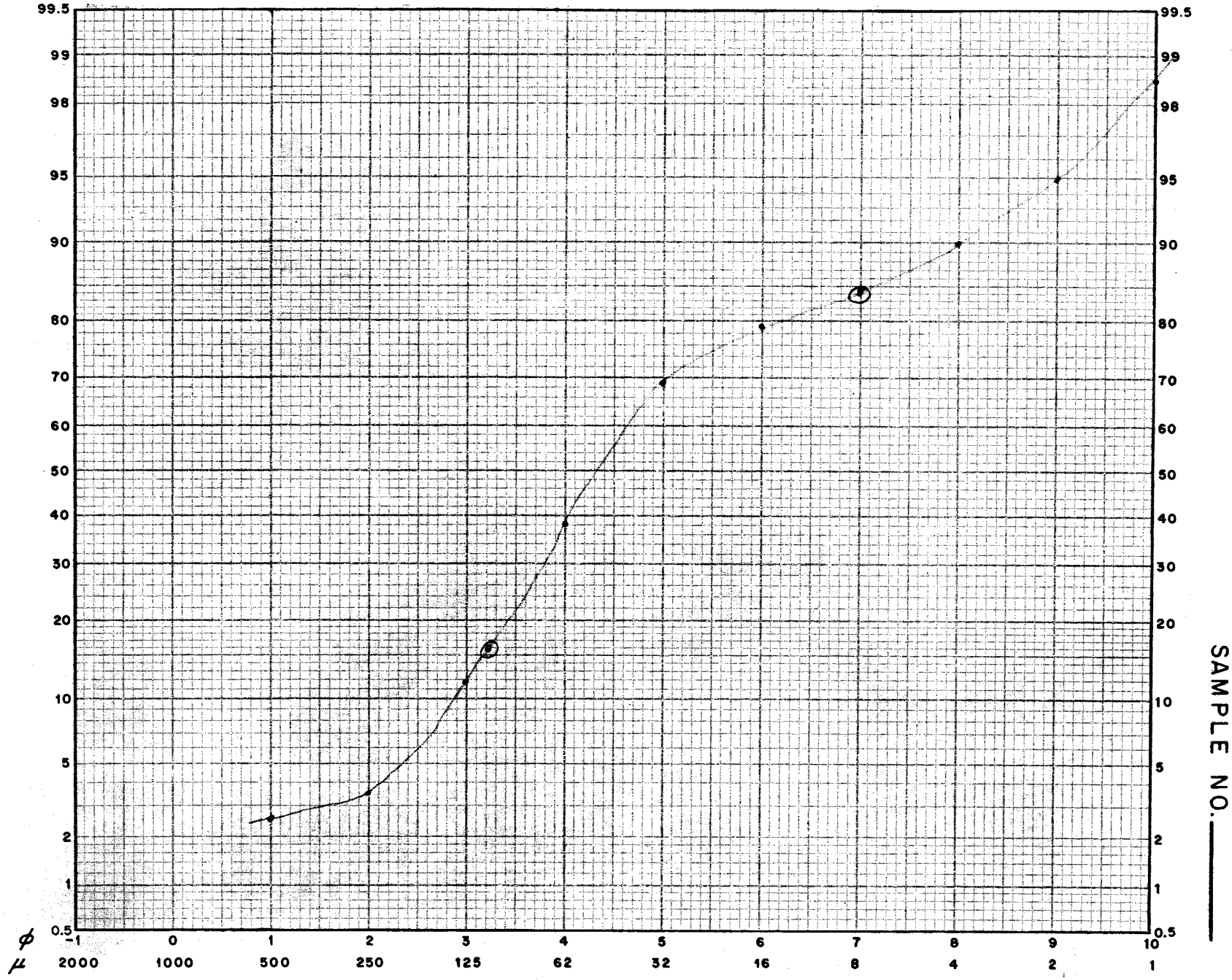
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 48.1160

17664

47.3496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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 5A-1-165

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 31.4 % — P ____ mm. — σ ____

SILT 68.6 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

150 / 49.0293 / 90.4657 / 89.4783

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 1.000	-1									
	1.000 .500	0									
	.500 .250	1		6.0						2.0	2.0
	.250 .125	2		19.0						6.5	8.5
	.125 .062	3		68.0						23.0	31.5
	< .062	4							27.7303		
	> .062	4	25 cm.	0 00		61.7481			12.7188		
SILT	.062 TO .031	5	10 cm.	0 02					32.6	22.4	53.9
	.031 TO .016	6	10 cm.	0 08					17.1	11.7	65.6
	.016 TO .008	7	10 cm.	0 32					16.6	11.4	77.0
	.008 TO .004	8	10 cm.	2 08					12.8	8.8	85.8
CLAY	.004 TO .002	9	7 cm.	5 58					8.7	6.0	91.8
	.002 TO .001	10	7 cm.	24 00					7.8	5.4	97.2
	< .001	10.6							3.5	2.4	99.6

WEIGHT DISPERSING AGENT x 20 ____

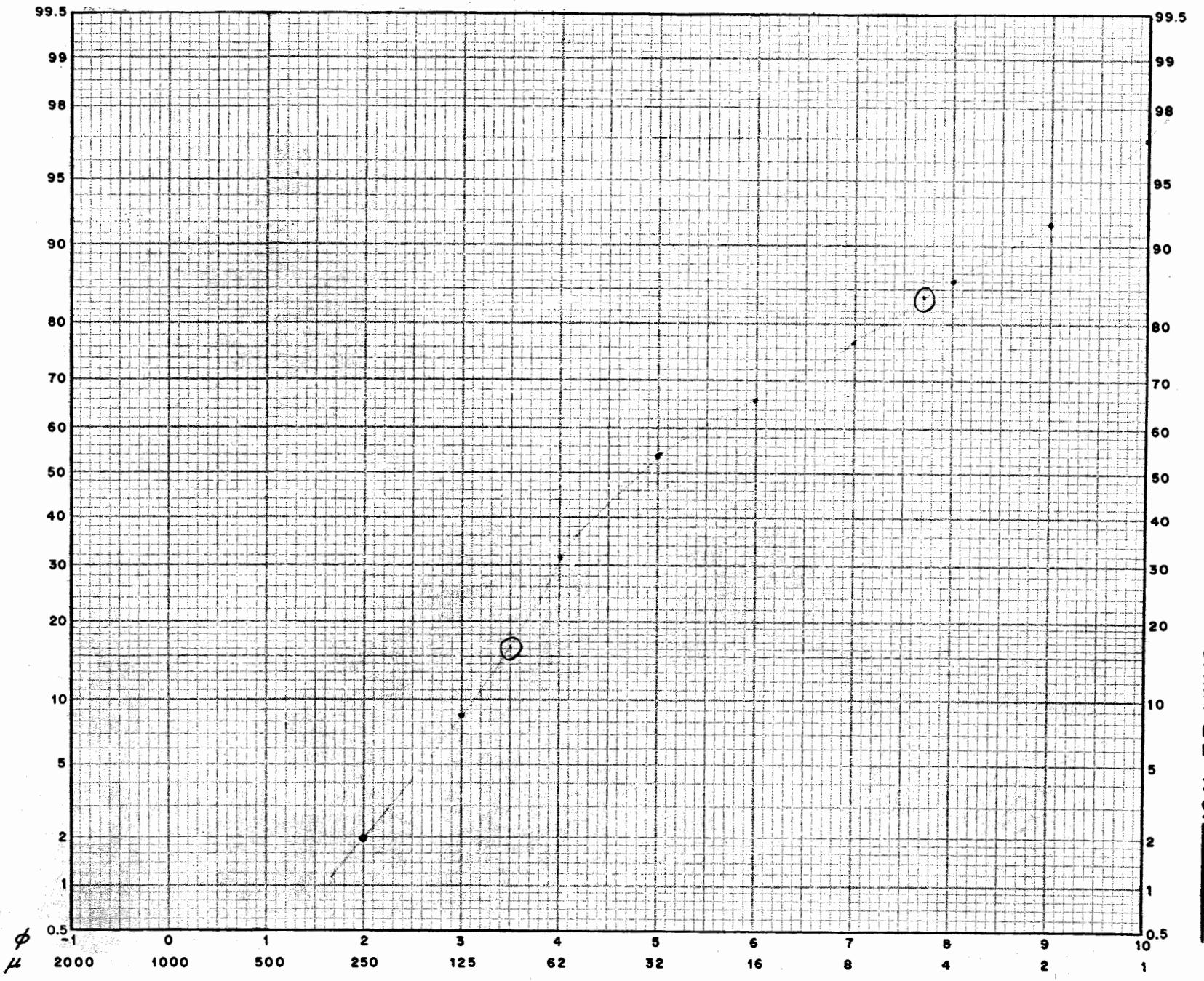
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 41.4364

.9874

40.4490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SAMPLE NO._____

LOCATION OF SAMPLE C C Bay SAMPLE NO. 5/1 50

GRAVEL 0.0 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 99.1 % P ____ mm. σ ____

SILT 3 .9 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

56/49.0803/105.4940/104.9917

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000	-1								0.0	
SAND	2.000 1.000	0		0						0.0	
	1.000 .500	1		0						0.0	
	.500 .250	2		32						31.7	31.7
	.250 .125	3		65						64.4	96.1
	.125 .062	4		3						2.9	99.0
	< .062								.4867		
	> .062	4	25 cm.	0 00		104.5050	55.4247				
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

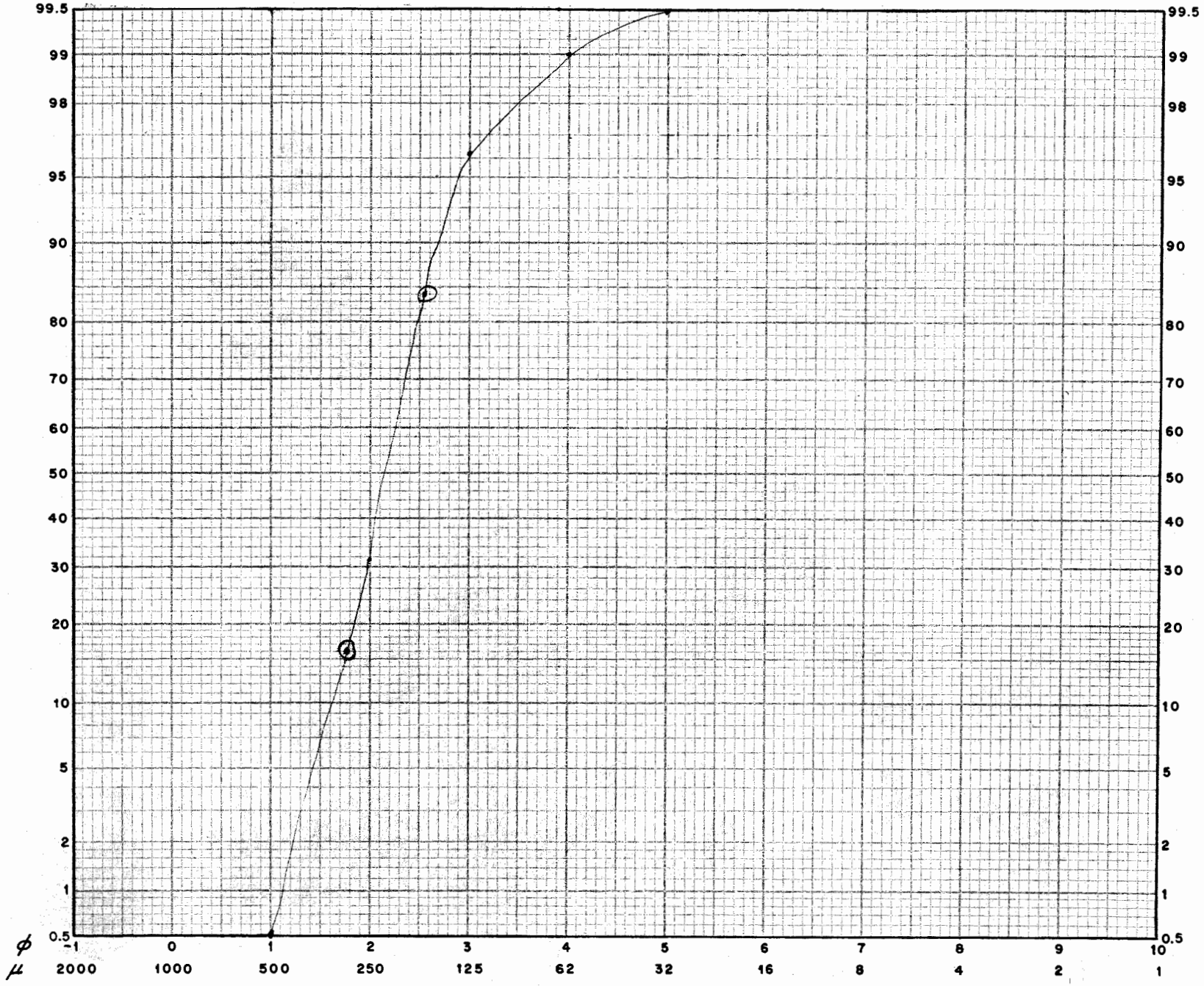
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 56.4137

.5023

55.9114



SAMPLE NO. _____

$M_\phi = \frac{2.55 + 1.75}{2} = \frac{4.35}{2} = 2.18$

$\sigma_\phi = \frac{2.55 - 1.75}{2} = \frac{.80}{2} = .4$

LOCATION OF SAMPLE C C B14 SAMPLE NO. 5-1 100

GRAVEL 0.0 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 88.8 % P ____ mm. σ ____

SILT 11.2 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

172 / 49.0120 / 105.8136 / 105.3247

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								0312		
SAND	2.000 / 1.000	-1 / 0		0.0		99.0167			50.0047		
	1.000 / .500	0 / 1		0.0							
	.500 / .250	1 / 2		38.0						33.7	33.7
	.250 / .125	2 / 3		54.0						47.9	81.6
	.125 / .062	3 / 4		8.0						7.1	88.7
	< .062	4							6.2768		
	> .062	4				99.0479			50.0359		
SILT	.062 TO .031	4	25 cm.	0 00					29.1	3.2	91.9
	.031 TO .016	5	10 cm.	0 02					14.7	1.6	93.5
	.016 TO .008	6	10 cm.	0 08					10.0	1.1	94.6
	.008 TO .004	7	10 cm.	0 32					10.1	1.1	95.7
CLAY	.004 TO .002	8	10 cm.	2 08					13.2	1.5	97.2
	.002 TO .001	9	7 cm.	5 58					16.9	1.9	99.1
	< .001	10	7 cm.	24 00					5.8	.6	99.7

WEIGHT DISPERSING AGENT x 20 ____

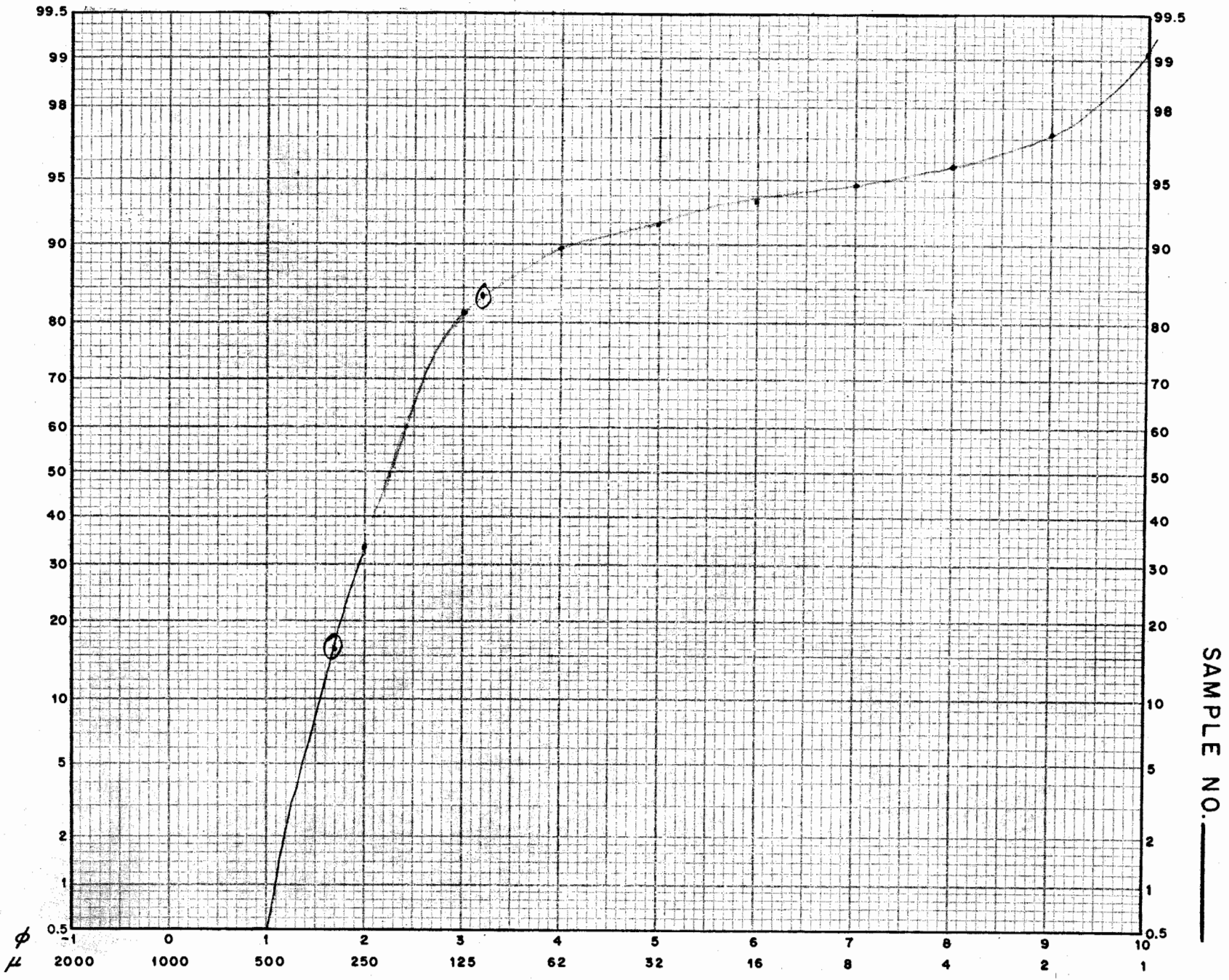
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 56.8016

.4889

56.3127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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 5-2 10

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 86.9 % — P ____ mm. — σ ____

SILT ∑ 13.1 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

87 / 49.0819 / 106.0636 / 104.9502 /

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 1.000	-1									
	1.000 .500	0									
	.500 .250	1		9						7.8	7.8
	.250 .125	2		41						35.6	43.4
	.125 .062	3		50						43.5	86.9
	< .062	4							7.3085		
	> .062	4	25 cm.	0 00		97.6417	48.5598				
SILT	.062 TO .031	5	10 cm.	0 02					17.7	2.3	89.2
	.031 TO .016	6	10 cm.	0 08					19.4	2.5	91.7
	.016 TO .008	7	10 cm.	0 32					14.6	1.9	93.7
	.008 TO .004	8	10 cm.	2 08					12.0	1.6	95.3
CLAY	.004 TO .002	9	7 cm.	5 58					13.8	1.8	97.1
	.002 TO .001	10	7 cm.	24 00					14.0	1.8	98.9
	< .001								9.8	1.2	100.1

WEIGHT DISPERSING AGENT x 20

WT. COARSE ____

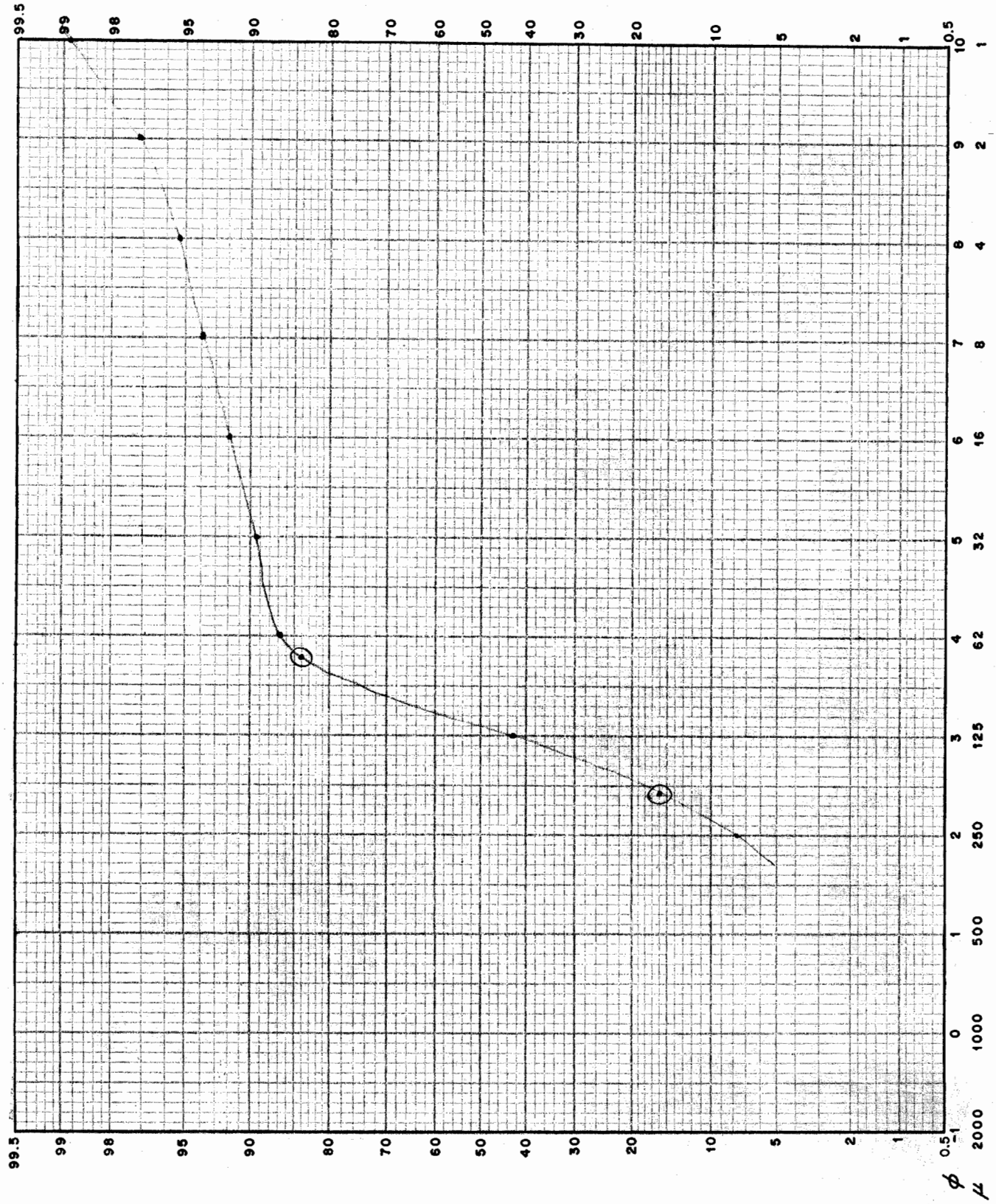
WT. FINE ____

WT. TOTAL SAMPLE 56.9817

1.1134

55.8683

SAMPLE NO._____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μ

LOCATION OF SAMPLE C C Bay SAMPLE NO. 5-2-100

GRAVEL 0.0 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 75.2 % P ____ mm. σ ____

SILT 24.8 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

19 / 48.5180 / 125.7790 / 125.0333

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
		-1									
SAND	2.000 1.000									0.0	
		0									
	1.000 .500			2						1.5	1.5
		1									
	.500 .250			37						27.8	29.3
		2									
	.250 .125			45						33.8	63.1
		3									
	.125 .062			16.0						12.0	75.1
		4									
	< .062								19.0119		
	> .062					106.0214	57.5034				
		4	25 cm.	0 00							
SILT	.062 TO .031								21.5	5.3	80.4
		5	10 cm.	0 02							
	.031 TO .016								12.8	3.2	83.6
		6	10 cm.	0 08							
	.016 TO .008								10.9	2.7	86.3
		7	10 cm.	0 32							
	.008 TO .004								15.0	3.7	90.0
		8	10 cm.	2 08							
CLAY	.004 TO .002								18.8	4.6	94.6
		9	7 cm.	5 58							
	.002 TO .001								11.3	2.8	97.4
		10	7 cm.	24 00							
	< .001								7.6	1.9	99.3

WEIGHT DISPERSING AGENT x 20

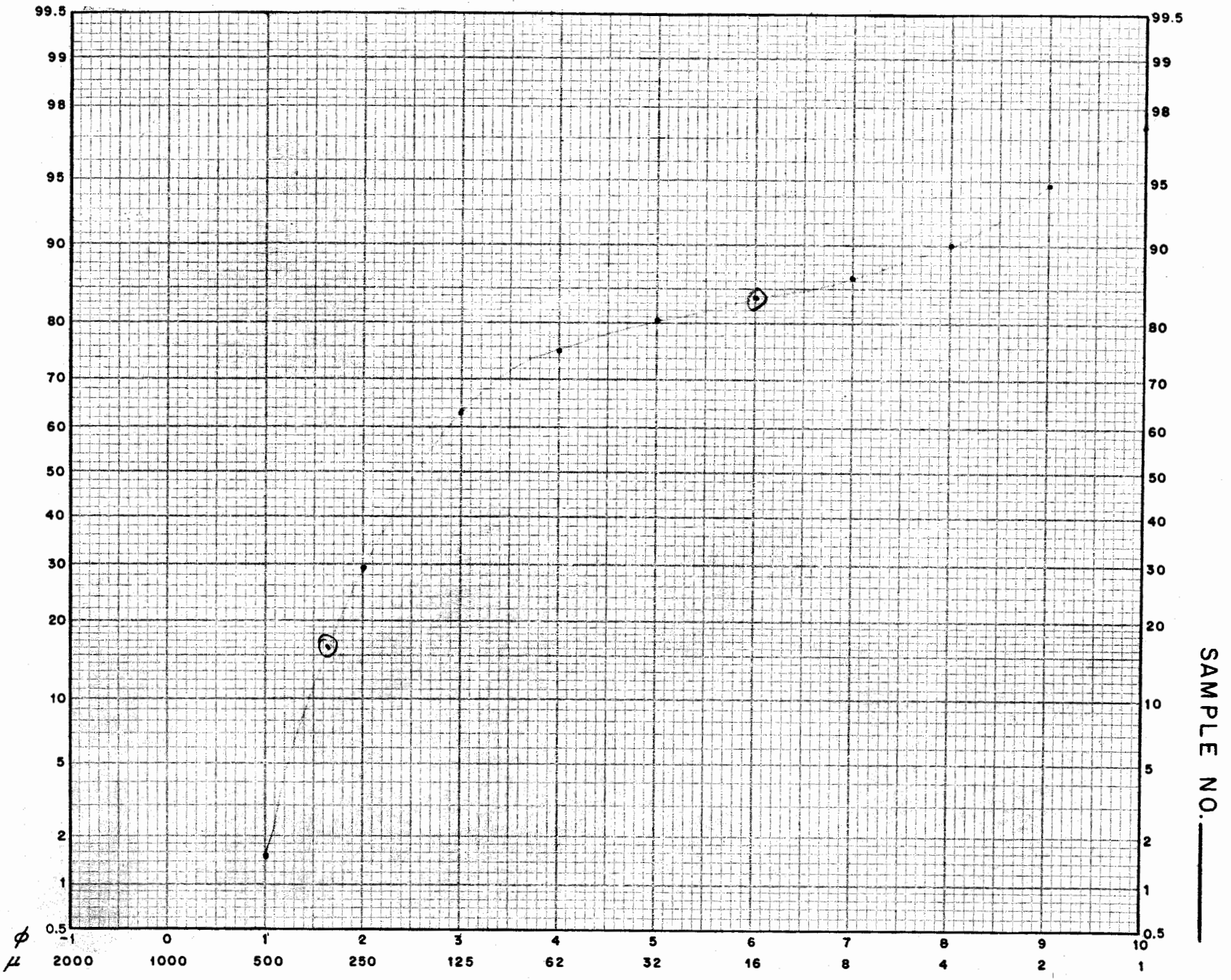
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 77.2611

.7457

76.5153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SAMPLE NO._____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 11-1 10

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 14.7 % — P ____ mm. — σ ____

SILT ξ 85.3 % — P ____ mm. — Sk. ____

CLAY ξ ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

427 / 49.1856 / 101.1309 / 100.0000

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		22						3.2	3.2
	.125 / .062	3		78						11.5	14.7
	< .062	4							43.3595		
	> .062	4	25 cm.	0 00		56.6405	7.4549				
SILT	.062 TO .031	5	10 cm.	0 02					13.0	11.1	25.8
	.031 TO .016	6	10 cm.	0 08					16.0	13.6	39.4
	.016 TO .008	7	10 cm.	0 32					17.5	14.9	54.3
	.008 TO .004	8	10 cm.	2 08					18.9	16.1	70.4
CLAY	.004 TO .002	9	7 cm.	5 58					17.0	14.5	84.9
	.002 TO .001	10	7 cm.	24 00					12.5	10.7	95.6
	< .001								4.9	4.2	99.8

WEIGHT DISPERSING AGENT x 20 ____

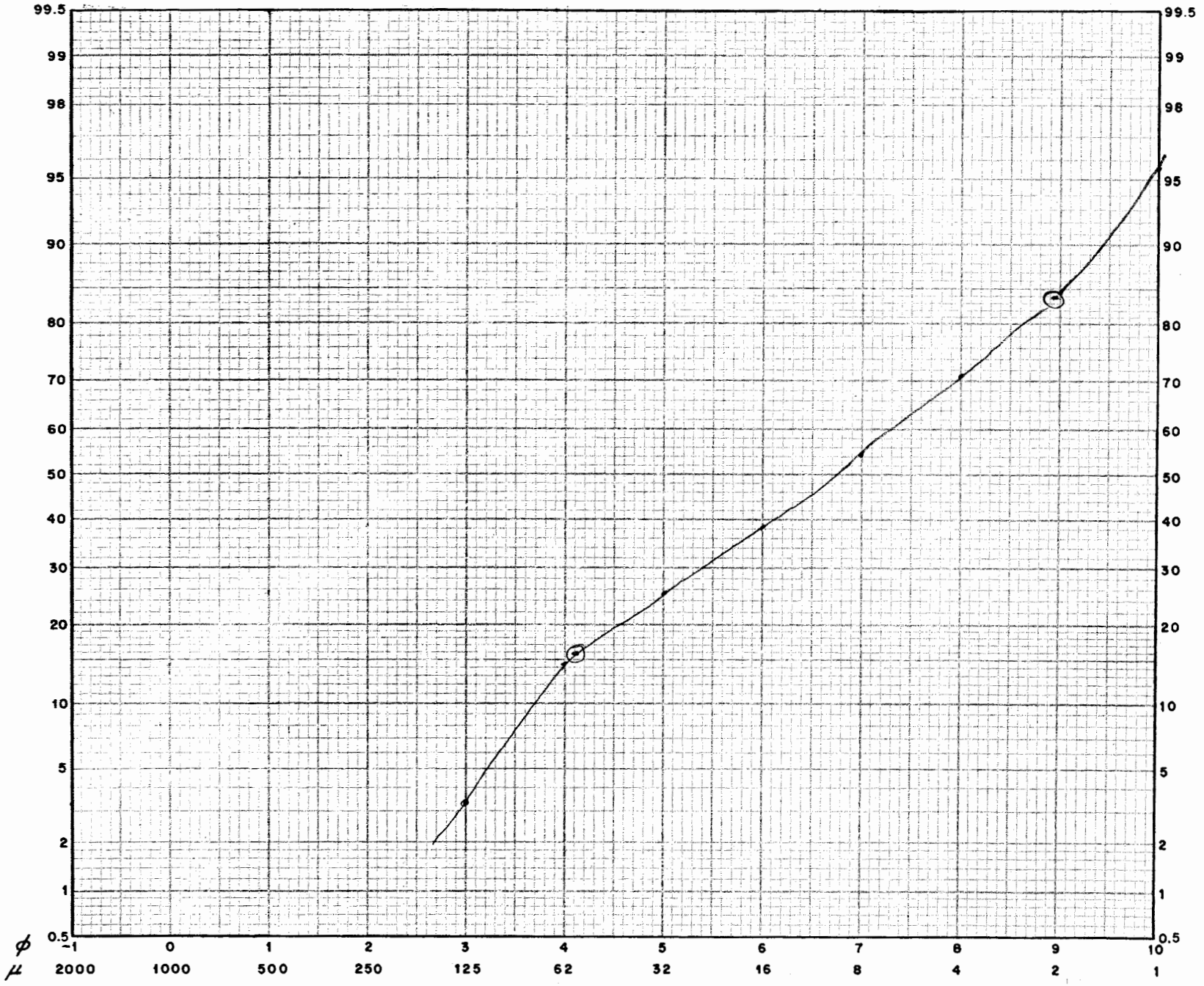
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 51.9453

1.1309

50.8144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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 11-1-202

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 15.7 % — P ____ mm. — σ ____

SILT ~~3~~ 84.3 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

10/ 48.4332 / 83.1499 / 78.8307

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		20.0						3.1	
	.125 / .062	3		80.0						12.6	15.7
	< .062	4							25.6227		
						53.2080			4.7748		
	> .062	4	25 cm.	0 00							
SILT	.062 TO .031	5	10 cm.	0 02					24.8	20.9	36.6
	.031 TO .016	6	10 cm.	0 08					23.4	19.7	56.3
	.016 TO .008	7	10 cm.	0 32					18.0	15.2	71.5
	.008 TO .004	8	10 cm.	2 08					12.9	10.9	82.4
CLAY	.004 TO .002	9	7 cm.	5 58					10.9	9.2	91.6
	.002 TO .001	10	7 cm.	24 00					7.2	6.1	97.7
	< .001								2.9	2.4	100.1

WEIGHT DISPERSING AGENT x 20 ____

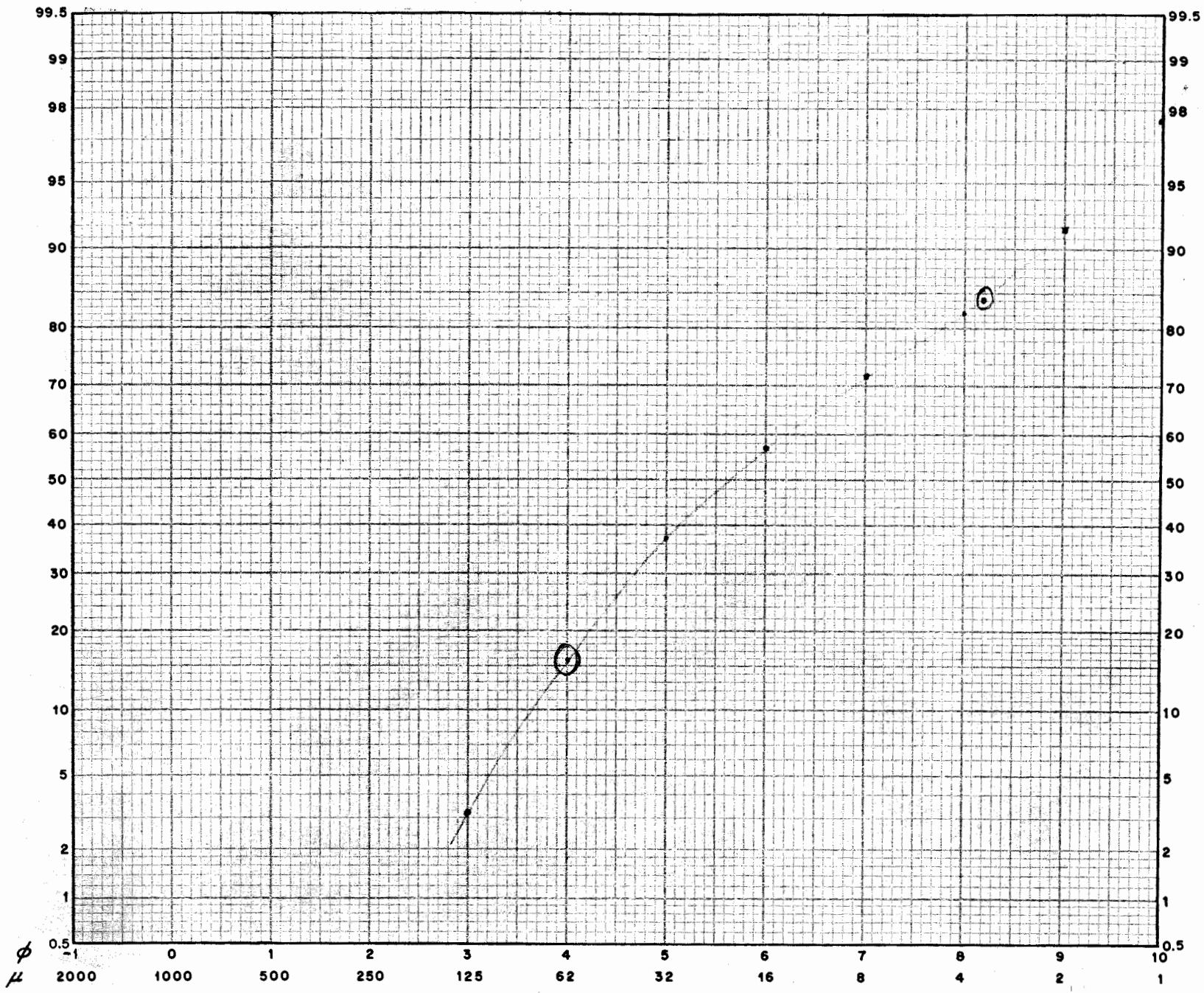
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 31.7167

1.3192

30.3975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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/2 95

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.3 % — P ____ mm. — σ ____

SILT } 0.7 % — P ____ mm. — Sk. ____

CLAY } % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

134 / 49.4620 / 122.2004 / 121.6900

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1		0						0.0	
	1.000 .500	0		22						21.8	21.8
	.500 .250	1		51						50.6	72.4
	.250 .125	2		24						23.8	96.2
	.125 .062	3		3						3.0	99.2
	< .062	4							.5100		
	> .062	4			121.1800		71.7180				
SILT	.062 TO .031	4	25 cm.	0 00							99.9
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

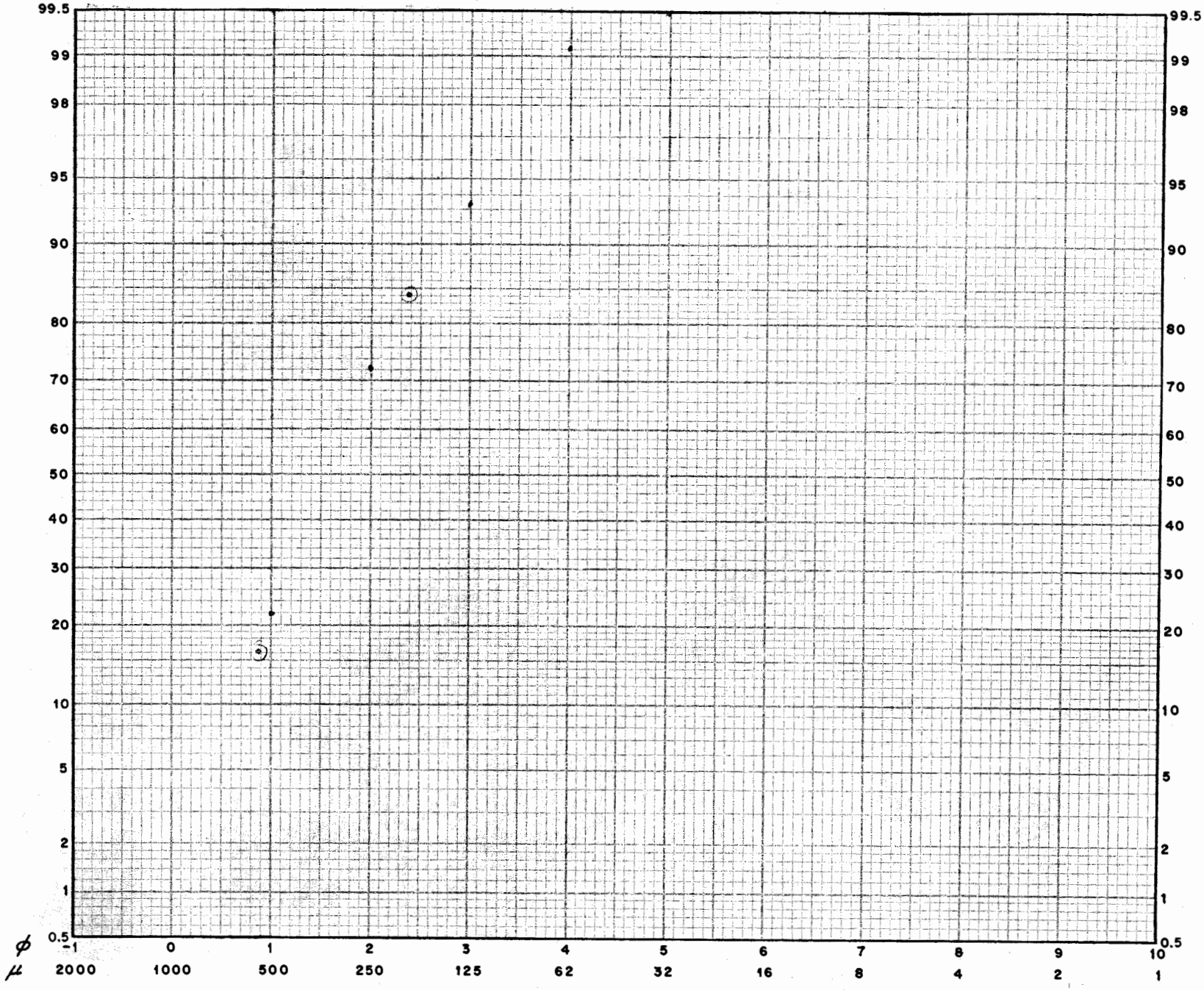
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 72.7384

carbonate .5104

72.2280



SAMPLE NO. _____

$M_\phi = \frac{2.5 + 1.9}{2} = \frac{2.3}{2} = 1.65$

$\sigma_\phi = \frac{2.5 - 1.9}{3.3} = \frac{1.6}{3.3} = 1.2$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 12/2 125

GRAVEL .17 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.35 % — P ____ mm. — σ ____

SILT 3 .48 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

415 / 49.1879 / 128.4545 / 127.9616

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								.1309		.2	.2
SAND	2.000 / 1.000	-1				127.4488			78.2609	0.0	0.0	.2
	1.000 / .500	0								26.0	25.8	26.0
	.500 / .250	1								51.5	51.2	77.2
	.250 / .125	2								20.5	20.4	97.6
	.125 / .062	3								2.0	2.0	99.6
	< .062	4							.3919			
	> .062	4				127.5797			78.3718			
SILT	.062 TO .031	4	25 cm.	0 00							100.1	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

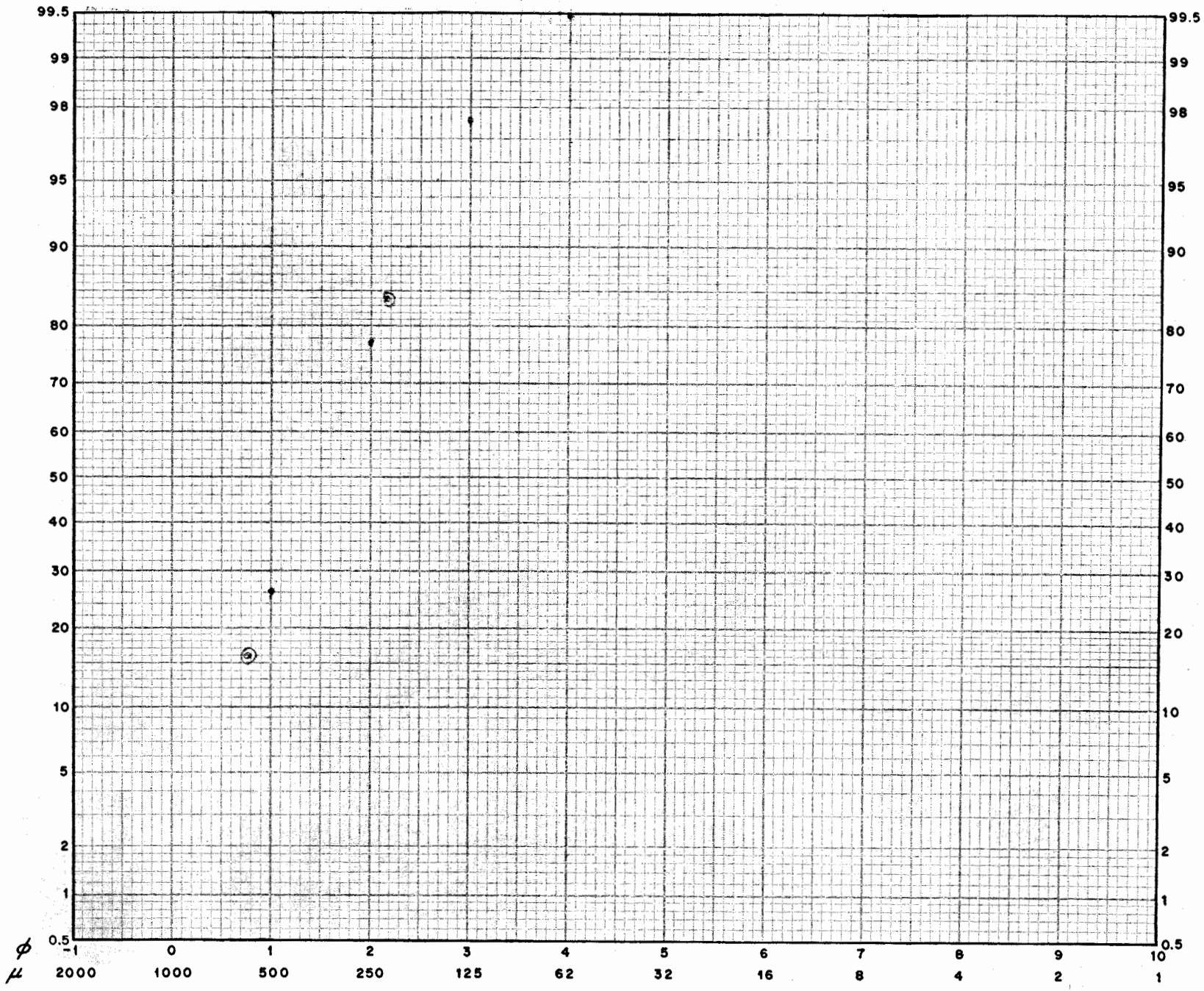
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 79.2666

.4929

78.7737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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/2 155

GRAVEL .00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.78 % — P ____ mm. — σ ____

SILT .22 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER
4 / 48.7437 / 111.4343 / 110.9900

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								0.0		0.0
SAND	2.000 / 1.000	-1							62.1105	0.0	0.0
	1.000 / .500	0								3.5	3.5
	.500 / .250	1								77.5	77.3
	.250 / .125	2								18.0	18.0
	.125 / .062	3								1.0	1.0
	< .062	4							.1359		
	> .062	4	25 cm.	0 00		110.8573 / 48.7437			62.1105		
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

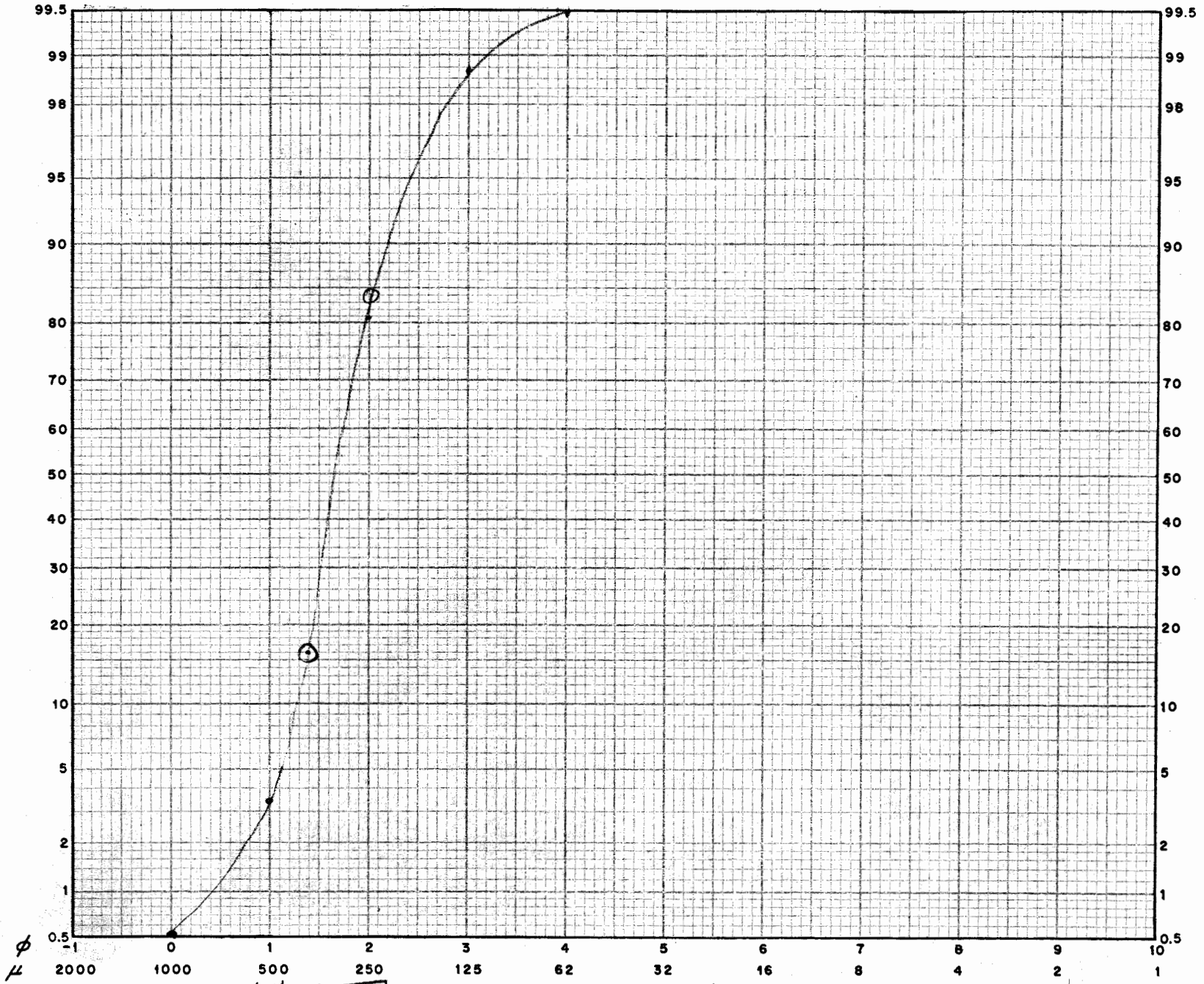
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 62.6906

