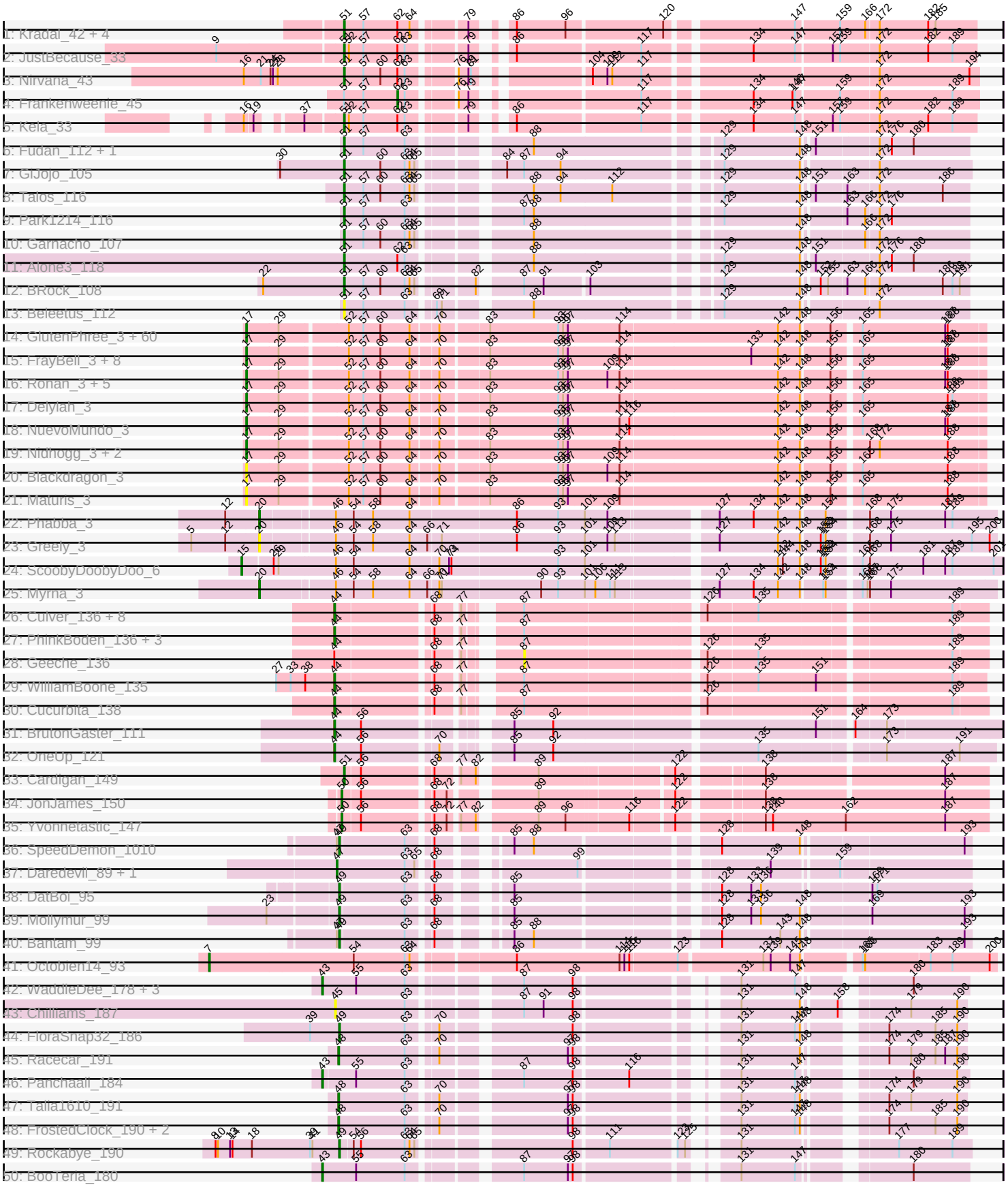
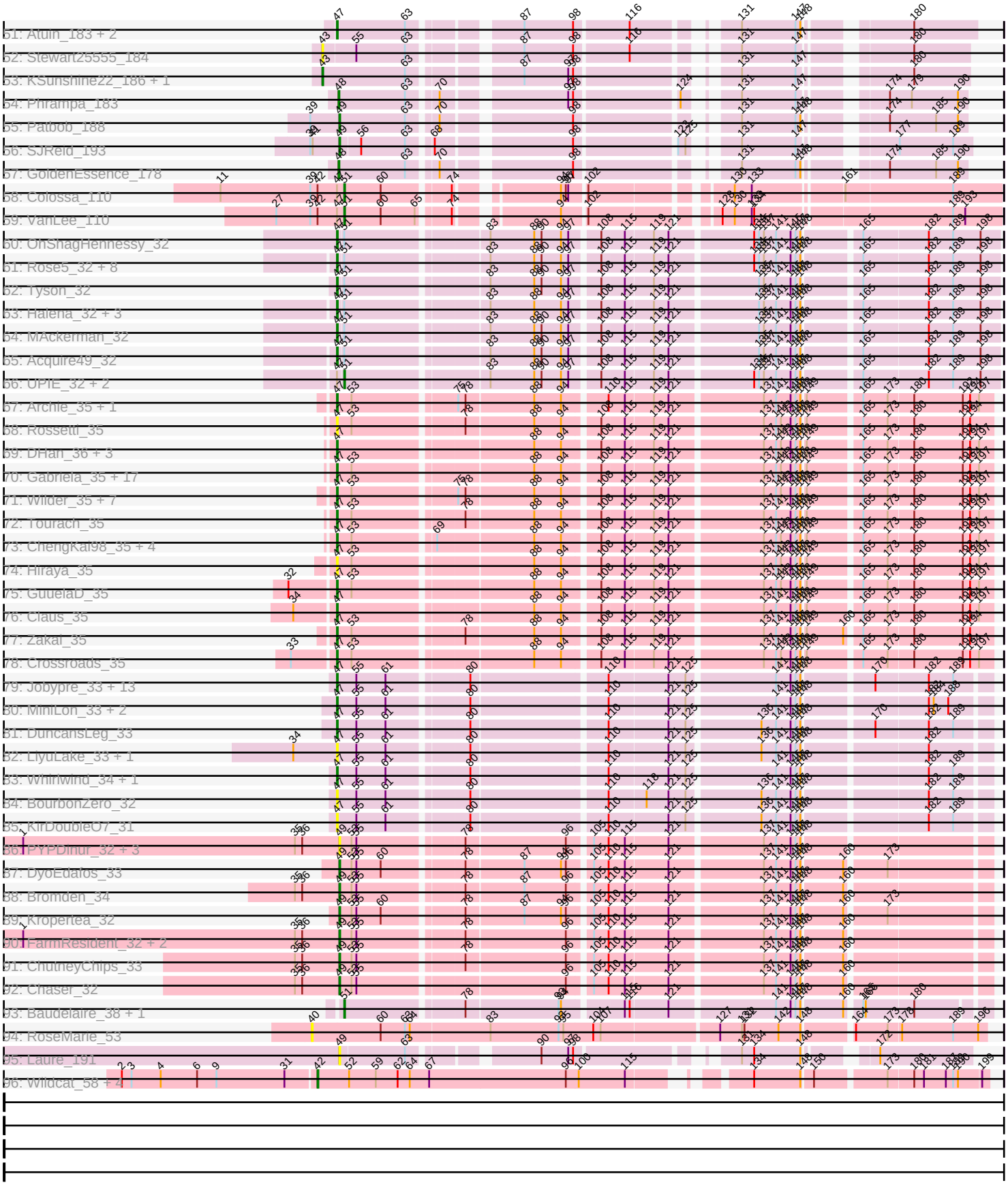
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1: Kradal_42 + 4
2: JustBecause_33
3: Nirvana_43
4: Frankenweenie_45
5: Kela_33
6: Fudan_112 + 1
7: GiJojo_105
8: Talos_116
9: Park1214_116
10: Garnacho_107
11: Alone3_118
12: BRock_108
13: Beleetus_112
14: GlutenPhree_3 + 60
15: FrayBell_3 + 8
16: Ronan_3 + 5
17: Delylah_3
18: NuevoMundo_3
19: Nidhogg_3 + 2
20: Blackdragon_3
21: Maturis_3
22: Phabba_3
23: Greely_3
24: ScoobyDoobyDoo_6
25: Myrna_3
26: Culver_136 + 8
27: PhilkBoden_136 + 3
28: Geeche_136
29: WilliamBoone_135
30: Cucurbita_138
31: BrutonGaster_111
32: OneUp_121
33: Cardigan_149
34: JonJames_150
35: Yvonnetastic_147
36: SpeedDemon_1010
37: Daredevil_89 + 1
38: DatBoi_95
39: Mollymur_99
40: Bantam_99
41: Octobien14_93
42: WaddleDee_178 + 3
43: Chilliams_187
44: FloraSnap32_186
45: Racecar_191
46: Panchaali_184
47: Talia1610_191
48: FrostedClock_190 + 2
49: Rockabye_190
50: BooTeria_180

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51: Atuin_183 + 2
52: Stewart25555_184
53: KSunshine22_186 + 1
54: Phrampa_183
55: Patbob_188
56: SJReid_193
57: GoldenEssence_178
58: Colossa_110
59: VanLee_110
60: OhShagHennessy_32
61: Rose5_32 + 8
62: Tyson_32
63: Halena_32 + 3
64: MAckerman_32
65: Acquire49_32
66: UPIE_32 + 2
67: Archie_35 + 1
68: Rossetti_35
69: DHan_36 + 3
70: Gabriela_35 + 17
71: Wilder_35 + 7
72: Tourach_35
73: ChengKai98_35 + 4
74: Hiraya_35
75: GuuelaD_35
76: Claus_35
77: Zakat_35
78: Crossroads_35
79: Jobypre_33 + 13
80: MiniLon_33 + 2
81: DuncansLeg_33
82: LiyuLake_33 + 1
83: Whirlwind_34 + 1
84: BourbonZero_32
85: KirDoubleO7_31
86: PYPDinur_32 + 3
87: DyoEdalos_33
88: Bromden_34
89: Kropertea_32
90: FarmResident_32 + 2
91: ChutneyChips_33
92: Chaser_32
93: Baudelaire_38 + 1
94: RoseMarie_53
95: Laure_191
96: Wildcat_58 + 4

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 347198 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347198 has 268 members, 45 are drafts.

Phages represented in each track:
• Track 1 : Kradal_42, Sarkar_42, Satis_42, EhyElimayoE_42, Quantum_41
• Track 2 : JustBecause_33
• Track 3 : Nirvana_43
• Track 4 : Frankenweenie_45
• Track 5 : Kela_33
• Track 6 : Fudan_112, LuckySocke_114
• Track 7 : GiJojo_105
• Track 8 : Talos_116
• Track 9 : Park1214_116
• Track 10 : Garnacho_107
• Track 11 : Alone3_118
• Track 12 : BRock_108
• Track 13 : Beleetus_112
• Track 14 : GlutenPhree_3, StubbySaigey_3, Chomp_3, ErnieJ_3, Jedediah_3, Spud_3, Kamryn_3, Cactojaque_2, Ading_3, Ablatia_3, Momo_3, Adlitam_3, InigoMontoya_3, Bangla1971_3, Naija_3, Jemmno_3, Babyland_3, Gabriel_3, ValleyTerrace_3, Guwapp_3, Phlegm_3, Tainan_3, Napoleon13_3, ChickenPhender_3, Rahel_3, Jezreel_3, Belieber_3, Wally_3, Jaygup_3, Pio_3, Turret_3, Janiyra_3, Ngannou_3, YoungMoneyMata_3, Tortoise16_2, Substance289_3, Gamgam_3, DTDevon_3, Amataga_3, Matsumoto_3, CindyLou_3, Trinitium_3, Dietrick_3, Teardrop_3, Patter_3, Audrick_3, Rizal_3, Pier_3, Atlantean_3, Spec_3, Latch_3, Dessert_3, Ghost_3, Phusco_3, Pivoine_3, ChaylaJr_3, Essence_3, EmmaElysia_3, SilverDipper_3, Shnickers_3, Labradorite_3
• Track 15 : FrayBell_3, GoldenSnow_3, Maguvora_3, InterFolia_3, LordLeafolot_3, PharkleMinkus_3, Puhon_3, Pupusa_3, LolaVinca_3
• Track 16 : Ronan_3, Koguma_3, BadAgartude_3, Sauce_3, Sprinklers_3, Shaqnato_3
• Track 17 : Delylah_3
• Track 18 : NuevoMundo_3
• Track 19 : Nidhogg_3, MoMoMixon_3, Naval22_4
• Track 20 : Blackdragon_3
• Track 21 : Maturis_3
• Track 22 : Phabba_3
• Track 23 : Greely_3
• Track 24 : ScoobyDoobyDoo_6
• Track 25 : Myrna_3

