basal unit consists of a silty deposit which has a peak in *X* with concomitant decrease in organic matter and $CaCO_3$ content. At approximately 126 to 132 cm there is a change to more organic rich material which appears to have a greater amount of ostracises. A sharp drop in *X* occurs at this point.

A change to a smooth, structureless 10YR 3/2 clay occurs at 126 cm. At the base of this unit there is a slight increase in $CaCO_3$ content. organic matter decreases and there is a large peak in *X*. Capping this is 12 cm (74-90 cm) there is a change to ostracode rich material with a large peak in $CaCO_3$, and organic matter and an equally large drop in *X*.

The upper 90 cm of this core is made up of clayey sediments. In the lowest 10 cm of this unit there is a decrease in organic matter to 9% and organic matter to 10 % which remains at approximately these levels up the core. *X* increased markedly at this point with a slightly greater increases at 40 cm. The moisture content of the sediment in this core is notably greater for the more silty material than the clayey deposits although the bulk density of the latter is generally greater.

Lake Pátzcuaro 19 (Fig. 8.4)

LP19 was collected approximately 1 km north of the shore at Tzintzuntzan. A 2.24 m core was retrieved from 5 m of water. Silty, 10YR 3/2 material forms the basal unit. This has a very low $CaCO_3$ content, with approximately 12 to 22 % organic matter . Mean grain-size decreases up the unit from 12 ums to 8 ums. A small peak in *X* is noted between 125 and 132 cm. At the top of this unit is an 8 cm () ostracode rich deposit corresponded to a peak in $CaCO_3$ content and a decrease in organic matter and *X*.

A 60 cm bed of 10YR 3/2 clay overlies the ostracode rich sediment. *X* increase dramatically at the base of this unit while $CaCO_3$ decrease. The mean grain-size of this material is about 5 ums. organic matter increases slightly in the lower 10 cm of the unit to over 20 % before dropping to 13 % and remaining at about this level to the top of the unit.

Peaks in $CaCO_3$, organic matter and the mean grain-size occur between 124 and 140 cm where there is a layer of ostracode rich sediments. An abrupt decrease in *X* also occurs at this point.

Smooth, structureless 10YR 3/2 clay forms the upper unit of this core. This sediment has a low $CaCO_3$ content although this does increase slightly in the upper 30 cm of the unit. Apart from a small peak in organic matter at 68 cm this remains at around 10 to 12 % while the mean grain-size is 2 to 3 ums. This sediment has very high levels of *X* which show a gradual increase to the top of the core.

Lake Pátzcuaro 18 (Fig. 8.4)

LP18 was collected from 9.4 m of water about 3 km NW of LP19. The overall stratigraphy remains the same with the basal unit comprising of 10 cm (210-220 cm) of silty material which has a low *X*, and 11 % organic matter. $CaCO_3$ content decreases fr organic matter 20 % at the base of the core to 6 % at the top of the unit. This is overlain by 85 cm of 10YR 3/2 clay which exhibits a large peak in *X* and has about 12 % organic matter. $CaCO_3$ while low decrease between 210 to 180 from 6 to 2 % before rising to 9% at 160 cm. This drops to 2 % at 150 cm.

An abrupt change in sediment occurs at 125 cm where there is a 25 cm unit of silty, ostracode rich sediment which coincides with a large peak in $CaCO_3$ and organic matter and a dramatic decrease in *X*.

The upper part of the of the core is formed of 100 cm of clay, which changes in colour from 10YR 3/2 in the lower part of the unit to 7.5YR 3/4 dark brown in the upper part. $CaCO_3$ content decreases at the base of this unit to 11 % and remains constant until 60 cm when it drops to 3 %. A small peak in $CaCO_3$ occurs at 20 cm. The organic matter content of this sediment is approximately 11 %. The abrupt change in sediment type corresponds to an equally abrupt change in *X* this is very high in the bottom 10 cm of this clay but drops slightly before maintaining high *X* level to the top of the core.

Moisture content of the core varies, but in common with other cores the coarser

layers contain a greater amount of moisture and generally have a lower bulk density. It should also be noted that the moisture content of the lower clay unit is generally less than the upper unit.

Lake Pátzcuaro 16 (Fig. 8.4)

Lake Pátzcuaro 16 was collected from 8.6 m of water about 5 km west of LP16. A 1.66 m core was collected from this site. At the base of the core *X* and $CaCO_3$ content is low and organic matter high. organic matter decreases and *X* increases at 164 cm. The sediment at the base of the core had as slightly silty texture but rapidly changed to a more clayey 7.5YR 3/2 dark greyish brown sediment at 164 cm. A large increase in *X* corresponds to this sediment change while there in a drop in organic matter content. A small peak in $CaCO_3$ is seen at 148 cm while a decrease in organic matter is noted at 128 cm. The *X* of this unit decreases gradual from a high at 159 cm.

Between 101 and 115 cm there is a band of 2.5YR 2.5/4 dark reddish brown ostracode rich sediment. At this level peaks in $CaCO_3$ and organic matter are recorded and an abrupt decrease in *X* is seen. The moisture content of this unit is over 80% while bulk density is between 0.18 to 0.23.

The upper unit of this core is formed of 10YR 3/6 dark yellowish brown clayey sediment. This has a very low $CaCO_3$ content which decreases from 13 to 2 % between 101 and 80 cm and remains at this level. A slight decrease from 15 to 13 % organic matter is recorded up the profile. This unit corresponds with a large peak in *X*.

Lake Pátzcuaro 20 (Fig. 8.4)

The longest core collected 2.8 m was at LP20. This site located 33.5 km north of LP19 was taken from 3.75 m of water. Three units are recognized. The lowest consists of 120 cm of 2.5Yr 3/2 dark brownish grey clay. This is low in $CaCO_3$ with around 11% organic matter both remaining relatively constant throughout the unit. *X* is high, but fluctuated quite dramatically with numerous small peaks being observed. A thin band of

silty, sediment with ostracises and organic material present is found between 150 and 160 cm. At this point there is a peak in $CaCO_3$ content and a large drop in *X*.

The upper 150 cm of the core was made up of clayey sediment 10YR 3/2 to 2.5YR 3/2 dark brownish grey in colour. $CaCO_3$ content shows a small increase upto the column with a peak at 35 cm. The sediment contains about 10 to 12 % organic matter. As in the lower clay unit *X* is high but shows considerable fluctuations in intensity. This sediment contains about 65 % moisture and some of the highest bulk densities being 0.38 to 0.51. Although for the silty layer the sediment contains nearly 80 % water and has a bulk density of 0.24.

APPENDIX C DATA FROM LAKE SEDIMENT RECORD

L.P. Depth (cm)	CORE 1 Caco3 (%)
0.00	11.14
8.00	8.25
18.00	10.31
28.00	4.53
38.00	4.53
48.00	7.01
58.00	7.42
68.00	18.36
78.00	23.52
88.00	14.44
93.00	28.26
98.00	28.67
101.00	9.49
103.00	46.62
113.00	43.32
123.00	45.59
128.00	11.55
133.00	8.25
143.00	6.18
148.00	2.88
153.00	6.18
156.00	7.01

L.P. Depth (cm)	CORE 2 Caco3 (%)
0.00	9.96
8.00	5.57
18.00	4.38
28.00	9.96
38.00	9.16
48.00	10.75
58.00	9.16
68.00	8.96
78.00	6.77
88.00	10.75
98.00	22.31
100.00	17.13
103.00	27.88
108.00	6.37
118.00	5.48
128.00	0.39
133.00	0.00
143.00	0.39

L.P. Depth (cm)	CORE 3 Caco3 (%)
0.00	4.40
8.00	4.40
18.00	4.00
28.00	4.40
38.00	1.20
48.00	6.00
58.00	4.80
68.00	8.20
78.00	6.80
88.00	0.80
98.00	4.00
101.00	11.40
104.00	8.60
108.00	6.97
112.00	38.40
123.00	6.00
128.00	7.60
138.00	0.40
148.00	4.40

L.P. Depth (cm)	CORE 4 Caco3 (%)
0.00	6.03
8.00	10.10
18.00	1.80
28.00	1.50
38.00	1.50
48.00	6.40
58.00	1.13
68.00	10.10
73.00	11.69
78.00	19.81
88.00	6.41
93.00	12.83
95.00	21.13
98.00	22.64
102.00	44.15
107.00	18.49
118.00	3.77
125.00	0.37
133.00	3.77
143.00	4.15
152.00	3.58

L.P. Depth (cm)	CORE 5 Caco3 (%)
0.00	5.20
8.00	5.20
18.00	1.20
28.00	0.40
33.00	0.00
43.00	3.20
53.00	4.80
63.00	4.00
73.00	4.00
83.00	0.00
93.00	7.20
103.00	4.80
113.00	14.00
123.00	0.80
133.00	16.00
143.00	24.00
150.00	5.40
158.00	7.40
164.00	4.00

L.P. Depth (cm)	CORE 6 Caco3 (%)	L.P. Depth (cm)	CORE 7 Caco3 (%)	L.P. Depth (cm)	CORE 8 Caco3 (%)	L.P. Depth (cm)	CORE 9 Caco3 (%)	L.P. Depth (cm)
0.00	8.60	0.00	7.01	4.00	8.80	0.00	4.53	3.00
8.00	6.70	8.00	6.81	13.00	8.80	8.00	4.53	13.00
18.00	13.10	13.00	4.81	23.00	6.00	18.00	2.06	23.00
23.00	11.98	28.00	5.21	33.00	10.60	28.00	3.30	33.00
33.00	10.48	38.00	2.80	43.00	7.60	38.00	5.36	43.00
43.00	1.31	48.00	6.41	53.00	8.60	48.00	0.82	53.00
50.00	17.97	58.00	5.21	58.00	20.40	55.00	15.26	68.00
58.00	12.73	68.00	12.43	69.00	6.40	58.00	16.91	73.00
64.00	17.41	78.00	14.03	78.00	6.00	68.00	12.45	78.00
68.00	19.10	83.00	6.01	89.00	5.20	78.00	7.40	88.00
73.00	12.35	93.00	3.20	98.00	4.80	88.00	4.12	98.00
83.00	9.55	103.00	0.00	108.00	11.60	98.00	0.41	108.00
87.00	23.59	113.00	1.77	118.00	20.60	108.00	4.53	118.00
88.00	31.45	123.00	4.41	121.00	40.40	118.00	4.12	128.00
93.00	22.84	133.00	1.80	123.00	30.00	128.00	3.30	138.00
98.00	15.75	143.00	2.20	124.00	6.00	138.00	1.23	148.00
100.00	19.47	153.00	2.60	128.00	6.80	148.00	3.09	158.00
103.00	19.28	163.00	3.00	138.00	6.40	153.00	17.70	168.00
113.00	14.60	173.00	4.81	148.00	4.40	154.00	14.44	178.00
120.00	8.80	183.00	1.00	156.00	8.00	163.00	5.77	188.00
128.00	9.17	193.00	5.21			173.00	2.47	
133.00	7.11	198.00	9.62			183.00	1.44	
143.00	9.17					193.00	0.40	
148.00	2.99					199.00	4.53	
152.00	8.61							

