UNITED STATES DEPARTMENT OF THE INTERIOR

U. S. GEOLOGICAL SURVEY

Aftershocks of the Borah Peak, Idaho, Earthquake of 28 October 1983: Catalog of Locations and Single-Event Focal Mechanisms

Open-File Report 86 -277

by

Susan K. Goter[1], W. D. Richins[2,3], and C. J. Langer[1]

This report is preliminary and has not been edited or reviewed for conformity with the U. S. Geological Survey editorial standards and stratigraphic nomenclature.

1
U.S. Geological Survey
Denver, Colorado 80225
2
Department of Geology and Geophysics
University of Utah
Salt Lake City, Utah 84112

3
present address:
EG&G Idaho, Inc.
Applied Mechanics Branch
P.O. Box 1625
Idaho Falls, ID 83415

CONTENTS

	Page
Introduction	1
Location of Aftershocks	1
Focal Mechanisms	8
Summary	8
Acknowledgements	13
References	13
Appendix A	15
Summary of aftershock location parameters	
Appendix B	25
HYPOELLIPSE location solutions for aftershocks	

ILLUSTRATIONS

Figure 1. Map showing the locations of all temporary stations installed to record aftershocks of the Borah Peak earthquake that occurred during the period between October 29 and November 19, 1983 . . . 2

2. Aftershock epicenter map showing location of all 402 located aftershocks . . . 6

3. Epicenter map of HYPOELLIPSE A and B quality aftershock locations . . . 7

4. Focal mechanism solution for 60 aftershocks of the Borah Peak earthquake sequence . . . 9

TABLES

Table 1. Stations used in the location of Borah Peak aftershocks . . . 3

2. Velocity model used to locate Borah Peak aftershocks . . . 5

3. Focal mechanism parameters . . . 12

INTRODUCTION

The M_s=7.3 Borah Peak, Idaho, earthquake of October 28, 1983 was the largest to occur in the Basin and Range since the 1959 earthquake at Hebgen Lake, Montana. The earthquake produced a northwest-trending, 36-km-long zone of surface faulting along the Lost River fault (Crone and others, 1985), a range-bounding normal fault in east-central Idaho.

The detailed nature of the mainshock has been discussed by several investigators, including Richins and others (1985), Dewey (1985), Boatwright and Choy (1985), Doser and Smith (1985), and Barrientos and others (1985). Based on the surface rupture observations, the preferred fault plane strikes to the northwest at about N24°W and has a dip between 45 and 63 degrees to the southwest. Depth of the mainshock hypocenter is between 14 and 16 km.

Following the mainshock, an extensive local network of temporary seismograph stations was installed. Data from this network were used in conjunction with the hypocenter-location program HYPOELLIPSE (Lahr, 1979) to locate over 400 aftershocks ranging in magnitude from Md=1.4 to Md=5.8. Duration magnitudes, Md, were calculated with the equation developed by Lee and others (1972) using constants from the University of Utah to convert the duration magnitude scale from the California region to the Intermountain Seismic Belt. This report presents locations of the aftershocks, as well as HYPOELLIPSE solutions for individual events. Sixty single-event focal mechanisms are also presented.

LOCATION OF AFTERSHOCKS

Within several hours after the M_s=7.3 Borah Peak mainshock, the installation of a dense seismograph network began by the USGS, University of Utah, and others (see Figure 1, Table 1). Over 60 temporary sites were occupied at some time between October 29 and November 19, 1983, with about 70% of these being operational at any one time (Richins and others, 1985). More than half of the instruments were short-period, smoked-paper recording seismographs with vertical-component seismometers. Supplementing the analog stations was a twelve-station portable network of digital instruments (spaced 3-18 km), operated by the USGS, Menlo Park (Boatwright, 1985) for the eleven day period following the mainshock. All station locations and dates of operation are presented in Table 1. In addition to the portable networks, regional data from permanent stations in Idaho, Montana, and Wyoming were provided by the University of Utah for events through

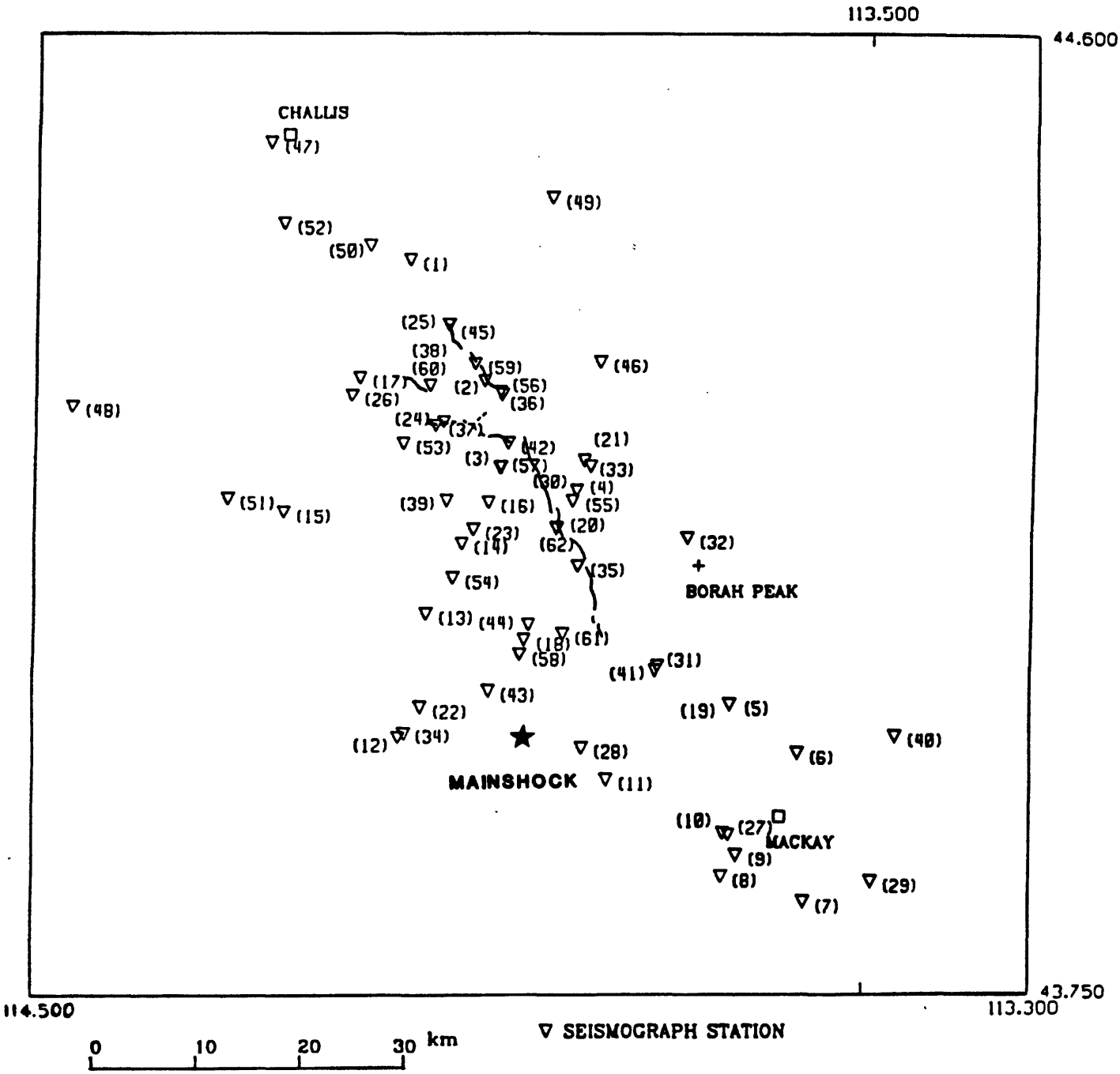

FIGURE 1.–Map showing location of all temporary stations installed to record aftershocks of the Borah Peak earthquake that occurred during the period between October 29 and November 19,1983. The station number reported corresponds to Table 1, which lists station names and parameters. Mainshock location (star) provided by Dewey (1985). Surface rupture (broken line) from Crone and others (1985).

TABLE 1.—Stations used in the location of Borah Peak aftershocks

	STATION NAME	LATITUDE (deg,min)	LONGITUDE (deg,min)	ELEV. (m)	OPERATION DATES	OPERATOR OR NETWORK[1]
(1)	B1	44N24.16	114W03.26	1878	10/30–11/19	USGS–GOLD
(2)	B2	44N17.69	113W57.73	2256	11/13–11/19	USGS–GOLD
(3)	B3	44N13.07	113W56.50	2103	10/29–10/31	USGS–GOLD
(4)	B4	44N11.80	113W50.93	2283	11/01–11/19	USGS–GOLD
(5)	B5	44N00.49	113W39.65	2149	11/02–11/19	USGS–GOLD
(6)	B6	43N57.95	113W34.72	2091	10/29–11/13	USGS–GOLD
(7)	B7	43N49.99	113W34.22	1939	10/29–11/02	USGS–GOLD
(8)	B8	43N51.33	113W40.18	2463	10/29–11/03	USGS–GOLD
(9)	B9	43N52.50	113W39.10	2170	11/03–11/11	USGS–GOLD
(10)	B10	43N53.71	113W40.07	2219	10/29–10/31	USGS–GOLD
(11)	B11	43N56.52	113W48.54	2158	10/29–11/19	USGS–GOLD
(12)	B12	43N58.73	114W03.64	2082	11/01–11/19	USGS–GOLD
(13)	B13	44N05.23	114W01.72	2106	11/11–11/19	USGS–GOLD
(14)	B14	44N08.98	113W59.17	2103	10/29–11/01	USGS–GOLD
(15)	B15	44N10.69	114W12.05	1887	10/31–11/18	USGS–GOLD
(16)	B16	44N11.22	113W57.31	2033	10/29–11/09	USGS–GOLD
(17)	B17	44N17.83	114W06.76	2021	10/30–11/20	USGS–GOLD
(18)	CEM	44N03.87	113W54.58	1924	10/29–11/08	USGS–MNLO
(19)	UCC	44N00.51	113W39.63	2151	10/29–11/08	USGS–MNLO
(20)	BOR	44N09.85	113W52.28	2076	10/29–11/08	USGS–MNLO
(21)	DSP	44N13.45	113W50.38	2515	10/30–11/08	USGS–MNLO
(22)	DPC	44N00.33	114W02.07	2045	10/30–11/08	USGS–MNLO
(23)	DTS	44N09.75	113W58.36	2000	10/30–11/08	USGS–MNLO
(24)	WCP	44N15.47	114W00.68	2006	10/29–11/08	USGS–MNLO
(25)	MGW	44N20.72	114W00.42	2121	10/30–11/08	USGS–MNLO
(26)	SMS	44N16.88	114W07.28	2197	10/30–11/08	USGS–MNLO
(27)	HAU	43N53.63	113W39.68	2167	10/29–11/08	USGS–MNLO
(28)	LHM	43N58.22	113W50.35	1970	10/30–11/08	USGS–MNLO
(29)	DLS	43N51.07	113W29.37	1803	10/30–11/08	USGS–MNLO
(30)	BRH	44N11.85	113W50.90	2242	11/05–11/07	USGS–MNLO
(31)	LCC	44N02.25	113W45.06	2091	11/05–11/08	USGS–MNLO
(32)	LSGS	44N09.29	113W42.82	2448	10/30–11/12	SLC
(33)	DSPI	44N13.13	113W49.91	2548	10/29–11/17	SLC
(34)	BRCI	43N58.95	114W03.23	2257	10/31–11/18	SLC
(35)	MBAI	44N07.75	113W50.71	2146	10/29–11/18	SLC
(36)	BIGA	44N16.94	113W56.40	2390	11/14–11/18	SLC
(37)	NWSI	44N15.29	114W01.24	2022	10/30–11/19	SLC
(38)	SCSI	44N17.45	114W01.71	2007	——	BSE
(39)	ANPI	44N11.28	114W00.37	2280	10/29–11/19	SLC
(40)	MDCI	43N58.86	113W27.71	2106	11/03–11/13	SLC
(41)	LCRI	44N02.49	113W44.88	2152	10/29–11/18	SLC
(42)	NSUI	44N14.36	113W55.90	2225	10/29–11/18	SLC
(43)	BRPI	44N01.18	113W57.13	2042	10/29–11/18	SLC
(44)	CHBI	44N04.65	113W54.30	1987	10/29–11/02	SLC
(45)	MCGI	44N20.71	114W00.34	2158	11/16–11/19	SLC
(46)	CGI	44N18.72	113W49.36	2207	11/05–11/18	U OF WASH
(47)	CHL	44N30.17	114W13.29	1576	11/05	U OF WASH
(48)	CLI	44N16.31	114W27.38	1780	11/05–11/07	U OF WASH
(49)	GCI	44N27.32	113W52.97	1877	11/05–11/19	U OF WASH
(50)	HIR	44N24.87	114W06.12	1713	11/07–11/19	U OF WASH
(51)	RCI	44N11.39	114W16.13	1784	11/07–11/19	U OF WASH
(52)	BLD	44N26.02	114W12.32	1628	11/18–11/19	U OF WASH
(53)	BWD	44N14.36	114W03.52	2244	11/10–11/18	U OF WASH
(54)	DCD	44N07.13	113W59.82	2101	11/09–11/15	U OF WASH

TABLE 1.—Stations used in the location of Borah Peak aftershocks—Continued

	STATION NAME	LATITUDE (deg,min)	LONGITUDE (deg,min)	ELEV. (m)	OPERATION DATES	OPERATOR OR NETWORK[1]
(55)	FSD	44N11.27	113W51.18	2229	11/08–11/19	U OF WASH
(56)	SCD	44N17.08	113W56.56	2378	11/16–11/18	U OF WASH
(57)	WSUI	44N13.08	113W56.34	2125	11/07–11/18	BSE
(58)	BSU1	44N03.08	113W54.88	1960	——	BSE
(59)	BSU2	44N18.61	113W58.45	2280	——	BSE
(60)	BSU3	44N17.45	114W01.71	2007	——	BSE
(61)	M-1	44N04.17	113W51.81	1922	10/28–11/22	INEL
(62)	M-2	44N09.78	113W52.28	2082	10/29–11/22	INEL
(63)	WMSI	44N27.33	114W07.54	1660	PERM	——
(64)	JECI	44N22.33	114W11.05	2135	PERM	SLC
(65)	LGUI	44N31.78	114W04.55	2538	PERM	——
(66)	SURI	44N18.35	113W28.95	2324	PERM	SLC
(67)	MLI	42N01.61	112W07.53	1896	PERM	SLC
(68)	NPI	42N08.84	112W31.10	1640	PERM	SLC
(69)	SLC	40N45.83	111W50.87	1423	PERM	SLC
(70)	WPI	43N17.33	116W45.00	1807	PERM	BSE
(71)	CPI	43N52.00	116W18.00	1620	PERM	BSE
(72)	TID	43N30.00	115W56.00	1765	PERM	BSE
(73)	BWF	44N14.95	114W01.82	2079	PERM	——
(74)	SGF	44N03.17	113W46.81	2243	PERM	——
(75)	IMW	43N53.82	110W56.35	2646	PERM	USGS USTN
(76)	BEI	42N07.00	111W46.94	1859	PERM	USGS USTN
(77)	HPI	43N42.68	113W05.90	2597	PERM	USGS USTN
(78)	TMI	43N18.33	111W55.09	2179	PERM	USGS USTN
(79)	CIB	43N24.07	112W56.51	1611	PERM	USGS
(80)	GBI	43N59.25	112W03.80	1561	PERM	USGS
(81)	JGI	44N05.56	112W40.61	1657	PERM	USGS
(82)	CMI	44N31.52	111W37.31	2377	PERM	REX
(83)	KCI	43N40.13	111W39.87	1902	PERM	REX
(84)	BLCM	44N52.64	112W50.80	1844	11/02–11/03	BUT
(85)	BNRM	45N06.84	112W33.07	1811	11/04	BUT
(86)	BPM	44N49.03	113W18.09	2313	10/29–11/02	BUT
(87)	BUT	46N00.80	112W33.80	1758	PERM	BUT
(88)	LRM	45N49.33	112W27.06	2326	PERM	BUT
(89)	LCCM	45N50.26	111W52.69	1669	PERM	BUT
(90)	MLPM	44N47.01	113W01.78	2115	11/02–11/03	BUT
(91)	NCM	47N10.81	114W33.95	1183	PERM	BUT
(92)	SHCM	45N04.61	112W39.52	1792	11/03–11/04	BUT
(93)	SXM	46N08.95	111W12.46	1987	PERM	BUT
(94)	MSO	46N49.75	113W56.44	1264	PERM	MSO

[1]
TEMPORARY STATIONS
- USGS-GOLD: USGS, GOLDEN, COLORADO
- USGS-MNLO: USGS, MENLO PARK, CALIFORNIA
- SLC : UNIVERSITY OF UTAH, SALT LAKE CITY, UTAH
- U OF WASH: UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON
- BUT : MONTANA BUREAU OF MINES AND GEOLOGY, BUTTE, MONTANA
- BSE : BOISE STATE UNIVERSITY, BOISE, IDAHO
- INEL : IDAHO NATIONAL ENGINEERING LABORATORY

PERMANENT STATIONS
- SLC : UNIVERSITY OF UTAH, SALT LAKE CITY, UTAH
- BSE : BOISE STATE UNIVERSITY, BOISE, IDAHO
- USGS : USGS, OTHER THAN NEIS ,USTN
- USGS USTN: NEIS TELEMETERED NETWORK
- BUT : MONTANA BUREAU OF MINES AND GEOLOGY, BUTTE, MONTANA
- MSO : UNIVERSITY OF MONTANA, MISSOULA, MONTANA
- REX : RICKS COLLEGE, REXBURG, IDAHO

—— : DATA UNAVAILABLE

November 11. Figure 1 shows the location of all portable and regional stations within the study area.

Locations for the aftershocks were computed using a P-wave velocity structure described by Richins and others (1985), which incorporated data from recent refraction profiles in the Lost River Valley vicinity. The model consists of four layers overlying an 8.00 km/sec half-space (Table 2). S-wave velocities were determined by Boatwright (1985), through a Wadati diagram analysis of digitally recorded P- and S-waves which indicated an average Vp/Vs of 1.75 ±0.04.

TABLE 2.–Velocity model used to locate Borah Peak aftershocks

LAYER	DEPTH TO TOP OF LAYER(km)	P-WAVE VELOCITY (km/s)	S-WAVE VELOCITY (km/s)
1	0	4.75	2.71
2	1	5.59	3.19
3	7	6.16	3.52
4	18	6.80	3.89
5	40	8.00	4.57

Hypocenters from 402 aftershocks occurring between October 29 and November 19, 1983 were located with HYPOELLIPSE (Lahr, 1979) using both P- and S-arrival times (Appendix B). Arrival time data were restricted to stations within 125 km of the aftershock epicenter. For the smoked-paper records, arrival time picks were made with the aid of a high-power magnifier, and most P-times are assumed to be accurate within ±0.05 seconds. S-wave times were scaled from playbacks of Boatwright's (1985) horizontal digital records. For those events not recorded digitally, the S-phase was identified by a change in amplitude and/or frequency as seen on the smoked-paper records. The maximum number of P and S times used in locating events was 36; the average was 18.

Epicenters of the 402 aftershocks are shown in relation to the mainshock epicenter and surface rupture in Figure 2. The epicenters cover an elongate area, 75km by 15km, which is generally subparallel to the trace of the surface faulting and offset to the southwest by about 5 to 8 km. Depths range from about 3 km to 13 km. Aftershock activity extends beyond the north and south ends of the surface rupture, but most hypocenters lie north of the mainshock and at more shallow depths, thus suggesting a unilateral rupture upward and to the northwest. Figure 3 shows only the HYPOELLIPSE A and B quality solutions and the corresponding 94% confidence ellipsoids.

Location parameters for all aftershocks are summarized in Appendix A. Average values for parameters are listed at the bottom of each column.

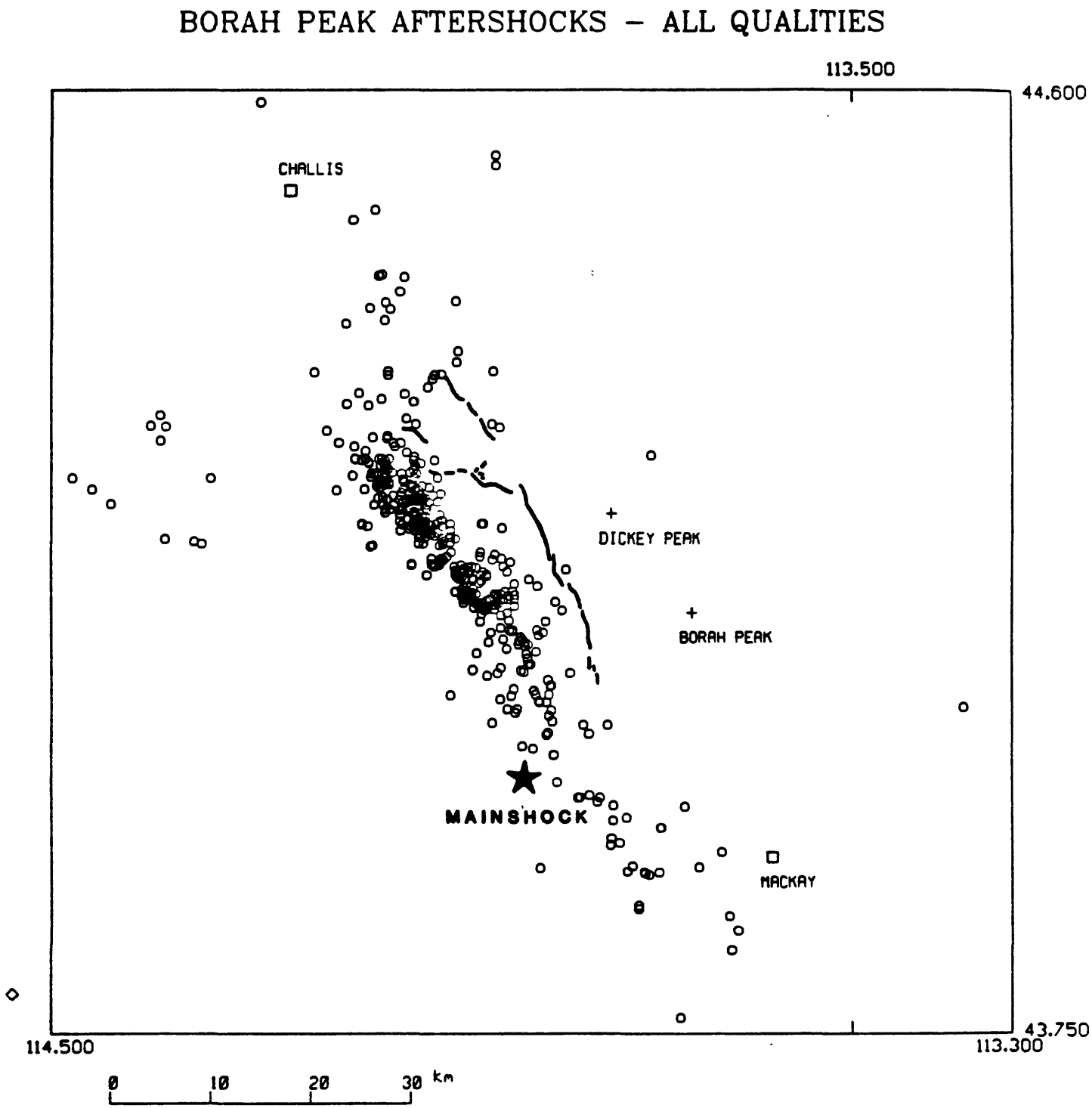

FIGURE 2.–Aftershock epicenter map showing the locations of all 402 located aftershocks.

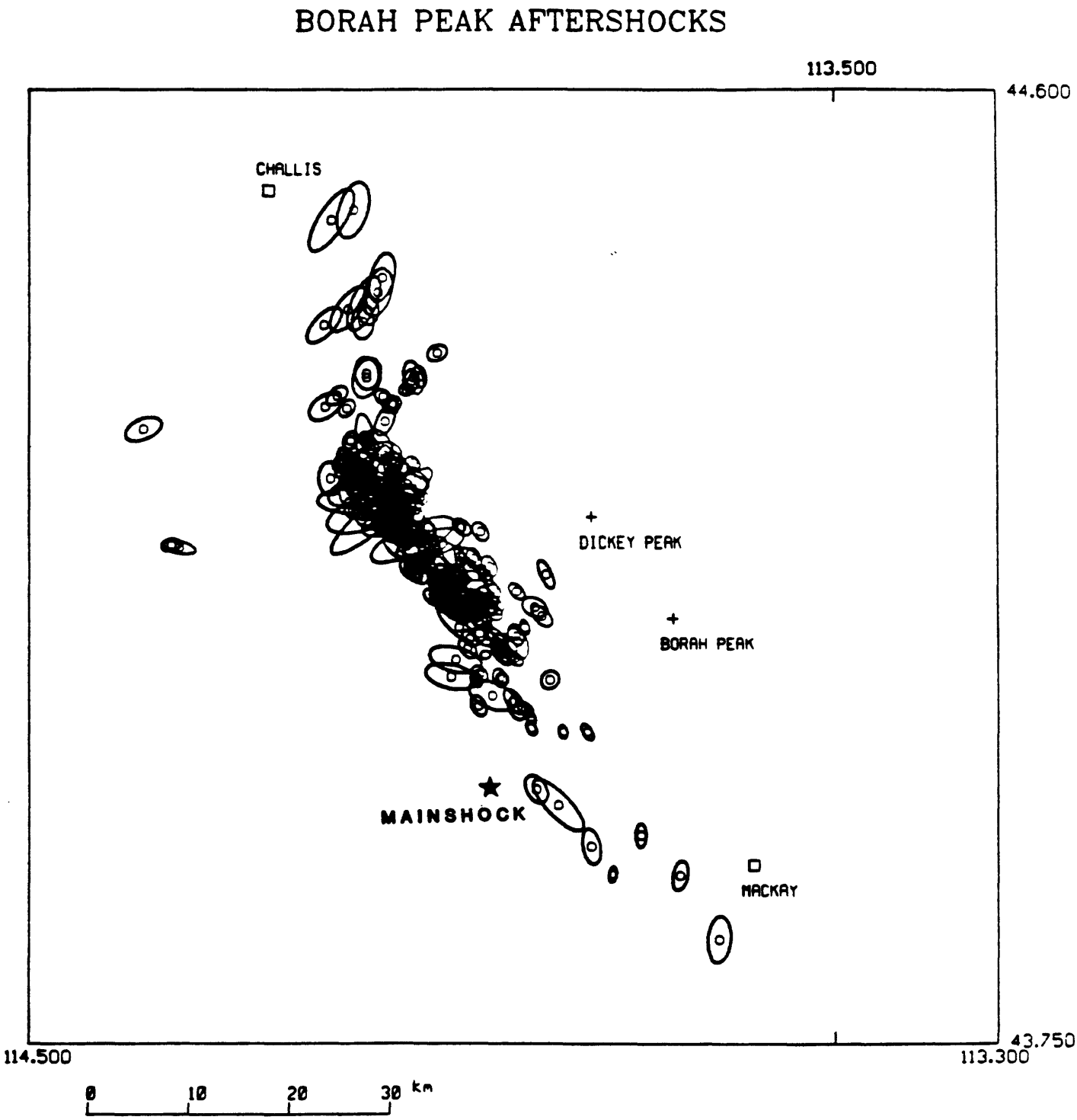

FIGURE 3.-Epicenter map of HYPOELLIPSE A and B quality aftershock locations. The 94% confidence-ellipses are also indicated.

FOCAL MECHANISMS

Focal mechanism solutions (lower hemisphere equal-area projections) for individual aftershocks were computer generated by the program FOCMEC (Snoke and others, 1984). A major advantage in the use of FOCMEC is its capability to search the entire focal sphere for acceptable solutions that contain a minimum number of polarity inconsistencies. By incrementing the focal sphere search at 5 degree intervals, single-event focal mechanism solutions were constructed for 60 aftershocks that have 15 or more identifiable first-motion polarities. The resulting mechanisms assume a double-couple source. Some solutions may have as many as 25 nodal plane orientations that satisfy the data and conditions. For the multiple solution cases, only the average solution is presented (Figure 4, Table 3). Quality ratings were assigned to each mechanism to distinguish whether the given solution is (A) very well-constrained , (B) well-constrained, or (C) less well-constrained. Because our initial conditions of not allowing more than 15% inconsistency,even a C-quality solution is considered good. The average magnitude for the 60 aftershocks in Table 3 is Md =3.0 and the range is from Md=2.2 to 4.1.

Nearly 90% of the focal mechanism solutions show a predominant normal mode of faulting, most of which are quite similar to the mainshock focal mechanism. Only five of the 60 mechanisms indicate reverse faulting. These epicenters located just west of the southern segment of surface rupture.

SUMMARY

The Borah Peak earthquake occurred along a segment of the Lost River fault, a range-bounding normal fault in Idaho. Over 400 aftershocks were located in a zone, roughly 75 km by 15 km, oriented subparallel to the surface rupture. Since the mainshock epicenter was south of the surface rupture and most of the aftershocks, and the mainshock hypocenter was deeper than the foci of most aftershocks, the mainshock rupture is thought to have travelled unilaterally upward and to the northwest. Of the 60 focal mechanism solutions determined, most (90%) indicate a normal mode of faulting, with varying amounts of strike-slip components. Only 8% of the solutions suggest reverse motion, and 2% indicate strike-slip faulting.

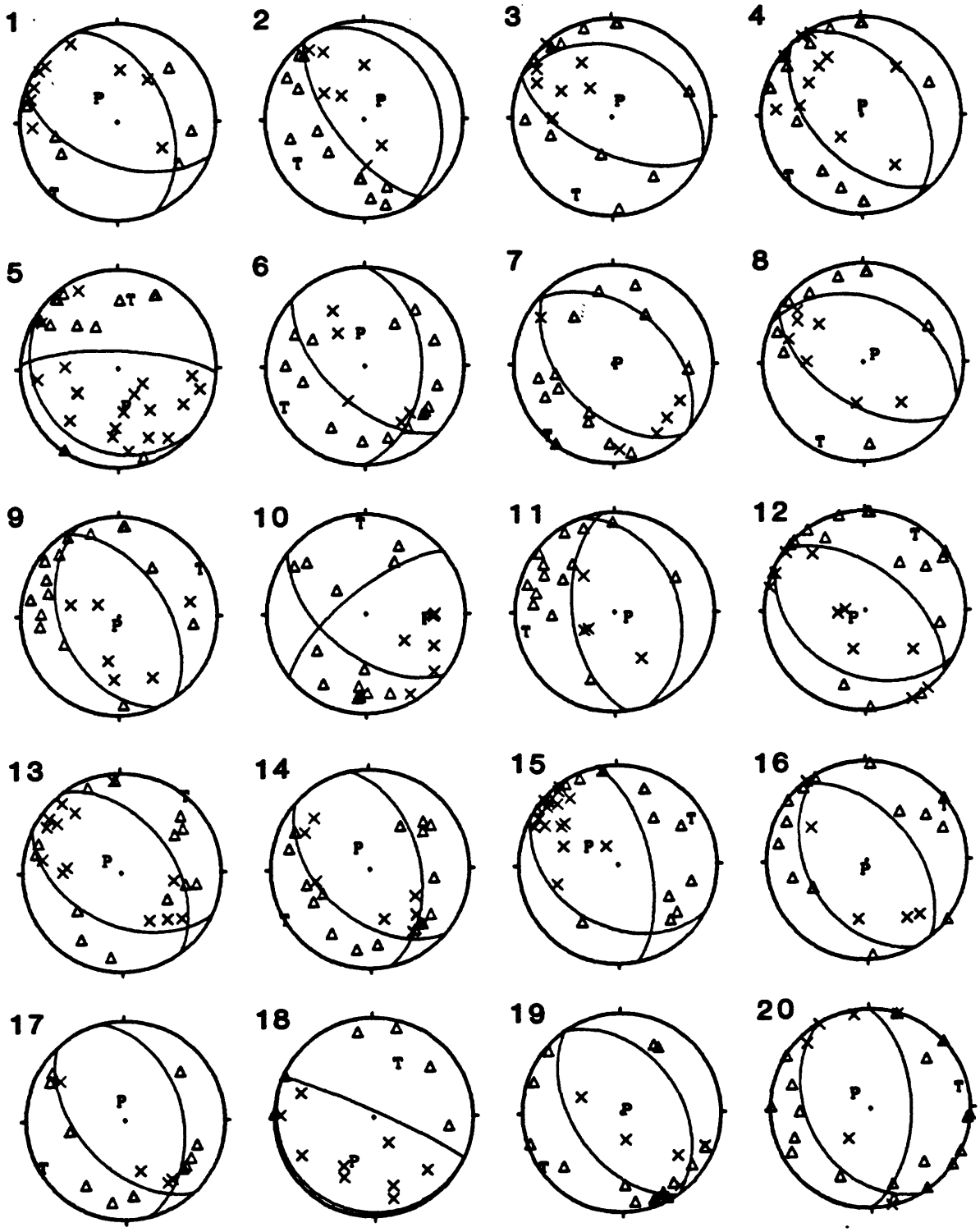

FIGURE 4.–Single-event, lower-hemisphere, equal-area projection focal mechanism solutions for 60 aftershocks of the Borah Peak earthquake sequence. First-motion polarities are indicated: solid triangles represent compressional first motions and X's represent dilatational first-motions. The number reported corresponds to Table 3, which lists the locations, qualities, and focal mechanism parameters.

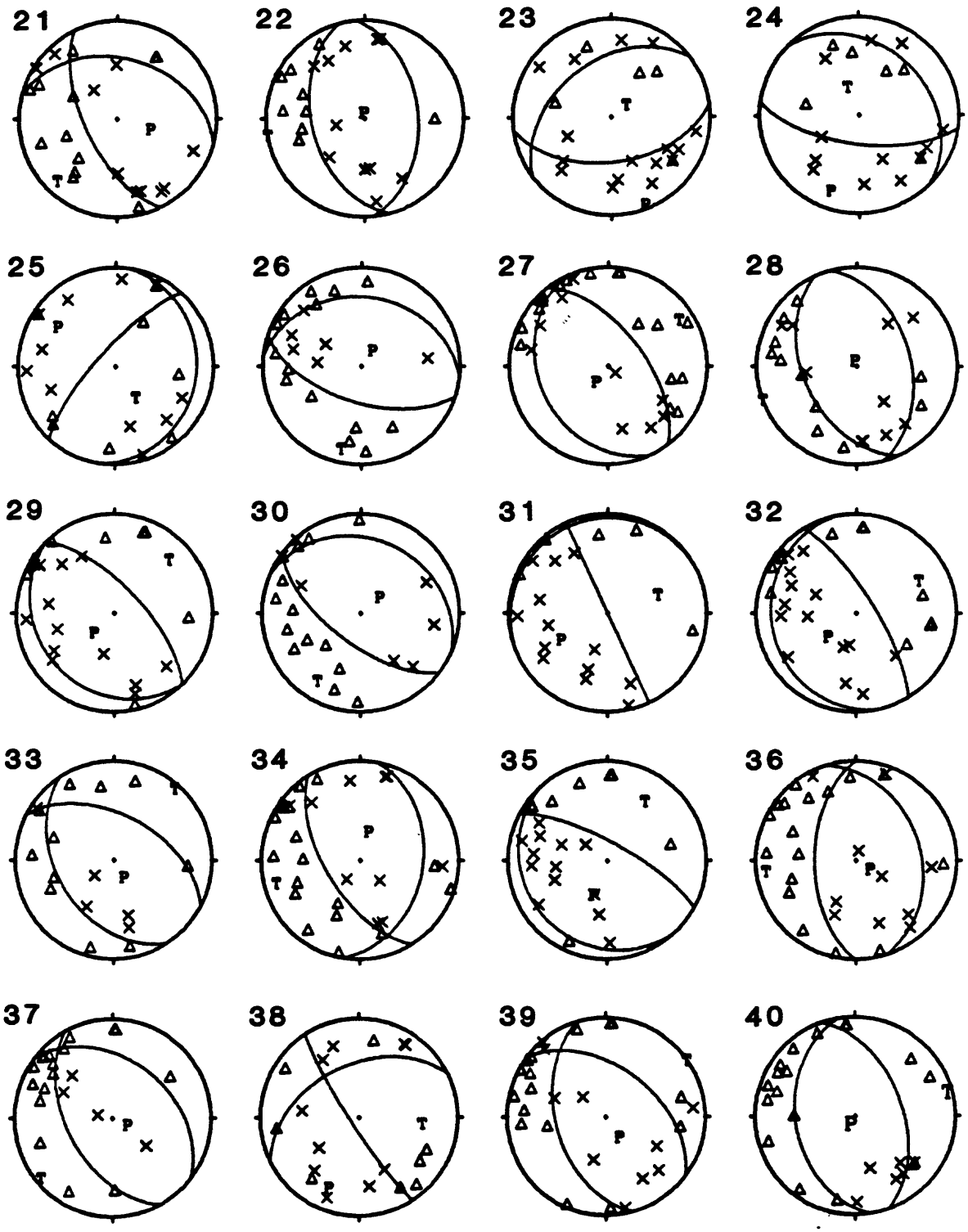

FIGURE 4.-CONTINUED

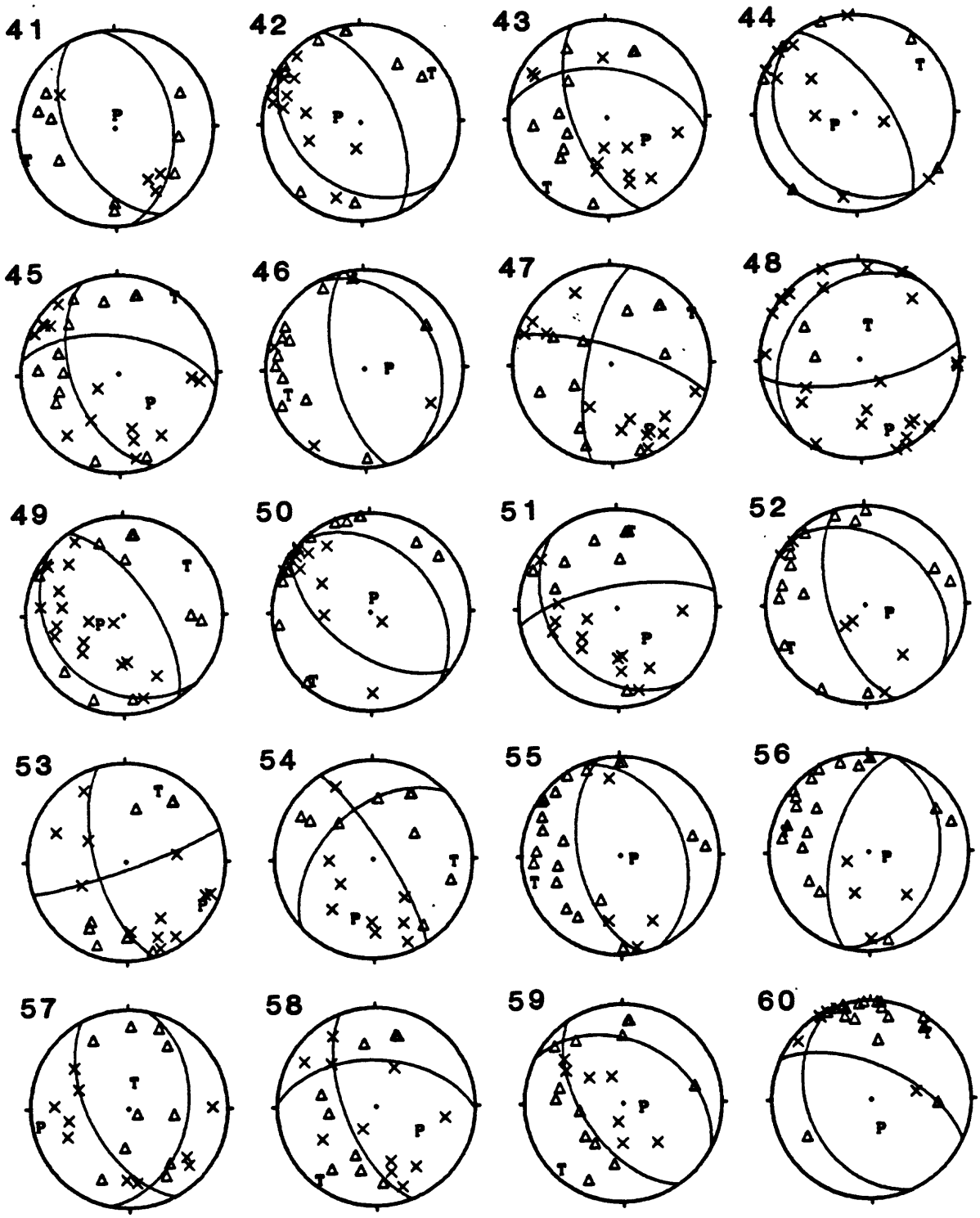

FIGURE 4.-CONTINUED

TABLE 3.—Focal mechanism parameters

MEC NO	DATE (YMD)	ORGN TIME (UTC)	DEPTH (km)	MAG (Md)	QUAL	NODAL PLANE 1 STRIKE	DIP	SLIP	NODAL PLANE 2 STRIKE	DIP	SLIP
1	831030	0254 39.79	4.06	4.06	A	337	46	-54	111	54	-121
2	831031	1055 37.32	11.35	2.62	A	336	25	-78	142	65	-96
3	831101	0059 08.13	8.01	2.81	A	295	30	-90	115	60	-90
4	831101	0105 28.19	8.64	3.30	A	326	40	-82	136	50	-97
5	831101	1030 33.66	9.46	3.18	C	128	18	-56	273	75	-100
6	831101	1041 18.25	6.93	3.07	A	1	42	-50	132	39	-120
7	831101	1350 25.26	9.65	3.46	A	135	48	-87	310	42	-93
8	831101	1913 00.91	9.47	2.74	A	123	55	-84	293	35	-98
9	831101	2342 29.30	9.03	3.05	A	156	40	-82	325	50	-97
10	831102	0653 07.14	11.17	3.10	C	128	56	-23	231	71	-144
11	831102	2224 04.62	9.53	3.15	A	173	55	-83	340	36	-100
12	831103	0018 48.51	7.17	3.35	A	308	55	-84	117	35	-98
13	831103	0122 15.85	5.04	3.19	A	325	47	-69	116	47	-111
14	831103	0150 20.33	6.71	3.77	A	349	48	-63	132	49	-117
15	831103	0224 13.92	9.15	3.49	A	349	63	-62	119	38	-133
16	831103	0259 19.40	7.60	3.47	A	151	40	-82	321	50	-97
17	831103	0415 16.47	6.27	3.56	A	347	42	-67	137	52	-109
18	831103	1251 09.08	7.96	3.75	C	295	85	-90	115	5	-90
19	831103	1700 13.41	11.03	3.24	C	326	40	-90	146	50	-90
20	831103	2026 53.84	7.86	2.96	B	0	56	-72	150	38	-115
21	831103	2209 24.65	10.38	3.15	A	154	63	-62	284	38	-133
22	831104	0002 25.47	10.94	2.44	A	355	45	-83	165	45	-97
23	831104	0807 48.67	6.18	2.72	B	233	42	67	83	52	109
24	831104	0904 12.86	6.59	3.17	A	98	66	73	313	28	122
25	831104	0916 09.48	3.89	3.06	B	7	18	56	222	75	100
26	831104	1343 00.95	10.14	2.82	B	108	60	-84	276	30	-100
27	831104	1730 44.33	3.34	3.35	A	154	30	-80	322	60	-96
28	831104	2329 49.49	6.21	3.15	A	345	45	-83	155	45	-97
29	831105	0422 09.12	8.61	3.18	A	316	68	-90	136	22	-90
30	831105	0537 39.87	8.32	3.56	C	127	65	-84	293	26	-103
31	831105	1743 55.12	8.37	3.35	C	245	5	0	335	90	265
32	831105	2256 42.89	10.32	3.62	C	168	16	-71	328	75	-95
33	831106	0139 26.50	10.35	2.20	C	147	42	-67	297	52	-109
34	831106	0644 16.05	8.99	3.22	A	10	36	-54	148	62	-113
35	831106	1449 59.92	10.42	3.00	B	138	16	-71	298	75	-95
36	831107	0933 31.21	8.53	3.24	B	180	56	-80	342	35	-104
37	831107	1733 06.03	10.61	3.32	A	151	52	-75	307	40	-108
38	831107	2119 15.13	5.76	2.46	C	244	46	10	147	83	136
39	831108	0646 34.06	8.23	3.33	A	164	48	-63	307	49	-117
40	831108	2220 41.62	5.11	3.28	A	171	40	-82	340	50	-97
41	831108	2332 43.03	6.81	3.36	A	352	41	-75	152	51	-103
42	831109	2245 18.87	8.92	2.60	C	338	60	-74	128	34	-116
43	831110	0852 38.56	8.84	3.13	C	160	62	-48	278	49	-142
44	831111	0315 24.22	10.28	2.68	C	326	64	-88	141	26	-94
45	831111	0508 48.14	10.58	3.06	A	159	51	-42	278	59	-133
46	831111	1655 34.47	4.89	2.43	C	167	65	-84	333	26	-103
47	831111	2250 47.94	10.33	3.08	B	192	70	-15	287	76	-159
48	831112	0337 54.94	7.39	2.53	B	220	25	52	81	71	106
49	831112	0510 10.64	10.84	2.75	A	327	65	-84	133	26	-103
50	831112	0554 05.12	8.00	2.50	C	317	35	-81	126	55	-96
51	831112	2232 27.49	11.67	2.68	A	139	32	-36	261	72	-117
52	831112	2305 48.00	8.24	2.56	A	163	61	-73	311	33	-118
53	831113	2238 07.48	9.75	2.71	A	164	65	7	71	84	154
54	831115	0810 51.49	11.03	2.83	A	228	48	-15	328	79	-137
55	831115	2149 20.55	8.23	2.94	B	168	55	-84	338	35	-98
56	831116	0455 31.35	8.26	3.04	A	195	60	-90	15	30	-90
57	831116	0950 35.03	6.48	2.62	A	152	57	66	11	40	122
58	831117	0806 40.66	12.20	2.95	A	159	64	-44	272	51	-146
59	831117	1151 47.38	11.77	3.06	B	146	56	-73	297	38	-113
60	831117	1321 42.86	7.50	3.05	B	156	36	-54	294	62	-113

ACKNOWLEDGEMENTS

We are grateful to a large number of individuals who assisted in the field data acquisition: D.M. Anderson, W.J. Arabasz, T.T. Barnhard, H.M. Benz, J. Boatwright, H.B. Boschetto, R.L. Dart, D.I. Doser, K.M. Haller, D. Halloran, S.T. Harding, R.F. Henrisey, S.M. Jackson, C. Jonientz-Trisler, E. McPherson, C.W. Meissner, D. Mullen, G. Newman, J.F. Peinado, R.B. Smith, M.C. Stickney, D.T. Whipp, and J.K. Whipp, and J.E. Zollweg. Data processing and analysis were accomplished with the help of M.J. Adams, J. Boatwright, G.J. Chen, G.M. Hathaway, L.L Leu, P.J. Oehmich, L.L. Sells, M.C. Stickney, and D.J. Williams. Regional seismographic data were made available by various institutions including Boise State University, Idaho National Engineering Laboratory, Montana Bureau of Mines and Geology, Ricks College, University of Utah, and University of Washington. We also thank Dave Gordon and James Taggart who critically read the manuscript and made several helpful suggestions to improve and clarify the text.

Support for the work at the University of Utah was provided by the U.S. Geological Survey, Contract No. 14-08-001-21857 (for field aftershock recording and data analysis) and Contract NO. 14-08-0001- 21856 (for supplementary research).

References

Barrientos, S. E., Ward, S. N., Gonzalez-Ruiz, J. R., and Stein, R. S., 1985, Inversion for moment as a function of depth from geodetic observations and long period body waves of the 1983 Borah Peak, Idaho, earthquake: *Proceedings of conference XXVIII, The Borah Peak, Idaho, earthquake, U.S. Geological Survey Open-file Report 85-290.*

Boatwright, J., and Choy, G. L., 1985, Teleseismic estimates of the energy radiated by shallow earthquakes: *Proceedings of conference XXVIII, The Borah Peak, Idaho, earthquake, U.S. Geological Survey Open-file Report 85-290.*

Boatwright, J., 1985, Characteristics of the aftershock sequence of the Borah Peak, Idaho, earthquake determined from digital recordings of the events, *Seismological Society of America Bulletin, v. 75*, p. 1265-1284.

Crone, A. J., Machette, M. N., Bonilla, M. G., Lienkaemper, J. J., Pierce, K. L., Scott, W. E., and Bucknam, R. B., 1985, Characteristics of surface faulting accompanying the Borah Peak earthquake, Central Idaho: *Proceedings of conference XXVIII, The Borah Peak, Idaho, earthquake, U.S. Geological Survey Open-file Report 85-290.*

Dewey, J. W., 1985, Instrumental seismicity of Central Idaho: *Proceedings of conference XXVIII, The Borah Peak, Idaho, earthquake, U.S. Geological Survey Open-file Report 85-290.*

Doser, D. I., and Smith, R. B., 1985, Source parameters of the 28 October 1983 Borah Peak, Idaho, earthquake from body wave analysis, *Seismological Society of America Bulletin, v. 75*, p. 1041-1051.

Lahr, J.C., 1979, HYPOELLIPSE–a computer program for determining local earthquake hypocentral parameters, magnitude, and first motion pattern, *U.S. Geological Survey Open-File Report 79-431*, 53 p.

Lee, W.H.K., Bennett, R.E., and Meagher, K.L., 1972, A method of estimating magnitude of local earthquakes from signal duration, *U.S. Geological Survey Open-File Report 72-223*, 28 p.

National Earthquake Information Service, 1983, Preliminary Determination of epicenters, monthly listing, U.S. Geological Survey (October 1983), p. 12.

Richins, W. D., Smith, R. B., Langer, C. J., Zollweg, J. E., King, J. J., and Pechmann, J. C., 1985,The 1983 Borah Peak, Idaho earthquake: Relationship of aftershocks to the mainshock, surface faulting, and regional tectonics: *Proceedings of Workshop XXVIII, The Borah Peak, Idaho, earthquake, U.S. Geological Survey Open-file Report 85-290.*

Snoke, J. A., Munsey, J. W., Teague, A. G., and Bollinger, G. A., 1984, A program for focal mechanism determination by combined use of polarity and SV-P amplitude ratio data, *Earthquake Notes, v. 55*, p. 15.

APPENDIX A.-SUMMARY OF AFTERSHOCK LOCATION PARAMETERS

A summary of the location parameters determined by HYPOELLIPSE (Lahr, 1979) are presented for all aftershocks. Overall averages for each parameter are listed at the bottom of each column.

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
51	831029	1737 41.19	44.064N	113.876W	7.02	1.1	3.59	12	111	0.16	2.35	-108.	2.35	-18.	0.99	A
52	831029	1741 20.47	44.078N	113.973W	11.16	5.3	3.40	11	238	0.11	0.97	-98.	2.41	-8.	1.01	A
53	831029	1923 24.52	44.061N	113.922W	7.89	1.0	3.44	16	142	0.20	1.57	-103.	2.10	-13.	0.95	A
	831029	1948 13.42	43.964N	113.841W	6.76	10.9	3.64	10	174	0.11	1.55	-124.	2.41	-34.	0.77	A
	831029	1950 40.93	44.231N	114.043W	5.15	8.5	3.55	8	239	0.08	1.61	-79.	2.99	11.	1.11	B
56	831029	2113 59.33	44.108N	113.913W	11.22	4.9	3.53	15	142	0.12	1.67	-103.	1.60	-13.	0.75	A
57	831029	2329 11.80	44.231N	114.042W	10.00	8.2	——	10	281	0.11	5.49	-46.	2.90	44.	2.36	C
58	831029	2339 05.44	44.258N	114.074W	10.00	11.5	——	13	300	0.12	2.94	-94.	2.23	-4.	1.40	B
59	831029	2341 30.80	44.348N	113.947W	11.58	21.3	——	4	342	0.09	29.24	-126.	33.91	-36.	11.00	D
61	831030	0020 01.31	44.002N	113.872W	9.37	17.0	——	6	219	0.13	8.83	-119.	3.58	-29.	0.72	C
62	831030	0024 17.43	43.900N	113.890W	3.27	17.8	——	7	247	0.25	91.21	-113.	10.63	-23.	3.47	D
	831030	0028 39.57	44.211N	114.048W	4.97	8.8	3.03	10	241	0.15	2.47	-79.	4.50	11.	1.65	B
	831030	0033 04.18	44.174N	114.049W	8.64	10.1	3.41	15	244	0.17	2.27	-95.	2.40	-5.	1.36	A
	831030	0107 41.35	44.225N	114.060W	3.49	9.7	3.68	11	282	0.08	1.50	-60.	4.69	30.	1.02	B
67	831030	0116 39.72	44.056N	113.878W	5.81	1.9	3.72	21	100	0.29	1.90	-119.	2.12	-29.	1.06	A
68	831030	0120 00.87	44.058N	113.897W	10.22	1.2	——	14	162	0.19	2.32	-108.	2.99	-18.	1.05	B
	831030	0124 51.67	44.093N	113.968W	10.44	5.7	4.67	23	195	0.21	1.38	-99.	2.41	-9.	0.97	A
70	831030	0158 23.80	44.046N	113.362W	10.00	28.9	——	2	351	0.31	99.00	15.	99.00	-75.	92.92	D
	831030	0159 01.87	44.208N	114.059W	15.04	9.4	——	17	273	0.17	2.67	-100.	2.85	-10.	1.50	B
71	831030	0254 39.79	44.210N	114.111W	4.06	13.6	4.06	21	240	0.16	1.67	-95.	2.08	-5.	0.79	A
72	831030	0345 19.01	44.234N	114.091W	6.10	12.0	4.03	17	233	0.18	1.64	-91.	3.85	-1.	1.16	B
	831030	0353 47.88	44.219N	114.064W	7.46	10.0	3.11	13	244	0.16	3.24	-79.	4.29	11.	1.44	B
	831030	0411 52.84	44.141N	113.955W	6.19	7.2	3.11	14	190	0.13	1.04	-93.	1.78	-3.	0.77	A
	831030	0540 15.22	44.224N	114.076W	6.06	10.9	3.39	12	247	0.14	1.55	-78.	3.70	12.	1.28	B
	831030	0610 34.82	44.248N	114.084W	0.17	12.0	3.61	12	247	0.17	13.99	-79.	4.56	11.	1.89	D
	831030	0625 58.45	44.248N	114.077W	5.08	11.5	3.40	13	246	0.19	2.65	-79.	5.40	11.	1.91	C
78	831030	0713 58.88	44.212N	114.016W	17.65	5.6	——	5	218	0.26	28.11	-18.	24.24	-108.	16.08	D
79	831030	0805 23.91	44.234N	114.034W	7.72	7.6	3.24	21	237	0.20	2.33	-96.	2.75	-6.	1.10	B
	831030	0824 41.02	44.135N	113.971W	6.13	8.6	3.42	14	202	0.20	1.78	-91.	2.73	-1.	1.18	B
	831030	0933 10.76	44.256N	114.062W	3.37	10.6	3.28	11	251	0.13	2.63	-77.	4.04	13.	1.52	B
82	831030	0941 33.35	44.205N	114.063W	6.82	8.7	3.75	19	245	0.23	1.59	-80.	5.35	10.	1.69	C
	831030	1003 09.32	43.956N	113.709W	12.43	10.0	——	7	291	0.07	3.27	-28.	4.69	-118.	0.97	B
	831030	1038 04.94	44.136N	113.956W	6.96	7.4	3.46	13	191	0.10	0.88	-86.	1.64	4.	0.67	A
85	831030	1225 52.67	44.114N	113.927W	8.81	5.7	3.55	22	119	0.18	1.59	-101.	1.35	-11.	0.75	A
	831030	1237 13.73	44.192N	114.010W	6.00	6.4	——	11	233	0.08	1.28	-81.	1.70	9.	0.60	A
	831030	1254 00.25	44.193N	114.010W	5.48	6.3	3.46	14	233	0.12	1.11	-81.	2.26	9.	0.82	A
	831030	1314 44.15	44.200N	114.021W	3.71	6.9	3.36	13	254	0.12	1.57	-73.	3.70	17.	1.12	B
	831030	1410 53.92	44.197N	113.995W	3.98	5.0	2.92	14	229	0.15	1.55	-80.	2.69	10.	1.01	B
	831030	1525 33.26	44.142N	113.973W	7.18	8.5	2.99	13	204	0.09	1.58	-85.	1.43	5.	0.61	A
	831030	1619 05.29	44.231N	114.017W	3.10	6.9	3.39	12	234	0.14	2.24	-77.	3.23	13.	1.23	B
92	831030	1638 07.24	44.049N	113.881W	8.21	2.7	2.59	19	98	0.09	0.87	-113.	0.74	-23.	0.38	A
	831030	1738 46.26	44.209N	114.104W	6.14	13.2	3.23	11	264	0.17	2.19	-87.	6.99	3.	1.87	C
	831030	1741 07.82	44.163N	113.955W	4.81	6.2	3.09	14	193	0.18	1.65	-89.	2.12	1.	1.00	A
95	831030	1749 20.31	44.140N	113.870W	3.34	2.3	3.23	23	70	0.21	1.52	-104.	1.08	-14.	0.69	A
	831030	1923 41.95	44.246N	114.082W	7.44	11.8	3.92	9	247	0.19	5.71	-79.	6.71	11.	2.26	C
	831030	2106 10.43	44.142N	113.928W	2.95	5.1	3.23	15	121	0.13	1.48	-102.	0.94	-12.	0.61	A
2	831030	2157 08.31	44.224N	114.081W	7.04	7.2	2.72	25	188	0.15	1.63	-114.	1.39	-24.	0.67	A
903	831030	2213 19.13	44.228N	114.071W	12.61	8.4	1.95	11	194	0.05	0.73	-124.	1.38	-34.	0.41	A
4	831030	2220 58.27	44.122N	113.964W	12.01	3.6	1.80	11	181	0.07	1.19	-121.	1.94	-31.	0.53	A
	831030	2302 34.55	44.029N	113.806W	7.40	4.8	3.20	29	62	0.11	0.96	-132.	0.58	-42.	0.29	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
6	831030	2318 55.01	44.200N	114.040W	10.25	7.0	1.84	10	185	0.11	2.10	-119.	2.91	-29.	0.89	B
100	831030	2356 26.09	44.254N	114.081W	5.71	4.5	3.24	30	155	0.17	0.84	-102.	1.11	-12.	0.61	A
101	831031	0104 33.72	44.099N	113.907W	8.52	2.4	2.84	27	89	0.15	1.13	-123.	0.93	-33.	0.47	A
	831031	0222 53.66	44.294N	114.155W	0.55	14.6	3.43	13	276	0.10	7.85	-61.	5.19	29.	1.15	C
	831031	0228 28.06	44.179N	113.937W	1.84	4.3	——	12	95	0.20	12.73	-119.	1.64	-29.	1.19	D
	831031	0443 33.54	44.265N	114.103W	2.85	6.6	3.36	17	233	0.15	2.32	-70.	2.78	20.	1.07	B
106	831031	0702 01.62	43.895N	113.758W	13.20	6.7	2.39	13	200	0.13	2.16	-125.	1.81	-35.	1.14	A
	831031	0711 42.51	44.250N	114.061W	3.48	3.3	3.46	15	243	0.17	1.76	-83.	3.37	7.	1.06	B
108	831031	0841 49.11	44.056N	113.895W	7.68	1.5	2.72	31	77	0.18	1.21	-127.	0.98	-37.	0.54	A
	831031	1032 41.65	44.234N	114.036W	6.77	2.7	3.80	14	206	0.13	0.95	-70.	1.75	20.	0.96	A
110	831031	1033 26.08	44.181N	113.964W	9.25	1.0	2.60	15	110	0.12	1.11	-124.	1.87	-34.	0.60	A
111	831031	1055 37.32	44.112N	113.951W	11.35	5.1	2.62	26	116	0.10	0.98	-119.	0.73	-29.	0.38	A
	831031	1126 17.29	44.251N	114.060W	9.76	3.2	——	14	227	0.08	2.06	-52.	1.83	38.	0.91	A
113	831031	1515 16.24	44.211N	113.960W	6.64	1.7	2.58	28	73	0.15	0.63	-111.	0.85	-21.	0.52	A
	831031	1608 33.52	44.139N	113.984W	9.56	5.8	——	15	144	0.17	3.31	-97.	1.64	-7.	0.98	B
	831031	2114 17.49	44.257N	114.073W	6.43	4.2	——	12	236	0.14	1.58	-61.	2.83	29.	1.66	B
116	831031	2227 45.86	44.008N	113.898W	11.37	10.3	2.53	13	120	0.11	2.39	38.	1.45	-52.	0.49	A
117	831101	0027 47.56	44.156N	113.921W	7.17	4.1	2.88	30	52	0.14	0.95	-123.	0.67	-33.	0.39	A
118	831101	0059 08.13	44.217N	114.036W	8.01	4.0	2.81	25	74	0.15	1.42	-111.	0.95	-21.	0.59	A
119	831101	0105 28.19	44.231N	114.052W	8.64	3.6	3.30	34	83	0.10	0.83	-102.	0.49	-12.	0.32	A
120	831101	0158 05.44	44.173N	114.016W	11.39	3.5	2.22	14	83	0.10	1.02	-134.	0.98	-44.	0.54	A
121	831101	0247 43.37	44.142N	113.952W	5.20	2.8	2.48	29	76	0.16	0.83	-120.	0.70	-30.	0.53	A
	831101	0437 47.90	44.819N	114.642W	5.35	77.6	——	13	342	0.16	99.00	-36.	99.00	-126.	7.48	D
123	831101	0448 32.96	44.235N	114.085W	7.20	5.6	3.07	23	186	0.15	1.90	-102.	1.50	-12.	0.58	A
124	831101	0502 46.75	44.050N	113.891W	6.64	3.1	3.09	31	84	0.19	0.91	-126.	0.80	-36.	0.56	A
125	831101	0924 04.42	44.159N	113.962W	8.43	0.9	2.34	14	75	0.07	0.62	42.	0.67	-48.	0.41	A
126	831101	1030 33.66	44.133N	113.946W	9.46	3.7	3.18	35	76	0.14	0.93	-115.	0.59	-25.	0.40	A
127	831101	1041 18.25	44.220N	114.044W	6.93	4.3	3.07	31	78	0.10	0.41	-108.	0.50	-18.	0.32	A
128	831101	1234 24.95	44.132N	113.958W	10.04	3.0	2.91	33	79	0.15	0.98	-108.	0.65	-18.	0.43	A
129	831101	1341 54.87	44.092N	113.906W	7.80	3.0	2.18	13	99	0.05	0.42	-117.	0.37	-27.	0.23	A
130	831101	1350 25.26	44.151N	113.987W	9.65	0.2	3.46	30	84	0.15	1.01	-111.	0.70	-21.	0.45	A
131	831101	1646 12.53	44.201N	114.026W	8.92	2.2	2.75	26	73	0.08	0.67	-119.	0.44	-29.	0.29	A
133	831101	1820 16.88	44.173N	113.987W	10.02	1.6	2.45	12	77	0.09	0.96	45.	0.97	-45.	0.56	A
134	831101	1909 08.74	44.185N	113.963W	4.85	0.7	2.07	11	125	0.07	0.57	22.	0.78	-68.	0.45	A
135	831101	1913 00.91	44.241N	114.040W	9.47	2.2	2.74	24	76	0.09	0.90	-108.	0.55	-18.	0.39	A
137	831101	2136 45.65	44.146N	113.944W	7.51	4.7	2.91	24	73	0.08	0.80	-113.	0.44	-23.	0.29	A
138	831101	2342 29.30	44.201N	114.039W	9.03	3.0	3.05	28	75	0.11	0.85	-119.	0.60	-29.	0.41	A
140	831102	0157 50.24	44.135N	113.965W	10.65	3.1	2.84	21	123	0.11	1.03	-110.	0.71	-20.	0.48	A
141	831102	0603 23.83	44.232N	114.035W	9.19	8.1	2.69	12	109	0.08	1.29	-121.	0.73	-31.	0.44	A
	831102	0633 57.68	44.218N	114.044W	12.42	4.5	——	10	187	0.13	7.30	-34.	3.32	-124.	1.87	C
143	831102	0653 07.14	43.978N	113.868W	11.17	6.2	3.10	25	140	0.15	1.27	-126.	1.04	-36.	0.65	A
	831102	0901 38.51	44.205N	114.039W	12.28	3.2	——	12	182	0.10	3.43	-56.	1.75	34.	1.21	B
	831102	0953 14.90	44.191N	114.014W	8.94	0.7	——	11	166	0.14	3.53	-67.	1.86	23.	1.42	B
146	831102	1241 13.39	44.260N	114.078W	4.48	4.6	3.63	24	99	0.16	1.30	-86.	0.91	4.	0.62	A
	831102	1455 59.67	44.248N	114.081W	10.86	4.9	——	12	226	0.04	1.57	-46.	1.29	44.	0.60	A
	831102	1623 26.60	44.280N	114.070W	8.43	3.5	——	9	253	0.10	5.22	-34.	5.15	-124.	1.89	C
	831102	1917 22.61	44.210N	114.027W	5.42	2.9	3.19	15	175	0.22	2.16	-93.	2.29	-3.	1.28	A
151	831102	2032 22.58	44.259N	114.083W	4.76	4.8	2.73	27	105	0.12	0.80	-85.	0.66	5.	0.48	A
152	831102	2040 09.82	44.246N	114.077W	3.88	4.6	2.31	17	101	0.10	1.40	-102.	0.66	-12.	0.52	A
153	831102	2104 55.06	44.269N	114.090W	5.43	2.8	2.25	11	90	0.05	0.52	14.	0.48	-76.	0.40	A
154	831102	2106 08.11	44.230N	114.060W	7.86	5.0	2.41	9	139	0.09	1.44	-134.	1.18	-44.	0.74	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
	831102	2108 21.05	44.160N	113.903W	0.64	5.7	3.03	12	79	0.16	11.51	-99.	1.07	-9.	0.87	D
156	831102	2110 27.30	44.287N	114.080W	6.73	2.8	1.74	8	186	0.08	1.30	13.	2.23	-77.	0.83	A
157	831102	2147 31.38	44.195N	114.322W	9.96	9.8	2.71	16	277	0.05	1.26	-83.	0.92	7.	0.51	A
158	831102	2224 04.62	44.236N	114.063W	9.53	3.9	3.15	22	90	0.08	0.89	-64.	0.53	26.	0.51	A
159	831102	2229 36.56	44.230N	114.028W	10.77	2.9	2.66	20	63	0.11	1.29	32.	0.91	-58.	0.64	A
160	831102	2342 01.86	44.264N	114.081W	6.55	3.7	3.26	26	77	0.13	0.71	-4.	0.70	-94.	0.65	A
161	831102	2343 55.09	44.269N	114.077W	6.66	3.8	3.70	32	76	0.20	0.86	-12.	1.10	-102.	0.98	A
162	831103	0018 48.51	44.256N	114.043W	7.17	1.8	3.35	31	74	0.15	1.09	-95.	0.85	-5.	0.54	A
163	831103	0055 56.28	44.263N	114.045W	9.66	2.1	3.00	29	123	0.19	1.14	-94.	1.47	-4.	0.80	A
164	831103	0122 15.85	44.259N	114.082W	5.04	4.9	3.19	29	103	0.15	0.78	-92.	0.79	-2.	0.57	A
165	831103	0150 20.33	44.245N	114.093W	6.71	5.9	3.77	32	116	0.14	0.66	-86.	0.82	4.	0.63	A
166	831103	0224 13.92	44.318N	114.130W	9.15	2.7	3.49	30	193	0.17	1.07	-70.	1.42	20.	0.83	A
167	831103	0259 19.40	44.226N	114.043W	7.60	3.7	3.47	32	78	0.15	1.08	-101.	0.82	-11.	0.51	A
168	831103	0332 51.77	44.194N	114.001W	8.10	3.8	2.38	14	95	0.06	0.54	-122.	0.53	-32.	0.29	A
169	831103	0415 16.47	44.247N	114.091W	6.27	5.7	3.56	28	114	0.20	0.93	-93.	1.10	-3.	0.85	A
170	831103	0447 35.67	44.271N	114.047W	10.11	2.6	3.43	32	68	0.16	0.98	-92.	1.07	-2.	0.65	A
171	831103	0538 11.92	44.142N	113.935W	5.26	3.7	2.86	29	99	0.21	1.09	-109.	1.06	-19.	0.61	A
172	831103	0812 51.31	44.211N	114.001W	4.86	4.5	2.66	14	106	0.09	0.72	-118.	0.75	-28.	0.41	A
	831103	0923 45.18	44.160N	113.973W	12.43	4.1	——	13	121	0.10	2.56	-101.	1.00	-11.	0.83	B
174	831103	1045 13.21	44.205N	114.045W	7.69	3.6	2.89	31	76	0.19	1.43	-97.	1.00	-7.	0.70	A
	831103	1152 09.13	44.142N	113.982W	13.58	5.5	——	13	142	0.07	1.91	-97.	0.80	-7.	0.59	A
176	831103	1218 35.88	44.348N	114.078W	7.47	5.7	2.33	12	170	0.10	1.35	-118.	1.03	-28.	0.97	A
177	831103	1233 03.05	44.268N	114.021W	5.69	1.4	2.19	14	112	0.08	0.52	-109.	0.61	-19.	0.42	A
	831103	1251 09.08	44.163N	113.986W	7.96	3.2	3.75	16	135	0.18	2.17	-96.	1.53	-6.	1.07	A
	831103	1414 18.06	44.243N	114.089W	5.90	5.6	4.19	18	228	0.17	1.18	-80.	2.68	10.	1.09	B
	831103	1547 29.72	44.245N	114.036W	5.70	1.6	4.12	18	184	0.23	1.59	-85.	2.46	5.	1.33	A
181	831103	1700 13.41	43.857N	113.653W	11.03	4.1	3.24	24	161	0.34	2.52	34.	2.60	-56.	1.33	B
699	831103	1824 15.92	44.164N	114.030W	7.30	6.5	2.75	27	90	0.15	1.69	-123.	0.80	-33.	0.51	A
200	831103	1841 24.67	44.076N	113.909W	8.53	7.2	2.05	16	72	0.08	1.30	-110.	0.54	-20.	0.41	A
	831103	1956 56.71	44.214N	114.011W	7.17	4.7	3.40	13	162	0.21	2.54	-93.	2.18	-3.	1.64	B
700	831103	2026 53.84	44.160N	113.981W	7.86	3.6	2.96	30	79	0.16	1.46	-122.	0.73	-32.	0.47	A
701	831103	2140 38.55	44.257N	114.051W	8.29	3.2	2.27	14	68	0.06	0.59	-126.	0.40	-36.	0.35	A
201	831103	2209 24.65	44.103N	113.953W	10.38	5.6	3.15	30	81	0.16	1.01	-120.	0.85	-30.	0.52	A
202	831103	2337 08.70	44.344N	114.078W	7.52	5.7	2.98	27	168	0.17	1.32	-48.	1.30	42.	1.02	A
203	831104	0002 25.47	44.178N	114.009W	10.94	1.2	2.44	27	80	0.09	0.71	-116.	0.51	-26.	0.33	A
	831104	0255 34.97	44.216N	114.040W	10.58	4.2	——	13	184	0.08	2.00	-53.	1.21	37.	0.83	A
204	831104	0409 14.68	44.256N	114.081W	4.72	5.2	2.39	16	103	0.15	1.26	-100.	0.94	-10.	0.71	A
	831104	0500 14.85	44.138N	113.941W	8.62	3.7	3.30	35	74	0.14	0.94	-118.	0.58	-28.	0.36	A
	831104	0631 32.80	44.202N	114.025W	8.58	5.8	——	19	173	0.09	0.96	-102.	0.89	-12.	0.41	A
206	831104	0708 19.26	44.205N	114.027W	8.53	5.6	3.44	34	72	0.16	1.05	-106.	0.78	-16.	0.48	A
706	831104	0807 48.67	44.145N	113.928W	6.18	5.0	2.72	27	70	0.21	1.23	-129.	0.96	-39.	0.67	A
207	831104	0845 27.54	44.223N	114.056W	8.58	9.0	2.58	12	100	0.05	1.10	4.	0.42	-86.	0.34	A
208	831104	0904 12.86	44.142N	113.921W	6.59	4.6	3.17	28	69	0.20	0.99	-113.	0.90	-23.	0.65	A
209	831104	0916 09.50	44.143N	113.940W	4.01	3.4	3.06	27	73	0.14	1.15	-112.	0.59	-22.	0.42	A
210	831104	1343 00.95	44.193N	114.040W	10.14	6.3	2.82	28	79	0.21	1.96	-111.	1.26	-21.	0.77	A
211	831104	1425 07.78	43.960N	113.817W	12.23	2.1	2.22	13	114	0.08	2.06	11.	0.96	-79.	0.50	A
212	831104	1510 39.77	44.208N	114.032W	10.87	6.6	2.25	10	100	0.08	2.12	-116.	0.89	-26.	0.61	A
213	831104	1527 36.66	44.210N	114.061W	9.13	8.8	2.79	11	94	0.05	1.29	27.	0.52	-63.	0.39	A
214	831104	1544 00.35	44.212N	114.035W	8.41	7.0	2.59	9	101	0.02	0.51	43.	0.21	-47.	0.15	A
215	831104	1730 44.33	44.252N	114.017W	3.34	0.4	3.35	30	95	0.22	1.65	-108.	1.10	-18.	0.67	A
	831104	1926 50.24	44.298N	113.939W	2.88	6.5	3.22	10	199	0.18	4.93	27.	3.35	-63.	2.01	B

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
715	831104	2006 44.64	44.169N	113.856W	7.09	3.1	2.37	8	125	0.04	1.41	36.	0.99	-54.	0.39	A
216	831104	2130 11.88	44.106N	113.911W	8.16	4.6	2.47	13	92	0.09	1.04	-133.	0.75	-43.	0.46	A
716	831104	2259 37.71	44.075N	113.942W	10.68	2.8	2.54	12	79	0.06	0.66	-124.	0.53	-34.	0.35	A
717	831104	2329 49.49	44.249N	114.088W	6.21	4.5	3.15	32	94	0.20	1.05	17.	0.99	-73.	0.88	A
217	831104	2336 45.38	44.236N	114.072W	8.12	5.4	2.69	16	84	0.09	1.00	34.	0.55	-56.	0.49	A
718	831105	0018 31.29	44.157N	113.965W	10.03	3.4	2.52	12	76	0.08	1.37	-130.	0.70	-40.	0.47	A
	831105	0151 49.51	44.137N	113.965W	8.45	2.9	3.36	23	139	0.16	1.47	-104.	0.94	-14.	0.55	A
218	831105	0353 34.29	44.154N	113.892W	6.20	1.9	2.83	26	61	0.15	0.89	-118.	0.68	-28.	0.44	A
219	831105	0356 29.26	44.198N	114.033W	10.19	6.3	2.04	11	95	0.05	0.98	-126.	0.43	-36.	0.31	A
220	831105	0422 09.12	44.142N	113.973W	8.67	5.2	3.18	28	81	0.17	1.37	-119.	0.87	-29.	0.61	A
	831105	0537 39.87	44.223N	114.065W	8.32	5.0	3.56	29	80	0.13	1.24	-116.	0.72	-26.	0.65	A
222	831105	0732 06.59	44.132N	113.861W	6.55	7.3	2.35	10	121	0.08	0.93	-121.	0.88	-31.	0.47	A
223	831105	0808 35.03	43.943N	113.799W	11.34	0.9	2.35	10	138	0.08	2.13	21.	1.09	-69.	0.70	A
224	831105	0813 39.31	44.211N	114.019W	9.13	2.7	2.96	25	96	0.08	0.87	-121.	0.48	-31.	0.37	A
225	831105	1041 36.01	44.320N	114.046W	10.05	9.2	2.84	9	137	0.04	1.38	27.	0.63	-63.	0.43	A
228	831105	1736 25.56	44.174N	114.024W	9.26	5.7	3.51	34	84	0.18	1.63	-114.	0.87	-24.	0.65	A
226	831105	1742 38.98	44.219N	114.014W	11.47	5.9	2.34	10	110	0.06	1.11	30.	0.68	-60.	0.47	A
227	831105	1743 55.12	44.148N	113.974W	8.37	4.6	3.35	32	81	0.32	2.71	-116.	1.46	-26.	0.84	B
728	831105	1843 12.64	44.236N	114.072W	9.72	10.8	2.44	8	127	0.05	1.86	-89.	0.66	1.	0.59	A
	831105	2029 30.35	44.193N	114.034W	8.43	2.3	3.55	26	178	0.21	1.46	-111.	1.60	-21.	0.82	A
229	831105	2256 42.89	44.213N	114.034W	10.32	3.5	3.62	35	69	0.13	0.99	-133.	0.68	-43.	0.50	A
	831105	2257 40.68	44.178N	113.948W	6.57	4.8	——	18	82	0.19	1.59	-132.	1.19	-42.	0.70	A
230	831105	2301 29.06	44.223N	114.030W	11.47	4.1	2.88	15	104	0.06	0.74	-128.	0.51	-38.	0.37	A
231	831106	0056 14.49	44.179N	114.012W	11.49	4.6	2.26	11	87	0.06	1.19	-127.	0.60	-37.	0.41	A
232	831106	0139 26.50	44.168N	113.989W	10.35	3.4	2.20	18	78	0.07	0.92	-123.	0.45	-33.	0.34	A
	831106	0326 08.85	44.280N	114.121W	7.83	8.5	——	13	234	0.10	2.76	-73.	2.34	17.	0.93	B
233	831106	0644 16.05	44.166N	113.976W	8.99	2.9	3.22	35	76	0.15	1.11	-124.	0.70	-34.	0.45	A
234	831106	0705 48.37	44.174N	114.014W	10.45	4.9	2.45	10	82	0.03	0.69	25.	0.35	-65.	0.26	A
734	831106	0735 10.61	44.265N	114.085W	5.82	3.4	2.54	12	145	0.05	0.40	-45.	0.37	-135.	0.32	A
735	831106	0747 04.89	44.217N	114.032W	7.89	7.0	2.23	9	104	0.06	1.17	44.	0.76	-46.	0.58	A
235	831106	0753 25.42	44.232N	114.039W	9.56	8.4	2.60	10	111	0.07	1.80	-6.	0.70	-96.	0.62	A
	831106	1001 45.89	44.145N	113.986W	9.71	5.0	3.27	23	94	0.20	1.84	-121.	1.34	-31.	0.82	A
236	831106	1004 36.65	43.896N	113.759W	11.72	6.5	2.63	17	186	0.11	1.89	-16.	1.07	-106.	0.91	A
237	831106	1316 06.88	44.136N	113.961W	10.77	5.6	2.30	19	79	0.09	1.25	44.	0.52	-46.	0.41	A
238	831106	1449 59.92	44.209N	114.045W	10.42	3.9	3.00	30	76	0.13	1.00	-126.	0.68	-36.	0.54	A
239	831106	1601 16.59	44.116N	113.938W	10.95	8.0	2.50	10	80	0.05	1.14	42.	0.51	-48.	0.36	A
240	831106	1613 27.59	44.031N	113.949W	11.63	10.7	2.18	9	106	0.05	1.89	-121.	0.63	-31.	0.43	A
241	831106	1628 21.67	44.147N	113.938W	6.51	4.7	2.38	8	73	0.05	0.76	-118.	0.61	-28.	0.51	A
242	831106	1721 03.44	44.209N	114.012W	11.55	5.2	2.55	9	105	0.03	0.53	27.	0.32	-63.	0.23	A
	831106	2104 48.88	44.139N	113.969W	8.60	6.2	4.42	26	81	0.16	1.45	-131.	0.74	-41.	0.54	A
	831106	2111 55.16	44.143N	113.974W	9.32	2.2	4.04	24	123	0.19	1.56	-121.	1.32	-31.	0.63	A
	831106	2119 56.46	44.150N	113.981W	8.83	1.6	3.11	24	174	0.18	1.25	-101.	1.33	-11.	0.67	A
	831106	2311 38.62	44.231N	114.040W	6.97	3.1	3.44	22	95	0.15	0.78	-112.	1.01	-22.	0.80	A
244	831107	0106 45.55	44.141N	113.971W	10.50	5.3	2.41	10	81	0.06	1.48	-134.	0.67	-44.	0.39	A
245	831107	0413 38.61	44.225N	114.032W	9.95	7.4	2.52	10	107	0.06	1.58	45.	0.71	-45.	0.52	A
246	831107	0933 31.21	44.171N	113.968W	8.53	1.0	3.24	37	73	0.14	0.79	-122.	0.62	-32.	0.37	A
247	831107	1030 49.40	44.147N	113.969W	10.64	4.6	2.61	11	79	0.06	1.30	-123.	0.59	-33.	0.33	A
248	831107	1035 23.99	44.171N	113.978W	9.12	2.5	2.51	11	75	0.08	1.71	-135.	0.92	-45.	0.49	A
249	831107	1157 05.48	43.896N	113.741W	12.20	7.5	2.21	13	181	0.06	1.75	-9.	1.28	-99.	0.67	A
250	831107	1317 30.75	44.020N	113.881W	11.14	5.7	2.18	14	106	0.09	1.78	-131.	0.71	-41.	0.47	A
251	831107	1405 46.55	44.276N	114.107W	8.43	1.3	3.06	26	82	0.07	0.52	-70.	0.46	20.	0.38	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
751	831107	1439 05.05	44.405N	114.101W	5.81	3.7	2.75	9	256	0.06	0.81	-51.	1.83	39.	0.79	A
252	831107	1733 06.03	44.259N	114.047W	10.61	2.1	3.32	27	75	0.08	0.60	-113.	0.49	-23.	0.40	A
253	831107	1846 00.71	44.197N	114.357W	8.13	12.7	2.97	11	271	0.16	7.61	-92.	7.26	-2.	1.93	C
254	831107	1917 20.74	44.130N	113.930W	9.46	6.6	2.27	10	81	0.05	1.36	-135.	0.57	-45.	0.33	A
753	831107	1922 04.25	44.323N	114.087W	0.51	3.6	2.28	13	138	0.09	1.91	-92.	0.86	-2.	0.46	A
255	831107	2100 32.69	44.242N	114.449W	5.98	21.0	2.56	14	282	0.15	2.22	-86.	2.96	4.	1.61	B
754	831107	2119 15.13	44.136N	113.921W	5.76	5.0	2.46	22	107	0.15	1.01	-112.	0.77	-22.	0.52	A
256	831107	2232 26.63	44.224N	114.061W	8.10	9.1	2.62	12	99	0.07	1.77	-120.	0.57	-30.	0.43	A
257	831107	2355 39.61	44.083N	113.905W	11.71	12.2	2.64	10	94	0.09	3.57	-133.	1.08	-43.	0.55	B
258	831108	0138 02.41	44.161N	113.973W	10.23	3.3	2.74	11	77	0.06	0.74	-134.	0.61	-44.	0.37	A
259	831108	0214 59.72	44.214N	114.040W	9.11	7.4	2.79	12	100	0.07	1.63	-102.	0.56	-12.	0.45	A
260	831108	0250 03.90	44.043N	113.918W	11.68	3.8	1.88	17	84	0.12	1.72	-116.	0.70	-26.	0.60	A
261	831108	0610 53.95	44.252N	114.300W	0.09	7.4	3.04	25	262	0.22	6.78	-75.	4.01	15.	1.28	C
262	831108	0614 55.05	43.966N	113.827W	12.15	3.1	2.19	15	123	0.11	2.38	38.	0.96	-52.	0.71	A
263	831108	0643 02.53	44.167N	113.960W	8.30	1.1	3.05	31	73	0.17	1.46	42.	0.71	-48.	0.53	A
763	831108	0646 34.06	44.208N	114.039W	8.23	3.5	3.33	26	72	0.12	1.15	-96.	0.55	-6.	0.51	A
	831108	0711 47.54	44.141N	113.951W	2.46	6.8	3.28	16	77	0.15	2.21	-133.	0.84	-43.	0.67	A
764	831108	0744 06.38	44.267N	114.082W	5.43	4.1	2.58	10	104	0.08	1.08	-124.	0.87	-34.	0.65	A
264	831108	0857 58.28	44.391N	114.131W	8.81	3.4	2.56	15	237	0.09	1.34	-58.	1.64	32.	0.72	A
265	831108	1056 00.29	44.228N	114.084W	8.21	5.9	3.13	26	102	0.13	1.56	-29.	0.68	-119.	0.58	A
266	831108	1333 12.30	44.253N	114.100W	8.40	5.0	2.13	18	124	0.10	1.65	-71.	0.79	19.	0.55	A
267	831108	1842 47.88	44.203N	114.017W	9.68	5.2	2.32	11	136	0.07	0.90	-128.	0.81	-38.	0.47	A
268	831108	1935 14.68	44.137N	113.946W	10.94	5.6	2.45	11	75	0.06	0.86	-133.	0.63	-43.	0.37	A
269	831108	1935 57.21	44.109N	113.891W	6.95	10.1	2.55	10	102	0.11	1.56	31.	1.17	-59.	0.66	A
	831108	1945 57.24	44.103N	113.908W	6.28	5.1	——	15	67	0.17	1.44	-117.	1.07	-27.	0.93	A
270	831108	2028 31.74	44.114N	113.923W	10.69	8.5	2.40	11	86	0.04	0.76	-130.	0.44	-40.	0.24	A
770	831108	2046 09.99	44.202N	114.030W	7.53	2.5	3.14	28	74	0.10	0.87	-130.	0.50	-40.	0.35	A
271	831108	2059 07.91	44.204N	114.033W	8.44	6.5	2.26	11	98	0.09	1.37	44.	0.96	-46.	0.60	A
272	831108	2220 41.62	44.256N	114.096W	5.11	4.8	3.28	29	102	0.16	1.09	-57.	0.71	33.	0.59	A
	831108	2332 43.03	44.233N	114.057W	6.81	3.8	3.36	31	74	0.12	0.57	-117.	0.54	-27.	0.41	A
274	831108	2339 18.61	44.420N	114.064W	4.63	2.1	2.25	17	176	0.13	1.22	-31.	1.57	-121.	0.99	A
275	831109	0453 51.03	44.137N	113.944W	11.46	5.7	2.67	12	75	0.08	1.05	-126.	0.79	-36.	0.42	A
276	831109	0738 02.29	44.164N	113.963W	11.38	2.7	2.40	11	74	0.07	1.42	-128.	0.74	-38.	0.41	A
277	831109	0741 42.10	44.147N	113.947W	5.46	4.5	2.91	29	74	0.16	0.96	43.	0.65	-47.	0.47	A
	831109	0925 04.56	44.432N	114.059W	3.81	3.3	3.62	26	200	0.16	1.22	-25.	1.71	-115.	0.94	A
	831109	1015 16.27	43.742N	113.701W	4.94	33.5	——	11	319	0.18	4.87	-22.	26.61	-112.	3.15	D
279	831109	1140 47.90	44.021N	113.828W	7.40	9.0	1.90	13	101	0.13	3.30	-119.	1.01	-29.	0.74	B
779	831109	1142 45.82	44.152N	113.972W	9.83	4.2	2.36	11	79	0.07	1.60	32.	0.69	-58.	0.45	A
280	831109	1146 54.08	44.088N	113.905W	11.33	3.9	2.81	24	65	0.21	2.56	-119.	1.29	-29.	0.76	B
281	831109	1255 21.37	44.122N	113.882W	8.50	8.7	2.04	11	108	0.05	1.36	38.	0.51	-52.	0.27	A
282	831109	1309 12.14	44.493N	114.095W	6.08	8.7	3.24	27	261	0.15	1.01	-30.	1.89	-120.	1.08	A
	831109	1358 10.48	44.283N	114.140W	0.47	10.0	——	12	147	0.15	99.00	-98.	1.29	-8.	1.15	D
283	831109	1406 52.07	44.168N	113.978W	10.74	2.8	2.62	10	127	0.04	1.28	3.	0.89	-87.	0.28	A
284	831109	1518 53.55	44.161N	113.990W	12.38	4.0	2.13	12	81	0.06	1.26	-114.	0.55	-24.	0.35	A
285	831109	1614 33.53	44.256N	114.099W	7.67	4.7	2.61	17	123	0.07	0.94	-88.	0.42	2.	0.33	A
286	831109	1848 50.09	44.198N	114.011W	9.22	4.6	2.48	10	134	0.12	2.72	-127.	1.74	-37.	0.85	B
287	831109	2016 10.25	44.159N	112.273W	10.00	06.7	2.15	2	353	0.33	99.00	-79.	46.98	11.	13.97	D
	831109	2106 55.60	44.144N	113.979W	11.56	5.1	2.64	10	82	0.06	1.12	30.	0.79	-60.	0.50	A
289	831109	2245 18.87	44.269N	114.120W	8.92	3.2	2.60	29	132	0.15	1.78	-70.	0.93	20.	0.56	A
290	831109	2300 43.19	43.894N	113.753W	12.95	7.0	3.03	29	186	0.13	2.11	-1.	1.53	-91.	0.67	A
291	831109	2313 56.68	44.032N	113.874W	11.93	11.3	2.27	11	96	0.05	0.96	-130.	0.52	-40.	0.27	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
292	831109	2316 09.04	44.266N	114.103W	6.26	3.5	2.66	12	128	0.09	1.16	-57.	1.03	33.	0.63	A
293	831110	0034 19.92	44.221N	114.082W	5.32	6.2	2.84	28	87	0.16	1.21	-119.	0.81	-29.	0.59	A
294	831110	0046 58.21	44.205N	114.001W	6.87	4.2	2.58	11	105	0.09	0.64	41.	0.89	-49.	0.54	A
295	831110	0157 57.31	44.093N	113.894W	9.47	5.6	1.88	17	65	0.10	1.54	-112.	0.66	-22.	0.42	A
296	831110	0303 04.59	44.069N	113.879W	7.84	7.2	2.22	18	69	0.10	1.89	-113.	0.54	-23.	0.42	A
297	831110	0349 38.01	44.253N	114.082W	7.11	4.9	3.02	32	89	0.13	1.13	-69.	0.56	21.	0.52	A
298	831110	0447 33.56	44.218N	114.047W	8.48	8.1	2.67	12	100	0.06	1.26	9.	0.49	-81.	0.87	A
299	831110	0548 40.48	43.844N	113.643W	11.81	3.5	2.22	16	273	0.10	1.05	-10.	1.92	-100.	1.01	A
300	831110	0735 35.66	44.300N	114.044W	9.46	1.6	2.48	18	81	0.12	1.70	-98.	1.00	-8.	0.73	A
301	831110	0754 56.41	44.236N	114.022W	8.29	2.1	2.11	17	127	0.11	1.47	36.	1.00	-54.	0.55	A
302	831110	0852 38.56	44.341N	114.023W	8.84	5.6	3.13	31	87	0.14	1.47	-39.	0.70	-129.	0.64	A
303	831110	1143 00.68	44.285N	114.363W	0.70	17.6	2.33	14	271	0.18	8.93	-75.	4.58	15.	1.51	C
04	831110	1325 51.07	44.199N	114.001W	10.60	3.9	2.55	12	102	0.09	1.81	-128.	0.85	-38.	0.48	A
305	831110	1418 05.66	44.170N	113.983W	12.62	3.0	2.32	11	77	0.06	1.41	42.	0.71	-48.	0.40	A
306	831110	1806 10.19	43.927N	113.800W	12.56	1.9	2.22	14	170	0.10	1.27	20.	1.31	-70.	0.73	A
	831110	1811 57.81	44.269N	114.086W	5.72	5.4	——	13	117	0.13	1.44	-87.	0.98	3.	0.85	A
308	831110	1840 31.45	44.104N	113.915W	9.04	6.2	2.31	18	70	0.12	1.57	-128.	0.71	-38.	0.48	A
309	831110	2335 36.95	44.139N	113.962W	12.26	5.3	3.20	28	79	0.12	1.32	-110.	0.56	-20.	0.41	A
310	831110	2350 41.43	44.238N	114.013W	6.22	7.3	2.77	12	120	0.07	0.77	17.	0.53	-73.	0.42	A
311	831111	0315 24.22	44.210N	114.033W	10.28	3.3	2.68	29	70	0.14	1.22	-121.	0.74	-31.	0.50	A
312	831111	0318 11.76	44.165N	113.994W	10.72	2.7	2.60	31	81	0.17	1.79	-133.	0.79	-43.	0.57	A
313	831111	0508 48.14	44.168N	113.994W	10.58	2.4	3.06	31	80	0.11	1.16	-127.	0.51	-37.	0.37	A
	831111	0544 25.88	44.229N	114.425W	7.12	13.2	——	20	279	0.19	11.83	-97.	3.82	-7.	1.67	D
314	831111	0603 56.01	44.252N	114.475W	7.76	23.4	2.56	19	286	0.10	18.57	-96.	1.61	-6.	0.76	D
315	831111	0751 07.06	44.289N	114.078W	7.22	2.9	2.57	30	64	0.12	1.00	-106.	0.63	-16.	0.55	A
316	831111	0925 08.66	44.237N	114.053W	8.96	8.2	2.21	11	106	0.04	1.08	28.	0.46	-62.	0.33	A
317	831111	0955 48.29	44.185N	114.000W	9.16	3.6	2.33	11	94	0.06	1.30	-118.	0.54	-28.	0.42	A
318	831111	1032 54.40	44.209N	114.045W	4.95	7.6	2.32	11	97	0.13	1.94	-125.	1.18	-35.	0.82	A
319	831111	1413 58.19	44.211N	113.962W	4.71	2.7	1.39	8	119	0.04	0.66	22.	0.46	-68.	0.32	A
321	831111	1652 14.78	44.112N	113.885W	0.00	19.9	1.95	4	145	0.14	99.00	41.	2.84	-49.	2.01	D
320	831111	1655 34.47	44.228N	114.096W	4.89	6.7	2.43	27	98	0.16	1.31	-119.	0.69	-29.	0.59	A
322	831111	1922 55.78	44.244N	114.049W	10.20	7.8	2.17	9	110	0.05	0.90	-135.	0.60	-45.	0.39	A
323	831111	2031 01.13	44.237N	114.038W	8.74	8.7	2.31	11	135	0.05	0.89	-125.	0.77	-35.	0.38	A
324	831111	2250 47.94	44.101N	113.916W	10.33	5.5	3.08	30	66	0.15	1.67	-132.	0.71	-42.	0.48	A
325	831111	2259 37.92	44.077N	113.913W	9.49	9.3	2.37	13	89	0.08	1.40	-123.	0.63	-33.	0.49	A
	831112	0022 08.23	44.283N	114.063W	7.06	2.8	——	18	110	0.16	1.33	-119.	1.21	-29.	0.90	A
327	831112	0246 32.20	43.946N	113.781W	11.62	2.3	2.87	31	177	0.16	2.22	4.	1.33	-86.	0.73	A
328	831112	0337 54.94	44.167N	113.930W	7.39	3.0	2.53	29	52	0.13	0.94	-128.	0.58	-38.	0.44	A
329	831112	0350 32.43	44.542N	113.944W	3.77	17.8	2.54	23	287	0.21	2.89	6.	8.61	-84.	1.94	C
330	831112	0510 10.64	44.179N	114.024W	10.84	1.7	2.75	30	82	0.12	0.99	-134.	0.52	-44.	0.44	A
331	831112	0525 32.45	44.129N	113.962W	11.76	6.4	1.77	12	69	0.03	0.34	-114.	0.25	-24.	0.19	A
332	831112	0554 05.12	44.288N	114.098W	8.00	1.5	2.50	30	80	0.12	1.21	-58.	0.64	32.	0.49	A
334	831112	0850 57.28	44.213N	114.032W	11.12	6.8	2.77	12	102	0.06	1.03	-110.	0.59	-20.	0.37	A
335	831112	1051 00.10	44.163N	113.993W	9.92	4.0	2.17	10	77	0.07	1.49	-126.	0.70	-36.	0.52	A
336	831112	1123 42.56	44.176N	113.926W	6.31	2.6	2.43	25	51	0.15	0.77	-131.	0.73	-41.	0.52	A
337	831112	1239 37.14	44.233N	114.079W	8.18	7.6	2.49	12	102	0.11	1.99	-116.	0.93	-26.	0.68	A
	831112	1403 29.04	44.237N	114.048W	8.75	1.9	——	18	94	0.11	0.95	-115.	0.80	-25.	0.65	A
338	831112	1731 23.24	44.233N	114.065W	7.72	4.3	2.12	14	92	0.14	2.06	-98.	1.14	-8.	0.69	A
339	831112	2032 36.92	44.320N	114.047W	5.16	5.8	2.61	28	93	0.17	1.20	-78.	0.76	12.	0.62	A
342	831112	2215 25.03	44.165N	113.955W	11.31	2.4	2.34	12	67	0.05	0.57	-118.	0.43	-28.	0.35	A
340	831112	2232 12.36	43.937N	113.739W	7.47	5.6	1.38	11	199	0.06	1.60	-2.	1.12	-92.	0.49	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
341	831112	2232 27.49	44.172N	114.020W	11.67	2.1	2.68	30	84	0.14	1.36	-127.	0.76	-37.	0.49	A
343	831112	2305 48.00	44.233N	114.048W	8.24	2.3	2.56	29	69	0.14	1.00	21.	0.60	-69.	0.52	A
344	831113	0420 23.52	44.244N	114.048W	6.60	7.8	2.31	10	110	0.07	0.87	-125.	0.66	-35.	0.57	A
	831113	0615 35.06	44.213N	114.064W	8.65	5.4	——	14	91	0.06	1.03	-123.	0.46	-33.	0.41	A
345	831113	0704 17.10	44.149N	113.933W	7.49	4.6	2.77	27	50	0.17	1.33	-118.	0.73	-28.	0.56	A
346	831113	0826 04.79	44.075N	113.852W	4.92	6.1	2.20	17	110	0.14	1.39	-80.	0.83	10.	0.68	A
347	831113	0956 08.26	44.042N	113.876W	9.92	12.4	2.07	12	95	0.05	1.11	-131.	0.47	-41.	0.27	A
348	831113	1013 14.29	44.037N	113.878W	8.11	10.5	2.32	17	94	0.09	1.79	35.	0.58	-55.	0.35	A
349	831113	1133 22.30	44.149N	113.923W	5.43	5.0	2.17	14	66	0.16	1.84	-127.	1.08	-37.	0.80	A
350	831113	1201 16.95	44.052N	113.939W	12.36	3.7	2.99	26	68	0.12	1.45	-127.	0.69	-37.	0.50	A
351	831113	1320 52.47	44.268N	114.112W	8.07	3.3	2.56	12	143	0.05	0.85	-58.	0.65	32.	0.36	A
	831113	1523 07.78	44.344N	114.020W	5.71	9.9	——	13	142	0.10	1.19	31.	1.12	-59.	0.75	A
352	831113	1525 07.73	44.345N	114.011W	4.85	7.2	2.87	12	169	0.07	0.90	31.	0.68	-59.	0.53	A
353	831113	2238 07.48	44.097N	113.931W	9.75	6.2	2.71	26	50	0.10	1.06	-89.	0.46	1.	0.35	A
	831113	2306 15.68	44.254N	114.123W	6.84	8.2	——	13	127	0.13	1.25	-22.	1.11	-112.	0.98	A
354	831114	0101 04.74	44.172N	113.936W	6.28	2.3	2.21	11	77	0.06	0.51	-106.	0.53	-16.	0.41	A
355	831114	0211 01.90	44.029N	113.835W	5.71	9.9	2.02	12	103	0.05	0.65	39.	0.44	-51.	0.30	A
356	831114	0353 55.93	44.233N	114.049W	9.23	3.4	2.16	19	81	0.10	1.07	-109.	0.64	-19.	0.45	A
357	831114	0448 39.99	44.317N	114.103W	5.68	2.4	2.65	27	137	0.13	0.78	-65.	0.66	25.	0.53	A
358	831114	0535 53.40	44.308N	114.363W	7.57	19.4	2.46	15	274	0.11	13.79	-68.	2.81	22.	0.84	D
359	831114	0901 05.28	44.410N	114.082W	5.51	2.3	2.66	12	269	0.09	0.72	-39.	1.87	-129.	0.90	A
360	831114	1225 48.41	44.022N	113.879W	8.71	10.5	2.27	14	104	0.07	1.89	41.	0.66	-49.	0.45	A
361	831114	1236 51.49	44.109N	113.891W	6.51	10.1	2.32	10	102	0.04	0.51	-106.	0.36	-16.	0.27	A
362	831114	1333 51.59	44.080N	113.938W	12.46	7.3	2.42	12	81	0.07	0.98	-111.	0.65	-21.	0.47	A
363	831114	1535 53.61	44.040N	113.920W	9.69	10.2	2.13	12	98	0.06	1.93	25.	0.65	-65.	0.36	A
364	831114	1626 56.22	44.404N	114.076W	5.16	1.7	2.84	25	130	0.15	1.05	-12.	1.09	-102.	0.90	A
365	831114	1906 15.37	44.268N	114.047W	9.78	2.6	2.68	16	71	0.11	1.41	-50.	0.75	40.	0.63	A
366	831115	0046 03.90	44.207N	113.937W	5.28	2.6	2.31	10	111	0.07	1.54	-119.	0.70	-29.	0.47	A
367	831115	0413 17.24	44.243N	114.028W	7.72	1.4	2.35	16	69	0.09	1.27	29.	0.66	-61.	0.46	A
368	831115	0643 26.71	43.826N	113.650W	12.15	18.2	2.40	15	300	0.08	2.01	-25.	2.08	-115.	0.90	A
369	831115	0810 51.49	44.128N	113.938W	11.03	6.6	2.83	27	47	0.13	1.31	-112.	0.74	-22.	0.50	A
370	831115	0955 49.15	44.299N	114.375W	9.42	14.8	2.74	27	274	0.15	3.49	-78.	2.79	12.	1.00	B
371	831115	1247 06.16	44.146N	113.920W	8.02	5.4	2.73	11	81	0.07	1.15	-94.	0.54	-4.	0.43	A
372	831115	1303 01.33	44.172N	113.996W	9.20	2.0	2.67	27	77	0.12	1.35	-132.	0.54	-42.	0.43	A
	831115	1327 05.75	44.434N	114.090W	10.39	2.3	——	13	275	0.10	3.45	-10.	3.75	-100.	1.26	B
373	831115	1558 01.00	44.269N	114.106W	8.31	3.2	2.44	12	134	0.06	1.05	-55.	0.78	35.	0.42	A
374	831115	1616 27.44	44.232N	114.047W	6.69	8.9	2.69	11	80	0.07	0.82	-101.	0.68	-11.	0.43	A
375	831115	1952 15.05	44.181N	114.006W	12.15	4.1	2.64	12	78	0.07	1.00	-99.	0.53	-9.	0.43	A
376	831115	2113 36.42	44.101N	113.904W	8.15	10.1	2.33	12	95	0.06	1.25	-114.	0.56	-24.	0.32	A
377	831115	2137 13.92	44.222N	114.045W	8.72	8.2	2.43	11	79	0.07	1.64	37.	0.60	-53.	0.47	A
378	831115	2149 20.55	44.207N	114.052W	8.23	4.2	2.94	27	74	0.11	1.17	-113.	0.54	-23.	0.39	A
379	831115	2334 09.07	44.143N	113.976W	11.66	5.2	2.54	12	68	0.07	1.21	-121.	0.55	-31.	0.40	A
380	831116	0251 05.13	43.901N	113.691W	11.33	10.5	2.41	11	275	0.04	1.20	-19.	1.07	-109.	0.60	A
381	831116	0419 15.07	43.923N	113.790W	10.42	2.6	2.17	11	239	0.07	1.68	-4.	1.48	-94.	0.60	A
382	831116	0455 31.35	44.246N	114.050W	8.26	2.6	3.04	27	68	0.08	0.86	9.	0.39	-81.	0.34	A
383	831116	0558 05.23	44.347N	114.170W	9.23	7.2	2.39	12	228	0.11	2.69	-55.	2.62	35.	0.92	B
384	831116	0950 35.03	44.183N	113.945W	6.48	0.9	2.62	26	59	0.16	0.97	-135.	0.75	-45.	0.51	A
	831116	1002 24.11	44.073N	113.955W	11.55	6.0	——	14	79	0.15	4.11	-45.	1.52	-135.	1.18	B
386	831116	1644 29.32	44.394N	114.083W	4.27	2.5	3.07	23	214	0.15	1.15	-5.	1.46	-95.	0.97	A
387	831116	1908 48.24	44.212N	114.043W	9.58	7.6	2.53	12	76	0.07	1.04	-105.	0.59	-15.	0.42	A
388	831116	1959 28.41	44.241N	114.045W	9.34	8.3	2.68	11	79	0.07	1.76	-96.	0.72	-6.	0.53	A

EQ NO	DATE (YMD)	ORGN TIME (UTC)	LAT (deg)	LONG (deg)	DEPTH (km)	1 DMIN (km)	2 MAG (Md)	3 NO	4 GAP (deg)	5 RMS (sec)	6 ERZ (km)	7 AZ1 (deg)	8 ERH1 (km)	9 AZ2 (deg)	10 ERH2 (km)	11 QUA
389	831116	2132 18.68	43.964N	113.814W	10.27	2.4	2.96	26	105	0.13	2.34	-19.	1.45	-109.	0.72	A
889	831117	0117 05.50	44.172N	113.974W	10.63	2.2	2.52	13	67	0.05	0.54	-95.	0.39	-5.	0.31	A
390	831117	0234 14.68	44.484N	114.122W	3.69	10.5	2.72	14	269	0.10	1.52	-45.	2.43	45.	0.93	A
391	831117	0312 08.79	44.265N	114.038W	8.70	1.8	2.56	17	67	0.09	1.06	-111.	0.65	-21.	0.51	A
392	831117	0338 33.18	44.138N	113.949W	10.86	5.5	2.48	12	68	0.05	0.70	-98.	0.36	-8.	0.30	A
393	831117	0806 40.66	44.153N	113.984W	12.20	4.3	2.95	29	73	0.16	1.48	-98.	0.81	-8.	0.56	A
394	831117	0824 57.66	44.011N	113.911W	12.79	11.2	2.43	11	121	0.05	1.92	30.	0.74	-60.	0.43	A
395	831117	0903 21.35	44.272N	113.750W	0.72	8.8	2.25	15	194	0.13	99.00	-114.	1.52	-24.	0.81	D
895	831117	0909 58.90	44.239N	114.062W	8.52	7.6	2.71	13	89	0.05	0.92	-109.	0.41	-19.	0.31	A
397	831117	1139 18.89	44.248N	114.058W	8.17	7.0	2.02	10	85	0.06	1.66	-90.	0.58	0.	0.44	A
398	831117	1151 47.38	44.228N	114.030W	11.77	3.1	3.06	29	63	0.17	1.90	-117.	0.86	-27.	0.68	A
399	831117	1228 10.66	44.435N	114.086W	7.21	4.4	2.22	11	307	0.14	2.03	-11.	6.23	-101.	2.34	C
400	831117	1321 42.86	44.410N	113.994W	7.50	4.9	3.05	28	148	0.15	2.55	-10.	1.49	-100.	0.86	B
401	831117	1437 23.58	44.328N	114.115W	10.80	3.4	2.19	17	164	0.09	0.96	-65.	0.93	25.	0.51	A
901	831117	1759 11.84	44.225N	114.053W	9.70	8.9	2.50	13	83	0.07	1.48	-54.	0.57	36.	0.48	A
402	831117	1838 16.45	43.897N	113.780W	12.91	5.5	2.55	13	254	0.11	2.39	-2.	2.20	-92.	1.19	A
403	831117	1953 13.27	44.243N	114.027W	8.43	7.8	2.65	9	90	0.06	1.68	-109.	0.72	-19.	0.46	A
404	831117	2242 55.28	44.305N	114.056W	10.42	4.6	2.35	12	101	0.08	1.37	-42.	0.96	-132.	0.63	A
405	831117	2327 23.93	44.193N	114.311W	10.27	3.4	2.87	26	247	0.08	1.05	-98.	1.52	-8.	0.46	A
406	831118	0006 19.36	44.333N	114.029W	7.35	6.8	2.55	16	88	0.09	1.36	-87.	0.70	3.	0.53	A
407	831118	0230 31.84	44.283N	114.072W	7.14	3.6	2.68	12	75	0.07	0.99	-80.	0.62	10.	0.56	A
408	831118	0231 40.09	44.245N	114.049W	7.16	2.5	2.74	27	80	0.21	1.77	-114.	1.04	-24.	0.66	A
409	831118	0506 22.19	44.168N	113.983W	10.81	3.1	2.69	12	72	0.05	0.71	-89.	0.38	1.	0.32	A
410	831118	0648 14.82	43.921N	113.801W	10.55	2.4	2.16	15	238	0.12	2.49	-9.	1.91	-99.	0.99	A
411	831118	0959 23.51	44.275N	114.056W	8.02	5.2	2.63	11	73	0.06	1.09	-36.	0.57	-126.	0.52	A
412	831118	1103 06.40	44.175N	114.013W	11.11	4.8	2.37	11	81	0.05	1.09	-122.	0.46	-32.	0.38	A
413	831118	1123 24.78	44.268N	114.112W	7.80	3.2	3.03	28	103	0.11	1.29	-100.	0.53	-10.	0.36	A
414	831118	1210 01.80	44.299N	114.356W	6.49	18.2	2.42	17	252	0.12	1.04	-76.	1.56	14.	0.76	A
415	831118	1258 55.30	44.114N	113.893W	8.90	9.5	2.37	11	101	0.08	1.46	-115.	0.75	-25.	0.51	A
416	831118	1306 12.85	43.902N	113.774W	12.56	5.3	2.17	9	253	0.02	0.33	-14.	0.63	-104.	0.29	A
418	831118	1716 03.41	44.327N	114.058W	7.82	4.6	2.76	22	83	0.10	1.30	-108.	0.65	-18.	0.46	A
417	831118	1721 21.30	44.133N	113.955W	11.11	5.9	2.54	11	96	0.06	0.73	-93.	0.59	-3.	0.38	A
419	831118	1855 42.19	44.252N	114.046W	8.73	2.0	3.43	22	67	0.08	0.94	-112.	0.54	-22.	0.29	A
420	831119	0012 47.06	44.123N	113.927W	9.63	7.4	2.32	10	83	0.05	0.95	-100.	0.50	-10.	0.34	A
421	831119	0034 05.18	44.149N	113.980W	11.23	4.7	2.73	16	118	0.08	1.16	-114.	0.70	-24.	0.36	A
422	831119	0059 16.27	44.589N	114.238W	7.82	17.3	2.77	16	306	0.11	7.37	-34.	10.55	-124.	1.89	D
423	831119	0148 29.28	44.083N	113.901W	10.66	10.2	2.48	10	95	0.05	1.67	-118.	0.61	-28.	0.36	A
424	831119	0202 16.29	44.043N	113.930W	11.73	9.3	2.39	12	96	0.06	1.92	-131.	0.79	-41.	0.41	A
425	831119	0459 17.83	44.249N	114.059W	7.89	6.8	2.52	11	141	0.05	0.99	-109.	0.59	-19.	0.28	A
426	831119	0556 11.62	43.866N	113.767W	16.69	9.1	2.04	6	270	0.07	9.87	-20.	10.05	-110.	2.19	D
427	831119	0914 04.75	44.149N	113.994W	11.53	5.3	2.96	15	128	0.09	1.61	-109.	0.94	-19.	0.50	A
428	831119	0919 40.11	44.367N	113.991W	10.52	6.4	2.37	13	105	0.08	1.52	-80.	0.95	10.	0.63	A
429	831119	1025 02.99	43.915N	113.663W	3.43	10.4	2.06	9	282	0.13	2.63	-40.	8.15	-130.	1.76	C
430	831119	1117 34.44	44.206N	114.034W	10.70	6.6	3.09	15	143	0.10	1.51	-107.	0.98	-17.	0.48	A
431	831119	1148 42.67	44.242N	114.061W	8.53	3.5	3.47	16	146	0.10	1.41	-108.	1.06	-18.	0.48	A
432	831119	1403 38.56	43.957N	113.798W	2.20	1.9	2.34	10	147	0.08	2.03	-7.	1.29	-97.	0.81	A
	* * AVERAGES * *				8.29	6.0	2.75	17.5	98.	0.12	3.58	-77.	2.17	-31.	1.04	

No. of rows is 402.
No. of GAP values (<=180) indicating location inside net:303; GAP values outside net: 99.
Average GAP for inside locations only.

1 —Distance to closest seismograph station
2 —Local magnitude estimate based on duration (coda length) of earthquake (Lee, et al., 1972).
3 —Number of observation (P and S) used to compute hypocentral solution.
4 —Largest azimuthal separation in degrees between stations as viewed from the epicenter.
5 —Root mean square errors of travel time residuals.
6–10—Error estimates based on 94% confidence ellipsoid (see Lahr, 1979, pp31–32).
11 —Hypocentral quality of each solution determined by the largest of 3 distances: (1) and (2) are the resulting horizontal lengths and azimuths of the elliptical shadow of the error ellipse projected to the earth's surface, (3) the greatest vertical deviation of the ellipsoid from the hypocenter (Lahr, 1980, p. 31).

Quality	Axis Length, 'AL' (km)
A	< 2.5
B	2.5 < AL < 5.0
C	5.0 < AL < 10.0
D	AL > 10.0

APPENDIX B.–HYPOELLIPSE LOCATIONS

The computer program HYPOELLIPSE (Lahr, 1979) was used to locate 402 aftershocks using a layered velocity model (see Table 1). The events, which occurred between October 29 and November 19, 1983, are presented in chronologic order.

	HORIZONTAL		VERTICAL		
SE =	0.99	SE =	2.35	SE =	2.35 QUALITY = A
AZ =	-18.	AZ =	-108.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	1737 41.19	44N 3.86	113W52.53	7.02	3.59	12	3	111	1	0.16	2.4	2.4	B	B18	0.06	10	42	0.00	0.12	0	0.0	0.0	7	3.6	0.4

SE OF DRIG = 0.144 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-1	1.1	59	170	42.62 PC0 1.43 1.30 0.30	-0.18	1.053		0.00-41.19	2.28	-44.00	0.000				51			
B37	2.7	270	156	42.36IPC 1.17 1.38	-0.22	1.053		43.57 2.38	2.42	-0.04	0.737				51			
BSU1	3.5	245	150	43.00 PC0 1.81 1.44	0.37	1.053		0.00-41.19	2.51	-43.71	0.000				51			
M-2	11.0	2	110	43.70 PC0 2.51 2.37 0.17	-0.04	1.053		0.00-41.19	4.15	-45.64	0.000				51			
B39	11.1	2	109	43.61EPC 2.42 2.39	0.03	1.053		45.61 4.42	4.18	0.23	0.737				51			
WSUI	17.8	343	90	44.55 PC0 3.36 3.47	-0.12	1.053		0.00-41.19	6.08	-47.27	0.000				51			
B10	25.1	138	90	45.00IP 4 3.01 4.66	-0.86	0.000									51	120	3.4	
B8	28.5	145	90	45.57IPD4 4.30 5.21	-0.83	0.000									51	145	3.6	
MPI	73.7	122	90	53.70 PD0 12.51 12.56	-0.05	1.053		0.00-41.19	21.97	-63.17	0.000				51	72	3.2	
BPM	95.3	29	90	57.20 PC0 16.01 16.06	-0.05	1.053		0.00-41.19	20.10	-69.30	0.000				51			
JGI	96.0	88	90	57.44 PD0 16.25 16.17	0.07	1.053		0.00-41.19	28.31	-69.50	0.000				51	80	3.3	
CIS	105.3	134	90	50.93 PD0 17.74 17.60	0.05	1.053		0.00-41.19	30.95	-72.14	0.000				51	86	3.4	
GBI	145.6	93	65	5.13 PC0 23.94 23.69	0.25	C0.000		0.00 18.81	41.45	-22.64	0.000				51			
TID	177.1	249	65	9.99 PD0 28.80 28.31	0.48	D0.000		0.00 18.81	49.55	-30.74	0.000				51			
TMI	178.9	110	65	9.61 PC0 28.42 28.50	-0.17	C0.000		24.32 43.13	50.02	-6.89	0.000				51	106	3.9	
KCI	183.0	104	65	10.70 P 0 29.51 29.18	0.32	D0.000		0.00 18.01	51.07	-32.27	0.000				51			
CMI	107.0	74	65	11.00 PD0 30.61 29.77	0.83	M0.000		0.00 18.81	52.10	-33.30	0.000				51	180	4.3	
CPI	195.7	264	65	11.69 PC0 30.50 31.05	-0.56	M0.000		0.00 18.81	54.34	-35.54	0.000				51			
LRM	225.4	30	50	15.60 PC0 34.41 34.80	-8.40	D0.000		0.00 18.81	60.90	-42.10	0.000				51			
IMW	236.3	95	50	18.26 P 0 37.07 36.15	0.91	M0.000		0.00 10.81	63.27	-44.46	0.000				51			
NPI	239.9	153	50	18.93 P 0 37.74 36.61	1.12	M0.000		0.00 18.81	64.07	-45.27	0.000				51			
WPI	247.2	250	50	18.59 PD0 37.40 37.52	-0.13	D0.000		0.00 18.81	65.67	-46.06	0.000				51			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	N	SE	E	Z	NE
AVE. OF END POINTS	-0.06	-0.03	0.02	0.04	0.06	0.07	0.10

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.16	-0.15	0.02	D

	HORIZONTAL		VERTICAL	
SE =	1.01	SE =	2.41	SE = 0.97 QUALITY = A
AZ =	-8.	AZ =	-98.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	1741 20.47	44N 4.70	113W50.39	11.16	3.40	11	9	238	1	0.11	2.4	1.0	D	C1D	0.86	10	42	0.00	0.09	0	0.0	0.0	6	3.4	0.3

SE OF ORIG = 0.148 0 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT			TMIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	5.3	107	152	22.54	IP 2.07 2.17	-0.10	1.058				24.32	3.85	3.80	0.06	0.740							
8SU1	5.6	123	151	22.80	PC0 2.33 2.19	0.14	1.058				0.00	-20.47	3.83	-24.30	0.000							
8RPI	6.7	165	146	17.70	PC0 -2.77 2.29	-5.05	M0.000				0.00	-20.47	4.00	-24.47	0.000							
M-1	8.8	96	138	23.03	PC0 2.56 2.50	-0.24	1.058	0.30			0.00	-20.47	4.37	-25.36	0.000							
M-2	12.5	41	120	23.60	PC0 3.13 2.92	0.04	1.058	0.17			0.00	-20.47	5.11	-25.08	0.000							
839	12.6	41	127	23.48	IP 3.01 2.93	0.08	1.058				25.67	5.20	5.13	0.07	0.740							
WSUI	15.8	10	120	23.77	PC0 3.30 3.37	-0.07	1.058				0.00	-20.47	5.90	-26.37	0.000							
810	31.8	130	102	25.57	IPD 5.10 5.82	-0.71	M0.000															
88	34.7	135	101	25.82	IPD4 5.35 6.29	-0.93	0.000															
HPI	81.3	120	94	34.23	PD0 13.76 13.79	-0.03	1.058				0.00	-20.47	24.13	-44.60	0.000					62	3.1	
JGI	103.8	89	65	37.68	P 0 17.21 17.26	-0.04	1.058				0.00	-20.47	30.20	-50.67	0.000					68	3.2	
CI8	112.1	132	65	39.06	PD0 18.59 18.40	0.12	1.058				0.00	-20.47	32.34	-52.00	0.000					72	3.3	
G8I	153.5	94	65	45.20	PC0 24.81 24.57	0.25	D0.000				0.00	-20.47	42.99	-63.46	0.000					67	3.4	
TID	170.3	248	65	40.44	PC0 27.97 27.04	0.94	M0.000				0.00	-20.47	47.31	-67.78	0.000							
TMI	186.6	117	65	49.57	P 0 29.10 29.43	-0.32	C0.000				0.00	-20.47	51.50	-71.97	0.000					67	3.5	
CPI	188.1	263	65	49.99	PC0 29.52 29.65	-0.13	D0.000				0.00	-20.47	51.89	-72.36	0.000							
KCI	191.0	104	50	50.70	P 0 30.23 30.07	0.17	C0.000				74.00	53.53	52.62	0.92	0.000							
CMI	194.1	75	50	51.60	P 0 31.13 30.46	0.68	M0.000				75.80	55.33	53.30	2.03	0.000					100	3.9	
LRM	228.0	32	50	54.80	P 0 34.33 34.69	-0.36	D0.000				0.00	-20.47	60.71	-81.17	0.000							
WPI	240.4	249	50	57.59	PC0 37.12 36.24	0.88	M0.000				0.00	-20.47	63.43	-83.89	0.000							
IMW	244.2	95	50	58.63	P 0 38.16 36.72	1.45	M0.000				0.00	-20.47	64.26	-84.72	0.000							
NCM	347.9	352	50	10.30	P 0 49.83 49.60	0.16	D0.000				0.00	39.53	86.94	-47.40	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	N	NW	E	NE	SE
AVE. OF END POINTS	0.00	0.06	0.09	0.10	0.15	0.16	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.11	-0.06	0.11	D

	HORIZONTAL	VERTICAL	
SE =	0.95	SE = 2.10	SE = 1.57 QUALITY = A
AZ =	-13.	AZ = -103.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	1923 24.52	44N 3.68	113W55.31	7.89	3.44	16	5	142	1	0.20	2.1	1.6	C	8IC	0.08	10	52	0.00	0.16	0	0.0	0.0	7	3.4	0.4

SE OF ORIG = 0.120 6 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=	TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
337	1.0	71	172	26.03	IPD			1.51	1.44			0.07	1.039		27.25	2.73	2.52	0.21	0.727				53			
8SU1	1.3	153	170	26.85	PDO			2.33	1.45			0.89	M0.000		0.00	-24.52	2.53	-27.05	0.000				53			
M-1	4.8	79	145	26.33	PDO			1.81	1.67	0.30		-0.15	1.039		0.00	-24.52	2.92	-27.96	0.000				53			
9RPI	5.2	208	142	26.30	PCO			1.78	1.71			0.07	1.039		0.00	-24.52	3.00	-27.52	0.000				53			
MBAI	9.7	39	121	26.50	P 0			1.98	2.26			-0.27	1.039		28.40	3.88	3.95	-0.06	0.000				53			
839	12.1	20	113	27.22	IPC			2.70	2.60			0.10	1.039		29.25	4.73	4.56	0.18	0.727				53			
816	14.2	349	108	27.51	IP			2.99	2.91			0.08	1.039										53			
811	16.1	146	104	27.74	IP			3.22	3.21			0.01	1.039										53			
83	17.5	355	101	27.79	IPC			3.27	3.43			-0.15	1.039										53	60	2.8	
WSUI	17.5	355	101	27.67	PCO			3.15	3.43			-0.27	1.039		0.00	-24.52	6.00	-30.51	0.000				53			
810	27.5	132	94	29.21	IP			4.69	5.05			-0.36	1.039		92.55	68.03	8.84	59.20	0.000				53			
88	30.5	139	93	29.39	IPC			4.87	5.54			-0.67	M0.000										53	98	3.3	
MPI	76.8	120	91	37.60	P 0			13.08	13.05			0.04	1.039		0.00	-24.52	22.83	-47.35	0.000				53	74	3.2	
8PM	97.4	30	91	41.20	PCO			16.68	16.40			0.28	1.039		0.00	-24.52	28.71	-53.22	0.000				53			
JGI	99.8	88	91	41.25	PDO			16.73	16.78			-0.05	1.039		0.00	-24.52	29.36	-53.88	0.000				53	78	3.3	
C18	107.8	133	65	42.90	PCO			18.38	18.07			0.32	1.039		54.34	29.82	31.62	-1.79	0.000				53			
GBI	149.3	93	65	48.85	P 0			24.33	24.17			0.17	D0.000		0.00	-24.52	42.30	-66.81	0.000				53	80	3.5	
TID	173.5	249	65	53.49	P 0			28.97	27.72			1.25	M0.000		0.00	-24.52	48.52	-73.03	0.000				53			
TMI	182.0	117	65	53.39	PDO			28.87	28.99			-0.11	D0.000		0.00	-24.52	50.72	-75.24	0.000				53	115	3.9	
KCI	186.5	104	65	54.60	P 0			30.08	29.65			0.44	D0.000		0.00	-24.52	51.88	-76.40	0.000				53			
CMI	190.7	74	65	55.60	P 0			31.08	30.25			0.83	M0.000		0.00	-24.52	52.94	-77.45	0.000				53	120	4.0	
CPI	192.0	264	65	55.59	P 0			31.07	30.44			0.63	M0.000		0.00	-24.52	53.28	-77.79	0.000				53			
LRM	227.6	31	50	59.10	PCO			34.58	34.98			-0.39	D0.000		0.00	-24.52	61.21	-85.73	0.000				53			
IMW	239.9	94	50	1.95	P 0			37.43	36.53			0.91	M0.000		0.00	35.48	63.92	-28.43	0.000				53			
NPI	241.4	152	50	3.19	P 0			38.67	36.71			1.97	M0.000		0.00	35.48	64.24	-28.75	0.000				53			
WPI	243.6	249	50	2.69	PDO			38.17	36.98			1.19	M0.000		0.00	35.48	64.72	-29.23	0.000				53			
MLI	269.3	147	50	6.54	P 0			42.02	40.20			1.82	M0.000		0.00	35.48	70.35	-34.87	0.000				53			
NCM	350.3	352	50	14.60	P 0			50.08	50.32			-0.23	D0.000		0.00	35.48	88.06	-52.57	0.000				53			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	SW	SE	Z	NE	E	NW
AVE. OF END POINTS	-0.01	0.01	0.09	0.09	0.09	0.14	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.20	-0.10	0.08	0

BEGIN BEGIN BEGIN BEGIN

	HORIZONTAL		VERTICAL	
SE =	0.77	SE =	2.41	SE = 1.55 QUALITY = A
AZ =	-34.	AZ =	-124.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	1948 13.42	43N57.82	113W50.46	6.76	3.64	10	18	174	1	0.11	2.4	1.6	C	CIC	0.25	10	46	0.00	0.09	0	0.0	0.0	7	3.6	0.3

SE OF ORIG = 0.122 11 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BRPI	10.9	305	121	16.05	P-3	2.63	2.33		0.30	0.075		0.00	-13.42	4.08	-17.50	0.000							
BSUI	11.4	329	119	17.20	P 0	3.78	2.41		1.37	M0.000		0.00	-13.42	4.22	-17.64	0.000							
M-1	11.9	351	118	16.20	P 0	2.78	2.49	0.30	-0.01	1.203		0.00	-13.42	4.35	-18.30	0.000							
MBAI	18.4	359	109	16.90	P 0	3.48	3.57		-0.09	1.203		0.00	-13.42	6.24	-19.66	0.000							
M-2	22.3	354	65	17.90	PD0	4.48	4.22	0.17	0.09	1.203		0.00	-13.42	7.38	-21.10	0.000							
WSUI	29.3	344	65	18.57	P?2	5.15	5.36		-0.21	0.301		0.00	-13.42	9.39	-22.80	0.000							
NSUI	31.5	347	65	19.05	P+0	5.63	5.71		-0.08	1.203		0.00	-13.42	10.00	-23.41	0.000							
MPI	66.0	115	65	24.67	PC0	11.25	11.32		-0.07	1.203		31.82	18.40	19.81	-1.41	0.000					85	3.3	
JGI	94.5	81	65	29.26	PC0	15.84	15.94		-0.10	1.203		38.59	25.17	27.89	-2.72	0.000					87	3.4	
CIB	95.7	131	65	29.65	PC0	16.23	16.14		0.09	1.203		41.81	28.39	28.25	0.15	0.000					90	3.4	
BPM	104.1	24	65	31.10	PC0	17.68	17.50		0.18	1.203		0.00	-13.42	30.63	-44.05	0.000							
GBI	142.6	89	55	36.53	PD0	23.11	23.27		-0.16	D0.000		0.00	-13.42	40.72	-54.14	0.000					92	3.6	
TMI	171.6	115	55	40.26	P 0	26.84	27.54		-0.69	M0.000		0.00	-13.42	48.19	-61.61	0.000					98	3.8	
TID	176.4	253	55	42.37	PC0	28.95	28.23		0.72	M0.000		0.00	-13.42	49.41	-62.83	0.000							
KCI	178.2	101	55	42.00	P 0	28.58	28.50		0.08	C0.000		0.00	-13.42	49.88	-63.30	0.000							
CMI	188.0	71	55	43.85	PC0	30.43	29.95		0.48	D0.000		0.00	-13.42	52.42	-65.83	0.000					140	4.1	
CPI	197.9	267	44	45.57	PC0	32.15	31.39		0.76	M0.000		0.00	-13.42	54.93	-68.35	0.000							
NPI	228.7	152	44	49.69	P 0	36.27	35.25		1.03	M0.000		0.00	-13.42	61.68	-75.10	0.000							
IMW	233.3	92	44	49.62	P 0	36.20	35.81		0.39	D0.000		0.00	-13.42	62.67	-76.09	0.000					88	3.9	
LRM	233.9	28	44	48.80	P 0	35.38	35.89		-0.51	M0.000		0.00	-13.42	62.81	-76.23	0.000							
WPI	246.6	252	44	51.47	PC0	38.05	37.48		0.58	D0.000		0.00	-13.42	65.58	-79.00	0.000							
MLI	256.6	147	44	53.10	P 0	39.68	38.74		0.95	M0.000		0.00	-13.42	67.79	-81.21	0.000							
NCM	362.0	351	44	5.60	P 0	52.18	51.90		0.28	D0.000		0.00	46.58	90.83	-44.24	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	NW	E	NE	SE	Z	SW
AVE. OF END POINTS	0.02	0.03	0.05	0.09	0.10	0.13	0.20

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.11	-0.08	0.08	D

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/29    19/50                                                                                  83/10/29    19/50

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    1.11              SE =    2.99              SE =    1.61    QUALITY = B
                                            AZ =     11.              AZ =   -79.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831029 1950 40.93 44N13.86 114W 2.60   5.15   3.55  8 19 239 1 0.08  3.0  1.6 D C|D 0.13 10 40 0.00 0.07  0  0.0  0.0  5  3.5  0.3
SE OF ORIG =  0.222          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
WSUI   8.5 100 120 41.78 PD2        0.85  1.82              -0.96M0.000       0.00-40.93  3.18-44.10 0.000
NSUI   9.0  84 118 42.90 PD0        1.97  1.89               0.08 1.000      45.85  4.92  3.31  1.61 0.000
M-2   15.7 119 106 44.10 P 0        3.17  3.02  0.17        -0.02 1.000       0.00-40.93  5.28-46.51 0.000
M8AI  19.5 126 103 44.44 P 0        3.51  3.67              -0.16 1.000       0.00-40.93  6.42-47.35 0.000
8SU1  22.5 153 101 46.00 P+0        5.07  4.19               0.88M0.000       0.00-40.93  7.33-48.26 0.000
M-1   23.0 141 101 45.60 P 0        4.67  4.28  0.30         0.09 1.000       0.00-40.93  7.49-48.95 0.000
8RPI  24.6 163 100 45.45 PC0        4.52  4.56              -0.04 1.000      47.45  6.52  7.98 -1.46 0.000
8PM   87.9  42  65 55.90 PC0       14.97 14.99              -0.02 1.000       0.00-40.93 26.24-67.16 0.000
HPI   95.3 127  65 57.23 PC0       16.30 16.19               0.11 1.000      68.86 27.93 28.34 -0.40 0.000                76 3.3
JGI  110.3  98  65 59.50 PC0       18.57 18.63              -0.06 1.000      72.84 31.91 32.61 -0.69 0.000                79 3.3
CI8  127.9 136  55  2.44 P 0       21.51 21.27               0.24D0.000      18.62 37.69 37.23  0.47 0.000                86 3.5
G8I  160.8 100  55  7.12 P 0       26.19 26.12               0.08C0.000      25.29 44.36 45.70 -1.34 0.000                89 3.6
TID  172.2 242  55  9.37 P 0       28.44 27.79               0.66M0.000       0.00 19.07 48.63-29.55 0.000
CPI  185.5 257  55 10.37 PC0       29.44 29.74              -0.30U0.000       0.00 19.07 52.04-32.97 0.000
CMI  195.7  80  55 13.00 P 0       32.07 31.24               0.84M0.000       0.00 19.07 54.67-35.59 0.000               120 4.0
TMI  199.6 121  44 12.52 P 0       31.59 31.81              -0.21C0.000      32.33 51.40 55.66 -4.26 0.000
KCI  201.1 108  44 13.40 P 0       32.47 32.00               0.48D0.000       0.00 19.07 55.99-36.92 0.000
LRM  216.9  35  44 14.00 PD0       33.07 33.97              -0.90M0.000       0.00 19.07 59.45-40.37 0.000
WPI  241.7 244  44 18.37 P 0       37.44 37.07               0.37D0.000       0.00 19.07 64.87-45.80 0.000
IMW  251.3  98  44 13.82 P 4       32.89 38.28              -5.38 0.000       0.00 19.07 66.98-47.91 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW     E    SE    NE     N    NW
AVE. OF END POINTS                 0.09  0.11  0.14  0.14  0.17  0.18  0.25


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  3      0.08      0.03      0.15         D

        ------------END----------------------END----------------------END----------------------END------------
```

	HORIZONTAL		VERTICAL	
SE =	0.75	SE =	1.60	SE = 1.67 QUALITY = A
AZ =	-13.	AZ =	-103.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	2113 59.33	44N 6.50	113W54.80	11.22	3.53	15	6	142	1	0.12	1.6	1.7	C	8IC	0.30	10	53	0.00	0.11	0	0.0	0.0	5	3.5	0.4

SE OF ORIG = 0.106 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	4.9	177	155	1.42	IP		2.09	2.15			-0.06	1.020		2.65	3.32	3.76	-0.44	M0.000							
M-1	5.9	137	150	1.80	P 0		2.47	2.22	0.30		-0.05	1.020		0.00	0.67	3.89	-3.74	0.000							
MBAI	5.9	67	150	1.45	P 0		2.12	2.23			-0.11	1.020		2.95	3.62	3.90	-0.28	0.000							
BSUI	6.3	181	148	2.25	PDO		2.92	2.26			0.66	M0.000		0.00	0.67	3.96	-3.29	0.000							
M-2	6.9	29	146	2.00	PCO		2.67	2.32	0.17		0.18	1.020		0.00	0.67	4.05	-3.68	0.000							
839	7.1	28	145	1.80	IP		2.47	2.33			0.14	1.020		3.35	4.02	4.07	-0.05	0.714							
816	9.4	339	137	1.71	IP		2.38	2.56			-0.18	1.020													
BRPI	10.3	198	134	2.16	PDO		2.83	2.67			0.16	1.020		0.00	0.67	4.68	-4.01	0.000							
WSUI	12.4	350	128	2.07	PCO		2.74	2.91			-0.17	1.020		0.00	0.67	5.10	-4.43	0.000							
93	12.4	349	128	2.28	IP		2.95	2.92			0.03	1.020											97	3.2	
DSPI	13.9	28	124	2.52	P 0		3.19	3.12			0.07	1.020		0.00	0.67	5.46	-4.79	0.000							
NSUI	14.6	354	122	2.65	P 0		3.32	3.22			0.10	1.020		0.00	0.67	5.64	-4.97	0.000							
810	30.8	140	103	5.04	IPC		5.71	5.66			0.05	1.020											95	3.3	
88	34.2	145	101	5.58	IP		6.25	6.21			0.04	1.020											123	3.5	
87	41.1	138	99	6.75	IP		7.42	7.31	0.28		-0.17	1.020											100	3.4	
MPI	79.0	124	94	13.40	PDO		14.07	13.42			0.65	M0.000		0.00	0.67	23.48	-22.81	0.000							
BPM	92.6	32	65	15.80	PCO		16.47	15.60			0.87	M0.000		0.00	0.67	27.30	-26.63	0.000							
JGI	99.0	91	65	16.60	PCO		17.27	16.55			0.72	M0.000		0.00	0.67	28.96	-28.29	0.000							
CIB	110.8	135	65	18.80	PDO		19.47	18.28			1.19	M0.000		0.00	0.67	32.00	-31.33	0.000							
GBI	149.0	95	65	24.30	PDO		24.97	23.90			1.07	M0.000		0.00	0.67	41.82	-41.15	0.000							
TID	176.0	247	65	29.24	PCO		29.91	27.87			2.04	M0.000		0.00	0.67	48.78	-48.11	0.000							
TMI	183.9	119	65	29.10	PDO		29.77	29.03			0.74	M0.000		51.40	52.07	50.80	1.27	0.000							
KCI	187.2	105	65	29.90	P 0		30.57	29.51			1.06	M0.000		0.00	0.67	51.64	-50.97	0.000							
CMI	188.6	76	65	30.80	P 0		31.47	29.73			1.74	M0.000		53.70	54.37	52.02	2.35	0.000					160	4.3	
CPI	193.3	262	50	30.79	PCO		31.46	30.35			1.11	M0.000		0.00	0.67	53.11	-52.44	0.000							
LRM	222.6	31	50	34.00	PDO		34.67	34.02			0.65	M0.000		0.00	0.67	59.53	-58.86	0.000							
IMW	239.7	96	50	37.50	P 0		38.17	36.15			2.02	M0.000		0.00	0.67	63.26	-62.59	0.000							
WPI	246.1	248	50	37.69	PCO		38.36	36.95			1.41	M0.000		0.00	0.67	64.67	-64.00	0.000							
NCM	345.2	352	50	49.40	P 0		50.07	49.34			0.73	M0.000		0.00	0.67	86.34	-85.67	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	NE	SW	Z	SE	N	E
AVE. OF END POINTS	0.09	0.11	0.11	0.12	0.15	0.17	0.20

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.12	0.05	0.14	D

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/29    23/29                                                                                  83/10/29    23/29

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    2.36              SE =    2.90              SE =    5.49   QUALITY = C
                                          AZ =     44.              AZ =   -46.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DS GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831029 2329 11.80 44N13.86 114W 2.52  10.00        10  9 281 1 0.11  2.9  5.5 D CID 0.07 11 68 0.00 0.10  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.378          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
83     8.2 100 137 13.87IP          2.07  2.28              -0.21 1.031                                                57
WSUI   8.4 100 136 14.10 P          2.30  2.31               0.00 1.031       0.00-11.80  4.04-15.83 0.000             57
B16    8.5 125 136 13.66IP 4        1.86  2.32              -0.46 0.000                                                57
NSUI   8.9  84 134 14.23 P 0        2.43  2.36               0.07 1.031       0.00-11.80  4.14-15.93 0.000             57
B39   15.5 119 116 15.17EPD         3.37  3.24               0.13 1.031      18.03  6.23  5.68  0.56 0.000             57
M-2   15.6 119 116 15.10 P 0        3.30  3.25  0.17        -0.12 1.031       0.00-11.80  5.69-17.78 0.000             57
DSPI  16.9  95 114 15.35 P 0        3.55  3.45               0.11 1.031       0.00-11.80  6.03-17.83 0.000             57
MBAI  19.4 126 110 15.75 P 4        3.95  3.83               0.13 0.000       0.00-11.80  6.70-18.49 0.000             57
MBAI  19.4 126 110 15.55 P          3.75  3.83              -0.07 1.031       0.00-11.80  6.70-18.49 0.000             57
CMBI  20.3 147 108 15.10 P 4        3.30  3.96              -0.66 0.000                                                57
B37   21.3 150 107 16.08EPC         4.28  4.12               0.16 1.031      19.42  7.62  7.22  0.41 0.000             57
M-1   22.9 142 105 16.01 P-4        4.21  4.37  0.30        -0.46 0.000       8.00-11.80  7.65-19.97 0.000             57
BRPI  24.6 163 104 16.37 P 0        4.57  4.62              -0.05 1.031       0.00-11.80  8.09-19.88 0.000             57
LCRI  31.6 132  99 16.90 P 4        5.10  5.75              -0.65 0.000       0.00-11.80 10.06-21.86 0.000             57
B11   37.1 150  97 19.89EP 4        8.09  6.64               1.45 0.000                                                57
B6    47.4 128  95 15.16IP 4        3.36  8.29              -4.93 0.000                                                57
B10   47.9 141  95 21.07IP 4        9.27  8.37               0.91 0.000                                                57
B46   48.3 141  95 20.58IP 4        8.78  8.44               0.35 0.000      26.53 14.73 14.77 -0.03 0.722             57
B8    51.3 144  95 15.63IP 4        3.83  8.93              -5.09 0.000                                                57
B7    58.2 139  94 23.07IP 4       11.27 10.04  0.28         0.96 0.000                                                57
BPM   87.8  42  92 21.50 PC4        9.70 14.85              -5.15 0.000       0.00-11.80 25.99-37.78 0.000             57
MPI   95.2 127  92 28.82 P 0       17.02 16.05               0.98M0.000       0.00-11.80 28.08-39.88 0.000             57
JGI  110.2  98  65 30.84 P 0       19.04 18.28               0.77M0.000       0.00-11.80 31.98-43.78 0.000             57
CIB  127.8 136  65 33.68 P 0       21.88 20.87               1.02M0.000       0.00-11.80 36.52-48.31 0.000             57
GBI  160.7 100  65 38.50 P 0       26.70 25.71               1.00M0.000       0.00-11.80 44.98-56.78 0.000             57
TIO  172.3 242  65 40.90 P+0       29.10 27.41               1.70M0.000       0.00-11.80 47.96-59.76 0.000             57
CPI  185.6 257  65 41.80 PD0       30.00 29.36               0.65M0.000       0.00-11.80 51.38-63.17 0.000             57
CMI  195.6  80  50 44.00 P 0       32.20 30.76               1.45M0.000       0.00-11.80 53.83-65.62 0.000             57
TMI  199.5 121  50 43.78 P 0       31.98 31.25               0.74M0.000       0.00-11.80 54.68-66.48 0.000             57
KCI  201.0 100  50 44.60 P 0       32.80 31.44               1.37M0.000       0.00-11.80 55.01-66.81 0.000             57
LRM  216.8  35  50 45.40 P 0       33.60 33.41               0.19D0.000       0.00-11.80 58.48-70.27 0.000             57
BUT  229.7  30  50 46.90 P 0       35.10 35.03               0.07D0.000       0.00-11.80 61.30-73.10 0.000             57
WPI  241.8 244  50 49.40 PD0       37.60 36.53               1.07P0.000       0.00-11.80 63.94-75.73 0.000             57
IMW  251.2  90  50 51.27 P 0       39.47 37.72               1.76M0.000       0.00-11.80 66.00-77.80 0.000             57
MSO  288.9   2  50 54.60 PC0       42.80 42.43               0.38D0.000       0.00-11.80 74.25-86.04 0.000             57
MLI  290.4 147  50 56.71 P 0       44.91 42.61               2.31M0.000       0.00-11.80 74.56-86.36 0.000             57
BEI  298.2 142  50 58.72 P 0       46.92 43.58               3.34M0.000       0.00-11.80 76.27-88.07 0.000             57
NCM  330.3 353  50 59.60 PC0       47.80 47.61               0.20D0.000       0.00-11.80 83.31-95.10 0.000             57

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     N    NE     E    NW    SE    SW
AVE. OF END POINTS                   0.04  0.05  0.06  0.07  0.08  0.09  0.10
```

	HORIZONTAL	VERTICAL	
SE =	1.40	SE = 2.23	SE = 2.94 QUALITY = 8
AZ =	-4.	AZ = -94.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831029	2339 5.44	44N15.46	114W 4.46	10.00		13	19	300	1	0.12	2.2	2.9	C	8ID	0.07	11	65	0.00	0.09	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.152 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
83	11.5	113	126	7.62	IP	2.18	2.68		-0.50	M0.000										58			
NSUI	11.6	100	126	8.08	P	2.64	2.69		-0.05	1.048										58			
WSUI	11.7	112	126	9.40	P 4	3.96	2.70		1.26	0.000		0.00	-5.44	4.73	-10.17	0.000				58			
816	12.3	129	123	8.06	IP	2.62	2.80		-0.18	1.048										58			
839	19.3	123	110	9.23	EPD	3.79	3.81		-0.02	1.048		12.11	6.67	6.67	0.00	0.734				58			
M-2	19.3	123	110	9.25	PDO	3.81	3.82	0.17	-0.18	1.048		0.00	-5.44	6.69	-12.42	0.000				58			
OSPI	19.9	103	109	9.50	P 0	4.06	3.90		0.16	1.048		0.00	-5.44	6.82	-12.26	0.000				58			
WBAI	23.2	128	105	9.60	P 4	4.16	4.42		-0.25	0.000										58			
837	25.2	148	103	10.19	IP	4.75	4.72		0.03	1.048		13.63	8.19	8.26	-0.06	0.734				58			
M-1	26.9	141	102	10.85	P-0	5.41	5.00	0.30	0.11	1.048		0.00	-5.44	8.75	-14.71	0.000				58			
BRPI	28.2	160	101	10.65	P 0	5.21	5.21		0.00	1.048		0.00	-5.44	9.12	-14.56	0.000				58			
LCRI	35.5	133	98	11.10	P 4	5.66	6.38		-0.72	0.000										58			
811	41.0	149	96	14.24	P 4	8.80	7.26		1.54	0.000		0.00	-5.44	12.71	-18.15	0.000				58			
86	51.3	129	95	14.99	P	9.55	8.92		0.64	M0.000		0.00	-5.44	15.60	-21.04	0.000				58			
810	51.8	141	95	15.11	P	9.67	9.00		0.67	M0.000		0.00	-5.44	15.75	-21.19	0.000				58			
846	52.2	141	94	14.40	IP	8.96	9.07		-0.11	1.048		20.59	15.15	15.88	-0.73	M0.000				58			
88	55.2	144	94	15.03	P	9.59	9.55		0.04	1.048		0.00	-5.44	16.72	-22.16	0.000				58			
87	62.1	139	94	16.62	P	11.18	10.67	0.28	0.23	1.048		0.00	-5.44	18.67	-24.60	0.000				58			
HPI	99.1	128	65	22.76	P 0	17.32	16.64		0.69	M0.000		0.00	-5.44	29.11	-34.55	0.000				58			
JGI	113.2	99	65	24.94	P 0	19.50	18.72		0.78	M0.000		0.00	-5.44	32.75	-38.19	0.000				58			
CIB	131.8	136	65	27.88	P 0	22.44	21.45		1.00	M0.000		0.00	-5.44	37.53	-42.97	0.000				58			
GBI	163.8	101	65	32.60	P 0	27.16	26.16		1.00	M0.000		0.00	-5.44	45.77	-51.21	0.000				58			
TID	171.5	241	65	32.30	PC0	26.86	27.28		-0.42	D0.000		0.00	-5.44	47.74	-53.18	0.000				58			
CPI	183.4	256	65	33.70	PC2	28.26	29.04		-0.78	M0.000		0.00	-5.44	50.83	-56.27	0.000				58			
CMI	197.6	81	50	38.50	P 0	33.06	31.02		2.04	M0.000		0.00	-5.44	54.28	-59.72	0.000				58			
TMI	203.2	121	50	38.04	P 0	32.60	31.72		0.88	M0.000		0.00	-5.44	55.51	-60.94	0.000				58			
KCI	204.1	109	50	39.10	P 0	33.66	31.82		1.84	M0.000		0.00	-5.44	55.69	-61.13	0.000				58			
LRM	215.9	36	50	39.20	P 0	33.76	33.30		0.46	D0.000		0.00	-5.44	58.28	-63.72	0.000				58			
BUT	228.5	31	50	40.80	P 0	35.36	34.88		0.48	D0.000		0.00	-5.44	61.03	-66.47	0.000				58			
WPI	240.7	243	50	43.00	PD2	37.56	36.41		1.16	M0.000		0.00	-5.44	63.71	-69.15	0.000				58			
IMW	254.2	99	50	45.52	P 0	40.08	38.09		1.99	M0.000		0.00	-5.44	66.66	-72.10	0.000				58			
MSO	286.0	2	50	47.50	P 0	42.06	42.07		0.00	D0.000		0.00	-5.44	73.62	-79.05	0.000				58			
MLI	294.3	147	50	50.77	P 8	45.33	43.10		2.23	M0.000		0.00	-5.44	75.42	-80.86	0.000				58			
BEI	302.1	142	50	52.36	P 0	46.92	44.08		2.84	M0.000		0.00	-5.44	77.14	-82.58	0.000				58			
NCM	327.1	353	50	53.50	PC0	48.06	47.20		0.86	M0.000		0.00	-5.44	82.60	-88.04	0.000				58			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	NW	N	Z	SE	NE	SW
AVE. OF END POINTS	8.06	0.10	0.11	0.13	0.16	0.17	0.17

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.12	0.04	0.13	0

```
        ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/10/29    23/41                                                                                                  83/10/29    23/41

                                                  HORIZONTAL                                  VERTICAL
                                            SE =  11.00              SE =  33.91              SE =  29.24   QUALITY = D
                                            AZ =   -36.              AZ =  -126.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831029 2341 30.80 44N20.88 113W56.84  11.58         4 65 342 1 0.09 33.9 29.2 D D|D 0.28 10  6 0.00 0.08  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.848        12 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
839   21.3 163 113 35.03IP          4.23  4.21              0.02 1.081      38.16  7.36  7.37 -0.01 0.757            59
811   46.5 166  98 40.07IP          9.27  8.18              1.09M0.000                                                59
86    51.7 145  97 39.94IP          9.14  9.02              0.12 1.081                                                59
846   55.4 156  96 41.26IP         10.46  9.62              0.84M0.000                                                59
87    64.7 152  95 42.06IP         11.26 11.12  0.28       -0.13 1.081                                                59

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E    SW     Z    NE     N    NW    SE
AVE. OF END POINTS                 0.17  0.20  0.22  0.25  0.27  0.29  0.29

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.09      0.08      0.25         D

        ____________END_____________________END_____________________END_____________________END____________


        ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/10/30     0/20                                                                                                  83/10/30     0/20

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.72              SE =   3.58              SE =   8.83   QUALITY = C
                                            AZ =   -29.              AZ =  -119.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030  020  1.31 44N 0.11 113W52.33   9.37         6 25 219 1 0.13  3.6  8.8 D C|D 0.64 10  6 0.00 0.11  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.184         8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
838   17.0  88 111  4.81IP          3.50  3.43              0.07 1.111       7.34  6.03  6.00  0.03 0.778            61
846   20.8 125 105  5.34IP          4.03  4.00              0.03 1.111       8.04  6.73  7.00 -0.27 0.778            61
83    24.6 347 101  5.84IP          4.53  4.62             -0.09 1.111                                                61
87    30.7 128  98  7.34IP          6.03  5.58  0.28        0.17 1.111                                                61

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    SE    NW     E     N
AVE. OF END POINTS                 0.05  0.12  0.15  0.15  0.19  0.24  0.29

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.13      0.04      0.18         D
```

```
                                                  HORIZONTAL                                  VERTICAL
                                            SE =   3.47                SE =  10.63              SE =  91.21   QUALITY = D
                                            AZ =  -23.                 AZ =  -113.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030  024 17.43 43N54.01 113W53.37   3.27          7 22 247 1 0.25 10.6 91.2 D D|D 0.14 10  8 0.00 0.23  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.508        10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
810   17.8  92  98 20.84IP          3.41  3.32              0.09 1.094                                                 62
88    18.3 106  98 20.73IP 4        3.30  3.42             -0.11 0.000                                                 62
846   18.3  92  98 21.13IP          3.70  3.42              0.29 1.094      23.12  5.69  5.98 -0.29 0.766             62
838   22.0  57  96 21.84IP          4.41  4.06              0.35 1.094      24.44  7.01  7.10 -0.09 0.766             62
87    26.7 106  95 22.35IP          4.92  4.90  0.28        -0.26 1.094                                                 62
83    35.6 353  94 23.70IP          6.27  6.48             -0.20 1.094                                                 62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    NE    SW    SE     Z     E     N
AVE. OF END POINTS                -0.09 -0.09 -0.06 -0.01 -0.01  0.03  0.10
```



```
                                                  HORIZONTAL                                  VERTICAL
                                            SE =   1.65                SE =   4.50              SE =   2.47   QUALITY = B
                                            AZ =    11.                AZ =   -79.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030  028 39.57 44N12.67 114W 2.09   4.97   3.03 10 17 241 1 0.15  4.5  2.5 D C|D 0.06 10 36 0.00 0.12  0  0.0  0.0  4  3.0  0.2
SE OF ORIG =  0.349        6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
WSUI   8.8  85 118 41.70 P 0          2.13  1.84              0.29 1.000       0.00-39.57  3.22-42.79 0.000
M-2   15.1 111 106 42.70 PC0          3.13  2.91  0.17        0.05 1.000       0.00-39.57  5.10-44.96 0.000
OSPI  17.3  87 104 42.72 P 0          3.15  3.29             -0.14 1.000       0.00-39.57  5.76-45.33 0.000
MBAI  18.6 119 103 42.95 P 0          3.30  3.51             -0.13 1.000       0.00-39.57  6.15-45.72 0.000
M-1   21.6 137 101 43.90 P 0          4.33  4.03  0.30        0.00 1.000       0.00-39.57  7.06-47.15 0.000
BRPI  22.6 160 101 43.76 P 0          4.19  4.21             -0.02 1.000      46.26  6.69  7.37 -0.68 0.000
LCRI  30.5 128  98 45.02 P 0          5.45  5.62             -0.17 1.000       0.00-39.57  9.84-49.41 0.000
BPM   89.8  41  65 54.80 P 0         15.23 15.31             -0.08 1.000       0.00-39.57 26.80-66.37 0.000
MPI   94.3 126  65 55.88 P 0         16.31 16.04              0.27 1.000       0.00-39.57 28.07-67.64 0.000                 44 2.8
JGI  110.4  97  65 58.18 P 0         18.61 18.66             -0.05 1.000       0.00-39.57 32.66-72.23 0.000                 52 3.0
CIB  126.6 135  55  0.86 P 0         21.29 21.10              0.19D0.000       0.00 20.43 36.92-16.49 0.000                 52 3.0
GBI  160.9  99  55  6.40 P 0         26.83 26.14              0.69M0.000       0.00 20.43 45.74-25.31 0.000                 61 3.3
TID  170.8 242  55  0.30 P 0         28.73 27.60              1.13M0.000       0.00 20.43 48.31-27.88 0.000
CPI  184.6 250  55  9.80 P 0         30.23 29.63              0.60M0.000       0.00 20.43 51.86-31.43 0.000
TMI  198.8 120  55 11.03 P 0         31.46 31.71             -0.25D0.000       0.00 20.43 55.50-35.06 0.000
LRM  218.9  35  44 12.80 P 0         33.23 34.24             -1.01M0.000       0.00 20.43 59.93-39.50 0.000
WPI  240.4 245  44 17.60 PD0         38.03 36.93              1.10M0.000       0.00 20.43 64.63-44.20 0.000
IMW  251.4  98  44 20.20 P 0         40.63 38.31              2.32M0.000       0.00 20.43 67.04-46.61 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     Z    NW    SW     E    NE     N
AVE. OF END POINTS                 0.03  0.05  0.06  0.09  0.09  0.10  0.15
```

	HORIZONTAL		VERTICAL		
SE =	1.36	SE =	2.40	SE =	2.27 QUALITY = A
AZ =	-5.	AZ =	-95.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831030	033	4.18 44N	10.41 114W	2.96	8.65	3.41	15	14	244	1	0.17	2.4	2.3	D	CID	0.08	10	46	0.00	0.13	0	0.0	0.0	5	3.4	0.3

SE OF ORIG = 0.182 5 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	10.1	61	124	6.90	P 0		2.72	2.38			0.34	1.042		0.00	-4.18	4.16	-8.34	0.000							
NSUI	11.9	52	119	6.72	P 4		2.54	2.62			-0.08	0.000		0.00	-4.18	4.59	-8.77	0.000							
839	14.3	94	112	7.18	P 0		3.00	2.97			0.03	1.042		9.61	5.43	5.20	0.23	0.729							
M-2	14.3	95	112	7.25	PC0		3.07	2.98	0.17		-0.07	1.042		0.00	-4.18	5.21	-9.68	0.000							
MBAI	17.0	107	107	7.40	P 0		3.22	3.39			-0.17	1.042		9.80	5.62	5.94	-0.31	0.000							
OSPI	18.1	74	105	7.40	P 0		3.22	3.55			-0.33	1.042		0.00	-4.18	6.22	-10.39	0.000							
BRPI	18.8	156	104	7.76	PC0		3.58	3.67			-0.09	1.042		0.00	-4.18	6.42	-10.60	0.000							
M-1	18.8	128	104	8.20	P 0		4.02	3.68	0.30		0.04	1.042		0.00	-4.18	6.44	-11.14	0.000							
LCRI	28.2	121	97	9.32	PD0		5.14	5.17			-0.03	1.042		0.00	-4.18	9.05	-13.23	0.000							
838	36.1	120	94	10.51	P 0		6.33	6.46			-0.13	1.042		15.40	11.22	11.30	-0.08	0.729							
846	44.0	135	93	0.00	P 4		-4.18	7.73			-11.91	0.000		17.38	13.20	13.53	-0.33	0.000							
HPI	92.1	124	91	19.83	P 0		15.65	15.53			0.12	1.042		0.00	-4.18	27.17	-31.35	0.000					57	3.0	
BPM	93.0	40	91	19.80	PC0		15.62	15.69			-0.06	1.042		0.00	-4.18	27.45	-31.63	0.000							
JGI	110.3	95	65	22.58	PC0		18.40	18.38			0.02	1.042		0.00	-4.18	32.16	-36.34	0.000					68	3.2	
CIB	123.7	134	65	24.77	PD0		20.59	20.36			0.24	1.042		0.00	-4.18	35.62	-39.80	0.000					83	3.5	
GBI	160.4	97	65	30.15	P 0		25.97	25.74			0.23	D0.000		0.00	-4.18	45.05	-49.23	0.000					80	3.6	
TID	169.1	244	65	31.60	PC0		27.42	27.02			0.40	D0.000		0.00	-4.18	47.29	-51.47	0.000							
CPI	183.7	259	65	34.80	PD0		29.82	29.18			0.64	M0.000		0.00	-4.18	51.06	-55.24	0.000							
TMI	197.0	119	50	35.12	P 0		30.94	31.08			-0.14	D0.000		0.00	-4.18	54.39	-58.57	0.000					89	3.8	
LRM	222.4	35	50	37.40	P 0		33.22	34.25			-1.03	M0.000		0.00	-4.18	59.94	-64.12	0.000							
WPI	238.9	246	50	40.68	PD0		36.42	36.31			0.11	C0.000		0.00	-4.18	63.54	-67.72	0.000							
IMW	251.4	97	50	42.85	P 0		38.67	37.87			0.80	M0.000		0.00	-4.18	66.28	-70.46	0.000							
MLI	285.3	147	50	48.36	P 0		44.18	42.12			2.06	M0.000		0.00	-4.18	73.70	-77.88	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	SE	NE	Z	N	SW
AVE. OF END POINTS	0.00	0.06	0.06	0.07	0.08	0.10	0.10

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
7	0.17	-0.09	0.06	D

	HORIZONTAL		VERTICAL	
SE =	1.02	SE =	4.69	SE = 1.50 QUALITY = B
AZ =	30.	AZ =	-60.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1 7 41.35	44N13.52	114W 3.59	3.49	3.68	11	17	282	1	0.08	4.7	1.5	D	C1D	0.17	10	44	0.00	0.07	0	0.0	0.0	6	3.7	0.3

SE OF ORIG = 0.408 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	9.7	95	107	43.30	P 0	1.95	1.90		0.04	1.073		0.00	-41.35	3.33	-44.68	0.000							
NSUI	10.4	81	106	43.45	P 2	2.10	2.02		0.08	0.268		0.00	-41.35	3.53	-44.88	0.000							
M-2	16.6	115	99	44.80	PC0	3.45	3.11	0.17	0.17	1.073		0.00	-41.35	5.45	-47.10	0.000							
OSPI	18.2	92	98	44.72	P 0	3.37	3.40		-0.04	1.073		0.00	-41.35	5.96	-47.31	0.000							
MBAI	20.2	122	98	45.00	P 0	3.65	3.76		-0.11	1.073		0.00	-41.35	6.57	-47.92	0.000							
M-1	23.4	138	97	46.00	P+0	4.65	4.32	0.30	0.03	1.073		0.00	-41.35	7.56	-49.43	0.000							
BRPI	24.4	159	96	45.82	PC0	4.47	4.50		-0.03	1.073		46.77	5.42	7.88	-2.46	0.000							
LSGS	28.8	106	95	46.52	PD0	5.17	5.27		-0.10	1.073		0.00	-41.35	9.23	-50.58	0.000							
LCRI	32.3	129	95	47.22	PC0	5.87	5.90		-0.03	1.073		0.00	-41.35	10.32	-51.67	0.000							
HPI	96.0	127	65	57.86	PC0	16.51	16.43		0.08	1.073		0.00	-41.35	28.75	-70.10	0.000					81	3.3	
JGI	111.5	98	65	0.26	PC0	18.91	18.95		-0.04	1.073		0.00	18.65	33.17	-14.52	0.000					87	3.4	
CIB	128.4	136	55	2.88	PD0	21.53	21.51		0.02	D0.000		16.53	35.18	37.65	-2.47	0.000					89	3.5	
GBI	162.0	99	55	7.99	PC0	26.64	26.46		0.18	C0.000		0.00	18.65	46.31	-27.66	0.000					101	3.7	
TID	170.8	242	55	9.70	P 0	28.35	27.74		0.61	M0.000		0.08	18.65	48.55	-29.90	0.000							
CPI	184.1	257	55	10.90	PC1	29.55	29.70		-0.15	D0.000		0.00	18.65	51.97	-33.32	0.000							
TMI	200.4	121	55	13.14	PD0	31.79	32.10		-0.31	D0.000		0.00	18.65	56.17	-37.52	0.000					121	4.0	
LRM	218.1	36	44	14.50	PD0	33.15	34.34		-1.19	M0.000		0.00	18.65	60.10	-41.45	0.000							
BUT	231.0	31	44	16.20	P 0	34.85	35.95		-1.10	M0.000		44.00	62.65	62.91	-0.26	0.000							
WPI	240.2	244	44	18.10	PC0	36.75	37.10		-0.35	D0.000		0.00	18.65	64.93	-46.28	0.000							
IMW	252.5	98	44	20.68	P 0	39.33	38.64		0.69	M0.000		0.00	18.65	67.62	-48.97	0.000					110	4.1	
MLI	290.6	147	44	26.59	P 0	45.24	43.40		1.84	M0.000		0.00	18.65	75.95	-57.30	0.000							
SXM	309.7	46	44	26.00	P 0	44.65	45.79		-1.14	M0.000		0.00	18.65	80.13	-61.48	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	N	SE	NW	E	NE
AVE. OF END POINTS	0.05	0.10	0.12	0.13	0.14	0.14	0.21

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.08	0.03	0.13	D

*

*

*

	HORIZONTAL		VERTICAL	
SE =	1.06	SE =	2.12	SE = 1.90 QUALITY = A
AZ =	-29.	AZ =	-119.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	116 39.72	44N 3.37	113W52.67	5.81	3.72	21	7	100	1	0.29	2.1	1.9	B	B|B	0.50	10	52	0.00	0.24	0	0.0	0.0	5	3.7	0.3

SE OF ORIG = 0.138 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-1	1.9	38	162	41.10	PD0	1.38	1.12	0.30	-0.05	1.102		0.00	-39.72	1.97	-42.22	0.000				67			
837	2.7	290	154	41.00	IPD	1.28	1.18		0.10	1.102		42.09	2.37	2.07	0.30	0.772				67			
BRPI	7.2	236	127	41.69	PC2	1.97	1.70		0.27	0.276		0.00	-39.72	2.98	-42.70	0.000				67			
MBAI	8.5	18	123	41.35	P 0	1.63	1.89		-0.26	1.102		0.00	-39.72	3.31	-43.03	0.000				67			
LCRI	10.5	99	117	42.17	P 0	2.45	2.19		0.25	1.102		0.00	-39.72	3.84	-43.56	0.000				67			
M-2	11.9	2	114	42.30	PC0	2.58	2.42	0.17	-0.02	1.102		0.00	-39.72	4.24	-44.26	0.000				67			
839	12.0	2	114	42.12	IPC	2.40	2.45		-0.05	1.102		44.05	4.33	4.28	0.05	0.772				67			
LSGS	17.1	50	107	43.62	PD0	3.90	3.30		0.60	1.102		0.00	-39.72	5.77	-45.50	0.000				67			
838	18.2	107	106	43.14	EP0	3.42	3.49		-0.07	1.102		45.70	5.98	6.10	-0.12	0.772				67			
DSPI	18.4	12	106	42.82	P 0	3.10	3.53		-0.43	1.102		0.00	-39.72	6.17	-45.90	0.000				67			
WSUI	18.6	345	106	43.45	PD0	3.73	3.56		0.17	1.102		0.00	-39.72	6.23	-45.95	0.000				67			
83	18.7	344	106	42.90	IP	3.18	3.57		-0.39	1.102										67			
846	25.0	136	102	44.24	IP	4.52	4.67		-0.15	1.102		47.45	7.73	8.17	-0.44	0.772				67			
86	26.0	113	101	43.68	IP 4	3.96	4.84		-0.88	0.000										67			
88	27.8	143	100	43.55	IP 4	3.83	5.16		-1.33	0.000										67			
87	35.0	135	65	45.89	IP	6.17	6.35	0.28	-0.47	1.102										67			
MPI	73.4	121	65	52.56	PD0	12.84	12.59		0.24	1.102		0.00	-39.72	22.04	-61.76	0.000				67	81	3.2	
JGI	96.3	88	65	56.19	PD0	16.47	16.30		0.17	1.102		0.00	-39.72	28.52	-68.25	0.000				67	110	3.6	
CIO	104.8	134	65	57.86	PD0	18.14	17.69		0.45	1.102		0.00	-39.72	30.96	-70.68	0.000				67	108	3.6	
GBI	145.7	93	55	3.86	PD0	24.14	23.83		0.31	D0.000		0.00	20.28	41.70	-21.42	0.000				67			
TIO	176.6	250	55	9.50	P 0	29.78	28.36		1.41	D0.000		0.00	20.28	49.64	-29.36	0.000				67			
TMI	178.6	118	55	8.48	PD0	28.76	28.66		0.09	C0.000		0.00	20.28	50.16	-29.89	0.000				67	124	4.0	
CPI	195.4	264	55	11.30	P 0	31.58	31.13		0.44	D0.000		0.00	20.28	54.48	-34.21	0.000				67			
LRM	226.3	30	44	14.40	P 0	34.68	35.07		-0.39	D0.000		0.00	20.28	61.37	-41.09	0.000				67			
IMW	236.4	94	44	17.15	P 0	37.43	36.32		1.10	D0.000		0.00	20.28	63.57	-43.29	0.000				67			
WPI	246.7	250	44	17.80	P 0	38.08	37.62		0.46	D0.000		0.00	20.28	65.83	-45.55	0.000				67			
MLI	266.9	148	44	21.89	PC0	42.17	40.14		2.03	D0.000		0.00	20.28	70.25	-49.97	0.000				67	108	4.2	
MSO	308.2	359	44	23.80	P 0	44.08	45.30		-1.23	D0.000		0.00	20.28	79.28	-59.00	0.000				67			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	N	SE
AVE. OF END POINTS	0.33	0.40	0.43	0.71	0.76	0.97	0.97

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
21	0.29	0.26	0.69	B

	HORIZONTAL		VERTICAL	
SE =	1.05	SE =	2.99	SE = 2.32 QUALITY = 8
AZ =	-18.	AZ =	-108.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SOD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	120 0.87	44N 3.51	113W53.82	10.22		14	9	162	1	0.19	3.0	2.3	C	C|C	0.11	10	28	0.00	0.16	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.209 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	1.2	303	173	2.80IP	1.93	1.82			0.12	1.069		3.83	2.96	3.18	-0.22	0.748				68			
M-1	3.0	66	163	3.01 P00	2.14	1.88	0.30		-0.04	1.069		0.00	-0.87	3.29	-4.68	0.000				68			
98AI	8.9	28	135	3.20 P 0	2.33	2.39			-0.06	1.069		0.00	-0.87	4.18	-5.05	0.000				68			
M-2	11.8	10	126	4.00 PC0	3.13	2.74	0.17		0.23	1.069		0.00	-0.87	4.79	-5.95	0.000				68			
839	11.9	10	126	3.92IP	3.05	2.75			0.30	1.069		5.91	5.04	4.82	0.23	0.748				68			
LCRI	12.1	99	125	3.42 P 0	2.55	2.77			-0.22	1.069		0.00	-0.87	4.85	-5.72	0.000				68			
811	14.8	151	119	5.59IP 4	4.72	3.15			1.57	0.000										68			
WSUI	18.0	349	112	4.25 P+0	3.38	3.64			-0.25	1.069		0.00	-0.87	6.36	-7.23	0.000				68			
83	18.1	349	112	2.52IPC4	1.65	3.64			-1.99	0.000										68			
LSGS	18.2	54	112	4.52 P 0	3.65	3.66			0.00	1.069		0.00	-0.87	6.40	-7.27	0.000				68			
DSP1	18.6	16	112	4.27 P 0	3.40	3.72			-0.31	1.069		0.00	-0.87	6.50	-7.37	0.000				68			
846	26.3	134	103	0.00IP 4	-0.87	4.91			-5.77	0.000		9.47	8.60	8.59	0.02	0.748				68			
88	29.0	141	101	6.40IP	5.53	5.35			0.19	1.069										68			
87	36.3	134	98	7.68IP	6.81	6.51	0.28		0.02	1.069										68			
TID	175.2	249	65	30.80 PC0	29.93	27.82			2.11	00.000		0.00	-0.87	48.69	-49.55	0.000				68			
WPI	245.4	250	50	42.70 PC4	41.83	36.96			4.87	0.000		0.00	-0.87	64.68	-65.55	0.000				68			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	E	SW	NW	SE	N
AVE. OF END POINTS	0.38	0.45	0.47	0.48	0.68	0.88	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.19	0.30	0.62	8

	HORIZONTAL		VERTICAL	
SE =	0.97	SE =	2.41	SE = 1.38 QUALITY = A
AZ =	-9.	AZ =	-99.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	124 51.67	44N 5.59	113W58.10	10.44	4.67	23	9	195	1	0.21	2.4	1.4	D	C|D	0.10	10	70	0.00	0.18	0	0.0	0.0	9	4.7	0.5

SE OF ORIG = 0.149 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLT=				P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	5.7	124	149	53.79	EPD	2.12	2.10		0.02	1.027		55.48	3.81	3.67	0.14	0.719							
8RPI	8.3	171	138	54.08	P 0	2.41	2.35		0.06	1.027		0.00	-51.67	4.11	-55.78	0.008							
M-1	8.8	107	136	54.50	PC0	2.83	2.41	0.30	0.12	1.027		0.00	-51.67	4.21	-56.41	0.000							
816	10.5	6	131	54.05	IP 0	2.38	2.60		-0.22	1.027		0.00	-51.67	4.55	-56.22	0.000							
MBAI	10.6	68	130	54.20	P 0	2.53	2.62		-0.09	1.027		0.00	-51.67	4.59	-56.26	0.000							
M-2	11.0	45	129	54.70	PD0	3.03	2.66	0.17	0.20	1.027		0.00	-51.67	4.66	-56.63	0.000							
839	11.1	45	129	54.49	EPD0	2.82	2.67		0.15	1.027		56.54	4.87	4.68	0.19	0.719							
83	14.0	9	121	54.58	IPD0	2.91	3.07		-0.16	1.027		0.00	-51.67	5.37	-57.04	0.000							
WSUI	14.1	10	121	54.65	PD0	2.98	3.07		-0.10	1.027		0.00	-51.67	5.38	-57.05	0.000							
JSPI	17.7	38	114	55.17	P 0	3.50	3.59		-0.09	1.027		0.00	-51.67	6.28	-57.95	0.000							
LCRI	18.6	108	113	55.32	P 0	3.65	3.73		-0.08	1.027		0.00	-51.67	6.52	-58.20	0.000							
811	21.1	143	109	56.28	IP 0	4.61	4.11		0.49	1.027		0.00	-51.67	7.20	-58.87	0.000							
LSGS	21.5	71	108	55.72	P 0	4.05	4.18		-0.13	1.027		0.00	-51.67	7.31	-58.98	0.000							
810	32.6	132	100	57.49	IPD0	5.82	5.93		-0.11	1.027		0.00	-51.67	10.38	-62.05	0.000							
86	34.3	114	99	57.48	IPC0	5.81	6.20		-0.39	1.027		0.00	-51.67	10.85	-62.52	0.000							
88	35.7	138	99	57.77	IPD0	6.10	6.42		-0.32	1.027		0.00	-51.67	11.23	-62.90	0.000							
87	43.1	132	97	59.27	IPD0	7.60	7.60	0.28	-0.29	1.027		0.00	-51.67	13.31	-65.47	0.000							
HPI	81.8	121	93	5.72	PC0	14.05	13.87		0.18	1.027		0.00	8.33	24.28	-15.95	0.000					179	4.0
BPM	96.3	33	65	8.20	PC0	16.53	16.21		0.32	1.027		0.00	8.33	28.36	-20.03	0.000						
JGI	103.4	90	65	8.89	PC0	17.22	17.25		-0.03	1.027		0.00	8.33	30.18	-21.85	0.000					208	4.2
CIB	113.0	133	65	10.55	PD0	18.88	18.65		0.23	1.027		0.00	8.33	32.64	-24.31	0.000					207	4.2
GBI	153.2	94	65	16.41	PC0	24.74	24.57		0.16	D0.000		0.00	8.33	43.01	-34.68	0.000					238	4.5
TID	171.3	247	65	19.90	PD2	28.23	27.23		1.00	M0.000		0.00	8.33	47.66	-39.33	0.000						
TMI	187.0	118	65	21.00	PD0	29.33	29.54		-0.21	D0.000		0.00	8.33	51.69	-43.36	0.000					234	4.6
CPI	188.7	262	65	21.40	PC0	29.73	29.79		-0.06	D0.000		40.10	48.43	52.13	-3.70	0.000						
KCI	191.0	104	65	22.00	PC0	30.33	30.13		0.20	D0.000		0.00	8.33	52.72	-44.39	0.000						
CMI	193.3	76	50	22.60	PD0	30.93	30.43		0.50	D0.000		0.00	8.33	53.26	-44.93	0.000						
LRM	226.3	32	50	25.60	P 0	33.93	34.56		-0.63	M0.000		0.00	8.33	60.48	-52.15	0.000						
BUT	240.3	27	50	27.40	PC0	35.73	36.31		-0.58	M0.000		0.00	8.33	63.54	-55.22	0.000						
WPI	241.4	248	50	29.40	PD0	37.73	36.44		1.29	M0.000												
IMW	243.9	95	50	29.28	PC0	37.61	36.76		0.85	M0.000		0.08	8.33	64.33	-56.00	0.000					247	4.8
MLI	274.2	147	50	32.40	P B	40.73	40.55		0.18	D0.000		0.00	8.33	70.96	-62.63	0.000					226	4.9
BEI	282.6	141	50	34.19	P 1	42.52	41.60		0.92	M0.000											218	4.9
MSD	304.1	0	50	34.70	PC0	43.03	44.28		-1.25	M0.000		0.00	8.33	77.48	-69.15	0.000						
SXM	315.3	44	50	37.00	PD0	45.33	45.68		-0.35	D0.000		0.00	8.33	79.94	-71.62	0.000						
NCM	346.3	352	58	40.80	PD0	49.13	49.55		-0.42	D0.000		0.00	8.33	86.72	-78.39	0.000					593	6.0

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	N	SW	Z	NW	SE	E
AVE. OF END POINTS	0.02	0.03	0.03	0.04	0.04	0.05	0.08