Carbonate .4443

62.2463



SAMPLE NO. _____

$M_\phi = \frac{2 + 1.4}{2} = \boxed{1.7}$

$\sigma_\phi = \frac{2 - 1.4}{2} = \boxed{.3}$

LOCATION OF SAMPLE CC Bay SAMPLE NO. 12/2 170

GRAVEL 0.31 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 98.70 % P ____ mm. σ ____

SILT 3 .99 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

371 / 50.4680 / 119.1095 / 118.7083

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	K
GRAVEL	2.000								.2123		.3	.3
SAND	2.000 / 1.000	-1				117.8237			67.3557	0.0	.0	.3
	1.000 / .500	0								23.0	22.7	23
	.500 / .250	1								50.0	49.4	72.4
	.250 / .125	2								24.0	23.7	96.1
	.125 / .062	3								3.0	2.9	99.0
	< .062	4							.1723			
	> .062	4	25 cm.	0 00		118.0360			67.5680			
SILT	.062 TO .031	5	10 cm.	0 02							100.0	
	.031 TO .016	6	10 cm.	0 08								
	.016 TO .008	7	10 cm.	0 32								
	.008 TO .004	8	10 cm.	2 08								
CLAY	.004 TO .002	9	7 cm.	5 58								
	.002 TO .001	10	7 cm.	24 00								
	< .001											

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

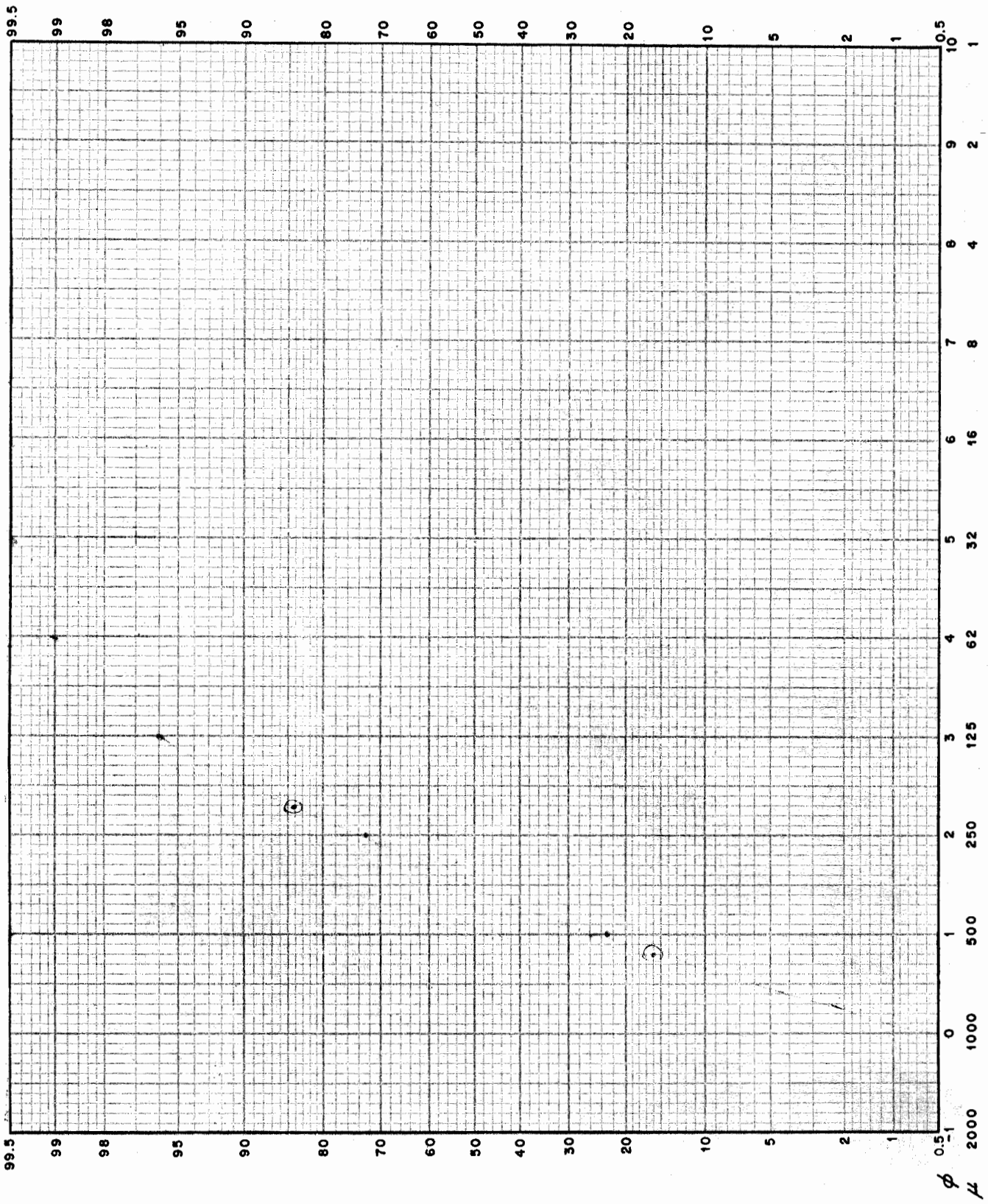
WT. FINE ____

WT. TOTAL SAMPLE 68.6415

.4012

69.2403

SAMPLE NO._____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10 9 8 7 6 5 4 3 2 1 0 -1
1 2 4 8 16 32 62 125 250 500 1000 2000
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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/1 5

GRAVEL 1.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 97.5 % — P ____ mm. — σ ____

SILT 3 1.5 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

374 / Beaker 48.9370 / Beak+Beaker 108.2260 / 107.8982

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.5985		1.0
SAND	2.000 1.000	-1		2					57.4814	2.0	3.0
	1.000 .500	0		55						53.6	56.6
	.500 .250	1		32						31.2	87.8
	.250 .125	2		8						7.8	95.6
	.125 .062	3		3						2.9	98.5
	< .062	4							.8813		
	> .062	4	25 cm.	0 00		109.0169			58.6799		
SILT	.062 TO .031	5	10 cm.	0 02						1.5	100
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

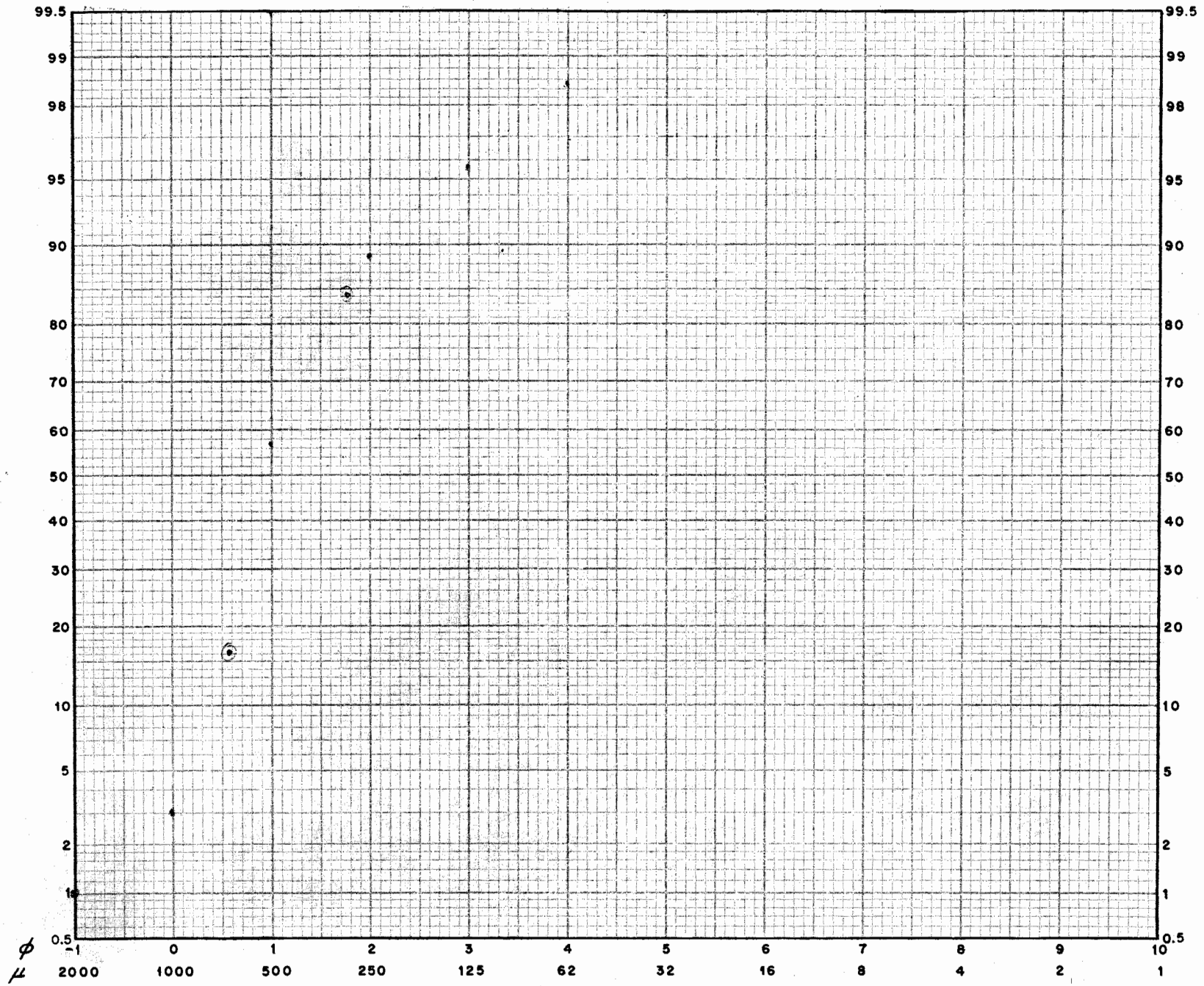
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 59.2890

.3278

58.9612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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 12/1 100

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 98.9 % — P ____ mm. — σ ____

SILT 1.1 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

378 / 49.5220 / 105.3030 / 104.9545

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 / 1.000	-1		0						0.0	
	1.000 / .500	0		17						16.8	16.8
	.500 / .250	1		43						42.5	59.3
	.250 / .125	2		33						31.8	91.1
	.125 / .062	3		7						6.9	98.0
	< .062	4							.16186		
	> .062					104.3359					
SILT	.062 TO .031	4	25 cm.	0 00			54.8139			1.1	99.1
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

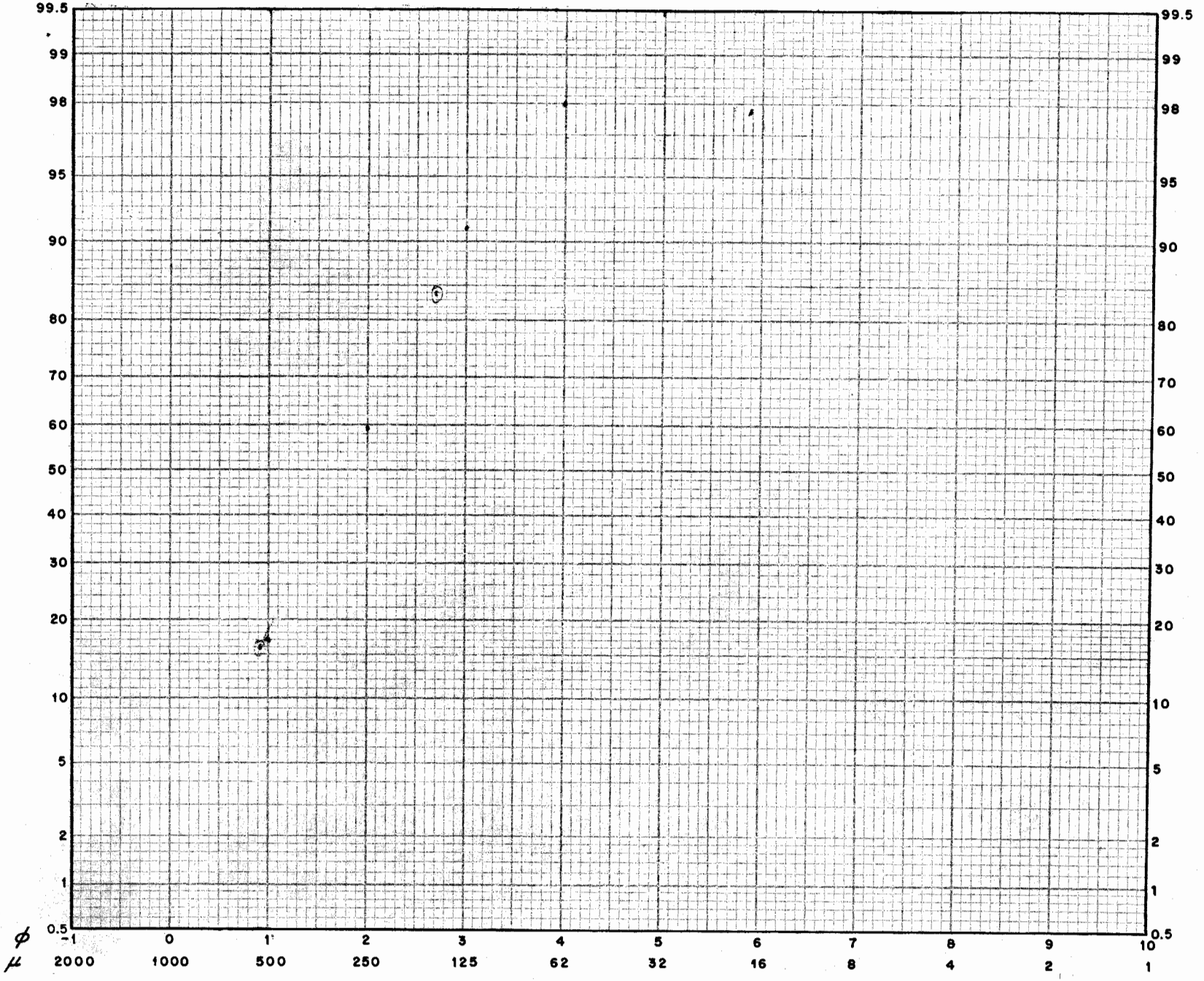
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 55.7810

.3485

55.4325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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 12/1 112

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 97.9 % — P ____ mm. — σ ____

SILT 2.1 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

184 / BEAKER 49.2539 / BEAKER + BULK 98.0857 / 97.7200

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1		2						2.0	2.0
	1.000 .500	0		11						10.8	12.8
	.500 .250	1		43						42.1	54.9
	.250 .125	2		35						34.3	89.2
	.125 .062	3		9						8.8	98.0
	< .062	4							0.0162		
	> .062	4				96.7038	47.4499				
SILT	.062 TO .031	4	25 cm.	0 00							100.1
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

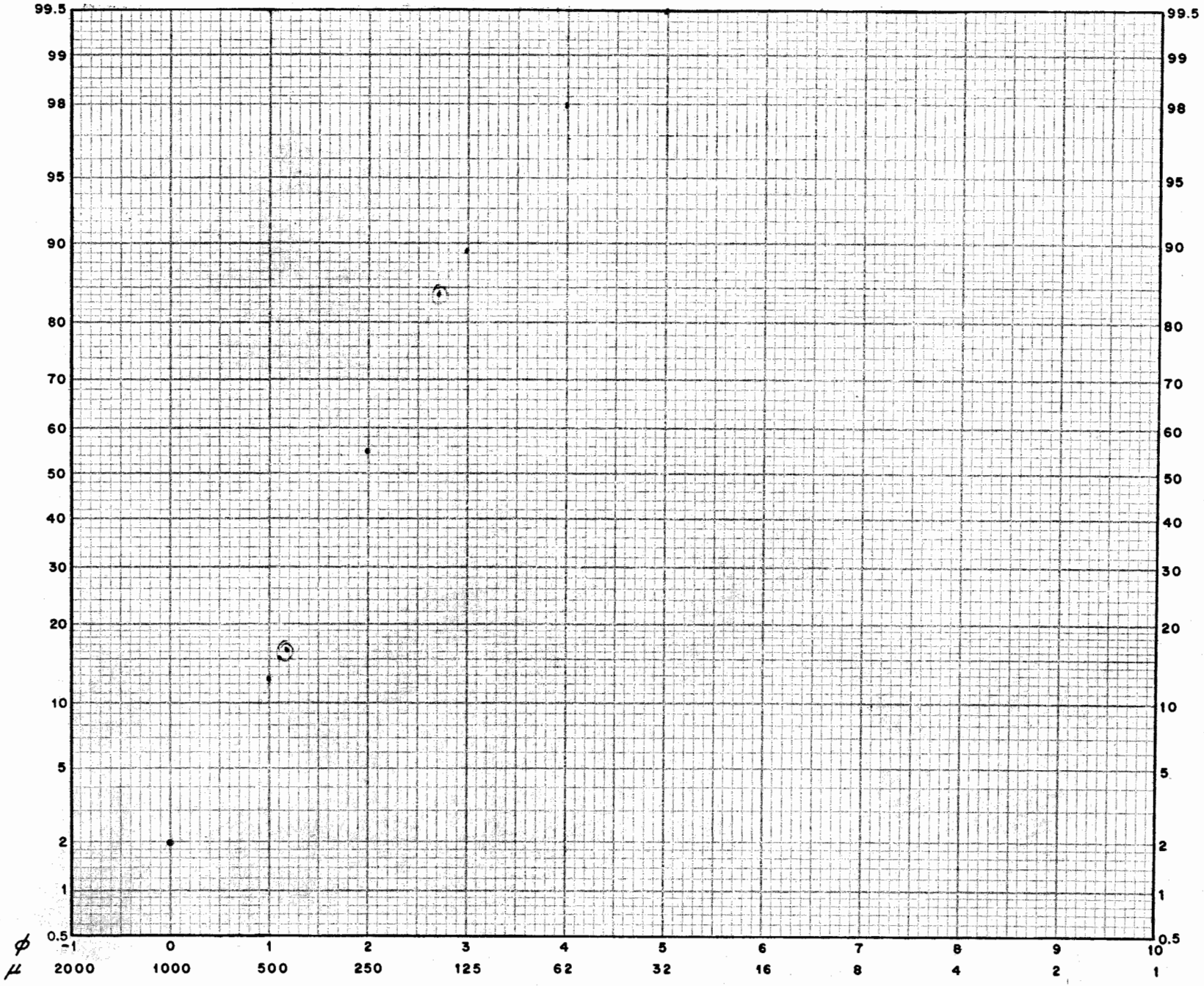
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 48.8318

1.3657

48.4661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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/1 124

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 98.2 % — P ____ mm. — σ ____

SILT 3 1.8 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

379 / 49.2232 / 105.0996 / 104.5053

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000	-1									
	1.000	0		3						2.9	2.9
	1.000			26						25.5	28.4
	.500	1									
	.500			34						33.4	61.8
	.250	2									
	.250			25						24.6	86.4
	.125	3									
	.125			12						11.8	98.2
	.062	4									
	< .062								.9849		
						103.5304					
	> .062	4	25 cm.	0 00					54.2972		
SILT	.062 TO .031	5	10 cm.	0 02						1.8	100.0
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

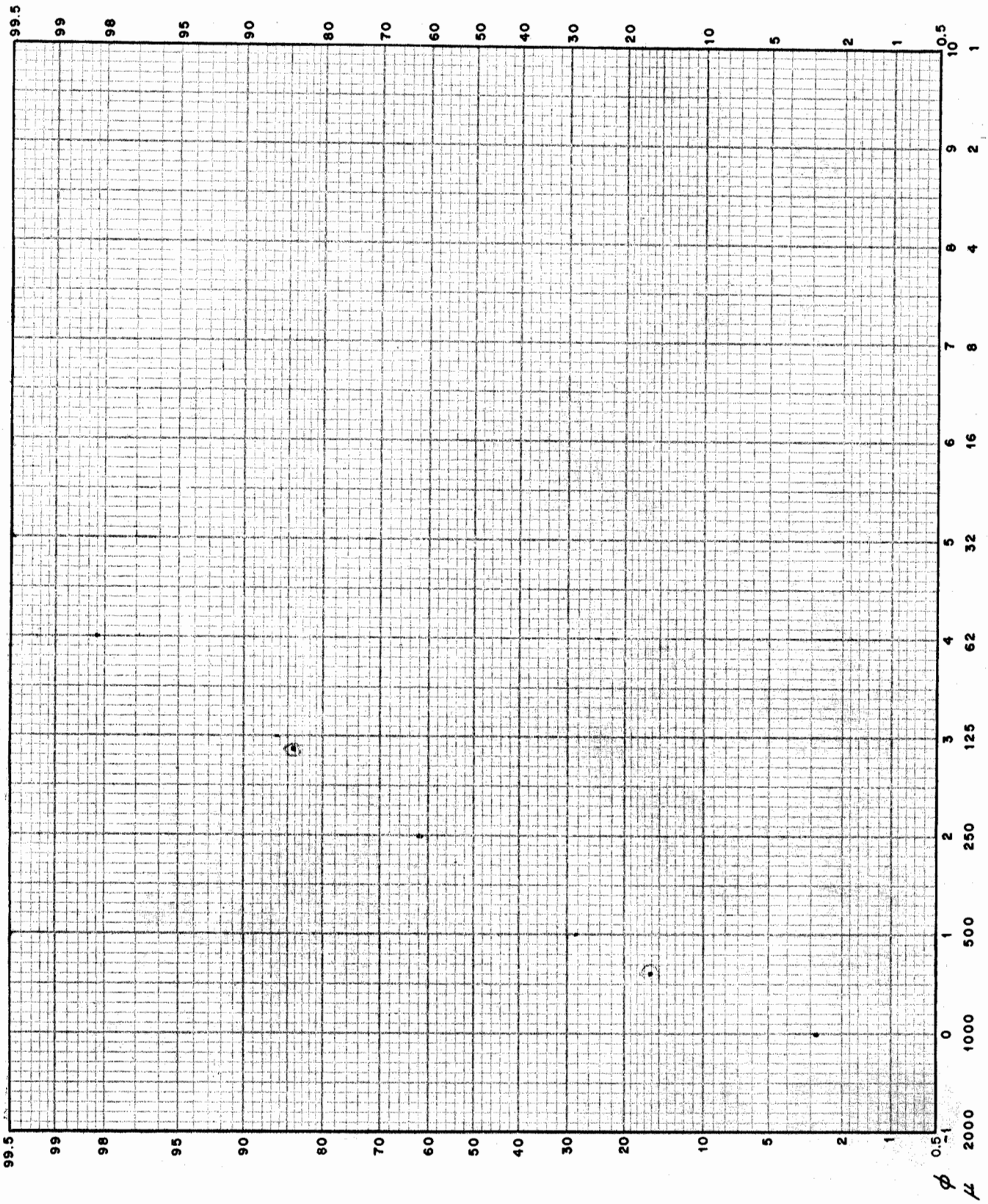
WT. FINE ____

WT. TOTAL SAMPLE 55.8764

.5943

55.2821

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/1 136

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 96.99 % — P ____ mm. — σ ____

SILT 3 3.01 % — P ____ mm. — Sk. ____

CLAY 3 ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

156 / 48.9360 / 103.5230 / 102.9100

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								0.0		0.0	
SAND	2.000 / 1.000	-1 / 0								2.0	1.9	1.9
	1.000 / .500	0 / 1								22.0	21.3	23.2
	.500 / .250	1 / 2								43.0	41.7	64.9
	.250 / .125	2 / 3								27.0	26.2	91.1
	.125 / .062	3 / 4								6.0	5.8	96.9
	< .062	4							1.6254			
	> .062	4				101.2846			52.3486			
SILT	.062 TO .031	4 / 5	25 cm.	0 00							99.9	
	.031 TO .016	5 / 6	10 cm.	0 02								
	.016 TO .008	6 / 7	10 cm.	0 08								
	.008 TO .004	7 / 8	10 cm.	0 32								
CLAY	.004 TO .002	8 / 9	10 cm.	2 08								
	.002 TO .001	9 / 10	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

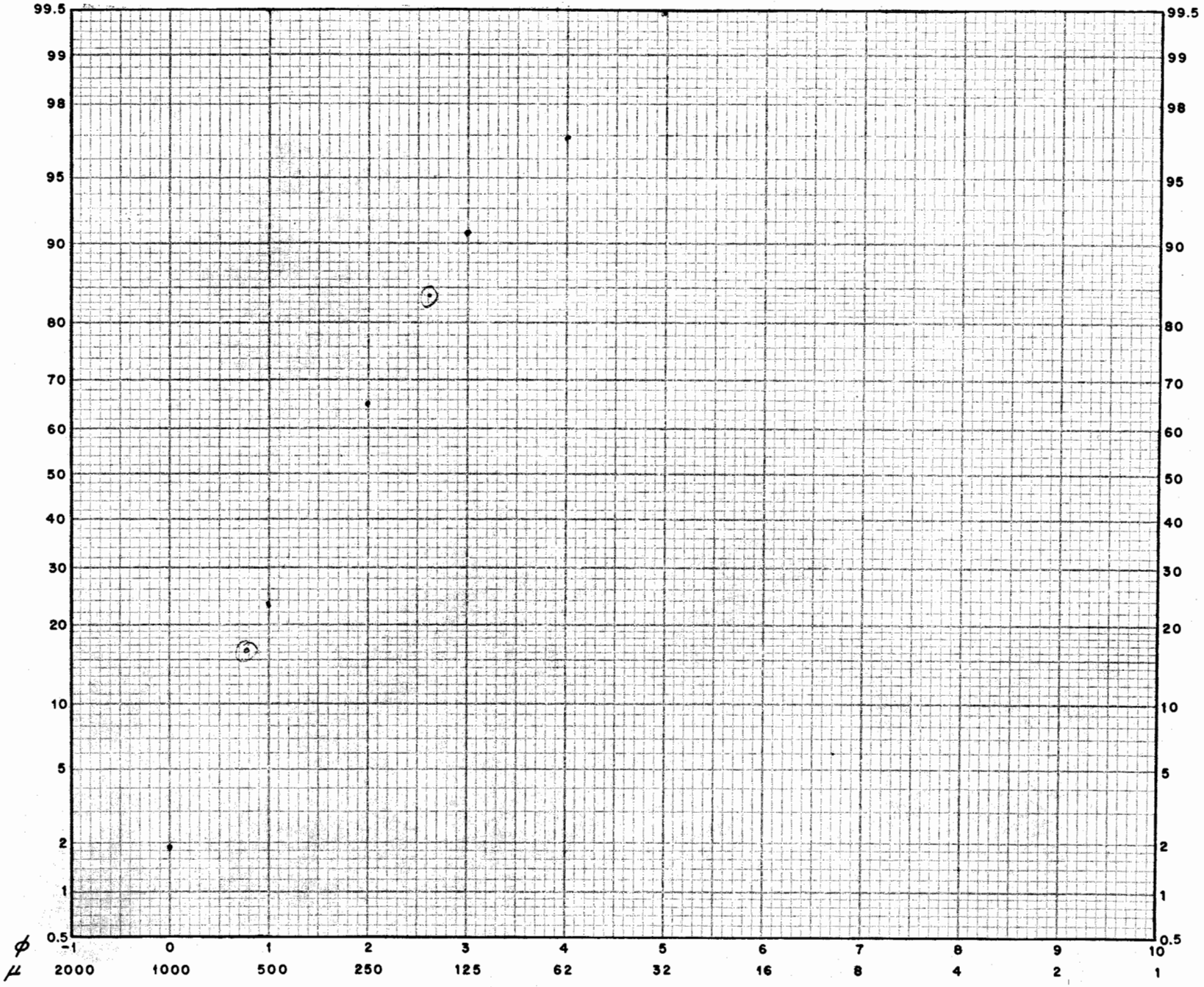
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 54.5870

.6130

53.9740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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 12/1 170

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 91 48 % — P ____ mm. — σ ____

SILT 8.52 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

140 / 48.8939 / 118.6139 / 117.7701

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								0.0		0.0	
SAND	2.000 / 1.000	-1								0.0	0.0	
	1.000 / .500	0								23.0	21.0	21.0
	.500 / .250	1								45.0	41.2	62.2
	.250 / .125	2								28.0	25.6	87.8
	.125 / .062	3								4.0	3.7	91.5
	< .062	4							5.8654			
	> .062	4	25 cm.	0 00		111.9047 / 48.8939			63.0108			
SILT	.062 TO .031	5	10 cm.	0 02							100.0	
	.031 TO .016	6	10 cm.	0 08								
	.016 TO .008	7	10 cm.	0 32								
	.008 TO .004	8	10 cm.	2 08								
CLAY	.004 TO .002	9	7 cm.	5 58								
	.002 TO .001	10	7 cm.	24 00								
	< .001											

WEIGHT DISPERSING AGENT x 20 ____

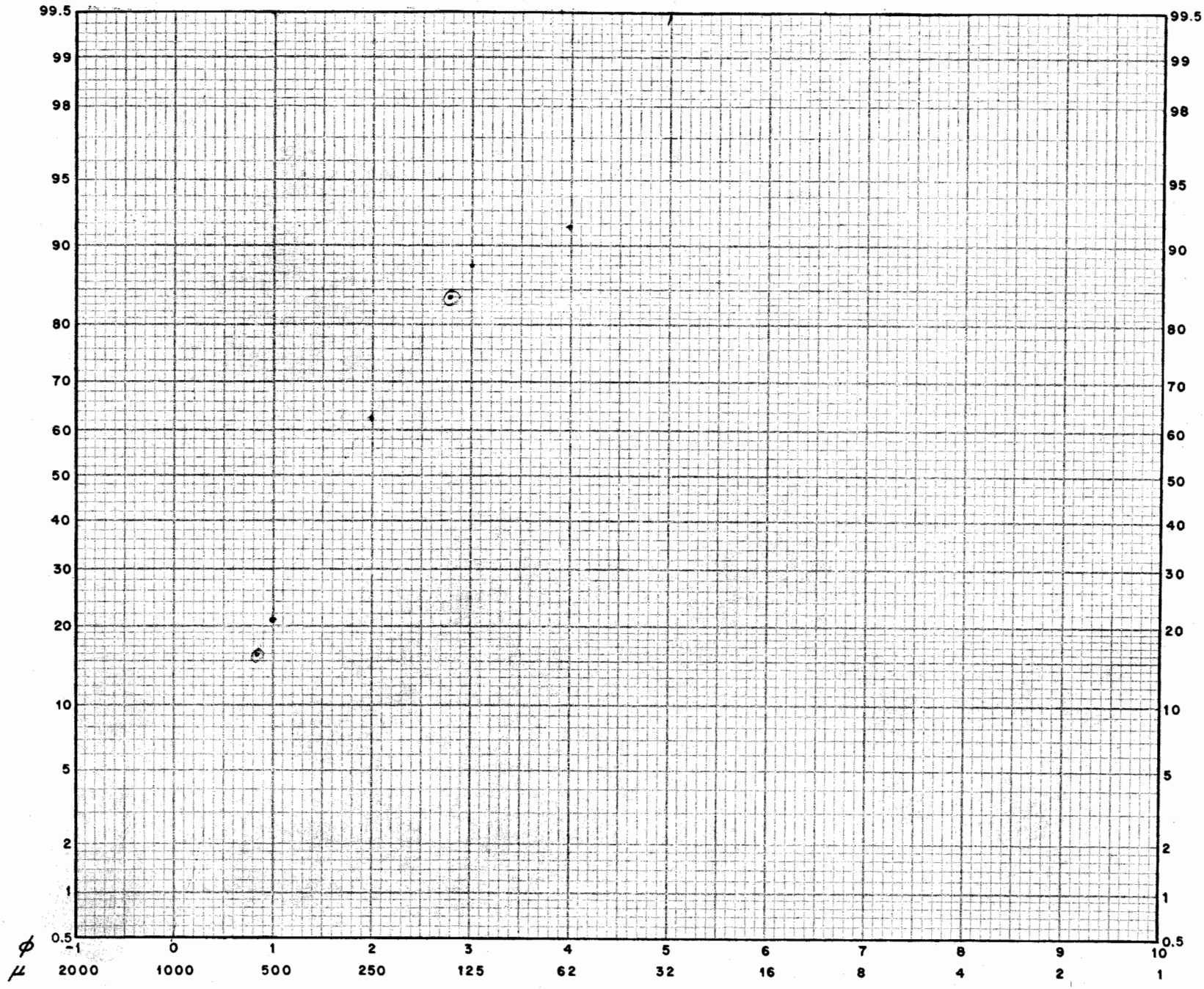
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 69.7200

carbonate .8438

68.8762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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay SAMPLE NO. 18/1 10

GRAVEL 2.7 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 96.6 % P ____ mm. σ ____

SILT 3 .7 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

48 / 48.8161 / 125.3709 / 125.0414

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								2.0442	2.7	
SAND	2.000 / 1.000	-1		39		122.4717			73.6556	37.7	
	1.000 / .500	0		44						42.5	
	.500 / .250	1		9						8.7	
	.250 / .125	2		5						4.8	
	.125 / .062	3		3						2.9	
	< .062	4							.5255		
	> .062	4	25 cm.	0 00		124.5159			75.6978		
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

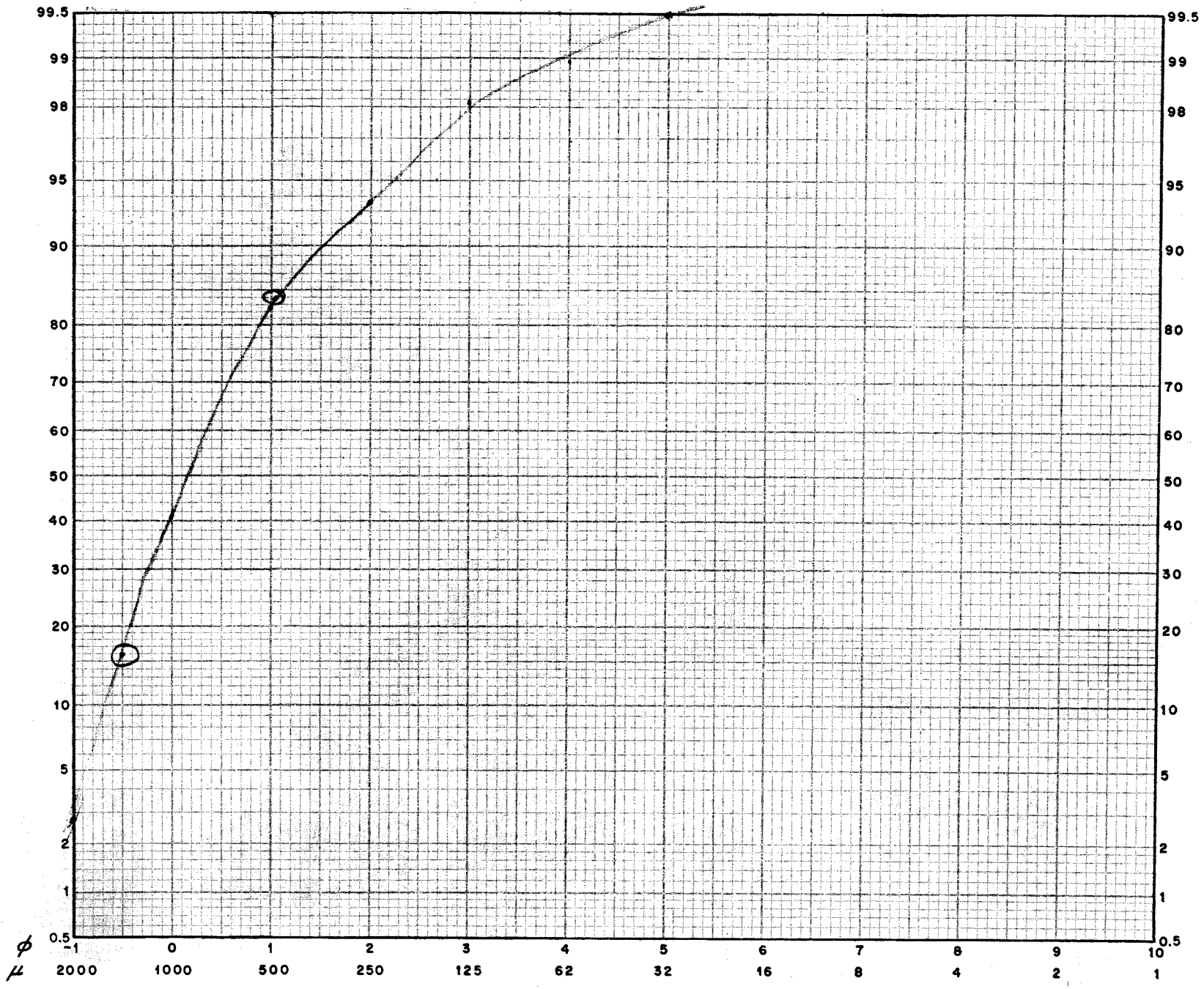
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 76.5548

,3295

76.2253



SAMPLE NO. _____

$M_\phi = \frac{1.1 + (-.5)}{2} = .3$

$\sigma_\phi = \frac{1.1 + .5}{2} = \frac{1.6}{2} = .8$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 18/1 200

GRAVEL 7.34 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 90.47 % — P ____ mm. — σ ____

SILT 2.19 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

62 / BEAKER 49.1295 / BULK + BEAKER 136.6492 / 136.1628

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								6.3898		7.3
SAND	2.000 / 1.000	-1 / 0				127.8700 / 49.1295			78.7405	9.0	8.1
	1.000 / .500	0 / 1								61.0	55.2
	.500 / .250	1 / 2								21.0	19.0
	.250 / .125	2 / 3								6.0	5.4
	.125 / .062	3 / 4								3.0	2.7
	< .062	4							1.9030		
	> .062	4				134.2598 / 49.1295			85.1303		
SILT	.062 TO .031	4 / 5	25 cm.	0 00							
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

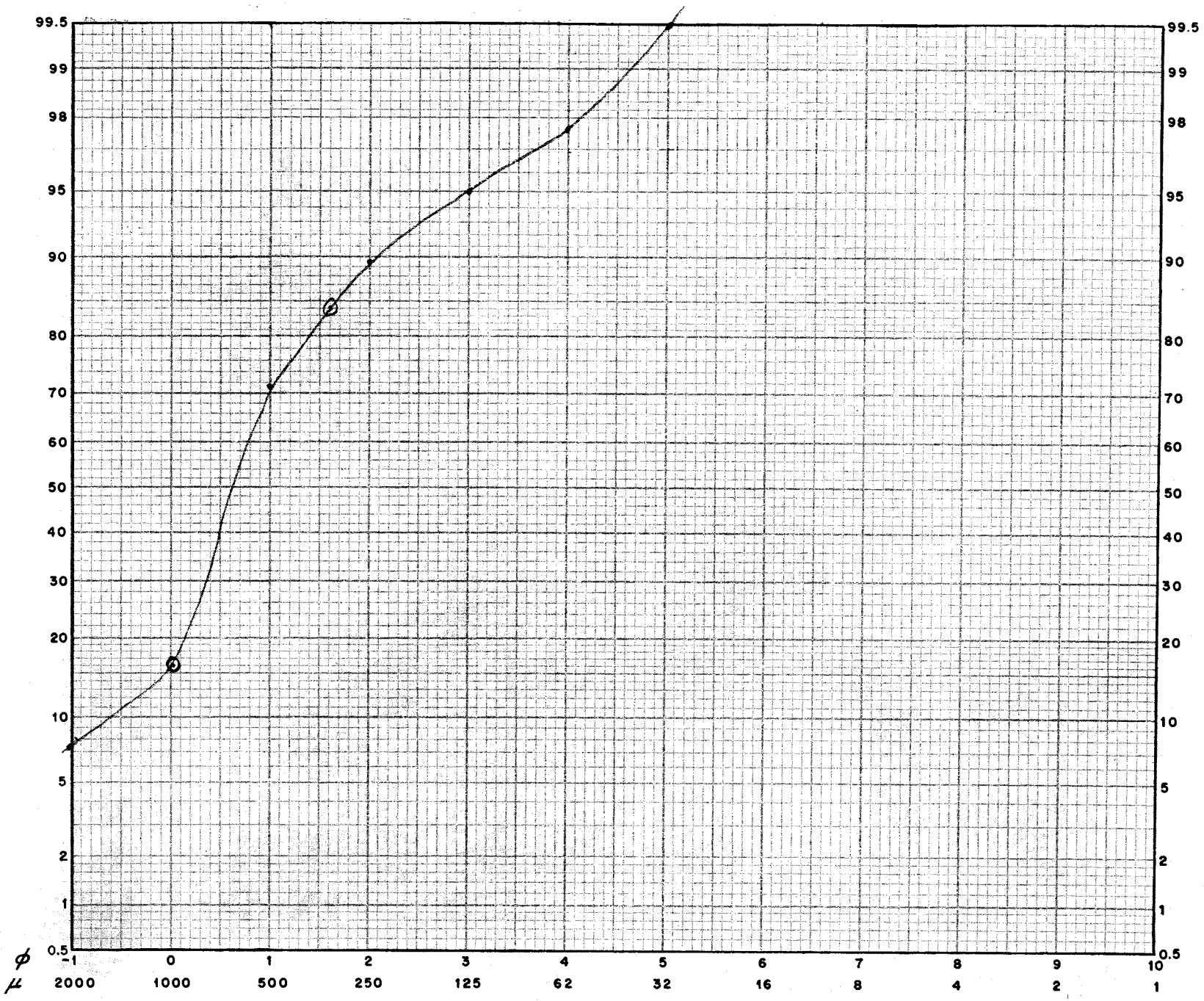
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 87.5197

carbonate .4864

87.0333



SAMPLE NO. _____

M_ϕ = 1.3

σ_ϕ = 1.3

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 18-2 - 45

GRAVEL 19.07 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 80.28 % — P ____ mm. — σ ____

SILT 3 .65 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BEAKER + BULK

122 / 50.4859 / 140.0546 / 139.7756

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								17.0261		19.07	19.1
SAND	2.000 / 1.000	-1 / 0				122.1700			71.6841	69.0	55.4	74.5
	1.000 / .500	0 / 1								23.5	18.9	93.4
	.500 / .250	1 / 2								4.5	3.6	97.0
	.250 / .125	2 / 3								2.0	1.6	98.6
	.125 / .062	3 / 4								1.0	.8	99.4
	< .062	4							.5795			
	> .062	4			122	139.1961			88.7102			
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100	
	.031 TO .016	5 / 6	10 cm.	0 02								
	.016 TO .008	6 / 7	10 cm.	0 08								
	.008 TO .004	7 / 8	10 cm.	0 32								
CLAY	.004 TO .002	8 / 9	10 cm.	2 08								
	.002 TO .001	9 / 10	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

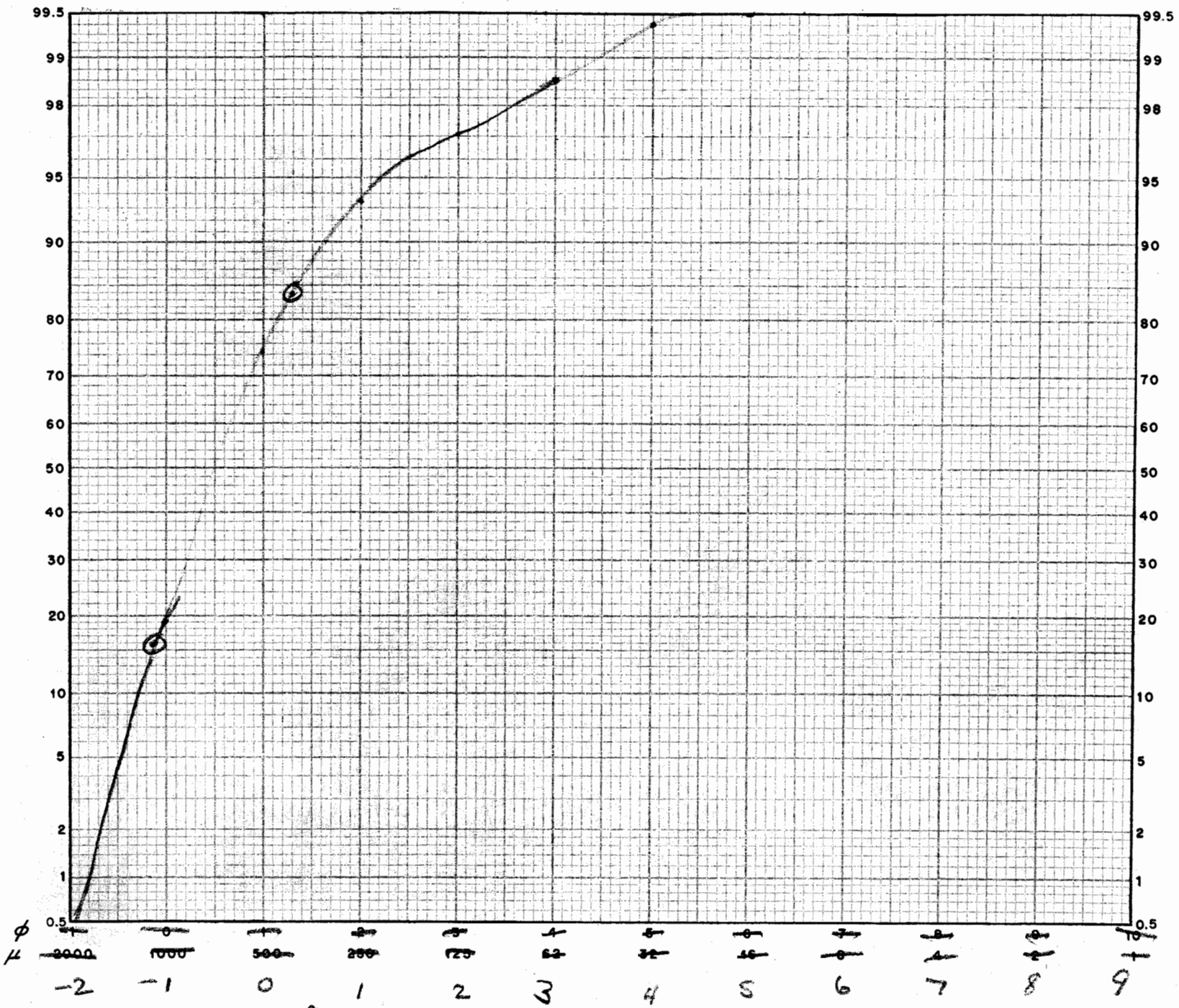
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 89.5687

carbonate .2790

89.2897



SAMPLE NO. _____

M_ϕ $-1.1 + .3 = -.8 \div 2 = \boxed{-.4}$

σ_ϕ $1.1 + .3 = 1.4 \div 2 = \boxed{.7}$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 18/2 165

GRAVEL 11.1 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 88.0 % — P ____ mm. — σ ____

SILT 3.19 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

109 / 49.9835 / 156.5217 / 156.0152

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					143.3079			11.7761	11.1	11.1
SAND	2.000 / 1.000	-1 / 0		17						15.0	26.1
	1.000 / .500	0 / 1		50						44.0	70.1
	.500 / .250	1 / 2		25						22.0	92.1
	.250 / .125	2 / 3		6						5.3	97.4
	.125 / .062	3 / 4		2						1.8	99.2
	< .062	4							.9319		
	> .062	4				155.0840	105.1005				
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100.1
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

