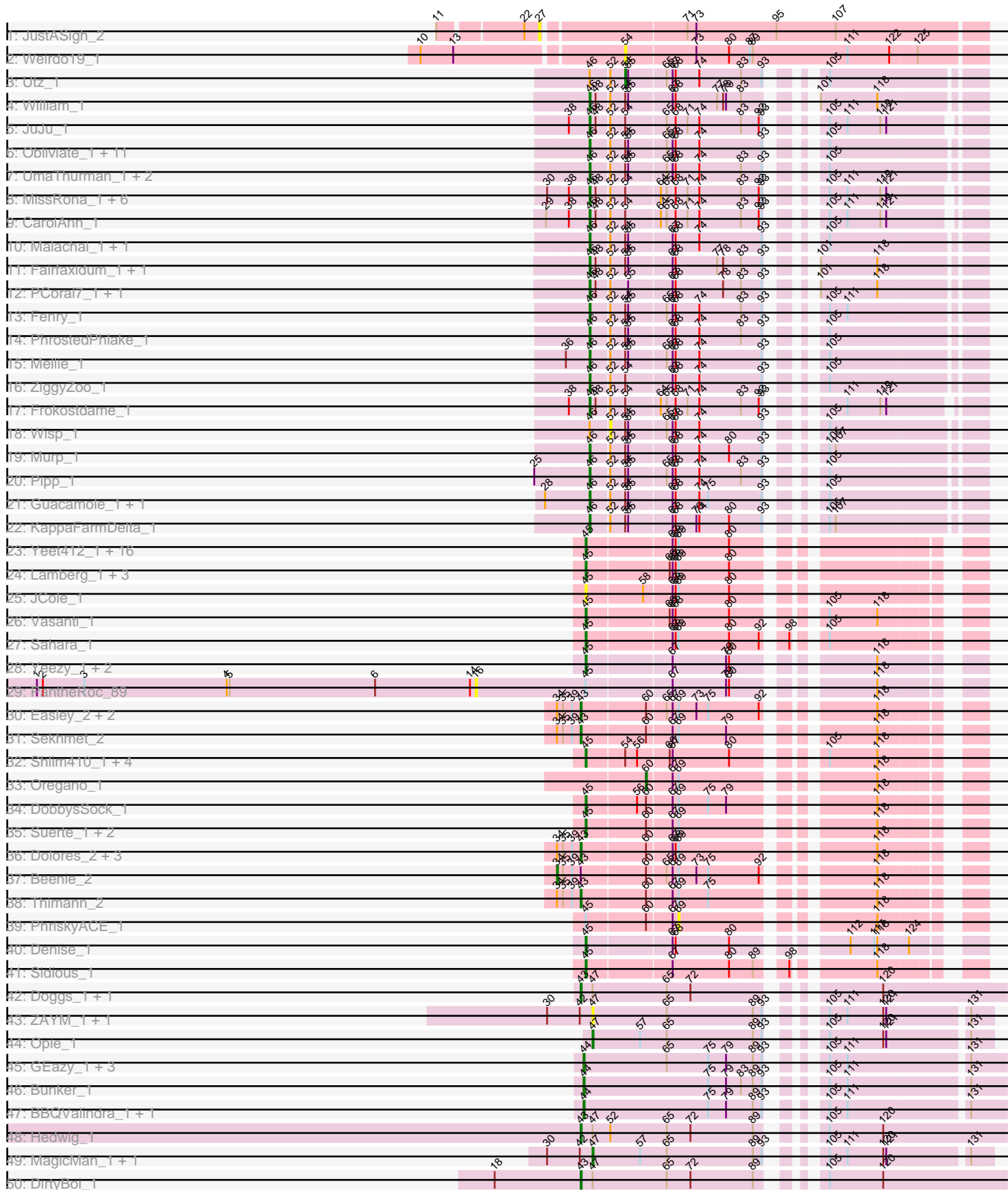
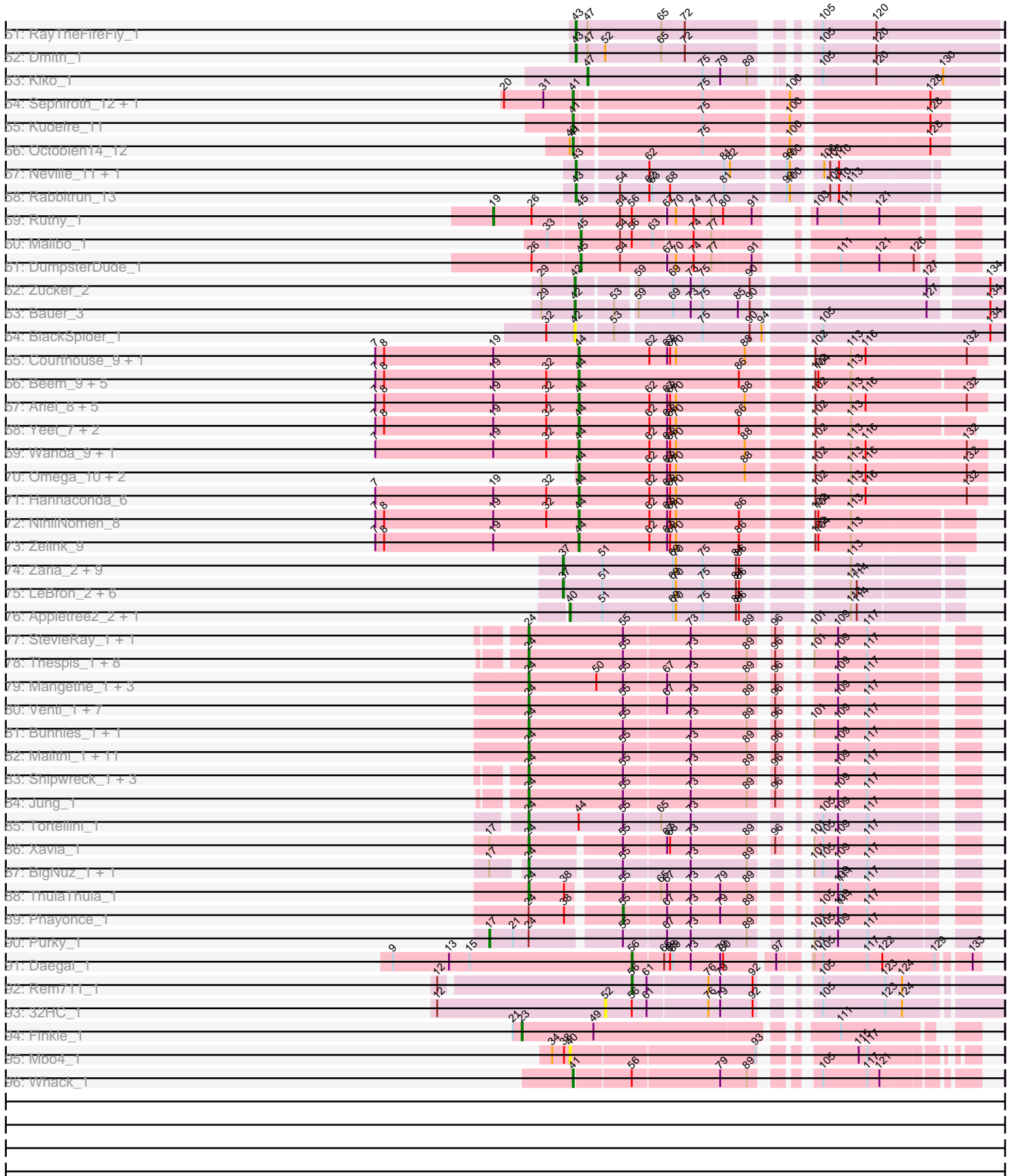