• Track 26 : Culver_136, Bachita_140, Norvs_135, Smoothie_138, Aphelion_136, Engineer_139, Abscondus_136, Lozinak_137, Dusty_134
• Track 27 : PhinkBoden_136, ClubL_137, Miskis_132, Toniann_137
• Track 28 : Geeche_136
• Track 29 : WilliamBoone_135
• Track 30 : Cucurbita_138
• Track 31 : BrutonGaster_111
• Track 32 : OneUp_121
• Track 33 : Cardigan_149
• Track 34 : JonJames_150
• Track 35 : Yvonnetastic_147
• Track 36 : SpeedDemon_1010
• Track 37 : Daredevil_89, Towmatter_88
• Track 38 : DatBoi_95
• Track 39 : Mollymur_99
• Track 40 : Bantam_99
• Track 41 : Octobien14_93
• Track 42 : WaddleDee_178, Emmetator_185, Ellewin_181, DunneganBoMo_181
• Track 43 : Chilliams_187
• Track 44 : FloraSnap32_186
• Track 45 : Racecar_191
• Track 46 : Panchaali_184
• Track 47 : Talia1610_191
• Track 48 : FrostedClock_190, Mimi_190, Bloom_194
• Track 49 : Rockabye_190
• Track 50 : BooTeria_180
• Track 51 : Atuin_183, ReginaGlobina_196, LeoJr_192
• Track 52 : Stewart25555_184
• Track 53 : KSunshine22_186, Artu_182
• Track 54 : Phrampa_183
• Track 55 : Patbob_188
• Track 56 : SJReid_193
• Track 57 : GoldenEssence_178
• Track 58 : Colossa_110
• Track 59 : VanLee_110
• Track 60 : OhShagHennessy_32
• Track 61 : Rose5_32, Calm_32, CicholasNage_32, Wyatt2_32, Zaria_32, Wamburgrxpress_32, DirkDirk_32, Enceladus_32, Appletree2_32
• Track 62 : Tyson_32
• Track 63 : Halena_32, AvadaKedavra_32, Poochiewood_32, Silverleaf_32
• Track 64 : MAckerman_32
• Track 65 : Acquire49_32
• Track 66 : UPIE_32, JoeDirt_32, LeBron_32
• Track 67 : Archie_35, Bazzle_35
• Track 68 : Rossetti_35
• Track 69 : DHan_36, ZhongYanYuan_34, Baoshan_34, DanBing_35
• Track 70 : Gabriela_35, SoJulia_36, Loadrie_35, Itos_35, Rumpelstiltskin_35, Breezona_35, Winky_35, Finemlucis_35, Vetrix_35, BigCheese_35, Netyap_35, DrSeegs_35, Molivier_35, BobsGarage_35, Miley16_35, OverPar_35, Lewan_35, Faith1_35
• Track 71 : Wilder_35, Hafay_35, Soap141_35, Sarshaun_35, Wigglewiggle_35, Kahlid_35, Lynnae_35, MkaliMitinis3_35
• Track 72 : Tourach_35

• Track 73 : ChengKai98_35, Gardann_35, Underpass_35, LilDestine_35, Nicholasp3_35
• Track 74 : Hiraya_35
• Track 75 : GuuelaD_35
• Track 76 : Claus_35
• Track 77 : Zakai_35
• Track 78 : Crossroads_35
• Track 79 : Jobypre_33, Nicholas_33, Red305_33, Samty_33, Lumos_33, Jubie_33, Snenia_33, Finnry_33, Bellis_33, Moostard_33, Clautastrophe_33, MsGreen_33, Kingsolomon_33, TriFive_33
• Track 80 : MiniLon_33, MiniMac_33, Lolly9_33
• Track 81 : DuncansLeg_33
• Track 82 : LiyuLake_33, Ellson_33
• Track 83 : Whirlwind_34, Krypton555_33
• Track 84 : BourbonZero_32
• Track 85 : KirDoubleO7_31
• Track 86 : PYPDinur_32, Douzhi_32, BrainDrainer_33, Sheng711_32
• Track 87 : DyoEdafos_33
• Track 88 : Bromden_34
• Track 89 : Kropertea_32
• Track 90 : FarmResident_32, Douge_32, Quby_32
• Track 91 : ChutneyChips_33
• Track 92 : Chaser_32
• Track 93 : Baudelaire_38, Aegeus_38
• Track 94 : RoseMarie_53
• Track 95 : Laure_191
• Track 96 : Wildcat_58, MaryV_58, Cosmo_58, EniyanLRS_55, Azrael100_57

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

The start number called the most often in the published annotations is 17, it was called in 74 of the 223 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ablatia_3, Ading_3, Adlitam_3, Amataga_3, Atlantean_3, Audrick_3, Babyland_3, BadAgartude_3, Bangla1971_3, Belieber_3, Blackdragon_3, Cactojaque_2, ChaylaJr_3, ChickenPhender_3, Chomp_3, CindyLou_3, DTDevon_3, Delylah_3, Dessert_3, Dietrick_3, EmmaElysia_3, ErnieJ_3, Essence_3, FrayBell_3, Gabriel_3, Gamgam_3, Ghost_3, GlutenPhree_3, GoldenSnow_3, Guwapp_3, InigoMontoya_3, InterFolia_3, Janiyra_3, Jaygup_3, Jedediah_3, Jemmno_3, Jezreel_3, Kamryn_3, Koguma_3, Labradorite_3, Latch_3, LolaVinca_3, LordLeafolot_3, Maguvora_3, Matsumoto_3, Maturis_3, MoMoMixon_3, Momo_3, Naija_3, Napoleon13_3, Naval22_4, Ngannou_3, Nidhogg_3, NuevoMundo_3, Patter_3, PharkleMinkus_3, Phlegm_3, Phusco_3, Pier_3, Pio_3, Pivoine_3, Puhon_3, Pupusa_3, Rahel_3, Rizal_3, Ronan_3, Sauce_3, Shaqnato_3, Shnickers_3, SilverDipper_3, Spec_3, Sprinklers_3, Spud_3, StubbySaigey_3, Substance289_3, Tainan_3, Teardrop_3, Tortoise16_2, Trinitium_3, Turret_3, ValleyTerrace_3, Wally_3, YoungMoneyMata_3,

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

Genes that do not have the "Most Annotated" start:
• Abscondus_136, Acquire49_32, Aegeus_38, Alone3_118, Aphelion_136, Appletree2_32, Archie_35, Artu_182, Atuin_183, AvadaKedavra_32, Azrael100_57, BRock_108, Bachita_140, Bantam_99, Baoshan_34, Baudelaire_38, Bazzle_35, Beleetus_112, Bellis_33, BigCheese_35, Bloom_194, BobsGarage_35, BooTeria_180, BourbonZero_32, BrainDrainer_33, Breezona_35, Bromden_34, BrutonGaster_111, Calm_32, Cardigan_149, Chaser_32, ChengKai98_35, Chilliams_187, ChutneyChips_33, CicholasNage_32, Claus_35, Clautastrophe_33, ClubL_137, Colossa_110, Cosmo_58, Crossroads_35, Cucurbita_138, Culver_136, DHan_36, DanBing_35, Daredevil_89, DatBoi_95, DirkDirk_32, Douge_32, Douzhi_32, DrSeegs_35, DuncansLeg_33, DunneganBoMo_181, Dusty_134, DyoEdafos_33, EhyElimayoE_42, Ellewin_181, Ellson_33, Emmetator_185, Enceladus_32, Engineer_139, EniyanLRS_55, Faith1_35, FarmResident_32, Finemlucis_35, Finnry_33, FloraSnap32_186, Frankenweenie_45, FrostedClock_190, Fudan_112, Gabriela_35, Gardann_35, Garnacho_107, Geeche_136, GiJojo_105, GoldenEssence_178, Greely_3, GuuelaD_35, Hafay_35, Halena_32, Hiraya_35, Itos_35, Jobypre_33, JoeDirt_32, JonJames_150, Jubie_33, JustBecause_33, KSunshine22_186, Kahlid_35, Kela_33, Kingsolomon_33, KirDoubleO7_31, Kradal_42, Kropertea_32, Krypton555_33, Laure_191, LeBron_32, LeoJr_192, Lewan_35, LilDestine_35, LiyuLake_33, Loadrie_35, Lolly9_33, Lozinak_137, LuckySocke_114, Lumos_33, Lynnae_35, MAckerman_32, MaryV_58, Miley16_35, Mimi_190, MiniLon_33, MiniMac_33, Miskis_132, MkaliMitinis3_35, Molivier_35, Mollymur_99, Moostard_33, MsGreen_33, Myrna_3, Netyap_35, Nicholas_33, Nicholasp3_35, Nirvana_43, Norvs_135, Octobien14_93, OhShagHennessy_32, OneUp_121, OverPar_35, PYPDinur_32, Panchaali_184, Park1214_116, Patbob_188, Phabba_3, PhinkBoden_136, Phrampa_183, Poochiewood_32, Quantum_41, Quby_32, Racecar_191, Red305_33, ReginaGlobina_196, Rockabye_190, Rose5_32, RoseMarie_53, Rossetti_35, Rumpelstiltskin_35, SJReid_193, Samty_33, Sarkar_42, Sarshaun_35, Satis_42, ScoobyDoobyDoo_6, Sheng711_32, Silverleaf_32, Smoothie_138, Snenia_33, SoJulia_36, Soap141_35, SpeedDemon_1010, Stewart25555_184, Talia1610_191, Talos_116, Toniann_137, Tourach_35, Towmatter_88, TriFive_33, Tyson_32, UPIE_32, Underpass_35, VanLee_110, Vetrix_35, WaddleDee_178, Wamburgrxpress_32, Whirlwind_34, Wigglewiggle_35, Wildcat_58, Wilder_35, WilliamBoone_135, Winky_35, Wyatt2_32, Yvonnetastic_147, Zakai_35, Zaria_32, ZhongYanYuan_34,

Summary by start number:

Start 7:
• Found in 1 of 268 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Octobien14_93 (DU1),

Start 15:
• Found in 1 of 268 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ScoobyDoobyDoo_6 (C2),

Start 17:
• Found in 83 of 268 (31.0%) of genes in pham

• Manual Annotations of this start: 74 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ablatia_3 (C1), Ading_3 (C1), Adlitam_3 (C1), Amataga_3 (C1), Atlantean_3 (C1), Audrick_3 (C1), Babyland_3 (C1), BadAgartude_3 (C1), Bangla1971_3 (C1), Belieber_3 (C1), Blackdragon_3 (C1), Cactojaque_2 (C1), ChaylaJr_3 (C1), ChickenPhender_3 (C1), Chomp_3 (C1), CindyLou_3 (C1), DTDevon_3 (C1), Delylah_3 (C1), Dessert_3 (C1), Dietrick_3 (C1), EmmaElysia_3 (C1), ErnieJ_3 (C1), Essence_3 (C1), FrayBell_3 (C1), Gabriel_3 (C1), Gamgam_3 (C1), Ghost_3 (C1), GlutenPhree_3 (C1), GoldenSnow_3 (C1), Guwapp_3 (C1), InigoMontoya_3 (C1), InterFolia_3 (C1), Janiyra_3 (C1), Jaygup_3 (C1), Jedediah_3 (C1), Jemmno_3 (C1), Jezreel_3 (C1), Kamryn_3 (C1), Koguma_3 (C1), Labradorite_3 (C1), Latch_3 (C1), LolaVinca_3 (C1), LordLeafolot_3 (C1), Maguvora_3 (C1), Matsumoto_3 (C1), Maturis_3 (C1), MoMoMixon_3 (C1), Momo_3 (C1), Naija_3 (C1), Napoleon13_3 (C1), Naval22_4 (C1), Ngannou_3 (C1), Nidhogg_3 (C1), NuevoMundo_3 (C1), Patter_3 (C1), PharkleMinkus_3 (C1), Phlegm_3 (C1), Phusco_3 (C1), Pier_3 (C1), Pio_3 (C1), Pivoine_3 (C1), Puhon_3 (C1), Pupusa_3 (C1), Rahel_3 (C1), Rizal_3 (C1), Ronan_3 (C1), Sauce_3 (C1), Shaqnato_3 (C1), Shnickers_3 (C1), SilverDipper_3 (C1), Spec_3 (C1), Sprinklers_3 (C1), Spud_3 (C1), StubbySaigey_3 (C1), Substance289_3 (C1), Tainan_3 (C1), Teardrop_3 (C1), Tortoise16_2 (C1), Trinitium_3 (C1), Turret_3 (C1), ValleyTerrace_3 (C1), Wally_3 (C1), YoungMoneyMata_3 (C1),

Start 20:
• Found in 3 of 268 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Greely_3 (C2), Myrna_3 (C2), Phabba_3 (C2),

Start 40:
• Found in 1 of 268 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RoseMarie_53 (M1),

Start 42:
• Found in 7 of 268 (2.6%) of genes in pham
• Manual Annotations of this start: 5 of 223
• Called 71.4% of time when present
• Phage (with cluster) where this start called: Azrael100_57 (V), Cosmo_58 (V), EniyanLRS_55 (V), MaryV_58 (V), Wildcat_58 (V),

Start 43:
• Found in 9 of 268 (3.4%) of genes in pham
• Manual Annotations of this start: 6 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Artu_182 (FC), BooTeria_180 (FC), DunneganBoMo_181 (FC), Ellewin_181 (FC), Emmetator_185 (FC), KSunshine22_186 (FC), Panchaali_184 (FC), Stewart25555_184 (FC), WaddleDee_178 (FC),

Start 44:
• Found in 18 of 268 (6.7%) of genes in pham

• Manual Annotations of this start: 17 of 223
• Called 94.4% of time when present
• Phage (with cluster) where this start called: Abscondus_136 (CQ1), Aphelion_136 (CQ1), Bachita_140 (CQ1), BrutonGaster_111 (CQ2), ClubL_137 (CQ1), Cucurbita_138 (CQ1), Culver_136 (CQ1), Dusty_134 (CQ1), Engineer_139 (CQ1), Lozinak_137 (CQ1), Miskis_132 (CQ1), Norvs_135 (CQ1), OneUp_121 (CQ2), PhinkBoden_136 (CQ1), Smoothie_138 (CQ1), Toniann_137 (CQ1), WilliamBoone_135 (CQ1),

Start 45:
• Found in 1 of 268 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chilliams_187 (FC),

