







R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 97

## RECORDING LOG

MCS

RANDOMIZER ON

DFS IV

Format: Seg B

Bonaire Basin

GUNS 2+3 W/WAVE SHAPE  
KITS

BPI: 800

~1700PSI

Date	Tape #	Shot Point #	Time ships	Trip Delay sec	Depth Fms.	Pop Rate sec.	Samp. Rate MS	Rec. L. MS	Comments
NOV. 12 1977	4845	001	3:46	0.0	660	20	4	12000	LC 8/36, guns 2,3 on
		015							LC OUT(L) CH 13-24
		018							LC OUT(R) CH 1-2
	4846	107	0423	0.0	692	20	4	12000	
	4847	198	0455	0.0	746	20	4		
	4848	304	0530	0.0	800				Forgot to record 1st shot #
	4849	APPROXIMATELY 394		0.0	867				Forgot to record 1st shot #
	"	APPROXIMATELY 397	0600	0.0/1.0	<del>867</del>				Change delay to 1 sec.
	4850	500	0637	1.0	1008				
	4851	591	0708	1.0	1020				
	4852	696	0744	1.0	1003				
	4853	787	0815	1.000	1027	20	4	12000	
	4854	893	0852	11	991	11	11	11	
	4855	984	0923	11		11	11	11	
		1053	0947	—	—	—	—	—	GUNS #1,4 ON
	4856	1091	0959	1.000		20	4	12000	
	4857	1183	1030	1.000	712	11	11	11	
	4858	1290	1107	11	736	11	11	11	
	4859	1381	1138	11	800	11	11	11	
	4860	1486	1214	1000	895	11	11	11	UGR 10 sec scan 64 lines/in.

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 97

## RECORDING LOG

M C S

Bonnie Basin

DFS IV

Format: Seq-B

BPI: 800

②

Date	Tape #	Shot Point #	Time	Trip Delay sec	Depth	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
Nov. 12	4861	1577	12:45	1.000	1018	20	4	12000	
1977	4862	1684	1321	"	1136	"	"	"	
	4863	1775	1352	"	1160	"	"	"	
			1403			"	"	"	A/c → 010"
	4864	1882	1429	1.000	1129	"	"	"	
	4865	1972	1500	"	1168	"	"	"	
	4866	2079	1537	2.000	1170	"	"	"	change field delay to 2.0 sec
	4867	2171	1608		1185				≈ 1640, 2 guns off briefly
	4868	2278	1645		1308				
	4869	2368	1715	✓	1412				
	4870	2475	1752	✓	1588				
	"	2550							change delay to <del>2.0</del> 3.0 sec
	4871	2565	1823		2125				
	"	2566							change delay to 4.0 sec
	"		1835	4.0					Two guns back on, were off for $\frac{1}{2}$ hr.
	4872	2674	≈ 1900	4.0	2425				
	"	2675		5.0	2"				change time break delay to 5.0 sec
	4873	2767	1932	5.0	2426				
	4874	2876	2008	5.0					
	4874	2895	2035	4 sec.					change time delay to 4 sec.

R/V ROBERT D. CONRAD

Cruise: 122103

Line: 97

## RECORDING LOG

MCS

DFS IV

Format: Seq B

BPI: 800

Las Vegas

Date	Tape #	Shot Point #	Time	Trip Delay	Depth FM	Pop Rate S	Samp. Rate ms	Rec. L ms	Comments
Nov. 17	<del>4875</del>	<del>953</del>	<del>2035</del>	<del>4 sec</del>					
77	4875	2969	2041	4 <sup>4 sec</sup>	2080	20	<del>4</del> 4	12000	
	4876	3078	2118	<del>1878</del>	1878	20	4	12000	Change Monitor delay to 3 sec
	4876	3102	2126			20	4	12000	Change tape delay to 3 sec
	4877	3171	2150	3 sec	1582	20	4	12000	Change tape 2 monitor delay to 2 sec
	4877	3256	2219						
	4878	3279	2227	2 sec	1290	20	4	12000	
	4879	3371	2258	2000	1404	20	4	12000	TPX 1
	4879	3406	2310	3000					change tape delay to 3 sec
	4880	3479	2335	3000	1892	20	4	12000	
NOV. 18	4881	3572	0006	4000	2040	"	"	"	Change trip delay to 4000 ms
1977	4882	3680	0043	"	2067	"	"	"	
	4883	3772	0115	"	2084	"	"	"	
	4884	3878	0150	"	2150	"	"	"	
	4885	3971	0223	"	2246	"	"	"	
	4886	4079	0259	"	2359	"	"	"	
	4887	4171	0332	"	2482	"	"	"	
	4888	4279	0408	4000	2678				
	"	4280		5000					change trip delay to 5.0 sec
	4889	4372	0439	5000	2679				

④

Line: 97-98

BPI: 800

Las Rozas  
Venezuela Basin

Date	Tape #	Shot Point #	Time	Trip Delay	Depth Fm	Pop Rate	Samp. Rate ms	Rec. L. ms	Comments
11/13/77	4890	4480	0516	5000	2668	20	4	12000	
		=4574	0548						end line 97 A/C to 106°
	BEGIN LINE	98							
	4891	0001	0617	5000	2665	20			← TAPE 10. Not advanced on tape 4891.
	4892	0109	0654		2666				tape header will mistakenly read 4892
	4893	202	0726		2667				also on tape 4891, header reads
*	<del>4894</del>	<del>308</del>	<del>0806</del>	<del>5000</del>		20	4	12000	line 97, should be 98
	<del>4895</del>	<del>586</del>	<del>0937</del>	<del>11</del>					<del>4893</del>
	4894	586	0937	11		20	4	12000	ALL GUNS OFF
	4895	679	1009	5000	2670	20	4	12000	GUNS # 2, 3 BACK ON
	4896	785	1045	11	2670	11	11	11	* 307 last shot on tape
	4897	877	1117	11	2670	11	11	11	4893.
		943	1140						LAST SHOT END LINE #98
		END LINE #98							

99

VENEZUELA BASIN

BPI: 807

5

[illegible]

Cruise: RC24-03

Venezuela Basin

## M C S

Format: *Seq B*

BPI: 800

6

[illegible]

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 101

RECORDING LOG  
MCS

Venezuela Basin

DFS IV

Format:

BFI:

⑦  
Seg B  
800

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth Fm	Pop Rate %	Samp. Rate 1/2000	Rec. L ms	Comments
11/13/77	4907	001	1725	6000	2665	20	4	12000	Begin line 101 Guns 1+2 on.
	at → 052		1742		TAPE ID	ADVANCED		+0	4907, also, LINE #101
	4908	094	1757		2667				Missed shot 93 on changeover
	4909	203	1834		2667				Sonobuoy 53A over at 1837 on Aut 2
	4910	295	1906		2667				SB. 53A a dud, try SB. 53B at 1903
	4911	403	1943						<del>SB. 53A</del> SB. #53 over at 1939
	4912	496	2014	6000	2667	20	4	12000	1937 Guns 3+4 on AL30
	4913	604	2051	1	1	1	1	11	
	4914	697	2123	11	11	11	11	11	
	4915	805	2200		2668				
	4916	898	2232	11		11	11	11	
	4917	1007	2309	11	2668	11	11	11	
	4918	1101	2341	11	2668	11	11	11	Missed shot #100 change over to x2
NOV. 14	4919	1209	0018	11	2668	11	11	11	
1977	4920	1302	0049	11	2668	11	11	11	
			0051	11	2668	11	11	11	Sonobuoy on
	4921	1410	0126	11	2668	11	11	11	
	4922	1502	0158	11	2668	11	11	11	
	4923	1610	0235	11	2667	11	11	11	
	4924	1703	0306	11	2667	11	11	11	

Line: 101

R E C O R D I N G    L O G  
M C S

Venezuela Basin

BPI: 800

[illegible]

Line: 102

## M C S

Venezuela Basin - 2 ship

BPI: 800

9

[illegible]

R/V ROBERT D. CONRAD  
Cruise: *RED-03*  
Line: *103*

RECORDING LOG  
MCS

*Venezuela Basin*

DFS IV  
Format: *Seg B*  
BPI: *800*

*(10)*

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
<i>NOV</i>	<i>4937</i>	<i>0000</i>	<i>2008</i>	<i>6000</i>		<i>20</i>	<i>4</i>	<i>12000</i>	<i>SPARE MW SHOT #2 (DELA)</i>
<i>14/77</i>	<i>4938</i>	<i>75</i>	<i>2046</i>	<i>"</i>	<i>2655</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>MW#7 DELAY → 9000</i>
	<i>4939</i>	<i>161</i>	<i>2129</i>	<i>"</i>		<i>"</i>	<i>"</i>	<i>"</i>	
		<del><i>235</i></del>							
	<i>4940</i>	<i>235</i>	<i>2206</i>	<i>"</i>	<i>2666</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>A/E at 2235 030</i>
	<i>4941</i>	<i>322</i>	<i>2250</i>	<i>"</i>	<i>2666</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4942</i>	<i>396</i>	<i>2327</i>	<i>"</i>	<i>2666</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>NOV.15</i>	<i>4943</i>	<i>483</i>	<i>0010</i>	<i>"</i>	<i>2665</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>1977</i>	<i>4944</i>	<i>556</i>	<i>0047</i>	<i>"</i>	<i>2666</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4945</i>	<i>640</i>	<i>0129</i>	<i>"</i>	<i>2663</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4946</i>	<i>714</i>	<i>0206</i>	<i>"</i>	<i>2662</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4947</i>	<del><i>864</i></del> <i>801</i>	<i>0249</i>	<i>"</i>	<i>2658</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4948</i>	<i>874</i>	<i>0325</i>	<i>"</i>	<i>2648</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>4949</i>	<i>960</i>	<i>0410</i>		<i>2648</i>				<i>1st error shot is Monowards</i>
	<i>4950</i>	<i>1034</i>	<i>0445</i>		<i>2647</i>				
	<i>4951</i>	<i>1120</i>	<i>0529</i>		<i>2638</i>				<i>1st shot is Monowards</i>
	<i>4952</i>	<i>1194</i>	<i>0605</i>		<i>2633</i>				<i>Aux delay is on and has been</i>
	<i>4953</i>	<i>1250</i>	<i>0650</i>		<i>2623</i>				<i>on 9 sec.</i>
	<i>4954</i>	<i>1353</i>	<i>0726</i>		<i>2619</i>				
	<i>4955</i>	<i>1439</i>	<i>0810</i>						

Line: 103

## RECORDING LOG

M C S

Venezuela Basin  
25th Col.

