

R/V MA
R/V ROBERT D. CONRAD

RECORDING LOG

Cruise: V36-017

SO. CHINA SEA

MCS

DFS IV

Format:

BPI: 800

Line: 1

645

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
11/13/90	8000	0001	1245 1245	00.0	32 F	205	4ms	125.	Pit Log 293.0
	8001	93	1316 1316	"	35m	"	"	"	
	8002	185	1347	"	39m	"	"	"	
	8003	277	1419	"	41	"	"	"	
	8004	367	1450	"	44	"	"	"	LAST REEL Speed over ground 5.3 knots
	8005	458	1521	"	45	"	"	"	Time on tape is now 6.45
	8006	551	1553	"		"	"	"	
	8006	558	1555	"					GUNS OFF (malfunction)
	8007	559	1616	"	49	"	"	"	LAST REEL-SPD. OVER GROUND 5.4 KTS GUNS ON
		647	1646			13.4			Pop Rate To 18.4 18.4 sec
	8008	652	1647	"	50	"	"	"	
	8009	744	1716	"	53	"	"	"	DID NOT RESET FILE COUNT MISSED CDP 743 ON TAPE 8009
	8010	838 838	1744	"	53	"	"	"	MISSED CDP 838 838 FOR BOTH MISSED SHOTS - 743 + 838 838
	8011	930	1813	"	54	"	"	"	
	8012	1023	1841	"	55	"	"	"	FOR UNKNOWN REASON, FILE COUNT JUMPED TO ONE SHOT MORE THAN BULK BOX SHOT COUNTER
	8013	1117	1910	"	55	"	"	"	
		1205	1937						GUNS NOT FIRING CONSISTENTLY
	8014	1210	1938	"	55	"	"	"	
	8015	1303	2007	"	56	"	"	"	
		1345	2036						MISSED - 1345

R. J. VENA
R/V ROBERT-D. CONRAD
Cruise: 086-07
Line: 1

RECORDING LOG

MCS

South China Sea

Time in GMT

DFS IV
Format: SEGB
BPI: 1500

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
1/14/80	8020	1452	2030	0000	57	18.4	4000	12.8	MISSED SHOTS 1840 - 1871
			2049						LONG LONG FLIGHT
	8017	1457	2107	"	57	"	"	"	
			2108						LONG LONG FLIGHT
			2120	"					MISSED SHOTS 1578 - 1587
	8018	1538	2138	"	57	"	"	"	MISSED SHOTS 1578 - 1587
			2149						ADJ. SHOT COUNTER (RESET INCORRECTLY PREVIOUSLY)
	8019	1670	2206	"	57	"	"	"	MISSED SHOTS 2722 1675 1679??
	8020	1763	2235	"	59	"	"	"	
	8021	*1868	2303	"	59	"	"	"	* NOTE - THIS READING FROM BLACK BOX WELT
	8022	1949	2333	"	60	"	"	"	READING FROM OPS IV WHICH CORRECT ??
1/14/80	8023	*2056	0001	"	60	"	"	"	* THIS READING FROM BLACK BOX CORRECT/CONFIRMED
	8024	2144	0028	"	61F				
	8025	2236	0056	"	63F	"	"	"	
	8026	2327	0124		66				
	8027	2419	0152		71				
	8028	2510	0222		88 91				
	8029	2601	0257		106				
	8030	2692	0324		128				
	8031	2784	0351						Tape malfunction 7 shots missed!

R/V ROBERT D. CONRAD

Cruise: V 36-07
Line: one (1)RECORDING LOG
MCS

South China Sea

DFS IV

Format: SEGB

BPI: 800BPI

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
14 JAN	8031	2793	0354	0	104	19.5	4	12	*NOTED ON PREVIOUS PAGE 7 shots missed at beginning*
	"	2856	0414			16.5			pop rate lowered to 16.5
1480	8032	2885	0422	"	167		"	"	
	8033	2977	0447		167				
	11	3031	0502	"	"	18.1	"	"	
	8034	3069	0514	"	171				S.B.#3069 at 0521
	"	3107	0525					10	change record length from 12 sec to 10/sec.
	8035	3169	0544	0	188				
	8035	3277	0618						tape bombed missed 8 shots
	8036	3285	0620		197				
		3363	0644			20.3			pop rate → 20.3
	8037	3386	0652		207				end of 8036 questionable
		3420	0704			19.5			pop rate → 19.5
		—	—						S.B.#31 on 0708
	8038	3495	0728		218				file count off until 553
	8039	3604	0803	0	229				
	8040	3713	0839	0	246	19.5	4	10	✓ Eel towing ~ 45'
		3792	0904						pop rate changed to 21.7
	8041	3821	0914	0	260	21.7	4	10	
	8042	3930	0954	0	282	21.7	4	10	

R/V V E 2
R/V ROBERT D. CONRAD

RECORDING LOG MCS

DFS IV
Format: SEC B
BPI: 800

Cruise: V36-07
Line:

ONE (1) GMT

1980 Date JAN	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
14	8042	4038	1032	0		21.7	4	10	LAST SHOT TO ALLOW COMPRESSOR O/H
	8043	4055	1038	0	310 fms	21.7			FIRST SHOT
	8044	4168?	1119	0	345	21.7			Not certain of last shot point (4168 ± 1)
	8045	4273	1156	0	385	21.7	4	10	4202, 1130 hrs A/c → 160° MISSED ONE
	8046	4382	1235	0	433	"	"	"	
		4445				18.8			Pop Rate changed
			1300	"		"	"	"	S.B. # 32
	8047	4491	1312	"	523	"	"	"	
	8048	4600	1345	"	657	"	"	"	
		4641	1358	1					1 sec delay ON
		4655	1402	"		23.2	"	"	pop rate changed
		4661	1404	"		20.0	"	"	" " " For NOW
	8049	4711	1422	"	743	"	"	"	
	8050	4820	1459	"	763	"	"	"	
	8051	4929	1536	"	810	"	"	"	
	8052	5051*	1619*	"	838	"	"	"	* MISSED LOGGING TIME AT CHANGE - THESE ARE APPROXIMATE VALUES
	8053	5147	1650	1 sec	845	20.0	4	10	
	8054	5256	1727	1 sec	842	"	"	"	
	8055	5369	1806	"	898	"	"	"	
		5432	1829						COMPRESSOR FAILURE - GUNS OFF

