

U1387C-1W-1A

Expedition 339: Mediterranean Outflow

U1387C 1W1A

(1789)

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10y 411						Wash core Zuel	AR	13/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C LW 2A

1790

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Same Shall. frags.	CR	13/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

01387C

1W 3A

(1791)

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CR	13/12/14
-- 10 --								Same as above shell frags		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

IWCCA

(1792)



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above	UR	13/12/11
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					CJR	13/12/11
-- 0 --	Disrupt ↓	GLEY 5 Gy 4/1	clay		massive	B ₁ = 3		Mud Forams present Py crystals present -12: Py b.		
-- 10 -- 12 --										
-- 20 --										
-- 30 --										
-- 40 -- 43 --		GLEY 5 Gy 5/1						color change		
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 -- 115 --										-114: shell frag.
-- 120 -- 123 --										-123: bivalve shell frag.
-- 130 -- 135 --										-135: Gastro-pode shell frag.
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
--0--		Sand			massive	B ₁ = 2		Red (same as above) Forams present	CR	13/12/11
--10--	bivalent ↓									
18								-18: Gastro-pod shell frags.		
--20--										
--30--										
--40--										
45								-45: bivalve shells frags		
--50--										
54								-54: Py b.		
--60--										
--70--										
--80--										
83								-83- sandy bit		
--90--	shattered ↓							shell frags.		
--100--										
--110--										
114								-114- Red		
118								-118- Py b.		
--120--								-120- Py b.		
--130--										
133								-133: Py b.		
--140--										
--150--										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
--0--		OLEY 1							CR	13/12/11
7		5Gy								
--10--		411								
13										
15	disturb.									
--20--										
--30--										
--40--										
--50--										
--60--										
--70--										
--80--										
--90--										
--100--										
--110--										
--120--										
125										
127										
--130--										
--140--										
--150--										

Mud
Forams present

13
15 > P₂ b

125
127 > P₂ b.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					CRZ	13/12/11
-- 0 --	Sand						Mud (same as above) Forams present		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
94									
95									
-- 100 --									
102									
105									
-- 110 --									
-- 120 --									
-- 130 --									
130	OLEST								
131	109								
-- 140 --									
141	411								
-- 150 --									
142									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

106 kg
5x110g
↓

22: Py b

31 > Py b.
34 >

52: shell frag.

75
55
75 cm: Nano Mud

94 > shells frag
95 >

102 > shells frag
105 >

130: color change

133 > Py b.
134 >

142: Py b.

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								CR	13/12/11
-0-- 2--	OLEG ₁						Thud (Same as above); Forams present		
3--	109						-2 > Py b.		
7--	4/1						-3 > Py b.		
-10--	↓						-7: Py b.		
	↓						-9: shell frag.		
19--							-19: Py b.		
-20--									
22--							-27: shell frag		
-30--							-28: Py b.		
31--							-29 > Py crystals		
36--							-31 > Py crystals		
-40--							-36: Py b.		
-50--									
54--							-54: Py b.		
-60--									
68--				massive	BY = 2		contact: irregular Silty mud shells frag		
-70--							-75 SS 75cm: Silty mud with biogenic carbonate		
-80--							contact: gradational		
86--							Thud -86: Bivalve shell frag		
-90--							shells frag. Forams present		
92--							-93 > Py b.		
98--							-98 > Py b.		
-100--									
-110--									
-120--									
-130--									
-140--									
-150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		(grey)		fine					GZ	13/12/11
	Discontinuity	10φ				B-1		Mud (same as above)		
-- 10 --	↓	4/1				2				
	↓					↓				
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
65								contact: gradational		
								silty mud		
-- 70 --								shells frags.		
76								contact: sharp		
								Mud		
-- 80 --										
-- 90 --										
90								contact gradational		
								silty sand		
-- 100 --										
102										↓ coarse
104								102		
								104		
-- 110 --								Bivalve shells frags		
								SS 113cm		
113								113cm		
								Sandy silt with biogenic carbonate		
-- 120 --								contact: irregular		
121								Mud		
								contact: irregular		
127								Silty sand		
-- 130 --								contact: irregular		
								Mud		
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Flud: same as above Forams present	CR	13/12/11
-- 10 --									
15							-15: shell frag.		
-- 20 --									
27							-27: shell frag.		
-- 30 --									
-- 40 --									
47							-48 > shells frags.		
49									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1-87c

2R CCA

(1800)



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above	C12	13/12/11
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
-0-- 3	Dark						-1. Py burrow		
	10Y 4/1	clay	fine sand	massive	BZ 2		1 mud (type 1) foram present		
--10--							-12. Py burrow		
--20--									
--30--									
--40--									
--50--							-55. shell fragment (2mm)		
--60--							-66 foram patch (1mm)		
--70--							-70 foram patch (1mm)		
--80--									
--90--							-88 Py burrow		
--100--									
--110--									
--120--									
--130--							-126. shell fragments (~1cm)		
--140--							-136 shell fragment (1mm)		
--150--							-146 shell fragment (3mm)		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
-- 0 --							<u>Same as above</u>		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Biscuit

90
S.S

90 cm: Nano mud

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
							Same as above.		
							10. shell fragments (~1mm)		
							14. shell fragment (1mm)		
							20. shell fragment (5mm)		
							39. shell fragment (2mm)		
				gradational contact					
	5Y 4/2	silt	m. sand	massive (mottled)	BZ 2		Silty mud (type 2) foram present		
							47. shell fragment (3mm)		
							57. shell fragments (~1mm)		
							75. shell fragment		
							90 cm: Mud with biogenic carbonate		
							89 } dispersed shell fragments (~7mm)		
							93 }		
							99. shell fragment (2mm)		
							114. shell fragment (1mm)		
							118. shell fragment (1mm)		
							gastropoda (8mm)		
							142 } dispersed shell fragment (~8mm)		
							143 }		
							151 }		

MAJOR LITHOLOGY:


MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
			Avg.	Max.						
-- 0 --								save as above		
								- 5. shell fragments (~1mm)		
-- 10 --								- 17. shell fragment (3mm)		
-- 20 --								- 29. shell fragment (3mm)		
-- 30 --								- 31. shell fragment (2mm)		
								- 42 > shell fragments (~1mm)		
-- 40 --								- 44		
-- 50 --								- 49 ⊗ patch (burrow)		
								- 51		
								- 55. shell fragments (~1mm)		
-- 60 --								- 59 shell fragment (2mm)		
								- 62. shell fragments (~1mm)		
-- 70 --								- 73 shell fragment (3mm)		
74								- mud (type 1)		
-- 80 --		10 ⁻⁵ 4/1	clay	h. sand				- 78. foram patch (1mm)		
								- 86. shell fragments (~1mm)		
-- 90 --								- 90. shell fragments (~2mm)		
								<u>90 cm. Nano silty mud</u>		
-- 100 --								- 107 shell fragments (~2mm)		
								- 109. foram patch (2mm)		
-- 110 --								- 118 shell fragment (3mm)		
-- 120 --								- 126 gastropoda fragment (5mm)		
-- 130 --										
-- 140 --								- 141. shell fragment (~5mm)		
								- 145. foram patch (1mm)		
-- 150 --										

Biscuit

gradational contact

Biscuit

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									SF	2011 12/13
-- 10 --								Same as above		
-- 20 --								17. shell fragments (~3mm)		
-- 30 --	Biscuit							30. shell fragment (2mm)		
-- 40 --					bioturbated (contact)			37. shell fragment (1mm)		
44								41. shell fragments (~1mm)		
-- 50 --	Biscuit	10Y 4/1	silt	m. sand				Silty mud (type 2) foram present		
55					gradual contact					
-- 60 --		10Y 4/1	clay	m. sand				mud (type 1) foram present		
-- 70 --								60. gastropoda fragment (3mm) shell fragments (~2mm)		
-- 80 --	Biscuit							78. Py burrow 		
-- 90 --								81. shell fragment (3mm)		
-- 100 --								90. Py burrows (~8mm)		
-- 110 --								103. Py burrow (8mm)		
-- 120 --								107. Py burrow (5mm)		
-- 130 --								118. shell fragments (~1mm)		
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									SF	20/11 12/13
								same as above		
-- 10 --										
										-17 Py burrow
-- 20 --										
-- 30 --										
-- 40 --										-46, Py burrows
-- 50 --										-54, Py burrows
-- 60 --										
	Biscuit									
-- 70 --										
										-78 -80) Py burrows
-- 80 --										-83, Py burrows
										-87, Py burrow
-- 90 --										-90, Py burrow
										-92, shell fragment (3mm)
-- 100 --										-102, shell fragments (~2mm)
										-105, Py burrow
-- 110 --										
116										
118		10% gy	f. sand	m. sand	massive	BI2				Silty sand (type 3)
-- 120 --										fining upward? (turbidite?)
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-0--								SF	2011 12/13
3	10X 4/1 PAL	clay	f. sand	erosional contact massive?	1371		same as above		
9							mud (type 1)		
-10--									
-20--									
-30--									
-40--									
-50--									
-60--									
-70--									
-80--									
-90--									
-100--									
-110--									
-120--									
-130--									
-140--									
-150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --								C12	13/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

1011-15

5/16/11/12/13/14/15

OLEY 1
10g
4/1

5/16/11/12/13/14/15

massive BZ = 2

1720
Forams present

-52: shell frags

-120
-121 > Py b.

-130: Py b.

-141: Py b.

-146: Py b.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							fluid: same as above Forams present	CR	13/12/11
-- 10 --									
-- 20 --									
25 -							25: shell frags and Py		
-- 30 --									
34 -							34: Py b.		
-- 40 --									
-- 50 --							49: Py b.		
-- 60 --									
63 -							63: Py b.		
62 -							62 > Py b.		
68 -							68 > Py b.		
-- 70 --									
72 -							72: Py b.		
77 -							77 > Py b.		
77 -							77 > Py b.		
-- 80 --									
-- 90 --									
96 -							96: Py b.		
-- 100 --									
102 -							102 > Py b.		
103 -							103 > Py b.		
-- 110 --									
-- 120 --									
-- 130 --									
134 -							134 > Py b.		
135 -							135 > Py b.		
-- 140 --									
145 -							145: Py b.		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Mud; same as above Forams present few small shell frags	CRZ	13/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
54 -							-54: Py b.		
-- 60 --									
-- 70 --									
71 -							-71: Py b.		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
124 -									
125 -									
-- 130 --									
-- 140 --									
-- 150 --									

SS
75cm

75cm: Nanno Mud

-124 -> Forams
-125

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CR	13/12/11
-- 10 --								Red Forams for some few shells, frags - throughout the section		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
53										
54										
57										
-- 60 --										
65										
-- 70 --										
75										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
135										
-- 140 --										
-- 150 --										

-- 50 -- Py b.
 -- 53 --
 -- 54 -- > Py crystals
 -- 57 --
 -- 60 -- > Py crystals
 -- 65 -- Py b.
 -- 75 -- Py b.
 -- 135 -- shell frags.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: CR	Date: 13/12/11
		Avg.	Max.						
0							Fluid same as above		
10									
18									
20	same						silty sand Shell frags.		
30									
40									
45									
50									
59									
60	same								
70									
80									
87									
90									
100									
110									
118									
120									
130									
135									
140									
150									

bivalve

shale bed

bivalve

SS 45cm

massive BY = 2

45cm:
Silty sand
with biogenic carbonate

fluid
forams present

87: shell frags.

118: bivalve shell

135: shell frags.



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Mud: same as above few shells frags. 42: Forams	CRZ	13/12/11
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
42										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CRZ	13/12/11
1 -								Mud: same as above 7: Py b. and shell frags.		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									GR	13/12/11
-- 10 --	disturb									
-- 20 --	tail									
-- 30 --										
35										
-- 40 --										
-- 50 --	disturb									
-- 60 --										
-- 70 --										
-- 80 --										
84										
-- 90 --	disturb x	grey 10y 4/1			massive	BI =2		Red Forams present		
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1307C GR 2/A

(18/6)

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CR	13/12/11
-- 10 --	dist									
-- 20 --	dist	Grey 10y 4/1			massive	B1 =2		fluc Forams present few shell frags.		
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
75						-75 SS		75 cm Nanno mud		
-- 80 --										
89								-89: shell frags.		
-- 90 --										
94								-94: Py b.		
-- 100 --										
-- 110 --										
115								-115: Py b.		
-- 120 --										
-- 130 --										
-- 140 --								-140: Py b		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C BR 3/A

(1817)

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Med. Same as above Forams present	GIZ	13/12/11
-- 10 --									
17 -							-17: Py b.		
-- 20 --									
-- 30 --									
-- 40 --									
46 -							-46: Shell frag.		
48 -							-48: Shell frag.		
-- 50 --									
-- 60 --									
-- 70 --									
77 -							-77: Py b.		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: GR	Date: 13/12/11
			Avg.	Max.						
-- 0 --								Mud: same as above Forams present Py crystals present		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
53								53: Py b.		
-- 60 --										
-- 70 --										
76								SS 75cm 76: Py b.		
-- 80 --										
-- 90 --										
96								96: Py b.		
97								97: shell frag.		
-- 100 --								98 100 } Py b and Py crystals		
-- 110 --										
-- 120 --										
123								123: Py b.		
124								124: Py b.		
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								CR	13/12/11
-- 0 --							Fluid: same as above; Forams present		
2							2: gastropod shell		
-- 10 --									
-- 20 --									
-- 30 --									
31							31: Py b.		
-- 40 --									
46							46: gastropod shell		
-- 50 --									
-- 60 --									
68									
-- 70 --							68: Py b.		
-- 80 --									
81							80 > 81: Py b.		
86									
86							86 > 87: shell frag c		
-- 90 --									
-- 100 --									
107							107: Py b.		
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								CR	13/12/11
-- 0 --							Fluid: Same as above Forams present		
-- 10 --									
15									
-- 20 --									
-- 30 --									
-- 40 --									
42							42: Py b.		
-- 50 --									
54							54: shell frag		
59							59: Py b.		
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Flud. saw on above	CR	3/12/11
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
--0--	10Y 4/1	clay	m. sand	massive	BI 2		(mud (type 1)) ↳ foram present		
--10--									
--20--									
--30--							30 shell fragment (2mm)		
--40--							36 P ₁ burrow		
--50--							46 P ₁ burrow		
58									
--60--							61 shell fragments (~1mm)		
--70--							73 P ₁ burrow		
--80--							78 shell fragments (~6mm)		
84				(gradational contact)					
--90--	10Y 4/1	silt	m. sand	?	BI 2?		silty mud (type 2) ↳ foram present		
99				(gradational contact)					
--100--	10Y 4/1	clay	m. sand	massive	BI 2		mud (type 1) ↳ foram present		
--110--							118 shell fragment (2mm)		
--120--									
--130--							133 shell fragments (~3mm)		
139				(gradational contact)					
--140--	10Y 4/1	silt	m. sand	massive	BI 2		silty mud (type 2) ↳ foram present		
--150--									

Biscuit

61 stretched
68

93 stretched
10Y 4/1

99 Biscuit

Biscuit

133 stretched

Biscuit

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 --	Biscuit						14. shell fragment (1mm)		
-- 20 --							21. shell fragment (3mm)		
24				gradational contact					
-- 30 --	10Y 4/1	clay	ms. sand	massive	BI 2		mud (type 1) ↳ foram present		
-- 40 --							35. shell fragment (1mm)		
-- 50 --	Biscuit								
-- 60 --							57. P. burrow		
-- 70 --							69. foram patch (2mm)		
-- 80 --							80. foram patch (2mm)		
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
-- 0 --							3) Same as above		
-- 10 --							(dispersed shell fragments (~4mm)) 9. shell fragments (~3mm) 13. shell fragments (~4mm)		
-- 20 --									
-- 30 --							30. shell fragment (3mm)		
-- 40 --									
-- 50 --							48. P. burrow		
-- 60 --							57. foram patch (1mm)		
-- 70 --							64. P. burrow 70. P. burrow 71. P. burrow 79. P. burrow		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --							111. P. burrow		
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
			Avg.	Max.						
-- 0 --								save as above		
-- 10 --								-12. P. burrow		
-- 20 --										
-- 30 --								-28. shell fragment (3mm)		
-- 40 --					gradational contact			-42. foram patch (1mm)		
45										
-- 50 --		10Y 4/1	silt	m. sand	massive	BZ 2		<u>silty mud (type 2)</u>		
-- 60 --								-57. shell fragment (3mm)		
-- 70 --								-69. shell fragment (1mm)		
-- 80 --								-75 -79. shell fragments (~1cm) Silty Mud w/ Bio Carb		
-- 80 --					gradational contact			-86. shell fragment (2mm)		
-- 90 --										
92										
-- 100 --		10Y 4/1	fine sand		massive (mottled?)	BZ 2		<u>silty sand (type 3)</u>		
-- 110 --								-95. shell fragments (~2mm)		
-- 120 --								-109. sea ocean fragment (1mm)		
-- 130 --										
131										
-- 140 --		10Y 4/1	silt	mud.	massive	BZ 2		<u>silty mud (type 2)</u>		
-- 150 --								-146. shell fragment (2mm)		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

-- 0 --	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
			Avg.	Max.						
					gradational contact			<u>same as above</u>		
-- 10 --		10Y 4/1	Clay	in sand	massive	BI 2		mud (type 1) ↳ foram present		
-- 20 --								-25 shell fragment (3mm)		
-- 30 --										
-- 40 --		Biscuit								
-- 50 --										
-- 60 --								-59 P _y burrow -60 P _y burrow		
-- 70 --								-76 P _y burrow		
-- 80 --										
-- 90 --										
-- 100 --								-105 shell fragment (3mm)		
-- 110 --										
-- 120 --										
-- 122 --										
-- 130 --										
-- 140 --										
-- 150 --										

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/13
		Avg.	Max.						
-- 0 --							o Same as above - 1. shell fragment (2mm)		
-- 10 --							- 7. Py burrow - 10. Py burrow - 15. Py burrow		
-- 20 --									
-- 30 --	Biscuit						- 30. foram patch (1mm)		
-- 40 --						40 S.S	Nanno Mud		
-- 50 --									
-- 60 --							- 58. shell fragment (4mm)		
-- 70 --	7/								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1389C

7 PCC / i

(828)



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		Biscuit.						'same as above	SF	2011 12/13
-- 10 --		PAL								
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	10X4/1	clay	M.S.				② slty mud ①	MARN	13/DEC/2011
-- 10 --							-10-11 dark colored layer		
-- 20 --							-24-25 dark colored layer		
-- 30 --							-31 - - - - -		
	10X5/1	clay	M.S.	massive			① mud		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --							-83 shell fragments		
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y5/C						S S S	MAM	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --		10Y5/1	clay	M.S.	Grad. ↑ normal grad.	3		140 ② SILTY MUD		
-- 150 --		10Y5/1	V.F.S.	M.S.	Grad. ↓	3		144 ③ SILTY SAND		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: mam	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --	10Y4/1						3 S.S.S. → bivalve		
-- 10 --				G.C.			12		
-- 20 --	10Y4/1	clay	M.S.	inverse grading	3		② SILTY MUD		
-- 30 --							33		
-- 40 --				G.C.			① MUD		
-- 50 --		clay	M.S.	massive	3				
-- 60 --									
-- 70 --							79		
-- 80 --									
-- 90 --									
-- 100 --									dendrites (→ photo requested to John!)
-- 110 --	10Y4/1						116		
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Masm	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --	10Y4/1	clay	M.S.	massive			S. S. A.		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

