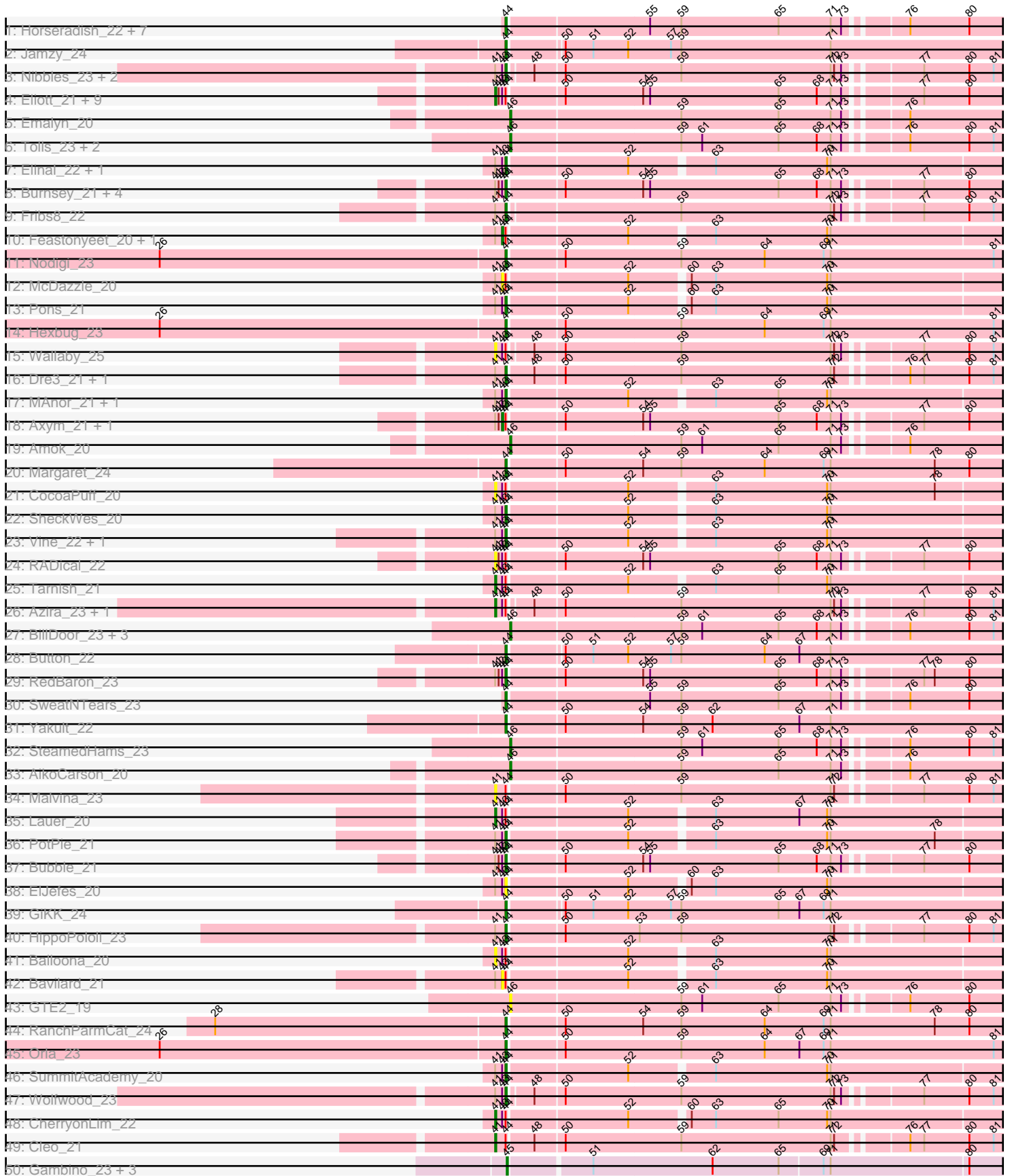
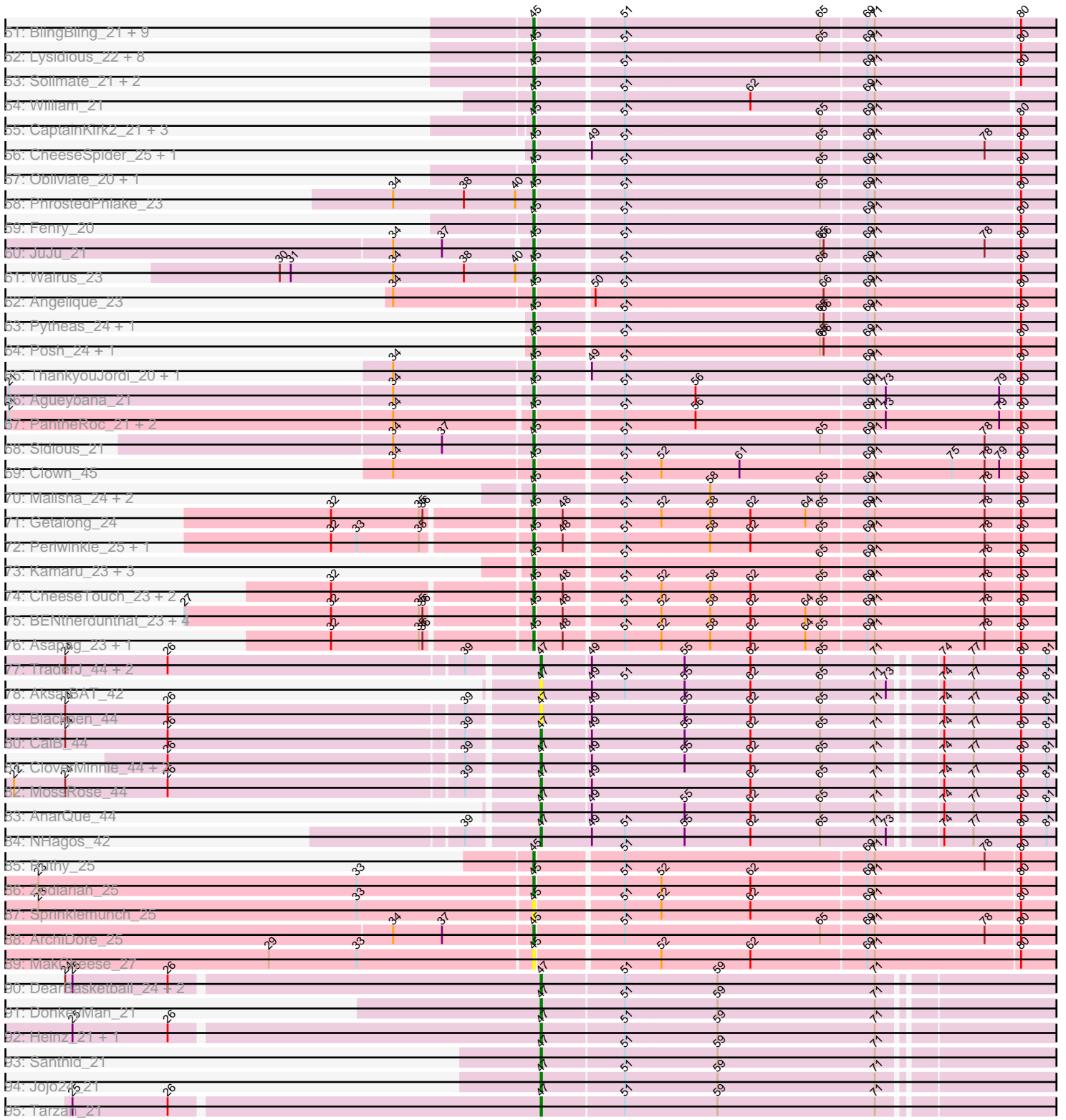


Zoomed Pham 304741



Zoomed Pham 304741



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 304741 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304741 has 181 members, 32 are drafts.

Phages represented in each track:

- Track 1 : Horseradish_22, MScarn_23, Blondies_22, Biskit_22, Buttrmlkdreams_21, Troje_21, SketchMex_20, Yummy_22
- Track 2 : Jamzy_24
- Track 3 : Nibbles_23, MaVan_23, Survivors_23
- Track 4 : Elliott_21, Carsonalex_22, ChickenTender_23, RSchmailzl_22, Nina_22, Sopespian_21, GoldHunter_22, Socotra_22, PsychoKiller_21, Starburst_22
- Track 5 : Emalyn_20
- Track 6 : Tolls_23, AndPeggy_20, Yarn_20
- Track 7 : Elinal_22, KayGee_21
- Track 8 : Burnsey_21, Typhonmarchy_21, Agatha_21, MunkgeeRoachy_21, Quasar_21
- Track 9 : Fribs8_22
- Track 10 : Feastonyeet_20, BigChungus_20
- Track 11 : Nodigi_23
- Track 12 : McDazzle_20
- Track 13 : Pons_21
- Track 14 : Hexbug_23
- Track 15 : Wallaby_25
- Track 16 : Dre3_21, Gibbous_21
- Track 17 : MAnor_21, Mayweather_22
- Track 18 : Axym_21, Cozz_21
- Track 19 : Amok_20
- Track 20 : Margaret_24
- Track 21 : CocoaPuff_20
- Track 22 : SheckWes_20
- Track 23 : Vine_22, Yucky_21
- Track 24 : RADical_22
- Track 25 : Tarnish_21
- Track 26 : Azira_23, Zareef_23
- Track 27 : BillDoor_23, CanesSauce_21, CaramelLatte_21, ChocoMunchkin_21
- Track 28 : Button_22
- Track 29 : RedBaron_23
- Track 30 : SweatNTears_23
- Track 31 : Yakult_22
- Track 32 : SteamedHams_23
- Track 33 : AikoCarson_20
- Track 34 : Malvina_23

- Track 35 : Lauer_20
- Track 36 : PotPie_21
- Track 37 : Bubble_21
- Track 38 : ElJefes_20
- Track 39 : GiKK_24
- Track 40 : HippoPololi_23
- Track 41 : Balloona_20
- Track 42 : Bavidard_21
- Track 43 : GTE2_19
- Track 44 : RanchParmCat_24
- Track 45 : Orla_23
- Track 46 : SummitAcademy_20
- Track 47 : Wolfwood_23
- Track 48 : CherryonLim_22
- Track 49 : Cleo_21
- Track 50 : Gambino_23, MissRona_23, Blueberry_23, Azula_23
- Track 51 : BlingBling_21, Zarbodnamra_21, Barco_21, JasperJr_21, Zilla_21, Archis_22, Utz_21, Guacamole_21, Melba_21, MintFen_21
- Track 52 : Lysidious_22, Begonia_22, Malachai_22, Pipp_21, Jalammah_23, Mellie_20, Hitter_21, Samba_21, Frokostdame_21
- Track 53 : Soilmate_21, CarolAnn_21, Blino_21
- Track 54 : William_21
- Track 55 : CaptainKirk2_21, UmaThurman_21, Delian_21, Wisp_20
- Track 56 : CheeseSpider_25, Murp_22
- Track 57 : Obliviate_20, ZiggyZoo_20
- Track 58 : PhrostedPhlake_23
- Track 59 : Fenry_20
- Track 60 : JuJu_21
- Track 61 : Walrus_23
- Track 62 : Angelique_23
- Track 63 : Pytheas_24, Jablanski_24
- Track 64 : Posh_24, Wrigley_24
- Track 65 : ThankyouJordi_20, WelcomeAyanna_20
- Track 66 : Agueybana_21
- Track 67 : PantheRoc_21, BaxterFox_20, Yeezy_22
- Track 68 : Sidious_21
- Track 69 : Clown_45
- Track 70 : Malisha_24, Squiddly_25, Spooky_23
- Track 71 : Getalong_24
- Track 72 : Periwinkle_25, ShawBrad_23
- Track 73 : Kamaru_23, Holliday_23, Budski_23, Whitney_24
- Track 74 : CheeseTouch_23, Lutum_23, Kenna_22
- Track 75 : BENtherdunthat_23, BearBQ_22, Kuwabara_22, MortyNRick_22, Birdsong_22
- Track 76 : Asapag_23, BotCity_23
- Track 77 : TraderJ_44, Yeshua_44, Wooper_44
- Track 78 : AksarBAT_42
- Track 79 : Blackpen_44
- Track 80 : CaiB_44
- Track 81 : CloverMinnie_44, MakoManhole_44, FelixTres_44
- Track 82 : MossRose_44
- Track 83 : AnarQue_44
- Track 84 : NHagos_42

- Track 85 : Ruthy_25
- Track 86 : Zodiariah_25
- Track 87 : Sprinklemunch_25
- Track 88 : ArchiDore_25
- Track 89 : MakCheese_27
- Track 90 : DearBasketball_24, DinoNuggs_22, Reyja_22
- Track 91 : DonkeyMan_21
- Track 92 : Heinz_21, Hibiscus_21
- Track 93 : Santhid_21
- Track 94 : Jojo24_21
- Track 95 : Tarzan_21

