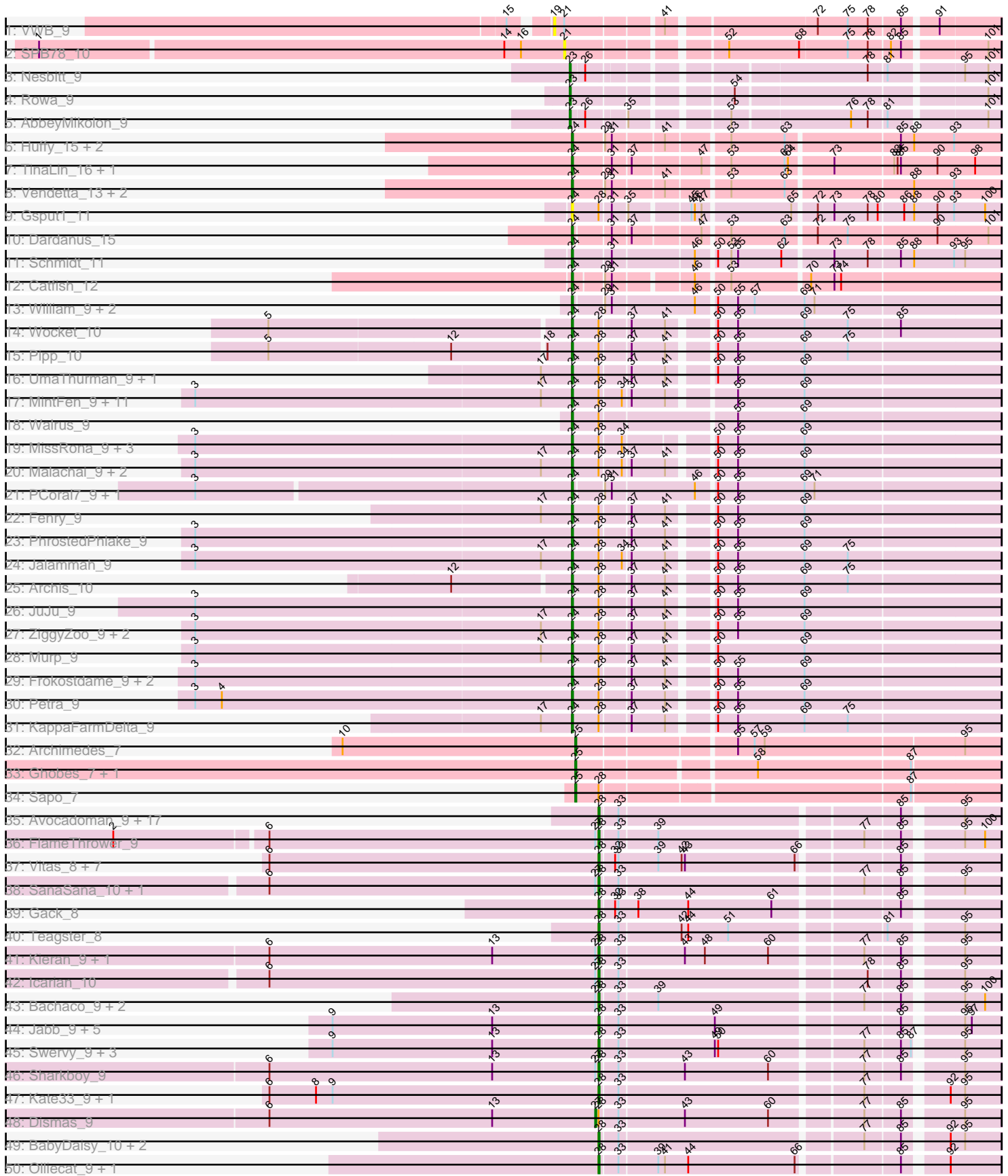
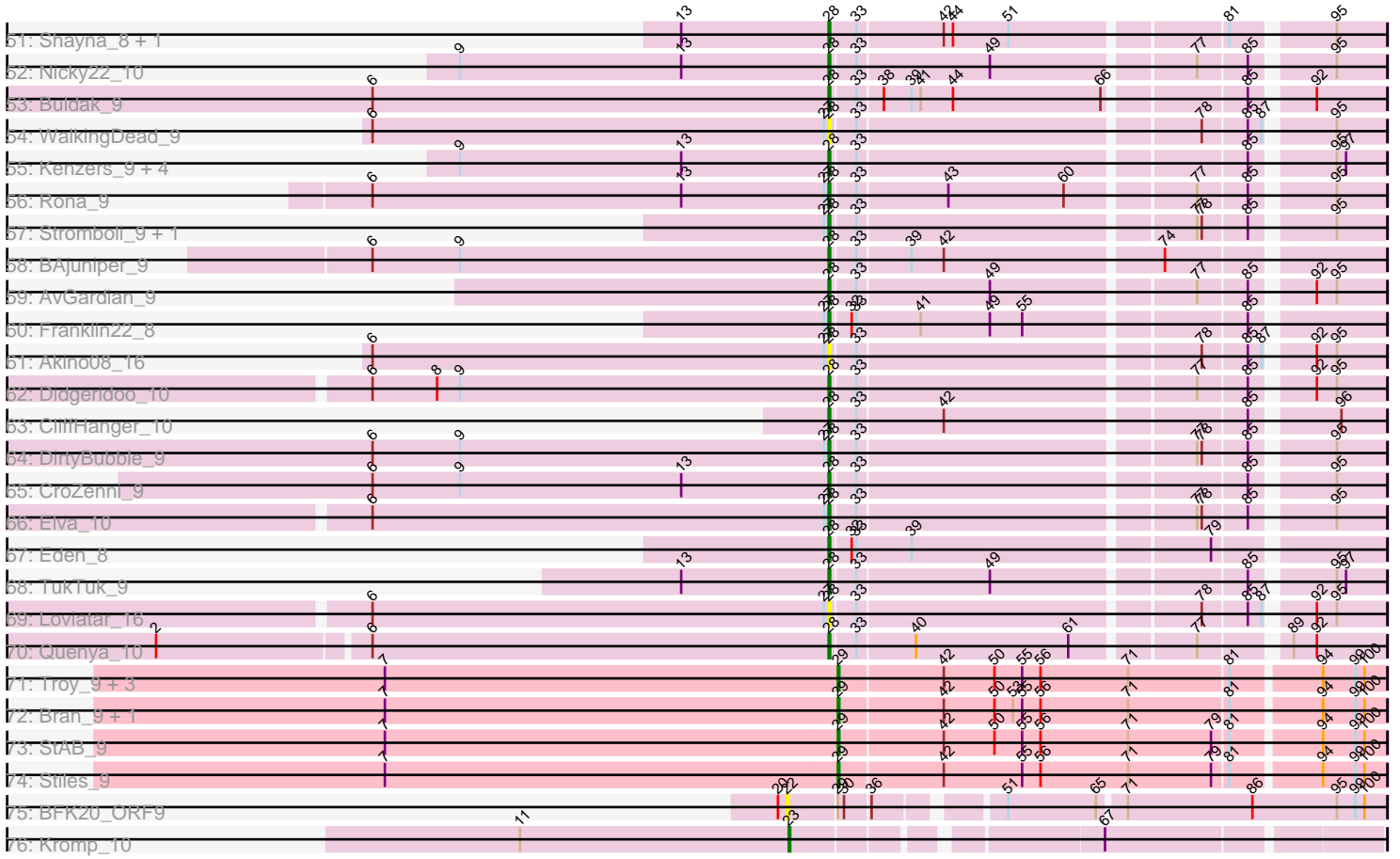


Pham 215900



Pham 215900



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 215900 Report

This analysis was run 02/22/25 on database version 588.

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 215900 has 156 members, 20 are drafts.

