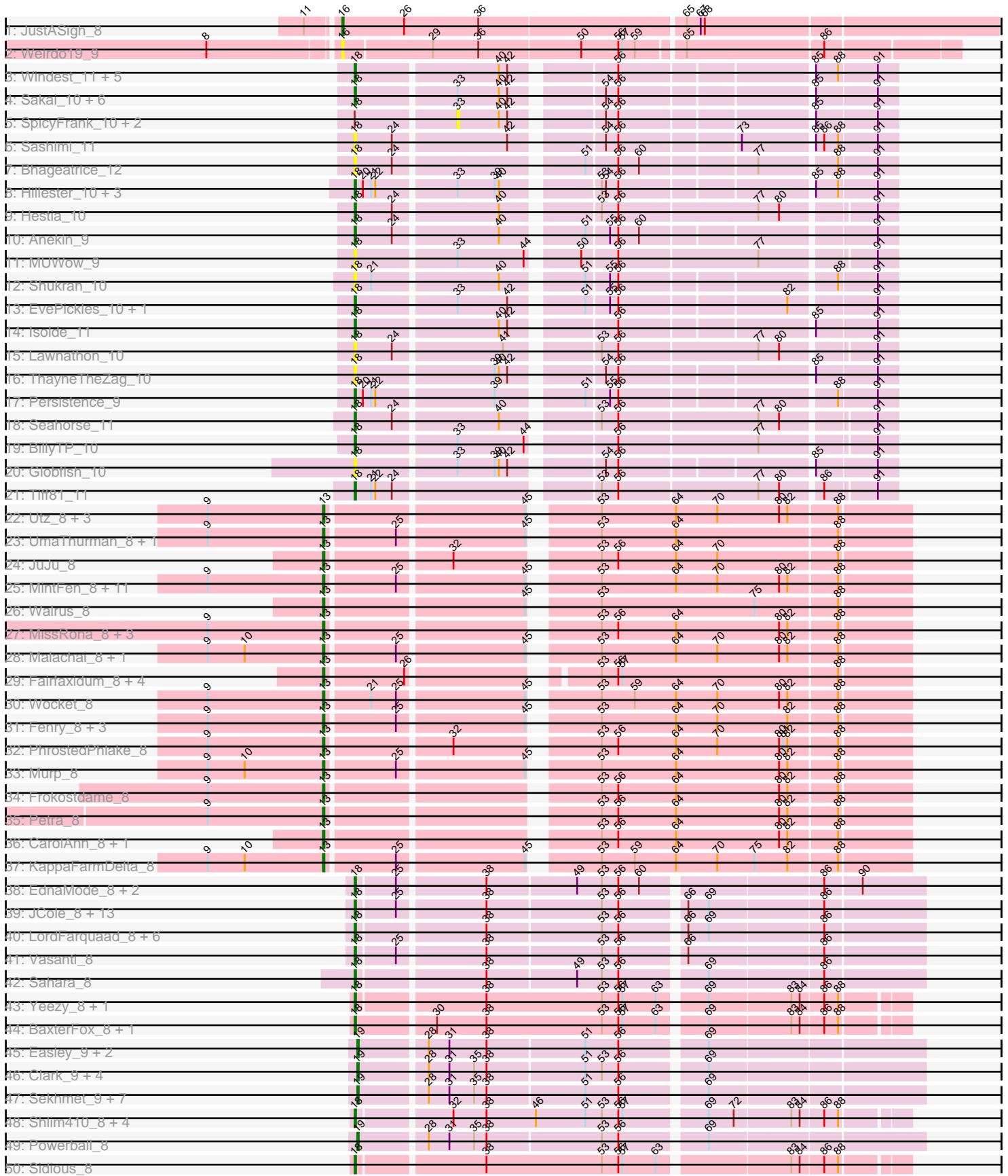
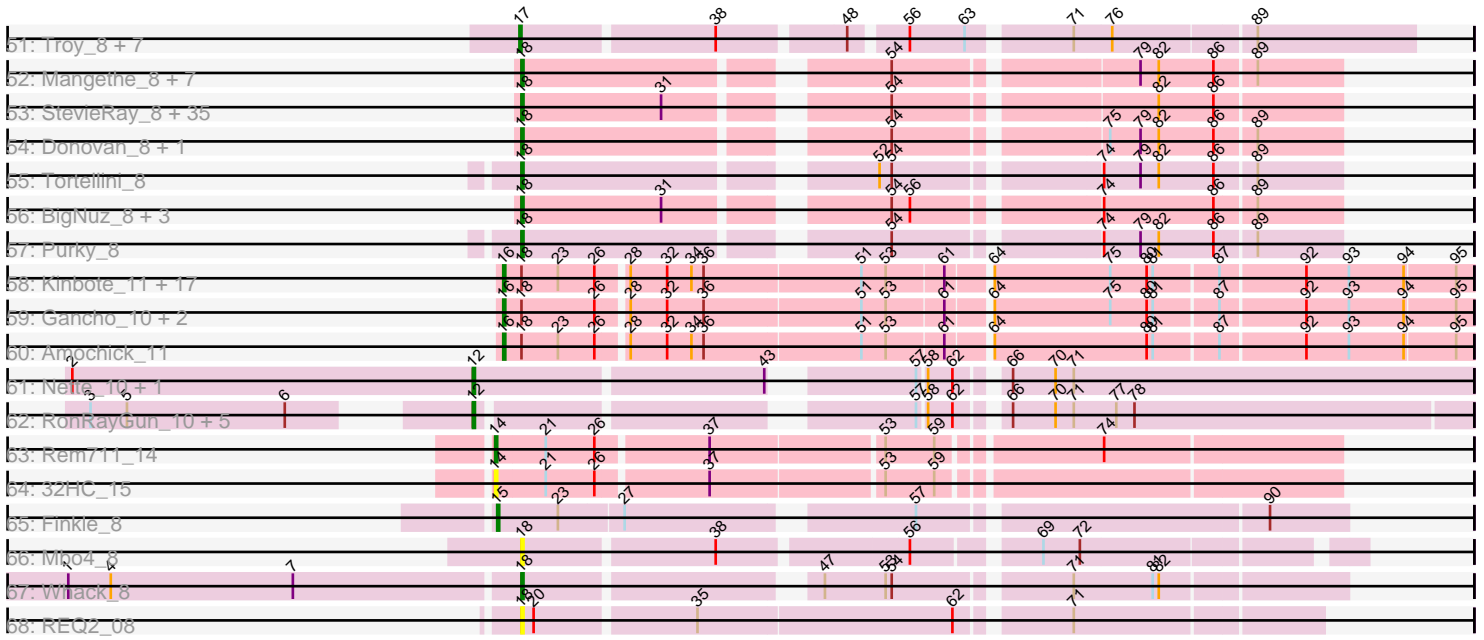


Pham 215806



Pham 215806



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 215806 Report

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

Pham number 215806 has 230 members, 34 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_8
- Track 2 : Weirido19_9
- Track 3 : Windest_11, AdaS_10, Auxilium_10, CookieBear_10, Raphaella_10, JellyBread_10
- Track 4 : Sakai_10, MaterMagnus_10, Phrank15_9, Gorpy_10, BenchScraper_10, Richie_10, Aikyam_10
- Track 5 : SpicyFrank_10, YoungHarleezy_10, Vopal_11
- Track 6 : Sashimi_11
- Track 7 : Bhageatrice_12
- Track 8 : Hillester_10, MidnightRain_10, BlueShadow_10, RadFad_10
- Track 9 : Hestia_10
- Track 10 : Anekin_9
- Track 11 : MUWow_9
- Track 12 : Shukran_10
- Track 13 : EvePickles_10, Faja_10
- Track 14 : Isolde_11
- Track 15 : Lawnathon_10
- Track 16 : ThayneTheZag_10
- Track 17 : Persistence_9
- Track 18 : Seahorse_11
- Track 19 : BillyTP_10
- Track 20 : Globfish_10
- Track 21 : Tiff81_11
- Track 22 : Utz_8, Lysidious_8, Wisp_8, BlingBling_8
- Track 23 : UmaThurman_8, Samba_8
- Track 24 : JuJu_8
- Track 25 : MintFen_8, Delian_8, Guacamole_8, CaptainKirk2_8, Pipp_8, Melba_8, Mellie_8, Barco_8, ZiggyZoo_8, JasperJr_8, Obliviate_8, Zarbodnamra_8
- Track 26 : Walrus_8
- Track 27 : MissRona_8, Azula_8, Blueberry_8, Gambino_8
- Track 28 : Malachai_8, Begonia_8
- Track 29 : Fairfaxidum_8, PCoral7_8, PrincePatrick_8, William_8, Toast_8
- Track 30 : Wocket_8
- Track 31 : Fenry_8, Jalammah_8, Archis_8, Hitter_8
- Track 32 : PhrostedPhlake_8
- Track 33 : Murp_8
- Track 34 : Frokostdame_8

