

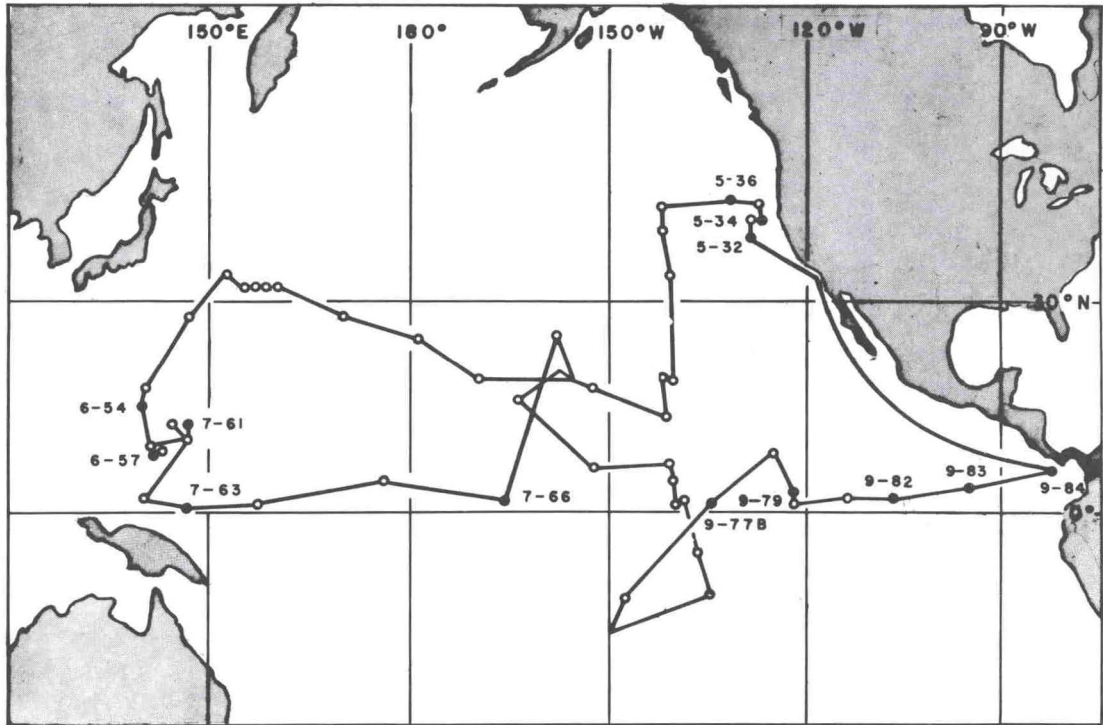


Fig. 1. Legs 5, 6, 7, 8 and 9 site locations. Filled circles indicate sites examined in this study.

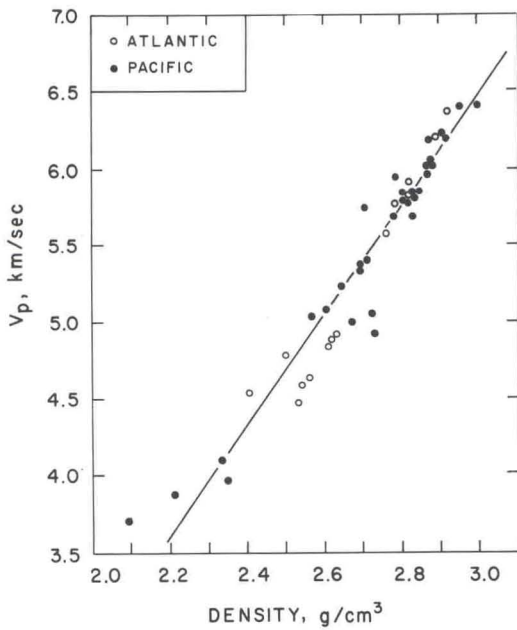


Fig. 2. Compressional wave velocity (V_p) vs. density (ρ) at 0.5 kb for layer 2 basalts.

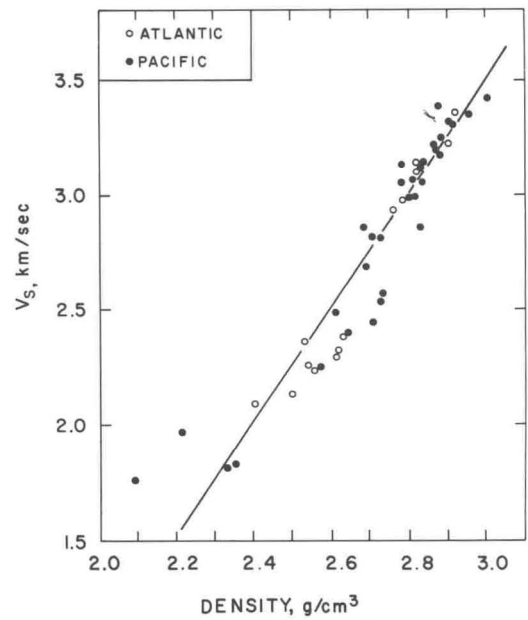


Fig. 3. Shear wave velocity (V_s) vs. density (ρ) at 0.5 kb for layer 2 basalts.

TABLE 2

Compressional (P) and shear (S) wave velocities in km/sec

Identification number	Bulk density	Mode	$p = 0.2 \text{ kb}$	$p = 0.4 \text{ kb}$	$p = 0.6 \text{ kb}$	$p = 0.8 \text{ kb}$	$p = 1.0 \text{ kb}$	$p = 2.0 \text{ kb}$	$p = 4.0 \text{ kb}$	$p = 6.0 \text{ kb}$	$p = 8.0 \text{ kb}$	$p = 10.0 \text{ kb}$
5-34-18A $\perp$	2.088	P	3.66	3.68	3.71	3.73	3.741	3.804	3.922	4.043	4.142	4.250
B $\parallel$	2.211	P	3.83	3.86	3.88	3.90	3.914	3.978	4.101	4.223	4.332	4.436
Mean	2.150	P	3.75	3.77	3.80	3.82	3.828	3.891	4.012	4.133	4.237	4.343
A $\perp$	2.088	S	1.72	1.75	1.78	1.80	1.828	1.933	2.077	2.145	2.189	2.220
B $\parallel$	2.211	S	1.94	1.97	2.00	2.02	2.048	2.156	2.293	2.396	2.479	2.543
Mean	2.150	S	1.83	1.86	1.89	1.91	1.938	2.045	2.185	2.271	2.334	2.382
5-32-13A	2.829	P	5.64	5.66	5.67	5.68	5.685	5.716	5.766	5.806	5.842	5.862
A	2.829	S	2.83	2.85	2.86	2.88	2.890	2.950	3.023	3.059	3.077	3.080
5-36-14A $\perp$	2.909	P	6.15	6.18	6.20	6.23	6.243	6.300	6.370	6.404	6.439	6.466
B $\parallel$	2.900	P	6.19	6.22	6.24	6.26	6.282	6.372	6.395	6.433	6.465	6.490
Mean	2.905	P	6.17	6.20	6.22	6.25	6.263	6.336	6.383	6.419	6.452	6.478
A $\perp$	2.909	S	3.29	3.30	3.31	3.32	3.334	3.369	3.400	3.410	3.415	3.415
B $\parallel$	2.900	S	3.30	3.32	3.33	3.34	3.350	3.383	3.414	3.430	3.443	3.450
Mean	2.905	S	3.30	3.31	3.32	3.33	3.342	3.376	3.407	3.420	3.429	3.433
6-54-9A $\perp$	2.867	P	5.89	5.94	5.97	5.99	6.011	6.081	6.162	6.217	6.270	6.311
B $\parallel$	2.873	P	6.16	6.19	6.21	6.22	6.238	6.293	6.361	6.408	6.443	6.470
Mean	2.870	P	6.03	6.07	6.09	6.11	6.125	6.187	6.262	6.313	6.357	6.391
A $\perp$	2.867	S	3.17	3.19	3.20	3.21	3.218	3.244	3.277	3.292	3.301	3.306
B $\parallel$	2.873	S	3.38	3.39	3.40	3.40	3.398	3.401	3.408	3.416	3.422	3.430
Mean	2.870	S	3.28	3.29	3.30	3.31	3.308	3.323	3.343	3.354	3.362	3.368
6-54-8A $\parallel$	2.869	P	5.97	6.00	6.03	6.05	6.064	6.125	6.203	6.271	6.330	6.380