175cm SS - Nanno Mud

121-126 burrow

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: <i>mpm</i>	Date: <i>13/DEC/2011</i>
		Avg.	Max.						
-- 0 --	<i>5G45/1</i>						<i>S.S.S.</i>		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --							<i>50 shell fragment</i>		
-- 55 --							<i>55 shell fragment</i>		
-- 60 --									
-- 70 --									
-- 80 --									
-- 84 --	<i>5G44/1</i>	<i>clay</i>	<i>M.S.</i>	<i>Grad. ↑</i>			<i>94</i>		<i>② SILTY MUD</i>
-- 90 --				<i>normal grading</i>	<i>3</i>				
-- 105 --		<i>Very Fine Sand</i>	<i>M.S.</i>	<i>Grad. ↓</i>			<i>105</i>		<i>③ SILTY SAND</i>
-- 109 --							<i>109</i>		<i>Sandy silt w/ Disc Carb</i>
-- 110 --		<i>clay</i>	<i>M.S.</i>	<i>Irregular C</i>			<i>110</i>		<i>① MUD</i>
-- 120 --				<i>massive</i>					
-- 130 --									
-- 137 --							<i>137</i>		
-- 143 --	<i>5G45/1</i>	<i>clay</i>	<i>M.S.</i>	<i>Grad. ↑</i>	<i>2</i>		<i>143</i>		<i>② SILTY MUD</i>
-- 146 --				<i>Grad. ↓</i>			<i>146</i>		<i>③ SILTY SAND</i>
-- 150 --		<i>V.F.S.</i>	<i>M.S.</i>		<i>3</i>				

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S.A.A.	nam	13/DEC/201
-- 10 --				Grad. C					
	10Y4/1	Clay	M.S.	inverse grading			13 ② SILTY MUD		
-- 20 --				Grad. C					
	5GY4/1	Clay	M.S.	↓	3		22 ① MUD		
-- 30 --									
-- 40 --									
	10Y4/1								
-- 50 --									
-- 60 --									
	5GY4/1								
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
	5GY4/1	clay	M.S.	↑ normal grad	3		144 ② SILTY MUD		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MPSM	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --				inverse grading					
	1094/11	clay	M.S	Grad. C	3		5		① MUD
-- 10 --		Very fine sand	M.S	Grad. C normal grading	3				② SILTY SAND
-- 20 --		clay	M.S	Sharp. C	3		17		① MUD
-- 30 --				massive			29-31		burrow L=3cm
-- 40 --							37		shell fragments
-- 50 --							53		shell fragment
-- 60 --		clay	M.S	Grad. C normal grading	3		57		② SILTY SAND
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

82 CC

1836



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	disturb.							S.A.A.	MAGM	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	Clay	M. S				② SILTY mud	MASU	13/DEC/2011
-- 10 --					massive	3				
-- 20 --										
-- 30 --										
-- 40 --								-35 shell fragments		
-- 50 --	Disturbed									
-- 60 --								-62 } shell fragments		
-- 70 --								-65 }		
-- 80 --										
-- 90 --	10Y 4/1									
-- 100 --										
-- 110 --										
-- 120 --	Discrete									
-- 130 --										
-- 140 --								-135 Scaphopods fragments		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					MOSU	13/DEC/2011
-- 0 --								0 Bivalve.		
		10Y4/1	clay	M.S.				② SILTY MUD		
-- 10 --					massive	3		13 scaphopod. ϕ 0.4 mm		
-- 20 --										
-- 30 --										
-- 40 --								38-39 shell fragments		
-- 50 --								46 bivalve.		
-- 60 --										
-- 70 --										
-- 80 --	bisect							78 shell fragment		
-- 90 --								90 bivalve		
-- 100 --								102		
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

9R3A

1839

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									Maw	13/Dec/2011
-- 10 --								S s s		
-- 20 --										
-- 30 --										
-- 40 --	38									
-- 50 --	48									
-- 60 --										
-- 70 --								71 shell fragments.		
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

38
48
mousse-like
disturb.

Bisemite

--- 104 ---

(more silt.)

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

9R4A

1840

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S.A.A.	MOSM	13/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --							28		
-- 40 --	10x4/1	Clay	M.S.	massive	3		Ⓟ mud		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Bioturb. disturbance

- 85 shell fragments

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

GRSA

1841

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: <i>mat</i>	Date: 13/DEC/2011
			Avg.	Max.						
-- 0 --										
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



Disturbance

Pyritized

S S S

24 bivalve fragment

64 pyritized mottle (burrow?)

71 scaphopod. fragment

82-86 pyritized burrow

9555 - *Nanno Mud*

108 *py* burrow

113 *py* burrow.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

926A

1192

UNIVERSITY OF CALIFORNIA
Sedimentology

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 12/DEC/2011
		Avg.	Max.						
-- 0 --	10Y4/1						S.A.A.		
-- 10 --							- 12-13 pyritized burrow		
-- 20 --									
-- 30 --									
-- 40 --	bioturb.						- 41 PY burrow		
-- 50 --									
-- 60 --							- 63 PY. burrow		
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

9200

1843



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	biscuit	1049/1						-3 py. burrow S.S.S.	MAN	13/Dec/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 13/DEC/2011
		Avg.	Max.						
--0--	10Y4/1	Clay	M.S.				① MUD (more silt)		
--10--									
--20--									
--30--				massive					
--40--									
--50--									
--60--									
--70--					3				
--80--	10Y4/1	Clay	M.S.	grad. c			② SILTY MUD		
--90--					3				
--100--				massive					
--110--									
--120--							15 Bivalve		
--130--									
--140--									
--150--							(more sand)		



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1029A

1045

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								mas	13/DEC/2011
-- 0 --									
-- 10 --							small shell fragments all along the section		
-- 20 --				grad			17		
-- 20 --	10x4/1	clay	M.S.		3		① MUD		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --				massive					
-- 70 --									
-- 80 --	Big Curie								
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --	10x4/1	clay	M.S.	grad	2		150 ② SILTY MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

10R3A

1846

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 13/DEC/2011
			Avg.	Max.						
-- 0 --										
-- 10 --		10x4/1	Clay	MS	grad. c			8		⊙ mud
-- 20 --					massive					
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1024A

1047

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: YASU	Date: 13/Dec/2011
		Avg.	Max.						
			M.S						
		Clay	M.S	n.g	3		12 ② SILTY MUD		
		Very Fine sand	M.S.	normal cracks	3		18 ③ SILTY SAND		
				Bio. C.			32 SS - Sandy silt w/ BioCorb 33cm 32 shell fragments 39		
		Clay	M.S				39 ② SILTY MUD		
				massive	3				
				Grad. C			62		
Biscuit	10x411	Clay	M.S.	massive	3		① MUD		
				Grad. C					
		Clay	M.S.	massive	3		45 ③ SILTY MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

10R5A

1848

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MAM	Date: 13/DEC/2011
			Avg.	Max.						
-- 0 --								SS		
-- 10 --										
-- 20 --								20 bivalve fragment		
-- 30 --										
-- 40 --								36 bivalve fragment		
-- 50 --										
-- 60 --										
-- 70 --	Biscuit									
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --								121 Gastropod fragment		
-- 130 --										
-- 140 --								SS 139cm Silty mud w/ Bio Carb (XRD-CARB)		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

10R 6A

1849

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MAM	13/DEC/2011
-- 0 --									
-- 10 --				massive					
-- 20 --							23-24 burrows		
-- 30 --				normal grading			31 (more sand)		
-- 40 --				G.C. normal grading	3		38		
-- 50 --	10:4/1	Very Fine Sand	M.S.		3		45 gastropod fragment		
-- 60 --		clay	M.S.	G.C. massive	3		52 bivalve fragments 55		
-- 70 --		very fine sand	M.S.	G.C. normal grading	3		61		
-- 80 --							76-82 shell fragments 78		
-- 90 --							90 shell fragments		
-- 100 --				Irregular C.			103		
-- 110 --		clay	M.S.	massive	3		118		
-- 120 --				Grad C					
-- 130 --		clay	M.S.	massive	3				
-- 140 --									
-- 150 --									

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1027A

1850



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		5G41						SAD	YAS	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

R5012

-- 39 bivalve fragment

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

10RCC

1851



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Biscuit	5GK/1						SAA	MFM	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --	1044/1						3 shell fragments. ③ SILTY SAND Small Shell Fragments All Along the Section		
-- 10 --		Very Fine sand					17 bivalve.		
-- 20 --									
-- 30 --				massive	3				
-- 40 --									
-- 50 --									
-- 60 --	1044/1	clay	M.S	grad. c			60 ② SILTY SAND MUD		
-- 70 --									
-- 80 --				massive	3				
-- 90 --							87-90 shell fragments.		
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --							128 bivalve fragment		
-- 140 --							142 bivalve fragment		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387c

UR 2A

5853

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S.S.S.	MASU	13/DEC (201)
-- 10 --							<u>SSFAAS</u>		
-- 20 --							19 bivalve fragment		
-- 30 --									
-- 40 --									
-- 50 --									
-- 55 --				Grad. c			SS		
-- 60 --	10x11	clay	M.S	massive	3		Q msa		
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S S S	MZM	13/Dec/2011
-- 10 --							<u>S S S S S</u>		
-- 20 --									
-- 30 --							-29 Gastropod fragments		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --	1014/1	Clay	M.S.	Grad. C normal gradly ↑			89 ② SILTY MUD		
-- 100 --		Very Fine Sand	M.S.	G.C. massive	3		99 ① SILTY SAND		
-- 110 --				Bio. G.	3		-109 very slightly cross-lamina		
-- 120 --		Clay	M.S.	massive	3		① MUD		
-- 130 --							-131 → chondrites		
-- 140 --							-137 ↓		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASM	13/DEC/2011
-- 0 --							SodA. SSFAAS		
-- 10 --							8 pyritized burrow		Conduites ↓ 19
-- 20 --									
-- 30 --							30 shell fragments		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --							112 shell fragments		
-- 120 --							122 shell fragments		
-- 130 --							13 shell fragments		
-- 140 --							140-143 shell fragments		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

11R5A

56

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 12/DEC/2011
			Avg.	Max.						
-- 0 --					grad. C			Scads		
		10Y4/1 Clay		M.S.		3		② SILTY MUD		
-- 10 --					massive			<u>SSFADS</u>		
-- 20 --										
					grad. C					
-- 30 --		10Y4/1 Very fine sand		M.S.		3	SS 28cm	③ SILTY SAND		
								shell fragments. gastropods / bivalves frags.		
-- 40 --										
	50cm distur.									
-- 50 --										
					massive					
-- 60 --								shell fragments		
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --								- 127 bivalve fragment		
					grad. C			- 131		
		10Y4/1 clay		M.S.		3		② SILTY MUD		
-- 140 --					massive					
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MAM	13/dec/2011
-- 0 --							SSFAAS		
-- 10 --									
-- 20 --				Grad C.			23		
-- 25 --	10Y4/1	clay	M.S.	massive	3		(2) SILTY MUD		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --							-89 gastropod fragment		
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --						SS 142cm	nonfossil silty mud		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C

11R7A

10-8

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MAGM	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --									
-- 10 --	lo a/l	Very fine sand	M.S.	massive grad.c	3				
-- 20 --							14		
-- 30 --	lo a/l	clay	M.S.	massive	2				
-- 40 --									
-- 50 --				grad.c			50		
-- 60 --	lo a/l	Very fine sand	M.S.	massive	3				
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

HRCC



59



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y 4/1	Very Fine Sand	M-S.	massive	3		9 AA. - 3 crack	Magn	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	10Y4/1	Silt	M.S.	massive	3		② SILTY MUD	MAGM	13/FEC/2011
		↑ dk med. clay							
							→ 25  bivalves (in situ)		
							→ 54cm gastropod. 		
							→ 67		
				Grad. c.					
		clay	M.S.	massive	3		① MUD		
	10Y4/1								

Discard

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1						⊙ mud	Masm	13/DEC/2011
-- 10 --								Solids		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --		Pyritic						-63 pyritized burrow		
-- 70 --								-67		
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --								-130 ⊙ MUD		
-- 140 --								(more clay)		
-- 150 --								-146 shell fragment		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

12R3A

7862

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									MAGM	13/DEC/2011
-- 10 --								7 pyritized burrow		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --	disc									
-- 66 --								66		
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --								101		
		10Y4/1 clay	M.S.					② SILTY MUD		
-- 110 --										
		10Y4/1	U.F.S	M.S.				113		
								③ SILTY SAND		
-- 120 --								117		
								shell fragments		
-- 130 --										
-- 140 --										
-- 150 --	Sample disturb.							148		
								shell fragments		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

12R4A

563

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		1004/1						S. Add. 5-10 cm shell fragments	MAM	13/DEC/2011
-- 10 --										
-- 20 --								-22 shell fragments		
-- 25 --					crack	3				
-- 30 --		1004/1	clay	M.S.	inverse grade	3		28 ② SILTY MUD shell fragments		
-- 35 --					grade					
-- 40 --		504 4/1	very fine sand	M.S.		3		74 ↑ chondrites. ① MUD		
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --								120 ↑ chondrites		
-- 130 --								128 ↓		
-- 140 --										
-- 150 --										

Biscuit

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

12R5A

7864

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MDSU	13 Dec 201
-- 0 --							SODD		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --	10Y5/1	clay	M.S.	color C massive	3		36 ① MUD chondrites 43		
-- 50 --									
-- 60 --		clay	M.S.	normal gradation	3		62 ② SILTY MUD		
-- 70 --		very fine sand	M.S.	normal gradation	3	77cm SS	70 ③ SILTY SAND		
-- 80 --	10Y4/1	clay	M.S.	sharp c. massive			78 ④ MUD		
-- 90 --	Biscuit								
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --						SS 132cm	123 shell fragment Nanno fossil Mud (XRF-Carb)		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

MB10

Expedition 339: Mediterranean Outflow

12R6A

1865

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	clay	M.S.					MASU	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



S A A

- 49
- 52 burrow

Disturbance

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

12276-1866



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									MAN	2/Dec/2011
-- 10 --								SDA		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387 C

12R CC

267



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Biscuin							SADA	masu	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C - 13R - 1A

Expedition 339: Mediterranean Outflow

U1387 C

13R1A

1007

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 13/DEC/2007
		Avg.	Max.						
-- 0 --	10Y4/1	Very fine sand	M.S.	massive			(3) SILTY SAND		
-- 10 --		Fine sand			2/				
-- 20 --	5G4/1	clay	M.S.	Sharp.C			(1) MUD mottled		
-- 30 --					3/				
-- 40 --				massive					
-- 50 --									
-- 60 --							(6) burrow		
-- 70 --	Biscuit			Grad.C			(3) SILTY MUD		
-- 80 --		clay	M.S.	massive	3/				
-- 90 --									
-- 100 --		clay	M.S.	Grad.C			(1) MUD		
-- 110 --				massive					
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

BR2A

58

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	10Y3/1							MASU	13/DEC/2011
-- 0 --									
-- 10 --									
-- 20 --		clay	M.S.	massive	3				
-- 30 --						3/10m S			
-- 40 --									
-- 50 --									
-- 60 --	10Y4/1								
-- 70 --	Biscuit								
-- 80 --							abundant foraminifers		
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --		clay	M.S.	EC					
-- 140 --		Very fine sand	M.S.	Normal gradation					
-- 150 --		clay	M.S.	massive					
							126		(2) SILTY MUD
							135		(3) SILTY SAND shell fragments
							144		(1) MUD
							148		burrows

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1323A.

1269

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							-2 sand-filled burrow ① MUD	masu	13/DEC/2011
-- 10 --		clay	M.S.	none	3				
-- 20 --	1024/1						-23 sand-filled burrow		
-- 30 --									
-- 40 --									
-- 50 --							-50 sand-filled burrow		
-- 60 --							-56 mottled.		
-- 70 --					3		-64 -71 pyritized burrow		
-- 80 --	1024/1	clay	M.S.	normal grading	3		-76 ② SILTY MUD		↑ -72 - chondrites
-- 90 --					3		-81 ③ SILTY SAND		↓ -86 -
-- 100 --	1023/1	Very fine sand	M.S.						
-- 110 --									
-- 120 --									
-- 130 --	1023/1	clay	M.S.	intense grading	3		-125 ② SILTY MUD		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

BR4A

1070

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MPSM	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --	1073/1	Clay	M.S.	a-c	← inverse grading		4		
-- 10 --		Clay	M.S.				4		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --	1073/1						105 Bivalve (1,000, open heart) in situ		
-- 120 --							116 py. burrow.		
-- 130 --							132		
-- 140 --	1073/1	Clay	M.S.	graded massive			2 SLTY mud		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

13R5A

1071

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	12/DEC/2011
-- 0 --	10x4/1	clay	M.S.	massive	3		S.A.S.		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 69 --				normal gradings					
-- 70 --	10x4/1	V.S.S	M.S.	G.C.	3		69 ② SILTY SAND		
-- 77 --				G.C.			shell fragments		
-- 80 --	10x4/1	clay	M.S.	inverse gradings	3		77 ② SILTY MUD		
-- 90 --	Biscuit								
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

13R6A

1072

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1							MASU	13/Dec/201
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --								bivalves fragments		
-- 60 --		Biscuit								
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

13R7A

73

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by: masu	Date: 13/FEC/2011
		Avg.	Max.						
-- 0 --							SSS		
-- 10 --									
-- 20 --	10Y4/1	Clay	M.S.	G-C massive	g		16 ① MUD		
-- 30 --	10Y4/1	Clay	M.S.	Grad-C massive	g		25 ② SILTY MUD		
-- 40 --							Gastropod. φ 1cm		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

13RCC

107 f



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Biscuit	10x4 1						SAD	MASU	13/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	clay	M.S.	massive	3			masu	13/DEC/2011
-- 10 --								① MUD Small shell fragments all along the section		
-- 20 --										
-- 30 --										
-- 40 --		碧青泥						24 bivalve fragment		
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --								136 bivalve <u>in situ</u>		



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	10Y4/1	clay	M.S.	massive	3		SSFAAS 20cm: Nannofossil mud -16 -17 pyritized burrows(?)	MASU	13/DEC/2011
Biscuit	10Y4/1	clay	M.S.	grad. massive inclined lamina(?)	3		37 41 46 ② SILTY MUD pyritized materials		
	10Y4/1			massive			-61-62 gastropods. fragments		
	10Y4/1						146		
	10Y4/1	very fine sand	M.S.	normal gradig	3		③ SILTY SAND		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1423A

1478

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MAM	13/DEC/2011
-- 0 --							S.S.S.		
-- 10 --							Small shell fragments All Along the section		
-- 20 --	1074/1			Grad. C inverse grainy	3	SS 24-25 20cm	(3) SILTY MUD shell fragments 20cm Silty mud with biogenic carbonate		
-- 30 --		clay	M.S.						
-- 40 --									
-- 50 --		clay	M.S.	GC 47 inverse grainy 53	3		49 MUD		
-- 60 --									
-- 70 --							70. scaphopod. L=2cm		
-- 80 --									
-- 90 --							87 chondrites.		
-- 100 --		clay	M.S.	Grad. C	3		96 (3) SILTY MUD		
-- 110 --		V.F.S.	M.S.	Grad. C normal grainy Bio. C	3		102 (3) SILTY SAND		
-- 120 --		clay	M.S.	massive	3		107 MUD		burrows
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

1024A

1079

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Yasun	Date: 13/DEC/2011
		Avg.	Max.						
-- 0 --							POAD		
-- 10 --									
-- 20 --	10241			massive			18 br valve in situ $\phi = 1cm$		
-- 25 --				Grad C					
-- 30 --	10241	clay	M-S	massive			② SILTY MUD		
-- 32 --				Grad C					
-- 38 --	38			massive			③ SILTY SAND		
-- 40 --	10241	Very fine sand	M-S						
-- 50 --									
-- 53 --	53								
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