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.21	-0.03	0.04	D

HORIZONTAL		VERTICAL	
SE = 92.92	SE = 99.00	SE = 99.00	QUALITY = D
AZ = -75.	AZ = 15.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	158 23.80	44N 2.73	113W21.69	10.00		2100	351	1	0.31	99.0	99.0	D	D	D30.39	10	36	-6.67	6.67	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 9.497 4 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B7	28.9	215	101	7.09	IP 4		43.29	5.33	0.28		37.68	0.000										70			
LSGS	30.7	293	100	26.62	P 0		2.82	5.61			-2.79	M0.000		0.00	-23.80	9.82	-33.62	0.000				70			
LCRI	31.0	269	100	27.22	P 0		3.42	5.66			-2.24	M0.000		0.00	-23.80	9.90	-33.71	0.000				70			
MBAI	39.8	284	97	25.40	P 0		1.60	7.07			-5.48	M0.000		27.50	3.70	12.38	-8.68	0.000				70			
M-1	40.3	274	96	26.70	P 0		2.90	7.15	0.30		-4.55	M0.000		0.00	-23.80	12.51	-36.84	0.000				70			
DSPI	42.3	297	96	24.62	P 0		0.82	7.47			-6.66	1.000		0.00	-23.80	13.08	-36.88	0.000				70			
M-2	42.9	288	96	25.00	PC0		1.20	7.56	0.17		-6.54	1.000		0.00	-23.80	13.24	-37.34	0.000				70			
BRPI	47.5	267	95	26.12	P 2		2.32	8.30			-5.99	M0.000		28.62	4.82	14.53	-9.72	0.000				70			
WSUI	50.1	293	95	23.20	P 0		-0.60	8.72			-9.33	M0.000		0.00	-23.80	15.27	-39.07	0.000				70			
B3	50.3	292	95	4.68	IP0		40.88	8.75			32.12	M0.000										70			
BPM	85.9	3	92	36.50	PC0		12.70	14.54			-1.84	M0.000		0.00	-23.80	25.44	-49.24	0.000				70			
KCI	142.6	107	65	54.60	P 0		30.80	23.04			7.76	M0.000		0.00	-23.80	40.32	-64.13	0.000				70			
CMI	148.7	69	65	53.90	PD0		30.10	23.94			6.16	M0.000		0.00	-23.80	41.89	-65.69	0.000				70			
LRM	210.1	20	50	54.70	P 0		30.90	32.58			-1.68	M0.000		0.00	-23.80	57.02	-80.82	0.000				70			
TID	215.7	254	50	49.90	PC0		26.10	33.27			-7.17	D0.000		0.00	-23.80	58.22	-82.03	0.000				70			
BUT	227.6	16	50	59.60	P 4		35.80	34.76			1.04	0.000		83.00	59.20	60.83	-1.63	0.000				70			
CPI	236.5	265	50	50.80	PD0		27.00	35.88			-8.88	M0.000		0.00	-23.80	62.79	-86.59	0.000				70			
WPI	285.8	253	50	58.50	PC0		34.70	42.04			-7.34	M0.000		0.00	-23.80	73.57	-97.37	0.000				70			
NCM	360.9	345	50	8.90	PD0		45.10	51.42			-6.33	D0.000		0.00	36.20	89.99	-53.79	0.000				70			

	HORIZONTAL		VERTICAL	
SE =	1.50	SE = 2.85	SE = 2.67	QUALITY = B
AZ =	-10.	AZ = -100.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	159 1.87	44N12.51	114W 3.52	15.04		17	16	273	1	0.17	2.8	2.7	D	C|D	0.30	10	31	0.00	0.14	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.203 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
83	9.4	84	146	4.62	IPD0	2.75	3.05		-0.31	1.164		0.00	-1.87	5.34	-7.22	0.000							
NSUI	10.7	71	142	5.30	P	3.43	3.18		0.25	1.164													
839	15.8	108	131	5.79	IPD0	3.92	3.74		0.18	1.164		8.54	6.67	6.54	0.12	0.815							
M-2	15.8	109	131	5.95	P	4.08	3.74	0.17	0.16	1.164													
DSPI	18.2	86	126	5.62	P	3.75	4.04		-0.29	1.164													
CMBI	19.1	140	125	5.65	P 2	3.78	4.15		-0.37	0.291													
MBAI	19.2	117	125	6.00	PD	4.13	4.18		-0.06	1.164													
837	20.0	143	123	6.24	IPC0	4.37	4.28		0.08	1.164		9.35	7.48	7.50	-0.02	0.815							
M-1	22.0	135	121	6.70	P 2	4.83	4.56	0.30	-0.03	0.291													
BRPI	22.6	158	120	6.48	PC	4.61	4.65		-0.05	1.164													
LSGS	28.2	102	114	7.37	PD	5.50	5.45		0.04	1.164													
LCRI	31.0	127	111	7.66	PD	5.79	5.89		-0.10	1.164													
310	46.8	138	103	10.40	IP 0	8.53	8.33		0.19	1.164		0.00	-1.87	14.58	-16.46	0.000							
846	47.3	138	103	10.30	IP 0	8.43	8.41		0.02	1.164		16.44	14.57	14.71	-0.14	0.815							
HPI	94.8	126	65	18.74	P 4	16.87	15.66		1.21	0.000		0.00	-1.87	27.41	-29.28	0.000							
JGI	111.2	97	65	21.32	P 4	19.45	18.08		1.37	0.000		0.00	-1.87	31.63	-33.51	0.000							
CIB	127.0	135	65	23.94	P 0	22.07	20.40		1.67	M0.000		0.00	-1.87	35.69	-37.56	0.000							
GBI	161.6	99	65	27.70	P 0	25.83	25.49		0.33	D0.000		0.00	-1.87	44.61	-46.49	0.000							
TMI	199.3	120	50	33.94	P 0	32.07	30.71		1.36	M0.000		0.00	-1.87	53.74	-55.62	0.000							
IMW	252.2	98	50	41.52	P 0	39.65	37.31		2.33	M0.000		0.00	-1.87	65.30	-67.17	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	SE	E	NE	N	Z
AVE. OF END POINTS	-0.01	0.03	0.05	0.05	0.06	0.07	0.09

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.17	-0.05	0.04	D

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
```

	HORIZONTAL		VERTICAL	
SE =	0.79	SE =	2.08	SE = 1.67 QUALITY = A
AZ =	-5.	AZ =	-95.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	254 39.79	44N12.63	114W 6.68	4.06	4.06	21	17	240	1	0.16	2.1	1.7	C	8|0	0.10	10	57	0.00	0.12	0	0.0	0.0	6	4.1	0.3

SE OF ORIG = 0.168 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)				(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK	+TCOR-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
83	13.6	87	104	42.44IPD	2.65	2.60			0.05	1.032									71			
WSUI	13.8	87	104	42.35 P 0	2.56	2.64			-0.08	1.052		0.00	-39.79	4.62	-44.41	0.000			71			
B44	17.1	29	101	42.93IP	3.14	3.22			-0.07	1.052		45.40	5.61	5.63	-0.02	0.736			71			
B39	19.9	105	99	43.59IP	3.80	3.71			0.09	1.052		46.36	6.57	6.49	0.08	0.736			71			
M-2	19.9	105	99	43.90 PD0	4.11	3.71	0.17		0.23	1.052		0.00	-39.79	6.50	-46.59	0.000			71			
BSPI	22.4	88	98	43.92 P 0	4.13	4.15			-0.02	1.052		0.00	-39.79	7.26	-47.05	0.000			71			
MBAI	23.1	113	98	44.00 PD0	4.21	4.28			-0.07	1.052		0.00	-39.79	7.50	-47.28	0.000			71			
BSU1	23.7	138	98	44.20 PD0	4.41	4.38			0.03	1.052		0.00	-39.79	7.67	-47.46	0.000			71			
BRPI	24.7	149	98	44.67 PD1	4.88	4.57			0.31	0.592		47.27	7.48	8.00	-0.52	0.000			71			
M-1	25.3	128	97	44.81 PD0	5.02	4.67	0.30		0.06	1.052		0.00	-39.79	8.17	-48.48	0.000			71			
LSGS	32.4	101	96	45.42 PC0	5.63	5.93			-0.30	1.052		0.00	-39.79	10.38	-50.16	0.000			71			
LCRI	34.6	123	95	45.92 PD0	6.13	6.33			-0.19	1.052		0.00	-39.79	11.07	-50.86	0.000			71			
B10	49.9	135	65	48.51IP	8.72	8.90			-0.18	1.052									71			
B6	50.6	123	65	48.70IP	8.91	9.02			-0.10	1.052									71			
B8	53.0	138	65	49.17IP	9.38	9.41			-0.03	1.052									71			
B7	60.3	134	65	50.52IP	10.73	10.60	0.28		-0.15	1.052									71			
BPM	93.2	44	65	55.90 PC0	16.11	15.94			0.17	1.052		0.00	-39.79	27.90	-67.69	0.000			71			
MPI	98.4	124	65	56.92 PC0	17.13	16.70			0.36	1.052		0.00	-39.79	29.36	-69.14	0.000			71	124	3.7	
JGI	115.4	97	65	59.31 PC0	19.52	19.54			-0.02	1.052		0.00	-39.79	34.20	-73.99	0.000			71	138	3.8	
CIB	130.2	134	55	2.07 PD0	22.28	21.72			0.57	M0.000		0.00	20.21	38.00	-17.79	0.000			71	150	4.0	
GBI	165.9	99	55	6.98 PC0	27.19	26.96			0.23	D0.000		0.00	20.21	47.19	-26.97	0.000			71	163	4.2	
TID	166.3	242	55	0.40 PC0	28.61	27.03			1.58	M0.000		0.00	20.21	47.31	-27.09	0.000			71			
CPI	179.7	258	55	9.70 PC0	29.91	28.99			0.92	M0.000		0.00	20.21	50.74	-30.53	0.000			71			
TMI	203.1	120	44	12.32 PD0	32.53	32.39			0.14	D0.000		0.00	20.21	56.69	-36.47	0.000			71	166	4.3	
LRM	221.9	36	44	13.50 PD0	33.71	34.73			-1.02	M0.000		0.00	20.21	60.78	-40.57	0.000			71			
SUT	234.5	31	44	15.00 P 0	35.21	36.31			-1.10	M0.000		0.00	20.21	63.55	-43.34	0.000			71			
IMW	256.4	98	44	20.07 P 0	40.28	39.05			1.23	M0.000		0.00	20.21	68.34	-48.12	0.000			71	150	4.4	
MSD	291.4	3	44	21.90 PD0	42.11	43.42			-1.31	M0.000		0.00	20.21	75.99	-55.78	0.000			71			
MLI	291.5	146	44	25.80 P 0	46.01	43.44			2.57	M0.000		0.00	20.21	76.02	-55.81	0.000			71			
SXM	313.8	47	44	25.70 P 0	45.91	46.23			-0.31	D0.000		0.00	20.21	80.90	-60.68	0.000			71			
NCM	332.0	354	44	27.70 P 0	47.91	48.50			-0.59	M0.000		0.00	20.21	84.87	-64.66	0.000			71			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	Z	E	SE	SW	NE
AVE. OF END POINTS	0.03	0.06	0.06	0.08	0.09	0.11	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.16	-0.05	0.08	D

```
-----------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/10/30     3/45                                                                                83/10/30     3/45

                                                  HORIZONTAL                                VERTICAL
                                            SE =   1.16            SE =   3.85            SE =   1.64   QUALITY = B
                                            AZ =    -1.            AZ =   -91.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030  345 19.01 44N14.02 114W 5.44    6.10    4.03 17 14 233 1 0.18  3.8  1.6 D C|D 0.51 10 57 0.00 0.14  0  0.0  0.0  6  4.0  0.2
SE OF ORIG =  0.204          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
83    12.0  98 115 21.02IP 4         2.01  2.47              -0.47 0.000                                                72
WSUI  12.3  90 115 21.75 PD2         2.74  2.51               0.23 0.280        0.00-19.01  4.39-23.40 0.000            72
NSUI  12.7  87 114 21.70 P 0         2.69  2.58               0.10 1.118        0.00-19.01  4.52-23.54 0.000            72
844   14.1  28 112 21.77IPC         2.76  2.81              -0.05 1.118       23.93  4.92  4.91  0.00 0.783            72
839   19.2 114 106 22.75IP          3.74  3.66               0.07 1.118       26.42  7.41  6.41  0.99M0.000            72
M-2   19.2 114 106 22.90 PC0         3.89  3.67  0.17         0.04 1.118        0.00-19.01  6.43-25.74 0.000            72
DSPI  20.0  95 105 22.02 P 0         3.81  3.94              -0.13 1.118        0.00-19.01  6.89-25.91 0.000            72
MBAI  22.0 121 103 23.20 PC0         4.19  4.29              -0.11 1.118        0.00-19.01  7.51-26.53 0.000            72
8SU1  24.7 145 102 23.70 PD0         4.69  4.62               0.07 1.118        0.00-19.01  8.08-27.09 0.000            72
M-1   25.7 135 102 24.12 PC0         5.11  4.80  0.30         0.00 1.118        0.00-19.01  8.40-27.94 0.000            72
8RPI  26.2 155 102 23.77 P 2         4.76  4.89              -0.13 0.280        0.00-19.01  0.55-27.57 0.000            72
LSGS  31.4 106  65 24.52 P 0         5.51  5.75              -0.24 1.118        0.00-19.01 10.06-29.07 0.000            72
LCRI  34.0 120  65 25.07 PC0         6.06  6.30              -0.24 1.118        0.00-19.01 11.02-30.03 0.000            72
810   50.6 130  65 20.40IP          9.47  8.87               0.60M0.000                                                72
06    50.7 126  65 27.61IP          0.60  8.88              -0.28 1.110                                                72
88    53.9 141  65 27.96IP 4        8.95  9.40              -0.46 0.000                                                72
87    61.0 137  65 29.92IP         10.91 10.56  0.28         0.07 1.118                                                72
MPI   90.5 126  65 36.00 PC0        17.07 16.64               0.42 1.118        0.00-19.01 29.13-48.14 0.000            72 135 3.8
JGI  114.1  90  55 30.42 PC0        19.41 19.15               0.26 1.118        0.00-19.01 33.51-52.52 0.000            72 139 3.9
CI8  130.0 135  55 41.34 PC0        22.33 21.60               0.73M0.000        0.00-19.01 37.80-56.81 0.000            72 135 3.9
GBI  164.6 100  55 46.12 P 0        27.11 26.58               0.53D0.000        0.00-19.01 46.51-65.52 0.000            72 143 4.1
TID  169.0 241  55 49.23 PC2        30.22 27.22               3.00M0.000       60.30 49.29 47.63  1.65 0.000            72
CPI  101.5 257  55 40.03 PC0        29.82 29.06               0.75M0.000       71.00 51.99 50.86  1.12 0.000            72
TMI  203.0 121  44 51.50 PD0        32.57 32.11               0.45D0.000        0.00-19.01 56.20-75.21 0.000            72 145 4.2
LRM  218.0  36  44 52.50 PD0        33.49 34.09              -0.61M0.000        0.00-19.01 59.66-78.60 0.000            72
BUT  231.5  31  44 54.10 P 0        35.09 35.67              -0.59M0.000       81.00 61.99 62.43 -0.44 0.000            72
WPI  238.4 244  44 55.53 PC2        36.52 36.54              -0.02D0.000       85.30 66.29 63.94  2.35 0.000            72
IMW  255.1  90  44 59.05 P 0        40.04 38.63               1.41M0.000        0.00-19.01 67.60-86.62 0.000            72 149 4.4
MSO  208.7   2  44  0.80 P 0        41.79 42.83              -1.05M0.000        0.00 40.99 74.96-33.97 0.000            72
MLI  292.7 147  44  5.16 P 0        46.15 43.33               2.81M0.000        0.00 40.99 75.83-34.05 0.000            72
SXM  310.9  47  44  4.20 PD0        45.19 45.60              -0.41D0.000        0.00 40.99 79.80-38.81 0.000            72

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     Z     N    NE     E    SW
AVE. OF END POINTS                  0.00  0.03  0.04  0.07  0.09  0.10  0.10

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 7      0.10     -0.07      0.07         D
```

	HORIZONTAL		VERTICAL	
SE =	1.44	SE = 4.29	SE = 3.24	QUALITY = B
AZ =	11.	AZ = -79.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	353 47.88	44N13.12	114W 3.83	7.46	3.11	13	17	244	1	0.16	4.3	3.2	D	CID	0.57	10	40	0.00	0.13	0	0.0	0.0	3	3.1	0.1

SE OF ORIG = 0.317 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	10.0	90	118	50.05	PC0	2.17	2.25		-0.08	1.000		0.00	-47.88	3.94	-51.82	0.000							
NSUI	10.8	78	114	50.50	P 0	2.62	2.38		0.24	1.000		0.00	-47.88	4.17	-52.05	0.000							
M-2	16.6	112	98	51.32	PD0	3.44	3.28	0.17	-0.01	1.000		0.00	-47.88	5.74	-53.92	0.000							
USPI	18.5	90	96	51.27	PC0	3.39	3.59		-0.20	1.000		0.00	-47.88	6.29	-54.17	0.000							
MBAI	20.1	120	94	51.55	PD0	3.67	3.84		-0.17	1.000		54.55	6.67	6.72	-0.06	0.000							
BSUI	22.1	147	93	51.90	PD0	4.02	4.16		-0.14	1.000		0.00	-47.88	7.28	-55.16	0.000							
M-1	23.1	136	93	52.54	PD0	4.66	4.33	0.30	0.03	1.000		0.00	-47.88	7.58	-55.99	0.000							
BRPI	23.9	158	93	52.37	P-0	4.49	4.46		0.03	1.000		55.07	7.19	7.80	-0.61	0.000							
LSGS	28.9	104	92	53.17	PC0	5.29	5.27		0.01	1.000		0.00	-47.88	9.23	-57.11	0.000							
LCRI	32.1	128	91	53.51	PD0	5.63	5.79		-0.16	1.000		0.00	-47.88	10.13	-58.01	0.000							
BPM	90.0	42	90	3.00	PC0	15.12	15.19		-0.08	1.000		0.00	12.12	26.59	-14.47	0.000							
HPI	95.8	126	90	4.34	P 0	16.46	16.13		0.32	1.000		17.53	29.65	28.23	1.42	0.000					55	3.0	
JGI	111.8	97	65	6.78	P 0	18.90	18.68		0.22	1.000		21.07	33.19	32.69	0.50	0.000					58	3.1	
CIB	128.1	135	65	9.57	P 0	21.69	21.08		0.61	M0.000		0.00	12.12	36.89	-24.77	0.000					63	3.2	
GBI	162.2	99	65	14.89	P 0	27.01	26.10		0.91	M0.000		0.00	12.12	45.68	-33.56	0.000							
TIO	170.1	242	65	16.23	PC0	28.35	27.26		1.09	M0.000		0.00	12.12	47.70	-35.59	0.000							
CPI	183.6	258	65	18.53	PC2	30.65	29.24		1.41	M0.000		0.00	12.12	51.17	-39.05	0.000							
TMI	200.3	120	50	19.81	P 0	31.93	31.61		0.32	D0.000		0.00	12.12	55.32	-43.20	0.000							
LRM	218.9	36	50	21.20	PC0	33.32	33.94		-0.62	M0.000		0.00	12.12	59.40	-47.28	0.000							
WPI	239.6	244	50	24.43	PC0	36.55	36.53		0.02	D0.000		0.00	12.12	63.92	-51.80	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	NW	E	NE	SW	N
AVE. OF END POINTS	0.02	0.04	0.06	0.10	0.10	0.12	0.13

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.16	0.01	0.09	D

	HORIZONTAL		VERTICAL		
SE =	0.77	SE =	1.78	SE =	1.04 QUALITY = A
AZ =	-3.	AZ =	-93.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	411 52.84	44N 8.46	113W57.33	6.19	3.11	14	9	190	1	0.13	1.8	1.0	C	BJD	0.65	10	38	0.00	0.11	0	0.0	0.0	3	3.1	0.1

SE OF ORIG = 0.118 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	7.2	70	130	54.90	P-0	2.06	1.74	0.17	0.15	1.120		0.00	-52.84	3.04	-56.18	0.000							
WSUI	8.6	9	124	55.10	PO2	2.26	1.95		0.31	0.280		0.00	-52.84	3.41	-56.25	0.000							
MBAI	8.9	99	123	54.95	P 0	2.11	1.99		0.12	1.120		56.90	4.06	3.48	0.58	0.000							
BSU1	10.5	162	119	55.10	P 0	2.26	2.22		0.04	1.120		0.00	-52.84	3.89	-56.73	0.000							
M-1	10.8	137	118	55.47	PO0	2.63	2.27	0.30	0.05	1.120		0.00	-52.84	3.98	-57.35	0.000							
NSUI	11.1	10	118	55.00	PO0	2.16	2.31		-0.15	1.120		0.00	-52.84	4.05	-56.89	0.000							
OSPI	13.1	49	114	55.42	P 0	2.58	2.66		-0.08	1.120		0.00	-52.84	4.65	-57.49	0.000							
BRPI	13.5	179	113	55.37	P+2	2.53	2.71		-0.19	0.280		0.00	-52.84	4.75	-57.59	0.000							
LSGS	19.4	85	106	56.52	PC0	3.68	3.71		-0.04	1.120		0.00	-52.84	6.50	-59.34	0.000							
LCRI	20.0	124	106	56.41	PC0	3.57	3.81		-0.24	1.120		0.00	-52.84	6.66	-59.50	0.000							
MP1	83.8	125	65	7.23	P 0	14.39	14.25		0.14	1.120		0.00	7.16	24.94	-17.78	0.000					55	2.9	
BPM	91.4	35	65	8.40	P 0	15.56	15.48		0.08	1.120		0.00	7.16	27.09	-19.93	0.000							
JGI	102.5	93	65	10.02	P 0	17.18	17.29		-0.11	1.120		0.00	7.16	30.26	-23.10	0.000					61	3.1	
CIB	115.8	135	55	12.24	P 0	19.40	19.39		0.01	1.120		28.49	35.65	33.93	1.72	0.000					72	3.3	
GBI	152.5	96	55	18.12	P 0	25.28	24.78		0.50	C0.000		0.00	7.16	43.36	-36.21	0.000							
TIO	174.4	246	55	21.13	PC0	28.29	28.00		0.29	D0.000		0.00	7.16	49.00	-41.84	0.000							
TMI	188.7	119	55	22.69	P 0	29.85	30.10		-0.25	C0.000		0.00	7.16	52.68	-45.52	0.000							
CPI	190.5	261	55	22.93	PO0	30.09	30.37		-0.28	D0.000		0.00	7.16	53.15	-45.99	0.000							
LRM	221.3	32	44	26.30	PC0	33.46	34.39		-0.93	M0.000		0.00	7.16	60.19	-53.03	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	SW	E	NW	N	NE
AVE. OF END POINTS	0.11	0.11	0.14	0.15	0.15	0.18	0.22

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.13	0.04	0.15	D

	HORIZONTAL		VERTICAL	
SE =	1.28	SE =	3.70	SE = 1.55 QUALITY = B
AZ =	12.	AZ =	-78.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	540 15.22	44N13.47	114W 4.54	6.06	3.39	12	18	247	1	0.14	3.7	1.6	D	C|D	0.33	10	36	0.00	0.11	0	0.0	0.0	3	3.4	0.1

SE OF ORIG = 0.287 8 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR-D=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSU1	10.9	94	118	17.35	P-1		2.13	2.28			-0.15	0.624		0.00	-15.22	3.99	-19.21	0.000							
NSU1	11.6	82	116	17.70	P 0		2.48	2.40			0.07	1.110		0.00	-15.22	4.20	-19.43	0.000							
M-2	17.7	113	107	19.00	P 0		3.78	3.41	0.17		0.19	1.110		0.00	-15.22	5.97	-21.49	0.000							
OSPI	19.5	92	106	18.84	P 0		3.62	3.72			-0.10	1.110		0.00	-15.22	6.51	-21.73	0.000							
YBAI	21.3	120	104	19.20	P+0		3.98	4.02			-0.05	1.110		0.00	-15.22	7.04	-22.26	0.000							
3SU1	23.2	146	103	19.40	P 0		4.18	4.35			-0.18	1.110		0.00	-15.22	7.61	-22.84	0.000							
M-1	24.2	135	103	20.52	P 2		5.30	4.53	0.30		0.47	0.277		0.00	-15.22	7.93	-23.68	0.000							
BRPI	24.8	157	102	19.93	P+0		4.71	4.64			0.07	1.110		22.23	7.01	8.12	-1.11	0.000							
LSGS	30.0	105	65	20.62	PC0		5.40	5.52			-0.12	1.110		0.00	-15.22	9.66	-24.88	0.000							
LCRI	33.2	128	65	21.21	P 0		5.99	6.04			-0.06	1.110		0.00	-15.22	10.58	-25.80	0.000							
BPM	90.2	43	65	30.50	PC0		15.28	15.29			-0.02	1.110		0.00	-15.22	26.76	-41.99	0.000							
MPI	96.9	126	65	32.40	P 0		17.18	16.39			0.78	M0.000		0.00	-15.22	28.69	-43.91	0.000					74	3.3	
JGI	112.8	97	55	34.34	P 0		19.12	18.95			0.16	1.110		0.00	-15.22	33.17	-48.40	0.000					76	3.3	
CIB	129.2	135	55	37.17	P 0		21.95	21.37			0.57	M0.000		53.91	38.69	37.40	1.29	0.000					97	3.6	
GBI	163.3	99	55	42.32	P 0		27.10	26.38			0.71	M0.000		61.61	46.39	46.17	0.22	0.000							
TMI	201.4	120	44	47.36	P 0		32.14	31.92			0.21	D0.000		0.00	-15.22	55.87	-71.09	0.000							
LRM	218.9	36	44	48.50	PD0		33.28	34.11			-0.84	M0.000		0.00	-15.22	59.70	-74.92	0.000							
IMW	253.8	98	44	54.80	P 2		39.58	38.47			1.11	M0.000		0.00	-15.22	67.32	-82.54	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NW	NE	E	SE	SW	N
AVE. OF END POINTS	0.08	0.09	0.09	0.09	0.10	0.11	0.18

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.14	0.00	0.11	D

HORIZONTAL		VERTICAL	
SE = 1.89	SE = 4.56	SE = 13.99	QUALITY = D
AZ = 11.	AZ = -79.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831038	610 34.82	44N14.86	114W 5.03	0.17*	3.61	12	20	247	1	0.17	4.6	14.0	D	C|D	0.85	10	34	0.00	0.15	0	0.0	0.0	3	3.6	0.2

SE OF ORIG = 1.092 8 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	12.0	106	58	37.30	P72	2.48	2.36		0.12	0.308		0.00	-34.82	4.13	-38.94	0.000							
M-2	19.4	119	58	38.90	PDO	4.08	3.68	0.17	0.23	1.231		0.80	-34.82	6.44	-41.55	0.000							
DSPI	20.4	99	58	38.44	P 0	3.62	3.85		-0.23	1.231		0.00	-34.82	6.74	-41.56	0.000							
MBAI	23.2	125	58	39.15	P 0	4.33	4.35		-0.02	1.231		0.08	-34.82	7.61	-42.43	0.000							
3SU1	25.7	148	58	39.50	P+0	4.68	4.80		-0.12	1.231		0.00	-34.82	8.40	-43.21	0.000							
M-1	26.5	138	58	40.32	P 2	5.50	4.94	0.30	0.26	0.308		0.00	-34.82	8.65	-44.00	0.000							
BRPI	27.4	157	58	39.83	P+2	5.01	5.11		-0.10	0.308		42.28	7.46	8.95	-1.49	0.000							
LSGS	31.3	109	58	40.72	P 0	5.90	5.81		0.09	1.231		0.00	-34.82	10.17	-44.99	0.000							
LCRI	35.3	130	58	41.11	P 0	6.29	6.52		-0.23	1.231		0.00	-34.82	11.42	-46.23	0.000							
BPM	88.8	45	50	50.40	P 0	15.58	15.56		0.03	1.231		0.00	-34.82	27.22	-62.04	0.000							
MPI	99.8	127	50	52.31	P 0	17.49	17.22		0.27	1.231		0.00	-34.82	30.13	-64.95	0.000					98	3.5	
JGI	113.8	99	50	54.34	P 0	19.52	19.62		-0.10	1.231		0.00	-34.82	34.33	-69.15	0.000					99	3.5	
CIB	131.5	136	44	57.44	P 0	22.62	22.35		0.27	D0.000		74.24	39.42	39.11	0.31	0.000							
GBI	164.4	100	44	2.12	P 0	27.30	27.18		0.12	D0.000		0.00	25.18	47.57	-22.38	0.000							
TMI	203.3	121	44	7.41	P 0	32.59	32.91		-0.32	D0.000		8.00	25.18	57.59	-32.41	0.000					100	3.8	
LRM	217.2	36	36	6.50	P 0	31.68	34.69		-3.01	M0.000		0.00	25.18	60.70	-35.52	0.000							
IMW	254.8	99	36	14.97	P 0	40.15	39.38		0.77	M0.000		0.00	25.18	68.92	-43.74	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	N	NW	SW	E	NE
AVE. OF END POINTS	-0.02	0.00	0.02	0.03	0.04	0.07	0.08

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.17	-0.06	0.03	D

	HORIZONTAL		VERTICAL	
SE =	1.91	SE =	5.40	SE = 2.65 QUALITY = C
AZ =	11.	AZ =	-79.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	O3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	625 58.45	44N14.87	114W	4.63 5.08	3.40	13	19	246	1	0.19	5.4	2.6	D	DID	0.24	10	36	0.00	0.17	0	0.0	0.0	3	3.4	0.1

SE OF ORIG = 0.434 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	11.5	107	112	1.10	PD0	2.65	2.31		0.34	1.130		0.00	1.55	4.05	-2.50	0.000							
NSUI	11.7	95	111	0.70	P 2	2.25	2.34		-0.08	0.283		0.00	1.55	4.09	-2.54	0.000							
M-2	19.0	120	103	2.30	PD0	3.85	3.58	0.17	0.10	1.130		0.00	1.55	6.26	-5.01	0.000							
OSPI	19.9	99	103	1.94	P 0	3.49	3.74		-0.24	1.130		0.00	1.55	6.54	-4.99	0.000							
MBAI	22.8	125	101	2.50	P+0	4.05	4.24		-0.19	1.130		0.00	1.55	7.42	-5.86	0.000							
BSUI	25.4	149	100	3.00	P-0	4.55	4.72		-0.17	1.130		0.00	1.55	8.26	-6.70	0.000							
M-1	26.2	139	99	3.72	P 0	5.27	4.85	0.30	0.12	1.130		0.00	1.55	8.49	-7.46	0.000							
BRPI	27.2	158	99	3.73	P+2	5.28	5.04		0.24	0.283		0.00	1.55	8.83	-7.27	0.000							
LSGS	30.8	110	98	4.02	P 0	5.57	5.68		-0.11	1.130		0.00	1.55	9.94	-8.38	0.000							
LCRI	34.9	131	65	4.61	P 0	6.16	6.40		-0.24	1.130		0.00	1.55	11.20	-9.65	0.000							
BPM	88.4	44	65	13.50	PC0	15.05	15.08		-0.02	1.130		0.00	1.55	26.38	-24.83	0.000							
MPI	98.6	127	65	15.45	P 0	17.00	16.73		0.27	1.130		27.59	29.14	29.28	-0.14	0.000					72	3.2	
JGI	113.3	99	65	17.65	P 0	19.20	19.12		0.09	1.130		0.00	1.55	33.45	-31.90	0.000					85	3.4	
CIB	131.1	136	55	20.54	P 0	22.09	21.75		0.34	D0.000		36.78	38.33	38.07	0.26	0.000					92	3.6	
GBI	163.8	100	55	25.38	P 8	26.93	26.56		0.37	D0.000		45.29	46.84	46.48	0.36	0.000							
TMI	202.9	121	44	30.77	P 0	32.32	32.23		0.10	D0.000		0.00	1.55	56.40	-54.84	0.000							
LRM	216.9	36	44	31.50	P 0	33.05	33.98		-0.93	M0.000		0.00	1.55	59.47	-57.92	0.000							
IMW	254.3	99	44	35.54	P 2	37.09	38.65		-1.56	M0.000		0.00	1.55	67.65	-66.09	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NW	E	SE	NE	N	SW
AVE. OF END POINTS	-0.01	0.02	0.04	0.05	0.06	0.06	0.08

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.19	-0.04	0.05	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/10/30     7/13                                                                                                  83/10/30     7/13

                                                  HORIZONTAL                                  VERTICAL
                                              SE =  16.08              SE =  24.24             SE =  28.11   QUALITY = D
                                              AZ =  -108.              AZ =   -18.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030  713 58.88 44N12.74 114W 0.97  17.65         5 48 218 1 0.26 24.2 28.1 D 0|0 0.81 10 12 0.00 0.24  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.847          9 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.6 120 161  1.80EP 4        2.12  3.16              -1.04 0.000                                                  78
83     6.0  84 168  0.73IP          1.85  3.18              -1.33M0.000                                                  78
839   12.8 115 142  4.65EP          5.77  3.72               2.05M0.000       7.48  8.60  6.50  2.09M0.000              78
844   14.8   3 138  3.10EP          4.22  3.93               0.29 1.064       5.50  6.62  6.87 -0.26 0.745              78
86    44.5 128  65  7.07EP          8.19  8.08               0.11 1.064                                                  78
810   44.9 142  65  7.78EP          8.90  8.15               0.75M0.000                                                  78
846   45.4 141  65  0.00EP 4        1.12  8.22              -7.10 0.000      16.53 17.65 14.38  3.27 0.000              78
88    48.4 145  65  7.72EP          8.84  8.66               0.18 1.064                                                  78
87    55.3 140  65  8.44EP          9.56  9.67  0.28        -0.39 1.064                                                  78

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE    SE    SW     Z     N     E    NW
AVE. OF END POINTS                  -0.01  0.02  0.05  0.06  0.06  0.11  0.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.26     -0.04      0.06         D
```

	HORIZONTAL		VERTICAL		
SE =	1.10	SE =	2.75	SE =	2.33 QUALITY = B
AZ =	-6.	AZ =	-96.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	8 5 23.91	44N14.06	114W 2.01	7.72	3.24	21	8	237	1	0.20	2.8	2.3	D	CID	0.05	10	46	0.00	0.18	0	0.0	0.0	4	3.2	0.1

SE OF ORIG = 0.185 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
83	7.6	104	129	26.03IP		2.12	1.95		0.17	1.137										79			
WSUI	7.8	103	128	25.60 PD1		1.69	1.98		-0.29	0.640		0.00	-23.91	3.46	-27.37	0.000				79			
816	8.2	130	127	26.11IP		2.20	2.03		0.18	1.137										79			
844	12.5	10	111	0.00IP 4		-23.91	2.65		-26.56	0.000		28.49	4.58	4.64	-0.06	0.796				79			
839	15.1	121	104	27.06IP		3.15	3.06		0.10	1.137		29.45	5.54	5.35	0.19	0.796				79			
M-2	15.2	121	104	27.10 PC0		3.19	3.07	0.17	-0.04	1.137		0.00	-23.91	5.37	-29.57	0.000				79			
JSPI	16.2	96	102	26.94 P 0		3.03	3.22		-0.19	1.137		0.00	-23.91	5.64	-29.55	0.000				79			
WBAI	19.1	128	97	27.46 PC0		3.55	3.68		-0.13	1.137		30.26	6.35	6.45	-0.09	0.000				79			
BSU1	22.4	155	95	28.00 P 0		4.09	4.23		-0.14	1.137		0.00	-23.91	7.40	-31.31	0.000				79			
M-1	22.8	143	95	28.70 P 2		4.79	4.29	0.30	0.21	0.284		0.00	-23.91	7.50	-31.93	0.000				79			
BRPI	24.7	165	94	28.56 PC2		4.65	4.60		0.06	0.284		32.08	8.17	8.04	0.13	0.000				79			
LSGS	27.0	109	93	28.52 P 0		4.61	4.97		-0.36	1.137		0.00	-23.91	8.70	-32.61	0.000				79			
LCRI	31.3	133	92	29.31 P 0		5.40	5.66		-0.26	1.137		0.00	-23.91	9.91	-33.82	0.000				79			
86	47.1	129	91	31.93IP		8.02	8.21		-0.19	1.137										79			
810	47.7	142	91	32.58IP		8.67	8.33		0.34	1.137										79			
88	51.2	145	91	32.63IP		8.72	8.90		-0.18	1.137										79			
87	58.0	140	91	34.26IP		10.35	10.00	0.28	0.07	1.137										79	74	3.1	
BPM	87.1	42	91	38.80 PC0		14.89	14.72		0.17	1.137		0.00	-23.91	25.77	-49.67	0.000				79			
MPI	94.9	128	91	40.22 P 0		16.31	15.99		0.33	1.137		0.00	-23.91	27.98	-51.89	0.000				79	70	3.2	
JGI	109.6	98	65	42.39 P 0		18.48	18.34		0.14	1.137		0.00	-23.91	32.09	-56.00	0.000				79	66	3.2	
CIB	127.6	136	65	45.23 P 0		21.32	20.99		0.33	D0.000		61.45	37.54	36.74	0.81	0.000				79	80	3.4	
GBI	160.1	100	65	50.06 P 0		26.15	25.77		0.38	C0.000		69.27	45.36	45.10	0.26	0.000				79			
TMI	199.1	121	50	55.42 P 0		31.51	31.43		0.08	D0.000		0.00	-23.91	55.01	-78.91	0.000				79			
LRM	216.1	35	50	54.60 P 0		30.69	33.57		-2.87	M0.000		0.00	-23.91	58.74	-82.65	0.000				79			
IMW	250.6	99	50	2.54 P 0		38.63	37.87		0.76	M0.000		0.00	36.09	66.28	-30.19	0.000				79			
WSD	288.5	1	50	6.00 P 0		42.09	42.61		-0.52	M0.000		0.00	36.09	74.58	-38.48	0.000				79			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	NW	N	E	Z	SW	SE
AVE. OF END POINTS	-0.01	0.00	0.02	0.03	0.04	0.04	0.05

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.20	-0.03	0.02	D

	HORIZONTAL		VERTICAL		
SE =	1.18	SE =	2.73	SE =	1.78 QUALITY = 8
AZ =	-1.	AZ =	-91.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SOFM
831030	824 41.02	44N 8.08	113W58.27	6.13	3.42	14	10	202	1	0.20	2.7	1.8	D	C10	0.06	10	38	0.00	0.16	0	0.0	0.0	5	3.4	0.2

SE OF ORIG = 0.182 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	8.6	69	124	43.40	PC0	2.38	1.93	0.17	0.28	1.000		0.00	-41.02	3.38	-44.70	0.000							
WSUI	9.6	16	121	42.90	P00	1.88	2.08		-0.20	1.000		0.00	-41.02	3.64	-44.66	0.000							
MBAI	10.1	94	120	43.25	PC0	2.23	2.16		0.07	1.000		46.25	5.23	3.78	1.45	0.000							
BSUI	10.3	154	119	43.20	PC0	2.18	2.19		-0.01	1.000		0.00	-41.02	3.83	-44.85	0.000							
M-1	11.3	130	117	43.83	PC0	2.81	2.35	0.30	0.16	1.000		0.00	-41.02	4.11	-45.65	0.000							
NSUI	12.0	15	115	43.20	P 0	2.18	2.47		-0.29	1.000		0.00	-41.02	4.33	-45.35	0.000							
BRPI	12.9	173	114	43.79	P+0	2.77	2.61		0.16	1.000		0.00	-41.02	4.57	-45.59	0.000							
OSPI	14.5	50	111	43.99	P 0	2.97	2.88		0.09	1.000		0.00	-41.02	5.05	-46.07	0.000							
LCRI	20.7	120	105	44.61	P 0	3.59	3.92		-0.33	1.000		0.00	-41.02	6.86	-47.88	0.000							
LSGS	20.7	84	105	44.92	PC0	3.90	3.94		-0.04	1.000		0.00	-41.02	6.89	-47.91	0.000							
MPI	84.4	124	65	55.27	P 0	14.25	14.36		-0.11	1.000		0.00	-41.02	25.13	-66.15	0.000					67	3.1	
BPM	92.7	35	65	57.10	P 0	16.08	15.69		0.39	1.000		0.00	-41.02	27.46	-68.48	0.000							
JGI	103.7	93	65	58.36	P 0	17.34	17.49		-0.15	1.000		0.00	-41.02	30.61	-71.63	0.000					72	3.3	
CIB	116.2	135	55	0.44	PD0	19.42	19.45		-0.03	1.000		13.73	32.71	34.04	-1.33	0.000					77	3.4	
GBI	153.6	96	55	5.95	P 0	24.93	24.96		-0.03	C0.000		0.00	18.98	43.68	-24.69	0.000					88	3.6	
TMI	189.4	119	55	10.80	P 0	29.78	30.22		-0.44	C0.000		0.00	18.98	52.88	-33.90	0.000					95	3.8	
LRM	222.6	33	44	15.00	P 0	33.98	34.56		-0.57	M0.000		0.00	18.98	60.47	-41.49	0.000							
IMW	244.6	96	44	16.91	P 2	35.89	37.31		-1.42	M0.000		0.00	18.98	65.30	-46.32	0.000							
MLI	278.2	147	44	23.94	P 0	42.92	41.51		1.41	M0.000		0.00	18.98	72.65	-53.67	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	E	SW	SE	NE	NW	N
AVE. OF END POINTS	0.01	0.04	0.04	0.05	0.06	0.08	0.08

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY

HORIZONTAL		VERTICAL	
SE = 1.52	SE = 4.04	SE = 2.63	QUALITY = B
AZ = 13.	AZ = -77.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	933 10.76	44N15.37	114W	3.72	3.37	3.28	11	18	251	1	0.13	4.0	2.6	D	C1D	0.06	10	32	0.00	0.11	0	0.0	0.0	4	3.3	0.2

SE OF ORIG = 0.333 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NSUI	10.6	100	105	12.95	P 0	2.19	2.05		0.14	1.000		0.00-10.76		3.59-14.35		0.000							
WSUI	10.7	113	104	13.00	PC0	2.24	2.07		0.16	1.000		0.00-10.76		3.62-14.39		0.000							
M-2	18.4	124	98	14.50	PC0	3.74	3.43	0.17	0.13	1.000		0.00-10.76		6.01-17.07		0.000							
DSPI	18.9	103	98	14.14	P 0	3.38	3.51		-0.14	1.000		0.00-10.76		6.15-16.91		0.000							
MBAI	22.3	129	97	14.75	P+0	3.99	4.13		-0.15	1.000		0.00-10.76		7.23-17.99		0.000							
BSU1	25.6	153	96	15.40	P 0	4.64	4.71		-0.08	1.000		0.00-10.76		8.25-19.01		0.000							
M-1	26.1	143	96	15.93	PC0	5.17	4.80	0.30	0.07	1.000		0.00-10.76		8.40-19.69		0.000							
LSGS	30.0	112	95	16.02	P 0	5.26	5.50		-0.24	1.000		0.00-10.76		9.62-20.38		0.000							
BPM	86.9	44	65	25.70	PC0	14.94	14.96		-0.02	1.000		0.00-10.76		26.18-36.94		0.000							
HPI	98.2	128	65	27.65	PC0	16.89	16.80		0.09	1.000		40.57	29.81	29.39	0.41	0.000					62	3.1	
JGI	112.2	99	65	29.87	PC0	19.11	19.07		0.03	1.000		0.00-10.76		33.38-44.14		0.000					65	3.2	
CIB	131.0	137	55	32.92	P 0	22.16	21.90		0.25	C0.000		50.13	39.37	38.33	1.04	0.000					75	3.4	
GBI	162.8	101	55	37.53	P 0	26.77	26.58		0.18	D0.000		57.05	46.29	46.52	-0.24	0.000					77	3.5	
TMI	202.3	121	44	43.13	P 0	32.37	32.37		-0.01	D0.000		67.11	56.35	56.66	-0.31	0.000							
LRM	215.5	36	44	43.90	P 0	33.14	34.02		-0.88	M0.000		0.00-10.76		59.54-70.30		0.000							
IMW	253.2	99	44	50.43	P 0	39.67	38.74		0.92	M0.000		0.00-10.76		67.80-78.56		0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	NW	NE	E	N	SW
AVE. OF END POINTS	0.05	0.07	0.07	0.10	0.12	0.13	0.13

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.13	0.02	0.10	D

HORIZONTAL		VERTICAL	
SE = 1.69	SE = 5.35	SE = 1.59	QUALITY = C
AZ = 10.	AZ = -80.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	941 33.35	44N12.30	114W 3.77	6.82	3.75	19	10	245	1	0.23	5.3	1.6	D	DJU	0.38	10	53	0.00	0.19	0	0.0	0.0	4	3.7	0.1

SE OF ORIG = 0.396 9 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR	O=TTOB	TTCAL	DELAY	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
814	8.7	135	127	35.48	IP		2.13	2.02			0.11	1.000										82			
816	8.8	103	126	35.62	IP		2.27	2.04			0.23	1.000										82			
83	9.8	82	124	35.45	IP		2.10	2.18			-0.08	1.000										82			
WSUI	10.0	82	123	35.40	PD0		2.05	2.21			-8.16	1.000		0.00	-33.35	3.87	-37.22	0.000				82			
NSUI	11.2	70	120	35.70	P 0		2.35	2.38			-0.03	1.000		0.00	-33.35	4.17	-37.52	0.000				82			
M-2	16.0	107	112	37.00	P-0		3.65	3.17	0.17		0.31	1.000		0.00	-33.35	5.55	-39.20	0.000				82			
DSPI	18.5	85	109	36.84	P 0		3.49	3.60			-0.11	1.000		0.00	-33.35	6.29	-39.64	0.008				82			
MBAI	19.3	116	108	37.10	P-0		3.75	3.73			0.02	1.000		39.70	6.35	6.53	-0.18	0.000				82			
BSU1	20.8	145	65	37.50	PD0		4.15	3.97			0.18	1.000		0.00	-33.35	6.95	-40.30	0.000				82			
M-1	21.9	133	65	37.93	PD0		4.58	4.16	0.30		0.12	1.000		0.00	-33.35	7.28	-41.15	0.000				82			
BRPI	22.4	157	65	37.85	PD0		4.50	4.24			0.26	1.000		0.00	-33.35	7.41	-40.76	0.000				82			
LSGS	28.5	101	65	38.52	PC0		5.17	5.22			-0.05	1.000		0.00	-33.35	9.13	-42.48	0.000				82			
LCRI	31.1	126	65	39.21	P 0		5.86	5.64			0.22	1.000		0.00	-33.35	9.87	-43.22	0.000				82			
810	46.7	137	65	41.21	IP		7.86	8.19			-0.33	1.000										82			
86	47.0	124	65	41.20	EP		7.85	8.23			-0.38	1.000										82			
88	50.0	141	65	41.70	IP		8.35	8.72			-0.37	1.000										82			
87	57.2	136	65	43.21	IP		9.86	9.88	0.28		-0.30	1.000										82			
BPM	91.1	42	65	48.70	PC0		15.35	15.38			-0.03	1.000		0.00	-33.35	26.92	-60.27	8.000				82			
HPI	94.8	125	65	50.14	P 0		16.79	15.99			0.80	M0.000		0.00	-33.35	27.99	-61.34	0.000				82	102	3.5	
JGI	111.7	96	55	52.44	PC0		19.09	18.72			0.37	1.000		0.00	-33.35	32.75	-66.10	0.000				82	120	3.7	
CIB	126.9	135	55	55.07	PD0		21.72	20.96			0.76	M0.000		71.52	38.17	36.68	1.49	0.000				82	126	3.8	
GBI	161.9	99	55	0.06	PD0		26.71	26.10			0.61	M0.000		0.00	26.65	45.68	-19.03	0.008				82	121	3.9	
TMI	199.4	120	44	5.28	PD0		31.93	31.58			0.35	D0.000		29.85	56.50	55.26	1.24	8.008				82			
LRM	220.1	35	44	6.60	PD0		33.25	34.16			-0.91	M0.000		0.00	26.65	59.78	-33.13	0.000				82			
BUT	233.1	30	44	0.20	P 0		34.85	35.78			-0.93	M0.000		34.90	61.55	62.62	-1.07	0.000				82			
IMW	252.5	98	44	12.74	P 0		39.39	38.20			1.19	M0.000		0.00	26.65	66.86	-40.21	0.000				82			
MLI	288.8	147	44	18.75	P 3		45.40	42.75			2.65	M0.000		0.00	26.65	74.82	-48.16	0.000				82			
MSO	291.8	2	44	15.00	PD0		41.65	43.13			-1.48	M0.000		0.00	26.65	75.47	-48.82	0.000				82			
SXM	311.5	46	44	18.60	P 0		45.25	45.58			-0.33	C0.000		0.00	26.65	79.77	-53.12	0.000				82			
NCM	333.0	353	44	20.70	PC0		47.35	48.27			-0.92	M0.000		0.00	26.65	84.48	-57.83	0.000				82			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	E	NW	NE	N	SW
AVE. OF END POINTS	-0.06	-0.05	-0.02	0.02	0.03	0.03	0.05

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.23	-0.07	0.00	0

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/30    10/ 3                                                                                                  83/10/30    10/ 3

                                                  HORIZONTAL                                  VERTICAL
                                          SE =   0.97              SE =   4.69              SE =   3.27   QUALITY = B
                                          AZ =  -118.              AZ =   -28.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 10 3  9.32 43N57.35 113W42.51  12.43         7 21 291 1 0.07  4.7  3.3 D D|D 5.60 10 16 0.00 0.03  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.460        10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
LCRI  10.0 342 138 12.11 PC0        2.79  2.78              0.01 1.120       0.00 -9.32  4.86-14.19 0.000
M-1   17.7 315 120 13.38 PC0        4.06  3.75  0.30        0.01 1.120       0.00 -9.32  6.56-16.41 0.000
BSU1  19.6 303 117 14.50 P-0        5.18  4.02              1.15M0.000       0.00 -9.32  7.04-16.36 0.000
BRPI  20.8 290 116 13.19 P+2        3.87  4.18             -0.32 0.280       0.00 -9.32  7.32-16.65 0.000
LSGS  22.1 359 114 13.72 PC0        4.40  4.37              0.02 1.120       0.00 -9.32  7.66-16.98 0.000
MBAI  22.2 330 114 13.70 PC0        4.38  4.38             -0.01 1.120       0.00 -9.32  7.67-16.99 0.000
M-2   26.4 330 109 14.60 PC0        5.28  5.04  0.17        0.06 1.120       0.00 -9.32  8.82-18.44 0.000
WSUI  34.5 328 104 15.60 PD0        6.28  6.29             -0.01 1.120       0.00 -9.32 11.00-20.32 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     N    SE     Z    NW    SW    NE
AVE. OF END POINTS                 0.06  0.07  0.09  0.14  0.16  0.20  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  7      0.07      0.04      0.14         D
```

HORIZONTAL		VERTICAL		
SE =	0.67	SE =	1.64	SE = 0.88 QUALITY = A
AZ =	4.	AZ =	-86.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1038	4.94 44N	8.17 113W	57.36	6.96	3.46	13	10	191	1	0.10	1.6	0.9	C	8|0	0.93	10	40	0.00	0.08	0	0.0	0.0	4	3.5	0.1

SE OF ORIG = 0.103 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	7.4	66	132	7.08	PC0	2.06	1.86	0.17	0.03	1.000		0.00	-4.94	3.26	-8.56	0.000							
MBAI	8.9	95	127	7.05	P 0	2.11	2.07		0.04	1.000		0.00	-4.94	3.62	-8.56	0.000							
WSUI	9.2	9	126	6.30	P-0	1.36	2.11		-0.75	M0.000		0.00	-4.94	3.69	-8.63	0.000							
BSUI	10.0	161	124	7.01	PD0	2.07	2.22		-0.15	1.000		0.00	-4.94	3.89	-8.83	0.000							
M-1	10.5	135	122	7.63	PD0	2.69	2.30	0.30	0.09	1.000		0.00	-4.94	4.02	-9.48	0.000							
NSUI	11.6	10	120	7.40	P 0	2.46	2.47		-0.01	1.000		0.00	-4.94	4.32	-9.26	0.000							
BRPI	12.9	179	117	7.69	PD0	2.75	2.69		0.06	1.000		6.99	2.05	4.70	-2.65	0.000							
DSPI	13.5	47	116	7.64	PC0	2.70	2.78		-0.08	1.000		0.00	-4.94	4.86	-9.80	0.000							
LSGS	19.5	84	65	8.62	PC0	3.68	3.76		-0.08	1.000		0.00	-4.94	6.57	-11.51	0.000							
LCRI	19.7	122	65	8.51	PD0	3.57	3.79		-0.22	1.000		0.00	-4.94	6.63	-11.57	0.000							
HPI	83.5	124	65	19.28	P 0	14.34	14.15		0.19	1.000		0.00	-4.94	24.76	-29.70	0.000					82	3.3	
BPM	91.8	35	65	20.50	PC0	15.56	15.50		0.06	1.000		0.00	-4.94	27.12	-32.06	0.000							
JGI	102.5	93	65	22.21	P 0	17.27	17.23		0.04	1.000		32.44	27.50	30.16	-2.66	0.000					85	3.4	
CIB	115.5	135	55	24.21	P 0	19.27	19.26		0.01	1.000		37.28	32.34	33.70	-1.36	0.000					88	3.5	
GBI	152.5	96	55	29.63	P 0	24.69	24.70		-0.01	D0.000		0.00	-4.94	43.22	-48.16	0.000					95	3.7	
TMI	188.4	119	55	34.53	PD0	29.59	29.99		-0.40	D0.000		0.00	-4.94	52.48	-57.42	0.000							
LRM	221.8	32	44	38.50	PD0	33.56	34.35		-0.79	M0.000		0.00	-4.94	60.12	-65.06	0.000							
IMW	243.4	96	44	42.16	P 0	37.22	37.06		0.16	D0.000		0.00	-4.94	64.85	-69.79	0.000							
MSO	299.3	0	44	47.70	P 0	42.76	44.04		-1.28	M0.000		0.00	-4.94	77.07	-82.01	0.000							
NCM	341.7	352	44	53.50	P 0	48.56	49.34		-0.78	M0.000		0.00	-4.94	86.34	-91.28	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	SE	N	E	NW	SW
AVE. OF END POINTS	0.12	0.15	0.15	0.16	0.18	0.19	0.23

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.10	0.07	0.16	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/10/30 12/25 83/10/30 12/25

	HORIZONTAL		VERTICAL	
SE =	0.75	SE =	1.35	SE = 1.59 QUALITY = A
AZ =	-11.	AZ =	-101.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1225 52.67	44N 6.85	113W55.62	8.81	3.55	22	7	119	I	0.18	1.4	1.6	B	8|8	0.33	10	49	0.00	0.14	0	0.0	0.0	5	3.5	0.2

SE OF ORIG = 0.107 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	5.7	166	143	54.57EPD	1.90	1.88		0.02	1.028		56.26	3.59	3.29	0.30	0.720							
814	6.2	310	141	54.63IPD	1.96	1.93		0.03	1.028													
MBAI	6.8	76	138	54.40 P 0	1.73	1.99		-0.26	1.028		0.00	-52.67	3.48	-56.15	0.000							
M-2	7.0	39	137	54.85 PC0	2.18	2.02	0.17	-0.01	1.028		0.00	-52.67	3.53	-56.50	0.000							
BSU1	7.0	172	137	54.40 PC0	1.73	2.02		-0.29	1.028		0.00	-52.67	3.54	-56.21	0.000							
M-1	7.1	134	137	54.88 PD0	2.21	2.03	0.30	-0.12	1.028		0.00	-52.67	3.55	-56.74	0.000							
839	7.1	39	136	54.76EPC	2.09	2.03		0.06	1.028		56.26	3.59	3.55	0.04	0.720							
816	8.4	344	131	55.01IPD	2.34	2.18		0.16	1.028													
BRPI	10.7	191	123	55.33 PC0	2.66	2.47		0.19	1.028		0.00	-52.67	4.32	-57.00	0.000							
WSUI	11.6	355	120	55.30 PD0	2.63	2.59		0.04	1.028		0.00	-52.67	4.53	-57.21	0.000							
83	11.6	354	120	55.13IP	2.46	2.59		-0.13	1.028													
USPI	13.9	33	114	55.39 P 0	2.72	2.93		-0.21	1.028		0.00	-52.67	5.13	-57.80	0.000							
NSUI	13.9	358	114	55.65 PD0	2.98	2.93		0.05	1.028		0.00	-52.67	5.13	-57.80	0.000							
LCRI	16.4	119	109	55.95 P 0	3.28	3.31		-0.03	1.028		0.00	-52.67	5.79	-58.47	0.000							
LSGS	17.7	75	107	56.32 PC0	3.65	3.50		0.15	1.028		0.00	-52.67	6.12	-58.79	0.000							
810	32.0	140	96	58.63IPD4	5.96	5.78		0.18	0.000													
86	32.4	121	96	58.35IP	5.68	5.85		-0.17	1.028													
88	35.4	144	95	58.84EP	6.17	6.34		-0.17	1.028													
87	42.3	138	94	60.29EP	7.62	7.47	0.28	-0.13	1.028													
MPI	80.2	124	92	6.63 P 0	13.96	13.61		0.35	1.028		0.00	7.33	23.82	-16.49	0.000					72	3.2	
BPM	92.6	32	91	8.90 PC0	16.23	15.62		0.61M	0.000		0.00	7.33	27.33	-20.01	0.000							
JGI	100.1	91	91	9.78 P 0	17.11	16.84		0.27	1.028		0.00	7.33	29.47	-22.14	0.000					87	3.4	
CIB	112.1	135	65	12.07 PD0	19.40	18.63		0.77M	0.000		24.78	32.11	32.61	-0.50	0.000					91	3.5	
GBI	149.9	95	65	17.46 P 0	24.79	24.19		0.59M	0.000		0.00	7.33	42.34	-35.01	0.000					100	3.7	
TMI	185.2	119	65	22.53 P 0	29.86	29.38		0.47D	0.000		44.39	51.72	51.42	0.30	0.000					108	3.9	
LRM	222.7	32	50	27.50 P 0	34.83	34.27		0.56M	0.000		0.00	7.33	59.97	-52.64	0.000							
NPI	246.8	152	50	32.15 P 0	39.48	37.28		2.19M	0.000		0.00	7.33	65.25	-57.92	0.000							
MLI	274.4	148	50	36.10 PC0	43.43	40.73		2.69M	0.000		0.00	7.33	71.28	-63.96	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	Z	SW	SE	NE	E	NW
AVE. OF END POINTS	0.01	0.05	0.07	0.08	0.09	0.09	0.10

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.18	-0.01	0.07	D

----------END----------END----------END----------END----------

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/30    12/37                                                                                 83/10/30    12/37

                                                   HORIZONTAL                                   VERTICAL
                                            SE =    0.60            SE =    1.70                 SE =    1.28   QUALITY = A
                                            AZ =     9.             AZ =   -81.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 1237 13.73 44N11.53 114W 0.60   6.00        11 12 233 1 0.08  1.7  1.3 C 8|0 0.05 10 28 0.00 0.06  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.117          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
WSUI   6.4  63 132 15.20 PD0        1.47  1.61              -0.13 1.000       0.00-13.73  2.81-16.54 0.000
NSUI   8.2  50 125 15.70 PC0        1.97  1.86               0.12 1.000       0.00-13.73  3.25-16.98 0.000
M-2   11.5 106 116 16.40 PC0        2.67  2.38  0.17         0.12 1.000       0.00-13.73  4.17-18.19 0.000
OSPI  14.5  78 111 16.54 P 0        2.81  2.88              -0.06 1.000       0.00-13.73  5.03-18.76 0.000
MBAI  14.9 118 110 16.70 P 0        2.97  2.94               0.04 1.000      19.00  5.27  5.14  0.13 0.000
BSUI  17.4 154 107 17.00 P+0        3.27  3.36              -0.08 1.000       0.00-13.73  5.88-19.60 0.000
M-1   18.0 139 107 17.43 PC0        3.70  3.46  0.30        -0.05 1.000       0.00-13.73  6.05-20.30 0.000
BRPI  19.7 166 105 17.55 PC0        3.82  3.75               0.07 1.000      18.65  4.92  6.57 -1.64 0.000
LSGS  24.0 100 103 18.22 PC0        4.49  4.50              -0.01 1.000       0.00-13.73  7.88-21.60 0.000
LCRI  26.8 129 101 18.71 P 0        4.98  4.99               0.00 1.000       0.00-13.73  8.73-22.45 0.000
BPM   89.4  39  65 28.90 PC0       15.17 15.18               0.00 1.000       0.00-13.73 26.56-40.29 0.000
LRM  218.9  34  44 47.00 PD0       33.27 34.12              -0.84M0.000       0.00-13.73 59.71-73.43 0.000
MSO  293.2   1  44  0.10 P 0       46.37 43.40               2.9BM0.000       0.00 46.27 75.95-29.67 0.000
NCM  334.9 353  44  1.50 PD0       47.77 48.62              -0.84M0.000       0.00 46.27 85.08-38.81 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z    SE    SW     E     N    NE
AVE. OF END POINTS                  0.07  0.10  0.12  0.14  0.15  0.17  0.18

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.08      0.05      0.14         D
```

	HORIZONTAL		VERTICAL	
SE =	0.82	SE = 2.26	SE = 1.11	QUALITY = A
AZ =	9.	AZ = -81.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1254	0.25 44N	11.55 114W	0.59	5.48	3.46	14	12	233	1	0.12	2.3	1.1	C	8.10	0.55	10	48	0.00	0.10	0	0.0	0.0	3	3.5	0.1

SE OF ORIG = 0.163 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	6.3	63	129	2.00	PDO	1.75	1.54		0.21	1.000		0.00	-0.25	2.70	-2.95	0.000							
NSUI	8.1	50	122	2.00	PCO	1.75	1.80		-0.05	1.000		0.00	-0.25	3.15	-3.40	0.000							
M-2	11.6	106	114	2.90	PCO	2.65	2.35	0.17	0.14	1.000		0.00	-0.25	4.11	-4.65	0.000							
USPI	14.5	78	109	3.08	P 0	2.83	2.84		-0.01	1.000		0.00	-0.25	4.97	-5.22	0.000							
WBAI	14.9	118	100	3.10	P 0	2.85	2.91		-0.06	1.000		5.35	5.10	5.09	0.01	0.000							
BSUI	17.4	154	106	3.50	PCO	3.25	3.34		-0.08	1.000		0.00	-0.25	5.04	-6.09	0.000							
M-1	18.0	139	105	3.88	PCO	3.63	3.43	0.30	-0.10	1.000		0.00	-0.25	6.01	-6.78	0.000							
BRPI	19.8	166	104	4.05	PCO	3.80	3.74		0.07	1.000		0.00	-0.25	6.54	-6.78	0.000							
LSGS	24.0	100	101	4.72	PCO	4.47	4.48		-0.01	1.000		0.00	-0.25	7.84	-8.09	0.000							
LCRI	26.9	129	100	5.00	P 0	4.75	4.97		-0.22	1.000		0.00	-0.25	8.70	-8.95	0.000							
BPM	89.4	39	65	15.30	PCO	15.05	15.21		-0.16	1.000		0.00	-0.25	26.62	-26.87	0.000							
MPI	90.6	126	65	15.76	PCO	15.51	15.40		0.11	1.000		27.32	27.07	26.96	0.12	0.000					78	3.3	
JGI	107.3	96	65	10.37	P 0	18.12	10.12		0.00	1.000		0.00	-0.25	31.71	-31.96	0.000					97	3.5	
CIB	123.0	136	55	20.92	PDO	20.67	20.51		0.16	1.000		35.68	35.43	35.90	-0.46	0.000					98	3.6	
GBI	157.5	90	55	25.95	PDO	25.70	25.59		0.11	D0.000		0.00	-0.25	44.79	-45.04	0.000							
TMI	195.3	120	55	31.01	P 0	30.76	31.15		-0.39	D0.000		55.24	54.99	54.51	0.48	0.000							
LRM	210.9	34	44	33.30	PDO	33.05	34.18		-1.13	M0.000		36.60	36.35	59.81	-23.46	0.000							
BUT	232.2	29	44	30.00	P 0	38.55	35.84		2.71	M0.000		61.50	61.25	62.72	-1.47	0.000							
IMW	248.5	90	44	38.03	P 0	37.78	37.88		-0.10	D0.000		0.00	-0.25	66.29	-66.54	0.000							
NPI	257.5	152	44	40.35	P 0	40.10	39.01		1.09	M0.000		0.00	-0.25	68.27	-68.51	0.000							
MLI	285.3	147	44	44.59	P 0	44.34	42.49		1.86	M0.000		0.00	-0.25	74.35	-74.60	0.000							
MSO	293.1	1	44	41.70	PCO	41.45	43.46		-2.01	M0.000		0.00	-0.25	76.05	-76.30	0.000							
SXM	309.5	45	44	45.50	P 0	45.25	45.50		-0.25	D0.000		0.00	-0.25	79.63	-79.87	0.000							
NCM	334.9	353	44	47.90	PDO	47.65	48.60		-1.03	M0.000		0.00	-0.25	85.19	-85.44	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	E	Z	SW	SE	NE
AVE. OF END POINTS	0.06	0.11	0.12	0.12	0.13	0.14	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.12	0.03	0.13	D

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/30    13/14                                                                                                  83/10/30    13/14

                                                        HORIZONTAL                                VERTICAL
                                                SE =    1.12              SE =    3.70            SE =    1.57    QUALITY = B
                                                AZ =     17.              AZ =   -73.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DS GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 1314 44.15 44N11.98 114W 1.28   3.71   3.36 13 13 254 1 0.12  3.7  1.6 D CID 0.20 10 40 0.00 0.09  0  0.0  0.0  5  3.4  0.2
SE OF ORIG =  0.299          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
WSUI   6.9  73 115 45.70 PDO        1.55  1.46              0.09 1.061       0.00-44.15  2.55-46.70 0.000
NSUI   8.4  58 111 45.81 P 0        1.66  1.71             -0.05 1.061       0.00-44.15  2.99-47.14 0.000
M-2   12.7 109 104 47.00 PDO        2.85  2.43  0.17        0.25 1.061       0.00-44.15  4.25-48.70 0.000
DSPI  15.3  82 101 47.04 P 0        2.89  2.90             -0.01 1.061       0.00-44.15  5.07-49.22 0.000
MBAI  16.1 119 101 47.25 PDB        3.10  3.04              0.06 1.061       0.00-44.15  5.32-49.47 0.000
3SU1  18.6 153  99 47.50 P-0        3.35  3.47             -0.12 1.061       0.00-44.15  6.07-50.23 0.000
M-1   19.2 139  99 47.98 PDO        3.83  3.58  0.30       -0.06 1.061       0.00-44.15  6.27-50.95 0.000
BRPI  20.8 165  98 48.20 P72        4.05  3.86              0.19 0.265       0.00-44.15  6.75-50.90 0.000
LSGS  25.1 101  97 48.52 P 0        4.37  4.63             -0.26 1.061       0.00-44.15  8.10-52.25 0.000
LCRI  28.1 129  96 49.30 P 0        5.15  5.16             -0.01 1.061       0.00-44.15  9.02-53.18 0.000
HPI   91.8 126  65 59.97 PDO       15.82 15.73              0.08 1.061       0.00-44.15 27.53-71.69 0.000                69 3.2
JGI  106.3  96  65  2.52 PCO       18.37 18.42             -0.05 1.061       0.00 15.85 32.23-16.38 0.000                65 3.2
CIB  124.2 136  55  5.07 P 0       20.92 20.87              0.04 1.061      21.35 37.20 36.52  0.67 0.000                66 3.2
GBI  158.6  99  55 10.04 PCO       25.89 25.93             -0.04D0.000       0.00 15.85 45.37-29.53 0.000                81 3.5
TMI  196.3 120  55 15.28 PCO       31.13 31.47             -0.35C0.000      40.05 55.90 55.08  0.82 0.000                89 3.7
LRM  218.7  34  44 16.80 PCO       32.65 34.39             -1.74M0.000       0.00 15.85 60.18-44.33 0.000
IMW  249.5  98  44 22.80 P 0       38.65 38.23              0.41D0.000       0.00 15.85 66.91-51.06 0.000
NPI  258.7 152  44 25.07 P 0       40.92 39.38              1.54M0.000       0.00 15.85 68.91-53.07 0.000
MSO  292.3   1  44 25.20 P 0       41.05 43.59             -2.54M0.000       0.00 15.85 76.28-60.43 0.000
NCM  334.0 353  44 31.10 PCO       46.95 48.79             -1.85M0.000       0.00 15.85 85.39-69.54 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          E     Z    NW    SE    SW    NE     N
AVE. OF END POINTS                   0.08  0.11  0.12  0.12  0.15  0.18  0.20

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   6      0.12      0.05      0.14         D
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/30    14/10                                                                                                  83/10/30    14/10

                                                    HORIZONTAL                                  VERTICAL
                                              SE =    1.01              SE =    2.69              SE =    1.55    QUALITY = B
                                              AZ =     10.              AZ =    -80.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 1410 53.92 44N11.82 113W59.70   3.98   2.92 14 11 229 1 0.15  2.7  1.6 D C|D 0.22 10 34 0.00 0.13  0  0.0  0.0  3  2.9  0.2
SE OF ORIG =  0.194          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
WSUI   5.0  62 126 55.30 PD0        1.38  1.19              0.19 1.000       0.00-53.92  2.09-56.01 0.000
NSUI   6.9  47 118 55.55 PD0        1.63  1.47              0.16 1.000       0.00-53.92  2.57-56.49 0.000
M-2   10.6 111 108 56.25 PD0        2.33  2.09  0.17        0.07 1.000       0.00-53.92  3.65-57.87 0.000
DSPI  13.3  79 104 56.38 P 0        2.46  2.54             -0.08 1.000       0.00-53.92  4.45-58.37 0.000
MBAI  14.2 122 103 56.60 P-0        2.68  2.70             -0.01 1.000       0.00-53.92  4.72-58.64 0.000
BSU1  17.4 158 101 57.00 PC0        3.08  3.28             -0.20 1.000       0.00-53.92  5.73-59.65 0.000
M-1   17.7 143 100 57.54 PC0        3.62  3.32  0.30        0.00 1.000       0.00-53.92  5.81-60.25 0.000
BRPI  20.0 170  99 57.66 PC0        3.74  3.73              0.01 1.000      60.26  6.34  6.53 -0.19 0.000
LSGS  23.0 102  98 58.01 PD0        4.09  4.26             -0.17 1.000       0.00-53.92  7.45-61.37 0.000
LCRI  26.3 131  97 58.60 PC0        4.68  4.84             -0.16 1.000       0.00-53.92  8.47-62.39 0.000
BPM   88.3  39  65  8.80 PC0       14.88 15.14             -0.26 1.000       0.00  6.08 26.50-20.42 0.000
HPI   89.9 127  65  9.54 P 0       15.62 15.41              0.21 1.000      20.26 26.34 26.97 -0.63 0.000                 43 2.7
JGI  106.2  96  65 11.97 PC0       18.05 18.05              0.00 1.000      24.22 30.30 31.59 -1.29 0.000                 48 2.9
CIB  122.5 136  55 14.75 P 0       20.83 20.60              0.23 1.000      29.05 35.13 36.04 -0.91 0.000                 59 3.1
GBI  156.4  99  55 20.56 P 0       26.64 25.59              1.05M0.000       0.00  6.08 44.77-38.69 0.000
TMI  194.3 121  55 24.98 P 0       31.06 31.15             -0.09D0.000       0.00  6.08 54.52-48.44 0.000
LRM  217.8  34  44 26.90 PC0       32.98 34.24             -1.26M0.000       0.00  6.08 59.92-53.84 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW    SW     Z     E     N    NE
AVE. OF END POINTS                 0.04  0.07  0.07  0.08  0.08  0.09  0.13

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.15     -0.01      0.08         D
```

	HORIZONTAL	VERTICAL	
SE =	0.61	SE = 1.43	SE = 1.58 QUALITY = A
AZ =	5.	AZ = -85.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	03	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1525	33.26 44N	8.50 113W	58.40	7.18	2.99	13	11	204	1	0.09	1.4	1.6	C	8|0	0.07	10	34	0.00	0.06	0	0.0	0.0	3	3.0	0.1

SE OF ORIG = 0.098 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)									
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	8.5	74	122	35.60	PC0	2.34	2.03	0.17	0.15	1.000		0.00	-33.26	3.55	-37.10	0.000							
MBAI	10.4	98	114	35.55	P 0	2.29	2.30		0.00	1.000		0.00	-33.26	4.02	-37.27	0.000							
BSUI	11.1	155	111	35.60	PD0	2.34	2.40		-0.06	1.000		0.00	-33.26	4.20	-37.46	0.000							
NSUI	11.4	17	110	35.71	PC0	2.45	2.44		0.01	1.000		0.00	-33.26	4.27	-37.53	0.000							
M-1	11.9	132	108	36.04	PD0	2.78	2.52	0.30	-0.03	1.000		0.00	-33.26	4.41	-38.19	0.000							
BRPI	13.7	173	102	36.06	PD0	2.80	2.79		0.01	1.000		0.00	-33.26	4.89	-38.15	0.000							
DSPI	14.2	53	100	36.03	P 0	2.77	2.89		-0.12	1.000		0.00	-33.26	5.06	-38.31	0.000							
LSGS	20.8	86	92	37.21	PC0	3.95	3.96		-0.01	1.000		0.00	-33.26	6.93	-40.19	0.000							
LCRI	21.2	122	91	37.10	PC0	3.84	4.02		-0.17	1.000		0.00	-33.26	7.03	-40.29	0.000							
MPI	85.0	124	90	47.82	PD0	14.56	14.39		0.18	1.000		56.30	23.04	25.18	-2.13	0.000					48	2.8	
BPM	92.1	35	90	48.80	PC0	15.54	15.54		0.00	1.000		0.00	-33.26	27.20	-60.45	0.000							
JGI	104.0	93	90	50.70	P 0	17.44	17.46		-0.02	1.000		61.70	28.44	30.56	-2.11	0.000					54	3.0	
CIB	116.9	135	65	52.76	PD0	19.50	19.45		0.06	1.000		0.00	-33.26	34.04	-67.29	0.000					58	3.1	
GBI	153.9	96	65	58.22	P 0	24.96	24.89		0.07	D0.000		0.00	-33.26	43.56	-76.82	0.000							
TMI	189.9	119	65	3.09	P 0	29.83	30.19		-0.36	D0.000		0.00	26.74	52.84	-26.09	0.000							
LRM	222.0	33	50	7.50	P 0	34.24	34.36		-0.11	D0.000		0.00	26.74	60.12	-33.38	0.000							
IMW	244.9	96	50	10.50	P 0	37.24	37.22		0.03	C0.000		0.00	26.74	65.13	-38.38	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	N	NW	SW	E	NE
AVE. OF END POINTS	0.10	0.16	0.19	0.19	0.20	0.21	0.23

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.09	0.07	0.19	D

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/10/30    16/19                                                                                  83/10/30    16/19

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    1.23              SE =    3.23              SE =    2.24   QUALITY = 8
                                          AZ =     13.              AZ =    -77.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 1619  5.29 44N13.89 114W 1.03    3.10   3.39 12 15 234 1 0.14  3.2  2.2 0 C|D 0.05 10 36 0.00 0.11  0  0.0  0.0  4  3.4  0.2
SE OF ORIG =  0.259          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NSUI   6.9  83 111  6.91 PC0        1.62  1.41              0.21 1.164       0.00 -5.29  2.47 -7.75 0.000
M-2,  13.9 123 100  8.15 PD0        2.86  2.63  0.17        0.06 1.164       0.00 -5.29  4.60-10.19 0.000
DSPI  14.9  95  99  8.07 PD0        2.78  2.80             -0.02 1.164       0.00 -5.29  4.90-10.19 0.000
MBAI  17.8 130  97  8.55 PD0        3.26  3.32             -0.06 1.164      10.42  5.13  5.82 -0.68 0.000
BSU1  21.6 158  96  9.30 P 0        4.01  4.00              0.02 1.164       0.00 -5.29  6.99-12.28 0.000
M-1   21.8 146  96 10.15 P 3        4.86  4.02  0.30        0.54 0.073       0.00 -5.29  7.04-12.85 0.000
BRPI  24.1 168  95  9.82 PC2        4.53  4.43              0.10 0.291      12.42  7.13  7.76 -0.63 0.000
LSGS  25.7 109  95  9.81 P 0        4.52  4.72             -0.20 1.164       0.00 -5.29  8.26-13.55 0.000
LCRI  30.2 134  94 10.60 P 0        5.31  5.51             -0.20 1.164       0.00 -5.29  9.65-14.94 0.000
BPM   86.5  41  65 20.10 PC0       14.81 14.92             -0.10 1.164       0.00 -5.29 26.10-31.39 0.000
HPI   93.7 128  65 21.53 PD0       16.24 16.08              0.16 1.164      35.13 29.84 28.14  1.70 0.000                 71 3.2
JGI  108.2  98  65 23.80 P 0       18.51 18.45              0.06 1.164      37.65 32.36 32.29  0.07 0.000                 77 3.3
CIB  126.5 137  55 26.99 P 0       21.70 21.27              0.43D0.000      43.40 38.11 37.23  0.89 0.000                 76 3.4
GBI  158.8 100  55 31.58 P 0       26.29 26.02              0.27D0.000      50.87 45.58 45.54  0.05 0.000                100 3.7
TMI  197.8 121  55 37.10 P 0       31.81 31.76              0.06D0.000       0.00 -5.29 55.58-60.86 0.000
LRM  215.6  35  44 38.10 P 0       32.81 34.08             -1.27M0.000       0.00 -5.29 59.64-64.93 0.000
IMW  249.3  99  44 43.67 P 2       38.38 38.28              0.10D0.000       0.00 -5.29 66.99-72.28 0.000
NPI  261.6 152  44 46.49 P 2       41.20 39.83              1.38M0.000       0.00 -5.29 69.70-74.98 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE    NW    NE    SW     N     E
AVE. OF END POINTS                 0.04  0.06  0.08  0.14  0.14  0.15  0.15

          . NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                5       0.14      0.06      0.12         0

____________END____________________END____________________END____________________END____________
```

HORIZONTAL		VERTICAL	
SE = 0.38	SE = 0.74	SE = 0.87	QUALITY = A
AZ = -23.	AZ = -113.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	AOJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1638	7.24 44N	2.96 113W	52.88	8.21	2.59	19	3	98	1	0.09	0.7	0.9	B	A|B	0.07	10	32	0.00	0.07	0	0.0	0.0	3	2.6	0.2

SE OF ORIG = 0.052 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-1	2.7	33	160	8.95	PCO	1.71	1.56	0.30	-0.14	1.095		0.00	-7.24	2.72	-10.48	0.000				92			
BSU1	2.7	275	160	8.80	PCO	1.56	1.56		0.01	1.095		0.00	-7.24	2.72	-9.96	0.000				92			
B37	2.8	307	159	8.85	IP	1.61	1.56		0.05	1.095		9.94	2.70	2.74	-0.03	0.767				92			
BRPI	6.6	240	136	9.22	PCO	1.98	1.90		0.09	1.095		0.00	-7.24	3.32	-10.55	0.000				92			
MBAI	9.3	18	125	9.49	PDO	2.25	2.23		0.02	1.095		0.00	-7.24	3.91	-11.14	0.000				92			
LCRI	10.7	95	120	9.80	P 0	2.56	2.42		0.14	1.095		0.00	-7.24	4.24	-11.48	0.000				92			
M-2	12.7	4	114	10.10	P 0	2.86	2.70	0.17	-0.01	1.095		0.00	-7.24	4.73	-12.27	0.000				92			
B39	12.8	4	114	10.11	IP	2.87	2.72		0.15	1.095		11.97	4.73	4.77	-0.03	0.767				92			
B14	14.0	323	111	10.00	IPD	2.76	2.90		-0.13	1.095										92			
B16	16.4	339	105	10.55	IP	3.31	3.28		0.04	1.095										92	50	2.6	
LSGS	17.8	49	103	10.71	PDO	3.47	3.50		-0.03	1.095		0.00	-7.24	6.13	-13.36	0.000				92			
OSPI	19.2	12	101	10.91	PDO	3.67	3.72		-0.05	1.095		0.00	-7.24	6.52	-13.75	0.000				92			
B3	19.3	346	101	10.90	IPD	3.66	3.74		-0.07	1.095		13.70	6.46	6.54	-0.08	0.000				92	33	2.3	
NSUI	21.5	349	99	11.68	P-2	4.44	4.08		0.37	0.274		0.00	-7.24	7.14	-14.37	0.000				92			
B10	24.2	135	97	11.74	IPD	4.50	4.53		-0.02	1.095										92	61	2.8	
B46	24.7	134	96	0.00	IP 4	-7.24	4.61		-11.84	0.000		15.25	8.01	8.06	-0.05	0.767				92			
B8	27.4	142	95	12.24	IP	5.00	5.05		-0.04	1.095										92			
B7	34.7	134	93	14.08	IP 4	6.84	6.22	0.26	0.35	0.000		49.91	42.67	10.88	31.31	0.000				92			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	SW	Z	N	NE	NW	E
AVE. OF END POINTS	0.12	0.12	0.12	0.18	0.18	0.20	0.22

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
12	0.09	0.08	0.17	D

BEGIN BEGIN BEGIN BEGIN

HORIZONTAL		VERTICAL		
SE = 1.87	SE = 6.99	SE = 2.19	QUALITY = C	
AZ = 3.	AZ = -87.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1738 46.26	44N12.52	114W 6.23	6.14	3.23	11	19	264	1	0.17	7.0	2.2	D	0ID	0.07	10	34	0.00	0.14	0	0.0	0.0	5	3.2	0.2

SE OF ORIG = 0.561 8 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	13.2	85	113	49.15	PDO	2.89	2.67		0.23	1.000		0.00	-46.26	4.67	-50.92	0.000							
NSUI	14.2	76	112	49.01	PDO	2.75	2.83		-0.07	1.000		0.00	-46.26	4.94	-51.20	0.000							
M-2	19.3	105	106	50.20	P 0	3.94	3.68	0.17	0.09	1.000		0.00	-46.26	6.45	-53.00	0.000							
DSPI	21.8	87	104	50.13	P 0	3.87	4.12		-0.24	1.000		0.00	-46.26	7.20	-53.46	0.000							
4BAI	22.5	113	104	50.45	P 0	4.19	4.24		-0.05	1.000		0.00	-46.26	7.42	-53.68	0.000							
8SUI	23.1	139	103	50.39	P+0	4.13	4.35		-0.22	1.000		0.00	-46.26	7.61	-53.87	0.000							
M-1	24.7	129	103	51.45	PC0	5.19	4.62	0.30	0.2T	1.000		0.00	-46.26	8.09	-54.87	0.000							
LSGS	31.8	101	65	51.91	P 0	5.65	5.81		-0.15	1.000		0.00	-46.26	10.16	-56.42	0.000							
LCRI	34.0	123	65	52.40	PC0	6.14	6.17		-0.03	1.000		0.00	-46.26	10.80	-57.06	0.000							
BPM	93.0	43	65	2.00	PC0	15.74	15.74		0.00	1.000		0.00	13.74	27.55	-13.81	0.000							
HPI	97.8	124	65	3.53	P 0	17.27	16.52		0.75	M0.000		15.77	29.51	28.91	0.60	0.000					54	3.0	
JGI	114.8	96	55	5.68	PC0	19.42	19.24		0.18	1.000		0.00	13.74	33.68	-19.94	0.000					57	3.1	
CIB	129.6	134	55	8.35	P-0	22.09	21.42		0.67	M0.000		0.00	13.74	37.49	-23.74	0.000					59	3.2	
GBI	165.2	99	55	13.75	PC0	27.49	26.66		0.83	M0.000		0.00	13.74	46.66	-32.91	0.000					62	3.3	
TMI	202.5	120	44	18.68	PC0	32.42	32.05		0.37	D0.000		0.00	13.74	56.08	-42.34	0.000					69	3.6	
LRM	221.7	36	44	19.90	P 0	33.64	34.44		-0.80	M0.000		0.00	13.74	60.28	-46.53	0.000							
IMW	255.8	98	44	26.43	P 0	40.17	38.71		1.4T	M0.000		0.00	13.74	6T.73	-53.99	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	NE	E	SW	Z	SE	N
AVE. OF END POINTS	0.01	0.06	0.06	0.07	0.08	0.12	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.17	-0.04	0.07	D

	HORIZONTAL		VERTICAL	
SE =	1.00	SE =	2.12	SE = 1.65 QUALITY = A
AZ =	1.	AZ =	-89.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1741	7.82 44N	9.80 113W	57.30	4.81	3.09	14	9	193	1	0.18	2.1	1.6	C	8/D	0.08	10	36	0.00	0.15	0	0.0	0.0	4	3.1	0.1

SE OF ORIG = 0.138 8 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	6.2	12	126	9.45	PDO	1.63	1.45		0.18	1.000		0.00	-7.82	2.54	-10.35	0.000							
M-2	6.7	90	124	9.80	PDO	1.98	1.52	0.17	0.29	1.000		0.00	-7.82	2.66	-10.77	0.000							
NSUI	8.6	12	117	9.52	PDO	1.70	1.81		-0.11	1.000		0.00	-7.82	3.17	-10.99	0.000							
MBAI	9.6	113	115	9.45	P 0	1.63	1.98		-0.34	1.000		0.00	-7.82	3.46	-11.27	0.000							
DSPI	11.6	58	110	10.18	P 0	2.36	2.31		0.05	1.000		12.13	4.31	4.04	0.27	0.000							
M-1	12.7	145	109	10.75	PDO	2.93	2.50	0.30	0.13	1.000		0.00	-7.82	4.38	-12.72	0.000							
BSUI	12.9	165	108	10.20	P 0	2.38	2.52		-0.14	1.000		0.00	-7.82	4.41	-12.23	0.000							
BRPI	16.0	179	105	10.82	P-0	3.00	3.05		-0.05	1.000		13.52	5.70	5.34	0.36	0.000							
LSGS	19.3	93	102	11.41	PCO	3.59	3.63		-0.04	1.000		0.00	-7.82	6.35	-14.17	0.000							
LCRI	21.4	129	101	11.70	PDO	3.88	3.99		-0.11	1.000		0.00	-7.82	6.98	-14.80	0.000							
HPI	85.2	126	65	22.69	P 0	14.87	14.58		0.29	1.000		0.00	-7.82	25.52	-33.34	0.000					53	2.9	
BPM	89.3	36	65	22.90	PCO	15.08	15.25		-0.17	1.000		0.00	-7.82	26.69	-34.51	0.000							
JGI	102.6	94	65	25.14	P 0	17.32	17.41		-0.09	1.000		0.00	-7.82	30.47	-38.29	0.000					58	3.0	
CIB	117.6	136	55	27.70	P 0	19.88	19.79		0.10	1.000		0.00	-7.82	34.62	-42.44	0.000					60	3.1	
GBI	152.7	97	55	32.85	P 0	25.03	26.96		0.07	D0.000		0.00	-7.82	43.68	-51.49	0.000					61	3.3	
TMI	189.9	120	55	37.94	P 0	30.12	30.42		-0.29	D0.000		0.00	-7.82	53.23	-61.05	0.000							
LRM	219.2	33	44	40.80	P 0	32.98	34.30		-1.32	M0.000		0.00	-7.82	60.03	-67.85	0.000							
IMW	243.7	97	44	45.81	P 0	37.99	37.37		0.62	M0.000		0.00	-7.82	65.39	-73.21	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	SW	SE	N	NW	Z	E
AVE. OF END POINTS	-0.03	0.02	0.04	0.04	0.05	0.08	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.18	-0.07	0.05	D

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
```

	HORIZONTAL	VERTICAL	
SE =	0.69	SE = 1.08	SE = 1.52 QUALITY = A
AZ =	-14.	AZ = -104.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1749 20.31	44N 8.40	113W52.18	3.34	3.23	23	3	70	1	0.21	1.1	1.5	8	8|A	0.42	10	61	0.00	0.18	0	0.0	0.0	7	3.2	0.4

SE OF ORIG = 0.066 5 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AIM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EOLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
MBAI	2.3	122	144	21.05	P 0		0.74	0.76			-0.02	1.027		22.65	2.34	1.34	1.01	0.000				95			
M-2	2.6	357	141	21.30	P00		0.99	0.79	0.17		0.03	1.027		0.00	-20.31	1.39	-21.99	0.000				95			
839	2.7	357	139	21.19	EPC		0.88	0.81			0.08	1.027		22.09	1.78	1.41	0.37	0.719				95			
M-1	7.9	176	110	22.35	P00		2.04	1.59	0.30		0.16	1.027		0.00	-20.31	2.78	-23.61	0.000				95			
837	9.0	201	107	22.22	EP		1.91	1.78			0.14	1.027		24.05	3.74	3.11	0.64	0.000				95			
OSPI	9.3	19	107	21.93	P 0		1.62	1.82			-0.20	1.027		0.00	-20.31	3.19	-23.50	0.000				95			
814	9.4	277	106	22.00	IPC		1.69	1.84			-0.15	1.027										95	86	3.1	
WSUI	10.3	327	105	22.20	P00		1.89	2.00			-0.10	1.027		0.00	-20.31	3.50	-23.80	0.000				95			
83	10.4	326	105	22.08	IPD		1.77	2.01			-0.24	1.027										95			
9SU1	10.5	200	105	22.50	P00		2.19	2.03			0.16	1.027		0.00	-20.31	3.56	-23.86	0.000				95			
NSUI	12.1	336	103	22.52	P 0		2.21	2.31			-0.09	1.027		0.00	-20.31	4.04	-24.35	0.000				95			
LSGS	12.6	82	102	22.81	P 0		2.50	2.39			0.11	1.027		0.00	-20.31	4.19	-24.50	0.000				95			
LCRI	14.7	138	100	23.05	PC0		2.74	2.77			-0.03	1.027		0.00	-20.31	4.85	-25.15	0.000				95			
8RPI	14.9	206	100	23.42	PC0		3.11	2.81			0.30	1.027		0.00	-20.31	4.93	-25.23	0.000				95			
811	22.5	168	96	24.46	IPD		4.15	4.16			-0.01	1.027										95	75	3.0	
86	30.3	130	95	25.44	EPC		5.13	5.54			-0.41	1.027										95	90	3.2	
810	31.7	149	94	25.75	IP		5.44	5.79			-0.34	1.027										95			
846	32.1	149	94	0.00	IP 4		-20.31	5.86			-26.16	0.000		30.39	10.08	10.25	-0.16	0.719				95			
88	35.5	153	94	26.52	IP		6.21	6.46			-0.25	1.027										95			
87	41.7	145	93	28.05	EP04		7.74	7.57	0.28		-0.11	0.000										95	47	2.6	
MPI	78.2	128	65	34.16	P00		13.85	13.55			0.30	1.027		0.00	-20.31	23.71	-44.02	0.000				95	86	3.3	
8PM	07.8	31	65	35.50	P 0		15.19	15.11			0.09	1.027		0.00	-20.31	26.44	-46.75	0.000				95			
JGI	95.7	93	65	37.04	P00		16.73	16.39			0.34	1.027		0.00	-20.31	28.68	-48.99	0.000				95			
CI8	111.0	138	65	39.76	PC0		19.45	18.88			0.58	M0.000		0.00	-20.31	33.03	-53.34	0.000				95	104	3.6	
G8I	145.6	97	55	44.88	P00		24.57	24.06			0.51	M0.000		0.00	-20.31	42.11	-62.42	0.000				95	133	3.9	
TMI	182.6	121	55	50.05	P00		29.74	29.50			0.24	D0.000		0.00	-20.31	51.63	-71.93	0.000				95			
LRM	217.9	31	44	54.30	P00		33.99	34.32			-0.33	D0.000		57.20	36.89	60.07	-23.18	0.000				95			
BUT	232.2	26	44	56.10	P 0		35.79	36.12			-0.32	D0.000		83.20	62.89	63.21	-0.31	0.000				95			
IMW	236.6	97	44	58.46	P 0		38.15	36.67			1.48	M0.000		0.00	-20.31	64.17	-84.48	0.000				95			
NPI	247.2	154	44	8.07	P 0		39.76	37.99			1.77	M0.000		0.00	39.69	66.49	-26.80	0.000				95			
MLI	274.4	149	44	3.99	P 0		43.68	41.39			2.29	M0.000		0.00	39.69	72.43	-32.74	0.000				95			
MSO	298.9	359	44	3.90	P 0		43.59	44.46			-0.86	M0.000		0.00	39.69	77.80	-38.10	0.000				95			
SXM	306.2	43	44	5.80	P 0		45.49	45.37			0.12	D0.000		46.70	86.39	79.39	7.00	0.000				95			
NCM	342.2	351	44	9.90	P 0		49.59	49.87			-0.28	D0.000		0.00	39.69	87.28	-47.58	0.000				95			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	NE	SE	NW	Z	E	SW
AVE. OF END POINTS	0.03	0.03	0.04	0.05	0.06	0.07	0.09

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.21	-0.04	0.05	0

	HORIZONTAL		VERTICAL	
SE =	2.26	SE =	6.71	SE = 5.71 QUALITY = C
AZ =	11.	AZ =	-79.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	1923 41.95	44N14.74	114W 4.91	7.44	3.92	9	20	247	1	0.19	6.7	5.7	D	DJD	0.30	10	50	0.00	0.15	0	0.0	0.0	7	3.9	0.5

SE OF ORIG = 0.486 8 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	11.8	105	111	43.90	P 2		1.95	2.53			-0.59	M0.000													
NSUI	12.0	93	110	44.63	P 0		2.68	2.56			0.12	1.091		0.00	-41.95	4.48	-46.43	0.000							
M-2	19.2	119	95	45.80	PC0		3.85	3.69	0.17		-0.02	1.091		0.00	-41.95	6.46	-48.71	0.000							
DSPI	20.2	99	94	45.43	P 0		3.48	3.86			-0.38	1.091		0.00	-41.95	6.75	-48.70	0.000							
BSU1	25.4	148	92	46.41	P 2		4.46	4.71			-0.26	0.273													
M-1	26.2	130	92	47.25	P 0		5.30	4.84	0.30		0.15	1.091		0.00	-41.95	8.48	-50.96	0.000							
BRPI	27.2	158	92	46.00	P 0		4.85	5.00			-0.15	1.091		50.00	8.05	8.75	-0.70	0.000							
LSGS	31.1	109	91	47.01	P 0		5.06	5.64			-0.58	M0.000		0.00	-41.95	9.86	-51.82	0.000							
BPM	88.8	44	90	57.00	PC0		15.05	15.00			0.05	1.091		0.00	-41.95	26.25	-68.20	0.000							
HPI	98.7	127	90	58.85	P 0		16.90	16.61			0.28	1.091		0.00	-41.95	29.07	-71.03	0.000					91	3.4	
JGI	113.6	99	65	0.92	P 0		18.97	18.95			0.02	1.091		0.00	18.05	33.16	-15.12	0.000					94	3.5	
CIB	131.2	136	65	3.96	P 0		22.01	21.54			0.46	D0.000		20.56	38.61	37.70	0.90	0.000					96	3.6	
GBI	164.2	100	65	8.51	P 0		26.56	26.39			0.17	D0.000		0.00	18.05	46.17	-28.13	0.000					107	3.8	
TID	170.3	241	65	10.49	PC0		28.54	27.28			1.25	M0.000		0.00	18.05	47.75	-29.70	0.000							
CPI	182.5	257	65	11.59	PC0		29.64	29.09			0.55	D0.000		0.00	18.05	50.90	-32.86	0.000							
CMI	198.4	81	50	13.60	PD0		31.65	31.38			0.26	D0.000		0.00	18.05	54.92	-36.88	0.000							
TMI	203.1	121	50	14.00	P 0		32.05	31.96			0.08	D0.000		38.52	56.57	55.93	0.63	0.000					102	3.9	
KCI	204.2	108	50	14.30	PD0		32.35	32.11			0.24	D0.000		0.00	18.05	56.19	-38.14	0.000							
LRM	21T.3	36	50	15.40	P 0		33.45	33.74			-0.30	D0.000		0.00	18.05	59.05	-41.01	0.000							
BUT	229.9	31	50	19.90	P 4		37.95	35.32			2.62	0.000		42.90	60.95	61.81	-0.87	0.000							
WPI	239.6	244	50	19.09	PC0		37.14	36.53			0.61	M0.000		0.00	18.05	63.93	-45.88	0.000							
IMW	254.6	99	50	21.20	P 2		39.25	38.41			0.84	M0.000		0.00	18.05	67.21	-49.17	0.000					107	4.1	
NPI	265.5	151	50	23.78	P 0		41.03	39.77			2.06	M0.000		0.00	18.05	69.59	-51.55	0.000							
MSO	287.4	2	50	23.10	P 0		41.15	42.50			-1.35	M0.000		55.60	73.65	74.37	-0.73	0.000							
SXM	309.4	4T	50	23.20	P 0		41.25	45.26			-4.01	M0.000		0.00	18.05	79.20	-61.16	0.000							
NCM	328.3	353	50	29.20	P 0		47.25	47.62			-0.38	D0.000		0.00	18.05	83.34	-65.29	0.000					214	5.0	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	SE	E	SW	N	NW
AVE. OF END POINTS	-0.07	-0.05	-0.01	0.02	0.03	0.09	0.11

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.19	-0.13	0.02	D

	HORIZONTAL		VERTICAL	
SE =	0.61	SE = 0.94	SE = 1.48	QUALITY = A
AZ =	-12.	AZ = -102.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	03	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	21 6 10.43	44N 8.54	113W55.71	2.95	3.23	15	8	121	1	0.13	0.9	1.5	B	818	0.19	10	40	0.00	0.11	0	0.0	0.0	5	3.2	0.2

SE OF ORIG = 0.058 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)				(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	5.1	63	116	11.90	P00	1.47	1.11	0.17	0.19	1.000		0.00-10.43		1.94-12.67		0.000							
MBAI	6.8	102	110	11.94	P 0	1.51	1.39		0.12	1.000		0.00-10.43		2.44-12.87		0.000							
ANPI	8.0	309	107	11.99	P 0	1.56	1.59		-0.03	1.000		0.00-10.43		2.78-13.21		0.000							
WSUI	8.4	354	106	12.00	P00	1.57	1.66		-0.09	1.000		0.00-10.43		2.91-13.34		0.000							
M-1	9.6	147	104	12.75	PC0	2.32	1.86	0.30	0.16	1.000		0.00-10.43		3.26-14.22		0.000							
BSU1	10.2	174	103	12.30	P00	1.87	1.96		-0.09	1.000		0.00-10.43		3.42-13.86		0.000							
NSUI	10.8	359	102	12.54	PD0	2.11	2.07		0.03	1.000		0.00-10.43		3.63-14.06		0.000							
DSPI	11.5	42	101	12.49	P 0	2.06	2.20		-0.14	1.000		0.00-10.43		3.85-14.28		0.000							
BRPI	13.8	188	99	13.11	P 0	2.68	2.60		0.08	1.000		14.41	3.98	4.55	-0.57	0.000							
LSGS	17.3	85	97	13.51	P 0	3.08	3.22		-0.14	1.000		0.00-10.43		5.63-16.06		0.000							
LCRI	18.3	128	97	13.60	PD0	3.17	3.40		-0.23	1.000		0.00-10.43		5.95-16.38		0.000							
HP1	82.1	126	65	24.54	P 0	14.11	14.22		-0.11	1.000		0.00-10.43		24.89-35.32		0.000					54	2.9	
BPM	90.0	34	65	26.10	PC0	15.67	15.51		0.16	1.000		0.00-10.43		27.14-37.57		0.000							
JGI	100.4	93	65	27.60	P 0	17.17	17.18		-0.02	1.000		0.00-10.43		30.07-40.51		0.000					62	3.1	
CIB	114.4	136	65	30.01	P00	19.58	19.46		0.12	1.000		44.85	34.42	34.06	0.36	0.000					70	3.2	
GBI	150.3	97	55	35.36	P 0	24.93	24.80		0.13	D0.000		0.00-10.43		43.39-53.82		0.000					68	3.3	
TMI	186.8	120	55	40.25	P 0	29.82	30.16		-0.34	D0.000		0.00-10.43		52.79-63.22		0.000					75	3.6	
LRM	220.0	32	44	44.50	PC0	34.07	34.65		-0.58	M0.000		0.00-10.43		60.64-71.07		0.000							
NPI	249.6	153	44	49.72	P 0	39.29	38.34		0.95	M0.000		0.00-10.43		67.10-77.53		0.000							
MLI	277.1	148	44	53.57	P 2	43.14	41.78		1.36	M0.000		0.00-10.43		73.11-83.55		0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	NE	N	NW	E	SW
AVE. OF END POINTS	0.04	0.08	0.08	0.10	0.14	0.17	0.18

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
6	0.13	0.06	0.12	D

	HORIZONTAL		VERTICAL	
SE =	0.67	SE =	1.39	SE = 1.63 QUALITY = A
AZ =	-24.	AZ =	-114.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	2157 8.31	44N13.44	114W 4.89	7.04	2.72	25	11	188	1	0.15	1.4	1.6	C	8ID	0.09	10	57	0.00	0.13	0	0.0	0.0	14	2.7	0.6

SE OF ORIG = 0.085 7 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY=			P-RES	P-WT	TMIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	7.2	124	127	10.29	P 0	1.98	1.84	0.15	1.025		0.00	-8.31	3.22	-11.52	0.000				2			
817	8.5	343	121	10.30	IPO	1.99	2.01	-0.02	1.025		11.83	3.52	3.52	0.00	0.717				2	31	2.2	
816	10.9	112	110	10.73	IPC	2.42	2.36	0.06	1.025		12.45	4.14	4.14	0.01	0.717				2	44	2.5	
33	11.2	94	109	10.84	IPC	2.53	2.41	0.13	1.025		13.01	4.70	4.21	0.49	0.000				2	27	2.1	
814	11.2	137	109	10.73	IPC	2.42	2.41	0.01	1.025		12.49	4.18	4.22	-0.04	0.000				2	38	2.4	
WSUI	11.4	93	108	10.60	PCO	2.29	2.44	-0.14	1.025		0.00	-8.31	4.26	-12.57	0.000				2			
NSUI	12.1	82	105	10.88	PDO	2.57	2.55	0.02	1.025		0.00	-8.31	4.47	-12.77	0.000				2			
M-2	18.1	112	91	11.90	PCO	3.59	3.53	0.17	-0.10	1.025		0.00	-8.31	6.17	-14.77	0.000			2			
DSPI	20.0	92	90	11.99	PCO	3.68	3.81		-0.13	1.025		0.00	-8.31	6.67	-14.98	0.000			2			
81	20.0	6	90	11.92	IPD	3.61	3.81		-0.20	1.025		14.72	6.41	6.67	-0.26	0.000			2	31	2.2	
WBAI	21.6	119	90	12.40	PCO	4.09	4.08		0.01	1.025		0.00	-8.31	7.15	-15.45	0.000			2			
M-1	24.5	135	90	13.06	PCO	4.75	4.56	0.30	-0.11	1.025		0.00	-8.31	7.98	-16.81	0.000			2			
BRPI	25.0	155	90	13.07	PDO	4.76	4.64		0.13	1.025		16.07	7.76	8.11	-0.35	0.000			2			
LSGS	30.4	105	90	13.61	PCO	5.30	5.52		-0.22	1.025		0.00	-8.31	9.66	-17.96	0.000			2			
LCRI	33.5	127	90	14.15	PCO	5.84	6.03		-0.18	1.025		0.00	-8.31	10.55	-18.86	0.000			2			
811	38.2	145	90	15.25	IPC	6.94	6.78		0.16	1.025									2	29	2.2	
810	49.3	138	90	16.94	IPC	8.63	8.59		0.04	1.025		21.40	13.09	15.03	-1.96	0.000			2	42	2.6	
86	49.4	125	90	16.68	IPC	8.37	8.61		-0.24	1.025		23.91	15.60	15.07	0.54	0.000			2	31	2.3	
88	52.6	141	90	17.39	IPD	9.08	9.13		-0.04	1.025		18.54	10.23	15.97	-5.74	0.000			2	52	2.8	
87	59.7	137	90	18.71	EPC	10.40	10.28	0.28	-0.16	1.025		20.36	12.05	17.99	-6.43	0.000			2	28	2.3	
BPM	90.5	43	90	23.90	PCO	15.59	15.28		0.31	1.025		0.00	-8.31	26.74	-35.05	0.000			2			
HPI	97.3	126	90	24.95	PCO	16.64	16.38		0.27	1.025		34.09	25.78	28.66	-2.88	0.000			2	94	3.5	
JGI	113.2	97	65	27.47	P 0	19.16	18.92		0.24	1.025		40.07	31.76	33.12	-1.35	0.000			2	97	3.5	
CIB	129.5	135	65	30.10	PDO	21.79	21.32		0.48	DD.000		0.00	-8.31	37.30	-45.61	0.000			2	105	3.7	
GBI	163.7	99	65	35.26	P 0	26.95	26.35		0.60	MO.000		0.00	-8.31	46.11	-54.42	0.000			2	100	3.8	
TMI	201.8	120	50	40.34	PDO	32.03	31.85		0.19	DD.000		0.00	-8.31	55.73	-64.06	0.000			2			
LRM	219.3	36	50	41.80	PCO	33.49	34.03		-0.53	MO.000		0.00	-8.31	59.55	-67.85	0.000			2			
IMW	254.2	98	50	47.66	P 0	39.35	38.40		0.95	MO.000		0.00	-8.31	67.20	-75.50	0.000			2			
NPI	263.4	151	50	49.84	P 0	41.53	39.54		1.99	MO.000		0.00	-8.31	69.20	-77.51	0.000			2			

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	N	SE	Z	NE	SW
AVE. OF END POINTS	0.04	0.09	0.10	0.11	0.11	0.13	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	8.15	-0.03	0.11	D

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/30    22/13                                                                                                  83/10/30    22/13

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.41              SE =    1.38              SE =    0.73   QUALITY = A
                                            AZ =    -34.              AZ =   -124.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831030 2213 19.13 44N13.67 114W 4.24  12.61   1.95 11 10 194 1 0.05  1.4  0.7 C B|O 0.23 10 20 0.00 0.04  0  0.0  0.0 10  1.9  0.2
SE OF DRIG =  0.054          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    8.4 336 144 21.83IPD         2.70  2.64              0.07 1.058      23.65  4.52  4.61 -0.09 0.740           903  20 1.89
816   10.3 116 138 21.95IPC         2.82  2.83             -0.01 1.058      24.13  5.00  4.95  0.05 0.740           903  24 2.09
83    10.4  96 138 21.96IPC         2.83  2.84             -0.01 1.058      24.89  5.76  4.97  0.79 0.000           903  15 1.69
814   11.0 142 136 22.03IPD         2.90  2.91             -0.01 1.058      23.63  4.50  5.09 -0.59 0.000           903  21 1.99
81    19.5   4 118 23.16IPC         4.03  4.01              0.02 1.058      25.94  6.81  7.02 -0.20 0.000           903  18 1.89
811   38.1 147 102 25.77EPC4        6.64  6.85             -0.21 0.000      27.80  8.67 12.00 -3.32 0.000           903  18 1.99
86    49.0 126  99 27.68IPD         8.55  8.61             -0.06 1.058      30.46 11.33 15.07 -3.73 0.000           903  21 2.09
810   49.1 139  99 27.80EPC         8.67  8.62              0.05 1.058      34.50 15.37 15.09  0.29 0.000           903  20 2.09
88    52.4 142  98 28.34IPC         9.21  9.16              0.05 1.058      29.94 10.81 16.03 -5.21 0.000           903  31 2.49
87    59.4 138  97 29.61EPD        10.48 10.29  0.28        -0.09 1.058      37.91 18.78 18.01  0.28 0.000           903  20 2.09

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     NW    SE     N     E    SW    NE
AVE. OF END POINTS                 0.06  0.10  0.12  0.12  0.13  0.17  0.22

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.05      0.01      0.14         D

          ------------END----------------------END----------------------END----------------------END------------
```

	HORIZONTAL		VERTICAL	
SE =	0.53	SE = 1.94	SE = 1.19	QUALITY = A
AZ =	-31.	AZ = -121.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	2220 58.27	44N 7.30	113W57.84	12.01	1.80	11	11	181	1	0.07	1.9	1.2	C	8ID	0.08	10	20	0.00	0.06	0	0.0	0.0	10	1.8	0.2

SE OF DRIG = 0.066 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
814	3.6	330	162	0.42IPO	2.15	2.19		-0.03	1.028		2.00	3.73	3.83	-0.10	0.000				4	18	1.7	
816	7.3	6	146	0.72IPO	2.45	2.45		0.00	1.028		2.54	4.27	4.29	-0.02	0.720				4	26	2.1	
83	10.8	9	135	1.15IPO	2.88	2.82		0.06	1.028		3.37	5.10	4.94	0.17	0.000				4	12	1.4	
817	22.8	329	112	2.64IPO	4.37	4.47		-0.09	1.028		5.78	7.51	7.82	-0.30	0.000				4	14	1.6	
811	23.5	148	111	2.97IPO	4.70	4.57		0.13	1.028		4.46	6.19	8.00	-1.81	0.000				4	17	1.8	
81	32.0	347	104	4.23IPO	5.96	5.89		0.08	1.028		5.61	7.34	10.30	-2.95	0.000				4	15	1.7	
810	34.6	137	183	4.60EPC	6.33	6.29		0.05	1.028		7.95	9.68	11.00	-1.32	0.000				4	18	1.8	
86	35.4	119	102	4.58IPC	6.31	6.42		-0.10	1.028		7.91	9.64	11.23	-1.58	0.000				4	20	1.9	
88	37.8	141	101	4.97EPO	6.70	6.80		-0.09	1.028		7.54	9.27	11.89	-2.62	0.000				4	29	2.3	
87	45.0	135	99	6.51EPC	8.24	7.95	0.28	0.01	1.028		8.96	10.69	13.92	-3.72	0.000				4	15	1.7	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	NW	Z	NE	E	SW
AVE. OF END POINTS	0.06	0.09	0.10	0.11	0.16	0.18	0.18

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.07	0.05	0.13	D

	HORIZONTAL		VERTICAL	
SE =	0.29	SE =	0.58	SE = 0.96 QUALITY = A
AZ =	-42.	AZ =	-132.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	23 2 34.55	44N 1.73	113W48.33	7.40	3.20	29	7	62	1	0.11	0.6	1.0	A	A|A	0.27	10	70	0.00	0.09	0	0.0	0.0	11	3.2	0.4

SE OF ORIG = 0.033 8 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)				(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
LCRI	4.8	73	142	36.10 PC0	1.55	1.61		-0.06	1.043		0.00	-34.55	2.82	-37.37	0.000							
M-1	6.5	314	133	36.46 PD0	1.91	1.79	0.30	-0.19	1.043		0.00	-34.55	3.14	-38.22	0.000							
847	7.0	203	130	36.56IPC	2.01	1.86		0.15	1.043		37.68	3.13	3.25	-0.12	0.730							
837	9.2	295	120	36.72EPC	2.17	2.15		0.02	1.043		38.32	3.77	3.76	0.01	0.730							
CMBI	9.6	304	119	36.83 PC0	2.28	2.20		0.08	1.043		0.00	-34.55	3.85	-38.40	0.000							
811	9.6	182	118	36.76IPD	2.21	2.20		0.00	1.043													
MBAI	11.6	344	111	37.10 P 0	2.55	2.49		0.05	1.043		0.00	-34.55	4.36	-38.92	0.000							
SRPI	11.8	265	111	37.17 PD0	2.62	2.52		0.09	1.043		0.00	-34.55	4.42	-38.97	0.000							
838	11.8	101	110	37.17IP	2.62	2.53		0.09	1.043		39.11	4.56	4.43	0.13	0.730							
M-2	15.8	341	99	37.90 PC0	3.35	3.16	0.17	0.02	1.043		0.00	-34.55	5.52	-40.37	0.000							
LSGS	15.8	28	99	37.81 PC0	3.26	3.16		0.10	1.043		0.00	-34.55	5.52	-40.08	0.000							
810	18.5	143	95	38.16IPC	3.61	3.58		0.03	1.043												65	2.9
846	18.9	142	95	38.20IP	3.65	3.65		0.00	1.043		40.73	6.18	6.39	-0.21	0.730							
86	19.5	111	94	38.20IPD	3.65	3.74		-0.09	1.043												60	2.8
814	19.7	313	94	38.28EPC	3.73	3.78		-0.05	1.043												60	2.8
DSPI	21.2	354	93	38.44 P 0	3.89	4.03		-0.14	1.043		0.00	-34.55	7.05	-41.61	0.000							
816	21.3	326	93	38.63IPC	4.08	4.04		0.04	1.043													
88	22.1	150	93	38.69IPC	4.14	4.18		-0.04	1.043													
WSUI	23.6	333	92	38.70 PC0	4.15	4.41		-0.27	1.043		0.00	-34.55	7.72	-42.20	0.000							
83	23.7	333	92	39.07EPC	4.52	4.43		0.09	1.043		42.65	8.10	7.75	0.35	0.000						56	2.8
ANPI	23.9	310	92	39.05 P 0	4.50	4.46		0.03	1.043		41.05	6.50	7.81	-1.32	0.000							
NSUI	25.5	337	92	39.26 P 0	4.71	4.72		-0.02	1.043		0.00	-34.55	8.26	-42.82	0.000							
87	28.8	139	92	40.23IPD	5.60	5.26	0.28	0.14	1.043												85	3.1
NWSI	30.5	326	91	39.99 P 0	5.44	5.53		-0.09	1.043		0.00	-34.55	9.68	-44.23	0.000							
BSU2	34.0	337	91	39.82 P+0	5.27	6.11		-0.84M0.000			0.00	-34.55	10.69	-45.25	0.000							
817	38.6	321	91	41.58EPD	7.03	6.85		0.17	1.043													
MPI	66.9	122	90	46.60 PD0	12.05	11.44		0.61M0.000			54.59	20.04	20.02	0.02	0.000						59	3.0
JGI	90.7	86	90	50.59 PD0	16.04	15.30		0.74M0.000			0.00	-34.55	26.77	-61.33	0.000						80	3.3
BPM	96.4	25	90	51.50 PC0	16.95	16.22		0.72M0.000			0.00	-34.55	28.39	-62.95	0.000							
CIB	98.5	135	90	52.04 PD0	17.49	16.58		0.91M0.000			62.83	28.28	29.01	-0.74	0.000						81	3.3
GBI	139.8	92	65	58.22 P 0	23.67	22.81		0.86M0.000			71.86	37.31	39.91	-2.61	0.000						90	3.6
TMI	172.1	118	65	2.67 P 0	28.12	27.55		0.57M0.000			0.00	25.45	48.21	-22.77	0.000						90	3.7
LRM	226.2	28	50	9.90 PC0	35.35	34.86		0.49D0.000			39.40	64.05	61.00	3.84	0.000							
IMW	230.4	94	50	11.68 P 0	37.13	35.38		1.75M0.000			0.00	25.45	61.91	-36.47	0.000						93	3.9
NPI	233.8	153	50	12.24 P 0	37.69	35.81		1.88M0.000			0.00	25.45	62.67	-37.22	0.000							
BUT	241.3	24	50	15.30 P 0	40.75	36.75		4.00M0.000			39.40	64.85	64.31	0.54	0.000							
MSO	311.4	358	50	19.60 P 0	45.05	45.51		-0.46D0.000			0.00	25.45	79.64	-54.19	0.000							
SXM	312.0	41	50	21.80 P 0	47.25	45.58		1.66M0.000			53.70	79.15	79.77	-0.62	0.000							
NCM	355.3	350	50	26.00 P 0	51.45	50.99		0.45D0.000			0.00	25.45	89.24	-63.79	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	NW	Z	SW	E	NE
AVE. OF END POINTS	0.10	0.12	0.12	0.13	0.15	0.16	0.17

	HORIZONTAL		VERTICAL	
SE =	0.89	SE =	2.91	SE = 2.10 QUALITY = B
AZ =	-29.	AZ =	-119.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	2318 55.01	44N11.97	114W	2.43	10.25	1.84	10	8	185	1	0.11	2.9	2.1	D	C|D	0.12	10	19	0.00	0.08	0	0.0	0.0	10	1.8	0.4

SE OF ORIG = 0.113 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B16	7.0	101	143	57.14IPD	2.13	2.19			-0.06	1.000		59.40	4.39	3.83	0.56	0.000				6	28	2.1
B14	7.0	142	142	57.15IPC	2.14	2.20			-0.06	1.000		58.55	3.54	3.84	-0.30	0.000				6	5	0.6
B3	8.2	76	138	57.42IPD	2.41	2.31			0.10	1.000		58.47	3.46	4.05	-0.59	0.000				6	17	1.7
B17	12.3	332	125	57.85IPD	2.84	2.82			0.02	1.000		59.20	4.19	4.93	-0.74	0.000				6	19	1.8
B1	22.6	357	107	59.31IPC	4.30	4.33			-0.03	1.000		63.38	8.37	7.58	0.79	0.000				6	21	1.9
B11	34.1	147	99	61.29EPC	6.28	6.16			0.12	1.000		64.29	9.28	10.78	-1.50	0.000				6	19	1.9
B10	45.1	139	96	63.08EPC	8.07	7.93			0.14	1.000		69.84	14.83	13.88	0.95	0.000				6	23	2.1
B6	45.2	125	96	62.96IPC	7.95	7.94			0.01	1.000		68.09	13.08	13.90	-0.82	0.000				6	21	2.0
B8	48.4	142	95	63.49IPD	8.48	8.47			0.02	1.000		65.79	10.78	14.81	-4.03	0.000				6	29	2.3
B7	55.5	137	94	64.64EPD	9.63	9.60	0.28		-0.25	1.000										6	20	2.0

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	SW	NW	E	N	NE	Z
AVE. OF END POINTS	0.02	0.06	0.08	0.10	0.11	0.14	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.11	0.00	0.09	D

	HORIZONTAL		VERTICAL	
SE =	0.61	SE =	1.11	SE = 0.84 QUALITY = A
AZ =	-12.	AZ =	-102.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831030	2356 26.09	44N15.24	114W 4.84	5.71	3.24	30	9	155	1	0.17	1.1	0.8	C	8	C 0.07	10	65	0.00	0.12	0	.0.0	0.0	12	3.2	0.4

SE OF ORIG = 0.073 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
845	4.5	313	141	27.51EPD	1.42	1.33		0.08	1.031		28.53	2.44	2.34	0.10	0.722				100		1	
NWSI	4.8	89	139	27.45 P 0	1.36	1.37		-0.02	1.031		0.00	-26.09	2.40	-28.50	0.000				100		1	
817	5.4	332	135	27.55IPD4	1.46	1.45		0.01	0.000										100	67	2.81	
ANPI	9.4	141	120	28.19 P 0	2.10	2.02		0.08	1.031		30.09	4.00	3.53	0.47	0.000				100		1	
BSU2	10.5	54	117	27.83 PC0	1.74	2.20		-0.46	1.031		0.00	-26.09	3.85	-29.94	0.000				100		1	
844	11.7	30	114	28.46EPC	2.37	2.39		-0.02	1.031		30.28	4.19	4.19	0.00	0.722				100		1	
83	11.8	110	114	28.70IPD	2.61	2.41		0.20	1.031										100	60	2.81	
WSUI	12.0	109	114	28.50 PD0	2.41	2.44		-0.03	1.031		0.00	-26.09	4.26	-30.36	0.000				100		1	
NSUI	12.0	98	114	28.56 P 0	2.47	2.44		0.03	1.031		0.00	-26.09	4.27	-30.36	0.000				100		1	
816	12.5	127	113	28.65IPD	2.56	2.52		0.04	1.031										100	115	3.31	
842	13.3	140	111	0.00IP 4	-26.09	2.66		-28.75	0.000		30.70	4.61	4.65	-0.04	0.722				100		1	
814	13.8	147	111	28.80IPD	2.71	2.74		-0.03	1.031										100	64	2.81	
81	16.7	7	107	29.21IPC	3.12	3.22		-0.10	1.031										100	66	2.91	
M-2	19.5	121	105	30.26 P 0	4.17	3.71	0.17	0.29	1.031		0.00	-26.09	6.49	-32.88	0.000				100		1	
DSPI	20.3	101	104	29.84 P 0	3.75	3.84		-0.09	1.031		0.00	-26.09	6.71	-32.80	0.000				100		1	
MBAI	23.4	126	102	30.48 P 0	4.39	4.37		0.01	1.031		0.00	-26.09	7.65	-33.75	0.000				100		1	
CMBI	24.1	144	102	30.43 P 0	4.34	4.50		-0.16	1.031		0.00	-26.09	7.88	-33.97	0.000				100		1	
M-1	26.9	140	101	31.50 P+0	5.41	4.98	0.30	0.13	1.031		0.00	-26.09	8.72	-35.33	0.000				100		1	
BRPI	28.0	158	100	31.22 PC0	5.13	5.18		-0.05	1.031		0.00	-26.09	9.06	-35.15	0.000				100		1	
LSGS	31.3	111	65	31.71 PC0	5.62	5.77		-0.15	1.031		0.00	-26.09	10.09	-36.19	0.000				100		1	
LCRI	35.6	132	65	32.55 PD0	6.46	6.46		0.00	1.031		0.00	-26.09	11.30	-37.40	0.000				100		1	
811	40.9	148	65	33.26EPC	7.17	7.32		-0.16	1.031										100	73	3.01	
86	51.4	129	65	35.11IP	9.02	9.02		-0.01	1.031										100		1	
810	51.8	140	65	35.15EPD	9.06	9.09		-0.03	1.031		38.49	12.40	15.90	-3.51	0.000				100	69	3.01	
88	55.2	143	65	35.55IPD	9.46	9.64		-0.18	1.031										100	118	3.51	
87	62.1	139	65	36.90IPD	10.81	10.77	0.28	-0.24	1.031										100		1	
BPM	88.1	45	65	41.30 PC0	15.21	14.98		0.23	1.031		0.00	-26.09	26.22	-52.31	0.000				100		1	
MPI	99.2	127	65	43.25 PC0	17.16	16.79		0.37	1.031		0.00	-26.09	29.38	-55.47	0.000				100	84	3.41	
JGI	113.6	99	55	45.42 PC0	19.33	19.12		0.21	1.031		0.00	-26.09	33.46	-59.55	0.000				100		1	
CIS	131.8	136	55	48.50 PD0	22.41	21.79		0.62	M0.000		65.43	39.34	38.13	1.20	0.000				100	99	3.61	
GBI	164.2	100	55	53.23 PC8	27.14	26.56		0.58	M0.000		0.00	-26.09	46.47	-72.57	0.000				100	97	3.71	
TMI	203.4	121	44	58.52 P 0	32.43	32.22		0.21	D0.000		0.00	-26.09	56.39	-82.48	0.000				100	105	3.91	
LRM	216.5	36	44	59.60 PC0	33.51	33.86		-0.35	D0.000		0.00	-26.09	59.25	-85.34	0.000				100		1	
IMW	254.7	99	44	5.63 P 0	39.54	38.62		0.92	M0.000		0.00	33.91	67.59	-33.68	0.000				100		1	
NPI	266.3	152	44	8.21 P 0	42.12	40.07		2.05	M0.000		0.00	33.91	70.13	-36.22	0.000				100		1	
MSO	286.5	2	44	8.00 P 0	41.91	42.60		-0.69	M0.000		0.00	33.91	74.54	-40.63	0.000				100		1	
NCM	327.4	353	44	13.70 P 0	47.61	47.72		-0.11	D0.000		0.00	33.91	83.51	-49.60	0.000				100		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	E	NE	N	Z	SW
AVE. OF END POINTS	0.03	0.04	0.08	0.09	0.09	0.10	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY

	HORIZONTAL		VERTICAL	
SE =	0.47	SE =	0.93	SE = 1.13 QUALITY = A
AZ =	-33.	AZ =	-123.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	1 4 33.72	44N 5.97	113W54.42	8.52	2.84	27	5	89	1	0.15	0.9	1.1	B	8|A	0.11	10	60	0.00	0.11	0	0.0	0.0	12	2.8	0.3

SE OF ORIG = 0.057 7 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
CH8I	2.4	176	162	35.33	P 0	1.61	1.59		0.01	1.141		0.00	-33.72	2.79	-36.51	0.000			101			1	
837	3.9	183	153	35.42	P 0	1.70	1.68		0.01	1.141		36.65	2.93	2.94	-0.02	0.799			101			1	
M-1	4.8	134	147	35.77	PD0	2.05	1.76	0.30	-0.01	1.141		0.00	-33.72	3.08	-37.33	0.000			101			1	
M8AI	6.0	56	141	36.03	P+2	2.31	1.87		0.44	0.285		0.00	-33.72	3.27	-36.99	0.000			101			1	
M-2	7.6	22	133	36.10	PC0	2.38	2.05	0.17	0.16	1.141		0.00	-33.72	3.59	-37.61	0.000			101			1	
814	8.4	311	130	35.86	IPC	2.14	2.15		-0.01	1.141									101	45	2.51		
842	8.8	323	128	0.00	P 4	-33.72	2.18		-35.91	0.000		37.42	3.70	3.82	-0.13	0.799			101			1	
8RPI	9.6	202	126	36.17	PC0	2.45	2.28		0.16	1.141		0.00	-33.72	4.00	-37.72	0.000			101			1	
816	10.5	338	122	36.13	IP	2.41	2.41		-0.01	1.141									101			1	
ANPI	12.6	321	116	36.45	P 0	2.73	2.71		0.01	1.141		0.00	-33.72	4.75	-38.47	0.000			101			1	
WSUI	13.4	349	114	37.10	P 2	3.38	2.84		0.54	M0.000		0.00	-33.72	4.97	-38.69	0.000			101			1	
83	13.4	348	114	36.57	IPC	2.85	2.84		0.00	1.141									101	34	2.31		
LCRI	14.3	117	112	36.80	P 0	3.08	2.97		0.11	1.141		0.00	-33.72	5.19	-38.91	0.000			101			1	
DSPI	14.6	24	111	36.43	P 0	2.71	3.01		-0.30	1.141		0.00	-33.72	5.27	-38.99	0.000			101			1	
NSUI	15.7	353	109	37.04	P 3	3.32	3.17		0.14	0.071		0.00	-33.72	5.56	-39.28	0.000			101			1	
8RCI	17.5	222	105	37.16	P 0	3.44	3.46		-0.02	1.141		0.00	-33.72	6.05	-39.77	0.000			101			1	
811	19.2	156	103	37.35	IPC	3.63	3.73		-0.10	1.141									101	50	2.71		
NWSI	19.5	332	102	37.29	P 0	3.57	3.78		-0.21	1.141		0.00	-33.72	6.61	-40.34	0.000			101			1	
838	22.2	117	108	0.00	P 4	-33.72	4.20		-37.93	0.000		40.84	7.12	7.35	-0.24	0.799			101			1	
817	27.4	323	96	38.98	IP	5.26	5.04		0.22	1.141									101	40	2.51		
810	29.7	140	95	39.13	IPC	5.41	5.42		-0.02	1.141		41.99	8.27	9.49	-1.22	0.000			101	65	2.91		
846	30.2	139	95	0.00	P 4	-33.72	5.49		-39.22	0.000		42.67	8.95	9.62	-0.67	M0.000			101			1	
86	30.2	119	95	39.09	IPD	5.37	5.50		-0.14	1.141		42.21	8.49	9.63	-1.15	0.000			101	47	2.61		
88	33.1	145	95	39.63	IP	5.91	5.97		-0.07	1.141									101			1	
91	35.7	341	94	40.10	EP	6.38	6.38		-0.01	1.141									101	40	2.51		
87	40.1	138	93	41.00	IP	7.28	7.09	0.28	-0.10	1.141									101	85	3.21		
MPI	78.0	124	91	47.45	P 2	13.73	13.24		0.48	0.285		56.98	23.26	23.18	0.08	0.000			101	56	3.01		
8PM	93.2	31	91	44.90	PC0	11.18	15.71		-4.53	M0.000		0.00	-33.72	27.48	-61.21	0.000			101			1	
JGI	98.5	90	91	50.64	P 0	16.92	16.57		0.34	1.141		61.45	27.73	29.00	-1.28	0.000			101	64	3.11		
CIB	109.8	135	65	52.83	P 0	19.11	18.32		0.79	M0.000		66.40	32.68	32.05	0.62	0.000			101	68	3.21		
GBI	148.4	95	65	58.28	P 0	24.56	23.99		0.56	M0.000		75.37	41.65	41.99	-0.34	0.000			101	75	3.51		
TMI	183.0	119	65	3.18	P 0	29.46	29.08		0.38	D0.000		25.23	51.51	50.89	0.61	0.000			101			1	
IMW	239.1	95	50	11.24	P 2	37.52	36.36		1.16	M0.000		0.00	26.28	63.62	-37.35	0.000			101			1	
NPI	244.6	152	50	12.96	P 0	39.24	37.04		2.20	M0.000		0.00	26.28	64.82	-38.54	0.000			101			1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	Z	N	E	NE	SE
AVE. OF END POINTS	0.05	0.06	0.08	0.08	0.09	0.10	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.15	-0.01	0.08	D

	HORIZONTAL		VERTICAL	
SE =	1.15	SE =	5.19	SE = 7.85 QUALITY = C
AZ =	29.	AZ =	-61.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	222 53.66	44N17.64	114W 9.31	0.55	3.43	13	19	276	1	0.10	5.2	7.9	D	D|D	0.44	10	34	0.00	0.08	0	0.0	0.0	3	3.4	0.2

SE OF ORIG = 0.747 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
JSU2	14.6	83	58	56.40	PC0	2.74	2.76		-0.02	1.209		0.00	-53.66	4.84	-58.50	0.000							
ANPI	16.7	135	58	56.89	PD0	3.23	3.16		0.07	1.209		0.00	-53.66	5.53	-59.18	0.000							
NSUI	18.8	109	58	57.28	P+2	3.62	3.53		0.09	0.302		0.00	-53.66	6.18	-59.84	0.000							
WSUI	19.2	116	58	57.05	PC2	3.39	3.60		-0.21	0.302		0.00	-53.66	6.29	-59.95	0.000							
M-2	27.0	123	58	59.00	PD0	5.34	4.98	0.17	0.19	1.209		0.00	-53.66	8.72	-62.68	0.000							
DSPI	27.1	108	58	58.66	PC0	5.00	5.01		-0.01	1.209		0.00	-53.66	8.77	-62.43	0.000							
MBAI	30.8	126	58	59.27	PD0	5.61	5.67		-0.06	1.209		0.00	-53.66	9.93	-63.59	0.000							
CMBI	31.3	140	58	59.33	PD0	5.67	5.76		-0.09	1.209		0.00	-53.66	10.07	-63.73	0.000							
M-1	34.1	137	58	0.07	P 0	6.41	6.27	0.30	-0.16	1.209		0.00	6.34	10.97	-5.15	0.000							
BRPI	34.5	152	58	0.12	P+0	6.46	6.34		0.12	1.209		3.62	9.96	11.09	-1.13	0.000							
BRCI	35.6	167	58	0.11	PC2	6.45	6.52		-0.07	0.302		0.00	6.34	11.41	-5.07	0.000							
MPI	106.7	127	50	12.04	PD0	18.38	18.41		-0.03	1.209		25.54	31.88	32.22	-0.34	0.000					74	3.2	
JGI	120.3	101	50	14.31	P 0	20.65	20.62		0.03	1.209		0.00	6.34	36.09	-29.75	0.000					84	3.4	
C13	139.2	135	44	17.29	P 0	23.63	23.42		0.21	D0.000		33.63	39.97	40.99	-1.02	0.000					104	3.7	
GBI	170.9	101	44	22.15	P 0	28.49	28.09		0.40	D0.000		41.72	48.06	49.16	-1.10	0.000							
TMI	210.9	121	36	27.40	P 0	33.74	33.83		-0.09	D0.000		0.00	6.34	59.20	-52.86	0.000							
IMW	261.3	100	36	32.16	P 3	38.50	40.13		-1.63	M0.000		0.00	6.34	70.22	-63.88	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	NW	N	E	NE	SW
AVE. OF END POINTS	0.05	0.07	0.07	0.09	0.15	0.15	0.21

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.10	0.01	0.12	D

	HORIZONTAL		VERTICAL	
SE =	1.19	SE = 1.64	SE = 12.73	QUALITY = D
AZ =	-29.	AZ = -119.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	228 28.06	44N10.74	113W56.23	1.84		12	6	95	1	0.20	1.6	12.7	C	C18	0.13	10	26	0.00	0.17	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.178 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WSUI	4.3	358	106	28.90	PDO		0.84	0.90			-0.06	1.067		0.00	-28.06	1.57	-29.63	0.000							
M-2	5.6	109	102	29.60	PCO		1.54	1.12	0.17		0.25	1.067		0.00	-28.06	1.96	-30.31	0.000							
ANPI	5.6	280	102	29.00	PDO		0.94	1.13			-0.18	1.067		0.00	-28.06	1.97	-30.03	0.000							
NSUI	6.7	4	99	29.24	PDO		1.18	1.32			-0.14	1.067		0.00	-28.06	2.31	-30.37	0.000							
MBAI	9.2	127	96	29.89	PCO		1.83	1.76			0.07	1.067		0.00	-28.06	3.08	-31.14	0.000							
NWSI	10.7	322	95	29.54	P+3		1.48	2.03			-0.55	M0.000		31.12	3.06	3.55	-0.49	0.000							
CHBI	11.6	167	95	30.13	PDO		2.07	2.17			-0.10	1.067		0.00	-28.06	3.80	-31.86	0.000							
M-1	13.5	154	94	30.86	PCO		2.80	2.54	0.30		-0.03	1.067		0.00	-28.06	4.44	-33.02	0.000							
BSU2	14.9	349	94	31.10	P 0		3.04	2.77			0.27	1.067		0.00	-28.06	4.86	-32.91	0.000							
BRPI	17.7	184	93	31.72	PDO		3.66	3.29			0.37	1.067		34.22	6.16	5.75	0.41	0.000							
LSGS	18.1	99	93	31.31	PCO		3.25	3.35			-0.09	1.067		0.00	-28.06	5.86	-33.91	0.000							
LCRI	21.5	135	92	31.70	P 0		3.64	3.96			-0.32	1.067		0.00	-28.06	6.93	-34.99	0.000							
BRCI	23.7	203	92	32.26	P+2		4.20	4.36			-0.16	0.267		0.00	-28.06	7.63	-35.69	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	NE	SW	Z	E	N
AVE. OF END POINTS	-0.04	0.00	0.01	0.03	0.05	0.05	0.07

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.20	-0.08	0.03	D

	HORIZONTAL		VERTICAL	
SE =	1.07	SE =	2.78	SE = 2.32 QUALITY = B
AZ =	20.	AZ =	-70.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	443 33.54	44N15.91	114W 6.15	2.85	3.36	17	12	233	1	0.15	2.8	2.3	D	C10	0.27	10	46	0.00	0.13	0	0.0	0.0	4	3.4	0.3

SE OF ORIG = 0.226 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	6.6	100	109	34.98	P 0		1.44	1.35			0.09	1.026		0.00	-33.54	2.36	-35.91	0.000							
BSU2	11.4	64	101	35.70	PC0		2.16	2.18			-0.02	1.026		0.00	-33.54	3.82	-37.36	0.000							
ANPI	11.5	138	100	35.80	P 0		2.26	2.20			0.06	1.026		0.00	-33.54	3.85	-37.39	0.000							
NSUI	13.9	102	98	35.95	P 0		2.41	2.63			-0.22	1.026		0.00	-33.54	4.59	-38.14	0.000							
WSUI	14.1	112	98	36.40	PC0		2.86	2.65			0.21	1.026		0.00	-33.54	4.64	-38.18	0.000							
M-2	21.7	122	95	38.00	PD0		4.46	4.00	0.17		0.29	1.026		0.00	-33.54	7.00	-40.84	0.000							
USPI	22.2	103	95	37.33	P 0		3.79	4.10			-0.31	1.026		0.00	-33.54	7.17	-40.71	0.000							
MBAI	25.5	126	94	38.31	P-1		4.77	4.68			0.09	0.577		0.00	-33.54	8.19	-41.73	0.000							
CHBI	26.1	143	94	38.43	PD0		4.89	4.79			0.09	1.026		0.00	-33.54	8.39	-41.93	0.000							
M-1	28.9	139	94	39.22	P+0		5.68	5.29	0.30		0.09	1.026		0.00	-33.54	9.26	-43.32	0.000							
BRPI	29.8	156	94	39.07	PC0		5.53	5.44			0.08	1.026		0.00	-33.54	9.53	-43.07	0.000							
BRCI	31.6	173	94	39.11	P 0		5.57	5.77			-0.20	1.026		0.00	-33.54	10.10	-43.64	0.000							
LSGS	33.4	112	93	39.50	P 0		5.96	6.09			-0.13	1.026		0.00	-33.54	10.65	-44.19	0.000							
LCRI	37.7	131	93	40.25	P 0		6.71	6.85			-0.14	1.026		0.00	-33.54	11.98	-45.52	0.000							
BPM	88.4	46	65	48.90	PC0		15.36	15.25			0.10	1.026		0.00	-33.54	26.70	-60.24	0.000							
MPI	101.4	127	65	50.88	P 0		17.34	17.35			-0.01	1.026		64.19	30.65	30.36	0.28	0.000					58	3.0	
JGI	115.6	100	65	53.18	P 0		19.64	19.66			-0.02	1.026		0.00	-33.54	34.40	-67.94	0.000					61	3.1	
CIB	133.9	136	55	56.23	PD0		22.69	22.39			0.29	D0.000		0.00	-33.54	39.19	-72.73	0.000					78	3.4	
GBI	166.2	101	55	0.95	P 0		27.41	27.13			0.27	D0.000		20.45	46.91	47.49	-0.58	0.000							
TMI	205.6	121	44	6.40	P 0		32.86	32.86			0.00	D0.000		31.47	57.93	57.50	0.43	0.000					100	3.9	
LRM	216.6	37	44	7.40	PC0		33.86	34.23			-0.37	D0.000		0.00	26.46	59.90	-33.44	0.000							
IMW	256.6	99	44	13.72	P 0		40.18	39.23			0.95	M0.000		0.00	26.46	68.65	-42.19	0.000							
NPI	268.2	151	44	15.65	P 0		42.11	40.68			1.43	M0.000		0.00	26.46	71.19	-44.73	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	NE	E	N	NW	SW
AVE. OF END POINTS	0.01	0.05	0.07	0.07	0.07	0.10	0.11

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.15	-0.03	0.07	D

	HORIZONTAL		VERTICAL	
SE =	1.14	SE =	1.81	SE = 2.16 QUALITY = A
AZ =	-35.	AZ =	-125.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	7 2 1.62	43N53.69	113W45.46	13.20	2.39	13	8	200	1	0.13	1.8	2.2	C	8ID	0.13	10	14	0.00	0.11	0	0.0	0.0	9	2.4	0.3

SE OF ORIG = 0.131 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
811	6.7	322	151	3.97IPD	2.35	2.57			-0.22	1.048									106	35	2.31	
810	7.2	90	149	4.39IPC	2.77	2.61			0.16	1.048									106	34	2.31	
846	7.7	91	147	4.40IP	2.78	2.65			0.12	1.048		6.35	4.73	4.65	0.08	0.734			106		1	
88	8.3	122	146	4.36IPC	2.74	2.71			0.03	1.048									106	70	2.91	
838	14.8	32	128	5.11IP	3.49	3.43			0.05	1.048		7.56	5.94	6.00	-0.07	0.734			106		1	
86	16.4	61	125	5.16IP	3.54	3.63			-0.09	1.048									106	38	2.41	
87	16.5	114	125	5.39IP	3.77	3.66	0.28		-0.17	1.048									106	67	2.91	
814	33.7	327	106	7.76IPC	6.14	6.20			-0.07	1.048									106	30	2.31	
83	38.8	338	103	8.66IPD	7.04	7.00			0.04	1.048		13.38	11.76	12.25	-0.49	0.000			106	25	2.21	
817	53.0	328	99	11.12EP	9.50	9.26			0.23	1.048									106	23	2.11	
81	61.2	337	97	12.12EPD	10.50	10.59			-0.09	1.048									106	18	1.91	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SW	E	SE	Z	NE	NW	N
AVE. OF END POINTS	0.03	0.09	0.09	0.09	0.10	0.11	0.11

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.13	0.02	0.08	D

	HORIZONTAL		VERTICAL		
SE =	1.06	SE =	3.37	SE =	1.76 QUALITY = B
AZ =	7.	AZ =	-83.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	711 42.51	44N15.01	114W 3.68	3.48	3.46	15	10	243	1	0.17	3.4	1.8	D	CID	0.05	10	40	0.00	0.13	0	0.0	0.0	3	3.5	0.3

SE OF ORIG = 0.246 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EOLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	3.3	81	134	43.41	P	0	0.90	0.90			0.00	1.127		0.00		-42.51	1.57	-44.08	0.000						
ANPI	8.2	147	110	44.27	P	0	1.76	1.65			0.11	1.127		0.00		-42.51	2.89	-45.40	0.000						
BSU2	9.6	46	107	44.70	P	0	2.19	1.90			0.29	1.127		0.00		-42.51	3.32	-45.83	0.000						
WSUI	10.4	110	106	44.40	PC	2	1.89	2.03			-0.14	0.282		0.00		-42.51	3.55	-46.06	0.000						
NSUI	10.4	97	105	44.44	P	0	1.93	2.03			-0.10	1.127		0.00		-42.51	3.56	-46.07	0.000						
M-2	18.0	123	99	46.00	P	-0	3.49	3.37	0.17		-0.05	1.127		0.00		-42.51	5.89	-48.70	0.000						
MBAI	21.9	128	97	46.61	P	+3	4.10	4.05			0.05	0.070		0.00		-42.51	7.09	-49.60	0.000						
CHBI	22.9	147	97	46.65	P	0	4.14	4.23			-0.09	1.127		0.00		-42.51	7.40	-49.91	0.000						
M-1	25.6	142	96	47.48	P	0	4.97	4.70	0.30		-0.03	1.127		0.00		-42.51	8.23	-51.27	0.000						
BRPI	27.1	161	96	47.47	PC	0	4.96	4.97			-0.01	1.127		49.47		6.96	8.70	-1.74	0.000						
LSGS	29.7	111	95	47.80	P	0	5.29	5.45			-0.16	1.127		0.00		-42.51	9.53	-52.04	0.000						
LCRI	34.2	133	94	48.70	P	0	6.19	6.23			-0.04	1.127		0.00		-42.51	10.91	-53.42	0.000						
BPM	87.3	44	65	57.20	PC	0	14.69	15.02			-0.33	1.127		0.00		-42.51	26.29	-68.80	0.000						
MPI	97.7	120	65	59.40	P	0	16.89	16.71			0.18	1.127		72.54		30.03	29.25	0.78	0.000				62	3.1	
JGI	112.1	99	65	1.82	P	0	19.31	19.04			0.27	1.127		0.00		17.49	33.32	-15.83	0.000						
CIB	130.4	136	55	4.65	PD	B	22.14	21.82			0.32	D0.000		0.00		17.49	38.18	-20.69	0.000				79	3.4	
GBI	162.6	180	55	9.56	P	0	27.05	26.55			0.50	D0.000		29.01		46.50	46.46	0.04	0.000						
TMI	201.9	121	44	14.85	PC	D	32.34	32.31			0.03	D0.000		0.00		17.49	56.55	-39.06	0.000				102	3.9	
LRM	216.0	36	44	15.70	P	B	33.19	34.07			-0.88	M0.000		0.00		17.49	59.62	-42.13	0.000						
IMW	253.1	99	44	22.20	P	0	39.69	38.71			0.98	M0.000		0.00		17.49	67.74	-50.25	0.000						

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	Z	SW	SE	E	NE	N
AVE. OF END POINTS	-0.04	0.02	0.06	0.06	0.10	0.11	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.17	-0.04	0.07	D

	HORIZONTAL		VERTICAL	
SE =	0.54	SE =	0.98	SE = 1.21 QUALITY = A
AZ =	-37.	AZ =	-127.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	841 49.11	44N 3.34	113W53.72	7.68	2.72	31	3	77	1	0.18	1.0	1.2	B	B|A	0.21	10	62	0.00	0.14	0	0.0	0.0	14	2.7	0.4

SE OF ORIG = 0.057 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)								(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
837	1.5	310	168	50.57IP	1.46	1.42		0.04	1.052		51.64	2.53	2.49	0.04	0.737				108		1	
CH81	2.5	342	160	50.53 PDO	1.42	1.47		-0.05	1.052		0.00	-49.11	2.57	-51.68	0.000				108		1	
M-1	3.0	59	156	50.83 PDO	1.72	1.50	0.30	-0.07	1.052		0.00	-49.11	2.62	-52.25	0.000				108		1	
BRPI	6.1	229	136	51.07 PCO	1.96	1.78		0.18	1.052		52.27	3.16	3.11	0.05	0.000				108		1	
MBAI	9.1	26	122	51.25 PDO	2.14	2.15		-0.01	1.052		0.00	-49.11	3.77	-52.88	0.000				108		1	
LCRI	11.9	98	112	51.50 PDO	2.39	2.56		-0.17	1.052		0.00	-49.11	4.48	-53.59	0.000				108		1	
M-2	12.1	9	112	51.85 PDO	2.74	2.58	0.17	-0.01	1.052		0.00	-49.11	4.52	-53.93	0.000				108		1	
B14	12.7	325	110	51.75IPC	2.64	2.68		-0.04	1.052		53.85	4.74	4.69	0.05	0.000				108	35	2.31	
B11	14.4	151	185	51.94IPC	2.83	2.94		-0.11	1.052										108	40	2.41	
BRCI	15.1	237	104	52.16 P 0	3.05	3.05		0.00	1.052		0.00	-49.11	5.34	-54.45	0.000				108		1	
B16	15.4	342	103	52.14IPC	3.03	3.09		-0.06	1.052										108	44	2.51	
ANPI	17.2	329	100	52.36 P 0	3.25	3.37		-0.12	1.052		54.66	5.55	5.90	-0.34	0.000				108		1	
LSGS	18.2	53	98	52.60 PDO	3.49	3.55		-0.06	1.052		0.00	-49.11	6.22	-55.33	0.000				108		1	
WSUI	18.4	349	98	52.85 PD4	3.74	3.57		0.17	0.000		0.00	-49.11	6.25	-55.36	0.000				108		1	
B3	18.4	348	98	52.46EP	3.35	3.58		-0.23	1.052										108	33	2.31	
OSPI	18.8	16	97	52.59 P 0	3.48	3.65		-0.16	1.052		0.00	-49.11	6.38	-55.49	0.000				108		1	
B38	19.6	106	97	52.84IP	3.73	3.76		-0.03	1.052		55.63	6.52	6.59	-0.06	0.737				108		1	
NSUI	20.6	352	96	53.01 P 0	3.90	3.93		-0.03	1.052		0.00	-49.11	6.88	-55.99	0.000				108		1	
NWSI	24.3	336	94	53.77 PDO	4.66	4.52		0.14	1.052		0.00	-49.11	7.92	-57.03	0.000				108		1	
B10	25.5	134	93	53.67EPD	4.56	4.72		-0.16	1.052		57.09	7.98	8.27	-0.29	0.000				108	50	2.71	
B6	27.3	111	93	53.89IPC	4.78	5.01		-0.23	1.052										108	43	2.51	
B8	28.7	141	93	54.15EPD	5.04	5.24		-0.19	1.052										108	75	3.01	
BSU2	29.0	347	93	54.40 P 3	5.29	5.28		0.01	0.066		0.00	-49.11	9.24	-58.35	0.000				108		1	
B17	32.0	327	92	54.83EP	5.72	5.77		-0.04	1.052		58.83	9.72	10.09	-0.37	0.000				108	30	2.21	
B7	36.0	133	92	55.62EP	6.51	6.41	0.28	-0.18	1.052		60.89	11.77	11.22	0.06	0.000				108	44	2.61	
B1	40.6	342	91	56.41EPC	7.30	7.16		0.14	1.052										108	42	2.61	
HPI	74.6	121	91	2.10 PDO	12.99	12.70		0.30	1.052		0.00	10.89	22.22	-11.33	0.000				108	57	3.01	
BPM	96.9	29	90	5.90 PCO	16.79	16.32		0.47	1.052		0.00	10.89	28.56	-17.67	0.000				108		1	
JGI	97.7	88	90	5.76 PCO	16.65	16.44		0.21	1.052		0.00	10.89	28.77	-17.88	0.000				108	58	3.11	
CIB	105.8	133	90	7.38 PCO	18.27	17.76		0.51	1.052		20.64	31.53	31.09	0.45	0.000				108	71	3.31	
GBI	147.1	93	65	13.40 P 0	24.29	23.87		0.43	D0.000		30.10	40.99	41.77	-0.77	0.000				108	87	3.61	
TMI	179.9	118	65	17.97 P 0	28.86	28.68		0.18	D0.000		0.00	10.89	50.19	-39.30	0.000				108		1	
LRM	227.0	30	50	24.00 P 0	34.89	34.94		-0.04	D0.000		0.00	10.89	61.14	-50.25	0.000				108		1	
IMW	237.8	94	50	26.14 P 0	37.03	36.28		0.76	D0.000		0.00	10.89	63.48	-52.59	0.000				108		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SE	N	NW	E	SW	NE
AVE. OF END POINTS	0.03	0.04	0.05	0.07	0.08	0.08	0.09

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
18	0.18	0.03	0.07	0

	HORIZONTAL		VERTICAL	
SE =	0.96	SE =	1.75	SE = 0.95 QUALITY = A
AZ =	20.	AZ =	-70.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	1032	41.65	44N14.03	114W 2.19	6.77	3.80	14	8	206	1	0.13	1.7	0.9	C	8|D	0.12	10	50	0.00	0.10	0	0.0	0.0	5	3.8	0.3

SE OF ORIG = 0.117 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	2.7	28	158	42.97	PDO	1.32	1.33		-0.01	1.032		0.00	-41.65	2.34	-43.98	0.000							
ANPI	5.6	155	139	43.41	P 0	1.76	1.62		0.15	1.032		0.00	-41.65	2.83	-44.48	0.000							
WSUI	8.0	103	129	44.30	PC0	2.65	1.92		0.74	M0.000		0.00	-41.65	3.36	-45.00	0.000							
NSUI	8.4	86	128	43.52	P 0	1.87	1.98		-0.10	1.032		0.00	-41.65	3.46	-45.10	0.000							
BSU2	9.8	30	123	44.70	PC0	3.05	2.18		0.87	M0.000		0.00	-41.65	3.82	-45.46	0.000							
DSPI	16.4	96	111	44.83	P 0	3.18	3.24		-0.06	1.032		0.00	-41.65	5.68	-47.32	0.000							
MBAI	19.2	127	108	45.34	P-1	3.69	3.71		-0.02	0.581		0.00	-41.65	6.49	-48.14	0.000							
CMBI	20.3	149	107	45.53	P 0	3.88	3.89		-0.01	1.032		0.00	-41.65	6.82	-48.46	0.000							
M-1	22.9	143	65	46.24	PC0	4.59	4.32	0.30	-0.03	1.032		0.00	-41.65	7.56	-49.73	0.000							
BRPI	24.7	164	65	46.22	PC0	4.57	4.62		-0.04	1.032		47.32	5.67	8.08	-2.41	0.000							
LSGS	27.3	109	65	46.40	P 0	4.75	5.03		-0.27	1.032		0.00	-41.65	8.80	-50.44	0.000							
BRCI	28.0	183	65	46.66	P 0	5.01	5.14		-0.13	1.032		0.00	-41.65	9.00	-50.64	0.000							
LCRI	31.5	133	65	47.50	P 0	5.85	5.71		0.14	1.032		0.00	-41.65	9.99	-51.64	0.000							
BPM	87.3	42	65	56.50	PC0	14.85	14.77		0.08	1.032		0.00	-41.65	25.85	-67.50	0.000							
MPI	95.0	128	65	57.93	P 0	16.28	16.03		0.25	1.032		0.00	-41.65	28.05	-69.70	0.000					99	3.5	
JGI	109.8	98	65	0.12	PDO	18.47	18.43		0.04	1.032		0.00	18.35	32.25	-13.90	0.000					97	3.5	
CIB	127.7	136	55	3.00	P 0	21.35	21.08		0.27	D0.000		0.00	18.35	36.90	-18.54	0.000					106	3.7	
GBI	160.4	100	55	7.75	PC0	26.10	25.88		0.22	D0.000		0.00	18.35	45.29	-26.93	0.000							
TMI	199.2	121	44	13.09	P 0	31.44	31.56		-0.12	D0.000		0.00	18.35	55.23	-36.88	0.000					115	4.0	
LRM	216.3	35	44	14.50	PDO	32.85	33.69		-0.84	M0.000		0.00	18.35	58.96	-40.61	0.000							
IMW	250.8	99	44	20.44	P 0	38.79	38.01		0.79	M0.000		0.00	18.35	66.51	-48.16	0.000					128	4.3	
NPI	262.6	152	44	22.94	P 0	41.29	39.48		1.82	M0.000		0.00	18.35	69.09	-50.73	0.000							
MSD	288.6	1	44	22.90	P 0	41.25	42.73		-1.47	M0.000		0.00	18.35	74.77	-56.42	0.000							
MLI	290.4	148	44	26.81	P 0	45.16	42.95		2.21	M0.000		0.00	18.35	75.16	-56.81	0.000							
NCM	330.1	353	44	29.00	P 0	47.35	47.91		-0.56	M0.000		0.00	18.35	83.85	-65.50	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	Z	E	N	SE	SW	NE
AVE. OF END POINTS	0.07	0.07	0.08	0.11	0.15	0.16	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.13	-0.01	0.12	D

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/31    10/33                                                                                  83/10/31    10/33

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   0.60                SE =   1.87              SE =   1.11   QUALITY = A
                                              AZ =   -34.                AZ =  -124.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831031 1033 26.08 44N10.06 113W57.84   9.25   2.60 15  4 110 I 0.12  1.9  1.1 B 8|8 0.09 10 16 0.00 0.08  0  0.0  0.0  8  2.6  0.1
SE OF ORIG =  0.071          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    1.0  47 173 27.70IP          1.62  1.66              -0.04 1.064                                          110        1
842    2.2 198 166 27.84IP          1.76  1.69               0.07 1.064      29.05  2.97  2.97  0.00 0.745      110        1
814    3.9 207 155 27.87IPD         1.79  1.79               0.00 1.064                                          110  50 2.61
83     4.5  24 152 27.92IPD         1.84  1.03               0.01 1.064                                          110  40 2.41
817   17.5 317 109 29.40IP          3.32  3.50              -0.18 1.064                                          110  48 2.61
81    25.7 344 100 31.05IP          4.97  4.78               0.19 1.064                                          110  42 2.51
811   29.3 155  90 31.43IPC         5.35  5.37              -0.02 1.064                                          110  40 2.51
838   31.0 128  97 31.81IP          5.73  5.63               0.10 1.064      35.69  9.61  9.85 -0.24 0.745      110        1
36    39.0 128  95 32.93IPD         6.85  6.93              -0.08 1.064                                          110  45 2.61
810   39.7 143  95 33.11IP          7.03  7.03               0.00 1.064                                          110  60 2.91
346   40.1 143  95  0.00IP 4      -26.08  7.10             -33.18 0.000      38.79 12.71 12.42  0.29 0.745      110        1
88    43.2 147  94 33.67IP          7.59  7.60              -0.01 1.064                                          110        1
87    49.9 141  94 34.99EP          8.91  8.70   0.20       -0.07 1.064                                          110  40 2.61

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NE     Z     E    NW     N    SE
AVE. OF END POINTS                  0.40  0.41  0.61  0.76  0.84  0.94  1.16

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  15      0.12      0.32      0.74         A

         ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/10/31    10/55                                                                                                  83/10/31    10/55

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.38              SE =    0.73              SE =    0.98   QUALITY = A
                                          AZ =   -29.               AZ =  -119.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831031 1055 37.32 44N 6.73 113W57.03  11.35   2.62 26  6 116 1 0.10  0.7  1.0 B A|B 1.04 10 52 0.00 0.09  0  0.0  0.0  9  2.6  0.2
SE OF ORIG =  0.056          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
814    5.1 326 154 39.38EPD          2.06  2.18              -0.12 1.055                                                111  40 2.41
CH8I   5.3 137 153 39.43 PD0         2.11  2.20              -0.09 1.055       0.00-37.32  3.84-41.16 0.000            111        1
842    5.9 342 150  0.00IP 4       -37.32  2.24             -39.56 0.000      41.15  3.83  3.92 -0.09 0.738            111        1
816    8.3 357 141 39.83IPD          2.51  2.47               0.04 1.055                                                111  61 2.81
M-1    8.4 124 140 40.19 P-0         2.87  2.48  0.30         0.09 1.055       0.00-37.32  4.34-42.18 0.000            111        1
M-2    8.5  48 140 39.90 PC0         2.58  2.48  0.17        -0.07 1.055       0.00-37.32  4.35-41.97 0.000            111        1
MBAI   8.6  77 140 39.94 PC0         2.62  2.50               0.12 1.055      41.89  4.57  4.38  0.19 0.000            111        1
ANPI   9.5 332 136 39.91 P 0         2.59  2.60              -0.01 1.055      41.46  4.14  4.54 -0.40 0.000            111        1
BRPI  10.3 181 134 40.12 PD0         2.80  2.68               0.12 1.055       0.00-37.32  4.69-42.01 0.000            111        1
83    11.8   3 130 40.08IPC          2.76  2.86              -0.10 1.055                                                111  37 2.41
WSUI  11.8   4 130 40.40 PC2         3.08  2.86               0.22 0.264       0.00-37.32  5.00-42.33 0.000            111        1
NSUI  14.2   6 124 40.62 P 0         3.30  3.18               0.12 1.055       0.00-37.32  5.56-42.88 0.000            111        1
DSPI  15.2  39 122 40.63 P 0         3.31  3.31               0.00 1.055       0.00-37.32  5.79-43.11 0.000            111        1
BRCI  16.6 210 119 40.91 P 0         3.59  3.51               0.08 1.055       0.00-37.32  6.14-43.46 0.000            111        1
NWSI  16.8 341 119 40.87 PC0         3.55  3.53               0.02 1.055       0.00-37.32  6.18-43.50 0.000            111        1
LCRI  18.0 116 117 41.10 PC0         3.78  3.70               0.08 1.055       0.00-37.32  6.48-43.80 0.000            111        1
LSGS  19.5  76 114 41.40 PC0         4.08  3.92               0.16 1.055       0.00-37.32  6.87-44.19 0.000            111        1
811   22.1 149 111 41.54IPD          4.22  4.31              -0.09 1.055      44.78  7.46  7.54 -0.08 0.000            111  50 2.71
BSU2  22.1 355 111 41.40 PC0         4.08  4.31              -0.24 1.055       0.00-37.32  7.55-44.87 0.000            111        1
817   24.3 328 108 41.97IP           4.65  4.65               0.00 1.055      45.28  7.96  8.14 -0.18 0.000            111  42 2.51
838   25.9 116 107  0.00IP 4       -37.32  4.90             -42.22 0.000      45.91  8.59  8.58  0.01 0.738            111        1
810   33.1 137 102 43.28EPC          5.96  6.02              -0.06 1.055                                                111  60 2.91
81    33.3 346 102 43.53IPD          6.21  6.06               0.15 1.055                                                111  39 2.51
846   33.6 136 102  0.00IP 4       -37.32  6.09             -43.41 0.000      48.75 11.43 10.66  0.77M0.000            111        1
86    34.0 119 102 43.33IPC          6.01  6.17              -0.16 1.055      46.71  9.39 10.80 -1.41 0.000            111  53 2.81
88    36.3 142 101 43.91IPD          6.59  6.55               0.04 1.055                                                111        1
87    43.5 135  98 45.21EPC          7.89  7.69  0.28        -0.08 1.055      51.19 13.87 13.46 -0.09 0.000            111  41 2.61
BPM   93.8  33  65 53.80 PC0        16.48 15.77               0.71M0.000       0.00-37.32 27.60-64.92 0.000            111        1
LRM  223.8  32  50 11.50 P 0        34.18 34.15               0.03D0.000       0.00 22.68 59.76-37.08 0.000            111        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     E    NE    NW    SE    SW     Z
AVE. OF END POINTS                 0.09  0.14  0.15  0.15  0.15  0.15  0.16

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 12      0.10      0.07      0.14         D

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.91	SE = 1.83	SE = 2.06	QUALITY = A
AZ =	38.	AZ = -52.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	1126 17.29	44N15.07	114W	3.61	9.76		14	9	227	1	0.08	1.8	2.1	C	BID	0.28	10	28	0.00	0.06	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.178 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)									
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	3.2	83	160	19.22	PDO	1.93	1.82		0.11	1.000		0.00-17.29		3.19-20.48		0.000							
ANPI	8.2	148	136	19.55	PDO	2.26	2.26		0.00	1.000		0.00-17.29		3.96-21.25		0.000							
dSU2	9.5	46	131	19.60	PCO	2.31	2.41		-0.10	1.000		0.00-17.29		4.22-21.51		0.000							
NSUI	10.4	97	128	19.85	PDO	2.56	2.51		0.05	1.000		0.00-17.29		4.40-21.69		0.000							
WSUI	10.4	111	128	19.70	PDO	2.41	2.51		-0.10	1.000		0.00-17.29		4.40-21.69		0.000							
M-2	18.0	123	111	21.05	PCO	3.76	3.60	0.17	-0.01	1.000		0.00-17.29		6.30-23.89		0.000							
DSPI	18.6	101	110	20.99	PCO	3.70	3.69		0.01	1.000		0.00-17.29		6.46-23.75		0.000							
MBAI	21.9	128	106	21.50	PCO	4.21	4.20		0.01	1.000		0.00-17.29		7.34-24.63		0.000							
CMBI	22.9	147	104	21.54	PCO	4.25	4.36		-0.11	1.000		0.00-17.29		7.63-24.92		0.000							
M-1	25.6	142	102	22.30	PCO	5.01	4.79	0.30	-0.08	1.000		0.00-17.29		8.38-26.19		0.000							
dRPI	27.1	161	101	22.42	PCO	5.13	5.03		0.10	1.000		25.72	8.43	8.81	-0.38	0.000							
LSGS	29.7	111	100	22.90	PCO	5.61	5.44		0.17	1.000		0.00-17.29		9.52-26.81		0.000							
dRCI	29.9	179	99	22.76	PCO	5.47	5.47		0.00	1.000		0.00-17.29		9.57-26.86		0.000							
LCRI	34.2	133	98	23.40	PCO	6.11	6.16		-0.05	1.000		0.00-17.29		10.78-28.07		0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	Z	NE	E	SE	N	SW
AVE. OF END POINTS	0.23	0.28	0.37	0.37	0.47	0.55	0.55

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.08	0.09	0.41	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/10/31 15/15 83/10/31 15/15

	HORIZONTAL		VERTICAL	
SE =	0.52	SE =	0.85	SE = 0.63 QUALITY = A
AZ =	-21.	AZ =	-111.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	DS	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831031	1515 16.24	44N12.66	113W57.61	6.64	2.58	28	3	73	1	0.15	0.8	0.6	A	A|A	0.14	10	49	0.00	0.11	0	0.0	0.0	8	2.6	0.3

SE OF ORIG = 0.042 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
83	1.7	63	166	17.27	IPD	1.03	1.26		-0.23	1.022										113	30	2.11	
WSUI	1.9	65	164	17.90	PDO	1.66	1.27		0.39	1.022		0.00	-16.24	2.22	-18.46	0.000				113		1	
816	2.7	172	157	17.47	IPD	1.23	1.32		-0.09	1.022										113		1	
NSUI	3.9	36	149	17.72	P 0	1.48	1.41		0.07	1.022		0.00	-16.24	2.47	-18.71	0.000				113		1	
ANPI	4.5	235	145	17.77	P 0	1.53	1.47		0.06	1.022		0.00	-16.24	2.57	-18.81	0.000				113		1	
842	5.5	191	139	17.76	IP	1.52	1.58		-0.06	1.022		18.69	2.45	2.77	-0.32	0.715				113		1	
NWSI	6.9	315	133	17.96	P 0	1.72	1.75		-0.03	1.022		0.00	-16.24	3.06	-19.30	0.000				113		1	
814	7.1	197	132	18.03	IPD	1.79	1.79		0.00	1.022										113	48	2.61	
DSPI	10.3	85	122	18.43	P 0	2.19	2.24		-0.05	1.022		0.00	-16.24	3.91	-20.15	0.000				113		1	
BSU2	11.1	354	120	18.40	P+0	2.16	2.35		-0.19	1.022		0.00	-16.24	4.12	-20.36	0.000				113		1	
BSU2	11.1	354	120	18.70	P 0	2.46	2.35		0.11	1.022		0.00	-16.24	4.12	-20.36	0.000				113		1	
MBAI	12.9	135	116	18.97	PCO	2.73	2.66		0.07	1.022		0.00	-16.24	4.65	-20.89	0.000				113		1	
817	15.5	308	112	19.26	IPC	3.02	3.07		-0.05	1.022		21.42	5.18	5.38	-0.20	0.000				113		1	
CHBI	15.5	163	112	19.44	PDO	3.20	3.07		0.13	1.022		0.00	-16.24	5.38	-21.62	0.000				113		1	
M-1	17.5	154	109	20.00	P+0	3.76	3.42	0.30	0.04	1.022		0.00	-16.24	5.98	-22.74	0.000				113		1	
LSGS	20.7	108	106	20.10	PCO	3.86	3.95		-0.09	1.022		0.00	-16.24	6.91	-23.15	0.000				113		1	
BRPI	21.3	178	106	20.54	PCO	4.30	4.05		0.25	1.022		23.41	7.17	7.10	0.07	0.000				113		1	
81	22.6	341	65	20.53	IPD	4.29	4.28		0.01	1.022										113	46	2.61	
LCRI	25.4	138	65	20.90	PCO	4.66	4.73		-0.07	1.022		0.00	-16.24	8.28	-24.52	0.000				113		1	
BRCI	26.5	196	65	21.03	P 0	4.79	4.91		-0.12	1.022		0.00	-16.24	8.59	-24.83	0.000				113		1	
811	32.3	158	65	22.28	EPD	6.04	5.85		0.19	1.022		26.95	10.71	10.23	0.48	0.000				113	50	2.71	
838	32.9	133	65	22.33	IP	6.09	5.95		0.14	1.022		26.36	10.12	10.42	-0.30	0.715				113		1	
86	40.9	132	65	23.44	IP	7.20	7.26		-0.06	1.022										113	35	2.41	
810	42.2	146	65	23.70	EP	7.46	7.46		0.00	1.022		29.13	12.89	13.06	-0.17	0.000				113	55	2.81	
88	45.9	149	65	24.30	EP	8.06	8.06		0.00	1.022										113	70	3.01	
87	52.4	143	65	25.63	EPD	9.39	9.11	0.28	0.00	1.022										113	34	2.41	
BPM	85.3	38	65	31.40	PDO	15.16	14.46		0.70	M0.000		0.00	-16.24	25.31	-41.55	0.000				113		1	
LRM	215.0	34	44	50.00	P 0	33.76	33.54		0.22	D0.000		0.00	-16.24	58.70	-74.94	0.000				113		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	Z	E	SW	NE	SE
AVE. OF END POINTS	0.05	0.06	0.10	0.11	0.13	0.14	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.15	0.05	0.11	0

----------END----------END----------END----------END----------

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/31    16/ 8                                                                                  83/10/31    16/ 8

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.98              SE =   1.64              SE =   3.31   QUALITY = B
                                            AZ =    -7.              AZ =   -97.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831031 16 8 33.52 44N 8.31 113W59.03   9.56        15  9 144 1 0.17  1.6  3.3 C BIC 0.06 10 36 0.00 0.14  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.168          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   5.8 342 146 35.62 P 0        2.10  1.99              0.12 1.000       0.00-33.52  3.48-36.99 0.000
CMBI   9.3 137 131 35.84 PD0        2.32  2.36             -0.04 1.000       0.00-33.52  4.13-37.65 0.000
N-2    9.4  73 131 36.10 PD0        2.58  2.38  0.17        0.04 1.000       0.00-33.52  4.16-37.97 0.000
WSUI   9.5  22 130 36.20 PD0        2.68  2.39              0.29 1.000       0.00-33.52  4.19-37.70 0.000
MBAI  11.1  95 125 36.19 PD0        2.67  2.59              0.09 1.000       0.00-33.52  4.53-38.05 0.000
NSUI  12.0  20 123 36.21 P 0        2.69  2.71             -0.02 1.000       0.00-33.52  4.74-38.26 0.000
M-1   12.3 129 122 36.35 PD0        2.83  2.76  0.30       -0.22 1.000       0.00-33.52  4.83-38.87 0.000
NWSI  13.3 347 119 36.16 PD0        2.64  2.89             -0.24 1.000       0.00-33.52  5.05-38.57 0.000
BRPI  13.4 169 119 36.52 PC0        3.00  2.91              0.09 1.000      38.32  4.80  5.10 -0.30 0.000
OSPI  15.1  54 115 36.52 P 0        3.00  3.14             -0.14 1.000       0.00-33.52  5.50-39.02 0.000
BRCI  18.2 198 109 37.25 P 0        3.73  3.62              0.11 1.000       0.00-33.52  6.34-39.86 0.000
BSU2  19.1   2 108 37.00 PD0        3.48  3.76             -0.27 1.000       0.00-33.52  6.57-40.09 0.000
LSGS  21.7  85 105 37.70 PD0        4.18  4.16              0.03 1.000       0.00-33.52  7.27-40.79 0.000
LCRI  21.7 120 105 37.55 PD0        4.03  4.16             -0.13 1.000       0.00-33.52  7.28-40.80 0.000
BPM   92.9  36  92 49.50 PC0       15.98 15.67              0.31 1.000       0.00-33.52 27.43-60.94 0.000
LRM  222.7  33  50 67.30 P 0       33.78 34.20             -0.42D0.000       0.00-33.52 59.85-93.37 0.000
MSO  299.0   1  50 16.60 P 0       43.08 43.74             -0.66M0.000       0.00 26.48 76.54-50.06 0.000
NCM  341.1 352  50 22.30 P 0       48.78 49.00             -0.22D0.000       0.00 26.48 85.75-59.26 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     N    SE    NW    SW    NE     E
AVE. OF END POINTS                   0.05  0.05  0.07  0.07  0.08  0.08  0.20

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 7      0.17     -0.03      0.09         D
```

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/31    21/14                                                                                          83/10/31    21/14

                                                   HORIZONTAL                                  VERTICAL
                                              SE =   1.66              SE =   2.83              SE =   1.58   QUALITY = B
                                              AZ =    29.              AZ =   -61.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831031 2114 17.49 44N15.44 114W 4.37   6.43        12 10 236 1 0.14  2.8  1.6 D C|D 0.25 10 24 0.00 0.10  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.212          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   4.2  94 146 18.95 P 0        1.46  1.41              0.05 1.067       0.00-17.49  2.46-19.96 0.000
ANPI   9.4 145 123 19.53 PD0        2.04  2.08             -0.04 1.067      21.43  3.94  3.63  0.30 0.000
BSU2   9.8  53 122 19.60 PC0        2.11  2.15             -0.04 1.067       0.00-17.49  3.75-21.25 0.000
NSUI  11.5 100 118 19.79 PC0        2.30  2.39             -0.09 1.067      21.22  3.73  4.19 -0.46 0.000
WSUI  11.6 112 118 19.90 PC0        2.41  2.41              0.00 1.067       0.00-17.49  4.21-21.70 0.000
M-2   19.2 123 107 21.40 PD0        3.91  3.69  0.17        0.05 1.067       0.00-17.49  6.46-24.25 0.000
DSPI  19.7 103 107 21.26 PD0        3.77  3.78             -0.01 1.067       0.00-17.49  6.61-24.11 0.000
MBAI  23.1 128 104 21.81 P+2        4.32  4.36             -0.04 0.267       0.00-17.49  7.63-25.12 0.000
M-1   26.7 141  65 22.90 P-0        5.41  4.97  0.30        0.14 1.067       0.00-17.49  8.70-26.71 0.000
BRPI  28.1 160  65 22.32 P+0        4.83  5.19             -0.36 1.067      24.22  6.73  9.09 -2.36 0.000
BRCI  30.6 177  65 23.28 PD0        5.79  5.59              0.20 1.067       0.00-17.49  9.78-27.27 0.000
LSGS  30.9 112  65 23.25 PD0        5.76  5.64              0.12 1.067       0.00-17.49  9.87-27.36 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    SE    NW     N    SW    NE
AVE. OF END POINTS                 0.07  0.08  0.09  0.10  0.14  0.15  0.17
```

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/10/31    22/27                                                                                          83/10/31    22/27

                                                   HORIZONTAL                                  VERTICAL
                                              SE =   0.49              SE =   1.45              SE =   2.39   QUALITY = A
                                              AZ =   -52.              AZ =    38.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831031 2227 45.86 44N 0.50 113W53.89  11.37   2.53 13 13 120 1 0.11  1.5  2.4 B B|B 0.17 10 18 0.00 0.09  0  0.0  0.0 10  2.5  0.3
SE OF ORIG =  0.103          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811   10.3 136 134 48.68IPC         2.82  2.68              0.13 1.048                                          116  43 2.51
841   10.9 268 132 48.63IP          2.77  2.76              0.01 1.048      50.59  4.73  4.83 -0.10 0.734      116       1
812   13.4 256 126 49.04IPC         3.18  3.06              0.11 1.048                                          116  68 2.91
814   17.2 336 118 49.50IP          3.64  3.59              0.04 1.048      52.15  6.29  6.28  0.00 0.000      116  35 2.41
816   20.4 347 113 49.87IPC         4.01  4.06             -0.05 1.048      52.70  6.84  7.10 -0.27 0.000      116  47 2.61
946   22.9 124 110 50.19IP          4.33  4.44             -0.11 1.048      53.46  7.60  7.76 -0.17 0.734      116       1
88    25.0 133 108 50.75IPD         4.89  4.76              0.12 1.048                                          116  60 2.91
86    26.1 100 107 50.94IPD         5.08  4.93              0.15 1.048                                          116  50 2.71
815   30.7 308 103 51.42IP          5.56  5.65             -0.09 1.048      54.77  8.91  9.88 -0.98 0.000      116  47 2.71
87    32.8 126 102 51.98IP          6.12  5.97  0.28       -0.13 1.048                                          116  35 2.41
817   36.4 332 101 52.44EP          6.58  6.56              0.02 1.048      56.78 10.92 11.47 -0.56 0.000      116  25 2.11
81    45.5 344  98 54.69EPC4        8.83  8.03              0.80 0.000                                          116  23 2.11

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW    SW     E    NE     Z     N
AVE. OF END POINTS                 0.09  0.11  0.14  0.15  0.16  0.16  0.18
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1     0/27                                                                                                  83/11/ 1     0/27

                                                   HORIZONTAL                                  VERTICAL
                                             SE =    0.39              SE =   0.67              SE =   0.95   QUALITY = A
                                             AZ =    -33.              AZ =  -123.