DFS IV

Format: *SFL B*

BPI: *SV*

⑥

[illegible]

Line: 104

M C S

VEZUELA BASIN

Format: *SEG-B*

BPI: 807

[illegible]

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 105

## RECORDING LOG

MCS

VENEZUELA BASIN

DFS IV

Format: SEG B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay M=	Depth FM	Pop Rate S	Samp. Rate 4 MS	Rec. L. MSec	Comments
NOV 16 1977	4978	002	0206	6000	2578	20	4	12000	MW DELAY 5000
			0230	"		"	"	"	A/C → 220°
	4979	048	0252	"	2585	"	"	"	SHOT 56 MW DELAY 6000
									" 60 " " 7000
									" 67 " " 8000
									" 79 " " 9000
	4980	122	0344	6000		20	4	12K	
		201						20K	~ 201 Record (even 22 SECS)
	4981	204	0417		2598				SHOT 91 MW DELAY 11000
	4982	254	0447		2600	30			change 30 sec reprots during tape
	4983	329	0528	missed	2598	20			change reprots to 20 sec at shot 329.
	4984	438	0605		2613				4981 not logged
128	4985	531	0637		2617				
	4986	644			2610				Missed 5 SL's - changeover Note
	4987	737	0747		2610				tape ID reads wrong on 4986 - not advanced.
	4988	845	0824	6000	2606	20	40	12000	
	4989	939	0856	6000		"	"	"	
	4990	1046	0933	"		"	"	"	
	4991	1139	1005	"	2594	"	"	"	
	4992	1248	1042	"		"	"	"	

D. CONRAD

Cruise: 21-03

Line: 105 + 106

RECORDING LOG  
MCS

VENEZUELA BASIN

DFS IV

Format:

BPI:

(14)

Seg B

800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
NOV	4993	1340	1114	6000		20	4	12000	TPX 2
16/77	4993	1389		LAST SHOT END					LINE # 105
	4994	00001	1158	6000	2581	20	4	12000	START LINE #106 M.T.
	4995	092	1230	"	2594	"	"	"	MW DRILL 2000
	4996	200	1307	"	2599	"	"	"	
	4997	293	1338	"	2602	"	"	"	
	4998	401	1415	"	2604	"	"	"	
	4999	495	1447	"	2609	"	"	"	
	5000	597	1526	"	2615	"	"	"	
	5001	685	1559	"	2619	"	"	"	
	5002	785	1639	"	2623	"	"	"	
	5003	870	1713	"	2634	"	"	"	SHOT 34 MW DRILL 9000
	5004	969	1752	"	2637	"	"	"	
	5005	1023	1824	"	2645				
	5006	1152	1903		2648				
	5007	1234	1935		2653				
	5008	1333	2015	6000	2659	20	4	12000	
	5009	1418	2048	6000		20	4	12000	

Cruise: 2102

106

## M C S

Format: *Seg B*

BPI: 800

(15)

Venezuela Basin

[illegible]

Line: 107

RECORDING LOG  
MCS

## Venezuela Basin

DFS IV

Format: Seq B

BPI: 800

16

Date	Tape #	Shot Point #	Time ship local	Trip Delay ms.	Depth fms.	Pop Rate sec	Samp. Rate ms.	Rec. L. ms.	Comments
NOV. 17	5020	001	0426	6000	2665	20	4	12000	MW 3 First shot MW down 8200
1977	5021	(053)	0517	Note:	Root finally = 12 shots				SHOT 63 MW DOWN 7000
		066		due	TAX-1 fault.				SHOT 69 MW DOWN 9000
									" 77 " " 11000
	5021	138							change record length to 22 sec
	5022	139+190	0602	6000	2666	30	4	20000	(was 12 sec.)
	5023	<del>138</del> 264	0707						
	5024	<del>265</del> 291						39000	265 CHANGE TO 39 SECS
	5025	293	0747	6000	2666	*	f	"	MW 92 13000 SECS
	5025	317	0827						* sequence not working proply
		END LINE #			107				firing guns manually.
		No Soundings this time							

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 108

RECORDING LOG  
MCS

VENEZUELA BASIN

DFS IV

Format: Seq B

BPI: 800

(17)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
Nov	5026	0001	0912	6000	2667	20	4	12000	<del>Gun</del> Gun #1 OFF
17/	5027	109	0949						
17/	5028	202	1021	11	2669	"	"	"	Gun #1 Back on at ?
	5029	312	1059	"	2670	"	"	"	
	5030	404	1130	"	2671	"	"	"	
	5031	513	1207	"	2671	"	"	"	
	5032	605	1239	"	2672	"	"	"	
	5033	713	1315	"	2675	"	"	"	
	5034	804	1347	"	2675	"	"	"	
	5035	912	1424	"	2673	"	"	"	
	5036	1005	1456	"	2674	"	"	"	
	5037	1114	1533	"	2674	"	"	"	
	5038	1207	1605		2673				
	5039	1314	1642		2674				
	5040	1407	1713		2673				
	5041	1515	1750		2673				
	5042	=	1825		2673				Forgot to log slot & time at
	5043	1714	1855		2674				changeover
	5044	1806	1929		2673				
	5045	1913	2006	11					

Line: 108

Venezuela Basin

BPI:

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[illegible]

10

Venezuela Basin

BPI: 800

19

[illegible]

20

BPI: 800

[illegible]

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 111

RECORDING LOG  
MCS

Venezuela BASIN

COP#6-7

DFS IV

Format: Sep 3

BPI: 800

(21)

Date	Tape #	Shot Point #	Time Ship's local	Trip Delay MS	Depth fms	Pop Rate sec	Samp. Rate MS	Rec. L. MS	Comments
1977 Aug 18	5063	00001	0957	6000		20	4	12000	TRX 1, problems with shot counter there
	5064	83	1031	11	2570	11	11	11	he missed a jump OR missed shots
	5064	?	1052						GUN#4 OFF
	5064	?	1100						A/E 186
	5065	191	1108	41	2568	11	11	11	
	5066	284	1140	11	2572	11	11	11	
	<del>5067</del>	339	1159						GUN#4 Back on.
	5067	393	1217	6000	2596	20	4	12000	
	5068	486	1249	11	2590	11	11	11	
	5069	595	1326	11		11	11	11	
	5070	688	1358	11	2608	11	11	11	
			14:16	11		11	11	11	begin recording Mearns Wave shots
	5071	787	1440	6000	2631	11	11	11	delay Bore msec.
	5072	861	1518	11	2638	11	11	11	
	5073	948	1602	11	2640	11	11	11	
	5074	1021	1638		2647				
	5075	1107	1722		2663				
	5076	1181	1759		2674				
	5077	1267	1841		2676				SBore at ~ 1912
	5078	?			2675				

R/V ROBERT D. CONRAD

Cruise: C 21-03

Line: 111

RECORDING LOG  
MCS

VENEZUELA BASIN

DFS IV

Format: SEC 13

BPI: ~~100~~ 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
NOV	5079	1429	2007	6000	2676	20	4	12000	
18/	5080	1503	2044	6000	2676	20	4	12000	
17	5081	1591	2130	"	2675	"	"	"	
	5082	1666	2207	"		"	"	"	
	5083	1757	2251	"	2676	"	"	"	S/B on dist 1760
	5084	1831	2331	"	2675	"	"	"	
NOV.19	5085	1917	0012	"	2675	"	"	"	
1977	5086	1992	0050	"	2674	"	"	"	
	5087	2078	0132	"	2674	"	"	"	
	5088	2152	0209	"	2673	"	"	"	
	5088	2215	0230	"		"	"	"	Sketch Sonobuoy
	5089	2238	0252	"	2673	"	"	"	
	5090	2314	0330	"	2671	"	"	"	
	5091	2401	0413		2671				
	5092	2476	0451		2669				Sonob
	5093	2562	0533		2668				
	5094	2635	0610		2665				
	5095	2722	0653		2663				
	5096	2795	0730		2665				
	5097	2881	0813		2672				S/B ON AUX 3 at 0816

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 111

RECORDING LOG  
MCS

DFS IV

Format: Seg B

BPI: 800

(23)

