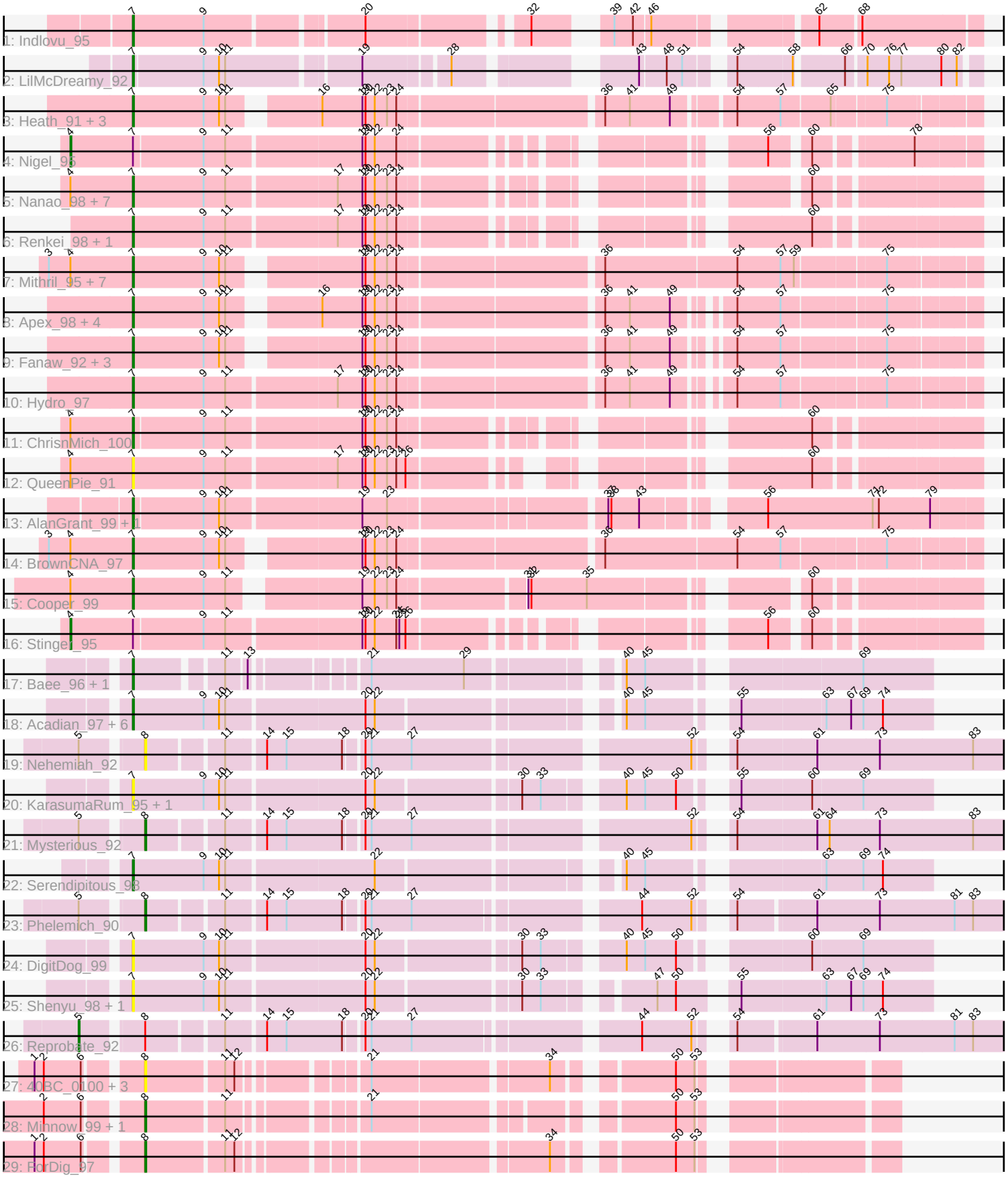
Pham 343973


1: Indlovu_95
2: LilMcDreamy_92
3: Heath_91 + 3
4: Nigel_95
5: Nanao_98 + 7
6: Renkei_98 + 1
7: Mithril_95 + 7
8: Apex_98 + 4
9: Fanaw_92 + 3
10: Hydro_97
11: ChrisnMich_100
12: QueenPie_91
13: AlanGrant_99 + 1
14: BrownCNA_97
15: Cooper_99
16: Stinger_95
17: Baee_96 + 1
18: Acadian_97 + 6
19: Nehemiah_92
20: KarasumaRum_95 + 1
21: Mysterious_92
22: Serendipitous_98
23: Phelemich_90
24: DigitDog_99
25: Shenyu_98 + 1
26: Reprobate_92
27: 40BC_0100 + 3
28: Minnow_99 + 1
29: RorDig_97

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 343973 Report

This analysis was run 11/14/26 on database version 672.

Pham number 343973 has 68 members, 24 are drafts.