Pham 157563



Pham 157563



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 157563 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157563 has 227 members, 21 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_2
- Track 2 : Weirdo19_1
- Track 3 : Utz_1
- Track 4 : William_1
- Track 5 : JuJu_1
- Track 6 : Obliviate_1, MintFen_1, CaptainKirk2_1, Barco_1, Lysidious_1, Archis_1, Jalammah_1, Samba_1, BlingBling_1, Hitter_1, Melba_1, Delian_1
- Track 7 : UmaThurman_1, Wocket_1, Zarbodnamra_1
- Track 8 : MissRona_1, Walrus_1, Azula_1, Blueberry_1, Petra_1, Gambino_1, Blino_1
- Track 9 : CarolAnn_1
- Track 10 : Malachai_1, Begonia_1
- Track 11 : Fairfaxidum_1, PrincePatrick_1
- Track 12 : PCoral7_1, Toast_1
- Track 13 : Fenry_1
- Track 14 : PhrostedPhlake_1
- Track 15 : Mellie_1
- Track 16 : ZiggyZoo_1
- Track 17 : Frokostdame_1
- Track 18 : Wisp_1
- Track 19 : Murp_1
- Track 20 : Pipp_1
- Track 21 : Guacamole_1, JasperJr_1
- Track 22 : KappaFarmDelta_1
- Track 23 : Yeet412_1, LordFarquaad_1, Cynthia_1, Clap_1, GemG_1, Whiteclaw_1, Attis_1, Gizermo_1, SoilAssassin_1, Mocha12_1, Ebert_1, Savage_1, Matteo_1, Bjanes7_1, Sproutie_1, Haley23_1, TuertoX_1
- Track 24 : Lamberg_1, EdnaMode_1, Nettuno_1, Pickett_1
- Track 25 : JCole_1
- Track 26 : Vasanti_1
- Track 27 : Sahara_1
- Track 28 : Yeezy_1, BaxterFox_1, Ohgeesy_1
- Track 29 : PantheRoc_89
- Track 30 : Easley_2, Clark_2, MichaelScott_2
- Track 31 : Sekhmet_2
- Track 32 : Shlim410_1, Adora_1, Hortense_1, Howe_1, Twinkle_1
- Track 33 : Oregano_1

- Track 34 : DobbysSock_1
- Track 35 : Suerte_1, Powerball_1, Dorito_1
- Track 36 : Dolores_2, Samman98_2, Annalisa_2, WinkNick_2
- Track 37 : Beenie_2
- Track 38 : Thimann_2
- Track 39 : PhriskyACE_1
- Track 40 : Denise_1
- Track 41 : Sidious_1
- Track 42 : Doggs_1, Coriander_1
- Track 43 : ZAYM_1, TaronosaurusRx_1
- Track 44 : Opie_1
- Track 45 : GEazy_1, Bowser_1, Eyes_1, HannahD_1
- Track 46 : Bunker_1
- Track 47 : BBQValindra_1, BackstagePass_1
- Track 48 : Hedwig_1
- Track 49 : MagicMan_1, Schnabeltier_1
- Track 50 : DirtyBoi_1
- Track 51 : RayTheFireFly_1
- Track 52 : Dmitri_1
- Track 53 : Kiko_1
- Track 54 : Sephiroth_12, Syleon_12
- Track 55 : Kudrefre_11
- Track 56 : Octobien14_12
- Track 57 : Neville_11, Trax_11
- Track 58 : Rabbitrun_13
- Track 59 : Ruthy_1
- Track 60 : Malibo_1
- Track 61 : DumpsterDude_1
- Track 62 : Zucker_2
- Track 63 : Bauer_3
- Track 64 : BlackSpider_1
- Track 65 : Courthouse_9, Superphikiman_9
- Track 66 : Beem_9, Halley_9, Dallas_8, Redno2_8, Ejimix_10, JuicyJay_10
- Track 67 : Ariel_8, Porcelain_9, MiaZeal_9, Bobby_10, Lucky2013_9, Squint_9
- Track 68 : Yeet_7, Pound_8, Schatzie_7
- Track 69 : Wanda_9, Klein_9
- Track 70 : Omega_10, KashFlow_3, LittleE_8
- Track 71 : Hannaconda_6
- Track 72 : NihilNomen_8
- Track 73 : Zelink_9
- Track 74 : Zaria_2, AvadaKedavra_2, Wamburggrxpress_2, Wyatt2_2, Rose5_2, Acquire49_2, Calm_2, Tyson_2, MAckerman_2, Halena_2
- Track 75 : LeBron_2, JoeDirt_2, UPIE_2, Enceladus_2, DirkDirk_2, CicholasNage_2, Silverleaf_2
- Track 76 : Appletree2_2, OhShagHennessy_2
- Track 77 : StevieRay_1, Atcoo_1
- Track 78 : Thespiis_1, Glaske_1, Brusacorram_1, Phalm_1, Megiddo_1, KilKor_1, StressBall_1, Willsammy_1, CactusJack_1
- Track 79 : Mangethe_1, Majeke_1, Arib1_1, Phegasus_1
- Track 80 : Venti_1, Donovan_1, HUHilltop_1, Bartholomew_1, Sonah_1, Techage_1, Juniormint_1, Jebeks_1
- Track 81 : Bunnies_1, Ksquared_1

- Track 82 : Malithi_1, Camster_1, Polkaroo_1, FirstPlacePfu_1, Necropolis_1, Dynamo_1, GreaseLightnin_1, Kari_1, Zilizebeth_1, Fishburne_1, Langerak_1, Vidya_1
- Track 83 : Shipwreck_1, Pygmy_1, Phineas_1, Bogie_1
- Track 84 : Jung_1
- Track 85 : Tortellini_1
- Track 86 : Xavia_1
- Track 87 : BigNuz_1, Nazo_1
- Track 88 : ThulaThula_1
- Track 89 : Phayonce_1
- Track 90 : Purky_1
- Track 91 : Daegal_1
- Track 92 : Rem711_1
- Track 93 : 32HC_1
- Track 94 : Finkle_1
- Track 95 : Mbo4_1
- Track 96 : Whack_1

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

The start number called the most often in the published annotations is 24, it was called in 43 of the 206 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_1, Atcoo_1, Bartholomew_1, BigNuz_1, Bogie_1, Brusacoram_1, Bunnies_1, CactusJack_1, Camster_1, Donovan_1, Dynamo_1, FirstPlacePfu_1, Fishburne_1, Glaske_1, GreaseLightnin_1, HUHilltop_1, Jebeks_1, Jung_1, Juniormint_1, Kari_1, KilKor_1, Ksquared_1, Langerak_1, Majeke_1, Malithi_1, Mangethe_1, Megiddo_1, Nazo_1, Necropolis_1, Phalm_1, Phegasus_1, Phineas_1, Polkaroo_1, Pygmy_1, Shipwreck_1, Sonah_1, StevieRay_1, StressBall_1, Techage_1, Thespis_1, ThulaThula_1, Tortellini_1, Venti_1, Vidya_1, Willsammy_1, Xavia_1, Zilizebeth_1,

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

- Phayonce_1, Purky_1,

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

- 32HC_1, Acquire49_2, Adora_1, Annalisa_2, Appletree2_2, Archis_1, Ariel_8, Attis_1, AvadaKedavra_2, Azula_1, BBQValindra_1, BackstagePass_1, Barco_1, Bauer_3, BaxterFox_1, Beem_9, Beenie_2, Begonia_1, Bjanes7_1, BlackSpider_1, BlingBling_1, Blino_1, Blueberry_1, Bobby_10, Bowser_1, Bunker_1, Calm_2, CaptainKirk2_1, CarolAnn_1, CicholasNage_2, Clap_1, Clark_2, Coriander_1, Courthouse_9, Cynthia_1, Daegal_1, Dallas_8, Delian_1, Denise_1, DirkDirk_2, DirtyBoi_1, Dmitri_1, DobbysSock_1, Doggs_1, Dolores_2, Dorito_1, DumpsterDude_1, Easley_2, Ebert_1, EdnaMode_1, Ejimix_10, Enceladus_2, Eyes_1, Fairfaxidum_1, Fenry_1, Finkle_1, Frokostdame_1, GEazy_1, Gambino_1, GemG_1, Gizermo_1, Guacamole_1, Halena_2, Haley23_1, Halley_9, Hannaconda_6, HannahD_1, Hedwig_1, Hitter_1, Hortense_1, Howe_1, JCole_1, Jalammah_1, JasperJr_1, JoeDirt_2, JuJu_1, JuicyJay_10, JustASigh_2, KappaFarmDelta_1, KashFlow_3, Kiko_1, Klein_9, Kudrefre_11, Lamberg_1, LeBron_2, LittleE_8, LordFarquaad_1, Lucky2013_9, Lysidious_1, MAckerman_2,

MagicMan_1, Malachai_1, Malibo_1, Matteo_1, Mbo4_1, Melba_1, Mellie_1, MiaZeal_9, MichaelScott_2, MintFen_1, MissRona_1, Mocha12_1, Murp_1, Nettuno_1, Neville_11, NihilNomen_8, Obliviate_1, Octobien14_12, OhShagHennessy_2, Ohgeesy_1, Omega_10, Opie_1, Oregano_1, PCoral7_1, PantheRoc_89, Petra_1, PhriskyACE_1, PhrostedPhlake_1, Pickett_1, Pipp_1, Porcelain_9, Pound_8, Powerball_1, PrincePatrick_1, Rabbitrun_13, RayTheFireFly_1, Redno2_8, Rem711_1, Rose5_2, Ruthy_1, Sahara_1, Samba_1, Samman98_2, Savage_1, Schatzie_7, Schnabeltier_1, Sekhmet_2, Sephiroth_12, Shlim410_1, Sidious_1, Silverleaf_2, SoilAssassin_1, Sproutie_1, Squint_9, Suerte_1, Superphikiman_9, Syleon_12, TaronosaurusRx_1, Thimann_2, Toast_1, Trax_11, TuertoX_1, Twinkle_1, Tyson_2, UPIE_2, UmaThurman_1, Utz_1, Vasanti_1, Walrus_1, Wamburgxpress_2, Wanda_9, Weirdo19_1, Whack_1, Whiteclaw_1, William_1, WinkNick_2, Wisp_1, Wocket_1, Wyatt2_2, Yeet412_1, Yeet_7, Yeezy_1, ZAYM_1, Zarbodnamra_1, Zaria_2, Zelink_9, ZiggyZoo_1, Zucker_2,