- Track 35 : Petra_8
- Track 36 : CarolAnn_8, Blino_8
- Track 37 : KappaFarmDelta_8
- Track 38 : EdnaMode_8, Lamberg_8, Nettuno_8
- Track 39 : JCole_8, Clap_8, Cynthia_8, GemG_8, Haley23_8, Denise_8, Whiteclaw_8, Gizermo_8, Ebert_8, Sproutie_8, FroggyToad_8, Savage_8, TuertoX_8, Mocha12_8
- Track 40 : LordFarquaad_8, Yeet412_8, Attis_8, Bjanes7_8, SoilAssassin_8, Matteo_8, Pickett_8
- Track 41 : Vasanti_8
- Track 42 : Sahara_8
- Track 43 : Yeezy_8, PantheRoc_8
- Track 44 : BaxterFox_8, Ohgeesy_8
- Track 45 : Easley_9, MichaelScott_9, Beenie_9
- Track 46 : Clark_9, DobbysSock_8, Dorito_8, Annalisa_9, PhriskyACE_8
- Track 47 : Sekhmet_9, Oregano_9, Suerte_8, Dolores_9, Samman98_9, WinkNick_9, Thimann_9, Invectra_9
- Track 48 : Shlim410_8, Adora_8, Hortense_8, Howe_8, Twinkle_8
- Track 49 : Powerball_8
- Track 50 : Sidious_8
- Track 51 : Troy_8, Lederberg_8, Bran_8, SamW_8, StAB_8, Stiles_8, Dina_8, Adelaide_8
- Track 52 : Mangethe_8, Langerak_8, Majeke_8, Techage_8, Arib1_8, Phegusus_8, Juniormint_8, Jebeks_8
- Track 53 : StevieRay_8, Glaske_8, Megiddo_8, Etoile_8, Brusacoram_8, Dynamo_8, Venti_8, Shipwreck_8, Atcoo_8, Bunnies_8, KilKor_8, Camster_8, Polkaroo_8, Phalm_8, Jung_8, Pygmy_8, FirstPlacePfu_8, Necropolis_8, HUHilltop_8, StressBall_8, Xavia_8, Bhagsy_8, Bartholomew_8, Willsammy_8, GreaseLightnin_8, CactusJack_8, Zilizebeth_8, Thespis_8, Phineas_8, Gavriela_8, Malithi_8, Kari_8, Ksquared_8, Fishburne_8, Vidya_8, Bogie_8
- Track 54 : Donovan_8, Sonah_8
- Track 55 : Tortellini_8
- Track 56 : BigNuz_8, ThulaThula_8, Nazo_8, Phayonce_8
- Track 57 : Purky_8
- Track 58 : Kinbote_11, Ein37_11, OBUpride_11, HH92_11, Luna22_11, Ubuntu_11, Evanesce_11, DeepSoil15_11, Dewey_11, Amymech_11, Webster2_11, Giles_11, Wishmaker_11, Luke_11, Hail_11, LilHazelNut_11, Forge_11, Hadrien_11
- Track 59 : Gancho_10, Daegal_12, Gravaiilia_11
- Track 60 : Amochick_11
- Track 61 : Nette_10, Mendokysei_9
- Track 62 : RonRayGun_10, Bernal13_10, ZenTime222_10, Nairb_10, Ibrahim_10, Whitty_10
- Track 63 : Rem711_14
- Track 64 : 32HC_15
- Track 65 : Finkle_8
- Track 66 : Mbo4_8
- Track 67 : Whack_8
- Track 68 : REQ2_08

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

The start number called the most often in the published annotations is 18, it was called in 99 of the 196 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_10, Adora_8, Aikyam_10, Anekin_9, Arib1_8, Atcoo_8, Attis_8, Auxilium_10, Bartholomew_8, BaxterFox_8, BenchScraper_10, Bhageatrice_12, Bhagsy_8, BigNuz_8, BillyTP_10, Bjaner7_8, BlueShadow_10, Bogie_8, Brusacoram_8, Bunnies_8, CactusJack_8, Camster_8, Clap_8, CookieBear_10, Cynthia_8, Denise_8, Donovan_8, Dynamo_8, Ebert_8, EdnaMode_8, Etoile_8, EvePickles_10, Faja_10, FirstPlacePfu_8, Fishburne_8, FroggyToad_8, Gavriela_8, GemG_8, Gizermo_8, Glaske_8, Globfish_10, Gorpy_10, GreaseLightnin_8, HUHilltop_8, Haley23_8, Hestia_10, Hillester_10, Hortense_8, Howe_8, Isolde_11, JCole_8, Jebeks_8, JellyBread_10, Jung_8, Juniormint_8, Kari_8, KilKor_8, Ksquared_8, Lamberg_8, Langerak_8, Lawnathon_10, LordFarquaad_8, MUWow_9, Majeke_8, Malithi_8, Mangethe_8, MaterMagnus_10, Matteo_8, Mbo4_8, Megiddo_8, MidnightRain_10, Mocha12_8, Nazo_8, Necropolis_8, Nettuno_8, Ohgeesy_8, PantheRoc_8, Persistence_9, Phalm_8, Phayonce_8, Phegasus_8, Phineas_8, Phrank15_9, Pickett_8, Polkaroo_8, Purky_8, Pygmy_8, REQ2_08, RadFad_10, Raphaella_10, Richie_10, Sahara_8, Sakai_10, Sashimi_11, Savage_8, Seahorse_11, Shipwreck_8, Shlim410_8, Shukran_10, Sidious_8, SoilAssassin_8, Sonah_8, Sproutie_8, StevieRay_8, StressBall_8, Techage_8, ThayneTheZag_10, Thespis_8, ThulaThula_8, Tiff81_11, Tortellini_8, TuertoX_8, Twinkle_8, Vasanti_8, Venti_8, Vidya_8, Whack_8, Whiteclaw_8, Willsammy_8, Windest_11, Xavia_8, Yeet412_8, Yeezy_8, Zilizebeth_8,

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

- Amochick_11, Amymech_11, Daegal_12, DeepSoil15_11, Dewey_11, Ein37_11, Evanesce_11, Forge_11, Gancho_10, Giles_11, Gravaillia_11, HH92_11, Hadrien_11, Hail_11, Kinbote_11, LilHazelNut_11, Luke_11, Luna22_11, OBUpride_11, SpicyFrank_10, Ubuntu_11, Vopal_11, Webster2_11, Wishmaker_11, YoungHarleezy_10,

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

- 32HC_15, Adelaide_8, Annalisa_9, Archis_8, Azula_8, Barco_8, Beenie_9, Begonia_8, Bernal13_10, BlingBling_8, Blino_8, Blueberry_8, Bran_8, CaptainKirk2_8, CarolAnn_8, Clark_9, Delian_8, Dina_8, DobbysSock_8, Dolores_9, Dorito_8, Easley_9, Fairfaxidum_8, Fenry_8, Finkle_8, Frokostdame_8, Gambino_8, Guacamole_8, Hitter_8, Ibrahim_10, Invectra_9, Jalammah_8, JasperJr_8, JuJu_8, JustASigh_8, KappaFarmDelta_8, Lederberg_8, Lysidious_8, Malachai_8, Melba_8, Mellie_8, Mendokysei_9, MichaelScott_9, MintFen_8, MissRona_8, Murp_8, Nairb_10, Nette_10, Obliviate_8, Oregano_9, PCoral7_8, Petra_8, PhriskyACE_8, PhrostedPhlake_8, Pipp_8, Powerball_8, PrincePatrick_8, Rem711_14, RonRayGun_10, SamW_8, Samba_8, Samman98_9, Sekhmet_9, StAB_8, Stiles_8, Suerte_8, Thimann_9, Toast_8, Troy_8, UmaThurman_8, Utz_8, Walrus_8, Weirdo19_9, Whitty_10, William_8, WinkNick_9, Wisp_8, Wocket_8, Zarbodnamra_8, ZenTime222_10, ZiggyZoo_8,

Summary by start number:

Start 12:

- Found in 8 of 230 (3.5%) of genes in pham
- Manual Annotations of this start: 7 of 196

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernal13_10 (T), Ibrahim_10 (T), Mendokysei_9 (T), Nairb_10 (T), Nette_10 (T), RonRayGun_10 (T), Whitty_10 (T), ZenTime222_10 (T),

Start 13:

- Found in 43 of 230 (18.7%) of genes in pham
- Manual Annotations of this start: 42 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis_8 (CV), Azula_8 (CV), Barco_8 (CV), Begonia_8 (CV), BlingBling_8 (CV), Blino_8 (CV), Blueberry_8 (CV), CaptainKirk2_8 (CV), CarolAnn_8 (CV), Delian_8 (CV), Fairfaxidum_8 (CV), Fenry_8 (CV), Frokostdame_8 (CV), Gambino_8 (CV), Guacamole_8 (CV), Hitter_8 (CV), Jalammah_8 (CV), JasperJr_8 (CV), JuJu_8 (CV), KappaFarmDelta_8 (CV), Lysidious_8 (CV), Malachai_8 (CV), Melba_8 (CV), Mellie_8 (CV), MintFen_8 (CV), MissRona_8 (CV), Murp_8 (CV), Oblivate_8 (CV), PCoral7_8 (CV), Petra_8 (CV), PhrostedPhlake_8 (CV), Pipp_8 (CV), PrincePatrick_8 (CV), Samba_8 (CV), Toast_8 (CV), UmaThurman_8 (CV), Utz_8 (CV), Walrus_8 (CV), William_8 (CV), Wisp_8 (CV), Wocket_8 (CV), Zarbodnamra_8 (CV), ZiggyZoo_8 (CV),