Phages represented in each track:
• Track 1 : Indlovu_95
• Track 2 : LilMcDreamy_92
• Track 3 : Heath_91, Zemanar_95, Frederick_98, BobbyK_97
• Track 4 : Nigel_95
• Track 5 : Nanao_98, Ahwei_96, Lambano_96, Epah_98, GinPorsche_100, Antihero_98, Hally898_96, Poster_97
• Track 6 : Renkei_98, LittleDigger_98
• Track 7 : Mithril_95, Lolalove_99, JoyceMaria_97, Hangman_97, Austelle_97, Mudslide_98, Prince_97, Waleliano_96
• Track 8 : Apex_98, Magpie_93, Xincheng_88, JAMaL_98, JaguarMi_90
• Track 9 : Fanaw_92, Fortunato_94, RawrgerThat_94, VioletZ_99
• Track 10 : Hydro_97
• Track 11 : ChrisnMich_100
• Track 12 : QueenPie_91
• Track 13 : AlanGrant_99, Vincenzo_98
• Track 14 : BrownCNA_97
• Track 15 : Cooper_99
• Track 16 : Stinger_95
• Track 17 : Baee_96, Rich_95
• Track 18 : Acadian_97, SirJeffery_95, Donny_97, EastView9101_97, Suigeneris_98, Rita130_96, Reccee_98
• Track 19 : Nehemiah_92
• Track 20 : KarasumaRum_95, StinkyVeggy_95
• Track 21 : Mysterious_92
• Track 22 : Serendipitous_98
• Track 23 : Phelemich_90
• Track 24 : DigitDog_99
• Track 25 : Shenyu_98, Nangang_98
• Track 26 : Reprobate_92
• Track 27 : 40BC_0100, Hosp_095, 39HC_0100, Jolie1_098
• Track 28 : Minnow_99, KayaCho_95
• Track 29 : ForDig_97

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 7, it was called in 37 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acadian_97, Ahwei_96, AlanGrant_99, Antihero_98, Apex_98, Austelle_97, Baee_96, BobbyK_97, BrownCNA_97, ChrisnMich_100, Cooper_99, DigitDog_99, Donny_97, EastView9101_97, Epah_98, Fanaw_92, Fortunato_94, Frederick_98, GinPorsche_100, Hally898_96, Hangman_97, Heath_91, Hydro_97, Indlovu_95, JAMaL_98, JaguarMi_90, JoyceMaria_97, KarasumaRum_95, Lambano_96, LilMcDreamy_92, LittleDigger_98, Lolalove_99, Magpie_93, Mithril_95, Mudslide_98, Nanao_98, Nangang_98, Poster_97, Prince_97, QueenPie_91, RawrgerThat_94, Reccee_98, Renkei_98, Rich_95, Rita130_96, Serendipitous_98, Shenyu_98, SirJeffery_95, StinkyVeggy_95, Suigeneris_98, Vincenzo_98, VioletZ_99, Waleliano_96, Xincheng_88, Zemanar_95,

Genes that have the "Most Annotated" start but do not call it:
• Nigel_95, Stinger_95,

Genes that do not have the "Most Annotated" start:
• 39HC_0100, 40BC_0100, ForDig_97, Hosp_095, Jolie1_098, KayaCho_95, Minnow_99, Mysterious_92, Nehemiah_92, Phelemich_90, Reprobate_92,

Summary by start number:

Start 4:
• Found in 22 of 68 (32.4%) of genes in pham
• Manual Annotations of this start: 2 of 44
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Nigel_95 (B4), Stinger_95 (B4),

Start 5:
• Found in 4 of 68 (5.9%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Reprobate_92 (B5),

Start 7:
• Found in 57 of 68 (83.8%) of genes in pham
• Manual Annotations of this start: 37 of 44
• Called 96.5% of time when present
• Phage (with cluster) where this start called: Acadian_97 (B5), Ahwei_96 (B4), AlanGrant_99 (B4), Antihero_98 (B4), Apex_98 (B4), Austelle_97 (B4), Baee_96 (B5), BobbyK_97 (B4), BrownCNA_97 (B4), ChrisnMich_100 (B4), Cooper_99 (B4), DigitDog_99 (B5), Donny_97 (B5), EastView9101_97 (B5), Epah_98 (B4), Fanaw_92 (B4), Fortunato_94 (B4), Frederick_98 (B4), GinPorsche_100 (B4), Hally898_96 (B4), Hangman_97 (B4), Heath_91 (B4), Hydro_97 (B4), Indlovu_95 (B11), JAMaL_98 (B4), JaguarMi_90 (B4), JoyceMaria_97 (B4), KarasumaRum_95 (B5), Lambano_96 (B4), LilMcDreamy_92 (B12), LittleDigger_98 (B4), Lolalove_99 (B4), Magpie_93 (B4), Mithril_95 (B4), Mudslide_98 (B4), Nanao_98 (B4), Nangang_98 (B5), Poster_97 (B4), Prince_97 (B4), QueenPie_91 (B4), RawrgerThat_94 (B4), Reccee_98 (B5), Renkei_98 (B4), Rich_95 (B5), Rita130_96 (B5), Serendipitous_98 (B5), Shenyu_98 (B5), SirJeffery_95 (B5), StinkyVeggy_95 (B5), Suigeneris_98 (B5),