Summary by start number:

Start 16:

- Found in 1 of 227 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PantheRoc_89 (CZ3),

Start 17:

- Found in 4 of 227 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Purky_1 (P6),

Start 19:

- Found in 23 of 227 (10.1%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Ruthy_1 (DW),

Start 23:

- Found in 1 of 227 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_1 (singleton),

Start 24:

- Found in 49 of 227 (21.6%) of genes in pham
- Manual Annotations of this start: 43 of 206
- Called 95.9% of time when present
- Phage (with cluster) where this start called: Arib1_1 (P1), Atcoo_1 (P1), Bartholomew_1 (P1), BigNuz_1 (P4), Bogie_1 (P1), Brusacoram_1 (P1), Bunnies_1 (P1), CactusJack_1 (P1), Camster_1 (P1), Donovan_1 (P1), Dynamo_1 (P1), FirstPlacePfu_1 (P1), Fishburne_1 (P1), Glaske_1 (P1), GreaseLightnin_1 (P1), HUHilltop_1 (P1), Jebeks_1 (P1), Jung_1 (P1), Juniormint_1 (P1), Kari_1 (P1), KilKor_1 (P1), Ksquared_1 (P1), Langerak_1 (P1), Majeke_1 (P1), Malithi_1 (P1), Mangethe_1 (P1), Megiddo_1 (P1), Nazo_1 (P4), Necropolis_1 (P1), Phalm_1 (P1),

Phegasus_1 (P1), Phineas_1 (P1), Polkaroo_1 (P1), Pygmy_1 (P1), Shipwreck_1 (P1), Sonah_1 (P1), StevieRay_1 (P1), StressBall_1 (P1), Techage_1 (P1), Thespis_1 (P1), ThulaThula_1 (P5), Tortellini_1 (P2), Venti_1 (P1), Vidya_1 (P1), Willsammy_1 (P1), Xavia_1 (P3), Zilizebeth_1 (P1),

Start 27:

- Found in 1 of 227 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_2 (AH),

Start 34:

- Found in 11 of 227 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Beenie_2 (CZ4),

Start 37:

- Found in 17 of 227 (7.5%) of genes in pham
- Manual Annotations of this start: 16 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_2 (L1), AvadaKedavra_2 (L1), Calm_2 (L1), CicholasNage_2 (L1), DirkDirk_2 (L1), Enceladus_2 (L1), Halena_2 (L1), JoeDirt_2 (L1), LeBron_2 (L1), MAckerman_2 (L1), Rose5_2 (L1), Silverleaf_2 (L1), Tyson_2 (L1), UPIE_2 (L1), Wamburgrxpress_2 (L1), Wyatt2_2 (L1), Zaria_2 (L1),

Start 40:

- Found in 4 of 227 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 206
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Appletree2_2 (L1), Mbo4_1 (singleton), OhShagHennessy_2 (L1),

Start 41:

- Found in 5 of 227 (2.2%) of genes in pham
- Manual Annotations of this start: 5 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_11 (DU1), Octobien14_12 (DU1), Sephiroth_12 (DU1), Syleon_12 (DU1), Whack_1 (singleton),

Start 42:

- Found in 7 of 227 (3.1%) of genes in pham
- Manual Annotations of this start: 2 of 206
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Bauer_3 (FN), BlackSpider_1 (FN), Zucker_2 (FN),

Start 43:

- Found in 19 of 227 (8.4%) of genes in pham
- Manual Annotations of this start: 16 of 206
- Called 94.7% of time when present

- Phage (with cluster) where this start called: Annalisa_2 (CZ4), Clark_2 (CZ4), Coriander_1 (DB), DirtyBoi_1 (DB), Dmitri_1 (DB), Doggs_1 (DB), Dolores_2 (CZ4), Easley_2 (CZ4), Hedwig_1 (DB), MichaelScott_2 (CZ4), Neville_11 (DU2), Rabbitrun_13 (DU2), RayTheFireFly_1 (DB), Samman98_2 (CZ4), Sekhmet_2 (CZ4), Thimann_2 (CZ4), Trax_11 (DU2), WinkNick_2 (CZ4),

Start 44:

- Found in 33 of 227 (14.5%) of genes in pham
- Manual Annotations of this start: 31 of 206
- Called 97.0% of time when present
- Phage (with cluster) where this start called: Ariel_8 (J), BBQValindra_1 (DB), BackstagePass_1 (DB), Beem_9 (J), Bobby_10 (J), Bowser_1 (DB), Bunker_1 (DB), Courthouse_9 (J), Dallas_8 (J), Ejimix_10 (J), Eyes_1 (DB), GEazy_1 (DB), Halley_9 (J), Hannaconda_6 (J), HannahD_1 (DB), JuicyJay_10 (J), KashFlow_3 (J), Klein_9 (J), LittleE_8 (J), Lucky2013_9 (J), MiaZeal_9 (J), NihilNomen_8 (J), Omega_10 (J), Porcelain_9 (J), Pound_8 (J), Redno2_8 (J), Schatzie_7 (J), Squint_9 (J), Superphikiman_9 (J), Wanda_9 (J), Yeet_7 (J), Zelink_9 (J),

Start 45:

- Found in 43 of 227 (18.9%) of genes in pham
- Manual Annotations of this start: 38 of 206
- Called 93.0% of time when present
- Phage (with cluster) where this start called: Adora_1 (CZ4), Attis_1 (CZ2), BaxterFox_1 (CZ3), Bjaness7_1 (CZ2), Clap_1 (CZ2), Cynthia_1 (CZ2), Denise_1 (CZ5), DobbysSock_1 (CZ4), Dorito_1 (CZ4), DumpsterDude_1 (DW), Ebert_1 (CZ2), EdnaMode_1 (CZ2), GemG_1 (CZ2), Gizermo_1 (CZ2), Haley23_1 (CZ2), Hortense_1 (CZ4), Howe_1 (CZ4), JCole_1 (CZ2), Lamberg_1 (CZ2), LordFarquaad_1 (CZ2), Malibo_1 (DW), Matteo_1 (CZ2), Mocha12_1 (CZ2), Nettuno_1 (CZ2), Ohgeesy_1 (CZ), Pickett_1 (CZ2), Powerball_1 (CZ4), Sahara_1 (CZ2), Savage_1 (CZ2), Shlim410_1 (CZ4), Sidious_1 (CZ7), SoilAssassin_1 (CZ2), Sproutie_1 (CZ2), Suerte_1 (CZ4), TuertoX_1 (CZ2), Twinkle_1 (CZ4), Vasanti_1 (CZ2), Whiteclaw_1 (CZ2), Yeet412_1 (CZ2), Yeezy_1 (CZ3),

Start 46:

- Found in 43 of 227 (18.9%) of genes in pham
- Manual Annotations of this start: 40 of 206
- Called 95.3% of time when present
- Phage (with cluster) where this start called: Archis_1 (CV), Azula_1 (CV), Barco_1 (CV), Begonia_1 (CV), BlingBling_1 (CV), Blino_1 (CV), Blueberry_1 (CV), CaptainKirk2_1 (CV), CarolAnn_1 (CV), Delian_1 (CV), Fairfaxidum_1 (CV), Fenry_1 (CV), Frokostdame_1 (CV), Gambino_1 (CV), Guacamole_1 (CV), Hitter_1 (CV), Jalammah_1 (CV), JasperJr_1 (CV), JuJu_1 (CV), KappaFarmDelta_1 (CV), Lysidious_1 (CV), Malachai_1 (CV), Melba_1 (CV), Mellie_1 (CV), MintFen_1 (CV), MissRona_1 (CV), Murp_1 (CV), Obliviate_1 (CV), PCoral7_1 (CV), Petra_1 (CV), PhrostedPhlake_1 (CV), Pipp_1 (CV), PrincePatrick_1 (CV), Samba_1 (CV), Toast_1 (CV), UmaThurman_1 (CV), Walrus_1 (CV), William_1 (CV), Wocket_1 (CV), Zarbodnamra_1 (CV), ZiggyZoo_1 (CV),

Start 47:

- Found in 12 of 227 (5.3%) of genes in pham
- Manual Annotations of this start: 4 of 206
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Kiko_1 (DB), MagicMan_1 (DB), Opie_1 (DB), Schnabeltier_1 (DB), TaronosaurusRx_1 (DB), ZAYM_1 (DB),

Start 52:

- Found in 46 of 227 (20.3%) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: 32HC_1 (Z), Wisp_1 (CV),

Start 54:

- Found in 51 of 227 (22.5%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 3.9% of time when present
- Phage (with cluster) where this start called: Utz_1 (CV), Weirido19_1 (AH),

Start 55:

- Found in 81 of 227 (35.7%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Phayonce_1 (P5),

Start 56:

- Found in 12 of 227 (5.3%) of genes in pham
- Manual Annotations of this start: 2 of 206
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Daegal_1 (Q), Rem711_1 (Z),

Start 60:

- Found in 16 of 227 (7.0%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Oregano_1 (CZ4),

Start 69:

- Found in 61 of 227 (26.9%) of genes in pham
- No Manual Annotations of this start.
- Called 1.6% of time when present
- Phage (with cluster) where this start called: PhriskyACE_1 (CZ4),

Summary by clusters:

There are 24 clusters represented in this pham: singleton, CZ2, CZ3, DB, CZ7, CZ4, CZ5, DW, FN, DU1, DU2, P2, P3, P1, P6, P4, P5, AH, J, Q, CZ, L1, Z, CV,

Info for manual annotations of cluster CV:

- Start number 46 was manually annotated 40 times for cluster CV.
- Start number 54 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ:

- Start number 45 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 45 was manually annotated 22 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 45 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 34 was manually annotated 1 time for cluster CZ4.
- Start number 43 was manually annotated 8 times for cluster CZ4.
- Start number 45 was manually annotated 9 times for cluster CZ4.
- Start number 60 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 45 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ7:

- Start number 45 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DB:

- Start number 43 was manually annotated 5 times for cluster DB.
- Start number 44 was manually annotated 6 times for cluster DB.
- Start number 47 was manually annotated 4 times for cluster DB.

Info for manual annotations of cluster DU1:

- Start number 41 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 43 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster DW:

- Start number 19 was manually annotated 1 time for cluster DW.
- Start number 45 was manually annotated 2 times for cluster DW.

Info for manual annotations of cluster FN:

- Start number 42 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster J:

- Start number 44 was manually annotated 25 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 37 was manually annotated 16 times for cluster L1.
- Start number 40 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster P1:

- Start number 24 was manually annotated 38 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 24 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 24 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 24 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 24 was manually annotated 1 time for cluster P5.
- Start number 55 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 17 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

- Start number 56 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster Z:

- Start number 56 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_1 Start: 209, Stop: 550, Start Num: 52

Candidate Starts for 32HC_1:

(12, 38), (52, 209), (Start: 56 @236 has 2 MA's), (61, 251), (76, 311), (79, 323), (92, 356), (105, 383), (123, 446), (124, 461),

Gene: Acquire49_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Acquire49_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Adora_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Adora_1:

(Start: 45 @14 has 38 MA's), (Start: 54 @50 has 1 MA's), (Start: 56 @62 has 2 MA's), (66, 92), (67, 95), (80, 152), (105, 215), (118, 263),

Gene: Annalisa_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Annalisa_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (68, 600), (69, 603), (118, 765),

Gene: Appletree2_2 Start: 456, Stop: 821, Start Num: 40

Candidate Starts for Appletree2_2:

(Start: 40 @456 has 2 MA's), (51, 486), (69, 558), (70, 561), (75, 588), (84, 621), (86, 624), (113, 717), (114, 723),

Gene: Archis_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Archis_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Arib1_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Arib1_1:

(Start: 24 @55 has 43 MA's), (50, 124), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Ariel_8 Start: 2563, Stop: 2952, Start Num: 44

Candidate Starts for Ariel_8:

(7, 2356), (8, 2365), (Start: 19 @2476 has 1 MA's), (32, 2530), (Start: 44 @2563 has 31 MA's), (62, 2632), (67, 2650), (68, 2653), (70, 2659), (88, 2728), (102, 2782), (113, 2818), (116, 2833), (132, 2932),

Gene: Atcoo_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Atcoo_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (101, 286), (109, 310), (117, 340),

Gene: Attis_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Attis_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: AvadaKedavra_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for AvadaKedavra_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Azula_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Azula_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: BBQValindra_1 Start: 176, Stop: 550, Start Num: 44

Candidate Starts for BBQValindra_1:

(Start: 44 @176 has 31 MA's), (75, 302), (79, 320), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: BackstagePass_1 Start: 149, Stop: 523, Start Num: 44

Candidate Starts for BackstagePass_1:

(Start: 44 @149 has 31 MA's), (75, 275), (79, 293), (89, 320), (93, 329), (105, 356), (111, 374), (131, 488),

Gene: Barco_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Barco_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Bartholomew_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Bartholomew_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Bauer_3 Start: 1082, Stop: 1468, Start Num: 42

Candidate Starts for Bauer_3:

(29, 1049), (Start: 42 @1082 has 2 MA's), (53, 1115), (59, 1133), (69, 1166), (73, 1184), (75, 1196), (85, 1232), (90, 1244), (127, 1403), (134, 1454),

Gene: BaxterFox_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for BaxterFox_1:

(Start: 45 @14 has 38 MA's), (67, 95), (79, 149), (80, 152), (118, 263),

Gene: Beem_9 Start: 2758, Stop: 3132, Start Num: 44

Candidate Starts for Beem_9:

(7, 2551), (8, 2560), (Start: 19 @2671 has 1 MA's), (32, 2725), (Start: 44 @2758 has 31 MA's), (86, 2917), (102, 2977), (104, 2980), (113, 3013),

Gene: Beenie_2 Start: 486, Stop: 848, Start Num: 34

Candidate Starts for Beenie_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (65, 591), (67, 597), (69, 603), (73, 621), (75, 633), (92, 684), (118, 765),

Gene: Begonia_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Begonia_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: BigNuz_1 Start: 43, Stop: 423, Start Num: 24

Candidate Starts for BigNuz_1:

(Start: 17 @16 has 1 MA's), (Start: 24 @43 has 43 MA's), (Start: 55 @130 has 1 MA's), (73, 196), (89, 253), (101, 277), (105, 286), (109, 301), (117, 331),

Gene: Bjaner7_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Bjaner7_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: BlackSpider_1 Start: 71, Stop: 478, Start Num: 42

Candidate Starts for BlackSpider_1:

(32, 44), (Start: 42 @71 has 2 MA's), (53, 104), (75, 185), (90, 233), (94, 245), (105, 296), (134, 464),

Gene: BlingBling_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for BlingBling_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Blino_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Blino_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: Blueberry_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Blueberry_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: Bobby_10 Start: 3493, Stop: 3882, Start Num: 44

Candidate Starts for Bobby_10:

(7, 3286), (8, 3295), (Start: 19 @3406 has 1 MA's), (32, 3460), (Start: 44 @3493 has 31 MA's), (62, 3562), (67, 3580), (68, 3583), (70, 3589), (88, 3658), (102, 3712), (113, 3748), (116, 3763), (132, 3862),

Gene: Bogie_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Bogie_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (109, 310), (117, 340),

Gene: Bowser_1 Start: 176, Stop: 550, Start Num: 44

Candidate Starts for Bowser_1:

(Start: 44 @176 has 31 MA's), (65, 260), (75, 302), (79, 320), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: Brusacoram_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for Brusacoram_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Bunker_1 Start: 176, Stop: 550, Start Num: 44

Candidate Starts for Bunker_1:

(Start: 44 @176 has 31 MA's), (75, 302), (79, 320), (83, 335), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: Bunnies_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Bunnies_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (101, 298), (109, 322), (117, 352),

Gene: CactusJack_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for CactusJack_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Calm_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Calm_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Camster_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Camster_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: CaptainKirk2_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for CaptainKirk2_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: CarolAnn_1 Start: 56, Stop: 391, Start Num: 46

Candidate Starts for CarolAnn_1:

(29, 14), (38, 35), (Start: 46 @56 has 40 MA's), (48, 62), (52, 74), (Start: 54 @89 has 1 MA's), (64, 122), (65, 128), (68, 137), (71, 149), (74, 161), (83, 203), (92, 221), (93, 224), (105, 251), (111, 269), (119, 302), (121, 308),

Gene: CicholasNage_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for CicholasNage_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: Clap_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Clap_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Clark_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Clark_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (65, 591), (67, 597), (69, 603), (73, 621), (75, 633), (92, 684), (118, 765),

Gene: Coriander_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for Coriander_1:

(Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (65, 315), (72, 339), (120, 492),

Gene: Courthouse_9 Start: 3362, Stop: 3751, Start Num: 44

Candidate Starts for Courthouse_9:

(7, 3155), (8, 3164), (Start: 19 @3275 has 1 MA's), (Start: 44 @3362 has 31 MA's), (62, 3431), (67, 3449), (68, 3452), (70, 3458), (88, 3527), (102, 3581), (113, 3617), (116, 3632), (132, 3731),

Gene: Cynthia_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Cynthia_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Daegal_1 Start: 257, Stop: 571, Start Num: 56

Candidate Starts for Daegal_1:

(9, 14), (13, 71), (15, 92), (Start: 56 @257 has 2 MA's), (66, 287), (68, 293), (69, 296), (73, 314), (79, 344), (80, 347), (97, 392), (101, 416), (105, 425), (117, 470), (122, 485), (129, 536), (133, 563),

Gene: Dallas_8 Start: 2297, Stop: 2671, Start Num: 44

Candidate Starts for Dallas_8:

(7, 2090), (8, 2099), (Start: 19 @2210 has 1 MA's), (32, 2264), (Start: 44 @2297 has 31 MA's), (86, 2456), (102, 2516), (104, 2519), (113, 2552),

Gene: Delian_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Delian_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Denise_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Denise_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (80, 152), (112, 236), (117, 260), (118, 263), (124, 293),

Gene: DirkDirk_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for DirkDirk_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: DirtyBoi_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for DirtyBoi_1:

(18, 141), (Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (65, 315), (72, 339), (89, 402), (105, 438), (120, 492),

Gene: Dmitri_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for Dmitri_1:

(Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (52, 258), (65, 315), (72, 339), (105, 438), (120, 492),

Gene: DobbysSock_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for DobbysSock_1:

(Start: 45 @14 has 38 MA's), (Start: 56 @62 has 2 MA's), (Start: 60 @71 has 1 MA's), (67, 95), (69, 101), (75, 131), (79, 149), (118, 263),

Gene: Doggs_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for Doggs_1:

(Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (65, 315), (72, 339), (120, 492),

Gene: Dolores_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Dolores_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (68, 600), (69, 603), (118, 765),

Gene: Donovan_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Donovan_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Dorito_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Dorito_1:

(Start: 45 @14 has 38 MA's), (Start: 60 @71 has 1 MA's), (67, 95), (69, 101), (118, 263),

Gene: DumpsterDude_1 Start: 127, Stop: 453, Start Num: 45

Candidate Starts for DumpsterDude_1:

(26, 82), (Start: 45 @127 has 38 MA's), (Start: 54 @166 has 1 MA's), (67, 211), (70, 220), (74, 238), (77, 256), (91, 295), (111, 340), (121, 379), (126, 412),

Gene: Dynamo_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Dynamo_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Easley_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Easley_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (65, 591), (67, 597), (69, 603), (73, 621), (75, 633), (92, 684), (118, 765),

Gene: Ebert_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Ebert_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: EdnaMode_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for EdnaMode_1:

(Start: 45 @14 has 38 MA's), (66, 92), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Ejimix_10 Start: 3508, Stop: 3882, Start Num: 44

Candidate Starts for Ejimix_10:

(7, 3301), (8, 3310), (Start: 19 @3421 has 1 MA's), (32, 3475), (Start: 44 @3508 has 31 MA's), (86, 3667), (102, 3727), (104, 3730), (113, 3763),

Gene: Enceladus_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for Enceladus_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: Eyes_1 Start: 176, Stop: 550, Start Num: 44

Candidate Starts for Eyes_1:

(Start: 44 @176 has 31 MA's), (65, 260), (75, 302), (79, 320), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: Fairfaxidum_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Fairfaxidum_1:

(Start: 46 @56 has 40 MA's), (48, 62), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (77, 179), (78, 185), (83, 203), (93, 224), (101, 242), (118, 299),

Gene: Fenry_1 Start: 57, Stop: 398, Start Num: 46

Candidate Starts for Fenry_1:

(Start: 46 @57 has 40 MA's), (52, 75), (Start: 54 @90 has 1 MA's), (Start: 55 @93 has 1 MA's), (65, 129), (67, 135), (68, 138), (74, 162), (83, 204), (93, 225), (105, 252), (111, 270),

Gene: Finkle_1 Start: 10, Stop: 411, Start Num: 23

Candidate Starts for Finkle_1:

(21, 1), (Start: 23 @10 has 1 MA's), (49, 82), (111, 298),

Gene: FirstPlacePfu_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for FirstPlacePfu_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Fishburne_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Fishburne_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Frokostdame_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Frokostdame_1:

(38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (111, 270), (119, 303), (121, 309),

Gene: GEazy_1 Start: 176, Stop: 550, Start Num: 44

Candidate Starts for GEazy_1:

(Start: 44 @176 has 31 MA's), (65, 260), (75, 302), (79, 320), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: Gambino_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Gambino_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: GemG_1 Start: 14, Stop: 346, Start Num: 45
Candidate Starts for GemG_1:
(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Gizermo_1 Start: 14, Stop: 346, Start Num: 45
Candidate Starts for Gizermo_1:
(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Glaske_1 Start: 42, Stop: 431, Start Num: 24
Candidate Starts for Glaske_1:
(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: GreaseLightnin_1 Start: 55, Stop: 444, Start Num: 24
Candidate Starts for GreaseLightnin_1:
(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Guacamole_1 Start: 57, Stop: 398, Start Num: 46
Candidate Starts for Guacamole_1:
(28, 12), (Start: 46 @57 has 40 MA's), (52, 75), (Start: 54 @90 has 1 MA's), (Start: 55 @93 has 1 MA's), (67, 135), (68, 138), (74, 162), (75, 171), (93, 225), (105, 252),

Gene: HUHilltop_1 Start: 55, Stop: 444, Start Num: 24
Candidate Starts for HUHilltop_1:
(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Halena_2 Start: 474, Stop: 848, Start Num: 37
Candidate Starts for Halena_2:
(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Haley23_1 Start: 14, Stop: 346, Start Num: 45
Candidate Starts for Haley23_1:
(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Halley_9 Start: 2758, Stop: 3132, Start Num: 44
Candidate Starts for Halley_9:
(7, 2551), (8, 2560), (Start: 19 @2671 has 1 MA's), (32, 2725), (Start: 44 @2758 has 31 MA's), (86, 2917), (102, 2977), (104, 2980), (113, 3013),

Gene: Hannaconda_6 Start: 2042, Stop: 2431, Start Num: 44
Candidate Starts for Hannaconda_6:
(7, 1835), (Start: 19 @1955 has 1 MA's), (32, 2009), (Start: 44 @2042 has 31 MA's), (62, 2111), (67, 2129), (68, 2132), (70, 2138), (102, 2261), (113, 2297), (116, 2312), (132, 2411),

Gene: HannahD_1 Start: 176, Stop: 550, Start Num: 44
Candidate Starts for HannahD_1:

(Start: 44 @176 has 31 MA's), (65, 260), (75, 302), (79, 320), (89, 347), (93, 356), (105, 383), (111, 401), (131, 515),

Gene: Hedwig_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for Hedwig_1:

(Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (52, 258), (65, 315), (72, 339), (89, 402), (105, 438), (120, 492),

Gene: Hitter_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Hitter_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Hortense_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Hortense_1:

(Start: 45 @14 has 38 MA's), (Start: 54 @50 has 1 MA's), (Start: 56 @62 has 2 MA's), (66, 92), (67, 95), (80, 152), (105, 215), (118, 263),

Gene: Howe_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Howe_1:

(Start: 45 @14 has 38 MA's), (Start: 54 @50 has 1 MA's), (Start: 56 @62 has 2 MA's), (66, 92), (67, 95), (80, 152), (105, 215), (118, 263),

Gene: JCole_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for JCole_1:

(Start: 45 @14 has 38 MA's), (58, 68), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Jalammah_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Jalammah_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: JasperJr_1 Start: 57, Stop: 398, Start Num: 46

Candidate Starts for JasperJr_1:

(28, 12), (Start: 46 @57 has 40 MA's), (52, 75), (Start: 54 @90 has 1 MA's), (Start: 55 @93 has 1 MA's), (67, 135), (68, 138), (74, 162), (75, 171), (93, 225), (105, 252),

Gene: Jebeks_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Jebeks_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: JoeDirt_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for JoeDirt_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: JuJu_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for JuJu_1:

(38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: JuicyJay_10 Start: 3588, Stop: 3962, Start Num: 44

Candidate Starts for JuicyJay_10:

(7, 3381), (8, 3390), (Start: 19 @3501 has 1 MA's), (32, 3555), (Start: 44 @3588 has 31 MA's), (86, 3747), (102, 3807), (104, 3810), (113, 3843),

Gene: Jung_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for Jung_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (109, 309), (117, 339),

Gene: Juniormint_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Juniormint_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: JustASigh_2 Start: 147, Stop: 578, Start Num: 27

