

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Data Report for the North and South Richardson Highway  
Profiles, TACT, Seismic-refraction Survey, southern Alaska

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Open-File Report 86-274

This report is preliminary and has not been reviewed  
for conformity with U.S. Geological Survey editorial standards  
and stratigraphic nomenclature. Any use of trade names is for  
descriptive purposes only and does not imply endorsement by the USGS.

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1986

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1. Map showing shotpoint and recorders

## TAPE

1. SEG Y, 1600 BPI format: National Geophysical Data Center  
NOAA/EGCI  
325 Broadway  
Boulder, CO 80303  
(303) 497-6123

### INTRODUCTION

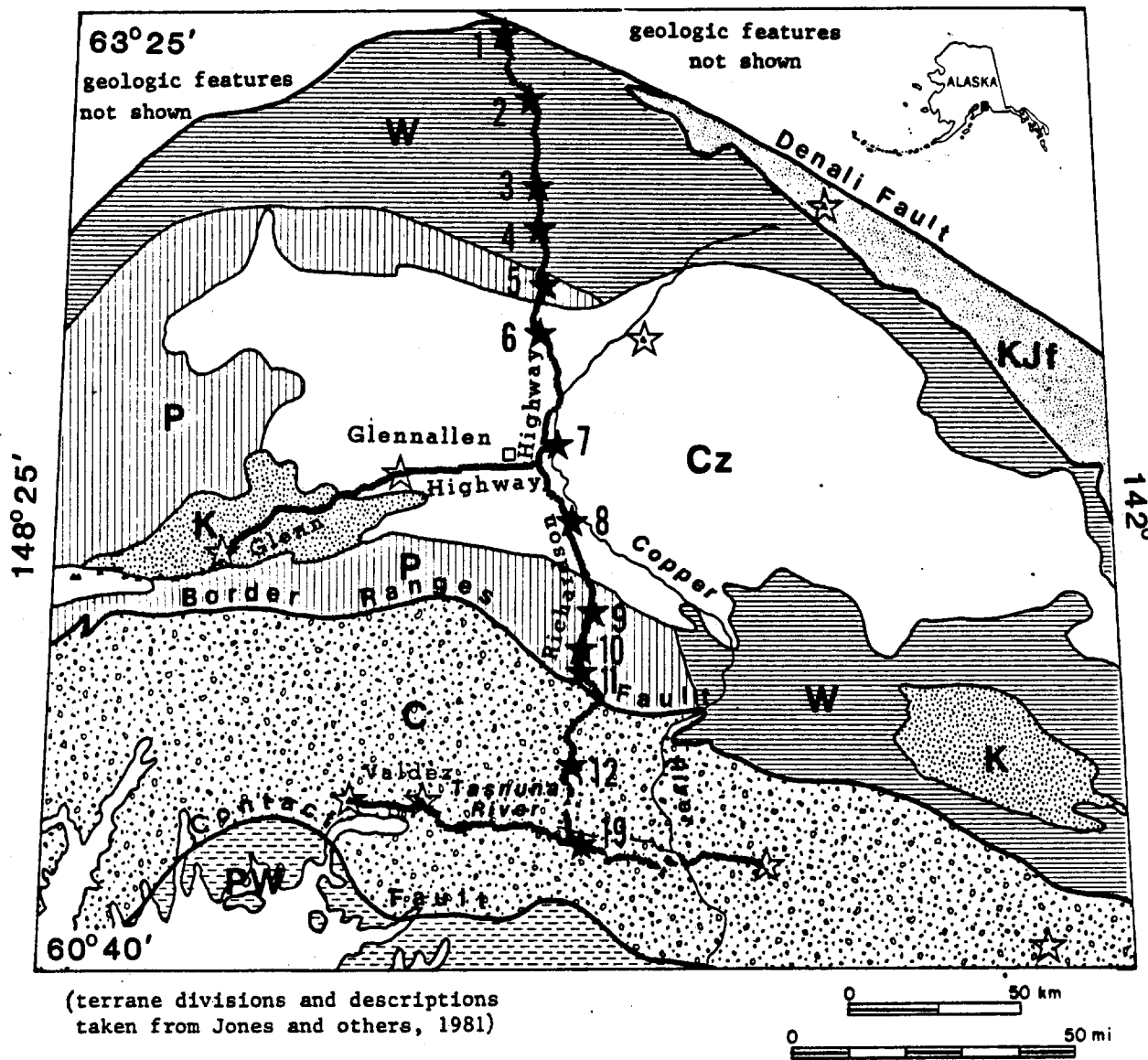
The U.S. Geological Survey conducted a seismic-refraction survey in south-central Alaska in June and July, 1984, in order to develop velocity models along transects (1) in the Chugach Mountains, within the Chugach terrane, (2) on the Glenn Highway west of Glenallen, within the Peninsular-Wrangellia composite terrane (see Jones and others, 1981 for a description of tectono-stratigraphic terranes in Alaska), and (3) along the Richardson Highway from a point east of Valdez to the Denali fault crossing the Border Ranges fault terrane boundary (fig. 1). This experiment is part of a continuing investigation designed to characterize deep crustal structure along a transect extending north from the Gulf of Alaska to Prudhoe Bay.

This report is a compilation of the seismic-refraction data obtained perpendicular to structural trend from the South and North Richardson Highway deployments. Seismic-refraction data parallel to structural trend from the Chugach Mountains and Glenn Highway deployments were presented by Daley and others, 1985. An interpretation of the seismic-refraction data along strike has been published by Fuis and others (1984) and Page and others (in press).

### DESCRIPTION OF SURVEY

The South and North Richardson Highway deployments run roughly from a point east of Valdez in the south to the Denali fault; each was approximately 140 km long. The South Richardson Highway profile extended south from shotpoint 7, near Glennallen, to shotpoint 19, in the Tasnuna River valley at Woodworth Glacier Lake; it recorded shots 1-8. The North Richardson Highway profile extended south from shotpoint 1 at the Denali fault to shotpoint 7 (Plate 1) and recorded shots 14 - 22. Shotpoints 1, 7, 8, and 19 were used for both profiles. Average spacing for seismic recorders on both deployments was approximately one km. A total of 17 shots, approximately 25 km apart, loaded with 1100-6000 pounds (500-2727 kg) of ammonium nitrate explosive were fired in 8 inch (20 cm) diameter, 160 feet (50 m) deep holes. The southernmost 18 stations on the South Richardson Highway profile were deployed by helicopter over Mt. Billy Mitchell, between shotpoint 12 on the Richardson Highway and shotpoint 19 in Woodworth Glacier lake. Recorder and shotpoint locations are listed (Tables 1, 2) and shown on Plate 1.

We present record sections for shots 1 - 2 (shotpoints 8 and 11) and 4 - 8 (shotpoints 7, 9, 12, 19) in figures 2 - 5 and record sections for shots 14 - 20 (shotpoints 1, 3, 5, 7, 2, 4 and 6) and 22 (shotpoint 8) in figures 6 - 9. Shots 5 and 8 were weak due to incomplete detonation of explosives resulting in seismic energy near or below ambient noise levels. Data beyond 30 km range for shot 8 are not presented because of this problem. Shot 3, shotpoint 1 (fig. 10) and shot 21, shotpoint 19 (fig. 11) were offset shots extending the profiles to approximately 240 km; the time scales on these record sections are extended to accommodate phases with high apparent velocities at these distances.



EXPLANATION

- |  |   |
|--|---|
| <b>Cz</b> Cenozoic sedimentary and volcanic rocks        | <b>K</b> Middle to Upper Cretaceous sedimentary rocks |
| <b>PW</b> Cenozoic Prince William Terrane                | <b>KJf</b> Deformed Upper Mesozoic flysch             |
| <b>C</b> Cretaceous Chugach Terrane                      | ☆☆ Shotpoint location                                 |
| <b>P</b> Middle Paleozoic to Mesozoic Peninsular Terrane | — Fault   |
| <b>W</b> Upper Paleozoic to Mesozoic Wrangellia Terrane  | — Terrane boundary/geologic contact                   |
|  | • Seismic recorder location                           |

Figure 2: A geologic map of southern Alaska with recorder and shot locations.

## INSTRUMENTATION AND DATA REDUCTION

### Seismic Recorders

Field operations involved the deployment of 120 seismic recorders by six observers, each of whom was responsible for 20 instruments. The seismic recorders (Healy and others, 1982) are portable, weigh approximately 40 pounds, are powered by two 6-volt rechargeable batteries, and contain 30-minute cassette tapes to record data. Packaged with each seismic recorder is a single vertical-component 2-Hz geophone, which is removed, oriented, and buried when the seismograph is deployed. Each recorder also includes a chronometer, three independent amplifiers with pre-set attenuation settings, a calibrator, a tape deck, and a tape-speed-compensation tone generator (fig. 12). Ten minutes prior to the expected seismic energy arrival time, a pre-programmed microprocessor in the seismic recorder performs a geophone release test, an amplification check, and a calibration sequence of 1, 10, 100, and 1000 mv at a frequency of 10-Hz. The response curve for the system peaks at about 20-Hz (fig. 13).

Observers are responsible, before shots are fired, for synchronizing the clock in the seismic recorders, preprogramming the microprocessors with up to 10 distinct recording times, and establishing accurate site locations. For this experiment recording locations were surveyed prior to deployment of seismic recorders.

After shots have been fired observers retrieve the seismic recorders, record chronometer drifts, and remove the tapes.

### Data Reduction

Shot times are picked from a paper record on which WWVB, the master clock time code, and the detonation pulse are recorded. Shot times are accurate to  $\pm 2$  milliseconds. Recorder locations and elevations were determined with an accuracy of  $\pm 25$  meters using 1:63,360 orthophoto maps, topographic maps and/or color infrared aerial photos.

Information pertaining to the performance of the seismic recorders is summarized in the Field Data Tables (Appendix A). After checking for errors in time and site locations the field observers digitize the analog data from the cassette tapes for a total of 20 seconds at a rate of 200 samples/sec. Digitization begins at time = shot time - 2.0 sec. + distance/6.0 km/s. For offset shots 3 and 21 digitization begins at time = shot time - 4.0 sec. + distance/8.0 km/s.

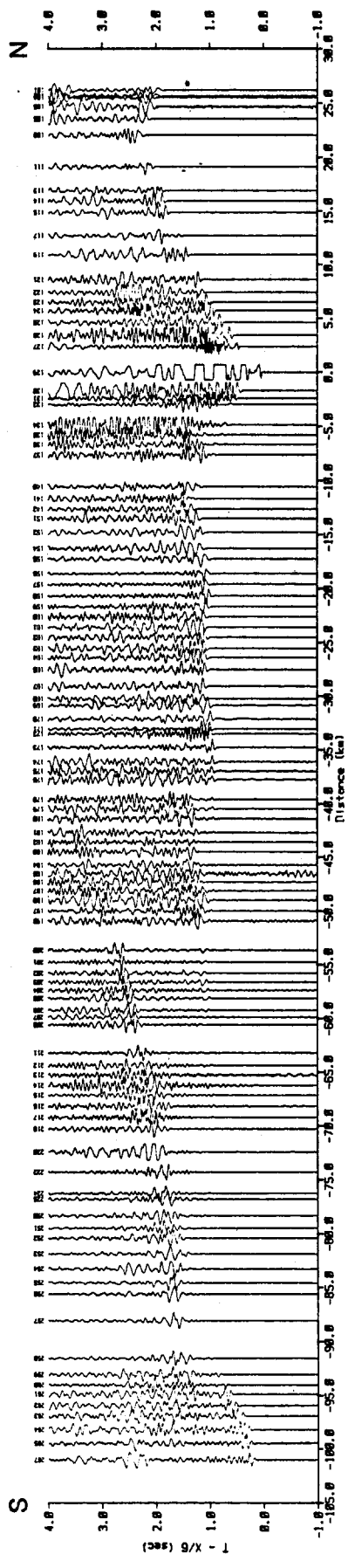
The record sections are plotted with maximum trace amplitudes normalized to a common value and a reducing velocity of 6 km/s.

TAPE

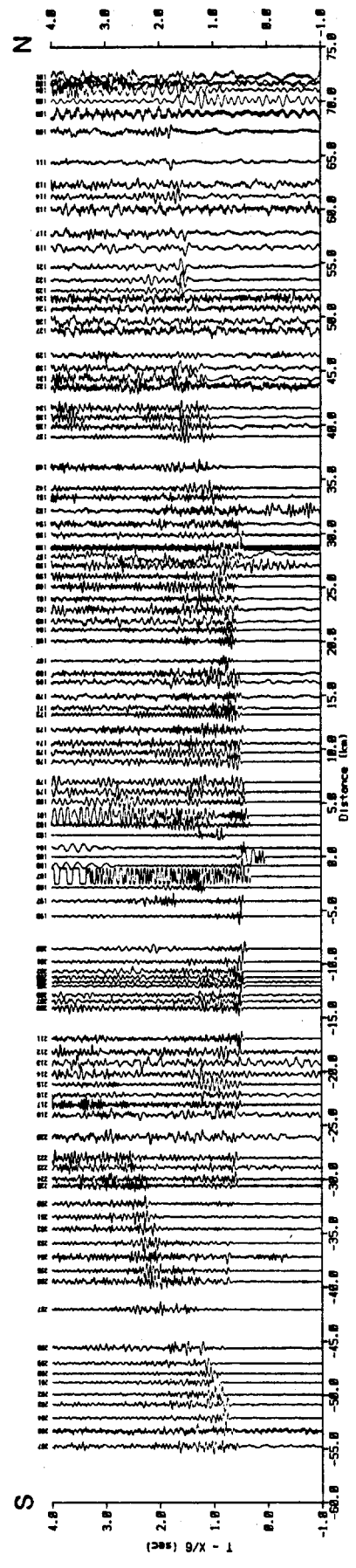
Data included in this report is available on SEG-Y format tapes recorded at 1600 BPI (Appendix B) from the following:

National Geophysical Data Center  
NOAA/EGCI  
325 Broadway  
Boulder, CO 80303

Telephone: (303) 497-6123

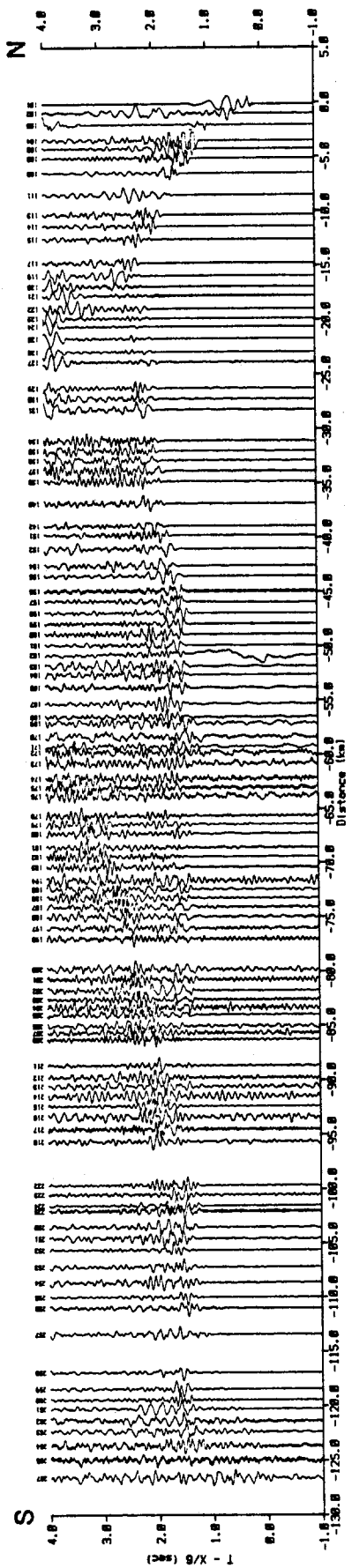


Shot 1, Shotpoint 8

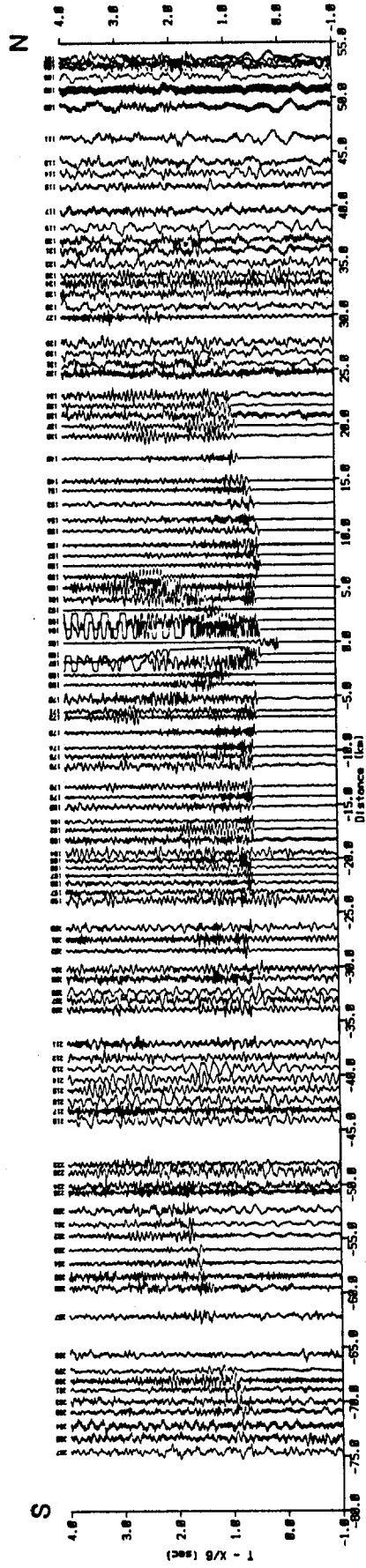


Shot 2, Shotpoint 11

Figure 2: Record sections from the South Richardson profile



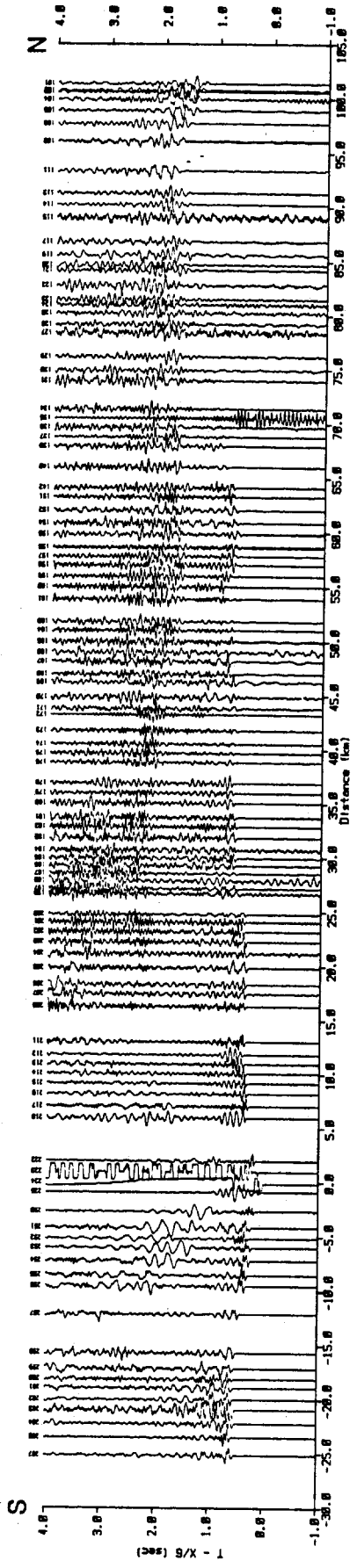
Shot 4, Shotpoint 7



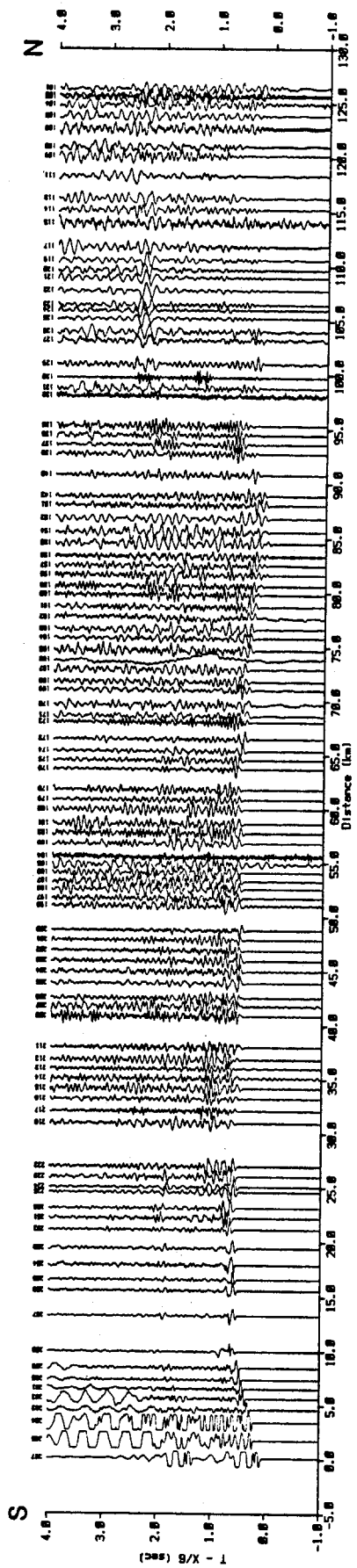
Shot 5, Shotpoint 9

Figure 3: Record sections from the South Richardson profile



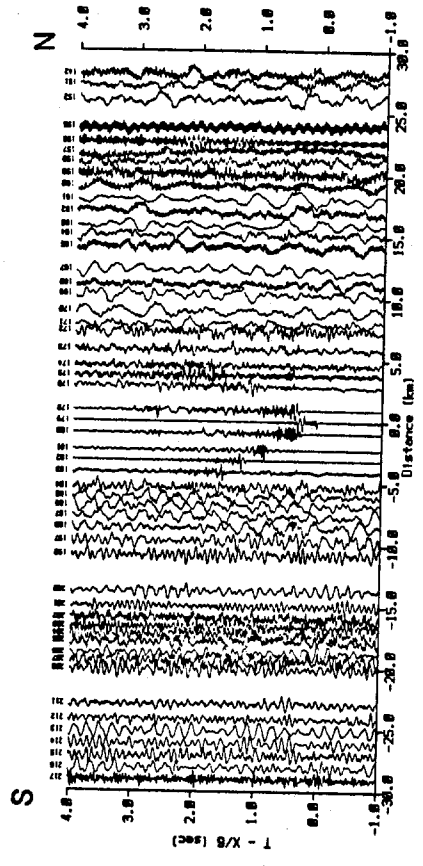


Shot 6, Shotpoint 12



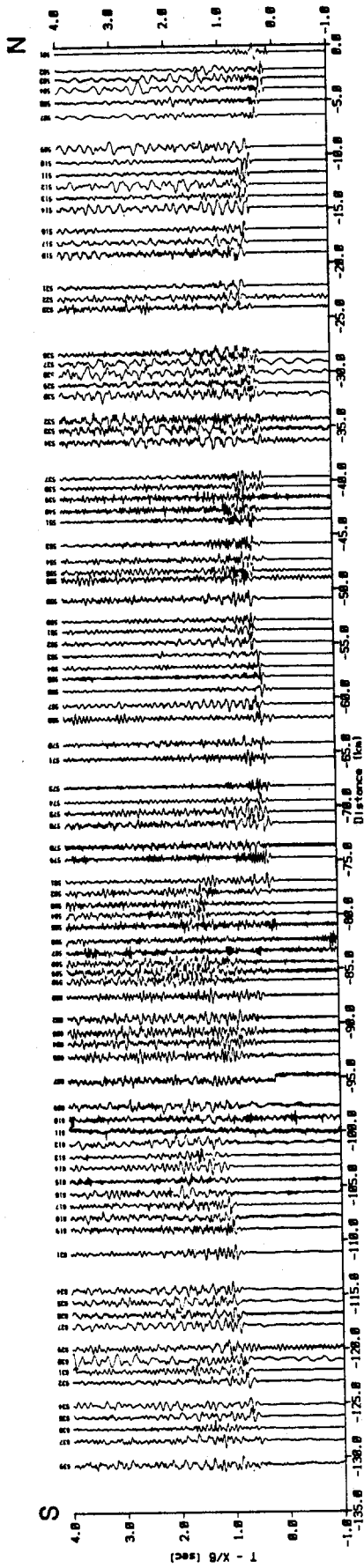
Shot 7, Shotpoint 19

Figure 4: Record sections from the South Richardson profile

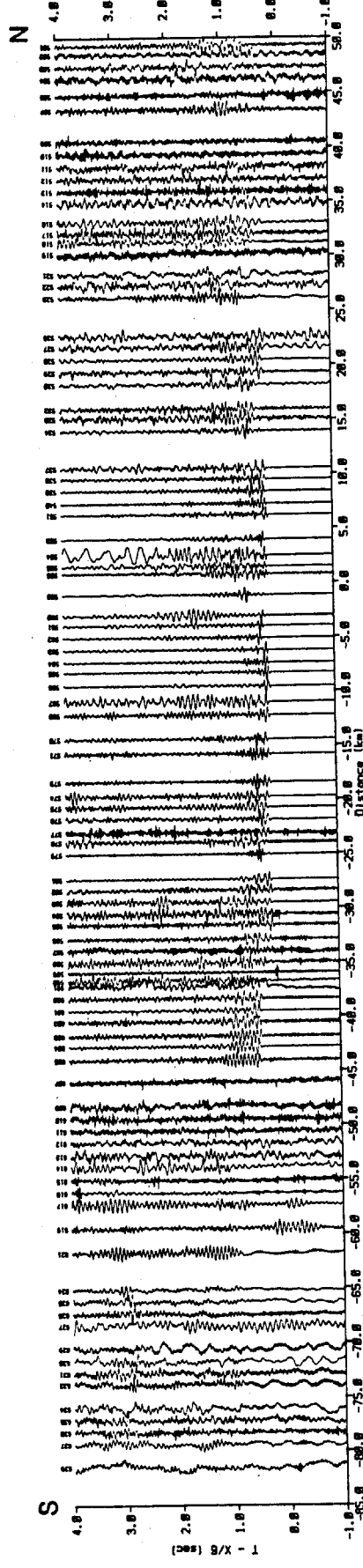


Shot 8, Shotpoint 10

Figure 5: Record section from the South Richardson Highway profile

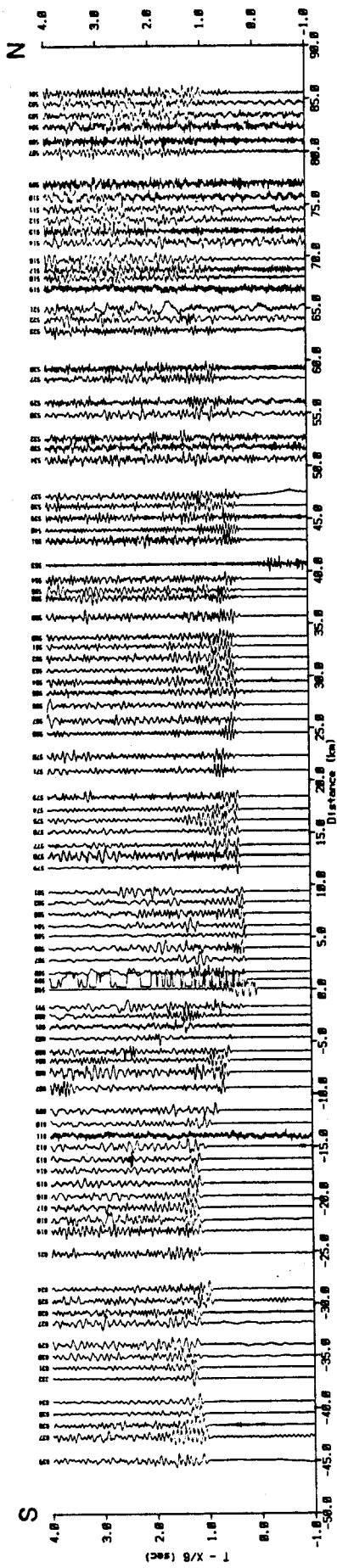


Shot 14, Shotpoint 1

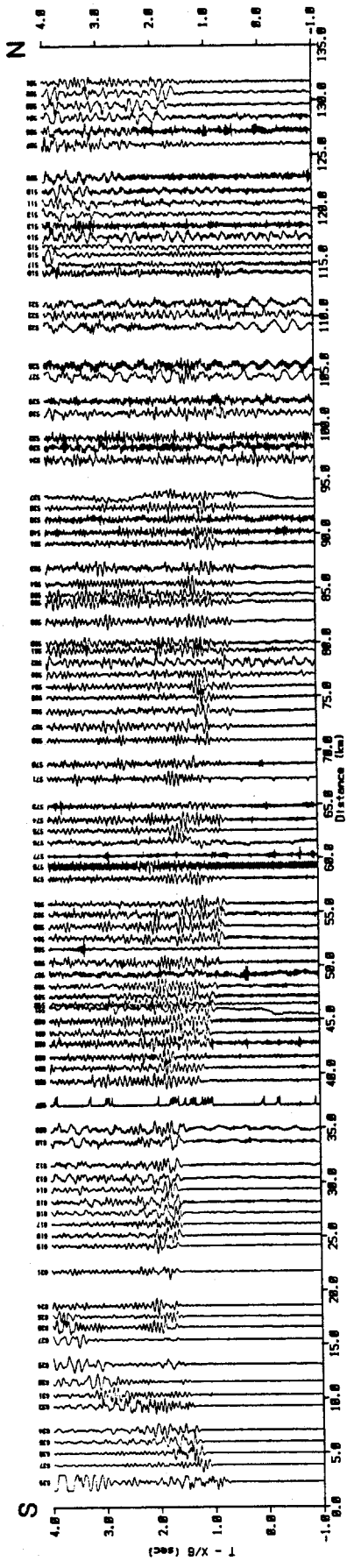


Shot 15, Shotpoint 3

Figure 6: Record sections from the North Richardson Highway profile

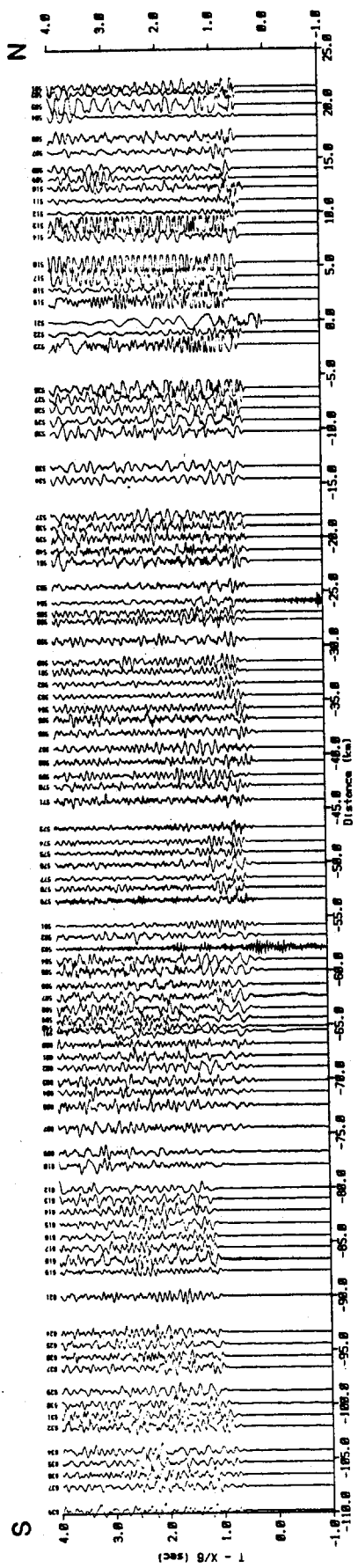


Shot 16, Shotpoint 5

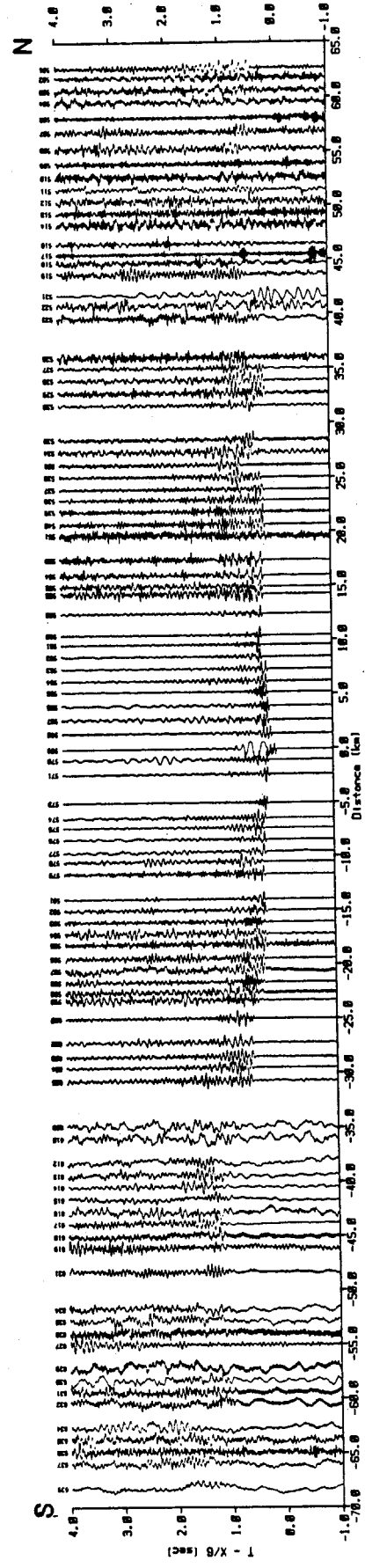


Shot 17, Shotpoint 7

Figure 7: Record sections from the North Richardson Highway profile

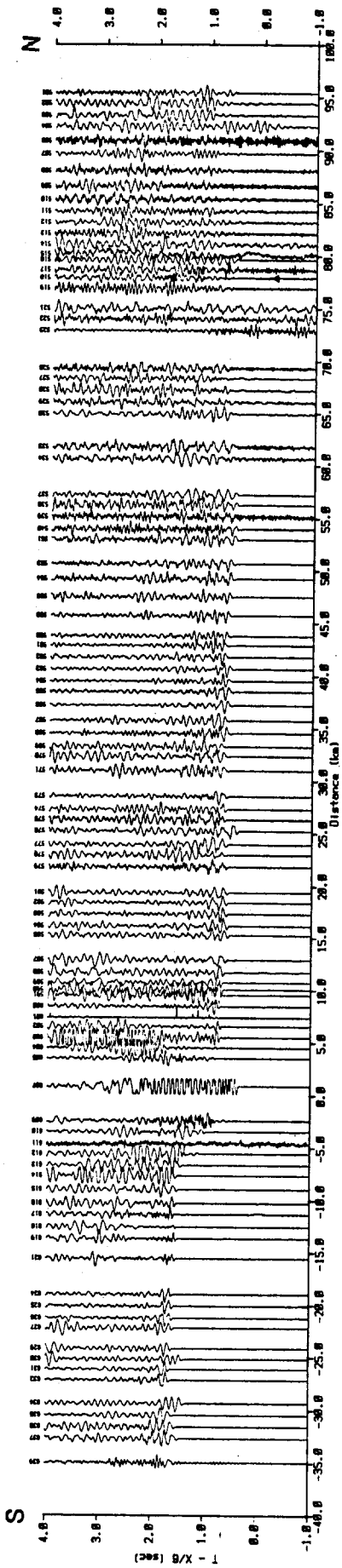


Shot 18, Shotpoint 2

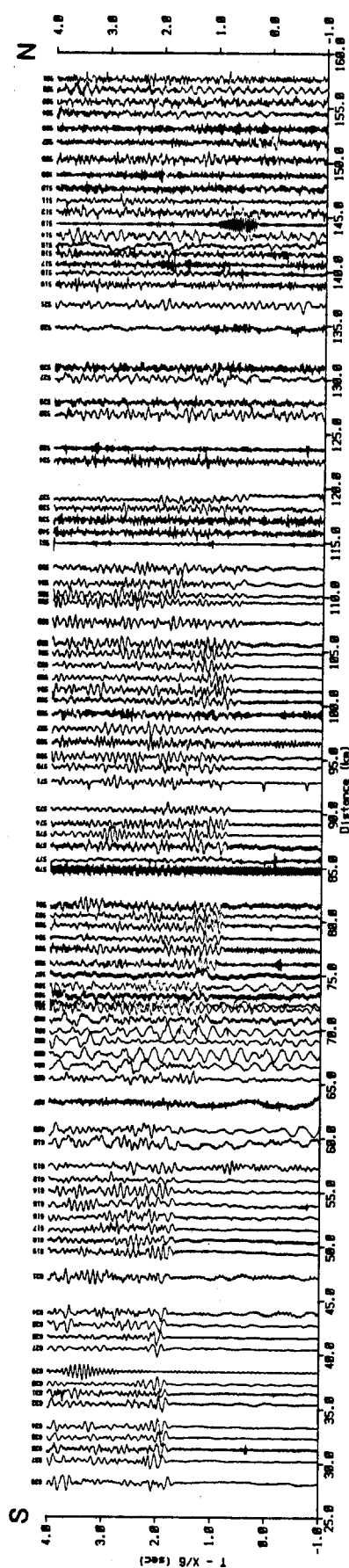


Shot 19, Shotpoint 4

Figure 8: Record sections from the North Richardson Highway profile

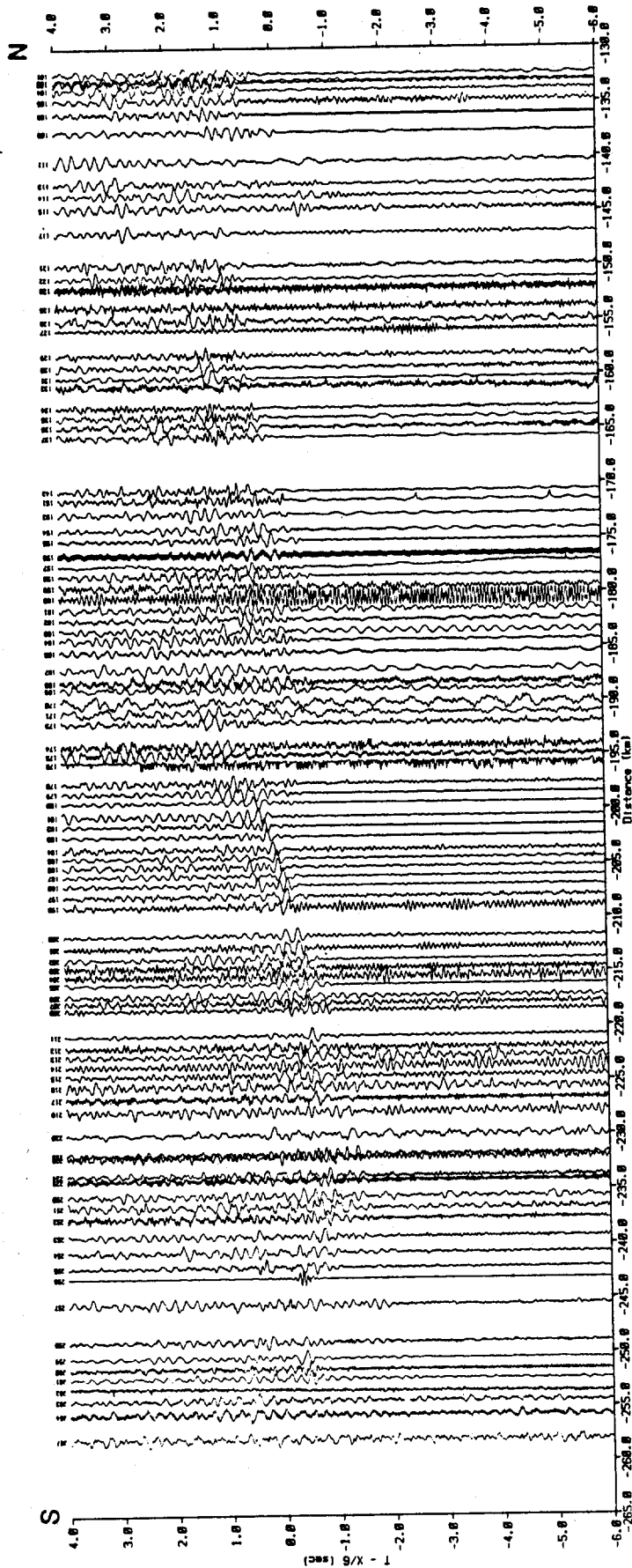


Shot 20, Shotpoint 6



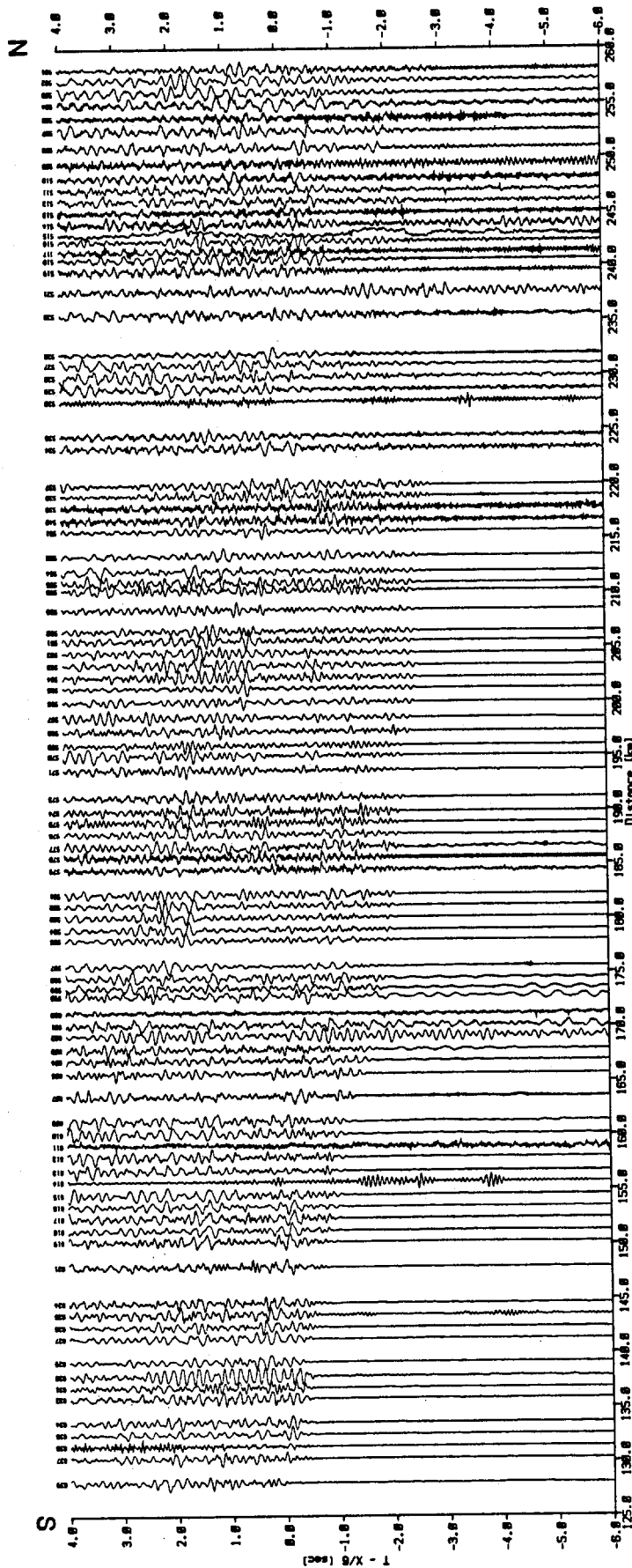
Shot 22, Shotpoint 8

Figure 9: Record sections from the North Richardson Highway profile



Shot 3, Shotpoint 1

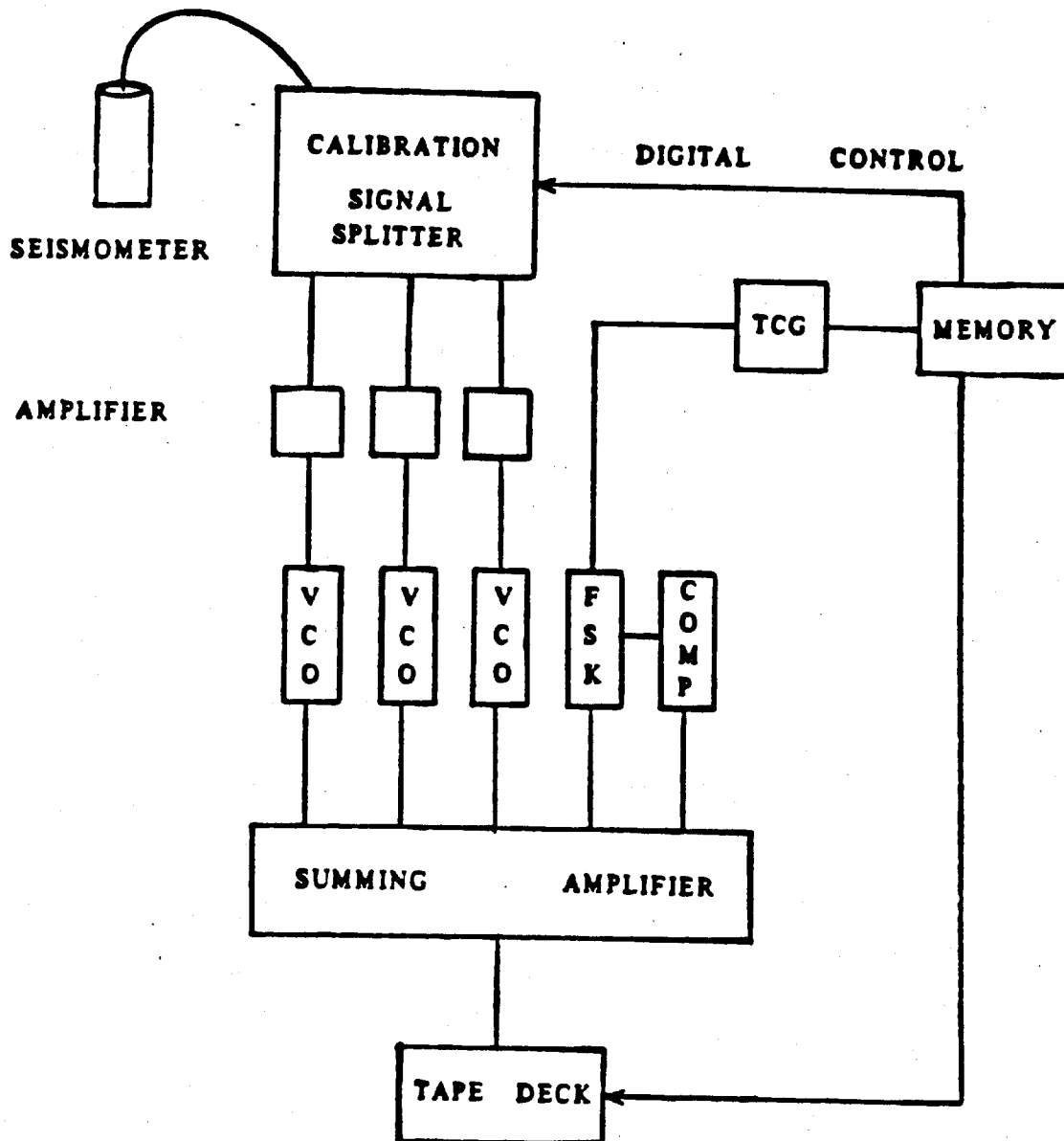
Figure 10: Record section from the South Richardson Highway profile (offset shot)



Shot 21, Shotpoint 19

Figure 11: Record section from the North Richardson Highway profile (offset shot)





COMP = COMPENSATION  
 FSK = FREQUENCY SHIFT KEYING  
 TCG = TIME CODE GENERATOR  
 VCO = VOLTAGE-CONTROLLED OSCILLATOR

Figure 12: Schematic diagram of seismic recorders

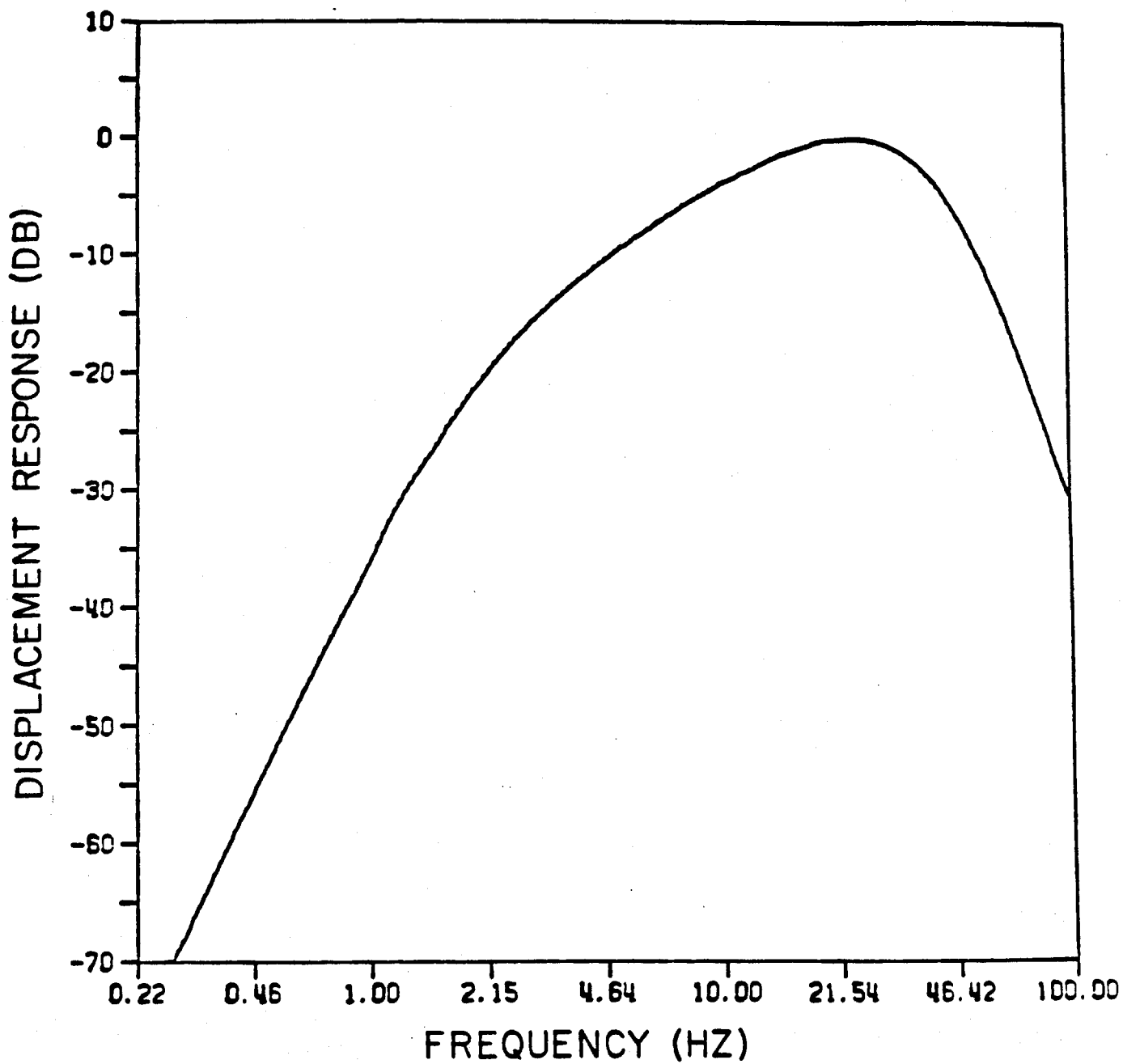


Figure 13: System response curve for cassette recording units with 2-Hz seismometers

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Will Kohler provided description of tape format.

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- Daley, M. A., Ambos, E. L., and Fuis, G. S., 1985, Seismic Refraction Data collected in the Chugach Mountains and along the Glenn Highway in southern Alaska in 1984: U.S. Geological Survey Open-File Report 85-531, 32 pp., 12 plates.

Table 1: The Master Shot List includes the shot number, shotpoint number, date (calendar and Julian), and shot time (GMT), latitude and longitude, charge size, and notes pertaining to each shot. Shots 9 through 21 and 23 through 29 were shots from the Chugach Mountains and West Glenn Highway profiles (Daley and others, 1985).

