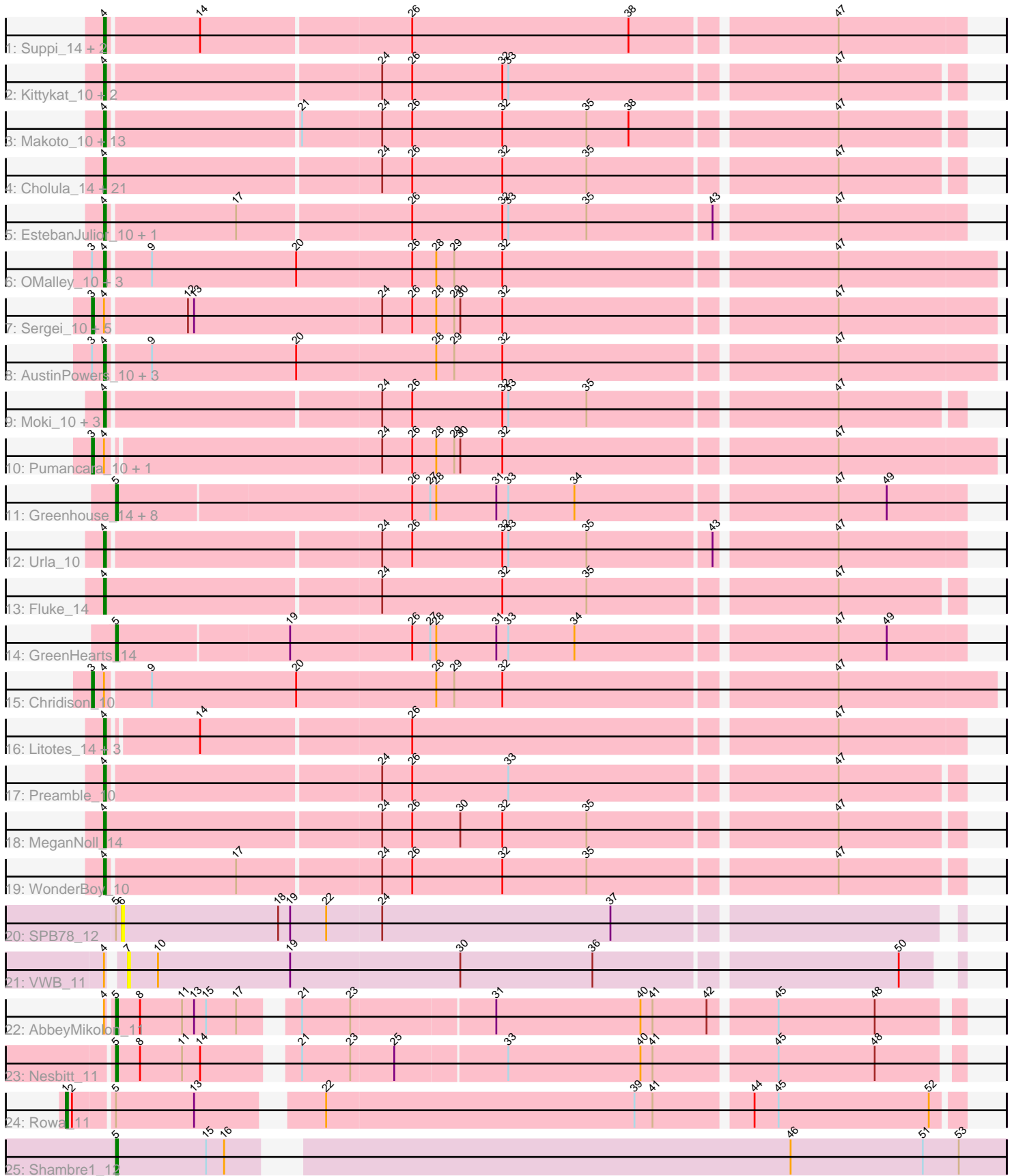


Pham 196446



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 196446 Report

This analysis was run 12/09/24 on database version 580.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 196446 has 90 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Suppi_14, Canowicakte_14, Wayne_14
- Track 2 : Kittykat_10, DreamTeam_10, Gisselle_10
- Track 3 : Makoto_10, CristinaYang_10, Lasagna_10, LilStuart_10, DrRobert_10, Nancia_10, OurGirlNessie_10, PitaDog_10, Bodacious_10, Christian_10, Lucy_10, Lennox_10, ChewChew_10, Pterodactyl_10
- Track 4 : Cholula_14, BigMack_10, Scuttle_14, Carpal_14, RAP15_14, Wawa_14, Potatoes_14, Korra_14, Dino_14, Glenn_14, Jumboset_14, Vallejo_14, Rozby_14, TattModd_14, MrGloopy_14, Riverdale_14, Savage2526_14, Immaculata_14, Beethoven_14, Kalizoi_14, BrotherBLo_14, Zorro_14
- Track 5 : EstebanJulior_10, MamaPearl_10
- Track 6 : OMalley_10, Eunoia_10, Aledel_10, Riovina_10
- Track 7 : Sergei_10, KingBob_10, Herb_10, Temper16_10, Maria1952_10, Daiboju_10
- Track 8 : AustinPowers_10, HunterDalle_10, Vulture_10, Supakev_10
- Track 9 : Moki_10, Huckleberry_10, HeadNerd_10, Bennie_10
- Track 10 : Pumancara_10, PinkFriday_10
- Track 11 : Greenhouse_14, Lakshmi_14, Albanese_14, Oxynfrius_14, Joann_14, RcigaStruga_14, Huntingdon_14, Nubia_14, Misaeng_14
- Track 12 : Urla_10
- Track 13 : Fluke_14
- Track 14 : GreenHearts_14
- Track 15 : Chridison_10
- Track 16 : Litotes_14, PartyCup_14, CallieOMalley_14, AppleCider_14
- Track 17 : Preamble_10
- Track 18 : MeganNoll_14
- Track 19 : WonderBoy_10
- Track 20 : SPB78_12
- Track 21 : VWB_11
- Track 22 : AbbeyMikolon_11
- Track 23 : Nesbitt_11
- Track 24 : Rowa_11
- Track 25 : Shambre1_12

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

