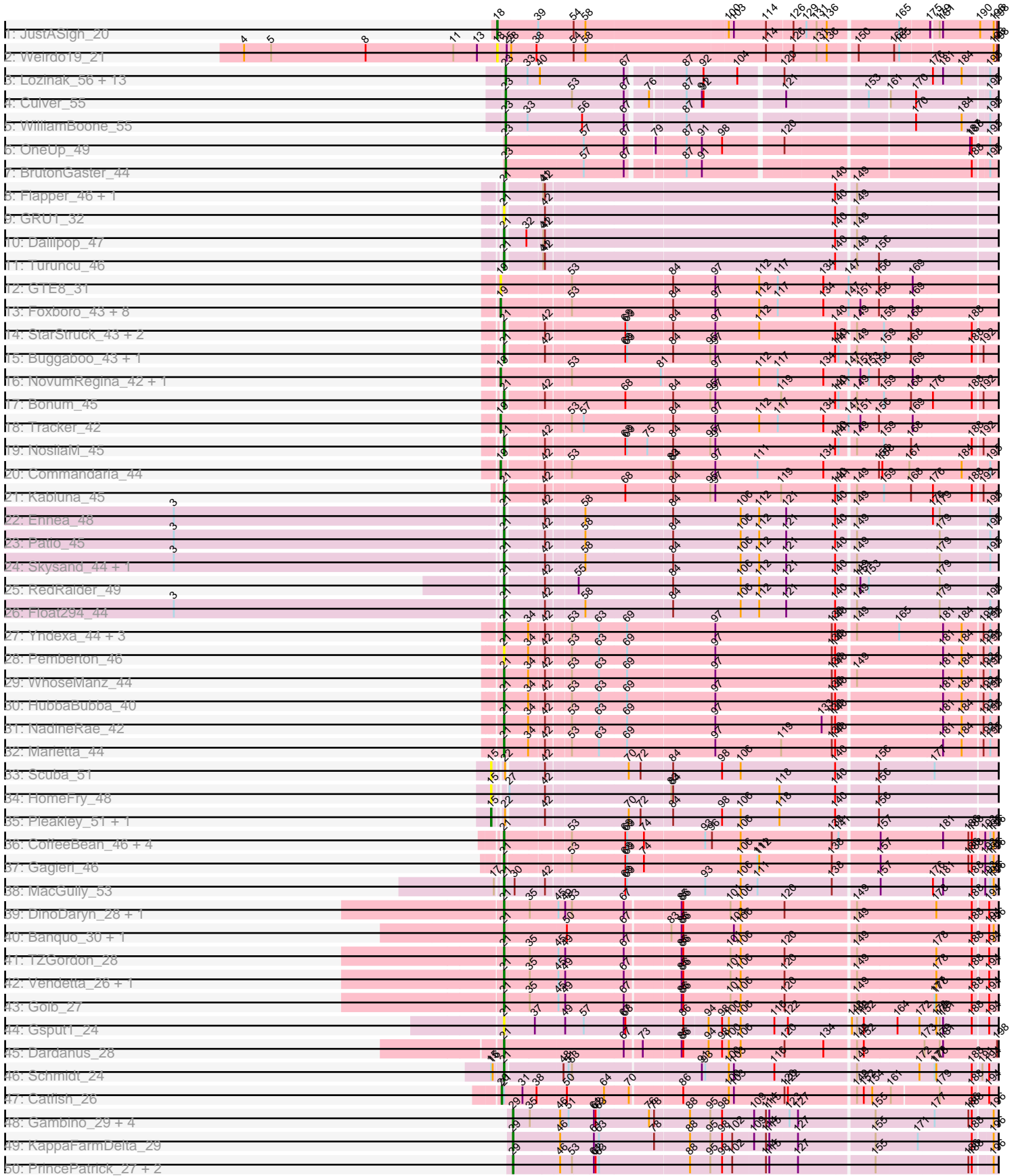
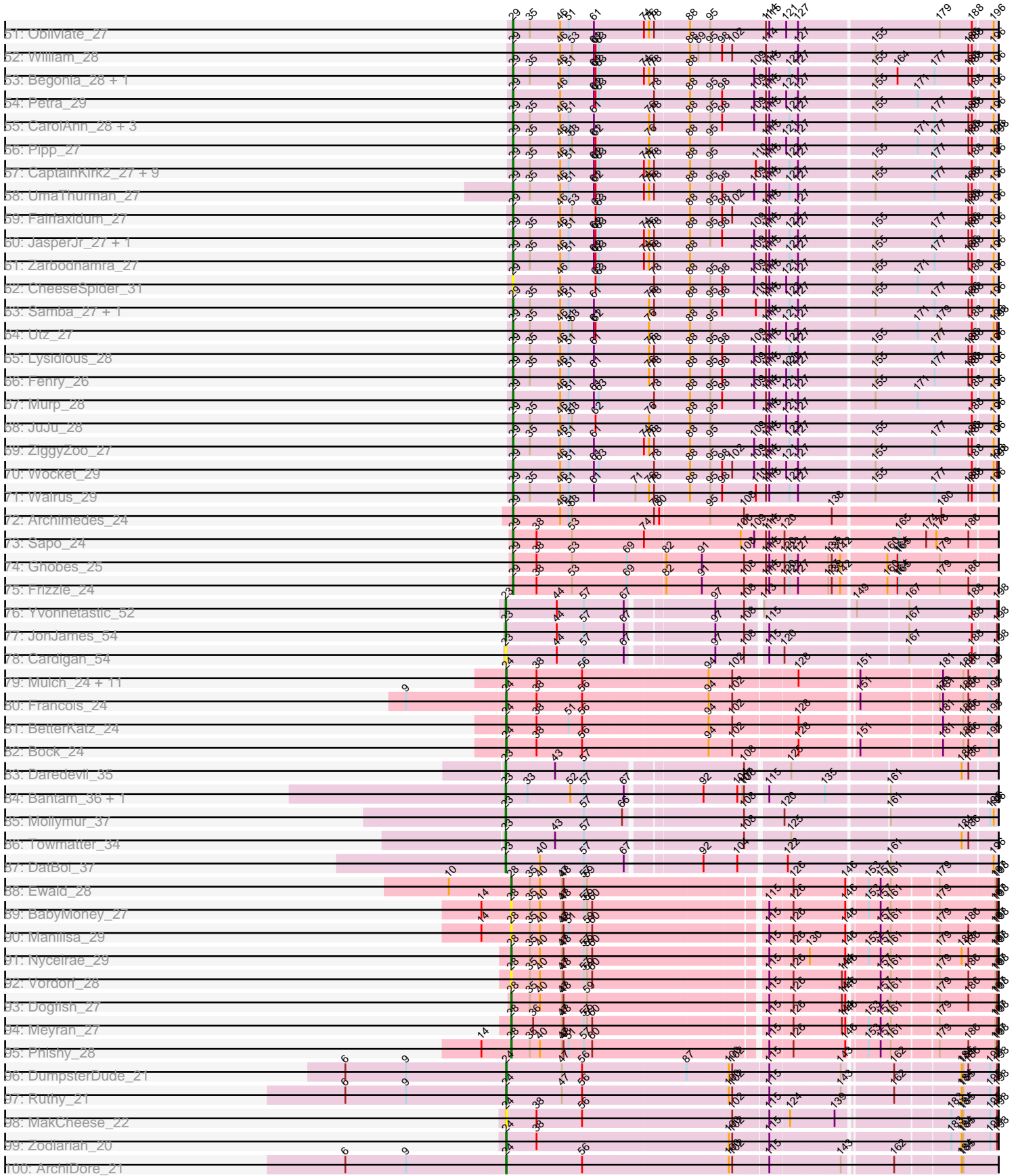


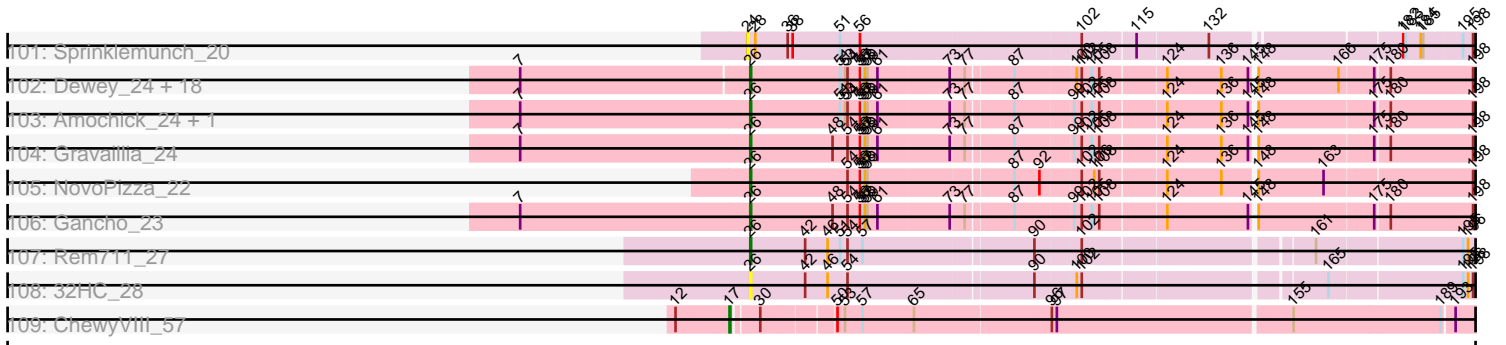
Zoomed Pham 294442



Zoomed Pham 294442



Zoomed Pham 294442



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 294442 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294442 has 199 members, 20 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_20
- Track 2 : Weirido19_21
- Track 3 : Lozinak_56, ClubL_55, Bachita_57, Geeche_54, Engineer_57, Miskis_53, Dusty_54, Norvs_56, PhinkBoden_55, Cucurbita_57, Aphelion_55, Smoothie_57, Abscondus_54, Toniann_55
- Track 4 : Culver_55
- Track 5 : WilliamBoone_55
- Track 6 : OneUp_49
- Track 7 : BrutonGaster_44
- Track 8 : Flapper_46, GTE5_33
- Track 9 : GRU1_32
- Track 10 : Dalilpop_47
- Track 11 : Turuncu_46
- Track 12 : GTE8_31
- Track 13 : Foxboro_43, Kurt_42, KidneyBean_42, Emianna_42, Arti_42, Wheezy_42, Jifall16_41, Phomeo_41, NatB6_42
- Track 14 : StarStruck_43, MerCougar_43, Outis_43
- Track 15 : Buggaboo_43, SuperSulley_43
- Track 16 : NovumRegina_42, GrootJr_44
- Track 17 : Bonum_45
- Track 18 : Tracker_42
- Track 19 : NosilaM_45
- Track 20 : Commandaria_44
- Track 21 : Kabluna_45
- Track 22 : Ennea_48
- Track 23 : Patio_45
- Track 24 : Skysand_44, Lollipop1437_47
- Track 25 : RedRaider_49
- Track 26 : Float294_44
- Track 27 : Yndexa_44, BiPauneto_45, IDyn_43, Sukkupi_44
- Track 28 : Pemberton_46
- Track 29 : WhoseManz_44
- Track 30 : HubbaBubba_40
- Track 31 : NadineRae_42
- Track 32 : Marietta_44
- Track 33 : Scuba_51
- Track 34 : HomeFry_48

- Track 35 : Pleakley_51, Fury_51
- Track 36 : CoffeeBean_46, Braxoaddie_46, Polyyuki_46, Maselop_46, Apiary_46
- Track 37 : Gagieri_46
- Track 38 : MacGully_53
- Track 39 : DinoDaryn_28, Huffy_28
- Track 40 : Banquo_30, TinaLin_29
- Track 41 : TZGordon_28
- Track 42 : Vendetta_26, Splinter_26
- Track 43 : Goib_27
- Track 44 : Gsput1_24
- Track 45 : Dardanus_28
- Track 46 : Schmidt_24
- Track 47 : Catfish_26
- Track 48 : Gambino_29, Azula_29, Blueberry_29, MissRona_29, Frokostdame_27
- Track 49 : KappaFarmDelta_29
- Track 50 : PrincePatrick_27, PCoral7_28, Toast_28
- Track 51 : Obliviate_27
- Track 52 : William_28
- Track 53 : Begonia_28, Malachai_28
- Track 54 : Petra_29
- Track 55 : CarolAnn_28, Jalammah_29, Mellie_26, Blino_28
- Track 56 : Pipp_27
- Track 57 : CaptainKirk2_27, Wisp_26, Zilla_27, Archis_28, BlingBling_27, PhrostedPhlake_29, Delian_28, Melba_27, Barco_27, MintFen_27
- Track 58 : UmaThurman_27
- Track 59 : Fairfaxidum_27
- Track 60 : JasperJr_27, Guacamole_27
- Track 61 : Zarbodnamra_27
- Track 62 : CheeseSpider_31
- Track 63 : Samba_27, Hitter_27
- Track 64 : Utz_27
- Track 65 : Lysidious_28
- Track 66 : Fenry_26
- Track 67 : Murp_28
- Track 68 : JuJu_28
- Track 69 : ZiggyZoo_27
- Track 70 : Wocket_29
- Track 71 : Walrus_29
- Track 72 : Archimedes_24
- Track 73 : Sapo_24
- Track 74 : Ghobes_25
- Track 75 : Frizzle_24
- Track 76 : Yvonnetastic_52
- Track 77 : JonJames_54
- Track 78 : Cardigan_54
- Track 79 : Mulch_24, Chop_24, Parada_24, NancyRae_24, DelRio_25, WheatThin_24, Nadeem_24, Ayotoya_24, Brylie_24, Pimento_25, GrandSlam_24, Hamood_24
- Track 80 : Francois_24
- Track 81 : BetterKatz_24
- Track 82 : Bock_24
- Track 83 : Daredevil_35
- Track 84 : Bantam_36, SpeedDemon_380

