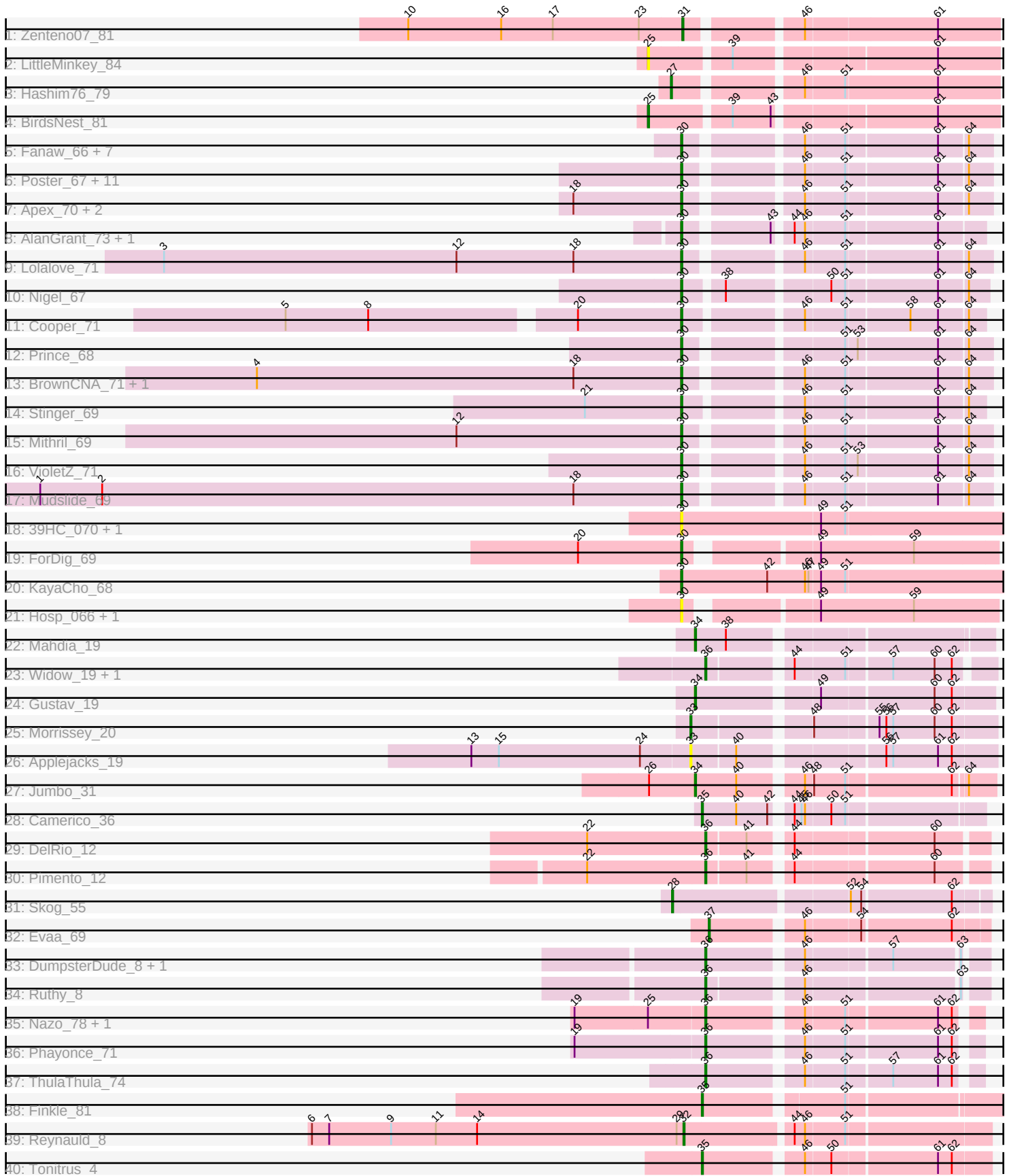


Pham 280418



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 280418 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280418 has 67 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Zenteno07_81
- Track 2 : LittleMinkey_84
- Track 3 : Hashim76_79
- Track 4 : BirdsNest_81
- Track 5 : Fanaw_66, Fortunato_70, Xincheng_69, Renkei_67, JaguarMi_70, LittleDigger_67, RawrgerThat_70, Magpie_67
- Track 6 : Poster_67, Ahwei_67, BobbyK_70, Nanao_68, Epah_67, ChrisnMich_69, Hally898_67, JAMaL_69, Antihero_67, Lambano_67, QueenPie_64, GinPorsche_67
- Track 7 : Apex_70, Austelle_69, JoyceMaria_69
- Track 8 : AlanGrant_73, Vincenzo_72
- Track 9 : Lolalove_71
- Track 10 : Nigel_67
- Track 11 : Cooper_71
- Track 12 : Prince_68
- Track 13 : BrownCNA_71, Waleliano_69
- Track 14 : Stinger_69
- Track 15 : Mithril_69
- Track 16 : VioletZ_71
- Track 17 : Mudslide_69
- Track 18 : 39HC_070, 40BC_070
- Track 19 : ForDig_69
- Track 20 : KayaCho_68
- Track 21 : Hosp_066, Jolie1_068
- Track 22 : Mahdia_19
- Track 23 : Widow_19, Puppies_19
- Track 24 : Gustav_19
- Track 25 : Morrissey_20
- Track 26 : Applejacks_19
- Track 27 : Jumbo_31
- Track 28 : Camerico_36
- Track 29 : DelRio_12
- Track 30 : Pimento_12
- Track 31 : Skog_55
- Track 32 : Evaa_69
- Track 33 : DumpsterDude_8, ArchiDore_8
- Track 34 : Ruthy_8
- Track 35 : Nazo_78, BigNuz_77

- Track 36 : Phayonce_71
- Track 37 : ThulaThula_74
- Track 38 : Finkle_81
- Track 39 : Reynauld_8