Venezuela Basin

Date	Tape #	Shot Point #	Time	Trip Delay	Depth FMS	Pop Rate	Samp. Rate	Rec. L.	Comments
Nov	5098	2958	0850	6000	2677	20	4	12000	TPX 2 MW Shot 565 DELAY 9000
19/17	5098	3000	0910	5000					change delay to 5000 Black box
	5099	3045	0931	5000	2420	20	4	12000	RADIO NOISE BAD TRIP some shots
	5100	3116	1005	5000	2325	"	"	"	
	5100	3171	1033	4000					change delay to 4000ms Field tape
	5101	3205	1049	4000	2222	"	"	"	MW Shot 630 DELAY 8000
	5102	3279	1127	"	2076	"	"	"	
	5103	3361	1207	"	2022	"	"	"	
	5104	3435	1244	"	2008	"	"	"	
		3446							aux time delay to 9.0 sec.
									at shot mona wave shot 690
	5105	3521	1327	4000	1902	20	4	12000	
	5106	3598	1403	"	1614	"	"	"	mona wave shot 710 delay to 10.0 sec.
		3647	1424	3000	1614				change field tape delay to 3000 ms
	5107	3698	1443	2000	1321	20	4	12000	
		3	1455						MW shot 740 delay 9000 sec.
	5108	3781	1517	2000	1300	20	4	12000	
			1525	"		"	"	"	MW Shot 748 aux delay 8.0 sec
	5109	3879	1556	"	1489	"	"	"	
	5110	3961	1628		1715				

Line: 111

DFS IV

Format: SEI-B

BPI: 800

24

[illegible]

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 112

## RECORDING LOG

MCS

ULNEZUELA BASIN

DFS IV

Format:

BPI:

(25)

Seg 13

800

Date	Tape #	Shot Point #	Time <i>Ship local</i>	Trip Delay <i>ms</i>	Depth <i>fms.</i>	Pop Rate <i>sec</i>	Samp. Rate <i>ms.</i>	Rec. L. <i>ms</i>	Comments
NOV	5115	0001	2013	5000		20	4	12000	MW DELAY 8000
19/77	5116	87	2047	11	2673	"	"	"	
	5117	185	2126	11	2140	"	"	"	
	5117	217	2139	4000					Change Delay FIELD TAP TO 4000
	5118	269	2159	4000	1993	11	11	11	MW SHOT 28 CHANGE DELAY TO 9000
	5119	367	2239	3000	1744	11	11	11	Change delay to 3000
	5120	451	2312	3000	1818	11	11	11	
	5121	549	2352	3000	1375	11	11	11	
NOV/20	5122	634	0026	11	1726	11	11	11	MW Shot 61 aux delay to 140 sec.
1977		666		4000		11	11	11	Change delay to 4000
	5123	732	0105	11	1942	11	11	11	
	5124	816	0138	11	1991	11	11	11	
						11	11	11	MW SHOT 84 <sup>aux</sup> DELAY 7 SEC
						11	11	11	MW SHOT 86 <sup>aux</sup> delay 10 SECS
			0154			11	11	11	MW SHOT 87 <sup>aux</sup> delay → 13 SECS.
	5125	914	0218	4000	2076	11	11	11	
		958	0235	5000		11	11	11	Change field delay to 5000
		998		4000		11	11	11	change delay back to 4000
	5126	999	0251	4000	2079	11	11	11	
	5127	1099	0331	11	2215	11	11	11	

Line: 112

## M C S

Venezuela Basin

BPI: 800

(26)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth fms	Pop Rate sec	Samp. Rate ms	Rec. L ms	Comments
NOV. 20 1977		1142	0348	5006	<del>2371</del>	20	4	12000	change delay to 5000
	5128	1182	0405		2371				
	5129	1279	0443		2514				
	5130	1362	0517		2675				
	"	1418	0539	<del>5000</del> 6000					increase T.B. delay to 6 sec
	5131	1461	0556		2674				0600 A/C from 050° to 030°
	5132	1546	0630		2670				gun 1 out at ≈ 0655 on 50
	5133	1644	0709		2667				
	5134	1728	0743		2665				Gun #1 BACK ON at sp 1821
	5135	1826	0822	6000		20	4	12000	S/B ON AGX 3 at sp 1900
	5136	1911	0857	6000	2670	20	4	12000	RADIO NOISE Bad TRIP
	5137	1997	0935	11	2671	11	11	11	
	5138	2086	1008	11	2670	11	11	11	
	5139	2190	1048	11		11	11	11	
	5140	2280	1122	11	2672	11	11	11	
	5141	2383	1201	11	2675	11	11	11	
		2472	1237	11		11	11	11	A/C big turn
				end line 112					

Line: 113

## M C S

VENEZUELA BASIL

BPI: 800

27

[illegible]

R/V ROBERT D. CONRAD

Cruise: 21-03

Line: 114

## RECORDING LOG

MCS

Venezuela Basin

DFS IV

Format: SeqB

BPI: 800

(28)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth fms	Pop Rate sec	Samp. Rate Hz	Rec. L sec	Comments
NOV 21	5150	001	00:02	6000	2670	20.	4	12.	
1977	5151	109	00:38	"	2674	"	"	"	
			00:54	"		"	"	"	Snafuery launched
	5152	202	01:09	"	2676	"	"	"	
	5153	310	01:46	"	2531	"	"	"	
		391	02:15	5000		"	"	"	Change tape delay to 5000 ms
	5154	403	02:18	"	2408	"	"	"	
	5155	511	02:55	"	2298	"	"	1	
	5156	603	03:26	"	2206	"	"	"	
	<del>5157</del>	665	03:48	4000					change tape delay to 4000 ms
	5157	711	04:03		2120				
	5158	804	04:35		2051	"	"	"	
	5159	906	05:10		2004				trouble with TPX - 2 - tape snags
	5160	993	05:39	- 1979 Something must be wrong with tape when you get down to ~ 2500 tape "snags" when it starts up.					instead of moving smoothly. Data may be hard to read at end. Must switch tape decks before tape runs out.
	5161	1102	06:17	4000	1897	"	"	"	
	"	1143	06:30	<del>4000</del> 3000					change delay to 3000 ms (Mistakenly set it to 5000 ms a couple of shots earlier but corrected)



R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 116

RECORDING LOG  
MCS

DFS IV

Format:

BPI:

30

Seq B

800

2 ship

SP

Venezuela Basin

Date	Tape #	Shot Point #	Time ship's	Trip Delay sec	Depth fms.	Pop Rate sec	Samp. Rate m/s	Rec. L/s	Comments
NON. 21 1977	51370	001	1453	*4.000	1809	20.	4	12000	MW. aux. delay 3.00 sec
		027		*5.000					change trip delay to 5.000 sec. <i>(mistake 3.000 sec)</i>
		028		*3.000					change trip delay to 3.000 sec. *
									Sorry, Barbara!
									MW Shot 36 DELAY 4.0 sec
									" " 45 " 5.0 "
									" " 49 " 6.0 "
									" " 53 " 7.0 "
	5171	057	1546	3.000	1829	"	"	"	" " 59 " 8.0 "
	5172	129	1623		1838				" " 67 " 10.0 "
	"	<del>215</del>				20		22000	" " 74 " 11.0 "
	"	216				30			" " 77 " 12.0 "
	5173	222	1702	3000	1823	30		22000	80 13.0
	5174	267	1729	3000		30		22000	
		290				39		22	
		291						31	
	5175	310	1759		1862	"		"	
	5176	341	1822		1888	"		"	
	"	347	1828			20		12000	
	"	425	1855			"		"	end line 116

Note: missed shot 215.

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: ~~117~~ 117RECORDING LOG  
MCS

Venezuela BASIN

CDP

DFS IV

Format: SEGB

BPI: 800

(31)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. <sup>ms</sup> <del>ms</del>	Comments
11/24/77	5177	001	1921	3000	1960	20	4	12.000	
	5178	16	1926		1960				
	5179	124	2003		1858				Tape 5177 bad, too many points even.
	5180	216	2034	3000		20	4	12.000	
	5181	324	2111	3000		20	4		
	5182	417	2143	11	2033	11	11	11	
	5183	526	2220	11	1944	11	11	11	
	5184	619	2251	11	1915	11	11	11	
	<del>5184</del> AT	663	2307						
	AT	709	2322	11		11	11	11	ALL GUNS OFF, change oil*compressor
	5185	772	2344	11	1967	11	11	11	ALL GUNS BACK ON
NOV. 22	5186	865	0015	"	2055	"	"	"	
1977	5187	973	0052	"	2054	"	"	"	
		999	0102	4000					change delay to 4000ms
	5188	1064	0124	"	2052	"	"	"	
	5189	1173	0201	"	2091	"	"	"	
	5190	1266	0233	"	2070	"	"	"	
	5191	1374	0310	"	2060	"	"	"	
	5192	1467	0341	"	2061	"	"	"	
	5193	1576	0419	"	2140				

Cruise: C21-03

Venezuela Basin

CDP

DFS IV

Format: *SE6-B*

BPI: 800

32

[illegible]

Line: 118

VENEZUELA BASIN use SP

BPI: 800

93

[illegible]

R/V ROBERT D. CONRAD  
Cruise: RC 21-03  
Line: 119

RECORDING LOG  
MCS

Venezuela Basin

DFS IV  
Format: Seq B  
BPI: 800

34

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth	Pop Rate 1/sec	Samp. Rate 1/sec	Rec. L's	Comments
Nov 22	5206	001	1205	4000	2419	20.0	4	12000	
1977	5207	109	12:42	"	2676	20.0	"	"	
		119	12:45	5000		"	"	"	change delay to 5000 ms
	5208	202	13:14	6000	2674	"	"	"	change delay to 6000 ms
		221	13:21	"		"	"	8000	change record length to 8000 ms
	5209	352	14:05	"	2672	"	"	"	
	5210	487	14:51	"	2672	"	"	"	
	5211	645	15:45	"	2659	"	"	"	
	5212	780	1631		2661				
	5213	938	1725	"	2664	"	"	"	
	5214	1073	1811		2665				
	5215	1231	1905	"	2667				
	"	1246							change pop rate to 18.5
	5216	1366	1947	"	2618	18.5			
	5217	1525	2036		2564	18.5			S/B ON BOX 3 at 2057
	5218	1660	2118	"	2510	18.5	"	"	
	5219	1818	2207	5000	2470	"	"	"	
	5220	1953	2248	"		"	"	"	
		2042	2315						change pop rate 16.7
	5221	2111	2334	"	2472	16.7			

