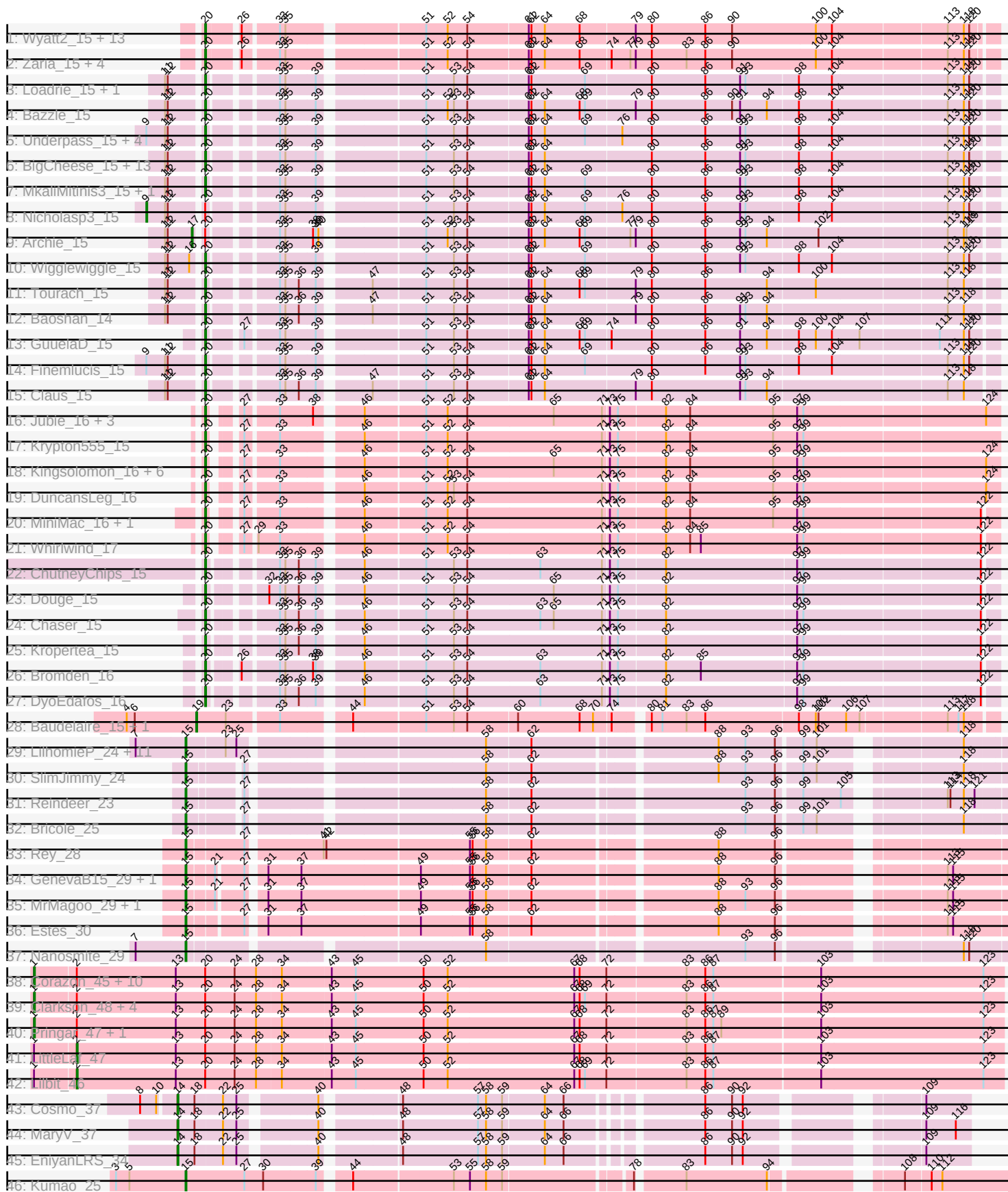


Pham 330630



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 330630 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330630 has 121 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Wyatt2_15, Silverleaf_15, AvadaKedavra_15, Acquire49_15, Tyson_15, LeBron_15, UPIE_15, Halena_15, CicholasNage_15, Enceladus_15, JoeDirt_15, MAckerman_15, Rose5_15, Wamburggrxpress_15
- Track 2 : Zaria_15, Appletree2_15, DirkDirk_15, OhShagHennessy_15, Calm_15
- Track 3 : Loadrie_15, OverPar_15
- Track 4 : Bazzle_15
- Track 5 : Underpass_15, LilDestine_15, Kahlid_15, Gardann_15, Wilder_15
- Track 6 : BigCheese_15, Faith1_14, Miley16_15, DrSeegs_15, Zakai_15, Vetrix_15, Crossroads_15, Itos_15, Winky_14, Breezona_15, BobsGarage_15, Rumpelstiltskin_15, Netyap_15, Gabriela_15
- Track 7 : MkaliMitinis3_15, Lewan_15
- Track 8 : Nicholasp3_15
- Track 9 : Archie_15
- Track 10 : Wigglewiggle_15
- Track 11 : Tourach_15
- Track 12 : Baoshan_14
- Track 13 : GuuelaD_15
- Track 14 : Finemlucis_15
- Track 15 : Claus_15
- Track 16 : Jubie_16, Finnry_16, Bellis_16, Samty_16
- Track 17 : Krypton555_15
- Track 18 : Kingsolomon_16, TriFive_16, Nicholas_16, MsGreen_16, Jobypre_16, Clautastrophe_15, Lumos_16
- Track 19 : DuncansLeg_16
- Track 20 : MiniMac_16, MiniLon_16
- Track 21 : Whirlwind_17
- Track 22 : ChutneyChips_15
- Track 23 : Douge_15
- Track 24 : Chaser_15
- Track 25 : Kropertea_15
- Track 26 : Bromden_16
- Track 27 : DyoEdafos_16
- Track 28 : Baudelaire_15, Aegeus_15
- Track 29 : LilhomieP_24, Dulcita_26, TyDawg_25, Auspice_25, IPhane7_25, Glaske16_26, Bongo_24, Skinny_26, PegLeg_25, Izel_26, Diminimus_26, FreakyGoo_26
- Track 30 : SlimJimmy_24

- Track 31 : Reindeer_23
- Track 32 : Bricole_25
- Track 33 : Rey_28
- Track 34 : GenevaB15_29, Aziz_29
- Track 35 : MrMagoo_29, GardenSalsa_29
- Track 36 : Estes_30
- Track 37 : Nanosmite_29
- Track 38 : Corazon_45, Blackbeetle_47, GoongGoong_46, Poise_47, Beelzebub_51, Gattaca_46, MosMoris_45, Caprice_46, Raela_47, Tesla_46, RedRaider77_47
- Track 39 : Clarkson_48, VasuNzinga_47, FeliMaine_49, Marvin_45, Huphlepuuff_49
- Track 40 : Pringar_47, JoieB_48
- Track 41 : LittleLaf_47
- Track 42 : Lilbit_46
- Track 43 : Cosmo_37
- Track 44 : MaryV_37
- Track 45 : EniyanLRS_34
- Track 46 : Kumao_25