- Track 40 : Tonitrus_4

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

The start number called the most often in the published annotations is 30, it was called in 22 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 39HC_070, 40BC_070, Ahwei_67, AlanGrant_73, Antihero_67, Apex_70, Austelle_69, BobbyK_70, BrownCNA_71, ChrisnMich_69, Cooper_71, Epah_67, Fanaw_66, ForDig_69, Fortunato_70, GinPorsche_67, Hally898_67, Hosp_066, JAMaL_69, JaguarMi_70, Jolie1_068, JoyceMaria_69, KayaCho_68, Lambano_67, LittleDigger_67, Lolalove_71, Magpie_67, Mithril_69, Mudslide_69, Nanao_68, Nigel_67, Poster_67, Prince_68, QueenPie_64, RawrgerThat_70, Renkei_67, Stinger_69, Vincenzo_72, VioletZ_71, Waleliano_69, Xincheng_69,

Genes that have the "Most Annotated" start but do not call it:

•

Genes that do not have the "Most Annotated" start:

- Applejacks_19, ArchiDore_8, BigNuz_77, BirdsNest_81, Camerico_36, DelRio_12, DumpsterDude_8, Evaa_69, Finkle_81, Gustav_19, Hashim76_79, Jumbo_31, LittleMinkey_84, Mahdia_19, Morrissey_20, Nazo_78, Phayonce_71, Pimento_12, Puppies_19, Reynauld_8, Ruthy_8, Skog_55, ThulaThula_74, Tonitrus_4, Widow_19, Zenteno07_81,

Summary by start number:

Start 25:

- Found in 4 of 67 (6.0%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BirdsNest_81 (B13), LittleMinkey_84 (B13),

Start 27:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hashim76_79 (B13),

Start 28:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Skog_55 (DO),

Start 30:

- Found in 41 of 67 (61.2%) of genes in pham
- Manual Annotations of this start: 22 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_070 (B6), 40BC_070 (B6), Ahwei_67 (B4), AlanGrant_73 (B4), Antihero_67 (B4), Apex_70 (B4), Austelle_69 (B4), BobbyK_70 (B4), BrownCNA_71 (B4), ChrisnMich_69 (B4), Cooper_71 (B4), Epah_67 (B4), Fanaw_66 (B4), ForDig_69 (B6), Fortunato_70 (B4), GinPorsche_67 (B4), Hally898_67 (B4), Hosp_066 (B6), JAMaL_69 (B4), JaguarMi_70 (B4), Jolie1_068 (B6), JoyceMaria_69 (B4), KayaCho_68 (B6), Lambano_67 (B4), LittleDigger_67 (B4), Lolalove_71 (B4), Magpie_67 (B4), Mithril_69 (B4), Mudslide_69 (B4), Nanao_68 (B4), Nigel_67 (B4), Poster_67 (B4), Prince_68 (B4), QueenPie_64 (B4), RawrgerThat_70 (B4), Renkei_67 (B4), Stinger_69 (B4), Vincenzo_72 (B4), VioletZ_71 (B4), Waleliano_69 (B4), Xincheng_69 (B4),

Start 31:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zenteno07_81 (B13),

Start 32:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Reynauld_8 (singleton),

Start 33:

- Found in 2 of 67 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Applejacks_19 (CD), Morrissey_20 (CD),

Start 34:

- Found in 3 of 67 (4.5%) of genes in pham
- Manual Annotations of this start: 3 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gustav_19 (CD), Jumbo_31 (DF3), Mahdia_19 (CD),

Start 35:

- Found in 3 of 67 (4.5%) of genes in pham
- Manual Annotations of this start: 3 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camerico_36 (DF4), Finkle_81 (singleton), Tonitrus_4 (singleton),

Start 36:

- Found in 11 of 67 (16.4%) of genes in pham
- Manual Annotations of this start: 11 of 46
- Called 100.0% of time when present

- Phage (with cluster) where this start called: ArchiDore_8 (DW), BigNuz_77 (P4), DelRio_12 (DI), DumpsterDude_8 (DW), Nazo_78 (P4), Phayonce_71 (P5), Pimento_12 (DI), Puppers_19 (CD), Ruthy_8 (DW), ThulaThula_74 (P5), Widow_19 (CD),

Start 37:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Evaa_69 (DR),

Summary by clusters:

There are 13 clusters represented in this pham: DO, singleton, P4, P5, DF4, DI, DF3, CD, B4, B6, B13, DW, DR,

Info for manual annotations of cluster B13:

- Start number 25 was manually annotated 1 time for cluster B13.
- Start number 27 was manually annotated 1 time for cluster B13.
- Start number 31 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B4:

- Start number 30 was manually annotated 20 times for cluster B4.

Info for manual annotations of cluster B6:

- Start number 30 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster CD:

- Start number 33 was manually annotated 1 time for cluster CD.
- Start number 34 was manually annotated 2 times for cluster CD.
- Start number 36 was manually annotated 2 times for cluster CD.

Info for manual annotations of cluster DF3:

- Start number 34 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 35 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster DI:

- Start number 36 was manually annotated 2 times for cluster DI.

Info for manual annotations of cluster DO:

- Start number 28 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DR:

- Start number 37 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster DW:

- Start number 36 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster P4:

- Start number 36 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

•Start number 36 was manually annotated 2 times for cluster P5.

Gene Information:

Gene: 39HC_070 Start: 59406, Stop: 59684, Start Num: 30

Candidate Starts for 39HC_070:

(Start: 30 @59406 has 22 MA's), (49, 59526), (51, 59547),

Gene: 40BC_070 Start: 59406, Stop: 59684, Start Num: 30

Candidate Starts for 40BC_070:

(Start: 30 @59406 has 22 MA's), (49, 59526), (51, 59547),

Gene: Ahwei_67 Start: 59642, Stop: 59881, Start Num: 30

Candidate Starts for Ahwei_67:

(Start: 30 @59642 has 22 MA's), (46, 59729), (51, 59762), (61, 59837), (64, 59861),

Gene: AlanGrant_73 Start: 61944, Stop: 62177, Start Num: 30

Candidate Starts for AlanGrant_73:

(Start: 30 @61944 has 22 MA's), (43, 62010), (44, 62022), (46, 62031), (51, 62064), (61, 62139),