CORE 10 Caco3 (%)	L.P. Depth (cm)	CORE 11 Caco3 (%)	L.P. Depth (cm)	CORE 12 Caco3 (%)	L.P. Depth (cm)	CORE 13 Caco3 (%)	L.P. Depth (cm)	CORE 14 Caco3 (%)
6.40	0.00	12.40	8.00	14.80	0.00	2.47	3.00	8.07
8.40	8.00	13.20	18.00	13.00	37.00	4.53	13.00	7.33
8.40	18.00	8.00	28.00	13.20	48.00	4.95	23.00	7.70
5.20	28.00	9.60	38.00	14.00	58.00	5.77	33.00	8.07
2.80	38.00	8.00	43.00	12.80	63.00	3.30	43.00	8.07
6.00	48.00	9.20	58.00	17.40	73.00	1.23	53.00	8.44
2.00	58.00	8.00	68.00	16.80	85.00	2.47	63.00	9.17
14.40	67.00	4.00	78.00	40.40	93.00	6.18	73.00	18.34
12.60	68.00	7.20	83.00	36.00	103.00	2.06	78.00	27.52
5.40	73.00	7.60	93.00	33.20	113.00	4.12	88.00	8.07
0.00	83.00	4.40	103.00	16.40	128.00	12.79	98.00	11.74
4.00	93.00	11.00	108.00	13.20	133.00	20.63	103.00	13.94
2.00	103.00	12.40	110.00	32.00	138.00	21.45	108.00	12.11
0.00	113.00	4.80	123.00	7.40	143.00	20.63	113.00	9.54
0.00	122.00	6.00	133.00	5.80	148.00	14.44	118.00	7.52
0.80	133.00	59.60	138.00	2.80	160.00	4.53	123.00	10.64
0.00	138.00	32.00	142.00	11.60	168.00	1.23		
2.00	143.00	35.60			178.00	0.00		
1.60	152.00	11.20			188.00	0.00		
0.00	160.00	8.40			198.00	1.23		
	166.00	28.40			208.00	0.00		
	170.00	27.60			218.00	0.00		
	176.00	11.20						
	182.00	0.80						
	186.00	5.20						

L.P. Depth (cm)	CORE 15 Caco3 (%)
0.00	14.00
8.00	5.75
18.00	14.76
28.00	14.17
38.00	18.22
48.00	18.79
58.00	7.67
68.00	13.61
78.00	14.38
83.00	31.64
88.00	26.66
98.00	13.81
108.00	15.53
118.00	9.59
128.00	5.05
138.00	9.91
148.00	4.86
158.00	10.69
168.00	6.22
178.00	10.10
183.00	10.69

L.P. Depth (cm)	CORE 16 Caco3 (%)
13.00	1.70
38.00	0.85
48.00	2.76
58.00	1.70
68.00	3.19
78.00	2.97
88.00	9.39
98.00	13.61
108.00	26.80
118.00	11.06
127.00	11.90
137.00	5.50
147.00	14.80
157.00	3.60
167.00	3.40

L.P. Depth (cm)	CORE 17 Caco3 (%)
0.00	2.80
20.00	5.20
30.00	6.40
43.00	3.60
53.00	1.20
63.00	2.20
73.00	5.60
83.00	2.80
93.00	8.80
95.00	6.80
98.00	8.00
103.00	11.20
113.00	22.00
123.00	4.40
133.00	5.80
143.00	3.60
153.00	2.80
163.00	6.00
168.00	8.00
169.00	17.25
183.00	15.04
193.00	3.60
203.00	6.41
213.00	4.01
223.00	2.80
228.00	8.82

L.P. Depth (cm)	CORE 18 Caco3 (%)	L.P. Depth (cm)
0.00	16.33	0.00
8.00	7.77	13.00
18.00	20.22	23.00
28.00	11.27	33.00
38.00	5.44	43.00
48.00	2.72	53.00
58.00	12.44	63.00
68.00	12.83	73.00
78.00	13.99	83.00
88.00	10.88	93.00
98.00	11.66	108.00
103.00	21.39	118.00
108.00	20.60	128.00
113.00	26.83	138.00
118.00	30.71	144.00
126.00	0.00	154.00
138.00	202.00	163.00
148.00	2.30	178.00
158.00	9.60	188.00
168.00	6.53	198.00
178.00	2.69	208.00
188.00	4.80	215.00
198.00	6.92	223.00
208.00	5.76	239.00
218.00	17.30	

CORE 19 Caco3 (%)	L.P. Depth (cm)	CORE 20 Caco3 (%)
9.70	3.00	7.09
1.70	13.00	6.30
4.20	23.00	3.94
6.40	33.00	13.59
0.40	43.00	3.94
2.50	53.00	4.34
2.10	63.00	5.91
2.10	73.00	4.13
0.00	83.00	5.12
0.40	93.00	4.72
3.40	103.00	6.50
3.60	113.00	4.13
1.20	123.00	1.97
2.90	133.00	2.36
27.20	143.00	3.54
9.70	148.00	14.18
4.00	153.00	23.83
7.40	158.00	8.07
2.50	168.00	5.31
1.20	178.00	2.36
2.10	188.00	5.12
22.10	198.00	4.72
1.20	208.00	7.28
1.20	218.00	6.10
	228.00	6.10
	238.00	7.09
	248.00	4.72
	258.00	5.51
	268.00	5.91
	278.00	3.54

.	.LP!!				LP2				LP3				LP4		
Depth	L.O.I	inorganic	X	Depth	L.O.I.	inorganic	X	Depth	L.O.I.	inorganic	X	Depth	L.O.I.	inorganic	X
0	21.99	78.01	526	1.00	17.48	82.52	445	0.00	16.81	83.19	498	0.00	20.42	79.58	548
3	10.31	89.69	534	3.00	17.69	82.31	460	4.00	16.92	83.08	511	4.00	18.30	81.70	518
8	10.55	89.45	551	8.00	18.12	81.88	381	8.00	19.22	80.78	444	8.00	17.21	82.79	565
13	10.85	89.15	561	13.00	11.27	88.73	561	13.00	20.30	79.70	391	13.00	17.00	83.00	542
18	10.49	89.51	469	18.00	9.96	90.04	584	18.00	21.09	78.91	364	18.00	15.96	84.04	643
23	12.91	87.09	605	23.00	11.18	88.82	549	23.00	15.47	84.53	564	24.00	16.62	83.38	652
28	13.34	86.66	522	28.00	10.80	89.20	541	28.00	15.05	84.95	552	28.00	14.89	85.11	665
33	13.12	86.88	452.00	33.00	10.71	89.29	533	33.00	11.85	88.15	554	33.00	13.98	86.02	539
38	12.55	87.45	492	38.00	9.83	90.17	485	38.00	14.17	85.83	616	38.00	14.09	85.91	535
43	12.51	87.49	468	43.00	11.87	88.13	478	43.00	14.22	85.78	527	44.00	16.74	83.26	419
48	12.53	87.47	455	48.00	11.65	88.35	547	48.00	16.64	83.36	467	48.00	15.82	84.18	455
53	16.38	83.62	357	53.00	12.70	87.30	574	53.00	15.44	84.56	490	53.00	16.82	83.18	437
58	25.01	74.99	83	58.00	12.02	87.98	430	58.00	14.87	85.13	476	58.00	20.77	79.23	394
63	24.90	75.10	70	63.00	11.64	88.36	559	63.00	16.86	83.14	482	63.00	25.87	74.13	200
68	17.45	82.55	126	68.00	12.55	87.45	465	68.00	15.48	84.52	496	68.00	24.16	75.84	210
73	12.88	87.12	279	73.00	14.07	85.93	328	73.00	16.35	83.65	456	73.00	21.03	78.97	125
78	24.75	75.25	87	78.00	21.91	78.09	171	78.00	20.76	79.24	468	78.00	17.58	82.42	388
83	29.11	70.89	30	83.00	32.64	67.36	55	83.00	32.36	67.64	184	83.00	15.80	84.20	433
88	15.66	84.34	43	88.00	18.79	81.21	37	88.00	15.80	84.20	140	88.00	14.57	85.43	404
93	13.98	86.02	78	93.00	16.44	83.56	42	93.00	48.72	51.28	23	93.00	18.55	81.45	361
98	21.94	78.06	26	98.00	14.66	85.34	56	98.00	48.35	51.65	12.5	95.00	28.39	71.61	107
101	12.23	87.77	133	100.00	12.93	87.07	119	101.00	20.18	79.82	108	98.00	13.12	86.88	306
103	15.50	84.50	6	103.00	25.85	74.15	6.8	104.00	15.82	84.18	247	102.00	21.19	78.81	51
108	20.83	79.17	4	104.00	37.61	62.39	8.5	108.00	18.01	81.99	278	104.00	24.50	75.50	22
113	25.09	74.91	1.5	108.00	29.74	70.26	36	112.00	19.49	80.51	31	107.00	23.22	76.78	38
118	35.21	64.79	5.1	113.00	26.49	73.51	23	115.00	37.35	62.65	7.7	113.00	24.28	75.72	42
123	36.55	63.45	9.8	118.00	28.14	71.86	30	118.00	15.53	84.47	322	118.00	23.59	76.41	65
128	35.15	64.85	8.1	123.00	20.54	79.46	72	123.00	19.16	80.84	399	123.00	20.97	79.03	56
133	30.30	69.70	8.6	128.00	30.40	69.60	47	128.00	26.28	73.72	143	125.00	14.43	85.57	12
138	31.93	68.07	10.1	133.00	20.83	79.17	104	133.00	32.38	67.62	10.5	128.00	15.17	84.83	5.22
143	34.03	65.97	12.6	138.00	21.18	78.82	30	138.00	35.33	64.67	9.7	133.00	16.87	83.13	3.6
148	26.54	73.46	17.11	143.00	22.86	77.14	38	143.00	29.83	70.17	19	138.00	17.45	82.55	2.4
153	22.69	77.31	105	278.00				149.00	29.77	70.23	13	143.00	18.35	81.65	3
158	26.98	73.02	38.65					278.00				148.00	17.95	82.05	4.7
278.00												152.00	19.31	80.69	4.9
												154.00	21.38	78.62	6.5
												278.00			