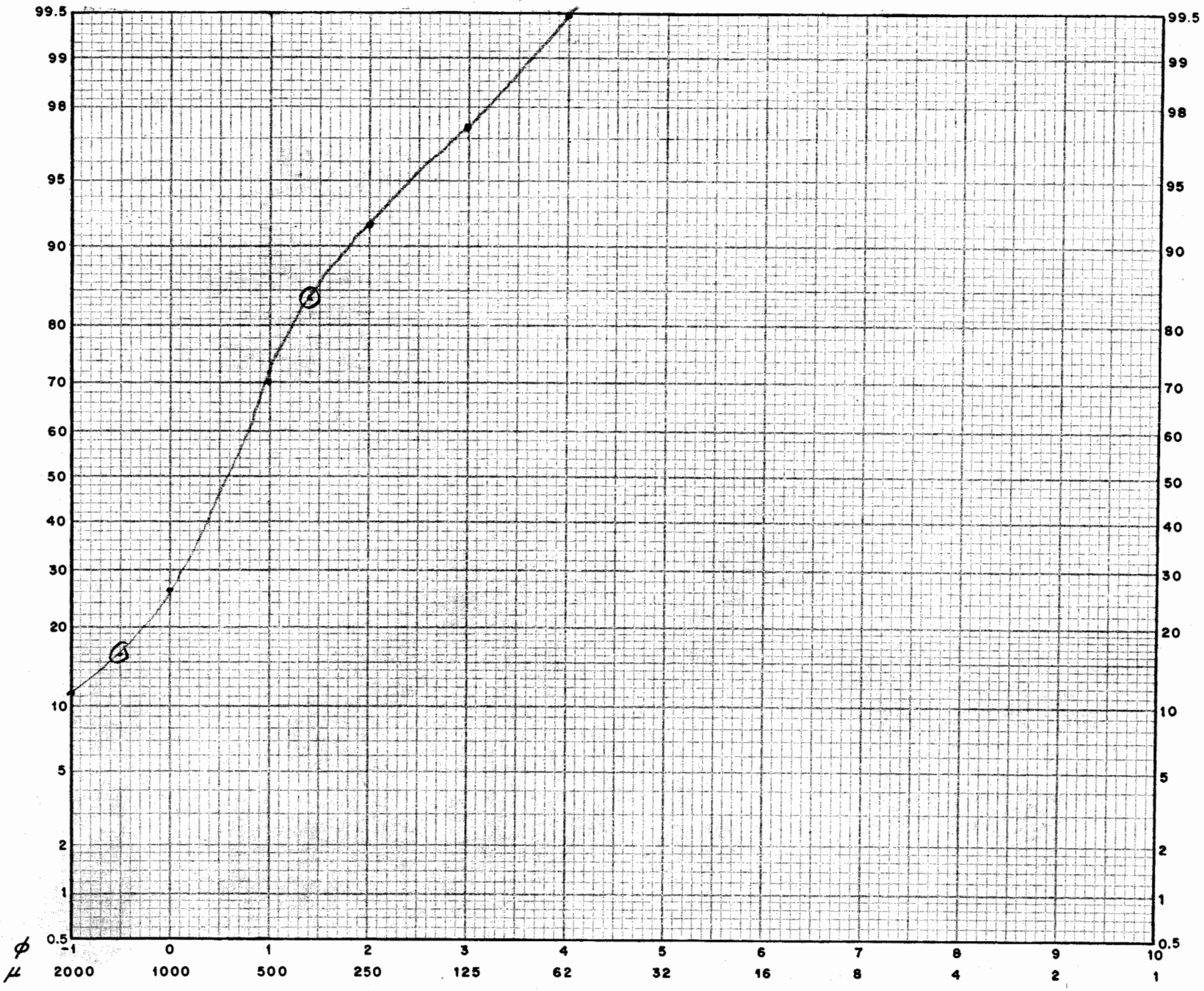
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 106.5382

.5065

106.0317



SAMPLE NO. _____

$M_\phi = \frac{-.5 + 1.4}{2} = \frac{.9}{2} = \boxed{.45}$

$\sigma_\phi = \frac{1.4 + .5}{2} \quad \frac{1.9}{2} = \boxed{.95}$

LOCATION OF SAMPLE C C BAY — SAMPLE NO. 24-1 17

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 29.2 % — P ____ mm. — σ ____

SILT 70.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

152/ 48.0893 / 90.0300 / 89.1007

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0		2						.6	.6
	.500 / .250	1		33						9.7	10.3
	.250 / .125	2		13						3.8	14.1
	.125 / .062	3		16						4.7	18.8
	< .062	4		36						10.5	29.3
									29.0186		
	> .062	4	25 cm.	0 00		60.0821			11.9928		
SILT	.062 TO .031	5	10 cm.	0 02					20.2	14.3	43.6
	.031 TO .016	6	10 cm.	0 08					15.9	11.3	54.9
	.016 TO .008	7	10 cm.	0 32					10.3	7.3	62.2
	.008 TO .004	8	10 cm.	2 08					10.4	7.4	69.6
CLAY	.004 TO .002	9	7 cm.	5 58					16.3	11.5	81.1
	.002 TO .001	10	7 cm.	24 00					16.9	12.0	93.1
	< .001								10.0	7.1	100.2

WEIGHT DISPERSING AGENT x 20 ____

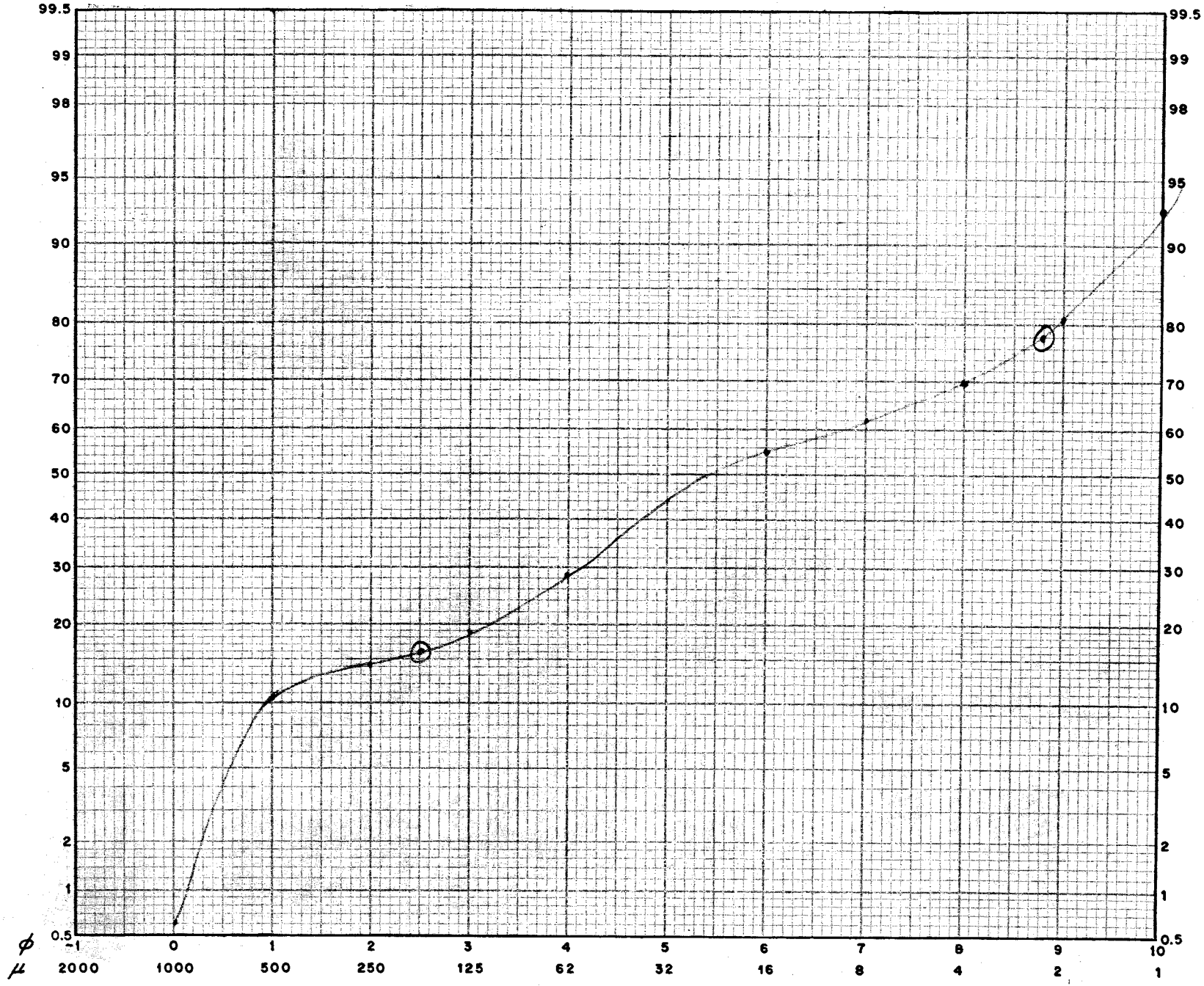
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 41.9107

.8993

41.0114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SAMPLE NO. _____

LOCATION OF SAMPLE CC B14 SAMPLE NO. 24-1 26

GRAVEL 0.0 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 88.6 % P ____ mm. σ ____

SILT } 11.4 % P ____ mm. Sk. ____

CLAY } ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

365 / 49.1078 / 92.8380

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 1.000	-1									
	1.000 .500	0									
	.500 .250	1		16.5						14.6	14.6
	.250 .125	2		44.5						39.4	54.0
	.125 .062	3		39.0						34.6	88.6
	< .062	4							4.9744		
	> .062	4	25 cm.	0 00		87.8636			38.7558		
SILT	.062 TO .031	5	10 cm.	0 02					55.3	6.3	94.9
	.031 TO .016	6	10 cm.	0 08					19.3	2.2	97.1
	.016 TO .008	7	10 cm.	0 32					5.6	.4	97.7
	.008 TO .004	8	10 cm.	2 08					4.9	.6	98.3
CLAY	.004 TO .002	9	7 cm.	5 58					5.6	.6	98.9
	.002 TO .001	10	7 cm.	24 00					7.0	.8	99.7
	< .001								2.3	.3	100.0

WEIGHT DISPERSING AGENT x 20 ____

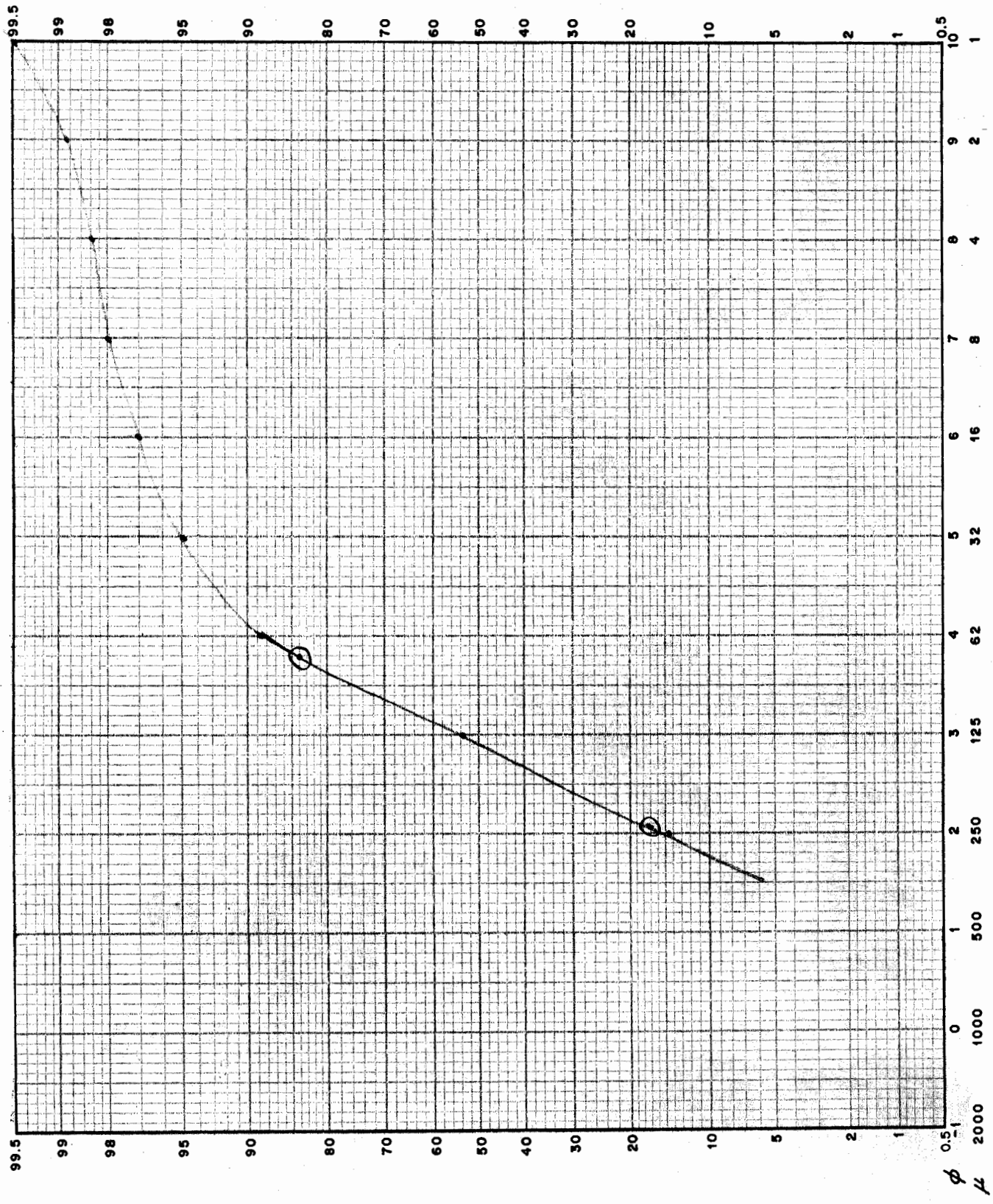
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 43.7302

no carbonate

SAMPLE NO._____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LOCATION OF SAMPLE CC Bay — SAMPLE NO. 24-1 31

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 5.2 % — P ____ mm. — σ ____

SILT 94.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

92 / 48.8220 / 93.4434 / 92.8962

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0		39						2.0	2.0
	.500 / .250	1		50						2.6	4.6
	.250 / .125	2		7						.4	5.0
	.125 / .062	3		4						.2	5.2
	< .062	4							2.3129		
	> .062	4	25 cm.	0 00		90.5833			41.7613		
SILT	.062 TO .031	5	10 cm.	0 02						26.2	31.4
	.031 TO .016	6	10 cm.	0 08						13.0	44.4
	.016 TO .008	7	10 cm.	0 32						6.6	51.0
	.008 TO .004	8	10 cm.	2 08						8.7	59.7
CLAY	.004 TO .002	9	7 cm.	5 58						12.7	72.4
	.002 TO .001	10	7 cm.	24 00						19.5	91.9
	< .001									8.1	100.0

WEIGHT DISPERSING AGENT x 20 ____

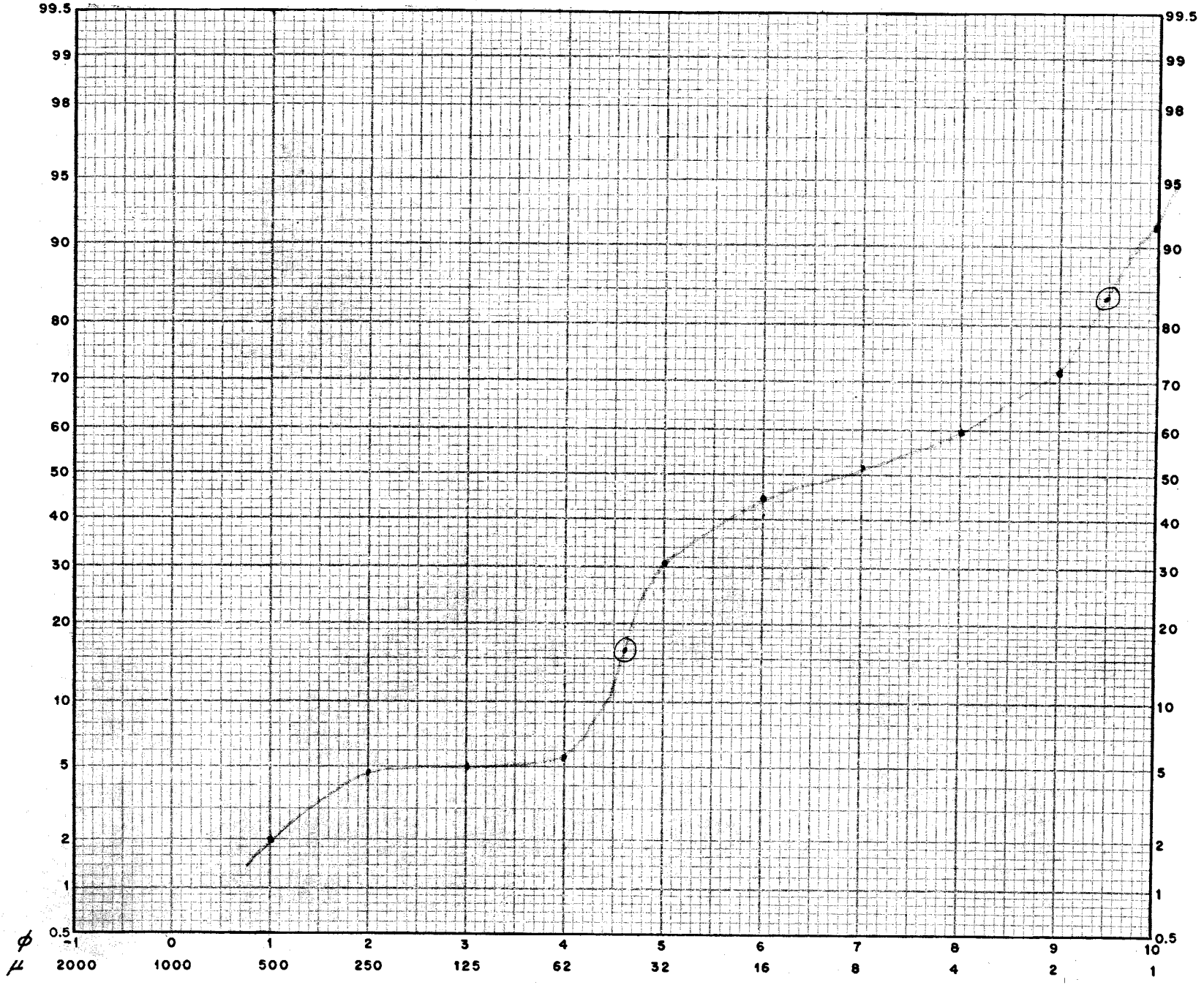
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 44.6214

.5472

44.0742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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 24/1 38

GRAVEL 12.7 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 85.8 % — P ____ mm. — σ ____

SILT } 1.5 % — P ____ mm. — Sk. ____

CLAY } ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

82 / 48.7538 / 106.8072 / 106.3846

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					98.2401			7.301	12.7	12.7
SAND	2.000 / 1.000	-1 / 0		75						64.4	77.1
	1.000 / .500	0 / 1		22						18.9	96.0
	.500 / .250	1 / 2		3						2.6	98.6
	.250 / .125	2 / 3		0						0.0	
	.125 / .062	3 / 4		0						0.0	
	< .062	4							.8435		
	> .062	4				109.5411	56.7873				100.1
SILT	.062 TO .031	4	25 cm.	0 00							
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

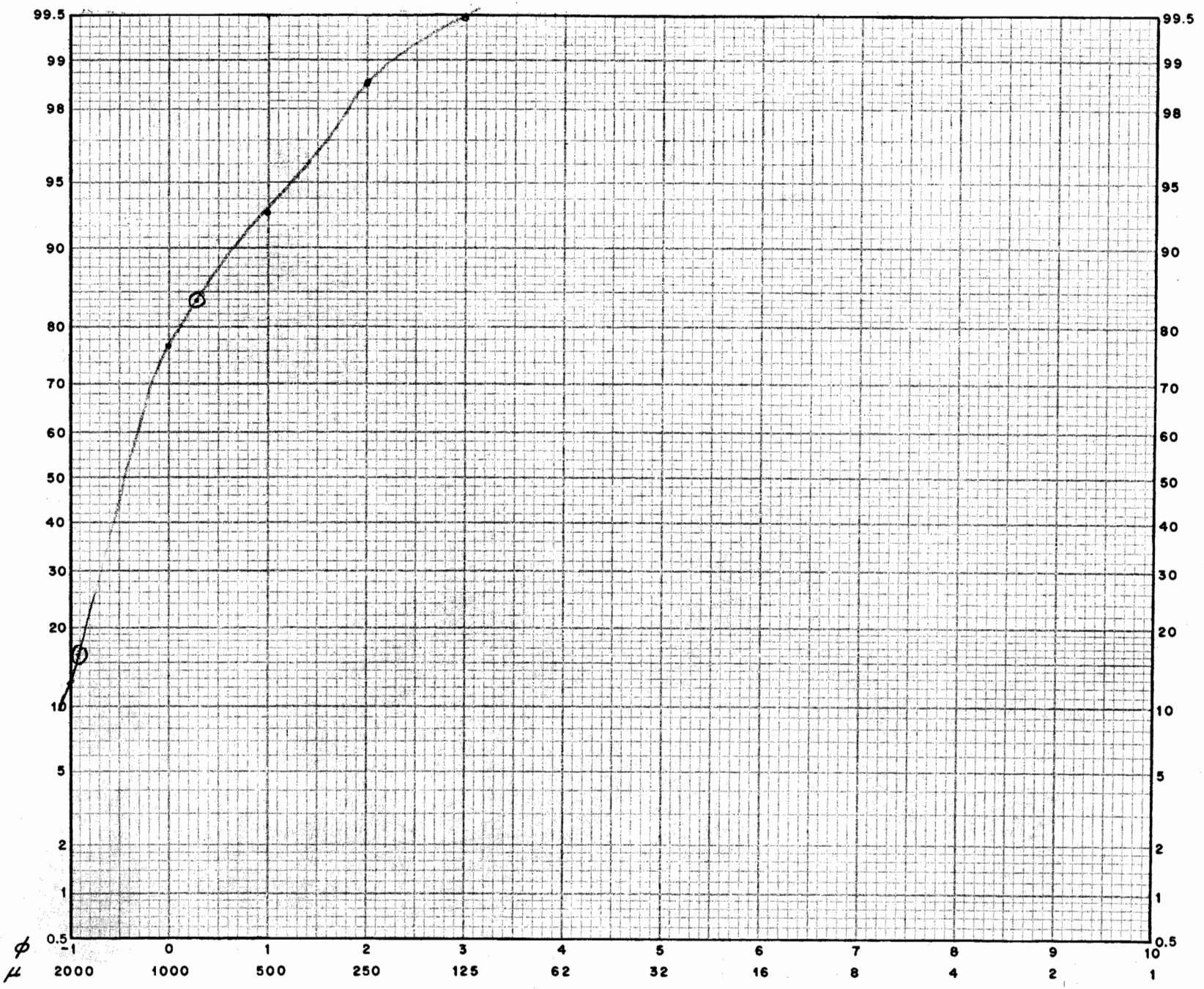
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 58.0534

.4226

57.6308



SAMPLE NO. _____

$$\frac{-.9 + .3}{2} = \frac{-.6}{2} = \boxed{-.3}$$

$$\frac{.3 + .9}{2} = \frac{1.2}{2} = \boxed{.6}$$

LOCATION OF SAMPLE C.C. Bay — SAMPLE NO. 24/1 68

GRAVEL 58.79 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 41.15 % — P ____ mm. — σ ____

SILT .06 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

384 / BEAKER 48.3998 / BULK + BEAKER 135.1887 / 135.0507

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								50.9422		58.8
SAND	2.000 / 1.000	-1 / 0				84.0538			35.6540	70.0	28.8
	1.000 / .500	0 / 1								27.0	11.1
	.500 / .250	1 / 2								2.0	.8
	.250 / .125	2 / 3								1.0	.4
	.125 / .062	3 / 4								0.0	.0
	< .062	4							.0547		.
	> .062	4	25 cm.	0 00		134.9960			86.5962		
SILT	.062 TO .031	5	10 cm.	0 02						.1	100.0
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

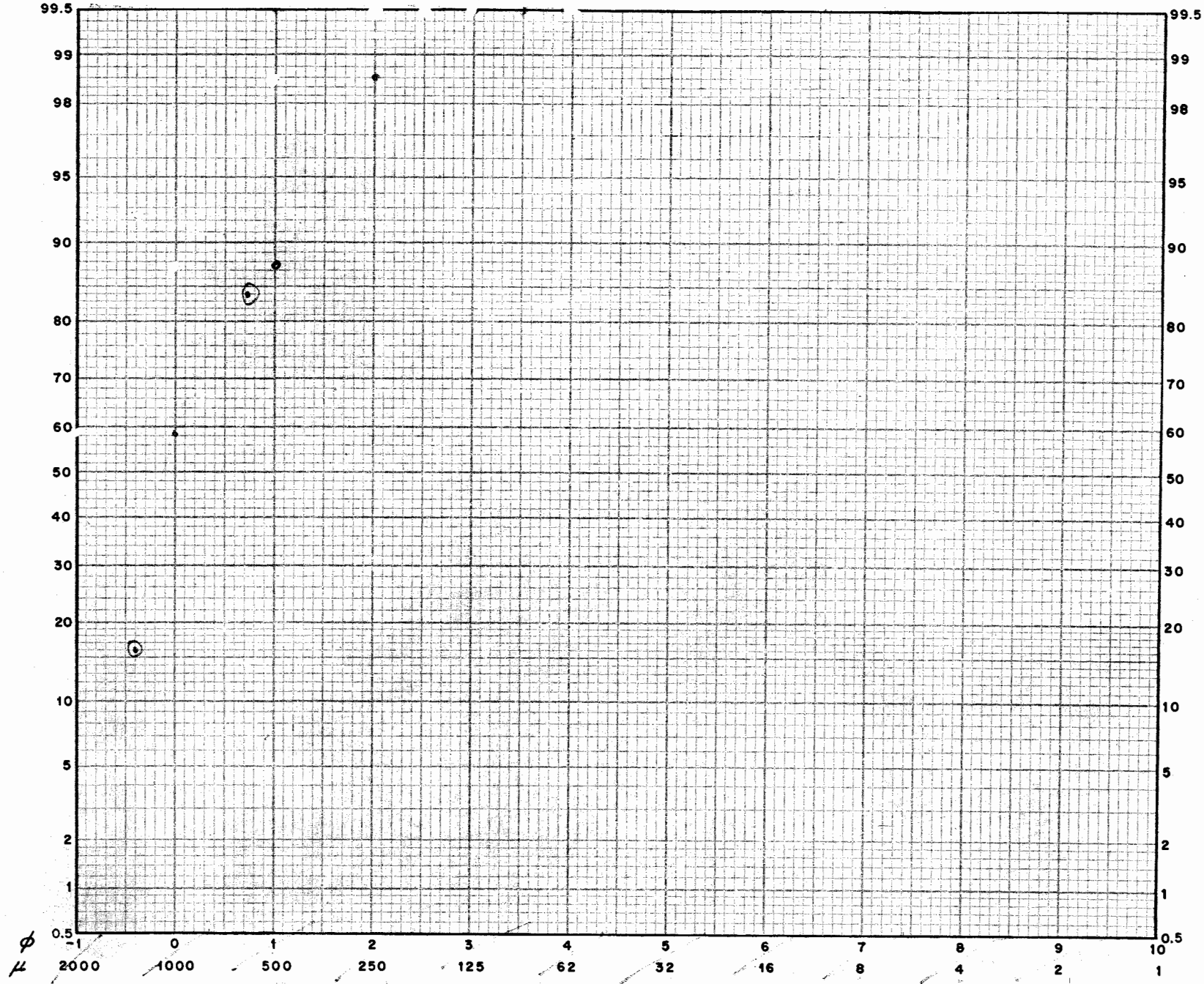
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 86.7889

r1380

86.6509



SAMPLE NO. _____

$M_b = \frac{-1.4 + -.3}{2} = \frac{-1.7}{2} = -.85$

LOCATION OF SAMPLE CC Bay SAMPLE NO. 24/1 78

GRAVEL 21.3 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 78.6 % P ____ mm. σ ____

SILT 3 .1 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

372 / BEAKER 49.1871 / BULK + BEAKER 127.6071 / 127.1432

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000							16.6403		21.3	21.3
SAND	2.000 / 1.000	-1 / 0		45		110.4190				35.4	56.7
	1.000 / .500	0 / 1		34						28.3	85.0
	.500 / .250	1 / 2		12						9.4	94.4
	.250 / .125	2 / 3		5						3.9	98.3
	.125 / .062	3 / 4		2						1.6	99.9
	< .062	4							.10839		
	> .062	4				127.0573			.778722		
SILT	.062 TO .031	4	25 cm.	0 00						.1	100.1
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

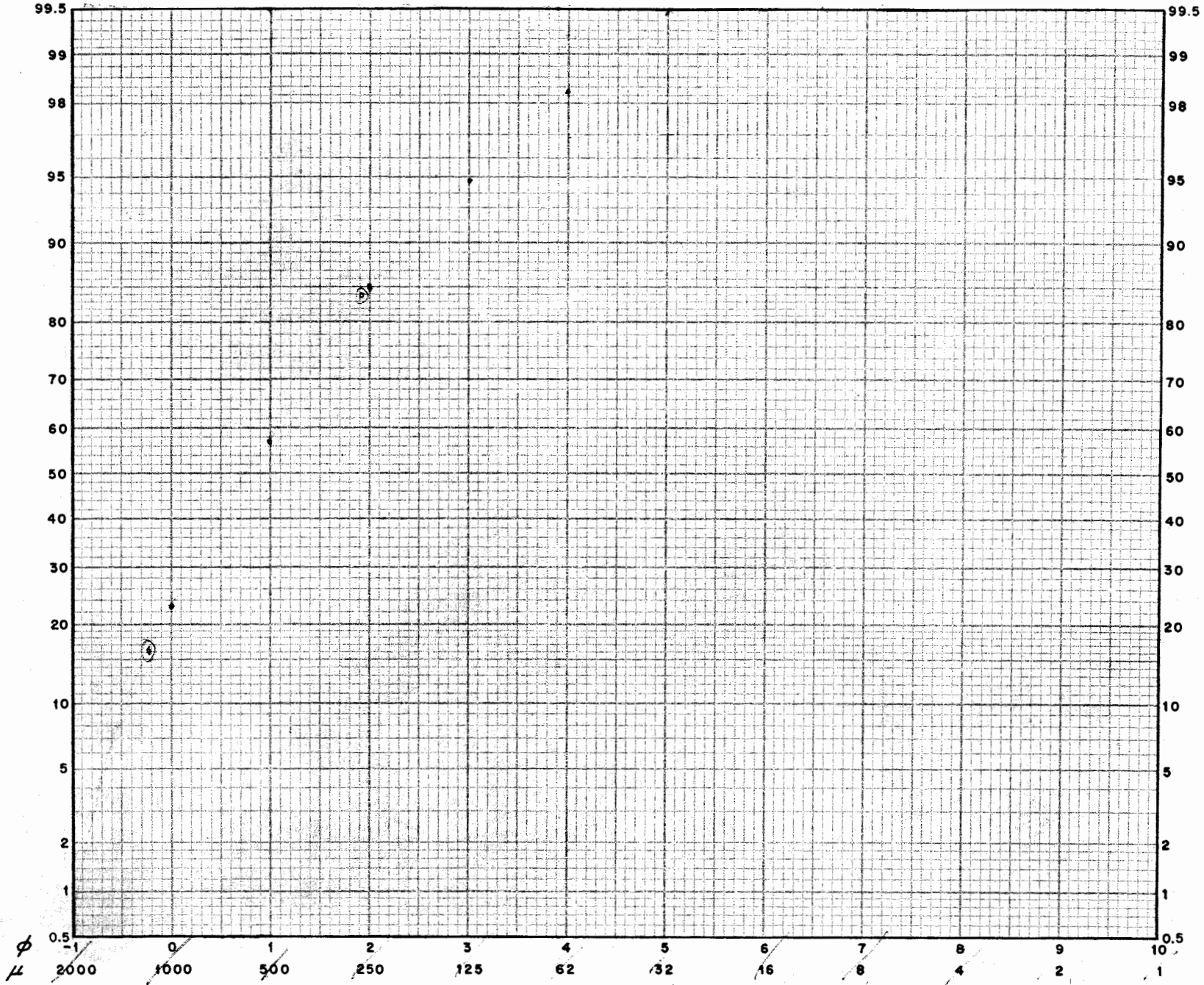
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 78.4200

.4639

77.9561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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 24/1 188

GRAVEL 36.8 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 62.3 % — P ____ mm. — σ ____

SILT 3 .9 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

390 / Beaker 49.3682 / Bulk+Beaker 129.7731 ~~90.3283~~ / 129.5815

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								29.5409	36.8	36.8
SAND	2.000 / 1.000	-1 / 0		15		99.3565			49.9883	9.3	46.1
	1.000 / .500	0 / 1		60						37.4	83.5
	.500 / .250	1 / 2		20						12.5	96.0
	.250 / .125	2 / 3		3						1.9	97.9
	.125 / .062	3 / 4		2						1.2	99.1
	< .062	4							.6841		
	> .062	4				~~128.8974~~			79.5252		
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100.0
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

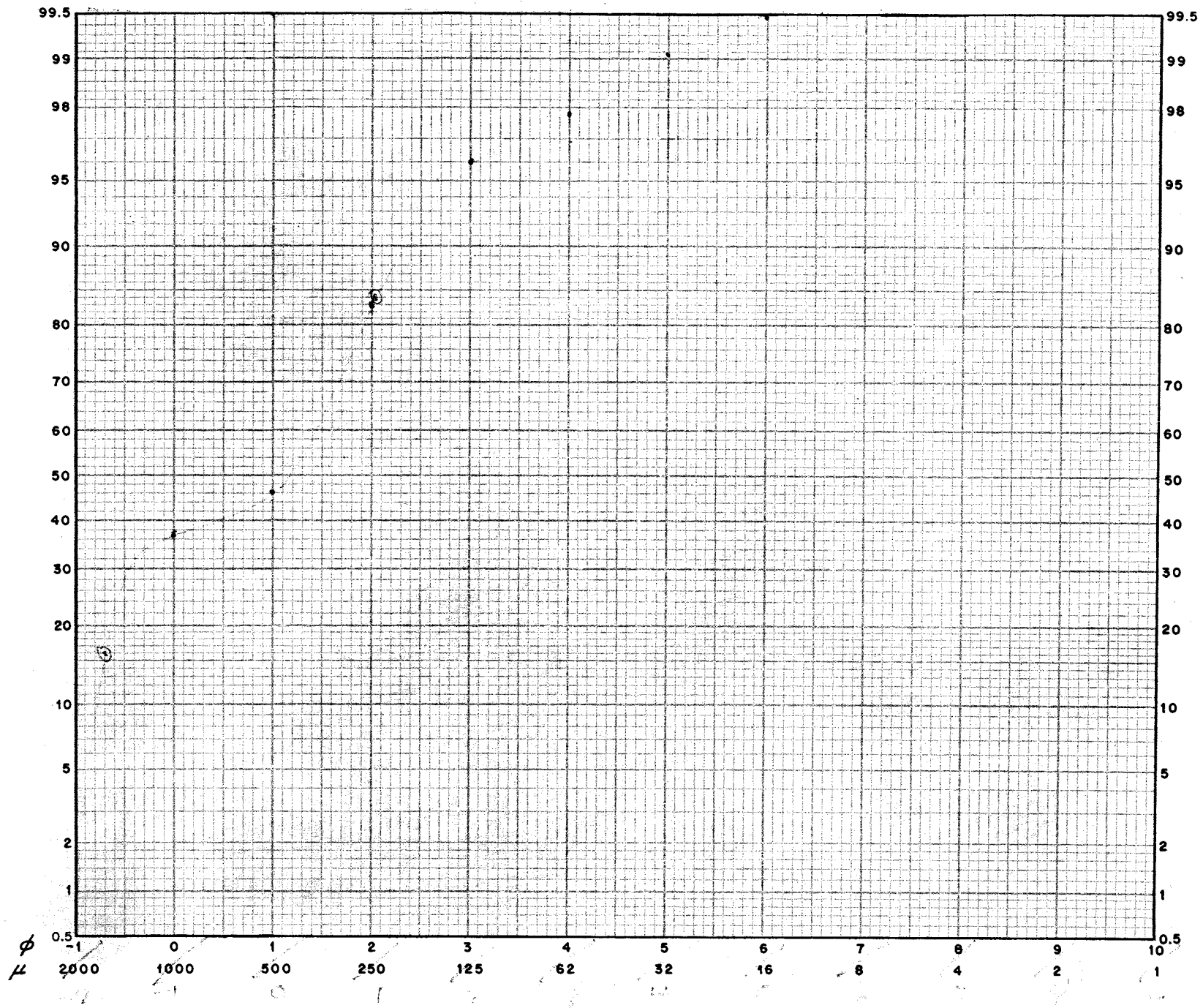
WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 80.4049 .1916 80.2133

contained a large gravel which was removed to get the bulk sample down in weight.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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 24/2 S

GRAVEL 40.89 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 58.65 % — P ____ mm. — σ ____

SILT 70.46 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

16 / Baker 49.7922 / Bulk + Baker 148.0988 / 147.8272

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								40.0878		40.89
SAND	2.000 / 1.000	-1				107.2902			57.498	40.0	23.5
	1.000 / .500	0								51.0	29.9
	.500 / .250	1								7.5	4.4
	.250 / .125	2								2.0	1.2
	.125 / .062	3								0.0	0.0
	< .062	4							.4492		
	> .062	4	25 cm.	0 00		147.3780			97.5858		
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

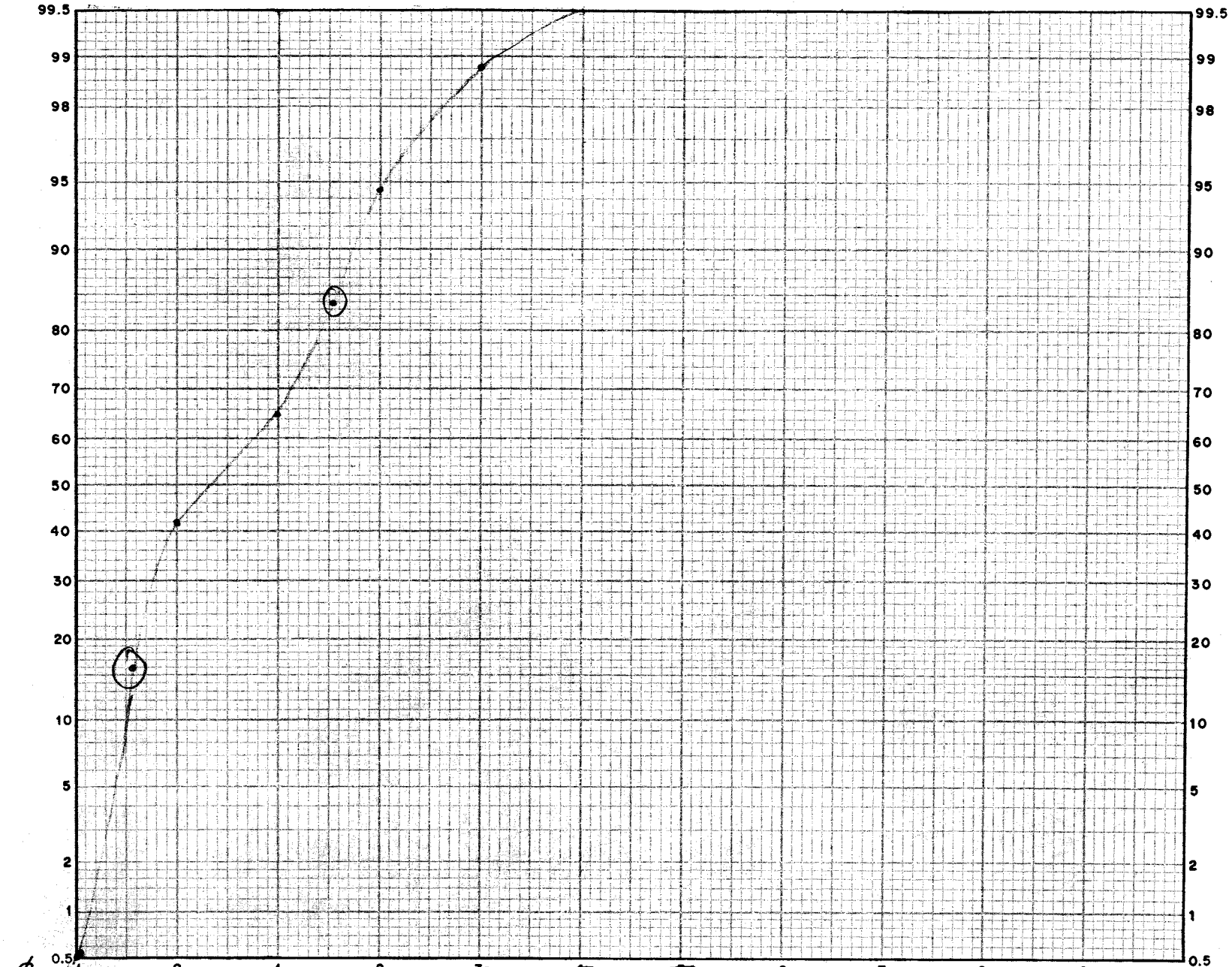
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 98.3066

carbonate .2716

98.0350



SAMPLE NO. _____

$M_\phi = \frac{1.5 + (-1.4)}{2} = \boxed{.05}$

$\sigma_\phi = \frac{1.5 + 1.4}{2} = \frac{2.9}{2} = \boxed{1.45}$

LOCATION OF SAMPLE C.C. Bay — SAMPLE NO. 24/2 132

GRAVEL 5.3 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 92.8 % — P ____ mm. — σ ____

SILT } 1.9 % — P ____ mm. — Sk. ____

CLAY } % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

393 / 49.4394 / 111.4555 / 110.9960

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					106.5518			3.2902	5.3	5.3
SAND	2.000 / 1.000	-1 / 0		4						3.7	9.0
	1.000 / .500	0 / 1		31						28.8	37.8
	.500 / .250	1 / 2		49						45.5	83.3
	.250 / .125	2 / 3		12						11.1	94.4
	.125 / .062	3 / 4		4						3.7	98.1
	< .062	4							1.154		
	> .062	4				109.8420	60.4026				
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100.0
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

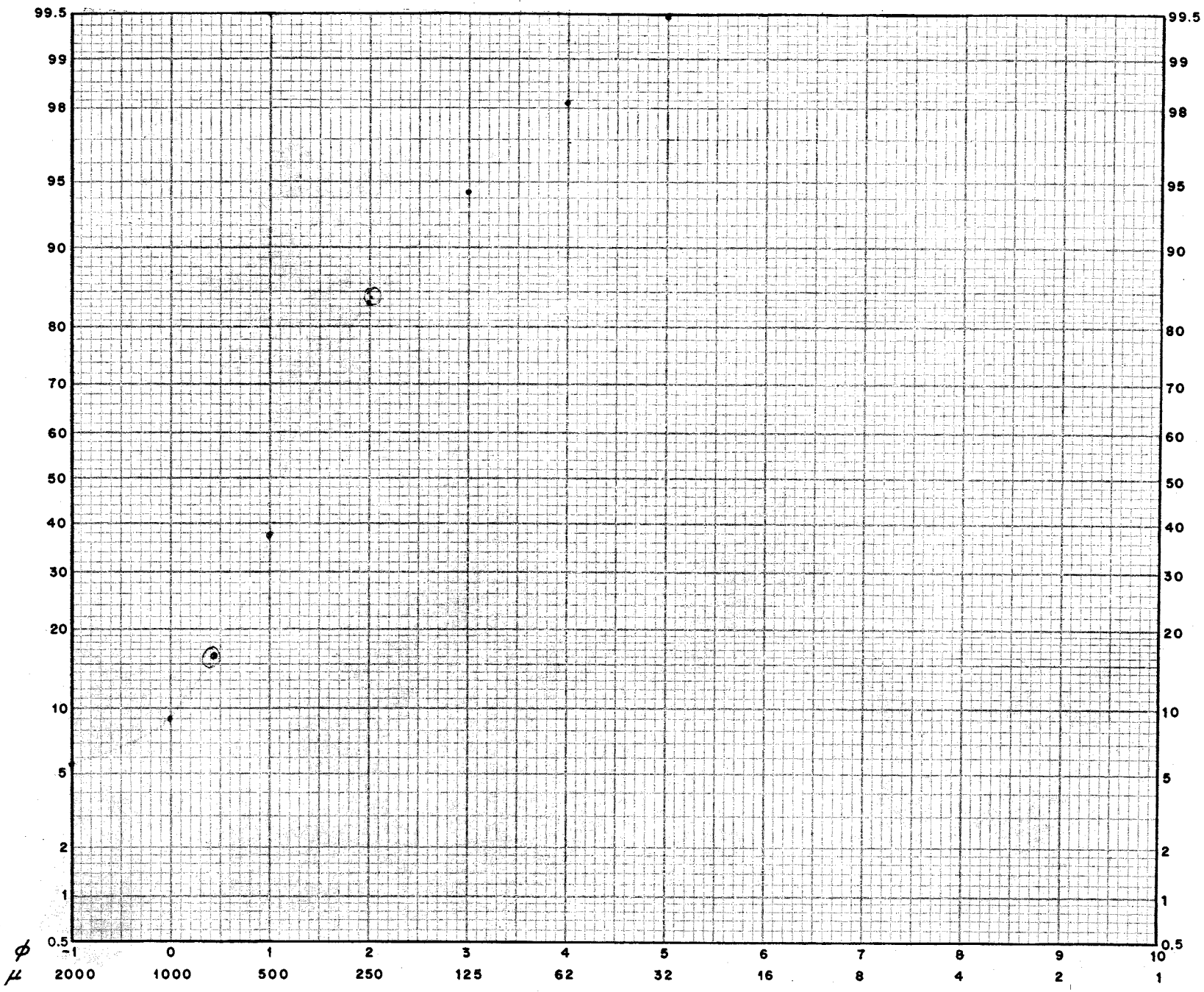
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 62.0161

.4595

61.5566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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 28A/1 10

GRAVEL 0,0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99,2 % — P ____ mm. — σ ____

SILT ξ .8 % — P ____ mm. — Sk. ____

CLAY ξ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

103 / 49,5680 / 105,6795 / 105,1162

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0,0	
SAND	2.000 / 1.000	-1 / 0		0						0,0	
	1.000 / .500	0 / 1		0						0,0	
	.500 / .250	1 / 2		24						23,8	23,8
	.250 / .125	2 / 3		63						62,5	86,3
	.125 / .062	3 / 4		13						12,9	99,2
	< .062	4							.4248		
	> .062	4	25 cm.	0 00	104	.6914 / 55,1234					
SILT	.062 TO .031	5	10 cm.	0 02							100
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

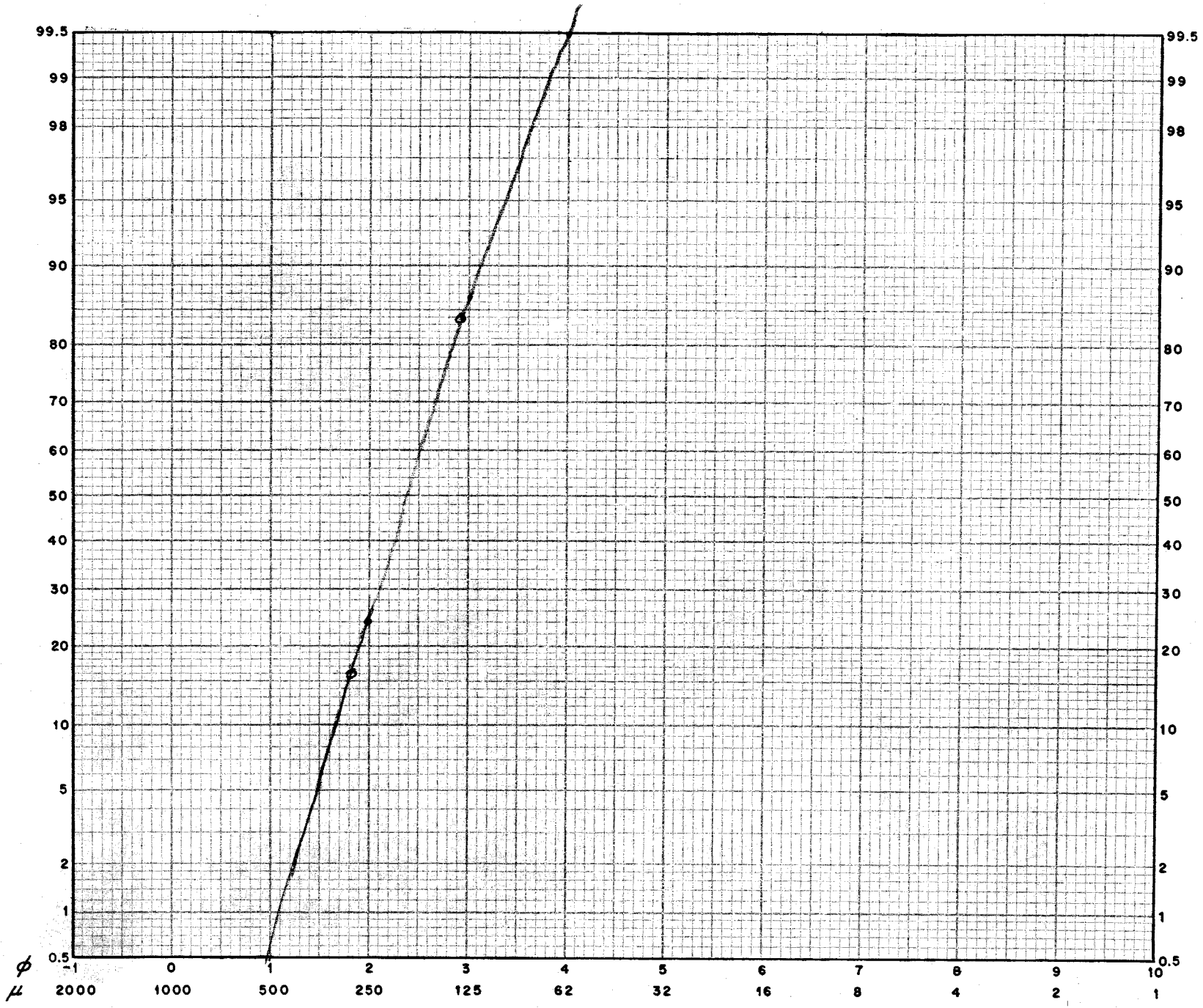
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 56,1115

.5633

55,5482



SAMPLE NO. _____

$M_\phi = \frac{1.8 + 2.9}{2} = \frac{4.7}{2} = \boxed{2.35}$

$\sigma_\phi = \frac{2.9 - 1.8}{2} = \frac{1.1}{2} = \boxed{.55}$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 28A/2 20

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 96.2 % — P ____ mm. — σ ____

SILT 3.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

94 / 50.2216 / 112.0158 / 112.7241

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000			0						0.0	
SAND	2.000 / 1.000	-1		0						0.0	
	1.000 / .500	0		0						0.0	
	.500 / .250	1		25						24.1	24.6
	.250 / .125	2		63						60.6	84.7
	.125 / .062	3		12						11.5	96.2
	< .062	4							2.3589		
	> .062					110.3658			60.1436		
SILT	.062 TO .031	4	25 cm.	0 00							100.0
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