Phages represented in each track:

- Track 1 : VWB_9
- Track 2 : SPB78_10
- Track 3 : Nesbitt_9
- Track 4 : Rowa_9
- Track 5 : AbbeyMikolon_9
- Track 6 : Huffy_15, TZGordon_15, DinoDaryn_15
- Track 7 : TinaLin_16, Banquo_17
- Track 8 : Vendetta_13, Goib_14, Splinter_13
- Track 9 : Gspu1_11
- Track 10 : Dardanus_15
- Track 11 : Schmidt_11
- Track 12 : Catfish_12
- Track 13 : William_9, Fairfaxidum_9, PrincePatrick_9
- Track 14 : Wocket_10
- Track 15 : Pipp_10
- Track 16 : UmaThurman_9, Samba_9
- Track 17 : MintFen_9, Guacamole_9, Zarbodnamra_9, Utz_9, Lysidious_9, Barco_9, CaptainKirk2_9, BlingBling_9, Delian_9, Melba_9, JasperJr_9, Hitter_9
- Track 18 : Walrus_9
- Track 19 : MissRona_9, Azula_9, Blueberry_9, Gambino_9
- Track 20 : Malachai_9, Begonia_9, Mellie_9
- Track 21 : PCoral7_9, Toast_9
- Track 22 : Fenry_9
- Track 23 : PhrostedPhlake_9
- Track 24 : Jalammah_9
- Track 25 : Archis_10
- Track 26 : JuJu_9
- Track 27 : ZiggyZoo_9, Obliviate_9, Wisp_9
- Track 28 : Murp_9
- Track 29 : Frokostdame_9, Blino_9, CarolAnn_9
- Track 30 : Petra_9
- Track 31 : KappaFarmDelta_9
- Track 32 : Archimedes_7

- Track 33 : Ghobes_7, Frizzle_7
- Track 34 : Sapo_7
- Track 35 : Avocadoman_9, Doobus_9, Arroyo_10, Burritobowl_9, Johnathan_9, Softsoap_9, Cashington_9, Albright_9, Abigail_9, LimaBean_9, SansAfet_9, DickRichards_9, PhigPhack_9, BelmontSKP_10, Solea_10, Bengal_9, Milomuff_10, AnnaLie_10
- Track 36 : FlameThrower_9
- Track 37 : Vitas_8, Clayda5_8, Brahms_8, Bernstein_8, Rollins_8, Coltrane_8, Armstrong_8, Skylord_8
- Track 38 : SanaSana_10, Stoor_9
- Track 39 : Gack_8
- Track 40 : Teagster_8
- Track 41 : Kieran_9, ChiliPepper_9
- Track 42 : Icarian_10
- Track 43 : Bachaco_9, Celaena_9, Katzastrophic_9
- Track 44 : Jabb_9, CupcakePrincess_9, MsUbiquitous_9, Jovita_9, QMacho_10, Eula_9
- Track 45 : Swervy_9, SarBear_9, Slay_9, Finalfrontier_10
- Track 46 : Sharkboy_9
- Track 47 : Kate33_9, IndyLu_9
- Track 48 : Dismas_9
- Track 49 : BabyDaisy_10, Lahqtemish_9, PastaFagioli_9
- Track 50 : Olliecat_9, Squircl_9
- Track 51 : Shayna_8, SunnyD_8
- Track 52 : Nicky22_10
- Track 53 : Buldak_9
- Track 54 : WalkingDead_9
- Track 55 : Kenzers_9, BubbaBear_9, Phisb_9, Albedo_9, Lynlen_9
- Track 56 : Rona_9
- Track 57 : Stromboli_9, BabyYoda_9
- Track 58 : BAjuniper_9
- Track 59 : AvGardian_9
- Track 60 : Franklin22_8
- Track 61 : Akino08_16
- Track 62 : Didgeridoo_10
- Track 63 : CliffHanger_10
- Track 64 : DirtyBubble_9
- Track 65 : CroZenni_9
- Track 66 : Elva_10
- Track 67 : Eden_8
- Track 68 : TukTuk_9
- Track 69 : Loviatar_16
- Track 70 : Quenya_10
- Track 71 : Troy_9, Lederberg_9, SamW_9, Dina_9
- Track 72 : Bran_9, Adelaide_9
- Track 73 : StAB_9
- Track 74 : Stiles_9
- Track 75 : BFK20_ORF9
- Track 76 : Kromp_10

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

The start number called the most often in the published annotations is 28, it was called in 67 of the 136 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_9, Akino08_16, Albedo_9, Albright_9, AnnaLie_10, Armstrong_8, Arroyo_10, AvGardian_9, Avocadoman_9, BAjuniper_9, BabyDaisy_10, BabyYoda_9, Bachaco_9, BelmontSKP_10, Bengal_9, Bernstein_8, Brahms_8, BubbaBear_9, Buldak_9, Burritobowl_9, Cashington_9, Celaena_9, ChiliPepper_9, Clayda5_8, CliffHanger_10, Coltrane_8, CroZenni_9, CupcakePrincess_9, DickRichards_9, Didgeridoo_10, DirtyBubble_9, Doobus_9, Eden_8, Elva_10, Eula_9, Finalfrontier_10, FlameThrower_9, Franklin22_8, Gack_8, Icarian_10, IndyLu_9, Jabb_9, Johnathan_9, Jovita_9, Kate33_9, Katzastrophic_9, Kenzers_9, Kieran_9, Lahqtemish_9, LimaBean_9, Loviatar_16, Lynlen_9, Milomuff_10, MsUbiquitous_9, Nicky22_10, Olliecat_9, PastaFagioli_9, PhigPhack_9, Phisb_9, QMacho_10, Quenya_10, Rollins_8, Rona_9, SanaSana_10, SansAfet_9, SarBear_9, Sharkboy_9, Shayna_8, Skylord_8, Slay_9, Softsoap_9, Solea_10, Squircle_9, Stoor_9, Stromboli_9, SunnyD_8, Swervy_9, Teagster_8, TukTuk_9, Vitas_8, WalkingDead_9,

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

- Archis_10, Azula_9, Barco_9, Begonia_9, BlingBling_9, Blino_9, Blueberry_9, CaptainKirk2_9, CarolAnn_9, Delian_9, Dismas_9, Fenry_9, Frokostdame_9, Gambino_9, Gspu1_11, Guacamole_9, Hitter_9, Jalammah_9, JasperJr_9, JuJu_9, KappaFarmDelta_9, Lysidious_9, Malachai_9, Melba_9, Mellie_9, MintFen_9, MissRona_9, Murp_9, Obliviate_9, Petra_9, PhrostedPhlake_9, Pipp_10, Samba_9, Sapo_7, UmaThurman_9, Utz_9, Walrus_9, Wisp_9, Wocket_10, Zarbodnamra_9, ZiggyZoo_9,

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

- AbbeyMikolon_9, Adelaide_9, Archimedes_7, BFK20_ORF9, Banquo_17, Bran_9, Catfish_12, Dardanus_15, Dina_9, DinoDaryn_15, Fairfaxidum_9, Frizzle_7, Ghobes_7, Goib_14, Huffy_15, Kromp_10, Lederberg_9, Nesbitt_9, PCoral7_9, PrincePatrick_9, Rowa_9, SPB78_10, SamW_9, Schmidt_11, Splinter_13, StAB_9, Stiles_9, TZGordon_15, TinaLin_16, Toast_9, Troy_9, VWB_9, Vendetta_13, William_9,

Summary by start number:

Start 19:

- Found in 1 of 156 (0.6%) 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_9 (BA),

Start 21:

- Found in 2 of 156 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: SPB78_10 (BA),

Start 22:

- Found in 1 of 156 (0.6%) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: BFK20_ORF9 (singleton),

Start 23:

- Found in 4 of 156 (2.6%) of genes in pham
- Manual Annotations of this start: 4 of 136
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_9 (BL), Kromp_10 (singleton), Nesbitt_9 (BL), Rowa_9 (BL),

Start 24:

