

SeaBOSS LOG

SHIP: RV SUNCOASTER

CRUISE: SUNCOASTER ⁰³⁰⁰⁷ ~~(00030)~~

AREA: Pulley Ridge, Gulf of Mexico

DATES: 24 April-1 May, 2003

PROJECT: Reefs - Deep-water reefs task

CHIEF SCIENTIST: Bob Halley and Al Hine

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #:
 M.C.: David Twitchell PLATFORM: 1 / SUNCOASTER
 DATE: 25 April 03 LOCATION: Pulley Ridge, Dry Tortuga
 WEATHER: sunny, 15 kt SW breeze WAVES: 3-5 ft
 BOTTOM TYPE: coral CURRENT: none
speed over bottom 1.5 - 2 kt
 DIVE #: 12345 TAPE # 1 TIME IN/OUT: 1251 - 1446
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley Twitchell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey
1249:50 start VHS Tapes - on bottom

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.):

DEPTH	TIME	OBSERVATION (COUNTER)
_____	<u>1251:39</u>	<u>photo 1</u>
_____	_____	<u>2</u>
_____	<u>1253:07</u>	<u>photo 3</u>
_____	<u>1253:50</u>	<u>4</u>
_____	<u>1256:07</u>	<u>5</u>
_____	<u>1300:06</u>	<u>6</u>
_____	<u>1300:49</u>	<u>7 saw 1 lobster</u>
_____	<u>1301:50</u>	<u>8</u>
_____	<u>1302:54</u>	<u>9</u>
<u>20.5m</u>	<u>1304:15</u>	<u>10</u>
_____	_____	<u>1338:27 37</u>
_____	_____	<u>1340:26 38</u>
_____	_____	<u>1341:41 39</u>
_____	_____	<u>1342:28 40</u> <u>ledge</u>
_____	_____	<u>1344:46 41</u> <u>hole - vert shaft</u>
_____	_____	<u>1345:52 42</u> <u>red coral?</u>
_____	_____	<u>1346:35 43</u> <u>sponges 70m</u>
_____	_____	<u>1348:21 44</u>
_____	_____	<u>1348:53 45</u> <u>hole</u>
_____	_____	<u>1350:18 46</u> <u>green algae.</u>

DEPTH	TIME	OBSERVATION (COUNTER)	
71.1	1306:13	11	↑ 1351:02 47
	1306:23	12	1352 change small types.
	1309:04	13 striped coral	1352:53 48
	1310:00	14	1353:19 49 green algae
	1311:00	15	1356:25 50 sponge coral
	1311:54	16 big coral	1357:35 51 red fish (little)
	1313:00	17 sponge w/ encrustation	1358:01 52 69.5m
	1314:02	18 sponge	1359:10 52 sponge vase
	1315:33	19 sponge	1401:10 53 stuff
	1317:24	20 red sponge	1401:59 54 sponge
	1318:38	21 ana	1402:29 55 coral
	1319:26	22 algae-coraline	1403:03 56 stuff
	1319:40	23 small coral	1403:28 57
	1320:38	24 dark sponge	1405:01 58 dead ana
	1321:35	25	1405:12 59 coral
	1322:51	26 pit	1406:39 60
	1323:04	27 sponge out of frame.	1407:06 61 coral
	23:34	28 coral	1407:27 62
	24:49	29 sponge & fish?	1408:19 63 coral
69m	25:26	30 sponge	1408:53 64
	1326:38	31	1409:30 65
	1329:30	32	1410:51 65
67.8	1331:38	33	1411:20 66
	1332:35	34 blue coral??	1411:40 67 red algae
	1336:20	35	1412:14 68
	1336:31	36 lone striped coral	1412:45 69 ana

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
M.C.: David Twichell PLATFORM: R/ SUNCOASTER
DATE: _____ LOCATION: Pulley Ridge, Dry Tortugas
WEATHER: _____ WAVES: _____
BOTTOM TYPE: _____ CURRENT: _____
DIVE #: 12315 TAPE # 1 TIME IN/OUT: _____
ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley, Twichell/Hine
MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)			
	1413:29	70 green algae	1446:46	104	big brown bottom
68.4	1414:10	71	47:48	105	
	1414:46	72	1448:09	106	70:3m.
	1416:13	73	49:02	107	too close
	1416:48	74 green algae and coral	49:43	108	pink sponge
	1417:41	75 green algae	50:09	109	
69.2	1418:34	76 red algae	50:27	110	
	1419:54	77	1450:47		Sample
	1420:30	78	1452:30		Stop tape 202:36
	1421:30	79			

DEPTH	TIME	OBSERVATION (COUNTER)
	1421:57	80 sponge
	1422:51	81 green algae
	1423:23	81 diff sponge yellow?
	1425:03	82
68.0	25:33	83 coral green algae
	1428:58	84
	1428:32	85 fish
	1429:04	86 green algae
	1431:04	87
	1431:42	88 red algae
	1434:06	89 sponge center
	1434:47	90
	1435:54	91
	1436:20	92 hole center
	1438	working on winch
69.2	1439:00	93 ora
	1439:19	94
	1440:33	95
	1441:27	96
	1442:02	97
	1442:21	98
	1443:36	99
	1445:02	100 brown button
	1445:15	101 brown button
	1445:45	102 " "
	1446:16	103

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 25 April 2003 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: 15 kt SW breeze 3-5 ft WAVES: 3-5 ft seas
 BOTTOM TYPE: coral CURRENT: none

DIVE #: Sta 2 TAPE # 2 ; TIME IN/OUT: 1653-1754

ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley/Twichell/Hine

MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

1652 start VHS Tapes

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)			
<u>68m</u>	<u>1653:26</u>	<u>104</u> <u>Trail</u>	<u>1729:12</u>	<u>139</u>	<u>nodular</u>
	<u>1654:19</u>	<u>105</u>	<u>1731:54</u>	<u>140</u>	<u>fan coral</u>
	<u>1654:25</u>	<u>106</u> <u>Halimeda</u>	<u>1732:56</u>	<u>141</u>	<u>burrows in 1/4 corner</u>
	<u>1655:01</u>	<u>107</u> <u>Trail-disturb</u>	<u>1733:14</u>	<u>142</u>	
	<u>1656:00</u>	<u>108</u> <u>Halimeda</u>	<u>1735:23</u>	<u>143</u>	
	<u>1656:09</u>	<u>109</u>	<u>1735:38</u>	<u>144</u>	
	<u>1656:40</u>	<u>110</u>	<u>1737:15</u>	<u>145</u>	
	<u>1657:17</u>	<u>111</u> <u>small mounds</u>	<u>1738:24</u>	<u>146</u>	
	<u>1657:48</u>	<u>112</u> <u>small mounds</u>	<u>1740:46</u>	<u>147</u>	
	<u>1658:16</u>	<u>113</u> <u>algae</u>	<u>1741:39</u>	<u>148</u>	<u>entrances to burrows</u>