Start 47:
• Found in 97 of 268 (36.2%) of genes in pham
• Manual Annotations of this start: 70 of 223
• Called 92.8% of time when present
• Phage (with cluster) where this start called: Acquire49_32 (L1), Appletree2_32 (L1), Archie_35 (L2), Atuin_183 (FC), AvadaKedavra_32 (L1), Baoshan_34 (L2), Bazzle_35 (L2), Bellis_33 (L3), BigCheese_35 (L2), BobsGarage_35 (L2), BourbonZero_32 (L3), Breezona_35 (L2), Calm_32 (L1), ChengKai98_35 (L2), CicholasNage_32 (L1), Claus_35 (L2), Clautastrophe_33 (L3), Crossroads_35 (L2), DHan_36 (L2), DanBing_35 (L2), Daredevil_89 (DL), DirkDirk_32 (L1), DrSeegs_35 (L2), DuncansLeg_33 (L3), Ellson_33 (L3), Enceladus_32 (L1), Faith1_35 (L2), Finemlucis_35 (L2), Finnry_33 (L3), Gabriela_35 (L2), Gardann_35 (L2), GuuelaD_35 (L2), Hafay_35 (L2), Halena_32 (L1), Hiraya_35 (L2), Itos_35 (L2), Jobypre_33 (L3), Jubie_33 (L3), Kahlid_35 (L2), Kingsolomon_33 (L3), KirDoubleO7_31 (L3), Krypton555_33 (L3), LeoJr_192 (FC), Lewan_35 (L2), LilDestine_35 (L2), LiyuLake_33 (L3), Loadrie_35 (L2), Lolly9_33 (L3), Lumos_33 (L3), Lynnae_35 (L2), MAckerman_32 (L1), Miley16_35 (L2), MiniLon_33 (L3), MiniMac_33 (L3), MkaliMitinis3_35 (L2), Molivier_35 (L2), Moostard_33 (L3), MsGreen_33 (L3), Netyap_35 (L2), Nicholas_33 (L3), Nicholasp3_35 (L2), OhShagHennessy_32 (L1), OverPar_35 (L2), Poochiewood_32 (L1), Red305_33 (L3), ReginaGlobina_196 (FC), Rose5_32 (L1), Rossetti_35 (L2), Rumpelstiltskin_35 (L2), Samty_33 (L3), Sarshaun_35 (L2), Silverleaf_32 (L1), Snenia_33 (L3), SoJulia_36 (L2), Soap141_35 (L2), Tourach_35 (L2), Towmatter_88 (DL), TriFive_33 (L3), Tyson_32 (L1), Underpass_35 (L2), Vetrix_35 (L2), Wamburgrxpress_32 (L1), Whirlwind_34 (L3), Wigglewiggle_35 (L2), Wilder_35 (L2), Winky_35 (L2), Wyatt2_32 (L1), Zakai_35 (L2), Zaria_32 (L1), ZhongYanYuan_34 (L2),

Start 48:
• Found in 7 of 268 (2.6%) of genes in pham
• Manual Annotations of this start: 6 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bloom_194 (FC), FrostedClock_190 (FC), GoldenEssence_178 (FC), Mimi_190 (FC), Phrampa_183 (FC), Racecar_191 (FC), Talia1610_191 (FC),

Start 49:
• Found in 21 of 268 (7.8%) of genes in pham
• Manual Annotations of this start: 14 of 223

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bantam_99 (DL), BrainDrainer_33 (L4), Bromden_34 (L4), Chaser_32 (L4), ChutneyChips_33 (L4), DatBoi_95 (DL), Douge_32 (L4), Douzhi_32 (L4), DyoEdafos_33 (L4), FarmResident_32 (L4), FloraSnap32_186 (FC), Kropertea_32 (L4), Laure_191 (UNK), Mollymur_99 (DL), PYPDinur_32 (L4), Patbob_188 (FC), Quby_32 (L4), Rockabye_190 (FC), SJReid_193 (FC), Sheng711_32 (L4), SpeedDemon_1010 (DL),

Start 50:
• Found in 2 of 268 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 223
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JonJames_150 (DD), Yvonnetastic_147 (DD),

Start 51:
• Found in 43 of 268 (16.0%) of genes in pham
• Manual Annotations of this start: 24 of 223
• Called 58.1% of time when present
• Phage (with cluster) where this start called: Aegeus_38 (L5), Alone3_118 (BS), BRock_108 (BS), Baudelaire_38 (L5), Beleetus_112 (BS), Cardigan_149 (DD), Colossa_110 (KA), EhyElimayoE_42 (BM), Fudan_112 (BS), Garnacho_107 (BS), GiJojo_105 (BS), JoeDirt_32 (L1), JustBecause_33 (BM), Kela_33 (BM), Kradal_42 (BM), LeBron_32 (L1), LuckySocke_114 (BS), Nirvana_43 (BM), Park1214_116 (BS), Quantum_41 (BM), Sarkar_42 (BM), Satis_42 (BM), Talos_116 (BS), UPIE_32 (L1), VanLee_110 (KA),

Start 62:
• Found in 15 of 268 (5.6%) of genes in pham
• Manual Annotations of this start: 1 of 223
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Frankenweenie_45 (BM),

Start 87:
• Found in 35 of 268 (13.1%) of genes in pham
• No Manual Annotations of this start.
• Called 2.9% of time when present
• Phage (with cluster) where this start called: Geeche_136 (CQ1),

Summary by clusters:

There are 19 clusters represented in this pham: DU1, DL, UNK, CQ2, BM, DD, BS, M1, L5, KA, L4, FC, L2, L3, L1, C2, C1, V, CQ1,

Info for manual annotations of cluster BM:
•Start number 51 was manually annotated 8 times for cluster BM.
•Start number 62 was manually annotated 1 time for cluster BM.

Info for manual annotations of cluster BS:
•Start number 51 was manually annotated 8 times for cluster BS.

Info for manual annotations of cluster C1:
•Start number 17 was manually annotated 74 times for cluster C1.

Info for manual annotations of cluster C2:
•Start number 15 was manually annotated 1 time for cluster C2.
•Start number 20 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster CQ1:
•Start number 44 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 44 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster DD:
•Start number 50 was manually annotated 2 times for cluster DD.
•Start number 51 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DL:
•Start number 47 was manually annotated 2 times for cluster DL.
•Start number 49 was manually annotated 4 times for cluster DL.

Info for manual annotations of cluster DU1:
•Start number 7 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster FC:
•Start number 43 was manually annotated 6 times for cluster FC.
•Start number 47 was manually annotated 1 time for cluster FC.
•Start number 48 was manually annotated 6 times for cluster FC.
•Start number 49 was manually annotated 4 times for cluster FC.

Info for manual annotations of cluster KA:
•Start number 51 was manually annotated 2 times for cluster KA.

Info for manual annotations of cluster L1:
•Start number 47 was manually annotated 16 times for cluster L1.
•Start number 51 was manually annotated 3 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 47 was manually annotated 32 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 47 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:
•Start number 49 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster L5:
•Start number 51 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster V:
•Start number 42 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Ablatia_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Ablatia_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Abscondus_136 Start: 75128, Stop: 75835, Start Num: 44
Candidate Starts for Abscondus_136:
(Start: 44 @75128 has 17 MA's), (68, 75236), (77, 75260), (87, 75308), (126, 75512), (135, 75572), (189, 75794),

Gene: Acquire49_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for Acquire49_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: Ading_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Ading_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Adlitam_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Adlitam_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Aegeus_38 Start: 32914, Stop: 32189, Start Num: 51
Candidate Starts for Aegeus_38:
(Start: 51 @32914 has 24 MA's), (78, 32779), (93, 32668), (94, 32665), (115, 32599), (116, 32593), (121, 32548), (141, 32425), (145, 32407), (147, 32401), (148, 32395), (160, 32347), (165, 32332), (166, 32329), (180, 32272),

Gene: Alone3_118 Start: 63397, Stop: 64086, Start Num: 51
Candidate Starts for Alone3_118:
(Start: 51 @63397 has 24 MA's), (Start: 62 @63463 has 1 MA's), (63, 63472), (88, 63595), (129, 63802), (148, 63895), (151, 63904), (172, 63976), (176, 63991), (180, 64018),

Gene: Amataga_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Amataga_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Aphelion_136 Start: 76000, Stop: 76707, Start Num: 44
Candidate Starts for Aphelion_136:
(Start: 44 @76000 has 17 MA's), (68, 76108), (77, 76132), (87, 76180), (126, 76384), (135, 76444), (189, 76666),

Gene: Appletree2_32 Start: 28926, Stop: 28174, Start Num: 47
Candidate Starts for Appletree2_32:
(Start: 47 @28926 has 70 MA's), (Start: 51 @28920 has 24 MA's), (83, 28758), (88, 28704), (90, 28695), (94, 28671), (97, 28662), (108, 28632), (115, 28605), (119, 28572), (121, 28554), (134, 28458), (135, 28452), (137, 28446), (141, 28431), (145, 28413), (147, 28407), (148, 28401), (165, 28338), (182, 28260), (189, 28230), (198, 28197),

Gene: Archie_35 Start: 30615, Stop: 29869, Start Num: 47
Candidate Starts for Archie_35:
(Start: 47 @30615 has 70 MA's), (53, 30597), (75, 30480), (78, 30471), (88, 30390), (94, 30357), (110, 30309), (115, 30291), (119, 30258), (121, 30240), (137, 30132), (141, 30117), (145, 30099), (147, 30093), (148, 30087), (149, 30084), (165, 30024), (173, 29994), (180, 29964), (192, 29904), (194, 29895), (197, 29886),

Gene: Artu_182 Start: 135788, Stop: 136462, Start Num: 43
Candidate Starts for Artu_182:
(Start: 43 @135788 has 6 MA's), (63, 135890), (87, 136001), (97, 136055), (98, 136061), (131, 136217), (147, 136283), (180, 136394),

Gene: Atlantean_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Atlantean_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Atuin_183 Start: 129201, Stop: 129866, Start Num: 47
Candidate Starts for Atuin_183:
(Start: 47 @129201 has 70 MA's), (63, 129285), (87, 129396), (98, 129456), (116, 129519), (131, 129612), (147, 129678), (148, 129684), (180, 129789),

Gene: Audrick_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Audrick_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: AvadaKedavra_32 Start: 28993, Stop: 28241, Start Num: 47
Candidate Starts for AvadaKedavra_32:
(Start: 47 @28993 has 70 MA's), (Start: 51 @28987 has 24 MA's), (83, 28825), (88, 28771), (94, 28738), (97, 28729), (108, 28699), (115, 28672), (119, 28639), (121, 28621), (135, 28519), (137, 28513), (141, 28498), (145, 28480), (147, 28474), (148, 28468), (165, 28405), (182, 28327), (189, 28297), (198, 28264),

Gene: Azrael100_57 Start: 41517, Stop: 40768, Start Num: 42
Candidate Starts for Azrael100_57:
(2, 41754), (3, 41742), (4, 41706), (6, 41661), (9, 41637), (31, 41553), (Start: 42 @41517 has 5 MA's), (52, 41478), (59, 41445), (Start: 62 @41418 has 1 MA's), (64, 41403), (67, 41379), (96, 41211), (100, 41196), (115, 41139), (134, 41037), (148, 40980), (150, 40968), (173, 40887), (180, 40857), (181, 40845), (187, 40818), (189, 40809), (190, 40803), (199, 40776),

Gene: BRock_108 Start: 57585, Stop: 58268, Start Num: 51
Candidate Starts for BRock_108:

(22, 57486), (Start: 51 @57585 has 24 MA's), (57, 57609), (60, 57630), (63, 57660), (64, 57666), (65, 57672), (82, 57729), (87, 57771), (91, 57795), (103, 57846), (129, 57984), (148, 58077), (152, 58092), (155, 58101), (163, 58122), (166, 58143), (172, 58158), (186, 58236), (189, 58248), (191, 58257),

Gene: Babyland_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Babyland_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Bachita_140 Start: 76138, Stop: 76845, Start Num: 44
Candidate Starts for Bachita_140:
(Start: 44 @76138 has 17 MA's), (68, 76246), (77, 76270), (87, 76318), (126, 76522), (135, 76582), (189, 76804),

Gene: BadAgartude_3 Start: 494, Stop: 1360, Start Num: 17
Candidate Starts for BadAgartude_3:
(Start: 17 @494 has 74 MA's), (29, 533), (52, 611), (57, 629), (60, 650), (64, 686), (70, 716), (83, 770), (93, 854), (95, 860), (97, 866), (109, 914), (114, 929), (142, 1121), (148, 1148), (156, 1181), (165, 1211), (187, 1313), (188, 1316),

Gene: Bangla1971_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Bangla1971_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Bantam_99 Start: 65318, Stop: 65998, Start Num: 49
Candidate Starts for Bantam_99:
(Start: 47 @65315 has 70 MA's), (Start: 49 @65318 has 14 MA's), (63, 65396), (68, 65420), (85, 65483), (88, 65507), (128, 65708), (143, 65780), (148, 65804), (193, 65990),

Gene: Baoshan_34 Start: 29947, Stop: 29201, Start Num: 47
Candidate Starts for Baoshan_34:
(Start: 47 @29947 has 70 MA's), (88, 29722), (94, 29689), (108, 29650), (115, 29623), (119, 29590), (121, 29572), (137, 29464), (141, 29449), (143, 29443), (145, 29431), (147, 29425), (148, 29419), (149, 29416), (165, 29356), (173, 29326), (180, 29296), (192, 29236), (194, 29227), (197, 29218),

Gene: Baudelaire_38 Start: 32914, Stop: 32189, Start Num: 51
Candidate Starts for Baudelaire_38:
(Start: 51 @32914 has 24 MA's), (78, 32779), (93, 32668), (94, 32665), (115, 32599), (116, 32593), (121, 32548), (141, 32425), (145, 32407), (147, 32401), (148, 32395), (160, 32347), (165, 32332), (166, 32329), (180, 32272),

Gene: Bazzle_35 Start: 30364, Stop: 29618, Start Num: 47
Candidate Starts for Bazzle_35:
(Start: 47 @30364 has 70 MA's), (53, 30346), (75, 30229), (78, 30220), (88, 30139), (94, 30106), (110, 30058), (115, 30040), (119, 30007), (121, 29989), (137, 29881), (141, 29866), (145, 29848), (147, 29842), (148, 29836), (149, 29833), (165, 29773), (173, 29743), (180, 29713), (192, 29653), (194, 29644), (197, 29635),