Start 14:

- Found in 2 of 230 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_15 (Z), Rem711_14 (Z),

Start 15:

- Found in 1 of 230 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_8 (singleton),

Start 16:

- Found in 24 of 230 (10.4%) of genes in pham
- Manual Annotations of this start: 23 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick_11 (Q), Amymech_11 (Q), Daegal_12 (Q), DeepSoil15_11 (Q), Dewey_11 (Q), Ein37_11 (Q), Evanesce_11 (Q), Forge_11 (Q), Gancho_10 (Q), Giles_11 (Q), Gravaillia_11 (Q), HH92_11 (Q), Hadrien_11 (Q), Hail_11 (Q), JustASigh_8 (AH), Kinbote_11 (Q), LilHazelNut_11 (Q), Luke_11 (Q), Luna22_11 (Q), OBUpride_11 (Q), Ubuntu_11 (Q), Webster2_11 (Q), Weirido19_9 (AH), Wishmaker_11 (Q),

Start 17:

- Found in 8 of 230 (3.5%) of genes in pham
- Manual Annotations of this start: 8 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide_8 (EP), Bran_8 (EP), Dina_8 (EP), Lederberg_8 (EP), SamW_8 (EP), StAB_8 (EP), Stiles_8 (EP), Troy_8 (EP),

Start 18:

- Found in 149 of 230 (64.8%) of genes in pham
- Manual Annotations of this start: 99 of 196

- Called 83.2% of time when present
- Phage (with cluster) where this start called: AdaS_10 (AY), Adora_8 (CZ4), Aikyam_10 (AY), Anekin_9 (AY), Arib1_8 (P1), Atcoo_8 (P1), Attis_8 (CZ2), Auxilium_10 (AY), Bartholomew_8 (P1), BaxterFox_8 (CZ3), BenchScraper_10 (AY), Bhageatrice_12 (AY), Bhagsy_8 (P1), BigNuz_8 (P4), BillyTP_10 (AY), Bjaner7_8 (CZ2), BlueShadow_10 (AY), Bogie_8 (P1), Brusacoram_8 (P1), Bunnies_8 (P1), CactusJack_8 (P1), Camster_8 (P1), Clap_8 (CZ2), CookieBear_10 (AY), Cynthia_8 (CZ2), Denise_8 (CZ5), Donovan_8 (P1), Dynamo_8 (P1), Ebert_8 (CZ2), EdnaMode_8 (CZ2), Etoile_8 (P1), EvePickles_10 (AY), Faja_10 (AY), FirstPlacePfu_8 (P1), Fishburne_8 (P1), FroggyToad_8 (CZ2), Gavriela_8 (P1), GemG_8 (CZ2), Gizermo_8 (CZ2), Glaske_8 (P1), Globfish_10 (AY), Gorpy_10 (AY), GreaseLightnin_8 (P1), HUHilltop_8 (P1), Haley23_8 (CZ2), Hestia_10 (AY), Hillester_10 (AY), Hortense_8 (CZ4), Howe_8 (CZ4), Isolde_11 (AY), JCole_8 (CZ2), Jebeks_8 (P1), JellyBread_10 (AY), Jung_8 (P1), Juniormint_8 (P1), Kari_8 (P1), KilKor_8 (P1), Ksquared_8 (P1), Lamberg_8 (CZ2), Langerak_8 (P1), Lawnathon_10 (AY), LordFarquaad_8 (CZ2), MUWow_9 (AY), Majeke_8 (P1), Malithi_8 (P1), Mangethe_8 (P1), MaterMagnus_10 (AY), Matteo_8 (CZ2), Mbo4_8 (singleton), Megiddo_8 (P1), MidnightRain_10 (AY), Mocha12_8 (CZ2), Nazo_8 (P4), Necropolis_8 (P1), Nettuno_8 (CZ2), Ohgeesy_8 (CZ), PantheRoc_8 (CZ3), Persistence_9 (AY), Phalm_8 (P1), Phayonce_8 (P5), Phegasus_8 (P1), Phineas_8 (P1), Phrank15_9 (AY), Pickett_8 (CZ2), Polkaroo_8 (P1), Purky_8 (P6), Pygmy_8 (P1), REQ2_08 (singleton), RadFad_10 (AY), Raphaella_10 (AY), Richie_10 (AY), Sahara_8 (CZ2), Sakai_10 (AY), Sashimi_11 (AY), Savage_8 (CZ2), Seahorse_11 (AY), Shipwreck_8 (P1), Shlim410_8 (CZ4), Shukran_10 (AY), Sidious_8 (CZ7), SoilAssassin_8 (CZ2), Sonah_8 (P1), Sproutie_8 (CZ2), StevieRay_8 (P1), StressBall_8 (P1), Techage_8 (P1), ThayneTheZag_10 (AY), Thespis_8 (P1), ThulaThula_8 (P5), Tiff81_11 (AY), Tortellini_8 (P2), TuertoX_8 (CZ2), Twinkle_8 (CZ4), Vasanti_8 (CZ2), Venti_8 (P1), Vidya_8 (P1), Whack_8 (singleton), Whiteclaw_8 (CZ2), Willsammy_8 (P1), Windest_11 (AY), Xavia_8 (P3), Yeet412_8 (CZ2), Yeezy_8 (CZ3), Zilizebeth_8 (P1),

Start 19:

- Found in 17 of 230 (7.4%) of genes in pham
- Manual Annotations of this start: 15 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annalisa_9 (CZ4), Beenie_9 (CZ4), Clark_9 (CZ4), DobbysSock_8 (CZ4), Dolores_9 (CZ4), Dorito_8 (CZ4), Easley_9 (CZ4), Invectra_9 (CZ4), MichaelScott_9 (CZ4), Oregano_9 (CZ4), PhriskyACE_8 (CZ4), Powerball_8 (CZ4), Samman98_9 (CZ4), Sekhmet_9 (CZ4), Suerte_8 (CZ4), Thimann_9 (CZ4), WinkNick_9 (CZ4),

Start 33:

- Found in 19 of 230 (8.3%) of genes in pham
- No Manual Annotations of this start.
- Called 15.8% of time when present
- Phage (with cluster) where this start called: SpicyFrank_10 (AY), Vopal_11 (AY), YoungHarleezy_10 (AY),

Summary by clusters:

There are 20 clusters represented in this pham: P2, P3, singleton, P1, P6, P4, P5, CZ2, CZ3, Z, CZ7, CZ4, EP, Q, CZ, T, AH, AY, CZ5, CV,

Info for manual annotations of cluster AH:

- Start number 16 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster AY:

- Start number 18 was manually annotated 18 times for cluster AY.

Info for manual annotations of cluster CV:

- Start number 13 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster CZ:

- Start number 18 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 18 was manually annotated 23 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 18 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 18 was manually annotated 5 times for cluster CZ4.
- Start number 19 was manually annotated 15 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 18 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ7:

- Start number 18 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster EP:

- Start number 17 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster P1:

- Start number 18 was manually annotated 39 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 18 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 18 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 18 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 18 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 18 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

- Start number 16 was manually annotated 22 times for cluster Q.

Info for manual annotations of cluster T:

- Start number 12 was manually annotated 7 times for cluster T.

Info for manual annotations of cluster Z:

- Start number 14 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_15 Start: 9730, Stop: 10119, Start Num: 14

Candidate Starts for 32HC_15:

(Start: 14 @9730 has 1 MA's), (21, 9754), (26, 9778), (37, 9829), (53, 9910), (59, 9934),

Gene: AdaS_10 Start: 7295, Stop: 7651, Start Num: 18

Candidate Starts for AdaS_10:

(Start: 18 @7295 has 99 MA's), (40, 7394), (42, 7400), (56, 7466), (85, 7595), (88, 7610), (91, 7637),

Gene: Adelaide_8 Start: 6455, Stop: 6859, Start Num: 17

Candidate Starts for Adelaide_8:

(Start: 17 @6455 has 8 MA's), (38, 6545), (48, 6602), (56, 6626), (63, 6653), (71, 6698), (76, 6716), (89, 6782),

Gene: Adora_8 Start: 6280, Stop: 6651, Start Num: 18

Candidate Starts for Adora_8:

(Start: 18 @6280 has 99 MA's), (32, 6343), (38, 6367), (46, 6403), (51, 6439), (53, 6451), (56, 6463), (57, 6466), (69, 6520), (72, 6538), (83, 6577), (84, 6583), (86, 6598), (88, 6607),

Gene: Aikyam_10 Start: 7296, Stop: 7652, Start Num: 18

Candidate Starts for Aikyam_10:

(Start: 18 @7296 has 99 MA's), (33, 7365), (40, 7395), (42, 7401), (54, 7458), (56, 7467), (85, 7596), (91, 7638),

Gene: Amochick_11 Start: 7977, Stop: 8429, Start Num: 16

Candidate Starts for Amochick_11:

(Start: 16 @7977 has 23 MA's), (Start: 18 @7986 has 99 MA's), (23, 8004), (26, 8022), (28, 8034), (32, 8052), (34, 8064), (36, 8070), (51, 8145), (53, 8157), (61, 8184), (64, 8202), (80, 8277), (81, 8280), (87, 8310), (92, 8349), (93, 8370), (94, 8397), (95, 8421),

Gene: Amymech_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Amymech_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Anekin_9 Start: 7408, Stop: 7764, Start Num: 18

Candidate Starts for Anekin_9:

(Start: 18 @7408 has 99 MA's), (24, 7435), (40, 7507), (51, 7558), (55, 7573), (56, 7579), (60, 7594), (91, 7750),

Gene: Annalisa_9 Start: 6598, Stop: 6981, Start Num: 19

Candidate Starts for Annalisa_9:

(Start: 19 @6598 has 15 MA's), (28, 6643), (31, 6658), (35, 6676), (38, 6685), (51, 6754), (53, 6766), (56, 6778), (69, 6835),

Gene: Archis_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Archis_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (82, 6876), (88, 6909),

Gene: Arib1_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Arib1_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: Atcoo_8 Start: 6580, Stop: 6942, Start Num: 18

Candidate Starts for Atcoo_8:

(Start: 18 @6580 has 99 MA's), (31, 6649), (54, 6739), (82, 6856), (86, 6883),

Gene: Attis_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Attis_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Auxilium_10 Start: 7295, Stop: 7651, Start Num: 18

Candidate Starts for Auxilium_10:

(Start: 18 @7295 has 99 MA's), (40, 7394), (42, 7400), (56, 7466), (85, 7595), (88, 7610), (91, 7637),

Gene: Azula_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Azula_8:

(9, 6359), (Start: 13 @6443 has 42 MA's), (53, 6617), (56, 6629), (64, 6671), (80, 6746), (82, 6752), (88, 6785),

Gene: Barco_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Barco_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Bartholomew_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Bartholomew_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: BaxterFox_8 Start: 6274, Stop: 6648, Start Num: 18

Candidate Starts for BaxterFox_8:

(Start: 18 @6274 has 99 MA's), (30, 6328), (38, 6364), (53, 6448), (56, 6460), (57, 6463), (63, 6487), (69, 6517), (83, 6574), (84, 6580), (86, 6595), (88, 6604),

Gene: Beenie_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Beenie_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Begonia_8 Start: 6570, Stop: 6962, Start Num: 13

Candidate Starts for Begonia_8:

(9, 6486), (10, 6513), (Start: 13 @6570 has 42 MA's), (25, 6618), (45, 6705), (53, 6744), (64, 6798), (70, 6828), (80, 6873), (82, 6879), (88, 6912),

Gene: BenchScraper_10 Start: 7310, Stop: 7666, Start Num: 18

Candidate Starts for BenchScraper_10:

(Start: 18 @7310 has 99 MA's), (33, 7379), (40, 7409), (42, 7415), (54, 7472), (56, 7481), (85, 7610), (91, 7652),

Gene: Bernal13_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for Bernal13_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: Bhageatrice_12 Start: 8505, Stop: 8861, Start Num: 18

Candidate Starts for Bhageatrice_12:

(Start: 18 @8505 has 99 MA's), (24, 8532), (51, 8655), (56, 8676), (60, 8691), (77, 8769), (88, 8820), (91, 8847),

Gene: Bhagsy_8 Start: 6583, Stop: 6945, Start Num: 18

Candidate Starts for Bhagsy_8:

(Start: 18 @6583 has 99 MA's), (31, 6652), (54, 6742), (82, 6859), (86, 6886),

Gene: BigNuz_8 Start: 6561, Stop: 6923, Start Num: 18

Candidate Starts for BigNuz_8:

(Start: 18 @6561 has 99 MA's), (31, 6630), (54, 6720), (56, 6729), (74, 6810), (86, 6864), (89, 6882),

Gene: BillyTP_10 Start: 7295, Stop: 7654, Start Num: 18

Candidate Starts for BillyTP_10:

(Start: 18 @7295 has 99 MA's), (33, 7364), (44, 7412), (56, 7466), (77, 7565), (91, 7640),

Gene: Bjaner7_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Bjaner7_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: BlingBling_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for BlingBling_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Blino_8 Start: 6467, Stop: 6859, Start Num: 13

Candidate Starts for Blino_8:

(Start: 13 @6467 has 42 MA's), (53, 6641), (56, 6653), (64, 6695), (80, 6770), (82, 6776), (88, 6809),

Gene: BlueShadow_10 Start: 7292, Stop: 7648, Start Num: 18

Candidate Starts for BlueShadow_10:

(Start: 18 @7292 has 99 MA's), (20, 7298), (21, 7304), (22, 7307), (33, 7361), (39, 7388), (40, 7391), (53, 7451), (54, 7454), (56, 7463), (85, 7592), (88, 7607), (91, 7634),

Gene: Blueberry_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Blueberry_8:

(9, 6359), (Start: 13 @6443 has 42 MA's), (53, 6617), (56, 6629), (64, 6671), (80, 6746), (82, 6752), (88, 6785),

Gene: Bogie_8 Start: 6580, Stop: 6942, Start Num: 18

Candidate Starts for Bogie_8:

(Start: 18 @6580 has 99 MA's), (31, 6649), (54, 6739), (82, 6856), (86, 6883),

Gene: Bran_8 Start: 6460, Stop: 6864, Start Num: 17

Candidate Starts for Bran_8:

(Start: 17 @6460 has 8 MA's), (38, 6550), (48, 6607), (56, 6631), (63, 6658), (71, 6703), (76, 6721), (89, 6787),

Gene: Brusacoram_8 Start: 6579, Stop: 6941, Start Num: 18

Candidate Starts for Brusacoram_8:

(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Bunnies_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Bunnies_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: CactusJack_8 Start: 6579, Stop: 6941, Start Num: 18

Candidate Starts for CactusJack_8:

(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Camster_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Camster_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: CaptainKirk2_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for CaptainKirk2_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: CarolAnn_8 Start: 6466, Stop: 6858, Start Num: 13

Candidate Starts for CarolAnn_8:

(Start: 13 @6466 has 42 MA's), (53, 6640), (56, 6652), (64, 6694), (80, 6769), (82, 6775), (88, 6808),

Gene: Clap_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Clap_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Clark_9 Start: 6598, Stop: 6981, Start Num: 19

Candidate Starts for Clark_9:

(Start: 19 @6598 has 15 MA's), (28, 6643), (31, 6658), (35, 6676), (38, 6685), (51, 6754), (53, 6766), (56, 6778), (69, 6835),

Gene: CookieBear_10 Start: 7295, Stop: 7651, Start Num: 18

Candidate Starts for CookieBear_10:

(Start: 18 @7295 has 99 MA's), (40, 7394), (42, 7400), (56, 7466), (85, 7595), (88, 7610), (91, 7637),

Gene: Cynthia_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Cynthia_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Daegal_12 Start: 8274, Stop: 8726, Start Num: 16

Candidate Starts for Daegal_12:

(Start: 16 @8274 has 23 MA's), (Start: 18 @8283 has 99 MA's), (26, 8319), (28, 8331), (32, 8349), (36, 8367), (51, 8442), (53, 8454), (61, 8481), (64, 8499), (75, 8556), (80, 8574), (81, 8577), (87, 8607), (92, 8646), (93, 8667), (94, 8694), (95, 8718),

Gene: DeepSoil15_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for DeepSoil15_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Delian_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Delian_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Denise_8 Start: 6137, Stop: 6520, Start Num: 18

Candidate Starts for Denise_8:

(Start: 18 @6137 has 99 MA's), (25, 6164), (38, 6224), (53, 6305), (56, 6317), (66, 6359), (69, 6374), (86, 6452),

Gene: Dewey_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Dewey_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Dina_8 Start: 6443, Stop: 6847, Start Num: 17

Candidate Starts for Dina_8:

(Start: 17 @6443 has 8 MA's), (38, 6533), (48, 6590), (56, 6614), (63, 6641), (71, 6686), (76, 6704), (89, 6770),

Gene: DobbysSock_8 Start: 6090, Stop: 6473, Start Num: 19

Candidate Starts for DobbysSock_8:

(Start: 19 @6090 has 15 MA's), (28, 6135), (31, 6150), (35, 6168), (38, 6177), (51, 6246), (53, 6258), (56, 6270), (69, 6327),

Gene: Dolores_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Dolores_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Donovan_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Donovan_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (75, 6846), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: Dorito_8 Start: 6096, Stop: 6479, Start Num: 19

Candidate Starts for Dorito_8:

(Start: 19 @6096 has 15 MA's), (28, 6141), (31, 6156), (35, 6174), (38, 6183), (51, 6252), (53, 6264), (56, 6276), (69, 6333),

Gene: Dynamo_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Dynamo_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Easley_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Easley_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Ebert_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Ebert_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: EdnaMode_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for EdnaMode_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (49, 6278), (53, 6296), (56, 6308), (60, 6323), (86, 6443), (90, 6467),