The start number called the most often in the published annotations is 4, it was called in 64 of the 87 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aledel_10, AppleCider_14, AustinPowers_10, Beethoven_14, Bennie_10, BigMack_10, Bodacious_10, BrotherBLo_14, CallieOMalley_14, Canowicakte_14, Carpal_14, ChewChew_10, Cholula_14, Christian_10, CristinaYang_10, Dino_14, DrRobert_10, DreamTeam_10, EstebanJulior_10, Eunoia_10, Fluke_14, Gisselle_10, Glenn_14, HeadNerd_10, Huckleberry_10, HunterDalle_10, Immaculata_14, Jumboset_14, Kalizoi_14, Kittykat_10, Korra_14, Lasagna_10, Lennox_10, LilStuart_10, Litotes_14, Lucy_10, Makoto_10, MamaPearl_10, MeganNoll_14, Moki_10, MrGloopy_14, Nancia_10, OMalley_10, OurGirlNessie_10, PartyCup_14, PitaDog_10, Potatoes_14, Preamble_10, Pterodactyl_10, RAP15_14, Riovina_10, Riverdale_14, Rozby_14, Savage2526_14, Scuttle_14, Supakev_10, Suppi_14, TattModd_14, Urla_10, Vallejo_14, Vulture_10, Wawa_14, Wayne_14, WonderBoy_10, Zorro_14,

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

- AbbeyMikolon_11, Chridison_10, Daiboju_10, Herb_10, KingBob_10, Maria1952_10, PinkFriday_10, Pumancara_10, Sergei_10, Temper16_10, VWB_11,

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

- Albanese_14, GreenHearts_14, Greenhouse_14, Huntingdon_14, Joann_14, Lakshmi_14, Misaeng_14, Nesbitt_11, Nubia_14, Oxynfrius_14, RcigaStruga_14, Rowa_11, SPB78_12, Shambre1_12,

Summary by start number:

Start 1:

- Found in 1 of 90 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rowa_11 (BL),

Start 3:

- Found in 17 of 90 (18.9%) of genes in pham
- Manual Annotations of this start: 9 of 87
- Called 52.9% of time when present
- Phage (with cluster) where this start called: Chridison_10 (AK), Daiboju_10 (AK), Herb_10 (AK), KingBob_10 (AK), Maria1952_10 (AK), PinkFriday_10 (AK), Pumancara_10 (AK), Sergei_10 (AK), Temper16_10 (AK),