DEPTH	TIME	OBSERVATION (COUNTER)		
	1659:12	114 algae	1744:14	149 sponges
	1700:40	115 fish mound	1744:44	150 sponge - big
	1701:50	116 cobbles	1745:20	155 mound - cottle
	1702:24	117	1747:29	156
	1702:43	118 nodules	1749:27	157
	1703:26	119 nodules	1751:29	158 painted coral
	1705:10	120 rock in pit	1752:14	159 algae
	1706:14	121 shell - snail	1753:44	sample
	1708:03	122 mantle - larvae	102:15	strip tape - str 2 a
	1710:25	123 fringed sponge		
	1711:11	124 - fringed mounds		
	1711:30	125 - cluster of umbrellas		
69m	1711:40	126 - crevice - spring		
	1713:27	127 pit w algae		
	1714:30	128 rock - cobbles		
	1715:34	129 pebbles		
	1716:19	130 holes in mounds		
	1716:53	131 algae in hole		
	1718:18	131 mounds w holes		
69	1719:06	132 halimeda		
	1723:04	133		
	1723:35	134		
	1725:49	135		
	1725:58	136 ora		
	1727:54	137 cottle		
	1728:04	138 cottle		

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 25 April, 03 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: SE wind - 10kt - 2-4ft WAVES: 2-4ft sw
 BOTTOM TYPE: _____ CURRENT: _____

DIVE #: Sta 3 TAPE # 2 TIME IN/OUT: 1822-1922
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley Twichell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

VHS tape 2 starts 102:15 started at 1821:20

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)			
	<u>1822:33</u>	<u>160</u>	<u>1858:00</u>	<u>196</u>	<u>general</u>
		<u>161</u>	<u>1900:57</u>	<u>197</u>	
<u>64m</u>	<u>1823:07</u>	<u>162 coral</u>	<u>1901:15</u>	<u>198</u>	<u>red algae</u>
	<u>1824:06</u>	<u>163 coral</u>	<u>1902:34</u>	<u>199</u>	
	<u>24:18</u>	<u>164</u>	<u>1903:07</u>	<u>200</u>	<u>Vase sponge</u>
	<u>1825:16</u>	<u>165 coral</u>	<u>1905:46</u>	<u>201</u>	
	<u>1826:16</u>	<u>166 fish</u>	<u>1906:58</u>	<u>202</u>	
	<u>1827:02</u>	<u>167</u>	<u>1908:19</u>	<u>Sample??</u>	<u>62.5m</u>
	<u>1827:59</u>	<u>168</u>	<u>1909:33</u>	<u>203</u>	
	<u>1828:17</u>	<u>169 coral</u>	<u>1910:42</u>	<u>204</u>	<u>fish??</u>

DEPTH	TIME	OBSERVATION (COUNTER)			
	1829:10	170	1912:59	205	62m
	1829:40	171 coral of white coral	1913:09	206	62.5m
	1830:12	172 white fringed coral	1913:30	207	62.2m
63m	1831:03	173 fish	1914:00	208	
	1832:31	174	1914:19	209	
	1834:08	175 stuff	1915:07	210	
	1835:02	176	1915:25	211	62.4m
	1838:39	177	1916:25	212	
64m	1836:35	178 fish	1917:11	213	
	1837:57	179	1918:04	214	
	1838:20	180	1918:39	215	dark blue
	1838:36	181	1919:37	216	
	1839:57	182	1919:47	217	
	1841:41	183	1920:07	218	
	1842:23	184		219	sponges + coral
	1844:41	185 coral	1920:48	220	
	1845:35	186	1921:24	221	fish
	1846:20	187 coral	1922:35	222	on bottom
	1847:08	188 coral		223	in water
	1847:27	1889 fish - murex			
	1848:12	190			
	1851:27	191 bottle			
	1851:58	192			
	1852:23	193 coral			
	1854:12	194 general			
	1855:44	195 coral			

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #:
M.C.: David Twichell PLATFORM: R/ SUNCOASTER
DATE: 25 April 03 LOCATION: Pulley Ridge, Dry Tortugas
WEATHER: Calm, sunny WAVES: 1-2 ft
BOTTOM TYPE: coral CURRENT:

DIVE #: 4 TAPE # 3 TIME IN/OUT: 2028-2129
ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley, Twichell/Hine
MAX DEPTH: Start 78m PURPOSE OF DIVE: Bottom Survey

Start both Video tapes 2027:58
Stop video 101:20 2129:40

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.):

DEPTH	TIME	OBSERVATION (COUNTER)
		<u>1-3 on deck</u>
	<u>2028:46</u>	<u>4 something red</u>
	<u>2029:47</u>	<u>5 bioturb</u>
	<u>2030:05</u>	<u>6 bioturb</u>
	<u>2032:20</u>	<u>7</u>
	<u>2033:40</u>	<u>8</u>
<u>79.1m</u>	<u>2035:57</u>	<u>9</u>
	<u>2042:22</u>	<u>10 big round sponge</u>
	<u>2044:59</u>	<u>11</u>
	<u>2046:19</u>	<u>12</u>
<u>79.2</u>	<u>2047:48</u>	<u>13</u>

DEPTH TIME OBSERVATION (COUNTER)

2048:58

14 ana?