14RCC

1880



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									MAM	13/DEC/2011
-- 10 --								SCAA.		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					SF	2011 12/14
-- 0 --	10T 4/1	clay	m. sand	massive	BI 2		mud (type 1) ↳ forams present		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --				sharp contact			46. shell fragment (1mm)		
-- 52 --	10T 3/1	f. sand	m. sand	convolution	BZ 19	52 S-S	fine sand layer (type 3) turbidite		
-- 60 --	10T 4/1	clay	m. sand	sharp contact massive	BZ 2		mud (type 1) - forams present 66. shell fragment (2mm)		
-- 70 --									
-- 80 --							77. shell fragments (~2mm)		
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --							132. shell fragment (4mm)		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

152 2/3 A

1889

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --							Same as above		
							4. shell fragment (3mm)		
-- 10 --							11. shell fragment (1cm)		
-- 20 --									
-- 30 --									
-- 40 --							33. shell fragment (2mm)		
							43. shell fragments (~2mm)		
-- 50 --									
-- 60 --									
	Biscuit						65. P _y burrow		
-- 70 --						68. P _y burrow			
						15. SS			
-- 80 --							89. shell fragment		
							89 shell fragments (~2mm)		
-- 90 --									
-- 100 --									
-- 110 --									
							114. shell fragments (~2mm)		
-- 120 --									
-- 130 --							131. shell fragment (4mm)		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

3
ISRAA
1883

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									SF	2011 12/14
	Biscuit							same as above		
-- 10 --								13. shell fragments (2mm)		
-- 20 --					gradational contact					
26										
29		10Y 4/1	silt	m. sand	massive	BI 2		<u>Silty mud (type 2)</u> ↳ forams present		
-- 30 --										
	Biscuit	10Y 4/1	clay	m. sand	gradational contact massive	BI 2		<u>mud (type 1)</u> ↳ forams present		
-- 40 --										
47					bioturbated contact					
-- 50 --										
	Biscuit	10Y 4/1	silt	m. sand	massive? (bottled)	BI 3		<u>Silty mud (type 2)</u> ↳ forams present		
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
								-106. P. burrow		
-- 110 --										
-- 120 --										
					gradational contact					
-- 130 --										
131		10Y 4/1	clay	m. sand	massive	BI 2		<u>mud (type 1)</u> ↳ forams present		
-- 140 --										
	Biscuit							-147. P. burrow		
-- 150 --										

↑ stretched ↓

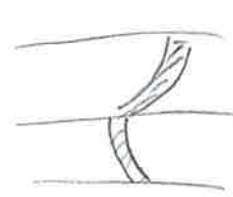
MAJOR LITHOLOGY:

MINOR LITHOLOGY:

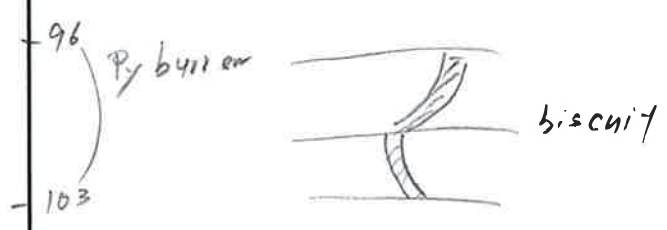
Expedition 339: Mediterranean Outflow

4
ISRA

1084

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
			Avg.	Max.						
-- 0 --								Same as above		
-- 10 --										
-- 20 --										
-- 30 --								32. Py burrow		
-- 40 --								36. Py burrow		
-- 50 --								53 shell fragment (1mm)		
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --								96 Py burrow		biscuit
-- 110 --										
-- 120 --								119. shell fragment (1mm)		
-- 130 --								121. shell fragments (~3mm)		
-- 140 --										
-- 150 --								146. shell fragment (2mm)		

Biscuit



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

15R5A

7885

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --							<u>Same as above.</u>		
-- 10 --									
-- 20 --							24 shell fragment (3mm)		
-- 30 --									
-- 40 --									
-- 50 --	Biscuit						47. shell fragments (~3mm)		
-- 60 --							62 - py burrows 64 - py burrows		
-- 70 --							67. shell fragment (4mm)		
-- 80 --							77 - shell fragment (2mm) 80 - shell fragment (1mm) 84. - shell fragment (2mm)		
-- 90 --									
-- 100 --									
-- 110 --							105 P ₂ burrow		
-- 120 --									
-- 130 --				bioturbated contact					
-- 140 --	10R 4/1	silt	m. sand	massive	BZ 3		<u>Silty mud (type 2.)</u> L forams present 139. P ₂ burrow 140 P ₂ burrow		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

15R6A

7886

SR 2012 15R6A
12/14/14
12/14/14

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --							Same as above 3. shell fragment (2m)		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
52									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



stretched

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

ISRC

7887.



	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									SF	2011 12/14
								<u>Same as above</u>		
-- 10 --										
16										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	fall in								CRZ	14/12/11
-- 10 --	disurb. x	OLEY, 5 Gy 4/1			massive	B1 =2				
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387 C 16R 2A

1889

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Flud: same as above	LR	14/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
53							93: Py b.		
-- 100 --									
-- 110 --									
-- 120 --									
122							122: Py s.		
-- 130 --									
-- 140 --									
144							144: Py crystals		
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U387C 16R 3A

1890

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CR	14/2/11
-- 10 --	5300 x							Fluid: same as above		
19								-19: Py b		
-- 20 -- 22								-22 } Py b. (Py crystals) -28 }		
28										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
75								75 cm: Nano fossil mud		
72								contact: sharp		
-- 80 --		Same						sandy silt shell frags		
78								78 cm: Sandy silt. with biogenic carbonate		
-- 90 --	5700 Leu									
-- 100 --	↓									
-- 110 --		Same						contact: gradual silty mud smaller shell frags		
-- 120 --										↓ fine downwards
-- 130 --										
-- 140 --										
147								147 cm: Silty mud with biogenic carbonate		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Disrupt	(Saw) = OLEY			Mosaic	B1 -2	10 cm SS	Pure few shell frags. Forams present 10 cm: Mud with biogenic carbonate	CR	14/12/11
-- 10 --		5 Gy 4/1								
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

THE UNIVERSITY OF TEXAS AT AUSTIN



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Thud. same as above	CRZ	14/12/11
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 16R CCA

(1893)



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		OLEG1						Flud; same as above except color change	CR	14/12/11
-- 10 --		105 3/1								
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
--0--	bisect	GLE41 10y 3/1			main	BI =2		Fined Forams present	LR	14/12/11
--10--		GLE51 10y 4/1								
--20--										
22										
23								-22 23 > Py b.		
--30--										
35								-35: Py b.		
--40--										
--50--										
--60--										
67								-67: Py b.		
--70--										
--80--										
--90--										
--100--										
--110--										
116								-116: Py b.		
--120--										
--130--										
--140--										
140								contact: irregular silty mud		
--150--								145 SS 145cm: Silty mud with biogenic carbonate		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth (cm)	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
0									LR	14/12/11
9								Silty mud		
10								contact: case for 2		
10-20	↑							Sandy silt; abundant shell frag.		
20-30	stretched							-10 Bivalve shells frags		
30-31	↓							-31: Coral branches		
65								-65: Corophocid shells		
70								-70: Coral branches		
75-76								75 cm: Silty mud with biogenic carbonate		
76								-76: Bivalve shell		
79								-79: Bivalve shell frag.		
114								contact: procladion		
125								Silty mud		
125-130								125 cm: Silty mud with biogenic carbonate		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U137C

17RCCA

896



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	shredded							silty mud	WZ	14/12/11
o										
-- 10 --	broken									
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	GLEYS RDY4/1	Clay	Medium Sand (foram)	Massive (or faint lamination ?)	PT. 2		Type I: Mud } Foram present (to the bottom of this section)	NN	14/Dec/2011
--0--									
--10--									
--20--									
--30--									
--40--							39 Shell fragments		
--50--									
--60--									
--70--									
--80--									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

Under for bed

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--							Type 1: Mud continued from 1A	N U	14/Dec/2011
--10--				Gradational contact			3 shell fragments		
11	GLEYS 10Y4/1	Silt	Very fine sand	Massive?	BI:1		Type 2: Silty mud		
16	GLEYS 10Y4/1	Fine sand	Medium sand	Massive?	BI:1	1955	Type 3: Silty sand		
--20--							19cm: Mud with biogenic carbonate.		
	GLEYS 10Y4/1	Mud	Very fine sand	Sharp contact?	BI:3		Type 1: Mud		
--30--			(in burrows)				Foram present		
--40--									
--50--									
--60--	Undisturbed								
--70--									
--80--									
--90--				Bioturbated contact					
96	GLEYS 10Y4/1	Silt	Very fine sand	Massive	BI:3		Type 2: Silty mud		
--100--				Bioturbated contact					
	GLEYS 10Y4/1	Clay	fine sand (Foram)	Massive	BI:3		Type 1: Mud		
--110--							Foram present		
--120--									
--130--									
--140--									
--150--									

↑ Fining upward (turbidite?)

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

18R

3A

1899

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
- 0 --								NN	14/Dec/2011	
- 10 --							Type 1: Mud ↓ P ₁ burrow Foram present		Continued from 2A	
- 20 --							↓ (to the bottom of this section)			
- 30 --										
- 40 --										
- 50 --										
- 60 --										
- 70 --										
- 80 --							75SS - 75 shell fragments		75 cm: Mud with biogenic carbonate	
- 90 --										
- 100 --	Stretching									
- 110 --										
- 120 --										
- 130 --										
- 140 --					Bioturbated contact					
- 146 --										
- 150 --		GLY1 10Y4/1	Silt	Silt	Massive	BS-3			Type 2: Silty mud	

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								NN	14/Dec/2011	
							Type 1: Mud			
									continued from 5A	
-- 10 --										
									Py burrows	
-- 20 --										
-- 30 --										
-- 40 --									39 Py burrow	
-- 50 --									47 7 49 Py burrows	
-- 60 --										
-- 70 --									69 76 78 Py burrow 79 ↓ Py burrow 83	
-- 80 --										
-- 90 --										
-- 100 --										
102										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

339-18R-7A
18R7A-1
1903



Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									NN	14/20/11
-- 10 --								Type 1: Mud continued from 6A		
-- 20 --								-11 -13 ↓ Py burrow		
-- 30 --								-30 Shell fraction		
-- 40 --								-36 Py burrow		
-- 50 --								-40 ↓		
54.5										
56.5	GLY1 107471		Silt	Silt	Massive?	2?				Type 2: Silty mud.
57.5										Type 3: Silty sand (see detail in CCA)
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Gradational contact

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
- 0 --	GLEYS 10Y4/1	Fine Sand	Medium Sand	Faint laminae	BT: 3		Type 3: Silty sand Shell fragments Paleo - sample	IV IV	4/Dec/2011
8									
- 10 --									
13									
- 20 --									
- 30 --									
- 40 --									
- 50 --									
- 60 --									
- 70 --									
- 80 --									
- 90 --									
- 100 --									
- 110 --									
- 120 --									
- 130 --									
- 140 --									
- 150 --									

4 mud filled burrows

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14			
		Avg.	Max.									
-0--	10Y 4/1	clay	m. sand	massive	BI 2		mud (type 1) ↳ foram present 5. shell fragment (4mm)					
-10--											19. P. burrow	
-20--											24. P. burrow 25. P. burrow	
-30--	10Y 4/1			fining upward gradational contact	BI 1?							
39		silt	m. sand								silty mud (type 2)	
-40--												
41	10Y 4/1	f. sand	c. sand	sharp contact	BI 1?		sand layer (type 3) ↳ dispersed shell fragment foram present					
46												
-50--												
-60--	10Y 4/1	clay	m. sand	massive	BI 2		mud (type 1) 53. echinoid fragment (3mm) 58. shell fragment (2mm) py burrow					
-70--												
-80--												
-90--	10Y 4/1			fining upward gradational contact	BI 1?							
-100--											105 cm: Silty mud with biogenic carbonate	
104											103. sea-urchin fragment (low)	
106	10Y 3/1	f. sand	c. sand	sharp contact	BI 1?	105.55	sand layer (type 3) - foram present					
-110--												mud (type 1) ↳ foram present 110 cm: Nonfossil mud 115. Sand filled burrow
-120--												123. Sand filled burrow ↳ foram patch (low)
-130--	10Y 3/1	clay	m. sand	massive	BI 3		128. P. burrow					
-140--												145 cm: 146. P. burrow
-150--												

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --							<u>Same as above</u>		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --							49. foram patches 52. shell fragment (1mm)		
-- 60 --							63. foram patch		
-- 70 --							66. foram patch		
-- 80 --							74. P ₁ burrow 78. P ₁ burrow 80. P ₁ burrow		
-- 90 --	10Y 4/1	clay	fsand	gradational contact massive	BZ 3		<u>mud (type 1)</u> ↳ foram present.		
-- 100 --									
-- 110 --							116. burrow → ○ 112. P ₁ burrow → ○		
-- 120 --							119. shell fragment (4mm) foram patch		
-- 130 --							127. P ₁ burrow 130. foram patch.		
-- 140 --									
-- 150 --							147. foram patch		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
			Avg.	Max.						
--0--								Same as above		
--10--	Biscuit									
--20--							20. S.S	20 cm: Nanno fossil mud		
27					gradational contact			35 cm: Sandy silt. with biogenic carbonate		
--30--	Biscuit	10Y 4/1	silt	m. sand	massive? (mottled?) gradational contact	BI 3	35 S.S	Silty mud (type 2) - foram present 32, Py burrow, echinoid fragment (2mm) dispersed shell fragments (~2mm)		
42										
--40--		10Y 4/1	clay	m. sand	massive	BI 3	50 S.S	mud (type 1) foram present 49. foram patch		
--50--	Biscuit							50 cm: Nannofossil mud		
--60--					bioturbated contact					
66										
--70--		10Y 3/1	clay	m. sand	massive	BI 3		mud (type 1) foram present		
--80--										
--90--										
--100--	Biscuit									
--110--										
--120--										
--130--					sharp contact		139 S.S	115, foram patches 126, foram patches 134 cm: Mud with biogenic carbonate		
136										
--140--		5Y 4/2					145 S.S	145 cm: Dolomite		
--150--										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							same as above	SF	2011 12/14
5							4. Py burrow		
10									
11									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
0	GLS 1 10y 3/1								
6	5y 4/2			massive			near lithological in situ? fall in		
10									
14									
20									
30	GLS 1 10y 4/1					BT = 2	Red		
40									
41						BT = 2	contact: gradational sandy silt small shell frags		
50									
52						BT = 3	contact: irregular mud		
60									
62						BT = 2	contact: irregular sandy silt; small shell frags		
65									
70				massive		BT = 3	contact: irregular Red; Forams present		
74	10y 3/1						-74: color change		
80									
90									
94									
95	10y 4/1						-94: Py b. -95: color change		
100									
110									
120									
130							-130: Py b.		
140									
150									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

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(191)

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-0--	Same						Same as above Forams present		
-10--									
-20--									
-30--									
-40--									
-50--									
-60--									
-70--									
-80--									
-90--									
94									
96									
-100--									
-110--									
113									
-120--									
122									
-130--									
134									
137									
-140--									
-150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
0										
5	disturb.							Saunders above		
2								Py b.		
10										
18									contact gradation	
20								sandy silt		
21								contact irregular		
		10y			massive	B1		mud		
		3/1				=3		Forams present		
30										
34						B1				
						=2				
40										
50										
53								-53: Py b.		
60										
70										
75							75 SS	75cm: Nanno mud		
80										
90										
100										
107								-107: Py s.		
110										
120										
								color change		
		10y								
		4/1								
140										
	fracture labeled									
150										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above		
-- 10 --										
-- 20 --										
-- 30 --	bisect ↓							contact: gradational Sandy silt		
-- 40 --										
41										
-- 50 --										
52								contact: irregular		
-- 60 --		10y 3/1						mod Py crystals Forams present		
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
113								-113: Py b.		
117								-117: Py b.		
-- 120 --										
124		10y						-124: color change		
-- 130 --		4/1								
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

11387C 20R 5A

(914)

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
72							gradational sandy nit		↓ coarser
-- 80 --									
-- 90 --	10g 3/1				B1 =3		fluid		
-- 100 --									
102									
-- 110 --					B2 =2				
-- 120 --									
-- 130 --									
-- 140 --									
140									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Same as above Py crystals Forams present		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
62							-62: Py b.		
-- 70 --									
	20g 41g								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
114							contact: gradual		
-- 120 --	20g 41g			mainly			sandy silt small shell frag.	↓ 600XL	
-- 130 --									
130							contact: sharp		
-- 140 --	20g 31g				32 33		Red		
144									
145							-144 -145 > Py b.		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

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1916

	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Red Py crystals		
-- 10 --										
-- 20 -- 21								21: Py b.		
-- 30 -- 31								31: Py b.		
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

rearranged
to block

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
0	fall-in	GLEYS 10Y4/1	Clay	Medium sand (faun)	Massive (faint lamination?)	BI: 2		Type 1: Mud - matured (P) burrow & dispersed Py grain present in this section - Faun present (in this section)	NU	14/Dec/2011
10								- 17 Py burrow - 19 ↓ Py burrow - 20		
20								- 27 ↓ Py burrow - 32		
30										
40										
50								- 52 Py burrow - 52 shell fragment		
57					Gradational contact					
60		GLEYS 10Y4/1	Silt	Medium sand (faun)	Massive (or sharp contact)	BI: 3		Type 2: Silty mud		
67.5										
68.5		GLEYS 10Y4/1	Clay	Medium sand	Massive	BI: 2		Type 1: Mud		
70		GLEYS 10Y4/1	Silt	Medium sand	Massive	BI: 3	33	Type 2: Silty mud		
73										
80	Undisturbed	GLEYS 10Y4/1	Clay	Medium sand (faun)	Gradational contact (partly bioturbated)			Type 1: Mud 72 cm: Silty mud with biogenic carbonate		
85								↓ Py burrows		
90					Massive	BI: 2				
100					faint lamination?					
110								- 106 ↓ Py burrows - 109		
120										
125					Gradational contact					
126		GLEYS 10Y4/1	Silt	Medium sand	Massive	BI: 2		Type 2: Silty mud		
130	Stretching?									
137										
139 (137)								← 137 shell fragments		
140										
150	Undisturbed	GLEYS 10Y4/1	Clay	Medium sand (faun)	Massive (faint lamination?)	BI: 3 (3)		Type 1: Mud		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					UN	14/Dec/2011
-- 0 --							Type 1: Mud continued from 1A Foram present (in this section)		
-- 10 --									
-- 20 --							18 Py burrow ^{matured}		
-- 30 --							27 Py burrows ^{matured}		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	Undisturbed						63 ↓ partly Py burrow		(↓) Py 1-122
-- 80 --							82 ↓ Py burrow		
-- 90 --							85		
-- 100 --							97 ↓ matured Py burrows		
-- 110 --							106		
-- 120 --							114 large burrow ↓ 119 Py burrow		
-- 130 --							122		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U #1387C ~~21R~~ 2A

1929

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NN	14/Dec/2011
-- 0 --							Type 1: Mud continued from 2A - Foram present (in this section)		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 75 --									
-- 80 --									
-- 85 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 122 --									
-- 130 --									
-- 140 --									
-- 150 --									