- Track 85 : Mollymur_37
- Track 86 : Towmatter_34
- Track 87 : DatBoi_37
- Track 88 : Ewald_28
- Track 89 : BabyMoney_27
- Track 90 : Manilisa_29
- Track 91 : Nyceirae_29
- Track 92 : Vordorf_28
- Track 93 : Dogfish_27
- Track 94 : Meyran_27
- Track 95 : Phishy_28
- Track 96 : DumpsterDude_21
- Track 97 : Ruthy_21
- Track 98 : MakCheese_22
- Track 99 : Zodiariah_20
- Track 100 : ArchiDore_21
- Track 101 : Sprinklemunch_20
- Track 102 : Dewey_24, Hadrien_24, LilHazelnut_24, Luke_24, HH92_24, Hail_24, Evanesce_24, Amymech_24, Wishmaker_24, Ubuntu_24, Kinbote_24, BloominB_24, Forge_24, DeepSoil15_24, Webster2_24, Ein37_24, Giles_24, OBUpride_24, Luna22_24
- Track 103 : Amochick_24, Daegal_25
- Track 104 : Gravaillia_24
- Track 105 : NovoPizza_22
- Track 106 : Gancho_23
- Track 107 : Rem711_27
- Track 108 : 32HC_28
- Track 109 : ChewyVIII_57

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

The start number called the most often in the published annotations is 29, it was called in 46 of the 179 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archimedes_24, Archis_28, Azula_29, Barco_27, Begonia_28, BlingBling_27, Blino_28, Blueberry_29, CaptainKirk2_27, CarolAnn_28, CheeseSpider_31, Delian_28, Fairfaxidum_27, Fenry_26, Frizzle_24, Frokostdame_27, Gambino_29, Ghobes_25, Guacamole_27, Hitter_27, Jalammah_29, JasperJr_27, JuJu_28, KappaFarmDelta_29, Lysidious_28, Malachai_28, Melba_27, Mellie_26, MintFen_27, MissRona_29, Murp_28, Obliviate_27, PCoral7_28, Petra_29, PhrostedPhlake_29, Pipp_27, PrincePatrick_27, Samba_27, Sapo_24, Toast_28, UmaThurman_27, Utz_27, Walrus_29, William_28, Wisp_26, Wocket_29, Zarbodnamra_27, ZiggyZoo_27, Zilla_27,

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

-

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

- 32HC_28, Abscondus_54, Amochick_24, Amymech_24, Aphelion_55, Apiary_46, ArchiDore_21, Arti_42, Ayotoya_24, BabyMoney_27, Bachita_57, Banquo_30, Bantam_36, BetterKatz_24, BiPauneto_45, BloominB_24, Bock_24, Bonum_45, Braxoaddie_46, BrutonGaster_44, Brylie_24, Buggaboo_43, Cardigan_54, Catfish_26, ChewyVIII_57, Chop_24, ClubL_55, CoffeeBean_46, Commandaria_44, Cucurbita_57, Culver_55, Daegal_25, Dalilpop_47, Dardanus_28, Daredevil_35, DatBoi_37, DeepSoil15_24, DelRio_25, Dewey_24, DinoDaryn_28, Dogfish_27, DumpsterDude_21, Dusty_54, Ein37_24, Emianna_42, Engineer_57, Ennea_48, Evanesce_24, Ewald_28, Flapper_46, Float294_44, Forge_24, Foxboro_43, Francois_24, Fury_51, GRU1_32, GTE5_33, GTE8_31, Gagieri_46, Gancho_23, Geeche_54, Giles_24, Goib_27, GrandSlam_24, Gravallia_24, GrootJr_44, Gspu1_24, HH92_24, Hadrien_24, Hail_24, Hamood_24, HomeFry_48, HubbaBubba_40, Huffy_28, IDyn_43, Jifall16_41, JonJames_54, JustASigh_20, Kabluna_45, KidneyBean_42, Kinbote_24, Kurt_42, LilHazelNut_24, Lollipop1437_47, Lozinak_56, Luke_24, Luna22_24, MacGully_53, MakCheese_22, Manilisa_29, Marietta_44, Maselop_46, MerCougar_43, Meyran_27, Miskis_53, Mollymur_37, Mulch_24, Nadeem_24, NadineRae_42, NancyRae_24, NatB6_42, Norvs_56, NosilaM_45, NovoPizza_22, NovumRegina_42, Nyceirae_29, OBUpride_24, OneUp_49, Outis_43, Parada_24, Patio_45, Pemberton_46, PhinkBoden_55, Phishy_28, Phomeo_41, Pimento_25, Pleakley_51, Polyyuki_46, RedRaider_49, Rem711_27, Ruthy_21, Schmidt_24, Scuba_51, Skysand_44, Smoothie_57, SpeedDemon_380, Splinter_26, Sprinklemunch_20, StarStruck_43, Sukkupi_44, SuperSulley_43, TZGordon_28, TinaLin_29, Toniann_55, Towmatter_34, Tracker_42, Turuncu_46, Ubuntu_24, Vendetta_26, Vordorf_28, Webster2_24, WeirDo19_21, WheatThin_24, Wheezy_42, WhoseManz_44, WilliamBoone_55, Wishmaker_24, Yndexa_44, Yvonnestic_52, Zodiariah_20,

Summary by start number:

Start 15:

- Found in 5 of 199 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 179
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Fury_51 (CR5), HomeFry_48 (CR5), Pleakley_51 (CR5), Scuba_51 (CR5),

Start 17:

- Found in 2 of 199 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 179
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ChewyVIII_57 (singleton),

Start 18:

- Found in 2 of 199 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_20 (AH), WeirDo19_21 (AH),

Start 19:

- Found in 14 of 199 (7.0%) of genes in pham
- Manual Annotations of this start: 13 of 179
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Arti_42 (CR2), Commandaria_44 (CR2), Emianna_42 (CR2), Foxboro_43 (CR2), GTE8_31 (CR2), GrootJr_44 (CR2), Jifall16_41 (CR2), KidneyBean_42 (CR2), Kurt_42 (CR2), NatB6_42 (CR2), NovumRegina_42 (CR2), Phomeo_41 (CR2), Tracker_42 (CR2), Wheezy_42 (CR2),

Start 20:

- Found in 1 of 199 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_26 (CU5),

Start 21:

- Found in 47 of 199 (23.6%) of genes in pham
- Manual Annotations of this start: 42 of 179
- Called 97.9% of time when present
- Phage (with cluster) where this start called: Apiary_46 (CR6), Banquo_30 (CU1), BiPauneto_45 (CR4), Bonum_45 (CR2), Braxoaddie_46 (CR6), Buggaboo_43 (CR2), CoffeeBean_46 (CR6), Dalilpop_47 (CR1), Dardanus_28 (CU3), DinoDaryn_28 (CU1), Ennea_48 (CR3), Flapper_46 (CR1), Float294_44 (CR3), GRU1_32 (CR1), GTE5_33 (CR1), Gagieri_46 (CR6), Goib_27 (CU1), Gspu1_24 (CU2), HubbaBubba_40 (CR4), Huffy_28 (CU1), IDyn_43 (CR4), Kabluna_45 (CR2), Lollipop1437_47 (CR3), MacGully_53 (CR7), Marietta_44 (CR4), Maselop_46 (CR6), MerCougar_43 (CR2), NadineRae_42 (CR4), NosilaM_45 (CR2), Outis_43 (CR2), Patio_45 (CR3), Pemberton_46 (CR4), Polyyuki_46 (CR6), RedRaider_49 (CR3), Schmidt_24 (CU4), Skysand_44 (CR3), Splinter_26 (CU1), StarStruck_43 (CR2), Sukkupi_44 (CR4), SuperSulley_43 (CR2), TZGordon_28 (CU1), TinaLin_29 (CU1), Turuncu_46 (CR1), Vendetta_26 (CU1), WhoseManz_44 (CR4), Yndexa_44 (CR4),

Start 23:

- Found in 27 of 199 (13.6%) of genes in pham
- Manual Annotations of this start: 25 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus_54 (CQ1), Aphelion_55 (CQ1), Bachita_57 (CQ1), Bantam_36 (DL), BrutonGaster_44 (CQ2), Cardigan_54 (DD), ClubL_55 (CQ1), Cucurbita_57 (CQ1), Culver_55 (CQ1), Daredevil_35 (DL), DatBoi_37 (DL), Dusty_54 (CQ1), Engineer_57 (CQ1), Geeche_54 (CQ1), JonJames_54 (DD), Lozinak_56 (CQ1), Miskis_53 (CQ1), Mollymur_37 (DL), Norvs_56 (CQ1), OneUp_49 (CQ2), PhinkBoden_55 (CQ1), Smoothie_57 (CQ1), SpeedDemon_380 (DL), Toniann_55 (CQ1), Towmatter_34 (DL), WilliamBoone_55 (CQ1), Yvonnetastic_52 (DD),

Start 24:

- Found in 21 of 199 (10.6%) of genes in pham
- Manual Annotations of this start: 19 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_21 (DW), Ayotoya_24 (DI), BetterKatz_24 (DI), Bock_24 (DI), Brylie_24 (DI), Chop_24 (DI), DelRio_25 (DI), DumpsterDude_21 (DW), Francois_24 (DI), GrandSlam_24 (DI), Hamood_24 (DI), MakCheese_22 (DW), Mulch_24 (DI), Nadeem_24 (DI), NancyRae_24 (DI), Parada_24 (DI), Pimento_25 (DI), Ruthy_21 (DW), Sprinklemunch_20 (DW), WheatThin_24 (DI), Zodiariah_20 (DW),

Start 26:

- Found in 26 of 199 (13.1%) of genes in pham
- Manual Annotations of this start: 24 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_28 (Z), Amochick_24 (Q), Amymech_24 (Q), BloominB_24 (Q), Daegal_25 (Q), DeepSoil15_24 (Q), Dewey_24 (Q), Ein37_24 (Q), Evanesce_24 (Q), Forge_24 (Q), Gancho_23 (Q), Giles_24 (Q), Gravaillia_24 (Q), HH92_24 (Q), Hadrien_24 (Q), Hail_24 (Q), Kinbote_24 (Q), LilHazelNut_24 (Q), Luke_24 (Q), Luna22_24 (Q), NovoPizza_22 (Q), OBUpride_24 (Q), Rem711_27 (Z), Ubuntu_24 (Q), Webster2_24 (Q), Wishmaker_24 (Q),

Start 28:

- Found in 10 of 199 (5.0%) of genes in pham
- Manual Annotations of this start: 5 of 179
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BabyMoney_27 (DT), Dogfish_27 (DT), Ewald_28 (DT), Manilisa_29 (DT), Meyran_27 (DT), Nyceirae_29 (DT), Phishy_28 (DT), Vordorf_28 (DT),

Start 29:

- Found in 49 of 199 (24.6%) of genes in pham
- Manual Annotations of this start: 46 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes_24 (DA), Archis_28 (CV), Azula_29 (CV), Barco_27 (CV), Begonia_28 (CV), BlingBling_27 (CV), Blino_28 (CV), Blueberry_29 (CV), CaptainKirk2_27 (CV), CarolAnn_28 (CV), CheeseSpider_31 (CV), Delian_28 (CV), Fairfaxidum_27 (CV), Fenry_26 (CV), Frizzle_24 (DA), Frokostdame_27 (CV), Gambino_29 (CV), Ghobes_25 (DA), Guacamole_27 (CV), Hitter_27 (CV), Jalammah_29 (CV), JasperJr_27 (CV), JuJu_28 (CV), KappaFarmDelta_29 (CV), Lysidious_28 (CV), Malachai_28 (CV), Melba_27 (CV), Mellie_26 (CV), MintFen_27 (CV), MissRona_29 (CV), Murp_28 (CV), Obliviate_27 (CV), PCoral7_28 (CV), Petra_29 (CV), PhrostedPhlake_29 (CV), Pipp_27 (CV), PrincePatrick_27 (CV), Samba_27 (CV), Sapo_24 (DA), Toast_28 (CV), UmaThurman_27 (CV), Utz_27 (CV), Walrus_29 (CV), William_28 (CV), Wisp_26 (CV), Wocket_29 (CV), Zarbodnamra_27 (CV), ZiggyZoo_27 (CV), Zilla_27 (CV),

Summary by clusters:

There are 25 clusters represented in this pham: DL, DI, DD, singleton, DA, DW, DT, CU5, CU4, CU3, CU2, CU1, CQ2, CQ1, AH, Q, Z, CV, CR2, CR3, CR1, CR6, CR7, CR4, CR5,

Info for manual annotations of cluster AH:

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

Info for manual annotations of cluster CQ1:

- Start number 23 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 23 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CR1:

- Start number 21 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 19 was manually annotated 13 times for cluster CR2.
- Start number 21 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 21 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 21 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 15 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 21 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 21 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CU1:

- Start number 21 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 21 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 21 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 20 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CV:

- Start number 29 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster DA:

- Start number 29 was manually annotated 4 times for cluster DA.

Info for manual annotations of cluster DD:

- Start number 23 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DI:

- Start number 24 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DL:

- Start number 23 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DT:

- Start number 28 was manually annotated 5 times for cluster DT.

Info for manual annotations of cluster DW:

- Start number 24 was manually annotated 4 times for cluster DW.

Info for manual annotations of cluster Q:

- Start number 26 was manually annotated 23 times for cluster Q.