Vincenzo_98 (B4), VioletZ_99 (B4), Waleliano_96 (B4), Xincheng_88 (B4), Zemanar_95 (B4),

Start 8:
• Found in 11 of 68 (16.2%) of genes in pham
• Manual Annotations of this start: 4 of 44
• Called 90.9% of time when present
• Phage (with cluster) where this start called: 39HC_0100 (B6), 40BC_0100 (B6), ForDig_97 (B6), Hosp_095 (B6), Jolie1_098 (B6), KayaCho_95 (B6), Minnow_99 (B6), Mysterious_92 (B5), Nehemiah_92 (B5), Phelemich_90 (B5),

Summary by clusters:

There are 5 clusters represented in this pham: B4, B5, B6, B12, B11,

Info for manual annotations of cluster B11:
•Start number 7 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:
•Start number 7 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B4:
•Start number 4 was manually annotated 2 times for cluster B4.
•Start number 7 was manually annotated 27 times for cluster B4.

Info for manual annotations of cluster B5:
•Start number 5 was manually annotated 1 time for cluster B5.
•Start number 7 was manually annotated 8 times for cluster B5.
•Start number 8 was manually annotated 2 times for cluster B5.

Info for manual annotations of cluster B6:
•Start number 8 was manually annotated 2 times for cluster B6.

Gene Information:

Gene: 39HC_0100 Start: 71338, Stop: 70730, Start Num: 8
Candidate Starts for 39HC_0100:
(1, 71428), (2, 71419), (6, 71383), (Start: 8 @71338 has 4 MA's), (11, 71266), (12, 71257), (21, 71158), (34, 70999), (50, 70906), (53, 70888),

Gene: 40BC_0100 Start: 71338, Stop: 70730, Start Num: 8
Candidate Starts for 40BC_0100:
(1, 71428), (2, 71419), (6, 71383), (Start: 8 @71338 has 4 MA's), (11, 71266), (12, 71257), (21, 71158), (34, 70999), (50, 70906), (53, 70888),

Gene: Acadian_97 Start: 69755, Stop: 69066, Start Num: 7
Candidate Starts for Acadian_97:
(Start: 7 @69755 has 37 MA's), (9, 69686), (10, 69671), (11, 69665), (20, 69536), (22, 69527), (40, 69326), (45, 69308), (55, 69245), (63, 69167), (67, 69143), (69, 69131), (74, 69113),

Gene: Ahwei_96 Start: 70567, Stop: 69878, Start Num: 7

Candidate Starts for Ahwei_96:
(Start: 4 @70627 has 2 MA's), (Start: 7 @70567 has 37 MA's), (9, 70498), (11, 70477), (17, 70375), (19, 70351), (20, 70348), (22, 70339), (23, 70327), (24, 70318), (60, 70018),

Gene: AlanGrant_99 Start: 72005, Stop: 71247, Start Num: 7
Candidate Starts for AlanGrant_99:
(Start: 7 @72005 has 37 MA's), (9, 71939), (10, 71924), (11, 71918), (19, 71792), (23, 71768), (37, 71576), (38, 71573), (43, 71546), (56, 71450), (71, 71348), (72, 71342), (79, 71294),

Gene: Antihero_98 Start: 70492, Stop: 69803, Start Num: 7
Candidate Starts for Antihero_98:
(Start: 4 @70552 has 2 MA's), (Start: 7 @70492 has 37 MA's), (9, 70423), (11, 70402), (17, 70300), (19, 70276), (20, 70273), (22, 70264), (23, 70252), (24, 70243), (60, 69943),

Gene: Apex_98 Start: 71007, Stop: 70270, Start Num: 7
Candidate Starts for Apex_98:
(Start: 7 @71007 has 37 MA's), (9, 70938), (10, 70923), (11, 70917), (16, 70848), (19, 70809), (20, 70806), (22, 70797), (23, 70785), (24, 70776), (36, 70590), (41, 70566), (49, 70527), (54, 70485), (57, 70443), (75, 70350),

Gene: Austelle_97 Start: 71561, Stop: 70803, Start Num: 7
Candidate Starts for Austelle_97:
(3, 71642), (Start: 4 @71621 has 2 MA's), (Start: 7 @71561 has 37 MA's), (9, 71492), (10, 71477), (11, 71471), (19, 71363), (20, 71360), (22, 71351), (23, 71339), (24, 71330), (36, 71144), (54, 71018), (57, 70976), (59, 70964), (75, 70883),