R/V ~~ROBERT D. CONRAD~~ MA
 Cruise: V36-07
 Line: 1

RECORDING LOG
 MCS

DFS IV
 Format: SER B
 BPI: 800

Date	Tape #	Shot Point #	GMT Time	Trip Delay Sec.	Depth	Pop Rate sec	Samp. Rate	Rec. L. sec	Comments
23 JAN 1980	8056	5433	0958	0s.	1048	20	4 m sec	10	Record length started at 03 and at shot #5437
			1001	on course	155°	8	50KTS		it was changed to 10
		5472	1012	1s.					Delay = 1s. (delay indication on tape not changed)
		5506	1024						Guns off, Tape stopped
		5563	1042						Guns on
	8057	5600	1056		1076				Shot print approx. (±3) time ±3min.
	8058	5711	1133		1147				
	8059	5820	1211		1200				
	8060	5930	1248		1318				
		5951	1256	2					Trip delay 2 sec
	8061	6040	1326	"	1340	"	"	"	
	8062	6149	1413	"	1347	"	"	"	
	8063	6258	1440	"	1387	"	"	"	
			1508						SB # 33 ON
	8064	6368	1518	"	1385	"	"	"	
	8065	6476	1555	"	1416	"	"	"	
	8066	6585	1632	2 SEC.	1477	20	4	10	STREAMER DEPTHS - FROM D.T. 4 TO D.T. 1
	8067	6694	1710	2 SEC.	1509	20	4	10	36 44 54 44
	8068	6803	1747	2	1532	20	4	10	

R/V *Conrad*
 R/V ROBERT D. CONRAD
 Cruise: V36-07
 Line: 001

RECORDING LOG

MCS

DFS IV
 Format: SECB
 BPI: 800

Date	Tape #	Shot Point #	GMT Time	Trip Delay SEC	Depth	Pop Rate SEC	Samp. Rate ms	Rec. L. SEC	Comments
22 JAN 1980	8069	6911	1824	2.0	1497	20	4	10	
	8070	7019	1901	2.0	1504	20	4	10	
	8071	7128	1938	2.0	1445	20	4	10	
	8072	7237	2016	2.0	1438	20	4	10	
	8073	7347	2053	2.0	1500	20	4	10	
	8074	7456	2130	2.0	1648	20	4	10	
	8075	7566	2208	2.0	1705	20	4	10	
	8076	7675	2245	2.0	1728	20	4	10	
	8077	7787	2304	2.0	1725	20	4	10	NOTE - TWO SHOTS DROPPED (X)!
23 JAN 80	8078	7896	0001	2.0	1800	20	4	10	
	8079	8005	0038		1979	20	4	10	Note: Tape ID had been incorrectly set to 808-series tapes. Starting with tape 8079 it is OK.
	8080	8114	0115		1990	20	4	10	Time break delay changed to 3.0 sec (was 2.0)
	8081	8223	0153	2.0/3.0	1998				S.B #34 @ 0153
	8082	8335	0231	3.0	2006	20	4	10	missed one shot. Tape ID not entered until shot # 8370
	8083	8445	0309	3.0	2015	20	4	10	
	8084	8555	0346	3.0	2019	20	4	10	missed one shot
END	8084	8665	0424						Problems with tapes
	8085	8687	0424	3.0	2027	20	4	10	missed 22 shots.
	8086	8798	0509	3.0	2031	20	4	10	A.O.K.

Line: 1

SOUTH CHINA SEA

BPI: 800

[illegible]

R/V ROBERT D. CONRAD

Cruise: 100707

Line: 2

RECORDING LOG
MCS

DFS IV

Format:

BPI:

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
	8099	01	1244	3.0	2070	20	4	10	Buoy #35 on 1234
	8100	113	1255	"	2071	"	"	"	
	8101	222	1305	"	2081	"	"	"	
	8102	344	1420	"	2081	"	"	"	
	8101	449	1501	"	2081	"	"	"	
	8102	578	1551	"	2081	"	"	"	
		656	1642						D.T. DEPTHS - FROM TRAC TO NRAD D.T. #1's - 1:32, 2:44, 3:54, 4:44
	8103	674	1618	3.0	2074	20	4	10	
	8104	785	1656	3.0	2072	20	4	10	
	8105	897	1734	3.0	2070	20	4	10	
	8106	1009	1813	3.0	2067	20	4	10	
	8107	1121	1851	3.0	2066	20	4	10	
	8108	1233	1929	3.0	2063	20	4	10	
	8109	1345	2008	3.0	2058	20	4	10	
	8110	1458	2046	3.0	2056	20	4	10	
	8111	1570	2125	3.0	2052	20	4	10	
	8112	1683	2203	3.0	2047	20	4	10	
	8113	1795	2242	3.0	2044	20	4	10	
	8114	1907	2320	3.0	2041	20	4	10	Shot 2077: changed pop rate back to 20.0
	8115	2017	2357	3.0	2034	20	4	10	Shot 2074: Change pop rate to 22.7

(But later found speed over ground was incorrectly given as 4.12 knts; should have been 5 knts)

Line: 2

M C S

Continue line 2

12 channel

BPI: 800


[illegible]

R/V IV Verna
 R/V ROBERT D. CONRAD
 Cruise: V 36-07
 Line: 3

RECORDING LOG
 MCS

line 3

12 channel

DFS IV 
 Format: SEG-B
 BPI: 800 BPI

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth	Pop Rate	Samp. Rate ms	Rec. L. ms	Comments
1/24/82	8118	001	0723	3000	2016	20	4	10,000	THE FIRST 26 SHOTS HAD CHANNELS 123
	8118	027	0732	3000					(i.e. farthest & 3rd farthest sections) reversed. This
(MISSED SHOT ⁵⁹⁸ before this)		062	0744	GUNS NOT	FIRING.				problem was fixed by shot 27.
	8118	065	0745	GUNS ON AGAIN					THE GUN Occasionally Missing
END	8118	123	0805	3000	2008	20	4	10,000	GUNS STOPPED FOR ELECTRICAL PROBLEM
START	8119	145	0812	3000	2008	20	4	"	S.R. #36 overside at 0816
	8120	256	0850	3000	2000	20	4	10,000	first 17 shots read '8110' instead of 8120
	8121	367	0928	3000	1997	20	4	10,000	
	8122	478	1006	3000	1996	20	4	10,000	
	8123	589	1044	3000	1994	20	4	10,000	ca. 1100 birds up to ≈ 15 ft. (fish nets)
	8124	699	1122	3000	1993	20	4	10,000	≈ 11.5 birds down
END	8124	810	1200	"	1993	"	"	"	
START	8125	840	¹²¹⁰ 1205	"	1993	"	"	"	31 shots missing due to faulty loading
	8126	952	1248	"	1992	"	"	"	
	8127	1064	1326	"	1995	"	"	"	
	8128	1176	1405	"	1994	"	"	"	
	8129	1287	1443	"	1995	"	"	"	
		1295	1445	2					Trip ^{delay} changed to 2 sec
	8130	1396	1520	3	1860	"	"	"	
	8131	1508	1558	"	1976	"	"	"	

R/V ~~ROBERT D. CONRAD~~

Cruise: 36-07

Line: 3

RECORDING LOG

MCS

South China Sea.