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

The start number called the most often in the published annotations is 45, it was called in 71 of the 149 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agueybana_21, Angelique_23, ArchiDore_25, Archis_22, Asapag_23, Azula_23, BENtherdunthat_23, Barco_21, BaxterFox_20, BearBQ_22, Begonia_22, Birdsong_22, BlingBling_21, Blino_21, Blueberry_23, BotCity_23, Budski_23, CaptainKirk2_21, CarolAnn_21, CheeseSpider_25, CheeseTouch_23, Clown_45, Delian_21, Fenry_20, Frokostdame_21, Gambino_23, Getalong_24, Guacamole_21, Hitter_21, Holliday_23, Jablanski_24, Jalammah_23, JasperJr_21, JuJu_21, Kamaru_23, Kenna_22, Kuwabara_22, Lutum_23, Lysidious_22, MakCheese_27, Malachai_22, Malisha_24, Melba_21, Mellie_20, MintFen_21, MissRona_23, MortyNRick_22, Murp_22, Obliviate_20, PantheRoc_21, Periwinkle_25, PhrostedPhlake_23, Pipp_21, Posh_24, Pytheas_24, Ruthy_25, Samba_21, ShawBrad_23, Sidious_21, Soilmate_21, Spooky_23, Sprinklemunch_25, Squiddly_25, ThankyouJordi_20, UmaThurman_21, Utz_21, Walrus_23, WelcomeAyanna_20, Whitney_24, William_21, Wisp_20, Wrigley_24, Yeezy_22, Zarbodnamra_21, ZiggyZoo_20, Zilla_21, Zodiariah_25,

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

-

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

- Agatha_21, AikoCarson_20, AksarBAT_42, Amok_20, AnarQue_44, AndPeggy_20, Axym_21, Azira_23, Balloona_20, Bavidard_21, BigChungus_20, BillDoor_23, Biskit_22, Blackpen_44, Blondies_22, Bubble_21, Burnsey_21, Button_22, Buttrmilkdreams_21, CaiB_44, CanesSauce_21, CaramellLatte_21, Carsonalex_22, CherryonLim_22, ChickenTender_23, ChocoMunchkin_21, Cleo_21, CloverMinnie_44, CocoaPuff_20, Cozz_21, DearBasketball_24, DinoNuggs_22, DonkeyMan_21, Dre3_21, ElJefes_20, Elinal_22, Elliott_21, Emalyn_20, Feastonyeet_20, FelixTres_44, Fribs8_22, GTE2_19, GiKK_24, Gibbous_21, GoldHunter_22, Heinz_21, Hexbug_23, Hibiscus_21, HippoPololi_23, Horseradish_22, Jamzy_24, Jojo24_21, KayGee_21, Lauer_20, MAnor_21, MScarn_23, MaVan_23, MakoManhole_44, Malvina_23, Margaret_24, Mayweather_22, McDazzle_20, MossRose_44, MunkgeeRoachy_21, NHagos_42, Nibbles_23, Nina_22, Nodigi_23, Orla_23, Pons_21, PotPie_21, PsychoKiller_21,

Quasar_21, RADical_22, RSchmailzl_22, RanchParmCat_24, RedBaron_23, Reyja_22, Santhid_21, SheckWes_20, SketchMex_20, Socotra_22, Sopespian_21, Starburst_22, SteamedHams_23, SummitAcademy_20, Survivors_23, SweatNTears_23, Tarnish_21, Tarzan_21, Tolls_23, TraderJ_44, Troje_21, Typhonmarchy_21, Vine_22, Wallaby_25, Wolfwood_23, Wooper_44, Yakult_22, Yarn_20, Yeshua_44, Yucky_21, Yummy_22, Zareef_23,

Summary by start number:

Start 41:

- Found in 53 of 181 (29.3%) of genes in pham
- Manual Annotations of this start: 7 of 149
- Called 39.6% of time when present
- Phage (with cluster) where this start called: Azira_23 (CT), Balloona_20 (CT), Carsonalex_22 (CT), CherryonLim_22 (CT), ChickenTender_23 (CT), Cleo_21 (CT), CocoaPuff_20 (CT), Elliott_21 (CT), GoldHunter_22 (CT), Lauer_20 (CT), Malvina_23 (CT), Nina_22 (CT), PsychoKiller_21 (CT), RADical_22 (CT), RSchmailzl_22 (CT), Socotra_22 (CT), Sopespian_21 (CT), Starburst_22 (CT), Tarnish_21 (CT), Wallaby_25 (CT), Zareef_23 (CT),

Start 43:

- Found in 47 of 181 (26.0%) of genes in pham
- Manual Annotations of this start: 4 of 149
- Called 12.8% of time when present
- Phage (with cluster) where this start called: Axym_21 (CT), Bavidard_21 (CT), BigChungus_20 (CT), Cozz_21 (CT), Feastonyeet_20 (CT), McDazzle_20 (CT),

Start 44:

- Found in 71 of 181 (39.2%) of genes in pham
- Manual Annotations of this start: 43 of 149
- Called 62.0% of time when present
- Phage (with cluster) where this start called: Agatha_21 (CT), Biskit_22 (CT), Blondies_22 (CT), Bubble_21 (CT), Burnsey_21 (CT), Button_22 (CT), Buttrmlkdreams_21 (CT), Dre3_21 (CT), ElJefes_20 (CT), Elinal_22 (CT), Fribs8_22 (CT), GiKK_24 (CT), Gibbous_21 (CT), Hexbug_23 (CT), HippoPololi_23 (CT), Horseradish_22 (CT), Jamzy_24 (CT), KayGee_21 (CT), MAnor_21 (CT), MScarn_23 (CT), MaVan_23 (CT), Margaret_24 (CT), Mayweather_22 (CT), MunkgeeRoachy_21 (CT), Nibbles_23 (CT), Nodigi_23 (CT), Orla_23 (CT), Pons_21 (CT), PotPie_21 (CT), Quasar_21 (CT), RanchParmCat_24 (CT), RedBaron_23 (CT), SheckWes_20 (CT), SketchMex_20 (CT), SummitAcademy_20 (CT), Survivors_23 (CT), SweatNTears_23 (CT), Troje_21 (CT), Typhonmarchy_21 (CT), Vine_22 (CT), Wolfwood_23 (CT), Yakult_22 (CT), Yucky_21 (CT), Yummy_22 (CT),

Start 45:

- Found in 77 of 181 (42.5%) of genes in pham
- Manual Annotations of this start: 71 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana_21 (CZ1), Angelique_23 (CY1), ArchiDore_25 (DW), Archis_22 (CV), Asapag_23 (DN1), Azula_23 (CV), BENtherdunthat_23 (DN1), Barco_21 (CV), BaxterFox_20 (CZ3), BearBQ_22 (DN), Begonia_22 (CV), Birdsong_22 (DN), BlingBling_21 (CV), Blino_21 (CV), Blueberry_23 (CV), BotCity_23 (DN), Budski_23 (DN), CaptainKirk2_21 (CV), CarolAnn_21 (CV), CheeseSpider_25 (CV), CheeseTouch_23 (DN1), Clown_45

(DC2), Delian_21 (CV), Fenry_20 (CV), Frokostdame_21 (CV), Gambino_23 (CV), Getalong_24 (DN1), Guacamole_21 (CV), Hitter_21 (CV), Holliday_23 (DN1), Jablanski_24 (CY3), Jalammah_23 (CV), JasperJr_21 (CV), JuJu_21 (CV), Kamaru_23 (DN1), Kenna_22 (DN1), Kuwabara_22 (DN4), Lutum_23 (DN1), Lysidious_22 (CV), MakCheese_27 (DW), Malachai_22 (CV), Malisha_24 (DN), Melba_21 (CV), Mellie_20 (CV), MintFen_21 (CV), MissRona_23 (CV), MortyNRick_22 (DN), Murp_22 (CV), Obliviate_20 (CV), PantheRoc_21 (CZ3), Periwinkle_25 (DN1), PhrostedPhlake_23 (CV), Pipp_21 (CV), Posh_24 (CY4), Pytheas_24 (CY3), Ruthy_25 (DW), Samba_21 (CV), ShawBrad_23 (DN1), Sidious_21 (CZ7), Soilmate_21 (CV), Spooky_23 (DN2), Sprinklemunch_25 (DW), Squiddly_25 (DN2), ThankyouJordi_20 (CZ1), UmaThurman_21 (CV), Utz_21 (CV), Walrus_23 (CV), WelcomeAyanna_20 (CZ1), Whitney_24 (DN1), William_21 (CV), Wisp_20 (CV), Wrigley_24 (CY4), Yeezy_22 (CZ3), Zarbodnamra_21 (CV), ZiggyZoo_20 (CV), Zilla_21 (CV), Zodiariah_25 (DW),

Start 46:

- Found in 12 of 181 (6.6%) of genes in pham
- Manual Annotations of this start: 8 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AikoCarson_20 (CT), Amok_20 (CT), AndPeggy_20 (CT), BillDoor_23 (CT), CanesSauce_21 (CT), CaramelLatte_21 (CT), ChocoMunchkin_21 (CT), Emalyn_20 (CT), GTE2_19 (CT), SteamedHams_23 (CT), Tolls_23 (CT), Yarn_20 (CT),

Start 47:

- Found in 21 of 181 (11.6%) of genes in pham
- Manual Annotations of this start: 16 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT_42 (DR), AnarQue_44 (DR), Blackpen_44 (DR), CaiB_44 (DR), CloverMinnie_44 (DR), DearBasketball_24 (DY), DinoNuggs_22 (DY), DonkeyMan_21 (DY), FelixTres_44 (DR), Heinz_21 (DY), Hibiscus_21 (DY), Jojo24_21 (DY), MakoManhole_44 (DR), MossRose_44 (DR), NHagos_42 (DR), Reyja_22 (DY), Santhid_21 (DY), Tarzan_21 (DY), TraderJ_44 (DR), Wooper_44 (DR), Yeshua_44 (DR),

Summary by clusters:

There are 16 clusters represented in this pham: DN, CY3, CY1, DN4, CY4, CZ3, DC2, CZ1, CZ7, DN2, DN1, DY, DW, DR, CV, CT,

Info for manual annotations of cluster CT:

- Start number 41 was manually annotated 7 times for cluster CT.
- Start number 43 was manually annotated 4 times for cluster CT.
- Start number 44 was manually annotated 43 times for cluster CT.
- Start number 46 was manually annotated 8 times for cluster CT.

Info for manual annotations of cluster CV:

- Start number 45 was manually annotated 36 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 45 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY3:

- Start number 45 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 45 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CZ1:

- Start number 45 was manually annotated 3 times for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 45 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ7:

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

Info for manual annotations of cluster DC2:

- Start number 45 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DN:

- Start number 45 was manually annotated 6 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 45 was manually annotated 10 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 45 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN4:

- Start number 45 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DR:

- Start number 47 was manually annotated 9 times for cluster DR.

Info for manual annotations of cluster DW:

- Start number 45 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster DY:

- Start number 47 was manually annotated 7 times for cluster DY.

Gene Information:

Gene: Agatha_21 Start: 18406, Stop: 19365, Start Num: 44

Candidate Starts for Agatha_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Agueybana_21 Start: 20174, Stop: 21085, Start Num: 45

Candidate Starts for Agueybana_21:

(2, 19433), (8, 19514), (10, 19523), (11, 19538), (13, 19610), (18, 19676), (21, 19754), (34, 20066), (Start: 45 @20174 has 71 MA's), (51, 20240), (56, 20297), (69, 20435), (71, 20441), (73, 20450), (79,

20543), (80, 20558), (85, 20615), (88, 20627), (98, 20702), (110, 20795), (115, 20813), (144, 21053),

Gene: AikoCarson_20 Start: 17729, Stop: 18682, Start Num: 46

Candidate Starts for AikoCarson_20:

(Start: 46 @17729 has 8 MA's), (59, 17873), (65, 17957), (71, 18002), (73, 18011), (76, 18056), (82, 18149), (87, 18176), (91, 18206), (94, 18236), (105, 18350), (109, 18374), (119, 18437), (122, 18452), (126, 18515), (137, 18614), (139, 18623),

Gene: AksarBAT_42 Start: 35139, Stop: 36161, Start Num: 47

Candidate Starts for AksarBAT_42:

(Start: 47 @35139 has 16 MA's), (49, 35181), (51, 35208), (55, 35256), (62, 35310), (65, 35367), (71, 35412), (73, 35421), (74, 35454), (77, 35478), (80, 35517), (81, 35538), (82, 35559), (90, 35607), (93, 35631), (94, 35643), (96, 35655), (100, 35709), (102, 35730), (103, 35736), (104, 35754), (108, 35781), (109, 35790), (128, 35955), (129, 35958), (144, 36069), (147, 36078),

Gene: Amok_20 Start: 17726, Stop: 18679, Start Num: 46

Candidate Starts for Amok_20:

(Start: 46 @17726 has 8 MA's), (59, 17870), (61, 17888), (65, 17954), (71, 17999), (73, 18008), (76, 18053), (82, 18146), (87, 18173), (91, 18203), (94, 18233), (105, 18347), (109, 18371), (119, 18434), (122, 18449), (126, 18512), (137, 18611), (139, 18620),

Gene: AnarQue_44 Start: 36551, Stop: 37570, Start Num: 47

Candidate Starts for AnarQue_44:

(Start: 47 @36551 has 16 MA's), (49, 36590), (55, 36665), (62, 36719), (65, 36776), (71, 36821), (74, 36863), (77, 36887), (80, 36926), (81, 36947), (82, 36968), (87, 36995), (93, 37040), (94, 37052), (96, 37064), (100, 37118), (102, 37139), (103, 37145), (104, 37163), (108, 37190), (109, 37199), (128, 37364), (129, 37367), (131, 37379), (144, 37478), (147, 37487), (152, 37523),

Gene: AndPeggy_20 Start: 18098, Stop: 19048, Start Num: 46

Candidate Starts for AndPeggy_20:

(Start: 46 @18098 has 8 MA's), (59, 18242), (61, 18260), (65, 18326), (68, 18359), (71, 18371), (73, 18380), (76, 18425), (80, 18476), (81, 18497), (82, 18518), (91, 18575), (94, 18605), (102, 18692), (105, 18719), (109, 18743), (119, 18806), (126, 18884), (129, 18899), (130, 18908), (136, 18953), (137, 18983), (139, 18992),

Gene: Angelique_23 Start: 20524, Stop: 21435, Start Num: 45

Candidate Starts for Angelique_23:

(34, 20413), (Start: 45 @20524 has 71 MA's), (50, 20566), (51, 20590), (66, 20752), (69, 20785), (71, 20791), (80, 20908), (88, 20977), (89, 20992), (98, 21052), (110, 21145), (114, 21157), (144, 21403),

Gene: ArchiDore_25 Start: 22305, Stop: 23216, Start Num: 45

Candidate Starts for ArchiDore_25:

(18, 21804), (34, 22194), (37, 22233), (Start: 45 @22305 has 71 MA's), (51, 22371), (65, 22530), (69, 22566), (71, 22572), (78, 22662), (80, 22689), (88, 22758), (98, 22833), (110, 22926), (144, 23184),

Gene: Archis_22 Start: 19231, Stop: 20142, Start Num: 45

Candidate Starts for Archis_22:

(Start: 45 @19231 has 71 MA's), (51, 19297), (65, 19456), (69, 19492), (71, 19498), (80, 19615), (88, 19684), (98, 19759), (110, 19852), (114, 19864), (144, 20110),

Gene: Asapag_23 Start: 19217, Stop: 20194, Start Num: 45

Candidate Starts for Asapag_23:

(32, 19061), (35, 19133), (36, 19136), (Start: 45 @19217 has 71 MA's), (48, 19238), (51, 19283), (52, 19313), (58, 19352), (62, 19385), (64, 19430), (65, 19442), (69, 19478), (71, 19484), (78, 19574), (80, 19601), (88, 19670), (110, 19841), (131, 20021), (136, 20066), (137, 20102), (138, 20108),

Gene: Axym_21 Start: 18403, Stop: 19365, Start Num: 43

Candidate Starts for Axym_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Azira_23 Start: 19360, Stop: 20337, Start Num: 41

Candidate Starts for Azira_23:

(Start: 41 @19360 has 7 MA's), (Start: 43 @19366 has 4 MA's), (Start: 44 @19369 has 43 MA's), (48, 19387), (50, 19411), (59, 19510), (71, 19639), (72, 19642), (73, 19648), (77, 19705), (80, 19744), (81, 19765), (91, 19843), (95, 19876), (96, 19885), (110, 20014), (113, 20023), (116, 20044), (122, 20092), (126, 20155), (129, 20170), (135, 20212),

Gene: Azula_23 Start: 19335, Stop: 20246, Start Num: 45

Candidate Starts for Azula_23:

(Start: 45 @19335 has 71 MA's), (51, 19401), (62, 19503), (65, 19560), (69, 19596), (71, 19602), (80, 19719), (88, 19788), (98, 19863), (110, 19956), (144, 20214),

Gene: BENtherdunthat_23 Start: 19217, Stop: 20194, Start Num: 45

Candidate Starts for BENtherdunthat_23:

(27, 18941), (32, 19061), (35, 19133), (36, 19136), (Start: 45 @19217 has 71 MA's), (48, 19238), (51, 19283), (52, 19313), (58, 19352), (62, 19385), (64, 19430), (65, 19442), (69, 19478), (71, 19484), (78, 19574), (80, 19601), (88, 19670), (110, 19841), (128, 20006), (131, 20021), (137, 20102), (138, 20108),

Gene: Balloona_20 Start: 18083, Stop: 19057, Start Num: 41

Candidate Starts for Balloona_20:

(Start: 41 @18083 has 7 MA's), (Start: 43 @18089 has 4 MA's), (Start: 44 @18092 has 43 MA's), (52, 18191), (63, 18257), (70, 18353), (71, 18356), (86, 18539), (91, 18572), (101, 18674), (104, 18713), (106, 18722), (110, 18740), (116, 18770), (117, 18791), (126, 18881), (127, 18884), (139, 18983), (146, 19007), (147, 19010),

Gene: Barco_21 Start: 19020, Stop: 19931, Start Num: 45

Candidate Starts for Barco_21:

(Start: 45 @19020 has 71 MA's), (51, 19086), (65, 19245), (69, 19281), (71, 19287), (80, 19404), (88, 19473), (98, 19548), (110, 19641), (114, 19653), (144, 19899),

Gene: Bavilard_21 Start: 18871, Stop: 19842, Start Num: 43

Candidate Starts for Bavilard_21:

(Start: 41 @18865 has 7 MA's), (Start: 43 @18871 has 4 MA's), (Start: 44 @18874 has 43 MA's), (52, 18973), (63, 19039), (70, 19135), (71, 19138), (86, 19321), (91, 19354), (101, 19456), (104, 19495), (106, 19504), (110, 19522), (116, 19552), (117, 19573), (126, 19663), (127, 19666), (134, 19714), (139, 19765), (146, 19789), (147, 19792),

Gene: BaxterFox_20 Start: 19500, Stop: 20411, Start Num: 45

Candidate Starts for BaxterFox_20:

(8, 18840), (10, 18849), (11, 18864), (13, 18936), (18, 19002), (21, 19080), (34, 19392), (Start: 45 @19500 has 71 MA's), (51, 19566), (56, 19623), (69, 19761), (71, 19767), (73, 19776), (79, 19869),

(80, 19884), (85, 19941), (88, 19953), (98, 20028), (110, 20121), (144, 20379),

Gene: BearBQ_22 Start: 20057, Stop: 21034, Start Num: 45

Candidate Starts for BearBQ_22:

(27, 19781), (32, 19901), (35, 19973), (36, 19976), (Start: 45 @20057 has 71 MA's), (48, 20078), (51, 20123), (52, 20153), (58, 20192), (62, 20225), (64, 20270), (65, 20282), (69, 20318), (71, 20324), (78, 20414), (80, 20441), (88, 20510), (110, 20681), (128, 20846), (131, 20861), (137, 20942), (138, 20948),

Gene: Begonia_22 Start: 19498, Stop: 20412, Start Num: 45

Candidate Starts for Begonia_22:

(Start: 45 @19498 has 71 MA's), (51, 19564), (65, 19723), (69, 19759), (71, 19765), (80, 19882), (88, 19951), (98, 20026), (110, 20119), (144, 20380),

Gene: BigChungus_20 Start: 18129, Stop: 19100, Start Num: 43

Candidate Starts for BigChungus_20:

(Start: 41 @18123 has 7 MA's), (Start: 43 @18129 has 4 MA's), (Start: 44 @18132 has 43 MA's), (52, 18231), (63, 18297), (70, 18393), (71, 18396), (86, 18579), (91, 18612), (101, 18714), (104, 18753), (106, 18762), (110, 18783), (117, 18834), (122, 18861), (126, 18924), (127, 18927), (139, 19026), (146, 19050), (147, 19053),

Gene: BillDoor_23 Start: 18066, Stop: 19016, Start Num: 46

Candidate Starts for BillDoor_23:

(Start: 46 @18066 has 8 MA's), (59, 18210), (61, 18228), (65, 18294), (68, 18327), (71, 18339), (73, 18348), (76, 18393), (80, 18444), (81, 18465), (82, 18486), (91, 18543), (94, 18573), (102, 18660), (109, 18711), (119, 18774), (126, 18852), (129, 18867), (130, 18876), (136, 18921), (137, 18951), (139, 18960),

Gene: Birdsong_22 Start: 18950, Stop: 19927, Start Num: 45

Candidate Starts for Birdsong_22:

(27, 18674), (32, 18794), (35, 18866), (36, 18869), (Start: 45 @18950 has 71 MA's), (48, 18971), (51, 19016), (52, 19046), (58, 19085), (62, 19118), (64, 19163), (65, 19175), (69, 19211), (71, 19217), (78, 19307), (80, 19334), (88, 19403), (110, 19574), (128, 19739), (131, 19754), (137, 19835), (138, 19841),

Gene: Biskit_22 Start: 18077, Stop: 19039, Start Num: 44

Candidate Starts for Biskit_22:

(Start: 44 @18077 has 43 MA's), (55, 18194), (59, 18221), (65, 18305), (71, 18350), (73, 18359), (76, 18404), (80, 18455), (91, 18554), (94, 18584), (110, 18725), (118, 18785), (119, 18788), (122, 18803), (126, 18866), (137, 18959), (139, 18968),

Gene: Blackpen_44 Start: 35969, Stop: 36988, Start Num: 47

Candidate Starts for Blackpen_44:

(4, 35252), (6, 35285), (7, 35288), (14, 35435), (16, 35459), (20, 35543), (24, 35594), (26, 35678), (39, 35915), (Start: 47 @35969 has 16 MA's), (49, 36008), (55, 36083), (62, 36137), (65, 36194), (71, 36239), (74, 36281), (77, 36305), (80, 36344), (81, 36365), (82, 36386), (87, 36413), (93, 36458), (94, 36470), (96, 36482), (100, 36536), (102, 36557), (103, 36563), (104, 36581), (108, 36608), (109, 36617), (128, 36782), (129, 36785), (131, 36797), (144, 36896), (147, 36905), (152, 36941),

Gene: BlingBling_21 Start: 19020, Stop: 19931, Start Num: 45

Candidate Starts for BlingBling_21:

(Start: 45 @19020 has 71 MA's), (51, 19086), (65, 19245), (69, 19281), (71, 19287), (80, 19404), (88, 19473), (98, 19548), (110, 19641), (114, 19653), (144, 19899),

Gene: Blino_21 Start: 18988, Stop: 19899, Start Num: 45

Candidate Starts for Blino_21:

(Start: 45 @18988 has 71 MA's), (51, 19054), (69, 19249), (71, 19255), (80, 19372), (88, 19441), (98, 19516), (110, 19609), (114, 19621), (144, 19867),

Gene: Blondies_22 Start: 18060, Stop: 19022, Start Num: 44

Candidate Starts for Blondies_22:

(Start: 44 @18060 has 43 MA's), (55, 18177), (59, 18204), (65, 18288), (71, 18333), (73, 18342), (76, 18387), (80, 18438), (91, 18537), (94, 18567), (110, 18708), (118, 18768), (119, 18771), (122, 18786), (126, 18849), (137, 18942), (139, 18951),

Gene: Blueberry_23 Start: 19335, Stop: 20246, Start Num: 45

Candidate Starts for Blueberry_23:

(Start: 45 @19335 has 71 MA's), (51, 19401), (62, 19503), (65, 19560), (69, 19596), (71, 19602), (80, 19719), (88, 19788), (98, 19863), (110, 19956), (144, 20214),

Gene: BotCity_23 Start: 19215, Stop: 20192, Start Num: 45

Candidate Starts for BotCity_23:

(32, 19059), (35, 19131), (36, 19134), (Start: 45 @19215 has 71 MA's), (48, 19236), (51, 19281), (52, 19311), (58, 19350), (62, 19383), (64, 19428), (65, 19440), (69, 19476), (71, 19482), (78, 19572), (80, 19599), (88, 19668), (110, 19839), (131, 20019), (136, 20064), (137, 20100), (138, 20106),

Gene: Bubble_21 Start: 18406, Stop: 19365, Start Num: 44

Candidate Starts for Bubble_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Budski_23 Start: 19385, Stop: 20299, Start Num: 45

Candidate Starts for Budski_23:

(Start: 45 @19385 has 71 MA's), (51, 19451), (65, 19610), (69, 19646), (71, 19652), (78, 19742), (80, 19769), (88, 19838), (98, 19913), (110, 20006), (121, 20075), (144, 20267),

Gene: Burnsey_21 Start: 18407, Stop: 19366, Start Num: 44

Candidate Starts for Burnsey_21:

(Start: 41 @18398 has 7 MA's), (42, 18401), (Start: 43 @18404 has 4 MA's), (Start: 44 @18407 has 43 MA's), (50, 18452), (54, 18518), (55, 18524), (65, 18635), (68, 18668), (71, 18680), (73, 18689), (77, 18746), (80, 18785), (91, 18884), (94, 18914), (99, 18974), (102, 19001), (109, 19052), (118, 19112), (119, 19115), (122, 19130), (123, 19139), (126, 19193), (137, 19286), (139, 19295), (150, 19349),

Gene: Button_22 Start: 17436, Stop: 18404, Start Num: 44

Candidate Starts for Button_22:

(Start: 44 @17436 has 43 MA's), (50, 17478), (51, 17502), (52, 17532), (57, 17568), (59, 17577), (64, 17649), (67, 17679), (71, 17706), (83, 17874), (91, 17925), (111, 18096), (117, 18141), (119, 18153), (126, 18222), (143, 18342), (148, 18369),

Gene: Buttrmlkdreams_21 Start: 18059, Stop: 19021, Start Num: 44

Candidate Starts for Buttrmlkdreams_21:

(Start: 44 @18059 has 43 MA's), (55, 18176), (59, 18203), (65, 18287), (71, 18332), (73, 18341), (76, 18386), (80, 18437), (91, 18536), (94, 18566), (110, 18707), (118, 18767), (119, 18770), (122, 18785), (126, 18848), (137, 18941), (139, 18950),

Gene: CaiB_44 Start: 36537, Stop: 37556, Start Num: 47

Candidate Starts for CaiB_44:

(4, 35820), (5, 35847), (6, 35853), (7, 35856), (14, 36003), (16, 36027), (20, 36111), (24, 36162), (26, 36246), (39, 36483), (Start: 47 @36537 has 16 MA's), (49, 36576), (55, 36651), (62, 36705), (65, 36762), (71, 36807), (74, 36849), (77, 36873), (80, 36912), (81, 36933), (82, 36954), (87, 36981), (93, 37026), (94, 37038), (96, 37050), (100, 37104), (102, 37125), (103, 37131), (104, 37149), (108, 37176), (109, 37185), (128, 37350), (129, 37353), (131, 37365), (144, 37464), (147, 37473), (152, 37509),