Start 4:

- Found in 76 of 90 (84.4%) of genes in pham
- Manual Annotations of this start: 64 of 87
- Called 85.5% of time when present
- Phage (with cluster) where this start called: Aledel_10 (AK), AppleCider_14 (AK), AustinPowers_10 (AK), Beethoven_14 (AK), Bennie_10 (AK), BigMack_10 (AK),

Bodacious_10 (AK), BrotherBLo_14 (AK), CallieOMalley_14 (AK), Canowicakte_14 (AK), Carpal_14 (AK), ChewChew_10 (AK), Cholula_14 (AK), Christian_10 (AK), CristinaYang_10 (AK), Dino_14 (AK), DrRobert_10 (AK), DreamTeam_10 (AK), EstebanJulior_10 (AK), Eunoia_10 (AK), Fluke_14 (AK), Gisselle_10 (AK), Glenn_14 (AK), HeadNerd_10 (AK), Huckleberry_10 (AK), HunterDalle_10 (AK), Immaculata_14 (AK), Jumboset_14 (AK), Kalizoi_14 (AK), Kittykat_10 (AK), Korra_14 (AK), Lasagna_10 (AK), Lennox_10 (AK), LilStuart_10 (AK), Litotes_14 (AK), Lucy_10 (AK), Makoto_10 (AK), MamaPearl_10 (AK), MeganNoll_14 (AK), Moki_10 (AK), MrGloopy_14 (AK), Nancia_10 (AK), OMalley_10 (AK), OurGirlNessie_10 (AK), PartyCup_14 (AK), PitaDog_10 (AK), Potatoes_14 (AK), Preamble_10 (AK), Pterodactyl_10 (AK), RAP15_14 (AK), Rivovina_10 (AK), Riverdale_14 (AK), Rozby_14 (AK), Savage2526_14 (AK), Scuttle_14 (AK), Supakev_10 (AK), Suppi_14 (AK), TattModd_14 (AK), Urla_10 (AK), Vallejo_14 (AK), Vulture_10 (AK), Wawa_14 (AK), Wayne_14 (AK), WonderBoy_10 (AK), Zorro_14 (AK),

Start 5:

- Found in 15 of 90 (16.7%) of genes in pham
- Manual Annotations of this start: 13 of 87
- Called 86.7% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_11 (BL), Albanese_14 (AK), GreenHearts_14 (AK), Greenhouse_14 (AK), Huntingdon_14 (AK), Joann_14 (AK), Lakshmi_14 (AK), Misaeng_14 (AK), Nesbitt_11 (BL), Nubia_14 (AK), Oxyfnrius_14 (AK), RcigaStruga_14 (AK), Shambre1_12 (singleton),

Start 6:

- Found in 1 of 90 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SPB78_12 (BA),

Start 7:

- Found in 1 of 90 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VWB_11 (BA),

Summary by clusters:

There are 4 clusters represented in this pham: BL, AK, BA, singleton,

Info for manual annotations of cluster AK:

- Start number 3 was manually annotated 9 times for cluster AK.
- Start number 4 was manually annotated 64 times for cluster AK.
- Start number 5 was manually annotated 10 times for cluster AK.

Info for manual annotations of cluster BL:

- Start number 1 was manually annotated 1 time for cluster BL.
- Start number 5 was manually annotated 2 times for cluster BL.

Gene Information:

Gene: AbbeyMikolon_11 Start: 7783, Stop: 8178, Start Num: 5

Candidate Starts for AbbeyMikolon_11:

(Start: 4 @7780 has 64 MA's), (Start: 5 @7783 has 13 MA's), (8, 7795), (11, 7816), (13, 7822), (15, 7828), (17, 7843), (21, 7864), (23, 7888), (31, 7957), (40, 8029), (41, 8035), (42, 8062), (45, 8092), (48, 8140),

Gene: Albanese_14 Start: 10476, Stop: 10886, Start Num: 5

Candidate Starts for Albanese_14:

(Start: 5 @10476 has 13 MA's), (26, 10620), (27, 10629), (28, 10632), (31, 10662), (33, 10668), (34, 10701), (47, 10824), (49, 10848),

Gene: Aledel_10 Start: 7551, Stop: 7982, Start Num: 4

Candidate Starts for Aledel_10:

(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (26, 7701), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: AppleCider_14 Start: 10411, Stop: 10824, Start Num: 4

