

National Centre for Scientific Research of Vietnam
Institute of Geophysics

BULLETIN OF VIETNAMESE SEISMOLOGICAL STATIONS IN THE PERIOD
FROM 1983 TO 1984
(FAR EARTHQUAKES)

SEISMOGRAPHIC STATION
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA 94720

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Institute of Geophysics



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Introduction

The seismological bulletin in the period from 1983 to 1984 contains the results of the interpretation of for earthquakes from the network of seismological stations on the territory of Vietnam:

PhuLien, BacGiang, Tuyen Quang, HoaBinh and NhaTrang.

The records from the network were collected at the Institute of Geophysics, National Centre for Scientific Research of Vietnam, where they were analysed. The monthly preliminary bulletin were regularly supplied to the International Seismological Centre in the United Kingdom and other seismological institutions from various parts of the world.

In the process of interpretations, the parameters of earthquakes (Coordinates of epicentre, depth of hypocentre, origin times, magnitude), were taken from the preliminary seismological report of the Institute of the Physics of the Earth, Academy of Sciences of the USSR. The determination of wave phases was based on the hodograph of H. Jeffreys and K. E. Bullen (1958). The time used in this bulletin in the Universal time (GMT).

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List of abbreviations used in this Bulletin

D_g	damping constant of the galvanometer
D_s	damping constant of the seismometer
e	poorly distinguishable beginning of a phase
H	origin time
i	impulsive beginning of a phase
n	body-wave magnitude
M	surface-wave magnitude
σ^2	coupling coefficient
T_g	free period of the galvanometer
T_s	free period of the seismometer
\bar{V}	static magnification
V_{MAX}	max. dynamic magnification
+ and -	compressional or dilatational motion in a longitudinal wave
O-C	residual (observed - calculated travel - times)

Coordinates of the Seismological Stations

Station	Latitude	Longitude	Altitude	Lithological foundation
Phu Lien (PLV)	20°48'21.7" N	106°37'44.4" E	90 m	Quartzite
Bac Giang (BGV)	21°17'38.9" N	106°13'42.9" E	15 m	Bed of sand
Hoa Binh (HBV)	20°49'33.3" N	105°21'06.9" E	30 m	Bed of sand
Tuyen Quang (TQV)	21°49'42.0" N	105°12'30.0" E	35 m	Quartzite
Nha Trang (NHA)	12°16'00.0" N	109°11'40.0" E	5 m	Rhyolit

Constants of Seismographs in 1983 year

Station	Seismograph	Component	T _s [s]	T _g [s]	D _s	D _g	σ ²	\bar{v}	v _{max}
Phu Lien (PLV)	SKD	NS	12	1.1	0.5	6.0	0.1	1 092	1 165
		EW	12	1.25	0.5	6.0	0.1	1 176	1 277
		Z	12	1.25	0.5	6.0	0.1	1 183	1 290
Bac Giang (BGV)	Charin	NS	1.0	0.3	0.6	1.6	0.25	37 690	42 342
		EW	1.0	0.3	0.6	1.6	0.25	37 405	42 020
		Z	1.0	0.3	0.6	1.6	0.30	40 507	47 144
Hoa Binh (HBV)	Charin	NS	1.0	0.49	0.4	1.6	0.3	32 507	55 788
		EW	1.0	0.46	0.4	1.6	0.3	25 090	43 000
		Z	0.73	0.33	0.4	1.6	0.3	30 168	51 124
Tuyen Quang (TQV)	SU-59	NS	1.0	0.3	0.6	1.5	0.1	47 424	57 976
		EW	1.0	0.3	0.6	1.5	0.1	51 165	62 549
		Z	1.0	0.3	0.6	1.5	0.1	52 333	83 340
Nha Trang (NHA)	Galizina	NS	0.9	0.28	0.6	1.5	0.093	42 860	44 905
		EW	0.9	0.23	0.6	1.5	0.14	56 800	59 234
		Z	1.0	0.31	0.43	1.5	0.1	43 510	46 534

Response Amplitude Characteristics in 1984 Year

Period s	Magnification																	
	Phu Lien			Bac Giang			Hoa Binh			Tuyen Quang			Nha Trang					
	NS	EW	Z	NS	EW	Z	NS	EW	Z	NS	EW	Z	NS	EW	Z			
0.1	807	814	819	28 671	28 453	30 731	21 282	15 280	17 914	24 469	18 505	12 641	32 833	43 363	31 518			
0.2	997	1 042	1 048	36 800	36 520	39 517	33 334	23 933	24 842	32 236	24 380	17 060	42 194	57 756	42 159			
0.3	1 050	1 110	1 116	39 725	39 422	42 917	39 972	28 700	27 743	34 840	26 350	18 600	44 624	59 234	45 490			
0.4	1 070	1 137	1 144	41 385	41 070	45 133	44 850	32 202	29 842	35 983	27 214	19 303	44 905	58 317	46 534			
0.5	1 081	1 150	1 157	42 342	42 020	46 731	50 470	36 240	31 811	36 362	27 500	19 790	43 876	55 667	46 388			
0.6	1 086	1 158	1 165	42 216	41 895	47 144	57 900	41 570	34 010	35 873	27 130	19 885	41 519	51 151	45 168			
0.7	1 090	1 163	1 170	40 371	40 064	45 424	61 895	44 440	35 629	34 125	25 810	19 310	37 777	44 902	42 753			
0.8	1 092	1 166	1 173	36 551	36 273	41 098	66 340	47 630	35 497	30 972	23 423	17 900	32 966	37 719	39 144			
0.9	1 094	1 169	1 176	31 391	31 152	34 990	63 940	45 910	32 244	26 793	20 263	15 622	27 763	30 689	34 651			
1.0	1 096	1 171	1 178	25 987	25 789	28 695	53 560	38 460	26 426	22 373	16 920	13 010	22 842	24 562	22 635			
1.2	1 098	1 174	1 181	17 124	16 994	18 557	32 000	22 970	15 770	14 842	11 225	8 423	15 103	15 674	21 019			
1.5	1 100	1 177	1 184	9 459	9 387	10 134	15 494	11 124	7 665	8 167	6 177	4 452	8 380	8 483	12 185			
2.0	1 105	1 184	1 191	4 193	4 162	4 478	6 315	4 534	2 063	3 565	2 696	1 873	3 696	3 739	5 567			
2.5	1 110	1 191	1 198	2 199	2 182	2 350	3 215	2 308	1 532	1 848	1 398	949	1 926	1 903	2 933			
3.0	1 116	1 199	1 206	1 291	1 281	1 331	1 862	1 337	876	1 076	814	550	1 122	1 106	1 722			
3.5	1 122	1 207	1 214	820	814	878	1 175	844	548	680	514	345	710	698	1 094			
4.0	1 129	1 217	1 224	553	549	592	789	567	366	457	346	231	477	468	737			
5.0	1 144	1 239	1 246	285	283	306	405	291	186	235	177	118	245	240	380			
6.0	1 158	1 261	1 268	165	164	178	235	169	107	136	103	68	142	139	220			
7.0	1 165	1 276	1 283	104	104	112	148	106	68	86	65	43	89	88	139			
8.0	1 157	1 277	1 290	70	70	75	99	71	45	57	43	29	66	59	93			
9.0	1 124	1 250	1 258	49	49	53	70	50	32	40	30	20	42	41	66			
10.0	1 061	1 190	1 197	36	36	39	51	37	23	25	21	15	31	30	48			
15.0	536	621	624	11	11	11.5	15	11	7	9	7	4	9	9	14			
20.0	245	288	289	4.5	4.5	4.9	6	5	3	4	3	2	1	1	6			

Constants of Seismographs in 1984 Year

Station	Seismograph	Component	T_s [s]	T_g [s]	D_s	D_g	σ^2	\bar{v}	V_{max}
Phu Lien (PLV)	SKD	NS	1.2	1.1	0.5	6.0	0.1	1 092	1 165
		EW	1.2	1.25	0.5	6.0	0.1	1 176	1 277
		Z	1.2	1.25	0.5	6.0	0.1	1 183	1 290
Bac Giang (BGV)	Charin	NS	1.0	0.3	0.6	1.6	0.25	37 690	42 342
		EW	1.0	0.3	0.6	1.6	0.25	37 405	42 020
		Z	1.0	0.3	0.6	1.6	0.30	40 507	47 144
Hoa Binh (HBV)	Charin	NS	1.0	0.46	0.4	1.4	0.3	39 680	66 340
		EW	1.0	0.46	0.4	1.4	0.3	28 490	47 630
		Z	1.0	0.32	0.4	1.4	0.3	25 846	35 629
Tuyen Quang (TQV)	SU-59	NS	1.0	0.3	0.6	1.5	0.1	32 772	36 362
		EW	1.0	0.3	0.6	1.5	0.1	24 785	27 500
		Z	1.0	0.3	0.5	1.4	0.2	17 525	19 885
Nha Trang (NHA)	Galizine	NS	0.9	0.3	0.6	1.5	0.1	42 860	44 905
		EW	0.9	0.2	0.6	1.5	0.1	56 306	59 234
		Z	1.1	0.3	0.4	1.5	0.1	43 510	46 534

Response Amplitude Characteristics in 1983 year

Period [s]	Magnification														
	Phu Lien			Bac Giang			Hoa Binh			Tuyen Quang			Nha Trang		
	NS	EW	Z	NS	EW	Z	NS	EW	Z	NS	EW	Z	NS	EW	Z
0.1	807	814	819	28 671	28 453	30 731	18 236	14 736	21 968	35 077	37 344	38 203	32 833	48 363	31 518
0.2	997	1 042	1 048	38 800	36 520	39 517	27 686	21 930	29 946	43 881	47 343	48 319	42 194	57 756	42 159
0.3	1 050	1 110	1 116	39 725	39 422	42 917	32 700	25 612	34 742	43 957	47 425	49 193	44 624	59 234	45 490
0.4	1 070	1 137	1 144	41 385	41 070	45 133	35 980	28 384	39 822	42 036	45 353	47 910	44 905	58 317	46 534
0.5	1 081	1 150	1 157	42 342	42 020	46 731	40 657	31 521	46 377	40 038	43 196	46 519	43 876	55 667	46 388
0.6	1 086	1 158	1 165	42 216	41 895	47 144	45 633	35 420	51 124	38 608	41 653	45 708	41 519	51 151	45 168
0.7	1 090	1 163	1 170	40 371	40 064	45 424	51 167	39 266	45 814	38 015	41 014	45 906	37 777	44 902	42 753
0.8	1 092	1 166	1 173	36 551	36 273	41 098	55 788	43 000	33 639	38 418	41 448	47 513	32 966	37 719	39 144
0.9	1 094	1 169	1 176	31 391	31 152	34 990	55 593	41 735	23 498	40 192	43 362	51 119	27 763	30 610	34 651
1.0	1 096	1 171	1 178	25 987	25 789	28 695	47 721	35 587	16 747	43 690	47 136	57 760	22 842	24 510	22 635
1.2	1 098	1 174	1 181	17 124	16 994	18 557	28 945	21 614	9 422	57 976	62 549	83 340	15 103	15 610	21 019
1.5	1 100	1 177	1 184	9 459	9 387	10 134	14 242	10 556	4 775	39 020	42 098	39 574	8 380	8 410	12 185
2.0	1 105	1 184	1 191	4 193	4 162	4 478	5 903	4 360	2 032	9 040	9 752	9 430	3 696	3 733	5 567
2.5	1 110	1 191	1 198	2 199	2 182	2 350	3 053	2 245	1 051	3 711	4 004	3 967	1 926	1 900	2 933
3.0	1 116	1 119	1 206	1 291	1 281	1 381	1 790	1 311	613	1 936	2 088	2 093	1 122	1 100	1 722
3.5	1 122	1 207	1 214	820	814	878	1 138	832	388	1 109	1 196	1 251	710	610	1 094
4.0	1 129	1 217	1 224	553	549	592	769	561	261	670	723	811	477	460	737
5.0	1 144	1 239	1 246	285	283	306	398	290	134	366	394	400	245	240	380
6.0	1 158	1 261	1 268	165	164	178	232	168	78	207	223	227	142	140	220
7.0	1 165	1 276	1 283	104	104	112	147	106	49	129	139	141	89	80	139
8.0	1 157	1 277	1 290	70	70	75	98	71	33	85	92	94	60	50	93
9.0	1 124	1 250	1 258	49	49	53	69	50	23	60	64	66	42	41	66
10.0	1 061	1 190	1 197	36	36	39	51	37	17	39	42	43	31	30	48
15.0	536	621	624	11	11	11.5	15	11	5	13	14	14.1	9	9	16
20.0	245	288	289	4.5	4.5	4.9	6	5	2	5.3	6	8.9	1	1	6