Gene: Ein37_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Ein37_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Etoile_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Etoile_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Evanesce_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Evanesce_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: EvePickles_10 Start: 7351, Stop: 7707, Start Num: 18

Candidate Starts for EvePickles_10:

(Start: 18 @7351 has 99 MA's), (33, 7420), (42, 7456), (51, 7501), (55, 7516), (56, 7522), (82, 7636), (91, 7693),

Gene: Fairfaxidum_8 Start: 6551, Stop: 6937, Start Num: 13

Candidate Starts for Fairfaxidum_8:

(Start: 13 @6551 has 42 MA's), (26, 6605), (53, 6719), (56, 6731), (57, 6734), (88, 6887),

Gene: Faja_10 Start: 7295, Stop: 7651, Start Num: 18

Candidate Starts for Faja_10:

(Start: 18 @7295 has 99 MA's), (33, 7364), (42, 7400), (51, 7445), (55, 7460), (56, 7466), (82, 7580), (91, 7637),

Gene: Fenry_8 Start: 6576, Stop: 6968, Start Num: 13

Candidate Starts for Fenry_8:

(9, 6492), (Start: 13 @6576 has 42 MA's), (25, 6624), (45, 6711), (53, 6750), (64, 6804), (70, 6834), (82, 6885), (88, 6918),

Gene: Finkle_8 Start: 6251, Stop: 6634, Start Num: 15

Candidate Starts for Finkle_8:

(Start: 15 @6251 has 1 MA's), (23, 6281), (27, 6311), (57, 6437), (90, 6596),

Gene: FirstPlacePfu_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for FirstPlacePfu_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Fishburne_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Fishburne_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Forge_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Forge_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: FroggyToad_8 Start: 6129, Stop: 6512, Start Num: 18

Candidate Starts for FroggyToad_8:

(Start: 18 @6129 has 99 MA's), (25, 6156), (38, 6216), (53, 6297), (56, 6309), (66, 6351), (69, 6366), (86, 6444),

Gene: Frokostdame_8 Start: 6562, Stop: 6954, Start Num: 13

Candidate Starts for Frokostdame_8:

(9, 6478), (Start: 13 @6562 has 42 MA's), (53, 6736), (56, 6748), (64, 6790), (80, 6865), (82, 6871), (88, 6904),

Gene: Gambino_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Gambino_8:

(9, 6359), (Start: 13 @6443 has 42 MA's), (53, 6617), (56, 6629), (64, 6671), (80, 6746), (82, 6752), (88, 6785),

Gene: Gancho_10 Start: 7683, Stop: 8135, Start Num: 16

Candidate Starts for Gancho_10:

(Start: 16 @7683 has 23 MA's), (Start: 18 @7692 has 99 MA's), (26, 7728), (28, 7740), (32, 7758), (36, 7776), (51, 7851), (53, 7863), (61, 7890), (64, 7908), (75, 7965), (80, 7983), (81, 7986), (87, 8016), (92, 8055), (93, 8076), (94, 8103), (95, 8127),

Gene: Gavriela_8 Start: 6579, Stop: 6941, Start Num: 18

Candidate Starts for Gavriela_8:

(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: GemG_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for GemG_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Giles_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Giles_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Gizermo_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Gizermo_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Glaske_8 Start: 6579, Stop: 6941, Start Num: 18
Candidate Starts for Glaske_8:
(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Globfish_10 Start: 7340, Stop: 7696, Start Num: 18
Candidate Starts for Globfish_10:
(Start: 18 @7340 has 99 MA's), (33, 7409), (39, 7436), (40, 7439), (42, 7445), (54, 7502), (56, 7511),
(85, 7640), (91, 7682),

Gene: Gorpy_10 Start: 7304, Stop: 7660, Start Num: 18
Candidate Starts for Gorpy_10:
(Start: 18 @7304 has 99 MA's), (33, 7373), (40, 7403), (42, 7409), (54, 7466), (56, 7475), (85, 7604),
(91, 7646),

Gene: Gravaillia_11 Start: 7716, Stop: 8168, Start Num: 16
Candidate Starts for Gravaillia_11:
(Start: 16 @7716 has 23 MA's), (Start: 18 @7725 has 99 MA's), (26, 7761), (28, 7773), (32, 7791), (36,
7809), (51, 7884), (53, 7896), (61, 7923), (64, 7941), (75, 7998), (80, 8016), (81, 8019), (87, 8049), (92,
8088), (93, 8109), (94, 8136), (95, 8160),

Gene: GreaseLightnin_8 Start: 6592, Stop: 6954, Start Num: 18
Candidate Starts for GreaseLightnin_8:
(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Guacamole_8 Start: 6571, Stop: 6963, Start Num: 13
Candidate Starts for Guacamole_8:
(9, 6487), (Start: 13 @6571 has 42 MA's), (25, 6619), (45, 6706), (53, 6745), (64, 6799), (70, 6829),
(80, 6874), (82, 6880), (88, 6913),

Gene: HH92_11 Start: 7983, Stop: 8435, Start Num: 16
Candidate Starts for HH92_11:
(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32,
8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81,
8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: HUHilltop_8 Start: 6592, Stop: 6954, Start Num: 18
Candidate Starts for HUHilltop_8:
(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Hadrien_11 Start: 7983, Stop: 8435, Start Num: 16
Candidate Starts for Hadrien_11:
(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32,
8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81,
8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Hail_11 Start: 7983, Stop: 8435, Start Num: 16
Candidate Starts for Hail_11:
(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32,
8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81,
8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Haley23_8 Start: 6128, Stop: 6511, Start Num: 18
Candidate Starts for Haley23_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Hestia_10 Start: 7405, Stop: 7764, Start Num: 18

Candidate Starts for Hestia_10:

(Start: 18 @7405 has 99 MA's), (24, 7432), (40, 7504), (53, 7564), (56, 7576), (77, 7675), (80, 7690), (91, 7750),

Gene: Hillester_10 Start: 7292, Stop: 7648, Start Num: 18

Candidate Starts for Hillester_10:

(Start: 18 @7292 has 99 MA's), (20, 7298), (21, 7304), (22, 7307), (33, 7361), (39, 7388), (40, 7391), (53, 7451), (54, 7454), (56, 7463), (85, 7592), (88, 7607), (91, 7634),

Gene: Hitter_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Hitter_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (82, 6876), (88, 6909),

Gene: Hortense_8 Start: 6280, Stop: 6651, Start Num: 18

Candidate Starts for Hortense_8:

(Start: 18 @6280 has 99 MA's), (32, 6343), (38, 6367), (46, 6403), (51, 6439), (53, 6451), (56, 6463), (57, 6466), (69, 6520), (72, 6538), (83, 6577), (84, 6583), (86, 6598), (88, 6607),

Gene: Howe_8 Start: 6280, Stop: 6651, Start Num: 18

Candidate Starts for Howe_8:

(Start: 18 @6280 has 99 MA's), (32, 6343), (38, 6367), (46, 6403), (51, 6439), (53, 6451), (56, 6463), (57, 6466), (69, 6520), (72, 6538), (83, 6577), (84, 6583), (86, 6598), (88, 6607),

Gene: Ibrahim_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for Ibrahim_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: Invectra_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Invectra_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Isolde_11 Start: 7366, Stop: 7722, Start Num: 18

Candidate Starts for Isolde_11:

(Start: 18 @7366 has 99 MA's), (40, 7465), (42, 7471), (56, 7537), (85, 7666), (91, 7708),

Gene: JCole_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for JCole_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Jallahmah_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Jallahmah_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (82, 6876), (88, 6909),

Gene: JasperJr_8 Start: 6571, Stop: 6963, Start Num: 13

Candidate Starts for JasperJr_8:
(9, 6487), (Start: 13 @6571 has 42 MA's), (25, 6619), (45, 6706), (53, 6745), (64, 6799), (70, 6829),
(80, 6874), (82, 6880), (88, 6913),

Gene: Jebeks_8 Start: 6594, Stop: 6956, Start Num: 18
Candidate Starts for Jebeks_8:
(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: JellyBread_10 Start: 7288, Stop: 7644, Start Num: 18
Candidate Starts for JellyBread_10:
(Start: 18 @7288 has 99 MA's), (40, 7387), (42, 7393), (56, 7459), (85, 7588), (88, 7603), (91, 7630),

Gene: JuJu_8 Start: 6492, Stop: 6884, Start Num: 13
Candidate Starts for JuJu_8:
(Start: 13 @6492 has 42 MA's), (32, 6576), (53, 6666), (56, 6678), (64, 6720), (70, 6750), (88, 6834),

Gene: Jung_8 Start: 6579, Stop: 6941, Start Num: 18
Candidate Starts for Jung_8:
(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Juniormint_8 Start: 6597, Stop: 6959, Start Num: 18
Candidate Starts for Juniormint_8:
(Start: 18 @6597 has 99 MA's), (54, 6756), (79, 6864), (82, 6873), (86, 6900), (89, 6918),

Gene: JustASigh_8 Start: 7097, Stop: 7558, Start Num: 16
Candidate Starts for JustASigh_8:
(11, 7076), (Start: 16 @7097 has 23 MA's), (26, 7142), (36, 7196), (65, 7340), (67, 7349), (68, 7352),