Candidate Starts for AppleCider_14:

(Start: 4 @10411 has 64 MA's), (14, 10456), (26, 10558), (47, 10762),

Gene: AustinPowers_10 Start: 7552, Stop: 7983, Start Num: 4

Candidate Starts for AustinPowers_10:

(Start: 3 @7546 has 9 MA's), (Start: 4 @7552 has 64 MA's), (9, 7573), (20, 7645), (28, 7714), (29, 7723), (32, 7747), (47, 7906),

Gene: Beethoven_14 Start: 10371, Stop: 10784, Start Num: 4

Candidate Starts for Beethoven_14:

(Start: 4 @10371 has 64 MA's), (24, 10506), (26, 10521), (32, 10566), (35, 10608), (47, 10725),

Gene: Bennie_10 Start: 7516, Stop: 7926, Start Num: 4

Candidate Starts for Bennie_10:

(Start: 4 @7516 has 64 MA's), (24, 7648), (26, 7663), (32, 7708), (33, 7711), (35, 7750), (47, 7867),

Gene: BigMack_10 Start: 7516, Stop: 7926, Start Num: 4

Candidate Starts for BigMack_10:

(Start: 4 @7516 has 64 MA's), (24, 7648), (26, 7663), (32, 7708), (35, 7750), (47, 7867),

Gene: Bodacious_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for Bodacious_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: BrotherBLo_14 Start: 10378, Stop: 10791, Start Num: 4

Candidate Starts for BrotherBLo_14:

(Start: 4 @10378 has 64 MA's), (24, 10513), (26, 10528), (32, 10573), (35, 10615), (47, 10732),

Gene: CallieOMalley_14 Start: 10411, Stop: 10824, Start Num: 4

Candidate Starts for CallieOMalley_14:

(Start: 4 @10411 has 64 MA's), (14, 10456), (26, 10558), (47, 10762),

Gene: Canowicakte_14 Start: 10446, Stop: 10859, Start Num: 4

Candidate Starts for Canowicakte_14:

(Start: 4 @10446 has 64 MA's), (14, 10491), (26, 10593), (38, 10701), (47, 10797),

Gene: Carpal_14 Start: 10378, Stop: 10791, Start Num: 4

Candidate Starts for Carpal_14:

(Start: 4 @10378 has 64 MA's), (24, 10513), (26, 10528), (32, 10573), (35, 10615), (47, 10732),

Gene: ChewChew_10 Start: 7513, Stop: 7923, Start Num: 4

Candidate Starts for ChewChew_10:

(Start: 4 @7513 has 64 MA's), (21, 7606), (24, 7645), (26, 7660), (32, 7705), (35, 7747), (38, 7768), (47, 7864),

Gene: Cholula_14 Start: 10423, Stop: 10836, Start Num: 4

Candidate Starts for Cholula_14:

(Start: 4 @10423 has 64 MA's), (24, 10558), (26, 10573), (32, 10618), (35, 10660), (47, 10777),

Gene: Chridison_10 Start: 7546, Stop: 7983, Start Num: 3

Candidate Starts for Chridison_10:

(Start: 3 @7546 has 9 MA's), (Start: 4 @7552 has 64 MA's), (9, 7573), (20, 7645), (28, 7714), (29, 7723), (32, 7747), (47, 7906),

Gene: Christian_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for Christian_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: CristinaYang_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for CristinaYang_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: Daiboju_10 Start: 7547, Stop: 7984, Start Num: 3

Candidate Starts for Daiboju_10:

(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: Dino_14 Start: 10377, Stop: 10790, Start Num: 4

Candidate Starts for Dino_14:

(Start: 4 @10377 has 64 MA's), (24, 10512), (26, 10527), (32, 10572), (35, 10614), (47, 10731),

Gene: DrRobert_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for DrRobert_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: DreamTeam_10 Start: 7581, Stop: 7991, Start Num: 4

Candidate Starts for DreamTeam_10:

(Start: 4 @7581 has 64 MA's), (24, 7713), (26, 7728), (32, 7773), (33, 7776), (47, 7932),

Gene: EstebanJulior_10 Start: 7558, Stop: 7971, Start Num: 4

Candidate Starts for EstebanJulior_10:

(Start: 4 @7558 has 64 MA's), (17, 7621), (26, 7705), (32, 7750), (33, 7753), (35, 7792), (43, 7852), (47, 7909),