	LP5				LP6		X		LP7				LP8		
Depth	L.O.I	inorganic	X	Depth	L.O.I.	inorganic		Depth	L.O.I.	inorganic	X	Depth	L.O.I.	inorganic	X
0.00	20.32	79.68	590	0	15.66	84.34	656	1.00	11.83	88.17	645	4.00	8.49	91.51	499
3.00	20.26	79.74	582	3	13.48	86.52	654	3.00	11.20	88.80	600	8.00	8.84	91.16	524
8.00	18.91	81.09	615	8	14.81	85.19	655	8.00	11.86	88.14	566	13.00	9.42	90.58	544
13.00	17.03	82.97	613	13	13.85	86.15	612	13.00	12.55	87.45	557	18.00	9.55	90.45	579
18.00	16.44	83.56	588	18	19.67	80.33	505	28.00	12.49	87.51	574	23.00	10.58	89.42	594
23.00	15.47	84.53	546	23	15.38	84.62	507	33.00	11.81	88.19	516	28.00	10.03	89.97	584
28.00	14.97	85.03	551	38	18.04	81.96	495	38.00	11.19	88.81	493	33.00	9.85	90.15	556
33.00	14.01	85.99	513	43	16.64	83.36	489	43.00	12.45	87.55	192	38.00	10.05	89.95	583
43.00	15.66	84.34	517	48	16.19	83.81	434	48.00	14.04	85.96	476	43.00	12.60	87.40	369
48.00	17.22	82.78	513	50	31.69	68.31	445	53.00	14.73	85.27	471	48.00	14.41	85.59	339
53.00	15.97	84.03	492	53	31.82	68.18	122	58.00	15.29	84.71	457	53.00	15.48	84.52	306
58.00	21.11	78.89	493	58	29.75	70.25	74	63.00	13.84	86.16	432	58.00	20.80	79.20	129
63.00	15.66	84.34	464	63	18.61	81.39	74	68.00	27.04	72.96	92	63.00	8.99	91.01	575
68.00	16.06	83.94	471	64	19.75	80.25	399	74.00	26.34	73.66	91	69.00	9.59	90.41	568
73.00	17.39	82.61	532	68	16.67	83.33	507	78.00	22.75	77.25	78	73.00	9.89	90.11	599
78.00	17.37	82.63	499	73	15.11	84.89	86	83.00	14.36	85.64	417	78.00	17.35	82.65	527
83.00	17.49	82.51	431	78	12.83	87.17	594	88.00	13.10	86.90	571	83.00	9.65	90.35	507
88.00	19.16	80.84	367	83	13.67	86.33	623	93.00	12.81	87.19	623	89.00	11.20	88.80	532
93.00	22.67	77.33	285	87	11.99	88.01	529	98.00	13.25	86.75	626	93.00	11.16	88.84	498
98.00	24.22	75.78	248	88	19.66	80.34	304	103.00	12.72	87.28	623	98.00	11.35	88.65	493
103.00	19.58	80.42	359	92	16.34	83.66	86	108.00	12.52	87.48	606	103.00	12.99	87.01	521
113.00	15.31	84.69	357	93	25.22	74.78	152	113.00	12.03	87.97	615	108.00	12.12	87.88	528
118.00	13.83	86.17	581	98	19.49	80.51	97	118.00	11.81	88.19	587	113.00	12.15	87.85	535
123.00	15.52	84.48	508	99	7.46	92.54	231	123.00	11.53	88.47	615	118.00	12.59	87.41	301
128.00	17.16	82.84	602	103	22.86	77.14	174	128.00	11.61	88.39	577	120.00	23.15	76.85	51
133.00	15.84	84.16	288	108	38.59	61.41	32	133.00	11.49	88.51	595	121.00	13.01	86.99	95
134.00	17.50	82.50	95	113	33.78	66.22	103	138.00	11.78	88.22	583	122.00	12.55	87.45	172
138.00	18.46	81.54	23	118	24.17	75.83	33	143.00	11.76	88.24	589	123.00	5.67	94.33	329
143.00	24.96	75.04	110	120	4.19	95.81	30	148.00	11.66	88.34	598	124.00	10.37	89.63	211
148.00	25.91	74.09	97	123	5.63	94.37	235	153.00	11.96	88.04	565	128.00	13.91	86.09	226
150.00	18.02	81.98	340	128	5.67	94.33	188	158.00	12.53	87.47	561	133.00	7.88	92.12	57
153.00	24.01	75.99	100	131	6.36	93.64	180	159.00	11.97	88.03	538	138.00	29.10	70.90	209
158.00	20.68	79.32	230	138	14.44	85.56	172	163.00	11.97	88.03	514	141.00	10.13	89.87	21
162.00	16.90	83.10	188	143	12.02	87.98	43	168.00	12.15	87.85	544	148.00	21.88	78.12	13
163.00	12.37	87.63	217	148	16.35	83.65	47	173.00	12.39	87.61	534	153.00	23.74	76.26	64
167.00	10.84	89.16	284	153	6.24	93.76	19	178.00	13.22	86.78	473	156.00	14.15	85.85	65
278.00				156	13.10	86.90	303	183.00	13.22	86.78	470	278.00			
				278.00			91	188.00	12.39	87.61	462				

10.9	193.00	8.43	91.57	504
	198.00	13.40	86.60	398
	278.00			

Depth	LP9 L.O.I.	Inorganic	X	Depth	LP10 L.O.I.	Inorganic	X	Depth	LP11 L.O.I.	inorganic	X	Depth	LP12 L.O.I.	Inorganic	X
0.00	14.32	85.68	620	3	20.85	79.15	640	0	20.09	79.91	475	8	11.82	88.18	604
4.00	14.75	85.25	650	8	12.68	87.32	614	3	20.58	79.12	389	18	11.85	88.15	521
8.00	15.03	84.97	589	13	12.56	87.44	551	8	18.10	81.90	547	28	10.90	89.10	466
13.00	15.04	84.96	573	18	12.96	87.04	515	13	14.29	85.71	592	38	14.33	85.67	532
18.00	14.53	85.47	594	23	24.49	75.51	522	18	11.96	88.04	607	43	13.54	86.46	536
23.00	14.53	85.47	564	28	14.68	85.32	509	23	13.62	86.38	634	53	14.44	85.56	503
28.00	14.69	85.31	530	33	15.49	84.51	528	28	13.75	86.25	542	58	14.00	86.00	484
33.00	13.74	86.26	496	38	14.06	85.94	575	33	14.73	85.27	534	63	13.20	86.80	453
38.00	15.52	84.48	494	43	14.39	85.61	618	38	17.51	82.49	517	68	12.73	87.27	403
43.00	16.65	83.35	517	48	14.47	85.53	605	43	15.74	84.26	522	73	27.73	72.27	36
48.00	17.14	82.86	511	53	17.11	82.89	449	48	16.30	83.70	516	78	21.10	78.90	37
53.00	16.09	83.91	493	58	18.93	81.07	326	53	15.39	84.61	502	83	12.41	87.59	144
55.00	14.69	85.31	211	68	23.45	76.55	122	58	15.05	84.95	326	88	20.55	79.45	15
58.00	24.04	75.96	91	73	22.61	77.39	68	67	20.87	79.13	317	93	22.09	77.91	8
63.00	17.66	82.34	74	78	18.62	81.38	144	68	23.45	76.55	173	98	19.39	80.61	93
68.00	15.84	84.16	74	83	15.35	84.65	347	73	21.11	78.89	41	103	16.53	83.47	121
73.00	15.88	84.12	285	88	15.34	84.66	520	78	20.37	79.63	139	108	19.94	80.06	142
78.00	15.46	84.54	499	93	12.25	87.75	583	83	17.87	82.13	286	109	31.22	68.78	40
83.00	15.79	84.21	621	98	12.10	87.90	628	90	14.39	85.61	346	110	31.47	68.53	8
88.00	13.88	86.12	627	103	12.31	87.69	622	93	14.54	85.46	374	113	41.81	58.19	9
93.00	20.42	79.58	654	108	5.42	94.58	591	98	14.47	85.53	401	123	23.45	76.55	27
98.00	13.76	86.24	654	113	12.07	87.93	604	103	13.60	86.40	320	133	25.82	74.18	16
103.00	14.11	85.89	646	118	12.59	87.41	580	108	14.01	85.99	416	138	27.87	72.13	20
108.00	13.63	86.37	690	123	13.87	86.13	543	113	14.68	85.32	443	143	25.82	74.18	60
118.00	13.92	86.08	669	128	13.05	86.95	556	118	13.33	86.67	384	278.00			
123.00	14.33	85.67	672	133	14.50	85.50	488	122	33.63	66.37	55				
133.00	24.17	75.83	646	138	13.13	86.87	572	128	28.86	71.14	18				
138.00	24.63	75.37	619	143	13.96	86.04	576	133	20.85	79.15	10				
143.00	14.34	85.66	597	148	14.63	85.37	574	143	20.26	79.74	60				
148.00	14.21	85.79	576	153	14.81	85.19	536	148	22.75	77.25	12				
153.00	10.98	89.02	355	158	13.62	86.38	593	148	18.75	81.25	34				
154.00	10.05	89.95	217	163	16.05	83.95	549	152	17.98	82.12	221				
158.00	20.88	79.12	134	168	27.05	72.95	75	156	19.52	80.48	220				
158.00	17.62	82.38	270	173	25.28	74.72	79	160	20.03	79.97	190				
163.00	21.23	78.77	206	178	21.78	78.22	119	166	24.38	75.62	40				
168.00	16.14	83.86	218	183	17.96	82.04	273	167	21.05	78.98	52				
173.00	6.60	93.40	312	188	14.97	85.03	442	170	31.95	68.05	7				
178.00	40.70	59.30	31	191	21.28	78.72	181	173	39.04	60.96	5				

188.00	24.95	75.05	113	278.00
193.00	24.97	75.03	36	
199.00	32.29	67.71	61	
278.00				

176	41.81	58.19	9
182	32.49	67.51	11
186	20.40	79.60	110
278.00		20.40	

Depth	LP13 L.O.I.	Inorganic	X
0	12.14	87.86	545
37	11.64	88.36	598
43	11.24	88.76	568
48	11.15	88.85	607
53	11.28	88.72	626
58	10.61	89.39	632
63	10.50	89.50	616
73	10.61	89.39	558
78.00	12.39	87.61	517
88	12.97	87.03	498
93	13.27	86.73	521
99	13.76	86.24	542
103	14.03	85.97	546
108	13.07	86.93	612
113	12.41	87.59	623
118	12.46	87.54	650
128	20.52	79.48	206
133	22.65	77.35	45
138	15.55	84.45	413
143	20.32	79.68	63
148	17.28	82.72	200
154	15.16	84.84	313
160	14.18	85.82	651
163	12.05	87.95	665
168	11.89	88.11	627
173	11.88	88.12	598
178	12.01	87.99	555
173	12.47	87.53	547
188	12.71	87.29	543
193	12.15	87.85	556
198	12.93	87.07	451
203	12.76	87.24	597
208	39.25	60.75	562
213	12.24	87.76	514
218	12.14	87.86	580
278.00			