Gene: Antihero_67 Start: 59640, Stop: 59879, Start Num: 30

Candidate Starts for Antihero_67:

(Start: 30 @59640 has 22 MA's), (46, 59727), (51, 59760), (61, 59835), (64, 59859),

Gene: Apex_70 Start: 60745, Stop: 60984, Start Num: 30

Candidate Starts for Apex_70:

(18, 60652), (Start: 30 @60745 has 22 MA's), (46, 60832), (51, 60865), (61, 60940), (64, 60964),

Gene: Applejacks_19 Start: 16734, Stop: 16973, Start Num: 33

Candidate Starts for Applejacks_19:

(13, 16545), (15, 16569), (24, 16692), (Start: 33 @16734 has 1 MA's), (40, 16770), (56, 16881), (57, 16887), (61, 16926), (62, 16938),

Gene: ArchiDore_8 Start: 6746, Stop: 6958, Start Num: 36

Candidate Starts for ArchiDore_8:

(Start: 36 @6746 has 11 MA's), (46, 6818), (57, 6887), (63, 6941),

Gene: Austelle_69 Start: 61262, Stop: 61501, Start Num: 30

Candidate Starts for Austelle_69:

(18, 61169), (Start: 30 @61262 has 22 MA's), (46, 61349), (51, 61382), (61, 61457), (64, 61481),

Gene: BigNuz_77 Start: 46845, Stop: 47057, Start Num: 36

Candidate Starts for BigNuz_77:

(19, 46734), (Start: 25 @46797 has 1 MA's), (Start: 36 @46845 has 11 MA's), (46, 46920), (51, 46953), (61, 47028), (62, 47040),

Gene: BirdsNest_81 Start: 62019, Stop: 62297, Start Num: 25

Candidate Starts for BirdsNest_81:

(Start: 25 @62019 has 1 MA's), (39, 62082), (43, 62115), (61, 62244),

Gene: BobbyK_70 Start: 60522, Stop: 60761, Start Num: 30

Candidate Starts for BobbyK_70:

(Start: 30 @60522 has 22 MA's), (46, 60609), (51, 60642), (61, 60717), (64, 60741),

Gene: BrownCNA_71 Start: 60896, Stop: 61135, Start Num: 30

Candidate Starts for BrownCNA_71:

(4, 60527), (18, 60803), (Start: 30 @60896 has 22 MA's), (46, 60983), (51, 61016), (61, 61091), (64, 61115),

Gene: Camerico_36 Start: 41696, Stop: 41917, Start Num: 35

Candidate Starts for Camerico_36:

(Start: 35 @41696 has 3 MA's), (40, 41726), (42, 41753), (44, 41765), (45, 41771), (46, 41774), (50, 41795), (51, 41807),

Gene: ChrisnMich_69 Start: 59624, Stop: 59863, Start Num: 30

Candidate Starts for ChrisnMich_69:

(Start: 30 @59624 has 22 MA's), (46, 59711), (51, 59744), (61, 59819), (64, 59843),

Gene: Cooper_71 Start: 60295, Stop: 60531, Start Num: 30

Candidate Starts for Cooper_71:

(5, 59968), (8, 60040), (20, 60205), (Start: 30 @60295 has 22 MA's), (46, 60385), (51, 60418), (58, 60469), (61, 60493), (64, 60517),

Gene: DelRio_12 Start: 8531, Stop: 8749, Start Num: 36

Candidate Starts for DelRio_12:

(22, 8429), (Start: 36 @8531 has 11 MA's), (41, 8564), (44, 8594), (60, 8708),

Gene: DumpsterDude_8 Start: 6756, Stop: 6971, Start Num: 36

Candidate Starts for DumpsterDude_8:

(Start: 36 @6756 has 11 MA's), (46, 6831), (57, 6900), (63, 6954),

Gene: Epah_67 Start: 59640, Stop: 59879, Start Num: 30

Candidate Starts for Epah_67:

(Start: 30 @59640 has 22 MA's), (46, 59727), (51, 59760), (61, 59835), (64, 59859),