2050:16

15 too close

2051:03

16

2051:30

17 big sponge

2056:12

18 ermid

2057:45

19

2058:41

20 rocks

2100:58

21

2001:39

22 sponge w soft coral

2102:25

23

2102:46

24

2107:30

25 sponge

2111:30

26

2112:19

27 fish

2113:59

28

2015:29

29

2116:32

30

2119:37

31

2122:57

32

2124:34

33 dead sponge

2128:24

34 burrows

2129:10

35 in water

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 27 April, 2003 LOCATION: Pulley Ridge, Dry Tortugas

WEATHER: _____ WAVES: _____

BOTTOM TYPE: _____ CURRENT: _____

DIVE #: 5 TAPE # 3+4 TIME IN/OUT: 1300 - 1522

ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley/ Twichell/Hine

MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

start meter depth 65m

1259:32 start VHS tapes 101:32

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)
<u>67m</u>	<u>1300:49</u>	<u>37</u>
	<u>1302:04</u>	<u>38</u> <u>sea</u>
	<u>1302:41</u>	<u>39</u> <u>blue coral</u>
	<u>1303:57</u>	<u>40</u> <u>blue coral</u>
	<u>1305:35</u>	<u>41</u>
	<u>1306:10</u>	<u>42</u>
	<u>1307:47</u>	<u>43</u>
	<u>1308:32</u>	<u>44</u> <u>small brown algae</u>
	<u>1308:46</u>	<u>45</u> <u>feet</u>
	<u>1309:20</u>	<u>46</u> <u>brown algae</u>
	<u>1330:25</u>	<u>74</u>
	<u>1331:29</u>	<u>75</u> <u>close - out of focus?</u>
	<u>1331:54</u>	<u>76</u>
	<u>1333:04</u>	<u>77</u>
	<u>1333:47</u>	<u>78</u>
	<u>1334:15</u>	<u>79</u> <u>brown coral</u>
	<u>1335:02</u>	<u>80</u> <u>brown coral</u>
	<u>1336:56</u>	<u>81</u>
	<u>1338:39</u>	<u>82</u>
	<u>1339:03</u>	<u>83</u> <u>coral.</u>

DEPTH	TIME	OBSERVATION (COUNTER)			
63m	1309:55	47.	1339:40	84	coral
	1310:23	48 clownfish	1339:52	85	coral
	1311:12	49	1341:17	86	
	1312:29	50 red fish??	71m 1343:19	87	
	1313:47	51 little fish	72m 1344:29	88	fish
		52 coral	1345:08	89	
	1314:56	53	1347:41	90	complete pot line but free again.
	1315:30	55 blue coral	1350:56	91	
	1316:37	56	72m 1351:40	92	
	1317:17	57	1352:44	93	turned over rock
	1317:46	58 red sponge	1354:10	94	out of focus - close
	1318:57	59	72m 1354:53	95	
	1319:50	60 coral	1355:48	96	algae
	1321:07	61 sponge	1356:15	97	coral
	1321:28	62	1357:41	98	
	1323:03	63	1359:19	99	
	1323:16	64	1359:34	100	
	1324:03	65 puffer	1359:55	101	
	1324:18	66 coral	1400:28	102	
	1324:27	67	72m 1401:30	103	
	1325:22	68 coral	1401:56	104	coral
67	1325:42	69 coraline algae	1402:38	105	coral
	1327:22	70	1403:17	106	
68	1327:59	71	1404:27	107	small coral
	1329:36	72	73m 1404:52	108	
69	1330:10	73		109	GPS ON!

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: _____ LOCATION: Pulley Ridge, Dry Tortugas

WEATHER: _____ WAVES: _____
 BOTTOM TYPE: _____ CURRENT: _____

DIVE #: 5 TAPE # 3+4 TIME IN/OUT: _____
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley, Twichell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)
	1409	110 1455:15 142-
		start tape 2 started - gps still on
	1415:06	GPS on again 1455:56 143
	1416:31	111 1456:44 144 coral
	1416:51	112 coral 76.5m 1457:13 145
74m	1417:32	113 1457:42 146
74	1418:15	114 1500:14 147
	1419:15	115 1500:38 148
	1420:12	116 1502:11 149
	1421:11	117 1502:37 150

DEPTH	TIME	OBSERVATION (COUNTER)	
74m	1421:34	118 branching coral	
	1422:43	rising to surface - ship traffic	
	1430:20	restart VHS tapes 14:20 on tapes	
	1431:35	119	1502:58 151 <u>big coral</u>
	1432:17	120	1505:09 152
76m	1434:10	121	1505:48 153
	1434:54	122	1506:42 154
	1435:06	123 coral	1507:58 155
	1435:18	124	76m 1509:11 156
	1435:32	125	1509:52 157
	1436:25	126	1512:40 158
76m	1438:36	127	1514:07 159
	1439:04	128	1514:30 160
	1439:25	129 saw whip	1515:00 161
	1440:21	130 saw whip	77m 1515:44 162
	1441:45	131 soft coral	1516:13 163 brown coral?
	1442:53	132	77m 1519:29 164
	1444:22	133	1522:27 165 sample
	1446:13	134	166 in water
	1447:16	135	1523:00 stop tapes at 107:07
75m	1447:55	136	
	1448:27	137	
	1450:12	138 big coral ^{too high} out of focus	
	1450:54	139	
	1451:51	140 coral	
	1453:36	141 sponge	

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 27 April, 03 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: rainy, 15 kt SW wind CLOUDY WAVES: 2-4'
 BOTTOM TYPE: _____ CURRENT: _____

DIVE #: 6 TAPE # _____ TIME IN/OUT: 1651 - 1829
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley/ Twichell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey
1651:13 VHS tapes on at 107:10

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)			
<u>65</u>	<u>1652:53</u>	<u>167</u>	<u>65</u>	<u>1723:56</u>	<u>202 fish</u>
	<u>1654:24</u>	<u>168</u>		<u>1724:21</u>	<u>203</u>
	<u>1655:15</u>	<u>169 sponge</u>		<u>1726:55</u>	<u>204</u>
	<u>1655:56</u>	<u>170 Halameda</u>	<u>65</u>	<u>1728:09</u>	<u>205</u>
	<u>1656:45</u>	<u>171 pipe?</u>	<u>67</u>	<u>1730:07</u>	<u>206</u>
	<u>1657:40</u>	<u>172 orange sponge</u>		<u>1731:15</u>	<u>207 mound w burrow</u>
	<u>1658:00</u>	<u>173 pit</u>		<u>1732:08</u>	<u>208 branching coral</u>
	<u>1658:59</u>	<u>174 red sponge</u>	<u>67</u>	<u>1733:36</u>	<u>209 fish</u>
<u>66</u>	<u>1659:21</u>	<u>175</u>		<u>1734:38</u>	<u>210</u>
	<u>1700:34</u>	<u>176 mound</u>		<u>1737:08</u>	<u>211</u>