 DATE    DRIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101  027 47.56 44N 9.38 113W55.28   7.17   2.88 30  4  52 1 0.14  0.7  1.0 A A|A 0.27 10 49 0.00 0.10  0  0.0  0.0  9  2.9  0.2
SE OF ORIG =  0.040        10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-2    4.1  80 146 49.20 PCO        1.64  1.51  0.17       -0.04 1.042       0.00-47.56  2.64-50.49 0.000          117        1
B42    4.2 279 146 49.05IP          1.49  1.52              -0.02 1.042      50.06  2.50  2.65 -0.15 0.729          117        1
B16    4.3 322 144 49.09IPD         1.53  1.53               0.00 1.042                                              117  67 2.81
B14    5.2 262 138 49.23IPD         1.67  1.63               0.05 1.042                                              117  50 2.61
MBAI   6.8 116 130 49.52 PDO        1.96  1.80               0.16 1.042       0.00-47.56  3.16-50.71 0.000          117        1
WSUI   7.0 348 129 48.97 PDO        1.41  1.82              -0.41 1.042       0.00-47.56  3.19-50.75 0.000          117        1
ANPI   7.6 297 126 49.47 PDO        1.91  1.90               0.01 1.042       0.00-47.56  3.33-50.88 0.000          117        1
CHBI   8.9 172 120 49.54 PDO        1.98  2.07              -0.09 1.042       0.00-47.56  3.63-51.19 0.000          117        1
NSUI   9.3 355 118 49.78 PDO        2.22  2.13               0.10 1.042       0.00-47.56  3.72-51.28 0.000          117        1
DSPI  10.0  46 115 49.83 PCO        2.27  2.24               0.03 1.042       0.00-47.56  3.92-51.47 0.000          117        1
B37   10.3 175 114 49.83IP          2.27  2.28              -0.01 1.042      51.80  4.24  3.99  0.25 0.729          117        1
M-1   10.7 154 112 50.10 PCO        2.54  2.35  0.30        -0.10 1.042       0.00-47.56  4.11-52.19 0.000          117        1
NWSI  13.5 324 102 50.41 PDO        2.85  2.77               0.08 1.042       0.00-47.56  4.85-52.41 0.000          117        1
BRPI  15.4 189  96 50.67 PDO        3.11  3.08               0.03 1.042      51.92  4.36  5.39 -1.03 0.000          117        1
LSGS  16.6  91  94 50.95 PDO        3.39  3.27               0.12 1.042       0.00-47.56  5.73-53.29 0.000          117        1
BSU2  17.6 346  93 51.10 PDO        3.54  3.43               0.11 1.042       0.00-47.56  6.01-53.57 0.000          117        1
LCRI  18.9 133  92 51.40 PCO        3.84  3.64               0.20 1.042       0.00-47.56  6.37-53.92 0.000          117        1
B17   21.9 316  91 51.59EPD         4.03  4.13              -0.09 1.042                                              117  47 2.61
B15   22.5 276  91 51.82IPD         4.26  4.22               0.04 1.042                                              117  60 2.81
B12   22.7 209  91 51.84IPD         4.28  4.25               0.03 1.042                                              117        1
B11   25.5 159  91 52.38IPD         4.82  4.71               0.11 1.042                                              117  75 3.01
B38   26.6 128  91 52.48IP          4.92  4.89               0.03 1.042      55.95  8.39  8.55 -0.16 0.729          117        1
B1    29.4 339  91 52.98IPD         5.42  5.34               0.08 1.042      56.40  8.84  9.34 -0.50 0.000          117  57 2.81
B6    34.7 128  90 53.80IPD         6.24  6.20               8.04 1.042                                              117  54 2.81
B46   35.9 144  90  0.00IP 4      -47.56  6.39             -53.95 0.000      58.34 10.78 11.19 -0.41 0.729          117        1
B8    39.1 149  90 54.45EPD         6.89  6.91              -0.02 1.042                                              117  83 3.21
B7    45.6 142  90 55.71IPD         8.15  7.98  0.28        -0.11 1.042                                              117 100 3.31
BPM   88.4  34  90  3.20 PDO       15.64 14.94               0.70M0.000       0.00 12.44 26.15-13.70 0.000          117        1
LRM  218.4  32  50 21.60 PDO       34.04 33.91               0.13D0.000       0.00 12.44 59.34-46.90 0.000          117        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NE    SW    NW     E     Z     N
AVE. OF END POINTS                  0.11  0.11  0.12  0.13  0.15  0.15  0.16

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  12      0.14      0.08      0.13         D

          ------------END----------------------END----------------------END----------------------END------------
```

BEGIN BEGIN BEGIN BEGIN

83/11/ 1 0/59

	HORIZONTAL	VERTICAL	
SE =	0.59	SE = 0.95	SE = 1.42 QUALITY = A
AZ =	-21.	AZ = -111.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	059 8.13	44N13.05	114W 2.16	8.01	2.81	25	7	74	1	0.15	0.9	1.4	B	B|A	0.55	10	45	0.00	0.11	0	0.0	0.0	8	2.8	0.3

SE OF ORIG = 0.068 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT				THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	4.0	144	150	9.82 PDO	1.69	1.62			0.07	1.037	11.62	3.49	2.84	0.65	0.000				118		1	
NWSI	4.3	16	148	9.81 PCO	1.68	1.65			0.03	1.037	0.00	-8.13	2.88	-11.01	0.000				118		1	
816	7.3	118	132	10.08IPD	1.95	1.96			-0.01	1.037									118	54	2.71	
WSUI	7.8	90	130	10.25 PDO	2.12	2.01			0.11	1.037	0.00	-8.13	3.52	-11.65	0.000				118		1	
842	7.9	140	129	0.00IP 4	-8.13	2.03			-10.16	0.000	11.52	3.39	3.55	-0.16	0.726				118		1	
814	8.5	152	127	10.27IPD	2.14	2.10			0.04	1.037									118	38	2.41	
NSUI	8.7	74	126	10.35 PCO	2.22	2.12			0.10	1.037	0.00	-8.13	3.71	-11.84	8.000				118		1	
817	10.8	325	118	10.51IPC	2.38	2.41			-0.03	1.037									118		1	
BSU2	11.4	26	116	10.52 P 0	2.39	2.50			-0.11	1.037	0.00	-8.13	4.37	-12.51	0.000				118		1	
815	13.9	252	109	11.13IPC	3.00	2.87			0.12	1.037	13.37	5.24	5.03	0.21	0.000				118	51	2.61	
844	14.4	9	108	0.00IP 4	-8.13	2.95			-11.08	0.000	13.03	4.90	5.16	-0.27	0.726				118		1	
M-2	14.5	115	108	11.30 PDO	3.17	2.96	0.17		0.03	1.037	0.00	-8.13	5.19	-13.62	0.000				118		1	
DSPI	16.3	89	104	11.42 PCO	3.29	3.26			0.03	1.037	0.00	-8.13	5.70	-13.83	0.000				118		1	
MBAI	18.1	123	101	11.78 PDO	3.65	3.54			0.11	1.037	13.41	5.28	6.20	-0.92	0.000				118		1	
CMBI	18.8	146	100	11.84 PCO	3.71	3.64			0.07	1.037	0.00	-8.13	6.37	-14.50	0.000				118		1	
81	20.6	356	98	12.03IPC	3.90	3.93			-0.03	1.037	14.83	6.70	6.88	-0.18	0.000				118	49	2.61	
M-1	21.5	140	97	12.60 PCO	4.47	4.08	0.30		0.09	1.037	0.00	-8.13	7.14	-15.80	0.000				118		1	
BRPI	23.0	163	96	12.52 PCO	4.39	4.32			0.06	1.037	13.92	5.79	7.57	-1.78	0.000				118		1	
BRCI	26.1	183	95	12.59 PCO	4.46	4.83			-0.38	1.037	0.00	-8.13	8.46	-16.59	0.000				118		1	
812	26.6	184	95	13.06IPC4	4.93	4.91			0.02	0.000									118	86	3.11	
LSGS	26.7	105	95	13.15 P 0	5.02	4.92			0.10	1.037	0.00	-8.13	8.61	-16.75	0.000				118		1	
811	35.6	149	93	14.64EP	6.51	6.36			0.14	1.037									118		1	
86	46.1	127	92	16.28EPC	8.15	8.06			0.09	1.037	18.28	10.15	14.11	-3.96	0.000				118	50	2.71	
846	46.8	140	92	0.00IP 4	-8.13	8.18			-16.32	0.000	21.89	13.76	14.32	-0.56	0.726				118		1	
88	49.8	144	92	16.90EP	8.77	8.67			0.10	1.037									118	67	3.01	
87	56.7	139	91	18.17EPD	10.04	9.79	0.28		-0.03	1.037									118	85	3.21	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	SE	N
AVE. OF END POINTS	0.32	0.48	0.62	0.63	0.68	0.88	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
25	0.15	0.38	0.68	A

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1     1/ 5                                                                                          83/11/ 1     1/ 5

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   0.32              SE =   0.49              SE =   0.83   QUALITY = A
                                              AZ =  -12.               AZ =  -102.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DS GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NP AVFM SDFM
831101  1 5 28.19 44N13.87 114W 3.13   8.64   3.30 34  9  83 1 0.10  0.5  0.8 A A|A 0.47 10 74 0.00 0.07  0  0.0  0.0 12  3.3  0.4
SE OF ORIG =  0.041          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.6  44 155 29.95 PDO        1.76  1.68              0.07 1.046       0.00-28.19  2.94-31.14 0.000            119        1
ANPI   6.0 143 141 30.12 P 0        1.93  1.89              0.03 1.046       0.00-28.19  3.31-31.51 0.000            119        1
B45    7.8 315 133  0.00IP 4      -28.19  2.09            -30.28 0.000      42.42 14.23  3.66 10.57M0.000            119        1
B17    8.8 327 129 30.33IPD        2.14  2.20             -0.06 1.046                                                 119  65 2.81
WSUI   9.2  99 128 30.62 PDO        2.43  2.25              0.18 1.046       0.00-28.19  3.93-32.13 0.000            119        1
B16    9.2 122 128 30.43IPD        2.24  2.25             -0.01 1.046                                                 119        1
NSUI   9.7  85 126 30.50 PCO        2.31  2.31              0.00 1.046       0.00-28.19  4.04-32.23 0.000            119        1
B42    9.9 140 125 30.55EPD        2.36  2.34              0.02 1.046      32.18  3.99  4.10 -0.11 0.732            119        1
B14   10.5 150 123 30.65IPD        2.46  2.43              0.03 1.046                                                 119  55 2.71
BSU2  10.8  35 122 30.62 PCO        2.43  2.46             -0.04 1.046       0.00-28.19  4.31-32.51 0.000            119        1
B44   13.2  16 115 30.84EPC        2.65  2.80             -0.15 1.046      33.06  4.87  4.90 -0.03 0.732            119        1
B15   13.3 244 115 31.16IPC        2.97  2.81              0.16 1.046                                                 119  84 3.11
B39   16.3 117 108 31.49IP         3.30  3.27              0.02 1.046      33.92  5.73  5.73  0.00 0.732            119        1
M-2   16.3 118 108 31.60 P 0        3.41  3.28  0.17        -0.04 1.046       0.00-28.19  5.74-34.23 0.000            119        1
DSPI  17.7  94 106 31.58 PDO        3.39  3.48             -0.10 1.046       0.00-28.19  6.10-34.29 0.000            119        1
B1    19.1 359 104 31.80IPC        3.61  3.71             -0.11 1.046                                                 119  69 2.91
MBAI  20.1 124 102 32.07 PCO        3.88  3.87              0.01 1.046       0.00-28.19  6.77-34.97 0.000            119        1
CMBI  20.7 145 102 32.24 PCO        4.05  3.98              0.07 1.046       0.00-28.19  6.96-35.16 0.000            119        1
M-1   23.5 140  99 32.95 P 0        4.76  4.41  0.30        0.05 1.046       0.00-28.19  7.72-36.44 0.000            119        1
BRPI  24.8 161  98 32.92 PCO        4.73  4.63              0.10 1.046      35.22  7.03  8.10 -1.07 0.000            119        1
B41   25.1 177  98  0.00IP 4      -28.19  4.67            -32.87 0.000      36.24  8.05  8.18 -0.13 0.732            119        1
BRCI  27.6 180  97 33.15 PCO        4.96  5.08             -0.12 1.046       0.00-28.19  8.80-37.08 0.000            119        1
B12   28.1 181  97 33.34IPC        5.15  5.14              0.00 1.046                                                 119        1
LSGS  28.4 107  96 33.25 PCO        5.06  5.19             -0.13 1.046       0.00-28.19  9.09-37.28 0.000            119        1
LCRI  32.2 131  95 34.00 PCO        5.81  5.83             -0.02 1.046       0.00-28.19 10.19-38.39 0.000            119        1
B11   37.6 149  94 34.90IPD        6.79  6.69              0.09 1.046                                                 119  60 2.91
B38   39.9 120  94 35.19EPD        7.00  7.08             -0.08 1.046      40.70 12.51 12.39  0.12 0.732            119        1
B6    48.0 128  93 36.57EPC        8.30  8.39             -0.01 1.046                                                 119  86 3.21
B8    51.8 144  92 37.20IPD        9.01  9.00              0.01 1.046                                                 119 100 3.41
B7    58.7 139  92 38.47IP        10.28 10.12  0.28        -0.13 1.046                                                 119 114 3.51
BPM   88.3  43  91 43.40 PCO       15.21 14.93              0.28 1.046       0.00-28.19 26.12-54.31 0.000            119        1
JGI  111.0  98  65 48.31 P 4       20.12 18.49              1.63 0.000      54.29 26.10 32.35 -6.26 0.000            119        1
CIB  126.4 136  65 49.00 P 0       21.61 21.05              0.56M0.000      66.19 38.00 36.83  1.17 0.000            119  89 3.51
GBI  161.5 180  65 54.77 P 0       26.58 25.92              0.66M0.000       0.00-28.19 45.35-73.55 0.000            119  91 3.71
TMI  200.2 121  50 59.87 P 0       31.68 31.48              0.2000.000      84.66 56.47 55.08  1.38 0.000            119  91 3.81
LRM  217.3  36  50  1.40 PDO       33.21 33.61             -0.40D0.000      27.10 58.91 58.82  0.09 0.000            119        1
BUT  230.1  31  50  6.50 P 0       38.31 35.22              3.09M0.000      29.40 61.21 61.63 -0.43 0.000            119        1
IMW  252.0  98  50  6.10 P 0       37.99 37.96              0.03D0.000      37.67 69.48 66.42  3.05 0.000            119  89 4.01
NPI  262.9 152  50  9.73 P 0       41.54 39.32              2.22M0.000       0.00 31.81 68.81-37.01 0.000            119        1
MSO  288.9   2  50 10.00 P 0       41.81 42.57             -0.76M0.000       0.00 31.81 74.49-42.68 0.000            119        1
SXM  308.0  46  50 13.70 P 0       45.51 45.06              0.45D0.000       0.00 31.81 78.85-47.05 0.000            119        1
NCM  330.2 353  50 15.80 PDO       47.61 47.73             -0.12D0.000       0.00 31.81 83.53-51.72 0.000            119        1

                         QUALITY EVALUATION
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 1      1/58                                                                                                  83/11/ 1      1/58

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.54              SE =    0.98              SE =    1.02    QUALITY = A
                                            AZ =    -44.              AZ =   -134.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101  158  5.44 44N10.39 114W 0.93  11.39   2.22 14  5  83 1 0.10  1.0  1.0 A A|A 0.48 10 17 0.00 0.08  0  0.0  0.0  8  2.2  0.2
SE DF ORIG =  0.062          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
814    3.5 138 162  7.54IP          2.10  2.09              0.01 1.069                                                 120  22 1.91
842    3.6 109 161  0.00IP 4       -5.44  2.09             -7.54 0.000       9.02  3.58  3.67 -0.09 0.748            120        1
816    5.1  72 154  7.58IPD         2.14  2.18             -0.05 1.069                                                 120  30 2.21
839   11.6  95 131  8.32IP          2.88  2.84              0.04 1.069      10.44  5.00  4.97  0.03 0.748            120        1
815   14.8 272 123  8.80IPD         3.36  3.26              0.10 1.069      10.25  4.81  5.71 -0.90 0.000            120  30 2.21
817   15.8 331 121  8.86IPD         3.42  3.40              0.02 1.069                                                 120  24 2.01
812   21.9 190 111  9.66IPD         4.22  4.29             -0.07 1.069                                                 120        1
81    25.7 353 107 10.31IPC         4.87  4.87              0.00 1.069                                                 120  26 2.11
811   30.6 147 104 11.18IPD         5.74  5.62              0.12 1.069                                                 120  32 2.31
86    41.9 123  99 12.89EPC         7.45  7.44              0.01 1.069                                                 120  32 2.41
846   42.1 138  99  0.00IP 4       -5.44  7.47            -12.91 0.000      18.76 13.32 13.07  0.25 0.748            120        1
88    44.9 142  98 13.20EPC         7.76  7.92             -0.16 1.069                                                 120  40 2.61
87    52.0 137  97 14.63EPD         9.19  9.06  0.28       -0.15 1.069                                                 120        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE     Z    SW     E    NW     N    SE
AVE. OF END POINTS                   0.48  0.58  0.63  0.83  0.84  0.91  1.02

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  14      0.10      0.45      0.77         A

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.53	SE =	0.70	SE = 0.83 QUALITY = A
AZ =	-30.	AZ =	-120.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	247 43.37	44N 8.54	113W57.11	5.20	2.48	29	5	76	1	0.16	0.7	0.8	8	B|A	0.16	10	53	0.00	0.12	0	0.0	0.0	9	2.5	0.3

SE OF ORIG = 0.043 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	2.8	323	151	0.00	IP 4	-43.37	1.09		-44.46	0.000		45.35	1.98	1.91	0.07	0.715				121			1
814	2.9	287	150	44.54	IPC	1.17	1.10		0.07	1.021										121	29	2.11	
816	5.0	357	135	44.61	IPD	1.24	1.33		-0.09	1.021										121	40	2.41	
ANPI	6.7	319	126	45.12	PC0	1.75	1.56		0.19	1.021		45.92	2.55	2.73	-0.18	0.000				121			1
M-2	6.8	70	126	45.00	PD0	1.63	1.58	0.17	-0.12	1.021		0.00	-43.37	2.77	-46.43	0.000				121			1
839	6.9	69	125	45.03	IP	1.66	1.59		0.07	1.021		46.32	2.95	2.78	0.17	0.715				121			1
CHBI	8.1	152	121	45.05	PC0	1.68	1.77		-0.09	1.021		0.00	-43.37	3.10	-46.46	0.000				121			1
WSUI	8.5	7	120	45.15	PD0	1.78	1.82		-0.04	1.021		0.00	-43.37	3.19	-46.56	0.000				121			1
MBAI	8.7	100	119	45.26	PD0	1.89	1.85		0.04	1.021		0.00	-43.37	3.24	-46.61	0.000				121			1
M-1	10.7	139	114	45.91	PC0	2.54	2.19	0.30	0.05	1.021		0.00	-43.37	3.84	-47.73	0.000				121			1
NSUI	10.9	9	114	45.49	PD0	2.12	2.22		-0.10	1.021		0.00	-43.37	3.88	-47.25	0.000				121			1
DSPI	12.8	48	110	45.72	PD0	2.35	2.54		-0.19	1.021		0.00	-43.37	4.44	-47.81	0.000				121			1
BRPI	13.6	180	109	46.22	PD0	2.85	2.67		0.18	1.021		48.02	4.65	4.68	-0.03	0.000				121			1
NWSI	13.7	336	109	46.01	PD0	2.64	2.68		-0.04	1.021		0.00	-43.37	4.69	-48.05	0.000				121			1
BSU2	18.7	355	104	46.83	P+0	3.46	3.55		-0.08	1.021		0.00	-43.37	6.20	-49.57	0.000				121			1
LSGS	19.1	86	103	46.95	PC0	3.58	3.61		-0.03	1.021		0.00	-43.37	6.32	-49.69	0.000				121			1
812	20.1	206	103	47.16	IPC	3.79	3.79		0.00	1.021										121	72	3.01	
815	20.3	281	103	47.16	EPC	3.79	3.82		-0.02	1.021		50.06	6.69	6.68	0.01	0.000				121	37	2.41	
817	21.5	323	102	47.33	EPC	3.96	4.02		-0.06	1.021										121	30	2.21	
811	25.0	153	100	47.96	EP	4.59	4.64		-0.05	1.021										121	38	2.41	
81	30.1	344	98	48.83	EP	5.46	5.54		-0.08	1.021										121	32	2.31	
86	35.7	123	65	49.68	EPC	6.31	6.52		-0.21	1.021										121	38	2.51	
88	39.1	145	65	50.23	EPC	6.86	7.07		-0.21	1.021										121			1
87	46.0	138	65	51.47	EPD	8.10	8.19	0.28	-0.37	1.021										121			1
MPI	83.6	125	65	57.83	P 0	14.46	14.30		0.16	1.021		67.85	24.48	25.02	-0.54	0.000				121	70	3.11	
BPM	91.1	35	65	59.20	PC0	15.83	15.51		0.32	1.021		0.00	-43.37	27.14	-70.51	0.000				121			1
JGI	102.2	93	65	0.76	P 0	17.39	17.32		0.07	1.021		0.00	16.63	30.31	-13.68	0.000				121			1
CIB	115.7	135	55	3.27	P 0	19.90	19.47		0.43	1.021		0.00	16.63	34.08	-17.45	0.000				121			1
GBI	152.2	96	55	8.59	P 0	25.22	24.84		0.38	D0.000		0.00	16.63	43.47	-26.84	0.000				121			1
TMI	188.5	120	55	13.55	P 0	38.18	30.17		0.01	D0.000		0.00	16.63	52.80	-36.17	0.000				121			1
LRM	221.0	32	44	17.50	PC0	34.13	34.48		-0.35	D0.000		0.00	16.63	60.35	-43.72	0.000				121			1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	SE	N	NW	Z	NE	SW
AVE. OF END POINTS	0.05	0.06	0.08	0.09	0.09	0.10	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.16	-0.01	0.09	D

	HORIZONTAL		VERTICAL	
SE =	7.48	SE =	99.00	SE = 99.00 QUALITY = D
AZ =	-126.	AZ =	-36.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831101	437 47.90	44N49.17	114W38.54	5.35		13	86	342	1	0.16	99.0	99.0	D	DID	2.78	10	30	0.00	0.14	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 10.000 11 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BSU2	77.6	137	65	1.42	PD0	13.52	13.30		0.22	1.000		0.00		12.10	23.28	-11.17	0.000						
NWSI	79.9	142	65	1.45	PD0	13.55	13.68		-0.12	1.000		0.00		12.10	23.94	-11.83	0.000						
NSUI	85.7	139	65	2.37	P 0	14.47	14.63		-0.15	1.000		0.00		12.10	25.60	-13.49	0.000						
ANPI	86.5	144	65	2.92	P 0	15.02	14.75		0.27	1.000		9.62		21.72	25.82	-4.09	0.000						
WSUI	87.2	140	65	2.68	PD0	14.78	14.86		-0.07	1.000		0.00		12.10	26.00	-13.90	0.000						
DSPI	92.8	136	65	3.68	PC0	15.78	15.77		0.01	1.000		0.00		12.10	27.60	-15.50	0.000						
M-2	95.3	140	65	4.00	P 0	16.10	16.18	0.17	-0.24	1.000		0.00		12.10	28.31	-16.51	0.000						
MBAI	99.5	140	65	4.64	P 0	16.74	16.86		-0.12	1.000		0.00		12.10	29.51	-17.41	0.000						
M-1	103.9	143	65	5.90	P 0	18.00	17.58	0.30	0.13	1.000		0.00		12.10	30.76	-19.18	0.000						
BRCI	104.1	153	65	5.35	PC0	17.45	17.62		-0.16	1.000		0.00		12.10	30.83	-18.72	0.000						
LSGS	104.4	135	65	5.54	P 0	17.64	17.66		-0.02	1.000		0.00		12.10	30.91	-18.81	0.000						
BRPI	104.5	148	65	5.72	P+0	17.02	17.67		0.15	1.000		13.92		26.02	30.93	-4.90	0.000						
OPM	106.1	90	65	3.30	PC0	15.40	17.93		-2.53	M0.000		0.00		12.10	31.38	-19.27	0.000						
LCRI	112.0	141	65	6.90	P 0	19.00	18.89		0.11	1.000		0.00		12.10	33.07	-20.96	0.000						
LRM	204.0	57	44	24.50	PC0	36.60	32.44		4.16	M0.000		0.00		12.10	56.77	-44.67	0.000						

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	NW	Z	E	NE	SW
AVE. OF END POINTS	0.01	0.03	0.03	0.03	0.04	0.05	0.06

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
13	0.16	0.00	0.04	D

	HORIZONTAL		VERTICAL	
SE =	0.58	SE = 1.50	SE = 1.90	QUALITY = A
AZ =	-12.	AZ = -102.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	448 32.96	44N14.11	114W 5.12	7.20	3.07	23	8	186	1	0.15	1.5	1.9	C	B|D	0.17	10	57	0.00	0.12	0	0.0	0.0	8	3.1	0.3

SE OF ORIG = 0.102 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)				(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.6	67	136	34.65 PCO		1.69	1.67			0.02	1.041		0.00-32.96	2.92-35.88		0.000				123			1
817	7.2	342	128	34.74IPC		1.78	1.86			-0.07	1.041									123	57	2.71	
ANPI	8.2	130	123	35.02 P 0		2.06	1.99			0.07	1.041		0.00-32.96	3.48-36.44		0.000				123			1
816	11.7	117	109	35.61IP		2.65	2.49			0.16	1.041									123	67	2.91	
WSUI	11.9	99	109	35.48 PCO		2.52	2.51			0.01	1.041		0.00-32.96	4.40-37.36		0.000				123			1
842	12.1	132	108	0.00IP 4		-32.96	2.55			-35.51	0.000		37.43 4.47	4.46 0.01		0.729				123			1
BSU2	12.2	47	107	35.22 PCO		2.26	2.57			-0.31	1.041		0.00-32.96	4.50-37.46		0.000				123			1
NSUI	12.3	88	107	35.45 PCO		2.49	2.59			-0.10	1.041		0.00-32.96	4.54-37.50		0.000				123			1
814	12.4	140	106	35.63IPD		2.67	2.60			0.07	1.041									123	63	2.81	
844	13.7	27	102	35.62IP		2.66	2.81			-0.15	1.041		38.13 5.17	4.91 0.26		0.729				123			1
81	18.8	8	92	36.48IPC		3.52	3.63			-0.11	1.041									123	70	2.91	
M-2	18.9	115	92	36.80 PCO		3.84	3.65	0.17		0.02	1.041		0.00-32.96	6.38-39.64		0.000				123			1
DSPI	20.3	95	92	36.73 PCO		3.77	3.88			-0.11	1.041		0.00-32.96	6.79-39.75		0.000				123			1
MBAI	22.5	122	91	37.16 P 0		4.20	4.23			-0.03	1.041		0.00-32.96	7.41-40.37		0.000				123			1
CHBI	22.7	141	91	37.35 P 0		4.39	4.26			0.13	1.041		0.00-32.96	7.46-40.42		0.000				123			1
M-1	25.6	136	91	38.00 P-0		5.04	4.73	0.30		0.01	1.041		0.00-32.96	8.27-41.76		0.000				123			1
BRPI	26.2	156	91	37.87 PDO		4.91	4.83			0.08	1.041		41.07 8.11	8.46 -0.35		0.000				123			1
LSGS	31.0	107	91	38.44 PCO		5.48	5.61			-0.13	1.041		0.00-32.96	9.82-42.78		0.000				123			1
LCRI	34.5	129	91	39.30 PCO		6.34	6.18			0.16	1.041		0.00-32.96	10.82-43.78		0.000				123			1
811	39.4	146	90	39.84IP		6.88	6.97			-0.09	1.041									123	70	3.01	
846	50.9	138	90	0.00IP 4		-32.96	8.84			-41.80	0.000		48.18 15.22	15.47 -0.25		0.729				123			1
BPM	89.8	44	90	48.50 PCO		15.54	15.17			0.37	1.041		0.00-32.96	26.54-59.50		0.000				123			1
JGI	113.7	98	65	53.01 P 4		20.05	18.98			1.07	0.000		65.99 33.03	33.22 -0.19		0.000				123	68	3.21	
C18	130.6	135	65	55.03 P 0		22.07	21.47			0.60	M0.000		0.00-32.96	37.57-70.53		0.000				123	72	3.41	
GBI	164.2	100	65	59.88 P 0		26.92	26.41			0.51	C0.000		0.00-32.96	46.22-79.18		0.000				123	88	3.61	
TM1	202.7	121	50	5.07 P 0		32.11	31.94			0.17	00.000		0.00 27.04	55.90-28.86		0.000				123			1
LRM	218.4	36	50	6.30 P 0		33.34	33.91			-0.57	M0.000		0.00 27.04	59.34-32.30		0.000				123			1
IMW	254.7	98	50	12.63 P 0		39.67	38.44			1.23	M0.000		0.00 27.04	67.28-40.24		0.000				123			1
NPI	264.6	151	50	14.61 P 0		41.65	39.68			1.97	M0.000		0.00 27.04	69.44-42.40		0.000				123			1
MSO	288.5	2	50	14.80 P 0		41.84	42.67			-0.83	M0.000		0.00 27.04	74.68-47.64		0.000				123			1
NCM	329.5	353	50	20.50 PDO		47.54	47.79			-0.25	00.000		0.00 27.04	83.63-56.59		0.000				123			1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	Z	N	SE	SW	NE
AVE. OF END POINTS	0.03	0.08	0.10	0.10	0.11	0.12	0.1[illegible]

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1     5/ 2                                                                                          83/11/ 1     5/ 2

                                                     HORIZONTAL                                   VERTICAL
                                              SE =   0.56              SE =   0.80                SE =   0.91   QUALITY = A
                                              AZ =   -36.              AZ =  -126.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101  5 2 46.75 44N 2.99 113W53.44   6.64   3.09 31  6  84 1 0.19  0.8  0.9 8 8|A 0.06 10 61 0.00 0.15  0  0.0  0.0 13  3.1  0.4
SE OF ORIG =  0.045          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-1    3.1  45 155 48.55 PDO        1.80  1.34  0.30        0.15 1.030       0.00-46.75  2.35-49.63 0.000           124        1
CMBI   3.3 339 153 48.15 PCO        1.40  1.36              0.04 1.030       0.00-46.75  2.38-49.13 0.000           124        1
BRPI   6.0 236 137 48.62 PCO        1.87  1.64              0.23 1.030       0.00-46.75  2.87-49.62 0.000           124        1
MBAI   9.5  22 124 48.91 PCO        2.16  2.12              0.03 1.030       0.00-46.75  3.72-50.47 0.000           124        1
LCRI  11.5  95 119 49.40 PCO        2.65  2.41              0.23 1.030       0.00-46.75  4.23-50.98 0.000           124        1
M-2   12.7   7 116 49.40 PDO        2.65  2.61  0.17       -0.14 1.030       0.00-46.75  4.57-51.62 0.000           124        1
B39   12.8   7 116 49.52IP         2.77  2.63              0.13 1.030      51.43  4.68  4.61  0.07 0.721           124        1
B14   13.5 325 115 49.46IPC        2.71  2.74             -0.04 1.030      50.93  4.18  4.80 -0.63 0.000           124  43 2.51
311   13.7 151 114 49.55IPC        2.80  2.78              0.02 1.030                                              124  63 2.81
BRCI  15.1 240 112 49.75 PCO        3.00  3.01             -0.01 1.030      51.65  4.90  5.27 -0.37 0.000           124        1
B12   15.8 240 111 49.96IPC        3.21  3.12              0.09 1.030                                              124 100 3.21
B16   16.1 341 111 49.80IPD        3.05  3.18             -0.13 1.030                                              124  60 2.81
ANPI  17.9 329 109 50.02 P+0        3.27  3.48             -0.22 1.030       0.00-46.75  6.10-52.85 0.000           124        1
LSGS  18.3  51 108 50.24 PCO        3.49  3.56             -0.07 1.030       0.00-46.75  6.22-52.98 0.000           124        1
B38   19.0 104 108 50.39EPC        3.64  3.67             -0.03 1.030      52.84  6.09  6.42 -0.33 0.721           124        1
WSUI  19.1 348 108 50.30 PCO        3.55  3.68             -0.13 1.030       0.00-46.75  6.44-53.19 0.000           124        1
DSPI  19.4  14 107 50.23 P-0        3.48  3.73             -0.25 1.030       0.00-46.75  6.52-53.27 0.000           124        1
NSUI  21.3 351 106 50.73 P-0        3.98  4.06             -0.08 1.030       0.00-46.75  7.10-53.86 0.000           124        1
NWSI  25.0 335  65 51.45 PDO        4.70  4.68              0.02 1.030       0.00-46.75  8.18-54.94 0.000           124        1
B46   25.3 133  65 51.19IP         4.44  4.72             -0.28 1.030      54.82  8.07  8.25 -0.18 0.721           124        1
B6    26.7 110  65 51.62IPC        4.87  4.95             -0.08 1.030                                              124  80 3.11
B8    27.9 141  65 51.75IPD        5.00  5.15             -0.15 1.030                                              124  85 3.11
B15   28.6 300  65 51.83IPC        5.08  5.26             -0.18 1.030      55.36  8.61  9.21 -0.60 0.000           124  58 2.81
BSU2  29.7 347  65 52.35 PDO        5.60  5.43              0.17 1.030       0.00-46.75  9.50-56.26 0.000           124        1
B7    35.2 133  65 53.19EPC        6.44  6.33  0.28       -0.18 1.030                                              124  90 3.21
B1    41.3 342  65 53.17EPC4       6.42  7.32             -0.90 0.000                                              124  44 2.61
JGI   97.3  87  65  3.40 PCO       16.65 16.41              0.24 1.030       0.00 13.25 28.71-15.47 0.000           124  81 3.31
BPM   97.3  29  65  3.60 PDO       16.85 16.41              0.44 1.030       0.00 13.25 28.72-15.47 0.000           124        1
CIB  105.1 133  65  4.92 P 0       18.17 17.67              0.49 1.030      17.66 30.91 30.93 -0.02 0.000           124  83 3.41
GBI  146.7  93  55 10.97 P 0       24.22 23.89              0.33D0.000       0.00 13.25 41.80-28.56 0.000           124  80 3.51
TMI  179.2 117  55 15.60 PCO       28.85 28.67              0.18D0.000      38.08 51.33 50.17  1.16 0.000           124        1
LRM  227.4  30  44 21.70 PDO       34.95 35.10             -0.15D0.000       0.00 13.25 61.42-48.17 0.000           124        1
IMW  237.3  94  44 24.14 P 2       37.39 36.34              1.05M0.000       0.00 13.25 63.59-50.34 0.000           124  83 3.81
NPI  239.1 152  44 24.89 P 0       38.14 36.55              1.58M0.000       0.00 13.25 63.97-50.72 0.000           124        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE    NW     N    NE     E    SW
AVE. OF END POINTS                 0.00  0.01  0.05  0.07  0.08  0.11  0.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  16      0.19     -0.03      0.07         D
```

	HORIZONTAL		VERTICAL	
SE =	0.41	SE =	0.67	SE = 0.62 QUALITY = A
AZ =	-48.	AZ =	42.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	DS	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	924 4.42	44N 9.54	113W57.73	8.43	2.34	14	3	75	1	0.07	0.7	0.6	A	A|A	0.09	10	16	0.00	0.07	0	0.0	0.0	10	2.3	0.3

SE OF ORIG = 0.038 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	0.9	295	173	5.92IP	1.50	1.53			-0.02	1.045		6.96	2.54	2.67	-0.13	0.731			125			1	
814	2.2	241	164	6.10IP	1.68	1.57			0.12	1.045		7.05	2.63	2.74	-0.11	0.000			125	24		2.01	
316	3.2	10	157	6.00IP	1.58	1.62			-0.04	1.045									125	32		2.21	
839	7.3	86	134	6.58IP	2.08	2.00			0.08	1.045		7.98	3.56	3.51	0.06	0.731			125			1	
815	19.2	276	102	8.16IPD	3.74	3.73			0.02	1.045		10.81	6.39	6.52	-0.13	0.000			125	37		2.41	
817	19.5	322	102	8.10EPD	3.68	3.77			-0.09	1.045									125	27		2.11	
812	21.5	201	100	8.57IPC	4.15	4.09			0.06	1.045									125	47		2.61	
811	27.1	153	96	9.39EP	4.97	4.99			-0.02	1.045									125	30		2.21	
81	28.0	345	96	9.63EPD	5.21	5.15			0.06	1.045									125	24		2.01	
86	37.5	125	94	11.04IPD	6.62	6.67			-0.05	1.045									125	37		2.51	
88	41.1	145	93	11.74IPD	7.32	7.26			0.06	1.045									125	40		2.51	
87	48.0	139	92	12.94IPC	8.52	8.37	0.28		-0.13	1.045									125	53		2.81	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	SW	NW	E	N	SE
AVE. OF END POINTS	0.58	0.65	0.70	0.88	0.90	0.94	1.05

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.07	0.55	0.82	A

	HORIZONTAL		VERTICAL	
SE =	0.40	SE =	0.59	SE = 0.93 QUALITY = A
AZ =	-25.	AZ =	-115.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SOD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	1030 33.66	44N 7.97	113W56.74	9.46	3.18	35	6	76	1	0.14	0.6	0.9	A	A|A	0.73	10	76	0.00	0.10	0	0.0	0.0	9	3.2	0.4

SE OF ORIG = 0.048 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
814	3.7	300	156	35.51	IPD	1.85	1.81		0.04	1.054										126	57	2.71	
842	3.9	327	155	35.43	IPD	1.77	1.82		-0.05	1.054		36.74	3.08	3.19	-0.11	0.738				126		1	
816	6.1	353	144	35.54	IPD	1.88	2.00		-0.12	1.054										126	90	3.11	
M-2	6.8	61	140	35.85	PDO	2.19	2.08	0.17	-0.06	1.054		0.00	-33.66	3.63	-37.59	0.000				126		1	
839	6.9	60	140	35.83	EPD	2.17	2.08		0.09	1.054		37.46	3.80	3.64	0.15	0.738				126		1	
CMBI	7.0	152	140	35.77	PCO	2.11	2.09		0.02	1.054		0.00	-33.66	3.66	-37.32	0.000				126		1	
ANPI	7.8	322	136	35.78	PDO	2.12	2.18		-0.06	1.054		0.00	-33.66	3.81	-37.48	0.000				126		1	
MBAI	8.1	93	135	35.95	PDO	2.29	2.21		0.08	1.054		0.00	-33.66	3.87	-37.53	0.000				126		1	
WSUI	9.5	3	130	36.13	PDO	2.47	2.37		0.10	1.054		0.00	-33.66	4.15	-37.81	0.000				126		1	
M-1	9.6	137	129	36.31	PCO	2.65	2.39	0.30	-0.05	1.054		0.00	-33.66	4.19	-38.38	0.000				126		1	
NSUI	11.9	5	122	36.28	PDO	2.62	2.69		-0.07	1.054		0.00	-33.66	4.71	-38.37	0.000				126		1	
ORPI	12.6	182	121	36.61	PCO	2.95	2.79		0.16	1.054		0.00	-33.66	4.88	-38.54	0.000				126		1	
DSPI	13.2	44	119	36.38	PDO	2.72	2.87		-0.15	1.054		0.00	-33.66	5.02	-38.68	0.000				126		1	
NWSI	14.8	336	115	36.74	PDO	3.08	3.10		-0.02	1.054		0.00	-33.66	5.42	-39.08	0.000				126		1	
841	15.8	207	113	0.00	IP 4	-33.66	3.26		-36.92	0.000		39.49	5.83	5.71	0.12	0.738				126		1	
LSGS	18.7	83	108	37.43	PDO	3.77	3.70		0.07	1.054		0.00	-33.66	6.47	-40.13	0.000				126		1	
LCRI	18.8	123	108	37.40	PCO	3.74	3.71		0.03	1.054		0.00	-33.66	6.49	-40.15	0.000				126		1	
BRCI	18.8	207	108	37.45	PCO	3.79	3.71		0.08	1.054		0.00	-33.66	6.49	-40.15	0.000				126		1	
812	19.4	208	107	37.60	IPC	3.94	3.80		0.13	1.054										126		1	
BSU2	19.8	353	107	37.38	PDO	3.72	3.86		-0.14	1.054		0.00	-33.66	6.76	-40.42	0.000				126		1	
815	21.8	284	105	37.67	IPD	4.01	4.04		-0.03	1.054		40.46	6.80	7.08	-0.28	0.000				126		1	
817	22.6	324	104	37.78	IPD	4.12	4.31		-0.19	1.054										126	47	2.61	
811	23.9	153	102	38.19	EPD	4.53	4.51		0.02	1.054										126	70	3.01	
844	24.1	348	102	0.00	IP 4	-33.66	4.54		-38.20	0.000		41.81	8.15	7.95	0.20	0.738				126		1	
838	26.7	121	100	38.67	EPD	5.01	4.95		0.05	1.054		42.30	8.64	8.67	-0.03	0.738				126		1	
81	31.2	344	90	39.17	EPC	5.51	5.67		-0.17	1.054		43.23	9.57	9.93	-0.36	0.000				126	60	2.91	
86	34.8	122	97	40.00	IPC	6.34	6.25		0.09	1.054										126	77	3.11	
846	35.0	139	97	39.84	EPD	6.18	6.29		-0.11	1.054		44.09	10.43	11.00	-0.57	0.738				126		1	
88	38.0	144	96	40.43	IPC	6.77	6.76		0.01	1.054										126		1	
87	44.9	138	95	41.86	EPC	8.20	7.88	0.28	0.04	1.054										126		1	
BPM	91.7	34	92	49.50	PCO	15.84	15.47		0.37	1.054		0.00	-33.66	27.08	-60.74	0.000				126		1	
JGI	101.7	93	65	53.66	P 4	20.00	17.06		2.94	0.000		62.09	28.43	29.86	-1.43	0.000				126		1	
CIO	114.6	135	65	53.69	P 4	20.03	18.96		1.07	0.000		68.07	34.41	33.18	1.23	0.000				126	88	3.51	
GBI	151.6	96	65	58.66	PDO	25.00	24.40		0.60	00.000		75.85	42.13	42.70	-0.51	0.000				126		1	
TMI	187.5	119	65	3.64	PDO	29.98	29.68		0.30	00.000		26.38	52.72	51.94	0.77	0.000				126	93	3.81	
LRM	221.7	32	50	17.10	P 0	43.44	34.08		9.36	00.000		0.00	26.34	59.64	-33.30	0.000				126		1	
BUT	235.6	28	50	12.80	P 0	39.14	35.82		3.32	00.000		36.40	62.74	62.69	0.05	0.000				126		1	
IMW	242.6	96	50	11.34	P 0	37.68	36.69		0.99	00.000		0.00	26.34	64.21	-37.87	0.000				126	87	3.91	
NPI	249.3	152	50	13.26	P 0	39.60	37.54		2.06	00.000		0.00	26.34	65.69	-39.35	0.000				126		1	
MLI	276.9	148	50	17.22	P 0	43.56	40.99		2.57	00.000		0.00	26.34	71.73	-45.39	0.000				126		1	
SXM	310.9	44	50	19.50	P 0	45.84	45.23		0.61	00.000		0.00	26.34	79.16	-52.82	0.000				126		1	
NCM	342.1	352	50	22.80	PCO	49.14	49.14		0.00	00.000		0.00	26.34	85.99	-59.65	0.000				126		1	

QUALITY EVALUATION

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1    10/41                                                                                                  83/11/ 1    10/41

                                                     HORIZONTAL                                  VERTICAL
                                              SE =   0.32            SE =   0.50                 SE =   0.41   QUALITY = A
                                              AZ =   -18.            AZ =  -108.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DS GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1041 18.25 44N13.22 114W 2.63   6.93   3.07 31  8  78 1 0.10  0.5  0.4 A A|A 0.92 10 64 0.00 0.07  0  0.0  0.0 12  3.1  0.4
SE OF ORIG =  0.029          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   4.3  26 148 19.74 PDO        1.49  1.49              0.00 1.030       0.00-18.25  2.61-20.86 0.000           127        1
ANPI   4.7 140 145 19.87 PDO        1.62  1.54              0.08 1.030       0.00-18.25  2.69-20.94 0.000           127        1
816    8.0 118 130 28.19IPC        1.94  1.94              0.00 1.030                                               127  70 2.91
WSUI   8.4  92 128 20.27 P 0        2.02  1.99              0.03 1.030       0.00-18.25  3.49-21.74 0.000           127        1
842    8.6 138 128 20.28IP         2.03  2.02              0.01 1.030      21.70  3.45  3.53 -0.09 0.721           127        1
814    9.1 150 126 20.40IPD        2.15  2.09              0.06 1.030                                               127  55 2.71
NSUI   9.2  77 126 20.38 PCO        2.13  2.11              0.02 1.030       0.00-18.25  3.69-21.94 0.000           127        1
817   10.1 327 123 20.49IPD        2.24  2.24             -0.01 1.030                                               127  53 2.71
8SU2  11.4  29 120 20.76 PCO        2.51  2.43              0.07 1.030       0.00-18.25  4.26-22.51 0.000           127        1
815   13.4 250 116 21.06IPC        2.81  2.75              0.05 1.030                                               127  65 2.91
844   14.2  12 115 20.99IP         2.74  2.88             -0.15 1.030      23.25  5.00  5.05 -0.05 0.721           127        1
839   15.1 114 113 21.33IP         3.08  3.04              0.04 1.030      23.58  5.33  5.32  0.01 0.721           127        1
M-2   15.2 115 113 21.49 PCO        3.24  3.05  0.17        0.02 1.030       0.00-18.25  5.33-23.88 0.000           127        1
DSPI  17.0  91 111 21.42 PCO        3.17  3.34             -0.17 1.030       0.00-18.25  5.84-24.09 0.000           127        1
MBAI  18.8 123  65 21.85 PCO        3.60  3.65             -0.05 1.030       0.00-18.25  6.39-24.64 0.000           127        1
CMBI  19.4 145  65 22.05 PCO        3.80  3.74              0.06 1.030       0.00-18.25  6.54-24.79 0.000           127        1
81    20.3 358  65 22.03IP         3.78  3.88             -0.10 1.030                                               127  57 2.81
M-1   22.1 139  65 22.80 P 0        4.55  4.18  0.30        0.07 1.030       0.00-18.25  7.32-26.09 0.000           127        1
8RPI  23.5 162  65 22.72 PCO        4.47  4.40              0.07 1.030      24.32  6.07  7.70 -1.63 0.000           127        1
8RCI  26.4 182  65 22.95 PCO        4.70  4.88             -0.18 1.030       0.00-18.25  8.54-26.79 0.000           127        1
812   26.9 183  65 23.21EP         4.96  4.95              0.01 1.030                                               127        1
LSGS  27.4 105  65 23.13 PCO        4.88  5.04             -0.16 1.030       0.00-18.25  8.81-27.06 0.000           127        1
LCRI  30.9 130  65 23.80 PCO        5.55  5.61             -0.06 1.030       0.00-18.25  9.82-28.07 0.000           127        1
811   36.2 149  65 24.69EP         6.44  6.47             -0.03 1.030                                               127  56 2.81
86    46.8 127  65 26.42EPC        8.17  8.18             -0.01 1.030                                               127  58 2.91
88    50.4 143  65 27.04EP         8.79  8.78              0.01 1.030                                               127  90 3.31
87    57.4 139  65 28.50EP        10.25  9.91  0.28        0.06 1.030                                               127  63 3.01
8PM   88.8  42  65 33.60 PCO       15.35 15.01              0.34 1.030       0.00-18.25 26.26-44.51 0.000           127        1
JGI  110.2  97  65 37.69 P 4       19.44 18.48              0.96 0.000      49.76 31.51 32.34 -0.83 0.000           127        1
CI8  127.1 136  55 39.84 PDO       21.59 20.97              0.62D0.000      56.01 37.76 36.70  1.06 0.000           127  79 3.41
GBI  160.7  99  55 44.75 P 0       26.50 25.91              0.59D0.000      63.65 45.40 45.35  0.05 0.000           127 108 3.81
TMI  199.0 121  44 49.83 P 0       31.58 31.51              0.07D0.000      74.41 56.16 55.14  1.02 0.000           127  91 3.81
LRM  217.9  35  44 51.90 PCO       33.65 33.87             -0.22D0.000       0.00-18.25 59.27-77.52 0.000           127        1
IMW  251.2  98  44 56.76 P 0       38.51 38.03              0.48D0.000       0.00-18.25 66.56-84.81 0.000           127        1
MLI  289.4 147  44  2.97 P 2       44.72 42.81              1.91D0.000       0.00 41.75 74.92-33.17 0.000           127        1
MSD  290.1   2  44  1.00 P 0       42.75 42.89             -0.15D0.000       0.00 41.75 75.06-33.32 0.000           127        1
NCM  331.5 353  44  6.30 P 0       48.05 48.07             -0.02D0.000       0.00 41.75 84.12-42.37 0.000           127        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                   0.31  0.58  0.66  0.68  0.75  0.86  1.00

                NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1    12/34                                                                                 83/11/ 1    12/34

                                                 HORIZONTAL                                VERTICAL
                                          SE =   0.43              SE =   0.65              SE =   0.98   QUALITY = A
                                          AZ =   -18.              AZ =  -108.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1234 24.95 44N 7.92 113W57.46  10.04    2.91 33  6  79 1 0.15  0.6  1.0 A A|A 0.60 10 54 0.00 0.11  0  0.0  0.0  9  2.9  0.2
SE OF ORIG =  0.054          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
814    3.0 311 162 26.90IPD          1.95  1.86              0.09 1.048                                          128  50 2.61
842    3.6 341 159 26.83IP           1.88  1.89             -0.01 1.048      28.15  3.20  3.30 -0.11 0.733      128        1
816    6.1   2 146 26.96IPD          2.01  2.08             -0.07 1.048                                          128  80 3.01
ANPI   7.3 328 140 27.09 PDD          2.14  2.20             -0.06 1.048       0.00-24.95  3.85-28.80 0.000      128        1
CHBI   7.4 145 140 27.25 PDD          2.30  2.21              0.09 1.048       0.00-24.95  3.86-28.81 0.000      128        1
M-2    7.7  64 139 27.34 PDD          2.39  2.24  0.17        -0.03 1.048       0.00-24.95  3.93-29.18 0.000      128        1
839    7.8  63 138 27.30IP           2.35  2.25              0.10 1.048      29.07  4.12  3.94  0.18 0.733      128        1
MBAI   9.0  92 134 27.42 PDD          2.47  2.39              0.08 1.048       0.00-24.95  4.18-29.13 0.000      128        1
WSUI   9.7   9 132 27.29 PDD          2.34  2.46             -0.13 1.048       0.00-24.95  4.31-29.26 0.000      128        1
M-1   10.3 133 130 27.62 PDD          2.67  2.53  0.30        -0.17 1.048       0.00-24.95  4.43-29.91 0.000      128        1
NSUI  12.1  10 124 27.78 PDD          2.83  2.77              0.05 1.048       0.00-24.95  4.85-29.81 0.000      128        1
BRPI  12.5 178 123 27.88 PCD          2.93  2.82              0.10 1.048       0.00-24.95  4.94-29.90 0.000      128        1
JSPI  13.9  46 120 27.87 PDD          2.92  3.82             -0.11 1.048       0.00-24.95  5.29-30.24 0.000      128        1
NWSI  14.5 340 118 28.14 PDD          3.19  3.11              0.08 1.048       0.00-24.95  5.44-30.39 0.000      128        1
841   15.3 204 117  0.00IP 4        -24.95  3.22            -28.17 0.000      30.67  5.72  5.63  0.08 0.733      128        1
BRCI  18.3 205 111 28.65 PCD          3.70  3.67              0.03 1.048       0.00-24.95  6.42-31.37 0.000      128        1
812   18.9 206 110 28.85IPC          3.90  3.76              0.14 1.048                                          128        1
LCRI  19.6 121 110 28.90 PDD          3.95  3.86              0.09 1.048       0.00-24.95  6.75-31.71 0.000      128        1
LSGS  19.7  83 109 28.93 PDD          3.98  3.88              0.10 1.048       0.00-24.95  6.79-31.74 0.000      128        1
BSU2  19.0 356 109 28.67 PCD          3.72  3.90             -0.18 1.048       0.00-24.95  6.82-31.78 0.000      128        1
815   20.1 285 109 28.96IPC          4.01  3.94              0.07 1.048                                          128  70 3.01
817   22.1 326 106 29.09IPD          4.14  4.25             -0.11 1.048                                          128  55 2.81
844   24.0 351 104  0.00IP 4        -24.95  4.54            -29.50 0.000      32.69  7.74  7.95 -0.21 0.733      128        1
811   24.2 151 104 29.51IPD          4.56  4.58             -0.02 1.048      32.28  7.33  8.01 -0.68 0.000      128  63 2.91
81    31.0 346 100 30.53IPC          5.58  5.67             -0.09 1.048      34.52  9.57  9.92 -0.35 0.000      128  47 2.71
86    35.6 121  98 31.37IP           6.42  6.39              0.03 1.048                                          128  77 3.11
846   35.6 138  98 31.31IP           6.36  6.39             -0.03 1.048      35.67 10.72 11.19 -0.47 0.733      128        1
88    38.4 143  97 31.74IPC          6.79  6.85             -0.07 1.048                                          128  98 3.31
87    45.5 137  95 33.15EPD          8.20  7.99  0.28        -0.07 1.048                                          128  58 2.91
BPM   92.3  34  92 41.00 PCD         16.05 15.58              0.47 1.048       0.00-24.95 27.26-52.22 0.000      128        1
LRM  222.3  32  50 58.90 PCD         33.95 34.09             -0.1400.000       0.00-24.95 59.66-84.61 0.000      128        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                   0.41  0.67  0.67  0.71  0.81  0.92  1.01


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                33      0.15      0.46      0.77         A

------------END----------------------END----------------------END----------------------END----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 1    13/41                                                                                                  83/11/ 1    13/41

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.23              SE =   0.37              SE =   0.42   QUALITY = A
                                            AZ =   -27.              AZ =  -117.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1341 54.87 44N 5.50 113W54.36   7.80   2.18 13  9  99 1 0.05  0.4  0.4 B A|B 0.61 10 15 0.00 0.04  0  0.0  0.0  8  2.2  0.3
SE OF ORIG =  0.021          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
837    3.0 186 156 56.38EP          1.51  1.52              -0.01 1.048      57.49  2.62  2.65 -0.03 0.734           129        1
839    8.5  19 126 56.98IP          2.11  2.08               0.03 1.048      58.51  3.64  3.63  0.01 0.734           129        1
814    9.1 315 123 57.04IPD         2.17  2.16               0.01 1.048      58.70  3.83  3.79  0.04 0.000           129  19 1.81
812   17.6 225 100 58.41IP          3.54  3.45               0.09 1.048                                                129  60 2.81
811   18.4 155  99 58.44IPC         3.57  3.56               0.01 1.048                                                129  30 2.21
815   25.5 292  94 59.51IPC         4.64  4.72              -0.08 1.048                                                129  27 2.11
817   28.2 324  93 60.00EP          5.13  5.16              -0.03 1.048                                                129  19 1.81
86    29.7 118  93 60.27IPC         5.40  5.41              -0.01 1.048      63.62  8.75  9.47 -0.72 0.000           129  28 2.21
88    32.4 144  93 60.64IPD         5.77  5.84              -0.07 1.048                                                129  29 2.21
81    36.5 341  92 61.42EPD         6.55  6.51               0.04 1.048                                                129        1
87    39.4 137  92 62.16IPC         7.29  6.97  0.28         0.04 1.048                                                129  29 2.21

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                 0.53  0.70  0.77  0.94  1.05  1.11  1.14

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  13      0.05      0.63      0.93         A
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1    13/50                                                                                                  83/11/ 1    13/50

                                                        HORIZONTAL                                  VERTICAL
                                                SE =    0.45              SE =    0.70              SE =    1.01    QUALITY = A
                                                AZ =    -21.              AZ =   -111.

 DATE     ORIGIN      LAT       LONG     DEPTH     MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1350 25.26 44N 9.07 113W59.19    9.65    3.46 30  8  84 1 0.15  0.7  1.0 A A|A 0.39 10 72 0.00 0.11  0  0.0  0.0 10  3.5  0.3
SE OF ORIG =  0.051          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT IMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
314    0.2 171 179 27.05IP          1.79  1.71              0.08 1.042                                                130 101 3.21
ANPI   4.4 339 153 27.13 P 0        1.87  1.88             -0.01 1.042        0.00-25.26  3.29-28.55 0.000            130        1
WSUI   8.3  27 135 27.52 PC0        2.26  2.26              0.00 1.042        0.00-25.26  3.96-29.22 0.000            130        1
M-2    9.3  82 131 27.89 P 0        2.63  2.37   0.17       0.09 1.042        0.00-25.26  4.15-29.71 0.000            130        1
839    9.3  81 131 27.74EPC         2.48  2.38              0.11 1.042       29.76  4.50  4.16  0.35 0.729            130        1
CM8I  10.5 141 128 27.75 PC0        2.49  2.51             -0.02 1.042        0.00-25.26  4.40-29.65 0.000            130        1
NSUI  10.7  24 127 27.86 PC0        2.60  2.55              0.06 1.042        0.00-25.26  4.46-29.71 0.000            130        1
NWSI  11.8 347 123 27.94 P 0        2.68  2.70             -0.02 1.042        0.00-25.26  4.73-29.98 0.000            130        1
M-1   13.4 133 119 28.22 P 0        2.96  2.91   0.30      -0.25 1.042        0.00-25.26  5.10-30.88 0.000            130        1
DSPI  14.5  59 117 28.12 P 0        2.86  3.06             -0.20 1.042        0.00-25.26  5.36-30.62 0.000            130        1
8RPI  14.9 169 116 28.51 PC0        3.25  3.12              0.13 1.042        0.00-25.26  5.46-30.71 0.000            130        1
841   16.6 193 113  0.00IP 4      -25.26  3.39            -28.65 0.000       31.35  6.09  5.93  0.16 0.729            130        1
815   17.4 280 111 28.79IP          3.53  3.51              0.03 1.042                                                130 120 3.41
BSU2  17.7   3 111 28.79 PC0        3.53  3.55             -0.02 1.042        0.00-25.26  6.21-31.47 0.000            130        1
817   19.1 328 109 28.95IPD         3.69  3.76             -0.07 1.042                                                130  70 3.01
BRCI  19.5 196 108 29.05 PC0        3.79  3.82             -0.03 1.042        0.00-25.26  6.69-31.95 0.000            130        1
844   21.6 356 105 29.29EPD         4.03  4.15             -0.12 1.042       32.44  7.18  7.27 -0.08 0.729            130        1
LSGS  21.8  89 105 29.32 P 0        4.06  4.18             -0.11 1.042        0.00-25.26  7.31-32.57 0.000            130        1
LCRI  22.6 123 104 29.50 PD0        4.24  4.31             -0.06 1.042        0.00-25.26  7.54-32.79 0.000            130        1
81    28.5 349 100 30.48IPC         5.22  5.24             -0.02 1.042                                                130 114 3.41
938   30.5 121  99  0.00IP 4      -25.26  5.57            -30.83 0.000       34.87  9.61  9.75 -0.14 0.729            130        1
86    38.6 122  96 32.07IP          6.81  6.87             -0.05 1.042                                                130 113 3.41
846   38.7 138  96 31.96IP          6.70  6.88             -0.18 1.042                                                130        1
88    41.5 142  95 32.39IP          7.13  7.34             -0.21 1.042                                                130 115 3.51
87    48.6 137  94 33.94IP          8.68  8.48   0.28      -0.08 1.042                                                130  75 3.11
8PM   91.9  36  92 41.00 PC0       15.74 15.51              0.23 1.042        0.00-25.26 27.14-52.40 0.000            130        1
JGI  105.1  94  65 42.91 PC0       17.65 17.54              0.11 1.042       56.50 31.24 30.70  0.54 0.000            130 132 3.81
CI8  118.4 135  65 45.15 PD0       19.89 19.50              0.39 1.042       59.98 34.72 34.12  0.60 0.000            130 129 3.81
GBI  155.1  97  65 50.48 P 0       25.22 24.90              0.33D0.000        0.00-25.26 43.57-68.82 0.000            130        1
TID  172.6 245  65 53.60 PC0       28.34 27.47              0.87D0.000       64.90 39.64 48.07 -8.43 0.000            130        1
CPI  188.2 260  65 55.00 PC0       29.74 29.77             -0.03D0.000       64.80 39.54 52.11-12.56 0.000            130        1
TMI  191.4 119  65 55.46 PD0       30.20 30.24             -0.03D0.000       78.19 52.93 52.91  0.02 0.000            130 116 4.01
LRM  221.7  33  50 58.80 PC0       33.54 34.06             -0.52D0.000        0.00-25.26 59.61-84.86 0.000            130        1
BUT  235.3  28  50  4.40 P 0       39.14 35.77              3.38D0.000       27.60 62.34 62.59 -0.25 0.000            130        1
WPI  242.5 247  50  2.20 PC0       36.94 36.66              0.28D0.000       30.90 65.64 64.16  1.48 0.000            130        1
IMW  246.0  97  50  2.86 P 0       37.60 37.11              0.50D0.000        0.00 34.74 64.94-30.19 0.000            130        1
NPI  252.7 152  50  4.81 P 0       39.55 37.93              1.62D0.000        0.00 34.74 66.38-31.64 0.000            130        1
MLI  280.4 147  50  8.50 P 0       43.24 41.41              1.84D0.000        0.00 34.74 72.46-37.71 0.000            130        1
SKM  311.4  45  50 11.00 P 0       45.74 45.28              0.47D0.000        0.00 34.74 79.24-44.49 0.000            130        1
NCM  339.7 352  50 13.90 PD0       48.64 48.81             -0.17D0.000        0.00 34.74 85.42-50.68 0.000            130        1

                          QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE     E    NW    SE     N
AVE. OF END POINTS                 0.44  0.65  0.65  0.73  0.82  0.97  1.02
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 1    16/46                                                                                  83/11/ 1    16/46

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.29                 SE =   0.44             SE =   0.67   QUALITY = A
                                            AZ =   -29.                 AZ =  -119.

 DATE    ORIGIN      LAT       LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1646 12.53 44N12.07 114W 1.56    8.92   2.75 26  6  73 1 0.08  0.4  0.7 A A|A 0.30 10 42 0.00 0.06  0  0.0  0.0  7  2.7  0.4
SE OF ORIG =  0.033          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   2.2 133 165 14.20 PDO        1.67  1.64              0.02 1.036       0.00-12.53  2.87-15.41 0.000           131        1
NWSI   6.0   4 142 14.43 PDO        1.90  1.92             -0.02 1.036       0.00-12.53  3.36-15.89 0.000           131        1
842    6.1 135 142  0.00IP 4      -12.53  1.93            -14.46 0.000      15.77  3.24  3.37 -0.14 0.725           131        1
814    6.6 151 140 14.55IPC        2.02  1.98              0.04 1.036                                               131  35 2.31
WSUI   7.2  75 137 14.70 PDO        2.17  2.05              0.12 1.036       0.00-12.53  3.59-16.12 0.000           131        1
8SU3  10.0 359 126 15.00 P 0        2.47  2.37              0.09 1.036       0.00-12.53  4.15-16.69 0.000           131        1
817   12.7 327 118 15.26IPO        2.73  2.76             -0.03 1.036                                               131  29 2.21
839   13.0 108 117 15.43IP         2.90  2.80              0.09 1.036      17.47  4.94  4.90  0.03 0.725           131        1
M-2   13.1 109 117 15.59 PDO        3.06  2.81  0.17        0.08 1.036       0.00-12.53  4.91-17.74 0.000           131        1
815   14.2 260 114 15.55IPC        3.02  2.98              0.03 1.036                                               131        1
USPI  15.6  83 111 15.71 PDO        3.18  3.20             -0.02 1.036       0.00-12.53  5.59-18.13 0.000           131        1
844   16.1   5 110  0.00IP 4      -12.53  3.26            -15.80 0.000      18.08  5.55  5.71 -0.16 0.725           131        1
N8AI  16.5 119 109 15.93 PDO        3.40  3.33              0.07 1.036       0.00-12.53  5.83-18.36 0.000           131        1
CHBI  16.0 145 109 15.85 PCO        3.32  3.37             -0.06 1.036       0.00-12.53  5.90-18.44 0.000           131        1
M-1   19.6 138 104 16.43 PCO        3.90  3.81  0.30       -0.21 1.036       0.00-12.53  6.66-19.72 0.000           131        1
8RPI  21.0 164 103 16.62 PCO        4.09  4.03              0.05 1.036      19.62  7.09  7.06  0.03 0.000           131        1
81    22.5 354 101 16.81IPC        4.28  4.27              0.01 1.036                                               131  43 2.51
8RCI  24.4 185 100 17.03 PCO        4.50  4.57             -0.07 1.036       0.00-12.53  8.00-20.53 0.000           131        1
812   24.9 186  99 17.20IP         4.67  4.64              0.02 1.036                                               131 113 3.41
LSGS  25.5 102  99 17.24 P 0        4.71  4.74             -0.04 1.036       0.00-12.53  8.30-20.84 0.000           131        1
LCRI  28.5 129  97 17.70 PCO        5.17  5.22             -0.05 1.036       0.00-12.53  9.13-21.67 0.000           131        1
811   33.6 149  96 18.64IPC        6.11  6.05              0.06 1.036      22.61 10.08 10.58 -0.51 0.000           131  60 2.91
86    44.3 126  94 20.36EPC        7.83  7.79              0.03 1.036                                               131  61 2.91
88    47.9 143  93 20.94EPC        8.41  8.37              0.04 1.036                                               131  70 3.11
87    54.8 138  93 22.26EP         9.73  9.49  0.28       -0.05 1.036                                               131        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                   0.39  0.54  0.67  0.74  0.77  0.92  0.95

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  26      0.08      0.45      0.74         A

          ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 1    18/20                                                                                                  83/11/ 1    18/20

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.56              SE =   0.97              SE =   0.96   QUALITY = A
                                            AZ =   -45.              AZ =    45.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 1820 16.88 44N10.39 113W59.21  10.02   2.45 12  9  77 1 0.09  1.0  1.0 B B|A 0.42 10 13 0.00 0.07  0  0.0  0.0  8  2.4  0.3
SE OF ORIG =  0.055          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
842    1.6 136 170  0.00IP 4      -16.88  1.80            -18.68 8.000      19.96  3.08  3.15 -0.07 0.737           133        1
816    3.0  59 162 18.85IPD         1.97  1.85              0.12 1.053                                              133  30 2.21
839    9.3  96 133 19.30IP          2.42  2.41              0.00 1.053      21.09  4.21  4.23 -0.02 0.737           133        1
817   17.1 324 113 20.26IPC         3.38  3.48             -0.10 1.053                                              133  24 2.01
815   17.1 272 113 20.44IPC         3.56  3.49              0.07 1.053                                              133  49 2.61
812   22.4 195 106 21.15IP          4.27  4.29             -0.02 1.053                                              133  63 2.91
81    26.1 348 103 21.73IPD         4.85  4.87             -0.02 1.053                                              133  22 2.01
811   29.4 151 180 22.33EP          5.45  5.40              0.05 1.053                                              133  40 2.51
86    40.0 125  97 24.06EPD         7.18  7.10              0.08 1.053                                              133        1
88    43.5 144  96 24.33EPC         7.45  7.67             -0.22 1.053                                              133  50 2.81
87    50.4 139  95 26.04EP          9.16  8.78  0.28        0.10 1.053                                              133  44 2.71

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE     Z    SW     E    NW     N    SE
AVE. OF END POINTS                  0.55  0.64  0.69  0.88  0.89  0.93  1.03
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 1    19/ 9                                                                                                  83/11/ 1    19/ 9

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.45              SE =   0.78              SE =   0.57   QUALITY = A
                                            AZ =   -68.              AZ =    22.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831101 19 9  8.74 44N11.08 113W57.79   4.85   2.07 11  9 125 1 0.07  0.8  0.6 B A|B 0.06 10 13 0.00 0.06  0  0.0  0.0  9  2.1  0.1
SE OF ORIG =  0.042          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    0.7  67 172  9.86IPD4        1.12  0.91              0.21 0.000                                              134  27 2.01
842    2.6 197 151  9.74IP          1.00  1.02             -0.02 1.058      10.41  1.67  1.78 -0.11 0.740           134        1
839    7.7 107 120 10.50IP          1.76  1.67              0.09 1.058      11.75  3.01  2.92  0.09 0.740           134        1
84     9.2  82 116 10.61IPD         1.87  1.92             -0.06 1.058                                              134  29 2.11
817   17.3 316 104 11.99EP          3.25  3.28             -0.03 1.058                                              134  23 1.91
815   19.0 268 102 12.42EPC         3.68  3.58              0.10 1.058                                              134  27 2.11
81    25.3 343  99 14.04IPD4        5.30  4.69              0.60 0.000                                              134  23 2.01
811   29.6 155  98 14.26EP          5.52  5.46              0.06 1.058                                              134  25 2.11
86    39.2 128  65 15.73EPC         6.99  7.11             -0.13 1.058                                              134  23 2.01
88    43.5 147  65 16.53EP          7.79  7.81             -0.02 1.058                                              134  34 2.41
87    50.2 141  65 17.95EP          9.21  8.89  0.28        0.04 1.058                                              134  21 2.01

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    SW     E     Z     N    NE
AVE. OF END POINTS                  0.09  0.12  0.14  0.15  0.15  0.15  0.18
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 1 19/13 83/11/ 1 19/13

HORIZONTAL		VERTICAL	
SE = 0.39	SE = 0.55	SE = 0.90	QUALITY = A
AZ = -18.	AZ = -108.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	1913 0.91	44N14.45	114W 2.42	9.47	2.74	24	6	76	1	0.09	0.6	0.9	A	A|A	0.26	10	38	0.00	0.07	0	0.0	0.0	4	2.7	0.3

SE OF ORIG = 0.048 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	2.2	46	166	2.63 P 0 1.72 1.73	-0.01	1.096		0.00	-0.91	3.03	-3.94	0.000				135			1
BSU3	5.6	10	146	2.90 PDD 1.99 1.96	0.03	1.096		0.00	-0.91	3.43	-4.34	0.000				135			1
ANPI	6.5	155	142	3.05 P 0 2.14 2.04	0.09	1.096		4.55	3.64	3.57	0.06	0.000				135			1
WSUI	8.5	107	134	3.56 P 2 2.65 2.26	0.39	0.274		0.00	-0.91	3.96	-4.87	0.000				135			1
B17	8.5	317	134	3.18IPD 2.27 2.26	0.00	1.096										135	44	2.51	
NSUI	8.7	91	133	3.26 PDD 2.35 2.28	0.06	1.096		0.00	-0.91	4.00	-4.91	0.000				135			1
B16	9.1	131	131	3.37IPD 2.46 2.33	0.13	1.096										135			1
B42	10.3	148	128	0.00IP 4 -0.91 2.47	-3.38	0.000		5.07	4.16	4.32	-0.17	0.767				135			1
B44	11.9	13	122	3.55IP 2.64 2.69	-0.06	1.096		5.54	4.63	4.71	-0.09	0.767				135			1
B15	14.6	241	116	4.02IPC 3.11 3.07	0.04	1.096										135			1
M-2	16.0	123	113	4.29 PDD 3.38 3.29 0.17	-0.09	1.096		0.00	-0.91	5.76	-6.97	0.000				135			1
B4	16.1	108	113	4.17IPD 3.26 3.30	-0.04	1.096		6.37	5.46	5.77	-0.31	0.000				135			1
DSPI	16.9	98	111	4.29 PCD 3.38 3.41	-0.04	1.096		0.00	-0.91	5.97	-6.89	0.000				135			1
B1	18.0	356	109	4.52IPC 3.61 3.59	0.02	1.096										135	42	2.51	
NBAI	19.9	129	107	4.69 P-2 3.78 3.88	-0.11	0.274		0.00	-0.91	6.79	-7.71	0.000				135			1
M-1	23.7	143	103	5.73 P+0 4.82 4.48 0.30	0.03	1.096		0.00	-0.91	7.84	-9.28	0.000				135			1
BRPI	25.6	164	101	5.70 PCD 4.79 4.78	0.01	1.096		9.20	8.29	8.36	-0.07	0.000				135			1
LSGS	27.8	110	100	6.01 PCD 5.10 5.13	-0.04	1.096		0.00	-0.91	8.98	-9.90	0.000				135			1
BRCI	28.7	182	99	6.05 PCD 5.14 5.28	-0.14	1.096		7.75	6.84	9.24	-2.40	0.000				135			1
B12	29.2	183	99	6.20IPC 5.29 5.35	-0.06	1.096										135			1
B11	38.0	151	96	7.84EP 6.93 6.77	0.15	1.096										135			1
B6	48.0	130	94	9.37EPC 8.46 8.37	0.08	1.096										135	53	2.81	
B8	52.1	145	94	9.91EP 9.00 9.06	-0.07	1.096										135	75	3.11	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	E	NW	SW	SE	N
AVE. OF END POINTS	0.38	0.53	0.64	0.68	0.70	0.88	0.93

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
24	0.09	0.43	0.70	A

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	0.29	SE = 0.44	SE = 0.80	QUALITY = A
AZ =	-23.	AZ = -113.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	2136 45.65	44N 8.74	113W56.62	7.51	2.91	24	6	73	1	0.08	0.4	0.8	A	A|A	1.06	10	39	0.00	0.06	0	0.0	0.0	7	2.9	0.2

SE OF ORIG = 0.031 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	4.7	349	144	47.32	IPD		1.67	1.61			0.06	1.045										137	62	2.81	
M-2	6.1	72	135	47.59	PDO		1.94	1.76	0.17		0.01	1.045		0.00	-45.65	3.08	-49.03	0.000				137		1	
539	6.1	70	135	47.49	IP		1.84	1.77			0.08	1.045		48.77	3.12	3.09	0.03	0.732				137		1	
ANPI	6.9	313	131	47.34	PDO		1.69	1.85			-0.16	1.045		0.00	-45.65	3.24	-48.88	0.000				137		1	
4SUI	8.0	3	126	47.61	PDO		1.96	1.99			-0.03	1.045		0.00	-45.65	3.48	-49.13	0.000				137		1	
MBAI	8.1	103	126	47.73	P-1		2.08	1.99			0.09	0.588		0.00	-45.65	3.49	-49.14	0.000				137		1	
837	9.4	163	120	47.79	IP		2.14	2.18			-0.04	1.045		49.36	3.71	3.82	-0.11	0.732				137		1	
84	9.5	53	120	47.80	IPD		2.15	2.19			-0.04	1.045										137		1	
NSUI	10.5	5	116	47.96	PDO		2.31	2.32			-0.01	1.045		0.00	-45.65	4.06	-49.71	0.000				137		1	
M-1	10.6	143	115	48.38	PCO		2.73	2.36	0.30		0.07	1.045		0.00	-45.65	4.13	-50.30	0.000				137		1	
OSPI	12.1	48	111	48.29	PDO		2.64	2.57			0.07	1.045		0.00	-45.65	4.50	-50.15	0.000				137		1	
NWSI	13.6	333	106	48.45	PDO		2.80	2.81			-0.01	1.045		50.31	4.66	4.92	-0.26	0.000				137		1	
BRPI	14.0	183	105	48.65	PCO		3.00	2.87			0.13	1.045		0.00	-45.65	5.03	-50.68	0.000				137		1	
8SU3	17.5	337	97	49.10	P 0		3.45	3.43			0.02	1.045		0.00	-45.65	6.00	-51.65	0.000				137		1	
LSGS	18.4	87	96	49.21	PDO		3.56	3.57			-0.01	1.045		0.00	-45.65	6.25	-51.90	0.000				137		1	
LCRI	19.5	126	95	49.15	PCO		3.50	3.74			-0.24	1.045		0.00	-45.65	6.55	-52.20	0.000				137		1	
BRCI	20.2	206	95	49.44	PCO		3.79	3.85			-0.06	1.045		0.00	-45.65	6.74	-52.39	0.000				137		1	
812	20.8	207	94	49.64	IPC		3.99	3.95			0.04	1.045										137	94	3.21	
815	20.9	280	94	49.64	IPC		3.99	3.97			0.02	1.045		52.60	6.95	6.94	0.01	0.000				137	61	2.81	
817	21.6	321	94	49.75	EP		4.10	4.08			0.02	1.045										137	48	2.61	
811	25.1	154	93	50.40	EPC		4.75	4.64			0.11	1.045										137	60	2.81	
88	39.0	146	91	52.55	EP		6.90	6.92			-0.02	1.045										137	90	3.21	
87	45.9	139	91	54.31	EP 4		8.66	8.03	0.28		0.35	0.000										137	58	2.91	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	SE	N
AVE. OF END POINTS	0.27	0.61	0.79	0.79	0.85	0.87	1.01

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
24	0.08	0.37	0.79	A

	HORIZONTAL		VERTICAL	
SE =	0.41	SE =	0.60	SE = 0.85 QUALITY = A
AZ =	-29.	AZ =	-119.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831101	2342 29.30	44N12.07	114W 2.36	9.03	3.05	28	7	75	1	0.11	0.6	0.8	A	A|A	0.06	10	60	0.00	0.08	0	0.0	0.0	7	3.0	0.4

SE OF ORIG = 0.044 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.0	119	160	31.01	PD0	1.71	1.70			0.01	1.033		0.00	-29.30	2.98	-32.28	0.000				138		1	
NWSI	6.1	14	142	31.22	PD0	1.92	1.95			-0.03	1.033		0.00	-29.30	3.42	-32.72	0.000				138		1	
842	6.8	129	139	0.00	IP 4	-29.30	2.02			-31.33	0.000		32.82	3.52	3.54	-0.03	0.723				138		1	
816	6.9	103	138	31.41	IPD	2.11	2.03			0.08	1.033										138	53	2.71	
WSUI	8.2	77	133	31.48	P 0	2.18	2.18			0.00	1.033		0.00	-29.30	3.81	-33.12	0.000				138		1	
NSUI	9.6	64	128	31.60	PC0	2.30	2.34			-0.04	1.033		0.00	-29.30	4.10	-33.40	0.000				138		1	
SCSI	10.0	5	126	31.88	PD0	2.58	2.39			0.19	1.033		0.00	-29.30	4.18	-33.49	0.000				138		1	
8SU3	10.0	5	126	31.80	PD0	2.50	2.39			0.11	1.033		0.00	-29.30	4.18	-33.49	0.000				138		1	
817	12.2	331	120	31.94	IPD	2.64	2.69			-0.05	1.033										138	49	2.61	
815	13.2	259	117	32.20	IPD	2.90	2.83			0.07	1.033		34.65	5.35	4.95	0.40	0.000				138		1	
839	14.0	107	115	32.32	IP	3.02	2.95			0.06	1.033		34.54	5.24	5.17	0.07	0.723				138		1	
M-2	14.1	108	115	32.48	PC0	3.18	2.96	0.17		0.05	1.033		0.00	-29.30	5.18	-34.78	0.000				138		1	
84	15.2	92	112	32.36	IPC	3.06	3.14			-0.09	1.033										138		1	
844	16.2	9	110	0.00	IP 4	-29.30	3.29			-32.59	0.000		34.94	5.64	5.76	-0.12	0.723				138		1	
OSPI	16.7	83	110	32.56	PC0	3.26	3.36			-0.11	1.033		0.00	-29.30	5.88	-35.19	0.000				138		1	
MBAI	17.5	117	108	32.84	PC0	3.54	3.48			0.06	1.033		0.00	-29.30	6.09	-35.39	0.000				138		1	
M-1	20.3	136	104	33.58	PC0	4.28	3.93	0.30		0.05	1.033		0.00	-29.30	6.87	-36.70	0.000				138		1	
8RPI	21.3	161	103	34.05	PC0	4.75	4.09			0.66	M0.000		36.15	6.85	7.16	-0.31	0.000				138		1	
81	22.4	357	102	33.46	IPC	4.16	4.26			-0.10	1.033										138	50	2.71	
8RCI	24.3	183	100	33.75	PC0	4.45	4.56			-0.12	1.033		0.00	-29.30	7.98	-37.29	0.000				138		1	
812	24.8	184	100	33.91	IPC	4.61	4.63			-0.02	1.033										138		1	
LSGS	26.5	101	99	34.20	PC0	4.90	4.91			-0.02	1.033		0.00	-29.30	8.60	-37.90	0.000				138		1	
LCRI	29.3	127	97	34.55	PC0	5.25	5.36			-0.11	1.033		0.00	-29.30	9.38	-38.68	0.000				138		1	
811	34.2	147	96	35.45	EPC	6.15	6.14			0.00	1.033										138	50	2.71	
88	48.5	142	93	37.92	IP	8.62	8.47			0.15	1.033										138		1	
87	55.6	137	93	39.24	IP	9.94	9.61	0.28		0.04	1.033										138		1	
8PM	90.2	41	92	45.80	PC0	16.50	15.22			1.27	M0.000		0.00	-29.30	26.64	-55.95	0.000				138		1	
MPI	93.1	126	91	44.67	P 0	15.37	15.69			-0.33	1.033		57.78	28.48	27.46	1.01	0.000				138		1	
JGI	109.8	96	65	47.80	PC0	18.50	18.28			0.22	1.033		60.66	31.36	31.98	-0.63	0.000				138	90	3.51	
CIB	125.3	135	65	50.31	P 0	21.01	20.56			0.44	D0.000		66.12	36.82	35.98	0.83	0.000				138	91	3.51	
G8I	160.0	99	65	55.75	P 0	26.45	25.66			0.78	M0.000		74.06	44.76	44.91	-0.16	0.000				138	88	3.61	
TMI	197.6	120	50	0.50	P 0	31.20	31.11			0.08	D0.000		24.59	55.29	54.45	0.84	0.000				138		1	
LRM	219.4	35	50	3.80	PC0	34.50	33.84			0.66	M0.000		0.00	30.70	59.22	-28.52	0.000				138		1	
INW	250.9	98	50	7.07	P 3	37.77	37.78			-0.02	D0.000		0.00	30.70	66.12	-35.42	0.000				138		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	E	SE	NE	Z	N
AVE. OF END POINTS	0.11	0.11	0.13	0.13	0.16	0.17	0.17

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
12	0.11	0.04	0.14	D

	HORIZONTAL	VERTICAL	
SE =	0.48	SE = 0.71	SE = 1.03 QUALITY = A
AZ =	-20.	AZ = -110.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	157 50.24	44N 8.10	113W57.89	10.65	2.84	21	8	123	1	0.11	0.7	1.0	B	A|B	0.05	10	37	0.00	0.09	0	0.0	0.0	8	2.8	0.2

SE OF ORIG = 0.055 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	3.1	348	162	0.00	P 4	-50.24	1.96		-52.20	0.000		53.53	3.29	3.42	-0.13	0.788				140			1
816	5.8	8	149	52.50	IP	2.26	2.14		0.12	1.126										140	70	2.91	
ANPI	6.8	331	145	49.33	P 4	-0.91	2.22		-3.13	0.000		0.00	-50.24	3.89	-54.13	0.000				140			1
M-2	8.1	67	139	52.79	PD0	2.55	2.36	0.17	0.02	1.126		0.00	-50.24	4.13	-54.66	0.000				140			1
939	8.2	67	139	52.67	P 1	2.43	2.36		0.07	0.633		54.43	4.19	4.13	0.05	0.788				140			1
MBAI	9.6	94	134	52.86	PD1	2.62	2.52		0.10	0.633		0.00	-50.24	4.41	-54.66	0.000				140			1
M-1	10.9	132	130	53.13	PD0	2.89	2.67	0.30	-0.09	1.126		0.00	-50.24	4.68	-55.45	0.000				140			1
84	11.5	53	128	52.95	IPD	2.71	2.75		-0.04	1.126										140	61	2.81	
NSUI	11.9	13	127	53.20	PC1	2.96	2.80		0.16	0.633		54.90	4.66	4.90	-0.24	0.000				140			1
BRPI	12.8	175	125	53.30	PC0	3.06	2.93		0.13	1.126		0.00	-50.24	5.13	-55.37	0.000				140			1
NWSI	14.1	341	122	53.41	PD0	3.17	3.09		0.08	1.126		55.41	5.17	5.41	-0.24	0.000				140			1
OSPI	14.1	49	122	53.16	PD1	2.92	3.10		-0.18	0.633		0.00	-50.24	5.43	-55.67	0.000				140			1
BSU3	18.1	344	114	53.80	PD0	3.56	3.65		-0.10	1.126		0.00	-50.24	6.40	-56.64	0.000				140			1
BRCI	18.4	203	114	54.06	PC0	3.82	3.72		0.10	1.126		55.30	5.06	6.50	-1.44	0.000				140			1
812	19.0	204	113	53.84	IP	3.60	3.80		-0.21	1.126										140			1
815	19.5	284	112	52.94	IP 4	2.70	3.88		-1.18	0.000										140	63	2.91	
LCRI	20.2	121	111	54.07	P 0	3.83	3.99		-0.16	1.126		0.00	-50.24	6.99	-57.23	0.000				140			1
LSGS	20.2	84	111	54.28	P 0	4.04	3.99		0.04	1.126		0.00	-50.24	6.99	-57.23	0.000				140			1
817	21.6	327	109	54.42	IP	4.18	4.20		-0.02	1.126										140	40	2.51	
811	24.8	150	106	55.11	IP	4.87	4.70		0.17	1.126										140	55	2.81	
31	30.6	346	102	55.85	IPC	5.61	5.61		-0.01	1.126										140	53	2.81	
88	39.0	143	98	57.14	EP	6.90	6.96		-0.07	1.126										140	80	3.11	
87	46.1	137	96	58.66	IPC4	8.42	8.10	0.28	0.04	0.000										140	61	2.91	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	E	Z	NE	NW	SW	SE
AVE. OF END POINTS	0.09	0.10	0.11	0.13	0.13	0.17	0.17

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
11	0.11	0.04	0.13	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2      6/ 3                                                                                                  83/11/ 2      6/ 3

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.44              SE =    0.73              SE =    1.29    QUALITY = A
                                            AZ =    -31.              AZ =   -121.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102  6 3 23.83 44N13.92 114W 2.08    9.19   2.69 12 10 109 1 0.08  0.7  1.3 B A|B 0.19 10 15 0.00 0.07  0  0.0  0.0  7  2.7  0.2
SE OF ORIG =  0.061          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.1 128 134 26.15IPC          2.32  2.18              0.14 1.081                                                141  55 2.71
842    9.2 147 130  0.00IP 4       -23.83  2.31            -26.14 0.000      27.77  3.94  4.04 -0.10 0.757            141        1
817    9.6 319 129 26.15IPD          2.32  2.35             -0.04 1.081                                                141  44 2.51
844   12.8  10 119  0.00IP 4       -23.83  2.79            -26.62 0.000      28.63  4.80  4.89 -0.09 0.757            141        1
815   14.6 246 115 26.94IPC          3.11  3.04              0.07 1.081                                                141  48 2.61
839   15.1 120 113 27.02IP           3.19  3.13              0.06 1.081      29.33  5.50  5.48  0.02 0.757            141        1
84    15.4 105 113 27.01IP           3.18  3.17              0.01 1.081                                                141  55 2.71
81    19.0 355 107 27.59IPC          3.76  3.73              0.03 1.081                                                141  38 2.41
312   28.2 184  98 28.94IP           5.11  5.19             -0.08 1.081                                                141        1
811   36.9 151  95 30.50IPC          6.67  6.59              0.08 1.081                                                141        1
88    51.1 145  93 32.57IPC          8.74  8.88             -0.15 1.081                                                141  65 3.01
87    57.9 140  93 34.18IP 4        10.35  9.99  0.28        0.08 0.000                                                141  52 2.81

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     Z     N    SW     E    NE
AVE. OF END POINTS                   0.11  0.11  0.16  0.17  0.17  0.18  0.20

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.08      0.02      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	1.87	SE =	3.32	SE = 7.30 QUALITY = C
AZ =	-124.	AZ =	-34.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	O3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
331102	633 57.68	44N13.10	114W 2.64	12.42		10	9	187	1	0.13	3.3	7.3	D	C|D	0.07	10	20	0.00	0.11	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.476 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	4.5	25	159	0.02	PDO	2.34	2.30		0.04	1.046		0.00	2.32	4.02	-1.70	0.000							
BSU3	8.2	9	144	60.35	PCO	2.67	2.59		0.08	1.046		0.00	-57.68	4.53	-62.21	0.000							
NSUI	9.3	75	140	0.27	PCO	2.59	2.70		-0.11	1.046		0.00	2.32	4.73	-2.41	0.000							
M-2	15.1	114	125	1.13	PCO	3.45	3.38	0.17	-0.10	1.046		0.00	2.32	5.92	-3.90	0.000							
DSPI	17.0	90	122	1.23	PCO	3.55	3.64		-0.09	1.046		0.00	2.32	6.38	-4.06	0.000							
MBAI	18.7	122	119	1.68	P-1	4.00	3.89		0.11	0.588		0.00	2.32	6.81	-4.49	0.000							
M-1	22.0	139	114	2.44	PCO	4.76	4.35	0.30	0.11	1.046		0.00	2.32	7.62	-5.82	0.000							
BRPI	23.3	162	113	2.45	P 0	4.77	4.56		0.21	1.046		4.70	7.02	7.98	-0.96	0.000							
BRCI	26.2	182	110	2.45	PCO	4.77	5.00		-0.23	1.046		5.45	7.77	8.76	-0.99	0.000							
LSGS	27.3	105	109	2.89	PCO	5.21	5.18		0.03	1.046		0.00	2.32	9.06	-6.74	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	NE	E	SW	SE	Z	N
AVE. OF END POINTS	0.08	0.08	0.10	0.12	0.14	0.15	0.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.13	0.05	0.12	D

HORIZONTAL		VERTICAL		
SE =	0.65	SE =	1.04	SE = 1.27 QUALITY = A
AZ =	-36.	AZ =	-126.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	653	7.14 43N	58.68 113W	52.07	11.17	3.10	25	10	140	1	0.15	1.0	1.3	C	8|C	0.64	10	56	0.00	0.11	0	0.0	0.0	12	3.1	0.3

SE OF ORIG = 0.073 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
811	6.2	130	149	9.56	IPC	2.42	2.24			0.18	1.098										143	75	3.01	
8RPI	8.2	304	141	9.65	PD0	2.51	2.43			0.08	1.098		0.00	-7.14	4.26	-11.40	0.000				143		1	
M-1	10.2	2	134	10.02	PC0	2.88	2.65	0.30		-0.07	1.098		0.00	-7.14	4.64	-12.30	0.000				143		1	
837	10.2	341	134	9.86	P 1	2.72	2.65			0.07	0.617		11.88	4.74	4.64	0.10	0.768				143		1	
LCRI	11.9	54	129	10.04	PC0	2.90	2.86			0.04	1.098		0.00	-7.14	5.00	-12.14	0.000				143		1	
8RCI	14.9	272	122	8.94	PD0	1.80	3.26			-1.46	M0.000		0.00	-7.14	5.70	-12.84	0.000				143		1	
812	15.5	270	121	10.64	IPD	3.50	3.33			0.17	1.098										143		1	
4BAI	16.9	6	118	10.77	PC0	3.63	3.53			0.10	1.098		0.00	-7.14	6.18	-13.32	0.000				143		1	
M-2	20.6	359	112	11.30	PC0	4.16	4.07	0.17		-0.09	1.098		0.00	-7.14	7.13	-14.57	0.000				143		1	
839	20.7	359	112	11.32	P 1	4.18	4.09			0.08	0.617		14.27	7.13	7.16	-0.04	0.768				143		1	
98	21.0	131	112	11.27	IPC	4.13	4.13			-0.01	1.098										143	86	3.21	
LSGS	23.2	32	109	11.59	PC0	4.45	4.48			-0.03	1.098		0.00	-7.14	7.83	-14.97	0.000				143		1	
816	24.2	343	108	11.77	IPC	4.63	4.64			-0.01	1.098		15.22	8.08	8.11	-0.03	0.000				143	69	3.01	
84	24.3	4	108	11.72	IPC	4.58	4.65			-0.07	1.098										143	66	2.91	
ANPI	25.8	335	106	11.98	P 0	4.84	4.88			-0.04	1.098		0.00	-7.14	8.54	-15.68	0.000				143		1	
DSPI	26.9	6	106	12.10	PC0	4.96	5.05			-0.09	1.098		14.45	7.31	8.83	-1.52	0.000				143		1	
87	28.8	124	104	12.47	IPC	5.33	5.34	0.28		-0.30	1.098										143	78	3.11	
NSUI	29.5	350	104	12.77	P 2	5.63	5.45			0.18	0.274		0.00	-7.14	9.53	-16.67	0.000				143		1	
NWSI	33.1	338	102	12.91	P 0	5.77	6.03			-0.26	1.098		0.00	-7.14	10.55	-17.69	0.000				143		1	
815	34.7	310	101	13.36	IPD	6.22	6.29			-0.07	1.098										143	68	3.01	
8SU3	37.1	340	100	13.80	P 0	6.66	6.66			0.00	1.098		0.00	-7.14	11.66	-18.80	0.000				143		1	
817	40.5	331	99	14.25	IPD	7.11	7.21			-0.11	1.098										143	39	2.51	
81	49.5	342	97	15.76	EP	8.62	8.66			-0.04	1.098										143	45	2.71	
JGI	96.4	82	65	25.59	P 4	18.45	16.16			2.29	0.000		0.00	-7.14	28.28	-35.42	0.000				143	59	3.11	
CIB	98.4	131	65	25.49	P 4	18.35	16.46			1.89	0.000		36.54	29.40	28.80	0.60	0.000				143		1	
8PM	103.6	26	65	24.80	PC0	17.66	17.22			0.44	1.098		0.00	-7.14	30.14	-37.28	0.000				143		1	
GBI	144.7	90	65	30.71	P 0	23.57	23.27			0.29	D0.000		0.00	-7.14	40.73	-47.87	0.000				143	70	3.41	
TMI	174.3	115	65	34.68	PD0	27.54	27.61			-0.08	C0.000		0.00	-7.14	48.32	-55.47	0.000				143	72	3.51	
NPI	231.2	152	50	43.94	P 0	36.80	35.09			1.71	M0.000		0.00	-7.14	61.40	-68.54	0.000				143		1	
LRM	233.5	29	50	42.30	PC0	35.16	35.38			-0.22	C0.000		0.00	-7.14	61.92	-69.06	0.000				143		1	
IMW	235.5	92	50	43.83	P 0	36.69	35.63			1.06	M0.000		0.00	-7.14	62.35	-69.49	0.000				143	75	3.81	
MLI	259.2	147	50	47.34	P 0	40.20	38.59			1.61	M0.000		0.00	-7.14	67.53	-74.67	0.000				143		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	NE	E	Z	SW	NW
AVE. OF END POINTS	0.03	0.05	0.06	0.13	0.14	0.14	0.18

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
18	0.15	-0.01	0.10	0

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2     9/ 1                                                                                  83/11/ 2     9/ 1

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    1.21              SE =    1.75              SE =    3.43   QUALITY = 8
                                            AZ =     34.              AZ =    -56.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102  9 1 38.51 44N12.29 114W 2.34  12.28        12  9 182 1 0.10  1.8  3.4 C 8|0 0.37 10 24 0.00 0.09  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.23S          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   3.2 126 164 40.80 PDO        2.29  2.21              0.08 1.000       0.00-38.51  3.87-42.38 0.000
NWSI   5.7  15 153 40.71 PDO        2.20  2.36             -0.16 1.000       0.00-38.51  4.13-42.64 0.000
NSUI   9.4  66 140 41.15 PDO        2.64  2.69             -0.05 1.000       0.00-38.51  4.71-43.22 0.000
BSU3   9.6   5 139 41.40 PDO        2.89  2.71              0.18 1.000       0.00-38.51  4.75-43.26 0.000
M-2   14.2 109 127 41.88 PDO        3.37  3.25  0.17       -0.05 1.000       0.00-38.51  5.69-44.50 0.000
DSPI  16.6  85 122 42.04 PDO        3.53  3.59             -0.05 1.000       0.00-38.51  6.28-44.78 0.000
MBAI  17.6 119 120 42.31 PDO        3.80  3.72              0.08 1.000       0.00-38.51  6.52-45.03 0.000
M-1   20.6 137 116 42.94 PDO        4.43  4.14  0.30       -0.01 1.000       0.00-38.51  7.25-46.28 0.000
BRPI  21.7 161 114 42.90 PCO        4.39  4.31              0.08 1.000      45.85  7.34  7.54 -0.20 0.000
BRCI  24.7 183 111 43.14 P+0        4.63  4.77             -0.14 1.000      47.14  8.63  8.35  0.28 0.000
LSGS  26.6 102 109 43.48 PDO        4.97  5.05             -0.08 1.000       0.00-38.51  8.85-47.35 0.000
LCRI  29.5 128 106 44.14 PDO        5.63  5.51              0.12 1.000       0.00-38.51  9.64-48.15 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    SW     Z    NW     E     N    NE
AVE. OF END POINTS                  0.08  0.09  0.13  0.13  0.14  0.16  0.20

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.10      0.01      0.13         0

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2      9/53                                                                                                  83/11/ 2      9/53

                                                        HORIZONTAL                                  VERTICAL
                                                SE =    1.42              SE =    1.86              SE =    3.53   QUALITY = B
                                                AZ =     23.              AZ =    -67.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102  953 14.90 44N11.46 114W 0.82   8.94        11 11 166 1 0.14  1.9  3.5 C BIC 0.06 10 24 0.00 0.13  0  0.0  0.0  0  0.0  0.0
SE OP ORIG =  0.197          9 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   0.7 119 175 16.43 PD0        1.53  1.60              -0.08 1.000       0.00-14.90  2.81-17.71 0.000
NWSI   7.1 355 137 18.46 P 0        3.56  2.04               1.51M0.000       0.00-14.90  3.57-18.48 0.000
NSUI   8.5  51 131 17.00 PD0        2.10  2.20              -0.10 1.000       0.00-14.90  3.85-18.75 0.000
BSU3  11.2 354 122 17.60 PD0        2.70  2.54               0.15 1.000       0.00-14.90  4.45-19.36 0.000
M-2   11.8 105 120 17.73 PD0        2.83  2.63  0.17         0.02 1.000       0.00-14.90  4.61-19.81 0.000
DSPI  14.9  78 113 17.88 PD0        2.98  3.08              -0.10 1.000      19.13  4.23  5.39 -1.16 0.000
MBAI  15.1 117 112 18.19 PD0        3.29  3.12               0.17 1.000       0.00-14.90  5.46-20.36 0.000
M-1   18.1 138 107 19.04 PD0        4.14  3.57  0.30         0.27 1.000       0.00-14.90  6.24-21.67 0.000
BRPI  19.7 166 104 18.80 PC0        3.90  3.82               0.08 1.000      18.79  3.89  6.69 -2.80 0.000
BRCI  23.4 188 101 19.14 PC0        4.24  4.41              -0.17 1.000       0.00-14.90  7.72-22.62 0.000
LSGS  24.3 100 100 19.38 PC0        4.48  4.56              -0.08 1.000       0.00-14.90  7.97-22.88 0.000
LCRI  27.0 128  98 19.73 P 0        4.83  4.98              -0.16 1.000       0.00-14.90  8.72-23.62 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW     E    NE     N    SE    SW
AVE. OF END POINTS                 0.07  0.08  0.10  0.11  0.12  0.12  0.16

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.14     -0.02      0.11         D
```

	HORIZONTAL		VERTICAL	
SE =	0.62	SE = 0.91	SE = 1.30	QUALITY = A
AZ =	4.	AZ = -86.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	1241 13.39	44N15.59	114W 4.66	4.48	3.63	24	5	99	1	0.16	0.9	1.3	B	B1B	0.10	10	71	0.00	0.11	0	0.0	0.0	11	3.6	0.4

SE OF ORIG = 0.067 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	4.6	97	133	14.61 P 0	1.22	1.19		0.03	1.013		0.00	-13.39	2.08	-15.47	0.000				146			1
B17	5.0	326	130	14.50IPD	1.11	1.25		-0.13	1.013										146	95	3.11	
BSU3	5.2	49	129	14.75 PDO	1.36	1.27		0.09	1.013										146			1
ANPI	9.8	144	112	15.50 P 0	2.11	1.99		0.12	1.013		0.00	-13.39	3.48	-16.87	0.000				146			1
B44	11.0	31	110	15.60EPCO	2.21	2.19		0.02	1.013		17.34	3.95	3.84	0.11	0.709				146			1
NSUI	11.9	101	108	15.78 P 0	2.39	2.34		0.06	1.013		0.00	-13.39	4.09	-17.47	0.000				146			1
B16	12.7	130	107	16.01IPD	2.62	2.47		0.15	1.013										146	120	3.41	
B15	13.4	227	106	16.09IPC	2.70	2.59		0.11	1.013										146	115	3.31	
B42	13.7	142	106	0.00 P 4	-13.39	2.64		-16.03	0.000		19.52	6.13	4.62	1.51	0.000				146			1
B1	16.0	7	104	16.28IPC	2.89	3.04		-0.14	1.013										146	119	3.41	
B4	19.6	111	101	17.03IPD	3.64	3.66		-0.02	1.013										146			1
M-2	19.7	123	101	17.17 PDO	3.78	3.68	0.17	-0.07	1.013		0.00	-13.39	6.44	-20.12	0.000				146			1
DSPI	20.2	103	101	17.15 P 0	3.76	3.78		-0.01	1.013		0.00	-13.39	6.61	-20.00	0.000				146			1
MBAI	23.6	128	99	17.79 P 0	4.40	4.38		0.02	1.013		0.00	-13.39	7.66	-21.05	0.000				146			1
M-1	27.2	141	98	18.66 P+0	5.27	5.02	0.30	-0.05	1.013		0.00	-13.39	8.78	-22.70	0.000				146			1
BRPI	28.5	159	97	18.85 P 0	5.46	5.25		0.21	1.013		0.00	-13.39	9.19	-22.58	0.000				146			1
BRCI	30.9	176	97	19.05 P 0	5.66	5.67		-0.01	1.013		0.00	-13.39	9.92	-23.31	0.000				146			1
B12	31.2	178	97	19.03IP	5.64	5.74		-0.09	1.013										146			1
LSGS	31.3	112	97	18.88 P 0	5.49	5.75		-0.26	1.013		0.00	-13.39	10.07	-23.46	0.000				146			1
LCRI	35.8	133	96	19.53 P 0	6.14	6.55		-0.41	1.013		0.00	-13.39	11.46	-24.85	0.000				146			1
B11	41.3	149	65	20.86IPC	7.47	7.49		-0.01	1.013										146	115	3.41	
B8	55.5	144	65	23.05IP	9.66	9.79		-0.13	1.013										146	150	3.71	
B7	62.5	139	65	24.79IP 4	11.40	10.92	0.28	0.21	0.000										146	86	3.21	
BPM	87.4	45	65	28.40 PCO	15.01	14.97		0.04	1.013		0.00	-13.39	26.20	-39.59	0.000				146			1
MPI	99.4	128	65	30.70 P	17.31	16.91		0.40	1.013										146			1
JGI	113.5	99	65	33.00 P 4	19.61	19.20		0.41	0.000		0.00	-13.39	33.60	-46.99	0.000				146			1
CIB	132.1	136	55	35.94 P 0	22.55	21.96		0.59	0.000		50.36	36.97	38.43	-1.46	0.000				146	117	3.81	
GBI	164.1	101	55	41.00 P 0	27.61	26.66		0.95	0.000		0.00	-13.39	46.66	-60.05	0.000				146			1
TID	171.3	240	55	43.16 P 0	29.77	27.73		2.04	0.000		0.00	-13.39	48.52	-61.91	0.000				146			1
CPI	183.2	256	55	42.76 P 0	29.37	29.48		-0.11	0.000		0.00	-13.39	51.59	-64.98	0.000				146			1
CMI	197.9	81	55	46.20 PDO	32.81	31.63		1.18	0.000		0.00	-13.39	55.35	-68.74	0.000				146	135	4.11	
TMI	203.6	121	44	46.05 P 0	32.66	32.39		0.27	0.000		0.00	-13.39	56.69	-70.08	0.000				146	136	4.11	
KCI	204.4	109	44	46.80 P 0	33.41	32.50		0.92	0.000		0.00	-13.39	56.87	-70.26	0.000				146			1
LRM	215.9	36	44	46.70 PCO	33.31	33.93		-0.62	0.000		0.00	-13.39	59.38	-72.77	0.000				146			1
BUT	228.4	31	44	48.40 P 0	35.01	35.50		-0.49	0.000		75.30	61.91	62.13	-0.22	0.000				146			1
WPI	240.6	243	44	50.56 POO	37.17	37.02		0.15	0.000		0.00	-13.39	64.79	-78.18	0.000				146			1
IMW	254.5	99	44	53.56 P 0	40.17	38.76		1.41	0.000		0.00	-13.39	67.83	-81.22	0.000				146	144	4.41	
NPI	266.7	152	44	55.54 P 0	42.15	40.29		1.87	0.000		0.00	-13.39	70.50	-83.89	0.000				146			1
MLI	294.6	147	44	59.25 P 0	45.86	43.77		2.09	0.000		0.00	-13.39	76.60	-89.99	0.000				146			1
SXM	308.1	47	44	58.90 P 0	45.51	45.46		0.05	0.000		0.00	-13.39	79.56	-92.95	0.000				146			1
NCM	326.8	353	44	0.90 P 0	47.51	47.80		-0.29	0.000		0.00	46.61	83.65	-37.04	0.000				146			1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH SE NW Z N E NE SW

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2    14/55                                                                                  83/11/ 2    14/55

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.60              SE =    1.29              SE =    1.57   QUALITY = A
                                            AZ =     44.              AZ =    -46.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 1455 59.67 44N14.88 114W 4.88  10.86        12  9 226 1 0.04  1.3  1.6 C AID 0.11 10 24 0.00 0.03  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.134          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   4.9  81 154  1.70 PDO        2.03  2.10              -0.07 1.000       0.00  0.33  3.67 -3.34 0.000
BSU3   6.4  42 147  1.90 PDO        2.23  2.21               0.01 1.000       0.00  0.33  3.88 -3.55 0.000
ANPI   9.0 138 137  2.15 PDO        2.48  2.48               0.00 1.000       0.00  0.33  4.33 -4.01 0.000
NSUI  12.0  95 128  2.58 PDO        2.91  2.83               0.07 1.000       0.00  0.33  4.96 -4.63 0.000
M-2   19.3 119 113  3.68 PDO        4.01  3.86  0.17        -0.02 1.000       0.00  0.33  6.76 -6.73 0.000
DSPI  20.2  99 112  3.69 PDO        4.02  4.00               0.02 1.000       5.55  5.88  7.00 -1.13 0.000
MBAI  23.0 125 108  4.14 PDO        4.47  4.43               0.04 1.000       0.00  0.33  7.76 -7.43 0.000
M-1   26.4 139 105  4.95 PDO        5.28  4.95  0.30         0.03 1.000       0.00  0.33  8.66 -8.86 0.000
BRPI  27.4 158 104  4.80 P-0        5.13  5.11               0.02 1.000       7.61  7.94  8.94 -1.00 0.000
BRCI  29.6 176 103  5.13 P+0        5.46  5.45               0.01 1.000       8.23  8.56  9.53 -0.97 0.000
LSGS  31.2 109 102  5.37 PC0        5.70  5.71              -0.01 1.000       0.00  0.33  9.99 -9.67 0.000
LCRI  35.2 131 100  5.93 P 0        6.26  6.35              -0.10 1.000       0.00  0.33 11.12-10.79 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z     E    SE    NE    SW     N
AVE. OF END POINTS                  0.11  0.16  0.17  0.18  0.20  0.21  0.24

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   6      0.04      0.09      0.18         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 2    16/23                                                                                          83/11/ 2    16/23

                                                     HORIZONTAL                                   VERTICAL
                                                SE =   1.89                SE =   5.15                SE =   5.22   QUALITY = C
                                                AZ =  -124.                AZ =   -34.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DS GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 1623 26.60 44N16.81 114W 4.22   8.43          9 12 253 1 0.10  5.2  5.2 D C10 0.08 10 18 0.00 0.08  0  0.0  0.0  0  0.0  0.0
SE OF DRIG =  0.480          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
BSU3   3.5  70 155 28.29 PDO        1.69  1.65              0.05 1.000       0.00-26.60  2.88-29.48 0.000
ANPI  11.4 153 119 29.10 P 0        2.50  2.54             -0.04 1.000       0.00-26.60  4.45-31.04 0.000
NSUI  12.0 112 117 29.19 PDO        2.59  2.61             -0.02 1.000      31.10  4.50  4.57 -0.07 0.000
DSPI  20.2 110 101 30.44 PDO        3.84  3.89             -0.05 1.000      32.19  5.59  6.81 -1.22 0.000
M-2   20.6 129 101 30.58 P-0        3.98  3.94  0.17       -0.13 1.000       0.00-26.60  6.90-33.79 0.000
MBAI  24.6 133  97 31.20 PDO        4.60  4.58              0.02 1.000       0.00-26.60  8.02-34.62 0.000
M-1   28.7 145  96 32.35 PCO        5.75  5.25  0.30        0.21 1.000       0.00-26.60  9.18-36.31 0.000
BRPI  30.4 162  95 32.24 P+0        5.64  5.54              0.11 1.000      35.24  8.64  9.69 -1.05 0.000
BRCI  33.1 178  94 32.42 P+0        5.82  5.96             -0.14 1.000      34.83  8.23 10.44 -2.21 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW    SE    NE     E     Z    SW     N
AVE. OF END POINTS                 0.02  0.08  0.11  0.11  0.14  0.18  0.20

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.10      0.00      0.12         D
```

	HORIZONTAL	VERTICAL	
SE =	1.28	SE = 2.29	SE = 2.16 QUALITY = A
AZ =	-3.	AZ = -93.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831102	1917 22.61	44N12.58	114W 1.63	5.42	3.19	15	8	175	1	0.22	2.3	2.2	C	C|C	0.36	10	40	0.00	0.18	0	0.0	0.0	4	3.2	0.2

SE OF ORIG = 0.164 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR-D=	TTDB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	2.9	145	151	23.80	P 0	1.19	1.14				0.05	1.000		0.00	-22.61	1.99	-24.60	0.000							
NWSI	5.0	6	136	23.60	PD0	0.99	1.37				-0.37	1.000		0.00	-22.61	2.39	-25.00	0.000							
NSUI	8.3	67	121	24.52	PC0	1.91	1.82				0.09	1.000		0.00	-22.61	3.18	-25.79	0.000							
BSU3	9.0	359	119	24.98	PD0	2.37	1.92				0.45	1.000		0.00	-22.61	3.37	-25.98	0.000							
M-2	13.5	113	110	25.56	PC0	2.95	2.66	0.17			0.12	1.000		0.00	-22.61	4.66	-27.57	0.000							
DSPI	15.6	86	107	25.54	PC0	2.93	3.03				-0.09	1.000		0.00	-22.61	5.30	-27.91	0.000							
MBAI	17.1	122	106	25.97	PC0	3.36	3.27				0.09	1.000		0.00	-22.61	5.73	-28.33	0.000							
M-1	20.4	140	103	26.77	PC0	4.16	3.84	0.30			0.03	1.000		0.00	-22.61	6.71	-29.85	0.000							
BRPI	22.0	164	102	26.75	PD0	4.14	4.11				0.03	1.000		30.75	8.14	7.20	0.94	0.000							
BRCI	25.3	185	101	27.13	PC0	4.52	4.70				-0.18	1.000		0.00	-22.61	8.23	-30.84	0.000							
LSGS	25.8	104	100	27.07	P 0	4.46	4.78				-0.32	1.000		0.00	-22.61	8.37	-30.98	0.000							
LCRI	29.1	130	99	27.83	PC0	5.22	5.39				-0.16	1.000		0.00	-22.61	9.43	-32.03	0.000							
BPM	88.8	41	65	37.50	PC0	14.89	15.12				-0.23	1.000		0.00	-22.61	26.46	-49.07	0.000							
HPI	92.8	127	65	38.76	P 0	16.15	15.77				0.38	1.000		0.00	-22.61	27.60	-50.21	0.000					57	3.0	
JGI	108.7	97	65	41.08	PC0	18.47	18.35				0.12	1.000		0.00	-22.61	32.12	-54.73	0.000					59	3.1	
CIB	125.3	136	55	43.74	PD0	21.13	20.86				0.27	D0.000		0.00	-22.61	36.51	-59.11	0.000					66	3.2	
GBI	159.2	99	55	49.09	P 0	26.48	25.84				0.64	M0.000		0.00	-22.61	45.23	-67.83	0.000					69	3.4	
TMI	197.2	121	55	54.05	P 0	31.44	31.44				0.00	00.000		0.00	-22.61	55.02	-77.63	0.000							
LRM	218.1	35	44	55.50	P 0	32.89	34.09				-1.19	M0.000		0.00	-22.61	59.65	-82.26	0.000							
IMW	249.7	98	44	2.57	P 0	39.96	38.04				1.92	M0.000		0.00	37.39	66.57	-29.18	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	SE	E	NW	SW	N
AVE. OF END POINTS	-0.06	-0.04	-0.01	0.00	0.01	0.04	0.10

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.22	-0.11	0.01	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 2 20/32 83/11/ 2 20/32

HORIZONTAL SE = 0.48 AZ = 5. VERTICAL SE = 0.66 AZ = -85. SE = 0.80 QUALITY = A

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	2032 22.58	44N15.57	114W 4.99	4.76	2.73	27	6	105	1	0.12	0.7	0.8	B	A1B	0.61	10	54	0.00	0.09	0	0.0	0.0	14	2.7	0.3

SE OF ORIG = 0.050 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	4.8	331	133	23.75IPD	1.17	1.25			-0.09	1.053									151		43	2.41	
NWSI	5.0	96	132	23.90 PDO	1.32	1.28			0.03	1.053		0.00	-22.59	2.24	-24.83	0.000			151			1	
8SU3	5.6	51	129	24.28 PDO	1.70	1.36			0.34	1.053		0.00	-22.59	2.38	-24.96	0.000			151			1	
843	5.7	92	128	23.99 P 0	1.41	1.38			0.03	1.053		25.18	2.60	2.41	0.18	0.737			151			1	
ANPI	10.0	142	113	24.60 P 0	2.02	2.05			-0.03	1.053		0.00	-22.58	3.58	-26.17	0.000			151			1	
844	11.3	33	111	24.71 P 0	2.13	2.26			-0.13	1.053		26.52	3.94	3.95	-0.02	0.737			151			1	
NSUI	12.3	100	109	24.88 PDO	2.30	2.43			-0.13	1.053		0.00	-22.58	4.24	-26.83	0.000			151			1	
816	13.0	128	108	25.08IPD	2.50	2.54			-0.05	1.053									151		50	2.61	
815	13.0	226	108	25.28IPC	2.70	2.55			0.15	1.053									151		50	2.61	
81	16.1	8	104	25.54EPC	2.96	3.07			-0.11	1.053									151		37	2.41	
84	20.0	110	102	26.21EPD	3.63	3.74			-0.12	1.053		28.61	6.03	6.55	-0.53	0.000			151		50	2.61	
M-2	20.0	122	102	26.46 P-0	3.88	3.75	0.17		-0.05	1.053		0.00	-22.58	6.57	-29.45	0.000			151			1	
DSPI	20.6	103	101	26.30 P-0	3.72	3.85			-0.13	1.053		29.20	6.62	6.73	-0.12	0.000			151			1	
M8AI	23.9	127	100	26.91 P-0	4.33	4.44			-0.12	1.053		0.00	-22.58	7.78	-30.36	0.000			151			1	
M-1	27.5	140	98	28.17 PC2	5.59	5.07	0.30		0.21	0.263		0.00	-22.58	8.87	-31.98	0.000			151			1	
8RPI	28.6	159	98	27.95 PCO	5.37	5.28			0.09	1.053		33.25	10.67	9.24	1.43	0.000			151			1	
8RCI	30.9	176	97	28.21 PCO	5.63	5.67			-0.05	1.053		0.00	-22.58	9.93	-32.51	0.000			151			1	
812	31.2	177	97	28.29EPC	5.71	5.74			-0.03	1.053									151		50	2.71	
LSGS	31.7	111	97	28.35 P 0	5.77	5.83			-0.07	1.053		0.00	-22.58	10.20	-32.79	0.000			151			1	
LCRI	36.1	132	96	29.14 P 0	6.56	6.61			-0.05	1.053		0.00	-22.58	11.56	-34.15	0.000			151			1	
811	41.5	148	65	30.11EPC	7.53	7.50			0.03	1.053									151		39	2.51	
36	51.9	129	65	31.79EPD	9.21	9.18			0.02	1.053									151		29	2.31	
88	55.8	144	65	32.38EPD	9.80	9.81			-0.01	1.053		33.68	11.10	17.16	-6.07	0.000			151		67	3.01	
87	62.7	139	65	33.99EPD4	11.41	10.94	0.28		0.19	0.000									151		42	2.61	
8PM	87.8	45	65	37.60 PCO	15.02	15.00			0.01	1.053		0.00	-22.58	26.26	-48.84	0.000			151			1	
MPI	99.7	128	65	40.18 P 0	17.60	16.95			0.65	M0.000		0.00	-22.58	29.66	-52.24	0.000			151		51	2.91	
JGI	113.9	99	65	42.15 PDO	19.57	19.25			0.32	1.053		0.00	-22.58	33.69	-56.27	0.000			151		55	3.01	
CI8	132.4	136	55	45.23 P 0	22.65	21.97			0.67	M0.000		0.00	-22.58	38.45	-61.04	0.000			151		62	3.21	
G8I	164.5	101	55	50.49 P 0	27.91	26.70			1.21	M0.000		0.00	-22.58	46.72	-69.31	0.000			151		62	3.31	
TMI	203.9	121	44	55.62 P 0	33.04	32.40			0.63	M0.000		0.00	-22.58	56.71	-79.29	0.000			151			1	
LRM	216.2	37	44	56.00 P 0	33.42	33.93			-0.52	C0.000		0.00	-22.58	59.38	-81.96	0.000			151			1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	E	NW	SE	NE	SW	N
AVE. OF END POINTS	0.11	0.11	0.12	0.13	0.13	0.15	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.12	0.07	0.13	D

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 2 20/40 83/11/ 2 20/40

	HORIZONTAL		VERTICAL	
SE =	0.52	SE =	0.66	SE = 1.40 QUALITY = A
AZ =	-12.	AZ =	-102.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	2040 9.82	44N14.77	114W 4.62	3.88	2.31	17	6	101	1	0.10	0.7	1.4	B	A|B	1.05	10	23	0.00	0.08	0	0.0	0.0	10	2.3	0.1

SE OF ORIG = 0.052 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT			THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX PR XMAG	R	FMP	FMAG
NWSI	4.6	78	128	10.95IPD	1.13	1.12			0.01	1.018						152		1
B45	5.3	318	124	57.70IP 4	47.88	1.22			46.66	0.000	58.66	48.84	2.13	46.71	0.000	152		1
B43	5.4	76	123	57.98IP 4	48.16	1.23			46.93	0.000	59.14	49.32	2.16	47.16	0.000	152		1
BSU3	6.3	38	119	11.23IPC	1.41	1.37			0.04	1.018						152	34	2.21
B17	6.3	333	119	10.97IPC	1.15	1.37			-0.22	1.018						152		1
NSUI	11.6	94	106	12.07IPC	2.25	2.26			-0.01	1.018	13.92	4.10	3.95	0.15	0.000	152	33	2.21
B16	11.7	124	106	12.06IPD	2.24	2.28			-0.04	1.018						152	40	2.41
B15	12.4	233	105	12.16IPC	2.34	2.40			-0.06	1.018						152	44	2.51
B1	17.5	6	100	13.24IPC	3.42	3.28			0.14	1.018	15.69	5.87	5.75	0.12	0.713	152	34	2.31
B4	19.1	107	99	13.26IP	3.44	3.56			-0.12	1.018						152	40	2.41
DSPI	19.8	99	99	13.52EPD	3.70	3.70			0.00	1.018						152	30	2.21
MBAI	22.6	125	98	14.07EPC	4.25	4.19			0.06	1.018						152		1
BRPI	27.1	158	96	14.99EPC	5.17	4.98			0.19	1.018						152	35	2.31
B12	29.7	177	96	15.32EPD	5.50	5.45			0.05	1.018						152		1
LSGS	30.8	109	96	15.38EPD	5.56	5.64			-0.08	1.018						152	27	2.11
B11	40.0	148	94	17.16EP	7.34	7.29			0.05	1.018						152		1
B6	50.6	128	65	18.69IPD	8.87	9.04			-0.17	1.018						152	34	2.41
B8	54.3	143	65	19.52EP	9.70	9.63			0.07	1.018						152		1
B7	61.3	138	65	20.97EPC4	11.15	10.77	0.28		0.10	0.000						152		1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	SE	N
AVE. OF END POINTS	0.22	0.65	0.71	0.73	0.75	0.90	1.11

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
17	0.10	0.41	0.78	A

----------END----------END----------END----------END----------

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 2    21/ 4                                                                                                  83/11/ 2    21/ 4

                                                   HORIZONTAL                                  VERTICAL
                                             SE =    0.40              SE =    0.48              SE =    0.52   QUALITY = A
                                             AZ =    -76.              AZ =     14.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 21 4 55.06 44N16.15 114W 5.41   5.43   2.25 11  6  90 1 0.05  0.5  0.5 B A|B 0.66 10 12 0.00 0.04  0  0.0  0.0  8  2.3  0.2
SE OF ORIG =  0.036          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B45    2.8 299 152 56.18IP          1.12  1.13              -0.01 1.058      57.08  2.02  1.98  0.05 0.740      .     153        1
B17    3.6 330 146 56.20IPD         1.14  1.20              -0.06 1.058                                                153  26 2.01
B43    6.4 101 129 56.60IP          1.54  1.55               0.00 1.058      57.80  2.74  2.71  0.03 0.740           153        1
B15   13.4 221 110 57.78IPC         2.72  2.65               0.07 1.058                                                153  30 2.21
B1    15.1  11 108 57.99IP          2.93  2.94               0.00 1.058                                                153  30 2.21
B4    20.9 113 103 58.98EPC         3.92  3.93              -0.01 1.058                                                153  33 2.31
B12   32.3 176  98 60.89IPC         5.83  5.95              -0.12 1.058                                                153  40 2.51
B6    53.0 129  65 65.11IP 4       10.05  9.31               0.74 0.000                                                153  18 1.91
B8    57.0 144  65 65.08EP         10.02  9.95               0.07 1.058                                                153  40 2.61
B7    63.9 139  65 66.41EPC        11.35 11.07  0.28         0.00 1.058                                                153  35 2.51

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW    NE    SW     E     N    SE
AVE. OF END POINTS                 0.55  0.77  0.78  0.81  0.91  1.02  1.02

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.05      0.56      0.88         A

          ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN___________________BEGIN___________________BEGIN___________________BEGIN__________
83/11/ 2    21/ 6                                                                                                  83/11/ 2    21/ 6

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.74              SE =   1.18              SE =   1.44   QUALITY = A
                                            AZ =   -44.              AZ =  -134.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 21 6  8.11 44N13.80 114W 3.61   7.86   2.41  9 10 139 1 0.09  1.2  1.4 C 8|C 0.10 10 12 0.00 0.08  0  0.0  0.0  6  2.4  0.2
SE OF ORIG =  0.075          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B43    5.0  52 143  9.88IP          1.77  1.69              0.08 1.071      11.19  3.08  2.95  0.13 0.750           154        1
B45    7.5 319 130 10.03IP          1.92  1.96             -0.04 1.071      11.45  3.34  3.44 -0.10 0.750           154        1
B16    9.7 120 121 10.23IPD         2.12  2.25             -0.12 1.071                                                154  30 2.21
B4    17.3 102 101 11.41EPC         3.30  3.40             -0.10 1.071      13.91  5.80  5.95 -0.15 0.000           154  29 2.21
B1    19.2   1  98 11.86IPD         3.75  3.71              0.04 1.071                                                154  36 2.41
B12   27.9 180  94 13.31IPD         5.20  5.11              0.09 1.071                                                154  60 2.81
B6    48.5 127  91 17.56IP 4        9.45  8.44              1.01 0.000                                                154        1
B8    52.1 143  91 17.18EP          9.07  9.03              0.04 1.071                                                154  37 2.51
B7    59.1 138  91 19.11EP 4       11.00 10.16  0.28        0.56 0.000                                                154  32 2.41

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E    NW    NE    SW     Z    SE     N
AVE. OF END POINTS                 0.01  0.12  0.14  0.17  0.19  0.19  0.30

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.09     -0.01      0.16         0
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 2    21/ 8                                                                                 83/11/ 2    21/ 8

                                                  HORIZONTAL                                    VERTICAL
                                            SE =   0.87            SE =   1.07                  SE =  11.51   QUALITY = D
                                            AZ =    -9.            AZ =   -99.


 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 21 8 21.05 44N 9.57 113W54.19   0.64*  3.03 12  9  79 1 0.16  1.1 11.5 C C|6 0.42 10 36 0.00 0.13  0  0.0  0.0  4  3.0  0.2
SE OF ORIG =  0.724          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MBAI   5.7 126  58 22.20 PD1        1.15  1.18              -0.03 0.584       0.00-21.05  2.06-23.11 0.000
DSPI   8.7  41  58 22.79 PD0        1.74  1.71               0.03 1.038       0.00-21.05  2.99-24.04 0.000
ANPI   8.8 291  58 22.50 P 0        1.45  1.73              -0.28 1.038       0.00-21.05  3.03-24.08 0.000
NSUI   9.2 346  58 22.98 P 0        1.93  1.79               0.14 1.038       0.00-21.05  3.13-24.18 0.000
NWSI  14.2 318  58 23.70 PD0        2.65  2.68              -0.03 1.038       0.00-21.05  4.70-25.74 0.000
LSGS  15.2  92  58 23.65 P 0        2.60  2.86              -0.26 1.038       0.00-21.05  5.01-26.06 0.000
BRPI  16.0 194  58 24.05 PD0        3.00  3.02              -0.02 1.038       0.00-21.05  5.28-26.33 0.000
LCRI  18.1 137  58 24.11 PC4        3.06  3.38              -0.32 0.000       0.00-21.05  5.92-26.97 0.000
BRCI  23.1 212  58 25.53 P 0        4.48  4.28               0.20 1.038       0.00-21.05  7.49-28.54 0.000
HPI   81.6 128  50 35.26 P 0       14.21 14.33              -0.12 1.038       0.00-21.05 25.08-46.13 0.000                49 2.8
BPM   87.3  33  50 36.50 PC0       15.45 15.26               0.19 1.038       0.00-21.05 26.71-47.76 0.000
JGI   98.5  94  50 38.12 P 0       17.07 17.07               0.00 1.038       0.00-21.05 29.87-50.92 0.000                54 2.9
CIS  114.4 137  50 40.87 P 0       19.82 19.65               0.17 1.038       0.00-21.05 34.39-55.44 0.000                61 3.1
GBI  148.6  97  44 46.06 P 0       25.01 24.79               0.22D0.000       0.00-21.05 43.38-64.42 0.000                65 3.3
TMI  186.0 121  44 51.37 P 0       30.32 30.30               0.02D0.000       0.00-21.05 53.02-74.07 0.000
LRM  217.4  32  36 55.20 P 0       34.15 34.62              -0.47D0.000       0.00-21.05 60.59-81.64 0.000
IMW  239.5  97  36 59.87 P 0       38.82 37.39               1.43M0.000       0.00-21.05 65.44-86.49 0.000
NPI  250.3 153  36  1.92 P 0       40.87 38.74               2.13M0.000       0.00 38.95 67.79-28.84 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SE     Z    SW    NE     E    NW
AVE. OF END POINTS                 0.02  0.02  0.04  0.05  0.06  0.09  0.10


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.16     -0.03      0.06         D

         ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2    21/10                                                                                                  83/11/ 2    21/10

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.83              SE =   2.23              SE =   1.30   QUALITY = A
                                            AZ =   -77.              AZ =    13.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 2110 27.30 44N17.21 114W 4.82   6.73   1.74  8  6 186 1 0.08  2.2  1.3 D C|D 0.09 10  8 0.00 0.07  0  0.0  0.0  3  1.7  0.1
SE OF ORIG =  0.163          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    2.8 294 157 28.66IPD         1.36  1.34              0.02 1.081                                                 156  16 1.61
845    3.3 260 153 28.66IP          1.36  1.38             -0.02 1.081      29.58  2.28  2.41 -0.13 0.757            156        1
843    6.4 120 135 29.07IP          1.77  1.70              0.07 1.081      30.28  2.98  2.97  0.01 0.757            156        1
816   14.9 138 113 30.24EPC         2.94  2.99             -0.05 1.081                                                 156  18 1.71
815   15.4 219 112 30.52IP          3.22  3.07              0.15 1.081                                                 156  21 1.91
812   34.3 177  65 33.37IP          6.07  6.17             -0.09 1.081                                                 156        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     Z    NE    SE     E     N    NW
AVE. OF END POINTS                  0.17  0.18  0.20  0.22  0.22  0.23  0.34

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.08      0.07      0.23         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2    21/47                                                                                  83/11/ 2    21/47

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.51              SE =    0.92              SE =    1.26   QUALITY = A
                                            AZ =      7.              AZ =    -83.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 2147 31.38 44N11.68 114W19.29   9.96   2.71 16 20 277 1 0.05  0.9  1.3 C 8|0 0.05 10 20 0.00 0.04  0  0.0  0.0 11  2.7  0.4
SE OF ORIG =  0.075          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
315    9.8 101 131 33.84IPC         2.46  2.47              -0.02 1.039                                                 157  80 3.01
845   18.7  59 110 35.07IP          3.69  3.72              -0.03 1.039      38.02  6.64  6.50  0.13 0.727             157        1
817   20.2  56 108 35.33IPC         3.95  3.95               0.00 1.039                                                 157        1
NWSI  25.0  74 103 36.00IPC         4.62  4.68              -0.07 1.039      39.25  7.87  8.19 -0.33 0.000             157  23 2.01
BSU3  25.7  65 103 36.24IPC         4.86  4.82               0.04 1.039                                                 157        1
843   25.8  74 103 36.21IP          4.83  4.82               0.00 1.039      39.75  8.37  8.44 -0.08 0.727             157        1
816   29.3  92 100 36.68IPC         5.30  5.38              -0.09 1.039                                                 157  79 3.11
81    31.4  43  99 37.14IPC         5.76  5.73               0.03 1.039                                                 157  65 2.91
NSUI  31.6  81  99 36.82EPD4        5.44  5.75              -0.31 0.000                                                 157  35 2.41
812   31.8 139  99 36.97IP 4        5.59  5.79              -0.20 0.000                                                 157  89 3.21
34    37.8  90  97 38.06IP          6.68  6.74              -0.07 1.039                                                 157        1
MBAI  38.8 101  97 38.34EPC         6.96  6.90               0.05 1.039                                                 157  39 2.51
DSPI  39.2  86  97 38.39EPD         7.01  6.98               0.03 1.039                                                 157  29 2.31
811   49.7 124  95 40.11EP          8.73  8.67               0.06 1.039                                                 157  42 2.61
88    64.5 126  93 42.45IP         11.07 11.06               0.00 1.039                                                 157  82 3.31
86    64.7 113  93 42.52IP         11.14 11.10               0.03 1.039                                                 157  32 2.41
87    72.4 124  93 43.85EPC4       12.47 12.35  0.28        -0.17 0.000                                                 157        1

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NE    NW    SE    SW     N
AVE. OF END POINTS                  0.13  0.17  0.17  0.18  0.20  0.20  0.27

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 9      0.05      0.09      0.19         D

____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/ 2    22/24                                                                          83/11/ 2    22/24

                                                 HORIZONTAL                                  VERTICAL
                                            SE =   0.51              SE =   0.53              SE =   0.89   QUALITY = A
                                            AZ =    26.              AZ =   -64.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 2224  4.62 44N14.19 114W 3.78    9.53   3.15 22  7  90 1 0.08  0.5  0.9 A A|A 0.15 10 36 0.00 0.06  0  0.0  0.0  8  3.1  0.2
SE OF ORIG =  0.055          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.9  59 155  6.60 PDO        1.98  1.83              0.15 1.106       0.00 -4.62  3.21 -7.82 0.000           158        1
843    4.8  60 151  6.50 P 0        1.88  1.89             -0.01 1.106       7.84  3.22  3.31 -0.09 0.774           158        1
ANPI   7.0 140 140  6.72 PDO        2.10  2.11              0.00 1.106       0.00 -4.62  3.69 -8.30 0.000           158        1
817    7.8 330 136  6.77IPD        2.15  2.19             -0.04 1.106                                                 158  75 3.01
816   10.2 123 128  7.08IPC        2.46  2.47             -0.01 1.106                                                 158  90 3.11
NSUI  10.5  88 127  7.17 PCO        2.55  2.51              0.05 1.106       0.00 -4.62  4.38 -9.00 0.000           158        1
342   10.9 139 126  7.08 P 2        2.46  2.56             -0.09 0.276       8.76  4.14  4.48 -0.33 0.000           158        1
315   12.8 240 120  7.45IPC        2.83  2.82              0.02 1.106                                                 158  85 3.11
844   12.9  20 120  7.43 P 0        2.81  2.84             -0.02 1.106       9.60  4.98  4.96  0.02 0.774           158        1
M-2   17.4 118 111  8.20 PCO        3.58  3.49  0.17       -0.08 1.106       0.00 -4.62  6.11-11.02 0.000           158        1
84    17.7 104 110  8.09IPC        3.47  3.54             -0.07 1.106                                                 158 120 3.41
OSPI  18.6  96 109  8.29 PCO        3.67  3.68              0.00 1.106       0.00 -4.62  6.43-11.05 0.000           158        1
48AI  21.1 124 105  8.72 PCO        4.10  4.06              0.04 1.106       0.00 -4.62  7.11-11.72 0.000           158        1
M-1   24.5 139 102  9.90 P 2        5.28  4.60  0.30        0.38 0.276       0.00 -4.62  8.05-13.19 0.000           158        1
3RPI  25.7 160 101  9.45 P+0        4.83  4.79              0.04 1.106      11.70  7.08  8.39 -1.30 0.000           158        1
8RCI  28.2 179 100  9.67 PCO        5.05  5.20             -0.15 1.106       0.00 -4.62  9.10-13.72 0.000           158        1
812   28.6 180  99  9.22IP 4        4.60  5.26             -0.66 0.000                                                 158        1
LSGS  29.4 108  99  9.95 PCO        5.33  5.38             -0.05 1.106       0.00 -4.62  9.42-14.03 0.000           158        1
811   38.5 148  96 11.52IPC        6.90  6.85              0.05 1.106      14.06  9.44 11.99 -2.55 0.000           158  75 3.11
86    49.1 128  94 13.11IPC        8.49  8.55             -0.06 1.106                                                 158  60 2.91
88    52.8 143  94 13.87IP         9.25  9.17              0.09 1.106                                                 158  95 3.31
87    59.7 139  93 15.31EP 4      10.69 10.29  0.28         0.12 0.000                                                 158  78 3.21

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     N     E    SW    SE     Z    NE
AVE. OF END POINTS                  0.10  0.15  0.16  0.18  0.20  0.20  0.23

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   9      0.08      0.06      0.17         D

------------END----------------------END----------------------END----------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 2    22/29                                                                                  83/11/ 2    22/29

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.64              SE =    0.91              SE =    1.29   QUALITY = A
                                          AZ =    -58.              AZ =     32.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 2229 36.56 44N13.78 114W 1.67  10.77   2.66 20  7  63 1 0.11  0.9  1.3 A A|A 0.06 10 36 0.00 0.09  0  0.0  0.0  8  2.7  0.2
SE OF ORIG =  0.075          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.9  11 164 38.50 P00        1.94  1.96              -0.02 1.098       0.00-36.56  3.43-39.99 0.000          159        1
B43    3.4  23 161 38.56 P 0        2.00  1.99               0.01 1.098      39.96  3.40  3.48 -0.08 0.769          159        1
BSU3   6.8 360 145 38.97 P 0        2.41  2.24               0.16 1.098       0.00-36.56  3.92-40.49 0.000          159        1
B16    7.5 129 142 38.88IPD4        2.32  2.31               0.01 0.000                                              159  56 2.71
NSUI   7.8  82 141 39.01 PC0        2.45  2.34               0.11 1.098       0.00-36.56  4.09-40.65 0.000          159        1
B42    8.7 149 138  0.00 P 4      -36.56  2.43             -38.99 0.000      40.48  3.92  4.25 -0.34 0.000          159        1
B45    9.4 308 135 39.06 P 0        2.50  2.52              -0.02 1.098      40.79  4.23  4.40 -0.18 0.769          159        1
B17   10.1 318 133 39.12IPO         2.56  2.60              -0.04 1.098                                              159  37 2.41
M-2   14.5 121 121 40.00 P 2        3.44  3.17  0.17         0.10 0.275       0.00-36.56  5.54-42.40 0.000          159        1
B4    14.8 104 121 39.86IP 4        3.30  3.20               0.10 0.000                                              159  55 2.71
B15   15.0 248 120 39.77IPC         3.21  3.23              -0.02 1.098                                              159  49 2.61
DSPI  15.7  94 119 39.97 P-0        3.41  3.33               0.08 1.098       0.00-36.56  5.83-42.39 0.000          159        1
B1    19.3 354 112 40.48IPO         3.92  3.87               0.05 1.098      42.63  6.07  6.77 -0.70 0.000          159  52 2.71
M-1   22.1 144 109 41.20 PC0        4.64  4.29  0.30         0.05 1.098       0.00-36.56  7.50-44.59 0.000          159        1
BRPI  24.1 165 107 41.30 P+0        4.74  4.59               0.15 1.098      44.55  7.99  8.03 -0.05 0.000          159        1
LSGS  26.4 108 105 41.45 PC0        4.89  4.95              -0.07 1.098       0.00-36.56  8.67-45.23 0.000          159        1
BRCI  27.5 184 104 42.02 PC1        5.46  5.12               0.33 0.618      46.52  9.96  8.97  0.99 0.000          159        1
B12   28.0 185 104 41.62IP 4        5.06  5.19              -0.14 0.000                                              159        1
LCRI  30.6 133 102 42.12 P 0        5.56  5.62              -0.07 1.098       0.00-36.56  9.84-46.41 0.000          159        1
B11   36.4 151  99 43.01EP          6.45  6.55              -0.10 1.098                                              159  50 2.71
B6    46.4 129  97 44.58IP          8.02  8.15              -0.13 1.098                                              159  34 2.41
B8    50.5 145  96 45.22EP          8.66  8.82              -0.16 1.098                                              159  62 3.01

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    SW     N     Z    NE     E
AVE. OF END POINTS                  0.06  0.08  0.09  0.14  0.15  0.15  0.18

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  7      0.11      0.04      0.12         0

____________END_____________________END_____________________END_____________________END____________
```

83/11/ 2 23/42

HORIZONTAL		VERTICAL		
SE = 0.65	SE = 0.70	SE = 0.71	QUALITY = A	
AZ = -94.	AZ = -4.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831102	2342 1.86	44N15.82	114W 4.89	6.55	3.26	26	5	77	1	0.13	0.7	0.7	A	A|A	0.80	10	38	0.00	0.09	0	0.0	0.0	7	3.3	0.2

SE OF ORIG = 0.050 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
845	3.7	302	150	3.16EPDO	1.30	1.38			-0.09	1.036		4.21	2.35	2.42	-0.08	0.725				160			1
817	4.5	326	145	3.19IPD	1.33	1.46			-0.13	1.036										160	70	2.91	
NWSI	5.0	101	142	3.35 PDO	1.49	1.51			-0.02	1.036		0.00	-1.86	2.64	-4.50	0.000				160			1
BSU3	5.2	55	141	3.87 P 0	2.01	1.53			0.47	1.036		0.00	-1.86	2.69	-4.55	0.000				160			1
843	5.6	97	138	3.43 PDO	1.57	1.59			-0.02	1.036		4.62	2.76	2.78	-0.02	0.725				160			1
ANPI	10.3	144	121	4.20 P 0	2.34	2.23			0.10	1.036		0.00	-1.86	3.91	-5.77	0.000				160			1
844	10.8	33	120	4.13IPCO	2.27	2.31			-0.04	1.036		5.94	4.08	4.04	0.04	0.725				160			1
816	13.2	130	115	4.54IPD	2.68	2.70			-0.02	1.036										160	115	3.31	
815	13.5	225	114	4.70IPC	2.84	2.74			0.10	1.036										160			1
81	15.6	8	111	4.92IPC	3.06	3.09			-0.03	1.036										160	103	3.31	
84	20.0	112	107	5.56IPD	3.70	3.84			-0.14	1.036										160	110	3.31	
M-2	20.2	124	106	5.80 PDO	3.94	3.86	0.17		-0.10	1.036		0.00	-1.86	6.76	-8.92	0.000				160			1
OSPI	20.6	104	106	5.59 PDO	3.73	3.93			-0.20	1.036		0.00	-1.86	6.88	-8.74	0.000				160			1
MBAI	24.1	128	65	6.31 PDO	4.45	4.53			-0.08	1.036		0.00	-1.86	7.93	-9.79	0.000				160			1
M-1	27.7	141	65	7.40 P+0	5.54	5.12	0.30		0.12	1.036		0.00	-1.86	8.96	-11.35	0.000				160			1
BRPI	29.0	159	65	7.25 PCO	5.39	5.33			0.06	1.036		0.00	-1.86	9.33	-11.19	0.000				160			1
BRCI	31.3	176	65	7.52 P 0	5.66	5.70			-0.05	1.036		0.00	-1.86	9.98	-11.84	0.000				160			1
812	31.7	177	65	7.60IPC	5.74	5.76			-0.03	1.036										160	110	3.41	
LSGS	31.8	112	65	7.60 P 0	5.74	5.78			-0.04	1.036		0.00	-1.86	10.12	-11.98	0.000				160			1
LCRI	36.3	133	65	8.42 PCO	6.56	6.52			0.04	1.036		0.00	-1.86	11.41	-13.27	0.000				160			1
811	41.9	149	65	9.37EPC	7.51	7.42			0.09	1.036										160			1
86	52.1	129	65	11.09IPD	9.23	9.08			0.15	1.036										160			1
88	56.1	144	65	11.47EPC	9.61	9.72			-0.11	1.036										160	110	3.51	
87	63.0	139	65	13.30EP 4	11.44	10.85	0.28		0.31	0.000										160	79	3.21	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	NW	E	SW	SE	N
AVE. OF END POINTS	0.38	0.56	0.57	0.66	0.74	0.84	0.87

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
26	0.13	0.32	0.69	A

```
-----------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
                                                                                                  83/11/ 2    23/43

                                        HORIZONTAL                                VERTICAL
                                   SE =   0.98                SE =   1.10              SE =   0.86   QUALITY = A
                                   AZ =  -102.                AZ =   -12.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831102 2343 55.09 44N16.16 114W 4.61   6.66   3.70 32  5  76 1 0.20  1.1  0.9 B B|A 0.86 10 B3 0.00 0.14  0  0.0  0.0 10  3.7  0.2
SE OF ORIG =  0.075          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B45    3.8 291 150 56.48 P 0        1.39  1.41              -0.02 1.019       57.69  2.60  2.46  0.14 0.713           161         1
B17    4.2 317 147 56.50IPD         1.41  1.45              -0.04 1.019                                              161 131 3.41
BSU3   4.5  58 145 56.57 PDO        1.48  1.48               0.00 1.019                                              161         1
NWSI   4.8 110 144 56.50 P 0        1.41  1.50              -0.09 1.019        0.00-55.09  2.63-57.72 0.000          161         1
B43    5.4 104 140 56.70IPDO        1.61  1.57               0.04 1.019       57.94  2.85  2.75  0.10 0.713           161         1
B44   10.1  33 122 57.41EPCO        2.32  2.21               0.11 1.019       59.27  4.18  3.87  0.31 0.000           161         1
ANPI  10.7 148 121 57.50 P 0        2.41  2.29               0.12 1.019        0.00-55.09  4.01-59.10 0.000          161         1
B16   13.4 133 115 57.79IPD         2.70  2.73              -0.02 1.019                                              161 156 3.61
B15   14.2 224 114 57.98IPC         2.89  2.86               0.03 1.019                                              161 160 3.61
B42   14.5 145 113 57.93 P 0        2.84  2.91              -0.07 1.019       59.90  4.81  5.10 -0.29 0.000           161         1
B4    19.9 114 107 58.81IPD         3.72  3.83              -0.10 1.019                                              161 160 3.71
M-2   20.2 126 107 58.90 PDO        3.81  3.88   0.17       -0.24 1.019        0.00-55.09  6.79-62.17 0.000          161         1
OSPI  20.4 106 107 58.84 P 0        3.75  3.90              -0.15 1.019        0.00-55.09  6.83-61.92 0.000          161         1
MBAI  24.2 130  65 59.63 P 0        4.54  4.54               0.00 1.019        0.00-55.09  7.94-63.03 0.000          161         1
B37   26.4 150  65 60.00EPDO        4.91  4.89               0.02 1.019       63.94  8.85  8.57  0.29 0.000           161         1
M-1   28.0 142  65  0.50 P 0        5.41  5.16   0.30       -0.04 1.019        0.00  4.91  9.02 -4.66 0.000           161         1
BRPI  29.5 160  65 60.45 P 0        5.36  5.40              -0.04 1.019        0.00-55.09  9.44-64.53 0.000          161         1
B41   29.5 173  65  0.44 P 0        5.35  5.40              -0.05 1.019        4.28  9.19  9.45 -0.26 0.000           161         1
LSGS  31.7 114  65  0.45 P 0        5.36  5.76              -0.40 1.019        0.00  4.91 10.07 -5.16 0.000           161         1
BRCI  31.9 177  65 60.72 P 0        5.63  5.79              -0.16 1.019        0.00-55.09 10.14-65.23 0.000           161         1
B12   32.3 178  65 60.84IPC         5.75  5.85              -0.10 1.019                                              161 166 3.71
LCRI  36.5 134  65  1.41 P 0        6.32  6.53              -0.21 1.019        0.00  4.91 11.44 -6.52 0.000           161         1
B11   42.2 149  65 62.61IPC         7.52  7.46               0.06 1.019                                              161         1
B38   44.2 131  65  3.01 P 0        7.92  7.78               0.14 1.019        9.10 14.01 13.62  0.39 0.000           161         1
B6    52.2 130  65 64.23EPD         9.14  9.09               0.05 1.019       70.58 15.49 15.91 -0.42 0.000           161 125 3.61
B8    56.4 145  65 64.81IPD         9.72  9.76              -0.04 1.019                                              161         1
B7    63.2 140  65 66.50IP         11.41 10.87   0.28        0.26 1.019                                              161 119 3.51
MPI  100.0 128  65 12.53 PDO       17.44 16.85               0.59 1.019        0.00  4.91 29.48-24.57 0.000           161 149 3.91
JGI  113.6 100  55 14.65 PCO       19.56 19.02               0.54 1.019        0.00  4.91 33.28-28.37 0.000           161 151 3.91
BLCM 118.8  55  55 14.50 PCO       19.41 19.77              -0.36 1.019        0.00  4.91 34.61-29.69 0.000           161         1
CIB  132.8 137  55 17.77 PDO       22.68 21.85               0.84DD.000        0.00  4.91 38.23-33.32 0.000           161 157 4.01
GBI  164.2 101  55 22.46 PCO       27.37 26.46               0.91DD.000        0.00  4.91 46.31-41.40 0.000           161         1
TID  171.9 240  55 23.40 PDO       28.31 27.59               0.72DD.000       43.00 47.91 48.28 -0.37 0.000           161         1
CPI  183.6 256  55 24.90 PDO       29.81 29.30               0.51DD.000       45.00 49.91 51.28 -1.37 0.000           161         1
CMI  197.6  82  44 24.30 P 0       29.21 31.37              -2.16DD.000        0.00  4.91 54.90-49.99 0.000           161         1
TMI  204.1 122  44 27.80 PCO       32.71 32.18               0.53DD.000       43.79 48.70 56.31 -7.61 0.000           161         1
KCI  204.7 109  44 24.30 P 0       29.21 32.25              -3.04DD.000        0.00  4.91 56.44-51.53 0.000           161         1
LRM  215.0  37  44 28.60 PCO       33.51 33.54              -0.03DD.000        0.00  4.91 58.70-53.79 0.000           161         1
BUT  227.5  32  44 29.20 P 0       34.11 35.11              -1.00DD.000        0.00  4.91 61.44-56.52 0.000           161         1
WPI  241.1 243  44 31.80 PDO       36.71 36.81              -0.10DD.000        0.00  4.91 64.42-59.51 0.000           161         1
IMW  254.6  99  44 35.20 P 0       40.11 38.50               1.61DD.000        0.00  4.91 67.37-62.46 0.000           161         1
NPI  267.6 152  44 37.67 PCO       42.58 40.12               2.46DD.000        0.00  4.91 70.21-65.30 0.000           161         1
MSD  284.7   2  44 37.50 PCO       42.41 42.26               0.15DD.000        0.00  4.91 73.95-69.04 0.000           161         1
MLI  295.5 167  44 41.53 P 0       46.44 43.60               2.84DD.000        0.00  4.91 76.30-71.39 0.000           161         1
SXM  307.4  47  44 40.80 P 0       45.71 45.09               0.62DD.000        0.00  4.91 78.90-73.99 0.000           161         1
NCM  325.8 353  44 42.80 P 0       47.71 47.39               0.32DD.000        0.00  4.91 82.93-78.02 0.000           161         1

                          QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW    NE    SW    E     N    SE
AVE. OF END POINTS                 0.39  0.44  0.50  0.51  0.56  0.61  0.69
```

```
           ------------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/ 3     0/18                                                                                    83/11/ 3     0/18

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   0.54            SE =   0.85                SE =   1.09   QUALITY = A
                                              AZ =    -5.            AZ =   -95.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO 03 GAP M  RMS  ERM  ERZ Q SQO  AOJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103  01B 48.51 44N15.37 114W 2.57   7.17   3.35 31  4  74 1 0.15  0.9  1.1 B B|A 0.14 10 64 0.00 0.11  0  0.0  0.0 12  3.3  0.3
SE OF ORIG =  0.055          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   1.8  95 164 49.95 PDO        1.44  1.35              0.08 1.020       0.00-48.51  2.37-50.88 0.000           162        1
843    2.5  86 158 50.06IPDO        1.55  1.39              0.15 1.020       0.00-48.51  2.43-50.95 0.000           162        1
BSU3   4.0  17 147 50.07 PDO        1.56  1.50              0.05 1.020       0.00-48.51  2.63-51.15 0.000           162        1
817    7.2 309 128 50.37IPD         1.86  1.85              0.01 1.020                                                 162        1
ANPI   8.1 159 123 50.70 P 0        2.19  1.98              0.21 1.020       0.00-48.51  3.46-51.97 0.000           162        1
NSUI   9.1 102 119 50.68 P 0        2.17  2.10              0.06 1.020       0.00-48.51  3.68-52.20 0.000           162        1
844   10.3  16 114 50.74EPCO        2.23  2.29             -0.06 1.020      52.40  3.89  4.00 -0.12 0.714           162        1
816   10.4 138 114 50.87IPO         2.36  2.30              0.05 1.020                                                 162        1
842   11.8 152 108 51.03IPCO        2.52  2.51              0.01 1.020      52.90  4.39  4.39  0.00 0.714           162        1
815   15.3 236  96 51.60IPC         3.09  3.07              0.01 1.020                                                 162  89 3.11
81    16.3 357  94 51.67IPC         3.16  3.23             -0.07 1.020                                                 162  99 3.21
84    16.9 113  94 51.75IPD         3.24  3.32             -0.08 1.020                                                 162  88 3.11
M-2   17.2 127  93 51.90 PDO        3.39  3.37  0.17       -0.15 1.020       0.00-48.51  5.89-54.71 0.000           162        1
OSPI  17.4 104  93 51.79 PDO        3.28  3.40             -0.12 1.020       0.00-48.51  5.95-54.46 0.000           162        1
MBAI  21.2 132  91 52.53 PCO        4.02  4.02              0.00 1.020       0.00-48.51  7.03-55.54 0.000           162        1
M-1   25.2 145  91 53.40 PCO        4.89  4.67  0.30        -0.08 1.020       0.00-48.51  8.17-57.21 0.000           162        1
BRPI  27.3 165  91 53.55 PCO        5.04  5.00              0.03 1.020       0.00-48.51  8.75-57.27 0.000           162        1
LSGS  28.6 113  91 53.75 PCO        5.24  5.22              0.01 1.020       0.00-48.51  9.14-57.65 0.000           162        1
BRCI  30.4 182  91 53.93 PCO        5.42  5.51             -0.10 1.020       0.00-48.51  9.65-58.16 0.000           162        1
812   30.8 183  91 54.00IPC         5.49  5.58             -0.10 1.020                                                 162        1
LCRI  33.6 135  91 54.32 PCO        5.81  6.02             -0.22 1.020       0.00-48.51 10.54-59.05 0.000           162        1
811   39.6 152  90 55.55EPD        7.04  7.00              0.03 1.020                                                 162  77 3.11
86    49.2 131  90 56.95EP         8.44  8.56             -0.13 1.020                                                 162  59 2.91
88    53.6 146  90 57.67EPC        9.16  9.29             -0.13 1.020                                                 162 107 3.41
87    60.4 141  90 59.21EPD       10.70 10.39  0.28         0.03 1.020                                                 162  78 3.21
MPI   97.0 129  90  5.20 P 0       16.69 16.33              0.36 1.020       0.00 11.49 28.57-17.09 0.000           162  78 3.31
MLPM  99.6  54  90  4.90 PCO       16.39 16.76             -0.37 1.020       0.00 11.49 29.33-17.84 0.000           162        1
JGI  110.7  99  65  7.31 PCO       18.80 18.54              0.25 1.020       0.00 11.49 32.45-20.96 0.000           162  88 3.51
BLCM 117.4  54  65  8.40 PCO       19.89 19.53              0.36 1.020       0.00 11.49 34.17-22.69 0.000           162        1
CIB  129.9 137  65 10.57 P 0       22.06 21.37              0.69D0.000       0.00 11.49 37.39-25.91 0.000           162  93 3.61
GBI  161.3 101  65 15.05 P 0       26.54 25.98              0.55D0.000       0.00 11.49 45.47-33.98 0.000           162 105 3.81
TMI  201.0 122  50 20.76 P 0       32.25 31.73              0.52D0.000       0.00 11.49 55.53-44.04 0.000           162 108 4.01
LRM  214.6  36  50 21.50 PCO       32.99 33.43             -0.44D0.000       0.00 11.49 58.50-47.01 0.000           162        1
IMW  251.7  99  50 28.33 P 0       39.82 38.07              1.74D0.000       0.00 11.49 66.62-55.14 0.000           162        1
MSD  286.1   2  50 30.00 P 0       41.49 42.37             -0.88D0.000       0.00 11.49 74.15-62.66 0.000           162        1
MLI  292.8 148  50 35.16 P 0       46.65 43.20              3.44D0.000       0.00 11.49 75.60-64.12 0.000           162        1
NCM  327.5 353  50 35.90 PCO       47.39 47.55             -0.16D0.000       0.00 11.49 83.21-71.73 0.000           162        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E    SE    NE     Z     N    SW
AVE. OF END POINTS                  0.06  0.06  0.09  0.12  0.12  0.13  0.15

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
```

	HORIZONTAL		VERTICAL	
SE =	0.80	SE =	1.47	SE = 1.14 QUALITY = A
AZ =	-4.	AZ =	-94.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831103	055 56.28	44N15.77	114W 2.68	9.66	3.00	29	3	123	1	0.19	1.5	1.1	B	818	0.23	10	56	0.00	0.16	0	0.0	0.0	12	3.0	0.4

SE OF ORIG = 0.093 3 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	2.1	115	167	58.20	P 0		1.92	1.76			0.16	1.021		0.00	-56.28	3.07	-59.36	0.000				163		1	
843	2.7	102	163	58.15	P 0		1.87	1.78			0.08	1.021		59.65	3.37	3.12	0.25	0.715				163		1	
8SU3	3.4	23	159	58.57	PC0		2.29	1.82			0.47	1.021		0.00	-56.28	3.18	-59.46	0.000				163		1	
817	6.6	305	142	58.31	IPD		2.03	2.08			-0.05	1.021										163	35	2.31	
ANPI	8.9	160	133	58.75	PD0		2.47	2.33			0.14	1.021		0.00	-56.28	4.07	-60.35	0.000				163		1	
NSUI	9.4	106	131	58.67	P 0		2.39	2.39			0.00	1.021		0.00	-56.28	4.18	-60.46	0.000				163		1	
844	9.6	18	130	58.47	P 0		2.19	2.42			-0.23	1.021		60.18	3.90	4.23	-0.33	0.715				163		1	
816	11.1	140	126	58.91	IPD		2.63	2.59			0.04	1.021										163	51	2.71	
81	15.6	357	115	59.27	IPC		2.99	3.22			-0.23	1.021										163	60	2.81	
84	17.3	115	111	59.71	IPD		3.43	3.49			-0.06	1.021		61.55	5.27	6.11	-0.84	0.000				163	61	2.81	
DSPI	17.7	106	111	59.64	PD0		3.36	3.55			-0.20	1.021		0.00	-56.28	6.22	-62.50	0.000				163		1	
M-2	17.8	129	111	59.90	PD0		3.62	3.56	0.17		-0.11	1.021		0.00	-56.28	6.23	-62.81	0.000				163		1	
MBAI	21.8	133	105	0.42	PD0		4.14	4.18			-0.04	1.021		2.84	6.56	7.31	-0.75	0.000				163		1	
M-1	25.9	146	101	1.30	PD0		5.02	4.84	0.30		-0.12	1.021		0.00	3.72	8.46	-5.27	0.000				163		1	
BRPI	28.0	165	100	1.50	PD0		5.22	5.17			0.05	1.021		5.20	8.92	9.05	-0.13	0.000				163		1	
LSGS	29.1	114	100	1.45	PC0		5.17	5.34			-0.17	1.021		0.00	3.72	9.34	-5.62	0.000				163		1	
BRCI	31.2	181	99	2.03	PC0		5.75	5.67			0.07	1.021		0.00	3.72	9.93	-6.21	0.000				163		1	
812	31.6	182	98	61.86	IPC		5.58	5.74			-0.16	1.021										163	75	3.11	
LCRI	34.2	136	97	2.23	P 0		5.95	6.16			-0.21	1.021		0.00	3.72	10.77	-7.06	0.000				163		1	
811	40.3	152	96	63.51	EPC		7.23	7.15			0.08	1.021										163		1	
86	49.8	131	94	64.73	EPD		8.45	8.68			-0.23	1.021										163	32	2.41	
88	54.3	146	94	65.56	EPD		9.28	9.40			-0.13	1.021										163		1	
87	61.0	141	93	67.02	EP		10.74	10.51	0.28		-0.05	1.021										163	60	3.01	
MPI	97.6	129	92	13.00	PD0		16.72	16.43			0.29	1.021		0.00	3.72	28.75	-25.03	0.000				163	66	3.21	
MLPM	99.3	54	65	13.00	PC0		16.72	16.70			0.02	1.021		0.00	3.72	29.22	-25.50	0.000				163		1	
JGI	111.0	100	65	15.04	PD0		18.76	18.41			0.35	1.021		0.00	3.72	32.22	-28.50	0.000				163	67	3.21	
BLCM	117.1	54	65	15.90	PC0		19.62	19.31			0.31	1.021		0.00	3.72	33.79	-30.08	0.000				163		1	
CIB	130.6	137	65	18.13	P 0		21.85	21.29			0.56	D0.000		0.00	3.72	37.26	-33.54	0.000				163	74	3.41	
GBI	161.6	101	65	22.66	P 0		26.38	25.85			0.52	D0.000		0.00	3.72	45.24	-41.53	0.000				163	74	3.51	
TMI	201.5	122	50	28.18	P 0		31.90	31.54			0.36	D0.000		0.00	3.72	55.19	-51.47	0.000				163	77	3.71	
LRM	214.1	36	50	29.00	P 0		32.72	33.11			-0.39	D0.000		0.00	3.72	57.94	-54.22	0.000				163		1	
IMW	252.0	99	50	36.43	P 0		40.15	37.85			2.30	C0.000		0.00	3.72	66.23	-62.51	0.000				163		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	NW	NE	SW	Z	N	SE
AVE. OF END POINTS	0.44	0.50	0.55	0.56	0.56	0.77	0.77

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
30	0.19	0.28	0.60	8

	HORIZONTAL		VERTICAL	
SE =	0.57	SE =	0.79	SE = 0.78 QUALITY = A
AZ =	-2.	AZ =	-92.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	122 15.85	44N15.54	114W 4.90	5.04	3.19	29	6	103	1	0.15	0.8	0.8	B	8|8	0.15	10	61	0.00	0.13	0	0.0	0.0	11	3.2	0.3

SE OF ORIG = 0.057 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	4.9	96	134	17.00	PDO	1.15	1.30		-0.15	1.021		0.00	-15.85	2.27	-18.12	0.000				164			1
817	4.9	330	134	17.05	IPD	1.20	1.30		-0.10	1.021										164	59	2.71	
8SU3	5.5	50	131	17.47	PCO	1.62	1.38		0.24	1.021		0.00	-15.85	2.42	-18.27	0.000				164			1
843	5.6	91	130	17.38	EPD	1.53	1.39		0.13	1.021		18.44	2.59	2.44	0.15	0.715				164			1
ANPI	9.9	143	115	18.02	PDO	2.17	2.05		0.12	1.021		0.00	-15.85	3.59	-19.44	0.000				164			1
844	11.3	32	112	17.98	IPCO	2.13	2.27		-0.14	1.021		19.75	3.90	3.98	-0.08	0.000				164			1
NSUI	12.2	100	110	18.28	PDO	2.43	2.42		0.01	1.021		0.00	-15.85	4.24	-20.09	0.000				164			1
816	12.9	128	109	18.38	IPD	2.53	2.54		-0.01	1.021										164	69	2.91	
815	13.1	227	109	18.59	IPC	2.74	2.57		0.17	1.021										164	70	2.91	
842	13.8	141	108	0.00	P 4	-15.85	2.70		-18.55	0.000		20.43	4.58	4.72	-0.14	0.715				164			1
81	16.1	8	105	18.71	IPC	2.86	3.09		-0.23	1.021										164	97	3.21	
84	19.9	110	102	19.85	IPC	4.00	3.73		0.26	1.021										164			1
M-2	19.9	122	102	19.70	PDO	3.85	3.74	0.17	-0.06	1.021		0.00	-15.85	6.55	-22.70	0.000				164			1
DSPI	20.5	103	102	19.56	PCO	3.71	3.84		-0.13	1.021		0.00	-15.85	6.72	-22.57	0.000				164			1
48AI	23.8	127	100	20.19	PDO	4.34	4.42		-0.08	1.021		0.00	-15.85	7.73	-23.58	0.000				164			1
M-1	27.3	140	99	21.10	PDO	5.25	5.06	0.30	-0.11	1.021		0.00	-15.85	8.85	-25.23	0.000				164			1
8RPI	28.6	159	99	21.25	P+O	5.40	5.27		0.13	1.021		22.95	7.10	9.23	-2.13	0.000				164			1
8RCI	30.8	176	98	21.62	PDO	5.77	5.67		0.10	1.021		24.02	8.17	9.93	-1.76	0.000				164			1
812	31.2	177	98	21.52	IPC	5.67	5.74		-0.07	1.021										164			1
LSGS	31.6	111	98	21.44	P 0	5.59	5.81		-0.23	1.021		0.00	-15.85	10.18	-26.03	0.000				164			1
LCRI	36.0	132	65	22.21	P 0	6.36	6.58		-0.22	1.021		0.00	-15.85	11.51	-27.36	0.000				164			1
811	41.4	148	65	23.26	EP	7.41	7.46		-0.05	1.021		25.86	10.01	13.06	-3.05	0.000				164	60	2.91	
86	51.8	129	65	24.93	EP	9.08	9.14		-0.06	1.021										164			1
88	55.7	144	65	25.63	EP	9.78	9.77		0.01	1.021										164	83	3.21	
87	62.6	139	65	27.00	EP	11.15	10.90	0.28	-0.03	1.021										164	65	3.01	
MPI	99.6	128	65	33.41	PDO	17.56	16.91		0.65	M0.000		0.00	-15.85	29.58	-45.44	0.000				164	91	3.41	
MLPM	102.0	55	65	33.10	PCO	17.25	17.29		-0.04	1.021		0.00	-15.85	30.25	-46.10	0.000				164			1
JGI	113.8	99	65	35.33	PCO	19.48	19.21		0.27	1.021		0.00	-15.85	33.62	-49.47	0.000				164	100	3.61	
8LCM	119.7	55	55	36.20	PCO	20.35	20.08		0.27	1.021		0.00	-15.85	35.14	-50.99	0.000				164			1
CIS	132.3	136	55	38.35	PDO	22.50	21.93		0.57	M0.000		0.00	-15.85	38.38	-54.23	0.000				164	97	3.61	
GBI	164.4	101	55	43.42	PCO	27.57	26.65		0.92	M0.000		0.00	-15.85	46.64	-62.49	0.000				164	95	3.71	
TMI	203.8	121	44	48.61	PCO	32.76	32.35		0.41	D0.000		0.00	-15.85	56.62	-72.47	0.000				164			1
LRM	216.1	37	44	49.00	P 0	33.15	33.89		-0.74	M0.000		0.00	-15.85	59.31	-75.16	0.000				164			1
IMW	254.8	99	44	56.57	PDO	40.72	38.73		1.99	M0.000		0.00	-15.85	67.78	-83.63	0.000				164			1
NPI	266.8	152	44	58.24	P 0	42.39	40.23		2.16	M0.000		0.00	-15.85	70.39	-86.25	0.000				164			1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	Z	SE	E	SW	NE	N
AVE. OF END POINTS	0.07	0.08	0.10	0.11	0.12	0.13	0.13

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
14	0.15	0.07	0.11	D

HORIZONTAL		VERTICAL		
SE = 0.63	SE = 0.82	SE = 0.66	QUALITY = A	
AZ = 4.	AZ = -86.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	O3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	150 20.33	44N14.69	114W 5.60	6.71	3.77	32	7	116	1	0.14	0.8	0.7	8	8IB	0.23	10	85	0.00	0.11	0	0.0	0.0	6	3.8	0.2

SE OF ORIG = 0.057 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.9	79	138	22.00 P 0	1.67	1.64			0.03	1.019		0.00-20.33	2.87	-23.20	0.000				165		1	
817	6.0	345	137	21.91IPD	1.58	1.65			-0.07	1.019									165		1	
843	6.7	78	134	22.15IPD0	1.82	1.74			0.08	1.019		23.58 3.25	3.04	0.21	0.713				165		1	
ANPI	9.4	132	124	22.60 P 0	2.27	2.11			0.16	1.019		0.00-20.33	3.70	-24.03	0.000				165		1	
815	11.3	229	119	22.94IPC	2.61	2.40			0.21	1.019									165		1	
816	12.8	120	116	22.98IPD	2.65	2.64			0.01	1.019									165		1	
NSUI	12.9	93	116	22.87 P 0	2.54	2.66			-0.12	1.019		0.00-20.33	4.66	-24.99	0.000				165		1	
844	13.1	32	116	22.87IPC0	2.54	2.69			-0.15	1.019		24.60 4.27	4.71	-0.44	0.000				165		1	
842	13.3	133	115	23.04EPD0	2.71	2.72			-0.01	1.019		24.86 4.53	4.76	-0.23	0.000				165		1	
81	17.8	10	109	23.60IPC	3.27	3.47			-0.20	1.019									165		1	
M-2	19.9	117	107	24.30 PC0	3.97	3.83	0.17		-0.03	1.019		0.00-20.33	6.70	-27.33	0.000				165		1	
84	20.3	105	107	24.14IPC	3.81	3.89			-0.08	1.019		26.45 6.12	6.80	-0.68	0.000				165		1	
OSPI	21.1	98	106	24.24 P 0	3.91	4.03			-0.12	1.019		0.00-20.33	7.05	-27.38	0.000				165		1	
MBAI	23.6	123	65	24.78 P 0	4.45	4.44			0.00	1.019		0.00-20.33	7.78	-28.11	0.000				165		1	
837	24.8	144	65	24.96EPC0	4.63	4.64			-0.01	1.019		28.37 8.04	8.12	-0.08	0.713				165		1	
M-1	26.8	137	65	25.60 PC0	5.27	4.95	0.30		0.02	1.019		0.00-20.33	8.67	-29.53	0.000				165		1	
841	27.0	170	65	0.00 P 4	-20.33	4.99			-25.32	0.000		29.09 8.76	8.73	0.02	0.000				165		1	
BRPI	27.5	156	65	25.45 P 0	5.12	5.06			0.06	1.019		0.00-20.33	8.86	-29.19	0.000				165		1	
BRCI	29.3	174	65	25.53 P 0	5.20	5.37			-0.17	1.019		0.00-20.33	9.39	-29.72	0.000				165		1	
812	29.7	175	65	25.72IPC	5.39	5.42			-0.03	1.019									165		1	
LSGS	32.0	108	65	25.94 P 0	5.61	5.79			-0.19	1.019		0.00-20.33	10.14	-30.47	0.000				165		1	
LCRI	35.7	129	65	26.61 P 0	6.28	6.40			-0.12	1.019		0.00-20.33	11.21	-31.54	0.000				165		1	
811	40.6	146	65	27.40EPD	7.07	7.20			-0.13	1.019									165	140	3.61	
838	43.5	127	65	27.92EPD0	7.59	7.67			-0.08	1.019		0.00-20.33	13.42	-33.75	0.000				165		1	
86	51.6	127	65	29.23EP	8.90	8.98			-0.08	1.019									165	120	3.51	
88	55.0	142	65	29.94EP	9.61	9.53			0.08	1.019									165	160	3.81	
MDCI	58.5	120	65	30.31 P 0	9.98	10.10			-0.12	1.019		0.00-20.33	17.67	-38.00	0.000				165		1	
87	62.1	137	65	31.60EPD4	11.27	10.68	0.28		0.31	0.000									165		1	
MPI	99.4	127	65	37.45 PC0	17.12	16.75			0.37	1.019		0.00-20.33	29.31	-49.64	0.000				165	124	3.71	
MLPM	103.6	55	65	37.80 PC0	17.47	17.43			0.04	1.019		0.00-20.33	30.50	-50.83	0.000				165		1	
JGI	114.5	98	55	39.74 PC0	19.41	19.14			0.27	1.019		0.00-20.33	33.50	-53.83	0.000				165	126	3.81	
BLCM	121.4	55	55	40.80 PC0	20.47	20.16			0.31	1.019		0.00-20.33	35.27	-55.60	0.000				165		1	
CI8	131.8	135	55	42.61 PD0	22.28	21.69			0.59M	0.000		58.74 38.41	37.95	0.45	0.000				165		1	
GBI	165.0	100	55	47.50 P 0	27.17	26.58			0.59M	0.000		0.00-20.33	46.51	-66.84	0.000				165	170	4.21	
TID	169.4	241	55	48.80 PC0	28.47	27.22			1.25M	0.000		69.00 48.67	47.63	1.04	0.000				165		1	
CPI	181.6	257	55	49.30 PC0	28.97	29.01			-0.04	0.000		70.20 49.87	50.77	-0.90	0.000				165		1	
CMI	199.4	81	44	52.70 P 0	32.37	31.58			0.79M	0.000		0.00-20.33	55.27	-75.60	0.000				165		1	
TMI	203.8	121	44	52.84 PD0	32.51	32.14			0.37D	0.000		77.70 57.37	56.24	1.13	0.000				165		1	
KCI	205.1	108	44	53.20 P 0	32.87	32.29			0.58M	0.000		0.00-20.33	56.51	-76.85	0.000				165		1	
LRM	217.9	36	44	53.70 PC0	33.37	33.90			-0.53M	0.000		0.00-20.33	59.33	-79.66	0.000				165		1	
BUT	230.5	31	44	55.30 P 0	34.97	35.47			-0.50D	0.000		81.40 61.07	62.08	-1.01	0.000				165		1	
WPI	238.7	244	44	57.20 PC0	36.87	36.50			0.37D	0.000									165		1	
IMW	255.5	99	44	0.43 P 0	40.10	38.60			1.50M	0.000		0.00 39.67	67.55	-27.88	0.000				165		1	
NPI	265.9	151	44	2.50 P 0	42.17	39.89			2.27M	0.000									165		1	
MSO	287.5	2	44	2.10 P 0	41.77	42.60			-0.83M	0.000		0.00 39.67	74.55	-34.88	0.000				165		1	
MLI	293.9	147	44	6.41 P 0	46.08	43.40			2.68M	0.000		0.00 39.67	75.95	-36.28	0.000				165		1	
SXM	310.2	47	44	5.40 P 0	45.07	45.43			-0.36D	0.000		0.00 39.67	79.51	-39.84	0.000				165		1	
NCM	328.3	354	44	7.90 P 0	47.57	47.70			-0.13D	0.000		0.00 39.67	83.48	-43.81	0.000				165		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	E	Z	N	SW	NE
AVE. OF END POINTS	0.03	0.08	0.10	0.10	0.13	0.13	0.15

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3     2/24                                                                                  83/11/ 3     2/24

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.83              SE =   1.42              SE =   1.07   QUALITY = A
                                          AZ =    20.              AZ =   -70.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103  224 13.92 44N19.06 114W 7.82    9.15    3.49 30 10 193 1 0.17  1.4  1.1 C 8|0 0.36 10 68 0.00 0.13  0  0.0  0.0 10  3.5  0.4
SE OF ORIG =  0.104          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    2.7 148 162 15.66IPD         1.74  1.70              0.04 1.020                                                166  90 3.11
8SU3   8.7 110 132 16.57 PDO        2.65  2.24              0.41 1.020       0.00-13.92  3.93-17.85 0.000            166        1
844   10.3  73 126 16.28EPDO        2.36  2.44             -0.08 1.020      18.18  4.26  4.27 -0.01 0.714            166        1
NWSI  11.2 129 123 16.50 PDO        2.58  2.57              0.01 1.020       0.00-13.92  4.50-18.42 0.000            166        1
81    11.2  33 123 16.37IPC        2.45  2.57             -0.12 1.020                                                166 117 3.41
843   11.6 125 122 16.61 PDO        2.69  2.62              0.07 1.020      18.70  4.78  4.59  0.19 0.714            166        1
815   16.5 200 110 17.37IPC        3.45  3.34              0.11 1.020                                                166        1
ANPI  17.5 145 109 17.50 PDO        3.58  3.49              0.09 1.020       0.00-13.92  6.11-20.03 0.000            166        1
NSUI  18.1 119 108 17.47 PDO        3.55  3.58             -0.03 1.020       0.00-13.92  6.27-20.19 0.000            166        1
816   20.2 136 105 17.80IPD        3.88  3.90             -0.02 1.020                                                166 115 3.41
842   21.4 144 103  0.00 P 4     -13.92  4.10            -18.02 0.000      21.62  7.70  7.17  0.53 0.000            166        1
84    26.2 121  99 18.68IPD        4.76  4.86             -0.10 1.020                                                166 114 3.41
DSPI  26.2 115  99 18.59 PDO        4.67  4.87             -0.20 1.020       0.00-13.92  8.52-22.44 0.000            166        1
M-2   26.9 130  99 18.80 PDO        4.88  4.98   0.17      -0.27 1.020       0.00-13.92  8.71-22.93 0.000            166        1
MBAI  31.0 133  97 19.48 PDO        5.56  5.63             -0.07 1.020       0.00-13.92  9.85-23.77 0.000            166        1
M-1   34.9 142  96 20.70 P-0        6.78  6.25   0.30       0.23 1.020       0.00-13.92 10.94-25.39 0.000            166        1
BRPI  36.1 157  96 20.35 PCO        6.43  6.44             -0.02 1.020       0.00-13.92 11.28-25.20 0.000            166        1
BRCI  37.7 171  95 20.42 PDO        6.50  6.72             -0.22 1.020       0.00-13.92 11.75-25.68 0.000            166        1
LSGS  37.9 119  95 20.64 P 0        6.72  6.74             -0.02 1.020       0.00-13.92 11.80-25.72 0.000            166        1
812   38.1 172  95 20.62IPC        6.70  6.77             -0.07 1.020                                                166        1
LCRI  43.3 135  94 21.52 PCO        7.60  7.63             -0.03 1.020       0.00-13.92 13.35-27.27 0.000            166        1
811   49.0 148  94 22.45EPC        8.53  8.56             -0.03 1.020                                                166  89 3.31
86    59.0 132  93 23.99EPD       10.07 10.17             -0.10 1.020                                                166  67 3.11
88    63.2 144  93 24.76EPD       10.84 10.86             -0.02 1.020                                                166        1
MDCI  65.3 125  92 24.83 PCO       10.91 11.19             -0.28 1.020       0.00-13.92 19.59-33.51 0.000            166        1
87    70.1 140  92 26.32EP 4       12.40 11.97   0.28       0.15 0.000                                                166  93 3.41
MLPM 101.6  59  65 30.80 PCO       16.88 17.06             -0.18 1.020       0.00-13.92 29.86-43.78 0.000            166        1
MPI  106.7 129  65 32.15 PCO       18.23 17.82              0.41 1.020      45.32 31.40 31.19  0.21 0.000            166        1
JGI  118.9 102  65 33.73 P 0       19.81 19.60              0.20 1.020       0.00-13.92 34.31-48.23 0.000            166 112 3.71
8LCM 119.4  59  65 33.80 PCO       19.88 19.68              0.19 1.020       0.00-13.92 34.45-48.37 0.000            166        1
CI3  139.6 137  65 36.96 PCO       23.04 22.66              0.38D0.000      54.30 40.38 39.65  0.73 0.000            166 125 3.91
G8I  169.3 103  65 41.42 PCO       27.50 27.02              0.48D0.000       0.00-13.92 47.28-61.20 0.000            166        1
TMI  210.6 122  50 46.94 PCO       33.02 32.72              0.29D0.000       0.00-13.92 57.27-71.19 0.000            166 169 4.41
LRM  213.1  38  50 46.20 PCO       32.28 33.04             -0.76C0.000       0.00-13.92 57.83-71.75 0.000            166        1
BUT  225.1  33  50 51.20 P 0       37.28 34.54              2.74D0.000      73.90 59.98 60.44 -0.46 0.000            166        1
IMW  259.8 100  50 53.91 P 0       39.99 38.87              1.12D0.000       0.00-13.92 68.03-81.95 0.000            166        1
MSD  279.5   3  50 54.10 P 0       40.18 41.34             -1.17C0.000       0.00-13.92 72.35-86.27 0.000            166        1
SXM  306.9  48  50 58.60 P 0       44.68 44.76             -0.08D0.000       0.00-13.92 78.33-92.25 0.000            166        1
NCM  320.0 354  50 59.90 PCO       45.98 46.40             -0.42D0.000       0.00-13.92 81.20-95.12 0.000            166        1

                          QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          E    NW     Z    SE    NE    SW     N
AVE. OF END POINTS                   0.37  0.42  0.43  0.45  0.53  0.56  0.58
```

```
----------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3     2/59                                                                                  83/11/ 3     2/59

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.51              SE =    0.82              SE =    1.08    QUALITY = A
                                            AZ =    -11.              AZ =   -101.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103  259 19.40 44N13.57 114W 2.59   7.60    3.47 32  5  78 1 0.15  0.8  1.1 B 8|A 0.06 10 79 0.00 0.12  0  0.0  0.0 12  3.5  0.3
SE OF ORIG =  0.054          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.7  30 151 21.00 P 0        1.60  1.53              0.07 1.019       0.00-19.40  2.68-22.08 0.000           167        1
B43    4.3  36 146 21.08EPD0        1.68  1.59              0.09 1.019      22.55  3.15  2.79  0.36 0.000           167        1
ANPI   5.2 145 141 21.25 P 0        1.85  1.67              0.18 1.019       0.00-19.40  2.93-22.33 0.000           167        1
BSU3   7.3   9 130 21.46 PD0        2.06  1.91              0.15 1.019                                              167        1
B16    8.3 122 126 21.50IPD        2.10  2.03              0.07 1.019                                              167        1
NSUI   9.0  81 122 21.51 P 0        2.11  2.14             -0.03 1.019       0.00-19.40  3.74-23.14 0.000           167        1
B42    9.0 141 122 21.57EPD0        2.17  2.14              0.03 1.019      23.15  3.75  3.74  0.01 0.713           167        1
B17    9.6 325 120 21.56IPD        2.16  2.22             -0.06 1.019                                              167  90 3.11
344   13.5  12 107 22.02EPC0        2.62  2.79             -0.17 1.019      24.24  4.84  4.89 -0.05 0.713           167        1.
B15   13.7 247 107 22.32IPC        2.92  2.81              0.11 1.019                                              167 108 3.31
M-2   15.4 117 102 22.70 PC0        3.30  3.10  0.17        0.03 1.019       0.00-19.40  5.42-25.12 0.000           167        1
B4    15.9 102 101 22.51IPC        3.11  3.17             -0.06 1.019                                              167 115 3.41
DSPI  16.9  93  99 22.64 P 0        3.24  3.34             -0.10 1.019       0.00-19.40  5.84-25.24 0.000           167        1
MBAI  19.2 124  96 23.07 P 0        3.67  3.70             -0.03 1.019       0.00-19.40  6.47-25.87 0.000           167        1
B1    19.6 357  96 22.97IPC        3.57  3.77             -0.20 1.019                                              167 130 3.51
M-1   22.6 140  94 23.81 PC0        4.41  4.25  0.30       -0.14 1.019       0.00-19.40  7.43-27.36 0.000           167        1
BRPI  24.1 162  93 23.95 P 0        4.55  4.49              0.06 1.019      27.25  7.85  7.85  0.00 0.000           167        1
B41   24.5 178  93  0.00 P 4      -19.40  4.56            -23.96 0.000      27.25  7.85  7.98 -0.13 0.000           167        1
BRCI  27.1 182  93 24.22 P 0        4.82  4.97             -0.16 1.019       0.00-19.40  8.71-28.11 0.000           167        1
LSGS  27.5 107  93 24.24 P 0        4.84  5.04             -0.20 1.019       0.00-19.40  8.82-28.22 0.000           167        1
B12   27.5 183  93 24.42IPC        5.02  5.04             -0.02 1.019                                              167 108 3.31
LCRI  31.3 131  92 25.11 P 0        5.71  5.66              0.05 1.019       0.00-19.40  9.90-29.30 0.000           167        1
B11   36.7 149  92 26.00EPC        6.60  6.55              0.05 1.019                                              167 100 3.31
B6    47.1 128  91 27.44EPC        8.04  8.24             -0.20 1.019                                              167  74 3.11
B8    50.9 144  91 28.22EPD        8.82  8.85             -0.03 1.019                                              167 134 3.61
MOCI  53.9 120  91 28.33 P 0        8.93  9.34             -0.41 1.019       0.00-19.40 16.35-35.75 0.000           167        1
B7    57.8 139  91 29.72IP         10.32  9.98  0.28        0.06 1.019                                              167  95 3.31
HPI   95.0 127  90 35.71 PC0       16.31 16.00              0.31 1.019      47.09 27.69 28.00 -0.31 0.000           167 120 3.71
MLPM 101.7  52  90 36.50 PC0       17.10 17.09              0.01 1.019       0.00-19.40 29.90-49.30 0.000           167        1
JGI  110.2  98  65 38.10 P 0       18.70 18.44              0.26 1.019       0.00-19.40 32.28-51.68 0.000           167        1
BLCM 119.4  53  65 39.50 PC0       20.10 19.79              0.30 1.019       0.00-19.40 34.64-54.04 0.000           167        1
CIB  127.5 136  65 40.81 PD0       21.41 20.98              0.42D0.000      55.73 36.33 36.72 -0.39 0.000           167 126 3.81
GBI  160.7  99  65 45.73 P 0       26.33 25.87              0.46D0.000       0.00-19.40 45.27-64.68 0.000           167 162 4.21
TID  172.0 242  65 47.77 P 0       28.37 27.52              0.85D0.000       0.00-19.40 48.16-67.57 0.000           167        1
CPI  185.4 258  65 48.57 PC0       29.17 29.49             -0.32D0.000       0.00-19.40 51.61-71.01 0.000           167        1
CMI  195.7  80  65 51.20 P 0       31.80 31.02              0.78D0.000       0.00-19.40 54.28-73.68 0.000           167        1
TMI  199.3 121  50 50.95 P 0       31.55 31.47              0.08C0.000      75.39 55.99 55.06  0.91 0.000           167        1
KCI  200.9 108  50 51.20 P 0       31.80 31.67              0.12D0.000       0.00-19.40 55.43-74.83 0.000           167        1
LRM  217.3  35  50 52.60 PC0       33.20 33.72             -0.53D0.000       0.00-19.40 59.02-78.42 0.000           167        1
WPI  241.4 244  50 56.57 PC0       37.17 36.74              0.43D0.000       0.00-19.40 64.30-83.70 0.000           167        1
IMW  251.2  98  50 58.40 P 0       39.00 37.97              1.03D0.000       0.00-19.40 66.44-85.84 0.000           167        1
NPI  262.1 152  50  0.52 P 0       41.12 39.33              1.79D0.000       0.00 40.60 68.82-28.22 0.000           167        1
NSO  289.4   2  50  1.20 PC0       41.80 42.74             -0.94C0.000      33.10 73.70 74.80 -1.10 0.000           167        1
SXM  308.7  46  50  4.70 P 0       45.30 45.15              0.15C0.000       0.00 40.60 79.02-38.42 0.000           167        1
NCM  330.9 353  50  7.00 P 0       47.60 47.92             -0.32D0.000       0.00 40.60 83.86-43.26 0.000           167        1
```

	HORIZONTAL		VERTICAL	
SE =	0.29	SE =	0.53	SE = 0.54 QUALITY = A
AZ =	-32.	AZ =	-122.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	332 51.77	44N11.62	114W	0.07 8.10	2.38	14	7	95	1	0.06	0.5	0.5	B	A|B	0.83	10	14	0.00	0.04	0	0.0	0.0	8	2.4	0.2

SE OF ORIG = 0.028 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	3.8	101	152	53.40IPD	1.63	1.61		0.02	1.045										168	43	2.51	
842	4.1	147	150	53.43IP	1.66	1.64		0.02	1.045		54.59	2.82	2.87	-0.05	0.731				168		1	
843	7.2	354	133	53.81IP	2.04	1.95		0.09	1.045		55.19	3.42	3.42	0.01	0.731				168		1	
84	12.2	88	115	54.35IPD	2.58	2.63		-0.05	1.045										168	46	2.61	
817	14.6	322	108	54.70EPC	2.93	2.98		-0.05	1.045										168	23	2.01	
815	16.0	264	105	54.98EPD	3.21	3.22		-0.01	1.045										168	39	2.41	
81	23.6	350	96	56.17IP	4.40	4.43		-0.02	1.045										168	45	2.61	
812	24.3	191	96	56.28IPC	4.51	4.54		-0.03	1.045										168		1	
811	31.9	151	94	57.51EPC	5.74	5.77		-0.03	1.045										168	34	2.41	
86	42.3	127	92	59.14EPC	7.37	7.44		-0.07	1.045										168	22	2.01	
88	46.0	145	92	59.97EPC	8.20	8.06		0.15	1.045										168	45	2.71	
87	52.9	139	92	61.22IP	9.45	9.17	0.28	0.00	1.045										168		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	N	SE
AVE. OF END POINTS	0.54	0.59	0.71	0.85	0.85	1.05	1.15

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.06	0.56	0.85	A

HORIZONTAL
SE = 0.85
AZ = -3.