Gene: KappaFarmDelta_8 Start: 6605, Stop: 6997, Start Num: 13
Candidate Starts for KappaFarmDelta_8:
(9, 6521), (10, 6548), (Start: 13 @6605 has 42 MA's), (25, 6653), (45, 6740), (53, 6779), (59, 6803),
(64, 6833), (70, 6863), (75, 6890), (82, 6914), (88, 6947),

Gene: Kari_8 Start: 6592, Stop: 6954, Start Num: 18
Candidate Starts for Kari_8:
(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: KilKor_8 Start: 6579, Stop: 6941, Start Num: 18
Candidate Starts for KilKor_8:
(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Kinbote_11 Start: 7983, Stop: 8435, Start Num: 16
Candidate Starts for Kinbote_11:
(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32,
8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81,
8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Ksquared_8 Start: 6592, Stop: 6954, Start Num: 18
Candidate Starts for Ksquared_8:
(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Lamberg_8 Start: 6128, Stop: 6511, Start Num: 18
Candidate Starts for Lamberg_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (49, 6278), (53, 6296), (56, 6308), (60, 6323), (86, 6443), (90, 6467),

Gene: Langerak_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Langerak_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: Lawnathon_10 Start: 7413, Stop: 7772, Start Num: 18

Candidate Starts for Lawnathon_10:

(Start: 18 @7413 has 99 MA's), (24, 7440), (41, 7515), (53, 7572), (56, 7584), (77, 7683), (80, 7698), (91, 7758),

Gene: Lederberg_8 Start: 6443, Stop: 6847, Start Num: 17

Candidate Starts for Lederberg_8:

(Start: 17 @6443 has 8 MA's), (38, 6533), (48, 6590), (56, 6614), (63, 6641), (71, 6686), (76, 6704), (89, 6770),

Gene: LilHazelnut_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for LilHazelnut_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: LordFarquaad_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for LordFarquaad_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Luke_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Luke_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Luna22_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Luna22_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Lysidious_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Lysidious_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: MUWow_9 Start: 7382, Stop: 7741, Start Num: 18

Candidate Starts for MUWow_9:

(Start: 18 @7382 has 99 MA's), (33, 7451), (44, 7499), (50, 7529), (56, 7553), (77, 7652), (91, 7727),

Gene: Majeke_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Majeke_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: Malachai_8 Start: 6570, Stop: 6962, Start Num: 13

Candidate Starts for Malachai_8:

(9, 6486), (10, 6513), (Start: 13 @6570 has 42 MA's), (25, 6618), (45, 6705), (53, 6744), (64, 6798), (70, 6828), (80, 6873), (82, 6879), (88, 6912),

Gene: Malithi_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Malithi_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Mangethe_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Mangethe_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: MaterMagnus_10 Start: 7296, Stop: 7652, Start Num: 18

Candidate Starts for MaterMagnus_10:

(Start: 18 @7296 has 99 MA's), (33, 7365), (40, 7395), (42, 7401), (54, 7458), (56, 7467), (85, 7596), (91, 7638),

Gene: Matteo_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Matteo_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Mbo4_8 Start: 6815, Stop: 7189, Start Num: 18

Candidate Starts for Mbo4_8:

(Start: 18 @6815 has 99 MA's), (38, 6905), (56, 6992), (69, 7046), (72, 7064),

Gene: Megiddo_8 Start: 6579, Stop: 6941, Start Num: 18

Candidate Starts for Megiddo_8:

(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Melba_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Melba_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Mellie_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Mellie_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Mendokysei_9 Start: 8237, Stop: 8689, Start Num: 12

Candidate Starts for Mendokysei_9:

(2, 8039), (Start: 12 @8237 has 7 MA's), (43, 8375), (57, 8429), (58, 8432), (62, 8444), (66, 8462), (70, 8483), (71, 8492),

Gene: MichaelScott_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for MichaelScott_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: MidnightRain_10 Start: 7292, Stop: 7648, Start Num: 18

Candidate Starts for MidnightRain_10:

(Start: 18 @7292 has 99 MA's), (20, 7298), (21, 7304), (22, 7307), (33, 7361), (39, 7388), (40, 7391), (53, 7451), (54, 7454), (56, 7463), (85, 7592), (88, 7607), (91, 7634),

Gene: MintFen_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for MintFen_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: MissRona_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for MissRona_8:

(9, 6359), (Start: 13 @6443 has 42 MA's), (53, 6617), (56, 6629), (64, 6671), (80, 6746), (82, 6752), (88, 6785),

Gene: Mocha12_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Mocha12_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Murp_8 Start: 6608, Stop: 7000, Start Num: 13

Candidate Starts for Murp_8:

(9, 6524), (10, 6551), (Start: 13 @6608 has 42 MA's), (25, 6656), (45, 6743), (53, 6782), (64, 6836), (80, 6911), (82, 6917), (88, 6950),

Gene: Nairb_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for Nairb_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: Nazo_8 Start: 6561, Stop: 6923, Start Num: 18

Candidate Starts for Nazo_8:

(Start: 18 @6561 has 99 MA's), (31, 6630), (54, 6720), (56, 6729), (74, 6810), (86, 6864), (89, 6882),

Gene: Necropolis_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Necropolis_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Nette_10 Start: 8246, Stop: 8698, Start Num: 12

Candidate Starts for Nette_10:

(2, 8048), (Start: 12 @8246 has 7 MA's), (43, 8384), (57, 8438), (58, 8441), (62, 8453), (66, 8471), (70, 8492), (71, 8501),

Gene: Nettuno_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Nettuno_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (49, 6278), (53, 6296), (56, 6308), (60, 6323), (86, 6443), (90, 6467),

Gene: OBUpride_11 Start: 7977, Stop: 8429, Start Num: 16

Candidate Starts for OBUpride_11:

(Start: 16 @7977 has 23 MA's), (Start: 18 @7986 has 99 MA's), (23, 8004), (26, 8022), (28, 8034), (32, 8052), (34, 8064), (36, 8070), (51, 8145), (53, 8157), (61, 8184), (64, 8202), (75, 8259), (80, 8277), (81, 8280), (87, 8310), (92, 8349), (93, 8370), (94, 8397), (95, 8421),

Gene: Obliviate_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for Obliviate_8:

(9, 6507), (Start: 13 @6591 has 42 MA's), (25, 6639), (45, 6726), (53, 6765), (64, 6819), (70, 6849), (80, 6894), (82, 6900), (88, 6933),

Gene: Ohgeesy_8 Start: 6274, Stop: 6648, Start Num: 18

Candidate Starts for Ohgeesy_8:

(Start: 18 @6274 has 99 MA's), (30, 6328), (38, 6364), (53, 6448), (56, 6460), (57, 6463), (63, 6487), (69, 6517), (83, 6574), (84, 6580), (86, 6595), (88, 6604),

Gene: Oregano_9 Start: 6263, Stop: 6646, Start Num: 19

Candidate Starts for Oregano_9:

(Start: 19 @6263 has 15 MA's), (28, 6308), (31, 6323), (35, 6341), (38, 6350), (51, 6419), (56, 6443), (69, 6500),

Gene: PCoral7_8 Start: 6551, Stop: 6937, Start Num: 13

Candidate Starts for PCoral7_8:

(Start: 13 @6551 has 42 MA's), (26, 6605), (53, 6719), (56, 6731), (57, 6734), (88, 6887),

Gene: PantheRoc_8 Start: 6274, Stop: 6648, Start Num: 18

Candidate Starts for PantheRoc_8:

(Start: 18 @6274 has 99 MA's), (38, 6364), (53, 6448), (56, 6460), (57, 6463), (63, 6487), (69, 6517), (83, 6574), (84, 6580), (86, 6595), (88, 6604),

Gene: Persistence_9 Start: 7363, Stop: 7719, Start Num: 18

Candidate Starts for Persistence_9:

(Start: 18 @7363 has 99 MA's), (20, 7369), (21, 7375), (22, 7378), (39, 7459), (51, 7513), (55, 7528), (56, 7534), (88, 7678), (91, 7705),

Gene: Petra_8 Start: 6473, Stop: 6865, Start Num: 13

Candidate Starts for Petra_8:

(9, 6389), (Start: 13 @6473 has 42 MA's), (53, 6647), (56, 6659), (64, 6701), (80, 6776), (82, 6782), (88, 6815),

Gene: Phalm_8 Start: 6579, Stop: 6941, Start Num: 18

Candidate Starts for Phalm_8:

(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Phayonce_8 Start: 6581, Stop: 6943, Start Num: 18

Candidate Starts for Phayonce_8:

(Start: 18 @6581 has 99 MA's), (31, 6650), (54, 6740), (56, 6749), (74, 6830), (86, 6884), (89, 6902),

Gene: Phegasus_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Phegasus_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: Phineas_8 Start: 6580, Stop: 6942, Start Num: 18

Candidate Starts for Phineas_8:

(Start: 18 @6580 has 99 MA's), (31, 6649), (54, 6739), (82, 6856), (86, 6883),

Gene: Phrank15_9 Start: 7448, Stop: 7804, Start Num: 18

Candidate Starts for Phrank15_9:

(Start: 18 @7448 has 99 MA's), (33, 7517), (40, 7547), (42, 7553), (54, 7610), (56, 7619), (85, 7748), (91, 7790),

Gene: PhriskyACE_8 Start: 6096, Stop: 6479, Start Num: 19

Candidate Starts for PhriskyACE_8:

(Start: 19 @6096 has 15 MA's), (28, 6141), (31, 6156), (35, 6174), (38, 6183), (51, 6252), (53, 6264), (56, 6276), (69, 6333),

Gene: PhrostedPhlake_8 Start: 6648, Stop: 7040, Start Num: 13

Candidate Starts for PhrostedPhlake_8:

(9, 6564), (Start: 13 @6648 has 42 MA's), (32, 6732), (53, 6822), (56, 6834), (64, 6876), (70, 6906), (80, 6951), (81, 6954), (82, 6957), (88, 6990),

Gene: Pickett_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Pickett_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Pipp_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for Pipp_8:

(9, 6507), (Start: 13 @6591 has 42 MA's), (25, 6639), (45, 6726), (53, 6765), (64, 6819), (70, 6849), (80, 6894), (82, 6900), (88, 6933),

Gene: Polkaroo_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Polkaroo_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Powerball_8 Start: 6096, Stop: 6479, Start Num: 19

Candidate Starts for Powerball_8:

(Start: 19 @6096 has 15 MA's), (28, 6141), (31, 6156), (35, 6174), (38, 6183), (53, 6264), (56, 6276), (69, 6333),

Gene: PrincePatrick_8 Start: 6552, Stop: 6938, Start Num: 13

Candidate Starts for PrincePatrick_8:

(Start: 13 @6552 has 42 MA's), (26, 6606), (53, 6720), (56, 6732), (57, 6735), (88, 6888),

Gene: Purky_8 Start: 6597, Stop: 6959, Start Num: 18

Candidate Starts for Purky_8:

(Start: 18 @6597 has 99 MA's), (54, 6756), (74, 6846), (79, 6864), (82, 6873), (86, 6900), (89, 6918),

Gene: Pygmy_8 Start: 6580, Stop: 6942, Start Num: 18

Candidate Starts for Pygmy_8:

(Start: 18 @6580 has 99 MA's), (31, 6649), (54, 6739), (82, 6856), (86, 6883),

Gene: REQ2_08 Start: 6272, Stop: 6640, Start Num: 18

Candidate Starts for REQ2_08:

(Start: 18 @6272 has 99 MA's), (20, 6278), (35, 6353), (62, 6476), (71, 6524),

Gene: RadFad_10 Start: 7292, Stop: 7648, Start Num: 18

Candidate Starts for RadFad_10:

(Start: 18 @7292 has 99 MA's), (20, 7298), (21, 7304), (22, 7307), (33, 7361), (39, 7388), (40, 7391), (53, 7451), (54, 7454), (56, 7463), (85, 7592), (88, 7607), (91, 7634),

Gene: Raphaella_10 Start: 7295, Stop: 7651, Start Num: 18

Candidate Starts for Raphaella_10:

(Start: 18 @7295 has 99 MA's), (40, 7394), (42, 7400), (56, 7466), (85, 7595), (88, 7610), (91, 7637),

Gene: Rem711_14 Start: 9778, Stop: 10167, Start Num: 14

Candidate Starts for Rem711_14:

(Start: 14 @9778 has 1 MA's), (21, 9802), (26, 9826), (37, 9877), (53, 9958), (59, 9982), (74, 10054),

Gene: Richie_10 Start: 7310, Stop: 7666, Start Num: 18

Candidate Starts for Richie_10:

(Start: 18 @7310 has 99 MA's), (33, 7379), (40, 7409), (42, 7415), (54, 7472), (56, 7481), (85, 7610), (91, 7652),

Gene: RonRayGun_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for RonRayGun_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: Sahara_8 Start: 6144, Stop: 6527, Start Num: 18

Candidate Starts for Sahara_8:

(Start: 18 @6144 has 99 MA's), (38, 6231), (49, 6294), (53, 6312), (56, 6324), (69, 6381), (86, 6459),

Gene: Sakai_10 Start: 7304, Stop: 7660, Start Num: 18

Candidate Starts for Sakai_10:

(Start: 18 @7304 has 99 MA's), (33, 7373), (40, 7403), (42, 7409), (54, 7466), (56, 7475), (85, 7604), (91, 7646),

Gene: SamW_8 Start: 6443, Stop: 6847, Start Num: 17

Candidate Starts for SamW_8:

(Start: 17 @6443 has 8 MA's), (38, 6533), (48, 6590), (56, 6614), (63, 6641), (71, 6686), (76, 6704), (89, 6770),

Gene: Samba_8 Start: 6568, Stop: 6960, Start Num: 13

Candidate Starts for Samba_8:

(9, 6484), (Start: 13 @6568 has 42 MA's), (25, 6616), (45, 6703), (53, 6742), (64, 6796), (88, 6910),

Gene: Samman98_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Samman98_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Sashimi_11 Start: 7410, Stop: 7766, Start Num: 18

Candidate Starts for Sashimi_11:

(Start: 18 @7410 has 99 MA's), (24, 7437), (42, 7515), (54, 7572), (56, 7581), (73, 7662), (85, 7710), (86, 7716), (88, 7725), (91, 7752),

Gene: Savage_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Savage_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Seahorse_11 Start: 7514, Stop: 7873, Start Num: 18

Candidate Starts for Seahorse_11:

(Start: 18 @7514 has 99 MA's), (24, 7541), (40, 7613), (53, 7673), (56, 7685), (77, 7784), (80, 7799), (91, 7859),

Gene: Sekhmet_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for Sekhmet_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Shipwreck_8 Start: 6580, Stop: 6942, Start Num: 18

Candidate Starts for Shipwreck_8:

(Start: 18 @6580 has 99 MA's), (31, 6649), (54, 6739), (82, 6856), (86, 6883),

Gene: Shlim410_8 Start: 6280, Stop: 6651, Start Num: 18

Candidate Starts for Shlim410_8:

(Start: 18 @6280 has 99 MA's), (32, 6343), (38, 6367), (46, 6403), (51, 6439), (53, 6451), (56, 6463), (57, 6466), (69, 6520), (72, 6538), (83, 6577), (84, 6583), (86, 6598), (88, 6607),

Gene: Shukran_10 Start: 7247, Stop: 7603, Start Num: 18

Candidate Starts for Shukran_10:

(Start: 18 @7247 has 99 MA's), (21, 7259), (40, 7346), (51, 7397), (55, 7412), (56, 7418), (88, 7562), (91, 7589),

Gene: Sidious_8 Start: 6277, Stop: 6648, Start Num: 18

Candidate Starts for Sidious_8:

(Start: 18 @6277 has 99 MA's), (38, 6364), (53, 6448), (56, 6460), (57, 6463), (63, 6487), (83, 6574), (84, 6580), (86, 6595), (88, 6604),

Gene: SoilAssassin_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for SoilAssassin_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Sonah_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Sonah_8:

(Start: 18 @6594 has 99 MA's), (54, 6753), (75, 6846), (79, 6861), (82, 6870), (86, 6897), (89, 6915),

Gene: SpicyFrank_10 Start: 7427, Stop: 7714, Start Num: 33

Candidate Starts for SpicyFrank_10:

(Start: 18 @7358 has 99 MA's), (33, 7427), (40, 7457), (42, 7463), (54, 7520), (56, 7529), (85, 7658), (91, 7700),

Gene: Sproutie_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Sproutie_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: StAB_8 Start: 6448, Stop: 6852, Start Num: 17

Candidate Starts for StAB_8:

(Start: 17 @6448 has 8 MA's), (38, 6538), (48, 6595), (56, 6619), (63, 6646), (71, 6691), (76, 6709), (89, 6775),

Gene: StevieRay_8 Start: 6583, Stop: 6945, Start Num: 18

Candidate Starts for StevieRay_8:

(Start: 18 @6583 has 99 MA's), (31, 6652), (54, 6742), (82, 6859), (86, 6886),

Gene: Stiles_8 Start: 6442, Stop: 6846, Start Num: 17

Candidate Starts for Stiles_8:

(Start: 17 @6442 has 8 MA's), (38, 6532), (48, 6589), (56, 6613), (63, 6640), (71, 6685), (76, 6703), (89, 6769),

Gene: StressBall_8 Start: 6579, Stop: 6941, Start Num: 18
Candidate Starts for StressBall_8:
(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Suerte_8 Start: 6090, Stop: 6473, Start Num: 19
Candidate Starts for Suerte_8:
(Start: 19 @6090 has 15 MA's), (28, 6135), (31, 6150), (35, 6168), (38, 6177), (51, 6246), (56, 6270),
(69, 6327),

Gene: Techage_8 Start: 6597, Stop: 6959, Start Num: 18
Candidate Starts for Techage_8:
(Start: 18 @6597 has 99 MA's), (54, 6756), (79, 6864), (82, 6873), (86, 6900), (89, 6918),