DEPTH	TIME	OBSERVATION (COUNTER)			
	1702:05	177 hole by mound.	68m	1739:20	212
	1703:35	178	69m	1741:54	213 burrow
	1704:11	179 mound		1743:50	214 burrow
	1705:39	180		1746 - change VHS	tapes 201:38
	1707:09	181 fish			215
	1708:34	182 coralline algae		1747 start VHS	tape
	1707	school of jacks		1747:43	216
	1709:21	183 sponge		1748:24	217 red algae (of)
	1710:40	184 mound in pit		1749:15	218
	1710:52	185		1749:44	219 burrow
	1711:39	186 fish		1750:57	220
63m	1711:53	187 fish	68m	1751:21	221
	1712:15	188 fish		1752:10	222
	1712:36	189 fish		1753:13	223
	1713:31	190		1754:26	224
	1713:49	191 puffer		1755:29	225
	1714:12	192 mound		1756:25	226
	1714:54	193 red algae	70m	1759:18	227 mound
	1715:31	194 mound		1801:18	228 orange sponge
	1717:20	195		1803:13	229 red algae
	1718:04	196 coral		1805:48	230 red algae
	1719:30	197 white sponges	70m	1806:11	231 dull sponge
	1719:46	198 coral		1818:59	232
	1720:43	199	70m	1809:29	233 red sponge
	1721:05	200		1810:40	234 small burrows in sand
	1721:45	201		1812:30	bur jacks

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #:
M.C.: David Twichell PLATFORM: R/ SUNCOASTER
DATE: _____ LOCATION: Pulley Ridge, Dry Tortugas
WEATHER: rainy, cloudy, 10KT SW wind WAVES: 2-4'
BOTTOM TYPE: _____ CURRENT: 0

DIVE #: 6 TAPE # _____ TIME IN/OUT: _____
ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley, Twichell/Hine
MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.):

DEPTH	TIME	OBSERVATION (COUNTER)
	<u>1815:34</u>	<u>235 big ugly sponge</u>
	<u>1816:40</u>	<u>236 red & green algae</u>
	<u>1818:26</u>	<u>237 sponge</u>
	<u>1818:59</u>	<u>238 general</u>
	<u>1820:44</u>	<u>239</u>
	<u>1821:14</u>	<u>240 Halameda?</u>
	<u>1821:36</u>	<u>241 Halameda</u>
<u>71m</u>	<u>1824:03</u>	<u>242</u>
	<u>1824:24</u>	<u>243</u>
	<u>1825:57</u>	<u>244</u>

1826:09 245
72W 1826:20 246 Halameda
1826:42 247 Halameda
1826:54 248 Halameda
1829:19 grab
1829:25 VHS End 0:43:12 on tape

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #:
 M.C.: David Twitchell PLATFORM: R/ SUNCOASTER
 DATE: 27 April 2003 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: cloudy, rainy, 10-20kt breeze WAVES: 3-5 ft
 BOTTOM TYPE: coral CURRENT: none

DIVE #: 7 TAPE # 5 TIME IN/OUT: 1940-2038
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley/Twitchell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey
1939:30 VHS start 0:43:00

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.):

DEPTH	TIME	OBSERVATION (COUNTER)
	<u>1940:00</u>	<u>4 coral 66m 2010:56 40</u>
<u>65m</u>	<u>1941:00</u>	<u>5 coral 2011:30 41 coral</u>
	<u>1942:40</u>	<u>6 coral 2012:01 42 coral</u>
	<u>1943:05</u>	<u>7 " 66m 2012:53 43 sponge</u>
	<u>1945:28</u>	<u>8 " 2014:46 44 red algae</u>
	<u>1946:46</u>	<u>9 2015:27 45</u>
	<u>1948:42</u>	<u>10- red sponge 2015:53 46</u>
	<u>1948:57</u>	<u>11 coral 65m 2017:09 47</u>
	<u>1949:51</u>	<u>12 fish 17:50 48</u>
	<u>1951:07</u>	<u>13 17:56 49</u>

DEPTH	TIME	OBSERVATION (COUNTER)		
	1953:13	14 general		2018:08 50
	1953:57	15 "	66m	2019:07 51 coral
	1955:29	16 coral		2019:28 52 "
	1955:57	17		19:42 53 "
	1956:41	18 coral		49 54 "
	1956:59	19 fish		55 "
	1957:14	20 coral w sponge		20:09 56 "
	1957:48	21 coral	65m	20 21:05 57 big blue coral (roof)
	1958:01	22 "		2021:30 58
	1959:25	23 general		59 mixed
	1959:37	24 coral		2021:56 60
	1959:55	25		2022:37 61
	2000:13	26 coral		2022:56 62 little red sponge
	2000:24	27 red sponge		2027:28 63 sponge
	2001:39	28		2028:30 64 coral + algal
	2002:28	29		2030:50 65
	2003:25	30		2031:30 66 coral
	2004:07	31	65m	2032:34 67
	2004:46	32 fish = big		2034:04 68
	2005:54	33 grand		2035:04 69
	2007:15	34 sponge?		2035:46 70 brown coral
	2007:40	35		2036:50 71
	2007:50	36 seawhip		2037:27 72
	2008:24	37		2037:40 73
	2008:58	38 red sponge		2038:28 grab
	2010:15	39		74 off bottom!

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 28 April, 2003 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: Overcast - SE wind - 10 KT - calm WAVES: 1-2 ft
 BOTTOM TYPE: Pulley Ridge Coral CURRENT: _____

DIVE #: 8 TAPE # 6 ; TIME IN/OUT: 1456 - 1556
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley, Twichell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey
1455 - Start VHS tapes

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)		
<u>64.5m</u>	<u>1456:28</u>	<u>75 lots of coral</u>		<u>1535:20 111</u>
_____	<u>1457:19</u>	<u>76 fish</u>	<u>64m</u>	<u>1535:43 112 fish</u>
_____	<u>1458:25</u>	<u>77 coral</u>		<u>1537:28 113</u>
_____	<u>1501:20</u>	<u>78 general</u>		<u>1540:27 114</u>
_____	<u>1501:28</u>	<u>79 coral</u>		<u>1541:09 115</u>
_____	<u>1502:25</u>	<u>80 coral</u>	<u>66m</u>	<u>1541:33 116</u>
_____	<u>1503:00</u>	<u>81 coral + ana</u>		<u>1542:58 117 flipped coral</u>
_____	<u>1504:16</u>	<u>82</u>	<u>67</u>	<u>1543:27 118</u>
_____	<u>1506:56</u>	<u>83 sponge</u>		<u>1543:37 119 both types of coral</u>
_____	<u>1507:27</u>	<u>84 (roof)</u>		<u>1546:07 120</u>