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

The start number called the most often in the published annotations is 20, it was called in 71 of the 121 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_15, Appletree2_15, AvadaKedavra_15, Baoshan_14, Bazzle_15, Bellis_16, BigCheese_15, BobsGarage_15, Breezona_15, Bromden_16, Calm_15, Chaser_15, ChutneyChips_15, CicholasNage_15, Claus_15, Clautastrophe_15, Crossroads_15, DirkDirk_15, Douge_15, DrSeegs_15, DuncansLeg_16, DyoEdafos_16, Enceladus_15, Faith1_14, Finemlucis_15, Finnry_16, Gabriela_15, Gardann_15, GuuelaD_15, Halena_15, Itos_15, Jobypre_16, JoeDirt_15, Jubie_16, Kahlid_15, Kingsolomon_16, Kropertea_15, Krypton555_15, LeBron_15, Lewan_15, LilDestine_15, Loadrie_15, Lumos_16, MAckerman_15, Miley16_15, MiniLon_16, MiniMac_16, MkaliMitinis3_15, MsGreen_16, Netyap_15, Nicholas_16, OhShagHennessy_15, OverPar_15, Rose5_15, Rumpelstiltskin_15, Samty_16, Silverleaf_15, Tourach_15, TriFive_16, Tyson_15, UPIE_15, Underpass_15, Vetrix_15, Wamburggrxpress_15, Whirlwind_17, Wigglewiggle_15, Wilder_15, Winky_14, Wyatt2_15, Zakai_15, Zaria_15,

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

- Archie_15, Beelzebub_51, Blackbeetle_47, Caprice_46, Clarkson_48, Corazon_45, FeliMaine_49, Gattaca_46, GoongGoong_46, Huphlepuuff_49, JoieB_48, Lilbit_46, LittleLaf_47, Marvin_45, MosMoris_45, Nicholasp3_15, Poise_47, Pringar_47, Raela_47, RedRaider77_47, Tesla_46, VasuNzinga_47,

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

- Aegeus_15, Auspice_25, Aziz_29, Baudelaire_15, Bongo_24, Bricole_25, Cosmo_37, Diminimus_26, Dulcita_26, EniyanLRS_34, Estes_30, FreakyGoo_26, GardenSalsa_29, GenevaB15_29, Glaske16_26, IPHane7_25, Izel_26, Kumao_25, LilhomieP_24, MaryV_37, MrMagoo_29, Nanosmite_29, PegLeg_25, Reindeer_23,

Rey_28, Skinny_26, SlimJimmy_24, TyDawg_25,

Summary by start number:

Start 1:

- Found in 20 of 121 (16.5%) of genes in pham
- Manual Annotations of this start: 18 of 121
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Beelzebub_51 (S), Blackbeetle_47 (S), Caprice_46 (S), Clarkson_48 (S), Corazon_45 (S), FeliMaine_49 (S), Gattaca_46 (S), GoongGoong_46 (S), Huphlepuuff_49 (S), JoieB_48 (S), Marvin_45 (S), MosMoris_45 (S), Poise_47 (S), Pringar_47 (S), Raela_47 (S), RedRaider77_47 (S), Tesla_46 (S), VasuNzinga_47 (S),

Start 2:

- Found in 20 of 121 (16.5%) of genes in pham
- Manual Annotations of this start: 2 of 121
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Lilbit_46 (S), LittleLaf_47 (S),

Start 9:

- Found in 7 of 121 (5.8%) of genes in pham
- Manual Annotations of this start: 1 of 121
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Nicholasp3_15 (L2),

Start 14:

- Found in 3 of 121 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cosmo_37 (V), EniyanLRS_34 (V), MaryV_37 (V),

Start 15:

- Found in 23 of 121 (19.0%) of genes in pham
- Manual Annotations of this start: 23 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auspice_25 (M1), Aziz_29 (M2), Bongo_24 (M1), Bricole_25 (M1), Diminimus_26 (M1), Dulcita_26 (M1), Estes_30 (M2), FreakyGoo_26 (M1), GardenSalsa_29 (M2), GenevaB15_29 (M2), Glaske16_26 (M1), IPhane7_25 (M1), Izel_26 (M1), Kumao_25 (singleton), LilhomieP_24 (M1), MrMagoo_29 (M2), Nanosmite_29 (M3), PegLeg_25 (M1), Reindeer_23 (M1), Rey_28 (M2), Skinny_26 (M1), SlimJimmy_24 (M1), TyDawg_25 (M1),

Start 17:

- Found in 1 of 121 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archie_15 (L2),

Start 19:

- Found in 2 of 121 (1.7%) of genes in pham

- Manual Annotations of this start: 2 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_15 (L5), Baudelaire_15 (L5),

Start 20:

- Found in 93 of 121 (76.9%) of genes in pham
- Manual Annotations of this start: 71 of 121
- Called 76.3% of time when present
- Phage (with cluster) where this start called: Acquire49_15 (L1), Appletree2_15 (L1), AvadaKedavra_15 (L1), Baoshan_14 (L2), Bazzle_15 (L2), Bellis_16 (L3), BigCheese_15 (L2), BobsGarage_15 (L2), Breezona_15 (L2), Bromden_16 (L4), Calm_15 (L1), Chaser_15 (L4), ChutneyChips_15 (L4), CicholasNage_15 (L1), Claus_15 (L2), Clautastrophe_15 (L3), Crossroads_15 (L2), DirkDirk_15 (L1), Douge_15 (L4), DrSeegs_15 (L2), DuncansLeg_16 (L3), DyoEdafos_16 (L4), Enceladus_15 (L1), Faith1_14 (L2), Finemlucis_15 (L2), Finnry_16 (L3), Gabriela_15 (L2), Gardann_15 (L2), GuuelaD_15 (L2), Halena_15 (L1), Itos_15 (L2), Jobypre_16 (L3), JoeDirt_15 (L1), Jubie_16 (L3), Kahlid_15 (L2), Kingsolomon_16 (L3), Kropertea_15 (L4), Krypton555_15 (L3), LeBron_15 (L1), Lewan_15 (L2), LilDestine_15 (L2), Loadrie_15 (L2), Lumos_16 (L3), MAckerman_15 (L1), Miley16_15 (L2), MiniLon_16 (L3), MiniMac_16 (L3), MkaliMitinis3_15 (L2), MsGreen_16 (L3), Netyap_15 (L2), Nicholas_16 (L3), OhShagHennessy_15 (L1), OverPar_15 (L2), Rose5_15 (L1), Rumpelstiltskin_15 (L2), Samty_16 (L3), Silverleaf_15 (L1), Tourach_15 (L2), TriFive_16 (L3), Tyson_15 (L1), UPIE_15 (L1), Underpass_15 (L2), Vetrix_15 (L2), Wamburgrxpress_15 (L1), Whirlwind_17 (L3), Wigglewiggles_15 (L2), Wilder_15 (L2), Winky_14 (L2), Wyatt2_15 (L1), Zakai_15 (L2), Zaria_15 (L1),

Summary by clusters:

There are 11 clusters represented in this pham: V, L1, singleton, L4, S, L5, L2, L3, M3, M2, M1,

Info for manual annotations of cluster L1:

- Start number 20 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 9 was manually annotated 1 time for cluster L2.
- Start number 17 was manually annotated 1 time for cluster L2.
- Start number 20 was manually annotated 30 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 20 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 20 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 19 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 15 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 15 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 15 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster S:

- Start number 1 was manually annotated 18 times for cluster S.
- Start number 2 was manually annotated 2 times for cluster S.