DFS IV

Format: seq B

BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay sec	Depth Fm	Pop Rate sec	Samp. Rate m/sec	Rec. L. sec	Comments
24	8132	1618	1636	3	1974	20	4	10	
JAN	8133	1729	1714	3	1967	20	4	10	
1980		1754	1722						D.T. DEPTHS # 1-4 1-FAR 4-NEAR 46, 52, 46, 40
	8134	1837	1751	3	1962	20	4	10	
	8135	1948	1829	3	1957	20	4	10	
	8136	2055	1905	3	1943	20	4	10	
	8137	2166	1943	3	1917	20	4	10	
	8138	2276	2021	3	1786	20	4	10	
	8139	2387	2059	3	1610	20	4	10	
	8140	2497	2137	3	1508	20	4	10	
		2563	2159	→ 2					T.B.D. CHANGE TO 2sec
	8141	2608	2214	2	1352	20	4	10	
	8142	2716	2251	2	1175	20	4	10	
	8143	2825	2329	2.0	1023	20	4	10	
		2850	2837	→ 1.0					T.B.D. CHANGE TO 1 sec
25	8144	2934	0006	1.0	870	20	4	10	Shot 3006: Convertal Tap ID and FIR Front frame break delay switch settings
JAN	8145	3044	0044	1.0	820				
80	8146	3154	0121	1.0	780	20/16.3	4	10	Shot 3186 - increase pop rate to 16.3 S.B. # 38-0138
	"	3186							
	8147	3263	0154		758				Shot 3311 - decrease pop rate to 17.8

Vema
R/V ROBERT D. CONRAD

Cruise: V 36-07

Line: 3

RECORDING LOG

MCS

South China Sea

DFS IV

Format: SEGB

BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay ms	Depth FM	Pop Rate	Samp. Rate ms	Rec. L. ms	Comments
1/25/80	8148	3374	0226	1000	740	17.8	4	10,000	missed one ^{first} shot
	8149	3484	0257	1000	716	17.8	4	10,000	
	8150	3593	0329	1000	680	17.8	4	10,000	
END	8150	3704	0401						missed one shot
START	8151	3713	0404	1000	680	17.8	4	10,000	missed \approx 10 shots
	8152	3822	0436	1000	682	17.8	4	10,000	Missed 3821
		3842	0442			20.0		(secs)	NA
	8153	3933	0513	1000	675	20.0	4	10	Missed 3932
	8154	4041	0549	1000	742	20.0	4	10	
	8155	4150	0627	1000	782	20.0	4	10	BUOY #39 STARTED (0634)
	8156	4257	0703	1000	758	20.0	4	10	
	8157	4366	0741	1000	690	20.0	4	10	
	8158	4475	0818	1000	600	20.0	4	10	
		4477		0000					Delay \rightarrow 0 sec.
	8159	4584	0855	0000	540	20.0	4	10	
	8160	4693	0933	0	450	20.0	4	10	S. BUOY #40 STARTED (0942)
*	8161	4802	1010	0	370	20.0	4	10	
*	8162	4910	1047	0	260	20.0	4	10	
*	8163	5018	1124	0	150	20.0	4	10	
*	8164	5126	1201	0	135	20.0	4	10	

* TAPES DESTROYED

R/V ROBERT D. CONRAD

RECORDING LOG

MCS

Cruise: 100-2

Line: 1

DFS IV

Format: 100-1

BPI: 100-1

*TAPES DESTROYED

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
10/1	* 100-2	5155	1211	0			10-4	10	Some birds flying.
10/1		5156	1211	0			4	10	Some birds flying.
10/1	* 100-2	5157	1211	0	1.1	0	0	10	
	* 100-2	5158	1211	0	1.2	0	0	10	
	5159	5159	1211	0	1.2	0	0	10	
	5160	5160	1211	0	1.2	0	0	10	
	5161	5161	1211	0	1.2	0	0	10	
	5162	5162	1211	0	1.2	0	0	10	
	5163	5163	1211	0	1.2	0	0	10	
	8171	5889	1632	0	70	20	4	10	
	5172	5890	1211	0	56	10	4	10	
		6028	1720						O.T. DEPT'S 4-#1 40; 50; 52; 50
	8173	6105	1746	0	51	20	4	10	
	8174	6214	1823	0	51	10	4	10	
	8175	6323	1900	0	57	20	4	10	
	8176	6432	1938	0	52	20	4	10	
	8177	6542	2015	0	47	20	4	10	
	8178	6651	2053	0	46	20	4	10	
	8179	6761	2130	0	44	20	4	10	
	8180	6871	2208	0	43	20	4	10	
	8181	6981	2246	0	46	20	4	10	

R/V ~~ROBERT D. CONRAD~~

Cruise: 36-07

Line: 3

SOUTH CHINA SEA

Format: SEG B

BPI: 800

[illegible]

R/V ROBERT D. CONRAD

Cruise: 36-07

Line: 4

RECORDING LOG
MCS

SOUTH CHINA SEA

DFS IV

Format: JEG R

BPI: 800

15

GTT

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
26	8197	001	1200		20	20	4	10	
JAN			1200						
SO.		110	1200		20	20	4	10	
		200	1200		20	20	4	10	
		249	1337						
		250	1635	0		20	4	10	(SHOT 249 GUNS ON, CONTINUE UNDER WAY BE REPEATED)
			1640						S.B. #47 ON AUX. CH. 3
		328	1700	0	20	20	4	10	
	8201	438	1740	0	20	20	4	10	0.5 4 3 2 1 34 46 52 46
	8202	548	1817	0	20	20	4	10	
	8203	658	1855	0	18	20	4	10	
	8204	769	1933	0	18	20	4	10	
	8205	879	2010	0	18	20	4	10	
	8206	988	2048	0	18	20	4	10	PARITY ERRORS.
	8207	1046	2107	0	18	20	4	10	MISSED SHOT 1045.
	8208	*1165	2148	0		20	4	10	PARITY ERRORS *MISSED SHOT # & TIME
	8209	1165	2148	0	18	20	4	10	
		1171	2150						GUNS OFF - COMPRESSOR PROBLEM.
	ONE BLANK SHOT RECORDED								WHILE TESTING ONE TRANSDUCER FOR PARITY ERRORS!
	8209	1365	2257						GUNS ON AGAIN