No.	Date		Station	Phase	Time			Period	Amplitude			Δ	O-C	H			λ	φ	h	M	Remarks
	m	d			h	m	s		NS	EW	Z			h	m	s					
1	2	3			6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	01	01	HBV	ePKP	05	51	48.8	0.4	0.01	0.010	0.010	171.92	- 8.1	05	32	47.9	14.75 S	600	5.3		
02	01	01	HBV	eP	11	30	13.0	0.3	0.01	0.01	0.01	79.71	+ 0.3	11	18	06.7	61.52 N	35	5.5		
03	01	02	BGV	1P	13	04	20.5	1.8		0.07	0.07	60.73	+ 0.7	12	54	08.8	9.34 S	33	5.4		
04	01	02	BGV	1P	24	03	23.7	2.2		0.17	0.17	24.50	- 4.2	23	58	10.6	6.90 N	33	5.4		
05	01	03	BGV	1PP	04	11.7		2.8		0.45	0.45	10.89	+ 6.3	11	28	08.1	23.83 N	45	5.4		
06	01	04	BGV	eP	11	30	41.0	0.5		0.01	0.01	24.47	+ 0.9	03	09	04.1	2.84 S	49	5.1		
07	01	04	BGV	1PP	03	14	22.0	1.5	0.03	0.02	0.06	37.09	- 2.8	07	03	14.4	42.81 N	48	4.1		
08	01	05	HBV	eP	04	32	35.0	6.0		0.02	0.02	20.27	- 3.1	04	28	09.4	9.81 N	48	5.5		
09	01	07	FLV	ePPP	07	33	35.0	1.0		0.03	0.03	81.32	+ 4.4	06	23	06.4	15.02 S	3	5.4		
10	01	08	HBV	eS	06	35	33.5	1.0		0.03	0.03	87.51	+ 3.6	11	21	25.7	15.18 S	3	6.0		
11	01	08	TQV	1P	11	34	20.1	2.8	0.27	0.98	0.001	87.97	+ 0.9	11	21	06.4	178.25 W	3	5.8		
12	01	09	TQV	eP	15	13	44.5	1.2	0.29	0.39	0.45	98.84	+ 0.3	15	04	52.2	2.68 S	3	5.8		
13	01	10	TQV	eP	15	15	40.5	1.5	0.004	0.01	0.01	52.82	+ 3.6	21	03	58.4	55.23 N	58	6.7		
14	01	10	TQV	eP	17	17	26.0	1.0	0.06	0.07	0.07	35.57	+ 1.6	01	54	57.3	1.02 S	3	5.6		
15	01	10	TQV	1PP	05	17	51.0	1.0	0.02	0.02	0.02	20.40	+ 2.6	05	12	50.5	9.70 N	33	5.3		
16	01	10	TQV	1PKP	12	51	27.0	1.2	0.02	0.03	0.02	166.95	+ 1.9	12	31	18.4	30.19 S	33	6.3		
17	01	12	TQV	eP	18	54	00.0	0.2		0.01	0.01	25.10	+ 2.5	18	48	55.6	122.63 E	600	4.8		
18	01	12	TQV	eP	03	30	22.0	0.5	0.02	0.02	0.02	8.76	+ 1.0	03	28	17.5	97.06 E	3	4.9		
19	01	13	TQV	ePP	30	30	33.0	0.5		0.01	0.01	50.92	+ 0.5	16	18	33.5	4.04 S	550	4.8		
20	01	13	TQV	ePPP	30	30	38.0	0.5	0.02	0.02	0.02	145.91	- 1.3	12	00	48.1	12.24 N	33	5.1		
21	01	13	TQV	1S	31	31	54.0	1.0	0.01	0.02	0.01	41.82	+ 9.6	15	05	07.7	44.46 N	65	4.6		
22	01	14	TQV	1SS	32	32	05.0	0.8	0.01	0.02	0.01	54.86	- 0.5	16	30	43.2	4.89 S	33	5.1		
23	01	14	PLV	1P	32	26	47.1	2.0	0.02	0.02	0.02	77.41	+ 0.6	18	20	49.9	56.18 N	3	6.2		
24	01	15	PLV	eP	18	35	47.7	1.8	0.09	0.18	0.15	77.50	+ 0.1	19	08	46.4	70.11 E	220	5.4		
			PLV	eP	18	32	54.0	1.0	0.41	0.18	0.77	77.71	+ 3.9	00	16	46.5	124.58 E	33	5.1		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
45	01	21	TQV	eP	14	28	03.8	0.5	0.01	0.01	0.01	41.63	- 2.9	14	20	18.9	2.19 S	140.08 E	33	5.1	
46	01	22	HBV	eP	01	30	20.4	0.5	0.02	0.01	0.01	27.29	+ 2.3	01	24	30.1	6.37 S	102.99 E	3	5.7	
			TQV	ePP	01	30	47.4	1.0	0.02	0.01	0.01	28.28	+ 0.4								
				eP	01	30	27.5	1.0													
				ePP	31	35	22.5														
				eS	35	35	10.5														
47	01	22	HBV	1P	06	50	22.5	2.5	0.17	0.22	0.38	27.18	+ 2.9	06	44	33.6	6.26 S	102.97 E	3	6.1	
				1P	06	50	31.3	2.0	2.14	2.31	2.53	28.17	+ 1.7								
				1PP	51	51	23.8	2.1	0.19	0.16	0.21										
48	01	23	TQV	ePKP	16	57	05.0	0.2			0.003	155.92	+ 4.9	16	36	38.9	37.47 S	96.02 W	3	5.8	
49	01	24	TQV	ePKP	08	36	54.5	1.8			0.03	136.58	- 9.4	08	17	38.9	16.68 N	95.10 W	30	6.6	
				1PP	39	39	46.5	2.5			1.05										
				ePKP	08	37	02.4	0.8	0.01	0.01	0.01	137.47	- 1.5								
50	01	24	HBV	1P	08	47	31.9	2.0	0.01	0.06	0.13	24.39	- 2.7	08	48	02.9	4.25 N	122.64 E	600	5.3	
				ePP	48	48	50.9		0.16												
				1P	08	47	38.5	2.0	0.10	0.13	0.18	24.39	+ 3.9								
				1PP	48	48	58.5														
				ePPP	49	49	06.5														
51	01	24	HBV	eP	13	12	30.9					60.56	- 8.8	13	02	33.3	51.45 N	175.93 E	3	5.9	
				1P	13	12	53.0					61.20	- 0.9								
				1P	13	12	58.9					61.25	+ 6.2								
52	01	24	HBV	1P	16	41	97.3	1.0	0.01	0.02	0.02	34.18	+ 2.9	16	35	00.2	28.98 N	142.37 E	33	5.0	
				ePPP	16	43	19.3														
				1P	23	12	40.8	5.0	2.86	1.92	2.53	14.10	+ 5.7	23	09	17.9	12.93 N	93.73 E	56	6.5	
53	01	24	HBV	1P	23	12	44.8					14.57	+ 8.1								
				1PP	12	12	54.8	1.9	2.41												
				1S	15	15	14.8	9.0	0.97												
				1SS	15	15	35.8	1.3	4.74												
				1SoS	25	25	06.8	4.2	1.07												
54	01	25	TQV	eP	00	50	21.5	0.5		0.01	0.01	18.00	+ 9.6	00	46	06.7	11.82 N	120.87 E	63	4.7	
				ePP	50	50	51.5	0.5													
				eP	06	14	56.1	0.7	0.01			40.55	+ 6.1	06	08	07.8	3.07 S	139.85 E	3	5.3	
55	01	25	TQV	1P	06	15	05.6	1.8				42.04	+ 3.3								
				1PP	17	17	42.9	1.0	0.02	0.02	0.02										
				eP	07	45	17.0					66.70	- 6.9	07	34	48.1	45.91 N	26.68 E	140	4.7	
56	01	25	TQV	eP	15	05	54.6	0.5	0.01			19.26	+ 2.9	15	02	33.3	22.13 N	121.56 E	33	5.2	
57	01	25	BGV	eP	15	06	11.5	0.5	0.004	0.003	0.004	15.16	- 5.0								
				ePP	06	06	19.5	0.5													
				ePPP	06	06	28.5	0.5													
				1P	20	13	04.0	1.3	0.01	0.03	0.04	33.09	- 3.3	20	06	37.0	36.55 N	70.95 E	178	5.2	
58	01	25	TQV	1PPP	14	14	38.0	1.8	0.12	0.10	0.15										
				eS	16	16	47.0														
				eP	20	13	01.5					39.18	+ 1.6								
				ePP	14	14	36.1														
				ePPP	14	14	58.1														
59	01	25	TQV	eP	21	58	38.4	0.5			0.004	27.46	- 4.8	21	52	38.4	5.61 S	104.18 E	43	5.3	
60	01	26	TQV	1PKP	01	27	06.0	1.0			0.02	172.25	- 3.5	01	05	34.5	22.78 S	67.13 W	33	5.7	
61	01	26	HBV	eP	06	45	24.3	0.8	0.01	0.01	0.01	20.92	+ 1.5	06	40	49.4	8.55 N	122.91 E	33	5.2	
				1PP	45	45	50.3	1.2	0.04	0.02	0.04										
				1PPP	45	45	57.3	1.0	0.02	0.01	0.04										
				1P	45	45	37.5	1.2	0.03	0.05	0.04	21.60	- 0.8								
				1PP	46	46	06.5	1.2	0.03	0.05	0.05										
				1PPP	46	46	16.5	1.5	0.05	0.07	0.08	89.12	- 0.8								
62	01	26	TQV	1P	16	14	50.7	1.8	0.17	0.21	0.36										
63	01	26	TQV	eP	20	33	16.5	0.8	0.003	0.01	0.01	57.43	0.0	20	23	28.7	6.76 S	156.05 E	33	5.5	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
64	01	27	TQV	eP	04	12	58.5	0.5			0.004	41.77	+ 5.9	04	05	11.4	44.49 N	148.09 E	64	4.8	
65	01	27	TQV	eP	17	15	02.5	0.8			0.01	34.88	+ 2.5	17	08	16.2	36.25 N	71.25 E	73	4.5	
66	01	27	TQV	ePKP	19	22	50.5	1.5	0.02			172.00	- 1.6	19	01	16.9	24.21 S	66.58 W	33	5.8	
67	01	28	BGV	1P	03	20	05.0	1.5	0.16	0.05		25.76	- 3.2	03	15	06.6	2.33 N	124.13 E	350	5.7	
			TQV	1PP	03	20	17.1	2.0	0.182	0.11	1.09	26.81	- 1.4								
				1PPP	20	20	30.6	2.0	0.19	2.00	0.15										
				1S	22	22	58.1	2.2	0.02	0.13	0.03										
				1SS	24	24	13.1	2.2	0.06	0.05	0.03										
68	01	28	TQV	eP	08	42	53.0	0.5	0.02	0.03	0.01	18.19	- 7.4	08	38	51.0	37.27 N	94.08 E	33	4.9	
69	01	28	TQV	1P	14	33	57.5	1.3	0.02	0.03	0.04	67.72	+ 0.3	14	23	00.8	10.55 S	165.87 E	33	5.7	
70	01	28	TQV	eP	15	10	57.7	0.3	2.002	0.01	0.003	31.62	- 5.3	15	05	33.9	28.48 N	139.49 E	450	5.1	
71	01	29	TQV	eP	00	41	35.0	0.5	0.002	0.01	0.01	33.92	+ 5.8	00	34	58.1	2.26 S	129.64 E	90	4.6	
72	01	29	TQV	eP	02	50	57.0	0.5	1.09	0.01	0.01	34.74	- 0.7	02	44	09.2	36.92 N	141.47 E	35	4.1	
73	01	30	TQV	1P	01	30	23.5	2.0	0.03	1.52	0.18	18.16	+ 8.6	01	26	12.2	6.56 N	95.03 E	137	4.9	
				1PP	30	30	40.0	2.0	0.03	0.03	0.06			22	45	39.8	33.71 N	140.75 E	35	4.9	
				1PPP	30	30	52.0	2.0	0.03	0.02	0.03	33.42	- 3.1								
74	01	30	TQV	1P	22	52	14.4	1.4	0.03	0.03	0.01	15.85	+ 2.3	00	01	49.6	22.57 N	121.53 E	33	4.8	
				ePP	53	53	31.2	1.2	0.03	0.02	0.03										
				ePPP	53	53	47.2	1.2	0.01	0.02	0.01	36.99	+ 3.0	05	32	24.5	7.05 S	128.78 E	35	4.8	
75	01	31	TQV	eP	00	05	24.0	0.6	0.01	0.01	0.01	15.85	+ 2.3	00	01	49.6	22.57 N	121.53 E	33	4.8	
				ePP	05	05	32.0	0.8	0.01	0.01	0.01										
				ePPP	05	05	49.0	0.8	0.01	0.01	0.01	36.99	+ 3.0	05	32	24.5	7.05 S	128.78 E	35	4.8	
76	01	31	TQV	1P	05	39	16.8	0.5	0.004	0.003	0.01	72.96	+ 3.0	15	27	00.1	38.22 N	20.16 E	33	5.1	
				ePP	40	40	52.8	0.5	0.004	0.01	0.01	43.67	+ 5.7	18	56	29.9	27.66 N	57.26 E	3	5.1	
				ePPP	41	41	16.8	0.5	0.1	0.2	0.2	74.87	+ 0.6	21	17	29.2	3.03 S	177.59 E	3	6.1	
77	01	31	TQV	eP	15	38	31.1	0.4	0.05	0.003	0.01	44.96	+ 3.8	15	38	04.6	4.23 S	114.00 E	33	5.1	
78	01	31	TQV	eP	19	04	43.8	0.3	0.01	0.01	0.01	46.04	+ 2.0	21	14	30.0	3.84 S	139.87 E	39	4.9	
79	01	31	TQV	1P	21	29	14.0	2.1	0.05	0.02	0.03	42.54	+ 1.0	21	14	30.0	3.84 S	139.87 E	39	4.9	
				eP	15	46	22.0	0.3	0.05	0.02	0.03	46.70	+ 2.4	14	04	54.5	13.47 N	56.79 E	3	4.4	
01	02	01	BGV	1P	15	46	28.9	1.3	0.01	0.01	0.01	11.46	+ 6.5	20	44	06.3	21.91 N	92.86 E	33	4.9	
02	02	01	TQV	eP	15	46	28.9	1.3	0.01	0.02	0.03	44.96	+ 3.8	15	38	04.6	4.23 S	114.00 E	33	5.1	
03	02	02	TQV	eP	21	22	34.0	0.4	0.01	0.01	0.01	46.04	+ 2.0	21	14	30.0	3.84 S	139.87 E	39	4.9	
04	02	02	TQV	eP	14	13	30.2	0.5	0.05	0.01	0.01	42.54	+ 1.0	14	04	54.5	13.47 N	56.79 E	3	4.4	
				eP	20	46	51.2	0.2	0.02	0.01	0.01	11.46	+ 6.5	20	44	06.3	21.91 N	92.86 E	33	4.9	
				ePP	46	46	59.5	0.2	0.02	0.01	0.01										
				ePPP	47	47	11.0	0.4	0.05	0.02	0.03	16.42	- 2.1	11	50	27.2	13.72 N	120.87 E	33	5.4	
05	02	03	HBV	eS	11	48	43.0	0.5	0.05	0.02	0.01	16.42	- 2.1	11	50	27.2	13.72 N	120.87 E	33	5.4	
				eP	11	54	14.4	0.4	0.05	0.01	0.01	44.96	+ 3.8	15	38	04.6	4.23 S	114.00 E	33	5.1	
				ePP	54	54	24.4	0.5	0.01	0.01	0.01	46.04	+ 2.0	21	14	30.0	3.84 S	139.87 E	39	4.9	
				ePPP	54	54	36.4	0.5	0.05	0.01	0.01	42.54	+ 1.0	21	14	30.0	3.84 S	139.87 E	39	4.9	
06	02	04	TQV	eP	11	54	29.4	0.5	0.02	0.01	0.01	16.96	- 0.1	06	31	04.5	1.46 N	127.19 E	46	5.7	
				ePP	11	54	29.4	0.5	0.02	0.01	0.01	28.47	+ 1.5	06	31	04.5	1.46 N	127.19 E	46	5.7	
				ePPP	11	54	36.4	0.5	0.03	0.06	0.06	28.75	+ 2.4								
				eP	06	37	50.7	1.2	0.02	0.06	0.06	28.75	+ 2.4								
				1P	06	37	50.8	1.2	0.03	0.06	0.06	28.75	+ 2.4								
				1PP	06	37	46.6	2.0	0.13	0.06	0.06	28.75	+ 2.4								
				1PPP	06	37	56.9	2.0	0.091	1.20	1.08	29.54	+ 1.6								
				ePcP	40	40	10.5	4.0	0.91	1.20	1.08	29.54	+ 1.6								
				1P	06	37	09.7	4.0	0.91	1.20	1.08	29.54	+ 1.6								
				1PP	06	38	04.7	0.5	0.001	0.008	0.009	16.96	- 0.1	15	21	57.7	4.12 S	152.65 E	33	5.2	
				1PPP	06	38	11.7	0.5	0.01	0.01	0.01	34.97	+ 4.8	19	06	05.1	8.92 S	124.13 E	27	5.4	
07	02	04	TQV	eP	15	54	29.4	0.4	0.01	0.01	0.01	16.96	- 0.1	15	21	57.7	4.12 S	152.65 E	33	5.2	
08	02	04	HBV	eP	19	13	05.7	0.2	0.01	0.01	0.01	34.97	+ 4.8	19	06	05.1	8.92 S	124.13 E	27	5.4	
				ePP	14	14	05.5	0.8	0.01	0.01	0.01	35.92	- 1.5								
				ePPP	14	14	23.5	0.8	0.01	0.01	0.01	35.92	- 1.5								
				eP	19	13	08.0	0.8	0.003	0.01	0.01	35.92	- 1.5								