	Shot Number	Shot Point	Date Shot Time	Latitude Longitude	Size (lbs)	Notes
South Richardson Highway	1	8	JUN 24, 1984 176 10 0 0.011	61 56.3303 145 16.7487	2000	
	2	11	JUN 24, 1984 176 10 3 57.594	61 31.3367 145 13.6217	2000	
	3	1	JUN 24, 1984 176 10 6 0.012	63 20.8559 145 42.1500	6000	
	4	7	JUN 24, 1984 176 12 0 0.009	62 9.9422 145 24.9930	2000	
	5	9	JUN 24, 1984 176 12 2 0.010	61 41.9517 145 9.2683	2000	INCOMPLETE DETONATION
	6	12	JUN 24, 1984 176 12 3 57.009	61 15.3000 145 17.1100	2000	
	7	19	JUN 24, 1984 176 12 6 0.008	61 1.8251 145 15.6821	2000	WOODWORTH GLACIER LAKE
	8	10	JUN 25, 1984 177 10 0 0.008	61 34.5950 145 13.5833	2000	INCOMPLETE DETONATION
North Richardson Highway	14	1	JUL 8, 1984 191 10 10 0.010	63 20.8559 145 42.1500	2000	
	15	3	JUL 8, 1984 191 10 12 0.009	62 54.6586 145 29.8132	2000	
	16	5	JUL 8, 1984 191 10 14 0.011	62 34.9283 145 27.4631	2040	
	17	7	JUL 8, 1984 191 10 15 59.810	62 9.9422 145 24.9930	2000	
	18	2	JUL 8, 1984 191 12 0 0.011	63 9.8936 145 32.1771	2000	
	19	4	JUL 8, 1984 191 12 2 0.010	62 47.4488 145 28.4207	2000	
	20	6	JUL 8, 1984 191 12 4 0.012	62 29.5123 145 28.0682	2040	
	21	19	JUL 8, 1984 191 12 6 0.008	61 1.8251 145 15.6821	6000	WOODWORTH GLACIER LAKE - 2 HOLES
	22	8	JUL 8, 1984 191 12 7 59.811	61 56.3303 145 16.7487	1100	

Table 2: Seismic Recorder locations. Includes location number (see Plate 1), latitude, longitude, and elevation.

South Richardson Highway

Location number	Latitude (deg,min,sec)	Longitude (deg,min,sec)	Elev (m)	Location number	Latitude (deg,min,sec)	Longitude (deg,min,sec)	Elev (m)
101	62 9 53.1	145 25 5.5	411	159	61 45 13.1	145 9 16.0	457
102	62 9 30.9	145 25 36.6	449	160	61 44 41.6	145 9 16.4	530
103	62 9 23.6	145 27 1.9	478	161	61 44 6.0	145 9 30.7	576
104	62 8 57.6	145 28 24.6	473	162	61 43 34.1	145 9 36.7	609
105	62 8 24.2	145 28 36.3	472	163	61 42 59.1	145 9 43.6	609
106	62 7 45.4	145 28 34.3	469	164	61 42 32.5	145 9 38.9	609
107	62 7 15.9	145 28 42.7	466	165	61 41 57.1	145 9 16.1	613
108	62 6 51.3	145 28 30.5	461	166	61 41 29.2	145 10 5.2	591
109	62 6 24.1	145 28 24.8	460	167	61 41 0.8	145 10 4.9	569
110	62 5 55.9	145 27 42.0	457	168	61 40 22.1	145 10 0.0	548
111	62 5 27.6	145 26 56.2	449	169	61 39 59.0	145 10 37.8	481
112	62 4 56.1	145 26 0.4	434	170	61 39 16.0	145 11 1.5	472
113	62 4 24.0	145 25 43.2	364	171	61 38 43.1	145 11 27.9	478
114	62 3 49.4	145 25 43.1	350	172	61 38 24.7	145 11 28.3	484
115	62 3 10.5	145 25 34.9	344	173	61 37 40.9	145 12 3.2	484
116	62 2 41.5	145 25 56.8	381	174	61 37 0.1	145 12 30.4	493
117	62 1 59.9	145 24 50.0	403	175	61 36 32.7	145 12 34.3	512
118	62 1 47.7	145 23 50.7	411	176	61 36 5.9	145 12 56.7	512
119	62 1 24.3	145 23 4.6	405	177	61 35 43.6	145 13 9.1	515
120	62 0 56.9	145 21 42.3	393	178	61 35 5.1	145 13 22.1	518
121	62 0 36.0	145 20 33.5	393	179	61 34 35.7	145 13 35.0	533
122	61 59 57.6	145 20 16.2	335	180	61 34 6.4	145 13 46.6	548
123	61 59 29.7	145 19 57.0	335	181	61 33 24.3	145 14 11.1	551
124	61 59 4.4	145 19 43.9	327	182	61 32 56.2	145 14 4.2	563
125	61 58 35.1	145 18 56.2	320	183	61 32 24.7	145 14 9.4	557
126	61 57 55.8	145 18 43.5	316	184	61 31 44.8	145 14 3.0	548
127	61 57 31.2	145 17 46.1	312	185	61 31 20.2	145 13 37.3	557
128	61 56 57.1	145 18 8.7	350	186	61 30 55.7	145 13 12.4	563
129	61 56 19.8	145 16 44.9	304	187	61 30 30.1	145 12 37.3	560
130	61 55 38.3	145 18 2.3	358	188	61 30 4.3	145 11 48.1	554
131	61 55 7.4	145 17 42.8	365	197	61 29 34.9	145 10 50.0	563
132	61 54 45.5	145 17 9.4	403	198	61 29 9.1	145 9 24.9	560
133	61 54 20.3	145 16 39.9	411	199	61 28 22.2	145 8 34.0	563
134	61 53 43.3	145 16 9.2	420	200	61 27 48.2	145 7 29.5	579
135	61 53 15.6	145 15 43.4	422	201	61 27 15.1	145 6 45.5	579
136	61 52 48.2	145 15 26.0	426	202	61 26 41.9	145 6 34.4	579
137	61 52 19.6	145 14 59.6	434	203	61 26 13.3	145 6 57.5	479
138	61 51 51.1	145 14 36.6	434	204	61 25 45.0	145 7 43.3	548
139	61 51 23.5	145 14 17.1	443	205	61 25 15.8	145 9 3.6	518
140	61 50 48.5	145 13 52.4	449	206	61 24 36.1	145 10 19.8	487
141	61 50 14.7	145 13 21.7	445	207	61 24 13.4	145 10 59.6	487
142	61 49 45.7	145 13 1.0	435	208	61 23 47.6	145 12 24.7	457
151	61 49 18.3	145 12 52.8	435	209	61 23 17.1	145 13 38.9	457
152	61 48 38.0	145 12 32.9	437	210	61 22 52.7	145 14 47.2	441
153	61 48 15.9	145 11 43.2	438	211	61 22 18.6	145 16 3.7	411
154	61 47 56.6	145 11 17.7	425	212	61 21 40.7	145 16 49.0	402
155	61 47 23.9	145 11 23.0	423	213	61 21 12.5	145 17 44.0	363
156	61 46 43.8	145 10 39.8	426	214	61 20 41.9	145 18 26.2	411
157	61 46 14.9	145 10 6.2	426	215	61 20 11.9	145 18 32.6	422
158	61 45 46.3	145 9 21.6	451	216	61 19 39.2	145 18 39.9	396

## North Richardson Highway

Location number	Latitude (deg,min,sec)	Longitude (deg,min,sec)	Elev (m)	Location number	Latitude (deg,min,sec)	Longitude (deg,min,sec)	Elev (m)	Location number	Latitude (deg,min,sec)	Longitude (deg,min,sec)	Elev (m)
501	63 20 34.2	145 42 23.5	822	561	62 52 35.7	145 28 31.7	899	619	62 22 50.9	145 21 32.9	542
502	63 19 57.5	145 43 48.5	807	562	62 52 0.1	145 28 22.8	893	620	62 22 12.4	145 21 53.2	539
503	63 19 22.1	145 43 26.3	777	563	62 51 23.3	145 28 13.4	893	621	62 21 35.4	145 22 14.0	533
504	63 18 48.8	145 43 11.0	777	564	62 50 47.1	145 28 5.4	899	622	62 20 57.9	145 21 54.2	533
505	63 18 40.2	145 41 11.8	807	565	62 50 14.5	145 28 18.4	868	623	62 20 23.7	145 21 53.8	518
506	63 18 14.0	145 40 36.0	807	566	62 49 32.4	145 29 3.2	829	624	62 19 47.9	145 21 20.0	509
507	63 17 36.5	145 39 48.6	822	567	62 48 44.5	145 29 43.5	822	625	62 19 13.3	145 20 53.4	502
508	63 16 47.2	145 39 13.2	838	568	62 48 5.6	145 29 14.4	801	626	62 18 37.9	145 20 23.6	502
509	63 15 55.5	145 40 35.0	853	569	62 47 25.1	145 28 27.5	777	627	62 18 2.3	145 20 55.6	481
510	63 15 12.1	145 41 5.6	853	570	62 46 35.4	145 28 0.7	783	628	62 17 26.5	145 21 4.0	496
511	63 14 37.7	145 40 25.8	883	571	62 46 11.6	145 27 47.8	792	629	62 16 51.5	145 21 42.8	475
512	63 14 5.5	145 39 42.8	883	572	62 45 31.1	145 27 31.4	822	630	62 16 7.7	145 23 34.4	445
513	63 13 33.0	145 39 6.5	899	573	62 44 51.6	145 26 45.9	838	631	62 15 30.7	145 23 10.7	487
514	63 13 0.9	145 38 31.6	914	574	62 44 10.9	145 26 1.8	807	632	62 14 57.2	145 25 37.5	487
515	63 12 32.4	145 37 50.8	914	575	62 43 39.0	145 25 54.3	798	633	62 14 20.3	145 25 58.7	484
516	63 12 13.8	145 35 51.6	937	576	62 43 3.6	145 25 54.8	807	634	62 13 44.5	145 26 8.5	484
517	63 11 46.0	145 34 41.9	975	577	62 42 22.0	145 26 17.6	769	635	62 13 8.7	145 26 23.8	487
518	63 11 24.3	145 33 11.4	1005	578	62 41 50.7	145 26 43.1	722	636	62 12 32.9	145 26 26.1	484
519	63 10 52.6	145 32 17.6	990	579	62 41 13.9	145 26 52.1	786	637	62 11 57.1	145 26 27.1	484
520	63 10 21.5	145 31 52.0	990	580	62 40 35.4	145 28 52.4	716	638	62 11 19.4	145 26 54.7	484
521	63 9 51.2	145 32 7.9	990	581	62 39 55.9	145 28 52.4	716	639	62 10 42.8	145 27 5.8	484
522	63 9 19.2	145 31 43.2	990	582	62 39 23.2	145 28 23.2	740	640	62 10 2.1	145 24 54.7	396
523	63 8 42.0	145 32 11.8	1005	583	62 38 48.2	145 28 56.8	746				
524	63 8 6.8	145 30 25.3	981	584	62 38 12.6	145 28 16.0	731				
525	63 7 35.5	145 29 28.4	981	585	62 37 43.1	145 27 12.0	679				
526	63 6 49.1	145 29 14.8	981	586	62 37 1.8	145 26 30.3	676				
527	63 5 17.5	145 29 28.4	981	587	62 36 26.3	145 26 42.8	676				
528	63 5 40.9	145 29 49.6	1005	588	62 35 48.3	145 27 34.8	676				
529	63 5 3.5	145 30 3.7	944	589	62 35 18.4	145 28 11.7	670				
530	63 4 26.2	145 30 37.8	944	590	62 34 55.7	145 29 17.4	640				
531	63 3 54.9	145 30 37.0	944	591	62 34 37.1	145 29 37.4	624				
532	63 3 14.4	145 29 47.8	883	600	62 34 0.9	145 29 37.4	624				
533	63 2 45.9	145 29 37.5	853	601	62 33 24.0	145 29 51.6	603				
534	63 2 9.3	145 29 31.6	838	602	62 32 51.3	145 30 29.6	600				
535	63 1 27.5	145 29 31.6	813	603	62 32 9.1	145 30 55.4	594				
536	63 0 55.9	145 29 12.7	795	604	62 31 36.6	145 30 44.4	579				
537	63 0 18.4	145 29 27.6	792	605	62 30 57.1	145 30 43.2	594				
538	62 59 46.9	145 29 36.2	792	606	62 30 28.4	145 30 6.0	594				
539	62 59 10.9	145 30 2.1	792	607	62 29 53.5	145 28 40.3	594				
540	62 58 32.6	145 30 19.8	792	608	62 29 25.8	145 27 57.4	582				
551	62 57 59.7	145 30 27.5	792	609	62 28 44.1	145 25 48.8	585				
552	62 57 18.7	145 30 25.4	792	610	62 28 6.4	145 25 26.8	579				
553	62 56 45.0	145 30 43.0	792	611	62 27 32.1	145 24 50.3	569				
554	62 56 0.2	145 30 9.9	807	612	62 26 58.1	145 24 39.3	563				
555	62 55 26.8	145 29 59.2	822	613	62 26 18.4	145 24 40.1	569				
556	62 55 4.3	145 29 58.2	822	614	62 25 45.4	145 24 30.5	569				
557	62 54 38.5	145 29 52.4	807	615	62 25 8.0	145 23 47.2	563				
558	62 54 7.2	145 29 7.5	883	616	62 24 33.4	145 22 49.4	542				
559	62 53 36.1	145 29 0.3	899	617	62 23 59.4	145 22 30.1	554				
560	62 53 3.8	145 28 59.0	899	618	62 23 24.2	145 21 57.0	533				

## APPENDIX A

**Field Data Tables.** These include information related to the seismic recorders. Each set of 20 recorders is given a team number under which data is stored and referenced. Each table contains shot number, shotpoint numbers, team number, and shot time given in Julian day, hour, minute, and second. Column headings for the table are explained below:

- Loc - location number from the seismic recorder location (see Table 2)
- Dist (km) - distance in kilometers from the shotpoint to the recorder
- Azim - azimuth from the shotpoint to the recorder (in degrees clockwise from north)
- Unit - I.D. number of the recording unit
- Chron - chronometer correction for the recorder at shot time (interpolated from the total clock drift)
- Chan - channel number (1, 2, or 3) which was selected to be digitized by the computer. 1 = high gain; 2 = low gain; 3 = medium gain
- C1, C2, C3 - amplifier attenuation setting (db) for each data-recording channel
- Tape Grade - value used to rate the performance of the seismic recorder (see Tape Grade Scale)



## TAPE GRADE SCALE

Tape Grade Scale is a listing of all tape grade numbers used on the Field Data Tables. Each number corresponds to a specific problem with the recording unit.

0	Good
1	Tape did not run
2	Tape ran, no signal
3	Skipped record time
6	Weak signal - low record level
9	Noise, spike(s)
12	Noise, random
17	Bad time code
21	Geophone disconnected or shorted
25	Bad geophone test
26	One or more channels missing
30	Digitized without calibrations
31	Amplifier out of balance

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 3  
SHOT TIME: 176:10; 0; 0.011

LOC	DIST (KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	201	54.725	170.7	41	24	1	30	12	48	0
2	200	53.609	171.2	42	7	1	30	12	48	0
3	198	50.894	172.7	43	-20	1	30	12	48	0
4	197	49.357	174.0	44	-29	1	30	12	48	0
5	188	48.967	174.9	45	3	1	30	12	68	0
6	187	48.112	175.7	46	4	1	30	12	68	0
7	186	47.285	176.2	47	14	1	30	12	88	0
8	185	46.504	176.6	48	-22	1	30	12	88	0/12
9	184	45.723	177.0	49	9	1	30	12	88	0
10	183	44.885	177.1	50	-13	1	30	12	68	0
11	182	43.515	176.9	51	28	1	30	12	48	0
12	181	42.642	177.0	52	11	1	30	12	68	0
13	180	41.360	176.4	53	7	1	30	12	88	0
14	179	40.468	176.1	54	-16	1	30	12	88	0
15	178	39.973	175.7	55	9	1	30	12	88	0
16	177	38.400	175.3	56	12	1	30	12	68	1
17	176	37.728	174.9	57	66	1	30	12	68	0
18	175	36.932	174.3	58	13	1	30	12	68	0
19	174	36.094	174.1	59	-3	1	30	12	48	0
20	173	34.750	173.2	60	-8	1	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 1  
SHOT TIME: 176:10; 0; 0.011

LOC	DIST (KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	224	76.208	180.2	1	19	1	30	12	88	0/30
2	223	76.747	180.8	2	51	1	30	12	88	0
3	256	78.309	181.4	3	13	1	30	12	68	0
4	251	79.447	182.1	4	-96	1	30	12	68	0
5	252	80.344	182.2	5	19	1	30	12	48	0
6	253	81.821	181.3	6	9	1	30	12	48	0
7	254	83.213	180.6	7	-3	1	30	12	48	0
8	255	84.531	180.3	8	35	1	30	12	48	0
9	256	85.550	180.4	9	106	1	30	12	48	0
10	257	88.052	181.1	10	37	1	30	12	48	0
11	258	91.564	181.3	11	-24	1	30	12	48	0
12	259	93.050	181.1	12	19	1	30	12	48	0
13	260	94.022	180.9	13	15	1	30	12	48	0
14	261	94.866	180.8	14	38	2	30	12	48	0
15	262	95.942	180.9	15	11	2	30	12	48	0
16	263	96.917	180.7	16	9	2	30	12	48	0/30
17	264	98.193	180.6	17	17	2	30	12	68	0
18	265	99.459	179.9	18	-16	2	30	12	88	0
19	266	100.078	179.3	19	-31	1	30	12	88	31
20	267	101.000	179.4	20	13	1	30	12	88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 2  
SHOT TIME: 176:10; 0; 0.011

LOC	DIST (KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	202	55.764	170.7	21	-6	1	30	12	48	0
2	203	56.587	171.2	22	13	1	30	12	48	0
3	204	57.354	172.0	23	1	1	30	12	48	0
4	205	58.102	173.3	24	-6	1	30	12	48	0
5	206	59.204	174.3	25	21	1	30	12	48	0
6	207	59.851	175.1	26	4	1	30	12	48	0
7	208	60.353	176.4	27	10	1	30	12	48	0
8	210	62.156	178.4	28	--	1	30	12	48	1
9	211	63.192	179.4	29	12	1	30	12	48	0
10	212	64.362	180.1	30	6	1	30	12	48	17
11	213	65.242	180.8	31	7	3	30	12	48	0
12	214	66.197	181.3	32	12	1	30	12	48	0
13	215	67.130	181.4	33	32	1	30	12	48	0
14	216	68.144	181.4	34	9	1	30	12	48	0
15	217	69.193	180.7	35	-36	1	30	12	48	0
16	218	70.259	179.9	36	-2	3	30	12	68	0
17	220	72.383	179.6	37	4	1	30	12	68	2
18	221	74.262	180.0	38	2	1	30	12	68	0
19	222	75.000	180.1	39	2	1	30	12	68	0/30
20	223	75.000	180.1	40	7	1	30	12	88	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 4  
SHOT TIME: 176:10; 0; 0.011

LOC	DIST (KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	152	14.765	165.6	61	12	1	30	12	48	0
2	154	16.295	162.9	62	6	3	30	12	48	0
3	155	17.246	164.2	63	9	1	30	12	48	0
4	156	18.615	163.3	64	15	1	30	12	48	0
5	157	19.613	162.7	65	-18	3	30	12	48	0
6	158	20.638	161.7	66	63	3	30	12	48	0
7	159	21.659	162.3	67	-4	1	30	12	48	0
8	160	22.589	163.1	68	-9	1	30	12	48	0
9	161	23.589	164.4	69	5	1	30	12	68	0
10	162	24.520	165.2	70	31	1	30	12	68	0
11	164	26.360	166.3	71	8	1	30	12	88	0
12	163	25.344	166.0	72	17	1	30	12	88	0
13	165	27.505	166.2	73	-14	1	30	12	88	0
14	165	28.184	168.0	74	0	1	30	12	88	2
15	167	29.047	168.4	75	15	1	30	12	88	0
16	168	30.235	168.7	76	9	1	30	12	68	0
17	169	30.836	170.0	77	5	1	30	12	48	0
18	170	32.090	171.0	78	3	1	30	12	48	0
19	171	33.042	171.9	79	25	1	30	12	48	0
20	172	33.605	172.1	80	14	1	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 5  
SHOT TIME: 176:10: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	151	13.484	81	-9	3	30	12	48	0	0
2	142	12.632	82	-8	3	30	12	48	0	0
3	141	11.685	83	17	3	30	12	48	0	0
4	140	10.562	84	20	3	30	12	48	0	0
5	139	9.424	85	--	0	30	12	48	1	1
6	138	8.527	86	0	3	30	12	48	3	3
7	137	7.595	87	--	3	30	12	48	0	0
8	136	6.651	88	23	3	30	12	48	0	0
9	135	5.767	89	12	3	30	12	48	0	0
10	134	4.874	90	18	3	30	12	48	0	0
11	133	3.700	91	6	3	30	12	48	1	1
12	132	2.942	92	6	3	30	12	68	0	0
13	131	2.397	93	12	3	30	12	68	0	0
14	130	1.711	94	22	3	30	12	68	0	0
15	129	0.000	95	27	3	30	12	68	0	0/17
16	128	1.680	96	-13	3	30	12	68	1	1
17	127	2.384	97	7	3	30	12	68	0	0
18	126	3.437	98	7	3	30	12	48	0	0
19	125	4.617	99	17	3	30	12	48	0	0
20	124	5.719	100	15	3	30	12	48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 2 SHOT POINT 11 TEAM 1  
SHOT TIME: 176:10: 3:37.594

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	224	23.946	186.0	1	19	2	30	12	88	0
2	223	30.560	187.2	2	31	2	30	12	88	0
3	250	32.218	188.5	3	13	2	30	12	68	0
4	251	33.466	189.9	4	-96	2	30	12	68	0
5	252	34.560	189.9	5	19	2	30	12	48	0
6	253	35.868	187.5	6	9	2	30	12	48	0
7	254	37.148	185.6	7	-3	2	30	12	48	0
8	255	38.436	184.9	8	33	2	30	12	48	0
9	256	39.459	184.8	9	106	2	30	12	48	0
10	257	42.046	186.0	10	37	2	30	12	48	0
11	258	45.592	186.2	11	-24	2	30	12	48	0
12	259	47.051	185.7	12	19	2	30	12	48	0
13	260	47.987	185.1	13	15	1	30	12	48	0
14	261	48.817	184.8	14	38	2	30	12	48	0
15	262	49.507	184.9	15	11	2	30	12	48	0
16	263	50.859	184.4	16	9	2	30	12	48	0
17	264	52.123	184.2	17	17	2	30	12	68	0
18	265	53.327	182.9	18	-16	2	30	12	88	6
19	266	53.898	181.7	19	-31	1	30	12	88	2
20	267	54.730	181.8	20	13	2	30	12	88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 1 SHOT POINT 8 TEAM 6  
SHOT TIME: 176:10: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	101	26.206	343.9	101	17	1	30	12	88	0
2	102	25.682	342.5	102	9	1	30	12	88	0
3	103	25.868	339.7	103	0	3	30	12	68	17
4	104	25.569	336.6	104	0	3	30	12	48	0
5	105	24.697	335.2	105	22	3	30	12	48	0
6	106	23.596	334.1	106	-8	1	30	12	48	0/30
7	108	22.079	332.3	107	-55	3	30	12	48	0
8	109	21.298	331.4	108	0	3	30	12	48	3
9	110	20.233	331.0	109	--	3	30	12	48	1
10	111	19.149	332.3	110	19	3	30	12	48	0
11	113	16.926	332.3	111	12	3	30	12	48	0
12	114	15.971	330.6	112	11	3	30	12	48	0
13	115	14.872	328.8	113	-11	3	30	12	48	0
14	116	14.288	325.8	114	--	4	30	12	48	1
15	117	12.679	326.1	115	4	3	30	12	48	0
16	119	10.929	329.6	116	20	3	30	12	48	0
17	120	9.609	333.2	117	3	3	30	12	48	3
18	121	8.602	337.2	118	11	3	30	12	48	0
19	122	7.411	335.5	119	4	3	30	12	48	0
20	123	6.511	334.5	120	2	3	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 2 SHOT POINT 11 TEAM 2  
SHOT TIME: 176:10: 3:57.594

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	202	10.648	144.0	21	-6	1	30	12	48	0
2	203	11.193	148.1	22	13	1	30	12	48	0
3	204	11.624	153.2	23	1	1	30	12	48	0
4	205	11.987	160.2	24	-6	1	30	12	48	0
5	206	12.846	166.8	25	21	1	30	12	48	0
6	207	13.417	170.0	26	4	1	30	12	48	0
7	208	14.052	175.6	27	10	1	30	12	48	0
8	210	15.743	183.8	28	--	2	30	12	48	1
9	211	16.906	187.4	29	12	2	30	12	48	0
10	212	18.162	189.0	30	6	1	30	12	48	0
11	213	19.165	191.0	31	7	1	30	12	48	0
12	214	20.216	192.2	32	12	1	30	12	48	0
13	215	21.147	192.0	33	32	1	30	12	48	0
14	216	22.159	191.7	34	10	1	30	12	48	0
15	217	23.057	189.1	35	-36	1	30	12	48	0
16	218	23.982	186.3	36	-2	1	30	12	48	0
17	220	26.058	185.0	37	4	2	30	12	68	0
18	221	27.980	185.7	38	2	2	30	12	68	0
19	222	28.875	185.8	39	2	2	30	12	68	0
20	223	28.875	185.8	40	7	2	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 2 SHOT POINT 11 TEAM 5  
 SHOT TIME: 176:10: 3:57.594

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	151	33.380	81	-9	1	30	12	48	0
2	142	34.226	82	-8	1	30	12	48	0
3	141	35.122	83	17	1	30	12	48	3
4	140	36.167	84	20	2	30	12	48	0
5	139	37.254	85	--	--	30	12	48	1
6	138	38.115	86	0	0	30	12	48	2
7	137	39.004	87	--	1	30	12	48	0/17
8	136	39.905	88	25	2	30	12	48	0
9	135	40.765	89	12	2	30	12	48	0
10	134	41.637	90	18	2	30	12	48	0
11	133	42.808	91	6	2	30	12	48	1
12	132	43.614	92	6	2	30	12	48	0
13	131	44.327	93	12	2	30	12	68	0
14	130	45.305	94	22	2	30	12	68	0
15	129	46.505	95	27	1	30	12	68	0
16	128	47.743	96	-13	1	30	12	68	1
17	127	48.771	97	7	2	30	12	68	0/9
18	126	49.598	98	7	2	30	12	48	0/9
19	125	50.829	99	17	2	30	12	48	0/9
20	124	51.750	100	15	2	30	12	48	0/9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 2 SHOT POINT 11 TEAM 3  
 SHOT TIME: 176:10: 3:57.594