VERTICAL
SE = 1.10
AZ = -93.

SE = 0.93 QUALITY = A

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	415 16.47	44N14.84	114W 5.45	6.27	3.56	28	6	114	1	0.20	1.1	0.9	B	B1B	0.89	10	72	0.00	0.15	0	0.0	0.0	9	3.6	0.3

SE OF ORIG = 0.076 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)								VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.7	81	137	18.00	P 0		1.53	1.55			-0.02	1.022		0.00	-16.47	2.72	-19.19	0.000				169		1	
317	5.8	343	136	17.86	IPD		1.39	1.57			-0.18	1.022										169	95	3.11	
843	6.4	80	133	18.21	EPCO		1.74	1.65			0.09	1.022		19.38	2.91	2.89	0.02	0.715				169		1	
BSU3	6.9	46	131	18.37	P 0		1.90	1.72			0.18	1.022		0.00	-16.47	3.00	-19.48	0.000				169		1	
ANPI	9.4	134	122	19.00	P 0		2.53	2.07			0.46	1.022		0.00	-16.47	3.63	-20.10	0.000				169		1	
815	11.7	229	117	19.08	IPC		2.61	2.43			0.18	1.022										169		1	
816	12.7	122	115	17.88	IPD4		1.41	2.60			-1.19	0.000										169	95	3.21	
NSUI	12.7	94	115	18.97	P 0		2.50	2.60			-0.10	1.022		0.00	-16.47	4.55	-21.02	0.000				169		1	
844	12.8	32	115	18.89	PCO		2.42	2.61			-0.19	1.022		20.75	4.28	4.56	-0.28	0.000				169		1	
842	13.3	135	114	0.00	P 4		-16.47	2.70			-19.17	0.000		21.11	4.64	4.72	-0.08	0.715				169		1	
81	17.5	10	108	19.67	IPC		3.20	3.39			-0.19	1.022										169	122	3.41	
M-2	19.9	118	106	20.30	PCO		3.83	3.80	0.17		-0.14	1.022		0.00	-16.47	6.64	-23.41	0.000				169		1	
84	20.1	106	106	20.25	IP		3.78	3.84			-0.06	1.022										169	128	3.51	
OSPI	20.9	99	105	20.34	P 0		3.87	3.98			-0.11	1.022		0.00	-16.47	6.96	-23.43	0.000				169		1	
MBAI	23.6	124	103	20.96	PCO		4.49	4.44			0.05	1.022		0.00	-16.47	7.77	-24.24	0.000				169		1	
841	27.2	170	65	0.00	P 4		-16.47	5.06			-21.53	0.000		25.09	8.62	8.86	-0.24	0.000				169		1	
BRPI	27.6	156	65	21.60	P 0		5.13	5.12			0.01	1.022		0.00	-16.47	8.96	-25.44	0.000				169		1	
BRCI	29.6	174	65	21.81	PCO		5.34	5.44			-0.10	1.022		0.00	-16.47	9.52	-25.99	0.000				169		1	
812	29.9	175	65	21.91	IPC		5.44	5.50			-0.06	1.022										169		1	
LSGS	31.8	109	65	22.24	PCO		5.77	5.81			-0.04	1.022		0.00	-16.47	10.17	-26.64	0.000				169		1	
LCRI	35.7	130	65	22.79	PCO		6.32	6.44			-0.12	1.022		0.00	-16.47	11.27	-27.74	0.000				169		1	
811	40.7	146	65	23.56	EPD		7.09	7.25			-0.16	1.022										169		1	
86	51.6	127	65	25.34	EPC		8.87	9.01			-0.14	1.022										169	102	3.41	
88	55.1	142	65	26.06	IPD		9.59	9.58			0.01	1.022										169		1	
MDCI	58.4	120	65	26.18	PCO		9.71	10.12			-0.41	1.022		0.00	-16.47	17.71	-34.18	0.000				169		1	
97	62.1	138	65	27.72	EP 4		11.25	10.72	0.28		0.24	0.000										169	111	3.51	
MPI	99.4	127	65	33.67	PCO		17.20	16.78			0.42	1.022		0.00	-16.47	29.36	-45.83	0.000				169		1	
MLPM	103.3	55	65	33.90	PCO		17.43	17.41			0.02	1.022		0.00	-16.47	30.47	-46.94	0.000				169		1	
JGI	114.3	99	55	35.92	PCO		19.45	19.16			0.29	1.022		44.73	28.26	33.53	-5.27	0.000				169	169	4.01	
BLCM	121.1	55	55	37.00	PCO		20.53	20.15			0.38	1.022		0.00	-16.47	35.27	-51.74	0.000				169		1	
CIB	131.9	135	55	38.82	PCO		22.35	21.74			0.61	00.000		54.01	37.54	38.04	-0.51	0.000				169	135	3.91	
GBI	164.9	100	55	43.60	PCO		27.13	26.60			0.53	00.000		0.00	-16.47	46.54	-63.02	0.000				169	144	4.11	
TMI	203.8	121	44	48.94	PCO		32.47	32.19			0.28	00.000		72.94	56.47	56.33	0.14	0.000				169		1	
LRM	217.6	36	44	50.10	PCO		33.63	33.92			-0.29	00.000		0.00	-16.47	59.36	-75.83	0.000				169		1	
BUT	230.2	31	44	54.80	P 0		38.33	35.49			2.84	00.000		78.40	61.93	62.10	-0.18	0.000				169		1	
IMW	255.3	99	44	55.94	P 0		39.47	38.64			0.83	00.000		0.00	-16.47	67.61	-84.08	0.000				169		1	
NPI	266.0	151	44	58.67	P 0		42.20	39.97			2.23	00.000		0.00	-16.47	69.94	-86.41	0.000				169		1	
MSO	287.2	2	44	56.50	P 0		40.03	42.62			-2.59	00.000		0.00	-16.47	74.59	-91.06	0.000				169		1	
MLI	294.0	147	44	2.54	P 0		46.07	43.47			2.60	00.000		0.00	43.53	76.07	-32.54	0.000				169		1	
SXM	309.8	47	44	2.40	P 0		45.93	45.45			0.48	00.000		0.00	43.53	79.53	-36.00	0.000				169		1	
NCM	328.1	354	44	3.90	P 0		47.43	47.73			-0.30	00.000		0.00	43.53	83.53	-40.00	0.000				169		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH Z E NW SW NE SE N

HORIZONTAL		VERTICAL		
SE = 0.65	SE = 1.07	SE = 0.98	QUALITY = A	
AZ = -2.	AZ = -92.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	447 35.67	44N16.29	114W 2.79	10.11	3.43	32	3	68	1	0.16	1.1	1.0	B	8|A	0.61	10	73	0.00	0.13	0	0.0	0.0	11	3.4	0.3

SE OF ORIG = 0.070 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BSU3	2.6	34	164	37.67	P 0		2.00	1.85			0.15	1.019		0.00	-35.67	3.23	-38.90	0.000				170		1	
NWSI	2.8	132	163	37.50	PD0		1.83	1.85			-0.03	1.019		0.00	-35.67	3.24	-38.92	0.000				170		1	
343	3.2	118	161	37.70	P 0		2.03	1.87			0.15	1.019		39.37	3.70	3.28	0.42	0.000				170		1	
817	6.0	298	146	37.72	IPO		2.05	2.08			-0.03	1.019										170	74	3.01	
844	8.8	21	135	37.90	P 0		2.23	2.37			-0.14	1.019		39.83	4.16	4.14	0.02	0.713				170		1	
ANPI	9.8	161	131	38.40	PD0		2.73	2.49			0.24	1.019		0.00	-35.67	4.35	-40.02	0.000				170		1	
NSUI	9.8	111	131	38.25	P 0		2.58	2.49			0.09	1.019		0.00	-35.67	4.36	-40.03	0.000				170		1	
816	11.9	142	125	38.48	IPO		2.81	2.74			0.07	1.019										170	113	3.31	
842	13.5	154	121	38.69	P 0		3.02	2.96			0.05	1.019		41.09	5.42	5.19	0.23	0.713				170		1	
81	14.6	358	119	38.62	IPC		2.95	3.12			-0.17	1.019										170	115	3.41	
815	16.1	230	116	39.02	DAC		3.35	3.34			0.01	1.019										170	100	3.31	
84	17.8	118	112	39.28	IPO		3.61	3.60			0.01	1.019										170	110	3.31	
DSPI	18.1	109	112	39.29	P 0		3.62	3.64			-0.02	1.019		0.00	-35.67	6.38	-42.05	0.000				170		1	
M-2	18.5	131	111	39.30	PD0		3.63	3.70	0.17		-0.24	1.019		0.00	-35.67	6.47	-42.44	0.000				170		1	
M8AI	22.6	135	106	39.99	PD0		4.32	4.32			0.00	1.019		0.00	-35.67	7.56	-43.23	0.000				170		1	
M-1	26.8	147	102	40.96	PD0		5.29	4.99	0.30		0.00	1.019		0.00	-35.67	8.73	-44.93	0.000				170		1	
8RPI	29.0	165	101	41.10	P 0		5.43	5.34			0.09	1.019		0.00	-35.67	9.34	-45.01	0.000				170		1	
8RCI	32.1	181	99	41.42	PC0		5.75	5.84			-0.09	1.019		0.00	-35.67	10.22	-45.89	0.000				170		1	
812	32.5	182	99	41.54	IPC		5.87	5.91			-0.04	1.019										170		1	
LCRI	35.0	137	98	41.81	PD0		6.14	6.29			-0.16	1.019		0.00	-35.67	11.02	-46.69	0.000				170		1	
811	41.3	153	96	43.01	EPC		7.34	7.31			0.03	1.019										170	84	3.21	
838	42.5	133	96	43.06	P 0		7.39	7.51			-0.12	1.019		0.00	-35.67	13.15	-48.82	0.000				170		1	
86	50.6	132	95	44.29	IPO		8.62	8.81			-0.19	1.019		79.94	44.27	15.41	28.86	0.000				170		1	
88	55.2	147	94	45.05	IPO		9.38	9.56			-0.18	1.019										170	115	3.51	
MDCI	56.9	125	94	45.14	PD0		9.47	9.82			-0.36	1.019		0.00	-35.67	17.19	-52.86	0.000				170		1	
87	61.8	142	94	46.51	EPC		10.84	10.63	0.28		-0.07	1.019										170	90	3.31	
MPI	98.3	129	65	52.55	PD0		16.88	16.51			0.37	1.019		0.00	-35.67	28.90	-64.57	0.000				170	128	3.81	
MLPM	98.9	55	65	52.10	PC0		16.43	16.60			-0.17	1.019		0.00	-35.67	29.05	-64.72	0.000				170		1	
JGI	111.3	100	65	54.34	P 0		18.67	18.42			0.24	1.019		65.80	30.13	32.24	-2.11	0.000				170	126	3.81	
BLCM	116.6	55	65	55.20	PC0		19.53	19.21			0.31	1.019		0.00	-35.67	33.63	-69.30	0.000				170		1	
CIB	131.4	137	65	57.31	PD0		21.64	21.38			0.26	D0.000		72.56	36.89	37.41	-0.52	0.000				170	123	3.81	
GBI	161.9	101	65	1.82	PD0		26.15	25.87			0.28	C0.000		0.00	24.33	45.27	-20.94	0.000				170		1	
TMI	202.1	122	50	7.29	PD0		31.62	31.57			0.05	D0.000		0.00	24.33	55.24	-30.92	0.000				170		1	
LRM	213.4	36	50	7.90	PC0		32.23	32.97			-0.74	D0.000		0.00	24.33	57.70	-33.37	0.000				170		1	
BUT	226.0	31	50	13.00	P 0		37.33	34.56			2.77	C0.000		39.60	63.93	60.48	3.45	0.000				170		1	
IMW	252.3	99	50	14.06	P 0		38.39	37.84			0.55	D0.000		0.00	24.33	66.21	-41.88	0.000				170		1	
NPI	266.7	152	50	17.29	P 0		41.62	39.64			1.98	D0.000		0.00	24.33	69.36	-45.03	0.000				170		1	
MSO	284.4	2	50	16.50	P 0		40.83	41.85			-1.02	C0.000		0.00	24.33	73.24	-48.92	0.000				170		1	
MLI	294.3	148	50	20.92	P 0		45.25	43.10			2.15	C0.000		0.00	24.33	75.42	-51.09	0.000				170		1	
SXM	305.4	47	50	20.20	P 0		44.53	44.48			0.05	D0.000		0.00	24.33	77.85	-53.52	0.000				170		1	
NCM	325.8	353	50	22.20	PC0		46.53	47.03			-0.50	D0.000		0.00	24.33	82.30	-57.97	0.000				170		1	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH E Z NW SW NE SE N

	HORIZONTAL		VERTICAL	
SE =	0.61	SE =	1.06	SE = 1.09 QUALITY = A
AZ =	-19.	AZ =	-109.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	538 11.92	44N 8.54	113W56.11	5.26	2.86	29	6	99	1	0.21	1.1	1.1	B	B18	0.67	10	59	0.00	0.17	0	0.0	0.0	13	2.4	0.4

SE OF ORIG = 0.057 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	3.7	307	143	13.22	P 0	1.30	1.19			0.10	1.021		14.22	2.30	2.09	0.21	0.715				171			1
816	5.2	342	134	13.38	IPD	1.46	1.37			0.09	1.021										171	53	2.61	
M-2	5.6	66	132	13.60	PDO	1.68	1.42	0.17		0.09	1.021		16.30	4.38	2.48	1.60	0.000				171			1
MBAI	7.4	101	124	13.63	PCO	1.71	1.66			0.05	1.021		0.00	-11.92	2.91	-14.83	0.000				171			1
837	8.9	167	119	13.88	P 0	1.96	1.89			0.07	1.021		15.36	3.44	3.31	0.13	0.715				171			1
84	9.2	49	118	13.84	IPD	1.92	1.93			-0.02	1.021		17.05	5.13	3.38	1.74	0.000				171	50	2.61	
M-1	9.9	145	116	14.21	PDO	2.29	2.06	0.30		-0.08	1.021		0.00	-11.92	3.61	-16.06	0.000				171			1
NSUI	10.8	1	114	13.97	PDO	2.05	2.21			-0.16	1.021		0.00	-11.92	3.86	-15.78	0.000				171			1
DSPI	11.9	44	112	14.19	P 0	2.27	2.38			-0.11	1.021		0.00	-11.92	4.17	-16.09	0.000				171			1
BRPI	13.7	186	109	14.70	PDO	2.78	2.69			0.09	1.021		0.00	-11.92	4.70	-16.62	0.000				171			1
843	14.2	335	108	14.69	P 0	2.77	2.77			-0.01	1.021		0.00	-11.92	4.86	-16.78	0.000				171			1
NWSI	14.3	331	108	14.50	PDO	2.58	2.78			-0.20	1.021		0.00	-11.92	4.87	-16.79	0.000				171			1
LSGS	17.8	85	105	15.23	P 0	3.31	3.39			-0.08	1.021		0.00	-11.92	5.93	-17.85	0.000				171			1
BSU3	18.1	336	104	15.46	P 0	3.54	3.44			0.10	1.021		0.00	-11.92	6.02	-17.95	0.000				171			1
LCRI	18.7	127	104	15.31	PCO	3.39	3.54			-0.16	1.021		0.00	-11.92	6.20	-18.12	0.000				171			1
BRCI	20.1	208	103	15.91	PDO	3.99	3.79			0.20	1.021		0.00	-11.92	6.63	-18.56	0.000				171			1
817	22.3	321	102	15.88	EPC	3.96	4.17			-0.21	1.021										171	40	2.41	
811	24.4	156	101	16.31	EP	4.39	4.54			-0.15	1.021										171	53	2.71	
81	30.5	342	98	17.33	EP	5.41	5.61			-0.21	1.021										171	50	2.71	
86	34.6	124	65	17.78	EPD	5.86	6.34			-0.46	1.021										171	32	2.31	
88	38.3	146	65	18.45	EPC	6.53	6.94			-0.41	1.021										171	60	2.91	
87	45.1	140	65	20.07	IP	8.15	8.04	0.28		-0.17	1.021										171	47	2.71	
MPI	82.5	125	65	26.18	PDO	14.26	14.12			0.14	1.021		0.00	-11.92	24.70	-36.62	0.000				171	59	3.01	
JGI	100.9	93	65	29.31	P 0	17.39	17.10			0.29	1.021		0.00	-11.92	29.92	-41.84	0.000				171	61	3.11	
MLPM	101.3	45	65	29.30	PCO	17.38	17.16			0.22	1.021		0.00	-11.92	30.03	-41.95	0.000				171			1
CIB	114.8	136	55	31.70	P 0	19.78	19.33			0.45	1.021		0.00	-11.92	33.82	-45.75	0.000				171	68	3.21	
BLCM	119.0	47	55	32.20	PCO	20.28	19.96			0.32	1.021		0.00	-11.92	34.92	-46.84	0.000				171			1
GBI	150.9	97	55	37.01	P 0	25.09	24.64			0.45	00.000		0.00	-11.92	43.12	-55.04	0.000				171	73	3.41	
TMI	187.3	120	55	42.03	P 0	30.11	29.99			0.11	00.000		0.00	-11.92	52.49	-64.41	0.000				171	76	3.61	
LRM	220.3	32	44	46.00	PCO	34.08	34.39			-0.31	00.000		0.00	-11.92	60.18	-72.10	0.000				171			1
IMW	241.8	96	44	49.17	P 0	37.25	37.08			0.17	00.000		0.00	-11.92	64.89	-76.81	0.000				171			1
NPI	249.8	153	44	51.78	P 0	39.86	38.08			1.78	00.000		0.00	-11.92	66.63	-78.56	0.000				171			1
MLI	277.4	148	44	55.65	P 0	43.73	41.52			2.21	00.000		0.00	-11.92	72.66	-84.58	0.000				171			1

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	E	NW	SE	N
AVE. OF END POINTS	0.34	0.57	0.62	0.72	0.80	0.93	1.02

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
28	0.21	0.51	0.76	B

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3     8/12                                                                                                  83/11/ 3     8/12

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.41              SE =    0.75              SE =    0.72   QUALITY = A
                                            AZ =    -28.              AZ =   -118.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103  812 51.31 44N12.65 114W 0.05   4.86   2.66 14  6 106 1 0.09  0.7  0.7 B A|B 0.10 10 14 0.00 0.07  0  0.0  0.0  8  2.7  0.2
SE OF ORIG =  0.039          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.5 126 136 52.58IPD         1.27  1.23              0.04 1.045                                                 172  60 2.71
B43    5.3 351 131 52.67IP          1.36  1.33              0.03 1.045      53.69  2.38  2.33  0.05 0.731            172        1
B42    5.8 157 128 52.73IP          1.42  1.40              0.02 1.045      53.78  2.47  2.45  0.02 0.731            172        1
B4    12.3  97 109 53.61IPD         2.30  2.42             -0.12 1.045                                                 172        1
B17   13.1 317 108 53.76EPC         2.45  2.56             -0.12 1.045                                                 172  43 2.51
B15   16.4 257 105 54.55EPD         3.24  3.12              0.11 1.045                                                 172  48 2.61
B1    21.7 349 101 55.37EPC         4.06  4.05              0.00 1.045                                                 172  53 2.71
B12   26.2 191  99 56.04EPC         4.73  4.85             -0.13 1.045                                                 172        1
B11   33.6 153  97 57.50EPC         6.19  6.16              0.03 1.045                                                 172  44 2.61
B6    43.4 129  65 59.31EPC         8.00  7.79              0.20 1.045                                                 172  37 2.51
B8    47.6 146  65 59.71EPD         8.40  8.47             -0.07 1.045                                                 172  62 2.91
B7    54.3 141  65 61.13EP          9.82  9.57  0.28       -0.03 1.045                                                 172  58 2.91

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     N     Z    SE    NE    SW    NW
AVE. OF END POINTS                  0.14  0.14  0.14  0.15  0.18  0.18  0.19

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.09      0.11      0.16         0

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 3     9/23                                                                                                  83/11/ 3     9/23

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.83              SE =   1.00              SE =   2.56   QUALITY = 8
                                              AZ =   -11.              AZ =  -101.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103  923 45.18 44N 9.60 113W58.35  12.43        13  8 121 1 0.10  1.0  2.6 8 8|8 1.02 10 26 0.00 0.08  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.154          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   4.1 319 160 47.39 P 0        2.21  2.28              -0.07 1.035       0.00-45.18  3.99-49.17 0.000
WSUI   7.0  23 148 47.80 P 0        2.62  2.48               0.14 1.035       0.00-45.18  4.34-49.52 0.000
M-2    8.1  88 144 47.90 PC0        2.72  2.58  0.17        -0.03 1.035       0.00-45.18  4.52-50.00 0.000
NSUI   9.4  20 140 47.94 PC0        2.76  2.71               0.05 1.035      47.99  2.81  4.75 -1.94 0.000
MBAI  10.8 109 136 48.09 PC0        2.91  2.86               0.05 1.035       0.00-45.18  5.01-50.19 0.000
NWSI  11.2 340 135 48.00 PD0        2.82  2.91              -0.09 1.035       0.00-45.18  5.10-50.28 0.000
DSPI  13.0  60 130 48.32 PD0        3.14  3.12               0.02 1.035      49.10  3.92  5.47 -1.55 0.000
M-1   13.3 139 129 48.41 PD0        3.23  3.16  0.30        -0.23 1.035       0.00-45.18  5.53-51.24 0.000
BSU3  15.2 343 125 48.56 P 0        3.38  3.40              -0.02 1.035       0.00-45.18  5.94-51.12 0.000
BRPI  15.7 174 124 48.77 P+0        3.59  3.47               0.12 1.035      50.75  5.57  6.07 -0.50 0.000
LSGS  20.7  92 116 49.43 PC0        4.25  4.17               0.08 1.035       0.00-45.18  7.30-52.48 0.000
BRCI  20.8 198 116 49.41 PC0        4.23  4.18               0.05 1.035      50.96  5.78  7.32 -1.54 0.000
MDCI  45.5 116 100 53.12 P-1        7.94  8.04              -0.10 0.582      58.07 12.89 14.07 -1.18 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    NW    SW     E    SE     N
AVE. OF END POINTS                 0.22  0.48  0.54  0.55  0.55  0.68  0.73

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                13      0.10      0.18      0.56         8
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    10/45                                                                                 83/11/ 3    10/45

                                                  HORIZONTAL                                VERTICAL
                                            SE =    0.70              SE =    1.00            SE =    1.43    QUALITY = A
                                            AZ =     -7.              AZ =   -97.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 1045 13.21 44N12.32 114W 2.68    7.69    2.89 31  6  76 1 0.19  1.0  1.4 B 8|A 0.16 10 62 0.00 0.14  0  0.0  0.0 13  2.9  0.3
SE OF ORIG =  0.069          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   3.6 122 152 14.81 PD0        1.60  1.54              0.05 1.035       0.00-13.21  2.70-15.91 0.000            174        1
NWSI   5.8  19 138 14.90 PD0        1.69  1.75             -0.06 1.035       0.00-13.21  3.07-16.28 0.000            174        1
843    6.4  24 135 15.15 P 0        1.94  1.82              0.12 1.035      16.62  3.41  3.18  0.23 0.724            174        1
816    7.4 106 130 15.17IPD        1.96  1.94              0.02 1.035                                                  174  58 2.71
842    7.5 130 130 17.54 P 4        4.33  1.94              2.39 0.000       0.00-13.21  3.39-16.61 0.000            174        1
WSUI   8.6  81 125 15.61 PD0        2.40  2.07              0.33 1.035       0.00-13.21  3.62-16.83 0.000            174        1
8SU3   9.6   8 121 15.46 PC0        2.25  2.22              0.03 1.035       0.00-13.21  3.89-17.10 0.000            174        1
NSUI   9.8  67 120 15.41 P 0        2.20  2.25             -0.05 1.035       0.00-13.21  3.93-17.15 0.000            174        1
817   11.6 332 114 15.65IPD        2.44  2.51             -0.07 1.035                                                  174  41 2.41
815   12.8 256 110 16.05IPD        2.84  2.70              0.14 1.035                                                  174  50 2.61
M-2   14.6 109 105 16.30 PC0        3.09  2.98  0.17       -0.06 1.035       0.00-13.21  5.21-18.72 0.000            174        1
84    15.7  94 103 16.24EPC        3.03  3.14             -0.11 1.035                                                  174  55 2.71
844   15.8  11 102  0.00 P 4      -13.21  3.17            -16.38 0.000      18.44  5.23  5.54 -0.31 0.724            174        1
DSPI  17.1  85 100 16.44 PD0        3.23  3.36             -0.13 1.035       0.00-13.21  5.87-19.08 0.000            174        1
M8AI  18.0 118  98 16.73 PD0        3.52  3.52              0.00 1.035       0.00-13.21  6.16-19.38 0.000            174        1
M-1   20.9 136  96 17.22 PC0        4.01  3.98  0.30       -0.28 1.035       0.00-13.21  6.97-20.71 0.000            174        1
8RPI  21.9 160  95 17.45 PC0        4.24  4.14              0.10 1.035      20.35  7.14  7.25 -0.11 0.000            174        1
81    21.9 358  95 17.16IPC        3.95  4.15             -0.20 1.035                                                  174  65 2.91
8RCI  24.8 182  94 17.80 PC0        4.59  4.60             -0.01 1.035      20.30  7.09  8.06 -0.97 0.000            174        1
812   25.2 183  94 17.84IPC        4.63  4.67             -0.04 1.035                                                  174        1
LSGS  27.0 102  93 18.03 P 0        4.82  4.97             -0.15 1.035       0.00-13.21  8.70-21.91 0.000            174        1
LCRI  29.9 127  93 18.30 P 0        5.09  5.44             -0.35 1.035       0.00-13.21  9.51-22.72 0.000            174        1
811   34.8 147  92 19.31EPC        6.10  6.23             -0.13 1.035                                                  174  51 2.71
86    45.8 125  91 21.20EP         7.99  8.03             -0.04 1.035                                                  174  32 2.41
88    49.1 142  91 21.74EPD        8.53  8.56             -0.03 1.035                                                  174        1
MDCI  52.9 118  91 22.09 PD1        8.88  9.17             -0.30 0.582       0.00-13.21 16.05-29.27 0.000            174        1
87    56.2 137  91 23.24EP         10.03  9.71  0.28        0.04 1.035                                                  174  57 2.91
MPI   93.7 126  91 29.60 P 0       16.39 15.79              0.60 1.035       0.00-13.21 27.63-40.84 0.000            174  53 3.01
MLPM 103.2  51  90 30.60 PC0       17.39 17.33              0.06 1.035       0.00-13.21 30.33-43.54 0.000            174        1
JGI  110.2  97  65 31.85 P 0       18.64 18.44              0.20 1.035       0.00-13.21 32.27-45.48 0.000            174  58 3.11
BLCM 121.1  52  65 33.50 PC0       20.29 20.03              0.26 1.035       0.00-13.21 35.05-48.26 0.000            174        1
CIB  125.9 135  65 34.40 P 0       21.19 20.75              0.44D0.000       0.00-13.21 36.31-49.52 0.000            174  62 3.21
GBI  160.5  99  65 39.43 P 0       26.22 25.83              0.39D0.000       0.00-13.21 45.20-58.41 0.000            174  64 3.41
TMI  198.2 120  50 44.73 P 0       31.52 31.33              0.19D0.000       0.00-13.21 54.82-68.03 0.000            174  68 3.51
LRM  219.3  35  50 46.60 PD0       33.39 33.96             -0.57D0.000       0.00-13.21 59.43-72.64 0.000            174        1
IMW  251.0  98  50 52.38 P 0       39.17 37.93              1.24D0.000       0.00-13.21 66.38-79.59 0.000            174        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW    NE     E    SW    SE     N
AVE. OF END POINTS                 0.39  0.57  0.58  0.59  0.62  0.83  0.88

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                31      0.19      0.46      0.67         A
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    11/52                                                                                 83/11/ 3    11/52

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.59                SE =   0.80              SE =   1.91   QUALITY = A
                                            AZ =    -7.                AZ =   -97.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 1152  9.13 44N 8.51 113W58.95  13.58        13  9 142 1 0.07  0.8  1.9 B A|C 1.06 10 26 0.00 0.06  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.118          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   5.5 340 157 11.55 PDO        2.42  2.53             -0.12 1.000       0.00 -9.13  4.44-13.57 0.000
WSUI   9.2  22 144 11.91 PCO        2.78  2.84             -0.06 1.000       0.00 -9.13  4.96-14.10 0.000
M-2    9.2  75 144 12.10 PCO        2.97  2.84  0.17       -0.04 1.000       0.00 -9.13  4.97-14.40 0.000
YBAI  11.1  97 138 12.26 PDO        3.13  3.03              0.09 1.000       0.00 -9.13  5.31-14.44 0.000
NSUI  11.6  21 137 12.22 PCO        3.09  3.09              0.00 1.000      13.93  4.80  5.40 -0.61 0.000
M-1   12.5 130 134 12.62 PDO        3.49  3.19  0.30        0.00 1.000       0.00 -9.13  5.58-15.24 0.000
NWSI  12.9 346 133 12.38 PDO        3.25  3.24              0.00 1.000      13.02  3.89  5.67 -1.79 0.000
BRPI  13.8 170 131 12.55 P-0        3.42  3.34              0.07 1.000      14.05  4.92  5.85 -0.94 0.000
OSPI  14.8  55 129 12.61 PCO        3.48  3.46              0.01 1.000      14.33  5.20  6.06 -0.86 0.000
SSU3  17.0 347 125 12.95 P 0        3.82  3.73              0.08 1.000       0.00 -9.13  6.54-15.67 0.000
BRCI  18.6 198 122 13.10 P-0        3.97  3.97              0.00 1.000      15.30  6.17  6.95 -0.78 0.000
LSGS  21.6  86 118 13.62 PCO        4.49  4.39   .          0.10 1.000       0.00 -9.13  7.68-16.81 0.000
MDCI  45.4 113 101 17.05 PDO        7.92  8.05             -0.13 1.000      19.73 10.60 14.08 -3.49 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                 0.24  0.50  0.51  0.55  0.56  0.68  0.74

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                13      0.07      0.21      0.56         B

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 3    12/18                                                                                                  83/11/ 3    12/18

                                                    HORIZONTAL                                  VERTICAL
                                              SE =    0.97              SE =    1.03              SE =    1.35   QUALITY = A
                                              AZ =    -28.              AZ =   -118.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADj IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 1218 35.88 44N20.90 114W 4.69   7.47   2.33 12  6 170 1 0.10  1.0  1.3 C B|C 0.14 10 12 0.00 0.08  0  0.0  0.0  7  2.3  0.1
SE OF ORIG =  0.092          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B44    5.7  93 137 37.57IP          1.69  1.71             -0.02 1.053      38.85  2.97  2.99 -0.02 0.737          176        1
B17    6.3 206 134 37.65IPD         1.77  1.78             -0.01 1.053                                              176  30 2.21
B1     6.3  17 134 37.71IPC         1.83  1.78              0.05 1.053                                              176  43 2.51
B43   11.4 152 113 38.39IP          2.51  2.47              0.04 1.053      40.20  4.32  4.31  0.00 0.737          176        1
B16   20.4 151  94 39.69EPC         3.81  3.89             -0.08 1.053                                              176  30 2.21
B15   21.3 207  94 39.84EPC         3.96  4.03             -0.07 1.053                                              176  36 2.41
B4    24.9 133  92 40.34EPC         4.46  4.62             -0.16 1.053                                              176  34 2.31
B11   50.0 154  91 44.75EPC         8.87  8.70              0.16 1.053                                              176        1
B6    58.3 137  91 45.86EPD         9.98 10.05             -0.07 1.053                                              176  25 2.21
B8    63.8 149  91 47.00EPC        11.12 10.94              0.18 1.053                                              176  39 2.61

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SW     N    NW    NE    SE     Z     E
AVE. OF END POINTS                 0.09  0.11  0.15  0.16  0.18  0.22  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  8      0.10      0.01      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.42	SE =	0.61	SE = 0.52 QUALITY = A
AZ =	-19.	AZ =	-109.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	1233 3.05	44N16.09	114W	1.28 5.69	2.19	14	9	112	1	0.08	0.6	0.5	B	A18	0.07	10	14	0.00	0.07	0	0.0	0.0	7	2.2	0.2

SE OF ORIG = 0.032 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B43	1.4	145	166	4.16IP	1.11	1.08		0.03	1.045		5.00	1.95	1.89	0.06	0.731				177			1
B17	8.0	294	124	4.75EPC	1.70	1.80		-0.10	1.045										177		23	1.91
B44	8.7	8	122	5.06IP	2.01	1.90		0.12	1.045		6.27	3.22	3.32	-0.10	0.731				177			1
B16	10.5	150	117	5.19IPC	2.14	2.18		-0.04	1.045										177		29	2.11
B1	15.2	350	109	6.04IPC	2.99	2.96		0.03	1.045										177			1
B4	15.9	120	108	6.03EPC	2.98	3.09		-0.11	1.045										177		32	2.21
B15	17.5	235	106	6.45EPD	3.40	3.36		0.04	1.045										177		29	2.21
B12	32.3	186	65	8.91IPD	5.86	5.93		-0.06	1.045										177			1
B11	40.0	155	65	10.21EPC	7.16	7.18		-0.02	1.045										177			1
B6	48.8	133	65	11.60EPC	8.55	8.61		-0.06	1.045										177		20	1.91
B8	53.8	148	65	12.52EPD	9.47	9.42		0.05	1.045										177		33	2.41
B7	60.3	143	65	13.94EPC	10.89	10.48	0.28	0.13	1.045										177		38	2.51

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	E	SW	Z	NW	NE
AVE. OF END POINTS	0.08	0.13	0.13	0.14	0.14	0.16	0.20

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.08	0.02	0.14	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 3 12/51 83/11/ 3 12/51

	HORIZONTAL		VERTICAL	
SE =	1.07	SE =	1.53	SE = 2.17 QUALITY = A
AZ =	-6.	AZ =	-96.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	1251	9.08 44N	9.80 113W	59.17	7.96	3.75	16	10	135	1	0.18	1.5	2.2	8	818	0.06	10	48	0.00	0.14	0	0.0	0.0	4	3.7	0.2

SE OF ORIG = 0.103 9 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.2	330	156	10.88	PDO		1.80	1.55			0.25	1.000		0.00	-9.08	2.71	-11.79	0.000							
WSUI	7.2	32	132	11.10	PDO		2.02	1.93			0.09	1.000		0.00	-9.08	3.38	-12.46	0.000							
NSUI	9.5	27	123	11.28	PDO		2.20	2.23			-0.03	1.000		0.00	-9.08	3.91	-12.99	0.000							
NWSI	10.5	345	119	11.30	PDO		2.22	2.37			-0.15	1.000		0.00	-9.08	4.15	-13.23	0.000							
MBAI	11.9	109	114	11.77	PDO		2.69	2.58			0.11	1.000		0.00	-9.08	4.51	-13.59	0.000							
DSPI	13.8	63	109	11.94	PDO		2.86	2.86			0.00	1.000		0.00	-9.08	5.00	-14.08	0.000							
BSU3	14.6	347	107	11.95	PDO		2.87	2.97			-0.10	1.000		0.00	-9.08	5.20	-14.28	0.000							
BRPI	16.2	170	104	12.40	PCO		3.32	3.23			0.09	1.000		14.50	5.42	5.66	-0.24	0.000							
BRCI	20.8	195	98	12.90	PCO		3.82	3.97			-0.15	1.000		0.00	-9.08	6.95	-16.03	0.000							
LSGS	21.8	92	97	13.20	PDO		4.12	4.13			-0.01	1.000		0.00	-9.08	7.23	-16.31	0.000							
LCRI	23.4	125	96	13.20	P 0		4.12	4.39			-0.27	1.000		0.00	-9.08	7.68	-16.76	0.000							
MOCI	46.6	116	92	16.84	PCO		7.76	8.15			-0.39	1.000		0.00	-9.08	14.26	-23.34	0.000							
MPI	87.2	125	91	24.01	P 0		14.93	14.75			0.18	1.000		0.00	-9.08	25.81	-34.89	0.000					102	3.5	
MLPM	102.6	48	91	29.80	PCO		20.72	17.25			3.47	M0.000		0.00	-9.08	30.19	-39.26	0.000							
JGI	105.1	94	91	26.72	PCO		17.64	17.65			-0.01	1.000		0.00	-9.08	30.89	-39.97	0.000					108	3.6	
CIB	119.3	135	65	29.14	PDO		20.06	19.75			0.31	1.000		0.00	-9.08	34.57	-43.65	0.000							
BLCM	120.5	49	65	29.10	PCO		20.02	19.92			0.10	1.000		0.00	-9.08	34.87	-43.94	0.000							
GBI	155.2	97	65	34.51	PCO		25.43	25.03			0.40	D0.000		0.00	-9.08	43.81	-52.89	0.000					110	3.8	
TMI	192.0	120	65	39.33	P 0		30.25	30.45			-0.20	D0.000		0.00	-9.08	53.28	-62.36	0.000					126	4.1	
LRM	220.5	33	50	42.50	P 0		33.42	34.09			-0.67	M0.000		0.00	-9.08	59.66	-68.74	0.000							
BUT	234.1	29	50	47.80	P 0		38.72	35.79			2.93	M0.000		71.10	62.02	62.63	-0.61	0.000							
IMW	246.2	97	50	47.29	P 0		38.21	37.30			0.91	M0.000		0.00	-9.08	65.27	-74.35	0.000							
MSO	296.3	1	50	52.50	P 0		43.42	43.56			-0.14	D0.000		0.00	-9.08	76.23	-85.31	0.000							
SXM	310.4	45	50	0.60	P 0		51.52	45.33			6.19	M0.000		0.00	50.92	79.33	-28.41	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	SW	E	Z	N	SE	NW
AVE. OF END POINTS	0.04	0.06	0.07	0.07	0.08	0.10	0.11

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.18	-0.01	0.08	D

xx

xx

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
```

HORIZONTAL		VERTICAL		
SE = 1.09	SE = 2.68	SE = 1.18	QUALITY = B	
AZ = 10.	AZ = -80.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	1414 18.06	44N14.58	114W 5.34	5.90	4.19	18	9	228	1	0.17	2.7	1.2	D	C|D	0.08	10	64	0.00	0.14	0	0.0	0.0	3	4.2	0.2

SE OF ORIG = 0.197 6 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTDB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.6	76	135	19.50	P 0		1.44	1.50			-0.06	1.000		0.00-18.06		2.62-20.68		0.000							
BSU3	7.2	42	128	19.70	PC0		1.64	1.71			-0.07	1.000													
ANPI	9.0	133	122	20.34	P 0		2.28	1.97			0.31	1.000		0.00-18.06		3.45-21.51		0.000							
WSUI	12.3	103	114	20.61	PC0		2.55	2.50			0.05	1.000													
NSUI	12.6	92	113	20.60	P 0		2.54	2.55			0.00	1.000		0.00-18.06		4.45-22.51		0.000							
M-2	19.5	117	105	21.90	PC0		3.84	3.72	0.17		-0.05	1.000		0.00-18.06		6.51-24.86		0.000							
DSPI	20.7	97	104	21.84	P 0		3.78	3.92			-0.14	1.000		0.00-18.06		6.87-24.93		0.000							
MBAI	23.2	123	103	22.52	P 0		4.46	4.36			0.10	1.000		0.00-18.06		7.63-25.68		0.000							
M-1	26.4	137	101	23.22	PC0		5.16	4.91	0.30		-0.05	1.000		0.00-18.06		8.59-27.17		0.000							
BRPI	27.1	156	101	23.15	P 0		5.09	5.03			0.06	1.000		26.65	8.59	8.81	-0.22	0.000							
BRCI	29.1	174	100	23.30	P 0		5.24	5.38			-0.14	1.000		0.00-18.06		9.41-27.47		0.000							
LSGS	31.6	108	65	23.72	P 0		5.66	5.79			-0.13	1.000		0.00-18.06		10.14-28.19		0.000							
LCRI	35.3	129	65	24.30	PD0		6.24	6.40			-0.16	1.000		0.00-18.06		11.20-29.26		0.000							
MDCI	58.0	120	65	27.79	P 0		9.73	10.09			-0.36	1.000		0.00-18.06		17.66-35.72		0.000							
MPI	99.0	127	65	35.13	P 0		17.07	16.74			0.33	1.000		0.00-18.06		29.30-47.36		0.000							
MLPM	103.5	55	65	35.43	PC0		17.37	17.47			-0.09	1.000		0.00-18.06		30.56-48.62		0.000							
JGI	114.1	98	55	37.42	PC0		19.36	19.17			0.19	1.000		0.00-18.06		33.54-51.60		0.000							
BLCM	121.2	54	55	38.48	PC0		20.42	20.22			0.20	1.000		0.00-18.06		35.38-53.44		0.000							
CIB	131.4	135	55	40.31	PC0		22.25	21.71			0.54	M0.000		0.00-18.06		38.00-56.06		0.000					136	3.9	
GBI	164.7	100	55	45.30	PD0		27.24	26.60			0.64	M0.000		0.00-18.06		46.55-64.61		0.000					185	4.3	
TID	169.6	241	55	46.09	PC0		28.03	27.33			0.70	M0.000		0.00-18.06		47.83-65.89		0.000							
CPI	181.9	257	55	46.79	P 0		28.73	29.14			-0.41	C0.000		0.00-18.06		50.99-69.05		0.000							
CMI	199.0	81	44	50.30	P 0		32.24	31.65			0.60	M0.000		0.00-18.06		55.38-73.44		0.000							
TMI	203.4	121	44	50.43	P 0		32.37	32.19			0.18	C0.000		0.00-18.06		56.33-74.39		0.000					181	4.4	
KCI	204.7	108	44	51.10	P 0		33.04	32.35			0.69	M0.000		0.00-18.06		56.61-74.67		0.000							
LRM	217.9	36	44	51.30	P 0		33.24	34.00			-0.76	M0.000		0.00-18.06		59.51-77.57		0.000							
BUT	230.5	31	44	53.10	P 0		35.04	35.58			-0.54	M0.000		0.00-18.06		62.26-80.32		0.000							
API	238.9	244	44	54.79	PC0		36.73	36.63			0.10	D0.000		0.00-18.06		64.11-82.17		0.000							
IMW	255.1	99	44	57.90	P 0		39.84	38.66			1.18	M0.000		0.00-18.06		67.65-85.71		0.000							
NPI	265.5	151	44	0.17	P 3		42.11	39.95			2.16	M0.000		0.00 41.94		69.92-27.98		0.000							
MSO	287.7	2	44	59.50	P 0		41.44	42.73			-1.29	M0.000		0.00-18.06		74.77-92.83		0.000							
SXM	310.1	47	44	3.40	P 0		45.34	45.52			-0.18	C0.000		0.00 41.94		79.66-37.72		0.000							
NCM	328.6	354	44	5.20	PC0		47.14	47.84			-0.70	M0.000		0.00 41.94		83.72-41.78		0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	Z	E	SE	N	NE	SW
AVE. OF END POINTS	0.03	0.06	0.07	0.08	0.08	0.12	0.13

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.17	-0.05	0.08	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 3    15/47                                                                                                  83/11/ 3    15/47

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    1.33              SE =    2.46              SE =    1.59   QUALITY = A
                                            AZ =      5.              AZ =    -85.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 1547 29.72 44N14.70 114W 2.16   5.70   4.12 18  7 184 1 0.23  2.5  1.6 D C|D 0.56 10 56 0.00 0.18  0  0.0  0.0  4  4.1  0.2
SE OF ORIG =  0.170          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   1.6  48 164 30.60 PD0        0.88  1.09              -0.21 1.000       0.00-29.72  1.92-31.63 0.000
BSU3   5.1   7 137 31.15 PD0        1.43  1.41               0.02 1.000       0.00-29.72  2.47-32.19 0.000
ANPI   6.8 159 129 31.54 PD0        1.82  1.63               0.20 1.000       0.00-29.72  2.85-32.56 0.000
WSUI   8.3 111 123 31.80 P 0        2.08  1.85               0.24 1.000       0.00-29.72  3.23-32.95 0.000
NSUI   8.4  94 123 31.55 PD0        1.83  1.86              -0.02 1.000       0.00-29.72  3.25-32.96 0.000
M-2   16.0 125 108 33.00 PD0        3.28  3.10  0.17         0.01 1.000       0.00-29.72  5.43-35.45 0.000
DSPI  16.6 100 107 32.85 P 0        3.13  3.20              -0.07 1.000       0.00-29.72  5.60-35.32 0.000
MBAI  20.0 130 104 33.51 PD0        3.79  3.78               0.01 1.000       0.00-29.72  6.62-36.33 0.000
M-1   23.9 145 102 34.62 PC0        4.90  4.46  0.30         0.14 1.000       0.00-29.72  7.81-38.05 0.000
BRPI  25.9 165 101 34.65 PC0        4.93  4.82               0.12 1.000       0.00-29.72  8.43-38.15 0.000
LSGS  27.6 111 100 34.57 PD0        4.85  5.12              -0.26 1.000       0.00-29.72  8.96-38.67 0.000
BRCI  29.2 183 100 35.00 PC0        5.28  5.41              -0.12 1.000       0.00-29.72  9.46-39.18 0.000
LCRI  32.3 134  65 35.28 PD0        5.56  5.92              -0.36 1.000       0.00-29.72 10.37-40.08 0.000
MDCI  54.5 123  65 38.79 PD0        9.07  9.53              -0.46 1.000       0.00-29.72 16.69-46.40 0.000
MPI   95.8 128  65 46.34 PD0       16.62 16.23               0.39 1.000      57.17 27.45 28.40 -0.95 0.000
MLPM  99.9  53  65 46.47 PC0       16.75 16.90              -0.15 1.000       0.00-29.72 29.58-59.30 0.000
JGI  110.0  99  65 48.51 PD0       18.79 18.53               0.26 1.000       0.00-29.72 32.43-62.15 0.000
BLCM 117.7  53  55 49.70 PC0       19.98 19.72               0.27 1.000       0.00-29.72 34.50-64.22 0.000
CIB  128.6 137  55 51.87 PD0       22.15 21.32               0.83D0.000      67.75 38.03 37.31  0.72 0.000                 128 3.8
GBI  160.5 100  55 56.43 P 0       26.71 26.01               0.70D0.000       0.00-29.72 45.52-75.24 0.000                 133 4.0
TMI  199.9 121  44  1.83 PC0       32.11 31.77               0.34D0.000       0.00 30.28 55.60-25.32 0.000                 148 4.2
LRM  215.3  35  44  3.00 PC0       33.28 33.70              -0.42D0.000       0.00 30.28 58.97-28.69 0.000
BUT  228.2  31  44  4.60 P 0       34.88 35.31              -0.43D0.000      34.80 65.08 61.79  3.29 0.000
IMW  251.0  99  44  9.30 P 0       39.58 38.16               1.42D0.000       0.00 30.28 66.78-36.50 0.000                 162 4.5
NPI  263.7 152  44 11.80 P 0       42.08 39.75               2.33D0.000       0.00 30.28 69.56-39.28 0.000
MSD  287.3   1  44 11.60 P 0       41.88 42.71              -0.82D0.000       0.00 30.28 74.74-44.45 0.000
MLI  291.4 148  44 15.63 P 0       45.91 43.22               2.70D0.000       0.00 30.28 75.63-45.34 0.000
SXM  306.9  46  44 14.70 P 0       44.98 45.15              -0.17D0.000       0.00 30.28 79.01-48.73 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    SW    NW    SE    NE     N
AVE. OF END POINTS                  0.34  0.42  0.42  0.45  0.51  0.57  0.68

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                19      0.23      0.20      0.51         B
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    17/ 0                                                                                 83/11/ 3    17/ 0

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    1.33                SE =    2.60            SE =    2.52   QUALITY = 8
                                            AZ =   -56.                 AZ =     34.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ U SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831103 17 0 13.41 43N51.44 113W39.19  11.03   3.24 24 13 161 1 0.34  2.6  2.5 C C|C 0.66 10 51 0.00 0.25  0  0.0  0.0  6  3.2  0.3
SE OF DRIG =  0.146          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
846    4.1 351 158 15.50EPD1        2.09  2.07                0.02 0.588      17.08  3.67  3.62  0.05 0.732           181        1
87     7.2 112 144 15.55IPD         2.14  2.31  0.28         -0.46 1.045                                              181        1
848   13.2  93 125 17.18 P 0        3.77  2.99                0.77 1.045       0.00-13.41  5.24-18.65 0.000           181        1
811   15.7 307 120 16.67IPD         3.26  3.35               -0.09 1.045                                              181        1
838   16.8 358 118 16.91EPC0        3.50  3.51               -0.01 1.045      19.90  6.49  6.14  0.35 0.732           181        1
MOCI  20.6  48 112 17.15 PC0        3.74  4.07               -0.34 1.045       0.00-13.41  7.13-20.54 0.000           181        1
M-1   29.0 324 104 19.03 PC4        5.62  5.36  0.30         -0.05 0.000       0.00-13.41  9.39-23.32 0.000           181        1
8RPI  30.0 307 103 19.30 P+0        5.89  5.53                0.36 1.045      23.10  9.69  9.67  0.01 0.000           181        1
LSGS  33.4 352 101 19.31 PC0        5.90  6.07               -0.18 1.045       0.00-13.41 10.63-24.04 0.000           181        1
M8AI  33.9 333 101 19.67 PC0        6.26  6.15                0.10 1.045       0.00-13.41 10.77-24.18 0.000           181        1
8RCI  35.1 293 100 20.00 PC0        6.59  6.34                0.25 1.045      24.50 11.09 11.09 -0.01 0.000           181        1
812   35.4 292 100 19.86EPD         6.45  6.39                0.05 1.045                                              181        1
M-2   38.2 333  99 20.40 PC0        6.99  6.84  0.17         -0.02 1.045       0.00-13.41 11.97-25.68 0.000           181        1
84    40.8 337  98 20.63IPC         7.22  7.26               -0.05 1.045                                              181   55 2.81
OSPI  42.6 340  98 21.04 PC0        7.63  7.55                0.07 1.045       0.00-13.41 13.22-26.63 0.000           181        1
WSUI  46.2 330  97 21.00 P 0        7.59  8.12               -0.53 1.045       0.00-13.41 14.21-27.62 0.000           181        1
ANPI  46.4 322  97 20.70 P00        7.29  8.15               -0.87 1.045       0.00-13.41 14.27-27.68 0.000           181        1
MPI   47.5 110  97 21.60 PC0        8.19  8.33               -0.15 1.045       0.00-13.41 14.58-28.00 0.000           181   68 3.01
NWSI  53.1 326  96 23.09 P 0        9.68  9.23                0.45 1.045       0.00-13.41 16.15-29.57 0.000           181        1
81    68.6 332  94 25.22EPC        11.81 11.74                0.07 1.045                                              181        1
CIB   76.6 131  94 26.52 PC0       13.11 13.03                0.07 1.045      34.75 21.34 22.81 -1.47 0.000           181   74 3.21
JGI   82.6  72  93 27.23 PC0       13.82 14.00               -0.18 1.045      35.26 21.85 24.49 -2.65 0.000           181   69 3.21
MLPM 114.3  26  65 32.59 PC0       19.18 18.81                0.37 1.045       0.00-13.41 32.91-46.32 0.000           181        1
GBI  128.5  84  65 34.52 P 0       21.11 20.90                0.21D0.000       0.00-13.41 36.58-49.99 0.000           181   81 3.51
BLCM 130.3  30  65 35.22 PC0       21.81 21.16                0.65D0.000       0.00-13.41 37.02-50.44 0.000           181        1
TMI  152.9 114  65 37.54 P 0       24.13 24.49               -0.36D0.000       0.00-13.41 42.85-56.26 0.000           181   96 3.71
IMW  218.1  89  50 47.17 P 0       33.76 33.47                0.29D0.000       0.00-13.41 58.57-71.98 0.000           181        1
LRM  238.2  24  50 49.50 P 0       36.09 35.98                0.11D0.000       0.00-13.41 62.96-76.37 0.000           181        1

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    NE     N    NW    SE     E
AVE. OF END POINTS                   0.35  0.35  0.42  0.51  0.68  0.72  0.74

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  24      0.34      0.26      0.56         8

------------END----------------------END----------------------END----------------------END-----------
```

	HORIZONTAL		VERTICAL	
SE =	0.51	SE =	0.80	SE = 1.69 QUALITY = A
AZ =	-33.	AZ =	-123.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	1824 15.92	44N 9.86	114W 1.82	7.30	2.75	27	10	90	1	0.15	0.8	1.7	A	A|A	0.22	10	50	0.00	0.12	0	0.0	0.0	12	2.7	0.4

SE OF ORIG = 0.049 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
916	6.5	67	132	17.82IPD	1.90	1.78		0.11	1.023									699	45	2.56	
WSUI	9.4	51	119	18.30 P 0	2.38	2.16		0.21	1.023		0.00	-15.92	3.79	-19.71	0.000			699		6	
NWSI	10.1	4	116	18.19 PD0	2.27	2.25		0.01	1.023		0.00	-15.92	3.94	-19.87	0.000			699		6	
NSUI	11.5	43	111	18.51 PC0	2.59	2.47		0.12	1.023		0.00	-15.92	4.32	-20.24	0.000			699		6	
M-2	12.7	91	107	18.80 PD0	2.88	2.66	0.17	0.04	1.023		0.00	-15.92	4.66	-20.88	0.000			699		6	
815	13.7	276	103	18.73IPC	2.81	2.81		-0.01	1.023									699	45	2.56	
BSU3	14.1	1	102	18.85 P 0	2.93	2.87		0.06	1.023		0.00	-15.92	5.02	-20.94	0.000			699		6	
84	15.0	76	100	18.85IPD	2.93	3.01		-0.09	1.023									699	42	2.56	
MBAI	15.3	105	99	19.11 PD0	3.19	3.07		0.11	1.023		21.00	5.08	5.38	-0.30	0.000			699		6	
317	16.2	336	97	19.02IPC	3.10	3.20		-0.11	1.023		21.45	5.53	5.61	-0.08	0.716			699	32	2.26	
DSPI	17.0	69	96	19.19 PD0	3.27	3.33		-0.07	1.023		0.00	-15.92	5.83	-21.75	0.000			699		6	
M-1	17.0	128	96	19.43 PD0	3.51	3.34	0.30	-0.13	1.023		0.00	-15.92	5.84	-22.29	0.000			699		6	
BRPI	17.2	159	95	19.37 PC0	3.45	3.39		0.06	1.023		21.82	5.90	5.92	-0.03	0.000			699		6	
812	20.7	187	93	19.84IPC	3.92	3.95		-0.04	1.023									699	47	2.66	
LSGS	25.3	92	92	20.51 PD0	4.59	4.70		-0.11	1.023		0.00	-15.92	8.22	-24.14	0.000			699		6	
81	26.6	356	91	20.62IPC	4.70	4.89		-0.20	1.023									699	41	2.56	
811	30.4	144	91	21.36IPD	5.44	5.52		-0.08	1.023									699	42	2.56	
85	34.3	120	91	22.12IP	6.20	6.15		0.05	1.023		26.54	10.62	10.76	-0.15	0.716			699		6	
89	44.2	137	91	23.65EP	7.73	7.76		-0.04	1.023		28.46	12.54	13.58	-1.05	0.000			699	43	2.66	
MDCI	49.9	114	90	24.19 PD0	8.27	8.68		-0.41	1.023		0.00	-15.92	15.19	-31.11	0.000			699		6	
MPI	90.2	124	90	31.31 PD0	15.39	15.23		0.15	1.023		42.96	27.04	26.66	0.38	0.000			699	61	3.16	
MLPM	105.2	49	90	33.50 PC0	17.58	17.66		-0.09	1.023		0.00	-15.92	30.91	-46.84	0.000			699		6	
JGI	108.7	94	90	34.20 P 0	18.28	18.23		0.05	1.023		47.06	31.14	31.90	-0.76	0.000			699	56	3.16	
CI8	121.9	134	65	36.41 P 0	20.49	20.18		0.30	1.023		0.00	-15.92	35.32	-51.24	0.000			699	77	3.46	
BLCM	123.1	50	65	36.52 PC0	20.60	20.35		0.25	1.023		0.00	-15.92	35.61	-51.54	0.000			699		6	
G8I	158.7	97	65	42.53 P 0	26.61	25.60		1.01	D0.000		60.72	44.80	44.79	0.00	0.000			699	72	3.56	
TMI	195.2	119	65	46.98 P 0	31.06	30.96		0.10	D0.000		0.00	-15.92	54.17	-70.10	0.000			699		6	
LRM	222.4	34	50	49.50 PC0	33.58	34.39		-0.82	D0.000		0.00	-15.92	60.18	-76.11	0.000			699		6	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	SW	Z	SE	N	NW	NE
AVE. OF END POINTS	0.08	0.08	0.08	0.11	0.12	0.12	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
9	0.15	0.04	0.10	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 3    18/41                                                                                                  83/11/ 3    18/41

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.41              SE =   0.54              SE =   1.30   QUALITY = A
                                            AZ =   -20.              AZ =  -110.


 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 1841 24.67 44N 4.56 113W54.52   8.53   2.05 16 13  72 1 0.08  0.5  1.3 A A|A 0.11 10 21 0.00 0.07  0  0.0  0.0 14  2.0  0.3
SE OF ORIG =  0.045          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
BRPI   7.2 209 135 26.T1IPD          2.04  2.00              0.04 1.039                                                 200  23 1.92
MBAI   7.8  41 132 26.77IP           2.10  2.07              0.03 1.039                                                 200  26 2.02
B16   12.9 343 115 27.38IPC          2.71  2.75             -0.04 1.039      29.49  4.82  4.81  0.01 0.727             200  28 2.12
B4    14.2  20 112 27.56IPC          2.89  2.96             -0.07 1.039      29.73  5.06  5.18 -0.12 0.727             200  24 2.02
B12   16.3 228 108 27.97IPD          3.30  3.27              0.03 1.039                                                 200  47 2.62
LSGS  17.9  61 105 28.26IPD          3.59  3.53              0.06 1.039      30.51  5.84  6.17 -0.33 0.000             200  19 1.82
NSUI  18.2 354 104 28.25EPC          3.58  3.58              0.00 1.039                                                 200  24 2.02
B5    21.3 111 101 28.81IPD          4.14  4.06              0.08 1.039      31.45  6.78  7.10 -0.32 0.000             200  50 2.72
NWSI  21.8 336 100 28.94IP           4.27  4.14              0.13 1.039                                                 200  11 1.32
BSU3  25.7 338  97 29.50EP           4.83  4.77              0.07 1.039                                                 200  17 1.72
B15   26.0 296  97 29.38EPC          4.71  4.81             -0.10 1.039      32.90  8.23  8.42 -0.19 0.000             200  27 2.12
B17   29.5 326  96 29.93IPD          5.26  5.38             -0.12 1.039                                                 200  18 1.82
B9    30.4 137  95 30.06IPC          5.39  5.53             -0.14 1.039      33.64  8.97  9.68 -0.71 0.000             200  28 2.22
B1    38.1 342  94 31.55IPC          6.88  6.78              0.10 1.039      37.36 12.69 11.86  0.83 0.000             200  28 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    SW    NW     N     Z    NE     E
AVE. OF END POINTS                  0.09  0.14  0.15  0.17  0.17  0.19  0.22


              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  10      0.08      0.05      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    19/56                                                                                                  83/11/ 3    19/56

                                                        HORIZONTAL                                  VERTICAL
                                                SE =    1.64            SE =    2.18            SE =    2.54    QUALITY = B
                                                AZ =     -3.            AZ =   -93.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SOFM
831103 1956 56.71 44N12.81 114W 0.64   7.17   3.40 13  7 162 1 0.21  2.2  2.5 C BIC 0.06 10 32 0.00 0.17  0  0.0  0.0  4  3.4  0.2
SE OF ORIG =  0.149          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   4.7 350 142 58.09 PDO        1.38  1.57              -0.19 1.000       0.00-56.71  2.74-59.45 0.000
WSUI   5.7  85 135 58.70 P 0        1.99  1.68               0.30 1.000       0.00-56.71  2.94-59.66 0.000
NSUI   6.9  66 129 58.63 PDO        1.92  1.82               0.10 1.000       0.00-56.71  3.18-59.90 0.000
BSU3   8.7 351 121 58.95 PCO        2.24  2.05               0.18 1.000       0.00-56.71  3.59-60.31 0.000
M-2   12.5 117 106 59.50 P 0        2.79  2.62  0.17         0.00 1.000       0.00-56.71  4.58-61.59 0.000
DSPI  14.3  88  99 59.24 P 0        2.53  2.91              -0.38 1.000       0.00-56.71  5.08-61.80 0.000
LSGS  24.6 105  91  1.11 P 0        4.40  4.57              -0.18 1.000       0.00  3.29  8.00 -4.71 0.000
BRCI  25.9 188  91  1.26 PCO        4.55  4.78              -0.23 1.000       0.00  3.29  8.36 -5.08 0.000
HPI   92.0 127  90 12.38 PCO       15.67 15.52               0.14 1.000      23.38 26.67 27.17 -0.50 0.000                 63 3.1
MLPM 100.5  51  90 13.50 PCO       16.79 16.90              -0.11 1.000       0.00  3.29 29.57-26.29 0.000
JGI  107.5  97  90 14.75 PCO       18.04 18.03               0.00 1.000      28.19 31.48 31.55 -0.08 0.000                 75 3.3
BLCM 118.4  51  65 16.41 PCO       19.70 19.67               0.03 1.000       0.00  3.29 34.42-31.14 0.000
CIB  124.7 136  65 17.65 PDO       20.94 20.60               0.34 1.000       0.00  3.29 36.05-32.76 0.000                 85 3.5
GBI  157.9  99  65 23.34 P 0       26.63 25.49               1.14M0.000      41.54 44.83 44.61  0.22 0.000
TMI  196.3 121  65 27.80 P 0       31.09 31.13              -0.05D0.000       0.00  3.29 54.48-51.19 0.000                 86 3.7
LRM  217.0  35  50 29.50 PCO       32.79 33.73              -0.94M0.000       0.00  3.29 59.03-55.74 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     Z    NE     E    SW    NW     N
AVE. OF END POINTS                -0.03 -0.01  0.00  0.03  0.03  0.06  0.07

            NUMBER        RMS  MIN DRMS  AVE DRMS   QUALITY
                 6       0.21     -0.04      0.03         D
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    20/26                                                                                  83/11/ 3    20/26

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.47                SE =   0.73              SE =   1.46   QUALITY = A
                                            AZ =   -32.                AZ =  -122.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831103 2026 53.84 44N 9.62 113W58.88   7.86   2.96 30  9  79 1 0.16  0.7  1.5 B B|A 0.12 10 63 0.00 0.12  0  0.0  0.0  8  3.0  0.4
SE OF ORIG =  0.048          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.6  35 152 55.49IPD         1.65  1.57              0.08 1.047      59.19  5.35  2.74  2.60 0.000                 58 2.7
WSUI   7.2  28 132 55.90 P 0         2.06  1.93              0.12 1.047       0.00-53.84  3.38-57.22 0.000
M-2    8.8  88 125 56.05 PC0         2.21  2.12  0.17       -0.06 1.047       0.00-53.84  3.70-57.84 0.000
NSUI   9.6  24 122 56.13 PC0         2.29  2.24              0.05 1.047       0.00-53.84  3.92-57.76 0.000
NWSI  11.0 343 117 56.29 PC0         2.45  2.42              0.03 1.047       0.00-53.84  4.24-58.08 0.000
843   11.1 347 117 56.41IP           2.57  2.44              0.13 1.047      58.27  4.43  4.27  0.16 0.733
84    11.3  69 116 56.23IPC         2.39  2.47             -0.09 1.047                                 48 2.6
M8AI  11.4 108 115 56.42 PC0         2.58  2.50              0.07 1.047       0.00-53.84  4.38-58.22 0.000
OSPI  13.6  61 109 56.44 PC0         2.60  2.82             -0.22 1.047       0.00-53.84  4.94-58.78 0.000
M-1   13.8 137 109 57.03 PD0         3.19  2.85  0.30        0.03 1.047       0.00-53.84  4.99-59.36 0.000
8SU3  15.0 345 106 56.55 PC0         2.71  3.04             -0.33 1.047       0.00-53.84  5.32-59.16 0.000
8RPI  15.8 172 104 57.17 PD0         3.33  3.17              0.16 1.047       0.00-53.84  5.55-59.39 0.000
845   17.5 320 101 57.30IP           3.46  3.43              0.03 1.047      59.85  6.01  6.01  0.00 0.733
815   17.7 276 101 57.47IPC         3.63  3.46              0.17 1.047      60.07  6.23  6.05  0.18 0.000
817   18.5 325  99 57.44IPC         3.60  3.58              0.01 1.047                                 38 2.4
8RCI  20.6 196  97 57.46 PC0         3.62  3.94             -0.32 1.047       0.00-53.84  6.89-60.73 0.000
844   20.7 354  97  0.00IP 4       -53.84  3.94            -57.79 0.000      60.46  6.62  6.30 -0.29 0.733
812   21.2 197  97 57.87IPD         4.03  4.03              0.00 1.047      61.07  7.23  7.04  0.18 0.000
LSGS  21.4  92  96 57.81 PC0         3.97  4.07             -0.10 1.047       0.00-53.84  7.11-60.96 0.000
81    27.5 348  94 58.84IPD         5.00  5.06             -0.06 1.047                                 50 2.7
811   27.9 150  94 59.04IPD         5.20  5.12              0.08 1.047      64.26 10.42  8.95  1.46 0.000
85    30.7 123  93 59.42IPC         5.58  5.57              0.00 1.047      63.24  9.40  9.75 -0.36 0.000                 96 3.3
89    41.3 140  92 60.96EPC         7.12  7.28             -0.16 1.047      64.63 10.79 12.74 -1.96 0.000                 70 3.0
MDCI  46.1 116  92  1.53 PC1         7.69  8.07             -0.38 0.589       0.00  6.16 14.11 -7.96 0.000
MPI   86.7 125  91  8.75 PC0        14.91 14.67              0.24 1.047      18.83 24.99 25.66 -0.68 0.000                 82 3.3
MLPM 102.6  48  91 11.20 PC0        17.36 17.24              0.12 1.047       0.00  6.16 30.16-24.01 0.000
JGI  104.7  94  91 11.52 PC0        17.68 17.59              0.09 1.047       0.00  6.16 30.78-24.62 0.000
CI8  118.8 135  65 14.08 PC0        20.24 19.69              0.55M0.000      29.35 35.51 34.45  1.06 0.000                111 3.7
8LCM 120.4  49  65 14.02 PC0        20.18 19.92              0.26 1.047       0.00  6.16 34.86-28.70 0.000
GBI  154.8  97  65 18.90 P 0        25.06 24.98              0.08D0.000       0.00  6.16 43.71-37.55 0.000
TMI  191.5 120  65 24.04 P 0        30.20 30.38             -0.18D0.000       0.00  6.16 53.17-47.01 0.000
LRM  220.6  33  50 27.60 P 0        33.76 34.11             -0.35D0.000       0.00  6.16 59.69-53.54 0.000
IMW  245.8  97  50 32.53 P 0        38.69 37.25              1.43M0.000       0.00  6.16 65.20-59.04 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N    SE    NW    NE     I     E    SW
AVE. OF END POINTS                   0.02  0.07  0.10  0.11  0.12  0.14  0.15

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.16      0.00      0.10         D

        ------------END----------------------END----------------------END----------------------END------------
```

```
-----------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    21/40                                                                                  83/11/ 3    21/40

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.35              SE =    0.40              SE =    0.59   QUALITY = A
                                            AZ =   -36.               AZ =  -126.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 2140 38.55 44N15.41 114W 3.06    8.29   2.27 14  7  68 1 0.06  0.4  0.6 A A|A 0.65 10 20 0.00 0.05  0  0.0  0.0  6  2.3  0.1
SE OF ORIG =  0.035          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
843    3.2  88 157 40.18IPO          1.63  1.60              0.03 1.069      41.35  2.80  2.80  0.01 0.748           701        7
845    6.2 296 138 40.42EPD          1.87  1.87              0.00 1.069      41.88  3.33  3.27  0.06 0.748           701        7
817    6.7 312 136 40.44IPD          1.89  1.92             -0.02 1.069                                               701        7
844   10.4  20 121 40.89IP           2.34  2.39             -0.05 1.069      42.69  4.14  4.18 -0.04 0.748           701        7
816   10.9 135 120 40.95IPD          2.40  2.45             -0.05 1.069      42.39  3.84  4.29 -0.45 0.000           701  31 2.27
815   14.8 234 109 41.57IPC          3.02  3.03             -0.01 1.069                                               701  30 2.27
81    16.2 359 106 41.84IPC          3.29  3.24              0.05 1.069      44.37  5.82  5.67  0.15 0.000           701  34 2.37
84    17.5 112 104 41.95IPC          3.40  3.45             -0.05 1.069      44.24  5.69  6.04 -0.35 0.000           701  31 2.27
812   30.9 181  94 44.05IPD          5.50  5.61             -0.10 1.069                                               701        7
811   40.0 151  93 46.02EP 4        7.47  7.08              0.39 0.000      51.16 12.61 12.39  0.22 0.000           701  31 2.37
85    41.7 131  93 45.98IPD          7.43  7.36              0.08 1.069                                               701        7
89    53.1 143  92 47.86EP           9.31  9.21              0.10 1.069      54.31 15.76 16.11 -0.35 0.000           701  31 2.47

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    NW     E    SW     N    SE
AVE. OF END POINTS                 0.55  0.68  0.75  0.84  0.85  1.03  1.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  14      0.06      0.54      0.86         A
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 3    22/ 9                                                                                                  83/11/ 3    22/ 9

                                                     HORIZONTAL                                   VERTICAL
                                                SE =   0.52                SE =   0.85              SE =   1.01   QUALITY = A
                                                AZ =   -30.                AZ =  -120.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831103 22 9 24.65 44N 6.20 113W57.19  10.38   3.15 30  8  81 1 0.16  0.8  1.0 B BIA 1.27 10 64 0.00 0.12  0  0.0  0.0  4  3.1  0.2
SE OF ORIG =  0.054          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN   DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B37     5.6 141 149 26.76IPDO        2.11  2.08              0.03 1.020      28.33  3.68  3.64  0.04 0.714            201        2
B42     6.7 347 144  0.00 P 4      -24.65  2.19             -26.84 0.000      28.54  3.89  3.82  0.06 0.714            201        2
M-1     8.1 118 138 27.13 PCO        2.48  2.32  0.30       -0.15 1.020       0.00-24.65  4.07-29.25 0.000            201        2
MBAI    9.1  72 135 27.21 PCO        2.56  2.44              0.12 1.020       0.00-24.65  4.26-28.92 0.000            201        2
B16     9.3 359 134 27.19IPD         2.54  2.46              0.08 1.020                                                 201        2
BRPI    9.3 179 134 27.17 PDO        2.52  2.46              0.06 1.020       0.00-24.65  4.30-28.96 0.000            201        2
M-2     9.3  45 134 27.25 PCO        2.60  2.46  0.17       -0.03 1.020       0.00-24.65  4.30-29.26 0.000            201        2
ANPI   10.3 336 131 27.25 P 0        2.60  2.58              0.02 1.020       0.00-24.65  4.51-29.16 0.000            201        2
WSUI   12.8   5 124 27.80 P 0        3.15  2.90              0.25 1.020       0.00-24.65  5.07-29.72 0.000            201        2
B4     13.3  39 122 27.62IPC        2.97  2.97              0.00 1.020                                                 201        2
NSUI   15.2   7 118 27.83 P 0        3.18  3.23             -0.05 1.020       0.00-24.65  5.65-30.30 0.000            201        2
BRCI   15.7 211 117 28.16 PCO        3.51  3.29              0.21 1.020       0.00-24.65  5.76-30.42 0.000            201        2
OSPI   16.1  37 117 28.04 PCO        3.39  3.35              0.03 1.020       0.00-24.65  5.87-30.52 0.000            201        2
B12    16.3 212 116 27.97IPC        3.32  3.38             -0.07 1.020                                                 201        2
NWSI   17.7 342 114 28.09 PDO        3.44  3.59             -0.16 1.020       0.00-24.65  6.29-30.94 0.000            201        2
B43    17.8 345 114 28.30IPDO       3.65  3.61              0.04 1.020      30.90  6.25  6.31 -0.07 0.000            201        2
LSGS   20.0  73 110 28.80 PCO        4.15  3.95              0.20 1.020       0.00-24.65  6.90-31.56 0.000            201        2
B11    21.3 147 108 28.76IPC        4.11  4.15             -0.04 1.020                                                 201        2
B15    21.5 293 108 28.81IPD        4.16  4.17             -0.02 1.020                                                 201        2
BSU3   21.7 344 108 28.75 P 0        4.10  4.20             -0.10 1.020       0.00-24.65  7.35-32.00 0.000            201        2
B45    23.9 326 106 29.11IPDO       4.46  4.54             -0.09 1.020      32.75  8.10  7.95  0.15 0.000            201        2
B17    25.0 329 105 29.24IPD        4.59  4.71             -0.13 1.020                                                 201        2
B5     25.7 114 104 29.40IPC        4.75  4.82             -0.07 1.020      32.46  7.81  8.43 -0.63 0.000            201        2
B38    25.7 114 104  0.00 P 4      -24.65  4.82            -29.47 0.000      32.47  7.82  8.43 -0.62 0.000            201        2
B44    27.2 351 103  0.00 P 4      -24.65  5.06            -29.71 0.000      33.21  8.56  8.85 -0.29 0.000            201        2
B1     34.2 346  99 30.85IPC        6.20  6.18              0.01 1.020      35.55 10.90 10.82  0.07 0.000            201        2
B9     35.1 136  99 30.65EPD        6.00  6.32             -0.32 1.020      34.40  9.75 11.06 -1.31 0.000            201        2
MDCI   41.7 109  97 31.57 PCO        6.92  7.38             -0.47 1.020       0.00-24.65 12.92-37.58 0.000            201        2
MPI    81.3 122  93 38.66 PDO       14.01 13.80              0.20 1.020      46.97 22.32 24.15 -1.84 0.000            201   50 2.92
JGI   102.2  91  65 41.78 P 0       17.13 17.07              0.05 1.020      54.12 29.47 29.88 -0.41 0.000            201   55 3.02
CIB   112.8 134  65 43.61 P 0       18.96 18.62              0.33 1.020      57.01 32.36 32.59 -0.24 0.000            201   62 3.22
GBI   152.1  95  65 49.66 P 0       25.01 24.42              0.59D0.000      66.83 42.18 42.73 -0.55 0.000            201   74 3.52
TMI   186.5 118  65 54.05 P 0       29.40 29.46             -0.07D0.000      76.22 51.57 51.56  0.00 0.000            201        2
LRM   224.8  32  50 58.80 P 0       34.15 34.37             -0.22D0.000       0.00-24.65 60.15-84.80 0.000            201        2
IMW   242.8  95  50  3.13 P 0       38.48 36.63              1.85D0.000       0.00 35.35 64.10-28.76 0.000            201        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    NE     E    NW     N    SE
AVE. OF END POINTS                    0.42  0.57  0.58  0.71  0.77  0.86  0.94

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  30      0.16      0.49      0.72         A
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 3 23/37 83/11/ 3 23/37

	HORIZONTAL	VERTICAL	
SE =	1.02	SE = 1.30	SE = 1.32 QUALITY = A
AZ =	42.	AZ = -48.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831103	2337 8.70	44N20.62	114W 4.69	7.52	2.98	27	7	168	1	0.17	1.3	1.3	C	B|C	0.13	10	57	0.00	0.13	0	0.0	0.0	10	3.0	0.4

SE OF ORIG = 0.109 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
844	5.7	88	138	10.34IP	1.64	1.72		-0.08	1.053		11.62	2.92	3.00	-0.08	0.737				202			2
817	5.9	208	137	10.44IPD	1.74	1.73		0.00	1.053										202	44	2.52	
91	6.8	16	132	10.52IPC	1.82	1.84		-0.03	1.053										202	57	2.72	
8SU3	7.1	146	130	10.95 PD0	2.25	1.87		0.37	1.053		0.00	-8.70	3.28	-11.98	0.000				202			2
NWS1	10.9	155	115	10.99 PD0	2.29	2.40		-0.11	1.053		0.00	-8.70	4.19	-12.90	0.000				202			2
843	10.9	151	114	11.14IP	2.44	2.40		0.03	1.053		13.01	4.31	4.20	0.10	0.737				202			2
WSUI	17.8	142	97	12.05 P 0	3.35	3.48		-0.14	1.053		0.00	-8.70	6.09	-14.80	0.000				202			2
ANPI	18.2	162	97	12.15 P 0	3.45	3.54		-0.10	1.053		0.00	-8.70	6.20	-14.91	0.000				202			2
816	20.0	151	95	12.43EPC	3.73	3.82		-0.10	1.053										202	55	2.72	
815	20.8	208	94	12.69IPC	3.99	3.96		0.02	1.053										202	52	2.72	
DSPI	24.1	125	93	12.94 PC0	4.24	4.48		-0.24	1.053		0.00	-8.70	7.84	-16.54	0.000				202			2
84	24.5	132	93	13.21IPD	4.51	4.56		-0.05	1.053										202	60	2.82	
M-2	26.0	141	93	13.55 P-0	4.85	4.79	0.17	-0.11	1.053		0.00	-8.70	8.38	-17.38	0.000				202			2
MBAI	30.2	142	92	14.25 P-2	5.55	5.50		0.05	0.263		0.00	-8.70	9.62	-18.32	0.000				202			2
M-1	35.0	151	91	15.13 P 0	6.43	6.26	0.30	-0.13	1.053		0.00	-8.70	10.96	-20.19	0.000				202			2
LSGS	35.9	126	91	15.30 PD0	6.60	6.41		0.18	1.053		0.00	-8.70	11.22	-19.93	0.000				202			2
8RPI	37.4	164	91	15.32 PC0	6.62	6.65		-0.04	1.053		0.00	-8.70	11.64	-20.35	0.000				202			2
8RCI	40.2	177	91	15.86 PD0	7.16	7.11		0.05	1.053		0.00	-8.70	12.44	-21.14	0.000				202			2
812	40.6	178	91	15.77IP	7.07	7.17		-0.10	1.053										202			2
811	49.6	154	91	17.56EPC	8.86	8.63		0.23	1.053		23.86	15.16	15.10	0.05	0.000				202	55	2.82	
85	50.0	138	91	17.39EPC	8.69	8.71		-0.02	1.053										202			2
89	62.3	147	91	19.45EPD	10.75	10.69		0.05	1.053		23.83	15.13	18.71	-3.59	0.000				202	65	3.02	
MDCI	63.6	129	91	19.29 P+0	10.59	10.92		-0.33	1.053		26.61	17.91	19.10	-1.20	0.000				202			2
MPI	105.4	132	90	26.75 P 0	18.05	17.70		0.35	1.053		0.00	-8.70	30.97	-39.67	0.000				202	78	3.32	
JGI	115.4	104	65	28.18 P 0	19.48	19.21		0.26	1.053		41.89	33.19	33.63	-0.44	0.000				202	91	3.52	
CIB	138.9	139	65	32.16 P 0	23.46	22.67		0.79	M0.000		49.73	41.03	39.67	1.35	0.000				202	93	3.62	
GBI	165.8	104	65	36.10 P 0	27.40	26.63		0.77	M0.000		55.87	47.17	46.60	0.57	0.000				202			2
LRM	208.3	38	50	41.00 PC0	32.30	32.61		-0.32	D0.000		0.00	-8.70	57.07	-65.77	0.000				202			2
TMI	208.6	124	50	41.97 P 0	33.27	32.65		0.62	M0.000		0.00	-8.70	57.13	-65.84	0.000				202			2
IMW	256.2	101	50	48.31 P 0	39.61	38.60		1.01	M0.000		0.00	-8.70	67.54	-76.25	0.000				202			2
MSO	276.5	2	50	49.20 P 0	40.50	41.13		-0.63	M0.000		0.00	-8.70	71.98	-80.68	0.000				202			2
NCM	317.6	353	50	55.00 P 0	46.30	46.27		0.03	C0.000		0.00	-8.70	80.96	-89.67	0.000				202			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	N	NW	SE	Z	SW	NE
AVE. OF END POINTS	0.06	0.06	0.06	0.07	0.08	0.10	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
18	0.17	0.00	0.08	D

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 4 0/ 2 83/11/ 4 0/ 2

HORIZONTAL		VERTICAL	
SE = 0.33	SE = 0.51	SE = 0.71	QUALITY = A
AZ = -26.	AZ = -116.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	0 2 25.47	44N10.66	114W 0.55	10.94	2.44	27	4	80	1	0.09	0.5	0.7	A	A|A	0.11	10	50	0.00	0.07	0	0.0	0.0	8	2.4	0.2

SE OF ORIG = 0.042 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	1.2	12	173	27.50	P 0		2.03	1.93			0.10	1.052		0.00	-25.47	3.38	-28.85	0.000				203			2
842	3.4	120	162	0.00	EP 4		-25.47	2.01			-27.48	0.000		28.92	3.45	3.52	-0.07	0.736				203			2
816	4.4	77	156	27.52	IPD		2.05	2.07			-0.02	1.052		30.69	5.22	3.63	1.59	0.000				203		39	2.42
WSUI	7.2	51	144	27.80	P 0		2.33	2.30			0.03	1.052		0.00	-25.47	4.02	-29.49	0.000				203			2
NWSI	8.6	354	138	27.89	PDO		2.42	2.45			-0.02	1.052		0.00	-25.47	4.28	-29.75	0.000				203			2
843	8.9	359	137	28.00	IPD		2.53	2.48			0.05	1.052		29.80	4.33	4.34	0.00	0.736				203			2
NSUI	9.2	42	136	28.09	PDO		2.62	2.51			0.11	1.052		29.92	4.45	4.40	0.05	0.000				203			2
M-2	11.1	98	130	28.40	PCO		2.93	2.74	0.17		0.03	1.052		0.00	-25.47	4.79	-30.55	0.000				203			2
8SU3	12.7	353	126	28.45	P 0		2.98	2.92			0.06	1.052		0.00	-25.47	5.11	-30.58	0.000				203			2
84	13.0	81	126	28.41	IPC		2.94	2.96			-0.02	1.052		30.64	5.17	5.18	-0.01	0.000				203		34	2.32
M8AI	14.2	112	123	28.73	PCO		3.26	3.13			0.13	1.052		0.00	-25.47	5.48	-30.95	0.000				203			2
837	14.9	148	121	28.65	EPD		3.18	3.23			-0.05	1.052		31.01	5.54	5.65	-0.11	0.736				203			2
DSPI	14.9	72	121	28.69	PCO		3.22	3.23			-0.01	1.052		30.89	5.42	5.66	-0.23	0.000				203			2
815	15.3	270	120	28.71	IPC		3.24	3.29			-0.05	1.052		31.17	5.70	5.76	-0.06	0.000				203		34	2.32
817	15.6	328	119	28.67	IPD		3.20	3.34			-0.13	1.052		31.16	5.69	5.84	-0.14	0.000				203		32	2.32
M-1	16.7	136	117	29.19	PDO		3.72	3.49	0.30		-0.07	1.052		0.00	-25.47	6.11	-32.10	0.000				203			2
8RPI	18.1	165	115	29.17	PDO		3.70	3.69			0.01	1.052		31.07	5.60	6.46	-0.85	0.000				203			2
8RCI	22.0	189	110	29.76	PDO		4.29	4.28			0.02	1.052		0.00	-25.47	7.48	-32.95	0.000				203			2
812	22.5	191	109	29.80	IPO		4.33	4.35			-0.02	1.052		33.01	7.54	7.62	-0.07	0.000				203		62	2.92
LSGS	23.8	96	108	29.80	PCO		4.33	4.55			-0.21	1.052		0.00	-25.47	7.96	-33.42	0.000				203			2
81	25.3	352	106	30.23	EPD		4.76	4.78			-0.02	1.052		33.45	7.98	8.36	-0.38	0.000				203		30	2.22
811	30.7	149	102	31.26	EPC		5.79	5.63			0.17	1.052		35.36	9.89	9.85	0.05	0.000				203		35	2.42
85	33.7	124	101	31.62	IPC		6.15	6.11			0.04	1.052		34.44	8.97	10.69	-1.72	0.000				203			2
89	44.2	140	97	33.35	EP		7.88	7.80			0.08	1.052		38.92	13.45	13.65	-0.19	0.000				203		44	2.62
MDCI	49.0	117	96	33.86	PC1		8.39	8.57			-0.17	0.592		37.28	11.81	14.99	-3.18	0.000				203			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	SE	N
AVE. OF END POINTS	0.43	0.52	0.65	0.67	0.75	0.89	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
27	0.09	0.42	0.71	A

----------END----------END----------END----------END----------

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4     2/55                                                                                  83/11/ 4     2/55

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.83              SE =   1.21              SE =   2.00   QUALITY = A
                                            AZ =    37.              AZ =   -53.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104  255 34.97 44N12.99 114W 2.42  10.58        13  8 184 1 0.08  1.2  2.0 C BID 0.12 10 26 0.00 0.04  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.139          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   4.2 139 157 36.90 P 0        1.93  2.00             -0.08 1.130       0.00-34.97  3.51-38.48 0.000
NWSI   4.5  20 155 36.99 PD0        2.02  2.03             -0.01 1.130       0.00-34.97  3.55-38.52 0.000
WSUI   8.1  89 139 37.30 P 0        2.33  2.35             -0.02 1.130       0.00-34.97  4.11-39.08 0.000
BSU3   8.3   7 138 37.35 P 0        2.38  2.37              0.01 1.130       0.00-34.97  4.15-39.12 0.000
NSUI   9.0  74 136 37.52 PC0        2.55  2.45              0.10 1.130       0.00-34.97  4.29-39.26 0.000
M-2   14.8 114 120 38.30 P 0        3.33  3.18  0.17       -0.02 1.130       0.00-34.97  5.57-40.84 0.000
DSPI  16.7  89 116 38.39 P 0        3.42  3.45             -0.03 1.130      39.89  4.92  6.04 -1.12 0.000
MBAI  18.4 122 113 38.97 P-2        4.00  3.71              0.29 0.283       0.00-34.97  6.49-41.46 0.000
M-1   21.6 139 109 39.54 PC0        4.57  4.20  0.30        0.07 1.130       0.00-34.97  7.35-42.85 0.000
BRPI  23.0 162 107 39.38 PC0        4.41  4.41              0.00 1.130      42.38  7.41  7.72 -0.31 0.000
BRCI  26.0 182 105 39.86 PC0        4.89  4.88              0.01 1.130       0.00-34.97  8.54-43.51 0.000
LSGS  27.0 105 104 39.99 PD0        5.02  5.03             -0.01 1.130       0.00-34.97  8.80-43.77 0.000
MOCI  53.2 119  95 43.88 PD2        8.91  9.24             -0.33 0.283       0.00-34.97 16.17-51.15 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW    SW    NE    SE     E     Z     N
AVE. OF END POINTS                 0.14  0.15  0.17  0.20  0.20  0.22  0.24

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 6      0.08      0.09      0.19         D

____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.71	SE =	0.94	SE = 1.26 QUALITY = A
AZ =	-10.	AZ =	-100.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	4 9 14.68	44N15.37	114W 4.85	4.72	2.39	16	12	103	1	0.15	0.9	1.3	B	B|B	0.06	10	23	0.00	0.12	0	0.0	0.0	8	2.4	0.2

SE OF ORIG = 0.067 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	5.2	331	130	16.00IPD	1.32	1.30		0.02	1.060										204	29	2.12	
343	5.5	88	129	16.17IP	1.49	1.35		0.14	1.060		17.31	2.63	2.36	0.27	0.742				204		2	
844	11.5	31	110	16.91IP	2.23	2.29		-0.06	1.060		18.57	3.89	4.01	-0.12	0.742				204		2	
816	12.6	127	108	17.11IPD	2.43	2.48		-0.05	1.060										204	40	2.42	
815	12.9	228	108	17.34IPC	2.66	2.53		0.13	1.060		18.73	4.05	4.42	-0.37	0.000				204	35	2.32	
81	16.4	7	104	17.72IPC	3.04	3.12		-0.08	1.060		20.15	5.47	5.46	0.01	0.000				204	36	2.32	
84	19.7	110	102	18.21EPD	3.53	3.69		-0.16	1.060		21.67	6.99	6.45	0.53	0.000				204	43	2.52	
837	25.3	147	99	19.36IP	4.68	4.69		-0.01	1.060		22.65	7.97	8.21	-0.24	0.742				204		2	
812	30.9	177	97	20.16IPC	5.48	5.67		-0.19	1.060		23.71	9.03	9.93	-0.90	0.000				204	52	2.72	
811	41.1	148	65	22.14IPC	7.46	7.44		0.02	1.060										204	29	2.22	
85	43.5	129	65	22.71EP	8.03	7.81		0.21	1.060		27.52	12.84	13.68	-0.84	0.000				204		2	
86	51.6	129	65	23.69EP	9.01	9.13		-0.12	1.060		59.90	45.22	15.97	29.25	0.000				204		2	
89	54.5	141	65	24.50EP	9.82	9.61		0.21	1.060		31.24	16.56	16.82	-0.26	0.000				204	38	2.52	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	NW	Z	N	NE	E	SW
AVE. OF END POINTS	0.03	0.05	0.09	0.10	0.12	0.13	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.15	-0.01	0.10	D

	HORIZONTAL		VERTICAL	
SE =	0.36	SE = 0.58	SE = 0.94	QUALITY = A
AZ =	-28.	AZ = -118.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	5 0 14.85	44N 8.28	113W56.48	8.62	3.30	35	6	74	1	0.14	0.6	0.9	A	A|A	0.73	10	90	0.00	0.10	0	0.0	0.0	11	3.3	0.3

SE OF ORIG = 0.043 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)								VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCDR	-O=	TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
942	3.7	317	154	16.58	EPD0		1.73	1.68			0.05	1.054		17.68	2.83	2.94	-0.11	0.738							
816	5.6	348	143	16.73	IP 0		1.88	1.84			0.04	1.054		0.00	-14.85	3.22	-18.07	0.000					99	3.2	
M-2	6.2	64	140	17.00	PD0		2.15	1.91	0.17		0.07	1.054		0.00	-14.85	3.34	-18.49	0.000							
ANPI	7.6	317	134	16.75	P 0		1.90	2.06			-0.16	1.054		0.00	-14.85	3.60	-18.45	0.000							
MBAI	7.8	97	133	17.04	P 0		2.19	2.08			0.11	1.054		0.00	-14.85	3.64	-18.49	0.000							
837	8.6	163	130	17.04	IPC0		2.19	2.17			0.02	1.054		18.44	3.59	3.80	-0.21	0.738							
WSUI	8.9	1	128	17.10	PD0		2.25	2.21			0.04	1.054													
M-1	9.8	141	125	17.54	PC0		2.69	2.33	0.30		0.06	1.054		0.00	-14.85	4.07	-19.45	0.000							
84	9.8	49	125	17.18	IP 0		2.33	2.33			0.00	1.054		20.61	5.76	4.07	1.69	0.000					115	3.3	
OSPI	12.5	44	117	17.59	P 0		2.74	2.71			0.03	1.054		0.00	-14.85	4.74	-19.59	0.000							
BRPI	13.2	184	115	17.73	P 0		2.88	2.80			0.08	1.054		0.00	-14.85	4.89	-19.75	0.000							
843	14.4	337	112	17.96	EPD0		3.11	3.00			0.11	1.054		20.28	5.43	5.24	0.18	0.738							
NWSI	14.4	334	112	17.79	P 0		2.94	3.00			-0.06	1.054		0.00	-14.85	5.25	-20.10	0.000							
841	16.5	207	108	0.00	IP 4		-14.85	3.31			-18.16	0.000		20.65	5.80	5.79	0.01	0.738							
LSGS	18.3	84	105	18.49	P 0		3.64	3.60			0.04	1.054		0.00	-14.85	6.29	-21.14	0.000							
BSU3	18.4	338	105	18.55	PD0		3.70	3.60			0.10	1.054													
BRCI	19.5	208	103	18.66	P 0		3.81	3.78			0.03	1.054		0.00	-14.85	6.62	-21.47	0.000							
812	20.1	208	102	18.78	IPC0		3.93	3.88			0.05	1.054		0.00	-14.85	6.79	-21.64	0.000							
815	21.2	282	101	18.97	IPD0		4.12	4.05			0.07	1.054		21.57	6.72	7.09	-0.38	0.000					89	3.2	
817	22.4	322	100	19.00	IP 0		4.15	4.24			-0.09	1.054		0.00	-14.85	7.41	-22.26	0.000					64	2.9	
844	23.6	347	99	19.10	IP 0		4.25	4.44			-0.19	1.054		22.43	7.58	7.76	-0.18	0.738							
811	24.2	154	99	19.44	IPD0		4.59	4.53			0.06	1.054		0.00	-14.85	7.93	-22.78	0.000					84	3.1	
85	26.7	123	97	19.87	IPD0		5.02	4.92			0.09	1.054		22.50	7.65	8.62	-0.97	0.000							
838	26.7	123	97	19.79	EPD0		4.94	4.92			0.01	1.054		23.42	8.57	8.62	-0.05	0.738							
91	30.8	343	95	20.40	IPC0		5.55	5.59			-0.04	1.054		24.40	9.55	9.78	-0.23	0.000					83	3.1	
86	34.8	123	94	20.83	IPD0		5.98	6.24			-0.26	1.054		25.28	10.43	10.92	-0.49	0.000					66	3.0	
89	37.3	142	94	21.34	IPC0		6.49	6.65			-0.16	1.054		25.84	10.99	11.64	-0.66	0.000					108	3.4	
MDCI	42.2	114	93	21.89	P 0		7.04	7.44			-0.40	1.054		0.00	-14.85	13.02	-27.87	0.000							
MPI	82.7	125	91	29.20	PD0		14.35	14.01			0.34	1.054		0.00	-14.85	24.51	-39.36	0.000							
JGI	101.4	93	91	32.08	PD0		17.23	17.04			0.19	1.054		0.00	-14.85	29.82	-44.67	0.000					98	3.5	
CIB	114.8	136	65	34.58	PD0		19.73	19.04			0.69	M0.000		46.42	31.57	33.32	-1.75	0.000					108	3.7	
SHCM	145.8	44	65	39.90	PC0		25.05	23.60			1.45	M0.000		0.00	-14.85	41.30	-56.15	0.000							
GBI	151.3	96	65	40.00	PD0		25.15	24.41			0.74	M0.000		0.00	-14.85	42.72	-57.57	0.000							
BNRM	154.7	45	65	41.00	PC0		26.15	24.92			1.23	M0.000		0.00	-14.85	43.61	-58.46	0.000							
TIO	175.3	246	65	44.30	PD0		29.45	27.94			1.51	M0.000		0.00	-14.85	48.90	-63.75	0.000							
TMI	187.5	120	65	44.82	PD0		29.97	29.74			0.23	D0.000		0.00	-14.85	52.04	-66.89	0.000							
CMI	190.0	77	65	45.80	P 0		30.95	30.11			0.84	M0.000		0.00	-14.85	52.69	-67.54	0.000							
KCI	190.2	106	65	45.20	P 0		30.35	30.14			0.21	D0.000		0.00	-14.85	52.74	-67.59	0.000							
CPI	191.6	261	65	45.60	PC0		30.75	30.34			0.41	D0.000		0.00	-14.85	53.09	-67.94	0.000							
LRM	221.0	32	50	48.80	PC0		33.95	34.08			-0.13	D0.000		0.00	-14.85	59.64	-74.49	0.000							
IMW	242.3	96	50	52.95	PD0		38.10	36.74			1.36	M0.000		0.00	-14.85	64.30	-79.15	0.000					91	4.0	
WPI	245.3	247	50	52.50	P 0		37.65	37.12			0.53	M0.000		0.00	-14.85	64.96	-79.81	0.000							
NPI	249.7	152	50	54.48	P 0		39.63	37.66			1.97	M0.000		0.00	-14.85	65.91	-80.76	0.000							
MSO	299.1	0	50	58.00	PC0		43.15	43.84			-0.69	M0.000		0.00	-14.85	76.72	-91.57	0.000							
SXM	310.2	44	50	61.10	P 0		46.25	45.24			1.01	M0.000		0.00	-14.85	79.17	-94.02	0.000							
NCM	341.6	352	50	3.90	PC0		49.05	49.16			-0.11	D0.000		0.00	45.15	86.03	-40.88	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	NW	SE	N	NE	Z	SW
AVE. OF END POINTS	0.10	0.10	0.11	0.12	0.12	0.13	0.14

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4      6/31                                                                                                  83/11/ 4      6/31

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.41              SE =   0.89              SE =   0.96   QUALITY = A
                                            AZ =   -12.              AZ =  -102.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104  631 32.80 44N12.15 114W 1.53   8.58        19  6 173 1 0.09  0.9  1.0 8 A|C 0.12 10 32 0.00 0.08  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.064          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   5.8   4 142 34.69 PD0        1.89  1.86              0.03 1.127       0.00-32.80  3.26-36.06 0.000
B42    6.1 136 140 34.68 PD0        1.88  1.89             -0.01 1.127      35.99  3.19  3.31 -0.12 0.789
B43    6.3  10 140 34.82 PD0        2.02  1.91              0.11 1.127      36.24  3.44  3.34  0.10 0.789
WSUI   7.1  76 135 34.70 PD0        1.90  2.00             -0.10 1.127       0.00-32.80  3.50-36.30 0.000
NSUI   8.5  61 130 35.05 PD0        2.25  2.17              0.09 1.127       0.00-32.80  3.79-36.59 0.000
BSU3   9.8 359 125 35.05 P 0        2.25  2.32             -0.07 1.127       0.00-32.80  4.06-36.86 0.000
M-2   13.1 110 115 35.80 PD0        3.00  2.78  0.17        0.05 1.127       0.00-32.80  4.86-37.96 0.000
DSPI  15.6  83 109 36.03 PD0        3.23  3.17              0.06 1.127      37.06  4.26  5.54 -1.28 0.000
B44   15.9   5 109  0.00 P 4      -32.80  3.22            -36.02 0.000      38.23  5.43  5.64 -0.21 0.789
MBAI  16.6 119 107 36.21 PD0        3.41  3.31              0.10 1.127       0.00-32.80  5.80-38.59 0.000
B37   17.9 149 105 36.38EPD0        3.58  3.52              0.06 1.127      38.90  6.10  6.15 -0.05 0.789
M-1   19.7 139 103 36.75 PD0        3.95  3.80  0.30       -0.15 1.127       0.00-32.80  6.66-39.98 0.000
BRPI  21.1 164 101 36.94 PC0        4.14  4.04              0.10 1.127       0.00-32.80  7.07-39.87 0.000
BRCI  24.5 185  98 37.34 P+0        4.54  4.58             -0.04 1.127      41.66  8.86  8.01  0.85 0.000
LSGS  25.5 102  98 37.48 P 0        4.68  4.73             -0.05 1.127       0.00-32.80  8.28-41.07 0.000
MDCI  51.4 119  92 41.77 P+3        8.97  8.93              0.04 0.070       0.00-32.80 15.63-48.43 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E     N    SW    SE    NE     Z
AVE. OF END POINTS                   0.11  0.12  0.14  0.15  0.16  0.18  0.19

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   5      0.09      0.07      0.15         D
```

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 4     7/ 8                                                                                          83/11/ 4     7/ 8

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   0.48                SE =   0.78              SE =   1.05   QUALITY = A
                                              AZ =   -16.                AZ =  -106.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO DO GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104  7 8 19.26 44N12.29 114W 1.63   8.53   3.44 34  6  72 1 0.16  0.8  1.1 8 8JA 0.10 10 75 0.00 0.11  0  0.0  0.0 12  3.4  0.3
SE OF ORIG =  0.055          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   5.6   5 143 21.09 PDO        1.83  1.83              0.00 1.071       0.00-19.26  3.21-22.47 0.000          206        2
843    6.0  12 141 21.23IPO        1.97  1.88              0.09 1.071      22.58  3.32  3.28  0.03 0.750          206        2
816    6.1 109 140 21.19IPO        1.93  1.88              0.05 1.071                                              206 113 3.32
842    6.4 137 139 21.18IPO        1.92  1.92              0.00 1.071      22.45  3.19  3.36 -0.17 0.750          206        2
WSUI   7.2  78 135 21.60 P 0       2.34  2.00              0.33 1.071       0.00-19.26  3.51-22.77 0.000          206        2
NSUI   8.5  63 129 21.47 P 2       2.21  2.16              0.05 0.268       0.00-19.26  3.78-23.04 0.000          206        2
8SU3   9.6 359 126 21.75 PDO       2.49  2.28              0.21 1.071       0.00-19.26  3.99-23.26 0.000          206        2
817   12.3 326 117 21.93IPC       2.67  2.67              0.00 1.071                                              206  85 3.12
M-2   13.3 110 114 22.25 PDO       2.99  2.82  0.17        0.00 1.071       0.00-19.26  4.94-24.50 0.000          206        2
815   14.2 258 112 22.22IPC       2.96  2.96              0.00 1.071      24.02  4.76  5.17 -0.41 0.000          206  90 3.12
84    14.3  94 112 22.21IPD       2.95  2.97             -0.02 1.071                                              206 113 3.32
OSPI  15.7  84 109 22.34 PDO       3.08  3.18             -0.10 1.071       0.00-19.26  5.56-24.83 0.000          206        2
844   15.7   6 109 22.31EPC       3.05  3.18             -0.13 1.071      24.52  5.26  5.57 -0.31 0.750          206        2
MBAI  16.8 120 107 22.72 PDO       3.46  3.35              0.11 1.071       0.00-19.26  5.86-25.12 0.000          206        2
837   18.2 149 104 22.94IPC       3.68  3.58              0.10 1.071      25.46  6.20  6.26 -0.06 0.750          206        2
M-1   19.9 139 102 23.35 PDO       4.09  3.85  0.30       -0.06 1.071       0.00-19.26  6.74-26.52 0.000          206        2
8RPI  21.4 164 100 23.43 PCO       4.17  4.08              0.08 1.071       0.00-19.26  7.15-26.41 0.000          206        2
81    22.1 354 100 23.34IPC       4.08  4.19             -0.11 1.071      26.49  7.23  7.33 -0.10 0.000          206 110 3.32
941   22.2 182 100  0.001P 4     -19.26  4.20            -23.46 0.000      26.49  7.23  7.35 -0.12 0.750          206        2
8RCI  24.8 185  98 23.96 PCO       4.70  4.62              0.08 1.071       0.00-19.26  8.08-27.34 0.000          206        2
812   25.3 186  97 23.94IPC       4.68  4.69             -0.01 1.071                                              206 140 3.62
LSGS  25.7 102  97 23.98 PDO       4.72  4.76             -0.04 1.071       0.00-19.26  8.33-27.59 0.000          206        2
811   34.0 149  94 25.34EP        6.08  6.12             -0.04 1.071      29.51 10.25 10.71 -0.46 0.000          206 115 3.42
338   36.6 127  94 25.80EPD       6.54  6.53              0.01 1.071                                              206        2
85    36.6 127  94 25.86IPD       6.60  6.53              0.07 1.071                                              206        2
86    44.7 126  93 26.89IPD       7.63  7.84             -0.21 1.071                                              206  65 3.02
89    47.4 141  93 27.36EP        8.10  8.29             -0.19 1.071      32.71 13.45 14.51 -1.06 0.000          206 118 3.52
MOCI  51.6 119  92 27.83 PDO       8.57  8.97             -0.40 1.071      32.93 13.67 15.70 -2.03 0.000          206        2
MPI   92.5 126  91 35.18 P 0      15.92 15.60              0.32 1.071       0.00-19.26 27.30-46.56 0.000          206        2
JGI  108.8  97  65 37.72 PCO      18.46 18.18              0.28 1.071      44.01 24.75 31.81 -7.06 0.000          206 112 3.72
CIB  124.9 136  65 40.53 P 0      21.27 20.54              0.73M0.000      51.80 32.54 35.94 -3.40 0.000          206 121 3.82
SMCM 145.6  48  65 43.80 PCO      24.54 23.58              0.96M0.000       0.00-19.26 41.26-60.53 0.000          206        2
3NRM 154.6  49  65 45.10 PCO      25.84 24.90              0.94M0.000       0.00-19.26 43.58-62.84 0.000          206        2
GBI  159.1  99  65 45.42 PCO      26.16 25.57              0.59M0.000       0.00-19.26 44.74-64.00 0.000          206        2
TMI  197.0 120  50 50.71 P 0      31.45 31.08              0.36C0.000       0.00-19.26 54.40-73.66 0.000          206 124 4.12
LRM  218.5  35  50 52.50 PCO      33.24 33.78             -0.54M0.000       0.00-19.26 59.12-78.38 0.000          206        2
IMW  249.6  98  50 58.04 P 0      38.78 37.67              1.11M0.000       0.00-19.26 65.92-85.18 0.000          206        2
NPI  259.4 152  50  0.38 P 0      41.12 38.89              2.23M0.000       0.00 40.74 68.06-27.32 0.000          206        2
MLI  287.2 147  50  4.38 P 0      45.12 42.37              2.75M0.000       0.00 40.74 74.15-33.41 0.000          206        2
MSO  291.8   1  50 60.10 P 0      40.84 42.94             -2.10M0.000       0.00-19.26 75.14-94.40 0.000          206        2
NCM  333.4 353  50 67.40 PCO      48.14 48.14              0.00D0.000       0.00-19.26 84.24******* 0.000          206        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW     Z    SW    SE    NE     E     N
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 4 8/ 7 83/11/ 4 8/ 7

	HORIZONTAL		VERTICAL	
SE =	0.67	SE = 0.96	SE = 1.23	QUALITY = A
AZ =	-39.	AZ = -129.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	8 7 48.67	44N 8.70	113W55.71	6.18	2.72	27	7	70	1	0.21	1.0	1.2	B	8|A	0.61	10	61	0.00	0.15	0	0.0	0.0	11	2.7	0.5

SE OF ORIG = 0.055 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	5.0	66	140	50.30	PDO	1.63	1.46	0.17	0.00	1.011		0.00	-48.67	2.55	-51.53	0.000				706			7
916	5.1	335	139	50.18	IPD	1.51	1.48		0.03	1.011										706			7
MBAI	6.9	105	131	50.45	PCO	1.78	1.70		0.08	1.011		0.00	-48.67	2.98	-51.65	0.000				706			7
ANPI	7.8	308	127	50.50	P 0	1.83	1.83		0.00	1.011		0.00	-48.67	3.20	-51.88	0.000				706			7
WSUI	8.2	354	126	50.70	PDO	2.03	1.87		0.15	1.011		0.00	-48.67	3.28	-51.96	0.000				706			7
84	8.6	48	124	50.61	IPD	1.94	1.93		0.00	1.011		53.75	5.08	3.39	1.69	0.000				706	42	2.47	
M-1	9.9	148	121	51.00	PDO	2.33	2.13	0.30	-0.10	1.011		0.00	-48.67	3.72	-52.92	0.000				706			7
NSUI	10.5	359	119	50.92	PDO	2.25	2.22		0.03	1.011		0.00	-48.67	3.88	-52.56	0.000				706			7
OSPI	11.3	43	117	51.04	PDO	2.37	2.34		0.03	1.011		0.00	-48.67	4.09	-52.77	0.000				706			7
BRPI	14.1	188	112	51.47	PDO	2.80	2.81		-0.01	1.011		0.00	-48.67	4.91	-53.59	0.000				706			7
NWSI	14.3	329	112	51.47	PDO	2.80	2.84		-0.04	1.011		0.00	-48.67	4.97	-53.64	0.000				706			7
LSGS	17.2	86	108	51.85	P 0	3.18	3.34		-0.16	1.011		0.00	-48.67	5.84	-54.52	0.000				706			7
BSU3	18.1	334	107	52.15	P 0	3.48	3.48		-0.01	1.011		0.00	-48.67	6.09	-54.77	0.000				706			7
BRCI	20.7	209	105	52.56	P 0	3.89	3.93		-0.04	1.011		0.00	-48.67	6.87	-55.54	0.000				706			7
812	21.3	210	105	52.76	EPD	4.09	4.03		0.05	1.011										706			7
815	22.1	280	104	53.07	EPD	4.40	4.17		0.22	1.011		55.07	6.40	7.30	-0.90	0.000				706	32	2.37	
817	22.4	319	104	52.73	EP	4.06	4.23		-0.17	1.011		55.83	7.16	7.40	-0.25	0.000				706	30	2.27	
811	24.5	157	103	53.19	EP	4.52	4.59		-0.08	1.011		56.30	7.63	8.03	-0.41	0.000				706	40	2.57	
85	26.3	125	102	53.42	IPD	4.75	4.90		-0.15	1.011		57.46	8.79	8.57	0.21	0.708				706			7
81	30.3	341	65	54.06	EP	5.39	5.57		-0.19	1.011										706	40	2.57	
86	34.4	125	65	54.63	IPC	5.96	6.23		-0.27	1.011		58.60	9.93	10.89	-0.97	0.000				706	25	2.17	
89	37.3	144	65	55.19	EP	6.52	6.71		-0.19	1.011		59.74	11.07	11.74	-0.67	0.000				706	50	2.77	
MDCI	41.6	116	65	55.53	PDO	6.86	7.40		-0.54	1.011		60.11	11.44	12.94	-1.51	0.000				706			7
HPI	82.3	126	65	2.96	PDO	14.29	14.00		0.28	1.011		11.56	22.89	24.51	-1.62	0.000				706	69	3.17	
JGI	100.4	93	65	6.04	P 0	17.37	16.94		0.42	1.011		18.45	29.78	29.65	0.12	0.000				706	68	3.27	
CIB	114.6	136	55	8.41	PDO	19.74	19.21		0.52	1.011		23.34	34.67	33.62	1.04	0.000				706	80	3.47	
GBI	150.4	97	55	13.76	P 0	25.09	24.47		0.61	D0.000		0.00	11.33	42.82	-31.50	0.000				706	81	3.57	
SNRM	153.5	45	55	14.70	PCO	26.03	24.93		1.10	D0.000		0.00	11.33	43.62	-32.30	0.000				706			7
TMI	187.0	120	55	18.77	PDO	30.10	29.85		0.24	D0.000		41.41	52.74	52.25	0.49	0.000				706			7
LRM	219.8	32	44	22.80	PCO	34.13	34.20		-0.08	D0.000		0.00	11.33	59.86	-48.53	0.000				706			7
NPI	249.9	153	44	28.52	P 0	39.85	37.96		1.88	D0.000		0.00	11.33	66.43	-55.11	0.000				706			7
MLI	277.3	148	44	32.38	P 0	43.71	41.40		2.31	D0.000		0.00	11.33	72.45	-61.12	0.000				706			7

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	N	SE
AVE. OF END POINTS	0.25	0.53	0.58	0.78	0.86	0.91	1.01

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
27	0.21	0.44	0.75	B

----------END----------END----------END----------END----------

```
-----------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/ 4     8/45                                                                          83/11/ 4     8/45

                                                 HORIZONTAL                                   VERTICAL
                                            SE =   0.34              SE =   0.42              SE =   1.10   QUALITY = A
                                            AZ =  -86.               AZ =     4.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104   845 27.54 44N13.37 114W 3.34   8.58   2.58 12 13 100 1 0.05  0.4  1.1 B A|B 0.13 10 15 0.00 0.04  0  0.0  0.0  6  2.6  0.1
SE OF ORIG =  0.043          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    9.0 116 128 29.77IPD         2.23  2.22              0.01 1.053                                          207        2
817    9.4 331 126 29.82IPD         2.28  2.27              0.01 1.053                                          207  40 2.42
815   12.6 247 116 30.30IPD         2.76  2.71              0.04 1.053      32.27  4.73  4.75 -0.02 0.737      207  49 2.62
84    16.8 100 107 30.88IPC         3.34  3.35             -0.01 1.053      33.39  5.85  5.86 -0.01 0.737      207  55 2.72
81    20.0   0 102 31.38IPC         3.84  3.86             -0.02 1.053                                          207  52 2.72
812   27.1 181  97 32.50IPC         4.96  4.99             -0.03 1.053                                          207        2
811   36.9 148  94 34.05EP          6.51  6.59             -0.08 1.053      40.07 12.53 11.53  1.00 0.000      207  45 2.62
85    39.6 127  94 34.66IPC         7.12  7.02              0.10 1.053                                          207        2
86    47.7 127  93 35.80IPC         8.26  8.33             -0.07 1.053      40.95 13.41 14.58 -1.17 0.000      207  34 2.42
89    50.4 140  92 36.40EPO         8.86  8.78              0.08 1.053      43.50 15.96 15.36  0.60 0.000      207        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    NW    SE    NE     E    SW     Z
AVE. OF END POINTS                 0.13  0.13  0.16  0.17  0.18  0.20  0.23

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.05      0.06      0.17         D


xxx


xxx


xxx
```

	HORIZONTAL		VERTICAL	
SE =	0.65	SE =	0.90	SE = 0.99 QUALITY = A
AZ =	-23.	AZ =	-113.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
931104	9 4 12.86	44N 8.52	113W55.28	6.59	3.17	28	6	69	1	0.20	0.9	1.0	B	B|A	0.45	10	64	0.00	0.15	0	0.0	0.0	10	3.2	0.3

SE OF ORIG = 0.051 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=	TTOB	TTCAL	DELAY	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
M-2	4.6	60	144	14.50	PDO	1.64	1.48	0.17		-0.01	1.022		0.00	-12.86	2.59	-15.75	0.000				208			2
842	4.7	299	144	14.68	IP	1.82	1.49			0.33	1.022		15.63	2.77	2.60	0.17	0.715				208			2
816	5.7	332	138	14.37	IPD	1.51	1.60			-0.09	1.022										208	80		3.02
M8AI	6.3	103	135	14.60	PCO	1.74	1.67			0.07	1.022		0.00	-12.86	2.92	-15.78	0.000				208			2
84	8.4	44	127	14.81	IPD	1.95	1.95			-0.01	1.022		18.81	5.95	3.42	2.52	0.000				208	90		3.12
WSUI	8.6	351	126	15.10	P 0	2.24	1.98			0.26	1.022		0.00	-12.86	3.46	-16.33	0.000				208			2
837	8.7	174	126	14.77	EPC	1.91	1.99			-0.09	1.022		16.26	3.40	3.49	-0.09	0.715				208			2
M-1	9.3	150	124	15.25	PDO	2.39	2.08	0.30		0.00	1.022		0.00	-12.86	3.65	-17.03	0.000				208			2
NSUI	10.8	356	120	15.11	PDO	2.25	2.31			-0.07	1.022		0.00	-12.86	4.05	-16.91	0.000				208			2
OSPI	11.1	40	119	15.20	PDO	2.34	2.36			-0.02	1.022		0.00	-12.86	4.13	-16.99	0.000				208			2
8RPI	13.8	190	114	15.68	PDO	2.82	2.80			0.02	1.022		0.00	-12.86	4.89	-17.76	0.000				208			2
NWSI	14.8	328	112	15.45	PDO	2.59	2.96			-0.38	1.022		0.00	-12.86	5.19	-18.05	0.000				208			2
LSGS	16.7	85	110	15.98	P 0	3.12	3.27			-0.16	1.022		0.00	-12.86	5.73	-18.59	0.000				208			2
8SU3	18.6	333	108	16.05	P 0	3.19	3.60			-0.41	1.022		0.00	-12.86	6.30	-19.16	0.000				208			2
8RCI	20.7	211	106	16.76	P-0	3.90	3.95			-0.05	1.022		20.46	7.60	6.90	0.69	0.000				208			2
812	21.3	212	106	16.86	IPD	4.00	4.05			-0.06	1.022										208			2
815	22.7	280	105	17.30	IPO	4.44	4.30			0.14	1.022										208			2
817	23.0	318	105	17.43	IP	4.57	4.36			0.21	1.022										208	52		2.72
811	24.0	158	65	17.35	IP	4.49	4.51			-0.02	1.022										208	90		3.22
85	25.6	125	65	17.61	IPD	4.75	4.77			-0.03	1.022										208			2
81	30.8	340	65	18.46	IPC	5.60	5.62			-0.03	1.022										208	74		3.02
86	33.7	125	65	18.80	IPC	5.94	6.09			-0.15	1.022		22.73	9.87	10.65	-0.79	0.000				208	55		2.82
89	36.7	144	65	19.38	IP	6.52	6.58			-0.06	1.022										208	90		3.22
MDCI	40.9	116	65	19.84	PDO	6.98	7.26			-0.28	1.022		23.02	10.16	12.70	-2.55	0.000				208			2
MPI	81.6	126	65	27.12	P 0	14.26	13.87			0.39	1.022		0.00	-12.86	24.27	-37.13	0.000				208			2
JGI	99.8	93	65	30.14	P 0	17.28	16.82			0.46	1.022		41.47	28.61	29.43	-0.83	0.000				208	90		3.42
CIB	114.0	136	55	32.56	P 0	19.70	19.08			0.62	M0.000		47.19	34.33	33.38	0.94	0.000				208	94		3.52
G8I	149.8	97	55	37.90	P 0	25.04	24.34			0.69	M0.000		56.39	43.53	42.60	0.93	0.000				208	102		3.72
8NRM	153.3	45	55	38.90	PCO	26.04	24.86			1.17	M0.000		0.00	-12.86	43.51	-56.37	0.000				208			2
TMI	186.3	120	55	42.89	P 0	30.03	29.72			0.31	D0.000		0.00	-12.86	52.00	-64.87	0.000				208			2
LRM	219.8	32	44	47.10	PCO	34.24	34.15			0.09	D0.000		0.00	-12.86	59.76	-72.63	0.000				208			2
IMW	240.7	96	44	51.69	P 0	38.83	36.77			2.06	M0.000		0.00	-12.86	64.35	-77.21	0.000				208			2
NPI	249.3	153	44	52.73	P 0	39.87	37.84			2.03	M0.000		0.00	-12.86	66.22	-79.08	0.000				208			2
MLI	276.8	148	44	56.55	P 0	43.69	41.27			2.41	M0.000		0.00	-12.86	72.22	-85.09	0.000				208			2
MSD	298.6	360	44	56.40	P 0	43.54	44.01			-0.47	D0.000		0.00	-12.86	77.01	-89.88	0.000				208			2
NCM	341.4	352	44	2.70	P 0	49.84	49.35			0.48	D0.000		0.00	47.14	86.37	-39.23	0.000				208			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	N	SE	Z	SW	NE
AVE. OF END POINTS	0.04	0.05	0.05	0.06	0.07	0.08	0.09

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.20	-0.03	0.07	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 4 9/16 83/11/ 4 9/16

	HORIZONTAL		VERTICAL	
SE =	0.42	SE = 0.59	SE = 1.15	QUALITY = A
AZ =	-22.	AZ = -112.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	916 9.50	44N 8.60	113W56.40	4.01	3.06	27	6	73	1	0.14	0.6	1.2	A	A|A	0.25	10	58	0.00	0.11	0	0.0	0.0	13	3.1	0.4

SE OF ORIG = 0.042 7 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	3.4	309	138	10.48 P 0	0.98	0.98		0.01	1.028		11.22	1.72	1.71	0.01	0.000							
816	5.0	346	127	10.75IP	1.25	1.19		0.06	1.028											65	2.8	
M-2	5.9	68	122	11.15 PD0	1.65	1.32	0.17	0.16	1.028		0.00	-9.50	2.31	-12.11	0.000							
48AI	7.8	102	115	11.46 PD0	1.96	1.62		0.34	1.028		0.00	-9.50	2.83	-12.33	0.000							
WSUI	8.3	1	113	11.15 P 0	1.65	1.71		-0.05	1.028		0.00	-9.50	2.98	-12.48	0.000							
337	9.1	165	111	11.42 P 0	1.92	1.84		0.08	1.028		12.89	3.39	3.22	0.17	0.720							
84	9.4	51	111	11.34IPC	1.84	1.89		-0.04	1.028		15.61	6.11	3.30	2.81	0.000					80	3.0	
M-1	10.2	143	109	11.60 PD0	2.30	2.03	0.30	-0.03	1.028		0.00	-9.50	3.55	-13.58	0.000							
NSUI	10.7	4	108	11.58 P+1	2.08	2.10		-0.02	0.578		0.00	-9.50	3.68	-13.18	0.000							
DSPI	12.0	46	106	11.69 PC0	2.19	2.33		-0.14	1.028		0.00	-9.50	4.09	-13.58	0.000							
8RPI	13.8	184	104	11.98 PD0	2.48	2.63		-0.15	1.028		0.00	-9.50	4.61	-14.11	0.000							
NWSI	14.0	332	104	12.69 P 0	3.19	2.66		0.53	M0.000		0.00	-9.50	4.66	-14.16	0.000							
8SU3	17.8	337	100	12.80 P 0	3.30	3.35		-0.05	1.028		0.00	-9.50	5.87	-15.36	0.000							
LSGS	18.2	86	100	12.78 PD0	3.28	3.41		-0.13	1.028		0.00	-9.50	5.97	-15.46	0.000							
8RCI	20.1	207	99	13.26 PD0	3.76	3.74		0.02	1.028		0.00	-9.50	6.55	-16.05	0.000							
812	20.7	208	99	13.36EPC	3.86	3.85		0.01	1.028		16.06	6.56	6.74	-0.18	0.000							
815	21.2	280	99	13.47EPC	3.97	3.95		0.03	1.028											61	2.8	
817	22.0	321	98	13.43IPC	3.93	4.08		-0.15	1.028											40	2.4	
811	24.7	155	97	14.05EPD	4.55	4.57		-0.01	1.028											60	2.8	
35	26.9	124	97	14.35EPD	4.85	4.96		-0.11	1.028		17.65	8.15	8.68	-0.53	0.000					115	3.4	
838	26.9	124	97	14.33 P 0	4.83	4.96		-0.13	1.028		18.13	8.63	8.68	-0.05	0.000							
81	30.2	342	96	15.24EPD	5.74	5.54		0.20	1.028											65	2.9	
96	35.0	124	95	15.65EPC	6.15	6.40		-0.24	1.028											44	2.6	
89	37.7	142	95	16.18EP	6.68	6.88		-0.20	1.028		59.93	50.43	12.04	38.39	0.000							
MOCI	42.3	115	65	16.58 P-1	7.08	7.68		-0.60	M0.000		0.00	-9.50	13.44	-22.94	0.000							
MPI	82.9	125	65	23.88 P 0	14.38	14.27		0.11	1.028		0.00	-9.50	24.98	-34.47	0.000					73	3.2	
JGI	101.3	93	65	26.81 P 0	17.31	17.25		0.06	1.028		0.00	-9.50	30.20	-39.69	0.000					70	3.2	
CIB	115.1	136	65	29.23 PD0	19.73	19.50		0.23	1.028		42.55	33.05	34.12	-1.07	0.000					85	3.4	
GBI	151.3	97	55	34.65 PC0	25.15	24.82		0.33	D0.000		52.76	43.26	43.44	-0.18	0.000					85	3.5	
TMI	187.7	120	55	39.63 P 0	30.13	30.18		-0.05	D0.000		0.00	-9.50	52.82	-62.31	0.000					97	3.8	
LRM	220.4	32	44	43.60 PC0	34.10	34.56		-0.46	D0.000		0.00	-9.50	60.48	-69.98	0.000							
NPI	250.1	152	44	49.31 P 0	39.81	38.27		1.54	M0.000		0.00	-9.50	66.98	-76.48	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	Z	NW	E	NE	SW
AVE. OF END POINTS	0.02	0.06	0.10	0.10	0.12	0.12	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.14	-0.02	0.11	D

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 4 13/43 83/11/ 4 13/43

	HORIZONTAL	VERTICAL	
SE =	0.77	SE = 1.26	SE = 1.96 QUALITY = A
AZ =	-21.	AZ = -111.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	1343 0.95	44N11.56	114W	2.40	10.14	2.82	28	7	79	1	0.21	1.3	2.0	B	B|A	1.85	10	44	0.00	0.13	0	0.0	0.0	5	2.8	0.3

SE OF ORIG = 0.101 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	6.3	122	145	3.05IPD		2.10	2.12		-0.01	1.033		4.46	3.51	3.70	-0.19	0.723				210			2
816	6.8	95	143	3.09IPD		2.14	2.16		-0.02	1.033										210			2
NWSI	7.1	13	142	3.12 P 0		2.17	2.19		-0.01	1.033		0.00	-0.95	3.83	-4.77	0.000				210			2
WSUI	8.6	71	136	3.60 P 0		2.65	2.34		0.31	1.033		0.00	-0.95	4.10	-5.05	0.000				210			2
NSUI	10.1	59	131	3.43 PC0		2.48	2.52		-0.04	1.033		0.00	-0.95	4.42	-5.36	0.000				210			2
BSU3	10.9	5	128	3.85 PC0		2.90	2.63		0.28	1.033		0.00	-0.95	4.59	-5.54	0.000				210			2
815	13.0	263	122	4.05IPD		3.10	2.90		0.21	1.033										210			2
817	13.0	333	122	3.85IPC		2.90	2.90		0.00	1.033										210	40	2.52	
M-2	13.9	104	120	4.15 PD0		3.20	3.02	0.17	0.01	1.033		0.00	-0.95	5.29	-6.54	0.000				210			2
84	15.3	88	117	4.14IPC		3.19	3.22		-0.03	1.033										210	73	3.02	
DSPI	16.9	80	114	4.34 PC0		3.39	3.45		-0.05	1.033		6.69	5.74	6.03	-0.29	0.000				210			2
MBAI	17.1	114	114	4.56 PD0		3.61	3.49		0.12	1.033		0.00	-0.95	6.11	-7.06	0.000				210			2
844	17.2	9	114	4.27EPC		3.32	3.50		-0.18	1.033		6.87	5.92	6.13	-0.20	0.723				210			2
837	17.7	144	113	4.59EPC		3.64	3.58		0.07	1.033		7.20	6.25	6.26	0.00	0.723				210			2
M-1	19.7	134	110	5.05 PD0		4.10	3.88	0.30	-0.08	1.033		0.00	-0.95	6.79	-8.26	0.000				210			2
BRPI	20.5	160	109	5.19 PC0		4.24	4.00		0.24	1.033		6.93	5.98	7.00	-1.02	0.000				210			2
81	23.4	357	105	5.34IPC		4.39	4.44		-0.05	1.033										210			2
BRCI	23.4	183	105	4.56 P 0		3.61	4.45		-0.83	1.033		8.36	7.41	7.78	-0.37	0.000				210			2
812	23.8	184	105	5.66IPC		4.71	4.52		0.20	1.033										210			2
LSG5	26.4	99	103	5.77 PC0		4.82	4.93		-0.11	1.033		0.00	-0.95	8.64	-9.58	0.000				210			2
811	33.4	146	99	7.21EPC		6.26	6.05		0.21	1.033		11.94	10.99	10.59	0.40	0.000				210	63	2.92	
85	36.6	124	98	7.66IP		6.71	6.57		0.15	1.033		11.93	10.98	11.49	-0.51	0.000				210			2
86	44.7	124	96	8.83IPC		7.88	7.87		0.02	1.033		14.10	13.15	13.77	-0.61	0.000				210	37	2.52	
89	47.1	139	95	9.20EP		8.25	8.25		0.01	1.033		14.90	13.95	14.43	-0.48	0.000				210	90	3.32	
MDCI	51.9	117	95	9.85 PC0		8.90	9.03		-0.13	1.033		0.00	-0.95	15.80	-16.75	0.000				210			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	E	SW	NW	SE	N
AVE. OF END POINTS	0.26	0.43	0.55	0.55	0.64	0.77	0.85

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
28	0.21	0.30	0.61	B

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	0.50	SE =	0.96	SE = 2.06 QUALITY = A
AZ =	-79.	AZ =	11.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	1425 7.78	43N57.60	113W49.01	12.23	2.22	13	14	114	1	0.08	1.0	2.1	B	B|B	0.08	10	20	0.00	0.06	0	0.0	0.0	15	2.2	0.3

SE OF ORIG = 0.116 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
811	2.1	163	170	9.34IPC	2.16	2.16		0.00	1.024										211	35	2.32	
8RPI	12.7	301	130	10.86IPD	3.08	3.07		0.01	1.024		12.64	4.86	5.37	-0.51	0.000				211	17	1.72	
85	13.6	67	128	11.03IPC	3.25	3.18		0.07	1.024										211	70	3.02	
89	16.3	125	122	11.32IPC	3.54	3.54		0.00	1.024										211	50	2.72	
MBAI	18.9	353	118	11.73IPD	3.95	3.90		0.05	1.024										211	26	2.12	
86	19.1	88	118	11.58IPC	3.80	3.93		-0.13	1.024										211	25	2.12	
812	19.7	276	117	11.95IPC	4.17	4.01		0.16	1.024		14.66	6.88	7.01	-0.13	0.717				211	55	2.82	
LSGS	23.2	21	112	12.37IPC	4.59	4.53		0.06	1.024		14.97	7.19	7.93	-0.74	0.000				211	25	2.12	
84	26.4	354	109	12.70EPD	4.92	5.02		-0.10	1.024		15.90	8.12	8.79	-0.67	0.000				211	30	2.32	
816	27.5	336	108	12.93EP	5.15	5.20		-0.05	1.024										211	31	2.32	
OSPI	28.8	358	107	13.21EPC	5.43	5.39		0.04	1.024										211	20	1.92	
NSUI	32.4	343	105	13.99EPC4	6.21	5.95		0.26	0.000										211	15	1.72	
815	39.1	308	101	14.77EPC	6.99	7.01		-0.02	1.024										211	26	2.22	
817	44.3	328	100	16.73EP 4	8.95	7.85		1.10	0.000										211	20	2.02	
81	52.7	339	98	17.34EPD4	9.56	9.20		0.36	0.000		21.90	14.12	16.10	-1.98	0.000				211	27	2.32	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	SE	N	NW	Z	SW	E
AVE. OF END POINTS	0.11	0.12	0.15	0.16	0.16	0.19	0.24

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.08	0.08	0.16	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    15/27                                                                                                  83/11/ 4    15/27

                                                   HORIZONTAL                                  VERTICAL
                                             SE =   0.39              SE =   0.52              SE =   1.29   QUALITY = A
                                             AZ =   -63.              AZ =    27.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 1527 36.66 44N12.60 114W 3.63   9.13   2.79 11 12  94 1 0.05  0.5  1.3 B A|B 0.14 10 13 0.00 0.04  0  0.0  0.0  9  2.8  0.3
SE OF ORIG =  0.048          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    8.8 107 131 38.90IPC         2.24  2.26             -0.02 1.028                                                 213  50 2.62
B17   10.5 337 125 39.13IPC         2.47  2.47              0.00 1.028                                                 213  34 2.32
B15   11.8 252 121 39.32IPD         2.66  2.64              0.02 1.028                                                 213  41 2.52
B4    17.0  95 110 40.14IPD         3.48  3.41              0.07 1.028      42.60  5.94  5.97 -0.03 0.720            213  60 2.82
B1    21.4   1 103 40.74IPC         4.08  4.10             -0.02 1.028                                                 213  52 2.72
B12   25.7 180 100 41.41IPC         4.75  4.78             -0.03 1.028                                                 213  93 3.22
B11   36.0 146  96 43.10IP          6.44  6.43              0.01 1.028                                                 213  54 2.82
B5    39.1 125  95 43.69IPC         7.03  6.93              0.10 1.028                                                 213  97 3.32
B6    47.2 125  94 44.80IPD         8.14  8.25             -0.11 1.028      51.30 14.64 14.44  0.20 0.000            213       2
B9    49.6 139  93 45.32IPD         8.66  8.65              0.01 1.028      51.57 14.91 15.14 -0.23 0.000            213  60 2.92

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SW    SE     E     Z     N    NE
AVE. OF END POINTS                  0.07  0.08  0.15  0.16  0.19  0.19  0.23


              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.05      0.00      0.15         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    15/44                                                                                                  83/11/ 4    15/44

                                                   HORIZONTAL                                  VERTICAL
                                             SE =   0.15              SE =   0.21              SE =   0.51   QUALITY = A
                                             AZ =   -47.              AZ =    43.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 1544  0.35 44N12.74 114W 2.12   8.41   2.59  9 14 101 1 0.02  0.2  0.5 B A|B 0.09 10 12 0.00 0.02  0  0.0  0.0  8  2.6  0.3
SE OF ORIG =  0.016          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    7.0 114 135  2.33IPC         1.98  1.97              0.01 1.000                                                 214  30 2.22
B17   11.3 327 119  2.83IPD         2.48  2.51             -0.04 1.000                                                 214       2
B15   13.8 254 112  3.26IPD         2.91  2.88              0.02 1.000                                                 214  35 2.32
B4    15.0  97 109  3.41IPC         3.06  3.07             -0.01 1.000       5.30  4.95  5.37 -0.42 0.000            214  45 2.52
B1    21.2 356 100  4.41IPC         4.06  4.04              0.02 1.000       8.15  7.80  7.07  0.72 0.000            214  38 2.42
B12   26.0 184  97  5.15IPC         4.80  4.81             -0.01 1.000                                                 214  79 3.12
B5    37.6 127  93  7.03IPC         6.68  6.69             -0.02 1.000                                                 214  76 3.12
B6    45.7 127  93  8.37IP          8.02  8.00              0.01 1.000                                                 214  30 2.32
B9    48.5 141  92  8.82EP          8.47  8.46              0.01 1.000      15.42 15.07 14.81  0.26 0.000            214  54 2.82

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NW     E    NE     Z     N    SE
AVE. OF END POINTS                  0.12  0.12  0.13  0.18  0.26  0.32  0.33
```

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
83/11/ 4    17/30                                                                                    83/11/ 4    17/30

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.67                SE =    1.10            SE =    1.65    QUALITY = A
                                            AZ =   -18.                 AZ =  -108.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 1730 44.33 44N15.13 114W 0.99   3.34   3.35 30  7  95 1 0.22  1.1  1.6 8 8IB 0.30 10 73 0.00 0.17  0  0.0  0.0 12  3.4  0.4
SE OF ORIG =  0.069          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   0.4 312 172 44.50 PDO        0.17  0.63              -0.46 1.075       0.00-44.33  1.11-45.44 0.000            215         2
dSU3   4.4 347 125 45.76 PDO        1.43  1.03               0.40 1.075       0.00-44.33  1.81-46.14 0.000            215         2
NSUI   6.9 102 112 45.78 PD2        1.45  1.43               0.02 0.269       0.00-44.33  2.51-46.84 0.000            215         2
ANPI   7.2 173 112 46.00 P 0        1.67  1.47               0.20 1.075       0.00-44.33  2.58-46.91 0.000            215         2
WSUI   7.3 121 111 45.60 PDO        1.27  1.49              -0.22 1.075       0.00-44.33  2.61-46.94 0.000            215         2
d16    8.7 146 108 46.20IPD        1.87  1.74               0.13 1.075                                                  215         2
817    9.2 303 107 46.12IPC        1.79  1.81              -0.02 1.075                                                  215  60 2.72
d44   10.4   4 105 46.32IP         1.99  2.01              -0.02 1.075      47.96  3.63  3.52  0.11 0.752            215         2
842   10.6 161 104  0.00IP 4     -44.33  2.04             -46.37 0.000      48.07  3.74  3.58  0.16 0.752            215         2
84    14.8 115 100 47.20IP        2.87  2.79               0.08 1.075                                                  215         2
DSPI  15.2 104 100 47.24 PCO        2.91  2.87               0.04 1.075       0.00-44.33  5.02-49.35 0.000            215         2
M-2   15.3 130 100 47.45 PCO        3.12  2.88  0.17         0.08 1.075       0.00-44.33  5.03-49.66 0.000            215         2
d15   16.9 241  99 47.54IPC        3.21  3.16               0.05 1.075                                                  215  92 3.12
d1    17.0 350  99 47.42IPC        3.09  3.18              -0.09 1.075      52.10  7.77  5.57  2.20 0.000            215 100 3.22
MBAI  19.3 135  97 48.07 PCO        3.74  3.60               0.14 1.075       0.00-44.33  6.30-50.63 0.000            215         2
837   22.5 158  96 48.69EPD        4.36  4.16               0.20 1.075      51.95  7.62  7.28  0.34 0.752            215         2
M-1   23.7 149  96 48.70 PCO        4.37  4.37  0.30        -0.30 1.075       0.00-44.33  7.65-52.50 0.000            215         2
dRPI  26.3 169  95 49.14 P+0        4.81  4.84              -0.03 1.075      51.54  7.21  8.47 -1.26 0.000            215         2
LSGS  26.5 114  95 49.16 PCO        4.83  4.87              -0.04 1.075       0.00-44.33  8.52-52.85 0.000            215         2
BRCI  30.1 186  95 49.86 PCO        5.53  5.51               0.02 1.075       0.00-44.33  9.64-53.97 0.000            215         2
812   30.6 187  95 49.80EPC        5.47  5.59              -0.12 1.075                                                  215 135 3.52
LCRI  31.8 137  94 49.95 PCO        5.62  5.81              -0.19 1.075       0.00-44.33 10.16-54.49 0.000            215         2
811   38.3 154  94 51.47EPC4       7.14  6.96               0.18 0.000      56.84 12.51 12.18  0.33 0.000            215  76 3.02
85    39.3 134  94 51.35EPC        7.02  7.15              -0.13 1.075                                                  215         2
86    47.3 132  65 52.70EPD        8.37  8.55              -0.18 1.075                                                  215  39 2.52
89    51.1 145  65 53.32IPD        8.99  9.15              -0.16 1.075      60.02 15.69 16.02 -0.33 0.000            215 114 3.42
MDCI  53.7 124  65 53.15 P+1        8.82  9.57              -0.75 0.605      59.08 14.75 16.75 -2.00 0.000            215         2
MPI   95.1 129  65  0.97 P 0       16.64 16.29               0.35 1.075       0.00 15.67 28.51-12.84 0.000            215  82 3.32
JGI  108.5  99  65  3.07 PCO       18.74 18.48               0.26 1.075       0.00 15.67 32.34-16.67 0.000            215  98 3.52
CIB  128.1 138  55  6.45 P 0       22.12 21.49               0.63D0.000       0.00 15.67 37.61-21.94 0.000            215 117 3.72
SHCM 141.4  50  55  8.50 PCO       24.17 23.43               0.74D0.000       0.00 15.67 41.01-25.34 0.000            215         2
BNRM 150.5  50  55  9.90 PCO       25.57 24.79               0.79D0.000       0.00 15.67 43.37-27.70 0.000            215         2
GBI  159.1 101  55 11.06 PCO       26.73 26.05               0.68D0.000       0.00 15.67 45.59-29.92 0.000            215 124 3.92
TMI  198.9 122  55 16.50 PDO       32.17 31.90               0.27D0.000       0.00 15.67 55.83-40.16 0.000            215 140 4.12
LRM  213.7  35  44 17.80 PCO       33.47 33.81              -0.34D0.000      46.00 61.67 59.17  2.50 0.000            215         2
BUT  226.7  30  44 22.70 P 0       38.37 35.43               2.94D0.000      46.20 61.87 62.00 -0.13 0.000            215         2
IMW  249.6  99  44 23.49 P 0       39.16 38.29               0.87D0.000       0.00 15.67 67.00-51.33 0.000            215         2
MSD  286.5   1  44 26.50 P 0       42.17 42.91              -0.73D0.000       0.00 15.67 75.08-59.41 0.000            215         2
SXM  305.2  46  44 35.70 P 0       51.37 45.24               6.13D0.000       0.00 15.67 79.18-63.51 0.000            215         2
NCM  328.3 353  44 32.50 P 0       48.17 48.12               0.05D0.000       0.00 15.67 64.22-68.55 0.000            215         2

                          QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                 0.21  0.53  0.53  0.68  0.69  0.86  0.98
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    19/26                                                                                  83/11/ 4    19/26

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    2.01              SE =    3.35              SE =    4.93   QUALITY = B
                                            AZ =    -63.              AZ =     27.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 1926 50.24 44N17.85 113W56.34   2.88   3.22 10  9 199 1 0.18  3.3  4.9 D C|D 1.37 10 38 0.00 0.15  0  D.0  0.0  5  3.2  0.2
SE OF ORIG =  0.214        10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NSUI   6.5 175 110 51.61 PD0        1.37  1.33              0.04 1.000       0.00-50.24  2.33-52.57 0.000
BSU3   7.2 264 108 51.77 P 0        1.53  1.45              0.08 1.000       0.00-50.24  2.53-52.77 0.000
NWSI   8.1 234 106 51.30 PD0        1.06  1.59             -0.54M0.000       0.00-50.24  2.79-53.03 0.000
WSUI   8.8 180 104 51.70 P 0        1.46  1.72             -0.27 1.000       0.00-50.24  3.01-53.26 0.000
DSPI  12.2 136 100 52.64 P 0        2.40  2.33              0.07 1.000       0.00-50.24  4.07-54.31 0.000
M-2   15.9 160  97 53.50 PD0        3.26  2.97  0.17        0.11 1.000       0.00-50.24  5.20-55.74 0.000
BRPI  30.9 182  94 55.95 PC0        5.71  5.64              0.07 1.000      60.95 10.71  9.86  0.84 0.000
LCRI  32.3 152  94 56.15 P 0        5.91  5.88              0.02 1.000       0.00-50.24 10.30-60.54 0.000
BRCI  36.2 195  93 56.65 P 0        6.41  6.58             -0.18 1.000       0.00-50.24 11.52-61.76 0.000
HPI   93.7 134  65  6.70 P 0       16.46 16.11              0.34 1.000       0.00  9.76 28.20-18.44 0.000                  59 3.0
JGI  103.4 103  65  7.64 PD0       17.40 17.68             -0.29 1.000       0.00  9.76 30.95-21.19 0.000                  61 3.1
CIS  127.9 141  55 12.13 P 0       21.89 21.50              0.38D0.000       0.00  9.76 37.63-27.87 0.000                  62 3.2
SHCM 133.4  50  55 10.50 P 0       20.26 22.31             -2.06M0.000       0.00  9.76 39.05-29.29 0.000
BNRM 142.6  50  55 11.80 PC0       21.56 23.66             -2.11M0.000       0.00  9.76 41.41-31.66 0.000
GBI  154.1 103  55 15.54 P 0       25.30 25.35             -0.06D0.000       0.00  9.76 44.37-34.61 0.000                  64 3.3
TMI  196.5 124  55 21.79 P 0       31.55 31.58             -0.04D0.000       0.00  9.76 55.27-45.52 0.000                  70 3.5
LRM  206.0  35  44 19.60 P 0       29.36 32.90             -3.54M0.000       0.00  9.76 57.57-47.82 0.000
IMW  244.3 100  44 28.48 P 0       38.24 37.69              0.55D0.000       0.00  9.76 65.95-56.20 0.000
NPI  265.3 154  44 32.97 P 0       42.73 40.32              2.41M0.000       0.00  9.76 70.55-60.80 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NE    SW    NW    SE     N
AVE. OF END POINTS                -0.05  0.04  0.05  0.07  0.09  0.10  0.12

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 7      0.18     -0.10      0.06         0

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    20/ 6                                                                                                  83/11/ 4    20/ 6

                                                   HORIZONTAL                                  VERTICAL
                                              SE =   0.39              SE =   0.99              SE =   1.41   QUALITY = A
                                              AZ =   -54.              AZ =    36.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 20 6 44.64 44N10.13 113W51.35   7.09   2.37  8 25 125 1 0.04  1.0  1.4 8 A|B 0.47 10 12 0.00 0.04  0  0.0  0.0  7  2.4  0.2
SE OF ORIG =  0.049          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B4     3.1  10 153 46.06IP          1.42  1.42              0.00 1.000                                                 715  42 2.47
B16    8.2 284 122 46.24IPO4        1.60  1.98             -0.38 0.000                                                 715  36 2.37
B5    23.7 139  91 49.09IP          4.45  4.43              0.01 1.000                                                 715        7
B17   25.0 305  90 49.32IP          4.68  4.64              0.04 1.000                                                 715  27 2.17
B11   25.5 172  90 49.44IP          4.80  4.72              0.08 1.000                                                 715  35 2.47
B12   26.7 218  90 49.53IP          4.89  4.92             -0.04 1.000                                                 715  50 2.77
B15   27.6 272  90 49.67EP          5.03  5.06             -0.03 1.000                                                 715  34 2.37
B1    30.4 329  90 50.63IP 4        5.99  5.52              0.47 0.000                                                 715  33 2.37
B6    31.7 135  90 50.29IP          5.65  5.72             -0.07 1.000      54.28  9.64 10.01 -0.37 0.000            715        7
B9    36.5 153  90 51.17EPC         6.53  6.52              0.01 1.000      55.67 11.03 11.40 -0.37 0.000            715        7

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     N    NW     E    SE
AVE. OF END POINTS                 0.29  0.46  0.57  0.87  0.98  1.01  1.06
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    21/30                                                                                                  83/11/ 4    21/30

                                                   HORIZONTAL                                  VERTICAL
                                              SE =   0.46              SE =   0.75              SE =   1.04   QUALITY = A
                                              AZ =   -43.              AZ =  -133.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 2130 11.88 44N 6.38 113W54.64   8.16   2.47 13 11  92 1 0.09  0.8  1.0 B A|B 0.06 10 17 0.00 0.07  0  0.0  0.0  7  2.5  0.2
SE OF ORIG =  0.046          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B37    4.6 179 147 13.63IP          1.75  1.69              0.06 1.048      14.82  2.94  2.97 -0.02 0.734            216        2
B16    9.6 338 123 14.15IPC         2.27  2.27              0.00 1.048                                                 216  38 2.42
B4    11.2  26 118 14.37IPC         2.49  2.48              0.01 1.048                                                 216  44 2.52
B51   14.9 121 108 14.86IP          2.98  3.04             -0.05 1.048      17.10  5.22  5.31 -0.09 0.734            216        2
B12   18.6 220 101 15.50IPD         3.62  3.62              0.00 1.048                                                 216        2
B11   20.0 156 100 15.92IPC         4.04  3.84              0.20 1.048      18.82  6.94  6.72  0.22 0.000            216  54 2.72
B5    22.8 119  97 16.28IPC         4.40  4.30              0.11 1.048                                                 216        2
B15   24.6 289  96 16.36IP          4.48  4.58             -0.10 1.048      19.37  7.49  8.02 -0.53 0.000            216  39 2.52
B6    30.9 120  94 17.39IPC         5.51  5.60             -0.09 1.048                                                 216  24 2.12
B9    33.0 141  93 17.71IPC         5.83  5.95             -0.12 1.048      21.56  9.68 10.42 -0.74 0.000            216  53 2.82
B1    34.9 341  93 18.18IPC         6.30  6.25              0.05 1.048      22.78 10.90 10.93 -0.03 0.000            216  37 2.42

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW    SW     N    SE     Z    NE     E
AVE. OF END POINTS                 0.05  0.10  0.14  0.15  0.15  0.18  0.24
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 4    22/59                                                                                                  83/11/ 4    22/59

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.35              SE =   0.53              SE =   0.66   QUALITY = A
                                            AZ =   -34.              AZ =  -124.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 2259 37.71 44N 4.47 113W56.52  10.68   2.54 12 14  79 1 0.06  0.5  0.7 A A|A 0.82 10 21 0.00 0.05  0  0.0  0.0  5  2.5  0.4
SE OF ORIG =  0.037          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
837    2.8 113 164 39.69IP          1.98  1.95              0.03 1.026      41.07  3.36  3.40 -0.05 0.718          716        7
816   12.5 355 126 40.66IPD         2.95  2.88              0.07 1.026      42.67  4.96  5.04 -0.08 0.000          716  30 2.27
812   14.3 222 121 40.86IP          3.15  3.12              0.02 1.026                                              716        7
84    15.5  29 119 41.05IPC         3.34  3.29              0.05 1.026      43.27  5.56  5.76 -0.20 0.000          716        7
850   15.6  29 119 40.94IP          3.23  3.31             -0.08 1.026      43.37  5.66  5.79 -0.13 0.000          716        7
811   18.2 144 114 41.41IPD         3.70  3.68              0.02 1.026                                              716        7
815   23.7 299 107 42.17IPD         4.46  4.53             -0.07 1.026      45.13  7.42  7.92 -0.50 0.000          716  32 2.37
85    23.7 108 107 42.29IPD         4.58  4.53              0.05 1.026                                              716        7
845   27.1 328 104  0.00IP 4      -37.71  5.05            -42.76 0.000      42.69  4.98  8.84 -3.86M0.000          716        7
86    31.6 113 101 43.37IPC         5.66  5.77             -0.11 1.026      47.74 10.03 10.09 -0.06 0.000          716  27 2.27
89    32.2 134 101 43.59IPC         5.88  5.86              0.01 1.026      45.52  7.81 10.26 -2.45 0.000          716  55 2.87
81    37.5 346  99 44.47IPD         6.76  6.72              0.03 1.026      50.07 12.36 11.77  0.59 0.000          716  90 3.27

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW     E    SE    NE     N     Z    SW
AVE. OF END POINTS                  0.10  0.13  0.14  0.16  0.18  0.19  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.06      0.02      0.16         D


xx


xx


xx
```

	HORIZONTAL		VERTICAL		
SE =	0.88	SE =	0.99	SE =	1.05 QUALITY = A
AZ =	-73.	AZ =	17.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831104	2329 49.49	44N14.94	114W 5.27	6.21	3.15	32	6	94	1	0.20	1.0	1.1	B	B|B	0.86	10	59	0.00	0.14	0	0.0	0.0	11	3.2	0.2

SE OF ORIG = 0.070 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
845	4.5	323	143	50.89IPO	1.40	1.41			0.00	1.039		52.05	2.56	2.47	0.10	0.727				717		7	
NWSI	5.4	83	138	51.00 PDO	1.51	1.51			0.00	1.039		0.00	-49.49	2.65	-52.13	0.000				717		7	
843	6.2	81	134	51.20EPC	1.71	1.61			0.10	1.039		52.05	2.56	2.82	-0.25	0.727				717		7	
8SU3	6.6	45	132	51.60 PCO	2.11	1.67			0.44	1.039		0.00	-49.49	2.92	-52.41	0.000				717		7	
815	12.0	229	116	51.96IPD	2.47	2.47			0.00	1.039										717	80	3.07	
WSUI	12.4	106	115	52.00 P 0	2.51	2.54			-0.02	1.039		0.00	-49.49	4.44	-53.92	0.000				717		7	
344	12.5	31	115	51.86IPC	2.37	2.55			-0.18	1.039		53.99	4.50	4.47	0.03	0.727				717		7	
NSUI	12.5	95	115	52.09 PCO	2.60	2.56			0.05	1.039		0.00	-49.49	4.48	-53.96	0.000				717		7	
816	12.6	123	115	52.07IPD	2.58	2.58			0.01	1.039										717	84	3.17	
81	17.3	9	108	52.57IPC	3.08	3.35			-0.27	1.039										717	88	3.17	
M-2	19.8	119	106	53.55 PDO	4.06	3.77	0.17		0.12	1.039		0.00	-49.49	6.60	-56.39	0.000				717		7	
84	20.0	107	106	53.19EPC	3.70	3.81			-0.10	1.039										717	98	3.27	
850	20.0	107	106	53.14IP	3.65	3.81			-0.16	1.039		56.05	6.56	6.67	-0.10	0.727				717		7	
OSPI	20.7	99	105	53.31 PCO	3.82	3.94			-0.12	1.039		0.00	-49.49	6.89	-56.38	0.000				717		7	
MBAI	23.5	124	103	53.96 PCO	4.47	4.42			0.05	1.039		0.00	-49.49	7.74	-57.22	0.000				717		7	
M-1	26.8	138	102	54.90 PCO	5.41	4.99	0.30		0.12	1.039		0.00	-49.49	8.74	-58.75	0.000				717		7	
8RPI	27.7	157	65	54.50 P-0	5.01	5.14			-0.13	1.039		57.75	8.26	8.99	-0.73	0.000				717		7	
8RCI	29.7	175	65	54.95 P-0	5.46	5.47			-0.01	1.039		58.25	8.76	9.57	-0.81	0.000				717		7	
812	30.1	176	65	54.75EPD	5.26	5.53			-0.26	1.039										717		7	
LSGS	31.7	109	65	55.16 P 0	5.67	5.79			-0.11	1.039		0.00	-49.49	10.13	-59.61	0.000				717		7	
LCRI	35.7	130	65	55.75 P 0	6.26	6.43			-0.17	1.039		0.00	-49.49	11.26	-60.74	0.000				717		7	
811	40.8	147	65	56.83EP	7.34	7.26			0.08	1.039										717	75	3.17	
85	43.4	128	65	57.10IP	7.61	7.69			-0.08	1.039										717		7	
86	51.5	128	65	58.60EP	9.11	9.00			0.11	1.039										717	40	2.57	
89	54.3	140	65	58.97EPD	9.48	9.46			0.03	1.039										717	100	3.47	
MDCI	58.3	121	65	59.31 PCO	9.82	10.11			-0.28	1.039		0.00	-49.49	17.69	-67.18	0.000				717		7	
HPI	99.3	127	65	6.94 P 0	17.45	16.77			0.68	1.039		0.00	10.51	29.35	-18.83	0.000				717	68	3.27	
JGI	114.1	99	55	8.86 PCO	19.37	19.14			0.24	1.039		0.00	10.51	33.49	-22.98	0.000				717	66	3.27	
CIB	131.8	136	55	11.79 P 0	22.30	21.74			0.56	00.000		0.00	10.51	38.05	-27.53	0.000				717	73	3.47	
GBI	164.7	100	55	16.71 P 0	27.22	26.57			0.65	00.000		0.00	10.51	46.50	-35.99	0.000				717	75	3.57	
TMI	203.7	121	44	22.09 P 0	32.60	32.18			0.42	00.000		0.00	10.51	56.32	-45.80	0.000				717		7	
LRM	217.3	36	44	22.70 PDO	33.21	33.89			-0.68	00.000		0.00	10.51	59.31	-48.79	0.000				717		7	
MSO	287.0	2	44	30.00 P 0	40.51	42.60			-2.09	00.000		0.00	10.51	74.56	-64.04	0.000				717		7	
NCM	327.9	353	44	36.70 PDO	47.21	47.72			-0.50	00.000		0.00	10.51	83.51	-72.99	0.000				717		7	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NW	NE	E	SW	SE	N
AVE. OF END POINTS	0.33	0.49	0.52	0.62	0.64	0.77	0.77

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
33	0.20	0.30	0.63	B

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 4    23/36                                                                                          83/11/ 4    23/36

                                                     HORIZONTAL                                   VERTICAL
                                                SE =   0.49                SE =   0.55                SE =   1.00   QUALITY = A
                                                AZ =   -56.                AZ =    34.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831104 2336 45.38 44N14.15 114W 4.32   8.12   2.69 16 11  84 1 0.09  0.5  1.0 A A|A 0.10 10 21 0.00 0.07  0  0.0  0.0  8  2.7  0.3
SE OF ORIG =  0.051          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
843    5.4  63 142 47.16IPD          1.78  1.77              0.02 1.081      48.51  3.13  3.09  0.04 0.757           217        2
845    6.4 322 137 47.23EPD          1.85  1.87             -0.02 1.081      48.62  3.24  3.27 -0.03 0.757           217        2
816   10.8 120 119 47.78IPD          2.40  2.42             -0.02 1.081      49.72  4.34  4.24  0.10 0.000           217  55 2.72
815   12.1 238 115 48.04IPC          2.66  2.62              0.04 1.081                                             217  40 2.42
844   13.2  23 112 48.09EPC          2.71  2.78             -0.07 1.081      50.39  5.01  4.87  0.14 0.757           217        2
84    18.4 104 101 48.92IPC          3.54  3.58             -0.04 1.081      51.44  6.06  6.27 -0.21 0.000           217  56 2.72
850   18.4 103 101 48.86EPC          3.48  3.59             -0.11 1.081      51.56  6.18  6.27 -0.09 0.757           217        2
81    18.6   4 101 48.98IPC          3.60  3.62             -0.02 1.081      51.16  5.78  6.33 -0.55 0.000           217  45 2.62
812   28.6 178  94 50.47IPC          5.09  5.23             -0.14 1.081      53.98  8.60  9.15 -0.55 0.000           217  85 3.12
811   38.9 147  93 52.47EP           7.09  6.89              0.20 1.081                                             217  45 2.62
85    41.5 128  92 52.72IPC          7.34  7.33              0.01 1.081                                             217        2
86    49.6 127  92 54.13EP           8.75  8.64              0.11 1.081                                             217  30 2.32
89    52.4 140  92 54.87EP 4         9.49  9.08              0.41 0.000                                             217  64 3.02

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE     N    SW     E    NW    NE     Z
AVE. OF END POINTS                 0.06  0.09  0.09  0.10  0.11  0.15  0.18

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.09      0.02      0.11         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5     0/18                                                                                                  83/11/ 5     0/18

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.47              SE =    0.70              SE =    1.37   QUALITY = A
                                          AZ =    -40.              AZ =   -130.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105  018 31.29 44N 9.41 113W57.89  10.03   2.52 12 10  76 1 0.08  0.7  1.4 A A|A 0.07 10 18 0.00 0.07  0  0.0  0.0  6  2.5  0.2
SE OF ORIG =  0.055          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    3.4  13 159 33.24IPD          1.95  1.88              0.07 1.053                                                718  36 2.37
B4    10.3  65 130 33.86IPC          2.57  2.53              0.03 1.053      35.81  4.52  4.43  0.08 0.000            718  50 2.67
B50   10.4  64 129 33.79IP           2.50  2.54             -0.05 1.053      35.69  4.40  4.45 -0.05 0.737            718        7
B15   19.0 277 110 35.04IP           3.75  3.77             -0.03 1.053                                                718        7
B44   21.2 351 107  0.00IP 4       -31.29  4.11            -35.40 0.000      38.50  7.21  7.19  0.02 0.737            718        7
B12   21.2 201 107 35.35IPD          4.06  4.11             -0.05 1.053                                                718        7
B11   27.0 152 102 36.44IP           5.15  5.01              0.13 1.053      40.04  8.75  8.77 -0.03 0.000            718  55 2.87
B1    28.2 345 101 36.50IPC          5.21  5.22             -0.01 1.053      40.40  9.11  9.13 -0.02 0.000            718  50 2.77
B5    29.4 124 100 36.59IP           5.30  5.41             -0.11 1.053                                                718        7
B6    37.5 124  97 38.12IPC          6.83  6.70              0.12 1.053      43.02 11.73 11.73  0.00 0.000            718  32 2.37
B9    40.2 141  97 38.33EPC          7.04  7.13             -0.09 1.053      43.02 11.73 12.47 -0.75 0.000            718  32 2.47

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    NW    SE     Z     E    NE    SW
AVE. OF END POINTS                 0.05  0.08  0.15  0.16  0.17  0.19  0.21

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.08     -0.01      0.14         D
```

	HORIZONTAL		VERTICAL	
SE =	0.55	SE =	0.94	SE = 1.47 QUALITY = A
AZ =	-14.	AZ =	-104.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	O3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	151 49.51	44N 8.24	113W57.89	8.45	3.36	23	9	139	1	0.16	0.9	1.5	C	BIC	0.18	10	48	0.00	0.12	0	0.0	0.0	5	3.4	0.2

SE OF ORIG = 0.069 7 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
942	2.9	347	159	51.29EP 0	1.78	1.60			0.18	1.041		52.62	3.11	2.81	0.31	0.000							
M-2	8.0	69	131	51.90 PD0	2.39	2.09	0.17		0.14	1.041		0.00	-49.51	3.65	-53.46	0.000							
WSUI	9.2	13	127	51.60 P 0	2.09	2.23			-0.14	1.041		0.00	-49.51	3.90	-53.41	0.000							
837	9.2	151	126	51.74EPD0	2.23	2.23			0.00	1.041		53.44	3.93	3.91	0.03	0.729							
MBAI	9.6	95	125	51.94 PD0	2.43	2.28			0.15	1.041		0.00	-49.51	3.99	-53.50	0.000							
M-1	11.1	133	120	52.26 PD0	2.75	2.49	0.30		-0.04	1.041		0.00	-49.51	4.36	-54.39	0.000							
850	11.5	54	119	52.01EPD0	2.50	2.54			-0.04	1.041		54.02	4.51	4.45	0.06	0.000							
BRPI	13.1	176	114	52.35 PC0	2.84	2.79			0.05	1.041		53.56	4.05	4.88	-0.83	0.000							
NWSI	13.8	341	112	52.40 PD0	2.89	2.89			0.00	1.041		0.00	-49.51	5.06	-54.56	0.000							
843	13.9	344	112	52.51EPD0	3.00	2.90			0.10	1.041		55.09	5.58	5.08	0.50	0.000							
DSPI	14.0	50	112	52.43 PD0	2.92	2.92			0.01	1.041		0.00	-49.51	5.10	-54.61	0.000							
841	15.7	201	108	0.00 P 4	-49.51	3.17			-52.68	0.000		55.00	5.49	5.55	-0.06	0.729							
BSU3	17.8	343	104	53.05 PD0	3.54	3.51			0.04	1.041		0.00	-49.51	6.14	-55.65	0.000							
BRCI	18.6	202	103	53.05 PC0	3.54	3.64			-0.09	1.041		54.45	4.94	6.37	-1.42	0.000							
LSGS	20.2	84	101	53.43 PD0	3.92	3.89			0.04	1.041		0.00	-49.51	6.80	-56.31	0.000							
LCRI	20.4	122	101	53.15 PD0	3.64	3.91			-0.27	1.041		0.00	-49.51	6.85	-56.35	0.000							
344	23.4	352	98	53.70 P 0	4.19	4.39			-0.19	1.041		57.15	7.64	7.67	-0.03	0.729							
MDCI	43.9	113	93	56.75 PC0	7.24	7.71			-0.47	1.041		0.00	-49.51	13.49	-63.00	0.000							
MPI	84.2	124	91	3.97 P 0	14.46	14.25			0.21	1.041		0.00	10.49	24.94	-14.44	0.000					67	3.1	
JGI	103.3	93	91	6.94 P 0	17.43	17.34			0.09	1.041		0.00	10.49	30.35	-19.86	0.000					65	3.2	
CI8	116.1	135	65	9.02 P 0	19.51	19.24			0.27	1.041		0.00	10.49	33.67	-23.18	0.000					69	3.3	
GBI	153.2	96	65	14.62 P 0	25.11	24.70			0.41D	0.000		0.00	10.49	43.22	-32.73	0.000					71	3.4	
TMI	189.1	119	65	19.41 P 0	29.90	29.98			-0.08C	0.000		0.00	10.49	52.47	-41.98	0.000					94	3.8	
IMW	244.2	96	50	27.46 P 0	37.95	36.99			0.96M	0.000		0.00	10.49	64.74	-54.25	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	E	SW	NE	NW	N
AVE. OF END POINTS	0.01	0.04	0.06	0.06	0.10	0.11	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.16	-0.08	0.07	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5     3/53                                                                                                  83/11/ 5     3/53

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.44              SE =    0.68              SE =    0.89   QUALITY = A
                                            AZ =    -28.              AZ =   -118.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105  353 34.29 44N 9.24 113W53.51   6.20   2.83 26  6  61 1 0.15  0.7  0.9 A A|A 0.54 10 42 0.00 0.11  0  0.0  0.0  7  2.8  0.2
SE OF ORIG =  0.043          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-2    1.9  59 162 35.60 PD0        1.31  1.19  0.17       -0.06 1.063       0.00-34.29  2.09-36.68 0.000           218        2
MBAI   4.6 126 142 35.67 PC0        1.38  1.43              -0.05 1.063       0.00-34.29  2.49-36.79 0.000           218        2
B4     5.9  36 135 35.93IPD         1.64  1.57               0.07 1.063      39.50  5.21  2.74  2.46 0.000           218  65 2.82
B16    6.2 306 134 35.73IPD         1.44  1.62              -0.18 1.063                                                218  60 2.82
WSUI   8.0 332 126 35.88 P 0        1.59  1.86              -0.28 1.063       0.00-34.29  3.26-37.55 0.000           218        2
OSPI   8.7  34 124 36.33 PD0        2.04  1.95               0.09 1.063       0.00-34.29  3.41-37.71 0.000           218        2
M-1    9.7 166 121 36.76 PC0        2.47  2.10  0.30         0.07 1.063       0.00-34.29  3.67-38.49 0.000           218        2
NSUI  10.0 341 120 36.50 P 3        2.21  2.15               0.06 0.066       0.00-34.29  3.76-38.06 0.000           218        2
B37   10.0 188 120 36.40EPD         2.11  2.16              -0.05 1.063      38.02  3.73  3.77 -0.05 0.744           218        2
LSGS  14.2  90 112 37.29 PD0        3.00  2.84               0.16 1.063       0.00-34.29  4.97-39.27 0.000           218        2
B43   15.0 320 111 37.40IP          3.11  2.96               0.14 1.063      39.91  5.62  5.18  0.43 0.744           218        2
NWSI  15.2 317 111 37.15 PC0        2.86  3.00              -0.15 1.063       0.00-34.29  5.25-39.55 0.000           218        2
BRPI  15.7 198 110 37.51 PC0        3.22  3.08               0.14 1.063       0.00-34.29  5.39-39.68 0.000           218        2
LCRI  17.0 137 108 37.45 PD0        3.16  3.30              -0.15 1.063       0.00-34.29  5.78-40.07 0.000           218        2
BSU3  18.7 324 10T 37.85 P 0        3.56  3.59              -0.04 1.063       0.00-34.29  6.29-40.58 0.000           218        2
BRCI  23.0 214 104 38.55 P-0        4.26  4.34              -0.08 1.063      40.65  6.36  7.59 -1.24 0.000           218        2
B12   23.7 215 103 38.75IP          4.46  4.45               0.01 1.063                                                218        2
B11   24.5 164 103 39.01IPD         4.72  4.59               0.13 1.063                                                218  65 2.92
B5    24.6 131 103 38.95IP          4.66  4.61               0.05 1.063                                                218        2
B15   24.8 276 103 38.96IP          4.67  4.65               0.02 1.063      42.46  8.17  8.14  0.03 0.000           218  60 2.82
B1    30.5 335  65 39.83IPD         5.54  5.60              -0.06 1.063                                                218  60 2.82
B6    32.7 130  65 40.25IP          5.96  5.95               0.01 1.063      44.26  9.97 10.41 -0.44 0.000           218  38 2.42
B9    36.5 148  65 41.09IPC         6.80  6.57               0.23 1.063                                                218  95 3.32
MDCI  39.4 119  65 41.07 P+0        6.78  7.05              -0.27 1.063      45.42 11.13 12.33 -1.21 0.000           218        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                  0.22  0.60  0.64  0.86  0.89  1.02  1.05

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                26      0.15      0.35      0.81         A

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.31	SE =	0.43	SE = 0.98 QUALITY = A
AZ =	-36.	AZ =	-126.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	356 29.26	44N11.89	114W	1.97	10.19	2.04	11	15	95	1	0.05	0.4	1.0	B	A|B	0.05	10	13	0.00	0.04	0	0.0	0.0	1	2.0	0.0

SE OF ORIG = 0.039 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	6.3	101	145	31.36IPO	2.10	2.12		-0.02	1.058										219			2
815	13.6	261	121	32.30IPC	3.04	2.99		0.05	1.058										219			2
84	14.7	91	119	32.36IPC	3.10	3.14		-0.04	1.058		34.81	5.55	5.50	0.05	0.740				219			2
81	22.8	356	106	33.64IPC	4.38	4.36		0.02	1.058		36.85	7.59	7.63	-0.04	0.740				219			2
812	24.5	185	105	33.79IPC	4.53	4.62		-0.09	1.058										219			2
811	33.6	148	99	35.38EPC	6.12	6.09		0.04	1.058										219			2
85	36.5	125	98	35.76IPC	6.50	6.55		-0.04	1.058		40.06	10.80	11.46	-0.65	0.000				219			2
86	44.6	125	96	37.10IP	7.84	7.85		-0.01	1.058										219	22	2.02	
39	47.2	140	95	37.591P	8.33	8.26		0.07	1.058		42.89	13.63	14.46	-0.82	0.000				219			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	E	SW	NE	N	Z
AVE. OF END POINTS	0.09	0.12	0.15	0.17	0.22	0.24	0.24

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
5	0.05	0.03	0.17	D

x>

x>

	HORIZONTAL		VERTICAL	
SE =	0.61	SE = 0.87	SE = 1.37	QUALITY = A
AZ =	-29.	AZ = -119.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	422 9.12	44N 8.51	113W58.38	8.67	3.18	28	9	81	1	0.17	0.9	1.4	B	8|A	0.08	10	57	0.00	0.12	0	0.0	0.0	9	3.2	0.2