Gene: Eunoia_10 Start: 7551, Stop: 7982, Start Num: 4

Candidate Starts for Eunoia_10:

(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (26, 7701), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: Fluke_14 Start: 10419, Stop: 10832, Start Num: 4

Candidate Starts for Fluke_14:

(Start: 4 @10419 has 64 MA's), (24, 10554), (32, 10614), (35, 10656), (47, 10773),

Gene: Gisselle_10 Start: 7581, Stop: 7991, Start Num: 4

Candidate Starts for Gisselle_10:

(Start: 4 @7581 has 64 MA's), (24, 7713), (26, 7728), (32, 7773), (33, 7776), (47, 7932),

Gene: Glenn_14 Start: 10429, Stop: 10842, Start Num: 4

Candidate Starts for Glenn_14:

(Start: 4 @10429 has 64 MA's), (24, 10564), (26, 10579), (32, 10624), (35, 10666), (47, 10783),

Gene: GreenHearts_14 Start: 10522, Stop: 10932, Start Num: 5

Candidate Starts for GreenHearts_14:

(Start: 5 @10522 has 13 MA's), (19, 10606), (26, 10666), (27, 10675), (28, 10678), (31, 10708), (33, 10714), (34, 10747), (47, 10870), (49, 10894),

Gene: Greenhouse_14 Start: 10447, Stop: 10857, Start Num: 5

Candidate Starts for Greenhouse_14:

(Start: 5 @10447 has 13 MA's), (26, 10591), (27, 10600), (28, 10603), (31, 10633), (33, 10639), (34, 10672), (47, 10795), (49, 10819),

Gene: HeadNerd_10 Start: 7516, Stop: 7926, Start Num: 4

Candidate Starts for HeadNerd_10:

(Start: 4 @7516 has 64 MA's), (24, 7648), (26, 7663), (32, 7708), (33, 7711), (35, 7750), (47, 7867),

Gene: Herb_10 Start: 7547, Stop: 7984, Start Num: 3

Candidate Starts for Herb_10:

(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: Huckleberry_10 Start: 7516, Stop: 7926, Start Num: 4

Candidate Starts for Huckleberry_10:

(Start: 4 @7516 has 64 MA's), (24, 7648), (26, 7663), (32, 7708), (33, 7711), (35, 7750), (47, 7867),

Gene: HunterDalle_10 Start: 7551, Stop: 7982, Start Num: 4

Candidate Starts for HunterDalle_10:

(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: Huntingdon_14 Start: 10433, Stop: 10843, Start Num: 5

Candidate Starts for Huntingdon_14:

(Start: 5 @10433 has 13 MA's), (26, 10577), (27, 10586), (28, 10589), (31, 10619), (33, 10625), (34, 10658), (47, 10781), (49, 10805),

Gene: Immaculata_14 Start: 10423, Stop: 10836, Start Num: 4

Candidate Starts for Immaculata_14:

(Start: 4 @10423 has 64 MA's), (24, 10558), (26, 10573), (32, 10618), (35, 10660), (47, 10777),

Gene: Joann_14 Start: 10425, Stop: 10835, Start Num: 5
Candidate Starts for Joann_14:
(Start: 5 @10425 has 13 MA's), (26, 10569), (27, 10578), (28, 10581), (31, 10611), (33, 10617), (34, 10650), (47, 10773), (49, 10797),

Gene: Jumboset_14 Start: 10372, Stop: 10785, Start Num: 4
Candidate Starts for Jumboset_14:
(Start: 4 @10372 has 64 MA's), (24, 10507), (26, 10522), (32, 10567), (35, 10609), (47, 10726),

Gene: Kalizoi_14 Start: 10371, Stop: 10784, Start Num: 4
Candidate Starts for Kalizoi_14:
(Start: 4 @10371 has 64 MA's), (24, 10506), (26, 10521), (32, 10566), (35, 10608), (47, 10725),

Gene: KingBob_10 Start: 7547, Stop: 7984, Start Num: 3
Candidate Starts for KingBob_10:
(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: Kittykat_10 Start: 7557, Stop: 7967, Start Num: 4
Candidate Starts for Kittykat_10:
(Start: 4 @7557 has 64 MA's), (24, 7689), (26, 7704), (32, 7749), (33, 7752), (47, 7908),