Depth	LP14 L.O.I.	Inorganic	X
3	11.77	88.23	678
8	11.37	88.63	676
13	11.85	88.15	694
18	11.11	88.89	704
23	12.15	87.85	695
28	10.91	89.09	715
33	10.86	89.14	694
38	10.76	89.24	630
43	10.88	89.12	568
48	11.89	88.11	583
53	12.17	87.83	563
58	13.21	86.79	560
63	12.92	87.08	565
68	11.97	88.03	574
73	20.35	79.65	166
78	18.28	81.72	129
83	12.99	87.01	488
88	11.88	88.12	664
93	10.28	89.72	634
98	10.28	89.72	596
103	18.25	81.75	142
108	14.53	85.47	187
113	14.06	85.94	311
118	11.89	88.11	255
123	23.24	76.76	100
278.00			

Depth	LP15 L.O.I.	Inorganic	X
0	10.48	89.52	623
3	11.15	88.85	601
8	10.24	89.76	630
13	10.21	89.79	600
18	10.30	89.70	618
23	11.59	88.41	517
28	11.15	88.85	509
33	11.68	88.32	510
38	11.94	88.06	533
44	12.45	87.55	537
48	13.30	86.70	498
53	12.08	87.92	581
58	11.80	88.20	596
63	12.36	87.64	635
68	13.93	86.07	627
73	14.18	85.82	491
78	16.49	83.51	425
83	20.36	79.64	80
88	15.77	84.23	184
93	16.46	83.54	488
98	11.58	88.42	649
103	9.92	90.08	640
108	9.75	90.25	642
113	10.21	89.79	618
118	10.52	89.48	585
124	10.82	89.18	585
128	10.70	89.30	567
133	10.43	89.57	562
138	10.93	89.07	545
143	10.88	89.12	599
148	11.24	88.76	632
153	11.68	88.32	592
158	10.95	89.05	545
163	11.05	88.95	570
168	11.47	88.53	564
173	10.83	89.17	577
178	11.14	88.86	602
183	14.47	85.53	449

Depth	LP16 L.O.I.	Inorganic	X
13.00	14.46	85.54	596
38.00	14.73	85.27	546
43.00	43.25	56.75	591
48.00	15.16	84.84	569
53.00	14.24	85.76	538
58.00	15.22	84.78	568
63.00	15.65	84.35	531
68.00	15.80	84.20	564
73.00	16.98	83.02	583
78.00	15.56	84.44	529
83.00	16.34	83.66	645
88.00	16.72	83.28	510
93.00	16.42	83.58	541
98.00	17.63	82.37	550
103.00	24.94	75.06	532
108.00	24.70	75.30	529
113.00	19.99	80.01	538
118.00	18.19	81.81	565
123.00	6.59	93.41	529
127.00	3.23	96.77	440
133.00	-60.14	160.14	63
137.00	14.89	85.11	84
147.00	16.64	83.36	169
153.00	14.84	85.16	312
157.00	14.98	85.02	326
163.00	14.41	85.59	308
167.00	28.96	71.04	400
278.00			403
			392
			403
			613
			614
			403
			53

depth	LP17 L.O.I.	inorganic	X	Depth	LP18 L.O.I.	inorganic	X	Depth	LP19 L.O.I.	inorganic	X	Depth	LP20 L.O.I.	inorganic	X
0	13.09	86.91	626	0.00	13.42	86.58	596.00	0	11.22	88.78	801	3	10.11	89.89	548
4	11.26	88.74	622	20.00	11.58	88.42	612.00	8	10.35	89.65	804	8	11.61	88.39	565
8	12.35	87.65	692	30.00	12.28	87.72	663.00	13	9.99	90.01	796	13	11.03	88.97	580
13	15.63	84.37	665	40.00	11.62	88.38	578.00	18	9.47	90.53	832	18	11.23	88.77	589
18	12.12	87.88	644	43.00	7.79	92.21	605.00	23	9.21	90.79	866	23	11.10	88.90	592
23	12.23	87.77	644	48.00	11.60	88.40	648.00	28	9.63	90.37	881	28	11.55	88.45	511
28	12.18	87.82	623	53.00	11.46	88.54	629.00	33	10.59	89.41	845	33	10.96	89.04	546
33	10.77	89.23	633	58.00	11.77	88.23	593.00	38	10.12	89.88	806	38	9.43	90.57	681
38	14.94	85.06	616	63.00	11.60	88.40	598.00	43	9.73	90.27	861	43	11.48	88.52	685
44	11.97	88.03	626	68.00	11.67	88.33	570.00	48	10.57	89.43	805	53	11.31	88.69	519
48	11.96	88.04	619	73.00	11.72	88.28	479.00	53	10.88	89.12	799	58	11.84	88.16	750
53	11.68	88.32	577	78.00	11.72	88.28	475.00	58	10.41	89.59	835	63	11.14	88.86	682
58	12.58	87.42	589	83.00	12.03	87.97	475.00	63	10.47	89.53	786	68	14.98	85.02	479
63	12.90	87.10	568	88.00	11.19	88.81	504.00	68	24.80	75.20	712	73	9.16	90.84	510
68	13.63	86.37	556	93.00	11.39	88.61	452.00	73	10.30	89.70	726	78	11.52	88.48	491
73	14.39	85.61	537	95.00	11.25	88.75	371.00	78	9.68	90.32	666	83	11.26	88.74	524
78	17.68	82.32	548	98.00	11.42	88.58	437.00	83	9.51	90.49	804	88	11.27	88.73	745
83	17.46	82.54	557	104.00	12.65	87.35	235.00	88	10.12	89.88	775	93	11.69	88.31	801
88	20.80	79.20	464	107.00	12.77	87.23	110.00	93	10.01	89.99	773	98	11.45	88.55	740
93	19.81	80.19	698	111.00	12.82	87.18	111.00	108	12.00	88.00	604	103	12.65	87.34	554
98	8.62	91.38	653	113.00	14.11	85.89	139.00	118	12.47	87.53	567	108	10.68	89.32	532
103	11.52	88.48	143	118.00	19.45	80.55	740.00	123	90.24	9.76	695	113	5.83	94.17	601
108	11.86	88.14	166	123.00	20.26	79.74	690.00	128	11.41	88.59	734	118	3.02	96.98	525
113	11.93	88.07	59	128.00	20.22	79.78	730.00	133	12.03	87.97	732	128	10.41	89.59	509
118	11.90	88.10	193	133.00	16.62	83.38	724.00	138	14.67	85.33	486	133	2.20	97.80	517
123	11.72	88.28	438	138.00	13.83	86.17	659.00	142	20.08	79.92	305	138	-3.90	103.90	453
126	11.51	88.49	726	143.00	12.02	87.98	565.00	145	21.09	78.91	123	143	9.54	90.46	412
133	12.91	87.09	665	148.00	11.68	88.32	611.00	148	18.47	81.53	158	148	12.53	87.47	454
138	12.29	87.71	681	153.00	12.02	87.98	700.00	154	12.31	87.69	571	153	-4.59	104.59	632
143	12.33	87.67	674	158.00	11.79	88.21	667.00	158	13.01	86.99	713	163	9.13	90.87	378
148	11.61	88.39	669	163.00	12.54	87.46	988.00	163	13.40	86.60	691	168	13.20	86.80	170
153	14.17	85.83	621	167.00	12.45	87.55	436.00	173	12.75	87.25	651	178	13.25	86.75	266
158	24.18	75.82	668	169.00	11.79	88.21	111.00	178	12.34	87.66	614	183	11.50	88.50	501
163	19.71	80.29	661	173.00	11.73	88.27	85.00	183	13.37	86.63	621	188	12.28	87.72	586
168	16.51	83.49	625	178.00	12.31	87.69	154.00	188	13.29	86.71	688	193	10.76	89.24	656
173	19.97	80.03	626	183.00	12.01	87.99	91.00	193	13.26	86.74	741	198	10.95	89.05	742
178	15.71	84.29	682	188.00	12.03	87.97	199.00	198	21.36	78.64	671	203	19.26	80.74	589
183	26.98	73.02	751	193.00	13.16	86.84	109.00	208	21.26	78.74	674	208	11.31	88.69	608

188	31.71	68.29	730	198.00	7.75	92.25	92.00	213	12.34	87.66	184	213	11.74	88.26	715
193	25.05	74.95	685	203.00	17.71	82.29	133.00	215	20.22	79.78	130	218	11.52	88.48	642
198	28.54	71.46	700	208.00	11.41	88.59	69.00	223	22.62	77.38	462	223	11.22	88.78	521
203	27.59	72.41	755	213.00	12.00	88.00	73.00	233	14.84	85.16	217	243	12.46	87.54	616
208	21.68	78.32	693	218.00	11.06	88.94	71.00	236	20.72	79.28	234	248	11.46	88.54	645
212	22.06	77.94	308	223.00	12.10	87.90	54.00	278				253	12.19	87.81	617
218	25.15	74.85	77	228.00	11.08	88.92	110.00					258	11.13	88.87	639
223			121	278.00								263	11.50	88.50	625
278.00												268	10.65	89.35	570
												273	11.41	88.59	757
												278	11.50	88.50	655
													12.03	87.97	
													12.44	87.56	