Undisturbed

-26 Py burrow

75
SS 75cm:
Nanno mud

-122 shell fragment

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: NN	Date: 14/Dec/2011
			Avg.	Max.						
-- 0 --								Type 1: Mud - Foram present in this section		
-- 10 --										
-- 20 --										
-- 30 --								-33 Py burrow		
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --	Undisturbed							-88.5 Py burrow		
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --								-143 Py burrow		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					NN	14/Dec/2011
-- 0 --								Type 1: Mud continued from 4A - Forams present (in this core)		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
44	Undisturbed				Gradational contact			Type 2: Silty mud		
-- 50 --		GLEI 10Y4/1	Silt	Medium sand (foram)	Massive	BI: 2				
54					Sharp contact			-53 Py burrow		
-- 60 --		GLEI 10Y4/1	Clay	Medium sand (foram)	Massive	BI: 2		Type 1: Mud		
-- 70 --								-65 } shell fragments -69 }		
-- 80 --								-75 shell fragments		
-- 90 --								-87 shell fraction		
-- 100 --										
103										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Undisturbed							Type 1: Mud continued from 5A Foram present in this section	NU	14/Dec/2011
-- 10 --										
15								Paleo - sample		
-- 20 --										
21										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --									
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
fall in									
-- 40 --									
44									
-- 50 --	10Y 4/1	clay	m. sand	massive	BI 2		type 1 (mud) ↳ foram present		
-- 60 --									
Bischoff									
-- 70 --							shell fragments		
-- 80 --							72, burrow Ø 12cm		
84							76, shell fragments (~ 1mm)		
-- 90 --	10Y 4/1	silt.	co. sand	massive	BI 3		silty mud (type 2) - turbidite.		
97							dispersed shell fragments		
-- 100 --	10Y 3/1	clay	m. sand	sharp contact (with bioturbation)	BI 3		SS 96 silty mud sand filled burrows		
-- 110 --							mud (type 1) ↳ foram present		
104									
-- 120 --									
112 SS							Nannofossil sandy mud		
-- 130 --									
-- 140 --									
-- 150 --							pyrite burrows		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/14
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 --							9. py burrow (natured) 12 py burrow (natured) 15		
-- 20 --							25, py burrow (natured)		
-- 30 --							28, shell fragment		
-- 40 --									
-- 50 --									
58				gradational contact					
-- 60 --	10Y 4/1	clay	m. sand				mud (type 1) ↳ forampresent		
-- 70 --	Biscuit						75. py burrow		
-- 80 --									
-- 90 --							92, shell fragment		
-- 100 --							98, shell fragment		
-- 110 --									
-- 120 --									
126									
-- 130 --									
-- 140 --							138. py burrow		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MAMU	Date: 14/DEC/2011
			Avg.	Max.						
-- 0 --								① mud		
		10Y4/1								
-- 10 --										
-- 20 --			clay	M-S						
-- 30 --										
-- 40 --						3				
-- 50 --										
-- 60 --										
-- 70 --										
	Riser 1				Grad C normal gradig			72		
-- 80 --		10Y4/1						② SILTY mud		
-- 90 --			Very fine sand	M-S	massive	3				
-- 100 --										
-- 110 --										
					inverse gradig Grad-C					
-- 120 --								119		
		10Y4/1						① mud		
-- 130 --			clay	M-S	massive	3				
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by: <i>masm</i>	Date: <i>14/DEC/2011</i>
		Avg.	Max.						
-- 0 --							<i>SAD</i>		
-- 10 --	<i>10Y4/1</i>								
-- 20 --									
-- 30 --	<i>↓ transition</i>								
-- 40 --							<i>39-41 cm chondrites</i>		
-- 50 --									
-- 60 --							<i>59-62 cm chondrites</i>		
-- 70 --									
-- 80 --	<i>Biscuit</i>						<i>5975 — Nanno mud</i>		
-- 90 --									
-- 100 --									
-- 110 --	<i>10Y3/1</i>					<i>SS</i>	<i>110 cm Nanno mud</i>		
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								SACD	Mason	14/Dec/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --		10Y4/1	clay	M.S.	massive	3		86 ② SILTY MUD		
-- 100 --								97 small shell fragments		
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S.S.S	maru	14/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --	1044/1	clay	M.S.	?	2		24 ① MUD		
-- 40 --				parallel lamina (?)					
-- 50 --							46 sand-filled burrow 49 sand-filled burrow		
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

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1931



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Undisturb.	10Y3/1	clay	M.S.	massive	3		① mud chondrites	mpm	14 Dec 2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--									
--10--									
--20--									
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--									
--110--				color - C					
--120--	1043/1	clay	M.S.	massive	2		⊙ Mud -118 pyritized burrow		
--130--									
--140--							-134 pyritized burrow		
--150--									

Biscuit

flow - in.

109--
chondrites.
117--

Normal grading

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

23R2A

1432

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	10Y4/1							MAGM	14/DEC/2011
-- 0 --									
							6		
-- 10 --		clay	M.S		3		② SILTY MUD		
-- 20 --				erosional contact					
-- 28 --		V.F.S	M.S	erosional contact	3		28 VERY FINE SAND		
-- 32 --		M.S.	C.S.	erosional contact	3		32 MEDIUM SAND		
-- 37 --				erosional contact	3		37 ① MUD		
-- 40 --	clay						mottled sand-filled burrows		
-- 48 --							chondrites		
-- 51 --					3		51		
-- 60 --				magie			① MUD		
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

93R3A

1939

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y4/1	clay	M.S.	massive	3		SCAA	MASU	14/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	50Y4/1								
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --	50Y4/1	clay	M.S.	normal grady	3		(2) SILTY MUD		
-- 150 --									

Biscuit

90
↓
dionides
↑
10

SS.
120cm

Non-fossil Mud

a.e. ↑
normal grady

140

(2) SILTY MUD

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASW	Date: 14/DEC/2011	
		Avg.	Max.							
-- 0 --	5G4E/1			normal grading ↑						
-- 10 --					3					
-- 20 --										
-- 30 --	5G4E/1	F.S.	Med	Good C	3	34	22 FINE SAND			
-- 40 --	10Y4/1	clay	M.S.	Irregular contact	3	55	Calcareous Silty Sand			
-- 50 --				massive		55	Φ MUD			
-- 60 --							56	mottled sand-filled burrows (small slide) Calcareous silty sand		chondrites ↓
-- 70 --										
-- 80 --						55	muddy calcarenite			
-- 90 --						80	Biogenic Mud (biosiliceous 5% bio carb 20% Calcareous)			
-- 100 --				GC normal grading ↑			99 SILTY SAND		98	
-- 110 --		silt	C.S.	GC		55	shelly sand SAND		Shell fragments	
				GC		108	SS: Calcareous Silty Mud			
		K.C.S.	grmle	GC			VERT COARSE SAND			
-- 120 --		silt	C.S.	GC			115 SILTY SAND			
-- 130 --		clay	M.S.	GC inverse grading ↓	3		124 MUD			
-- 140 --							131-136 chonrites			
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

23R5A

14245

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/20
		Avg.	Max.						
-- 0 --							① MUD		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --					3				
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --	10Y5/1	Elony	M.S.	Color Contact massive	3		118 ① MUD		↓ shandlines 134
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

2326A

1436

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y 4/1	Clay	M-S	massive			- 5 shell fragment	MAGU	14/DEC/2011
-- 10 --				grad. c.	3		- 14		
-- 20 --	10Y 4/1	Clay	M-S	massive	3		⊙ SILTY MUD - 22 py burrow		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --							- 54 py burrow		
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

238CC

19357



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y 5/1	clay	M.S.	moderate	3		⊕ mud	MASU	14/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14 DEC 2011
		Avg.	Max.						
-- 0 --	10Y5/1	clay	M.S.				② GLT MUD		
-- 10 --				massive	3				
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --	Biscuit								
-- 70 --									
-- 80 --									
-- 90 --	10Y3/1	clay	M.S.	Grad. C			88 ① MUD		
-- 100 --				massive	3				
-- 110 --							113		
-- 120 --									
-- 130 --							132		
-- 140 --									
-- 150 --							144-145 chondrites		



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

2422A

1139

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	14/FEC/2011
-- 0 --	1043/1	clay	M.S.						
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --				massive	3				
-- 50 --									
-- 60 --									
-- 70 --	Discontinuity								
-- 80 --									
-- 90 --									
-- 100 --	1044/1	clay	M.S.	color contact			102		
-- 110 --							⊙ MUD		
-- 120 --				massive	3				
-- 130 --							128		pyritized burrow
-- 140 --	1044/1	clay	M.S.	grad. C			141		
-- 150 --				massive	3				② SILTY SAND MUD

High NGR

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

94R 3A

1740

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	14/DEC/2011
-- 0 --	10Y4/1	clay	M.S.	↑ Normal grading ↓ Irregular Contact					
-- 10 --	10Y4/1	V.F.S.	M.S.		3		8 ③ SILTY SAND		
-- 20 --	10Y3/1	clay	M.S.		3		15 ④ mud mottled sand-filled burrows		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --				massive					
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

BOSS — Carbonaceous Mud Name

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

24R 4A

14/

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/FEC/2011
		Avg.	Max.						
-- 0 --							SCAD		
-- 10 --	1044/1	clay	M.S.		3				12 chondrites
-- 20 --				Color Contact			23		
-- 30 --	1045/1	clay	M.S.	massive	3		① MUD		28
-- 40 --									
-- 50 --									
-- 55 --							55		
-- 60 --	1045/1	clay	M.S.	normal grading	3		② SILTY MUD		
-- 67 --				grade			67		
-- 70 --	1045/1	Very fine sand	M.S.	sharp c.	3		③ SILTY SAND		
-- 71 --							71		
-- 80 --	1044/1	clay	M.S.	massive	3		④ MUD		78 chondrites
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Biscuit

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

24R-5
2R5A

1742

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	1041/1							MASW	14/DEC/2011
-- 0 --									
-- 10 --									
-- 20 --		clay	M.S.	massive	3				
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	1051/1	clay	M.S.	massive	3		97 103-107 chondrites		
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --		clay	M.S.	grad. normal grading	3		135 ② SILTY MUD		
-- 150 --		V.F.S.	M.S.	grad. C	3		145 ③ SILTY SAND		


MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

24
2R6A

143

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14 DEC 2011
		Avg.	Max.						
-- 0 --									
							SdSd		
							① MUD		
-- 10 --	10Y 4/1	clay	M.S.						sand-filled burrows 7
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --				massive					
-- 70 --							95 66cm		This sample is not core material. It's interpreted as injection sand due to the drilling disturbance. Injection? Calcareous Silty SAND
-- 80 --									
-- 90 --					3				
-- 100 --	10Y 4/1 (lighter)	clay	M.S.	color. c.	3		96 ① MUD		95 chondrites 99
-- 110 --									
-- 120 --				massive					
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

24A

CCA

149



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S. A. A.	MASU	14/FEC/20
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: masu	Date: 14/DEC/201
		Avg.	Max.						
-- 0 --	10Y4/1	clay	M.S.		3		⊕ MUD		
-- 10 --				massive					8 chondrites 13
-- 20 --									
-- 30 --									
-- 40 --	10Y7/1	clay	M.S.	Grad. c massive			37 ⊕ MUD		chondrites
		clay	M.S.	sharp. c			39 ⊕ MUD		
-- 50 --							⊕ MUD		
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --				massive					
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --	10Y4/1								
-- 140 --	10Y3/1	clay	M.S.	Grad. c massive erosional c			140 ⊕ MUD		chondrites
	10Y4/1	clay	M.S.	massive			142 ⊕ MUD		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C

Expedition 339: Mediterranean Outflow

5
2R 2A

1446

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	14/DEC/2011
-- 0 --							SAD		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	10Y4/1	clay	M-S	M.S. G.C. ↑	3		99		
				M.S. G.C.	3		② SILTY MUD		
-- 110 --	10Y4/1	Very Fine Sand	M-S	normal grading	3		104		
							③ SILTY SAND		
-- 120 --									
-- 130 --	10Y4/1	clay	M-S	Irregular	3		123		
							② SILTY MUD		
							mottled		
							burrows		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

TBC

U1387 C
 Expedition 339: Mediterranean Outflow

5
 2R3A

1997

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/20
		Avg.	Max.						
-- 0 --							SdSd		
	10G3/1						4 ⊙ MUD		mottled
-- 10 --		clay	M.S.						
-- 20 --					3				
-- 30 --									29 ↓
-- 40 --				massive					
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --				Grad. c			118 ⊙ MUD		burrows. 120
	10Y4/1	clay	M.S.	massive	3				
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C

Expedition 339: Mediterranean Outflow

5
2R4A

1948

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --							S A A		
-- 10 --									
-- 20 --				Grad. ↑	3		20		
		clay	M.S.	normal grading				② SILTY MUD	
-- 30 --					3				
				inverse grading					
-- 40 --				Grad. ↓			37		
		clay	M.S.		3			① MUD	
-- 50 --									
-- 60 --									
-- 70 --				ac			69		
		clay	M.S.	normal grading	3			② SILTY MUD	
-- 80 --									
		very fine sand	M.S.		3			③ SILTY SAND	
-- 90 --				Irregular c.			89		
		clay	M.S.		3			④ MUD	
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

10Y 4/1

10Y 3/1

60

122

φ > 5 cm
silty sand-filled burrow
mottled (burrows)

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C
 Expedition 339: Mediterranean Outflow

5
 2R5A

799

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y3/1	Clay	M.S.	massive	3		S.A.A	MASU	14/Dec/201
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --							38 py burrow		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C
Expedition 339: Mediterranean Outflow

5
2/26A

950

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --	10Y7/1								
-- 10 --									
-- 20 --									
-- 30 --					3				
-- 35 --				C.C.					
-- 40 --	10Y4/1	Clay	M.S.				① MUD		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --				Grad. C	3				
-- 90 --		CLT	M.S.				② SILTY MUD		
-- 100 --				Normal grad. C					
-- 110 --				Grad. C	3				
-- 110 --		V.F.S.	M.S.				③ SILTY SAND		
-- 120 --					3				
-- 120 --	10Y3/1	Clay	M.S.	Bio. C.			④ MUD		
-- 125 --					3		125-127 $\phi > 5$ cm sand-filled burrow		
-- 130 --									
-- 140 --				massive					
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387c
 Expedition 339: Mediterranean Outflow

5
 2R7A

1951

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --							S S S		
-- 10 --									
-- 20 --									
-- 30 --						25cm cf.	Nannofossil Mud (same biosilicous) opaques		
-- 40 --									
-- 50 --	48 ↑ transition ↓ 62			Color contact			52		50
-- 60 --	10x 4/1	clay	MS	massive	3		⊕ mud		chondrites
-- 70 --						170cm SS. lighter	Nannofossil Mud		68
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/2011
		Avg.	Max.						
-0--									
↑ 2	10Y5/1	clay	M.S.	massive Bo.C	3		② SILTY MUD		
-10--	flow in disturbance 10Y3/1	clay	M.S.	massive	3		① MUD		burrows ↓ 15
-20--									
-30--									
-40--									
-50--									
-60--									
-70--									
-80--									
-90--									
-100--									
-110--									
-120--									120 ↑ chondrites ↓ 26
-130--									
-140--									
-150--	10Y4/1								

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14 DEC 2011
		Avg.	Max.						
-- 0 --							S S S		
-- 10 --									
-- 20 --							20 chondrites 29		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --				65 Grad. c normal grading	3		70 ⊖ SILTY MUD		
-- 80 --				inverse grading	3				
-- 90 --				Grad. c 95	3		90 ⊖ MUD.		
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y 4/1	clay	M.S.				SAA	YASU	14/DEC/2011
-- 10 --					massive			10 pyritized burrow		
-- 20 --						3				
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --					crack					
-- 85 --								85		
-- 90 --		10Y 4/1	clay	M.S.	massive			② SILTY SAND mud		
-- 100 --										
-- 110 --						2				
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	14/DEC/2011
-- 0 --							SASA		
	1044/1	clay	M.S.	normal grady ↑			5		
-- 10 --				massive	3				
-- 20 --									
				inverse grady ↓			26		
-- 30 --	1044/1	clay	M.S.						
-- 40 --									
				massive					
-- 50 --					3				
-- 60 --									
-- 70 --									
-- 80 --	1043/1	clay	M.S.	Color / bio. C. massive			77		
-- 90 --					3				
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

2/ RSA

5
1987

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --	10Y3/1	clay	M.S.	massive	3		S C A S		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

26R 6A

1958

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --							SS. 3cm	SCA S Nannofossil mud (+ bioturb.)	MASU	14/DEC/2011
-- 10 --		10Y4/1	clay	M.S.	grad. c.			10 ① mud		
-- 20 --					massive	3				
-- 30 --										
-- 40 --								39 shell fragments		
-- 50 --										
-- 60 --										
-- 70 --		5GY3/1	clay	M.S.	Bo. / color c. massive	3	SS 72	66 ① mud MUD w/ Bo. Carb burrows		
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

26 P CC 1959



Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	14/DEC/2011
-- 0 --	10Y4/1	Very Coarse sand	gonule	parallel laminae	0		SHELL-RICH VERY COARSE SAND		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	5GK3/1	clay	M.S.				① MUD	MASU	14/DEC/2011
-- 10 --									
-- 20 --				massive					
-- 30 --					3				
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	10Y5/1	clay	M.S.	Color: C massive	3		① MUD		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --	10Y5/1	clay	M.S.	G.C. normal grading	3		② SILTY MUD		
-- 140 --	10Y5/1	very fine sand	M.S.	normal grading	3		③ SILTY SAND		
-- 150 --							Base		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	clay	M. S.	massive	3			MASM	14/DEC/2011
-- 10 --								Ⓟ mud ↑ mottled burrows.		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --		10Y4/1								
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							SAA	masu	14/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --									
-- 34 --				C-C			34		
-- 40 --	10Y5/1	clay	M.S.	massive	3		① mud		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 126 --				G.C.			126		
-- 130 --	10Y5/1	clay	M.S.	G.C.	3		② SILTY MUD		
-- 130 --							130		
-- 140 --	10Y5/1	very fine sand	M.S.	grad.	3		③ SILTY SAND		
-- 140 --				bio. c.					
-- 150 --	10Y5/1	clay	M.S.	massive	3		② SILTY MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

27
2R4A

1163

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							SAA.	masm	14 / DEC / 2011
-- 10 --	10Y4/1	clay	M.S.	G.C massive	3		8 ① mud		
-- 20 --									
-- 30 --									
-- 40 --							41 (more sandy)		
-- 50 --									
-- 60 --							64		
-- 70 --	10Y5/1	clay	M.S.	G.C massive	3		② SILTY MUD		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

27
2R 5A

1969

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --								MASM	14/DEC/2011
-- 10 --									
-- 20 --					3				
-- 30 --				G.C.					
-- 40 --	10Y4/1	clay	M.S.	↑ normal G.C.	3		32 ② SILTY MUD 38 shell L=4cm		
-- 50 --	10Y4/1	V.F.S	M.S.	↑ normal G.C.	3	SS 4.7cm	42 ③ SILTY SAND 47cm: Silty sand with biogenic carbonate		
-- 60 --	10Y3/1	clay	M.S.	↑ massive Irreg. low c.	3	SS 55cm	50 ① MUD 55cm: Nanno fossil silty mud Sample from sand-filled burrow		
-- 70 --									
-- 80 --									
-- 90 --									91
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

2726A

1965

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y7/1							Masm	14/DEC/2011
-- 10 --									
-- 20 --	10Y4/1	clay	M.S.	Color C	3		20 ① MUD		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --	10Y4/1	clay	M.S.	grad. C grad. C			124 ③ SILTY MUD		
-- 130 --		Very fine sand	M.S.	normal / grad. C			126 ③ SILTY SAND shell fragments		
-- 140 --		clay	M.S.	P.O.C massive			138 ① MUD mottled burrows L < 1/2 cm		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