Gene: Korra_14 Start: 10377, Stop: 10790, Start Num: 4
Candidate Starts for Korra_14:
(Start: 4 @10377 has 64 MA's), (24, 10512), (26, 10527), (32, 10572), (35, 10614), (47, 10731),

Gene: Lakshmi_14 Start: 10452, Stop: 10862, Start Num: 5
Candidate Starts for Lakshmi_14:
(Start: 5 @10452 has 13 MA's), (26, 10596), (27, 10605), (28, 10608), (31, 10638), (33, 10644), (34, 10677), (47, 10800), (49, 10824),

Gene: Lasagna_10 Start: 7514, Stop: 7924, Start Num: 4
Candidate Starts for Lasagna_10:
(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: Lennox_10 Start: 7514, Stop: 7924, Start Num: 4
Candidate Starts for Lennox_10:
(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: LilStuart_10 Start: 7514, Stop: 7924, Start Num: 4
Candidate Starts for LilStuart_10:
(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: Litotes_14 Start: 10399, Stop: 10809, Start Num: 4
Candidate Starts for Litotes_14:
(Start: 4 @10399 has 64 MA's), (14, 10441), (26, 10543), (47, 10747),

Gene: Lucy_10 Start: 7505, Stop: 7915, Start Num: 4
Candidate Starts for Lucy_10:

(Start: 4 @7505 has 64 MA's), (21, 7598), (24, 7637), (26, 7652), (32, 7697), (35, 7739), (38, 7760), (47, 7856),

Gene: Makoto_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for Makoto_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: MamaPearl_10 Start: 7558, Stop: 7971, Start Num: 4

Candidate Starts for MamaPearl_10:

(Start: 4 @7558 has 64 MA's), (17, 7621), (26, 7705), (32, 7750), (33, 7753), (35, 7792), (43, 7852), (47, 7909),

Gene: Maria1952_10 Start: 7547, Stop: 7984, Start Num: 3

Candidate Starts for Maria1952_10:

(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: MeganNoll_14 Start: 10429, Stop: 10842, Start Num: 4

Candidate Starts for MeganNoll_14:

(Start: 4 @10429 has 64 MA's), (24, 10564), (26, 10579), (30, 10603), (32, 10624), (35, 10666), (47, 10783),

Gene: Misaeng_14 Start: 10498, Stop: 10908, Start Num: 5

Candidate Starts for Misaeng_14:

(Start: 5 @10498 has 13 MA's), (26, 10642), (27, 10651), (28, 10654), (31, 10684), (33, 10690), (34, 10723), (47, 10846), (49, 10870),

Gene: Moki_10 Start: 7516, Stop: 7926, Start Num: 4

Candidate Starts for Moki_10:

(Start: 4 @7516 has 64 MA's), (24, 7648), (26, 7663), (32, 7708), (33, 7711), (35, 7750), (47, 7867),

Gene: MrGloopy_14 Start: 10362, Stop: 10775, Start Num: 4

Candidate Starts for MrGloopy_14:

(Start: 4 @10362 has 64 MA's), (24, 10497), (26, 10512), (32, 10557), (35, 10599), (47, 10716),

Gene: Nancia_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for Nancia_10:

(Start: 4 @7514 has 64 MA's), (21, 7607), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (38, 7769), (47, 7865),

Gene: Nesbitt_11 Start: 7855, Stop: 8250, Start Num: 5

Candidate Starts for Nesbitt_11:

(Start: 5 @7855 has 13 MA's), (8, 7867), (11, 7888), (14, 7897), (21, 7936), (23, 7960), (25, 7981), (33, 8035), (40, 8101), (41, 8107), (45, 8164), (48, 8212),

Gene: Nubia_14 Start: 10412, Stop: 10822, Start Num: 5

Candidate Starts for Nubia_14:

(Start: 5 @10412 has 13 MA's), (26, 10556), (27, 10565), (28, 10568), (31, 10598), (33, 10604), (34, 10637), (47, 10760), (49, 10784),

Gene: OMalley_10 Start: 7551, Stop: 7982, Start Num: 4

Candidate Starts for OMalley_10:

(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (26, 7701), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: OurGirlNessie_10 Start: 7505, Stop: 7915, Start Num: 4

Candidate Starts for OurGirlNessie_10:

(Start: 4 @7505 has 64 MA's), (21, 7598), (24, 7637), (26, 7652), (32, 7697), (35, 7739), (38, 7760), (47, 7856),

Gene: Oxynfrius_14 Start: 10425, Stop: 10835, Start Num: 5

Candidate Starts for Oxynfrius_14:

(Start: 5 @10425 has 13 MA's), (26, 10569), (27, 10578), (28, 10581), (31, 10611), (33, 10617), (34, 10650), (47, 10773), (49, 10797),

Gene: PartyCup_14 Start: 10446, Stop: 10856, Start Num: 4

Candidate Starts for PartyCup_14:

(Start: 4 @10446 has 64 MA's), (14, 10488), (26, 10590), (47, 10794),

Gene: PinkFriday_10 Start: 7548, Stop: 7982, Start Num: 3

Candidate Starts for PinkFriday_10:

(Start: 3 @7548 has 9 MA's), (Start: 4 @7554 has 64 MA's), (24, 7686), (26, 7701), (28, 7713), (29, 7722), (30, 7725), (32, 7746), (47, 7905),

Gene: PitaDog_10 Start: 7505, Stop: 7915, Start Num: 4

Candidate Starts for PitaDog_10:

(Start: 4 @7505 has 64 MA's), (21, 7598), (24, 7637), (26, 7652), (32, 7697), (35, 7739), (38, 7760), (47, 7856),

Gene: Potatoes_14 Start: 10423, Stop: 10836, Start Num: 4

Candidate Starts for Potatoes_14:

(Start: 4 @10423 has 64 MA's), (24, 10558), (26, 10573), (32, 10618), (35, 10660), (47, 10777),

Gene: Preamble_10 Start: 7515, Stop: 7925, Start Num: 4

Candidate Starts for Preamble_10:

(Start: 4 @7515 has 64 MA's), (24, 7647), (26, 7662), (33, 7710), (47, 7866),

Gene: Pterodactyl_10 Start: 7506, Stop: 7916, Start Num: 4

Candidate Starts for Pterodactyl_10:

(Start: 4 @7506 has 64 MA's), (21, 7599), (24, 7638), (26, 7653), (32, 7698), (35, 7740), (38, 7761), (47, 7857),

Gene: Pumancara_10 Start: 7547, Stop: 7981, Start Num: 3

Candidate Starts for Pumancara_10:

(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (24, 7685), (26, 7700), (28, 7712), (29, 7721), (30, 7724), (32, 7745), (47, 7904),

Gene: RAP15_14 Start: 10429, Stop: 10842, Start Num: 4

Candidate Starts for RAP15_14:

(Start: 4 @10429 has 64 MA's), (24, 10564), (26, 10579), (32, 10624), (35, 10666), (47, 10783),

Gene: RcigaStruga_14 Start: 10433, Stop: 10843, Start Num: 5

Candidate Starts for RcigaStruga_14:

(Start: 5 @10433 has 13 MA's), (26, 10577), (27, 10586), (28, 10589), (31, 10619), (33, 10625), (34, 10658), (47, 10781), (49, 10805),

Gene: Riovina_10 Start: 7551, Stop: 7982, Start Num: 4
Candidate Starts for Riovina_10:
(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (26, 7701), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: Riverdale_14 Start: 10360, Stop: 10773, Start Num: 4
Candidate Starts for Riverdale_14:
(Start: 4 @10360 has 64 MA's), (24, 10495), (26, 10510), (32, 10555), (35, 10597), (47, 10714),

Gene: Rowa_11 Start: 7599, Stop: 8018, Start Num: 1
Candidate Starts for Rowa_11:
(Start: 1 @7599 has 1 MA's), (2, 7602), (Start: 5 @7620 has 13 MA's), (13, 7659), (22, 7710), (39, 7863), (41, 7872), (44, 7917), (45, 7929), (52, 8004),

Gene: Rozby_14 Start: 10360, Stop: 10773, Start Num: 4
Candidate Starts for Rozby_14:
(Start: 4 @10360 has 64 MA's), (24, 10495), (26, 10510), (32, 10555), (35, 10597), (47, 10714),

Gene: SPB78_12 Start: 8026, Stop: 8427, Start Num: 6
Candidate Starts for SPB78_12:
(Start: 5 @8023 has 13 MA's), (6, 8026), (18, 8104), (19, 8110), (22, 8128), (24, 8155), (37, 8269),