0.000	16.330	24.42	.8	10.35	0.020	.21	2.9	.15	.405	2.1	21.06	.23	37.39	25.3	30.74
8.000	7.770	50.84	.75	33	0.020	.23	2.125	.07	.97	6.05	10.07	.58	37.39	24.02	13.625
18.000	20.220	21.02	.6	10.25	0.010	.235	1.8	.075	.4	1.75	29.07	.18	29.52	23.01	31.98
28.000	11.270	26.14	.5	12.35	0.015	.185	1.775	.065	.215	2.4	10.07	.21	35.42	25.81	29.99
38.000	5.440	24.76	1.05	11.15	0.010	.165	1.55	.055	.135	2.45	11.9	.19	41.33	26.82	30.3
48.000	2.720	41.76	.8	26.4	0.020	.165	1.85	.05	.22	4.5	11.67	.45	41.33	24.02	21.83
58.000	12.440	32.88	.65	14.7	0.000	.165	1.45	.06	.14	3.5	26.32	.33	39.36	8.17	29.05
68.000	12.830	40.46	.7	22.65	0.000	.18	1.56	.045	.19	3.95	15.33	.45	25.58	24.28	22.06
78.000	13.990	21.52	.65	9.35	0.005	.145	1.58	.06	.155	4.45	21.96	.21	49.29	24.02	32.06
88.000	10.880	48.28	.8	27	0.005	.155	1.25	.05	.325	5.8	9.38	.61	47.23	25.3	16.02
98.000	11.660	64.22	.8	48.05	0.015	.18	1.425	.06	.735	7.65	24.26	.69	27.55	24.53	6.53
103.000	21.390	46.66	.75	17.8	0.010	.165	1.58	.05	.18	5.85	7.55	.55	26	24.55	18.42
108.000	20.600	33.82	.65	15.5	0.000	.195	1.56	.07	.165	3.1	18.77	.4	25.58	25.08	28.17
113.000	26.830	30.28	.55	13.5	0.000	.215	1.42	.07	.315	3	16.71	.4	27.55	21.98	27.46
118.000	30.710	45.86	1.25	21.15	0.035	.305	1.6	.095	1.035	4.9	15.56	.54	27.55	30.51	17.07
126.000	0.000	33.16	1.4	16.95	0.035	.285	1.58	.11	.845	2.65	25.41	.42	34.44	23.76	18.69
138.000	202.000	22.06	.5	7.8	0.030	.225	1.5	.09	.495	1.5	20.16	.28	34.44	23.76	32.83
148.000	2.300	25.86	.65	10.25	0.030	.225	1.55	.075	.41	2.2	9.61	.33	31.49	29	29.7
158.000	9.600	41.98	.5	20.5	0.030	.225	1.65	.06	.295	4.5	12.31	.55	37.39	32.2	10.6
168.000	6.530	39.42	.4	19.35	0.025	.275	1.86	.1	.815	4.25	23.8	.55	44.28	26.58	15
178.000	2.690	36.84	.8	20.7	0.025	.41	1.5	.17	3.55	3.9	21.06	.67	54.12	28.88	14.52
188.000	4.800	32.62	.8	17.56	0.025	.405	1.7	.195	4.525	2.8	24.03	.6	45.26	31.18	17.09
198.000	6.920	27.84	1	15.5	0.040	.465	1.58	.25	6.355	2.25	20.83	.57	13.77	26.06	18.08
208.000	5.760	35.94	.8	22.4	0.035	.34	1.76	.12	1.875	3.35	18.31	.7	27.55	26.06	15
218.000	17.300	24.08	.55	11.45	0.030	.23	1.58	.09	.64	2.45	21.97	.5	41.33	24.53	12.47
		29.2	.5	21.05	0.030	.225	1.95	.095	.75	3.15	12.31	.63	56.09	27.09	22.12
		22.6	.7	14.5	0.000	.45	1.9	.175	1.875	1.6	20.41	.64	70.99	36.54	20.06
		18.12	.6	10.9	0.020	.775	1.55	.425	10.475	1.5	16.48	.8	65.99	27.6	19.65
		13.9	.7	8.95	0.020	1.25	.88	1.05	37.475	1.2	12.82	2.92	42.31	32.2	13.38
		19.74	1.4	8.3	0.020	1.35	.75	.83	30.725	1.1	14.88	.47	52.15	30.67	5.61
		21.16	1.3	11.85	0.035	.625	1.06	.37	11.1	1.45	10.98	.47	38.37	28.67	10.74
		40.5	.75	24.1	0.015	.215	1.6	.09	.98	3.6	13.04	.57	41.33	28.37	12.47
		34.42	1.05	11.4	0.025	.305	1.4	.17	4.845	3.25	24.26	.5	32.47	27	12.92
		30.52	.4	15.2	0.035	.285	1.33	.08	.8	3.1	12.13	.47	30.5	27.34	22.8
		30.92	.65	12.6	0.020	.295	.96	.12	2.285	3.45	19.39	.54	24.6	28.11	23.78
		29.04	.8	12.8	0.015	.225	1.25	.075	.605	2.4	12.82	.45	40.34	28.37	20.95
		30.5	.85	7.95	0.020	.205	1.2	.055	.595	1.25	14.88	.66	47.23	27.6	29.73
		30.92	1.5	21.6	0.020	.22	1.43	.065	.455	3.1	21.06	.66	35.42	27.6	19.69

30.4	10.5	10.5	0.010	3.725	7.45	.085	.15	2.9	9.84	2.64	27.55	30.41	1.16
23.4	4	4	0.015	3.75	5.075	.085	2.75	1.93	9.61	2.44	22.63	30.92	.954
17.4	5.75	5.75	0.000	4.4425	14	.085	1.075	1.99	8.01	2.23	61	30.67	.599
17.4	2	2	0.000	10.6	1.175	.585	48.6	1.74	9.61	3.46	53.14	31.43	.915
13.8	3	3	0.000	10.6	.9	.735	89	1.34	10.76	5.08	62.98	39.61	.685
19.6	3.5	3.5	0.010	.95	1.825	.555	31.2	1.63	12.36	3.05	66.98	43.96	.816
22	11	11	0.005	1.15	2.05	.165	1.475	2.22	15.33	2.85	66.98	36.8	.5515
21.2	13	13	0.000	1.025	1.2	.225	7.17	1.58	19.23	3.46	66.91	43.7	.9612
13.6	10.25	10.25	0.000	1.5	1.95	.26	6.5	1.52	13.04	3.25	53.14	38.08	.261

48.95	2.275	6.3	0.096
41.15	2.475	3.6	0.048
68.65	2.825	7.8	0.127
58.2	3.275	7.55	0.068
49.15	3.975	7.45	0.115
38.95	2.925	6.35	0.044
49.1	3	7.1	0.049
55.15	3.175	6.15	0.011
42.1	3.7	5	0.026
56.75	2.65	8.3	0.074
33	2.15	3.4	0.074
56.7	2.725	4.6	
64.35	2.8	6.95	
65.3	2.35	6.35	
51.05	2.7	4.8	0.026
36.45	2.05	4.7	0.020
61.8	3.325	8.4	0.085
55.05	3.175	7.4	0.059
24.55	1.475		0.008
30.55	1.75	3.6	0.036
44.85	2.25	4.75	0.021
36.45	2.025	4.9	0.045
27.75	1.6	3.8	0.031
34.8	1.925	3.4	0.040
43.25	1.325	4.85	0.063
41	2.925	5.4	0.066
34.35	2.325	4.6	0.065
23.75	1.55	3	0.041
11.55	1.325	1.25	0.020
22.45	1.175	2.65	0.025
16.85	1.3	2.75	0.037
30.25	1.275	3.45	0.030
41	2.25	4.6	0.072
50.05	2.225	5.65	0.051
47.35	2.35	4.6	0.051
36.85	1.5	4.2	0.033
42.15	2.675	3	0.072
35.55	2.2	1.62	0.042

95	8.57	0.063
100	9.08	0.081
72.5	7.055	0.060
30.75	2.665	0.038
23.75	1.92	0.077
24	2.06	0.042
27.5	2.98	0.076
21	2.08	0.048
21.75	2.41	0.182

0.000	24.260	0.000	13.400	2.440	10.000	16.570	0.675	0.699	1.200	0.575	2.440	0.030	0.005	0.000	45.500
12.000	31.500	12.000	18.500	2.860	4.500	19.190	2.375	0.608	0.420	0.500	2.850	0.032	0.015	12.000	55.300
23.000	27.480	32.000	13.750	3.340	18.000	21.500	2.725	0.807	3.670	0.750	3.050	0.032	0.010	23.000	66.420
32.000	21.160	42.000	21.750	2.640	21.000	22.960	2.375	0.808	3.270	1.070	3.250	0.028	0.010	32.000	71.340
42.000	23.860	52.000	20.750	3.050	17.000	18.930	2.400	0.862	2.700	1.250	2.850	0.032	0.010	52.000	64.190
52.000	119.720	62.000	13.250	2.820	12.500	21.780	2.550	0.794	1.170	0.770	3.250	0.029	0.010	62.000	57.910
62.000	17.840	72.000	14.250	1.700	14.000	17.040	2.920	0.909	8.570	1.500	3.460	0.028	0.010	72.000	44.280
72.000	10.360	77.000	5.750	0.645	23.000	19.410	3.300	1.476	65.200	4.425	3.660	0.021	0.000	77.000	36.900
77.000	21.240	97.000	19.250	2.795	10.000	13.450	4.470	0.820	2.870	0.970	3.050	0.023	0.005	87.000	88.560
87.000	14.720	107.000	8.750	1.150	23.000	22.720	3.250	1.320	2.800	2.230	2.850	0.030	0.005	97.000	76.260
97.000	11.700	117.000	7.220	1.300	22.500	19.410	1.900	1.760	2.020	3.950	3.050	0.021	0.000	107.000	61.500
107.000	12.060	127.000	5.250	1.080	30.300	18.700	1.620	1.840	21.600	3.450	2.640	0.015	0.000	127.000	68.880
117.000	20.400	137.000	15.000	1.130	33.500	12.780	2.200	1.870	50.600	3.750	2.640	0.021	0.000	137.000	76.250
127.000	23.760	147.000	10.500	2.860	9.000	16.330	1.800	1.680	51.200	0.550	3.050	0.032	0.005	147.000	75.030
137.000	16.680	157.000	10.750	4.700	5.500	11.360	2.020	0.830	45.400	0.475	3.050	0.038	0.000	157.000	93.480
147.000	16.160	177.000	6.750	2.490	8.000	18.930	3.900	0.750	0.920	0.775	2.850	0.029	0.000	177.000	56.580
157.000	15.240	191.000	3.750	2.610	7.500	15.380	3.800	0.940	0.650	0.600	3.050	0.042	0.005	191.000	99.630
177.000	3.400	200.000	11.750	1.090	21.500	15.620	3.620	0.860	1.800	3.000	1.420	0.020	0.010	200.000	89.790
191.000	9.040	217.000	6.000	0.605	22.000	14.710	2.850	1.190	182.200	7.470	0.930	0.013	0.010	217.000	111.930
200.000	5.120	225.000	7.000	2.280	24.000	12.310	1.970	0.610	10.475	1.500	1.070	0.021	0.000	225.000	63.960
217.000	4.400	235.000	4.750	2.040	11.500	18.700	1.620	0.760	34.420	2.200	0.400	0.025	0.000	235.000	51.660
225.000	3.200	245.000	2.250	1.570	10.500	14.640	2.020	0.290	6.000	1.025	0.400	0.023	0.000	245.000	50.530
235.000		255.000	3.000	0.660	13.500	13.250	1.900	0.230	8.050	0.825	0.800	0.013	0.000	255.000	126.700
145.000		267.000	6.250	0.120	16.000	5.440	2.100	0.700	115.400	5.475	0.800	0.015	0.000	267.000	68.380
255.000		278.000	5.000	0.265	19.000	11.830	3.550	0.800	113.000	5.525	1.020	0.015	0.005	278.000	134.080
267.000		288.000	10.000	0.695	5.000	13.490	1.750	0.220	1.475	0.550	0.800	0.016	0.000	288.000	130.390
278.000		298.000	9.000	0.950	18.000	16.570	1.650	0.430	26.800	2.453	1.020	0.012	0.000	298.000	132.850
288.000		308.000	7.750	1.015	5.000	11.830	2.670	0.200	1.150	0.550	1.300	0.027	0.000	308.000	
298.000		316.000	7.000	0.765	3.500	16.330	2.125	0.340	0.975	0.500	0.930	0.024	0.000	316.000	
308.000		336.000	4.500	0.690	3.500	15.150	2.225	0.230	0.900	0.475	3.260	0.025	0.000	336.000	
316.000				0.650	5.500	8.200	1.625	0.080	0.900	0.475	1.960	0.031	0.000		
336.000				0.530	4.000	8.900	0.700	0.340	1.350	0.500	0.800				