NOTE LOST SHOT 1466

BPI: 800

16

[illegible]

Line: 5

RECORDING LOG
MCS

BPI: 807

(17)

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth	Pop Rate # s.	Samp. Rate ms	Rec. L. ms	Comments
1/27/80	8214	0001	0252	0000	26	20.0	4	10,000	S.B.# @ 0309
	8215	0111	0330	0000	26	20.0	4	10,000	
	8216	Q221	0407	0	26	20	4	SEC 10	Missed S.P. Q220
	8217	Q331	0445	0	28	20	4	10	
	8218	0440	0522	0	28	20	4	10	
	8219	O 5 50	0600	0	30	20	4	10	
	8220	0658	0636	0	33	20	4	10	S.B.#50 @ 0633
	8221	0767	0714	0	35	20	4	10	
	8222	0874	0750	0	36	20	4	10	
	8223	0983	0828	0	38	20	4	10	
	8224	1092	0905	0	38	20	4	10	
	8225	1201	0942	0	42	20	4	10	
	8226	1309	1019	0	44	20	4	10	
	8227	1417	1056 1056	0	44	20	4	10	
	8228	1527	1134	0	45	20	4	10	
				"		"	"	"	
				"		"	"	"	
				"		"	"	"	
	8229	1732	1450	"	50	"	"	"	
		2069	2030	"		"	"	"	L-12, 20, 20, 20, 20, 20

END LIVE Hg

R/V ROBERT D. CONRAD

RECORDING LOG
MCS

Cruise:

Line:

DFS IV

Format:

BPI:

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
			1442		49				
			1507						
		112	1521						
		200							
		244							<div> <div>DEPTH</div> <div>4 3 2 1</div> <div>26 46 50 44</div> </div>
	8236	329	1639	0	50	20	4	10	
	8237	337	1716		50				
	8238	547	1753	0	50	20	4	10	
	8239 8239	656	1830		50				
	8240	~765*	~1907*	0	50				* MISSED FIRST SHOT AND DEPTH VALUES APPROXIMATE
	8241	875	1946	0	49	20	4	10	MISSED SHOT # 874
	8242	985	2023	0	50	20	4	10	
		1004	2030						GUN OFF - COMPRESSOR CLEAN.
		1134	2114						
		1210	2140						<div> <div>DEPTH</div> <div>4 3 2 1</div> <div>42 48 56 46</div> </div>
	8243	1223	2144	0	50	20	4	10	
	8244	1332	2222	0	50	20	4	10	* <div> <div>PROBABLE ?</div> <div>TAPE HANG-UP. POSSIBLE LAST SHOTS</div> <div>1332 → 1361</div> </div>
	8245	1362	2232	0	50	20	4	10	
	8246	1471	2309	0	50	20	4	10	
	8247	1580	2347	0	49	20	4	10	

IEMA
 R/V ROBERT D. CONRAD
 Cruise: V 36-07
 Line: # 6

RECORDING LOG
 MCS

SOUTH CHINA SEA

19

DFS IV
 Format: SEG B
 BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay sec	Depth FM	Pop Rate %	Samp. Rate ms	Rec. L. sec	Comments
28	8248	1688	0024	0.0	48	20.0	4	10	
JAN	8249	1798	0101	00.0	50	20.0	4	10	
80	8250	1907	0138	00.0	50	20.0	4	10	
	8251	2017	0216	00.0	51	20.0	4	10	
	8252	2122	0255	00.0	51	20.0	4	10	
	8253	2232	0333	00.0	52	20.0	4	10	
	8254	2345	0408	0	52	20	4	10	
	8255	2455	0446	0	53	20	4	10	
	8256	2564	0523	0	50	20	4	10	
	8257	2675	0601	0	50	20	4	10	
	8258	2783	0638	0	51	20	4	10	
		794	0642			26			Av Speed Over Ground ~ 3.7 knots (Pit log reads 6.3)
	8259	2893	0726	0	51	26	4	10	S.B. #55 @ 0723
	8260	3002	0814	0	51	26	4	10	
	8261	3112	0903	0	51	26	4	10	
		3157	0923						D.T. DEPTHS 4 3 2 1 IN FEET 54 50 62 50
	END 8261	3221 3221	0951						
START	8262	3227	0954	0	51	26	4	10	Missed 3222-3226
	8263	3338	1043	0	51	26	4	10	
	8264	3447	1131	0	51	26	4	10	

R/V ~~ROBERT D. CONRAD~~

Cruise: 1136-07

Line: 6

M C S

SOUTH CHINA SEA

Format: SEG R

BPI: 500

[illegible]

START

RECORDING LOG

M C S

South China Sea

DFS IV

Format: Seq B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay sec	Depth	Pop Rate sec	Samp. Rate m sec	Rec. L. sec	Comments
29	8271	0001	0801	0	51	19.5	4	10	
JAN	8272	0110	0836	0	49	19.5	4	10	
1980	8273	0218	0911	0	49	19.5	4	10	
	8274	0328	0946	0	48	19.5	4	10	
	8275	0436	1021	0	47	19.5	4	10	
	8276	0545	1057	0	47	19.5	4	10	
	8277	0655	1132	0	46	19.5	4	10	
	8278	0755	1150	0	45	19.5	4	10	
	8279	0855	1211	0	45	19.5	4	10	
	8280	0955	1234	0	44	19.5	4	10	
	8281	1055	1257	0	43	19.5	4	10	
	8282	1155	1304	0	42	19.5	4	10	
	8283	1255	1326	0	40	19.5	4	10	
	8284	1355	1344	0	39	19.5	4	10	
	8285	1455	1357	0	38	19.5	4	10	
		1490 ±	1600						FEEL TOWING VERY DEEP - 80-100' VESSEL POWERED UP BRIDS TO 45° SPREAD SLOW
	8285	1534	1617	0	36	19.5	4	10	AT 1600 - A/C TO 040°
			1623						D.P. 4 3 2 1 D.R.P.H.S 92 72 46 52
		1643	1640						FEEL STEADY TOWING DEEP AS HEAD - 100'
	8286	1655	1653	0	37	19.5	4	10	

DFS IV
Format: SAC B
BPI: 800

[illegible]

R/V ~~ROBERT D. CONRAD~~
Cruise: V36-07
Line: 8

RECORDING LOG
MCS

South China Sea.