27R 7A

1466

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y3/1	clay	M.S.	massive	3		SAA	MASU	14/DEC/2011
-- 10 --							(mottled)		
-- 20 --									
-- 22 --									
-- 30 --							⊙ MUD		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

27R CCA

7967



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								S.A.A.	MAS U	14/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: masn	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --	10X3/1	clay	M.S.	Massive			① MUD		
-- 10 --					3				
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

93
 ↑
 transitional
 ↓
 110
 10X4/1

C.C
massive

C.C.
 normal
 grading
 3

104
① MUD

140
↑
142
burrow
② SILTY MUD
↓
147

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: masu	Date: 14/Dec/2011
		Avg.	Max.						
-- 0 --	10x5/1								
-- 10 --	10x5/1	c.s.	granule	Grad. c normal grady	3		6 COARSE SAND		
-- 20 --									
-- 30 --	10x3/1	clay	M.S.	Bio. C	3		28 M.D. 36 coarse sand-filled burrow 40-41 coarse sand-filled burrow mottled		chondrites 74
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

2823A

1970

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
0								masu	14/DEC/2011
?		silt	M.S	Concreted (?)	0				
10	10Y5/1	clay	M.S	massive	3		① MUD		
20									
30									
40									
50									
60									
70									
80									
90									
100									
110									
120		clay	M.S	C.C. massive	3		① MUD		
130	10Y4/1								
140									
150									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 14/DEC/2011
		Avg.	Max.						
-- 0 --							SAA		
-- 10 --						SS 10cm	greenish mud <u>10cm: Nannofossil mud</u>		
-- 20 --	10Y4/1	clay	M.S.	Grad. C massive	3		16 ② SILTY MUD		
-- 20 --	10Y4/1	clay	M.S.	Grad. C	3		19 ① MUD		
-- 30 --				massive			31 cold coral ① MUD		
-- 65 --	10Y3/1	clay	M.S.	Grad. C	3		65 ② SILTY MUD		
-- 66 --	10Y4/1	clay	M.S.	Grad. C massive	3		66 ① MUD		
-- 69 --	10Y3/1	clay	M.S.	C.C.	3		69 ① MUD		
-- 70 --	10Y4/1	clay	M.S.	Color. C massive	3		70 ① MUD		
-- 90 --						SS 90cm	90 cm Muddy nannofossil ooze		
-- 105 --	10Y3/1	clay	M.S.	C.C. massive	3		105 ① MUD		
-- 109 --	10Y4/1	clay	M.S.	C.C. massive	3		109 ① MUD		
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Expedition 339: Mediterranean Outflow

98P5A

1179



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	clay	M.S.	massive	3				
-- 10 --								13. burrow L=2cm		
-- 20 --										
-- 30 --										
-- 40 --								36 - - - - - (more site)		
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

282CCA 113



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MPSM	14/DEC/2011
-- 0 --	1044/1	clay	M.S	normal gradif ↑	3		② SELTY MUD		
	1044/1	very fine sand	M.S					③ SELTY SAND	
-- 10 --				Bio. C					
	1043/1	clay	M.S	massive	3		① MUD mottled		15
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								NN	5/Dec/2011
-0--	GLEXY 10Y3/1	Clay	Medium sand (foam)	Faint lamination	BI:2		Type 1: Mud 10 Py burrow		Foram present
-10--									
-20--									
-30--									
36									
-40--		Clay	Medium sand (foam)	Gradational contact Massive (Mottled)	BI:3		Type 1: Mud 35 Py burrow		Foram present
-50--									
-60--	GLEXY 10Y4/1								(to the bottom of this section)
-70--									
-80--									
-90--							87 90] Py burrows		
-100--									
101	GLEXY 10Y4/1	Silt	Coarse Sand	Gradational contact Massive	BI:2		Type 2: Silty mud		Finning upward
107									
-110--	GLEXY 10Y3/1	Clay	Coarse sand (burrow)	contact Massive	BI:3		Type 1: Mud		
112									
-120--	GLEXY 10Y4/1	Clay	Medium sand (foam)	Gradational contact	BI:3		Type 1: Mud		
-130--				Massive					
-140--									
-150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: N N	Date: 15/Dec/21
			Avg.	Max.						
0								Type 1: Mud (continued from 1A)		
10								8 Py burrow - Foram present ↓ throughout this section		
20								21] Py burrows 23]		
30										
40										
50										
60										
69.5					Gradational contact: Bi: 2 Massive			Type 2: Silty mud shell fragments		fining upward
71			Silt	Medium sand				69.5		
80	Biscuits	GLEY 1 4/10Y (but darker than upper unit)	Silt Clay	Coarse sand Fine Sand (foram)	Bioturbated contact Massive			Type 1: Mud		
90								84 Py burrows		
100								102 shell fragments		
110								115 Py burrows		
120										
130										
131								131] Py burrows 134]		
140										
144								144 Py burrow		
150										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NN	16 Dec 2011
							Type 1: Mud - Forams present ↓		
							42 Shell fragments		
				Gradational contact					
		GLEY1 4/110Y	silt	very coarse sand	Massive	BI: 2	Type 2: Silty mud dispersed shell fragments fining upward		
				Bioturbated contact					
		GLEY1 3/110Y	Clay	Medium sand (foram)	Massive (Faint lamination?)	BI: 2 ↓ 91 ↓ decreasing (BI: 2)	Type 1: Mud - Forams present ↓ to the bottom of this section		



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

29R4A

177

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Type 1: Mud (continued from 3A)	NN	15/Dec/2011
-- 10 --							Foram present (to the bottom of this section)		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --							[112 115] Py burrows		
-- 120 --									
-- 130 --							-128 -133] Py burrows		
135				Sharp contact					
-- 140 --	GLY1 4/10Y	Clay	Fine Sand (Foram)	Massive	BI:3		Type 1: Mud		
148									
-- 150 --	GLY1	clay	clay	Massive	BI:4		Type 1: Mud		

MAJOR LITHOLOGY: 2.5/1 10Y

MINOR LITHOLOGY: Bioturbated contact

Bioturbated contact

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
	GLE 1 4/10Y	Clay	Clay	Massive	BI:3		Type 1: Mud	NN	15/Dec/2011
5									
7		Clay	clay	Massive	BI:4		Type 1: Mud		
10	GLE 1 2.5/10Y					10SS	Type 1: Mud Foram present		
14							14 cm] Py burrows		
20	GLE 1 4/10Y	Clay	Medium sand (foram)	Massive	BI:3		<u>10 cm: Nannofossil Mud</u>		
30									
36									
40	GLE 1 4/10Y	silt	coarse sand	Massive	BI:2		Type 2: Silty mud		
42	GLE 1 4/10Y	very fine sand	coarse sand	Massive	BI:2	43SS	Type 3: Sandy silt		
45							<u>43 cm: Silty sand</u>		
50	GLE 1 3/10Y	Clay	Medium sand (foram)	Massive Faint lamination (?)	BI:3	55SS	Type 1: Mud Foram present		
60							<u>55 cm: Nannofossil Mud</u>		
70									
80									
90									
100									
110									
120									
130									
140									
150									

Undisturbed

Gradational contact

Bioturbated contact

89
↓
(BI:2)

Foraminifera

43 cm: Silty sand
with biogenic carbonate

135 cm: Nannofossil Mud

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NN	15/Dec/2011
-- 0 --							Type 1: Mud (continued from 5A) - foram present		
-- 10 --									
-- 20 --									
-- 25 --									
-- 30 --									
33				Gradational contact					
-- 34 --		Clay	Medium Sand (foram)	Massive	BI:3		Type 1: Mud - foram present - 47 shell fragments		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
93				Gradational contact					
-- 100 --		Silt	fine sand	Massive	BI:2		Type 2: Silty mud		
-- 110 --									
-- 120 --									
121				Gradational contact					
123		Very fine sand	Coarse sand	Massive	BI:2		Type 3: Silty sand		
-- 130 --				Bioturbated contact			Type 1: Mud		
-- 140 --				Massive	BI:3				
-- 150 --							- 150 shell fragments		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								NIV	15/Dec/2011	
-- 10 --							Type 1: Mud continued from 6/A Foram present			
-- 20 --							-2/ shell fractions			
-- 30 --										
-- 40 --	Biscuits									
-- 50 --										
-- 60 --										
-- 70 --	N3									
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

29RCC (A)

1981



Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NH	15/Dec/2011
-- 0 --							Type 1: Mud continued from dispersed forams		
-- 10 --									
14									
18.5							Paleo - sample		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Problems to be solved	GREY 1	clay		massive	B1 = 3	Fuc Py crystals Forams			
10y										
3/1										
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
76										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
114										
-- 120 --										
122										
-- 130 --										
138										
-- 140 --		GREY 1	clay		massive	B1 = 3	Fuc gradational color change			
10y										
3/1										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							fluid: same as above		
-- 10 --									
-- 20 --									
28							contact: gradational		
-- 30 --	OLEY ₁			massive	BI = 2		Silty sand		
	10g						↓ looser downwards		
35	4/1						35 shell frags		
-- 40 --									
42							42 contact: sharp and bioturbated		
-- 50 --	OLEY ₁			massive	BI = 3		fluid Forams present		
	10g								
	3/1								
-- 60 --									
-- 70 --									
-- 80 --									
88									
-- 90 --							88: shell frags.		
-- 100 --									
-- 110 --									
115							contact: gradational		
-- 120 --	OLEY ₁			massive	BI = 2		Silty sand (shell frags)		
	10g						↓ looser (sand)		
121	3/1						contact: sharp		
-- 130 --	OLEY ₁			massive	BI = 2		fluid Forams present		
	10g								
	3/1								
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
0-4 5				massive			Red 4 5 > shell		
10									
20									
29									
30-32					B1-3		30: Py b.		
36-37					B1-2		36-37 > Py b.		
40									
46							color change: gradual		
50	GLY 1 10y 4/1						Red		
54				laminated			54		
55				massive			55		
59							59		
60-62					B1-3		62		
66					B2-2		66: Py b.		
70									
72							72 > Py crystals		
75							75 > Py crystals		
80							contact: gradual		
82							Silly sand		
84							84		
90							contact: inclined and sharp		
92							Red		
100	GLY 1 10y 3/1			massive	B1-3		Forams present		
110									
120									
125							gradational color change		
130	GLY 1 10y 4/1			massive			Red Forams present		
140									
142							142 > Py crystals		
146							146 > Py crystals		
150									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--	OLEY ₁ 10g 4/1			Mudstone ↓	B1 =2	SS 5cm	Mud 5cm: Nannofossil Mud		
--10--							contact: nodular silty sand		
18	10g 4/1				B1 =2		Shell frags ↓ looser (sand)		
--20--						SS 27cm	contact: sharp		
29	OLEY ₁ 10g 3/4				B1 =3		Mud 27cm: Nannofossil silty mud		
--30--									
--40--					B2 =2	SS 40cm	40cm: Nannofossil mud		
44							-44: Py b.		
--50--							gradational color change		
56	OLEY ₁ 10g 4/1						Mud -56: Py b. Forams present		
--60--									
--70--									
--80--									
--90--									
92							-92: Py b.		
--100--									
--110--									
112							-112 > Py crystals		
118							-118 > Py crystals		
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

L 387 30R 5A

1986

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above; mud		
-- 10 --										
15								-15: Py b.		
19								-19: Py b.		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
55								-55: Py b.		
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								rule		
6								contact: gradual		
-- 10 --								Silty sand; shell frag. ↓		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								SF	2011 12/15	
-- 10 --										
-- 20 --										
25										
-- 30 --		10Y 4/1	clay	m. sand	massive	B1 2				
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
71		10Y 4/1	silt	m. sand	gradational contact	B1 2				
80					fining upward massive					
-- 80 --										
88		10Y 4/1	vt. sand	m. sand	gradational contact massive	B2 2				
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

mud (type 1)
L foram present

35, P_y burrow

54, P_y burrow

57, P_y burrow

61
P_y burrows (some small py burrows)

73
silty mud (type 2)
L foram present

86
silty sand (type 3)
L foram present

87. shell fragments

86 cm: silty sand with biogenic carbonate

93
mud (type 1)
L foram present
93 P_y burrow

99
99 cm: Nannofossil mud

104. P_y burrow

silt filled burrows

136

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/15
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --							42. shell fragment		
-- 50 --							47. shell fragments		
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



Biscuit

Biscuit

85. large burrow 

103. shell fragment

139. Py burrow

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/15
		Avg.	Max.						
--0--	Biscuit						Same as above		
--10--				gradational contact			15, Py burrows		
15		color changing							
--20--	Biscuit	10Y 4/1	clay	m. sand	massive		<ul style="list-style-type: none"> mud (type 1) foram present 19, Py burrow 25, Py burrows 29, Py burrow 38, Py burrow 		
--30--						BI 2			
--40--									
--50--									
--60--								64, Py burrow	
73 70--				gradational contact			<ul style="list-style-type: none"> silty mud (type 2) foram present 		
--80--		10Y 4/1	silt	m. sand		BI 2	<ul style="list-style-type: none"> sand layer (type 3) foram present 		
82				fining upward?		BI 2			
84		10Y 4/1	f. sand	c. sand		BI 2?	<ul style="list-style-type: none"> dispersed shell fragments mud stone (type 1) 		
--90--	Biscuit	10Y 3/1	clay	m. sand	massive		90 sand filled burrows		
--100--						BI 2			
--110--									
--120--									
--130--								132 - Py burrow	
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/15
		Avg.	Max.						
-- 0 --							Same as above		
	↑ color change			gradational contact					
-- 10 --	↓ 10Y 16 4/1	clay	h. sand	massive	B2 2		mud (type 1) - ↳ forams present		
-- 20 --									
-- 30 --							33 Py burrow		
-- 40 --							42, Py burrow		
-- 50 --	Biscuit						58 shell fragments		
-- 60 --									
-- 70 --							72, Py burrow		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
114									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

UB87C 32R 2A

1994

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									CR	15/12/11
-- 10 --	Disurb. x	CLay, 10y 4/1			massive	3 2 1		Mud Forams present		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
71 --										
72 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
118 --										
-- 120 --										
-- 130 --										
-- 140 --										
146 --										
-- 150 --										

71 -> burn w
72

100: Py b.

118: Py b.

140 cm: Nanofossil mud

140
SS

146: shell frag

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--							Mud: Same as above	GR	15/12/11
3							contact: inclined		
4	10g 4/1			massive	B2 =2	10 SS	sand: Forams and shell frags 10 cm Nanno sandy mud		
--10--							contact: irregular and bioturbated		
11	OLEY, 10g 3/1			massive	B1 =3	18 SS	Mud Forams present 18 cm: Nanno mud		
--20--									
32					B1 =2				
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--	OLEY 10g 4/1			massive	B1 =2		Stratigraphical level change Mud Forams present		
--110--									
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --					B2 = 2		Flud : same as above	CR	15/12/11
-- 10 --									
17							contact: Sharp		
-- 20 --	OLEY 1 10g 3/1			massive	B2 = 2		Silty sand ↓ coarse downwards shell frags ↑ increase downwards		
-- 30 --							sand ; contact: irregular		
-- 40 --	OLEY 1 10g 3/1			massive	B1 = 3		Flud forams present few shell frag.		
41					41 B1 = 2				
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V 1387C 32R 5A

1997

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
0									UR	15/12/11
10	Disturb. ↓							Red: same as above		
30								SS 30cm: fossil mud 30cm Nanno		
54		GREY 10y 4/1			massive	BI =2		? 57cm? Wrong depth? 107cm? Silty sand with biogenic carbonate color change		
75								SS 75cm 75cm Mud with biogenic carbonate		
100		GREY 10y 3/1						contact: gradual Silty sand		
112		GREY 10y 3/1			massive	BI =2		shaly frag. sand contact: irregular		
120								Red Forams present		
130										
140										
150										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 32 R 6A

1998

2000 2000 2000

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --										
-- 10 --	disc, x									
-- 20 --										
-- 30 --										
-- 40 --										
42										
-- 50 --		GLY1 105 414			massive	BZ =2		gradational color change fucel Forams present		
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 32R CCA

(1499)



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Red: Same as above	CR	15/12/11
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--	GLEYS 4/10Y	Clay	Medium sand (foam)		BI:3		Type 1: Mud - Foam present	NN	15/Dec/01
--10--				Massive partly laminated			-15 P ₂ burrow		
--20--									
--30--									
--40--									
46	GLEYS 4/10Y	Silt	Medium sand	Gradational contact			Type 2: Silty mud		
--50--				Massive ?	BI:2 ?				
59				Bioturbated contact					
--60--	GLEYS 3/10Y	Clay	Medium sand (foam)	Massive	BI:3		Type 1: Mud Foam present		
--70--				(partly faint lamination)					
--80--									
--90--					(BI:2 ?)				
--100--									
--110--									
--120--									
--130--							-129 Shell fragments		
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					NU	15/Dec/01
-- 0 --								Type 1: Mud	continued from 1A	
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 61 --										
-- 64 --										
-- 65 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 115 --										
-- 120 --										
-- 126.5 --										
-- 130 --										
-- 140 --										
-- 150 --										

Undisturbed

-61 Faint
-64 lamination

-Py burrow

90

gradational change

Clay

Medium Sand (fossil)

Gradational contact

BI:3

Massive

(partly lamination)

GLEYS
4/10Y

Type 1: Mud
- Foram present

-126.5 Py burrow

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
--0--								NN	15/Dec/2011	
							Type 1: Mud (continued from 2A)			
--10--										
--20--										
--30--										
37	stretched?									
--40--		GLEI	Silt	Medium	Gradational					
43		4/10Y		Sand	contact Massive Bioturbated	BS:2 ?		Type 2: Silty mud		
									fining upward	
--50--		GLEI	Clay	Medium	Contact					
		3/10Y		sand (fine)	Laminated well developed lamination			Type 1: Mud		
								- Forams present		
--60--										
--70--										
--80--										
--90--										
--100--										
									98.5 Py burrow	
--110--										
--120--										
--130--										
--140--										
--150--										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1087 33R 4A

2003

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								NN	15/Dec/2011	
-- 10 --							Type 1: Mud continued from 3A			
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --							47 Py burrow			
-- 60 --										
-- 70 --	Undisturbed?									
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
145										
-- 150 --										

Undisturbed?