0.000	34.150	27.950	5.515	5.600	0.168	0.785
12.000	30.550	20.250	4.667	0.475	0.000	0.000
23.000	40.280	11.000	3.005	0.572	0.000	0.000
32.000	34.450	9.700	2.225	0.275	0.000	0.000
42.000	31.000	15.250	3.815	0.375	0.000	0.000
62.000	39.390	9.400	2.620	0.200	0.000	0.000
72.000	36.110	22.800	1.370	0.625	0.000	0.000
77.000	22.122	11.400	3.060	0.750	0.000	0.000
87.000	35.180	6.000	1.420	0.400	0.000	0.000
97.000	24.070	4.300	1.210	0.250	0.000	0.000
107.000	18.050	3.300	0.805	0.525	0.000	0.000
117.000	11.110	8.500	2.295	0.550	0.000	0.000
127.000	26.920	23.750	6.400	0.575	0.016	0.000
137.000	31.000	20.900	5.050	0.300	0.010	0.000
147.000	36.950	11.900	2.875	0.450	0.000	0.000
157.000	34.250	16.950	4.000	0.375	0.005	0.000
177.000	39.350	4.500	1.200	0.675	0.000	0.000
191.000	18.050	3.250	0.720	0.300	0.011	0.240
200.000	14.580	4.600	0.970	0.900	0.000	0.000
217.000	18.050	8.150	1.805	2.400	0.014	0.000
225.000	31.940	7.700	1.135	9.400	0.036	0.120
235.000	39.880	19.650	2.930	0.200	0.259	1.595
245.000	32.400	1.800	0.395	0.075	0.000	0.080
255.000	14.810	1.000	0.090	0.080	0.000	0.000
267.000	5.090	5.050	0.965	3.800	0.019	0.010
278.000	29.160	7.950	1.140	0.925	0.080	0.565
298.000	32.870	4.200	0.770	2.600	0.017	0.060
308.000	47.220	6.250	0.945	1.125	0.060	0.310
316.000	33.330	6.750	0.885	13.000	0.030	0.280
936.000	29.620	20.500	2.450	0.125	0.314	1.905

3.00	22.56	0.85	2.20	0.73	9.75	0.75	10.41	1.23	3.95	1.60	0.03	51.66	73.50	6.81	29.10
13.00	23.50	1.33	3.40	0.66	12.75	0.93	17.04	0.61	2.95	1.27	0.03	49.20	69.50	6.05	26.45
23.00	19.82	4.48	3.32	0.94	7.50	1.28	10.41	0.80	4.01	0.75	0.03	73.80	59.20	4.66	24.75
33.00	21.22	2.30	2.75	0.95	14.50	1.18	18.46	0.70	2.25	0.6[illegible]	0.03	54.12	52.50	4.82	17.20
43.00	18.48	0.68	2.40	0.81	9.00	0.63	11.60	0.70	3.43	0.60	0.03	77.49	35.00	2.38	8.85
53.00	15.10	0.90	2.57	0.65	13.00	0.80	14.20	1.30	2.84	0.87	0.04	91.02	16.25	1.38	5.80
58.00	17.26	4.55	1.95	0.94	12.75	1.43	15.51	1.63	2.36	0.92	0.03	88.56	60.25	4.47	15.90
68.00	11.38	37.00	2.07	1.18	5.75	3.43	10.41	1.02	1.80	1.05	0.02	66.42	52.50	5.06	22.90
78.00	15.62	21.40	1.82	1.31	6.00	3.63	12.31	1.63	2.31	1.10	0.02	52.89	34.00	3.28	10.60
88.00	15.68	11.15	2.25	1.00	8.50	1.68	10.17	1.63	2.91	0.90	0.03	46.77	59.00	3.62	16.10
98.00	22.76	0.65	1.87	0.74	17.00	0.75	17.51	0.80	2.98	0.87	0.03	44.28	67.00	5.57	20.40
108.00	19.10	0.50	2.25	0.52	10.75	0.50	13.73	1.42	3.15	0.65	0.03	50.53	65.75	5.46	20.55
118.00	15.04	0.83	1.45	0.54	5.50	0.53	8.04	1.57	3.37	0.85	0.03	63.96	62.50	5.55	26.60
128.00	21.50	1.03	2.15	0.70	18.75	0.88	20.59	1.63	2.84	0.72	0.03	65.19	56.25	5.82	19.15
138.00	21.40	0.78	2.65	0.65	16.25	0.85	17.28	1.30	3.21	0.70	0.04	61.50	60.50	5.74	19.17
148.00	18.70	0.03	2.52	0.68	11.75	0.38	12.31	1.71	3.88	0.58	0.04	71.34	50.00	3.70	14.55
158.00	19.34	0.80	1.93	0.72	12.00	0.38	11.83	1.22	4.20	0.77	0.04	78.34	58.25	4.53	17.75
168.00	12.12	3.95	1.53	0.51	9.25	1.08	18.22	1.22	1.57	1.05	0.02	91.02	11.25	0.87	3.10
178.00	19.74	0.83	2.10	0.64	22.25	0.83	22.72	0.80	2.57	0.92	0.04	103.32	32.50	3.15	8.35
191.00	8.82	0.83	1.65	0.35	10.75	0.58	15.62	1.30	1.47	2.50	0.03	104.55	29.25	2.45	8.35

29.16
29.62
30.69
31.94
33.79
29.16
31.01
30.55
34.25
31.01
30.55
30.55
31.01
32.40
31.01
34.72
31.01
24.01
33.33
41.20

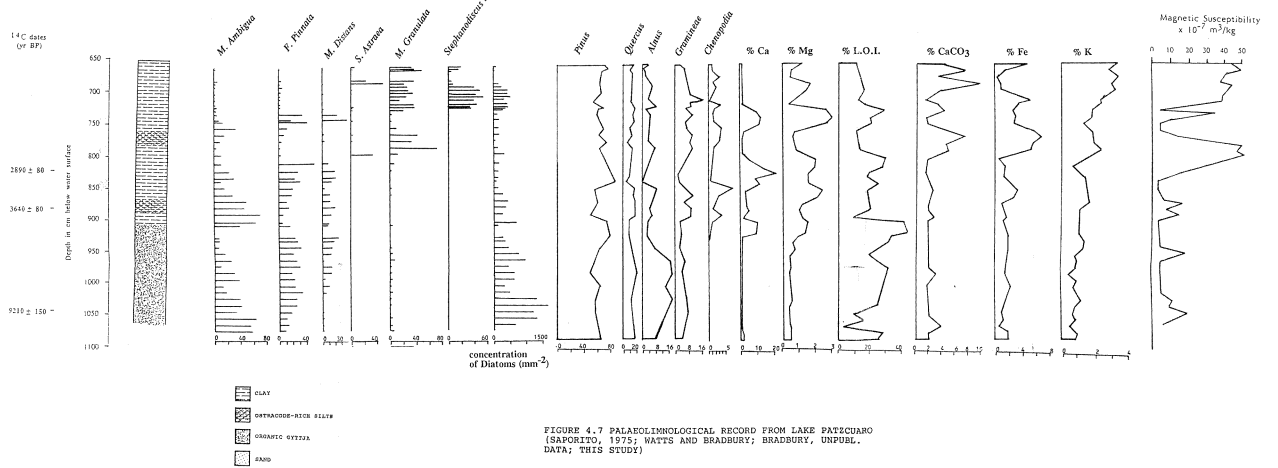

FIGURE 4.7 PALAEOLIMNOLOGICAL RECORD FROM LAKE PATZCUARO (SAPORITO, 1975; WATTS AND BRADBURY; BRADBURY, UNPUBL. DATA; THIS STUDY)

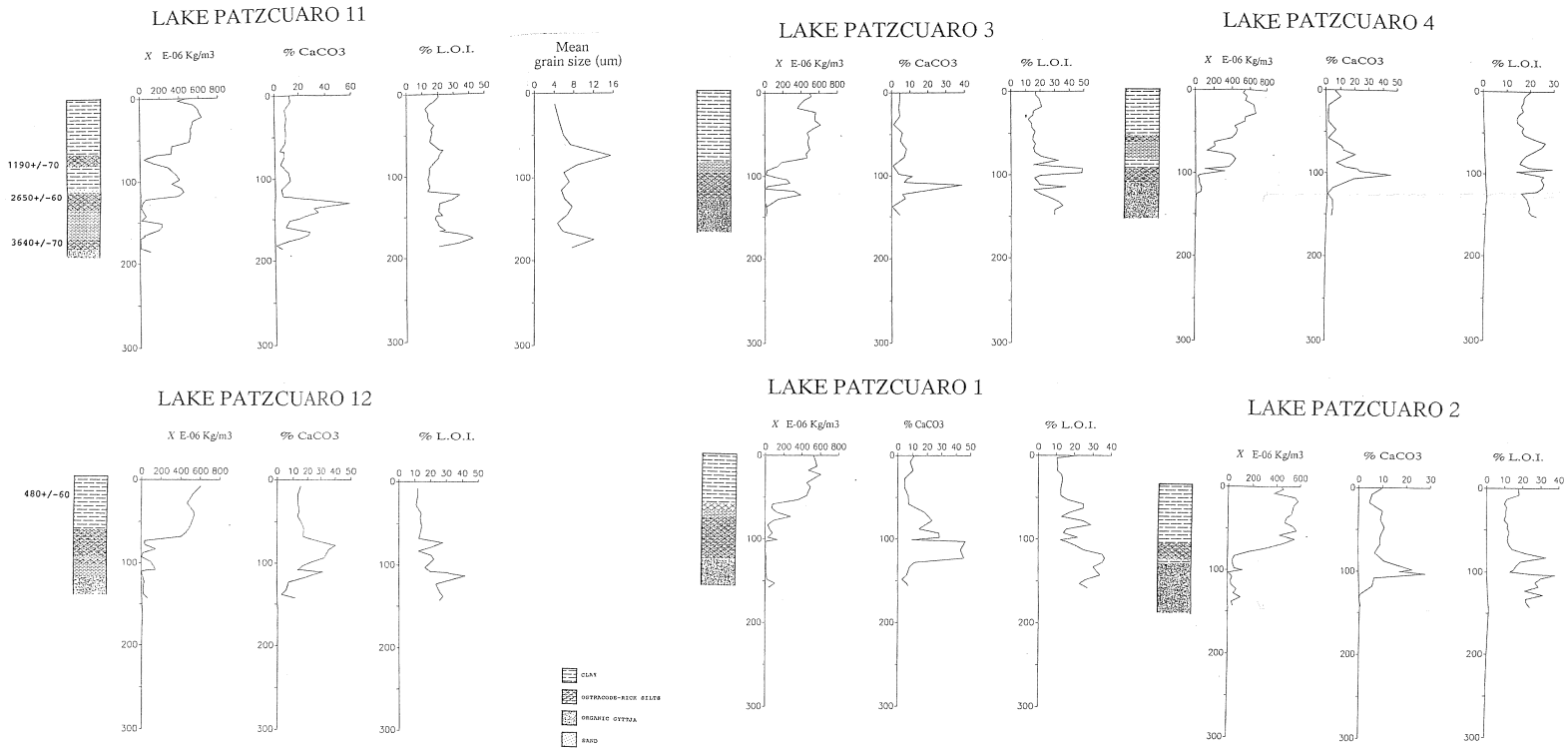

FIGURE 8.2. THE STRATIGRAPHY ANS RESULTS OF X, CACO3, L.O.I. AND MEAN GRAIN SIZE FROM THE CORE SITES IN THE SOUTHERN BASIN.