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
09	02	05	HBV	ePP	14	21.0	1.0	0.01	0.01	0.01	0.02	75.20	- 1.4	17	07	52.4	3.41 B	178.10 E	33	5.2	
10	02	06	TQV	eP	17	31.9	1.0	0.01	0.01	0.01	0.03	75.49	- 1.1	01	52	23.4	36.31 N	69.06 E	3	5.0	
11	02	06	TQV	ePP	00	26.0	1.0	0.01	0.02	0.02	0.03	34.49	- 0.1	07	12	02.9	8.66 S	120.76 E	33	4.7	
12	02	07	TQV	ePPP	00	38.0	0.8	0.01	0.01	0.02	0.01	43.37	+ 2.8	15	06	21.1	26.63 N	57.68 E	3	5.7	
13	02	07	TQV	ePP	16	43.5	0.8	0.01	0.01	0.02	0.02	48.31	- 1.5	16	53	30.8	49.22 N	155.97 E	58	4.2	
14	02	07	HBV	eP	02	09.3	1.8	0.03	0.03	0.03	0.24	48.97	+ 1.4	18	23	16.9	29.49 S	178.24 W	50	5.8	
15	02	07	TQV	ePP	17	14.5	3.0	0.01	0.01	0.01	0.01	89.07	+ 1.3	18	23	16.9	29.49 S	178.24 W	50	5.8	
16	02	08	TQV	ePP	18	11.2	4.8	0.02	0.02	0.01	0.01	89.72	+ 0.4	05	09	25.8	51.64 N	159.78 E	33	5.1	
17	02	08	TQV	ePP	18	20.7	4.0	0.02	0.02	0.01	0.01	51.17	- 1.8	06	20	56.4	52.08 N	159.34 E	3	4.3	
18	02	08	TQV	ePP	39	40.2	4.0	0.01	0.01	0.01	0.02	70.31	- 4.7	06	47	14.2	31.14 S	56.97 E	3	5.7	
19	02	08	TQV	ePP	36	13.3	2.0	0.12	0.12	0.15	0.24	50.90	+ 1.4	06	58	39.0	51.58 N	151.19 E	3	5.9	
20	02	08	TQV	ePP	09	32.2	1.0	0.01	0.01	0.003	0.02	48.25	- 0.8	10	20	01.2	4.17 S	146.76 E	33	4.8	
21	02	08	HBV	ePP	23	04.7	3.0	0.01	0.01	0.001	0.01	24.01	+ 0.6	16	17	54.1	1.55 S	96.43 E	72	5.3	
22	02	08	TQV	ePP	23	13.7	1.5	0.06	0.06	0.04	0.04	24.17	+ 4.4	06	20	56.4	52.08 N	159.34 E	3	4.3	
23	02	08	HBV	ePP	23	12.3	1.8	0.08	0.08	0.08	0.08	24.90	+ 3.5	06	47	14.2	31.14 S	56.97 E	3	5.7	
24	02	09	HBV	ePP	23	50.3	1.2	0.03	0.03	0.02	0.02	24.90	+ 3.5	06	58	39.0	51.58 N	151.19 E	3	5.9	
	02	09	TQV	ePP	23	56.8	1.8	0.03	0.03	0.02	0.02	24.90	+ 3.5	06	58	39.0	51.58 N	151.19 E	3	5.9	
	02	09	TQV	ePP	23	12.6	2.0	1.09	1.09	1.20	1.30	24.90	+ 3.5	06	58	39.0	51.58 N	151.19 E	3	5.9	
	02	09	TQV	ePP	23	48.6	1.5	0.06	0.06	0.16	0.15	24.90	+ 3.5	06	58	39.0	51.58 N	151.19 E	3	5.9	
	02	09	TQV	ePP	23	58.6	1.5	0.06	0.06	0.06	0.06	24.90	+ 3.5	06	58	39.0	51.58 N	151.19 E	3	5.9	
	02	09	TQV	eS	27	14.1	0.3	0.01	0.01	0.01	0.01	84.11	+ 2.3	21	30	59.4	19.15 S	179.63 W	550	4.7	
	02	09	TQV	eP	42	31.4	0.4	0.01	0.01	0.01	0.01	14.36	- 0.7	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	09	18.7	0.6	0.01	0.01	0.004	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	09	26.2	0.6	0.01	0.01	0.004	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	14	30.2	0.5	0.01	0.01	0.01	0.03	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	09	03.1	1.0	0.03	0.03	0.02	0.03	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	09	20.6	0.8	0.03	0.03	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	09	32.1	0.8	0.03	0.03	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	14	21.1	0.8	0.15	0.15	0.03	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	46	51.5	1.0	0.01	0.01	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	47	03.7	1.0	0.01	0.01	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	ePP	47	17.0	1.0	0.01	0.01	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	eS	49	28.5	1.0	0.01	0.01	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	eS	49	54.5	0.8	0.01	0.01	0.01	0.02	14.46	- 4.4	03	05	45.1	21.12 N	120.73 E	3	4.7	
	02	09	HBV	eS	50	02.5	1.5	0.06	0.06	0.09	0.11	14.58	- 4.8	05	43	31.9	19.72 N	120.64 E	3	5.4	
	02	09	HBV	eS	46	59.3	1.2	0.24	0.24	0.21	0.29	14.58	- 4.8	05	43	31.9	19.72 N	120.64 E	3	5.4	
	02	09	HBV	eS	47	07.3	1.2	0.06	0.06	0.06	0.03	14.58	- 4.8	05	43	31.9	19.72 N	120.64 E	3	5.4	
	02	09	HBV	eS	47	15.6	1.2	0.06	0.06	0.06	0.03	14.58	- 4.8	05	43	31.9	19.72 N	120.64 E	3	5.4	
	02	09	HBV	eS	49	32.3	1.2	0.06	0.06	0.06	0.03	14.58	- 4.8	05	43	31.9	19.72 N	120.64 E	3	5.4	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
25	02	09	HBV TQV	eP 1P	07 07	12 12 14	21.5 22.1 22.1	0.8 1.8	0.01 0.14	0.01 0.13	0.18	57.03 57.56	+ 3.2 + 0.1	07	02	28.3	7.10 S	158.00 E	3	5.4	
26	02	09	TQV	ePP eP ePPP	13 13 14	34 35 35	42.6 04.1 15.6	0.5 0.5 0.2	0.01 0.01 0.05	0.01	0.01 0.04	14.53 34.20 47.08	- 3.5 + 3.0 + 1.4	13 14 01	31 23 33	23.6 38.6 04.4	18.52 N 35.96 N 49.98 N	120.34 E 69.32 E 153.97 E	3 3 200	5.0 4.5 4.9	
27	02	09	TQV	eP	14	30	30.8	1.5	0.05		0.02	47.29	+ 2.2	04	34	19.7	5.52 S	133.89 E	33	5.5	
28	02	11	BGV HBV	1P 1P	01 04	41 41	16.8 19.2	1.8 1.1	0.02 0.09	0.12	0.18	38.14 39.20	+ 0.1 - 3.9	04	34	19.7	5.52 S	133.89 E	33	5.5	
29	02	11	BGV TQV	1P ePP	04 04	41 41	37.0 42.3	1.8 1.8	0.09	0.12	0.18	39.20	- 3.9	04	34	19.7	5.52 S	133.89 E	33	5.5	
30	02	12	HBV	eP	08	43	26.3	1.2	0.07	0.03	0.01	25.30	- 0.5	08	47	12.5	5.74 N	126.30 E	57	6.0	
31	02	12	HBV BGV	eP eP	11 11	56 56	44.5 50.6	2.0 1.8	0.08 0.30	0.17 0.12	0.15 0.34	27.66 28.22	- 1.4 - 0.3	11	50	54.5	6.74 S	102.88 E	3	5.2	
32	02	13	TQV	1P 1P 1PPP	01	57 46 47	30.6 32.8 30.8	1.5 2.0 2.0	0.03 0.30 0.17	0.33 0.13 0.16	0.64 0.24 0.18	31.26	- 0.9	01	40	10.2	40.03 N	75.22 E	5	6.5	
33	02	13	TQV	1P 1S	01	51 59	29.3 12.3	2.0 1.2	0.021 0.02	0.04 0.03	0.02 0.03	31.22	- 1.9	01	52	51.0	39.91 N	75.20 E	3	5.5	
34	02	13	BGV	ePP 1P 1PP	02 06 06	00 42 44	16.8 38.1 16.1	1.2	0.03	0.04	0.03	38.01	+ 2.0	06	35	25.2	13.71 N	145.39 E	90	5.6	
35	02	13	HBV TQV BGV HBV TQV	ePP eP 1PP 1PPP eS 1P 1PP 1PPP	06 06 06 14 14 14	44 42 44 45 28 29 28 28 28 29 29	38.1 42.5 24.5 36.5 23.5 45.9 57.9 21.9 25.7 08.1 28.5 58.5 21.5	2.2 2.0 2.5 2.2 1.5 1.5 0.5 0.5 1.0 0.8	0.05 0.2 0.51 0.09 0.08 0.06 0.01 0.01 0.01 0.01	0.17 0.17 0.33 0.08 0.09 0.07 0.01 0.01 0.01 0.01	0.20 0.15 0.25 0.15 0.06 0.06 0.004 0.004 0.02 0.01	38.79 39.01	+ 0.7 + 2.3	06 06 14	23 23	01.3	5.53 N	126.62 E	49	4.8	
36	02	13	BGV HBV TQV	ePP 1P 1PPP	14 14 14	28 29 29	25.7 08.1 28.5	0.5 0.5 1.0	0.01 0.01 0.01	0.01 0.01 0.01	0.004 0.004 0.02	25.29 25.68	- 0.4 - 1.3	14	23	01.3	5.53 N	126.62 E	49	4.8	
37	02	14	BGV HBV TQV	1P ePP eP ePP	15 15 15 15	14 15 15 15	54.1 20.3 00.0 23.5	0.8 2.0 0.5 0.8	0.01 0.06 0.01 0.01	0.01 0.12 0.01 0.02	0.01 0.12 0.01 0.02	21.36 21.48 22.45	+ 2.7 + 8.2 + 4.5	15 00	10 23	08.4 20.9	11.64 N 10.70 N	126.14 E 141.13 E	33 52	4.9 5.7	
38	02	14	TQV BGV	1P 1P	00 00	30 31	11.4 42.4	0.5 2.8	0.01 0.42	0.46 0.12	0.004 0.55	35.09 36.13	- 1.5 - 1.2	00 03	20 07	06.5 59.1	55.46 N 21.46 S	159.65 W 170.95 E	33 33	5.3 5.5	
39	02	14	HBV BGV HBV	ePP 1P eP	03 03 06	34 31 19	35.5 49.5 41.5	3.2 0.8 0.8	0.17 0.01 0.01	0.32 0.01 0.02	0.78 0.01 0.01	75.73 76.27 76.74	- 0.9 - 4.1 - 4.4	06 06 06	10 10	07.0	55.50 N	159.96 W	33 33	5.9	
40	02	14	BGV	1P	08	21	45.5	0.8	0.01	0.02	0.01	74.74	+ 0.3	08	10	07.0	55.50 N	159.96 W	33	5.9	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
			TQV	1P 1PP 1PPP	10 10 10	55 56 57	23.2 12.5 18.7	2.0 1.0	0.17	0.26	0.24 0.174	26.02	+ 1.2									
54	02	20	BGV	eP	12	54	00.2	1.0		0.01	0.01	73.66 34.36 27.09 28.02	- 0.5 + 1.0 + 2.1 + 1.3	12 18 09	42 43 43	23.6 32.5 05.1	37.65 N 29.96 N 6.12 S	20.85 E 67.91 E 103.15 E	3 33 3	5.3 4.7 5.5		
55	02	22	TQV	1P 1P	18 09	50 48	09.2 52.7	0.8 0.3	0.01 0.01	0.01	0.01											
56	02	23	HBV	eP	09	48	01.0	0.8		0.11	0.01	39.72 27.26	+ 1.6 + 3.8	14 21	13 26	31.8 42.8	40.45 N 2.42 N	63.57 E 126.34 E	3 39	4.6 5.6		
57	02	23	TQV	ePP	14	21	09.1	0.8	0.05 0.19	0.11 0.14	0.02 0.02											
58	02	23	BGV	eP 1P 1PP ePPP	21 21	32 33 33	29.7 15.5 31.0	1.0 0.8	0.03 0.01	0.02 0.02	0.02 0.01											
01	03	01	HBV	eP ePP ePPP	13	25 25	17.2 26.2	0.3 0.3	0.01	0.01	0.01	11.16	+ 7.6	13	22	29.3	28.28 N	96.22 E	33	4.9		
02	03	03	HBV	eP ePP ePPP eS eSS eSSS	02	27 27 27	09.2 25.7 36.7	0.5 0.5 0.5	0.02 0.01 0.02	0.01 0.01 0.02	0.01 0.02 0.01	84.52 85.02 26.85	+ 5.0 + 3.6 + 0.4	01 02	50 30	19.3 35.8	18.71 S 5.61 S	178.35 W 100.51 E	33 49	5.6 5.1		
03	03	03	TQV	ePcP 1P ePcP	02	02 03	59.1 05.3	0.6 0.6	0.06 0.03 0.04	0.02 0.04 0.03	0.06 0.03 0.04											
04	03	03	TQV	ePcP 1P 1PP 1PPP 1P 1PP 1PPP ePcP eS	02	36 36 37 39 40	15.6 53.1 03.8 36.8 29.2	1.0 1.0 1.0	0.02 0.03 0.04	0.01 0.01 0.01 0.01	0.01 0.01 0.01 0.01	27.82	+ 5.9	02	30	35.8						
05	03	03	TQV	1P 1PP 1PPP 1P 1PP 1PPP ePcP eS	02	36 37 37 38 38 41 42	23.9 08.9 18.9 53.5 29.0 41.0 14.0	1.0 0.8 0.8 0.5 0.5 0.5 0.6	0.02 0.01 0.01 0.03 0.03 0.02 0.01	0.01 0.01 0.01 0.01 0.01 0.01	0.01 0.01 0.01 0.01 0.01	26.89	- 0.5	03	32	14.2	44.01 N	86.62 E	33	5.0		
06	03	03	TQV	1P 1PP 1PPP ePcP eS	03	38 38 38 41 42	29.0 41.0 14.0 20.0	0.5 0.5 0.5 0.6	0.02 0.01 0.01	0.01 0.01 0.01	0.01 0.01	27.92	- 0.6									
07	03	03	HBV	1P eP ePP ePcP eS	03	38 38 38 41 42	02.7 41.1 53.6 18.3 23.9	0.5 0.5 0.5 0.5	0.06 0.04 0.04	0.04 0.04 0.02 0.01	0.04 0.03 0.01											
08	03	03	TQV	1P 1PP 1PPP ePcP eP	17	50	07.5	0.8	0.01 0.01	0.01	37.14 36.89	- 4.4 - 4.1	17 14	43 11	02.6 38.7	39.85 N 40.00 N	143.30 E 143.16 E	40 45	3.9 6.0			
09	03	04	TQV	1P 1PP 1PPP ePcP eP	14	19	59.3	0.4	0.01 0.01	0.01	32.34	- 1.7	08	57	07.4	10.05 S	115.03 E	33	5.5			
10	03	05	HBV	eP ePP ePPP	09	03	34.0	1.0	0.004	0.01												
11	03	05	TQV	eP ePP ePPP	09	03	37.2	0.5			33.30	+ 2.1										
12	03	05	TQV	eP ePP ePPP	14	05	07.5	0.5	0.01 0.01	0.01	50.32	+ 1.0	14	22	34.2	32.30 N	49.30 E	33	5.5			

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
			HBV	1PPP eP ePcP ePP 1P ePcP 1P 1PP ePPP	14	34 31 32 33 31 32 27 27 28	24.7 35.0 48.9 29.2 41.5 52.0 26.1 56.6 07.6	0.8 1.0 1.0 0.8 0.8 0.5 0.5 0.5 0.5 0.5 0.3 0.8 0.8 1.0 0.5 0.5 0.5	0.01 0.01 0.014	0.01 0.01 0.01	50.87 51.40 26.65 22.75 23.34 38.62 74.84 146.02 28.75 47.88 48.50 85.56 41.19 71.08 24.88 25.55 49.81 50.41	+ 1.1 + 3.6 + 6.5 + 5.4 + 3.5 - 3.4 + 0.6 + 1.0	11 11 11 11 11 15 13 17 00 17 17 18 00 37 37 37 41 57 57 03 04 04 07 07 03 04 04 07 08 19 20 21 22 26	11 11 11 11 11 15 13 17 00 17 17 18 00 37 37 37 41 57 57 03 04 04 07 07 03 04 04 07 08 19 20 21 22 26	12 12 12 12 12 15 13 17 00 17 17 18 00 37 37 37 41 57 57 03 04 04 07 07 03 04 04 07 08 19 20 21 22 26	13 13 13 13 13 15 13 17 00 17 17 18 00 37 37 37 41 57 57 03 04 04 07 07 03 04 04 07 08 19 20 21 22 26	14 14 14 14 14 15 13 17 00 17 17 18 00 37 37 37 41 57 57 03 04 04 07 07 03 04 04 07 08 19 20 21 22 26	15 15	16 16	17 17	18 18	19 19	20 20	21 21	22 22