SE OF ORIG = 0.060 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX PR	XMAG	R	FMP	FMAG
B16	5.2	16	145	11.03IPD	1.91	1.81			0.10	1.022									220	80	3.02	
M-2	8.5	74	130	11.60 PDO	2.48	2.17	0.17		0.15	1.022		0.00	-9.12	3.79	-13.21	0.000			220		2	
WSUI	8.9	18	129	11.29 P 0	2.17	2.22			-0.04	1.022		0.00	-9.12	3.88	-13.00	0.000			220		2	
B37	10.0	149	125	11.51IP	2.39	2.36			0.03	1.022		13.37	4.25	4.13	0.12	0.715			220		2	
MBAI	10.3	98	123	11.71 PDO	2.59	2.41			0.18	1.022		0.00	-9.12	4.22	-13.33	0.000			220		2	
B4	11.6	58	119	11.75IPD	2.63	2.59			0.04	1.022		14.16	5.04	4.53	0.51	0.000			220		2	
M-1	11.9	133	119	12.01 PDO	2.89	2.62	0.30		-0.03	1.022		0.00	-9.12	4.59	-14.23	0.000			220		2	
NWSI	13.1	343	116	11.86 PDO	2.74	2.79			-0.05	1.022		0.00	-9.12	4.89	-14.00	0.000			220		2	
BRPI	13.7	173	114	12.06 PCO	2.94	2.89			0.06	1.022		12.76	3.64	5.05	-1.41	0.000			220		2	
DSPI	14.2	53	113	12.08 PDO	2.96	2.96			0.00	1.022		0.00	-9.12	5.18	-14.30	0.000			220		2	
B41	15.9	198	109	0.00 P 4	-9.12	3.22			-12.34	0.000		14.74	5.62	5.64	-0.02	0.000			220		2	
BSU3	17.1	345	107	12.55 PDO	3.43	3.41			0.03	1.022		0.00	-9.12	5.96	-15.08	0.000			220		2	
B15	18.7	282	104	12.72IP	3.60	3.65			-0.05	1.022		15.16	6.04	6.39	-0.35	0.000			220	70	2.92	
BRCI	18.9	200	104	12.76 PCO	3.64	3.68			-0.04	1.022		15.26	6.14	6.44	-0.30	0.000			220		2	
B12	19.4	201	103	12.90IPC	3.78	3.77			0.01	1.022									220		2	
LSGS	20.8	86	102	13.20 PDO	4.08	3.99			0.09	1.022		14.87	5.75	6.99	-1.23	0.000			220		2	
LCRI	21.2	122	101	12.95 PDO	3.83	4.05			-0.22	1.022		0.00	-9.12	7.09	-16.21	0.000			220		2	
B51	21.2	123	101	13.04EPDO	3.92	4.06			-0.13	1.022		15.99	6.87	7.10	-0.23	0.715			220		2	
B44	22.8	353	100	0.00 P 4	-9.12	4.30			-13.42	0.000		16.67	7.55	7.53	0.02	0.000			220		2	
B11	25.8	149	98	13.92IP	4.80	4.79			0.02	1.022		17.03	7.91	8.37	-0.46	0.000			220	80	3.12	
B5	29.1	121	96	14.38IPD	5.26	5.31			-0.04	1.022									220		2	
B1	29.7	347	96	14.40IPC	5.28	5.41			-0.12	1.022		18.20	9.08	9.46	-0.38	0.000			220	75	3.02	
B6	37.1	122	94	15.55IPC	6.43	6.62			-0.19	1.022		20.03	10.91	11.59	-0.68	0.000			220	58	2.82	
B9	39.3	139	94	15.89IPC	6.77	6.97			-0.20	1.022		21.79	12.67	12.20	0.47	0.000			220	120	3.52	
NDCI	44.7	114	93	16.58 P+0	7.46	7.84			-0.38	1.022		22.14	13.02	13.72	-0.70	0.000			220		2	
HPI	85.0	124	91	23.91 PCO	14.79	14.39			0.41	1.022		0.00	-9.12	25.17	-34.29	0.000			220	75	3.22	
JGI	103.9	93	65	26.59 PCO	17.47	17.44			0.03	1.022		38.80	29.68	30.53	-0.84	0.000			220	86	3.42	
CI3	116.9	135	65	28.89 PDO	19.77	19.35			0.43	1.022		43.50	34.38	33.86	0.53	0.000			220	89	3.52	
GBI	153.9	96	65	34.30 P 0	25.18	24.79			0.39	D0.000		0.00	-9.12	43.38	-52.50	0.000			220		2	
TMI	189.9	119	65	39.18 P 0	30.06	30.09			-0.03	D0.000		0.00	-9.12	52.66	-61.77	0.000			220		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	E	Z	NE	SE	SW	NW
AVE. OF END POINTS	0.01	0.07	0.08	0.09	0.12	0.12	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.17	-0.01	0.09	D

	HORIZONTAL		VERTICAL	
SE =	0.65	SE =	0.72	SE = 1.24 QUALITY = A
AZ =	-26.	AZ =	-116.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	537 39.87	44N13.38	114W 3.91	8.32	3.56	29	8	80	1	0.13	0.7	1.2	A	A|A	0.14	10	81	0.00	0.09	0	0.0	0.0	12	3.6	0.2

SE OF ORIG = 0.060 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.0	45	145	41.50	P 2		1.63	1.75			-0.12	0.262		0.00		-39.87	3.06	-42.93	0.000						
843	5.8	48	141	41.73	EPC0		1.86	1.83			0.04	1.049		43.22	3.35	3.19	0.16	0.734							
849	7.9	325	131	42.03	EPD0		2.16	2.06			0.10	1.049		43.47	3.60	3.60	0.00	0.734							
BSU3	8.1	21	130	41.95	PC0		2.08	2.08			0.00	1.049													
816	9.7	115	124	42.17	IPD0		2.30	2.29			0.02	1.049		0.00		-39.87	4.00	-43.87	0.000				115	3.3	
WSUI	10.1	93	122	42.21	PC0		2.34	2.35			0.00	1.049													
815	11.9	245	117	42.55	IPD0		2.68	2.60			0.08	1.049		0.00		-39.87	4.55	-44.41	0.000				110	3.3	
844	14.4	19	110	42.69	EPC0		2.82	2.97			-0.14	1.049		45.08	5.21	5.19	0.02	0.000							
M-2	16.9	113	105	43.40	PC0		3.53	3.36	0.17		0.01	1.049		0.00		-39.87	5.87	-46.04	0.000						
84	17.5	100	104	43.26	IPC0		3.39	3.46			-0.07	1.049		0.00		-39.87	6.06	-45.92	0.000				120	3.4	
OSPI	18.7	91	102	43.45	P 0		3.58	3.64			-0.05	1.049		0.00		-39.87	6.36	-46.23	0.000						
81	20.0	2	101	43.57	IPC0		3.70	3.84			-0.14	1.049		0.00		-39.87	6.73	-46.60	0.000				116	3.4	
MBAI	20.4	121	100	43.87	P 0		4.00	3.92			0.08	1.049		0.00		-39.87	6.86	-46.73	0.000						
837	21.6	145	99	43.96	EPC0		4.09	4.10			0.00	1.049		47.34	7.47	7.17	0.30	0.000							
M-1	23.5	137	98	44.51	PC0		4.64	4.40	0.30		-0.06	1.049		0.00		-39.87	7.70	-48.09	0.000						
841	24.3	174	97	0.00	IP 4		-39.87	4.53			-44.40	0.000		47.65	7.78	7.93	-0.14	0.000							
BRPI	24.3	158	97	44.41	P 0		4.54	4.54			0.01	1.049		47.11	7.24	7.94	-0.70	0.000							
BRCI	26.7	178	96	44.75	P 0		4.88	4.94			-0.05	1.049		44.75	4.88	8.64	-3.76	0.000							
812	27.1	179	96	44.79	IPC0		4.92	5.00			-0.08	1.049		0.00		-39.87	8.75	-48.62	0.000				160	3.7	
LSGS	29.1	105	95	45.10	P 0		5.23	5.32			-0.06	1.049		0.00		-39.87	9.31	-49.17	0.000						
LCRI	32.4	128	94	45.65	P 0		5.78	5.86			-0.07	1.049		0.00		-39.87	10.25	-50.12	0.000						
811	37.4	147	93	46.51	EP 0		6.64	6.65			-0.01	1.049		0.00		-39.87	11.65	-51.51	0.000				120	3.5	
85	40.2	126	93	46.91	IPC0		7.04	7.12			-0.08	1.049		0.00		-39.87	12.46	-52.32	0.000						
86	48.3	126	92	48.19	IPD0		8.32	8.43			-0.11	1.049		0.00		-39.87	14.75	-54.62	0.000				89	3.3	
89	50.9	139	92	48.79	IPD0		8.92	8.86			0.07	1.049		55.59	15.72	15.50	0.22	0.000					140	3.7	
MDCI	55.3	119	92	49.16	P 0		9.29	9.56			-0.27	1.049		0.00		-39.87	16.73	-56.60	0.000						
MPI	96.2	126	91	56.44	P 0		16.57	16.19			0.38	1.049		0.00		-39.87	28.33	-68.20	0.000				99	3.5	
JGI	111.9	97	65	58.86	P 0		18.99	18.64			0.35	1.049		0.00		-39.87	32.62	-72.49	0.000				111	3.7	
CIB	128.5	135	65	1.46	PD0		21.59	21.06			0.51	D0.000		17.51	37.64	36.89	0.75	0.000					121	3.8	
GBI	162.4	99	65	6.45	PD0		26.58	26.07			0.51	D0.000		0.00	20.13	45.62	-25.49	0.000							
TID	170.2	242	65	8.03	PC0		28.16	27.22			0.94	M0.000		0.00	20.13	47.64	-27.50	0.000							
CPI	183.6	258	65	9.43	PC0		29.56	29.18			0.38	D0.000		0.00	20.13	51.07	-30.93	0.000							
CMI	197.5	80	50	11.50	P 0		31.63	31.18			0.45	D0.000		0.00	20.13	54.56	-34.43	0.000							
TMI	200.6	121	50	11.63	P 0		31.76	31.56			0.20	D0.000		36.38	56.51	55.24	1.28	0.000					133	4.1	
KCI	202.5	108	50	11.90	P 0		32.03	31.80			0.24	D0.000		0.00	20.13	55.64	-35.51	0.000							
BUT	231.4	31	50	15.00	P 0		35.13	35.42			-0.28	D0.000		41.90	62.03	61.98	0.06	0.000							
WPI	239.7	244	50	16.83	PC0		36.96	36.45			0.51	D0.000		0.00	20.13	63.79	-43.66	0.000							
IMW	252.9	98	50	19.25	P 0		39.38	38.10			1.28	M0.000													
NPI	262.6	151	50	21.49	P 0		41.62	39.32			2.31	M0.000		0.00	20.13	68.81	-48.67	0.000							
MSD	289.8	2	50	21.70	P 0		41.83	42.72			-0.89	M0.000		0.00	20.13	74.76	-54.62	0.000							
MLI	290.6	147	50	25.43	P 0		45.56	42.82			2.75	M0.000		0.00	20.13	74.93	-54.79	0.000							
NCM	331.0	353	50	27.70	PD0		47.83	47.86			-0.03	D0.000		0.00	20.13	83.76	-63.63	0.000							

QUALITY EVALUATION

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5      7/32                                                                                                  83/11/ 5      7/32

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.47              SE =   0.88              SE =   0.93   QUALITY = A
                                            AZ =   -31.              AZ =  -121.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105  732  6.59 44N 7.89 113W51.66   6.55   2.35 10 21 121 1 0.08  0.9  0.9 B B|B 0.33 10 13 0.00 0.07  0  0.0  0.0  9  2.4  0.4
SE OF ORIG =  0.041          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B4     7.3   8 131  8.45IPC          1.86  1.80              0.06 1.031                                                 222  40 2.42
B16    9.7 309 123  8.67EPC          2.08  2.14             -0.07 1.031                                                 222  34 2.32
B5    21.1 131 106 10.60IPC          4.01  4.02             -0.01 1.031                                                 222  80 3.12
B11   21.5 169 106 10.57EPC          3.98  4.08             -0.11 1.031      13.93  7.34  7.15  0.19 0.722            222  34 2.32
B12   23.3 223 104 10.94IP           4.35  4.40             -0.05 1.031                                                 222  67 2.92
B15   27.6 281  65 11.73EP           5.14  5.11              0.03 1.031      14.89  8.30  8.94 -0.64 0.000            222  15 1.62
B6    29.2 129  65 11.84IP           5.25  5.36             -0.11 1.031      15.33  8.74  9.37 -0.64 0.000            222  22 2.02
B9    33.1 149  65 12.65EPD          6.06  5.99              0.07 1.031      21.89 15.30 10.48  4.82 0.000            222  38 2.52
B1    33.8 333  65 12.77IP           6.18  6.11              0.06 1.031                                                 222  27 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NW    SE     N     E    NE    SW
AVE. OF END POINTS                   0.08  0.08  0.14  0.17  0.20  0.21  0.26

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                   5      0.08      0.00      0.17         0


          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5      8/ 8                                                                                                  83/11/ 5      8/ 8

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.70              SE =   1.09              SE =   2.13   QUALITY = A
                                            AZ =   -69.              AZ =    21.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105  8 8 35.03 43N56.59 113W47.91  11.34   2.35 10 14 138 1 0.08  1.1  2.1 C B|C 1.58 10 13 0.00 0.06  0  0.0  0.0  8  2.3  0.2
SE OF ORIG =  0.112          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    0.9 261 175 37.03IPC          2.00  1.99              0.01 1.031                                                 223  37 2.32
B5    13.2  57 126 38.16IPD          3.13  3.03              0.10 1.031                                                 223        2
B9    14.0 123 124 38.18IPD          3.15  3.15              0.00 1.031                                                 223  45 2.62
B6    17.8  82 117 38.65IPD          3.62  3.67             -0.05 1.031      41.90  6.87  6.43  0.44 0.000            223  23 2.02
B12   21.4 281 112 39.19IPD          4.16  4.21             -0.05 1.031      44.95  9.92  7.37  2.55 0.000            223  46 2.62
B4    28.4 352 105 40.20IPC          5.17  5.29             -0.12 1.031      43.70  8.67  9.26 -0.59 0.000            223  37 2.42
B16   29.9 335 104 40.46EPC          5.43  5.51             -0.08 1.031                                                 223  34 2.42
B15   41.5 309  99 42.50EP           7.47  7.37              0.10 1.031                                                 223  29 2.32
B1    55.0 338  96 44.67IPC          9.64  9.55              0.09 1.031      51.75 16.72 16.71  0.01 0.722            223  24 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    NE    SE     N     E    NW
AVE. OF END POINTS                   0.45  0.52  0.52  0.71  0.80  0.92  1.05
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 5 8/13 83/11/ 5 8/13

	HORIZONTAL	VERTICAL	
SE =	0.37	SE = 0.48	SE = 0.87 QUALITY = A
AZ =	-31.	AZ = -121.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	813 39.31	44N12.65	114W 1.14	9.13	2.96	25	6	96	1	0.08	0.5	0.9	B	A|B	0.06	10	42	0.00	0.07	0	0.0	0.0	8	3.0	0.3

SE OF ORIG = 0.044 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	2.7	158	162	40.98 P 2 1.67 1.70	-0.03	0.271		0.00	-39.31	2.98	-42.28	0.000				224			2
NWSI	4.9	358	149	40.10 PD0 0.79 1.85	-1.06	M0.000		0.00	-39.31	3.24	-42.54	0.000				224			2
843	5.3	7	147	41.30IPD 1.99 1.68	0.11	1.085		42.63	3.32	3.29	0.03	0.759				224			2
816	5.7	117	144	41.19IPD 1.88 1.93	-0.04	1.085										224		83	3.12
NSUI	7.7	66	135	40.54 PD0 1.23 2.13	-0.89	M0.000		0.00	-39.31	3.72	-43.03	0.000				224			2
849	11.3	314	123	0.00IP 4 -39.31 2.59	-41.89	0.000		43.80	4.49	4.53	-0.03	0.759				224			2
M-2	12.9	114	118	42.30 P 2.99 2.81 0.17	0.01	1.085										224			2
84	13.7	97	116	42.25IPD 2.94 2.91	0.03	1.085										224		83	3.12
815	15.0	256	113	42.42IPC 3.11 3.11	0.00	1.085										224		60	2.82
844	15.0	4	113	0.00IP 4 -39.31 3.11	-42.42	0.000		44.57	5.26	5.45	-0.18	0.759				224			2
DSPI	15.0	87	113	42.40 PD0 3.09 3.11	-0.02	1.085		43.41	4.10	5.45	-1.34	0.000				224			2
M8AI	16.6	123	110	42.74 PD0 3.43 3.35	0.08	1.085		0.00	-39.31	5.87	-45.17	0.000				224			2
837	18.5	152	107	42.91EPC 3.60 3.64	-0.03	1.085		45.57	6.26	6.36	-0.10	0.759				224			2
M-1	20.0	142	105	43.56 P 4.25 3.88 0.30	0.08	1.085										224			2
81	21.5	352	103	43.51IPC 4.20 4.12	0.08	1.085										224		55	2.72
8RPI	21.9	166	103	43.57 PC0 4.26 4.18	0.08	1.085		45.92	6.61	7.32	-0.70	0.000				224			2
LSGS	25.2	104	100	44.04 PD0 4.73 4.70	0.03	1.085		47.29	7.98	8.23	-0.25	0.000				224			2
8RCI	25.5	186	100	43.90 PC0 4.59 4.76	-0.16	1.085		0.00	-39.31	8.32	-47.63	0.000				224			2
812	26.0	187	99	44.16IP 4.85 4.83	0.02	1.085										224		110	3.42
LCRI	28.7	131	98	44.50 PD0 5.19 5.27	-0.07	1.085		0.00	-39.31	9.22	-48.52	0.000				224			2
811	34.3	151	96	45.59IPC 6.28 6.16	0.12	1.085		49.88	10.57	10.78	-0.20	0.000				224		60	2.92
85	36.5	128	95	45.86IPD 6.55 6.51	0.04	1.085		50.86	11.55	11.39	0.16	0.000				224			2
86	44.5	128	94	47.10EP 7.79 7.83	-0.04	1.085										224		39	2.52
89	47.5	142	94	47.68EP 8.37 8.31	0.06	1.085		53.98	14.67	14.55	0.12	0.000				224		88	3.22
MDCI	51.4	120	93	48.07 PD0 8.76 8.94	-0.18	1.085		54.59	15.28	15.64	-0.36	0.000				224			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	Z	N	SW	SE	NE
AVE. OF END POINTS	0.12	0.14	0.16	0.16	0.17	0.19	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.08	0.08	0.16	D

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	0.43	SE =	0.63	SE = 1.38 QUALITY = A
AZ =	-63.	AZ =	27.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	1041 36.01	44N19.20	114W 2.73	10.05	2.84	9	20	137	1	0.04	0.6	1.4	B	A(C	0.53	10	14	0.00	0.03	0	0.0	0.0	8	2.8	0.3

SE OF ORIG = 0.062 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
81	9.2	356	133	38.40IPD	2.39	2.41	-0.02	1.034										225	53	2.72	
816	16.4	154	115	39.44IPD	3.43	3.38	0.05	1.034		41.75	5.74	5.91	-0.17	0.000				225	55	2.72	
815	20.1	218	109	39.96IPC	3.95	3.93	0.01	1.034		43.38	7.37	6.88	0.48	0.000				225	55	2.82	
84	20.8	131	108	40.12IPD	4.11	4.05	0.05	1.034		43.05	7.04	7.09	-0.05	0.724				225	65	2.92	
812	37.9	182	97	42.74IPD	6.73	6.77	-0.04	1.034										225	100	3.32	
811	46.1	156	95	44.43EPD4	8.42	8.08	0.33	0.000		50.53	14.52	14.14	0.37	0.000				225	49	2.72	
85	46.3	138	95	44.14IPD	8.13	8.12	0.00	1.034										225		2	
86	54.3	136	94	45.45EP	9.44	9.41	0.03	1.034										225	33	2.42	
89	58.6	147	94	46.08EP	10.07	10.11	-0.05	1.034		53.58	17.57	17.69	-0.13	0.000				225	75	3.22	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	N	SE	SW	NE	Z
AVE. OF END POINTS	0.14	0.15	0.15	0.18	0.19	0.19	0.29

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.04	0.08	0.18	0

HORIZONTAL		VERTICAL	
SE = 0.65	SE = 0.87	SE = 1.63	QUALITY = A
AZ = -24.	AZ = -114.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	1736 25.56	44N10.45	114W 1.42	9.26	3.51	34	9	84	1	0.18	0.9	1.6	B	B|A	0.10	10	67	0.00	0.13	0	0.0	0.0	8	3.5	0.2

SE OF ORIG = 0.068 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D	=TTOB	-TTCAL	-DELAY	-EDLY	= P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	5.7	75	145	27.63	IP02			2.07	1.93			0.14	0.260										228	133	3.52	
WSUI	8.3	54	133	27.85	P 0			2.29	2.22			0.07	1.041		0.00	-25.56	3.88	-29.44	0.000				228		2	
NWSI	9.0	1	131	28.15	PD0			2.59	2.29			0.30	1.041		0.00	-25.56	4.01	-29.57	0.000				228		2	
B43	9.3	6	130	27.99	PD0			2.43	2.34			0.10	1.041		29.77	4.21	4.09	0.12	0.729				228		2	
NSUI	10.3	45	127	28.00	PD0			2.44	2.45			-0.01	1.041		0.00	-25.56	4.29	-29.85	0.000				228		2	
M-2	12.2	96	121	28.64	PD0			3.08	2.72	0.17		0.19	1.041		0.00	-25.56	4.76	-30.62	0.000				228		2	
BSU3	13.0	358	119	28.25	P 0			2.69	2.82			-0.13	1.041		0.00	-25.56	4.94	-30.50	0.000				228		2	
B15	14.2	272	116	28.60	IPC			3.04	2.99			0.05	1.041										228	108	3.32	
B4	14.2	80	116	28.55	IPD			2.99	2.99			0.00	1.041		33.44	7.88	5.24	2.64	0.000				228	155	3.62	
B49	14.2	327	116	28.53	EPD0			2.97	3.00			-0.03	1.041		30.69	5.13	5.25	-0.12	0.729				228		2	
MBAI	15.1	109	114	28.89	PD0			3.33	3.14			0.19	1.041		0.00	-25.56	5.50	-31.05	0.000				228		2	
B37	15.2	143	113	28.76	EPC0			3.20	3.16			0.05	1.041		31.30	5.74	5.52	0.22	0.000				228		2	
OSPI	16.1	72	112	28.83	PD0			3.27	3.29			-0.02	1.041		0.00	-25.56	5.75	-31.31	0.000				228		2	
M-1	17.3	132	110	29.33	PC0			3.77	3.47	0.30		0.00	1.041		0.00	-25.56	6.07	-32.15	0.000				228		2	
BRPI	18.1	162	108	29.12	PC0			3.56	3.59			-0.03	1.041		0.00	-25.56	6.28	-31.84	0.000				228		2	
B41	18.8	183	107	29.28	IPC0			3.72	3.69			0.03	1.041		32.16	6.60	6.46	0.14	0.000				228		2	
B44	19.1	4	107	29.07	P 0			3.51	3.73			-0.22	1.041		31.67	6.11	6.54	-0.42	0.000				228		2	
BRCI	21.4	186	104	29.70	PC0			4.14	4.11			0.03	1.041		0.00	-25.56	7.20	-32.76	0.000				228		2	
B12	21.9	188	103	29.81	IPC			4.25	4.19			0.06	1.041										228		2	
LSGS	24.9	95	101	30.24	PD0			4.68	4.66			0.03	1.041		0.00	-25.56	8.15	-33.71	0.000				228		2	
B1	25.5	354	100	30.14	IPC			4.58	4.76			-0.18	1.041										228		2	
LCRI	26.5	124	100	30.15	PC0			4.59	4.92			-0.33	1.041		0.00	-25.56	8.62	-34.17	0.000				228		2	
B51	26.6	125	100	30.32	P 0			4.76	4.93			-0.17	1.041		34.34	8.78	8.63	0.15	0.000				228		2	
B11	31.0	146	97	31.10	IPD			5.54	5.64			-0.09	1.041		35.10	9.54	9.86	-0.32	0.000				228	120	3.52	
B5	34.4	122	96	31.69	IPC			6.13	6.18			-0.05	1.041		35.52	9.96	10.82	-0.86	0.000				228		2	
B38	34.4	122	96	31.72	PC0			6.16	6.18			-0.02	1.041		36.25	10.69	10.82	-0.13	0.000				228		2	
B6	42.5	123	95	32.86	IPC			7.30	7.48			-0.18	1.041		38.40	12.84	13.10	-0.25	0.000				228	85	3.22	
B9	44.7	138	94	33.16	IPC			7.60	7.85			-0.25	1.041										228		2	
MDCI	49.8	116	94	33.88	PC0			8.32	8.69			-0.37	1.041		39.08	13.52	15.20	-1.68	0.000				228		2	
HPI	90.4	125	92	41.09	PC0			15.53	15.26			0.27	1.041		0.00	-25.56	26.71	-52.27	0.000				228	106	3.62	
JGI	108.2	95	65	43.81	PC0			18.25	18.03			0.22	1.041		0.00	-25.56	31.56	-57.12	0.000				228	119	3.72	
CIB	122.3	135	65	46.12	PC0			20.56	20.10			0.46	1.041		60.83	35.27	35.18	0.09	0.000				228	116	3.82	
GBI	158.3	98	65	51.35	P 0			25.79	25.40			0.39	D0.000		0.00	-25.56	44.46	-70.01	0.000				228		2	
TMI	195.2	120	50	56.46	P 0			30.90	30.80			0.11	D0.000		0.00	-25.56	53.89	-79.45	0.000				228		2	
NPI	256.3	151	50	6.18	P 0			40.62	38.42			2.20	M0.000		37.13	71.57	67.24	4.33	0.000				228		2	
MLI	284.2	147	50	9.80	P 0			44.24	41.92			2.32	M0.000		0.00	34.44	73.36	-38.92	0.000				228		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	SW	E	NW	Z	NE	SE
AVE. OF END POINTS	0.03	0.04	0.06	0.06	0.09	0.09	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.18	-0.02	0.07	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5    17/42                                                                                                  83/11/ 5    17/42

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.47              SE =   0.68              SE =   1.11   QUALITY = A
                                            AZ =   -60.              AZ =    30.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105 1742 38.98 44N13.16 114W 0.82  11.47   2.34 10 16 110 1 0.06  0.7  1.1 B A|8 0.06 10 14 0.00 0.04  0  0.0  0.0  8  2.3  0.2
SE OF ORIG =  0.056          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.9 128 151 41.26IPD         2.28  2.26              0.02 1.031                                                 226  33 2.32
B4    13.4 101 126 42.08IPC         3.10  3.07              0.02 1.031      44.34  5.36  5.38 -0.02 0.722             226  30 2.22
B15   15.6 253 121 42.33IPC         3.35  3.38             -0.04 1.031      44.69  5.71  5.92 -0.21 0.000             226  35 2.42
B1    20.6 351 113 43.10IPD         4.12  4.10              0.01 1.031      45.95  6.97  7.18 -0.21 0.000             226  30 2.22
B12   27.0 188 106 44.06IPD         5.08  5.07              0.00 1.031                                                 226  50 2.72
B11   34.9 152 101 45.45EP          6.47  6.33              0.14 1.031      50.82 11.84 11.07  0.76 0.000             226  27 2.22
B5    36.7 130 101 45.57IPC         6.59  6.62             -0.03 1.031                                                 226        2
B6    44.8 129  98 46.87IPD         7.89  7.91             -0.02 1.031                                                 226  25 2.22
B9    48.0 143  97 47.33EP          8.35  8.43             -0.08 1.031      53.68 14.70 14.75 -0.06 0.000             226  42 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW     E    NE    SW     Z     N
AVE. OF END POINTS                 0.09  0.11  0.15  0.19  0.20  0.20  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.06     -0.01      0.16         D
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 5    17/43                                                                                83/11/ 5    17/43

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.84              SE =   1.46              SE =   2.71   QUALITY = B
                                          AZ =   -26.              AZ =  -116.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105 1743 55.12 44N 8.86 113W58.41   8.37   3.35 32  8  81 1 0.32  1.5  2.7 B C/A 0.78 10 61 0.00 0.26  0  0.0  0.0 12  3.3  0.3
SE OF ORIG =  0.107          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.6  19 148 56.75IPD          1.63  1.72              -0.08 1.060        0.00-55.12  3.69-58.81 0.000            227 100 3.22
WSUI   8.3  19 130 57.25 PDO          2.13  2.11               0.02 1.060        0.00-55.12  3.69-58.81 0.000            227        2
M-2    8.3  78 129 57.39 PDO          2.27  2.12  0.17        -0.01 1.060        0.00-55.12  3.71-59.12 0.000            227        2
MBAI  10.5 101 121 57.51 PDO          2.39  2.40              -0.01 1.060        0.00-55.12  4.20-59.32 0.000            227        2
B37   10.6 151 121 57.85EPD          2.73  2.41               0.32 1.060       59.82  4.70  4.22  0.48 0.742            227        2
NSUI  10.7  18 121 57.25 PDO          2.13  2.43              -0.30 1.060        0.00-55.12  4.26-59.37 0.000            227        2
B4    11.3  61 119 57.50IPD          2.38  2.52              -0.14 1.060       60.44  5.32  4.41  0.91 0.000            227 135 3.52
M-1   12.4 135 116 57.83 PDO          2.71  2.66  0.30        -0.25 1.060        0.00-55.12  4.66-60.30 0.000            227        2
NWSI  12.5 342 116 57.50 PDO          2.38  2.68              -0.29 1.060        0.00-55.12  4.69-59.80 0.000            227        2
B43   12.6 346 115 58.14IP           3.02  2.69               0.33 1.060       60.40  5.28  4.71  0.57 0.742            227        2
DSPI  13.8  55 112 57.89 PDO          2.77  2.89              -0.11 1.060        0.00-55.12  5.05-60.17 0.000            227        2
BRPI  14.3 173 111 57.82 P+0          2.70  2.96              -0.26 1.060       60.82  5.70  5.19  0.52 0.000            227        2
BSU3  16.5 345 106 58.25 P 0          3.13  3.29              -0.16 1.060        0.00-55.12  5.76-60.87 0.000            227        2
B41   16.5 197 106  0.00IP 4        -55.12  3.30             -58.41 0.000       61.14  6.02  5.77  0.25 0.742            227        2
B15   18.5 281 103 58.44IPC          3.32  3.61              -0.29 1.060       61.73  6.61  6.32  0.29 0.000            227 102 3.32
B49   19.0 321 102  0.00IP 4        -55.12  3.69             -58.81 0.000       62.18  7.06  6.46  0.61 0.742            227        2
BRCI  19.5 199 102 58.55 P+0          3.43  3.76              -0.33 1.060       60.35  5.23  6.59 -1.35 0.000            227        2
LSGS  20.8  88 100 59.04 PDO          3.92  3.97              -0.05 1.060        0.00-55.12  6.95-62.07 0.000            227        2
LCRI  21.6 123  99 58.95 P 0          3.83  4.10              -0.26 1.060        0.00-55.12  7.17-62.29 0.000            227        2
B51   21.6 125  99 59.53EPD          4.41  4.11               0.31 1.060       62.47  7.35  7.19  0.17 0.742            227        2
B44   22.1 353  99  0.00IP 4        -55.12  4.19             -59.30 0.000       62.70  7.58  7.33  0.26 0.742            227        2
B11   26.4 150  96 59.78EP           4.66  4.88              -0.22 1.060                                                 227  90 3.22
B1    29.1 347  95 60.07IPD          4.95  5.31              -0.36 1.060       65.05  9.93  9.29  0.64 0.000            227  89 3.22
B6    37.5 123  93 61.58EP           6.46  6.68              -0.22 1.060       66.50 11.38 11.69 -0.31 0.000            227  65 2.92
B9    39.8 140  93 61.96IPC          6.84  7.05              -0.21 1.060                                                 227 132 3.62
MDCI  45.0 114  93  2.55 PCO         7.43  7.89              -0.45 1.060        9.40 14.28 13.80  0.48 0.000            227        2
MPI   85.4 125  91 10.09 P 0         14.97 14.45               0.53 1.060        0.00  4.88 25.28-20.40 0.000            227  60 3.02
JGI  104.0  93  91 12.68 P 0         17.56 17.46               0.10 1.060        0.00  4.88 30.56-25.68 0.000            227  61 3.12
CIB  117.4 135  65 15.31 P 0         20.19 19.44               0.75 1.060        0.00  4.88 34.02-29.13 0.000            227  89 3.52
GBI  154.0  97  65 20.72 P 0         25.60 24.83               0.78L0.000        0.00  4.88 43.44-38.56 0.000            227  97 3.72
TMI  190.3 119  65 25.73 P 0         30.61 30.16               0.45D0.000        0.00  4.88 52.78-47.90 0.000            227 113 4.02
IMW  245.0  97  50 33.61 P 0         38.49 37.10               1.39D0.000        0.00  4.88 64.93-60.05 0.000            227        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                   0.24  0.48  0.48  0.65  0.77  0.95  0.96

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                32      0.32      0.38      0.69         B

        ------------END--------------------END--------------------END--------------------END----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5    18/43                                                                                                  83/11/ 5    18/43

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.59              SE =    0.66              SE =    1.86   QUALITY = A
                                          AZ =      1.              AZ =    -89.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105 1843 12.64 44N14.18 114W 4.32   9.72   2.44  8 18 127 1 0.05  0.7  1.9 B A|B 0.17 10 12 0.00 0.03  0  0.0  0.0  5  2.4  0.2
SE OF ORIG =  0.071          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16   10.8 120 127 15.20IPD          2.56  2.57              -0.01 1.000                                                 728  42 2.57
B15   12.2 238 123 15.41IPD          2.77  2.75               0.01 1.000      16.40  3.76  4.81 -1.06 0.000            728  42 2.57
B4    18.4 104 110 16.33IPC          3.69  3.66               0.03 1.000      19.03  6.39  6.40 -0.02 0.000            728  43 2.57
B1    18.5   4 110 16.32IPC          3.68  3.68              -0.01 1.000                                                 728        7
B12   28.6 178 100 17.88IPD          5.24  5.27              -0.04 1.000                                                 728        7
B11   38.9 147  96 19.57EP           6.93  6.92               0.01 1.000      25.42 12.78 12.11  0.67 0.000            728  41 2.67
B5    41.6 128  96 19.91IP           7.27  7.35              -0.08 1.000                                                 728        7
B6    49.6 127  94 22.00EP 4         9.36  8.65               0.70 0.000                                                 728  24 2.17
B9    52.4 140  94 21.83EP           9.19  9.09               0.09 1.000                                                 728        7

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E     N    SW    NE    SE     Z
AVE. OF END POINTS                  0.11  0.20  0.21  0.22  0.24  0.25  0.27

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  4      0.05      0.07      0.21         0

xx:

xx:

xx)

xx)

xx)

xx)
```

	HORIZONTAL		VERTICAL	
SE =	0.82	SE =	1.60	SE = 1.46 QUALITY = A
AZ =	-21.	AZ =	-111.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	2029 30.35	44N11.60	114W 2.02	8.43	3.55	26	7	178	1	0.21	1.6	1.5	C	8|C	0.17	10	54	0.00	0.15	0	0.0	0.0	5	3.5	0.2

SE OF ORIG = 0.101 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	2.3	105	163	31.99	P 0		1.64	1.57			0.07	1.048		0.00	-30.35	2.75	-33.10	0.000							
842	6.0	125	140	32.44	P 0		2.09	1.86			0.23	1.048		33.64	3.29	3.25	0.04	0.734							
NWSI	6.9	9	136	32.35	PC0		2.00	1.96			0.04	1.048		0.00	-30.35	3.43	-33.78	0.000							
843	7.4	14	134	32.40	P 0		2.05	2.01			0.03	1.048		33.91	3.56	3.52	0.03	0.734							
WSUI	8.0	70	131	32.47	P 0		2.12	2.09			0.03	1.048		0.00	-30.35	3.66	-34.01	0.000							
NSUI	9.6	58	125	32.75	PC0		2.40	2.28			0.12	1.048		0.00	-30.35	3.99	-34.34	0.000							
BSU3	10.8	2	121	32.87	PC0		2.52	2.46			0.06	1.048		0.00	-30.35	4.30	-34.65	0.000							
849	12.0	324	117	0.00	P 4		-30.35	2.62			-32.97	0.000		34.91	4.56	4.59	-0.03	0.734							
M-2	13.4	105	113	33.34	PC0		2.99	2.83	0.17		-0.01	1.048		0.00	-30.35	4.95	-35.60	0.000							
OSPI	16.4	80	107	33.54	PC0		3.19	3.28			-0.09	1.048		0.00	-30.35	5.73	-36.09	0.000							
MBAI	16.7	115	106	33.75	PD0		3.40	3.32			0.08	1.048		0.00	-30.35	5.81	-36.16	0.000							
844	17.0	7	106	33.44	P 0		3.09	3.37			-0.29	1.048		36.04	5.69	5.90	-0.22	0.000							
837	17.4	145	105	33.77	P 0		3.42	3.45			-0.03	1.048		36.35	6.00	6.03	-0.04	0.734							
M-1	19.4	135	102	34.23	PD0		3.88	3.75	0.30		-0.18	1.048		0.00	-30.35	6.57	-37.44	0.000							
BRPI	20.4	161	101	34.12	PD0		3.77	3.91			-0.14	1.048		36.62	6.27	6.84	-0.58	0.000							
841	20.9	180	100	0.00	P 4		-30.35	3.99			-34.34	0.000		37.10	6.75	6.98	-0.24	0.000							
BRCI	23.5	184	98	34.70	PC0		4.35	4.40			-0.06	1.048		37.10	6.75	7.71	-0.96	0.000							
LSGS	25.9	99	97	35.07	PC0		4.72	4.79			-0.08	1.048		0.00	-30.35	8.39	-38.74	0.000							
LCRI	28.4	126	96	35.15	PD0		4.80	5.21			-0.41	1.048		0.00	-30.35	9.12	-39.47	0.000							
851	28.5	127	96	35.40	P 0		5.05	5.22			-0.17	1.048		39.18	8.83	9.14	-0.31	0.000							
MDCI	51.5	117	92	38.95	PC0		8.60	8.95			-0.35	1.048		0.00	-30.35	15.66	-46.01	0.000							
MPI	92.2	126	91	46.35	P 0		16.00	15.54			0.45	1.048		0.00	-30.35	27.20	-57.55	0.000					69	3.2	
JGI	109.2	96	65	48.76	PC0		18.41	18.24			0.17	1.048		0.00	-30.35	31.92	-62.27	0.000					81	3.4	
CIB	124.4	135	65	51.35	P 0		21.00	20.47			0.53	1.048		0.00	-30.35	35.81	-66.17	0.000					96	3.6	
GBI	159.4	98	65	56.70	P 0		26.35	25.62			0.73	D0.000		0.00	-30.35	44.83	-75.19	0.000					94	3.7	
TMI	197.0	120	50	1.60	P 0		31.25	31.10			0.14	D0.000		0.00	29.65	54.43	-24.78	0.000					100	3.9	
IMW	250.4	98	50	9.21	P 0		38.86	37.77			1.08	D0.000		0.00	29.65	66.10	-36.46	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NE	Z	E	SW	NW	N	SE
AVE. OF END POINTS	0.43	0.44	0.51	0.54	0.61	0.83	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
26	0.21	0.32	0.64	8

	HORIZONTAL		VERTICAL	
SE =	0.50	SE =	0.68	SE = 0.99 QUALITY = A
AZ =	-43.	AZ =	-133.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831105	2256 42.89	44N12.78	114W 2.01	10.32	3.62	35	5	69	1	0.13	0.7	1.0	A	A|A	0.33	10	66	0.00	0.10	0	0.0	0.0	3	3.6	0.1

SE OF ORIG = 0.058 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.5	142	159	44.80	P 0		1.91	1.93			-0.02	1.054		46.30	3.41	3.37	0.04	0.000				229		2	
NWSI	4.8	12	153	44.93	PD0		2.04	2.01			0.03	1.054		0.00	-42.89	3.51	-46.40	0.000				229		2	
843	5.3	20	150	45.02	IPD		2.13	2.05			0.08	1.054		46.66	3.77	3.58	0.19	0.738				229		2	
816	6.9	115	143	45.19	IPD		2.30	2.19			0.11	1.054										229		2	
WSUI	7.6	86	140	45.22	PD0		2.33	2.26			0.07	1.054		0.00	-42.89	3.96	-46.85	0.000				229		2	
NSUI	8.6	70	136	45.25	P 0		2.36	2.38			-0.02	1.054		0.00	-42.89	4.16	-47.05	0.000				229		2	
849	10.3	317	131	45.48	EP0		2.59	2.57			0.02	1.054		47.34	4.45	4.50	-0.05	0.738				229		2	
815	13.9	254	121	46.03	IPC		3.14	3.05			0.10	1.054										229		2	
M-2	14.1	113	120	46.04	PD0		3.15	3.07	0.17		-0.09	1.054		0.00	-42.89	5.37	-48.56	0.000				229		2	
844	14.9	8	119	45.88	IPD		2.99	3.17			-0.18	1.054		48.23	5.34	5.55	-0.21	0.738				229		2	
84	14.9	97	119	46.10	IPD		3.21	3.18			0.03	1.054										229		2	
850	14.9	97	119	46.03	EPD		3.14	3.18			-0.04	1.054		48.48	5.59	5.57	0.03	0.738				229		2	
JSPI	16.1	88	116	46.29	PD0		3.40	3.35			0.05	1.054		0.00	-42.89	5.87	-48.76	0.000				229		2	
MBAI	17.7	122	113	46.63	PD0		3.74	3.59			0.15	1.054		0.00	-42.89	6.29	-49.18	0.000				229		2	
CGI	20.1	57	110	47.20	P-4		4.31	3.95			0.36	0.000		0.00	-42.89	6.92	-49.81	0.000				229		2	
M-1	21.0	140	109	47.23	PD0		4.34	4.09	0.30		-0.04	1.054		0.00	-42.89	7.15	-50.56	0.000				229		2	
31	21.1	355	109	46.90	IPD		4.01	4.11			-0.10	1.054		49.75	6.86	7.20	-0.34	0.000				229		2	
BRPI	22.4	163	107	47.23	PC0		4.34	4.31			0.03	1.054		0.00	-42.89	7.55	-50.44	0.000				229		2	
BRCI	25.7	184	104	47.70	PC0		4.81	4.81			0.00	1.054		0.00	-42.89	8.42	-51.31	0.000				229		2	
812	26.1	185	104	47.77	IPC		4.88	4.88			0.00	1.054										229		2	
LSGS	26.4	104	103	47.95	PC0		5.06	4.92			0.14	1.054		49.73	6.84	8.61	-1.77	0.000				229		2	
LCRI	29.8	130	101	48.25	P 0		5.36	5.47			-0.11	1.054		0.00	-42.89	9.57	-52.46	0.000				229		2	
851	29.9	131	101	48.28	IP		5.39	5.49			-0.10	1.054		52.34	9.45	9.60	-0.15	0.738				229		2	
811	35.1	149	99	49.40	EP 4		6.51	6.32			0.19	0.000		54.17	11.28	11.06	0.22	0.000				229		2	
838	37.5	127	98	49.62	EPC		6.73	6.71			0.02	1.054		54.53	11.64	11.75	-0.11	0.738				229		2	
85	37.5	127	98	49.54	IPC		6.65	6.71			-0.06	1.054		54.22	11.33	11.75	-0.42	0.000				229		2	
86	45.6	127	96	50.78	IPC		7.89	8.01			-0.12	1.054		55.70	12.81	14.02	-1.21	0.000				229		2	
89	48.5	141	95	51.18	EP		8.29	8.47			-0.18	1.054		57.53	14.64	14.83	-0.19	0.000				229		2	
MDCI	52.5	119	95	51.77	PC0		8.88	9.13			-0.25	1.054		58.02	15.13	15.98	-0.85	0.000				229		2	
MPI	93.5	127	92	59.00	P 0		16.11	15.77			0.34	1.054		0.00	-42.89	27.59	-70.48	0.000				229	99	3.52	
JGI	109.3	97	65	1.35	PC0		18.46	18.11			0.35	1.054		13.08	30.19	31.70	-1.51	0.000				229	107	3.62	
CIB	125.9	136	65	3.96	P 0		21.07	20.56			0.51	D0.000		19.94	37.05	35.98	1.07	0.000				229	105	3.72	
GBI	159.7	99	65	8.92	PC0		26.03	25.54			0.50	D0.000		27.71	44.82	44.69	0.13	0.000				229		2	
TMI	197.9	121	50	14.19	PC0		31.30	31.01			0.29	D0.000		0.00	17.11	54.27	-37.16	0.000				229		2	
IMW	250.2	98	50	20.11	P 0		37.22	37.56			-0.34	D0.000		0.00	17.11	65.73	-48.62	0.000				229		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	N	SE
AVE. OF END POINTS	0.46	0.50	0.61	0.66	0.73	0.83	1.03

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
36	0.13	0.49	0.71	A

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5    22/57                                                                                  83/11/ 5    22/57

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.70              SE =    1.19              SE =    1.59   QUALITY = A
                                            AZ =    -42.              AZ =   -132.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105 2257 40.68 44N10.69 113W56.87   6.57        18  8  82 1 0.19  1.2  1.6 B B|A 0.05 10 32 0.00 0.13  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.071          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   4.8 283 143 42.00 P 0        1.32  1.49              -0.18 1.034      43.00  2.32  2.61 -0.30 0.000
M-2    6.3 105 135 42.54 P          1.86  1.68  0.17         0.01 1.034
B50    8.2  75 127 42.47 P 0        1.79  1.93              -0.14 1.034       0.00-40.68  3.38-44.06 0.000
MBAI   9.8 124 122 42.84 P-0        2.16  2.16              -0.01 1.034       0.00-40.68  3.78-44.47 0.000
B43   10.2 330 121 42.91 P 0        2.23  2.22               0.01 1.034      44.67  3.99  3.88  0.11 0.724
DSPI  10.3  64 121 42.90 PD0        2.22  2.23              -0.02 1.034      45.23  4.55  3.91  0.64 0.000
NWSI  10.3 326 121 42.96 PD0        2.28  2.23               0.04 1.034      44.54  3.86  3.91 -0.05 0.000
M-1   13.8 151 114 43.84 P          3.16  2.80  0.30         0.06 1.034
BSU3  14.1 333 113 43.82 PD0        3.14  2.84               0.30 1.034       0.00-40.68  4.97-45.65 0.000
BRPI  17.6 181 109 44.13 P+0        3.45  3.43               0.02 1.034      46.23  5.55  6.00 -0.45 0.000
CGI   17.9  34 109 44.20 P 0        3.52  3.48               0.04 1.034       0.00-40.68  6.09-46.77 0.000
LSGS  18.9  98 108 44.44 P-0        3.76  3.64               0.11 1.034      46.59  5.91  6.38 -0.47 0.000
B44   19.2 346 107  0.00 P 4      -40.68  3.69             -44.37 0.000      47.19  6.51  6.46  0.05 0.724
LCRI  22.1 134 105 44.65 PC0        3.97  4.19              -0.22 1.034       0.00-40.68  7.32-48.01 0.000
BRCI  23.3 201  65 45.50 P+0        4.82  4.41               0.41 1.034      48.10  7.42  7.71 -0.29 0.000
CLI   42.0 284  65 47.65 P 0        6.97  7.43              -0.46 1.034       0.00-40.68 13.00-53.68 0.000
MDCI  44.7 119  65 48.47 PC0        7.79  7.87              -0.08 1.034       0.00-40.68 13.77-54.45 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     E     Z     N    NW    NE    SW
AVE. OF END POINTS                  -0.01  0.01  0.03  0.03  0.07  0.08  0.09

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  8      0.19     -0.02      0.05         0

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 5    23/ 1                                                                                  83/11/ 5    23/ 1

                                                  HORIZONTAL                                  VERTICAL
                                              SE =   0.37              SE =   0.51              SE =   0.74   QUALITY = A
                                              AZ =   -38.              AZ =  -128.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831105 23 1 29.06 44N13.39 114W 1.77  11.47   2.88 15 14 104 1 0.06  0.5  0.7 B A|B 0.05 10 21 0.00 0.05  0  0.0  0.0  6  2.9  0.3
SE OF ORIG =  0.043          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
843    4.1  21 159 31.31IP          2.25  2.13              0.11 1.064      32.85  3.79  3.73  0.05 0.745           230        2
816    7.2 124 145 31.41IPD         2.35  2.37             -0.02 1.064      33.19  4.13  4.15 -0.02 0.000           230        2
844   13.7   8 126 32.13IP          3.07  3.11             -0.04 1.064      34.41  5.35  5.43 -0.09 0.745           230        2
815   14.6 250 123 32.25IPC         3.19  3.24             -0.05 1.064                                                230  52 2.72
84    14.7 102 123 32.31IPD         3.25  3.26             -0.01 1.064      34.70  5.64  5.70 -0.06 0.000           230  60 2.82
850   14.8 101 123 32.30IP          3.24  3.26             -0.02 1.064      34.72  5.66  5.71 -0.05 0.745           230        2
81    20.0 354 114 33.13IPD         4.07  4.00              0.06 1.064                                                230  54 2.72
812   27.3 185 106 34.11IPC         5.05  5.12             -0.07 1.064                                                230        2
811   35.9 151 101 35.66IPC         6.60  6.48              0.11 1.064      40.18 11.12 11.34 -0.23 0.000           230  85 3.22
85    38.0 129 100 35.84IPD         6.78  6.82             -0.04 1.064      42.12 13.06 11.93  1.13 0.000           230        2
86    46.1 128  98 37.17IPC         8.11  8.11              0.00 1.064      41.80 12.74 14.19 -1.46 0.000           230  34 2.42
89    49.1 142  97 37.71IP          8.65  8.61              0.04 1.064      43.64 14.58 15.06 -0.49 0.000           230  99 3.42

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     N    SE    NW     E    NE     Z
AVE. OF END POINTS                  0.10  0.11  0.12  0.14  0.16  0.19  0.21

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   5      0.06      0.02      0.14         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6     0/56                                                                                                  83/11/ 6     0/56

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.41              SE =    0.60              SE =    1.19   QUALITY = A
                                            AZ =    -37.              AZ =   -127.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  056 14.49 44N10.76 114W 0.74  11.49   2.26 11 15  87 1 0.06  0.6  1.2 A A|A 0.32 10 16 0.00 0.04  0  0.0  0.0  5  2.3  0.2
SE OF ORIG =  0.053          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.6  79 156 16.66IPD          2.17  2.17              0.00 1.058                                                 231  32 2.22
B4    13.2  82 127 17.56IPD          3.07  3.05              0.02 1.058      19.82  5.33  5.33 -0.01 0.740            231  35 2.32
B15   15.1 270 122 17.78IPC          3.29  3.31             -0.02 1.058                                                 231  37 2.42
B12   22.6 190 111 18.91IPD          4.42  4.40              0.01 1.058      22.07  7.58  7.71 -0.13 0.000            231        2
B1    25.0 352 108 19.31IPC          4.82  4.77              0.04 1.058      22.81  8.32  8.36 -0.04 0.740            231  33 2.32
B11   31.0 148 104 20.28IPC          5.79  5.70              0.09 1.058      24.47  9.98  9.97  0.01 0.000            231        2
B5    34.0 124 102 20.63IPC          6.14  6.16             -0.03 1.058      25.04 10.55 10.79 -0.24 0.000            231        2
B6    42.0 124  99 22.03IPC          7.54  7.47              0.07 1.058      27.91 13.42 13.07  0.35 0.000            231  20 2.02
B9    44.5 139  98 22.20EPC          7.71  7.86             -0.15 1.058      27.90 13.41 13.76 -0.35 0.000            231        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     NE     SW      E     NW     SE      N
AVE. OF END POINTS                   0.41   0.62   0.80   0.88   0.89   1.03   1.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  11      0.06      0.43      0.85         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6     1/39                                                                                 83/11/ 6     1/39

                                                   HORIZONTAL                                   VERTICAL
                                             SE =   0.34              SE =   0.45               SE =   0.92   QUALITY = A
                                             AZ =   -33.              AZ =  -123.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  139 26.50 44N10.08 113W59.31  10.35   2.20 18 10  78 1 0.07  0.5  0.9 A A|A 0.34 10 28 0.00 0.05  0  0.0  0.0 13  2.2  0.3
SE OF ORIG =  0.040          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.4  51 160 28.36IPD          1.86  1.92              -0.06 1.017
NSUI   9.1  30 135 28.92EPD          2.42  2.44              -0.02 1.017      30.17  3.67  4.26 -0.59 0.000            232  19 1.82
NWSI  10.0 345 132 29.03IPD          2.53  2.53               0.00 1.017      30.73  4.23  4.44 -0.21 0.000            232  15 1.62
84    11.6  74 127 29.21IPC          2.71  2.73              -0.02 1.017      31.22  4.72  4.78 -0.06 0.712            232  45 2.52
MBAI  12.3 111 125 29.46IPC          2.96  2.81               0.15 1.017      31.34  4.84  4.91 -0.07 0.000            232  27 2.12
OSPI  13.7  66 121 29.50IPC          3.00  3.02              -0.02 1.017      30.90  4.40  5.29 -0.89 0.000            232  23 2.02
8SU3  14.0 347 121 29.74IPD          3.24  3.06               0.18 1.017      32.72  6.22  5.36  0.86 0.000            232  29 2.22
8RPI  16.7 170 115 29.93EPC          3.43  3.44              -0.01 1.017      32.58  6.08  6.02  0.06 0.000            232  22 1.92
815   17.0 274 115 29.95IPC          3.45  3.48              -0.03 1.017                                                 232  43 2.52
812   21.8 195 108 30.67IPC          4.17  4.21              -0.04 1.017                                                 232        2
LSGS  22.0  94 108 30.79IPC          4.29  4.25               0.04 1.017                                                 232  21 1.92
81    26.6 349 103 31.43IPC          4.93  4.96              -0.03 1.017      35.84  9.34  8.68  0.66 0.000            232  41 2.52
811   28.9 150 102 31.88IPC          5.38  5.34               0.04 1.017                                                 232        2
85    31.7 124 100 32.24IPC          5.74  5.78              -0.04 1.017      36.12  9.62 10.11 -0.49 0.000            232        2
GCI   33.0  15 100 32.43IPC          5.93  5.99              -0.06 1.017      36.58 10.08 10.49 -0.41 0.000            232  45 2.62
86    39.8 124  97 33.50IPD          7.00  7.07              -0.07 1.017                                                 232  36 2.52
89    42.3 140  97 34.01IP           7.51  7.48               0.03 1.017      40.03 13.53 13.09  0.44 0.000            232        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                   0.33  0.58  0.74  0.78  0.78  0.89  0.96

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                18      0.07      0.36      0.76         A

------------END----------------------END----------------------END----------------------END------------
```

HORIZONTAL		VERTICAL	
SE = 0.93	SE = 2.34	SE = 2.76	QUALITY = B
AZ = 17.	AZ = -73.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831106	326 8.85	44N16.83	114W 7.27	7.83		13	24	234	1	0.10	2.3	2.8	D	C|D	0.42	10	24	0.00	0.08	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.175 4 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=					P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	8.5	110	126	10.96	PDO	2.11	2.08			0.04	1.000		0.00	-8.85	3.64	-12.48	0.000							
ANPI	13.8	138	108	11.60	PDO	2.75	2.85			-0.09	1.000		0.00	-8.85	4.98	-13.83	0.000							
M-2	23.9	123	95	13.48	PD	4.63	4.46	0.17		0.00	1.000													
CGI	24.1	82	95	13.46	PCO	4.61	4.50			0.12	1.000		0.00	-8.85	7.87	-16.71	0.000							
DSPI	24.1	106	95	13.39	PCO	4.54	4.50			0.04	1.000		0.00	-8.85	7.88	-16.73	0.000							
GCI	27.2	44	94	13.75	PCO	4.90	5.00			-0.09	1.000		0.00	-8.85	8.74	-17.59	0.000							
WBAI	27.7	127	93	13.94	PDO	5.09	5.09			0.01	1.000		0.00	-8.85	8.90	-17.75	0.000							
M-1	31.2	139	93	14.75	P	5.90	5.65	0.30		-0.04	1.000													
BRPI	32.0	155	93	14.64	PCO	5.79	5.77			0.02	1.000		17.64	8.79	10.10	-1.31	0.000							
BRCI	33.5	171	92	15.00	PCO	6.15	6.03			0.13	1.000		0.00	-8.85	10.55	-19.39	0.000							
LSGS	35.4	113	92	15.31	P+O	6.46	6.33			0.13	1.000		0.00	-8.85	11.09	-19.93	0.000							
LCRI	39.9	132	92	15.64	P-O	6.79	7.06			-0.27	1.000		0.00	-8.85	12.36	-21.20	0.000							
MDCI	62.4	122	91	19.57	P+O	10.72	10.72			0.01	1.000		0.00	-8.85	18.76	-27.60	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	NW	Z	SE	SW	NE	N
AVE. OF END POINTS	0.08	0.11	0.11	0.12	0.15	0.16	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.10	-0.02	0.13	D

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
```

83/11/ 6 6/44

	HORIZONTAL		VERTICAL
SE =	0.45	SE = 0.70	SE = 1.11 QUALITY = A
AZ =	-34.	AZ = -124.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADj	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
331106	644 16.05	44N 9.95	113W58.54	8.99	3.22	35	7	76	1	0.15	0.7	1.1	B	8|A	0.58	10	64	0.00	0.11	0	0.0	0.0	12	3.2	0.3

SE OF ORIG = 0.046 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B16	2.9	35	161	17.79IPD	1.74	1.69		0.06	1.049										233	73	2.92	
ANPI	3.5	315	157	17.77 PDO	1.72	1.72		0.00	1.049		18.77	2.72	3.01	-0.29	0.000				233		2	
WSUI	6.5	27	140	18.12 PCO	2.07	1.98		0.09	1.049		0.00	-16.05	3.47	-19.52	0.000				233		2	
M-2	8.4	92	132	18.39 PCO	2.34	2.19	0.17	-0.02	1.049		0.00	-16.05	3.83	-20.18	0.000				233		2	
NSUI	8.9	23	130	18.34 PCO	2.29	2.25		0.04	1.049		0.00	-16.05	3.94	-19.99	0.000				233		2	
NWSI	10.5	340	124	18.54 PDO	2.49	2.47		0.03	1.049		0.00	-16.05	4.31	-20.36	0.000				233		2	
B43	10.6	344	124	18.61EPD	2.56	2.48		0.09	1.049		20.54	4.49	4.34	0.16	0.735				233		2	
B4	10.7	71	124	18.52IPC	2.47	2.49		-0.02	1.049										233	80	3.02	
MBAI	11.2	111	122	18.78 PCO	2.73	2.56		0.17	1.049		0.00	-16.05	4.48	-20.52	0.000				233		2	
DSPI	12.9	63	118	18.86 PCO	2.81	2.79		0.02	1.049		0.00	-16.05	4.89	-20.93	0.000				233		2	
M-1	14.0	140	115	19.06 PDO	3.01	2.94	0.30	-0.23	1.049		0.00	-16.05	5.14	-21.72	0.000				233		2	
BSU3	14.5	343	114	19.30 PCO	3.25	3.03		0.22	1.049		0.00	-16.05	5.31	-21.36	0.000				233		2	
BRPI	16.3	173	110	19.34 PDO	3.29	3.31		-0.01	1.049		21.94	5.89	5.79	0.11	0.000				233		2	
B15	18.0	274	107	19.64IPD	3.59	3.56		0.03	1.049		22.44	6.39	6.24	0.15	0.000				233	61	2.82	
B44	20.1	353	104	0.00IP 4	-16.05	3.89		-19.94	0.000		22.60	6.55	6.81	-0.26	0.735				233		2	
CGI	20.3	37	104	20.00 PC2	3.95	3.93		0.02	0.262		0.00	-16.05	6.88	-22.92	0.000				233		2	
LSGS	21.0	93	103	20.22 PCO	4.17	4.03		0.14	1.049		0.00	-16.05	7.05	-23.10	0.000				233		2	
BRCI	21.3	197	103	20.15 PDO	4.10	4.08		0.02	1.049		0.00	-16.05	7.14	-23.19	0.000				233		2	
B12	21.9	198	102	20.23IPD	4.18	4.17		0.01	1.049										233	152	3.62	
LCRI	22.9	127	101	20.15 PCO	4.10	4.33		-0.23	1.049		0.00	-16.05	7.58	-23.62	0.000				233		2	
B51	23.0	128	101	20.20EPD	4.15	4.34		-0.19	1.049		23.70	7.65	7.60	0.05	0.735				233		2	
B1	27.1	347	98	20.84IP	4.79	5.00		-0.20	1.049		24.50	8.45	8.74	-0.29	0.000				233	72	3.02	
B11	28.2	152	98	21.18IPC	5.13	5.18		-0.05	1.049		24.88	8.83	9.07	-0.24	0.000				233	109	3.42	
B5	30.7	125	97	21.63IPC	5.58	5.58		0.00	1.049		25.56	9.51	9.76	-0.25	0.000				233	125	3.52	
B38	30.7	125	97	21.65IPC	5.60	5.58		0.02	1.049										233		2	
GCI	33.0	13	96	21.76 PCO	5.71	5.95		-0.24	1.049		0.00	-16.05	10.41	-26.46	0.000				233		2	
B6	38.8	125	95	22.80IPC	6.75	6.89		-0.14	1.049										233	55	2.82	
CLI	40.2	287	94	23.15 PCO	7.10	7.12		-0.02	1.049		0.00	-16.05	12.46	-28.51	0.000				233		2	
B9	41.5	141	94	23.23EPC	7.18	7.33		-0.14	1.049										233	118	3.52	
MDCI	46.0	117	94	23.87 PCO	7.82	8.06		-0.24	1.049		26.17	10.12	14.11	-3.98	0.000				233		2	
HPI	86.7	126	92	31.05 PCO	15.00	14.66		0.34	1.049		0.00	-16.05	25.66	-41.71	0.000				233	72	3.22	
JGI	104.3	94	65	33.70 PCO	17.65	17.48		0.17	1.049		46.39	30.34	30.59	-0.25	0.000				233	77	3.32	
CIB	118.9	136	65	35.96 P 0	19.91	19.62		0.29	1.049		51.94	35.89	34.34	1.55	0.000				233	93	3.52	
GBI	154.4	97	65	41.42 P 0	25.37	24.84		0.53	0.000		0.00	-16.05	43.48	-59.52	0.000				233		2	
TMI	191.4	120	65	46.29 P 0	30.24	30.29		-0.05	0.000		0.00	-16.05	53.01	-69.05	0.000				233		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	N	SE
AVE. OF END POINTS	0.38	0.52	0.61	0.79	0.80	0.96	1.03

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
35	0.15	0.47	0.76	A

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6     7/ 5                                                                                                  83/11/ 6     7/ 5

                                                  HORIZONTAL                                  VERTICAL
                                             SE =   0.26              SE =   0.35              SE =   0.69   QUALITY = A
                                             AZ =   -65.              AZ =    25.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  7 5 48.37 44N10.43 114W 0.83  10.45   2.45 10 15  82 1 0.03  0.3  0.7 A A|A 0.10 10 14 0.00 0.03  0  0.0  0.0  7  2.5  0.4
SE OF ORIG =  0.030          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.9  73 153 50.41IPD          2.04  2.04              0.01 1.031      51.79  3.42  3.56 -0.14 0.000           234  28 2.12
B4    13.4  79 122 51.40IPD          3.03  2.99              0.04 1.031      53.56  5.19  5.23 -0.04 0.722           234  29 2.22
B15   15.0 272 119 51.53IPC          3.16  3.20             -0.03 1.031      53.63  5.26  5.60 -0.33 0.000           234       2
B12   22.0 190 108 52.64IPC          4.27  4.25              0.03 1.031                                                234  72 3.02
B1    25.6 353 104 53.19IPD          4.82  4.81              0.01 1.031                                                234  26 2.12
B11   30.5 148 101 54.00IPC          5.63  5.60              0.04 1.031                                                234       2
B5    33.7 123 100 54.49IPD          6.12  6.11              0.02 1.031      57.90  9.53 10.69 -1.15 0.000           234  70 3.02
B6    41.8 124  97 55.73IPC          7.36  7.40             -0.04 1.031                                                234  19 1.92
B9    44.1 139  96 56.10EP           7.73  7.77             -0.04 1.031      61.84 13.47 13.61 -0.13 0.000           234  55 2.82

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW     E    SW    NE     Z     N
AVE. OF END POINTS                   0.06  0.15  0.17  0.19  0.21  0.24  0.31

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 5      0.03      0.03      0.19         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6     7/35                                                                                                  83/11/ 6     7/35

                                                  HORIZONTAL                                  VERTICAL
                                             SE =   0.32              SE =   0.37              SE =   0.40   QUALITY = A
                                             AZ =  -135.              AZ =   -45.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  735 10.61 44N15.93 114W 5.08   5.82   2.54 12 11 145 1 0.05  0.4  0.4 B A|C 0.45 10 20 0.00 0.04  0  0.0  0.0  9  2.5  0.4
SE OF ORIG =  0.027          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B49    3.4 301 149  0.00IP 4       -10.61  1.24             -11.85 0.000      12.70  2.09  2.18 -0.08 0.757           734       7
B43    5.9  98 133 12.15IP           1.54  1.53              0.01 1.081      13.30  2.69  2.67  0.02 0.757           734       7
B44   10.8  35 117 12.85IP           2.24  2.25             -0.01 1.081      14.59  3.98  3.94  0.04 0.757           734       7
B15   13.4 224 112 13.39IPC          2.78  2.68              0.10 1.081      15.65  5.04  4.69  0.35 0.000           734  39 2.47
B16   13.5 130 111 13.24IPD4         2.63  2.70             -0.07 0.000      14.99  4.38  4.72 -0.34 0.000           734  27 2.17
B1    15.4   9 109 13.63IPC          3.02  3.01              0.01 1.081      16.24  5.63  5.27  0.36 0.000           734  34 2.37
B4    20.3 112 104 14.41EPC          3.80  3.85             -0.05 1.081      17.89  7.28  6.74  0.54 0.000           734  30 2.27
B12   31.9 177  65 16.41IPC          5.80  5.85             -0.05 1.081                                                734  72 3.07
B11   42.2 148  65 18.11EP           7.50  7.52             -0.02 1.081                                                734  60 2.97
B5    44.4 130  65 18.53IPC          7.92  7.88              0.04 1.081      24.51 13.90 13.79  0.12 0.000           734  77 3.17
B6    52.4 129  65 20.03EP 4         9.42  9.19              0.23 0.000                                                734  24 2.17
B9    55.5 141  65 20.29EPD          9.68  9.69             -0.01 1.061                                                734  55 2.87

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E     Z    SE     N    NE    SW
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6     7/47                                                                                                  83/11/ 6     7/47

                                                   HORIZONTAL                                        VERTICAL
                                              SE =   0.58              SE =   0.76                SE =   1.17   QUALITY = A
                                              AZ =  -46.               AZ =    44.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  747  4.89 44N13.00 114W 1.92   7.89   2.23  9 15 104 1 0.06  0.8  1.2 8 A|8 0.08 10 13 0.00 0.05  0  0.0  0.0  6  2.2  0.2
SE OF ORIG =  0.049          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    7.0 118 133  6.81IPD          1.92  1.90              0.02 1.034       8.21  3.32  3.33 -0.01 0.724           735  30 2.27
815   14.2 252 108  7.84IPC          2.95  2.91              0.04 1.034                                              735  22 1.97
84    14.8  99 106  7.87IPC          2.98  3.00             -0.02 1.034                                              735  33 2.37
81    20.7 355  97  8.84IPD          3.95  3.96             -0.01 1.034                                              735  24 2.07
812   26.5 185  94  9.66IP           4.77  4.89             -0.12 1.034      13.16  8.27  8.56 -0.29 0.000           735        7
811   35.4 150  92 11.34EPC          6.45  6.32              0.13 1.034      16.08 11.19 11.06  0.12 0.000           735  40 2.57
85    37.7 128  92 11.55IPC          6.66  6.70             -0.04 1.034      16.63 11.74 11.72  0.02 0.000           735        7
86    45.8 128  92 18.61EP 4        13.72  8.01              5.71 0.000                                              735        7
89    48.7 141  91 13.40EP           8.51  8.48              0.03 1.034                                              735  38 2.57

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    NE     E     N     Z    SW    SE
AVE. OF END POINTS                  0.11  0.17  0.17  0.18  0.22  0.27  0.28

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.06      0.05      0.20         0
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6     7/53                                                                                                  83/11/ 6     7/53

                                                   HORIZONTAL                                        VERTICAL
                                              SE =   0.62              SE =   0.70                SE =   1.80   QUALITY = A
                                              AZ =  -96.               AZ =    -6.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106  753 25.42 44N13.91 114W 2.34   9.56   2.60 10 16 111 1 0.07  0.7  1.8 8 A|8 0.05 10 14 0.00 0.05  0  0.0  0.0  8  2.6  0.4
SE OF ORIG =  0.073          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.4 127 134 27.67IPD          2.25  2.25              0.00 1.031                                              235  42 2.52
815   14.2 245 117 28.44IPC          3.02  3.03              0.00 1.031      30.74  5.32  5.29  0.03 0.722           235  36 2.42
84    15.7 104 114 28.64IPC          3.22  3.25             -0.02 1.031      30.87  5.45  5.68 -0.23 0.000           235  42 2.52
31    19.0 356 108 29.17IPC          3.75  3.75              0.01 1.031      32.14  6.72  6.56  0.17 0.000           235  35 2.42
812   28.2 184 100 30.51IPC          5.09  5.19             -0.10 1.031                                              235        2
811   37.1 150  96 32.10EPD          6.68  6.62              0.06 1.031      36.48 11.06 11.59 -0.53 0.000           235  66 3.02
85    39.2 129  96 32.33IPC          6.91  6.96             -0.04 1.031                                              235  82 3.22
86    47.2 129  94 33.60EP           8.18  8.26             -0.08 1.031                                              235  20 2.02
89    50.3 142  94 34.33EPC          8.91  8.76              0.16 1.031      40.88 15.46 15.33  0.14 0.000           235  70 3.12

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     E    NE     Z     N    SW
AVE. OF END POINTS                  0.11  0.12  0.14  0.17  0.21  0.21  0.21
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6    10/ 1                                                                                83/11/ 6    10/ 1

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.82                SE =   1.34              SE =   1.84   QUALITY = A
                                          AZ =   -31.                AZ =  -121.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 10 1 45.89 44N 8.71 113W59.17   9.71   3.27 23  9  94 1 0.20  1.3  1.8 8 8|8 1.18 10 50 0.00 0.16  0  0.0  0.0  5  3.3  0.3
SE OF ORIG =  0.085          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   5.0 341 150 47.85 PDO        1.96  1.94              0.02 1.100       0.00-45.89  3.39-49.28 0.000
WSUI   8.9  25 133 48.17 PDO        2.28  2.34             -0.05 1.100       0.00-45.89  4.09-49.98 0.000
M-2    9.4  78 131 48.38 PCO        2.49  2.39  0.17       -0.07 1.100       0.00-45.89  4.19-50.37 0.000
NSUI  11.3  23 125 48.55 PDO        2.66  2.63              0.04 1.100       0.00-45.89  4.60-50.48 0.000
MBAI  11.4  99 125 48.56 PCO        2.67  2.64              0.04 1.100       0.00-45.89  4.62-50.50 0.000
NWSI  12.5 347 122 48.59 PDO        2.70  2.79             -0.09 1.100      49.87  3.98  4.69 -0.91 0.000
B43   12.7 351 121 48.78 P 0        2.89  2.82              0.07 1.100      51.25  5.36  4.94  0.43 0.770
M-1   12.9 131 121 49.26 P-0        3.37  2.66  0.30        0.22 1.100       0.00-45.89  5.00-51.41 0.000
BRPI  14.2 169 118 49.30 PC2        3.41  3.03              0.38 0.275      50.75  4.86  5.31 -0.44 0.000
DSPI  14.8  56 116 48.97 PCO        3.08  3.12             -0.03 1.100      51.42  5.53  5.45  0.08 0.000
BSU3  16.5 348 113 49.51 PDO        3.62  3.38              0.24 1.100       0.00-45.89  5.91-51.80 0.000
BRCI  18.9 197 109 49.51 PCO        3.62  3.73             -0.11 1.100      51.91  6.02  6.53 -0.51 0.000
LSGS  21.8  87 105 50.10 PCO        4.21  4.18              0.03 1.100      52.41  6.52  7.32 -0.79 0.000
LCRI  22.3 121 105 49.85 PDO        3.96  4.25             -0.29 1.100       0.00-45.89  7.45-53.33 0.000
B44   22.3 356 105  0.00 P 4      -45.89  4.26            -50.14 0.000      53.18  7.29  7.45 -0.16 0.770
B51   22.3 122 105 49.91 P 0        4.02  4.26             -0.23 1.100      52.89  7.00  7.45 -0.45 0.000
CGI   22.7  35 105 50.20 P-4        4.31  4.32              0.00 0.000       0.00-45.89  7.55-53.44 0.000
GCI   35.4  13  97 51.86 PCO        5.97  6.36             -0.39 1.100       0.00-45.89 11.13-57.02 0.000
CLI   40.1 291  96 52.85 P 0        6.96  7.12             -0.15 1.100       0.00-45.89 12.45-58.34 0.000
MDCI  45.8 113  95 53.32 P-2        7.43  8.03             -0.59 0.275       0.00-45.89 14.05-59.93 0.000
MPI   86.1 124  92  0.57 P 0       14.68 14.57              0.11 1.100       0.00 14.11 25.50-11.38 0.000                52 2.9
JGI  105.0  93  65  3.63 P 0       17.74 17.53              0.21 1.100       0.00 14.11 30.68-16.56 0.000                56 3.1
CIB  117.9 135  65  5.59 PDO       19.70 19.43              0.28 1.100       0.00 14.11 33.99-19.88 0.000                65 3.2
GBI  155.0  96  65 11.05 P 0       25.16 24.88              0.29D0.000       0.00 14.11 43.54-29.42 0.000                74 3.5
TMI  191.0 119  65 16.01 P 0       30.12 30.18             -0.06D0.000       D.00 14.11 52.82-38.70 0.000                78 3.7

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                   0.37  0.45  0.56  0.67  0.72  0.88  0.96

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  23      0.20      0.45      0.69         8

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6    10/ 4                                                                                 83/11/ 6    10/ 4

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.91                SE =   1.07              SE =   1.89   QUALITY = A
                                            AZ =  -106.                AZ =   -16.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 10 4 36.65 43N53.73 113W45.54  11.72   2.63 17 15 186 1 0.11  1.1  1.9 C 8|0 1.32 10 24 0.00 0.09  0  0.0  0.0  8  2.6  0.4
SE OF ORIG =  0.117          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    6.5 322 149 38.96IP          2.31  2.35             -0.03 1.037                                          236  74 3.02
89     8.9 105 140 39.34IPC         2.69  2.58              0.12 1.037      41.44  4.79  4.51  0.29 0.000     236  85 3.12
85    14.8  32 124 39.91IPC         3.26  3.29             -0.02 1.037      42.46  5.81  5.75  0.06 0.726     236  90 3.22
86    16.5  62 120 40.07IPD         3.42  3.51             -0.09 1.037      42.46  5.81  6.15 -0.34 0.000     236  28 2.22
8RPI  20.7 312 114 40.70EPC         4.05  4.12             -0.07 1.037      43.50  6.85  7.22 -0.36 0.000     236  22 2.02
812   25.9 291 108 41.45IPC         4.80  4.93             -0.12 1.037      44.95  8.30  8.62 -0.32 0.000     236       2
MBAI  26.9 345 107 41.75EPC         5.10  5.07              0.04 1.037                                          236       2
LSGS  29.0   7 105 42.02IPC         5.37  5.40             -0.03 1.037                                          236       2
84    34.2 348 102 42.74IPC         6.09  6.21             -0.12 1.037      47.56 10.91 10.88  0.04 0.726     236       2
816   36.0 334 102 43.11IPC         6.46  6.49             -0.03 1.037      46.68 10.03 11.37 -1.33 0.000     236  42 2.62
DSPI  36.4 351 101 43.11EPC         6.46  6.57             -0.11 1.037                                          236       2
NWSI  45.1 332  98 45.35EPD4        8.70  7.96              0.74 0.000                                          236       2
815   47.4 312  98 45.19EPD         8.54  8.32              0.22 1.037      49.94 13.29 14.57 -1.27 0.000     236       2
8SU3  48.9 334  98 45.47EPC         8.82  8.58              0.24 1.037                                          236  38 2.52
81    61.1 337  96 47.08IPD        10.43 10.54             -0.11 1.037                                          236  36 2.52
GCI   63.0 351  95 47.53EPD        10.88 10.84              0.04 1.037                                          236       2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE    NE     N    SW     E    NW
AVE. OF END POINTS                 0.36  0.42  0.43  0.52  0.57  0.67  0.70

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                17      0.11      0.32      0.54         A

        ------------END----------------------END----------------------END----------------------END------------
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 6    13/16                                                                                                  83/11/ 6    13/16

                                                     HORIZONTAL                                        VERTICAL
                                                SE =   0.41              SE =   0.52                  SE =   1.25   QUALITY = A
                                                AZ =   -46.              AZ =    44.


 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 1316  6.88 44N 8.18 113W57.68  10.77   2.30 19 11  79 1 0.09  0.5  1.2 A A|A 1.47 10 25 0.00 0.07  0  0.0  0.0 12  2.3  0.4
SE OF ORIG =  0.055          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16   5.6   5 150  8.99IPD          2.11  2.14              -0.03 1.033                                          237  33 2.32
M8AI  9.3  95 135  9.47IPD          2.59  2.51               0.08 1.033      11.50  4.62  4.39  0.23 0.000     237  30 2.22
B4   11.2  53 130  9.58IPD          2.70  2.73              -0.03 1.033      11.59  4.71  4.77 -0.06 0.723     237  43 2.52
NSUI 11.7  12 128  9.65IPD          2.77  2.78              -0.01 1.033                                          237  19 1.82
BRPI 13.0 177 125  9.82IPC          2.94  2.96              -0.02 1.033      11.95  5.07  5.18 -0.11 0.000     237        2
JSPI 13.8  49 123  9.91IPD          3.03  3.07              -0.04 1.033      12.26  5.38  5.37  0.01 0.000     237        2
NWSI 14.0 340 122  9.90IPD          3.02  3.09              -0.07 1.033                                          237        2
BSU3 18.0 343 115 10.73IPD          3.85  3.65               0.20 1.033                                          237  27 2.12
B12  19.2 204 113 10.75IPC          3.87  3.85               0.02 1.033                                          237        2
B15  19.7 284 112 10.80IPC          3.92  3.92               0.00 1.033      13.77  6.89  6.86  0.03 0.723     237  32 2.32
LSGS 19.9  84 112 10.96IPD          4.08  3.96               0.12 1.033                                          237  19 1.82
B11  24.8 151 106 11.48IP           4.60  4.70              -0.10 1.033                                          237        2
B5   28.0 121 104 12.15IPC          5.27  5.19               0.08 1.033                                          237  69 3.02
B1   30.5 346 102 12.43IPC          5.55  5.60              -0.05 1.033      16.58  9.70  9.80 -0.10 0.000     237  31 2.32
GCI  36.0  10  99 13.26EPD          6.38  6.48              -0.10 1.033      17.81 10.93 11.33 -0.40 0.000     237  37 2.52
B6   36.0 122  99 13.51IPD          6.63  6.48               0.15 1.033                                          237  19 1.92
B9   38.2 139  99 13.53EP           6.65  6.83              -0.18 1.033      18.72 11.84 11.96 -0.12 0.000     237  60 2.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     E     N    SE
AVE. OF END POINTS                 0.29  0.64  0.75  0.83  0.91  0.94  0.94


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                19      0.09      0.33      0.80         A
```

	HORIZONTAL		VERTICAL	
SE =	0.54	SE =	0.68	SE = 1.00 QUALITY = A
AZ =	-36.	AZ =	-126.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831106	1449 59.92	44N12.53	114W 2.72	10.42	3.00	30	6	76	1	0.13	0.7	1.0	A	A|A	0.42	10	59	0.00	0.09	0	0.0	0.0	9	3.0	0.3

SE OF ORIG = 0.054 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.9	126	158	2.00	PDO		2.08	1.96			0.12	1.036		0.00	0.08	3.43	-3.36	0.000				238		2	
NWSI	5.5	21	150	1.92	PDO		2.00	2.08			-0.08	1.036		0.00	0.08	3.64	-3.56	0.000				238		2	
843	6.1	26	147	2.07	P 0		2.15	2.13			0.02	1.036		3.74	3.82	3.73	0.09	0.725				238		2	
816	7.6	109	140	2.19	IPD		2.27	2.28			-0.01	1.036										238	50	2.62	
WSUI	8.6	83	137	2.20	PDO		2.28	2.38			-0.10	1.036		0.00	0.08	4.16	-4.08	0.000				238		2	
8SU3	9.2	8	134	2.61	PDO		2.69	2.45			0.24	1.036		0.00	0.08	4.29	-4.21	0.000				238		2	
NSUI	9.7	69	133	2.45	PDO		2.53	2.51			0.02	1.036		0.00	0.08	4.39	-4.31	0.000				238		2	
815	12.9	255	124	2.91	IPC		2.99	2.91			0.07	1.036		10.14	10.22	5.10	5.12	0.000				238	64	2.92	
M-2	14.8	110	119	3.18	PDO		3.26	3.18	0.17		-0.09	1.036		0.00	0.08	5.56	-5.78	0.000				238		2	
844	15.5	11	118	3.01	P 1		3.09	3.27			-0.18	0.563		5.29	5.37	5.72	-0.35	0.000				238		2	
84	15.8	95	117	3.19	IPD		3.27	3.31			-0.04	1.036										238	70	2.92	
OSPI	17.1	86	115	3.45	PDO		3.53	3.50			0.03	1.036		5.80	5.88	6.12	-0.25	0.000				238		2	
MBAI	18.3	119	113	3.70	PDO		3.78	3.69			0.09	1.036		0.00	0.08	6.45	-6.37	0.000				238		2	
CGI	21.1	57	109	4.05	P-4		4.13	4.12			0.01	0.000		0.00	0.08	7.21	-7.13	0.000				238		2	
M-1	21.2	137	109	4.27	PCO		4.35	4.13	0.30		-0.09	1.036		0.00	0.08	7.23	-7.68	0.000				238		2	
81	21.6	358	108	4.02	IPD		4.10	4.18			-0.08	1.036										238	64	2.92	
8RPI	22.3	160	108	4.25	PCO		4.33	4.30			0.03	1.036		6.65	6.73	7.52	-0.79	0.000				238		2	
8RCI	25.1	182	105	4.70	PCO		4.78	4.74			0.04	1.036		0.00	0.08	8.29	-8.21	0.000				238		2	
812	25.6	183	104	4.73	IPC		4.81	4.80			0.01	1.036										238		2	
LSGS	27.2	103	103	4.99	P-0		5.07	5.05			0.02	1.036		8.32	8.40	8.84	-0.44	0.000				238		2	
LCRI	30.2	128	101	5.45	P 0		5.53	5.54			-0.02	1.036		0.00	0.08	9.70	-9.62	0.000				238		2	
GCI	30.3	25	101	5.35	PCO		5.43	5.56			-0.13	1.036		0.00	0.08	9.73	-9.65	0.000				238		2	
CLI	33.6	282	100	5.95	P 0		6.03	6.09			-0.06	1.036		0.00	0.08	10.65	-10.57	0.000				238		2	
811	35.2	147	99	6.19	IP		6.27	6.34			-0.07	1.036										238	84	3.22	
85	38.0	126	98	6.69	IPC		6.77	6.79			-0.02	1.036		11.78	11.86	11.89	-0.03	0.725				238		2	
86	46.1	126	96	7.82	EPC		7.90	8.09			-0.20	1.036		13.82	13.90	14.16	-0.27	0.000				238	32	2.42	
89	48.7	140	96	8.17	IP		8.25	8.51			-0.27	1.036		14.10	14.18	14.90	-0.72	0.000				238		2	
HPI	93.9	126	92	16.13	P 0		16.21	15.85			0.36	1.036		0.00	0.08	27.73	-27.65	0.000				238	70	3.22	
JGI	110.1	97	65	18.43	P 0		18.51	18.24			0.27	1.036		0.00	0.08	31.92	-31.84	0.000				238	79	3.42	
CI3	126.2	135	65	21.04	P 0		21.12	20.60			0.51	D0.000		36.56	36.64	36.06	0.58	0.000				238	84	3.52	
GBI	160.6	99	65	26.64	P 0		26.72	25.66			1.06	M0.000		44.88	44.96	44.90	0.06	0.000				238		2	
TMI	198.4	120	50	31.32	P 0		31.40	31.07			0.32	D0.000		0.00	0.08	54.38	-54.30	0.000				238		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	SE	Z	SW	NE	N
AVE. OF END POINTS	0.10	0.10	0.12	0.12	0.13	0.13	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
11	0.13	0.06	0.12	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    16/ 1                                                                                                  83/11/ 6    16/ 1

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.36              SE =    0.51              SE =    1.14    QUALITY = A
                                            AZ =    -48.              AZ =     42.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 16 1 16.59 44N 6.98 113W56.29  10.95   2.50 10 18  80 1 0.05  0.5  1.1 A A|A 0.07 10 14 0.00 0.04  0  0.0  0.0  7  2.5  0.4
SE OF ORIG =  0.046          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.0 350 141 18.97IPC          2.38  2.38              0.00 1.031      20.55  3.96  4.17 -0.21 0.000           239  29 2.22
84    11.4  39 130 19.43IPD          2.84  2.77              0.07 1.031      21.40  4.81  4.85 -0.04 0.722           239  40 2.52
812   18.2 213 115 20.30IPD          3.71  3.69              0.02 1.031                                                239       2
811   22.0 152 110 20.87IPC          4.28  4.27              0.01 1.031                                                239  75 3.02
815   22.1 288 110 20.84IPC          4.25  4.30             -0.05 1.031      22.44  5.85  7.52 -1.67 0.000           239  34 2.32
85    25.3 118 106 21.38IPC          4.79  4.78              0.01 1.031      24.08  7.49  8.36 -0.87 0.000           239       2
81    33.1 344 101 22.64IPC          6.05  6.03              0.02 1.031                                                239  35 2.42
86    33.3 120 101 22.55IPD          5.96  6.06             -0.10 1.031                                                239  22 2.02
89    35.3 139 100 23.02IP           6.43  6.38              0.06 1.031      27.82 11.23 11.16  0.07 0.000           239  78 3.12

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    NE     Z     N    SW     E
AVE. OF END POINTS                  0.03  0.13  0.18  0.19  0.20  0.23  0.28

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.05      0.00      0.18         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    16/13                                                                                                  83/11/ 6    16/13

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.43              SE =    0.63              SE =    1.89    QUALITY = A
                                            AZ =    -31.              AZ =   -121.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 1613 27.59 44N 1.87 113W56.92  11.63   2.18  9 17 106 1 0.05  0.6  1.9 8 A|B 0.15 10 14 0.00 0.04  0  0.0  0.0  6  2.2  0.2
SE OF ORIG =  0.082          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
812   10.7 237 134 30.33IPD          2.74  2.76             -0.02 1.034                                                240       2
811   15.0 131 123 30.93IPC          3.34  3.30              0.04 1.034                                                240       2
816   17.3 358 119 31.23IPD          3.64  3.63              0.01 1.034      33.90  6.31  6.35 -0.04 0.724           240  24 2.02
84    20.1  23 114 31.60IPD          4.01  4.02             -0.01 1.034      34.55  6.96  7.03 -0.07 0.000           240  26 2.12
85    23.2  96 110 32.20IPC          4.61  4.51              0.11 1.034                                                240       2
815   26.0 309 108 32.54EP           4.95  4.93              0.03 1.034      35.84  8.25  8.62 -0.37 0.000           240  27 2.22
89    29.5 126 105 33.00EP           5.41  5.47             -0.06 1.034      37.02  9.43  9.57 -0.14 0.000           240  47 2.72
86    30.6 104 104 33.15IP           5.56  5.64             -0.07 1.034                                                240  23 2.02
81    42.1 348  99 35.33EPD4         7.74  7.49              0.26 0.000      40.93 13.34 13.10  0.24 0.000           240  23 2.12

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    NE     Z     N     E    SW
AVE. OF END POINTS                  0.12  0.13  0.18  0.18  0.24  0.25  0.26
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    16/28                                                                                                  83/11/ 6    16/28

                                                  HORIZONTAL                                  VERTICAL
                                              SE =   0.51              SE =   0.61              SE =   0.76   QUALITY = A
                                              AZ =   -28.              AZ =  -118.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 1628 21.67 44N 8.80 113W56.29   6.51   2.38  8 21  73 1 0.05  0.6  0.8 A A|A 0.15 10 11 0.00 0.05  0  0.0  0.0  8  2.4  0.4
SE OF ORIG =  0.031          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.7 343 143 23.11IPO          1.44  1.47              -0.04 1.000                                                241  30 2.12
B4     9.0  52 124 23.76IP           2.09  2.04               0.05 1.000                                                241        2
B12   21.1 208 106 25.64IPC          3.97  4.01              -0.05 1.000                                                241  60 2.82
B15   21.3 279 106 25.77EPD          4.10  4.05               0.05 1.000                                                241  26 2.12
B11   25.0 156  65 26.45IPD          4.78  4.68               0.10 1.000      29.58  7.91  8.19 -0.28 0.000           241  50 2.72
B5    27.0 125  65 26.63IPC          4.96  5.01              -0.05 1.000                                                241  62 2.92
B1    29.9 342  65 27.13EP           5.46  5.48              -0.02 1.000                                                241  29 2.22
B6    35.1 125  65 28.28IP 4         6.61  6.32               0.29 0.000                                                241  16 1.72
B9    37.9 143  65 28.42EPC          6.75  6.78              -0.03 1.000      33.67 12.00 11.87  0.13 0.000           241  44 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE     N     E    SE    SW    NW
AVE. OF END POINTS                 0.11  0.18  0.22  0.26  0.29  0.30  0.34

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 4      0.05      0.06      0.25         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    17/21                                                                                                  83/11/ 6    17/21

                                                  HORIZONTAL                                  VERTICAL
                                              SE =   0.23              SE =   0.32              SE =   0.53   QUALITY = A
                                              AZ =   -63.              AZ =    27.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 1721  3.44 44N12.54 114W 0.74  11.55   2.55  9 15 105 1 0.03  0.3  0.5 B A|B 0.09 10 13 0.00 0.01  0  0.0  0.0  7  2.5  0.4
SE OF ORIG =  0.027          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.2 118 154  5.66IPD          2.22  2.22               0.01 1.034                                                242        2
B4    13.1  96 127  6.48IPD          3.04  3.05               0.00 1.034       8.76  5.32  5.33 -0.01 0.724           242  55 2.72
B15   15.5 257 122  6.80IPC          3.36  3.36               0.00 1.034       8.94  5.50  5.88 -0.38 0.000           242  33 2.32
B1    21.8 351 112  7.72EPD          4.28  4.28               0.00 1.034      10.89  7.45  7.49 -0.04 0.000           242  27 2.12
B12   25.9 189 108  8.35IPC          4.91  4.90               0.01 1.034                                                242  60 2.92
B5    35.9 128 101  9.98IP           6.54  6.49               0.05 1.034      15.88 12.44 11.35  1.09 0.000           242  62 2.92
B6    44.0 128  98 11.22IPC          7.78  7.78               0.00 1.034                                                242  21 2.02
B9    47.0 142  98 11.66EPC          8.22  8.27              -0.05 1.034      17.92 14.48 14.48  0.01 0.000           242  55 2.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E    NW     N    NE     Z    SE    SW
AVE. OF END POINTS                 0.13  0.14  0.18  0.22  0.27  0.29  0.36
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 6 21/ 4 83/11/ 6 21/ 4

	HORIZONTAL	VERTICAL	
SE =	0.54	SE = 0.74	SE = 1.45 QUALITY = A
AZ =	-41.	AZ = -131.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831106	21 4 48.88	44N 8.37	113W58.13	8.60	4.42	26	9	81	1	0.16	0.7	1.4	B	B|A	0.07	10	81	0.00	0.12	0	0.0	0.0	3	4.4	0.2

SE OF ORIG = 0.049 4 ITERATIONS TOTAL

(- STATION DATA -)						(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=	TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	6.2	331	140	50.82	P 0			1.94	1.90			0.04	1.042		0.00	-48.88	3.32	-52.20	0.000							
M-2	8.2	71	131	51.30	PD0			2.42	2.13	0.17		0.12	1.042		0.00	-48.88	3.73	-52.90	0.000							
WSUI	9.0	15	128	51.20	PD0			2.32	2.23			0.09	1.042													
MBAI	10.0	97	124	51.42	P 0			2.54	2.36			0.19	1.042		0.00	-48.88	4.12	-53.00	0.000							
M-1	11.5	133	120	51.75	PD0			2.87	2.56	0.30		0.01	1.042		0.00	-48.88	4.48	-53.88	0.000							
84	11.5	56	119	51.41	PC0			2.53	2.56			-0.03	1.042		54.46	5.58	4.49	1.10	0.000							
3RPI	13.4	174	114	51.72	P 0			2.84	2.84			0.01	1.042		0.00	-48.88	4.97	-53.84	0.000							
NWSI	13.5	342	114	51.67	P 0			2.79	2.85			-0.06	1.042		0.00	-48.88	4.99	-53.87	0.000							
DSPI	14.1	51	113	51.85	P 0			2.97	2.94			0.03	1.042		0.00	-48.88	5.15	-54.02	0.000							
8SU3	17.5	344	106	52.61	P 2			3.73	3.45			0.28	0.261													
BRCI	18.7	201	104	52.60	P 0			3.72	3.66			0.06	1.042		53.70	4.82	6.40	-1.58	0.000							
815	19.0	283	104	52.57	P 0			3.69	3.71			-0.01	1.042		0.00	-48.88	6.49	-55.37	0.000							
812	19.3	202	103	52.75	P 0			3.87	3.75			0.12	1.042		0.00	-48.88	6.56	-55.44	0.000							
LSGS	20.5	85	102	52.87	P 0			3.99	3.94			0.05	1.042		0.00	-48.88	6.90	-55.77	0.000							
LCRI	20.8	122	101	52.50	P 0			3.62	3.98			-0.36	1.042		0.00	-48.88	6.97	-55.84	0.000							
817	21.0	327	101	52.72	P 0			3.84	4.01			-0.17	1.042		55.87	6.99	7.02	-0.03	0.729							
CGI	22.5	31	100	53.20	P 0			4.32	4.25			0.07	1.042		0.00	-48.88	7.44	-56.31	0.000							
85	28.7	121	96	53.88	P 0			5.00	5.24			-0.23	1.042		0.00	-48.88	9.17	-58.04	0.000							
81	30.0	347	96	55.09	PO4			6.21	5.47			0.74	0.000		58.92	10.04	9.58	0.47	0.000							
GCI	35.8	11	94	55.20	P 0			6.32	6.40			-0.08	1.042		0.00	-48.88	11.20	-60.08	0.000							
86	36.7	122	94	55.17	PC0			6.29	6.56			-0.26	1.042		59.67	10.79	11.47	-0.68	0.000							
89	38.9	139	94	55.59	PC0			6.71	6.90			-0.19	1.042		60.86	11.98	12.08	-0.10	0.000							
CLI	41.6	291	93	56.15	P 0			7.27	7.35			-0.08	1.042		0.00	-48.88	12.87	-61.74	0.000							
MDCI	44.3	113	93	56.41	P 4			7.53	7.78			-0.24	0.000		0.00	-48.88	13.61	-62.48	0.000							
MPI	84.6	124	91	3.42	P 0			14.54	14.32			0.23	1.042		0.00	11.12	25.05	-13.93	0.000							
JGI	103.6	93	65	6.32	PC0			17.44	17.40			0.05	1.042											199	4.2	
CIB	116.5	135	65	8.49	PD0			19.61	19.29			0.32	1.042		0.00	11.12	33.76	-22.63	0.000							
GBI	153.5	96	65	14.03	P 0			25.15	24.74			0.41	D0.000		0.00	11.12	43.30	-32.17	0.000							
TID	173.3	246	65	17.37	P 0			28.49	27.65			0.84	D0.000		0.00	11.12	48.39	-37.27	0.000							
CPI	189.4	261	65	19.17	P 0			30.29	30.02			0.27	D0.000		0.00	11.12	52.53	-41.41	0.000							
TMI	189.5	119	65	18.84	P 0			29.96	30.03			-0.07	D0.000		0.00	11.12	52.56	-41.43	0.000					199	4.5	
CMI	192.1	77	65	19.30	P 0			30.42	30.42			0.00	00.000		0.00	11.12	53.24	-42.11	0.000							
KCI	192.4	106	65	19.50	P 0			30.62	30.46			0.17	D0.000		0.00	11.12	53.30	-42.18	0.000							
LRM	222.0	33	50	22.40	PC0			33.52	34.21			-0.69	C0.000		0.00	11.12	59.87	-48.75	0.000							
BUT	235.8	28	50	24.10	PC0			35.22	35.94			-0.71	D0.000		0.00	11.12	62.89	-51.76	0.000							
WPI	243.3	247	50	26.47	PD0			37.59	36.87			0.72	D0.000		0.00	11.12	64.52	-53.40	0.000							
IMW	244.5	96	50	26.90	P 0			38.02	37.02			1.00	C0.000		0.00	11.12	64.79	-53.66	0.000							
LCCM	250.6	41	50	26.00	PC0			37.12	37.78			-0.66	D0.000		0.00	11.12	66.12	-55.00	0.000							
NPI	250.8	152	50	27.57	P 0			38.69	37.81			0.88	D0.000		0.00	11.12	66.18	-55.05	0.000					196	4.7	
MLI	278.6	147	50	31.87	P 0			42.99	41.28			1.71	C0.000		0.00	11.12	72.24	-61.12	0.000							
BEI	286.7	142	50	32.26	P 0			43.38	42.29			1.09	C0.000		0.00	11.12	74.01	-62.89	0.000							
MSD	298.9	0	50	31.50	PC0			42.62	43.62			-1.20	D0.000		0.00	11.12	76.69	-65.57	0.000							

QUALITY EVALUATION

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    21/11                                                                                                  83/11/ 6    21/11

                                                    HORIZONTAL                                  VERTICAL
                                                SE =    0.63              SE =    1.32          SE =    1.56   QUALITY = A
                                                AZ =    -31.              AZ =   -121.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831106 2111 55.16 44N 8.57 113W58.45   9.32   4.04 24 10 123 1 0.19  1.3  1.6 8 8|8 0.10 10 58 0.00 0.15  0  0.0  0.0  3  4.0  0.3
SE OF ORIG =  0.079          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B42    2.2   3 166  0.00 P 4      -55.16  1.71            -56.87 0.000      58.46  3.30  2.98  0.31 0.000
ANPI   5.6 333 146 57.13 PD0        1.97  1.94              0.03 1.096       0.00-55.16  3.40-58.56 0.000
M-2    8.5  75 133 57.70 PC0        2.54  2.25  0.17        0.12 1.096       0.00-55.16  3.93-59.39 0.000
B37   10.1 149 127 57.63EPD0        2.47  2.44              0.03 1.096      59.59  4.43  4.26  0.16 0.767
MBAI  10.4  98 126 57.90 PC0        2.74  2.48              0.26 1.096       0.00-55.16  4.33-59.50 0.000
M-1   12.0 133 121 58.00 PD0        2.84  2.70  0.30       -0.16 1.096       0.00-55.16  4.72-60.41 0.000
NWSI  13.0 343 119 57.99 PD0        2.83  2.83              0.00 1.096       0.00-55.16  4.95-60.12 0.000
B43   13.1 347 119 58.06IPD0        2.90  2.85              0.05 1.096      60.49  5.33  4.99  0.34 0.000
BRPI  13.8 173 117 58.17 PC2        3.01  2.94              0.06 0.274      61.12  5.96  5.15  0.81 0.000
DSPI  14.2  53 116 58.13 PC0        2.97  3.00             -0.03 1.096       0.00-55.16  5.24-60.41 0.000
B41   16.0 198 112  0.00 P 4      -55.16  3.28            -58.44 0.000      60.87  5.71  5.73 -0.03 0.000
BSU3  17.0 345 110 58.72 PD0        3.56  3.43              0.13 1.096       0.00-55.16  6.00-61.16 0.000
BRCI  18.9 200 107 58.90 PC0        3.74  3.72              0.02 1.096       0.00-55.16  6.50-61.67 0.000
B49   19.4 323 107 58.81IPD0        3.65  3.79             -0.14 1.096      61.74  6.58  6.63 -0.05 0.767
LSGS  20.9  86 105 59.30 PC2        4.14  4.02              0.12 0.274       0.00-55.16  7.03-62.20 0.000
LCRI  21.3 122 104 59.08 PD0        3.92  4.08             -0.17 1.096       0.00-55.16  7.15-62.31 0.000
B51   21.4 123 104 59.16EPC0        4.00  4.09             -0.09 1.096      62.16  7.00  7.16 -0.16 0.000
CGI   22.4  33 103 59.60 PC0        4.44  4.26              0.17 1.096       0.00-55.16  7.46-62.62 0.000
B38   29.2 121  98 60.04EPD0        4.88  5.35             -0.48 1.096      64.42  9.26  9.37 -0.11 0.000
GCI   35.5  12  96  1.29 PC0        6.13  6.36             -0.23 1.096       0.00  4.84 11.13 -6.29 0.000
MOCI  44.8 114  94  2.74 PD0        7.58  7.86             -0.28 1.096       0.00  4.84 13.75 -8.91 0.000
HPI   85.1 124  92  9.76 PD0       14.60 14.41              0.18 1.096       0.00  4.84 25.22-20.39 0.000
JGI  104.0  93  65 12.72 P 0       17.56 17.41              0.14 1.096       0.00  4.84 30.47-25.64 0.000                 113 3.7
CIB  117.0 135  65 14.82 PD0       19.66 19.32              0.33 1.096      27.15 31.99 33.81 -1.83 0.000
GBI  154.0  96  65 20.23 P 0       25.07 24.76              0.31C0.000       0.00  4.84 43.33-38.49 0.000                 140 4.0
TMI  190.1 119  65 25.18 PD0       30.02 30.06             -0.05D0.000      46.04 50.88 52.61 -1.74 0.000
IMW  245.0  96  50 33.09 PD0       37.93 37.00              0.92M0.000       0.00  4.84 64.76-59.92 0.000                 156 4.4
NPI  251.4 152  50 34.58 PD0       39.42 37.81              1.61M0.000       0.00  4.84 66.16-61.32 0.000
MLI  279.1 147  50 38.52 P 0       43.36 41.27              2.08M0.000       0.00  4.84 72.23-67.39 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     Z     N    SE    NE     E    NW
AVE. OF END POINTS                   0.02  0.02  0.04  0.06  0.07  0.10  0.11

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  8      0.19      0.00      0.07         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    21/19                                                                                                  83/11/ 6    21/19

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.67              SE =   1.33              SE =   1.25   QUALITY = A
                                              AZ =   -11.              AZ =  -101.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 2119 56.46 44N 8.97 113W58.88   8.83   3.11 24  9 174 1 0.18  1.3  1.3 C B|C 0.07 10 54 0.00 0.15  0  0.0  0.0  3  3.1  0.1
SE OF ORIG =  0.085         3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B42    1.6  26 169 58.16 PD0        1.70  1.61              0.09 1.131      59.48  3.02  2.81  0.21 0.792
WSUI   8.3  24 132 58.30 P 0        1.84  2.17             -0.33 1.131       0.00-56.46  3.79-60.25 0.000
M-2    8.9  80 129 59.00 PC0        2.54  2.24  0.17        0.13 1.131       0.00-56.46  3.92-60.67 0.000
NSUI  10.7  22 123 58.96 PD3        2.50  2.48              0.02 0.071       0.00-56.46  4.34-60.80 0.000
B37   11.1 149 122 58.97 PD0        2.51  2.52             -0.01 1.131      60.84  4.38  4.41 -0.03 0.792
MBAI  11.1 102 122 59.18 PC0        2.72  2.53              0.19 1.131       0.00-56.46  4.43-60.89 0.000
NWSI  12.1 345 119 59.11 PD0        2.65  2.67             -0.02 1.131      61.41  4.95  4.67  0.28 0.000
B43   12.3 349 118 59.24 PD0        2.78  2.69              0.09 1.131      61.37  4.91  4.70  0.21 0.000
M-1   13.0 133 117 59.60 PD0        3.14  2.79  0.30        0.06 1.131       0.00-56.46  4.87-61.86 0.000
DSPI  14.2  57 113 59.38 PC3        2.92  2.98             -0.06 0.071       0.00-56.46  5.21-61.67 0.000
BRPI  14.6 171 113 59.20 PC0        2.74  3.04             -0.30 1.131       0.00-56.46  5.32-61.78 0.000
BRPI  14.6 171 113 59.52 PC0        3.06  3.04              0.02 1.131       0.00-56.46  5.32-61.78 0.000
BSU3  16.1 347 110 59.91 PD0        3.45  3.27              0.18 1.131       0.00-56.46  5.72-62.18 0.000
B41   16.6 195 109  0.00 P 4        3.54  3.33              0.21 0.000       2.22  5.76  5.83 -0.07 0.792
LSGS  21.4  88 102 60.58 PD0        4.12  4.09              0.03 1.131       0.00-56.46  7.16-63.62 0.000
CGI   22.1  35 101 60.40 P-0        3.94  4.20             -0.25 1.131       0.00-56.46  7.34-63.80 0.000
LCRI  22.2 123 101  0.45 P 4        3.99  4.22             -0.23 0.000       0.00  3.54  7.38 -3.84 0.000
B51   22.3 124 101 60.52EPC0        4.06  4.23             -0.17 1.131      63.61  7.15  7.40 -0.24 0.000
GCI   34.9  13  95 62.64 PC0        6.18  6.26             -0.08 1.131       0.00-56.46 10.95-67.41 0.000
MDCI  45.6 114  93 64.11 PD0        7.65  8.00             -0.35 1.131      69.71 13.25 14.00 -0.75 0.000
HPI   86.0 124  91 11.22 P 0       14.76 14.55              0.21 1.131       0.00  3.54 25.47-21.93 0.000                  56 3.0
JGI  104.6  93  65 14.08 P 0       17.62 17.54              0.08 1.131       0.00  3.54 30.69-27.15 0.000                  60 3.1
CIB  118.0 135  65 16.29 P 0       19.83 19.49              0.34 1.131       0.00  3.54 34.12-30.58 0.000                  65 3.2
GBI  154.6  97  65 21.66 P 0       25.20 24.89              0.31D0.000       0.00  3.54 43.56-40.02 0.000
TMI  190.9 119  65 26.63 P 0       30.17 30.23             -0.06D0.000       0.00  3.54 52.90-49.36 0.000
IMW  245.6  97  50 34.46 P 0       38.00 37.14              0.86D0.000       0.00  3.54 64.99-61.45 0.000
NPI  252.3 152  50 36.15 P 0       39.69 37.97              1.72D0.000       0.00  3.54 66.46-62.91 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    SW    NE    NW    SE     N
AVE. OF END POINTS                 0.52  0.55  0.55  0.67  0.72  0.85  0.95

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 24      0.18      0.36      0.71         A
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 6    23/11                                                                                                  83/11/ 6    23/11

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.80              SE =   1.01              SE =   0.78   QUALITY = A
                                            AZ =   -22.              AZ =  -112.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831106 2311 38.62 44N13.87 114W 2.40   6.97   3.44 22  5  95 1 0.15  1.0  0.8 B 818 0.21 10 52 0.00 0.11  0  0.0  0.0  4  3.4  0.2
SE OF ORIG =  0.059          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.1  30 156 39.94 P00        1.32  1.39              -0.07 1.149       0.00-38.62  2.44-41.06 0.000
843    3.7  38 151 40.08 P00        1.46  1.45               0.01 1.149      41.19  2.57  2.54  0.03 0.804
ANPI   5.5 151 141 40.23 P 0        1.61  1.63              -0.02 1.149       0.00-38.62  2.85-41.47 0.000
BSU3   6.7   8 135 40.61 PC0        1.99  1.77               0.22 1.149       0.00-38.62  3.10-41.72 0.000
849    8.6 311 128  0.00 P 4      -38.62  2.02             -40.64 0.000      42.12  3.50  3.53 -0.03 0.804
842    9.3 145 126  0.00 P 4      -38.62  2.13             -40.75 0.000      44.04  5.42  3.72  1.70 0.000
M-2   15.5 119 113 41.80 P00        3.18  3.09  0.17        -0.08 1.149       0.00-38.62  5.41-44.33 0.000
OSPI  16.7  95 111 41.77 P00        3.15  3.30              -0.15 1.149       0.00-38.62  5.77-44.39 0.000
MBAI  19.3 126  65 42.17 P-2        3.55  3.71              -0.16 0.287       0.00-38.62  6.50-45.12 0.000
CGI   19.5  63  65 42.45 PC0        3.83  3.76               0.07 1.149       0.00-38.62  6.58-45.19 0.000
837   21.2 151  65 42.66EPC0        4.04  4.04               0.00 1.149      45.54  6.92  7.06 -0.14 0.000
M-1   22.8 142  65 43.21 PC0        4.59  4.29  0.30         0.00 1.149       0.00-38.62  7.51-46.66 0.000
BRPI  24.5 163  65 43.37 PC2        4.75  4.57               0.18 0.287       0.00-38.62  7.99-46.61 0.000
LSGS  27.4 108  65 43.54 PC0        4.92  5.04              -0.12 1.149       0.00-38.62  8.82-47.44 0.000
BRCI  27.6 182  65 43.65 PC0        5.03  5.08              -0.04 1.149       0.00-38.62  8.88-47.50 0.000
GCI   27.9  27  65 43.53 PC0        4.91  5.12              -0.20 1.149       0.00-38.62  8.95-47.57 0.000
LCRI  31.5 132  65 44.21 PC0        5.59  5.70              -0.10 1.149       0.00-38.62  9.97-48.59 0.000
851   31.6 133  65 44.31 P 0        5.69  5.72              -0.02 1.149       0.00-38.62 10.00-48.62 0.000
CLI   33.5 278  65 44.65 P 2        6.03  6.03               0.00 0.287       0.00-38.62 10.56-49.17 0.000
MDCI  54.0 121  65 47.79 PC0        9.17  9.35              -0.18 1.149      54.04 15.42 16.37 -0.95 0.000
MPI   95.1 127  65 55.06 PC0       16.44 16.02               0.42 1.149      66.58 27.96 28.04 -0.08 0.000                  74 3.2
JGI  110.0  98  65 57.33 PC0       18.71 18.45               0.26 1.149      69.69 31.07 32.29 -1.22 0.000                  72 3.3
CIB  127.7 136  55  0.36 PC0       21.74 21.06               0.68M0.000      16.98 38.36 36.86  1.51 0.000                  92 3.6
GBI  160.6 100  55  5.16 P 0       26.54 25.89               0.65M0.000      24.28 45.66 45.31  0.35 0.000                  93 3.7
TMI  199.3 121  44 10.60 P 0       31.98 31.55               0.44D0.000       0.00 21.38 55.20-33.82 0.000
IMW  251.1  99  44 19.12 P 0       40.50 38.01               2.49M0.000       0.00 21.38 66.52-45.14 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW    SE     E    SW     N    NE
AVE. OF END POINTS                 0.00  0.05  0.06  0.10  0.11  0.13  0.14

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.15     -0.01      0.09         0

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7      1/ 6                                                                                                  83/11/ 7      1/ 6

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.39              SE =    0.67              SE =    1.48    QUALITY = A
                                            AZ =    -44.              AZ =   -134.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107  1 6 45.55 44N 8.46 113W58.24  10.50   2.41 10 19  81 1 0.06  0.7  1.5 A A|A 0.16 10 10 0.00 0.05  0  0.0  0.0  8  2.4  0.4
SE OF ORIG =  0.054          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.3  14 151 47.63IPD          2.08  2.07              0.01 1.031                                                 244  54 2.72
B4    11.5  58 128 48.34IPD          2.79  2.74              0.05 1.031                                                 244  45 2.62
B15   18.9 283 112 49.36IPC          3.81  3.78              0.03 1.031                                                 244  58 2.82
B12   19.4 202 111 49.44IP           3.89  3.86              0.03 1.031                                                 244       2
B17   20.7 327 110 49.54IPC          3.99  4.06             -0.08 1.031      52.57  7.02  7.11 -0.09 0.722             244  30 2.22
B5    28.9 121 102 50.83IP           5.28  5.33             -0.06 1.031                                                 244  58 2.82
B1    29.8 347 102 51.15EPD          5.60  5.49              0.11 1.031                                                 244  18 1.82
B6    36.9 122  98 52.13EP           6.58  6.62             -0.04 1.031                                                 244  20 1.92
B9    39.1 139  98 52.54EP           6.99  6.97              0.02 1.031                                                 244  35 2.42

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    NE     E    SW    SE    NW
AVE. OF END POINTS                 0.13  0.19  0.19  0.20  0.21  0.21  0.25

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.06      0.08      0.20         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7      4/13                                                                                                  83/11/ 7      4/13

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.52              SE =    0.71              SE =    1.58    QUALITY = A
                                            AZ =    -45.              AZ =     45.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107  413 38.61 44N13.48 114W 1.92   9.95   2.52 10 14 107 1 0.06  0.7  1.6 B A|B 0.06 10 11 0.00 0.05  0  0.0  0.0  8  2.5  0.2
SE OF ORIG =  0.063          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    7.4 124 140 40.85IPD          2.24  2.20              0.04 1.000                                                 245  67 2.92
B17   10.3 321 129 41.06IPD          2.45  2.53             -0.08 1.000                                                 245  44 2.52
B15   14.5 249 118 41.76IPC          3.15  3.09              0.06 1.000                                                 245  53 2.72
B4    15.0 102 117 41.74IPC          3.13  3.16             -0.03 1.000                                                 245  50 2.62
B1    19.9 355 109 42.54EPD          3.93  3.90              0.03 1.000      46.39  7.78  6.82  0.96 0.000             245  29 2.22
B12   27.4 185 101 43.60IPD          4.99  5.08             -0.10 1.000                                                 245       2
B11   36.1 150  97 45.19IP           6.58  6.48              0.10 1.000                                                 245  43 2.62
B5    38.2 129  97 45.43IPC          6.82  6.82              0.00 1.000                                                 245       2
B6    46.3 128  95 46.68IP           8.07  8.12             -0.05 1.000                                                 245  23 2.12
B9    49.4 142  95 47.24EPD          8.63  8.62              0.01 1.000                                                 245  40 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW     E    NE     N    SW     Z
AVE. OF END POINTS                 0.07  0.10  0.14  0.18  0.18  0.25  0.25
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
```

83/11/ 7 9/33

	HORIZONTAL	VERTICAL	
SE =	0.37	SE = 0.62	SE = 0.79 QUALITY = A
AZ =	-32.	AZ = -122.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831107	933 31.21	44N10.28	113W58.11	8.53	3.24	37	4	73	1	0.14	0.6	0.8	A	A|A	0.20	10	67	0.00	0.10	0	0.0	0.0	8	3.2	0.3

SE OF ORIG = 0.041 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR-D	TTOB	TTCAL	DELAY-EDLY	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
942	1.0	198	172	32.72	EPD		1.51	1.54		-0.04	1.065		33.77	2.56	2.70	-0.14	0.745				246			2
816	2.0	32	165	32.82	IP		1.61	1.57		0.03	1.065										246			2
ANPI	3.5	302	155	32.90	PDO		1.69	1.66		0.03	1.065		0.00	-31.21	2.90	-34.11	0.000				246			2
WSUI	5.7	25	142	33.08	PDO		1.87	1.84		0.02	1.065		0.00	-31.21	3.22	-34.44	0.000				246			2
M-2	7.8	97	132	33.52	PCO		2.31	2.08	0.17	0.06	1.065		0.00	-31.21	3.63	-35.14	0.000				246			2
NSUI	8.1	21	131	33.36	PDO		2.15	2.11		0.04	1.065		0.00	-31.21	3.69	-34.90	0.000				246			2
84	10.0	74	124	33.53	IPC		2.32	2.35		-0.03	1.065										246			2
NWSI	10.2	336	123	33.56	PDO		2.35	2.37		-0.03	1.065		0.00	-31.21	4.16	-35.37	0.000				246			2
843	10.2	340	123	33.69	EPD		2.48	2.38		0.10	1.065		35.45	4.24	4.16	0.07	0.745				246			2
MBAI	10.9	115	121	33.90	PCO		2.69	2.48		0.21	1.065		0.00	-31.21	4.33	-35.55	0.000				246			2
OSPI	12.1	64	117	33.82	PCO		2.61	2.64		-0.04	1.065		0.00	-31.21	4.63	-35.84	0.000				246			2
837	12.8	158	116	34.00	IPC		2.79	2.73		0.05	1.065		36.05	4.84	4.78	0.05	0.745				246			2
M-1	14.1	143	112	34.33	PCO		3.12	2.94	0.30	-0.12	1.065		0.00	-31.21	5.15	-36.89	0.000				246			2
BRPI	16.9	176	107	34.74	PCO		3.53	3.36		0.16	1.065		0.00	-31.21	5.88	-37.10	0.000				246			2
849	17.3	315	106	0.00	IP 4		-31.21	3.42		-34.63	0.000		37.05	5.84	5.98	-0.15	0.745				246			2
817	18.1	321	104	34.80	IPO		3.59	3.56		0.02	1.065										246	90	3.22	
815	18.6	272	104	34.75	IPC		3.54	3.63		-0.10	1.065										246			2
CGI	19.5	37	103	34.97	PC2		3.76	3.78		-0.02	0.266		0.00	-31.21	6.61	-37.83	0.000				246			2
LSGS	20.5	95	101	35.10	PCO		3.89	3.93		-0.04	1.065		37.51	6.30	6.88	-0.58	0.000				246			2
BRCI	22.1	198	100	35.55	PCO		4.34	4.18		0.15	1.065		37.00	5.79	7.32	-1.54	0.000				246			2
812	22.6	199	99	35.55	IPO		4.34	4.27		0.06	1.065										246			2
LCRI	22.8	129	99	35.22	PCO		4.01	4.30		-0.30	1.065		0.00	-31.21	7.53	-38.74	0.000				246			2
851	22.9	130	99	35.43	EPD		4.22	4.32		-0.10	1.065		38.67	7.46	7.56	-0.10	0.745				246			2
91	26.6	345	97	36.03	EPC		4.82	4.91		-0.09	1.065										246	60	2.82	
811	28.5	153	96	36.41	IPD		5.20	5.23		-0.03	1.065										246			2
838	30.6	126	95	36.79	EPC		5.58	5.56		0.01	1.065										246			2
85	30.6	126	95	36.80	IPC		5.59	5.56		0.02	1.065										246			2
SCI	32.3	12	95	37.06	PCO		5.85	5.84		0.01	1.065		0.00	-31.21	10.21	-41.43	0.000				246			2
86	38.7	126	94	37.92	IPC		6.71	6.87		-0.16	1.065										246	50	2.72	
89	41.6	142	93	38.40	IPC		7.19	7.34		-0.16	1.065										246			2
MDCI	45.8	118	93	38.99	PCO		7.78	8.02		-0.24	1.065		42.59	11.38	14.03	-2.65	0.000				246			2
MPI	86.6	126	91	46.24	P 0		15.03	14.64		0.38	1.065		0.00	-31.21	25.62	-56.84	0.000				246	65	3.12	
JGI	103.8	95	65	48.95	PDO		17.74	17.43		0.30	1.065		60.96	29.75	30.51	-0.76	0.000				246	73	3.32	
CIB	119.0	136	65	51.62	PDO		20.41	19.66		0.74	M0.000		65.75	34.54	34.41	0.13	0.000				246	79	3.42	
GBI	153.9	98	65	56.71	P 0		25.50	24.80		0.69	M0.000		75.03	43.82	43.41	0.41	0.000				246	87	3.62	
TMI	191.2	120	65	1.84	P 0		30.63	38.29		0.33	D0.000		0.00	28.79	53.01	-24.23	0.000				246	89	3.82	
IMW	244.9	97	50	9.66	P 0		38.45	37.08		1.37	M0.000		0.00	28.79	64.89	-36.10	0.000				246			2
NPI	253.9	152	50	11.42	P 0		40.21	38.20		2.00	M0.000		0.00	28.79	66.85	-38.07	0.000				246			2
MLI	281.6	148	50	15.48	P 0		44.27	41.66		2.61	M0.000		0.00	28.79	72.91	-44.12	0.000				246			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	N	E	Z	SW	NE
AVE. OF END POINTS	0.10	0.12	0.12	0.13	0.14	0.14	0.15

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 7 10/30 83/11/ 7 10/30

	HORIZONTAL	VERTICAL	
SE =	0.33	SE = 0.59	SE = 1.30 QUALITY = A
AZ =	-33.	AZ = -123.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
931107	1030	49.40 44N	8.80 113W	58.15	10.64	2.61	11	19	79	1	0.06	0.6	1.3	A	A|A	0.09	10	12	0.00	0.05	0	0.0	0.0	7	2.6	0.3

SE OF ORIG = 0.047 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)				VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	4.6	14	155	51.42IPD	2.02	2.04		-0.02	1.028							247			2
84	11.1	60	129	52.13IPD	2.73	2.70		0.03	1.028							247	47	2.62	
815	18.8	281	113	53.22IP	3.82	3.78		0.04	1.028							247	80	3.12	
812	20.0	201	111	53.34IPC	3.94	3.96		-0.02	1.028							247			2
817	20.3	326	111	53.42IPD	4.02	4.00		0.02	1.028	56.19	6.79	7.00	-0.21	0.000		247	50	2.72	
811	26.1	151	105	54.32IP	4.92	4.90		0.02	1.028							247	57	2.82	
85	29.1	122	102	54.79IPD	5.39	5.38		0.02	1.028							247			2
81	29.2	347	102	54.84IPD	5.44	5.40		0.04	1.028	58.74	9.34	9.45	-0.10	0.720		247	24	2.12	
86	37.2	123	99	56.13IPD	6.73	6.66		0.07	1.028							247	29	2.32	
89	39.5	140	98	56.31EP	6.91	7.04		-0.13	1.028							247	55	2.82	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	NW	E	NE	N	Z	SW
AVE. OF END POINTS	0.03	0.11	0.18	0.19	0.19	0.19	0.25

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.06	0.02	0.16	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 7 10/35 83/11/ 7 10/35

	HORIZONTAL	VERTICAL	
SE =	0.49	SE = 0.92	SE = 1.71 QUALITY = A
AZ =	-45.	AZ = -135.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831107	1035	23.99 44N	10.26 113W	58.69	9.12	2.51	11	18	75	1	0.08	0.9	1.7	A	A|A	0.24	10	14	0.00	0.07	0	0.0	0.0	9	2.5	0.3

SE OF ORIG = 0.058 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)				VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	2.5	46	163	25.72 P	1.73	1.69		0.04	1.028							248			2
84	10.7	75	124	26.46IPC	2.47	2.50		-0.03	1.028							248	42	2.52	
817	17.7	322	108	27.44IP	3.45	3.51		-0.06	1.028	30.04	6.05	6.15	-0.10	0.720		248	30	2.22	
815	17.8	273	108	27.52IPC	3.53	3.54		0.00	1.028	29.70	5.71	6.19	-0.48	0.000		248	44	2.52	
812	22.4	137	102	28.26IPC	4.27	4.25		0.02	1.028							248	69	2.92	
81	26.4	347	99	29.04EP	5.05	4.90		0.15	1.028							248	24	2.02	
811	28.8	152	98	29.39EP	5.40	5.28		0.12	1.028							248	45	2.62	
85	31.2	125	97	29.69IPD	5.70	5.66		0.04	1.028	33.69	9.70	9.91	-0.21	0.000		248	58	2.82	
86	39.3	125	95	30.82IPD	6.83	6.96		-0.13	1.028							248	30	2.32	
89	42.0	141	94	31.33EPD	7.34	7.42		-0.08	1.028	37.57	13.58	12.99	0.59	0.000		248	45	2.62	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	N	SE
AVE. OF END POINTS	0.34	0.52	0.60	0.96	0.96	1.08	1.23

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 7    11/57                                                                                  83/11/ 7    11/57

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.67                SE =    1.28            SE =    1.75    QUALITY = A
                                            AZ =   -99.                 AZ =     -9.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831107 1157  5.48 43N53.78 113W44.46  12.20   2.21 13 14 181 1 0.06  1.3  1.8 C 8ID 0.07 10 15 0.00 0.05  0  0.0  0.0  7  2.2  0.6
SE OF ORIG =  0.131          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    7.5 313 146  7.93IPC          2.45  2.49              -0.05 1.024                                                249        2
89     7.6 108 146  8.04IPD          2.56  2.50               0.05 1.024       9.87  4.39  4.38  0.01 0.717            249  38 2.42
85    14.0  27 127  8.72IPC          3.24  3.22               0.02 1.024                                                249        2
86    15.2  59 125  8.78IPC          3.30  3.38              -0.08 1.024                                                249        2
8RPI  21.8 309 114  9.79EPD          4.31  4.31               0.00 1.024                                                249   8 1.12
MBAI  27.2 342 108 10.78EP           5.30  5.14               0.16 1.024                                                249  16 1.72
812   27.3 290 108 10.63IPD          5.15  5.15              -0.01 1.024                                                249  54 2.82
84    34.5 345 103 11.73EP           6.25  6.27              -0.03 1.024      15.83 10.35 10.98 -0.63 0.000            249        2
USPI  36.6 349 102 12.10EP           6.62  6.60               0.01 1.024                                                249        2
816   36.6 332 102 11.97IPD          6.49  6.61              -0.12 1.024                                                249        2
815   48.4 310  98 14.00EPD          8.52  8.50               0.02 1.024                                                249  58 2.92
817   53.6 326  97 14.84IP           9.36  9.33               0.02 1.024                                                249  33 2.42
GCI   63.1 350  96 16.71EP 4        11.23 10.88               0.35 0.000                                                249  23 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    SW     E     N     Z    NE
AVE. OF END POINTS                  0.10  0.15  0.17  0.17  0.17  0.18  0.19

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  10      0.06      0.08      0.16         D

         ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    13/17                                                                                                  83/11/ 7    13/17

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.47              SE =    0.71              SE =    1.78   QUALITY = A
                                          AZ =    -41.              AZ =   -131.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 1317 30.75 44N 1.19 113W52.86  11.14   2.18 14 12 106 1 0.09  0.7  1.8 B A|B 0.06 10 19 0.00 0.07  0  0.0  0.0 11  2.2  0.4
SE OF ORIG =  0.081          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
BRPI   5.7 270 151 32.92IPC          2.17  2.20              -0.02 1.022      34.40  3.65  3.84 -0.19 0.000          250  17 1.72
B11   10.4 146 133 33.41IPC          2.66  2.67              -0.01 1.022                                              250  37 2.42
MBAI  12.5  13 127 33.75EPD          3.00  2.92               0.08 1.022      35.42  4.67  5.11 -0.44 0.000          250  20 1.92
B12   15.1 252 121 34.14IPC          3.39  3.28               0.11 1.022                                              250  54 2.72
B5    17.7  94 116 34.50IPC          3.75  3.64               0.11 1.022                                              250        2
B16   19.5 342 114 34.62IPC          3.87  3.90              -0.03 1.022      37.37  6.62  6.82 -0.20 0.715          250        2
B4    19.8   7 113 34.70EP           3.95  3.96              -0.01 1.022      37.22  6.47  6.93 -0.46 0.000          250        2
LSGS  20.1  42 113 34.82IPC          4.07  4.01               0.07 1.022                                              250  15 1.62
DSPI  22.5  10 110 35.20EPD          4.45  4.36               0.09 1.022                                              250  15 1.62
B9    24.5 131 108 35.27IP           4.52  4.67              -0.15 1.022      38.57  7.82  8.17 -0.35 0.000          250  41 2.52
B6    25.0 104 107 35.42IPC          4.67  4.75              -0.08 1.022                                              250  25 2.12
B15   31.1 304 103 36.44IPC          5.69  5.69               0.00 1.022                                              250  50 2.72
B17   35.9 329 100 37.20EPD          6.45  6.48              -0.03 1.022                                              250  32 2.32
GCI   48.4 360  97 39.74EP 4         8.99  8.48               0.51 0.000                                              250  32 2.42

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     SE     Z     E     NE    NW    SW
AVE. OF END POINTS                  0.13  0.14  0.14  0.18  0.20  0.20  0.21

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  7      0.09      0.08      0.17         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    14/ 5                                                                                  83/11/ 7    14/ 5

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.38              SE =    0.46              SE =    0.52   QUALITY = A
                                            AZ =     20.              AZ =    -70.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 14 5 46.55 44N16.56 114W 6.40   8.43   3.06 26  7  82 1 0.07  0.5  0.5 A A|A 0.34 10 41 0.00 0.05  0  0.0  0.0  7  3.1  0.3
SE OF ORIG =  0.039          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B49    1.3 297 170 48.11 P          1.56  1.53              0.02 1.055      49.26  2.71  2.69  0.02 0.738          251        2
B17    2.4 349 162 48.11IPD         1.56  1.58             -0.02 1.055                                              251        2
NWSI   7.3 109 134 48.49 PDO        1.94  2.00             -0.06 1.055       0.00-46.55  3.50-50.05 0.000          251        2
NWSI   7.3 109 134 48.44 PDO        1.89  2.00             -0.11 1.055       0.00-46.55  3.50-50.05 0.000          251        2
B43    7.9 105 132 48.67 PD         2.12  2.07              0.04 1.055      50.25  3.70  3.62  0.07 0.738          251        2
ANPI  12.7 141 115 49.27 PDO        2.72  2.71              0.01 1.055      51.18  4.63  4.74 -0.11 0.000          251        2
B15   13.2 215 114 49.35IPC         2.80  2.80             -0.01 1.055                                              251 100 3.22
B1    14.7  17 110 49.64IPC         3.09  3.02              0.06 1.055                                              251  54 2.72
B16   15.6 129 108 49.71IPD         3.16  3.17             -0.01 1.055                                              251  95 3.22
B4    22.4 113  99 50.73IPD         4.18  4.24             -0.06 1.055      53.55  7.00  7.42 -0.42 0.000          251  92 3.22
M-2   22.6 124  99 51.04 PD         4.49  4.27  0.17        0.05 1.055                                              251        2
DSPI  22.9 106  99 50.82 PDO        4.27  4.31             -0.04 1.055       0.00-46.55  7.54-54.10 0.000          251        2
CGI   23.0  80  99 50.87 PCO        4.32  4.33             -0.02 1.055       0.00-46.55  7.58-54.14 0.000          251        2
MBAI  26.5 128  96 50.51 P 0        3.96  4.89             -0.93M0.000       0.00-46.55  8.56-55.11 0.000          251        2
GCI   26.7  42  96 51.47 PCO        4.92  4.94             -0.02 1.055      54.45  7.90  8.64 -0.75 0.000          251        2
M-1   30.1 140  95 52.55 P          6.00  5.48  0.30        0.22 1.055                                              251        2
BRPI  31.1 157  95 52.19 PCO        5.64  5.64              0.00 1.055       0.00-46.55  9.86-56.42 0.000          251        2
BRCI  32.9 173  94 52.50 PCO        5.95  5.93              0.01 1.055       0.00-46.55 10.38-56.94 0.000          251        2
B12   33.2 174  94 52.49IPC         5.94  5.99             -0.05 1.055                                              251        2
LSGS  34.2 113  94 52.65 P-0        6.10  6.14             -0.05 1.055       0.00-46.55 10.75-57.30 0.000          251        2
LCRI  38.7 132  93 53.64 P 2        7.09  6.88              0.20 0.264       0.00-46.55 12.04-58.60 0.000          251        2
B11   44.1 147  93 54.19EP          7.64  7.75             -0.11 1.055                                              251 100 3.32
B5    46.5 130  93 54.76IPC         8.21  8.13              0.07 1.055                                              251        2
B6    54.6 129  92 56.22EPC4        9.67  9.44              0.22 0.000                                              251  33 2.42
B9    57.6 141  92 56.49EP          9.94  9.93              0.00 1.055                                              251  92 3.32
MDCI  61.2 122  92 57.05 PCO       10.50 10.51             -0.02 1.055       0.00-46.55 18.40-64.96 0.000          251        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E    SE    NE     Z    SW     N
AVE. OF END POINTS                   0.15  0.16  0.18  0.19  0.19  0.19  0.22

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.07      0.11      0.18         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    14/39                                                                                                  83/11/ 7    14/39

                                                    HORIZONTAL                                  VERTICAL
                                              SE =    0.79              SE =    1.83              SE =    0.81   QUALITY = A
                                              AZ =     39.              AZ =    -51.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  AOj IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
83110T 1439  5.05 44N24.28 114W 6.06    5.81   2.75  9 26 256 1 0.06  1.8  0.8 C 810 0.35 10 11 0.00 0.06  0  0.0  0.0  8  2.8  0.3
SE OF ORIG =  0.134          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
81     3.7  94 146  6.27IPO          1.22  1.27              -0.05 1.034                                                  751  36 2.37
817   12.0 184 114  7.58IPC          2.53  2.44               0.09 1.034       9.23  4.18  4.27 -0.10 0.724             751  57 2.77
815   26.4 198 101  9.98IPC          4.93  4.91               0.02 1.034                                                  751  80 3.17
816   26.8 154 101 10.13IP           5.08  4.98               0.09 1.034                                                  751        7
84    30.6 139  65 10.72EP           5.67  5.65               0.02 1.034                                                  751  55 2.87
812   47.4 176  65 13.34EP           8.29  8.37              -0.09 1.034                                                  751  85 3.27
85    56.4 141  65 14.84EP           9.79  9.83              -0.04 1.034                                                  751        7
811   56.5 156  65 15.15EP 4        10.10  9.84               0.26 0.000                                                  751  60 2.97
86    64.2 139  65 17.20EP 4        12.15 11.10               1.05 0.000                                                  751  24 2.27
89    69.0 149  65 16.96EPC         11.91 11.87               0.03 1.034                                                  751  56 2.97

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z    SE    SW     E     N    NE
AVE. OF END POINTS                  0.35  0.39  0.54  0.56  0.57  0.59  0.63

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.06      0.31      0.54         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 7    17/33                                                                                  83/11/ 7    17/33

                                                  HORIZONTAL                                        VERTICAL
                                            SE =   0.40                SE =   0.49                SE =   0.60   QUALITY = A
                                            AZ =   -23.                AZ =  -113.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 1733  6.03 44N15.52 114W 2.80  10.61    3.32 27  6  75 1 0.08  0.5  0.6 A A|A 0.19 10 46 0.00 0.07  0  0.0  0.0  9  3.3  0.2
SE OF ORIG =  0.042          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EQLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.1 102 168  7.85 POO        1.82  1.91              -0.08 1.034       0.00 -6.03  3.34 -9.36 0.000            252        2
843    2.8  92 164  8.00IP          1.97  1.93               0.04 1.034       9.45  3.42  3.39  0.04 0.724            252        2
849    6.5 293 146  0.00IP 4       -6.03  2.19              -8.22 0.000       9.85  3.82  3.83 -0.01 0.724            252        2
817    6.8 309 144  8.20IPU        2.17  2.22              -0.05 1.034                                                 252 105 3.32
WSUI   9.7 118 133  8.63 POO        2.60  2.53               0.07 1.034       0.00 -6.03  4.43-10.46 0.000            252        2
816   10.8 137 130  8.75IPO        2.72  2.66               0.06 1.034                                                 252 132 3.52
842   12.2 151 126  0.00IP 4       -6.03  2.83              -8.86 0.000      10.77  4.74  4.96 -0.21 0.724            252        2
815   15.2 234 119  9.36IPC        3.33  3.25               0.08 1.034                                                 252 118 3.42
31    16.0 358 118  9.38IPC        3.35  3.36              -0.01 1.034      12.83  6.80  5.88  0.92 0.000            252  68 2.32
34    17.3 114 115  9.62IPC        3.59  3.54               0.06 1.034      11.96  5.93  6.19 -0.26 0.000            252 115 3.42
M-2   17.6 127 115  9.83 PCO        3.80  3.59  0.17         0.05 1.034       0.00 -6.03  6.27-12.60 0.000            252        2
OSPI  17.7 104 115  9.74 PCO        3.71  3.61               0.11 1.034       0.00 -6.03  6.31-12.34 0.000            252        2
CGI   18.8  72 113  9.84 PCO        3.81  3.78               0.03 1.034       0.00 -6.03  6.62-12.65 0.000            252        2
MBAI  21.6 132 109 10.30 PCO        4.27  4.20               0.07 1.034       0.00 -6.03  7.35-13.38 0.000            252        2
GCI   25.5  31 105 10.74 PCO        4.71  4.79              -0.08 1.034       0.00 -6.03  8.39-14.42 0.000            252        2
M-1   25.6 145 105 11.24 PCO        5.21  4.82  0.30         0.09 1.034       0.00 -6.03  8.43-14.98 0.000            252        2
BRPI  27.6 164 103 11.50 P 4        5.47  5.13               0.34 0.000       0.00 -6.03  8.97-15.00 0.000            252        2
LSGS  29.0 113 102 11.35 PCO        5.32  5.36              -0.04 1.034      12.56  6.53  9.38 -2.85 0.000            252        2
BRCI  30.7 181 101 11.59 PCO        5.56  5.63              -0.07 1.034      13.99  7.96  9.85 -1.89 0.000            252        2
812   31.1 182 101 11.74IPC        5.71  5.69               0.02 1.034                                                 252 140 3.62
LCRI  33.9 135 100 12.03 PCO        6.00  6.15              -0.14 1.034       0.00 -6.03 10.76-16.78 0.000            252        2
851   34.1 136 100 12.29IP         6.26  6.17               0.09 1.034                                                 252        2
811   40.0 152  98 13.27EPC        7.24  7.12               0.12 1.034                                                 252 119 3.52
85    41.6 132  97 13.37IPC        7.34  7.37              -0.03 1.034                                                 252        2
86    49.6 131  96 14.66EPC        8.63  8.67              -0.04 1.034      20.71 14.68 15.17 -0.49 0.000            252  55 2.92
89    53.1 143  95 15.13EP         9.10  9.22              -0.12 1.034                                                 252 112 3.52
MDCI  56.1 123  95 15.65 PCO        9.62  9.71              -0.09 1.034      20.98 14.95 16.99 -2.04 0.000            252        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E     N    SE
AVE. OF END POINTS                   0.54  0.58  0.59  0.60  0.67  0.77  0.87

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                27      0.08      0.44      0.67         A

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 7    18/46                                                                                 83/11/ 7    18/46

                                                 HORIZONTAL                                VERTICAL
                                          SE =   1.93              SE =   7.26              SE =   7.61   QUALITY = C
                                          AZ =    -2.              AZ =   -92.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
931107 1846  0.71 44N11.82 114W21.44   8.13   2.97 11 28 271 1 0.16  7.3  7.6 D D|0 0.13 10 13 0.00 0.13  0  0.0  0.0  5  3.0  0.4
SE OF ORIG =  0.575          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
315   12.7  99 113  3.44IPC         2.73  2.70              0.03 1.000                                          253 123 3.42
817   22.5  60  97  4.92IPC         4.21  4.25             -0.04 1.000                                          253  71 3.02
NWSI  27.7  77  95  5.59IPC         4.88  5.08             -0.20 1.000                                          253      2
816   32.2  92  94  6.57IP          5.86  5.81              0.05 1.000                                          253      2
81    33.3  47  93  6.78EPC         6.07  5.99              0.08 1.000       9.16  8.45 10.48 -2.03 0.000      253  49 2.72
812   33.9 136  93  6.67IP          5.96  6.10             -0.13 1.000                                          253      2
84    40.6  90  92  7.54EP          6.83  7.18             -0.35 1.000                                          253      2
DSPI  42.1  87  92  8.25IPD         7.54  7.42              0.13 1.000                                          253      2
GCI   47.5  53  92  9.01EPC         8.30  8.30              0.01 1.000                                          253  97 3.32
LSGS  51.7  95  92  9.89EPD         9.18  8.97              0.21 1.000                                          253      2
85    59.6 111  91 11.47IPC4       10.76 10.25              0.51 0.000                                          253      2
86    67.4 112  91 12.44EP         11.73 11.53              0.21 1.000                                          253  33 2.52

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N    NE     Z     E    SW    NW
AVE. OF END POINTS                  0.06  0.07  0.08  0.08  0.08  0.09  0.12

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   5      0.16      0.03      0.08         D

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    19/17                                                                                                  83/11/ 7    19/17

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.33              SE =    0.57              SE =    1.36   QUALITY = A
                                            AZ =    -45.              AZ =   -135.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 1917 20.74 44N 7.82 113W55.79   9.46   2.27 10 20  81 1 0.05  0.6  1.4 A A|A 0.17 10 14 0.00 0.04  0  0.0  0.0  6  2.3  0.2
SE OF ORIG =  0.048          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    6.6 342 141 22.77IPC          2.03  2.05              -0.03 1.031                                                 254        2
84     9.8  41 129 23.17IPC          2.43  2.42               0.01 1.031      25.36  4.62  4.23  0.39 0.000            254  34 2.32
812   19.8 212 107 24.54IPO          3.80  3.86              -0.07 1.031                                                 254  42 2.52
815   22.3 284 104 24.99IP           4.25  4.24               0.00 1.031      27.64  6.90  7.42 -0.53 0.000            254        2
811   23.1 155 103 25.14IPC          4.40  4.38               0.02 1.031      28.51  7.77  7.66  0.10 0.722            254  20 1.92
817   23.6 322 103 25.27IPC          4.53  4.46               0.06 1.031                                                 254  27 2.12
85    25.5 122 101 25.44IP           4.70  4.76              -0.06 1.031      28.74  8.00  8.33 -0.33 0.000            254  47 2.62
86    33.6 123  97 26.77EP           6.03  6.06              -0.03 1.031                                                 254        2
89    36.1 142  96 27.23EP           6.49  6.46               0.02 1.031      32.03 11.29 11.31 -0.02 0.000            254  26 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     Z     E     N    SW    NE
AVE. OF END POINTS                  0.11  0.11  0.15  0.17  0.20  0.24  0.24

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.05      0.00      0.18         D

          ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.46	SE =	0.86	SE = 1.91 QUALITY = A
AZ =	-2.	AZ =	-92.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831107	1922 4.25	44N19.40	114W 5.23	0.51*	2.28	13	9	138	1	0.09	0.9	1.9	B	AIC	0.52	10	20	0.00	0.09	0	0.0	0.0	10	2.3	0.3

SE OF ORIG = 0.101 6 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	TMIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP FMAG
917	3.6	215	98	4.92IPC	0.67	0.76	-0.08	1.000										753	40	2.47
81	9.2	17	58	6.03IP	1.78	1.81	-0.03	1.000		7.38	3.13	3.17	-0.03	0.000				753	29	2.17
NWSI	9.3	145	58	6.14EPC	1.89	1.82	0.07	1.000										753	28	2.17
MIR	10.2	353	58	6.36IPC	2.11	1.99	0.12	1.000		3.40	-0.85	3.48	-4.33	0.000				753	23	1.97
816	18.4	145	58	7.62EP	3.37	3.47	-0.09	1.000		10.87	6.62	6.06	0.56	0.000				753		7
815	18.5	209	58	7.63IPC	3.38	3.48	-0.09	1.000		9.43	5.18	6.08	-0.90	0.000				753		7
GCI	21.9	48	58	8.23IP	3.98	4.08	-0.10	1.000										753	30	2.27
DSPI	23.4	120	58	8.47EPC	4.22	4.36	-0.14	1.000		11.92	7.67	7.63	0.04	0.000				753		7
84	23.7	127	58	8.61EPC	4.36	4.40	-0.03	1.000		15.21	10.96	7.69	3.27	0.000				753	35	2.37
MBAI	29.0	138	58	10.11EPC4	5.86	5.35	0.51	0.000										753		7
8RPI	35.4	162	58	10.89EPD	6.64	6.50	0.14	1.000										753	26	2.17
812	38.3	177	58	11.34EPC	7.09	7.02	0.07	1.000										753	45	2.67
85	48.9	136	58	13.26IPD	9.01	8.91	0.11	1.000										753	54	2.87
89	60.8	145	50	15.28EP	11.03	10.97	0.06	1.000										753	40	2.67

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	E	SE	NE	NW	N	SW
AVE. OF END POINTS	0.03	0.11	0.13	0.14	0.14	0.15	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.09	0.06	0.14	0

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    21/ 0                                                                                  83/11/ 7    21/ 0

                                                  HORIZONTAL                                  VERTICAL
                                              SE =    1.61              SE =    2.96              SE =    2.22   QUALITY = 8
                                              AZ =      4.              AZ =   -86.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ C SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 21 0 32.69 44N14.53 114W26.91    5.98   2.56 14 34 282 1 0.15  3.0  2.2 D C|D 0.68 10 20 0.00 0.12  0  0.0  0.0 11  2.6  0.3
SE OF ORIG =  0.256          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B15   21.0 110 104 36.80IPD          4.11  3.98              0.12 1.022                                                 255  70 2.92
B17   27.5  77 101 37.66IP           4.97  5.10             -0.14 1.022                                                 255  50 2.72
HIR   33.6  55  65 38.96IPD          6.27  6.12              0.14 1.022                                                 255        2
NWSI  34.2  88  65 38.76EPC          6.07  6.22             -0.15 1.022      43.25 10.56 10.88 -0.33 0.000             255  23 2.02
B1    36.2  60  65 39.19IPD          6.50  6.53             -0.04 1.022                                                 255  35 2.42
B16   39.9  99  65 39.51EP           6.82  7.14             -0.33 1.022                                                 255  50 2.72
B12   42.7 133  65 40.13EP           7.44  7.59             -0.15 1.022                                                 255        2
BRPI  46.8 122  65 41.09EPD          8.40  8.26              0.13 1.022                                                 255  35 2.42
B4    48.2  96  65 41.20EP           8.51  8.49              0.02 1.022      47.56 14.87 14.85  0.01 0.715             255  50 2.72
DSPI  49.4  93  65 41.51IP           8.82  8.68              0.14 1.022      47.67 14.98 15.18 -0.21 0.000             255  28 2.22
MBAI  49.8 105  65 41.71EPD          9.02  8.75              0.26 1.022                                                 255        2
GCI   51.0  62  65 56.56EP 4       ******  8.94            ****** 0.000                                                 255  50 2.72
LSGS  59.5  99  65 43.48EPC4        10.79 10.33              0.46 0.000                                                 255        2
B11   61.1 123  65 43.82EP 4        11.13 10.58              0.54 0.000                                                 255        2
B5    68.2 112  65 44.44EP          11.75 11.74              0.01 1.022                                                 255        2
B9    75.7 123  65 45.62EP          12.93 12.96             -0.03 1.022                                                 255  65 3.12
B6    76.1 114  65 46.62EP 4        13.93 13.02              0.91 0.000                                                 255  25 2.22

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NW    NE    SE    SW     N
AVE. OF END POINTS                  0.03  0.06  0.09  0.10  0.10  0.11  0.16

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 9      0.15      0.02      0.10         0

        ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    21/19                                                                                  83/11/ 7    21/19

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.52              SE =    0.77              SE =    1.01   QUALITY = A
                                          AZ =    -22.              AZ =   -112.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 2119 15.13 44N 8.14 113W55.25   5.76   2.46 22  6 107 1 0.15  0.8  1.0 B A|B 0.25 10 38 0.00 0.12  0  0.0  0.0  9  2.5  0.3
SE OF ORIG =  0.044          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-2    5.0  53 138 16.83 PDO        1.70  1.40  0.17        0.13 1.000       0.00-15.13  2.46-17.89 0.000           754        7
MBAI   6.1  97 132 16.88 PDO        1.75  1.54              0.21 1.000       0.00-15.13  2.70-17.83 0.000           754        7
B16    6.3 334 131 16.63IPD         1.50  1.57             -0.07 1.000                                               754  52 2.67
M-1    8.7 148 122 17.40 PDO        2.27  1.91  0.30        0.06 1.000       0.00-15.13  3.34-18.99 0.000           754        7
B4     8.9  40 121 17.10IPD         1.97  1.94              0.03 1.000                                               754  37 2.37
WSUI   9.3 351 120 17.05 PDO        1.92  1.99             -0.07 1.000       0.00-15.13  3.49-18.62 0.000           754        7
DSPI  11.7  38 114 17.50 P+0        2.37  2.38             -0.01 1.000      19.31  4.18  4.17  0.01 0.000           754        7
BRPI  13.1 191 112 17.81 PCO        2.68  2.63              0.05 1.000      18.51  3.38  4.59 -1.21 0.000           754        7
NWSI  15.5 329 109 17.96 P+0        2.83  3.01             -0.18 1.000       0.00-15.13  5.28-20.41 0.000           754        7
LSGS  16.7  83 107 18.41 PCO        3.28  3.23              0.05 1.000      20.80  5.67  5.65  0.02 0.000           754        7
LCRI  17.4 127 107 18.23 P 0        3.10  3.34             -0.24 1.000       0.00-15.13  5.84-20.97 0.000           754        7
BRCI  20.1 212 104 19.04 P-0        3.91  3.80              0.11 1.000      20.84  5.71  6.66 -0.95 0.000           754        7
B12   20.7 213 104 19.04IPD         3.91  3.91              0.00 1.000                                               754  43 2.57
CGI   21.1  22 104 19.15 PDO        4.02  3.98              0.04 1.000      21.45  6.32  6.97 -0.65 0.000           754        7
B11   23.3 157 102 19.62EP          4.49  4.37              0.12 1.000                                               754  43 2.57
B17   23.6 319 102 19.24EPC         4.11  4.41             -0.30 1.000      22.62  7.49  7.73 -0.24 0.000           754  50 2.77
B5    25.2 124 101 19.74IPC         4.61  4.69             -0.08 1.000      23.14  8.01  8.21 -0.20 0.000           754  60 2.87
B1    31.5 340  65 21.12IPO         5.99  5.80              0.19 1.000                                               754  23 2.07
B6    33.3 125  65 21.28EPC         6.15  6.08              0.07 1.000                                               754  24 2.07
MIR   34.2 335  65 21.62 P 0        6.49  6.23              0.26 1.000       0.00-15.13 10.90-26.03 0.000           754        7
B9    36.1 143  65 21.57EP          6.44  6.54             -0.10 1.000      25.92 10.79 11.45 -0.66 0.000           754  45 2.67
MDCI  40.6 115  65 22.15 PCO        7.02  7.27             -0.25 1.000      26.20 11.07 12.72 -1.65 0.000           754        7

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     E    NW    SE     Z    NE    SW
AVE. OF END POINTS                 0.05  0.08  0.09  0.10  0.12  0.12  0.13

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                10      0.15      0.04      0.10         D

        ____________END____________________END____________________END____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    22/32                                                                                                  83/11/ 7    22/32

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.43              SE =    0.57              SE =    1.77   QUALITY = A
                                            AZ =    -30.              AZ =   -120.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 2232 26.63 44N13.45 114W 3.67   8.10   2.62 12 12  99 1 0.07  0.6  1.8 B A|B 0.07 10 14 0.00 0.06  0  0.0  0.0  9  2.6  0.3
SE OF ORIG =  0.052          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    9.1 333 125 28.64IPD          2.01  2.18              -0.17 1.053                                                 256  50 2.62
B16    9.4 116 124 28.98IP           2.35  2.24               0.12 1.053                                                 256        2
B15   12.3 245 114 29.33IPC          2.70  2.64               0.06 1.053                                                 256  55 2.72
B4    17.2 100 103 30.01IPD          3.38  3.41              -0.02 1.053      32.56  5.93  5.96 -0.03 0.737             256  50 2.62
B1    19.8   2 100 30.53IPD          3.90  3.81               0.09 1.053      33.33  6.70  6.67  0.03 0.737             256  37 2.42
B12   27.3 180  95 31.64IPC          5.01  5.02               0.00 1.053                                                 256  50 2.72
B11   37.3 147  93 33.24EP           6.61  6.64              -0.03 1.053                                                 256  47 2.72
B5    40.0 127  92 33.74IPD          7.11  7.08               0.03 1.053      38.94 12.31 12.40 -0.09 0.000             256  73 3.12
B6    48.1 127  92 34.97IP           8.34  8.40              -0.05 1.053                                                 256  22 2.02
B9    50.8 140  92 35.43EPC          8.80  8.83              -0.03 1.053      41.91 15.28 15.46 -0.17 0.000             256  52 2.82

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SW    NE     E     N     Z    SE
AVE. OF END POINTS                  0.08  0.11  0.15  0.16  0.15  0.19  0.22


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.07      0.02      0.15         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 7    23/55                                                                                                  83/11/ 7    23/55

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.55              SE =    1.08              SE =    3.57   QUALITY = B
                                            AZ =    -43.              AZ =   -133.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831107 2355 39.61 44N 4.98 113W54.27  11.71   2.64 10 17  94 1 0.09  1.1  3.6 B B|B 0.15 10 12 0.00 0.07  0  0.0  0.0  8  2.6  0.2
SE OF ORIG =  0.133          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16   12.2 341 130 42.56IPC          2.95  2.95              -0.01 1.031                                                 257  49 2.62
B4    13.4  19 127 42.76IPC          3.15  3.09               0.05 1.031                                                 257  37 2.42
B12   17.1 227 119 43.22IPD          3.61  3.60               0.01 1.031                                                 257  54 2.72
B11   17.4 154 119 43.27IPD          3.66  3.65               0.01 1.031                                                 257  39 2.52
B5    21.2 113 113 43.92IP           4.31  4.21               0.10 1.031                                                 257  79 3.12
B15   26.0 294 108 44.64IP           5.03  4.93               0.10 1.031                                                 257  50 2.72
B17   29.0 325 105 45.06IPD          5.45  5.40               0.05 1.031      48.81  9.20  9.46 -0.26 0.722             257  40 2.52
B6    29.2 116 105 45.01IP           5.40  5.43              -0.03 1.031      48.81  9.20  9.50 -0.30 0.000             257        2
B9    30.7 139 104 45.18IPC          5.57  5.67              -0.10 1.031                                                 257  45 2.62
B1    37.5 341 101 46.73IP 4         7.12  6.74               0.37 0.000                                                 257        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     E     Z     N    NE    SW
AVE. OF END POINTS                  0.00  0.12  0.16  0.16  0.17  0.18  0.19
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8     1/38                                                                                          83/11/ 8     1/38

                                                     HORIZONTAL                                  VERTICAL
                                                SE =   0.37                SE =   0.61              SE =   0.74   QUALITY = A
                                                AZ =   -44.                AZ =  -134.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  138  2.41 44N 9.65 113W59.39  10.23   2.74 11 18  77 1 0.06  0.6  0.7 A A|A 0.51 10 16 0.00 0.05  0  0.0  0.0 10  2.7  0.3
SE OF ORIG =  0.037          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.3  26 161  4.33IPO          1.92  1.90              0.03 1.028        5.68  3.27  3.32 -0.05 0.720            258  78 3.02
84    10.7  68 129  5.08IPC          2.67  2.61              0.07 1.028                                                258  57 2.82
815   18.3 276 112  6.09IPD          3.68  3.68              0.01 1.028        9.46  7.05  6.44  0.62 0.000            258  60 2.82
817   18.8 324 111  6.09IPD          3.68  3.75             -0.07 1.028                                                258  57 2.82
812   21.4 199 108  6.57IPD          4.16  4.15              0.02 1.028        9.22  6.81  7.26 -0.44 0.000            258  57 2.82
811   27.6 152 102  7.60IPD          5.19  5.13              0.06 1.028                                                258  63 2.92
81    27.6 346 102  7.57IPD          5.16  5.13              0.03 1.028       10.82  8.41  8.98 -0.57 0.000            258  29 2.22
85    30.2 124 101  8.00IPC          5.59  5.54              0.05 1.028                                                258  78 3.12
86    38.3 124  97  9.15IPD          6.74  6.83             -0.09 1.028       13.81 11.40 11.96 -0.56 0.000            258  24 2.12
89    40.9 141  97  9.59IPC          7.18  7.25             -0.07 1.028       15.67 13.26 12.69  0.57 0.000            258  62 2.92

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E     N    SE
AVE. OF END POINTS                   0.56  0.58  0.71  0.88  0.90  0.99  1.09

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 11      0.06      0.52      0.84         A
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8     2/14                                                                                          83/11/ 8     2/14

                                                     HORIZONTAL                                  VERTICAL
                                                SE =   0.45                SE =   0.56              SE =   1.63   QUALITY = A
                                                AZ =   -12.                AZ =  -102.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  214 59.72 44N12.81 114W 2.38   9.11   2.79 12 13 100 1 0.07  0.6  1.6 B A|B 0.15 10 16 0.00 0.06  0  0.0  0.0 10  2.8  0.3
SE OF ORIG =  0.058          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    7.4 114 137  1.86IPD          2.14  2.09              0.05 1.053        3.51  3.79  3.66  0.13 0.000            259  72 2.92
817   11.0 328 124  2.19IPD          2.47  2.54             -0.07 1.053                                                259  58 2.82
815   13.5 253 117  2.63IPD          2.91  2.88              0.03 1.053        4.73  5.01  5.04 -0.03 0.737            259  72 3.02
84    15.4  97 112  2.88IPC          3.16  3.17             -0.01 1.053        4.08  4.36  5.54 -1.19 0.000            259  58 2.82
81    21.1 357 104  3.87IPD          4.15  4.05              0.10 1.053        6.77  7.05  7.08 -0.04 0.737            259  33 2.32
812   26.1 184  99  4.57IPD          4.85  4.85             -0.01 1.053        7.92  8.20  8.49 -0.29 0.000            259  66 2.92
811   35.4 149  96  6.21EP           6.49  6.33              0.15 1.053                                                259  60 2.92
85    38.0 127  95  6.47IPC          6.75  6.75              0.00 1.053       10.67 10.95 11.81 -0.86 0.000            259  90 3.22
86    46.0 127  94  7.71EPC          7.99  8.07             -0.08 1.053                                                259  27 2.22
89    48.8 140  93  8.14EPD          8.42  8.52             -0.10 1.053                                                259  60 2.92

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH         NW    SE     N     E    NE    SW     Z
AVE. OF END POINTS                   0.03  0.09  0.10  0.14  0.17  0.19  0.20
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8     2/50                                                                                                  83/11/ 8     2/50

                                                     HORIZONTAL                                    VERTICAL
                                              SE =   0.60                SE =   0.70                SE =   1.72   QUALITY = A
                                              AZ =   -26.                AZ =  -116.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  250  3.90 44N 2.58 113W55.10  11.68   1.88 17 13  84 1 0.12  0.7  1.7 A A|A 0.51 10 29 0.00 0.10  0  0.0  0.0 11  1.9  0.4
SE OF ORIG =  0.086          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
BRPI   3.8 226 161  5.99IPD          2.09  2.15              -0.06 1.037                                          260 18 1.72
M8AI  11.2  31 132  6.81IPC          2.91  2.83               0.08 1.037       9.10  5.20  4.95  0.25 0.000     260        2
812   13.5 238 127  7.03IPC          3.13  3.10               0.03 1.037       9.44  5.54  5.42  0.12 0.726     260 26 2.12
811   14.2 142 125  7.13IPC          3.23  3.20               0.03 1.037      10.03  6.13  5.59  0.54 0.000     260 21 1.92
816   16.3 350 121  7.34IPD          3.44  3.48              -0.04 1.037       9.83  5.93  6.10 -0.17 0.000     260        2
84    18.0  18 118  7.59IPC          3.69  3.72              -0.03 1.037      10.15  6.25  6.51 -0.26 0.726     260 19 1.82
LSGS  20.6  53 114  8.12IPC          4.22  4.09               0.13 1.037                                          260 12 1.42
JSPI  20.7  20 114  8.17IP           4.27  4.12               0.15 1.037      10.83  6.93  7.21 -0.28 0.000     260        2
85    21.0 101 113  8.20IPC          4.30  4.16               0.14 1.037       9.24  5.34  7.28 -1.94 0.000     260        2
NWSI  24.9 341 109 11.75EP 4         7.85  4.77               3.09 0.000                                          260        2
815   27.1 304 107  8.94IPD          5.04  5.11              -0.07 1.037      14.49 10.59  8.94  1.65 0.000     260 26 2.12
89    28.4 131 106  8.97EP           5.07  5.30              -0.23 1.037      12.97  9.07  9.28 -0.21 0.000     260 22 2.02
86    28.6 107 106  9.16IPC          5.26  5.33              -0.07 1.037      12.21  8.31  9.32 -1.01 0.000     260 13 1.52
817   32.2 331 103  9.69IPC          5.79  5.90              -0.11 1.037      13.91 10.01 10.32 -0.31 0.000     260 16 1.72
81    41.4 345  99 11.27IPD          7.37  7.37               0.00 1.037      15.27 11.37 12.90 -1.53 0.000     260 12 1.52
MIR   43.8 340  99  4.51EP 4         0.61  7.75              -7.14 0.000                                          260 50 2.82
GCI   45.9   4  98 12.13EP           8.23  8.09               0.14 1.037                                          260        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    SE    NW    NE     E     N
AVE. OF END POINTS                   0.31  0.66  0.75  0.80  0.82  0.83  0.91

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                17      0.12      0.33      0.76         A
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 8 6/10 83/11/ 8 6/10

	HORIZONTAL		VERTICAL	
SE =	1.28	SE =	4.01	SE = 6.78 QUALITY = C
AZ =	15.	AZ =	-75.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831108	610 53.95	44N15.14	114W17.98	0.09*	3.04	25	22	262	1	0.22	4.0	6.8	D	C10	0.41	10	64	0.00	0.20	0	0.0	0.0	15	3.0	0.5

SE OF ORIG = 0.410 7 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR	D	TTOB	TTCAL	DELAY	EDLY	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
RCI	7.4	160	58	55.90	PC4			1.95	1.53			0.42	0.000		0.00		-53.95	2.68	-56.63	0.000						
B15	11.4	136	58	56.61	IPC			2.66	2.25			0.41	1.012		59.13		5.18	3.94	1.24	0.000				84	3.0	
B17	15.7	72	58	56.84	IPC			2.89	3.03			-0.14	1.012		59.30		5.35	5.30	0.05	0.709				58	2.7	
NWSI	22.3	89	58	57.97	PC0			4.02	4.20			-0.18	1.012		60.29		6.34	7.34	-1.00	0.000						
HIR	24.0	41	58	58.10	PD4			4.15	4.50			-0.35	0.000		0.00		-53.95	7.87	-61.82	0.000						
ANPI	24.5	107	58	58.80	P 0			4.85	4.60			0.25	1.012		0.00		-53.95	8.05	-62.00	0.000						
B1	25.7	50	58	59.10	IPC			5.15	4.82			0.33	1.012		61.64		7.69	8.43	-0.74	0.000				41	2.4	
B16	28.5	105	58	59.18	IPC			5.23	5.31			-0.08	1.012		62.23		8.28	9.29	-1.01	0.000				67	2.9	
WSUI	29.1	98	58	59.13	PC0			5.18	5.42			-0.23	1.012		0.00		-53.95	9.48	-63.43	0.000						
M-2	35.7	106	58	0.96	PD0			7.01	6.59	0.17		0.25	1.012		0.00		6.05	11.53	-5.78	0.000						
BRCI	35.9	147	58	0.37	P+0			6.42	6.63			-0.21	1.012		1.79		7.84	11.60	-3.76	0.000						
B12	35.9	148	58	0.36	IPC			6.41	6.64			-0.23	1.012		6.48		12.53	11.61	0.92	0.000				63	2.9	
B4	36.6	100	58	0.49	IPD			6.54	6.75			-0.21	1.012		2.98		9.03	11.82	-2.79	0.000				56	2.8	
DSPI	37.6	96	58	0.52	P+0			6.57	6.94			-0.37	1.012		0.00		6.05	12.14	-6.09	0.000						
BRPI	38.0	133	58	0.79	P-0			6.84	7.01			-0.17	1.012		0.00		6.05	12.26	-6.21	0.000						
CGI	38.6	80	58	0.45	PC0			6.50	7.13			-0.62	M0.000		0.00		6.05	12.47	-6.42	0.000						
MBAI	38.8	111	58	61.29	P+0			7.34	7.16			0.18	1.012		0.00		-53.95	12.53	-66.48	0.000						
GCI	40.2	56	58	1.22	PC0			7.27	7.39			-0.12	1.012		0.00		6.05	12.94	-6.89	0.000						
M-1	40.4	120	58	1.87	P+0			7.92	7.43	0.30		0.19	1.012		0.00		6.05	13.00	-7.48	0.000						
LSGS	48.1	103	58	2.78	PD0			8.83	8.81			0.02	1.012		0.00		6.05	15.42	-9.37	0.000						
LCRI	50.0	118	58	3.24	P 0			9.29	9.16			0.13	1.012		0.00		6.05	16.02	-9.97	0.000						
B11	52.3	131	58	3.48	IPC			9.53	9.56			-0.03	1.012		11.04		17.09	16.74	0.35	0.000				53	2.8	
B5	57.9	118	50	4.39	IPC			10.44	10.56			-0.12	1.012		13.53		19.58	18.48	1.10	0.000				79	3.1	
B6	65.9	119	50	6.01	IPD			12.06	11.86			0.20	1.012		15.11		21.16	20.76	0.40	0.000				28	2.3	
B9	66.7	129	50	5.76	IPD			11.81	11.99			-0.18	1.012		9.38		15.43	20.98	-5.55	0.000				60	2.9	
MDCI	73.6	114	50	6.86	PC0			12.91	13.10			-0.19	1.012		0.00		6.05	22.92	-16.87	0.000						
MPI	113.6	122	50	13.99	PC0			20.04	19.59			0.45	1.012		0.00		6.05	34.29	-28.24	0.000				74	3.3	
JGI	130.9	98	44	16.18	PC0			22.23	22.28			-0.05	D0.000		0.00		6.05	38.99	-32.94	0.000				86	3.5	
CIB	144.5	131	44	18.23	PD0			24.28	24.27			0.01	D0.000		0.00		6.05	42.48	-36.43	0.000				91	3.6	
GBI	181.5	99	44	23.85	P 0			29.90	29.71			0.19	D0.000		0.00		6.05	51.99	-45.94	0.000				92	3.7	
TMI	218.6	119	36	28.66	P 0			34.71	34.88			-0.16	D0.000		0.00		6.05	61.03	-54.98	0.000				105	3.9	
IMW	272.0	98	36	35.96	P 0			42.01	41.54			0.47	D0.000		0.00		6.05	72.70	-66.65	0.000						

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	SW	N	NE	Z	NW	E
AVE. OF END POINTS	-0.01	-0.01	0.00	0.01	0.01	D.02	0.03

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
15	0.22	-0.04	0.01	D

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	0.71	SE = 0.96	SE = 2.38	QUALITY = A
AZ =	-52.	AZ = 38.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	O3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831108	614 55.05	43N57.97	113W49.64	12.15	2.19	15	14	123	1	0.11	1.0	2.4	B	B18	0.33	10	19	0.00	0.09	0	0.0	0.0	6	2.2	0.3

SE OF ORIG = 0.123 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B11	3.1	151	165	57.21IPC	2.16	2.19	-0.03	1.042										262	43	2.52	
BRPI	11.6	301	133	57.99IPD	2.94	2.93	0.00	1.042		59.69	4.64	5.13	-0.49	0.000				262	30	2.22	
B5	14.2	71	127	58.36IPC	3.31	3.24	0.07	1.042										262		2	
B9	17.4	126	120	58.72IPC	3.67	3.68	-0.01	1.042		61.04	5.99	6.44	-0.45	0.000				262		2	
B8AI	18.2	355	119	59.03IP	3.98	3.79	0.18	1.042										262		2	
B12	18.8	274	118	58.99IPC	3.94	3.87	0.06	1.042										262		2	
B6	19.9	90	116	58.91IPC	3.86	4.04	-0.19	1.042										262	24	2.02	
LSGS	22.9	23	112	59.66IPC	4.61	4.68	0.12	1.042		62.26	7.21	7.84	-0.64	0.000				262	24	2.12	
B4	25.7	356	109	60.01IPD	4.96	4.91	0.05	1.042		63.41	8.36	8.59	-0.23	0.729				262	47	2.62	
B16	26.6	337	109	60.18EP	5.13	5.05	0.08	1.042										262		2	
DSPI	28.1	359	107	60.36EP	5.31	5.28	0.03	1.042										262		2	
B15	38.1	308	102	61.71EPD	6.66	6.84	-0.18	1.042										262		2	
B17	43.3	328	100	62.78EPD	7.73	7.69	0.04	1.042										262		2	
B1	51.8	339	98	64.50EPD4	9.45	9.05	0.40	0.000		70.80	15.75	15.83	-0.09	0.729				262	14	1.72	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	SE	E	N	NW
AVE. OF END POINTS	0.29	0.49	0.52	0.70	0.78	0.81	0.87

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
15	0.11	0.25	0.66	8

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 8 6/63 83/11/ 8 6/63

	HORIZONTAL		VERTICAL	
SE =	0.53	SE =	0.71	SE = 1.46 QUALITY = A
AZ =	-48.	AZ =	42.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831108	643 2.53	44N10.03	113W57.61	8.30	3.05	31	6	73	1	0.17	0.7	1.5	B	8IA	0.25	10	67	0.00	0.13	0	0.0	0.0	14	3.1	0.3

SE OF ORIG = 0.054 7 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR-D=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
842	1.1	242	171	6.10	P 4		3.57	1.51			2.06	0.000		7.43	4.90	2.66	2.26	0.000				263			2
816	2.2	10	163	4.23	IPD		1.70	1.55			0.15	1.020										263	83	3.02	
ANPI	4.3	302	149	4.26	P 0		1.73	1.69			0.04	1.020		0.00	-2.53	2.95	-5.49	0.000				263			2
WSUI	5.9	17	140	4.43	PD0		1.90	1.83			0.07	1.020		0.00	-2.53	3.21	-5.74	0.000				263			2
M-2	7.1	94	134	4.76	PC0		2.23	1.97	0.17		0.09	1.020		0.00	-2.53	3.44	-6.27	0.000				263			2
84	9.5	70	125	4.78	IPC		2.25	2.26			-0.01	1.020										263	84	3.12	
MBAI	10.1	115	122	4.60	P+0		2.07	2.35			-0.28	1.020		0.00	-2.53	4.11	-6.66	0.000				263			2
NWSI	10.9	334	120	4.85	PC0		2.32	2.45			-0.13	1.020		6.28	3.75	4.29	-0.54	0.000				263			2
DSPI	11.7	61	117	5.02	PC0		2.49	2.57			-0.08	1.020		0.00	-2.53	4.50	-7.03	0.000				263			2
837	12.1	161	116	5.19	P 0		2.66	2.62			0.04	1.020		7.08	4.55	4.59	-0.04	0.714				263			2
M-1	13.3	145	113	5.72	PD0		3.19	2.81	0.30		0.08	1.020		0.00	-2.53	4.92	-7.98	0.000				263			2
BRPI	16.4	178	106	5.83	PD0		3.30	3.27			0.03	1.020		8.58	6.05	5.73	0.32	0.000				263			2
817	18.9	320	102	6.08	IPC		3.55	3.67			-0.13	1.020		8.83	6.30	6.43	-0.13	0.000				263			2
815	19.3	274	101	6.38	IPD		3.85	3.73			0.11	1.020		8.90	6.37	6.56	-0.17	0.714				263	73	3.02	
CGI	19.5	34	101	6.20	PC0		3.67	3.77			-0.10	1.020		0.00	-2.53	6.59	-9.12	0.000				263			2
LSGS	19.7	94	101	6.33	PC0		3.80	3.81			-0.01	1.020		0.00	-2.53	6.66	-9.20	0.000				263			2
BRCI	21.9	200	99	6.70	PD0		4.17	4.14			0.03	1.020		6.99	4.46	7.25	-2.79	0.000				263			2
LCRI	22.0	129	99	6.54	PC0		4.01	4.16			-0.15	1.020		0.00	-2.53	7.29	-9.82	0.000				263			2
812	22.4	201	98	6.79	IPD		4.26	4.23			0.03	1.020										263	82	3.12	
RCI	24.8	276	97	7.00	PC0		4.47	4.62			-0.15	1.020		0.00	-2.53	8.09	-10.62	0.000				263			2
81	27.2	344	96	6.92	IPD		4.39	5.01			-0.62	M0.000										263	40	2.52	
811	27.8	154	95	7.79	IP		5.26	5.11			0.15	1.020		11.69	9.16	8.94	0.22	0.000				263	81	3.12	
HIR	29.7	330	95	8.60	PC0		5.87	5.42			0.45	1.020		0.00	-2.53	9.48	-12.01	0.000				263			2
838	29.8	126	95	8.01	P 0		5.48	5.43			0.05	1.020		0.00	-2.53	9.50	-12.03	0.000				263			2
85	29.8	126	95	7.98	IP		5.45	5.43			0.02	1.020		11.68	9.15	9.50	-0.35	0.000				263	111	3.42	
GCI	32.6	11	94	8.22	PD0		5.69	5.88			-0.19	1.020		0.00	-2.53	10.30	-12.83	0.000				263			2
86	37.9	126	93	9.11	IPC		6.58	6.74			-0.16	1.020		13.41	10.88	11.79	-0.91	0.000				263	40	2.52	
89	40.8	143	93	9.57	EPC		7.04	7.21			-0.18	1.020										263	87	3.22	
MDCI	44.9	117	92	10.12	PC0		7.59	7.88			-0.29	1.020		15.02	12.49	13.80	-1.31	0.000				263			2
HPI	85.8	126	91	17.41	P 0		14.88	14.51			0.37	1.020		0.00	-2.53	25.39	-27.92	0.000				263	46	2.82	
JGI	103.1	95	91	20.14	PC0		17.61	17.31			0.30	1.020		0.00	-2.53	30.30	-32.83	0.000				263	55	3.02	
CIB	118.2	136	65	22.82	PC0		20.29	19.56			0.73	M0.000		0.00	-2.53	34.23	-36.76	0.000				263	60	3.22	
GBI	153.2	97	65	27.96	PC0		25.43	24.71			0.72	M0.000		0.00	-2.53	43.25	-45.78	0.000				263	64	3.32	
TMI	190.4	120	65	33.14	PD0		30.61	30.19			0.42	C0.000		0.00	-2.53	52.83	-55.36	0.000				263	69	3.52	
IMW	244.2	97	50	41.45	P 0		38.92	37.01			1.91	M0.000		0.00	-2.53	64.77	-67.30	0.000				263			2
MLI	280.8	148	50	47.10	P 0		44.57	41.59			2.98	M0.000		0.00	-2.53	72.78	-75.31	0.000				263			2

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	Z	SW	NE	E	SE
AVE. OF END POINTS	0.07	0.08	0.09	0.09	0.10	0.10	0.13

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
12	0.17	0.00	0.10	0

	HORIZONTAL		VERTICAL	
SE =	0.51	SE =	0.55	SE = 1.15 QUALITY = A
AZ =	-6.	AZ =	-96.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831108	646 34.06	44N12.51	114W 2.33	8.23	3.33	26	7	72	1	0.12	0.6	1.1	A	A|A	0.30	10	60	0.00	0.09	0	0.0	0.0	14	3.3	0.3

SE OF ORIG = 0.045 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.5	131	155	35.77	PDO	1.71	1.61	0.10	1.042		0.00	-34.06	2.82	-36.88	0.000				763			7
NWSI	5.4	16	143	35.81	PDO	1.75	1.77	-0.02	1.042		0.00	-34.06	3.10	-37.16	0.000				763			7
B16	7.1	110	134	36.03	IPD	1.97	1.96	0.01	1.042										763			7
WSUI	8.0	82	130	36.22	PCO	2.16	2.07	0.09	1.042		0.00	-34.06	3.62	-37.68	0.000				763			7
B17	11.5	329	118	36.60	IPD	2.54	2.53	0.01	1.042										763	73	3.07	
B15	13.4	255	112	36.93	IPC	2.87	2.81	0.05	1.042		38.23	4.17	4.93	-0.76	0.000				763	120	3.47	
M-2	14.3	111	110	37.36	PCO	3.30	2.95	0.17	0.17	1.042		0.00	-34.06	5.17	-39.53	0.000			763			7
B4	15.2	95	108	37.18	IPC	3.12	3.09		0.02	1.042									763	112	3.37	
DSPI	16.6	86	105	37.35	PCO	3.29	3.31		-0.02	1.042		0.00	-34.06	5.79	-39.85	0.000			763			7
MBAI	17.8	120	103	37.71	P+2	3.65	3.50		0.15	0.261		0.00	-34.06	6.12	-40.19	0.000			763			7
RCI	18.5	264	102	37.70	PDO	3.64	3.61		0.03	1.042		0.00	-34.06	6.32	-40.38	0.000			763			7
CG1	20.7	56	99	37.95	P 0	3.89	3.96		-0.07	1.042		0.00	-34.06	6.93	-40.99	0.000			763			7
M-1	20.9	138	99	38.17	PDO	4.11	3.98	0.30	-0.17	1.042		0.00	-34.06	6.97	-41.56	0.000			763			7
B1	21.6	357	99	38.18	IPC	4.12	4.10		0.02	1.042									763	55	2.77	
BRPI	22.1	162	98	38.34	PCO	4.28	4.17		0.10	1.042		40.69	6.63	7.31	-0.68	0.000			763			7
HIR	23.4	348	97	39.00	PD4	4.94	4.39		0.55	0.000		0.00	-34.06	7.68	-41.74	0.000			763			7
BRCI	25.1	103	96	38.69	PCO	4.63	4.68		-0.05	1.042		0.00	-34.06	8.18	-42.25	0.000			763			7
B12	25.6	184	96	38.83	IPC	4.77	4.75		0.02	1.042		42.25	8.19	8.31	-0.12	0.729			763	120	3.47	
LSGS	26.7	103	95	38.94	PCO	4.88	4.92		-0.05	1.042		40.43	6.37	8.61	-2.25	0.000			763			7
LCRI	29.8	129	94	39.45	PCO	5.39	5.42		-0.04	1.042		0.00	-34.06	9.49	-43.56	0.000			763			7
GCI	30.1	24	94	39.32	PCO	5.26	5.48		-0.23	1.042		0.00	-34.06	9.59	-43.66	0.000			763			7
B11	34.9	148	93	40.64	EP 4	6.58	6.25		0.33	0.000									763	82	3.17	
B5	37.6	126	93	40.82	IPC	6.76	6.69		0.07	1.042		45.87	11.81	11.70	0.11	0.000			763	120	3.57	
B6	45.7	126	92	41.91	IPC	7.85	8.00		-0.15	1.042		47.21	13.15	13.99	-0.85	0.000			763	48	2.77	
B9	48.3	140	92	42.44	EPD	8.38	8.43		-0.06	1.042									763	112	3.57	
MDCI	52.7	119	92	43.04	PCO	8.98	9.13		-0.16	1.042		49.84	15.78	15.98	-0.21	0.000			763			7
MPI	93.5	126	91	50.38	P 0	16.32	15.75		0.56	M0.000		0.00	-34.06	27.57	-61.63	0.000			763	74	3.37	
JGI	109.6	97	65	52.75	PCO	18.69	18.31		0.37	1.042		0.00	-34.06	32.05	-66.11	0.000			763	79	3.47	
CI8	125.9	135	65	55.37	PDO	21.31	20.70		0.61	M0.000		0.00	-34.06	36.22	-70.28	0.000			763	94	3.67	
GBI	160.1	99	65	0.41	P 0	26.35	25.73		0.62	M0.000		0.00	25.94	45.03	-19.09	0.000			763	104	3.87	
TMI	198.0	120	50	5.58	PDO	31.52	31.24		0.27	C0.000		0.00	25.94	54.67	-28.74	0.000			763	109	4.07	
IMW	250.6	98	50	13.12	P 0	39.06	37.82		1.23	M0.000		0.00	25.94	66.19	-40.25	0.000			763			7
MLI	288.1	147	50	19.17	P 0	45.11	42.51		2.60	M0.000		0.00	25.94	74.39	-48.45	0.000			763			7

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	E	SW	NE	Z	SE	N
AVE. OF END POINTS	0.09	0.10	0.11	0.12	0.13	0.14	0.21

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.12	0.05	0.13	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 8     7/11                                                                                                  83/11/ 8     7/11

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.67              SE =    0.84              SE =    2.21    QUALITY = A
                                            AZ =    -43.              AZ =   -133.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SCD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  711 47.54 44N 8.49 113W57.04   2.46   3.28 16  9  77 1 0.15  0.8  2.2 B B|B 0.23 10 44 0.00 0.12  0  0.0  0.0  5  3.3  0.2
SE OF ORIG =  0.050          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-2    6.8  69 105 49.16 PD0        1.62  1.35  0.17        0.10 1.000       0.00-47.54  2.36-50.20 0.000
ANPI   6.8 319 105 48.92 P00        1.38  1.35              0.02 1.000       0.00-47.54  2.37-49.91 0.000
WSUI   8.5   6 102 49.32 PD0        1.78  1.67              0.11 1.000       0.00-47.54  2.91-50.46 0.000
MBAI   8.6  99 102 49.33 PD0        1.79  1.67              0.12 1.000       0.00-47.54  2.92-50.46 0.000
M-1   10.6 139  99 49.87 P00        2.33  2.03  0.30        0.00 1.000       0.00-47.54  3.55-51.62 0.000
DSPI  12.8  48  97 49.84 PD0        2.30  2.41             -0.12 1.000       0.00-47.54  4.23-51.77 0.000
BRPI  13.5 181  97 50.19 PC0        2.65  2.55              0.10 1.000       0.00-47.54  4.45-52.00 0.000
NWSI  13.8 336  97 49.91 PD0        2.37  2.59             -0.22 1.000       0.00-47.54  4.53-52.07 0.000
LSGS  19.0  86  95 50.95 PD0        3.41  3.52             -0.11 1.000      52.47  4.93  6.16 -1.23 0.000
BRCI  19.5 205  95 51.19 P+0        3.65  3.60              0.04 1.000       0.00-47.54  6.30-53.85 0.000
LCRI  19.7 124  95 50.95 PC0        3.41  3.63             -0.22 1.000       0.00-47.54  6.35-53.90 0.000
CGI   21.5  28  94 51.15 P-4        3.61  3.96             -0.35 0.000       0.00-47.54  6.93-54.47 0.000
RCI   26.0 282  93 52.10 P 0        4.56  4.75             -0.20 1.000       0.00-47.54  8.32-55.86 0.000
HIR   32.6 338  93 53.80 P00        6.26  5.96              0.30 1.000       0.00-47.54 10.42-57.97 0.000
GCI   35.3   9  92 60.52 P 4       12.98  6.43              6.55 0.000       0.00-47.54 11.25-58.79 0.000
MDCI  43.0 115  92 54.76 PC0        7.22  7.81             -0.59M0.000      58.51 10.97 13.67 -2.70 0.000
HPI   83.5 125  65  1.99 P 0       14.45 14.48             -0.04 1.000       0.00 12.46 25.35-12.89 0.000                  61 3.0
JGI  102.1  93  65  4.98 P 0       17.44 17.51             -0.07 1.000       0.00 12.46 30.64-18.18 0.000                  63 3.1
CIB  115.6 135  65  7.42 PD0       19.88 19.69              0.19 1.000       0.00 12.46 34.46-22.00 0.000                  69 3.2
GBI  152.1  96  55 12.72 P 0       25.18 25.10              0.07L0.000       0.00 12.46 43.93-31.47 0.000                  74 3.4
TMI  188.3 120  55 17.91 P 0       30.37 30.43             -0.07D0.000       0.00 12.46 53.26-40.80 0.000                  82 3.6
IMW  243.1  96  44 26.02 P 0       38.48 37.59              0.89M0.000       0.00 12.46 65.78-53.33 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    NE    NW    SE     N    SW
AVE. OF END POINTS                 0.05  0.05  0.06  0.11  0.12  0.12  0.16

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  6      0.15     -0.07      0.10         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 8      7/44                                                                                                  83/11/ 8      7/44

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.65              SE =    0.87              SE =    1.08   QUALITY = A
                                            AZ =    -34.              AZ =   -124.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  744  6.38 44N16.02 114W 4.95   5.43   2.58 10 14 104 1 0.08  0.9  1.1 8 8|8 0.86 10 14 0.00 0.07  0  0.0  0.0 10  2.6  0.4
SE OF ORIG =  0.057          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    4.1 324 142  7.57IPD          1.19  1.26              -0.07 1.031       8.99  2.61  2.20  0.40 0.000            764  36 2.37
816   13.5 131 110  9.02IPD          2.64  2.67              -0.03 1.031      11.12  4.74  4.67  0.07 0.722            764  55 2.77
815   13.7 224 110  9.21IPC          2.83  2.69               0.13 1.031      11.32  4.94  4.72  0.22 0.000            764 108 3.37
81    15.2   8 108  9.37IPC          2.99  2.96               0.03 1.031                                                764  24 2.07
84    20.2 113 103 10.21IPC          3.83  3.82               0.01 1.031      12.74  6.36  6.68 -0.32 0.000            764  41 2.57
812   32.1 177  98 12.16IPC          5.78  5.90              -0.13 1.031                                                764  51 2.77
811   42.2 149  65 13.64EP 4         7.26  7.56              -0.30 0.000                                                764  40 2.57
85    44.3 130  65 14.23IPC          7.85  7.90              -0.06 1.031                                                764  75 3.17
86    52.4 130  65 15.73EPD          9.35  9.21               0.14 1.031                                                764  21 2.07
89    55.6 142  65 16.04EPC          9.66  9.72              -0.07 1.031                                                764  53 2.87

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE    NW     E    SE     N
AVE. OF END POINTS                 0.29  0.62  0.65  0.79  0.84  0.92  0.93

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 10      0.08      0.44      0.77         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8     8/57                                                                                  83/11/ 8     8/57

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.72                SE =    1.64            SE =    1.34    QUALITY = A
                                            AZ =     32.                AZ =   -58.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108  857 58.28 44N23.49 114W 7.86    8.81    2.56 15 21 237 1 0.09  1.6  1.3 C 8ID 0.07 10 23 0.00 0.06  0  0.0  0.0 14  2.6  0.4
SE OF ORIG =  0.129          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MIR    3.4  42 156 60.44IPD4        2.16  1.69              0.46 0.000                                          264  25 2.02
81     6.2  78 141  0.21IPC         1.93  1.93             -0.01 1.020       1.54  3.26  3.38 -0.13 0.000      264  39 2.42
817   10.6 172 123  0.72IPC         2.44  2.46             -0.02 1.020       2.59  4.31  4.30  0.01 0.714      264  46 2.62
GC1   21.0  70 102 62.31IPC         4.03  4.03              0.00 1.020                                          264  69 2.92
815   24.3 193  99  2.93IPC         4.65  4.56              0.09 1.020       5.29  7.01  7.98 -0.97 0.000      264  76 3.02
816   26.7 148  98  3.13IPC         4.85  4.93             -0.09 1.020                                          264  62 2.92
USPI  30.6 129  96 63.76EPC         5.48  5.56             -0.08 1.020      67.66  9.38  9.73 -0.36 0.000      264  21 1.92
84    31.2 134  96  3.97IPD         5.69  5.66              0.03 1.020                                          264  42 2.52
M8AI  37.0 142  94 65.14EP          6.86  6.60              0.25 1.020                                          264       2
LSGS  42.4 128  94  5.80EPC         7.52  7.48              0.03 1.020                                          264  26 2.22
8RPI  43.7 161  93  5.98EPC         7.70  7.69              0.01 1.020                                          264  33 2.42
812   46.2 173  93  6.23IPC         7.95  8.09             -0.14 1.020      13.53 15.25 14.16  1.09 0.000      264  50 2.82
911   56.2 153  92  8.31EPC4       10.03  9.71              0.32 0.000      14.44 16.16 16.99 -0.84 0.000      264  68 3.12
85    56.8 139  92  8.13IP          9.85  9.81              0.04 1.020                                          264       2
86    64.7 137  92  9.28EPD        11.00 11.09             -0.10 1.020                                          264  26 2.22
89    69.0 146  92 10.06IPC        11.78 11.8D             -0.02 1.020      18.26 19.98 20.64 -0.67 0.000      264  59 3.02

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     E    NW    SW     N    NE     Z
AVE. OF END POINTS                  0.06  0.12  0.13  0.13  0.15  0.16  0.17

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  13      0.09      0.01      0.13         D

          ------------END----------------------END----------------------END----------------------END------------
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    10/56                                                                                                  83/11/ 8    10/56

                                                     HORIZONTAL                                          VERTICAL
                                                SE =   0.58              SE =   0.68                 SE =   1.56   QUALITY = A
                                                AZ =  -119.              AZ =  -29.

 DATE    ORIGIN      LAT       LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 1056  0.29 44N13.67 114W 5.02   8.21   3.13 26 11 102 1 0.13  0.7  1.6 B A|B 0.10 10 47 0.00 0.09  0  0.0  0.0  T  3.1  0.3
SE OF ORIG =  0.062          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   5.9  59 140  2.07 PCO        1.78  1.82                -0.04 1.083       0.00 -0.29  3.18 -3.4T 0.000            265        2
ANPI   7.6 126 132  2.43 PDO        2.14  2.02                 0.13 1.083       0.00 -0.29  3.53 -3.82 0.000            265        2
B17    8.0 343 130  2.19IP 4       1.90  2.06                -0.16 0.000                                                265  73 2.92
B15   10.9 239 119  2.83IPD        2.54  2.44                 0.10 1.083       4.33  4.04  4.27 -0.23 0.758            265 108 3.32
B16   11.2 114 118  2.82IPD        2.53  2.49                 0.04 1.083       4.69  4.40  4.36  0.04 0.000            265        2
WSUI  11.6  95 117  2.80 PCO        2.51  2.54                -0.03 1.083       0.00 -0.29  4.45 -4.74 0.000            265        2
RCI   15.4 254 107  3.40 PDO        3.11  3.11                 0.00 1.083       0.00 -0.29  5.45 -5.74 0.000            265        2
M-2   18.4 113 102  4.07 PCO        3.78  3.60  0.17           0.01 1.083       0.00 -0.29  6.30 -6.88 0.000            265        2
B4    19.1 100 101  3.95IPC        3.66  3.70                -0.04 1.083       6.75  6.46  6.47 -0.01 0.000            265  86 3.12
B1    19.6   7 101  3.81IPC3       3.52  3.77                -0.25 0.068                                                265        2
OSPI  20.2  93 100  4.18 PCO        3.89  3.87                 0.02 1.083       5.96  5.67  6.77 -1.10 0.000            265        2
HIR   20.8 356  99  4.60 PDO        4.31  3.97                 0.34 1.083       0.00 -0.29  6.94 -7.23 0.000            265        2
MBAI  22.0 120  98  4.58 PCO        4.29  4.16                 0.13 1.083       0.00 -0.29  7.28 -7.57 0.000            265        2
CGI   22.8  66  97  4.25 PC2        3.96  4.29                -0.33 0.271       0.00 -0.29  7.51 -7.80 0.000            265        2
M-1   24.9 135  96  5.38 PDO        5.09  4.64  0.30           0.15 1.083       0.00 -0.29  8.12 -8.93 0.000            265        2
BRPI  25.4 156  96  4.99 PDO        4.70  4.72                -0.02 1.083       5.69  5.40  8.26 -2.86 0.000            265        2
BRCI  27.4 175  95  5.24 P-0        4.95  5.04                -0.09 1.083       7.44  7.15  8.81 -1.66 0.000            265        2
B12   27.7 176  95  5.40IPD        5.11  5.10                 0.02 1.083       9.23  8.94  8.92  0.02 0.000            265  94 3.22
GCI   29.9  32  94  5.42 PCO        5.13  5.45                -0.32 1.083       0.00 -0.29  9.53 -9.82 0.000            265        2
LSGS  30.T 105  94  5.79 PCO        5.50  5.57                -0.07 1.083       0.00 -0.29  9.75-10.04 0.000            265        2
LCRI  33.9 128  93  6.25 PCO        5.96  6.10                -0.14 1.083       0.00 -0.29 10.67-10.96 0.000            265        2
B11   38.6 145  93  7.17IP         6.88  6.86                 0.02 1.083                                                265        2
B5    41.7 126  93  7.73IPD        7.44  7.36                 0.08 1.083      13.49 13.20 12.88  0.32 0.000            265 125 3.52
B6    49.8 126  92  8.98IPD        8.69  8.67                 0.02 1.083                                                265  41 2.62
B9    52.3 139  92  9.35IP         9.06  9.07                -0.01 1.083                                                265  81 3.22
MDCI  56.8 119  92 10.05 PCO        9.76  9.81                -0.05 1.083      14.50 14.21 17.17 -2.96 0.000            265        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     N     E    NE     Z    SE    SW
AVE. OF END POINTS                  0.04  0.04  0.10  0.11  0.13  0.15  0.16

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   9      0.13     -0.04      0.10         D
```

```
____________BEGIN___________________BEGIN___________________BEGIN___________________BEGIN__________
83/11/ 8    13/33                                                                                  83/11/ 8    13/33

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.55              SE =    0.79              SE =    1.65   QUALITY = A
                                          AZ =     19.              AZ =    -71.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831108 1333 12.30 44N15.19 114W 5.98   8.40   2.13 18 12 124 1 0.10  0.8  1.6 B A|B 0.06 10 22 0.00 0.08  0  0.0  0.0 14  2.1  0.5
SE OF ORIG =  0.076          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    5.0 348 146 14.06IP          1.76  1.76              0.00 1.034                                                266  36 2.32
NWSI   6.3  88 139 14.16IPC         1.86  1.89             -0.03 1.034      15.10  2.80  3.31 -0.51 0.000           266   9 1.12
B15   11.6 224 118 14.83IPD         2.53  2.56             -0.03 1.034      16.88  4.58  4.48  0.10 0.724           266  51 2.62
B16   13.7 122 112 15.09IPD         2.79  2.87             -0.08 1.034                                                266  54 2.72
B1    17.0  12 106 15.71IPC         3.41  3.37              0.04 1.034                                                266  22 1.92
HIR   17.9 359 104 16.32EPC4        4.02  3.53              0.50 0.000                                                266  22 1.92
B4    21.0 107 100 16.28IP          3.98  4.01             -0.03 1.034                                                266  32 2.32
DSPI  21.7 100  99 16.36EPC         4.06  4.13             -0.07 1.034      19.06  6.76  7.23 -0.46 0.000           266  16 1.72
MBAI  24.6 124  97 16.98EPC         4.68  4.58              0.10 1.034                                                266  17 1.72
GCI   28.3  38  96 17.43EPC         5.13  5.20             -0.06 1.034                                                266  42 2.52
BRPI  28.5 156  95 17.42EP          5.12  5.22             -0.10 1.034                                                266  26 2.12
B12   30.6 174  95 17.71IPC         5.41  5.57             -0.16 1.034      21.26  8.96  9.75 -0.78 0.000           266        2
LSGS  32.7 110  94 18.44EPD         6.14  5.91              0.24 1.034                                                266  20 1.92
B11   41.7 146  93 19.84EP          7.54  7.36              0.19 1.034                                                266        2
B5    44.5 128  93 20.01IP          7.71  7.80             -0.09 1.034      25.93 13.63 13.66 -0.03 0.724           266  72 3.12
B6    52.5 127  92 21.37IPC         9.07  9.12             -0.04 1.034                                                266  19 1.92
B9    55.3 140  92 21.92EP          9.62  9.56              0.07 1.034                                                266        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NW    NE     E     Z    SE     N
AVE. OF END POINTS                  0.10  0.10  0.14  0.15  0.15  0.15  0.18

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   9      0.10      0.08      0.14         0

____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    18/42                                                                                 83/11/ 8    18/42

                                                  HORIZONTAL                                   VERTICAL
                                            SE =    0.47              SE =    0.81               SE =    0.90    QUALITY = A
                                            AZ =   -38.               AZ =  -128.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 1842 47.88 44N12.17 114W 1.02    9.68   2.32 11 13 136 1 0.07  0.8  0.9 8 A|C 0.08 10 14 0.00 0.05  0  0.0  0.0  5  2.3  0.2
SE DF DRIG =  0.046          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.2 110 149 49.87IPD         1.99  1.95              0.04 1.058      51.27  3.39  3.42 -0.03 0.740           267  42 2.52
817   13.0 324 121 50.73IPD         2.85  2.86             -0.01 1.058      52.78  4.90  5.00 -0.10 0.000           267        2
84    13.5  93 119 50.78IPD         2.90  2.93             -0.03 1.058      53.03  5.15  5.12  0.03 0.740           267        2
81    22.4 352 105 52.17IPD         4.29  4.27              0.02 1.058      55.16  7.28  7.47 -0.19 0.000           267  26 2.12
812   25.1 188 102 52.53IPC         4.65  4.71             -0.06 1.058                                              267        2
811   33.4 150  98 54.06IP          6.18  6.04              0.14 1.058      58.66 10.78 10.57  0.21 0.000           267  35 2.42
85    35.8 127  97 54.26IP          6.38  6.42             -0.04 1.058                                              267        2
86    43.9 127  95 55.48IPD         7.60  7.72             -0.12 1.058                                              267  23 2.12
89    46.8 141  95 56.12IPD         8.24  8.18              0.06 1.058                                              267  40 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW     E     Z    NE    SW     N
AVE. OF END POINTS                 0.12  0.12  0.14  0.16  0.19  0.20  0.23


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.07      0.01      0.16         D

         ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 8    19/35                                                                                                  83/11/ 8    19/35

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.37              SE =   0.63              SE =   0.86   QUALITY = A
                                            AZ =   -43.              AZ =  -133.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 1935 14.68 44N 8.21 113W56.74  10.94   2.45 11 20  75 1 0.06  0.6  0.9 A A|A 1.52 10 14 0.00 0.04  0  0.0  0.0  6  2.5  0.3
SE OF ORIG =  0.041          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.6 352 151 16.80IPD          2.12  2.16              -0.04 1.028      18.48  3.80  3.78  0.02 0.720           268  41 2.52
84    10.2  49 133 17.31IPD          2.63  2.62               0.00 1.028      19.61  4.93  4.59  0.34 0.000           268        2
812   19.8 208 112 18.65IPC          3.97  3.95               0.02 1.028                                                268        2
815   20.9 283 111 18.80IP           4.12  4.11               0.01 1.028                                                268        2
817   22.3 323 109 18.94IPD          4.26  4.32              -0.06 1.028                                                268  53 2.72
811   24.3 153 107 19.35IPD          4.67  4.63               0.04 1.028                                                268  39 2.52
85    26.9 122 105 19.81IPC          5.13  5.04               0.03 1.028      23.21  8.53  8.81 -0.29 0.000           268        2
81    30.8 344 102 20.38IPC          5.70  5.64               0.06 1.028                                                268  25 2.12
86    35.0 123 100 20.99IPD          6.31  6.32              -0.02 1.028      23.94  9.26 11.07 -1.81 0.000           268  22 2.02
89    37.5 141  99 21.28EPC          6.60  6.72              -0.12 1.028                                                268  62 2.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                 0.47  0.56  0.69  0.90  0.92  1.01  1.12

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                11      0.06      0.49      0.84         A
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 8    19/35                                                                                                  83/11/ 8    19/35

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.66              SE =   1.17              SE =   1.56   QUALITY = A
                                            AZ =   -59.              AZ =    31.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 1935 57.21 44N 6.53 113W53.43   6.95   2.55 10 20 102 1 0.11  1.2  1.6 B B|B 0.53 10 12 0.00 0.10  0  0.0  0.0  9  2.6  0.3
SE OF ORIG =  0.054          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816   10.1 329 123 59.50IP           2.29  2.24               0.05 1.031      61.29  4.08  3.92  0.16 0.000           269  49 2.62
84    10.3  19 123 59.311P           2.10  2.27              -0.17 1.031                                                269  49 2.62
811   19.7 161  65 61.13IPC          3.92  3.78               0.14 1.031                                                269  52 2.72
812   19.9 223  65 60.97EPC          3.76  3.81              -0.06 1.031                                                269  62 2.82
85    21.5 121  65 61.40IPC          4.19  4.08               0.11 1.031      64.40  7.19  7.15  0.04 0.722           269  60 2.82
815   26.0 287  65 61.95IP           4.74  4.81              -0.07 1.031                                                269  52 2.72
86    29.6 122  65 62.55IPC          5.34  5.40              -0.06 1.031      64.35  7.14  9.45 -2.31 0.000           269  23 2.02
89    32.3 144  65 62.93IPD          5.72  5.83              -0.11 1.031                                                269  51 2.72
81    35.2 338  65 63.65IPC          6.44  6.30               0.14 1.031                                                269  24 2.12

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE    NW     Z     N    NE    SW     E
AVE. OF END POINTS                 0.05  0.05  0.07  0.12  0.14  0.15  0.22
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    19/45                                                                                 83/11/ 8    19/45

                                                 HORIZONTAL                                  VERTICAL
                                          SE =    0.93              SE =    1.07              SE =    1.44    QUALITY = A
                                          AZ =   -27.               AZ =  -117.

 DATE     ORIGIN       LAT       LONG     DEPTH     MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 1945 57.24 44N 6.16 113W54.48    6.28          15  7  67 1 0.17  1.1  1.4 8 8|A 0.34 10 32 0.00 0.14  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.070          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-1    5.1 136 140 59.01 PDO        1.77  1.49  0.30       -0.02 1.000       0.00-57.24  2.61-60.37 0.000
MBAI   5.8  60 136 58.96 PDO        1.72  1.57              0.15 1.000       0.00-57.24  2.76-59.99 0.000
M-2    7.3  24 129 59.36 PCO        2.12  1.77  0.17        0.18 1.000       0.00-57.24  3.10-60.63 0.000
BRPI   9.9 201 121 59.48 PCO        2.24  2.14              0.11 1.000       0.00-57.24  3.74-60.98 0.000
ANPI  12.3 320 115 59.60 P 0        2.36  2.53             -0.17 1.000       0.00-57.24  4.43-61.66 0.000
WSUI  13.0 349 114 59.79 PCO        2.55  2.65             -0.09 1.000       0.00-57.24  4.63-61.87 0.000
OSPI  14.3  25 112  0.17 PCO        2.93  2.85              0.08 1.000       2.62  5.38  4.99  0.40 0.000
LCRI  14.5 118 112  0.00 PDO        2.76  2.89             -0.13 1.000       0.00  2.76  5.06 -2.29 0.000
LSGS  16.6  70 109  0.54 PDO        3.30  3.24              0.06 1.000       2.32  5.08  5.67 -0.59 0.000
BRCI  17.8 221 108  0.69 P+0        3.45  3.43              0.02 1.000       1.99  4.75  6.01 -1.25 0.000
NWSI  19.2 332 107  0.54 P 0        3.30  3.67             -0.37 1.000       0.00  2.76  6.43 -3.66 0.000
CGI   24.2  16 103  1.55 P-4        4.31  4.55             -0.23 0.000       0.00  2.76  7.96 -5.20 0.000
RCI   30.5 289  65  2.91 P 0        5.67  5.59              0.09 1.000       6.61  9.37  9.77 -0.40 0.000
MIR   37.9 336  65  4.40 P 0        7.16  6.80              0.36 1.000       0.00  2.76 11.90 -9.13 0.000
MOCI  38.3 111  65  3.92 PCO        6.68  6.85             -0.17 1.000       0.00  2.76 11.99 -9.22 0.000
GCI   39.2   3  65  4.12 P 0        6.88  7.01             -0.12 1.000       0.00  2.76 12.26 -9.50 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE    NW    SE    SW     Z     N     E
AVE. OF END POINTS                  0.04  0.05  0.06  0.07  0.07  0.08  0.10

              NUMBER        RMS   MIN DRMS   AVE DRMS    QUALITY
                   8       0.17      -0.02       0.06          D

------------END----------------------END----------------------END----------------------END------------
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    20/28                                                                                                  83/11/ 8    20/28

                                                   HORIZONTAL                                        VERTICAL
                                          SE =     0.24              SE =    0.44                    SE =    0.76    QUALITY = A
                                          AZ =     -40.              AZ =   -130.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 2028 31.74 44N 6.83 113W55.38  10.69   2.40 11 19  86 1 0.04  0.4  0.8 A A|A 0.11 10 13 0.00 0.03  0  0.0  0.0  6  2.4  0.2
SE OF ORIG =  0.035          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.5 342 138 34.13IPD          2.39  2.41              -0.02 1.058      35.95  4.21  4.21  0.00 0.740           270  32 2.22
34    10.9  33 130 34.44IPC          2.70  2.69               0.01 1.058                                                270        2
812   18.6 216 113 35.52IPC          3.78  3.76               0.03 1.058      37.50  5.76  6.57 -0.81 0.000           270  35 2.42
811   21.2 154 110 35.87IPD          4.13  4.14              -0.01 1.058      38.95  7.21  7.24 -0.03 0.740           270  39 2.52
815   23.4 288 107 36.25IPC          4.51  4.47               0.04 1.058                                                270  43 2.62
35    24.1 119 107 36.41IPC          4.67  4.58               0.09 1.058                                                270  58 2.82
817   25.4 323 105 36.48EP           4.74  4.79              -0.05 1.058                                                270  29 2.22
86    32.1 121 101 37.59IPC          5.85  5.86              -0.01 1.058      42.39 10.65 10.26  0.39 0.000           270  21 2.02
89    34.3 141 100 37.89IPC          6.15  6.21              -0.06 1.058                                                270  43 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW     Z     N     E    NE    SW
AVE. OF END POINTS                  0.10  0.18  0.20  0.20  0.20  0.24  0.26


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.04      0.06      0.19         D


xxxx>


xxxx)
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    20/46                                                                                 83/11/ 8    20/46

                                                HORIZONTAL                                  VERTICAL
                                          SE =    0.35              SE =    0.50              SE =    0.87   QUALITY = A
                                          AZ =   -40.               AZ =  -130.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 2046  9.99 44N12.11 114W 1.82   7.53   3.14 28  6  74 1 0.10  0.5  0.9 A A|A 0.20 10 57 0.00 0.08  0  0.0  0.0  8  3.1  0.3
SE OF ORIG =  0.029          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   2.5 128 160 11.55 P 0        1.56  1.44              0.12 1.011       0.00 -9.99  2.52-12.51 0.000           770        7
NWSI   5.9   8 136 11.62 PDO        1.63  1.75             -0.12 1.011       0.00 -9.99  3.06-13.05 0.000           770        7
816    6.2 105 135 11.89IPO        1.90  1.78              0.12 1.011      13.69  3.70  3.11  0.59 0.000           770        7
NSUI   8.9  62 122 12.15 P 0        2.16  2.12              0.04 1.011       0.00 -9.99  3.70-13.69 0.000           770        7
817   12.5 328 110 12.56IPD        2.57  2.63             -0.06 1.011      14.66  4.67  4.61  0.06 0.708           770        7
M-2   13.4 109 107 13.01 PCO        3.02  2.77  0.17        0.08 1.011       0.00 -9.99  4.85-15.13 0.000           770        7
815   13.9 259 105 12.92IPD        2.93  2.85              0.08 1.011      14.32  4.33  4.99 -0.66 0.000           770        7
84    14.5  92 104 12.92IPC        2.93  2.95             -0.02 1.011                                               770        7
USPI  16.0  83 100 13.13 PCO        3.14  3.18             -0.04 1.011      15.53  5.54  5.56 -0.02 0.000           770        7
MBAI  16.9 119  99 13.48 PDO        3.49  3.33              0.16 1.011       0.00 -9.99  5.82-15.81 0.000           770        7
RCI   19.1 266  96 13.71 PDO        3.72  3.69              0.03 1.011       0.00 -9.99  6.45-16.44 0.000           770        7
M-1   19.9 138  95 14.01 PCO        4.02  3.81  0.30       -0.09 1.011       0.00 -9.99  6.66-17.18 0.000           770        7
CGI   20.6  54  95 13.85 P-4        3.86  3.93             -0.07 0.000       0.00 -9.99  6.87-16.86 0.000           770        7
8RPI  21.2 163  94 13.98 PCO        3.99  4.02             -0.03 1.011       0.00 -9.99  7.03-17.02 0.000           770        7
81    22.4 355  94 14.08IPC        4.09  4.21             -0.12 1.011                                               770   64 2.97
HIR   24.3 346  93 14.60 PDO        4.61  4.52              0.09 1.011       0.00 -9.99  7.92-17.91 0.000           770        7
8RCI  24.4 184  93 14.49 PCO        4.50  4.54             -0.04 1.011       0.00 -9.99  7.95-17.94 0.000           770        7
812   24.9 186  93 14.55IPC        4.56  4.62             -0.06 1.011                                               770   88 3.27
LSGS  25.8 102  93 14.72 P-0        4.73  4.77             -0.04 1.011      17.47  7.48  8.35 -0.87 0.000           770        7
LCRI  28.8 128  92 15.10 PCO        5.11  5.26             -0.15 1.011       0.00 -9.99  9.20-19.19 0.000           770        7
GCI   30.5  23  92 15.42 PCO        5.43  5.54             -0.11 1.011       0.00 -9.99  9.70-19.69 0.000           770        7
811   33.9 148  92 16.07IPC        6.08  6.08              0.00 1.011                                               770   85 3.27
85    36.6 126  91 16.47EPC        6.48  6.52             -0.04 1.011                                               770        7
86    44.7 126  91 17.81EP         7.82  7.84             -0.02 1.011                                               770   33 2.47
89    47.3 140  91 18.11IPD        8.12  8.27             -0.15 1.011                                               770   82 3.27
MUCI  51.7 118  91 18.89 PDO        8.90  8.98             -0.08 1.011       0.00 -9.99 15.71-25.71 0.000           770        7
MPI   92.5 126  90 26.15 P 0       16.16 15.60              0.56M0.000       0.00 -9.99 27.30-37.29 0.000           770        7
JGI  109.1  96  65 28.51 P 0       18.52 18.28              0.24 1.011       0.00 -9.99 31.98-41.97 0.000           770   78 3.37
CIB  124.8 135  65 30.75 P 0       20.76 20.60              0.16 1.011      46.45 36.46 36.05  0.41 0.000           770   84 3.57
GBI  159.3  99  65 36.63 P 0       26.64 25.66              0.98M0.000      54.69 44.70 44.91 -0.21 0.000           770   78 3.57
TMI  197.0 120  50 41.33 P 0       31.34 31.19              0.15D0.000       0.00 -9.99 54.59-64.58 0.000           770        7
IMW  250.2  98  50 49.03 P 0       39.04 37.85              1.19M0.000       0.00 -9.99 66.24-76.23 0.000           770        7

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z     E    SE     N    NE    SW
AVE. OF END POINTS                  0.10  0.12  0.13  0.18  0.18  0.18  0.19

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  11      0.10      0.06      0.16         D

-------------END----------------------END----------------------END----------------------END-----------
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    20/59                                                                                 83/11/ 8    20/59

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.60            SE =   0.96              SE =   1.37   QUALITY = A
                                          AZ =  -46.             AZ =    44.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 2059  7.91 44N12.26 114W 2.00   8.44   2.26 11 14  98 1 0.09  1.0  1.4 8 8|8 0.05 10 15 0.00 0.08  0  0.0  0.0 10  2.3  0.8
SE OF ORIG =  0.057          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VAR1 (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    6.5 107 138  9.82IPD         1.91  1.92              -0.01 1.028      11.31  3.40  3.36  0.04 0.720           271  3 0.22
817   12.1 328 117 10.49IPD         2.58  2.63              -0.05 1.028                                              271 34 2.32
815   13.7 258 113 10.85IPC         2.94  2.88               0.06 1.028      13.28  5.37  5.03  0.34 0.000           271 51 2.72
84    14.8  93 110 10.87IPD         2.96  3.04              -0.08 1.028      12.89  4.98  5.31 -0.33 0.000           271 67 2.92
81    22.1 356  99 12.13IPC         4.22  4.19               0.03 1.028                                              271 30 2.22
812   25.2 185  97 12.48IPC         4.57  4.67              -0.10 1.028                                              271 45 2.62
811   34.2 148  94 14.15IP          6.24  6.15               0.09 1.028      18.33 10.42 10.77 -0.35 0.000           271 35 2.42
85    36.9 126  94 14.38IPC         6.47  6.59              -0.12 1.028      18.93 11.02 11.53 -0.51 0.000           271 66 3.02
86    45.0 126  93 16.01IP          8.10  7.90               0.20 1.028                                              271 16 1.82
39    47.7 140  92 16.19EP          8.28  8.33              -0.05 1.028                                              271 47 2.72

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    SW    NE     E     Z     N
AVE. OF END POINTS                  0.09  0.10  0.15  0.15  0.16  0.19  0.19

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   5      0.09      0.04      0.15         D
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/ 8 22/20 83/11/ 8 22/20

	HORIZONTAL		VERTICAL	
SE =	0.59	SE =	0.71	SE = 1.09 QUALITY = A
AZ =	33.	AZ =	-57.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SOFM
831108	2220 41.62	44N15.34	114W 5.78	5.11	3.28	29	10	102	1	0.16	0.7	1.1	B	B18	0.45	10	58	0.00	0.12	0	0.0	0.0	9	3.3	0.3

SE OF ORIG = 0.055 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	TMIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
B17	4.8	344	135	43.03	IPD	1.41	1.30		0.12	1.010		45.13	3.51	2.27	1.25	0.000				272		2	
NWSI	6.0	91	129	43.08	P+0	1.46	1.46		0.00	1.010		0.00	-41.62	2.55	-44.17	0.000				272		2	
ANPI	10.4	136	114	43.75	P 0	2.13	2.13		0.00	1.010		0.00	-41.62	3.73	-45.35	0.000				272		2	
B15	12.0	224	111	44.13	IPC	2.51	2.39		0.12	1.010		45.93	4.31	4.19	0.12	0.707				272		2	
WSUI	13.2	108	109	44.30	PC0	2.68	2.60		0.08	1.010		0.00	-41.62	4.56	-46.17	0.000				272		2	
NSUI	13.3	98	109	44.30	P 0	2.68	2.61		0.07	1.010		0.00	-41.62	4.57	-46.18	0.000				272		2	
B16	13.6	124	109	44.40	IPC	2.78	2.67		0.12	1.010										272		2	
RCI	15.6	242	106	44.62	PC0	3.00	3.00		0.00	1.010		0.00	-41.62	5.26	-46.88	0.000				272		2	
B1	16.7	12	105	44.71	IPC	3.09	3.19		-0.09	1.010										272	73	3.02	
MIR	17.7	359	104	45.00	PD0	3.38	3.36		0.03	1.010		0.00	-41.62	5.87	-47.49	0.000				272		2	
M-2	20.7	120	102	45.81	P+0	4.19	3.89	0.17	0.14	1.010		0.00	-41.62	6.80	-48.72	0.000				272		2	
B4	20.8	108	102	45.50	IP	3.88	3.91		-0.02	1.010										272		2	
DSPI	21.5	101	102	45.62	PC0	4.00	4.03		-0.02	1.010		0.00	-41.62	7.05	-48.66	0.000				272		2	
CGI	22.7	74	101	45.85	PC0	4.23	4.23		0.00	1.010		0.00	-41.62	7.41	-49.03	0.000				272		2	
MBAI	24.5	125	100	46.25	PC0	4.63	4.54		0.09	1.010		0.00	-41.62	7.95	-49.57	0.000				272		2	
M-1	27.8	138	99	47.02	P+0	5.40	5.14	0.30	-0.04	1.010		0.00	-41.62	9.00	-51.15	0.000				272		2	
GCI	28.0	37	99	46.52	PC0	4.90	5.17		-0.27	1.010		0.00	-41.62	9.04	-50.66	0.000				272		2	
BRPI	28.6	156	99	46.77	PC0	5.15	5.29		-0.14	1.010		48.92	7.30	9.26	-1.96	0.000				272		2	
BRCI	30.5	174	98	47.84	PC0	5.42	5.63		-0.20	1.010		0.00	-41.62	9.84	-51.46	0.000				272		2	
B12	30.9	175	98	47.12	IPC	5.50	5.69		-0.19	1.010		50.87	9.25	9.95	-0.70	0.000				272		2	
LSGS	32.6	110	98	47.48	P+0	5.86	5.99		-0.12	1.010		0.00	-41.62	10.47	-52.09	0.000				272		2	
LCRI	36.7	130	65	47.99	PC0	6.37	6.68		-0.31	1.010		0.00	-41.62	11.69	-53.31	0.000				272		2	
B11	41.8	147	65	49.14	IPD	7.52	7.51		0.02	1.010										272	82	3.12	
B5	44.4	128	65	49.41	IPC	7.79	7.94		-0.14	1.010		55.32	13.70	13.89	-0.19	0.000				272	121	3.52	
B6	52.5	128	65	50.99	IPD	9.37	9.25		0.12	1.010										272	42	2.62	
B9	55.3	140	65	51.20	IPD	9.58	9.70		-0.12	1.010										272	114	3.52	
MPI	100.3	127	65	59.11	P 0	17.49	17.01		0.48	1.010		0.00	-41.62	29.77	-71.39	0.000				272	72	3.22	
JGI	114.9	99	55	1.20	P 0	19.58	19.36		0.22	1.010		14.33	32.71	33.89	-1.18	0.000				272	70	3.32	
CIS	132.8	136	55	4.06	P00	22.44	22.00		0.44	D0.000		19.78	38.16	38.50	-0.34	0.000				272	85	3.52	
GBI	165.5	100	55	8.94	P 0	27.32	26.80		0.52	C0.000		0.00	18.38	46.91	-28.52	0.000				272		2	
TMI	204.6	121	44	14.18	P 0	32.56	32.44		0.12	C0.000		0.00	18.38	56.78	-38.40	0.000				272	97	3.92	
IMW	255.9	99	44	20.69	P 0	39.07	38.86		0.21	C0.000		0.00	18.38	68.00	-49.62	0.000				272		2	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NW	SW	SE	NE	E	N
AVE. OF END POINTS	0.21	0.54	0.60	0.71	0.72	0.77	0.80

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
29	0.16	0.36	0.67	A

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 8    23/32                                                                                                 93/11/ 8    23/32

                                                   HORIZONTAL                                   VERTICAL
                                          SE =    0.41              SE =    0.54               SE =    0.57    QUALITY = A
                                          AZ =    -27.              AZ =   -117.

 DATE     ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 2332 43.03 44N13.98 114W 3.39    6.81    3.36 31  8  74 1 0.12  0.5  0.6 A A|A 0.06 10 86 0.00 0.09  0  0.0  0.0 13  3.4  0.4
SE OF ORIG =  0.031          10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.8  50 150 44.30 P 0        1.27  1.43              -0.16 1.020       0.00-43.03  2.50-45.53 0.000
ANPI   6.4 141 136 44.75 P 0        1.72  1.71               0.00 1.020       0.00-43.03  3.00-46.03 0.000
B17    8.4 328 128 45.01IPD0        1.98  1.98               0.00 1.020      46.52  3.49  3.47  0.02 0.714                 79 3.0
WSUI   9.5 100 124 45.29 PC0        2.26  2.14               0.12 1.020
B16    9.6 122 124 45.30IPD0        2.27  2.15               0.12 1.020      46.53  3.50  3.76 -0.26 0.000                 83 3.0
B15   13.0 242 116 45.78IPC0        2.75  2.69               0.06 1.020      51.50  8.47  4.70  3.76 0.000                116 3.4
M-2   16.7 118 111 46.52 PC0        3.49  3.29  0.17         0.03 1.020       0.00-43.03  5.76-49.09 0.000
FSD   17.0 107 110 46.35 P 0        3.32  3.34              -0.02 1.020      48.60  5.57  5.85 -0.28 0.000
B4    17.1 104 110 46.34IPC0        3.31  3.35              -0.04 1.020      49.00  5.97  5.87  0.10 0.000                130 3.5
RCI   17.6 254 110 46.53 P 0        3.50  3.45               0.05 1.020       0.00-43.03  6.03-49.06 0.000
DSPI  18.0  95 109 46.51 P 0        3.48  3.51              -0.03 1.020       0.00-43.03  6.14-49.18 0.000
B1    18.9   1 108 46.59IPC0        3.56  3.65              -0.09 1.020      49.37  6.34  6.39 -0.05 0.714                 82 3.1
MBAI  20.5 124  65 46.98 P 0        3.95  3.92               0.03 1.020       0.00-43.03  6.86-49.89 0.000
MIR   20.5 350  65 47.05 P 0        4.02  3.93               0.09 1.020       0.00-43.03  6.87-49.90 0.000
CGI   20.6  65  65 46.95 P 0        3.92  3.95              -0.03 1.020       0.00-43.03  6.91-49.94 0.000
M-1   23.8 140  65 47.93 P 0        4.90  4.47  0.30         0.13 1.020       0.00-43.03  7.82-51.37 0.000
BRPI  25.1 161  65 47.76 P 0        4.73  4.68               0.05 1.020      49.56  6.53  8.19 -1.66 0.000
BRCI  27.8 180  65 48.09 P 0        5.06  5.12              -0.06 1.020      56.49 13.46  8.95  4.50 0.000
B12   28.2 181  65 48.15IPC0        5.12  5.18              -0.06 1.020      51.92  8.89  9.07 -0.18 0.000                114 3.4
GCI   28.3  29  65 48.22 P 0        5.19  5.20              -0.01 1.020       0.00-43.03  9.10-52.13 0.000
LSGS  28.7 108  65 48.17 P 0        5.14  5.27              -0.13 1.020       0.00-43.03  9.22-52.25 0.000
LCRI  32.6 131  65 48.69 P 0        5.66  5.89              -0.23 1.020       0.00-43.03 10.31-53.34 0.000
B11   37.9 148  65 49.58IPD0        6.55  6.76              -0.21 1.020      56.08 13.05 11.82  1.23 0.000                 76 3.1
B5    40.3 128  65 50.21IPC0        7.18  7.15               0.03 1.020      55.13 12.10 12.51 -0.41 0.000                114 3.4
B6    48.4 128  65 51.34IPC0        8.31  8.46              -0.15 1.020      56.41 13.38 14.81 -1.43 0.000                 45 2.7
B9    51.3 141  65 51.87IPD0        8.84  8.93              -0.09 1.020      58.49 15.46 15.63 -0.17 0.000                106 3.4
MDCI  55.2 120  65 52.63 P 0        9.60  9.57               0.03 1.020       0.00-43.03 16.74-59.77 0.000
MPI   96.3 127  65 59.52 P 0       16.49 16.23               0.26 1.020       0.00-43.03 28.39-71.43 0.000
JGI  111.4  98  55  2.04 PC0       19.01 18.67               0.33 1.020       0.00 16.97 32.68-15.71 0.000
CIB  128.8 136  55  4.82 PD0       21.79 21.23               0.55M0.000      17.72 34.69 37.16 -2.47 0.000                121 3.8
GBI  161.9 100  55  9.80 P 0       26.77 26.10               0.66M0.000       0.00 16.97 45.68-28.71 0.000                128 4.0
TIJ  171.4 242  55 11.48 PC0       28.45 27.50               0.95M0.000       0.00 16.97 48.12-31.15 0.000
CPI  184.5 257  55 10.98 P 0       27.95 29.43              -1.48M0.000       0.00 16.97 51.50-34.53 0.000
CMI  196.7  80  55 15.40 P 0       32.37 31.22               1.15M0.000       0.00 16.97 54.63-37.66 0.000
TMI  200.6 121  44 14.98 PD0       31.95 31.72               0.23D0.000      39.40 56.37 55.51  0.86 0.000                126 4.1
KCI  201.8 108  44 15.70 PC0       32.67 31.88               0.79M0.000       0.00 16.97 55.79-38.82 0.000
LRM  217.3  36  44 16.50 PD0       33.47 33.81              -0.34D0.000       0.00 16.97 59.17-42.20 0.000
WPI  240.8 244  44 22.08 PC0       39.05 36.75               2.30M0.000       0.00 16.97 64.31-47.34 0.000
LCCM 247.6  44  44 20.30 P 0       37.27 37.60              -0.33D0.000       0.00 16.97 65.80-48.83 0.000
IMW  252.4  99  44 22.56 P 0       39.53 38.20               1.33M0.000       0.00 16.97 66.85-49.88 0.000
NPI  263.3 152  44 24.70 P 0       41.67 39.56               2.11M0.000
MSO  288.7   2  44 24.90 P 0       41.87 42.74              -0.87M0.000      57.90 74.87 74.79  0.08 0.000
MLI  291.2 147  44 28.60 P 0       45.57 43.05               2.52M0.000       0.00 16.97 75.33-58.36 0.000
SXM  309.0  46  44 28.50 P 0       45.47 45.27               0.20D0.000       0.00 16.97 79.22-62.25 0.000
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 8    23/39                                                                                                  83/11/ 8    23/39

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.99              SE =   1.57              SE =   1.22   QUALITY = A
                                            AZ =  -121.              AZ =   -31.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831108 2339 18.61 44N25.20 114W 3.82   4.63   2.25 17 14 176 1 0.13  1.6  1.2 C B|C 0.47 10 18 0.00 0.10  0  0.0  0.0 16  2.3  0.4
SE OF ORIG =  0.122          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1     2.1 159 155 19.45IPD          0.84  0.94             -0.10 1.000                                                 274  34 2.22
HIR    3.1 259 145 19.63IPD          1.02  1.03             -0.02 1.000                                                 274  30 2.12
B17   14.2 196 106 21.35IPC          2.74  2.74              0.00 1.000                                                 274  37 2.32
GCI   14.9  75 105 21.57IPD          2.96  2.86              0.09 1.000                                                 274  50 2.62
NWSI  18.7 169 102 22.19EPD          3.58  3.51              0.07 1.000      25.28  6.67  6.14  0.53 0.000             274  12 1.42
NSUI  22.7 152 100 22.55EPD          3.94  4.22             -0.29 1.000                                                 274  25 2.02
B16   27.3 162  98 23.73IPC          5.12  5.04              0.08 1.000                                                 274  37 2.42
B15   29.0 202  98 24.03IPD          5.42  5.34              0.07 1.000                                                 274  49 2.62
OSPI  29.0 140  98 23.98EPC          5.37  5.34              0.02 1.000                                                 274  19 1.82
B4    30.2 145  97 24.45IP           5.84  5.55              0.29 1.000                                                 274  60 2.82
MBAI  36.7 152  96 25.27EPC          6.66  6.71             -0.06 1.000                                                 274  21 1.92
LSGS  40.6 137  65 25.83EPC          7.22  7.35             -0.14 1.000                                                 274  18 1.82
B12   49.0 180  65 27.30EPD          8.69  8.72             -0.04 1.000                                                 274        2
B5    56.0 145  65 28.39IPC          9.78  9.85             -0.07 1.000                                                 274  57 2.92
B11   56.9 159  65 28.76EPC         10.15 10.00              0.15 1.000                                                 274  34 2.42
B6    63.6 142  65 29.59EPD         10.98 11.09             -0.12 1.000                                                 274  18 1.92
B9    69.0 151  65 30.63EPC         12.02 11.96              0.06 1.000                                                 274  44 2.72

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    NE     N     Z    SW     E
AVE. OF END POINTS                   0.07  0.07  0.08  0.08  0.10  0.11  0.13

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  14      0.13      0.04      0.09         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9     7/41                                                                                                  83/11/ 9     7/41

                                                   HORIZONTAL                                        VERTICAL
                                              SE =   0.47              SE =   0.65                 SE =   0.96   QUALITY = A
                                              AZ =  -47.               AZ =    43.


 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109  741 42.10 44N 8.85 113W56.79    5.46    2.91 29  7  74 1 0.16  0.7  1.0 B B|A 0.19 10 57 0.00 0.13  0  0.0  0.0 14  2.9  0.3
SE OF ORIG =  0.038          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.5 351 140 43.50IPD          1.40  1.30              0.10 1.010                                                277  48 2.52
M-2    6.2  74 130 43.94 PDO         1.84  1.53  0.17        0.15 1.010        0.00-42.10  2.67-45.07 0.000           277        2
ANPI   6.6 313 128 43.65 PDO         1.55  1.57             -0.02 1.010        0.00-42.10  2.75-44.85 0.000           277        2
WSUI   7.9   4 123 43.87 PDO         1.77  1.76              0.02 1.010        0.00-42.10  3.08-45.17 0.000           277        2
WBAI   8.4 104 122 44.08 PDO         1.98  1.83              0.15 1.010        0.00-42.10  3.20-45.30 0.000           277        2
B4     9.5  55 118 44.09IPD          1.99  2.01             -0.01 1.010                                                277 113 3.32
NSUI  10.3   T 116 44.25 P 0        2.15  2.14              0.02 1.010        0.00-42.10  3.74-45.84 0.000           277        2
M-1   10.9 143 115 44.75 PCO         2.65  2.24  0.30        0.11 1.010        0.00-42.10  3.92-46.54 0.000           277        2
DSPI  12.1  49 112 44.51 PDO         2.41  2.44             -0.02 1.010        0.00-42.10  4.27-46.36 0.000           277        2
NWSI  13.3 334 110 44.45 PDO         2.35  2.64             -0.28 1.010        0.00-42.10  4.62-46.71 0.000           277        2
BRPI  14.2 182 109 44.97 PCO         2.87  2.79              0.09 1.010       47.97  5.87  4.87  1.00 0.000           277        2
LSGS  18.6  87 105 45.60 PDO         3.50  3.54             -0.04 1.010       47.31  5.21  6.19 -0.98 0.000           277        2
LCRI  19.8 127 104 45.60 P 0         3.50  3.74             -0.23 1.010        0.00-42.10  6.54-48.64 0.000           277        2
B15   20.6 280 103 46.10EPC          4.00  3.88              0.12 1.010       48.62  6.52  6.80 -0.27 0.707           277  68 2.92
CGI   20.8  28 103 45.95 PDO         3.85  3.91             -0.06 1.010        0.00-42.10  6.85-48.94 0.000           277        2
B12   20.8 206 103 46.10IPC          4.00  3.92              0.08 1.010                                                277  72 3.02
B17   21.3 321 103 46.05EPD          3.95  4.00             -0.05 1.010                                                277  54 2.72
B11   25.3 154 101 46.69EPC          4.59  4.71             -0.11 1.010                                                277  55 2.72
RCI   26.2 280 100 47.13 PCO         5.03  4.86              0.18 1.010       50.23  8.13  8.50 -0.36 0.000           277        2
B5    27.6 124 100 47.02IPC          4.92  5.12             -0.19 1.010       52.02  9.92  8.96  0.97 0.000           277  85 3.12
B1    29.6 343  99 47.57IPD          5.47  5.48              0.00 1.010                                                277  40 2.52
MIR   32.2 337  65 48.20 P 0         6.10  5.92              0.18 1.010        0.00-42.10 10.36-52.46 0.000           277        2
GCI   34.6   8  65 48.35 PCO         6.25  6.32             -0.06 1.010       53.02 10.92 11.05 -0.13 0.000           277        2
B6    35.7 124  65 48.36IPD          6.26  6.50             -0.23 1.010       52.66 10.56 11.37 -0.80 0.000           277  31 2.32
B9    38.4 142  65 48.92IP           6.82  6.94             -0.11 1.010                                                277  81 3.12
MDCI  43.0 115  65 49.57 PCO         7.47  7.68             -0.20 1.010        0.00-42.10 13.44-55.53 0.000           277        2
MPI   83.6 125  65 56.76 P 0        14.66 14.27              0.39 1.010        0.00-42.10 24.98-67.08 0.000           277  53 2.92
JGI  101.8  93  65 59.56 P 0        17.46 17.23              0.23 1.010        0.00-42.10 30.16-72.25 0.000           277  61 3.12
CIB  115.8 136  55  2.28 P 0        20.18 19.46              0.72M0.000        0.00 17.90 34.06-16.15 0.000           277  65 3.22
GBI  151.8  97  55  7.36 P 0        25.26 24.76              0.51D0.000        0.00 17.90 43.33-25.42 0.000           277  68 3.42
TMI  188.4 120  55 12.58 P 0        30.48 30.13              0.35C0.000        0.00 17.90 52.73-34.83 0.000           277        2
IMW  242.8  97  44 21.87 P 0        39.77 37.17              2.60M0.000        0.00 17.90 65.05-47.15 0.000           277        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N    NW    SW     Z     E    SE    NE
AVE. OF END POINTS                   0.05  0.06  0.08  0.09  0.11  0.12  0.13


              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  13      0.16      0.00      0.10         D
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9     4/53                                                                                                  83/11/ 9     4/53

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.42              SE =    0.79              SE =    1.05   QUALITY = A
                                            AZ =    -36.              AZ =   -126.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109  453 51.03 44N 8.20 113W56.64  11.46   2.67 12 20  75 1 0.08  0.8  1.1 A A|A 1.47 10 15 0.00 0.07  0  0.0  0.0  8  2.7  0.3
SE OF ORIG =  0.053          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.7 351 152 53.29IPD          2.26  2.24              0.02 1.053      54.99  3.96  3.92  0.04 0.737           275  40 2.42
B4    10.1  49 135 53.62IP           2.59  2.67             -0.09 1.053                                               275        2
B12   19.9 208 114 55.04IP           4.01  3.98              0.03 1.053      57.72  6.69  6.96 -0.27 0.000           275  63 2.92
B15   21.0 283 112 55.15IPD          4.12  4.16             -0.05 1.053      58.05  7.02  7.29 -0.27 0.000           275  61 2.92
B17   22.4 323 111 55.31IPD          4.28  4.36             -0.08 1.053      58.23  7.20  7.63 -0.43 0.000           275        2
B11   24.2 153 109 55.79IPD          4.76  4.64              0.12 1.053      59.09  8.06  8.12 -0.07 0.737           275  50 2.72
B5    26.8 122 106 56.14IPC          5.11  5.04              0.07 1.053                                               275  73 3.02
B1    30.8 343 104 56.82IPD          5.79  5.67              0.12 1.053                                               275  32 2.32
B6    34.9 123 101 57.34EPD          6.31  6.32             -0.01 1.053                                               275  26 2.22
B9    37.4 141 100 57.64EPC          6.61  6.72             -0.11 1.053                                               275  63 2.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                 0.45  0.55  0.66  0.88  0.99  1.09  1.14

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                12      0.08      0.46      0.85         A
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9     7/38                                                                                                  83/11/ 9     7/38

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.41              SE =    0.74              SE =    1.42   QUALITY = A
                                            AZ =    -38.              AZ =   -128.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109  738  2.29 44N 9.82 113W57.80  11.38   2.40 11 19  74 1 0.07  0.7  1.4 A A|A 0.23 10 12 0.00 0.05  0  0.0  0.0  8  2.4  0.3
SE OF ORIG =  0.060          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    2.7  14 166  4.35IPD          2.06  2.05              0.01 1.028       6.40  4.11  3.58  0.53 0.000           276  35 2.32
B4     9.9  68 136  4.92IPC          2.63  2.64              0.00 1.028                                               276        2
B17   19.0 321 115  5.98EPD          3.69  3.85             -0.16 1.028                                               276        2
B15   19.1 275 115  6.23IPD          3.94  3.86              0.09 1.028                                               276  50 2.72
B12   22.0 201 111  6.54IPC          4.25  4.30             -0.05 1.028                                               276  51 2.72
B1    27.5 345 106  7.54EPD          5.25  5.15              0.10 1.028                                               276  21 2.02
B11   27.6 153 106  7.47EPC          5.18  5.16              0.03 1.028      11.34  9.05  9.03  0.03 0.720           276  35 2.42
B5    29.8 126 104  7.78EPC          5.49  5.50             -0.01 1.028                                               276  55 2.82
B6    37.8 126 100  9.05EPD          6.76  6.79             -0.03 1.028                                               276  18 1.92
B9    40.7 142  99  9.53EPD          7.24  7.24              0.00 1.028                                               276  40 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                 0.34  0.53  0.59  0.88  0.95  1.05  1.09
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    10/15                                                                                          83/11/ 9    10/15

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   4.10                 SE =  34.05                 SE =  99.00   QUALITY = D
                                              AZ =  -112.                 AZ =   -22.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1015 16.79 43N45.93 113W42.87   6.03        11 36 317 1 0.18 34.0 99.0 D DID 0.11 10 22 0.00 0.15  0  0.0  0.0  0  0.0  0.0
SE OF ORIG = 10.000          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
LCRI  30.8 355  65 22.07 P 0        5.28  5.66              -0.38 1.073       0.00-16.79  9.90-26.69 0.000
BRPI  34.1 326  65 23.16 PD0        6.37  6.19               0.18 1.073       0.00-16.79 10.84-27.63 0.000
M-1   35.8 340  65 23.76 P+0        6.97  6.48  0.30         0.19 1.073       0.00-16.79 11.34-28.65 0.000
LSGS  43.3   0  65 24.78 PC0        7.99  7.68               0.31 1.073      28.48 11.69 13.44 -1.75 0.000
M-2   45.9 344  65 24.96 P-0        8.17  8.11  0.17        -0.11 1.073       0.00-16.79 14.20-31.29 0.000
OSPI  51.3 349  65 25.67 P-0        8.88  8.98              -0.10 1.073       0.00-16.79 15.71-32.50 0.000
NSUI  55.5 342  65 26.40 P 0        9.61  9.66              -0.05 1.073       0.00-16.79 16.91-33.70 0.000
CGI   61.3 352  65 27.45 P-2       10.66 10.62               0.04 0.268       0.00-16.79 18.58-35.37 0.000
RCI   64.8 317  65 27.84 P 0       11.05 11.18              -0.13 1.073       0.00-16.79 19.57-36.35 0.000
GCI   77.8 350  65 30.12 P 0       13.33 13.29               0.04 1.073       0.00-16.79 23.26-40.05 0.000
HIR   78.5 337  65 30.23 PC0       13.44 13.40               0.04 1.073       0.00-16.79 23.46-40.25 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     E     N    SW     Z    NE
AVE. OF END POINTS                  -0.02 -0.02 -0.01  0.01  0.01  0.03  0.03

              NUMBER        RMS  MIN DRMS  AVE DRMS   QUALITY
                 11        0.18     -0.06      0.00         D
```



```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    10/15                                                                                          83/11/ 9    10/15

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   3.15                 SE =  26.61                 SE =   4.87   QUALITY = D
                                              AZ =  -112.                 AZ =   -22.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1015 16.27 43N44.54 113W42.07   4.94        11 39 319 1 0.18 26.6  4.9 D DID 1.97 10 22 0.00 0.15  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  2.395          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
LCRI  33.5 354  97 22.07 P 0        5.80  6.14              -0.34 1.073       0.00-16.27 10.74-27.01 0.000
BRPI  36.8 327  65 23.16 PD0        6.89  6.72               0.17 1.073       0.00-16.27 11.76-28.03 0.000
M-1   38.6 340  65 23.76 P+0        7.49  7.01  0.30         0.18 1.073       0.00-16.27 12.27-29.06 0.000
LSGS  45.8 359  65 24.78 PC0        8.51  8.18               0.33 1.073      28.48 12.21 14.32 -2.11 0.000
M-2   48.7 344  65 24.96 P-0        8.69  8.64  0.17        -0.13 1.073       0.00-16.27 15.13-31.70 0.000
OSPI  54.0 349  65 25.67 P-0        9.40  9.50              -0.10 1.073       0.00-16.27 16.63-32.90 0.000
NSUI  58.2 341  65 26.40 P 0       10.13 10.19              -0.06 1.073       0.00-16.27 17.84-34.11 0.000
CGI   64.0 351  65 27.45 P-2       11.18 11.14               0.04 0.268       0.00-16.27 19.49-35.76 0.000
RCI   67.4 318  65 27.84 P 0       11.57 11.68              -0.12 1.073       0.00-16.27 20.45-36.72 0.000
GCI   80.5 350  65 30.12 P 0       13.85 13.82               0.03 1.073       0.00-16.27 24.18-40.45 0.000
HIR   81.3 337  65 30.23 PC0       13.96 13.94               0.02 1.073       0.00-16.27 24.39-40.66 0.000

                         QUALITY EVALUATION
```