Gene: ThayneTheZag_10 Start: 7332, Stop: 7688, Start Num: 18
Candidate Starts for ThayneTheZag_10:
(Start: 18 @7332 has 99 MA's), (39, 7428), (40, 7431), (42, 7437), (54, 7494), (56, 7503), (85, 7632),
(91, 7674),

Gene: Thespis_8 Start: 6579, Stop: 6941, Start Num: 18
Candidate Starts for Thespis_8:
(Start: 18 @6579 has 99 MA's), (31, 6648), (54, 6738), (82, 6855), (86, 6882),

Gene: Thimann_9 Start: 6592, Stop: 6975, Start Num: 19
Candidate Starts for Thimann_9:
(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772),
(69, 6829),

Gene: ThulaThula_8 Start: 6626, Stop: 6988, Start Num: 18
Candidate Starts for ThulaThula_8:
(Start: 18 @6626 has 99 MA's), (31, 6695), (54, 6785), (56, 6794), (74, 6875), (86, 6929), (89, 6947),

Gene: Tiff81_11 Start: 7472, Stop: 7831, Start Num: 18
Candidate Starts for Tiff81_11:
(Start: 18 @7472 has 99 MA's), (21, 7484), (22, 7487), (24, 7499), (53, 7631), (56, 7643), (77, 7742),
(80, 7757), (86, 7784), (91, 7817),

Gene: Toast_8 Start: 6551, Stop: 6937, Start Num: 13
Candidate Starts for Toast_8:
(Start: 13 @6551 has 42 MA's), (26, 6605), (53, 6719), (56, 6731), (57, 6734), (88, 6887),

Gene: Tortellini_8 Start: 6539, Stop: 6901, Start Num: 18
Candidate Starts for Tortellini_8:
(Start: 18 @6539 has 99 MA's), (52, 6692), (54, 6698), (74, 6788), (79, 6806), (82, 6815), (86, 6842),
(89, 6860),

Gene: Troy_8 Start: 6443, Stop: 6847, Start Num: 17
Candidate Starts for Troy_8:
(Start: 17 @6443 has 8 MA's), (38, 6533), (48, 6590), (56, 6614), (63, 6641), (71, 6686), (76, 6704),
(89, 6770),

Gene: TuertoX_8 Start: 6128, Stop: 6511, Start Num: 18
Candidate Starts for TuertoX_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Twinkle_8 Start: 6280, Stop: 6651, Start Num: 18

Candidate Starts for Twinkle_8:

(Start: 18 @6280 has 99 MA's), (32, 6343), (38, 6367), (46, 6403), (51, 6439), (53, 6451), (56, 6463), (57, 6466), (69, 6520), (72, 6538), (83, 6577), (84, 6583), (86, 6598), (88, 6607),

Gene: Ubuntu_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Ubuntu_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: UmaThurman_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for UmaThurman_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (25, 6615), (45, 6702), (53, 6741), (64, 6795), (88, 6909),

Gene: Utz_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Utz_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Vasanti_8 Start: 6132, Stop: 6515, Start Num: 18

Candidate Starts for Vasanti_8:

(Start: 18 @6132 has 99 MA's), (25, 6159), (38, 6219), (53, 6300), (56, 6312), (66, 6354), (86, 6447),

Gene: Venti_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Venti_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Vidya_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Vidya_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),

Gene: Vopal_11 Start: 7436, Stop: 7723, Start Num: 33

Candidate Starts for Vopal_11:

(Start: 18 @7367 has 99 MA's), (33, 7436), (40, 7466), (42, 7472), (54, 7529), (56, 7538), (85, 7667), (91, 7709),

Gene: Walrus_8 Start: 6479, Stop: 6871, Start Num: 13

Candidate Starts for Walrus_8:

(Start: 13 @6479 has 42 MA's), (45, 6614), (53, 6653), (75, 6764), (88, 6821),

Gene: Webster2_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Webster2_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Weirido19_9 Start: 6915, Stop: 7337, Start Num: 16

Candidate Starts for Weirido19_9:

(8, 6825), (Start: 16 @6915 has 23 MA's), (29, 6978), (36, 7011), (50, 7083), (56, 7110), (57, 7113), (59, 7122), (65, 7152), (86, 7248),

Gene: Whack_8 Start: 6270, Stop: 6635, Start Num: 18

Candidate Starts for Whack_8:

(1, 6051), (4, 6072), (7, 6162), (Start: 18 @6270 has 99 MA's), (47, 6396), (53, 6426), (54, 6429), (71, 6507), (81, 6546), (82, 6549),

Gene: Whiteclaw_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Whiteclaw_8:

(Start: 18 @6128 has 99 MA's), (25, 6155), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Whitty_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for Whitty_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: William_8 Start: 6566, Stop: 6952, Start Num: 13

Candidate Starts for William_8:

(Start: 13 @6566 has 42 MA's), (26, 6620), (53, 6734), (56, 6746), (57, 6749), (88, 6902),

Gene: Willsammy_8 Start: 6582, Stop: 6944, Start Num: 18

Candidate Starts for Willsammy_8:

(Start: 18 @6582 has 99 MA's), (31, 6651), (54, 6741), (82, 6858), (86, 6885),

Gene: Windest_11 Start: 7352, Stop: 7708, Start Num: 18

Candidate Starts for Windest_11:

(Start: 18 @7352 has 99 MA's), (40, 7451), (42, 7457), (56, 7523), (85, 7652), (88, 7667), (91, 7694),

Gene: WinkNick_9 Start: 6592, Stop: 6975, Start Num: 19

Candidate Starts for WinkNick_9:

(Start: 19 @6592 has 15 MA's), (28, 6637), (31, 6652), (35, 6670), (38, 6679), (51, 6748), (56, 6772), (69, 6829),

Gene: Wishmaker_11 Start: 7983, Stop: 8435, Start Num: 16

Candidate Starts for Wishmaker_11:

(Start: 16 @7983 has 23 MA's), (Start: 18 @7992 has 99 MA's), (23, 8010), (26, 8028), (28, 8040), (32, 8058), (34, 8070), (36, 8076), (51, 8151), (53, 8163), (61, 8190), (64, 8208), (75, 8265), (80, 8283), (81, 8286), (87, 8316), (92, 8355), (93, 8376), (94, 8403), (95, 8427),

Gene: Wisp_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Wisp_8:

(9, 6483), (Start: 13 @6567 has 42 MA's), (45, 6702), (53, 6741), (64, 6795), (70, 6825), (80, 6870), (82, 6876), (88, 6909),

Gene: Wocket_8 Start: 6632, Stop: 7024, Start Num: 13

Candidate Starts for Wocket_8:

(9, 6548), (Start: 13 @6632 has 42 MA's), (21, 6662), (25, 6680), (45, 6767), (53, 6806), (59, 6830), (64, 6860), (70, 6890), (80, 6935), (82, 6941), (88, 6974),

Gene: Xavia_8 Start: 6594, Stop: 6956, Start Num: 18

Candidate Starts for Xavia_8:

(Start: 18 @6594 has 99 MA's), (31, 6663), (54, 6753), (82, 6870), (86, 6897),

Gene: Yeet412_8 Start: 6128, Stop: 6511, Start Num: 18

Candidate Starts for Yeet412_8:

(Start: 18 @6128 has 99 MA's), (38, 6215), (53, 6296), (56, 6308), (66, 6350), (69, 6365), (86, 6443),

Gene: Yeezy_8 Start: 6274, Stop: 6645, Start Num: 18

Candidate Starts for Yeezy_8:

(Start: 18 @6274 has 99 MA's), (38, 6361), (53, 6445), (56, 6457), (57, 6460), (63, 6484), (69, 6514), (83, 6571), (84, 6577), (86, 6592), (88, 6601),

Gene: YoungHarleezy_10 Start: 7377, Stop: 7664, Start Num: 33

Candidate Starts for YoungHarleezy_10:

(Start: 18 @7308 has 99 MA's), (33, 7377), (40, 7407), (42, 7413), (54, 7470), (56, 7479), (85, 7608), (91, 7650),

Gene: Zarbodnamra_8 Start: 6566, Stop: 6958, Start Num: 13

Candidate Starts for Zarbodnamra_8:

(9, 6482), (Start: 13 @6566 has 42 MA's), (25, 6614), (45, 6701), (53, 6740), (64, 6794), (70, 6824), (80, 6869), (82, 6875), (88, 6908),

Gene: ZenTime222_10 Start: 8271, Stop: 8714, Start Num: 12

Candidate Starts for ZenTime222_10:

(3, 8115), (5, 8133), (6, 8211), (Start: 12 @8271 has 7 MA's), (57, 8457), (58, 8460), (62, 8472), (66, 8490), (70, 8511), (71, 8520), (77, 8541), (78, 8550),

Gene: ZiggyZoo_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for ZiggyZoo_8:

(9, 6507), (Start: 13 @6591 has 42 MA's), (25, 6639), (45, 6726), (53, 6765), (64, 6819), (70, 6849), (80, 6894), (82, 6900), (88, 6933),

Gene: Zilizebeth_8 Start: 6592, Stop: 6954, Start Num: 18

Candidate Starts for Zilizebeth_8:

(Start: 18 @6592 has 99 MA's), (31, 6661), (54, 6751), (82, 6868), (86, 6895),