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
21	03	11	TQV	1P 1PP 1PPP	23 23	08 08 08	08.6 39.1 50.6	0.5 0.8 0.6	0.01 0.01 0.01			25.99	+ 1.7	23	02	35.4	5.75 N	126.32 E	34	5.0	
22	03	12	HBV	eP ePP ePPP ePcP	01	01 01 03	17.1 17.1 42.0	0.4 0.5 0.5	0.06 0.02 0.02	0.04 0.01 0.02		32.80	+ 5.3	00	53	45.7	3.58 S	127.71 E	60	5.5	
23	03	12	HBV	eP ePP ePPP ePcP eS	01	43 43 44 45 48	18.3 16.5 33.5 58.8 12.5	0.5 1.0 1.0 0.8 2.0	0.08 0.04 0.04 0.04 0.15	0.06 0.03 0.03 0.03 0.31		32.68	+ 0.2	01	36	42.3	3.53 S	127.58 E	44	6.2	
24	03	12	HBV	eP ePcP	09	01	13.8	0.5	0.01	0.01		72.54	+ 2.4	08	49	46.0	17.98 S	167.90 E	33	5.6	
25	03	12	BGV	eP ePP ePPP	14	27 28 28	57.2 00.7 09.2	0.2 0.2 0.2	0.01 0.01 0.01	0.02 0.02		10.77	- 7.8	14	25	30.1	31.95 N	104.45 E	33	4.0	
26	03	13	HBV	eP ePP ePPP eS eSS eSSS	14	28 28 30 30 30 34	00.2 18.2 28.2 12.2 30.2 42.2 10.2	0.3 0.2 0.2 0.5 0.5 0.5 0.5	0.02 0.02 0.04 0.04 0.04 0.04	0.02 0.02 0.04 0.04 0.04 0.02		11.11	- 9.4	02	54	11.0	5.15 S	147.44 E	33	4.8	
27	03	13	BGV	eP ePP ePPP eS eSS eSSS ePcP 1P 1P ePcP ePP	20	04 04 04 27 27 28 28	59.6 28.8 59.3 07.4 32.5 54.5 11.6	0.5 0.5 0.5 0.8 0.8 0.5 0.5	0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.01 0.01 0.003 0.01		36.31	- 2.8	20	20	07.8	42.04 N	141.83 E			
28	03	14	HBV	eP ePP ePPP	20	27 28	14.2 43.4	0.5 1.0	0.01 0.01	0.01 0.01		36.65	- 1.5	11	55	14.5	39.16 N	54.74 E	3	5.0	
29	03	14	TQV	eP ePP ePPP ePcP ePP	19	05 05	26.9 26.9	0.5 0.5	0.01 0.01	0.01 0.01		33.55	+ 0.2	19	02	09.8	3.67 S	127.50 E	33	5.7	
30	03	14	TQV	eP ePP ePPP	21	26 26	02.6 28.9	0.5 0.5	0.01 0.01	0.01 0.01		69.68	+ 1.7	21	14	52.5	51.87 N	170.28 W	33	5.1	
31	03	15	TQV	eP 1P ePP ePcP	12	31 33 33	47.1 16.9 38.4	0.5 0.5 0.5	0.01 0.01 0.01	0.11 0.01 0.01		42.96	+ 1.1	12	23	43.7	16.78 N	59.84 E	3	4.8	
32	03	15	HBV	1P	12	42	46.8	0.5	0.02	0.01		22.17	+ 0.2	12	37	57.8	7.55 N	123.72 E	70	5.8	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
46	03	20	BGV	ePP ePPP eP eP ePPP iP iP ePP ePPP ePpP	11 11 11	01 01 30 31 31 30 30 31 31 33	10.1 23.7 30.6 36.1 47.4 32.5 39.6 44.1 54.6 58.6	0.8 0.5 0.5 0.8 0.5 0.5 0.5 0.5	0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	28.56 28.94 29.64	- 9.0 - 6.2 - 7.5	11	24	48.8	2.71 N	128.52 E	42	5.8		
47	03	20	BGV	ePpP ePpP ePpP iP iP ePP ePPP ePpP	13 13	55 56 56 58 55 56 57 58 58	50.2 08.3 58.2 04.7 04.0 11.0 04.0 01.0 05.7 16.9 12.4 14.9	1.0 0.8 0.8 0.8 0.5 0.8 0.5 0.8 0.5 0.8 0.8	0.04 0.02 0.01 0.01 0.06 0.03 0.02 0.03 0.04 0.01 0.01 0.01	52.02 52.58	+ 9.7 + 9.3	13 45	48.8	4.38 S	152.42 E	76	5.9				
48	03	20	TQV	eS eP ePcP eP ePcP ePP iP ePcP	14 16	02 35 35	16.9 46.8 51.3	0.8 0.5 0.8	0.01 0.02 0.01	0.01 0.01 0.01	86.86 54.41	- 1.3 + 3.6	16 04	23 06	05.7 25.0	20.05 S	176.86 W	33	5.3 5.7		
49	03	21	TQV	ePcP eP ePcP ePP iP ePcP	04	15	47.9	0.8	0.01	0.01 0.01	54.41	+ 3.6	04	06	25.0	4.69 S	153.77 E	70	5.7		
50	03	21	BGV	ePP iP ePcP eP ePcP ePP iP iPPP	07	57 57 57 57 58	02.9 09.4 04.5 18.8 07.0 10.0	1.0 0.8 1.2 3.5 0.8 1.0	0.01 0.01 0.01 0.01	0.01 0.01 0.01 0.01	87.14 86.71 88.40	+ 4.5 + 8.2 + 2.6	07 44	44	14.6	21.25 S	175.63 W	33	6.5		
51	03	21	BGV	eP eP ePP ePPP ePcP iP iPP ePPP ePcP	08 08 05 05 06 08 08 06 06	00 04 05 05 06 04 05 06 06	31.5 10.9 38.7 55.7 51.9 13.5 48.5 10.6 53.5	0.8 0.8 1.0 1.0 0.5 1.0 0.8 0.8	0.03 0.02 0.02 0.02 0.06 0.01 0.01	35.89 36.89	+ 7.0 + 5.2	07 57	57	23.5	6.86 S	128.91 E	172	5.6			
52	03	21	TQV	ePcP iP ePcP eP ePcP ePcP	19	29	17.2	0.8	0.01	0.01 0.01	72.98	+ 0.2	19	17	48.9	4.11 S	35.35 E	33	5.1		
53	03	23	TQV	ePcP eP ePcP ePcP ePcP	08	29 36	31.2 34.2	1.0 1.0	0.01 0.01	0.01 0.01	54.61	+ 2.4	08	27	04.3	4.83 S	154.03 E	33	5.3		
54	03	23	TQV	ePcP iP eP ePcP	14	14	25.9	0.8	0.003	0.01	13.82	+ 2.9	14	04	48.1	5.97 S	154.74 E	33	5.2		
55	03	24	TQV	eP ePcP ePcP	04	28	57.1	0.5	0.01	0.01	72.89	+ 2.9	04	17	32.5	38.27 N	20.24 E	33	5.1		
56	03	24	TQV	ePcP iP ePcP ePcP	10	29	14.8	0.5	0.02	0.01	73.19	+ 4.0	10	47	10.8	38.12 N	19.89 E	33	4.5		
57	03	25	TQV	iP ePP ePPP ePcP	07	50 52	58.7 37.2	0.8 0.8	0.01 0.01	0.01 0.01	37.23	+ 4.0	07	44	03.1	6.44 S	129.93 E	170	5.4		
58	03	25	TQV	ePP ePPP iP	12	52	57.2	0.8	0.01	0.01	46.03	+ 2.8	11	57	50.3	36.25 N	52.27 E	33	5.3		
59	03	26	TQV	eP eP	04	15	56.3	1.0	0.01	0.004	47.93	+ 2.8	04	07	22.2	36.41 N	52.22 E	33	5.0		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
60	03	28	BGV	eP	19	22	28.8	0.3	0.002	0.01		19.92	+ 1.3	19	18	01.3	26.88 N	127.19 E	63	4.5	
			TQV	ePP			42.8	0.5	0.01	0.01											
				ePPP	19	22	51.8	0.5	0.01	0.01		20.74	+ 0.6								
				1P			36.5	0.4	0.02	0.03											
				1PP			56.7	0.5	0.01	0.01											
				1PPP			02.7	0.5	0.01	0.01											
61	03	30	BGV	eP	00	54	54.5	1.0	0.01	0.02		30.03		00	49	12.9	2.00 N	122.47 E	45	4.9	
			TQV	1P	00	54	43.9	1.0	0.01	0.01		25.97	+ 0.3								
				ePP			15.4	1.0	0.01	0.01											
				ePPP			24.4														
				ePcP			08.4														
62	03	30	TQV	1P	06	52	42.9	0.5		0.01		31.33	+ 1.0	06	46	19.7	40.10 N	75.19 E	5	5.1	
				ePP			44.4	0.5		0.01											
				ePPP			55.9	0.5		0.01											
63	03	30	TQV	eP	16	19	55.0	0.8		0.01		31.05	+ 1.9	16	13	31.4	39.93 N	75.46 E	3	4.9	
				ePP			56.5	0.8		0.01											
				ePPP			07.0	0.8		0.01											
64	03	30	TQV	eP	18	18	37.2	1.0	0.004	0.004		81.69	+ 1.5	18	06	19.2	61.62 N	140.34 W	33	5.0	
				ePcP			42.8	0.8	0.01	0.01											
01	04	01	TQV	eP	17	14	46.4	1.0		0.004		45.48	+ 3.9	17	06	24.7	4.48 N	61.78 E	39	4.8	
02	04	02	HBV	ePKP4	06	19	51.7	1.0	0.01	0.004		169.24		05	58	39.0	27.33 S	64.62 W	33	5.6	
				ePKP2			00.3	0.8	0.01												
03	04	02	TQV	ePKP	06	19	53.4	1.0		0.01		168.76	+ 5.7	06	49	12.6	13.12 S	179.52 E	33	5.1	
			HBV	eP	07	01	49.4	0.4	0.01	0.01		84.55	+ 5.3								
				ePcP			51.5	0.5	0.01	0.02											
				eP	07	01	51.8	0.8		0.01											
				ePcP			56.5	0.8		0.01											
04	04	03	TQV	1PKP4	03	09	44.3	1.0		0.02		148.39		02	50	01.4	8.71 N	83.10 W	33	7.2	
				1PKP2			51.1	1.0	0.08	0.08											
				1PKP			21.6	1.0	0.01	0.01		144.89		03	13	55.9	12.41 N	82.71 W	33	5.5	
05	04	03	TQV	eP	06	09	13.1	1.0	0.01	0.01		142.37									
06	04	03	TQV	eP	10	38	14.4	0.5	0.01	0.01		23.70	+ 2.5	10	33	08.2	9.49 N	126.28 E	67	4.9	
07	04	03	TQV	ePKP	15	06	29.6					148.20		14	46	46.8	8.57 N	84.31 W	33	5.3	
08	04	03	TQV	1P	19	24	24.5	0.8	0.01	0.01		63.57	+ 5.2	19	13	56.7	51.92 N	179.77 E	57	4.3	
				1PcP			11.7	0.8	0.01	0.01											
				1PP			41.0														
				ePPP			16.5														
09	04	04	HBV	eP	02	55	44.9	0.5	0.02	0.02		18.15	+ 5.6	02	51	36.6	5.82 N	94.80 E	102	6.8	
				eS	02	58	59.5	1.0	0.14	0.15											
				ePcP	03	00	24.5	0.8	0.01	0.01											
10	04	04	HBV	eP	07	03	11.2	0.3	0.01	0.01		18.22	+ 5.3	06	59	00.2	5.69 N	94.88 E	3	5.9	
				ePP			22.5	0.3	0.01	0.02											
				ePPE			32.5	0.3	0.02	0.02											
				eS			13.0	0.5	0.02	0.02											
				1P	07	03	18.8	0.8	0.01	0.01		18.98	+ 4.4								
				1PP			27.0	1.0	0.01	0.01											
				ePPP			39.0	1.0	0.01	0.01											
				eS			22.0														
11	04	04	TQV	eP	15	32	09.9	0.3	0.004	0.004		27.47	- 2.0	15	26	26.8	1.17 N	123.80 E	33	5.2	
				ePP			58.9	0.8	0.01	0.01											
				ePPP			09.9	0.8	0.01	0.01											
12	04	04	TQV	eP	17	01	30.5	0.5	0.01	0.01		26.19		16	55	58.5	1.85 N	122.61 E	39	4.4	
				ePP			14.6	0.5	0.01	0.01											
				ePPP			29.1	0.5	0.01	0.01											
13	04	04	BGV	1P	19	13	25.5	1.1	0.01	0.02		51.29	+ 5.7	19	04	23.2	53.02 N	159.49 E	58	5.7	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
62	04	26	TQV	1P 1PP 1PPP eP ePcP	19	08	12.9 22.9 30.4 02.8 26.8	0.5 1.0 1.0 0.5 0.5	0.01 0.01 0.01	0.01 0.01 0.01	0.01 0.02 0.01 0.01 0.01	18.99 42.33 15.62	+ 0.7 - 0.4 + 5.1	11 15	15 26	39.1 41.2	15.58 S 15.04 N	168.39 E 122.74 E	33 120	5.8 5.7	
63	04	26	BGV	1P 1PP 1S 1SS 1SSS 1PcP 1PcS eScS	15	30	19.0 29.5 52.0 26.5 36.5 20.5 55.0 47.3	1.1 1.0 1.0 1.3 1.3 1.6 1.6 2.3	0.04 0.05 0.03 0.06 0.06 0.25 0.12 0.20	0.01 0.14 0.04 0.06 0.05 0.66 0.14 0.20	0.06 0.02 0.09 0.06 0.27 0.04	16.55 + 2.5		15		44.6	24.75 N	121.91 E	120	5.0	
64	04	26	BGV	eP ePP ePPP eS ePcP	15	30	27.7 44.0 50.1 15.5 29.1	0.8 0.8 1.0 1.0 1.0	0.06 0.02 0.09 0.06 0.27	0.06 0.02 0.09 0.06 0.27	16.39 + 0.7		18	15	44.6	24.75 N	121.91 E	120	5.0		
65	04	27	BGV	1P 1PP 1PPP eS ePcP	18	19	05.6 19.1 23.6 14.6 28.6	0.7 0.7 0.9 1.0 1.3	0.02 0.02 0.02 0.02 0.06	0.04 0.02 0.02 0.01 0.16 0.21 0.02	14.83 - 1.3		08	05	27.0	24.63 N	125.99 E	33	5.4		
66	04	27	BGV	1P ePP ePPP eS ePcP	17	18	15.2 15.2 30.3 59.9 12.7 54.5	0.5 0.5 0.3 0.5 0.5 0.5	0.02 0.02 0.02 0.03 0.05 0.13 0.02	0.02 0.02 0.02 0.03 0.05 0.13 0.02	19.40 + 0.7 8.23 + 4.2	08 17	16	12.7	15.03 N	99.20 E	62	5.0			
67	04	30	BGV	eP ePP ePPP eS 1S3 1SSS 1PcP	03	04	09.5 16.7 21.7 44.7 54.7 04.2 40.2 42.7	0.8 0.8 0.8 0.8 0.8 1.0 1.0	0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.01 0.01 0.02 0.01 0.01 0.02 0.03 0.003	8.87 + 4.3	02 51	47.2	21.10 S	175.22 W	33	5.4				
68	04	30	TQV	eP ePcP 1P 1PP 1PPP 1S	03	04	33.8 43.8 09.5 30.0 51.5 54.5	1.0 1.0 1.0 1.0 1.0 2.0	0.01 0.02 0.02 0.03 0.05	0.01 0.01 0.02 0.03 0.05	88.69 - 4.6 37.99 - 1.9	14 03	54.9	42.54 N	143.52 E	37	6.7				