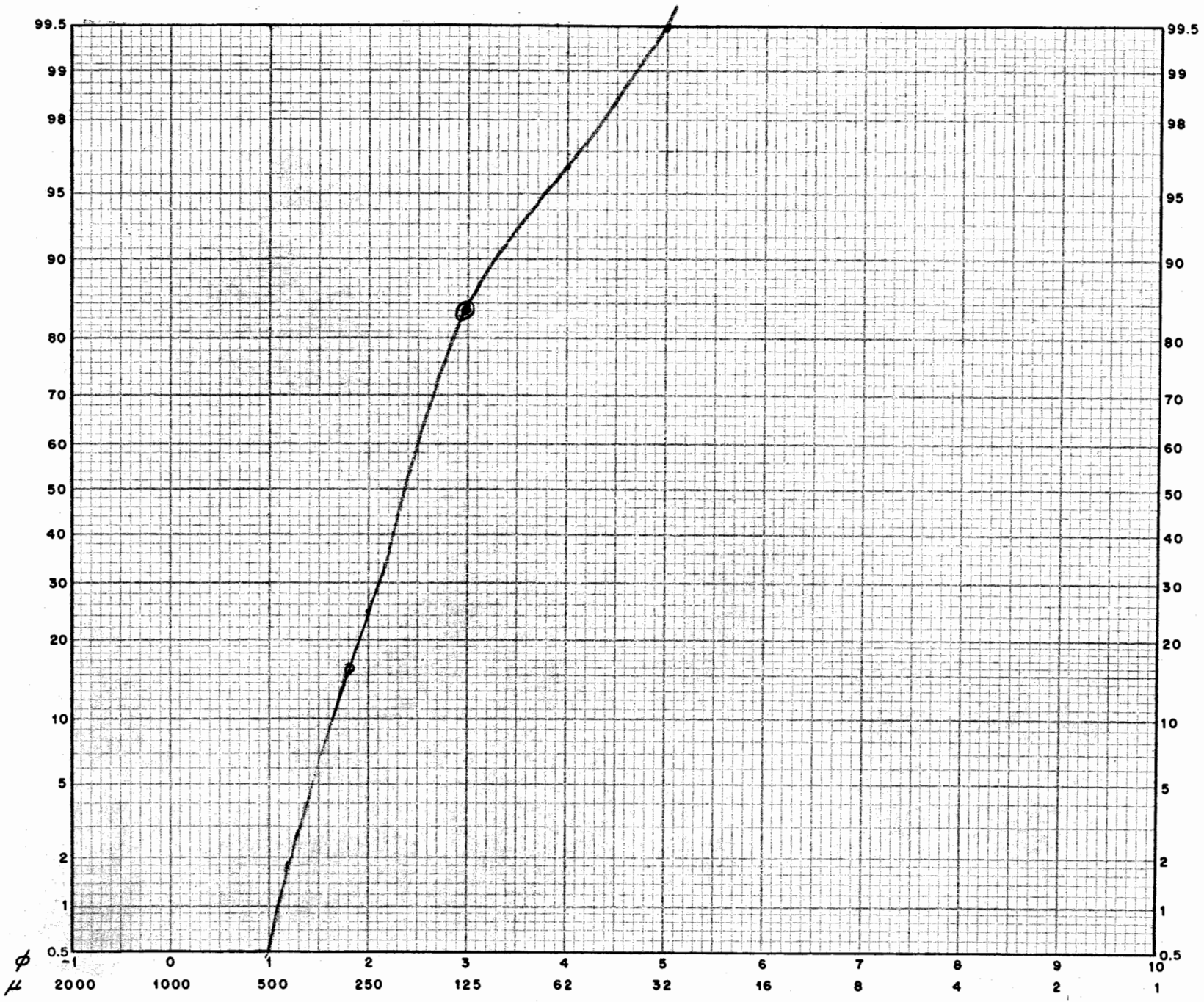
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 62.7942

.2917

62.5025



SAMPLE NO. _____

$M_\phi = \frac{1.8 + 3}{2} \quad \frac{4.8}{2} = \boxed{2.4}$

$\sigma_\phi = \frac{3 - 1.8}{2} = \frac{1.2}{2} = \boxed{.6}$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 28A/2 220

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.1 % — P ____ mm. — σ ____

SILT 3.9 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

89/48.1511/122.9890/122.3240

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000	−1								0.0	0.0
SAND	2.000 / 1.000	0		0						0.0	0.0
	1.000 / .500	1		0						0.0	0.0
	.500 / .250	2		33						32.7	32.7
	.250 / .125	3		58						57.5	90.2
	.125 / .062	4		9						8.9	99.1
	< .062								.6554		
	> .062	4	25 cm.	0 00		121.6686			73.5175		
SILT	.062 TO .031	5	10 cm.	0 02							100.0
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

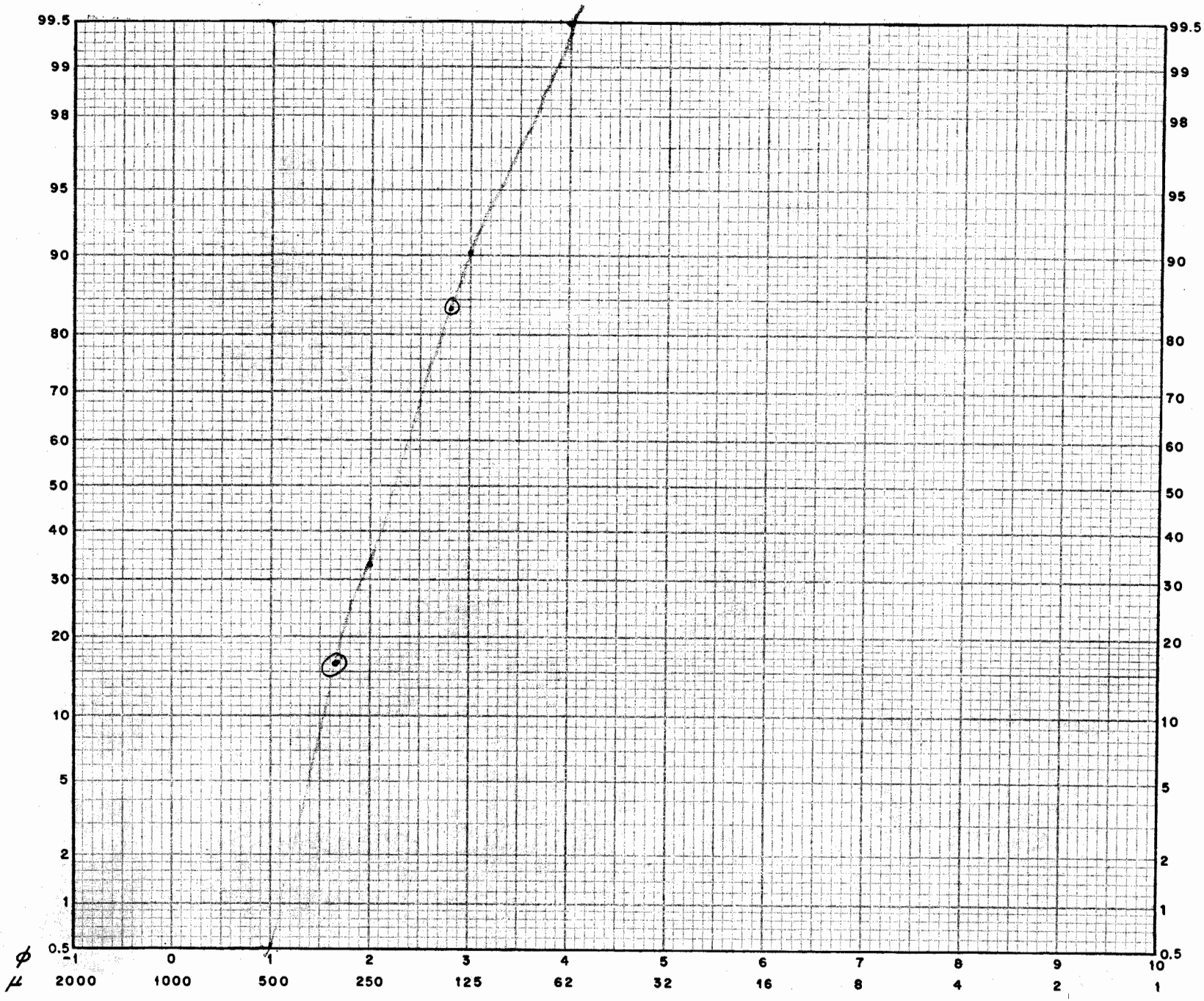
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 74.8379

.6650

74.1729



SAMPLE NO. _____

$M_\phi = \frac{1.6 + 2.8}{2} \quad \frac{4.4}{2} = 2.2$

$\sigma_\phi \quad \frac{2.8 - 1.6}{2} = \frac{1.2}{2} = \boxed{.6}$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/1 5

GRAVEL 26.22 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 72.63 % — P ____ mm. — σ ____

SILT 3 1.15 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

8 / 50.7534 / 137.2205 / 136.8015

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								22.5610		26.2
SAND	2.000 / 1.000	−1				113.2508			62.4974	11.0	8.0
	1.000 / .500	0								37.5	28.1
	.500 / .250	1								29.5	22.4
	.250 / .125	2								17.0	12.3
	.125 / .062	3								5.0	3.6
	< .062	4							.9897		
	> .062	4	25 cm.	0 00		135.8118			85.0584		
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 86.4671

carbonate .4190

86.0481

SAMPLE NO. _____

99.5
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
φ
μ
-2
-1
0
1
2
3
4
5
6
7
8
$\mu_\phi = \frac{2.9 + (-1.3)}{2} = \frac{1.3}{2} = .65$
$\sigma_\phi = \frac{2.9 - (-1.3)}{2} = \frac{4.2}{2} = 2.1$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/1 20

GRAVEL 3.96 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 94.74 % — P ____ mm. — σ ____

SILT 1.29 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

420 / BEAKER 49.2372 / BULK + BEAKER 103.3486 / 102.8515

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								2.1255		4.0	4.0
SAND	2.000 / 1.000	-1				1000323			50.7951	2.0	1.9	5.9
	1.000 / .500	0								8.5	8.1	14.0
	.500 / .250	1								46.5	43.9	57.9
	.250 / .125	2								38.0	36.0	93.9
	.125 / .062	3								5.0	4.7	98.6
	< .062	4							.6937			
	> .062	4				102.1578			52.9206			
SILT	.062 TO .031	4	25 cm.	0 00							99.9	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

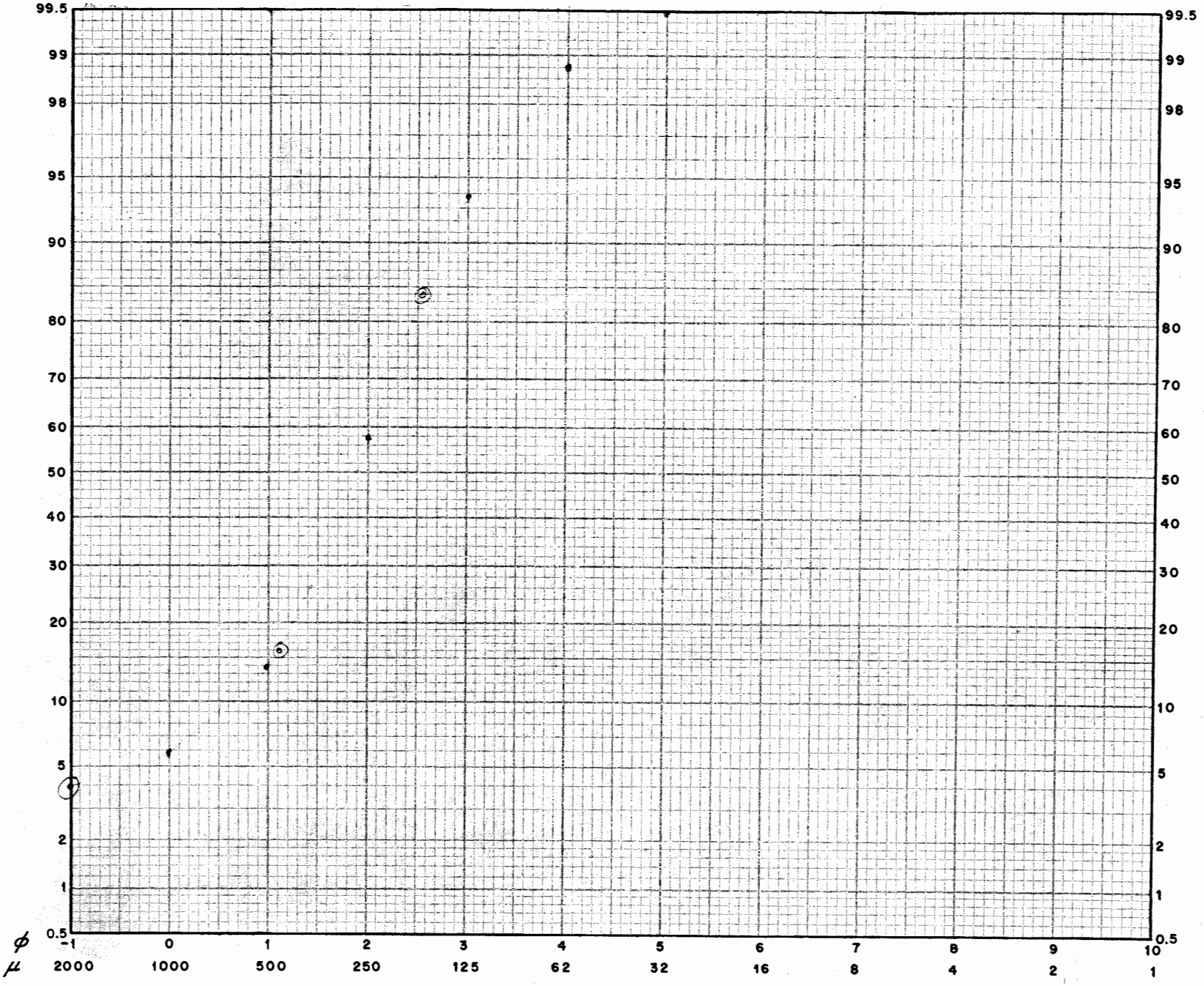
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 54.1114

.4971

53.6143


99.5
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
φ
μ
-1
2000
0
1000
1
500
2
250
3
125
4
62
5
32
6
16
7
8
8
4
9
2
10
1
SAMPLE NO.

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 35A/1 30

GRAVEL 5.03 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 94.18 % — P ____ mm. — σ ____

SILT 3 .76 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

375 / 48.9418 / 122.7150 / 122.3032

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								3.7075		5.0	
SAND	2.000 / 1.000	-1 / 0				118.0367 / 48.9418			69.0949	10.0	9.4	14.4
	1.000 / .500	0 / 1								50.0	47.0	61.4
	.500 / .250	1 / 2								31.0	29.2	90.6
	.250 / .125	2 / 3								7.0	6.6	97.2
	.125 / .062	3 / 4								2.0	1.9	99.1
	< .062	4							.5590			
	> .062	4				121.7742 / 48.9418			72.8024			↓
SILT	.062 TO .031	4 / 5	25 cm.	0 00						.8	99.9	
	.031 TO .016	5 / 6	10 cm.	0 02								
	.016 TO .008	6 / 7	10 cm.	0 08								
	.008 TO .004	7 / 8	10 cm.	0 32								
CLAY	.004 TO .002	8 / 9	10 cm.	2 08								
	.002 TO .001	9 / 10	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

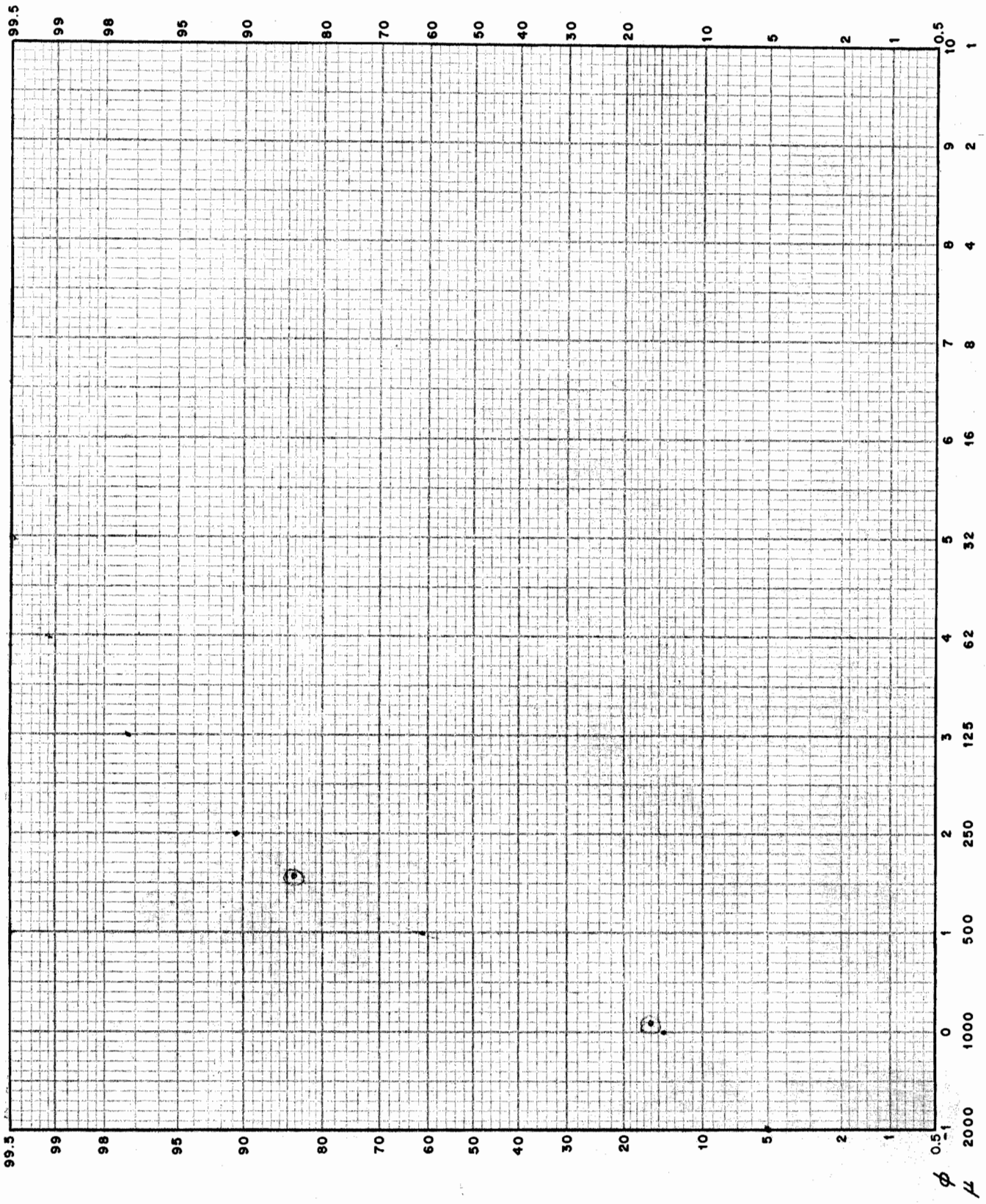
WT. FINE ____

WT. TOTAL SAMPLE 73.7732

.4418

73.3614

SAMPLE NO._____


99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5
10 9 8 7 6 5 4 3 2 1 0 -1
1 2 4 8 16 32 62 125 250 500 1000 2000
φ
μ

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/1 65

GRAVEL 2.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 97.3 % — P ____ mm. — σ ____

SILT } .7 % — P ____ mm. — Sk. ____

CLAY } % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

59 / 49.0257 / 127.2997 / 126.6733

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					124.5809			1.5305	2.0	
SAND	2.000 / 1.000	-1 / 0		22						21.4	
	1.000 / .500	0 / 1		43						41.8	
	.500 / .250	1 / 2		23						22.4	
	.250 / .125	2 / 3		9						8.8	
	.125 / .062	3 / 4		3						2.9	
	< .062	4							1.5619		
	> .062	4	25 cm.	0 00	126	.1114		77.0857			
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

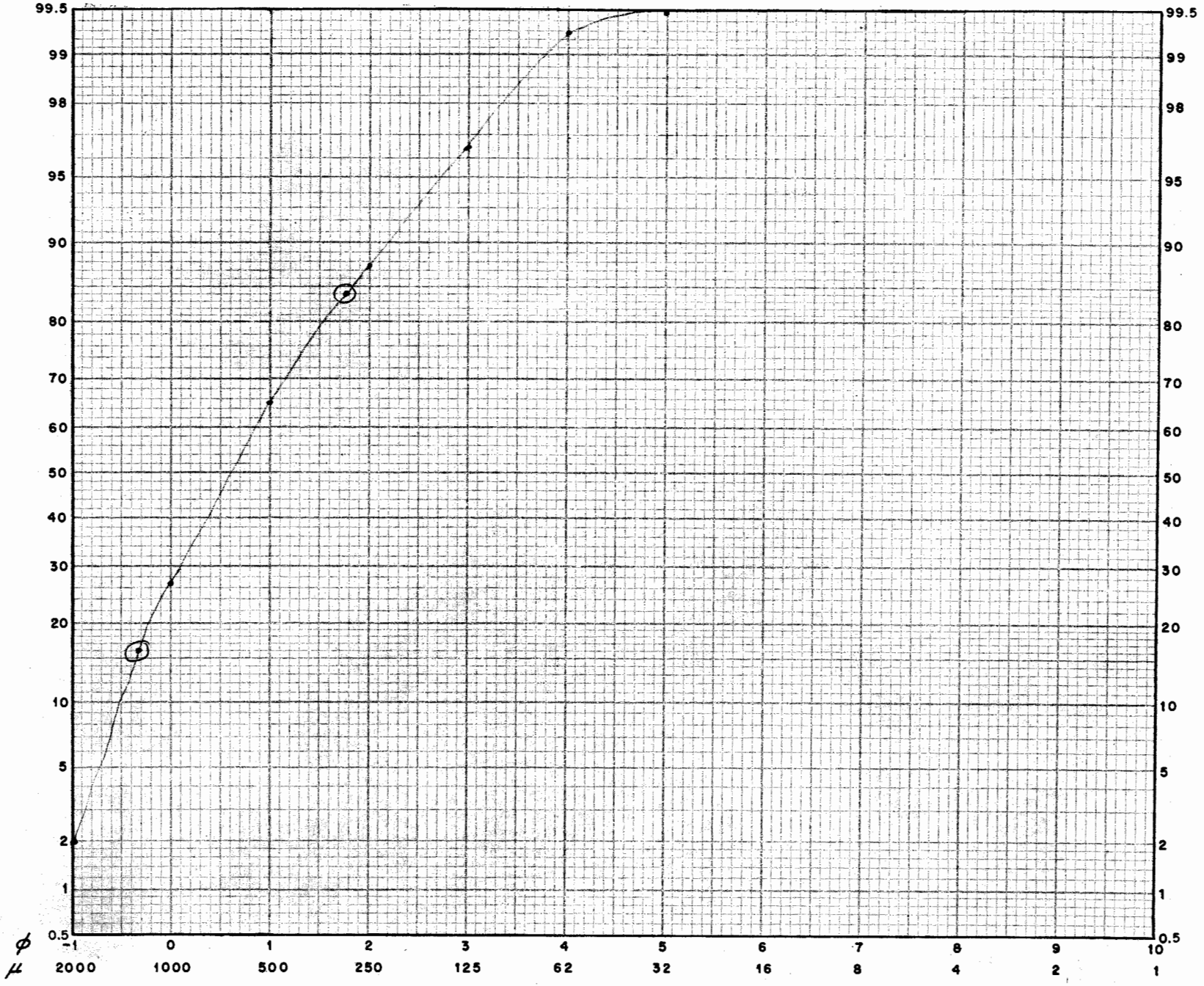
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 78.2740

.6264

77.6476



SAMPLE NO. _____

$M_\phi = \frac{1.75 + (-.3)}{2} = \frac{1.45}{2} = .73$

$\sigma_\phi = \frac{1.75 + .3}{2} = \frac{2.05}{2} = 1.03$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/1 75

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.54 % — P ____ mm. — σ ____

SILT 3 .46 % — P ____ mm. — Sk. ____

CLAY 3 ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

153/49.1000/98.6450/98?2821

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								0,0		0.0	
SAND	2.000 / 1.000	-1								0,0	0.0	
	1.000 / .500	0								44.0	43.8	43.8
	.500 / .250	1								39.0	38.8	82.6
	.250 / .125	2								13.0	12.9	95.5
	.125 / .062	3								4.0	4.0	99.5
	< .062	4							.2279			
	> .062	4				98.0542			48.1542			
SILT	.062 TO .031	4	25 cm.	0 00							160	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

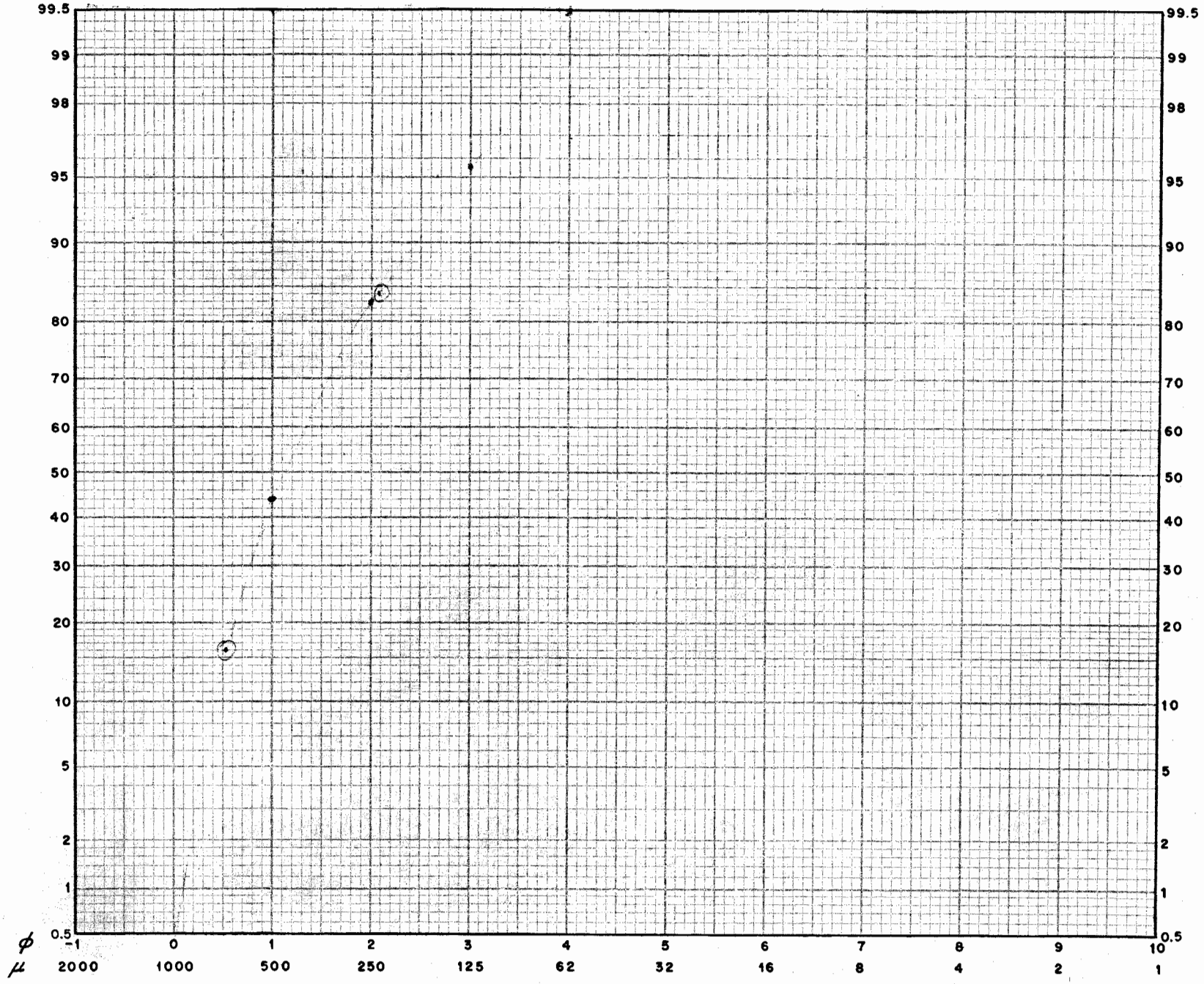
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 49.5450

carbonate .3629

49, 1821



SAMPLE NO. _____

$M_\phi = \frac{1.5 + 2.1}{2} = \frac{3.6}{2} = 1.8$

$GS_\phi = \frac{2.1 - 1.5}{2} = \frac{0.6}{2} = 0.3$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/1 127

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.0 % — P ____ mm. — σ ____

SILT 3 1.0 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

376 / 49.0572 / 121.3500 / 120.8820

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000			0						0.0	
SAND	2.000 / 1.000	-1		0						0.0	
	1.000 / .500	0		49						48.5	48.5
	.500 / .250	1		42						41.6	90.1
	.250 / .125	2		8						7.9	98.0
	.125 / .062	3		1						1.0	99.0
	< .062	4							17245		
	> .062	4				120.1575			71.1003		
SILT	.062 TO .031	4	25 cm.	0 00						1.0	100.0
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

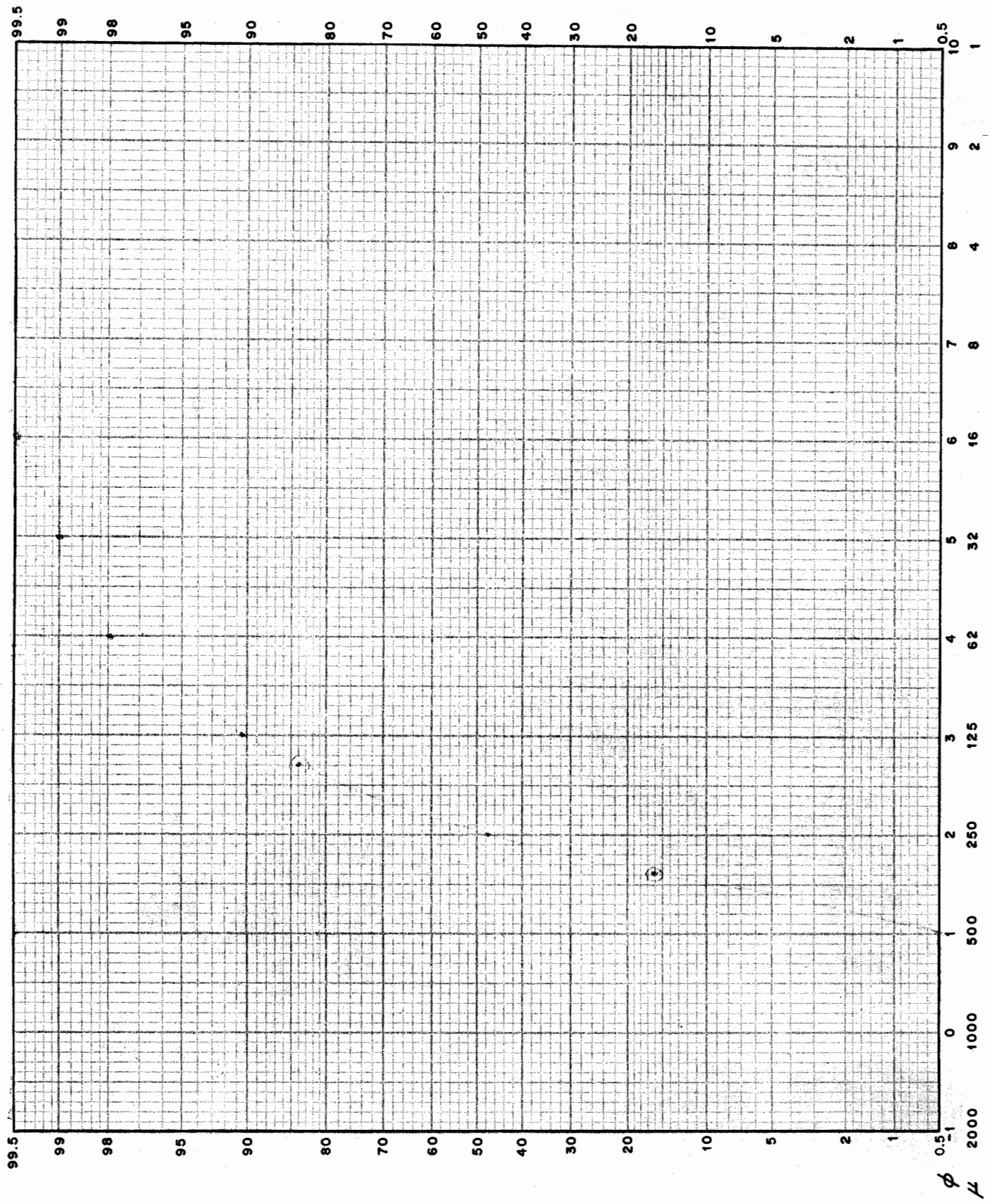
WT. FINE ____

WT. TOTAL SAMPLE 72.2928

.4680

71.8248

SAMPLE NO._____


99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5
10 9 8 7 6 5 4 3 2 1 0 -1
1 2 4 8 16 32 62 125 250 500 1000 2000
φ
μ

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A-1 140

GRAVEL 2.7 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 84.1 % — P ____ mm. — σ ____

SILT & CLAY 13.2 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

162 / 50.0400 / 106.5703 / 105.7595

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								1.4816	2.7	2.7
SAND	2.000 / 1.000	-1 / 0		19.0		96.8941			46.8541	16.0	18.7
	1.000 / .500	0 / 1		54.5						45.8	64.5
	.500 / .250	1 / 2		11.0						9.2	73.7
	.250 / .125	2 / 3		10.5						8.8	82.5
	.125 / .062	3 / 4		5.0						4.2	86.7
	< .062	4							7.3858		
	> .062	4	25 cm.	0 00					48.3357		
SILT	.062 TO .031	5	10 cm.	0 02						3.7	90.4
	.031 TO .016	6	10 cm.	0 08						2.1	92.5
	.016 TO .008	7	10 cm.	0 32						2.5	95.0
	.008 TO .004	8	10 cm.	2 08						2.3	97.3
CLAY	.004 TO .002	9	7 cm.	5 58						1.5	98.8
	.002 TO .001	10	7 cm.	24 00						1.0	99.8
	< .001									.4	100.2

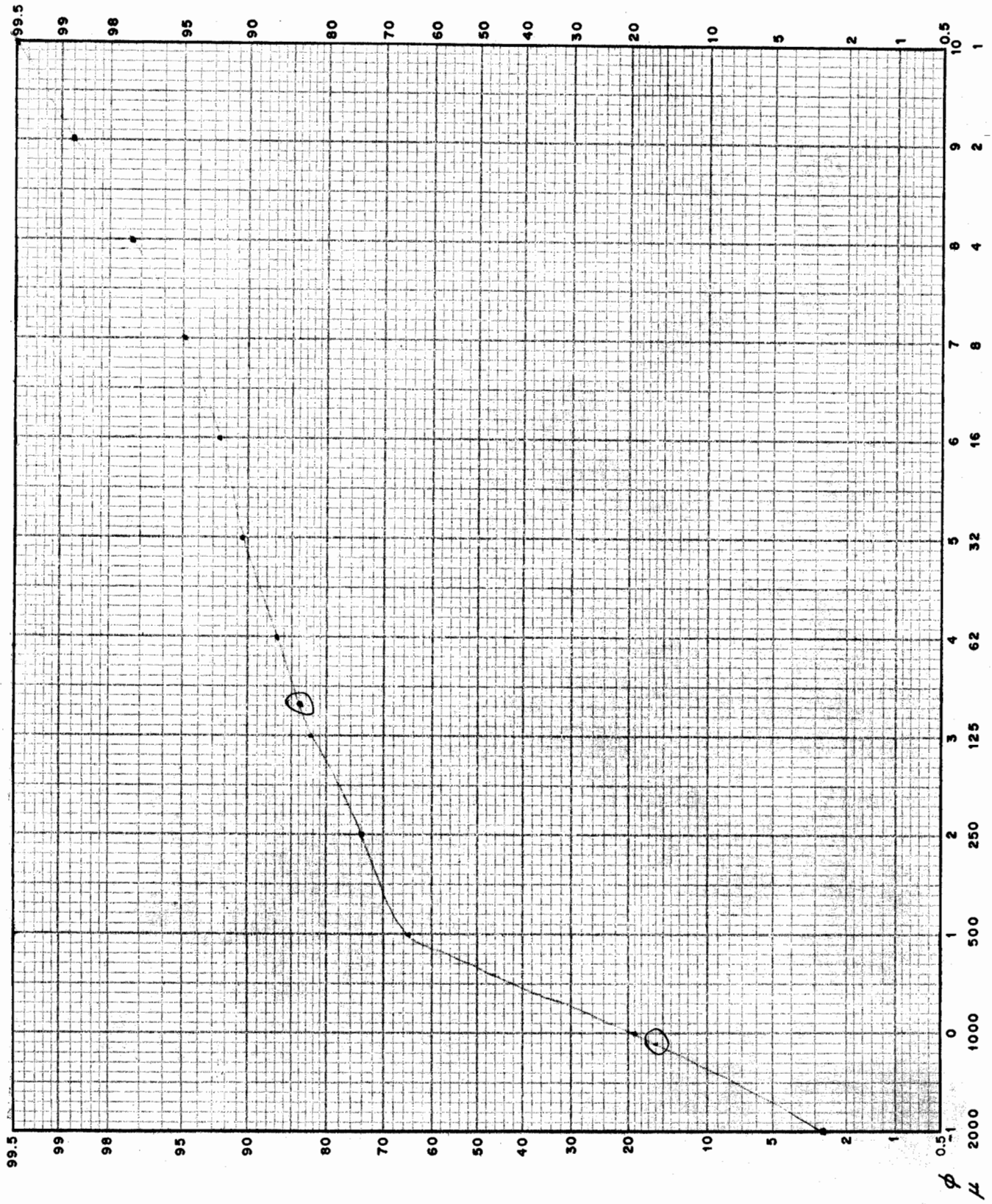
WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE ____

SAMPLE NO._____


99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5
10 9 8 7 6 5 4 3 2 1 0 -1
1 2 4 8 16 32 62 125 250 500 1000 2000
φ
μ

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 35A-1 210

GRAVEL 2.3 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 81.9 % — P ____ mm. — σ ____

SILT 15.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

382 / 49.2103 / 120.9754 / 120.3242

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								1.6095	2.3	2.3
SAND	2.000 / 1.000	-1		12		107.4309			58.2206	9.8	12.1
	1.000 / .500	0		45						36.9	49.0
	.500 / .250	1		20						16.4	65.4
	.250 / .125	2		12						9.8	75.2
	.125 / .062	3		11						9.0	84.2
	< .062	4							11.2838		
	> .062					109.0404			59.8301		
SILT	.062 TO .031	4	25 cm.	0 00					10.9	1.7	85.9
	.031 TO .016	5	10 cm.	0 02					12.8	2.0	87.9
	.016 TO .008	6	10 cm.	0 08					12.9	2.1	90.0
	.008 TO .004	7	10 cm.	0 32					17.7	2.8	92.8
CLAY	.004 TO .002	8	10 cm.	2 08					22.2	3.5	96.3
	.002 TO .001	9	7 cm.	5 58					16.9	2.7	99.0
	< .001	10	7 cm.	24 00					6.6	1.0	100.0

WEIGHT DISPERSING AGENT x 20 ____

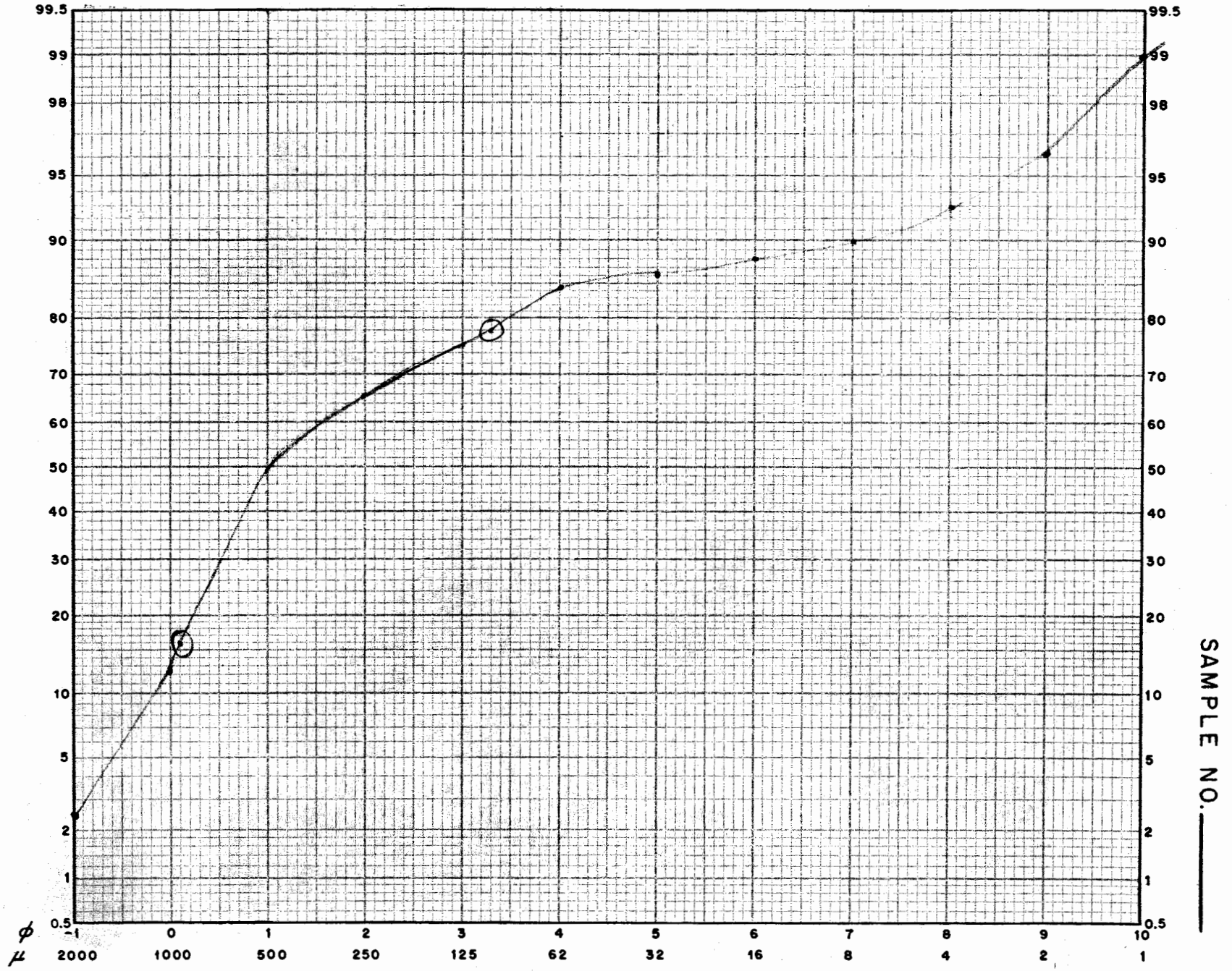
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 76.7651

.6512

71.1139


99.5
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250
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1
SAMPLE NO.