Candidate Starts for JustASigh_2:

(11, 54), (22, 132), (27, 147), (71, 282), (73, 291), (95, 372), (107, 432),

Gene: KappaFarmDelta_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for KappaFarmDelta_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (73, 158), (74, 161), (80, 191), (93, 224), (105, 251), (107, 257),

Gene: Kari_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Kari_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: KashFlow_3 Start: 1608, Stop: 1997, Start Num: 44

Candidate Starts for KashFlow_3:

(Start: 44 @1608 has 31 MA's), (62, 1677), (67, 1695), (68, 1698), (70, 1704), (88, 1773), (102, 1827), (113, 1863), (116, 1878), (132, 1977),

Gene: Kiko_1 Start: 64, Stop: 435, Start Num: 47

Candidate Starts for Kiko_1:

(Start: 47 @64 has 4 MA's), (75, 181), (79, 199), (89, 226), (105, 259), (120, 313), (130, 379),

Gene: KilKor_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for KilKor_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Klein_9 Start: 3342, Stop: 3731, Start Num: 44

Candidate Starts for Klein_9:

(7, 3135), (Start: 19 @3255 has 1 MA's), (32, 3309), (Start: 44 @3342 has 31 MA's), (62, 3411), (67, 3429), (68, 3432), (70, 3438), (88, 3507), (102, 3561), (113, 3597), (116, 3612), (132, 3711),

Gene: Ksquared_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Ksquared_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (101, 298), (109, 322), (117, 352),

Gene: Kudrefre_11 Start: 4593, Stop: 4943, Start Num: 41

Candidate Starts for Kudefre_11:

(Start: 41 @4593 has 5 MA's), (75, 4716), (100, 4797), (128, 4926),

Gene: Lamberg_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Lamberg_1:

(Start: 45 @14 has 38 MA's), (66, 92), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Langerak_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Langerak_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: LeBron_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for LeBron_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: LittleE_8 Start: 2721, Stop: 3110, Start Num: 44

Candidate Starts for LittleE_8:

(Start: 44 @2721 has 31 MA's), (62, 2790), (67, 2808), (68, 2811), (70, 2817), (88, 2886), (102, 2940), (113, 2976), (116, 2991), (132, 3090),

Gene: LordFarquaad_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for LordFarquaad_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Lucky2013_9 Start: 3112, Stop: 3501, Start Num: 44

Candidate Starts for Lucky2013_9:

(7, 2905), (8, 2914), (Start: 19 @3025 has 1 MA's), (32, 3079), (Start: 44 @3112 has 31 MA's), (62, 3181), (67, 3199), (68, 3202), (70, 3208), (88, 3277), (102, 3331), (113, 3367), (116, 3382), (132, 3481),

Gene: Lysidious_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Lysidious_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: MAckerman_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for MAckerman_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: MagicMan_1 Start: 166, Stop: 516, Start Num: 47

Candidate Starts for MagicMan_1:

(30, 121), (Start: 42 @154 has 2 MA's), (Start: 47 @166 has 4 MA's), (57, 214), (65, 241), (89, 328), (93, 337), (105, 364), (111, 382), (120, 418), (121, 421), (131, 496),

Gene: Majeke_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Majeke_1:

(Start: 24 @55 has 43 MA's), (50, 124), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Malachai_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Malachai_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Malibo_1 Start: 127, Stop: 453, Start Num: 45

Candidate Starts for Malibo_1:

(33, 97), (Start: 45 @127 has 38 MA's), (Start: 54 @166 has 1 MA's), (Start: 56 @178 has 2 MA's), (63, 199), (74, 238), (77, 256),

Gene: Malithi_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Malithi_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Mangethe_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Mangethe_1:

(Start: 24 @55 has 43 MA's), (50, 124), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Matteo_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Matteo_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Mbo4_1 Start: 117, Stop: 464, Start Num: 40

Candidate Starts for Mbo4_1:

(Start: 34 @99 has 1 MA's), (38, 111), (Start: 40 @117 has 2 MA's), (93, 300), (115, 369), (117, 378),

Gene: Megiddo_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for Megiddo_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Melba_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Melba_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Mellie_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Mellie_1:

(36, 32), (Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: MiaZeal_9 Start: 3181, Stop: 3570, Start Num: 44

Candidate Starts for MiaZeal_9:

(7, 2974), (8, 2983), (Start: 19 @3094 has 1 MA's), (32, 3148), (Start: 44 @3181 has 31 MA's), (62, 3250), (67, 3268), (68, 3271), (70, 3277), (88, 3346), (102, 3400), (113, 3436), (116, 3451), (132, 3550),

Gene: MichaelScott_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for MichaelScott_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (65, 591), (67, 597), (69, 603), (73, 621), (75, 633), (92, 684), (118, 765),

Gene: MintFen_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for MintFen_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: MissRona_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for MissRona_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: Mocha12_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Mocha12_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Murp_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Murp_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (74, 161), (80, 191), (93, 224), (105, 251), (107, 257),

Gene: Nazo_1 Start: 43, Stop: 423, Start Num: 24

Candidate Starts for Nazo_1:

(Start: 17 @16 has 1 MA's), (Start: 24 @43 has 43 MA's), (Start: 55 @130 has 1 MA's), (73, 196), (89, 253), (101, 277), (105, 286), (109, 301), (117, 331),

Gene: Necropolis_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Necropolis_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Nettuno_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Nettuno_1:

(Start: 45 @14 has 38 MA's), (66, 92), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Neville_11 Start: 4473, Stop: 4811, Start Num: 43

Candidate Starts for Neville_11:

(Start: 43 @4473 has 16 MA's), (62, 4542), (81, 4617), (82, 4623), (99, 4674), (100, 4677), (106, 4701), (108, 4707), (110, 4716),

Gene: NihilNomen_8 Start: 2817, Stop: 3191, Start Num: 44

Candidate Starts for NihilNomen_8:

(7, 2610), (8, 2619), (Start: 19 @2730 has 1 MA's), (32, 2784), (Start: 44 @2817 has 31 MA's), (62, 2886), (67, 2904), (68, 2907), (70, 2913), (86, 2976), (102, 3036), (104, 3039), (113, 3072),

Gene: Obliviate_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Obliviate_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Octobien14_12 Start: 5664, Stop: 6014, Start Num: 41

Candidate Starts for Octobien14_12:

(Start: 40 @5661 has 2 MA's), (Start: 41 @5664 has 5 MA's), (75, 5787), (100, 5868), (128, 5997),

Gene: OhShagHennessey_2 Start: 456, Stop: 821, Start Num: 40
Candidate Starts for OhShagHennessey_2:
(Start: 40 @456 has 2 MA's), (51, 486), (69, 558), (70, 561), (75, 588), (84, 621), (86, 624), (113, 717),
(114, 723),

Gene: Ohgeesy_1 Start: 14, Stop: 346, Start Num: 45
Candidate Starts for Ohgeesy_1:
(Start: 45 @14 has 38 MA's), (67, 95), (79, 149), (80, 152), (118, 263),

Gene: Omega_10 Start: 4066, Stop: 4455, Start Num: 44
Candidate Starts for Omega_10:
(Start: 44 @4066 has 31 MA's), (62, 4135), (67, 4153), (68, 4156), (70, 4162), (88, 4231), (102, 4285),
(113, 4321), (116, 4336), (132, 4435),

Gene: Opie_1 Start: 166, Stop: 516, Start Num: 47
Candidate Starts for Opie_1:
(Start: 47 @166 has 4 MA's), (57, 214), (65, 241), (89, 328), (93, 337), (105, 364), (120, 418), (121,
421), (131, 496),

Gene: Oregano_1 Start: 101, Stop: 376, Start Num: 60
Candidate Starts for Oregano_1:
(Start: 60 @101 has 1 MA's), (67, 125), (69, 131), (118, 293),

Gene: PCoral7_1 Start: 56, Stop: 397, Start Num: 46
Candidate Starts for PCoral7_1:
(Start: 46 @56 has 40 MA's), (48, 62), (52, 74), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (78,
185), (83, 203), (93, 224), (101, 242), (118, 299),

Gene: PantheRoc_89 Start: 53444, Stop: 346, Start Num: 16
Candidate Starts for PantheRoc_89:
(1, 53000), (2, 53006), (3, 53048), (4, 53192), (5, 53195), (6, 53342), (14, 53438), (16, 53444), (Start:
45 @53555 has 38 MA's), (67, 53636), (79, 53690), (80, 53693), (118, 53804),

Gene: Petra_1 Start: 57, Stop: 392, Start Num: 46
Candidate Starts for Petra_1:
(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64,
123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270),
(119, 303), (121, 309),

Gene: Phalm_1 Start: 42, Stop: 431, Start Num: 24
Candidate Starts for Phalm_1:
(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285),
(109, 309), (117, 339),