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
69	04	30	TQV	IP ePP ePPP ePcP eP ePPP IS ISS ISSS	14 14 14 17	11 12 13 30 30 31 31 32	11.1 44.6 11.1 34.5 28.9 38.9 51.4 56.9 05.9	1.0 1.0 1.0 1.0	0.04 0.04 0.03	0.06 0.08 0.05 0.07	0.09 0.09 0.02 0.06	38.58	- 5.2	17	28	38.0	24.87 N	97.29 E	3	4.5	
70	04	30	TQV HBV	IP ePP ePPP	19 19	13 13 14	08.8 15.2 59.0	0.8 0.5	0.01 0.01	0.004 0.01 0.01 0.004 0.02 0.02 0.01	48.20 48.87	+ 4.5 + 5.7	19	04	31.8	49.62 N	155.62 E	61	4.5		
01	05	01	BGV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	18	19 20 21 26 19 20 21 25 19 20 21 20	01.2 54.7 25.7 05.7 03.1 45.1 26.1 44.1 07.6 56.3 42.0 19.1 43.3 20.8 59.9 06.3	1.3 1.3 1.4 1.0 1.0 1.2 1.5 1.3 1.2 1.0 1.0 1.0 0.8 0.7	0.08 0.06 0.06 0.02 0.02 0.01 0.01 0.02 0.02 0.04 0.04 0.02 0.01 0.01	45.19	+ 0.9	18	10	44.8	46.33 N	152.83 E	33	6.5			
02	05	01	BGV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	20	21 22 20 05 07	19.1 43.3 20.8 59.9 06.3	1.0 0.8 0.7	0.01 0.01	0.02 0.01	45.36 45.64 28.45	+ 1.2 + 0.7 + 3.0	20	07	04.0	46.80 N	152.56 E	33	5.7		
03	05	02	TQV PLV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	20 07	22 20 05 07	43.3 20.8 59.9 06.3	0.8 0.7	0.01 0.01	0.02 0.01	45.36 45.64 28.45	+ 1.2 + 0.7 + 3.0	20	07	03.0	7.77 S	106.22 E	33	5.4		
04	05	02	TQV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	15	30 31 51 52	14.4 06.3 13.4 17.9	1.1 1.0 0.9 0.8	0.01 0.01 0.02 0.01	0.004 0.01 0.03 0.004	45.70 45.72 84.30 85.39	- 0.5 - 1.7 + 7.4 + 7.1	15	15	55.3	46.90 N	152.90 E	33	4.9		
05	05	02	TQV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	21	31 51 52	06.3 13.4 17.9	1.0 0.9 0.8	0.01 0.02 0.01	0.01 0.03 0.004	45.72 84.30 85.39	- 1.7 + 7.4 + 7.1	21	15	43.3	46.97 N	152.90 E	33	5.3		
06	05	05	BGV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	15	51 52	13.4 17.9	0.9 0.8	0.02 0.01	0.03 0.004	84.30 85.39	+ 7.4 + 7.1	15	15	36.4	20.02 S	178.57 W	550	5.4		
07	05	03	TQV BGV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	15 18	51 45	18.4 34.3	0.8 1.2	0.01 0.01	0.004 0.004	85.39 45.48	+ 7.1 - 0.3	18	18	16.8	46.88 N	153.02 E	33	4.8		
08	05	04	TQV PLV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	15 15	45 32 32 32 32	35.8 21.7 36.7 24.7 33.1	1.0 2.6 6.0 1.1 1.4	0.01 0.45 1.81 0.01 0.02	0.004 0.67 1.59 0.02 0.05	45.77 18.14 18.77	- 0.9 + 2.2 - 3.0	15	15	09.0	10.94 N	122.56 E	33	4.7		
09	05	05	TQV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	1	32 32 32 32 32	38.3 50.3 58.3 17.8 42.4	1.2 1.2 1.2 0.7 0.9	0.01 0.01 0.01 0.01 0.01	0.01 0.01 0.004 0.004 0.004	32.78 151.52 389.07	+ 0.6 + 1.1	06	06	45.1	38.81 N	72.36 E	33	5.6		
10	05	05	TQV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	07	53	42.4	0.9	0.01	0.004	151.52	+ 1.1	07	07	45.7	5.41 N	83.27 W	33	5.1		
11	05	06	PLV	IP ePP ePPP ePPS IP IPcP ePP IP ePP ePPP IP ePP	04	23	52.9	0.7	0.01	0.004	389.07	+ 1.1	04	04	14.4	43.00 N	146.98 E	33	5.1		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
23	05	17	TQV	ePPP ePcP eS ISSS IP ePcP ePP	11 12	16 18 19 22 59 01 02	33.5 40.0 48.5 01.0 57.0 10.0 06.5	1.1 1.0 0.8 1.6 1.5 1.4 1.2	0.01 0.01 0.02 0.02 0.01 0.01 0.01	0.01 0.01 0.01 0.004	55.47	- 1.2	11	50	24.4	5.95 S	154.24 E	33	5.2		
24	05	17	HBV HBV HBV	oP eP eP IPcP	20 20 23 36	44 44 35 36	41.9 43.7 28.8 35.7	1.4 1.0 1.3 1.2	0.02 0.01 0.03 0.02	0.004 0.04 0.04	70.64 71.18 51.77	+ 1.7 + 0.3 - 0.5	20 23	33 26	26.1 22.9	14.31 S 5.29 S	167.77 E 150.91 E	33 33	5.6 5.6		
25	05	17	HBV	eP	23	35	28.8	1.3	0.03	0.04	51.77	- 0.5	23	26	22.9	5.29 S	150.91 E	33	5.6		
26	05	20	TQV	ePKP	17	59	41.0	0.7	0.01	0.01	138.33	+ 7.3	17	40	16.8	19.43 N	68.81 W	3	5.0		
27	05	23	TQV	IP ePcP	07 06	06 06	17.5 30.5	1.5 1.5	0.01 0.01	0.01 0.01	73.48	+ 7.3	06	54	34.0	13.78 S	170.77 E	3 3	5.7 5.7		
28	05	23	TQV	IP ePP	18 04	02 04	46.9 12.5	1.0 1.0	0.01 0.01	0.01 0.003	35.38	- 2.6	17	55	55.8	38.36 N	141.78 E	40	4.8		
29	05	25	HBV	eP ePP	00 04	02 04	48.0 12.4	1.2 1.3	0.04 0.04	0.05 0.06	35.88	- 5.2		35	34.7	51.37 N	156.85 E	120	3.7		
30	05	26	TQV HBV	eP eP eP IPPP	00 00 03	04 04 06	15.0 16.6 47.1	0.6 1.0 1.2	0.03 0.03 0.08	0.04 0.04 0.09	50.14 49.45 34.64	- 0.5 + 6.3 - 1.4	00 03	00	00.3	40.35 N	139.05 E	33	4.7		
31	05	26	TQV	IP IPPP	06	21	30.2	0.8	0.01	0.01	34.51	- 4.4	06	17	47.5	41.75 N	138.87 E	33	5.5		
32	05	26	TQV	IP	14	19	05.2	1.0	0.01	0.01	33.83	- 2.7	14	12	26.7	40.70 N	138.51 E	33	4.9		
33	05	28	HBV	IP eP	11 46	44 46	58.7 17.6	1.3 1.2	0.04 0.03	0.04 0.03	51.53	+ 1.9	11	35	52.1	32.33 N	48.51 E	33	5.3		
34	05	28	HBV	IP IPP	17	54	43.8	1.0	0.03	0.03	22.89	+ 3.9	17	49	42.2	1.32 S	99.38 E	50	4.8		
35	05	29	TQV	IP IPPP	02	18	58.8	1.2	0.02	0.03	24.33	+ 5.1	02	14	22.4	4.29 N	122.60 E	600	5.2		
36	05	29	TQV	ePP IP IPP	04	54	18.5	1.1	0.01 0.01	0.01 0.004	48.19	+ 6.5	04	45	41.0	49.16 N	155.81 E	65	4.7		
37	05	29	TQV	eP ePPP ePcP	05	33	44.5	1.3	0.02	0.01	35.10	- 1.6	05	26	54.0	37.35 N	141.79 E	33	4.6		
38	05	29	HBV TQV	eP IPPP IS ISS ISSS	05 13 13	33 35 36	30.5 15.5 47.3	1.1 1.0 1.5	0.01 0.01 0.05	0.004 0.004 0.09	35.58	- 2.9		44	11.1	18.57 N	96.36 E	3	5.0		
39	05	29	TQV	eP IPPP IS ISS ISSS	13 13	46 46	18.0 26.0	0.8 1.0	0.01 0.01	0.002 0.004	8.92	+ 3.8	13	20	58.1	42.69 N	143.51 E	92	5.0		
40	05	29	TQV	IP ePPP	21	02	49.5	0.8	0.02	0.01	38.40	+ 4.7	20	53	58.1	42.69 N	143.51 E	92	5.0		
41	05	29	HBV	eP IPP	22	08	35.3	1.1	0.01	0.01	34.6P	- 2.8	22	01	50.3	41.09 N	139.39 E	33	5.2		
42	05	29	HBV	IP IPcP	22	09	09.6	0.9	0.02	0.03	86.83	+ 0.4	22	07	27.0	15.44 S	176.23 W	33	5.8		
42	05	30	TQV	IP IP ePcP	12	38 39 41	20.9 27.3 41.8	1.0 1.2 1.0	0.01 0.01 0.01	0.004 0.003 0.002	28.07	+ 3.3	12	32	37.9	1.51 N	125.10 E	38	5.8		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
37	06	30	BGV	IS	07	59	54.2	0.9	0.03	0.01	0.01	41.10	+ 5.3	13	39	03.9	44.01 N	147.82 E	48	5.6	
38	06	30	TQV	ISS	13	00	04.3	0.8	0.01	0.01	0.01	41.44	+ 3.3	17	37	54.8	3.74 N	128.03 E	46	5.2	
			BGV	IPcP	17	46	46.5	1.0	0.04	0.04	0.04	27.51	+ 6.6	17	37	54.8					
			TQV	IP	44	43	43.5	1.0	0.02	0.04	0.04	28.59	+ 5.3	17	37	54.8					
				ePP	44	44	33.7	1.0	0.02	0.04	0.04	28.59	+ 5.3	17	37	54.8					
				IP	44	44	49.7	1.3	0.05	0.07	0.07	28.59	+ 5.3	17	37	54.8					
				ePcP	43	50	51.9	0.8	0.01	0.01	0.01	28.59	+ 5.3	17	37	54.8					
					50	50	36.1	0.8	0.01	0.01	0.01	28.59	+ 5.3	17	37	54.8					
01	07	01	TQV	IP	02	31	03.4	0.5	0.02	0.02	0.02	42.73	- 0.2	02	23	08.0	44.42 N	149.54 E	33	5.2	
02	07	01	TQV	ePP	32	32	04.9	0.5	0.03	0.03	0.03	42.73	- 0.2	02	23	08.0					
03	07	01	TQV	IP	27	27	48.5	0.5	0.01	0.01	0.01	85.80	- 6.1	03	16	08.9	20.12 S	178.13 W	550	5.3	
04	07	02	TQV	eP	42	42	25.4	0.5	0.05	0.05	0.05	32.96	+ 1.6	06	35	51.1	32.28 N	140.51 E	33	5.0	
				IP	09	38	24.9	1.0	0.05	0.05	0.05	18.83	+ 6.7	09	33	58.8	5.75 N	94.74 E	43	4.9	
				ePP	38	38	31.3	1.5	0.51	0.51	0.51	18.83	+ 6.7	09	33	58.8					
				ePPP	38	38	38.7	2.0	0.84	0.84	0.84	16.17	+ 9.2	02	49	21.0	20.14 N	122.44 E	160	5.1	
				eS	41	41	34.5	2.0	0.84	0.84	0.84	16.17	+ 9.2	02	49	21.0					
				eSS	41	41	51.5	2.0	3.80	3.80	3.80	16.17	+ 9.2	02	49	21.0					
				ePcP	42	42	51.5	2.5	1.68	1.68	1.68	16.17	+ 9.2	02	49	21.0					
05	07	03	TQV	IP	02	53	07.7	2.5	0.36	0.36	0.36	16.17	+ 9.2	02	49	21.0					
				IP	53	53	27.7	3.5	0.96	0.96	0.96	16.17	+ 9.2	02	49	21.0					
				IP	53	53	36.4	3.0	0.93	0.93	0.93	16.17	+ 9.2	02	49	21.0					
				IS	55	55	43.8	3.0	0.93	0.93	0.93	16.17	+ 9.2	02	49	21.0					
				ISS	56	56	25.2	0.4	0.01	0.01	0.01	55.51	- 0.4	06	11	33.4	5.49 S	154.57 E	380	5.3	
06	07	03	TQV	eP	06	20	29.9	0.4	0.01	0.02	0.02	55.51	- 0.4	06	11	33.4					
07	07	03	TQV	ePKP	17	33	59.3	0.8	0.02	0.02	0.02	143.71	- 3.7	17	14	33.0	13.43 N	33.57 W	3	6.2	
				IP	17	37	17.5	0.6	0.03	0.03	0.03	143.71	- 3.7	17	14	33.0					
				IP	20	28	27.3	1.0	0.02	0.03	0.03	16.24	- 3.7	20	24	39.2	24.81 N	122.60 E	33	5.3	
				IP	20	28	42.3	0.8	0.02	0.02	0.02	16.24	- 3.7	20	24	39.2					
				IP	20	28	55.8	0.6	0.03	0.03	0.03	16.24	- 3.7	20	24	39.2					
				eS	20	31	22.8	0.5	0.01	0.01	0.01	26.95	+ 1.2	22	00	27.8	4.71 N	126.70 E	34	5.4	
09	07	04	TQV	IP	22	06	09.3	0.3	0.02	0.02	0.02	26.95	+ 1.2	22	00	27.8					
10	07	05	TQV	IP	09	59	43.0	0.9	0.03	0.03	0.03	21.92	- 6.5	08	54	48.2	27.20 N	128.61 E	3	5.0	
				IP	10	00	02.0	0.6	0.03	0.03	0.03	21.92	- 6.5	08	54	48.2					
				IP	10	00	15.0	0.5	0.03	0.03	0.03	21.92	- 6.5	08	54	48.2					
				eP	11	23	32.1	1.5	1.02	1.02	1.02	76.20	3.1	11	11	42.4	21.98 S	171.33 E	33	6.3	
				ePcP	11	23	47.0	1.5	0.06	0.06	0.06	76.20	3.1	11	11	42.4					
				eP	11	23	37.9	1.5	0.06	0.06	0.06	76.20	3.1	11	11	42.4					
				eP	12	12	20.2	0.6	0.01	0.01	0.01	77.87	- 0.4	12	01	30.3	40.40 N	27.18 E	35	6.0	
				IPcP	13	13	01.9	0.9	0.02	0.02	0.02	67.19	- 2.8	12	01	30.3					
				IP	14	14	55.9	1.0	0.01	0.01	0.01	77.87	- 0.4	12	01	30.3					
				ePKP	16	56	12.6	1.0	0.01	0.01	0.01	77.87	- 0.4	12	01	30.3					
13	07	05	TQV	IP	07	54	21.9	1.0	0.01	0.01	0.01	38.54	+ 1.2	16	37	04.5	58.40 S	28.30 W	33	6.1	
14	07	06	TQV	IP	18	24	07.3	1.0	0.03	0.03	0.03	38.54	+ 1.2	16	37	04.5					
15	07	06	HBV	ePP	24	24	25.0	1.0	0.03	0.03	0.03	20.75	4.6	18	19	27.9	1.79 N	97.83 E	51	4.8	
				ePPP	24	24	37.8	1.5	0.05	0.05	0.05	20.75	4.6	18	19	27.9					
				eP	19	01	36.5	0.5	0.01	0.01	0.01	21.41	+ 4.8	16	37	04.5					
				eP	19	01	56.6	0.5	0.02	0.02	0.02	21.41	+ 4.8	16	37	04.5					
				ePP	01	01	03.5	0.5	0.02	0.02	0.02	21.41	+ 4.8	16	37	04.5					
				ePPP	02	02	23.5	0.5	0.01	0.01	0.01	21.41	+ 4.8	16	37	04.5					
16	07	06	TQV	eP	20	14	23.5	1.0	0.01	0.01	0.01	76.43	- 4.8	20	02	40.4	21.35 S	169.87 E	33	5.3	
17	07	06	TQV	IPcP	21	05	54.5	0.5	0.02	0.02	0.02	18.91	- 4.8	20	57	11.5	23.28 N	125.64 E	33	4.7	
18	07	07	TQV	IP	01	14	52.2	0.5	0.02	0.02	0.02	77.02	+ 3.0	01	02	57.9	22.31 S	170.00 E	33	5.6	
19	07	07	TQV	IP	03	39	54.1	0.5	0.02	0.02	0.02	77.02	+ 3.0	03	35	04.9	12.42 N	125.86 E	33	5.4	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
20	07	07	HBV	1PPP 1P ePcP	03 05	40 41 42 43	21.1 36.1 58.1 43.0	2.0 1.5			1.26 0.76	77.15	8.3	05	29	42.4	21.90 S	171.10 E	33	5.4		
21	07	07	TQV TQV	eP 1PP ePPP	05 10	24 25 25	54.0 16.8 27.0	0.6 0.4	0.01 0.04	0.01 0.02	0.02 0.02	17.04	- 1.1	10	20	58.5	13.33 N	120.72 E	33	5.3		
22	07	07	HBV	1P ePcP ePP ePPP	16	17 17 20 25	40.7 06.0 01.0 36.2	1.0 2.0			0.85 0.84	75.90	7.2	16	05	35.9	22.12 S	170.51 E	33	5.9		