- Found in 55 of 156 (35.3%) of genes in pham
- Manual Annotations of this start: 53 of 136
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis_10 (CV), Azula_9 (CV), Banquo_17 (CU1), Barco_9 (CV), Begonia_9 (CV), BlingBling_9 (CV), Blino_9 (CV), Blueberry_9 (CV), CaptainKirk2_9 (CV), CarolAnn_9 (CV), Catfish_12 (CU5), Dardanus_15 (CU3), Delian_9 (CV), DinoDaryn_15 (CU1), Fairfaxidum_9 (CV), Ferry_9 (CV), Frokostdame_9 (CV), Gambino_9 (CV), Goib_14 (CU1), Gsput1_11 (CU2), Guacamole_9 (CV), Hitter_9 (CV), Huffy_15 (CU1), Jalammah_9 (CV), JasperJr_9 (CV), JuJu_9 (CV), KappaFarmDelta_9 (CV), Lysidious_9 (CV), Malachai_9 (CV), Melba_9 (CV), Mellie_9 (CV), MintFen_9 (CV), MissRona_9 (CV), Murp_9 (CV), Obliviate_9 (CV), PCoral7_9 (CV), Petra_9 (CV), PhrostedPhlake_9 (CV), Pipp_10 (CV), PrincePatrick_9 (CV), Samba_9 (CV), Schmidt_11 (CU4), Splinter_13 (CU1), TZGordon_15 (CU1), TinaLin_16 (CU1), Toast_9 (CV), UmaThurman_9 (CV), Utz_9 (CV), Vendetta_13 (CU1), Walrus_9 (CV), William_9 (CV), Wisp_9 (CV), Wocket_10 (CV), Zarbodnamra_9 (CV), ZiggyZoo_9 (CV),

Start 25:

- Found in 4 of 156 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 136
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes_7 (DA), Frizzle_7 (DA), Ghobes_7 (DA), Sapo_7 (DA),

Start 27:

- Found in 20 of 156 (12.8%) of genes in pham
- Manual Annotations of this start: 1 of 136
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Dismas_9 (EB),

Start 28:

- Found in 122 of 156 (78.2%) of genes in pham
- Manual Annotations of this start: 67 of 136
- Called 66.4% of time when present
- Phage (with cluster) where this start called: Abigail_9 (EB), Akino08_16 (EB), Albedo_9 (EB), Albright_9 (EB), AnnaLie_10 (EB), Armstrong_8 (EB), Arroyo_10 (EB), AvGardian_9 (EB), Avocadoman_9 (EB), BAjuniper_9 (EB), BabyDaisy_10 (EB), BabyYoda_9 (EB), Bachaco_9 (EB), BelmontSKP_10 (EB), Bengal_9 (EB), Bernstein_8 (EB), Brahms_8 (EB), BubbaBear_9 (EB), Buldak_9 (EB), Burritobowl_9 (EB), Cashington_9 (EB), Celaena_9 (EB), ChiliPepper_9 (EB), Clayda5_8 (EB), CliffHanger_10 (EB), Coltrane_8 (EB), CroZenni_9 (EB), CupcakePrincess_9 (EB), DickRichards_9 (EB), Didgeridoo_10 (EB), DirtyBubble_9 (EB), Doobus_9 (EB),

Eden_8 (EB), Elva_10 (EB), Eula_9 (EB), Finalfrontier_10 (EB), FlameThrower_9 (EB), Franklin22_8 (EB), Gack_8 (EB), Icarian_10 (EB), IndyLu_9 (EB), Jabb_9 (EB), Johnathan_9 (EB), Jovita_9 (EB), Kate33_9 (EB), Katzastrophic_9 (EB), Kenzers_9 (EB), Kieran_9 (EB), Lahqtemish_9 (EB), LimaBean_9 (EB), Loviatar_16 (EB), Lynlen_9 (EB), Milomuff_10 (EB), MsUbiquitous_9 (EB), Nicky22_10 (EB), Olliecat_9 (EB), PastaFagioli_9 (EB), PhigPhack_9 (EB), Phisb_9 (EB), QMacho_10 (EB), Quenya_10 (EB), Rollins_8 (EB), Rona_9 (EB), SanaSana_10 (EB), SansAfet_9 (EB), SarBear_9 (EB), Sharkboy_9 (EB), Shayna_8 (EB), Skylord_8 (EB), Slay_9 (EB), Softsoap_9 (EB), Solea_10 (EB), Squircle_9 (EB), Stoor_9 (EB), Stromboli_9 (EB), SunnyD_8 (EB), Swervy_9 (EB), Teagster_8 (EB), TukTuk_9 (EB), Vitas_8 (EB), WalkingDead_9 (EB),

Start 29:

- Found in 21 of 156 (13.5%) of genes in pham
- Manual Annotations of this start: 8 of 136
- Called 38.1% of time when present
- Phage (with cluster) where this start called: Adelaide_9 (EP), Bran_9 (EP), Dina_9 (EP), Lederberg_9 (EP), SamW_9 (EP), StAB_9 (EP), Stiles_9 (EP), Troy_9 (EP),

Summary by clusters:

There are 12 clusters represented in this pham: CU5, CU4, CU3, BA, CU1, BL, singleton, DA, CU2, EB, CV, EP,

Info for manual annotations of cluster BL:

- Start number 23 was manually annotated 3 times for cluster BL.

Info for manual annotations of cluster CU1:

- Start number 24 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 24 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 24 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 24 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CV:

- Start number 24 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster DA:

- Start number 25 was manually annotated 3 times for cluster DA.

Info for manual annotations of cluster EB:

- Start number 27 was manually annotated 1 time for cluster EB.
- Start number 28 was manually annotated 67 times for cluster EB.

Info for manual annotations of cluster EP:

- Start number 29 was manually annotated 8 times for cluster EP.

Gene Information:

Gene: AbbeyMikolon_9 Start: 7191, Stop: 7532, Start Num: 23

Candidate Starts for AbbeyMikolon_9:

(Start: 23 @7191 has 4 MA's), (26, 7203), (35, 7233), (53, 7308), (76, 7410), (78, 7425), (81, 7440), (101, 7521),

Gene: Abigail_9 Start: 7444, Stop: 7773, Start Num: 28

Candidate Starts for Abigail_9:

(Start: 28 @7444 has 67 MA's), (33, 7459), (85, 7696), (95, 7741),

Gene: Adelaide_9 Start: 6873, Stop: 7217, Start Num: 29

Candidate Starts for Adelaide_9:

(7, 6582), (Start: 29 @6873 has 8 MA's), (42, 6939), (50, 6972), (53, 6984), (55, 6990), (56, 7002), (71, 7059), (81, 7122), (94, 7176), (99, 7197), (100, 7203),

Gene: Akino08_16 Start: 7563, Stop: 7892, Start Num: 28

Candidate Starts for Akino08_16:

(6, 7266), (Start: 27 @7560 has 1 MA's), (Start: 28 @7563 has 67 MA's), (33, 7578), (78, 7788), (85, 7815), (87, 7824), (92, 7848), (95, 7860),

Gene: Albedo_9 Start: 7316, Stop: 7645, Start Num: 28

Candidate Starts for Albedo_9:

(9, 7076), (13, 7220), (Start: 28 @7316 has 67 MA's), (33, 7331), (85, 7568), (95, 7613), (97, 7619),

Gene: Albright_9 Start: 7325, Stop: 7654, Start Num: 28

Candidate Starts for Albright_9:

(Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: AnnaLie_10 Start: 7671, Stop: 8000, Start Num: 28

Candidate Starts for AnnaLie_10:

(Start: 28 @7671 has 67 MA's), (33, 7686), (85, 7923), (95, 7968),

Gene: Archimedes_7 Start: 6004, Stop: 6366, Start Num: 25

Candidate Starts for Archimedes_7:

(10, 5794), (Start: 25 @6004 has 3 MA's), (55, 6136), (57, 6151), (59, 6160), (95, 6334),

Gene: Archis_10 Start: 7171, Stop: 7533, Start Num: 24

Candidate Starts for Archis_10:

(12, 7069), (Start: 24 @7171 has 53 MA's), (Start: 28 @7195 has 67 MA's), (37, 7219), (41, 7249), (50, 7282), (55, 7300), (69, 7360), (75, 7399),

Gene: Armstrong_8 Start: 7093, Stop: 7425, Start Num: 28

Candidate Starts for Armstrong_8:

(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168), (66, 7267), (85, 7348),

Gene: Arroyo_10 Start: 7795, Stop: 8124, Start Num: 28

Candidate Starts for Arroyo_10:

(Start: 28 @7795 has 67 MA's), (33, 7810), (85, 8047), (95, 8092),

Gene: AvGardian_9 Start: 7373, Stop: 7702, Start Num: 28
Candidate Starts for AvGardian_9:
(Start: 28 @7373 has 67 MA's), (33, 7388), (49, 7472), (77, 7595), (85, 7625), (92, 7658), (95, 7670),