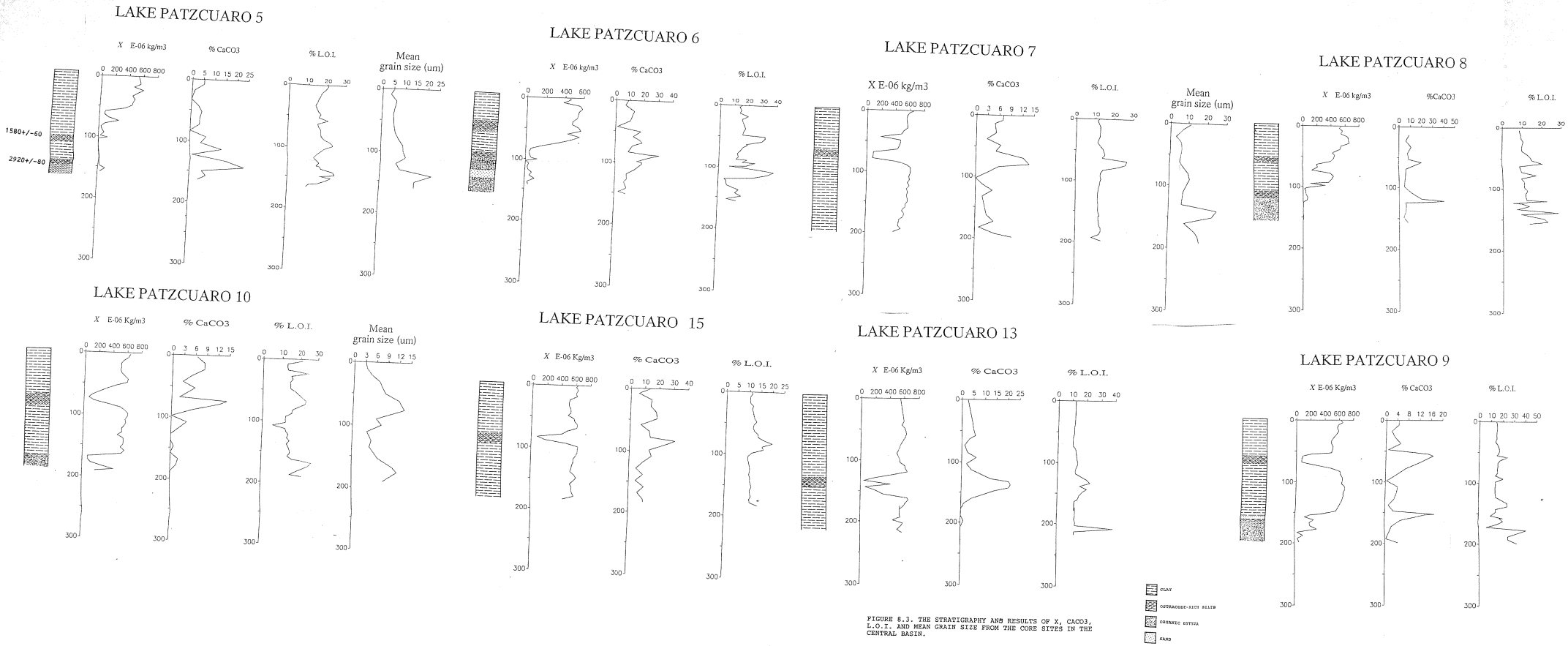

FIGURE 8.3. THE STRATIGRAPHY ANS RESULTS OF X, CACO3, L.O.I. AND MEAN GRAIN SIZE FROM THE CORE SITES IN THE CENTRAL BASIN.

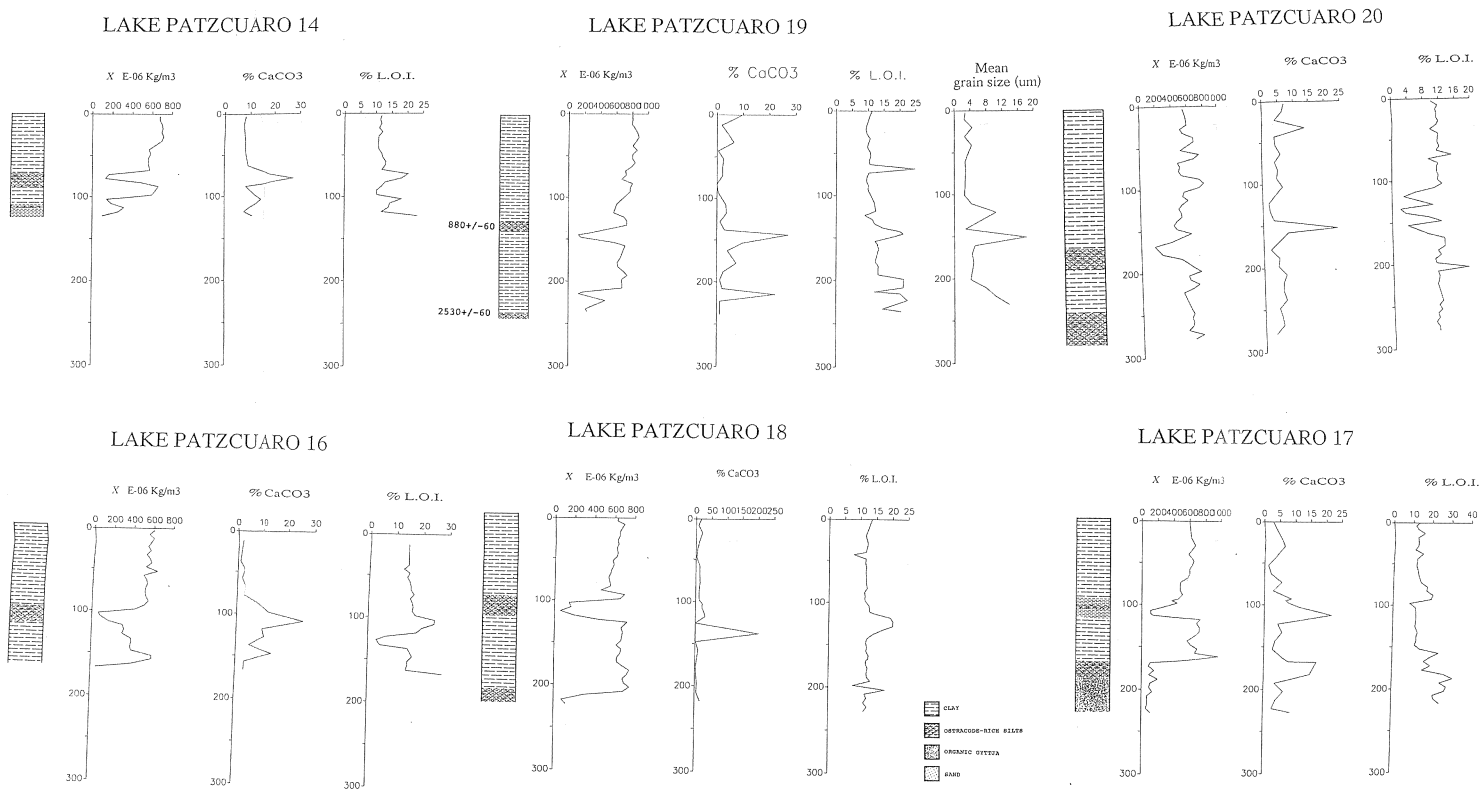

FIGURE 8.4. THE STRATIGRAPHY AND RESULTS OF X, CACO3, L.O.I. AND MEAN GRAIN SIZE FROM THE CORE SITES IN THE NORTHERN BASIN.