DEPTH	TIME	OBSERVATION (COUNTER)	
	1507:43	85 coral	69.1m 1549:05 121
	1509:06	86 coral	1549:44 122
	1509:49	87 bottle???	1550:53 123
	1510:36	88 loof)	1552:10 124
	1511:20	89	1552:40 125
	1512:40	90	1553:40 126 hole
	1515:06	91 coral	1555:27 127
	1515:18	92 coral montastru	1555:37 sample
65m	1516:37	93	1555:51 # 128 - off bottom
	1518:48	94 coral	1556:15 VHS off 101:19
	1519:50	95 orange sponge	
	1520:50	96	
	1521:04	97 fish	
	1521:33	98	
	1522:30	99	
	1523:01	100	
	1523:16	101 coral w white fring	
	1524:21	102	
	1524:56	103	
	1525:24	104	
	1526:01	105	
	1529:15	106 branching coral	
	1529:44	107	
	1530:25	108	
	1531:55	109 red sponge	
63	1535:00	110	

ROV DIVING LOG

P.I.: Robert B. Halley MISSION #: _____
 M.C.: David Twichell PLATFORM: R/ SUNCOASTER
 DATE: 28 April 2003 LOCATION: Pulley Ridge, Dry Tortugas
 WEATHER: Partly sunny, SE-W NE Wind 10kt WAVES: 1-2 ft
 BOTTOM TYPE: Pulley Ridge Coral CURRENT: _____

DIVE #: 9 TAPE # 6 TIME IN/OUT: 1715-1812
 ROV OPERATOR: Dan Blackwood SCIENTIFIC OBSERVER: Halley/Twichell/Hine
 MAX DEPTH: _____ PURPOSE OF DIVE: Bottom Survey

VHS clock time 101:59 start recording at 1714:15

COMMENTS (SPECIAL TOOLS USED, PROBLEMS ENCOUNTERED, ETC.): _____

DEPTH	TIME	OBSERVATION (COUNTER)
<u>66m</u>	<u>1715:11</u>	<u>129</u>
	<u>1715:43</u>	<u>130</u>
	<u>1717:45</u>	<u>131 red sponges</u>
	<u>1718:33</u>	<u>132</u>
	<u>1722:03</u>	<u>133</u>
	<u>1722:12</u>	<u>134</u>
	<u>1723:48</u>	<u>135</u>
<u>65m</u>	<u>1725:00</u>	<u>136</u>
	<u>1725:50</u>	<u>137 tubular sponge</u>
	<u>1726:03</u>	<u>138 red sponge</u>
	<u>65m 1757:39</u>	<u>165 coral</u>
	<u>1759:07</u>	<u>166 fish</u>
	<u>1759:31</u>	<u>167 general</u>
	<u>66m 1800:37</u>	<u>168 coral</u>
	<u>1801:03</u>	<u>169 striped coral (roof)</u>
	<u>1801:50</u>	<u>170</u>
	<u>1804:18</u>	<u>171 branching coral</u>
	<u>65m 1805:04</u>	<u>172</u>
	<u>1808:07</u>	<u>173 general</u>
	<u>1809:27</u>	<u>174 hole</u>

DEPTH	TIME	OBSERVATION (COUNTER)
	1726:51	139 <i>Montastria cavernosa?</i>
	1728:37	140 sponges
	1729:21	141 general
	1729:45	142 tube sponge
	1731:40	143 " "
	1732:19	144
	1733:21	145 fish
	1735:06	146 "
	1735:40	147 coral
	1736:52	148 angel fish (leaf)
	1740:09	149
	1740:37	150
	1740:53	151 white staff
	1741:28	152 " "
	1744:29	153
	1745:10	154
	1745:36	155
64m	1746:35	156 general
	1747:41	157 fish
	1748:57	158 "
	1750:58	159
	1751:56	160 coral
	1752:08	161 "
	1753:46	162 general
	1754:08	163 coral
	1756:07	164 coral

66m 1810:31 175

1811:15 grab sample

176 off bottom

1812:01 - stop UHS 159:09 HR.

STATION LOG

Start date 28 April, 2003 (JD = _____)CRUISE: SUNCOASTERSTUDY AREA: Pulley Ridge, Gulf of Mexico

VIDEO TAPE NO. _____

(8 mm _____

Hi-8 mm)PROJECT: Deep-water reefs

DGPS NAV FIX UPDATE INTERVAL:

STA. NO.	JD	TIME (UTC)			TAPE COUNTER	
		Video on bottom	Sample taken	Video off bottom	Start	Stop
10		1856		1951:36	0000	055:24

Start Depth, m	Depth, m	End Depth, m

VIDEO LOCATION:

Start Lat. N 24 42:554 Long. W -83 42.261

End Lat. N _____ Long. W _____

SAMPLE LOCATION:

Lat. N _____ Long. W _____

SAMPLES TAKEN:

Texture: _____ Geochemistry: _____ Organics: _____ Biology: _____

SAMPLING COMMENTS:

DESCRIPTION OF BOTTOM:

STILL PHOTOS: Roll No. _____ Film Type _____

Photo No.	Time (UTC)	LED/Neg No.	Location (nearest 10-sec fix)		Depth (m)
			Lat. N	Long. W	
176	1857:36	176			64m
177	1858:09		coral		
178	1858:33				
179	1858:47				
180	1859:19		leaf		
181	1859:38				
182	1859:53				
183	1900:04				

DEPTH	TIME	OBSERVATION (COUNTER)			
65	1900:21	184		1921:27	210 red sponge
	1900:53	185		1921:52	211
	1901:57	186	65m	1924:12	212 big sponge (oof)
	1902:35	187		1925:29	213 coralline algae
	1904:19	188 spoked coral		1927:23	214 coral (oof)
	1905:28	189		1927:52	215
	1906:08	190	65m	1928:23	216 coral
	1906:28	191 sponge		1929:05	217 coral
	1906:45	192 coral		1929:50	218
	1907:11	193		1930:12	219 coral
	1907:25	194		1930:30	220 branching coral
	1908:38	195	64m	1931:25	221 oof sponge
	1909:19	196		1932:37	222
	1909:47	197		1933:40	223 coral
	1910:21	198 coral		1934:05	224 "
	1910:47	199 coralline algae			225 "
		200 (oof) fish		1935:14	226 coralline algae
	1915:13	201 sponge		1935:35	227 little coral
	1915:33	202 monastria (oof)		1936:08	228 coral
	1916:11	203		1936:48	229 coral
	1916:59	204		1938:24	230
	1917:16	205		1938:46	231 red/orange sponge
	1917:36	206		1940:04	232
	1917:55	207		1940:18	233
	1919:48	208 coral		1941:11	234
66	1920:23	209 ana		1941:25	235 coralline algae

over →

236 yellow sponge

1942:12 237 oof coral

1944:04 238 oof coral

1944:47 239 coral

240 aha

1945:57 241 coral

1946:15 242

1946:48 243 coral

244 "