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 35A-2-10

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 100.00 % — P ____ mm. — σ ____

SILT 0.00 % — P ____ mm. — Sk. ____

CLAY 0.00 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

7 / 48.7160 / 122.5060 / 122.1188

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								0.0		0.0
SAND	2.000 / 1.000	-1 / 0							73.5283	18.0	18.0
	1.000 / .500	0 / 1								65.0	65.0
	.500 / .250	1 / 2								15.0	15.0
	.250 / .125	2 / 3								2.0	2.0
	.125 / .062	3 / 4								0.0	0.0
	< .062	4							.0000		0.0
	> .062	4	25 cm.	0 00		122.2443 / 48.7160					
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

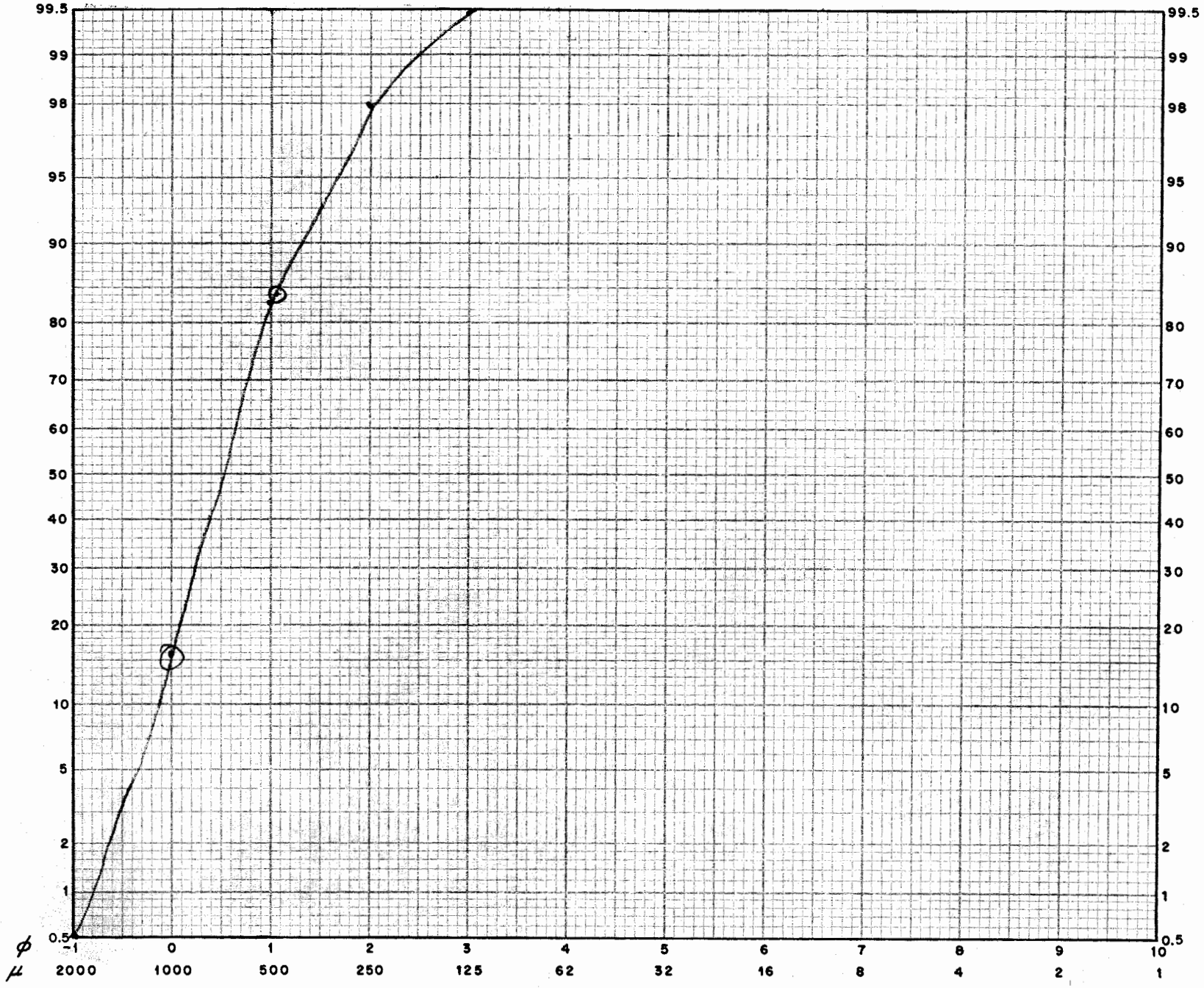
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 73.7900

Carbonate .3872

73.4028



SAMPLE NO. _____

$M_\phi = \frac{1.1 + 0.0}{2} = .65$

$\sigma_\phi = \frac{1.1 - 0}{2} = .65$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 35A/2 105

GRAVEL 52.4 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 45.8 % — P ____ mm. — σ ____

SILT 31.8 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

118/49.8982/176.8764/176.2309

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					107.8779			66.1391	52.4	52.4
SAND	2.000 / 1.000	-1		18						8.2	60.6
	1.000 / .500	0		61						27.9	88.5
	.500 / .250	1		16						7.8	95.8
	.250 / .125	2		3						1.4	97.2
	.125 / .062	3		2						0.9	98.1
	< .062	4							2.2131		
	> .062	4				174.0178	124.1196				
SILT	.062 TO .031	4	25 cm.	0 00							99.9
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

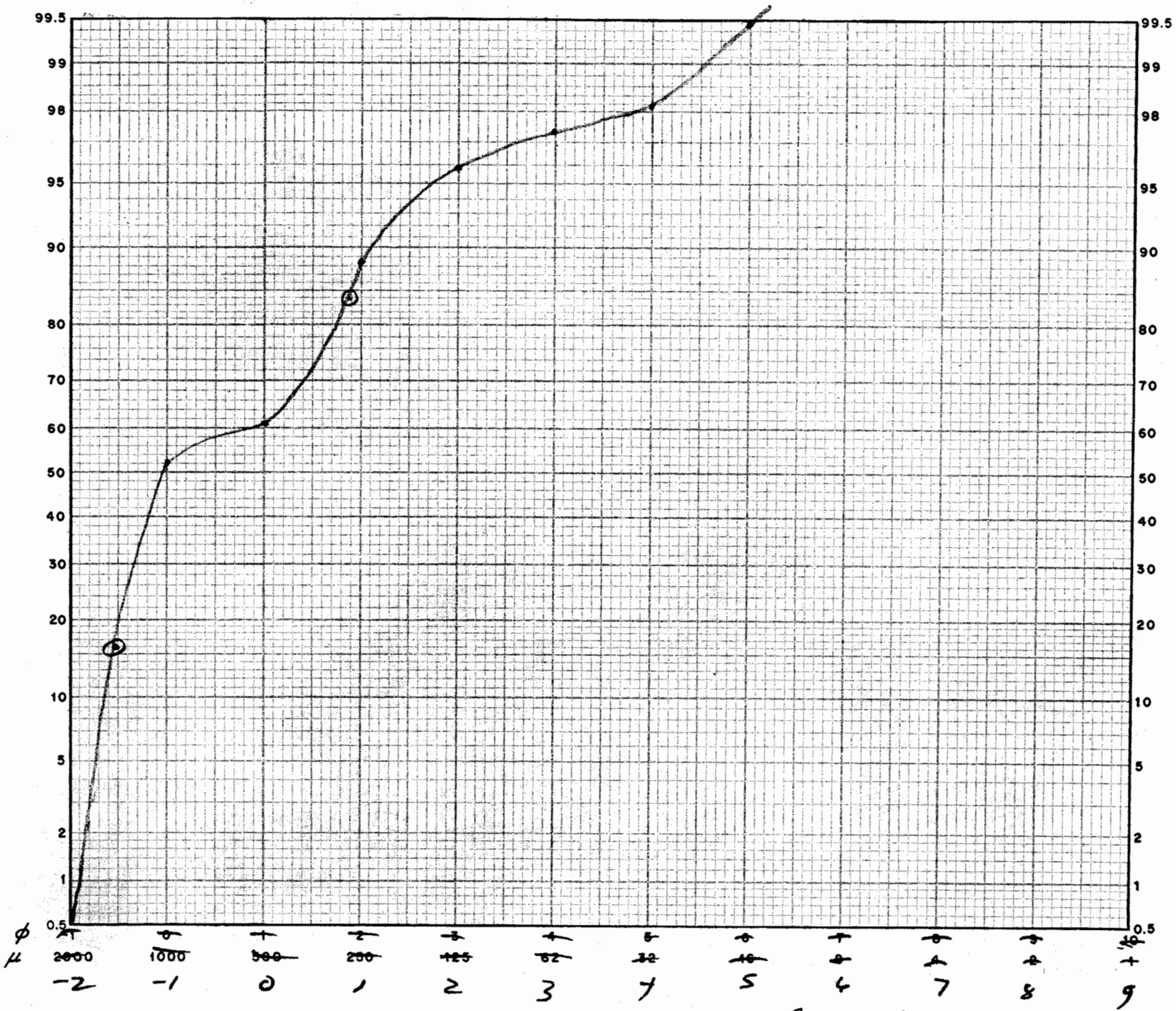
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 126.9782

.6455

126.3327



SAMPLE NO. _____

$M_\phi = \frac{-1.55 + .8}{2} = \frac{-.75}{2} = \boxed{-.38}$

$\sigma_\phi = \frac{.8 + 1.55}{2} = \frac{2.35}{2} = \boxed{1.18}$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 35A/2 178

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 98.1 % — P ____ mm. — σ ____

SILT 1.9 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

116 / 50.2940 / 120.9089 / 120.2542

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 × WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1		3						2.9	2.9
	1.000 .500	0		34						33.4	36.3
	.500 .250	1		41						40.2	76.5
	.250 .125	2		18						17.7	94.2
	.125 .062	3		4						3.9	98.1
	< .062	4							1.3432		
	> .062	4			118.9110		68.6170				
SILT	.062 TO .031	4	25 cm.	0 00							100.0
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT × 20 ____

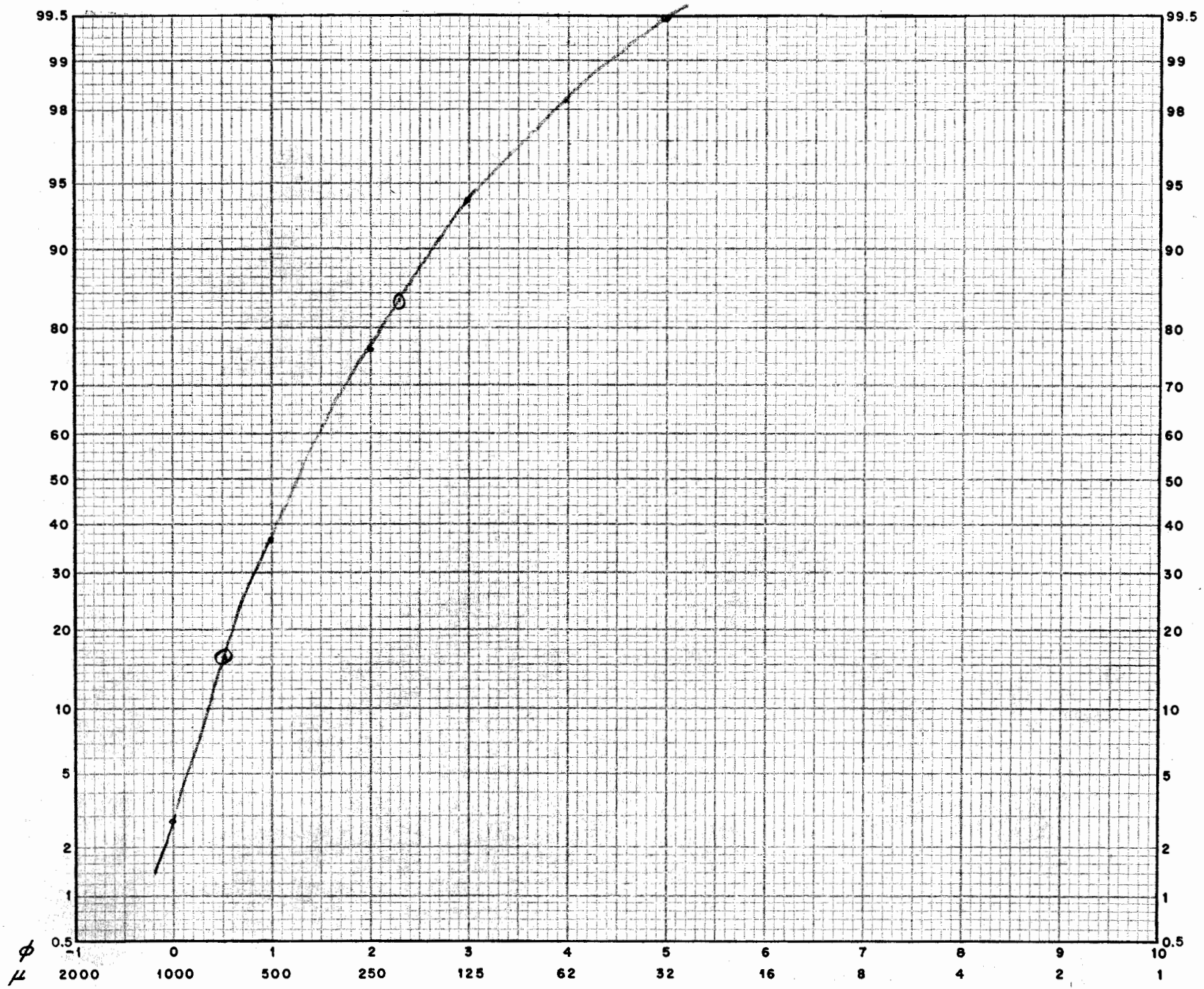
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 70.6149

1.6547

69.9602



SAMPLE NO. _____

$M_\phi = \frac{1.5 + 2.3}{2} = \frac{3.8}{2} = \boxed{1.4}$

$\sigma_\phi = \frac{2.3 - .5}{2} = \frac{1.8}{2} = \boxed{.9}$

LOCATION OF SAMPLE CC Bay SAMPLE NO. 62-1 10

GRAVEL 19.1 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 69.1 % P ____ mm. σ ____

SILT 11.8 % P ____ mm. Sk. ____

CLAY 3 % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

21 / 48.6098 / 154.3233 / 153.9000

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								20.1455		19.1
SAND	2.000 / 1.000	-1		10		121.3260			72.7162	6.9	26.0
	1.000 / .500	0		36						24.9	50.9
	.500 / .250	1		25						17.3	68.2
	.250 / .125	2		22						15.2	83.4
	.125 / .062	3		7						4.8	88.2
	< .062	4							12.4285		
	> .062	4				141.4715			92.8617		
SILT	.062 TO .031	4	25 cm.	0 00						.7	88.9
	.031 TO .016	5	10 cm.	0 02						.6	89.5
	.016 TO .008	6	10 cm.	0 08						.6	90.1
	.008 TO .004	7	10 cm.	0 32						1.8	91.9
CLAY	.004 TO .002	8	10 cm.	2 08						3.7	95.6
	.002 TO .001	9	7 cm.	5 58						3.2	98.8
	< .001	10	7 cm.	24 00						1.4	100.2

WEIGHT DISPERSING AGENT x 20 ____

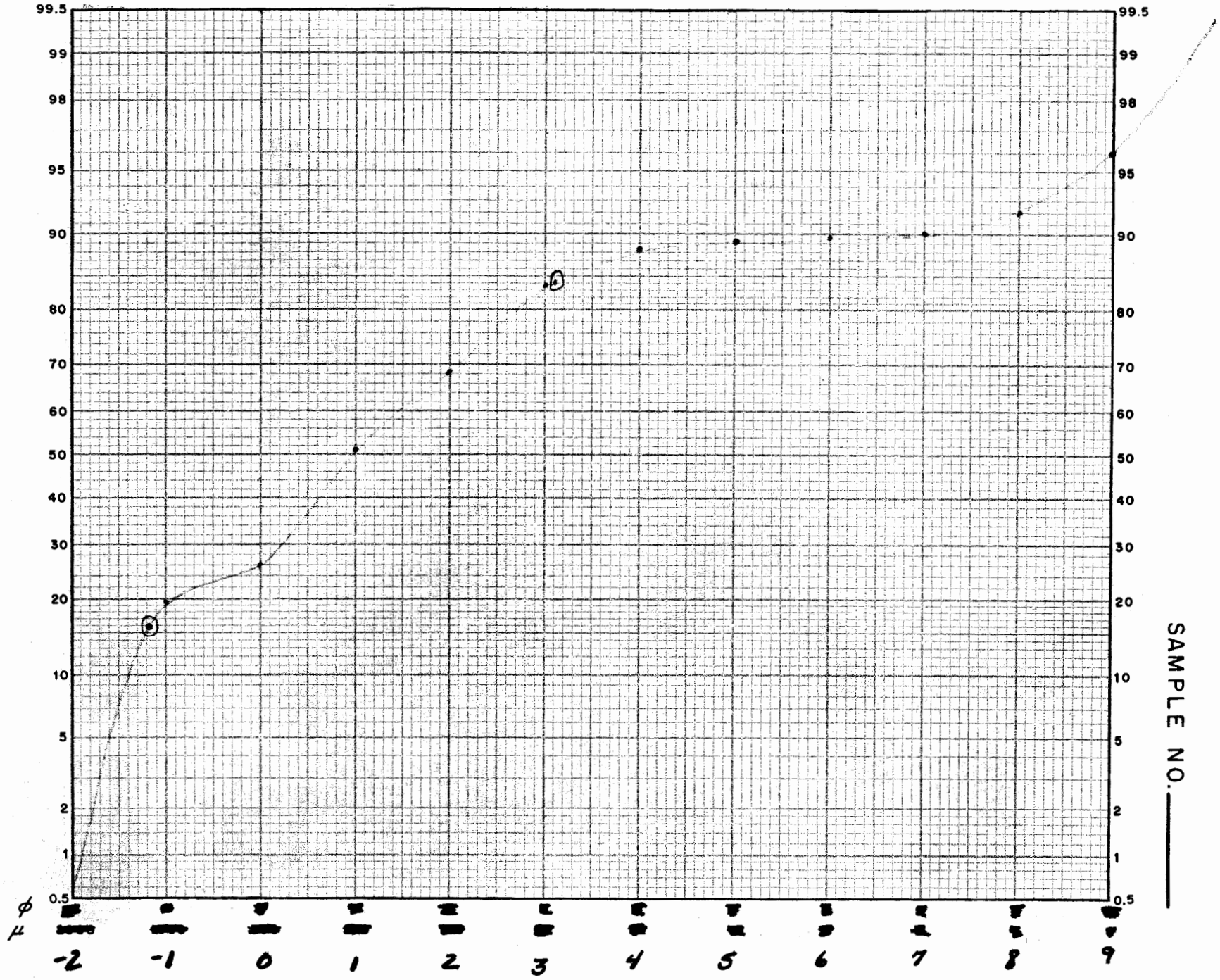
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 105.7135

14233

105.2902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SAMPLE NO.

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 62/1 190

GRAVEL 9.5 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 81.8 % — P ____ mm. — σ ____

SILT 8.7 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

102 / 49.7246 / 128.7930 / 128.4631

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								7.477	9.5	9.5
SAND	2.000 / 1.000	-1 / 0		20		114.1360			64.4114	16.4	25.9
	1.000 / .500	1		33						27.0	52.9
	.500 / .250	2		24						19.6	72.5
	.250 / .125	3		15						12.3	84.8
	.125 / .062	4		8						6.5	91.3
	< .062								6.8501		
	> .062	4				121.6130			71.8884		
SILT	.062 TO .031	4	25 cm.	0 00					32.1	2.8	94.1
	.031 TO .016	5	10 cm.	0 02					17.1	1.5	95.6
	.016 TO .008	6	10 cm.	0 08					12.4	1.1	96.7
	.008 TO .004	7	10 cm.	0 32					13.1	1.1	97.8
CLAY	.004 TO .002	8	10 cm.	2 08					12.4	1.1	98.9
	.002 TO .001	9	7 cm.	5 58					9.9	0.9	99.8
	< .001	10	7 cm.	24 00					2.9	0.2	100.0

WEIGHT DISPERSING AGENT x 20

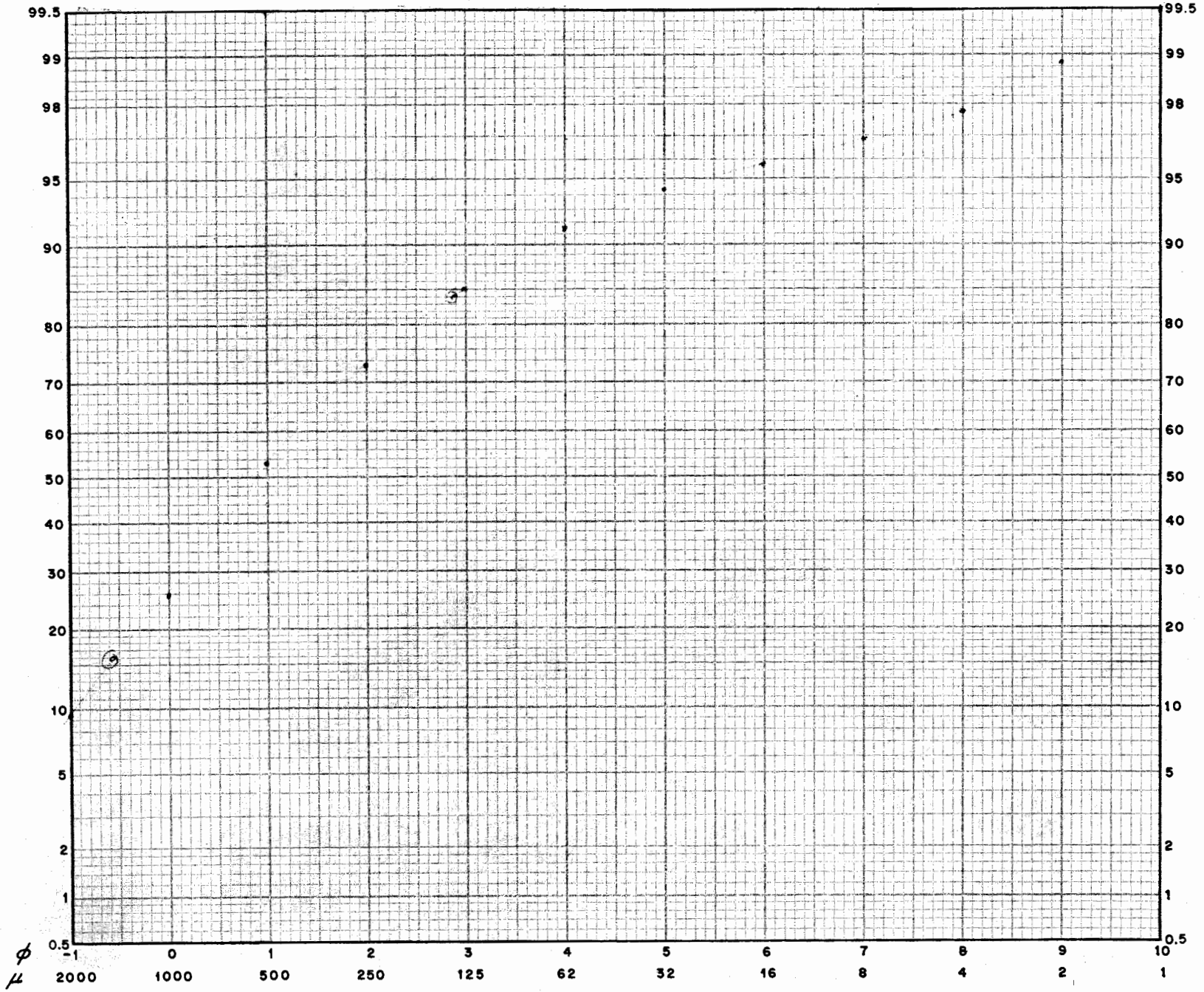
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 79.0684

carbonate .3299

78.7385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1 500
2 250
3 125
4 62
5 32
6 16
7 8
8 4
9 2
10 1

SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 62-2 · 90

GRAVEL 13.4 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 64.3 % — P ____ mm. — σ ____

SILT 22.3 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

66 / 48.4652 / 128.4214 / 128.2367

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								10.7075	13.4	13.4
SAND	2.000 / 1.000	-1		6		99.7513			51.2861	3.9	17.3
	1.000 / .500	0		32.5						20.9	38.2
	.500 / .250	1		36.0						23.1	61.3
	.250 / .125	2		18.0						11.6	72.9
	.125 / .062	3		7.5						4.8	77.7
	< .062	4							17.7779		
	> .062	4				110.4588			61.9936		
SILT	.062 TO .031	4	25 cm.	0 00					10.2	2.3	80.0
	.031 TO .016	5	10 cm.	0 02					9.4	2.1	82.1
	.016 TO .008	6	10 cm.	0 08					8.5	1.9	84.0
	.008 TO .004	7	10 cm.	0 32					18.5	4.1	88.1
CLAY	.004 TO .002	8	10 cm.	2 08					27.7	6.1	94.2
	.002 TO .001	9	7 cm.	5 58					19.7	4.4	98.6
	< .001	10	7 cm.	24 00					7.1	1.6	100.2

WEIGHT DISPERSING AGENT x 20 ____

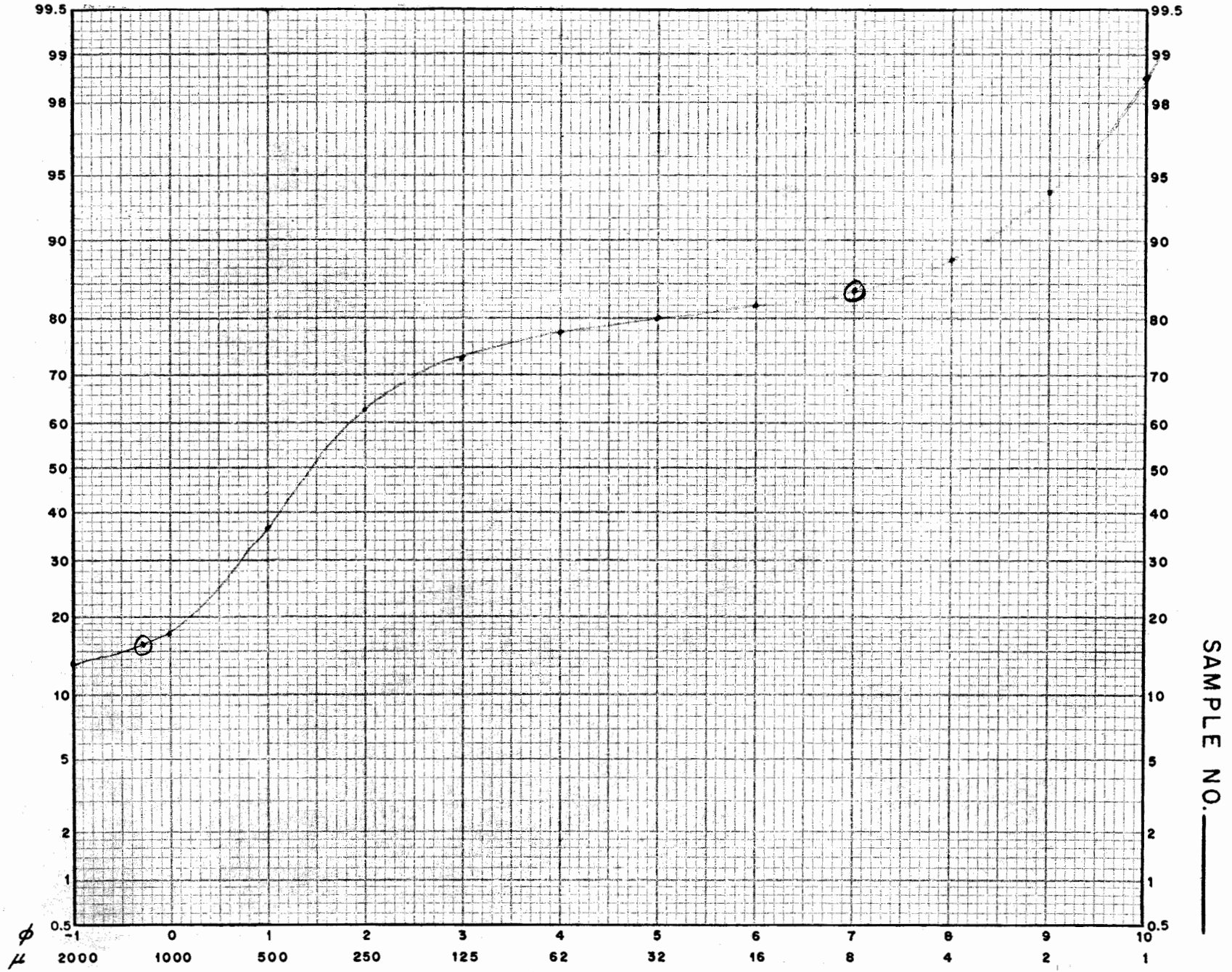
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 79.9562

1.1847

49.7715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1
SAMPLE NO.

LOCATION OF SAMPLE CC Bay SAMPLE NO. 68/1 5

GRAVEL 0.0 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 74.6 % P ____ mm. σ ____

SILT 25.4 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

385 / 49.3608 / 92.9916 / 92.3873

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 / 1.000	-1 / 0		0						0.0	
	1.000 / .500	0 / 1		0						0.0	
	.500 / .250	1 / 2		12						8.9	8.9
	.250 / .125	2 / 3		31						23.1	32.0
	.125 / .062	3 / 4		57						42.5	74.5
	< .062	4							10.9487		
	> .062	4			81.	4386	32.0778				
SILT	.062 TO .031	4	25 cm.	0 00					14.0	3.6	78.1
	.031 TO .016	5	10 cm.	0 02					23.5	6.0	84.1
	.016 TO .008	6	10 cm.	0 08					20.8	5.3	89.4
	.008 TO .004	7	10 cm.	0 32					17.6	4.5	93.9
CLAY	.004 TO .002	8	10 cm.	2 08					13.1	3.3	97.2
	.002 TO .001	9	7 cm.	5 58					6.9	1.8	99.0
	< .001	10	7 cm.	24 00					3.9	1.0	100.0

WEIGHT DISPERSING AGENT x 20 ____

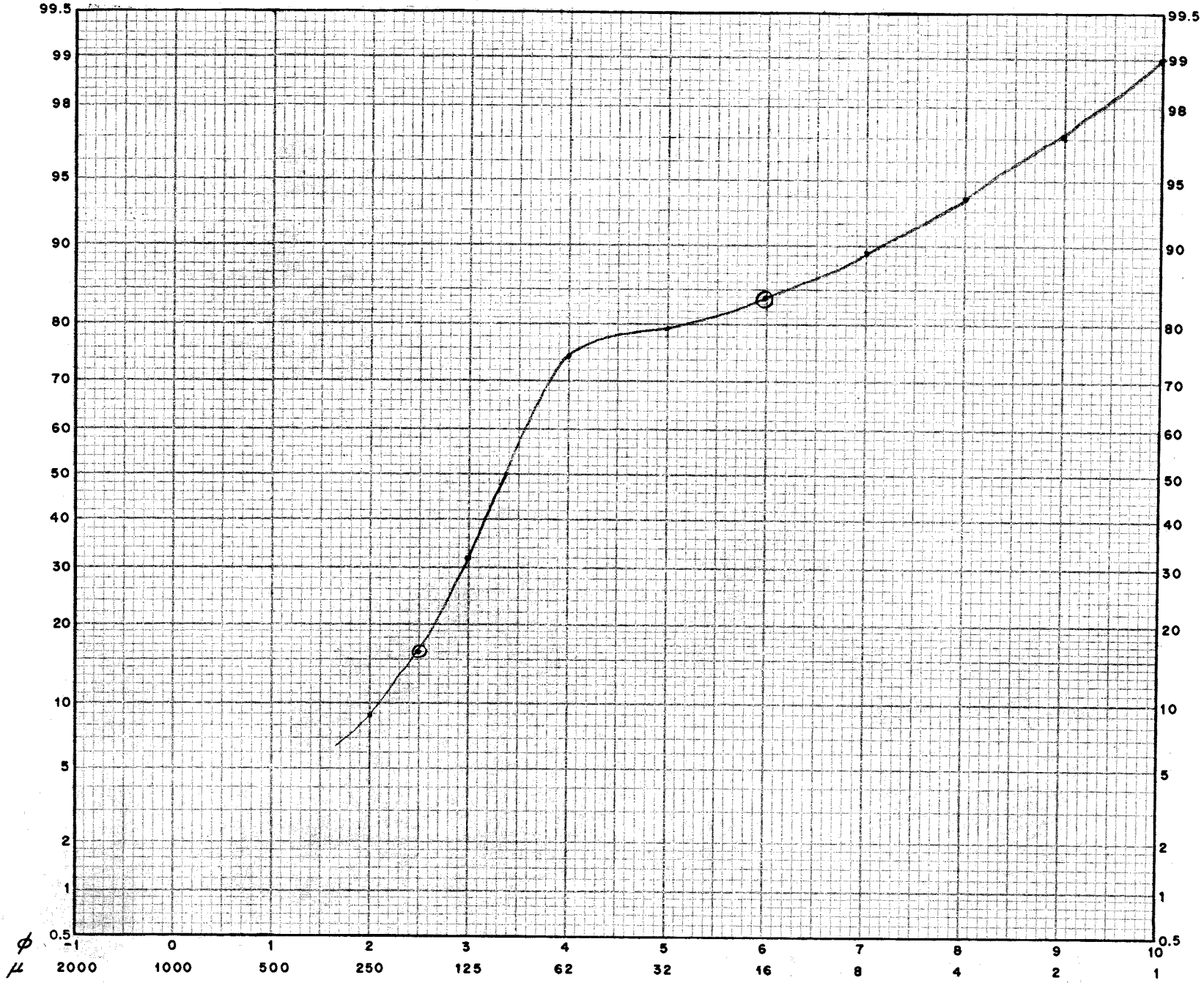
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 43.6308

16043

43.0265



SAMPLE NO. _____

$M_\phi = \frac{2.5+6}{2} = \frac{8.5}{2} = \boxed{4.25}$

$\sigma_\phi = \frac{6-2.5}{2} = \frac{3.5}{2} = \boxed{1.75}$

LOCATION OF SAMPLE C C Bay SAMPLE NO. 68-1 55

GRAVEL 2.2 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 87.6 % P ____ mm. σ ____

SILT & 10.3 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

391 / 49.2800 / 92.6738 / 92.0713

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.9187	2.2	2.2
SAND	2.000 / 1.000	-1				86.7600			37.4800		
		0		0.0						0.0	2.2
	1.000 / .500			4.0						3.5	5.7
	.500 / .250	1		18.5						16.2	21.9
	.250 / .125	2		49.5						43.4	65.3
	.125 / .062	3		28.0						24.5	89.7
	< .062	4							4.3926		
	> .062					87.6787			38.3787		
SILT	.062 TO .031	4	25 cm.	0 00					16.8	1.7	91.4
	.031 TO .016	5	10 cm.	0 02					18.9	1.9	93.3
	.016 TO .008	6	10 cm.	0 08					17.3	1.8	95.1
	.008 TO .004	7	10 cm.	0 32					17.9	1.8	96.9
CLAY	.004 TO .002	8	10 cm.	2 08					14.9	1.5	98.4
	.002 TO .001	9	7 cm.	5 58					11.2	1.1	99.5
	< .001	10	7 cm.	24 00					4.3	.4	99.9

WEIGHT DISPERSING AGENT x 20

WT. COARSE ____

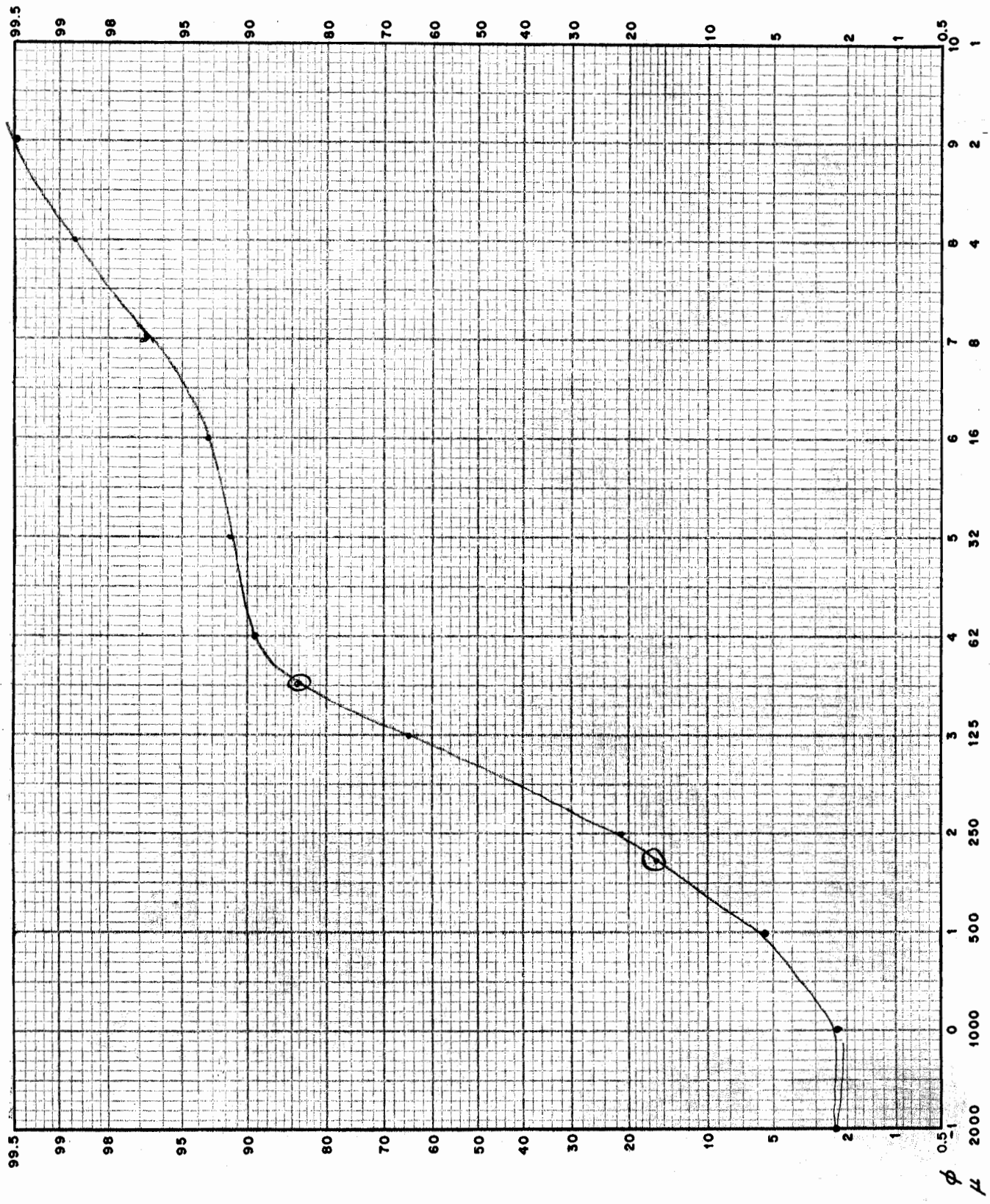
WT. FINE ____

WT. TOTAL SAMPLE 43.3938

.6025

42.7913

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 68/1 80

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 79.3 % — P ____ mm. — σ ____

SILT 3 20.7 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

386 / Beaker 49.5323 / Bulk + Beaker 93.8567 / 93.3255

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1		0						0.0	
	1.000 .500	0		0						0.0	
	.500 .250	1		0						0.0	
	.250 .125	2		52						41.2	41.2
	.125 .062	3		48						38.1	79.3
	< .062	4							9.0616		
	> .062	4				84.2639	34.7316				
SILT	.062 TO .031	4	25 cm.	0 00					14.7	3.0	82.3
	.031 TO .016	5	10 cm.	0 02					15.6	3.2	85.5
	.016 TO .008	6	10 cm.	0 08					15.3	3.2	88.7
	.008 TO .004	7	10 cm.	0 32					13.9	2.9	91.6
CLAY	.004 TO .002	8	10 cm.	2 08					15.8	3.3	94.9
	.002 TO .001	9	7 cm.	5 58					16.7	3.4	98.3
	< .001	10	7 cm.	24 00					7.6	1.6	99.9

WEIGHT DISPERSING AGENT x 20 ____

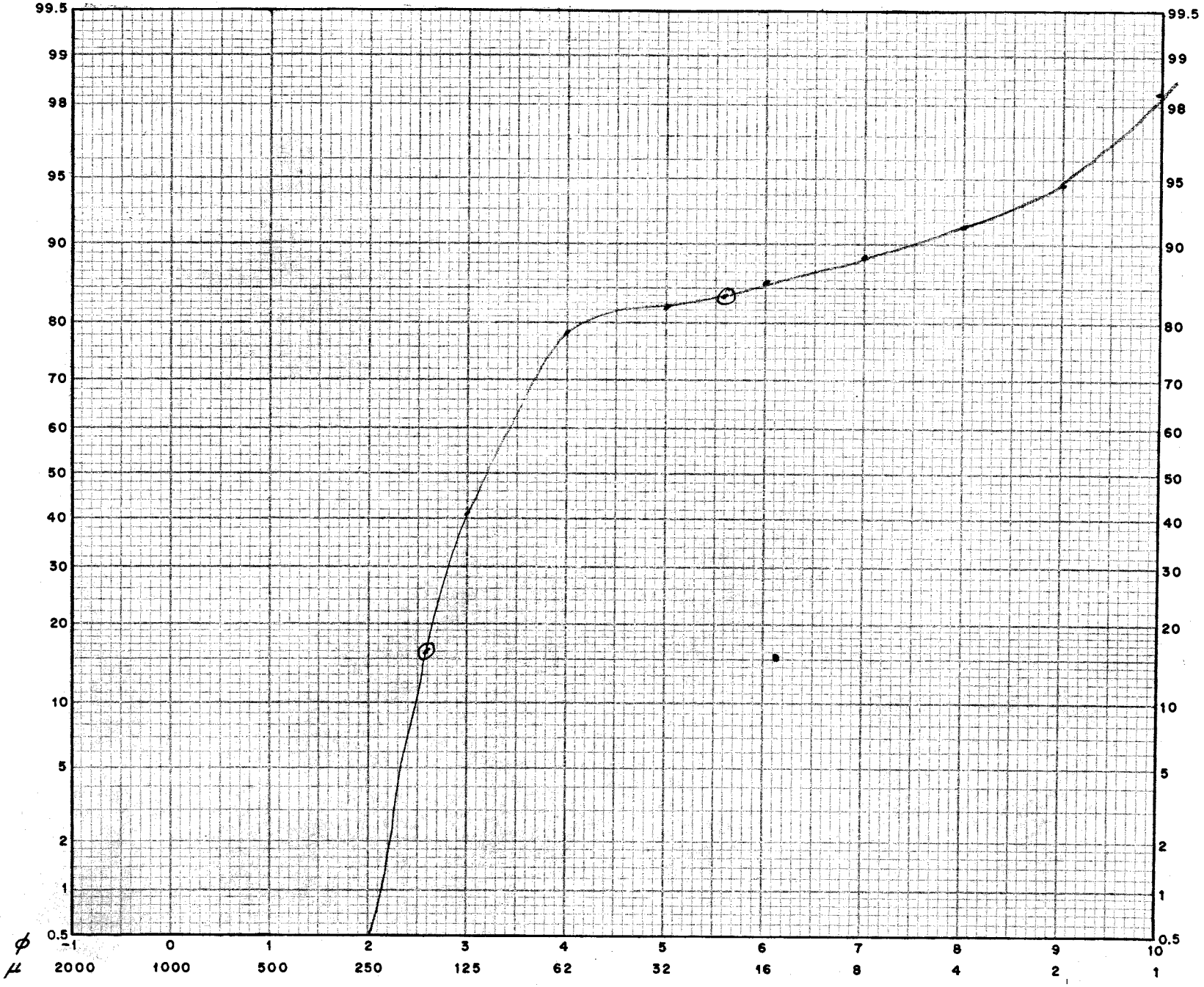
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 44.3244

.5312

43.7932



SAMPLE NO. _____

$M_\phi = \frac{5.6 + 2.6}{2} = \frac{8.2}{2} = \boxed{4.1}$

$\sigma_\phi = \frac{5.6 - 2.6}{2} = \frac{3.0}{2} = \boxed{1.5}$

LOCATION OF SAMPLE C C BAY — SAMPLE NO. 68-1 90

GRAVEL .7 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 88.4 % — P ____ mm. — σ ____

SILT 10.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

370 / 48.7651 / 97.9755 / 97.4303

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.3588	.7	.7
SAND	2.000 / 1.000	-1		2.5		91.7598			42.9947	2.2	2.9
	1.000 / .500	0		20.5						18.1	21.0
	.500 / .250	1		23.0						20.3	41.3
	.250 / .125	2		26.5						23.4	64.7
	.125 / .062	3		27.5						24.3	89.0
	< .062	4							5.3117		
	> .062	4	25 cm.	0 00		92.1186			43.3535		
SILT	.062 TO .031	5	10 cm.	0 02					18.5	2.0	91.0
	.031 TO .016	6	10 cm.	0 08					17.8	1.9	92.9
	.016 TO .008	7	10 cm.	0 32					15.2	1.7	94.6
	.008 TO .004	8	10 cm.	2 08					14.8	1.6	96.2
CLAY	.004 TO .002	9	7 cm.	5 58					13.3	1.5	97.7
	.002 TO .001	10	7 cm.	24 00					12.9	1.4	99.1
	< .001								8.1	.9	100.0

WEIGHT DISPERSING AGENT x 20 ____

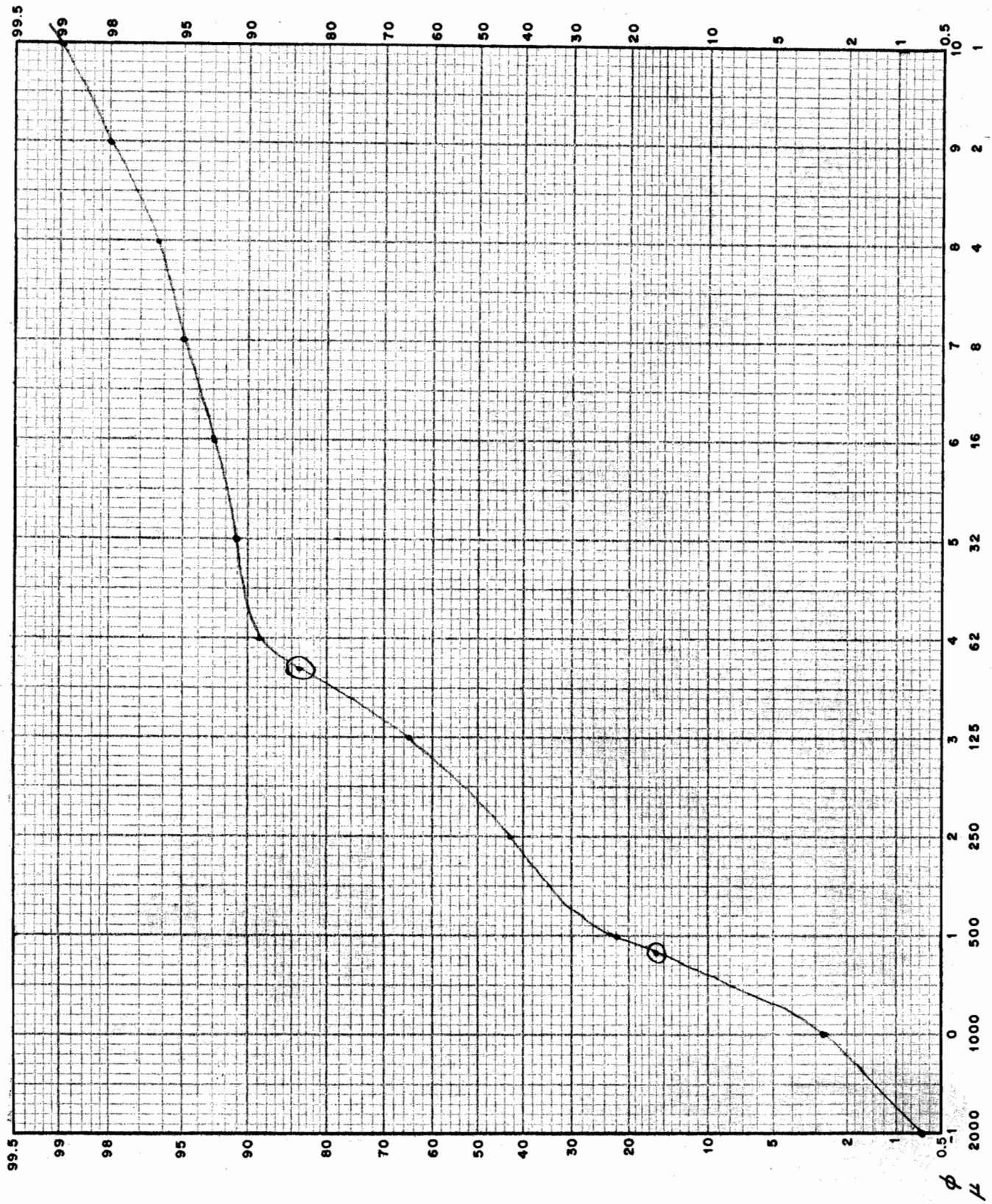
WT. COARSE ____

WT. FINE 49.2104

WT. TOTAL SAMPLE .5452

48.6652

SAMPLE NO._____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LOCATION OF SAMPLE _____ SAMPLE NO. 68/1 195

GRAVEL 4.8 % MEDIAN ____ mm. CLASSIFICATION _____

SAND 89.3 % P ____ mm. σ _____

SILT 3 5.9 % P ____ mm. Sk. _____

CLAY 3 ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY _____ TEMP. ____ °C

388 / 49.2279 / 90.3283 / 82.8240

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								1.8379	4.8	4.8
SAND	2.000 / 1.000	-1		1		83.7042			34.4763	.9	5.7
	1.000 / .500	0		25						22.3	28.0
	.500 / .250	1		29						25.9	53.9
	.250 / .125	2		33						29.5	83.4
	.125 / .062	3		12						10.7	94.1
	< .062	4							2.2819		
	> .062	4				85.5421			36.3142		
SILT	.062 TO .031	4	25 cm.	0 00							100.0
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 _____

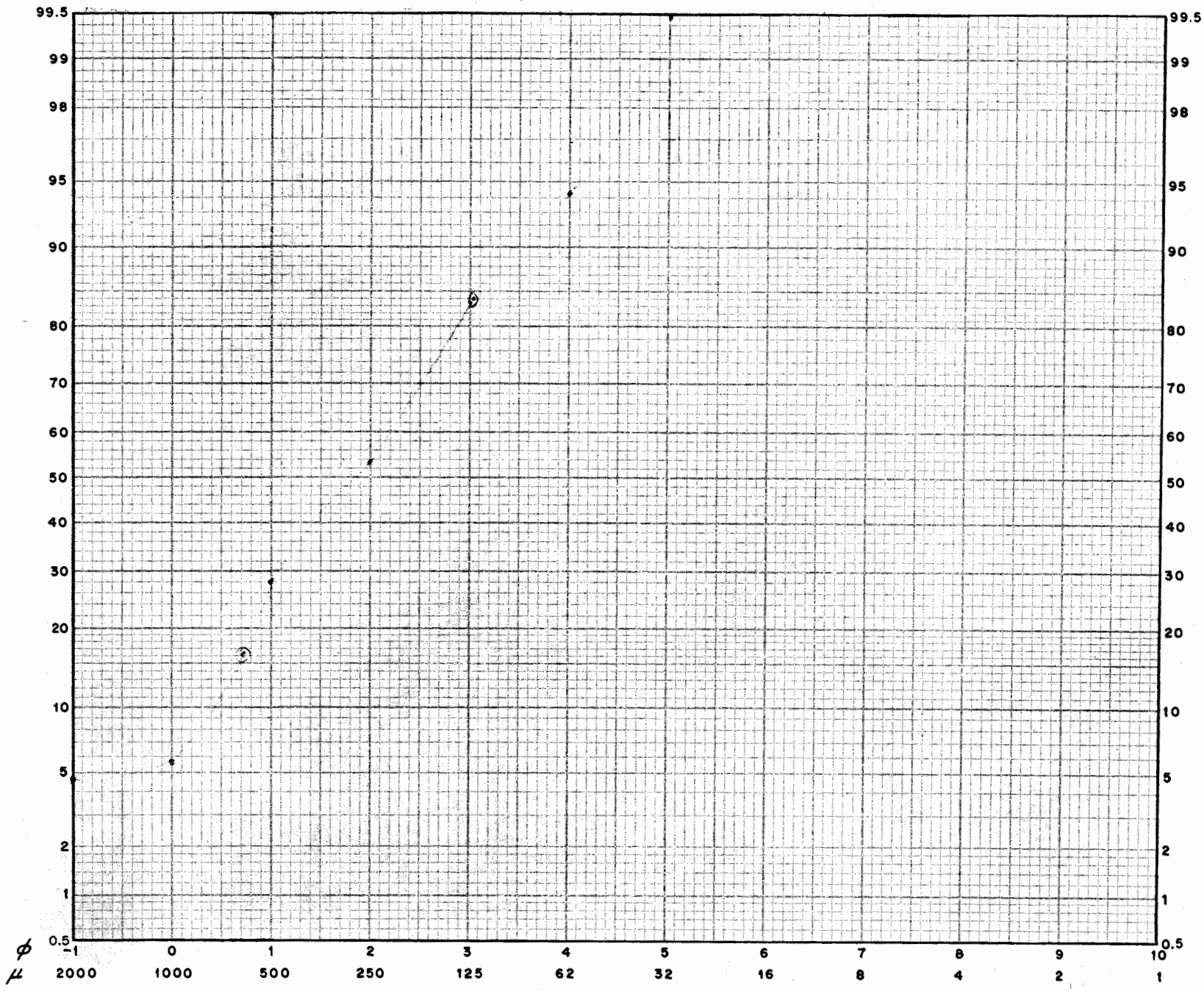
WT. COARSE _____

WT. FINE _____

WT. TOTAL SAMPLE 41.1004

2.5043

38.5961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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 68/2 5

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 75.2 % — P ____ mm. — σ ____

SILT ξ 24.8 % — P ____ mm. — Sk. ____

CLAY ξ ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

61/49.2200/98.3131/97.6379

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	0.0
SAND	2.000 / 1.000	-1 / 0		0						0.0	0.0
	1.000 / .500	0 / 1		3						2.6	2.6
	.500 / .250	1 / 2		2						1.5	4.1
	.250 / .125	2 / 3		18						13.6	17.7
	.125 / .062	3 / 4		77						58.0	75.7
	< .062	4							11,9981		
	> .062	4			85	6398 /	36.4198				
SILT	.062 TO .031	4 / 5	25 cm.	0 00					12.6	3.1	78.8
	.031 TO .016	5 / 6	10 cm.	0 02					20.2	5.0	83.8
	.016 TO .008	6 / 7	10 cm.	0 08					18.1	4.5	88.3
	.008 TO .004	7 / 8	10 cm.	0 32					15.5	3.8	92.1
CLAY	.004 TO .002	8 / 9	10 cm.	2 08					14.5	3.6	95.7
	.002 TO .001	9 / 10	7 cm.	5 58					10.9	2.7	98.4
	< .001	10	7 cm.	24 00					6.4	1.6	100.0