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	201	9.732	41	24	1	30	12	48	0
2	200	8.525	42	7	1	30	12	48	0
3	198	5.514	43	-20	3	30	12	48	0
4	197	4.093	44	-29	3	30	12	48	0
5	188	2.851	45	3	3	30	12	68	0
6	187	1.786	46	4	1	30	12	68	0
7	186	0.843	47	14	3	30	12	68	0
8	185	0.001	48	-22	3	30	12	68	0
9	184	0.851	49	9	3	30	12	68	0
10	183	2.052	50	-13	3	30	12	68	0
11	182	2.999	51	28	3	30	12	48	0
12	181	3.873	52	11	1	30	12	68	0
13	180	5.147	53	7	1	30	12	68	0
14	179	6.052	54	-16	1	30	12	68	0
15	178	6.966	55	9	1	30	12	68	0
16	177	8.164	56	12	1	30	12	68	1
17	176	8.864	57	66	1	30	12	68	0
18	175	9.718	58	13	1	30	12	68	0
19	174	10.569	59	-3	1	30	12	48	0
20	173	11.813	60	-8	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 2 SHOT POINT 11 TEAM 4  
 SHOT TIME: 176:10: 3:57.594

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	152	32.139	61	12	2	30	12	48	0
2	154	30.914	62	6	2	30	12	48	0
3	153	29.897	63	9	2	30	12	48	0
4	156	28.709	64	15	2	30	12	48	0
5	157	27.870	65	-18	2	30	12	48	0
6	158	27.073	66	63	1	30	12	48	0
7	159	26.069	67	-4	2	30	12	48	0
8	160	25.104	68	-9	2	30	12	48	0
9	161	23.983	69	5	2	30	12	68	0
10	162	22.993	70	31	2	30	12	68	0
11	164	21.106	71	8	2	30	12	68	0
12	163	21.907	72	17	2	30	12	68	0
13	165	20.087	73	-14	2	30	12	68	0
14	166	19.111	74	0	0	30	12	68	2
15	167	18.243	75	15	1	30	12	68	0
16	168	17.079	76	9	1	30	12	68	0
17	169	16.277	77	5	2	30	12	48	0
18	170	14.908	78	3	2	30	12	48	0
19	171	13.842	79	25	2	30	12	48	0
20	172	13.276	80	14	1	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 2 SHOT POINT 11 TEAM 6  
 SHOT TIME: 176:10: 3:57.594

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	101	72.304	101	17	2	30	12	88	25
2	102	71.691	102	9	2	30	12	88	25
3	103	71.661	103	0	2	30	12	68	0
4	104	71.078	104	0	3	30	12	48	0
5	105	70.096	105	22	1	30	12	48	12
6	106	68.908	106	-8	2	30	12	48	12
7	108	67.257	107	-55	2	30	12	48	21
8	109	66.415	108	1	1	30	12	48	3
9	110	65.436	109	--	--	30	12	48	1
10	111	64.453	110	19	2	30	12	48	21
11	113	62.331	111	12	2	30	12	48	21
12	114	61.271	112	12	2	30	12	48	12
13	115	60.066	113	-11	2	30	12	48	12
14	116	59.238	114	--	--	30	12	48	1
15	117	57.800	115	4	2	30	12	48	12
16	119	56.466	116	20	2	30	12	48	12
17	120	55.459	117	3	3	30	12	48	3
18	121	54.696	118	11	1	30	12	48	0
19	122	53.485	119	4	2	30	12	48	0
20	123	52.598	120	2	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 3  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	201	212.707	171.8	41	24	2	30	12 48	0
2	200	211.604	171.9	42	7	2	30	12 48	0
3	198	208.902	172.3	43	-20	2	30	12 48	0/12
4	197	207.932	172.6	44	-29	2	30	12 48	0/12
5	188	206.944	172.8	45	3	2	30	12 68	0
6	187	206.066	172.9	46	4	2	30	12 68	0
7	185	205.220	173.0	47	14	2	30	12 88	0
8	186	204.424	173.1	48	-22	2	30	12 88	0
9	184	203.627	173.2	49	9	2	30	12 88	0/12
10	183	202.392	173.2	50	-13	2	30	12 68	0
11	182	201.433	173.1	51	28	2	30	12 48	0
12	181	200.561	173.1	52	11	2	30	12 68	0
13	180	199.311	173.0	53	7	2	30	12 88	0
14	179	198.433	172.9	54	-16	2	30	12 88	0
15	178	197.354	172.8	55	9	2	30	12 88	0/12
16	177	196.398	172.7	56	12	2	30	12 68	1
17	176	195.736	172.6	57	66	2	30	12 68	9/12
18	175	194.956	172.5	58	13	2	30	12 68	0/12
19	174	194.123	172.5	59	-3	2	30	12 48	0/12
20	173	192.000	172.3	60	-8	2	30	12 48	0/12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 1  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	224	233.622	174.7	1	20	2	30	12 88	0
2	225	234.136	174.9	2	51	2	30	12 88	0/12
3	230	235.593	175.1	3	13	2	30	12 68	0/12
4	231	236.619	175.4	4	-96	2	30	12 68	0/12
5	232	237.667	175.5	5	19	2	30	12 48	0/12
6	233	239.281	175.2	6	9	2	30	12 48	0/12
7	234	240.776	175.0	7	-3	2	30	12 48	0/12
8	235	242.121	174.9	8	35	2	30	12 48	0
9	236	243.129	174.9	9	106	2	30	12 48	0
10	237	245.320	175.2	10	37	2	30	12 48	0
11	238	248.970	175.4	11	-24	2	30	12 48	0
12	239	250.479	175.4	12	20	2	30	12 48	0
13	260	251.490	175.3	13	15	2	30	12 48	0/ 9
14	261	252.350	175.3	14	38	2	30	12 48	0
15	262	253.401	175.4	15	11	3	30	12 48	0
16	263	254.404	175.3	16	9	2	30	12 48	0/ 9
17	264	255.690	175.3	17	17	2	30	12 68	0/ 9
18	265	257.045	175.1	18	-16	2	30	12 88	2
19	266	257.746	174.9	19	-31	2	30	12 88	2
20	267	258.000	174.9	20	13	2	30	12 88	0/ 9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 4  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	152	172.761	171.6	61	12	2	30	12 48	0
2	154	174.183	171.3	62	6	2	30	12 48	0
3	155	175.172	171.4	63	9	2	30	12 48	0
4	156	176.490	171.2	64	15	2	30	12 48	0
5	157	177.445	171.1	65	-18	2	30	12 48	0
6	158	178.419	171.0	66	64	2	30	12 48	0
7	159	179.443	171.0	67	-4	2	30	12 48	0
8	160	180.403	171.0	68	-9	1	30	12 48	0
9	161	181.459	171.1	69	5	2	30	12 68	0
10	162	182.421	171.2	70	31	2	30	12 68	0
11	164	184.298	171.3	71	8	2	30	12 88	0
12	163	183.475	171.3	72	17	2	30	12 88	0
13	165	185.429	171.3	73	-14	2	30	12 88	0
14	166	186.175	171.5	74	0	2	30	12 88	2
15	167	187.045	171.6	75	15	2	30	12 88	0
16	168	188.238	171.6	76	9	2	30	12 68	0
17	169	188.867	171.8	77	5	2	30	12 48	0
18	170	190.134	171.9	78	3	2	30	12 48	0
19	171	191.090	172.1	79	25	2	30	12 48	0
20	172	191.653	172.1	80	14	2	30	12 48	2

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 2  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	202	213.744	171.8	21	-6	2	30	12 48	0
2	203	214.574	171.9	22	13	2	30	12 48	0
3	204	215.347	172.1	23	1	2	30	12 48	0
4	205	216.089	172.4	24	-6	2	30	12 48	0
5	206	217.164	172.8	25	21	2	30	12 48	0
6	207	217.790	172.9	26	4	2	30	12 48	0
7	208	218.435	173.3	27	10	2	30	12 48	0
8	210	219.891	173.9	28	--	2	30	12 48	1
9	211	220.827	174.2	29	12	2	30	12 48	0
10	212	221.926	174.4	30	6	2	30	12 48	0
11	213	222.719	174.6	31	7	1	30	12 48	0
12	214	223.602	174.8	32	12	1	30	12 48	0
13	215	224.519	174.8	33	32	2	30	12 48	0
14	216	225.515	174.9	34	10	2	30	12 48	0
15	217	226.646	174.7	35	-36	2	30	12 48	0
16	218	227.803	174.5	36	-2	2	30	12 68	0
17	220	229.946	174.4	37	4	2	30	12 68	2
18	221			38	2	2	30	12 68	0
19	222	231.767	174.6	39	2	2	30	12 68	0
20	223	232.000	174.6	40	7	2	30	12 88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 1  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	224	101.497	176.1	1	20	2	30	12 88	0	0
2	225	101.980	176.5	2	54	2	30	12 88	0	0
3	250	103.467	177.1	3	14	2	30	12 68	0	0
4	251	104.528	177.6	4	-101	2	30	12 68	0	0
5	252	105.587	177.8	5	20	2	30	12 48	0	0
6	253	107.159	177.1	6	9	2	30	12 48	0	0
7	254	108.626	176.6	7	-3	2	30	12 48	0	0
8	255	109.964	176.5	8	37	2	30	12 48	0	0
9	256	110.976	176.5	9	111	2	30	12 48	0	0
10	257	113.402	177.1	10	38	2	30	12 48	0	0
11	258	116.877	177.5	11	-25	2	30	12 48	0	0
12	259	118.380	177.4	12	20	2	30	12 48	0	0
13	260	119.379	177.2	13	16	2	30	12 48	0	0
14	261	120.234	177.1	14	40	2	30	12 48	0	0
15	262	121.295	177.3	15	12	2	30	12 48	0	0
16	263	123.289	177.1	16	10	2	30	12 48	0	0
17	264	123.573	177.1	17	18	2	30	12 68	0	0
18	265	124.901	176.6	18	-17	2	30	12 88	6	6
19	266	125.579	176.2	19	-33	2	30	12 88	0/ 6	0
20	267	126.500	176.2	20	13	2	30	12 88	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 5  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	151	171.487	171.6	81	-9	2	30	12 48	0/ 9	0
2	142	170.632	171.6	82	-8	2	30	12 48	17	17
3	141	169.701	171.7	83	17	2	30	12 48	0	0
4	140	168.606	171.8	84	20	2	30	12 48	0	0
5	139	167.486	171.8	85	--	2	30	12 48	1	1
6	138	166.601	171.9	86	0	2	30	12 48	3	3
7	137	165.685	172.0	87	--	2	30	12 48	0	0
8	136	164.756	172.0	88	25	2	30	12 48	0	0
9	135	163.879	172.1	89	12	2	30	12 48	0	0
10	134	162.987	172.2	90	18	2	30	12 48	0/ 9	0
11	133	161.794	172.3	91	6	2	30	12 48	1	1
12	132	160.967	172.4	92	6	2	30	12 68	0	0
13	131	160.235	172.5	93	12	2	30	12 68	0	0
14	130	158.232	172.6	94	22	1	30	12 68	0	0
15	129	158.126	172.1	95	27	2	30	12 88	0/ 9	0
16	128	156.826	172.5	96	-13	7	30	12 68	0/ 9	0
17	127	155.822	172.3	97	7	1	30	12 68	0/ 9	0
18	126	154.963	172.6	98	7	2	30	12 48	0/ 9	0
19	125	153.732	172.6	99	17	2	30	12 48	0/ 9	0
20	124	152.000	172.8	100	15	2	30	12 48	0/ 9	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 2  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	202	81.744	168.6	21	-6	2	30	12 48	0	0
2	203	82.547	169.0	22	14	2	30	12 48	0	0
3	204	83.279	169.5	23	1	2	30	12 48	0	0
4	205	83.966	170.4	24	-6	2	30	12 48	0	0
5	206	85.000	171.3	25	22	2	30	12 48	0	0
6	207	85.608	171.7	26	4	2	30	12 48	0	0
7	208	86.229	172.6	27	11	1	30	12 48	0	0
8	210	87.673	174.1	28	--	1	30	12 48	1	1
9	211	88.618	174.9	29	12	2	30	12 48	0	0
10	212	89.728	175.4	30	7	1	30	12 48	0	0
11	213	90.537	176.0	31	6	1	30	12 48	0	0
12	214	91.436	176.4	32	13	1	30	12 48	0	0
13	215	92.358	176.5	33	34	2	30	12 48	0	0
14	216	93.359	176.6	34	10	2	30	12 48	0	0
15	217	94.471	176.1	35	-38	2	30	12 48	0	0
16	220	95.609	175.6	36	-2	1	30	12 48	0	0
17	221	97.749	175.5	37	4	3	30	12 68	2	2
18	221	99.583	175.8	38	3	2	30	12 68	2	2
19	222	100.500	175.9	39	2	2	30	12 68	0	0
20	223	100.500	175.9	40	6	1	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 3 SHOT POINT 1 TEAM 6  
SHOT TIME: 176:10: 6: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	101	132.316	173.7	101	18	2	30	12 88	0	0
2	102	132.948	173.9	102	9	2	30	12 88	0	0
3	103	133.052	174.5	103	0	2	30	12 68	0	0
4	104	133.744	175.0	104	0	2	30	12 48	0	0
5	105	134.757	175.1	105	23	2	30	12 48	0/12	0
6	106	135.956	175.1	106	-8	2	30	12 48	0	0
7	108	137.623	175.2	107	-55	2	30	12 48	0	0
8	109	138.468	175.2	108	1	30	12 48	3	3	3
9	110	139.389	174.9	109	--	1	30	12 48	1	1
10	111	140.316	174.7	110	19	2	30	12 48	0/12	0
11	113	142.369	174.4	111	12	2	30	12 48	0/12	0
12	114	143.435	174.4	112	12	2	30	12 48	0/12	0
13	115	144.642	174.4	113	-11	1	30	12 48	0/12	0
14	116	145.505	174.6	114	--	4	30	12 48	1	1
15	117	146.875	174.2	115	4	2	30	12 48	17	17
16	119	148.123	173.7	116	20	30	12 48	0	0	0
17	120	149.099	173.3	117	3	2	30	12 48	0/12	0
18	121	149.856	173.0	118	11	2	30	12 48	0	0
19	122	151.065	172.9	119	4	2	30	12 48	0	0
20	123	151.952	172.8	120	2	2	30	12 48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 5  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	131	39.767	81	-9	1	30	12	48	0	
2	142	38.917	82	-9	1	30	12	48	0	
3	141	37.970	83	18	2	30	12	48	1	
4	140	36.843	84	22	2	30	12	48	0	
5	139	35.703	85	--	0	30	12	48	1	
6	138	34.803	86	0	1	30	12	48	0	
7	137	33.865	87	--	1	30	12	48	0	
8	136	32.909	88	26	2	30	12	48	0	
9	135	32.016	89	12	2	30	12	48	0	
10	134	31.101	90	20	1	30	12	48	0	
11	133	29.880	91	7	1	30	12	48	25/21	
12	132	29.020	92	7	1	30	12	48	0	
13	131	28.249	93	13	1	30	12	68	0	
14	130	27.253	94	23	1	30	12	68	0	
15	129	26.286	95	29	1	30	12	68	0	
16	128	24.858	96	-14	1	30	12	68	1	
17	127	23.916	97	7	1	30	12	68	0	
18	126	22.971	98	8	1	30	12	48	0	
19	125	21.739	99	18	1	30	12	48	0	
20	124	20.625	100	16	3	30	12	48	0	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 3  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	201	80.707	41	25	2	30	12	48	0	
2	200	79.764	42	8	2	30	12	48	0	
3	198	78.991	43	-22	1	30	12	48	0/12	
4	197	75.992	44	-31	2	30	12	48	0	
5	188	74.957	45	4	2	30	12	68	0	
6	187	74.059	46	4	2	30	12	68	0	
7	186	73.201	47	14	2	30	12	88	0	
8	185	72.397	48	-24	2	30	12	88	0	
9	184	71.593	49	9	2	30	12	88	0/12	
10	183	70.356	50	-14	2	30	12	88	0	
11	182	69.359	51	30	2	30	12	48	0	
12	181	68.525	52	11	2	30	12	68	0	
13	180	67.284	53	7	2	30	12	88	0	
14	179	66.413	54	-17	2	30	12	88	0	
15	178	65.542	55	9	2	30	12	88	0	
16	177	64.396	56	12	2	30	12	68	1	
17	176	63.744	57	70	2	30	12	68	0/12	
18	175	62.991	58	14	2	30	12	68	0/12	
19	174	62.155	59	-3	2	30	12	48	0/12	
20	173	60.750	60	-9	2	30	12	48	0/12	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 4  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	152	41.048	61	13	2	30	12	48	0	
2	154	42.378	62	7	2	30	12	48	0	
3	155	43.532	63	9	2	30	12	48	0	
4	156	44.899	64	15	2	30	12	48	0	
5	157	45.895	65	-19	2	30	12	48	0	
6	158	46.932	66	67	1	30	12	48	0	
7	159	47.939	67	-4	1	30	12	48	0	
8	160	48.872	68	-9	1	30	12	48	0	
9	161	49.874	69	5	1	30	12	68	0	
10	162	50.803	70	33	1	30	12	68	0/12	
11	164	52.637	71	16	8	2	30	12	88	0
12	163	51.823	72	18	2	30	12	88	0	
13	165	53.783	73	-15	2	30	12	88	0	
14	166	54.440	74	0	0	30	12	88	2	
15	167	55.297	75	16	2	30	12	88	0/12	
16	168	56.478	76	10	1	30	12	68	0/12	
17	169	57.051	77	5	2	30	12	48	0/12	
18	170	58.276	78	3	2	30	12	48	0/12	
19	171	59.196	79	27	2	30	12	48	0/12	
20	172	59.753	80	15	2	30	12	48	0/12	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 4 SHOT POINT 7 TEAM 6  
SHOT TIME: 176:12: 0: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	101	0.137	101	19	3	30	12	88	0	
2	102	0.956	102	10	3	30	12	88	0	
3	103	2.044	103	0	3	30	12	68	0	
4	104	3.485	104	0	3	30	12	48	0	
5	105	4.247	105	24	3	30	12	48	0	
6	106	5.115	106	-9	3	30	12	48	0	
7	108	6.497	107	-59	3	30	12	48	0	
8	109	7.217	108	1	1	30	12	48	3	
9	110	7.814	109	--	--	30	12	48	1	
10	111	8.495	110	21	3	30	12	48	0	
11	113	10.316	111	13	3	30	12	48	0	
12	114	11.383	112	12	3	30	12	48	0	
13	115	12.379	113	-12	3	30	12	48	0	
14	116	13.494	114	--	--	30	12	48	0	
15	117	14.795	115	4	3	30	12	48	0	
16	119	15.945	116	21	3	30	12	48	0/17	
17	120	16.930	117	3	3	30	12	48	0	
18	121	17.777	118	12	3	30	12	48	0	
19	122	18.993	119	4	3	30	12	48	0	
20	123	19.896	120	2	3	30	12	48	0	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 5 SHOT POINT 9 TEAM 3  
SHOT TIME: 176:12: 2: 0.010

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	201	27.394	41	25	2	30	12	48	0	0
2	200	26.324	42	8	2	30	12	48	0	0
3	198	23.775	43	-22	1	30	12	48	0	0
4	197	23.018	44	-31	2	30	12	48	0	0
5	188	22.179	45	4	2	30	12	68	0	0
6	187	21.473	46	4	2	30	12	68	0	0
7	186	20.770	47	14	2	30	12	88	0	0
8	185	20.088	48	-24	2	30	12	88	0	0
9	184	19.421	49	9	2	30	12	68	0	0
10	183	18.739	50	-14	2	30	12	48	0	0
11	182	17.274	51	30	2	30	12	48	0	0
12	181	16.460	52	11	2	30	12	68	0	0
13	180	15.106	53	7	2	30	12	88	0	0
14	179	14.187	54	-17	2	30	12	88	0	0
15	178	13.258	55	9	2	30	12	88	0	0
16	177	12.061	56	12	2	30	12	68	1	1
17	176	11.347	57	71	2	30	12	68	0	0
18	175	10.458	58	14	1	30	12	68	0	0
19	174	9.628	59	-3	1	30	12	48	0	0
20	173	8.250	60	-9	1	30	12	48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 5 SHOT POINT 9 TEAM 1  
SHOT TIME: 176:12: 2: 0.010

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	224	49.988	188.0	1	20	2	30	12	88	0
2	223	50.623	188.8	2	54	2	30	12	88	0
3	230	52.295	189.5	3	14	2	30	12	68	0
4	251	53.553	190.3	4	-101	2	30	12	68	0
5	252	54.646	190.4	5	20	2	30	12	48	0
6	253	55.933	188.8	6	9	2	30	12	48	0
7	254	57.178	187.5	7	-3	2	30	12	48	0
8	255	58.449	187.0	8	37	2	30	12	48	0
9	256	59.471	187.0	9	111	2	30	12	48	0
10	257	62.084	187.7	10	38	2	30	12	48	0
11	258	65.633	187.7	11	-25	2	30	12	48	0
12	259	67.079	187.3	12	20	2	30	12	48	0
13	260	68.000	186.8	13	16	2	30	12	48	0
14	261	68.821	186.6	14	40	2	30	12	48	0
15	262	69.915	186.7	15	12	2	30	12	48	0
16	263	70.853	186.3	16	10	2	30	12	48	0
17	264	72.108	186.1	17	18	2	30	12	68	0
18	265	73.270	185.1	18	-17	2	30	12	88	0
19	266	73.795	184.3	19	-33	2	30	12	88	0
20	267	74.500	184.3	20	13	2	30	12	88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 5 SHOT POINT 9 TEAM 4  
SHOT TIME: 176:12: 2: 0.010

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	152	12.741	346.9	61	13	2	30	12	48	0
2	154	11.272	350.9	62	7	2	30	12	48	0
3	153	10.285	349.6	63	9	2	30	12	48	0
4	156	8.959	352.1	64	16	2	30	12	48	0
5	157	8.014	354.7	65	-19	1	30	12	48	0
6	158	7.094	359.3	66	68	1	30	12	48	0
7	159	6.067	0.0	67	-4	1	30	12	48	0
8	160	5.093	359.9	68	-9	1	30	12	48	0
9	161	3.996	356.9	69	5	1	30	12	68	0/12
10	162	3.017	354.2	70	33	3	30	12	68	0
11	164	1.145	343.0	71	6	1	30	12	88	0
12	163	1.961	348.1	72	18	1	30	12	88	0
13	165	0.001	188.0	73	-15	3	30	12	88	0/12
14	166	1.125	220.0	74	0	1	30	12	88	0
15	167	1.885	202.4	75	16	1	30	12	68	0
16	168	3.011	192.4	76	10	3	30	12	48	0
17	169	3.849	198.2	77	5	1	30	12	48	0
18	170	5.222	197.3	78	3	2	30	12	48	0
19	171	6.312	197.9	79	27	1	30	12	48	0
20	172	6.859	196.5	80	15	1	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 5 SHOT POINT 9 TEAM 2  
SHOT TIME: 176:12: 2: 0.010

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	202	28.430	175.2	21	-6	2	30	12	48	0
2	203	29.289	176.0	22	14	2	30	12	48	2
3	204	30.122	177.4	23	1	2	30	12	48	2
4	205	30.998	179.7	24	-6	2	30	12	48	0
5	206	32.239	181.7	25	22	2	30	12	48	0
6	207	32.964	182.7	26	4	2	30	12	48	0
7	208	33.841	184.7	27	11	2	30	12	48	0
8	210	35.761	187.9	28	-	2	30	12	48	1
9	211	36.977	189.4	29	12	2	30	12	48	0
10	212	38.245	190.1	30	7	1	30	12	48	0
11	213	39.254	191.0	31	8	1	30	12	48	0
12	214	40.302	191.6	32	13	1	30	12	48	0
13	215	41.234	191.5	33	34	2	30	12	48	0
14	216	42.247	191.4	34	10	2	30	12	48	0
15	217	43.140	190.0	35	-38	2	30	12	48	0
16	218	44.034	188.5	36	-2	2	30	12	48	0
17	220	46.084	187.7	37	4	2	30	12	68	2
18	221	48.019	188.0	38	2	2	30	12	68	0
19	222	48.750	187.9	39	2	2	30	12	68	0
20	223	48.750	187.9	40	8	2	30	12	68	0



FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 6 SHOT POINT 12  
 SHOT TIME: 176:12: 3:57.009

TEAM 1

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	224	0.000	360.0	1	20	3	30	12 88	0
2	225	0.918	234.6	2	54	3	30	12 88	0
3	250	2.670	219.0	3	14	3	30	12 68	0
4	251	4.141	219.7	4	-101	1	30	12 68	0
5	252	5.133	214.0	5	20	3	30	12 48	0
6	253	5.988	195.3	6	9	3	30	12 48	0
7	254	7.205	183.9	7	-3	1	30	12 48	0
8	255	8.514	181.0	8	37	1	30	12 48	0
9	256	9.536	181.3	9	111	1	30	12 48	0
10	257	12.099	186.3	10	30	1	30	12 48	0
11	258	15.646	186.8	11	-26	2	30	12 48	0
12	259	17.105	185.3	12	20	1	30	12 48	0
13	260	18.050	183.6	13	16	1	30	12 48	0
14	261	18.887	182.8	14	40	1	30	12 48	0
15	262	19.973	183.3	15	12	2	30	12 48	0
16	263	20.537	182.3	16	10	2	30	12 48	0
17	264	22.211	181.7	17	18	1	30	12 68	0
18	265	23.478	179.0	18	-17	2	30	12 68	0
19	266	24.134	176.5	19	-33	1	30	12 88	2
20	267	25.139	176.9	20	13	1	30	12 88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 6 SHOT POINT 12  
 SHOT TIME: 176:12: 3:57.009

TEAM 2

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	202	23.163	23.9	21	-6	1	30	12 48	0
2	203	22.213	24.1	22	14	2	30	12 48	0
3	204	21.140	23.3	23	1	1	30	12 48	0
4	205	19.849	21.2	24	-6	1	30	12 48	0
5	206	18.304	19.3	25	22	1	30	12 48	0
6	207	17.448	18.2	26	4	1	30	12 48	0
7	208	16.322	14.9	27	11	1	30	12 48	0
8	210	14.228	8.4	28	-	-	30	12 48	1
9	211	13.052	4.1	29	12	1	30	12 48	0
10	212	11.849	1.3	30	7	3	30	12 48	0
11	213	10.986	357.1	31	8	3	30	12 48	0
12	214	10.097	353.3	32	13	3	30	12 48	0
13	215	9.186	352.0	33	34	3	30	12 48	0
14	216	8.203	350.3	34	10	3	30	12 48	0
15	217	7.042	355.4	35	-38	3	30	12 48	0
16	218	5.967	4.4	36	-2	3	30	12 48	0
17	220	3.916	12.3	37	4	3	30	12 68	2
18	221			38	3	3	30	12 68	0
19	222	1.970	9.1	39	2	3	30	12 68	0
20	223	0.992	11.4	40	8	1	30	12 88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 5 SHOT POINT 9  
 SHOT TIME: 176:12: 2: 0.010

TEAM 5

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	151	14.022	346.9	81	-9	2	30	12 48	0
2	142	14.876	347.2	82	-9	1	30	12 48	0
3	141	15.821	346.8	83	18	2	30	12 48	1
4	140	16.942	346.2	84	22	2	30	12 48	0
5	139	18.080	345.9	85	--	0	30	12 48	1
6	138	18.980	345.7	86	0	2	30	12 48	0
7	137	19.917	345.4	87	--	0	30	12 48	0
8	136	20.873	344.9	88	26	2	30	12 48	0
9	135	21.767	344.8	89	12	2	30	12 48	0/9
10	134	22.684	344.5	90	20	2	30	12 48	0/9
11	133	23.909	344.2	91	7	2	30	12 48	0/9
12	132	24.777	343.7	92	7	2	30	12 48	1
13	131	25.565	343.1	93	13	2	30	12 68	0
14	130	26.563	343.1	94	23	2	30	12 68	0/9
15	129	27.504	346.2	95	29	2	30	12 68	0/9
16	128	28.931	344.4	96	-14	1	30	12 68	0/9
17	127	29.866	343.5	97	7	1	30	12 68	0/9
18	126	30.818	344.4	98	8	2	30	12 48	0/9
19	125	32.048	344.6	99	18	2	30	12 48	0/9
20	124	33.000	343.9	100	16	2	30	12 48	0/9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 5 SHOT POINT 9  
 SHOT TIME: 176:12: 2: 0.010

TEAM 6

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	101	53.700	345.1	101	19	2	30	12 68	0
2	102	53.160	344.4	102	10	2	30	12 88	0
3	103	53.290	343.0	103	0	2	30	12 68	0
4	104	52.891	341.5	104	0	2	30	12 68	0
5	105	51.970	341.0	105	24	2	30	12 48	0
6	106	50.824	340.6	106	-9	2	30	12 48	0
7	108	49.232	340.0	107	-59	2	30	12 48	0
8	109	48.413	339.7	108	1	2	30	12 48	0
9	110	47.378	340.1	109	--	0	30	12 48	3
10	111	46.330	340.5	110	--	0	30	12 48	1
11	113	44.129	340.9	111	21	2	30	12 48	0
12	114	43.109	340.5	112	13	2	30	12 48	0
13	115	41.937	340.1	113	-12	1	30	12 48	0
14	116	41.205	339.2	114	--	0	30	12 48	1
15	117	39.660	339.9	115	4	2	30	12 48	0
16	119	38.110	341.5	116	21	2	30	12 48	0
17	120	36.934	342.8	117	3	2	30	12 48	0
18	121	36.028	344.0	118	12	2	30	12 48	0
19	122	34.814	343.9	119	4	2	30	12 48	0
20	123	33.908	343.9	120	2	2	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 6 SHOT POINT 12 TEAM 5  
SHOT TIME: 176:12: 3:57.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	151	63.269	81	-9	1	30	12	48	0	0
2	142	64.110	82	-9	1	30	12	48	0	0
3	141	64.991	83	10	1	30	12	48	0	1
4	139	67.081	84	22	2	30	12	48	0	0
5	139	67.081	85	--	2	30	12	48	1	1
6	138	67.926	86	0	2	30	12	48	0	0
7	137	68.796	87	--	1	30	12	48	0	0
8	136	69.673	88	26	2	30	12	48	0	0
9	135	70.516	89	12	1	30	12	48	0	2
10	134	71.367	90	20	1	30	12	48	0	0
11	133	72.209	91	7	7	30	12	48	1	1
12	132	73.087	92	7	2	30	12	48	0	2
13	131	73.967	93	13	2	30	12	68	0	9
14	130	74.926	94	23	2	30	12	68	0	9
15	129	76.208	95	29	1	30	12	68	0	9
16	128	77.366	96	-14	2	30	12	68	0	9
17	127	78.421	97	7	2	30	12	68	0	9
18	126	79.192	98	8	2	30	12	48	0	9
19	125	80.231	99	18	2	30	12	48	0	9
20	124	81.000	100	16	2	30	12	48	0	9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 6 SHOT POINT 12 TEAM 3  
SHOT TIME: 176:12: 3:57.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	201	24.040	41	25	1	30	12	48	0	0
2	200	24.757	42	8	1	30	12	48	0	0
3	198	26.625	43	-22	1	30	12	48	0	0
4	197	27.108	44	-31	1	30	12	48	0	0
5	188	27.840	45	4	3	30	12	48	0	12
6	187	28.515	46	4	1	30	12	68	0	0
7	186	29.233	47	14	1	30	12	68	0	0
8	185	29.947	48	-24	1	30	12	68	0	0
9	184	30.667	49	9	1	30	12	68	0	0
10	183	31.690	50	-14	2	30	12	68	0	0
11	182	32.869	51	30	1	30	12	68	0	0
12	181	33.726	52	11	1	30	12	68	0	0
13	180	35.056	53	7	1	30	12	68	0	0
14	179	35.973	54	-17	1	30	12	68	0	0
15	178	36.898	55	9	1	30	12	68	0	1
16	177	38.101	56	13	1	30	12	68	0	0
17	176	38.806	57	71	1	30	12	68	0	0
18	175	39.665	58	14	1	30	12	68	0	0
19	174	40.515	59	-3	1	30	12	48	0	0
20	173	41.750	60	-9	1	30	12	48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 6 SHOT POINT 12 TEAM 6  
SHOT TIME: 176:12: 3:57.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	101	101.396	101	19	2	30	12	88	0	12
2	102	100.748	102	10	2	30	12	88	0	12
3	103	100.621	103	0	2	30	12	68	0	12
4	104	99.935	104	0	2	30	12	48	0	12
5	105	98.927	105	24	2	30	12	48	0	12
6	106	97.730	106	-9	2	30	12	48	0	12
7	108	96.064	107	-59	2	30	12	48	0	12
8	109	95.220	108	1	2	30	12	48	0	12
9	110	94.288	109	--	1	30	12	48	0	12
10	111	93.356	110	21	2	30	12	48	0	12
11	113	91.307	111	13	2	30	12	48	0	0
12	114	90.240	112	12	2	30	12	48	0	0
13	115	89.034	113	-12	2	30	12	48	12	21
14	116	88.167	114	--	2	30	12	48	1	1
15	117	86.807	115	4	2	30	12	48	0	12
16	119	85.602	116	21	2	30	12	48	0	12
17	120	84.690	117	3	2	30	12	48	0	12
18	121	84.004	118	12	2	30	12	48	0	12
19	122	82.808	119	4	2	30	12	48	0	12
20	123	81.940	120	2	2	30	12	48	0	12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 6 SHOT POINT 12 TEAM 4  
SHOT TIME: 176:12: 3:57.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	152	62.042	61	13	2	30	12	48	0	0
2	154	60.849	62	7	2	30	12	48	0	0
3	155	59.833	63	9	2	30	12	48	0	0
4	156	58.654	64	16	2	30	12	48	0	0
5	157	57.816	65	-19	2	30	12	48	0	12
6	158	57.011	66	68	2	30	12	48	0	0
7	159	56.002	67	-4	2	30	12	48	0	0
8	160	55.035	68	-9	1	30	12	48	0	0
9	161	53.915	69	5	2	30	12	68	0	0
10	162	52.923	70	33	1	30	12	68	0	0
11	164	51.028	71	8	2	30	12	68	0	0
12	163	51.836	72	18	2	30	12	68	0	0
13	165	49.987	73	-15	2	30	12	68	0	12
14	166	49.037	74	0	2	30	12	68	0	12
15	167	48.164	75	16	2	30	12	68	0	0
16	168	46.987	76	10	1	30	12	68	0	0
17	169	46.205	77	5	2	30	12	48	0	12
18	170	44.842	78	3	2	30	12	48	0	12
19	171	43.783	79	27	2	30	12	48	0	12
20	172	43.216	80	15	1	30	12	48	0	12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 7 SHOT POINT 19 TEAM 3  
 SHOT TIME: 176:12: 6; 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	201	47.894	9.6	41	25	1	30	12 48	0
2	200	48.803	8.6	42	8	1	30	12 48	0
3	198	51.061	6.3	43	-22	1	30	12 48	0/12
4	197	51.732	4.8	44	-31	1	30	12 48	0
5	188	52.576	3.8	45	4	3	30	12 68	0
6	187	53.330	2.9	46	4	1	30	12 68	0
7	186	54.097	2.3	47	15	1	30	12 88	0
8	185	54.843	1.9	48	-24	1	30	12 88	0
9	184	55.591	1.5	49	9	2	30	12 88	0
10	183	56.824	1.4	50	-14	1	30	12 68	0
11	182	57.801	1.4	51	30	1	30	12 48	0
12	181	58.666	1.3	52	11	1	30	12 68	0
13	180	59.980	1.6	53	7	1	30	12 88	0
14	179	60.891	1.8	54	-17	1	30	12 88	0
15	178	61.808	1.9	55	9	1	30	12 88	0
16	177	63.004	2.1	56	13	1	30	12 68	1
17	176	63.702	2.2	57	71	1	30	12 68	0
18	175	64.544	2.5	58	14	1	30	12 68	0
19	174	65.395	2.5	59	-3	1	30	12 48	0
20	173	66.500	2.8	60	-9	1	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 7 SHOT POINT 19 TEAM 1  
 SHOT TIME: 176:12: 6; 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	224	25.059	357.1	1	21	3	30	12 88	0/ 9
2	225	24.378	355.3	2	54	1	30	12 88	0
3	230	23.141	352.6	3	14	1	30	12 68	0
4	231	22.194	349.8	4	-101	1	30	12 68	0
5	232	21.184	348.7	5	20	3	30	12 48	0
6	233	19.463	351.5	6	9	3	30	12 48	0
7	234	17.925	354.3	7	-3	3	30	12 48	0
8	235	16.376	355.0	8	37	3	30	12 48	0
9	236	15.566	354.4	9	111	3	30	12 48	0
10	237	13.237	348.7	10	38	3	30	12 48	0
11	238	9.993	341.7	11	-26	3	30	12 48	0
12	239	8.489	340.3	12	21	3	30	12 48	0
13	260	7.416	341.0	13	16	3	30	12 48	0
14	261	6.332	340.1	14	40	3	30	12 48	0
15	262	5.649	334.2	15	12	3	30	12 48	0
16	263	4.620	332.7	16	10	3	30	12 48	0
17	264	3.436	325.3	17	18	1	30	12 68	0
18	265	1.774	331.0	18	-17	1	30	12 88	0
19	266	0.961	12.6	19	-33	3	30	12 88	2
20	267	0.112	132.7	20	13	3	30	12 88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 7 SHOT POINT 19 TEAM 4  
 SHOT TIME: 176:12: 6; 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	152	86.787	1.8	61	13	2	30	12 48	0
2	154	85.554	2.6	62	7	2	30	12 48	0
3	155	84.540	2.6	63	9	2	30	12 48	0
4	156	83.334	3.1	64	16	2	30	12 48	0
5	157	82.472	3.4	65	-19	2	30	12 48	0
6	158	81.632	3.9	66	68	1	30	12 48	0
7	159	80.616	4.1	67	-4	1	30	12 48	0
8	160	79.824	4.1	68	-9	1	30	12 48	0
9	161	78.709	4.0	69	5	1	30	12 68	0
10	162	77.717	4.0	70	33	1	30	12 68	0
11	164	75.813	4.1	71	18	1	30	12 88	0
12	163	76.629	4.0	72	18	2	30	12 88	0
13	165	74.745	4.4	73	-15	2	30	12 88	0
14	166	73.833	3.9	74	0	2	30	12 88	0/12
15	167	72.934	3.9	75	16	1	30	12 88	0
16	168	71.765	4.0	76	10	1	30	12 68	0/12
17	169	71.014	3.6	77	5	1	30	12 48	0
18	170	69.664	3.4	78	3	2	30	12 48	0/12
19	171	68.624	3.1	79	27	1	30	12 48	0/12
20	172	68.034	3.2	80	15	1	30	12 48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 7 SHOT POINT 19 TEAM 2  
 SHOT TIME: 176:12: 6; 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	202	46.911	10.0	21	-6	3	30	12 48	0
2	203	45.978	9.8	22	14	1	30	12 48	0
3	204	45.004	9.1	23	1	1	30	12 48	0
4	205	43.932	7.8	24	-6	1	30	12 48	0
5	206	42.572	6.5	25	22	1	30	12 48	0
6	207	41.810	5.8	26	4	1	30	12 48	0
7	208	40.905	4.1	27	11	1	30	12 48	0
8	210	39.111	1.2	28	--	1	30	12 48	1
9	211	38.046	359.5	29	12	1	30	12 48	0
10	212	36.886	358.4	30	7	3	30	12 48	0
11	213	36.045	357.1	31	8	3	30	12 48	0
12	214	35.141	356.0	32	13	1	30	12 48	0
13	215	34.219	355.7	33	34	1	30	12 48	0
14	216	33.218	355.4	34	10	1	30	12 48	0
15	217	32.059	356.7	35	-38	3	30	12 48	0
16	218	30.986	358.5	36	-2	3	30	12 68	2
17	220	28.856	359.1	37	4	3	30	12 68	2
18	221			38	3	1	30	12 68	0
19	222	26.989	357.9	39	2	1	30	12 68	0
20	223	26.025	357.6	40	8	1	30	12 88	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 1  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	224	35.973	185.0	1	31	2	30	12	88
2	225	36.575	186.1	2	82	2	30	12	88
3	230	38.217	187.2	3	21	2	30	12	68
4	231	39.446	188.4	4	-154	2	30	12	68
5	232	40.538	188.5	5	31	2	30	12	48
6	233	41.879	188.5	6	14	2	30	12	48
7	234	43.178	184.8	7	-5	2	30	12	48
8	235	44.472	184.2	8	56	2	30	12	48
9	236	45.494	184.2	9	170	2	30	12	48
10	237	48.071	185.3	10	59	2	30	12	48
11	238	51.615	185.5	11	-39	2	30	12	48
12	239	53.079	185.1	12	31	2	30	12	48
13	260	54.020	184.5	13	25	2	30	12	48
14	261	54.852	184.3	14	61	2	30	12	48
15	262	55.941	184.4	15	18	3	30	12	48
16	263	56.896	184.0	16	15	2	30	12	48
17	264	58.162	183.8	17	28	2	30	12	68
18	265	59.373	182.6	18	-25	2	30	12	88
19	266	59.948	181.6	19	-50	2	30	12	88
20	267	60.965	181.7	20	20	2	30	12	88

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 2  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	202	15.250	157.0	21	-10	2	30	12	48
2	203	16.627	159.3	22	23	2	30	12	48
3	204	17.231	162.4	23	2	2	30	12	48
4	205	17.792	167.0	24	-10	2	30	12	48
5	206	18.784	171.2	25	37	2	30	12	48
6	207	19.401	173.2	26	7	2	30	12	48
7	208	20.089	177.0	27	18	2	30	12	48
8	210	21.787	182.8	28	--	2	30	12	48
9	211	22.924	185.5	29	21	2	30	12	48
10	212	24.162	186.8	30	12	2	30	12	48
11	213	25.137	188.4	31	13	1	30	12	48
12	214	26.167	189.5	32	21	2	30	12	48
13	215	27.102	189.4	33	56	2	30	12	48
14	216	28.117	189.2	34	17	2	30	12	48
15	217	29.052	187.3	35	-63	2	30	12	48
16	218	30.007	185.1	36	-2	2	30	12	48
17	220	32.093	184.1	37	7	2	30	12	68
18	221	33.009	184.8	38	4	2	30	12	68
19	222	34.009	184.8	39	2	2	30	12	68
20	223	34.985	184.8	40	13	2	30	12	68

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 7 SHOT POINT 19 TEAM 5  
SHOT TIME: 176:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	151	88.022	1.6	81	-9	1	30	12	48
2	142	88.866	1.5	82	-9	1	30	12	48
3	141	89.755	1.3	83	18	1	30	12	48
4	140	90.788	1.0	84	22	1	30	12	48
5	139	91.863	0.8	85	--	1	30	12	48
6	138	92.713	0.6	86	0	1	30	12	48
7	137	93.589	0.4	87	--	1	30	12	48
8	136	94.472	0.1	88	26	2	30	12	48
9	135	95.319	368.0	89	12	2	30	12	48
10	134	96.173	359.8	90	20	2	30	12	48
11	133	97.320	359.5	91	7	30	12	48	1
12	132	98.102	359.2	92	7	30	12	48	1
13	131	98.786	359.0	93	13	1	30	12	68
14	130	99.746	358.8	94	23	1	30	12	68
15	129	101.012	358.5	95	29	1	30	12	68
16	128	102.181	358.8	96	-14	1	30	12	68
17	127	103.230	359.0	97	7	1	30	12	68
18	126	104.007	358.5	98	8	2	30	12	68
19	125	105.225	358.4	99	18	1	30	12	48
20	124	106.000	358.1	100	16	1	30	12	48

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 7 SHOT POINT 19 TEAM 6  
SHOT TIME: 176:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	101	126.397	356.2	101	19	2	30	12	88
2	102	125.747	356.0	102	10	2	30	12	88
3	103	125.614	355.4	103	0	2	30	12	68
4	104	124.917	354.8	104	0	2	30	12	48
5	105	123.907	354.7	105	24	2	30	12	48
6	106	122.708	354.7	106	-9	2	30	12	48
7	108	121.042	354.6	107	-59	2	30	12	48
8	109	120.197	354.6	108	1	2	30	12	48
9	110	119.271	354.9	109	--	2	30	12	48
10	111	118.344	355.2	110	21	2	30	12	48
11	113	116.302	355.6	111	13	2	30	12	48
12	114	115.234	355.6	112	12	2	30	12	48
13	115	114.028	355.6	113	-12	2	30	12	48
14	116	113.159	355.4	114	--	2	30	12	48
15	117	111.804	355.8	115	4	2	30	12	48
16	119	110.605	356.5	116	21	2	30	12	48
17	120	109.694	357.2	117	3	2	30	12	48
18	121	109.006	357.7	118	12	2	30	12	48
19	122	107.809	357.8	119	4	1	30	12	48
20	123	106.939	358.0	120	2	1	30	12	48

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 5  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	151	27.328	81	-15	2	30	12	48	0	0
2	142	28.175	82	-15	2	30	12	48	0	0
3	141	29.070	83	30	2	30	12	48	17	17
4	140	30.115	84	36	2	30	12	48	0/9	0/9
5	139	31.204	85	--	2	30	12	48	0/9	0/9
6	138	32.066	86	0	2	30	12	48	0/9	0/9
7	137	32.957	87	--	2	30	12	48	0/9	0/9
8	136	33.860	88	44	3	30	12	48	0/9	0/9
9	135	34.723	89	21	2	30	12	48	0/9	0/9
10	134	35.597	90	33	2	30	12	48	0/9	0/9
11	133	36.772	91	11	11	30	12	48	0/9	0/9
12	132	37.583	92	11	2	30	12	48	0/9	0/9
13	131	38.301	93	21	2	30	12	68	0/9	0/9
14	130	39.281	94	39	2	30	12	68	0/9	0/9
15	129	40.467	95	48	2	30	12	68	0/9	0/9
16	128	41.718	96	-23	3	30	12	68	0/9	0/9
17	127	42.741	97	13	2	30	12	68	0/9	0/9
18	126	43.578	98	13	2	30	12	48	0/9	0/9
19	125	44.810	99	30	2	30	12	48	0/9	0/9
20	124	45.750	100	26	2	30	12	48	0/9	0/9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 3  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	201	14.923	41	42	2	30	12	48	0/12	0/12
2	200	13.722	42	13	2	30	12	48	0/12	0/12
3	198	10.765	43	-36	2	30	12	48	0/12	0/12
4	197	9.626	44	-52	2	30	12	48	0/12	0/12
5	188	8.548	45	6	2	30	12	68	0/12	0/12
6	187	7.651	46	6	2	30	12	68	0/12	0/12
7	186	6.819	47	24	2	30	12	68	0/12	0/12
8	185	6.051	48	-40	2	30	12	68	0/12	0/12
9	184	5.307	49	15	2	30	12	68	0/12	0/12
10	183	4.087	50	-23	2	30	12	68	0/12	0/12
11	182	3.110	51	50	1	30	12	48	0	0
12	181	2.275	52	19	1	30	12	68	0	0
13	180	0.922	53	12	1	30	12	68	0	0
14	179	0.001	54	-28	3	30	12	68	0	0
15	178	0.930	55	16	1	30	12	68	0	0
16	177	2.136	56	21	1	30	12	68	1	1
17	176	2.849	57	117	2	30	12	68	0	0
18	175	3.731	58	22	1	30	12	68	0	0
19	174	4.571	59	-6	2	30	12	48	0/12	0/12
20	173	5.875	60	-15	2	30	12	48	0/12	0/12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 6  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	101	66.320	101	32	101	30	12	88	21	21
2	102	65.715	102	17	102	30	12	88	21	21
3	103	65.703	103	0	103	30	12	68	21	21
4	104	65.142	104	-2	2	30	12	48	12/21	12/21
5	105	64.166	105	41	105	30	12	48	12	12
6	106	62.983	106	-15	1	30	12	48	21	21
7	108	61.337	107	-100	1	30	12	48	21	21
8	109	60.496	108	1	1	30	12	48	21	21
9	110	59.509	109	--	--	30	12	48	1	1
10	111	58.517	110	35	2	30	12	48	12/21	12/21
11	113	56.383	111	23	2	30	12	48	12/21	12/21
12	114	55.326	112	21	21	30	12	48	17	17
13	115	54.123	113	-20	2	30	12	48	12/21	12/21
14	116	53.305	114	--	--	30	12	48	1	1
15	117	51.852	115	8	8	30	12	48	21	21
16	119	50.492	116	36	36	30	12	48	21	21
17	120	49.467	117	5	5	30	12	48	21	21
18	121	48.690	118	21	21	30	12	48	21	21
19	122	47.478	119	7	7	30	12	48	17	17
20	123	46.588	120	4	4	30	12	48	21	21

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 8 SHOT POINT 10 TEAM 4  
SHOT TIME: 177:10: 0: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	152	26.089	61	22	2	30	12	48	0	0
2	154	24.875	62	12	1	30	12	48	0	0
3	155	23.859	63	16	2	30	12	48	0	0
4	156	22.685	64	26	2	30	12	48	0	0
5	157	21.861	65	-31	2	30	12	48	0	0
6	158	21.090	66	113	2	30	12	48	0	0
7	159	20.096	67	-7	2	30	12	48	0	0
8	160	19.139	68	-15	2	30	12	48	0	0
9	161	18.017	69	9	2	30	12	68	0/12	0/12
10	162	17.031	70	55	2	30	12	68	0/12	0/12
11	164	15.163	71	14	2	30	12	68	0/9	0/9
12	163	15.951	72	30	2	30	12	68	0/9	0/9
13	165	14.185	73	-25	2	30	12	68	0/9	0/9
14	166	13.169	74	0	0	30	12	68	0/9	0/9
15	167	12.316	75	27	2	30	12	68	0/9	0/9
16	168	11.181	76	17	2	30	12	68	0/9	0/9
17	169	10.343	77	9	2	30	12	48	0/9	0/9
18	170	8.968	78	5	2	30	12	48	0/9	0/9
19	171	7.884	79	45	2	30	12	48	0/9	0/9
20	172	7.329	80	26	2	30	12	48	0/9	0/9

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 3  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	552	44.835	167.3	41	-3	30	12	48	1	1
2	553	45.803	167.9	42	9	30	12	48	0	0
3	554	47.258	167.7	43	-12	2	30	12	68	0
4	555	48.299	167.8	44	41	2	30	12	68	0
5	556	48.984	167.9	45	1	2	30	12	98	0
6	557	49.783	168.0	46	0	2	30	12	98	2
7	558	50.863	167.6	47	14	2	30	12	68	0
8	559	51.826	167.7	48	9	2	30	12	68	2
9	560	52.808	167.9	49	12	2	30	12	48	0
10	561	53.738	167.7	50	-11	2	30	12	48	0
11	562	54.842	167.8	51	18	2	30	12	48	0
12	563	55.986	167.9	52	21	2	30	12	48	0
13	564	57.106	168.0	53	7	2	30	12	48	0
14	565	58.055	168.4	54	-11	2	30	12	48	0
15	566	59.215	169.3	55	7	2	30	12	48	0
16	567	60.572	170.1	56	12	1	30	12	68	0
17	568	61.829	169.9	57	11	1	30	12	68	0
18	569	63.181	169.5	58	14	2	30	12	68	3
19	570	64.154	169.3	59	-2	2	30	12	68	0
20	571	65.521	169.4	60	-7	2	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 1  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	0.580	203.3	19	3	30	12	88	0	0
2	502	2.167	219.7	23	3	30	12	68	0	0
3	503	2.965	201.3	3	11	3	30	12	68	0
4	504	3.893	192.8	4	-19	3	30	12	68	0
5	505	4.139	168.9	5	-18	3	30	12	48	17
6	506	5.042	165.1	6	6	3	30	12	48	0
7	507	6.341	162.1	7	2	3	30	12	48	0
8	508	7.946	162.1	8	14	3	30	12	48	3
9	509	9.255	171.9	9	55	1	30	12	48	0
10	510	10.543	175.2	10	-25	3	30	12	48	0
11	511	11.660	172.9	11	-22	3	30	12	48	0
12	512	12.729	170.8	12	12	1	30	12	48	0
13	513	13.809	169.4	13	6	3	30	12	48	0
14	514	14.880	168.2	14	26	1	30	12	48	0/12
15	515	15.862	166.9	15	7	3	30	12	48	0
16	516	16.867	161.8	16	-7	3	30	12	48	0
17	517	18.001	159.7	17	6	1	30	12	48	0
18	518	19.092	156.9	18	-13	1	30	12	68	0
19	519	20.292	156.0	19	-28	1	30	12	68	2
20	520	21.318	156.2	20	12	2	30	12	88	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 4  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	66.796	169.4	61	--	30	12	68	1	1
2	573	68.118	169.0	62	4	2	30	12	48	0
3	574	69.475	168.7	63	8	2	30	12	48	0
4	575	70.466	168.8	64	13	2	30	12	48	0
5	576	71.540	169.0	65	-12	2	30	12	48	0
6	577	72.744	169.4	66	1	2	30	12	48	2
7	578	73.633	169.8	67	-13	2	30	12	48	0/12
8	579	74.734	170.1	68	-5	2	30	12	48	0
9	580	75.746	170.8	69	5	2	30	12	48	0
10	581	76.849	171.6	70	31	2	30	12	48	0
11	582	77.843	171.8	71	4	2	30	12	48	0
12	583	78.946	171.7	72	15	2	30	12	48	0
13	584	79.890	171.6	73	-16	2	30	12	48	0
14	585	80.926	171.0	74	-2	2	30	12	48	0
15	586	82.279	170.8	75	13	2	30	12	68	0/12
16	587	83.331	171.0	76	4	2	30	12	68	0/12
17	588	84.353	171.6	77	8	2	30	12	88	0
18	589	85.224	172.1	78	-8	2	30	12	88	0
19	590	86.012	171.7	79	6	2	30	12	68	0
20	591	86.369	172.8	80	11	2	30	12	68	2

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 2  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	22.095	157.7	21	-9	1	30	12	88	0
2	522	23.141	157.8	22	-12	1	30	12	88	0
3	523	24.072	159.7	23	-39	1	30	12	68	0
4	524	25.630	157.5	24	-2	2	30	12	48	2
5	525	26.833	156.7	25	0	1	30	12	48	2
6	526	28.233	157.5	26	10	1	30	12	48	0
7	527	29.067	158.6	27	-32	1	30	12	48	0
8	528	30.023	159.9	28	12	1	30	12	48	0
9	529	31.050	161.0	29	12	1	30	12	48	0
10	530	31.996	162.4	30	7	2	30	12	48	17
11	532	34.328	162.4	31	20	2	30	12	48	0
12	533	35.212	162.6	32	43	2	30	12	48	0
13	534	36.320	163.0	33	7	2	30	12	48	0
14	535	37.559	163.6	34	-30	1	30	12	48	0
15	536	38.576	163.6	35	1	1	30	12	48	0
16	537	39.634	164.4	36	8	2	30	12	48	0
17	538	40.544	164.9	37	8	2	30	12	48	0
18	539	41.532	165.8	38	1	2	30	12	48	0
19	540	42.624	166.5	39	0	2	30	12	48	0
20	551	43.593	167.0	40	7	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 15 SHOT POINT 3 TEAM 1  
SHOT TIME: 191:10:12: 0.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	501	49.291	347.6	1	19	2	30	12 88	0
2	502	48.453	345.9	2	23	2	30	12 68	0/6
3	503	47.314	346.0	3	11	2	30	12 68	0/6
4	504	46.261	345.9	4	-19	2	30	12 68	0/6
5	505	45.623	347.9	5	-18	2	30	12 48	17
6	506	44.726	348.3	6	6	2	30	12 48	0/12
7	507	43.458	348.8	7	2	2	30	12 48	0
8	508	41.865	349.1	8	14	2	30	12 48	3
9	509	40.534	347.1	9	55	2	30	12 48	6
10	510	39.328	346.0	10	-25	2	30	12 48	0/6
11	511	38.161	346.4	11	-22	2	30	12 48	0/6
12	512	37.054	347.0	12	12	2	30	12 48	0/6
13	513	35.959	347.4	13	6	2	30	12 48	0/6/12
14	514	34.883	347.8	14	26	2	30	12 48	0/6/12
15	515	33.904	348.5	15	7	2	30	12 48	2
16	516	33.039	351.1	16	-7	2	30	12 48	0
17	517	32.048	352.6	17	6	2	30	12 48	0/6/12
18	518	31.241	354.8	18	-13	2	30	12 68	0/12/16
19	519	30.201	356.0	19	-28	2	30	12 68	21
20	520	29.217	356.6	20	12	2	30	12 68	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 5  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	600	87.444	173.1	81	-17	2	30	12 68	0
2	601	88.551	173.3	82	-8	2	30	12 68	0
3	602	89.495	173.7	83	26	2	30	12 68	0
4	603	90.751	174.0	84	22	2	30	12 68	0
5	604	91.767	174.0	85	-4	2	30	12 68	0
6	605	92.982	174.0	86	0	2	30	12 68	0
7	606	93.917	173.8	87	--	2	30	12 68	1
8	607	95.128	173.1	88	24	1	30	12 68	0/6
9	608	96.049	172.8	89	-11	2	30	12 68	2
10	609	97.568	171.9	90	22	2	30	12 68	0
11	610	98.763	171.8	91	7	2	30	12 68	0
12	611	99.888	171.6	92	6	2	30	12 68	0/6
13	612	100.950	171.6	93	23	2	30	12 48	0
14	613	102.161	171.7	94	23	2	30	12 48	0
15	614	103.188	171.7	95	24	2	30	12 48	0
16	615	104.422	171.4	96	-7	2	30	12 48	0
17	616	105.602	171.1	97	7	2	30	12 48	0
18	617	106.681	171.0	98	-4	2	30	12 48	0
19	618	107.828	170.9	99	17	2	30	12 48	0
20	619	108.899	170.8	100	13	2	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 15 SHOT POINT 3 TEAM 2  
SHOT TIME: 191:10:12: 0.009

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	521	28.294	356.0	21	-9	2	30	12 88	0
2	522	27.286	356.6	22	-12	1	30	12 88	0
3	523	26.163	355.6	23	-39	2	30	12 68	0
4	524	25.001	358.8	24	-2	2	30	12 48	2
5	525	24.028	0.7	25	0	1	30	12 48	2
6	526	22.594	1.2	26	1	1	30	12 48	0
7	527	21.615	0.8	27	10	2	30	12 48	0
8	528	20.479	360.0	28	-52	1	30	12 48	0
9	529	19.320	359.4	29	12	2	30	12 48	0
10	530	18.179	357.8	30	7	2	30	12 48	0
11	532	15.942	0.0	31	7	1	30	12 48	0
12	533	15.062	0.6	32	20	2	30	12 48	0
13	534	13.929	1.0	33	43	1	30	12 48	0
14	535	12.637	1.1	34	7	1	30	12 48	1
15	536	11.664	2.5	35	-30	1	30	12 48	2
16	537	10.497	1.6	36	1	1	30	12 48	0
17	538	9.518	1.1	37	8	1	30	12 48	0
18	539	8.404	358.7	38	1	3	30	12 48	0
19	540	7.230	356.5	39	0	3	30	12 48	0
20	551	6.221	355.0	40	7	1	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 14 SHOT POINT 1 TEAM 6  
SHOT TIME: 191:10:10: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	621	111.114	171.3	101	11	2	30	12 48	0
2	622	112.300	171.2	102	8	2	30	12 48	1
3	623	113.345	171.3	103	2	2	30	12 48	17
4	624	114.510	171.1	104	1	2	30	12 48	0
5	625	115.611	171.1	105	18	2	30	12 48	0
6	626	116.737	171.0	106	0	2	30	12 48	0
7	627	117.788	171.2	107	35	2	30	12 48	0
8	629	119.853	171.7	108	1	2	30	12 48	12
9	630	120.977	172.5	109	2	2	30	12 48	0
10	631	121.944	173.2	110	12	2	30	12 48	12
11	632	122.929	173.5	111	27	2	30	12 48	0
12	633	124.027	173.6	112	6	2	30	12 48	1
13	634	125.111	173.8	113	-6	2	30	12 48	0
14	635	126.188	173.9	114	2	2	30	12 48	0
15	636	127.285	174.0	115	8	2	30	12 48	12
16	637	128.384	174.0	116	12	2	30	12 48	0
17	638	129.501	174.3	117	9	2	30	12 48	1
18	639	130.612	174.4	118	16	2	30	12 48	0
19	267	258.743	174.9	119	2	2	30	12 48	0
20	640	132.056	173.6	120	3	2	30	12 48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 15 SHOT POINT 3 TEAM 5  
 SHOT TIME: 191:10:12: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHWN	C1	C2	C3	TAPE	GRADE
1	600	38.350	179.8	81	-17	2	30	12 68	0	0
2	601	39.491	180.1	82	-8	2	30	12 68	0	0
3	602	40.509	180.8	83	26	2	30	12 68	0	0
4	603	41.820	181.3	84	22	2	30	12 68	0	0
5	604	42.824	181.1	85	-5	2	30	12 68	0	0
6	605	44.047	181.0	86	0	2	30	12 68	0	0
7	606	44.927	180.3	87	--	2	30	12 68	0/21	1
8	607	46.020	178.8	88	24	2	30	12 68	0	0
9	608	46.892	178.1	89	-11	2	30	12 68	0	0
10	609	48.278	175.9	90	22	2	30	12 68	0	0
11	610	49.464	175.7	91	7	2	30	12 68	0	0
12	611	50.566	175.2	92	6	2	30	12 68	0/21	0
13	612	51.628	175.1	93	23	2	30	12 68	0	0
14	613	52.851	175.2	94	24	2	30	12 48	0	0
15	614	53.879	175.2	95	23	2	30	12 48	0	0
16	615	53.089	174.6	96	-7	2	30	12 48	0	0
17	616	56.237	173.9	97	7	2	30	12 48	0/12	0
18	617	57.312	173.7	98	-4	2	30	12 48	0	0
19	618	58.448	173.4	99	17	2	30	12 48	17	0
20	619	59.514	173.2	100	13	2	30	12 48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 15 SHOT POINT 3 TEAM 3  
 SHOT TIME: 191:10:12: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHWN	C1	C2	C3	TAPE	GRADE
1	932	4.957	354.0	41	-3	3	30	12 48	1	0
2	933	3.959	348.9	42	9	3	30	12 48	0	0
3	934	2.515	353.2	43	-12	1	30	12 68	0	0
4	935	1.472	354.3	44	41	3	30	12 68	0	0
5	936	0.779	350.2	45	1	3	30	12 88	0	0
6	937	0.060	237.7	46	0	3	30	12 88	2	0
7	938	1.158	149.8	47	14	3	30	12 68	2	0
8	939	2.080	160.8	48	9	3	30	12 48	0	0
9	940	3.047	166.7	49	12	3	30	12 48	0	0
10	941	3.985	164.1	50	-11	3	30	12 48	0	0
11	942	5.083	166.2	51	18	3	30	12 48	0	0
12	943	6.224	167.5	52	21	1	30	12 48	0	0
13	944	7.344	168.5	53	7	3	30	12 48	0	0
14	945	8.304	171.1	54	-11	1	30	12 48	0	0
15	946	9.532	176.1	55	7	1	30	12 48	0	0
16	947	10.993	179.6	56	12	1	30	12 68	0	0
17	948	12.206	177.7	57	11	1	30	12 68	0	0
18	949	13.500	175.1	58	14	1	30	12 88	3	0
19	950	14.451	173.9	59	-2	1	30	12 68	0	0
20	951	15.818	173.8	60	-7	1	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 15 SHOT POINT 3 TEAM 4  
 SHOT TIME: 191:10:12: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHWN	C1	C2	C3	TAPE	GRADE
1	572	17.091	173.5	61	--	2	30	12 68	1	0
2	573	18.386	171.9	62	4	2	30	12 48	0	0
3	574	19.727	170.6	63	8	2	30	12 48	0	0
4	575	20.720	170.8	64	15	1	30	12 48	0	0
5	576	21.801	171.3	65	-12	2	30	12 48	0	0
6	577	23.029	172.5	66	-1	2	30	12 48	0/12	0
7	578	23.948	173.7	67	-13	2	30	12 48	0/12	0
8	579	25.069	174.3	68	-5	1	30	12 48	0	0
9	580	26.159	175.3	69	5	2	30	12 48	0	0
10	581	27.370	178.3	70	31	2	30	12 48	2	0
11	582	28.381	178.5	71	15	2	30	12 48	0	0
12	583	29.470	178.1	72	15	2	30	12 48	0	0
13	584	30.586	177.5	73	-16	2	30	12 48	0	0
14	585	31.548	176.0	74	-2	2	30	12 48	0	0
15	586	32.871	175.1	75	14	2	30	12 48	0/12	0
16	587	33.949	175.3	76	4	2	30	12 68	0	0
17	588	35.044	176.9	77	8	2	30	12 68	0	0
18	589	36.709	176.8	78	-8	2	30	12 88	0	0
19	590	37.232	179.3	79	6	2	30	12 88	0	0
20	591	37.232	179.3	80	11	2	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 15 SHOT POINT 3 TEAM 6  
 SHOT TIME: 191:10:12: 0.009

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHWN	C1	C2	C3	TAPE	GRADE
1	621	61.772	174.0	101	11	2	30	12 48	0	0
2	622	62.955	173.8	102	8	2	30	12 48	1	0
3	623	64.007	173.9	103	2	2	30	12 48	17	0
4	624	65.162	173.6	104	1	2	30	12 48	0	0
5	625	66.259	173.5	105	18	2	30	12 48	0	0
6	626	67.397	173.2	106	0	2	30	12 48	12	0
7	627	68.450	173.6	107	35	2	30	12 48	12	0
8	628	70.560	174.4	108	1	2	30	12 48	2	0
9	629	71.773	175.7	109	2	2	30	12 48	12	0
10	630	72.829	176.9	110	12	2	30	12 48	12	0
11	631	73.846	177.2	111	27	2	30	12 48	1	0
12	632	74.971	177.5	112	6	2	30	12 48	1	0
13	633	76.073	177.6	113	-6	2	30	12 48	12	0
14	634	77.172	177.8	114	8	2	30	12 48	12	0
15	635	78.279	177.9	115	12	2	30	12 48	12	0
16	636	79.387	177.9	116	10	2	30	12 48	0	0
17	637	80.495	178.2	117	10	2	30	12 48	1	0
18	638	81.472	178.4	118	16	2	30	12 48	2/12	0
19	639	82.802	177.1	119	16	2	30	12 48	2	0
20	640	82.802	177.1	120	3	2	30	12 48	1	0



FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 15 SHOT POINT 5 TEAM 3  
SHOT TIME: 191:10:14; 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	552	41.658	356.5	41	-3	30	12	48	1	0
2	553	40.632	356.1	42	9	1	30	12	48	0
3	554	39.217	356.6	43	-12	2	30	12	68	0
4	555	38.177	356.8	44	41	2	30	12	68	0
5	556	37.481	356.7	45	1	2	30	12	68	0
6	557	36.678	356.8	46	0	2	30	12	68	2
7	558	35.680	357.7	47	14	2	30	12	68	0
8	559	34.713	357.8	48	9	2	30	12	68	2
9	560	33.712	357.8	49	13	2	30	12	48	0
10	561	32.832	358.4	50	-11	2	30	12	48	0
11	562	31.727	358.6	51	18	2	30	12	48	0
12	563	30.583	358.8	52	21	2	30	12	48	0
13	564	29.460	359.0	53	7	1	30	12	48	0
14	565	28.457	358.6	54	-11	2	30	12	48	0
15	566	27.176	357.1	55	7	2	30	12	48	0
16	567	25.732	355.7	56	12	1	30	12	68	0
17	568	24.503	356.5	57	11	1	30	12	68	0
18	569	23.217	357.9	58	14	1	30	12	68	3
19	570	22.288	358.8	59	-2	1	30	12	68	0
20	571	20.929	359.2	60	-7	1	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 16 SHOT POINT 5 TEAM 1  
SHOT TIME: 191:10:14; 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	85.514	351.5	1	19	2	30	12	88	0
2	502	84.577	350.6	2	23	2	30	12	68	0
3	503	83.448	350.7	3	11	2	30	12	68	0/12
4	504	82.397	350.7	4	-19	2	30	12	68	0/6
5	505	81.882	351.9	5	-18	2	30	12	48	17
6	506	81.011	352.1	6	6	2	30	12	48	0/12
7	507	79.974	352.5	7	2	2	30	12	48	0
8	508	78.396	352.7	8	14	2	30	12	48	3
9	509	76.965	351.7	9	55	2	30	12	48	0/6/12
10	510	75.701	351.2	10	-25	2	30	12	48	0/6/12
11	511	74.564	351.3	11	-22	2	30	12	48	2
12	512	73.492	351.9	12	12	2	30	12	48	0/6/12
13	513	72.424	352.2	13	6	2	30	12	48	0/12/6
14	514	71.372	352.5	14	26	2	30	12	48	0/12
15	515	70.425	352.8	15	7	2	30	12	48	2
16	516	69.661	354.1	16	-7	2	30	12	48	0
17	517	68.709	354.9	17	6	2	30	12	48	0/6/12
18	518	67.937	355.9	18	-13	2	30	12	68	0/12
19	519	66.987	356.5	19	-28	2	30	12	68	21
20	520	65.524	356.8	20	12	2	30	12	68	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 16 SHOT POINT 5 TEAM 4  
SHOT TIME: 191:10:14; 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	19.673	359.9	61	--	30	12	48	1	0
2	573	18.468	1.9	62	4	1	30	12	48	0/12
3	574	17.232	4.1	63	8	1	30	12	48	0
4	575	16.255	4.7	64	15	3	30	12	48	0
5	576	15.162	5.0	65	-12	1	30	12	48	0
6	577	13.854	4.1	66	1	1	30	12	48	0
7	578	12.865	2.8	67	-13	1	30	12	48	0
8	579	11.720	2.5	68	-5	3	30	12	48	0
9	580	10.553	358.4	69	31	1	30	12	48	2
10	581	9.372	352.6	70	3	1	30	12	48	0
11	582	8.378	351.3	71	4	1	30	12	48	0
12	583	7.274	351.7	72	15	1	30	12	48	0
13	584	6.134	353.6	73	-16	3	30	12	48	0
14	585	5.187	2.5	74	-2	3	30	12	48	0
15	586	3.988	11.9	75	14	3	30	12	48	0
16	587	2.879	12.9	76	4	3	30	12	68	0
17	588	1.663	356.5	77	6	3	30	12	68	0
18	589	0.942	318.3	78	-8	1	30	12	88	0
19	590	0.044	90.0	79	6	3	30	12	88	0
20	591	1.668	249.8	80	11	3	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 16 SHOT POINT 5 TEAM 2  
SHOT TIME: 191:10:14; 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	65.000	356.5	21	-9	2	30	12	88	0
2	522	63.993	356.8	22	-12	1	30	12	68	0
3	523	62.866	356.3	23	-39	2	30	12	68	0
4	524	61.699	357.7	24	-2	2	30	12	48	2
5	525	60.703	358.4	25	0	2	30	12	48	2
6	526	59.260	358.5	26	1	2	30	12	48	0
7	527	58.290	358.3	27	10	2	30	12	48	0
8	528	57.166	358.0	28	-52	2	30	12	48	3
9	529	56.015	357.7	29	12	2	30	12	48	0
10	530	54.884	357.2	30	7	2	30	12	48	0
11	532	52.631	357.8	31	7	2	30	12	48	0
12	533	51.746	358.0	32	21	2	30	12	48	0
13	534	50.610	358.0	33	43	2	30	12	48	0
14	535	49.318	358.0	34	7	2	30	12	48	1
15	536	48.328	358.2	35	-30	2	30	12	48	2
16	537	47.176	357.9	36	1	2	30	12	48	0
17	538	46.205	357.7	37	8	2	30	12	48	0
18	539	45.107	357.2	38	1	2	30	12	48	0
19	540	43.937	356.8	39	0	1	30	12	48	0
20	551	42.925	356.6	40	7	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 1  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	131.717	353.5	1	19	2	30	12	88	0/12
2	502	130.730	353.0	2	23	2	30	12	68	0
3	503	129.607	353.1	3	11	2	30	12	68	0
4	504	128.559	353.1	4	-19	2	30	12	68	0/6
5	505	128.103	353.8	5	-18	2	30	12	48	0/12
6	506	127.246	354.0	6	6	2	30	12	48	0/12
7	507	126.027	354.3	7	0	2	30	12	48	0
8	508	124.462	354.4	8	14	2	30	12	48	0
9	509	122.991	353.8	9	55	2	30	12	48	0/6/12
10	510	121.707	353.5	10	-25	2	30	12	48	0/12
11	511	120.589	353.7	11	-22	2	30	12	48	0/12
12	512	119.538	354.0	12	12	2	30	12	48	0/12
13	513	118.485	354.2	13	6	1	30	12	48	0/12
14	514	117.449	354.4	14	26	2	30	12	48	0/12
15	515	116.519	354.6	15	7	1	30	12	48	0
16	516	115.800	353.4	16	-7	1	30	12	48	0
17	517	114.868	353.9	17	6	2	30	12	48	0
18	518	114.114	356.3	18	-13	2	30	12	68	0
19	519	113.092	356.8	19	-28	2	30	12	68	2
20	520	112.113	357.0	20	12	2	30	12	88	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 16 SHOT POINT 5 TEAM 5  
 SHOT TIME: 191:10:14: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	600	2.511	227.5	61	-17	3	30	12	68	0
2	601	3.504	215.9	62	-8	3	30	12	68	0
3	602	4.646	214.0	63	26	3	30	12	68	0
4	603	5.949	209.9	64	22	3	30	12	68	0
5	604	6.775	204.5	65	-5	3	30	12	68	0
6	605	7.898	200.7	66	0	1	30	12	68	0
7	606	8.578	195.3	67	--	1	30	12	68	1
8	607	9.415	186.3	68	24	1	30	12	68	0
9	608	10.221	182.4	69	-11	1	30	12	68	2
10	609	11.592	173.0	70	22	1	30	12	68	0
11	610	12.789	172.2	71	7	1	30	12	68	0
12	611	13.919	170.7	72	6	2	30	12	68	0/21
13	612	14.982	170.7	73	23	1	30	12	48	0
14	613	16.195	171.5	74	23	1	30	12	48	0
15	614	17.224	171.5	75	24	1	30	12	48	0
16	615	18.468	170.2	76	-7	2	30	12	48	0
17	616	19.675	168.3	77	7	2	30	12	48	0
18	617	20.761	168.1	78	-4	1	30	12	48	0
19	618	21.926	167.5	79	17	2	30	12	48	0
20	619	23.009	167.2	100	13	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 2  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	111.190	356.9	21	-9	2	30	12	88	0
2	522	110.187	357.0	22	-12	1	30	12	88	0
3	523	109.061	356.8	23	-39	2	30	12	68	0
4	524	107.900	357.3	24	-3	0	30	12	48	2
5	525	106.902	358.0	25	0	0	30	12	48	2
6	526	105.462	358.0	26	1	2	30	12	48	0
7	527	104.496	357.9	27	10	2	30	12	48	0
8	528	103.377	357.7	28	-32	2	30	12	48	3
9	529	102.230	357.6	29	12	2	30	12	48	0
10	530	101.102	357.3	30	7	2	30	12	48	0
11	532	98.854	357.6	31	7	2	30	12	48	0
12	533	97.971	357.7	32	21	2	30	12	48	0
13	534	96.837	357.7	33	43	2	30	12	48	0
14	535	95.549	357.7	34	7	30	12	48	1	1
15	536	94.559	357.8	35	-30	2	30	12	48	2
16	537	93.412	357.7	36	1	2	30	12	48	0
17	538	92.444	357.6	37	8	2	30	12	48	0
18	539	91.350	357.3	38	1	2	30	12	48	0
19	540	90.181	357.1	39	0	2	30	12	48	0
20	551	89.171	357.0	40	7	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 16 SHOT POINT 5 TEAM 6  
 SHOT TIME: 191:10:14: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	621	25.183	169.7	101	11	2	30	12	48	0
2	622	26.375	169.6	102	8	2	30	12	48	1
3	623	27.417	169.9	103	2	2	30	12	48	17
4	624	28.594	169.4	104	1	2	30	12	48	0
5	625	29.702	169.2	105	18	2	30	12	48	0/12
6	626	30.860	168.8	106	0	2	30	12	48	0
7	627	31.874	169.8	107	35	2	30	12	48	0
8	629	33.929	171.6	108	1	2	30	12	48	0
9	630	35.082	174.5	109	2	2	30	12	48	0
10	631	36.122	176.9	110	12	1	30	12	48	0
11	632	37.140	177.6	111	27	1	30	12	48	0
12	633	38.268	178.1	112	6	2	30	12	48	1
13	634	39.372	178.3	113	-6	2	30	12	48	0
14	635	40.475	178.7	114	2	2	30	12	48	0
15	636	41.582	178.8	115	8	2	30	12	48	0/12
16	637	42.691	178.8	116	12	2	30	12	48	0
17	638	43.850	179.4	117	10	10	30	12	48	1
18	639	44.983	179.6	118	16	2	30	12	48	0
19	267	172.924	176.5	119	2	2	30	12	48	2
20	640	46.295	177.3	120	3	3	30	12	48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 5  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	600	44.894	81	-17	2	30	12	68	0	0
2	601	43.777	82	-8	2	30	12	68	0	0
3	602	42.825	83	26	2	30	12	68	0	0
4	603	41.973	84	22	2	30	12	68	0	0
5	604	40.953	85	-5	2	30	12	68	0	0
6	605	39.938	86	0	2	30	12	68	0	0
7	606	38.993	87	--	2	30	12	68	1	1
8	607	37.192	88	24	3	30	12	68	0	0
9	608	36.291	89	-11	2	30	12	68	2	2
10	609	34.915	90	22	2	30	12	68	0	0
11	610	33.745	91	7	2	30	12	68	0	0
12	611	32.678	92	6	2	30	12	68	2	2
13	612	31.628	93	23	2	30	12	48	0	0
14	613	30.998	94	23	2	30	12	48	0	0
15	614	29.980	95	24	1	30	12	48	0	0
16	615	28.237	96	-7	2	30	12	48	0	0
17	616	27.212	97	7	2	30	12	48	0	0
18	617	26.184	98	-4	2	30	12	48	0	0
19	618	25.144	99	17	2	30	12	48	0	0
20	619	24.158	100	13	2	30	12	48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 3  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	552	87.907	41	-3	2	30	12	48	1	1
2	553	86.880	42	9	2	30	12	48	0	0
3	554	85.472	43	-12	2	30	12	68	0	0
4	555	84.436	44	41	2	30	12	68	0	0
5	556	83.741	45	1	2	30	12	88	0	0
6	557	82.940	46	0	2	30	12	88	2	2
7	558	81.945	47	14	2	30	12	68	0	0
8	559	80.980	48	9	2	30	12	68	2	2
9	560	79.982	49	13	2	30	12	48	0	0
10	561	79.291	50	-11	2	30	12	48	0	0
11	562	78.185	51	18	3	30	12	48	0	0
12	563	77.040	52	21	2	30	12	48	0	0
13	564	75.915	53	7	2	30	12	48	0	0
14	565	74.915	54	-11	2	30	12	48	0	0
15	566	73.639	55	12	2	30	12	48	0	0
16	567	72.188	56	12	2	30	12	68	0	0
17	568	70.963	57	11	2	30	12	68	0	0
18	569	69.679	58	14	2	30	12	88	3	3
19	570	68.745	59	-2	2	30	12	68	0	0
20	571	67.384	60	-7	2	30	12	68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 6  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	621	21.767	6.3	11	2	30	12	48	0	0
2	622	20.650	7.4	102	8	30	12	48	1	1
3	623	19.602	7.9	103	2	30	12	48	17	17
4	624	18.982	9.8	104	1	30	12	48	0	0
5	625	17.984	11.4	105	18	30	12	48	0	0
6	626	16.607	13.6	106	0	30	12	48	0	0
7	627	15.447	13.2	107	35	1	30	12	48	0
8	629	13.159	12.5	108	1	30	12	48	0	0
9	630	11.558	6.1	109	2	30	12	48	0	0
10	631	10.347	359.1	110	12	3	30	12	48	0
11	632	9.323	356.6	111	27	1	30	12	48	0
12	633	8.211	354.0	112	6	3	30	12	48	1
13	634	7.127	352.0	113	-6	9	30	12	48	0
14	635	6.073	348.4	114	2	3	30	12	48	0
15	636	5.000	345.5	115	8	3	30	12	48	0
16	637	3.940	341.3	116	12	3	30	12	48	0
17	638	3.059	327.0	117	10	3	30	12	48	1
18	639	2.320	308.1	118	16	3	30	12	48	0
19	640	1.762	176.2	119	2	3	30	12	48	2
20	640	0.185	22.3	120	3	3	30	12	48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 17 SHOT POINT 7 TEAM 4  
 SHOT TIME: 191:10:15:59.810

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	66.122	358.1	61	--	30	12	68	1	1
2	573	64.881	358.7	62	4	2	30	12	48	0
3	574	63.608	359.2	63	8	2	30	12	48	0/12
4	575	62.619	359.3	64	15	2	30	12	48	0
5	576	61.523	359.3	65	-12	2	30	12	48	0
6	577	60.242	358.9	66	1	2	30	12	48	0
7	578	59.281	358.6	67	-13	2	30	12	48	0/12
8	579	58.144	358.4	68	-5	2	30	12	48	0
9	580	57.014	357.6	69	5	2	30	12	48	2
10	581	55.808	356.6	70	31	2	30	12	48	0
11	582	54.800	356.4	71	4	2	30	12	48	0
12	583	53.706	356.6	72	15	2	30	12	48	0
13	584	52.584	356.9	73	-16	2	30	12	48	0
14	585	51.631	357.9	74	-2	2	30	12	48	0
15	586	50.333	358.5	75	14	2	30	12	48	0
16	587	49.242	358.3	76	4	2	30	12	68	0/12
17	588	48.125	357.3	77	8	2	30	12	68	0
18	589	47.197	356.6	78	-8	2	30	12	68	0
19	590	46.460	357.4	79	6	2	30	12	68	0/12
20	591	45.987	355.4	80	11	2	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 18 SHOT POINT 2 TEAM 3  
 SHOT TIME: 191:12: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	552	23.420	176.4	41	-4	1	30	12 68	1	1
2	553	24.449	177.1	42	10	1	30	12 48	0	0
3	554	25.961	176.2	43	-13	1	30	12 68	0	0
4	555	26.902	176.1	44	43	1	30	12 68	0	0
5	556	27.998	176.1	45	1	1	30	12 88	0	0
6	557	28.401	176.1	46	0	1	30	12 88	2	0
7	558	29.417	175.0	47	15	1	30	12 68	0	0
8	559	30.385	174.9	48	10	1	30	12 68	2	0
9	560	31.384	175.1	49	13	1	30	12 48	0	0
10	561	32.383	174.5	50	-11	1	30	12 48	0	0
11	562	33.392	174.5	51	19	1	30	12 48	0	0
12	563	34.341	174.5	52	22	1	30	12 48	0	0
13	564	35.668	174.4	53	8	1	30	12 48	0	0
14	565	36.654	174.9	54	-12	1	30	12 48	0	0
15	566	37.905	176.0	55	17	1	30	12 48	0	0
16	567	39.350	177.0	56	13	1	30	12 68	0	0
17	568	40.575	176.5	57	12	1	30	12 68	0	0
18	569	41.872	175.7	58	15	1	30	12 88	0	0
19	570	42.817	175.3	59	-2	1	30	12 68	0	0
20	571	44.184	175.2	60	-7	1	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 18 SHOT POINT 2 TEAM 1  
 SHOT TIME: 191:12: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	21.610	336.6	1	21	1	30	12 88	1	1
2	502	21.083	332.5	2	25	1	30	12 68	0/ 9	0
3	503	19.970	331.8	3	12	1	30	12 68	0	0
4	504	18.962	330.9	4	-20	3	30	12 68	0/12	0
5	505	17.969	335.1	5	-19	3	30	12 48	17	0
6	506	17.024	335.5	6	6	3	30	12 48	0/12	0
7	507	15.696	335.9	7	3	3	30	12 48	0	0
8	508	14.101	335.3	8	15	3	30	12 48	0	0
9	509	13.235	327.8	9	59	3	30	12 48	0	0
10	510	12.374	322.8	10	-27	3	30	12 48	0	0
11	511	11.192	321.8	11	-23	3	30	12 48	0	0
12	512	10.040	321.0	12	12	3	30	12 48	0	0
13	513	8.942	319.4	13	6	1	30	12 48	0	0
14	514	7.874	317.4	14	27	3	30	12 48	0	0
15	515	6.843	315.9	15	8	3	30	12 48	2	0
16	516	5.329	324.5	16	-7	3	30	12 48	0	0
17	517	4.073	328.7	17	8	3	30	12 48	0	0
18	518	2.934	342.2	18	-14	3	30	12 68	0	0
19	519	1.828	356.9	19	-30	3	30	12 68	0	0
20	520	0.901	16.9	20	13	1	30	12 88	17	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 18 SHOT POINT 2 TEAM 4  
 SHOT TIME: 191:12: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	45.453	175.0	61	--	1	30	12 68	1	1
2	573	46.730	174.4	62	4	1	30	12 48	0	0
3	574	48.049	173.8	63	8	1	30	12 48	0	0
4	575	49.043	173.8	64	16	3	30	12 48	0	0
5	576	50.132	173.9	65	-13	1	30	12 48	0	0
6	577	51.379	174.4	66	1	1	30	12 48	0	0
7	578	52.311	174.9	67	-14	1	30	12 48	0	0
8	579	53.436	175.2	68	-6	2	30	12 48	0	0
9	580	54.532	176.1	69	5	1	30	12 48	2	0
10	581	55.731	177.1	70	33	1	30	12 48	0	0
11	582	56.740	177.2	71	5	2	30	12 48	0	0
12	583	57.833	177.1	72	16	1	30	12 48	0/12	0
13	584	58.954	176.8	73	-17	2	30	12 48	0/12	0
14	585	59.921	176.0	74	-2	2	30	12 48	0/12	0
15	586	61.242	175.5	75	14	1	30	12 48	0	0
16	587	62.321	175.7	76	4	1	30	12 68	0	0
17	588	63.415	176.5	77	9	2	30	12 68	0	0
18	589	64.341	177.0	78	-9	2	30	12 68	0	0
19	590	65.081	176.4	79	6	1	30	12 88	0	0
20	591	65.578	177.9	80	11	2	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 18 SHOT POINT 2 TEAM 2  
 SHOT TIME: 191:12: 0: 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	0.095	153.7	21	-9	3	30	12 88	17	0
2	522	1.132	160.1	22	-13	3	30	12 88	0	0
3	523	2.218	180.4	23	-41	3	30	12 68	0	0
4	524	3.621	156.0	24	-3	3	30	12 48	2	0
5	525	4.843	152.0	25	-2	3	30	12 48	2	0
6	526	6.223	156.7	26	1	3	30	12 48	0	0
7	527	7.066	161.2	27	11	3	30	12 48	0	0
8	528	8.070	165.8	28	-53	3	30	12 48	0	0
9	529	9.158	168.8	29	13	3	30	12 48	0	0
10	530	10.221	172.7	30	7	3	30	12 48	17	0
11	532	12.522	170.8	31	7	3	30	12 48	0	0
12	533	13.415	170.8	32	22	3	30	12 48	0	0
13	534	14.548	171.2	33	46	3	30	12 48	1	0
14	535	15.827	171.9	34	8	3	30	12 48	17	0
15	536	16.836	171.5	35	-32	1	30	12 48	0	0
16	537	17.956	172.7	36	1	3	30	12 48	0	0
17	538	18.911	173.4	37	8	3	30	12 48	0	0
18	539	19.983	174.8	38	1	1	30	12 48	0	0
19	540	21.143	175.8	39	0	1	30	12 48	0	0
20	551	22.153	176.3	40	7	1	30	12 48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 1  
SHOT TIME: 191:12: 21 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	62.651	349.1	1	21	2	30	12	88	0
2	502	61.772	347.9	2	25	2	30	12	68	0
3	503	60.635	347.9	3	12	2	30	12	68	0/ 6/12
4	504	59.581	347.9	4	-20	2	30	12	68	0/ 6
5	505	58.992	349.5	5	-19	2	30	12	48	17
6	506	58.104	349.8	6	6	2	30	12	48	0/12
7	507	56.847	350.3	7	3	2	30	12	48	0/12
8	508	55.259	350.5	8	15	2	30	12	48	0/12/ 6
9	509	53.886	349.0	9	59	2	30	12	48	0/12/ 6
10	510	52.654	348.3	10	-27	2	30	12	48	0/ 6/12
11	511	51.499	348.6	11	-23	2	30	12	48	0/ 6/12
12	512	50.407	349.1	12	12	2	30	12	48	0/ 6/12
13	513	49.322	349.5	13	6	2	30	12	48	0/ 6/12
14	514	48.255	349.8	14	28	2	30	12	48	17/ 9
15	515	47.289	350.3	15	8	2	30	12	48	0/12
16	516	46.464	352.2	16	-7	2	30	12	48	0/12
17	517	45.486	353.3	17	8	2	30	12	48	0/12
18	518	44.687	354.8	18	-14	2	30	12	68	0/ 6/12
19	519	43.645	355.7	19	-30	2	30	12	68	0
20	520	42.659	356.1	20	13	3	30	12	88	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 2  
SHOT TIME: 191:12: 21 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	41.738	355.7	21	-9	1	30	12	88	0
2	522	40.728	356.1	22	-13	1	30	12	88	0
3	523	39.608	355.4	23	-41	1	30	12	68	0
4	524	38.427	357.5	24	-3	3	30	12	48	2
5	525	37.431	358.6	25	-2	2	30	12	48	2
6	526	35.989	358.9	26	1	2	30	12	48	0
7	527	35.018	358.5	27	11	2	30	12	48	0
8	528	33.893	358.0	28	-35	2	30	12	48	0
9	529	32.742	357.6	29	13	2	30	12	48	0
10	530	31.614	356.6	30	7	2	30	12	48	17
11	531	29.358	357.7	31	7	1	30	12	48	0
12	532	28.473	357.9	32	22	1	30	12	48	0
13	533	27.337	358.0	33	46	2	30	12	48	0
14	534	27.337	357.9	34	8	2	30	12	48	1
15	535	26.055	358.3	35	-32	2	30	12	48	0
16	536	25.903	357.9	36	1	1	30	12	48	0
17	537	23.932	357.5	37	8	2	30	12	48	0
18	538	22.932	357.5	38	1	1	30	12	48	0
19	539	21.838	356.4	39	0	2	30	12	48	0
20	540	20.674	355.5	40	7	3	30	12	48	0
20	541	19.667	355.0	40						

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 18 SHOT POINT 2 TEAM 5  
SHOT TIME: 191:12: 01 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	600	66.688	178.1	81	-18	1	30	12	68	0
2	601	67.822	178.3	82	-7	1	30	12	68	0
3	602	68.822	178.8	83	27	1	30	12	68	0
4	603	70.120	179.1	84	23	1	30	12	68	0
5	604	71.130	179.0	85	-3	1	30	12	68	0
6	605	72.353	179.0	86	0	1	30	12	68	0
7	606	73.251	178.6	87	--	1	30	12	68	0
8	607	74.372	177.7	88	26	1	30	12	68	0
9	608	75.253	177.3	89	-12	1	30	12	68	2
10	609	76.651	176.0	90	24	1	30	12	68	0
11	610	77.837	175.8	91	7	1	30	12	68	0
12	611	78.937	175.5	92	6	1	30	12	68	2
13	612	79.998	175.4	93	24	1	30	12	48	0
14	613	81.025	175.5	94	24	1	30	12	48	0
15	614	82.050	175.5	95	25	1	30	12	48	0
16	615	83.253	175.1	96	-7	1	30	12	48	0
17	616	84.390	174.6	97	7	1	30	12	48	0
18	617	85.461	174.5	98	-4	1	30	12	48	0
19	618	86.588	174.2	99	18	1	30	12	48	0
20	619	87.648	174.1	100	14	1	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 18 SHOT POINT 2 TEAM 6  
SHOT TIME: 191:12: 01 0.011

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	621	89.912	174.6	101	13	1	30	12	48	0
2	622	91.091	174.5	102	9	1	30	12	48	1
3	623	92.142	174.6	103	3	1	30	12	48	17
4	624	93.289	174.3	104	1	1	30	12	48	0
5	625	94.381	174.2	105	20	1	30	12	48	0
6	626	95.512	174.0	106	0	1	30	12	48	0
7	627	96.569	174.3	107	39	2	30	12	48	0
8	629	98.683	174.8	108	1	1	30	12	48	0
9	630	99.903	175.8	109	2	1	30	12	48	0
10	631	100.954	176.6	110	13	1	30	12	48	0
11	632	101.967	176.9	111	30	2	30	12	48	0
12	633	103.088	177.1	112	7	1	30	12	48	1
13	634	104.185	177.2	113	-7	1	30	12	48	0
14	635	105.280	177.3	114	2	1	30	12	48	0
15	636	106.383	177.4	115	9	1	30	12	48	0
16	637	107.488	177.4	116	13	2	30	12	48	0
17	638	108.633	177.6	117	11	1	30	12	48	1
18	639	109.757	177.7	118	18	1	30	12	48	0
19	640	237.043	176.5	119	2	2	30	12	48	0
20	640	111.102	176.8	120	4	4	30	12	48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 5  
SHOT TIME: 191:12: 2: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	532	18.402	354.7	41	-4	30	12	48	1	1
2	553	17.388	353.6	42	10	30	12	48	0	0
3	554	15.960	354.7	43	-13	30	12	68	0	0/17
4	555	14.917	354.9	44	43	2	30	12	68	0
5	556	14.222	354.7	45	1	2	30	12	88	0
6	557	13.418	354.7	46	0	0	30	12	88	2
7	558	12.407	357.2	47	15	1	30	12	68	0
8	559	11.440	357.5	48	10	1	30	12	68	2
9	560	10.440	357.4	49	13	1	30	12	48	0
10	561	9.561	359.4	50	-11	3	30	12	48	0
11	562	8.458	0.2	51	19	3	30	12	48	0
12	563	7.319	1.3	52	22	3	30	12	48	0
13	564	6.203	2.6	53	8	3	30	12	48	0
14	565	5.190	1.1	54	-12	3	30	12	48	0
15	566	3.921	352.1	55	7	1	30	12	48	0
16	567	2.645	355.2	56	13	3	30	12	68	0
17	568	1.385	329.8	57	12	3	30	12	68	0
18	569	0.065	209.3	58	15	3	30	12	88	0
19	570	1.036	160.4	59	-2	3	30	12	68	0
20	571	2.391	167.2	60	-7	3	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 3  
SHOT TIME: 191:12: 2: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	600	24.978	182.4	81	-18	1	30	12	68	0
2	601	26.126	182.7	82	-9	1	30	12	68	0
3	602	27.169	183.7	83	27	2	30	12	68	0/17
4	603	28.496	184.3	84	23	2	30	12	68	0
5	604	29.490	183.9	85	-5	2	30	12	68	0
6	605	30.709	183.7	86	0	2	30	12	68	0
7	606	31.566	182.6	87	--		30	12	68	0
8	607	32.617	180.4	88	26		30	12	68	17
9	608	33.474	179.3	89	-12		30	12	88	2
10	609	34.835	176.3	90	24	2	30	12	68	0
11	610	36.020	176.0	91	7	2	30	12	68	0
12	611	37.121	175.3	92	6		30	12	68	2
13	612	38.182	175.2	93	24	2	30	12	48	0
14	613	39.406	175.3	94	24	2	30	12	48	0
15	614	40.434	175.2	95	25	2	30	12	48	0
16	615	41.644	174.5	96	-7	2	30	12	48	0
17	616	42.794	173.6	97	7	2	30	12	48	0
18	617	43.871	173.4	98	-4	2	30	12	48	0
19	618	45.009	172.9	99	18	2	30	12	48	0
20	619	46.077	172.7	100	14	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 6  
SHOT TIME: 191:12: 2: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	621	48.329	173.7	101	13	2	30	12	48	0
2	622	49.513	173.5	102	9		30	12	48	1
3	623	50.565	173.7	103	3		30	12	48	17
4	624	51.721	173.3	104	1		30	12	48	0/12
5	625	52.819	173.1	105	20		30	12	48	0/12
6	626	53.960	172.8	106	0		30	12	48	2/12
7	627	55.009	173.3	107	39	1	30	12	48	0
8	629	57.115	174.2	108	1	2	30	12	48	2
9	630	58.329	175.9	109	2	2	30	12	48	12
10	631	59.392	177.3	110	13	2	30	12	48	12
11	632	60.413	177.7	111	30	2	30	12	48	12
12	633	61.542	178.0	112	7		30	12	48	1
13	634	62.645	178.2	113	-7	2	30	12	48	0/12
14	635	63.747	178.4	114	2	2	30	12	48	12
15	636	64.854	178.5	115	9	2	30	12	48	12
16	637	65.962	178.5	116	13	2	30	12	48	12
17	638	67.119	178.9	117	11	2	30	12	48	1
18	639	68.250	178.0	118	18	2	30	12	48	12
19	640	69.387	177.5	119	2		30	12	48	12
20	640	69.567	177.5	120	4		30	12	48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
SHOT NUMBER 19 SHOT POINT 4 TEAM 4  
SHOT TIME: 191:12: 2: 0.010

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	3.667	168.0	61	--	30	12	48	1	1
2	573	5.011	163.7	62	4	3	30	12	48	0
3	574	6.402	161.5	63	8	1	30	12	48	0
4	575	7.376	163.1	64	16	3	30	12	48	0
5	576	8.429	165.3	65	-13	1	30	12	48	0
6	577	9.613	169.1	66	1	1	30	12	48	0
7	578	10.510	172.1	67	-14	1	30	12	48	0
8	579	11.626	173.5	68	-6	2	30	12	48	0
9	580	12.720	177.7	69	5		30	12	48	2
10	581	13.970	181.6	70	33	1	30	12	48	0
11	582	14.985	181.7	71	5	2	30	12	48	0/12
12	583	15.063	180.8	72	16	2	30	12	48	0/12
13	584	17.164	179.6	73	-17	2	30	12	48	0/12
14	585	18.106	176.7	74	-2	2	30	12	48	0/12
15	586	19.425	175.2	75	14	2	30	12	48	0
16	587	20.504	175.9	76	4	2	30	12	68	0/12
17	588	21.611	178.1	77	9	2	30	12	68	0
18	589	22.556	179.5	78	-9	2	30	12	88	0/12
19	590	23.275	177.9	79	6	2	30	12	88	0
20	591	23.847	181.8	80	11		30	12	68	2

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 3  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	552	51.682	357.8	41	-4	1	30	12	48	1
2	553	50.648	357.4	42	10	1	30	12	48	0
3	554	49.243	357.9	43	-13	1	30	12	68	0
4	555	48.205	358.1	44	43	1	30	12	68	0
5	556	47.508	358.0	45	1	1	30	12	68	0
6	557	46.707	358.1	46	0	1	30	12	68	0
7	558	45.721	358.9	47	15	1	30	12	68	0
8	559	44.756	359.0	48	10	1	30	12	68	0
9	560	43.753	359.0	49	13	1	30	12	48	2
10	561	42.882	359.3	50	-11	1	30	12	48	0
11	562	41.779	359.6	51	19	1	30	12	48	0
12	563	40.637	359.8	52	22	1	30	12	48	0
13	564	39.516	360.0	53	8	1	30	12	48	0
14	565	38.509	359.7	54	-12	1	30	12	48	0
15	566	37.213	359.7	55	7	1	30	12	48	0
16	567	35.749	357.7	56	13	1	30	12	68	0
17	568	34.532	358.3	57	12	1	30	12	68	0
18	569	33.264	359.4	58	15	1	30	12	68	0
19	570	32.344	0.1	59	-2	1	30	12	68	0
20	571	30.989	0.4	60	-7	1	30	12	68	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 1  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	501	95.389	352.7	1	21	1	30	12	88	0
2	502	94.424	351.9	2	25	2	30	12	68	0
3	503	93.298	352.0	3	12	2	30	12	68	0
4	504	92.248	352.0	4	-20	2	30	12	68	0/12
5	505	91.768	353.1	5	-19	5	30	12	48	17
6	506	90.905	353.3	6	6	2	30	12	48	0/12
7	507	89.681	353.6	7	3	1	30	12	48	0
8	508	88.113	353.9	8	15	2	30	12	48	0/12
9	509	86.656	353.0	9	59	2	30	12	48	0/12
10	510	85.381	352.6	10	-27	2	30	12	48	0/12
11	511	84.257	352.9	11	-23	2	30	12	48	0/12
12	512	83.159	353.2	12	12	2	30	12	48	0/12
13	513	82.142	353.5	13	6	1	30	12	48	0/12
14	514	81.101	353.7	14	28	2	30	12	48	0/12
15	515	80.166	354.1	15	8	2	30	12	48	0/12
16	516	79.632	355.2	16	-7	1	30	12	48	0/12
17	517	78.657	355.9	17	8	2	30	12	48	0/12
18	518	77.946	356.8	18	-14	2	30	12	68	0/12
19	519	76.926	357.3	19	-30	1	30	12	68	0
20	520	75.947	357.6	20	13	1	30	12	88	17

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 4  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	572	29.737	0.9	61	--	1	30	12	68	1
2	573	28.533	2.2	62	4	1	30	12	48	0
3	574	27.305	3.7	63	8	1	30	12	48	0
4	575	26.327	4.0	64	16	1	30	12	48	0
5	576	25.233	4.2	65	-13	1	30	12	48	0
6	577	23.928	3.6	66	1	1	30	12	48	0
7	578	22.939	2.9	67	-14	1	30	12	48	0
8	579	21.794	2.7	68	-6	2	30	12	48	0
9	580	20.611	0.6	69	3	1	30	12	48	2
10	581	19.368	358.0	70	33	1	30	12	48	0
11	582	18.357	357.6	71	5	1	30	12	48	0
12	583	17.267	358.2	72	16	1	30	12	48	0
13	584	16.157	359.4	73	-17	1	30	12	48	0
14	585	15.262	2.8	74	-2	1	30	12	48	0
15	586	14.028	5.3	75	14	1	30	12	48	0
16	587	12.920	5.2	76	4	1	30	12	68	0/12
17	588	11.728	2.0	77	9	1	30	12	68	0/12
18	589	10.763	359.4	78	-9	1	30	12	88	0
19	590	10.077	3.2	79	6	1	30	12	88	0
20	591	9.542	353.7	80	11	1	30	12	68	0/12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 2  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	GRADE
1	521	75.020	357.4	21	-9	1	30	12	88	0
2	522	74.017	357.6	22	-13	1	30	12	68	0
3	523	72.883	357.2	23	-41	1	30	12	68	0
4	524	71.737	358.4	24	-3	1	30	12	48	2
5	525	70.750	359.0	25	-2	1	30	12	48	2
6	526	69.309	359.2	26	1	1	30	12	48	0
7	527	68.336	359.0	27	11	2	30	12	48	2
8	528	67.208	358.7	28	-55	1	30	12	48	0
9	529	66.054	358.5	29	13	2	30	12	48	0
10	530	64.935	358.1	30	7	1	30	12	48	0
11	532	62.672	358.7	31	7	1	30	12	48	2
12	533	61.788	358.8	32	22	2	30	12	48	0
13	534	60.653	358.8	33	46	2	30	12	48	0
14	535	59.361	358.8	34	8	1	30	12	48	1
15	536	58.374	359.0	35	-32	1	30	12	48	2
16	537	57.219	358.8	36	1	1	30	12	48	0
17	538	56.245	358.7	37	8	2	30	12	48	0
18	539	55.141	358.3	38	1	1	30	12	48	0
19	540	53.965	358.0	39	0	1	30	12	48	0
20	551	52.949	357.8	40	7	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 5  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	600	8.469	350.9	81	-18	3	30	12 68	0
2	601	7.384	348.0	82	-9	1	30	12 68	0
3	602	6.549	341.5	83	27	3	30	12 68	0
4	603	5.483	333.4	84	23	3	30	12 68	0
5	604	4.521	329.3	85	-5	3	30	12 68	0
6	605	3.512	319.6	86	0	3	30	12 68	0
7	606	2.498	315.7	87	--	--	30	12 68	1
8	607	0.874	323.6	88	26	3	30	12 68	0
9	608	0.179	147.9	89	-12	3	30	12 68	2
10	609	2.417	126.7	90	24	3	30	12 68	0
11	610	3.448	139.2	91	7	3	30	12 68	0
12	611	4.606	142.9	92	6	6	30	12 68	2
13	612	5.564	148.2	93	24	3	30	12 68	0
14	613	6.634	153.9	94	24	3	30	12 48	0
15	614	7.618	156.3	95	25	3	30	12 48	0
16	615	8.930	155.6	96	-7	3	30	12 48	0
17	616	10.252	153.9	97	7	3	30	12 48	0
18	617	11.321	155.0	98	-4	3	30	12 48	0
19	618	12.509	155.1	99	18	3	30	12 48	0
20	619	13.593	155.6	100	14	3	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 1  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	501	258.152	354.9	1	21	2	30	12 88	0/ 6
2	502	257.135	354.6	2	25	2	30	12 68	0/ 6
3	503	256.017	354.6	3	12	2	30	12 68	0/ 6
4	504	254.971	354.6	4	-20	2	30	12 68	0/ 6
5	505	254.553	355.0	5	-19	2	30	12 68	0/ 6
6	506	253.703	355.1	6	6	2	30	12 48	0/ 6
7	507	252.493	355.2	7	3	2	30	12 48	0/ 6
8	508	250.934	355.3	8	16	2	30	12 48	0/ 6
9	509	249.440	355.0	9	59	2	30	12 48	0/ 6
10	510	248.144	354.9	10	-27	2	30	12 48	0/ 6/12
11	511	247.036	355.0	11	-23	2	30	12 48	0/ 6/12
12	512	245.995	355.1	12	12	2	30	12 48	0/ 6/12
13	513	244.950	355.2	13	6	2	30	12 48	0/ 6/12
14	514	243.919	355.3	14	28	2	30	12 48	0/ 6/12
15	515	242.957	355.5	15	8	2	30	12 48	0/ 6/12
16	516	242.294	355.9	16	-7	2	30	12 48	0
17	517	241.366	356.1	17	8	2	30	12 48	0
18	518	240.612	356.4	18	-14	2	30	12 48	0/ 6
19	519	239.986	356.5	19	-30	2	30	12 68	0/ 6
20	520	238.605	356.6	20	13	2	30	12 88	0/ 6