Info for manual annotations of cluster Z:

- Start number 26 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_28 Start: 21299, Stop: 22384, Start Num: 26

Candidate Starts for 32HC_28:

(Start: 26 @21299 has 24 MA's), (42, 21362), (46, 21389), (54, 21413), (90, 21617), (100, 21662), (102, 21668), (165, 21926), (195, 22079), (196, 22085), (198, 22091), (223, 22238), (235, 22295), (247, 22355), (251, 22367), (254, 22376),

Gene: Abscondus_54 Start: 34012, Stop: 35094, Start Num: 23

Candidate Starts for Abscondus_54:

(Start: 23 @34012 has 25 MA's), (33, 34051), (40, 34072), (67, 34219), (87, 34309), (92, 34339), (104, 34399), (120, 34468), (176, 34705), (181, 34723), (184, 34756), (195, 34798), (212, 34891), (220, 34936), (236, 35011), (237, 35014), (249, 35074), (250, 35077),

Gene: Amochick_24 Start: 19756, Stop: 20859, Start Num: 26

Candidate Starts for Amochick_24:

(7, 19486), (Start: 26 @19756 has 24 MA's), (51, 19861), (53, 19867), (54, 19870), (56, 19885), (57, 19888), (58, 19891), (59, 19894), (61, 19903), (73, 19987), (77, 20002), (87, 20053), (99, 20119), (102, 20128), (105, 20140), (108, 20149), (124, 20221), (136, 20284), (145, 20314), (148, 20317), (175, 20452), (180, 20467), (198, 20566), (200, 20575), (211, 20647), (227, 20731), (234, 20764), (235, 20770), (254, 20851),

Gene: Amymech_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Amymech_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Aphelion_55 Start: 34281, Stop: 35363, Start Num: 23

Candidate Starts for Aphelion_55:

(Start: 23 @34281 has 25 MA's), (33, 34320), (40, 34341), (67, 34488), (87, 34578), (92, 34608), (104, 34668), (120, 34737), (176, 34974), (181, 34992), (184, 35025), (195, 35067), (212, 35160), (220, 35205), (236, 35280), (237, 35283), (249, 35343), (250, 35346),

Gene: Apiary_46 Start: 32958, Stop: 34064, Start Num: 21

Candidate Starts for Apiary_46:

(Start: 21 @32958 has 42 MA's), (53, 33057), (68, 33150), (69, 33153), (74, 33183), (93, 33288), (96, 33300), (106, 33351), (138, 33513), (141, 33525), (157, 33591), (181, 33699), (186, 33744), (188, 33750), (193, 33768), (195, 33777), (196, 33783), (216, 33879), (219, 33888), (223, 33903), (231, 33942),

Gene: ArchiDore_21 Start: 18396, Stop: 19496, Start Num: 24

Candidate Starts for ArchiDore_21:

(6, 18114), (9, 18222), (Start: 24 @18396 has 19 MA's), (56, 18528), (100, 18771), (102, 18777), (115, 18837), (143, 18954), (162, 19032), (184, 19140), (185, 19143), (201, 19215), (203, 19233), (223, 19350), (235, 19407), (254, 19488),

Gene: Archimedes_24 Start: 20193, Stop: 21275, Start Num: 29

Candidate Starts for Archimedes_24:

(Start: 29 @20193 has 46 MA's), (46, 20271), (51, 20286), (53, 20292), (78, 20433), (80, 20442), (95, 20529), (108, 20589), (138, 20739), (180, 20913), (215, 21096), (222, 21120), (228, 21150), (253, 21267),

Gene: Archis_28 Start: 22530, Stop: 23597, Start Num: 29

Candidate Starts for Archis_28:

(Start: 29 @22530 has 46 MA's), (35, 22560), (46, 22608), (51, 22623), (61, 22665), (62, 22668), (63, 22674), (74, 22752), (76, 22761), (78, 22770), (88, 22830), (95, 22866), (110, 22944), (114, 22962), (115, 22968), (123, 23001), (127, 23016), (155, 23142), (177, 23238), (188, 23304), (196, 23334), (252, 23580),

Gene: Arti_42 Start: 31466, Stop: 32593, Start Num: 19

Candidate Starts for Arti_42:

(Start: 19 @31466 has 13 MA's), (53, 31571), (84, 31745), (97, 31820), (112, 31898), (117, 31931), (134, 32012), (147, 32057), (151, 32078), (156, 32111), (169, 32171), (242, 32525), (251, 32558),

Gene: Ayotoya_24 Start: 20291, Stop: 21391, Start Num: 24

Candidate Starts for Ayotoya_24:

(Start: 24 @20291 has 19 MA's), (38, 20342), (56, 20423), (94, 20636), (102, 20672), (128, 20780), (151, 20867), (181, 21002), (185, 21038), (186, 21047), (195, 21083), (207, 21149), (213, 21194), (223, 21245), (229, 21272), (232, 21290), (249, 21368), (254, 21383),

Gene: Azula_29 Start: 22628, Stop: 23695, Start Num: 29

Candidate Starts for Azula_29:

(Start: 29 @22628 has 46 MA's), (35, 22658), (46, 22706), (51, 22721), (61, 22763), (62, 22766), (63, 22772), (76, 22859), (78, 22868), (88, 22928), (95, 22964), (98, 22985), (109, 23039), (114, 23060), (115, 23066), (123, 23099), (127, 23114), (155, 23240), (177, 23336), (186, 23396), (188, 23402), (196, 23432), (215, 23513), (252, 23678),

Gene: BabyMoney_27 Start: 22309, Stop: 23373, Start Num: 28

Candidate Starts for BabyMoney_27:

(14, 22258), (Start: 28 @22309 has 5 MA's), (35, 22342), (40, 22360), (47, 22399), (48, 22402), (57, 22438), (59, 22444), (60, 22450), (115, 22738), (126, 22777), (146, 22864), (153, 22891), (157, 22912), (161, 22930), (179, 23005), (197, 23101), (198, 23104), (229, 23251), (235, 23281), (249, 23347), (254, 23365),

Gene: Bachita_57 Start: 34714, Stop: 35796, Start Num: 23

Candidate Starts for Bachita_57:

(Start: 23 @34714 has 25 MA's), (33, 34753), (40, 34774), (67, 34921), (87, 35011), (92, 35041), (104, 35101), (120, 35170), (176, 35407), (181, 35425), (184, 35458), (195, 35500), (212, 35593), (220, 35638), (236, 35713), (237, 35716), (249, 35776), (250, 35779),

Gene: Banquo_30 Start: 20886, Stop: 22001, Start Num: 21

Candidate Starts for Banquo_30:

(Start: 21 @20886 has 42 MA's), (50, 20991), (67, 21090), (83, 21159), (85, 21177), (86, 21180), (103, 21270), (106, 21282), (149, 21477), (188, 21675), (194, 21699), (196, 21705), (212, 21780), (213, 21789), (221, 21825), (228, 21858), (240, 21924),

Gene: Bantam_36 Start: 31839, Stop: 32912, Start Num: 23

Candidate Starts for Bantam_36:

(Start: 23 @31839 has 25 MA's), (33, 31878), (52, 31950), (57, 31974), (67, 32043), (92, 32163), (104, 32223), (107, 32232), (108, 32235), (115, 32268), (135, 32361), (161, 32457), (224, 32775),

Gene: Barco_27 Start: 22319, Stop: 23386, Start Num: 29

Candidate Starts for Barco_27:

(Start: 29 @22319 has 46 MA's), (35, 22349), (46, 22397), (51, 22412), (61, 22454), (62, 22457), (63, 22463), (74, 22541), (76, 22550), (78, 22559), (88, 22619), (95, 22655), (110, 22733), (114, 22751), (115, 22757), (123, 22790), (127, 22805), (155, 22931), (177, 23027), (188, 23093), (196, 23123), (252, 23369),

Gene: Begonia_28 Start: 22800, Stop: 23867, Start Num: 29

Candidate Starts for Begonia_28:

(Start: 29 @22800 has 46 MA's), (35, 22830), (46, 22878), (51, 22893), (61, 22935), (62, 22938), (63, 22944), (74, 23022), (76, 23031), (78, 23040), (88, 23100), (109, 23211), (114, 23232), (115, 23238), (123, 23271), (127, 23286), (155, 23412), (164, 23448), (177, 23508), (186, 23568), (188, 23574), (196, 23604), (215, 23685), (252, 23850),

Gene: BetterKatz_24 Start: 19764, Stop: 20864, Start Num: 24

Candidate Starts for BetterKatz_24:

(Start: 24 @19764 has 19 MA's), (38, 19815), (51, 19872), (56, 19896), (94, 20109), (102, 20145), (128, 20253), (181, 20475), (185, 20511), (186, 20520), (195, 20556), (207, 20622), (213, 20667), (223, 20718), (229, 20745), (232, 20763), (249, 20841), (254, 20856),

Gene: BiPauneto_45 Start: 31223, Stop: 32338, Start Num: 21

Candidate Starts for BiPauneto_45:

(Start: 21 @31223 has 42 MA's), (34, 31265), (42, 31289), (53, 31325), (63, 31373), (69, 31421), (97, 31574), (138, 31781), (140, 31787), (149, 31817), (165, 31892), (181, 31967), (184, 32000), (192, 32033), (195, 32045), (229, 32201), (239, 32255), (242, 32270), (249, 32297),

Gene: BlingBling_27 Start: 22319, Stop: 23386, Start Num: 29

Candidate Starts for BlingBling_27:

(Start: 29 @22319 has 46 MA's), (35, 22349), (46, 22397), (51, 22412), (61, 22454), (62, 22457), (63, 22463), (74, 22541), (76, 22550), (78, 22559), (88, 22619), (95, 22655), (110, 22733), (114, 22751), (115, 22757), (123, 22790), (127, 22805), (155, 22931), (177, 23027), (188, 23093), (196, 23123), (252, 23369),

Gene: Blino_28 Start: 22410, Stop: 23477, Start Num: 29

Candidate Starts for Blino_28:

(Start: 29 @22410 has 46 MA's), (35, 22440), (46, 22488), (51, 22503), (61, 22545), (76, 22641), (78, 22650), (88, 22710), (95, 22746), (98, 22767), (109, 22821), (114, 22842), (115, 22848), (123, 22881), (127, 22896), (155, 23022), (177, 23118), (186, 23178), (188, 23184), (196, 23214), (252, 23460),

Gene: BloominB_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for BloominB_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Blueberry_29 Start: 22628, Stop: 23695, Start Num: 29

Candidate Starts for Blueberry_29:

(Start: 29 @22628 has 46 MA's), (35, 22658), (46, 22706), (51, 22721), (61, 22763), (62, 22766), (63, 22772), (76, 22859), (78, 22868), (88, 22928), (95, 22964), (98, 22985), (109, 23039), (114, 23060), (115, 23066), (123, 23099), (127, 23114), (155, 23240), (177, 23336), (186, 23396), (188, 23402), (196, 23432), (215, 23513), (252, 23678),

Gene: Bock_24 Start: 19514, Stop: 20614, Start Num: 24

Candidate Starts for Bock_24:

(Start: 24 @19514 has 19 MA's), (38, 19565), (56, 19646), (94, 19859), (102, 19895), (128, 20003), (151, 20090), (181, 20225), (185, 20261), (186, 20270), (195, 20306), (203, 20351), (207, 20372), (213, 20417), (223, 20468), (229, 20495), (232, 20513), (249, 20591), (254, 20606),

Gene: Bonum_45 Start: 31797, Stop: 32906, Start Num: 21

Candidate Starts for Bonum_45:

(Start: 21 @31797 has 42 MA's), (42, 31857), (68, 31986), (84, 32067), (95, 32133), (97, 32142), (119, 32259), (140, 32355), (141, 32361), (149, 32385), (159, 32433), (168, 32481), (176, 32517), (188, 32586), (192, 32601), (204, 32652), (223, 32742), (236, 32802),

Gene: Braxoaddie_46 Start: 32947, Stop: 34053, Start Num: 21

Candidate Starts for Braxoaddie_46:

(Start: 21 @32947 has 42 MA's), (53, 33046), (68, 33139), (69, 33142), (74, 33172), (93, 33277), (96, 33289), (106, 33340), (138, 33502), (141, 33514), (157, 33580), (181, 33688), (186, 33733), (188, 33739), (193, 33757), (195, 33766), (196, 33772), (216, 33868), (219, 33877), (223, 33892), (231, 33931),

Gene: BrutonGaster_44 Start: 31359, Stop: 32438, Start Num: 23

Candidate Starts for BrutonGaster_44:

(Start: 23 @31359 has 25 MA's), (57, 31494), (67, 31563), (87, 31653), (91, 31680), (188, 32118), (195, 32142),

Gene: Brylie_24 Start: 19505, Stop: 20605, Start Num: 24

Candidate Starts for Brylie_24:

(Start: 24 @19505 has 19 MA's), (38, 19556), (56, 19637), (94, 19850), (102, 19886), (128, 19994), (151, 20081), (181, 20216), (185, 20252), (186, 20261), (195, 20297), (207, 20363), (213, 20408), (223, 20459), (229, 20486), (232, 20504), (249, 20582), (254, 20597),

Gene: Buggaboo_43 Start: 32276, Stop: 33385, Start Num: 21

Candidate Starts for Buggaboo_43:

(Start: 21 @32276 has 42 MA's), (42, 32336), (68, 32465), (69, 32468), (84, 32546), (95, 32612), (97, 32621), (140, 32834), (141, 32840), (149, 32864), (159, 32912), (168, 32960), (188, 33065), (192, 33080), (204, 33131), (223, 33221), (236, 33281),

Gene: CaptainKirk2_27 Start: 22340, Stop: 23407, Start Num: 29

Candidate Starts for CaptainKirk2_27:

(Start: 29 @22340 has 46 MA's), (35, 22370), (46, 22418), (51, 22433), (61, 22475), (62, 22478), (63, 22484), (74, 22562), (76, 22571), (78, 22580), (88, 22640), (95, 22676), (110, 22754), (114, 22772), (115, 22778), (123, 22811), (127, 22826), (155, 22952), (177, 23048), (188, 23114), (196, 23144), (252, 23390),

Gene: Cardigan_54 Start: 37401, Stop: 38477, Start Num: 23

Candidate Starts for Cardigan_54:

(Start: 23 @37401 has 25 MA's), (44, 37491), (57, 37539), (67, 37608), (97, 37749), (108, 37800), (115, 37833), (120, 37857), (167, 38058), (188, 38163), (198, 38199), (214, 38289), (239, 38418), (247, 38454),

Gene: CarolAnn_28 Start: 22409, Stop: 23476, Start Num: 29

Candidate Starts for CarolAnn_28:

(Start: 29 @22409 has 46 MA's), (35, 22439), (46, 22487), (51, 22502), (61, 22544), (76, 22640), (78, 22649), (88, 22709), (95, 22745), (98, 22766), (109, 22820), (114, 22841), (115, 22847), (123, 22880), (127, 22895), (155, 23021), (177, 23117), (186, 23177), (188, 23183), (196, 23213), (252, 23459),

Gene: Catfish_26 Start: 21557, Stop: 22666, Start Num: 20

Candidate Starts for Catfish_26:

(Start: 20 @21557 has 1 MA's), (Start: 21 @21560 has 42 MA's), (31, 21593), (38, 21617), (50, 21668), (64, 21734), (70, 21776), (86, 21857), (100, 21938), (103, 21947), (120, 22034), (122, 22040), (149, 22154), (152, 22163), (154, 22178), (161, 22208), (179, 22289), (188, 22346), (194, 22370), (227, 22514), (240, 22586), (242, 22595), (243, 22601), (245, 22613), (248, 22619), (255, 22643),

Gene: CheeseSpider_31 Start: 22876, Stop: 23943, Start Num: 29

Candidate Starts for CheeseSpider_31:

(Start: 29 @22876 has 46 MA's), (46, 22954), (62, 23014), (63, 23020), (78, 23116), (88, 23176), (95, 23212), (98, 23233), (109, 23287), (114, 23308), (115, 23314), (121, 23341), (127, 23362), (155, 23488), (171, 23560), (188, 23650), (196, 23680), (228, 23815), (232, 23836), (252, 23926),