Gene: Beleetus_112 Start: 61004, Stop: 61693, Start Num: 51
Candidate Starts for Beleetus_112:

(Start: 51 @61004 has 24 MA's), (57, 61028), (63, 61079), (69, 61106), (71, 61112), (88, 61202), (129, 61409), (148, 61502), (172, 61583),

Gene: Belieber_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Belieber_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Bellis_33 Start: 30388, Stop: 29648, Start Num: 47
Candidate Starts for Bellis_33:
(Start: 47 @30388 has 70 MA's), (55, 30364), (61, 30328), (80, 30238), (110, 30082), (121, 30013), (125, 29992), (141, 29890), (145, 29872), (147, 29866), (148, 29860), (170, 29782), (182, 29719), (189, 29689),

Gene: BigCheese_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for BigCheese_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Blackdragon_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Blackdragon_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (109, 897), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (188, 1299),

Gene: Bloom_194 Start: 131939, Stop: 132589, Start Num: 48
Candidate Starts for Bloom_194:
(Start: 48 @131939 has 6 MA's), (63, 132020), (70, 132050), (97, 132185), (98, 132191), (131, 132347), (147, 132413), (148, 132419), (174, 132494), (185, 132551), (190, 132578),

Gene: BobsGarage_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for BobsGarage_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: BooTeria_180 Start: 135294, Stop: 135968, Start Num: 43
Candidate Starts for BooTeria_180:
(Start: 43 @135294 has 6 MA's), (55, 135336), (63, 135396), (87, 135507), (97, 135561), (98, 135567), (131, 135723), (147, 135789), (180, 135900),

Gene: BourbonZero_32 Start: 30339, Stop: 29599, Start Num: 47
Candidate Starts for BourbonZero_32:
(Start: 47 @30339 has 70 MA's), (55, 30315), (61, 30279), (80, 30189), (110, 30033), (118, 29991), (121, 29964), (125, 29943), (136, 29859), (141, 29841), (145, 29823), (147, 29817), (148, 29811), (182, 29670), (189, 29640),

Gene: BrainDrainer_33 Start: 29227, Stop: 28490, Start Num: 49
Candidate Starts for BrainDrainer_33:

(1, 29617), (35, 29281), (36, 29272), (Start: 49 @29227 has 14 MA's), (53, 29212), (55, 29206), (78, 29086), (96, 28966), (105, 28942), (110, 28924), (115, 28906), (121, 28855), (137, 28747), (141, 28732), (145, 28714), (147, 28708), (148, 28702),

Gene: Breezona_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Breezona_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Bromden_34 Start: 29644, Stop: 28907, Start Num: 49
Candidate Starts for Bromden_34:
(35, 29698), (36, 29689), (Start: 49 @29644 has 14 MA's), (53, 29629), (55, 29623), (78, 29503), (87, 29434), (96, 29383), (105, 29359), (110, 29341), (115, 29323), (121, 29272), (137, 29164), (141, 29149), (145, 29131), (147, 29125), (148, 29119), (160, 29071),

Gene: BrutonGaster_111 Start: 69747, Stop: 70487, Start Num: 44
Candidate Starts for BrutonGaster_111:
(Start: 44 @69747 has 17 MA's), (56, 69780), (85, 69924), (92, 69972), (151, 70278), (164, 70314), (173, 70350),

Gene: Cactojaque_2 Start: 407, Stop: 1273, Start Num: 17
Candidate Starts for Cactojaque_2:
(Start: 17 @407 has 74 MA's), (29, 446), (52, 524), (57, 542), (60, 563), (64, 599), (70, 629), (83, 683), (93, 767), (95, 773), (97, 779), (114, 842), (142, 1034), (148, 1061), (156, 1094), (165, 1124), (187, 1226), (188, 1229),

Gene: Calm_32 Start: 28998, Stop: 28246, Start Num: 47
Candidate Starts for Calm_32:
(Start: 47 @28998 has 70 MA's), (Start: 51 @28992 has 24 MA's), (83, 28830), (88, 28776), (90, 28767), (94, 28743), (97, 28734), (108, 28704), (115, 28677), (119, 28644), (121, 28626), (134, 28530), (135, 28524), (137, 28518), (141, 28503), (145, 28485), (147, 28479), (148, 28473), (165, 28410), (182, 28332), (189, 28302), (198, 28269),

Gene: Cardigan_149 Start: 82886, Stop: 83590, Start Num: 51
Candidate Starts for Cardigan_149:
(Start: 51 @82886 has 24 MA's), (56, 82904), (68, 82982), (77, 83006), (82, 83024), (89, 83084), (122, 83234), (138, 83324), (187, 83537),

Gene: Chaser_32 Start: 29045, Stop: 28308, Start Num: 49
Candidate Starts for Chaser_32:
(35, 29099), (36, 29090), (Start: 49 @29045 has 14 MA's), (53, 29030), (55, 29024), (96, 28784), (105, 28760), (110, 28742), (115, 28724), (121, 28673), (137, 28565), (141, 28550), (145, 28532), (147, 28526), (148, 28520), (160, 28472),

Gene: ChaylaJr_3 Start: 498, Stop: 1364, Start Num: 17
Candidate Starts for ChaylaJr_3:
(Start: 17 @498 has 74 MA's), (29, 537), (52, 615), (57, 633), (60, 654), (64, 690), (70, 720), (83, 774), (93, 858), (95, 864), (97, 870), (114, 933), (142, 1125), (148, 1152), (156, 1185), (165, 1215), (187, 1317), (188, 1320),

Gene: ChengKai98_35 Start: 30128, Stop: 29382, Start Num: 47

Candidate Starts for ChengKai98_35:
(Start: 47 @30128 has 70 MA's), (53, 30110), (69, 30017), (88, 29903), (94, 29870), (108, 29831), (115, 29804), (119, 29771), (121, 29753), (137, 29645), (141, 29630), (143, 29624), (145, 29612), (147, 29606), (148, 29600), (149, 29597), (165, 29537), (173, 29507), (180, 29477), (192, 29417), (194, 29408), (197, 29399),

Gene: ChickenPhender_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for ChickenPhender_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Chilliams_187 Start: 126484, Stop: 127137, Start Num: 45
Candidate Starts for Chilliams_187:
(45, 126484), (63, 126568), (87, 126679), (91, 126703), (98, 126739), (131, 126895), (148, 126967), (158, 127003), (179, 127069), (190, 127126),

Gene: Chomp_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Chomp_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: ChutneyChips_33 Start: 29224, Stop: 28487, Start Num: 49
Candidate Starts for ChutneyChips_33:
(35, 29278), (36, 29269), (Start: 49 @29224 has 14 MA's), (53, 29209), (55, 29203), (78, 29083), (96, 28963), (105, 28939), (110, 28921), (115, 28903), (121, 28852), (137, 28744), (141, 28729), (145, 28711), (147, 28705), (148, 28699), (160, 28651),

Gene: CicholasNage_32 Start: 28985, Stop: 28233, Start Num: 47
Candidate Starts for CicholasNage_32:
(Start: 47 @28985 has 70 MA's), (Start: 51 @28979 has 24 MA's), (83, 28817), (88, 28763), (90, 28754), (94, 28730), (97, 28721), (108, 28691), (115, 28664), (119, 28631), (121, 28613), (134, 28517), (135, 28511), (137, 28505), (141, 28490), (145, 28472), (147, 28466), (148, 28460), (165, 28397), (182, 28319), (189, 28289), (198, 28256),

Gene: CindyLou_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for CindyLou_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Claus_35 Start: 30103, Stop: 29357, Start Num: 47
Candidate Starts for Claus_35:
(34, 30151), (Start: 47 @30103 has 70 MA's), (88, 29878), (94, 29845), (108, 29806), (115, 29779), (119, 29746), (121, 29728), (137, 29620), (141, 29605), (145, 29587), (147, 29581), (148, 29575), (149, 29572), (165, 29512), (173, 29482), (180, 29452), (192, 29392), (194, 29383), (197, 29374),

Gene: Clautastrophe_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for Clautastrophe_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: ClubL_137 Start: 74712, Stop: 75419, Start Num: 44
Candidate Starts for ClubL_137:
(Start: 44 @74712 has 17 MA's), (68, 74820), (77, 74844), (87, 74892), (189, 75378),

Gene: Colossa_110 Start: 57884, Stop: 58597, Start Num: 51
Candidate Starts for Colossa_110:
(11, 57734), (39, 57845), (Start: 42 @57854 has 5 MA's), (Start: 47 @57878 has 70 MA's), (Start: 51 @57884 has 24 MA's), (60, 57929), (74, 58004), (94, 58109), (96, 58115), (97, 58118), (102, 58136), (130, 58286), (133, 58307), (161, 58409), (189, 58538),

Gene: Cosmo_58 Start: 41518, Stop: 40769, Start Num: 42
Candidate Starts for Cosmo_58:
(2, 41755), (3, 41743), (4, 41707), (6, 41662), (9, 41638), (31, 41554), (Start: 42 @41518 has 5 MA's), (52, 41479), (59, 41446), (Start: 62 @41419 has 1 MA's), (64, 41404), (67, 41380), (96, 41212), (100, 41197), (115, 41140), (134, 41038), (148, 40981), (150, 40969), (173, 40888), (180, 40858), (181, 40846), (187, 40819), (189, 40810), (190, 40804), (199, 40777),

Gene: Crossroads_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Crossroads_35:
(33, 30177), (Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Cucurbita_138 Start: 76451, Stop: 77158, Start Num: 44
Candidate Starts for Cucurbita_138:
(Start: 44 @76451 has 17 MA's), (68, 76559), (77, 76583), (87, 76631), (126, 76835), (189, 77117),

Gene: Culver_136 Start: 74454, Stop: 75161, Start Num: 44
Candidate Starts for Culver_136:
(Start: 44 @74454 has 17 MA's), (68, 74562), (77, 74586), (87, 74634), (126, 74838), (135, 74898), (189, 75120),

Gene: DHan_36 Start: 30039, Stop: 29293, Start Num: 47
Candidate Starts for DHan_36:
(Start: 47 @30039 has 70 MA's), (88, 29814), (94, 29781), (108, 29742), (115, 29715), (119, 29682), (121, 29664), (137, 29556), (141, 29541), (143, 29535), (145, 29523), (147, 29517), (148, 29511), (149, 29508), (165, 29448), (173, 29418), (180, 29388), (192, 29328), (194, 29319), (197, 29310),

Gene: DTDevon_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for DTDevon_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: DanBing_35 Start: 29943, Stop: 29197, Start Num: 47
Candidate Starts for DanBing_35:
(Start: 47 @29943 has 70 MA's), (88, 29718), (94, 29685), (108, 29646), (115, 29619), (119, 29586), (121, 29568), (137, 29460), (141, 29445), (143, 29439), (145, 29427), (147, 29421), (148, 29415), (149, 29412), (165, 29352), (173, 29322), (180, 29292), (192, 29232), (194, 29223), (197, 29214),

Gene: Daredevil_89 Start: 61004, Stop: 61684, Start Num: 47

Candidate Starts for Daredevil_89:
(Start: 47 @61004 has 70 MA's), (63, 61088), (65, 61100), (68, 61112), (99, 61253), (139, 61454), (159, 61529),

Gene: DatBoi_95 Start: 64460, Stop: 65134, Start Num: 49
Candidate Starts for DatBoi_95:
(Start: 49 @64460 has 14 MA's), (63, 64538), (68, 64562), (85, 64625), (128, 64844), (133, 64880), (136, 64892), (169, 65012), (171, 65018),

Gene: Delylah_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Delylah_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (188, 1295), (189, 1301),

Gene: Dessert_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Dessert_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Dietrick_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Dietrick_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: DirkDirk_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for DirkDirk_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (134, 28515), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: Douge_32 Start: 28983, Stop: 28246, Start Num: 49
Candidate Starts for Douge_32:
(1, 29373), (35, 29037), (36, 29028), (Start: 49 @28983 has 14 MA's), (53, 28968), (55, 28962), (78, 28842), (96, 28722), (105, 28698), (110, 28680), (115, 28662), (121, 28611), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (160, 28410),

Gene: Douzhi_32 Start: 29088, Stop: 28351, Start Num: 49
Candidate Starts for Douzhi_32:
(1, 29478), (35, 29142), (36, 29133), (Start: 49 @29088 has 14 MA's), (53, 29073), (55, 29067), (78, 28947), (96, 28827), (105, 28803), (110, 28785), (115, 28767), (121, 28716), (137, 28608), (141, 28593), (145, 28575), (147, 28569), (148, 28563),

Gene: DrSeegs_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for DrSeegs_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: DuncansLeg_33 Start: 30374, Stop: 29634, Start Num: 47
Candidate Starts for DuncansLeg_33:
(Start: 47 @30374 has 70 MA's), (55, 30350), (61, 30314), (80, 30224), (110, 30068), (121, 29999), (125, 29978), (136, 29894), (141, 29876), (145, 29858), (147, 29852), (148, 29846), (170, 29768), (182, 29705), (189, 29675),

Gene: DunneganBoMo_181 Start: 133952, Stop: 134626, Start Num: 43
Candidate Starts for DunneganBoMo_181:
(Start: 43 @133952 has 6 MA's), (55, 133994), (63, 134054), (87, 134165), (98, 134225), (131, 134381), (147, 134447), (180, 134558),

Gene: Dusty_134 Start: 74690, Stop: 75397, Start Num: 44
Candidate Starts for Dusty_134:
(Start: 44 @74690 has 17 MA's), (68, 74798), (77, 74822), (87, 74870), (126, 75074), (135, 75134), (189, 75356),