23	07	07	TQV TQV	1P eP 1PP ePPP	16 20 20 01	17 47 51 04	36.2 54.3 03.1 06.5	0.7 1.0	0.03 0.01	0.003 0.01	0.02 0.02	77.33 81.37	- 6.3 + 0.6	20	35	33.8	7.61 S	27.72 E	3	5.5		
24	07	08	TQV	eP 1PP ePPP	01 06	04 05 11	00.6 26.8 13.9	0.2 0.2			0.02 0.004	29.87	+ 3.4	00	58	08.6	2.07 N	128.24 E	150	4.9		
25	07	09	TQV	eP 1PP ePPP	01 06	05 11	26.8 13.9	0.2 0.2			0.02 0.004	21.72	- 4.4	06	07	46.9	11.82 N	93.74 E	33	5.2		
26	07	10	TQV	1PP ePPP	17 17	24 24	36.3 55.3	0.5 0.4	0.02 0.01	0.01 0.01	0.02 0.02	21.72	- 4.4	17	19	48.3	27.93 N	128.23 E	51	5.4		
27	07	10	TQV	1PPP	25	25	07.3	0.4	0.01	0.01	0.02											
28	07	10	TQV	eP	18	33	14.2	0.4	0.002	0.004	0.02	85.50	+ 2.0	18	26	56.4	36.79 N	70.86 E	230	4.0		
29	07	11	TQV	1P	19	32	42.2	0.4			0.02			19	20	04.5	18.54 S	177.71 W	33	5.4		
30	07	11	TQV	1P	13	15	53.5				0.02			12	56	25.2	61.20 S	55.70 W	3	6.8		
31	07	12	TQV	eP 1PP ePPP	20 11 11	01 42 44	53.3 31.2 28.1	1.0 1.2 1.0	0.46 0.46	1.71 0.43	2.55 0.85	84.50 44.40	1.7	19 11	41 34	59.4 11.1	65.55 N 27.22 N	23.96 W 56.47 E	3 3	4.8 6.0		
32	07	12	HBV TQV	ePcP ePP 1P 1PP 1PPP	15 15 15 11	22 25 26	06.7 14.3 00.2	0.5	0.03	0.03	0.02	78.85	+ 1.5	15	10	03.9	61.15 N	147.61 W	37	6.6		
33	07	14	TQV	1P ePcP ePP	11 44 44	42 44 44	44.7 16.5 29.5	1.0 1.2 1.0	0.46 0.46	1.71 0.43	2.55 0.85	79.68	6.7									
34	07	14	HBV TQV	ePcP ePP eP 1P ePP ePPP	03 19	05 53 53 53	48.0 00.8 33.9 50.1	0.2 1.5 1.5 2.0	1.82	2.55 1.69 1.27	0.02 5.91 3.18 2.52	72.46 25.31	+ 5.8 9.2	02 19	54 47	12.0 47.1	35.56 N 5.67 N	21.68 E 126.25 E	3 44	5.1 5.9		
35	07	15	TQV	eP ePPP	19	53	54.3	1.2	0.02	0.01	0.01	25.99										
36	07	15	TQV TQV	eP 1PP 1PPP	04 04 49	06 49 49	23.0 19.3 21.3	0.6	0.07 7.24 3.62 0.02 0.03 0.09	2.53 4.22	0.05 0.02	66.31 1.67	- 0.9 2.4	03 04	55 48	36.7 52.1	51.31 21.85 N	175.88 W 103.42 E	33 3	5.0 5.3		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
37	07	15	TQV	ISS ISSS IP IPP IPPP eS eSS ISSS IPcP	04 04 10 41 41 42 45 45 46 47	49 49 41 41 42 45 45 46 47	42.3 51.2 40.6 56.6 05.5 26.5 48.6 11.5 52.5	1.5 2.0 0.5 0.5 0.5 0.5 0.5 1.5 1.5	0.03 0.04 0.05 0.01 0.02 0.05 0.36 0.91 0.45 0.73	0.02 0.02 0.02 0.01 0.02 0.12 0.43 0.77 0.43 0.51	0.03 0.07 0.02 0.02 0.02 0.01 0.02 0.03 0.84	15.01 - 1.7	10	39	11.1	23.53 N	121.38 E	33	5.4		
38	07	16	HBV	EP	02	37	32.2	1.5	0.02	0.26	0.02	24.16	0.6	02	32	18.8	5.86 N	126.32 E	41	5.7	
39	07	20	HBV	EP	10	39	14.5	1.2	0.02	0.01	0.02	25.45	0.8	10	33	53.3	0.11 N	121.97 E	50	5.4	
40	07	20	HBV	EP	17	46	06.9	1.0	0.02	0.51	1.27	25.08	2.2	17	40	41.7	0.33 N	121.62 E	33	5.4	
41	07	28	TQV	EP ePP ePPP IP IPP IPPP IPcP	15 15 15 16 16	46 46 46 46 46	59.3 53.0 19.3 46.2 26.3	1.5 0.4 0.5 0.4 0.5	0.02	0.02	0.02	37.17	+ 2.5	15	06	47.2	42.68 N	142.48 E	59	4.3	
42	07	29	TQV	IP IPP IPPP IPcP	11 11 18 08	31 32 12 21	19.3 04.3 37.0 01.7	0.5 0.4 0.7 0.5	0.01 0.01 0.02 0.02	0.01	0.02	27.68	- 0.7	11	25	33.1	5.86 S	105.49 E	48	5.2	
43	07	29	TQV	IP	18	12	37.0	0.7	0.02	0.03	0.03	47.60	- 0.7	18	04	03.7	10.20 N	56.69 E	58	5.0	
44	07	30	TQV	IP	08	21	01.7	0.5	0.02	0.01	0.02	69.40	+ 1.5	08	09	51.7	52.58 N	170.53 W	39	4.0	
01	08	02	TQV	EP	06	16	30.7	0.5	0.01	0.01	0.01	45.62	+ 6.2	06	08	05.5	45.43 N	153.37 E	33	4.9	
02	08	02	TQV	EP IP IPP IPPP eS	12 22 18 18 18	18 49 51 51 53	14.5 15.1 13.9 29.1 32.0	0.5 0.7 0.5 1.2 1.0	0.01 0.04 0.04	0.01	0.02	31.08	+ 4.1	12	43	41.9	6.88 S	117.35 E	600	5.4	
03	08	02	TQV	IP IPP IPPP	22 13 13	12 13 13	44.5 05.0 12.5	1.2 1.0 1.0	0.003 0.02 0.01	0.01 0.02 0.02	0.01	21.63	+ 2.2	22	07	58.5	27.80 N	128.16 E	62	4.6	
04	08	03	TQV	EP	18	29	10.2	1.0	0.01	0.004	0.01	72.54	+ 5.5	18	17	39.3	16.88 S	167.87 E	3	5.4	
05	08	05	TQV	IP IPP IPPP	18 18 18	12 13 13	48.6 01.0 06.7	0.8 1.0 0.5	0.01 0.02 0.01	0.01 0.004 0.002	0.01	19.02	+ 4.0	18	08	23.1	13.54 N	123.20 E	33	5.0	
06	08	05	TQV	EP	20	55	23.5	1.0	0.01	0.002	0.004	15.32	0.2	20	51	54.7	19.24 N	121.34 E	60	4.9	
07	08	06	TQV	EP	20	55	34.4	1.0	0.002	0.002	0.003	68.97	+ 7.3	15	43	57.5	40.40 N	24.80 E	33	6.8	
08	08	06	TQV	IP IPP IPPP	15 22 22 22	44 46 46 50	08.6 55.5 39.5 48.8	0.7 0.7 0.8 1.1	0.02 0.02 0.03 0.04	0.04 0.02 0.02 0.04	0.02	37.20	+ 2.4	22	37	55.8	6.26 S	130.10 E	160	4.9	
09	08	07	TQV	IS	22	50	31.9	0.7	0.01	0.01	0.01	34.68	- 0.6	02	04	22.7	9.46 S	120.46 E	33	5.1	
10	08	08	TQV	EP IP IPP IPcP	02 03 03 03	11 54 54 57	10.5 28.3 34.9 18.9	0.7 0.5 0.6 0.2	0.01 0.03 0.02	0.01 0.02	0.02	32.41	- 3.3	03	48	0.07	36.01 N	138.79 E	33	5.7	
11	08	08	TQV	EP	17	24	45.6	1.1	0.02	0.002	0.004	14.39	+ 6.1	17	31	20.9	20.09 N	120.51 E	33	5.1	
12	08	11	TQV	IP EP	01 01	39 40	31.5 06.2	1.1 0.2	0.02	0.02	0.01	17.50	3.4	01	35	45.7	26.26 N	123.77 E	250	5.1	
13	08	11	TQV	EP	05	20	26.4	0.2	0.01	0.01	0.02	15.46	+ 5.4	05	16	49.3	18.72 N	121.36 E	33	4.6	
14	08	11	TQV	EP IP IPPP	05 12 12	20 06 06	41.2 04.3 47.5	0.2 1.5 2.2	0.002 0.05 0.15	0.01 0.05 0.13	0.02	15.21	+ 3.1	12	03	04.3	18.93 N	121.15 E	59	5.5	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
15	08	11	TQV	1S	12	09	06.5	0.7	0.02	0.01	0.02	37.03	+ 4.0	21	35	40.9	41.86 N	142.49 E	85	4.8	
16	08	11	TQV	eSS	12	09	41.5	0.4	0.01	0.004	0.02	29.56	- 0.4	22	56	09.3	1.68 N	127.44 E	100	5.8	
17	08	12	TQV	eSSS	12	11	43.7	0.6	0.03	0.03	0.02	15.43	+ 2.0	07	42	15.0	15.26 N	119.96 E	33	5.1	
18	08	12	TQV	1PcP	21	42	47.0	0.5	0.01	0.01	0.02	54.60	- 0.9	11	14	58.2	17.25 S	66.26 E	45	5.4	
19	08	13	TQV	eP	23	02	07.0	0.9	0.03	0.02	0.02	37.13	- 0.8	15	39	35.4	6.68 S	129.48 E	130	5.3	
20	08	13	TQV	1PP	23	03	05.5	0.7	0.01	0.02	0.02	47.11	+ 6.0	17	18	30.1	27.95 N	53.33 E	3	4.6	
21	08	13	TQV	1PP	07	45	47.7	0.5	0.03	0.05	0.03	30.96	+ 0.0	22	28	15.3	8.58 S	111.16 E	43	5.2	
22	08	15	TQV	ePP	15	48	06.2	0.1	0.02	0.01	0.02	87.43	+ 2.9	19	44	36.9	16.47 S	174.50 W	150	5.3	
23	08	17	TQV	ePPP	15	48	31.2	0.9	0.02	0.02	0.03	53.15	+ 0.8	10	55	57.7	55.69 N	161.22 E	100	6.8	
24	08	17	TQV	ePcP	15	49	08.2	1.2	0.03	0.03	0.05	15.19	+ 3.0	12	17	56.5	18.36 N	120.96 E	33	6.7	
25	08	19	TQV	eP	17	27	11.6	1.6	0.03	0.04	0.02	20.90	+ 9.6	13	00	01.0	2.69 N	96.58 E	41	5.2	
26	08	20	TQV	1PP	22	34	31.5	0.9	0.03	0.02	0.02	48.54	+ 0.7	06	19	15.9	8.51 S	117.42 E	38	5.4	
27	08	20	TQV	1PP	22	35	22.5	0.7	0.03	0.02	0.02	32.62	+ 2.6	06	19	15.9	8.51 S	117.42 E	38	5.4	
28	08	20	TQV	1PPP	22	35	38.5	1.5	0.03	0.02	0.02	33.31	- 0.4	13	08	34.7	28.28 N	141.45 E	39	5.4	
29	08	20	TQV	eP	22	35	10.0	2.0	0.05	0.03	0.02	32.24	- 0.8	17	15	21.9	39.51 N	73.49 E	5	4.4	
30	08	21	TQV	1PP	11	05	07.5	0.4	0.02	0.02	0.02	27.05	- 1.3	08	34	46.4	4.12 N	126.29 E	35	5.5	
31	08	21	TQV	1PPP	11	06	30.3	0.4	0.02	0.02	0.02	25.17	+ 4.6	12	06	48.4	3.18 N	87.80 E	54	4.8	
32	08	21	TQV	ePcP	13	04	44.0	2.1	0.02	0.03	0.03	156.92	- 9.4	18	58	17.3	30.63 S	113.93 W	3	5.5	
33	08	22	TQV	1P	13	04	56.3	2.5	0.01	0.02	0.02	15.90	+ 1.0	05	25	33.0	19.28 N	121.98 E	33	4.6	
34	08	22	TQV	1PP	13	05	08.5	0.5	0.01	0.01	0.01	47.69	- 1.3	23	16	39.6	3.22 S	146.72 E	33	5.4	
35	08	23	TQV	eP	13	05	07.2	0.6	0.01	0.02	0.02	37.93	- 1.5	05	50	30.2	4.05 S	133.54 E	33	4.8	
36	08	23	TQV	1PP	13	06	22.3	1.0	0.01	0.03	0.02	9.09	- 0.4	12	12	08.9	23.94 N	95.61 E	90	5.2	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
17	09	13	TQV	eP	15	06	50.4	1.2	0.003	0.01	0.01	37.06	+ 6.0	14	59	35.7	40.53 N	143.16 E	33	4.1		
18	09	13	HBV	1P	18	46	27.0	0.5	0.02	0.02	19.86	2.9	18	41	58.9	2.32 N	97.93 E	33	5.2			
				ePP		46	41.6	0.8	0.02	0.02												
				ePPP		46	52.8	0.8	0.02	0.02												
				eS		50	03.7	0.8	0.01	0.01	20.75	- 0.9										
				eP	18	46	38.3	0.9	0.01	0.01												
				1PP		46	53.4	1.3	0.01	0.01												
				1PPP		47	05.0															
19	09	14	TQV	1P	11	32	09.1	1.2	0.02	0.05	0.01	38.14	+ 8.1	11	24	59.9	18.07 N	145.70 E	160	5.6		
				1PP		33	50.4	1.0	0.02	0.02												
				ePPP		34	15.2	1.2	0.01	0.04												
				1S		38	04.0															
20	09	14	TQV	1P	17	44	44.0	0.8	0.01	0.004	0.01	53.04	+ 1.6	17	35	26.4	4.01 S	152.57 E	33	5.1		
21	09	15	HBV	eP	03	42	38.1	0.4	0.001	0.01	18.38	6.9	03	38	31.1	5.48 N	94.92 E	33	5.2			
				ePP		42	57.7	0.5	0.02	0.01												
				ePPP		43	06.7	0.5	0.01	0.01												
				1P	03	42	58.3	0.6	0.01	0.01	19.14	+ 4.2		10	39	07.2	16.85 N	93.00 W	126	5.5		
22	09	15	TQV	1P	10	58	16.6	1.5	0.01	0.01	137.41											
				ePKP		11	55.6	1.4	0.01	0.02												
				1PKS		02	45.6	1.0	0.01	0.01	15.92	- 1.6	02	15	05.2	31.47 N	91.00 E	43	4.4			
23	09	16	TQV	eP	18	18	59.6	0.7	0.01	0.01	16.69	4.0										
				1PP		19	02.1	0.5	0.01	0.02												
				eP	02	19	09.7	0.5	0.01	0.02												
				ePP		19	14.7	0.8	0.01	0.02												
				ePPP		19	12.7	0.8	0.01	0.02	27.32	- 1.3	04	21	54.2	0.21 N	122.35 E	250	5.3			
24	09	16	TQV	eP	04	27	24.2	0.8	0.01	0.02												
				ePP		28	40.2	1.3	0.02	0.03												
				1PPP		28	44.9	0.9	0.02	0.02												
				1SSS		33	13.2	1.0	0.01	0.01												
				eP	04	27	09.6	0.4	0.04	0.04	26.47	6.0										
				ePP		28	20.1	0.8	0.03	0.03												
				ePPP		28	16.8	0.8	0.02	0.03												
				eS		30	12.0	0.4	0.01	0.02												
25	09	16	HBV	eP	08	21	14.4	0.4	0.05	0.07	85.09	+ 7.5	08	09	27.5	23.89 S	179.77 E	510	5.4			
				1P	08	21	13.3	1.3	0.02	0.04	85.68	+ 7.1										
				1PcP		22	21.8	1.1	0.01	0.03												
				ePP		25	14.6	1.2	0.01	0.03	14.76	1.1	23	10	50.9	18.13 N	120.74 E	58	5.4			
26	09	16	HBV	eP	23	14	26.1	0.5	0.04	0.06												
				ePP		14	31.1	0.5	0.04	0.06												
				ePPP		14	51.6	0.4	0.03	0.07												
				eS		16	02.1	0.5	0.03	0.05												
				eSS		17	18.6	0.5	0.01	0.04												
				eSSS		17	34.6	0.5	0.01	0.03												
				ePcP		19	19.9	0.5	0.01	0.03												
				1P	23	14	34.9	1.2	0.01	0.02	15.05	+ 0.7										
				1PP		14	55.4	0.9	0.01	0.02												
				1PPP		14	38.4	1.2	0.01	0.03												
				1PcP		19	59.4	1.0	0.02	0.01												
				1PcS		22	39.3	1.3	0.01	0.01												
27	09	17	HBV	eP	04	44	49.8	0.4	0.03	0.03	17.57	4.7	04	40	34.7	7.71 N	93.24 E	55	5.5			
				ePP		44	57.3	0.4	0.03	0.02												
				ePPP		44	43.7	0.5	0.01	0.02	18.23	+ 0.6										
				1P	04	44	53.7	0.8	0.02	0.02												
				1PF		44	08.7	0.9	0.01	0.01												
				1PPP		45	15.6	1.1	0.01	0.01	18.88	+ 5.4	05	56	54.8	4.78 N	95.09 E	55	5.6			
28	09	17	HBV	1P	06	01	32.5	1.0	0.05	0.01	0.22											
				ePPP		01		0.7	0.05	0.06	0.06											