DFS IV
Format: SEG B
BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay SEC	Depth KM	Pop Rate SEC	Samp. Rate M SEC	Rec. L. SEC	Comments
29 Jan 1980	8291	01	1956	0	38	19.5	4	10	NEW COURSE 157 DEPTHS ^{4 3 2 1} 18 30 32 46
		88	2024						D.T. DEPTHS ^{4 3 2 1} 44 46 42 48
	8292	110	2031	0	39	19.5	4	10	
	8293	218	2106	0	41	19.5	4	10	
	8294	327	2141	0	43	19.5	4	10	
	8295	436	2217	0	42	19.5	4	10	
	8296	545	2252	0	42	19.5	4	10	
	8297	654	2327	0	43	19.5	4	10	
30 Jan 1980	8298	763	0002	0	44	19.5	4	10	SP # 820: Day # on clock set incorrectly to 20 instead of 30; corrected
									SP # 840 Radio mouse
	8299	871	0037	0.0	47	19.5	4	10	SIB # 58 at 0112 on Aug. 3
	8300	980	0113	0.0	47	19.5	4	10	
	8301	1088	0147	0.0	47	19.5	4	10	SIB # 59 @ 0218 on Aug. 3
	8302	1197	0223	0.0	47	19.5	4	10	
	8303	1302	0257	0.0	47	19.5	4	10	Missed one shot
	8304	1411	0332	0.0	49	19.5	4	10	} CLOCK PROBLEM, (STOPPED for ~20 min) } TIMES WRONG
	8305	1519	0346	0	51	19.5	4	10	
	8306	1627	0421	0	53	19.5	4	10	
	8307	1735	0456	0	54	19.5	4	10	(discovered 0530)

R/V ~~ROBERT D. CONRAD~~ *ma*

Cruise: *V 36-07*

Line: *8*

RECORDING LOG
MCS

South China Sea

DFS IV

Format: *SEGB*

BPI: *800*

Date 1980	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
JAN	8307	1789	0534	0	54	19.5	4	10	} CLOCK RESET
29		-1793	0535						
30	8308	1844	0552	0	56	19.5	4	10	
	8309	1951	0626	0	~58	19.5	4	10	
	8309	2027	0651			25.0			change Pop Rate.
	8310	2061	0705	0	58	25	4	10	
	8311	2170	0752	0	61	25	4	10	Tape damaged in rewind at approx ^{SP} 2260
	8312	2280	0838	0	66	25	4	10	
	8313	2388	0925	0	66	25	4	10	
			1006						SB#60
	8314	2498	1012	0	74	25	4	10	
	8315	2608	1058	0	81	25	4	10	
	8316	2717	1145	0	83	25	4	10	
	8317	2826	1231	"	85	"	"	"	
	8318	2936	1318	"	93	"	"	"	
	8319	3045	1404	"	97	"	"	"	
	8320	3155	1451	"	103	"	"	"	
		3202	1511	"		14.5	"	"	pop Rate changed
	8321	3264	1531	"	107	"	"	"	
	8322	3324	1606	0	115	25	4	10	

V# 4
R/V ~~ROBERT D. CONRAD~~
Cruise: V36 07
Line: 08

RECORDING LOG

MCS

SO. CHINA SEA

DFS IV

Format: SEGB

BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay SEC	Depth Fm.	Pop Rate SEC	Samp. Rate m/SEC	Rec. L. SEC	Comments
30 Jan 1980	8323	3482	1641	0	125	19.5	4	10	
	8324	3591	1717	0	132	19.5	4	10	
	8325	3699	1751	0	137	19.5	4	10	MISSED SHOTS 3725+3726 TAPE INTERRUPTED BY ACCIDENTAL STOPPAGE OF DFS IV
	8326	3727	1801	0	143	19.5	4	10	
	8327	3837	1836	0	157	19.5	4	10	
	8328	3947	1912	0	172	19.5	4	10	
		3965	1917						D.T. 4 3 2 1 DROPS 22 42 40 44
	8329	4055	1947	0	187	19.5	4	10	
	8330	4165	2022	0	220	19.5	4	10	
	8331	4274	2057	0	227	19.5	4	10	
	8332	4384	2133	0	257	19.5	4	10	
	8333	4493	2208	0	290	19.5	4	10	
	8334	4602	2243	0	337	19.5	4	10	
	8335	4711	2319	0	385	19.5	4	10	
	8336	4821	2354	0	461	19.5	4	10	
31 Jan 1980	8337	4929 5007	0029	0.0	533				SB #61 at 0035
	11	5007	0054	0.0/1.0					Field time break delay increased to 1.0 sec
	8338	5038	0105	1.0	605	19.5	4	10	
	11	5041			605	19.5/20.3			pop rate decreased to 20.3
	8339	5145	0141	1.0	700	20.3	4	10	

ema
R/V ROBERT D. CONRAD

Cruise: V36-07

Line: 8

RECORDING LOG

MCS

South China Sea

DFS IV

Format: SE-13

BPI: 800 BPI

Date	Tape #	Shot Point #	Time GMT	Trip Delay ms	Depth FM	Pop Rate S	Samp. Rate ms	Rec. L _s ms	Comments
31	8340	5254	0210	1000	866	20.3	4	10 000	
Jan	8341	5361	0255	1000	845	1	1	1	
1980	8342	5470	0332	1000	970	1	1	1	
	8343	5578	0409	2000	1100	20.3	4	10 ^{secs}	2 Sec Delay at shot 579
(B)	8344	5687	0446	2000	1165	20.3	4	10	0418 Tape ID corrected from 8342 to 8343
	8345	5795	0522	2000	1240	20.3	4	10	0435 BIRDS SENT TO 60' (from 40') & near - great improvement in UGR monitor trace
	8346	5904	0600	3000	1358	20.3	4	10	3 Sec. Delay
	8347	6013	0637	3000	1527	20.3	4	10	S.B. #62 @ 0633
	8348	6124	0715	3000 Rec-2000	1280	20.3	4	10	S.P. 6135 @ 0719 Delay = 2 secs.
	8349	6232	0751	2000	1154	20.3	4	10	
	8350	6341	0829	2000	1077	20.3	4	10	
	8351	6449	0905	2000	1040	20.3	4	10	
		6489	0919	1000					DELAY SET TO 1 SEC
	8352	6558	0943	1000	1060				(delay indicator on tape ID before 2000)
		6608	1000						Guns off for compressor P.M.
		6620	1004						Guns on, missed 6609-6619
	8353	6678	1024	1000	1105	20.3	4	10	6637 = delay indicator on Tape ID
	8354	6787	1101	1000	1074	20.3	4	10	
	8355	6895	1138	1000	1010	20.3	4	10	S.B. #63 at 1142 GMT
	8356	7005	1215	"	985	"	"	"	