Gene: Avocadoman_9 Start: 7383, Stop: 7712, Start Num: 28
Candidate Starts for Avocadoman_9:
(Start: 28 @7383 has 67 MA's), (33, 7398), (85, 7635), (95, 7680),

Gene: Azula_9 Start: 6835, Stop: 7194, Start Num: 24
Candidate Starts for Azula_9:
(3, 6499), (Start: 24 @6835 has 53 MA's), (Start: 28 @6859 has 67 MA's), (34, 6877), (50, 6943), (55, 6961), (69, 7021),

Gene: BAjuniper_9 Start: 7266, Stop: 7598, Start Num: 28
Candidate Starts for BAjuniper_9:
(6, 6969), (9, 7026), (Start: 28 @7266 has 67 MA's), (33, 7281), (39, 7314), (42, 7335), (74, 7470),

Gene: BFK20_ORF9 Start: 6860, Stop: 7216, Start Num: 22
Candidate Starts for BFK20_ORF9:
(20, 6854), (22, 6860), (Start: 29 @6890 has 8 MA's), (30, 6893), (36, 6908), (51, 6977), (65, 7034), (71, 7049), (86, 7130), (95, 7184), (99, 7196), (100, 7202),

Gene: BabyDaisy_10 Start: 7544, Stop: 7873, Start Num: 28
Candidate Starts for BabyDaisy_10:
(Start: 28 @7544 has 67 MA's), (33, 7559), (77, 7766), (85, 7796), (92, 7829), (95, 7841),

Gene: BabyYoda_9 Start: 7566, Stop: 7895, Start Num: 28
Candidate Starts for BabyYoda_9:
(Start: 27 @7563 has 1 MA's), (Start: 28 @7566 has 67 MA's), (33, 7581), (77, 7788), (78, 7791), (85, 7818), (95, 7863),

Gene: Bachaco_9 Start: 7457, Stop: 7786, Start Num: 28
Candidate Starts for Bachaco_9:
(Start: 27 @7454 has 1 MA's), (Start: 28 @7457 has 67 MA's), (33, 7472), (39, 7505), (77, 7679), (85, 7709), (95, 7754), (100, 7772),

Gene: Banquo_17 Start: 10497, Stop: 10856, Start Num: 24
Candidate Starts for Banquo_17:
(Start: 24 @10497 has 53 MA's), (31, 10530), (37, 10545), (47, 10602), (53, 10623), (63, 10671), (64, 10674), (73, 10710), (83, 10761), (84, 10764), (85, 10767), (90, 10800), (98, 10833),

Gene: Barco_9 Start: 6959, Stop: 7321, Start Num: 24
Candidate Starts for Barco_9:
(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: Begonia_9 Start: 6962, Stop: 7324, Start Num: 24
Candidate Starts for Begonia_9:
(3, 6626), (17, 6935), (Start: 24 @6962 has 53 MA's), (Start: 28 @6986 has 67 MA's), (34, 7004), (37, 7010), (41, 7040), (50, 7073), (55, 7091), (69, 7151),

Gene: BelmontSKP_10 Start: 7671, Stop: 8000, Start Num: 28

Candidate Starts for BelmontSKP_10:
(Start: 28 @7671 has 67 MA's), (33, 7686), (85, 7923), (95, 7968),

Gene: Bengal_9 Start: 7325, Stop: 7654, Start Num: 28
Candidate Starts for Bengal_9:
(Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: Bernstein_8 Start: 7153, Stop: 7485, Start Num: 28
Candidate Starts for Bernstein_8:
(6, 6856), (Start: 28 @7153 has 67 MA's), (32, 7165), (33, 7168), (39, 7204), (42, 7225), (43, 7228),
(66, 7327), (85, 7408),

Gene: BlingBling_9 Start: 6959, Stop: 7321, Start Num: 24
Candidate Starts for BlingBling_9:
(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37,
7007), (41, 7037), (55, 7088), (69, 7148),

Gene: Blino_9 Start: 6859, Stop: 7221, Start Num: 24
Candidate Starts for Blino_9:
(3, 6523), (Start: 24 @6859 has 53 MA's), (Start: 28 @6883 has 67 MA's), (37, 6907), (41, 6937), (50,
6970), (55, 6988), (69, 7048),

Gene: Blueberry_9 Start: 6835, Stop: 7194, Start Num: 24
Candidate Starts for Blueberry_9:
(3, 6499), (Start: 24 @6835 has 53 MA's), (Start: 28 @6859 has 67 MA's), (34, 6877), (50, 6943), (55,
6961), (69, 7021),

Gene: Brahms_8 Start: 7093, Stop: 7425, Start Num: 28
Candidate Starts for Brahms_8:
(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168),
(66, 7267), (85, 7348),

Gene: Bran_9 Start: 6878, Stop: 7222, Start Num: 29
Candidate Starts for Bran_9:
(7, 6587), (Start: 29 @6878 has 8 MA's), (42, 6944), (50, 6977), (53, 6989), (55, 6995), (56, 7007), (71,
7064), (81, 7127), (94, 7181), (99, 7202), (100, 7208),

Gene: BubbaBear_9 Start: 7316, Stop: 7645, Start Num: 28
Candidate Starts for BubbaBear_9:
(9, 7076), (13, 7220), (Start: 28 @7316 has 67 MA's), (33, 7331), (85, 7568), (95, 7613), (97, 7619),

Gene: Buldak_9 Start: 7601, Stop: 7930, Start Num: 28
Candidate Starts for Buldak_9:
(6, 7304), (Start: 28 @7601 has 67 MA's), (33, 7616), (38, 7631), (39, 7649), (41, 7655), (44, 7676),
(66, 7772), (85, 7853), (92, 7886),

Gene: Burritobowl_9 Start: 7352, Stop: 7681, Start Num: 28
Candidate Starts for Burritobowl_9:
(Start: 28 @7352 has 67 MA's), (33, 7367), (85, 7604), (95, 7649),

Gene: CaptainKirk2_9 Start: 6959, Stop: 7321, Start Num: 24
Candidate Starts for CaptainKirk2_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: CarolAnn_9 Start: 6858, Stop: 7220, Start Num: 24

Candidate Starts for CarolAnn_9:

(3, 6522), (Start: 24 @6858 has 53 MA's), (Start: 28 @6882 has 67 MA's), (37, 6906), (41, 6936), (50, 6969), (55, 6987), (69, 7047),

Gene: Cashington_9 Start: 7342, Stop: 7671, Start Num: 28

Candidate Starts for Cashington_9:

(Start: 28 @7342 has 67 MA's), (33, 7357), (85, 7594), (95, 7639),

Gene: Catfish_12 Start: 8464, Stop: 8817, Start Num: 24

Candidate Starts for Catfish_12:

(Start: 24 @8464 has 53 MA's), (Start: 29 @8488 has 8 MA's), (31, 8494), (46, 8557), (53, 8584), (70, 8650), (73, 8671), (74, 8677),

Gene: Celaena_9 Start: 7394, Stop: 7723, Start Num: 28

Candidate Starts for Celaena_9:

(Start: 27 @7391 has 1 MA's), (Start: 28 @7394 has 67 MA's), (33, 7409), (39, 7442), (77, 7616), (85, 7646), (95, 7691), (100, 7709),

Gene: ChiliPepper_9 Start: 7553, Stop: 7882, Start Num: 28

Candidate Starts for ChiliPepper_9:

(6, 7256), (13, 7457), (Start: 27 @7550 has 1 MA's), (Start: 28 @7553 has 67 MA's), (33, 7568), (43, 7625), (48, 7643), (60, 7700), (77, 7775), (85, 7805), (95, 7850),

Gene: Clayda5_8 Start: 7093, Stop: 7425, Start Num: 28

Candidate Starts for Clayda5_8:

(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168), (66, 7267), (85, 7348),

Gene: CliffHanger_10 Start: 7300, Stop: 7629, Start Num: 28

Candidate Starts for CliffHanger_10:

(Start: 28 @7300 has 67 MA's), (33, 7315), (42, 7369), (85, 7552), (96, 7600),

Gene: Coltrane_8 Start: 7093, Stop: 7425, Start Num: 28

Candidate Starts for Coltrane_8:

(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168), (66, 7267), (85, 7348),