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
				eS	04	04	25.0	0.8	0.04		0.02										
				ISS	04	04	54.5	1.2	0.05		0.06										
				ISSS	04	04	59.5	1.0	0.05		0.06										
				IPcP	09	09	34.5	1.2	0.07		0.14										
				eP	06	01	21.5	0.7	0.05	0.02	0.05	19.67	+ 2.3								
			TQV	ISS	05	05	12.0	1.6	0.05	0.13	0.05										
				ISSS	05	05	31.5	1.0	0.04	0.04	0.03										
				IPcP	05	05	57.5	1.4	0.07	0.04	0.02										
				ePcS	09	09	29.5	1.6	0.02	0.04	0.02										
29	09	17	HBV	IP	12	24	16.4	1.1	0.04	0.19	0.19	64.89	- 1.6	12	11	45.3	15.87 S	176.61 W	33	6.4	
				ePP	12	27	32.9	2.0	0.10	0.25	0.25	85.34	+ 2.3								
			TQV	IP	12	24	28.0														
				ePP	27	27	29.5														
30	09	18	HBV	ePP	06	23	19.9	1.2		0.04	0.06	49.23	+ 5.1	06	14	22.7	6.13 S	147.25 E	3	5.1	
				eP	24	24	38.3	0.9		0.01	0.01										
				ePcP	19	24	28.8	1.4	0.05	0.46	0.55	21.13	- 1.3	19	20	42.9	24.40 N	122.55 E	37	6.6	
31	09	21	HBV	IP	24	24	46.8	1.6	0.33	0.45	0.45										
				IPP	24	24	30.8														
				IS	27	27	44.8	1.3	0.11	0.13	0.18										
				ISS	27	27	44.8	1.3	0.11	0.13	0.18										
32	09	22	TQV	eP	10	32	38.0	1.5			0.005	43.90	+ 1.7	10	24	37.8	2.94 N	64.38 E	44	5.4	
33	09	22	TQV	IP	16	33	43.1	0.7			0.007	77.99	+ 2.7	16	21	38.7	55.91 N	153.73 W	3	5.3	
				IPcP	16	33	51.6	0.7			0.009										
34	09	22	TQV	IP	16	41	38.1	1.0	0.01	0.01	0.01	44.30	+ 6.5	16	33	49.1	47.68 N	150.36 E	250	4.2	
				ePP	43	43	39.1	0.8	0.01	0.004	0.01										
				IPcP	43	43	48.6														
			HBV	IP	16	41	38.2	0.9	0.02	0.04	0.04	45.08	+ 0.5								
				IPcP	16	43	49.7	1.0		0.01	0.02										
				IPP	20	44	00.4	0.8		0.01	0.01										
35	09	22	HBV	IP	20	08	30.0	1.2	0.02	0.05	0.11	16.21	- 2.3	20	04	45.6	24.59 N	122.45 E	33	4.7	
				IPP	08	08	44.5	1.3	0.06	0.09	0.13										
				IPPP	09	09	00.5	1.0	0.03	0.05	0.05										
				eS	11	11	25.5	0.9	0.01	0.01	0.01										
				eSS	11	11	49.5	1.0	0.01	0.01	0.02										
				eSSS	11	11	57.0	1.2	0.05	0.06	0.06										
				IPcP	13	13	32.0	1.0	0.05	0.03	0.06										
			TQV	IP	20	08	30.6	1.3	0.004	0.02	0.01	16.07	- 0.3								
				IPP	08	08	43.1	1.1	0.01	0.03	0.01										
				IPPP	08	08	54.6	1.0	0.01	0.01	0.01										
				eS	11	11	24.6	1.1	0.04	0.01	0.004										
				ISS	11	11	51.9	1.1	0.004	0.01	0.004										
				ISSS	12	12	02.6	1.1	0.02	0.02	0.01										
				IPcP	13	13	26.6	1.4	0.03	0.08	0.04										
				IPcS	17	17	02.6	1.4	0.01	0.03	0.01										
36	09	23	TQV	IP	09	27	34.0	1.2	0.01	0.02	0.02	55.26	+ 1.2	09	17	55.5	19.99 S	68.23 E	3	5.4	
37	09	23	TQV	IPP	12	33	05.0	1.0	0.02	0.07	0.04	16.11	- 3.2	12	29	22.7	24.29 N	122.52 E	33	5.9	
				eS	33	33	22.0	0.8	0.04	0.04	0.06										
				ISS	33	33	35.5	1.0	0.04	0.05	0.04										
				IPcP	36	36	12.0	0.7	0.02	0.01	0.02										
				IPcS	36	36	29.0	0.6	0.09	0.03	0.03										
				IPcP	38	38	03.5	1.5	0.12	0.34	0.12										
				ePcS	41	41	32.5	1.8	0.13	0.26	0.07										
			HBV	IP	12	33	08.1	0.8	0.03	0.03	0.04	16.23	- 1.6								
				IS	36	36	03.1	0.8	0.03	0.03	0.04										
				IPcS	36	36	30.1	1.0	0.05	0.01	0.06										
38	09	23	HBV	eP	19	41	39.1	1.7	0.16	0.01	0.49	15.09	- 0.5	18	59	12.1	18.26 N	121.13 E	33	4.7	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
				1PF		03	03.1	1.5	0.10	0.15	0.25										
				IS		05	26.1	1.0	0.01	0.02	0.04										
				eSS		05	52.1	0.8	0.01	0.02											
				eSSS		06	00.1	1.0	0.01	0.01											
			TQV	1P	19	02	46.0	0.6	0.02	0.02	0.02	15.37	- 1.0								
				1FPP		03	10.0	0.6	0.01	0.01											
				OS		05	33.5	1.0													
				eSS		05	45.0	1.0		0.01											
				1PcP		07	50.5														
				ePcS		11	26.5														
39	09	23	TQV	1P	20	46	06.9	1.0	0.01	0.01	0.01	29.27	+ 3.7	20	40	02.8	2.92 N	128.21 E	35	5.4	
40	09	24	TQV	1P	17	22	46.8	1.3	0.004	0.02	0.01	51.25	+ 1.3	17	13	38.0	2.68 S	151.28 E	3	5.2	
41	09	24	TQV	ePcP	17	27	05.2	1.4	0.04	0.07	0.004	50.86	+ 4.7	17	17	57.2	2.66 S	150.84 E	3	5.9	
42	09	24	TQV	1PcP	21	28	07.9	1.0	0.02	0.01	0.01	21.87	+ 2.9	21	06	50.6	06.1 N	99.79 E	3	5.4	
43	09	25	TQV	ePPP	02	12	06.7	1.0	0.01	0.01	0.003	50.60	+ 3.0	02	15	17.1	3.49 S	150.02 E	3	5.4	
44	09	25	TQV	1PcP	03	25	31.1	1.2	0.01	0.01	0.004	16.03	- 0.8	03	29	44.4	24.41 N	122.42 E	33	4.9	
				eP		33	27.7	1.3	0.02	0.03											
				1PP		33	39.3	1.4													
				eSSS		37	11.6	1.3													
				1PcP		38	20.6	1.4													
45	09	25	TQV	1P	19	01	36.5	1.5	0.01	0.02	0.01	29.92	+ 2.2	18	55	27.3	17.03 N	73.84 E	33	5.0	
46	09	26	TQV	1PP	09	46	21.6	1.0	0.01	0.01	0.02	22.75	+ 1.1	09	41	15.8	10.99 N	126.11 E	3	5.5	
47	09	26	TQV	ePPP		46	36.6	1.2	0.01	0.01	0.01										
47	09	26	TQV	eP	11	46	51.1	1.2	0.01	0.01	0.01	71.66	- 2.2	10	58	42.8	15.54 S	167.61 E	80	5.7	
48	09	27	TQV	ePcP	08	09	52.4	0.9	0.01	0.02	0.01	30.08	+ 3.7	07	59	13.2	41.50 N	132.31 E	500	5.4	
				eP		10	18.9	1.3	0.02	0.01	0.02										
49	09	28	TQV	ePPP	10	04	42.0	0.6	0.01	0.01	0.01	32.95	+ 5.9	10	23	39.0	36.20 N	71.00 E	75	5.1	
50	09	29	TQV	ePcP	02	06	33.0	0.7	0.01	0.01	0.01	34.48	+ 2.6	02	06	28.9	11.20 S	115.28 E	110	5.6	
				ePcP		08	39.0	1.3	0.01	0.02	0.004										
				eS		08	30.9	1.0	0.01	0.01	0.01										
				eP		08	59.7	1.0	0.01	0.02	0.04										
				ePP		30	02.1	0.8	0.01	0.01	0.01	30.37	7.4	02	24	00.6	2.32 S	127.97 E	33	5.1	
				ePP		31	11.0	1.3	0.02	0.03	0.004										
				1P		13	06.8	1.1	0.02	0.03	0.02										
				1PPP		14	30.3	1.0	0.02	0.01	0.01										
				1PcP		14	43.8	1.0	0.01	0.01	0.01										
				1PcP		15	44.3	1.2	0.01	0.02	0.01										
01	10	12	HEV	eP	02	30	19.0	1.0	0.01	0.02	0.04	30.37	7.4	02	24	00.6	2.32 S	127.97 E	33	5.1	
				ePP		31	15.7	1.0	0.01	0.02	0.04										
				ePPP		31	27.5	1.0	0.01	0.02	0.03										
02	10	12	HBV	eP	21	26	29.7	0.3	0.01	0.04	0.03	13.67	4.6	21	23	20.6	18.56 N	119.67 E	33	5.1	
				ePP		26	36.2	0.3	0.03	0.04	0.03										
				ePPP		26	42.2	0.4	0.02	0.04	0.03										
				eS		28	59.9	0.5	0.01	0.02	0.01										
				eSS		29	09.1	0.5	0.01	0.02	0.01										
				eSSS		29	20.7	0.5	0.01	0.02	0.01										
				ePcP		32	10.7	0.5	0.01	0.02	0.01	24.55	1.0	05	32	25.4	1.59 N	120.99 E	43	5.8	
03	10	16	HBV	1P	05	37	48.8	0.8	0.06	0.06	0.07										
				ePP		38	18.8	0.5	0.06	0.08	0.05										
				ePPP		38	32.8	0.5	0.02	0.03	0.02										
				ePcP		41	28.8	0.5	0.01	0.01	0.01										
				eS		41	55.3	0.8	0.01	0.01	0.03										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
04	10	17	HBV	1P ePcP	13	38	17.8	1.0	0.01	0.01	0.04	89.71	6.0	13	25	24.3	20.51 S	175.25 W	33	6.1	
05	10	17	HBV	eP ePP	19	38	21.3	0.8	0.02	0.02	0.03	100.31	1.3	19	36	26.9	37.89 N	17.24 W	33	6.4	
06	10	18	HBV	eP ePP ePcP	02	54	12.7	1.0	0.02	0.01	0.06	32.82	4.3	02	49	34.0	10.61 S	114.96 E	33	5.8	
07	10	21	HBV	eP ePPP	08	56	21.2	0.5	0.02	0.02	0.01	9.89	+ 9.2	08	44	39.6	21.63 N	94.78 E	56	5.6	
08	10	21	HBV	eS		47	15.9	0.3	0.09	0.12	0.12										
09	10	21	HBV	eSS eSSS ePcP	20	48	35.2	0.5	0.04	0.06	0.03	66.33	1.5	20	34	52.5	40.31 N	29.28 E	38	4.9	
10	10	22	HBV	eP ePKP	23	35	00.8	0.5	0.01	0.02	0.01	10.55	7.8	23	32	23.4	24.68 N	94.70 E	77	5.0	
11	10	22	HBV	eP ePPP	04	35	05.3	0.3	0.03	0.03	0.04	115.49		04	21	35.0	61.75 S	27.13 W	3	6.8	
12	10	22	HBV	eP ePKP	06	43	49.5	0.5	0.02	0.02	0.02	115.48		05	53	17.5	61.71 S	27.51 W	3	6.5	
13	10	22	HBV	eP ePKP	13	13	01.0	0.8	0.01	0.01	0.01	115.49		13	07	32.8	61.50 S	27.25 W	3	6.1	
14	10	25	HBV	eP ePPP ePcP	21	27	18.5	0.8	0.01	0.01	0.01	26.27	3.2	21	48	41.4	4.55 N	126.58 E	44	5.4	
15	10	26	HBV	eP ePPP ePcP	00	54	12.0	0.5	0.01	0.02	0.02	25.57	1.5	00	36	25.5	1.41 N	121.02 E	45	5.8	
16	10	27	TQV	1P ePPP	19	42	24.5	1.0	0.03	0.03	0.02	25.83	2.5	10	46	15.6	1.80 N	121.97 E	500	5.3	
17	10	30	TQV	1P ePPP	04	46	36.5	1.0	0.03	0.03	0.02	25.18	2.8	19	43	51.9	1.69 N	120.74 E	33	6.0	
18	10	30	TQV	eS 1P ePPP	16	51	08.0	0.3	0.07	0.06	0.03	55.86	1.1	04	12	26.6	40.46 N	42.14 E	3	6.8	
			HBV	eP eS 1P ePPP	17	52	17.0	0.5	0.01	0.01	0.01	28.96	+ 1.6	16	51	59.8	35.80 N	133.71 E	38	5.6	
				eP eS	16	57	50.5	1.0	0.01	0.01	0.01										
				1P ePPP	16	58	44.5	1.0	0.01	0.01	0.01										
				eP eS	17	58	58.3	1.0	0.01	0.01	0.01										
				1P ePPP	16	01	08.5	0.5	0.01	0.01	0.01										
				eP eS	16	02	29.0	0.5	0.01	0.01	0.01										
				1P ePPP	16	57	56.6	0.8	0.01	0.01	0.01										
				eP eS	16	56	43.6	0.8	0.01	0.01	0.01										
				1P ePPP	16	58	54.6	1.0	0.01	0.01	0.01										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
19	10	31	TQV	ePcP iP ePF ePPP	17 02	01 00 01 02	08.6 19.7 55.7 11.2	0.3 1.0 0.8 1.0	0.01	0.02 0.01 0.01	0.02 0.02	30.19	4.9	01	54	47.0	29.83 N	137.68 E	500	4.8	