Gene: Baee_96 Start: 70161, Stop: 69508, Start Num: 7
Candidate Starts for Baee_96:
(Start: 7 @70161 has 37 MA's), (11, 70086), (13, 70068), (21, 69978), (29, 69888), (40, 69768), (45, 69750), (69, 69573),

Gene: BobbyK_97 Start: 70650, Stop: 69904, Start Num: 7
Candidate Starts for BobbyK_97:
(Start: 7 @70650 has 37 MA's), (9, 70581), (10, 70566), (11, 70560), (16, 70491), (19, 70452), (20, 70449), (22, 70440), (23, 70428), (24, 70419), (36, 70233), (41, 70209), (49, 70170), (54, 70119), (57, 70077), (65, 70032), (75, 69984),

Gene: BrownCNA_97 Start: 70976, Stop: 70218, Start Num: 7
Candidate Starts for BrownCNA_97:
(3, 71057), (Start: 4 @71036 has 2 MA's), (Start: 7 @70976 has 37 MA's), (9, 70907), (10, 70892), (11, 70886), (19, 70778), (20, 70775), (22, 70766), (23, 70754), (24, 70745), (36, 70559), (54, 70433), (57, 70391), (75, 70298),

Gene: ChrisnMich_100 Start: 70192, Stop: 69494, Start Num: 7
Candidate Starts for ChrisnMich_100:
(Start: 4 @70252 has 2 MA's), (Start: 7 @70192 has 37 MA's), (9, 70126), (11, 70105), (19, 69979), (20, 69976), (22, 69967), (23, 69955), (24, 69946), (60, 69634),

Gene: Cooper_99 Start: 70418, Stop: 69705, Start Num: 7
Candidate Starts for Cooper_99:
(Start: 4 @70478 has 2 MA's), (Start: 7 @70418 has 37 MA's), (9, 70349), (11, 70328), (19, 70220), (22, 70208), (23, 70196), (24, 70187), (31, 70073), (32, 70070), (35, 70016), (60, 69845),

Gene: DigitDog_99 Start: 70278, Stop: 69580, Start Num: 7
Candidate Starts for DigitDog_99:
(Start: 7 @70278 has 37 MA's), (9, 70209), (10, 70194), (11, 70188), (20, 70059), (22, 70050), (30, 69921), (33, 69903), (40, 69840), (45, 69822), (50, 69792), (60, 69693), (69, 69645),

Gene: Donny_97 Start: 69582, Stop: 68893, Start Num: 7
Candidate Starts for Donny_97:
(Start: 7 @69582 has 37 MA's), (9, 69513), (10, 69498), (11, 69492), (20, 69363), (22, 69354), (40, 69153), (45, 69135), (55, 69072), (63, 68994), (67, 68970), (69, 68958), (74, 68940),

Gene: EastView9101_97 Start: 69774, Stop: 69085, Start Num: 7
Candidate Starts for EastView9101_97:
(Start: 7 @69774 has 37 MA's), (9, 69705), (10, 69690), (11, 69684), (20, 69555), (22, 69546), (40, 69345), (45, 69327), (55, 69264), (63, 69186), (67, 69162), (69, 69150), (74, 69132),

Gene: Epah_98 Start: 70492, Stop: 69803, Start Num: 7
Candidate Starts for Epah_98:
(Start: 4 @70552 has 2 MA's), (Start: 7 @70492 has 37 MA's), (9, 70423), (11, 70402), (17, 70300), (19, 70276), (20, 70273), (22, 70264), (23, 70252), (24, 70243), (60, 69943),

Gene: Fanaw_92 Start: 70565, Stop: 69828, Start Num: 7
Candidate Starts for Fanaw_92:
(Start: 7 @70565 has 37 MA's), (9, 70496), (10, 70481), (11, 70475), (19, 70367), (20, 70364), (22, 70355), (23, 70343), (24, 70334), (36, 70148), (41, 70124), (49, 70085), (54, 70043), (57, 70001), (75, 69908),

Gene: ForDig_97 Start: 70596, Stop: 69988, Start Num: 8
Candidate Starts for ForDig_97:
(1, 70686), (2, 70677), (6, 70641), (Start: 8 @70596 has 4 MA's), (11, 70524), (12, 70515), (34, 70257), (50, 70164), (53, 70146),

Gene: Fortunato_94 Start: 70442, Stop: 69705, Start Num: 7
Candidate Starts for Fortunato_94:
(Start: 7 @70442 has 37 MA's), (9, 70373), (10, 70358), (11, 70352), (19, 70244), (20, 70241), (22, 70232), (23, 70220), (24, 70211), (36, 70025), (41, 70001), (49, 69962), (54, 69920), (57, 69878), (75, 69785),