WEIGHT DISPERSING AGENT x 20 ____

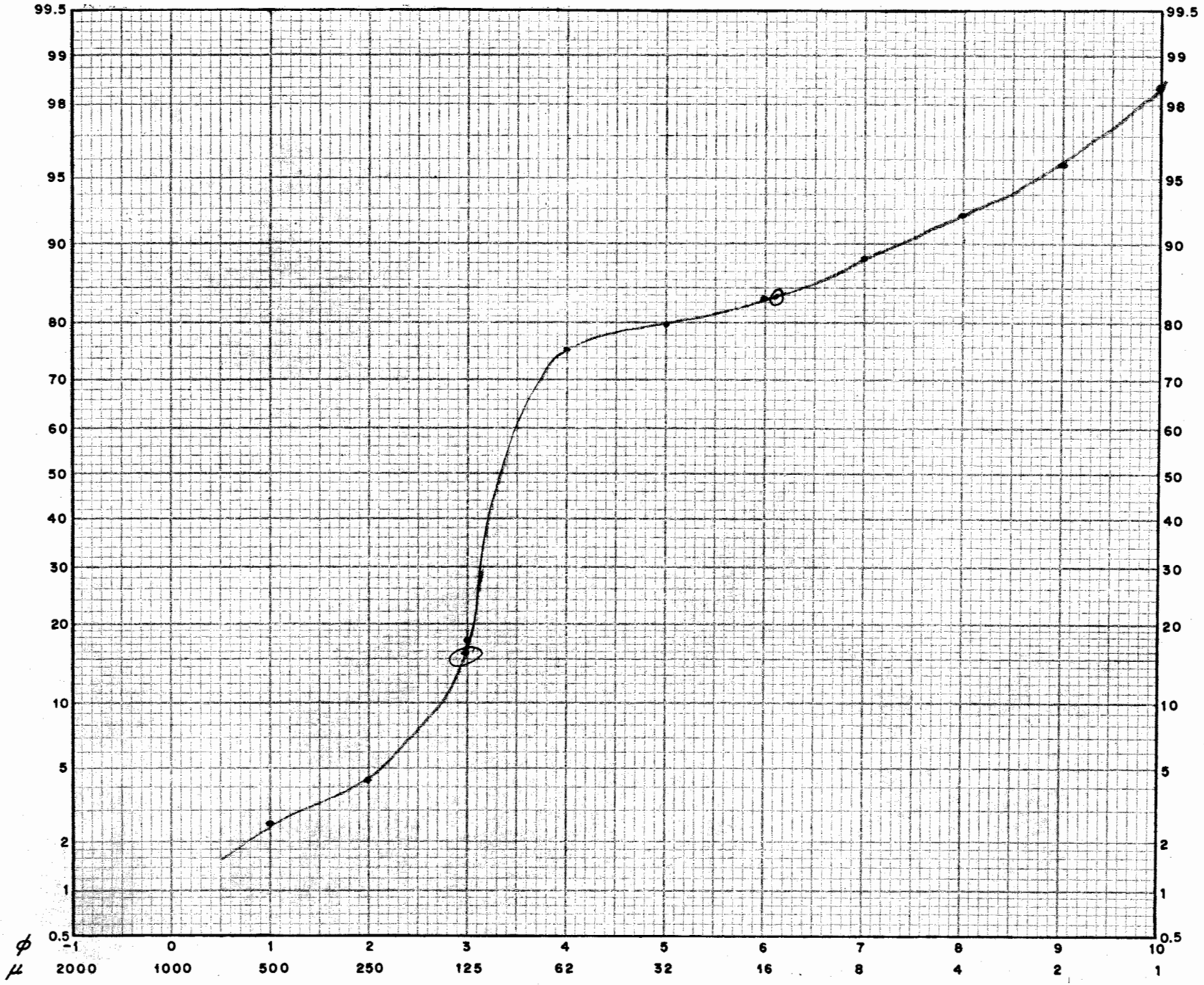
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 49.0931

.6752

48.4179



SAMPLE NO. _____

$M_\phi = \frac{6.1 + 3.0}{2} = \frac{9.1}{2} = \boxed{4.55}$

$\sigma_\phi = \frac{6.1 - 3.0}{2} = \boxed{1.55}$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 68-2 -100

GRAVEL .7 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 74.0 % — P ____ mm. — σ ____

SILT ≈ 25.4 % — P ____ mm. — Sk. ____

CLAY ≈ 5 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

368 / 48.9730 / 111.1352 / 110.4994

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.4067	.7	.7
SAND	2.000 / 1.000	-1				94.4780			45.505		.7
	1.000 / .500	0									.7
	.500 / .250	1									.7
	.250 / .125	2		34.5						25.5	26.2
	.125 / .062	3		65.5						48.4	74.6
	< .062	4							15.6147		
	> .062	4	25 cm.	0 00		94.8847			45.9117		
SILT	.062 TO .031	5	10 cm.	0 02					20.5	5.2	79.8
	.031 TO .016	6	10 cm.	0 08					16.2	4.1	83.9
	.016 TO .008	7	10 cm.	0 32					15.6	4.0	87.9
	.008 TO .004	8	10 cm.	2 08					16.6	4.2	92.1
CLAY	.004 TO .002	9	7 cm.	5 58					16.6	4.2	96.3
	.002 TO .001	10	7 cm.	24 00					12.9	3.3	99.6
	< .001								5.6	1.4	101.0

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

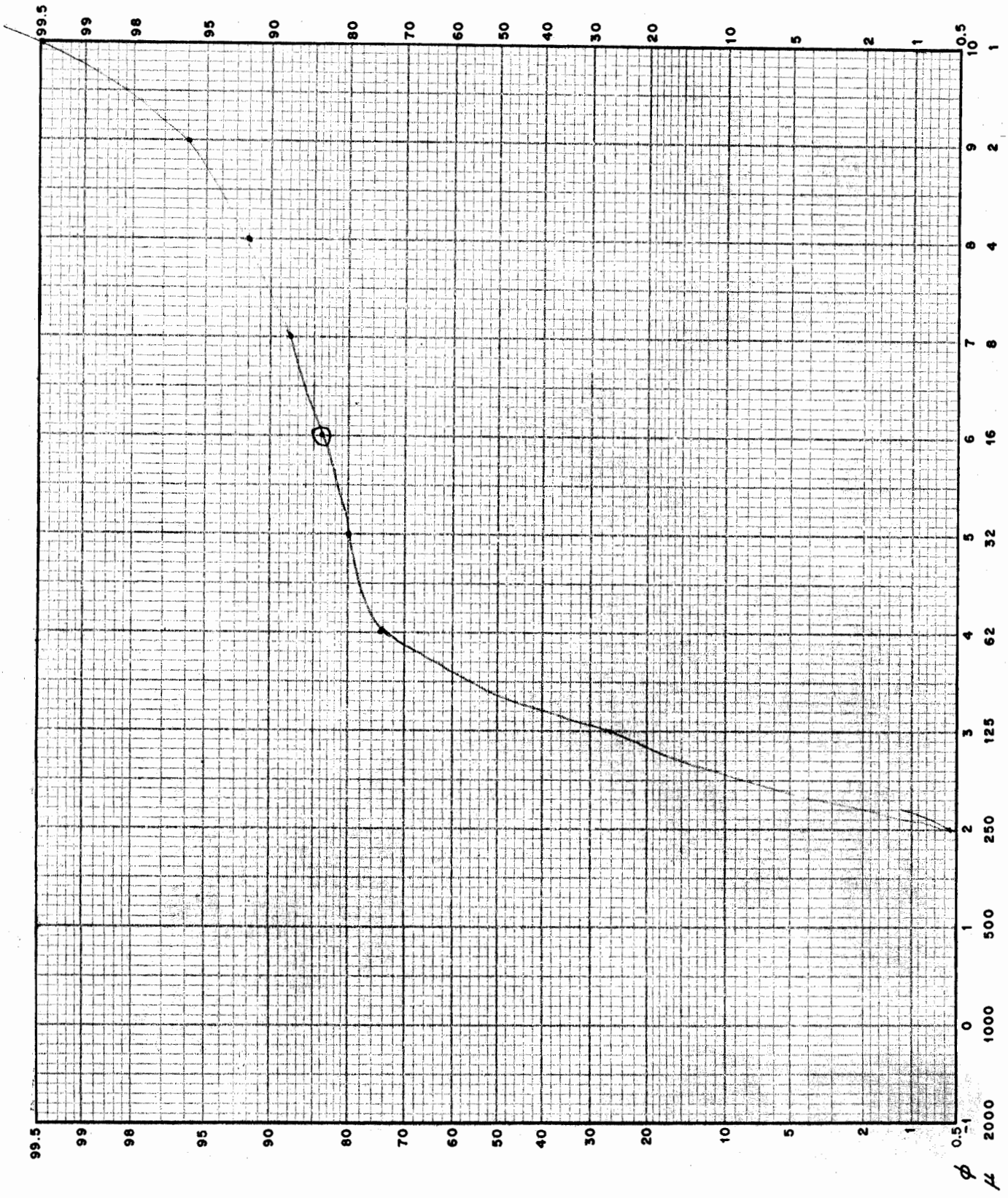
WT. FINE ____

WT. TOTAL SAMPLE 62.1622

.6358

61.5264

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 68-2 200

GRAVEL .3 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 82.4 % — P ____ mm. — σ ____

SILT } 17.3 % — P ____ mm. — Sk. ____

CLAY } % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

377 / 49.0613 / 100.9709 / 100.3350

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								.1544	0.3	
SAND	2.000 / 1.000	-1		0.0		91.2989			42.2376	0.0	
	1.000 / .500	0		0.5						0.4	0.7
	.500 / .250	1		12.0						9.9	10.6
	.250 / .125	2		31.5						25.9	36.5
	.125 / .062	3		56.0						46.1	82.6
	< .062	4							8.8817		
	> .062					91.4533			42.3920		
SILT	.062 TO .031	4	25 cm.	0 00					16.5	2.8	85.4
	.031 TO .016	5	10 cm.	0 02					19.1	3.3	88.7
	.016 TO .008	6	10 cm.	0 08					17.6	3.0	91.7
	.008 TO .004	7	10 cm.	0 32					20.8	3.6	95.3
CLAY	.004 TO .002	8	10 cm.	2 08					14.5	2.5	97.8
	.002 TO .001	9	7 cm.	5 58					7.8	1.3	99.1
	< .001	10	7 cm.	24 00					3.6	.6	99.7

WEIGHT DISPERSING AGENT x 20 ____

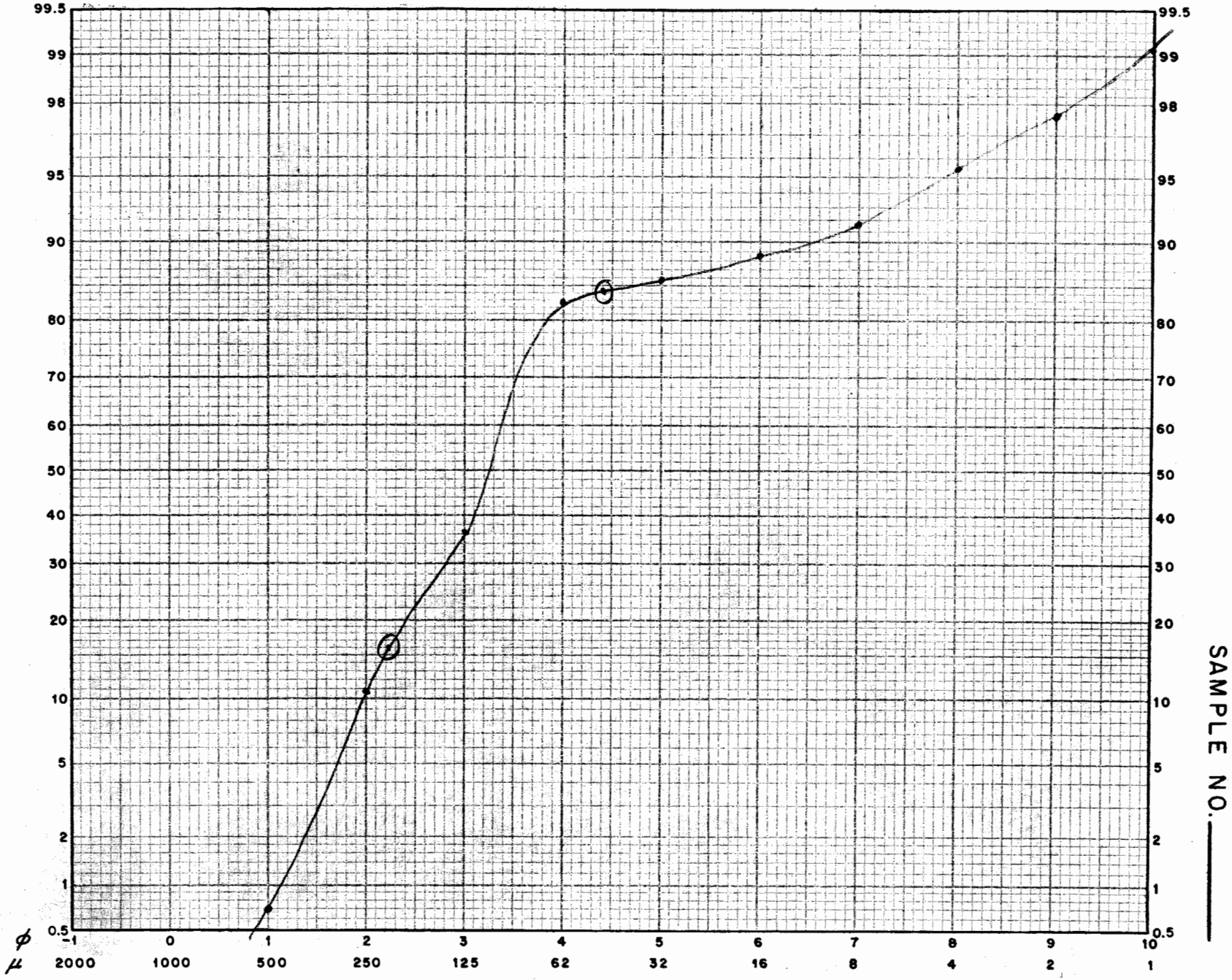
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 51.9096

.6359

51.2737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SAMPLE NO. _____

LOCATION OF SAMPLE C.C. Bay — SAMPLE NO. 68A / 1 50

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.20 % — P ____ mm. — σ ____

SILT .80 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

387 / 49.0390 (BEAKER) / 107.3861 (BULK + BEAKER) / 106.8660

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								.0		0.0	
SAND	2.000 / 1.000	-1 / 0								0.0	0.0	
	1.000 / .500	0 / 1								0.0	0.0	
	.500 / .250	1 / 2								45.5	45.1	45.1
	.250 / .125	2 / 3								50.5	50.1	95.2
	.125 / .062	3 / 4								4.0	4.0	99.2
	< .062	4							.4643			
	> .062	4	25 cm.	0 00		106.4017			57.3627			
SILT	.062 TO .031	4 / 5	25 cm. / 10 cm.	0 00 / 0 02							100.0	
	.031 TO .016	5 / 6	10 cm. / 10 cm.	0 02 / 0 08								
	.016 TO .008	6 / 7	10 cm. / 10 cm.	0 08 / 0 32								
	.008 TO .004	7 / 8	10 cm. / 10 cm.	0 32 / 2 08								
CLAY	.004 TO .002	8 / 9	10 cm. / 7 cm.	2 08 / 5 58								
	.002 TO .001	9 / 10	7 cm. / 7 cm.	5 58 / 24 00								
	< .001	10										

WEIGHT DISPERSING AGENT x 20 ____

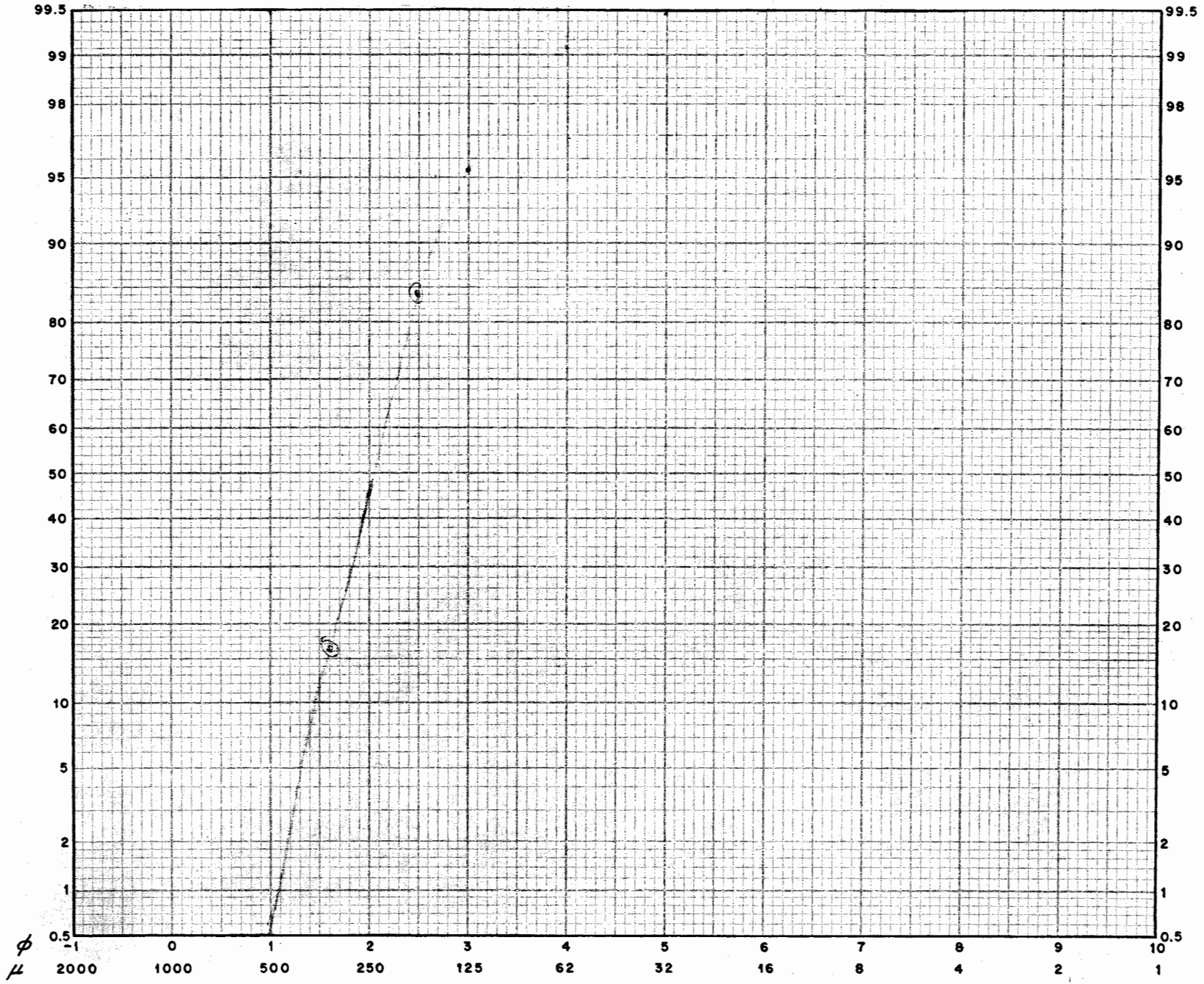
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 58.3471

.5201

57.8270



SAMPLE NO. _____

$M_z = \frac{1.6 + 2.5}{2}$ $\frac{4}{2} = \boxed{2.15}$

$\sigma_\phi = \frac{2.5 - 1.6}{2} = \frac{.9}{2} = \boxed{.45}$

LOCATION OF SAMPLE _____ SAMPLE NO. _____

GRAVEL _____ % MEDIAN _____ mm. CLASSIFICATION _____

SAND _____ % P _____ mm. σ _____

SILT _____ % P _____ mm. Sk. _____

CLAY _____ % DISPERSING AGENT WEIGHT _____ gms./50 ml.

ANALYSIS BY _____ TEMP. _____ °C

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000	-1							0.0	0.0	
SAND	2.000 / 1.000	0								0.0	
	1.000 / .500	1								0.0	
	.500 / .250	2								5.5	
	.250 / .125	3								21.1	26.6
	.125 / .062	4								23.6	50.2
	< .062								53.3355		
	> .062	4	25 cm.	0 00		102.2190			53.7165		
SILT	.062 TO .031	5	10 cm.	0 02					13.6	6.8	57.0
	.031 TO .016	6	10 cm.	0 08					15.6	7.8	64.8
	.016 TO .008	7	10 cm.	0 32					22.2	11.1	75.9
	.008 TO .004	8	10 cm.	2 08					27.5	13.7	89.6
CLAY	.004 TO .002	9	7 cm.	5 58					12.5	6.2	95.8
	.002 TO .001	10	7 cm.	24 00					5.6	2.8	98.6
	< .001								3.0	1.5	100.1

WEIGHT DISPERSING AGENT x 20 _____

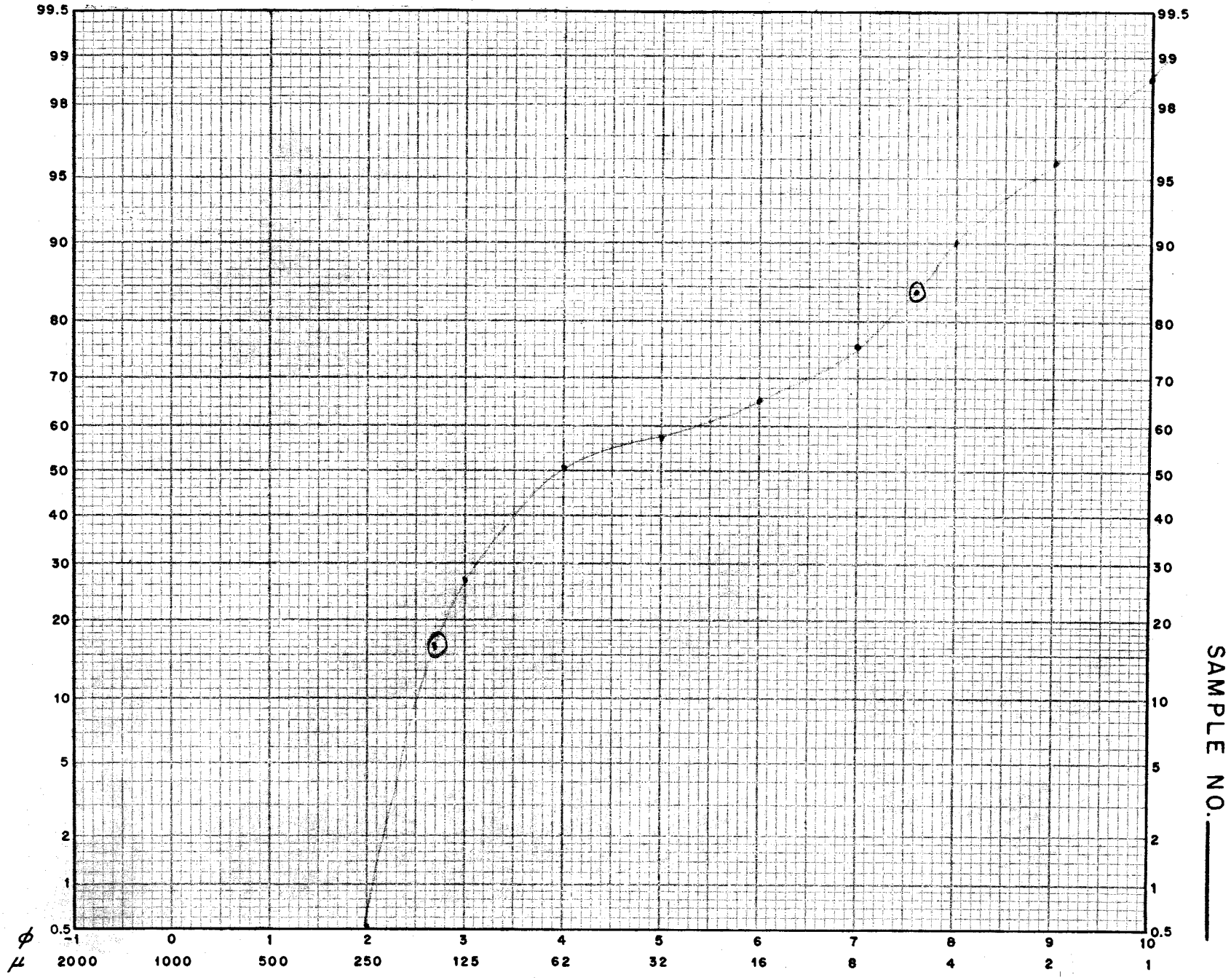
WT. COARSE _____

WT. FINE _____

WT. TOTAL SAMPLE 107.1751

.1231

107.0520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SAMPLE NO. _____

LOCATION OF SAMPLE CC BAY — SAMPLE NO. 72-1 72

GRAVEL 15.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 69.1 % — P ____ mm. — σ ____

SILT & 15.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

163 / 48.8155 / 123.3344 / 121.7475

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR.+SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					99.2015			10.9563	15.0	15.0
SAND	2.000 / 1.000	-1 / 0		27						18.7	33.7
	1.000 / .500	0 / 1		43						29.7	63.4
	.500 / .250	1 / 2		15						10.4	73.8
	.250 / .125	2 / 3		8						5.5	79.3
	.125 / .062	3 / 4		7						4.8	84.1
	< .062	4							11.5897		
	> .062	4	25 cm.	0 00		110.1578	61.3423				
SILT	.062 TO .031	5	10 cm.	0 02					10.9	1.7	85.8
	.031 TO .016	6	10 cm.	0 08					15.8	2.5	88.3
	.016 TO .008	7	10 cm.	0 32					23.0	3.7	92.0
	.008 TO .004	8	10 cm.	2 08					25.6	4.1	96.1
CLAY	.004 TO .002	9	7 cm.	5 58					15.0	2.4	98.5
	.002 TO .001	10	7 cm.	24 00					6.9	1.1	99.6
	< .001								2.6	0.4	100.0

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

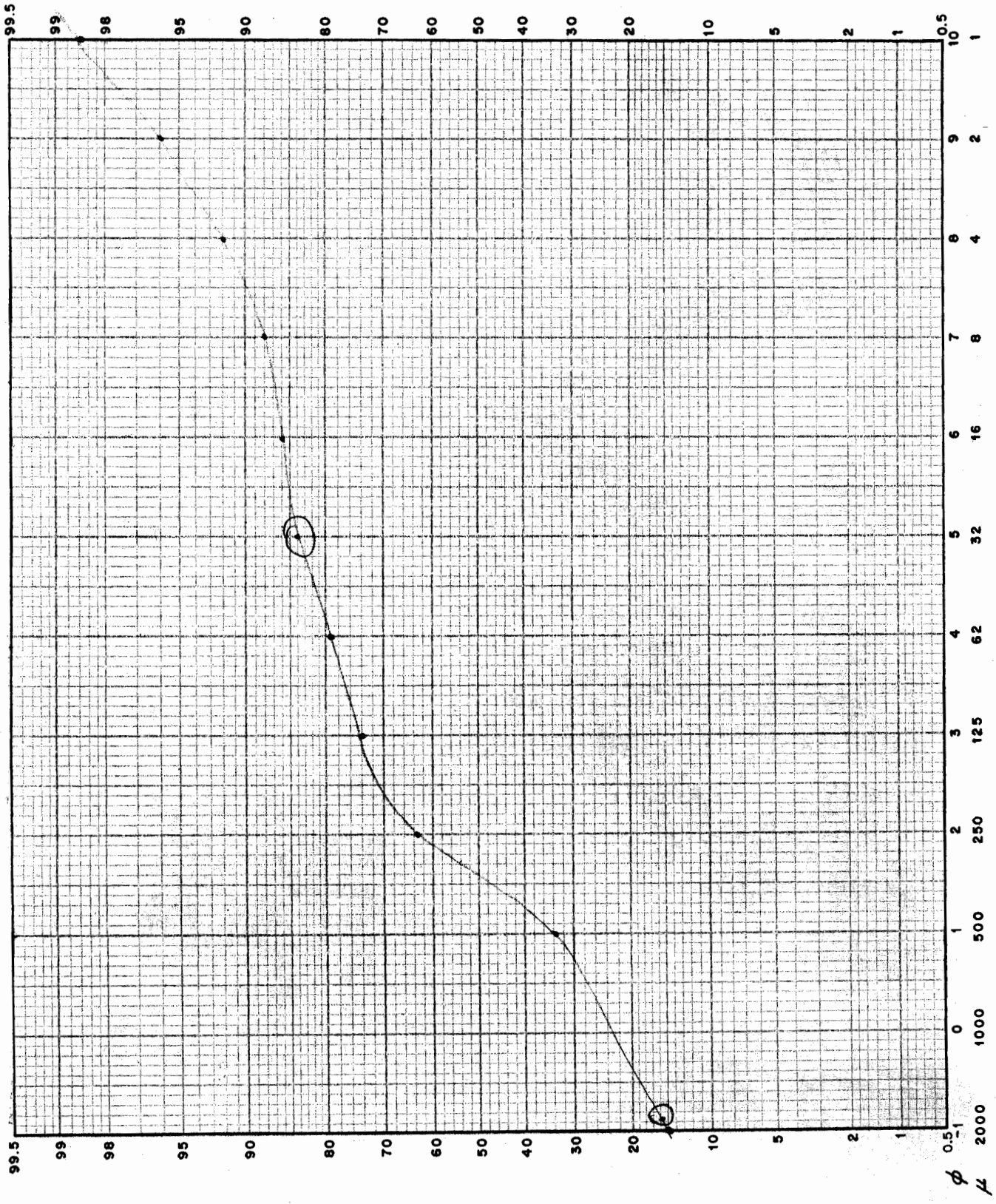
WT. FINE ____

WT. TOTAL SAMPLE 74.5190

1.5870

72.9320

SAMPLE NO._____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LOCATION OF SAMPLE C C Bay — SAMPLE NO. 72/1 95

GRAVEL 5.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 79.0 % — P ____ mm. — σ ____

SILT 16.0 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

65/49.0455/104.0200/103.0167

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					91.6334			2.7212	5.0	5.0
SAND	2.000 / 1.000	-1 / 0		6						4.7	9.7
	1.000 / .500	0 / 1		36						28.4	38.1
	.500 / .250	1 / 2		30						23.7	61.8
	.250 / .125	2 / 3		15						11.9	73.7
	.125 / .062	3 / 4		13						10.3	84.0
	< .062	4							8.6621		
	> .062	4				94.3546			4.5309 1		
SILT	.062 TO .031	4 / 5	25 cm.	0 00					7.6	1.2	85.2
	.031 TO .016	5 / 6	10 cm.	0 02					9.6	1.5	86.7
	.016 TO .008	6 / 7	10 cm.	0 08					12.8	2.0	88.7
	.008 TO .004	7 / 8	10 cm.	0 32					24.1	3.9	92.6
CLAY	.004 TO .002	8 / 9	10 cm.	2 08					25.1	4.0	96.6
	.002 TO .001	9 / 10	7 cm.	5 58					14.2	2.3	98.9
	< .001	10	7 cm.	24 00					6.4	1.0	99.9

WEIGHT DISPERSING AGENT x 20 ____

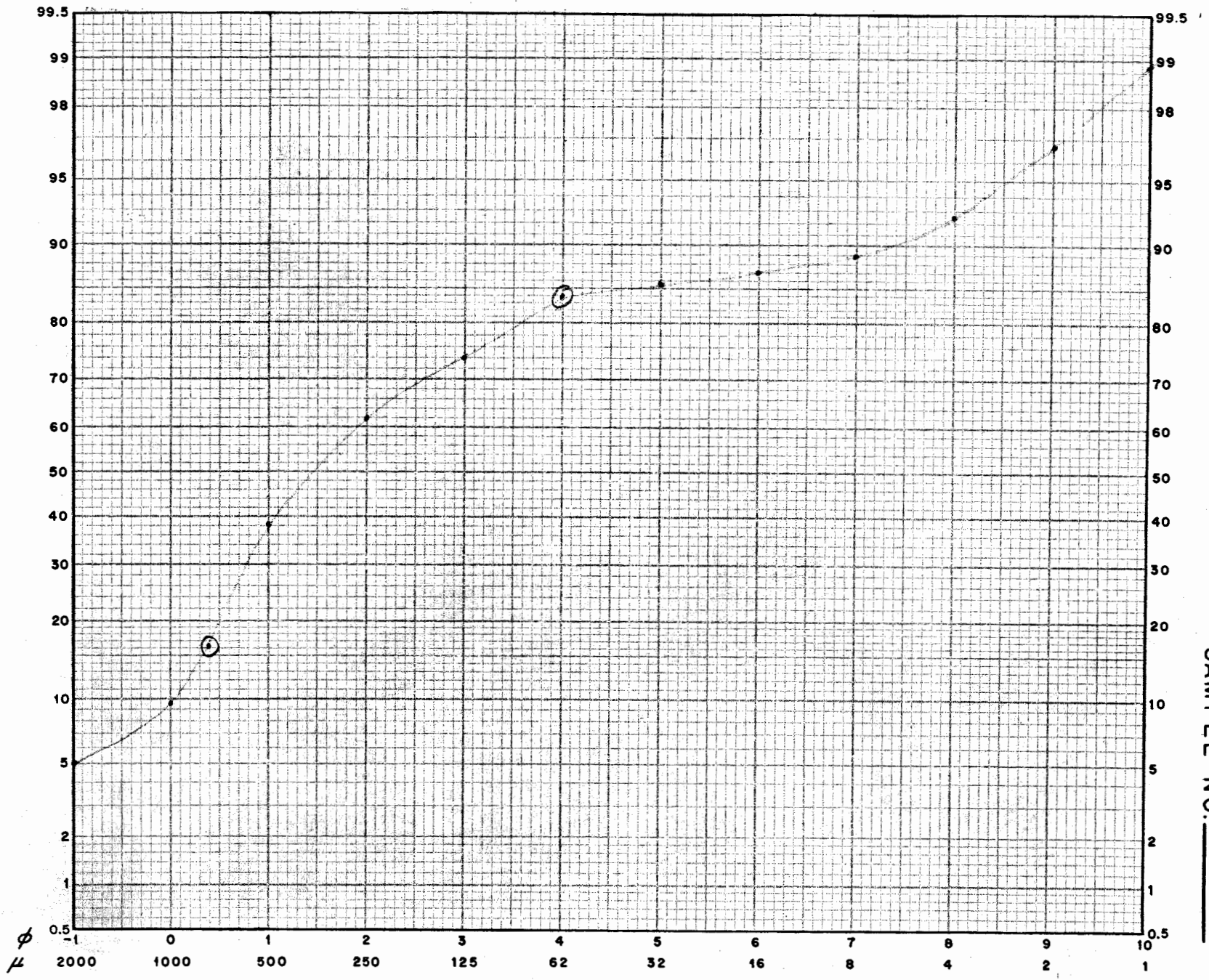
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 54.9745

1.0033

53.9712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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 72-2-28

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 25.2 % — P ____ mm. — σ ____

SILT & CLAY 74.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

400 / 49.5467 / 108.7100 / 108.4015

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		9						2.3	2.3
	.250 / .125	2		24						6.1	8.4
	.125 / .062	3		67						16.9	25.3
	< .062	4							43.9945		
	> .062	4	25 cm.	0 00		64.4070			14.8603		
SILT	.062 TO .031	5	10 cm.	0 02					20.9	15.6	40.9
	.031 TO .016	6	10 cm.	0 08					26.5	19.8	60.7
	.016 TO .008	7	10 cm.	0 32					21.4	16.0	76.7
	.008 TO .004	8	10 cm.	2 08					18.1	13.5	90.2
CLAY	.004 TO .002	9	7 cm.	5 58					7.7	5.8	96.0
	.002 TO .001	10	7 cm.	24 00					3.8	2.8	98.8
	< .001								1.7	1.3	100.1

WEIGHT DISPERSING AGENT x 20 ____

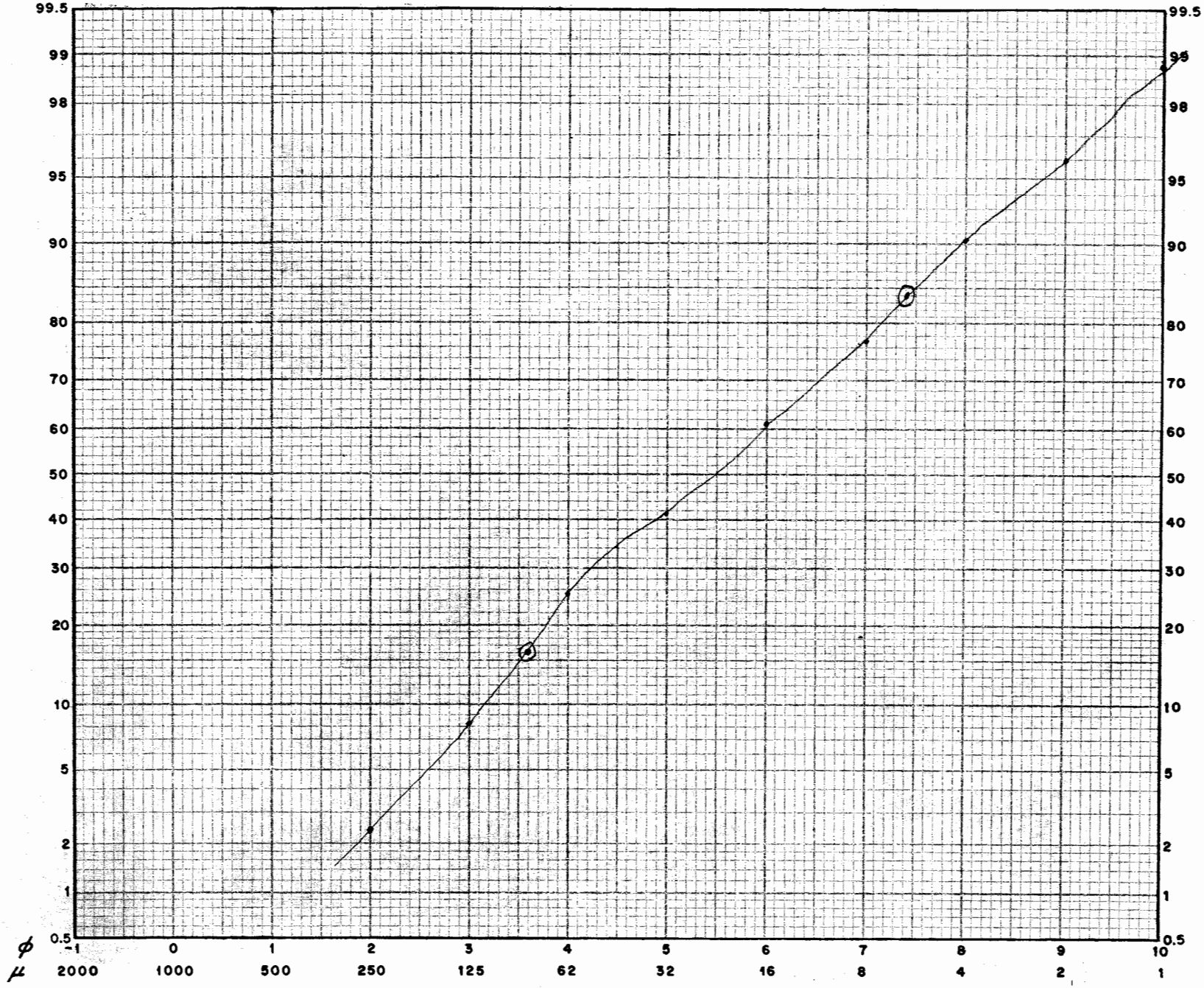
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 59.1633

,3085

58.8548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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 72-2 42

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 65.1 % — P ____ mm. — σ ____

SILT ~~3~~ 34.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

392 / 49.4079 / 116.3390 / 116.0101

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0		13.						8.5	8.5
	.500 / .250	1		46						29.9	38.4
	.250 / .125	2		30						19.5	57.9
	.125 / .062	3		11						7.2	65.1
	< .062	4							23.2718		
	> .062	4	25 cm.	0 00		92.7382			43.3303		
SILT	.062 TO .031	5	10 cm.	0 02					33.4	11.7	76.8
	.031 TO .016	6	10 cm.	0 08					21.9	7.6	84.4
	.016 TO .008	7	10 cm.	0 32					17.7	6.2	90.6
	.008 TO .004	8	10 cm.	2 08					16.5	5.8	96.4
CLAY	.004 TO .002	9	7 cm.	5 58					6.7	2.3	98.7
	.002 TO .001	10	7 cm.	24 00					2.7	.9	99.6
	< .001								1.1	.4	100.0

WEIGHT DISPERSING AGENT x 20 ____

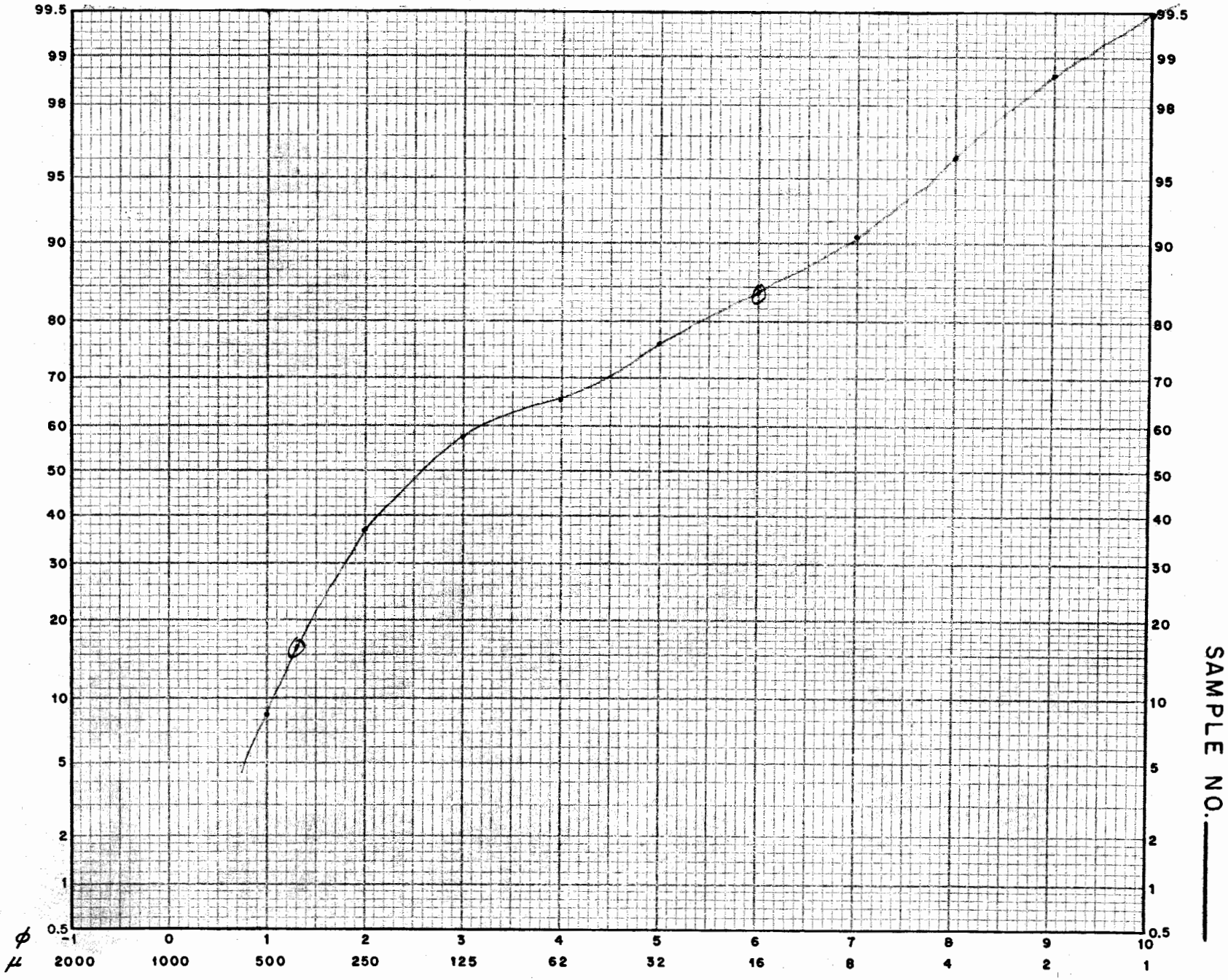
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 66.9311

.3290

66.6020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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 72-2 62

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 47.2 % — P ____ mm. — σ ____

SILT 52.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

363 / 49.0603 / 97.9797 / 97.6445

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		22.5						10.6	10.6
	.250 / .125	2		41.0						19.3	29.9
	.125 / .062	3		36.5						17.2	47.1
	< .062	4							25.6662		
	> .062	4	25 cm.	0 00		71.9783			22.9180		
SILT	.062 TO .031	5	10 cm.	0 02					15.5	8.2	55.3
	.031 TO .016	6	10 cm.	0 08					17.7	9.3	64.6
	.016 TO .008	7	10 cm.	0 32					20.4	10.8	75.4
	.008 TO .004	8	10 cm.	2 08					23.4	12.4	87.8
CLAY	.004 TO .002	9	7 cm.	5 58					13.1	6.9	94.7
	.002 TO .001	10	7 cm.	24 00					7.0	3.7	98.4
	< .001								2.8	1.5	99.9

WEIGHT DISPERSING AGENT x 20 ____

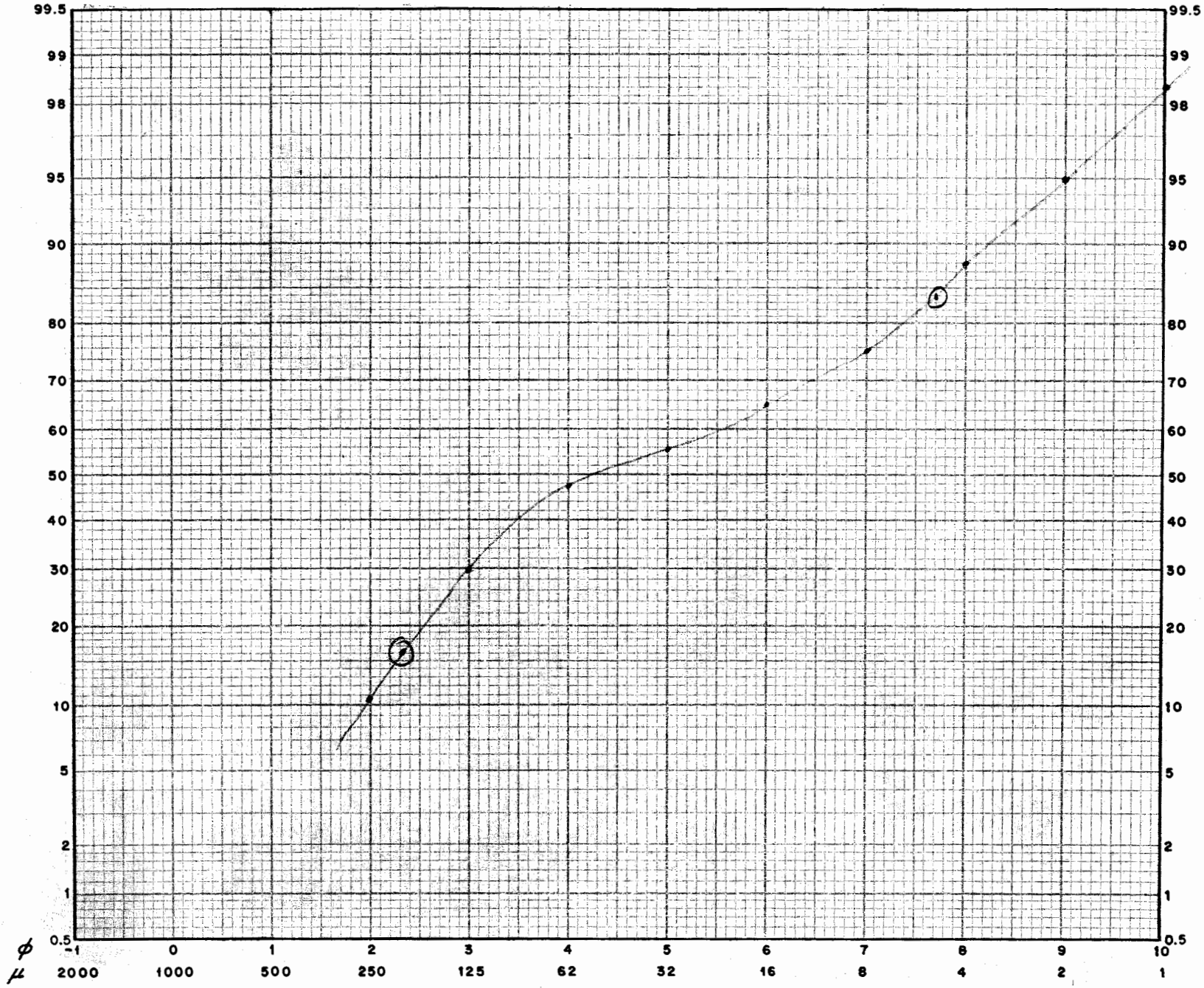
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 48.9194

- 3352

48.5842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0.5
φ
μ
-1
2000
0
1000
1
500
2
250
3
125
4
62
5
32
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16
7
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1

SAMPLE NO. _____

LOCATION OF SAMPLE Cape Cod Bay — SAMPLE NO. 72-2 70

GRAVEL 2.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 71.1 % — P ____ mm. — σ ____

SILT 28.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

23 / 49.4298 / 125.4271 / 125.1074

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		31						22.0	22.0
	.250 / .125	2		42						29.9	51.9
	.125 / .062	3		27						19.2	71.1
	< .062	4							21.8601		
	> .062	4	25 cm.	0 00		103.2473	53.8175				
SILT	.062 TO .031	5	10 cm.	0 02					22.4	6.5	77.6
	.031 TO .016	6	10 cm.	0 08					19.0	5.5	83.1
	.016 TO .008	7	10 cm.	0 32					18.3	5.3	88.4
	.008 TO .004	8	10 cm.	2 08					18.4	5.3	93.7
CLAY	.004 TO .002	9	7 cm.	5 58					9.3	2.7	96.4
	.002 TO .001	10	7 cm.	24 00					5.6	1.6	98.0
	< .001								3.2	.9	98.9