Gene: DyoEdafos_33 Start: 29180, Stop: 28443, Start Num: 49
Candidate Starts for DyoEdafos_33:
(Start: 49 @29180 has 14 MA's), (53, 29165), (55, 29159), (60, 29129), (78, 29039), (87, 28970), (94, 28925), (96, 28919), (105, 28895), (110, 28877), (115, 28859), (121, 28808), (137, 28700), (141, 28685), (145, 28667), (147, 28661), (148, 28655), (160, 28607), (173, 28562),

Gene: EhyElimayoE_42 Start: 24210, Stop: 23518, Start Num: 51
Candidate Starts for EhyElimayoE_42:
(Start: 51 @24210 has 24 MA's), (57, 24186), (Start: 62 @24144 has 1 MA's), (64, 24129), (79, 24075), (86, 24048), (96, 23988), (120, 23874), (147, 23733), (159, 23682), (166, 23652), (172, 23637), (182, 23577), (185, 23568),

Gene: Ellewin_181 Start: 134030, Stop: 134704, Start Num: 43
Candidate Starts for Ellewin_181:
(Start: 43 @134030 has 6 MA's), (55, 134072), (63, 134132), (87, 134243), (98, 134303), (131, 134459), (147, 134525), (180, 134636),

Gene: Ellson_33 Start: 30351, Stop: 29611, Start Num: 47
Candidate Starts for Ellson_33:
(34, 30405), (Start: 47 @30351 has 70 MA's), (55, 30327), (61, 30291), (80, 30201), (110, 30045), (121, 29976), (125, 29955), (136, 29871), (141, 29853), (145, 29835), (147, 29829), (148, 29823), (182, 29682),

Gene: EmmaElysia_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for EmmaElysia_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Emmetator_185 Start: 134158, Stop: 134832, Start Num: 43
Candidate Starts for Emmetator_185:
(Start: 43 @134158 has 6 MA's), (55, 134200), (63, 134260), (87, 134371), (98, 134431), (131, 134587), (147, 134653), (180, 134764),

Gene: Enceladus_32 Start: 28967, Stop: 28215, Start Num: 47
Candidate Starts for Enceladus_32:

(Start: 47 @28967 has 70 MA's), (Start: 51 @28961 has 24 MA's), (83, 28799), (88, 28745), (90, 28736), (94, 28712), (97, 28703), (108, 28673), (115, 28646), (119, 28613), (121, 28595), (134, 28499), (135, 28493), (137, 28487), (141, 28472), (145, 28454), (147, 28448), (148, 28442), (165, 28379), (182, 28301), (189, 28271), (198, 28238),

Gene: Engineer_139 Start: 76111, Stop: 76818, Start Num: 44
Candidate Starts for Engineer_139:
(Start: 44 @76111 has 17 MA's), (68, 76219), (77, 76243), (87, 76291), (126, 76495), (135, 76555), (189, 76777),

Gene: EniyanLRS_55 Start: 41216, Stop: 40467, Start Num: 42
Candidate Starts for EniyanLRS_55:
(2, 41453), (3, 41441), (4, 41405), (6, 41360), (9, 41336), (31, 41252), (Start: 42 @41216 has 5 MA's), (52, 41177), (59, 41144), (Start: 62 @41117 has 1 MA's), (64, 41102), (67, 41078), (96, 40910), (100, 40895), (115, 40838), (134, 40736), (148, 40679), (150, 40667), (173, 40586), (180, 40556), (181, 40544), (187, 40517), (189, 40508), (190, 40502), (199, 40475),

Gene: ErnieJ_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for ErnieJ_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Essence_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Essence_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Faith1_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Faith1_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: FarmResident_32 Start: 29027, Stop: 28290, Start Num: 49
Candidate Starts for FarmResident_32:
(1, 29417), (35, 29081), (36, 29072), (Start: 49 @29027 has 14 MA's), (53, 29012), (55, 29006), (78, 28886), (96, 28766), (105, 28742), (110, 28724), (115, 28706), (121, 28655), (137, 28547), (141, 28532), (145, 28514), (147, 28508), (148, 28502), (160, 28454),

Gene: Finemlucis_35 Start: 30402, Stop: 29656, Start Num: 47
Candidate Starts for Finemlucis_35:
(Start: 47 @30402 has 70 MA's), (53, 30384), (88, 30177), (94, 30144), (108, 30105), (115, 30078), (119, 30045), (121, 30027), (137, 29919), (141, 29904), (143, 29898), (145, 29886), (147, 29880), (148, 29874), (149, 29871), (165, 29811), (173, 29781), (180, 29751), (192, 29691), (194, 29682), (197, 29673),

Gene: Finnry_33 Start: 30390, Stop: 29650, Start Num: 47
Candidate Starts for Finnry_33:
(Start: 47 @30390 has 70 MA's), (55, 30366), (61, 30330), (80, 30240), (110, 30084), (121, 30015), (125, 29994), (141, 29892), (145, 29874), (147, 29868), (148, 29862), (170, 29784), (182, 29721),

(189, 29691),

Gene: FloraSnap32_186 Start: 130772, Stop: 131422, Start Num: 49
Candidate Starts for FloraSnap32_186:
(39, 130736), (Start: 49 @130772 has 14 MA's), (63, 130853), (70, 130883), (98, 131024), (131, 131180), (147, 131246), (148, 131252), (174, 131327), (185, 131384), (190, 131411),

Gene: Frankenweenie_45 Start: 24877, Stop: 24248, Start Num: 62
Candidate Starts for Frankenweenie_45:
(Start: 51 @24943 has 24 MA's), (57, 24919), (Start: 62 @24877 has 1 MA's), (63, 24868), (76, 24820), (79, 24808), (117, 24634), (134, 24517), (146, 24469), (147, 24466), (159, 24415), (172, 24370), (189, 24280),

Gene: FrayBell_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for FrayBell_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: FrostedClock_190 Start: 131809, Stop: 132459, Start Num: 48
Candidate Starts for FrostedClock_190:
(Start: 48 @131809 has 6 MA's), (63, 131890), (70, 131920), (97, 132055), (98, 132061), (131, 132217), (147, 132283), (148, 132289), (174, 132364), (185, 132421), (190, 132448),

Gene: Fudan_112 Start: 61607, Stop: 62296, Start Num: 51
Candidate Starts for Fudan_112:
(Start: 51 @61607 has 24 MA's), (57, 61631), (63, 61682), (88, 61805), (129, 62012), (148, 62105), (151, 62114), (172, 62186), (176, 62201), (180, 62228),

Gene: Gabriel_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Gabriel_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Gabriela_35 Start: 30388, Stop: 29642, Start Num: 47
Candidate Starts for Gabriela_35:
(Start: 47 @30388 has 70 MA's), (53, 30370), (88, 30163), (94, 30130), (108, 30091), (115, 30064), (119, 30031), (121, 30013), (137, 29905), (141, 29890), (143, 29884), (145, 29872), (147, 29866), (148, 29860), (149, 29857), (165, 29797), (173, 29767), (180, 29737), (192, 29677), (194, 29668), (197, 29659),

Gene: Gamgam_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Gamgam_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Gardann_35 Start: 30128, Stop: 29382, Start Num: 47
Candidate Starts for Gardann_35:
(Start: 47 @30128 has 70 MA's), (53, 30110), (69, 30017), (88, 29903), (94, 29870), (108, 29831), (115, 29804), (119, 29771), (121, 29753), (137, 29645), (141, 29630), (143, 29624), (145, 29612), (147, 29606), (148, 29600), (149, 29597), (165, 29537), (173, 29507), (180, 29477), (192, 29417),

(194, 29408), (197, 29399),

Gene: Garnacho_107 Start: 61225, Stop: 61914, Start Num: 51
Candidate Starts for Garnacho_107:
(Start: 51 @61225 has 24 MA's), (57, 61249), (60, 61270), (63, 61300), (64, 61306), (65, 61312), (88, 61423), (148, 61723), (166, 61789), (172, 61804),

Gene: Geeche_136 Start: 75093, Stop: 75620, Start Num: 87
Candidate Starts for Geeche_136:
(Start: 44 @74913 has 17 MA's), (68, 75021), (77, 75045), (87, 75093), (126, 75297), (135, 75357), (189, 75579),

Gene: Ghost_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Ghost_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: GiJojo_105 Start: 62109, Stop: 62801, Start Num: 51
Candidate Starts for GiJojo_105:
(30, 62031), (Start: 51 @62109 has 24 MA's), (60, 62154), (63, 62184), (64, 62190), (65, 62196), (84, 62274), (87, 62295), (94, 62340), (129, 62514), (148, 62607), (172, 62688),

Gene: GlutenPhree_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for GlutenPhree_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: GoldenEssence_178 Start: 126151, Stop: 126801, Start Num: 48
Candidate Starts for GoldenEssence_178:
(Start: 48 @126151 has 6 MA's), (63, 126232), (70, 126262), (98, 126403), (131, 126559), (147, 126625), (148, 126631), (174, 126706), (185, 126763), (190, 126790),

Gene: GoldenSnow_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for GoldenSnow_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Greely_3 Start: 1065, Stop: 1916, Start Num: 20
Candidate Starts for Greely_3:
(5, 984), (12, 1026), (Start: 20 @1065 has 2 MA's), (46, 1149), (54, 1170), (58, 1194), (64, 1239), (66, 1260), (71, 1275), (86, 1365), (93, 1416), (101, 1449), (109, 1476), (113, 1485), (127, 1593), (142, 1665), (148, 1692), (152, 1713), (153, 1716), (154, 1719), (168, 1764), (175, 1788), (195, 1887), (200, 1908),

Gene: GuuelaD_35 Start: 30160, Stop: 29414, Start Num: 47
Candidate Starts for GuuelaD_35:
(32, 30214), (Start: 47 @30160 has 70 MA's), (53, 30142), (88, 29935), (94, 29902), (108, 29863), (115, 29836), (119, 29803), (121, 29785), (137, 29677), (141, 29662), (143, 29656), (145, 29644), (147, 29638), (148, 29632), (149, 29629), (165, 29569), (173, 29539), (180, 29509), (192, 29449), (194, 29440), (197, 29431),

Gene: Guwapp_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Guwapp_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Hafay_35 Start: 30159, Stop: 29413, Start Num: 47
Candidate Starts for Hafay_35:
(Start: 47 @30159 has 70 MA's), (53, 30141), (75, 30024), (78, 30015), (88, 29934), (94, 29901), (108, 29862), (115, 29835), (119, 29802), (121, 29784), (137, 29676), (141, 29661), (143, 29655), (145, 29643), (147, 29637), (148, 29631), (149, 29628), (165, 29568), (173, 29538), (180, 29508), (192, 29448), (194, 29439), (197, 29430),

Gene: Halena_32 Start: 28994, Stop: 28242, Start Num: 47
Candidate Starts for Halena_32:
(Start: 47 @28994 has 70 MA's), (Start: 51 @28988 has 24 MA's), (83, 28826), (88, 28772), (94, 28739), (97, 28730), (108, 28700), (115, 28673), (119, 28640), (121, 28622), (135, 28520), (137, 28514), (141, 28499), (145, 28481), (147, 28475), (148, 28469), (165, 28406), (182, 28328), (189, 28298), (198, 28265),

Gene: Hiraya_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Hiraya_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: InigoMontoya_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for InigoMontoya_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: InterFolia_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for InterFolia_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Itos_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Itos_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Janiyra_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Janiyra_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Jaygup_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Jaygup_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Jedediah_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Jedediah_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Jemmno_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Jemmno_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Jezreel_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Jezreel_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Jobypre_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for Jobypre_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: JoeDirt_32 Start: 28959, Stop: 28213, Start Num: 51
Candidate Starts for JoeDirt_32:
(Start: 47 @28965 has 70 MA's), (Start: 51 @28959 has 24 MA's), (83, 28797), (88, 28743), (90, 28734), (94, 28710), (97, 28701), (108, 28671), (115, 28644), (119, 28611), (121, 28593), (134, 28497), (135, 28491), (137, 28485), (141, 28470), (145, 28452), (147, 28446), (148, 28440), (165, 28377), (182, 28299), (189, 28269), (198, 28236),

Gene: JonJames_150 Start: 83739, Stop: 84446, Start Num: 50
Candidate Starts for JonJames_150:
(Start: 50 @83739 has 2 MA's), (56, 83760), (68, 83838), (72, 83853), (89, 83940), (122, 84090), (138, 84180), (187, 84393),

Gene: Jubie_33 Start: 30388, Stop: 29648, Start Num: 47
Candidate Starts for Jubie_33:
(Start: 47 @30388 has 70 MA's), (55, 30364), (61, 30328), (80, 30238), (110, 30082), (121, 30013), (125, 29992), (141, 29890), (145, 29872), (147, 29866), (148, 29860), (170, 29782), (182, 29719), (189, 29689),

Gene: JustBecause_33 Start: 20081, Stop: 19389, Start Num: 51
Candidate Starts for JustBecause_33:
(9, 20231), (Start: 51 @20081 has 24 MA's), (52, 20075), (57, 20057), (Start: 62 @20015 has 1 MA's), (63, 20006), (79, 19946), (86, 19919), (117, 19772), (134, 19655), (147, 19604), (157, 19562), (159, 19553), (172, 19508), (182, 19448), (189, 19418),

Gene: KSunshine22_186 Start: 133047, Stop: 133721, Start Num: 43
Candidate Starts for KSunshine22_186:
(Start: 43 @133047 has 6 MA's), (63, 133149), (87, 133260), (97, 133314), (98, 133320), (131, 133476), (147, 133542), (180, 133653),

Gene: Kahlid_35 Start: 30131, Stop: 29385, Start Num: 47
Candidate Starts for Kahlid_35:
(Start: 47 @30131 has 70 MA's), (53, 30113), (75, 29996), (78, 29987), (88, 29906), (94, 29873), (108, 29834), (115, 29807), (119, 29774), (121, 29756), (137, 29648), (141, 29633), (143, 29627), (145, 29615), (147, 29609), (148, 29603), (149, 29600), (165, 29540), (173, 29510), (180, 29480), (192, 29420), (194, 29411), (197, 29402),