LAKE PATZCUARO 11

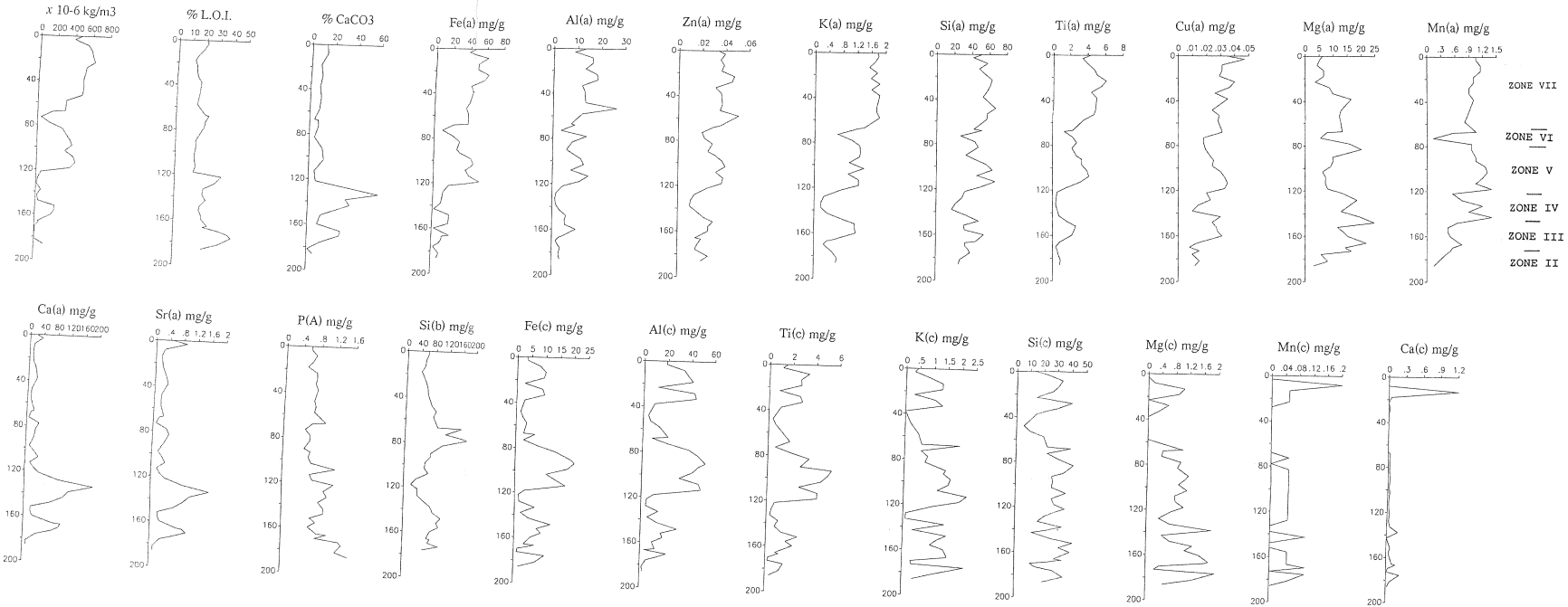

FIGURE 9.1 DOWN-PROFILE CHANGES IN THE SEDIMENT CHEMISTRY FROM LP11

THE MASTERCORE

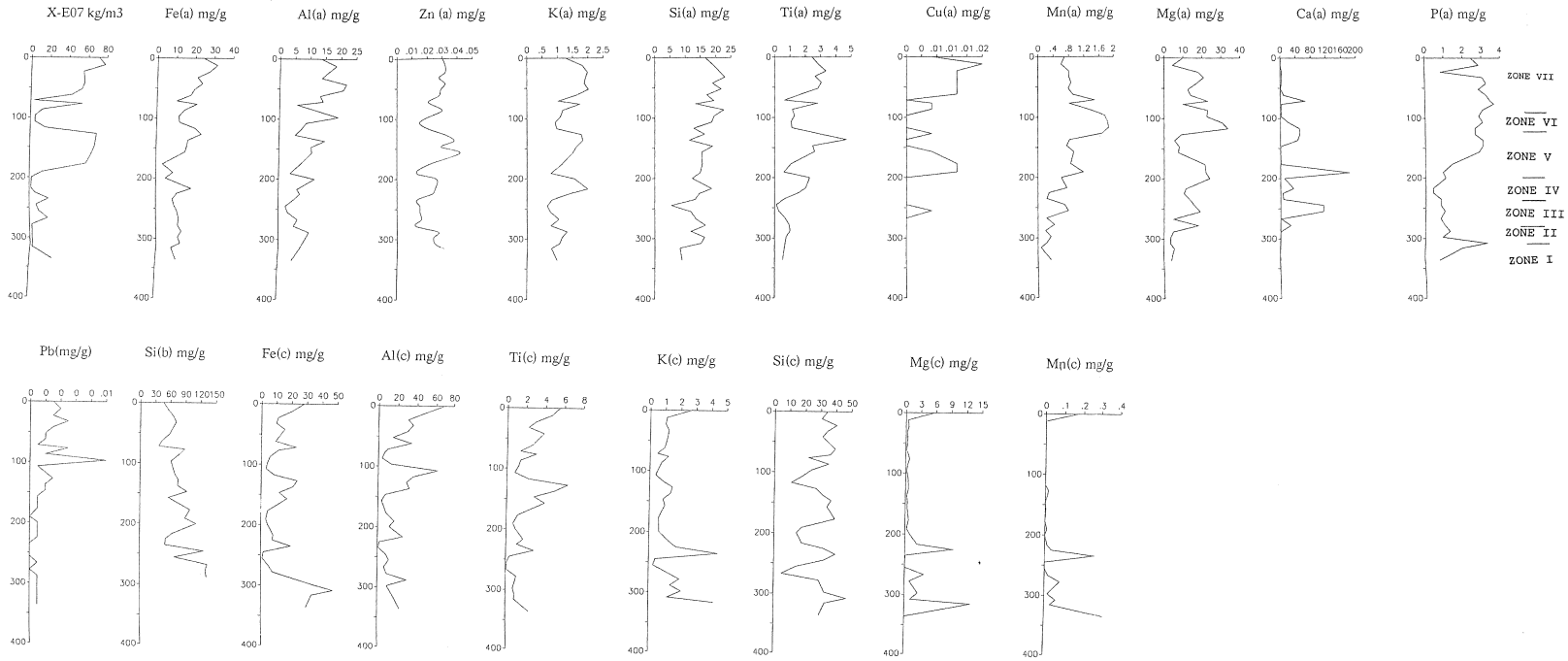

FIGURE 9.5 DOWN-PROFILE CHANGES IN THE SEDIMENT CHEMISTRY FROM THE MASTERCORE

LAKE PATZCUARO 19

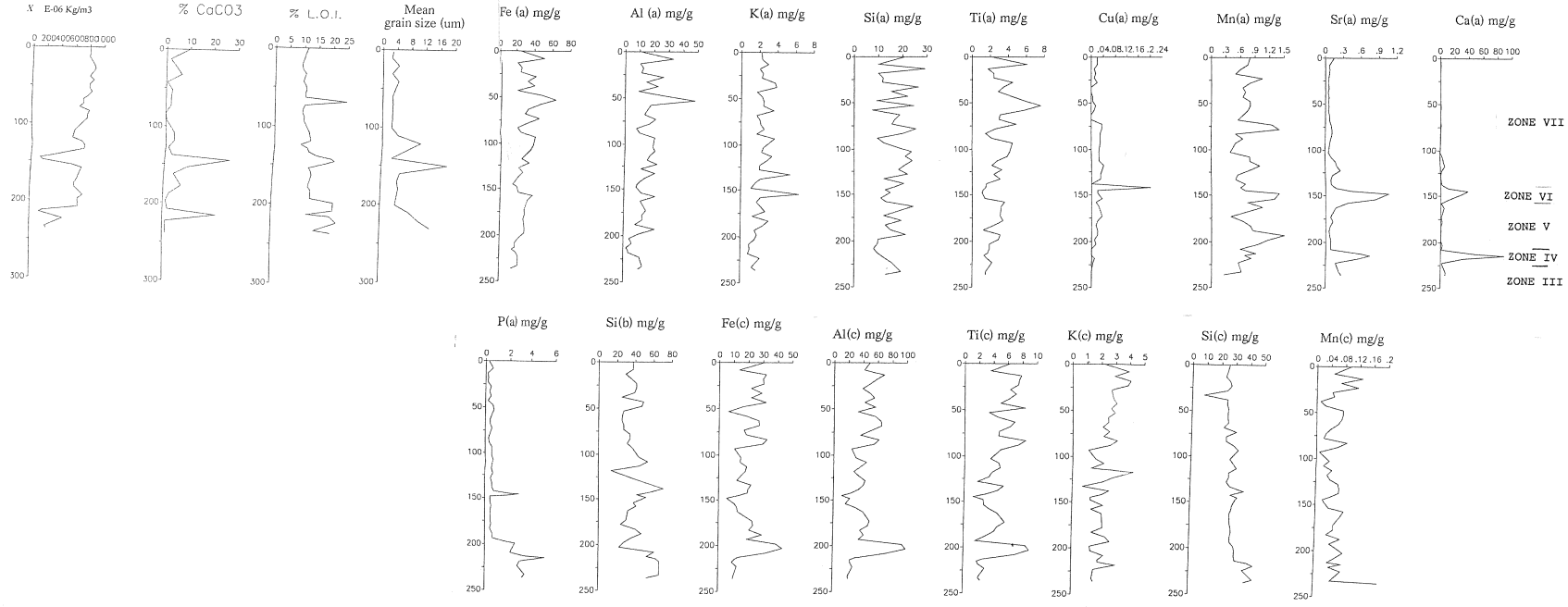

FIGURE 9.13 DOWN-PROFILE CHANGES IN THE SEDIMENT CHEMISTRY FROM LP19

LAKE PATZCUARO 19

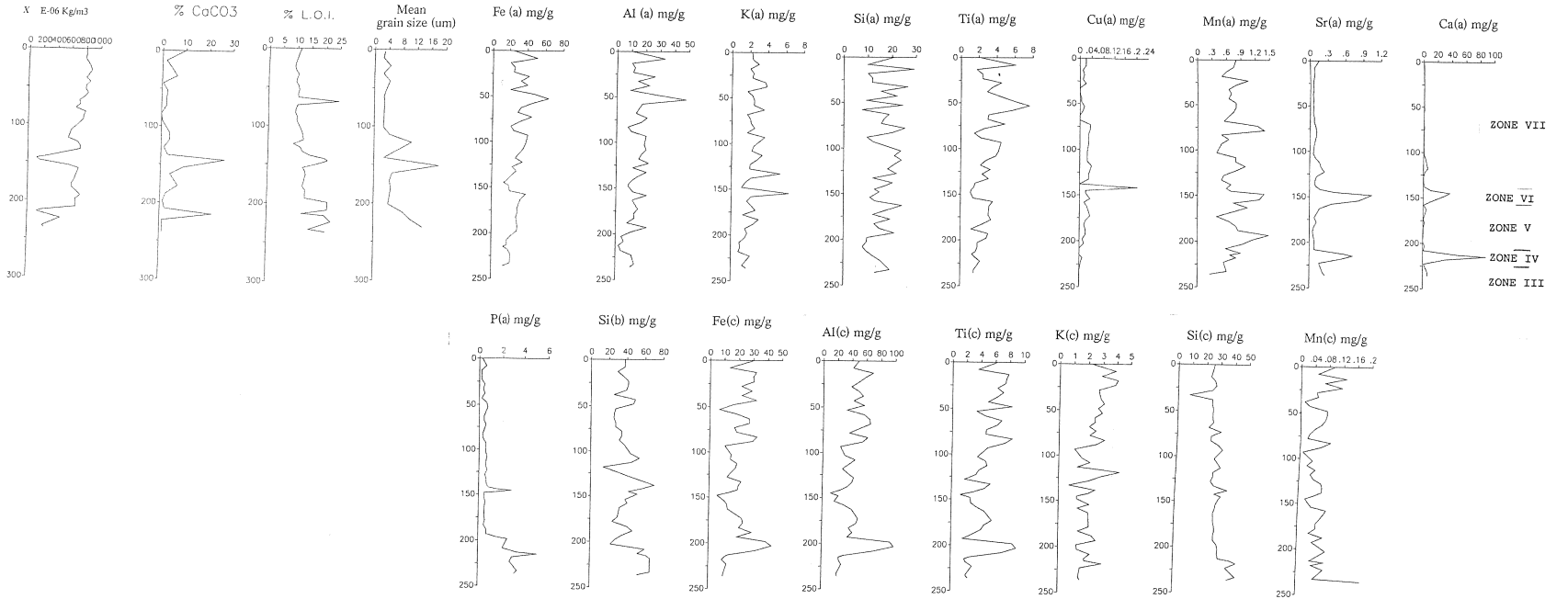

FIGURE 9.13 DOWN-PROFILE CHANGES IN THE SEDIMENT CHEMISTRY FROM LP19