Info for manual annotations of cluster V:

- Start number 14 was manually annotated 3 times for cluster V.

Gene Information:

Gene: Acquire49_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Acquire49_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Aegeus_15 Start: 9595, Stop: 10424, Start Num: 19

Candidate Starts for Aegeus_15:

(4, 9517), (6, 9526), (Start: 19 @9595 has 2 MA's), (23, 9628), (33, 9682), (44, 9748), (51, 9823), (53, 9853), (54, 9868), (60, 9922), (68, 9991), (70, 10006), (74, 10024), (80, 10054), (81, 10066), (83, 10093), (86, 10114), (98, 10216), (100, 10234), (102, 10237), (106, 10267), (107, 10282), (113, 10372), (117, 10384), (118, 10390),

Gene: Appletree2_15 Start: 9954, Stop: 10780, Start Num: 20

Candidate Starts for Appletree2_15:

(Start: 20 @9954 has 71 MA's), (26, 9984), (33, 10020), (35, 10026), (51, 10161), (52, 10185), (54, 10206), (61, 10272), (62, 10275), (64, 10290), (68, 10329), (74, 10362), (77, 10383), (79, 10389), (80, 10407), (83, 10446), (86, 10467), (90, 10497), (100, 10590), (104, 10608), (113, 10731), (118, 10749), (120, 10755),

Gene: Archie_15 Start: 9934, Stop: 10763, Start Num: 17

Candidate Starts for Archie_15:

(11, 9904), (12, 9907), (Start: 17 @9934 has 1 MA's), (Start: 20 @9940 has 71 MA's), (33, 10003), (35, 10009), (38, 10039), (39, 10042), (40, 10045), (51, 10144), (52, 10168), (53, 10174), (54, 10189), (61, 10255), (62, 10258), (64, 10273), (68, 10312), (69, 10318), (77, 10366), (79, 10372), (80, 10390), (86, 10450), (91, 10489), (93, 10495), (94, 10519), (102, 10573), (113, 10711), (118, 10729), (119, 10732),

Gene: Auspice_25 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for Auspice_25:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: AvadaKedavra_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for AvadaKedavra_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Aziz_29 Start: 14380, Stop: 15218, Start Num: 15

Candidate Starts for Aziz_29:

(Start: 15 @14380 has 23 MA's), (21, 14407), (27, 14434), (31, 14449), (37, 14485), (49, 14611), (55, 14665), (56, 14668), (58, 14683), (62, 14731), (88, 14920), (96, 14983), (113, 15139), (115, 15145),

Gene: Baoshan_14 Start: 9819, Stop: 10642, Start Num: 20

Candidate Starts for Baoshan_14:

(11, 9783), (12, 9786), (Start: 20 @9819 has 71 MA's), (33, 9882), (35, 9888), (36, 9903), (39, 9921), (47, 9969), (51, 10023), (53, 10053), (54, 10068), (61, 10134), (62, 10137), (64, 10152), (79, 10251), (80, 10269), (86, 10329), (91, 10368), (93, 10374), (94, 10398), (113, 10590), (118, 10608),

Gene: Baudelaire_15 Start: 9595, Stop: 10424, Start Num: 19

Candidate Starts for Baudelaire_15:

(4, 9517), (6, 9526), (Start: 19 @9595 has 2 MA's), (23, 9628), (33, 9682), (44, 9748), (51, 9823), (53, 9853), (54, 9868), (60, 9922), (68, 9991), (70, 10006), (74, 10024), (80, 10054), (81, 10066), (83, 10093), (86, 10114), (98, 10216), (100, 10234), (102, 10237), (106, 10267), (107, 10282), (113, 10372), (117, 10384), (118, 10390),

Gene: Bazzle_15 Start: 9944, Stop: 10767, Start Num: 20

Candidate Starts for Bazzle_15:

(11, 9908), (12, 9911), (Start: 20 @9944 has 71 MA's), (33, 10007), (35, 10013), (39, 10046), (51, 10148), (52, 10172), (53, 10178), (54, 10193), (61, 10259), (62, 10262), (64, 10277), (68, 10316), (69, 10322), (79, 10376), (80, 10394), (86, 10454), (90, 10484), (91, 10493), (94, 10523), (98, 10556), (104, 10592), (113, 10715), (118, 10733), (120, 10739),

Gene: Beelzebub_51 Start: 20141, Stop: 21210, Start Num: 1

Candidate Starts for Beelzebub_51:

(Start: 1 @20141 has 18 MA's), (Start: 2 @20186 has 2 MA's), (13, 20297), (Start: 20 @20330 has 71 MA's), (24, 20363), (28, 20387), (34, 20414), (43, 20468), (45, 20495), (50, 20570), (52, 20597), (67, 20738), (68, 20744), (72, 20774), (83, 20861), (86, 20882), (87, 20891), (103, 21008), (123, 21188),

Gene: Bellis_16 Start: 10120, Stop: 10942, Start Num: 20

Candidate Starts for Bellis_16:

(Start: 20 @10120 has 71 MA's), (27, 10141), (33, 10174), (38, 10210), (46, 10252), (51, 10315), (52, 10339), (54, 10360), (65, 10456), (71, 10510), (73, 10516), (75, 10525), (82, 10576), (84, 10603), (95, 10696), (97, 10723), (99, 10729), (124, 10927),

Gene: BigCheese_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for BigCheese_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Blackbeetle_47 Start: 19160, Stop: 20229, Start Num: 1

Candidate Starts for Blackbeetle_47:

(Start: 1 @19160 has 18 MA's), (Start: 2 @19205 has 2 MA's), (13, 19316), (Start: 20 @19349 has 71 MA's), (24, 19382), (28, 19406), (34, 19433), (43, 19487), (45, 19514), (50, 19589), (52, 19616), (67, 19757), (68, 19763), (72, 19793), (83, 19880), (86, 19901), (87, 19910), (103, 20027), (123, 20207),

Gene: BobsGarage_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for BobsGarage_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Bongo_24 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for Bongo_24:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: Breezona_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Breezona_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Bricole_25 Start: 13802, Stop: 14619, Start Num: 15

Candidate Starts for Bricole_25:

(Start: 15 @13802 has 23 MA's), (27, 13853), (58, 14087), (62, 14135), (93, 14354), (96, 14387), (99, 14411), (101, 14426), (118, 14561),

Gene: Bromden_16 Start: 10127, Stop: 10946, Start Num: 20

Candidate Starts for Bromden_16:

(Start: 20 @10127 has 71 MA's), (26, 10151), (33, 10187), (35, 10193), (38, 10223), (39, 10226), (46, 10265), (51, 10328), (53, 10358), (54, 10373), (63, 10454), (71, 10523), (73, 10529), (75, 10538), (82, 10589), (85, 10628), (97, 10733), (99, 10739), (122, 10931),

Gene: Calm_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for Calm_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (74, 10389), (77, 10410), (79, 10416), (80, 10434), (83, 10473), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),

Gene: Caprice_46 Start: 19230, Stop: 20299, Start Num: 1

Candidate Starts for Caprice_46:

(Start: 1 @19230 has 18 MA's), (Start: 2 @19275 has 2 MA's), (13, 19386), (Start: 20 @19419 has 71 MA's), (24, 19452), (28, 19476), (34, 19503), (43, 19557), (45, 19584), (50, 19659), (52, 19686), (67, 19827), (68, 19833), (72, 19863), (83, 19950), (86, 19971), (87, 19980), (103, 20097), (123, 20277),

Gene: Chaser_15 Start: 9719, Stop: 10538, Start Num: 20

Candidate Starts for Chaser_15:

(Start: 20 @9719 has 71 MA's), (33, 9779), (35, 9785), (36, 9800), (39, 9818), (46, 9857), (51, 9920), (53, 9950), (54, 9965), (63, 10046), (65, 10061), (71, 10115), (73, 10121), (75, 10130), (82, 10181), (97, 10325), (99, 10331), (122, 10523),

Gene: ChutneyChips_15 Start: 9707, Stop: 10526, Start Num: 20

Candidate Starts for ChutneyChips_15:

(Start: 20 @9707 has 71 MA's), (33, 9767), (35, 9773), (36, 9788), (39, 9806), (46, 9845), (51, 9908), (53, 9938), (54, 9953), (63, 10034), (71, 10103), (73, 10109), (75, 10118), (82, 10169), (97, 10313), (99, 10319), (122, 10511),

Gene: CicholasNage_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for CicholasNage_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (79, 10416), (80, 10434), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),

Gene: Clarkson_48 Start: 19842, Stop: 20911, Start Num: 1

Candidate Starts for Clarkson_48:

(Start: 1 @19842 has 18 MA's), (Start: 2 @19887 has 2 MA's), (13, 19998), (Start: 20 @20031 has 71 MA's), (24, 20064), (28, 20088), (34, 20115), (43, 20169), (45, 20196), (50, 20271), (52, 20298), (67, 20439), (68, 20445), (69, 20451), (72, 20475), (83, 20562), (86, 20583), (87, 20592), (103, 20709), (123, 20889),

Gene: Claus_15 Start: 9999, Stop: 10822, Start Num: 20

Candidate Starts for Claus_15:

(11, 9963), (12, 9966), (Start: 20 @9999 has 71 MA's), (33, 10062), (35, 10068), (36, 10083), (39, 10101), (47, 10149), (51, 10203), (53, 10233), (54, 10248), (61, 10314), (62, 10317), (64, 10332), (79, 10431), (80, 10449), (91, 10548), (93, 10554), (94, 10578), (113, 10770), (118, 10788),

Gene: Clautastrophe_15 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for Clautastrophe_15:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: Corazon_45 Start: 19795, Stop: 20864, Start Num: 1

Candidate Starts for Corazon_45:

(Start: 1 @19795 has 18 MA's), (Start: 2 @19840 has 2 MA's), (13, 19951), (Start: 20 @19984 has 71 MA's), (24, 20017), (28, 20041), (34, 20068), (43, 20122), (45, 20149), (50, 20224), (52, 20251), (67, 20392), (68, 20398), (72, 20428), (83, 20515), (86, 20536), (87, 20545), (103, 20662), (123, 20842),

Gene: Cosmo_37 Start: 16954, Stop: 17720, Start Num: 14

Candidate Starts for Cosmo_37:

(8, 16918), (10, 16936), (Start: 14 @16954 has 3 MA's), (18, 16972), (22, 17002), (25, 17017), (40, 17092), (48, 17167), (57, 17251), (58, 17260), (59, 17278), (64, 17323), (66, 17344), (86, 17470), (90, 17500), (92, 17512), (109, 17671),

Gene: Crossroads_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Crossroads_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Diminimus_26 Start: 13803, Stop: 14632, Start Num: 15

Candidate Starts for Diminimus_26:

(7, 13749), (Start: 15 @13803 has 23 MA's), (23, 13845), (25, 13857), (58, 14100), (62, 14148), (88, 14337), (93, 14367), (96, 14400), (99, 14424), (101, 14439), (118, 14574),

Gene: DirkDirk_15 Start: 9982, Stop: 10808, Start Num: 20

Candidate Starts for DirkDirk_15:

(Start: 20 @9982 has 71 MA's), (26, 10012), (33, 10048), (35, 10054), (51, 10189), (52, 10213), (54, 10234), (61, 10300), (62, 10303), (64, 10318), (68, 10357), (74, 10390), (77, 10411), (79, 10417), (80, 10435), (83, 10474), (86, 10495), (90, 10525), (100, 10618), (104, 10636), (113, 10759), (118, 10777), (120, 10783),

Gene: Douge_15 Start: 9664, Stop: 10483, Start Num: 20

Candidate Starts for Douge_15:

(Start: 20 @9664 has 71 MA's), (32, 9712), (33, 9724), (35, 9730), (36, 9745), (39, 9763), (46, 9802), (51, 9865), (53, 9895), (54, 9910), (65, 10006), (71, 10060), (73, 10066), (75, 10075), (82, 10126), (97, 10270), (99, 10276), (122, 10468),

Gene: DrSeegs_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for DrSeegs_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Dulcita_26 Start: 13803, Stop: 14632, Start Num: 15

Candidate Starts for Dulcita_26:

(7, 13749), (Start: 15 @13803 has 23 MA's), (23, 13845), (25, 13857), (58, 14100), (62, 14148), (88, 14337), (93, 14367), (96, 14400), (99, 14424), (101, 14439), (118, 14574),

Gene: DuncansLeg_16 Start: 10130, Stop: 10952, Start Num: 20

Candidate Starts for DuncansLeg_16:

(Start: 20 @10130 has 71 MA's), (27, 10151), (33, 10184), (46, 10262), (51, 10325), (52, 10349), (53, 10355), (54, 10370), (71, 10520), (73, 10526), (75, 10535), (82, 10586), (84, 10613), (95, 10706), (97, 10733), (99, 10739), (124, 10937),

Gene: DyoEdafos_16 Start: 9877, Stop: 10696, Start Num: 20

Candidate Starts for DyoEdafos_16:

(Start: 20 @9877 has 71 MA's), (33, 9937), (35, 9943), (36, 9958), (39, 9976), (46, 10015), (51, 10078), (53, 10108), (54, 10123), (63, 10204), (71, 10273), (73, 10279), (75, 10288), (82, 10339), (97, 10483), (99, 10489), (122, 10681),

Gene: Enceladus_15 Start: 9983, Stop: 10809, Start Num: 20

Candidate Starts for Enceladus_15:

(Start: 20 @9983 has 71 MA's), (26, 10013), (33, 10049), (35, 10055), (51, 10190), (52, 10214), (54, 10235), (61, 10301), (62, 10304), (64, 10319), (68, 10358), (79, 10418), (80, 10436), (86, 10496), (90, 10526), (100, 10619), (104, 10637), (113, 10760), (118, 10778), (120, 10784),

Gene: EniyanLRS_34 Start: 16652, Stop: 17418, Start Num: 14

Candidate Starts for EniyanLRS_34:

(Start: 14 @16652 has 3 MA's), (18, 16670), (22, 16700), (25, 16715), (40, 16790), (48, 16865), (57, 16949), (58, 16958), (59, 16976), (64, 17021), (66, 17042), (86, 17168), (90, 17198), (92, 17210), (109, 17369),

Gene: Estes_30 Start: 14517, Stop: 15355, Start Num: 15

Candidate Starts for Estes_30:

(Start: 15 @14517 has 23 MA's), (27, 14571), (31, 14586), (37, 14622), (49, 14748), (55, 14802), (56, 14805), (58, 14820), (62, 14868), (88, 15057), (96, 15120), (113, 15276), (115, 15282),

Gene: Faith1_14 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Faith1_14:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: FeliMaine_49 Start: 19843, Stop: 20912, Start Num: 1

Candidate Starts for FeliMaine_49:

(Start: 1 @19843 has 18 MA's), (Start: 2 @19888 has 2 MA's), (13, 19999), (Start: 20 @20032 has 71 MA's), (24, 20065), (28, 20089), (34, 20116), (43, 20170), (45, 20197), (50, 20272), (52, 20299), (67, 20440), (68, 20446), (69, 20452), (72, 20476), (83, 20563), (86, 20584), (87, 20593), (103, 20710), (123, 20890),

Gene: Finemlucis_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Finemlucis_15:

(Start: 9 @9934 has 1 MA's), (11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (69, 10369), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Finnry_16 Start: 10122, Stop: 10944, Start Num: 20

Candidate Starts for Finnry_16:

(Start: 20 @10122 has 71 MA's), (27, 10143), (33, 10176), (38, 10212), (46, 10254), (51, 10317), (52, 10341), (54, 10362), (65, 10458), (71, 10512), (73, 10518), (75, 10527), (82, 10578), (84, 10605), (95, 10698), (97, 10725), (99, 10731), (124, 10929),

Gene: FreakyGoo_26 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for FreakyGoo_26:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: Gabriela_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Gabriela_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Gardann_15 Start: 9990, Stop: 10813, Start Num: 20

Candidate Starts for Gardann_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: GardenSalsa_29 Start: 14353, Stop: 15191, Start Num: 15

Candidate Starts for GardenSalsa_29:

(Start: 15 @14353 has 23 MA's), (21, 14380), (27, 14407), (31, 14422), (37, 14458), (49, 14584), (55, 14638), (56, 14641), (58, 14656), (62, 14704), (88, 14893), (93, 14923), (96, 14956), (113, 15112), (115, 15118),

Gene: Gattaca_46 Start: 19022, Stop: 20091, Start Num: 1

Candidate Starts for Gattaca_46:

(Start: 1 @19022 has 18 MA's), (Start: 2 @19067 has 2 MA's), (13, 19178), (Start: 20 @19211 has 71 MA's), (24, 19244), (28, 19268), (34, 19295), (43, 19349), (45, 19376), (50, 19451), (52, 19478), (67, 19619), (68, 19625), (72, 19655), (83, 19742), (86, 19763), (87, 19772), (103, 19889), (123, 20069),

Gene: GenevaB15_29 Start: 14380, Stop: 15218, Start Num: 15

Candidate Starts for GenevaB15_29:

(Start: 15 @14380 has 23 MA's), (21, 14407), (27, 14434), (31, 14449), (37, 14485), (49, 14611), (55, 14665), (56, 14668), (58, 14683), (62, 14731), (88, 14920), (96, 14983), (113, 15139), (115, 15145),

Gene: Glaske16_26 Start: 13803, Stop: 14632, Start Num: 15

Candidate Starts for Glaske16_26:

(7, 13749), (Start: 15 @13803 has 23 MA's), (23, 13845), (25, 13857), (58, 14100), (62, 14148), (88, 14337), (93, 14367), (96, 14400), (99, 14424), (101, 14439), (118, 14574),

Gene: GoongGoong_46 Start: 19062, Stop: 20131, Start Num: 1

Candidate Starts for GoongGoong_46:

(Start: 1 @19062 has 18 MA's), (Start: 2 @19107 has 2 MA's), (13, 19218), (Start: 20 @19251 has 71 MA's), (24, 19284), (28, 19308), (34, 19335), (43, 19389), (45, 19416), (50, 19491), (52, 19518), (67, 19659), (68, 19665), (72, 19695), (83, 19782), (86, 19803), (87, 19812), (103, 19929), (123, 20109),

Gene: GuuelaD_15 Start: 10025, Stop: 10848, Start Num: 20

Candidate Starts for GuuelaD_15:

(Start: 20 @10025 has 71 MA's), (27, 10055), (33, 10088), (35, 10094), (39, 10127), (51, 10229), (53, 10259), (54, 10274), (61, 10340), (62, 10343), (64, 10358), (68, 10397), (69, 10403), (74, 10430), (80, 10475), (86, 10535), (91, 10574), (94, 10604), (98, 10637), (100, 10655), (104, 10673), (107, 10703), (111, 10787), (118, 10814), (120, 10820),

Gene: Halena_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for Halena_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (79, 10416), (80, 10434), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),

Gene: Huphlepuuff_49 Start: 19647, Stop: 20716, Start Num: 1

Candidate Starts for Huphlepuuff_49:

(Start: 1 @19647 has 18 MA's), (Start: 2 @19692 has 2 MA's), (13, 19803), (Start: 20 @19836 has 71 MA's), (24, 19869), (28, 19893), (34, 19920), (43, 19974), (45, 20001), (50, 20076), (52, 20103), (67, 20244), (68, 20250), (69, 20256), (72, 20280), (83, 20367), (86, 20388), (87, 20397), (103, 20514), (123, 20694),

Gene: IPhane7_25 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for IPhane7_25:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: Itos_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Itos_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Izel_26 Start: 13803, Stop: 14632, Start Num: 15

Candidate Starts for Izel_26:

(7, 13749), (Start: 15 @13803 has 23 MA's), (23, 13845), (25, 13857), (58, 14100), (62, 14148), (88, 14337), (93, 14367), (96, 14400), (99, 14424), (101, 14439), (118, 14574),

Gene: Jobypre_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for Jobypre_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: JoeDirt_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for JoeDirt_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (79, 10416), (80, 10434), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),

Gene: JoieB_48 Start: 19866, Stop: 20935, Start Num: 1

Candidate Starts for JoieB_48:

(Start: 1 @19866 has 18 MA's), (Start: 2 @19911 has 2 MA's), (13, 20022), (Start: 20 @20055 has 71 MA's), (24, 20088), (28, 20112), (34, 20139), (43, 20193), (45, 20220), (50, 20295), (52, 20322), (67, 20463), (68, 20469), (72, 20499), (83, 20586), (86, 20607), (87, 20616), (89, 20625), (103, 20733), (123, 20913),

Gene: Jubie_16 Start: 10125, Stop: 10947, Start Num: 20

Candidate Starts for Jubie_16:

(Start: 20 @10125 has 71 MA's), (27, 10146), (33, 10179), (38, 10215), (46, 10257), (51, 10320), (52, 10344), (54, 10365), (65, 10461), (71, 10515), (73, 10521), (75, 10530), (82, 10581), (84, 10608), (95, 10701), (97, 10728), (99, 10734), (124, 10932),

Gene: Kahlid_15 Start: 9990, Stop: 10813, Start Num: 20

Candidate Starts for Kahlid_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: Kingsolomon_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for Kingsolomon_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: Kropertea_15 Start: 9683, Stop: 10502, Start Num: 20

Candidate Starts for Kropertea_15:

(Start: 20 @9683 has 71 MA's), (33, 9743), (35, 9749), (36, 9764), (39, 9782), (46, 9821), (51, 9884), (53, 9914), (54, 9929), (71, 10079), (73, 10085), (75, 10094), (82, 10145), (97, 10289), (99, 10295), (122, 10487),

Gene: Krypton555_15 Start: 10113, Stop: 10935, Start Num: 20

Candidate Starts for Krypton555_15:

(Start: 20 @10113 has 71 MA's), (27, 10134), (33, 10167), (46, 10245), (51, 10308), (52, 10332), (54, 10353), (71, 10503), (73, 10509), (75, 10518), (82, 10569), (84, 10596), (95, 10689), (97, 10716), (99, 10722),

Gene: Kumao_25 Start: 13644, Stop: 14485, Start Num: 15

Candidate Starts for Kumao_25:

(3, 13566), (5, 13581), (Start: 15 @13644 has 23 MA's), (27, 13710), (30, 13731), (39, 13788), (44, 13815), (53, 13920), (55, 13938), (58, 13956), (59, 13974), (78, 14103), (83, 14151), (94, 14241), (108, 14358), (110, 14385), (112, 14397),

Gene: LeBron_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for LeBron_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (79, 10416), (80, 10434), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),

Gene: Lewan_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Lewan_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (69, 10369), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: LilDestine_15 Start: 9990, Stop: 10813, Start Num: 20

Candidate Starts for LilDestine_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: Lilbit_46 Start: 19888, Stop: 20912, Start Num: 2

Candidate Starts for Lilbit_46:

(Start: 1 @19843 has 18 MA's), (Start: 2 @19888 has 2 MA's), (13, 19999), (Start: 20 @20032 has 71 MA's), (24, 20065), (28, 20089), (34, 20116), (43, 20170), (45, 20197), (50, 20272), (52, 20299), (67, 20440), (68, 20446), (69, 20452), (72, 20476), (83, 20563), (86, 20584), (87, 20593), (103, 20710), (123, 20890),

Gene: LilhomieP_24 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for LilhomieP_24:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: LittleLaf_47 Start: 19617, Stop: 20641, Start Num: 2

Candidate Starts for LittleLaf_47:

(Start: 1 @19572 has 18 MA's), (Start: 2 @19617 has 2 MA's), (13, 19728), (Start: 20 @19761 has 71 MA's), (24, 19794), (28, 19818), (34, 19845), (43, 19899), (45, 19926), (50, 20001), (52, 20028), (67, 20169), (68, 20175), (72, 20205), (83, 20292), (86, 20313), (87, 20322), (103, 20439), (123, 20619),

Gene: Loadrie_15 Start: 10023, Stop: 10846, Start Num: 20

Candidate Starts for Loadrie_15:

(11, 9987), (12, 9990), (Start: 20 @10023 has 71 MA's), (33, 10086), (35, 10092), (39, 10125), (51, 10227), (53, 10257), (54, 10272), (61, 10338), (62, 10341), (69, 10401), (80, 10473), (86, 10533), (91, 10572), (93, 10578), (98, 10635), (104, 10671), (113, 10794), (118, 10812), (120, 10818),

Gene: Lumos_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for Lumos_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: MAckerman_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for MAckerman_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Marvin_45 Start: 19842, Stop: 20911, Start Num: 1

Candidate Starts for Marvin_45:

(Start: 1 @19842 has 18 MA's), (Start: 2 @19887 has 2 MA's), (13, 19998), (Start: 20 @20031 has 71 MA's), (24, 20064), (28, 20088), (34, 20115), (43, 20169), (45, 20196), (50, 20271), (52, 20298), (67, 20439), (68, 20445), (69, 20451), (72, 20475), (83, 20562), (86, 20583), (87, 20592), (103, 20709), (123, 20889),

Gene: MaryV_37 Start: 16924, Stop: 17690, Start Num: 14

Candidate Starts for MaryV_37:

(Start: 14 @16924 has 3 MA's), (18, 16942), (22, 16972), (25, 16987), (40, 17062), (48, 17137), (57, 17221), (58, 17230), (59, 17248), (64, 17293), (66, 17314), (86, 17440), (90, 17470), (92, 17482), (109, 17641), (116, 17674),

Gene: Miley16_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Miley16_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: MiniLon_16 Start: 10131, Stop: 10947, Start Num: 20

Candidate Starts for MiniLon_16:

(Start: 20 @10131 has 71 MA's), (27, 10152), (33, 10185), (46, 10263), (51, 10326), (52, 10350), (54, 10371), (71, 10521), (73, 10527), (75, 10536), (82, 10587), (84, 10614), (95, 10707), (97, 10734), (99, 10740), (122, 10932),

Gene: MiniMac_16 Start: 10132, Stop: 10948, Start Num: 20

Candidate Starts for MiniMac_16:

(Start: 20 @10132 has 71 MA's), (27, 10153), (33, 10186), (46, 10264), (51, 10327), (52, 10351), (54, 10372), (71, 10522), (73, 10528), (75, 10537), (82, 10588), (84, 10615), (95, 10708), (97, 10735), (99, 10741), (122, 10933),

Gene: MkaliMitinis3_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for MkaliMitinis3_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (69, 10369), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: MosMoris_45 Start: 19022, Stop: 20091, Start Num: 1