1947:32 245 "

1947:43 246

1948:17 247

248 coralline algae

1950:01 249

1950:57 250 coral

1951:47 grab

last shot on the film was #253 not 250

STATION LOG Start date 29 April, 2003 (JD = _____)
 CRUISE: SUNCOASTER STUDY AREA: Pulley Ridge, Gulf of Mexico

VIDEO TAPE NO. 7 (8 mm _____ Hi-8 mm)
 PROJECT: Deep-water reefs

DGPS NAV FIX UPDATE INTERVAL:

STA. NO.	JD	TIME (UTC)			TAPE COUNTER	
		Video on bottom	Sample taken	Video off bottom	Start	Stop
<u>11</u>		<u>1301:10</u>		<u>050:08</u>	<u>055:24</u>	<u>0201:00</u>

00 00:00 - 0050:08

Start Depth, m	Depth, m	End Depth, m

VIDEO LOCATION:
 Start Lat. N 24 30.984 Long. W 83 39.652
 End Lat. N 24 50.40 Long. W 83 41.265

SAMPLE LOCATION:
 Lat. N _____ Long. W _____

SAMPLES TAKEN:
 Texture: _____ Geochemistry: _____ Organics: _____ Biology: _____

SAMPLING COMMENTS:

DESCRIPTION OF BOTTOM:

STILL PHOTOS: Roll No. _____ Film Type _____

Photo No.	Time (UTC)	LED/Neg No.	Location (nearest 10-sec fix)		Depth (m)
			Lat. N	Long. W	
<u>4</u>	<u>1302:50</u>	<u>oofs</u>			
<u>5</u>	<u>1304:26</u>	<u>coral</u>			
<u>6</u>	<u>1304:58</u>				
<u>7</u>	<u>1305:13</u>	<u>coral + algae</u>			<u>64 m</u>
<u>8</u>	<u>1305:33</u>	<u>coral</u>			
<u>9</u>	<u>1307:11</u>	<u>branching coralline algae</u>			
<u>10</u>	<u>1307:32</u>	<u>coral + algae</u>			
<u>11</u>	<u>1307:47</u>				

DEPTH	TIME	OBSERVATION (COUNTER)			
65m	1308:07	12		64m	1325:29 38 coral
	1308:35	13			1326:17 39 algae
	1309:14	14		64m	1327:26 40 coral
	1310:02	15	branching coral		1327:43 41 "
	1310:51	16	" " oof	64m	1327:54 42 "
	1313:41	17			1328:29 43 " (oof)
	1314:28	18	coral		1328:41 44 "
	1314:53	19	"		1328:52 45 branching coral
	1315:52	20	"	63.5m	1329:17 46 " "
	1316:10	21	hole w fish		1329:51 47 corallite algae
	1316:53	22	coral		1330:54 48
	1317:03	23	"		1331:36 49 green stuff
	1317:35	24	"		1332:30 50 lobofores (oof)
	1317:49	25	"		1332:51 51 "
	1318:03	26	"		1333:14 52
	1318:18	27	"		1333:17 53 coral
	1318:41	28			1333:25 54 montastria
	1319:01	29	coral		1333:47 55
	1321:08	30		66m	1334:53 56
	1321:22	31			1335:48 57 general
	1321:44	32			1336:59 58 coral
	1322:04	33	cordtana		1337:58 59 red sponge
	1322:58	34	coralline algae		1338:16 60 branching coral
	1323:46	35	striped coral	65.5m	1339:04 61 coral
	1324:00	36			1339:59 61
64m	1324:23	37	coral		1340:11 62

1340:43 63 coral
 1340:01 64 branching coral
 1341:11 65 coral
 65.3m 1341:31 66 "
 1342:01 67 kalameda
 1342:19 68
 1342:36 69
 1343:36 70 coral
 1344:30 71 sediment
 65.8m 1345:04 72 branching coral
 1345:47 73
 1346:05 74 coral
 75 coral
 1347:22 76 "
 65.5m 1347:45 77
 1348:11 78 star coral
 79 montisstria cav.
 65.4m 1349:01 80
 1349:38 81 coral
 1350:46 82 dead coral
 1351:22 83 branching algae??
 1352:37 84 mistake
 65.3m 1353:02 85
 1353:35 86 general
 1353:59 87 coral
 1354:41 88 debris after
 crash

1355:06 89 coral
 1355:46 90 "
 1355:56 91 general
 1356:14 92 coral
 1356:23 93 general
 1357:07 94 coral
 1357:18 95 "
 65.5m 1357:31 96 "
 1357:40 97
 65m 1358:27 98 coral
 1359:11 99
 1359:31 100 coral + corynoid
 1359:52 101
 1400:30 102
 1400:56 103
 1401:24 104 coral
 1401:46 105 "
 64.7 1402:30 106 general
 1402:45 change digital video
 1405:03 107 general
 1406:19 108 coral
 1407 End VHS tapes
 1407:30 109
 1407:51 Start VHS tapes
 1409:17 110 coral
 1410:24 111 star coral (conf)