Gene: CroZenni_9 Start: 7325, Stop: 7654, Start Num: 28

Candidate Starts for CroZenni_9:

(6, 7028), (9, 7085), (13, 7229), (Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: CupcakePrincess_9 Start: 7302, Stop: 7631, Start Num: 28

Candidate Starts for CupcakePrincess_9:

(9, 7062), (13, 7206), (Start: 28 @7302 has 67 MA's), (33, 7317), (49, 7401), (85, 7554), (95, 7599), (97, 7605),

Gene: Dardanus_15 Start: 9541, Stop: 9897, Start Num: 24

Candidate Starts for Dardanus_15:

(Start: 24 @9541 has 53 MA's), (31, 9571), (37, 9586), (47, 9643), (53, 9664), (63, 9712), (72, 9736), (75, 9763), (90, 9841), (101, 9886),

Gene: Delian_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Delian_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: DickRichards_9 Start: 7819, Stop: 8148, Start Num: 28

Candidate Starts for DickRichards_9:

(Start: 28 @7819 has 67 MA's), (33, 7834), (85, 8071), (95, 8116),

Gene: Didgeridoo_10 Start: 7544, Stop: 7873, Start Num: 28

Candidate Starts for Didgeridoo_10:

(6, 7247), (8, 7289), (9, 7304), (Start: 28 @7544 has 67 MA's), (33, 7559), (77, 7766), (85, 7796), (92, 7829), (95, 7841),

Gene: Dina_9 Start: 6861, Stop: 7205, Start Num: 29

Candidate Starts for Dina_9:

(7, 6570), (Start: 29 @6861 has 8 MA's), (42, 6927), (50, 6960), (55, 6978), (56, 6990), (71, 7047), (81, 7110), (94, 7164), (99, 7185), (100, 7191),

Gene: DinoDaryn_15 Start: 9631, Stop: 9990, Start Num: 24

Candidate Starts for DinoDaryn_15:

(Start: 24 @9631 has 53 MA's), (Start: 29 @9658 has 8 MA's), (31, 9664), (41, 9706), (53, 9757), (63, 9805), (85, 9901), (88, 9913), (93, 9949),

Gene: DirtyBubble_9 Start: 7574, Stop: 7903, Start Num: 28

Candidate Starts for DirtyBubble_9:

(6, 7277), (9, 7334), (Start: 27 @7571 has 1 MA's), (Start: 28 @7574 has 67 MA's), (33, 7589), (77, 7796), (78, 7799), (85, 7826), (95, 7871),

Gene: Dismas_9 Start: 7550, Stop: 7882, Start Num: 27

Candidate Starts for Dismas_9:

(6, 7256), (13, 7457), (Start: 27 @7550 has 1 MA's), (Start: 28 @7553 has 67 MA's), (33, 7568), (43, 7625), (60, 7700), (77, 7775), (85, 7805), (95, 7850),

Gene: Doobus_9 Start: 7556, Stop: 7885, Start Num: 28

Candidate Starts for Doobus_9:

(Start: 28 @7556 has 67 MA's), (33, 7571), (85, 7808), (95, 7853),

Gene: Eden_8 Start: 7182, Stop: 7514, Start Num: 28

Candidate Starts for Eden_8:

(Start: 28 @7182 has 67 MA's), (32, 7194), (33, 7197), (39, 7233), (79, 7416),

Gene: Elva_10 Start: 7631, Stop: 7960, Start Num: 28

Candidate Starts for Elva_10:

(6, 7334), (Start: 27 @7628 has 1 MA's), (Start: 28 @7631 has 67 MA's), (33, 7646), (77, 7853), (78, 7856), (85, 7883), (95, 7928),

Gene: Eula_9 Start: 7323, Stop: 7652, Start Num: 28

Candidate Starts for Eula_9:

(9, 7083), (13, 7227), (Start: 28 @7323 has 67 MA's), (33, 7338), (49, 7422), (85, 7575), (95, 7620), (97, 7626),

Gene: Fairfaxidum_9 Start: 6937, Stop: 7305, Start Num: 24

Candidate Starts for Fairfaxidum_9:

(Start: 24 @6937 has 53 MA's), (Start: 29 @6961 has 8 MA's), (31, 6967), (46, 7039), (50, 7054), (55, 7072), (57, 7087), (69, 7132), (71, 7141),

Gene: Fenry_9 Start: 6968, Stop: 7330, Start Num: 24

Candidate Starts for Fenry_9:

(17, 6941), (Start: 24 @6968 has 53 MA's), (Start: 28 @6992 has 67 MA's), (37, 7016), (41, 7046), (50, 7079), (55, 7097), (69, 7157),

Gene: Finalfrontier_10 Start: 7834, Stop: 8163, Start Num: 28

Candidate Starts for Finalfrontier_10:

(9, 7594), (13, 7738), (Start: 28 @7834 has 67 MA's), (33, 7849), (49, 7933), (50, 7936), (77, 8056), (85, 8086), (87, 8095), (95, 8131),

Gene: FlameThrower_9 Start: 7282, Stop: 7611, Start Num: 28

Candidate Starts for FlameThrower_9:

(2, 6853), (6, 6985), (Start: 27 @7279 has 1 MA's), (Start: 28 @7282 has 67 MA's), (33, 7297), (39, 7330), (77, 7504), (85, 7534), (95, 7579), (100, 7597),

Gene: Franklin22_8 Start: 7163, Stop: 7495, Start Num: 28

Candidate Starts for Franklin22_8:

(Start: 27 @7160 has 1 MA's), (Start: 28 @7163 has 67 MA's), (32, 7175), (33, 7178), (41, 7220), (49, 7265), (55, 7286), (85, 7418),

Gene: Frizzle_7 Start: 6056, Stop: 6415, Start Num: 25

Candidate Starts for Frizzle_7:

(Start: 25 @6056 has 3 MA's), (58, 6203), (87, 6338),

Gene: Frokostdame_9 Start: 6954, Stop: 7316, Start Num: 24

Candidate Starts for Frokostdame_9:

(3, 6618), (Start: 24 @6954 has 53 MA's), (Start: 28 @6978 has 67 MA's), (37, 7002), (41, 7032), (50, 7065), (55, 7083), (69, 7143),

Gene: Gack_8 Start: 7233, Stop: 7565, Start Num: 28

Candidate Starts for Gack_8:

(Start: 28 @7233 has 67 MA's), (32, 7245), (33, 7248), (38, 7266), (44, 7311), (61, 7386), (85, 7488),

Gene: Gambino_9 Start: 6835, Stop: 7194, Start Num: 24

Candidate Starts for Gambino_9:

(3, 6499), (Start: 24 @6835 has 53 MA's), (Start: 28 @6859 has 67 MA's), (34, 6877), (50, 6943), (55, 6961), (69, 7021),

Gene: Ghobes_7 Start: 6056, Stop: 6415, Start Num: 25

Candidate Starts for Ghobes_7:

(Start: 25 @6056 has 3 MA's), (58, 6203), (87, 6338),

Gene: Goib_14 Start: 9406, Stop: 9765, Start Num: 24

Candidate Starts for Goib_14:

(Start: 24 @9406 has 53 MA's), (Start: 29 @9433 has 8 MA's), (31, 9439), (41, 9481), (53, 9532), (63, 9580), (88, 9688), (93, 9724),

Gene: Gspu1_11 Start: 7862, Stop: 8218, Start Num: 24

Candidate Starts for Gspu1_11:

(Start: 24 @7862 has 53 MA's), (Start: 28 @7886 has 67 MA's), (31, 7895), (35, 7907), (45, 7955), (46, 7958), (47, 7964), (65, 8039), (72, 8057), (73, 8072), (78, 8102), (80, 8111), (86, 8132), (88, 8141), (90, 8162), (93, 8177), (100, 8204),

Gene: Guacamole_9 Start: 6963, Stop: 7325, Start Num: 24

Candidate Starts for Guacamole_9:

(3, 6627), (17, 6936), (Start: 24 @6963 has 53 MA's), (Start: 28 @6987 has 67 MA's), (34, 7005), (37, 7011), (41, 7041), (55, 7092), (69, 7152),

Gene: Hitter_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Hitter_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: Huff_15 Start: 9631, Stop: 9990, Start Num: 24

Candidate Starts for Huff_15:

(Start: 24 @9631 has 53 MA's), (Start: 29 @9658 has 8 MA's), (31, 9664), (41, 9706), (53, 9757), (63, 9805), (85, 9901), (88, 9913), (93, 9949),

Gene: Icarian_10 Start: 7557, Stop: 7886, Start Num: 28

Candidate Starts for Icarian_10:

(6, 7260), (Start: 27 @7554 has 1 MA's), (Start: 28 @7557 has 67 MA's), (33, 7572), (78, 7782), (85, 7809), (95, 7854),

Gene: IndyLu_9 Start: 7368, Stop: 7697, Start Num: 28

Candidate Starts for IndyLu_9:

(6, 7071), (8, 7113), (9, 7128), (Start: 28 @7368 has 67 MA's), (33, 7383), (77, 7590), (92, 7653), (95, 7665),

Gene: Jabb_9 Start: 7302, Stop: 7631, Start Num: 28

Candidate Starts for Jabb_9:

(9, 7062), (13, 7206), (Start: 28 @7302 has 67 MA's), (33, 7317), (49, 7401), (85, 7554), (95, 7599), (97, 7605),

Gene: Jalamah_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Jalamah_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (50, 7070), (55, 7088), (69, 7148), (75, 7187),

Gene: JasperJr_9 Start: 6963, Stop: 7325, Start Num: 24

Candidate Starts for JasperJr_9:

(3, 6627), (17, 6936), (Start: 24 @6963 has 53 MA's), (Start: 28 @6987 has 67 MA's), (34, 7005), (37, 7011), (41, 7041), (55, 7092), (69, 7152),

Gene: Johnathan_9 Start: 7325, Stop: 7654, Start Num: 28

Candidate Starts for Johnathan_9:

(Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: Jovita_9 Start: 7424, Stop: 7753, Start Num: 28

Candidate Starts for Jovita_9:

(9, 7184), (13, 7328), (Start: 28 @7424 has 67 MA's), (33, 7439), (49, 7523), (85, 7676), (95, 7721), (97, 7727),

Gene: JuJu_9 Start: 6884, Stop: 7246, Start Num: 24

Candidate Starts for JuJu_9:

(3, 6548), (Start: 24 @6884 has 53 MA's), (Start: 28 @6908 has 67 MA's), (37, 6932), (41, 6962), (50, 6995), (55, 7013), (69, 7073),

Gene: KappaFarmDelta_9 Start: 6997, Stop: 7359, Start Num: 24

Candidate Starts for KappaFarmDelta_9:

(17, 6970), (Start: 24 @6997 has 53 MA's), (Start: 28 @7021 has 67 MA's), (37, 7045), (41, 7075), (50, 7108), (55, 7126), (69, 7186), (75, 7225),

Gene: Kate33_9 Start: 7367, Stop: 7696, Start Num: 28

Candidate Starts for Kate33_9:

(6, 7070), (8, 7112), (9, 7127), (Start: 28 @7367 has 67 MA's), (33, 7382), (77, 7589), (92, 7652), (95, 7664),

Gene: Katzastrophic_9 Start: 7457, Stop: 7786, Start Num: 28

Candidate Starts for Katzastrophic_9:

(Start: 27 @7454 has 1 MA's), (Start: 28 @7457 has 67 MA's), (33, 7472), (39, 7505), (77, 7679), (85, 7709), (95, 7754), (100, 7772),

Gene: Kenzers_9 Start: 7339, Stop: 7668, Start Num: 28

Candidate Starts for Kenzers_9:

(9, 7099), (13, 7243), (Start: 28 @7339 has 67 MA's), (33, 7354), (85, 7591), (95, 7636), (97, 7642),

Gene: Kieran_9 Start: 7556, Stop: 7885, Start Num: 28

Candidate Starts for Kieran_9:

(6, 7259), (13, 7460), (Start: 27 @7553 has 1 MA's), (Start: 28 @7556 has 67 MA's), (33, 7571), (43, 7628), (48, 7646), (60, 7703), (77, 7778), (85, 7808), (95, 7853),

Gene: Kromp_10 Start: 8334, Stop: 8675, Start Num: 23

Candidate Starts for Kromp_10:

(11, 8160), (Start: 23 @8334 has 4 MA's), (67, 8508),

Gene: Lahqtemish_9 Start: 7412, Stop: 7741, Start Num: 28

Candidate Starts for Lahqtemish_9:

(Start: 28 @7412 has 67 MA's), (33, 7427), (77, 7634), (85, 7664), (92, 7697), (95, 7709),

Gene: Lederberg_9 Start: 6861, Stop: 7205, Start Num: 29

Candidate Starts for Lederberg_9:

(7, 6570), (Start: 29 @6861 has 8 MA's), (42, 6927), (50, 6960), (55, 6978), (56, 6990), (71, 7047), (81, 7110), (94, 7164), (99, 7185), (100, 7191),

Gene: LimaBean_9 Start: 7325, Stop: 7654, Start Num: 28

Candidate Starts for LimaBean_9:

(Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: Loviatar_16 Start: 7578, Stop: 7907, Start Num: 28

Candidate Starts for Loviatar_16:

(6, 7281), (Start: 27 @7575 has 1 MA's), (Start: 28 @7578 has 67 MA's), (33, 7593), (78, 7803), (85, 7830), (87, 7839), (92, 7863), (95, 7875),

Gene: Lynlen_9 Start: 7339, Stop: 7668, Start Num: 28

Candidate Starts for Lynlen_9:

(9, 7099), (13, 7243), (Start: 28 @7339 has 67 MA's), (33, 7354), (85, 7591), (95, 7636), (97, 7642),

Gene: Lysidious_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Lysidious_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: Malachai_9 Start: 6962, Stop: 7324, Start Num: 24

Candidate Starts for Malachai_9:

(3, 6626), (17, 6935), (Start: 24 @6962 has 53 MA's), (Start: 28 @6986 has 67 MA's), (34, 7004), (37, 7010), (41, 7040), (50, 7073), (55, 7091), (69, 7151),

Gene: Melba_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Melba_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: Mellie_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Mellie_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (50, 7070), (55, 7088), (69, 7148),

Gene: Milomuff_10 Start: 7711, Stop: 8040, Start Num: 28

Candidate Starts for Milomuff_10:

(Start: 28 @7711 has 67 MA's), (33, 7726), (85, 7963), (95, 8008),

Gene: MintFen_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for MintFen_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: MissRona_9 Start: 6835, Stop: 7194, Start Num: 24

Candidate Starts for MissRona_9:

(3, 6499), (Start: 24 @6835 has 53 MA's), (Start: 28 @6859 has 67 MA's), (34, 6877), (50, 6943), (55, 6961), (69, 7021),

Gene: MsUbiquitous_9 Start: 7302, Stop: 7631, Start Num: 28

Candidate Starts for MsUbiquitous_9:

(9, 7062), (13, 7206), (Start: 28 @7302 has 67 MA's), (33, 7317), (49, 7401), (85, 7554), (95, 7599), (97, 7605),

Gene: Murp_9 Start: 7000, Stop: 7362, Start Num: 24

Candidate Starts for Murp_9:

(3, 6664), (17, 6973), (Start: 24 @7000 has 53 MA's), (Start: 28 @7024 has 67 MA's), (37, 7048), (41, 7078), (50, 7111), (69, 7189),

Gene: Nesbitt_9 Start: 7263, Stop: 7604, Start Num: 23

Candidate Starts for Nesbitt_9:

(Start: 23 @7263 has 4 MA's), (26, 7275), (78, 7497), (81, 7512), (95, 7572), (101, 7593),

Gene: Nicky22_10 Start: 7773, Stop: 8102, Start Num: 28

Candidate Starts for Nicky22_10:

(9, 7533), (13, 7677), (Start: 28 @7773 has 67 MA's), (33, 7788), (49, 7872), (77, 7995), (85, 8025), (95, 8070),

Gene: Obliviate_9 Start: 6983, Stop: 7345, Start Num: 24

Candidate Starts for Obliviate_9:

(3, 6647), (17, 6956), (Start: 24 @6983 has 53 MA's), (Start: 28 @7007 has 67 MA's), (37, 7031), (41, 7061), (50, 7094), (55, 7112), (69, 7172),