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

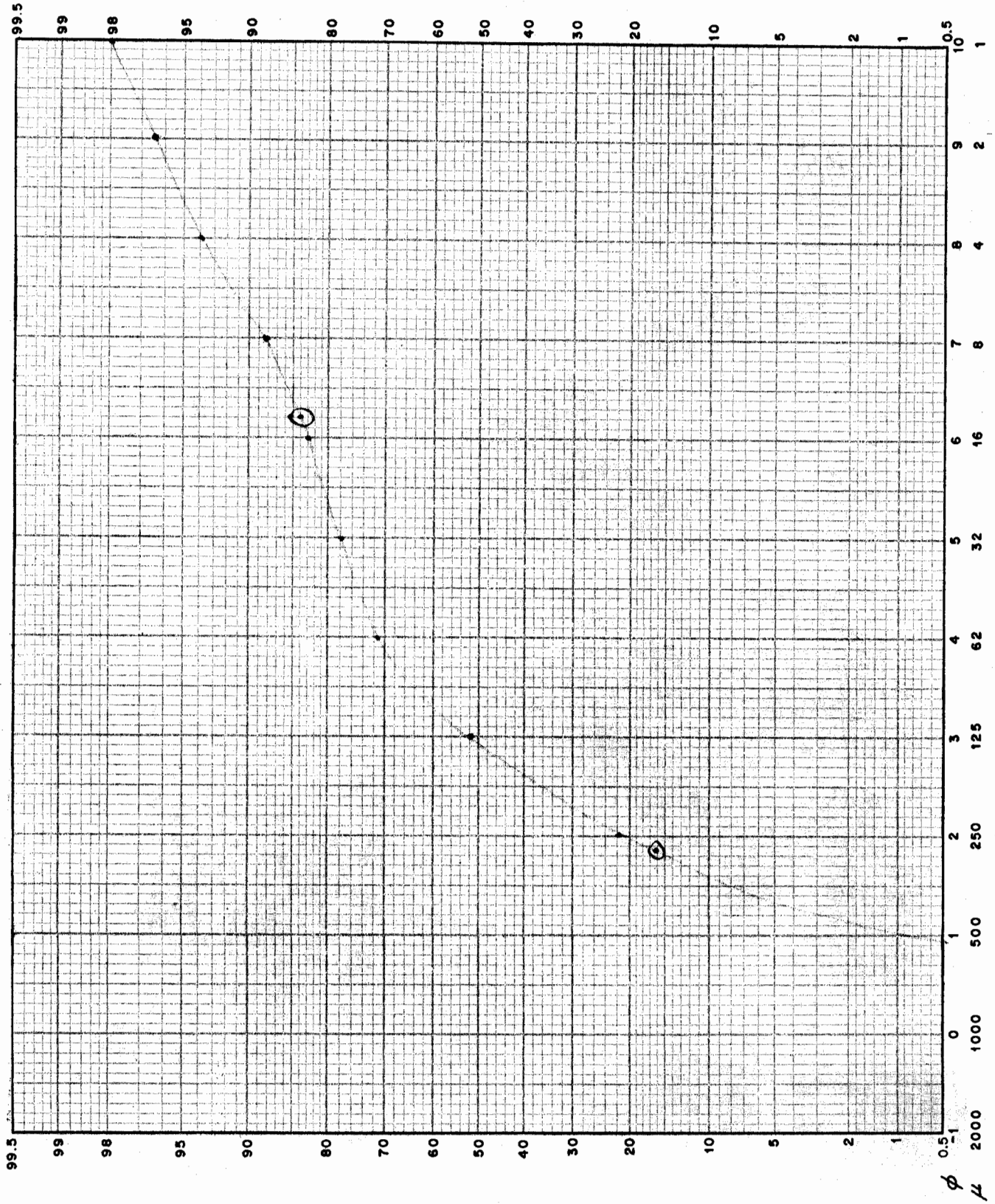
WT. FINE ____

WT. TOTAL SAMPLE 75.9973

.3197

75.6776

SAMPLE NO._____


99.5
99
98
95
90
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2
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10
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7
6
5
4
3
2
1
0
-1
16
32
62
125
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500
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φ
μ

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 72/2 105

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 71.7 % — P ____ mm. — σ ____

SILT 28.3 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

367 / BEAKER 48.9382 / 133.3387 / 133.1220

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 / 1.000	-1 / 0		0						0.0	
	1.000 / .500	0 / 1		7						5.0	5.0
	.500 / .250	1 / 2		28						20.1	25.1
	.250 / .125	2 / 3		40						28.7	53.8
	.125 / .062	3 / 4		25						17.9	71.7
	< .062	4							23.8555		
	> .062	4			109.	2665	60.3283				
SILT	.062 TO .031	4 / 5	25 cm.	0 00					21.1	6.0	77.7
	.031 TO .016	5 / 6	10 cm.	0 02					25.0	7.1	84.8
	.016 TO .008	6 / 7	10 cm.	0 08					27.0	7.6	92.4
	.008 TO .004	7 / 8	10 cm.	0 32					17.2	4.9	97.3
CLAY	.004 TO .002	8 / 9	10 cm.	2 08					7.3	2.1	99.4
	.002 TO .001	9 / 10	7 cm.	5 58					2.1	0.6	100.0
	< .001	10	7 cm.	24 00					0.0	0.0	100.0

WEIGHT DISPERSING AGENT x 20 ____

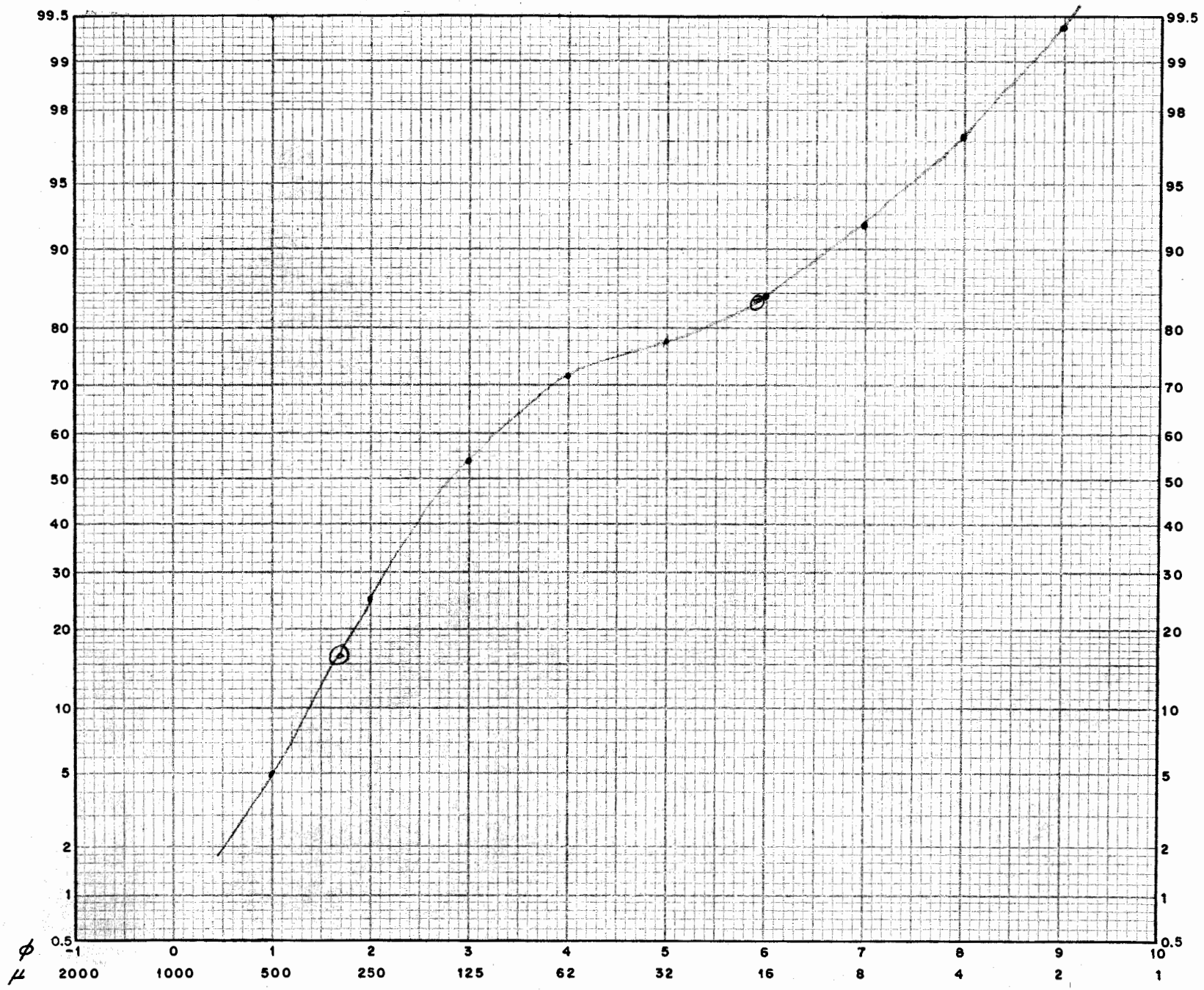
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 84.4005

.2167

84.1838



SAMPLE NO. _____

$M_\phi = \frac{1.7 + 5.9}{2} = \frac{7.6}{2} = \boxed{3.8}$

$\sigma_\phi = \frac{5.9 - 1.7}{2} = \frac{4.2}{2} = \boxed{2.1}$

LOCATION OF SAMPLE C C Bay

SAMPLE NO. 72/2 120

GRAVEL 0.0 %

SAND 68.5 %

SILT } 31.5 %

CLAY } %

ANALYSIS BY

MEDIAN mm.

P mm.

P mm.

DISPERSING AGENT

CLASSIFICATION

σ

Sk.

WEIGHT gms./50 ml.

TEMP. °C

369 / 49.3897 / 118.2896 / 117.7131

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		3.5						2.5	2.5
	.250 / .125	2		44.5						31.4	33.9
	.125 / .062	3		49.0						34.6	68.5
	< .062	4							21.5050		
	> .062	4	25 cm.	0 00		96.2081			46.8190		
SILT	.062 TO .031	5	10 cm.	0 02					9.0	2.8	71.3
	.031 TO .016	6	10 cm.	0 08					8.4	2.6	73.9
	.016 TO .008	7	10 cm.	0 32					10.2	3.2	77.1
	.008 TO .004	8	10 cm.	2 08					17.5	5.5	82.6
CLAY	.004 TO .002	9	7 cm.	5 58					23.7	7.5	90.1
	.002 TO .001	10	7 cm.	24 00					20.5	6.5	96.6
	< .001								9.5	3.0	99.6

WEIGHT DISPERSING AGENT x 20

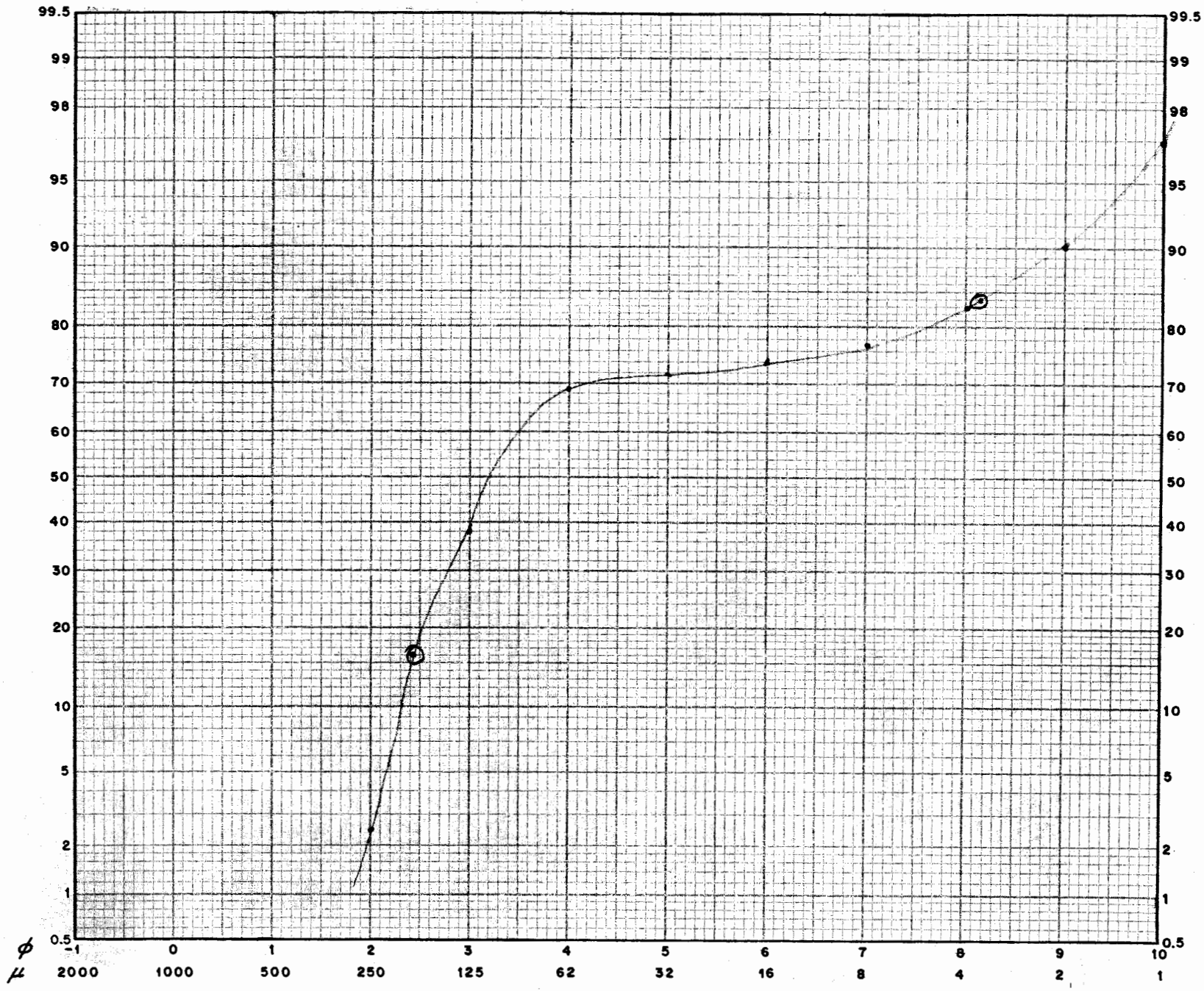
WT. COARSE

WT. FINE

WT. TOTAL SAMPLE 68.8999

.15759

68.32.40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125
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1

SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 72-2 -230

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 50.9 % — P ____ mm. — σ ____

SILT 49.1 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

123 / 50.3308 / 118.9618 / 118.6333

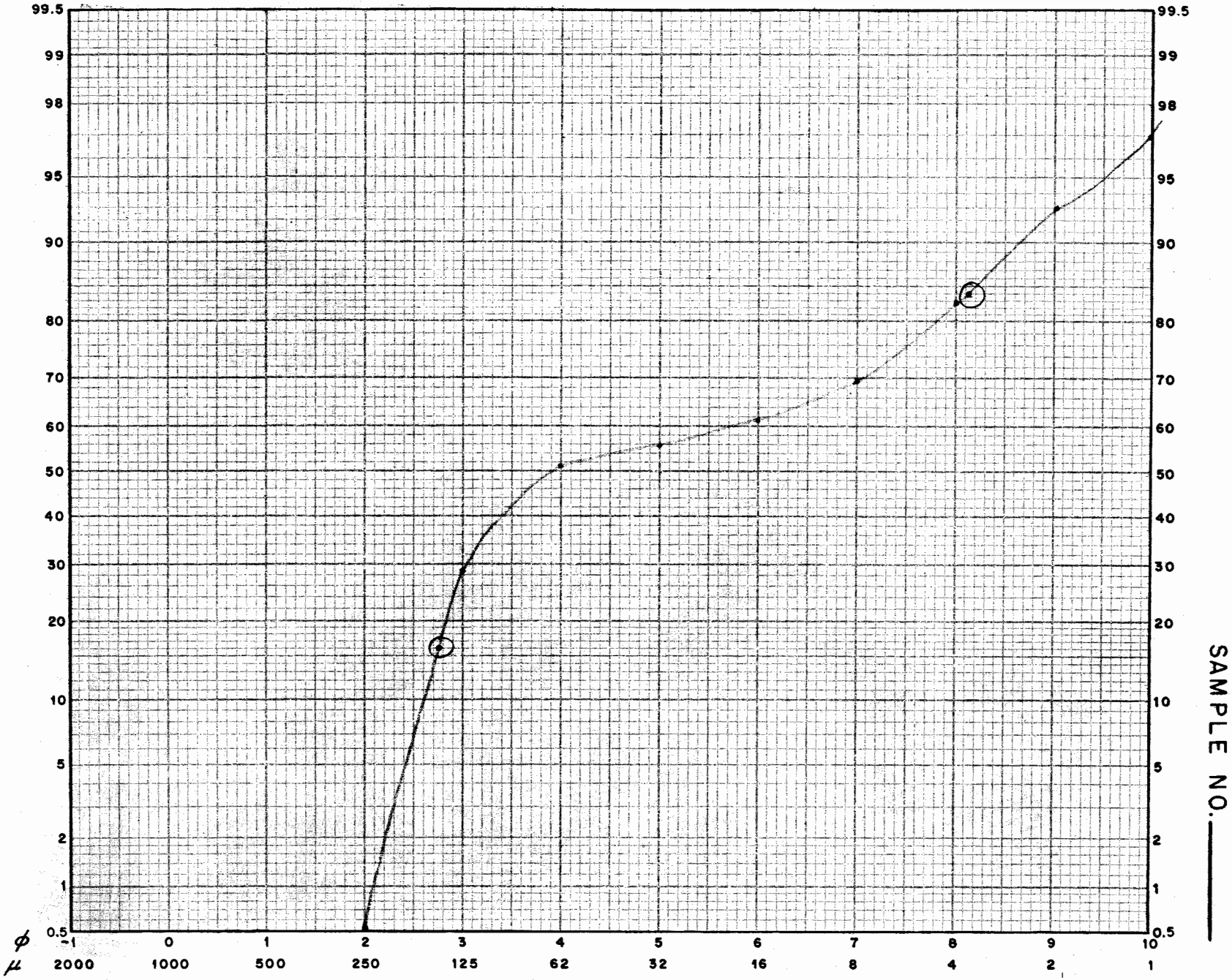
	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1									
	.250 / .125	2		57						29.0	29.0
	.125 / .062	3		43						21.9	50.9
	< .062	4							33.5201		
	> .062	4	25 cm.	0 00		85.1132			34.7824		
SILT	.062 TO .031	5	10 cm.	0 02					9.6	4.7	55.6
	.031 TO .016	6	10 cm.	0 08					11.1	5.5	61.1
	.016 TO .008	7	10 cm.	0 32					16.2	8.0	69.1
	.008 TO .004	8	10 cm.	2 08					25.8	13.7	82.8
CLAY	.004 TO .002	9	7 cm.	5 58					20.2	9.9	92.7
	.002 TO .001	10	7 cm.	24 00					9.6	4.7	97.4
	< .001								4.6	2.3	99.7

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 68.6310 + .3285 = 68.3025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4
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1

SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 84/8 - 1 - 10

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 96.38 % — P ____ mm. — σ ____

SILT & CLAY 3.62 % — P ____ mm. — Sk. ____

ANALYSIS BY Mack — DISPERSING AGENT WEIGHT ____ gms./50 ml.

TEMP. ____ °C

BEAKER / BULK + BEAKER

1 / 49.0940 / 101.5600 / 100.9818

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								0.00	0.0	0.0	
SAND	2.000 / 1.000	-1							50.0075	0.0	0.0	
	1.000 / .500	0								0.0	0.0	
	.500 / .250	1								6.0	5.8	5.8
	.250 / .125	2								66.5	64.1	69.9
	.125 / .062	3								27.5	26.5	96.4
	< .062	4							1.8803			
	> .062					99.1013 / 49.0940						
SILT	.062 TO .031	4	25 cm.	0 00						100		
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

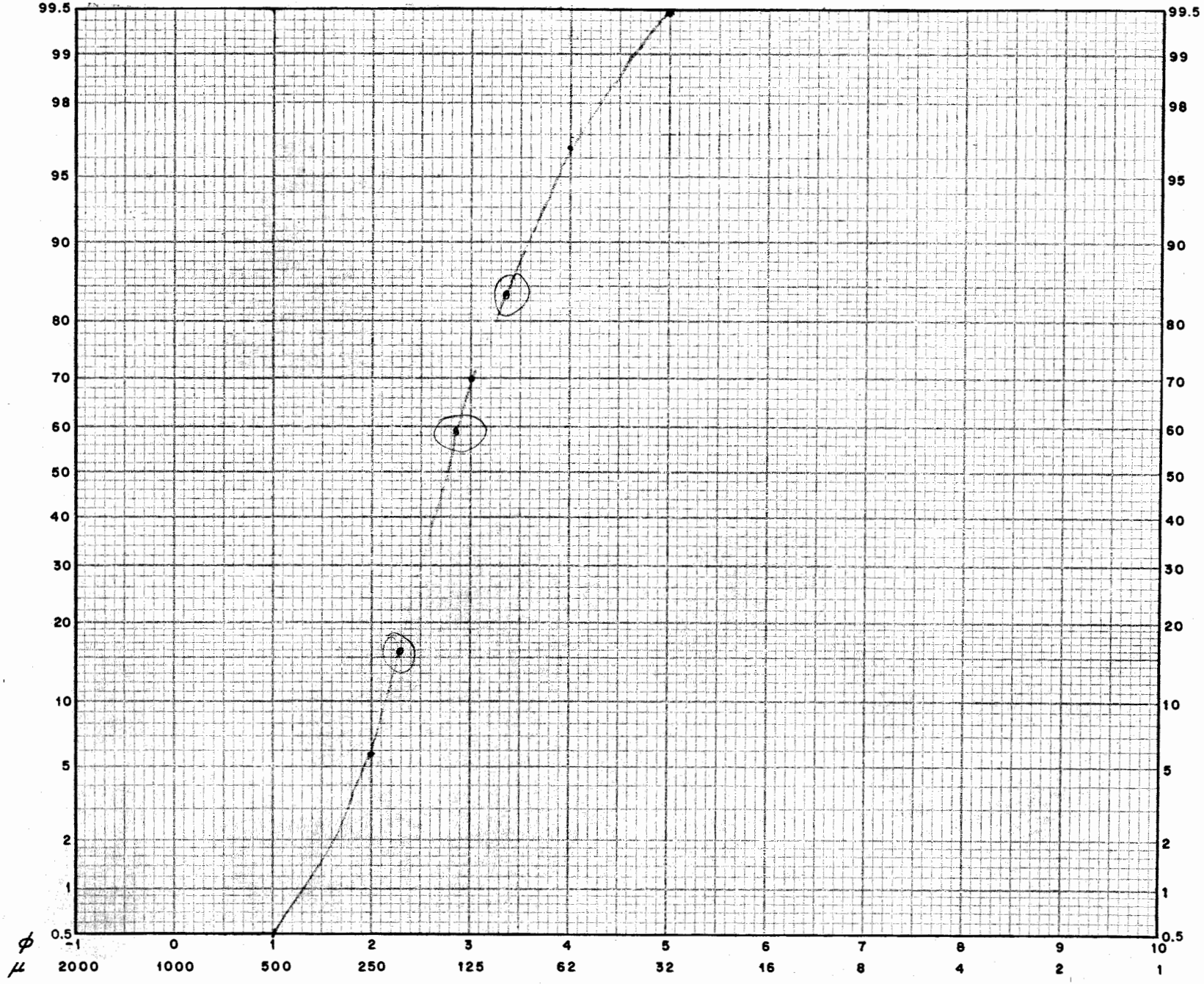
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 52.4660

carbonate .5782

51.8878



SAMPLE NO. _____

$\sigma_\phi = \frac{3.4 - 2.3}{2} = .55$

$M_\phi \quad \frac{2.3 + 3.4}{2} = 2.85$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 84B-1-200

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 92.3 % — P ____ mm. — σ ____

SILT 7.7 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

416/49.2408/115.0753/114.0386

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 / 1.000	-1 / 0		0						0.0	
	1.000 / .500	0 / 1		1						.9	.9
	.500 / .250	1 / 2		36						33.2	34.1
	.250 / .125	2 / 3		51						47.1	81.2
	.125 / .062	3 / 4		12						11.1	92.3
	< .062	4							5.3016		
	> .062	4				112.7310			63.4902		
SILT	.062 TO .031	4 / 5	25 cm.	0 00							100.0
	.031 TO .016	5 / 6	10 cm.	0 02							
	.016 TO .008	6 / 7	10 cm.	0 08							
	.008 TO .004	7 / 8	10 cm.	0 32							
CLAY	.004 TO .002	8 / 9	10 cm.	2 08							
	.002 TO .001	9 / 10	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

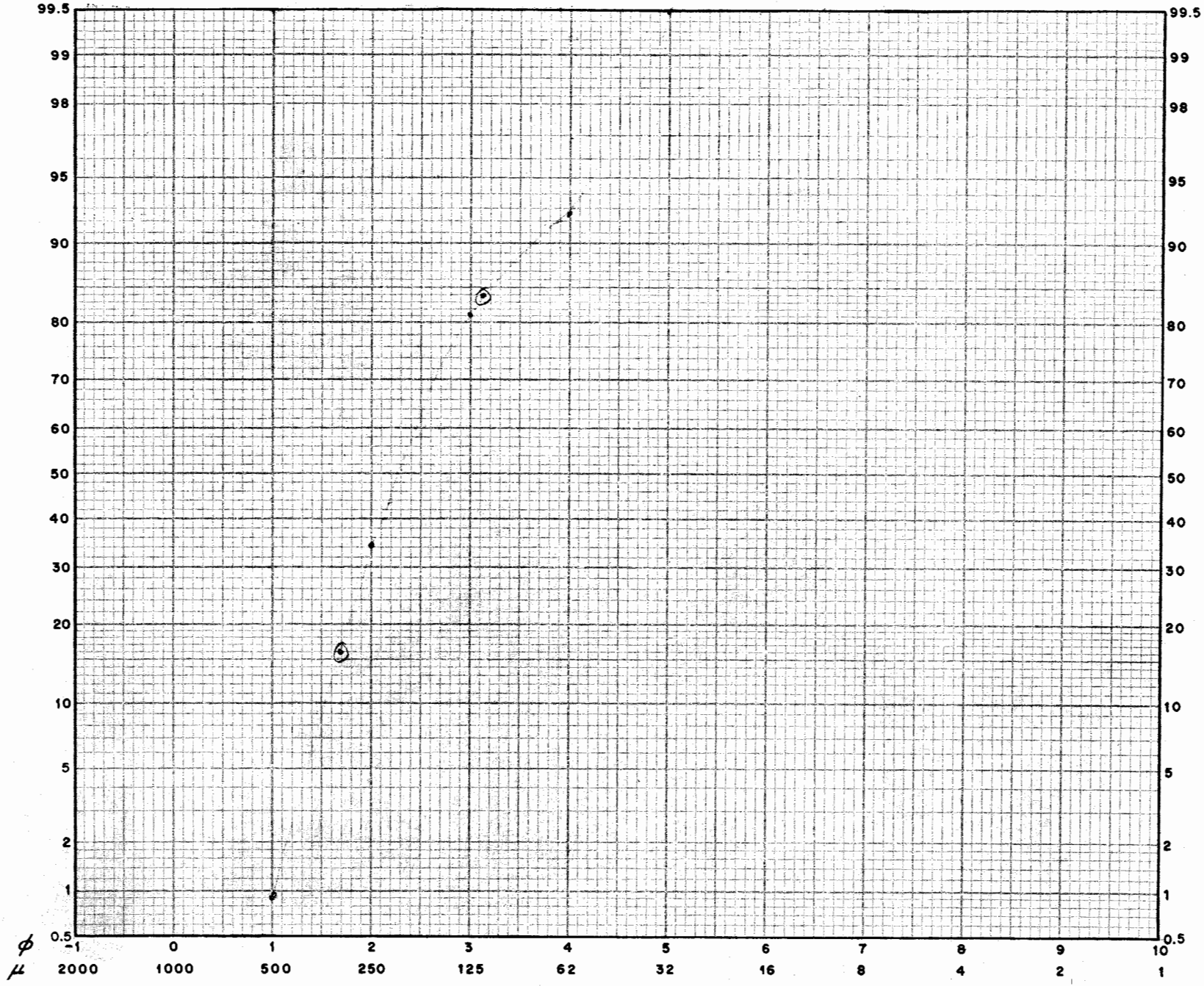
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 69.8345

1.0367

68.7978



SAMPLE NO. _____

$M_z = \frac{1.7 + 3.1}{2} = \frac{4.8}{2} = 2.4\ \phi$

$\sigma_I = \frac{3.1 - 1.7}{2} = \frac{1.4}{2} = 0.7\ \phi$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 86/1 10

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 99.61 % — P ____ mm. — σ ____

SILT 2 .39 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

32 / 49.2452 / 119.3275 / 118.7442

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								0.0		0.0
SAND	2.000 / 1.000	-1								0.0	0.0
	1.000 / .500	0								12.0	12.0
	.500 / .250	1								51.0	50.8
	.250 / .125	2								35.0	34.9
	.125 / .062	3								2.0	2.0
	< .062	4							.2694		
	> .062	4	25 cm.	0 00		118.4748			69.2296		
SILT	.062 TO .031	5	10 cm.	0 02							
	.031 TO .016	6	10 cm.	0 08							
	.016 TO .008	7	10 cm.	0 32							
	.008 TO .004	8	10 cm.	2 08							
CLAY	.004 TO .002	9	7 cm.	5 58							
	.002 TO .001	10	7 cm.	24 00							
	< .001										

WEIGHT DISPERSING AGENT x 20 ____

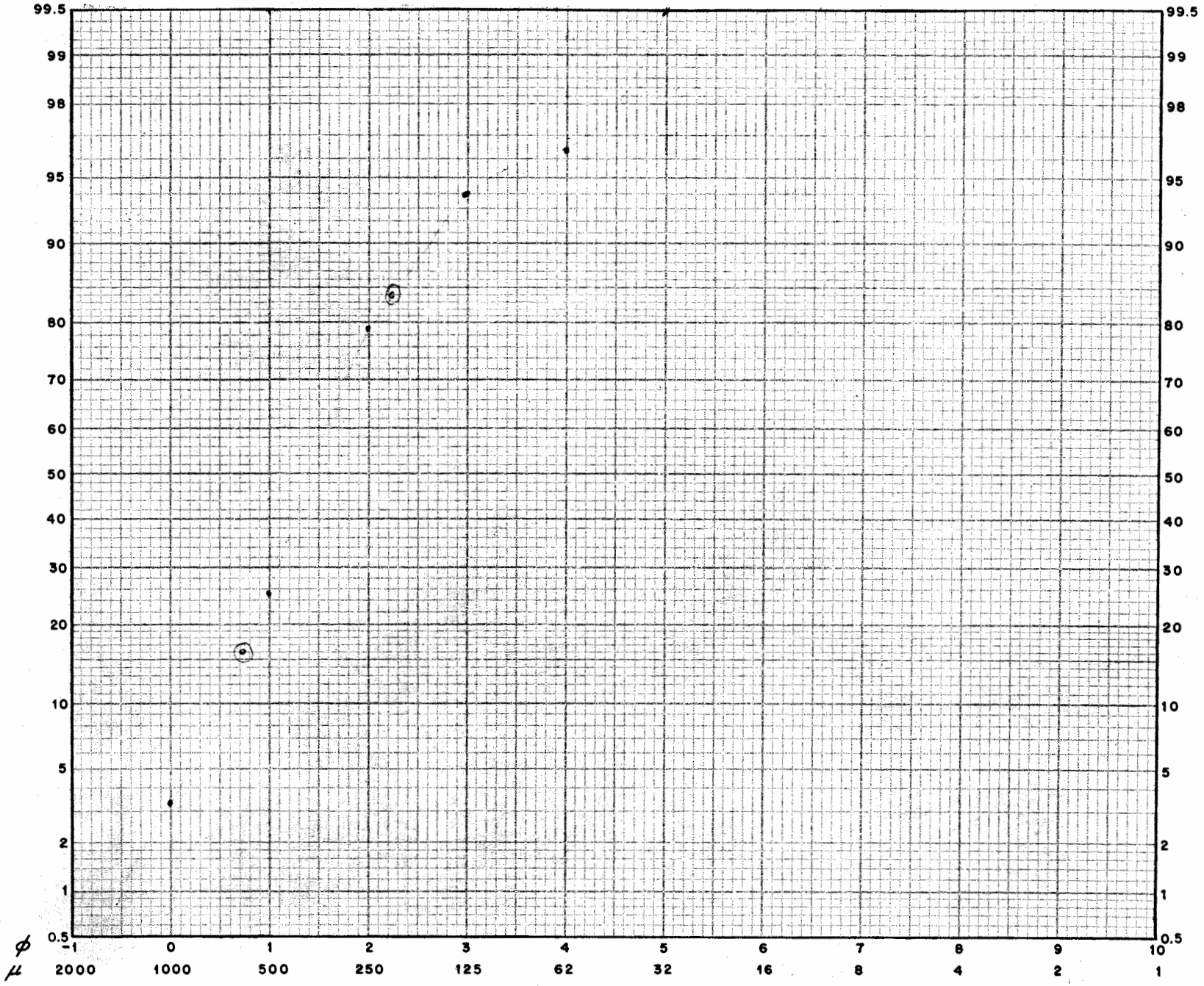
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 70.0823

carbonate .5833

69.4990



SAMPLE NO. _____

$M_z = \frac{1.7 + 2.2}{2} = \frac{3.9}{2} = 1.95$

$S_I = \frac{2.2 - 1.7}{2} = \frac{0.5}{2} = 0.25$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 86/1 190

GRAVEL .32 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 96.00 % — P ____ mm. — σ ____

SILT 3.68 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

147 / BEAKER 48.4767 / BULK + BEAKER 129.6037 / 127.7349

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								.2537		.32	.3
SAND	2.000 / 1.000	-1				124.5618			76.0851	3.0	2.9	3.2
	1.000 / .500	0								22.5	21.6	24.8
	.500 / .250	1								56.5	54.2	79.0
	.250 / .125	2								15.5	14.9	93.9
	.125 / .062	3								2.5	2.4	96.3
	< .062	4							2.9194			
	> .062					124.8153			76.3388			
SILT	.062 TO .031	4	25 cm.	0 00							100	
	.031 TO .016	5	10 cm.	0 02								
	.016 TO .008	6	10 cm.	0 08								
	.008 TO .004	7	10 cm.	0 32								
CLAY	.004 TO .002	8	10 cm.	2 08								
	.002 TO .001	9	7 cm.	5 58								
	< .001	10	7 cm.	24 00								

WEIGHT DISPERSING AGENT x 20 ____

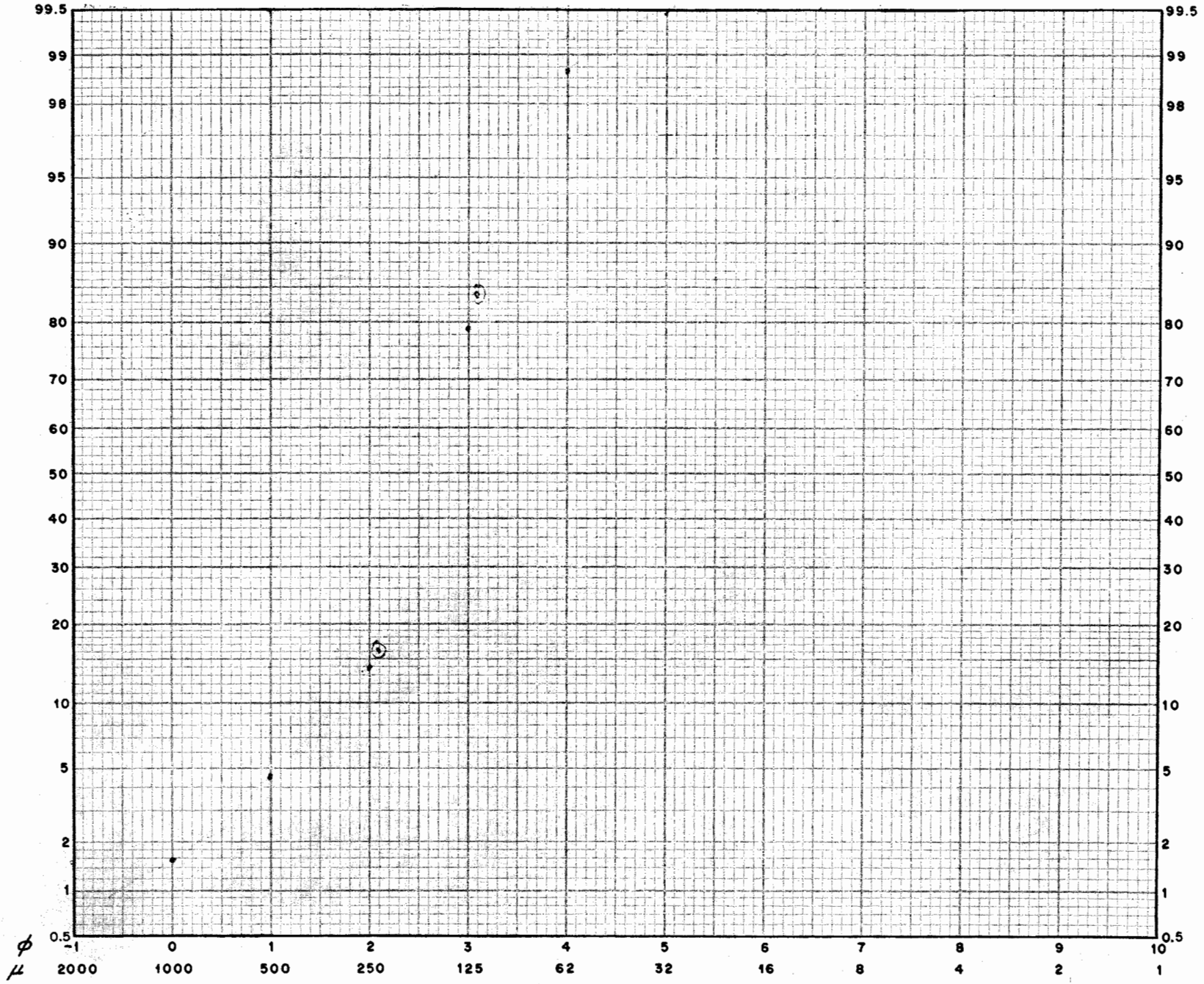
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 81.1270

carbonate 1.8688

79.2582



SAMPLE NO. _____

$M_\phi = \frac{2.1 + 3.1}{2} = \frac{5.2}{2} = 2.6$

$G_\phi = \frac{3.1 - 2.1}{2} = \frac{1.0}{2} = .5$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 86/2 30

GRAVEL 0.00 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 98.66 % — P ____ mm. — σ ____

SILT 3 1.34 % — P ____ mm. — Sk. ____

CLAY 3 % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

No. 173 / BEAKER 49.9400 / BKR + BEAKER 102.8579 / 102.4149

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								0.0		0.0	
SAND	2.000 / 1.000	-1								1.5	1.5	1.5
	1.000 / .500	0								3.0	3.0	4.5
	.500 / .250	1								9.5	9.4	13.9
	.250 / .125	2								66.0	65.1	79.0
	.125 / .062	3								20.0	19.7	98.7
	< .062	4							.7017			
	> .062	4	25 cm.	0 00		101.7132			51.7732			
SILT	.062 TO .031	5	10 cm.	0 02							100.0	
	.031 TO .016	6	10 cm.	0 08								
	.016 TO .008	7	10 cm.	0 32								
	.008 TO .004	8	10 cm.	2 08								
CLAY	.004 TO .002	9	7 cm.	5 58								
	.002 TO .001	10	7 cm.	24 00								
	< .001											

WEIGHT DISPERSING AGENT x 20 ____

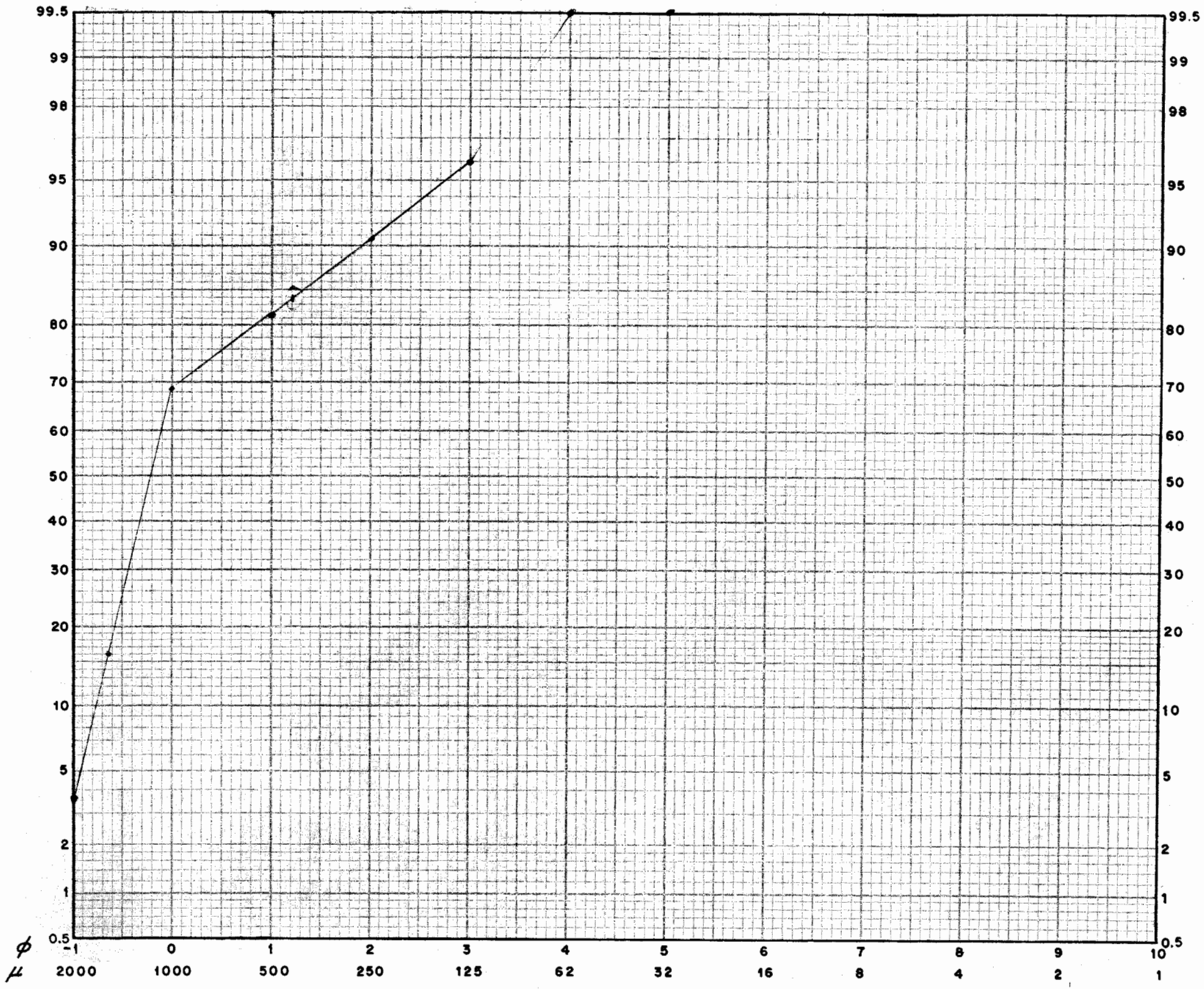
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 52.9179

.4430

52.4749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SAMPLE NO.

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 86/2 - 77

GRAVEL 4.30 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 95.47 % — P ____ mm. — σ ____

SILT .23 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

BEAKER / BULK + BEAKER

359 / 49.4253 / 125.7600 / 125.5440

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								3.2743		4.30	4.3
SAND	2.000 / 1.000	-1				122.6992 / 49.4253			72.6739	67.0	63.9	68.2
	1.000 / .500	0								16.0	15.3	83.5
	.500 / .250	1								7.0	6.7	90.2
	.250 / .125	2								5.0	4.8	95.0
	.125 / .062	3								5.0	4.8	99.8
	< .062	4							.1705			
	> .062	4				125.3735 / 49.4253			75.9482			
SILT	.062 TO .031	5	25 cm.	0 00							100.0	
	.031 TO .016	6	10 cm.	0 02								
	.016 TO .008	7	10 cm.	0 08								
	.008 TO .004	8	10 cm.	0 32								
CLAY	.004 TO .002	9	7 cm.	2 08								
	.002 TO .001	10	7 cm.	5 58								
	< .001			24 00								

WEIGHT DISPERSING AGENT x 20 ____

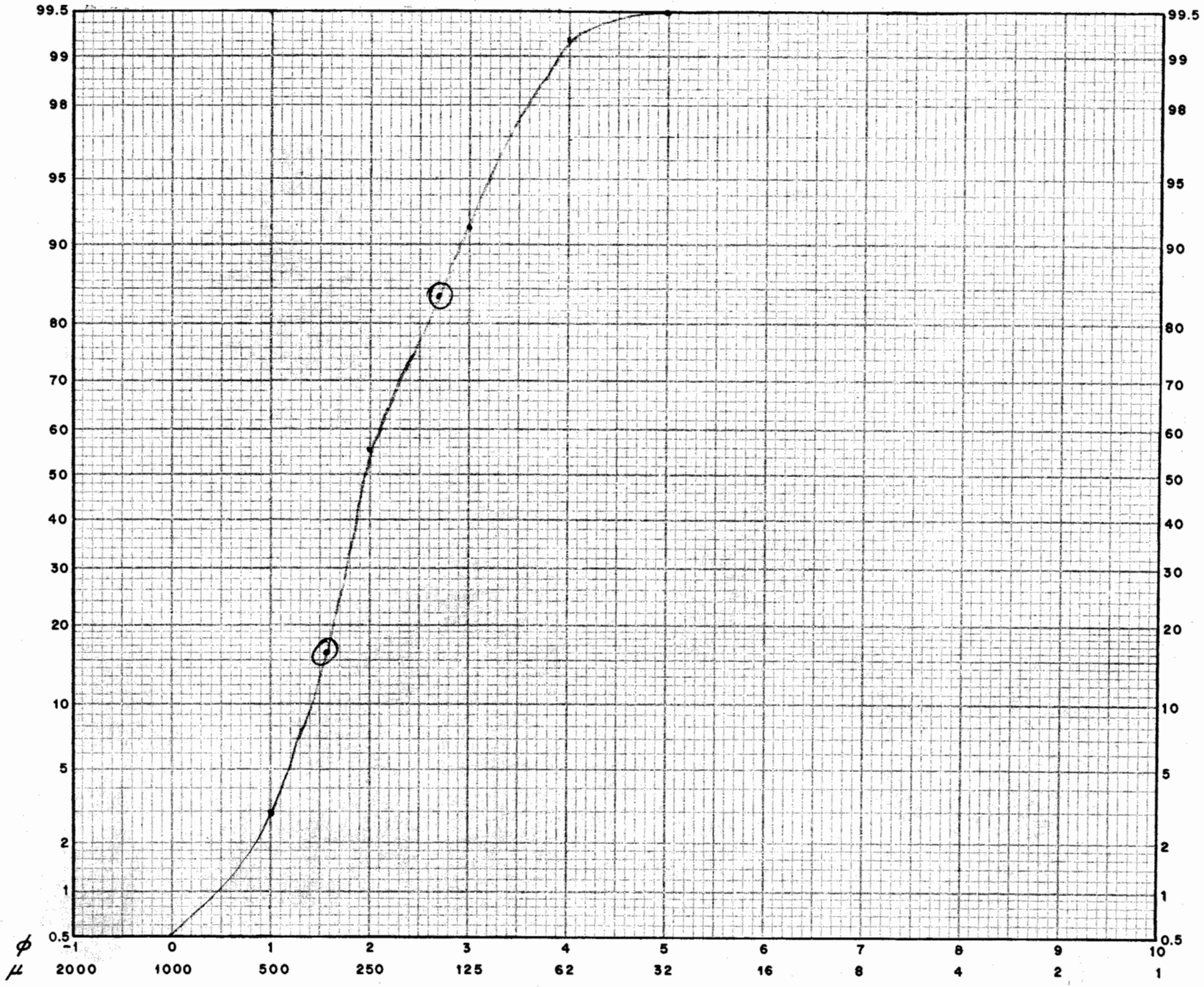
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 76.3347

.2160

76.1187



SAMPLE NO. _____

$M_\phi = \frac{2.7 + 1.6}{2} = 2.15$

$G_\phi = \frac{2.7 - 1.6}{2} = \frac{1.1}{2} = .65$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 86-2-180

GRAVEL — % — MEDIAN — mm. — CLASSIFICATION

SAND 97.2 % — P — mm. — σ

SILT 2.8 % — P — mm. — Sk.

CLAY — % — DISPERSING AGENT — WEIGHT — gms./50 ml.