Gene: Evaa_69 Start: 52488, Stop: 52709, Start Num: 37

Candidate Starts for Evaa_69:

(Start: 37 @52488 has 1 MA's), (46, 52560), (54, 52605), (62, 52680),

Gene: Fanaw_66 Start: 60675, Stop: 60914, Start Num: 30

Candidate Starts for Fanaw_66:

(Start: 30 @60675 has 22 MA's), (46, 60762), (51, 60795), (61, 60870), (64, 60894),

Gene: Finkle_81 Start: 46764, Stop: 47003, Start Num: 35

Candidate Starts for Finkle_81:

(Start: 35 @46764 has 3 MA's), (51, 46875),

Gene: ForDig_69 Start: 59354, Stop: 59602, Start Num: 30

Candidate Starts for ForDig_69:

(20, 59264), (Start: 30 @59354 has 22 MA's), (49, 59450), (59, 59531),

Gene: Fortunato_70 Start: 60674, Stop: 60913, Start Num: 30

Candidate Starts for Fortunato_70:

(Start: 30 @60674 has 22 MA's), (46, 60761), (51, 60794), (61, 60869), (64, 60893),

Gene: GinPorsche_67 Start: 59640, Stop: 59879, Start Num: 30

Candidate Starts for GinPorsche_67:

(Start: 30 @59640 has 22 MA's), (46, 59727), (51, 59760), (61, 59835), (64, 59859),

Gene: Gustav_19 Start: 16757, Stop: 16996, Start Num: 34

Candidate Starts for Gustav_19:

(Start: 34 @16757 has 3 MA's), (49, 16853), (60, 16946), (62, 16961),

Gene: Hally898_67 Start: 59655, Stop: 59894, Start Num: 30

Candidate Starts for Hally898_67:

(Start: 30 @59655 has 22 MA's), (46, 59742), (51, 59775), (61, 59850), (64, 59874),

Gene: Hashim76_79 Start: 61848, Stop: 62108, Start Num: 27

Candidate Starts for Hashim76_79:

(Start: 27 @61848 has 1 MA's), (46, 61944), (51, 61977), (61, 62055),

Gene: Hosp_066 Start: 57234, Stop: 57482, Start Num: 30

Candidate Starts for Hosp_066:

(Start: 30 @57234 has 22 MA's), (49, 57330), (59, 57411),

Gene: JAMaL_69 Start: 60649, Stop: 60888, Start Num: 30

Candidate Starts for JAMaL_69:

(Start: 30 @60649 has 22 MA's), (46, 60736), (51, 60769), (61, 60844), (64, 60868),

Gene: JaguarMi_70 Start: 61911, Stop: 62150, Start Num: 30

Candidate Starts for JaguarMi_70:

(Start: 30 @61911 has 22 MA's), (46, 61998), (51, 62031), (61, 62106), (64, 62130),

Gene: Jolie1_068 Start: 59362, Stop: 59610, Start Num: 30

Candidate Starts for Jolie1_068:

(Start: 30 @59362 has 22 MA's), (49, 59458), (59, 59539),

Gene: JoyceMaria_69 Start: 60785, Stop: 61024, Start Num: 30

Candidate Starts for JoyceMaria_69:

(18, 60692), (Start: 30 @60785 has 22 MA's), (46, 60872), (51, 60905), (61, 60980), (64, 61004),

Gene: Jumbo_31 Start: 39920, Stop: 40156, Start Num: 34

Candidate Starts for Jumbo_31:

(26, 39881), (Start: 34 @39920 has 3 MA's), (40, 39956), (46, 40004), (48, 40010), (51, 40037), (62, 40124), (64, 40133),

Gene: KayaCho_68 Start: 59314, Stop: 59592, Start Num: 30

Candidate Starts for KayaCho_68:

(Start: 30 @59314 has 22 MA's), (42, 59389), (46, 59422), (47, 59425), (49, 59434), (51, 59455),

Gene: Lambano_67 Start: 59655, Stop: 59894, Start Num: 30

Candidate Starts for Lambano_67:

(Start: 30 @59655 has 22 MA's), (46, 59742), (51, 59775), (61, 59850), (64, 59874),