	HORIZONTAL	VERTICAL	
SE =	0.94	1.71	1.22
AZ =	-115.	-25.	

QUALITY = A

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQO	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831109	925	4.56 44N	25.95 114W	3.54	3.81	3.62	26	14	200	1	0.16	1.7	1.2	C	8ID	0.30	10	81	0.00	0.13	0	0.0	0.0	8	3.6	0.3

SE OF ORIG = 0.135 9 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
81	3.3	174	137	5.64	IPC0	1.08	0.95			0.13	1.061		7.59	3.03	1.66	1.37	0.000					113	3.3	
HIR	4.0	240	132	5.60	P 0	1.04	1.03			0.01	1.061		0.00	-4.56	1.80	-6.36	0.000							
GCI	14.3	80	102	7.12	P 0	2.56	2.70			-0.15	1.061		0.00	-4.56	4.73	-9.29	0.000							
817	15.6	196	101	7.63	IPC0	3.07	2.96			0.11	1.061		10.60	6.04	5.18	0.86	0.000					107	3.3	
NWSI	20.0	171	99	8.21	P 0	3.65	3.72			-0.07	1.061		11.06	6.50	6.51	-0.02	0.000							
CGI	23.1	125	97	8.85	P 0	4.29	4.28			0.01	1.061		0.00	-4.56	7.48	-12.04	0.000							
WSUI	25.7	158	97	9.46	PD0	4.90	4.73			0.17	1.061													
ANPI	27.5	171	96	9.75	P 0	5.19	5.05			0.13	1.061		0.00	-4.56	8.85	-13.41	0.000							
816	28.5	163	96	9.86	IPD0	5.30	5.24			0.06	1.061		0.00	-4.56	9.16	-13.72	0.000							
JSPI	29.9	143	96	9.77	P 0	5.21	5.48			-0.27	1.061		13.66	9.10	9.59	-0.49	0.000							
815	30.4	202	96	10.12	IPC0	5.56	5.58			-0.02	1.061		0.00	-4.56	9.76	-14.32	0.000							
84	31.1	147	95	10.29	IP 0	5.73	5.70			0.03	1.061		0.00	-4.56	9.97	-14.53	0.000							
RCI	31.7	212	95	10.21	P 0	5.65	5.81			-0.16	1.061		0.00	-4.56	10.17	-14.73	0.000							
M-2	33.5	153	95	10.74	PD0	6.18	6.12	0.17		-0.11	1.061		0.00	-4.56	10.71	-15.57	0.000							
MBAI	37.8	153	94	11.32	P 0	6.76	6.89			-0.13	1.061		0.00	-4.56	12.05	-16.61	0.000							
LSGS	41.4	138	94	11.81	P 2	7.25	7.52			-0.27	0.265		0.00	-4.56	13.17	-17.73	0.000							
M-1	43.3	159	65	12.86	P+0	8.30	7.85	0.30		0.15	1.061		0.00	-4.56	13.73	-18.82	0.000							
BRPI	46.7	169	65	13.11	P 2	8.55	8.40			0.15	0.265		19.71	15.15	14.70	0.45	0.000							
LCRI	50.1	150	65	13.28	P 0	8.72	8.95			-0.23	1.061		0.00	-4.56	15.66	-20.22	0.000							
812	50.4	180	65	13.60	IP 0	9.04	9.01			0.03	1.061		0.00	-4.56	15.77	-20.33	0.000					131	3.6	
85	56.9	146	65	14.52	IP 0	9.96	10.06			-0.10	1.061		0.00	-4.56	17.61	-22.17	0.000					147	3.7	
811	58.1	160	65	14.60	EP 0	10.04	10.25			-0.21	1.061		0.00	-4.56	17.94	-22.50	0.000					114	3.5	
86	64.5	143	65	15.82	EP 0	11.26	11.30			-0.04	1.061		0.00	-4.56	19.77	-24.33	0.000							
89	70.0	152	65	16.73	IPC0	12.17	12.19			-0.02	1.061		0.00	-4.56	21.33	-25.89	0.000					130	3.6	
MPI	111.1	136	65	23.86	PD0	19.30	18.86			0.44	1.061		0.00	-4.56	33.00	-37.56	0.000							
JGI	116.6	109	55	24.54	PD0	19.98	19.74			0.24	1.061		37.46	32.90	34.55	-1.65	0.000							
CIB	145.6	142	55	29.11	PD0	24.55	24.01			0.54	M0.000		46.43	41.87	42.01	-0.14	0.000					125	3.9	
GBI	167.0	107	55	32.34	PD0	27.78	27.16			0.62	M0.000		0.00	-4.56	47.53	-52.09	0.000							
TID	182.6	235	55	34.29	P 0	29.73	29.45			0.28	C0.000		0.00	-4.56	51.54	-56.10	0.000							
CPI	190.1	251	55	33.99	P 0	29.43	30.56			-1.13	M0.000		0.00	-4.56	53.48	-58.04	0.000							
CMI	194.1	87	55	37.70	P 0	33.14	31.14			2.00	M0.000		0.00	-4.56	54.50	-59.06	0.000							
KCI	209.7	114	44	38.70	PC0	34.14	33.24			0.90	M0.000		0.00	-4.56	58.17	-62.73	0.000							
BUT	211.4	34	44	37.30	P 0	32.74	33.45			-0.71	M0.000		61.30	56.74	58.54	-1.80	0.000							
TMI	212.8	126	44	38.48	PD0	33.92	33.63			0.29	D0.000		63.26	58.70	58.85	-0.15	0.000					134	4.2	
LCCM	232.1	48	44	39.80	P 0	35.24	36.04			-0.80	M0.000		0.00	-4.56	63.07	-67.63	0.000							
WPI	250.8	240	44	43.69	P 0	39.13	38.38			0.75	M0.000		0.00	-4.56	67.17	-71.73	0.000							
IMW	256.4	103	44	45.02	P 0	40.46	39.08			1.38	M0.000		0.00	-4.56	68.39	-72.95	0.000							
MSO	266.5	2	44	43.40	P 0	38.84	40.35			-1.51	M0.000		73.20	68.64	70.61	-1.97	0.000							
NPI	283.0	154	44	49.26	P 0	44.70	42.41			2.29	M0.000		0.00	-4.56	74.21	-78.77	0.000							
NCM	307.9	353	44	49.30	PD0	44.74	45.52			-0.78	M0.000		0.00	-4.56	79.67	-84.23	0.000							
MLI	310.0	150	44	52.92	P 0	48.36	45.79			2.57	M0.000		0.00	-4.56	80.13	-84.69	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH N SE NW NE Z E SW

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    11/46                                                                                  83/11/ 9    11/46

                                                HORIZONTAL                                  VERTICAL
                                          SE =    0.76                SE =    1.29            SE =    2.56    QUALITY = B
                                          AZ =   -29.                 AZ =  -119.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1146 54.08 44N 5.25 113W54.31  11.33   2.81 24  8  65 1 0.21  1.3  2.6 B B|A 0.45 10 42 0.00 0.15  0  0.0  0.0 10  2.8  0.3
SE OF ORIG =  0.122          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-1    3.9 121 160 56.13 PDO         2.05  2.10  0.30       -0.35 1.046       0.00-54.08  3.68-58.29 0.000            280        2
MBAI   6.7  46 147 56.39 PCO         2.31  2.31              0.00 1.046       0.00-54.08  4.03-58.12 0.000            280        2
BRPI   8.4 206 140 56.51 PDO         2.43  2.48             -0.05 1.046      57.67  3.59  4.33 -0.75 0.000            280        2
M-2    8.8  18 139 56.91 PCO         2.83  2.52  0.17        0.14 1.046       0.00-54.08  4.40-58.78 0.000            280        2
B16   11.7 340 130 57.02IPC          2.94  2.85              0.08 1.046                                               280  48 2.62
B4    12.9  20 127 57.09IP           3.01  3.00              0.01 1.046                                               280  85 3.12
LCRI  13.6 112 125 56.97 PCO         2.89  3.08             -0.19 1.046       0.00-54.08  5.39-59.47 0.000            280        2
ANPI  13.8 324 125 57.24 P 0         3.16  3.10              0.05 1.046       0.00-54.08  5.43-59.51 0.000            280        2
WSUI  14.7 349 123 57.35 P 0         3.27  3.25              0.02 1.046       0.00-54.08  5.68-59.76 0.000            280        2
OSPI  15.7  22 121 57.50 PCO         3.42  3.38              0.04 1.046      59.65  5.57  5.92 -0.35 0.000            280        2
NSUI  17.0 353 118 57.70 P 0         3.62  3.56              0.06 1.046       0.00-54.08  6.23-60.31 0.000            280        2
LSGS  17.1  64 118 57.95 P 0         3.87  3.57              0.30 1.046      59.18  5.10  6.24 -1.15 0.000            280        2
B12   17.4 226 118 57.85IP           3.77  3.61              0.16 1.046      60.30  6.22  6.32 -0.10 0.000            280  63 2.92
B11   17.9 154 117 57.80IPC          3.72  3.69              0.03 1.046      60.73  6.65  6.46  0.19 0.732            280  56 2.82
NWSI  20.7 334 112 58.12 PCO         4.04  4.11             -0.08 1.046      60.95  6.87  7.20 -0.33 0.000            280        2
B5    21.5 114 111 58.36IPC          4.28  4.23              0.05 1.046                                               280  96 3.22
B15   25.7 293 107 59.44IP 4         5.36  4.87              0.49 0.000                                               280  73 3.02
CGI   25.8  15 107 59.25 P 4         5.17  4.88              0.28 0.000       0.00-54.08  8.54-62.63 0.000            280        2
B17   28.6 325 105 59.09IP           5.01  5.32             -0.31 1.046                                               280  53 2.82
B6    29.5 117 104 59.44IPC          5.36  5.45             -0.10 1.046                                               280  29 2.22
B9    31.2 139 103 59.71IPC          5.63  5.72             -0.09 1.046                                               280  65 2.92
RCI   31.3 291 103 60.05 PCO         5.97  5.73              0.24 1.046       0.00-54.08 10.03-64.11 0.000            280        2
B1    37.0 341 100 60.18EPD          6.10  6.65             -0.56 1.046                                               280  41 2.62
HIR   39.6 337  99 61.76 P 2         7.68  7.07              0.61 0.261       0.00-54.08 12.37-66.45 0.000            280        2
GCI   40.9   3  99 61.62 P 0         7.54  7.28              0.26 1.046       0.00-54.08 12.74-66.82 0.000            280        2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE     E    SE    NW     N
AVE. OF END POINTS                 0.19  0.46  0.47  0.64  0.74  0.82  0.85


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                24      0.21      0.19      0.63         B

        ------------END----------------------END----------------------END----------------------END------------
```

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    11/40                                                                                                  83/11/ 9    11/40

                                                     HORIZONTAL                                   VERTICAL
                                                SE =   0.74              SE =   1.01              SE =   3.30   QUALITY = B
                                                AZ =  -29.               AZ =  -119.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1140 47.90 44N 1.29 113W49.66   7.40   1.90 13 12 101 1 0.13  1.0  3.3 B B|B 0.27 10 20 0.00 0.10  0  0.0  0.0 10  1.9  0.2
SE OF ORIG =  0.078          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    9.0 170 121 50.02IPC          2.12  2.11              0.01 1.024      50.60  2.70  3.69 -0.93 0.000           279  26 2.02
8RPI  10.0 269 117 50.12EPD          2.22  2.25             -0.03 1.024                                            279  19 1.82
MBAI  12.1 353 110 50.57IPD          2.67  2.56              0.11 1.024      52.16  4.26  4.48 -0.22 0.000           279  20 1.82
85    13.5  96 105 50.82IPC          2.92  2.78              0.14 1.024                                            279        2
812   19.3 256  94 51.58IPC          3.68  3.70             -0.03 1.024                                            279  30 2.22
84    19.5 355  94 51.56IPD          3.66  3.75             -0.09 1.024      54.16  6.26  6.56 -0.30 0.717           279        2
86    20.9 107  93 52.02EPC4         4.12  3.98              0.14 0.000      54.56  6.66  6.97 -0.31 0.000           279  11 1.32
816   21.0 331  93 51.83EPD          3.93  4.00             -0.07 1.024                                            279  24 2.02
89    21.6 139  93 51.81IP           3.91  4.09             -0.18 1.024      54.62  6.72  7.15 -0.43 0.000           279  27 2.12
NSUI  25.6 341  92 52.85EPC          4.95  4.74              0.21 1.024      55.75  7.85  8.30 -0.45 0.000           279        2
815   34.6 300  91 54.06EP           6.16  6.20             -0.04 1.024                                            279  24 2.12
817   38.2 323  91 54.79EP           6.89  6.78              0.11 1.024      59.02 11.12 11.87 -0.75 0.000           279  21 2.02
81    46.1 337  91 56.04EPD          8.14  8.06              0.08 1.024                                            279  15 1.72

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N    NE    SW     E    NW     Z
AVE. OF END POINTS                  0.06  0.07  0.10  0.11  0.12  0.12  0.12

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   7      0.13      0.01      0.10         D
```

```
           ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    11/42                                                                                                  83/11/ 9    11/42

                                                     HORIZONTAL                                   VERTICAL
                                                SE =   0.45              SE =   0.69              SE =   1.60   QUALITY = A
                                                AZ =  -58.               AZ =    32.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1142 45.82 44N 9.10 113W58.33   9.83   2.36 11 19  79 1 0.07  0.7  1.6 A A|A 0.05 10 15 0.00 0.06  0  0.0  0.0 10  2.4  0.3
SE OF ORIG =  0.058          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.2  19 155 47.76IPD          1.94  1.89              0.05 1.028      48.19  2.37  3.31 -0.94 0.000           779  28 2.17
84    11.1  63 127 48.39IPC          2.57  2.61             -0.03 1.028      51.79  5.97  4.56  1.41 0.000           779  58 2.87
315   18.5 279 110 49.49IPD          3.67  3.69             -0.01 1.028      52.19  6.37  6.45 -0.08 0.720           779  40 2.57
817   19.7 325 108 49.59IPD          3.77  3.86             -0.09 1.028                                            779  31 2.37
812   20.5 200 107 49.87IPD          4.05  3.98              0.07 1.028      52.72  6.90  6.97 -0.07 0.000           779  41 2.57
811   26.7 151 102 50.88EPD          5.06  4.97              0.09 1.028      54.83  9.01  8.70  0.32 0.000           779  31 2.37
91    28.7 347 100 51.22EP           5.40  5.28              0.12 1.028                                            779  22 2.07
85    29.6 123 100 51.24IPC          5.42  5.43              0.00 1.028                                            779  53 2.57
86    37.7 123  97 52.45IPD          6.63  6.72             -0.09 1.028                                            779  18 1.57
89    40.1 140  96 52.87EPD          7.05  7.11             -0.06 1.028                                            779  44 2.67

                         QUALITY EVALUATION
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    13/ 9                                                                                  83/11/ 9    13/ 9

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   1.08              SE =   1.69              SE =   1.01   QUALITY = A
                                            AZ =  -120.              AZ =   -30.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 13 9 12.14 44N29.56 114W 5.72   6.08   3.24 27 17 261 1 0.15  1.9  1.0 C BID 0.65 10 43 0.00 0.12  0  0.0  0.0  8  3.2  0.2
SE OF ORIG =  0.162          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MIR    8.7 184 124 14.20 PDO        2.06  1.94              0.11 1.023       0.00-12.14  3.40-15.54 0.000           282        2
B1    10.5 162 119 14.28IPC         2.14  2.22             -0.08 1.023      16.28  4.14  3.88  0.26 0.000           282  66 2.82
GCI   17.4 104 108 15.62 PCO        3.48  3.36              0.12 1.023       0.00-12.14  5.88-18.03 0.000           282        2
B17   21.8 184 104 16.25IPC         4.11  4.11              0.00 1.023      19.35  7.21  7.19  0.01 0.716           282  72 3.02
NWSI  27.1 167 101 17.01 PCO        4.87  5.04             -0.17 1.023      18.60  6.46  8.81 -2.35 0.000           282        2
CGI   29.6 133  65 17.45 P 0        5.31  5.46             -0.15 1.023       0.00-12.14  9.55-21.69 0.000           282        2
NSUI  31.0 155  65 17.55 P 0        5.41  5.69             -0.28 1.023       0.00-12.14  9.96-22.10 0.000           282        2
WSUI  33.0 158  65 17.85 P 0        5.71  6.00             -0.30 1.023       0.00-12.14 10.51-22.65 0.000           282        2
ANPI  34.6 168  65 18.64 P 0        6.50  6.27              0.23 1.023       0.00-12.14 10.97-23.11 0.000           282        2
B16   35.8 162  65 18.53EPD         6.39  6.46             -0.07 1.023                                                282  82 3.12
B15   35.9 194  65 18.71IPC         6.57  6.49              0.08 1.023                                                282  93 3.22
RCI   36.4 202  65 18.65 PCO        6.51  6.56             -0.05 1.023       0.00-12.14 11.48-23.62 0.000           282        2
USPI  37.0 145  65 18.75 PCO        6.61  6.65             -0.05 1.023       0.00-12.14 11.65-23.79 0.000           282        2
B4    38.3 149  65 19.25EPC         7.11  6.87              0.23 1.023      24.29 12.15 12.03  0.12 0.716           282 118 3.52
M-2   40.8 154  65 19.36 PCO        7.22  7.27  0.17       -0.22 1.023       0.00-12.14 12.72-25.16 0.000           282        2
M8AI  45.1 154  65 19.95 PDO        7.81  7.97             -0.16 1.023       0.00-12.14 13.94-26.09 0.000           282        2
LSGS  48.3 141  65 20.78 P-0        8.64  8.50              0.14 1.023       0.00-12.14 14.88-27.02 0.000           282        2
M-1   50.5 159  65 21.38 P+0        9.24  8.86  0.30        0.08 1.023       0.00-12.14 15.50-28.17 0.000           282        2
8RPI  53.8 168  65 21.76 PCO        9.62  9.38              0.23 1.023       0.00-12.14 16.42-28.57 0.000           282        2
B12   57.2 177  65 22.04EP          9.90  9.93             -0.04 1.023                                                282 103 3.42
LCRI  57.3 151  65 22.07 PCO        9.93  9.95             -0.02 1.023       0.00-12.14 17.42-29.56 0.000           282        2
B5    64.0 147  65 23.18EP         11.04 11.05             -0.01 1.023                                                282 125 3.62
B11   65.3 159  65 23.56IPD        11.42 11.26              0.16 1.023                                                282        2
B6    71.6 145  65 24.48EPC        12.34 12.28              0.05 1.023                                                282        2
B9    77.2 153  65 25.41EPC        13.27 13.19              0.07 1.023                                                282  88 3.32

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N    NW     Z    SW    SE     E    NE
AVE. OF END POINTS                    0.04  0.07  0.08  0.08  0.09  0.10  0.12

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                21      0.15      0.03      0.09         D

____________END____________________END____________________END____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    12/55                                                                                  83/11/ 9    12/55

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.27              SE =    0.51              SE =    1.36   QUALITY = A
                                          AZ =    -52.              AZ =     38.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1255 21.37 44N 7.34 113W52.92   8.50   2.04 11 21 108 1 0.05  0.5  1.4 B A|B 0.23 10 11 0.00 0.04  0  0.0  0.0  9  2.0  0.3
SE OF ORIG =  0.035          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
34     8.7  18 129 23.59IPC         2.22  2.17              0.05 1.028                                                281  50 2.62
816    9.3 321 127 23.56IPC         2.19  2.24             -0.05 1.028                                                281  24 2.02
311   20.9 164 101 25.39IPC         4.02  3.99              0.03 1.028                                                281  23 2.02
812   21.4 222 100 25.43IPD         4.06  4.08             -0.02 1.028                                                281  31 2.22
85    21.8 126 100 25.52IPD         4.15  4.14              0.01 1.028                                                281        2
815   26.2 284  97 26.30IPD         4.93  4.85              0.09 1.028      29.85  8.48  8.48  0.00 0.720            281  27 2.12
317   26.8 316  97 26.21EPC         4.84  4.93             -0.09 1.028                                                281  20 1.92
86    29.9 126  95 26.78EP          5.41  5.45             -0.04 1.028                                                281  14 1.62
39    33.1 146  94 27.33EPC         5.96  5.97             -0.01 1.028                                                281  29 2.22
81    34.1 336  94 27.53EPD         6.16  6.12              0.04 1.028                                                281  15 1.72

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     N    SE     Z     E    SW    NE
AVE. OF END POINTS                  0.07  0.08  0.11  0.14  0.22  0.23  0.24

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  5      0.05      0.00      0.16         D

____________END_____________________END_____________________END_____________________END___________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    14/ 6                                                                                                  83/11/ 9    14/ 6

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.26              SE =   0.89              SE =   1.28   QUALITY = A
                                            AZ =   -87.              AZ =     3.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 14 6 52.07 44N10.09 113W58.67  10.74   2.62 10 18 127 1 0.04  0.9  1.3 B A|B 0.20 10 10 0.00 0.03  0  0.0  0.0  8  2.6  0.4
SE OF ORIG =  0.075          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    2.8  41 164 53.99IPD          1.92  1.95              -0.03 1.064                                                283  42 2.52
84    10.8  73 131 54.79IPC          2.72  2.67               0.05 1.064      56.73  4.66  4.68 -0.01 0.745            283  90 3.22
815   17.9 274 115 55.70IPD          3.63  3.63               0.00 1.064      58.42  6.35  6.36 -0.01 0.745            283  50 2.72
812   22.1 198 109 56.37IPD          4.30  4.28               0.03 1.064                                                283  55 2.82
811   28.5 152 103 57.39EPC          5.32  5.28               0.05 1.064                                                283  36 2.42
85    31.0 125 102 57.78IPD          5.71  5.68               0.03 1.064                                                283  75 3.12
86    39.1 125  98 59.02IP           6.95  6.97              -0.02 1.064                                                283  17 1.82
89    41.8 141  98 59.38EPD          7.31  7.40              -0.09 1.064                                                283  43 2.62

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     N    NE    NW    SW    SE     E
AVE. OF END POINTS                   0.48  0.70  0.72  0.77  0.90  1.06  1.20

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 10      0.04      0.45      0.86         A


          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    15/18                                                                                                  83/11/ 9    15/18

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.35              SE =   0.55              SE =   1.26   QUALITY = A
                                            AZ =   -24.              AZ =  -114.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1518 53.55 44N 9.68 113W59.38  12.38   2.13 12 17  81 1 0.06  0.5  1.3 A A|A 0.22 10 16 0.00 0.05  0  0.0  0.0  9  2.1  0.3
SE OF ORIG =  0.059          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.0  44 161 55.71IPC          2.16  2.26              -0.10 1.053                                                284        2
84    11.9  71 133 56.66IPC          3.11  2.99               0.12 1.053      58.96  5.41  5.23  0.18 0.000            284  42 2.52
815   17.0 276 122 57.16IPD          3.61  3.64              -0.03 1.053      59.34  5.79  6.38 -0.59 0.000            284  28 2.22
817   18.0 327 120 57.30IPD          3.75  3.79              -0.04 1.053      59.95  6.40  6.63 -0.22 0.000            284  23 2.02
812   21.1 196 115 57.81IPC          4.26  4.22               0.04 1.053      60.99  7.44  7.39  0.05 0.737            284  28 2.22
81    27.3 349 109 58.79EPC          5.24  5.17               0.07 1.053                                                284  14 1.62
811   28.3 149 108 58.89EPC          5.34  5.33               0.01 1.053      62.89  9.34  9.33  0.01 0.737            284  21 2.02
85    31.4 123 106 59.34IPD          5.79  5.80              -0.01 1.053      63.14  9.59 10.14 -0.55 0.000            284  45 2.62
86    39.4 123 101 60.56EPD          7.01  7.06              -0.05 1.053                                                284  18 1.92
89    41.8 140 101 60.94IPC          7.39  7.45              -0.06 1.053                                                284  27 2.22

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    NE     E    NW    SE     N
AVE. OF END POINTS                   0.33  0.65  0.70  0.86  0.90  1.02  1.10
```

```
            ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    13/58                                                                                                  83/11/ 9    13/58

                                                   HORIZONTAL                                    VERTICAL
                                            SE =   1.15              SE =   1.29                 SE =  99.00   QUALITY = D
                                            AZ =    -8.              AZ =   -98.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND 03 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1358 10.48 44N16.98 114W 8.42    0.47        12 15 147 1 0.15  1.3 99.0 C CIC 2.29 10 26 0.00 0.11  0  0.0  0.0  0  0.0  0.0
SE OF ORIG = 10.000          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI  10.0 108  58 12.40 PC0        1.92  1.97              -0.05 1.067      13.86  3.38  3.44 -0.06 0.000
RCI   14.6 225  58 13.25 PD0        2.77  2.78              -0.01 1.067       0.00-10.48  4.86-15.34 0.000
MIR   14.9  12  58 13.40 PD0        2.92  2.84               0.06 1.067       0.00-10.48  4.97-15.45 0.000
NSUI  17.3 106  58 13.85 P 0        3.37  3.27               0.10 1.067       0.00-10.48  5.73-16.21 0.000
WSUI  17.6 114  58 13.75 P 0        3.27  3.32              -0.05 1.067       0.00-10.48  5.81-16.29 0.000
M-2   25.3 122  58 15.27 PD0        4.79  4.70  0.17        -0.08 1.067       0.00-10.48  8.22-18.99 0.000
CGI   25.6  83  58 15.25 P 4        4.77  4.74               0.03 0.000       0.00-10.48  8.30-18.78 0.000
DSPI  25.6 106  58 15.12 PC0        4.64  4.75              -0.11 1.067      18.29  7.81  8.32 -0.51 0.000
GCI   28.1  47  58 15.52 PC0        5.04  5.19              -0.15 1.067       0.00-10.48  9.08-19.56 0.000
MBAI  29.1 126  58 15.78 P+2        5.30  5.38              -0.08 0.267       0.00-10.48  9.42-19.90 0.000
M-1   32.4 137  58 16.79 P 0        6.31  5.97  0.30         0.04 1.067       0.00-10.48 10.45-21.46 0.000
LSGS  37.0 113  58 17.68 PD0        7.20  6.78               0.42 1.067       0.00-10.48 11.87-22.35 0.000
LCRI  41.3 131  58 17.87 P 0        7.39  7.55              -0.16 1.067       0.00-10.48 13.22-23.70 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z    SE     E    SW    NE     N
AVE. OF END POINTS                  0.00  0.02  0.06  0.06  0.08  0.09  0.13

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   8      0.15     -0.05      0.07         D
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    18/48                                                                                                  83/11/ 9    18/49

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.85              SE =   1.74              SE =   2.72   QUALITY = B
                                            AZ =   -37.              AZ =  -127.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1848 50.09 44N11.86 114W 0.68   9.22   2.48 10 14 134 1 0.12  1.7  2.7 B B|B 0.05 10 11 0.00 0.10  0  0.0  0.0  9  2.5  0.3
SE OF ORIG =  0.102          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.6 105 151 52.07IP          1.98  1.84              0.14 1.031                                                  34 2.3
84    13.0  91 119 52.83IP          2.74  2.82             -0.08 1.031                                                  75 3.0
817   13.7 324 117 53.18IPC         3.09  2.92              0.17 1.031      54.92  4.83  5.11 -0.28 0.722              37 2.4
81    23.0 351 102 54.55EPD         4.46  4.36              0.10 1.031                                                  33 2.3
812   24.6 189 101 54.67IPC         4.58  4.62             -0.04 1.031                                                  44 2.6
811   32.7 150  97 56.06EPD         5.97  5.91              0.06 1.031                                                  28 2.2
85    35.1 127  96 56.34IPC         6.25  6.29             -0.04 1.031                                                  68 3.0
86    43.2 127  94 57.56IPD         7.47  7.59             -0.12 1.031                                                  23 2.1
89    46.0 141  94 58.19EPC         8.10  8.07              0.03 1.031      63.87 13.78 14.12 -0.34 0.000              40 2.6

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     E     Z     N    NE    SW
AVE. OF END POINTS                  0.06  0.08  0.10  0.12  0.13  0.14  0.17

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.12     -0.04      0.11         0


          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    20/16                                                                                                  83/11/ 9    20/16

                                                  HORIZONTAL                                  VERTICAL
                                            SE =  13.97              SE =  46.98              SE =  99.00   QUALITY = D
                                            AZ =    11.              AZ =   -79.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 2016 10.25 44N 9.54 112W16.41  10.00   2.15  2100 353 1 0.33 47.0 99.0 D D|D28.99 10 10-0.31 0.35  0  0.0  0.0  5  2.1  0.6
SE OF ORIG =  3.779          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
86   106.7 258  65 29.12IPC        18.87 17.76              1.11M0.000      31.67 21.42 31.08 -9.66 0.000           287        2
85   112.3 261  65 28.92IPC        18.67 18.59              0.08 1.000                                              287        2
89   115.0 254  65 28.46IPC        18.21 18.97             -0.77 1.000      30.20 19.95 33.20-13.26 0.000           287  32 2.62
84   126.0 272  65 31.48EPC        21.23 20.60              0.63M0.000                                              287        2
816  134.5 271  65 32.00IPD        21.75 21.84             -0.09D0.000                                              287  20 2.32
81   144.7 281  65 36.13IPD        25.88 23.34              2.53M0.000                                              287   6 1.32
817  147.8 276  65 33.60EP         23.35 23.81             -0.46D0.000                                              287  10 1.72
815  154.1 271  65 43.12EP         32.87 24.73              8.14M0.000                                              287  37 2.92
          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    16/14                                                                                  83/11/ 9    16/14

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.33              SE =    0.42              SE =    0.94   QUALITY = A
                                          AZ =      2.              AZ =    -88.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 1614 33.53 44N15.38 114W 5.93   7.67   2.61 17 12 123 1 0.07  0.4  0.9 8 A|B 0.06 10 23 0.00 0.05  0  0.0  0.0 14  2.6  0.4
SE OF ORIG =  0.036          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    4.7 346 145 35.12IPC          1.59  1.63              -0.05 1.037                                                 285  53 2.62
NWSI   6.2  92 135 35.36IPC          1.83  1.80               0.03 1.037                                                 285  23 1.92
B15   11.9 223 112 36.11IPD          2.58  2.56               0.02 1.037      38.01  4.48  4.48  0.00 0.726            285  67 2.92
NSUI  13.5  98 108 36.39IPC          2.86  2.79               0.06 1.037      38.60  5.07  4.89  0.18 0.000            285  37 2.42
B16   13.8 124 107 36.40IPC          2.87  2.84               0.02 1.037      38.47  4.94  4.97 -0.04 0.726            285  59 2.82
B1    16.6  12 101 36.79IPC          3.26  3.29              -0.03 1.037      39.64  6.11  5.75  0.35 0.000            285  49 2.62
HIR   17.6 359  99 37.05EPD          3.52  3.45               0.07 1.037                                                 285        2
B4    21.1 108  95 37.47IPC          3.94  4.00              -0.07 1.037                                                 285        2
JSPI  21.7 101  95 37.66EPC          4.13  4.12               0.01 1.037      40.61  7.08  7.20 -0.13 0.000            285  26 2.12
GCI   28.0  38  93 38.60IPC          5.07  5.13              -0.06 1.037                                                 285  60 2.82
BRPI  28.8 156  93 38.86EPC          5.33  5.25               0.07 1.037      42.96  9.43  9.19  0.23 0.000            285  33 2.32
B12   31.0 174  92 38.97IPC          5.44  5.61              -0.17 1.037      42.92  9.39  9.81 -0.43 0.000            285  74 3.02
B11   41.9 146  91 41.06EPD          7.53  7.39               0.13 1.037                                                 285  50 2.72
B5    44.6 128  91 41.37IPC          7.84  7.83               0.01 1.037                                                 285  94 3.32
B6    52.7 128  91 43.71EPD4        10.18  9.14               1.04 0.000                                                 285  24 2.12
B9    55.5 140  91 43.11EPD          9.58  9.59              -0.02 1.037                                                 285  60 2.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    NE    SW     N     Z     E    SE
AVE. OF END POINTS                  0.18  0.18  0.18  0.20  0.20  0.23  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.07      0.14      0.20         D

____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    22/45                                                                                 83/11/ 9    22/45

                                                HORIZONTAL                                    VERTICAL
                                          SE =   0.56              SE =   0.93              SE =   1.78   QUALITY = A
                                          AZ =    20.              AZ =   -70.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 2245 18.87 44N16.13 114W 7.21    8.92   2.60 29  8 132 1 0.15  0.9  1.8 8 818 0.79 10 50 0.00 0.12  0  0.0  0.0  7  2.6  0.3
SE OF ORIG =  0.088          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    3.2  11 158 20.59IPD          1.72  1.69                0.02 1.060                                          289        2
BSU3   7.7  72 134 21.15 PDO          2.28  2.11                0.17 1.060       0.00-18.87  3.69-22.56 0.000            289        2
NWSI   8.1 101 133 20.94 PDO          2.07  2.15               -0.08 1.060      21.79  2.92  3.76 -0.85 0.000            289        2
815   12.0 213 120 21.57IPC          2.70  2.65                0.04 1.060      23.54  4.67  4.64  0.02 0.742            289        2
ANPI  12.8 135 118 21.55 P 0          2.68  2.77               -0.09 1.060       0.00-18.87  4.84-23.72 0.000            289        2
RCI   14.8 234 113 21.86 PCO          2.99  3.07               -0.08 1.060       0.00-18.87  5.37-24.24 0.000            289        2
NSUI  15.4 102 111 22.00 PDO          3.13  3.16               -0.03 1.060       0.00-18.87  5.53-24.40 0.000            289        2
WSUI  15.5 111 111 21.95 PDO          3.08  3.18               -0.10 1.060       0.00-18.87  5.57-24.44 0.000            289        2
81    15.8  19 111 22.12IPD          3.25  3.22                0.03 1.060      24.53  5.66  5.63  0.03 0.742            289  41 2.52
816   16.0 125 110 22.01IPD          3.14  3.25               -0.12 1.060      23.07  4.20  5.69 -1.50 0.000            289  52 2.72
MIR   16.3   5 110 22.30 PCO          3.43  3.29                0.14 1.060       0.00-18.87  5.75-24.63 0.000            289        2
M-2   23.1 121 101 23.40 P-0          4.53  4.36  0.17          -0.01 1.060       0.00-18.87  7.64-26.81 0.000            289        2
84    23.1 110 101 23.08IP 4          4.21  4.37               -0.16 0.000                                          289        2
OSPI  23.7 104 100 23.25 P-0          4.38  4.46               -0.08 1.060      26.00  7.13  7.81 -0.68 0.000            289        2
CGI   24.2  79 100 23.40 P 4          4.53  4.54               -0.01 0.000       0.00-18.87  7.95-26.82 0.000            289        2
MBAI  26.9 125  98 23.90 P+0          5.03  4.97                0.06 1.060       0.00-18.87  8.70-27.57 0.000            289        2
GCI   28.1  42  98 23.78 PCO          4.91  5.15               -0.25 1.060      27.38  8.51  9.02 -0.51 0.000            289        2
M-1   30.2 137  97 25.13 P-2          6.26  5.50  0.30          0.46 0.265       0.00-18.87  9.62-29.01 0.000            289        2
BRPI  30.8 154  96 24.29 PC8          5.42  5.59               -0.17 1.060       0.00-18.87  9.78-28.65 0.000            289        2
BRCI  32.3 171  96 24.61 P+0          5.74  5.83               -0.09 1.060       0.00-18.87 10.20-29.07 0.000            289        2
812   32.6 172  96 24.64IPC          5.77  5.88               -0.11 1.060      29.26 10.39 10.28  0.10 0.742            289  60 2.92
LSGS  34.9 111  95 25.35 PDO          6.48  6.25                0.23 1.060       0.00-18.87 10.93-29.81 0.000            289        2
LCRI  39.0 130  94 25.65 P 0          6.78  6.93               -0.16 1.060       0.00-18.87 12.13-31.00 0.000            289        2
811   44.0 146  94 26.70EP           7.83  7.74                0.08 1.060                                          289  35 2.42
85    46.8 128  93 27.00EP           8.13  8.19               -0.07 1.060                                          289  63 3.02
86    54.9 128  93 28.70EPC          9.83  9.50                0.32 1.060                                          289  21 2.02
89    57.6 139  93 29.16EP          10.29  9.95                0.34 1.060                                          289  50 2.82
MDCI  61.7 121  92 29.25 P-0         10.38 10.60               -0.22 1.060       0.00-18.87 18.55-37.42 0.000            289        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NW     E    SW    NE    SE     N
AVE. OF END POINTS                   0.29  0.48  0.60  0.69  0.69  0.73  0.89

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                29      0.15      0.32      0.66         A

------------END--------------------END--------------------END--------------------END----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    21/ 6                                                                                                  83/11/ 9    21/ 6

                                                   HORIZONTAL                                   VERTICAL
                                            SE =    0.50              SE =    0.79              SE =    1.12   QUALITY = A
                                            AZ =    -60.              AZ =     30.


 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 21 6 55.60 44N 8.65 113W58.72  11.56   2.64 10 18  82 1 0.06  0.8  1.1 A A|A 0.97 10 13 0.00 0.05  0  0.0  0.0  9  2.6  0.3
SE OF ORIG =  0.059          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.1  22 154 57.76IPD         2.16  2.21              -0.05 1.031      59.48  3.88  3.87  0.01 0.722                 46 2.6
84    11.9  61 130 58.53IPC         2.93  2.90               0.03 1.031      60.00  4.40  5.07 -0.67 0.000                 85 3.1
815   18.2 282 117 59.31IPD         3.71  3.74              -0.03 1.031                                                     57 2.8
812   19.5 200 115 59.54IPC         3.94  3.93               0.01 1.031                                                     55 2.8
817   20.1 328 114 59.67EPD         4.07  4.02               0.05 1.031                                                     42 2.5
811   26.3 149 107 60.69IPC         5.09  4.97               0.12 1.031      64.49  8.89  8.69  0.20 0.000                 31 2.3
85    29.6 121 105 61.10IPD         5.50  5.48               0.02 1.031                                                     70 3.0
86    37.7 122 100 62.32IPC         6.72  6.77              -0.05 1.031                                                     21 2.0
89    39.8 139 100 62.61EPD         7.01  7.11              -0.10 1.031      68.21 12.61 12.44  0.17 0.000                 52 2.8

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     N     E    SE
AVE. OF END POINTS                 0.51  0.53  0.73  0.77  0.88  0.89  1.05


            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                10      0.06      0.45      0.79         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/ 9    23/13                                                                                  83/11/ 9    23/13

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.27              SE =    0.52              SE =    0.96   QUALITY = A
                                            AZ =    -40.              AZ =   -130.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 2313 56.68 44N 1.94 113W52.44  11.93   2.27 11 17  96 1 0.05  0.5  1.0 8 A|8 0.25 10 15 0.00 0.04  0  0.0  0.0 10  2.3  0.3
SE OF ORIG =  0.047          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811   11.3 153 133 59.49IPD         2.81  2.87              -0.05 1.058      61.71  5.03  5.02  0.02 0.740           291  25 2.02
812   16.1 248 122 60.16IPD         3.48  3.49               0.00 1.058      62.50  5.82  6.10 -0.28 0.000           291  34 2.32
85    17.3  99 120 60.35IPC         3.67  3.65               0.02 1.058                                               291  44 2.62
84    18.4   6 118 60.36IPD         3.68  3.80              -0.12 1.058      62.63  5.95  6.65 -0.70 0.000           291  52 2.72
816   18.4 339 118 60.52IPD         3.84  3.80               0.04 1.058      63.38  6.70  6.65  0.05 0.740           291  25 2.12
86    24.8 107 110 61.46IPD         4.78  4.76               0.02 1.058                                               291  22 2.02
89    25.0 134 109 61.49IPC         4.81  4.79               0.03 1.058      64.94  8.26  8.38 -0.12 0.000           291  33 2.32
815   30.8 302 105 62.34IPD         5.66  5.69              -0.02 1.058                                               291  42 2.62
817   35.1 327 102 63.07EP          6.39  6.36               0.04 1.058                                               291  27 2.22
81    43.6 341  99 65.30EPD4        8.62  7.73               0.90 0.000                                               291  18 1.92

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    SW     Z     E     N    NE
AVE. OF END POINTS                  0.08  0.16  0.18  0.20  0.21  0.21  0.23


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.05      0.03      0.18         D

        ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    23/ 0                                                                                 83/11/ 9    23/ 0

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.67                SE =    1.53            SE =    2.11    QUALITY = A
                                            AZ =   -91.                 AZ =     -1.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO 03 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 23 0 43.19 43N53.65 113W45.15  12.95   3.03 29 15 186 1 0.13  1.5  2.1 C 8|D 0.08 10 51 0.00 0.10  0  0.0  0.0 10  3.0  0.3
SE OF ORIG =  0.149          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
911    7.0 320 150 45.68IPC          2.49  2.56              -0.06 1.010                                          290  56 2.72
89     8.4 105 145 45.93IP           2.74  2.68               0.06 1.010      48.48  5.29  4.69  0.61 0.000     290  85 3.12
85    14.7  30 128 46.62IPO          3.43  3.38               0.05 1.010                                          290 137 3.52
86    16.1  60 125 46.71IPD          3.52  3.56              -0.04 1.010      49.97  6.78  6.23  0.55 0.000     290  42 2.52
LCRI  16.4   1 124 46.65 PDO         3.46  3.61              -0.15 1.010       0.00-43.19  6.32-49.51 0.000     290        2
9RPI  21.2 311 117 47.5T PCO          4.38  4.29               0.09 1.010      47.54  4.35  7.51 -3.15 0.000     290        2
M-1   21.4 335 116 47.93 PDO          4.74  4.32  0.30         0.13 1.010       0.00-43.19  7.55-51.27 0.000     290        2
MDCI  25.3  68 112 48.03 PDO          4.84  4.89              -0.05 1.010       0.00-43.19  8.56-51.75 0.000     290        2
8RCI  26.1 292 111 48.28 PCO          5.09  5.02               0.07 1.010       0.00-43.19  8.79-51.97 0.000     290        2
812   26.5 291 111 48.30IPC          5.11  5.08               0.04 1.010      52.09  8.90  8.88  0.02 0.707     290  83 3.22
M8AI  27.2 344 110 48.31 P-0          5.12  5.18              -0.06 1.010       0.00-43.19  9.06-52.25 0.000     290        2
LSGS  29.1   6 108 48.79 PCO          5.60  5.48               0.12 1.010       0.00-43.19  9.59-52.78 0.000     290        2
M-2   31.4 342 107 49.20 PCO          6.01  5.82  0.17         0.02 1.010       0.00-43.19 10.19-53.68 0.000     290        2
84    34.5 347 105 49.45IP           6.26  6.31              -0.05 1.010                                          290 103 3.42
816   36.4 333 104 49.T5IP           6.56  6.61              -0.04 1.010      54.35 11.16 11.56 -0.40 0.000     290  61 2.92
DSPI  36.6 350 104 49.78 PCO          6.59  6.65              -0.05 1.010      53.31 10.12 11.63 -1.51 0.000     290        2
ANPI  38.5 328 103 50.15 P 0          6.96  6.94               0.03 1.010       0.00-43.19 12.14-55.32 0.000     290        2
WSUI  39.0 337 103 50.10 P 0          6.91  7.01              -0.10 1.010       0.00-43.19 12.27-55.46 0.000     290        2
NSUI  41.0 339 102 50.44 P 0          7.25  7.33              -0.07 1.010       0.00-43.19 12.82-56.01 0.000     290        2
NWSI  45.5 332 100 51.46 PDO          8.27  8.06               0.22 1.010      55.79 12.60 14.10 -1.50 0.000     290        2
CGI   46.8 353 100 51.49 PCO          8.30  8.26               0.04 1.010       0.00-43.19 14.46-57.65 0.000     290        2
B15   47.8 311 100 51.44IP           8.25  8.44              -0.18 1.010                                          290  84 3.22
8SU3  49.3 333  99 51.53 P 0          8.34  8.67              -0.33 1.010       0.00-43.19 15.17-58.36 0.000     290        2
RCI   52.9 308  99 52.26 P 0          9.07  9.24              -0.17 1.010       0.00-43.19 16.17-59.36 0.000     290        2
817   53.3 327  98 52.5TEP           9.38  9.30               0.08 1.010      59.87 16.68 16.28  0.40 0.000     290  50 2.82
81    61.5 337  97 53.79EPD         10.60 10.62              -0.02 1.010                                          290  55 2.92
GCI   63.2 351  97 54.17 P 0         10.98 10.91               0.08 1.010       0.00-43.19 19.08-62.27 0.000     290        2
HIR   64.2 334  97 54.60 PCO         11.41 11.07               0.35 1.010       0.00-43.19 19.36-62.55 0.000     290        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N    SW    NW     Z     E    NE
AVE. OF END POINTS                  0.07  0.08  0.11  0.11  0.12  0.13  0.14

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                25      0.13      0.05      0.10         0

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10     0/34                                                                                 83/11/10     0/34

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.59              SE =    0.81              SE =    1.21    QUALITY = A
                                          AZ =    -29.              AZ =   -119.

 DATE    ORIGIN      LAT       LONG     DEPTH     MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  034 19.92 44N13.28 114W 4.92    5.32    2.84 28  9  87 1 0.16  0.8  1.2 8 8|8 0.12 10 45 0.00 0.11  0  0.0  0.0  9  2.8  0.3
SE OF ORIG =  0.057          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   6.2  53 129 21.26 PC0        1.34  1.50              -0.16 1.022       0.00-19.92  2.63-22.55 0.000            293        2
ANPI   7.1 121 125 21.45 P 0        1.53  1.63              -0.10 1.022       0.00-19.92  2.86-22.78 0.000            293        2
817    8.8 344 120 21.41EP          1.49  1.88              -0.39 1.022      23.58  3.66  3.29  0.37 0.715            293  55 2.72
SSU3   8.8  29 119 21.82 PC0        1.90  1.89               0.01 1.022       0.00-19.92  3.30-23.22 0.000            293        2
816   10.8 111 114 22.11IPC        2.19  2.22              -0.03 1.022      24.23  4.31  3.88  0.43 0.715            293  67 2.92
#SUI  11.4  92 113 21.90 P 0        1.98  2.32              -0.34 1.022       0.00-19.92  4.05-23.97 0.000            293        2
NSUI  12.2  81 112 22.39 PC0        2.47  2.44               0.03 1.022       0.00-19.92  4.27-24.19 0.000            293        2
RCI   15.3 257 107 22.87 PC0        2.95  2.97              -0.02 1.022       0.00-19.92  5.20-25.12 0.000            293        2
M-2   18.0 111 105 23.60 P+0        3.68  3.43   0.17        0.08 1.022       0.00-19.92  6.01-26.22 0.000            293        2
84    18.8  98 104 23.43IP         3.51  3.57              -0.06 1.022                                                 293 110 3.32
DSPI  20.0  91 103 23.53 PC0        3.61  3.77              -0.16 1.022       0.00-19.92  6.60-26.52 0.000            293        2
81    20.3   6 103 23.69EPD        3.77  3.82              -0.05 1.022                                                 293  47 2.62
MBAI  21.5 118 102 23.98 PD0        4.06  4.03               0.03 1.022       0.00-19.92  7.06-26.98 0.000            293        2
MIR   21.5 356 102 24.30 P 0        4.38  4.04               0.35 1.022       0.00-19.92  7.06-26.98 0.000            293        2
CGI   23.0  64 101 24.29 PC0        4.37  4.30               0.08 1.022       0.00-19.92  7.52-27.44 0.000            293        2
M-1   24.3 134 101 24.83 PC0        4.91  4.52   0.30        0.09 1.022       0.00-19.92  7.91-28.35 0.000            293        2
8RPI  24.7 155 101 24.49 P-0        4.57  4.59              -0.02 1.022      25.89  5.97  8.03 -2.06 0.000            293        2
8RCI  26.6 175 100 24.96 PD0        5.04  4.94               0.10 1.022       0.00-19.92  8.65-28.57 0.000            293        2
812   27.0 176 100 24.94EPD        5.02  5.00               0.02 1.022                                                 293  70 3.02
LSGS  30.4 104  99 25.58 P-0        5.66  5.60               0.06 1.022       0.00-19.92  9.80-29.72 0.000            293        2
GCI   30.5  31  98 25.47 PD0        5.55  5.62              -0.07 1.022       0.00-19.92  9.84-29.75 0.000            293        2
811   38.0 145  65 26.70EP          6.78  6.87              -0.09 1.022                                                 293  43 2.62
85    41.2 125  65 27.37EPC        7.45  7.40               0.05 1.022                                                 293  96 3.32
86    49.3 125  65 28.67EPC        8.75  8.71               0.04 1.022                                                 293  30 2.32
89    51.7 138  65 29.05EP         9.13  9.10               0.03 1.022                                                 293  69 3.02
MDCI  56.4 118  65 29.75 PC0        9.83  9.86              -0.03 1.022      36.99 17.07 17.26 -0.19 0.000            293        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z    SE     E    SW     N    NE
AVE. OF END POINTS                  0.03  0.04  0.08  0.08  0.09  0.11  0.12

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   8      0.16      0.03      0.08         3

------------END--------------------END--------------------END--------------------END----------
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/ 9    23/16                                                                                                  83/11/ 9    23/16

                                                     HORIZONTAL                                    VERTICAL
                                                SE =    0.63              SE =    1.03              SE =    1.16    QUALITY = A
                                                AZ =     33.              AZ =   -57.

 DATE     ORIGIN      LAT       LONG     DEPTH     MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831109 2316  9.04 44N15.98 114W 6.15    6.26    2.66 12 15 128 1 0.09  1.0  1.2 B A|B 0.27 10 12 0.00 0.07  0  0.0  0.0 10  2.7  0.5
SE OF DRIG =  0.066          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    3.5 347 150 10.37IPO          1.33  1.32              0.01 1.053                                                292  59 2.72
815   12.6 219 115 11.64IPC          2.60  2.57              0.03 1.053      13.56  4.52  4.50  0.02 0.737            292  14 1.52
816   14.7 127 111 11.98IPC          2.94  2.92              0.01 1.053                                                292  56 2.72
81    15.6  14 110 12.08IPC          3.04  3.07             -0.04 1.053                                                292  51 2.62
34    21.7 111 105 13.08IPC          4.04  4.11             -0.07 1.053                                                292  95 3.22
812   32.1 174  65 14.75IPC          5.71  5.86             -0.15 1.053                                                292  63 2.92
811   43.0 147  65 16.70EP           7.66  7.63              0.03 1.053      22.30 13.26 13.35 -0.09 0.737            292  42 2.62
85    45.5 129  65 17.00IPO          7.96  8.03             -0.08 1.053                                                292  90 3.22
86    53.6 129  65 18.60EPC          9.56  9.34              0.21 1.053                                                292  30 2.32
89    56.5 140  65 18.96EP           9.92  9.82              0.10 1.053                                                292  52 2.82

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NW    SW    NE     E    SE     N
AVE. OF END POINTS                   0.32  0.61  0.67  0.83  0.84  0.93  0.93

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  12      0.09      0.39      0.77         A
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/10     1/57                                                                                  83/11/10     1/57

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.42              SE =    0.66              SE =    1.54    QUALITY = A
                                          AZ =    -22.              AZ =   -112.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  157 57.31 44N 5.61 113W53.65   9.47   1.88 17 11  65 1 0.10  0.7  1.5 A A|A 0.10 10 22 0.00 0.08  0  0.0  0.0 14  1.9  0.5
SE OF ORIG =  0.059          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MBAI   5.6  45 146 59.26IPC          1.95  1.95              -0.01 1.037                                                 295        2
BRPI   9.4 210 130 59.66IPC          2.35  2.37              -0.02 1.037      61.39  4.08  4.15 -0.07 0.000            295  20 1.82
B16   11.5 335 124 59.91IPD          2.60  2.64              -0.04 1.037      61.11  3.80  4.61 -0.82 0.000            295  25 2.02
B4    12.0  18 122 59.97IPC          2.66  2.71              -0.05 1.037      61.92  4.61  4.74 -0.14 0.726            295   4 0.42
DSPI  14.8  20 116 60.38EPC          3.07  3.09              -0.03 1.037      62.45  5.14  5.42 -0.28 0.000            295  13 1.52
LSGS  16.0  65 113 60.73IPC          3.42  3.28               0.13 1.037                                                 295  13 1.52
NSUI  16.5 350 112 60.87EPC          3.56  3.36               0.20 1.037                                                 295  13 1.52
B11   18.2 158 109 61.03IPD          3.72  3.61               0.11 1.037      63.81  6.50  6.32  0.18 0.726            295  23 2.02
B12   18.5 226 109 60.93IPD          3.62  3.66              -0.04 1.037                                                 295  32 2.32
B5    21.0 117 105 61.34IPD          4.03  4.04              -0.01 1.037                                                 295  56 2.82
B15   26.3 291 101 62.14IPD          4.83  4.89              -0.06 1.037      65.14  7.83  8.56 -0.73 0.000            295  35 2.42
B17   28.6 322  99 62.53EP           5.22  5.26              -0.04 1.037                                                 295  24 2.12
B6    29.0 119  99 62.50EPC          5.19  5.32              -0.14 1.037      64.82  7.51  9.32 -1.81 0.000            295  16 1.72
B9    31.1 141  98 62.83EPC          5.52  5.66              -0.14 1.037                                                 295  35 2.42
B1    36.7 340  96 63.98EPD          6.67  6.55               0.12 1.037                                                 295  23 2.02

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N     SW     SE      Z      E     NE     NW
AVE. OF END POINTS                   0.11   0.13   0.13   0.14   0.15   0.17   0.19

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.10      0.07      0.15         0

____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10     0/46                                                                                  83/11/10     0/46

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.54              SE =    0.89              SE =    0.64    QUALITY = A
                                          AZ =    -49.              AZ =     41.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  046 58.21 44N12.29 114W 0.08    6.87   2.58 11 14 105 1 0.09  0.9  0.6 8 B18 0.07 10 16 0.00 0.07  0  0.0  0.0 10  2.6  0.3
SE OF ORIG =  0.040          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-T7CAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.2 118 148 59.81EPC          1.60  1.48              0.12 1.028       60.61  2.40  2.58 -0.18 0.720           294  41 2.42
84    12.2  94 118  0.84IPC          2.63  2.55              0.08 1.028        1.74  3.53  4.46 -0.93 0.000           294  83 3.12
817   13.6 319 115  0.98IPO          2.77  2.78             -0.01 1.028        3.68  5.47  4.86  0.61 0.000           294  37 2.42
815   16.2 259 111  1.461PO          3.25  3.21              0.03 1.028        4.26  6.05  5.62  0.42 0.000           294  64 2.82
81    22.4 349  65  2.40EPC          4.19  4.23             -0.04 1.028                                               294  31 2.22
812   25.6 191  65  2.87IPC          4.66  4.74             -0.09 1.028        6.17  7.96  8.30 -0.34 0.000           294  51 2.72
811   33.0 152  65  4.27EPD          6.06  5.95              0.10 1.028                                               294  32 2.32
85    34.9 129  65  4.45IPC          6.24  6.27             -0.03 1.028        8.87 10.66 10.97 -0.31 0.000           294  73 3.02
86    43.0 128  65  5.69IPD          7.48  7.58             -0.10 1.028                                               294  24 2.12
89    46.1 143  65  6.35EPC          8.14  8.09              0.05 1.028                                               294  55 2.82

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW     E     Z    SW    NE     N
AVE. OF END POINTS                  0.11  0.12  0.15  0.16  0.19  0.19  0.21

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                   5      0.09     -0.02      0.17         D

         ------------END--------------------END--------------------END--------------------END-----------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10     3/49                                                                                  83/11/10     3/49

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.52              SE =    0.56              SE =    1.13    QUALITY = A
                                            AZ =     21.              AZ =   -69.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  349 38.01 44N15.18 114W 4.91   7.11   3.02 32  6  89 1 0.13  0.6  1.1 A A|A 0.14 10 64 0.00 0.10  0  0.0  0.0 13  3.0  0.3
SE OF ORIG =  0.044          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   4.9  88 140 39.59 PC0        1.58  1.58                0.00 1.019       0.00-38.01  2.77-40.78 0.000            297        2
817    5.5 333 137 39.72IPD         1.71  1.65                0.07 1.019      40.96  2.95  2.88  0.07 0.713            297  57 2.72
8SU3   6.0  45 136 39.72 P 0        1.71  1.70                0.01 1.019       0.00-38.01  2.98-40.99 0.000            297        2
ANPI   9.4 140 117 40.12 P 0        2.11  2.14               -0.03 1.019       0.00-38.01  3.75-41.76 0.000            297        2
WSUI  12.1 109 107 40.53 PC0        2.52  2.55               -0.03 1.019       0.00-38.01  4.47-42.47 0.000            297        2
NSUI  12.1  97 106 40.59 PC0        2.58  2.56                0.02 1.019       0.00-38.01  4.47-42.48 0.000            297        2
816   12.5 126 105 40.58IPD         2.57  2.62               -0.05 1.019      43.45  5.44  4.58  0.86 0.000            297  75 3.02
815   12.6 229 104 40.70IP0         2.69  2.64                0.05 1.019      42.54  4.53  4.62 -0.08 0.713            297  87 3.12
RCI   16.5 245  93 41.17 PC0        3.16  3.26               -0.10 1.019      43.97  5.96  5.71  0.25 0.000            297        2
81    16.8   8  92 41.32IPC        3.31  3.31                0.00 1.019      44.20  6.19  5.79  0.40 0.000            297  55 2.72
MIR   18.0 355  92 41.70 PD0        3.69  3.51                0.18 1.019       0.00-38.01  6.14-44.15 0.000            297        2
M-2   19.6 121  91 42.01 PD0        4.00  3.76  0.17          0.07 1.019      45.01  7.00  6.58  0.12 0.000            297        2
84    19.7 109  91 41.63IPC        3.62  3.77               -0.15 1.019      44.51  6.50  6.60 -0.10 0.000            297 117 3.42
DSPI  20.3 101  91 41.73 PC0        3.72  3.89               -0.17 1.019      43.47  5.46  6.80 -1.34 0.000            297        2
CGI   21.7  72  91 42.08 PC0        4.07  4.11               -0.04 1.019       0.00-38.01  7.19-45.20 0.000            297        2
MBAI  23.4 126  91 42.40 PC0        4.39  4.38                0.01 1.019       0.00-38.01  7.67-45.68 0.000            297        2
M-1   26.8 139  90 43.35 PD0        5.34  4.94  0.30          0.10 1.019       0.00-38.01  8.65-47.18 0.000            297        2
GCI   27.5  35  90 42.77 PD0        4.76  5.05               -0.29 1.019       0.00-38.01  8.84-46.85 0.000            297        2
BRPI  27.9 158  90 43.09 PC0        5.08  5.12               -0.04 1.019      44.49  6.48  8.96 -2.48 0.000            297        2
BRCI  30.1 176  90 43.31 PC0        5.30  5.48               -0.18 1.019       0.00-38.01  9.59-47.60 0.000            297        2
812   30.5 177  90 43.64EPC        5.63  5.54                0.09 1.019      47.12  9.11  9.69 -0.58 0.000            297  77 3.12
LSGS  31.4 110  90 43.79 P-0        5.78  5.68                0.10 1.019      47.61  9.60  9.94 -0.34 0.000            297        2
LCRI  35.6 131  90 44.14 PD0        6.13  6.36               -0.23 1.019       0.00-38.01 11.13-49.14 0.000            297        2
811   40.9 148  90 45.23EPC        7.22  7.22                0.00 1.019                                                297  47 2.72
85    43.3 129  90 45.64IP         7.63  7.62                0.01 1.019                                                297  98 3.32
86    51.4 128  90 47.00IP         8.99  8.93                0.06 1.019                                                297  32 2.42
89    54.3 141  90 47.59EPC        9.58  9.40                0.18 1.019                                                297  82 3.22
MDCI  58.1 121  90 47.88 PC0        9.87 10.02               -0.15 1.019      54.48 16.47 17.54 -1.07 0.000            297        2
MPI   99.2 127  90 55.10 P 0       17.09 16.69                0.40 1.019      66.95 28.94 29.21 -0.27 0.000            297  58 3.12
JGI  113.7  99  65 57.12 P 0       19.11 18.99                0.12 1.019       0.00-38.01 33.23-71.24 0.000            297  73 3.32
CIB  131.8 136  65  0.29 P 0       22.28 21.65                0.63M0.000      16.29 38.28 37.89  0.39 0.000            297  79 3.42
GBI  164.3 100  65  5.32 P 0       27.31 26.43                0.88M0.000       0.00 21.99 46.25-24.26 0.000            297        2
TMI  203.5 121  50 10.56 P 0       32.55 32.05                0.50C0.000       0.00 21.99 56.08-34.09 0.000            297        2
IMW  254.7  99  50 17.22 P 0       39.21 38.46                0.75M0.000       0.00 21.99 67.30-45.31 0.000            297        2

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     E     Z    NE    SW     N
AVE. OF END POINTS                  0.08  0.08  0.11  0.12  0.14  0.17  0.17

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  14      0.13      0.04      0.13         0

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10     3/ 3                                                                                  83/11/10     3/ 3

                                                  HORIZONTAL                                   VERTICAL
                                            SE =   0.42              SE =   0.54               SE =   1.89   QUALITY = A
                                            AZ =   -23.              AZ =  -113.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  3 3  4.59 44N 4.14 113W52.74   7.84   2.22 18 14  69 1 0.10  0.5  1.9 A A|A 0.11 10 21 0.00 0.09  0  0.0  0.0 14  2.2  0.4
SE OF ORIG =  0.048          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MBAI   7.2  22 131  6.50EP          1.91  1.93              -0.02 1.034                                                296        2
BRPI   8.0 227 128  6.66IPC         2.07  2.02               0.05 1.034                                                296  20 1.82
B4    14.4  10 107  7.37IPD         2.78  2.94              -0.16 1.034                                                296  63 2.82
B16   14.5 335 107  7.42IPD         2.83  2.95              -0.12 1.034                                                296  28 2.12
B11   15.2 158 105  7.69EPD         3.10  3.07               0.03 1.034      10.11  5.52  5.38  0.15 0.724            296  24 2.02
LSGS  16.3  54 103  7.91IPC         3.32  3.25               0.07 1.034      10.07  5.48  5.69 -0.20 0.000            296  19 1.82
DSPI  17.1  13 101  7.81EPC         3.22  3.37              -0.14 1.034      10.20  5.61  5.89 -0.28 0.000            296  14 1.52
B12   17.7 235 100  7.99IPC         3.40  3.46              -0.06 1.034      10.59  6.00  6.05 -0.05 0.724            296  42 2.52
B5    18.8 111  99  8.20IPD         3.61  3.63              -0.02 1.034                                                296  65 2.32
NSUI  19.4 347  98  8.47EP          3.88  3.74               0.14 1.034      10.90  6.31  6.55 -0.24 0.000            296  22 1.92
NWSI  23.6 331  95  9.18EPC         4.59  4.41               0.18 1.034                                                296        2
B6    26.7 115  94  9.54EPD         4.95  4.92               0.04 1.034                                                296  48 2.62
BSU3  27.4 334  94  9.77EPC         5.18  5.03               0.15 1.034                                                296  20 1.92
B9    28.2 140  93  9.61EPD         5.02  5.17              -0.15 1.034                                                296  41 2.52
B15   28.5 295  93  9.72IPD         5.13  5.21              -0.08 1.034                                                296  42 2.52
B17   31.5 324  93 10.28EPC         5.69  5.70               0.00 1.034                                                296  27 2.22

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     Z    SW     N    NE    NW     E
AVE. OF END POINTS                  0.05  0.11  0.11  0.13  0.13  0.18  0.19

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                10      0.10      0.01      0.13         0

        ------------END----------------------END----------------------END----------------------END------------
```

	HORIZONTAL		VERTICAL	
SE =	1.01	SE = 1.92	SE = 1.05	QUALITY = A
AZ =	-100.	AZ = -10.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831110	548 40.48	43N50.65	113W38.59	11.81	2.22	16	17	273	1	0.10	1.9	1.1	C	B|D	0.06	10	21	0.00	0.08	0	0.0	0.0	14	2.2	0.4

SE OF ORIG = 0.159 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
89	3.5	349	162	42.74IPD	2.26	2.15	0.10	1.039		44.26	3.78	3.77	0.01	0.727				299	46	2.62	
86	14.5	21	125	43.64IPC	3.16	3.24	-0.08	1.039										299	24	2.02	
811	17.2	309	119	44.01IP	3.53	3.63	-0.10	1.039		46.81	6.33	6.34	-0.02	0.727				299	24	2.02	
85	18.3	356	118	44.25IPC	3.77	3.78	-0.01	1.039										299	64	2.92	
8RPI	31.6	308	104	46.28EPD	5.80	5.80	-0.01	1.039										299		2	
LSGS	35.0	351	102	46.77EPD	6.29	6.34	-0.05	1.039		50.7T	10.29	11.09	-0.80	0.000				299	16	1.72	
48AI	35.6	333	102	46.96IPC	6.48	6.43	0.05	1.039		51.96	11.48	11.25	0.22	0.000				299	18	1.82	
812	36.7	294	101	47.04IPD	6.56	6.61	-0.06	1.039										299	43	2.62	
84	42.5	337	99	47.89IPC	7.41	7.55	-0.14	1.039										299	57	2.92	
OSPI	44.3	340	99	47.24EP 4	6.76	7.84	-1.08	0.000										299	13	1.62	
816	45.6	327	99	48.62IPD	8.14	8.04	0.09	1.039										299	24	2.12	
NSUI	49.6	332	98	49.31EPD	8.83	8.69	0.13	1.039		54.71	14.23	15.21	-0.99	0.000				299	19	1.92	
NWSI	54.8	326	97	56.74EPC4	16.26	9.52	6.74	0.000										299		2	
815	58.1	310	96	50.46IPD	9.98	10.06	-0.08	1.039										299	35	2.52	
817	62.8	323	96	51.53EP	11.05	10.82	0.23	1.039										299	25	2.22	
81	70.2	332	95	52.44EPD	11.96	12.02	-0.06	1.039										299	21	2.12	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	NE	N	Z	E	SW
AVE. OF END POINTS	0.10	0.11	0.14	0.16	0.17	0.19	0.21

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
15	0.10	0.04	0.15	D

	HORIZONTAL		VERTICAL	
SE =	0.37	SE =	0.49	SE = 1.26 QUALITY = A
AZ =	-81.	AZ =	9.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831110	447 33.56	44N13.10	114W 2.82	8.46	2.67	12	13	100	1	0.06	0.5	1.3	B	A|B	0.07	10	16	0.00	0.0*	0	0.0	0.0	9	2.7	0.4

SE OF ORIG = 0.047 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	8.1	115	131	35.64	IPC	2.08	2.11	-0.02	1.053		37.96	4.40	3.69	0.72	0.000			298	46	2.52		
817	10.2	329	123	35.94	IPC	2.38	2.38	0.01	1.053		39.36	5.80	4.16	1.64	0.000			298	46	2.62		
815	13.1	250	114	36.36	IPD	2.80	2.79	0.02	1.053		38.46	4.90	4.87	0.03	0.737			298		2		
84	16.0	99	108	36.68	IPD	3.12	3.23	-0.11	1.053		39.28	5.72	5.65	0.07	0.737			298	93	3.22		
91	20.5	358	101	37.50	IPC	3.94	3.93	0.01	1.053									298	36	2.42		
812	26.6	182	97	38.37	IPC	4.81	4.91	-0.10	1.053									298	60	2.82		
811	36.1	148	94	40.05	EPD	6.49	6.46	0.03	1.053		45.69	12.13	11.30	0.83	0.000			298	30	2.32		
35	38.8	127	93	40.44	IPD	6.88	6.88	0.00	1.053		44.94	11.38	12.04	-0.66	0.000			298	78	3.12		
86	46.8	127	93	41.72	EP	8.16	8.19	-0.03	1.053									298	25	2.12		
89	49.6	140	92	42.32	IPC	8.76	8.64	0.12	1.053									298	67	3.02		

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	SE	E	NE	SW	Z
AVE. OF END POINTS	0.09	0.12	0.12	0.16	0.18	0.22	0.26

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
5	0.06	0.03	0.16	0

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/10     7/54                                                                                                  83/11/10     7/54

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.55              SE =    1.00              SE =    1.47   QUALITY = A
                                          AZ =    -54.              AZ =     36.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  754 56.41 44N14.13 114W 1.30   8.29   2.11 17  8 127 1 0.11  1.0  1.5 B 8|8 0.25 10 22 0.00 0.09  0  0.0  0.0 15  2.1  0.3
SE OF ORIG =  0.065          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.1   2 164 58.05IPD          1.64  1.54              0.10 1.037                                                  301  12 1.43
BSU3   6.2 355 139 57.83IPD4         1.42  1.86             -0.44 0.000                                                  301  25 2.03
NSUI   7.2  87 134 58.50EPD          2.09  1.98              0.12 1.037                                                  301  24 2.03
B16    7.6 135 132 58.52IPD          2.11  2.02              0.09 1.037      60.62  4.21  3.54  0.68 0.000              301  36 2.33
B17   10.0 313 123 58.61IPD          2.20  2.33             -0.12 1.037      60.31  3.90  4.07 -0.17 0.726              301  37 2.43
B4    14.5 107 110 59.33IPC          2.92  2.98             -0.06 1.037      61.58  5.17  5.22 -0.05 0.726              301        3
DSPI  15.3  97 108 59.37EPC          2.96  3.10             -0.14 1.037      61.60  5.19  5.43 -0.24 0.000              301  25 2.03
MBAI  18.4 130 103 59.95IPC          3.54  3.60             -0.05 1.037      62.05  5.64  6.30 -0.65 0.000              301  17 1.73
MIR   20.9 342 100 60.59EPC          4.18  3.99              0.20 1.037      63.90  7.49  6.98  0.52 0.000              301  28 2.23
BRPI  24.6 167  97 61.04IPC          4.63  4.60              0.04 1.037                                                  301  22 2.03
LSGS  26.2 110  96 61.21EP           4.80  4.85             -0.05 1.037                                                  301  17 1.73
B12   28.7 186  95 61.57IPC          5.16  5.25             -0.09 1.037                                                  301  42 2.53
B11   36.8 152  93 63.17EPC          6.76  6.56              0.20 1.037                                                  301  25 2.13
B5    38.4 131  93 63.14IPD          6.73  6.82             -0.09 1.037                                                  301  47 2.73
B6    46.4 130  92 64.52EPD          8.11  8.13             -0.01 1.037                                                  301  23 2.13
B9    49.8 144  92 65.10EPD          8.69  8.68              0.02 1.037                                                  301  41 2.63

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E     N    SE
AVE. OF END POINTS                    0.37  0.41  0.56  0.77  0.80  0.84  1.08

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 17      0.11      0.40      0.72         A


xxxxx PTU  P 0 831110 85324.45         .00   4                                .      xxxxx deleted- PTU  not on station list
          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10     7/35                                                                                  83/11/10     7/35

                                                   HORIZONTAL                                VERTICAL
                                            SE =    0.73              SE =    1.00            SE =    1.70    QUALITY = A
                                            AZ =    -8.               AZ =   -98.


 DATE     ORIGIN      LAT       LONG     DEPTH     MAG ND O3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110  735 35.66 44N18.02 114W 2.66    9.46    2.48 18  5  81 1 0.12  1.0  1.7 8 8|A 1.01 10 18 0.00 0.10  0  0.0  0.0 17  2.5  0.4
SE OF ORIG =  0.083          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
8SU3   1.6 130 169 37.51IPD          1.85  1.71              0.15 1.000                                                300  35 2.33
NWSI   5.4 159 147 37.55IPD          1.89  1.94             -0.04 1.000                                                300  13 1.43
817    5.5 266 147 37.43IPD          1.77  1.94             -0.17 1.000                                                300  51 2.63
81    11.4 356 124 38.18IPD          2.52  2.63             -0.10 1.000                                                300  42 2.53
HIR   13.5 348 118 38.80IPC          3.14  2.91              0.23 1.000                                                300  38 2.43
816   14.5 150 116 38.81IP           3.15  3.05              0.10 1.000                                                300  48 2.63
815   18.5 223 109 39.20IPC          3.54  3.65             -0.11 1.000                                                300  59 2.83
JSPI  19.2 118 108 39.40IPC          3.74  3.77             -0.03 1.000                                                300  22 1.93
84    19.4 126 107 39.43IPD          3.77  3.80             -0.03 1.000                                                300  85 3.13
GCI   21.5  37 105 39.73IPC          4.07  4.12             -0.05 1.000                                                300  54 2.73
WBAI  24.8 140 102 40.26EPC          4.60  4.65             -0.05 1.000                                                300        3
LSGS  31.0 121  98 41.28EPC          5.62  5.64             -0.02 1.000                                                300  22 2.03
8RPI  32.0 167  98 41.40EPD          5.74  5.81             -0.07 1.000                                                300  32 2.33
812   35.7 182  96 42.17IPD          6.51  6.40              0.11 1.000                                                300  57 2.83
811   44.0 155  95 43.69EPC          8.03  7.74              0.29 1.000                                                300  30 2.33
85    44.7 137  95 43.43IPC          7.77  7.84             -0.06 1.000                                                300  78 3.13
86    52.6 135  94 44.70IPD          9.04  9.14             -0.10 1.000                                                300  24 2.13
89    56.8 146  93 45.41EPC          9.75  9.81             -0.06 1.000                                                300  62 3.03

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    NW    SW     E     N    SE
AVE. OF END POINTS                 0.37  0.49  0.56  0.56  0.60  0.83  0.85


              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  18      0.12      0.35      0.63         A

         ------------END----------------------END----------------------END----------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/10    11/43                                                                                  83/11/10    11/43

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    1.51              SE =    4.58              SE =    8.93   QUALITY = C
                                          AZ =     15.              AZ =   -75.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110 1143  0.68 44N17.08 114W21.78   0.70   2.33 14 25 271 1 0.18  4.6  8.9 D C|D 0.38 10 18 0.00 0.14  0  0.0  0.0 12  2.3  0.3
SE OF ORIG =  0.359          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-0=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B15   17.6 132  58  4.25IPC          3.57  3.28              0.29 1.045       6.17  5.49  5.75 -0.26 0.731            303  43 2.53
B17   20.0  86  58  4.54IPC          3.86  3.73              0.13 1.045                                                303  34 2.33
MIR   25.3  55  58  5.53EP           4.85  4.68              0.17 1.045                                                303  25 2.03
B1    27.9  62  58  5.851PD          5.17  5.14              0.04 1.045                                                303  24 2.03
B16   34.4 108  58  7.02EP           6.34  6.29              0.05 1.045      11.91 11.23 11.01  0.22 0.731            303  28 2.13
B12   41.7 145  58  8.201PC          7.52  7.61             -0.09 1.045      13.30 12.62 13.32 -0.69 0.000            303  43 2.53
B4    42.2 103  58  8.06EP           7.38  7.70             -0.32 1.045      14.61 13.93 13.48  0.45 0.000            303  51 2.73
GCI   42.7  64  58  8.12EPC          7.44  7.78             -0.34 1.045                                                303  34 2.33
B11   58.5 131  50 11.22EP          10.54 10.57             -0.03 1.045      18.12 17.44 18.49 -1.05 0.000            303  26 2.23
B5    64.1 119  50 12.17EP          11.49 11.48              0.01 1.045      19.61 18.93 20.09 -1.16 0.000            303  53 2.83
B6    72.1 119  50 13.58EPD         12.90 12.78              0.12 1.045                                                303  19 1.93
B9    72.9 129  50 13.58EP          12.90 12.91             -0.01 1.045                                                303  36 2.53

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SW     E    SE     Z    NE    NW
AVE. OF END POINTS                 -0.01  0.00  0.00  0.02  0.03  0.04  0.06

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  8      0.18     -0.03      0.02         D

        ____________END_____________________END_____________________END_____________________END____________
```

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
```

83/11/10 8/52

HORIZONTAL		VERTICAL	
SE = 0.64	SE = 0.70	SE = 1.47	QUALITY = A
AZ = -129.	AZ = -39.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831110	852 38.56	44N20.48	114W 1.38	8.84	3.13	31	9	87	1	0.14	0.7	1.5	A	A/A	0.57	10	65	0.00	0.10	0	0.0	0.0	13	3.1	0.3

SE OF ORIG = 0.067 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
8SU3	5.6	185	144	40.73	P 0	2.17	1.88		0.30	1.020		0.00	-38.56	3.28	-41.84	0.000				302			3
81	7.3	340	136	40.59	IPC	2.03	2.05		-0.01	1.020										302	60		2.83
817	8.7	236	130	40.80	IPC	2.24	2.21		0.03	1.020		43.20	4.64	3.87	0.77	0.000				302	72		2.93
NWSI	9.6	179	127	41.01	PDO	2.45	2.32		0.13	1.020		0.00	-38.56	4.07	-42.62	0.000				302			3
HIR	10.3	322	124	41.00	PDO	2.44	2.42		0.02	1.020		0.00	-38.56	4.23	-42.79	0.000				302			3
NSUI	13.5	147	116	41.53	PDO	2.97	2.86		0.12	1.020		0.00	-38.56	5.00	-43.55	0.000				302			3
WSUI	15.3	154	111	41.73	PDO	3.17	3.13		0.04	1.020		0.00	-38.56	5.48	-44.04	0.000				302			3
CGI	16.3	102	109	41.97	PDO	3.41	3.29		0.12	1.020		0.00	-38.56	5.76	-44.32	0.000				302			3
GCI	16.9	41	108	41.66	PCO	3.10	3.38		-0.28	1.020		43.96	5.40	5.91	-0.51	0.000				302			3
ANPI	17.1	176	108	41.97	P 0	3.41	3.41		0.00	1.020		0.00	-38.56	5.97	-44.52	0.000				302			3
816	18.0	162	106	42.11	IPD	3.55	3.54		0.01	1.020		46.01	7.45	6.20	1.25	0.000				302	78		3.03
OSPI	20.4	132	103	42.43	PDO	3.87	3.94		-0.07	1.020		0.00	-38.56	6.89	-45.45	0.000				302			3
84	21.2	139	102	42.55	IPD	3.99	4.07		-0.07	1.020		45.58	7.02	7.12	-0.09	0.714				302	113		3.43
815	23.0	218	100	42.84	IPC	4.28	4.35		-0.06	1.020		46.04	7.48	7.61	-0.13	0.714				302	83		3.13
M-2	23.2	149	100	43.02	PDO	4.46	4.38	0.17	-0.08	1.020		46.02	7.46	7.66	-0.50	0.000				302			3
RCI	25.9	229	98	43.38	P 0	4.82	4.80		0.03	1.020		0.00	-38.56	8.40	-46.95	0.000				302			3
MBAI	27.5	149	98	43.62	PDO	5.06	5.07		0.00	1.020		45.71	7.15	8.87	-1.71	0.000				302			3
LSGS	32.3	130	96	44.39	PDO	5.83	5.82		0.01	1.020		48.23	9.67	10.19	-0.52	0.000				302			3
M-1	32.8	157	96	44.17	PDO	5.61	5.91	0.30	-0.59	M0.000		0.00	-38.56	10.34	-49.42	0.000				302			3
8RPI	36.2	171	95	45.12	PCO	6.56	6.47		0.09	1.020		49.82	11.26	11.32	-0.06	0.000				302			3
LCRI	39.9	147	94	45.44	PCO	6.88	7.07		-0.19	1.020		0.00	-38.56	12.38	-50.94	0.000				302			3
8RCI	39.9	184	94	45.50	PCO	6.94	7.08		-0.14	1.020		50.30	11.74	12.39	-0.65	0.000				302			3
812	40.4	184	94	45.57	IPC	7.01	7.15		-0.14	1.020										302	88		3.23
85	47.0	142	93	46.77	IPD	8.21	8.22		-0.01	1.020										302	110		3.43
811	47.6	159	93	47.01	EPD	8.45	8.31		0.14	1.020										302	54		2.83
86	54.8	140	93	48.02	IPD	9.46	9.48		-0.02	1.020										302	37		2.53
89	59.7	150	92	48.74	EPD	10.18	10.29		-0.10	1.020		50.11	11.55	18.00	-6.45	0.000				302	92		3.33
MOCI	60.1	132	92	48.64	PDO	10.08	10.35		-0.27	1.020		54.76	16.20	18.11	-1.91	0.000				302			3
MPI	102.0	133	91	56.03	PDO	17.47	17.14		0.33	1.020		68.03	29.47	29.99	-0.52	0.000				302	66		3.23
JGI	111.1	104	65	57.25	P 0	18.69	18.49		0.21	1.020		0.00	-38.56	32.35	-70.91	0.000				302	69		3.33
CI8	135.9	140	65	1.21	P 0	22.65	22.13		0.53	M0.000		16.91	38.35	38.72	-0.37	0.000				302			3
G8I	161.5	104	65	5.18	P 0	26.62	25.90		0.73	M0.000		24.41	45.85	45.32	0.53	0.000				302	86		3.63
TMI	204.8	124	50	11.39	P 0	32.83	32.03		0.80	M0.000		35.64	57.08	56.06	1.03	0.000				302			3
IMW	251.8	101	50	18.07	P 0	39.51	37.91		1.60	M0.000		0.00	21.44	66.34	-44.90	0.000				302			3
NPI	272.7	153	50	21.22	P 0	42.66	40.52		2.14	M0.000		0.00	21.44	70.91	-49.47	0.000				302			3

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	NW	SW	E	NE	Z	SE
AVE. OF END POINTS	0.09	0.09	0.10	0.10	0.12	0.12	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
23	0.14	0.05	0.11	D

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/10    18/ 6                                                                                  83/11/10    18/ 6

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.73              SE =    1.31              SE =    1.27   QUALITY = A
                                          AZ =    -70.              AZ =     20.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110 18 6 10.19 43N55.60 113W47.98  12.56   2.22 14 14 170 1 0.10  1.3  1.3 C 8|C 0.13 10 20 0.00 0.08  0  0.0  0.0 10  2.2  0.8
SE OF ORIG =  0.107          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    1.9 336 171 12.40IPC         2.21  2.21              0.00 1.022      14.00  3.81  3.87 -0.05 0.715           306  33 2.33
B9    13.2 116 130 13.38IPC         3.19  3.16              0.03 1.022      15.53  5.34  5.53 -0.19 0.000           306  53 2.73
B5    14.4  51 127 13.53IPD         3.34  3.30              0.04 1.022      16.45  6.26  5.78  0.48 0.000           306  89 3.23
BRPI  16.0 310 124 13.77IPD         3.58  3.53              0.06 1.022      16.22  6.03  6.17 -0.14 0.000           306        3
B6    18.3  76 120 13.92IP          3.73  3.84             -0.10 1.022                                                306  24 2.03
B12   21.7 285 115 14.56IPD         4.37  4.33              0.05 1.022      17.46  7.27  7.58 -0.30 0.000           306  51 2.73
MBAI  22.8 351 114 14.75IPD         4.56  4.49              0.08 1.022                                                306        3
LSGS  26.3  15 110 15.31IPD         5.12  5.02              0.10 1.022      18.34  8.15  8.79 -0.63 0.000           306   2-0.13
B4    30.3 353 107 15.71IPD         5.52  5.63             -0.11 1.022                                                306        3
B16   31.5 337 106 15.98EP          5.79  5.83             -0.03 1.022                                                306  55 2.83
NSUI  36.3 343 103 16.82EPD         6.63  6.58              0.05 1.022                                                306  22 2.03
B17   48.2 329  99 18.42EP          8.23  8.48             -0.25 1.022                                                306  30 2.33
B1    56.7 339  97 20.14EPC         9.95  9.84              0.11 1.022                                                306  24 2.23
HIR   59.4 336  97 20.88IP 4       10.69 10.27              0.42 0.000                                                306        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NE    SE     Z     N     E    NW
AVE. OF END POINTS                  0.44  0.50  0.55  0.55  0.57  0.72  0.79


             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 14      0.10      0.39      0.59         A

        ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10    13/25                                                                                  83/11/10    13/25

                                                HORIZONTAL                                VERTICAL
                                          SE =    0.48                SE =    0.85                SE =    1.81    QUALITY = A
                                          AZ =   -38.                 AZ =  -128.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110 1325 51.07 44N11.91 114W 0.05  10.60   2.55 12 14 102 1 0.09  0.8  1.8 B A|9 0.05 10 15 0.00 0.08  0  0.0  0.0 10  2.6  0.3
SE OF ORIG =  0.072          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.9 109 158 53.13IPD          2.06  1.99              0.07 1.053                                                 04   36 2.30
84    12.2  91 126 53.86IP           2.79  2.82             -0.03 1.053                                                 04   88 3.10
817   14.1 321 121 54.12IPC          3.05  3.10             -0.05 1.053                                                 04   40 2.50
815   16.1 262 117 54.30IPC          3.23  3.38             -0.15 1.053      57.14  6.07  5.91  0.16 0.000            04   49 2.60
81    23.1 349 107 55.61IPD          4.54  4.43              0.12 1.053      58.80  7.73  7.74 -0.01 0.737            04   31 2.30
812   24.9 191 106 55.88IPC          4.81  4.70              0.11 1.053                                                 04   49 2.70
811   32.4 152 101 57.05IPD          5.98  5.90              0.08 1.053      61.65 10.58 10.32  0.26 0.000            04   29 2.20
85    34.5 128 100 57.29IPC          6.22  6.23             -0.01 1.053      61.89 10.82 10.91 -0.08 0.737            04   70 3.00
86    42.6 127  97 58.47IPD          7.40  7.53             -0.13 1.053      64.02 12.95 13.18 -0.22 0.000            04   21 2.00
89    45.6 142  96 59.14IPD          8.07  8.01              0.06 1.053                                                 04   50 2.80

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NW    SE     E     Z    NE     N
AVE. OF END POINTS                  0.11  0.12  0.12  0.13  0.14  0.19  0.21

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.09      0.00      0.14         0


------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10    14/18                                                                                  83/11/10    14/18

                                                HORIZONTAL                                VERTICAL
                                          SE =    0.40                SE =    0.71                SE =    1.41    QUALITY = A
                                          AZ =   -48.                 AZ =    42.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110 1418  5.66 44N10.18 113W59.01  12.62   2.32 11 17  77 1 0.06  0.7  1.4 A A|A 0.11 10 12 0.00 0.05  0  0.0  0.0 10  2.3  0.4
SE OF ORIG =  0.064          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.0  50 166  7.96IPD          2.30  2.26              0.05 1.028      10.44  4.78  3.95  0.83 0.000            305  25 2.03
84    11.2  74 135  8.55IPD          2.89  2.93             -0.04 1.028                                                 305  58 2.83
815   17.4 273 121  9.31IPC          3.65  3.72             -0.07 1.028                                                 305  46 2.63
817   17.5 324 121  9.38EPC          3.72  3.74             -0.02 1.028                                                 305  30 2.23
812   22.1 196 115 10.05IPD          4.39  4.39              0.01 1.028                                                 305  40 2.53
81    26.5 348 110 10.76IPD          5.10  5.06              0.04 1.028                                                 305  24 2.13
811   26.9 151 108 11.19EP           5.53  5.43              0.10 1.028                                                 305  22 2.03
85    31.5 125 106 11.57IPD          5.91  5.82              0.09 1.028      15.77 10.11 10.19 -0.08 0.720            305  57 2.83
86    39.5 125 102 12.68EP           7.02  7.09             -0.07 1.028                                                 305  15 1.73
89    42.2 141 101 13.13EP           7.47  7.51             -0.04 1.028                                                 305  34 2.43

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     N     Z    SW    NE     E
AVE. OF END POINTS                  0.05  0.10  0.16  0.18  0.20  0.20  0.20
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/10    18/40                                                                                  83/11/10    18/40

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.48              SE =    0.71              SE =    1.57    QUALITY = A
                                          AZ =    -38.              AZ =   -128.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831110 1840 31.45 44N 6.27 113W54.88    9.04    2.31 18 10  70 1 0.12  0.7  1.6 A A|A 0.06 10 25 0.00 0.10  0  0.0  0.0 17  2.3  0.4
SE OF ORIG =  0.056          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MBAI   6.2  64 142 33.51IPC          2.06  1.96              0.10 1.034
816    9.7 341 127 33.69IPD          2.24  2.36             -0.12 1.034      35.57  4.12  4.13 -0.01 0.724            308  50 2.63
8RPI   9.9 198 127 33.94IPD          2.49  2.38              0.11 1.034      35.37  3.92  4.16 -0.24 0.000            308  29 2.23
84    11.5  27 122 33.94IPC          2.49  2.60             -0.12 1.034                                                308  72 2.93
DSPI  14.3  28 114  3.18IP 4       -28.27  3.01            -31.28 0.000                                                308  42 2.53
NSUI  15.1 355 113 34.48EPD          3.03  3.12             -0.09 1.034                                                308  24 2.03
LSGS  17.0  71 109 34.98IPC          3.53  3.41              0.11 1.034      37.29  5.84  5.98 -0.14 0.000            308  22 1.93
812   18.2 220 107 35.05IP           3.60  3.59              0.00 1.034      37.56  6.11  6.29 -0.18 0.000            308  51 2.73
NWSI  18.7 333 106 34.95EPD          3.50  3.67             -0.17 1.034      36.87  5.42  6.43 -1.01 0.000            308  12 1.43
811   19.9 155 105 35.36IPD          3.91  3.86              0.05 1.034      38.41  6.96  6.75  0.21 0.000            308  38 2.43
8SU3  22.6 336 102 35.95EP           4.50  4.29              0.21 1.034                                                308  18 1.83
85    23.0 118 101 35.86IPC          4.41  4.35              0.06 1.034                                                308  67 2.93
815   24.3 290 100 35.84IPC          4.39  4.56             -0.18 1.034      39.54  8.09  7.99  0.10 0.724            308  54 2.73
86    31.0 120  97 36.92IPD          5.47  5.64             -0.17 1.034                                                308  23 2.03
89    33.1 140  96 37.37EPC          5.92  5.96             -0.05 1.034                                                308  50 2.73
81    35.0 341  96 37.76EPD          6.31  6.27              0.04 1.034                                                308  28 2.23
HIR   37.6 337  95 38.52EP 4         7.07  6.68              0.39 0.000                                                308  21 2.03
GCI   39.1   4  95 38.54EP           7.09  6.94              0.15 1.034                                                308        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N     E    NE     Z    SE    NW    SW
AVE. OF END POINTS                   0.08  0.09  0.13  0.13  0.14  0.14  0.15


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.12      0.06      0.12         D

        ------------END----------------------END----------------------END----------------------END------------
```

	HORIZONTAL		VERTICAL	
SE =	0.35	SE =	0.98	SE = 1.44 QUALITY = A
AZ =	3.	AZ =	-87.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831110	1811 57.81	44N16.14	114W 5.16	5.72		13	13	117	1	0.13	1.0	1.4	B	B|B	0.13	10	26	0.00	0.10	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.073 6 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)									
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	5.4	107	135	59.29	PDO	1.48	1.45		0.03	1.000		0.00	-57.81	2.54	-60.35	0.000							
ANPI	11.0	145	116	0.03	P 0	2.22	2.28		-0.05	1.000		0.00	2.19	3.99	-1.79	0.000							
NSUI	12.7	105	112	0.35	P 0	2.54	2.56		-0.01	1.000		0.00	2.19	4.48	-2.28	0.000							
HIR	16.2	355	108	1.20	PDO	3.39	3.14		0.25	1.000		0.00	2.19	5.50	-3.30	0.000							
RCI	17.1	239	107	1.00	P 0	3.19	3.28		-0.09	1.000		3.25	5.44	5.75	-0.30	0.000							
M-2	20.8	124	104	2.10	PDO	4.29	3.93	0.17	0.20	1.000		0.00	2.19	6.88	-4.98	0.000							
CGI	21.6	77	103	1.75	PCO	3.94	4.06		-0.11	1.000		0.00	2.19	7.10	-4.91	0.000							
MBAI	24.7	129	102	2.40	P+0	4.59	4.61		-0.02	1.000		0.00	2.19	8.07	-5.88	0.000							
GCI	26.3	38	101	2.44	PCO	4.63	4.88		-0.25	1.000		5.24	7.43	8.54	-1.11	0.000							
BRPI	29.7	159	100	3.38	PCO	5.57	5.49		0.08	1.000		0.00	2.19	9.62	-7.42	0.000							
BRCI	31.9	175	65	3.58	P+0	5.77	5.87		-0.09	1.000		0.00	2.19	10.27	-8.07	0.000							
LSGS	32.4	113	65	3.82	P+0	6.01	5.93		0.08	1.000		0.00	2.19	10.38	-8.19	0.000							
LCRI	37.0	133	65	4.48	P 0	6.67	6.69		-0.01	1.000		0.00	2.19	11.70	-9.51	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	E	NW	Z	NE	N	SW
AVE. OF END POINTS	0.04	0.06	0.08	0.09	0.09	0.12	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.13	0.03	0.09	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/10 23/50 83/11/10 23/50

	HORIZONTAL		VERTICAL	
SE =	0.42	SE =	0.53	SE = 0.77 QUALITY = A
AZ =	-73.	AZ =	17.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831110	2350	41.43	44N14.30	114W	0.78	6.22	2.77	12	14	120	1	0.07	0.5	0.8	B	A|B	0.30	10	12	0.00	0.06	0	0.0	0.0	10	2.8	0.4

SE OF ORIG = 0.031 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	7.3	141	129	43.23	IPC	1.80	1.77			0.04	1.053										310	60	2.83	
817	10.3	309	120	43.71	IPC	2.28	2.20			0.09	1.053		45.36	3.93	3.84	0.09	0.737				310	50	2.63	
34	13.9	109	112	44.17	IPC	2.74	2.79			-0.04	1.053										310	92	3.13	
815	16.4	246	109	44.56	IPC	3.13	3.21			-0.07	1.053		46.98	5.55	5.61	-0.06	0.737				310	83	3.13	
81	18.6	350	107	44.89	IPC	3.46	3.57			-0.10	1.053										310	41	2.53	
812	29.1	188	65	46.84	IPC	5.41	5.37			0.05	1.053										310	71	3.03	
811	36.8	154	65	48.05	IPC	6.62	6.61			0.01	1.053										310	31	2.33	
85	38.1	132	65	48.18	IPD	6.75	6.82			-0.07	1.053										310	100	3.33	
86	46.1	131	65	49.63	EP	8.20	8.13			0.08	1.053										310	26	2.23	
39	49.7	144	65	50.13	IPC	8.70	8.71			0.00	1.053										310	64	3.03	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	SE	SW	NE	NW	E	Z
AVE. OF END POINTS	0.09	0.12	0.13	0.15	0.15	0.19	0.20

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.07	0.02	0.15	D

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/10 23/35 83/11/10 23/35

	HORIZONTAL		VERTICAL	
SE =	0.41	SE =	0.56	SE = 1.32 QUALITY = A
AZ =	-20.	AZ =	-110.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SOD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831110	2335 36.95	44N 8.36	113W57.70	12.26	3.20	28	8	79	1	0.12	0.6	1.3	A	A|A	1.80	10	45	0.00	0.08	0	0.0	0.0	9	3.2	0.3

SE OF ORIG = 0.065 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR	O=TTOB	TTCAL	DELAY	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	KMAG	R	FMP	FMAG
916	5.3	6	155	39.24	IPO		2.29	2.33			-0.04	1.011										309	100	3.23	
ANPI	6.5	327	150	39.23	PDO		2.28	2.42			-0.14	1.011		0.00	-36.95	4.23	-41.18	0.000				309		3	
9-2	7.7	70	145	39.70	PCO		2.75	2.52	0.17		0.06	1.011		0.00	-36.95	4.41	-41.66	0.000				309		3	
WSUI	8.9	12	141	39.67	PDO		2.72	2.64			0.08	1.011		0.00	-36.95	4.63	-41.58	0.000				309		3	
MBAI	9.4	97	140	39.75	PCO		2.80	2.69			0.11	1.011		0.00	-36.95	4.71	-41.66	0.000				309		3	
M-1	11.0	135	135	40.09	P+0		3.14	2.87	0.30		-0.03	1.011		0.00	-36.95	5.03	-42.50	0.000				309		3	
84	11.1	55	135	39.80	IPC		2.85	2.87			-0.02	1.011										309	140	3.53	
NSUI	11.4	12	134	39.95	PDO		3.00	2.91			0.09	1.011		0.00	-36.95	5.09	-42.05	0.000				309		3	
8RPI	13.3	177	129	40.08	PDO		3.13	3.14			-0.01	1.011		41.88	4.93	5.50	-0.57	0.000				309		3	
OSPI	13.6	50	128	40.16	PCO		3.21	3.18			0.03	1.011		0.00	-36.95	5.57	-42.52	0.000				309		3	
NWSI	13.7	340	128	40.12	PDO		3.17	3.19			-0.02	1.011		0.00	-36.95	5.58	-42.53	0.000				309		3	
8SU3	17.7	342	120	40.48	PDO		3.53	3.73			-0.20	1.011		0.00	-36.95	6.52	-43.47	0.000				309		3	
8RCI	18.9	203	118	40.82	PCO		3.87	3.90			-0.03	1.011		43.12	6.17	6.83	-0.66	0.000				309		3	
812	19.5	204	117	41.00	IPC		4.05	3.99			0.06	1.011		43.82	6.87	6.98	-0.11	0.708				309	112	3.43	
815	19.6	283	117	40.97	IPO		4.02	4.00			0.02	1.011										309		3	
LSGS	19.9	85	116	41.04	PCO		4.09	4.05			0.04	1.011		0.00	-36.95	7.09	-44.04	0.000				309		3	
LCRI	20.3	122	116	41.06	PCO		4.11	4.10			0.01	1.011		0.00	-36.95	7.17	-44.12	0.000				309		3	
817	21.3	325	115	41.13	IPO		4.18	4.24			-0.06	1.011										309	91	3.23	
CGI	22.2	30	114	41.45	P 0		4.50	4.37			0.13	1.011		0.00	-36.95	7.65	-44.60	0.000				309		3	
811	25.1	151	110	41.87	IPC		4.92	4.83			0.09	1.011										309	69	3.03	
RCI	25.2	283	110	41.90	P 0		4.95	4.84			0.11	1.011		45.00	8.05	8.47	-0.42	0.000				309		3	
85	28.2	121	107	42.22	IP		5.27	5.29			-0.02	1.011										309	150	3.73	
81	30.2	346	106	42.60	IP		5.65	5.61			0.04	1.011										309	58	2.83	
MIR	32.6	340	104	43.20	P 0		6.25	5.98			0.27	1.011		0.00	-36.95	10.46	-47.41	0.000				309		3	
GCI	35.7	10	103	43.04	PCO		6.09	6.47			-0.38	1.011		46.64	9.69	11.32	-1.63	0.000				309		3	
86	36.2	122	183	43.51	IPO		6.56	6.55			0.01	1.011										309	47	2.73	
89	38.5	140	102	43.76	EP		6.81	6.91			-0.10	1.011										309	90	3.33	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	E	NW	SE	N
AVE. OF END POINTS	0.25	0.63	0.63	0.73	0.76	0.78	0.92

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
28	0.12	0.23	0.70	8

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	0.57	SE =	0.79	SE = 1.79 QUALITY = A
AZ =	-43.	AZ =	-133.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	318 11.76	44N 9.92	113W59.64	10.72	2.60	31	7	81	1	0.17	0.8	1.8	8	8JA	0.23	10	56	0.00	0.13	0	0.0	0.0	9	2.6	0.2

SE OF ORIG = 0.080 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT		THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	2.7	339	165	13.60	P 0	1.84	1.95	-0.10	1.020			0.00	-11.76	3.41	-15.16	0.000				312			3
816	3.9	52	158	13.86	IP	2.10	2.01	0.09	1.020			16.66	4.90	3.52	1.39	0.000				312	57	2.73	
WSUI	7.3	37	143	13.92	P	2.16	2.29	-0.12	1.020											312			3
NSUI	9.6	31	134	14.36	PC0	2.60	2.53	0.07	1.020			0.00	-11.76	4.43	-16.19	0.000				312			3
M-2	9.8	91	134	14.49	PC0	2.73	2.55	0.01	1.020	0.17		0.00	-11.76	4.47	-16.52	0.000				312			3
NWSI	10.2	348	132	14.29	PD0	2.53	2.60	-0.06	1.020			15.65	4.09	4.55	-0.45	0.000				312			3
84	12.1	73	127	14.41	IP	2.65	2.83	-0.18	1.020			59.91	48.15	4.96	43.20	0.000				312	52	2.73	
MBAI	12.6	109	126	15.05	P-0	3.29	2.89	0.41	1.020			0.00	-11.76	5.05	-16.81	0.000				312			3
BSU3	14.2	349	122	15.17	P-	3.41	3.12	0.29	1.020											312			3
OSPI	14.3	65	122	14.96	P-0	3.20	3.13	0.08	1.020			16.46	4.70	5.47	-0.77	0.000				312			3
M-1	14.9	136	120	15.28	PC0	3.52	3.22	0.01	1.020	0.30		17.68	5.92	5.63	-0.23	0.000				312			3
BRPI	16.5	168	117	15.36	PC0	3.60	3.44	0.16	1.020			17.56	5.80	6.02	-0.22	0.000				312			3
815	16.6	275	117	15.20	IPD	3.44	3.45	-0.01	1.020			17.56	5.80	6.04	-0.24	0.714				312	59	2.83	
817	17.5	327	115	15.17	IPD	3.41	3.57	-0.16	1.020			17.80	6.04	6.25	-0.21	0.714				312	40	2.53	
BRCI	20.9	193	110	15.87	PC0	4.11	4.09	0.02	1.020			17.77	6.01	7.16	-1.15	0.000				312			3
SGF	21.2	126	110	15.88	P+	4.12	4.14	-0.02	1.020			18.88	7.12	7.25	-0.13	0.000				312			3
CGI	21.3	40	110	15.95	PC0	4.19	4.16	0.04	1.020			18.75	6.99	7.28	-0.28	0.000				312			3
812	21.4	194	110	16.05	IPC	4.29	4.17	0.12	1.020			19.85	8.09	7.30	0.79	0.000				312	47	2.63	
RCI	22.1	277	109	16.12	PD0	4.36	4.29	0.08	1.020			0.00	-11.76	7.50	-19.26	0.000				312			3
LSGS	22.4	93	108	16.09	P-0	4.33	4.33	0.00	1.020			0.00	-11.76	7.58	-19.34	0.000				312			3
LCRI	24.0	125	107	16.03	P 0	4.27	4.58	-0.30	1.020			0.00	-11.76	8.01	-19.77	0.000				312			3
81	26.8	350	104	16.64	EPC	4.88	5.01	-0.12	1.020			59.92	48.16	8.77	39.40	0.000				312	32	2.33	
811	28.9	149	103	17.06	IPC	5.30	5.33	-0.03	1.020			21.73	9.97	9.33	0.64	0.000				312	26	2.13	
MIR	29.0	343	103	17.60	PC0	5.84	5.35	0.49	1.020			0.00	-11.76	9.36	-21.12	0.000				312			3
85	31.9	123	101	17.68	IP	5.92	5.82	0.10	1.020			23.01	11.25	10.19	1.07	0.000				312	61	2.73	
GCI	33.4	15	100	17.63	PC0	5.87	6.07	-0.19	1.020			0.00	-11.76	10.62	-22.37	0.000				312			3
86	40.0	124	98	18.73	EPD	6.97	7.11	-0.14	1.020			20.11	8.35	12.45	-4.09	0.000				312			3
39	42.4	140	97	19.14	EPD	7.38	7.50	-0.11	1.020			24.50	12.74	13.12	-0.38	0.000				312	48	2.73	
MDCI	47.3	116	96	19.93	PD0	8.17	8.29	-0.12	1.020			24.08	12.32	14.51	-2.18	0.000				312			3

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	N	SE
AVE. OF END POINTS	0.24	0.54	0.56	0.77	0.82	0.86	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
31	0.17	0.25	0.70	B

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 3/15 83/11/11 3/15

	HORIZONTAL		VERTICAL	
SE =	0.50	SE =	0.74	SE = 1.22 QUALITY = A
AZ =	-31.	AZ =	-121.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SCD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	315 24.22	44N12.62	114W 1.96	10.28	2.68	29	7	70	1	0.14	0.7	1.2	A	A|A	0.56	10	54	0.00	0.12	0	0.0	0.0	10	2.7	0.3

SE OF ORIG = 0.059 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)												
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	3.3	139	161	25.94	P 0	1.72	1.90			-0.18	1.021		0.00	-24.22	3.33	-27.55	0.000				311		3	
NWSI	5.0	11	152	26.16	P+0	1.94	2.02			-0.08	1.021		0.00	-24.22	3.54	-27.76	0.000				311		3	
B16	6.7	113	144	26.31	IPC	2.09	2.17			-0.08	1.021		28.33	4.11	3.80	0.32	0.715				311	69	2.93	
WSUI	7.5	83	140	26.37	P	2.15	2.25			-0.10	1.021										311		3	
NSUI	8.7	68	136	26.53	PC0	2.31	2.38			-0.06	1.021		0.00	-24.22	4.16	-20.30	0.000				311		3	
BSU3	9.0	2	135	26.86	PC	2.64	2.41			0.24	1.021										311		3	
B17	11.6	327	127	26.70	IPD	2.56	2.72			-0.16	1.021		28.47	4.25	4.76	-0.50	0.000				311	44	2.53	
B15	13.9	255	121	27.14	IPD	2.92	3.04			-0.12	1.021		29.11	4.09	5.32	-0.43	0.000				311	54	2.73	
M-2	13.9	112	121	27.39	PC0	3.17	3.04	0.17		-0.04	1.021		0.00	-24.22	5.32	-29.04	0.000				311		3	
B4	14.8	96	119	27.30	IPC	3.00	3.16			-0.08	1.021		29.16	4.94	5.53	-0.59	0.000				311	90	3.23	
DSPI	16.1	87	116	27.54	PC0	3.32	3.34			-0.02	1.021		0.00	-24.22	5.85	-30.07	0.000				311		3	
MBAI	17.5	121	114	27.08	PC0	3.66	3.56			0.10	1.021		0.00	-24.22	6.23	-30.45	0.000				311		3	
RCI	19.0	263	111	28.12	PD0	3.90	3.79			0.11	1.021		0.00	-24.22	6.63	-30.05	0.000				311		3	
CGI	20.2	56	110	28.25	PC4	4.03	3.97			0.06	0.000		0.00	-24.22	6.95	-31.16	0.000				311		3	
M-1	20.7	139	109	20.68	PC0	4.46	4.04	0.30		0.12	1.021		0.00	-24.22	7.07	-31.02	0.000				311		3	
OI	21.4	355	100	28.31	IPC	4.09	4.16			-0.07	1.021		31.65	7.43	7.28	0.16	0.715				311	41	2.53	
BRPI	22.1	163	107	28.61	PC0	4.39	4.26			0.13	1.021		31.96	7.74	7.46	0.20	0.000				311		3	
HIR	23.4	346	106	20.90	PD0	4.60	4.45			0.23	1.021		0.00	-24.22	7.79	-32.01	0.000				311		3	
BRCI	25.4	184	104	28.02	P+0	4.60	4.76			-0.16	1.021		0.00	-24.22	0.33	-32.55	0.000				311		3	
B12	25.0	105	104	29.03	EPC	4.01	4.03			-0.02	1.021		31.85	7.63	0.45	-0.02	0.000				311	55	2.83	
LSGS	26.2	104	103	28.94	PC0	4.72	4.90			-0.17	1.021		0.00	-24.22	0.57	-32.79	0.000				311		3	
SGF	26.7	131	103	29.15	P-	4.93	4.97			-0.04	1.021		32.39	8.17	0.71	-0.53	0.000				311		3	
LCRI	29.5	129	101	29.43	P 0	5.21	5.43			-0.22	1.021		0.00	-24.22	9.50	-33.72	0.000				311		3	
GCI	29.7	24	101	29.54	PC0	5.32	5.47			-0.14	1.021		0.00	-24.22	9.56	-33.70	0.000				311		3	
BII	34.8	149	99	30.71	IPC	6.49	6.27			0.22	1.021		35.33	11.11	10.97	0.14	0.000				311	29	2.23	
B5	37.3	127	98	30.91	IPC	6.69	6.67			0.02	1.021		32.41	0.19	11.60	-3.49	0.000				311	68	3.03	
B6	45.4	127	96	32.36	EP	0.14	7.97			0.17	1.021		37.88	13.66	13.96	-0.29	0.000				311	24	2.13	
B9	40.2	141	95	32.70	EP	8.40	8.43			0.06	1.021		36.55	12.33	14.75	-2.41	0.000				311	57	2.93	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	SE	N
AVE. OF END POINTS	0.30	0.51	0.59	0.69	0.73	0.07	0.91

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
29	0.14	0.33	0.69	A

----------END----------END----------END----------END----------

	HORIZONTAL		VERTICAL	
SE =	1.67	SE =	3.82	SE = 11.83 QUALITY = D
AZ =	-7.	AZ =	-97.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	544 25.88	44N13.73	114W25.51	7.12		20	32	279	1	0.19	3.8	11.8	D	C|D	0.22	10	36	0.00	0.15	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.319 7 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
RC1	13.2	109	103	28.63	P+0	2.75	2.73			0.03	1.015		0.00	-25.88	4.77	-30.65	0.000							
BSU3	32.4	78	90	31.57	PC	5.69	5.84			-0.15	1.015													
NWSI	32.5	85	90	31.47	P+0	5.59	5.86			-0.26	1.015		35.38	9.50	10.25	-0.74	0.000							
HIR	33.0	51	90	31.60	PC0	5.72	5.95			-0.22	1.015		0.00	-25.88	10.41	-36.28	0.000							
ANPI	33.8	98	90	31.90	PC0	6.02	6.07			-0.05	1.015		0.00	-25.88	10.63	-36.50	0.000							
WSUI	38.9	92	90	32.73	P	6.85	6.90			-0.04	1.015													
NSUI	39.5	88	90	32.51	PC0	6.63	6.99			-0.36	1.015		0.00	-25.88	12.24	-38.11	0.000							
BRCI	40.4	133	90	32.87	P-0	6.99	7.15			-0.15	1.015		38.12	12.24	12.50	-0.26	0.000							
BRPI	44.4	122	90	33.56	PC0	7.68	7.80			-0.12	1.015		40.26	14.38	13.65	0.74	0.000							
M-2	44.9	99	90	34.14	P00	8.26	7.87	0.17		0.22	1.015		0.00	-25.88	13.77	-39.95	0.000							
DSPI	47.4	91	90	34.21	P00	8.33	8.29			0.05	1.015		39.76	13.88	14.50	-0.62	0.000							
MBAI	47.7	103	90	34.43	P-0	8.55	8.32			0.23	1.015		0.00	-25.88	14.57	-40.44	0.000							
M-1	48.3	111	90	34.77	P 0	8.89	8.43	0.30		0.16	1.015		0.00	-25.88	14.76	-41.16	0.000							
CGI	49.0	79	90	34.45	P00	8.57	8.53			0.04	1.015		0.00	-25.88	14.93	-40.81	0.000							
GCI	50.1	60	90	35.03	P 0	9.15	8.71			0.44	1.015		0.00	-25.88	15.25	-41.12	0.000							
SGF	55.2	111	90	35.59	P	9.71	9.55			0.16	1.015		42.54	16.66	16.71	-0.05	0.711							
LSGS	57.5	98	90	35.87	P00	9.99	9.91			0.08	1.015		0.00	-25.88	17.35	-43.23	0.000							
LCRI	58.1	111	90	35.83	P 0	9.95	10.01			-0.06	1.015		43.13	17.25	17.53	-0.27	0.000							
MOCI	81.9	110	90	39.79	P-0	13.91	13.88			0.03	1.015		0.00	-25.88	24.29	-50.17	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	Z	NE	SE	NW	SW	N
AVE. OF END POINTS	0.00	0.02	0.03	0.03	0.05	0.06	0.08

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
13	0.19	-0.02	0.04	D

	HORIZONTAL		VERTICAL	
SE =	0.37	SE = 0.51	SE = 1.16	QUALITY = A
AZ =	-37.	AZ = -127.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	5 8 48.14	44N10.09	113W59.63	10.58	3.06	31	7	80	1	0.11	0.5	1.2	A	A|A	0.15	10	66	0.00	0.09	0	0.0	0.0	14	3.1	0.3

SE OF ORIG = 0.051 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	2.4	336	166	49.95	P 0		1.81	1.91			-0.10	1.020		0.00		-48.14	3.35	-51.49	0.000			313			3
816	3.7	56	159	49.98	IPD		1.84	1.98			-0.14	1.020		53.24	5.10	3.46	1.64	0.000				313	T3		2.93
WSUI	7.1	38	143	50.37	P		2.23	2.24			-0.01	1.020										313			3
NSUI	9.3	32	135	50.51	PDO		2.37	2.48			-0.11	1.020		0.00		-48.14	4.35	-52.49	0.000			313			3
M-2	9.8	93	133	50.94	PCO		2.80	2.54	0.17		0.09	1.020		0.00		-48.14	4.44	-52.88	0.000			313			3
NWSI	9.9	347	133	50.69	PDO		2.55	2.55			0.01	1.020		0.00		-48.14	4.46	-52.59	0.000			313			3
84	12.0	75	127	50.94	IPC		2.80	2.80			0.00	1.020		54.71	6.57	4.91	1.67	0.000				313	94		3.23
MBAI	12.7	110	125	51.28	PCO		3.14	2.88			0.26	1.020		0.00		-48.14	5.05	-53.19	0.000			313			3
8SU3	13.9	348	122	51.40	PD		3.26	3.07			0.20	1.020										313			3
DSPI	14.1	67	121	51.26	PCO		3.12	3.09			0.03	1.020		0.00		-48.14	5.41	-53.55	0.000			313			3
M-1	15.1	136	119	51.72	PCO		3.58	3.24	0.30		0.05	1.020		0.00		-48.14	5.66	-54.32	0.000			313			3
815	16.6	274	116	51.59	IPD		3.45	3.44			0.01	1.020		54.06	5.92	6.02	-0.10	0.714				313	68		2.93
8RPI	16.8	169	116	51.75	PCO		3.61	3.48			0.14	1.020		54.95	6.81	6.08	0.73	0.000				313			3
817	17.2	326	115	51.52	IPD		3.38	3.53			-0.14	1.020		55.49	7.35	6.17	1.18	0.000				313	46		2.63
CGI	21.8	41	110	52.25	PDO		4.11	4.11			0.00	1.020		0.00		-48.14	7.19	-55.33	0.000			313			3
8RCI	21.2	193	109	52.28	PCO		4.14	4.13			0.01	1.020		0.00		-48.14	7.24	-55.37	0.000			313			3
SGF	21.4	127	109	52.28	P		4.14	4.16			-0.02	1.020		55.27	7.13	7.29	-0.15	0.000				313			3
812	21.7	194	109	52.43	IPC		4.29	4.21			0.08	1.020		56.05	7.91	7.38	0.54	0.000				313	67		2.93
RCI	22.1	276	108	52.33	PDO		4.19	4.28			-0.09	1.020		0.00		-48.14	7.49	-55.62	0.000			313			3
LSGS	22.4	94	108	52.44	PCO		4.30	4.33			-0.02	1.020		53.70	5.56	7.57	-2.01	0.000				313			3
LCRI	24.2	126	106	52.63	PDO		4.49	4.60			-0.10	1.020		0.00		-48.14	8.04	-56.18	0.000			313			3
31	26.5	349	104	53.00	IPD		4.86	4.95			-0.09	1.020		56.96	8.82	8.67	0.15	0.714				313	52		2.73
MIR	28.7	342	103	53.70	PCO		5.56	5.30			0.27	1.020		0.00		-48.14	9.27	-57.41	0.000			313			3
811	29.2	150	102	53.62	IPC		5.48	5.38			0.10	1.020		57.82	9.68	9.42	0.26	0.000				313	37		2.43
85	32.0	124	101	54.01	IPD		5.87	5.84			0.03	1.020		58.21	10.07	10.22	-0.15	0.000				313	81		3.13
GCI	33.1	16	100	54.03	PCO		5.89	6.01			-0.12	1.020		0.00		-48.14	10.52	-58.66	0.000			313			3
86	40.1	124	98	55.12	IPD		6.98	7.14			-0.15	1.020		60.13	11.99	12.49	-0.50	0.000				313	81		3.23
99	42.6	140	97	55.63	IPD		7.49	7.53			-0.04	1.020		61.20	13.06	13.18	-0.12	0.000				313	67		3.03
MDCI	47.4	116	96	56.29	PDO		8.15	8.31			-0.15	1.020		60.49	12.35	14.54	-2.19	0.000				313			3
JGI	105.8	95	65	10.99	P 4		22.85	17.58			5.27	0.000		0.00		11.86	30.77	-18.91	0.000			313	60		3.13
GBI	155.9	97	65	13.77	P 0		25.63	24.95			0.68	0.000		31.44		43.30	43.66	-0.36	0.000			313	65		3.43
TMI	192.8	120	50	18.80	P 0		30.66	30.36			0.31	00.000		0.00		11.86	53.12	-41.26	0.000			313	66		3.53
IMW	246.9	97	50	26.66	P 0		38.52	37.11			1.41	00.000		0.00		11.86	64.94	-53.08	0.000			313	68		3.73
MLI	282.4	147	50	32.22	P 0		44.08	41.55			2.53	00.000		0.00		11.86	72.71	-60.85	0.000			313			3

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	SE	N
AVE. OF END POINTS	0.27	0.60	0.62	0.82	0.95	0.94	0.94

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
31	0.11	0.27	0.75	8

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 7/51 83/11/11 7/51

HORIZONTAL		VERTICAL	
SE = 0.55	SE = 0.63	SE = 1.00	QUALITY = A
AZ = -16.	AZ = -106.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SOD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	751 7.06	44N17.34	114W 4.71	7.22	2.57	30	6	64	1	0.12	0.6	1.0	A	A|A	0.47	10	56	0.00	0.10	0	0.0	0.0	10	2.6	0.2

SE OF ORIG = 0.048 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-D=	TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	2.9	288	155	8.41	IPD			1.35	1.42			-0.07	1.020		9.49	2.43	2.48	-0.05	0.714				315	35	2.33	
8SU3	4.0	87	147	8.77	PD			1.71	1.51			0.20	1.020										315		3	
NWSI	6.0	129	134	8.72	PD0			1.66	1.71			-0.05	1.020		0.00	-7.06	3.00	-10.06	0.000				315		3	
ANPI	12.6	153	106	9.60	P 0			2.54	2.64			-0.10	1.020		0.00	-7.06	4.63	-11.69	0.000				315		3	
91	12.8	9	105	9.69	EPD			2.63	2.67			-0.03	1.020		12.11	5.05	4.66	0.39	0.000				315	36	2.33	
NSUI	13.0	115	105	9.79	PD0			2.73	2.69			0.04	1.020		0.00	-7.06	4.71	-11.77	0.000				315		3	
WSUI	13.6	125	102	9.86	P			2.80	2.80			0.00	1.020										315		3	
HIR	14.1	352	101	10.10	PC0			3.04	2.87			0.17	1.020		0.00	-7.06	5.02	-12.08	0.000				315		3	
816	15.0	139	98	10.02	IPD			2.96	3.02			-0.06	1.020		12.24	5.18	5.28	-0.10	0.714				315	54	2.73	
815	15.7	218	96	10.18	IPC			3.12	3.13			-0.01	1.020		12.31	5.25	5.47	-0.22	0.000				315	56	2.73	
RCI	18.8	234	93	10.63	P 0			3.57	3.63			-0.06	1.020		0.00	-7.06	6.35	-13.41	0.000				315		3	
CGI	20.6	83	92	10.85	P 0			3.79	3.92			-0.13	1.020		13.55	6.49	6.86	-0.37	0.000				315		3	
84	21.0	119	92	10.99	EP			3.93	3.99			-0.06	1.020		13.63	6.57	6.99	-0.42	0.000				315	61	2.83	
DSPI	21.2	112	92	11.04	PC0			3.98	4.02			-0.04	1.020		0.00	-7.06	7.03	-14.09	0.000				315		3	
M-2	21.7	130	92	11.48	P-0			4.42	4.10	0.17		0.15	1.020		0.00	-7.06	7.18	-14.53	0.000				315		3	
GCI	24.2	40	91	11.43	PC0			4.37	4.50			-0.13	1.020		14.63	7.57	7.88	-0.31	0.000				315		3	
MBAI	25.8	134	91	11.89	P+0			4.83	4.76			0.07	1.020		0.00	-7.06	8.33	-15.39	0.000				315		3	
M-1	29.8	145	91	13.16	PD0			6.10	5.42	0.30		0.38	1.020		0.00	-7.06	9.49	-17.07	0.000				315		3	
8RPI	31.6	161	91	12.91	PC0			5.85	5.71			0.14	1.020		15.71	8.65	9.99	-1.34	0.000				315		3	
LSGS	32.8	117	91	13.04	PD0			5.98	5.90			0.08	1.020		0.00	-7.06	10.32	-17.38	0.000				315		3	
8RCI	34.1	177	91	13.21	P-0			6.15	6.12			0.03	1.020		17.76	10.70	10.70	0.00	0.000				315		3	
812	34.5	178	91	13.12	IP			6.06	6.18			-0.12	1.020		16.05	10.99	10.81	0.18	0.000				315	45	2.63	
SGF	35.5	138	91	13.21	P			6.15	6.34			-0.18	1.020		17.79	10.73	11.09	-0.36	0.000				315		3	
LCRI	38.1	136	91	13.64	P 0			6.58	6.77			-0.19	1.020		0.00	-7.06	11.85	-18.91	0.000				315		3	
811	44.2	151	90	15.12	EP 4			8.06	7.75			0.31	0.000		59.94	52.88	13.56	39.32	0.000				315	28	2.23	
85	45.7	133	90	15.10	EPD			8.04	8.00			0.04	1.020		59.90	52.84	14.01	38.83	0.000				315	57	2.93	
86	53.8	132	90	16.41	IP			9.35	9.31			0.04	1.020		17.41	10.35	16.29	-5.94	0.000				315	37	2.53	
89	57.3	143	90	17.04	EP			9.98	9.88			0.10	1.020		59.89	52.83	17.29	35.54	0.000				315	40	2.63	
MDCI	60.1	125	90	17.28	PC0			10.22	10.33			-0.11	1.020		0.00	-7.06	18.08	-25.14	0.000				315		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	SE	N
AVE. OF END POINTS	0.34	0.57	0.58	0.59	0.68	0.77	0.78

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
30	0.12	0.40	0.64	A

----------END----------END----------END----------END----------

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/11     6/ 3                                                                                                  83/11/11     6/ 3

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.76              SE =    1.61              SE =  18.57   QUALITY = D
                                          AZ =     -6.              AZ =    -96.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111  6 3 56.01 44N15.12 114W28.47   7.76   2.56 19 35 286 1 0.10  1.6 18.6 D C|D 0.08 10 26 0.00 0.08  0  0.0  0.0 13  2.6  0.3
SE OF ORIG =  0.125          9 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
815   23.4 111  95  0.46IPD          4.45  4.38              0.07 1.050       0.81  4.80  7.66 -2.87 0.000            314  59 2.83
817   29.3  80  93  1.29IPC          5.28  5.34             -0.06 1.050       5.29  9.28  9.34 -0.07 0.735            314  37 2.43
HIR   34.8  59  92 62.36IPC          6.35  6.22              0.12 1.050                                                314        3
NWSI  36.2  90  92 62.35EP           6.34  6.46             -0.12 1.050                                                314  21 2.03
81    37.5  63  92  2.68IPC          6.67  6.66              0.01 1.050       7.08 11.07 11.66 -0.59 0.000            314  40 2.53
816   42.1 100  92  3.33IPC          7.32  7.42             -0.10 1.050       8.54 12.53 12.98 -0.45 0.000            314  42 2.63
NSUI  43.4  92  91  3.61EPC          7.60  7.62             -0.03 1.050                                                314  47 2.73
812   44.9 132  91  3.82EPD          7.81  7.87             -0.06 1.050       9.82 13.81 13.77  0.03 0.735            314  45 2.63
8RPI  49.1 122  91  4.51EPD          8.50  8.55             -0.06 1.050                                                314  40 2.63
84    50.4  97  91  4.77IPD          8.76  8.75              0.00 1.050      11.81 15.80 15.32  0.40 0.000            314  71 3.13
OSPI  51.5  94  91 65.16EPD          9.15  8.93              0.21 1.050                                                314        3
GCI   52.3  64  91 64.99IPC          8.98  9.07             -0.09 1.050                                                314        3
811   63.5 123  91  6.84EPD         10.83 10.89             -0.06 1.050      15.59 19.58 19.05  0.52 0.000            314  26 2.23
85    70.6 113  91  8.20IPD         12.19 12.04              0.15 1.050      17.10 21.09 21.07  0.02 0.735            314  54 2.93
89    78.1 122  91  9.14EP          13.13 13.26             -0.13 1.050      17.15 21.14 23.20 -2.07 0.000            314  48 2.83
86    78.5 114  91  9.51EPD         13.50 13.32              0.17 1.050      18.63 22.62 23.31 -0.70 0.000            314  22 2.13

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E    NW     Z     N    SE    SW    NE
AVE. OF END POINTS                 0.07  0.09  0.10  0.13  0.15  0.17  0.19

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 9      0.10      0.03      0.13         D

____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 10/32 83/11/11 10/32

	HORIZONTAL		VERTICAL	
SE =	0.92	SE = 1.18	SE = 1.94	QUALITY = A
AZ =	-35.	AZ = -125.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	1032 54.40	44N12.54	114W 2.69	4.95	2.32	11	13	97	1	0.13	1.2	1.9	B	B18	0.27	10	20	0.00	0.12	0	0.0	0.0	9	2.3	0.3

SE OF ORIG = 0.064 9 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)	
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	7.6	109	121	56.20IPC	1.80	1.66	0.14	1.028	59.94	5.54	2.91	2.63	0.000				36	2.3	
817	11.2	331	112	56.58IPD	2.18	2.25	-0.07	1.028	58.48	4.08	3.94	0.14	0.720						
815	12.9	255	109	56.95IPC	2.55	2.54	0.01	1.028	60.15	5.75	4.45	1.30	0.000				46	2.5	
84	15.7	95	105	57.29IPD	2.89	3.02	-0.13	1.028	59.35	4.95	5.28	-0.33	0.000				53	2.7	
81	21.5	358	101	58.37IPD	3.97	4.02	-0.05	1.028	61.21	6.81	7.03	-0.23	0.000				27	2.1	
812	25.6	183	99	59.00IPC	4.60	4.75	-0.15	1.028	63.10	8.70	8.31	0.39	0.000				45	2.6	
811	35.2	148	97	60.99IPC	6.59	6.44	0.15	1.028	59.94	5.54	11.27	-5.74	0.000				21	1.9	
85	38.0	126	65	61.08IP	6.68	6.91	-0.23	1.028	66.50	12.10	12.09	0.01	0.000				42	2.5	
86	46.1	126	65	62.73EPD	8.33	8.22	0.11	1.028	59.93	5.53	14.38	-8.86	0.000				17	1.8	
89	48.7	140	65	63.18EPD	8.78	8.64	0.13	1.028	69.19	14.79	15.13	-0.34	0.000				36	2.4	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SW	SE	Z	N	NE	NW	E
AVE. OF END POINTS	0.00	0.05	0.09	0.10	0.11	0.11	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
4	0.13	-0.04	0.09	0

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 14/13 83/11/11 14/13

	HORIZONTAL		VERTICAL	
SE =	0.32	SE = 0.46	SE = 0.66	QUALITY = A
AZ =	-68.	AZ = 22.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
83111I	1413 58.19	44N12.64	113W57.72	4.71	1.39	8	19	119	1	0.04	0.5	0.7	B	A18	0.50	10	16	0.00	0.03	0	0.0	0.0	6	1.4	0.3

SE OF ORIG = 0.031 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)	
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	2.7	168	149	59.25IPC	1.06	1.01	0.06	1.039	62.15	3.96	1.76	2.20	0.000			319	15	1.53	
84	9.2	100	115	0.08IPC	1.89	1.90	-0.01	1.039	1.50	3.31	3.33	-0.02	0.727			319		3	
815	19.4	259	102	1.80IPD	3.61	3.64	-0.03	1.039	59.90	61.71	6.37	55.34	0.000			319	15	1.63	
81	22.6	341	100	2.40IPD	4.21	4.21	0.01	1.039	4.10	5.91	7.36	-1.45	0.000			319	6	0.83	
812	26.9	197	98	3.14EPC	4.95	4.98	-0.02	1.039	59.94	61.75	8.71	53.04	0.000			319	15	1.63	
811	32.3	158	97	4.75EPD4	6.56	5.92	0.64	0.000	59.95	61.76	10.36	51.40	0.000			319	11	1.43	
85	33.0	133	97	4.18IPD	5.99	6.05	-0.05	1.039	8.15	9.96	10.59	-0.62	0.000			319		3	
89	44.8	146	65	6.28EPD	8.09	8.04	0.06	1.039	11.88	13.69	14.06	-0.37	0.000			319	12	1.53	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	SE	N	E
AVE. OF END POINTS	0.37	0.74	0.83	0.99	1.02	1.02	1.19