Gradational change

Gradational contact

Bioturbated contact

107 Py burrow

Type 2: Silty mud

- Fauna present

Fining upward

Type 1: Mud (see data in the top of 3A)

GEY1 4/10Y

GEY1 3/10Y

Silt Medium sand

BS:2

Faint lamination

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NU	15/Dec/2011
--0--	GLEYS 3/1 10Y	Clay	Medium sand (foram)	Massive	BI:3		Type 1: Mud - Foram present		
--10--									
--20--									
--30--						30 SS	30cm: Nannofossil silty mud		
33				Gradational contact		35 SS	35: Nannofossil mud		
--40--	GLEYS 4/1 10Y	Clay	Medium sand (foram)	Massive	BI:2	35 SS	Type 1: Mud - Foram present		
45				Gradational contact					
--50--	GLEYS 4/1 10Y	Silt	Medium sand	Massive	BI:2		Type 2: Silty mud Shell fragments		Fining upward
58			Very fine sand? M sand			57 SS			
59				Bioturbated					
--60--	GLEYS 3/1 10Y	Clay	Medium sand (foram)	Faint laminated (partly massive)	BI:3		Type 1: Mud - Foram present		
67				Faint lamination					
--70--						75 SS			
--80--							Faint lamination		
--90--									
--100--						93	large bivalve		
						98			
--110--						112			
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								NU	15/Dec/2011
--0--							Gap		
4							Type 1: Mud continued from 5A		
--10--									
--20--							lamination (faint)		
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					NN	15/Dec/2011
--0--	Undisturbed?							Type 1: Mud continued from 6A		
--10--								Faint lamination		
--20--										
--30--								31		
--40--								39 Py burrow		
--50--					Gradational contact					
55			Clay	Medium sand (foram)	Massive BI: 2			Type 1: Mud		
--60--								57 shell fragments		
--70--										
66										
--70--										
64		GLEI 4/10Y								
77								Type 2: Silty mud (see details in top of 6A)		
--80--										
--90--										
--100--										
--110--										
--120--										
--130--										
--140--										
--150--										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NN	(5/Dec/21)
--0--	GREY F/10Y	Silt	very coarse sand	Massive	Bt: 2		Type 2: Silty mud	continued from 14	
9									
--10--									
14							Paleo - Sample		
--20--									
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
5	GREY, 10g 4/1			laminated	BZ = absent		Mud Forams present		
									Interbedded: Mud; 10g 4/1 and Mud; 50g 4/1
14							color change		
20	GREY, 56g 4/1			massive	BZ = 3 weak		Mud Forams present		
51							color change		
51	GREY, 10g 4/1			massive	BZ = 2		Mud Forams present		
61							color change; contact surface included		
61	GREY, 56g 4/1			massive	BZ slight = 2		Mud Forams present		
83				laminated			color change; contact surface included		
83	GREY, 10g 4/1			laminated	BZ absent		Mud Forams present		
106							-106: Pg 5.		
142									
142	GREY, 56g 4/1			massive	BZ = 5		Mud		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--							fluid: same as above		
5	10y 4/1			laminated	absent		fluid color change		
9							fluid		
--10--	5y 4/1			"	"		fluid color change		
15							fluid		
--20--	5y 4/1				slight		fluid Forams present		
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--							Intubed: fluid 10y 4/1 and fluid 5y 4/1 and sand layer: 10y 4/1 (between 102 - 105 cm)		
101							-101: shell frags Forams present		
--110--									
--120--									
--130--									
--140--							> sand layer between 128 - 131 cm		
--150--									

concrete core

↓
sweep

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Interbedded: Mud 10y 4/1 and mud 5Gy 4/1. and minor sand layers.		
-- 10 --				Coarse beds			Forams present		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
64									
65									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

64 -> shell frags
65 ->

-110: shell frags

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above Forams present shell frag. present		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
62										
68										
-- 70 --										
72										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
119										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

-67: Py b.
-68: shell frag.
-72: Bivalve shell frag.

-119: shell frag.

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2012

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 --									
-- 20 --									
24 - 25 -							-24: Py b. -25: Py b.		
-- 30 --						-30 -35 SS			
-- 40 --							-41: Py		
-- 50 --									
53 -							-53: 2 Py b. and one echinoderm spine		
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 34R CCA

2013



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Same as above		
-- 10 --										
-- 20 --								16: Py crystal		
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--	GLEI 3/10Y	Clay	Medium sand (Foram)	Massive	BI:2		Type I: Mud -Foram present	NN	15/Dec/2011
--10--									
--20--							-21 Shell fragments		
--30--									
--40--									
--50--							-51 P ₂ burrow		
--60--				Gradational contact?					
68									
--70--	Biscuits GLEI 4/10Y	Clay	Silt	Massive?	BI:2 ?		Heavy drilling disturbance Type I: Mud		
79				Sharp contact?					
--80--	Biscuits GLEI 3/10Y	Clay	Medium sand (Foram)	Massive	BI:2		Type I: Mud Foram present (Dispersed)		
--90--									
--100--									
--110--							110 Shell fragments		
--120--									
--130--									
--140--							130 } P ₂ burrows 135 }		
--150--									

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								NN	15/Dec/2011
-- 0 --							Type 1: Mud continued from 1A		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

BISCUITS

48

-51 Py burrow
-54 Shell fragment?

-89.5 Shell fragments

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: NN	Date: 15/Dec/2011
		Avg.	Max.						
-- 0 --							Type 1: Mud (continued from 2A)		
-- 10 --				Sharp contact?					
17									
-- 20 --	GLEI 4/10Y	Clay	Medium sand (f-foram)	Faint lamination ??	BI:2		Type 1: Mud	*Disturbance splintered into blocks (twisted)	
-- 30 --	Heavy deformation								
-- 40 --				Gradational contact					↓ to the bottom of this section
48									
-- 50 --	GLEI 4/10Y	Silt	Very fine sand	Faint lamination?	BI:2		Type 2: Silty mud		
59									
-- 60 --	GLEI 3/10Y	Clay	Medium sand (f-foram)	Sharp contact?	BI:2		Type 1: Mud		
-- 70 --									
-- 80 --	Biscuits			Faint lamination					
-- 90 --									93 shell fragments
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									139 Py burrow
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								NN	(5/Dec/21)
				Gradational contact?			Type 1: Mud continued from 3A		
	GLEYS 3/10Y	Silt	Fine sand (foram)	Faint lamination	BI:2		Type 2: Silty mud Foram present		
	Biscuits								
				Sharp contact	BI:2		Type 1?: Mud		
	GLEYS 4/10Y + minor GLEYS 3/10Y	Clay	Medium sand (foram)	Laminated (partly convoluted) deformation			Major: Grayish mud (70%, Medium bedded) Minor: Greenish mud (30%, Thin bedded) + - partly soft sediment deformation - Foram present - 70 Py burrow		
				convolution					
				convolution					
				deformation					
							Type 1: Mud (see details in top of section 54)		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		GLE Y 1 4/1 10Y	Clay	Medium sand (Foram)	Massive	BI:3		Type 1: Mud continued from 4A	NN	15/Dec/2011
-- 10 --							-10SS	10 cm: Nannofossil mud		
-- 20 --								-22 shell fragments		
-- 30 --		GLE Y 1 4/1 10Y	Silt	Fine sand	Gradational contact Massive?	BI:2		Type 2: Silty mud		
-- 40 --								-45 part of echinoids		Fining upward
46		GLE Y 1 4/1 10Y	Very fine sand	Coarse sand	Gradational contact Massive?	2	-47SS	Type 3: Silty sand		
48								47 cm: Sandy Mud with Biogenic Carbonate		
-- 50 --		GLE Y 1 3/1 10Y	Clay	Fine sand (Foram)	Gradational contact Bioturbate contact	BI:3		Type 1: Mud		
-- 60 --								- Foram present		
-- 60 --								60 cm: Nanno Mud		
-- 70 --					Faint lamination					
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Biscuits

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									NV	15/Dec/2011
-- 10 --								Type 1: Mud continued from 5A		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 75 --	Biscuits									
-- 80 --					Gradational contact					
86			Clay	Fine sand (foam)	Massive	BI:2		Type 1: Mud - Forams present		
-- 90 --										
-- 95 --										
-- 100 --										
-- 105 --										
-- 110 --					Gradational contact					
118			Silt	v-f Sand	Laminated	BI:1		Type 2: Silty mud		
-- 120 --										
128			v-f sand	s. sand	Laminated	BI:1		Type 3: Silty Sand		
129										
-- 130 --			Clay	Fine sand (in burrows)	Bioturbated contact	BI:3		Type 1: Mud		
-- 140 --					Massive					
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									NN	15/Dec/2011
-- 10 --								Type 1 - Mud continued from 6A		
-- 20 --								13 Py burrow		
-- 30 --								24 Biscuit sands with shell fragments		
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Biscuits

03

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: ST	Date: 2011 12/15
		Avg.	Max.						
--0--							. mud (type 1) ↳ foram present		
--10-- biscuit?	10Y 3/1	clay	m. sand	massive	BI 3				
19				gradational change			18. Py burrow		
--20--							. mud (type 1) ↳ foram present		
--30--	10Y 4/1	clay	m. sand	massive	BI 3		22 Py burrows		
--40--							33. foram patch		
--50--							45 48) foram patches		
--60--									
--70--							65. Py burrow		
76				gradational change			75. Py burrow		
--80--	10Y 4/1	silt	C. sand	massive	BI 3		silty mud (type 2) ↳ foram present		
--90--							dispersed shell fragment		
--100-- 101									
110				sharp contact?					
--110--							. mud (type 1)		
--120--	10Y 4/1	silt	C. sand	massive	BI 3		116 silty mud filled burrows		
--130--							129 130) silty mud filled burrows		
--140--									
--150--							149 foram filled burrow		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/15
		Avg.	Max.						
-- 0 --							- Same as above		
-- 10 --									
-- 20 --							- 22. shell fragment		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --							- 68. Py burrow		
-- 80 --									
-- 90 --									
-- 100 --							- 106. Py burrow		
-- 110 --							- 110. shell fragment		
-- 120 --									
-- 130 --									
-- 140 --							- 136. shell fragment		
-- 150 --									

biscuit?

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/15
			Avg.	Max.						
-- 0 --								Same as above		
-- 10 --								11 Py burrow		
-- 20 --								22 shell fragment 26, Py burrow		
-- 30 --										
-- 40 --								42) shell fragments filled burrow 44)		
-- 50 --								52, shell fragment filled burrow		
-- 60 --								61) Py burrow 62)		
-- 70 --								77, shell fragment.		
-- 80 --					gradational contact					
89										
91		biscuit 10Y 4/1	silt	m. sand	massive	BI 2		Silty mud (type 2) foram present		
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Masw	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --									
-- 10 --	10Y5/1	clay	M.S.	massive	3		① MUD		
-- 20 --	massive like disturbance								
-- 30 --	10Y4/1	clay	M.S.	massive	3		① MUD		
-- 40 --							39-41 burrow L=2.5cm		
-- 50 --									
-- 60 --									
-- 70 --	biscuit								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --	10Y4/1	clay	M.S.	Grad. C. massive	3		123 ② SILTY MUD		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
--0--	10Y4/1	Clay	M.S.		3		JAD		
--10--	10Y4/1	V.F.S.	M.S.	massive	?		③ SANDY SILT w/ V.C.S & GRANULE shell fragment rounded Qz.		
--20--	10Y3/1	Clay	M.S.	massive			① MUD mottled burrow φ 1cm		
	interspace of 10Y3/1 & 4/1						① MUD		
	10Y4/1						25		
--30--	10Y4/1	Clay	M.S.		3		① MUD small marles.		
							28		chondrites 35
--40--	10Y3/1				2		43		
							45		
--50--	10Y4/1	V.C.S.	fine pebble.		2		③ SILTY SAND		
							55		
	10Y3/1	Clay	M.S.		2		① MUD		
--60--							60		
	10Y4/1	M.S.	granule		2		③ SILTY SAND		
							62		
	10Y3/1	Clay	M.S.	erosional contact parallel lamina	2		① MUD		
--70--							72		
	10Y4/1	C.S.	granule	massive	2		③ SILTY SAND		
--80--	10Y4/1	Clay	M.S.		3		① MUD		chondrites
							84		
--90--									
--100--									
--110--									109
									mottled
--120--									chondrites
									126
--130--									
--140--	10Y4/1	Clay	M.S.		3		② SILTY MUD		
--150--									

Contacted layers

CONTORTED

Biscuit

normal strat.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	1044/1	very fine sand	granule	Grad. c massive	2		③ SILTY SAND shell fragments		
-- 10 --	1043/1	clay	M.S.	Bio. c massive	3		① MUD sand-filled burrows 12		
-- 20 --							chondrites 25-30		
-- 30 --	1042/1	silt	granule	Grad. c massive	3				
-- 40 --	1043/1	clay	M.S.	Grad. c			① MUD		
-- 50 --					3				
-- 60 --				massive					
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	1045/1	clay	M.S.	Color. c			① MUD		
-- 110 --				massive	3				
-- 120 --									
-- 130 --	1045/1	clay	M.S.		3		② SILTY MUD		
-- 140 --	1044/1	fine sand	M.S.	normal grading			③ SILTY SAND		
-- 150 --	1044/1	clay	M.S.	Irregular contact massive	3		① MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: masu	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --							SAND		
-- 10 --									
-- 20 --					3				
-- 30 --									
-- 34 --				Grad. C			34		
-- 40 --	10YR 1/1	very fine sand	C.S	normal grad. (?)	3		③ SILTY SAND		
-- 43 --							43		
-- 50 --					3		① MUD		
-- 60 --		clay	M.S	massive					
-- 70 --				Grad. C			70		
-- 80 --		clay	M.S	massive	3		② SILTY MUD		
-- 90 --									
-- 100 --									
-- 110 --							109		
-- 110 --		fine sand	gravel	normal grad.	3		③ SILTY SAND coarse sand-filled burrow ✓ rounded Qz		
-- 120 --	10YR 4/1			P.O.C.			119		
-- 120 --	10YR 3/1	clay	M.S	massive	3		① Mud		
-- 130 --							123		
-- 140 --							137		mottled
-- 140 --							142		
-- 150 --					2				

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y3/1	clay	M.S.	massive			SAB	MASW	15/DEC/2011
-- 10 --									
-- 20 --					3				
-- 30 --	10Y4/1	clay	M.S.	Color.C.	3		29 ① MUD		
-- 40 --									
-- 50 --				massive			48 51 large-sized mottle. $\phi > 5\text{cm}$		
-- 60 --									
-- 70 --	10Y4/1	clay	M.S.	Grad.C. 67	3		70 ② SILTY MUD		
-- 80 --	10Y4/1	very fine sand	G.S.	normal grad.	3		74 ③ SILTY SAND		
-- 90 --	10Y3/1	clay	M.S.	Bio.C.	3		84 ① MUD		
-- 100 --	10Y3/1	clay	M.S.	G.C. massive	2		① MUD w/ v.c.s & granule ???		
-- 110 --	10Y4/1	fine sand	granule	G.C. massive	1		108 ③ SILTY SAND		
-- 120 --							shell fragment rounded Qz		
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --							S.A.A.		
-- 10 --									
-- 20 --									
-- 30 --	10Y4/1	clay	M.S.	Good C Contorted Irregular	2		26 ② SILTY MUD		
-- 40 --	10Y4/1	M.S.	granul	Irregular massive			36 ③ SILTY SAND rounded @z., grains. shell fragments		
-- 50 --									
-- 60 --				G.C. massive G.C.			59 ② S.A.A.		
-- 70 --				massive Irregular C.			63 ③ S.A.A.		
-- 80 --				Irregular C. massive			71 ② 73 ③		
-- 90 --									
-- 100 --				I.C. massive			95 ②		
-- 110 --				G.C. massive Irregular C.			105 ③ 114 ②		
-- 120 --				massive			(clast?)		
-- 130 --				Irregular C. massive			129 ③		
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U'387

3712

CC A

032



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --	10Y3/1	clay	M. S.	massive	2		① mud	MAM	15/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Macu	Date: 15/DEC/2011
		Avg.	Max.						
--0--	10Y4/1	clay	M.S				① MUD		
--10--					2		pyritised burrows		
--20--				normal grady					
--30--		clay	M.S	G.C.	2		② SILTY SAND		30
				sharp parallel l.	2		② SILTY MUD		31
		very fine sand	M.S	G.C. normal grady Bio.C	2		✓ shell fragments ✓ Rounded Qz	② SILTY SAND	32
--40--	10Y3/1	clay	M.S				① MUD		39
--50--				massive	3		large-sized motes. φ > 3cm shelly-sand-filled burrows.		
--60--									58
--70--		V.F.S	M.S	sharp C	2		③ SILTY SAND	shell frags. / rounded Qz	70
		clay	M.S	massive	2				72
		V.F.S	M.S	massive	2		① MUD		73
				S.C			③ SILTY SAND		74
--80--	clay	M.S			3		① MUD sand-filled burrow / condlrites		
--90--									
--100--									
--110--	10Y4/1			E.C					105
--120--					3				
--130--	10Y5/1	clay	M.S				② SILTY		123
--140--	10Y5/1	fine S.	V.C.S	grad. c normal grady Bio.C	2		③ SILTY SAND	shell fragments very coarse-grained Qz.	137
	10Y5/1	clay	C.S	massive Bio.C	3		② SILTY MUD	mottled	140
--150--	10Y4/1	clay	C.S	massive	3		① MUD	mottled shell fragments	143

Oh My...

③

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

38R 2A

2034

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	10Y3/1			parallel 2.	3		mottled		
	10Y4/1								
-- 10 --	10Y3/1	V.F.S		S.C para.	2		③ SILTY SAND	10	
		clay		S.C				11	
	10Y4/1	V.F.S		parallel l.	2		② SILTY MUD		
		clay		convoluted C				16-16.5	③ SILTY SAND
-- 20 --	10Y3/1	V.F.S		parallel 1.	2		② SILTY MUD		
		clay		S.C				20-20.5	③ SILTY SAND
	4/3	clay		slightly inclined lamina	3		② SILTY MUD		
	10Y4/1	V.F.S		convoluted para.	2		② SILTY SAND	26	
-- 30 --		clay		sharp C para.	2		② SILTY MUD	27	
	10Y3/1	V.F.S		S.C					
	10Y4/1	clay		para. la.	2		① MUD	31.5-32	② SILTY SAND
-- 40 --									
	10Y3/1			C.C.				45	① MUD
-- 50 --		clay	mg	parallel lamina	2				
-- 60 --									
				Color C				66	① MUD
-- 70 --	10Y4/1	clay	ms						
-- 80 --				parallel lamina	2				
-- 90 --				very low-angle inclined lamina					
-- 100 --									
-- 110 --	10Y3/1	silt.	grand	sharp C massive	1		③ SILTY SAND	111	coarse-Qz. shell fragments.
				sharp C				114	
-- 120 --	10Y3/1	clay	M-S				① MUD		
-- 130 --				massive	3		mottled		
-- 140 --									
-- 150 --									

fine-grained turbidites (?)