Gene: LittleDigger_67 Start: 59580, Stop: 59819, Start Num: 30

Candidate Starts for LittleDigger_67:

(Start: 30 @59580 has 22 MA's), (46, 59667), (51, 59700), (61, 59775), (64, 59799),

Gene: LittleMinkey_84 Start: 61633, Stop: 61911, Start Num: 25

Candidate Starts for LittleMinkey_84:

(Start: 25 @61633 has 1 MA's), (39, 61696), (61, 61858),

Gene: Lolalove_71 Start: 60827, Stop: 61066, Start Num: 30

Candidate Starts for Lolalove_71:

(3, 60377), (12, 60632), (18, 60734), (Start: 30 @60827 has 22 MA's), (46, 60914), (51, 60947), (61, 61022), (64, 61046),

Gene: Magpie_67 Start: 60514, Stop: 60753, Start Num: 30

Candidate Starts for Magpie_67:

(Start: 30 @60514 has 22 MA's), (46, 60601), (51, 60634), (61, 60709), (64, 60733),

Gene: Mahdia_19 Start: 16436, Stop: 16672, Start Num: 34

Candidate Starts for Mahdia_19:

(Start: 34 @16436 has 3 MA's), (38, 16463),

Gene: Mithril_69 Start: 60826, Stop: 61065, Start Num: 30

Candidate Starts for Mithril_69:

(12, 60631), (Start: 30 @60826 has 22 MA's), (46, 60913), (51, 60946), (61, 61021), (64, 61045),

Gene: Morrissey_20 Start: 17653, Stop: 17892, Start Num: 33

Candidate Starts for Morrissey_20:

(Start: 33 @17653 has 1 MA's), (48, 17743), (55, 17794), (56, 17800), (57, 17806), (60, 17842), (62, 17857),

Gene: Mudslide_69 Start: 60847, Stop: 61086, Start Num: 30

Candidate Starts for Mudslide_69:

(1, 60289), (2, 60343), (18, 60754), (Start: 30 @60847 has 22 MA's), (46, 60934), (51, 60967), (61, 61042), (64, 61066),

Gene: Nanao_68 Start: 59645, Stop: 59884, Start Num: 30

Candidate Starts for Nanao_68:

(Start: 30 @59645 has 22 MA's), (46, 59732), (51, 59765), (61, 59840), (64, 59864),

Gene: Nazo_78 Start: 46731, Stop: 46943, Start Num: 36

Candidate Starts for Nazo_78:

(19, 46620), (Start: 25 @46683 has 1 MA's), (Start: 36 @46731 has 11 MA's), (46, 46806), (51, 46839), (61, 46914), (62, 46926),

Gene: Nigel_67 Start: 59465, Stop: 59704, Start Num: 30

Candidate Starts for Nigel_67:

(Start: 30 @59465 has 22 MA's), (38, 59495), (50, 59576), (51, 59588), (61, 59663), (64, 59687),

Gene: Phayonce_71 Start: 46893, Stop: 47105, Start Num: 36

Candidate Starts for Phayonce_71:

(19, 46782), (Start: 36 @46893 has 11 MA's), (46, 46968), (51, 47001), (61, 47076), (62, 47088),

Gene: Pimento_12 Start: 8225, Stop: 8443, Start Num: 36

Candidate Starts for Pimento_12:

(22, 8123), (Start: 36 @8225 has 11 MA's), (41, 8258), (44, 8288), (60, 8402),

Gene: Poster_67 Start: 59646, Stop: 59885, Start Num: 30

Candidate Starts for Poster_67:

(Start: 30 @59646 has 22 MA's), (46, 59733), (51, 59766), (61, 59841), (64, 59865),

Gene: Prince_68 Start: 60748, Stop: 60987, Start Num: 30

Candidate Starts for Prince_68:

(Start: 30 @60748 has 22 MA's), (51, 60868), (53, 60877), (61, 60943), (64, 60967),

Gene: Puppies_19 Start: 16767, Stop: 16988, Start Num: 36

Candidate Starts for Puppies_19:

(Start: 36 @16767 has 11 MA's), (44, 16830), (51, 16872), (57, 16908), (60, 16944), (62, 16959),

Gene: QueenPie_64 Start: 59748, Stop: 59987, Start Num: 30

Candidate Starts for QueenPie_64:

(Start: 30 @59748 has 22 MA's), (46, 59835), (51, 59868), (61, 59943), (64, 59967),

Gene: RawrgerThat_70 Start: 60652, Stop: 60891, Start Num: 30

Candidate Starts for RawrgerThat_70:

(Start: 30 @60652 has 22 MA's), (46, 60739), (51, 60772), (61, 60847), (64, 60871),

Gene: Renkei_67 Start: 59574, Stop: 59813, Start Num: 30

Candidate Starts for Renkei_67:

(Start: 30 @59574 has 22 MA's), (46, 59661), (51, 59694), (61, 59769), (64, 59793),

Gene: Reynauld_8 Start: 5314, Stop: 5066, Start Num: 32

Candidate Starts for Reynauld_8:

(6, 5638), (7, 5623), (9, 5569), (11, 5530), (14, 5494), (29, 5320), (Start: 32 @5314 has 1 MA's), (44, 5227), (46, 5218), (51, 5185),

Gene: Ruthy_8 Start: 6830, Stop: 7042, Start Num: 36

Candidate Starts for Ruthy_8:

(Start: 36 @6830 has 11 MA's), (46, 6902), (63, 7025),

Gene: Skog_55 Start: 23233, Stop: 23487, Start Num: 28

Candidate Starts for Skog_55:

(Start: 28 @23233 has 1 MA's), (52, 23374), (54, 23383), (62, 23458),

Gene: Stinger_69 Start: 59592, Stop: 59828, Start Num: 30

Candidate Starts for Stinger_69:

(21, 59508), (Start: 30 @59592 has 22 MA's), (46, 59682), (51, 59715), (61, 59790), (64, 59814),

Gene: ThulaThula_74 Start: 48102, Stop: 48314, Start Num: 36

Candidate Starts for ThulaThula_74:

(Start: 36 @48102 has 11 MA's), (46, 48177), (51, 48210), (57, 48246), (61, 48285), (62, 48297),

Gene: Tonitrus_4 Start: 2043, Stop: 2273, Start Num: 35

Candidate Starts for Tonitrus_4:

(Start: 35 @2043 has 3 MA's), (46, 2121), (50, 2142), (61, 2229), (62, 2241),

Gene: Vincenzo_72 Start: 61974, Stop: 62207, Start Num: 30

Candidate Starts for Vincenzo_72:

(Start: 30 @61974 has 22 MA's), (43, 62040), (44, 62052), (46, 62061), (51, 62094), (61, 62169),

Gene: VioletZ_71 Start: 60742, Stop: 60981, Start Num: 30

Candidate Starts for VioletZ_71:

(Start: 30 @60742 has 22 MA's), (46, 60829), (51, 60862), (53, 60871), (61, 60937), (64, 60961),

Gene: Waleliano_69 Start: 60649, Stop: 60888, Start Num: 30

Candidate Starts for Waleliano_69:

(4, 60280), (18, 60556), (Start: 30 @60649 has 22 MA's), (46, 60736), (51, 60769), (61, 60844), (64, 60868),

Gene: Widow_19 Start: 16758, Stop: 16979, Start Num: 36

Candidate Starts for Widow_19:

(Start: 36 @16758 has 11 MA's), (44, 16821), (51, 16863), (57, 16899), (60, 16935), (62, 16950),

Gene: Xincheng_69 Start: 61862, Stop: 62101, Start Num: 30

Candidate Starts for Xincheng_69:

(Start: 30 @61862 has 22 MA's), (46, 61949), (51, 61982), (61, 62057), (64, 62081),

Gene: Zenteno07_81 Start: 61739, Stop: 61990, Start Num: 31

Candidate Starts for Zenteno07_81:

(10, 61502), (16, 61583), (17, 61628), (23, 61703), (Start: 31 @61739 has 1 MA's), (46, 61826), (61, 61937),