Gene: Phayonce_1 Start: 139, Stop: 432, Start Num: 55
Candidate Starts for Phayonce_1:
(Start: 24 @55 has 43 MA's), (38, 91), (Start: 55 @139 has 1 MA's), (67, 181), (73, 205), (79, 235),
(89, 262), (105, 295), (109, 310), (111, 313), (117, 340),

Gene: Phegasus_1 Start: 55, Stop: 444, Start Num: 24
Candidate Starts for Phegasus_1:
(Start: 24 @55 has 43 MA's), (50, 124), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274),
(96, 286), (109, 322), (117, 352),

Gene: Phineas_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Phineas_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (109, 310), (117, 340),

Gene: PhriskyACE_1 Start: 101, Stop: 346, Start Num: 69

Candidate Starts for PhriskyACE_1:

(Start: 45 @14 has 38 MA's), (Start: 60 @71 has 1 MA's), (67, 95), (69, 101), (118, 263),

Gene: PhrostedPhlake_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for PhrostedPhlake_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (74, 161), (83, 203), (93, 224), (105, 251),

Gene: Pickett_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Pickett_1:

(Start: 45 @14 has 38 MA's), (66, 92), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Pipp_1 Start: 55, Stop: 396, Start Num: 46

Candidate Starts for Pipp_1:

(25, 1), (Start: 46 @55 has 40 MA's), (52, 73), (Start: 54 @88 has 1 MA's), (Start: 55 @91 has 1 MA's), (65, 127), (67, 133), (68, 136), (74, 160), (83, 202), (93, 223), (105, 250),

Gene: Polkaroo_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Polkaroo_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Porcelain_9 Start: 3181, Stop: 3570, Start Num: 44

Candidate Starts for Porcelain_9:

(7, 2974), (8, 2983), (Start: 19 @3094 has 1 MA's), (32, 3148), (Start: 44 @3181 has 31 MA's), (62, 3250), (67, 3268), (68, 3271), (70, 3277), (88, 3346), (102, 3400), (113, 3436), (116, 3451), (132, 3550),

Gene: Pound_8 Start: 2813, Stop: 3187, Start Num: 44

Candidate Starts for Pound_8:

(7, 2606), (8, 2615), (Start: 19 @2726 has 1 MA's), (32, 2780), (Start: 44 @2813 has 31 MA's), (62, 2882), (67, 2900), (68, 2903), (70, 2909), (86, 2972), (102, 3032), (113, 3068),

Gene: Powerball_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Powerball_1:

(Start: 45 @14 has 38 MA's), (Start: 60 @71 has 1 MA's), (67, 95), (69, 101), (118, 263),

Gene: PrincePatrick_1 Start: 57, Stop: 398, Start Num: 46

Candidate Starts for PrincePatrick_1:

(Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (Start: 55 @93 has 1 MA's), (67, 135), (68, 138), (77, 180), (78, 186), (83, 204), (93, 225), (101, 243), (118, 300),

Gene: Purky_1 Start: 16, Stop: 432, Start Num: 17

Candidate Starts for Purky_1:

(Start: 17 @16 has 1 MA's), (21, 40), (Start: 24 @55 has 43 MA's), (Start: 55 @139 has 1 MA's), (67, 181), (73, 205), (89, 262), (101, 286), (105, 295), (109, 310), (117, 340),

Gene: Pygmy_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Pygmy_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (109, 310), (117, 340),

Gene: Rabbitrun_13 Start: 4987, Stop: 5325, Start Num: 43

Candidate Starts for Rabbitrun_13:

(Start: 43 @4987 has 16 MA's), (Start: 54 @5026 has 1 MA's), (62, 5056), (63, 5059), (68, 5077), (81, 5131), (99, 5188), (100, 5191), (108, 5221), (110, 5230), (113, 5242),

Gene: RayTheFireFly_1 Start: 228, Stop: 614, Start Num: 43

Candidate Starts for RayTheFireFly_1:

(Start: 43 @228 has 16 MA's), (Start: 47 @240 has 4 MA's), (65, 315), (72, 339), (105, 438), (120, 492),

Gene: Redno2_8 Start: 2528, Stop: 2902, Start Num: 44

Candidate Starts for Redno2_8:

(7, 2321), (8, 2330), (Start: 19 @2441 has 1 MA's), (32, 2495), (Start: 44 @2528 has 31 MA's), (86, 2687), (102, 2747), (104, 2750), (113, 2783),

Gene: Rem711_1 Start: 226, Stop: 540, Start Num: 56

Candidate Starts for Rem711_1:

(12, 37), (Start: 56 @226 has 2 MA's), (61, 241), (76, 301), (79, 313), (92, 346), (105, 373), (123, 436), (124, 451),

Gene: Rose5_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Rose5_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Ruthy_1 Start: 43, Stop: 453, Start Num: 19

Candidate Starts for Ruthy_1:

(Start: 19 @43 has 1 MA's), (26, 82), (Start: 45 @127 has 38 MA's), (Start: 54 @166 has 1 MA's), (Start: 56 @178 has 2 MA's), (67, 211), (70, 220), (74, 238), (77, 256), (80, 268), (91, 295), (103, 316), (111, 340), (121, 379),

Gene: Sahara_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Sahara_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152), (92, 182), (98, 197), (105, 215),

Gene: Samba_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Samba_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Samman98_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Samman98_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (68, 600), (69, 603), (118, 765),

Gene: Savage_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Savage_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Schatzie_7 Start: 2067, Stop: 2441, Start Num: 44

Candidate Starts for Schatzie_7:

(7, 1860), (8, 1869), (Start: 19 @1980 has 1 MA's), (32, 2034), (Start: 44 @2067 has 31 MA's), (62, 2136), (67, 2154), (68, 2157), (70, 2163), (86, 2226), (102, 2286), (113, 2322),

Gene: Schnabeltier_1 Start: 167, Stop: 517, Start Num: 47

Candidate Starts for Schnabeltier_1:

(30, 122), (Start: 42 @155 has 2 MA's), (Start: 47 @167 has 4 MA's), (57, 215), (65, 242), (89, 329), (93, 338), (105, 365), (111, 383), (120, 419), (121, 422), (131, 497),

Gene: Sekhmet_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Sekhmet_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (69, 603), (79, 651), (118, 765),

Gene: Sephiroth_12 Start: 4764, Stop: 5114, Start Num: 41

Candidate Starts for Sephiroth_12:

(20, 4695), (31, 4734), (Start: 41 @4764 has 5 MA's), (75, 4887), (100, 4968), (128, 5097),

Gene: Shipwreck_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Shipwreck_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (109, 310), (117, 340),

Gene: Shlim410_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Shlim410_1:

(Start: 45 @14 has 38 MA's), (Start: 54 @50 has 1 MA's), (Start: 56 @62 has 2 MA's), (66, 92), (67, 95), (80, 152), (105, 215), (118, 263),

Gene: Sidious_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Sidious_1:

(Start: 45 @14 has 38 MA's), (67, 95), (80, 152), (89, 176), (98, 197), (118, 263),

Gene: Silverleaf_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Silverleaf_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744), (114, 750),

Gene: SoilAssassin_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for SoilAssassin_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Sonah_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Sonah_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Sproutie_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Sproutie_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Squint_9 Start: 3112, Stop: 3501, Start Num: 44

Candidate Starts for Squint_9:

(7, 2905), (8, 2914), (Start: 19 @3025 has 1 MA's), (32, 3079), (Start: 44 @3112 has 31 MA's), (62, 3181), (67, 3199), (68, 3202), (70, 3208), (88, 3277), (102, 3331), (113, 3367), (116, 3382), (132, 3481),

Gene: StevieRay_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for StevieRay_1:

(Start: 24 @43 has 43 MA's), (Start: 55 @139 has 1 MA's), (73, 205), (89, 262), (96, 274), (101, 286), (109, 310), (117, 340),

Gene: StressBall_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for StressBall_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Suerte_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Suerte_1:

(Start: 45 @14 has 38 MA's), (Start: 60 @71 has 1 MA's), (67, 95), (69, 101), (118, 263),

Gene: Superphikiman_9 Start: 3362, Stop: 3751, Start Num: 44

Candidate Starts for Superphikiman_9:

(7, 3155), (8, 3164), (Start: 19 @3275 has 1 MA's), (Start: 44 @3362 has 31 MA's), (62, 3431), (67, 3449), (68, 3452), (70, 3458), (88, 3527), (102, 3581), (113, 3617), (116, 3632), (132, 3731),

Gene: Syleon_12 Start: 4686, Stop: 5036, Start Num: 41

Candidate Starts for Syleon_12:

(20, 4617), (31, 4656), (Start: 41 @4686 has 5 MA's), (75, 4809), (100, 4890), (128, 5019),