20	10	31	TQV	eP	14	20	23.1	0.5	0.01	0.04	0.01	26.13	1.6	14	14	48.7	4.16 S	102.41 E	35	5.3	
21	10	31	HBV TQV	iP iP iP iPP iPPP iPcP iS e	17 17 17 45 45 47 49 54	44 44 45 45 47 49 54	25.2 32.8 34.3 50.3 21.3 34.3 49.8	1.0 1.0 1.0 1.0 1.0 1.0 2.0	0.06 0.03 0.05 0.03 0.04 0.02 0.01	0.04 0.03 0.04 0.04 0.02 0.17 0.11	0.13 0.04 0.04 0.02 0.01 0.16	24.71 32.96	7.0	17	37	58.4	8.24 S	118.97 E	75	5.7	
01	11	03	TQV	eP eS eSS eSSS	10	45 49 50 50	36.0 21.0 01.5 11.5	0.6	0.01	0.01	0.01	21.81	2.8	10	40	47.6	5.01 S	104.35 E	50	5.7	
02	11	04	HBV	iP iPcP iP ePoP	19	12 13 12 13	53.5 20.5 57.1 23.6	0.5 0.8 1.0 0.5	0.01	0.004 0.01 0.01 0.01	0.01 0.01 0.02 0.02	70.29	5.1	19	01	43.6	53.04 N	168.91 W	51	4.7	
03	11	05	TQV	iP iPP iPPP eS eSS eSSS ePcP eP ePP ePPP eS ePcP	19	52 52 53 56 56 56 57 52 53 53 56 57	33.5 53.5 05.0 05.5 23.0 30.0 18.7 42.6 05.1 13.6 18.1 19.5	0.8 0.8 1.0 1.0 1.0 1.0 1.0 0.5 0.8 0.8 0.8	0.03 0.03 0.02 0.01 0.02 0.01 0.01 0.01 0.04 0.04 0.05	0.01 0.02 0.03 0.01 0.01 0.01 0.01 0.03 0.03 0.04 0.01	18.40	8.0	19	48	27.4	34.34 N	89.85 E	36	5.6		
04	11	06	HBV	eP ePcP iP ePP	09	50 51 50 54	38.0 21.5 40.3 34.0	0.5 0.5 1.0	0.02 0.01	0.02	0.08	85.43	6.6	09	38	37.3	19.88 S	177.83 W	350	5.4	
05	11	06	TQV	iP iPP iPPP iS iSS iSS iPcP iPP iPPP eS eSS eSSS	21	13 13 13 16 16 17 18 13 13 16 16 17	30.0 51.0 57.5 29.8 47.0 01.0 30.0 39.7 47.2 51.7 46.7 54.7 08.7	1.0 1.0 1.0 0.8 0.8 0.8 0.8 0.8 0.5 0.5 0.5 0.5	0.06 0.05 0.07	0.01 0.01 0.01	16.09	2.6	21	09	47.4	35.29 N	115.29 E	36	5.5		
06	11	07	TQV	iP iPP iPPP ePcP iS iSS	08	45 46 46 48 50 51	31.3 23.0 31.0 39.5 12.0 45.7	2.0 1.0 1.0 2.0 1.8 0.3	0.28 0.01 0.01 0.42 0.19 0.02	0.33 0.01 0.01 0.37 0.12 0.02	0.60 0.01 0.01 0.54 0.24 0.03	29.78	7.6	08	39	24.2	1.79 N	127.85 E	48	6.0	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
32	11	25	TQV	eP	12	30	44.1	0.5			0.01	71.95	0.5	12	19	17.4	34.75 N	22.58 E	3	5.3	
33	11	25	HBV	ePcP	20	31	02.5	1.0	0.03	0.06	0.03	77.10	0.9	19	56	05.6	40.50 S	155.64 E	3	5.6	
34	11	25	TQV	eP	20	11	05.6	0.5	0.01	0.01	0.02	77.56	1.3								
34	11	25	TQV	1P	20	08	06.0	1.0	0.01	0.01	0.12	50.36		21	54	15.0	5.04 S	151.59 E	33	5.7	
34	11	25	HBV	1PcP	22	03	12.0	1.0	0.01	0.02	0.02										
35	11	26	TQV	1P	22	03	08.1	0.8	0.02	0.02	0.06										
35	11	26	TQV	ePP	05	05	04.4	0.5	0.01	0.01	0.02	76.48	4.0	15	51	56.1	57.01 N	155.90 W	73	4.5	
36	11	26	TQV	1PcP	16	03	41.0	1.0	0.01	0.01	0.01										
36	11	26	TQV	1P	20	04	00.5	1.0	0.01	0.02	0.06	149.88		20	16	22.2	7.29 N	82.63 W	3	5.9	
37	11	27	HBV	1PKP	20	38	17.0	0.8	0.02	0.01	0.03	52.16	2.0	20	22	39.8	6.36 S	154.33 E	33	5.3	
37	11	27	TQV	1P	20	31	51.2	0.8		0.01	0.01	52.59	7.6								
37	11	27	TQV	eP	20	32	00.0	0.5	0.01	0.01	0.01										
37	11	27	TQV	ePcP	20	33	07.0	0.8		0.02	0.02										
01	12	01	TQV	1P	05	53	42.0	1.0		0.03	0.19	43.60	2.8	05	45	32.7	6.61 S	71.45 E	3	5.6	
01	12	01	TQV	1PP	55	55	10.5	1.0		0.02	0.01										
01	12	01	TQV	1PcP	55	55	25.5	1.0	0.01	0.02	0.07										
01	12	01	TQV	1PPP	55	55	50.5	1.0		0.02	0.07										
02	12	01	TQV	1P	07	05	48.3	1.8		0.02	0.17	43.08	1.6	06	57	43.4	6.86 S	72.42 E	3	5.1	
03	12	01	TQV	1P	07	59	23.5	1.0	0.01	0.02	0.01			07	51	15.0	6.54 S	71.44 E	3	5.5	
04	12	01	TQV	1P	08	48	13.0	0.8	0.01	0.02	0.02	18.12	3.1	08	44	03.4	12.53 N	121.52 E	83	5.0	
05	12	01	TQV	ePP	48	48	37.0	1.0	0.01	0.02	0.05										
05	12	01	TQV	ePPP	48	48	49.5	1.0	0.01	0.02	0.01										
05	12	01	TQV	1P	12	30	26.5	1.0	0.01	0.04	0.12	43.20	1.8	12	22	19.6	6.65 S	72.07 E	3	4.8	
06	12	01	TQV	ePP	32	32	04.0	0.8		0.01	0.01										
06	12	01	TQV	ePcP	32	32	17.0	0.8	0.02	0.02	0.02										
06	12	01	TQV	1P	15	17	13.0	0.8	0.02	0.01	0.05	43.12	3.5	15	09	05.8	6.56 S	72.09 E	3	4.8	
07	12	01	TQV	ePP	18	18	51.0	0.8		0.01	0.01										
07	12	01	TQV	eP	18	31	46.5	1.0	0.01	0.01	0.01	43.53	2.2	18	23	39.4	6.42 S	71.41 E	3	4.9	
08	12	01	TQV	ePP	33	33	24.5	1.0		0.01	0.01										
08	12	01	TQV	ePcP	33	33	36.5	0.8	0.02	0.03	0.03	43.60	3.8	22	29	23.6	7.25 S	72.07 E	3	5.5	
08	12	01	TQV	1P	22	37	35.0	1.0	0.02	0.03	0.15										
09	12	02	TQV	1PP	39	39	07.0	0.8	0.01	0.01	0.02										
09	12	02	TQV	1PcP	39	39	23.0	0.8	0.01	0.01	0.02										
10	12	02	TQV	eP	15	33	31.3	2.0	0.01	0.11	0.27	43.33	5.5	15	25	31.5	5.27 S	70.68 E	3	5.2	
10	12	02	TQV	1P	20	46	24.5	2.0		0.01	0.01	43.76	1.1	20	38	14.4	6.52 S	71.16 E	3	5.2	
11	12	04	TQV	1PP	47	47	59.0	0.5	0.01	0.01	0.01										
11	12	04	TQV	1PcP	48	48	12.0	0.5	0.06	0.01	0.01										
11	12	04	TQV	ePPP	48	48	34.5	1.0	0.01	0.01	0.01										
12	12	04	TQV	1P	02	56	39.3	0.5		0.02	0.02	43.73	1.8	02	48	28.9	6.68 S	71.37 E	3	5.1	
12	12	04	TQV	1P	13	14	33.0	1.0	0.01	0.01	0.01	43.31	1.1	13	06	26.7	7.14 S	72.37 E	3	5.3	
13	12	04	TQV	1P	19	43	40.0	1.0	0.01	0.01	0.01	87.74	5.0	19	30	43.1	19.88 S	175.74 W	3	5.5	
14	12	05	TQV	ePcP	01	43	44.0	0.5		0.02	0.02	25.92	0.4	01	53	32.0	32.64 N	131.82 E	3	5.0	
14	12	05	TQV	eP	01	59	07.0	0.8	0.07	0.05	0.03										
14	12	05	TQV	ePP	59	59	39.0	1.0		0.04	0.01	20.08	2.9	09	25	50.8	4.13 N	95.42 E	33	5.4	
14	12	05	TQV	ePPP	59	59	51.5	1.0	0.01	0.01	0.01										
15	12	06	TQV	1P	09	30	27.0	0.5	0.02	0.05	0.18										
15	12	06	TQV	1PP	30	30	45.5	1.0	0.02	0.04	0.06										
15	12	06	TQV	1PPP	30	30	58.5	1.0	0.01	0.01	0.05										
16	12	07	TQV	1P	12	18	18.0	1.0	0.03	0.01	0.02	34.36	2.3	12	11	29.9	36.03 N	69.14 E	33	5.0	
16	12	07	TQV	1PP	19	19	39.0	1.0	0.01	0.02	0.01										
16	12	07	TQV	ePPP	19	19	49.0	1.0	0.01	0.02	0.01										
17	12	08	BGV	1P	02	30	39.0	1.0	0.01	0.02	0.01	84.35	5.4	02	19	08.2	19.07 S	176.05 W	600	5.4	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
45	12	17	BGV	1PP 1PPP eS 1PcP	04	30 31 33 36	55.0 14.0 00.0 30.1	0.5 0.9 0.5 0.3		0.04 0.05 0.03	0.03 0.05 0.02 0.02 0.03 0.04 0.05 0.06	12.69 12.26 12.94	- 0.1 + 3.8	06	20	28.7	13.76 N	95.51 E	3	5.2	
46	12	17	TQV	1P 1PPP 1P 1PP 1PPP	06 06 08	23 23 23 23 23	25.0 43.5 28.1 35.0 45.1	0.9 0.2 0.4 0.6	0.03 0.04 0.03	0.04 0.04	0.05 0.06 0.05 0.06	37.04 12.93	- 3.6 - 7.4	08 10	56 56	19.3 42.1	6.82 S 12.63 N	129.16 E 95.68 E	246 3	5.2 5.4	
47	12	17	TQV	1P 1PPP 1P 1PcP	09 10	03 05	07.0 54.1	0.9 0.4	0.03 0.03	0.04 0.06	0.05 0.06	37.04 12.93	- 3.6 - 7.4	08 10	56 56	19.3 42.1	6.82 S 12.63 N	129.16 E 95.68 E	246 3	5.2 5.4	
48	12	17	TQV	eP 1PP 1PPP	10	59	46.1	0.4	0.03	0.04	0.05	12.93	- 7.4	10	56	42.1	12.63 N	95.68 E	3	5.4	
49	12	17	HBV	1P 1PPP	10	59	49.1	0.4	0.03	0.04	0.05	12.93	- 7.4	10	56	42.1	12.63 N	95.68 E	3	5.4	
49	12	17	HBV	eP 1P 1PcP	10 11 16	59 01 06	49.1 58.0 52.0 54.0 05.5	0.5 1.2 0.8 0.7 1.0	0.03 0.03 0.02 0.01 0.01 0.01	0.04 0.03 0.02 0.01 0.01	0.05 0.06 0.03 0.01 0.02 0.04	37.04 12.93	- 3.6 - 7.4	08 10	56 56	19.3 42.1	6.82 S 12.63 N	129.16 E 95.68 E	246 3	5.2 5.4	
50	12	17	TQV	eP 1P 1PcP	16	06	11.0	1.0	0.01	0.01	0.04	12.93	- 7.4	10	56	42.1	12.63 N	95.68 E	3	5.4	
51	12	18	HBV	eP 1P 1PcP	16 17 17	29 29 33	06.3 10.0 12.5	0.5 0.7 0.8 0.5	0.002 0.01 0.01	0.04 0.01 0.01	0.05 0.01 0.01	12.93 12.38	+ 0.5 + 0.5	16 17	26 28	01.0 36.3	12.95 N 7.98 S	95.35 E 119.45 E	3 50	5.4 5.1	
52	12	18	NHA	eP 1P 1PcP	17	35	14.0	0.4	0.01	0.01	0.04	12.93	- 7.4	10	56	42.1	12.63 N	95.68 E	3	5.4	
53	12	18	TQV	1P 1PPP 1P 1PcP	17 17 17	36 36 37	13.1 27.0 58.5	0.5 0.5 0.8	0.01 0.01	0.01 0.01	0.05 0.01	12.93 12.38	+ 0.5 + 0.5	16 17	26 28	01.0 36.3	12.95 N 7.98 S	95.35 E 119.45 E	3 50	5.4 5.1	
54	12	20	TQV	1P 1PPP 1P 1PcP	12	30	36.8	0.5	0.002	0.01	0.05	42.97	- 0.4	12	22	32.8	6.65 S	72.37 E	3	5.3	
55	12	20	HBV	eP 1P 1PcP	16	18	22.2	1.0	0.02	0.01	0.03	60.76	- 2.3	16	06	12.9	14.94 S	179.14 E	33	5.4	
56	12	20	HBV	eP 1P 1PcP	17	06	40.3	1.2	0.08	0.01	0.01	43.78	3.5	16	50	32.6	1.81 S	144.78 E	33	5.8	
57	12	20	NHA	1P 1PPP 1P 1PcP	17 18 21	06 54 04	56.5 35.5 40.6	1.0 1.5 0.2	0.01	0.12	0.16	37.98 44.93 12.96	+ 3.2 .. 3.9	18 21	46 01	40.9 35.1	1.49 S 12.43 N	144.55 E 95.86 E	33 3	5.7 4.6	
59	12	22	BCV	eP 1PPP 1P	01	11	15.8	0.8	0.01	0.03	0.04	48.71		01	02	06.0	5.13 S	151.14 E	33	6.2	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
60	12	22	BGV	1P 1PP 1PPP	05	38 39 40	33.7 59.0 19.0	1.0 0.5		0.03 0.02	0.03 0.02	35.37	- 2.0	05	31	41.3	36.40 N	69.24 E	3	5.1	
61	12	22	BGV	6P 6PP	09	02 03	57.8 19.8	0.5		0.04		20.56	+ 0.4	08	58	24.4	26.80 N	127.95 E	37	5.1	
62	12	23	HEV	1P 6PP	09	03 03	13.8 43.3	0.7 0.6	0.01 0.01	0.03 0.02	0.03 0.02	21.49	+ 2.4								
63	12	25	BGV	1P	15	37	37.0					32.78		15	30	32.9	5.05 S	131.76 E	33	6.0	
64	12	30	BGV	1P 1PP 1PPP	14 02 02	42 37 38	21.5 08.0 34.0	1.1		0.05	0.05	13.44 33.13	- 0.7	14 02	34 30	04.3 39.9	12.19 N 35.99 N	95.89 E 140.36 E	2 20	4.9 4.7	
65	12	30	BGV	1P 1PP 1PPP	08 08 08	04 04 04	01.0 22.0 32.1	1.0 0.7		0.06 0.04	0.02 0.03	18.24	- 2.9	07	59	52.7	7.07 N	94.42 E	63	5.8	