R/V ROBERT D. CONRAD

Cruise: RC2103

Line: 119

## RECORDING LOG

MCS

VENEZUELA BASIN

DFS IV

Format: SEGB

BPI: 800

(35)

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth fms	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
NOV 23/77	<del>5222</del>	2246	0011	5000	2540	17.9	4	8000	TPX change 17.9 Shot rate
	5223	2405	0058	6000	2529	"	"	8000	change tape delay to 6000 ms
	5224	2541	0137	"	2505	"	"	"	note - Randomize is on adding average of 0.5 sec to Pop rate shown here.
		2583	0151	5000		"	"	"	
	5	2652	0211	5500		"	"	"	
	5225	2699	0223	"	2480	17.5	"	"	change tape delay to 5500 msec.
	5226	2833	0302	"	2457	"	"	"	
	5227	2990	0348	"	2446	"	"	"	
	5228	3125	0427	"	2429				
	5229	3283	0513	"	2358				
	5230	3418	0553	"	2352	"	"	"	Sonobouy on Aux 3
	"	3547	0630	5500 / 4000 / 5000					change TB delay from 5500 to 4000
	5231	3576	0639	5000	2300				change TB delay from 4000 to 5000
	5232	3711	0718		2260				
	5233	3869	0804	"	2260	17.5	4	8000	
	5234	4005	0844	"					
	5235	4162	0930		2133				
	at	4195	0939	4000					change delay to 4000 at SP 4195
	at	4213	0944			19.3			change Pop Rate to 19.3
	* 5236	4297	1012						* TAPE ID INCORRECT

22 NOV 1977

\* 41.57

1102

LAST SHOT END LINE # 119

lines 4, 5, 8, 9.

10 kms. back  $\approx$  6 miles

39 18, 74° 00'  $\approx$  6 min.

#4, 37° 09' N, 71° 23' W

CDB #1 37° 05' N, 71° 15' W

37° 05' N, 71° 15' W

#5, 38° 55' N, 74° 12' W  
CDB #1 38° 50' N, 74° 18' W

#8, 38° 15' N, 71° 12' W  
CDB #1

38° 08' N, 71° 00' W

#9, 39° 36' N, 73° 15' W  
39° 36' N, 73° 10' W

R/V ROBERT D. CONRAD

Cruise: 2103

Line: ~~#9~~ 120

## RECORDING LOG

MCS

Venezuela BASIN

DFS IV

Format: ~~Seg~~ B

BPI: 800

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
Nov 23/77	5237	001	1357	5000	2097	19.5	4	8000	
		011	1359	4500		"	"	"	change delay to 4500 msec.
	5238	137	14:41	"	2092	"	"	"	
	5239	294	15:33	"	2088	"	"	"	
	5240	430	16:17	"	2087				
	5241	589	17:08	"	2100				
	5242	724	17:53	"	2098	19.5	4	8000	
	"	822				17.1			change pop rate to 17.6 including effect of randomize (17.1 mtd)
	5243	882	18:41	"	2069	"	4		
	5244	1016	19:21		2041				
	5245	1163	20:04	"		"			
	5246	1288	20:40	"	2144	17.1	4	8000	
	5247	1446	21:24		2153				
	—	1449		5000	—	—	—	—	drop tape & monitor delay to 5 sec.
	5248	1581	22:05	5000	2191	17.1	4	8000	
	5249	1739	22:51	11		17.1	4	8000	at 2200 S/BON 40x3
	5250	1874	23:31	11	2219	11	11	11	
Nov 24/77	5251	2033	0017	"	2255	"	"	"	
	5252	2168	0056	"	2262	"	"	"	
	5253	2327	0142	"	2270	"	"	"	

V ROBERT D. CONRAD  
Cruise: R021-03  
Line: 120

RECORDING LOG  
MCS

Venezuela Basin

DFS IV  
Format: Seq B  
BPI: 800

37

Date	Tape #	Shot Point #	Time Ships	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
NON 24 1977	5254	2463	0222	5000	2266	17.1	4	8000	
		2466				17.5	"	"	
	5255	2622	0308	"	2722	"	"	"	
	5256	2758	0348	"		"	"	"	
		2815	04:04						trouble with TPX-1 tape transport may have missed shots 2815-2817
		2919	04:35						shut entire system down for repair 2919 1st shot tape 5256
									TPX-1 down
	5257	3113	0531	5000		17.5	4	8000	
		3142	0540	4000		"	"	"	change delay to 4000 ms
		3269							one transport TPX-2 working
	5258	3305	0627	4000		17.5	4	8000	last shot tape 5257
		3462	0713						last shot tape 5258
	5259	3497	0723	4000		17.5	4	8000	
		3653	0809						last shot tape 5259
	5260	3680	0817	4500	2078	17.5	4	8000	
		3837	0902	last shot		"	"	"	
	5261	3863	0910	4500	2166	"	"	"	
		4020	0956	last shot		"	"	"	
	5262	4047	10:03	4500	2152	"	"	"	
		4205	10:49			"	"	"	

R/V ROBERT D. CONRAD

Cruise: R021-03

Line: 120

## RECORDING LOG

MCS

DFS IV

Format: Seq B

BPI: 800

Dad Vanezquez Muniz

Date	Tape #	Shot Point #	Time Ship's	Trip Delay msec	Depth	Pop Rate %	Samp. Rate msec	Rec. L msec	Comments
Nov. 21 1977	5254	2463	0222	5000	2266	17.1	4	8000	
		2466		"		17.5	"	"	
	5255	2622	0308	"	2272	"	"	"	
	5256	2758	0348	"		"	"	"	
		2815	04:04						
last shot →	5256	2919	0435	Shot whole system down for repair					trouble with tape transport; DFSIV may have missed shots 2815-2817
begin →	5257	3113	0531						
	5257	3142	054		lost shot 3269 m				TPX 1 down, record on TPX-2
*	5258	3305	0627	"	3462 a				delay to 4000
	"	3462	0713		lost shot in 5257				TPX 2
*	5259	3497	0723						
	<del>5259</del>	3653	0809	408	<del>2078</del>				using TPX-2, TPX-1 down
	5260	3680	0817	4500	2078	17.5	4	8000	<del>TPX 2</del> * TAPE ID incorrect
	—	3837	0902						TPX-2
	5261	3863	0910	4500	2166	17.5	4	8000	TPX 2
	—	4020	0956						
	5262	4047	1003	4500	2152	17.5	4	8000	TPX 2
		4205	1049						
	5263	4235	1058	5000	2180	16.5	4	8000	change delay to 5000 msec. POP Rate to 16.5

Cruise: 21-03

Line: 120

Venezuela Basin

Format: *Seg B*

BPI: 800

~~33~~

[illegible]

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 120

RECORDING LOG  
MCS

Venezuela Basin

DFS IV

Format: Seq B

BPI: 800

(38)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay in sec	Depth fms.	Pop Rate sec	Samp. Rate msc	Rec. I. msc	Comments
NOV. 24 1977	5263	4235	10:58	5000	2180	16.5	4	8000	change delay to 5000; pop rate to 16.5
		4388	11:40	last shot					
	5264	4421	11:49	4500	2030	16.5	4	8000	change delay for sp 4421 to 4500
	5265	4577	12:32	"	2028	"	"	"	TPX-1 working again
	5266	4711	13:08	"	2006	"	"	"	
	5267	4866	13:51	"	1704	"	"	"	
		4871		5000					change delay ↓
		4875		5500					
		4880		6500					
		4882		5500					Thanksgiving day
		4884		4500					
		4886		4000					
		4905		3000					
	5268	5001	14:28	"	1562	"	"	"	test for channel 22-24 noisy
	5269	5159	15:11	"	1584	"	"	"	test for channels 22-24 are noisy
	5270	5294	15:48	3500	1543	18.0	"	"	change trip delay to 3500, pop rate to 18.0 sec
	5270	5419	16:25						guns quit firing
	5271	5569	17:13	3500	1624	18.0	"	"	Resume line at shot 5569 - guns on.
	5272	5704	17:55	"	1607				
	"	5860		4000					increase Time break delay to 4000

Line: 120

## M C S

Venezuela Basin

Format: SEG-B

BFI: 802

[illegible]

Line: 124

## M C S

# Venezuela <sup>M C S</sup> Basin

BFI: 800

40

Date	Tape #	Shot Point #	Time Ship <sup>1</sup>	Trip Delay MS.	Depth fms.	Pop Rate Sec.	Samp. Rate MS	Rec. L. MS.	Comments
NOV. 25	5283	001	02:29	5000	2118	18.0	4	8000	Begin line 121
1977		015	02:34	4500		"	"	"	Change delay to 4500
			02:34	"		"	"	"	Launch Snowbuoy
	5284	137	03:11	"	2127	"	"	"	
	5285	294	03:59	"	2148	"	"	"	
	5286	430	04:41		2173				
	5287	589	05:30		2131				
	5288	724	06:12		2177				
	"	765		4500 5000					increase Time between delay to 5000 hr
	5289	882	07:00	5000	2220				
	5290	1017	07:42		2214				
	5291	1175	08:31	5000	2217	18.0	4	8000	TPX-1
	5292	1310	09:12	"		"	"	"	
		1419	09:46		2200				END LINE# 121 at 9:1419
		END LINE#	121						
		CAUTION :	1ST GUN	AND	GUN BREAKS				ARE FLAKELY FROM MIDDLE OF TAPE 5290

R/V ROBERT D. CONRAD

Cruise: R221-03

Line: 122

## RECORDING LOG

MCS

ARUBA GAP

DFS IV

Format: *seg B*

BPI: 800

(41)

Date	Tape #	Shot Point #	Time <i>Ship</i>	Trip Delay <i>MS</i>	Depth <i>FMS</i>	Pop Rate <i>SEC</i>	Samp. Rate <i>MS</i>	Rec. L. <i>MS</i>	Comments
NOV 25 1977	5293	00001	1008	5000		18.0	4	8000	START LINE# 122, TPX-1
	5294	137	1049	11	2196	11	11	11	CON#4 OFF SP 232
	5295	296	1138	11	2195	11	11	11	
	5296	432	12:20	"	2191	"	"	"	
	5297	593	13:10	"	2183	"	"	"	
	5298	730	13:52	"	2180	"	"	"	
	5299	888	14:41	"	2174	"	"	11	
	5300	1023	15:22	"	2167	"	"	"	
	5301	1181	16:11		2166				
	5302	1317	16:53		2165				
	5303	1475	1741	11	2158	11	11	11	TPX-1
	"	1688				17.0			<i>2 this fire rate includes effects of randomizer</i>
	5304	1611	1824		2151	17.0			change fire rate to 17.0 sec [2165+0.5 sec average from randomizer]
	"	1706	1850	<del>5000</del> 4500					change Time break delay to 4500
	5305	1770	1909	4500	2143	17.0			
	5306	1905	1948		2139				
	5307	2063	2035	4500	2136	17.0	4	8000	
	5308	2199	2114	11	2137	11	11	11	
	5309	2357	2200	11	2137	11	11	11	
	5310	2492	2239	11	2136	11	11	11	

R/V ROBERT D. CONRAD

Cruise: RC 21-03

Line: 122

## RECORDING LOG

ARUBA<sup>MCS</sup> GAP - Colombia  
Basin

DFS IV

Format: SEGB

BPI: 800

(42)

Date	Tape #	Shot Point #	Time hr:min	Trip Delay ms	Depth FMS	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
NOV 25 1977	5311	2650	2336	4500	2135	17.0	4	8000	+PXL
NOV. 26 1977	5312	2784	0004	"	2138	17.5	"	"	change pop rate → 17.5
	5313	2943	0051	"	2138	"	"	"	
	5314	3078	0130	"	2138	"	"	"	
	5315	3236	0216	"	2139	"	"	"	
	5316	3371	0255	"	1994	"	"	"	
		3508	0336	4000		"	"	"	change delay to 4000 ms
	5317	3529	0341	"	1916	"	"	"	
		3657							change Time break delay to 4500 ms
	5318	3665	0421		2153				Missed shot 3664
	5319	3823	0507		2145				
	5320	3958	0546		2028				
	5321	4116	0632		2183				
	5322	4251	0712		2182				
	5323	4409	0758						
	5324	4544	0837	4500	2182	17.5	4	8000	
	5325	4702	0923	11	2183	11	11	11	
	5326	4838	1003	11	2182	11	11	11	
	5327	4996	1049	11	2182	11	11	11	
	5328	5133	1129		2183				

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 122

## RECORDING LOG

MCS

## COLOMBIA - BASIN

(43)

DFS IV

Format: SE6 B

BPI: 800

Date	Tape #	Shot Point #	Time Ship	Trip Delay MS	Depth FMS	Pop Rate Sec	Samp. Rate MS	Rec. L. MS	Comments
NOV 16 1977	5329	5292	12:15	4500	2195	17.5	4	8000	
	5330	5427	12:54	"	2196	"	"	"	
	5331	5585	13:40	"	2197	"	"	"	
	5332	5720	14:19	"	2196	"	"	"	
	5333	5878	15:05	"	2198	"	"	"	
	5334	6013	15:45	"	2198	"	"	"	
	5335	6171	16:31	"	2196				
	5336	6306	17:10	"	2197				
	5337	6461	17:55		2198				
	5338	6595	18:34		2198				
	5339	6753	19:20		2198				0750 one compressor off.
	5340	6888	20:00		2196				
	5341	7047	20:46	4500	2196	17.5	4	8000	
	5342	7182	21:26	11	2193	11	11	11	
	5343	7341	22:12	11	2191	11	11	11	TPX-1
	5344	7477	22:52	11	2189				
	5345	7635	23:38	11	2028	11	11	11	
	-	7679	23:50	4000					→ change delay to 4000
NOV 27 1977		7737	000:7	end line: 122					

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 128

## RECORDING LOG

MCS

Colombia Basin

DFS IV

Format: Seq B

BPI: 800

44

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth fms.	Pop Rate sec	Samp. Rate ms	Rec. L. ms.	* Comments *
NOV 27, 1977	5346	001	01:51	4000	2186	17.5	4	8000	* individual gem delays are 0 *
		037	02:01	4500					↑ SEE PETER FOR EXPLANATION ↑
		088	02:16	5000					0000
									BEFORE RUNNING DEMUX
	5347	159	02:37	5000	2186	17.5	4	8000	Gum 0/000.
	5348	294	03:16	"	2186	"	"	"	
	5349	452	04:02		2184		"	"	
	5350	588	04:42		2184		"	"	
	5351	747	05:28		2182				
	5352	882	06:07		2180				
	5353	1041	06:54		2179				
	5354	1176	07:33						
	5355	1334	08:19	5000	2176	17.5	4	8000	
	5356	1469	08:58	"	2174	"	"	"	
	5357	1627	09:44	"	2172	"	"	"	
	5358	1761	10:23	4500	2080	"	"	"	change delay SP 1761
	5359	1920	11:10	4500	2076	20.0	"	"	change pop rate to 20. sec.
	5360	2057	11:57	"	2165	"	"	"	
	5361	2216	12:51	"	2162	"	"	"	2334, 2335 shots missed

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 123

## RECORDING LOG

MCS

Colombia Basin

DFS IV

Format: SeqB

BPI: 800

(45)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms.	Depth fms.	Pop Rate Sec.	Samp. Rate ms.	Rec. L. ms.	Comments
Nov. 27	5362	2353	13:38	4500	2158	20.0	4	8000	SP # 2400 working on shot box
1977	5363	2513	14:32	"	2154	"	"	"	missing shots
	5364	2651	15:19	"	2154	"	"	"	working on shot box
	5365	2812	16:14	"	2149	"	"	"	SD 2400 HIK down to 500
	5366	2949	17:01	"	2142	"	"	"	
	5367	3007	17:35	"	2148	"	"	"	* ~ SHOT 3200 GUN DELAYS BACK TO 80 MS
	5368	3242	18:41		2140	"			
	"	3330	19:10			20.0 19.3			change paper rate to 19.3
	5369	3400	19:34		2136				
	5370	3528	20:16	4500					
	5371	3686	21:07	"	2124	19.3	"	"	SP 3330 HIK down to 500
	5372	3821	21:51	"	2122	"	"	"	
	5373	3977	22:42	"	2121	"	"	"	
	5374	4112	23:26	"	2119	"	"	"	
Nov 28	5375	4271	00:18	"	2106	"	"	"	
1977	5376	4406	01:01	"	2100	"	"	"	
	5377	4564	01:54	"	2092	"	"	"	
			02:10						
		4623				19.3			Both compressors on line
	5378	4699	02:39	4500	2088	20.0	4	8000	Low Pass 1N 8Hz / 18 db / octave

R/V ROBERT D. CONRAD

Cruise: PC21-03

Line: 123

## RECORDING LOG

MCS

Colombia Basin

DFS IV

Format: Seq B

BPI: 800

(46)

Date	Tape #	Shot Point #	Time ship's	Trip Delay ms	Depth fms.	Pop Rate sec	Samp. Rate ms	Rec. Ls	Comments
Nov 28 1977	5378	4757	02:58			19.0			change pop rate to 19.0
		4764	03:00			21.0			change pop rate to 21.0, <sup>and giving</sup> alter speed
	5379	4855	03:33	4500	2085	"	4	8000	Henry seas
	5380	4990	04:23	1	2080	1	1	1	
	5381	5149	05:20	1	2074	1	1	1	
	5382	5284	06:09		2067				
	5383	5442	07:07		2059				
	5384	5576	07:56		2051				
	5385	5734	08:53	4500		21.0	4	8000	
	5386	5869	09:42	11	2048	11	11	11	
	5387	6027	10:38	11	2044	11	11	11	
	5388	6162	11:27	11	2047	11	11	11	
*	5389	6319	12:24	"	2006	"	"	"	*this tape is missing 8:22-8:27
	5390	6454	13:13	"	2000	"	"	"	
	5391	6612	14:10	"	1996	"	"	"	
	5392	6747	14:58	"	1980	"	"	"	
	5393	6905	15:55	"	1980	"	"	11	
	5394	7041	16:45		1967				
	"	7048		4500 4000					change delay to 4000 ms
	5395	7199	17:42		1969				

Line: 123

## M C S

Colombia Basin

BPI: 800

(4)

[illegible]

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 124

## RECORDING LOG

MCS

Columbia Basin

DFS IV

Format: SEG-B

BPI: 800

(48)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
11/29/77	5408	001	0438	4000	1880	21	4	8000	eel floating on surface
333	5409	159	0534		1773				eel towing o/k now
	"	177		4000 3500					change Time Break delay to 3500
			0555						#2 Compressor off at 0530
									Both compressors off - stop recording
	5410	00001	1120	3500	1724	21	4	8000	BACK Recording at Line 124
	5411	0160	12:17	3500	1786	"	"	"	
	5412	0295	13:05	"	1790	"	"	"	
		0368	13:31	end tape 5412					stop recording: compressors out, no guns firing
	5413	438	13:56	3500	1768	21.0	4	8000	4 guns firing
	5414	572	14:44	"	1759	"	"	"	
*	5415	728	15:41	"	1749	"	"	"	* Possibly, Tape I
x	5416	863	1629	"	1745				incorrect. Shot 863, could
	5417	1021	1726	"	1690	"	"	"	be 5415 (was not
	"	1135	1806	3500 3000					advanched).
	5418	1158	1815		1665	"	"	8000 12000	change record length to (2000 ms)
	"	1255	1850	3000 3500					change delay to 3500

R/V ROBERT D. CONRAD

Cruise: C 21-03

Line: 124

## RECORDING LOG

MCS

Columbia Basin

DFS IV

Format: SEG-B

BPI: 800

(49)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
11/29/77	5419	1266	1853	3500	1680	21.0	4	12000	
	5420	1359	1926		1779				
	5421	1467	2005	3500	1788	21.0	4	12000	TPX-1
	5422	1560	2038		1797				
	5423	1669	2117	"		"	"	"	
	5424	1762	2151	"	1776	"	"	"	
	5425	1870	2229	"		"	"	"	
	5426	1962	2302	"	1742	"	"	"	TPX-2
	5427	2069	2341	"	1733	"	"	"	
Nov 30	5428	2162	00:14	"	1711	"	"	"	
1977	5429	2271	00:53	"	1698	"	"	"	
	5430	2364	01:26	"	1682	"	"	"	
	5431	2472	02:05	"	1650	"	"	"	
	5432	2565	02:38	"	1629	"	"	"	
	5433	2673	03:17	"	1623	"	"	"	
	5434	2766	03:58	"	1617	"	"	"	
	5435	2874	04:29		1602				
		2944 (Approx)		3500 3000					Change TB delay to 30000
	5436	2966	0502	3000	1582				
	"	3063	0536	"					End line 124 - pull in gear

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 125

## RECORDING LOG

MCS

Cartagena - Barbados  
Colombia Margin

DFS IV

Format: SEGB

BPI: 800

(50)

Date	Tape #	Shot Point #	Time ship's	Trip Delay ms	Depth fms	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
12/2/77	5437	001	01:24	2000	1242	21.0	4	12000	
DEC 2.		037	01:37	2500		"	"	"	change delay to 2500 ms.
1977	5438	093	01:57	"	1279	"	"	"	
536	5439	201	02:36	"	1309	"	"	"	last 3 depth transducers
	5440	294	03:09	"	1330	"	"	"	indicate 75 ft, 70 ft, 88 ft respectively
	5441	403	03:48	"	1341	"	"	"	
	5442	496	04:21		1347				
	5443	604	05:00		1472				
4781	5444	697	05:33		1513				
	5445	806	06:12		1585				
NOV 2	"	860	06:32	2500 3000					change T.B. delay to 3000 ms
	5446	899	06:45		1600				
	5447	1008	07:25		1610				
		1079	07:50	3000 3500					change TB delay to 3500 ms
	5448	1101	07:58	3500	1640	21.0	4	1200	
	5449	1209	08:37			"	"	"	
	5450	1301	09:07		1690				
	—	1402	09:46	—	—	—	—	both	COMPRESSOR OFF
	<del>5451</del>	<del>1573</del>	<del>10:47</del>	<del>3500</del>	<del>1731</del>	<del>20.0</del>	<del>4</del>	<del>12000</del>	COMPRESSOR #1 BACK ON

Line: 125

R E C O R D I N G      L O G  
M C S

COLOMBIA MARGIN

BPI: 800

(SV)

[illegible]

Line: 126

R E C O R D I N G      L O G  
M C S

BPI: 800

Colombia Margin

[illegible]

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 127

RECORDING LOG  
MCS

Colombian Margin

DFS IV

Format: Seq B

BPI: 800

(53)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
1271	5465	0001	0728	4000	1936	20.0	4	12000	TPX-1
	5466	093	07:59	"	1923	"	"	"	
5467	201	0836			1914				
5468	294	0908			1904				
5469	403	0945			1894				
5470	495	1016			1886				
5471	602	1053			1878				
5472	694	1124			1871				
"	735 (Approx)	1137							Both compressors shut down - don't know why.
	779	1153							1 compressor on, recommence recording on tape 5472, shot count continuous while tape stopped. Thus a skip from 736 to 778.
		824	11:58						Syn. buoy launched
		966	12:09						stop recording, all guns off
		987	12:57						recommence recording
5473	989	13:04			1836				
		989	13:05						stop recording, all guns off
		1017	13:14						recommence recording

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 127

## RECORDING LOG

MCS

Colombia Margin

DFS IV

Format: Seq B

BPI: 800

(54)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay msec	Depth fms.	Pop Rate sec.	Samp. Rate ms	Rec. L. ms	Comments
DEC. 3			13:25						sonobuoy launched.
1977	5474	1108	13:46	4000	1826	20.0	4	12000	
	5475	<del>1216</del> 1216	14:22	"	1814	"	"	"	
	5476	1308	14:54	"	1806	"	"	"	
	5477	1416	15:31	"	1798	"	"	"	
		1461				27.0			change pop rate to 27.0 sec.
	5478	1509	16:08	"	1795				
	"	1517		<del>4200</del> 3500					change time break delay to 3500
	5479	1618	16:58	3500	1775				
	5480	1711	17:41	3500	1765	27.0	"	"	
	5481	1819	18:30		1750				
	5482	1911	19:12		1732				
	5483	2019	20:02	3500		"	"	"	
	5484	2111	20:44	"	1680	"	"	"	
	5485	2219	21:33	"	1670	"	"	"	
377	5486	2312	22:16	"	1666	"	"	"	
3	5487	2420	23:06	"	1662	"	"	"	
		2450	23:19	"		21.5	"	"	change pop rate to 21.5
	5488	2512	23:41	"	1596	21.5	"	"	
DEC. 4	5489	2620	00:20	"	1545	"	"	"	

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 127

## RECORDING LOG

MCS

Colombia Margin

DFS IV

Format: Seq B

BPI: 880

(55)

Date	Tape #	Shot Point #	Time Ship's	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec.	Rec. L. msec	Comments
DEC. 4 1977	5489	2627	00:22	3000			4	12000	Change delay to 3000 msec.
	5490	2713	00:53	"	1546	21.5	"	"	
	5491	2821	01:32	"	1542	"	"	"	
	5492	2914	02:05	"	1516	"	"	"	
		2963	02:22	"		21.0	"	"	Change firing rate to 21.0 sec.
	5493	3022	02:44	"	1445	"	"	"	
	5494	3115	03:17	"	1396	"	"	"	
	5495	3224	03:56	"	1364	"	"	"	
	5495	3248	04:05	<del>3000</del> 2000					change TB delay to 2000 ms
	5496	3316	04:29	"	1309				
	5497	3423	05:07	2000	1209				
	5498	3514	05:40		1158				one compressor off at 0545
	5499	3621	06:18		1146				
	5500	3712	06:51		1088				
	"	3809		<del>2000</del> 1000					change T.B. delay to 1000 ms
	5501	3819	07:29	1000	997				
	5502	3911	08:02	1000	979	21.0	4	12000	
	5503	4018	08:40	"	890	"	"	"	
	5504	4109	09:13	"	820	"	"	"	
	5505	4216	09:51	"		"	"	"	

Line: 127

Colombia MARGIN

BPI: 800

(56)

[illegible]

R/V ROBERT D. CONRAD

Cruise: R021-03

Line: 128

RECORDING LOG  
MCS

Colombia Margin

DFS IV

Format: Seq B

BPI: 800

57

Date	Tape #	Shot Point #	Time Ship's	Trip Delay msec	Depth fms.	Pop Rate Sec.	Samp. Rate msec.	Rec. L. msec.	Comments
Dec. 4 1977	5509	001	12:37	0	356	21.0	4	12000	eel riding deep-100 <sup>+</sup> ft.
			12:39	"		"	"	"	Sonobuoy launched
338	5510	093	13:10	"	385	"	"	"	
	5511	200	13:49	"	290	"	"	"	
		270		"		22.0	"	"	Change firing rate to 22.0
	5512	292	14:22	"	398	"	"	"	
	5513	399	15:02	"	278	"	"	"	
	5514	490	15:36	"	262	"	"	"	
	"	522	15:48			20.0			Change firing rate to 20.0
	5515	597	16:13		263				
	5516	688	16:44		280				
	5517	795	17:21		336				
	5518	886	17:52	-0-		20.0	4	12000	
	5519	993	18:28		477				
	5520	1084	19:00		482				
	5521	1191	19:36		500				
	5522	1283	20:07	-0-		20.	4	12000	TPX-2
	5523	1390	20:44	11		11	11	11	
	5524	1482	21:14	11	328	11	11	11	TPX-2
	—	1564	21:43		END	LINE # 128			

R/V ROBERT D. CONRAD

Cruise: RC 21-03

Line: 129

RECORDING LOG  
MCS

Colombia MARGIN

DFS IV

Format: Seg B

BPI: 800

(58)

Date	Tape #	Shot Point #	Time	Trip Delay Sec.	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
1977	5525	00001	2202	-0-	448	20	4	12000	+PX - 1
DEC 4	5526	93	2233	-0-	535	11	11	11	
	5527	200	2310	-0-	502	11	11	11	COMPRESSOR # 2 OFF at 2330
	5528	291	2341	-0-	524	11	11	11	
DEC 5		353	00:02	.5		"	"	"	change delay to .5 sec
1977	5529	398	00:17	"	708	"	"	"	
		402	00:19	1.0					change delay to 1.0 sec.
	5530	489	00:48	"	839	"	"	"	
	5531	597	01:25	1.5	1018	17.0	"	"	missed shot 596, change delay to 1.5 sec
	5532	688	01:52	"	1037	"	"	"	change firing rate to 17.0
	5533	794	02:23	"	1173	"	"	"	
	5534	885	02:49	2.0	1125	"	"	"	
		943	03:06	"		16.5	"	"	change firing rate to 16.5
	5535	992	03:19	"	1380	"	"	"	
		1002	03:22	2.5		"	"	"	change delay to 2.5 sec
		1079	03:43	3.0		"	"	"	
	5536	1084	03:45	"	1950	"	"	"	
		1123	03:55	3.5		"	"	"	Δ delay to 3.5 sec
	5537	1193	04:05	"	1983	"	"	"	
	5538	1286	04:40	"	1992	"	"	"	

R/V ROBERT D. CONRAD

Cruise: C 21-03

Line: 129

## RECORDING LOG

MCS

Columbian Mayrén

DFS IV

Format: SEG-B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth	Pop Rate s	Samp. Rate ms	Rec. L. ms	Comments
12/5/77	3539	1395	0510	3500	2009	16.5	4	12000	
		1451	0525	<del>3500</del> 4000					Change delay to 4000
	5540	1489	0536	4000	2018				Missed shot 1488
	5541	1597	0606		2031				
	5542	1690	0631		2038				
	"	1707				<del>16.5</del> 17.0			Change pop rate to 17.0
	5543	1799	0703		2045	17.0			
	5544	1892	0730		2055				
	5545	2000	0801	4000		17.0	4	12000	
	5546	2093	0828	"		"	"	"	
	5547	2201	0900	"	2074	"	"	"	
	5548	2294	0927	"		"	"	"	
	5549	2409	0958	"		"	"	"	
	5550	2494	1025	"	2086	"	"	"	
	5551	2603	1057	"		"	"	"	
	5552	2696	1124	"	2096	"	"	"	blast phone on Gun #3 OFF
	5553	2805	1156	"	2100	"	"	"	
	5554	2898	12:23	"	2105	"	"	"	
	5555	3006	12:54	"	2108	"	"	"	
	5556	3099	13:21	"	2111	"	"	"	

Line: 129

R E C O R D I N G      L O G  
M C S

## Colombia Margin

BFI: 800

60

[illegible]

R/V ROBERT D. CONRAD

Cruise: R121-03

Line: ~~121~~ 130RECORDING LOG  
MCS

Colombia Margin

DFS IV

Format: Seq B

BPI: 800

(61)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
DEC.5	5560	001	15:41	4000	2120	17.0	4	12000	radio noise, on head sections
1977	"	014	15:45						all guns off - halt recording
	"	085	1606						guns on resume recording
	"	120	1617			17/20 change pop to 20 sec			Note: we are getting a false trip
	5561	181	1637		2121	20			from gun 3. therefore so we
	5562	273	1708		2120	20			disconnected it.
	5563	382	1745		2120	20			
	5564	475	1817		2120				
	5565	584	1854		2120				
	5566	677	1926		2119				3 guns + 2 compressors.
	5567	785	2003		2118				
	5568	878	2035	4000		20	4	12000	
	5569	987	2112	"	2117	"	"	"	
	5570	1079	2143	"	2116				
	5571	1188	2220	"	2115	"	"	"	
	5572	1280	2250	"	2112	"	"	"	TPX-2
	5573	1389	2329	"	2111	"	"	"	
DEC.6	5574	1482	0001	"	2110	"	"	"	
1977	5575	1590	0038	"	2110	"	"	"	
	5576	1682	01:09	"	2110	"	"	"	

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 130

## RECORDING LOG

MCS

Colombia Margin

DFS IV

Format: Seq. B

BPI: 800

(62)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
DEC. 6 1977	5577	1791	01:46	4000	2109	20.0	4	12000	
	5578	1883	02:18	"	2110	"	"	"	
	5579	1991	02:54	"	2093	"	"	"	
	5580	2084	03:26	"	2091	"	"	"	
	5581	2192	04:03		2086				
	"	2202	04:07	<sup>4000</sup> 4500					change T.B. delay to 4500 ms
	5582	2285	04:35	4500	2084				SB. #107 over at 0444 (on Auct. 3)
	5583	2393	05:12		2082				
	5584	2486	05:43		2078				
	5585	2595	06:20		2071				
	5586	2688	06:52		2059				
	5587	2795	07:29		2054				
	5588	2887	08:00	4500	2052	20	4	12000	+DX - 2
	5589	2996	08:38	45000	2035	20	4	12000	
	5590	3089	09:09	11		"	"	"	
	5591	3197	09:46	11	2026	"	"	"	
	5592	3266	10:10	3500					change TB to 3500 at sp 3266
	5592	3289	10:17	11	1820	"	"	"	
	5593	3389	10:54	11		"	"	"	
	5594	3490	11:26	11	1640	11	11	11	

(63)

R/V ROBERT D. CONRAD

Cruise: R021-03

Line: 130

## RECORDING LOG

MCS

DFS IV

Format: Sog B

BPI: 800

COLOMBIAN MARGINAL

Date	Tape #	Shot Point #	Time ship's	Trip Delay MS	Depth FMS	Pop Rate SEC	Samp. Rate HRS	Rec. L. MS.	Comments
Dec 6/77	5595	3598	12:03	2500	1547	20	4	12000	TPX-1
	5596	3691	12:34	"	1440	"	"	"	
	5597	3799	13:11	"	1428	"	"	"	
	5598	3891	13:43	"	1516	"	"	"	
	5599	3999	14:20	"	1475	"	"	"	
	5600	4092	14:51	"	1443	"	"	"	
	5601	4200	15:28	"	1436	"	"	"	
	5602	4293	16:00	"	1440	"	"	"	
	5603	4400	16:36		1440				
	5604	4493	17:08		1422				
	5605	4602	17:46	"	1420	"	"	"	1722: SB #109 on Aut 3.
	5606	4695	18:17		1413				
	5607	4803	18:54		1405				
	5608	4841	19:25		1365				
	5609	5003	20:02	1500	1170				change delay to 1500
	5610	5095	20:34	"	900	20	4	12000	
	5611	5201	21:10	0500	665	20	4	12000	change delay to 0500
	5612	5292	21:41	"	510	"	"	"	
	5613	5398	22:17	0500	370	"	"	"	
	—	5403	22:19	0000	—	—	—	—	change delay to -0- at sp 5403
	—	5488	22:48						END LINE # 130 at sp 5488

Line: 134

R E C O R D I N G    L O G  
M C S

BPI: 800

COLOMBIA MARGIN

[illegible]

R/V ROBERT D. CONRAD

Cruise: RE21-03

Line: 132

RECORDING LOG  
MCS

COLOMBIA MARGIN

DFS IV

Format: Seg B

BPI: 800

(65)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
	5629	0001	0817			20	4	12000	Begin Line#132 + PX-1
	5630	92	0848	-0-	525	11	11	11	
	5631	199	0924	1000	705	11	11	11	change TB delay to 1000 at 199
	5632	290	0955	11		11	11	11	
	5633	397	1032	11	930	11	11	11	
	5634	488	1103	11	985	11	11	11	AT 1100 A/C 035°
	5635	594	1139	2000	1020	11	11	11	TPX-1 change delay to 2000 at 594
	5636	685	12:10	"	1081	"	"	"	
	5637	791	12:46	"	1200	"	"	"	
	5638	882	13:17	"	1172	11	11	11	
	5639	989	13:54	"	990	11	11	11	
	5640	1080	14:25	11	1020	11	11	11	
		1163	14:53	"		22.0	"	"	change firing net to 22.0
	5641	1187	15:02	"	1023	"	"	"	
	5642	1278	15:36	"	1086	"	11	11	
	5643	1385	16:16		1182				
	5644	1476	1650		1280				
		1572		$\frac{2000}{2500}$					change TB delay to 2500 m
	5645	1583	17:31	2500	1347	22.0	4	1200	
	"	1651	1757						guns off - stop recording

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 132

## RECORDING LOG

M C S

DFS IV

Format: *SEGB*

BPI: *gsv*

(66

[illegible]

(67)

R/V ROBERT D. CONRAD

Cruise: Pe21-03

Line: 133

## RECORDING LOG

MCS

ARUBA GAP

DFS IV

Format: Seg B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
12/7/77	5653	80001	2226	4000	2250	22.0	4	12000	Begin Line #133
12/7/77	5654	94	2300	11	2253	22.0	4	12000	S/B 01440X.3 at SP126
12/7/77	5655	202	2341	11	2255	"	"	"	
DEC. 8 1977	5656	295	00:16	"	2255	"	"	"	
		326	00:27	5000		"	"	"	change delay to 5000 ms
		374	00:46						engine trouble - slow speed
		379	00:47						back to normal speed (5-6 knots)
	5657	404	00:56	5000	2259	22.0	4	12000	
	5658	497	01:31	"	2260	"	"	"	
	5659	606	02:12	"	2260	"	"	"	
	5660	699	02:47	"	2257	"	"	"	
	5661	807	03:27	"	2257	"	"	"	
	5662	900	04:02	"	2258				0437 - SB 115 on Aux 3
	5663	1008	04:43		2260				
	5664	1101	05:18		2265				
	5665	1211	05:59		2272				
	5666	1304	06:34		2279				0652 SB #116 on Aux 3
	5667	1412	07:14		2282				
	5668	1505	07:49		2286				
	5669	1614	08:30						

1602 0800

END LINE 133

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 134

## RECORDING LOG

MCS

ARUBA GAP.

DFS IV

Format: SEG-B

BPI: 500

(68)

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth FM.	Pop Rate s	Samp. Rate ms	Rec. L. ms	Comments
12/8/77	5670	00001	09:18	4000	2110	22	4	12000	
	5671	109	09:58	4000	1892	22	4	12000	
	5672	201	10:33	3000	1752	22	4	12000	change TB delay to 3000 ms
	5673	310	11:13	11	1563	11	11	11	
	5674	403	11:48	11	1625	11	11	11	TPX-2
	5675	512	12:29	"	1652	"	"	"	
		559	12:47	3500		"	"	"	
		594	12:59	3000		"	"	"	
	5676	604	13:03	"	1545	"	"	"	
	5677	713	13:44	"	1381	"	"	"	
		794		"		20.0	"	"	Change firing rate #794 to 20.0
	5678	805	14:18	"	1378	"	"	"	
		872	14:41	2500		"	"	"	change delay to 2500 ms.
	5679	914	14:56	"	1303	"	"	"	
		998		"		22.0	"	"	change firing rate to 22.0
	5680	1007	15:27	"	1265	"	"	"	
	"	1108		<del>2500</del> 2000					TB delay to 2000
	5681	1115	16:08	2000	1178				
	5682	1206	16:42	2000	1047				
	"	1275		<del>2000</del> 1000					TB delay to 1000

Line: 134

R E C O R D I N G      L O G  
M C S

Aruba Gap -

BPI: 800

69

[illegible]

Line: 135

R E C O R D I N G      L O G  
M C S

Aruba Gap

BPI: 800

70

[illegible]

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 136

## RECORDING LOG

MCS

Arula Gap

⑦

DFS IV

Format: SEG-B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth FM	Pop Rate	Samp. Rate	Rec. Lg	Comments
12/9/77	5705	00001	0813	-0-	198	22	4	12000	TPX-1
	5706	92	0847		310				
	5707	198	0927	-0-	443	"	"	"	
	5708	289	1000	"	550	"	"	"	
	5709	394	1041	1000	695	"	"	"	115 RPM at 1100, at SP394 change delay to 1000
	5710	486	1115	1000	778	"	"	"	
	5711	592	1155	"	923	"	"	"	
		636	12:11	1500		"	"	"	change delay to 1500 ms.
		668	12:23	2000		"	"	"	change delay to 2000 ms.
	5712	683	12:29	"	1152	"	"	"	
		754	12:55	2500		"	"	"	change delay to 2500 ms.
	5713	790	13:09	"	1437	18.0	"	"	
		838	13:23	3000		"	"	"	
	5714	882	13:37	"	1652	"	"	"	
	5715	991	14:11	"	1620	"	"	"	
	5716	1084	14:39	"	1628	"	"	"	
	5717	1192	15:13	"	1758	"	"	"	
		1224	15:22	3500		"	"	"	
		1269	15:36	4000		"	"	"	
	5718	1285	15:41	"	1970	"	"	"	

V ROBERT D. CONRAD

Cruise: R21-03

Line: 136

RECORDING LOG  
MCS

Oruba Cap

DFS IV

Format: Seq B

BPI: 800

72

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth FM	Pop Rate s	Samp. Rate ms	Rec. L. ms	Comments
DEC. 9	5719	1393	1614	4000	2005	18.0	4	12000	
1977	5720	1485	1648		2340		1	1	
		<del>1594</del>	<del>17:16</del>				1	1	
		1495		5000			1	1	change delay to 5000 <del>ms</del>
	5721	1594	17:16	"	2618	18.0	4	12000	
	5722	1687	1745	"	2615	18.0	1	1	
	5723	1796	1818	1	2610	18.0	1	1	
	"	1829				<del>18.0</del> 17.0	1	1	change pop rate to 17.0
	5724	1889	1846		2596	17.0	1	1	
	5725	1997	1918		2543	1	1	1	
	5726	2090	1945		2530				
	"	2146		<del>5000</del> 5500					increase TB delay to 5500
	5727	2199	2016	55000					
	5728	2292	2044	5000	2593	17.0	4	12000	change TB delay to 5000
	5729	2401	2115	11	2592	11	11	11	
	5730	2494	2142	5000	2586	18.5			change pop rate to 18.5 at 2494
	5731	2603	2216	11	2586	11	11	11	compressor #2 BACK ON
	5732	2696	2245	11	2568	11	11	11	
	5733	2804	2318	11		11	11	11	
	5734	2896	2346	11	2533	11	11	11	

Line: 136

R E C O R D I N G      L O G  
M C S

BPI: 800

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ARUBA GAP.

[illegible]

R/V ROBERT D. CONRAD

Cruise: C21-03

Line: 137

## RECORDING LOG

MCS

~~Aruba Gap?~~

VENEZUELAN BASIN

DFS IV

Format: SEG-B

BPI: 800

64

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth FM	Pop Rate S	Samp. Rate ms	Rec. L. ms	Comments
12/10/77	5742	001	0502	5000	2373	19	4	12000	TPX-2
	5743	109	0537	"	2393	"	"	"	Note: Replaced one head guide roller in TPX-1 to try to get parity error indicator reduced.
	5744	201	0607	"	2416	"	"	"	
	5745	310	0642	"	2453	"	"	"	
	5746	402	0712	"	2473	"	"	"	
	5747	505	0746	"	2513	"	"	"	
	5748	598	0816	5000	2544	19	4	12000	
	5749	707	0851	"	2554	"	"	"	
	5750	799	0921	"	2559	"	"	"	
	5751	907	0957	"	"	"	"	"	
	5752	999	1027	"	2487	"	"	"	
	5753	1107	1101	"	"	"	"	"	GUN #2 OFF
	5754	1199	1131	"	2447	"	"	"	
	5755	1307	12:06	"	2461	"	"	"	
	5756	1399	12:36	"	2460	"	"	"	
	5757	1508	13:11	"	2472	"	"	"	
	5758	1600	13:41	"	2492	"	"	"	
	5759	1708	14:16	"	2521	"	"	"	
	5760	1801	14:47	"	2570	"	"	"	
	5761	1910	15:22	"	2630	"	"	"	

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 137

## RECORDING LOG

MCS

Venezuela Basin

DFS IV

Format: Seq B

BPI: 800

75

Date	Tape #	Shot Point #	Time Ship's	Trip Delay ms	Depth fms	Pop Rate sec	Samp. Rate ms	Rec. L. ms	Comments
DEC.10	5762	2003	15:52	5000	2668	19.0	4	12000	
1977	"	2008	15:53	5500		"	"	"	Change delay to 5500 msec.
	"	2029	16:00	"		"	"	"	Blast phone on Gun 3 repaired
	5763	2111	16:27	"	2667	"	"	"	Towing depths as follows at 0550
	5764	2203	16:57	"	2667	"	"	"	: Head - 38', AS 19-20 - 45', AS 14-15,
	5765	2311	17:32		2666				44', AS 9-10, 54', AS 4-5, 66'
	5766	2404	18:02		2667				AS 1 - stretch, 60'
	5767	2512	18:37		2666				Note: Accidentally recorded data intended
	5768	2604 <sup>2703</sup>	19:07		2666				for tape 5769 over data on 5767
	5769	2715	← Forget to change tape						stop tape. started to record shots
	5770	2722	19:46		2665				for tape 5769 over old data on tape
	5771	2815	20:15		2664				5767. Several shots were recorded
	5772	2923	20:51	5500	2664	19.	4	12000	over old data.
	5773	3016	21:21	11	2664	11	11	11	2013 - removed tone clearly connected
	5774	3125	21:56	11	2664	11	11	11	from black box.
	5775	3217	22:26		2663				
	5776	3325	23:01	11	2663	11	11	11	
	5777	3417	23:31	11	2663	11	11	11	
DEC.11	5777	3525	00:06	"	2663	"	"	"	
1977	5778	3619	00:37	"	2664	"	"	"	

R/V ROBERT D. CONRAD

Cruise: RC21-03

Line: 137

## RECORDING LOG

MCS

Venezuela Basin

DFS IV

Format: Seq B

BPI: 800

76

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
DEC. 11	5779	3728	01:12	5500	2664	19.0	4	12000	
1977	5780	3820	01:42	"	2670	"	"	"	
	5781	3928	02:17	"	2672	"	"	"	
	5782	4021	02:47	"	2674	"	"	"	
	5783	4129	03:22	"	2673	"	"	"	
	5784	4222	03:52	"	2673	"	"	"	
	5785	4330	04:27		2672				
	5786	4423	04:57		2672				
	5787	4531	05:32		2672				
	"	4612	05:59	an removing	gun 2	blast	phone	some times	gun #2 blast phone sometimes
	5788	4623	06:02	5500	2672	19.0	4	12000	gun 2 blast phone sometimes
	5789	4732	06:38	"	2673				gun 2 blast phone sometimes
	5790	4823	07:07		2673				gun 2 blast phone sometimes
	5791	4932	07:43		2673				gun 2 blast phone sometimes
	5792	5025	08:13	5500	2673	19.0	4	12000	gun 2 OFF at 5009
	5793	5134	08:48	"	2592	"	"	"	gun #2 back on at 5202; gun #4 off
	5794	5227	09:18	"		"	"	"	gun #4 back on at 5247
	5795	5336	09:54	"	2659	"	"	"	
	5796	5429	10:24	"		"	"	"	
	5797	5538	10:59	"	2672	"	"	"	

Line: 137

# Venezuela BASIN

BPI: 800

(77)

[illegible]