Gene: ChewyVIII_57 Start: 39792, Stop: 40907, Start Num: 17

Candidate Starts for ChewyVIII_57:

(12, 39729), (Start: 17 @39792 has 1 MA's), (30, 39816), (50, 39891), (53, 39900), (57, 39921), (65, 39981), (96, 40140), (97, 40146), (155, 40422), (189, 40596), (193, 40608), (202, 40644), (216, 40719), (223, 40743), (236, 40803),

Gene: Chop_24 Start: 20039, Stop: 21139, Start Num: 24

Candidate Starts for Chop_24:

(Start: 24 @20039 has 19 MA's), (38, 20090), (56, 20171), (94, 20384), (102, 20420), (128, 20528), (151, 20615), (181, 20750), (185, 20786), (186, 20795), (195, 20831), (207, 20897), (213, 20942), (223, 20993), (229, 21020), (232, 21038), (249, 21116), (254, 21131),

Gene: ClubL_55 Start: 34203, Stop: 35285, Start Num: 23

Candidate Starts for ClubL_55:

(Start: 23 @34203 has 25 MA's), (33, 34242), (40, 34263), (67, 34410), (87, 34500), (92, 34530), (104, 34590), (120, 34659), (176, 34896), (181, 34914), (184, 34947), (195, 34989), (212, 35082), (220, 35127), (236, 35202), (237, 35205), (249, 35265), (250, 35268),

Gene: CoffeeBean_46 Start: 32905, Stop: 34011, Start Num: 21

Candidate Starts for CoffeeBean_46:

(Start: 21 @32905 has 42 MA's), (53, 33004), (68, 33097), (69, 33100), (74, 33130), (93, 33235), (96, 33247), (106, 33298), (138, 33460), (141, 33472), (157, 33538), (181, 33646), (186, 33691), (188, 33697), (193, 33715), (195, 33724), (196, 33730), (216, 33826), (219, 33835), (223, 33850), (231, 33889),

Gene: Commandaria_44 Start: 32797, Stop: 33921, Start Num: 19

Candidate Starts for Commandaria_44:

(Start: 19 @32797 has 13 MA's), (42, 32863), (53, 32899), (83, 33070), (84, 33073), (97, 33148), (111, 33223), (134, 33340), (156, 33439), (158, 33445), (167, 33493), (184, 33583), (195, 33628), (242, 33853), (251, 33886),

Gene: Cucurbita_57 Start: 35573, Stop: 36655, Start Num: 23

Candidate Starts for Cucurbita_57:

(Start: 23 @35573 has 25 MA's), (33, 35612), (40, 35633), (67, 35780), (87, 35870), (92, 35900), (104, 35960), (120, 36029), (176, 36266), (181, 36284), (184, 36317), (195, 36359), (212, 36452), (220, 36497), (236, 36572), (237, 36575), (249, 36635), (250, 36638),

Gene: Culver_55 Start: 34012, Stop: 35187, Start Num: 23

Candidate Starts for Culver_55:

(Start: 23 @34012 has 25 MA's), (53, 34129), (67, 34219), (76, 34252), (87, 34309), (91, 34336), (92, 34339), (121, 34471), (153, 34603), (161, 34636), (170, 34681), (195, 34798), (206, 34852), (212, 34891), (220, 34936), (235, 35008), (258, 35176),

Gene: Daegal_25 Start: 20044, Stop: 21147, Start Num: 26

Candidate Starts for Daegal_25:

(7, 19774), (Start: 26 @20044 has 24 MA's), (51, 20149), (53, 20155), (54, 20158), (56, 20173), (57, 20176), (58, 20179), (59, 20182), (61, 20191), (73, 20275), (77, 20290), (87, 20341), (99, 20407), (102, 20416), (105, 20428), (108, 20437), (124, 20509), (136, 20572), (145, 20602), (148, 20605), (175, 20740), (180, 20755), (198, 20854), (200, 20863), (211, 20935), (227, 21019), (234, 21052), (235, 21058), (254, 21139),

Gene: Dalilpop_47 Start: 33773, Stop: 34882, Start Num: 21

Candidate Starts for Dalilpop_47:

(Start: 21 @33773 has 42 MA's), (32, 33806), (41, 33830), (42, 33833), (140, 34331), (149, 34361), (229, 34745), (236, 34778),

Gene: Dardanus_28 Start: 19721, Stop: 20836, Start Num: 21

Candidate Starts for Dardanus_28:

(Start: 21 @19721 has 42 MA's), (67, 19928), (73, 19955), (85, 20015), (86, 20018), (94, 20063), (98, 20087), (100, 20099), (106, 20120), (120, 20195), (134, 20264), (149, 20315), (152, 20324), (173, 20429), (179, 20456), (181, 20462), (198, 20549), (208, 20591), (209, 20597), (222, 20660), (227, 20684), (229, 20693), (230, 20696), (240, 20756), (242, 20765),

Gene: Daredevil_35 Start: 30347, Stop: 31420, Start Num: 23

Candidate Starts for Daredevil_35:

(Start: 23 @30347 has 25 MA's), (43, 30434), (57, 30482), (108, 30743), (125, 30812), (184, 31085), (186, 31097), (238, 31340),

Gene: DatBoi_37 Start: 32569, Stop: 33642, Start Num: 23

Candidate Starts for DatBoi_37:

(Start: 23 @32569 has 25 MA's), (40, 32629), (57, 32704), (67, 32773), (92, 32893), (104, 32953), (122, 33028), (161, 33187), (196, 33358), (199, 33370), (226, 33511),

Gene: DeepSoil15_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for DeepSoil15_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: DelRio_25 Start: 20513, Stop: 21613, Start Num: 24

Candidate Starts for DelRio_25:

(Start: 24 @20513 has 19 MA's), (38, 20564), (56, 20645), (94, 20858), (102, 20894), (128, 21002), (151, 21089), (181, 21224), (185, 21260), (186, 21269), (195, 21305), (207, 21371), (213, 21416), (223, 21467), (229, 21494), (232, 21512), (249, 21590), (254, 21605),

Gene: Delian_28 Start: 22338, Stop: 23405, Start Num: 29

Candidate Starts for Delian_28:

(Start: 29 @22338 has 46 MA's), (35, 22368), (46, 22416), (51, 22431), (61, 22473), (62, 22476), (63, 22482), (74, 22560), (76, 22569), (78, 22578), (88, 22638), (95, 22674), (110, 22752), (114, 22770), (115, 22776), (123, 22809), (127, 22824), (155, 22950), (177, 23046), (188, 23112), (196, 23142), (252, 23388),

Gene: Dewey_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Dewey_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: DinoDaryn_28 Start: 19747, Stop: 20865, Start Num: 21

Candidate Starts for DinoDaryn_28:

(Start: 21 @19747 has 42 MA's), (35, 19789), (45, 19837), (49, 19849), (53, 19861), (67, 19951), (85, 20038), (86, 20041), (101, 20125), (106, 20143), (120, 20218), (149, 20338), (178, 20473), (188, 20536), (194, 20560), (212, 20641), (213, 20650), (228, 20719), (229, 20722), (230, 20725), (240, 20785), (242, 20794),

Gene: Dogfish_27 Start: 22608, Stop: 23672, Start Num: 28

Candidate Starts for Dogfish_27:

(Start: 28 @22608 has 5 MA's), (35, 22641), (40, 22659), (47, 22698), (48, 22701), (59, 22743), (115, 23037), (126, 23076), (144, 23157), (146, 23163), (157, 23211), (161, 23229), (179, 23304), (186, 23355), (197, 23400), (198, 23403), (229, 23550), (235, 23580), (249, 23646), (254, 23664),

Gene: DumpsterDude_21 Start: 18369, Stop: 19469, Start Num: 24

Candidate Starts for DumpsterDude_21:

(6, 18087), (9, 18195), (Start: 24 @18369 has 19 MA's), (47, 18465), (56, 18501), (87, 18675), (100, 18744), (102, 18750), (115, 18810), (143, 18927), (162, 19005), (184, 19113), (185, 19116), (186, 19125), (195, 19161), (198, 19173), (201, 19188), (223, 19323), (234, 19374), (235, 19380), (254, 19461),

Gene: Dusty_54 Start: 34012, Stop: 35094, Start Num: 23

Candidate Starts for Dusty_54:

(Start: 23 @34012 has 25 MA's), (33, 34051), (40, 34072), (67, 34219), (87, 34309), (92, 34339), (104, 34399), (120, 34468), (176, 34705), (181, 34723), (184, 34756), (195, 34798), (212, 34891), (220, 34936), (236, 35011), (237, 35014), (249, 35074), (250, 35077),

Gene: Ein37_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Ein37_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Emianna_42 Start: 32479, Stop: 33606, Start Num: 19

Candidate Starts for Emianna_42:

(Start: 19 @32479 has 13 MA's), (53, 32584), (84, 32758), (97, 32833), (112, 32911), (117, 32944), (134, 33025), (147, 33070), (151, 33091), (156, 33124), (169, 33184), (242, 33538), (251, 33571),

Gene: Engineer_57 Start: 34687, Stop: 35769, Start Num: 23

Candidate Starts for Engineer_57:

(Start: 23 @34687 has 25 MA's), (33, 34726), (40, 34747), (67, 34894), (87, 34984), (92, 35014), (104, 35074), (120, 35143), (176, 35380), (181, 35398), (184, 35431), (195, 35473), (212, 35566), (220, 35611), (236, 35686), (237, 35689), (249, 35749), (250, 35752),

Gene: Ennea_48 Start: 33125, Stop: 34234, Start Num: 21

Candidate Starts for Ennea_48:

(1, 32039), (2, 32072), (3, 32552), (Start: 21 @33125 has 42 MA's), (42, 33185), (58, 33245), (84, 33395), (106, 33515), (112, 33548), (121, 33596), (140, 33683), (149, 33713), (176, 33845), (179, 33857), (195, 33941), (229, 34097), (249, 34193),

Gene: Evanesce_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Evanesce_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Ewald_28 Start: 22994, Stop: 24058, Start Num: 28

Candidate Starts for Ewald_28:

(10, 22886), (Start: 28 @22994 has 5 MA's), (35, 23027), (40, 23045), (47, 23084), (48, 23087), (57, 23123), (59, 23129), (126, 23462), (146, 23549), (153, 23576), (157, 23597), (161, 23615), (179, 23690), (197, 23786), (198, 23789), (229, 23936), (235, 23966), (249, 24032), (254, 24050),

Gene: Fairfaxidum_27 Start: 22634, Stop: 23698, Start Num: 29

Candidate Starts for Fairfaxidum_27:

(Start: 29 @22634 has 46 MA's), (46, 22712), (53, 22733), (62, 22772), (63, 22778), (88, 22934), (95, 22970), (98, 22991), (102, 23009), (114, 23063), (115, 23069), (127, 23117), (186, 23399), (188, 23405), (196, 23435), (228, 23570), (235, 23603), (247, 23666), (252, 23681), (253, 23687),

Gene: Fenry_26 Start: 22038, Stop: 23105, Start Num: 29

Candidate Starts for Fenry_26:

(Start: 29 @22038 has 46 MA's), (35, 22068), (46, 22116), (51, 22131), (61, 22173), (76, 22269), (78, 22278), (88, 22338), (95, 22374), (98, 22395), (109, 22449), (114, 22470), (115, 22476), (121, 22503), (123, 22509), (127, 22524), (155, 22650), (177, 22746), (186, 22806), (188, 22812), (196, 22842), (252, 23088),

Gene: Flapper_46 Start: 32840, Stop: 33949, Start Num: 21

Candidate Starts for Flapper_46:

(Start: 21 @32840 has 42 MA's), (41, 32897), (42, 32900), (140, 33398), (149, 33428), (229, 33812), (236, 33845), (249, 33908),

Gene: Float294_44 Start: 32567, Stop: 33676, Start Num: 21

Candidate Starts for Float294_44:

(1, 31481), (2, 31514), (3, 31994), (Start: 21 @32567 has 42 MA's), (42, 32627), (58, 32687), (84, 32837), (106, 32957), (112, 32990), (121, 33038), (140, 33125), (149, 33155), (179, 33299), (195,

33383), (229, 33539), (249, 33635),

Gene: Forge_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Forge_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Foxboro_43 Start: 32985, Stop: 34112, Start Num: 19

Candidate Starts for Foxboro_43:

(Start: 19 @32985 has 13 MA's), (53, 33090), (84, 33264), (97, 33339), (112, 33417), (117, 33450), (134, 33531), (147, 33576), (151, 33597), (156, 33630), (169, 33690), (242, 34044), (251, 34077),

Gene: Francois_24 Start: 19528, Stop: 20628, Start Num: 24

Candidate Starts for Francois_24:

(9, 19357), (Start: 24 @19528 has 19 MA's), (38, 19579), (56, 19660), (94, 19873), (102, 19909), (151, 20104), (179, 20233), (181, 20239), (185, 20275), (186, 20284), (195, 20320), (203, 20365), (213, 20431), (223, 20482), (229, 20509), (232, 20527), (249, 20605), (254, 20620),

Gene: Frizzle_24 Start: 20324, Stop: 21406, Start Num: 29

Candidate Starts for Frizzle_24:

(Start: 29 @20324 has 46 MA's), (38, 20366), (53, 20423), (69, 20516), (82, 20582), (91, 20645), (108, 20720), (114, 20756), (115, 20762), (120, 20786), (123, 20795), (127, 20810), (137, 20864), (138, 20870), (142, 20882), (160, 20957), (164, 20972), (165, 20975), (179, 21041), (186, 21092), (215, 21227), (222, 21251), (229, 21284), (234, 21308), (253, 21398),

Gene: Frokostdame_27 Start: 22282, Stop: 23349, Start Num: 29

Candidate Starts for Frokostdame_27:

(Start: 29 @22282 has 46 MA's), (35, 22312), (46, 22360), (51, 22375), (61, 22417), (62, 22420), (63, 22426), (76, 22513), (78, 22522), (88, 22582), (95, 22618), (98, 22639), (109, 22693), (114, 22714), (115, 22720), (123, 22753), (127, 22768), (155, 22894), (177, 22990), (186, 23050), (188, 23056), (196, 23086), (215, 23167), (252, 23332),

Gene: Fury_51 Start: 32338, Stop: 33456, Start Num: 15

Candidate Starts for Fury_51:

(Start: 15 @32338 has 2 MA's), (22, 32350), (42, 32407), (70, 32542), (72, 32563), (84, 32617), (98, 32704), (106, 32737), (118, 32806), (140, 32905), (156, 32974), (210, 33229), (223, 33292), (249, 33415), (250, 33418), (251, 33421),

Gene: GRU1_32 Start: 24740, Stop: 25849, Start Num: 21

Candidate Starts for GRU1_32:

(Start: 21 @24740 has 42 MA's), (42, 24800), (140, 25298), (149, 25328), (229, 25712), (236, 25745), (239, 25766),

Gene: GTE5_33 Start: 25695, Stop: 26804, Start Num: 21

Candidate Starts for GTE5_33:

(Start: 21 @25695 has 42 MA's), (41, 25752), (42, 25755), (140, 26253), (149, 26283), (229, 26667), (236, 26700), (249, 26763),

Gene: GTE8_31 Start: 25738, Stop: 26865, Start Num: 19

Candidate Starts for GTE8_31:

(Start: 19 @25738 has 13 MA's), (53, 25843), (84, 26017), (97, 26092), (112, 26170), (117, 26203), (134, 26284), (147, 26329), (156, 26383), (169, 26443), (242, 26797), (251, 26830),

Gene: Gagieri_46 Start: 32782, Stop: 33885, Start Num: 21

Candidate Starts for Gagieri_46:

(Start: 21 @32782 has 42 MA's), (53, 32878), (68, 32971), (69, 32974), (74, 33004), (106, 33172), (111, 33202), (112, 33205), (138, 33334), (157, 33412), (186, 33565), (188, 33571), (193, 33589), (195, 33598), (196, 33604), (216, 33700), (223, 33724),

Gene: Gambino_29 Start: 22628, Stop: 23695, Start Num: 29

Candidate Starts for Gambino_29:

(Start: 29 @22628 has 46 MA's), (35, 22658), (46, 22706), (51, 22721), (61, 22763), (62, 22766), (63, 22772), (76, 22859), (78, 22868), (88, 22928), (95, 22964), (98, 22985), (109, 23039), (114, 23060), (115, 23066), (123, 23099), (127, 23114), (155, 23240), (177, 23336), (186, 23396), (188, 23402), (196, 23432), (215, 23513), (252, 23678),

Gene: Gancho_23 Start: 19474, Stop: 20577, Start Num: 26

Candidate Starts for Gancho_23:

(7, 19204), (Start: 26 @19474 has 24 MA's), (48, 19570), (54, 19588), (56, 19603), (57, 19606), (58, 19609), (59, 19612), (61, 19621), (73, 19705), (77, 19720), (87, 19771), (99, 19837), (102, 19846), (105, 19858), (108, 19867), (124, 19939), (145, 20032), (148, 20035), (175, 20170), (180, 20185), (198, 20284), (200, 20293), (205, 20332), (211, 20365), (227, 20449), (235, 20488), (254, 20569),

Gene: Geeche_54 Start: 34103, Stop: 35185, Start Num: 23

Candidate Starts for Geeche_54:

(Start: 23 @34103 has 25 MA's), (33, 34142), (40, 34163), (67, 34310), (87, 34400), (92, 34430), (104, 34490), (120, 34559), (176, 34796), (181, 34814), (184, 34847), (195, 34889), (212, 34982), (220, 35027), (236, 35102), (237, 35105), (249, 35165), (250, 35168),

Gene: Ghobes_25 Start: 20324, Stop: 21406, Start Num: 29

Candidate Starts for Ghobes_25:

(Start: 29 @20324 has 46 MA's), (38, 20366), (53, 20423), (69, 20516), (82, 20582), (91, 20645), (108, 20720), (114, 20756), (115, 20762), (120, 20786), (123, 20795), (127, 20810), (137, 20864), (138, 20870), (142, 20882), (160, 20957), (164, 20972), (165, 20975), (179, 21041), (215, 21227), (222, 21251), (229, 21284), (234, 21308), (253, 21398),

Gene: Giles_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Giles_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Goib_27 Start: 19531, Stop: 20649, Start Num: 21

Candidate Starts for Goib_27:

(Start: 21 @19531 has 42 MA's), (35, 19573), (45, 19621), (49, 19633), (67, 19735), (85, 19822), (86, 19825), (101, 19909), (106, 19927), (120, 20002), (149, 20122), (177, 20254), (178, 20257), (188, 20320), (194, 20344), (212, 20425), (213, 20434), (222, 20473), (225, 20491), (228, 20503), (229, 20506), (230, 20509), (240, 20569),

Gene: GrandSlam_24 Start: 20039, Stop: 21139, Start Num: 24

Candidate Starts for GrandSlam_24:

(Start: 24 @20039 has 19 MA's), (38, 20090), (56, 20171), (94, 20384), (102, 20420), (128, 20528), (151, 20615), (181, 20750), (185, 20786), (186, 20795), (195, 20831), (207, 20897), (213, 20942), (223, 20993), (229, 21020), (232, 21038), (249, 21116), (254, 21131),

Gene: Gravaillia_24 Start: 19480, Stop: 20583, Start Num: 26

Candidate Starts for Gravaillia_24:

(7, 19210), (Start: 26 @19480 has 24 MA's), (48, 19576), (54, 19594), (56, 19609), (57, 19612), (58, 19615), (59, 19618), (61, 19627), (73, 19711), (77, 19726), (87, 19777), (99, 19843), (102, 19852), (105, 19864), (108, 19873), (124, 19945), (136, 20008), (145, 20038), (148, 20041), (175, 20176), (180, 20191), (198, 20290), (200, 20299), (205, 20338), (211, 20371), (227, 20455), (235, 20494), (254, 20575),

Gene: GrootJr_44 Start: 31861, Stop: 32988, Start Num: 19

Candidate Starts for GrootJr_44:

(Start: 19 @31861 has 13 MA's), (53, 31966), (81, 32122), (97, 32215), (112, 32293), (117, 32326), (134, 32407), (147, 32452), (151, 32473), (153, 32488), (156, 32506), (169, 32566), (242, 32920), (251, 32953),

Gene: Gspu1_24 Start: 18864, Stop: 19922, Start Num: 21

Candidate Starts for Gspu1_24:

(Start: 21 @18864 has 42 MA's), (37, 18915), (49, 18966), (57, 18999), (67, 19068), (68, 19071), (86, 19158), (94, 19197), (98, 19221), (100, 19233), (106, 19254), (116, 19314), (122, 19335), (148, 19440), (149, 19449), (152, 19458), (164, 19515), (172, 19554), (178, 19584), (179, 19590), (181, 19596), (188, 19647), (194, 19671), (204, 19710), (213, 19761), (217, 19782), (222, 19800), (227, 19824), (229, 19833), (230, 19836), (240, 19896), (242, 19905), (244, 19914),

Gene: Guacamole_27 Start: 22323, Stop: 23390, Start Num: 29

Candidate Starts for Guacamole_27:

(Start: 29 @22323 has 46 MA's), (35, 22353), (46, 22401), (51, 22416), (61, 22458), (62, 22461), (63, 22467), (74, 22545), (76, 22554), (78, 22563), (88, 22623), (95, 22659), (98, 22680), (109, 22734), (114, 22755), (115, 22761), (123, 22794), (127, 22809), (155, 22935), (177, 23031), (186, 23091), (188, 23097), (196, 23127), (252, 23373),

Gene: HH92_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for HH92_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Hadrien_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Hadrien_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Hail_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Hail_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116),

(102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Hamood_24 Start: 20039, Stop: 21139, Start Num: 24

Candidate Starts for Hamood_24:

(Start: 24 @20039 has 19 MA's), (38, 20090), (56, 20171), (94, 20384), (102, 20420), (128, 20528), (151, 20615), (181, 20750), (185, 20786), (186, 20795), (195, 20831), (207, 20897), (213, 20942), (223, 20993), (229, 21020), (232, 21038), (249, 21116), (254, 21131),

Gene: Hitter_27 Start: 22319, Stop: 23386, Start Num: 29

Candidate Starts for Hitter_27:

(Start: 29 @22319 has 46 MA's), (35, 22349), (46, 22397), (51, 22412), (61, 22454), (76, 22550), (78, 22559), (88, 22619), (95, 22655), (98, 22676), (110, 22733), (114, 22751), (115, 22757), (123, 22790), (127, 22805), (155, 22931), (177, 23027), (186, 23087), (188, 23093), (196, 23123), (252, 23369),

Gene: HomeFry_48 Start: 30949, Stop: 32070, Start Num: 15

Candidate Starts for HomeFry_48:

(Start: 15 @30949 has 2 MA's), (27, 30964), (42, 31021), (83, 31228), (84, 31231), (118, 31420), (140, 31519), (156, 31588), (210, 31843), (223, 31906), (249, 32029), (250, 32032), (251, 32035),

Gene: HubbaBubba_40 Start: 28235, Stop: 29350, Start Num: 21

Candidate Starts for HubbaBubba_40:

(Start: 21 @28235 has 42 MA's), (34, 28277), (42, 28301), (53, 28337), (63, 28385), (69, 28433), (97, 28586), (138, 28793), (140, 28799), (181, 28979), (184, 29012), (192, 29045), (195, 29057), (229, 29213), (239, 29267), (242, 29282), (249, 29309),

Gene: Huff_28 Start: 19747, Stop: 20865, Start Num: 21

Candidate Starts for Huff_28:

(Start: 21 @19747 has 42 MA's), (35, 19789), (45, 19837), (49, 19849), (53, 19861), (67, 19951), (85, 20038), (86, 20041), (101, 20125), (106, 20143), (120, 20218), (149, 20338), (178, 20473), (188, 20536), (194, 20560), (212, 20641), (213, 20650), (228, 20719), (229, 20722), (230, 20725), (240, 20785), (242, 20794),

Gene: IDyn_43 Start: 29631, Stop: 30746, Start Num: 21

Candidate Starts for IDyn_43:

(Start: 21 @29631 has 42 MA's), (34, 29673), (42, 29697), (53, 29733), (63, 29781), (69, 29829), (97, 29982), (138, 30189), (140, 30195), (149, 30225), (165, 30300), (181, 30375), (184, 30408), (192, 30441), (195, 30453), (229, 30609), (239, 30663), (242, 30678), (249, 30705),

Gene: Jalammah_29 Start: 23113, Stop: 24180, Start Num: 29

Candidate Starts for Jalammah_29:

(Start: 29 @23113 has 46 MA's), (35, 23143), (46, 23191), (51, 23206), (61, 23248), (76, 23344), (78, 23353), (88, 23413), (95, 23449), (98, 23470), (109, 23524), (114, 23545), (115, 23551), (123, 23584), (127, 23599), (155, 23725), (177, 23821), (186, 23881), (188, 23887), (196, 23917), (252, 24163),

Gene: JasperJr_27 Start: 22323, Stop: 23390, Start Num: 29

Candidate Starts for JasperJr_27:

(Start: 29 @22323 has 46 MA's), (35, 22353), (46, 22401), (51, 22416), (61, 22458), (62, 22461), (63, 22467), (74, 22545), (76, 22554), (78, 22563), (88, 22623), (95, 22659), (98, 22680), (109, 22734), (114, 22755), (115, 22761), (123, 22794), (127, 22809), (155, 22935), (177, 23031), (186, 23091), (188, 23097), (196, 23127), (252, 23373),

Gene: Jifall16_41 Start: 32133, Stop: 33260, Start Num: 19

Candidate Starts for Jifall16_41:

(Start: 19 @32133 has 13 MA's), (53, 32238), (84, 32412), (97, 32487), (112, 32565), (117, 32598), (134, 32679), (147, 32724), (151, 32745), (156, 32778), (169, 32838), (242, 33192), (251, 33225),

Gene: JonJames_54 Start: 38302, Stop: 39378, Start Num: 23

Candidate Starts for JonJames_54:

(Start: 23 @38302 has 25 MA's), (44, 38392), (57, 38440), (67, 38509), (97, 38650), (108, 38701), (115, 38734), (167, 38959), (188, 39064), (198, 39100), (214, 39190), (234, 39289), (247, 39355),

Gene: JuJu_28 Start: 22382, Stop: 23449, Start Num: 29

Candidate Starts for JuJu_28:

(Start: 29 @22382 has 46 MA's), (35, 22412), (46, 22460), (51, 22475), (53, 22481), (62, 22520), (76, 22613), (88, 22682), (95, 22718), (114, 22814), (115, 22820), (121, 22847), (127, 22868), (188, 23156), (196, 23186), (238, 23363), (252, 23432),

Gene: JustASigh_20 Start: 18675, Stop: 19814, Start Num: 18

Candidate Starts for JustASigh_20:

(Start: 18 @18675 has 1 MA's), (39, 18744), (54, 18807), (58, 18828), (100, 19071), (103, 19080), (114, 19137), (126, 19182), (129, 19203), (131, 19221), (136, 19239), (165, 19356), (175, 19407), (179, 19419), (181, 19425), (190, 19491), (196, 19515), (198, 19521), (205, 19569), (207, 19572), (232, 19713), (244, 19773), (249, 19791), (254, 19806),

Gene: Kabluna_45 Start: 31212, Stop: 32321, Start Num: 21

Candidate Starts for Kabluna_45:

(Start: 21 @31212 has 42 MA's), (42, 31272), (68, 31401), (84, 31482), (95, 31548), (97, 31557), (119, 31674), (140, 31770), (141, 31776), (149, 31800), (159, 31848), (168, 31896), (176, 31932), (188, 32001), (192, 32016), (204, 32067), (223, 32157), (236, 32217),

Gene: KappaFarmDelta_29 Start: 22801, Stop: 23868, Start Num: 29

Candidate Starts for KappaFarmDelta_29:

(Start: 29 @22801 has 46 MA's), (46, 22879), (61, 22936), (63, 22945), (78, 23041), (88, 23101), (95, 23137), (98, 23158), (102, 23176), (109, 23212), (114, 23233), (115, 23239), (127, 23287), (155, 23413), (171, 23485), (188, 23575), (196, 23605), (228, 23740), (232, 23761), (238, 23782), (252, 23851),

Gene: KidneyBean_42 Start: 32257, Stop: 33384, Start Num: 19

Candidate Starts for KidneyBean_42:

(Start: 19 @32257 has 13 MA's), (53, 32362), (84, 32536), (97, 32611), (112, 32689), (117, 32722), (134, 32803), (147, 32848), (151, 32869), (156, 32902), (169, 32962), (242, 33316), (251, 33349),