Gene: Kamryn_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Kamryn_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Kela_33 Start: 20036, Stop: 19344, Start Num: 51
Candidate Starts for Kela_33:
(16, 20126), (19, 20117), (37, 20078), (Start: 51 @20036 has 24 MA's), (52, 20030), (57, 20012), (Start: 62 @19970 has 1 MA's), (63, 19961), (79, 19901), (86, 19874), (117, 19727), (134, 19610), (147, 19559), (157, 19517), (159, 19508), (172, 19463), (182, 19403), (189, 19373),

Gene: Kingsolomon_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for Kingsolomon_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: KirDoubleO7_31 Start: 30384, Stop: 29644, Start Num: 47
Candidate Starts for KirDoubleO7_31:
(Start: 47 @30384 has 70 MA's), (55, 30360), (61, 30324), (80, 30234), (110, 30078), (121, 30009), (125, 29988), (136, 29904), (141, 29886), (145, 29868), (147, 29862), (148, 29856), (182, 29715), (189, 29685),

Gene: Koguma_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Koguma_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (109, 893), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Kradal_42 Start: 24210, Stop: 23518, Start Num: 51
Candidate Starts for Kradal_42:
(Start: 51 @24210 has 24 MA's), (57, 24186), (Start: 62 @24144 has 1 MA's), (64, 24129), (79, 24075), (86, 24048), (96, 23988), (120, 23874), (147, 23733), (159, 23682), (166, 23652), (172, 23637), (182, 23577), (185, 23568),

Gene: Kropertea_32 Start: 28987, Stop: 28250, Start Num: 49
Candidate Starts for Kropertea_32:
(Start: 49 @28987 has 14 MA's), (53, 28972), (55, 28966), (60, 28936), (78, 28846), (87, 28777), (94, 28732), (96, 28726), (105, 28702), (110, 28684), (115, 28666), (121, 28615), (137, 28507), (141,

28492), (145, 28474), (147, 28468), (148, 28462), (160, 28414), (173, 28369),

Gene: Krypton555_33 Start: 30293, Stop: 29553, Start Num: 47
Candidate Starts for Krypton555_33:
(Start: 47 @30293 has 70 MA's), (55, 30269), (61, 30233), (80, 30143), (110, 29987), (121, 29918), (125, 29897), (141, 29795), (145, 29777), (147, 29771), (148, 29765), (182, 29624), (189, 29594),

Gene: Labradorite_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Labradorite_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Latch_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Latch_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Laure_191 Start: 118946, Stop: 119599, Start Num: 49
Candidate Starts for Laure_191:
(Start: 49 @118946 has 14 MA's), (63, 119024), (90, 119156), (97, 119189), (98, 119195), (131, 119351), (134, 119366), (148, 119423), (172, 119486),

Gene: LeBron_32 Start: 29003, Stop: 28257, Start Num: 51
Candidate Starts for LeBron_32:
(Start: 47 @29009 has 70 MA's), (Start: 51 @29003 has 24 MA's), (83, 28841), (88, 28787), (90, 28778), (94, 28754), (97, 28745), (108, 28715), (115, 28688), (119, 28655), (121, 28637), (134, 28541), (135, 28535), (137, 28529), (141, 28514), (145, 28496), (147, 28490), (148, 28484), (165, 28421), (182, 28343), (189, 28313), (198, 28280),

Gene: LeoJr_192 Start: 129755, Stop: 130420, Start Num: 47
Candidate Starts for LeoJr_192:
(Start: 47 @129755 has 70 MA's), (63, 129839), (87, 129950), (98, 130010), (116, 130073), (131, 130166), (147, 130232), (148, 130238), (180, 130343),

Gene: Lewan_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Lewan_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: LilDestine_35 Start: 30125, Stop: 29379, Start Num: 47
Candidate Starts for LilDestine_35:
(Start: 47 @30125 has 70 MA's), (53, 30107), (69, 30014), (88, 29900), (94, 29867), (108, 29828), (115, 29801), (119, 29768), (121, 29750), (137, 29642), (141, 29627), (143, 29621), (145, 29609), (147, 29603), (148, 29597), (149, 29594), (165, 29534), (173, 29504), (180, 29474), (192, 29414), (194, 29405), (197, 29396),

Gene: LiyuLake_33 Start: 30342, Stop: 29602, Start Num: 47
Candidate Starts for LiyuLake_33:

(34, 30396), (Start: 47 @30342 has 70 MA's), (55, 30318), (61, 30282), (80, 30192), (110, 30036), (121, 29967), (125, 29946), (136, 29862), (141, 29844), (145, 29826), (147, 29820), (148, 29814), (182, 29673),

Gene: Loadrie_35 Start: 30158, Stop: 29412, Start Num: 47
Candidate Starts for Loadrie_35:
(Start: 47 @30158 has 70 MA's), (53, 30140), (88, 29933), (94, 29900), (108, 29861), (115, 29834), (119, 29801), (121, 29783), (137, 29675), (141, 29660), (143, 29654), (145, 29642), (147, 29636), (148, 29630), (149, 29627), (165, 29567), (173, 29537), (180, 29507), (192, 29447), (194, 29438), (197, 29429),

Gene: LolaVinca_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for LolaVinca_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Lolly9_33 Start: 30157, Stop: 29417, Start Num: 47
Candidate Starts for Lolly9_33:
(Start: 47 @30157 has 70 MA's), (55, 30133), (61, 30097), (80, 30007), (110, 29851), (121, 29782), (125, 29761), (141, 29659), (145, 29641), (147, 29635), (148, 29629), (182, 29488), (184, 29482), (188, 29464),

Gene: LordLeafolot_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for LordLeafolot_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Lozinak_137 Start: 75782, Stop: 76489, Start Num: 44
Candidate Starts for Lozinak_137:
(Start: 44 @75782 has 17 MA's), (68, 75890), (77, 75914), (87, 75962), (126, 76166), (135, 76226), (189, 76448),

Gene: LuckySocke_114 Start: 61556, Stop: 62245, Start Num: 51
Candidate Starts for LuckySocke_114:
(Start: 51 @61556 has 24 MA's), (57, 61580), (63, 61631), (88, 61754), (129, 61961), (148, 62054), (151, 62063), (172, 62135), (176, 62150), (180, 62177),

Gene: Lumos_33 Start: 30384, Stop: 29644, Start Num: 47
Candidate Starts for Lumos_33:
(Start: 47 @30384 has 70 MA's), (55, 30360), (61, 30324), (80, 30234), (110, 30078), (121, 30009), (125, 29988), (141, 29886), (145, 29868), (147, 29862), (148, 29856), (170, 29778), (182, 29715), (189, 29685),

Gene: Lynnae_35 Start: 30114, Stop: 29368, Start Num: 47
Candidate Starts for Lynnae_35:
(Start: 47 @30114 has 70 MA's), (53, 30096), (75, 29979), (78, 29970), (88, 29889), (94, 29856), (108, 29817), (115, 29790), (119, 29757), (121, 29739), (137, 29631), (141, 29616), (143, 29610), (145, 29598), (147, 29592), (148, 29586), (149, 29583), (165, 29523), (173, 29493), (180, 29463), (192, 29403), (194, 29394), (197, 29385),

Gene: MAckerman_32 Start: 28983, Stop: 28231, Start Num: 47

Candidate Starts for MAckerman_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: Maguvora_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Maguvora_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: MaryV_58 Start: 41503, Stop: 40754, Start Num: 42
Candidate Starts for MaryV_58:
(2, 41740), (3, 41728), (4, 41692), (6, 41647), (9, 41623), (31, 41539), (Start: 42 @41503 has 5 MA's), (52, 41464), (59, 41431), (Start: 62 @41404 has 1 MA's), (64, 41389), (67, 41365), (96, 41197), (100, 41182), (115, 41125), (134, 41023), (148, 40966), (150, 40954), (173, 40873), (180, 40843), (181, 40831), (187, 40804), (189, 40795), (190, 40789), (199, 40762),

Gene: Matsumoto_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Matsumoto_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Maturis_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Maturis_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (188, 1299),

Gene: Miley16_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Miley16_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Mimi_190 Start: 131559, Stop: 132209, Start Num: 48
Candidate Starts for Mimi_190:
(Start: 48 @131559 has 6 MA's), (63, 131640), (70, 131670), (97, 131805), (98, 131811), (131, 131967), (147, 132033), (148, 132039), (174, 132114), (185, 132171), (190, 132198),

Gene: MiniLon_33 Start: 30158, Stop: 29418, Start Num: 47
Candidate Starts for MiniLon_33:
(Start: 47 @30158 has 70 MA's), (55, 30134), (61, 30098), (80, 30008), (110, 29852), (121, 29783), (125, 29762), (141, 29660), (145, 29642), (147, 29636), (148, 29630), (182, 29489), (184, 29483), (188, 29465),

Gene: MiniMac_33 Start: 30158, Stop: 29418, Start Num: 47
Candidate Starts for MiniMac_33:
(Start: 47 @30158 has 70 MA's), (55, 30134), (61, 30098), (80, 30008), (110, 29852), (121, 29783), (125, 29762), (141, 29660), (145, 29642), (147, 29636), (148, 29630), (182, 29489), (184, 29483),

(188, 29465),

Gene: Miskis_132 Start: 75213, Stop: 75920, Start Num: 44
Candidate Starts for Miskis_132:
(Start: 44 @75213 has 17 MA's), (68, 75321), (77, 75345), (87, 75393), (189, 75879),

Gene: MkaliMitinis3_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for MkaliMitinis3_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (75, 29991), (78, 29982), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: MoMoMixon_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for MoMoMixon_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (168, 1199), (172, 1211), (188, 1295),

Gene: Molivier_35 Start: 30123, Stop: 29377, Start Num: 47
Candidate Starts for Molivier_35:
(Start: 47 @30123 has 70 MA's), (53, 30105), (88, 29898), (94, 29865), (108, 29826), (115, 29799), (119, 29766), (121, 29748), (137, 29640), (141, 29625), (143, 29619), (145, 29607), (147, 29601), (148, 29595), (149, 29592), (165, 29532), (173, 29502), (180, 29472), (192, 29412), (194, 29403), (197, 29394),

Gene: Mollymur_99 Start: 66160, Stop: 66834, Start Num: 49
Candidate Starts for Mollymur_99:
(23, 66079), (Start: 49 @66160 has 14 MA's), (63, 66238), (68, 66262), (85, 66325), (128, 66544), (133, 66580), (136, 66592), (148, 66640), (169, 66712), (193, 66826),

Gene: Momo_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Momo_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Moostard_33 Start: 30389, Stop: 29649, Start Num: 47
Candidate Starts for Moostard_33:
(Start: 47 @30389 has 70 MA's), (55, 30365), (61, 30329), (80, 30239), (110, 30083), (121, 30014), (125, 29993), (141, 29891), (145, 29873), (147, 29867), (148, 29861), (170, 29783), (182, 29720), (189, 29690),

Gene: MsGreen_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for MsGreen_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: Myrna_3 Start: 913, Stop: 1767, Start Num: 20
Candidate Starts for Myrna_3:
(Start: 20 @913 has 2 MA's), (46, 1000), (54, 1021), (58, 1045), (64, 1090), (66, 1111), (70, 1123), (71, 1126), (90, 1246), (93, 1267), (101, 1300), (106, 1312), (111, 1330), (113, 1336), (127, 1444), (134,

1486), (142, 1516), (148, 1543), (153, 1567), (154, 1570), (165, 1606), (167, 1612), (168, 1615), (175, 1639),

Gene: Naija_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Naija_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Napoleon13_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Napoleon13_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Naval22_4 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Naval22_4:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (168, 1199), (172, 1211), (188, 1295),

Gene: Netyap_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Netyap_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Ngannou_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Ngannou_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Nicholas_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for Nicholas_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: Nicholasp3_35 Start: 30128, Stop: 29382, Start Num: 47
Candidate Starts for Nicholasp3_35:
(Start: 47 @30128 has 70 MA's), (53, 30110), (69, 30017), (88, 29903), (94, 29870), (108, 29831), (115, 29804), (119, 29771), (121, 29753), (137, 29645), (141, 29630), (143, 29624), (145, 29612), (147, 29606), (148, 29600), (149, 29597), (165, 29537), (173, 29507), (180, 29477), (192, 29417), (194, 29408), (197, 29399),

Gene: Nidhogg_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Nidhogg_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (168, 1199), (172, 1211), (188, 1295),

Gene: Nirvana_43 Start: 25143, Stop: 24448, Start Num: 51
Candidate Starts for Nirvana_43:
(16, 25266), (21, 25245), (24, 25233), (25, 25230), (28, 25224), (Start: 51 @25143 has 24 MA's), (57, 25119), (60, 25098), (Start: 62 @25077 has 1 MA's), (63, 25068), (76, 25020), (79, 25008), (81, 25005), (104, 24894), (109, 24876), (112, 24870), (117, 24834), (172, 24570), (194, 24459),

Gene: Norvs_135 Start: 75176, Stop: 75883, Start Num: 44
Candidate Starts for Norvs_135:
(Start: 44 @75176 has 17 MA's), (68, 75284), (77, 75308), (87, 75356), (126, 75560), (135, 75620), (189, 75842),

Gene: NuevoMundo_3 Start: 470, Stop: 1336, Start Num: 17
Candidate Starts for NuevoMundo_3:
(Start: 17 @470 has 74 MA's), (29, 509), (52, 587), (57, 605), (60, 626), (64, 662), (70, 692), (83, 746), (93, 830), (95, 836), (97, 842), (114, 905), (116, 917), (142, 1097), (148, 1124), (156, 1157), (165, 1187), (187, 1289), (188, 1292),