VC 4A
R/V ROBERT D. CONRAD

Cruise: 100-07

Line: 1E8

RECORDING LOG
MCS

DFS IV

Format: 100-07

BPI: 100

South China Sea

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
31	8357	7114	1252	1	1014	20.3	4	10	
174	8358	7224	1330	"	1040	"	"	"	
1180	8359	7332	1406	"	1065	"	"	"	
	8360	7442	1444	"	1102	"	"	"	
	8361	7551	1521	"	1268	"	"	"	
	8362	7660	1558	"	1300	"	"	"	
	8363	7768	1635	1	1301	20.3	4	10	
		7805	1648	2					DELAY CHANGE TO 2.0 SECS.
	8364	7878	1713	2	1298	20.3	4	10	
	8365	7986	1749	2	1447	20.3	4	10	
	8366	8095	1827	2	1412	20.3	4	10	
	8367	8204	1904	2	1556	20.3	4	10	
	8368	8313	1941	2	1460	20.3	4	10	
	8369	8422	2018	2	1361	20.3	4	10	
	8370	8531	2055	2	1488	20.3	4	10	
	8371	8637	2131	2	1250	20.3	4	10	
	8372	8746	2209	2	1117	20.3	4	10	
	8373	8853	2245	2	1072	20.3	4	10	
	8374	8962	2322	2	1060	20.3	4	10	
	8375	9049	2352						STOP GUNS. end line 8

UOA
R/V ROBERT D. CONRAD

Cruise: V36-07

Line: ~~28~~ 9

RECORDING LOG
MCS

SOUTH CHINA SEA

DFS IV

Format: SEG B

BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay sec.	Depth FM	Pop Rate sec	Samp. Rate m3	Rec. L. ms	Comments
1	8375	0001	0014	2.0	1145	20.3	4	10000	A/C. 063° at start of line
FEB	8376	0111	0052	2.0	1151	1	"	"	0014: SB# 64 on Aux. 3.
80	8377	0221	0129	2.0	1080	"	"	"	TPX-1
	8378	0331	0206	2.0	1171				TPX-2.
	8379	0440	0244	2.0	1163				SP 487: change pop rate to
	"	"	"	"	"				27.9 @ 0300. speed overground
	"	"	"	"	"				has been 3.2 Kt.
	8380	550	0329	2.0	1267				
	8381	0658	0418	2.0	1296 1296	27.9	4	10 sec	change to 23.2 @ 0421 & sp 664
	8382	0768	0501	2.0	1361	23.2	4	10	
	8383	0877	0544	2.0	1413	23.2	4	10	
	8384	0987	0627	2.0	1497	23.2	4	10	
	8385	1096	0710	2.0	1528	23.2	4	10	
	8386	1206	0753	2.0	1470	23.2	4	10	
	8387	1316	0836	2.0	1438	23.2	4	10	
		1387	0904						D.T. DEPTH 56 - 58 56 58
	8388	1427	0919	2.0	1490	23.2	4	10	
	8389	1536	1002	2.0	1473	23.2	4	10	
	8390	1647	1045	2.0	1600	23.2	4	10	S.P. 1726 at 1115 change pop rate → 17.8
	8391	1758	1128	2.0	1839	17.8	4	10	there is no S.P. #1722 (reset button pushed in error)

Line: 9

RECORDING LOG
MCS

29

BPI: Foo

[illegible]

R/V ROBERT D. CONRAD

Cruise: V36-07

Line: 10

RECORDING LOG

MCS

South China Sea.

DFS IV

Format: SEG B

BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay SEC	Depth Fm	Pop Rate SEC	Samp. Rate MSEC	Rec. L. SEC	Comments
1 FEB, 1980	8403	0001	1830	3.0	1848	17.8	4	10	S.B. #67 1831 MISSED SHOT 112
	8404	113	1903	3.0	1890	17.8	4	10	D.T. 4 3 2 1 SKY TO DEPTH 50 56 56 58 60 Fm
	8405	224	1935	3.0	1895	17.8	4	10	WRONG TMR NUMBER ON HEADER (8404)
		326	2005			22.7			SPEED OVER GND, LAST HOUR 4.3 KPH ADJUSTED POP RATE TO SUIT - 22.7 SEC
	8406	337	2009	3.0	1903	22.7	4	10	MISSED SHOT #336 (OOPS!)
	8407	448	2050	3.0	1912	22.7	4	10	
	8408	558	2132	3.0	1914	22.7	4	10	
	8409	668	2214	3.0	1915	22.7	4	10	VR giving trouble - doesn't change stop after shot causing streaks
	8410	779	2256	3.0	1907	22.7	4	10	
	8411	889	2337	3.0	1897	22.7	4	10	
2 FEB 1980	8412	1000	0019	3.0	1887	22.7	4	10	
	8413	1110	0100	3.0	1888	"	"	"	
	8414	1232	0142	3.0		"	"	"	MISSED ~ 10 shots
	8414	1232	0146	3.0	~1870	"	"	"	change to 19.5 sec pop rate at 1305
	8415	1341	0228	3.0	1850	19.5	"	"	
	8416	1452	0301	3.0	1850	19.5	"	"	
	8417	1564	0337	3.0	1838	19.5	4	10	MISSED 2 shots
	8418	1675	0413	3.0	1548	19.5	4	10	
		1701	0422	8		16.9			(as speed over ground ~ 5.8)
	8419	1786	0445	2.0	1456	16.9	4	10	MISSED 1785

Vema
R/V ROBERT D. CONRAD

Cruise: V36-07

Line: 10

RECORDING LOG
MCS

South China Sea

(31)

DFS IV

Format: SEG-B

BPI: 800

MSEC SEC.