DEPTH	TIME	OBSERVATION (COUNTER)			
64.4m	1411:00	112 coral			137 coral
	1413:32	113 general		1427:30	138 "
62.6m	1414:19	114 sponge		1427:48	139
	1414:40	115 coral			140
		116 "		1428:28	141 coral
63m	1416:02	117 vase sponge		1428:57	141 branching coral
	1416:24	118 coral	68.7m	1429:39	142
	1416:47	119		1430:17	143
	1417:08	120		1432:37	145 rock in hole-jack
	1417:20	121 oof	69.9m	1433:14	146 coral
	1418:34	122 coral?		1433:47	147
	1418:54	123		1434:01	147 blue coral
	1420:22	124 coral	70m	1435:00	148 general
	1420:53	125 "		1435:20	149 dead coral
	1421:52	126 general		1436:15	150 general
	1422:08	127 "		1437:13	151
	1422:15	128 coral		1437:45	152 coralline algae
	1422:56	129		1438:35	153
	1423:30	big red groper in vider		1439:48	154 branching coral
	1424:28	130 coral (oof)	70.4m	1440:18	155 general
	1424:42	131		1440:47	156
	1425:02	132 coral	70.7m	1441:02	157
	1425:21	133 "		1441:18	158 corals
	1425:53	134 "		1441:33	159 "
	1426:40	135 oof?		1441:41	160 "
67m	1427:02	136 coral		1441:55	161 "

~~162~~

1442:50 162 general
1444:04 163 nothing
70.7m 1444:24 164
1444:40 165 general
1446:06 166 red sponge
1447:06 167 " "
1447:40 168
1448:33 169
1448:50 170 sed/debris
1449:46 171
1450:10 171
71m 1450:40 172
1451:39 173 coral
1451:53 174
1453:31 175
1453:52 175 general
1454:09 176
1454:47 177
1455:22 178 general?
1455:47 179 dead coral
1456:12 180
71.8m 1456:29 181
1457:20 grab

182 shot in water total # 2187

Stop UNS at 145804 050:08

STATION LOG

Start date 21 April, 2003 (JD = _____)CRUISE: SUNCOASTERSTUDY AREA: Pulley Ridge, Gulf of Mexico

VIDEO TAPE NO. _____

(8 mm _____ Hi-8 mm _____)

PROJECT: Deep-water reefs30" focal length

DGPS NAV FIX UPDATE INTERVAL:

STA. NO.	JD	TIME (UTC)			TAPE COUNTER	
		Video on bottom	Sample taken	Video off bottom	Start	Stop
<u>12</u>		<u>1633:35</u>	<u>1725:30</u>	<u>1726:09</u>	<u>050:08</u>	<u>042:35</u>

Start Depth, m	Depth, m	End Depth, m
<u>66 m</u>		

VIDEO LOCATION:

Start Lat. N 24°47.578 Long. W 83°40.631

End Lat. N _____ Long. W _____

SAMPLE LOCATION:

Lat. N _____ Long. W _____

SAMPLES TAKEN:

Texture: _____ Geochemistry: _____ Organics: _____ Biology: _____

SAMPLING COMMENTS:

DESCRIPTION OF BOTTOM:

STILL PHOTOS: Roll No. _____ Film Type _____

Photo No.	Time (UTC)	LED/Neg No.	Location (nearest 10-sec fix)		Depth (m)
			Lat. N	Long. W	
<u>188</u>	<u>1635:13</u>				
<u>189</u>	<u>1635:58</u>				
<u>190</u>	<u>1636:09</u>				
<u>191</u>	<u>1637:08</u>				
<u>192</u>	<u>1637:38</u>	<u>fish</u>			
<u>193</u>	<u>1638:37</u>	<u>general</u>			
<u>194</u>	<u>1638:58</u>	<u>coral</u>			
<u>195</u>	<u>1639:23</u>				

DEPTH	TIME	OBSERVATION (COUNTER)			
	1640:01	196		1701:18	221 general
65m	1640:39	197 sponge		1702:13	222
	1641:24	198 coral	64.6	1703:24	223 coral
	1642:01	199 coral		1704:13	224
66.5m	1643:32	200		1704:22	225
	1644:01	201 coralline algae		1705:47	226
	1644:42	202 - coral		1706:22	227 coral
		203 - coral		1707:44	228 ^{big} coral w white rim
	1645:36	204 "	64.6m	1708:34	229
	1646:09	205		1708:50	230
	1646:29	206 ana		1709:00	231 hole + grouper oof
	1647:21	207 general		1709:17	232 coral
	1648:25	208 ana	66.6m	1709:47	233
66m	1649:01	209		1709:59	234 too close
		210 coralline algae		1712:12	235 general
	1651:29	211 something		1712:56	236 coral
	1652:12	212 coral	65.5m	1713:38	237
	1653:20	213		1714:05	238
	1654:13	214 coral		1715:03	239 coral
	1655:14	215 halamedu		1715:22	240 "
	1655:40	216		1715:30	241 "
	1657:25	217	66	1716:10	242 "
	1657:51	218 coral		1717:20	243 fish??
	1658:44	Fish in hole		1718:42	244 coral
	1659:17	219 coral	66m	1719:10	245
62m	1700:03	220		1720:30	246 coral

1720:50	247	sponge		
1721:16	248	coral		
1721:48	249	general		
1722:49	250	coral		
1723:38	251	halimeda		
1725:17	252			
1725:30	24° 47.342		83° 41.791	
Video off	142:35		at 1726:09	

STATION LOG

Start date 29 April, 2003 (JD = _____)CRUISE: SUNCOASTERSTUDY AREA: Pulley Ridge, Gulf of Mexico

VIDEO TAPE NO. _____

(8 mm _____)

Hi-8 mm)PROJECT: Deep-water reefs12" focal length

DGPS NAV FIX UPDATE INTERVAL:

STA. NO.	JD	TIME (UTC)			TAPE COUNTER	
		Video on bottom	Sample taken	Video off bottom	Start	Stop
<u>13</u>		<u>1808:25</u>		<u>1919:28</u>	<u>000:0:</u>	<u>110:56</u>

Start Depth, m	Depth, m	End Depth, m
<u>66 m</u>		<u>70 m</u>

VIDEO LOCATION:

Start Lat. N 24° 48.046 Long. W 83° 40.058

End Lat. N _____ Long. W _____

SAMPLE LOCATION:

Lat. N _____ Long. W _____

SAMPLES TAKEN:

Texture: _____ Geochemistry: _____ Organics: _____ Biology: _____

SAMPLING COMMENTS:

DESCRIPTION OF BOTTOM:

STILL PHOTOS: Roll No. _____ Film Type _____

Photo No.	Time (UTC)	LED/Neg No.	Location (nearest 10-sec fix)		Depth (m)
			Lat. N	Long. W	
<u>4</u>	<u>1809:18</u>				
<u>5</u>	<u>1810:49</u>				
<u>6</u>	<u>1812:40</u>	<u>coral</u>			
<u>7</u>	<u>1813:42</u>	<u>coral</u>			<u>66 m</u>
<u>8</u>	<u>1814:31</u>	<u>"</u>			
<u>9</u>	<u>1815:14</u>	<u>general</u>			
<u>10</u>	<u>1815:44</u>				
<u>11</u>	<u>1816:39</u>	<u>coral</u>			

speed 1.3 kt

DEPTH	TIME	OBSERVATION (COUNTER)
	1827	Back down after hooked pit line
64m	1829:23	#12 coral-thick 1839:41 36
	1829:31	13 " 65.6 1840:14 37
	1829:43	14 " 1840:35 38 oof coral
	1829:51	15 " 1841:15 39
	1829:58	16 " 1842:33 40
64.5m	1831:22	17 64.5 1842:49 41 coral
	1831:49	18 1843:30 42
	1831:59	19 speed 1.3 kt - really fast fore closeup
	1832:26	20 coral 66.2m 1845:32 43
65.7m	1832:45	21 " 1845 44 coralline algae
	1833:17	22 1845:57 45 coral
	1833:39	23 coral 1846:12 46 "
	1834:16	24 47
	1834:29	25 1847:05 48 sponge
	1834:53	26 coral 49
	1835:25	26 65.7m 1848:32 50 coral
	1835:40	27 coral 1848:50 51 "
	1836:16	28 " 1849:10 52
	36:24	29 " 1849:57 53 coral
65.4m	1836:54	30 " 50:10 54 "
	1837:23	31 " 1850:37 55 "
	1837:34	3.2 " 1851:45 56 "
	37:40	33 52:00 57 "
		3.4 Montastrea cav 1852:21 58 "
	1838:35	35 1852:53 59 "

64.6	1853:28	60	coral
	54:02	61	"
	1854:50	62	"
	1855:13	63	"
		64	sponge
		65	coral
	1856:27	66	general
	1856:33	67	coral
	1857:10	68	coral
	1857:51	69	"
64m	1858:58	70	
	1900:01	71	
	1900:10	72	branching coral
	1900:29	73	coral
	1901:45	74	"
	1902:23	75	"
	1903:10	76	" - brown
64.7	1903:33	77	general
	1903:51	78	dimples (oof)
		79	blue coral
65m	1905:15	80	bronze coral
	(1906:28	81	
	1907:16	82	ema-general
	1907:24	83	coral
64.5m	1908:33	84	general
	1909:32	85	coral

	1909:51	86	halimeda
67m	1911:13	87	general
	1911:58	88	coral? oof
	1912:33	89	coraline algal
	1913:34	90	general
	1914:05	91	coral
68m	1914:14	92	"
	1914:22	93	"
	14:52	94	"
	14:58	95	"
	15:05	96	"
69m	1915:12	97	"
	1915:58	98	coraline algae
	1916:41	99	" "
	1917:09	100	" "
70m	1917:41	101	" "
	1918:12	102	" "
	1918:27	grab	24° 47.962
			83° 41.572
			103 in water
	1919:28	VHS	104 110:56

STATION LOG

Start date _____ (JD = _____)

CRUISE: SUNCOASTERSTUDY AREA: Pulley Ridge, Gulf of Mexico

VIDEO TAPE NO. _____

(8 mm _____ Hi-8 mm)PROJECT: Deep-water reefs

DGPS NAV FIX UPDATE INTERVAL:

STA. NO.	JD	TIME (UTC)			TAPE COUNTER	
		Video on bottom	Sample taken	Video off bottom	Start	Stop
14		1023:12		1114:50	110:56	202:39

Start Depth, m	Depth, m	End Depth, m
64		

VIDEO LOCATION:

Start Lat. N 24° 48.210 Long. W 83 41.069

End Lat. N _____ Long. W _____

SAMPLE LOCATION:

Lat. N _____ Long. W _____

SAMPLES TAKEN:

Texture: _____ Geochemistry: _____ Organics: _____ Biology: _____

SAMPLING COMMENTS:

DESCRIPTION OF BOTTOM:

STILL PHOTOS: Roll No. _____ Film Type _____

Photo No.	Time (UTC)	LED/Neg No.	Location (nearest 10-sec fix)		Depth (m)
			Lat. N	Long. W	
111	1024:12		coral		64
112	1024:36		"		
113	1025:49		"		
114	1026:31		sponge		
115	1027:49		coral		64.8
116	1028:36		"		
117	1028:46		"		
118	1029:59		"		

DEPTH	TIME	OBSERVATION (COUNTER)
65m	1031:51	119 squid-
	1032:26	120 live
	1032:53	121 little fish
63.8m	1033:20	122 " "
	1034:32	123
	1035:00	124
	1035:55	125 coralline algae
63.9	1036:19	126 fish
	1038:42	127 general
	1040:01	128 squid
	1041:30	129 octa coral
	1041:53	130
	1042:02	131 general
	1042:15	132 sponge
	1042:32	133 coralline algae
	1042:55	134 fish
	1043:13	135 na
66.5	1043:45	136 sponge
	1044:13	137 branching coral
	1045:26	138
	1045:50	139 general
	1046:00	140 branching coral
	1046:27	141 coral
	1047:00	142 fish
	1047:22	143 sponge orange
	1047:39	144 coral
		67.3 1048:08 145 halaneda
		1049:00 146
		1049:30 147 fish
		1050:02 148 coral
		1050:30 149 dead na
		67.7m 1051:02 150 white sponge
		1051:50 151
		1052:39 152
		1053:16 153 coralline algae
		1053:40 154 general
		1053:53 155 fish + sponge
		68m 1054:17 156 sponge
		1055:00 157
		1055:16 158 fish
		1055:56 159
		1056:00 160 coral patch
		161 "
		162 48.444041:2890
		68m 1057:12 163 fish
		1057:49 164 general
		1058:00 165 fish
		1058:49 166
		168 red sponge
		1059:15 169 red sponge E
		68.5m 1100:18 170
		1101:18 171 fish

	1101:39	172	Coral
	1102:25	173	coral + algae
68.8m	1103:22	174	" "
	1104:11	175	" "
		176	Coral
	1104:42	177	"
		178	"
	1104:59	179	"
	1105:14	180	"
	1106:19	181	
69m	1106:48	182	Sponge
			and gorg
	1108:03	183	
	1108:47	184	Sponge
	1110:08	185	
	1110:17	186	Coral
	1110:40	187	
		188	pink sponge
	1113:21	189	Cryoid?
	111408	24	48:61 83° 41.431