Gene: Octobien14_93 Start: 55909, Stop: 56829, Start Num: 7
Candidate Starts for Octobien14_93:
(Start: 7 @55909 has 1 MA's), (54, 56086), (63, 56149), (64, 56155), (86, 56266), (114, 56392), (115, 56398), (116, 56404), (123, 56461), (137, 56560), (139, 56569), (145, 56593), (148, 56605), (165, 56668), (166, 56671), (183, 56749), (189, 56776), (200, 56821),

Gene: OhShagHennessy_32 Start: 28948, Stop: 28196, Start Num: 47
Candidate Starts for OhShagHennessy_32:
(Start: 47 @28948 has 70 MA's), (Start: 51 @28942 has 24 MA's), (83, 28780), (88, 28726), (90, 28717), (94, 28693), (97, 28684), (108, 28654), (115, 28627), (119, 28594), (121, 28576), (134, 28480), (135, 28474), (137, 28468), (141, 28453), (145, 28435), (147, 28429), (148, 28423), (165, 28360), (182, 28282), (189, 28252), (198, 28219),

Gene: OneUp_121 Start: 73707, Stop: 74444, Start Num: 44
Candidate Starts for OneUp_121:
(Start: 44 @73707 has 17 MA's), (56, 73740), (70, 73824), (85, 73884), (92, 73932), (135, 74169), (173, 74310), (191, 74400),

Gene: OverPar_35 Start: 30158, Stop: 29412, Start Num: 47
Candidate Starts for OverPar_35:
(Start: 47 @30158 has 70 MA's), (53, 30140), (88, 29933), (94, 29900), (108, 29861), (115, 29834), (119, 29801), (121, 29783), (137, 29675), (141, 29660), (143, 29654), (145, 29642), (147, 29636), (148, 29630), (149, 29627), (165, 29567), (173, 29537), (180, 29507), (192, 29447), (194, 29438), (197, 29429),

Gene: PYPDinur_32 Start: 29088, Stop: 28351, Start Num: 49
Candidate Starts for PYPDinur_32:
(1, 29478), (35, 29142), (36, 29133), (Start: 49 @29088 has 14 MA's), (53, 29073), (55, 29067), (78, 28947), (96, 28827), (105, 28803), (110, 28785), (115, 28767), (121, 28716), (137, 28608), (141, 28593), (145, 28575), (147, 28569), (148, 28563),

Gene: Panchaali_184 Start: 135235, Stop: 135906, Start Num: 43
Candidate Starts for Panchaali_184:
(Start: 43 @135235 has 6 MA's), (55, 135274), (63, 135334), (87, 135445), (98, 135505), (116, 135568), (131, 135661), (147, 135727), (180, 135838), (190, 135892),

Gene: Park1214_116 Start: 62459, Stop: 63148, Start Num: 51
Candidate Starts for Park1214_116:
(Start: 51 @62459 has 24 MA's), (57, 62483), (63, 62534), (87, 62645), (88, 62657), (129, 62864), (148, 62957), (163, 63002), (166, 63023), (172, 63038), (176, 63053),

Gene: Patbob_188 Start: 131947, Stop: 132597, Start Num: 49
Candidate Starts for Patbob_188:
(39, 131911), (Start: 49 @131947 has 14 MA's), (63, 132028), (70, 132058), (98, 132199), (131, 132355), (147, 132421), (148, 132427), (174, 132502), (185, 132559), (190, 132586),

Gene: Patter_3 Start: 494, Stop: 1360, Start Num: 17
Candidate Starts for Patter_3:
(Start: 17 @494 has 74 MA's), (29, 533), (52, 611), (57, 629), (60, 650), (64, 686), (70, 716), (83, 770), (93, 854), (95, 860), (97, 866), (114, 929), (142, 1121), (148, 1148), (156, 1181), (165, 1211), (187, 1313), (188, 1316),

Gene: Phabba_3 Start: 1059, Stop: 1910, Start Num: 20
Candidate Starts for Phabba_3:
(12, 1020), (Start: 20 @1059 has 2 MA's), (46, 1143), (54, 1164), (58, 1188), (64, 1233), (86, 1359), (93, 1410), (101, 1443), (109, 1470), (127, 1587), (134, 1629), (142, 1659), (148, 1686), (154, 1713), (168, 1758), (175, 1782), (187, 1848), (189, 1857),

Gene: PharkleMinkus_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for PharkleMinkus_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: PhinkBoden_136 Start: 76041, Stop: 76748, Start Num: 44
Candidate Starts for PhinkBoden_136:
(Start: 44 @76041 has 17 MA's), (68, 76149), (77, 76173), (87, 76221), (189, 76707),

Gene: Phlegm_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Phlegm_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Phrampa_183 Start: 131310, Stop: 131960, Start Num: 48
Candidate Starts for Phrampa_183:
(Start: 48 @131310 has 6 MA's), (63, 131391), (70, 131421), (97, 131556), (98, 131562), (124, 131679), (131, 131718), (147, 131784), (174, 131865), (179, 131892), (190, 131949),

Gene: Phusco_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Phusco_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Pier_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Pier_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187,

1292), (188, 1295),

Gene: Pio_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Pio_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Pivoine_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Pivoine_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Poochiewood_32 Start: 28984, Stop: 28232, Start Num: 47
Candidate Starts for Poochiewood_32:
(Start: 47 @28984 has 70 MA's), (Start: 51 @28978 has 24 MA's), (83, 28816), (88, 28762), (94, 28729), (97, 28720), (108, 28690), (115, 28663), (119, 28630), (121, 28612), (135, 28510), (137, 28504), (141, 28489), (145, 28471), (147, 28465), (148, 28459), (165, 28396), (182, 28318), (189, 28288), (198, 28255),

Gene: Puhon_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Puhon_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Pupusa_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Pupusa_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (133, 1067), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Quantum_41 Start: 24210, Stop: 23518, Start Num: 51
Candidate Starts for Quantum_41:
(Start: 51 @24210 has 24 MA's), (57, 24186), (Start: 62 @24144 has 1 MA's), (64, 24129), (79, 24075), (86, 24048), (96, 23988), (120, 23874), (147, 23733), (159, 23682), (166, 23652), (172, 23637), (182, 23577), (185, 23568),

Gene: Quby_32 Start: 28982, Stop: 28245, Start Num: 49
Candidate Starts for Quby_32:
(1, 29372), (35, 29036), (36, 29027), (Start: 49 @28982 has 14 MA's), (53, 28967), (55, 28961), (78, 28841), (96, 28721), (105, 28697), (110, 28679), (115, 28661), (121, 28610), (137, 28502), (141, 28487), (145, 28469), (147, 28463), (148, 28457), (160, 28409),

Gene: Racecar_191 Start: 131722, Stop: 132372, Start Num: 48
Candidate Starts for Racecar_191:
(Start: 48 @131722 has 6 MA's), (63, 131803), (70, 131833), (97, 131968), (98, 131974), (131, 132130), (148, 132202), (174, 132277), (179, 132304), (185, 132334), (187, 132346), (190, 132361),

Gene: Rahel_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Rahel_3:

(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Red305_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for Red305_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: ReginaGlobina_196 Start: 131038, Stop: 131703, Start Num: 47
Candidate Starts for ReginaGlobina_196:
(Start: 47 @131038 has 70 MA's), (63, 131122), (87, 131233), (98, 131293), (116, 131356), (131, 131449), (147, 131515), (148, 131521), (180, 131626),

Gene: Rizal_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Rizal_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Rockabye_190 Start: 125265, Stop: 125918, Start Num: 49
Candidate Starts for Rockabye_190:
(8, 125112), (10, 125115), (13, 125130), (14, 125133), (18, 125157), (39, 125229), (41, 125232), (Start: 49 @125265 has 14 MA's), (54, 125280), (56, 125289), (63, 125343), (64, 125349), (65, 125355), (98, 125514), (111, 125553), (123, 125628), (125, 125637), (131, 125670), (177, 125829), (189, 125895),

Gene: Ronan_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Ronan_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (109, 876), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Rose5_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for Rose5_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (134, 28515), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: RoseMarie_53 Start: 39590, Stop: 38793, Start Num: 40
Candidate Starts for RoseMarie_53:
(40, 39590), (60, 39506), (63, 39476), (64, 39470), (83, 39374), (93, 39290), (95, 39284), (104, 39248), (107, 39239), (127, 39101), (131, 39074), (132, 39071), (142, 39029), (148, 39002), (164, 38948), (173, 38909), (178, 38894), (189, 38831), (196, 38801),

Gene: Rossetti_35 Start: 30398, Stop: 29652, Start Num: 47
Candidate Starts for Rossetti_35:
(Start: 47 @30398 has 70 MA's), (53, 30380), (78, 30254), (88, 30173), (94, 30140), (108, 30101), (115, 30074), (119, 30041), (121, 30023), (137, 29915), (141, 29900), (143, 29894), (145, 29882), (147, 29876), (148, 29870), (149, 29867), (165, 29807), (173, 29777), (180, 29747), (192, 29687), (194, 29678),

Gene: Rumpelstiltskin_35 Start: 30394, Stop: 29648, Start Num: 47
Candidate Starts for Rumpelstiltskin_35:
(Start: 47 @30394 has 70 MA's), (53, 30376), (88, 30169), (94, 30136), (108, 30097), (115, 30070), (119, 30037), (121, 30019), (137, 29911), (141, 29896), (143, 29890), (145, 29878), (147, 29872), (148, 29866), (149, 29863), (165, 29803), (173, 29773), (180, 29743), (192, 29683), (194, 29674), (197, 29665),

Gene: SJReid_193 Start: 123863, Stop: 124516, Start Num: 49
Candidate Starts for SJReid_193:
(39, 123827), (41, 123830), (Start: 49 @123863 has 14 MA's), (56, 123887), (63, 123941), (68, 123965), (98, 124112), (123, 124226), (125, 124235), (131, 124268), (147, 124334), (177, 124427), (189, 124493),

Gene: Samty_33 Start: 30388, Stop: 29648, Start Num: 47
Candidate Starts for Samty_33:
(Start: 47 @30388 has 70 MA's), (55, 30364), (61, 30328), (80, 30238), (110, 30082), (121, 30013), (125, 29992), (141, 29890), (145, 29872), (147, 29866), (148, 29860), (170, 29782), (182, 29719), (189, 29689),

Gene: Sarkar_42 Start: 24210, Stop: 23518, Start Num: 51
Candidate Starts for Sarkar_42:
(Start: 51 @24210 has 24 MA's), (57, 24186), (Start: 62 @24144 has 1 MA's), (64, 24129), (79, 24075), (86, 24048), (96, 23988), (120, 23874), (147, 23733), (159, 23682), (166, 23652), (172, 23637), (182, 23577), (185, 23568),

Gene: Sarshaun_35 Start: 30159, Stop: 29413, Start Num: 47
Candidate Starts for Sarshaun_35:
(Start: 47 @30159 has 70 MA's), (53, 30141), (75, 30024), (78, 30015), (88, 29934), (94, 29901), (108, 29862), (115, 29835), (119, 29802), (121, 29784), (137, 29676), (141, 29661), (143, 29655), (145, 29643), (147, 29637), (148, 29631), (149, 29628), (165, 29568), (173, 29538), (180, 29508), (192, 29448), (194, 29439), (197, 29430),

Gene: Satis_42 Start: 24206, Stop: 23514, Start Num: 51
Candidate Starts for Satis_42:
(Start: 51 @24206 has 24 MA's), (57, 24182), (Start: 62 @24140 has 1 MA's), (64, 24125), (79, 24071), (86, 24044), (96, 23984), (120, 23870), (147, 23729), (159, 23678), (166, 23648), (172, 23633), (182, 23573), (185, 23564),

Gene: Sauce_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Sauce_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (109, 897), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: ScoobyDoobyDoo_6 Start: 1594, Stop: 2481, Start Num: 15
Candidate Starts for ScoobyDoobyDoo_6:
(Start: 15 @1594 has 1 MA's), (26, 1627), (29, 1633), (46, 1702), (54, 1723), (64, 1792), (70, 1825), (73, 1837), (74, 1840), (93, 1969), (101, 2002), (142, 2221), (144, 2227), (148, 2248), (152, 2269), (153, 2272), (154, 2275), (165, 2311), (168, 2320), (181, 2383), (187, 2410), (189, 2419), (201, 2470),

Gene: Shaqnato_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Shaqnato_3:

(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (109, 893), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Sheng711_32 Start: 29088, Stop: 28351, Start Num: 49
Candidate Starts for Sheng711_32:
(1, 29478), (35, 29142), (36, 29133), (Start: 49 @29088 has 14 MA's), (53, 29073), (55, 29067), (78, 28947), (96, 28827), (105, 28803), (110, 28785), (115, 28767), (121, 28716), (137, 28608), (141, 28593), (145, 28575), (147, 28569), (148, 28563),

Gene: Shnickers_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Shnickers_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: SilverDipper_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for SilverDipper_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Silverleaf_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for Silverleaf_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: Smoothie_138 Start: 75782, Stop: 76489, Start Num: 44
Candidate Starts for Smoothie_138:
(Start: 44 @75782 has 17 MA's), (68, 75890), (77, 75914), (87, 75962), (126, 76166), (135, 76226), (189, 76448),

Gene: Snenia_33 Start: 30388, Stop: 29648, Start Num: 47
Candidate Starts for Snenia_33:
(Start: 47 @30388 has 70 MA's), (55, 30364), (61, 30328), (80, 30238), (110, 30082), (121, 30013), (125, 29992), (141, 29890), (145, 29872), (147, 29866), (148, 29860), (170, 29782), (182, 29719), (189, 29689),

Gene: SoJulia_36 Start: 30387, Stop: 29641, Start Num: 47
Candidate Starts for SoJulia_36:
(Start: 47 @30387 has 70 MA's), (53, 30369), (88, 30162), (94, 30129), (108, 30090), (115, 30063), (119, 30030), (121, 30012), (137, 29904), (141, 29889), (143, 29883), (145, 29871), (147, 29865), (148, 29859), (149, 29856), (165, 29796), (173, 29766), (180, 29736), (192, 29676), (194, 29667), (197, 29658),