Gene: TaronosaurusRx_1 Start: 167, Stop: 517, Start Num: 47

Candidate Starts for TaronosaurusRx_1:

(30, 122), (Start: 42 @155 has 2 MA's), (Start: 47 @167 has 4 MA's), (65, 242), (89, 329), (93, 338), (105, 365), (111, 383), (120, 419), (121, 422), (131, 497),

Gene: Techage_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Techage_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Thespis_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for Thespis_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: Thimann_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for Thimann_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (69, 603), (75, 633), (118, 765),

Gene: ThulaThula_1 Start: 55, Stop: 432, Start Num: 24

Candidate Starts for ThulaThula_1:

(Start: 24 @55 has 43 MA's), (38, 91), (Start: 55 @139 has 1 MA's), (65, 175), (67, 181), (73, 205), (79, 235), (89, 262), (109, 310), (111, 313), (117, 340),

Gene: Toast_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Toast_1:

(Start: 46 @56 has 40 MA's), (48, 62), (52, 74), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (78, 185), (83, 203), (93, 224), (101, 242), (118, 299),

Gene: Tortellini_1 Start: 43, Stop: 432, Start Num: 24

Candidate Starts for Tortellini_1:

(Start: 24 @43 has 43 MA's), (Start: 44 @94 has 31 MA's), (Start: 55 @139 has 1 MA's), (65, 175), (73, 205), (105, 295), (109, 310), (117, 340),

Gene: Trax_11 Start: 4473, Stop: 4811, Start Num: 43

Candidate Starts for Trax_11:

(Start: 43 @4473 has 16 MA's), (62, 4542), (81, 4617), (82, 4623), (99, 4674), (100, 4677), (106, 4701), (108, 4707), (110, 4716),

Gene: TuertoX_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for TuertoX_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Twinkle_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Twinkle_1:

(Start: 45 @14 has 38 MA's), (Start: 54 @50 has 1 MA's), (Start: 56 @62 has 2 MA's), (66, 92), (67, 95), (80, 152), (105, 215), (118, 263),

Gene: Tyson_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Tyson_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: UPIE_2 Start: 475, Stop: 849, Start Num: 37

Candidate Starts for UPIE_2:

(Start: 37 @475 has 16 MA's), (51, 514), (69, 586), (70, 589), (75, 616), (84, 649), (86, 652), (113, 745), (114, 751),

Gene: UmaThurman_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for UmaThurman_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (83, 203), (93, 224), (105, 251),

Gene: Utz_1 Start: 89, Stop: 397, Start Num: 54

Candidate Starts for Utz_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (83, 203), (93, 224), (105, 251),

Gene: Vasanti_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Vasanti_1:

(Start: 45 @14 has 38 MA's), (66, 92), (67, 95), (68, 98), (80, 152), (105, 215), (118, 263),

Gene: Venti_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Venti_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (67, 193), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Vidya_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Vidya_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Walrus_1 Start: 57, Stop: 392, Start Num: 46

Candidate Starts for Walrus_1:

(30, 15), (38, 36), (Start: 46 @57 has 40 MA's), (48, 63), (52, 75), (Start: 54 @90 has 1 MA's), (64, 123), (65, 129), (68, 138), (71, 150), (74, 162), (83, 204), (92, 222), (93, 225), (105, 252), (111, 270), (119, 303), (121, 309),

Gene: Wamburgrexpress_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Wamburgrexpress_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Wanda_9 Start: 3342, Stop: 3731, Start Num: 44

Candidate Starts for Wanda_9:

(7, 3135), (Start: 19 @3255 has 1 MA's), (32, 3309), (Start: 44 @3342 has 31 MA's), (62, 3411), (67, 3429), (68, 3432), (70, 3438), (88, 3507), (102, 3561), (113, 3597), (116, 3612), (132, 3711),

Gene: Weirdo19_1 Start: 209, Stop: 565, Start Num: 54

Candidate Starts for Weirdo19_1:

(10, 14), (13, 47), (Start: 54 @209 has 1 MA's), (73, 278), (80, 311), (87, 332), (89, 335), (111, 431), (122, 473), (125, 500),

Gene: Whack_1 Start: 53, Stop: 403, Start Num: 41

Candidate Starts for Whack_1:

(Start: 41 @53 has 5 MA's), (Start: 56 @107 has 2 MA's), (79, 194), (89, 221), (105, 263), (117, 308), (121, 320),

Gene: Whiteclaw_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Whiteclaw_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: William_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for William_1:

(Start: 46 @56 has 40 MA's), (48, 62), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (67, 134), (68, 137), (77, 179), (78, 185), (79, 188), (83, 203), (101, 242), (118, 299),

Gene: Willsammy_1 Start: 42, Stop: 431, Start Num: 24

Candidate Starts for Willsammy_1:

(Start: 24 @42 has 43 MA's), (Start: 55 @138 has 1 MA's), (73, 204), (89, 261), (96, 273), (101, 285), (109, 309), (117, 339),

Gene: WinkNick_2 Start: 510, Stop: 848, Start Num: 43

Candidate Starts for WinkNick_2:

(Start: 34 @486 has 1 MA's), (35, 492), (39, 501), (Start: 43 @510 has 16 MA's), (Start: 60 @573 has 1 MA's), (67, 597), (68, 600), (69, 603), (118, 765),

Gene: Wisp_1 Start: 74, Stop: 397, Start Num: 52

Candidate Starts for Wisp_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Wocket_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Wocket_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (83, 203), (93, 224), (105, 251),

Gene: Wyatt2_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Wyatt2_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Xavia_1 Start: 55, Stop: 435, Start Num: 24

Candidate Starts for Xavia_1:

(Start: 17 @16 has 1 MA's), (Start: 24 @55 has 43 MA's), (Start: 55 @142 has 1 MA's), (67, 184), (68, 187), (73, 208), (89, 265), (96, 277), (101, 289), (105, 298), (109, 313), (117, 343),

Gene: Yeet_7 Start: 2067, Stop: 2441, Start Num: 44

Candidate Starts for Yeet_7:

(7, 1860), (8, 1869), (Start: 19 @1980 has 1 MA's), (32, 2034), (Start: 44 @2067 has 31 MA's), (62, 2136), (67, 2154), (68, 2157), (70, 2163), (86, 2226), (102, 2286), (113, 2322),

Gene: Yeet412_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Yeet412_1:

(Start: 45 @14 has 38 MA's), (67, 95), (68, 98), (69, 101), (80, 152),

Gene: Yeezy_1 Start: 14, Stop: 346, Start Num: 45

Candidate Starts for Yeezy_1:

(Start: 45 @14 has 38 MA's), (67, 95), (79, 149), (80, 152), (118, 263),

Gene: ZAYM_1 Start: 166, Stop: 516, Start Num: 47

Candidate Starts for ZAYM_1:

(30, 121), (Start: 42 @154 has 2 MA's), (Start: 47 @166 has 4 MA's), (65, 241), (89, 328), (93, 337), (105, 364), (111, 382), (120, 418), (121, 421), (131, 496),

Gene: Zarbodnamra_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for Zarbodnamra_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (Start: 55 @92 has 1 MA's), (65, 128), (67, 134), (68, 137), (74, 161), (83, 203), (93, 224), (105, 251),

Gene: Zaria_2 Start: 474, Stop: 848, Start Num: 37

Candidate Starts for Zaria_2:

(Start: 37 @474 has 16 MA's), (51, 513), (69, 585), (70, 588), (75, 615), (84, 648), (86, 651), (113, 744),

Gene: Zelink_9 Start: 2841, Stop: 3215, Start Num: 44

Candidate Starts for Zelink_9:

(7, 2634), (8, 2643), (Start: 19 @2754 has 1 MA's), (Start: 44 @2841 has 31 MA's), (62, 2910), (67, 2928), (68, 2931), (70, 2937), (86, 3000), (102, 3060), (104, 3063), (113, 3096),

Gene: ZiggyZoo_1 Start: 56, Stop: 397, Start Num: 46

Candidate Starts for ZiggyZoo_1:

(Start: 46 @56 has 40 MA's), (52, 74), (Start: 54 @89 has 1 MA's), (67, 134), (68, 137), (74, 161), (93, 224), (105, 251),

Gene: Zilizebeth_1 Start: 55, Stop: 444, Start Num: 24

Candidate Starts for Zilizebeth_1:

(Start: 24 @55 has 43 MA's), (Start: 55 @151 has 1 MA's), (73, 217), (89, 274), (96, 286), (109, 322), (117, 352),

Gene: Zucker_2 Start: 385, Stop: 780, Start Num: 42

Candidate Starts for Zucker_2:

(29, 352), (Start: 42 @385 has 2 MA's), (59, 436), (69, 469), (73, 487), (75, 499), (90, 547), (127, 715), (134, 766),