Desclage
10-32
②
①
②

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

38R3A

2035

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	10Y3/1	clay	M.S.	massive	3		① mud		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	10Y4/1			color contact					
-- 110 --									
-- 120 --									
-- 130 --		clay	M.S.	Grad. C	3		② 125 SILTY MUD		
		v.f.s	M.S.	Grad. C	3		③ 127 SILTY SAND		
				Sharp. C			③ 129 SILTY SAND		
		clay	M.S.	massive	3	SS 130	② SILTY MUD		
				Sharp. C			③ 135 ? ? 130 cm: Nanno Mud		
		F.S.	M.S.	massive	2		③ SILTY SAND		
-- 140 --				Sharp. C			140 shell frag		φ 1.5 cm
		clay	M.S.	massive	3		① mud		
-- 150 --									

78 cm Nanno mud

SS

100 cm: Nanno Silty Mud

SS 100

Qtz-rich Sandstone

② ③

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: <i>masu</i>	Date: 15/DEC/2011
		Avg.	Max.						
--0--	10Y4/1						S.A.A.		
	10Y3/1	6	M.S	massive			6		
--10--		clay		Irregular C.	3		13		
	10Y4/1	M.S.	V.C.G	massive	2		13	③ SILTY SAND	shell frags.
--20--	10Y3/1	clay	M.S	massive	3		18	① MUD	
		M.S.	V.C.S	massive	2		21	③ SILTY SAND	shell frags.
		clay	M.S	massive	3		24	① MUD	
--30--	10Y4/1	M.S.	fine pebble	massive	2		28	③ SILTY SAND	shell frags.
	10Y4/1	clay	M.S	massive			33	?? ① MUD	clast of contorted strata
--40--									
--50--									
--60--									
--70--									
--80--					3				
--90--	10Y4/1	Site	M.S	GC	3		88	② SILTY MUD	
	10Y4/1	M.S	fine pebble	GC	3		93	② SILTY SAND	shell fragments Coarse-grained rounded Gz
--100--				normal grading					
--110--	10Y3/1	clay	M.S	Bio.C	3		105	① MUD	
				massive				Sand-filled burrows	$\phi > 3\text{cm} \sim 1\text{m}$
--120--								mottled	
--130--									
--140--									
--150--									
									sand-filled burrows
									145-146



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct./ contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	15/DEC/2011
--0--							① MUD SAND		
--10--		clay	M.S.						
--20--									
		1024/1 silt	V.C.S.	G.C. normal grading	3		24 ② SILTY MUD		
--30--		V.F.S.	V.C.S.	G.C. normal grading	3		29 ③ SILTY SAND		
--40--		clay	M.S.	erosional c. massive	3		36 ① MUD		
		silt	C.S.	G.C. normal grading	3		44 ② SILTY MUD		
--50--		M.S.	fine pebble	G.C. normal grading	2		47 ③ SILTY SAND Pecten fragm. shell fragments		
--60--				Sharp	3		53 ① MUD mottled burrows		
--70--		clay	M.S.	massive			66-67 Large-sized shelly sand-filled burrow L = >3cm		
--80--									
--90--									
		silt	M.S.	G.C. normal grading			92 ② SILTY MUD		
		V.F.S.	M.S.	G.C. normal grading			94 ③ SILTY SAND		
--100--		1023/1 clay	M.S.	Sharp c. massive			99 coarse-grained Qz ① MUD burrow L = >4cm		
		1024/1 v.f.s.	granule	Sharp c. massive			104 ③ SILTY SAND shelly sand-filled burrow 105 shell fragments coarse-grained rounded Qz		
--110--									
--120--									
--130--									
				discontinuous micro-faults			134 ① MUD micro faults		
--140--		V.F.S.	granule	discontinuous massive			136 ③ SILTY SAND shell fragments		
		1023/1 clay	M.S.	discontinuous c. massive			142 ① MUD micro faults at lower part.		
--150--		1024/1 v.f.s.	granule	Inclined c. Inclined laminae			148 ③ SILTY SAND shell frags. coarse-grained rounded Qz		

Dexlogic

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AT

①
③
AT

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AT

slump?

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: masu	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	10Y4/1	Very fine sand	v.c.s	Inclined strata			③ SILTY SAND shell fragments		
-- 10 --	10Y7/1	clay	f.s	Irregular c.	2				
-- 20 --	10Y4/1	v.f.s.	v.c.s	Inclined strata	2		① MUD		
-- 30 --				Inclined strata	2		③ SILTY SAND shell fragments		
-- 40 --	10Y4/1	silt	granule	Irregular c.					
-- 50 --				Combed	2		② SILTY MUD deformed alternating beds. shell fragments		
-- 60 --	10Y4/1			Irregular contact					
-- 70 --				massive					
-- 80 --		Silt	c.s.		2		② SILTY MUD		
-- 90 --									
-- 100 --							93-94 shell fragment		
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

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③
alt

slump
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Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					Masm	15/DEC/2011
-- 0 --									
	10Y5/1	clay	M.S.	massive			① MUD		
	10Y4/1	M.S.	granule		1		③ SILTY SAND		
-- 10 --				contorted strata			shell fragments coarse-grained Q ₂		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
	10Y4/1	silt	M.S.	Grad. c massive	2		55 ② SILTY MUD shell fragments		
-- 60 --	10Y4/1	Fine sand	C.S.	G.C. massive	1		58 ③ SILTY SAND shell fragments		
	10Y4/1	clay	M.S.	Inclined c.	2		61 ① MUD		
-- 70 --									
-- 80 --	10Y4/1	clay	M.S.	G.C. normal g grad. c	2		82 ② SILTY MUD		
	10Y4/1	fine sand	V.C.S.	masse	2		84 ③ SILTY SAND		
-- 90 --				erosional c					
	10Y3/1	clay	M.S.	massive	1		93 ① 94 MUD		
	10Y4/1	M.S.	granule	Irregular c. massive	3		③ SILTY SAND		
-- 100 --									
		clay	M.S.	S.C. massive	3		105 ① MUD		
		M.S.	V.C.S.	massive S.C.	3		106 ③ SILTY SAND		
-- 110 --							107 ① MUD		
		clay	M.S.	parallel lamina low-angled inclined lamina	2				
-- 120 --									
	10Y5/1								
-- 130 --									
	10Y4/1	M.S.	granule	G.C. contorted strata	1		130 ③ SILTY SAND coarse-grained rounded Q ₂ shell fragments fragmentary strata		
-- 140 --									
-- 150 --									

Desclogic

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Alt
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MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

3929A

2041

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Mase	Date: 15/DEC/2011
			Avg.	Max.						
-- 0 --										
-- 10 --								S. A A -		
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --		↓								
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --		10.49/1	clay	granule	Grad C massive	2		① MUD w/ vac & granule or. pebbly mud (?) shell fragments rounded Qz		
-- 120 --			clay	M.S	sharp C massive	3		② 116 MUD		
-- 130 --			clay	M.S	G.C normal gradif	3		③ 125 SILTY MUD		
-- 140 --			fine sand	a.s.	sharp C massive	3		③ 129 SILTY SAND		
-- 150 --			clay	M.S.	sharp C massive	3		① 136 MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
--0--	10Y4/1	clay	M.S.	massive	2		① MUD		
	10Y4/1	VF.S.	M.S.	massive	3		③ SILTY SAND shell fragments		
	10Y4/1	clay	M.S.	C.C.	2		① MUD		
--10--	10Y3/1			C.C.			10 ① MUD		
--20--		clay	M.S.	Parallel lam.	2				
				Color: C			26		
--30--	10Y4/1	clay	M.S.	Parallel lam.	3		① MUD		
				C.C.			26		
--40--	10Y3/1	clay	M.S.	massive	3		① MUD		
--50--									
--60--									
--70--									
--80--	10Y3/1	Fine sand	M.S.	Inclined c. sharp c.	2	ss 78 cm	③ SILTY SAND		
							76		
--90--	10B/1	clay	M.S.				② SILTY MUD		
							85		
--100--					2	ss 100 cm			
--110--		clay	M.S.	Inverse grading			① MUD		
							110		
--120--					2				
--130--	10Y3/1			massive		ss 130 cm	133-135 Large-sized burrow		
--140--									
--150--									

Descloisic

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MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

39R4A

2043

Deslogic

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: yasm	Date: 15 DEC 2011
		Avg.	Max.						
	1023/1						GA-A. ① MUD		
				parallel lamina					
				sharp c massive	2		73		
	1024/1	V.F.S.	M.S.	sharp c			75	③ SILTY SAND	
		Clay	M.S.	parallel lamina	2			① MUD	
				grad c			86		
		clay	M.S.	normal grading	2			② SILTY MUD	
				grad c			101		
		V.F.S.	M.S.		2			③ SILTY SAND	

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 15/DEC/2011
		Avg.	Max.						
--0--							② SILTY MUD		
--10--	10Y4/1	silt	M.S.	Massive (?)	2	(?)			
--20--									
--30--	10Y4/1	clay	M.S.	Parallel laminae	2		① MUD		
--40--				sharp C					
--50--	10Y3/1						③ SILTY SAND		↓ slump.
--60--							56 ✓ shell fragments		
--70--				contorted strata	3				
--80--		Fine sand	granule				78		
--90--					2		residue by 10% HCl. ↓ composition Quartzite >80-90% Low-grade metamorphic rock fragments approx. 10% others? ⇒ Recycled sediments ✓ rounded quartzite ✓ shell fragments 88 bivalve ↑ move gravel		
--100--									
--110--	10Y						texture bi-modal coarse → coarse-grained sand to granule fine → v.f.f.-grained sand		
--120--	10Y3/1	silt	M.S.	sharp C			② SILTY MUD		
--130--					3				
--140--				contorted strata			136 shell fragments		
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
				Sharp.C					
							③ SILTY SAND		9
Undisturbance,	10Y4/1	clay	M.S.	Inclined strata.					
biscuit					2				
				Grad.C					
							③ SILTY SAND		59
UD.		fine sand	M.S.	Parallel lamina	2				
	10Y4/1								
biscuit									
				C.C.					
UD	10Y3/1	clay	M.S.	Parallel lamina	2		① MUD		101
				C.C. massive					
	10Y4/1	Very fine sand	M.S.	Sharp.C	2		② SILTY MUD		111
biscuit	10Y4/1	Very fine sand	M.S.	normal grad.	2		③ SILTY SAND		114
				Grad.C					
UD	10Y4/1	silt	M.S.	Parallel lamina	2		② SILTY MUD		135

slump
↑

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

4025A

2049

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	1043/1	clay	M.S.	massive	2		SAA		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --	un disturbed								
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --	1044/1	clay	M.S.	sharp massive	2		① MUD		
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

402 CC (A) 2051



	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								S.A.A.	masu	15/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C-41R-1A

Expedition 339: Mediterranean Outflow

U1387U 41R 1A

25

U1387C-41R-1A
U1387U
For use only

Depth	Drilling offsturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Disturb.		Silt	max				f,	12/15 2011	
6m								0-149.5 ② S-lty mud.		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --		10Y 5/1								
-- 70 --	Undisturbed					2				
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
149.5										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

01387U 41R 2A

053

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-0--	d. sh. bed.						0-10.	f. & mass	12/15 2011
3.5	10Y 4/1	silt.	msd	massive	2		① mud.		
15				gradal base					
--20--		silt	M.S.	normal gradal	2		15- 27 61 ② SILTY MUD plant fragments scattered		
--30--									
--40--		fine sand.	C.S.		2		③ SILTY SAND		
--50--									
--60--		silt	M.S.	inverse gradal	2		② SILTY MUD		
61				gradal base.					
--70--		silt	M.S.	massive	2		③ Silty mud.		
77									
--80--		Void.							
86									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

cur. sh. bed

normal gradal
inverse gradal

VOID

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1389C-42R-1A

Expedition 339: Mediterranean Outflow

01578C

42R1A

055

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								MASU	15/DEC/2011
-- 0 --									
-- 10 --	10Y	Silt	M.G.		2		② SILTY MUD		
-- 20 --									
-- 30 --				Parallel lamina					
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --	undisturbance								
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

42R 4A

2058



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									MASU	15 DEC 2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

Biscuit.

4 PY burrow

SAA

19 PY burrow

61 PY burrow

72 PY burrow

98
↑
chondrites
↓
109

137 Parallel
139 lamina

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 15/DEC/2011
		Avg.	Max.						
-- 0 --	10Y. 4/1						SAA ② SILTY MUD		
-- 10 --									
-- 20 --		silt	M.S.		2				
-- 30 --									
-- 40 --	undisturbance			grad. c. ↑ 35			37 ③ SILTY SAND		
-- 50 --		fine sand	M.S.	normal grading	2		48 ↑ shell fragments 54		
-- 60 --	60								
-- 63 --	biscuit	clay	clay	sharp parallel lamina	1		63 PEAT SEAM		
-- 67 --		silt	M.S.	sharp c. Parallel lamina			67 ③ SILTY SAND		
-- 75 --				sharp c.			75		
-- 77 --	77	silt	M.S.	massive			② SILTY MUD		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --	undisturbance								
-- 120 --									
-- 130 --									
-- 135 --				grad. c.			135		
-- 140 --		clay	M.S.	massive			① MUD		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								MASU	15/DEC/2011
-- 0 --				grad. C			0		
	10Y 4/1	silt	V.C.S.	massive	3		② SILTY MUD w/ V.C. SAND chondrites		
-- 10 --				sharp			12		
	10Y 3/1						① MUD		coarse grained sand burrows
-- 20 --	18	clay	M.S.						mottled
-- 30 --				massive					
-- 40 --					3				
-- 50 --									mottled
-- 60 --				grad. C			57		
		silt	M.S.	grad. C	2		② SILTY MUD		
-- 70 --	10Y 4/1			grad. C		66 SS	65		66 cm: Silty sand with biogenic carbonate
				normal grad			68-69		pebble-sized, rounded quartzite.
-- 80 --	75	Fine sand	M.S.	massive	2		③ SILTY SAND		
-- 90 --						SS			
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

42R CC(A)

2061



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							SAA	Masn	15/DEC/2011
-- 10 --	undisturbed 10Y 3/1	clay	M.S.	erosional massive	3		① MUD		
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0-- 2				void			0-2 void.	f.	
				msd.			2-148.5.		
--10--				massive	Z		<u>Silty Sand</u>		
							plane bedding and scattered plant fragments through the section.		
--20--									
--30--									
--40--									
--50--									
--60--									
--70--									
--80--									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

undisturbed
 10X
 4/1

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

43R2A

2023

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
--0--	disturbed		clay	msd.				0-108.	f.	
--10--						2		mud.		
--20--			clay	msd.				oblique bedding.		
--30--								maybe slumping.		
--40--								through the section.		
--50--	disturbed. like a block.	10x 3.1/1								
--60--						2.				
--70--										
--80--										
--90--										
--100--										
108										
--110--							PAL			
112										
--120--										
--130--										
--140--										
--150--										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

43R CC

9004

285 (2) 1212 024 001
1512 232747
Fotogrammetrie



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	disturbed block	N 6/0.	fine sand	medium sand	plane bedding			0-22 fine to medium sandstone. • <u>more clast.</u> • <u>very hard.</u>	f	
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0-- 4	GLEXY 4/1 10Y	M. sand	K. sand	Massive ?	BI:1		Medium sand stone	N N	14/Dec/2011
	GLEXY 4/1 N	V. f. Sand	M. sand	Massive	BI:1		Muddy sand (stone)?		
--10-- 12.5									
15							Paleo - sample		
18	GLEXY 4/1 10Y	V. f. sand	M. sand	Massive ?	BI:1		Muddy sand (stone?)		
--20--	GLEXY 4/1 N	M. sand	Very coarse sand	Massive	BI:1		Medium sand stone		
--30--									
34	GLEXY 4/1 10Y	V. f. sand	M. sand	Massive ?	BI:1		Muddy sand (stone?)		
--40--									
45	GLEXY 4/1 N	M. sand	Very coarse sand	Laminated 49 Massive	BI:1		Medium sand stone		
--50--									
--60--									
--70--									
76									
--80--									
--90--									
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Sand stone		
-- 10 --								medium sz grains to granular size		
-- 20 --								evidence of dissolved shells		
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C-46R-1A

U1387C 46R CC

2069

Expedition 339: Mediterranean Outflow

2000-01-13



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Sandstone @ grains size: medium to granule size ericium of shell construction		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U 1387C- 47R-1A

U 1387C 47R 1A

2068

Expedition 339: Mediterranean Outflow



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Sandstone Same as 46R CC		
-- 10 --									
-- 20 --									
-- 30 --							"Muddy" sandstone		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
6 --0-- biscuit?	10Y 4/1	silt	m. sand	massive shear	BI 2 ?		silty mud (type 2) ↳ forams present		
--10--		clay	csand	massive	BI 2		mud (type 1) ↳ forams present		
--20-- biscuit	10Y 4/1								
--30--							29. Py burrow		
--40--							31. Py burrow		
--50--							35. Py burrow		
--60--							38. Py burrow		
--70--							44. shell fragment		
--80--							55 } shell fragments 59 }		
--90--							65) silt filled burrow 68)		
--100--									
--110--									
116 ↑ 115									
--120--	10Y 3/1	clay	csand	gradational contact	BI 3		mud (type 1) ↳ forams present		
--130-- biscuit				massive (faint lamination?)					
--140--									
--150--							46. silt filled burrow		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
-- 0 --							Save as above 6. silt filled burrow		
-- 10 --									
-- 20 --									
-- 30 --							31. shell fragment		
-- 40 --						40 S-S	40 cm Nanno fossil Mud		
-- 50 --									
-- 60 --							59. shell fragment		
-- 70 --							68. shell fragment		
-- 80 --									
-- 90 --									
-- 100 --						92-100	92. silt filled burrow laminations?		
-- 110 --							107. shell fragment		
-- 120 --									
-- 130 --							125. shell fragment		
-- 140 --							139. silt filled burrow 140. shell fragment		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
-- 0 --							Same as above		
-- 10 -- biscuit?							13. Py burrow 14, shell frag 16, Py burrow		
-- 20 --							25, Py burrow		
31-30--				gradational contact					
-- 40 -- biscuit?	16Y 4/1	silt	m sand	massive? Bioturbated / contact	BZ 4		silty mud (type 2) L foram present		
45.									
-- 50 -- biscuit?	16Y 4/1	clay	m sand	massive? Bioturbated contact	BZ 4		mud (type 1) L foram present. 50, Py burrow 59, Py burrow 59, Py burrow 65, Py burrow 69, Py burrow		
-- 60 --									
-- 70 -- 73									
-- 80 -- biscuit?	16Y 4/1	silt	m sand	massive? Bioturbated / contact	BZ 4		silty mud (type 2) L foram present 80, Py burrow		
-- 90 --									
95.									
-- 100 -- biscuit?	16Y 4/1	clay	m sand	massive, gradational contact	BZ 3		mud (type 1) L foram present 97, Py burrow 111 Py burrow		
-- 110 --									
-- 120 -- 125									
-- 130 -- 133	biscuit?	16Y 4/1	silt	m sand massive, gradational contact	BZ 2		silty mud (type 2) L foram present		
-- 140 -- biscuit?	16Y 4/1	clay	m sand	massive	BZ 3		mud (type 1) L foram present Py burrows		
-- 150 --									

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
--0--							Same as above		
--10--							24. py burrow		
--20--							10, 12) py burrows		
22-20--				gradational contact			14, 17, py burrow		
24	10Y 4/1	silt	m. sand	massive	BZ 3		silty mud (type 2) foram present		
--30--	10Y 4/1	clay	m. sand	gradational contact			24. py burrow		
--40--				massive	BI 4	35 S-S	35 cm: Nannofossil mud mud (type 1) foram present		
--50--				bioturbated contact			32, py burrows		
55							46 py burrows		
--60--		silt	m. sand				Silty mud (type 2) foram present		
--70--	10Y 4/1			massive	BI 4		63) py burrows		
--80--							67 py burrow		
85-78									
82						82 S-S	82 cm: Silty sand with biogenic carbonate		
90				gradational contact?					
90	10Y 4/1	clay	m. sand	massive	BI 4		mud (type 1) foram present		
--100--							91 silt filled burrows		
--110--							py burrows		
112									
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
--0--	GREY 1 10y 4/1			massive	BI = 2		fluid Forams present shell frags present (1mm)		
--10--									
15									
18									
--20--									
22									
24									
29									
--30--									
35									
36									
38									
--40--									
--50--									
53									
--60--	GREY 5Gy 4/1			massive	BI = 3		color contact		
62									
64									
69									
--70--									
73									
--80--									
--90--									
93									
94									
--100--									
105									
--110--									
--120--									
--130--									
--140--									
142									
145									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							Flud : same as above Forams present few shells frags (up to 2mm)		
-- 10 --									
-- 20 --									
-- 30 -- 32							-30- Py b. Gradational color change		
-- 40 --	OLEG, 10y 4/1			massive	BI = 3		Flud Forams present		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 -- 82 83							-82 > Py b. -83 > Py b.		
-- 90 --									
95							-95: Py b.		
98							-98: Py b.		
-- 100 --									
-- 110 --									
116									
-- 120 --					BI = 6				
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 49R 3A

2078

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --										
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
45										
-- 50 --							30 13			
-- 60 --										
-- 70 --										
71										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

thead: Same as above
Forams present

71. Py b.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								Thick same as above		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
89 -- 90 -- 91								89 91 Pb		
-- 100 --							100 SS	100 cm: Muddy nanofossil ooze		
109 -- 110 --		GLAY 56g 4/1			considered			Contact: irregular fine sand and mud with shell frags. (up to 1cm) and O ₂ grains (up to 3mm)		
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387c GPR 5A