```
-----------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/11     9/25                                                                                83/11/11     9/25

                                          HORIZONTAL                                  VERTICAL
                                     SE =   0.33              SE =   0.46              SE =   1.08   QUALITY = A
                                     AZ =   -62.              AZ =    28.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111  925  8.66 44N14.25 114W 3.17   8.96   2.21 11 14 106 1 0.04  0.5  1.1 B A|B 0.07 10 19 0.00 0.04  0  0.0  0.0 10  2.2  0.2
SE OF ORIG =  0.041          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    8.2 324 133 10.78IPD          2.12  2.16              -0.05 1.028       11.74  3.08  3.79 -0.71 0.000           316  25 2.03
816    9.6 126 127 11.03IPC          2.37  2.34               0.03 1.028       12.94  4.28  4.09  0.19 0.000           316  34 2.33
815   13.5 241 116 11.58IPD          2.92  2.88               0.04 1.028       13.81  5.15  5.03  0.11 0.000           316  40 2.43
84    16.9 106 109 12.01IPC          3.35  3.39              -0.04 1.028       14.61  5.95  5.94  0.01 0.720           316  39 2.43
81    18.3 360 107 12.30IPC          3.64  3.61               0.03 1.028       16.39  7.73  6.31  1.41 0.000           316  20 1.93
312   28.8 181  97 13.85IPC          5.19  5.27              -0.08 1.028       59.95 51.29  9.22 42.07 0.000           316  32 2.33
311   38.2 149  95 15.54EPC          6.88  6.80               0.08 1.028       59.94 51.28 11.90 39.38 0.000           316  18 1.83
85    40.4 129  94 15.79IPD          7.13  7.16              -0.03 1.028       20.30 11.64 12.53 -0.89 0.000           316  39 2.53
86    48.5 128  93 17.13IPD          8.47  8.47               0.00 1.028                                              316  24 2.13
39    51.5 141  93 17.63EP           8.97  8.96               0.01 1.028       59.89 51.23 15.67 35.55 0.000           316  28 2.33

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    SW    NW     N     E    NE     Z
AVE. OF END POINTS                  0.11  0.12  0.13  0.14  0.16  0.18  0.28

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   4      0.04      0.00      0.15         D


-----------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/11     9/55                                                                                83/11/11     9/55

                                          HORIZONTAL                                  VERTICAL
                                     SE =   0.42              SE =   0.54              SE =   1.30   QUALITY = A
                                     AZ =   -28.              AZ =  -118.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111  955 48.29 44N11.08 113W59.99   9.16   2.33 11 15  94 1 0.06  0.5  1.3 B A|B 0.08 10 20 0.00 0.04  0  0.0  0.0  9  2.3  0.3
SE OF ORIG =  0.047          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.6  86 157 50.04IPD          1.75  1.76              -0.01 1.028       59.94 11.65  3.07  8.58 0.000           317  41 2.43
84    12.1  84 120 51.00IPD          2.71  2.70               0.01 1.028       53.65  5.36  4.72  0.63 0.000           317  55 2.73
317   15.4 324 113 51.46IPC          3.17  3.18              -0.01 1.028       53.68  5.39  5.56 -0.17 0.000           317  30 2.23
815   16.1 267 111 51.60IPC          3.31  3.28               0.03 1.028       53.61  5.32  5.74 -0.42 0.000           317  43 2.53
312   23.4 192 102 52.63IPC          4.34  4.42              -0.08 1.028       56.05  7.76  7.73  0.03 0.720           317  42 2.53
31    24.6 350 101 52.91IPC          4.62  4.61               0.01 1.028       55.36  7.07  8.07 -1.00 0.000           317  23 2.03
811   31.0 150  97 53.92IPD          5.63  5.63              -0.01 1.028       57.71  9.42  9.86 -0.44 0.000           317  19 1.93
85    33.5 126  96 54.40IPC          6.11  6.03               0.07 1.028       58.55 10.26 10.56 -0.30 0.000           317     3
36    41.6 126  94 55.49IPC          7.20  7.33              -0.14 1.028       57.71  9.42 12.83 -3.42 0.000           317  26 2.23
39    44.3 141  94 56.19IPD          7.90  7.79               0.11 1.028       60.19 11.90 13.64 -1.74 0.000           317  38 2.53

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW     E     Z    SW    NE     N
AVE. OF END POINTS                  0.06  0.13  0.17  0.19  0.21  0.22  0.25
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/11    16/55                                                                                  83/11/11    16/55

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.59              SE =    0.69              SE =    1.31   QUALITY = A
                                            AZ =    -29.              AZ =   -119.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
d31111 1655 34.47 44N13.69 114W 5.79   4.89   2.43 27  8  98 1 0.16  0.7  1.3 8 8|8 0.41 10 52 0.00 0.12  0  0.0  0.0  9  2.4  0.3
SE OF ORIG =  0.056          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   6.7  64 124 36.11 PC0        1.64  1.53              0.11 1.023       0.00-34.47  2.68-37.15 0.000           320        3
B17    7.8 350 120 35.95IP          1.48  1.68             -0.20 1.023      37.47  3.00  2.95  0.05 0.716           320  35 2.33
ANPI   8.5 122 118 36.20 P 0        1.73  1.79             -0.06 1.023       0.00-34.47  3.14-37.61 0.000           320        3
B15   10.0 236 114 36.50IPC         2.03  2.05             -0.02 1.023      37.90  3.43  3.59 -0.16 0.000           320  44 2.53
B16   12.2 112 110 36.77IPC         2.30  2.41             -0.11 1.023      39.05  4.58  4.22  0.36 0.716           320  49 2.63
NSUI  13.2  85 108 37.16 PC0        2.69  2.59              0.10 1.023       0.00-34.47  4.53-39.00 0.000           320        3
RCI   14.4 253 107 37.20 P 0        2.73  2.79             -0.06 1.023       0.00-34.47  4.88-39.35 0.000           320        3
M-2   19.4 112 102 38.26 PC0        3.79  3.65  0.17       -0.03 1.023       0.00-34.47  6.38-41.15 0.000           320        3
B1    19.7  10 102 38.28EPD         3.81  3.69              0.12 1.023      42.07  7.60  6.46  1.14 0.000           320  37 2.43
B4    20.1 100 102 38.10IPC         3.63  3.77             -0.14 1.023      41.30  6.83  6.59  0.24 0.000           320  60 2.93
HIR   20.7 359 101 38.70 PC0        4.23  3.87              0.36 1.023       0.00-34.47  6.78-41.25 0.000           320        3
OSPI  21.2  93 101 38.34 PC0        3.87  3.96             -0.09 1.023       0.00-34.47  6.92-41.39 0.000           320        3
MBAI  22.9 119 100 38.77 PC0        4.30  4.27              0.03 1.023       0.00-34.47  7.47-41.94 0.000           320        3
CGI   23.7  67 100 38.80 PC0        4.33  4.42             -0.09 1.023      42.30  7.83  7.73  0.10 0.000           320        3
M-1   25.7 133  99 40.03 P 3        5.56  4.76  0.30        0.50M0.000       0.00-34.47  8.33-43.32 0.000           320        3
BRPI  25.9 154  99 39.30 P+0        4.83  4.80              0.03 1.023      40.70  6.23  8.40 -2.17 0.000           320        3
BRCI  27.5 173  99 39.70 P-0        5.23  5.08              0.15 1.023      42.10  7.63  8.90 -1.27 0.000           320        3
B12   27.9 174  98 39.58EPC         5.11  5.15             -0.04 1.023      43.49  9.02  9.00  0.02 0.000           320  47 2.63
GCI   30.5  34  98 39.82 PD0        5.35  5.60             -0.25 1.023      42.92  8.45  9.81 -1.36 0.000           320        3
LSGS  31.7 105  97 40.30 PD0        5.83  5.82              0.01 1.023      44.47 10.00 10.18 -0.18 0.000           320        3
SGF   32.0 128  97 39.98 P          5.51  5.87             -0.36 1.023      44.24  9.77 10.27 -0.50 0.000           320        3
LCRI  34.8 127  97 40.95 P 0        6.48  6.37              0.11 1.023       0.00-34.47 11.15-45.62 0.000           320        3
B11   39.3 144  65 41.75IP          7.28  7.12              0.16 1.023      47.30 12.83 12.46  0.37 0.000           320  23 2.03
B5    42.6 125  65 42.00EP          7.53  7.66             -0.13 1.023      48.40 13.93 13.40  0.53 0.000           320  52 2.73
B6    50.7 125  65 43.61EP          9.14  8.97              0.17 1.023      49.93 15.46 15.70 -0.24 0.000           320  20 1.93
MDCI  57.8 118  65 44.54 P-0       10.07 10.12             -0.05 1.023       0.00-34.47 17.71-52.18 0.000           320        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NW    SE    SW    NE     N
AVE. OF END POINTS                  0.06  0.07  0.08  0.08  0.08  0.09  0.14

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                12      0.16      0.04      0.09         0

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/11    16/52                                                                                  83/11/11    16/52

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    2.01              SE =    2.84              SE =  99.00   QUALITY = D
                                          AZ =    -49.              AZ =     41.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111 1652 14.78 44N 6.72 113W53.13   0.00   1.95  4 26 145 1 0.14  2.8 99.0 D C|D 1.54 10 10 0.00 0.13  0  0.0  0.0  5  1.9  0.3
SE OF ORIG = 10.000          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11   19.9 162  58 19.52EPC         4.74  3.77              0.97M0.000      22.70  7.92  6.60  1.32 0.000           321  19 1.83
B12   20.4 224  58 18.78IPC         4.00  3.87              0.13 1.000      21.44  6.66  6.78 -0.11 0.000           321  28 2.13
B5    21.4 123  58 18.76IPC         3.98  4.04             -0.06 1.000      59.90 45.12  7.08 38.05 0.000           321  32 2.23
B15   26.3 286  58 19.50IPD         4.72  4.93             -0.20 1.000      59.90 45.12  8.62 36.50 0.000           321  33 2.33
B1    35.0 337  58 21.39IPC         6.61  6.48              0.13 1.000      34.30 19.52 11.35  8.18 0.000           321  12 1.43

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE     N     E    SE    NW
AVE. OF END POINTS                 0.03  0.53  0.55  0.66  0.69  0.78  0.82

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.14      0.06      0.62         C

____________END_____________________END_____________________END_____________________END____________
```

```
----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------
83/11/11    22/50                                                                  83/11/11    22/50

                                          HORIZONTAL                                VERTICAL
                                   SE =    0.48              SE =    0.71            SE =    1.67   QUALITY = A
                                   AZ =   -42.               AZ =  -132.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND OB GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111 2250 47.94 44N 6.07 113W54.94  10.33   3.08 30  8  66 1 0.15  0.7  1.7 A A|A 0.11 10 72 0.00 0.10  0  0.0  0.0 12  3.1  0.5
SE OF ORIG =  0.071          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-1    5.5 130 150 50.20 PC0        2.26  2.06  0.30       -0.10 1.010        0.00-47.94  3.61-52.07 0.000            324         3
MBAI   6.4  61 145 50.24 PC0        2.30  2.15              0.15 1.010        0.00-47.94  3.76-51.70 0.000            324         3
M-2    7.7  27 140 50.45 P00        2.51  2.28  0.17        0.07 1.010        0.00-47.94  3.99-52.22 0.000            324         3
B13    9.2 260 134 50.45IPC        2.51  2.44              0.08 1.010       52.29  4.35  4.27  0.09 0.000            324  62 2.83
BRPI   9.5 198 133 50.30 PC4        2.36  2.48             -0.11 0.000        0.00-47.94  4.34-52.27 0.000            324         3
B16   10.0 342 131 50.46IPD        2.52  2.54             -0.01 1.010       56.56  8.62  4.44  4.18 0.000            324  59 2.83
FSO   10.9  28 129 50.60 P 0        2.66  2.64              0.03 1.010       52.45  4.51  4.61 -0.10 0.000            324         3
B4    11.9  27 126 50.72IP         2.78  2.76              0.02 1.010       53.30  5.36  4.83  0.53 0.000            324 118 3.43
ANPI  12.1 323 126 50.71 P 0        2.77  2.78             -0.01 1.010        0.00-47.94  4.87-52.81 0.000            324         3
SGF   12.1 116 126 50.67 PC         2.73  2.79             -0.06 1.010       52.64  4.70  4.88 -0.18 0.000            324         3
WSUI  13.1 352 123 50.83 PD         2.89  2.93             -0.04 1.010                                                324         3
DSPI  14.7  27 119 50.75 P+0        2.81  3.15             -0.34 1.010        0.00-47.94  5.52-53.45 0.000            324         3
LCRI  15.0 116 119 51.16 P00        3.22  3.19              0.03 1.010        0.00-47.94  5.59-53.52 0.000            324         3
NSUI  15.4 355 118 51.17 P 0        3.23  3.25             -0.02 1.010        0.00-47.94  5.69-53.63 0.000            324         3
BRCI  17.2 220 114 51.40 PC0        3.46  3.51             -0.05 1.010        0.00-47.94  6.14-54.08 0.000            324         3
LSGS  17.2  70 114 51.66 P+0        3.72  3.51              0.21 1.010        0.00-47.94  6.15-54.08 0.000            324         3
B12   17.9 221 113 51.63IPC        3.69  3.62              0.07 1.010       54.49  6.55  6.34  0.21 0.000            324  75 3.03
BWF   18.8 331 112 51.57 PD         3.63  3.76             -0.13 1.010       54.15  6.21  6.58 -0.37 0.000            324         3
NWSI  19.0 334 111 51.67 P-0        3.73  3.79             -0.06 1.010        0.00-47.94  6.64-54.57 0.000            324         3
B11   19.7 154 111 51.83IPD        3.89  3.89              0.01 1.010       54.75  6.81  6.80  0.01 0.000            324  74 3.03
B5    22.9 117 107 52.40IP         4.46  4.38              0.08 1.010       55.45  7.51  7.67 -0.15 0.000            324 102 3.33
BSU3  22.9 337 107 52.56 P +        4.62  4.39              0.24 1.010                                                324         3
B15   24.4 291 105 52.58IP         4.64  4.61              0.03 1.010       55.55  7.61  8.07 -0.46 0.000            324  92 3.23
CGI   24.6  18 105 52.56 PC0        4.62  4.64             -0.02 1.010       55.76  7.82  8.12 -0.30 0.000            324         3
B17   26.9 324 103 52.76IPD        4.82  5.00             -0.17 1.010       56.46  8.52  8.75 -0.22 0.707            324         3
RCI   29.9 289 101 53.35 PD0        5.41  5.50             -0.09 1.010        0.00-47.94  9.62-57.56 0.000            324         3
B6    30.9 119 101 53.46IPD        5.52  5.66             -0.13 1.010       57.73  9.79  9.90 -0.11 0.000            324  20 1.93
B1    35.3 342  99 54.28IPC        6.34  6.35             -0.01 1.010       50.09  2.15 11.11 -8.96 0.000            324  50 2.73
MIR   37.9 337  98 55.18 PD0        7.24  6.76              0.48 1.010        0.00-47.94 11.84-59.77 0.000            324         3
MDCI  38.8 110  98 54.74 P00        6.80  6.91             -0.11 1.010       59.09 11.15 12.10 -0.94 0.000            324         3
JGI   99.2  91  65  5.95 P 4       18.01 16.63              1.38 0.000       16.91 28.97 29.11 -0.14 0.000            324  82 3.43
CIB  110.4 135  65  7.06 PD0       19.12 18.28              0.84M0.000       20.80 32.86 32.00  0.87 0.000            324         3
GBI  149.1  95  65 12.56 P 0       24.62 23.97              0.65M0.000       30.31 42.37 41.95  0.42 0.000            324  94 3.73
TMI  183.7 119  65 17.46 P 0       29.52 29.06              0.46G0.000       39.79 51.85 50.85  1.00 0.000            324  90 3.33
IMW  239.8  95  50 25.81 P 0       37.87 36.26              1.62M0.000        0.00 12.06 63.45-51.39 0.000            324         3
NPI  245.1 152  50 26.79 P 0       38.85 36.91              1.94M0.000        0.00 12.06 64.60-52.53 0.000            324         3
MLI  272.7 148  50 30.83 PC0       42.89 40.36              2.53M0.000        0.00 12.06 70.63-58.57 0.000            324         3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N    SW     Z     E    NE    NW
AVE. OF END POINTS                  0.08  0.09  0.10  0.10  0.11  0.11  0.15

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 19/22 83/11/11 19/22

HORIZONTAL		VERTICAL	
SE = 0.39	SE = 0.60	SE = 0.90	QUALITY = A
AZ = -45.	AZ = -135.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	1922 55.78	44N14.64	114W 2.94	10.20	2.17	9	14	110	1	0.05	0.6	0.9	B	A/B	0.14	10	16	0.00	0.04	0	0.0	0.0	8	2.2	0.3

SE OF ORIG = 0.046 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	7.8	319	139	57.97IPO 2.19 2.27 -0.08	1.034			60.15	4.37	3.97	0.40	0.000				322	26	2.13	
816	9.8	130	132	58.28IPC 2.50 2.50 0.00	1.034			60.18	4.40	4.37	0.03	0.724				322	30	2.23	
815	14.2	239	120	58.93IPC 3.15 3.07 0.08	1.034			61.50	5.72	5.37	0.35	0.000				322	40	2.53	
84	16.8	108	115	59.22IPC 3.44 3.45 -0.01	1.034			59.90	4.12	6.03	-1.91	0.000				322	40	2.53	
81	17.6	359	113	59.40IPC 3.62 3.58 0.04	1.034			62.30	6.52	6.26	0.26	0.000				322	22	1.93	
812	29.5	182	101	61.14IPC 5.36 5.42 -0.06	1.034			59.94	4.16	9.49	-5.33	0.000				322	26	2.13	
85	40.7	130	97	63.00IPD 7.22 7.21 0.00	1.034			59.95	4.17	12.62	-8.45	0.000				322	37	2.53	
86	48.7	129	95	64.31IPC 8.53 8.51 0.01	1.034			71.23	15.45	14.90	0.55	0.000				322	13	1.63	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SW	E	NW	NE	N	Z	SE
AVE. OF END POINTS	0.12	0.12	0.15	0.15	0.19	0.24	0.29

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
6	0.05	0.03	0.17	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/11 20/31 83/11/11 20/31

HORIZONTAL		VERTICAL	
SE = 0.38	SE = 0.77	SE = 0.89	QUALITY = A
AZ = -35.	AZ = -125.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831111	2031 1.13	44N14.24	114W 2.28	8.74	2.31	11	16	135	1	0.05	0.8	0.9	B	A/B	0.34	10	20	0.00	0.04	0	0.0	0.0	8	2.3	0.4

SE OF ORIG = 0.041 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	8.7	130	130	3.44IPC 2.31 2.20 0.12	1.028			4.93	3.80	3.85	-0.04	0.720				323	42	2.53	
817	8.9	318	129	3.34IPO 2.21 2.23 -0.02	1.028			5.14	4.01	3.90	0.11	0.000				323	28	2.13	
FSO	15.8	110	110	4.30 P 3.17 3.21 -0.03	1.028			6.70	5.57	5.61	-0.03	0.000				323		3	
84	15.8	107	110	4.30IPO 3.17 3.21 -0.03	1.028			59.90	58.77	5.61	53.16	0.000				323	52	2.73	
81	18.4	356	105	4.74IPC 3.61 3.61 0.01	1.028			59.90	58.77	6.31	52.46	0.000				323	28	2.13	
812	28.8	184	97	6.37IPC 5.24 5.26 -0.02	1.028			10.04	8.91	9.21	-0.29	0.000				323	44	2.63	
SGF	29.1	135	96	6.35 PC 5.22 5.31 -0.09	1.028			10.27	9.14	9.30	-0.15	0.000				323		3	
811	37.6	151	94	7.82IPO 6.69 6.70 0.00	1.028			13.00	11.87	11.72	0.16	0.000				323	31	2.33	
85	39.5	130	94	8.14IPC 7.01 7.01 0.01	1.028			59.95	58.82	12.26	46.56	0.000				323	49	2.73	
86	47.6	129	93	9.52IPC 8.39 8.31 0.08	1.028			59.93	58.80	14.55	44.26	0.000				323	11	1.43	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	N	SE	E	NE	Z
AVE. OF END POINTS	0.09	0.11	0.13	0.13	0.17	0.19	0.21

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY

	HORIZONTAL		VERTICAL	
SE =	0.90	SE =	1.21	SE = 1.33 QUALITY = A
AZ =	-29.	AZ =	-119.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
931112	022 8.23	44N17.00	114W 3.76	7.06		18	5	110	1	0.16	1.2	1.3	B	B|B	0.34	10	34	0.00	0.12	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.074 5 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)									
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BSU3	2.8	73	I55	9.65	PO	1.42	1.40		0.02	1.165													
BWF	4.6	146	142	9.72	PO	1.49	1.55		-0.06	1.165		10.77	2.54	2.70	-0.17	0.816							
NWSI	4.6	133	142	9.79	PD2	1.56	1.55		0.01	0.291		0.00	-8.23	2.71	-10.94	0.000							
NSUI	11.5	115	108	11.02	P 0	2.79	2.46		0.33	1.165		0.00	-8.23	4.30	-12.53	0.000							
WSUI	12.2	126	105	10.58	P	2.35	2.58		-0.23	1.165													
MIR	14.9	348	94	11.40	P 0	3.17	3.00		0.16	1.165		0.00	-8.23	5.26	-13.49	0.000							
CGI	19.4	81	91	12.46	P 2	4.23	3.73		0.49	0.291		0.00	-8.23	6.53	-14.76	0.000							
RCI	19.5	238	91	11.96	PC0	3.73	3.74		-0.02	1.165		0.00	-8.23	6.55	-14.78	0.000							
DSPI	19.8	111	91	12.03	PC0	3.80	3.79		0.01	1.165		14.59	6.36	6.63	-0.27	0.000							
M-2	20.3	131	91	12.25	PC0	4.02	3.88	0.17	-0.03	1.165		0.00	-8.23	6.79	-15.32	0.000							
GCI	23.9	37	90	12.40	P 0	4.17	4.46		-0.29	1.165		0.00	-8.23	7.80	-16.03	0.000							
MBAI	24.4	135	90	12.84	PC0	4.61	4.54		0.06	1.165		15.78	7.55	7.95	-0.40	0.000							
M-1	28.6	146	90	13.90	P+0	5.67	5.22	0.30	0.14	1.165		0.00	-8.23	9.14	-17.90	0.000							
BRPI	30.6	163	90	13.45	P 4	5.22	5.55		-0.34	0.000		0.00	-8.23	9.72	-17.95	0.000							
LSGS	31.3	117	90	13.84	PC0	5.61	5.67		-0.07	1.165		0.00	-8.23	9.93	-18.16	0.000							
BRCI	33.4	179	90	14.20	P 2	5.97	6.01		-0.05	0.291		0.00	-8.23	10.52	-18.76	0.000							
LCRI	36.8	137	90	14.86	P 0	6.63	6.56		0.07	1.165		0.00	-8.23	11.48	-19.71	0.000							
MDCI	58.7	125	90	18.26	PC0	10.03	10.11		-0.08	1.165		0.00	-8.23	17.69	-25.93	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SE	E	NE	Z	SW	N
AVE. OF END POINTS	0.01	0.03	0.04	0.05	0.08	0.09	0.09

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
8	0.16	0.00	0.05	D

```
------------BEGIN------------------BEGIN------------------BEGIN------------------BEGIN----------
83/11/11    22/59                                                                          83/11/11    22/59

                                                HORIZONTAL                                VERTICAL
                                          SE =   0.49            SE =   0.63             SE =   1.40   QUALITY = A
                                          AZ =   -33.            AZ =  -123.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831111 2259 37.92 44N 4.64 113W54.77   9.49   2.37 13 13  89 1 0.08  0.6  1.4 A A|A 0.08 10 22 0.00 0.07  0  0.0  0.0  9  2.4  0.5
SE OF ORIG =  0.057          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
813    9.3 277 131 40.30IPD          2.38  2.36              0.02 1.048      42.04  4.12  4.13 -0.01 0.734            325  37 2.43
816   12.7 344 121 40.76IPD          2.84  2.80              0.04 1.048      42.78  4.86  4.90 -0.04 0.734            325  47 2.63
FSD   13.2  21 119 40.80 P           2.88  2.87              0.01 1.048      43.05  5.13  5.03  0.10 0.000            325       3
84    14.2  21 117 40.90IP          2.98  3.02             -0.04 1.048      54.83 16.91  5.28 11.63 0.000            325 117 3.43
812   16.1 227 113 41.29IPC         3.37  3.31              0.07 1.048      43.41  5.49  5.78 -0.29 0.000            325  43 2.53
811   17.2 151 111 41.39IPC         3.47  3.46              0.01 1.048      44.19  6.27  6.06  0.21 0.000            325  34 2.33
85    21.6 111 105 42.13IP          4.21  4.14              0.07 1.048      44.85  6.93  7.25 -0.32 0.000            325  57 2.83
815   25.6 296 101 42.60IPD         4.68  4.79             -0.11 1.048      45.60  7.68  8.38 -0.70 0.000            325       3
817   29.2 327  99 43.16EPC         5.24  5.35             -0.11 1.048      47.26  9.34  9.37 -0.03 0.000            325  23 2.03
86    29.5 115  99 43.21IPD         5.29  5.41             -0.12 1.048      46.22  8.30  9.46 -1.16 0.000            325  11 1.43
31    37.9 343  96 44.86IPC         6.94  6.75              0.19 1.048      49.89 11.97 11.81  0.16 0.000            325  22 2.03

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NE     Z     N    SW    NW     E
AVE. OF END POINTS                  0.06  0.11  0.14  0.16  0.17  0.18  0.20

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   7      0.08      0.01      0.14         D

------------END----------------------END----------------------END----------------------END------------
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 3/37 83/11/12 3/37

	HORIZONTAL		VERTICAL	
SE =	0.44	SE =	0.58	SE = 0.94 QUALITY = A
AZ =	-38.	AZ =	-128.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	337 54.94	44N10.01	113W55.80	7.39	2.53	29	6	52	1	0.13	0.6	0.9	A	A|A	0.52	10	54	0.00	0.10	0	0.0	0.0	8	2.5	0.3

SE OF ORIG = 0.037 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY=	P-RES	P-WT	THIC	SSEC SRMK	TTOB TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	3.0	318	155	56.35IPD	1.41	1.46		-0.04	1.026	57.35 2.41	2.55 -0.14	0.718		328	54	2.73	
M-2	4.7	95	143	56.74 PC0	1.80	1.60	0.17	0.03	1.026	0.00-54.94	2.80-58.03	0.000		328		3	
WSUI	5.7	353	137	56.53 PD	1.59	1.71		-0.11	1.026					328		3	
ANPI	6.5	291	132	56.70 P 0	1.76	1.80		-0.04	1.026	0.00-54.94	3.14-58.08	0.000		328		3	
84	7.3	63	129	56.87IPD	1.93	1.88		0.05	1.026	60.19 5.25	3.30 1.95	0.000		328		3	
MBAI	8.0	122	126	57.08 PC0	2.14	1.97		0.17	1.026	0.00-54.94	3.44-58.38	0.000		328		3	
NSUI	8.1	359	125	57.00 PD0	2.06	1.97		0.09	1.026	0.00-54.94	3.46-58.40	0.000		328		3	
DSPI	9.7	54	118	57.22 PD0	2.28	2.21		0.07	1.026	0.00-54.94	3.87-58.81	0.000		328		3	
813	11.9	222	110	57.52IPD	2.58	2.53		0.05	1.026	60.07 5.13	4.43 0.70	0.000		328	45	2.53	
M-1	12.1	154	110	57.89 PD0	2.95	2.56	0.30	0.09	1.026	0.00-54.94	4.48-59.94	0.000		328		3	
BWF	12.2	319	109	57.42 PD	2.48	2.58		-0.09	1.026	59.36 4.42	4.51 -0.09	0.000		328		3	
NWSI	12.2	323	109	57.53 PD0	2.59	2.58		0.01	1.026	0.00-54.94	4.51-59.45	0.000		328		3	
BSU3	15.9	330	99	58.36 PD	3.42	3.16		0.26	1.026					328		3	
BRPI	16.5	186	98	58.23 PD0	3.29	3.26		0.03	1.026	65.20 10.26	5.70 4.56	0.000		328		3	
LSGS	17.3	94	96	58.43 PD0	3.49	3.40		0.09	1.026	0.00-54.94	5.94-60.88	0.000		328		3	
CGI	18.3	28	95	58.66 PD0	3.72	3.54		0.18	1.026	62.46 7.52	6.20 1.32	0.000		328		3	
LCRI	20.2	134	94	58.57 PD0	3.63	3.86		-0.23	1.026	0.00-54.94	6.75-61.69	0.000		328		3	
817	20.6	315	93	58.75IPD	3.81	3.92		-0.11	1.026	66.93 11.99	6.87 5.12	0.000		328	30	2.23	
815	21.7	273	93	59.10IPD	4.16	4.11		0.05	1.026	63.68 8.74	7.19 1.55	0.000		328	53	2.73	
BRCI	22.8	206	93	59.10 PD0	4.16	4.28		-0.12	1.026	62.10 7.16	7.49 -0.33	0.000		328		3	
812	23.4	207	92	59.24IPD	4.30	4.38		-0.08	1.026	62.49 7.55	7.66 -0.11	0.000		328	50	2.73	
811	26.8	159	92	59.86IPD	4.92	4.94		-0.01	1.026					328	46	2.63	
RCI	27.2	275	92	0.17 PD0	5.23	5.00		0.23	1.026	3.67 8.73	8.75 -0.02	0.000		328		3	
85	27.8	129	92	60.05IPD	5.11	5.11		0.01	1.026	64.65 9.71	8.93 0.78	0.000		328	71	3.03	
81	28.0	339	92	60.09IPD	5.15	5.13		0.02	1.026					328		3	
MIR	30.7	333	91	1.10 PD0	6.16	5.58		0.59M	0.000	0.00 5.06	9.76 -4.70	0.000		328		3	
GCI	32.3	7	91	0.40 P 0	5.46	5.82		-0.36	1.026	0.00 5.06	10.19 -5.13	0.000		328		3	
86	35.9	128	91	61.33IPD	6.39	6.42		-0.02	1.026	65.84 10.90	11.23 -0.33	0.000		328	19	1.93	
MDCI	42.8	119	91	2.27 PD1	7.33	7.53		-0.20	0.577	5.97 11.03	13.18 -2.15	0.000		328		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	N	NW	NE	Z	E	SW
AVE. OF END POINTS	0.06	0.09	0.11	0.12	0.12	0.15	0.17

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
13	0.13	0.05	0.12	D

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 2/46 83/11/12 2/46

	HORIZONTAL		VERTICAL	
SE =	0.73	SE =	1.33	SE = 2.22 QUALITY = A
AZ =	-86.	AZ =	4.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	246 32.20	43N56.75	113W46.84	11.62	2.87	31	12	177	1	0.16	1.3	2.2	C	8|C	0.37	10	56	0.00	0.11	0	0.0	0.0	10	2.9	0.3

SE OF ORIG = 0.131 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
811	2.3	259	168	34.21IP	2.01	2.07			-0.06	1.077		36.32	4.12	3.63	0.49	0.000			327	65	2.83	
LCRI	10.9	14	133	35.05 PDO	2.85	2.79			0.06	1.077		0.00	-32.20	4.88	-37.08	0.000			327		3	
35	11.8	54	131	35.15IPD	2.95	2.90			0.06	1.077		38.81	6.61	5.07	1.54	0.000			327	107	3.33	
M-1	15.3	334	122	35.79 PDO	3.59	3.34	0.30		-0.05	1.077		37.99	5.79	5.85	-0.58	0.000			327		3	
8RPI	16.0	301	121	35.74 PDO	3.54	3.44			0.10	1.077		37.24	5.04	6.03	-0.99	0.000			327		3	
86	16.4	82	120	35.56EPD	3.36	3.49			-0.13	1.077		40.41	8.21	6.11	2.10	0.000			327	28	2.23	
M8AI	21.0	346	113	36.54 P-1	4.34	4.17			0.17	0.606		0.00	-32.20	7.30	-39.50	0.000			327		3	
8RCI	22.3	281	111	36.50 PCO	4.30	4.36			-0.06	1.077		38.80	6.60	7.63	-1.03	0.000			327		3	
812	22.8	279	111	36.75IPC	4.55	4.43			0.12	1.077		40.54	8.34	7.76	0.59	0.000			327	63	2.93	
LSGS	23.8	13	110	36.93 PDO	4.73	4.60			0.14	1.077		39.78	7.58	8.04	-0.46	0.000			327		3	
M-2	25.2	343	108	37.14 PDO	4.94	4.80	0.17		-0.03	1.077		0.00	-32.20	8.41	-40.90	0.000			327		3	
813	25.3	308	108	37.03EPD	4.83	4.83			0.01	1.077		41.32	9.12	8.45	0.67	0.000			327	63	2.93	
MDCI	25.9	81	108	36.95 PCO	4.75	4.91			-0.16	1.077		39.08	6.88	8.59	-1.71	0.000			327		3	
84	28.4	349	106	37.49IPO	5.29	5.30			-0.01	1.077		40.78	8.58	9.27	-0.69	0.000			327	78	3.13	
816	30.2	332	104	37.85EPD	5.65	5.58			0.07	1.077		42.66	10.46	9.77	0.69	0.000			327	73	3.03	
OSPI	30.6	352	104	37.87 PDO	5.67	5.64			0.03	1.077		0.00	-32.20	9.88	-42.07	0.000			327		3	
ANPI	32.4	326	103	38.10 P 0	5.90	5.92			-0.02	1.077		0.00	-32.20	10.37	-42.56	0.000			327		3	
WSUI	32.8	337	103	38.27 PD	6.07	5.98			0.09	1.077									327		3	
NSUI	34.8	340	102	38.82 P 2	6.62	6.30			0.33	0.269		0.00	-32.20	11.02	-43.22	0.000			327		3	
8WF	39.2	329	100	39.05 P	6.85	7.01			-0.16	1.077		44.32	12.12	12.27	-0.15	0.000			327		3	
NWSI	39.3	331	100	39.50 P+1	7.30	7.04			0.26	0.606		0.00	-32.20	12.32	-44.51	0.000			327		3	
CGI	40.8	355	99	39.56 PDO	7.36	7.27			0.09	1.077		0.00	-32.20	12.73	-44.93	0.000			327		3	
815	42.4	307	99	39.70EPC	7.50	7.53			-0.03	1.077		45.05	12.85	13.17	-0.32	0.754			327	78	3.13	
8SU3	43.2	333	99	40.23 PC	8.03	7.65			0.38	1.077									327		3	
817	47.2	326	98	40.38EP	8.18	8.30			-0.12	1.077		46.46	14.26	14.53	-0.27	0.754			327	43	2.63	
RCI	47.6	305	98	40.57 PCO	8.37	8.36			0.02	1.077		0.00	-32.20	14.62	-46.82	0.000			327		3	
81	55.3	337	96	41.89EPC	9.69	9.60			0.10	1.077		45.01	12.81	16.79	-3.98	0.000			327	43	2.73	
GCI	57.2	352	96	41.70 PCO	9.50	9.91			-0.41	1.077		0.00	-32.20	17.34	-49.54	0.000			327		3	
MIR	58.1	334	96	42.32 PCO	10.12	10.05			0.07	1.077		0.00	-32.20	17.58	-49.78	0.000			327		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	N	SE	NW	E
AVE. OF END POINTS	0.27	0.40	0.41	0.41	0.43	0.60	0.68

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
31	0.16	0.24	0.47	8

----------END----------END----------END----------END----------

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 5/10 83/11/12 5/10

	HORIZONTAL	VERTICAL	
SE =	0.44	SE = 0.52	SE = 0.99 QUALITY = A
AZ =	-44.	AZ = -134.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	G	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	510 10.64	44N10.74	114W 1.43	10.84	2.75	30	8	82	1	0.12	0.5	1.0	A	A|A	0.10	10	54	0.00	0.08	0	0.0	0.0	10	2.7	0.3

SE OF ORIG = 0.052 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	1.7	55	170	12.58	PDO	1.94	1.93		0.00	1.036	0.00	-10.64	3.38	-14.02	0.000		330			3
316	5.6	81	151	12.76	IPD	2.12	2.14		-0.03	1.036	14.24	3.60	3.75	-0.16	0.725		330	74	3.03	
BWF	7.8	356	141	12.93	PD	2.29	2.35		-0.07	1.036	14.59	3.95	4.12	-0.17	0.000		330			3
WSUI	8.1	57	140	13.03	PD	2.39	2.38		0.01	1.036							330			3
NWSI	8.4	2	139	13.09	PDO	2.45	2.42		0.03	1.036	0.00	-10.64	4.23	-14.87	0.000		330			3
NSUI	10.0	48	133	13.35	PDO	2.71	2.59		0.12	1.036	0.00	-10.64	4.53	-15.17	0.000		330			3
813	10.2	182	133	13.35	IPC	2.71	2.62		0.09	1.036	15.51	4.87	4.58	0.29	0.000		330	68	2.93	
M-2	12.3	98	127	13.84	PDO	3.20	2.87	0.17	0.16	1.036	0.00	-10.64	5.02	-15.96	0.000		330			3
84	14.1	82	122	13.73	IPD	3.09	3.12		-0.03	1.036	15.66	5.02	5.46	-0.44	0.000		330	77	3.03	
815	14.1	270	122	13.80	IPC	3.16	3.12		0.04	1.036	16.00	5.36	5.46	-0.11	0.725		330	67	2.93	
817	14.9	332	121	13.82	IPD	3.18	3.23		-0.05	1.036							330	45	2.63	
MBAI	15.3	111	120	14.13	PDO	3.49	3.28		0.20	1.036	0.00	-10.64	5.75	-16.39	0.000		330			3
DSPI	16.0	74	118	14.05	PDO	3.41	3.38		0.03	1.036	0.00	-10.64	5.91	-16.55	0.000		330			3
M-1	17.7	133	115	14.58	PDO	3.94	3.62	0.30	0.02	1.036	0.00	-10.64	6.33	-17.50	0.000		330			3
BRPI	18.6	162	114	14.44	PCO	3.80	3.75		0.05	1.036	16.84	6.20	6.56	-0.36	0.000		330			3
RCI	19.6	274	112	14.58	PCO	3.94	3.91		0.02	1.036	0.00	-10.64	6.85	-17.49	0.000		330			3
CGI	21.8	47	109	14.86	PCO	4.22	4.25		-0.03	1.036	17.96	7.32	7.44	-0.12	0.000		330			3
BRCI	22.0	186	109	14.75	PCO	4.11	4.27		-0.16	1.036	17.15	6.51	7.47	-0.96	0.000		330			3
812	22.4	188	109	15.01	IPC	4.37	4.34		0.03	1.036	18.10	7.46	7.59	-0.14	0.000		330	60	2.83	
LSGS	24.9	96	106	15.41	PDO	4.77	4.73		0.04	1.036	18.19	7.55	8.27	-0.72	0.000		330			3
81	25.0	354	106	15.32	IPC	4.68	4.73		-0.05	1.036	18.79	8.15	8.28	-0.13	0.000		330	40	2.53	
LCRI	26.9	125	105	15.44	P 0	4.80	5.02		-0.23	1.036	0.00	-10.64	8.79	-19.43	0.000		330			3
MIR	26.9	347	105	16.00	PDO	5.36	5.03		0.33	1.036	0.00	-10.64	8.80	-19.44	0.000		330			3
811	31.5	147	102	16.42	IPD	5.78	5.76		0.02	1.036	20.40	9.76	10.07	-0.32	0.000		330	54	2.83	
GCI	32.7	20	101	16.30	PCO	5.66	5.96		-0.30	1.036	0.00	-10.64	10.42	-21.07	0.000		330			3
85	34.7	123	100	16.95	IPD	6.31	6.28		0.03	1.036	20.85	10.21	10.98	-0.78	0.000		330	74	3.13	
86	42.8	124	97	18.19	IPD	7.55	7.57		-0.03	1.036	23.42	12.78	13.25	-0.47	0.000		330	19	1.93	
MDCI	50.1	116	96	19.29	P+1	8.65	8.75		-0.10	0.583	23.66	13.02	15.31	-2.29	0.000		330			3

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	NW	E	N	SE
AVE. OF END POINTS	0.34	0.63	0.64	0.72	0.82	0.83	0.83

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
30	0.12	0.34	0.71	A

----------END----------END----------END----------END----------

```
----------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/12     3/50                                                                                  83/11/12     3/50

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   1.94                SE =    0.61             SE =    2.89   QUALITY = C
                                            AZ =   -84.                AZ =      6.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112  350 32.43 44N32.54 113W56.65    3.77   2.54 23 33 287 1 0.21  8.6  2.9 D DID 0.24 10 46 0.00 0.19  0  0.0  0.0 10  2.5  0.4
SE OF ORIG =  0.772          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN   DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX FR XMAG R  FMP FMAG
81     17.0 209 100 35.44EPO4        3.01  3.34              -0.33 0.000       39.69  7.26  5.05  1.42 0.000            329  40 2.43
HIR    19.0 221  99 36.20 P 0        3.77  3.54               0.23 1.235        0.00-32.43  6.20-38.62 0.000            329        3
CGI    27.4 159  96 36.76 P 2        4.33  5.03              -0.70M0.000        0.00-32.43  8.80-41.23 0.000            329        3
817    30.4 206  96 37.95EPO         5.52  5.57              -0.04 1.235                                                  329  33 2.33
NWSI   32.5 191  95 38.20 P+1        5.77  5.95              -0.10 0.695        0.00-32.43 10.41-42.04 0.000            329        3
8WF    33.3 192  95 38.33 P          5.90  6.00              -0.18 1.235       42.11  9.68 10.65 -0.97 0.000            329        3
NSUI   33.7 178  95 33.00 P 3        6.57  6.15               0.42 0.077        0.00-32.43 10.77-43.20 0.000            329        3
WSUI   36.0 179  95 39.26 P          6.03  6.57               0.26 1.235                                                  329        3
DSPI   37.0 166  94 39.43 P+2        7.00  6.75               0.25 0.309       42.24  9.01 11.02 -2.01 0.000            329        3
84     39.2 169  94 39.49IP          7.06  7.13              -0.07 1.235                                                  329  67 2.93
816    39.5 181  94 39.76IP          7.33  7.19               0.14 1.235                                                  329  42 2.53
ANPI   39.7 187  94 39.29 P 0        6.06  7.22              -0.36 1.235        0.00-32.43 12.64-45.07 0.000            329        3
M-2    42.5 172  94 40.44 P 0        8.01  7.73   0.17        0.11 1.235        0.00-32.43 13.53-46.26 0.000            329        3
815    45.3 207  65 40.42IPD        7.99  0.19              -0.20 1.235                                                  329  52 2.73
M8AI   46.6 170  65 40.97 PCO        0.54  8.39               0.15 1.235       46.69 14.26 14.68 -0.42 0.000            329        3
LSGS   46.0 157  65 40.05 P+2        7.62  0.43              -0.81M0.000       45.49 13.06 14.75 -1.69 0.000            329        3
RCI    46.9 213  65 40.57 P 2        0.14  8.45              -0.31 0.309        0.00-32.43 14.70-47.21 0.000            329        3
813    51.0 100  65 41.55EPC         9.12  9.11               0.01 1.235                                                  329  51 2.83
M-1    52.9 173  65 42.08 P+2       10.45  9.42   0.30        0.73M0.000       40.19 15.76 16.49 -1.25 0.000            329        3
LCRI   57.0 164  65 42.47 PCO       10.04 10.21              -0.17 1.235        0.00-32.43 17.87-50.30 0.000            329        3
8RPI   58.1 181  65 42.45 P-2       10.02 10.26              -0.23 0.309        0.00-32.43 17.95-50.30 0.000            329        3
8RCI   62.8 100  65 43.20 P-2       10.77 11.03              -0.25 0.309       51.50 19.07 19.29 -0.22 0.000            329        3
812    63.3 100  65 43.84IP          11.41 11.10               0.31 1.235                                                  329  49 2.83
85     63.5 159  65 43.29EPC        10.86 11.14              -0.28 1.235       50.50 10.07 19.49 -1.42 0.000            329  60 2.93
811    67.6 171  65 44.46EPC        12.03 11.80               0.23 1.235       52.51 20.08 20.65 -0.56 0.000            329  36 2.53
86     70.4 156  65 44.94IP          12.51 12.25               0.26 1.235                                                  329  11 1.53
MDCI   73.3 148  65 44.96 PCO       12.53 12.73              -0.19 1.235        0.00-32.43 22.27-54.70 0.000            329        3

                          QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          E    SE    SW     Z     N    NE    NW
AVE. OF END POINTS                  -0.01 -0.01  0.03  0.03  0.03  0.07  0.07

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  21      0.21     -0.04      0.03         D
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/12     5/54                                                                                 83/11/12     5/54

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.49                 SE =   0.64             SE =   1.21   QUALITY = A
                                            AZ =    32.                 AZ =   -58.

 DATE    ORIGIN      LAT       LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112  554  5.12 44N17.29 114W 5.90   8.00   2.50 30  7  80 1 0.12  0.6  1.2 A A|A 0.18 10 53 0.00 0.09  0  0.0  0.0 10  2.5  0.3
SE OF DRIG =  0.057          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    1.5 311 168  6.57IPD         1.45  1.47              -0.02 1.010                                                332  36 2.33
3SU3   5.6  87 141  6.93 PD         1.81  1.76               0.05 1.010                                                332        3
8WF    6.9 129 134  6.95 P          1.83  1.91              -0.08 1.010       8.48  3.36  3.35  0.01 0.000           332        3
NWSI   7.2 121 132  7.10 PDO        1.98  1.95               0.04 1.010       0.00 -5.12  3.40 -8.52 0.000           332        3
81    13.2  15 111  7.86IPC        2.74  2.77              -0.03 1.010       9.48  4.36  4.85 -0.49 0.000           332  33 2.33
ANPI  13.3 147 111  7.84 PDO        2.72  2.79              -0.07 1.010       0.00 -5.12  4.89-10.01 0.000           332        3
HIR   14.0 359 109  8.20 PDO        3.08  2.90               0.19 1.010       0.00 -5.12  5.07-10.19 0.000           332        3
NSUI  14.4 112 108  8.10 P 0        2.98  2.95               0.04 1.010       0.00 -5.12  5.15-10.27 0.000           332        3
815   14.7 214 107  8.20IPC        3.08  3.00               0.09 1.010      10.20  5.08  5.25 -0.16 0.707           332  59 2.83
WSUI  14.9 122 107  8.13 PD         3.01  3.03              -0.01 1.010                                                332        3
816   16.0 134 104  8.40IPD        3.28  3.21               0.07 1.010      11.86  6.74  5.62  1.12 0.000           332  43 2.53
RCI   17.5 231 102  8.58 PCO        3.46  3.44               0.03 1.010       0.00 -5.12  6.01-11.13 0.000           332        3
CGI   22.2  83  97  9.26 PCO        4.14  4.19              -0.05 1.010      12.26  7.14  7.33 -0.19 0.000           332        3
84    22.4 117  97  9.29IPC        4.17  4.23              -0.05 1.010      12.17  7.05  7.40 -0.34 0.000           332  60 2.83
DSPI  22.6 110  96  9.32 PCO        4.20  4.27              -0.06 1.010      11.63  6.51  7.46 -0.95 0.000           332        3
M-2   22.9 127  96  9.64 PDO        4.52  4.30   0.17        0.05 1.010      12.54  7.42  7.53 -0.41 0.000           332        3
813   23.0 166  96  9.41IPC        4.29  4.33              -0.04 1.010      12.11  6.99  7.58 -0.58 0.000           332  47 2.63
GCI   25.3  43  95  9.60 PCO        4.48  4.70              -0.21 1.010       0.00 -5.12  9.22-13.33 0.000           332        3
MBAI  26.9 131  94 10.36 PDO        5.24  4.95               0.29 1.010      13.84  8.72  8.66  0.06 0.000           332        3
M-1   30.7 142  93 11.18 P+0        6.06  5.57   0.30        0.19 1.010       0.00 -5.12  9.75-15.39 0.000           332        3
8RPI  32.0 159  93 10.80 PCO        5.68  5.79              -0.10 1.010      13.84  8.72 10.13 -1.40 0.000           332        3
LSGS  34.1 116  93 11.23 PDO        6.11  6.13              -0.01 1.010       0.00 -5.12 10.72-15.84 0.000           332        3
8RCI  34.2 174  93 11.25 P+0        6.13  6.13               0.00 1.010      12.70  7.58 10.73 -3.14 0.000           332        3
812   34.5 175  93 11.19IPC        6.07  6.19              -0.11 1.010      15.49 10.37 10.83 -0.45 0.000           332  45 2.63
LCRI  39.2 134  92 12.17 P 0        7.05  6.94               0.11 1.010       0.00 -5.12 12.15-17.27 0.000           332        3
811   44.9 149  92 13.02EP         7.90  7.87               0.03 1.010                                                332  39 2.53
85    46.9 132  92 13.37IPD        8.25  8.19               0.07 1.010                                                332  58 2.93
86    54.9 131  91 14.64EP         9.52  9.49               0.03 1.010      21.94 16.82 16.61  0.21 0.000           332  15 1.73
MDCI  61.3 124  91 15.34 PCO       10.22 10.53              -0.31 1.010       0.00 -5.12 18.44-23.55 0.000           332        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NW    SW    NE     E    SE     N
AVE. OF END POINTS                   0.29  0.47  0.62  0.65  0.65  0.66  0.75

            NUMBER        RMS  MIN ORMS  AVE ORMS   QUALITY
                30       0.12      0.31      0.61         A

        ------------END--------------------END--------------------END--------------------END----------
```

	HORIZONTAL		VERTICAL	
SE =	0.19	SE =	0.25	SE = 0.34 QUALITY = A
AZ =	-24.	AZ =	-114.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	525 32.45	44N 7.76	113W57.73	11.76	1.77	12	12	69	1	0.03	0.2	0.3	A	A|A	1.78	10	16	0.00	0.02	0	0.0	0.0	10	1.8	0.5

SE OF ORIG = 0.021 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+	TCOR-O=	TTOB-	TTCAL-	DELAY-	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	6.4	5	149	34.79IPD		2.34	2.34			0.00	1.053		36.56	4.11	4.10	0.01	0.737				331	23	2.03	
813	7.1	229	146	34.90IPC		2.45	2.40			0.05	1.053		36.65	4.20	4.20	0.00	0.737				331	21	1.93	
94	11.7	50	131	35.31IPD		2.86	2.90			-0.04	1.053										331	31	2.23	
812	18.5	205	117	36.26IPC		3.81	3.80			0.00	1.053										331	16	1.73	
915	19.8	286	115	36.42IPD		3.97	4.00			-0.03	1.053										331	23	2.03	
817	22.2	327	112	36.78IPD		4.33	4.36			-0.03	1.053		39.24	6.79	7.62	-0.84	0.000				331	16	1.73	
811	24.2	149	110	37.08IPD		4.63	4.66			-0.03	1.053		39.97	7.52	8.15	-0.63	0.000				331	21	1.93	
95	27.6	119	107	37.63IPD		5.18	5.19			-0.01	1.053		41.55	9.10	9.08	0.02	0.000				331	30	2.33	
91	31.2	346	104	38.25IPD		5.80	5.75			0.05	1.053		42.46	10.01	10.06	-0.05	0.000				331	12	1.53	
96	35.7	121	102	38.94EP		6.49	6.45			0.04	1.053										331	4	0.53	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	NW	E	N	SE
AVE. OF END POINTS	0.56	0.73	0.83	0.86	0.90	0.98	1.00

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
12	0.03	0.58	0.86	A

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/12    11/23                                                                                  83/11/12    11/23

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.52                SE =    0.73            SE =    0.77   QUALITY = A
                                            AZ =   -41.                 AZ =  -131.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112 1123 42.56 44N10.59 113W55.56   6.31   2.43 25  5  51 1 0.15  0.7  0.8 8 8|A 0.12 10 48 0.00 0.12  0  0.0  0.0 10  2.4  0.4
SE OF ORIG =  0.038          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    2.6 297 157 43.81EPC          1.25  1.25              0.00 1.120                                                   48 2.5
M-2    4.6 109 143 44.23 PDO         1.67  1.44  0.17        0.07 1.120        0.00-42.56  2.52-45.37 0.000
WSUI   4.7 347 142 44.10 PD          1.54  1.45              0.10 1.120
ANPI   6.5 281 133 43.87 P 0         1.31  1.67             -0.35 1.120        0.00-42.56  2.92-45.47 0.000
84     6.6  70 133 44.02IPD          1.46  1.67             -0.21 1.120                                                   82 3.0
NSUI   7.0 356 131 42.99 P 0         0.43  1.73             -1.30M0.000        0.00-42.56  3.03-45.58 0.000
M8AI   8.3 129 126 44.76 PDO         2.20  1.91              0.29 1.120        0.00-42.56  3.35-45.91 0.000
OSPI   8.9  58 124 45.28 P-1         2.72  1.99              0.73M0.000       47.37  4.81  3.49  1.32 0.000
NWSI  11.5 319 117 44.99 PD2         2.43  2.39              0.04 0.280        0.00-42.56  4.19-46.74 0.000
8WF   11.6 314 117 44.89 P           2.33  2.42             -0.08 1.120
813   12.9 220 114 45.27IPC          2.71  2.62              0.09 1.120       47.13  4.57  4.59 -0.02 0.000                41 2.4
M-1   12.9 157 114 45.56 PCO         3.00  2.63  0.30        0.08 1.120        0.00-42.56  4.60-47.68 0.000
LSGS  17.1  98 109 46.01 PDO         3.45  3.33              0.12 1.120       47.85  5.29  5.83 -0.54 0.000
CGI   17.2  29 109 45.81 P 2         3.25  3.34             -0.08 0.280        0.00-42.56  5.84-48.40 0.000
8RPI  17.5 187 108 45.84 PCO         3.28  3.40             -0.12 1.120       47.24  4.68  5.95 -1.27 0.000
817   20.1 312 106 44.33IP 4         1.77  3.83             -2.05 0.000       46.53  3.97  6.70 -2.73 0.000                33 2.3
LCRI  20.7 136 105 46.38 P 0         3.82  3.94             -0.11 1.120        0.00-42.56  6.89-49.45 0.000
815   22.0 271 105 46.76EPC          4.20  4.16              0.05 1.120                                                   39 2.4
8RCI  23.9 205 103 47.00 PD2         4.44  4.48             -0.04 0.280       49.00  6.44  7.85 -1.40 0.000
812   24.5 206 103 47.32EP           4.76  4.59              0.18 1.120                                                   49 2.6
81    27.1 338  65 47.60IPD          5.04  5.04              0.00 1.120                                                   24 2.0
RCI   27.4 273  65 47.49 P 1         4.93  5.09             -0.16 0.630        0.00-42.56  8.91-51.47 0.000
811   27.7 160  65 47.68EPC          5.12  5.13             -0.01 1.120       53.43 10.87  8.98  1.89 0.000                36 2.4
85    28.3 131  65 47.70IPD          5.14  5.23             -0.09 1.120                                                   61 2.8
HIR   29.9 332  65 48.40 PCO         5.84  5.50              0.35 1.120        0.00-42.56  9.62-52.18 0.000
GCI   31.2   6  65 48.20 PCO         5.64  5.70             -0.05 1.120        0.00-42.56  9.97-52.53 0.000
86    36.4 130  65 49.00EP           6.44  6.54             -0.09 1.120       53.54 10.98 11.44 -0.46 0.000                15 1.7
MDCI  43.1 120  65 50.09 PDO         7.53  7.63             -0.09 1.120        0.00-42.56 13.35-55.90 0.000

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     E     N     Z    NE    SW    SE
AVE. OF END POINTS                  0.00  0.01  0.08  0.08  0.11  0.11  0.12

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                10      0.15     -0.03      0.07         D

------------END--------------------END--------------------END--------------------END----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/12     8/50                                                                                                  83/11/12     8/50

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.37              SE =    0.59              SE =    1.03   QUALITY = A
                                            AZ =    -20.              AZ =   -110.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112  850 57.28 44N12.80 114W 1.91  11.12   2.77 12 14 102 1 0.06  0.6  1.0 B A|B 2.05 10 17 0.00 0.05  0  0.0  0.0  4  2.8  0.1
SE OF ORIG =  0.054          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    6.8 116 146 59.60IPO         2.32  2.29              0.03 1.053                                                 334  49 2.63
817   11.3 325 130  0.07IPD         2.79  2.78              0.01 1.053       2.07  4.79  4.86 -0.08 0.737            334        3
813   14.0 179 123  0.50IPC         3.22  3.13              0.09 1.053       2.75  5.47  5.48 -0.01 0.737            334        3
815   14.1 254 123  0.48IPC         3.20  3.13              0.06 1.053                                                 334  51 2.73
84    14.7  97 122  0.49IPD         3.21  3.23             -0.02 1.053       2.77  5.49  5.65 -0.16 0.000            334  64 2.93
81    21.1 355 111  1.46IPD         4.18  4.15              0.02 1.053       4.84  7.56  7.27  0.29 0.000            334        3
812   26.2 185 106  2.08IPC         4.80  4.93             -0.13 1.053       5.83  8.55  8.62 -0.08 0.000            334        3
811   35.0 149 101  3.66EPC         6.38  6.34              0.04 1.053                                                 334        3
85    37.4 128 100  3.94IPC         6.66  6.72             -0.06 1.053       9.04 11.76 11.76  0.00 0.000            334  63 2.93
86    45.5 127  97  5.32EP          8.04  8.02              0.02 1.053      11.04 13.76 14.03 -0.27 0.000            334        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE     E    NW     N    SE
AVE. OF END POINTS                 0.41  0.62  0.69  0.82  0.83  1.05  1.13

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                12      0.06      0.47      0.83         A
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/12    10/51                                                                                                  83/11/12    10/51

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.52              SE =    0.70              SE =    1.49   QUALITY = A
                                            AZ =    -36.              AZ =   -126.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112 1851  0.10 44N 9.78 113W59.58   9.92   2.17 10 12  77 1 0.07  0.7  1.5 A A|A 0.44 10 13 0.00 0.06  0  0.0  0.0 10  2.2  0.3
SE OF ORIG =  0.061          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.0  49 156  1.95IPC         1.85  1.90             -0.05 1.000                                                 335  31 2.23
813    8.9 199 134  2.58IPD         2.48  2.36              0.12 1.000                                                 335  29 2.23
84    12.1  72 124  2.86IPD         2.76  2.76             -0.01 1.000                                                 335  41 2.53
815   16.7 276 114  3.46IPC         3.36  3.42             -0.06 1.000                                                 335  38 2.43
817   17.7 327 112  3.59IPC         3.49  3.57             -0.08 1.000                                                 335  26 2.13
812   21.2 195 107  4.21IPC         4.11  4.10              0.01 1.000       6.01  5.91  7.17 -1.26 0.000            335  32 2.33
81    27.1 350 102  5.24IPD         5.14  5.03              0.11 1.000       7.31  7.21  8.80 -1.59 0.000            335  19 1.93
811   28.6 149 101  5.32EPC         5.22  5.28             -0.06 1.000       9.87  9.77  9.24  0.53 0.000            335  28 2.23
85    31.7 123  99  5.93IPC         5.83  5.76              0.06 1.000                                                 335  44 2.63
86    39.8 123  96  7.12EP          7.02  7.06             -0.04 1.000                                                 335  11 1.43

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE    NW     E     N    SE
AVE. OF END POINTS                 0.30  0.62  0.65  0.82  0.87  0.95  0.97
```

	HORIZONTAL		VERTICAL	
SE =	0.65	SE =	0.80	SE = 0.95 QUALITY = A
AZ =	-25.	AZ =	-115.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	14 3 29.04	44N14.23	114W 2.86	8.75		18	6	94	1	0.11	0.8	1.0	B	B18	0.52	10	33	0.00	0.09	0	0.0	0.0	0	0.0	0.0

SE OF ORIG = 0.059 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)											
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BWF	1.9	46	166	30.62	PC	1.58	1.60		-0.03	1.090		31.89	2.85	2.81	0.04	0.763							
NWSI	2.9	48	160	30.59	PC0	1.55	1.65		-0.11	1.090		0.00	-29.04	2.89	-31.93	0.000							
ANPI	6.4	149	140	30.95	P 0	1.91	1.94		-0.04	1.090		0.00	-29.04	3.40	-32.44	0.000							
WSUI	8.9	104	129	31.28	PC	2.24	2.23		0.00	1.090													
NSUI	9.3	89	128	31.40	P 0	2.36	2.27		0.08	1.090		0.00	-29.04	3.98	-33.02	0.000							
M-2	16.3	120	109	32.52	PC0	3.48	3.29	0.17	0.02	1.090		0.00	-29.04	5.76	-35.10	0.000							
USPI	17.4	97	107	32.55	PC0	3.51	3.45		0.06	1.090		0.00	-29.04	6.03	-35.07	0.000							
RCI	18.5	253	105	32.60	PC0	3.56	3.61		-0.05	1.090		0.00	-29.04	6.32	-35.36	0.000							
CGI	19.8	65	103	32.76	PC0	3.72	3.83		-0.12	1.090		0.00	-29.04	6.71	-35.75	0.000							
MBAI	20.1	127	103	33.04	PC0	4.00	3.89		0.11	1.090		0.00	-29.04	6.81	-35.85	0.000							
MIR	20.2	348	103	33.20	P00	4.16	3.89		0.26	1.090		0.00	-29.04	6.81	-35.86	0.000							
M-1	23.7	142	99	33.95	P+0	4.91	4.46	0.30	0.15	1.090		0.00	-29.04	7.80	-37.37	0.000							
BRPI	25.4	162	98	33.68	P00	4.64	4.72		-0.08	1.090		35.38	6.34	8.25	-1.92	0.000							
GCI	27.6	28	97	33.90	PC0	4.86	5.07		-0.21	1.090		0.00	-29.04	8.87	-37.92	0.000							
LSGS	28.2	109	97	34.27	P+1	5.23	5.17		0.05	0.613		0.00	-29.04	9.05	-38.10	0.000							
BRCI	28.3	181	97	34.20	P+2	5.16	5.19		-0.03	0.273		0.00	-29.04	9.08	-38.12	0.000							
LCRI	32.4	132	95	34.78	P 0	5.74	5.84		-0.10	1.090		0.00	-29.04	10.22	-39.26	0.000							

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	I	NE	SW	NW	E	SE	N
AVE. OF END POINTS	0.42	0.57	0.58	0.66	0.71	0.73	0.79

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
18	0.11	0.41	0.65	A

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/12    12/39                                                                                                  83/11/12    12/39

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.68              SE =    0.93              SE =    1.99   QUALITY = A
                                          AZ =    -26.              AZ =   -116.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112 1239 37.14 44N13.98 114W 4.77   8.18   2.49 12 11 102 1 0.11  0.9  2.0 B 8|B 0.09 10 18 0.00 0.08  0  0.0  0.0 10  2.5  0.3
SE OF ORIG =  0.079          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN   DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17     7.6 340 131 39.11IPD          1.97  2.01              -0.04 1.053      40.76  3.62  3.52  0.10 0.000            337  34 2.33
B16    11.2 117 118 39.55IPD          2.41  2.48              -0.07 1.053      41.65  4.51  4.34  0.17 0.737            337  44 2.53
B15    11.5 238 117 39.77IPC          2.63  2.52               0.11 1.053      41.79  4.65  4.41  0.25 0.000            337  49 2.63
d13    16.7 166 105 40.48IPC          3.34  3.32               0.02 1.053      42.71  5.57  5.82 -0.24 0.737            337  49 2.63
d4     18.9 102 101 40.66IPD          3.52  3.66              -0.14 1.053      43.31  6.17  6.41 -0.24 0.000            337  59 2.83
d1     19.0   6 101 40.78IPC          3.64  3.68              -0.04 1.053      42.98  5.84  6.44 -0.60 0.000            337  33 2.33
B12    28.3 177  95 42.30IPC          5.16  5.18              -0.02 1.053      45.83  8.69  9.07 -0.37 0.000            337  48 2.63
d11    38.9 146  93 44.06EPD          6.92  6.90               0.02 1.053                                                337  43 2.63
d5     41.8 127  92 44.53IPC          7.39  7.37               0.02 1.053                                                337  60 2.93
d6     49.9 127  92 45.99IP           8.85  8.68               0.17 1.053      52.59 15.45 15.19  0.26 0.000            337  14 1.73

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SW    SE    NE     Z     N     E
AVE. OF END POINTS                   0.04  0.06  0.11  0.13  0.17  0.17  0.20

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   5      0.11     -0.04      0.13         0
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/12    20/32                                                                                  83/11/12    20/32

                                                  HORIZONTAL                                VERTICAL
                                            SE =   0.62                SE =   0.76            SE =   1.20   QUALITY = A
                                            AZ =    12.                AZ =   -78.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ G SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112 2032 36.92 44N19.18 114W 2.83    5.16   2.61 28  8  93 1 0.17  0.8  1.2 8 8|8 0.07 10 50 0.00 0.13  0  0.0  0.0 10  2.6  0.3
SE OF ORIG =  0.057          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-KES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    5.8 244 130 38.36IPC         1.44  1.43              0.01 1.056                                                339  51 2.63
NWSI   7.5 164 123 38.71 PC0         1.79  1.68              0.11 1.056       0.00-36.92  2.93-39.85 0.000            339        3
8WF    8.0 170 121 38.65 PC          1.73  1.74             -0.01 1.056      39.95  3.03  3.05 -0.02 0.000            339        3
81     9.2 356 117 38.86IP          1.94  1.93              0.01 1.056      40.36  3.44  3.38  0.06 0.739            339  64 2.83
MIR   11.4 337 112 39.40 PC0         2.48  2.30              0.18 1.056       0.00-36.92  4.02-40.94 0.000            339        3
NSUI  12.8 134 110 39.44 PD0         2.52  2.54             -0.02 1.056       0.00-36.92  4.44-41.36 0.000            339        3
ANPI  15.0 167 107 39.71 P 0         2.79  2.90             -0.11 1.056       0.00-36.92  5.08-42.00 0.000            339        3
816   16.5 154 105 40.08IPC         3.16  3.15              0.00 1.056      42.41  5.49  5.52 -0.03 0.000            339  52 2.73
CGI   17.9  93 104 40.26 PC0         3.34  3.41             -0.07 1.056       0.00-36.92  5.96-42.88 0.000            339        3
815   20.0 218 103 40.69IPC         3.77  3.76              0.01 1.056      43.09  6.17  6.57 -0.40 0.739            339  52 2.73
GCI   20.0  41 103 40.40 PC0         3.48  3.76             -0.28 1.056       0.00-36.92  6.57-43.49 0.000            339        3
DSPI  20.5 123 102 40.62 PC0         3.70  3.85             -0.15 1.056      43.66  6.74  6.74  0.00 0.000            339        3
84    20.9 131 102 40.83EPC         3.91  3.92             -0.01 1.056      43.32  6.40  6.86 -0.46 0.000            339  61 2.83
M-2   22.4 141 101 41.51 PC0         4.59  4.18  0.17        0.24 1.056      44.11  7.19  7.31 -0.42 0.000            339        3
RCI   22.8 231 101 41.09 PC0         4.17  4.25             -0.09 1.056       0.00-36.92  7.45-44.37 0.000            339        3
313   25.9 177 100 41.90IP          4.98  4.80              0.18 1.056      45.55  8.63  8.41  0.22 0.000            339  48 2.63
MBAI  26.6 143  99 42.09 PC0         5.17  4.94              0.23 1.056       0.00-36.92  8.64-45.56 0.000            339        3
M-1   31.4 152  98 43.21 PC0         6.29  5.79  0.30        0.20 1.056       0.00-36.92 10.13-47.51 0.000            339        3
LSGS  32.4 124  98 42.96 P-1         6.04  5.95              0.09 0.594       0.00-36.92 10.41-47.33 0.000            339        3
8RPI  34.2 167  65 43.53 PC0         6.61  6.27              0.34 1.056      47.38 10.46 10.98 -0.52 0.000            339        3
8RCI  37.5 181  65 43.50 P+4         6.58  6.81             -0.23 0.000       0.00-36.92 11.91-48.83 0.000            339        3
812   37.9 182  65 43.70EPC         6.78  6.87             -0.10 1.056                                                339  49 2.73
LCRI  39.1 142  65 43.67 P 0         6.75  7.07             -0.32 1.056       0.00-36.92 12.37-49.29 0.000            339        3
811   46.1 156  65 45.24EPD         8.32  8.21              0.11 1.056                                                339  47 2.73
85    46.4 138  65 45.11EPD         8.19  8.25             -0.07 1.056      51.84 14.92 14.45  0.47 0.000            339  61 2.93
86    54.3 136  65 46.34EP          9.42  9.55             -0.13 1.056                                                339  15 1.73
MDCI  60.1 129  65 47.22 PD1        10.30 10.47             -0.17 0.594      53.52 16.60 18.33 -1.73 0.000            339        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N     E    NE    NW     Z    SW
AVE. OF END POINTS                  0.05  0.07  0.09  0.09  0.10  0.10  0.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  15      0.17      0.02      0.09         D

         ------------END----------------------END----------------------END----------------------END------------
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 17/31 83/11/12 17/31

	HORIZONTAL		VERTICAL	
SE =	0.69	SE =	1.14	SE = 2.06 QUALITY = A
AZ =	-8.	AZ =	-98.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	1731 23.24	44N14.00	114W 3.93	7.72	2.12	14	11	92	1	0.14	1.1	2.1	B	B1B	1.25	10	25	0.00	0.12	0	0.0	0.0	10	2.1	0.2

SE OF ORIG = 0.079 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	4.3	56	147	24.73IPD	1.49	1.60	-0.11	1.045										338	25	2.03	
B17	8.0	332	127	25.10IPC	1.86	2.01	-0.15	1.045		27.10	3.86	3.52	0.34	0.731				338	32	2.23	
NSUI	10.7	86	117	25.60IPD	2.36	2.38	-0.02	1.045		27.02	3.78	4.16	-0.38	0.000				338	25	2.03	
B15	12.4	240	111	25.80IPC	2.56	2.64	-0.08	1.045		27.80	4.56	4.62	-0.06	0.000				338		3	
B13	16.5	170	101	26.46IPC	3.22	3.27	-0.05	1.045		28.80	5.56	5.72	-0.16	0.731				338	29	2.23	
94	17.8	103	99	25.69IP 4	2.45	3.48	-1.03	0.000										338		3	
OSPI	18.7	95	98	26.13IPC4	2.89	3.63	-0.74	0.000		29.43	6.19	6.36	-0.17	0.000				338	22	1.93	
B1	18.8	3	98	26.87IPD	3.63	3.65	-0.02	1.045		29.41	6.17	6.39	-0.22	0.000				338	19	1.83	
HIR	20.3	352	96	27.23EPC	3.99	3.89	0.10	1.045		30.53	7.29	6.81	0.48	0.000				338	45	2.63	
MBAI	21.1	123	96	27.35EP	4.11	4.01	0.10	1.045		30.25	7.01	7.01	0.00	0.000				338		3	
B12	28.3	179	93	28.49IPC	5.25	5.17	0.08	1.045		32.14	8.90	9.05	-0.15	0.000				338	29	2.23	
GCI	28.7	31	93	28.22EPC	4.98	5.23	-0.25	1.045										338		3	
LSGS	29.4	107	93	28.75EP	5.51	5.36	0.15	1.045										338	25	2.13	
B11	38.3	148	92	30.16EPD	6.92	6.80	0.12	1.045										338	29	2.23	
B5	40.9	128	92	30.79IP 4	7.55	7.22	0.33	0.000										338		3	
B6	49.0	127	91	32.34EP 4	9.10	8.54	0.56	0.000										338		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	E	NE	NW	SE	N
AVE. OF END POINTS	0.25	0.68	0.69	0.72	0.80	1.01	1.17

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
14	0.14	0.36	0.81	A

----------END----------END----------END----------END----------

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/12    22/32                                                                                  83/11/12    22/32

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.49                SE =   0.76              SE =   1.36   QUALITY = A
                                            AZ =   -37.                AZ =  -127.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831112 2232 27.49 44N10.31 114W 1.20  11.67    2.68 30  8  84 1 0.14  0.8  1.4 A A|A 0.96 10 53 0.00 0.12  0  0.0  0.0  5  2.7  0.2
SE OF ORIG =  0.072          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   2.1  32 169 29.67 P 0        2.18  2.08              0.10 1.268       0.00-27.49  3.63-31.12 0.000            341        3
B16    5.5  72 153 29.57IPD         2.08  2.25             -0.18 1.268      31.62  4.13  3.94  0.18 0.000            341  65 2.93
WSUI   8.3  52 142 30.04 PD         2.55  2.50              0.05 1.268                                               341        3
BWF    8.6 355 140 29.98 PD         2.49  2.54             -0.05 1.268      31.71  4.22  4.44 -0.23 0.000            341        3
NWSI   9.2 360 138 30.13 PDO        2.64  2.60              0.04 1.268       0.00-27.49  4.55-32.04 0.000            341        3
B13    9.4 184 138 30.19IPC         2.70  2.62              0.07 1.268      32.09  4.60  4.59  0.00 0.000            341  35 2.33
NSUI  10.3  43 135 30.34 PDO        2.85  2.72              0.13 1.268       0.00-27.49  4.76-32.25 0.000            341        3
M-2   11.9  95 130 30.70 PDO        3.21  2.91  0.17        0.13 1.268       0.00-27.49  5.09-32.89 0.000            341        3
BSU3  13.2 357 127 30.65 PD         3.16  3.07              0.09 1.268                                               341        3
B4    14.0  79 126 30.58IPD         3.09  3.16             -0.07 1.268      33.03  5.54  5.53  0.01 0.888            341        3
B15   14.5 273 124 30.68IPD         3.19  3.24             -0.05 1.268      32.73  5.24  5.67 -0.43 0.000            341  62 2.83
MBAI  14.8 109 124 31.01 PC1        3.52  3.28              0.24 0.714       0.00-27.49  5.74-33.23 0.000            341        3
B17   15.8 332 122 30.74IPD         3.25  3.42             -0.17 1.268      33.24  5.75  5.98 -0.23 0.888            341  51 2.73
OSPI  15.9  71 121 31.02 P-2        3.53  3.44              0.09 0.317       0.00-27.49  6.01-33.51 0.000            341        3
M-1   16.9 132 119 31.30 PCO        3.81  3.58  0.30       -0.07 1.268       0.00-27.49  6.26-34.28 0.000            341        3
BRPI  17.8 162 118 31.17 P+2        3.68  3.69             -0.02 0.317      33.72  6.23  6.46 -0.24 0.000            341        3
RCI   20.0 276 115 31.19 P 3        3.70  4.01             -0.31 0.079       0.00-27.49  7.02-34.51 0.000            341        3
BRCI  21.2 187 113 31.75 PC3        4.26  4.20              0.05 0.079       0.00-27.49  7.36-34.85 0.000            341        3
B12   21.7 189 112 31.88IPC         4.39  4.28              0.11 1.268      59.93 32.44  7.48 24.95 0.000            341        3
CGI   22.2  45 112 32.06 P 2        4.57  4.35              0.22 0.317       0.00-27.49  7.61-35.10 0.000            341        3
B1    25.8 354 108 32.31IPC         4.82  4.90             -0.08 1.268                                               341  50 2.73
LCRI  26.2 124 108 32.18 P 0        4.69  4.96             -0.27 1.268       0.00-27.49  8.67-36.17 0.000            341        3
MIR   27.7 346 106 33.00 PDO        5.51  5.20              0.31 1.268       0.00-27.49  9.10-36.59 0.000            341        3
B11   30.6 147 104 33.24IP          5.75  5.65              0.10 1.268      59.94 32.45  9.89 22.56 0.000            341        3
GCI   33.3  19 103 33.50 P 2        6.01  6.07             -0.07 0.317       0.00-27.49 10.63-38.12 0.000            341        3
B5    34.0 122 102 33.54IP          6.05  6.18             -0.14 1.268      37.89 10.40 10.62 -0.42 0.000            341        3
B6    42.1 123  99 35.01EPD         7.52  7.48              0.03 1.268      41.24 13.75 13.09  0.65 0.000            341        3
MOCI  49.5 115  97 36.01 P+1        8.52  8.66             -0.15 0.714       0.00-27.49 15.16-42.66 0.000            341        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW     N    SE
AVE. OF END POINTS                 0.31  0.45  0.55  0.70  0.73  0.84  0.87

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                30      0.14      0.30      0.66         A

------------END----------------------END----------------------END----------------------END----------
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 22/15 83/11/12 22/15

HORIZONTAL		VERTICAL		
SE = 0.35	SE = 0.43	SE = 0.57	QUALITY = A	
AZ = -28.	AZ = -116.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831112	2215	25.03 44N	9.92 113W	57.32 11.31	2.34	12	10	67	1	0.05	0.4	0.6	A	A|A	0.25	10	18	0.00	0.05	0	0.0	0.0	10	2.3	0.3

SE OF ORIG = 0.035 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	2.4	0	167	27.02IPD	1.99	2.03	-0.03	1.053	28.52	3.49	3.55	-0.05	0.737			342	38	2.43	
84	9.2	68	137	27.61IPC	2.58	2.56	0.03	1.053	29.33	4.30	4.47	-0.17	0.000			342	42	2.53	
813	10.5	214	133	27.76IPD	2.73	2.70	0.04	1.053	29.81	4.78	4.72	0.06	0.737			342	35	2.33	
817	19.3	319	114	29.02IPD	3.99	3.89	0.11	1.053								342	42	2.53	
815	19.7	274	114	20.91IPD	3.88	3.94	-0.05	1.053	32.16	7.13	6.89	0.24	0.000			342	33	2.33	
812	22.4	202	110	29.33IPD	4.30	4.36	-0.05	1.053								342	35	2.43	
811	27.4	155	106	30.14IPD	5.11	5.14	-0.02	1.053	34.34	9.31	8.99	0.33	0.000			342	35	2.43	
81	27.5	343	105	30.13IPC	5.10	5.15	-0.04	1.053	33.96	8.93	9.01	-0.08	0.000			342	40	2.53	
85	29.3	127	104	30.51IPC	5.48	5.43	0.05	1.053	35.07	10.04	9.51	0.54	0.000			342	42	2.63	
86	37.4	126	100	31.72IPD	6.69	6.72	-0.03	1.053	36.34	11.31	11.77	-0.45	0.000			342	12	1.53	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	NW	E	N	SE
AVE. OF END POINTS	0.60	0.70	0.81	0.83	0.88	0.95	0.97

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
12	0.05	0.57	0.84	A

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 22/32 83/11/12 22/32

HORIZONTAL		VERTICAL		
SE = 0.49	SE = 1.12	SE = 1.60	QUALITY = A	
AZ = -92.	AZ = -2.			

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SDFM
831112	2232	12.36 43N	56.24 113W	44.36 7.47	1.38	11	13	199	1	0.06	1.1	1.6	C	A|D	2.33	10	14	0.00	0.04	0	0.0	0.0	4	1.4	0.2

SE OF ORIG = 0.083 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
811	5.6	275	138	14.04IP	1.68	1.70	-0.03	1.028	15.31	2.95	2.98	-0.03	0.000			340		3	
85	10.1	39	117	14.67IPD	2.31	2.27	0.04	1.028								340		3	
86	13.3	76	107	15.12EP	2.76	2.76	0.00	1.028								340	10	1.23	
812	26.2	280	92	17.19IPC	4.83	4.84	-0.01	1.028	20.67	8.31	8.46	-0.16	0.000			340	15	1.63	
813	28.6	306	92	17.62EPC	5.26	5.22	0.03	1.028	21.52	9.16	9.14	0.02	0.720			340		3	
84	30.1	343	92	17.69IPC	5.33	5.47	-0.15	1.028	21.13	8.77	9.58	-0.82	0.000			340		3	
816	32.7	328	91	18.34EP	5.98	5.89	0.08	1.028								340		3	
815	45.6	306	91	20.33EPC	7.97	7.99	-0.02	1.028								340		3	
817	49.9	323	91	21.12EP	8.76	8.69	0.07	1.028								340	9	1.33	
81	57.5	334	91	22.26IPD	9.90	9.92	-0.02	1.028								340	10	1.43	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	N	NE	SE	SW	NW	E
AVE. OF END POINTS	0.31	0.48	0.52	0.56	0.65	0.82	0.94

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13     4/20                                                                                                  83/11/13     4/20

                                                     HORIZONTAL                                  VERTICAL
                                              SE =    0.57              SE =    0.66              SE =    0.87   QUALITY = A
                                              AZ =    -35.              AZ =   -125.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113  420 23.52 44N14.67 114W 2.89   6.60   2.31 10 14 110 1 0.07  0.7  0.9 B A|B 0.33 10 20 0.00 0.05  0  0.0  0.0 10  2.3  0.3
SE OF ORIG =  0.040          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    7.8 319 129 25.34IPO         1.82  1.67              -0.05 1.000      26.42  2.90  3.27 -0.37 0.000           344  34 2.33
816    9.8 131 123 25.70IPO         2.18  2.16               0.02 1.000      28.27  4.75  3.78  0.97 0.000           344  53 2.73
815   14.3 239 113 26.42IPC         2.90  2.87               0.03 1.000      28.24  4.72  5.02 -0.30 0.000           344  37 2.43
84    16.8 108 110 26.74IPC         3.22  3.29              -0.07 1.000      31.43  7.91  5.76  2.15 0.000           344  54 2.73
813   17.6 175 109 26.97IPC         3.45  3.42               0.03 1.000      30.19  6.67  5.98  0.69 0.000           344  30 2.23
81    17.6 358 109 26.99IPC         3.47  3.42               0.05 1.000      31.55  8.03  5.99  2.04 0.000           344  44 2.53
812   29.5 182  65 28.81IPC         5.29  5.41              -0.12 1.000      33.30  9.78  9.47  0.31 0.000           344  31 2.33
811   38.7 150  65 30.54IPC         7.02  6.90               0.12 1.000      34.45 10.93 12.07 -1.14 0.000           344  29 2.23
85    40.6 130  65 30.72IPC         7.20  7.21              -0.01 1.000      33.49  9.97 12.62 -2.65 0.000           344  38 2.53
86    48.7 129  65 32.04EP          8.52  8.52               0.00 1.000      39.19 15.67 14.91  0.76 0.000           344  11 1.43

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW    NW    NE     E     Z     N    SE
AVE. OF END POINTS                  0.04  0.11  0.12  0.16  0.17  0.21  0.27

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.07      0.01      0.16         0

          ____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/12 23/ 5 83/11/12 23/ 5

HORIZONTAL		VERTICAL	
SE = 0.52	SE = 0.60	SE = 1.00	QUALITY = A
AZ = -69.	AZ = 21.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831112	23 5 48.00	44N13.99	114W 2.90	8.24	2.56	29	6	69	1	0.14	0.6	1.0	A	A|A	0.21	10	49	0.00	0.11	0	0.0	0.0	10	2.6	0.3

SE OF ORIG = 0.050 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=				P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
SWF	2.3	39	163	49.51	PO	1.51	1.54		-0.03	1.060		50.80	2.80	2.70	0.10	0.742				343		3	
NWSI	3.3	43	156	49.59	PDO	1.59	1.60		-0.01	1.060		0.00	-48.00	2.80	-50.80	0.000				343		3	
ANPI	6.0	146	139	49.92	P 0	1.92	1.84		0.07	1.060		0.00	-48.00	3.22	-51.23	0.000				343		3	
817	8.8	324	127	50.01	IPD	2.01	2.16		-0.15	1.060		52.16	4.16	3.77	0.39	0.000				343	47	2.63	
WSUI	8.9	101	127	50.28	PC	2.28	2.17		0.11	1.060										343		3	
816	9.0	125	126	50.12	IP	2.12	2.19		-0.07	1.060		51.12	3.12	3.83	-0.71	0.000				343	50	2.63	
NSUI	9.4	86	125	50.35	P 0	2.35	2.24		0.11	1.060		0.00	-48.00	3.92	-51.92	0.000				343		3	
815	13.6	243	112	50.83	IPC	2.83	2.85		-0.02	1.060		53.03	5.03	4.99	0.04	0.742				343	51	2.73	
M-2	16.2	119	106	51.30	P+0	3.30	3.23	0.17	-0.10	1.060		0.00	-48.00	5.65	-53.95	0.000				343		3	
813	16.3	174	106	51.35	IPC	3.35	3.25		0.10	1.060		53.78	5.78	5.69	0.09	0.000				343	52	2.73	
84	16.5	104	105	51.21	IPC	3.21	3.29		-0.08	1.060		53.53	5.53	5.76	-0.23	0.742				343	41	2.53	
DSPI	17.4	95	104	51.40	PCO	3.40	3.43		-0.04	1.060		0.00	-48.00	6.01	-54.01	0.000				343		3	
RCI	18.3	255	102	51.49	PCO	3.49	3.57		-0.08	1.060		0.00	-48.00	6.25	-54.25	0.000				343		3	
81	18.8	359	102	51.42	IPC	3.42	3.66		-0.25	1.060		57.62	9.62	6.41	3.21	0.000				343	53	2.73	
MBAI	19.9	125	100	51.86	PCO	3.86	3.83		0.02	1.060		0.00	-48.00	6.71	-54.71	0.000				343		3	
CGI	20.0	64	100	51.66	PCO	3.66	3.85		-0.19	1.060		0.00	-48.00	6.74	-54.74	0.000				343		3	
HIR	20.6	348	100	52.20	PDO	4.20	3.94		0.26	1.060		0.00	-48.00	6.89	-54.90	0.000				343		3	
M-1	23.4	141	97	52.75	PCO	4.75	4.39	0.30	0.06	1.060		0.00	-48.00	7.68	-56.21	0.000				343		3	
BRPI	24.9	162	96	52.73	PC2	4.73	4.64		0.08	0.265		0.00	-48.00	8.13	-56.13	0.000				343		3	
BRCI	27.9	181	95	52.95	P+0	4.95	5.11		-0.17	1.060		0.00	-48.00	8.95	-56.95	0.000				343		3	
GCI	28.0	28	95	53.40	PCO	5.40	5.14		0.26	1.060		0.00	-48.00	8.99	-57.00	0.000				343		3	
812	28.3	182	95	52.91	IP 4	4.91	5.18		-0.28	0.000										343	48	2.63	
LCRI	32.1	132	94	53.78	PDO	5.78	5.81		-0.03	1.060		0.00	-48.00	10.16	-58.16	0.000				343		3	
811	37.6	149	93	54.82	EP	6.82	6.69		0.12	1.060										343	45	2.63	
85	39.9	129	93	55.04	IPC	7.04	7.06		-8.02	1.060										343	60	2.93	
86	47.9	126	92	56.68	EP	8.68	8.37		0.31	1.060										343	16	1.83	
MDCI	54.7	121	92	57.34	PDO	9.34	9.46		-0.13	1.060		0.00	-48.00	16.56	-64.56	0.000				343		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	NW	N	SE	E
AVE. OF END POINTS	0.37	0.64	0.68	0.69	0.81	0.84	0.87

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
29	0.14	0.41	0.73	A

----------END----------END----------END----------END----------

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/13     7/ 4                                                                                  83/11/13     7/ 4

                                                HORIZONTAL                                  VERTICAL
                                          SE =    0.56              SE =    0.73              SE =    1.33   QUALITY = A
                                          AZ =    -28.              AZ =   -118.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113  7 4 17.10 44N 8.94 113W55.98   7.49   2.77 27  7  50 1 0.17  0.7  1.3 8 B|A 0.15 10 45 0.00 0.12  0  0.0  0.0 10  2.8  0.3
SE OF ORIG =  0.050          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    4.6 337 144 18.39IPD          1.29  1.60              -0.31 1.104      20.35  3.25  2.80  0.45 0.773          345  73 2.93
M-2    5.2  72 141 18.99 PD0         1.89  1.66  0.17         0.06 1.104       0.00-17.10  2.90-20.30 0.000          345       3
ANPI   7.3 307 129 18.89 P 0         1.79  1.90              -0.10 1.104       0.00-17.10  3.32-20.41 0.000          345       3
MBAI   7.4 107 129 19.12 PD0         2.02  1.91               0.12 1.104       0.00-17.10  3.34-20.43 0.000          345       3
WSUI   7.7 356 128 18.98 PD          1.88  1.94              -0.06 1.104                                              345       3
B4     8.6  52 123 19.12IPD          2.02  2.07              -0.04 1.104                                              345  75 3.03
NSUI  10.0   1 118 19.32 PC0         2.22  2.26              -0.04 1.104       0.00-17.10  3.96-21.06 0.000          345       3
B13   10.3 228 117 19.36IPC          2.26  2.30              -0.03 1.104      22.01  4.91  4.02  0.89 0.000          345  58 2.73
M-1   10.4 148 116 19.58 PC0         2.48  2.32  0.30        -0.13 1.104       0.00-17.10  4.05-21.68 0.000          345       3
DSPI  11.2  46 113 19.56 PD0         2.46  2.44               0.02 1.104      22.18  5.08  4.28  0.81 0.000          345       3
NWSI  13.7 329 106 19.63 PD1         2.53  2.82              -0.29 0.621       0.00-17.10  4.94-22.04 0.000          345       3
BRPI  14.4 186 104 20.00 PC2         2.90  2.94              -0.04 0.276      21.45  4.35  5.14 -0.79 0.000          345       3
BSU3  17.5 334  97 20.60 P           3.50  3.43               0.07 1.104                                              345       3
LCRI  19.0 129  95 20.59 PC0         3.49  3.67              -0.18 1.104       0.00-17.10  6.42-23.52 0.000          345       3
CGI   20.2  26  95 20.76 PD0         3.66  3.85              -0.19 1.104       0.00-17.10  6.74-23.84 0.000          345       3
BRCI  20.9 208  94 21.00 P+2         3.90  3.97              -0.06 0.276      23.30  6.20  6.94 -0.74 0.000          345       3
B12   21.5 208  94 21.18IPC          4.08  4.06               0.02 1.104      24.22  7.12  7.11  0.01 0.773          345  60 2.83
B15   21.7 279  94 21.19IP           4.09  4.09               0.00 1.104                                              345  49 2.63
B17   21.9 319  94 21.09IP           3.99  4.12              -0.13 1.104                                              345  58 2.83
B11   25.1 157  93 21.83EPC          4.73  4.65               0.08 1.104                                              345  61 2.83
B5    26.8 126  92 22.09IPC          4.99  4.94               0.05 1.104      25.84  8.74  8.65  0.10 0.000          345  75 3.03
RCI   27.2 280  92 22.19 PD0         5.09  5.01               0.09 1.104       0.00-17.10  8.76-25.86 0.000          345       3
B1    29.8 341  92 22.45IPC          5.35  5.42              -0.07 1.104                                              345  72 3.03
HIR   32.4 335  92 23.40 PC0         6.30  5.85               0.45 1.104       0.00-17.10 10.24-27.34 0.000          345       3
GCI   34.3   7  91 45.50 PC4        28.40  6.15              22.25 0.000       0.00-17.10 10.76-27.86 0.000          345       3
B6    34.9 126  91 23.53IPC          6.43  6.25               0.18 1.104      28.74 11.64 10.94  0.70 0.000          345  21 1.93

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z     N    SE    SW     E    NE
AVE. OF END POINTS                   0.05  0.06  0.07  0.08  0.11  0.11  0.12

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                13      0.17      0.03      0.09         D

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/13     6/15                                                                                                  83/11/13     6/15

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.41              SE =   0.46              SE =   1.03   QUALITY = A
                                            AZ =   -33.              AZ =  -123.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113  615 35.06 44N12.79 114W 3.84   8.65        14  9  91 1 0.06  0.5  1.0 B A|B 0.12 10 30 0.00 0.05  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.042          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   5.4 121 144 36.93 PDO        1.87  1.83              0.04 1.000       0.00-35.06  3.20-38.26 0.000
NWSI   5.8  37 142 36.87 PDO        1.81  1.87             -0.06 1.000      38.35  3.29  3.27  0.02 0.000
BSU3   9.1  18 128 37.28 PD         2.22  2.24             -0.02 1.000
WSUI  10.0  87 124 37.53 PD         2.47  2.36              0.11 1.000
NSUI  11.0  75 121 37.47 P 0        2.41  2.49             -0.08 1.000       0.00-35.06  4.36-39.42 0.000
M-2   16.4 110 108 38.49 PDO        3.43  3.29  0.17       -0.03 1.000       0.00-35.06  5.76-41.12 0.000
RCI   16.6 261 108 38.39 PCO        3.33  3.32              0.01 1.000       0.00-35.06  5.81-40.87 0.000
OSPI  18.6  88 104 38.67 PDO        3.61  3.64             -0.03 1.000      44.72  9.66  6.37  3.30 0.000
MBAI  19.8 118 103 39.00 PDO        3.94  3.84              0.11 1.000      41.95  6.89  6.71  0.18 0.000
CGI   22.2  60 100 39.21 P 0        4.15  4.21             -0.05 1.000      41.91  6.85  7.36 -0.51 0.000
HIR   22.6 352 100 39.40 PDO        4.34  4.27              0.07 1.000       0.00-35.06  7.47-42.53 0.000
M-1   22.6 135 100 38.98 PCO        3.92  4.28  0.30       -0.66M0.000       0.00-35.06  7.49-43.08 0.000
BRPI  23.3 157  99 39.45 PCO        4.39  4.38              0.01 1.000      42.30  7.24  7.67 -0.43 0.000
BRCI  25.6 178  98 39.75 PCO        4.69  4.76             -0.07 1.000      37.00  1.94  8.33 -6.39 0.000
GCI   30.5  28  96 41.40 PCO        6.34  5.54              0.80M0.000       0.00-35.06  9.70-44.76 0.000
LCRI  31.7 127  95 40.79 P 0        5.73  5.74             -0.01 1.000       0.00-35.06 10.05-45.11 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SW    NW    NE     E    SE     Z     N
AVE. OF END POINTS                 0.13  0.16  0.17  0.17  0.19  0.20  0.23

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 7      0.06      0.12      0.18         D

------------END----------------------END----------------------END----------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13     9/56                                                                                  83/11/13     9/56

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.27              SE =    0.47              SE =    1.11   QUALITY = A
                                            AZ =    -41.              AZ =   -131.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113  956  8.26 44N 2.54 113W52.53   9.92   2.07 12 16  95 1 0.05  0.5  1.1 B A|B 0.22 10 15 0.00 0.04  0  0.0  0.0  8  2.1  0.4
SE OF ORIG =  0.045          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811   12.4 154 123 11.04IPD         2.78  2.80             -0.01 1.053      13.19  4.93  4.89  0.04 0.737           347  30 2.23
313   13.2 292 121 11.17IPC         2.91  2.92              0.00 1.053                                                347  27 2.13
812   16.4 245 114 11.60IPC         3.34  3.37             -0.02 1.053                                                347  31 2.23
34    17.3   7 113 11.76IPD         3.50  3.50              0.00 1.053                                                347  36 2.43
816   17.3 338 113 11.83IPD         3.57  3.51              0.07 1.053      14.35  6.09  6.14 -0.04 0.737           347  27 2.13
35    17.6 102 112 11.76IPD         3.50  3.56             -0.05 1.053      10.69  2.43  6.23 -3.79 0.000           347  40 2.53
86    25.3 110 103 13.02IPC         4.76  4.75              0.02 1.053                                                347   8 1.13
815   30.1 300 100 13.74IPD         5.48  5.51             -0.03 1.053      17.75  9.49  9.65 -0.15 0.000           347  22 2.03
817   34.1 326  98 14.51EP          6.25  6.15              0.11 1.053                                                347        3
81    42.5 340  96 15.69IPD         7.43  7.50             -0.07 1.053      21.84 13.58 13.13  0.45 0.000           347        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    NE    SE     Z    NW    SW     E
AVE. OF END POINTS                  0.12  0.14  0.16  0.20  0.22  0.25  0.30

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.05      0.02      0.20         0

____________END____________________END____________________END____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/13 8/26 83/11/13 8/26

	HORIZONTAL		VERTICAL	
SE =	0.68	SE =	0.83	SE = 1.39 QUALITY = A
AZ =	10.	AZ =	-80.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831113	826 4.79	44N 4.48	113W51.09	4.92	2.20	17	14	110	1	0.14	0.8	1.4	B	818	0.54	10	21	0.00	0.11	0	0.0	0.0	15	2.2	0.3

SE OF ORIG = 0.063 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR	O=TTOB	TTCAL	DELAY	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
MBAI	6.1	5	127	6.37	IPO		1.58	1.44			0.14	1.037		8.07	3.28	2.53	0.76	0.000				346	20	1.83	
B4	13.6	1	108	7.38	IPD		2.59	2.65			-0.05	1.037										346	42	2.53	
B13	14.3	276	107	7.67	IPC		2.88	2.76			0.12	1.037										346	38	2.43	
B16	15.0	326	106	7.73	IPC		2.94	2.89			0.06	1.037										346	35	2.33	
B11	15.1	167	106	7.72	IPC		2.93	2.91			0.02	1.037										346	35	2.33	
DSPI	16.1	6	105	7.79	IPD		3.00	3.08			-0.07	1.037		9.82	5.03	5.39	-0.35	0.000				346	19	1.83	
B5	17.0	116	104	7.94	IPC		3.15	3.23			-0.07	1.037										346	43	2.53	
NSUI	19.4	341	102	8.46	EPD		3.67	3.65			0.03	1.037		11.74	6.95	6.38	0.57	0.000				346	19	1.83	
B12	19.9	238	102	8.42	IPC		3.63	3.73			-0.10	1.037		11.35	6.56	6.53	0.04	0.726				346	33	2.33	
NWSI	24.2	326	100	9.35	EPD		4.56	4.49			0.07	1.037										346	1T	1.73	
B15	30.3	292	98	10.30	IPD		5.51	5.57			-0.06	1.037										346	36	2.43	
B17	32.4	320	97	10.41	EP		5.62	5.94			-0.32	1.037		15.31	10.52	10.40	0.12	0.000				346	39	2.53	
B1	39.9	336	65	11.91	IPD		7.12	7.22			-0.09	1.037		17.26	12.47	12.63	-0.16	0.726				346	32	2.33	
GCI	42.4	357	65	12.47	EP		7.68	7.62			0.06	1.037										346	41	2.53	
HIR	42.7	332	65	12.81	EPD		8.02	7.68			0.34	1.037										346	24	2.13	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	N	I	SE	SW	E	NE
AVE. OF END POINTS	0.04	0.05	0.06	0.08	0.10	0.14	0.16

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.14	0.04	0.10	D

----------END----------END----------END----------END----------

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13   11/33                                                                                  83/11/13    11/33

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.80              SE =    1.08              SE =    1.84   QUALITY = A
                                          AZ =    -37.              AZ =   -127.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113 1133 22.30 44N 8.92 113W55.36   5.43   2.17 14 10  66 1 0.16  1.1  1.8 B B1A 0.15 10 19 0.00 0.11  0  0.0  0.0 12  2.2  0.3
SE OF ORIG =  0.076          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.0 329 136 23.43IPD         1.13  1.36             -0.23 1.022      24.65  2.35  2.38 -0.04 0.715                40 2.4
MBAI   6.6 109 128 23.87IPD         1.57  1.57              0.00 1.022                                                    32 2.2
NSUI  10.1 356 116 24.59EPC         2.29  2.11              0.18 1.022      26.68  4.38  3.69  0.69 0.000                30 2.2
OSPI  10.7  43 115 24.45EPC         2.15  2.20             -0.05 1.022      25.94  3.64  3.84 -0.21 0.000                30 2.2
B13   10.9 231 115 24.88IPD         2.58  2.24              0.34 1.022                                                    35 2.3
NWSI  14.2 326 109 25.15IPD         2.85  2.78              0.07 1.022
B12   21.9 210 102 26.06EP          3.76  4.10             -0.34 1.022                                                    35 2.3
B17   22.4 317 102 26.48EP          4.18  4.20             -0.02 1.022                                                    30 2.2
B15   22.5 278 102 26.53IPD         4.23  4.21              0.02 1.022                                                    36 2.4
B11   24.7 158 101 26.97IPC         4.67  4.59              0.07 1.022      29.57  7.27  8.04 -0.77 0.000                33 2.3
B5    26.1 127 100 27.23IPD         4.93  4.84              0.08 1.022
B1    30.1 340  99 27.84IPD         5.54  5.56             -0.02 1.022      28.79  6.49  9.73 -3.24 0.000                35 2.4
HIR   32.8 334  65 29.11EPC         6.81  6.03              0.77M0.000                                                    24 2.0
B6    34.2 126  65 28.50EPC         6.20  6.26             -0.06 1.022                                                     9 1.2

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    NW    SE    SW     Z    NE     E
AVE. OF END POINTS                -0.02  0.04  0.05  0.07  0.07  0.08  0.11

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.16     -0.07      0.06         D

____________END_____________________END_____________________END_____________________END___________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13    10/13                                                                                  83/11/13    10/13

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.35              SE =    0.58              SE =    1.79   QUALITY = A
                                          AZ =    -55.              AZ =     35.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113 1013 14.29 44N 2.25 113W52.67   8.11   2.32 17 13  94 1 0.09  0.6  1.8 B A|B 0.51 10 24 0.00 0.07  0  0.0  0.0 13  2.3  0.3
SE OF ORIG =  0.052          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MBAI  10.5  14 120 16.75IPD          2.46  2.38              0.07 1.056                                                348  27 2.13
B11   12.0 153 116 16.92IPC          2.63  2.58              0.04 1.056      19.12  4.83  4.52  0.31 0.000            348  42 2.53
B13   13.3 295 112 17.07IPC          2.78  2.79             -0.02 1.056      19.19  4.90  4.89  0.01 0.739            348  36 2.33
B12   16.1 246 105 17.52IPC          3.23  3.22              0.01 1.056                                                348  49 2.63
B5    17.7 101 102 17.77IPD          3.48  3.48              0.00 1.056      20.37  6.08  6.09 -0.01 0.739            348  51 2.73
B16   17.7 340 102 17.70IPC          3.41  3.48             -0.08 1.056      20.30  6.01  6.09 -0.09 0.739            348        3
B4    17.8   7 102 17.71IPD          3.42  3.50             -0.08 1.056      20.15  5.86  6.12 -0.27 0.000            348  53 2.73
OSPI  20.5  10  99 18.12EPC          3.83  3.91             -0.09 1.056      20.18  5.89  6.85 -0.97 0.000            348  34 2.33
NSUI  22.8 349  97 18.81EPD          4.52  4.30              0.21 1.056                                                348  28 2.23
B6    25.3 108  96 10.93IPC          4.64  4.70             -0.06 1.056      22.65  8.36  8.22  0.14 0.000            348  12 1.43
NW5I  26.7 335  95 19.35EP           5.06  4.93              0.13 1.056                                                348  26 2.13
B15   30.2 301  94 19.73IPC          5.44  5.50             -0.06 1.056                                                348  42 2.53
B17   34.4 327  93 20.38EP           6.09  6.18             -0.09 1.056      24.58 10.29 10.81 -0.52 0.000            348  28 2.23
B1    43.0 341  92 21.94IPD          7.65  7.56              0.09 1.056      27.04 12.75 13.23 -0.48 0.000            348  38 2.53
HIR   45.6 337  92 22.91EP 4         8.62  7.98              0.63 0.000                                                348        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     Z     N    NE     E    SW    NW
AVE. OF END POINTS                   0.07  0.13  0.15  0.15  0.17  0.17  0.18

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.09      0.05      0.15         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13    13/20                                                                                                  83/11/13    13/20

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.36              SE =   0.65              SE =   0.85   QUALITY = A
                                            AZ =    32.              AZ =   -58.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113 1320 52.47 44N16.07 114W 6.69   8.07   2.56 12 15 143 1 0.05  0.6  0.9 8 A|C 0.06 10 13 0.00 0.04  0  0.0  0.0  9  2.6  0.1
SE OF ORIG =  0.053          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    3.3 358 155 54.02IPD         1.55  1.57             -0.02 1.053      55.22  2.75  2.75  0.00 0.737           351  46 2.53
815   12.3 216 114 55.16IPC         2.69  2.64              0.05 1.053      57.08  4.61  4.62  0.00 0.737           351  51 2.63
816   15.4 126 107 55.61IPC         3.14  3.10              0.04 1.053                                                351  36 2.43
81    15.7  17 106 55.62IPC         3.15  3.14              0.01 1.053      59.77  7.30  5.50  1.80 0.000           351  49 2.63
813   21.1 162  98 56.47IPC         4.00  4.02             -0.01 1.053                                                351  43 2.53
84    22.4 111  97 56.63IPC         4.16  4.24             -0.08 1.053                                                351  52 2.73
812   32.4 173  93 58.21IPC         5.74  5.84             -0.10 1.053                                                351  40 2.53
811   43.6 146  92 60.16EPC         7.69  7.65              0.04 1.053                                                351  40 2.53
85    46.2 129  92 60.64IPC         8.17  8.08              0.09 1.053                                                351  43 2.63
86    54.3 128  92 61.85EPD         9.38  9.39             -0.01 1.053                                                351        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NE    NW     E    SE     N    SW     Z
AVE. OF END POINTS                 0.18  0.18  0.20  0.21  0.21  0.21  0.26

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  7      0.05      0.13      0.21         D

        ____________END_____________________END_____________________END_____________________END____________
```

	HORIZONTAL		VERTICAL	
SE =	0.50	SE =	0.69	SE = 1.45 QUALITY = A
AZ =	-37.	AZ =	-127.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831113	12 1 16.95	44N 3.12	113W56.34	12.36	2.99	26	8	68	1	0.12	0.7	1.5	A	A|A	0.68	10	45	0.00	0.09	0	0.0	0.0	10	3.0	0.3

SE OF ORIG = 0.080 3 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
BRPI	3.7	196	162	19.22	PDO	2.27	2.25	0.02	1.096		20.42	3.47	3.94	-0.46	0.000				350		3	
M-1	6.3	72	151	19.46	PDO	2.51	2.42	0.30 -0.21	1.096		0.00	-16.95	4.24	-21.71	0.000				350		3	
B13	8.2	299	144	19.48	IPC	2.53	2.58	-0.05	1.096		22.33	5.38	4.52	0.87	0.000				350	74	3.03	
MBAI	11.4	41	134	20.00	PDO	3.05	2.93	0.13	1.096		0.00	-16.95	5.12	-22.07	0.000				350		3	
BRCI	12.0	230	132	20.00	PDO	3.05	3.00	0.06	1.096		0.00	-16.95	5.25	-22.19	0.000				350		3	
B12	12.7	230	131	20.12	IPC	3.17	3.08	0.09	1.096		23.27	6.32	5.39	0.93	0.000				350	71	3.03	
M-2	13.5	24	129	20.39	PDO	3.44	3.17	0.17 0.10	1.096		0.00	-16.95	5.55	-22.80	0.000				350		3	
B16	15.1	355	125	20.33	IPC	3.38	3.37	0.02	1.096		22.98	6.03	5.90	0.14	0.768				350	74	3.03	
LCR1	15.4	94	125	20.20	P 0	3.25	3.42	-0.17	1.096		0.00	-16.95	5.99	-22.94	0.000				350		3	
ANPI	16.0	340	123	20.25	PCO	3.30	3.51	-0.21	1.096		0.00	-16.95	6.15	-23.09	0.000				350		3	
B11	16.1	140	123	20.55	IPC	3.60	3.52	0.09	1.096		23.05	6.10	6.15	-0.05	0.768				350	72	3.03	
B4	17.6	24	120	20.70	IPO	3.75	3.73	0.02	1.096		21.91	4.96	6.53	-1.56	0.000				350	98	3.33	
WSUI	18.4	360	119	20.78	PC	3.83	3.85	-0.01	1.096										350		3	
OSPI	20.4	25	116	21.06	PDO	4.11	4.13	-0.01	1.096		0.00	-16.95	7.22	-24.17	0.000				350		3	
NSUI	20.8	2	116	21.22	PDO	4.27	4.18	0.09	1.096		0.00	-16.95	7.32	-24.27	0.000				350		3	
B5	22.8	102	113	21.56	IPO	4.61	4.48	0.14	1.096		24.14	7.19	7.83	-0.64	0.000				350	114	3.43	
NWSI	23.5	344	112	21.46	P 2	4.51	4.58	-0.07	0.274		23.96	7.01	8.02	-1.01	0.000				350		3	
B15	25.2	304	110	21.82	IPC	4.87	4.85	0.02	1.096		26.12	9.17	8.49	0.69	0.000				350	73	3.03	
CGI	30.3	18	106	21.51	PC3	4.56	5.64	-1.07	0.069		26.46	9.51	9.87	-0.35	0.000				350		3	
B6	30.4	108	106	22.53	IPO	5.58	5.65	-0.07	1.096		26.48	9.53	9.89	-0.36	0.000				350	26	2.23	
RCI	30.5	300	106	22.49	PCO	5.54	5.67	-0.12	1.096		0.00	-16.95	9.92	-26.86	0.000				350		3	
B17	30.6	333	106	22.48	IPC	5.53	5.67	-0.14	1.096										350	63	2.93	
B1	40.0	347	101	24.11	IP	7.16	7.16	0.01	1.096										350	80	3.23	
HIR	42.3	342	100	24.70	PDO	7.75	7.54	0.22	1.096		0.00	-16.95	13.19	-30.14	0.000				350		3	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	SW	NE	SE	E	N	NW
AVE. OF END POINTS	0.27	0.52	0.58	0.71	0.73	0.82	0.84

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
26	0.12	0.28	0.67	B

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13    15/25                                                                                  83/11/13    15/25

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.53              SE =    0.68              SE =    0.90   QUALITY = A
                                          AZ =    -59.              AZ =     31.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831113 1525  7.73 44N20.71 114W 0.69    4.85    2.87 12 18 169 1 0.07  0.7  0.9 8 A|C 0.08 10 20 0.00 0.06  0  0.0  0.0  9  2.9  0.4
SE OF ORIG =  0.052          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1     7.2 332 122  9.33IPD          1.60  1.60              -0.01 1.053      10.84  3.11  2.81  0.30 0.000            352  69 2.93
B17    9.7 237 115  9.66IPC          1.93  1.99              -0.06 1.053      11.34  3.61  3.49  0.12 0.737            352        3
B16   18.1 166 103 11.15IPC          3.42  3.43              -0.01 1.053      15.58  7.85  6.00  1.85 0.000            352  72 2.93
B4    21.0 142 101 11.72IPD          3.99  3.92               0.07 1.053      14.54  6.81  6.86 -0.06 0.737            352 103 3.33
B15   23.9 219 100 12.16IPC          4.43  4.45              -0.02 1.053      15.26  7.53  7.79 -0.26 0.000            352  53 2.73
B13   28.7 183  98 12.97IPC          5.24  5.29              -0.05 1.053      17.23  9.50  9.26  0.24 0.000            352  76 3.03
B12   40.9 186  65 15.02IPC          7.29  7.38              -0.10 1.053      19.97 12.24 12.92 -0.68 0.000            352  78 3.13
B5    46.8 143  65 16.03IP           8.30  8.34              -0.04 1.053      20.29 12.56 14.59 -2.04 0.000            352  94 3.33
B11   47.6 160  65 16.37IPD          8.64  8.48               0.16 1.053      22.62 15.09 14.84  0.25 0.000            352  58 2.93
B6    54.5 141  65 17.35IPC          9.62  9.60               0.02 1.053      22.87 15.14 16.80 -1.66 0.000            352  17 1.83

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     N     E    NW    NE    SW    SE
AVE. OF END POINTS                    0.13  0.15  0.16  0.17  0.17  0.18  0.20

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.07      0.08      0.17         0

____________END_____________________END_____________________END_____________________END___________
```

```
------------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/13    15/23                                                                                  83/11/13    15/23

                                                  HORIZONTAL                                   VERTICAL
                                          SE =    0.75                SE =    1.12             SE =    1.19   QUALITY = A
                                          AZ =    -59.                AZ =     31.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113 1523  7.78 44N20.63 114W 1.19   5.71        13 14 142 1 0.10  1.1  1.2 C 8|C 0.63 10 25 0.00 0.09  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.074          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   9.9 180 118 10.01 PC0        2.23  2.08              0.14 1.000       0.00 -7.78  3.65-11.43 0.000
HIR   10.2 320 118  9.90 PC0        2.12  2.14             -0.02 1.000       0.00 -7.78  3.74-11.52 0.000
NSUI  13.6 149 111 10.42 P 0        2.64  2.69             -0.06 1.000       0.00 -7.78  4.72-12.50 0.000
#SUI  15.4 155 109 10.93 P          3.15  3.00              0.15 1.000
CGI   16.1 103 108 11.06 PC0        3.28  3.12              0.15 1.000       0.00 -7.78  5.47-13.25 0.000
DSPI  20.4 133 104 11.49 PD0        3.71  3.86             -0.16 1.000       0.00 -7.78  6.76-14.55 0.000
M-2   23.3 149 102 12.18 PD0        4.40  4.36  0.17       -0.14 1.000       0.00 -7.78  7.64-15.72 0.000
RCI   26.2 229 101 12.59 PC0        4.81  4.87             -0.06 1.000       0.00 -7.78  8.52-16.31 0.000
MBAI  27.6 150 100 12.82 PD0        5.04  5.12             -0.08 1.000       0.00 -7.78  8.95-16.74 0.000
M-1   32.9 158  65 14.15 PC0        6.37  6.03  0.30        0.04 1.000       0.00 -7.78 10.55-18.86 0.000
BRPI  36.4 171  65 14.43 PD0        6.65  6.59              0.05 1.000       0.00 -7.78 11.54-19.32 0.000
LCRI  40.0 147  65 14.90 PC0        7.12  7.18             -0.06 1.000       0.00 -7.78 12.56-20.34 0.000
BRCI  40.2 184  65 15.05 PC0        7.27  7.21              0.05 1.000       0.00 -7.78 12.62-20.41 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SE     Z    SW    NW    NE     E
AVE. OF END POINTS                 0.09  0.12  0.12  0.13  0.13  0.14  0.15

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                10      0.10     -0.01      0.13         0

        ------------END---------------------END---------------------END---------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13    23/ 6                                                                                  83/11/13    23/ 6

                                                  HORIZONTAL                                  VERTICAL
                                             SE =   0.98              SE =   1.11              SE =   1.25   QUALITY = A
                                             AZ =  -112.              AZ =   -22.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831113 23 6 15.68 44N15.26 114W 7.38   6.84        13 14 127 1 0.13  1.1  1.3 8 8|8 0.10 10 25 0.00 0.11  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.076          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   8.2  90 129 17.69 PC0        2.01  1.95              0.06 1.175       0.00-15.68  3.41-19.09 0.000
ANPI  11.9 128 119 18.11 PD0        2.43  2.50             -0.07 1.175       0.00-15.68  4.37-20.05 0.000
RCI   13.7 238 115 18.59 PD0        2.91  2.79              0.12 1.175       0.00-15.68  4.89-20.57 0.000
WSUI  15.3 105 113 18.78 PC         3.10  3.05              0.05 1.175
NSUI  15.4  96 112 18.64 PD0        2.96  3.07             -0.11 1.175       0.00-15.68  5.38-21.06 0.000
HIR   17.9   5 109 19.10 PD0        3.42  3.49             -0.07 1.175       0.00-15.68  6.10-21.78 0.000
M-2   22.5 117  65 20.30 PC2        4.62  4.25  0.17        0.20 0.294       0.00-15.68  7.45-23.42 0.000
CGI   24.8  75  65 20.30 P 1        4.62  4.62              0.00 0.661       0.00-15.68  8.09-23.77 0.000
MBAI  26.2 122  65 20.52 P+2        4.84  4.85             -0.01 0.294       0.00-15.68  8.49-24.17 0.000
M-1   29.2 135  65 21.53 PC0        5.85  5.34  0.30        0.21 1.175       0.00-15.68  9.34-25.54 0.000
BRPI  29.4 152  65 20.85 PC0        5.17  5.38             -0.21 1.175      23.05  7.37  9.41 -2.04 0.000
BRCI  30.7 170  65 21.10 P-0        5.42  5.58             -0.16 1.175      24.70  9.02  9.77 -0.75 0.000
LCRI  38.2 128  65 22.61 P 0        6.93  6.80              0.13 1.175       0.00-15.68 11.90-27.58 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     N     Z    NW    NE    SE    SW
AVE. OF END POINTS                 0.05  0.06  0.09  0.12  0.13  0.13  0.13

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 4      0.13     -0.01      0.10         0

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/13    22/38                                                                                  83/11/13    22/38

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.35              SE =    0.46              SE =    1.06   QUALITY = A
                                          AZ =      1.              AZ =    -89.

 DATE    DRIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831113 2238  7.48 44N 5.84 113W55.87   9.75   2.71 26  8  50 1 0.10  0.5  1.1 A A|A 0.08 10 47 0.00 0.06  0  0.0  0.0 10  2.7  0.1
SE OF ORIG =  0.049          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-1    6.2 120 144  9.83 PDO        2.35  2.05  0.30       -0.01 1.024       0.00 -7.48  3.60-11.60 0.000            353        3
MBAI   7.7  63 138  9.85 PDO        2.37  2.21              0.16 1.024      11.06  3.58  3.87 -0.29 0.000            353        3
B13    7.9 262 137  9.78IPO         2.30  2.22              0.07 1.024      12.24  4.76  3.89  0.86 0.000            353  42 2.53
M-2    8.7  33 134  9.98 P 0        2.50  2.32  0.17        0.01 1.024       0.00 -7.48  4.06-11.84 0.000            353        3
BRPI   8.8 191 134  9.75 PCO        2.27  2.33             -0.06 1.024       0.00 -7.48  4.07-11.55 0.000            353        3
B16   10.1 349 129  9.97IP          2.49  2.49              0.00 1.024      11.64  4.36  4.35  0.01 0.717            353  51 2.63
ANPI  11.7 329 124 10.01 PDO        2.53  2.70             -0.17 1.024       0.00 -7.48  4.72-12.20 0.000            353        3
B4    12.9  31 121 10.35IPC         2.87  2.85              0.02 1.024      12.39  4.91  4.99 -0.08 0.000            353  67 2.93
WSUI  13.4 357 120 10.38 PD         2.90  2.93             -0.03 1.024                                                353        3
DSPI  15.7  30 115 10.72 PCO        3.24  3.24              0.00 1.024       0.00 -7.48  5.67-13.16 0.000            353        3
NSUI  15.8 360 115 10.64 PCO        3.16  3.26             -0.10 1.024       0.00 -7.48  5.70-13.18 0.000            353        3
LCRI  15.9 113 114 10.71 PDO        3.23  3.28             -0.05 1.024       0.00 -7.48  5.74-13.22 0.000            353        3
BRCI  16.1 218 114 10.80 PCO        3.32  3.32              0.00 1.024      12.40  4.92  5.81 -0.89 0.000            353        3
B12   16.8 218 113 10.97IPC         3.49  3.42              0.07 1.024      13.45  5.97  5.98 -0.01 0.717            353  47 2.63
NWSI  18.9 338 109 11.23 PDO        3.75  3.74              0.01 1.024      14.04  6.56  6.54  0.01 0.000            353        3
B11   19.9 150 108 11.33IPO         3.85  3.88             -0.04 1.024      14.31  6.83  6.80  0.03 0.000            353  48 2.63
B2    22.1 354 105 11.73IP          4.25  4.23              0.02 1.024      15.14  7.66  7.40  0.26 0.000            353  45 2.63
B15   23.4 293 104 12.01IPO         4.53  4.43              0.10 1.024      15.97  8.49  7.75  0.74 0.000            353  56 2.83
B5    23.8 115 104 11.98IPO         4.50  4.49              0.00 1.024      16.03  8.55  7.86  0.68 0.000            353  66 2.93
CGI   25.4  20 102 12.30 PCO        4.82  4.75              0.06 1.024      15.90  8.42  8.32  0.10 0.000            353        3
B17   26.5 327 101 12.20IPO         4.72  4.94             -0.22 1.024      15.87  8.39  8.64 -0.25 0.000            353  48 2.73
RCI   28.9 291 100 12.79 PDO        5.31  5.32             -0.01 1.024       0.00 -7.48  9.31-16.79 0.000            353        3
B1    35.3 344  97 13.72IPC         6.24  6.34             -0.11 1.024      19.73 12.25 11.10  1.15 0.000            353  61 2.93
HIR   37.8 339  97 14.50 PDO        7.02  6.74              0.28 1.024       0.00 -7.48 11.79-19.28 0.000            353        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SE    SW     Z    NW    NE     E
AVE. OF END POINTS                  0.10  0.14  0.14  0.16  0.16  0.18  0.21

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                13      0.10      0.03      0.16         D

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/14     3/53                                                                                  83/11/14     3/53

                                                  HORIZONTAL                                  VERTICAL
                                          SE =   0.45              SE =   0.64              SE =   1.07   QUALITY = A
                                          AZ =   -19.              AZ =  -109.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114  353 55.93 44N13.98 114W 2.97   9.23   2.16 19  9  81 1 0.10  0.6  1.1 A A|A 0.59 10 28 0.00 0.08  0  0.0  0.0 10  2.2  0.1
SE OF ORIG =  0.052          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.4  43 158 57.65IPD          1.72  1.75              -0.03 1.033      59.46  3.53  3.06  0.46 0.000            356        3
BSU3   6.6  15 140 58.04IPD          2.11  2.03               0.08 1.033                                                356        3
B17    8.7 325 132 57.98IPD          2.05  2.26              -0.21 1.033                                                356  36 2.33
B16    9.1 124 130 58.23IPD          2.30  2.31              -0.01 1.033      60.03  4.10  4.03  0.06 0.723            356  27 2.13
NSUI   9.4  86 129 58.28IPD          2.35  2.35               0.00 1.033                                                356        3
B2     9.8  45 128 58.41IPD          2.48  2.39               0.09 1.033      60.07  4.14  4.18 -0.04 0.723            356  27 2.13
B15   13.5 243 117 58.88IPC          2.95  2.90               0.05 1.033      60.23  4.30  5.07 -0.78 0.000            356  27 2.13
B13   16.3 174 111 59.26IPC          3.33  3.31               0.02 1.033      61.29  5.36  5.80 -0.44 0.000            356  24 2.03
B4    16.5 104 111 59.23IPD          3.30  3.35              -0.05 1.033                                                356  34 2.33
OSPI  17.5  95 109 59.37IPD          3.44  3.49              -0.05 1.033      61.07  5.14  6.11 -0.97 0.000            356        3
B1    18.9 359 107 59.60IPC          3.67  3.70              -0.04 1.033      30.92-25.01  6.48-31.49 0.000            356  31 2.23
MBAI  20.0 125 106 59.90EPD          3.97  3.88               0.09 1.033                                                356        3
MIR   20.6 348 105 60.15IP           4.22  3.97               0.25 1.033      63.10  7.17  6.95  0.22 0.000            356        3
GCI   28.1  28  99 60.98EPC          5.05  5.16              -0.12 1.033                                                356        3
B12   28.2 182  99 61.02IPC          5.09  5.19              -0.11 1.033      64.99  9.06  9.09 -0.03 0.000            356  20 1.93
B11   37.6 149  95 62.71EP           6.78  6.70               0.08 1.033      66.96 11.03 11.72 -0.70 0.000            356  33 2.43
B5    39.9 129  95 62.96IPC          7.03  7.07              -0.04 1.033      68.93 13.00 12.37  0.63 0.000            356  26 2.23

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE     E    SW    NW    SE     N
AVE. OF END POINTS                 0.32  0.60  0.69  0.75  0.78  0.82  0.96

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                19      0.10      0.39      0.74         A

        ____________END____________________END____________________END____________________END____________
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14     1/ 1                                                                                                  83/11/14     1/ 1

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.41              SE =    0.53              SE =    0.51    QUALITY = A
                                            AZ =   -16.               AZ =  -106.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114  1 1  4.74 44N10.33 113W56.13   6.28   2.21 11 12  77 1 0.06  0.5  0.5 A A|A 0.30 10 17 0.00 0.04  0  0.0  0.0 10  2.2  0.1
SE OF ORIG =  0.029          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    2.3 316 160  5.95IPC          1.21  1.23              -0.02 1.028       6.88  2.14  2.15 -0.01 0.720            354  35 2.33
B4     7.4  69 129  6.52IPD          1.78  1.79               0.00 1.028                                                354  36 2.33
B13   12.0 218 116  7.23IPD          2.49  2.49               0.01 1.028                                                354  26 2.03
B2    13.8 351 113  7.59IPD          2.85  2.77               0.08 1.028       9.94  5.20  4.85  0.35 0.000            354  30 2.23
B17   19.8 314 106  8.37EPC          3.63  3.79              -0.16 1.028      11.57  6.83  6.63  0.20 0.000            354  36 2.43
B15   21.2 272 105  8.85IPD          4.11  4.03               0.08 1.028                                                354  31 2.23
B12   23.7 205 103  9.19IPD          4.45  4.46               0.00 1.028      12.29  7.55  7.80 -0.25 0.000            354  29 2.23
B1    27.3 340  65  9.82IPC          5.08  5.07               0.01 1.028      13.35  8.61  8.68 -0.26 0.000            354  32 2.33
B11   27.5 158  65  9.81EP           5.07  5.11              -0.03 1.028      12.91  8.17  8.93 -0.76 0.000            354  20 1.93
B5    28.6 130  65 10.05IPD          5.31  5.28               0.04 1.028      15.50 10.76  9.23  1.53 0.000            354  35 2.43

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     NE     SW      E     NW     SE      N
AVE. OF END POINTS                   0.45   0.76   0.79   0.91   0.93   0.99   1.13

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 11      0.06      0.59      0.89         A


          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14     2/11                                                                                                  83/11/14     2/11

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.30              SE =    0.44              SE =    0.65    QUALITY = A
                                            AZ =   -51.               AZ =    39.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
331114  211  1.90 44N 1.77 113W50.10   5.71   2.02 12 17 103 1 0.05  0.4  0.6 B A|B 0.42 10 16 0.00 0.05  0  0.0  0.0 10  2.0  0.1
SE OF ORIG =  0.026          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    9.9 168 118  4.04IPD          2.14  2.09               0.05 1.053       5.48  3.58  3.66 -0.08 0.737            355  27 2.13
B5    14.2 100 110  4.72IPC          2.82  2.79               0.03 1.053                                                355  35 2.33
B13   16.8 292 107  5.22IPD          3.32  3.24               0.09 1.053       7.52  5.62  5.66 -0.04 0.737            355  22 1.93
B4    18.6 357 105  5.39IPC          3.49  3.55              -0.06 1.053                                                355  33 2.33
B12   19.0 253 105  5.47IPC          3.57  3.61              -0.04 1.053       8.15  6.25  6.32 -0.06 0.000            355  21 1.93
B16   20.0 331 104  5.73EPC          3.83  3.78               0.05 1.053       8.63  6.73  6.62  0.11 0.000            355  24 2.03
B2    31.2 341  65  7.63IPD          5.73  5.75              -0.01 1.053      11.78  9.88 10.05 -0.17 0.000            355  21 1.93
B15   33.6 299  65  8.08IPD          6.18  6.14               0.04 1.053      13.88 11.98 10.75  1.23 0.000            355  24 2.03
B17   37.1 323  65  8.61IPD          6.71  6.71               0.01 1.053                                                355  20 1.93
B1    45.0 337  65  9.82IPC          7.92  7.99              -0.07 1.053                                                355  19 1.93

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH         NE      N     SE      Z     NW      E     SW
AVE. OF END POINTS                   0.08   0.10   0.11   0.14   0.17   0.21   0.22
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/14     5/35                                                                                  83/11/14     5/35

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.84              SE =    2.81              SE =  13.79   QUALITY = D
                                          AZ =     22.              AZ =    -68.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114  535 53.40 44N18.47 114W21.76   7.57   2.46 15 24 274 1 0.11  2.8 13.8 D C|D 0.23 10 17 0.00 0.09  0  0.0  0.0 12  2.5  0.1
SE OF ORIG =  0.235          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B15   19.4 138  96 57.08IPC         3.68  3.73             -0.05 1.020                                                358  40 2.53
B17   20.0  93  95 57.13IPD         3.73  3.83             -0.10 1.020                                                358  42 2.53
HIR   23.9  60  93 57.99IPD         4.59  4.46              0.13 1.020                                                358        3
B1    26.7  67  93 58.26IPC         4.86  4.91             -0.06 1.020      62.06  8.66  8.60  0.06 0.714            358  41 2.53
NWSI  27.9 102  92 58.38IPC         4.98  5.11             -0.13 1.020                                                358        3
B2    32.0  93  92 59.23IPD         5.83  5.78              0.05 1.020                                                358  36 2.43
NSUI  35.2 102  92 59.55EPC         6.15  6.31             -0.16 1.020                                                358  26 2.13
B16   35.2 112  92 59.63EPC         6.23  6.31             -0.08 1.020                                                358  41 2.53
B13   36.3 133  91 59.91IPC         6.51  6.47              0.04 1.020                                                358  36 2.43
B4    42.8 107  91 60.96IPD         7.56  7.54              0.02 1.020                                                358  45 2.63
OSPI  43.5 103  91 61.09EP          7.69  7.65              0.04 1.020                                                358  28 2.23
B12   43.8 147  91 61.02IPD         7.62  7.70             -0.08 1.020                                                358  39 2.53
B11   60.2 133  91 63.85EPC        10.45 10.35              0.10 1.020      71.52 18.12 18.11  0.01 0.000            358  37 2.53
B5    65.2 121  91 64.82IPC        11.42 11.18              0.24 1.020      72.93 19.53 19.56 -0.03 0.000            358  42 2.73

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW     E     N    SE    NE    SW
AVE. OF END POINTS                 0.07  0.08  0.08  0.11  0.11  0.14  0.18

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.11      0.05      0.12         D

____________END____________________END____________________END____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/14     4/48                                                                                  83/11/14     4/48

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.53              SE =    0.66              SE =    0.78   QUALITY = A
                                            AZ =     25.              AZ =    -65.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114  448 39.99 44N19.03 114W 6.16   5.68   2.65 27 10 137 1 0.13  0.7  0.8 B A|C 0.70 10 48 0.00 0.10  0  0.0  0.0 10  2.7  0.2
SE OF ORIG =  0.053          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    2.4 200 157 40.94IPD         0.95  1.14              -0.19 1.040      43.26  3.27  1.99  1.28 0.000            357  47 2.53
BSU3   6.6 116 129 41.75 PC         1.76  1.60               0.16 1.040                                                357        3
NWSI   9.5 137 119 42.06 PCO        2.07  2.03               0.04 1.040       0.00-39.99  3.55-43.54 0.000            357        3
B1    10.2  22 117 42.11IPC         2.12  2.14              -0.02 1.040      43.12  3.13  3.74 -0.61 0.000            357  68 2.93
HIR   10.8   0 116 42.30 PDO        2.31  2.24               0.07 1.040       0.00-39.99  3.92-43.91 0.000            357        3
B2    11.5 102 115 42.41IPC         2.42  2.35               0.07 1.040      44.04  4.05  4.11 -0.06 0.000            357  51 2.63
NSUI  16.2 122 108 43.15 PDO        3.16  3.13               0.03 1.040       0.00-39.99  5.47-45.47 0.000            357        3
ANPI  16.3 152 107 42.95 P 0        2.96  3.15              -0.19 1.040       0.00-39.99  5.51-45.51 0.000            357        3
WSUI  17.1 130 107 43.45 P+         3.46  3.29               0.17 1.040                                                357        3
B15   17.3 207 106 43.46IPC         3.47  3.33               0.14 1.040      45.98  5.99  5.82  0.16 0.728            357  43 2.53
B16   18.6 141 105 43.45IPC         3.46  3.55              -0.10 1.040      46.30  6.31  6.22  0.09 0.728            357  49 2.63
RCI   19.4 223 105 43.69 PCO        3.70  3.68               0.02 1.040       0.00-39.99  6.45-46.44 0.000            357        3
GCI   23.3  49 102 44.30 PCO        4.31  4.36              -0.05 1.040      47.00  7.01  7.62 -0.62 0.000            357        3
DSPI  24.2 117 102 44.45 PDO        4.46  4.52              -0.06 1.040      46.60  6.61  7.91 -1.30 0.000            357        3
B4    24.3 123 102 44.41EP          4.42  4.53              -0.11 1.040      48.88  8.89  7.93  0.96 0.000            357  73 3.03
M-2   25.2 133 101 44.77 P-0        4.78  4.69  0.17        -0.08 1.040       0.00-39.99  8.21-48.50 0.000            357        3
B13   26.2 167 101 44.71EPC         4.72  4.87              -0.15 1.040      48.51  8.52  8.52  0.00 0.000            357  43 2.53
MBAI  29.3 135 100 45.39 P-1        5.40  5.43              -0.03 0.585      51.94 11.95  9.50  2.45 0.000            357        3
M-1   33.5 145  65 46.71 PDO        6.72  6.12  0.30         0.30 1.040       0.00-39.99 10.72-51.23 0.000            357        3
BRPI  35.2 160  65 46.45 PCO        6.46  6.39               0.06 1.040      50.50 10.51 11.19 -0.68 0.000            357        3
BRCI  37.4 174  65 46.49 PCO        6.50  6.75              -0.26 1.040      50.79 10.80 11.82 -1.02 0.000            357        3
B12   37.7 175  65 46.73IPC         6.74  6.81              -0.07 1.040      51.54 11.55 11.92 -0.37 0.000            357  45 2.63
LCRI  41.7 137  65 47.52 P 0        7.53  7.46               0.07 1.040       0.00-39.99 13.05-53.04 0.000            357        3
B11   47.9 151  65 48.49IPC         8.50  8.45               0.05 1.040      54.72 14.73 14.79 -0.06 0.000            357  40 2.53
B5    49.3 134  65 48.62IPC         8.63  8.68              -0.05 1.040      55.43 15.44 15.19  0.25 0.000            357  49 2.73

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NW    NE    SE     E    SW     N
AVE. OF END POINTS                  0.19  0.52  0.62  0.62  0.66  0.67  0.82

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                27      0.13      0.30      0.63         A

____________END____________________END____________________END____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14    12/25                                                                                  83/11/14    12/25

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.45              SE =   0.66              SE =   1.89   QUALITY = A
                                            AZ =   -49.              AZ =    41.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831114 1225 48.41 44N 1.32 113W52.72   8.71   2.27 14 15 104 1 0.07  0.7  1.9 B A|B 0.05 10 20 0.00 0.06  0  0.0  0.0 13  2.3  0.2
SE OF ORIG =  0.065          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11   10.5 148 123 50.81IPD         2.40  2.44              -0.03 1.045      53.13  4.72  4.26  0.46 0.000           360  40 2.43
B13   14.0 301 113 51.37IPD         2.96  2.94               0.02 1.045      53.49  5.08  5.15 -0.07 0.731           360  28 2.13
B12   15.4 252 110 51.60IPD         3.19  3.14               0.05 1.045      54.09  5.68  5.50  0.18 0.000           360  33 2.33
B5    17.5  95 106 51.93IPC         3.52  3.47               0.05 1.045                                             360  42 2.53
B16   19.3 342 104 52.14IPD         3.73  3.76              -0.03 1.045      55.11  6.70  6.58  0.12 0.731           360  28 2.23
B4    19.6   7 103 52.17IPD         3.76  3.79              -0.03 1.045                                             360  41 2.53
USPI  22.2  10 101 52.55EP          4.14  4.21              -0.07 1.045                                             360  23 2.03
NSUI  24.5 350  99 53.02EPD         4.61  4.58               0.03 1.045                                             360  18 1.83
B2    31.0 348  96 54.00IPD         5.59  5.62              -0.03 1.045      58.20  9.79  9.84 -0.05 0.000           360  31 2.33
B15   31.1 304  96 54.07IPD         5.66  5.63               0.03 1.045      58.09  9.68  9.96 -0.18 0.000           360  33 2.33
B17   35.8 329  94 54.67IPC         6.26  6.41              -0.15 1.045      59.24 10.83 11.23 -0.39 0.000           360  34 2.43
B1    44.6 342  93 56.38IP          7.97  7.83               0.14 1.045                                             360  31 2.33
GCI   48.2 360  93 57.19EP 4        8.78  8.41               0.37 0.000                                             360  33 2.43

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE     N    SE     E     Z    SW    NW
AVE. OF END POINTS                  0.12  0.13  0.15  0.15  0.15  0.20  0.21


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 10      0.07      0.08      0.16         D

------------END----------------------END----------------------END----------------------END------------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14     9/ 1                                                                                  83/11/14     9/ 1

                                                   HORIZONTAL                                VERTICAL
                                              SE =   0.90                SE =   1.87            SE =   0.72   QUALITY = A
                                              AZ =  -129.                AZ =   -39.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114  9 1  5.28 44N24.57 114W 4.90   5.51   2.66 12 16 269 1 0.09  1.9  0.7 C 8|D 0.19 10 17 0.00 0.06  0  0.0  0.0 10  2.7  0.1
SE OF ORIG =  0.149          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
81     2.3 109 157  6.41 1PD          1.13  1.10              0.03 1.053       7.23  1.95  1.93  0.02 0.737           359  60 2.73
817   12.7 191 112  7.78 1PC          2.50  2.54             -0.04 1.053       9.78  4.50  4.45  0.05 0.737           359  52 2.63
82    15.9 143 107  8.26 1PC          2.98  3.08             -0.10 1.053      11.32  6.04  5.39  0.66 0.000           359  51 2.63
816   26.7 158 100 10.25 1PD          4.97  4.95              0.03 1.053      59.95 54.67  8.66 46.01 0.000           359  39 2.43
815   27.4 200 100 10.35 1PC          5.07  5.07              0.00 1.053      59.99 54.71  8.87 45.84 0.000           359  49 2.63
84    30.1 142  99 10.78 EPC          5.50  5.56             -0.05 1.053      59.88 54.60  9.72 44.88 0.000           359  56 2.83
813   36.1 173  65 11.69 EPD          6.41  6.55             -0.14 1.053      59.89 54.61 11.47 43.14 0.000           359  43 2.63
812   47.9 178  65 13.74 1PC          8.46  8.47             -0.01 1.053                                              359  46 2.73
85    55.9 143  65 15.03 1PD          9.75  9.77             -0.01 1.053                                              359  55 2.83
811   56.3 157  65 15.36 EPD         10.08  9.84              0.24 1.053                                              359  44 2.73

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    SW    SE     N    NW    NE     E
AVE. OF END POINTS                   0.08  0.12  0.12  0.14  0.17  0.17  0.19

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   9      0.09      0.06      0.15         D

         ------------END--------------------END--------------------END--------------------END----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/14    15/35                                                                                                  83/11/14    15/35

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.36              SE =   0.65              SE =   1.93   QUALITY = A
                                            AZ =   -65.              AZ =    25.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114 1535 53.61 44N 2.38 113W55.19   9.69   2.13 12 14  98 1 0.06  0.6  1.9 B A|B 0.24 10 12 0.00 0.05  0  0.0  0.0 10  2.1  0.1
SE OF ORIG =  0.075          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B13   10.2 301 129 56.16IPC         2.55  2.49              0.06 1.053                                                363  26 2.13
B12   13.2 239 120 56.53IPD         2.92  2.89              0.03 1.053                                                363  28 2.13
B11   14.0 141 118 56.57IPC         2.96  3.01             -0.05 1.053      58.85  5.24  5.26 -0.02 0.737           363  29 2.23
B16   16.6 350 113 56.96IPC         3.35  3.39             -0.04 1.053                                                363  27 2.13
B4    18.3  18 110 57.22IPC         3.61  3.65             -0.04 1.053                                                363  30 2.23
B5    21.1 100 106 57.73IPC         4.12  4.07              0.05 1.053      60.73  7.12  7.12  0.00 0.737           363  37 2.43
B15   27.3 304 101 58.60IPC         4.99  5.05             -0.06 1.053                                                363  24 2.13
B2    28.6 353 100 58.89EPC         5.28  5.26              0.02 1.053                                                363  22 2.03
B17   32.5 332  98 59.41IPC         5.80  5.89             -0.09 1.053                                                363  23 2.03
B1    41.7 345  96 61.11EPC         7.50  7.38              0.12 1.053                                                363  25 2.13

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NE    SE    SW     N    NW     Z     E
AVE. OF END POINTS                 0.13  0.14  0.14  0.15  0.16  0.18  0.23

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 7      0.06      0.06      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14    12/36                                                                                  83/11/14    12/36

                                          HORIZONTAL                                  VERTICAL
                                     SE =   0.27                 SE =   0.36            SE =   0.51   QUALITY = A
                                     AZ =  -16.                  AZ =  -106.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114 1236 51.49 44N 6.53 113W53.48   6.51   2.32 10 11 102 1 0.04  0.4  0.5 8 A|B 0.06 10 16 0.00 0.03  0 0.0  0.0 10  2.3  0.1
SE OF ORIG =  0.022          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816   10.1 330 122 53.66IPC          2.17  2.19            -0.02 1.000                                          361  36 2.33
84    10.3  19 121 53.76IPC          2.27  2.23             0.04 1.000      57.86  6.37  3.90  2.47 0.000     361  43 2.53
813   11.3 258 119 53.87IPC          2.38  2.37             0.01 1.000      56.49  5.00  4.15  0.86 0.000     361  31 2.23
811   19.7 160 107 55.20IPD          3.71  3.77            -0.06 1.008      58.40  6.91  6.60  0.31 0.000     361  34 2.33
812   19.8 223 107 55.29EPD          3.80  3.80             0.00 1.000                                          361  33 2.33
82    21.4 345 105 55.54IPC          4.05  4.08            -0.02 1.000                                          361  30 2.23
85    21.6 121 105 55.63IPC          4.14  4.10             0.04 1.000      58.41  6.92  7.17 -0.25 0.000     361  41 2.53
815   26.0 287  65 56.39IPD          4.90  4.84             0.07 1.000      59.49  8.00  8.46 -0.46 0.000     361  36 2.43
817   27.4 320  65 56.53IPD          5.04  5.07            -0.03 1.000      59.78  8.29  8.88 -0.58 0.000     361  31 2.33
81    35.2 338  65 57.79IPC          6.30  6.33            -0.03 1.000                                          361  32 2.33

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     Z     N    NW    NE    SW     E
AVE. OF END POINTS                  0.09  0.17  0.17  0.18  0.18  0.22  0.30

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.04      0.05      0.20         D
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/14    13/33                                                                                  83/11/14    13/33

                                          HORIZONTAL                                  VERTICAL
                                     SE =   0.47                 SE =   0.65            SE =   0.98   QUALITY = A
                                     AZ =  -21.                  AZ =  -111.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
931114 1333 51.59 44N 4.82 113W56.26  12.46   2.42 12 15  81 1 0.07  0.7  1.0 A A|A 0.05 10 18 0.00 0.06  0 0.0  0.0  9  2.4  0.1
SE OF ORIG =  0.057          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
813    7.3 276 147 54.08IPD          2.49  2.52            -0.03 1.053      55.94  4.35  4.41 -0.06 0.737     362  34 2.33
816   11.9 353 133 54.54IPD          2.95  3.00            -0.05 1.053      56.92  5.33  5.25  0.08 0.737     362  35 2.33
84    14.8  29 126 54.96IPC          3.37  3.34             0.03 1.053      57.07  5.48  5.85 -0.37 0.000     362  46 2.63
812   15.0 221 126 55.03IPC          3.44  3.37             0.07 1.053      57.40  5.81  5.90 -0.09 0.000     362  35 2.43
811   18.5 146 119 55.45IPD          3.86  3.86             0.00 1.053                                          362  36 2.43
85    23.6 110 112 56.17IPD          4.58  4.61            -0.03 1.053      58.69  7.10  8.07 -0.97 0.000     362  41 2.53
815   23.7 297 112 56.29IPD          4.70  4.63             0.07 1.053      59.14  7.55  8.10 -0.55 0.000     362  39 2.53
82    23.9 355 112 56.31IPC          4.72  4.66             0.06 1.053      59.06  7.47  8.15 -0.68 0.000     362  32 2.33
817   27.9 330 108 56.68IPD          5.09  5.26            -0.17 1.053      60.11  8.52  9.20 -0.68 0.000     362  36 2.43
81    37.0 345 103 58.31IPD          6.72  6.69             0.04 1.053                                          362        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NE    SE    NW    SW     Z     E     N
AVE. OF END POINTS                  0.13  0.13  0.14  0.15  0.17  0.18  0.21
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/14    19/ 6                                                                                  83/11/14    19/ 6

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.63              SE =    0.75              SE =    1.41    QUALITY = A
                                            AZ =     40.              AZ =    -50.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831114 19 6 15.37 44N16.09 114W 2.84    9.78   2.68 16  7  71 1 0.11  0.7  1.4 A A|A 0.06 10 20 0.00 0.09  0  0.0  0.0 13  2.7  0.2
SE OF ORIG =  0.079          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.6 125 164 17.09IP          1.72  1.79             -0.07 1.039                                                 365        3
B17    6.1 302 145 17.15IPD         1.78  2.05             -0.27 1.039      19.0T  3.70  3.58  0.12 0.727             365  51 2.63
32     7.4  66 139 17.60IPC         2.23  2.18              0.05 1.039      19.04  3.67  3.81 -0.14 0.000             365  56 2.73
NSUI   9.8 109 130 17.85IPC         2.48  2.44              0.03 1.039                                                 365  36 2.33
B15   15.8 231 115 18.71IPD         3.34  3.27              0.07 1.039      21.23  5.86  5.T2  0.14 0.727             365  54 2.73
HIR   16.8 345 113 18.90IPD         3.53  3.43              0.10 1.039      20.29  4.92  6.00 -1.08 0.000             365  50 2.73
34    17.7 117 111 18.94IPC         3.57  3.5T              0.00 1.039                                                 365  T0 3.03
DSPI  18.1 108 111 18.95IPC         3.58  3.62             -0.04 1.039                                                 365  40 2.53
B13   20.2 176 108 19.22IPC         3.85  3.93             -0.08 1.039      23.12  7.75  6.88  0.86 0.000             365  51 2.73
MBAI  22.4 134 105 19.75IP          4.38  4.2T              0.11 1.039      22.18  6.81  7.47 -0.66 0.000             365  35 2.43
GCI   24.6  32 103 19.97IPC         4.60  4.63             -0.03 1.039                                                 365  60 2.83
B12   32.2 182  98 21.03IPC         5.66  5.84             -0.18 1.039                                                 365  53 2.83
B11   41.0 152  96 22.71IPD         T.34  7.25              0.09 1.039                                                 365  49 2.73
B5    42.3 133  96 22.87IPC         7.50  7.47              0.03 1.039                                                 365  65 3.03

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     N    NE     E     Z    SW
AVE. OF END POINTS                  0.09  0.11  0.12  0.12  0.13  0.14  0.17

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.11      0.06      0.12         D

____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN-------------------BEGIN-------------------BEGIN-------------------BEGIN----------
83/11/14    16/26                                                                                83/11/14    16/26

                                                  HORIZONTAL                                VERTICAL
                                            SE =   0.90              SE =   1.09              SE =   1.05   QUALITY = A
                                            AZ =  -102.              AZ =   -12.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831114 1626 56.22 44N24.23 114W 4.54   5.16   2.84 25 12 130 1 0.15  1.1  1.1 B 818 0.06 10 39 0.00 0.11  0  0.0  0.0  6  2.8  0.0
SE OF ORIG =  0.092          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
81     1.7  94 161 57.16IP          0.94  1.00              -0.06 1.114                                                364        3
MIR    2.4 299 154 57.40 PCO        1.18  1.05               0.13 1.114       0.00-56.22  1.84-58.06 0.000            364        3
817   12.2 194 111 58.71IPC         2.49  2.43               0.06 1.114                                                364  67 2.93
82    15.1 143 107 59.13IPD         2.91  2.92              -0.01 1.114      61.63  5.41  5.12  0.30 0.000            364  63 2.83
GCI   16.4  70 106 59.37 PDO        3.15  3.14               0.01 1.114       0.00-56.22  5.50-61.71 0.000            364        3
NWSI  17.1 165 105 59.70 PCO        3.48  3.27               0.22 1.114       0.00-56.22  5.72-61.93 0.000            364        3
NSUI  21.6 148 102  0.10 P 0        3.88  4.04              -0.16 1.114       0.00  3.78  7.07 -3.29 0.000            364        3
WSUI  23.3 152 101 60.80 P+         4.58  4.35               0.24 1.114                                                364        3
ANPI  24.6 167 100  0.77 P 0        4.55  4.57              -0.01 1.114       0.00  3.78  7.99 -4.21 0.000            364        3
816   25.9 158 100 61.01EP          4.79  4.81              -0.02 1.114                                                364        3
815   27.0 202  99 61.17IP          4.95  5.00              -0.05 1.114                                                364  65 2.93
OSPI  28.3 137  99  1.11 PDO        4.89  5.23              -0.34 1.114       0.00  3.78  9.15 -5.37 0.000            364        3
RCI   28.3 213  99  1.29 PCO        5.07  5.24              -0.17 1.114       0.00  3.78  9.16 -5.38 0.000            364        3
84    29.3 142  99 61.46IP          5.24  5.40              -0.16 1.114      65.82  9.60  9.46  0.14 0.780            364        3
M-2   31.3 149  98  2.16 PDO        5.94  5.77  0.17         0.00 1.114       0.00  3.78 10.09 -6.61 0.000            364        3
813   35.4 174  65 62.52EPC         6.30  6.47              -0.17 1.114                                                364  57 2.83
MBAI  35.6 149  65  2.68 PCO        6.46  6.51              -0.05 1.114       0.00  3.78 11.39 -7.61 0.000            364        3
M-1   40.8 155  65  4.17 P 2        7.95  7.35  0.30         0.30 0.278       0.00  3.78 12.87 -9.61 0.000            364        3
8RPI  43.8 167  65  4.20 P+2        7.98  7.84               0.15 0.278       9.70 13.48 13.71 -0.23 0.000            364        3
3RCI  46.8 178  65  4.78 P 2        8.56  8.33               0.23 0.278      10.28 14.06 14.57 -0.51 0.000            364        3
812   47.2 179  65 64.52EPD         8.30  8.39              -0.09 1.114                                                364  58 2.93
LCRI  48.0 147  65  4.82 P 0        8.60  8.52               0.08 1.114       0.00  3.78 14.91-11.13 0.000            364        3
85    55.1 143  65 65.88IP          9.66  9.66               0.00 1.114                                                364        3
811   55.6 157  65 66.24EPD        10.02  9.74               0.28 1.114                                                364  55 2.83

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     Z     N    NW    SE     E    NE
AVE. OF END POINTS                  0.04  0.05  0.06  0.06  0.09  0.12  0.15

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  20      0.15     -0.01      0.09         D

         ------------END-------------------END-------------------END-------------------END----------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15     0/46                                                                                  83/11/15     0/46
xxxxx FOLLOWING EVENT IS OUT OF ORDER xxxxx

                                                  HORIZONTAL                                VERTICAL
                                            SE =   0.47              SE =   0.70              SE =   1.54   QUALITY = A
                                            AZ =   -29.              AZ =  -119.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115  046  3.90 44N12.41 113W56.24   5.28   2.31 10 10 111 1 0.07  0.7  1.5 B A|B 0.06 10 14 0.00 0.07  0  0.0  0.0 10  2.3  0.1
SE OF ORIG =  0.063          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    2.6 213 153  4.91IPD          1.01  1.09              -0.08 1.000       6.41  2.51  1.91  0.60 0.000            366  33 2.23
B4     7.2  99 125  5.63IPC          1.73  1.64               0.09 1.000       8.53  4.63  2.87  1.76 0.000            366  45 2.53
B2    10.0 349 116  6.04IPC          2.14  2.08               0.06 1.000       8.44  4.54  3.63  0.91 0.000            366  35 2.33
B13   15.2 209 107  6.88IPD          2.98  2.94               0.04 1.000                                                366  31 2.23
B17   17.2 306 105  7.14IPD          3.24  3.29              -0.05 1.000                                                366  33 2.33
B15   21.3 261 102  8.03IP           4.13  3.99               0.13 1.000                                                366  32 2.33
B1    23.7 337 101  8.22IPD          4.32  4.41              -0.09 1.000                                                366  37 2.43
B12   27.2 201  99  8.88EPC          4.98  5.04              -0.06 1.000                                                366  32 2.33
B11   31.2 161  98  9.64EPC          5.74  5.74               0.00 1.000                                                366  30 2.23
B5    31.3 135  98  9.62IPC          5.72  5.76              -0.04 1.000      13.42  9.52 10.08 -0.56 0.000            366  41 2.53

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    SW    NW    SE     E    NE
AVE. OF END POINTS                 0.11  0.15  0.17  0.20  0.20  0.22  0.25

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.07      0.05      0.19         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15     4/13                                                                                                  83/11/15     4/13

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.46              SE =    0.66              SE =    1.27   QUALITY = A
                                          AZ =    -61.              AZ =     29.

 DATE     ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115  413 17.24 44N14.61 114W 1.67    7.72    2.35 16  8  69 1 0.09  0.7  1.3 A A|A 0.23 10 23 0.00 0.07  0  0.0  0.0 14  2.4  0.2
SE OF ORIG =  0.051          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   1.4  25 169 18.64IPD         1.40  1.42              -0.02 1.019                                                 367  27 2.13
NSUI   7.7  93 129 19.24IPD         2.00  1.97               0.03 1.019                                                 367  27 2.13
B2     7.7  43 129 19.24IP          2.00  1.98               0.03 1.019      21.64  4.40  3.46  0.95 0.000             367  42 2.53
B16    8.6 137 125 19.35IPC         2.11  2.07               0.04 1.019      21.23  3.99  3.63  0.37 0.000             367  42 2.53
B17    9.0 311 123 19.22IPD         1.98  2.15              -0.16 1.019      20.72  3.48  3.75 -0.27 0.000             367  41 2.43
B4    15.2 110 104 20.24IPD         3.00  3.07              -0.07 1.019      22.51  5.27  5.38 -0.10 0.000             367  47 2.63
FSD   15.3 114 104 20.25 P          3.01  3.08              -0.07 1.019      22.75  5.51  5.39  0.12 0.713             367        3
B15   15.6 242 103 20.51IPC         3.27  3.13               0.14 1.019                                                 367  36 2.43
DSPI  15.9 100 102 20.38IPD         3.14  3.18              -0.03 1.019                                                 367  30 2.23
B13   17.4 180 100 20.60IPC         3.36  3.40              -0.04 1.019      23.48  6.24  5.96  0.29 0.000             367  36 2.43
MBAI  19.4 131  97 21.02EPD         3.78  3.73               0.05 1.019      23.83  6.59  6.53  0.06 0.000             367  32 2.33
HIR   19.9 343  97 21.15IP          3.91  3.82               0.10 1.019                                                 367  40 2.53
B12   29.5 185  93 22.53IPC         5.29  5.37              -0.08 1.019                                                 367  30 2.23
B11   37.8 152  92 24.05IPD         6.81  6.71               0.10 1.019                                                 367  36 2.43
B5    39.3 132  92 24.08IPC         6.84  6.96              -0.12 1.019      29.28 12.04 12.18 -0.14 0.000             367  43 2.63

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     N     E    SE
AVE. OF END POINTS                  0.27  0.53  0.66  0.77  0.81  0.86  0.87

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 16      0.09      0.30      0.71         8

          ____________END_____________________END_____________________END_____________________END___________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15     6/43                                                                                                  83/11/15     6/43

                                                   HORIZONTAL                                  VERTICAL
                                             SE =   0.90              SE =   2.08              SE =   2.01   QUALITY = A
                                             AZ =  -115.              AZ =   -25.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115  643 26.71 43N49.53 113W39.02  12.15   2.40 15 37 300 1 0.08  2.1  2.0 D C|D 0.13 10 20 0.00 0.06  0  0.0  0.0  9  2.4  0.2
SE OF ORIG =  0.168          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11   18.2 315 119 30.47IPC          3.76  3.79              -0.02 1.042      33.00  6.29  6.63 -0.34 0.000           368        3
B5    20.3 358 116 30.82IPC          4.11  4.09               0.02 1.042      33.92  7.21  7.17  0.05 0.729           368  50 2.73
B12   37.1 297 102 33.42IPD          6.71  6.69               0.03 1.042      38.37 11.66 11.70 -0.04 0.729           368  33 2.43
MBAI  37.2 335 102 33.46IPD          6.75  6.70               0.06 1.042                                              368  30 2.33
B13   42.0 314 100 34.06IPD          7.35  7.48              -0.13 1.042                                              368  26 2.23
B4    44.2 339  99 34.41IPD          7.70  7.83              -0.13 1.042      41.03 14.32 13.70  0.62 0.000           368  56 2.93
JSPI  46.1 342  99 34.73EP           8.02  8.13              -0.10 1.042      39.84 13.13 14.22 -1.09 0.000           368  25 2.23
B16   47.0 329  99 35.01IPC          8.30  8.28               0.02 1.042                                              368  31 2.43
NSUI  51.2 334  98 35.63EP           8.92  8.96              -0.03 1.042                                              368        3
B2    57.8 334  97 36.70IPC          9.99 10.02              -0.02 1.042                                              368  28 2.33
B15   59.0 312  96 37.08EPD         10.37 10.21               0.16 1.042                                              368  29 2.33
B17   64.2 325  96 37.75EPD         11.04 11.04               0.00 1.042      29.93  3.22 19.32-16.10 0.000           368        3
B1    71.8 333  95 39.12IP          12.41 12.28               0.14 1.042      29.94  3.23 21.49-18.25 0.000           368        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE     N    NW    NE     E    SW
AVE. OF END POINTS                 0.09  0.10  0.10  0.11  0.12  0.15  0.18

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 13      0.08      0.06      0.13         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/15     8/10                                                                                  83/11/15     8/10

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.50                SE =   0.74              SE =   1.31   QUALITY = A
                                            AZ =   -22.                AZ =  -112.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831115  810 51.49 44N 7.68 113W56.27  11.03   2.83 27  7  47 1 0.13  0.7  1.3 A A|A 2.14 10 48 0.00 0.10  0  0.0  0.0 10  2.8  0.1
SE OF ORIG =  0.067          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
M-2    6.6  54 146 53.99 PDO        2.50  2.26  0.17        0.08 1.139       0.00-51.49  3.95-55.74 0.000            369        3
B16    6.7 348 146 53.71IP          2.22  2.27             -0.04 1.139      55.61  4.12  3.97  0.16 0.797            369  59 2.83
MBAI   7.4  89 143 53.87 P-2        2.38  2.34              0.05 0.285       0.00-51.49  4.09-55.57 0.000            369        3
B13    8.6 238 139 53.96IPC        2.47  2.45              0.02 1.139      55.84  4.35  4.29  0.06 0.000            369  54 2.73
ANPI   8.6 321 139 53.82 PDO        2.33  2.46             -0.12 1.139       0.00-51.49  4.30-55.79 0.000            369        3
M-1    8.8 137 138 54.26 PCO        2.77  2.48  0.30        0.00 1.139       0.00-51.49  4.34-56.35 0.000            369        3
WSUI  10.0 360 134 54.10 P          2.61  2.61              0.00 1.139                                               369        3
B4    10.4  43 133 54.08IP          2.59  2.66             -0.07 1.139      56.63  5.14  4.66  0.48 0.000            369  78 3.03
BRPI  12.1 185 128 54.25 PC2        2.76  2.86             -0.10 0.285       0.00-51.49  5.01-56.49 0.000            369        3
NSUI  12.4   2 127 54.38 PDO        2.89  2.90              0.00 1.139       0.00-51.49  5.07-56.56 0.000            369        3
OSPI  13.2  40 125 54.41 P-2        2.92  3.00             -0.07 0.285       0.00-51.49  5.24-56.73 0.000            369        3
NWSI  15.6 335 120 54.77 PDO        3.28  3.33             -0.05 1.139       0.00-51.49  5.83-57.32 0.000            369        3
BIGA  17.2 359 117 54.99 PDO        3.50  3.56             -0.05 1.139       0.00-51.49  6.22-57.71 0.000            369        3
LCRI  18.0 122 116 55.00 PCO        3.51  3.67             -0.16 1.139       0.00-51.49  6.43-57.92 0.000            369        3
BRC1  18.6 210 115 55.20 PCO        3.71  3.77             -0.05 1.139       0.00-51.49  6.59-58.08 0.000            369        3
B2    18.6 354 115 55.15IP          3.66  3.77             -0.10 1.139      58.41  6.92  6.60  0.33 0.000            369  57 2.83
B12   19.3 211 114 55.42IPC        3.93  3.86              0.08 1.139                                               369  53 2.73
BSU3  19.5 338 113 55.61 P          4.12  3.91              0.22 1.139                                               369        3
B15   21.7 285 110 55.83IPC        4.34  4.25              0.10 1.139      56.93  5.44  7.43 -1.98 0.000            369  61 2.93
CGI   22.4  24 109 55.61 P 2        4.12  4.35             -0.23 0.265       0.00-51.49  7.61-59.10 0.000            369        3
B11   23.1 153 109 56.06IPD        4.57  4.45              0.12 1.139      59.78  8.29  7.79  0.50 0.000            369  53 2.73
B17   23.4 323 108 55.74IPC        4.25  4.50             -0.25 1.139      58.79  7.30  7.88 -0.57 0.000            369  54 2.83
35    25.9 121 106 56.47IPC        4.98  4.88              0.11 1.139      59.12  7.63  8.54 -0.90 0.000            369  73 3.03
RCI   27.3 285 105 56.46 P 0        4.97  5.11             -0.13 1.139       0.00-51.49  8.93-60.42 0.000            369        3
B1    31.9 343 102 57.24IP          5.75  5.84             -0.08 1.139                                               369  64 2.93
MIR   34.4 338 101 58.10 PDO        6.61  6.24              0.38 1.139       0.00-51.49 10.91-62.40 0.000            369        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    SE    NW     N
AVE. OF END POINTS                 0.26  0.54  0.59  0.64  0.73  0.76  0.85

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                27      0.13      0.28      0.65         8

        ------------END----------------------END----------------------END----------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15     9/55                                                                                  83/11/15     9/55

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    1.00              SE =    2.79              SE =    3.49   QUALITY = B
                                          AZ =     12.              AZ =    -78.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115  955 49.15 44N17.97 114W22.50   9.42   2.74 27 21 274 1 0.15  2.8  3.5 D C|D 0.18 10 42 0.00 0.12  0  0.0  0.0  9  2.7  0.1
SE OF ORIG =  0.224          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
RCI   14.8 145 115 52.27 PCO        3.12  3.10              0.02 1.130       0.00-49.15  5.42-54.58 0.000          370        3
B15   19.4 134 107 53.15IPC         4.00  3.79              0.20 1.130      55.75  6.60  6.64 -0.04 0.791          370  53 2.73
B17   20.9  91 105 53.12IPC         3.97  4.03             -0.06 1.130                                             370  50 2.73
HIR   25.2  60 101 54.00 PDO        4.85  4.72              0.13 1.130       0.00-49.15  8.26-57.41 0.000          370        3
BSU3  27.7  92 100 54.26 PC         5.11  5.11              0.00 1.130                                             370        3
B1    28.0  66  99 54.24IPC         5.09  5.16             -0.07 1.130                                             370  53 2.73
NWSI  28.7 100  99 54.33 P+1        5.18  5.27             -0.10 0.636      57.69  8.54  9.23 -0.69 0.000          370        3
ANPI  32.0 113  97 54.76 PDO        5.61  5.80             -0.19 1.130       0.00-49.15 10.15-59.30 0.000          370        3
B2    33.0  91  97 55.15IP          6.00  5.95              0.04 1.130                                             370  46 2.63
BIGA  34.8  93  97 55.59 P+2        6.44  6.25              0.19 0.283       0.00-49.15 10.93-60.08 0.000          370        3
B16   35.8 110  96 55.57EP          6.42  6.41              0.00 1.130                                             370  45 2.63
WSUI  36.0 105  96 55.50 P          6.35  6.44             -0.09 1.130                                             370        3
NSUI  36.0 101  96 55.41 PDO        6.26  6.44             -0.19 1.130       0.00-49.15 11.28-60.43 0.000          370        3
B13   36.4 130  96 55.62IPD         6.47  6.50             -0.04 1.130                                             370  45 2.63
M-2   43.0 111  95 56.99 P-0        7.84  7.57  0.17        0.09 1.130       0.00-49.15 13.25-62.71 0.000          370        3
B4    43.6 105  95 56.73IP          7.58  7.66             -0.09 1.130                                             370  63 2.93
BRCI  43.6 144  95 56.65 P-0        7.50  7.67             -0.17 1.130      61.25 12.10 13.42 -1.32 0.000          370        3
B12   43.6 145  95 56.70EPC         7.55  7.67             -0.12 1.130                                             370  47 2.73
CGI   44.1  88  95 56.71 P 1        7.56  7.75             -0.19 0.636       0.00-49.15 13.56-62.71 0.000          370        3
OSPI  44.3 102  95 56.80 P+1        7.65  7.77             -0.13 0.636       0.00-49.15 13.60-62.76 0.000          370        3
BRPI  45.9 133  94 57.05 PCO        7.90  8.04             -0.14 1.130      60.45 11.30 14.07 -2.78 0.000          370        3
MBA1  46.4 114  94 57.68 PCO        8.53  8.12              0.41 1.130       0.00-49.15 14.20-63.36 0.000          370        3
M-1   48.2 122  94 58.16 P 2        9.01  8.41  0.30        0.30 0.283       0.00-49.15 14.72-64.40 0.000          370        3
LCRI  57.7 120  93 59.29 P 0       10.14  9.97              0.17 1.130       0.00-49.15 17.44-66.60 0.000          370        3
B11   60.3 131  93 59.561PD        10.41 10.38              0.03 1.130      62.98 13.83 18.16 -4.33 0.000          370        3
B5    65.6 120  93 60.62IPC        11.47 11.25              0.22 1.130                                             370  61 3.03

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     Z     N     E    SE    NE    SW
AVE. OF END POINTS                  0.03  0.05  0.06  0.07  0.07  0.12  0.13

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                13      0.15      0.01      0.08         D

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15    12/47                                                                                                  83/11/15    12/47

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.43              SE =    0.54              SE =    1.15   QUALITY = A
                                          AZ =     -4.              AZ =    -94.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115 1247  6.16 44N 8.75 113W55.21   8.02   2.73 11 11  81 1 0.07  0.5  1.2 A A|A 0.08 10 15 0.00 0.06  0  0.0  0.0  9  2.7  0.2
SE OF ORIG =  0.042          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.4 328 142  7.87IPD         1.71  1.74             -0.04 1.028       9.07  2.91  3.05 -0.15 0.000          371  43 2.53
84     8.0  45 129  8.25IPD         2.09  2.04              0.04 1.028      10.45  4.29  3.57  0.71 0.000          371  59 2.63
813   10.9 233 118  8.53IPC         2.37  2.42             -0.06 1.028      10.48  4.32  4.24  0.07 0.720          371  50 2.63
82    16.9 349 103  9.44IPD         3.28  3.35             -0.07 1.028      11.94  5.78  5.86 -0.08 0.000          371  82 3.13
812   21.7 211  97 10.22EPC         4.06  4.12             -0.06 1.028                                              371  50 2.73
815   22.7 279  96 10.57IPC         4.41  4.28              0.12 1.028      14.19  8.03  7.49  0.53 0.000          371  43 2.53
817   22.8 318  96 10.41IPC         4.25  4.29             -0.05 1.028                                              371        3
811   24.3 159  96 10.65EPD         4.49  4.54             -0.06 1.028                                              371  64 2.93
85    25.8 126  95 11.02IPC         4.86  4.78              0.08 1.028                                              371  63 2.93
81    30.5 339  94 11.74IP          5.58  5.54              0.04 1.028                                              371  51 2.73

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    NE    SE    NW     E    SW
AVE. OF END POINTS                 0.12  0.13  0.14  0.15  0.18  0.19  0.23

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.07      0.08      0.16         0

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15    13/ 3                                                                                                  83/11/15    13/ 3

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.43              SE =    0.54              SE =    1.35   QUALITY = A
                                          AZ =    -42.              AZ =   -132.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
331115 13 3  1.33 44N10.31 113W59.78   9.20   2.67 27  7  77 1 0.12  0.5  1.3 A A|A 0.16 10 46 0.00 0.10  0  0.0  0.0 10  2.7  0.7
SE OF ORIG =  0.057          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   2.0 336 167  3.07 PDO        1.74  1.68              0.06 1.040       0.00 -1.33  2.93 -4.26 0.000            372        3
B16    3.7  63 156  3.11IPO        1.78  1.77              0.01 1.040       4.03  2.70  3.09 -0.39 0.000            372  70 2.93
WSUI   6.9  42 139  3.37 PO        2.04  2.05             -0.01 1.040                                                372        3
NSUI   9.1  35 130  3.51 P O       2.18  2.30             -0.12 1.040       0.00 -1.33  4.03 -5.36 0.000            372        3
NWSI   9.4 348 129  3.73 PDO       2.40  2.34              0.06 1.040       5.34  4.01  4.09 -0.08 0.000            372        3
B13    9.8 195 128  3.83IPO        2.50  2.38              0.12 1.040       6.15  4.82  4.16  0.66 0.000            372   6 0.83
M-2   10.0  96 127  3.93 PDO       2.60  2.41  0.17        0.02 1.040       0.00 -1.33  4.22 -5.85 0.000            372        3
B4    12.1  77 121  3.97EPC        2.64  2.70             -0.06 1.040       6.50  5.17  4.72  0.45 0.000            372  80 3.03
MBAI  13.0 111 118  4.25 PDO       2.92  2.82              0.10 1.040       0.00 -1.33  4.93 -6.26 0.000            372        3
BIGA  13.1  20 118  4.05 P-1       2.72  2.83             -0.11 0.585       0.00 -1.33  4.96 -6.29 0.000            372        3
BSU3  13.5 349 117  4.50 PD        3.17  2.89              0.28 1.040                                                372        3
B2    13.9  11 116  4.25IPD        2.92  2.95             -0.03 1.040       7.07  5.74  5.17  0.57 0.000            372  65 2.93
DSPI  14.2  68 116  4.18 PDO       2.85  2.98             -0.13 1.040       6.43  5.10  5.22 -0.12 0.000            372        3
M-1   15.6 137 112  4.85 PDO       3.52  3.20  0.30        0.02 1.040       0.00 -1.33  5.61 -7.46 0.000            372        3
B15   16.4 272 111  4.82IPC        3.49  3.32              0.17 1.040       6.90  5.57  5.81 -0.24 0.728            372  52 2.73
B17   16.7 326 110  4.61IPD        3.28  3.38             -0.10 1.040       7.16  5.83  5.92 -0.08 0.728            372  62 2.83
CGI   20.9  42 104  5.31 PDO       3.98  4.01             -0.03 1.040       8.11  6.78  7.01 -0.23 0.000            372        3
BRCI  21.5 192 104  5.35 PCO       4.02  4.13             -0.10 1.040       8.55  7.22  7.22  0.00 0.000            372        3
RCI   21.9 275 103  5.47 PCO       4.14  4.18             -0.04 1.040       7.97  6.64  7.31 -0.67 0.000            372        3
B12   22.1 194 103  5.49IPC        4.16  4.21             -0.05 1.040                                                372  60 2.83
LCRI  24.6 126 101  5.79 PCO       4.46  4.61             -0.15 1.040       0.00 -1.33  8.07 -9.40 0.000            372        3
B1    26.1 350 100  6.01EPD        4.68  4.84             -0.16 1.040       9.69  8.36  8.48 -0.12 0.000            372  73 3.03
HIR   28.3 343  98  6.80 P O       5.47  5.19              0.26 1.040       0.00 -1.33  9.09-10.42 0.000            372        3
B11   29.6 150  98  6.76EP         5.43  5.41              0.02 1.040                                                372  41 2.53
B5    32.4 124  97  7.32IPO        5.99  5.87              0.13 1.040      12.02 10.69 10.26  0.43 0.000            372  87 3.23

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                 0.23  0.62  0.68  0.80  0.87  0.89  0.91

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 27      0.12      0.25      0.75         B

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15    13/27                                                                                                  83/11/15    13/27

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   1.26              SE =   3.75              SE =   3.45   QUALITY = 0
                                              AZ =  -100.              AZ =   -10.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115 1327  5.75 44N26.02 114W 5.41  10.39        13 21 275 1 0.10  3.8  3.4 C 8|D 0.13 10 26 0.00 0.09  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.349          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MIR    2.3 204 166  7.60 PD0        1.85  1.88              -0.03 1.149       0.00 -5.75  3.29 -9.04 0.000
BSU3  16.6 163 116  9.32 PC         3.57  3.43               0.14 1.149
NWSI  20.6 164 109  9.92 PC0        4.17  4.04               0.13 1.149       0.00 -5.75  7.07-12.82 0.000
BIGA  20.6 145 109  9.65 PD0        3.90  4.04              -0.14 1.149       0.00 -5.75  7.07-12.82 0.000
NSUI  25.0 150 105 10.31 P 0        4.56  4.72              -0.15 1.149       0.00 -5.75  8.25-14.00 0.000
CGI   25.2 122 105 10.61 PD0        4.86  4.75               0.11 1.149       0.00 -5.75  8.31-14.06 0.000
WSUI  26.8 153 103 10.70 PD         4.95  4.99              -0.04 1.149
RCI   30.6 208 101 11.37 PC0        5.62  5.61               0.01 1.149       0.00 -5.75  9.81-15.56 0.000
M-2   34.8 150  99 11.98 P 3        6.23  6.27  0.17        -0.21 0.072       0.00 -5.75 10.98-17.03 0.000
MBAI  39.1 150  98 12.65 PD0        6.90  6.96              -0.06 1.149       0.00 -5.75 12.19-17.93 0.000
M-1   44.3 156  96 14.45 P+2        8.70  7.81  0.30         0.59M0.000       0.00 -5.75 13.66-19.94 0.000
BRPI  47.3 167  96 14.10 PC2        8.35  8.29               0.06 0.287       0.00 -5.75 14.50-20.25 0.000
BRCI  50.2 177  95 14.45 P+0        8.70  8.76              -0.06 1.149       0.00 -5.75 15.33-21.07 0.000
LCRI  51.5 148  95 14.79 P 0        9.04  8.96               0.08 1.149       0.00 -5.75 15.67-21.42 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    SW     N     Z    NE     E
AVE. OF END POINTS                  0.06  0.10  0.11  0.12  0.17  0.17  0.17

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 11      0.10      0.05      0.13         0

          ____________END_____________________END_____________________END_____________________END____________
```

----------BEGI ----------BEGIN----------BEGIN----------BEGIN----------

83/11/15 15/58 83/11/15 15/58

	HORIZONTAL	VERTICAL	
SE =	0.42	SE = 0.78	SE = 1.05 QUALITY = A
AZ =	35.	AZ = -55.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831115	1558 1.00	44N16.13	114W 6.37	8.31	2.44	12	13	134	1	0.06	0.8	1.1	B	A|B	0.08	10	15	0.00	0.06	0	0.0	0.0	10	2.4	0.2

SE OF ORIG = 0.066 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	3.2	351	157	2.58IPD	1.58	1.60	-0.03	1.053		3.83	2.83	2.80	0.02	0.737				373	55	2.73	
82	11.8	76	117	3.64IPC	2.64	2.58	0.05	1.053										373	35	2.33	
815	12.6	217	115	3.75IPD	2.75	2.70	0.04	1.053		5.75	4.75	4.73	0.01	0.737				373	40	2.43	
816	15.1	127	109	4.01IPD	3.01	3.08	-0.07	1.053		6.31	5.31	5.39	-0.08	0.000				373	34	2.33	
81	15.4	16	108	4.11IPC	3.11	3.13	-0.02	1.053										373	40	2.43	
813	21.1	163	99	4.95IPD	3.95	4.03	-0.08	1.053		6.45	5.45	7.04	-1.60	0.000				373	30	2.23	
84	22.1	111	99	5.12EPC	4.12	4.18	-0.06	1.053										373	57	2.83	
812	32.4	174	94	6.80EPC	5.80	5.86	-0.06	1.053										373	32	2.33	
811	43.4	147	93	8.75EPC	7.75	7.64	0.11	1.053										373	32	2.43	
85	45.9	129	92	9.14IPD	8.14	8.05	0.09	1.053		11.74	10.74	14.08	-3.34	0.000				373	42	2.63	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	Z	NW	NE	SW	E	N
AVE. OF END POINTS	0.07	0.15	0.16	0.17	0.17	0.21	0.21

NUMBER	RMS	MIN ORMS	AVE ORMS	QUALITY
6	0.06	0.06	0.16	D

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/15 16/16 83/11/15 16/16

	HORIZONTAL	VERTICAL	
SE =	0.43	SE = 0.68	SE = 0.82 QUALITY = A
AZ =	-11.	AZ = -101.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831115	1616 27.44	44N13.90	114W 2.83	6.69	2.69	11	10	80	1	0.07	0.7	0.8	B	A|B	0.23	10	15	0.00	0.06	0	0.0	0.0	9	2.7	0.1

SE OF ORIG = 0.040 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)		
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	8.9	124	126	29.50IPD	2.06	2.03	0.03	1.050		30.12	2.68	3.56	-0.88	0.000				374	50	2.63	
817	9.0	324	125	29.48IPD	2.04	2.05	-0.01	1.058		30.93	3.49	3.58	-0.09	0.740				374	55	2.73	
82	9.0	44	123	29.65IPC	2.21	2.16	0.04	1.058										374	54	2.73	
815	13.6	244	115	38.38IPC	2.94	2.78	0.16	1.058		33.00	5.56	4.86	0.70	0.000				374	53	2.73	
813	16.1	175	111	30.61IPC	3.17	3.18	-0.02	1.058		32.93	5.49	5.57	-0.08	0.740				374	55	2.73	
81	19.0	358	108	31.08IPC	3.64	3.67	-0.03	1.058										374	50	2.63	
812	28.1	182	65	32.50IPC	5.06	5.17	-0.11	1.058		34.18	6.74	9.05	-2.31	0.000				374	56	2.83	
811	37.4	149	65	34.17IP	6.73	6.68	0.05	1.058										374	44	2.63	
85	39.7	129	65	34.51IPD	7.07	7.05	0.02	1.058		39.96	12.52	12.33	0.18	0.000				374	58	2.83	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	E	SW	Z	NW	N	NE	SE
AVE. OF END POINTS	0.08	0.14	0.15	0.16	0.20	0.21	0.23

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/15    19/52                                                                                  83/11/15    19/52

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.43                SE =   0.53              SE =   1.00   QUALITY = A
                                          AZ =    -9.                AZ =   -99.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115 1952 15.05 44N10.86 114W 0.33  12.15   2.64 12 13  78 1 0.07  0.5  1.0 A A|A 0.50 10 19 0.00 0.06  0  0.0  0.0 10  2.6  0.1
SE OF ORIG =  0.058          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.1  81 160 17.27IPD          2.22  2.24              -0.01 1.053      19.97  4.92  3.91  1.01 0.000           375  49 2.63
813   10.6 190 136 17.79IPD          2.74  2.81              -0.06 1.053      20.09  5.04  4.92  0.13 0.737           375  42 2.53
84    12.6  82 130 18.08IPD          3.03  3.05              -0.01 1.053      20.30  5.25  5.34 -0.08 0.737           375  59 2.83
82    13.1  15 129 18.24IPD          3.19  3.11               0.09 1.053      21.02  5.97  5.46  0.54 0.000           375  38 2.43
817   15.5 326 124 18.40IPC          3.35  3.42              -0.07 1.053      20.85  5.80  5.99 -0.18 0.000           375  45 2.63
815   15.6 269 123 18.50IPC          3.45  3.44               0.02 1.053      21.23  6.18  6.02  0.17 0.000           375  44 2.63
812   22.9 191 112 19.42IPD          4.37  4.49              -0.11 1.053                                              375  59 2.83
81    24.9 351 110 19.88IPC          4.83  4.80               0.04 1.053      23.58  8.53  8.39  0.14 0.000           375  50 2.73
811   30.9 149 105 20.81IP           5.76  5.71               0.06 1.053      25.19 10.14  9.99  0.16 0.000           375  42 2.63
85    33.6 125 104 21.22IPC          6.17  6.14               0.04 1.053      26.52 11.47 10.74  0.73 0.000           375  58 2.93

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                   0.40  0.76  0.77  0.81  0.82  0.83  0.98

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                12      0.07      0.42      0.80         A
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/15    21/13                                                                                  83/11/15    21/13

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.32                SE =   0.56              SE =   1.25   QUALITY = A
                                          AZ =   -24.                AZ =  -114.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115 2113 36.42 44N 6.07 113W54.26   8.15   2.33 12 12  95 1 0.06  0.6  1.2 B A|B 0.06 10 17 0.00 0.05  0  0.0  0.0  9  2.3  0.1
SE OF ORIG =  0.039          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
813   10.1 261 122 38.79IPC          2.37  2.33               0.06 1.053      40.81  4.39  4.07  0.31 0.000           376  29 2.13
816   10.4 337 121 38.73IPD          2.31  2.37              -0.06 1.053      40.58  4.16  4.14  0.01 0.737           376  35 2.33
84    11.5  23 117 38.94IPC          2.52  2.52              -0.01 1.053                                              376  42 2.53
812   18.5 223 102 39.96IPC          3.54  3.60              -0.07 1.053      42.72  6.30  6.31 -0.01 0.000           376  40 2.53
811   19.3 157 101 40.20IP           3.78  3.73               0.05 1.053      43.00  6.58  6.52  0.06 0.737           376  33 2.33
82    22.0 348  98 40.62IPC          4.20  4.16               0.04 1.053      44.15  7.73  7.28  0.45 0.000           376  31 2.23
85    22.1 118  98 40.52IPC          4.10  4.17              -0.07 1.053      44.02  7.60  7.29  0.30 0.000           376  39 2.43
815   25.2 290  96 41.12IPC          4.70  4.69               0.01 1.053                                              376  29 2.23
817   27.4 323  95 41.37EP           4.95  5.04              -0.10 1.053      44.82  8.40  8.82 -0.43 0.000           376        3
81    35.6 340  93 42.91IPC          6.49  6.36               0.12 1.053                                              376  35 2.43

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH         SE     E     N    NW     Z    NE    SW
AVE. OF END POINTS                   0.04  0.12  0.14  0.14  0.16  0.20  0.24
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/15    21/37                                                                                                  83/11/15    21/37

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.47              SE =   0.60              SE =   1.64   QUALITY = A
                                            AZ =   -53.              AZ =    37.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831115 2137 13.92 44N13.32 114W 2.72   8.72   2.43 11 10  79 1 0.07  0.6  1.6 A A|A 0.09 10 18 0.00 0.06  0  0.0  0.0 10  2.4  0.1
SE OF ORIG =  0.070          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.2 118 132 16.09IPD         2.17  2.14              0.03 1.058      18.49  4.57  3.74  0.83 0.000           377  46 2.53
817    9.9 327 125 16.18IPC         2.26  2.35             -0.09 1.058      18.06  4.14  4.11  0.03 0.740           377  40 2.43
82    10.5  39 123 16.44IPC         2.52  2.43              0.09 1.058                                               377  33 2.33
815   13.4 249 115 16.80IPD         2.88  2.83              0.05 1.058      18.31  4.39  4.95 -0.56 0.000           377  38 2.43
813   15.0 175 111 16.99IPD         3.07  3.09             -0.02 1.058      19.09  5.17  5.41 -0.24 0.000           377  36 2.43
84    16.0 100 109 17.19IPC         3.27  3.23              0.04 1.058      19.44  5.52  5.65 -0.13 0.740           377  42 2.53
81    20.1 358 103 17.75IPC         3.83  3.88             -0.05 1.058      21.25  7.33  6.79  0.54 0.000           377  37 2.43
812   27.0 183  97 18.82IPC         4.90  4.99             -0.08 1.058                                               377  48 2.63
811   36.4 149  94 20.52EPD         6.60  6.51              0.09 1.058      25.42 11.50 11.39  0.11 0.000           377  34 2.43
85    38.9 128  94 21.17IP 4        7.25  6.91              0.34 0.000      27.12 13.20 12.09  1.11 0.000           377  32 2.33

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     Z    SW     N    NE     E
AVE. OF END POINTS                  0.11  0.15  0.15  0.16  0.16  0.19  0.21

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.07      0.03      0.16         0

          ____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/15 21/49 83/11/15 21/49

HORIZONTAL		VERTICAL		
SE = 0.39		SE = 0.54	SE = 1.17	QUALITY = A
AZ = -23.		AZ = -113.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831115	2149 20.55	44N12.39	114W 3.10	8.23	2.94	27	8	74	1	0.11	0.5	1.2	A	A|A	1.30	10	45	0.00	0.09	0	0.0	0.0	10	2.9	0.1

SE OF ORIG = 0.043 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	TCOR	D=TTDB	TTCAL	DELAY	EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
ANPI	4.2	119	150	22.22	P	0	1.67	1.66			0.01	1.053		0.00	-20.55	2.91	-23.46	0.000				378			3
NWSI	5.9	25	140	22.35	P+2		1.80	1.83			-0.03	0.263		23.89	3.34	3.20	0.14	0.000				378			3
B16	8.0	106	130	22.70	IPC		2.15	2.06			0.09	1.053		24.08	3.53	3.61	-0.08	0.737				378		75	3.03
WSUI	9.1	82	126	22.76	PC		2.21	2.19			0.02	1.053										378			3
BSU3	9.6	11	124	22.90	PD		2.35	2.26			0.09	1.053										378			3
NSUI	10.3	69	121	22.92	PCO		2.37	2.36			0.01	1.053		24.77	4.22	4.13	0.09	0.000				378			3
B17	11.2	334	118	22.84	IPD		2.29	2.49			-0.20	1.053		24.44	3.89	4.35	-0.46	0.000				378		74	3.03
B2	12.1	36	116	23.13	IPC		2.58	2.62			-0.04	1.053		25.63	5.08	4.58	0.50	0.000				378		66	2.93
BIGA	12.3	47	115	23.13	PCO		2.58	2.65			-0.07	1.053		0.00	-20.55	4.64	-25.19	0.000				378			3
B15	12.3	255	115	23.30	IPC		2.75	2.66			0.09	1.053		24.88	4.33	4.65	-0.32	0.000				378		66	2.93
B13	13.4	172	112	23.48	IPD		2.93	2.81			0.12	1.053		25.69	5.14	4.93	0.21	0.000				378		63	2.83
M-2	15.2	109	108	23.87	PCO		3.32	3.09	0.17		0.06	1.053		0.00	-20.55	5.40	-26.25	0.000				378			3
B4	16.3	94	106	23.70	IPC		3.15	3.24			-0.09	1.053										378		78	3.03
RCI	17.5	264	104	23.88	PCO		3.33	3.44			-0.11	1.053		25.98	5.43	6.03	-0.60	0.000				378			3
DSPI	17.6	86	103	23.98	PCO		3.43	3.47			-0.04	1.053		0.00	-20.55	6.07	-26.62	0.000				378			3
WBAI	18.6	117	102	24.30	PCO		3.75	3.63			0.12	1.053		26.19	5.64	6.34	-0.70	0.000				378			3
M-1	21.4	135	99	25.03	PCO		4.48	4.07	0.30		0.11	1.053		0.00	-20.55	7.12	-28.19	0.000				378			3
B1	21.8	359	98	24.51	IPC		3.96	4.13			-0.17	1.053		27.89	7.34	7.22	0.11	0.737				378		66	2.93
BRPI	22.2	159	98	24.85	PCO		4.30	4.20			0.10	1.053		0.00	-20.55	7.35	-27.90	0.000				378			3
HIR	23.5	350	97	25.20	PDO		4.65	4.39			0.26	1.053		0.00	-20.55	7.68	-28.23	0.000				378			3
BRCI	24.9	180	96	25.04	PCO		4.49	4.64			-0.15	1.053		26.64	6.09	8.11	-2.02	0.000				378			3
B12	25.3	182	96	25.22	IPC		4.67	4.70			-0.03	1.053		28.59	8.04	8.23	-0.19	0.000				378		80	3.13
LCRI	30.5	127	94	25.88	PCO		5.33	5.53			-0.20	1.053		0.00	-20.55	9.69	-30.24	0.000				378			3
B11	35.2	147	93	26.89	IPC		6.34	6.31			0.03	1.053										378		61	2.93
B5	38.3	125	93	27.34	IPC		6.79	6.80			-0.01	1.053										378		70	3.03

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	SW	E	NW	SE	N
AVE. OF END POINTS	0.22	0.59	0.71	0.75	0.78	0.84	1.00

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
27	0.11	0.28	0.74	B

----------END----------END----------END----------END----------

```
83/11/15    23/34                                                                                                                    83/11/15    23/34

                                                    HORIZONTAL                                                  VERTICAL
                                              SE =   0.40                SE =   0.55                  SE =   1.21    QUALITY = A
                                              AZ =   -31.                AZ =  -121.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831115 2334  9.07 44N 8.57 113W58.54  11.66   2.54 12 12  68 1 0.07  0.6  1.2 A A|A 1.06 10 18 0.00 0.05  0  0.0  0.0 10  2.5  0.1
SE OF ORIG =  0.061          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.2  19 154 11.26IPD          2.19  2.23              -0.04 1.053      13.36  4.29  3.90  0.39 0.000            379  42 2.53
813    7.5 214 145 11.50IPD          2.43  2.43               0.01 1.053      13.20  4.13  4.24 -0.11 0.000            379  38 2.43
84    11.8  59 131 11.96IPC          2.89  2.89               0.00 1.053      14.18  5.11  5.06  0.05 0.737            379  55 2.73
92    16.9   4 119 12.71IPD          3.64  3.57               0.07 1.053      15.71  6.64  6.25  0.39 0.000            379  36 2.43
815   18.4 282 117 12.98IPD          3.91  3.79               0.13 1.053      15.68  6.61  6.62 -0.01 0.000            379  41 2.53
812   19.5 200 115 12.99IPC          3.92  3.93              -0.01 1.053      15.72  6.65  6.88 -0.23 0.000            379  56 2.83
817   20.3 327 114 13.03IPD          3.96  4.06              -0.10 1.053      16.05  6.98  7.11 -0.12 0.737            379  44 2.63
811   26.0 149 108 13.98IP           4.91  4.93              -0.02 1.053                                               379  39 2.53
85    29.3 121 105 14.46IPC          5.39  5.45              -0.05 1.053      18.26  9.19  9.53 -0.34 0.000            379  45 2.63
81    29.5 348 105 14.60IPC          5.53  5.48               0.05 1.053                                               379  38 2.53

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                   0.33  0.66  0.81  0.87  0.89  0.95  1.03

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  12      0.07      0.35      0.83         A


83/11/16     2/51                                                                                                                     83/11/16     2/51

                                                    HORIZONTAL                                                  VERTICAL
                                              SE =   0.60                SE =   1.07                  SE =   1.20    QUALITY = A
                                              AZ =  -109.                AZ =   -19.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831116  251  5.13 43N54.03 113W41.47  11.33   2.41 11 31 275 1 0.04  1.1  1.2 C B|D 0.19 10 18 0.00 0.03  0  0.0  0.0  9  2.4  0.1
SE OF ORIG =  0.099          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811   10.5 296 133  7.81IPD          2.68  2.71              -0.03 1.028       9.55  4.42  4.74 -0.32 0.000            380  42 2.53
85    12.2  12 129  8.08IPD          2.95  2.91               0.04 1.028      14.09  8.96  5.09  3.87 0.000            380  40 2.53
812   30.9 286 103 10.81IPC          5.68  5.68               0.00 1.028      14.91  9.78  9.94 -0.16 0.000            380  49 2.73
913   34.1 307 102 11.33EPC          6.20  6.19               0.01 1.028      15.98 10.85 10.84  0.01 0.720            380  30 2.33
84    35.3 339 101 11.40IPC          6.27  6.38              -0.11 1.028      44.91 39.78 11.16 28.62 0.000            380        3
816   38.2 326 100 12.03IPC          6.90  6.85               0.05 1.028      15.94 10.81 11.99 -1.18 0.000            380  32 2.43
92    48.9 334  97 13.65IPC          8.52  8.56              -0.04 1.028                                               380  30 2.33
815   51.2 307  97 14.08IP           8.95  8.94               0.01 1.028                                               380  30 2.33
817   55.5 323  96 14.78IP           9.65  9.63               0.02 1.028      21.18 16.05 16.85 -0.80 0.000            380  29 2.33
81    62.9 333  95 16.00IPC         10.87 10.82               0.05 1.026      23.30 18.17 18.94 -0.77 0.000            380  30 2.43

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH         SE    NW     Z     N     E    SW    NE
AVE. OF END POINTS                   0.11  0.13  0.16  0.18  0.22  0.23  0.24
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16     4/19                                                                                                  83/11/16     4/19

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.60              SE =    1.48              SE =    1.68   QUALITY = A
                                          AZ =    -94.              AZ =     -4.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831116  419 15.07 43N55.36 113W47.39  10.42   2.17 11 23 239 1 0.07  1.5  1.7 C B|D 0.05 10 18 0.00 0.06  0  0.0  0.0  7  2.2  0.2
SE OF ORIG =  0.135          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    2.6 324 165 17.01IPC          1.94  1.90              0.04 1.058      19.85  4.78  3.32  1.46 0.000           381  29 2.13
85    14.0  47 121 18.11IPC          3.04  3.07             -0.03 1.058      20.06  4.99  5.37 -0.38 0.000           381  29 2.23
812   22.6 286 107 19.47IPC          4.40  4.34              0.06 1.058      22.57  7.50  7.60 -0.10 0.740           381  39 2.53
813   26.5 314 104 19.92IP           4.85  4.94             -0.09 1.058      23.78  8.71  8.65  0.06 0.740           381  22 2.03
84    30.8 351 101 20.62IPD          5.55  5.64             -0.09 1.058      24.54  9.47  9.87 -0.40 0.000           381  30 2.33
816   32.2 336 100 20.921P           5.85  5.86             -0.01 1.058      25.01  9.94 10.26 -0.32 0.000           381        3
815   43.5 311  97 22.77EP           7.70  7.67              0.03 1.058      27.67 12.60 13.42 -0.82 0.000           381  20 2.03
82    43.6 342  97 22.89IP           7.82  7.69              0.13 1.058      27.92 12.85 13.46 -0.61 0.000           381        3
817   49.0 328  96 23.95EP 4         8.88  8.56              0.32 0.000                                              381        3
81    57.4 338  95 24.98IP           9.91  9.91              0.00 1.058                                              381  25 2.23

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE     NW      E      N      Z     SW     NE
AVE. OF END POINTS                 0.07   0.10   0.14   0.16   0.18   0.22   0.24

            NUMBER       RMS   MIN DRMS   AVE DRMS   QUALITY
                 9      0.07       0.05       0.16         0

          ____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/16 4/55 83/11/16 4/55

	HORIZONTAL		VERTICAL	
SE =	0.34	SE =	0.39	SE = 0.86 QUALITY = A
AZ =	-81.	AZ =	9.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERM	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831116	455 31.35	44N14.76	114W 3.01	8.26	3.04	27	7	68	1	0.08	0.4	0.9	A	A|A	0.39	10	46	0.00	0.06	0	0.0	0.0	10	3.0	0.1

SE OF ORIG = 0.040 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)										
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
NWSI	2.6	68	161	32.88	PDO 1.53	1.56			-0.03	1.053		0.00	-31.35	2.73	-34.07	0.000				382			3
8SU3	5.3	19	144	33.27	PD 1.92	1.77			0.16	1.053										382			3
ANPI	7.4	151	133	33.37	P 0 2.02	1.99			0.03	1.053		0.00	-31.35	3.48	-34.83	0.000				382			3
817	7.6	319	132	33.24	IPD 1.89	2.01			-0.12	1.053		34.80	3.45	3.52	-0.07	0.737				382	66	2.93	
82	8.9	52	127	33.53	EPD 2.18	2.17			0.01	1.053		35.63	4.28	3.80	0.48	0.000				382	69	2.93	
WSUI	9.4	109	125	33.59	PC 2.24	2.25			-0.01	1.053										382			3
NSUI	9.5	95	124	33.61	PC0 2.26	2.26			0.00	1.053		0.00	-31.35	3.96	-35.31	0.000				382			3
8IGA	9.7	65	124	33.56	PC0 2.21	2.28			-0.07	1.053		0.00	-31.35	4.00	-35.35	0.000				382			3
816	10.0	131	122	33.71	IPC 2.36	2.33			0.03	1.053		36.08	4.73	4.08	0.65	0.000				382	80	3.03	
815	14.2	238	110	34.37	IPC 3.02	2.94			0.08	1.053		36.52	5.17	5.14	0.03	0.737				382	80	3.03	
84	17.0	109	105	34.69	IPC 3.34	3.38			-0.03	1.053		37.29	5.94	5.91	0.03	0.000				382	95	3.23	
M-2	17.0	123	105	34.87	PC0 3.52	3.38	0.17		-0.03	1.053		0.00	-31.35	5.91	-37.56	0.000				382			3
81	17.4	359	104	34.66	IPD 3.31	3.44			-0.13	1.053		37.51	6.16	6.02	0.15	0.000				382	82	3.13	
DSPI	17.7	100	103	34.85	PC0 3.50	3.49			0.01	1.053		0.00	-31.35	6.10	-37.45	0.000				382			3
813	17.7	174	103	34.95	IPC 3.60	3.49			0.11	1.053		37.20	5.85	6.11	-0.26	0.000				382	79	3.03	
RCI	18.6	250	102	34.88	PC0 3.53	3.62			-0.09	1.053		36.98	5.63	6.33	-0.70	0.000				382			3
MIR	19.2	348	101	35.30	PC0 3.95	3.71			0.24	1.053		0.00	-31.35	6.50	-37.85	0.000				382			3
MBAI	20.9	128	99	35.39	PC0 4.04	3.99			0.05	1.053		0.00	-31.35	6.98	-38.33	0.000				382			3
M-1	24.7	143	97	36.31	PC0 4.96	4.60	0.30		0.06	1.053		0.00	-31.35	8.05	-39.92	0.000				382			3
8RPI	26.4	163	96	36.35	PC2 5.00	4.87			0.13	0.263		0.00	-31.35	8.53	-39.88	0.000				382			3
8RCI	29.3	181	95	36.64	PD0 5.29	5.35			-0.06	1.053		39.64	8.29	9.36	-1.07	0.000				382			3
812	29.7	182	95	36.71	IPC 5.36	5.41			-0.05	1.053										382	91	3.23	
LCRI	33.2	133	94	37.26	P 0 5.91	5.98			-0.07	1.053		0.00	-31.35	10.46	-41.81	0.000				382			3
811	38.9	150	93	38.25	EPC 6.90	6.91			0.00	1.053										382	59	2.93	
85	40.9	130	93	38.48	IPC 7.13	7.22			-0.09	1.053		44.70	13.35	12.64	0.71	0.000				382	84	3.23	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	NW	SW	E	N	SE
AVE. OF END POINTS	0.30	0.67	0.70	0.73	0.86	0.88	0.93

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
27	0.08	0.37	0.76	A

----------END----------END----------END----------END----------

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/16     5/58                                                                                  83/11/16     5/58

                                                   HORIZONTAL                                   VERTICAL
                                            SE =   0.92              SE =   2.62                 SE =   2.69   QUALITY = B
                                            AZ =    35.              AZ =  -55.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116  558  5.23 44N20.82 114W10.17   9.23   2.39 12 16 228 1 0.11  2.6  2.7 C B|D 0.08 10 16 0.00 0.09  0  0.0  0.0 12  2.4  0.2
SE OF ORIG =  0.228          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    7.2 141 138  7.19IPD          1.96  2.08            -0.12 1.026       9.04  3.81  3.64  0.17 0.000           383  43 2.53
81    11.1  56 124  7.86IPC          2.63  2.56             0.07 1.026                                             383  44 2.53
NWSI  15.7 131 112  8.38IP           3.15  3.22            -0.07 1.026                                             383  20 1.93
82    17.5 109 109  8.82IPD          3.59  3.50             0.09 1.026                                             383  34 2.33
815   18.9 188 107  8.94IPC          3.71  3.71             0.00 1.026      11.92  6.69  6.50  0.20 0.718           383  38 2.43
NSUI  22.4 122 103 51.15EPC4        45.92  4.27            41.65 0.000      52.94 47.71  7.47 40.24 0.000           383  23 2.03
816   24.7 136 101  9.72IPC          4.49  4.62            -0.13 1.026                                             383  34 2.33
84    30.6 123  97 10.78IPD          5.55  5.57            -0.01 1.026                                             383  43 2.63
813   31.0 159  97 10.75IPC          5.52  5.63            -0.11 1.026                                             383  39 2.53
812   41.8 168  95 12.49IPD          7.26  7.38            -0.11 1.026                                             383  41 2.63
811   53.5 147  93 14.66EP           9.43  9.28             0.16 1.026                                             383  37 2.53
85    55.4 133  93 14.91EP           9.68  9.59             0.09 1.026      22.21 16.98 16.78  0.20 0.000           383  40 2.63

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     N    NW    SE     E    NE     Z
AVE. OF END POINTS                  0.07  0.12  0.13  0.13  0.14  0.18  0.18

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.11      0.07      0.13         D

        ------------END----------------------END----------------------END----------------------END------------
```

	HORIZONTAL		VERTICAL	
SE =	0.51	SE =	0.75	SE = 0.97 QUALITY = A
AZ =	-45.	AZ =	-135.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	DS	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831116	950 35.03	44N10.98	113W56.71	6.48	2.62	26	5	59	1	0.16	0.7	1.0	B	B(A	0.23	10	41	0.00	0.12	0	0.0	0.0	9	2.6	0.1

SE OF ORIG = 0.048 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
816	0.9	299	172	36.16IPC	1.13 1.20	-0.07	1.042										384	58	2.73	
WSUI	3.9	7	148	36.44 P+	1.41 1.39	0.02	1.042										384		3	
ANPI	4.9	277	142	36.40 PC0	1.37 1.49	-0.12	1.042		0.00	-35.03	2.62	-37.65	0.000				384		3	
M-2	6.3	111	135	36.86 P00	1.83 1.66 0.17	0.00	1.042		0.00	-35.03	2.90	-38.23	0.000				384		3	
84	7.8	79	128	36.89IPD	1.86 1.87	-0.01	1.042										384		3	
DSPI	9.9	66	122	37.23 P00	2.20 2.16	0.04	1.042		0.00	-35.03	3.78	-38.81	0.000				384		3	
M8AI	10.0	127	122	37.35 PD0	2.32 2.17	0.15	1.042		0.00	-35.03	3.80	-38.83	0.000				384		3	
NWSI	10.0	323	122	36.76 PC0	1.73 2.18	-0.45	1.042		38.01	2.98	3.81	-0.83	0.000				384		3	
NWSI	10.0	323	122	37.27 P00	2.24 2.18	0.06	1.042		0.00	-35.03	3.81	-38.84	0.000				384		3	
8IGA	11.0	2	119	37.21 P00	2.18 2.33	-0.16	1.042		0.00	-35.03	4.09	-39.12	0.000				384		3	
82	12.5	354	116	37.74EPD	2.71 2.58	0.13	1.042		40.06	5.03	4.51	0.52	0.000				384	44	2.53	
813	12.6	212	116	37.74IPC	2.71 2.59	0.12	1.042		39.66	4.63	4.53	0.10	0.000				384	50	2.63	
8SU3	13.7	331	114	38.27 PC	3.24 2.77	0.47	1.042										384		3	
M-1	14.2	153	113	38.20 P+0	3.17 2.85 0.30	0.02	1.042		0.00	-35.03	4.99	-40.55	0.000				384		3	
3RPI	18.2	182	108	38.75 PC0	3.72 3.51	0.21	1.042		42.35	7.32	6.15	1.17	0.000				384		3	
817	18.5	313	108	38.47IPD	3.44 3.56	-0.12	1.042		41.24	6.21	6.24	-0.03	0.729				384	40	2.43	
815	20.5	269	106	39.00IPD	3.97 3.91	0.06	1.042		41.90	6.87	6.83	0.04	0.729				384	43	2.53	
LCRI	22.3	135	105	39.05 P 0	4.02 4.22	-0.20	1.042		0.00	-35.03	7.38	-42.41	0.000				384		3	
8RCI	23.9	201	104	39.54 PC1	4.51 4.50	0.01	0.586		40.94	5.91	7.88	-1.97	0.000				384		3	
812	24.5	202	65	39.53IPC	4.50 4.60	-0.10	1.042										384	55	2.73	
RCI	25.9	272	65	39.79 P00	4.76 4.83	-0.07	1.042		0.00	-35.03	8.45	-43.48	0.000				384		3	
81	25.9	340	65	39.99EP	4.96 4.83	0.13	1.042										384	51	2.73	
811	28.9	158	65	40.36EP	5.33 5.32	0.01	1.042										384	42	2.53	
85	29.9	130	65	40.39IPD	5.36 5.48	-0.12	1.042		44.81	9.78	9.59	0.19	0.000				384	59	2.83	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	Z	SE	NW	E	NE	SW
AVE. OF END POINTS	0.06	0.08	0.08	0.09	0.10	0.10	0.12

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
10	0.16	0.04	0.09	D

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16    10/ 2                                                                                                  83/11/16    10/ 2

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   1.18              SE =   1.52              SE =   4.11   QUALITY = B
                                            AZ =  -135.              AZ =   -45.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ G SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116 10 2 24.11 44N 4.40 113W57.31  11.55        14 11  79 1 0.15  1.5  4.1 B 8|A 0.68 10 27 0.00 0.10  0  0.0  0.0  0  0.0  0.0
SE OF ORIG =  0.224          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
BRPI   6.0 178 151 26.50 PDO        2.39  2.28              0.11 1.067       0.00-24.11  3.98-28.09 0.000
M-1    7.4  93 145 26.80 PDO        2.69  2.40  0.30       -0.01 1.067       0.00-24.11  4.19-28.83 0.000
MBAI  10.8  55 133 26.94 PDO        2.83  2.76              0.07 1.067       0.00-24.11  4.83-28.94 0.000
M-2   12.0  34 130 27.26 PDO        3.15  2.91  0.17        0.07 1.067       0.00-24.11  5.09-29.50 0.000
BRCI  12.8 218 128 27.14 PDO        3.03  3.01              0.02 1.067      28.64  4.53  5.26 -0.73 0.000
ANPI  13.4 342 127 27.17 P 0        3.06  3.08             -0.02 1.067       0.00-24.11  5.38-29.49 0.000
WSUI  16.1   5 121 27.43 P0         3.32  3.45             -0.14 1.067
LCRI  17.0 102 119 27.55 PDO        3.44  3.57             -0.13 1.067       0.00-24.11  6.25-30.36 0.000
NSUI  18.5   6 116 27.81 PDO        3.70  3.79             -0.10 1.067       0.00-24.11  6.64-30.75 0.000
DSPI  18.9  31 116 27.97 PDO        3.86  3.85              0.01 1.067      29.75  5.64  6.74 -1.10 0.000
NWSI  20.8 345 113 28.11 P+1        4.00  4.14             -0.14 0.600       0.00-24.11  7.25-31.36 0.000
BIGA  23.3   3 110 28.57 P-1        4.46  4.50             -0.05 0.600       0.00-24.11  7.88-31.99 0.000
RCI   28.3 297 106 29.19 P 0        5.08  5.27             -0.19 1.067       0.00-24.11  9.23-33.34 0.000
MIR   39.7 343 100 31.60 PCO        7.49  7.09              0.40 1.067       0.00-24.11 12.41-36.52 0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SW     Z     N    NE    NW     E    SE
AVE. OF END POINTS                  0.00  0.06  0.08  0.12  0.14  0.17  0.17

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 10      0.15     -0.04      0.11         0


*** RUN AGAIN STARTING AT BEST NEARBY POINT ***


          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16    16/44                                                                                                  83/11/16    16/44

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.97              SE =   1.46              SE =   1.15   QUALITY = A
                                              AZ =   -95.              AZ =    -5.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116 1644 29.32 44N23.64 114W 4.96   4.27   3.07 23 12 214 1 0.15  1.5  1.1 C 8|0 0.09 10 36 0.00 0.12  0  0.0  0.0 10  3.1  0.1
SE OF ORIG =  0.126          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1     2.5  67 149 30.28IPD          0.96  0.92                0.05 1.255                                                386  93 3.13
B17   11.0 193 109 31.63IPC          2.31  2.18                0.14 1.255      32.85  3.53  3.81 -0.27 0.000            386  73 2.93
BSU3  12.3 159 107 32.00 PC          2.68  2.39                0.30 1.255                                                386        3
B2    14.6 139 104 32.06IPC          2.74  2.79               -0.05 1.255      34.16  4.84  4.89 -0.04 0.879            386  85 3.13
NWSI  16.2 162 103 32.54 PC0         3.22  3.07                0.16 1.255       0.00-29.32  5.37-34.69 0.000            386        3
BIGA  16.8 137 102 32.37 P-2         3.05  3.17               -0.12 0.314       0.00-29.32  5.55-34.87 0.000            386        3
NSUI  21.0 145 100 33.23 P+1         3.91  3.91                0.00 0.706       0.00-29.32  6.85-36.17 0.000            386        3
ANPI  23.7 165  98 33.69 PC0         4.37  4.39               -0.02 1.255       0.00-29.32  7.68-37.00 0.000            386        3
B16   25.2 156  98 33.93IPD          4.61  4.65               -0.04 1.255                                                386  78 3.03
B15   25.8 201  98 34.05IPC          4.73  4.76               -0.02 1.255      38.20  8.88  8.33  0.56 0.000            386  69 2.93
RCI   27.1 213  97 34.10 PD0         4.78  5.00               -0.21 1.255      37.50  8.18  8.75 -0.56 0.000            386        3
DSPI  27.9 134  97 34.18 P+2         4.86  5.14               -0.28 0.314       0.00-29.32  9.00-38.31 0.000            386        3
B4    28.8 140  97 34.48IPD          5.16  5.30               -0.13 1.255                                                386  92 3.23
M-2   30.7 147  96 34.95 P-3         5.63  5.64  0.17         -0.17 0.078       0.00-29.32  9.86-39.48 0.000            386        3
B13   34.4 173  96 35.46IPC          6.14  6.29               -0.14 1.255                                                386  68 2.93
MBAI  35.0 147  96 35.29 P+2         5.97  6.40               -0.42 0.314       0.00-29.32 11.20-40.51 0.000            386        3
M-1   40.1 154  65 37.08 PC0         7.76  7.30  0.30          0.17 1.255       0.00-29.32 12.77-42.61 0.000            386        3
BRPI  42.9 166  65 37.20 PD2         7.88  7.75                0.13 0.314       0.00-29.32 13.57-42.88 0.000            386        3
BRCI  45.8 177  65 37.63 P-0         8.31  8.22                0.09 1.255      40.83 11.51 14.39 -2.87 0.000            386        3
B12   46.2 178  65 37.51IP           8.19  8.28               -0.09 1.255                                                386  88 3.23
B5    54.5 142  65 38.81IPC          9.49  9.65               -0.15 1.255                                                386  99 3.33
B11   54.8 156  65 39.16IPD          9.84  9.68                0.16 1.255                                                386  62 2.93

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    NE    SE    NW    SW     E
AVE. OF END POINTS                  0.05  0.06  0.09  0.09  0.11  0.16  0.16

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 18      0.15      0.01      0.11         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16    19/ 8                                                                                                  83/11/16    19/ 8

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.42              SE =    0.59              SE =    1.04    QUALITY = A
                                            AZ =    -15.              AZ =   -105.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116 19 8 48.24 44N12.72 114W 2.60   9.58   2.53 12 11  76 1 0.07  0.6  1.0 A A|A 2.93 10 16 0.00 0.05  0  0.0  0.0  9  2.5  0.1
SE OF ORIG =  0.051          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    7.6 112 138 50.33IPC          2.09  2.17              -0.08 1.053      52.15  3.91  3.80  0.11 0.737            387  43 2.53
B17   11.0 330 126 50.80IPD          2.56  2.57              -0.01 1.053                                                387  43 2.53
B2    11.2  35 125 50.89IPC          2.65  2.60               0.05 1.053      54.24  6.00  4.55  1.45 0.000            387  39 2.43
B15   13.1 253 120 51.13IPD          2.89  2.87               0.02 1.053      53.59  5.35  5.03  0.32 0.000            387  46 2.63
B13   13.9 175 118 51.32IPD          3.08  2.98               0.10 1.053      53.32  5.08  5.22 -0.14 0.737            387  39 2.43
B4    15.6  96 114 51.37IPC          3.13  3.24              -0.11 1.053      53.52  5.28  5.67 -0.39 0.000            387  53 2.73
B1    21.2 358 106 52.31IPC          4.07  4.08              -0.01 1.053                                                387  43 2.53
B12   26.0 183 101 53.08IPC          4.84  4.84               0.00 1.053      56.11  7.87  8.47 -0.60 0.000            387  49 2.73
B11   35.4 148  97 54.58EP           6.34  6.35              -0.01 1.053                                                387  36 2.43
B5    38.1 126  96 55.09IPD          6.85  6.79               0.07 1.053                                                387        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                 0.36  0.72  0.76  0.77  0.85  0.89  1.05

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 12      0.07      0.46      0.81         A
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16    19/59                                                                                                  83/11/16    19/59

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.53              SE =    0.72              SE =    1.76    QUALITY = A
                                            AZ =     -6.              AZ =   -96.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116 1959 28.41 44N14.45 114W 2.71   9.34   2.68 11  9  79 1 0.07  0.7  1.8 A A|A 0.38 10 14 0.00 0.06  0  0.0  0.0  9  2.7  0.2
SE OF ORIG =  0.077          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    8.3 319 134 30.50IPD          2.09  2.22              -0.13 1.028      31.95  3.54  3.88 -0.34 0.000            388  46 2.53
B2     8.9  48 131 30.69IPD          2.28  2.30              -0.02 1.028      33.09  4.68  4.02  0.66 0.000            388  47 2.63
B16    9.4 130 130 30.82IPD          2.41  2.35               0.06 1.028      33.12  4.71  4.11  0.60 0.000            388  42 2.53
B15   14.3 241 116 31.43IPC          3.02  3.01               0.01 1.028                                                388  47 2.63
B4    16.4 107 111 31.67IPD          3.26  3.34              -0.08 1.028                                                388  74 3.03
B13   17.1 176 110 31.91IPC          3.50  3.44               0.06 1.028      34.51  6.10  6.03  0.07 0.720            388  43 2.53
B1    18.0 358 109 32.13IP           3.72  3.58               0.14 1.028                                                388        3
B12   29.1 182  98 33.68IPC          5.27  5.34              -0.07 1.028                                                388  64 2.93
B11   38.2 150  96 35.18EP           6.77  6.80              -0.03 1.028                                                388  40 2.53
B5    40.2 130  95 35.53IPD          7.12  7.12               0.00 1.028                                                388  69 3.03

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SW     E    NW    SE     N     Z    NE
AVE. OF END POINTS                 0.10  0.14  0.14  0.17  0.18  0.21  0.22
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/16    21/32                                                                                  83/11/16    21/32

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.72              SE =    1.45              SE =    2.34   QUALITY = A
                                            AZ =   -109.              AZ =    -19.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831116 2132 18.68 43N57.81 113W48.86  10.27   2.96 26 12 105 1 0.13  1.4  2.3 8 818 0.46 10 46 0.00 0.08  0  0.0  0.0  9  3.0  0.1
SE OF ORIG =  0.154          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    2.4 170 166 20.59IPC          1.91  1.87              0.05 1.094      24.34  5.66  3.26  2.40 0.000          389  70 2.93
LCRI  10.2  32 131 21.13 PC0         2.45  2.55             -0.09 1.094       0.00-18.68  4.46-23.13 0.000          389        3
M-1   12.4 341 124 21.80 PD0         3.12  2.84  0.30       -0.01 1.094       0.00-18.68  4.96-24.17 0.000          389        3
BRPI  12.7 299 124 21.60 PD0         2.92  2.87              0.05 1.094       0.00-18.68  5.03-23.71 0.000          389        3
B5    13.3  68 122 21.67IPC          2.99  2.95              0.04 1.094                                              389  75 3.03
MBAI  18.6 352 112 22.41 PC0         3.73  3.72              0.01 1.094       0.00-18.68  6.51-25.19 0.000          389        3
BRCI  19.3 276 111 22.44 PC0         3.76  3.83             -0.07 1.094      24.94  6.26  6.71 -0.45 0.000          389        3
B12   19.8 275 110 22.63IPC          3.95  3.91              0.04 1.094      25.60  6.92  6.84  0.08 0.766          389  73 3.03
B13   22.0 309 107 22.88IP           4.20  4.24             -0.04 1.094      26.21  7.53  7.42  0.11 0.000          389  57 2.83
M-2   22.6 348 107 23.20 PC0         4.52  4.34  0.17        0.01 1.094       0.00-18.68  7.59-26.57 0.000          389        3
B4    26.0 354 104 23.44IPC          4.76  4.87             -0.11 1.094      28.28  9.60  8.52  1.08 0.000          389  79 3.13
B16   27.3 336 103 23.72IPC          5.04  5.07             -0.03 1.094      26.53  7.85  8.88 -1.02 0.000          389        3
DSPI  28.4 357 102 23.84 PC0         5.16  5.25             -0.09 1.094      28.28  9.60  9.19  0.41 0.000          389        3
NSUI  32.0 343 100 24.44 PC1         5.76  5.83             -0.07 0.615       0.00-18.68 10.21-28.89 0.000          389        3
NWSI  36.3 333  98 25.30 PD0         6.62  6.52              0.10 1.094      30.13 11.45 11.41  0.04 0.000          389        3
BIGA  36.8 344  98 25.25 PC0         6.57  6.60             -0.03 1.094       0.00-18.68 11.55-30.22 0.000          389        3
B2    38.7 342  97 25.64IPD          6.96  6.89              0.07 1.094      29.86 11.18 12.06 -0.88 0.000          389  58 2.93
B15   39.1 308  97 25.45IPC          6.77  6.96             -0.19 1.094      29.96 11.28 12.18 -0.90 0.000          389  65 3.03
BSU3  40.2 335  97 25.95 P-2         7.27  7.14              0.13 0.273                                              389        3
B17   44.1 327  96 26.36EPD          7.68  7.77             -0.09 1.094      32.26 13.58 13.59 -0.01 0.766          389  58 2.93
RCI   44.2 305  96 26.35 PD0         7.67  7.79             -0.12 1.094       0.00-18.68 13.63-32.31 0.000          389        3
MCGI  45.1 340  96 26.46 P+1         7.78  7.93             -0.14 0.615       0.00-18.68 13.87-32.55 0.000          389        3
B1    52.4 339  95 27.78IPD          9.10  9.11             -0.01 1.094      32.66 13.98 15.94 -1.96 0.000          389  74 3.13
HIR   55.1 335  95 28.76 P 0        10.08  9.55              0.53 1.094       0.00-18.68 16.71-35.39 0.000          389        3

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE    SW     N    NE    NW     E
AVE. OF END POINTS                 0.29  0.33  0.47  0.47  0.53  0.55  0.62

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  26      0.13      0.23      0.48         B

____________END____________________END____________________END____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17     1/17                                                                                                  83/11/17     1/17

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.31              SE =   0.39              SE =   0.54   QUALITY = A
                                              AZ =    -5.              AZ =   -95.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831117  117  5.50 44N10.32 113W58.44  10.63   2.52 13 10  67 1 0.05  0.4  0.5 A A|A 0.19 10 18 0.00 0.04  0  0.0  0.0 10  2.5  0.1
SE OF ORIG =  0.033          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    2.2  42 167  7.38IPO          1.88  1.91             -0.03 1.048       8.83  3.33  3.35 -0.02 0.734            889  44 2.58
FSD    9.8  80 133  8.00 P           2.50  2.55             -0.05 1.048       9.90  4.40  4.46 -0.06 0.000            889        8
84    10.4  75 131  8.08IPC          2.58  2.61             -0.03 1.048      10.00  4.50  4.57 -0.07 0.000            889  56 2.78
313   10.4 205 131  8.17IPC          2.67  2.61              0.06 1.048      10.12  4.62  4.57  0.05 0.734            889  37 2.48
82    13.7   4 123  8.65IPC          3.15  3.04              0.11 1.048                                                889  35 2.38
817   17.8 321 115  9.05IPC          3.55  3.61             -0.06 1.048      11.85  6.35  6.32  0.03 0.000            889  43 2.58
815   18.1 272 114  9.15IPC          3.65  3.67             -0.01 1.048      11.85  6.35  6.41 -0.06 0.000            889  43 2.58
812   22.6 198 108  9.79IPC          4.29  4.35             -0.05 1.048                                                889  51 2.78
81    26.4 346 104 10.45IPO          4.95  4.94              0.01 1.048                                                889  38 2.58
811   28.8 153 103 10.79EPC          5.29  5.31             -0.02 1.048                                                889  38 2.58
85    31.0 126 101 11.22IPD          5.72  5.68              0.05 1.048      14.60  9.10  9.93 -0.83 0.000            889  44 2.68

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW     E    NW    NE    SE     N
AVE. OF END POINTS                 0.54  0.78  0.81  0.81  0.82  0.87  1.01

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                13      0.05      0.52      0.82         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17     2/34                                                                                  83/11/17     2/34

                                                  HORIZONTAL                                    VERTICAL
                                            SE =   0.93              SE =   2.43                SE =   1.52   QUALITY = A
                                            AZ =    45.              AZ =   -45.

 DATE    ORIGIN      LAT       LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  234 14.68 44N29.03 114W 7.30   3.69   2.72 14 21 269 1 0.10  2.4  1.5 D C|D 0.13 10 21 0.00 0.07  0  0.0  0.0 12  2.7  0.2
SE OF ORIG =  0.206          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1    10.5 149 107 16.75IPD         2.07  2.05              0.01 1.022      17.80  3.12  3.59 -0.48 0.000           390  70 2.93
GCI   19.3  99  99 18.29IPC         3.61  3.59              0.01 1.022      20.50  5.82  6.28 -0.47 0.000           390        3
B17   20.8 178  98 18.65IPC         3.97  3.86              0.11 1.022      21.41  6.73  6.75 -0.02 0.715           390  50 2.63
BSU3  22.7 161  97 18.89EPC         4.21  4.20              0.01 1.022                                              390        3
B2    24.5 149  97 19.16IPC         4.48  4.53             -0.05 1.022      22.71  8.03  7.92  0.10 0.000           390  53 2.73
NWSI  26.7 162  96 19.62EPC         4.94  4.91              0.03 1.022      24.42  9.74  8.59  1.15 0.000           390  37 2.43
NSUI  31.1 151  95 20.40IPC         5.72  5.69              0.02 1.022                                              390  28 2.23
B15   34.5 191  95 20.82EP          6.14  6.31             -0.17 1.022      25.36 10.68 11.04 -0.36 0.000           390  54 2.73
B16   35.6 158  95 21.14EP          6.46  6.49             -0.03 1.022                                              390  55 2.83
B4    38.6 146  94 21.78IP          7.10  7.03              0.06 1.022                                              390  64 2.93
B13   44.7 170  65 22.79EP 4        8.11  8.09              0.02 0.000                                              390  48 2.73
B12   56.3 175  65 24.80EP         10.12  9.98              0.14 1.022                                              390  66 3.03
B5    64.4 145  65 25.75EP         11.07 11.29             -0.23 1.022      30.78 16.10 19.76 -3.67 0.000           390  66 3.03
B11   65.2 157  65 26.20EP         11.52 11.42              0.10 1.022                                              390  49 2.83

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    SW    NW    SE     E    NE
AVE. OF END POINTS                 0.07  0.09  0.11  0.12  0.13  0.14  0.15

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.10      0.04      0.12         0

        ------------END----------------------END----------------------END----------------------END------------
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17     3/12                                                                                  83/11/17     3/12

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.51              SE =    0.65              SE =    1.06   QUALITY = A
                                          AZ =    -21.              AZ =   -111.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  312  8.79 44N15.93 114W 2.30   8.70   2.56 17  7  67 1 0.09  0.7  1.1 A A|A 0.10 10 24 0.00 0.07  0  0.0  0.0 15  2.6  0.2
SE OF ORIG =  0.056          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   1.8 130 167 10.39IPD          1.60  1.59              0.01 1.018                                                 391  28 2.13
BSU3   2.9  16 159 10.53IPD          1.74  1.65              0.10 1.018                                                 391  35 2.33
B17    6.9 301 137 10.72IPD          1.93  1.99             -0.06 1.018      11.94  3.15  3.48 -0.33 0.000            391  44 2.53
B2     6.9  62 137 10.84IPC          2.05  1.99              0.06 1.018      12.86  4.07  3.48  0.59 0.000            391  48 2.63
NSUI   9.0 109 128 11.06IPC          2.27  2.23              0.04 1.018                                                 391  37 2.43
B16   11.0 143 122 11.32IPC          2.53  2.50              0.04 1.018      13.04  4.25  4.37 -0.12 0.713            391  50 2.63
B1    15.3 355 110 11.87IPD          3.08  3.13             -0.05 1.018      12.42  3.63  5.48 -1.85 0.000            391  52 2.73
B15   16.2 233 109 12.06IPC          3.27  3.27              0.01 1.018      14.51  5.72  5.72  0.00 0.000            391  48 2.63
B4    17.0 117 107 12.10IPC          3.31  3.38             -0.07 1.018      14.40  5.61  5.92 -0.31 0.000            391  58 2.83
FSD   17.1 120 107 12.05 P           3.26  3.41             -0.15 1.018      14.65  5.86  5.97 -0.10 0.000            391        3
DSPI  17.3 107 107 12.19IPD          3.40  3.43             -0.03 1.018                                                 391  35 2.33
B13   19.8 178 103 12.66IPC          3.87  3.84              0.04 1.018      15.06  6.27  6.71 -0.44 0.000            391  45 2.63
GCI   24.5  30  99 13.35IPC          4.56  4.57             -0.01 1.018                                                 391  55 2.83
B12   31.9 183  95 14.42IPC          5.63  5.78             -0.14 1.018                                                 391  55 2.83
B11   40.4 153  94 16.18EPD          7.39  7.14              0.25 1.018                                                 391  41 2.63
B5    41.6 133  94 16.18IPD          7.39  7.35              0.05 1.018                                                 391  57 2.83

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                  0.35  0.59  0.66  0.68  0.71  0.78  0.87

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                17      0.09      0.38      0.69         A

        ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17     3/38                                                                                                  83/11/17     3/38

                                                    HORIZONTAL                                  VERTICAL
                                              SE =    0.30              SE =    0.36              SE =    0.70   QUALITY = A
                                              AZ =     -8.              AZ =   -98.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  AOJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  338 33.18 44N 8.25 113W56.91  10.86   2.48 12  9  68 1 0.05  0.4  0.7 A A|A 0.06 10 19 0.00 0.03  0  0.0  0.0 10  2.5  0.1
SE OF ORIG =  0.036          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.5 354 151 35.32IPC         2.14  2.14              0.00 1.026                                                 392  38 2.43
B13    8.5 229 138 35.67IPC         2.49  2.43              0.06 1.026      37.42  4.24  4.25 -0.01 0.718            392  37 2.43
FSD    9.5  54 135 35.70 P          2.52  2.53             -0.01 1.026      37.60  4.42  4.43 -0.01 0.000            392       3
B4    10.3  50 132 35.77IPO         2.59  2.63             -0.04 1.026      37.37  4.19  4.61 -0.42 0.000            392  46 2.63
B2    17.5 356 116 36.85IPO         3.67  3.59              0.08 1.026      39.85  6.67  6.29  0.38 0.000            392  36 2.43
B12   19.8 207 112 37.10IPC         3.92  3.94             -0.02 1.026                                                 392  52 2.73
B15   20.7 283 111 37.24IPO         4.06  4.07             -0.01 1.026      39.94  6.76  7.13 -0.37 0.000            392  38 2.43
B17   22.1 324 109 37.37IPC         4.19  4.29             -0.10 1.026      40.32  7.14  7.50 -0.36 0.000            392  35 2.43
B11   24.4 153 107 37.84IPO         4.66  4.65              0.01 1.026                                                 392  37 2.43
B5    27.1 122 105 38.24IPC         5.06  5.07             -0.01 1.026      41.69  8.51  8.87 -0.36 0.000            392  51 2.73
B1    30.7 344 102 38.86IPO         5.68  5.63              0.05 1.026      42.73  9.55  9.85 -0.30 0.000            392  38 2.53

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SE    NW     E    NE     Z    SW
AVE. OF END POINTS                 0.08  0.20  0.20  0.22  0.22  0.23  0.28

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                   6      0.05      0.02      0.20         D
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17     8/ 6                                                                                 83/11/17     8/ 6

                                                 HORIZONTAL                                  VERTICAL
                                          SE =   0.56                 SE =   0.81             SE =   1.48   QUALITY = A
                                          AZ =    -8.                 AZ =   -98.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  8 6 40.66 44N 9.19 113W59.04  12.20   2.95 29  8  73 1 0.16  0.8  1.5 8 8|A 0.74 10 53 0.00 0.11  0  0.0  0.0  9  3.0  0.1
SE OF ORIG =  0.080          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
ANPI   4.3 335 159 42.50 P 0        1.84  2.25              -0.41 1.021       0.00-40.66  3.94-44.60 0.000           393        3
816    4.4  31 159 42.88IPD        2.22  2.26              -0.04 1.021      44.64  3.98  3.96  0.03 0.715           393  66 2.93
813    8.2 206 144 43.33IPD        2.67  2.56               0.11 1.021      45.30  4.64  4.48  0.17 0.000           393  60 2.83
M-2    9.1  83 140 43.57 PCO       2.91  2.65  0.17         0.09 1.021       0.00-40.66  4.64-45.59 0.000           393        3
NSUI  10.4  24 136 43.56 PCO       2.90  2.80               0.11 1.021       0.00-40.66  4.90-45.55 0.000           393        3
FSD   11.2  70 134 43.50 P 0       2.84  2.88              -0.03 1.021      45.75  5.09  5.04  0.06 0.000           393        3
M8AI  11.4 103 133 43.73 PCO       3.07  2.91               0.16 1.021       0.00-40.66  5.09-45.75 0.000           393        3
NWSI  11.7 345 133 43.61 PDO       2.95  2.94               0.01 1.021      45.14  4.48  5.14 -0.66 0.000           393        3
84    11.8  66 132 43.62IP        2.96  2.96               0.01 1.021      45.87  5.21  5.18  0.04 0.000           393        3
M-1   13.4 134 128 44.16 PDO       3.50  3.15  0.30         0.06 1.021       0.00-40.66  5.51-46.69 0.000           393        3
DSPI  14.2  59 127 43.94 P-4       3.28  3.24               0.04 0.000       0.00-40.66  5.67-46.33 0.000           393        3
8IGA  14.8  14 125 44.11 PCO       3.45  3.32               0.14 1.021       0.00-40.66  5.80-46.46 0.000           393        3
8RPI  15.0 170 125 44.10 PCO       3.44  3.37               0.08 1.021       0.00-40.66  5.89-46.55 0.000           393        3
8SU3  15.7 347 123 44.37 PD        3.71  3.45               0.26 1.021                                              393        3
82    15.8   6 123 44.26IP        3.60  3.47               0.13 1.021                                              393  70 3.03
815   17.6 279 120 44.25IPD       3.59  3.71              -0.11 1.021                                              393  70 3.03
817   19.0 327 118 44.50IPD       3.84  3.91              -0.07 1.021      46.49  5.83  6.85 -1.02 0.000           393  75 3.03
8RCI  19.8 196 116 44.62 PCO       3.96  4.02              -0.06 1.021       0.00-40.66  7.04-47.69 0.000           393        3
812   20.3 198 116 44.70IPC       4.04  4.10              -0.06 1.021      47.80  7.14  7.17 -0.03 0.715           393  73 3.03
MCGI  21.4 355 114 44.78 PCO       4.12  4.26              -0.13 1.021       0.00-40.66  7.45-48.10 0.000           393        3
CGI   21.9  36 114 44.54 PCO       3.88  4.32              -0.44 1.021       0.00-40.66  7.56-48.22 0.000           393        3
LCRI  22.6 123 113 45.04 P 0       4.38  4.44              -0.06 1.021       0.00-40.66  7.78-48.43 0.000           393        3
RCI   23.1 280 112 45.17 P 0       4.51  4.53              -0.01 1.021       0.00-40.66  7.92-48.58 0.000           393        3
811   27.3 149 108 45.89IPD       5.23  5.16               0.07 1.021      47.96  7.30  9.04 -1.73 0.000           393  60 2.93
81    28.3 349 107 46.01IP        5.35  5.31               0.04 1.021      49.89  9.23  9.29 -0.06 0.000           393  68 3.03
85    30.5 122 106 46.28IPD       5.62  5.65              -0.03 1.021      47.86  7.20  9.89 -2.68 0.000           393  74 3.13
MIR   30.5 342 106 46.65 PDO       5.99  5.66               0.34 1.021       0.00-40.66  9.90-50.56 0.000           393        3
GCI   34.5  14 103 46.78 P 0       6.12  6.28              -0.16 1.021       0.00-40.66 11.00-51.65 0.000           393        3

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    NE    SW    SE    NW     N
AVE. OF END POINTS                 0.27  0.61  0.61  0.62  0.67  0.71  0.91

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                29      0.16      0.25      0.66         8

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17      8/24                                                                                                  83/11/17      8/24

                                                    HORIZONTAL                                  VERTICAL
                                              SE =    0.43              SE =    0.74              SE =    1.92    QUALITY = A
                                              AZ =    -60.              AZ =     30.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQO  AOJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  824 57.66 44N 0.63 113W54.65  12.79   2.43 11 13 121 1 0.05  0.7  1.9 B A|B 0.16 10 17 0.00 0.05  0  0.0  0.0 10  2.4  0.2
SE OF ORIG =  0.099          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811   11.2 133 136  0.59IPC         2.93  2.95              -0.02 1.028       2.49  4.83  5.16 -0.33 0.000           394  42 2.53
812   12.5 254 132  0.78IPC         3.12  3.11               0.01 1.028       3.33  5.67  5.44  0.23 0.000           394  19 1.83
813   12.7 312 132  0.84IPC         3.18  3.13               0.05 1.028       2.54  4.88  5.48 -0.60 0.000           394  36 2.43
816   19.9 350 118  1.72IPC         4.06  4.09              -0.03 1.028       3.97  6.31  7.16 -0.85 0.000           394  36 2.43
85    20.0  91 118  1.80IPD         4.14  4.11               0.03 1.028       3.10  5.44  7.19 -1.75 0.000           394  47 2.63
84    21.3  13 116  1.86IPD         4.20  4.28              -0.08 1.028                                               394  41 2.53
815   29.8 309 108  3.17IPC         5.51  5.57              -0.06 1.028                                               394  39 2.53
82    31.9 353 106  3.61IPC         5.95  5.89               0.06 1.028       7.93 10.27 10.31 -0.04 0.000           394  38 2.53
817   35.7 333 104  4.10IPC         6.44  6.49              -0.05 1.028       9.05 11.39 11.36  0.02 0.720           394  36 2.53
81    45.1 345 100  5.72IP          8.06  7.99               0.07 1.028                                               394  39 2.63

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE    NE     N     E    SW     Z
AVE. OF END POINTS                   0.11  0.11  0.14  0.14  0.18  0.22  0.24

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  7      0.05      0.07      0.15         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17     9/ 3                                                                                  83/11/17     9/ 3

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.81              SE =   1.52              SE =  99.00   QUALITY = D
                                          AZ =    -24.              AZ =  -114.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  9 3 21.35 44N16.32 113W45.01   0.72   2.25 15 12 194 1 0.13  1.5 99.0 D C|D 0.48 10 29 0.00 0.11  0  0.0  0.0 16  2.2  0.2
SE OF ORIG = 10.000          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
DSPI   8.8 228  58 23.08IPD         1.73  1.72              0.01 1.000                                                 395  30 2.13
84    11.5 223  58 23.61IPD         2.26  2.20              0.06 1.000      26.93  5.58  3.85  1.73 0.000            395  50 2.63
FSD   12.5 221  58 23.70 P          2.35  2.37             -0.02 1.000                                                 395       3
NSUI  14.9 256  58 24.11IPD         2.76  2.81             -0.05 1.000      26.21  4.86  4.92 -0.06 0.000            395  27 2.13
82    17.1 279  58 24.46IPC         3.11  3.20             -0.09 1.000      27.61  6.26  5.61  0.66 0.000            395  40 2.43
MBAI  17.6 206  58 24.59IPD         3.24  3.29             -0.05 1.000                                                 395  28 2.13
816   18.9 240  58 24.72IPD         3.37  3.53             -0.16 1.000      26.44  5.09  6.17 -1.08 0.000            395  40 2.43
NWSI  21.7 265  58 25.16EPD         3.81  4.02             -0.21 1.000                                                 395  27 2.13
GCI   22.9 333  58 25.65EP          4.30  4.25              0.05 1.000      29.45  8.10  7.43  0.67 0.000            395  28 2.13
81    28.3 301  58 26.00IPC4        4.65  5.20             -0.55 0.000      33.41 12.06  9.10  2.96 0.000            395  40 2.43
817   29.1 276  58 26.85EPD         5.50  5.34              0.16 1.000      30.33  8.98  9.35 -0.37 0.000            395  27 2.13
85    30.2 166  58 26.70IPD         5.35  5.54             -0.19 1.000      30.30  8.95  9.70 -0.74 0.000            395  38 2.43
813   30.3 227  58 26.84EPC         5.49  5.56             -0.07 1.000      31.28  9.93  9.73  0.20 0.000            395  29 2.23
MIR   32.2 299  58 27.85EPD4        6.50  5.91              0.59 0.000                                                 395  30 2.23
811   37.0 187  58 28.31EP          6.96  6.76              0.21 1.000      34.01 12.66 11.82  0.84 0.000            395  28 2.23
815   37.5 254  58 28.35EPC         7.00  6.85              0.15 1.000      31.45 10.10 11.99 -1.89 0.000            395  29 2.23
812   41.0 217  58 29.02EP          7.67  7.47              0.20 1.000      32.90 11.55 13.08 -1.53 0.000            395  41 2.53

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E     N    SW    NE    NW    SE
AVE. OF END POINTS                 0.05  0.06  0.09  0.11  0.12  0.13  0.17

            NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 6      0.13      0.02      0.11         D

        ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17     9/ 9                                                                                  83/11/17     9/ 9

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.31              SE =   0.41              SE =   0.92   QUALITY = A
                                            AZ =   -19.              AZ =  -109.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117  9 9 58.90 44N14.33 114W 3.73   8.52   2.71 13 10  89 I 0.05  0.4  0.9 A A|A 0.06 10 18 0.00 0.05  0  0.0  0.0 10  2.7  0.1
SE OF ORIG =  0.039          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT TMIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    7.6 328 133  0.87IPD         1.97  2.05              -0.08 1.048       3.07  4.17  3.59  0.58 0.000           895  50 2.68
82    10.1  52 123  1.35IPC         2.45  2.37               0.09 1.048       4.22  5.32  4.14  1.18 0.000           895  54 2.78
816   10.3 124 123  1.29IPC         2.39  2.39               0.00 1.048       3.11  4.21  4.19  0.03 0.734           895  52 2.78
815   13.0 239 115  1.74IPC         2.84  2.77               0.07 1.048       3.66  4.76  4.85 -0.09 0.000           895  48 2.68
813   17.1 171 106  2.35IPC         3.45  3.38               0.07 1.048       4.73  5.83  5.92 -0.09 0.734           895  44 2.58
FSO   17.7 109 105  2.35 P         3.45  3.49              -0.04 1.048       4.95  6.05  6.11 -0.05 0.000           895        8
84    17.7 105 105  2.35IPC         3.45  3.49              -0.04 1.048                                              895  68 2.98
81    18.2   2 104  2.45IPC         3.55  3.58              -0.02 1.048       5.25  6.35  6.26  0.10 0.000           895  47 2.68
812   28.9 180  96  4.14IPC         5.24  5.29              -0.04 1.048                                              895  63 2.98
811   38.7 148  94  5.79EPC         6.89  6.88               0.02 1.048                                              895  45 2.68
85    41.1 129  93  6.18IPC         7.28  7.26               0.02 1.048                                              895  63 2.98

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SW     N     Z    NE    SE     E
AVE. OF END POINTS                  0.15  0.15  0.16  0.17  0.17  0.20  0.22


             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.05      0.07      0.17         D

         ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    11/39                                                                                                  83/11/17    11/39

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.44              SE =    0.58              SE =    1.66    QUALITY = A
                                            AZ =      0.              AZ =    -90.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1139 18.89 44N14.87 114W 3.46    8.17   2.02 10 11  85 1 0.06  0.6  1.7 A A|A 0.24 10 15 0.00 0.05  0  0.0  0.0 10  2.0  0.1
SE OF ORIG =  0.062          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    7.0 321 134 20.73IPD          1.84  1.94              -0.10 1.031      22.11  3.22  3.40 -0.18 0.000            397  23 1.93
82     9.2  56 125 21.15IPC          2.26  2.20               0.06 1.031      23.35  4.46  3.86  0.61 0.000            397  24 2.03
816   10.6 130 120 21.34IPD          2.45  2.40               0.05 1.031      23.54  4.65  4.21  0.45 0.000            397  22 1.93
915   13.8 236 111 21.81IPC          2.92  2.88               0.05 1.031                                                397  22 1.93
81    17.2   1 104 22.33IPD          3.44  3.40               0.04 1.031                                                397  25 2.03
84    17.6 109 103 22.27IPC          3.38  3.47              -0.09 1.031      24.68  5.79  6.07 -0.28 0.000            397  30 2.23
813   18.0 173 102 22.47IPC          3.58  3.53               0.05 1.031      25.05  6.16  6.17 -0.01 0.722            397  19 1.83
812   29.9 180  94 24.28IPC          5.39  5.44              -0.05 1.031                                                397  29 2.23
811   39.4 150  93 26.29EP 4         7.40  6.98               0.42 0.000                                                397  20 1.93
85    41.5 130  92 26.20EP           7.31  7.32               0.00 1.031                                                397  28 2.23

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E    NW    SE    NE    SW     Z     N
AVE. OF END POINTS                 0.04  0.13  0.15  0.17  0.20  0.20  0.24

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  4      0.06      0.03      0.16         D
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17    11/51                                                                                  83/11/17    11/51

                                                 HORIZONTAL                                    VERTICAL
                                            SE =   0.68              SE =   0.86              SE =   1.90   QUALITY = A
                                            AZ =   -27.              AZ =  -117.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1151 47.38 44N13.69 114W 1.82  11.77   3.06 29  7  63 1 0.17  0.9  1.3 B B|A 0.49 10 51 0.00 0.12  0  0.0  0.0 10  3.1  0.1
SE OF ORIG =  0.098          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.1  15 164 49.36 PDO        1.98  2.13              -0.14 1.010       0.00-47.38  3.72-51.10 0.000            398        3
ANPI   4.9 157 156 49.49 PDO        2.11  2.23              -0.11 1.010       0.00-47.38  3.90-51.27 0.000            398        3
3SU3   7.0   1 147 49.92 PD        2.54  2.39               0.15 1.010                                                398        3
B16    7.6 127 145 49.85IPD        2.47  2.45               0.03 1.010      53.27  5.89  4.28  1.61 0.000            398  76 3.03
NSUI   8.0  81 143 49.94 PCO        2.56  2.49               0.08 1.010      52.18  4.80  4.35  0.45 0.000            398        3
B2     9.2  36 139 49.94IPC        2.56  2.61              -0.05 1.010                                                398  79 3.03
BIGA   9.4  50 138 50.05 PCO        2.67  2.63               0.04 1.010       0.00-47.38  4.60-51.98 0.000            398        3
B17   10.1 319 136 49.99IPD        2.61  2.71              -0.10 1.010      51.79  4.41  4.74 -0.33 0.000            398  69 2.93
MCGI  13.1   9 128 50.40 PCO        3.02  3.07              -0.05 1.010       0.00-47.38  5.37-52.75 0.000            398        3
M-2   14.6 120 124 50.86 PDO        3.48  3.27  0.17         0.04 1.010       0.00-47.38  5.72-53.40 0.000            398        3
B15   14.7 248 124 50.64IPC        3.26  3.28              -0.02 1.010      53.12  5.74  5.75  0.00 0.000            398  72 3.03
FSD   14.9 108 124 50.70 P 0        3.32  3.30               0.02 1.010      53.20  5.82  5.78  0.04 0.000            398        3
B4    14.9 104 124 50.75IPC        3.37  3.31               0.06 1.010      53.15  5.77  5.79 -0.02 0.707            398  97 3.23
B13   15.7 180 122 50.91IPC        3.53  3.41               0.12 1.010      53.31  5.93  5.97 -0.04 0.000            398  74 3.03
OSPI  15.9  94 122 50.97 PCO        3.59  3.44               0.15 1.010       0.00-47.38  6.02-53.40 0.000            398        3
MBAI  18.4 127 117 51.32 P-0        3.94  3.80               0.14 1.010       0.00-47.38  6.65-54.02 0.000            398        3
CGI   19.0  61 116 51.04 PDO        3.66  3.88              -0.22 1.010       0.00-47.38  6.79-54.16 0.000            398        3
B1    19.5 354 116 51.38IP         4.00  3.95               0.06 1.010                                                398  75 3.03
RCI   19.5 257 116 51.39 PCO        4.01  3.95               0.06 1.010       0.00-47.38  6.92-54.30 0.000            398        3
MIR   21.5 345 113 52.05 P 0        4.67  4.25               0.42 1.010       0.00-47.38  7.44-54.81 0.000            398        3
M-1   22.1 143 112 52.05 P+0        4.67  4.35  0.30         0.03 1.010       0.00-47.38  7.61-55.51 0.000            398        3
3RPI  24.0 165 110 51.54 P 0        4.16  4.63              -0.47 1.010       0.00-47.38  8.10-55.48 0.000            398        3
8RCI  27.4 184 107 52.42 PCO        5.04  5.15              -0.10 1.010      54.12  6.74  9.01 -2.27 0.000            398        3
B12   27.8 185 107 52.59IPC        5.21  5.22               0.00 1.010      56.29  8.91  9.13 -0.22 0.000            398  85 3.23
GCI   27.8  25 106 52.18 PCO        4.80  5.22              -0.42 1.010       0.00-47.38  9.14-56.51 0.000            398        3
LCRI  30.7 133 104 53.04 P 0        5.66  5.66               0.00 1.010       0.00-47.38  9.91-57.29 0.000            398        3
B11   36.4 151 101 54.13IP         6.75  6.56               0.19 1.010                                                398  66 3.03
B5    38.4 130 101 54.37IPC        6.99  6.89               0.10 1.010                                                398  90 3.33

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NE    SW    NW     E    SE     N
AVE. OF END POINTS                   0.22  0.48  0.60  0.63  0.63  0.69  0.79

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  29      0.17      0.21      0.60         B

-------------END----------------------END----------------------END----------------------END-----------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    12/28                                                                                                  83/11/17    12/28

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    2.34              SE =    6.23              SE =    2.03   QUALITY = C
                                            AZ =   -101.              AZ =    -11.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1228 10.66 44N26.10 114W 5.15    7.21   2.22 11 18 307 1 0.14  6.2  2.0 0 0|0 0.07 10 13 0.00 0.12  0  0.0  0.0 10  2.2  0.1
SE OF ORIG =  0.511          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1     4.4 145 144 12.25IPO         1.59  1.54              0.04 1.028      13.35  2.69  2.70 -0.01 0.720            399  40 2.43
B17   15.5 188  97 13.62IPC         2.96  3.09             -0.13 1.028      15.72  5.06  5.40 -0.34 0.000            399  29 2.23
B2    18.4 148  93 14.15EP          3.49  3.57             -0.08 1.028                                                 399  27 2.13
B16   29.5 159  91 15.90IPD         5.24  5.36             -0.12 1.028      20.00  9.34  9.38 -0.04 0.000            399  25 2.13
B15   30.0 198  91 16.07IPD         5.41  5.44             -0.04 1.028                                                 399  28 2.23
B4    32.5 144  91 16.37EP          5.71  5.86             -0.15 1.028                                                 399  33 2.33
B13   38.9 173  90 17.45EP          6.79  6.90             -0.11 1.028                                                 399  25 2.13
B12   50.7 178  90 19.73IPD         9.07  8.81              0.26 1.028                                                 399  39 2.53
B5    58.3 144  90 20.78EP         10.12 10.05              0.07 1.028                                                 399  25 2.23
B11   59.1 158  90 21.10EP         10.44 10.17              0.27 1.028                                                 399  24 2.13

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     N    NW    SE    NE    SW     E
AVE. OF END POINTS                 0.07  0.08  0.12  0.13  0.13  0.15  0.16

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.14      0.04      0.13         0
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17    13/21                                                                                  83/11/17    13/21

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.86                 SE =   1.49             SE =   2.55   QUALITY = B
                                            AZ =  -100.                 AZ =   -10.

 DATE    ORIGIN      LAT       LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1321 42.86 44N24.63 113W59.65   7.50   3.05 28  9 148 1 0.15  1.5  2.5 C 8|C 0.16 10 48 0.00 0.10  0  0.0  0.0 10  3.1  0.1
SE OF ORIG =  0.133          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B1     4.9 260 142 44.70IPD         1.84  1.63              0.21 1.035      45.30  2.44  2.85 -0.42 0.000          400  92 3.14
MCGI   7.3 187 129 44.81 PCO         1.95  1.90              0.04 1.035       0.00-42.86  3.33-46.19 0.000          400       4
MIR    8.6 273 123 44.45 PCO         1.59  2.07             -0.48 1.035       0.00-42.86  3.62-46.49 0.000          400       4
GCI   10.2  61 117 45.28 PCO         2.42  2.28              0.13 1.035       0.00-42.86  3.99-46.86 0.000          400       4
B2    13.1 169 108 45.57IPC         2.71  2.72             -0.02 1.035      47.59  4.73  4.76 -0.04 0.000          400  80 3.04
BSU3  13.6 192 106 45.76 PC          2.90  2.81              0.09 1.035                                            400       4
BIGA  14.9 163 103 45.83 PCO         2.97  3.01             -0.04 1.035       0.00-42.86  5.26-48.13 0.000          400       4
B17   15.7 217 101 46.11IPC         3.25  3.14              0.11 1.035                                            400  76 3.04
NWSI  17.4 187  97 46.32 PCO         3.46  3.42              0.04 1.035       0.00-42.86  5.98-48.84 0.000          400       4
CGI   17.5 129  97 46.33 PDO         3.47  3.43              0.04 1.035       0.00-42.86  6.00-48.87 0.000          400       4
NSUI  19.7 165  95 46.57 PCO         3.71  3.77             -0.07 1.035       0.00-42.86  6.60-49.47 0.000          400       4
ANPI  24.7 182  93 47.34 P 0         4.48  4.59             -0.11 1.035       0.00-42.86  8.03-50.90 0.000          400       4
DSPI  24.9 149  93 47.44 PDO         4.58  4.62             -0.04 1.035       0.00-42.86  8.08-50.95 0.000          400       4
B16   25.0 173  93 47.43IPC         4.57  4.64             -0.07 1.035      50.56  7.70  8.11 -0.42 0.000          400  77 3.04
B4    26.4 154  92 47.59IPC         4.73  4.88             -0.15 1.035                                            400  95 3.24
FSO   27.2 156  92 47.90 P 0         5.04  5.00              0.04 1.035      51.20  8.34  8.75 -0.41 0.000          400       4
M-2   29.2 160  92 48.26 PDO         5.40  5.33   0.17      -0.10 1.035       0.00-42.86  9.32-52.48 0.000          400       4
B15   30.6 213  92 48.53IPC         5.67  5.56              0.11 1.035                                            400  71 3.04
RCI   32.9 222  92 49.09 P 0         6.23  5.92              0.30 1.035       0.00-42.86 10.37-53.23 0.000          400       4
MBAI  33.4 159  91 48.90 PCO         6.04  6.02              0.02 1.035       0.00-42.86 10.53-53.39 0.000          400       4
B13   36.0 184  91 49.32IPC         6.46  6.44              0.02 1.035                                            400  59 2.94
M-1   39.3 165  91 50.25 P 3         7.39  6.97   0.30       0.12 0.065       0.00-42.86 12.19-55.58 0.000          400       4
BRPI  43.6 176  91 50.50 PCO         7.64  7.66             -0.02 1.035       0.00-42.86 13.40-56.26 0.000          400       4
LCRI  45.5 154  91 50.74 PDO         7.88  7.97             -0.09 1.035       0.00-42.86 13.94-56.81 0.000          400       4
BRCI  47.8 186  91 51.12 P+0         8.26  8.34             -0.09 1.035      56.42 13.56 14.60 -1.05 0.000          400       4
B12   48.3 186  91 51.27IPC         8.41  8.42             -0.01 1.035                                            400  79 3.14
B5    52.0 149  91 51.80IPO         8.94  9.03             -0.10 1.035                                            400  80 3.24
B11   54.1 164  91 52.49IPC         9.63  9.37              0.25 1.035                                            400  59 2.94

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          N    NW    SE     E    NE    SW     Z
AVE. OF END POINTS                   0.03  0.08  0.09  0.09  0.09  0.10  0.11

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  23      0.15      0.02      0.08         D

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    14/37                                                                                                  83/11/17    14/37

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.51              SE =   0.93              SE =   0.96   QUALITY = A
                                              AZ =    25.              AZ =   -65.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1437 23.58 44N19.68 114W 6.89  10.80   2.19 17 10 164 1 0.09  0.9  1.0 B A|C 1.51 10 23 0.00 0.07  0  0.0  0.0 15  2.2  0.2
SE OF ORIG =  0.082          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    3.4 177 161 25.47IPD          1.89  1.99              -0.11 1.056      27.01  3.43  3.49 -0.06 0.739            401  34 2.34
BSU3   8.0 121 140 25.98IPC          2.40  2.37               0.03 1.056                                                401  22 1.94
B1     9.6  30 135 26.03IPD          2.45  2.54              -0.09 1.056      28.03  4.45  4.45  0.00 0.739            401  35 2.34
HIR    9.7   6 134 26.24IPD          2.66  2.55               0.11 1.056      27.69  4.11  4.46 -0.35 0.000            401  36 2.44
NWSI  11.1 137 130 26.32IPC          2.74  2.71               0.02 1.056      27.47  3.89  4.75 -0.86 0.000            401  19 1.84
B2    12.7 107 126 26.63IPC          3.05  2.92               0.13 1.056                                                401  29 2.24
NSUI  17.6 124 115  8.18IPD        -15.40  3.61             -19.01M0.000       9.38-14.20  6.31-20.51 0.000            401  33 2.34
B15   18.0 202 115 27.19IPC          3.61  3.66              -0.05 1.056      30.14  6.56  6.40  0.15 0.739            401  31 2.34
B16   20.2 141 111 27.13IPD4         3.55  4.00              -0.45 0.000      30.93  7.35  7.00  0.35 0.000            401  32 2.34
DSPI  25.6 118 106 28.48EP           4.90  4.83               0.06 1.056                                                401  25 2.14
B4    25.8 124 105 28.27IP           4.69  4.85              -0.16 1.056                                                401        4
B13   27.6 166 104 28.77IPC          5.19  5.14               0.05 1.056                                                401  30 2.34
MBAI  30.9 136 102 29.34EP           5.76  5.66               0.09 1.056                                                401  18 1.84
B12   39.0 174  98 30.49EPD          6.91  6.97              -0.06 1.056                                                401  37 2.54
B11   49.4 150  96 32.22EP           8.64  8.63               0.00 1.056                                                401  29 2.34
B5    50.8 134  96 32.37EPC          8.79  8.86              -0.07 1.056                                                401  26 2.24

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     N    SW    SE    NE     E     Z
AVE. OF END POINTS                   0.14  0.14  0.15  0.16  0.17  0.18  0.24

              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   6      0.09      0.09      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    17/59                                                                                                  83/11/17    17/59

                                                      HORIZONTAL                                  VERTICAL
                                                SE =    0.48              SE =    0.57              SE =    1.48   QUALITY = A
                                                AZ =     36.              AZ =    -54.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1759 11.84 44N13.53 114W 3.20    9.70   2.50 13 11  83 1 0.07  0.6  1.5 A A|A 0.05 10 15 0.00 0.06  0  0.0  0.0 10  2.5  0.1
SE OF ORIG =  0.073          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    8.9 119 133 14.15IPC          2.31  2.34             -0.03 1.048      16.20  4.36  4.09  0.27 0.000            901  42 2.59
817    9.3 329 132 14.10IPD          2.26  2.38             -0.11 1.048      16.00  4.16  4.16  0.00 0.734            901  43 2.59
82    10.6  43 127 14.49IPC          2.65  2.54              0.12 1.048                                                901  37 2.49
815   12.9 246 121 14.65IPD          2.81  2.85             -0.04 1.048      16.90  5.06  4.99  0.07 0.734            901  44 2.59
813   15.5 173 115 15.12IPC          3.28  3.21              0.07 1.048                                                901  32 2.39
FSD   16.6 105 113 15.10 P           3.26  3.38             -0.12 1.048      17.65  5.81  5.92 -0.11 0.000            901        9
84    16.7 101 113 15.22IPC          3.38  3.40             -0.02 1.048                                                901  52 2.79
81    19.7 360 108 15.74IPC          3.90  3.86              0.05 1.048                                                901  44 2.69
812   27.4 181 101 16.84IPC          5.00  5.08             -0.07 1.048                                                901  46 2.69
811   37.1 148  97 18.51EPC          6.67  6.62              0.05 1.048                                                901  31 2.39
85    39.6 128  96 18.92IPC          7.08  7.04              0.05 1.048                                                901  46 2.79

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW     SW      N     SE     NE      Z      E
AVE. OF END POINTS                   0.08   0.11   0.13   0.16   0.16   0.18   0.24

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.07      0.02      0.15         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    18/38                                                                                                  83/11/17    18/38

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    1.19              SE =    2.20              SE =    2.39   QUALITY = A
                                            AZ =    -92.              AZ =     -2.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1838 16.45 43N53.81 113W46.80  12.91   2.55 13 24 254 1 0.11  2.2  2.4 C 810 0.97 10 20 0.00 0.08  0  0.0  0.0 13  2.5  0.2
SE OF ORIG =  0.207          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    5.5 335 155 18.88IPO          2.43  2.44              0.00 1.024      20.33  3.88  4.27 -0.38 0.000          402  46 2.64
B5    15.6  38 126 19.91IPC          3.46  3.50             -0.03 1.024                                             402  53 2.74
B12   24.3 292 113 21.29IPO          4.84  4.73              0.11 1.024                                             402  56 2.84
MBAI  26.3 349 111 21.53IPC          5.08  5.05              0.03 1.024      24.78  8.33  8.84 -0.50 0.000          402  33 2.34
B13   29.1 317 108 21.90IPO          5.45  5.47             -0.01 1.024      26.00  9.55  9.57 -0.01 0.717          402  43 2.64
B4    33.8 351 105 22.54IPC          6.09  6.20             -0.10 1.024      25.04  8.59 10.84 -2.25 0.000          402        4
B16   35.2 336 104 22.79IPO          6.34  6.41             -0.07 1.024      24.39  8.54 11.23 -2.68 0.000          402  41 2.64
NSUI  39.9 342 102 23.87EPC          7.42  7.17              0.26 1.024                                             402  22 2.04
NWSI  44.2 334 101 24.76EP 4         8.31  7.84              0.48 0.000                                             402  24 2.14
B15   46.0 313 100 24.45IPO          8.00  8.14             -0.13 1.024      30.25 13.80 14.24 -0.44 0.000          402  45 2.74
B2    46.6 342 100 24.75IPC          8.30  8.23              0.08 1.024                                             402  41 2.64
B17   51.8 329  99 25.38EPC          8.93  9.07             -0.14 1.024                                             402  35 2.54
B1    60.3 339  97 26.91IPO         10.46 10.44              0.02 1.024                                             402  50 2.84
GCI   62.6 352  97 27.63EP 4        11.18 10.80              0.38 0.000                                             402  43 2.74

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N     Z    SE    NE    SW    NW     E
AVE. OF END POINTS                 0.31  0.31  0.32  0.35  0.36  0.43  0.51

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  13      0.11      0.21      0.37         B

____________END_____________________END_____________________END_____________________END____________
```

```
          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17    19/53                                                                                                  83/11/17    19/53

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.46              SE =    0.72              SE =    1.68   QUALITY = A
                                            AZ =   -19.               AZ =   -109.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 1953 13.27 44N14.58 114W 1.63   8.43   2.65  9  9  90 1 0.06  0.7  1.7 A A|A 0.26 10 14 0.00 0.05  0  0.0  0.0  7  2.7  0.1
SE OF ORIG =  0.059          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B2     7.8  42 132 15.32IPC          2.05  2.06              -0.01 1.034      17.62  4.35  3.60  0.75 0.000            403  46 2.54
B16    8.5 137 129 15.39IPO          2.12  2.14              -0.02 1.034      16.79  3.52  3.75 -0.23 0.000            403  53 2.74
B17    9.1 311 127 15.55IPO          2.28  2.22               0.06 1.034      17.85  4.58  3.88  0.70 0.000            403  48 2.64
B4    15.1 110 109 15.28IP 4         2.01  3.09              -1.08 0.000                                                403       4
B15   15.6 243 108 16.34IPO          3.07  3.17              -0.10 1.034      18.39  5.12  5.54 -0.42 0.000            403  51 2.74
B1    17.9 353 104 16.73IPC          3.46  3.52              -0.06 1.034      19.48  6.21  6.16  0.05 0.724            403  64 2.94
B12   29.5 185  95 18.76IP           5.49  5.38               0.11 1.034                                                403       4
B11   37.7 152  93 19.96IPC          6.69  6.71              -0.02 1.034                                                403  40 2.54
B5    39.2 132  93 20.23IP           6.96  6.96               0.00 1.034                                                403  50 2.74

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NE    NW    SW    SE     N
AVE. OF END POINTS                 0.15  0.16  0.18  0.19  0.20  0.20  0.35

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  4      0.06      0.08      0.21         D


          ------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/17    22/42                                                                                                  83/11/17    22/42

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.63              SE =    0.96              SE =    1.37   QUALITY = A
                                            AZ =  -132.               AZ =   -42.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 2242 55.28 44N18.28 114W 3.38  10.42   2.35 12 11 101 1 0.08  1.0  1.4 B A|B 0.07 10 17 0.00 0.06  0  0.0  0.0 10  2.3  0.1
SE OF ORIG =  0.096          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    4.6 260 154 57.28IPO          2.00  2.01              -0.01 1.053      58.88  3.60  3.52  0.08 0.737            404  32 2.24
B2     7.6  98 141 57.55IPC          2.27  2.28               0.00 1.053      59.65  4.37  3.98  0.39 0.000            404  32 2.24
B1    10.9   1 129 57.92IPC          2.64  2.65              -0.01 1.053      59.35  4.07  4.64 -0.57 0.000            404  39 2.44
B16   15.4 148 118 58.49IPO          3.21  3.25              -0.04 1.053      61.21  5.93  5.70  0.23 0.000            404  33 2.34
B15   18.2 219 113 58.94IPC          3.66  3.67              -0.01 1.053      61.59  6.31  6.43 -0.12 0.737            404  33 2.34
B4    20.4 126 110 59.27IPC          3.99  4.01              -0.02 1.053                                                404  46 2.64
B13   24.3 175 106 59.86IPO          4.58  4.60              -0.02 1.053      63.01  7.73  8.05 -0.32 0.000            404  30 2.24
B12   36.2 181  99 61.88IPC          6.60  6.50               0.10 1.053                                                404  37 2.54
B11   44.9 154  96 63.35EP           8.07  7.90               0.17 1.053                                                404  31 2.34
B5    45.7 136  96 63.18IPO          7.90  8.02              -0.12 1.053      69.15 13.87 14.04 -0.17 0.000            404  31 2.34

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE     Z    NW     N     E    SW    NE
AVE. OF END POINTS                 0.15  0.16  0.16  0.17  0.19  0.22  0.24
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/17    23/27                                                                                  83/11/17    23/27

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.46              SE =    1.52              SE =    1.05   QUALITY = A
                                          AZ =     -8.              AZ =    -98.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831117 2327 23.93 44N11.59 114W18.68  10.27   2.87 26 24 247 1 0.06  1.5  1.0 C 8|D 0.78 10 48 0.00 0.07  0  0.0  0.0 10  2.9  0.1
SE OF ORIG =  0.112          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
RCI    3.4  96 160 25.77 PO4        1.84  1.91              -0.07 0.000       0.00-23.93  3.35-27.28 0.000          405        4
B15    9.0 101 135 26.32IPC         2.39  2.41              -0.02 1.012      28.20  4.27  4.22  0.05 0.708          405  53 2.74
B17   19.7  54 110 27.78IPC         3.85  3.88              -0.04 1.012                                              405  58 2.84
NWSI  24.2  74 105 28.41 PC0        4.48  4.59              -0.11 1.012      30.65  6.72  8.03 -1.31 0.000          405        4
ANPI  24.4  91 105 28.45 P 0        4.52  4.61              -0.09 1.012      29.75  5.82  8.07 -2.25 0.000          405        4
SCSI  25.1  64 104 28.60 PC0        4.67  4.72              -0.05 1.012       0.00-23.93  8.26-32.19 0.000          405        4
BSU3  25.1  64 104 28.70 PC         4.77  4.72               0.05 1.012                                              405        4
B13   25.5 117 104 28.79IPD         4.86  4.79               0.07 1.012      33.19  9.26  8.37  0.88 0.000          405  54 2.84
B16   28.5  91 102 29.14IPC         5.21  5.27              -0.06 1.012      31.74  7.81  9.21 -1.41 0.000          405  62 2.94
MCGI  29.7  55 101 29.37 PC0        5.44  5.46              -0.02 1.012       0.00-23.93  9.55-33.48 0.000          405        4
MIR   29.7  34 101 29.56 PD0        5.63  5.47               0.16 1.012      33.16  9.23  9.56 -0.34 0.000          405        4
WSUI  29.9  85 101 26.46 PC         2.53  5.49              -2.96M0.000                                              405        4
B2    30.1  68 101 29.53IPC         5.60  5.53               0.07 1.012                                              405  50 2.74
NSUI  30.8  80 100 29.57 P+0        5.64  5.63               0.01 1.012      32.89  8.96  9.86 -0.90 0.000          405        4
B1    31.0  41 100 29.59IPC         5.66  5.67              -0.01 1.012                                              405  63 2.94
B12   31.1 140 100 29.54IP          5.61  5.69              -0.08 1.012                                              405  74 3.04
BRCI  31.2 139 100 24.51 PC4        0.58  5.70              -5.12 0.000       0.00-23.93  9.97-33.90 0.000          405        4
BIGA  31.3  72 100 29.62 PC0        5.69  5.71              -0.03 1.012       0.00-23.93 10.00-33.93 0.000          405        4
WMSI  32.7  27 100 29.87 PC         5.94  5.94               0.00 1.012                                              405        4
BRPI  34.6 124  99 30.10 PC0        6.17  6.25              -0.08 1.012      34.30 10.37 10.93 -0.56 0.000          405        4
M-2   35.3  95  98 30.54 P-0        6.61  6.36  0.17         0.08 1.012       0.00-23.93 11.13-35.36 0.000          405        4
B4    37.0  89  98 30.41EP          6.48  6.62              -0.14 1.012                                              405  83 3.24
MBAI  37.9 101  98 30.82 P+0        6.89  6.78               0.11 1.012       0.00-23.93 11.86-35.79 0.000          405        4
M-1   38.4 111  98 31.61 PC0        7.68  6.85  0.30         0.53M0.000       0.00-23.93 11.99-36.45 0.000          405        4
CGI   41.2  71  97 31.34 PC0        7.41  7.30               0.11 1.012      35.44 11.51 12.77 -1.26 0.000          405        4
GCI   44.9  50  96 31.68 PD0        7.75  7.90              -0.15 1.012       0.00-23.93 13.83-37.76 0.000          405        4
LCRI  48.2 110  95 32.45 P 0        8.52  8.42               0.10 1.012       0.00-23.93 14.74-38.67 0.000          405        4
B11   49.0 125  95 32.59EPD         8.66  8.55               0.11 1.012                                              405  56 2.94
B5    56.0 112  94 33.60IP          9.67  9.69              -0.02 1.012                                              405  57 2.94

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    NE    SW    NW    SE     N
AVE. OF END POINTS                 0.12  0.13  0.14  0.15  0.21  0.22  0.22

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                14      0.08      0.08      0.18         0

____________END____________________END____________________END____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18     0/ 6                                                                                                  83/11/18     0/ 6

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.53              SE =    0.70              SE =    1.36   QUALITY = A
                                            AZ =      3.              AZ =    -87.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  0 5 19.36 44N19.98 114W 1.73   7.35   2.55 16  8  88 1 0.09  0.7  1.4 A A|A 0.07 10 23 0.00 0.07  0  0.0  0.0 14  2.5  0.2
SE OF ORIG =  0.054          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B2     6.8 129 131 21.25IPD          1.89  1.82              0.07 1.019      24.55  5.19  3.19  2.00 0.000           406  44 2.54
B17    7.8 239 126 21.26IPC          1.90  1.94             -0.04 1.019      22.76  3.40  3.39  0.01 0.713           406  52 2.64
B1     8.0 345 125 21.25IPD          1.89  1.96             -0.07 1.019      22.80  3.44  3.43  0.01 0.000           406  47 2.64
NWSI   8.7 176 122 21.38IPD          2.02  2.07             -0.05 1.019      23.33  3.97  3.62  0.35 0.000           406  33 2.24
HIR   10.8 327 114 21.83IPC          2.47  2.37              0.10 1.019                                                406       4
NSUI  13.0 143 106 22.16IPD          2.80  2.71              0.09 1.019      23.96  4.60  4.74 -0.14 0.000           406  30 2.24
B16   17.3 160  96 22.73IPD          3.37  3.38             -0.01 1.019      25.55  6.19  5.91  0.28 0.000           406  53 2.74
GCI   17.9  41  95 22.81IPC          3.45  3.48             -0.03 1.019      25.33  5.97  6.08 -0.11 0.000           406  49 2.64
B4    20.9 137  93 23.27IPD          3.91  3.98             -0.06 1.019                                                406  60 2.84
B15   22.0 219  93 23.49IP           4.13  4.16             -0.03 1.019                                                406  53 2.74
MBAI  27.0 147  92 24.40EPD          5.04  4.97              0.07 1.019      28.03  8.67  8.69 -0.02 0.000           406  27 2.14
B13   27.3 180  92 24.35EP           4.99  5.02             -0.03 1.019                                                406  45 2.64
B12   39.4 184  91 26.53IPD          7.17  6.99              0.16 1.019                                                406  53 2.84
B5    46.6 141  91 27.53IPC          8.17  8.14              0.03 1.019                                                406  46 2.74
B11   46.9 158  91 27.32EP           7.96  8.19             -0.23 1.019                                                406  41 2.64

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N     E    NW    NE    SW     Z
AVE. OF END POINTS                  0.13  0.13  0.15  0.15  0.15  0.18  0.19

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  9      0.09      0.07      0.16         D

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18     2/30                                                                                  83/11/18     2/30

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.56              SE =   0.62              SE =   0.99   QUALITY = A
                                            AZ =    10.              AZ =   -80.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  230 31.84 44N16.97 114W 4.32   7.14   2.68 12 13  75 1 0.07  0.6  1.0 A A|A 0.07 10 16 0.00 0.05  0  0.0  0.0 10  2.7  0.1
SE OF ORIG =  0.047          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    3.6 296 149 33.36IPC          1.52  1.47              0.06 1.096      34.34  2.50  2.56 -0.06 0.767            407  52 2.54
82     8.9  81 120 33.92IPD          2.08  2.07              0.01 1.096                                                407  44 2.54
81    13.4   6 102 34.58IPC          2.74  2.75             -0.01 1.096      36.56  4.72  4.81 -0.09 0.000            407  55 2.74
816   14.2 139  99 34.74IP           2.90  2.88              0.02 1.096      37.06  5.22  5.04  0.18 0.000            407  53 2.74
815   15.5 222  95 35.02IPC          3.18  3.10              0.08 1.096      37.62  5.78  5.43  0.35 0.000            407  51 2.64
BLD   19.8 328  91 35.60 P 2         3.76  3.79             -0.03 0.274                                                407       4
84    20.3 118  91 35.64IPD          3.80  3.86             -0.06 1.096                                                407  59 2.84
813   22.0 171  91 36.04IPC          4.20  4.15              0.06 1.096      38.96  7.12  7.25 -0.13 0.000            407  48 2.64
812   33.8 178  90 37.73IPC          5.89  6.07             -0.18 1.096                                                407  57 2.84
811   43.3 151  90 39.48IPC          7.64  7.62              0.02 1.096                                                407  47 2.74
85    44.9 133  90 39.75IPC          7.91  7.87              0.04 1.096                                                407  53 2.84

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        E     Z    NE    NW    SE     N    SW
AVE. OF END POINTS                 0.16  0.18  0.18  0.19  0.20  0.20  0.21

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.07      0.13      0.19         0

____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18      2/31                                                                                                  83/11/18      2/31

                                                   HORIZONTAL                                  VERTICAL
                                             SE =    0.66              SE =    1.04              SE =    1.77    QUALITY = A
                                             AZ =    -24.              AZ =   -114.

 DATE     DRIGIN       LAT       LDNG     DEPTH     MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  231 40.09 44N14.71 114W 2.96    7.16    2.74 27  8  80 1 0.21  1.0  1.8 8 B|A 0.05 10 53 0.00 0.16  0  0.0  0.0 10  2.7  0.2
SE OF ORIG =  0.061          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.5  65 158 41.74 PO0        1.65  1.39              0.26 1.023       0.00-40.09  2.43-42.52 0.000          408        4
ANPI   7.2 151 128 42.05 P-0        1.96  1.85              0.10 1.023       0.00-40.09  3.24-43.33 0.000          408        4
B17    7.7 319 126 42.13IPD         2.04  1.90              0.13 1.023      42.79  2.70  3.33 -0.64 0.716          408  52 2.64
B2     8.9  52 120 42.27IPC         2.18  2.08              0.10 1.023      43.19  3.10  3.63 -0.54 0.716          408  58 2.74
WSUI   9.3 109 118 42.38 PD         2.29  2.13              0.15 1.023                                              408        4
NSUI   9.4  94 118 42.43 PC0        2.34  2.15              0.19 1.023       0.00-40.09  3.76-43.85 0.000          408        4
BIGA   9.7  65 117 44.14 PO4        4.05  2.18              1.87 0.000       0.00-40.09  3.81-43.91 0.000          408        4
B16    9.9 131 115 42.45IPD         2.36  2.23              0.13 1.023      42.70  2.61  3.90 -1.30 0.000          408  53 2.74
MCGI  11.6  17 109 42.64 PO0        2.55  2.48              0.07 1.023       0.00-40.09  4.34-44.44 0.000          408        4
B15   14.2 238  99 43.101PC         3.01  2.89              0.12 1.023                                              408  52 2.74
M-2   16.9 123  93 43.63 PC0        3.54  3.32  0.17        0.04 1.023       0.00-40.09  5.81-46.20 0.000          408        4
B4    16.9 109  93 43.34IPC         3.25  3.32             -0.08 1.023      44.05  3.96  5.81 -1.86 0.000          408  62 2.84
B1    17.5 359  93 43.42EPD         3.33  3.42             -0.09 1.023      44.37  4.28  5.98 -1.71 0.000          408  60 2.84
B13   17.6 175  93 43.66EPC         3.57  3.44              0.13 1.023      45.06  4.97  6.02 -1.05 0.000          408  36 2.44
RCI   18.6 251  92 45.72 PC4        5.63  3.59              2.03 0.000       0.00-40.09  6.29-46.38 0.000          408        4
HIR   19.3 347  92 44.07 P 0        3.98  3.70              0.27 1.023       0.00-40.09  6.48-46.58 0.000          408        4
CGI   19.6  68  92 40.34 P 4        0.25  3.75             -3.50 0.000       0.00-40.09  6.56-46.65 0.000          408        4
MBAI  20.8 128  91 43.99 PC0        3.90  3.95             -0.05 1.023      46.71  6.62  6.91 -0.30 0.000          408        4
WMSI  24.1 345  91 44.87 PC         4.78  4.49              0.26 1.023                                              408        4
BLD   24.4 329  91 44.60 P 0        4.51  4.53             -0.02 1.023       0.00-40.09  7.92-48.02 0.000          408        4
M-1   24.5 143  91 44.90 P+0        4.81  4.55  0.30       -0.05 1.023       0.00-40.09  7.97-48.59 0.000          408        4
BRPI  26.2 163  91 44.75 PC0        4.66  4.83             -0.17 1.023      45.35  5.26  8.45 -3.20 0.000          408        4
GCI   26.9  30  91 44.68 PC0        4.59  4.93             -0.35 1.023       0.00-40.09  8.63-48.73 0.000          408        4
BRCI  29.2 181  91 45.30 P+0        5.21  5.31             -0.10 1.023      47.70  7.61  9.29 -1.69 0.000          408        4
B12   29.6 182  91 45.39IPC         5.30  5.38             -0.08 1.023      47.23  7.14  9.41 -2.28 0.000          408  70 3.04
LCRI  33.1 133  90 45.85 P 0        5.76  5.94             -0.19 1.023       0.00-40.09 10.40-50.49 0.000          408        4
B11   38.8 150  90 47.13EPD         7.04  6.87              0.17 1.023      47.93  7.84 12.02 -4.18 0.000          408  52 2.74
B5    40.8 130  90 47.15IPC         7.06  7.19             -0.13 1.023      47.92  7.83 12.58 -4.75 0.000          408  70 3.04

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z     NE      E     SW     NW     SE      N
AVE. OF END POINTS                    0.24   0.51   0.64   0.66   0.78   0.90   1.00

             NUMBER       RMS   MIN ORMS   AVE ORMS    QUALITY
                 27      0.21       0.34       0.72          B

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18      5/ 6                                                                                                  83/11/18      5/ 6

                                                   HORIZONTAL                                  VERTICAL
                                             SE =    0.32              SE =    0.38              SE =    0.71    QUALITY = A
                                             AZ =      1.              AZ =    -89.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  5 6 22.19 44N10.07 113W58.98  10.81   2.69 12 11  72 1 0.05  0.4  0.7 A A|A 0.30 10 16 0.00 0.04  0  0.0  0.0 10  2.7  0.1
SE OF ORIG =  0.039          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    3.1  46 163 24.13IPD         1.94  1.98             -0.03 1.053      26.23  4.04  3.46  0.58 0.000          409  51 2.64
813    9.7 202 134 24.75IPD         2.56  2.55              0.01 1.053      26.65  4.46  4.46  0.00 0.737          409  47 2.64
84    11.2  73 130 24.93IPC         2.74  2.73              0.01 1.053      26.98  4.79  4.78  0.02 0.737          409  68 2.94
82    14.2   7 122 25.35IPD         3.16  3.13              0.04 1.053      28.60  6.41  5.47  0.94 0.000          409  49 2.64
815   17.4 274 116 25.76IPC         3.57  3.58             -0.01 1.053                                              409  50 2.74
817   17.7 324 115 25.73IPD         3.54  3.62             -0.08 1.053                                              409  51 2.74
812   21.9 196 109 26.53IPC         4.34  4.26              0.09 1.053      29.38  7.19  7.45 -0.25 0.000          409  54 2.74
81    26.7 348 105 27.23IPC         5.04  5.00              0.05 1.053                                              409  52 2.74
811   28.7 151 103 27.39IPD         5.20  5.31             -0.10 1.053                                              409  48 2.74
85    31.3 124 102 27.93IPD         5.74  5.73              0.01 1.053      31.13  8.94 10.03 -1.09 0.000          409  47 2.74

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW    NW    SE     E     N
AVE. OF END POINTS                 0.41  0.84  0.85  0.86  0.87  0.88  1.04

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 12      0.05      0.46      0.86         A

          ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18     6/48                                                                                  83/11/18     6/48

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.99              SE =    1.91              SE =    2.49   QUALITY = A
                                            AZ =    -99.              AZ =     -9.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  648 14.82 43N55.26 113W48.07  10.55   2.16 15 22 238 1 0.12  1.9  2.5 C 810 0.29 10 19 0.00 0.10  0  0.0  0.0 13  2.2  0.2
SE OF ORIG =  0.188          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    2.4 345 166 16.80IPC         1.98  1.91              0.07 1.042                                                 410  33 2.24
85    14.8  49 120 17.87IPC         3.05  3.19             -0.14 1.042      20.04  5.22  5.59 -0.37 0.000             410  47 2.64
812   21.8 287 109 19.13IPD         4.31  4.23              0.08 1.042      22.18  7.36  7.40 -0.04 0.729             410  33 2.34
MBAI  23.4 351 107 19.35EPD         4.53  4.47              0.06 1.042                                                 410  17 1.74
813   26.0 315 104 19.67IPD         4.85  4.87             -0.02 1.042      22.72  7.90  8.52 -0.62 0.000             410        4
84    30.9 353 101 20.33IPD         5.51  5.65             -0.14 1.042                                                 410  34 2.44
816   32.0 337 101 20.61EPD         5.79  5.84             -0.05 1.042      24.97 10.15 10.21 -0.07 0.729             410  25 2.14
NSUI  36.9 344  99 21.71EPD         6.89  6.61              0.28 1.042                                                 410  15 1.74
815   42.9 312  97 22.24EPD         7.42  7.59             -0.17 1.042      28.44 13.62 13.28  0.34 0.000             410  23 2.14
82    43.5 343  97 22.64EPC         7.82  7.68              0.14 1.042                                                 410  26 2.24
817   48.7 329  96 23.18EPC         8.36  8.51             -0.15 1.042                                                 410  28 2.34
81    57.2 339  95 24.73IPC         9.91  9.89              0.02 1.042                                                 410  28 2.34
GCI   59.7 354  94 25.22EP         10.40 10.30              0.10 1.042                                                 410  25 2.24
MIR   59.9 336  94 25.70EP 4       10.88 10.32              0.56 0.000                                                 410  20 2.04

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SE     N    SW    NW    NE     E
AVE. OF END POINTS                 0.34  0.38  0.43  0.43  0.50  0.52  0.63

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                15      0.12      0.28      0.47         B

        ____________END_____________________END_____________________END_____________________END____________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/18     9/59                                                                                  83/11/18     9/59

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.52                 SE =   0.57             SE =   1.09   QUALITY = A
                                            AZ =  -126.                 AZ =   -36.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118  959 23.51 44N16.50 114W 3.35   8.02   2.63 11 13  73 1 0.06  0.6  1.1 A A|A 0.11 10 13 0.00 0.04  0  0.0  0.0  9  2.6  0.1
SE OF ORIG =  0.054          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
817    5.2 299 143 25.25IPO          1.74  1.73              0.01 1.028      26.53  3.02  3.02  0.00 0.720           411  49 2.64
82     7.8  74 130 25.51IPC          2.00  2.02             -0.02 1.028                                              411  49 2.64
816   12.7 141 113 26.23IPD          2.72  2.69              0.03 1.028                                              411  51 2.64
81    14.2   0 109 26.43IPC          2.92  2.92              0.00 1.028                                              411  50 2.64
815   15.8 227 105 26.72IPC          3.21  3.18              0.03 1.028      29.06  5.55  5.56 -0.01 0.000           411  42 2.54
84    18.7 118 100 27.10IPC          3.59  3.63             -0.04 1.028                                              411        4
813   21.0 174  98 27.46IPC          3.95  4.00             -0.05 1.028      30.41  6.90  7.00 -0.10 0.000           411  41 2.54
812   32.9 181  93 29.35IPC          5.84  5.93             -0.09 1.028                                              411  51 2.74
811   41.9 152  92 31.04EP           7.53  7.39              0.14 1.028                                              411  45 2.64
85    43.3 133  92 31.13IPD          7.62  7.62              0.00 1.028                                              411  61 2.94

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    SW     Z     E     N    NE
AVE. OF END POINTS                  0.11  0.13  0.15  0.21  0.23  0.25  0.28

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.06      0.07      0.19         D

        ------------END----------------------END----------------------END----------------------END-----------
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/18    11/ 3                                                                                  83/11/18    11/ 3

                                                   HORIZONTAL                                VERTICAL
                                             SE =   0.38            SE =   0.46             SE =   1.09   QUALITY = A
                                             AZ =  -32.             AZ =  -122.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 11 3  6.40 44N10.53 114W 0.81  11.11   2.37 11 13  81 1 0.05  0.5  1.1 A A|A 0.06 10 16 0.00 0.04  0  0.0  0.0  8  2.4  0.2
SE OF ORIG =  0.052          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.8  75 155  8.51IPD         2.11  2.13             -0.01 1.028       9.91  3.51  3.72 -0.21 0.000           412         4
913    9.9 187 135  9.07IPD         2.67  2.61              0.07 1.028      11.47  5.07  4.57  0.51 0.000           412  29 2.24
84    13.4  80 125  9.41IPC         3.01  3.03             -0.01 1.026      11.69  5.29  5.30  0.00 0.720           412  56 2.84
82    13.9  17 124  9.54IPD         3.14  3.11              0.04 1.028      11.62  5.22  5.44 -0.22 0.000           412  28 2.24
815   15.0 271 121  9.63IPC         3.23  3.26             -0.03 1.028      12.13  5.73  5.70  0.03 0.000           412  31 2.24
817   15.7 330 120  9.64IPD         3.24  3.35             -0.11 1.028                                              412         4
812   22.2 190 110 10.73IPD         4.33  4.32              0.02 1.028                                              412  38 2.44
81    25.5 353 107 11.31IPC         4.91  4.82              0.10 1.028                                              412  32 2.34
911   30.7 148 103 12.02IP          5.62  5.63             -0.01 1.028      16.67 10.27  9.85  0.42 0.000           412  31 2.34
85    33.8 123 101 12.49IPC         6.09  6.14             -0.05 1.028                                              412  43 2.64

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SW     N     E     Z    NE    SE
AVE. OF END POINTS                  0.15  0.15  0.16  0.20  0.21  0.22  0.22

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                  6      0.05      0.03      0.19         0

------------END--------------------END--------------------END--------------------END----------
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/18 11/23 83/11/18 11/23

	HORIZONTAL		VERTICAL	
SE =	0.36	SE =	0.53	SE = 1.29 QUALITY = A
AZ =	-10.	AZ =	-100.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	NO	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831118	1123 24.78	44N16.09	114W 6.69	7.80	3.03	28	12	103	1	0.11	0.5	1.3	B	A18	0.50	10	47	0.00	0.08	0	0.0	0.0	9	3.0	0.2

SE OF ORIG = 0.041 3 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)						VARI	(---- S-WAVE TRAVEL-TIME DATA --)						(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK	+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
817	3.2	358	155	26.29	IPD		1.51	1.53			-0.02	1.022										413	65	2.84	
NWSI	7.4	102	130	26.78	P-0		2.00	1.94			0.05	1.022		27.63	2.85	3.40	-0.55	0.000				413		4	
MCGI	12.0	45	113	27.37	PC0		2.59	2.58			0.01	1.022		0.00	-24.78	4.52	-29.30	0.000				413		4	
ANPI	12.3	137	112	27.25	P 0		2.47	2.62			-0.15	1.022		0.00	-24.78	4.58	-29.36	0.000				413		4	
32	12.3	76	112	27.52	IPC		2.74	2.62			0.12	1.022		29.57	4.79	4.59	0.20	0.000				413	82	3.14	
815	12.3	216	112	27.40	IPD		2.62	2.62			-0.01	1.022		28.70	3.92	4.59	-0.67	0.000				413	64	2.84	
NSUI	14.7	103	106	27.87	PC0		3.09	2.99			0.09	1.022		0.00	-24.78	5.24	-30.02	0.000				413		4	
WSUI	14.9	112	105	27.85	PC		3.07	3.02			0.05	1.022										413		4	
RCI	15.3	235	104	27.93	P 0		3.15	3.09			0.06	1.022		0.00	-24.78	5.40	-30.19	0.000				413		4	
816	15.4	126	104	27.91	IPC		3.13	3.10			0.02	1.022		30.01	5.23	5.43	-0.21	0.715				413		4	
81	15.6	17	104	27.92	IPC		3.14	3.14			0.00	1.022		30.22	5.44	5.49	-0.05	0.715				413	80	3.04	
MIR	16.3	3	102	28.18	PD0		3.40	3.24			0.16	1.022		0.00	-24.78	5.67	-30.45	0.000				413		4	
8LO	19.8	338	97	28.50	P 0		3.72	3.81			-0.10	1.022		0.00	-24.78	6.67	-31.46	0.000				413		4	
WMSI	20.8	357	96	28.72	PC		3.94	3.97			-0.04	1.022										413		4	
813	21.2	162	96	28.75	IPC		3.97	4.03			-0.06	1.022		31.82	7.04	7.05	-0.01	0.000				413	71	3.04	
84	22.4	111	95	29.06	IPC		4.28	4.23			0.05	1.022										413	104	3.34	
M-2	22.5	121	95	29.31	PD0		4.53	4.24	0.17		0.12	1.022		32.11	7.33	7.41	-0.38	0.000				413		4	
CGI	23.6	78	95	28.94	PC0		4.16	4.41			-0.25	1.022		0.00	-24.78	7.72	-32.50	0.000				413		4	
MBAI	26.3	126	94	20.05	PD4		-4.73	4.85			-9.59	0.000		0.00	-24.78	8.50	-33.28	0.000				413		4	
GCI	27.6	41	93	29.78	PC0		5.00	5.07			-0.07	1.022		0.00	-24.78	8.87	-33.66	0.000				413		4	
M-1	29.7	138	93	30.67	P-0		5.89	5.40	0.30		0.19	1.022		0.00	-24.78	9.45	-34.76	0.000				413		4	
BRPI	30.4	155	93	30.40	P 0		5.62	5.52			0.10	1.022		0.00	-24.78	9.66	-34.44	0.000				413		4	
3RCI	32.1	172	93	30.38	PC0		5.60	5.79			-0.19	1.022		0.00	-24.78	10.13	-34.91	0.000				413		4	
812	32.4	173	93	30.57	IPC		5.79	5.84			-0.05	1.022										413	86	3.24	
LCRI	38.5	131	92	31.56	PD0		6.78	6.82			-0.04	1.022		0.00	-24.78	11.94	-36.72	0.000				413		4	
811	43.6	146	92	32.55	IPC		7.77	7.65			0.12	1.022										413	60	2.94	
85	46.2	129	91	32.89	IP		8.11	8.08			0.03	1.022										413	85	3.24	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	Z	NE	E	SW	NW	SE	N
AVE. OF END POINTS	0.22	0.63	0.67	0.73	0.75	0.84	1.05

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
28	0.11	0.28	0.74	B

----------END----------END----------END----------END----------

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/18    12/10                                                                                  83/11/18    12/10

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.76              SE =    1.56              SE =    1.04   QUALITY = A
                                            AZ =     14.              AZ =    -76.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 1210  1.80 44N17.91 114W21.36   6.49   2.42 17 19 252 1 0.12  1.6  1.0 C B10 0.06 10 23 0.00 0.09  0  0.0  0.0 15  2.4  0.3
SE OF ORIG =  0.133          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B15   18.2 137 108  5.33IPC         3.53  3.53              0.00 1.037       7.86  6.06  6.17 -0.11 0.000           414  44 2.54
BLD   19.2  39 107  5.55 P          3.75  3.70              0.05 1.037                                               414       4
B17   19.4  90 107  5.55IPC         3.75  3.73              0.02 1.037       8.25  6.45  6.53 -0.08 0.726           414  41 2.54
HIR   24.0  57 104  6.35IP          4.55  4.52              0.03 1.037                                               414  40 2.54
B1    26.7  64  65  6.69IPC         4.89  4.95             -0.06 1.037      10.59  8.79  8.67  0.12 0.726           414  42 2.54
NWSI  27.2 100  65  6.74IPC         4.94  5.04             -0.10 1.037      11.23  9.43  8.82  0.61 0.000           414  20 1.94
B2    31.4  91  65  7.49EPC         5.69  5.73             -0.04 1.037                                               414  38 2.44
B16   34.4 111  65  7.83IPC         6.03  6.20             -0.17 1.037                                               414  36 2.44
NSUI  34.5 101  65  7.93EPC4        6.13  6.22             -0.09 0.000                                               414  20 1.94
B13   35.2 132  65  8.08EPC         6.28  6.33             -0.05 1.037                                               414  33 2.34
GCI   41.5  65  65  9.06IPC         7.26  7.37             -0.11 1.037      10.87  9.07 12.89 -3.82 0.000           414  39 2.54
B4    42.1 106  65  9.26EP          7.46  7.46              0.00 1.037                                               414  52 2.84
B12   42.7 146  65  9.22EPO         7.42  7.55             -0.13 1.037                                               414  51 2.74
MBAI  45.0 115  65  9.77EP          7.97  7.92              0.05 1.037                                               414  25 2.14
B11   59.1 132  65 12.13EP         10.33 10.21              0.12 1.037      19.65 17.85 17.87 -0.02 0.000           414  33 2.44
B5    64.3 120  65 13.20IPC        11.40 11.05              0.35 1.037      21.54 19.74 19.35  0.39 0.000           414  50 2.84

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E     N    NE    NW    SW    SE
AVE. OF END POINTS                 0.06  0.09  0.09  0.11  0.12  0.13  0.14

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 6      0.12      0.06      0.11         D

        ------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18    12/58                                                                                                  83/11/18    12/58

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.51              SE =   0.75              SE =   1.46   QUALITY = A
                                            AZ =   -25.              AZ =  -115.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERM  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 1258 55.30 44N 6.82 113W53.58   8.90   2.37 11 11 101 1 0.08  0.7  1.5 B A|B 0.12 10 13 0.00 0.07  0  0.0  0.0 10  2.4  0.2
SE OF ORIG =  0.054          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    9.5 329 127 57.63IPC         2.33  2.32              0.00 1.028      59.43  4.13  4.06  0.06 0.720           415  28 2.14
B4     9.9  21 126 57.62IPD         2.32  2.36             -0.05 1.028                                               415  51 2.64
B13   11.3 255 122 57.78IPC         2.48  2.55             -0.08 1.028                                               415  34 2.34
B12   20.1 222 104 59.31IP          4.01  3.89              0.11 1.028                                               415  46 2.64
B11   20.2 161 104 59.25IPC         3.95  3.91              0.04 1.028                                               415  36 2.44
B2    20.9 345 103 59.37IPC         4.07  4.01              0.06 1.028      60.64  5.34  7.02 -1.68 0.000           415  32 2.34
B5    22.0 122 102 59.44IPC         4.14  4.19             -0.05 1.028                                               415  49 2.64
B15   25.7 286  99 60.01IPC         4.71  4.77             -0.07 1.028      63.15  7.85  8.35 -0.50 0.000           415  30 2.24
B17   26.9 319  98 60.15EP          4.85  4.97             -0.12 1.028                                               415  30 2.24
B1    34.6 338  95 61.62EP          6.32  6.20              0.11 1.028                                               415  29 2.24

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    SE    NW     Z    SW    NE     E
AVE. OF END POINTS                 0.04  0.04  0.13  0.15  0.16  0.18  0.28

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 5      0.08     -0.02      0.14         0

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN___________
83/11/18    13/ 6                                                                                                  83/11/18    13/ 6

                                                   HORIZONTAL                                  VERTICAL
                                             SE =   0.29              SE =   0.63              SE =   0.33   QUALITY = A
                                             AZ =  -104.              AZ =   -14.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 13 6 12.85 43N54.09 113W46.46  12.56   2.17  9 25 253 1 0.02  0.6  0.3 C A|D 0.51 10 14 0.00 0.02  0  0.0  0.0 10  2.2  0.2
SE OF ORIG =  0.050          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCDR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
811    5.3 328 156 15.23IPC         2.38  2.37              0.01 1.034      17.00  4.15  4.15  0.00 0.724           416  28 2.14
85    14.9  38 126 16.22IPC         3.37  3.38             -0.01 1.034      19.38  6.53  5.91  0.62 0.000           416  38 2.44
812   24.6 290 112 17.63IPD         4.78  4.76              0.02 1.034      21.03  8.18  8.33 -0.15 0.000           416  33 2.34
813   29.0 315 108 18.26EPD         5.41  5.44             -0.03 1.034                                               416  21 2.04
84    33.3 350 105 18.95EP          6.10  6.11             -0.01 1.034      23.23 10.38 10.70 -0.32 0.000           416  36 2.44
816   34.9 335 104 19.23IP          6.38  6.35              0.02 1.034                                               416  22 2.04
815   46.0 312 100 20.96IPD         8.11  8.13             -0.02 1.034                                               416  22 2.14
82    46.2 341 100 21.04IPD         8.19  8.16              0.03 1.034                                               416  21 2.04
817   51.6 328  98 19.25IPC         6.40  9.03             -2.63M0.000                                               416  23 2.14
81    60.0 338  97 20.44IPC         7.59 10.38             -2.79M0.000                                               416  23 2.24

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        NW    SE     Z    NE     N    SW     E
AVE. OF END POINTS                   0.16  0.17  0.20  0.23  0.26  0.28  0.29

              NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                   8      0.02      0.15      0.22         B

          ____________END_____________________END_____________________END_____________________END___________
```

```
------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/18    17/16                                                                                                  83/11/18    17/16

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.46              SE =    0.65              SE =    1.30    QUALITY = A
                                          AZ =    -18.              AZ =   -108.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SDFM
831118 1716  3.41 44N19.64 114W 3.50    7.82   2.76 22  8  83 1 0.10  0.7  1.3 A A|A 0.08 10 38 0.00 0.08  0  0.0  0.0  9  2.8  0.1
SE OF ORIG =  0.048          8 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
MCGI   4.6  65 145  4.11 PDO        0.70  1.65              -0.95M0.000       0.00 -3.41  2.89 -6.30 0.000            418        4
B17    5.5 232 140  5.10IPC         1.69  1.73              -0.04 1.014                                                 418  52 2.64
B1     8.4   2 126  5.50IPC         2.09  2.06               0.03 1.014       7.00  3.59  3.61 -0.02 0.710            418  54 2.74
B2     8.5 115 126  5.54IPD         2.13  2.07               0.06 1.014                                                 418  57 2.74
NWSI   8.6 160 126  5.55 PDO        2.14  2.09               0.05 1.014       6.77  3.36  3.65 -0.29 0.000            418        4
NSUI  14.1 134 108  6.38 PDO        2.97  2.89               0.06 1.014       8.03  4.62  5.05 -0.43 0.000            418        4
WMSI  15.2 339 105  6.47 PCO        3.06  3.08              -0.02 1.014       7.75  4.34  5.38 -1.04 0.000            418        4
WSUI  15.4 142 104  6.46 PD         3.05  3.11              -0.06 1.014                                                 418        4
ANPI  16.0 165 103  6.50 P 0        3.09  3.20              -0.11 1.014       0.00 -3.41  5.60 -9.01 0.000            418        4
BLD   16.6 315 102  6.70 P 0        3.29  3.30              -0.01 1.014       0.00 -3.41  5.77 -9.18 0.000            418        4
B16   17.6 152 100  6.78IPD         3.37  3.45              -0.08 1.014                                                 418  47 2.64
CGI   18.9  95  99  7.14 P 0        3.73  3.66               0.07 1.014       9.44  6.03  6.40 -0.37 0.000            418        4
GCI   19.9  44  97  7.18 PCO        3.77  3.83              -0.06 1.014       0.00 -3.41  6.70-10.11 0.000            418        4
B4    22.1 131  96  7.49IPD         4.08  4.18              -0.10 1.014                                                 418  72 3.04
RCI   22.7 228  95  7.84 PCO        4.43  4.28               0.15 1.014       0.00 -3.41  7.48-10.89 0.000            418        4
M-2   23.6 141  95  7.90 PDO        4.49  4.42  0.17         -0.10 1.014      10.50  7.09  7.73 -0.94 0.000            418        4
B13   26.8 175  94  8.31IPC         4.90  4.93              -0.03 1.014                                                 418  53 2.74
M-1   32.6 151  93  9.85 PCO        6.44  5.87  0.30          0.27 1.014       0.00 -3.41 10.28-14.22 0.000            418        4
BRPI  35.2 166  92  9.60 PCO        6.19  6.30              -0.11 1.014      14.60 11.19 11.02  0.17 0.000            418        4
BRPI  35.2 166  92 10.29 PCO        6.88  6.30               0.58M0.000       0.00 -3.41 11.02-14.43 0.000            418        4
B12   38.7 180  92 10.12IPC         6.71  6.86              -0.16 1.014                                                 418  59 2.94
B11   47.2 155  91 11.84IPD         8.43  8.24               0.19 1.014      17.06 13.65 14.43 -0.78 0.000            418  48 2.74
B5    47.6 138  91 11.71IPC         8.30  8.30               0.00 1.014                                                 418  59 2.94

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    SW     Z     E     N    NE
AVE. OF END POINTS                  0.11  0.11  0.12  0.15  0.15  0.15  0.18

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                11      0.10      0.08      0.14         0

------------END----------------------END----------------------END----------------------END------------
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18    17/21                                                                                                  83/11/18    17/21

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.38              SE =    0.59              SE =    0.73   QUALITY = A
                                            AZ =     -3.              AZ =    -93.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 1721 21.30 44N 8.01 113W57.28  11.11   2.54 11 11  96 1 0.06  0.6  0.7 B A|B 1.81 10 17 0.00 0.05  0  0.0  0.0  7  2.5  0.1
SE OF ORIG =  0.044          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    5.9 360 149 23.48IPD          2.18  2.21              -0.03 1.058      25.20  3.90  3.87  0.03 0.740           417  41 2.54
813    7.8 229 142 23.73IPD          2.43  2.39               0.04 1.058      25.41  4.11  4.18 -0.07 0.740           417        4
84    11.0  50 131 24.02IPC          2.72  2.74              -0.02 1.058      25.82  4.52  4.79 -0.27 0.000           417  55 2.74
92    17.9 358 116 25.10IPD          3.80  3.67               0.13 1.058      27.97  6.67  6.43  0.24 0.000           417        4
312   19.2 206 114 25.21IPC          3.91  3.85               0.06 1.058      27.83  6.53  6.74 -0.21 0.000           417  48 2.64
817   22.1 325 110 25.54EPD          4.24  4.31              -0.07 1.058                                               417  35 2.44
811   24.3 151 108 25.94IPD          4.64  4.64               0.00 1.058      28.62  7.32  8.11 -0.79 0.000           417  41 2.54
85    27.3 121 105 26.38IPC          5.08  5.11              -0.03 1.058      29.83  8.53  8.94 -0.41 0.000           417  49 2.74
31    30.9 345 103 26.93IPC          5.63  5.67              -0.04 1.058      30.63  9.33  9.93 -0.60 0.000           417  35 2.44

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z     E    SW    NW    NE    SE     N
AVE. OF END POINTS                 0.51  0.71  0.74  0.81  0.87  0.90  1.06

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 11      0.06      0.54      0.82         A

          ____________END_____________________END_____________________END_____________________END___________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/18    18/55                                                                                                  83/11/18    18/55

                                                    HORIZONTAL                                  VERTICAL
                                              SE =   0.29              SE =   0.54              SE =   0.94   QUALITY = A
                                              AZ =   -22.              AZ =  -112.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831118 1855 42.19 44N15.13 114W 2.76   8.73   3.43 22  8  67 1 0.08  0.5  0.9 A A|A 0.28 10 34 0.00 0.07  0  0.0  0.0  9  3.4  0.1
SE OF ORIG =  0.037          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   2.0  81 166 43.78 PDO        1.59  1.61              -0.01 1.014       0.00-42.19  2.81-45.00 0.000            419        4
B17    7.3 313 135 44.11IPO         1.92  2.04              -0.12 1.014                                                419 113 3.34
ANPI   7.8 156 133 44.19 PDO        2.00  2.10              -0.09 1.014       0.00-42.19  3.67-45.85 0.000            419        4
B2     8.2  55 132 44.41IPD         2.22  2.14               0.08 1.014                                                419 112 3.34
NSUI   9.2  99 128 44.53 PCO        2.34  2.27               0.08 1.014       0.00-42.19  3.97-46.15 0.000            419        4
WSUI   9.4 114 127 44.50 PO         2.31  2.28               0.03 1.014                                                419        4
B16   10.2 135 124 44.64IPD         2.45  2.40               0.05 1.014                                                419 113 3.34
MCGI  10.8  17 122 44.64 PDO        2.45  2.48              -0.03 1.014       0.00-42.19  4.34-46.53 0.000            419        4
B1    16.7 358 108 45.41IPC         3.22  3.35              -0.13 1.014      48.03  5.84  5.86 -0.02 0.710            419 116 3.44
B4    16.9 111 108 45.55IPC         3.36  3.38              -0.01 1.014                                                419 155 3.64
M-2   17.1 125 107 45.79 PCO        3.60  3.41  0.17         0.03 1.014       0.00-42.19  5.96-48.45 0.000            419        4
B13   18.4 176 105 45.84IPC         3.65  3.60               0.06 1.014      48.39  6.20  6.30 -0.09 0.000            419 118 3.44
HIR   18.6 346 105 46.00 PCO        3.81  3.63               0.18 1.014       0.00-42.19  6.35-48.54 0.000            419        4
RCI   19.1 249 104 46.05 PCO        3.86  3.73               0.14 1.014       0.00-42.19  6.52-48.71 0.000            419        4
WMSI  23.5 344 100 46.59 PD         4.40  4.42              -0.01 1.014                                                419        4
BLO   23.8 328  99 46.60 P O        4.41  4.48              -0.06 1.014       0.00-42.19  7.83-50.02 0.000            419        4
M-1   25.0 144  99 47.01 PCO        4.82  4.66  0.30        -0.13 1.014       0.00-42.19  8.15-50.86 0.000            419        4
GCI   26.1  30  98 47.04 PCO        4.85  4.83               0.03 1.014       0.00-42.19  8.45-50.63 0.000            419        4
B12   30.4 182  96 47.62IPC         5.43  5.52              -0.09 1.014      51.54  9.35  9.66 -0.31 0.000            419 139 3.64
B11   39.3 151  94 49.22IPC         7.03  6.98               0.05 1.014                                                419  99 3.34
B5    41.1 131  94 49.41IPC         7.22  7.26              -0.03 1.014                                                419 129 3.64

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE    SW     E    NW    SE     N
AVE. OF END POINTS                 0.27  0.56  0.67  0.69  0.89  0.94  1.10

             NUMBER       RMS  MIN ORMS  AVE ORMS   QUALITY
                 22      0.08      0.30      0.77         B

          ____________END_____________________END_____________________END_____________________END____________
```

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19      0/12                                                                                                  83/11/19      0/12

                                                  HORIZONTAL                                  VERTICAL
                                            SE =    0.34              SE =    0.50              SE =    0.95    QUALITY = A
                                            AZ =    -10.              AZ =   -100.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  012 47.06 44N 7.38 113W55.65   9.63   2.32 10 10  83 1 0.05  0.5  1.0 A A|A 3.18 10 14 0.00 0.04  0  0.0  0.0  9  2.3  0.1
SE OF ORIG =  0.041          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    7.4 343 138 49.14IPD          2.08  2.16              -0.09 1.031                                                 420  28 2.14
813    9.0 244 132 49.40IPC          2.34  2.34               0.00 1.031      51.22  4.16  4.10  0.06 0.722            420  33 2.34
84    10.3  38 128 49.57IPC          2.51  2.50               0.01 1.031                                                 420  43 2.54
812   19.2 214 108 50.80IPC          3.74  3.78              -0.05 1.031                                                 420  39 2.44
82    19.3 352 108 50.91IPD          3.85  3.79               0.06 1.031      53.93  6.87  6.64  0.23 0.000            420  28 2.24
811   22.2 155 105 51.36IPD          4.30  4.25               0.05 1.031      54.76  7.70  7.43  0.27 0.000            420  33 2.34
817   24.4 323 103 51.61IPC          4.55  4.59              -0.04 1.031      54.91  7.85  8.03 -0.18 0.000            420  28 2.24
85    24.9 121 102 51.71IPC          4.65  4.67              -0.02 1.031      55.01  7.95  8.17 -0.23 0.000            420  42 2.54
81    32.7 342  98 53.02IPD          5.96  5.92               0.04 1.031                                                 420  33 2.34

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW     E    NW    SE    NE     N
AVE. OF END POINTS                 0.33  0.70  0.80  0.87  0.89  0.92  1.08

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                10      0.05      0.42      0.84         A

        ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     0/34                                                                                  83/11/19     0/34

                                                HORIZONTAL                                  VERTICAL
                                          SE =   0.36              SE =   0.70              SE =   1.16   QUALITY = A
                                          AZ =   -24.              AZ =  -114.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQO  ADJ IN NR  AVR  AAR NM AVXM SOXM NF AVFM SOFM
831119  034  5.18 44N 8.93 113W58.82  11.23   2.73 16  9 118 1 0.08  0.7  1.2 8 A|8 0.98 10 29 0.00 0.06  0  0.0  0.0  9  2.7  0.1
SE OF ORIG =  0.056          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
816    4.7  25 156  7.32IPC          2.14  2.14              0.01 1.019       8.17  2.99  3.74 -0.75 0.000            421  60 2.84
813    7.9 210 142  7.61IPO          2.43  2.41              0.03 1.019       9.19  4.01  4.21 -0.20 0.000            421  50 2.64
M-2    8.8  80 138  7.90 PCO         2.72  2.51  0.17        0.04 1.019       0.00 -5.18  4.39 -9.87 0.000            421       4
84    11.8  63 130  8.02IPC          2.84  2.85              0.00 1.019      10.12  4.94  4.98 -0.04 0.000            421  64 2.94
NWSI  12.2 345 128  8.11 POO         2.93  2.90              0.03 1.019       9.23  4.05  5.07 -1.02 0.000            421       4
M-1   12.8 133 127  8.35 POO         3.17  2.98  0.30       -0.10 1.019       0.00 -5.18  5.21-10.91 0.000            421       4
82    16.3   5 119  8.67IPC          3.49  3.45              0.04 1.019       9.38  4.20  6.04 -1.84 0.000            421  50 2.74
817   19.6 327 114  8.96IPC          3.78  3.92             -0.14 1.019      12.06  6.88  6.86  0.02 0.713            421  45 2.64
812   20.0 199 113  9.14IPO          3.96  3.99             -0.03 1.019      12.12  6.94  6.98 -0.04 0.000            421  60 2.84
811   26.8 149 106 10.30IPO          5.12  5.03              0.09 1.019      13.94  8.76  8.80 -0.04 0.000            421  49 2.74
81    28.8 348 104 10.44IPC          5.26  5.35             -0.09 1.019      11.99  6.81  9.36 -2.54 0.000            421  50 2.74
85    30.0 121 104 10.69IPO          5.51  5.53             -0.02 1.019      16.04 10.86  9.67  1.19 0.000            421  56 2.84
MIR   31.1 342 103 11.07 PCO         5.89  5.70              0.19 1.019       0.00 -5.18  9.97-15.15 0.000            421       4
GCI   34.9  13 101 11.44 PCO         6.26  6.32             -0.06 1.019       0.00 -5.18 11.07-16.24 0.000            421       4
WMSI  36.0 341 100 11.66 PCO         6.48  6.49             -0.01 1.019                                               421       4

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW    NE     E    SE    NW     N
AVE. OF END POINTS                 0.30  0.53  0.59  0.65  0.89  0.92  1.04

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                16      0.08      0.30      0.74         A

____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/19 0/59 83/11/19 0/59

HORIZONTAL
SE = 1.89
AZ = -124.

SE = 10.55
AZ = -34.

VERTICAL
SE = 7.37 QUALITY = D

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SOXM	NF	AVFM	SOFM
831119	059 16.27	44N35.35	114W14.28	7.82	2.77	16	22	306	1	0.11	10.5	7.4	D	DID	0.26	10	27	0.00	0.09	0	0.0	0.0	7	2.8	0.1

SE OF ORIG = 0.898 7 ITERATIONS TOTAL

(- STATION DATA -)					(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)			
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR-O=	TTOB	TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
WMSI	17.3	149	101	19.60	PCO	3.33	3.40			-0.08	1.118		0.00	-16.27	5.96	-22.23	0.000				422			4
BLD	17.5	171	101	19.80	P 0	3.53	3.43			0.10	1.118		0.00	-16.27	6.00	-22.27	0.000				422			4
MIR	22.2	151	96	20.57	PDO	4.30	4.20			0.10	1.118		0.00	-16.27	7.34	-23.62	0.000				422			4
B1	25.4	145	94	20.83	IPO	4.56	4.70			-0.14	1.118										422	55	2.84	
GCI	31.9	118	93	22.04	POO	5.77	5.76			0.00	1.118		0.00	-16.27	10.09	-26.36	0.000				422			4
B17	33.9	163	92	22.30	IPC	6.03	6.09			-0.06	1.118										422	46	2.64	
B2	39.4	146	92	23.12	IPC	6.95	6.97			-0.13	1.118		25.92	9.65	12.21	-2.56	0.000				422	49	2.74	
NWSI	41.0	155	92	23.47	PCO	7.20	7.23			-0.03	1.118		0.00	-16.27	12.66	-28.93	0.000				422			4
ANPI	48.2	157	91	24.53	P 3	8.26	8.41			-0.15	0.070		0.00	-16.27	14.71	-30.99	0.000				422			4
B16	50.0	153	91	24.96	IP	8.69	8.70			-0.01	1.118										422	45	2.74	
B4	53.5	145	91	25.50	IPD	9.23	9.26			-0.03	1.118										422			4
M-2	55.6	148	91	26.90	P 3	10.63	9.60	0.17		0.85	M0.000		0.00	-16.27	16.81	-33.38	0.000				422			4
B13	58.2	163	91	26.21	EPC	9.94	10.02			-0.09	1.118										422			4
M-1	65.0	153	91	28.10	P 2	11.83	11.14	0.30		0.39	0.279		0.00	-16.27	19.50	-36.29	0.000				422			4
B12	69.3	168	91	28.02	EPD	11.75	11.83			-0.08	1.118										422	60	3.04	
B5	79.3	144	91	29.90	IPC	13.63	13.46			0.17	1.118		31.40	15.13	23.55	-8.43	0.000				422	55	2.94	
B11	79.6	155	91	29.98	EP	13.71	13.51			0.19	1.118										422	41	2.74	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	N	SE	NW	NE	SW	E	Z
AVE. OF END POINTS	0.06	0.06	0.09	0.10	0.12	0.12	0.14

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
15	0.11	0.03	0.09	D

----------END----------END----------END----------END----------

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     1/48                                                                                  83/11/19     1/48

                                                  HORIZONTAL                                  VERTICAL
                                          SE =    0.36              SE =    0.61              SE =    1.67   QUALITY = A
                                          AZ =    -28.              AZ =   -118.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  148 29.28 44N 4.99 113W54.07  10.66   2.48 10 13  95 1 0.05  0.6  1.7 B A|B 0.11 10 12 0.00 0.04  0  0.0  0.0  9  2.5  0.2
SE OF ORIG =  0.069          5 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTDB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTDB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B13   10.2 273 132 31.86IPD          2.58  2.60              -0.01 1.031      33.61  4.33  4.54 -0.21 0.000          423  36 2.44
B16   12.3 339 126 32.12IPC          2.84  2.85              -0.01 1.031                                              423  35 2.34
B4    13.3  18 124 32.22IPC          2.94  2.99              -0.05 1.031                                              423  54 2.74
B12   17.3 228 116 32.81IPD          3.53  3.54              -0.01 1.031                                              423  46 2.64
B11   17.3 155 115 32.84IPD          3.56  3.55               0.01 1.031      35.54  6.26  6.22  0.05 0.722          423  42 2.54
B5    21.0 113 110 33.34IPC          4.06  4.11              -0.05 1.031                                              423  49 2.74
B2    24.0 348 107 33.98IPD          4.70  4.57               0.13 1.031                                              423  33 2.34
B17   29.2 325 103 34.59IPD          5.31  5.37              -0.06 1.031                                              423  31 2.34
B1    37.6 341  99 36.01IPD          6.73  6.73               0.01 1.031      41.36 12.08 11.77  0.31 0.000          423  41 2.64

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE     N    NE     Z     E    NW    SW
AVE. OF END POINTS                  0.09  0.13  0.18  0.18  0.20  0.22  0.22

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  5      0.05     -0.01      0.17         D

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     2/ 2                                                                                  83/11/19     2/ 2

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.41              SE =   0.79              SE =   1.92   QUALITY = A
                                            AZ =   -41.              AZ =  -131.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO O3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  2 2 16.29 44N 2.59 113W55.79  11.73   2.39 12 15  96 1 0.06  0.8  1.9 B A|B 0.21 10 16 0.00 0.04  0  0.0  0.0 11  2.4  0.2
SE OF ORIG =  0.090          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B13    9.3 302 138 18.94IP          2.65  2.62              0.03 1.026                                                 424  40 2.44
B12   12.7 236 129 19.34IPC         3.05  3.01              0.04 1.026                                                 424  49 2.64
B11   14.8 139 124 19.46IPC         3.17  3.29             -0.12 1.026      21.88  5.59  5.77 -0.18 0.000             424  40 2.54
B16   16.1 353 121 19.76IPC         3.47  3.47              0.00 1.026                                                 424  34 2.34
B4    18.2  21 117 20.01IPC         3.72  3.77             -0.05 1.026                                                 424  45 2.64
B5    21.9 100 112 20.72IPC         4.43  4.31              0.12 1.026                                                 424  44 2.64
NWSI  24.6 343 109 20.99EPC         4.70  4.72             -0.02 1.026      22.96  6.67  8.26 -1.59 0.000             424  21 1.94
B2    28.1 355 106 21.61IPC         5.32  5.26              0.06 1.026                                                 424  36 2.44
B17   31.8 333 104 22.09IPO         5.80  5.83             -0.03 1.026      26.49 10.20 10.21 -0.01 0.718             424       4
B1    41.2 346 100 23.62IPO         7.33  7.33              0.00 1.026                                                 424  35 2.44
HIR   43.5 342  99 24.43EP 4        8.14  7.71              0.43 0.000                                                 424  25 2.24
GCI   45.9   5  98 24.37EP          8.08  8.10             -0.02 1.026      30.40 14.11 14.17 -0.06 0.000             424  30 2.34

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        N    NW    NE    SE    SW     Z     E
AVE. OF END POINTS                 0.06  0.13  0.14  0.15  0.18  0.20  0.24

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  7      0.06     -0.01      0.15         0

        ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     4/59                                                                                  83/11/19     4/59

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.28              SE =   0.59              SE =   0.99   QUALITY = A
                                            AZ =   -19.              AZ =  -109.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  459 17.83 44N14.96 114W 3.55   7.89   2.52 11 11 141 1 0.05  0.6  1.0 8 A|C 0.14 10 12 0.00 0.04  0  0.0  0.0  6  2.5  0.1
SE OF ORIG =  0.036          4 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EOLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B17    6.8 321 134 19.72 P          1.89  1.89              0.00 1.058                                                 425        4
B2     9.3  57 123 20.04IPD         2.21  2.19              0.01 1.058                                                 425  40 2.44
B16   10.8 130 118 20.25IPD         2.42  2.41              0.01 1.058      22.05  4.22  4.21  0.01 0.740             425  43 2.54
B1    17.0   1 102 21.24IPC         3.41  3.36              0.04 1.058      23.69  5.86  5.89 -0.03 0.740             425  52 2.74
B4    17.8 109 101 21.22IPD         3.39  3.48             -0.10 1.058                                                 425        4
B13   18.2 172 100 21.39IPC         3.56  3.54              0.02 1.058      24.14  6.31  6.19  0.11 0.000             425  41 2.54
B12   30.0 180  93 23.22IPC         5.39  5.46             -0.08 1.058                                                 425  48 2.74
B11   39.6 150  92 24.92EPD         7.09  7.01              0.08 1.058                                                 425  35 2.44
B5    41.7 130  92 25.21IPC         7.38  7.34              0.03 1.058                                                 425        4

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        SE    NW    SW     N    NE     Z     E
AVE. OF END POINTS                  0.16  0.17  0.18  0.20  0.24  0.25  0.30

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                 4      0.05      0.11      0.21         0

____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     5/56                                                                                                  83/11/19     5/56

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   2.19              SE =  10.05              SE =   9.87   QUALITY = 0
                                            AZ =  -110.              AZ =   -20.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG ND D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  556 11.62 43N51.98 113W45.99  16.69   2.04  6 27 270 1 0.07 10.0  9.9 D CID 1.66 10 11 0.00 0.06  0  0.0  0.0  7  2.0  0.2
SE OF ORIG =  1.053        10 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    9.1 338 150 14.86IPC         3.24  3.25              -0.01 1.000      16.56  4.94  5.69 -0.75 0.000                 23 2.0
B5    17.9  28 130 15.83IPD         4.21  4.18               0.03 1.000                                                     27 2.2
B12   26.7 298 118 16.94IPD         5.32  5.36              -0.05 1.000      20.74  9.12  9.39 -0.27 0.000                 30 2.3
B13   32.3 319 114 17.86EP          6.24  6.17               0.06 1.000                                                     20 2.0
B4    37.3 350 110 18.44IPD         6.82  6.93              -0.11 1.000      22.96 11.34 12.13 -0.79 0.000                 32 2.4
B16   38.7 337 109 18.85EPC         7.23  7.15               0.08 1.000                                                     15 1.7
B1    63.9 339  65 23.19IPD4       11.57 11.01               0.56 0.000                                                     13 1.7
GCI   66.1 352  65 29.95EP         18.33 11.33               7.00M0.000

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       NW    SE     Z     N    SW    NE     E
AVE. OF END POINTS                 0.04  0.12  0.14  0.17  0.20  0.21  0.23

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  6      0.07     -0.04      0.16         D

        ____________END_____________________END_____________________END_____________________END____________
```

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19     9/14                                                                                  83/11/19     9/14

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.50              SE =   0.94              SE =   1.61   QUALITY = A
                                            AZ =   -19.              AZ =  -109.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119  914  4.75 44N 8.92 113W59.64  11.53   2.96 15 10 128 1 0.09  0.9  1.6 B B|B 1.02 10 25 0.00 0.07  0  0.0  0.0  9  3.0  0.1
SE OF ORIG =  0.078          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B16    5.3  36 153  6.93IPD          2.18  2.22              -0.04 1.000       8.33  3.58  3.88 -0.30 0.000           427  71 2.94
B13    7.4 202 145  7.21IPD          2.46  2.40               0.07 1.000       9.61  4.86  4.19  0.67 0.000           427  66 2.94
M-2    9.9  81 136  7.71 PD0         2.96  2.66  0.17         0.13 1.000       0.00 -4.75  4.66 -9.70 0.000           427        4
NWSI  12.0 350 130  7.62 PD0         2.87  2.90              -0.03 1.000       0.00 -4.75  5.08 -9.83 0.000           427        4
B4    12.8  65 128  7.78IPD          3.03  3.00               0.03 1.000                                                 427  87 3.14
M-1   13.7 130 126  7.98 PD0         3.23  3.11  0.30        -0.17 1.000       0.00 -4.75  5.44-10.71 0.000           427        4
BSU3  16.0 350 121  8.27 PD0         3.52  3.44               0.08 1.000      15.10 10.35  6.02  4.33 0.000           427        4
B2    16.4   9 120  8.24IPD          3.49  3.50               0.00 1.000      11.76  7.01  6.12  0.89 0.000           427  57 2.84
B17   19.0 330 116  8.47IPD          3.72  3.86              -0.14 1.000      10.97  6.22  6.76 -0.54 0.000           427  61 2.84
B12   19.6 196 115  8.70IPC          3.95  3.95               0.01 1.000      11.50  6.75  6.90 -0.15 0.000           427  86 3.14
B11   27.3 147 106  9.90EP           5.15  5.13               0.02 1.000                                                 427  67 3.04
B1    28.6 350 105  9.99IPD          5.24  5.33              -0.09 1.000                                                 427  63 2.94
B5    30.9 120 104 10.46IPC          5.71  5.69               0.03 1.000                                                 427  77 3.14
GCI   35.2  15 101 11.04 PC0         6.29  6.38              -0.08 1.000       0.00 -4.75 11.16-15.91 0.000           427        4
WMSI  35.7 343 101 11.39 PC          6.64  6.45               0.19 1.000                                                 427        4

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    SW     E    NE    SE    NW     N
AVE. OF END POINTS                 0.26  0.52  0.56  0.56  0.77  0.82  0.97

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                15      0.09      0.26      0.67         B

        ____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/19 9/19 83/11/19 9/19

	HORIZONTAL		VERTICAL	
SE =	0.63	SE =	0.95	SE = 1.52 QUALITY = A
AZ =	10.	AZ =	-80.	

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831119	919 40.11	44N21.99	113W59.47	10.52	2.37	13	9	105	1	0.08	0.9	1.5	B	A|B	0.15	10	18	0.00	0.06	0	0.0	0.0	11	2.4	0.2

SE OF ORIG = 0.088 4 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)					VARI	(---- S-WAVE TRAVEL-TIME DATA --)					(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC PRMK+TCOR-O=TTDB-TTCAL-DELAY-EDLY=			P-RES	P-WT	THIC	SSEC	SRMK	TTDB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
31	6.4	309	146	42.27IPD	2.16	2.18	-0.02	1.024		44.24	4.13	3.81	0.32	0.000				428			4
32	8.3	164	138	42.42IPD	2.31	2.36	-0.05	1.024		44.75	4.64	4.13	0.51	0.000				428	31	2.24	
3SU3	8.9	200	136	42.60IPC	2.49	2.43	0.06	1.024										428	29	2.24	
817	12.4	232	126	42.94IPC	2.83	2.84	-0.01	1.024										428	38	2.44	
NWSI	12.6	191	125	43.08IPC	2.97	2.87	0.10	1.024										428	24	2.04	
GCI	13.1	41	123	43.07IPC	2.96	2.95	0.01	1.024		44.89	4.78	5.17	-0.39	0.000				428	38	2.44	
816	20.1	172	111	44.03IPC	3.92	3.97	-0.05	1.024		47.05	6.94	6.95	-0.01	0.717				428	37	2.44	
84	22.0	149	108	44.28EPC	4.17	4.26	-0.09	1.024										428	44	2.64	
813	31.2	186	101	45.85IPC	5.74	5.70	0.04	1.024		50.15	10.04	9.98	0.06	0.000				428	30	2.34	
812	43.4	187	97	47.63IPC	7.52	7.67	-0.15	1.024										428	48	2.74	
85	47.8	146	96	48.50IPD	8.39	8.37	0.02	1.024		54.55	14.44	14.64	-0.20	0.000				428	36	2.54	
811	49.4	163	96	48.88IPC	8.77	8.62	0.15	1.024										428	32	2.44	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	SE	E	N	SW	NE	Z	NW
AVE. OF END POINTS	0.08	0.12	0.12	0.13	0.15	0.17	0.18

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.08	0.02	0.13	D

----------END----------END----------END----------END----------

```
          ____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19    10/25                                                                                                  83/11/19    10/25

                                                   HORIZONTAL                                  VERTICAL
                                             SE =   1.76              SE =   8.15              SE =   2.63   QUALITY = C
                                             AZ =  -130.              AZ =   -40.

 DATE    ORIGIN      LAT      LONG     DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119 1025  2.99 43N54.87 113W39.78   3.43   2.06  9 33 282 1 0.13  8.1  2.6 0 DID 0.22 10  9 0.00 0.11  0  0.0  0.0  9  2.1  0.1
SE OF ORIG =  0.685          7 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B5    10.4   1 105  5.00IPD         2.01  2.02              -0.01 1.000                                                429  33 2.24
B11   12.1 285 103  5.46EPD         2.47  2.32               0.16 1.000                                                429  25 2.04
B12   32.7 283  94  8.81EPC         5.82  5.98              -0.16 1.000                                                429  27 2.14
B4    34.7 335  94  9.18EPC         6.19  6.33              -0.14 1.000                                                429  32 2.34
B13   35.0 303  94  9.40EP          6.41  6.39               0.02 1.000                                                429  21 1.94
B16   38.3 322  94 10.04EPD         7.05  6.96               0.09 1.000                                                429  22 2.04
B2    48.6 330  65 11.89EP          8.90  8.74               0.16 1.000                                                429  21 2.04
B17   55.7 320  65 12.70EPD         9.71  9.90              -0.19 1.000                                                429  21 2.04
B1    62.6 330  65 14.07EPC        11.08 11.02               0.06 1.000                                                429  22 2.14

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH       SE     Z    SW    NW    NE     N     E
AVE. OF END POINTS                 0.05  0.06  0.07  0.07  0.09  0.12  0.21

             NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                  7      0.13      0.04      0.10         0

          ____________END_____________________END_____________________END_____________________END____________
```

----------BEGIN----------BEGIN----------BEGIN----------BEGIN----------

83/11/19 11/17 83/11/19 11/17

	HORIZONTAL		VERTICAL	
SE =	0.48	SE = 0.98	SE = 1.51	QUALITY = A
AZ =	-17.	AZ = -107.		

DATE	ORIGIN	LAT	LONG	DEPTH	MAG	ND	D3	GAP	M	RMS	ERH	ERZ	Q	SQD	ADJ	IN	NR	AVR	AAR	NM	AVXM	SDXM	NF	AVFM	SDFM
831119	1117	34.44	44N12.34	114W 2.01	10.70	3.09	15	11	143	1	0.10	1.0	1.5	C	8/C	0.63	10	28	0.00	0.07	0	0.0	0.0	9	3.1	0.1

SE OF ORIG = 0.065 5 ITERATIONS TOTAL

(- STATION DATA -)				(------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------)							VARI	(---- S-WAVE TRAVEL-TIME DATA --)							(--- MAGNITUDE DATA --)				
STN	DIST	AZM	AIN	PSEC	PRMK+TCOR	-O=TTOB	-TTCAL	-DELAY	-EDLY=	P-RES	P-WT	THIC	SSEC	SRMK	TTOB	TTCAL	S-RES	S-WT	AMX	PR	XMAG	R	FMP	FMAG
916	6.6	108	146	36.64	IPD	2.20	2.21			-0.02	1.020		38.85	4.41	3.87	0.53	0.000				430	78	3.04	
9SU3	9.5	2	135	37.02	PDO	2.58	2.51			0.06	1.020		42.35	7.91	4.40	3.51	0.000				430			4
92	11.4	30	129	37.21	IPD	2.77	2.75			0.02	1.020		39.26	4.82	4.80	0.01	0.714				430	88	3.14	
817	12.0	328	127	37.10	IPD	2.66	2.81			-0.15	1.020		38.92	4.48	4.92	-0.44	0.000				430	82	3.14	
913	13.2	178	124	37.44	IPD	3.00	2.98			0.02	1.020		39.44	5.00	5.21	-0.21	0.000				430	73	3.04	
M-2	13.8	110	123	37.71	PDO	3.27	3.06	0.17		0.04	1.020		0.00	-34.44	5.36	-40.10	0.000				430			4
94	14.8	94	120	37.61	IPD	3.17	3.20			-0.03	1.020		39.93	5.49	5.60	-0.11	0.000				430	94	3.24	
M-1	20.4	138	111	37.98	PDO	3.54	4.02	0.30		-0.78	M0.000		0.00	-34.44	7.03	-41.99	0.000				430			4
81	22.0	356	109	38.62	IPC	4.18	4.26			-0.08	1.020		42.02	7.58	7.45	0.13	0.000				430	76	3.04	
MIR	23.8	347	107	39.26	PDO	4.82	4.55			0.27	1.020		0.00	-34.44	7.96	-42.40	0.000				430			4
812	25.3	185	106	39.18	IPC	4.74	4.77			-0.04	1.020		42.64	8.20	8.35	-0.16	0.000				430	90	3.24	
WMSI	28.7	345	103	39.77	PC	5.33	5.30			0.02	1.020										430			4
GCI	30.2	23	102	39.84	PCO	5.40	5.56			-0.16	1.020		0.00	-34.44	9.73	-44.17	0.000				430			4
811	34.4	148	100	40.65	EPC	6.21	6.22			-0.01	1.020										430	77	3.14	
85	37.0	126	99	41.13	IPC	6.69	6.64			0.04	1.020		45.73	11.29	11.63	-0.34	0.000				430	73	3.14	

QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH	NW	SW	N	NE	E	SE	Z
AVE. OF END POINTS	0.07	0.12	0.14	0.16	0.16	0.16	0.19

NUMBER	RMS	MIN DRMS	AVE DRMS	QUALITY
7	0.10	0.00	0.14	D

----------END----------END----------END----------END----------

```
____________BEGIN____________________BEGIN____________________BEGIN____________________BEGIN__________
83/11/19    11/48                                                                                  83/11/19    11/48

                                                  HORIZONTAL                                  VERTICAL
                                            SE =   0.48              SE =   1.06              SE =   1.41   QUALITY = A
                                            AZ =   -18.              AZ =  -108.

 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  AOJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119 1148 42.67 44N14.49 114W 3.63   8.53   3.47 16  7 146 1 0.10  1.1  1.4 C B|C 0.70 10 23 0.00 0.08  0  0.0  0.0  8  3.5  0.1
SE OF ORIG =  0.059          3 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-O=TTOB-TTCAL-DELAY-EQLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
NWSI   3.5  65 155 44.32 PDO        1.65  1.66              0.00 1.000       0.00-42.67  2.90-45.57 0.000          431        4
BSU3   6.0  25 140 44.60 P O        1.93  1.88              0.05 1.000       0.00-42.67  3.29-45.96 0.000          431        4
B17    7.5 326 134 44.59IPD         1.92  2.03             -0.11 1.000                                              431        4
B2     9.8  53 124 45.02IP          2.35  2.33              0.02 1.000                                              431 132 3.54
B16   10.4 126 123 45.04IP          2.37  2.40             -0.03 1.000                                              431 126 3.44
B13   17.3 172 106 46.10IP          3.43  3.43              0.01 1.000                                              431 117 3.44
M-2   17.5 120 106 46.31 P O        3.64  3.44  0.17        0.03 1.000       0.00-42.67  6.03-48.99 0.000          431        4
B4    17.6 106 105 46.13IP          3.46  3.47             -0.01 1.000                                              431 150 3.64
B1    17.9   2 105 46.15IPC         3.48  3.53             -0.05 1.000      50.14  7.47  6.18  1.30 0.000          431 125 3.44
HIR   19.5 350 103 46.65 PDO        3.98  3.78              0.20 1.000       0.00-42.67  6.61-49.28 0.000          431        4
WMSI  24.3 348  98 47.27 PC         4.60  4.55              0.06 1.000                                              431        4
M-1   24.8 141  98 47.78 PCO        5.11  4.61  0.30        0.20 1.000       0.00-42.67  8.07-51.26 0.000          431        4
GCI   27.7  31  96 47.54 PCO        4.87  5.08             -0.20 1.000       0.00-42.67  8.88-51.55 0.000          431        4
B12   29.2 180  96 47.93IP          5.26  5.33             -0.07 1.000                                              431 132 3.54
B11   38.9 149  94 49.45EPD         6.78  6.91             -0.12 1.000                                              431 101 3.34
B5    41.2 129  93 49.98IP          7.31  7.28              0.04 1.000                                              431 128 3.54

                        QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH        Z    NE     E    SW    NW    SE     N
AVE. OF END POINTS                 0.26  0.48  0.53  0.60  0.79  0.90  1.06

            NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                16      0.10      0.28      0.70         B

____________END_____________________END_____________________END_____________________END____________
```

```
-------------BEGIN--------------------BEGIN--------------------BEGIN--------------------BEGIN----------
83/11/19    14/ 3                                                                                  83/11/19    14/ 3

                                                   HORIZONTAL                                   VERTICAL
                                              SE =   0.81              SE =   1.29              SE =   2.03   QUALITY = A
                                              AZ =   -97.              AZ =    -7.


 DATE    ORIGIN      LAT      LONG    DEPTH    MAG NO D3 GAP M  RMS  ERH  ERZ Q SQD  ADJ IN NR  AVR  AAR NM AVXM SDXM NF AVFM SDFM
831119 14 3 38.56 43N57.39 113W47.85   2.20   2.34 10 21 147 1 0.08  1.3  2.0 C B|C 0.09 10 13 0.00 0.07  0  0.0  0.0 10  2.3  0.2
SE OF ORIG =  0.092          6 ITERATIONS TOTAL

(- STATION DATA -) (------ P-WAVE TRAVEL-TIME DATA AND DELAYS -------) VARI (---- S-WAVE TRAVEL-TIME DATA --)(--- MAGNITUDE DATA --)
 STN  DIST AZM AIN PSEC PRMK+TCOR-D=TTOB-TTCAL-DELAY-EDLY= P-RES  P-WT THIC SSEC SRMK  TTOB TTCAL S-RES S-WT AMX PR XMAG R  FMP FMAG
B11    1.9 210 137 39.04IPC         0.48  0.56              -0.07 1.000      40.52  1.96  0.97  0.99 0.000           432  41 2.44
B5    12.4  62  96 40.97IPC         2.41  2.33               0.08 1.000      43.33  4.77  4.08  0.69 0.000           432  59 2.74
B12   21.3 277  94 42.53IPC         3.97  3.92               0.05 1.000                                              432  43 2.54
B13   23.5 308  93 43.02IPD         4.46  4.33               0.13 1.000                                              432  33 2.34
B4    27.0 351  93 43.50IP          4.94  4.95               0.00 1.000      46.82  8.26  8.65 -0.39 0.000           432  51 2.74
B16   28.6 334  93 43.87EPC         5.31  5.22               0.09 1.000                                              432  26 2.14
B2    39.8 341  92 45.72EPD         7.16  7.24              -0.08 1.000                                              432  29 2.24
B17   45.5 326  92 46.69EP          8.13  8.25              -0.12 1.000                                              432  29 2.24
B1    53.7 338  65 48.22EPD         9.66  9.66               0.01 1.000                                              432  26 2.24
GCI   55.8 353  65 48.48EP          9.92 10.01              -0.09 1.000                                              432  27 2.24

                         QUALITY EVALUATION

DIAGONALS IN ORDER OF STRENGTH          Z    NW     N    SE    NE    SW     E
AVE. OF END POINTS                   0.07  0.10  0.11  0.12  0.13  0.17  0.20


              NUMBER       RMS  MIN DRMS  AVE DRMS   QUALITY
                   9      0.08      0.05      0.14         D
```