Gene: CanesSauce_21 Start: 18099, Stop: 19049, Start Num: 46

Candidate Starts for CanesSauce_21:

(Start: 46 @18099 has 8 MA's), (59, 18243), (61, 18261), (65, 18327), (68, 18360), (71, 18372), (73, 18381), (76, 18426), (80, 18477), (81, 18498), (82, 18519), (91, 18576), (94, 18606), (102, 18693), (109, 18744), (119, 18807), (126, 18885), (129, 18900), (130, 18909), (136, 18954), (137, 18984), (139, 18993),

Gene: CaptainKirk2_21 Start: 19041, Stop: 19952, Start Num: 45

Candidate Starts for CaptainKirk2_21:

(Start: 45 @19041 has 71 MA's), (51, 19107), (65, 19266), (69, 19302), (71, 19308), (80, 19425), (88, 19494), (98, 19569), (110, 19662), (144, 19920),

Gene: CaramellLatte_21 Start: 18099, Stop: 19049, Start Num: 46

Candidate Starts for CaramellLatte_21:

(Start: 46 @18099 has 8 MA's), (59, 18243), (61, 18261), (65, 18327), (68, 18360), (71, 18372), (73, 18381), (76, 18426), (80, 18477), (81, 18498), (82, 18519), (91, 18576), (94, 18606), (102, 18693), (109, 18744), (119, 18807), (126, 18885), (129, 18900), (130, 18909), (136, 18954), (137, 18984), (139, 18993),

Gene: CarolAnn_21 Start: 18987, Stop: 19898, Start Num: 45

Candidate Starts for CarolAnn_21:

(Start: 45 @18987 has 71 MA's), (51, 19053), (69, 19248), (71, 19254), (80, 19371), (88, 19440), (98, 19515), (110, 19608), (114, 19620), (144, 19866),

Gene: Carsonalex_22 Start: 18455, Stop: 19423, Start Num: 41

Candidate Starts for Carsonalex_22:

(Start: 41 @18455 has 7 MA's), (42, 18458), (Start: 43 @18461 has 4 MA's), (Start: 44 @18464 has 43 MA's), (50, 18509), (54, 18575), (55, 18581), (65, 18692), (68, 18725), (71, 18737), (73, 18746), (77, 18803), (80, 18842), (91, 18941), (94, 18971), (99, 19031), (102, 19058), (109, 19109), (118, 19169), (119, 19172), (122, 19187), (123, 19196), (126, 19250), (137, 19343), (139, 19352), (150, 19406),

Gene: CheeseSpider_25 Start: 19586, Stop: 20497, Start Num: 45

Candidate Starts for CheeseSpider_25:

(Start: 45 @19586 has 71 MA's), (49, 19625), (51, 19652), (65, 19811), (69, 19847), (71, 19853), (78, 19943), (80, 19970), (98, 20114), (110, 20207), (144, 20465),

Gene: CheeseTouch_23 Start: 19211, Stop: 20188, Start Num: 45

Candidate Starts for CheeseTouch_23:

(32, 19055), (Start: 45 @19211 has 71 MA's), (48, 19232), (51, 19277), (52, 19307), (58, 19346), (62, 19379), (65, 19436), (69, 19472), (71, 19478), (78, 19568), (80, 19595), (88, 19664), (110, 19835), (131, 20015), (136, 20060), (137, 20096), (138, 20102),

Gene: CherryonLim_22 Start: 18832, Stop: 19809, Start Num: 41

Candidate Starts for CherryonLim_22:

(Start: 41 @18832 has 7 MA's), (Start: 43 @18838 has 4 MA's), (Start: 44 @18841 has 43 MA's), (52, 18940), (60, 18985), (63, 19006), (65, 19060), (70, 19102), (71, 19105), (86, 19288), (91, 19321), (101, 19423), (104, 19462), (106, 19471), (110, 19492), (117, 19543), (122, 19570), (126, 19633), (127, 19636), (139, 19735), (146, 19759), (147, 19762),

Gene: ChickenTender_23 Start: 18462, Stop: 19430, Start Num: 41

Candidate Starts for ChickenTender_23:

(Start: 41 @18462 has 7 MA's), (42, 18465), (Start: 43 @18468 has 4 MA's), (Start: 44 @18471 has 43 MA's), (50, 18516), (54, 18582), (55, 18588), (65, 18699), (68, 18732), (71, 18744), (73, 18753), (77, 18810), (80, 18849), (91, 18948), (94, 18978), (99, 19038), (102, 19065), (109, 19116), (118, 19176), (119, 19179), (122, 19194), (123, 19203), (126, 19257), (137, 19350), (139, 19359), (150, 19413),

Gene: ChocoMunchkin_21 Start: 18099, Stop: 19049, Start Num: 46

Candidate Starts for ChocoMunchkin_21:

(Start: 46 @18099 has 8 MA's), (59, 18243), (61, 18261), (65, 18327), (68, 18360), (71, 18372), (73, 18381), (76, 18426), (80, 18477), (81, 18498), (82, 18519), (91, 18576), (94, 18606), (102, 18693), (109, 18744), (119, 18807), (126, 18885), (129, 18900), (130, 18909), (136, 18954), (137, 18984), (139, 18993),

Gene: Cleo_21 Start: 18673, Stop: 19674, Start Num: 41

Candidate Starts for Cleo_21:

(Start: 41 @18673 has 7 MA's), (Start: 44 @18682 has 43 MA's), (48, 18703), (50, 18727), (59, 18826), (71, 18955), (72, 18958), (76, 19009), (77, 19021), (80, 19060), (81, 19081), (91, 19159), (110, 19330), (113, 19339), (116, 19360), (122, 19408), (126, 19471), (129, 19486), (135, 19528), (138, 19570),

Gene: CloverMinnie_44 Start: 36477, Stop: 37496, Start Num: 47

Candidate Starts for CloverMinnie_44:

(26, 36186), (39, 36423), (Start: 47 @36477 has 16 MA's), (49, 36516), (55, 36591), (62, 36645), (65, 36702), (71, 36747), (74, 36789), (77, 36813), (80, 36852), (81, 36873), (82, 36894), (87, 36921), (93, 36966), (94, 36978), (96, 36990), (100, 37044), (102, 37065), (103, 37071), (104, 37089), (108, 37116), (109, 37125), (128, 37290), (129, 37293), (131, 37305), (144, 37404), (147, 37413), (152, 37449),

Gene: Clown_45 Start: 36252, Stop: 37166, Start Num: 45

Candidate Starts for Clown_45:

(34, 36141), (Start: 45 @36252 has 71 MA's), (51, 36318), (52, 36348), (61, 36411), (69, 36513), (71, 36519), (75, 36582), (78, 36609), (79, 36621), (80, 36636), (87, 36702), (98, 36780), (110, 36873), (121, 36942), (144, 37134),

Gene: CocoaPuff_20 Start: 18077, Stop: 19054, Start Num: 41

Candidate Starts for CocoaPuff_20:

(Start: 41 @18077 has 7 MA's), (Start: 43 @18083 has 4 MA's), (Start: 44 @18086 has 43 MA's), (52, 18185), (63, 18251), (70, 18347), (71, 18350), (78, 18440), (86, 18533), (91, 18566), (101, 18668), (104, 18707), (106, 18716), (110, 18734), (116, 18764), (117, 18785), (122, 18812), (126, 18875), (127, 18878), (139, 18977), (146, 19001), (147, 19004),

Gene: Cozz_21 Start: 18404, Stop: 19366, Start Num: 43

Candidate Starts for Cozz_21:

(Start: 41 @18398 has 7 MA's), (42, 18401), (Start: 43 @18404 has 4 MA's), (Start: 44 @18407 has 43 MA's), (50, 18452), (54, 18518), (55, 18524), (65, 18635), (68, 18668), (71, 18680), (73, 18689), (77, 18746), (80, 18785), (91, 18884), (94, 18914), (99, 18974), (102, 19001), (109, 19052), (118, 19112), (119, 19115), (122, 19130), (123, 19139), (126, 19193), (137, 19286), (139, 19295), (150, 19349),

Gene: DearBasketball_24 Start: 17807, Stop: 18817, Start Num: 47

Candidate Starts for DearBasketball_24:

(24, 17426), (25, 17432), (26, 17510), (Start: 47 @17807 has 16 MA's), (51, 17873), (59, 17948), (71, 18077), (85, 18242), (93, 18296), (94, 18308), (96, 18320), (107, 18443), (120, 18542), (124, 18569), (126, 18626), (130, 18650), (131, 18653), (143, 18752), (145, 18761),

Gene: Delian_21 Start: 19041, Stop: 19952, Start Num: 45

Candidate Starts for Delian_21:

(Start: 45 @19041 has 71 MA's), (51, 19107), (65, 19266), (69, 19302), (71, 19308), (80, 19425), (88, 19494), (98, 19569), (110, 19662), (144, 19920),

Gene: DinoNuggs_22 Start: 17773, Stop: 18783, Start Num: 47

Candidate Starts for DinoNuggs_22:

(24, 17392), (25, 17398), (26, 17476), (Start: 47 @17773 has 16 MA's), (51, 17839), (59, 17914), (71, 18043), (85, 18208), (93, 18262), (94, 18274), (96, 18286), (107, 18409), (120, 18508), (124, 18535), (126, 18592), (130, 18616), (131, 18619), (143, 18718), (145, 18727),

Gene: DonkeyMan_21 Start: 17562, Stop: 18572, Start Num: 47

Candidate Starts for DonkeyMan_21:

(Start: 47 @17562 has 16 MA's), (51, 17628), (59, 17703), (71, 17832), (85, 17997), (92, 18039), (93, 18051), (94, 18063), (96, 18075), (107, 18198), (120, 18297), (124, 18324), (126, 18381), (130, 18405), (131, 18408), (143, 18507), (145, 18516),

Gene: Dre3_21 Start: 18629, Stop: 19600, Start Num: 44

Candidate Starts for Dre3_21:

(Start: 41 @18620 has 7 MA's), (Start: 44 @18629 has 43 MA's), (48, 18650), (50, 18674), (59, 18773), (71, 18902), (72, 18905), (76, 18956), (77, 18968), (80, 19007), (81, 19028), (91, 19106), (110, 19277), (113, 19286), (116, 19307), (122, 19355), (126, 19418), (129, 19433), (135, 19475),

Gene: ElJefes_20 Start: 18564, Stop: 19532, Start Num: 44

Candidate Starts for ElJefes_20:

(Start: 41 @18555 has 7 MA's), (Start: 43 @18561 has 4 MA's), (Start: 44 @18564 has 43 MA's), (52, 18663), (60, 18708), (63, 18729), (70, 18825), (71, 18828), (86, 19011), (91, 19044), (101, 19146), (104, 19185), (106, 19194), (110, 19215), (117, 19266), (122, 19293), (126, 19356), (127, 19359), (146, 19482), (147, 19485),

Gene: Elinal_22 Start: 18085, Stop: 19053, Start Num: 44

Candidate Starts for Elinal_22:

(Start: 41 @18076 has 7 MA's), (Start: 43 @18082 has 4 MA's), (Start: 44 @18085 has 43 MA's), (52, 18184), (63, 18250), (70, 18346), (71, 18349), (86, 18532), (91, 18565), (101, 18667), (104, 18706), (106, 18715), (110, 18733), (116, 18763), (117, 18784), (126, 18874), (127, 18877), (139, 18976), (146, 19000), (147, 19003),

Gene: Elliott_21 Start: 18397, Stop: 19365, Start Num: 41

Candidate Starts for Elliott_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Emalyn_20 Start: 17725, Stop: 18675, Start Num: 46

Candidate Starts for Emalyn_20:

(Start: 46 @17725 has 8 MA's), (59, 17869), (65, 17953), (71, 17998), (73, 18007), (76, 18052), (82, 18145), (87, 18172), (91, 18202), (94, 18232), (105, 18346), (109, 18370), (119, 18433), (122, 18448), (126, 18511), (129, 18526), (130, 18535), (136, 18580), (137, 18610),

Gene: Feastonyeet_20 Start: 18129, Stop: 19100, Start Num: 43

Candidate Starts for Feastonyeet_20:

(Start: 41 @18123 has 7 MA's), (Start: 43 @18129 has 4 MA's), (Start: 44 @18132 has 43 MA's), (52, 18231), (63, 18297), (70, 18393), (71, 18396), (86, 18579), (91, 18612), (101, 18714), (104, 18753), (106, 18762), (110, 18783), (117, 18834), (122, 18861), (126, 18924), (127, 18927), (139, 19026), (146, 19050), (147, 19053),

Gene: FelixTres_44 Start: 36540, Stop: 37559, Start Num: 47

Candidate Starts for FelixTres_44:

(26, 36249), (39, 36486), (Start: 47 @36540 has 16 MA's), (49, 36579), (55, 36654), (62, 36708), (65, 36765), (71, 36810), (74, 36852), (77, 36876), (80, 36915), (81, 36936), (82, 36957), (87, 36984), (93, 37029), (94, 37041), (96, 37053), (100, 37107), (102, 37128), (103, 37134), (104, 37152), (108, 37179), (109, 37188), (128, 37353), (129, 37356), (131, 37368), (144, 37467), (147, 37476), (152, 37512),

Gene: Fenry_20 Start: 18739, Stop: 19650, Start Num: 45

Candidate Starts for Fenry_20:

(Start: 45 @18739 has 71 MA's), (51, 18805), (69, 19000), (71, 19006), (80, 19123), (88, 19192), (98, 19267), (110, 19360), (144, 19618),

Gene: Fribs8_22 Start: 19213, Stop: 20184, Start Num: 44

Candidate Starts for Fribs8_22:

(Start: 41 @19204 has 7 MA's), (Start: 44 @19213 has 43 MA's), (59, 19354), (71, 19483), (72, 19486), (73, 19492), (77, 19549), (80, 19588), (81, 19609), (82, 19630), (91, 19687), (95, 19720), (110, 19858), (113, 19867), (116, 19888), (122, 19936), (126, 19999), (129, 20014), (135, 20056), (141, 20107),

Gene: Frokostdame_21 Start: 18989, Stop: 19900, Start Num: 45

Candidate Starts for Frokostdame_21:

(Start: 45 @18989 has 71 MA's), (51, 19055), (65, 19214), (69, 19250), (71, 19256), (80, 19373), (88, 19442), (98, 19517), (110, 19610), (144, 19868),

Gene: GTE2_19 Start: 17772, Stop: 18722, Start Num: 46

Candidate Starts for GTE2_19:

(Start: 46 @17772 has 8 MA's), (59, 17916), (61, 17934), (65, 18000), (71, 18045), (73, 18054), (76, 18099), (80, 18150), (82, 18192), (91, 18249), (94, 18279), (102, 18366), (109, 18417), (119, 18480), (126, 18558), (129, 18573), (130, 18582), (136, 18627), (137, 18657), (139, 18666),

Gene: Gambino_23 Start: 19335, Stop: 20246, Start Num: 45

Candidate Starts for Gambino_23:

(Start: 45 @19335 has 71 MA's), (51, 19401), (62, 19503), (65, 19560), (69, 19596), (71, 19602), (80, 19719), (88, 19788), (98, 19863), (110, 19956), (144, 20214),

Gene: Getalong_24 Start: 20017, Stop: 20994, Start Num: 45

Candidate Starts for Getalong_24:

(32, 19861), (35, 19933), (36, 19936), (Start: 45 @20017 has 71 MA's), (48, 20038), (51, 20083), (52, 20113), (58, 20152), (62, 20185), (64, 20230), (65, 20242), (69, 20278), (71, 20284), (78, 20374), (80, 20401), (88, 20470), (110, 20641), (128, 20806), (131, 20821), (137, 20902), (138, 20908),

Gene: GiKK_24 Start: 17739, Stop: 18707, Start Num: 44

Candidate Starts for GiKK_24:

(Start: 44 @17739 has 43 MA's), (50, 17781), (51, 17805), (52, 17835), (57, 17871), (59, 17880), (65, 17964), (67, 17982), (69, 18003), (71, 18009), (83, 18177), (111, 18399), (117, 18444), (119, 18456), (126, 18525), (139, 18633), (143, 18645), (149, 18675),

Gene: Gibbous_21 Start: 18629, Stop: 19600, Start Num: 44

Candidate Starts for Gibbous_21:

(Start: 41 @18620 has 7 MA's), (Start: 44 @18629 has 43 MA's), (48, 18650), (50, 18674), (59, 18773), (71, 18902), (72, 18905), (76, 18956), (77, 18968), (80, 19007), (81, 19028), (91, 19106), (110, 19277), (113, 19286), (116, 19307), (122, 19355), (126, 19418), (129, 19433), (135, 19475),

Gene: GoldHunter_22 Start: 18398, Stop: 19366, Start Num: 41

Candidate Starts for GoldHunter_22:

(Start: 41 @18398 has 7 MA's), (42, 18401), (Start: 43 @18404 has 4 MA's), (Start: 44 @18407 has 43 MA's), (50, 18452), (54, 18518), (55, 18524), (65, 18635), (68, 18668), (71, 18680), (73, 18689), (77, 18746), (80, 18785), (91, 18884), (94, 18914), (99, 18974), (102, 19001), (109, 19052), (118, 19112), (119, 19115), (122, 19130), (123, 19139), (126, 19193), (137, 19286), (139, 19295), (150, 19349),

Gene: Guacamole_21 Start: 19024, Stop: 19935, Start Num: 45

Candidate Starts for Guacamole_21:

(Start: 45 @19024 has 71 MA's), (51, 19090), (65, 19249), (69, 19285), (71, 19291), (80, 19408), (88, 19477), (98, 19552), (110, 19645), (114, 19657), (144, 19903),

Gene: Heinz_21 Start: 17654, Stop: 18664, Start Num: 47

Candidate Starts for Heinz_21:

(14, 17117), (15, 17126), (16, 17141), (19, 17213), (25, 17279), (26, 17357), (Start: 47 @17654 has 16 MA's), (51, 17720), (59, 17795), (71, 17924), (85, 18089), (93, 18143), (94, 18155), (96, 18167), (103, 18248), (107, 18290), (120, 18389), (124, 18416), (126, 18473), (131, 18500), (132, 18509), (140, 18590), (142, 18596), (143, 18599), (145, 18608),

Gene: Hexbug_23 Start: 18431, Stop: 19402, Start Num: 44

Candidate Starts for Hexbug_23:

(12, 17843), (17, 17921), (26, 18137), (Start: 44 @18431 has 43 MA's), (50, 18476), (59, 18575), (64, 18647), (69, 18698), (71, 18704), (81, 18845), (83, 18872), (111, 19094), (117, 19139), (126, 19220), (131, 19247), (133, 19265),

Gene: Hibiscus_21 Start: 17602, Stop: 18612, Start Num: 47

Candidate Starts for Hibiscus_21:

(14, 17065), (15, 17074), (16, 17089), (19, 17161), (25, 17227), (26, 17305), (Start: 47 @17602 has 16 MA's), (51, 17668), (59, 17743), (71, 17872), (85, 18037), (93, 18091), (94, 18103), (96, 18115), (103, 18196), (107, 18238), (120, 18337), (124, 18364), (126, 18421), (131, 18448), (132, 18457), (140, 18538), (142, 18544), (143, 18547), (145, 18556),

Gene: HippoPololi_23 Start: 19281, Stop: 20252, Start Num: 44

Candidate Starts for HippoPololi_23:

(Start: 41 @19272 has 7 MA's), (Start: 44 @19281 has 43 MA's), (50, 19326), (53, 19389), (59, 19425), (71, 19554), (72, 19557), (77, 19620), (80, 19659), (81, 19680), (91, 19758), (96, 19800), (110, 19929), (113, 19938), (116, 19959), (117, 19980), (122, 20007), (126, 20070), (129, 20085), (135, 20127),

Gene: Hitter_21 Start: 19020, Stop: 19931, Start Num: 45

Candidate Starts for Hitter_21:

(Start: 45 @19020 has 71 MA's), (51, 19086), (65, 19245), (69, 19281), (71, 19287), (80, 19404), (88, 19473), (98, 19548), (110, 19641), (144, 19899),

Gene: Holliday_23 Start: 19385, Stop: 20299, Start Num: 45

Candidate Starts for Holliday_23:

(Start: 45 @19385 has 71 MA's), (51, 19451), (65, 19610), (69, 19646), (71, 19652), (78, 19742), (80, 19769), (88, 19838), (98, 19913), (110, 20006), (121, 20075), (144, 20267),

Gene: Horseradish_22 Start: 17973, Stop: 18935, Start Num: 44

Candidate Starts for Horseradish_22:

(Start: 44 @17973 has 43 MA's), (55, 18090), (59, 18117), (65, 18201), (71, 18246), (73, 18255), (76, 18300), (80, 18351), (91, 18450), (94, 18480), (110, 18621), (118, 18681), (119, 18684), (122, 18699), (126, 18762), (137, 18855), (139, 18864),

Gene: Jablanski_24 Start: 20700, Stop: 21611, Start Num: 45

Candidate Starts for Jablanski_24:

(Start: 45 @20700 has 71 MA's), (51, 20766), (65, 20925), (66, 20928), (69, 20961), (71, 20967), (80, 21084), (88, 21153), (98, 21228), (110, 21321), (144, 21579),

Gene: Jalammah_23 Start: 19814, Stop: 20725, Start Num: 45

Candidate Starts for Jalammah_23:

(Start: 45 @19814 has 71 MA's), (51, 19880), (65, 20039), (69, 20075), (71, 20081), (80, 20198), (88, 20267), (98, 20342), (110, 20435), (144, 20693),

Gene: Jamzy_24 Start: 17749, Stop: 18717, Start Num: 44

Candidate Starts for Jamzy_24:

(Start: 44 @17749 has 43 MA's), (50, 17791), (51, 17815), (52, 17845), (57, 17881), (59, 17890), (71, 18019), (83, 18187), (91, 18238), (111, 18409), (117, 18454), (119, 18466), (126, 18535), (143, 18655), (148, 18682),

Gene: JasperJr_21 Start: 19024, Stop: 19935, Start Num: 45

Candidate Starts for JasperJr_21:

(Start: 45 @19024 has 71 MA's), (51, 19090), (65, 19249), (69, 19285), (71, 19291), (80, 19408), (88, 19477), (98, 19552), (110, 19645), (114, 19657), (144, 19903),

Gene: Jojo24_21 Start: 17599, Stop: 18609, Start Num: 47

Candidate Starts for Jojo24_21:

(Start: 47 @17599 has 16 MA's), (51, 17665), (59, 17740), (71, 17869), (85, 18034), (93, 18088), (94, 18100), (96, 18112), (103, 18193), (107, 18235), (120, 18334), (124, 18361), (126, 18418), (131, 18445), (140, 18535), (143, 18544), (145, 18553),

Gene: JuJu_21 Start: 18942, Stop: 19853, Start Num: 45

Candidate Starts for JuJu_21:

(8, 18282), (10, 18291), (11, 18306), (13, 18378), (18, 18444), (34, 18834), (37, 18873), (Start: 45 @18942 has 71 MA's), (51, 19008), (65, 19167), (66, 19170), (69, 19203), (71, 19209), (78, 19299), (80, 19326), (88, 19395), (98, 19470), (110, 19563), (144, 19821),

Gene: Kamaru_23 Start: 19385, Stop: 20299, Start Num: 45

Candidate Starts for Kamaru_23:

(Start: 45 @19385 has 71 MA's), (51, 19451), (65, 19610), (69, 19646), (71, 19652), (78, 19742), (80, 19769), (88, 19838), (98, 19913), (110, 20006), (121, 20075), (144, 20267),

Gene: KayGee_21 Start: 18085, Stop: 19053, Start Num: 44

Candidate Starts for KayGee_21:

(Start: 41 @18076 has 7 MA's), (Start: 43 @18082 has 4 MA's), (Start: 44 @18085 has 43 MA's), (52, 18184), (63, 18250), (70, 18346), (71, 18349), (86, 18532), (91, 18565), (101, 18667), (104, 18706), (106, 18715), (110, 18733), (116, 18763), (117, 18784), (126, 18874), (127, 18877), (139, 18976), (146, 19000), (147, 19003),

Gene: Kenna_22 Start: 19218, Stop: 20195, Start Num: 45

Candidate Starts for Kenna_22:

(32, 19062), (Start: 45 @19218 has 71 MA's), (48, 19239), (51, 19284), (52, 19314), (58, 19353), (62, 19386), (65, 19443), (69, 19479), (71, 19485), (78, 19575), (80, 19602), (88, 19671), (110, 19842), (131, 20022), (136, 20067), (137, 20103), (138, 20109),

Gene: Kuwabara_22 Start: 18644, Stop: 19621, Start Num: 45

Candidate Starts for Kuwabara_22:

(27, 18368), (32, 18488), (35, 18560), (36, 18563), (Start: 45 @18644 has 71 MA's), (48, 18665), (51, 18710), (52, 18740), (58, 18779), (62, 18812), (64, 18857), (65, 18869), (69, 18905), (71, 18911), (78, 19001), (80, 19028), (88, 19097), (110, 19268), (128, 19433), (131, 19448), (137, 19529), (138, 19535),

Gene: Lauer_20 Start: 18125, Stop: 19102, Start Num: 41

Candidate Starts for Lauer_20:

(Start: 41 @18125 has 7 MA's), (Start: 43 @18131 has 4 MA's), (Start: 44 @18134 has 43 MA's), (52, 18233), (63, 18299), (67, 18371), (70, 18395), (71, 18398), (86, 18581), (91, 18614), (101, 18716), (104, 18755), (106, 18764), (110, 18782), (116, 18812), (117, 18833), (126, 18923), (127, 18926), (134, 18974), (139, 19025), (146, 19049), (147, 19052),

Gene: Lutum_23 Start: 19218, Stop: 20195, Start Num: 45

Candidate Starts for Lutum_23:

(32, 19062), (Start: 45 @19218 has 71 MA's), (48, 19239), (51, 19284), (52, 19314), (58, 19353), (62, 19386), (65, 19443), (69, 19479), (71, 19485), (78, 19575), (80, 19602), (88, 19671), (110, 19842), (131, 20022), (136, 20067), (137, 20103), (138, 20109),

Gene: Lysidious_22 Start: 19544, Stop: 20455, Start Num: 45

Candidate Starts for Lysidious_22:

(Start: 45 @19544 has 71 MA's), (51, 19610), (65, 19769), (69, 19805), (71, 19811), (80, 19928), (88, 19997), (98, 20072), (110, 20165), (144, 20423),

Gene: MAnor_21 Start: 18096, Stop: 19067, Start Num: 44

Candidate Starts for MAnor_21:

(Start: 41 @18087 has 7 MA's), (Start: 43 @18093 has 4 MA's), (Start: 44 @18096 has 43 MA's), (52, 18195), (63, 18261), (65, 18315), (70, 18357), (71, 18360), (86, 18543), (91, 18576), (101, 18678), (104, 18717), (106, 18726), (110, 18750), (116, 18780), (117, 18801), (126, 18891), (127, 18894), (139, 18993),

Gene: MScarn_23 Start: 18062, Stop: 19024, Start Num: 44

Candidate Starts for MScarn_23:

(Start: 44 @18062 has 43 MA's), (55, 18179), (59, 18206), (65, 18290), (71, 18335), (73, 18344), (76, 18389), (80, 18440), (91, 18539), (94, 18569), (110, 18710), (118, 18770), (119, 18773), (122, 18788), (126, 18851), (137, 18944), (139, 18953),

Gene: MaVan_23 Start: 19369, Stop: 20337, Start Num: 44

Candidate Starts for MaVan_23:

(Start: 41 @19360 has 7 MA's), (Start: 43 @19366 has 4 MA's), (Start: 44 @19369 has 43 MA's), (48, 19387), (50, 19411), (59, 19510), (71, 19639), (72, 19642), (73, 19648), (77, 19705), (80, 19744), (81,

19765), (91, 19843), (95, 19876), (96, 19885), (110, 20014), (113, 20023), (116, 20044), (122, 20092), (126, 20155), (129, 20170), (135, 20212),

Gene: MakCheese_27 Start: 23638, Stop: 24627, Start Num: 45

Candidate Starts for MakCheese_27:

(29, 23425), (33, 23497), (Start: 45 @23638 has 71 MA's), (52, 23734), (62, 23806), (69, 23899), (71, 23905), (80, 24022), (85, 24079), (88, 24091), (110, 24274), (128, 24439), (138, 24541), (151, 24601),

Gene: MakoManhole_44 Start: 36555, Stop: 37574, Start Num: 47

Candidate Starts for MakoManhole_44:

(26, 36264), (39, 36501), (Start: 47 @36555 has 16 MA's), (49, 36594), (55, 36669), (62, 36723), (65, 36780), (71, 36825), (74, 36867), (77, 36891), (80, 36930), (81, 36951), (82, 36972), (87, 36999), (93, 37044), (94, 37056), (96, 37068), (100, 37122), (102, 37143), (103, 37149), (104, 37167), (108, 37194), (109, 37203), (128, 37368), (129, 37371), (131, 37383), (144, 37482), (147, 37491), (152, 37527),

Gene: Malachai_22 Start: 19498, Stop: 20412, Start Num: 45

Candidate Starts for Malachai_22:

(Start: 45 @19498 has 71 MA's), (51, 19564), (65, 19723), (69, 19759), (71, 19765), (80, 19882), (88, 19951), (98, 20026), (110, 20119), (144, 20380),

Gene: Malisha_24 Start: 21166, Stop: 22080, Start Num: 45

Candidate Starts for Malisha_24:

(Start: 45 @21166 has 71 MA's), (51, 21232), (58, 21301), (65, 21391), (69, 21427), (71, 21433), (78, 21523), (80, 21550), (88, 21619), (98, 21694), (110, 21787), (121, 21856), (144, 22048),

Gene: Malvina_23 Start: 19275, Stop: 20255, Start Num: 41

Candidate Starts for Malvina_23:

(Start: 41 @19275 has 7 MA's), (Start: 44 @19284 has 43 MA's), (50, 19329), (59, 19428), (71, 19557), (72, 19560), (77, 19623), (80, 19662), (81, 19683), (91, 19761), (96, 19803), (110, 19932), (113, 19941), (116, 19962), (117, 19983), (122, 20010), (126, 20073), (129, 20088), (135, 20130),

Gene: Margaret_24 Start: 18118, Stop: 19089, Start Num: 44

Candidate Starts for Margaret_24:

(Start: 44 @18118 has 43 MA's), (50, 18163), (54, 18229), (59, 18262), (64, 18334), (69, 18385), (71, 18391), (78, 18481), (80, 18511), (111, 18781), (117, 18826), (119, 18838), (126, 18907), (131, 18934), (149, 19057),

Gene: Mayweather_22 Start: 18711, Stop: 19682, Start Num: 44

Candidate Starts for Mayweather_22:

(Start: 41 @18702 has 7 MA's), (Start: 43 @18708 has 4 MA's), (Start: 44 @18711 has 43 MA's), (52, 18810), (63, 18876), (65, 18930), (70, 18972), (71, 18975), (86, 19158), (91, 19191), (101, 19293), (104, 19332), (106, 19341), (110, 19365), (116, 19395), (117, 19416), (126, 19506), (127, 19509), (139, 19608),

Gene: McDazzle_20 Start: 18555, Stop: 19526, Start Num: 43

Candidate Starts for McDazzle_20:

(Start: 41 @18549 has 7 MA's), (Start: 43 @18555 has 4 MA's), (Start: 44 @18558 has 43 MA's), (52, 18657), (60, 18702), (63, 18723), (70, 18819), (71, 18822), (86, 19005), (91, 19038), (101, 19140), (104, 19179), (106, 19188), (110, 19209), (117, 19260), (122, 19287), (126, 19350), (127, 19353), (146, 19476), (147, 19479),

Gene: Melba_21 Start: 19020, Stop: 19931, Start Num: 45

Candidate Starts for Melba_21:

(Start: 45 @19020 has 71 MA's), (51, 19086), (65, 19245), (69, 19281), (71, 19287), (80, 19404), (88, 19473), (98, 19548), (110, 19641), (114, 19653), (144, 19899),

Gene: Mellie_20 Start: 18781, Stop: 19692, Start Num: 45

Candidate Starts for Mellie_20:

(Start: 45 @18781 has 71 MA's), (51, 18847), (65, 19006), (69, 19042), (71, 19048), (80, 19165), (88, 19234), (98, 19309), (110, 19402), (144, 19660),

Gene: MintFen_21 Start: 19020, Stop: 19931, Start Num: 45

Candidate Starts for MintFen_21:

(Start: 45 @19020 has 71 MA's), (51, 19086), (65, 19245), (69, 19281), (71, 19287), (80, 19404), (88, 19473), (98, 19548), (110, 19641), (114, 19653), (144, 19899),

Gene: MissRona_23 Start: 19335, Stop: 20246, Start Num: 45

Candidate Starts for MissRona_23:

(Start: 45 @19335 has 71 MA's), (51, 19401), (62, 19503), (65, 19560), (69, 19596), (71, 19602), (80, 19719), (88, 19788), (98, 19863), (110, 19956), (144, 20214),

Gene: MortyNRick_22 Start: 18950, Stop: 19927, Start Num: 45

Candidate Starts for MortyNRick_22:

(27, 18674), (32, 18794), (35, 18866), (36, 18869), (Start: 45 @18950 has 71 MA's), (48, 18971), (51, 19016), (52, 19046), (58, 19085), (62, 19118), (64, 19163), (65, 19175), (69, 19211), (71, 19217), (78, 19307), (80, 19334), (88, 19403), (110, 19574), (128, 19739), (131, 19754), (137, 19835), (138, 19841),

Gene: MossRose_44 Start: 36534, Stop: 37553, Start Num: 47

Candidate Starts for MossRose_44:

(3, 35796), (4, 35817), (5, 35844), (6, 35850), (7, 35853), (14, 36000), (16, 36024), (20, 36108), (22, 36117), (24, 36159), (26, 36243), (39, 36480), (Start: 47 @36534 has 16 MA's), (49, 36573), (62, 36702), (65, 36759), (71, 36804), (74, 36846), (77, 36870), (80, 36909), (81, 36930), (82, 36951), (84, 36963), (87, 36978), (93, 37023), (94, 37035), (96, 37047), (100, 37101), (102, 37122), (103, 37128), (104, 37146), (108, 37173), (109, 37182), (128, 37347), (129, 37350), (131, 37362), (144, 37461), (147, 37470), (152, 37506),

Gene: MunkgeeRoachy_21 Start: 18454, Stop: 19413, Start Num: 44

Candidate Starts for MunkgeeRoachy_21:

(Start: 41 @18445 has 7 MA's), (42, 18448), (Start: 43 @18451 has 4 MA's), (Start: 44 @18454 has 43 MA's), (50, 18499), (54, 18565), (55, 18571), (65, 18682), (68, 18715), (71, 18727), (73, 18736), (77, 18793), (80, 18832), (91, 18931), (94, 18961), (99, 19021), (102, 19048), (109, 19099), (118, 19159), (119, 19162), (122, 19177), (123, 19186), (126, 19240), (137, 19333), (139, 19342), (150, 19396),

Gene: Murp_22 Start: 19288, Stop: 20199, Start Num: 45

Candidate Starts for Murp_22:

(Start: 45 @19288 has 71 MA's), (49, 19327), (51, 19354), (65, 19513), (69, 19549), (71, 19555), (78, 19645), (80, 19672), (98, 19816), (110, 19909), (144, 20167),

Gene: NHagos_42 Start: 35138, Stop: 36160, Start Num: 47

Candidate Starts for NHagos_42:

(39, 35084), (Start: 47 @35138 has 16 MA's), (49, 35180), (51, 35207), (55, 35255), (62, 35309), (65, 35366), (71, 35411), (73, 35420), (74, 35453), (77, 35477), (80, 35516), (81, 35537), (82, 35558), (90, 35606), (93, 35630), (94, 35642), (96, 35654), (100, 35708), (102, 35729), (103, 35735), (104, 35753), (108, 35780), (109, 35789), (128, 35954), (129, 35957), (144, 36068), (147, 36077),

Gene: Nibbles_23 Start: 19369, Stop: 20337, Start Num: 44

Candidate Starts for Nibbles_23:

(Start: 41 @19360 has 7 MA's), (Start: 43 @19366 has 4 MA's), (Start: 44 @19369 has 43 MA's), (48, 19387), (50, 19411), (59, 19510), (71, 19639), (72, 19642), (73, 19648), (77, 19705), (80, 19744), (81, 19765), (91, 19843), (95, 19876), (96, 19885), (110, 20014), (113, 20023), (116, 20044), (122, 20092), (126, 20155), (129, 20170), (135, 20212),

Gene: Nina_22 Start: 19439, Stop: 20407, Start Num: 41

Candidate Starts for Nina_22:

(Start: 41 @19439 has 7 MA's), (42, 19442), (Start: 43 @19445 has 4 MA's), (Start: 44 @19448 has 43 MA's), (50, 19493), (54, 19559), (55, 19565), (65, 19676), (68, 19709), (71, 19721), (73, 19730), (77, 19787), (80, 19826), (91, 19925), (94, 19955), (99, 20015), (102, 20042), (109, 20093), (118, 20153), (119, 20156), (122, 20171), (123, 20180), (126, 20234), (137, 20327), (139, 20336), (150, 20390),

Gene: Nodigi_23 Start: 18410, Stop: 19381, Start Num: 44

Candidate Starts for Nodigi_23:

(9, 17747), (12, 17822), (17, 17900), (20, 17981), (26, 18116), (Start: 44 @18410 has 43 MA's), (50, 18455), (59, 18554), (64, 18626), (69, 18677), (71, 18683), (81, 18824), (83, 18851), (111, 19073), (117, 19118), (126, 19199), (130, 19223), (131, 19226), (133, 19244), (143, 19319), (149, 19349),

Gene: Obliviate_20 Start: 18810, Stop: 19721, Start Num: 45

Candidate Starts for Obliviate_20:

(Start: 45 @18810 has 71 MA's), (51, 18876), (65, 19035), (69, 19071), (71, 19077), (80, 19194), (88, 19263), (98, 19338), (110, 19431), (125, 19539), (144, 19689),

Gene: Orla_23 Start: 18414, Stop: 19385, Start Num: 44

Candidate Starts for Orla_23:

(17, 17904), (20, 17985), (26, 18120), (Start: 44 @18414 has 43 MA's), (50, 18459), (59, 18558), (64, 18630), (67, 18660), (69, 18681), (71, 18687), (81, 18828), (83, 18855), (111, 19077), (117, 19122), (119, 19134), (126, 19203), (130, 19227), (131, 19230), (133, 19248), (143, 19323), (149, 19353),

Gene: PantheRoc_21 Start: 19492, Stop: 20403, Start Num: 45

Candidate Starts for PantheRoc_21:

(8, 18832), (10, 18841), (11, 18856), (13, 18928), (18, 18994), (21, 19072), (34, 19384), (Start: 45 @19492 has 71 MA's), (51, 19558), (56, 19615), (69, 19753), (71, 19759), (73, 19768), (79, 19861), (80, 19876), (85, 19933), (88, 19945), (98, 20020), (110, 20113), (144, 20371),

Gene: Periwinkle_25 Start: 19684, Stop: 20661, Start Num: 45

Candidate Starts for Periwinkle_25:

(32, 19528), (33, 19549), (35, 19600), (Start: 45 @19684 has 71 MA's), (48, 19705), (51, 19750), (58, 19819), (62, 19852), (65, 19909), (69, 19945), (71, 19951), (78, 20041), (80, 20068), (86, 20131), (88, 20137), (98, 20212), (110, 20308), (131, 20488), (136, 20533), (137, 20569), (138, 20575),

Gene: PhrostedPhlake_23 Start: 19713, Stop: 20624, Start Num: 45

Candidate Starts for PhrostedPhlake_23:

(34, 19599), (38, 19656), (40, 19698), (Start: 45 @19713 has 71 MA's), (51, 19779), (65, 19938), (69, 19974), (71, 19980), (80, 20097), (88, 20166), (98, 20241), (110, 20334), (144, 20592),

Gene: Pipp_21 Start: 19014, Stop: 19925, Start Num: 45

Candidate Starts for Pipp_21:

(Start: 45 @19014 has 71 MA's), (51, 19080), (65, 19239), (69, 19275), (71, 19281), (80, 19398), (88, 19467), (98, 19542), (110, 19635), (144, 19893),

Gene: Pons_21 Start: 18086, Stop: 19057, Start Num: 44

Candidate Starts for Pons_21:

(Start: 41 @18077 has 7 MA's), (Start: 43 @18083 has 4 MA's), (Start: 44 @18086 has 43 MA's), (52, 18185), (60, 18230), (63, 18251), (70, 18347), (71, 18350), (86, 18533), (91, 18566), (101, 18668), (104, 18707), (106, 18716), (110, 18740), (116, 18770), (117, 18791), (122, 18818), (126, 18881), (127, 18884), (139, 18983), (146, 19007), (147, 19010),

Gene: Posh_24 Start: 20553, Stop: 21464, Start Num: 45

Candidate Starts for Posh_24:

(Start: 45 @20553 has 71 MA's), (51, 20619), (65, 20778), (66, 20781), (69, 20814), (71, 20820), (80, 20937), (98, 21081), (110, 21174), (144, 21432),

Gene: PotPie_21 Start: 18951, Stop: 19919, Start Num: 44

Candidate Starts for PotPie_21:

(Start: 41 @18942 has 7 MA's), (Start: 43 @18948 has 4 MA's), (Start: 44 @18951 has 43 MA's), (52, 19050), (63, 19116), (70, 19212), (71, 19215), (78, 19305), (86, 19398), (91, 19431), (101, 19533), (104, 19572), (106, 19581), (110, 19599), (116, 19629), (117, 19650), (126, 19740), (127, 19743), (139, 19842), (146, 19866), (147, 19869),

Gene: PsychoKiller_21 Start: 18397, Stop: 19365, Start Num: 41

Candidate Starts for PsychoKiller_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Pytheas_24 Start: 20699, Stop: 21610, Start Num: 45

Candidate Starts for Pytheas_24:

(Start: 45 @20699 has 71 MA's), (51, 20765), (65, 20924), (66, 20927), (69, 20960), (71, 20966), (80, 21083), (88, 21152), (98, 21227), (110, 21320), (144, 21578),

Gene: Quasar_21 Start: 19015, Stop: 19974, Start Num: 44

Candidate Starts for Quasar_21:

(Start: 41 @19006 has 7 MA's), (42, 19009), (Start: 43 @19012 has 4 MA's), (Start: 44 @19015 has 43 MA's), (50, 19060), (54, 19126), (55, 19132), (65, 19243), (68, 19276), (71, 19288), (73, 19297), (77, 19354), (80, 19393), (91, 19492), (94, 19522), (99, 19582), (102, 19609), (109, 19660), (118, 19720), (119, 19723), (122, 19738), (123, 19747), (126, 19801), (137, 19894), (139, 19903), (150, 19957),

Gene: RADical_22 Start: 18398, Stop: 19366, Start Num: 41

Candidate Starts for RADical_22:

(Start: 41 @18398 has 7 MA's), (42, 18401), (Start: 43 @18404 has 4 MA's), (Start: 44 @18407 has 43 MA's), (50, 18452), (54, 18518), (55, 18524), (65, 18635), (68, 18668), (71, 18680), (73, 18689), (77, 18746), (80, 18785), (91, 18884), (94, 18914), (99, 18974), (109, 19052), (118, 19112), (119, 19115), (122, 19130), (123, 19139), (126, 19193), (137, 19286), (139, 19295), (150, 19349),

Gene: RSchmailzl_22 Start: 18541, Stop: 19509, Start Num: 41

Candidate Starts for RSchmailzl_22:

(Start: 41 @18541 has 7 MA's), (42, 18544), (Start: 43 @18547 has 4 MA's), (Start: 44 @18550 has 43 MA's), (50, 18595), (54, 18661), (55, 18667), (65, 18778), (68, 18811), (71, 18823), (73, 18832), (77, 18889), (80, 18928), (91, 19027), (94, 19057), (99, 19117), (102, 19144), (109, 19195), (118, 19255), (119, 19258), (122, 19273), (123, 19282), (126, 19336), (137, 19429), (139, 19438), (150, 19492),

Gene: RanchParmCat_24 Start: 18118, Stop: 19089, Start Num: 44

Candidate Starts for RanchParmCat_24:

(28, 17872), (Start: 44 @18118 has 43 MA's), (50, 18163), (54, 18229), (59, 18262), (64, 18334), (69, 18385), (71, 18391), (78, 18481), (80, 18511), (111, 18781), (117, 18826), (119, 18838), (126, 18907), (131, 18934), (149, 19057),

Gene: RedBaron_23 Start: 18450, Stop: 19409, Start Num: 44

Candidate Starts for RedBaron_23:

(Start: 41 @18441 has 7 MA's), (42, 18444), (Start: 43 @18447 has 4 MA's), (Start: 44 @18450 has 43 MA's), (50, 18495), (54, 18561), (55, 18567), (65, 18678), (68, 18711), (71, 18723), (73, 18732), (77, 18789), (78, 18798), (80, 18828), (91, 18927), (94, 18957), (99, 19017), (102, 19044), (109, 19095), (118, 19155), (119, 19158), (122, 19173), (123, 19182), (126, 19236), (137, 19329), (139, 19338), (150, 19392),

Gene: Reyja_22 Start: 17773, Stop: 18783, Start Num: 47

Candidate Starts for Reyja_22:

(24, 17392), (25, 17398), (26, 17476), (Start: 47 @17773 has 16 MA's), (51, 17839), (59, 17914), (71, 18043), (85, 18208), (93, 18262), (94, 18274), (96, 18286), (107, 18409), (120, 18508), (124, 18535), (126, 18592), (130, 18616), (131, 18619), (143, 18718), (145, 18727),

Gene: Ruthy_25 Start: 22394, Stop: 23305, Start Num: 45

Candidate Starts for Ruthy_25:

(Start: 45 @22394 has 71 MA's), (51, 22460), (69, 22655), (71, 22661), (78, 22751), (80, 22778), (88, 22847), (98, 22922), (110, 23015), (144, 23273),

Gene: Samba_21 Start: 19098, Stop: 20009, Start Num: 45

Candidate Starts for Samba_21:

(Start: 45 @19098 has 71 MA's), (51, 19164), (65, 19323), (69, 19359), (71, 19365), (80, 19482), (88, 19551), (98, 19626), (110, 19719), (144, 19977),

Gene: Santhid_21 Start: 17607, Stop: 18617, Start Num: 47

Candidate Starts for Santhid_21:

(Start: 47 @17607 has 16 MA's), (51, 17673), (59, 17748), (71, 17877), (85, 18042), (93, 18096), (94, 18108), (96, 18120), (103, 18201), (107, 18243), (120, 18342), (124, 18369), (126, 18426), (131, 18453), (140, 18543), (142, 18549), (143, 18552), (145, 18561),

Gene: ShawBrad_23 Start: 19227, Stop: 20204, Start Num: 45

Candidate Starts for ShawBrad_23:

(32, 19071), (33, 19092), (35, 19143), (Start: 45 @19227 has 71 MA's), (48, 19248), (51, 19293), (58, 19362), (62, 19395), (65, 19452), (69, 19488), (71, 19494), (78, 19584), (80, 19611), (86, 19674), (88, 19680), (98, 19755), (110, 19851), (131, 20031), (136, 20076), (137, 20112), (138, 20118),

Gene: SheckWes_20 Start: 18086, Stop: 19054, Start Num: 44

Candidate Starts for SheckWes_20:

(Start: 41 @18077 has 7 MA's), (Start: 43 @18083 has 4 MA's), (Start: 44 @18086 has 43 MA's), (52, 18185), (63, 18251), (70, 18347), (71, 18350), (86, 18533), (91, 18566), (101, 18668), (104, 18707), (106, 18716), (110, 18737), (117, 18788), (122, 18815), (126, 18878), (127, 18881), (139, 18980), (147, 19007),

Gene: Sidious_21 Start: 19616, Stop: 20527, Start Num: 45

Candidate Starts for Sidious_21:

(34, 19505), (37, 19544), (Start: 45 @19616 has 71 MA's), (51, 19682), (65, 19841), (69, 19877), (71, 19883), (78, 19973), (80, 20000), (88, 20069), (98, 20144), (110, 20237), (144, 20495),

Gene: SketchMex_20 Start: 18077, Stop: 19039, Start Num: 44

Candidate Starts for SketchMex_20:

(Start: 44 @18077 has 43 MA's), (55, 18194), (59, 18221), (65, 18305), (71, 18350), (73, 18359), (76, 18404), (80, 18455), (91, 18554), (94, 18584), (110, 18725), (118, 18785), (119, 18788), (122, 18803), (126, 18866), (137, 18959), (139, 18968),

Gene: Socotra_22 Start: 18397, Stop: 19365, Start Num: 41

Candidate Starts for Socotra_22:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: Soilmate_21 Start: 18987, Stop: 19898, Start Num: 45

Candidate Starts for Soilmate_21:

(Start: 45 @18987 has 71 MA's), (51, 19053), (69, 19248), (71, 19254), (80, 19371), (88, 19440), (98, 19515), (110, 19608), (114, 19620), (144, 19866),

Gene: Sopespian_21 Start: 18398, Stop: 19366, Start Num: 41

Candidate Starts for Sopespian_21:

(Start: 41 @18398 has 7 MA's), (42, 18401), (Start: 43 @18404 has 4 MA's), (Start: 44 @18407 has 43 MA's), (50, 18452), (54, 18518), (55, 18524), (65, 18635), (68, 18668), (71, 18680), (73, 18689), (77, 18746), (80, 18785), (91, 18884), (94, 18914), (99, 18974), (102, 19001), (109, 19052), (118, 19112), (119, 19115), (122, 19130), (123, 19139), (126, 19193), (137, 19286), (139, 19295), (150, 19349),

Gene: Spooky_23 Start: 19375, Stop: 20289, Start Num: 45

Candidate Starts for Spooky_23:

(Start: 45 @19375 has 71 MA's), (51, 19441), (58, 19510), (65, 19600), (69, 19636), (71, 19642), (78, 19732), (80, 19759), (88, 19828), (98, 19903), (110, 19996), (121, 20065), (144, 20257),

Gene: Sprinklemunch_25 Start: 23888, Stop: 24880, Start Num: 45

Candidate Starts for Sprinklemunch_25:

(23, 23486), (33, 23747), (Start: 45 @23888 has 71 MA's), (51, 23954), (52, 23984), (62, 24056), (69, 24149), (71, 24155), (80, 24272), (85, 24329), (88, 24341), (110, 24527), (138, 24794),

Gene: Squiddly_25 Start: 20787, Stop: 21701, Start Num: 45

Candidate Starts for Squiddly_25:

(Start: 45 @20787 has 71 MA's), (51, 20853), (58, 20922), (65, 21012), (69, 21048), (71, 21054), (78, 21144), (80, 21171), (88, 21240), (98, 21315), (110, 21408), (121, 21477), (144, 21669),

Gene: Starburst_22 Start: 18397, Stop: 19365, Start Num: 41

Candidate Starts for Starburst_22:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: SteamedHams_23 Start: 18099, Stop: 19049, Start Num: 46

Candidate Starts for SteamedHams_23:

(Start: 46 @18099 has 8 MA's), (59, 18243), (61, 18261), (65, 18327), (68, 18360), (71, 18372), (73, 18381), (76, 18426), (80, 18477), (81, 18498), (82, 18519), (91, 18576), (94, 18606), (102, 18693), (105, 18720), (109, 18744), (119, 18807), (126, 18885), (129, 18900), (130, 18909), (136, 18954),

(137, 18984),

Gene: SummitAcademy_20 Start: 18166, Stop: 19131, Start Num: 44

Candidate Starts for SummitAcademy_20:

(Start: 41 @18157 has 7 MA's), (Start: 43 @18163 has 4 MA's), (Start: 44 @18166 has 43 MA's), (52, 18265), (63, 18331), (70, 18427), (71, 18430), (86, 18613), (91, 18646), (101, 18748), (104, 18787), (106, 18796), (110, 18814), (116, 18844), (117, 18865), (126, 18955), (127, 18958), (134, 19006), (139, 19057), (146, 19081), (147, 19084),

Gene: Survivors_23 Start: 19218, Stop: 20186, Start Num: 44

Candidate Starts for Survivors_23:

(Start: 41 @19209 has 7 MA's), (Start: 43 @19215 has 4 MA's), (Start: 44 @19218 has 43 MA's), (48, 19236), (50, 19260), (59, 19359), (71, 19488), (72, 19491), (73, 19497), (77, 19554), (80, 19593), (81, 19614), (91, 19692), (95, 19725), (96, 19734), (110, 19863), (113, 19872), (116, 19893), (122, 19941), (126, 20004), (129, 20019), (135, 20061),

Gene: SweatNTears_23 Start: 18588, Stop: 19550, Start Num: 44

Candidate Starts for SweatNTears_23:

(Start: 44 @18588 has 43 MA's), (55, 18705), (59, 18732), (65, 18816), (71, 18861), (73, 18870), (76, 18915), (80, 18966), (91, 19065), (94, 19095), (105, 19209), (110, 19236), (118, 19296), (119, 19299), (122, 19314), (126, 19377), (137, 19470), (139, 19479),

Gene: Tarnish_21 Start: 18447, Stop: 19424, Start Num: 41

Candidate Starts for Tarnish_21:

(Start: 41 @18447 has 7 MA's), (Start: 43 @18453 has 4 MA's), (Start: 44 @18456 has 43 MA's), (52, 18555), (63, 18621), (65, 18675), (70, 18717), (71, 18720), (86, 18903), (91, 18936), (101, 19038), (104, 19077), (106, 19086), (110, 19107), (117, 19158), (122, 19185), (126, 19248), (127, 19251), (139, 19350), (146, 19374), (147, 19377),

Gene: Tarzan_21 Start: 17576, Stop: 18586, Start Num: 47

Candidate Starts for Tarzan_21:

(25, 17201), (26, 17279), (Start: 47 @17576 has 16 MA's), (51, 17642), (59, 17717), (71, 17846), (85, 18011), (93, 18065), (94, 18077), (96, 18089), (107, 18212), (124, 18338), (126, 18395), (130, 18419), (131, 18422), (142, 18518), (143, 18521), (145, 18530),