Gene: Frederick_98 Start: 70947, Stop: 70210, Start Num: 7
Candidate Starts for Frederick_98:
(Start: 7 @70947 has 37 MA's), (9, 70878), (10, 70863), (11, 70857), (16, 70788), (19, 70749), (20, 70746), (22, 70737), (23, 70725), (24, 70716), (36, 70530), (41, 70506), (49, 70467), (54, 70425), (57, 70383), (65, 70338), (75, 70290),

Gene: GinPorsche_100 Start: 70489, Stop: 69800, Start Num: 7
Candidate Starts for GinPorsche_100:
(Start: 4 @70549 has 2 MA's), (Start: 7 @70489 has 37 MA's), (9, 70420), (11, 70399), (17, 70297), (19, 70273), (20, 70270), (22, 70261), (23, 70249), (24, 70240), (60, 69940),

Gene: Hally898_96 Start: 70329, Stop: 69640, Start Num: 7
Candidate Starts for Hally898_96:
(Start: 4 @70389 has 2 MA's), (Start: 7 @70329 has 37 MA's), (9, 70260), (11, 70239), (17, 70137), (19, 70113), (20, 70110), (22, 70101), (23, 70089), (24, 70080), (60, 69780),

Gene: Hangman_97 Start: 71138, Stop: 70380, Start Num: 7
Candidate Starts for Hangman_97:
(3, 71219), (Start: 4 @71198 has 2 MA's), (Start: 7 @71138 has 37 MA's), (9, 71069), (10, 71054), (11, 71048), (19, 70940), (20, 70937), (22, 70928), (23, 70916), (24, 70907), (36, 70721), (54, 70595), (57, 70553), (59, 70541), (75, 70460),

Gene: Heath_91 Start: 69021, Stop: 68275, Start Num: 7
Candidate Starts for Heath_91:
(Start: 7 @69021 has 37 MA's), (9, 68952), (10, 68937), (11, 68931), (16, 68862), (19, 68823), (20, 68820), (22, 68811), (23, 68799), (24, 68790), (36, 68604), (41, 68580), (49, 68541), (54, 68490), (57, 68448), (65, 68403), (75, 68355),

Gene: Hosp_095 Start: 68642, Stop: 68034, Start Num: 8
Candidate Starts for Hosp_095:
(1, 68732), (2, 68723), (6, 68687), (Start: 8 @68642 has 4 MA's), (11, 68570), (12, 68561), (21, 68462), (34, 68303), (50, 68210), (53, 68192),

Gene: Hydro_97 Start: 70922, Stop: 70167, Start Num: 7
Candidate Starts for Hydro_97:
(Start: 7 @70922 has 37 MA's), (9, 70853), (11, 70832), (17, 70730), (19, 70706), (20, 70703), (22, 70694), (23, 70682), (24, 70673), (36, 70487), (41, 70463), (49, 70424), (54, 70382), (57, 70340), (75, 70247),

Gene: Indlovu_95 Start: 70812, Stop: 70111, Start Num: 7
Candidate Starts for Indlovu_95:
(Start: 7 @70812 has 37 MA's), (9, 70743), (20, 70605), (32, 70473), (39, 70422), (42, 70404), (46, 70389), (62, 70257), (68, 70221),

Gene: JAMaL_98 Start: 70604, Stop: 69867, Start Num: 7
Candidate Starts for JAMaL_98:
(Start: 7 @70604 has 37 MA's), (9, 70535), (10, 70520), (11, 70514), (16, 70445), (19, 70406), (20, 70403), (22, 70394), (23, 70382), (24, 70373), (36, 70187), (41, 70163), (49, 70124), (54, 70082), (57, 70040), (75, 69947),

Gene: JaguarMi_90 Start: 70729, Stop: 69992, Start Num: 7
Candidate Starts for JaguarMi_90:
(Start: 7 @70729 has 37 MA's), (9, 70660), (10, 70645), (11, 70639), (16, 70570), (19, 70531), (20, 70528), (22, 70519), (23, 70507), (24, 70498), (36, 70312), (41, 70288), (49, 70249), (54, 70207), (57, 70165), (75, 70072),

Gene: Jolie1_098 Start: 70831, Stop: 70223, Start Num: 8
Candidate Starts for Jolie1_098:
(1, 70921), (2, 70912), (6, 70876), (Start: 8 @70831 has 4 MA's), (11, 70759), (12, 70750), (21, 70651), (34, 70492), (50, 70399), (53, 70381),

Gene: JoyceMaria_97 Start: 70970, Stop: 70212, Start Num: 7
Candidate Starts for JoyceMaria_97:
(3, 71051), (Start: 4 @71030 has 2 MA's), (Start: 7 @70970 has 37 MA's), (9, 70901), (10, 70886), (11, 70880), (19, 70772), (20, 70769), (22, 70760), (23, 70748), (24, 70739), (36, 70553), (54, 70427), (57, 70385), (59, 70373), (75, 70292),

Gene: KarasumaRum_95 Start: 69551, Stop: 68853, Start Num: 7
Candidate Starts for KarasumaRum_95:

(Start: 7 @69551 has 37 MA's), (9, 69482), (10, 69467), (11, 69461), (20, 69332), (22, 69323), (30, 69194), (33, 69176), (40, 69113), (45, 69095), (50, 69065), (55, 69032), (60, 68966), (69, 68918),

Gene: KayaCho_95 Start: 70610, Stop: 70008, Start Num: 8
Candidate Starts for KayaCho_95:
(2, 70691), (6, 70655), (Start: 8 @70610 has 4 MA's), (11, 70538), (21, 70430), (50, 70184), (53, 70166),

Gene: Lambano_96 Start: 70329, Stop: 69640, Start Num: 7
Candidate Starts for Lambano_96:
(Start: 4 @70389 has 2 MA's), (Start: 7 @70329 has 37 MA's), (9, 70260), (11, 70239), (17, 70137), (19, 70113), (20, 70110), (22, 70101), (23, 70089), (24, 70080), (60, 69780),

Gene: LilMcDreamy_92 Start: 69414, Stop: 68710, Start Num: 7
Candidate Starts for LilMcDreamy_92:
(Start: 7 @69414 has 37 MA's), (9, 69348), (10, 69333), (11, 69327), (19, 69207), (28, 69132), (43, 68994), (48, 68970), (51, 68955), (54, 68922), (58, 68871), (66, 68829), (70, 68814), (76, 68793), (77, 68781), (80, 68742), (82, 68727),

Gene: LittleDigger_98 Start: 70515, Stop: 69814, Start Num: 7
Candidate Starts for LittleDigger_98:
(Start: 7 @70515 has 37 MA's), (9, 70446), (11, 70425), (17, 70323), (19, 70299), (20, 70296), (22, 70287), (23, 70275), (24, 70266), (60, 69954),

Gene: Lolalove_99 Start: 70873, Stop: 70115, Start Num: 7
Candidate Starts for Lolalove_99:
(3, 70954), (Start: 4 @70933 has 2 MA's), (Start: 7 @70873 has 37 MA's), (9, 70804), (10, 70789), (11, 70783), (19, 70675), (20, 70672), (22, 70663), (23, 70651), (24, 70642), (36, 70456), (54, 70330), (57, 70288), (59, 70276), (75, 70195),

Gene: Magpie_93 Start: 70777, Stop: 70040, Start Num: 7
Candidate Starts for Magpie_93:
(Start: 7 @70777 has 37 MA's), (9, 70708), (10, 70693), (11, 70687), (16, 70618), (19, 70579), (20, 70576), (22, 70567), (23, 70555), (24, 70546), (36, 70360), (41, 70336), (49, 70297), (54, 70255), (57, 70213), (75, 70120),

Gene: Minnow_99 Start: 70831, Stop: 70229, Start Num: 8
Candidate Starts for Minnow_99:
(2, 70912), (6, 70876), (Start: 8 @70831 has 4 MA's), (11, 70759), (21, 70651), (50, 70405), (53, 70387),

Gene: Mithril_95 Start: 70699, Stop: 69941, Start Num: 7
Candidate Starts for Mithril_95:
(3, 70780), (Start: 4 @70759 has 2 MA's), (Start: 7 @70699 has 37 MA's), (9, 70630), (10, 70615), (11, 70609), (19, 70501), (20, 70498), (22, 70489), (23, 70477), (24, 70468), (36, 70282), (54, 70156), (57, 70114), (59, 70102), (75, 70021),

Gene: Mudslide_98 Start: 71104, Stop: 70346, Start Num: 7
Candidate Starts for Mudslide_98:
(3, 71185), (Start: 4 @71164 has 2 MA's), (Start: 7 @71104 has 37 MA's), (9, 71035), (10, 71020), (11, 71014), (19, 70906), (20, 70903), (22, 70894), (23, 70882), (24, 70873), (36, 70687), (54, 70561), (57, 70519), (59, 70507), (75, 70426),

Gene: Mysterious_92 Start: 68612, Stop: 67785, Start Num: 8
Candidate Starts for Mysterious_92:
(Start: 5 @68663 has 1 MA's), (Start: 8 @68612 has 4 MA's), (11, 68546), (14, 68513), (15, 68495), (18, 68441), (20, 68426), (21, 68420), (27, 68381), (52, 68135), (54, 68117), (61, 68042), (64, 68030), (73, 67982), (83, 67892),

Gene: Nanao_98 Start: 70342, Stop: 69653, Start Num: 7
Candidate Starts for Nanao_98:
(Start: 4 @70402 has 2 MA's), (Start: 7 @70342 has 37 MA's), (9, 70273), (11, 70252), (17, 70150), (19, 70126), (20, 70123), (22, 70114), (23, 70102), (24, 70093), (60, 69793),