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 20 SHOT POINT 6 TEAM 6  
 SHOT TIME: 191:12: 4: 0.012

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	621	15.552	161.1	101	13	3	30	12 48	0
2	622	16.741	161.5	102	9	3	30	12 48	1
3	623	17.750	162.6	103	3	3	30	12 48	17
4	624	18.953	162.2	104	1	3	30	12 48	0
5	625	20.064	162.3	105	20	3	30	12 48	0
6	626	21.238	162.1	106	0	3	30	12 48	0
7	627	22.184	163.9	107	39	1	30	12 48	0
8	629	24.135	166.9	108	1	1	30	12 48	0
9	630	25.161	171.1	109	2	3	30	12 48	0
10	631	26.126	174.5	110	13	3	30	12 48	0
11	632	27.127	175.3	111	30	3	30	12 48	0
12	633	28.244	176.3	112	7	3	30	12 48	0/17
13	634	29.342	176.8	113	-7	3	30	12 48	1
14	635	30.438	177.3	114	7	3	30	12 48	0
15	636	31.544	177.4	115	9	1	30	12 48	0
16	637	32.651	177.3	116	13	1	30	12 48	0
17	638	33.801	178.3	117	11	1	30	12 48	1
18	639	34.931	178.6	118	18	1	30	12 48	0
19	267	162.942	176.1	119	2	2	30	12 48	0/12
20	640	36.284	175.7	120	4	3	30	12 48	1

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 2  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	521	237.684	356.6	21	-9	1	30	12 88	0
2	522	236.679	356.6	22	-13	2	30	12 88	2
3	523	235.556	356.5	23	-42	2	30	12 68	0
4	524	234.382	356.9	24	-3	2	30	12 48	2
5	525	233.373	357.1	25	-2	2	30	12 48	2
6	526	231.931	357.1	26	1	1	30	12 48	0
7	527	230.969	357.0	27	11	2	30	12 48	0
8	528	229.855	356.9	28	-55	2	30	12 48	0
9	529	228.712	356.9	29	13	2	30	12 48	0
10	530	227.590	356.7	30	7	1	30	12 48	0
11	532	225.335	356.9	31	7	7	30	12 48	2
12	533	224.450	356.9	32	22	2	30	12 48	0
13	534	223.316	356.9	33	46	2	30	12 48	0
14	535	222.029	356.9	34	8	8	30	12 48	1
15	536	221.036	356.9	35	-32	2	30	12 48	2
16	537	219.893	356.9	36	1	2	30	12 48	0
17	538	218.927	356.8	37	8	2	30	12 48	0
18	539	218.838	356.7	38	1	2	30	12 48	0
19	540	216.673	356.6	39	0	2	30	12 48	0
20	551	215.664	356.6	40	7	2	30	12 48	0



FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 5  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHANN	C1	C2	C3	TAPE	GRADE
1	600	171.277	355.9	81	-18	2	30	12 68	0	0
2	601	170.158	355.8	82	-9	1	30	12 68	0	0
3	602	169.191	355.6	83	27	1	30	12 68	0	0/12
4	603	167.923	355.4	84	23	2	30	12 68	0	0
5	604	166.908	355.3	85	-5	2	30	12 68	0	0
6	605	165.691	355.4	86	0	2	30	12 68	0	0
7	606	164.766	355.6	87	--	2	30	12 68	0	0/26
8	607	163.598	356.0	88	26	1	30	12 68	2	0
9	608	162.704	356.2	89	-12	2	30	12 68	0	0
10	609	161.303	356.8	90	24	2	30	12 68	0	0
11	610	160.124	356.9	91	7	2	30	12 68	2	0
12	611	159.036	357.1	92	6	2	30	12 68	0	0
13	612	157.980	357.1	93	24	2	30	12 48	0	0
14	613	156.756	357.1	94	24	2	30	12 48	0	0
15	614	155.733	357.1	95	25	3	30	12 48	0	0/12
16	615	154.547	357.4	96	-7	2	30	12 48	0	0
17	616	153.443	357.4	97	7	2	30	12 48	0	0
18	617	152.384	357.7	98	-4	2	30	12 48	0	0
19	618	151.279	357.9	99	18	2	30	12 48	0	0
20	619	150.237	358.0	100	14	2	30	12 48	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 3  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHANN	C1	C2	C3	TAPE	GRADE
1	552	214.401	356.6	41	-4	2	30	12 48	1	0
2	553	213.376	356.3	42	10	2	30	12 48	0	0
3	554	211.965	356.6	43	-13	2	30	12 68	0	0
4	555	210.928	356.6	44	44	2	30	12 68	0	0
5	556	210.233	356.6	45	1	2	30	12 68	0	0
6	557	209.432	356.6	46	0	2	30	12 68	2	0
7	558	208.430	356.8	47	15	2	30	12 68	2	0
8	559	207.465	356.8	48	10	2	30	12 48	0	0
9	560	206.467	356.8	49	13	2	30	12 48	0	0
10	561	205.580	356.9	50	-11	2	30	12 48	0	0
11	562	204.475	356.9	51	19	2	30	12 48	0	0
12	563	203.332	356.9	52	22	2	30	12 48	0	0
13	564	202.209	356.9	53	8	2	30	12 48	0	0
14	565	201.216	356.9	54	-12	2	30	12 48	0	0
15	566	199.953	356.7	55	7	2	30	12 48	0	0
16	567	198.511	356.5	56	13	1	30	12 68	0	0
17	568	197.287	356.6	57	15	2	30	12 68	0	0
18	569	195.999	356.7	58	12	1	30	12 88	0	0
19	570	195.062	356.8	59	-2	2	30	12 68	0	0
20	571	193.701	356.9	60	-7	2	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 4  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHANN	C1	C2	C3	TAPE	GRADE
1	572	192.439	356.9	61	--	2	30	12 68	1	0
2	573	191.186	357.1	62	4	2	30	12 48	0	0
3	574	189.898	357.3	63	8	2	30	12 48	0	0
4	575	188.908	357.3	64	16	1	30	12 48	0	0
5	576	187.817	357.3	65	-13	2	30	12 48	0	0
6	577	186.551	357.1	66	1	2	30	12 48	0/12	0
7	578	185.604	357.0	67	-14	2	30	12 48	0/12	0
8	579	184.475	357.0	68	-6	2	30	12 48	2	0
9	580	183.366	356.7	69	5	2	30	12 48	0/12	0
10	581	182.173	356.4	70	33	2	30	12 48	0	0
11	582	181.168	356.3	71	5	2	30	12 48	0	0
12	583	180.076	356.4	72	16	2	30	12 48	0/12	0
13	584	178.955	356.5	73	-17	2	30	12 48	0	0
14	585	177.991	356.7	74	-2	2	30	12 48	0	0
15	586	176.683	356.9	75	14	2	30	12 68	0	0
16	587	175.601	356.8	76	4	2	30	12 68	0/12	0
17	588	174.502	356.6	77	9	2	30	12 68	0	0
18	589	173.583	356.4	78	-9	2	30	12 88	0/12	0
19	590	172.841	356.6	79	-6	2	30	12 68	0	0
20	591	172.373	356.0	80	11	2	30	12 68	0	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 21 SHOT POINT 19 TEAM 6  
 SHOT TIME: 191:12: 6: 0.008

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHANN	C1	C2	C3	TAPE	GRADE
1	621	147.928	357.8	101	13	2	30	12 48	0	0
2	622	146.761	357.9	102	9	2	30	12 48	1	0
3	623	145.707	357.8	103	3	2	30	12 48	2	0
4	624	144.584	358.0	104	1	2	30	12 48	0	0
5	625	143.506	358.1	105	20	2	30	12 48	0/12	0
6	626	142.399	358.3	106	0	1	30	12 48	0	0
7	627	141.312	358.1	107	39	2	30	12 48	0	0
8	629	139.151	357.8	108	1	1	30	12 48	0	0
9	630	137.872	357.1	109	2	1	30	12 48	0	0
10	631	136.809	356.5	110	13	1	30	12 48	0	0
11	632	135.800	356.3	111	30	1	30	12 48	1	0
12	633	134.685	356.1	112	7	1	30	12 48	0	0
13	634	133.591	356.0	113	-7	1	30	12 48	0	0
14	635	132.504	355.9	114	2	1	30	12 48	0	0
15	636	131.403	355.9	115	9	1	30	12 48	0	0
16	637	130.301	355.8	116	13	1	30	12 48	0	0
17	638	129.171	355.6	117	11	1	30	12 48	0	0
18	639	128.056	355.5	118	18	1	30	12 48	0	0
19	640	126.664	356.3	119	2	3	30	12 48	0	0
20	640	126.664	356.3	120	4	2	30	12 48	1	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 3  
 SHOT TIME: 191:12: 7:59.811

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	552	113.616	41	-4	2	30	12	48	0/12
2	553	112.605	42	10	2	30	12	48	0/12
3	554	111.180	43	-13	2	30	12	68	0/12
4	555	110.139	44	44	2	30	12	68	0/12
5	556	109.447	45	1	2	30	12	88	0/12
6	557	108.645	46	0	2	30	12	88	0
7	558	107.619	47	15	2	30	12	68	0
8	559	106.533	48	10	2	30	12	68	0/12
9	560	105.537	49	13	2	30	12	48	0/12
10	561	104.757	50	-11	2	30	12	48	0/12
11	562	103.631	51	19	2	30	12	48	0/12
12	563	102.505	52	22	2	30	12	48	0/12
13	564	101.381	53	8	2	30	12	48	0/12
14	565	100.399	54	-12	2	30	12	48	0/12
15	566	99.170	55	7	2	30	12	48	0/12
16	567	97.764	56	13	2	30	12	68	0/12
17	568	96.524	57	12	2	30	12	68	0/12
18	569	95.208	58	15	2	30	12	68	0/12
19	570	94.256	59	-2	2	30	12	68	0/12
20	571	92.892	60	-7	2	30	12	68	0/12

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 1  
 SHOT TIME: 191:12: 7:59.811

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	501	157.632	21	21	1	30	12	88	0/6	
2	502	156.681	22	25	2	30	12	68	0/6	
3	503	155.553	23	12	2	30	12	68	0/6	
4	504	154.503	24	-20	2	30	12	68	0/6	
5	505	154.003	25	-19	2	30	12	48	17	
6	506	153.133	26	6	2	30	12	48	0/6	
7	507	151.899	27	3	2	30	12	48	0/6	
8	508	150.325	28	16	2	30	12	48	0/6	
9	509	148.894	29	59	2	30	12	48	0/6	
10	510	147.628	30	-27	2	30	12	48	0/6	
11	511	146.497	31	11	-23	2	30	12	48	0/6/12
12	512	145.431	32	12	2	30	12	48	0/6	
13	513	144.367	33	6	3	30	12	48	0/12/6	
14	514	143.319	34	28	8	2	30	12	48	12
15	515	142.373	35	8	2	30	12	48	0/6	
16	516	141.598	36	-7	2	30	12	48	0/6	
17	517	140.633	37	8	2	30	12	48	0/6	
18	518	139.832	38	-14	2	30	12	68	0/6	
19	519	138.782	39	-30	2	30	12	68	0/6	
20	520	137.792	40	13	2	30	12	88	17	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 2  
 SHOT TIME: 191:12: 7:59.811

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	521	156.881	21	-9	1	30	12	88	0
2	522	155.866	22	-13	1	30	12	88	0
3	523	154.761	23	-42	1	30	12	68	0
4	524	153.538	24	-3	3	30	12	48	0
5	525	152.506	25	-2	2	30	12	48	0
6	526	151.061	26	1	2	30	12	48	0
7	527	150.107	27	11	1	30	12	48	0
8	528	149.016	28	-55	1	30	12	48	0
9	529	127.871	29	13	2	30	12	48	0
10	530	126.770	30	7	2	30	12	48	0
11	532	124.496	31	7	2	30	12	48	0
12	533	123.608	32	22	1	30	12	48	0
13	534	122.474	33	46	2	30	12	48	0
14	535	121.190	34	8	2	30	12	48	1
15	536	120.151	35	-32	2	30	12	48	0
16	537	119.058	36	1	2	30	12	48	0
17	538	118.100	37	8	2	30	12	48	0
18	539	117.028	38	1	2	30	12	48	0
19	540	115.877	39	0	2	30	12	48	0
20	551	114.876	40	7	2	30	12	48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 4  
 SHOT TIME: 191:12: 7:59.811

LOC	DIST(KM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE	
1	572	91.623	61	--	4	2	30	12	48	0
2	573	90.343	62	8	2	30	12	48	0	
3	574	89.035	63	8	2	30	12	48	0	
4	575	88.043	64	16	2	30	12	48	0	
5	576	86.955	65	-13	2	30	12	48	0	
6	577	85.708	66	1	2	30	12	48	0/12	
7	578	84.782	67	-14	2	30	12	48	0/12	
8	579	83.664	68	-6	2	30	12	48	0	
9	580	82.603	69	5	2	30	12	48	0	
10	581	81.472	70	33	2	30	12	48	0	
11	582	80.478	71	5	2	30	12	48	0	
12	583	79.568	72	16	2	30	12	48	0	
13	584	78.427	73	-17	2	30	12	48	0	
14	585	77.410	74	-2	2	30	12	48	0	
15	586	76.070	75	14	2	30	12	48	0	
16	587	75.001	76	4	2	30	12	68	0/12	
17	588	73.954	77	9	2	30	12	68	0	
18	589	73.075	78	-9	2	30	12	68	0	
19	590	72.289	79	6	2	30	12	68	0/12	
20	591	71.945	80	11	1	30	12	68	0	

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 5  
 SHOT TIME: 191.12: 7:59.811

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	600	70.882	350.9	81	-18	2	30	12 68	0
2	601	69.789	350.6	82	-9	2	30	12 68	0
3	602	68.882	350.0	83	28	1	30	12 68	0/12
4	603	67.664	349.5	84	23	1	30	12 68	0
5	604	66.645	349.5	85	-5	2	30	12 68	0
6	605	65.440	349.3	86	0	2	30	12 68	0
7	606	64.470	349.7	87	--	2	30	12 68	1
8	607	63.191	350.6	88	26	1	30	12 68	0/26
9	608	62.248	351.0	89	-12	2	30	12 68	1
10	609	60.703	352.6	90	24	2	30	12 68	0
11	610	59.506	352.7	91	7	2	30	12 68	0
12	611	58.385	353.1	92	6	2	30	12 68	0
13	612	57.322	353.1	93	24	2	30	12 48	0
14	613	56.104	353.0	94	24	2	30	12 48	0
15	614	55.074	353.0	95	23	2	30	12 48	0
16	615	53.849	353.5	96	-7	2	30	12 48	0
17	616	52.695	354.3	97	7	2	30	12 48	0
18	617	51.621	354.4	98	-4	2	30	12 48	0
19	618	50.492	354.9	99	18	2	30	12 48	0
20	619	49.433	355.2	100	14	2	30	12 48	0

FIELD DATA TABLE

ALASKA - SUMMER 1984  
 SHOT NUMBER 22 SHOT POINT 8 TEAM 6  
 SHOT TIME: 191.12: 7:59.811

LOC	DIST(NM)	AZIM	UNIT	CHRON	CHAN	C1	C2	C3	TAPE
1	621	47.160	354.2	101	13	2	30	12 48	12
2	622	45.978	354.4	102	9	3	30	12 48	1
3	623	44.925	354.3	103	3	3	30	12 48	17
4	624	43.775	354.8	104	1	2	30	12 48	12
5	625	42.682	355.0	105	20	2	30	12 48	0
6	626	41.554	355.5	106	0	2	30	12 48	0
7	627	40.487	354.9	107	39	2	30	12 48	0
8	629	38.375	353.5	108	1	3	30	12 48	0
9	630	37.252	350.8	109	2	2	30	12 48	0
10	631	36.377	348.4	110	13	2	30	12 48	0/12
11	632	35.444	347.4	111	30	2	30	12 48	1
12	633	34.402	346.5	112	7	2	30	12 48	0
13	634	33.360	345.8	113	-7	2	30	12 48	0
14	635	32.344	344.9	114	2	2	30	12 48	0
15	636	31.284	344.4	115	9	2	30	12 48	12
16	637	30.222	343.8	116	13	2	30	12 48	0
17	638	29.224	342.4	117	11	2	30	12 48	1
18	639	28.197	341.3	118	18	2	30	12 48	0
19	267	101.088	179.4	119	2	2	30	12 48	12
20	640	26.431	344.4	120	4	4	30	12 48	1

## APPENDIX B

Archive Tape Data Format  
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Archive data tapes are written in SEG Y standard format (Barry et al, 1975). Recording density is 1600 bpi, phase encoded (PE). In order to accomodate seismic refraction data, some minor changes have been made to the tape header fields. A complete list of header fields is provided in the card image portion of the reel identification header, shown below:

C 1		REEL IDENTIFICATION HEADER BYTES :
C 2	3217 -3218	SAMPLING INTERVAL (MICROSECS).
C 3	3221 -3222	NUMBER OF SAMPLES PER TRACE.
C 4	3225 -3226	DATA SAMPLE FORMAT CODE.
C 5	3255 -3256	MEASUREMENT SYSTEM (1 = METERS; 2 = FEET)
C 6		
C 7		
C 8		TRACE IDENTIFICATION HEADER BYTES :
C 9	1 - 4	TRACE SEQUENCE NUMBER WITHIN REEL.
C10	5 - 8	TRACE SEQUENCE NUMBER WITHIN REEL.
C11	9 - 12	STATION LOCATION NUMBER.
C12	29 - 30	TRACE ID CODE (1 = SEISMIC DATA).
C13	37 - 40	SHOTPOINT-RECEIVER DISTANCE (M).
C14	41 - 44	STATION ELEVATION (M).
C15	45 - 48	SHOTPOINT ELEVATION (M).
C16	49 - 52	SOURCE DEPTH (M).
C17	69 - 70	SCALAR TO BE APPLIED TO ALL ELEVATIONS.
C18	71 - 72	SCALAR TO BE APPLIED TO ALL COORDINATES.
C19	73 - 76	SHOTPOINT COORDINATE - X.
C20	77 - 80	SHOTPOINT COORDINATE - Y.
C21	81 - 84	RECEIVER COORDINATE - X.
C22	85 - 88	RECEIVER COORDINATE - Y.
C23	89 - 90	COORDINATE UNITS (1 = METERS; 2 = SECONDS OF ARC).
C24	115 - 116	NUMBER OF SAMPLES IN THIS TRACE.
C25	117 - 118	SAMPLE INTERVAL IN MICROSECONDS FOR THIS TRACE.
C26	121 - 122	INSTRUMENT ATTENUATION IN DB.
C27	157 - 158	SHOT TIME - YEAR.
C28	159 - 160	SHOT TIME - DAY OF YEAR.
C29	161 - 162	SHOT TIME - HOUR OF DAY (24 HOUR CLOCK).
C30	163 - 164	SHOT TIME - MINUTE OF HOUR.
C31	165 - 166	SHOT TIME - SECOND OF MINUTE.
C32	167 - 168	TIME BASIS CODE (2 = GMT).
C33	181 - 182	SHOT TIME - MILLISECONDS.
C34	183 - 184	SHOTPOINT LOCATION NUMBER.
C35	185 - 186	RECORDING INSTRUMENT UNIT NUMBER.
C36	191 - 192	DISTANCE WEIGHTING EXPONENT (HUNDREDTHS).
C37	193 - 194	SHOT SEQUENCE NUMBER (SHOT NUMBER).
C38	195 - 196	SHOT SIZE (KG).
C39	197 - 200	SHOTPOINT - STATION AZIMUTH (SEC OF ARC).
C40	201 - 204	TIME OF FIRST POINT MINUS SHOT TIME (MSEC)

The data point format is "32 bit floating point", and the appropriate bytes (3225-3226) of the binary reel id header contain a value of 1. The trace amplitudes have not been adjusted for instrument gain, but the gain correction factor can be estimated from the instrument attenuation value (att) specified in bytes 121-122. To correct for gain, the data should be demeaned and then multiplied by

$$\frac{(att/20)}{10}$$

The measurement system (bytes 3255-3256 of the binary reel header) is set to 1, meters.

Shotpoint and receiver coordinates are in seconds of arc (byte field 89-90). The coordinate scalar multiplier (bytes 71-72) is set to -100, so the coordinates (bytes 73-88) are in hundredths of a second of arc.

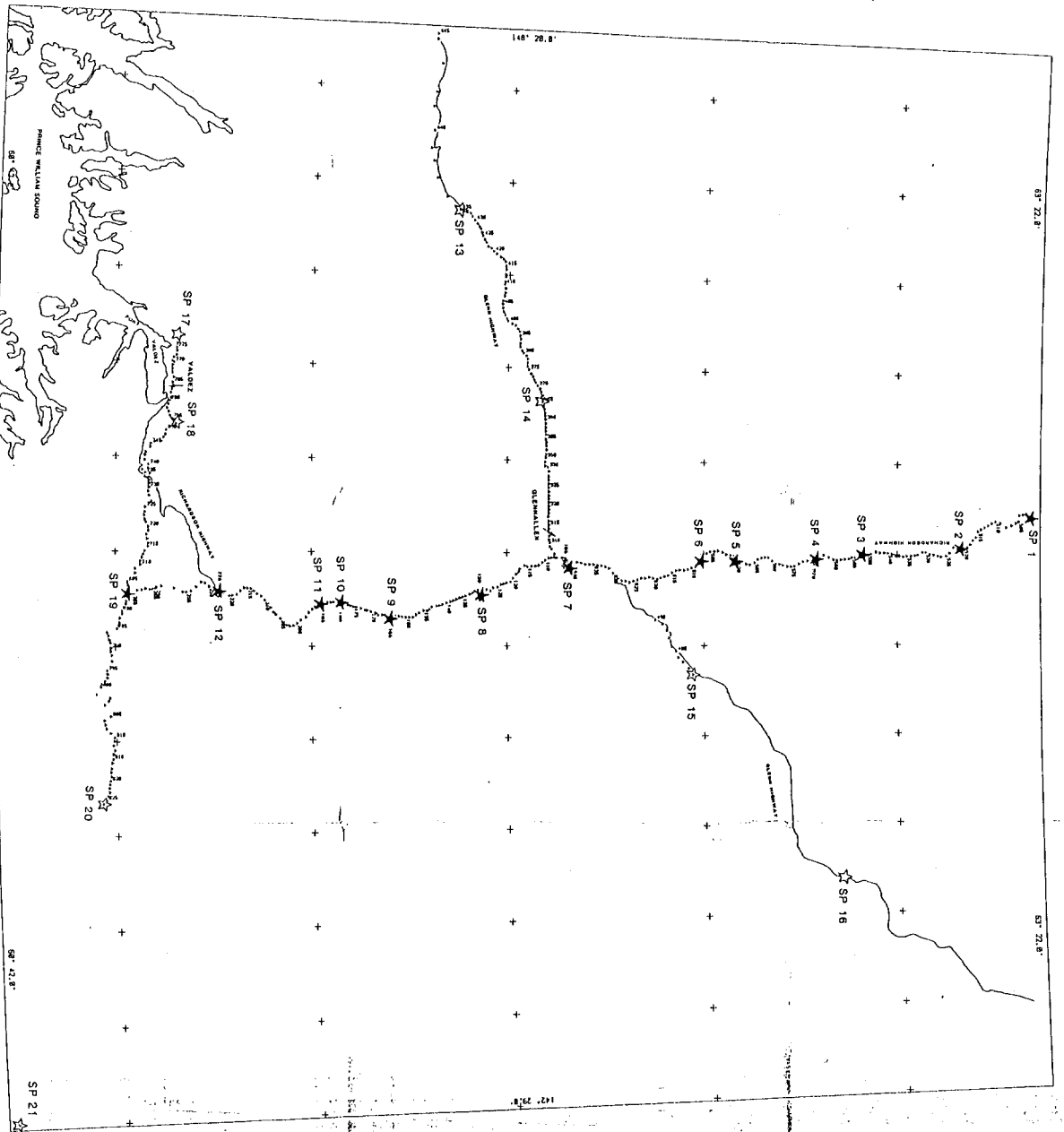
Bytes 157-166 and bytes 181-182 refer to the shot detonation time. The time of the first data sample is found by adding the shot detonation time to the time specified in bytes 201-204.

Since there is no weighting of amplitudes with distance for archive tapes, the distance weighting exponent (bytes 191-192) is not used.

Shot sequence number (bytes 193-194) refers to the order in which shots were fired during the field campaign.

#### REFERENCE

Barry, K.M., D.A. Cavers, and C.W. Kneale (1975). Recommended Standards for Digital Tape Formats, Geophysics 40, 344-352.



MAP OF SOUTHERN ALASKA REGION WITH SHOTPOINTS AND RECORDER SITE LOCATIONS  
TRANS-ALASKA CRUSTAL TRANSET (TACT1), 1984

by Patricia J. Meador, Elizabeth L. Ambos and Gary Fuis

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