Candidate Starts for MosMoris_45:

(Start: 1 @19022 has 18 MA's), (Start: 2 @19067 has 2 MA's), (13, 19178), (Start: 20 @19211 has 71 MA's), (24, 19244), (28, 19268), (34, 19295), (43, 19349), (45, 19376), (50, 19451), (52, 19478), (67, 19619), (68, 19625), (72, 19655), (83, 19742), (86, 19763), (87, 19772), (103, 19889), (123, 20069),

Gene: MrMagoo_29 Start: 14353, Stop: 15191, Start Num: 15

Candidate Starts for MrMagoo_29:

(Start: 15 @14353 has 23 MA's), (21, 14380), (27, 14407), (31, 14422), (37, 14458), (49, 14584), (55, 14638), (56, 14641), (58, 14656), (62, 14704), (88, 14893), (93, 14923), (96, 14956), (113, 15112), (115, 15118),

Gene: MsGreen_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for MsGreen_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97,

10727), (99, 10733), (124, 10931),

Gene: Nanosmite_29 Start: 14576, Stop: 15405, Start Num: 15

Candidate Starts for Nanosmite_29:

(7, 14522), (Start: 15 @14576 has 23 MA's), (58, 14870), (93, 15137), (96, 15170), (118, 15344), (120, 15350),

Gene: Netyap_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Netyap_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Nicholas_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for Nicholas_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: Nicholasp3_15 Start: 9933, Stop: 10813, Start Num: 9

Candidate Starts for Nicholasp3_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: OhShagHennessy_15 Start: 9954, Stop: 10780, Start Num: 20

Candidate Starts for OhShagHennessy_15:

(Start: 20 @9954 has 71 MA's), (26, 9984), (33, 10020), (35, 10026), (51, 10161), (52, 10185), (54, 10206), (61, 10272), (62, 10275), (64, 10290), (68, 10329), (74, 10362), (77, 10383), (79, 10389), (80, 10407), (83, 10446), (86, 10467), (90, 10497), (100, 10590), (104, 10608), (113, 10731), (118, 10749), (120, 10755),

Gene: OverPar_15 Start: 10023, Stop: 10846, Start Num: 20

Candidate Starts for OverPar_15:

(11, 9987), (12, 9990), (Start: 20 @10023 has 71 MA's), (33, 10086), (35, 10092), (39, 10125), (51, 10227), (53, 10257), (54, 10272), (61, 10338), (62, 10341), (69, 10401), (80, 10473), (86, 10533), (91, 10572), (93, 10578), (98, 10635), (104, 10671), (113, 10794), (118, 10812), (120, 10818),

Gene: PegLeg_25 Start: 13803, Stop: 14632, Start Num: 15

Candidate Starts for PegLeg_25:

(7, 13749), (Start: 15 @13803 has 23 MA's), (23, 13845), (25, 13857), (58, 14100), (62, 14148), (88, 14337), (93, 14367), (96, 14400), (99, 14424), (101, 14439), (118, 14574),

Gene: Poise_47 Start: 19160, Stop: 20229, Start Num: 1

Candidate Starts for Poise_47:

(Start: 1 @19160 has 18 MA's), (Start: 2 @19205 has 2 MA's), (13, 19316), (Start: 20 @19349 has 71 MA's), (24, 19382), (28, 19406), (34, 19433), (43, 19487), (45, 19514), (50, 19589), (52, 19616), (67, 19757), (68, 19763), (72, 19793), (83, 19880), (86, 19901), (87, 19910), (103, 20027), (123, 20207),

Gene: Pringar_47 Start: 19472, Stop: 20544, Start Num: 1

Candidate Starts for Pringar_47:

(Start: 1 @19472 has 18 MA's), (Start: 2 @19520 has 2 MA's), (13, 19631), (Start: 20 @19664 has 71 MA's), (24, 19697), (28, 19721), (34, 19748), (43, 19802), (45, 19829), (50, 19904), (52, 19931), (67, 20072), (68, 20078), (72, 20108), (83, 20195), (86, 20216), (87, 20225), (89, 20234), (103, 20342), (123, 20522),

Gene: Raela_47 Start: 19715, Stop: 20784, Start Num: 1

Candidate Starts for Raela_47:

(Start: 1 @19715 has 18 MA's), (Start: 2 @19760 has 2 MA's), (13, 19871), (Start: 20 @19904 has 71 MA's), (24, 19937), (28, 19961), (34, 19988), (43, 20042), (45, 20069), (50, 20144), (52, 20171), (67, 20312), (68, 20318), (72, 20348), (83, 20435), (86, 20456), (87, 20465), (103, 20582), (123, 20762),

Gene: RedRaider77_47 Start: 19616, Stop: 20685, Start Num: 1

Candidate Starts for RedRaider77_47:

(Start: 1 @19616 has 18 MA's), (Start: 2 @19661 has 2 MA's), (13, 19772), (Start: 20 @19805 has 71 MA's), (24, 19838), (28, 19862), (34, 19889), (43, 19943), (45, 19970), (50, 20045), (52, 20072), (67, 20213), (68, 20219), (72, 20249), (83, 20336), (86, 20357), (87, 20366), (103, 20483), (123, 20663),

Gene: Reindeer_23 Start: 13656, Stop: 14473, Start Num: 15

Candidate Starts for Reindeer_23:

(Start: 15 @13656 has 23 MA's), (27, 13707), (58, 13941), (62, 13989), (93, 14208), (96, 14241), (99, 14265), (105, 14307), (113, 14397), (114, 14400), (118, 14415), (121, 14427),

Gene: Rey_28 Start: 14582, Stop: 15426, Start Num: 15

Candidate Starts for Rey_28:

(Start: 15 @14582 has 23 MA's), (27, 14642), (41, 14717), (42, 14720), (55, 14873), (56, 14876), (58, 14891), (62, 14939), (88, 15128), (96, 15191),

Gene: Rose5_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Rose5_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Rumpelstiltskin_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Rumpelstiltskin_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Samty_16 Start: 10121, Stop: 10943, Start Num: 20

Candidate Starts for Samty_16:

(Start: 20 @10121 has 71 MA's), (27, 10142), (33, 10175), (38, 10211), (46, 10253), (51, 10316), (52, 10340), (54, 10361), (65, 10457), (71, 10511), (73, 10517), (75, 10526), (82, 10577), (84, 10604), (95, 10697), (97, 10724), (99, 10730), (124, 10928),

Gene: Silverleaf_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Silverleaf_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Skinny_26 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for Skinny_26:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: SlimJimmy_24 Start: 13802, Stop: 14619, Start Num: 15

Candidate Starts for SlimJimmy_24:

(Start: 15 @13802 has 23 MA's), (27, 13853), (58, 14087), (62, 14135), (88, 14324), (93, 14354), (96, 14387), (99, 14411), (101, 14426), (118, 14561),