Gene: Soap141_35 Start: 30159, Stop: 29413, Start Num: 47
Candidate Starts for Soap141_35:
(Start: 47 @30159 has 70 MA's), (53, 30141), (75, 30024), (78, 30015), (88, 29934), (94, 29901), (108, 29862), (115, 29835), (119, 29802), (121, 29784), (137, 29676), (141, 29661), (143, 29655), (145, 29643), (147, 29637), (148, 29631), (149, 29628), (165, 29568), (173, 29538), (180, 29508), (192, 29448), (194, 29439), (197, 29430),

Gene: Spec_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Spec_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: SpeedDemon_1010 Start: 67850, Stop: 68530, Start Num: 49
Candidate Starts for SpeedDemon_1010:
(Start: 47 @67847 has 70 MA's), (Start: 49 @67850 has 14 MA's), (63, 67928), (68, 67952), (85, 68015), (88, 68039), (128, 68240), (148, 68336), (193, 68522),

Gene: Sprinklers_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Sprinklers_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (109, 876), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Spud_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Spud_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Stewart25555_184 Start: 132128, Stop: 132799, Start Num: 43
Candidate Starts for Stewart25555_184:
(Start: 43 @132128 has 6 MA's), (55, 132167), (63, 132227), (87, 132338), (98, 132398), (116, 132461), (131, 132554), (147, 132620), (180, 132731),

Gene: StubbySaigey_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for StubbySaigey_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Substance289_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Substance289_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Tainan_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Tainan_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Talia1610_191 Start: 132018, Stop: 132668, Start Num: 48
Candidate Starts for Talia1610_191:
(Start: 48 @132018 has 6 MA's), (63, 132099), (70, 132129), (97, 132264), (98, 132270), (131, 132426), (147, 132492), (148, 132498), (174, 132573), (179, 132600), (190, 132657),

Gene: Talos_116 Start: 61418, Stop: 62107, Start Num: 51

Candidate Starts for Talos_116:
(Start: 51 @61418 has 24 MA's), (57, 61442), (60, 61463), (63, 61493), (64, 61499), (65, 61505), (88, 61616), (94, 61649), (112, 61712), (129, 61823), (148, 61916), (151, 61925), (163, 61961), (172, 61997), (186, 62075),

Gene: Teardrop_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Teardrop_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Toniann_137 Start: 75311, Stop: 76018, Start Num: 44
Candidate Starts for Toniann_137:
(Start: 44 @75311 has 17 MA's), (68, 75419), (77, 75443), (87, 75491), (189, 75977),

Gene: Tortoise16_2 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Tortoise16_2:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Tourach_35 Start: 30120, Stop: 29374, Start Num: 47
Candidate Starts for Tourach_35:
(Start: 47 @30120 has 70 MA's), (53, 30102), (78, 29976), (88, 29895), (94, 29862), (108, 29823), (115, 29796), (119, 29763), (121, 29745), (137, 29637), (141, 29622), (145, 29604), (147, 29598), (148, 29592), (149, 29589), (165, 29529), (173, 29499), (180, 29469), (192, 29409), (194, 29400), (197, 29391),

Gene: Towmatter_88 Start: 61086, Stop: 61766, Start Num: 47
Candidate Starts for Towmatter_88:
(Start: 47 @61086 has 70 MA's), (63, 61170), (65, 61182), (68, 61194), (99, 61335), (139, 61536), (159, 61611),

Gene: TriFive_33 Start: 30387, Stop: 29647, Start Num: 47
Candidate Starts for TriFive_33:
(Start: 47 @30387 has 70 MA's), (55, 30363), (61, 30327), (80, 30237), (110, 30081), (121, 30012), (125, 29991), (141, 29889), (145, 29871), (147, 29865), (148, 29859), (170, 29781), (182, 29718), (189, 29688),

Gene: Trinitium_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for Trinitium_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Turret_3 Start: 456, Stop: 1322, Start Num: 17
Candidate Starts for Turret_3:
(Start: 17 @456 has 74 MA's), (29, 495), (52, 573), (57, 591), (60, 612), (64, 648), (70, 678), (83, 732), (93, 816), (95, 822), (97, 828), (114, 891), (142, 1083), (148, 1110), (156, 1143), (165, 1173), (187, 1275), (188, 1278),

Gene: Tyson_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for Tyson_32:

(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: UPIE_32 Start: 28975, Stop: 28229, Start Num: 51
Candidate Starts for UPIE_32:
(Start: 47 @28981 has 70 MA's), (Start: 51 @28975 has 24 MA's), (83, 28813), (88, 28759), (90, 28750), (94, 28726), (97, 28717), (108, 28687), (115, 28660), (119, 28627), (121, 28609), (134, 28513), (135, 28507), (137, 28501), (141, 28486), (145, 28468), (147, 28462), (148, 28456), (165, 28393), (182, 28315), (189, 28285), (198, 28252),

Gene: Underpass_35 Start: 30128, Stop: 29382, Start Num: 47
Candidate Starts for Underpass_35:
(Start: 47 @30128 has 70 MA's), (53, 30110), (69, 30017), (88, 29903), (94, 29870), (108, 29831), (115, 29804), (119, 29771), (121, 29753), (137, 29645), (141, 29630), (143, 29624), (145, 29612), (147, 29606), (148, 29600), (149, 29597), (165, 29537), (173, 29507), (180, 29477), (192, 29417), (194, 29408), (197, 29399),

Gene: ValleyTerrace_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for ValleyTerrace_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: VanLee_110 Start: 57959, Stop: 58672, Start Num: 51
Candidate Starts for VanLee_110:
(27, 57878), (39, 57920), (Start: 42 @57929 has 5 MA's), (Start: 47 @57953 has 70 MA's), (Start: 51 @57959 has 24 MA's), (60, 58004), (65, 58046), (74, 58079), (94, 58184), (102, 58211), (128, 58346), (130, 58361), (133, 58382), (134, 58385), (189, 58613), (193, 58628),

Gene: Vetrix_35 Start: 30132, Stop: 29386, Start Num: 47
Candidate Starts for Vetrix_35:
(Start: 47 @30132 has 70 MA's), (53, 30114), (88, 29907), (94, 29874), (108, 29835), (115, 29808), (119, 29775), (121, 29757), (137, 29649), (141, 29634), (143, 29628), (145, 29616), (147, 29610), (148, 29604), (149, 29601), (165, 29541), (173, 29511), (180, 29481), (192, 29421), (194, 29412), (197, 29403),

Gene: WaddleDee_178 Start: 133225, Stop: 133899, Start Num: 43
Candidate Starts for WaddleDee_178:
(Start: 43 @133225 has 6 MA's), (55, 133267), (63, 133327), (87, 133438), (98, 133498), (131, 133654), (147, 133720), (180, 133831),

Gene: Wally_3 Start: 477, Stop: 1343, Start Num: 17
Candidate Starts for Wally_3:
(Start: 17 @477 has 74 MA's), (29, 516), (52, 594), (57, 612), (60, 633), (64, 669), (70, 699), (83, 753), (93, 837), (95, 843), (97, 849), (114, 912), (142, 1104), (148, 1131), (156, 1164), (165, 1194), (187, 1296), (188, 1299),

Gene: Wamburgrxpress_32 Start: 28996, Stop: 28244, Start Num: 47
Candidate Starts for Wamburgrxpress_32:
(Start: 47 @28996 has 70 MA's), (Start: 51 @28990 has 24 MA's), (83, 28828), (88, 28774), (90, 28765), (94, 28741), (97, 28732), (108, 28702), (115, 28675), (119, 28642), (121, 28624), (134,

28528), (135, 28522), (137, 28516), (141, 28501), (145, 28483), (147, 28477), (148, 28471), (165, 28408), (182, 28330), (189, 28300), (198, 28267),

Gene: Whirlwind_34 Start: 30135, Stop: 29395, Start Num: 47
Candidate Starts for Whirlwind_34:
(Start: 47 @30135 has 70 MA's), (55, 30111), (61, 30075), (80, 29985), (110, 29829), (121, 29760), (125, 29739), (141, 29637), (145, 29619), (147, 29613), (148, 29607), (182, 29466), (189, 29436),

Gene: Wigglewiggle_35 Start: 30158, Stop: 29412, Start Num: 47
Candidate Starts for Wigglewiggle_35:
(Start: 47 @30158 has 70 MA's), (53, 30140), (75, 30023), (78, 30014), (88, 29933), (94, 29900), (108, 29861), (115, 29834), (119, 29801), (121, 29783), (137, 29675), (141, 29660), (143, 29654), (145, 29642), (147, 29636), (148, 29630), (149, 29627), (165, 29567), (173, 29537), (180, 29507), (192, 29447), (194, 29438), (197, 29429),

Gene: Wildcat_58 Start: 41513, Stop: 40764, Start Num: 42
Candidate Starts for Wildcat_58:
(2, 41750), (3, 41738), (4, 41702), (6, 41657), (9, 41633), (31, 41549), (Start: 42 @41513 has 5 MA's), (52, 41474), (59, 41441), (Start: 62 @41414 has 1 MA's), (64, 41399), (67, 41375), (96, 41207), (100, 41192), (115, 41135), (134, 41033), (148, 40976), (150, 40964), (173, 40883), (180, 40853), (181, 40841), (187, 40814), (189, 40805), (190, 40799), (199, 40772),

Gene: Wilder_35 Start: 30131, Stop: 29385, Start Num: 47
Candidate Starts for Wilder_35:
(Start: 47 @30131 has 70 MA's), (53, 30113), (75, 29996), (78, 29987), (88, 29906), (94, 29873), (108, 29834), (115, 29807), (119, 29774), (121, 29756), (137, 29648), (141, 29633), (143, 29627), (145, 29615), (147, 29609), (148, 29603), (149, 29600), (165, 29540), (173, 29510), (180, 29480), (192, 29420), (194, 29411), (197, 29402),

Gene: WilliamBoone_135 Start: 72980, Stop: 73684, Start Num: 44
Candidate Starts for WilliamBoone_135:
(27, 72908), (33, 72926), (38, 72944), (Start: 44 @72980 has 17 MA's), (68, 73088), (77, 73112), (87, 73160), (126, 73364), (135, 73424), (151, 73493), (189, 73646),

Gene: Winky_35 Start: 30126, Stop: 29380, Start Num: 47
Candidate Starts for Winky_35:
(Start: 47 @30126 has 70 MA's), (53, 30108), (88, 29901), (94, 29868), (108, 29829), (115, 29802), (119, 29769), (121, 29751), (137, 29643), (141, 29628), (143, 29622), (145, 29610), (147, 29604), (148, 29598), (149, 29595), (165, 29535), (173, 29505), (180, 29475), (192, 29415), (194, 29406), (197, 29397),

Gene: Wyatt2_32 Start: 28983, Stop: 28231, Start Num: 47
Candidate Starts for Wyatt2_32:
(Start: 47 @28983 has 70 MA's), (Start: 51 @28977 has 24 MA's), (83, 28815), (88, 28761), (90, 28752), (94, 28728), (97, 28719), (108, 28689), (115, 28662), (119, 28629), (121, 28611), (134, 28515), (135, 28509), (137, 28503), (141, 28488), (145, 28470), (147, 28464), (148, 28458), (165, 28395), (182, 28317), (189, 28287), (198, 28254),

Gene: YoungMoneyMata_3 Start: 473, Stop: 1339, Start Num: 17
Candidate Starts for YoungMoneyMata_3:
(Start: 17 @473 has 74 MA's), (29, 512), (52, 590), (57, 608), (60, 629), (64, 665), (70, 695), (83, 749), (93, 833), (95, 839), (97, 845), (114, 908), (142, 1100), (148, 1127), (156, 1160), (165, 1190), (187, 1292), (188, 1295),

Gene: Yvonnetastic_147 Start: 80424, Stop: 81140, Start Num: 50
Candidate Starts for Yvonnetastic_147:
(Start: 50 @80424 has 2 MA's), (56, 80445), (68, 80523), (72, 80538), (77, 80547), (82, 80565), (89, 80625), (96, 80658), (116, 80730), (122, 80775), (138, 80865), (140, 80874), (162, 80964), (187, 81087),

Gene: Zakai_35 Start: 30382, Stop: 29636, Start Num: 47
Candidate Starts for Zakai_35:
(Start: 47 @30382 has 70 MA's), (53, 30364), (78, 30238), (88, 30157), (94, 30124), (108, 30085), (115, 30058), (119, 30025), (121, 30007), (137, 29899), (141, 29884), (145, 29866), (147, 29860), (148, 29854), (149, 29851), (160, 29806), (165, 29791), (173, 29761), (180, 29731), (192, 29671), (194, 29662),

Gene: Zaria_32 Start: 28998, Stop: 28246, Start Num: 47
Candidate Starts for Zaria_32:
(Start: 47 @28998 has 70 MA's), (Start: 51 @28992 has 24 MA's), (83, 28830), (88, 28776), (90, 28767), (94, 28743), (97, 28734), (108, 28704), (115, 28677), (119, 28644), (121, 28626), (134, 28530), (135, 28524), (137, 28518), (141, 28503), (145, 28485), (147, 28479), (148, 28473), (165, 28410), (182, 28332), (189, 28302), (198, 28269),

Gene: ZhongYanYuan_34 Start: 29947, Stop: 29201, Start Num: 47
Candidate Starts for ZhongYanYuan_34:
(Start: 47 @29947 has 70 MA's), (88, 29722), (94, 29689), (108, 29650), (115, 29623), (119, 29590), (121, 29572), (137, 29464), (141, 29449), (143, 29443), (145, 29431), (147, 29425), (148, 29419), (149, 29416), (165, 29356), (173, 29326), (180, 29296), (192, 29236), (194, 29227), (197, 29218),