Gene: Savage2526_14 Start: 10423, Stop: 10836, Start Num: 4
Candidate Starts for Savage2526_14:
(Start: 4 @10423 has 64 MA's), (24, 10558), (26, 10573), (32, 10618), (35, 10660), (47, 10777),

Gene: Scuttle_14 Start: 10429, Stop: 10842, Start Num: 4
Candidate Starts for Scuttle_14:
(Start: 4 @10429 has 64 MA's), (24, 10564), (26, 10579), (32, 10624), (35, 10666), (47, 10783),

Gene: Sergei_10 Start: 7547, Stop: 7984, Start Num: 3
Candidate Starts for Sergei_10:
(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: Shambre1_12 Start: 8782, Stop: 9204, Start Num: 5
Candidate Starts for Shambre1_12:
(Start: 5 @8782 has 13 MA's), (15, 8827), (16, 8836), (46, 9097), (51, 9163), (53, 9181),

Gene: Supakev_10 Start: 7553, Stop: 7984, Start Num: 4
Candidate Starts for Supakev_10:
(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (9, 7574), (20, 7646), (28, 7715), (29, 7724), (32, 7748), (47, 7907),

Gene: Suppi_14 Start: 10446, Stop: 10859, Start Num: 4
Candidate Starts for Suppi_14:
(Start: 4 @10446 has 64 MA's), (14, 10491), (26, 10593), (38, 10701), (47, 10797),

Gene: TattModd_14 Start: 10423, Stop: 10836, Start Num: 4
Candidate Starts for TattModd_14:
(Start: 4 @10423 has 64 MA's), (24, 10558), (26, 10573), (32, 10618), (35, 10660), (47, 10777),

Gene: Temper16_10 Start: 7547, Stop: 7984, Start Num: 3

Candidate Starts for Temper16_10:

(Start: 3 @7547 has 9 MA's), (Start: 4 @7553 has 64 MA's), (12, 7592), (13, 7595), (24, 7688), (26, 7703), (28, 7715), (29, 7724), (30, 7727), (32, 7748), (47, 7907),

Gene: Urla_10 Start: 7561, Stop: 7974, Start Num: 4

Candidate Starts for Urla_10:

(Start: 4 @7561 has 64 MA's), (24, 7693), (26, 7708), (32, 7753), (33, 7756), (35, 7795), (43, 7855), (47, 7912),

Gene: VWB_11 Start: 8079, Stop: 8474, Start Num: 7

Candidate Starts for VWB_11:

(Start: 4 @8073 has 64 MA's), (7, 8079), (10, 8094), (19, 8160), (30, 8244), (36, 8310), (50, 8454),

Gene: Vallejo_14 Start: 10361, Stop: 10774, Start Num: 4

Candidate Starts for Vallejo_14:

(Start: 4 @10361 has 64 MA's), (24, 10496), (26, 10511), (32, 10556), (35, 10598), (47, 10715),

Gene: Vulture_10 Start: 7551, Stop: 7982, Start Num: 4

Candidate Starts for Vulture_10:

(Start: 3 @7545 has 9 MA's), (Start: 4 @7551 has 64 MA's), (9, 7572), (20, 7644), (28, 7713), (29, 7722), (32, 7746), (47, 7905),

Gene: Wawa_14 Start: 10398, Stop: 10811, Start Num: 4

Candidate Starts for Wawa_14:

(Start: 4 @10398 has 64 MA's), (24, 10533), (26, 10548), (32, 10593), (35, 10635), (47, 10752),

Gene: Wayne_14 Start: 10492, Stop: 10905, Start Num: 4

Candidate Starts for Wayne_14:

(Start: 4 @10492 has 64 MA's), (14, 10537), (26, 10639), (38, 10747), (47, 10843),

Gene: WonderBoy_10 Start: 7514, Stop: 7924, Start Num: 4

Candidate Starts for WonderBoy_10:

(Start: 4 @7514 has 64 MA's), (17, 7577), (24, 7646), (26, 7661), (32, 7706), (35, 7748), (47, 7865),

Gene: Zorro_14 Start: 10377, Stop: 10790, Start Num: 4

Candidate Starts for Zorro_14:

(Start: 4 @10377 has 64 MA's), (24, 10512), (26, 10527), (32, 10572), (35, 10614), (47, 10731),