Gene: Nangang_98 Start: 70177, Stop: 69479, Start Num: 7
Candidate Starts for Nangang_98:
(Start: 7 @70177 has 37 MA's), (9, 70108), (10, 70093), (11, 70087), (20, 69958), (22, 69949), (30, 69820), (33, 69802), (47, 69718), (50, 69700), (55, 69658), (63, 69580), (67, 69556), (69, 69544), (74, 69526),

Gene: Nehemiah_92 Start: 68480, Stop: 67653, Start Num: 8
Candidate Starts for Nehemiah_92:
(Start: 5 @68531 has 1 MA's), (Start: 8 @68480 has 4 MA's), (11, 68414), (14, 68381), (15, 68363), (18, 68309), (20, 68294), (21, 68288), (27, 68249), (52, 68003), (54, 67985), (61, 67910), (73, 67850), (83, 67760),

Gene: Nigel_95 Start: 69728, Stop: 68988, Start Num: 4
Candidate Starts for Nigel_95:
(Start: 4 @69728 has 2 MA's), (Start: 7 @69668 has 37 MA's), (9, 69602), (11, 69581), (19, 69455), (20, 69452), (22, 69443), (24, 69422), (56, 69155), (60, 69125), (78, 69044),

Gene: Phelemich_90 Start: 68509, Stop: 67691, Start Num: 8
Candidate Starts for Phelemich_90:
(Start: 5 @68560 has 1 MA's), (Start: 8 @68509 has 4 MA's), (11, 68443), (14, 68410), (15, 68392), (18, 68338), (20, 68323), (21, 68317), (27, 68278), (44, 68083), (52, 68035), (54, 68017), (61, 67948), (73, 67888), (81, 67816), (83, 67798),

Gene: Poster_97 Start: 70343, Stop: 69654, Start Num: 7
Candidate Starts for Poster_97:
(Start: 4 @70403 has 2 MA's), (Start: 7 @70343 has 37 MA's), (9, 70274), (11, 70253), (17, 70151), (19, 70127), (20, 70124), (22, 70115), (23, 70103), (24, 70094), (60, 69794),

Gene: Prince_97 Start: 70971, Stop: 70213, Start Num: 7
Candidate Starts for Prince_97:
(3, 71052), (Start: 4 @71031 has 2 MA's), (Start: 7 @70971 has 37 MA's), (9, 70902), (10, 70887), (11, 70881), (19, 70773), (20, 70770), (22, 70761), (23, 70749), (24, 70740), (36, 70554), (54, 70428), (57, 70386), (59, 70374), (75, 70293),

Gene: QueenPie_91 Start: 70092, Stop: 69403, Start Num: 7
Candidate Starts for QueenPie_91:
(Start: 4 @70152 has 2 MA's), (Start: 7 @70092 has 37 MA's), (9, 70023), (11, 70002), (17, 69900), (19, 69876), (20, 69873), (22, 69864), (23, 69852), (24, 69843), (26, 69834), (60, 69543),

Gene: RawrgerThat_94 Start: 70604, Stop: 69867, Start Num: 7
Candidate Starts for RawrgerThat_94:

(Start: 7 @70604 has 37 MA's), (9, 70535), (10, 70520), (11, 70514), (19, 70406), (20, 70403), (22, 70394), (23, 70382), (24, 70373), (36, 70187), (41, 70163), (49, 70124), (54, 70082), (57, 70040), (75, 69947),

Gene: Reccee_98 Start: 70025, Stop: 69336, Start Num: 7
Candidate Starts for Reccee_98:
(Start: 7 @70025 has 37 MA's), (9, 69956), (10, 69941), (11, 69935), (20, 69806), (22, 69797), (40, 69596), (45, 69578), (55, 69515), (63, 69437), (67, 69413), (69, 69401), (74, 69383),

Gene: Renkei_98 Start: 70509, Stop: 69808, Start Num: 7
Candidate Starts for Renkei_98:
(Start: 7 @70509 has 37 MA's), (9, 70440), (11, 70419), (17, 70317), (19, 70293), (20, 70290), (22, 70281), (23, 70269), (24, 70260), (60, 69948),

Gene: Reprobate_92 Start: 68565, Stop: 67696, Start Num: 5
Candidate Starts for Reprobate_92:
(Start: 5 @68565 has 1 MA's), (Start: 8 @68514 has 4 MA's), (11, 68448), (14, 68415), (15, 68397), (18, 68343), (20, 68328), (21, 68322), (27, 68283), (44, 68088), (52, 68040), (54, 68022), (61, 67953), (73, 67893), (81, 67821), (83, 67803),

Gene: Rich_95 Start: 69710, Stop: 69057, Start Num: 7
Candidate Starts for Rich_95:
(Start: 7 @69710 has 37 MA's), (11, 69635), (13, 69617), (21, 69527), (29, 69437), (40, 69317), (45, 69299), (69, 69122),