ANALYSIS BY — TEMP. — °C

BEAKER / BUCK + BEAKER

38 / 48.4464 / 105.8210 / 105.4093

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000			0						0.0	
SAND	2.000 / 1.000	-1		0						0.0	
	1.000 / .500	0		3						3.0	
	.500 / .250	1		53						52.6	
	.250 / .125	2		36						35.7	
	.125 / .062	3		8						7.9	
	< .062	4							.4799		
	> .062	4				104.9294			56.4830		
SILT	.062 TO .031	4	25 cm.	0 00							
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20

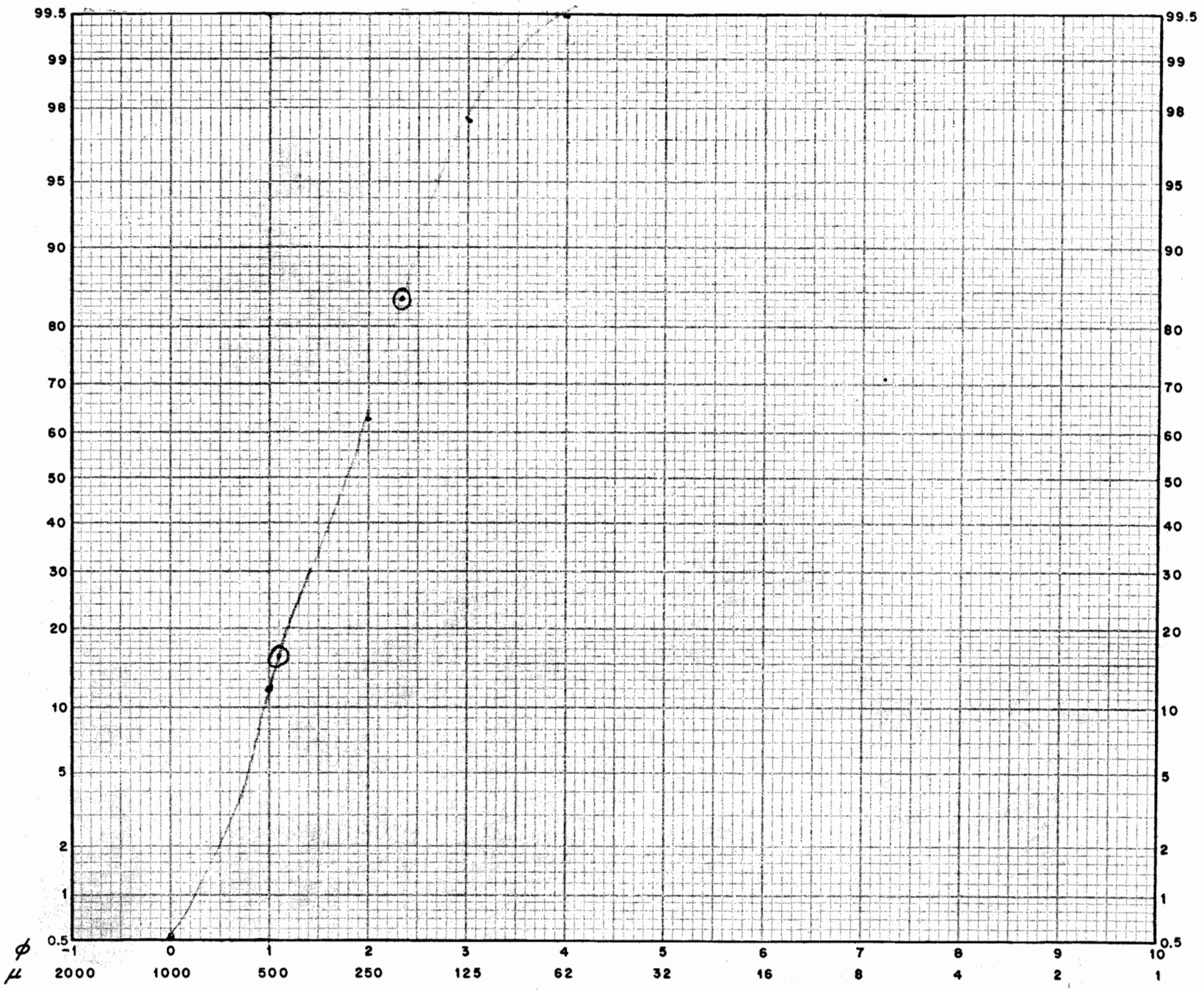
WT. COARSE

WT. FINE

WT. TOTAL SAMPLE 57.3746

carbonate .4117

54.9629



SAMPLE NO. _____

$M_\phi = \frac{2.3 + 1.1}{2} = \boxed{1.7}$

$\sigma_\phi = \frac{2.3 - 1.1}{2} = \boxed{.6}$

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 87/2 10

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 94.1 % — P ____ mm. — σ ____

SILT 5.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

37 / 49.4755 / 128.0345 / 127.4170

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000									0.0	
SAND	2.000 1.000	-1		0						0.0	
	1.000 .500	0		6						5.6	5.6
	.500 .250	1		26						24.5	30.1
	.250 .125	2		42						39.5	69.6
	.125 .062	3		26						24.5	94.1
	< .062	4							4.5766		
	> .062	4	25 cm.	0 00		122.8404	73.3649				
SILT	.062 TO .031	5	10 cm.	0 02					27.2	1.6	95.7
	.031 TO .016	6	10 cm.	0 08					19.7	1.2	96.9
	.016 TO .008	7	10 cm.	0 32					13.7	0.8	97.7
	.008 TO .004	8	10 cm.	2 08					12.9	0.8	98.5
CLAY	.004 TO .002	9	7 cm.	5 58					5.5	.3	98.8
	.002 TO .001	10	7 cm.	24 00					14.5	.8	99.6
	< .001								6.1	.4	100.0

WEIGHT DISPERSING AGENT x 20 ____

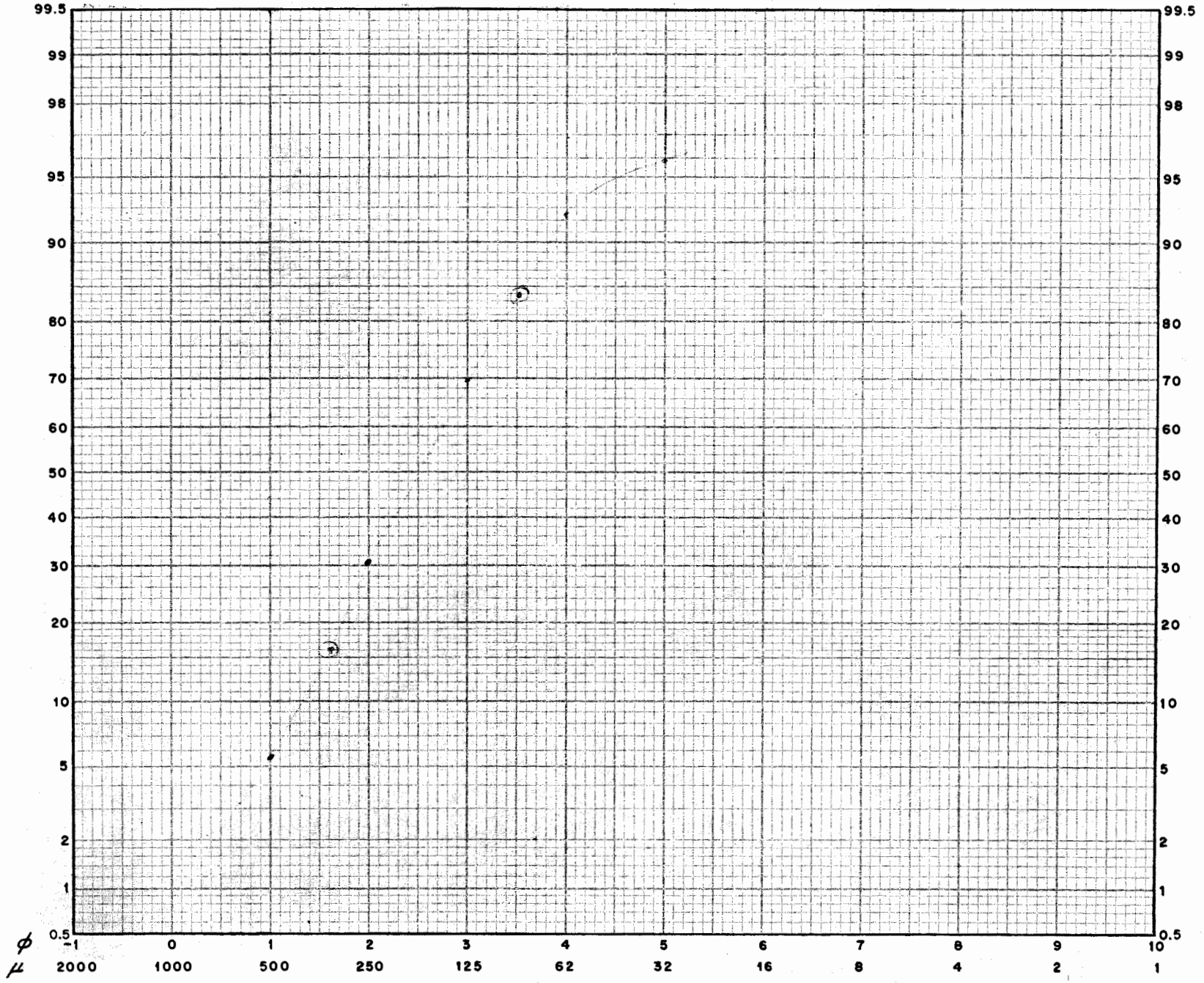
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 78.5590

.6175

77.9415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SAMPLE NO. _____

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 87/2 - 185

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 75.2 % — P ____ mm. — σ ____

SILT & 24.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

129 / 50.2042 / 125.2226 / 124.8030

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1 / 0									
	1.000 / .500	0 / 1		1						.8	.8
	.500 / .250	1 / 2		10						7.5	8.3
	.250 / .125	2 / 3		39						29.3	37.6
	.125 / .062	3 / 4		50						37.6	75.2
	< .062	4							18.528		
	> .062	4	25 cm.	0 00		106.2750	56.0708				
SILT	.062 TO .031	5	10 cm.	0 02					37.3	9.3	84.5
	.031 TO .016	6	10 cm.	0 08					27.9	6.9	91.4
	.016 TO .008	7	10 cm.	0 32					13.5	3.3	94.7
	.008 TO .004	8	10 cm.	2 08					9.3	2.3	97.0
CLAY	.004 TO .002	9	7 cm.	5 58					5.9	1.5	98.5
	.002 TO .001	10	7 cm.	24 00					4.1	1.0	99.5
	< .001								2.3	0.6	100.1

WEIGHT DISPERSING AGENT x 20 ____

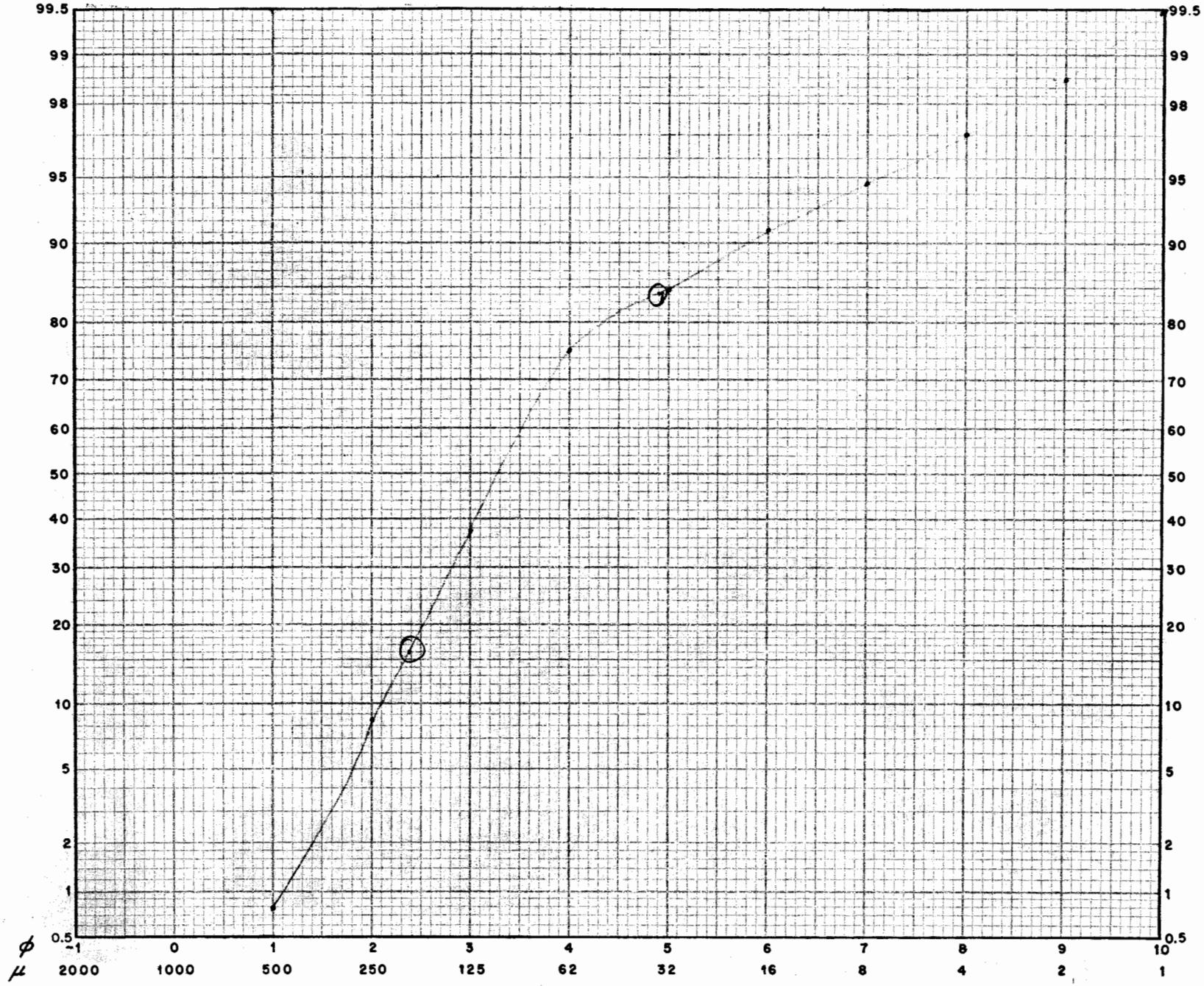
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 75.0184

.4196

74.5988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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 91/2 20

GRAVEL 38.2 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 60.0 % — P ____ mm. — σ ____

SILT 1.8 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

22 / 49.0949 / 155.3519 / 154.8081

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								40.3969	38.2	
SAND	2.000 / 1.000	-1 / 0		14		112.4990			6 3.4011	8.4	
	1.000 / .500	0 / 1		46						27.6	
	.500 / .250	1 / 2		30						18.0	
	.250 / .125	2 / 3		9						5.4	
	.125 / .062	3 / 4		1						1.6	
	< .062	4							1.9122	1.8	
	> .062	4				152.8839			103.8010		
SILT	.062 TO .031	4	25 cm.	0 00							
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

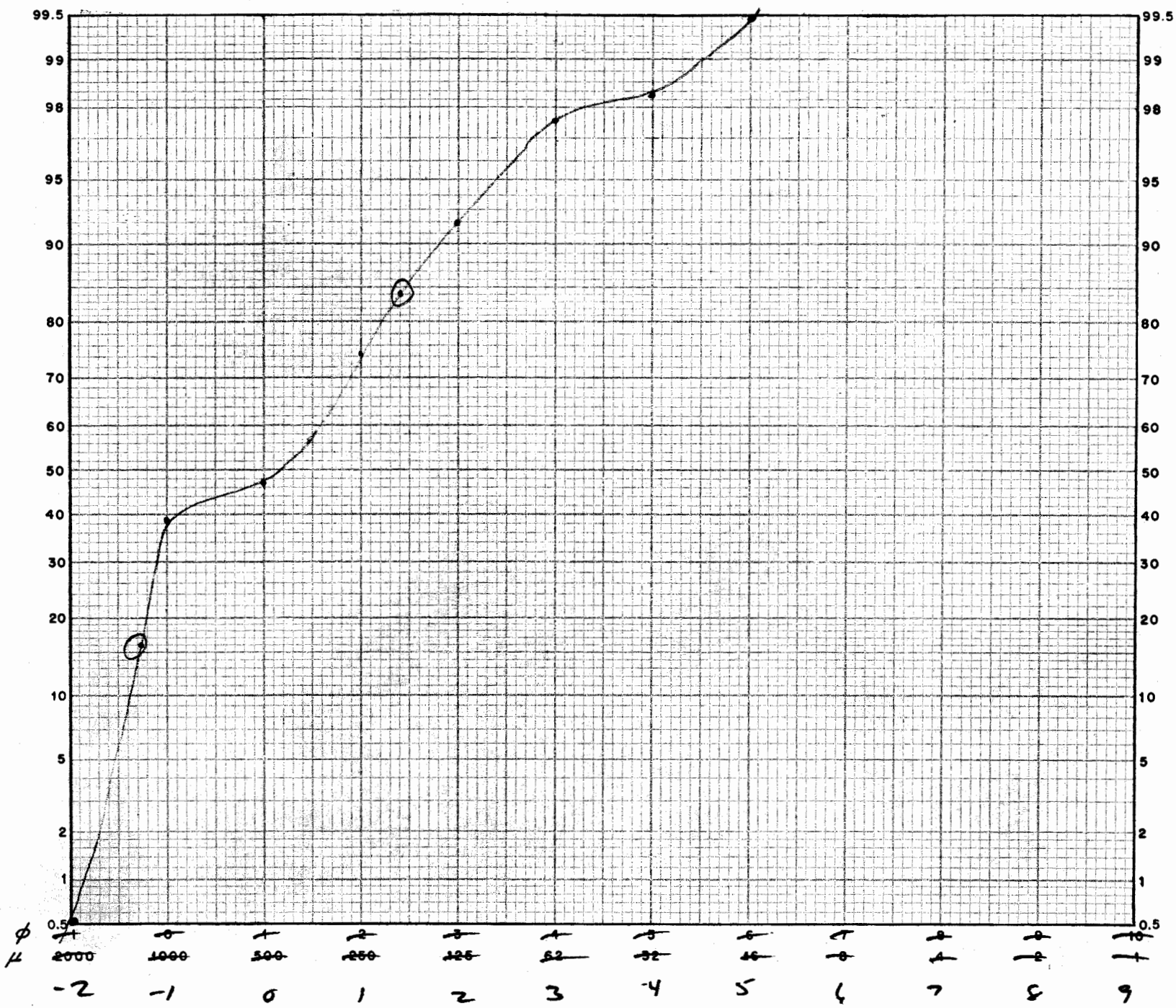
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 106.2570

.5438

105.7132



SAMPLE NO.

$M_\phi = \frac{2.4 - 1.3}{2} = \frac{1.1}{2} = .55$

$\sigma_\phi = \frac{2.4 + 1.3}{2} = \frac{3.7}{2} = \boxed{1.85}$

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 91/2 85

GRAVEL 4.1 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 92.7 % — P ____ mm. — σ ____

SILT 3.2 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

75 / BEAKER 48.8961 / BULK + BEAKER 124.1970 / 123.6662

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 × WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								3.0648	4.1	
SAND	2.000 / 1.000	−1 / 0		1		118.2076			69.3115	.9	5.0
	1.000 / .500	0 / 1		49						45.4	50.4
	.500 / .250	1 / 2		42						38.9	89.3
	.250 / .125	2 / 3		8						7.4	96.7
	.125 / .062	3 / 4		0						0	
	< .062	4							2.3938		
	> .062	4				121.2724			72.3763		
SILT	.062 TO .031	4	25 cm.	0 00							99.9
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT × 20 ____

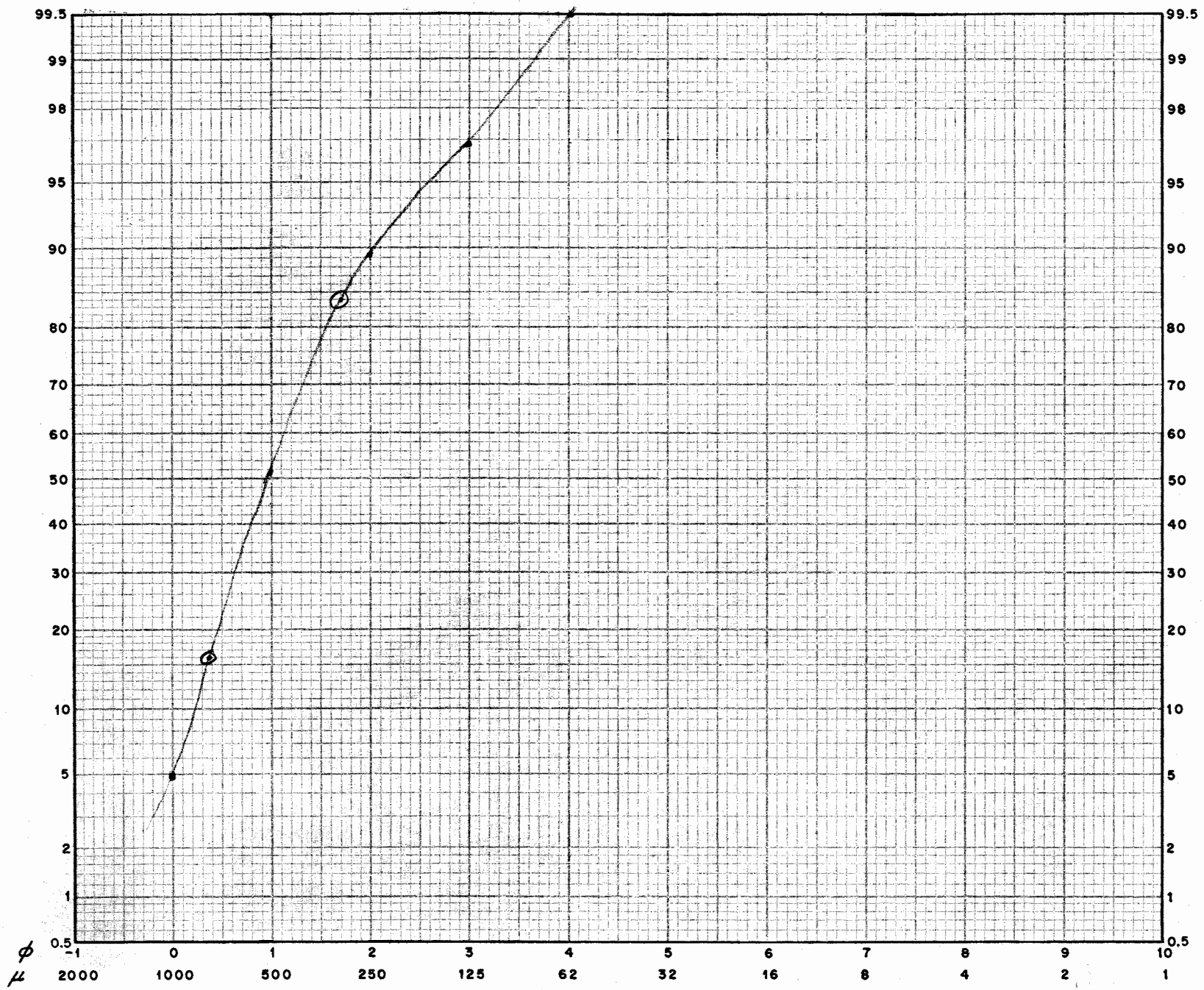
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 75.3009

carbonate .5308

74.7701



SAMPLE NO. _____

$M_\phi = \frac{.3 + 1.7}{2} = \frac{2.0}{2} = \boxed{1.0}$

$\sigma_\phi = \frac{1.7 - .3}{2} = \frac{1.4}{2} = \boxed{.7}$

LOCATION OF SAMPLE C C BAY — SAMPLE NO. 91-2-135

GRAVEL 6.9 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 45.2 % — P ____ mm. — σ ____

SILT 47.9 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

47 / 49.2692 / 96.0677 / 94.7151

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					69.8292				6.9	6.9
SAND	2.000 / 1.000	-1		3						1.3	8.2
	1.000 / .500	0		30						13.6	21.8
	.500 / .250	1		44						19.9	41.7
	.250 / .125	2		10						4.5	46.2
	.125 / .062	3		13						5.9	52.1
	< .062	4							21.7561		
	> .062					72.9589	23.6897				
SILT	.062 TO .031	4	25 cm.	0 00					11.5	5.5	57.6
	.031 TO .016	5	10 cm.	0 02					14.1	6.7	64.3
	.016 TO .008	6	10 cm.	0 08					14.6	7.0	71.3
	.008 TO .004	7	10 cm.	0 32					16.9	8.1	79.4
CLAY	.004 TO .002	8	10 cm.	2 08					16.2	7.8	87.2
	.002 TO .001	9	7 cm.	5 58					13.8	6.6	93.8
	< .001	10	7 cm.	24 00					12.7	6.1	99.9

WEIGHT DISPERSING AGENT x 20 ____

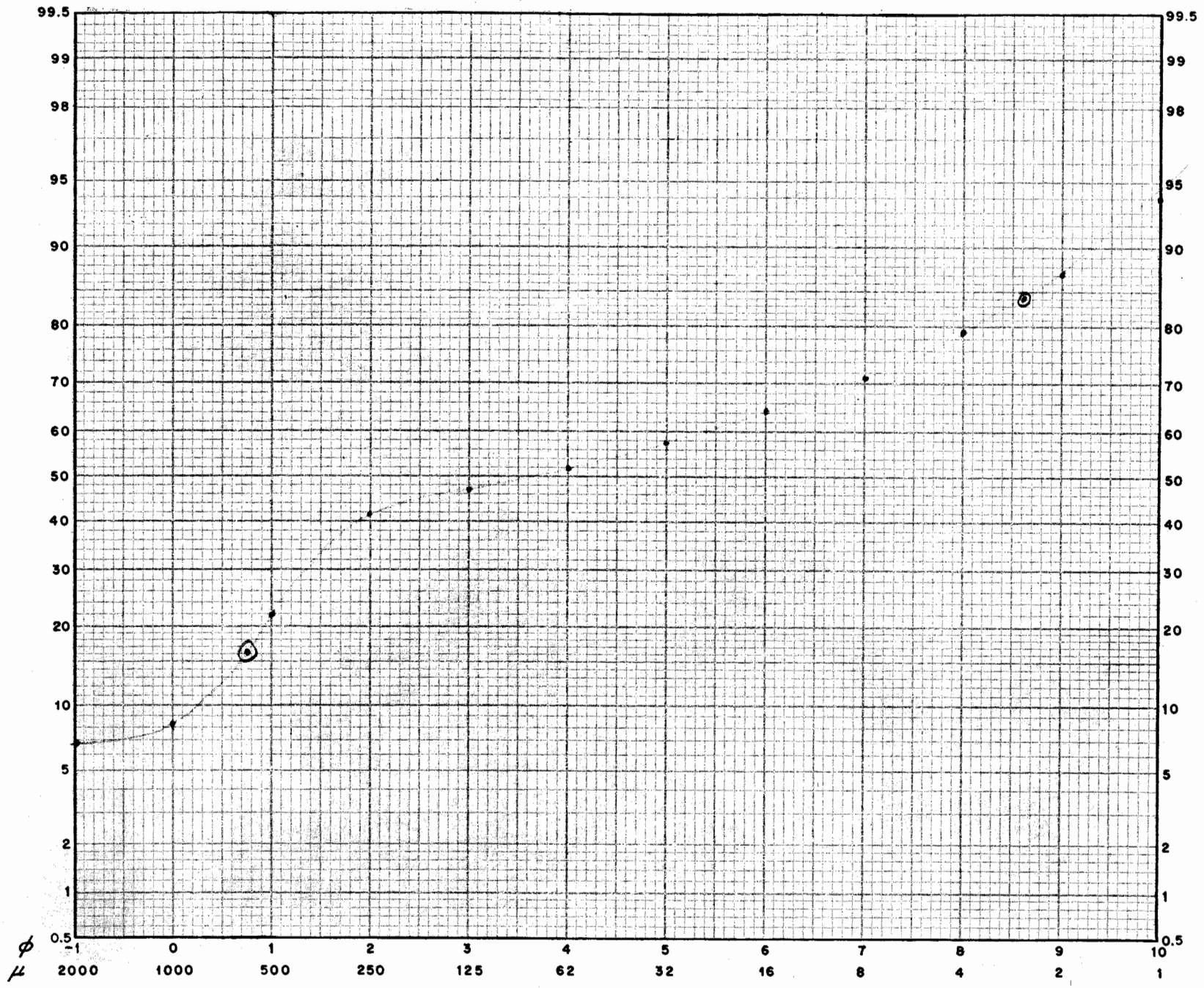
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 46.7985

1.3527

45.4458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SAMPLE NO. _____

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 91-Z 165

GRAVEL 9.9 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 69.2 % — P ____ mm. — σ ____

SILT ⎫ 20.9 % — P ____ mm. — Sk. ____

CLAY ⎭ ____ % — DISPERSING AGENT — WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

55 / 48.5763 / 114.6915 / 114.1298

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					93.8900			6.4742	9.9	9.9
SAND	2.000 / 1.000	-1 / 0		8						5.5	15.4
	1.000 / .500	0 / 1		48						33.2	48.6
	.500 / .250	1 / 2		30						20.8	69.8
	.250 / .125	2 / 3		9						6.2	75.0
	.125 / .062	3 / 4		5						3.5	78.5
	< .062	4							13.7656		
	> .062	4				100.3642	51.7879				
SILT	.062 TO .031	4 / 5	25 cm.	0 00					18.1	3.8	82.3
	.031 TO .016	5 / 6	10 cm.	0 02					13.8	2.9	85.2
	.016 TO .008	6 / 7	10 cm.	0 08					13.1	2.7	87.9
	.008 TO .004	7 / 8	10 cm.	0 32					16.6	3.5	91.4
CLAY	.004 TO .002	8 / 9	10 cm.	2 08					18.2	3.8	95.2
	.002 TO .001	9 / 10	7 cm.	5 58					14.0	2.9	98.1
	< .001	10	7 cm.	24 00					6.6	1.4	99.5

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

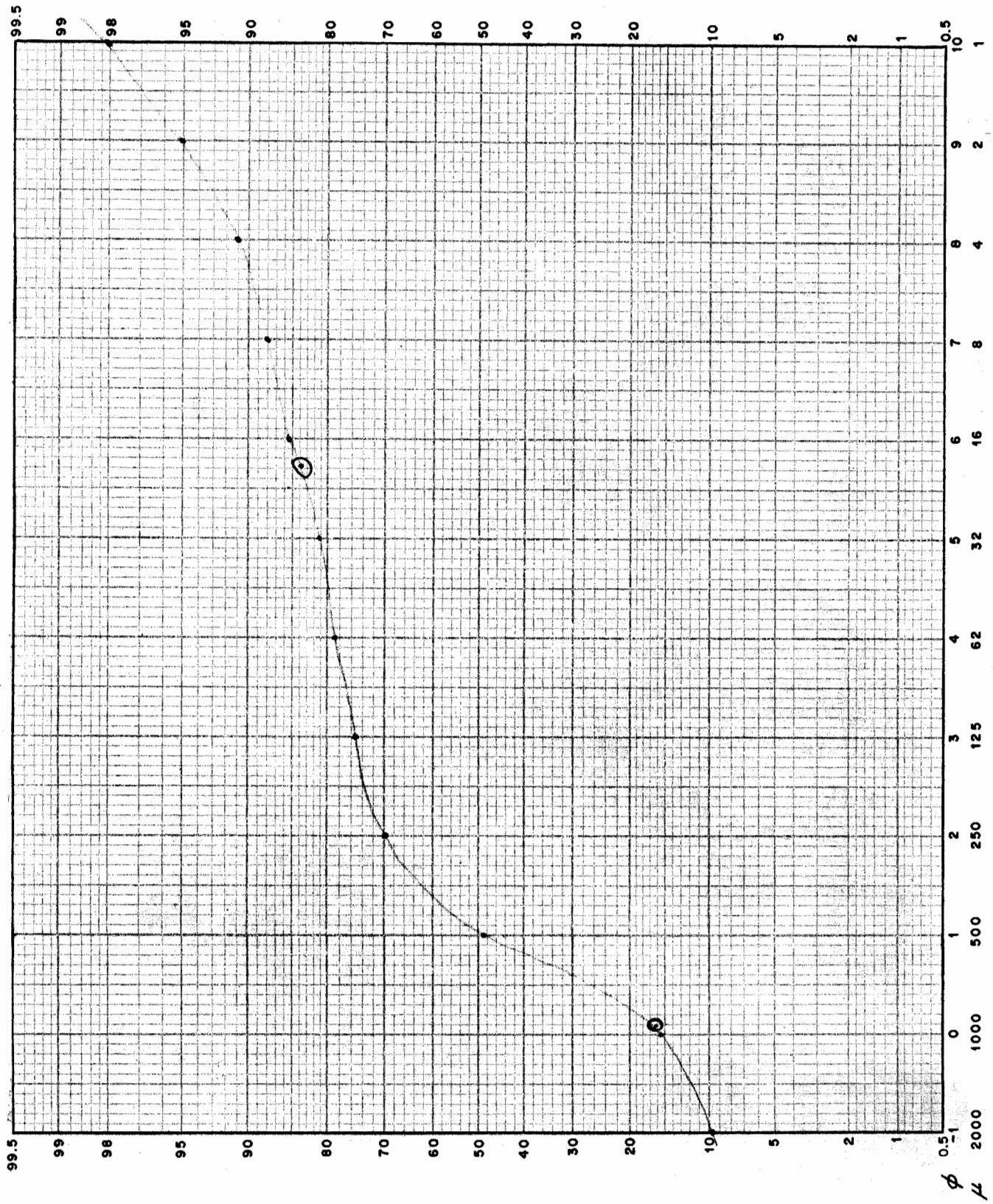
WT. FINE ____

WT. TOTAL SAMPLE 66.1152

1.5617

65.5535

SAMPLE NO._____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LOCATION OF SAMPLE CC Bay — SAMPLE NO. 91/1 B

GRAVEL 31.67 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 67.29 % — P ____ mm. — σ ____

SILT 1.04 % — P ____ mm. — Sk. ____

CLAY ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

428 / BEAKER 49.3511 / BULK+BEAKER 130.3618 / 130.2884

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %	
GRAVEL	2.000								25.6300		31.7	31.7
SAND	2.000 / 1.000	-1				103.8192			54.4681	10.5	7.1	38.8
	1.000 / .500	0								53.0	35.7	74.5
	.500 / .250	1								30.5	20.5	95.0
	.250 / .125	2								4.5	3.0	98.0
	.125 / .062	3								1.5	1.0	99.0
	< .062	4							.8392			
	> .062	4	25 cm.	0 00		129.4492			80.0981			
SILT	.062 TO .031	5	10 cm.	0 02							100.0	
	.031 TO .016	6	10 cm.	0 08								
	.016 TO .008	7	10 cm.	0 32								
	.008 TO .004	8	10 cm.	2 08								
CLAY	.004 TO .002	9	7 cm.	5 58								
	.002 TO .001	10	7 cm.	24 00								
	< .001											

WEIGHT DISPERSING AGENT x 20 ____

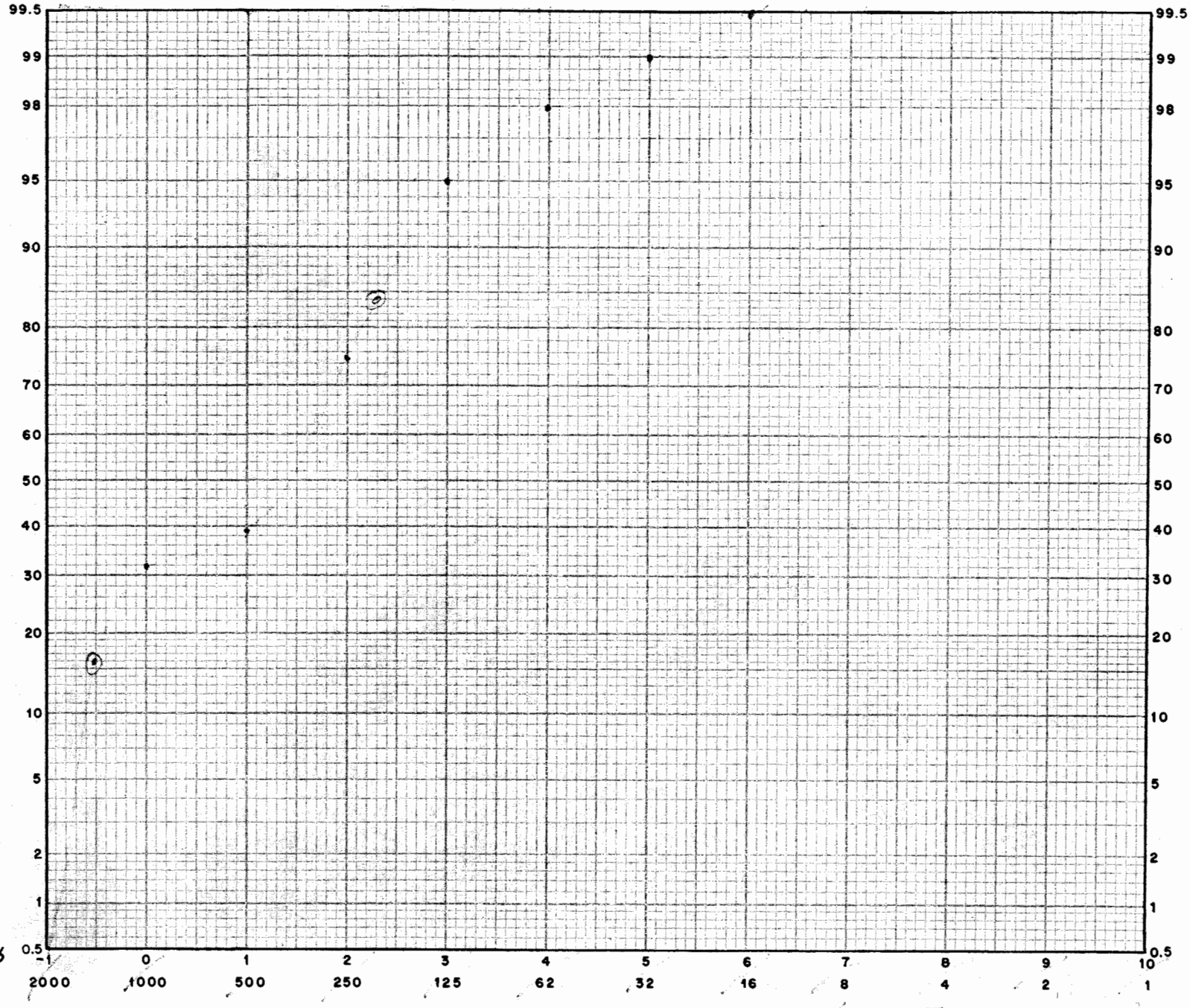
WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 81.0107

.0734

80.9373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SAMPLE NO.

LOCATION OF SAMPLE CC Bay — SAMPLE NO. 91/1 50

GRAVEL 56.97 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 40.46 % — P ____ mm. — σ ____

SILT 3 2.57 % — P ____ mm. — Sk. ____

CLAY 3 ____ % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

53 / BEAKER 48.5444 / BULK + BEAKER 130.4025 / 130.1823

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000								46.5079		56.9
SAND	2.000	-1				81.5782					
	1.000								33.0338	15.5	6.3
	1.000	0									
	.500									44.5	18.0
	.500	1									
	.250									11.0	4.5
	.250	2									
	.125									10.5	4.2
	.125	3									
	.062									5.0	2.0
	< .062	4							2.0962		
	> .062					128.0861			79.5417		
SILT	.062 TO .031	4	25 cm.	0 00							
	.031 TO .016	5	10 cm.	0 02							
	.016 TO .008	6	10 cm.	0 08							
	.008 TO .004	7	10 cm.	0 32							
CLAY	.004 TO .002	8	10 cm.	2 08							
	.002 TO .001	9	7 cm.	5 58							
	< .001	10	7 cm.	24 00							

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

WT. FINE ____

WT. TOTAL SAMPLE 81.8581

.2202

81.6379

SAMPLE NO._____

LOCATION OF SAMPLE CC BAY SAMPLE NO. 91-1 75

GRAVEL 9.6 % MEDIAN ____ mm. CLASSIFICATION ____

SAND 68.3 % P ____ mm. σ ____

SILT 22.1 % P ____ mm. Sk. ____

CLAY ____ % DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ TEMP. ____ °C

6 / 48.6402 / 153.2862 / 152.6400

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000					119.7531			9.9511	9.6	9.6
SAND	2.000 / 1.000	-1		2						1.4	11.0
	1.000 / .500	0		41						28.0	39.0
	.500 / .250	1		32						21.9	60.9
	.250 / .125	2		16						10.9	70.9
	.125 / .062	3		9						6.1	77.0
	< .062	4							22.9358		
	> .062					129.7042	81.0640				
SILT	.062 TO .031	4	25 cm.	0 00					37.3	8.2	85.2
	.031 TO .016	5	10 cm.	0 02					31.7	7.0	92.2
	.016 TO .008	6	10 cm.	0 08					22.4	4.9	97.1
	.008 TO .004	7	10 cm.	0 32					5.0	1.1	98.2
CLAY	.004 TO .002	8	10 cm.	2 08					2.4	0.5	98.7
	.002 TO .001	9	7 cm.	5 58					1.5	0.3	99.0
	< .001	10	7 cm.	24 00					0.0		

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

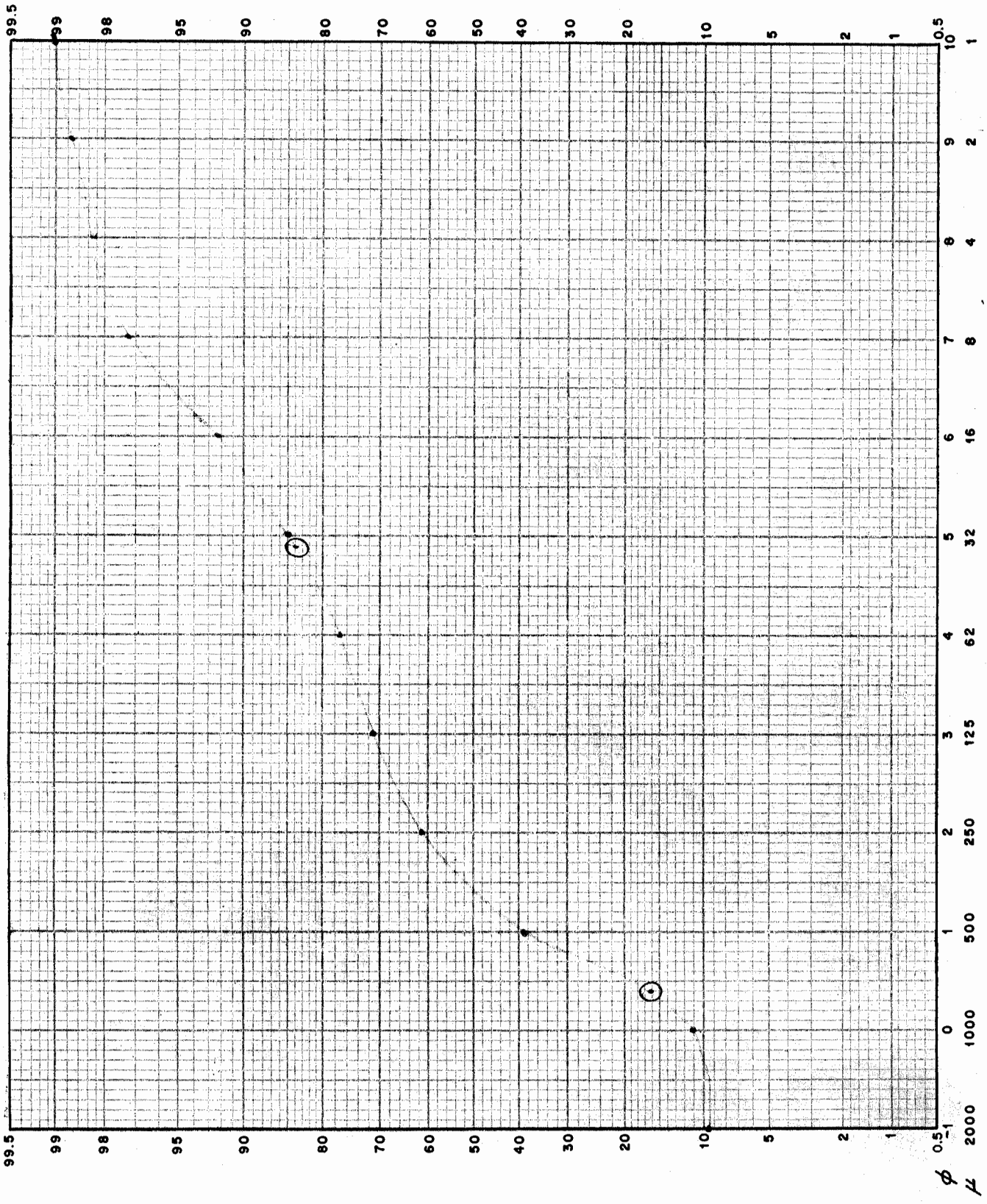
WT. FINE ____

WT. TOTAL SAMPLE 104.6460

.6462

103.9998

SAMPLE NO._____


99.5
99
98
95
90
80
70
60
50
40
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20
10
5
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1
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10
9
8
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6
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4
3
2
1
0
-1
1
2
4
8
16
32
62
125
250
500
1000
2000
φ
μ

LOCATION OF SAMPLE C C Bay — SAMPLE NO. 95A-1-10

GRAVEL 0.0 % — MEDIAN ____ mm. — CLASSIFICATION ____

SAND 61.8 % — P ____ mm. — σ ____

SILT } 38.2 % — P ____ mm. — Sk. ____

CLAY } % — DISPERSING AGENT WEIGHT ____ gms./50 ml.

ANALYSIS BY ____ — TEMP. ____ °C

117 / 49.7041 / 95.5579 / 94.7576

	DIAM. mm.	φ	TIME	RDG.	BKR. NO.	BKR. + SPL. / BKR. WT.	WT. SPLE.	20 x WT. SPLE.	WT. FRACT.	%	CUM. %
GRAVEL	2.000										
SAND	2.000 / 1.000	-1									
	1.000 / .500	0									
	.500 / .250	1		45.5						28.1	28.1
	.250 / .125	2		50.5						31.2	59.3
	.125 / .062	3		4.0						2.5	61.8
	< .062	4							17.1976		
	> .062	4	25 cm.	0 00		77.56			27.8559		
SILT	.062 TO .031	5	10 cm.	0 02					25.7	9.8	71.6
	.031 TO .016	6	10 cm.	0 08					14.4	5.5	77.1
	.016 TO .008	7	10 cm.	0 32					10.2	3.9	81.0
	.008 TO .004	8	10 cm.	2 08					14.0	5.3	86.3
CLAY	.004 TO .002	9	7 cm.	5 58					16.8	6.4	92.7
	.002 TO .001	10	7 cm.	24 00					11.9	4.5	97.2
	< .001								5.5	2.1	99.3

WEIGHT DISPERSING AGENT x 20 ____

WT. COARSE ____

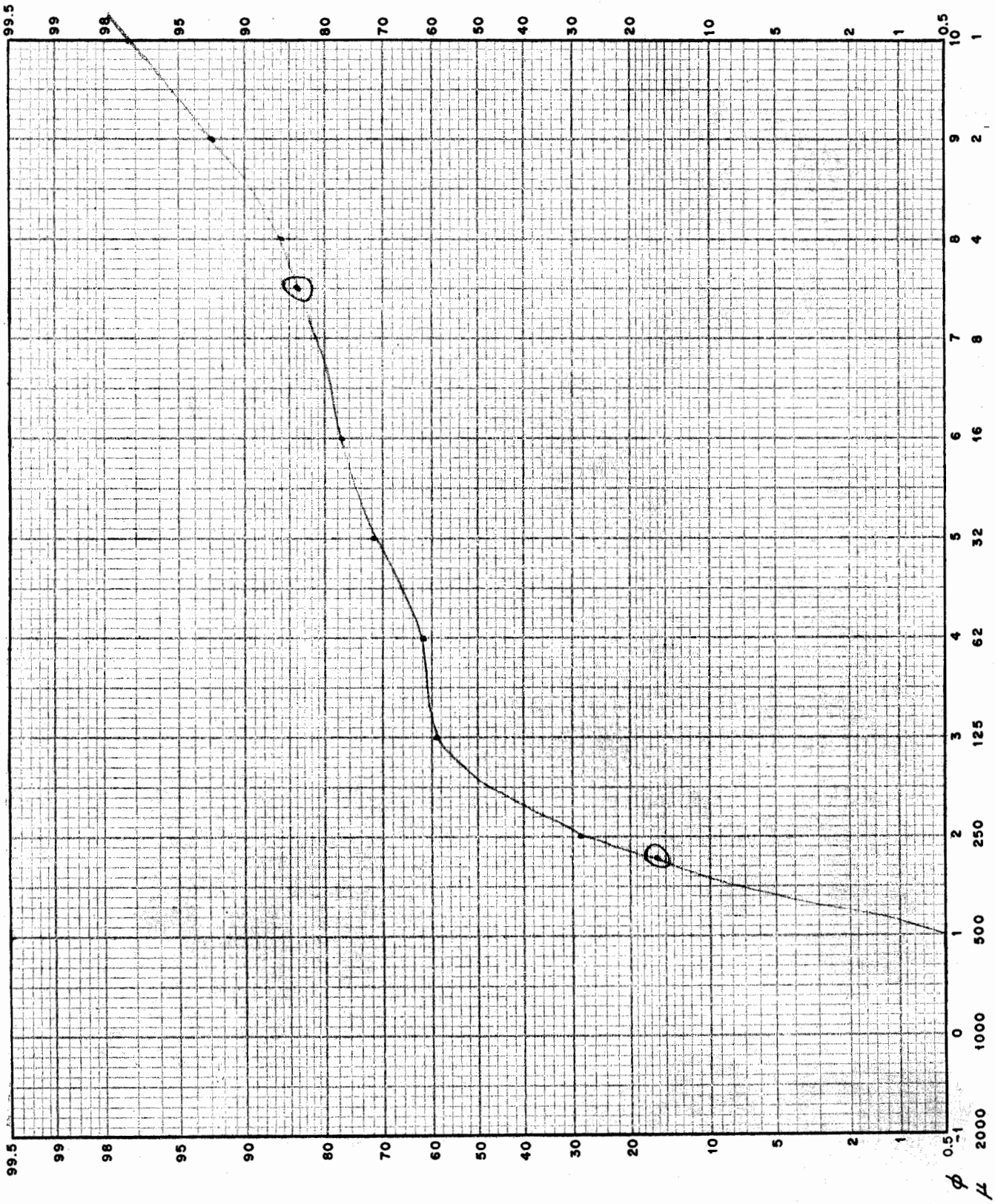
WT. FINE ____

WT. TOTAL SAMPLE 45.8538

.8003

45.0535

SAMPLE NO._____


99.5
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2
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0
-1
φ
16
32
62
125
250
500
1000
2000
μ