Gene: ThankyouJordi_20 Start: 20133, Stop: 21047, Start Num: 45

Candidate Starts for ThankyouJordi_20:

(34, 20022), (Start: 45 @20133 has 71 MA's), (49, 20172), (51, 20199), (69, 20397), (71, 20403), (80, 20520), (98, 20664), (102, 20709), (110, 20757), (144, 21015),

Gene: Tolls_23 Start: 18102, Stop: 19052, Start Num: 46

Candidate Starts for Tolls_23:

(Start: 46 @18102 has 8 MA's), (59, 18246), (61, 18264), (65, 18330), (68, 18363), (71, 18375), (73, 18384), (76, 18429), (80, 18480), (81, 18501), (82, 18522), (91, 18579), (94, 18609), (102, 18696), (105, 18723), (109, 18747), (119, 18810), (126, 18888), (129, 18903), (130, 18912), (136, 18957), (137, 18987), (139, 18996),

Gene: TraderJ_44 Start: 36566, Stop: 37585, Start Num: 47

Candidate Starts for TraderJ_44:

(1, 35822), (3, 35828), (4, 35849), (5, 35876), (6, 35882), (7, 35885), (14, 36032), (16, 36056), (20, 36140), (24, 36191), (26, 36275), (39, 36512), (Start: 47 @36566 has 16 MA's), (49, 36605), (55, 36680), (62, 36734), (65, 36791), (71, 36836), (74, 36878), (77, 36902), (80, 36941), (81, 36962), (82, 36983), (87, 37010), (93, 37055), (94, 37067), (96, 37079), (100, 37133), (102, 37154), (103, 37160),

(104, 37178), (108, 37205), (109, 37214), (128, 37379), (129, 37382), (131, 37394), (144, 37493),
(147, 37502), (152, 37538),

Gene: Troje_21 Start: 18059, Stop: 19021, Start Num: 44

Candidate Starts for Troje_21:

(Start: 44 @18059 has 43 MA's), (55, 18176), (59, 18203), (65, 18287), (71, 18332), (73, 18341), (76, 18386), (80, 18437), (91, 18536), (94, 18566), (110, 18707), (118, 18767), (119, 18770), (122, 18785), (126, 18848), (137, 18941), (139, 18950),

Gene: Typhonomachy_21 Start: 18406, Stop: 19365, Start Num: 44

Candidate Starts for Typhonomachy_21:

(Start: 41 @18397 has 7 MA's), (42, 18400), (Start: 43 @18403 has 4 MA's), (Start: 44 @18406 has 43 MA's), (50, 18451), (54, 18517), (55, 18523), (65, 18634), (68, 18667), (71, 18679), (73, 18688), (77, 18745), (80, 18784), (91, 18883), (94, 18913), (99, 18973), (102, 19000), (109, 19051), (118, 19111), (119, 19114), (122, 19129), (123, 19138), (126, 19192), (137, 19285), (139, 19294), (150, 19348),

Gene: UmaThurman_21 Start: 19145, Stop: 20056, Start Num: 45

Candidate Starts for UmaThurman_21:

(Start: 45 @19145 has 71 MA's), (51, 19211), (65, 19370), (69, 19406), (71, 19412), (80, 19529), (88, 19598), (98, 19673), (110, 19766), (144, 20024),

Gene: Utz_21 Start: 19015, Stop: 19926, Start Num: 45

Candidate Starts for Utz_21:

(Start: 45 @19015 has 71 MA's), (51, 19081), (65, 19240), (69, 19276), (71, 19282), (80, 19399), (88, 19468), (98, 19543), (110, 19636), (114, 19648), (144, 19894),

Gene: Vine_22 Start: 19098, Stop: 20066, Start Num: 44

Candidate Starts for Vine_22:

(Start: 41 @19089 has 7 MA's), (Start: 43 @19095 has 4 MA's), (Start: 44 @19098 has 43 MA's), (52, 19197), (63, 19263), (70, 19359), (71, 19362), (86, 19545), (91, 19578), (101, 19680), (104, 19719), (106, 19728), (110, 19746), (116, 19776), (117, 19797), (126, 19887), (127, 19890), (134, 19938), (139, 19989), (146, 20013), (147, 20016),

Gene: Wallaby_25 Start: 19353, Stop: 20330, Start Num: 41

Candidate Starts for Wallaby_25:

(Start: 41 @19353 has 7 MA's), (Start: 43 @19359 has 4 MA's), (Start: 44 @19362 has 43 MA's), (48, 19380), (50, 19404), (59, 19503), (71, 19632), (72, 19635), (73, 19641), (77, 19698), (80, 19737), (81, 19758), (91, 19836), (95, 19869), (96, 19878), (97, 19902), (110, 20007), (113, 20016), (116, 20037), (122, 20085), (126, 20148), (129, 20163), (135, 20205),

Gene: Walrus_23 Start: 19560, Stop: 20471, Start Num: 45

Candidate Starts for Walrus_23:

(30, 19353), (31, 19362), (34, 19446), (38, 19503), (40, 19545), (Start: 45 @19560 has 71 MA's), (51, 19626), (65, 19785), (69, 19821), (71, 19827), (80, 19944), (88, 20013), (98, 20088), (110, 20181), (144, 20439),

Gene: WelcomeAyanna_20 Start: 20133, Stop: 21047, Start Num: 45

Candidate Starts for WelcomeAyanna_20:

(34, 20022), (Start: 45 @20133 has 71 MA's), (49, 20172), (51, 20199), (69, 20397), (71, 20403), (80, 20520), (98, 20664), (102, 20709), (110, 20757), (144, 21015),

Gene: Whitney_24 Start: 20189, Stop: 21103, Start Num: 45

Candidate Starts for Whitney_24:

(Start: 45 @20189 has 71 MA's), (51, 20255), (65, 20414), (69, 20450), (71, 20456), (78, 20546), (80, 20573), (88, 20642), (98, 20717), (110, 20810), (121, 20879), (144, 21071),

Gene: William_21 Start: 19064, Stop: 19978, Start Num: 45

Candidate Starts for William_21:

(Start: 45 @19064 has 71 MA's), (51, 19130), (62, 19232), (69, 19325), (71, 19331), (88, 19514), (98, 19589), (110, 19682),

Gene: Wisp_20 Start: 18730, Stop: 19641, Start Num: 45

Candidate Starts for Wisp_20:

(Start: 45 @18730 has 71 MA's), (51, 18796), (65, 18955), (69, 18991), (71, 18997), (80, 19114), (88, 19183), (98, 19258), (110, 19351), (144, 19609),

Gene: Wolfwood_23 Start: 19362, Stop: 20330, Start Num: 44

Candidate Starts for Wolfwood_23:

(Start: 41 @19353 has 7 MA's), (Start: 43 @19359 has 4 MA's), (Start: 44 @19362 has 43 MA's), (48, 19380), (50, 19404), (59, 19503), (71, 19632), (72, 19635), (73, 19641), (77, 19698), (80, 19737), (81, 19758), (91, 19836), (95, 19869), (96, 19878), (97, 19902), (110, 20007), (113, 20016), (116, 20037), (122, 20085), (126, 20148), (129, 20163), (135, 20205),

Gene: Wooper_44 Start: 36572, Stop: 37591, Start Num: 47

Candidate Starts for Wooper_44:

(1, 35828), (3, 35834), (4, 35855), (5, 35882), (6, 35888), (7, 35891), (14, 36038), (16, 36062), (20, 36146), (24, 36197), (26, 36281), (39, 36518), (Start: 47 @36572 has 16 MA's), (49, 36611), (55, 36686), (62, 36740), (65, 36797), (71, 36842), (74, 36884), (77, 36908), (80, 36947), (81, 36968), (82, 36989), (87, 37016), (93, 37061), (94, 37073), (96, 37085), (100, 37139), (102, 37160), (103, 37166), (104, 37184), (108, 37211), (109, 37220), (128, 37385), (129, 37388), (131, 37400), (144, 37499), (147, 37508), (152, 37544),

Gene: Wrigley_24 Start: 20450, Stop: 21361, Start Num: 45

Candidate Starts for Wrigley_24:

(Start: 45 @20450 has 71 MA's), (51, 20516), (65, 20675), (66, 20678), (69, 20711), (71, 20717), (80, 20834), (98, 20978), (110, 21071), (144, 21329),

Gene: Yakult_22 Start: 17972, Stop: 18943, Start Num: 44

Candidate Starts for Yakult_22:

(Start: 44 @17972 has 43 MA's), (50, 18017), (54, 18083), (59, 18116), (62, 18143), (67, 18218), (71, 18245), (91, 18464), (94, 18494), (112, 18635), (126, 18761), (130, 18785), (149, 18911),

Gene: Yarn_20 Start: 18092, Stop: 19042, Start Num: 46

Candidate Starts for Yarn_20:

(Start: 46 @18092 has 8 MA's), (59, 18236), (61, 18254), (65, 18320), (68, 18353), (71, 18365), (73, 18374), (76, 18419), (80, 18470), (81, 18491), (82, 18512), (91, 18569), (94, 18599), (102, 18686), (105, 18713), (109, 18737), (119, 18800), (126, 18878), (129, 18893), (130, 18902), (136, 18947), (137, 18977), (139, 18986),

Gene: Yeezy_22 Start: 19516, Stop: 20427, Start Num: 45

Candidate Starts for Yeezy_22:

(8, 18856), (10, 18865), (11, 18880), (13, 18952), (18, 19018), (21, 19096), (34, 19408), (Start: 45 @19516 has 71 MA's), (51, 19582), (56, 19639), (69, 19777), (71, 19783), (73, 19792), (79, 19885), (80, 19900), (85, 19957), (88, 19969), (98, 20044), (110, 20137), (144, 20395),

Gene: Yeshua_44 Start: 36549, Stop: 37568, Start Num: 47

Candidate Starts for Yeshua_44:

(1, 35805), (3, 35811), (4, 35832), (5, 35859), (6, 35865), (7, 35868), (14, 36015), (16, 36039), (20, 36123), (24, 36174), (26, 36258), (39, 36495), (Start: 47 @36549 has 16 MA's), (49, 36588), (55, 36663), (62, 36717), (65, 36774), (71, 36819), (74, 36861), (77, 36885), (80, 36924), (81, 36945), (82, 36966), (87, 36993), (93, 37038), (94, 37050), (96, 37062), (100, 37116), (102, 37137), (103, 37143), (104, 37161), (108, 37188), (109, 37197), (128, 37362), (129, 37365), (131, 37377), (144, 37476), (147, 37485), (152, 37521),

Gene: Yucky_21 Start: 18957, Stop: 19925, Start Num: 44

Candidate Starts for Yucky_21:

(Start: 41 @18948 has 7 MA's), (Start: 43 @18954 has 4 MA's), (Start: 44 @18957 has 43 MA's), (52, 19056), (63, 19122), (70, 19218), (71, 19221), (86, 19404), (91, 19437), (101, 19539), (104, 19578), (106, 19587), (110, 19605), (116, 19635), (117, 19656), (126, 19746), (127, 19749), (134, 19797), (139, 19848), (146, 19872), (147, 19875),

Gene: Yummy_22 Start: 17973, Stop: 18935, Start Num: 44

Candidate Starts for Yummy_22:

(Start: 44 @17973 has 43 MA's), (55, 18090), (59, 18117), (65, 18201), (71, 18246), (73, 18255), (76, 18300), (80, 18351), (91, 18450), (94, 18480), (110, 18621), (118, 18681), (119, 18684), (122, 18699), (126, 18762), (137, 18855), (139, 18864),

Gene: Zarbodnamra_21 Start: 19019, Stop: 19930, Start Num: 45

Candidate Starts for Zarbodnamra_21:

(Start: 45 @19019 has 71 MA's), (51, 19085), (65, 19244), (69, 19280), (71, 19286), (80, 19403), (88, 19472), (98, 19547), (110, 19640), (114, 19652), (144, 19898),

Gene: Zareef_23 Start: 19361, Stop: 20338, Start Num: 41

Candidate Starts for Zareef_23:

(Start: 41 @19361 has 7 MA's), (Start: 43 @19367 has 4 MA's), (Start: 44 @19370 has 43 MA's), (48, 19388), (50, 19412), (59, 19511), (71, 19640), (72, 19643), (73, 19649), (77, 19706), (80, 19745), (81, 19766), (91, 19844), (95, 19877), (96, 19886), (110, 20015), (113, 20024), (116, 20045), (122, 20093), (126, 20156), (129, 20171), (135, 20213),

Gene: ZiggyZoo_20 Start: 18810, Stop: 19721, Start Num: 45

Candidate Starts for ZiggyZoo_20:

(Start: 45 @18810 has 71 MA's), (51, 18876), (65, 19035), (69, 19071), (71, 19077), (80, 19194), (88, 19263), (98, 19338), (110, 19431), (125, 19539), (144, 19689),

Gene: Zilla_21 Start: 19037, Stop: 19948, Start Num: 45

Candidate Starts for Zilla_21:

(Start: 45 @19037 has 71 MA's), (51, 19103), (65, 19262), (69, 19298), (71, 19304), (80, 19421), (88, 19490), (98, 19565), (110, 19658), (114, 19670), (144, 19916),

Gene: Zodiariah_25 Start: 23934, Stop: 24923, Start Num: 45

Candidate Starts for Zodiariah_25:

(23, 23532), (33, 23793), (Start: 45 @23934 has 71 MA's), (51, 24000), (52, 24030), (62, 24102), (69, 24195), (71, 24201), (80, 24318), (85, 24375), (88, 24387), (110, 24570), (128, 24735), (138, 24837), (151, 24897),