Date 1980	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
FEB	8420	1895	0515	2000	1532	16.9	4	10	U.G.R. not tripping properly
2ND	8421	2004	0545	2000	1500	16.9	4	10	
		2060	0600			17.5			Repairs to Black Box (2076, 2077, etc)
		2075	0604						Black Box off for one shot (2075)
	8422	2113	0616	2000	1372	17.5	4	10	Bill still "playing" at 2100.
	8423	2222	0648	2000	1246	17.5	4	10	Missed 2221
	8424	2331	0719	2000	1196	17.5	4	10	
			0746			18.4			Av. speed 5.3 over ground
	8425	2439	0751	2000	1315	18.4	4	10	UGR styli sticking
	8426	2548	0825	2000	1040	18.4	4	10	Delay → 1.0 sec at SP 2626 0848
	8427	2657	0858	1000	892				
		2694	0909		8	17.8			SEQ. TIME NOW 17.8 - SPD. OVER GND 5.5k
*	8428	2767	0930	1000	805	17.8	4	10	Tape number sequence here correct
		"	"						HOWEVER NUMBERING OF TAPE ON HEADER INCORRECT. THIS TAPE NUMBERED 8429 WILL CORRECT ON NEXT TAPE.
	8429	2876	1002	1000	747	17.8	4	10	
			1012	S.B. #	70 (000)				* i.e. Tape #8428 was discovered to have the number 8429 written on tape. We don't know when the extra increment of 1 occurred.
	8430	2985	1034		728				As of Tape #8429, the log number listing and the number on tape coincide.
			1044						S.B. #20 OVER (204+208 DUDS)

R/V ~~ROBERT D. CONRAD~~ ^{UMA}
 Cruise: V36-07
 Line: 10

RECORDING LOG MCS

32

DFS IV
 Format: SEGB
 BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay ms	Depth fms	Pop Rate Sec.	Samp. Rate MS	Rec. L. MS	Comments
2	8431	3094	1105	1000	682	17.8	4	10,000	S.P. 3165 Pop Rate 19.5, Ave Sp. 5.0
FEB	8432	3204	1139	1000	620	19.5	4	10,000	
1980	8433	3313	1214	"	600	"	"	"	
	8434	3423	1250	"	550	"	"	"	
	8435	3533	1325	"	525	"	"	"	
			1327						# 71 S.B. ON
	8436	3643	1401	"	498	"	"	"	
	8437	3753	1437	"	467	"	"	"	
	8438	3863	1512	0	432	"	"	"	Trip Delay changed to zero
	8439	3972	1547	"	394	"	"	"	APPARENTLY UGR PROBLEM RESOLVED
			1550						# 72 SB ON
			1610						D.T. 4 3 2 1 SRT TO GO! DEPTH 52 58 58 60
	8440	4082	1623	0	370	19.5	4	10	
	8441	4191	1658	0	332	19.5	4	10	
	8442	4301	1734	0	303	19.5	4	10	BAD TAPE, BEGAN DROPPING SHOTS-LOST
	8443	4329	1743	0	297	19.5	4	10	19 SHOTS
		4353	1751			19.1			SFD. OVER GROUND 5.1 KTS. - CHANGE POP RATE
	8444	4439	1819	0	268	19.1	4	10	TAPE I.D. WRONG ON FIRST SHOT ON TAPE
	8445	4547	1854	0	245	19.1	4	10	
	8446	4660 4660	1931	0		19.1	4	10	BAD TAPE-LOST A COUPLE OF SHOTS

ALSO NOT SURE OF NUMBER OF FIRST SHOT ON TAPE-SUSPECT LOST 4660-4661

VFA 4
R/V ROBERT D. CONRAD
Cruise: V36-07
Line: 10

RECORDING LOG
MCS

South China Sea

33

DFS IV
Format: SEG 8
BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay ms	Depth FM	Pop Rate sec	Samp. Rate ms	Rec. I. sec	Comments
2 FEB 1980	8447	4662	1932	0	231	19.1	4	10	
	8448	4771	2007	0	213	19.1	4	10	
	8449	4879	2042	0	197	19.1	4	10	
	8450	4983	2117	0	181	19.1	4	10	
	8451	5096	2152	0	167	19.1	4	10	
	8452	5205	2228	0	148	19.1	4	10	
	8453	5314	2303	0	133	19.1	4	10	
	8454	5425	2339	0	121	19.1	4	10	
3 FEB 1980	8455	5535	0016	0	110	19.1	4	10	Guns misfiring SB#73@0043
3 FEB 1980	8456	5647	0051	0	100	19.1	4	10	
	8457	5755	0126	0	94	19.1	4	10	
	8458	5865	0202	0	86	19.1	4	10	SB#74@0229
	8459	5974	0237	0	73	19.1	4	10	
	8460	6084	0313	0	71	19.1	4	10	
	8461	6192	0348	0	68	19.1	4	10	
	8462	6184	0415			17.5			Shut down because of Rec. S-2.
	8463	6302	0433	0	65	17.5	4	10	
	8463	6411	0455	0	65	17.5	4	10	
	8464	6427	0500						SHUT DOWN FOR COMPRESSOR REPAIR
CONTINUED	8465	6428	0610			19.1			CONTINUE (after having cooled back)

51

Line: 10

RECORDING LOG
MCS

SOUTH CHINA SEA

DFS IV

Format: SEC R

BFI: 200

34

(msec) (sec)

[illegible]

R/V ROBERT D. CONRAD
 Cruise: VJ607
 Line: 11

RECORDING LOG
MCS

(55)

DFS IV
 Format: SEC-B
 BPI: 800

Date	Tape #	Shot Point #	Time GMT	Trip Delay SEC.	Depth fms	Pop Rate SEC.	Samp. Rate in SEC.	Rec. L. SEC.	Comments
FEB 3	8472	40001	1141	0	245	20.8	4	10	Tape Header reads Line 10 until shot 9 when corrected
			1147						SB #176
1980	8473	110	1218	"	—	"	"	"	
	8474	220	1256	"	—	"	"	"	
	8475	328	1333	"	42	"	"	"	
	8476	438	1410	"	50	"	"	"	Speed over ground \approx 4.0 KTS
	8477	547	1447	"	48	"	"	"	
	8478	656	1524	"	49	"	"	"	
	8479	765	1602	"	49	"	"	"	
		834	1625			22.2			POP RATE CHANGED TO 22.2 SEC.
		860 860	1635			21.7			SPD. OVER GROUND 4.5 - RESULTS POP RATE
	8480	875	1640	0	51	21.7	4	10	FIRST SHOT TAPE 2, D. WRONG (8420)
			1714						S.B. #77
	8481	984	1719	0	51	21.7	4	10	
	8482	1094	1759	0	50	21.7	4	10	D.T. 4 3 2 1 SET TO 60 ORPHEUS 52 58 58 60 FRET
		1157	1820			19.1			SPD. OVER GROUND 5.1 KTS
	8483	1202	1836	0	49	19.1	4	10	
		8 8	1854						S.B. #28
	8484	1313	1912	0	48	19.1	4	10	
	8485	1423	1948	0	48	19.1	4	10	SPD. OVER GND. 5.1 KTS.