Gene: Kinbote_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Kinbote_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Kurt_42 Start: 32494, Stop: 33621, Start Num: 19

Candidate Starts for Kurt_42:

(Start: 19 @32494 has 13 MA's), (53, 32599), (84, 32773), (97, 32848), (112, 32926), (117, 32959), (134, 33040), (147, 33085), (151, 33106), (156, 33139), (169, 33199), (242, 33553), (251, 33586),

Gene: LilHazelnut_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for LilHazelnut_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Lollipop1437_47 Start: 33113, Stop: 34222, Start Num: 21

Candidate Starts for Lollipop1437_47:

(1, 32027), (2, 32060), (3, 32540), (Start: 21 @33113 has 42 MA's), (42, 33173), (58, 33233), (84, 33383), (106, 33503), (112, 33536), (121, 33584), (140, 33671), (149, 33701), (179, 33845), (195, 33929), (229, 34085), (236, 34118), (249, 34181),

Gene: Lozinak_56 Start: 34742, Stop: 35824, Start Num: 23

Candidate Starts for Lozinak_56:

(Start: 23 @34742 has 25 MA's), (33, 34781), (40, 34802), (67, 34949), (87, 35039), (92, 35069), (104, 35129), (120, 35198), (176, 35435), (181, 35453), (184, 35486), (195, 35528), (212, 35621), (220, 35666), (236, 35741), (237, 35744), (249, 35804), (250, 35807),

Gene: Luke_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Luke_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Luna22_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Luna22_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Lysidious_28 Start: 22840, Stop: 23907, Start Num: 29

Candidate Starts for Lysidious_28:

(Start: 29 @22840 has 46 MA's), (35, 22870), (46, 22918), (51, 22933), (61, 22975), (76, 23071), (78, 23080), (88, 23140), (95, 23176), (98, 23197), (109, 23251), (114, 23272), (115, 23278), (123, 23311), (127, 23326), (155, 23452), (177, 23548), (186, 23608), (188, 23614), (196, 23644), (215, 23725), (252, 23890),

Gene: MacGully_53 Start: 35504, Stop: 36610, Start Num: 21

Candidate Starts for MacGully_53:

(Start: 17 @35498 has 1 MA's), (Start: 21 @35504 has 42 MA's), (30, 35519), (42, 35567), (68, 35696), (69, 35699), (93, 35834), (106, 35897), (111, 35927), (138, 36059), (157, 36137), (176, 36227), (181, 36245), (188, 36296), (193, 36314), (195, 36323), (196, 36329), (223, 36449),

Gene: MakCheese_22 Start: 18216, Stop: 19319, Start Num: 24

Candidate Starts for MakCheese_22:

(Start: 24 @18216 has 19 MA's), (38, 18270), (56, 18351), (102, 18600), (115, 18660), (124, 18693), (139, 18768), (183, 18945), (184, 18963), (185, 18966), (195, 19011), (198, 19023), (203, 19056), (207, 19077), (223, 19173), (234, 19224), (235, 19230), (254, 19311),

Gene: Malachai_28 Start: 22800, Stop: 23867, Start Num: 29

Candidate Starts for Malachai_28:

(Start: 29 @22800 has 46 MA's), (35, 22830), (46, 22878), (51, 22893), (61, 22935), (62, 22938), (63, 22944), (74, 23022), (76, 23031), (78, 23040), (88, 23100), (109, 23211), (114, 23232), (115, 23238), (123, 23271), (127, 23286), (155, 23412), (164, 23448), (177, 23508), (186, 23568), (188, 23574), (196, 23604), (215, 23685), (252, 23850),

Gene: Manilisa_29 Start: 23389, Stop: 24453, Start Num: 28

Candidate Starts for Manilisa_29:

(14, 23338), (Start: 28 @23389 has 5 MA's), (35, 23422), (40, 23440), (47, 23479), (48, 23482), (51, 23491), (59, 23524), (60, 23530), (115, 23818), (126, 23857), (146, 23944), (157, 23992), (161, 24010), (179, 24085), (186, 24136), (197, 24181), (198, 24184), (229, 24331), (235, 24361), (249, 24427), (254, 24445),

Gene: Marietta_44 Start: 29547, Stop: 30662, Start Num: 21

Candidate Starts for Marietta_44:

(Start: 21 @29547 has 42 MA's), (34, 29589), (42, 29613), (53, 29649), (63, 29697), (69, 29745), (97, 29898), (119, 30015), (138, 30105), (140, 30111), (181, 30291), (184, 30324), (192, 30357), (195, 30369), (229, 30525), (239, 30579), (242, 30594), (249, 30621),

Gene: Maselop_46 Start: 32981, Stop: 34087, Start Num: 21

Candidate Starts for Maselop_46:

(Start: 21 @32981 has 42 MA's), (53, 33080), (68, 33173), (69, 33176), (74, 33206), (93, 33311), (96, 33323), (106, 33374), (138, 33536), (141, 33548), (157, 33614), (181, 33722), (186, 33767), (188, 33773), (193, 33791), (195, 33800), (196, 33806), (216, 33902), (219, 33911), (223, 33926), (231, 33965),

Gene: Melba_27 Start: 22319, Stop: 23386, Start Num: 29

Candidate Starts for Melba_27:

(Start: 29 @22319 has 46 MA's), (35, 22349), (46, 22397), (51, 22412), (61, 22454), (62, 22457), (63, 22463), (74, 22541), (76, 22550), (78, 22559), (88, 22619), (95, 22655), (110, 22733), (114, 22751), (115, 22757), (123, 22790), (127, 22805), (155, 22931), (177, 23027), (188, 23093), (196, 23123), (252, 23369),

Gene: Mellie_26 Start: 22080, Stop: 23147, Start Num: 29

Candidate Starts for Mellie_26:

(Start: 29 @22080 has 46 MA's), (35, 22110), (46, 22158), (51, 22173), (61, 22215), (76, 22311), (78, 22320), (88, 22380), (95, 22416), (98, 22437), (109, 22491), (114, 22512), (115, 22518), (123, 22551), (127, 22566), (155, 22692), (177, 22788), (186, 22848), (188, 22854), (196, 22884), (252, 23130),

Gene: MerCougar_43 Start: 32394, Stop: 33503, Start Num: 21

Candidate Starts for MerCougar_43:

(Start: 21 @32394 has 42 MA's), (42, 32454), (68, 32583), (69, 32586), (84, 32664), (97, 32739), (112, 32817), (140, 32952), (149, 32982), (159, 33030), (168, 33078), (188, 33183), (202, 33237), (223, 33339), (236, 33399),

Gene: Meyran_27 Start: 23460, Stop: 24524, Start Num: 28

Candidate Starts for Meyran_27:

(Start: 28 @23460 has 5 MA's), (36, 23499), (47, 23550), (48, 23553), (57, 23589), (59, 23595), (60, 23601), (115, 23889), (126, 23928), (144, 24009), (146, 24015), (153, 24042), (157, 24063), (161, 24081), (179, 24156), (197, 24252), (198, 24255), (229, 24402), (235, 24432), (249, 24498), (254, 24516),

Gene: MintFen_27 Start: 22319, Stop: 23386, Start Num: 29

Candidate Starts for MintFen_27:

(Start: 29 @22319 has 46 MA's), (35, 22349), (46, 22397), (51, 22412), (61, 22454), (62, 22457), (63, 22463), (74, 22541), (76, 22550), (78, 22559), (88, 22619), (95, 22655), (110, 22733), (114, 22751), (115, 22757), (123, 22790), (127, 22805), (155, 22931), (177, 23027), (188, 23093), (196, 23123), (252, 23369),

Gene: Miskis_53 Start: 34047, Stop: 35129, Start Num: 23

Candidate Starts for Miskis_53:

(Start: 23 @34047 has 25 MA's), (33, 34086), (40, 34107), (67, 34254), (87, 34344), (92, 34374), (104, 34434), (120, 34503), (176, 34740), (181, 34758), (184, 34791), (195, 34833), (212, 34926), (220, 34971), (236, 35046), (237, 35049), (249, 35109), (250, 35112),

Gene: MissRona_29 Start: 22628, Stop: 23695, Start Num: 29

Candidate Starts for MissRona_29:

(Start: 29 @22628 has 46 MA's), (35, 22658), (46, 22706), (51, 22721), (61, 22763), (62, 22766), (63, 22772), (76, 22859), (78, 22868), (88, 22928), (95, 22964), (98, 22985), (109, 23039), (114, 23060), (115, 23066), (123, 23099), (127, 23114), (155, 23240), (177, 23336), (186, 23396), (188, 23402), (196, 23432), (215, 23513), (252, 23678),

Gene: Mollymur_37 Start: 33053, Stop: 34123, Start Num: 23

Candidate Starts for Mollymur_37:

(Start: 23 @33053 has 25 MA's), (57, 33188), (66, 33254), (108, 33449), (120, 33506), (161, 33671), (195, 33833), (196, 33839), (241, 34067),

Gene: Mulch_24 Start: 19505, Stop: 20605, Start Num: 24

Candidate Starts for Mulch_24:

(Start: 24 @19505 has 19 MA's), (38, 19556), (56, 19637), (94, 19850), (102, 19886), (128, 19994), (151, 20081), (181, 20216), (185, 20252), (186, 20261), (195, 20297), (207, 20363), (213, 20408), (223, 20459), (229, 20486), (232, 20504), (249, 20582), (254, 20597),

Gene: Murp_28 Start: 22578, Stop: 23645, Start Num: 29

Candidate Starts for Murp_28:

(Start: 29 @22578 has 46 MA's), (46, 22656), (51, 22671), (61, 22713), (63, 22722), (78, 22818), (88, 22878), (95, 22914), (98, 22935), (109, 22989), (114, 23010), (115, 23016), (121, 23043), (127, 23064), (155, 23190), (171, 23262), (188, 23352), (196, 23382), (228, 23517), (232, 23538), (238, 23559), (252, 23628),

Gene: Nadeem_24 Start: 19505, Stop: 20605, Start Num: 24

Candidate Starts for Nadeem_24:

(Start: 24 @19505 has 19 MA's), (38, 19556), (56, 19637), (94, 19850), (102, 19886), (128, 19994), (151, 20081), (181, 20216), (185, 20252), (186, 20261), (195, 20297), (207, 20363), (213, 20408), (223, 20459), (229, 20486), (232, 20504), (249, 20582), (254, 20597),

Gene: NadineRae_42 Start: 28800, Stop: 29915, Start Num: 21

Candidate Starts for NadineRae_42:

(Start: 21 @28800 has 42 MA's), (34, 28842), (42, 28866), (53, 28902), (63, 28950), (69, 28998), (97, 29151), (133, 29340), (138, 29358), (140, 29364), (181, 29544), (184, 29577), (192, 29610), (195,

29622), (229, 29778), (239, 29832), (242, 29847), (249, 29874),

Gene: NancyRae_24 Start: 19511, Stop: 20611, Start Num: 24

Candidate Starts for NancyRae_24:

(Start: 24 @19511 has 19 MA's), (38, 19562), (56, 19643), (94, 19856), (102, 19892), (128, 20000), (151, 20087), (181, 20222), (185, 20258), (186, 20267), (195, 20303), (207, 20369), (213, 20414), (223, 20465), (229, 20492), (232, 20510), (249, 20588), (254, 20603),

Gene: NatB6_42 Start: 31530, Stop: 32657, Start Num: 19

Candidate Starts for NatB6_42:

(Start: 19 @31530 has 13 MA's), (53, 31635), (84, 31809), (97, 31884), (112, 31962), (117, 31995), (134, 32076), (147, 32121), (151, 32142), (156, 32175), (169, 32235), (242, 32589), (251, 32622),

Gene: Norvs_56 Start: 34286, Stop: 35368, Start Num: 23

Candidate Starts for Norvs_56:

(Start: 23 @34286 has 25 MA's), (33, 34325), (40, 34346), (67, 34493), (87, 34583), (92, 34613), (104, 34673), (120, 34742), (176, 34979), (181, 34997), (184, 35030), (195, 35072), (212, 35165), (220, 35210), (236, 35285), (237, 35288), (249, 35348), (250, 35351),

Gene: NosilaM_45 Start: 32109, Stop: 33218, Start Num: 21

Candidate Starts for NosilaM_45:

(Start: 21 @32109 has 42 MA's), (42, 32169), (68, 32298), (69, 32301), (75, 32337), (84, 32379), (95, 32445), (97, 32454), (140, 32667), (141, 32673), (149, 32697), (159, 32745), (168, 32793), (188, 32898), (192, 32913), (204, 32964), (223, 33054), (236, 33114),

Gene: NovoPizza_22 Start: 20727, Stop: 21830, Start Num: 26

Candidate Starts for NovoPizza_22:

(Start: 26 @20727 has 24 MA's), (54, 20841), (56, 20856), (57, 20859), (58, 20862), (59, 20865), (87, 21024), (92, 21054), (102, 21099), (106, 21114), (108, 21120), (124, 21192), (136, 21255), (148, 21288), (163, 21366), (198, 21537), (200, 21546), (234, 21735), (243, 21786), (249, 21807), (254, 21822),

Gene: NovumRegina_42 Start: 31860, Stop: 32987, Start Num: 19

Candidate Starts for NovumRegina_42:

(Start: 19 @31860 has 13 MA's), (53, 31965), (81, 32121), (97, 32214), (112, 32292), (117, 32325), (134, 32406), (147, 32451), (151, 32472), (153, 32487), (156, 32505), (169, 32565), (242, 32919), (251, 32952),

Gene: Nyceirae_29 Start: 23200, Stop: 24264, Start Num: 28

Candidate Starts for Nyceirae_29:

(Start: 28 @23200 has 5 MA's), (35, 23233), (40, 23251), (47, 23290), (48, 23293), (57, 23329), (59, 23335), (60, 23341), (115, 23629), (126, 23668), (130, 23695), (146, 23755), (153, 23782), (157, 23803), (161, 23821), (179, 23896), (184, 23935), (186, 23947), (197, 23992), (198, 23995), (229, 24142), (235, 24172), (249, 24238), (254, 24256),

Gene: OBUpride_24 Start: 19744, Stop: 20847, Start Num: 26

Candidate Starts for OBUpride_24:

(7, 19477), (Start: 26 @19744 has 24 MA's), (51, 19849), (53, 19855), (54, 19858), (56, 19873), (57, 19876), (58, 19879), (59, 19882), (61, 19891), (73, 19975), (77, 19990), (87, 20041), (100, 20110), (102, 20116), (105, 20128), (108, 20137), (124, 20209), (136, 20272), (145, 20302), (148, 20305), (166, 20401), (175, 20440), (180, 20455), (198, 20554), (200, 20563), (211, 20635), (227, 20719), (234, 20752), (235, 20758), (254, 20839),

Gene: Obliviate_27 Start: 22235, Stop: 23302, Start Num: 29

Candidate Starts for Obliviate_27:

(Start: 29 @22235 has 46 MA's), (35, 22265), (46, 22313), (51, 22328), (61, 22370), (74, 22457), (76, 22466), (78, 22475), (88, 22535), (95, 22571), (114, 22667), (115, 22673), (121, 22700), (127, 22721), (179, 22952), (188, 23009), (196, 23039), (238, 23216), (252, 23285),

Gene: OneUp_49 Start: 31683, Stop: 32762, Start Num: 23

Candidate Starts for OneUp_49:

(Start: 23 @31683 has 25 MA's), (57, 31818), (67, 31887), (79, 31926), (87, 31977), (91, 32004), (98, 32040), (120, 32136), (187, 32439), (188, 32442), (195, 32466), (199, 32484),

Gene: Outis_43 Start: 32088, Stop: 33197, Start Num: 21

Candidate Starts for Outis_43:

(Start: 21 @32088 has 42 MA's), (42, 32148), (68, 32277), (69, 32280), (84, 32358), (97, 32433), (112, 32511), (140, 32646), (149, 32676), (159, 32724), (168, 32772), (188, 32877), (202, 32931), (223, 33033), (236, 33093),

Gene: PCoral7_28 Start: 22551, Stop: 23615, Start Num: 29

Candidate Starts for PCoral7_28:

(Start: 29 @22551 has 46 MA's), (46, 22629), (53, 22650), (61, 22686), (62, 22689), (63, 22695), (88, 22851), (95, 22887), (98, 22908), (102, 22926), (114, 22980), (115, 22986), (127, 23034), (155, 23160), (186, 23316), (188, 23322), (196, 23352), (228, 23487), (235, 23520), (238, 23529), (247, 23583), (252, 23598), (253, 23604),

Gene: Parada_24 Start: 19505, Stop: 20605, Start Num: 24

Candidate Starts for Parada_24:

(Start: 24 @19505 has 19 MA's), (38, 19556), (56, 19637), (94, 19850), (102, 19886), (128, 19994), (151, 20081), (181, 20216), (185, 20252), (186, 20261), (195, 20297), (207, 20363), (213, 20408), (223, 20459), (229, 20486), (232, 20504), (249, 20582), (254, 20597),

Gene: Patio_45 Start: 32349, Stop: 33458, Start Num: 21

Candidate Starts for Patio_45:

(1, 31263), (3, 31776), (Start: 21 @32349 has 42 MA's), (42, 32409), (58, 32469), (84, 32619), (106, 32739), (112, 32772), (121, 32820), (140, 32907), (149, 32937), (179, 33081), (195, 33165), (229, 33321), (249, 33417),

Gene: Pemberton_46 Start: 29540, Stop: 30655, Start Num: 21

Candidate Starts for Pemberton_46:

(Start: 21 @29540 has 42 MA's), (34, 29582), (42, 29606), (53, 29642), (63, 29690), (69, 29738), (97, 29891), (138, 30098), (140, 30104), (181, 30284), (184, 30317), (192, 30350), (195, 30362), (229, 30518), (236, 30551), (242, 30587), (249, 30614),

Gene: Petra_29 Start: 22304, Stop: 23371, Start Num: 29

Candidate Starts for Petra_29:

(Start: 29 @22304 has 46 MA's), (46, 22382), (61, 22439), (62, 22442), (63, 22448), (78, 22544), (88, 22604), (95, 22640), (98, 22661), (109, 22715), (114, 22736), (115, 22742), (121, 22769), (127, 22790), (155, 22916), (171, 22988), (188, 23078), (196, 23108), (228, 23243), (232, 23264), (238, 23285), (252, 23354),

Gene: PhinkBoden_55 Start: 34667, Stop: 35749, Start Num: 23

Candidate Starts for PhinkBoden_55:

(Start: 23 @34667 has 25 MA's), (33, 34706), (40, 34727), (67, 34874), (87, 34964), (92, 34994), (104, 35054), (120, 35123), (176, 35360), (181, 35378), (184, 35411), (195, 35453), (212, 35546), (220,

35591), (236, 35666), (237, 35669), (249, 35729), (250, 35732),

Gene: Phishy_28 Start: 23118, Stop: 24182, Start Num: 28

Candidate Starts for Phishy_28:

(14, 23067), (Start: 28 @23118 has 5 MA's), (35, 23151), (40, 23169), (47, 23208), (48, 23211), (51, 23220), (57, 23247), (60, 23259), (115, 23547), (126, 23586), (146, 23673), (153, 23700), (157, 23721), (161, 23739), (179, 23814), (186, 23865), (197, 23910), (198, 23913), (229, 24060), (235, 24090), (249, 24156), (254, 24174),

Gene: Phomeo_41 Start: 32129, Stop: 33256, Start Num: 19

Candidate Starts for Phomeo_41:

(Start: 19 @32129 has 13 MA's), (53, 32234), (84, 32408), (97, 32483), (112, 32561), (117, 32594), (134, 32675), (147, 32720), (151, 32741), (156, 32774), (169, 32834), (242, 33188), (251, 33221),

Gene: PhrostedPhlake_29 Start: 23012, Stop: 24079, Start Num: 29

Candidate Starts for PhrostedPhlake_29:

(Start: 29 @23012 has 46 MA's), (35, 23042), (46, 23090), (51, 23105), (61, 23147), (62, 23150), (63, 23156), (74, 23234), (76, 23243), (78, 23252), (88, 23312), (95, 23348), (110, 23426), (114, 23444), (115, 23450), (123, 23483), (127, 23498), (155, 23624), (177, 23720), (188, 23786), (196, 23816), (252, 24062),

Gene: Pimento_25 Start: 19202, Stop: 20302, Start Num: 24

Candidate Starts for Pimento_25:

(Start: 24 @19202 has 19 MA's), (38, 19253), (56, 19334), (94, 19547), (102, 19583), (128, 19691), (151, 19778), (181, 19913), (185, 19949), (186, 19958), (195, 19994), (207, 20060), (213, 20105), (223, 20156), (229, 20183), (232, 20201), (249, 20279), (254, 20294),

Gene: Pipp_27 Start: 22310, Stop: 23377, Start Num: 29

Candidate Starts for Pipp_27:

(Start: 29 @22310 has 46 MA's), (35, 22340), (46, 22388), (51, 22403), (53, 22409), (61, 22445), (62, 22448), (76, 22541), (88, 22610), (95, 22646), (114, 22742), (115, 22748), (121, 22775), (127, 22796), (171, 22994), (177, 23018), (186, 23078), (188, 23084), (196, 23114), (198, 23120), (238, 23291), (252, 23360),

Gene: Pleakley_51 Start: 32339, Stop: 33457, Start Num: 15

Candidate Starts for Pleakley_51:

(Start: 15 @32339 has 2 MA's), (22, 32351), (42, 32408), (70, 32543), (72, 32564), (84, 32618), (98, 32705), (106, 32738), (118, 32807), (140, 32906), (156, 32975), (210, 33230), (223, 33293), (249, 33416), (250, 33419), (251, 33422),

Gene: Polyzuki_46 Start: 32970, Stop: 34076, Start Num: 21

Candidate Starts for Polyzuki_46:

(Start: 21 @32970 has 42 MA's), (53, 33069), (68, 33162), (69, 33165), (74, 33195), (93, 33300), (96, 33312), (106, 33363), (138, 33525), (141, 33537), (157, 33603), (181, 33711), (186, 33756), (188, 33762), (193, 33780), (195, 33789), (196, 33795), (216, 33891), (219, 33900), (223, 33915), (231, 33954),

Gene: PrincePatrick_27 Start: 22630, Stop: 23694, Start Num: 29

Candidate Starts for PrincePatrick_27:

(Start: 29 @22630 has 46 MA's), (46, 22708), (53, 22729), (61, 22765), (62, 22768), (63, 22774), (88, 22930), (95, 22966), (98, 22987), (102, 23005), (114, 23059), (115, 23065), (127, 23113), (155, 23239), (186, 23395), (188, 23401), (196, 23431), (228, 23566), (235, 23599), (238, 23608), (247, 23662), (252, 23677), (253, 23683),

Gene: RedRaider_49 Start: 34371, Stop: 35480, Start Num: 21

Candidate Starts for RedRaider_49:

(Start: 21 @34371 has 42 MA's), (42, 34431), (55, 34479), (84, 34641), (106, 34761), (112, 34794), (121, 34842), (140, 34929), (149, 34959), (151, 34965), (153, 34980), (179, 35103), (229, 35343), (236, 35376), (249, 35439),

Gene: Rem711_27 Start: 21349, Stop: 22434, Start Num: 26

Candidate Starts for Rem711_27:

(Start: 26 @21349 has 24 MA's), (42, 21412), (46, 21439), (51, 21454), (54, 21463), (57, 21481), (90, 21667), (102, 21718), (161, 21961), (195, 22129), (196, 22135), (218, 22267), (223, 22288), (235, 22345), (247, 22405), (251, 22417), (254, 22426),

Gene: Ruthy_21 Start: 18482, Stop: 19582, Start Num: 24

Candidate Starts for Ruthy_21:

(6, 18200), (9, 18308), (Start: 24 @18482 has 19 MA's), (47, 18578), (56, 18614), (100, 18857), (102, 18863), (115, 18923), (143, 19040), (162, 19118), (184, 19226), (185, 19229), (195, 19274), (198, 19286), (201, 19301), (223, 19436), (234, 19487), (235, 19493), (254, 19574),

Gene: Samba_27 Start: 22397, Stop: 23464, Start Num: 29

Candidate Starts for Samba_27:

(Start: 29 @22397 has 46 MA's), (35, 22427), (46, 22475), (51, 22490), (61, 22532), (76, 22628), (78, 22637), (88, 22697), (95, 22733), (98, 22754), (110, 22811), (114, 22829), (115, 22835), (123, 22868), (127, 22883), (155, 23009), (177, 23105), (186, 23165), (188, 23171), (196, 23201), (252, 23447),

Gene: Sapo_24 Start: 20295, Stop: 21383, Start Num: 29

Candidate Starts for Sapo_24:

(Start: 29 @20295 has 46 MA's), (38, 20337), (53, 20394), (74, 20517), (106, 20685), (109, 20706), (114, 20727), (115, 20733), (120, 20757), (165, 20946), (174, 20991), (178, 21006), (186, 21063), (215, 21198), (222, 21222), (242, 21327), (252, 21363), (253, 21369), (256, 21375),

Gene: Schmidt_24 Start: 17816, Stop: 18928, Start Num: 21

Candidate Starts for Schmidt_24:

(Start: 15 @17798 has 2 MA's), (16, 17801), (Start: 21 @17816 has 42 MA's), (48, 17912), (51, 17921), (53, 17927), (91, 18140), (93, 18146), (100, 18188), (103, 18197), (116, 18269), (149, 18404), (172, 18509), (177, 18536), (178, 18539), (188, 18602), (191, 18614), (194, 18626), (206, 18668), (221, 18749), (225, 18770), (229, 18785), (233, 18806), (240, 18848), (242, 18857), (246, 18878), (257, 18920),

Gene: Scuba_51 Start: 32416, Stop: 33534, Start Num: 15

Candidate Starts for Scuba_51:

(Start: 15 @32416 has 2 MA's), (22, 32428), (42, 32485), (70, 32620), (72, 32641), (84, 32695), (98, 32782), (106, 32815), (140, 32983), (156, 33052), (177, 33148), (210, 33307), (223, 33370), (249, 33493), (250, 33496), (251, 33499),

Gene: Skysand_44 Start: 32569, Stop: 33678, Start Num: 21

Candidate Starts for Skysand_44:

(1, 31483), (2, 31516), (3, 31996), (Start: 21 @32569 has 42 MA's), (42, 32629), (58, 32689), (84, 32839), (106, 32959), (112, 32992), (121, 33040), (140, 33127), (149, 33157), (179, 33301), (195, 33385), (229, 33541), (236, 33574), (249, 33637),

Gene: Smoothie_57 Start: 34742, Stop: 35824, Start Num: 23

Candidate Starts for Smoothie_57:

(Start: 23 @34742 has 25 MA's), (33, 34781), (40, 34802), (67, 34949), (87, 35039), (92, 35069), (104, 35129), (120, 35198), (176, 35435), (181, 35453), (184, 35486), (195, 35528), (212, 35621), (220, 35666), (236, 35741), (237, 35744), (249, 35804), (250, 35807),

Gene: SpeedDemon_380 Start: 33688, Stop: 34761, Start Num: 23

Candidate Starts for SpeedDemon_380:

(Start: 23 @33688 has 25 MA's), (33, 33727), (52, 33799), (57, 33823), (67, 33892), (92, 34012), (104, 34072), (107, 34081), (108, 34084), (115, 34117), (135, 34210), (161, 34306), (224, 34624),

Gene: Splinter_26 Start: 19531, Stop: 20649, Start Num: 21

Candidate Starts for Splinter_26:

(Start: 21 @19531 has 42 MA's), (35, 19573), (45, 19621), (49, 19633), (67, 19735), (85, 19822), (86, 19825), (101, 19909), (106, 19927), (120, 20002), (149, 20122), (178, 20257), (188, 20320), (194, 20344), (212, 20425), (213, 20434), (222, 20473), (225, 20491), (228, 20503), (229, 20506), (230, 20509), (240, 20569),

Gene: Sprinklemunch_20 Start: 18246, Stop: 19349, Start Num: 24

Candidate Starts for Sprinklemunch_20:

(Start: 24 @18246 has 19 MA's), (Start: 28 @18255 has 5 MA's), (36, 18294), (38, 18300), (51, 18357), (56, 18381), (102, 18630), (115, 18690), (132, 18771), (182, 18972), (183, 18975), (184, 18993), (185, 18996), (195, 19041), (198, 19053), (203, 19086), (207, 19107), (223, 19203), (232, 19248), (234, 19254), (235, 19260), (254, 19341),

Gene: StarStruck_43 Start: 32088, Stop: 33197, Start Num: 21

Candidate Starts for StarStruck_43:

(Start: 21 @32088 has 42 MA's), (42, 32148), (68, 32277), (69, 32280), (84, 32358), (97, 32433), (112, 32511), (140, 32646), (149, 32676), (159, 32724), (168, 32772), (188, 32877), (202, 32931), (223, 33033), (236, 33093),

Gene: Sukkupi_44 Start: 31114, Stop: 32229, Start Num: 21

Candidate Starts for Sukkupi_44:

(Start: 21 @31114 has 42 MA's), (34, 31156), (42, 31180), (53, 31216), (63, 31264), (69, 31312), (97, 31465), (138, 31672), (140, 31678), (149, 31708), (165, 31783), (181, 31858), (184, 31891), (192, 31924), (195, 31936), (229, 32092), (239, 32146), (242, 32161), (249, 32188),

Gene: SuperSulley_43 Start: 32276, Stop: 33385, Start Num: 21

Candidate Starts for SuperSulley_43:

(Start: 21 @32276 has 42 MA's), (42, 32336), (68, 32465), (69, 32468), (84, 32546), (95, 32612), (97, 32621), (140, 32834), (141, 32840), (149, 32864), (159, 32912), (168, 32960), (188, 33065), (192, 33080), (204, 33131), (223, 33221), (236, 33281),

Gene: TZGordon_28 Start: 19670, Stop: 20788, Start Num: 21

Candidate Starts for TZGordon_28:

(Start: 21 @19670 has 42 MA's), (35, 19712), (45, 19760), (49, 19772), (67, 19874), (85, 19961), (86, 19964), (101, 20048), (106, 20066), (120, 20141), (149, 20261), (178, 20396), (188, 20459), (194, 20483), (212, 20564), (213, 20573), (228, 20642), (229, 20645), (230, 20648), (240, 20708), (242, 20717),

Gene: TinaLin_29 Start: 20510, Stop: 21625, Start Num: 21

Candidate Starts for TinaLin_29:

(Start: 21 @20510 has 42 MA's), (50, 20615), (67, 20714), (83, 20783), (85, 20801), (86, 20804), (103, 20894), (106, 20906), (149, 21101), (188, 21299), (194, 21323), (196, 21329), (212, 21404), (213, 21413), (221, 21449), (228, 21482), (240, 21548),

Gene: Toast_28 Start: 22551, Stop: 23615, Start Num: 29

Candidate Starts for Toast_28:

(Start: 29 @22551 has 46 MA's), (46, 22629), (53, 22650), (61, 22686), (62, 22689), (63, 22695), (88, 22851), (95, 22887), (98, 22908), (102, 22926), (114, 22980), (115, 22986), (127, 23034), (155, 23160), (186, 23316), (188, 23322), (196, 23352), (228, 23487), (235, 23520), (238, 23529), (247, 23583), (252, 23598), (253, 23604),

Gene: Toniann_55 Start: 34229, Stop: 35311, Start Num: 23

Candidate Starts for Toniann_55:

(Start: 23 @34229 has 25 MA's), (33, 34268), (40, 34289), (67, 34436), (87, 34526), (92, 34556), (104, 34616), (120, 34685), (176, 34922), (181, 34940), (184, 34973), (195, 35015), (212, 35108), (220, 35153), (236, 35228), (237, 35231), (249, 35291), (250, 35294),

Gene: Towmatter_34 Start: 30184, Stop: 31257, Start Num: 23

Candidate Starts for Towmatter_34:

(Start: 23 @30184 has 25 MA's), (43, 30271), (57, 30319), (108, 30580), (125, 30649), (184, 30922), (186, 30934), (238, 31177),

Gene: Tracker_42 Start: 31257, Stop: 32384, Start Num: 19

Candidate Starts for Tracker_42:

(Start: 19 @31257 has 13 MA's), (53, 31362), (57, 31383), (84, 31536), (97, 31611), (112, 31689), (117, 31722), (134, 31803), (147, 31848), (151, 31869), (156, 31902), (169, 31962), (242, 32316), (251, 32349),

Gene: Turuncu_46 Start: 32551, Stop: 33660, Start Num: 21

Candidate Starts for Turuncu_46:

(Start: 21 @32551 has 42 MA's), (41, 32608), (42, 32611), (140, 33109), (149, 33139), (156, 33178), (229, 33523), (236, 33556),

Gene: Ubuntu_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Ubuntu_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: UmaThurman_27 Start: 22444, Stop: 23511, Start Num: 29

Candidate Starts for UmaThurman_27:

(Start: 29 @22444 has 46 MA's), (35, 22474), (46, 22522), (51, 22537), (61, 22579), (62, 22582), (74, 22666), (76, 22675), (78, 22684), (88, 22744), (95, 22780), (98, 22801), (109, 22855), (114, 22876), (115, 22882), (123, 22915), (127, 22930), (155, 23056), (177, 23152), (186, 23212), (188, 23218), (196, 23248), (252, 23494),

Gene: Utz_27 Start: 22311, Stop: 23378, Start Num: 29

Candidate Starts for Utz_27:

(Start: 29 @22311 has 46 MA's), (35, 22341), (46, 22389), (51, 22404), (53, 22410), (61, 22446), (62, 22449), (76, 22542), (88, 22611), (95, 22647), (114, 22743), (115, 22749), (121, 22776), (127, 22797), (171, 22995), (179, 23028), (188, 23085), (196, 23115), (198, 23121), (238, 23292), (252, 23361),

Gene: Vendetta_26 Start: 19531, Stop: 20649, Start Num: 21

Candidate Starts for Vendetta_26:

(Start: 21 @19531 has 42 MA's), (35, 19573), (45, 19621), (49, 19633), (67, 19735), (85, 19822), (86, 19825), (101, 19909), (106, 19927), (120, 20002), (149, 20122), (178, 20257), (188, 20320), (194, 20344), (212, 20425), (213, 20434), (222, 20473), (225, 20491), (228, 20503), (229, 20506), (230, 20509), (240, 20569),

Gene: Vordorf_28 Start: 22926, Stop: 23990, Start Num: 28

Candidate Starts for Vordorf_28:

(Start: 28 @22926 has 5 MA's), (35, 22959), (40, 22977), (47, 23016), (48, 23019), (57, 23055), (59, 23061), (60, 23067), (115, 23355), (126, 23394), (144, 23475), (146, 23481), (157, 23529), (161, 23547), (179, 23622), (186, 23673), (197, 23718), (198, 23721), (229, 23868), (235, 23898), (249, 23964), (254, 23982),

Gene: Walrus_29 Start: 22859, Stop: 23926, Start Num: 29

Candidate Starts for Walrus_29:

(Start: 29 @22859 has 46 MA's), (35, 22889), (46, 22937), (51, 22952), (61, 22994), (71, 23066), (76, 23090), (78, 23099), (88, 23159), (95, 23195), (98, 23216), (110, 23273), (114, 23291), (115, 23297), (123, 23330), (127, 23345), (155, 23471), (177, 23567), (186, 23627), (188, 23633), (196, 23663), (215, 23744), (252, 23909),

Gene: Webster2_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Webster2_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Weirido19_21 Start: 18379, Stop: 19518, Start Num: 18

Candidate Starts for Weirido19_21:

(4, 17932), (5, 17980), (8, 18148), (11, 18304), (13, 18346), (Start: 18 @18379 has 1 MA's), (25, 18394), (Start: 28 @18400 has 5 MA's), (38, 18445), (54, 18511), (58, 18532), (114, 18841), (126, 18886), (131, 18925), (136, 18943), (150, 18988), (162, 19051), (165, 19060), (196, 19219), (198, 19225), (223, 19372), (229, 19399), (232, 19417), (235, 19429), (254, 19510),

Gene: WheatThin_24 Start: 19505, Stop: 20605, Start Num: 24

Candidate Starts for WheatThin_24:

(Start: 24 @19505 has 19 MA's), (38, 19556), (56, 19637), (94, 19850), (102, 19886), (128, 19994), (151, 20081), (181, 20216), (185, 20252), (186, 20261), (195, 20297), (207, 20363), (213, 20408), (223, 20459), (229, 20486), (232, 20504), (249, 20582), (254, 20597),

Gene: Wheezy_42 Start: 31462, Stop: 32589, Start Num: 19

Candidate Starts for Wheezy_42:

(Start: 19 @31462 has 13 MA's), (53, 31567), (84, 31741), (97, 31816), (112, 31894), (117, 31927), (134, 32008), (147, 32053), (151, 32074), (156, 32107), (169, 32167), (242, 32521), (251, 32554),

Gene: WhoseManz_44 Start: 29160, Stop: 30275, Start Num: 21

Candidate Starts for WhoseManz_44:

(Start: 21 @29160 has 42 MA's), (34, 29202), (42, 29226), (53, 29262), (63, 29310), (69, 29358), (97, 29511), (138, 29718), (140, 29724), (149, 29754), (181, 29904), (184, 29937), (192, 29970), (195, 29982), (229, 30138), (239, 30192), (242, 30207), (249, 30234),

Gene: William_28 Start: 22377, Stop: 23441, Start Num: 29

Candidate Starts for William_28:

(Start: 29 @22377 has 46 MA's), (46, 22455), (53, 22476), (61, 22512), (62, 22515), (63, 22521), (88, 22677), (89, 22692), (95, 22713), (98, 22734), (102, 22752), (114, 22806), (127, 22860), (155, 22986), (186, 23142), (188, 23148), (196, 23178), (228, 23313), (235, 23346), (238, 23355), (247, 23409), (252, 23424), (253, 23430),

Gene: WilliamBoone_55 Start: 33575, Stop: 34657, Start Num: 23

Candidate Starts for WilliamBoone_55:

(Start: 23 @33575 has 25 MA's), (33, 33614), (56, 33710), (67, 33782), (87, 33872), (170, 34244), (184, 34319), (195, 34361), (212, 34454), (226, 34529), (250, 34640),

Gene: Wishmaker_24 Start: 19750, Stop: 20853, Start Num: 26

Candidate Starts for Wishmaker_24:

(7, 19483), (Start: 26 @19750 has 24 MA's), (51, 19855), (53, 19861), (54, 19864), (56, 19879), (57, 19882), (58, 19885), (59, 19888), (61, 19897), (73, 19981), (77, 19996), (87, 20047), (100, 20116), (102, 20122), (105, 20134), (108, 20143), (124, 20215), (136, 20278), (145, 20308), (148, 20311), (166, 20407), (175, 20446), (180, 20461), (198, 20560), (200, 20569), (211, 20641), (227, 20725), (234, 20758), (235, 20764), (254, 20845),

Gene: Wisp_26 Start: 22029, Stop: 23096, Start Num: 29

Candidate Starts for Wisp_26:

(Start: 29 @22029 has 46 MA's), (35, 22059), (46, 22107), (51, 22122), (61, 22164), (62, 22167), (63, 22173), (74, 22251), (76, 22260), (78, 22269), (88, 22329), (95, 22365), (110, 22443), (114, 22461), (115, 22467), (123, 22500), (127, 22515), (155, 22641), (177, 22737), (188, 22803), (196, 22833), (252, 23079),

Gene: Wocket_29 Start: 22996, Stop: 24063, Start Num: 29

Candidate Starts for Wocket_29:

(Start: 29 @22996 has 46 MA's), (46, 23074), (51, 23089), (61, 23131), (63, 23140), (78, 23236), (88, 23296), (95, 23332), (98, 23353), (102, 23371), (109, 23407), (114, 23428), (115, 23434), (121, 23461), (127, 23482), (155, 23608), (188, 23770), (196, 23800), (198, 23806), (238, 23977), (252, 24046),

Gene: Yndexa_44 Start: 31114, Stop: 32229, Start Num: 21

Candidate Starts for Yndexa_44:

(Start: 21 @31114 has 42 MA's), (34, 31156), (42, 31180), (53, 31216), (63, 31264), (69, 31312), (97, 31465), (138, 31672), (140, 31678), (149, 31708), (165, 31783), (181, 31858), (184, 31891), (192, 31924), (195, 31936), (229, 32092), (239, 32146), (242, 32161), (249, 32188),

Gene: Yvonnetastic_52 Start: 35837, Stop: 36913, Start Num: 23

Candidate Starts for Yvonnetastic_52:

(Start: 23 @35837 has 25 MA's), (44, 35927), (57, 35975), (67, 36044), (97, 36185), (108, 36236), (113, 36260), (149, 36407), (167, 36494), (188, 36599), (198, 36635), (214, 36725), (247, 36890),

Gene: Zarbodnamra_27 Start: 22318, Stop: 23385, Start Num: 29

Candidate Starts for Zarbodnamra_27:

(Start: 29 @22318 has 46 MA's), (35, 22348), (46, 22396), (51, 22411), (61, 22453), (62, 22456), (63, 22462), (74, 22540), (76, 22549), (78, 22558), (88, 22618), (109, 22729), (114, 22750), (115, 22756), (123, 22789), (127, 22804), (155, 22930), (177, 23026), (186, 23086), (188, 23092), (196, 23122), (215, 23203), (252, 23368),

Gene: ZiggyZoo_27 Start: 22235, Stop: 23302, Start Num: 29

Candidate Starts for ZiggyZoo_27:

(Start: 29 @22235 has 46 MA's), (35, 22265), (46, 22313), (51, 22328), (61, 22370), (74, 22457), (76, 22466), (78, 22475), (88, 22535), (95, 22571), (109, 22646), (114, 22667), (115, 22673), (123, 22706), (127, 22721), (155, 22847), (177, 22943), (186, 23003), (188, 23009), (196, 23039), (215, 23120), (252, 23285),

Gene: Zilla_27 Start: 22336, Stop: 23403, Start Num: 29

Candidate Starts for Zilla_27:

(Start: 29 @22336 has 46 MA's), (35, 22366), (46, 22414), (51, 22429), (61, 22471), (62, 22474), (63, 22480), (74, 22558), (76, 22567), (78, 22576), (88, 22636), (95, 22672), (110, 22750), (114, 22768), (115, 22774), (123, 22807), (127, 22822), (155, 22948), (177, 23044), (188, 23110), (196, 23140), (252, 23386),

Gene: Zodiariah_20 Start: 18322, Stop: 19425, Start Num: 24

Candidate Starts for Zodiariah_20:

(Start: 24 @18322 has 19 MA's), (38, 18376), (100, 18700), (102, 18706), (115, 18766), (183, 19051), (184, 19069), (185, 19072), (195, 19117), (198, 19129), (203, 19162), (207, 19183), (223, 19279), (234, 19330), (235, 19336), (254, 19417),