Gene: Rita130_96 Start: 69728, Stop: 69039, Start Num: 7
Candidate Starts for Rita130_96:
(Start: 7 @69728 has 37 MA's), (9, 69659), (10, 69644), (11, 69638), (20, 69509), (22, 69500), (40, 69299), (45, 69281), (55, 69218), (63, 69140), (67, 69116), (69, 69104), (74, 69086),

Gene: Serendipitous_98 Start: 69758, Stop: 69069, Start Num: 7
Candidate Starts for Serendipitous_98:
(Start: 7 @69758 has 37 MA's), (9, 69689), (10, 69674), (11, 69668), (22, 69530), (40, 69329), (45, 69311), (63, 69170), (69, 69134), (74, 69116),

Gene: Shenyu_98 Start: 70172, Stop: 69474, Start Num: 7
Candidate Starts for Shenyu_98:
(Start: 7 @70172 has 37 MA's), (9, 70103), (10, 70088), (11, 70082), (20, 69953), (22, 69944), (30, 69815), (33, 69797), (47, 69713), (50, 69695), (55, 69653), (63, 69575), (67, 69551), (69, 69539), (74, 69521),

Gene: SirJeffery_95 Start: 69743, Stop: 69054, Start Num: 7
Candidate Starts for SirJeffery_95:
(Start: 7 @69743 has 37 MA's), (9, 69674), (10, 69659), (11, 69653), (20, 69524), (22, 69515), (40, 69314), (45, 69296), (55, 69233), (63, 69155), (67, 69131), (69, 69119), (74, 69101),

Gene: Stinger_95 Start: 69465, Stop: 68722, Start Num: 4
Candidate Starts for Stinger_95:
(Start: 4 @69465 has 2 MA's), (Start: 7 @69405 has 37 MA's), (9, 69339), (11, 69318), (19, 69192), (20, 69189), (22, 69180), (24, 69159), (25, 69156), (26, 69150), (56, 68892), (60, 68862),

Gene: StinkyVeggy_95 Start: 69551, Stop: 68853, Start Num: 7
Candidate Starts for StinkyVeggy_95:

(Start: 7 @69551 has 37 MA's), (9, 69482), (10, 69467), (11, 69461), (20, 69332), (22, 69323), (30, 69194), (33, 69176), (40, 69113), (45, 69095), (50, 69065), (55, 69032), (60, 68966), (69, 68918),

Gene: Suigeneris_98 Start: 69970, Stop: 69281, Start Num: 7
Candidate Starts for Suigeneris_98:
(Start: 7 @69970 has 37 MA's), (9, 69901), (10, 69886), (11, 69880), (20, 69751), (22, 69742), (40, 69541), (45, 69523), (55, 69460), (63, 69382), (67, 69358), (69, 69346), (74, 69328),

Gene: Vincenzo_98 Start: 72035, Stop: 71277, Start Num: 7
Candidate Starts for Vincenzo_98:
(Start: 7 @72035 has 37 MA's), (9, 71969), (10, 71954), (11, 71948), (19, 71822), (23, 71798), (37, 71606), (38, 71603), (43, 71576), (56, 71480), (71, 71378), (72, 71372), (79, 71324),

Gene: VioletZ_99 Start: 71057, Stop: 70320, Start Num: 7
Candidate Starts for VioletZ_99:
(Start: 7 @71057 has 37 MA's), (9, 70988), (10, 70973), (11, 70967), (19, 70859), (20, 70856), (22, 70847), (23, 70835), (24, 70826), (36, 70640), (41, 70616), (49, 70577), (54, 70535), (57, 70493), (75, 70400),

Gene: Waleliano_96 Start: 70725, Stop: 69967, Start Num: 7
Candidate Starts for Waleliano_96:
(3, 70806), (Start: 4 @70785 has 2 MA's), (Start: 7 @70725 has 37 MA's), (9, 70656), (10, 70641), (11, 70635), (19, 70527), (20, 70524), (22, 70515), (23, 70503), (24, 70494), (36, 70308), (54, 70182), (57, 70140), (59, 70128), (75, 70047),

Gene: Xincheng_88 Start: 70671, Stop: 69934, Start Num: 7
Candidate Starts for Xincheng_88:
(Start: 7 @70671 has 37 MA's), (9, 70602), (10, 70587), (11, 70581), (16, 70512), (19, 70473), (20, 70470), (22, 70461), (23, 70449), (24, 70440), (36, 70254), (41, 70230), (49, 70191), (54, 70149), (57, 70107), (75, 70014),

Gene: Zemanar_95 Start: 70855, Stop: 70109, Start Num: 7
Candidate Starts for Zemanar_95:
(Start: 7 @70855 has 37 MA's), (9, 70786), (10, 70771), (11, 70765), (16, 70696), (19, 70657), (20, 70654), (22, 70645), (23, 70633), (24, 70624), (36, 70438), (41, 70414), (49, 70375), (54, 70324), (57, 70282), (65, 70237), (75, 70189),