Gene: Olliecat_9 Start: 7556, Stop: 7885, Start Num: 28

Candidate Starts for Olliecat_9:

(Start: 28 @7556 has 67 MA's), (33, 7571), (39, 7604), (41, 7610), (44, 7631), (66, 7727), (85, 7808), (92, 7841),

Gene: PCoral7_9 Start: 6937, Stop: 7305, Start Num: 24

Candidate Starts for PCoral7_9:

(3, 6607), (Start: 24 @6937 has 53 MA's), (Start: 29 @6961 has 8 MA's), (31, 6967), (46, 7039), (50, 7054), (55, 7072), (69, 7132), (71, 7141),

Gene: PastaFagioli_9 Start: 7400, Stop: 7729, Start Num: 28

Candidate Starts for PastaFagioli_9:

(Start: 28 @7400 has 67 MA's), (33, 7415), (77, 7622), (85, 7652), (92, 7685), (95, 7697),

Gene: Petra_9 Start: 6865, Stop: 7227, Start Num: 24

Candidate Starts for Petra_9:

(3, 6529), (4, 6553), (Start: 24 @6865 has 53 MA's), (Start: 28 @6889 has 67 MA's), (37, 6913), (41, 6943), (50, 6976), (55, 6994), (69, 7054),

Gene: PhigPhack_9 Start: 7354, Stop: 7683, Start Num: 28

Candidate Starts for PhigPhack_9:

(Start: 28 @7354 has 67 MA's), (33, 7369), (85, 7606), (95, 7651),

Gene: Phisb_9 Start: 7316, Stop: 7645, Start Num: 28

Candidate Starts for Phisb_9:

(9, 7076), (13, 7220), (Start: 28 @7316 has 67 MA's), (33, 7331), (85, 7568), (95, 7613), (97, 7619),

Gene: PhrostedPhlake_9 Start: 7040, Stop: 7402, Start Num: 24

Candidate Starts for PhrostedPhlake_9:

(3, 6704), (Start: 24 @7040 has 53 MA's), (Start: 28 @7064 has 67 MA's), (37, 7088), (41, 7118), (50, 7151), (55, 7169), (69, 7229),

Gene: Pipp_10 Start: 7195, Stop: 7557, Start Num: 24

Candidate Starts for Pipp_10:

(5, 6931), (12, 7093), (18, 7174), (Start: 24 @7195 has 53 MA's), (Start: 28 @7219 has 67 MA's), (37, 7243), (41, 7273), (50, 7306), (55, 7324), (69, 7384), (75, 7423),

Gene: PrincePatrick_9 Start: 6938, Stop: 7306, Start Num: 24

Candidate Starts for PrincePatrick_9:

(Start: 24 @6938 has 53 MA's), (Start: 29 @6962 has 8 MA's), (31, 6968), (46, 7040), (50, 7055), (55, 7073), (57, 7088), (69, 7133), (71, 7142),

Gene: QMacho_10 Start: 7806, Stop: 8135, Start Num: 28

Candidate Starts for QMacho_10:

(9, 7566), (13, 7710), (Start: 28 @7806 has 67 MA's), (33, 7821), (49, 7905), (85, 8058), (95, 8103), (97, 8109),

Gene: Quenya_10 Start: 7452, Stop: 7781, Start Num: 28

Candidate Starts for Quenya_10:

(2, 7023), (6, 7155), (Start: 28 @7452 has 67 MA's), (33, 7467), (40, 7503), (61, 7602), (77, 7674), (89, 7722), (92, 7737),

Gene: Rollins_8 Start: 7153, Stop: 7485, Start Num: 28

Candidate Starts for Rollins_8:

(6, 6856), (Start: 28 @7153 has 67 MA's), (32, 7165), (33, 7168), (39, 7204), (42, 7225), (43, 7228), (66, 7327), (85, 7408),

Gene: Rona_9 Start: 7553, Stop: 7882, Start Num: 28

Candidate Starts for Rona_9:

(6, 7256), (13, 7457), (Start: 27 @7550 has 1 MA's), (Start: 28 @7553 has 67 MA's), (33, 7568), (43, 7625), (60, 7700), (77, 7775), (85, 7805), (95, 7850),

Gene: Rowa_9 Start: 7020, Stop: 7364, Start Num: 23

Candidate Starts for Rowa_9:

(Start: 23 @7020 has 4 MA's), (54, 7143), (101, 7353),

Gene: SPB78_10 Start: 7392, Stop: 7745, Start Num: 21

Candidate Starts for SPB78_10:

(1, 6924), (14, 7338), (16, 7353), (21, 7392), (52, 7515), (68, 7578), (75, 7620), (78, 7638), (82, 7656), (85, 7665), (101, 7734),

Gene: SamW_9 Start: 6861, Stop: 7205, Start Num: 29

Candidate Starts for SamW_9:

(7, 6570), (Start: 29 @6861 has 8 MA's), (42, 6927), (50, 6960), (55, 6978), (56, 6990), (71, 7047), (81, 7110), (94, 7164), (99, 7185), (100, 7191),

Gene: Samba_9 Start: 6960, Stop: 7322, Start Num: 24

Candidate Starts for Samba_9:

(17, 6933), (Start: 24 @6960 has 53 MA's), (Start: 28 @6984 has 67 MA's), (37, 7008), (41, 7038), (50, 7071), (55, 7089), (69, 7149),

Gene: SanaSana_10 Start: 7567, Stop: 7896, Start Num: 28

Candidate Starts for SanaSana_10:

(6, 7270), (Start: 27 @7564 has 1 MA's), (Start: 28 @7567 has 67 MA's), (33, 7582), (77, 7789), (85, 7819), (95, 7864),

Gene: SansAfet_9 Start: 7336, Stop: 7665, Start Num: 28

Candidate Starts for SansAfet_9:

(Start: 28 @7336 has 67 MA's), (33, 7351), (85, 7588), (95, 7633),

Gene: Sapo_7 Start: 6047, Stop: 6409, Start Num: 25

Candidate Starts for Sapo_7:

(Start: 25 @6047 has 3 MA's), (Start: 28 @6068 has 67 MA's), (87, 6332),

Gene: SarBear_9 Start: 7299, Stop: 7628, Start Num: 28

Candidate Starts for SarBear_9:

(9, 7059), (13, 7203), (Start: 28 @7299 has 67 MA's), (33, 7314), (49, 7398), (50, 7401), (77, 7521), (85, 7551), (87, 7560), (95, 7596),

Gene: Schmidt_11 Start: 7862, Stop: 8224, Start Num: 24

Candidate Starts for Schmidt_11:

(Start: 24 @7862 has 53 MA's), (31, 7895), (46, 7964), (50, 7979), (53, 7991), (55, 7997), (62, 8036), (73, 8078), (78, 8108), (85, 8135), (88, 8147), (93, 8183), (95, 8192),

Gene: Sharkboy_9 Start: 7552, Stop: 7881, Start Num: 28

Candidate Starts for Sharkboy_9:

(6, 7255), (13, 7456), (Start: 27 @7549 has 1 MA's), (Start: 28 @7552 has 67 MA's), (33, 7567), (43, 7624), (60, 7699), (77, 7774), (85, 7804), (95, 7849),

Gene: Shayna_8 Start: 7158, Stop: 7490, Start Num: 28

Candidate Starts for Shayna_8:

(13, 7062), (Start: 28 @7158 has 67 MA's), (33, 7176), (42, 7230), (44, 7236), (51, 7272), (81, 7401), (95, 7458),

Gene: Skylord_8 Start: 7093, Stop: 7425, Start Num: 28

Candidate Starts for Skylord_8:

(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168), (66, 7267), (85, 7348),

Gene: Slay_9 Start: 7775, Stop: 8104, Start Num: 28

Candidate Starts for Slay_9:

(9, 7535), (13, 7679), (Start: 28 @7775 has 67 MA's), (33, 7790), (49, 7874), (50, 7877), (77, 7997), (85, 8027), (87, 8036), (95, 8072),

Gene: Softsoap_9 Start: 7325, Stop: 7654, Start Num: 28

Candidate Starts for Softsoap_9:

(Start: 28 @7325 has 67 MA's), (33, 7340), (85, 7577), (95, 7622),

Gene: Solea_10 Start: 7711, Stop: 8040, Start Num: 28

Candidate Starts for Solea_10:

(Start: 28 @7711 has 67 MA's), (33, 7726), (85, 7963), (95, 8008),

Gene: Splinter_13 Start: 9406, Stop: 9765, Start Num: 24

Candidate Starts for Splinter_13:

(Start: 24 @9406 has 53 MA's), (Start: 29 @9433 has 8 MA's), (31, 9439), (41, 9481), (53, 9532), (63, 9580), (88, 9688), (93, 9724),

Gene: Squiracle_9 Start: 7555, Stop: 7884, Start Num: 28

Candidate Starts for Squiracle_9:

(Start: 28 @7555 has 67 MA's), (33, 7570), (39, 7603), (41, 7609), (44, 7630), (66, 7726), (85, 7807), (92, 7840),

Gene: StAB_9 Start: 6866, Stop: 7210, Start Num: 29

Candidate Starts for StAB_9:

(7, 6575), (Start: 29 @6866 has 8 MA's), (42, 6932), (50, 6965), (55, 6983), (56, 6995), (71, 7052), (79, 7106), (81, 7115), (94, 7169), (99, 7190), (100, 7196),

Gene: Stiles_9 Start: 6860, Stop: 7204, Start Num: 29

Candidate Starts for Stiles_9:

(7, 6569), (Start: 29 @6860 has 8 MA's), (42, 6926), (55, 6977), (56, 6989), (71, 7046), (79, 7100), (81, 7109), (94, 7163), (99, 7184), (100, 7190),

Gene: Stoor_9 Start: 7564, Stop: 7893, Start Num: 28

Candidate Starts for Stoor_9:

(6, 7267), (Start: 27 @7561 has 1 MA's), (Start: 28 @7564 has 67 MA's), (33, 7579), (77, 7786), (85, 7816), (95, 7861),

Gene: Stromboli_9 Start: 7565, Stop: 7894, Start Num: 28

Candidate Starts for Stromboli_9:

(Start: 27 @7562 has 1 MA's), (Start: 28 @7565 has 67 MA's), (33, 7580), (77, 7787), (78, 7790), (85, 7817), (95, 7862),

Gene: SunnyD_8 Start: 7158, Stop: 7490, Start Num: 28

Candidate Starts for SunnyD_8:

(13, 7062), (Start: 28 @7158 has 67 MA's), (33, 7176), (42, 7230), (44, 7236), (51, 7272), (81, 7401), (95, 7458),

Gene: Swervy_9 Start: 7299, Stop: 7628, Start Num: 28

Candidate Starts for Swervy_9:

(9, 7059), (13, 7203), (Start: 28 @7299 has 67 MA's), (33, 7314), (49, 7398), (50, 7401), (77, 7521), (85, 7551), (87, 7560), (95, 7596),

Gene: TZGordon_15 Start: 9548, Stop: 9907, Start Num: 24

Candidate Starts for TZGordon_15:

(Start: 24 @9548 has 53 MA's), (Start: 29 @9575 has 8 MA's), (31, 9581), (41, 9623), (53, 9674), (63, 9722), (85, 9818), (88, 9830), (93, 9866),

Gene: Teagster_8 Start: 7158, Stop: 7490, Start Num: 28

Candidate Starts for Teagster_8:

(Start: 28 @7158 has 67 MA's), (33, 7176), (42, 7230), (44, 7236), (51, 7272), (81, 7401), (95, 7458),

Gene: TinaLin_16 Start: 10120, Stop: 10479, Start Num: 24

Candidate Starts for TinaLin_16:

(Start: 24 @10120 has 53 MA's), (31, 10153), (37, 10168), (47, 10225), (53, 10246), (63, 10294), (64, 10297), (73, 10333), (83, 10384), (84, 10387), (85, 10390), (90, 10423), (98, 10456),

Gene: Toast_9 Start: 6937, Stop: 7305, Start Num: 24

Candidate Starts for Toast_9:

(3, 6607), (Start: 24 @6937 has 53 MA's), (Start: 29 @6961 has 8 MA's), (31, 6967), (46, 7039), (50, 7054), (55, 7072), (69, 7132), (71, 7141),

Gene: Troy_9 Start: 6861, Stop: 7205, Start Num: 29

Candidate Starts for Troy_9:

(7, 6570), (Start: 29 @6861 has 8 MA's), (42, 6927), (50, 6960), (55, 6978), (56, 6990), (71, 7047), (81, 7110), (94, 7164), (99, 7185), (100, 7191),

Gene: TukTuk_9 Start: 7299, Stop: 7628, Start Num: 28

Candidate Starts for TukTuk_9:

(13, 7203), (Start: 28 @7299 has 67 MA's), (33, 7314), (49, 7398), (85, 7551), (95, 7596), (97, 7602),

Gene: UmaThurman_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for UmaThurman_9:

(17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (37, 7007), (41, 7037), (50, 7070), (55, 7088), (69, 7148),

Gene: Utz_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Utz_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (34, 7001), (37, 7007), (41, 7037), (55, 7088), (69, 7148),

Gene: VWB_9 Start: 7437, Stop: 7799, Start Num: 19

Candidate Starts for VWB_9:

(15, 7410), (19, 7437), (21, 7446), (41, 7524), (72, 7647), (75, 7674), (78, 7692), (85, 7719), (91, 7746),

Gene: Vendetta_13 Start: 9406, Stop: 9765, Start Num: 24

Candidate Starts for Vendetta_13:

(Start: 24 @9406 has 53 MA's), (Start: 29 @9433 has 8 MA's), (31, 9439), (41, 9481), (53, 9532), (63, 9580), (88, 9688), (93, 9724),

Gene: Vitas_8 Start: 7093, Stop: 7425, Start Num: 28

Candidate Starts for Vitas_8:

(6, 6796), (Start: 28 @7093 has 67 MA's), (32, 7105), (33, 7108), (39, 7144), (42, 7165), (43, 7168), (66, 7267), (85, 7348),

Gene: WalkingDead_9 Start: 7553, Stop: 7882, Start Num: 28

Candidate Starts for WalkingDead_9:

(6, 7256), (Start: 27 @7550 has 1 MA's), (Start: 28 @7553 has 67 MA's), (33, 7568), (78, 7778), (85, 7805), (87, 7814), (95, 7850),

Gene: Walrus_9 Start: 6871, Stop: 7242, Start Num: 24

Candidate Starts for Walrus_9:

(Start: 24 @6871 has 53 MA's), (Start: 28 @6895 has 67 MA's), (55, 7009), (69, 7069),

Gene: William_9 Start: 6952, Stop: 7320, Start Num: 24

Candidate Starts for William_9:

(Start: 24 @6952 has 53 MA's), (Start: 29 @6976 has 8 MA's), (31, 6982), (46, 7054), (50, 7069), (55, 7087), (57, 7102), (69, 7147), (71, 7156),

Gene: Wisp_9 Start: 6959, Stop: 7321, Start Num: 24

Candidate Starts for Wisp_9:

(3, 6623), (17, 6932), (Start: 24 @6959 has 53 MA's), (Start: 28 @6983 has 67 MA's), (37, 7007), (41, 7037), (50, 7070), (55, 7088), (69, 7148),

Gene: Wocket_10 Start: 7236, Stop: 7598, Start Num: 24

Candidate Starts for Wocket_10:

(5, 6972), (Start: 24 @7236 has 53 MA's), (Start: 28 @7260 has 67 MA's), (37, 7284), (41, 7314), (50, 7347), (55, 7365), (69, 7425), (75, 7464), (85, 7509),

Gene: Zarbodnamra_9 Start: 6958, Stop: 7320, Start Num: 24

Candidate Starts for Zarbodnamra_9:

(3, 6622), (17, 6931), (Start: 24 @6958 has 53 MA's), (Start: 28 @6982 has 67 MA's), (34, 7000), (37, 7006), (41, 7036), (55, 7087), (69, 7147),

Gene: ZiggyZoo_9 Start: 6983, Stop: 7345, Start Num: 24

Candidate Starts for ZiggyZoo_9:

(3, 6647), (17, 6956), (Start: 24 @6983 has 53 MA's), (Start: 28 @7007 has 67 MA's), (37, 7031), (41, 7061), (50, 7094), (55, 7112), (69, 7172),