B $\parallel$	2.877	P	5.97	6.01	6.04	6.06	6.076	6.124	6.188	6.248	6.302	6.349
Mean	2.873	P	5.97	6.01	6.04	6.06	6.070	6.125	6.196	6.260	6.316	6.365
A $\parallel$	2.869	S	3.17	3.19	3.20	3.21	3.222	3.259	3.299	3.326	3.343	3.348
B $\parallel$	2.877	S	3.14	3.16	3.17	3.18	3.185	3.217	3.248	3.262	3.270	3.273
Mean	2.873	S	3.16	3.18	3.19	3.20	3.204	3.238	3.274	3.294	3.307	3.311
6-57-3A $\perp$	3.004	P	6.35	6.37	6.39	6.40	6.406	6.468	6.530	6.568	6.602	6.631
B $\parallel$	2.955	P	6.35	6.37	6.38	6.39	6.405	6.443	6.493	6.530	6.562	6.588
Mean	2.980	P	6.35	6.37	6.39	6.40	6.406	6.456	6.512	6.549	6.582	6.610
A $\perp$	3.004	S	3.38	3.39	3.40	3.41	3.422	3.463	3.514	3.534	3.544	3.550
B $\parallel$	2.955	S	3.34	3.34	3.35	3.36	3.363	3.389	3.418	3.433	3.446	3.452
Mean	2.980	S	3.36	3.37	3.38	3.39	3.393	3.426	3.466	3.484	3.495	3.501
7-66.0-11A	2.348	P	3.91	3.95	3.98	4.01	4.027	4.108	4.235	4.349	4.450	4.545
B	2.336	P	4.06	4.08	4.10	4.12	4.140	4.216	4.353	4.485	4.602	4.693
Mean	2.342	P	3.99	4.02	4.04	4.07	4.084	4.162	4.293	4.417	4.526	4.619
A	2.348	S	1.73	1.80	1.86	1.90	1.935	2.067	2.215	2.301	2.347	2.370
B	2.336	S	1.73	1.78	1.85	1.90	1.932	2.076	2.229	2.303	2.346	2.373
Mean	2.342	S	1.73	1.79	1.86	1.90	1.934	2.072	2.222	2.302	2.347	2.372
7-61.1-2A $\perp$	2.641	P	5.21	5.23	5.24	5.25	5.263	5.320	5.422	5.509	5.585	5.653
B $\parallel$	2.562	P	4.98	5.02	5.05	5.07	5.091	5.149	5.205	5.243	5.272	5.292
C $\perp$	2.605	P	5.01	5.05	5.07	5.10	5.115	5.189	5.294	5.380	5.458	5.531
Mean	2.603	P	5.07	5.10	5.12	5.14	5.156	5.219	5.307	5.377	5.438	5.492
A $\perp$	2.641	S	2.30	2.37	2.42	2.46	2.488	2.580	2.655	2.688	2.707	2.720
B $\parallel$	2.562	S	2.15	2.23	2.29	2.33	2.368	2.477	2.597	2.677	2.698	2.711
C $\perp$	2.605	S	2.46	2.48	2.50	2.52	2.536	2.594	2.645	2.650	2.683	2.689
Mean	2.603	S	2.30	2.36	2.40	2.44	2.464	2.550	2.632	2.672	2.696	2.707
7-61.0-2A $\perp$	2.726	P	4.95	5.01	5.05	5.08	5.100	5.194	5.314	5.397	5.454	5.496
B $\parallel$	2.734	P	4.78	4.88	4.94	4.99	5.038	5.209	5.403	5.507	5.566	5.600