Gene: Tesla_46 Start: 19465, Stop: 20534, Start Num: 1

Candidate Starts for Tesla_46:

(Start: 1 @19465 has 18 MA's), (Start: 2 @19510 has 2 MA's), (13, 19621), (Start: 20 @19654 has 71 MA's), (24, 19687), (28, 19711), (34, 19738), (43, 19792), (45, 19819), (50, 19894), (52, 19921), (67, 20062), (68, 20068), (72, 20098), (83, 20185), (86, 20206), (87, 20215), (103, 20332), (123, 20512),

Gene: Tourach_15 Start: 10006, Stop: 10829, Start Num: 20

Candidate Starts for Tourach_15:

(11, 9970), (12, 9973), (Start: 20 @10006 has 71 MA's), (33, 10069), (35, 10075), (36, 10090), (39, 10108), (47, 10156), (51, 10210), (53, 10240), (54, 10255), (61, 10321), (62, 10324), (64, 10339), (68, 10378), (69, 10384), (79, 10438), (80, 10456), (86, 10516), (94, 10585), (100, 10636), (113, 10777), (118, 10795),

Gene: TriFive_16 Start: 10124, Stop: 10946, Start Num: 20

Candidate Starts for TriFive_16:

(Start: 20 @10124 has 71 MA's), (27, 10145), (33, 10178), (46, 10256), (51, 10319), (52, 10343), (54, 10364), (65, 10460), (71, 10514), (73, 10520), (75, 10529), (82, 10580), (84, 10607), (95, 10700), (97, 10727), (99, 10733), (124, 10931),

Gene: TyDawg_25 Start: 13804, Stop: 14633, Start Num: 15

Candidate Starts for TyDawg_25:

(7, 13750), (Start: 15 @13804 has 23 MA's), (23, 13846), (25, 13858), (58, 14101), (62, 14149), (88, 14338), (93, 14368), (96, 14401), (99, 14425), (101, 14440), (118, 14575),

Gene: Tyson_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Tyson_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: UPIE_15 Start: 9978, Stop: 10804, Start Num: 20

Candidate Starts for UPIE_15:

(Start: 20 @9978 has 71 MA's), (26, 10008), (33, 10044), (35, 10050), (51, 10185), (52, 10209), (54, 10230), (61, 10296), (62, 10299), (64, 10314), (68, 10353), (79, 10413), (80, 10431), (86, 10491), (90, 10521), (100, 10614), (104, 10632), (113, 10755), (118, 10773), (120, 10779),

Gene: Underpass_15 Start: 9990, Stop: 10813, Start Num: 20

Candidate Starts for Underpass_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: VasuNzinga_47 Start: 19049, Stop: 20118, Start Num: 1

Candidate Starts for VasuNzinga_47:

(Start: 1 @19049 has 18 MA's), (Start: 2 @19094 has 2 MA's), (13, 19205), (Start: 20 @19238 has 71 MA's), (24, 19271), (28, 19295), (34, 19322), (43, 19376), (45, 19403), (50, 19478), (52, 19505), (67, 19646), (68, 19652), (69, 19658), (72, 19682), (83, 19769), (86, 19790), (87, 19799), (103, 19916), (123, 20096),

Gene: Vetrix_15 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Vetrix_15:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Wamburgexpress_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Wamburgexpress_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Whirlwind_17 Start: 10118, Stop: 10934, Start Num: 20

Candidate Starts for Whirlwind_17:

(Start: 20 @10118 has 71 MA's), (27, 10139), (29, 10148), (33, 10172), (46, 10250), (51, 10313), (52, 10337), (54, 10358), (71, 10508), (73, 10514), (75, 10523), (82, 10574), (84, 10601), (85, 10613), (97, 10721), (99, 10727), (122, 10919),

Gene: Wigglewigggle_15 Start: 10023, Stop: 10846, Start Num: 20

Candidate Starts for Wigglewigggle_15:

(11, 9987), (12, 9990), (16, 10014), (Start: 20 @10023 has 71 MA's), (33, 10086), (35, 10092), (39, 10125), (51, 10227), (53, 10257), (54, 10272), (61, 10338), (62, 10341), (69, 10401), (80, 10473), (86, 10533), (91, 10572), (93, 10578), (98, 10635), (104, 10671), (113, 10794), (118, 10812), (120, 10818),

Gene: Wilder_15 Start: 9990, Stop: 10813, Start Num: 20

Candidate Starts for Wilder_15:

(Start: 9 @9933 has 1 MA's), (11, 9954), (12, 9957), (Start: 20 @9990 has 71 MA's), (33, 10053), (35, 10059), (39, 10092), (51, 10194), (53, 10224), (54, 10239), (61, 10305), (62, 10308), (64, 10323), (69, 10368), (76, 10407), (80, 10440), (86, 10500), (91, 10539), (93, 10545), (98, 10602), (104, 10638), (113, 10761), (118, 10779), (120, 10785),

Gene: Winky_14 Start: 9991, Stop: 10814, Start Num: 20

Candidate Starts for Winky_14:

(11, 9955), (12, 9958), (Start: 20 @9991 has 71 MA's), (33, 10054), (35, 10060), (39, 10093), (51, 10195), (53, 10225), (54, 10240), (61, 10306), (62, 10309), (64, 10324), (80, 10441), (86, 10501), (91, 10540), (93, 10546), (98, 10603), (104, 10639), (113, 10762), (118, 10780), (120, 10786),

Gene: Wyatt2_15 Start: 9980, Stop: 10806, Start Num: 20

Candidate Starts for Wyatt2_15:

(Start: 20 @9980 has 71 MA's), (26, 10010), (33, 10046), (35, 10052), (51, 10187), (52, 10211), (54, 10232), (61, 10298), (62, 10301), (64, 10316), (68, 10355), (79, 10415), (80, 10433), (86, 10493), (90, 10523), (100, 10616), (104, 10634), (113, 10757), (118, 10775), (120, 10781),

Gene: Zakai_15 Start: 9979, Stop: 10802, Start Num: 20

Candidate Starts for Zakai_15:

(11, 9943), (12, 9946), (Start: 20 @9979 has 71 MA's), (33, 10042), (35, 10048), (39, 10081), (51, 10183), (53, 10213), (54, 10228), (61, 10294), (62, 10297), (64, 10312), (80, 10429), (86, 10489), (91, 10528), (93, 10534), (98, 10591), (104, 10627), (113, 10750), (118, 10768), (120, 10774),

Gene: Zaria_15 Start: 9981, Stop: 10807, Start Num: 20

Candidate Starts for Zaria_15:

(Start: 20 @9981 has 71 MA's), (26, 10011), (33, 10047), (35, 10053), (51, 10188), (52, 10212), (54, 10233), (61, 10299), (62, 10302), (64, 10317), (68, 10356), (74, 10389), (77, 10410), (79, 10416), (80, 10434), (83, 10473), (86, 10494), (90, 10524), (100, 10617), (104, 10635), (113, 10758), (118, 10776), (120, 10782),