R/V ROBERT D. CONRAD

Cruise: V36-07

Line: 11

RECORDING LOG

MCS

South China Sea

DFS IV

Format: SE6-B

BPI: 800 BPI

Date	Tape #	Shot Point #	Time Gmt	Trip Delay sec	Depth FM	Pop Rate	Samp. Rate m	Rec. L. sec	Comments
3 Feb 1980	8486	1533	2024	0.0	47	19.1	4	10	There is a problem with the black box - gun times latch
	8487	1720*	2054	0.0	47	19.1	4	10	but then unlatch before sequence start. Guns are firing OK and at the proper time.
	8488	1831	2136	0.0	46	19.1	4	10	
	8489	1945*	2212	0.0	47	19.1	4	10	
	8490	2056	2248	0.0	48	19.1	4	10	
4 Feb 1980	8491	2165	2323	0.0	51	19.1	4	10	BLACK BOX BEING WORKED ON.
	8492	2255	2353	0.0	50	19.1	4	10	POSSIBLE LOSS OF SHOTS, ETC.
	8493	2363	0028	0.0	50	19.1	4	10	* NOTE:- EXTRA ACCUMULATION OF INDICATED SHOTS ON BLACK BOX
	8494	2378	0032	0.0	50	19.1	4	10	* SKILL PARITY ERRORS.
	11	2411	0043						speed over ground 4.6K
	8495	2485	0110	0.0	47	21.2	4	10	SB# 79 at 0106
	8496	2534	0149	0.0	46	21.2	4	10	
	8497	2703	0228	0.0	44	21.2	4	10	
	8498	2812	0307	0.0	44	21.2	4	10	
	8499	2922	0346	0.0	48(?)	21.2	4	10	
	8500	3016	0420	0		20.3	4	10	Speed over ground 4.8
	8500	3032	0425	0	46	20.3	4	10	Approaching Chinese Drilling Rig
	8501	3141	0502	0	44	20.3	4	10	S.B.#80 @ 0440 - Abeam Drilling Rig.
	8502	3251	0540	0	46	20.3	4	10	(@ granite @ 3100 m)
	8503	3360	0617	0	50	20.3	4	10	

part of errors on 8493 changed

decrease pop rate to 21.2

R/V ~~ROBERT D. CONRAD~~ VEMARECORDING LOG
MCS

Cruise:

Line:

3607

11

SOUTH CHINA SEA

DFS IV

Format: SEGR

BPI: 800

1980 Date FEB	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop. Rate	Samp. Rate ms	Rec. L.	Comments
4	8504	3470	0654	0	47	20.3	4	10	Birds ~ 58'
	8505	3579	0731	0	48	20.3	4	10	
		3636	0751			20.8			Speed over ground 4-7k.
	8506	3689	0809	0	48	20.8	4	10	
END	8506	3798	0847	0					missed S.P. # 3799
	8507	3800	0847	0	48	20.8	4	10	0900 sped through water down to 1.5k, increased
	8508	3911	0924	0	49	20.8	4	10	at 0901
	8509	4019	1001	0	50	20.8	4	10	S.B. 5.1 at 1000 GMT
	8510	4129	1039	0	53	20.8	4	10	
	8511	4237	1116	0	53	20.8	4	10	
	8512	4346	1153	0	53	20.8	4	10	S.P. 4351 change pop rate → 21.7
		4351				21.7			
		4416	1218			20.8			
	8513	4451	1241	"	56	"	"	"	
	8514	4565	1308	"	58	"	"	"	
	8515	4674	1346	"	59	"	"	"	
	8516	4785	1424	"	58	"	"	"	
	8517	4895	1501	"	59	"	"	"	
	8518	5005	1538	"	60	"	"	"	
	8519	5113	1615	"	62	"	"	"	

R/V ROBERT D. CONRAD VEMA

Cruise: V36-07

Line: #11

RECORDING LOG
MCS

DFS IV

Format: SEGB

BPI: 800

South China Sea

1980 Date FEB	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate ms	Rec. L.	1651-S.B. #82 Comments
4th	8520	5225	1654	0	63	20.8	4	10	MISSRD SPOTS 5223 + 5224
		5288	1715			20.3			SPD. OVER GND. 4.8 KT.
	8521	5333	1731	0	62	20.3	4	10	
			1734						D.T. 4 3 2 1 SET AT DEPTH 48 56 56 64 60'
		5410	1756			21.2			SPD. OVER GND. 4.6 KT.
	8522	5442	1808	0	63	21.2	4	10	
	8523	5547	1845	0	63	21.2	4	10	
	8524	5656	1925	0	63	21.2	4	10	
		5699	1939			19.5			SPD OVER GND. 5.0 KT.
	8525	5764	2001	0	63	19.5	4	10	
	8526	5873	2036	0	63	19.5	4	10	
		5940	2058			21.7			pop rate up - speed 4.5 km.
	8527	5980	2112	0	63	21.7	4	10	
	8528	6090	2152	0	65	21.7	4	10	
	8529	6199	2230	0	66	21.7	4	10	
	8530	6309	2310	0	66	21.7	4	10	
	8531	6418	2349	0	66	21.7	4	10	0027 #83 Sonobouy
5th	8532	6527	0028	0	64	21.7	4	10	
1980	8533	6637	0117	0	62	21.7	4	10	SP 6728 Pop Rate → 23.2 (spd 4.2)
	8534	6648	0148	0	62	23.2	4	10	

Line: ~~#~~ 11

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South China Sea

BPI: 800

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