2080

Depth (cm)	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
0		5 Gy 4/1								
10										
20		5 Gy 4/1			consolidated					
30										
36		5 Gy 4/1			massive					
40										
45										
48										
50										
60										
70										
72										
75										
80										
90					massive					
100										
110										
120										
130										
140										
150										

Red
5 cm : **Nanno fossil mud**

contact: Inclined
30 cm : Nanno fossil sandy mud
loose sand partly mixed with shell frag (max 4cm) and Oe grains (up to 2 mm) and mud - 105 4/1 and mud - 50y 4/1 contact: irregular

Thin
-45 → Burrows filled with fine sand and shell frag
-40

-72 Py burrows
-75 Py s.

contact: gradational
silty sand

↑
fine sand
Py bs.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 49R CCA

2081



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								"Ruddy" sandstone		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
-- 0 --							Sand stone		
-- 10 --									
-- 20 --				massive					
biscuit	N 5/1	m. sand	granular		BZ 2				
-- 30 --									
-- 40 --							43) immature lithification 45) (color: 10T6/1) 46) ✓ 48)		
52									
-- 60 --							mud (type 1) ↳ foram present.		
10Y 4/1	clay	m. sand		massive	BZ 3		65, shell fragment		
-- 70 --									
biscuit									
-- 80 --							79, echinoid fragment		
							85, shell fragment		
91									
-- 90 --							silty mud (type 2) ↳ foram present.		
-- 100 --							98, shell fragment		
10Y 4/1	silt	m. sand		massive	BZ 3				
biscuit									
-- 110 --									
119									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011/12/16
			Avg.	Max.						
0										Same as above
10	biscuit				gradational contact					10 vf. sand filled burrow
21										
23		10Y 4/1	vf. sand	f. sand	massive?	BZ2				• silty sand (type 3) • contain OM plant debris • foram present
30	biscuit	10Y 4/1	clay	m. sand	erosional contact	BZ3				29, vf. sand filled burrow - mud (type 1)
40					erosional contact					37, silt filled burrow L foram present
47	biscuit	10Y 4/1	silt	m. sand	massive	BZ3				• silty mud (type 2) L foram present
54					gradational contact					
56		10Y 4/1	vf. sand	m. sand	massive	BZ2?				• silty sand (type 3) 56, py burrow L foram present
60	biscuit				sharp contact					
70		10Y 4/1	silt	m. sand	massive	BZ3				65) coarse silty mud (type 2) 66) L foram present 72) coarse 73)
81										81 vf. sand filled burrow
86										
90										
100										
110										
120										
130										
140										
150										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
--0-- 8	10Y 4/1	clay	m-sand	massive	BZ 2		mud (type 1) - foram present		
--10--	10Y 3/1	clay	m-sand	massive	BZ 2		mud (type 1) - foram present		
--20-- 25				(broken)					
--30--	10Y 4/1	clay	m-sand	massive	BZ 3		31. shell fragments		
--40-- 43				(broken)					
--50--	10Y 3/1	clay	f-sand	massive	BZ 2		mud (type 1) - foram present		
--60--	10Y 4/1	clay	m-sand	massive	BZ 3		mud (type 1) - foram present		
--70--									
--80--									
--90--							88. shell fragment		
--100--									
--110--									
--120--									
--130--									
--140--									
--150--									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 26/11/16
		Avg.	Max.						
0							Same as above		
10									
20							21 shell frag		
30									
40									
50									
60	biscuit								
70							70 71 shell frag 73 coarse		
80							92, shell frag		
90				gradational contact.			94 silty mud (type 2) foram present		
100	10T4/1	silt	m. sand	massive, gradational contact	B13		94 silty sand (type 3) foram present		
103	10T4/1	v.f. sand	m. sand	massive	B12?		100 cm SS 100 cm: Nannofossil sandy mud		
110	10T4/1	clay	m. sand	sharp contact, massive	B12		mud (type 1) - foram present 109 P ₂ burrow		
116	10T4/1	clay	m. sand	gradational contact, massive	B12		mud (type 1) - foram present 122 P ₂ burrow		
120	10T5/1	clay	m. sand	massive	B12				
130									
140									
150									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
0							Same as above	SF	2011 12/16
10	heavy								
23							26. Py burrow		
30									
40	biscuit								
50									
63									
74	heavy						74. shell frag		
88									
90									
100									
110									
120									
130									
140									
150									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1387C 51R 5A

2009



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
			Avg.	Max.						
-- 0 --								Same as above		
-- 10 --										
-- 20 --								19. shell frag		
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

V1389C 512 CCA

2090



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
			Avg.	Max.						
-- 0 --								<u>Same as above</u>		
-- 10 --										
16										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								NN	(14 Dec/2011)	
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --	Undisturbed?									
-- 60 --										
-- 70 --										
71		GREY Clay	M-sand (foram)	Bioturbated contact			Type 2: Silty mud continued from 1A			
-- 80 --				Massive	BI:3		Hb Matched Py burrow			
-- 90 --										
99		GREY Clay	M-sand (foram)	Sharp contact						
-- 100 --				Massive	BI:3		Type 1: Mud - Foram present			
-- 110 --										
108.5										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					NN	16/Dec/2011
-- 0 --							Type 1: Mud	Continued from 1A	
-- 10 --							10 Py burrow		
-- 20 --							26 Py burrow		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --							66 68 Foram rich		
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Undisturbed?

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									NN	16/Dec/2011
-- 10 --								Typel: Mud continued from 2A		
-- 20 --										
-- 30 --								32.5 shell fragments		
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --	Undisturbed?									
-- 80 --								75 SS		
-- 90 --								80 part of (echinoids)? ↓ shell fragments		
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 133 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									NN	16/Dec/2011
								Typel: Mud continued from 4A → Py burrow		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --								→ 49 → 51 } Py burrows		
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --								→ 96 Shell fragments		
-- 110 --										
-- 120 --								→ 119 Py burrow		
-- 130 --										
-- 140 --										
-- 150 --										

Biscuits

Biscuits

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: SF	Date: 2011 12/16
		Avg.	Max.						
							Same as above		
				gradational contact			9. echinoid frag.		
	10Y 4/1	clay	m. sand	massive	BI 3		mud (type 1) ↳ foram present		
				gradational contact			55. shell frag.		
	10Y 4/1	silt	m. sand	massive	BI 3		Silty mud (type 2) ↳ foram present		
				gradational contact			85. shell frag.		
	10Y 4/1	clay	m. sand	massive	BI 3		mud (type 1) ↳ 90. shell frag		
							113. foram patch		
							130. shell frag		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					SF	2011 12/16
-- 0 --							Same as above		
-- 10 --									
-- 20 --									
-- 30 --							28, Py burrow, shell frag		
-- 40 --							35, Py burrow		
-- 50 --							50 ss — Nonne mud		
-- 60 --							55, shell frag		
66				gradational contact			63, shell frag		
-- 70 --	10Y 4/1	silt	m-sand	massive			silty mud (type 2) - foram present		
72									
-- 80 --	10Y 4/1	clay	m-sand	(sharp?) massive			mud (type 1) - foram present		
89				gradational			silty mud (type 2) - foram present		
97	10Y 4/1	silt	m-sand	massive					
93	10Y 4/1	f. sand	c. sand	massive?			silty sand (type 3) - foram present		
-- 100 --	10Y 4/1			(massive sharp?)					
104		PAL					mud (type 1) - foram present		
109									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								MASU	16/DEC/2011
-- 0 --									
	10Y4/1	clay	M.S		2		⊙ MUD		
-- 10 --				parallel lamina					
-- 20 --									
-- 30 --				28 ----- massive					
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --	undisturbance								
-- 90 --				85 ----- parallel lamina					
-- 100 --				103 -----					
-- 110 --				massive					
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

529A

2104

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/201
		Avg.	Max.						
-- 0 --	10Y 4/1						S.A.A ① MUD		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	Fragmented								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --	10Y 4/1	clay	M.S.	Grad C massive	3		143 ② SILTY MUD		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

U1387C

55R3A

2105

Depth	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --								SAA	MOSM	16/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --							SS. 50cm	Silty Mud w/ Bio Carb		
-- 60 --	undisturbance									
-- 70 --										
-- 80 --		10Y 4/1	clay	M.S.	Grad. c massive			79 ① MUD		
-- 90 --		10Y 4/1	clay	M.S.	Grad. c massive			88 ② SILTY MUD		
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --							SAA		
-- 10 --									
-- 20 --									
-- 26 --				Grad. C.			26		
-- 30 --	10Y 4/1	Clay	M.S.	massive	3		① MUD		
-- 40 --									
-- 50 --						SS • bcm			
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

Fragmented

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

552 SA

2107



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									Masa	16/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 35 --	Fragmented									
-- 40 --							35cm • SS	Nannofossil Mud		
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --									
-- 10 --									
	10Y4/1								
-- 20 --		clay	M-S	massive	3		13 MUD 19-22 chondrites		
-- 30 --									
-- 40 --							39 42 chondrites		
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
							5F 11cm Nanno MUD		
-- 120 --									
-- 130 --							125-129 chondrites		
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --							S.A.A.		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

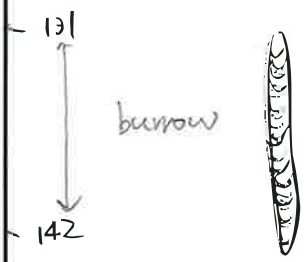
91
chondrites
101

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	16/Dec/2011
-- 0 --							SAD		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									



MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387c

56R4A

2112

Expedition 339: Mediterranean Outflow



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 16/Dec/2011
		Avg.	Max.						
-- 0 --							S.A.A.		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --							S.A.A.		
-- 10 --									
-- 20 --						20cm • SS	Nanno Mud		
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C

56R6A

2117

Expedition 339: Mediterranean Outflow



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --							S.A.A.	MOSU	16/DEC/2011
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/201
			Avg.	Max.						
-- 0 --								S.A.A.		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 16/05/2011
		Avg.	Max.						
-- 0 --							① Mud		
-- 10 --		clay	M-S						
-- 20 --									
-- 30 --							- 32 pyrite vein (?)		
-- 40 --									
-- 50 --									
-- 60 --							- 55 pyrite vein (?)		
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

10Y4/1

label on cap ?

CAUTION
DISTURBED

intensively sheared / fragmental mudstone.

?

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y 4/1						SAA	MASA	16/DEC/2011
-- 10 --	undisturbed.							10-15 cm pyrite.		
-- 20 --										
-- 30 --										
-- 40 --								VOID		
-- 50 --										
-- 60 --		10Y 4/1	clay	m.s.	massive	2		① mud		
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --	CAUTION DISTURBED									
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --									mas	16/DEC/2011
		dy 4/1						S. A. A.		
-- 10 --										
-- 20 --			clay	M.S.	massive	2				
-- 30 --					parallel laminae					
-- 40 --										
-- 50 --										
-- 60 --					massive					
-- 70 --										
	CAUTION DISTURBED									
-- 80 --										
					85 Parallel lamination					
-- 90 --					91					
-- 100 --										
-- 110 --					massive					
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --			clay	msd	massive			0-150 mud		
-- 10 --						2		Strongly disturbed by gas expansion on the floor		
-- 20 --								10 ss None Mud		
-- 30 --		10%								
-- 40 --		4/1								
-- 50 --										
-- 60 --										
-- 70 --	CAUTION DISTURBED									
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

5
57R#A

2120



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y	clay	msd.	massive			0-2l. mud.		
-- 10 --		4/1				2				
-- 20 --										
-- 20 --					void.					
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --	CAUTION DISTURBED									
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --			clay	msd.	massive			0-73		
-- 10 --								strongly disturbed by gas expansion on the floor.		
-- 20 --		10X						slightly bioturbated.		
-- 30 --	CAUTION DISTURBED	4/1				2				
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

U1387C-58R-1A

Expedition 339: Mediterranean Outflow

U1387C

58R 1A

2/23



Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
								f. Yacu	1/16 2011
-- 0 --									
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

disturbed

clay msd.

massive or plane bedding

2

0-150, mud. slightly bioturbated. Scatter Pyrite grains!

10Y 4/1

undisturbed

2

pyrite grains

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

5829 A

2124

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Yard.	Date: 12/16 2011
			Avg.	Max.						
-- 0 --			clay	msd	massive			0-150	Same as above.	
-- 10 --					or plane bedding			55-145	Quartzites dominant.	
-- 20 --										
-- 30 --										
-- 40 --		10x 4/1				2				
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

undisturbed.

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

5873A

2/25

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by: f. Yasu	Date: 12/16 2001
		Avg.	Max.						
-- 0 --		clay	msd				0-150 . Same as above.		
-- 10 --									
-- 20 --									
-- 30 --	10Y 4/1								
-- 40 --							13-43 shell fragments		
-- 50 --									
-- 60 --					2				
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

58P-4A

212.6

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.						
-- 0 --		clay	msd	massive			0-151	Yasu	12/16 2011
-- 10 --				plane bed.			same as above.		
-- 20 --	10Y								
-- 30 --	A/1				2				
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	in situ to top								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

58 FCC

21-8-



Depth	Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	undisturbed	10x A/1	clay	msd	mass: 10 or plastic	2		0-22 mad.	Yasu	20/16 2011
-- 10 --										
-- 20 --	22									
-- 28 --	28									
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: Mason	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --	10Y 4/1	clay	M.S.				D MUD		
-- 10 --	biscuit				3				
-- 20 --				massive			25-27 chondrites		
-- 30 --				30 31 Parallel L.					
-- 40 --							36-41 chondrites		
-- 50 --				massive					
-- 60 --							pyritized burrow		
-- 70 --									
-- 80 --	undisturbance						73 ↑ chondrites ↓ 86		
-- 90 --									
-- 100 --							103 ↑		
-- 110 --							chondrites		
-- 120 --									
-- 130 --									
-- 140 --	biscuit						135 ↓		
-- 150 --							144-145 chondrites		

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --		10Y4/1	clay	M. S.	massive	3			MAGW	16/DEC/2011
-- 10 --	Biscuit									
-- 20 --										
-- 30 --										
-- 40 --	undisturbance							41-45 chondrites		
-- 50 --										
-- 60 --										
-- 70 --	Biscuit							66 pyritized burrow		
-- 80 --								75-77 pyritized burrow		
-- 90 --										
-- 100 --	undisturbance							102-104 pyritized burrow		
-- 110 --										
-- 120 --										
-- 130 --	Biscuit							135 pyritized burrow		
-- 140 --								142 pyritized burrow		
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASM	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --	10Y 4/1	clay	M.S.	massive	3		S.S.A.		
-- 10 --									15 chondrites
-- 20 --	10Y 3/1			sharp. C massive sharp. C	3	SS	black mud !! Muddy 24 cm: Nanno ooze		
-- 23.5 --	10Y 4/1				3	24cm	⊙ MUD		24cm
-- 30 --		clay	M.S.						
-- 40 --									
-- 50 --									
-- 55 --							55-58: chondrites		
-- 60 --									
-- 70 --	undisturbed								
-- 80 --									
-- 87 --	10Y 4/1	clay	M.S.	sharp. C massive	3		87 ⊙ MUD		
-- 88 --							88		
-- 90 --	10Y 4/1 (dark)	clay	M.S.	sharp. C	3		⊙ MUD		
-- 100 --									
-- 110 --						SS 110cm	110 cm: Clayey Nanno ooze		
-- 120 --	10Y 4/1 (light)								
-- 130 --									
-- 140 --						SS 145cm	145 cm Muddy nanno ooze		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16 DEC/2000
		Avg.	Max.						
-- 0 --	10Y4/1	clay	M.S.	massive	3		① MUD SAA		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	undisturbance								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

21
↑
zoophycos

53
↓

69
↑
chondrites

82
↓

102
↑
pyritized burrows

107
↓

134 pyritized burrows

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	16/DEC/2011
-- 0 --							SAA		
-- 10 --									
-- 20 --		clay	M.S.	massive	3				
-- 30 --							chondrites.		
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --	undisturbance								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --				Color. C			108 O mud		
-- 120 --		clay	M.S.	massive	3		mottled		
-- 130 --									
-- 140 --									
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					masm	16/Dec/2011
-- 0 --										
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										



SdA

7 ↑

17

burrows (?)

chondrites

40 ↓

undisturbance

74 pyritized burrow

Expedition 339: Mediterranean Outflow

U1387C 59ACC 2135



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.						
-- 0 --	Undist.							S.A.A. 7-9cm chondrites	YASU	16/DEC/2011
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --									
flow-in									
-- 10 --	10Y 7/1	clay	m.s.	massive	3		① MUD		
-- 20 --							16 ↑ chondrites		
-- 30 --							30 ↓		
-- 40 --	disturbance								
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --	undisturbed								
-- 110 --									
-- 120 --									117 ↑ chondrites
-- 130 --	10Y4/1	clay	m.s.	sharp. c parallel lam.			130 ① MUD		
-- 140 --	10Y4/1	clay	m.s.	sharp. massive			131 ① MUD		
-- 150 --									

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --	10Y4/1						S.A.F.		
-- 10 --									
-- 20 --	10Y4/1 (dark)	14	19						
	biscuit (?)								
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --	undisturbed								
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --	biscuit (?)								
-- 150 --									

pyritized burrows

chondrites

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

6124A

240

	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					masu	16/DEC/2011
-- 0 --								SAA		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --	undisturbance							67-68 pyritized burrows		
-- 80 --										
-- 90 --		10Y4/1						88-90 pyritized burrows		
		(dark)						93		
-- 100 --		10Y4/1						chondrites		
-- 110 --										
-- 120 --								120 v		
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
		Avg.	Max.					MASU	16/DEC/2011
-- 0 --							S.A.A		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --							45 ↑ chondrites ↓ 57		
-- 60 --									
-- 70 --	disturbance								
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --									
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

disturbance

45
↑
chondrites
↓
57

10Y
3/1

120
↑
chondrites

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

6126A 2142

Drilling disturb.	Color	Grain-size		Sed. / struct. / contact	Bioturb.	Samples	Comments	Logged by: MASU	Date: 16/DEC/2011
		Avg.	Max.						
-- 0 --						SS 5cm	5 cm: SAA - Muddy nano ooze		
-- 10 --									
-- 20 --									
-- 30 --									
-- 40 --									
-- 50 --									
-- 60 --									
-- 70 --									
-- 80 --									
-- 90 --									
-- 100 --									
-- 110 --						SS 5cm	110 cm: Muddy nano ooze		
-- 120 --									
-- 130 --									
-- 140 --									
-- 150 --									

undisturbance

10Y4/1

10Y3/1 92
10Y4/1 95

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

61R7A

2143



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					MASU	16/DEC/2011
-- 0 --										
-- 10 --							↑ chondrites	SAA		
-- 20 --							↓ 21			
-- 30 --							30 ↑ chondrites			
-- 40 --							↓ 40			
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

undisturbed

10Y5/1 55

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

SIRCC (A) - 2144



	Drilling disturb.	Color	Grain-size		Sed. struct. / contact	Bioturb.	Samples	Comments	Logged by:	Date:
			Avg.	Max.					MAGU.	16/Dec/2011
-- 0 --	↑ disturbed							SdA A 5 cm: Muddy Nano ooze		
-- 10 --										
-- 20 --										
-- 30 --										
-- 40 --										
-- 50 --										
-- 60 --										
-- 70 --										
-- 80 --										
-- 90 --										
-- 100 --										
-- 110 --										
-- 120 --										
-- 130 --										
-- 140 --										
-- 150 --										

MAJOR LITHOLOGY:

MINOR LITHOLOGY: