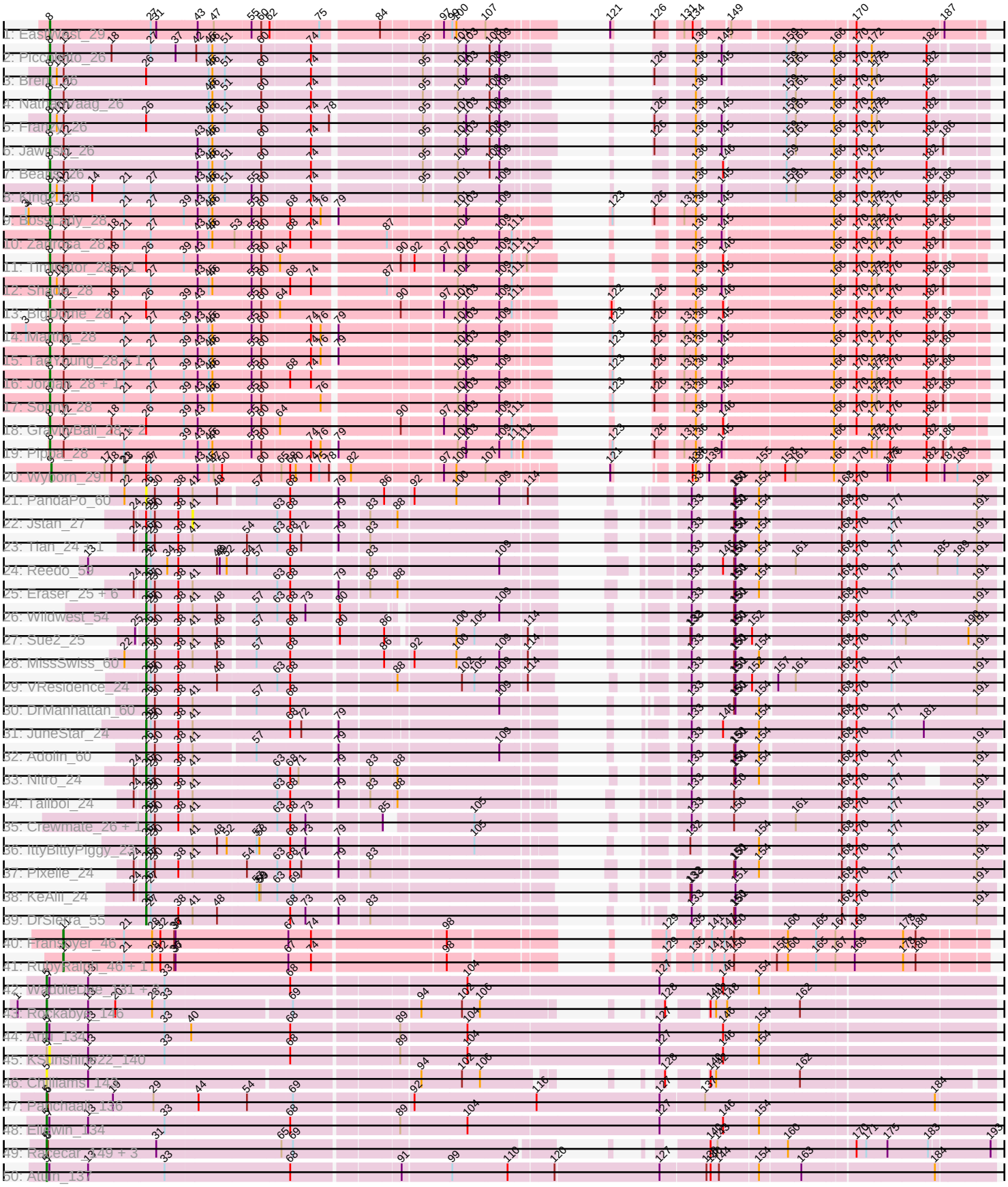
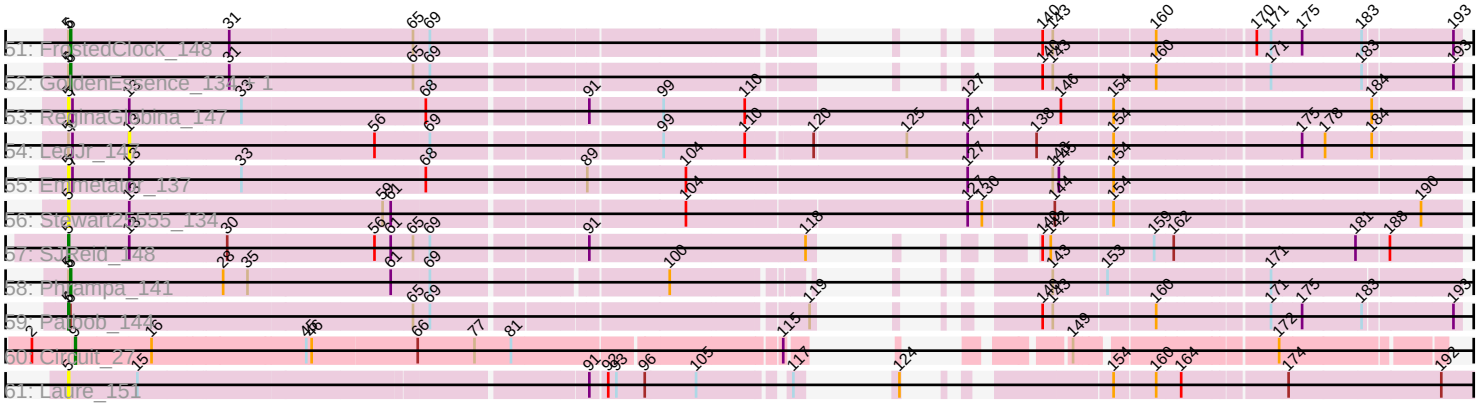
Pham 347526



Pham 347526


51: FrostedClock_148
52: GoldenEssence_138
53: ReginaGlobina_147
54: Lexor_145
55: Emmetata_137
56: Stewart2555_134
57: Schield_148
58: Pharampa_141
59: Patoo6_142
60: Circuit_27
61: Laure_151

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 347526 Report

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

Pham number 347526 has 81 members, 12 are drafts.

Phages represented in each track:
- Track 1 : EastWest_29
- Track 2 : Piccoletto_26
- Track 3 : Brent_26
- Track 4 : NathanVaag_26
- Track 5 : Franzy_26
- Track 6 : Jawnski_26
- Track 7 : Beans_26
- Track 8 : King2_26
- Track 9 : BossLady_28
- Track 10 : Zartrosa_28
- Track 11 : Timinator_28, LeeroyJ_28
- Track 12 : Shade_28
- Track 13 : BigDome_28
- Track 14 : Martha_28
- Track 15 : TaeYoung_28, Grekaycon_28
- Track 16 : Jordan_28, JKerns_28
- Track 17 : Sonny_28
- Track 18 : GravityBall_28, BarretLemon_28, StevieBAY_28
- Track 19 : Pippa_28
- Track 20 : Wyborn_29
- Track 21 : PandaPo_60
- Track 22 : Jstan_27
- Track 23 : Tian_24, Amyev_24
- Track 24 : Reedo_59
- Track 25 : Eraser_25, London_25, Elezi_25, Subaru_25, Skelbel_26, Niobe_25, Asa16_25
- Track 26 : Wildwest_54
- Track 27 : Sue2_25
- Track 28 : MissSwiss_60
- Track 29 : VResidence_24
- Track 30 : DrManhattan_60
- Track 31 : JuneStar_24
- Track 32 : Adolin_60
- Track 33 : Nitro_24
- Track 34 : Tallboi_24
- Track 35 : Crewmate_26, ObiToo_25
- Track 36 : IttyBittyPiggy_23

• Track 37 : Pixelle_24
• Track 38 : KeAlii_24
• Track 39 : DrSierra_55
• Track 40 : Fransoyer_46
• Track 41 : RubyRalph_46, SadLad_48
• Track 42 : WaddleDee_131, BooTeria_134, DunneganBoMo_134
• Track 43 : Rockabye_146
• Track 44 : Artu_134
• Track 45 : KSunshine22_140
• Track 46 : Chilliams_143
• Track 47 : Panchaali_136
• Track 48 : Ellewin_134
• Track 49 : Racecar_149, Bloom_152, Talia1610_150, Mimi_148
• Track 50 : Atuin_137
• Track 51 : FrostedClock_148
• Track 52 : GoldenEssence_134, FloraSnap32_144
• Track 53 : ReginaGlobina_147
• Track 54 : LeoJr_147
• Track 55 : Emmetator_137
• Track 56 : Stewart25555_134
• Track 57 : SJReid_148
• Track 58 : Phrampa_141
• Track 59 : Patbob_144
• Track 60 : Circuit_27
• Track 61 : Laure_151

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

The start number called the most often in the published annotations is 8, it was called in 24 of the 69 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BarretLemon_28, Beans_26, BigDome_28, BossLady_28, Brent_26, EastWest_29, Franzy_26, GravityBall_28, Grekaycon_28, JKerns_28, Jawnski_26, Jordan_28, King2_26, LeeroyJ_28, Martha_28, NathanVaag_26, Piccoletto_26, Pippa_28, Shade_28, Sonny_28, StevieBAY_28, TaeYoung_28, Timinator_28, Zartrosa_28,

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

Genes that do not have the "Most Annotated" start:
• Adolin_60, Amyev_24, Artu_134, Asa16_25, Atuin_137, Bloom_152, BooTeria_134, Chilliams_143, Circuit_27, Crewmate_26, DrManhattan_60, DrSierra_55, DunneganBoMo_134, Elezi_25, Ellewin_134, Emmetator_137, Eraser_25, FloraSnap32_144, Fransoyer_46, FrostedClock_148, GoldenEssence_134, IttyBittyPiggy_23, Jstan_27, JuneStar_24, KSunshine22_140, KeAlii_24, Laure_151, LeoJr_147, London_25, Mimi_148, MissSwiss_60, Niobe_25, Nitro_24, ObiToo_25, Panchaali_136, PandaPo_60, Patbob_144, Phrampa_141, Pixelle_24, Racecar_149, Reedo_59, ReginaGlobina_147, Rockabye_146, RubyRalph_46, SJReid_148, SadLad_48, Skelbel_26, Stewart25555_134, Subaru_25, Sue2_25, Talia1610_150,

Tallboi_24, Tian_24, VResidence_24, WaddleDee_131, Wildwest_54, Wyborn_29,

Summary by start number:

Start 5:
• Found in 25 of 81 (30.9%) of genes in pham
• Manual Annotations of this start: 13 of 69
• Called 76.0% of time when present
• Phage (with cluster) where this start called: Artu_134 (FC), Atuin_137 (FC), Bloom_152 (FC), BooTeria_134 (FC), Chilliams_143 (FC), DunneganBoMo_134 (FC), Ellewin_134 (FC), Emmetator_137 (FC), Laure_151 (UNK), Mimi_148 (FC), Panchaali_136 (FC), Patbob_144 (FC), Racecar_149 (FC), ReginaGlobina_147 (FC), Rockabye_146 (FC), SJReid_148 (FC), Stewart25555_134 (FC), Talia1610_150 (FC), WaddleDee_131 (FC),

Start 6:
• Found in 10 of 81 (12.3%) of genes in pham
• Manual Annotations of this start: 4 of 69
• Called 40.0% of time when present
• Phage (with cluster) where this start called: FloraSnap32_144 (FC), FrostedClock_148 (FC), GoldenEssence_134 (FC), Phrampa_141 (FC),

Start 7:
• Found in 10 of 81 (12.3%) of genes in pham
• No Manual Annotations of this start.
• Called 10.0% of time when present
• Phage (with cluster) where this start called: KSunshine22_140 (FC),

Start 8:
• Found in 24 of 81 (29.6%) of genes in pham
• Manual Annotations of this start: 24 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BarretLemon_28 (AO2), Beans_26 (AO1), BigDome_28 (AO2), BossLady_28 (AO2), Brent_26 (AO1), EastWest_29 (AO), Franzy_26 (AO1), GravityBall_28 (AO2), Grekaycon_28 (AO2), JKerns_28 (AO2), Jawnski_26 (AO1), Jordan_28 (AO2), King2_26 (AO1), LeeroyJ_28 (AO2), Martha_28 (AO2), NathanVaag_26 (AO1), Piccoletto_26 (AO1), Pippa_28 (AO2), Shade_28 (AO2), Sonny_28 (AO2), StevieBAY_28 (AO2), TaeYoung_28 (AO2), Timinator_28 (AO2), Zartrosa_28 (AO2),

Start 9:
• Found in 2 of 81 (2.5%) of genes in pham
• Manual Annotations of this start: 2 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Circuit_27 (FH), Wyborn_29 (AO2),

Start 11:
• Found in 3 of 81 (3.7%) of genes in pham
• Manual Annotations of this start: 3 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fransoyer_46 (EG), RubyRalph_46 (EG), SadLad_48 (EG),

Start 13:
• Found in 15 of 81 (18.5%) of genes in pham
• No Manual Annotations of this start.
• Called 6.7% of time when present
• Phage (with cluster) where this start called: LeoJr_147 (FC),

Start 26:
• Found in 36 of 81 (44.4%) of genes in pham
• Manual Annotations of this start: 23 of 69
• Called 72.2% of time when present
• Phage (with cluster) where this start called: Adolin_60 (AZ1), Amyev_24 (AZ1), Asa16_25 (AZ1), Crewmate_26 (AZ1), DrManhattan_60 (AZ1), DrSierra_55 (AZ1), Elezi_25 (AZ1), Eraser_25 (AZ1), IttyBittyPiggy_23 (AZ1), JuneStar_24 (AZ1), KeAlii_24 (AZ1), London_25 (AZ1), MissSwiss_60 (AZ1), Niobe_25 (AZ1), Nitro_24 (AZ1), ObiToo_25 (AZ1), PandaPo_60 (AZ1), Pixelle_24 (AZ1), Reedo_59 (AZ1), Skelbel_26 (AZ1), Subaru_25 (AZ1), Sue2_25 (AZ1), Tallboi_24 (AZ1), Tian_24 (AZ1), VResidence_24 (AZ1), Wildwest_54 (AZ1),

Start 41:
• Found in 24 of 81 (29.6%) of genes in pham
• No Manual Annotations of this start.
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Jstan_27 (AZ1),

Summary by clusters:

There are 8 clusters represented in this pham: EG, AO, FC, AO2, AO1, FH, AZ1, UNK,

Info for manual annotations of cluster AO:
•Start number 8 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 8 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 8 was manually annotated 16 times for cluster AO2.
•Start number 9 was manually annotated 1 time for cluster AO2.

Info for manual annotations of cluster AZ1:
•Start number 26 was manually annotated 23 times for cluster AZ1.

Info for manual annotations of cluster EG:
•Start number 11 was manually annotated 3 times for cluster EG.

Info for manual annotations of cluster FC:
•Start number 5 was manually annotated 13 times for cluster FC.
•Start number 6 was manually annotated 4 times for cluster FC.

Info for manual annotations of cluster FH:
•Start number 9 was manually annotated 1 time for cluster FH.

Gene Information:

Gene: Adolin_60 Start: 37995, Stop: 39464, Start Num: 26
Candidate Starts for Adolin_60:
(Start: 26 @37995 has 23 MA's), (30, 38013), (38, 38064), (41, 38091), (57, 38211), (79, 38370), (109, 38685), (133, 38880), (150, 38952), (151, 38955), (154, 39006), (168, 39159), (170, 39183), (191, 39423),

Gene: Amyev_24 Start: 20257, Stop: 21768, Start Num: 26
Candidate Starts for Amyev_24:
(24, 20239), (Start: 26 @20257 has 23 MA's), (27, 20266), (30, 20275), (38, 20326), (41, 20353), (54, 20461), (63, 20524), (68, 20548), (72, 20572), (79, 20641), (83, 20701), (133, 21175), (150, 21247), (151, 21250), (154, 21301), (168, 21454), (170, 21478), (177, 21550), (191, 21718),

Gene: Artu_134 Start: 95607, Stop: 97517, Start Num: 5
Candidate Starts for Artu_134:
(Start: 5 @95607 has 13 MA's), (7, 95613), (13, 95694), (33, 95850), (40, 95904), (68, 96105), (89, 96318), (104, 96456), (127, 96849), (146, 96984), (154, 97056),

Gene: Asa16_25 Start: 20493, Stop: 21989, Start Num: 26
Candidate Starts for Asa16_25:
(24, 20475), (Start: 26 @20493 has 23 MA's), (27, 20502), (30, 20511), (38, 20562), (41, 20589), (63, 20760), (68, 20784), (79, 20877), (83, 20937), (88, 20988), (133, 21408), (150, 21480), (151, 21483), (154, 21534), (168, 21687), (170, 21711), (177, 21783), (191, 21951),

Gene: Atuin_137 Start: 98423, Stop: 100324, Start Num: 5
Candidate Starts for Atuin_137:
(Start: 5 @98423 has 13 MA's), (7, 98429), (13, 98510), (33, 98666), (68, 98921), (91, 99134), (99, 99236), (110, 99350), (120, 99440), (127, 99662), (138, 99758), (140, 99767), (144, 99785), (154, 99863), (163, 99947), (184, 100208),

Gene: BarretLemon_28 Start: 23730, Stop: 25319, Start Num: 8
Candidate Starts for BarretLemon_28:
(Start: 8 @23730 has 24 MA's), (12, 23760), (18, 23859), (Start: 26 @23928 has 23 MA's), (39, 24009), (43, 24036), (55, 24147), (60, 24168), (64, 24204), (90, 24426), (97, 24504), (101, 24531), (103, 24549), (109, 24615), (111, 24642), (136, 24798), (146, 24840), (166, 25044), (170, 25080), (172, 25113), (176, 25149), (182, 25221),

Gene: Beans_26 Start: 23393, Stop: 24982, Start Num: 8
Candidate Starts for Beans_26:
(Start: 8 @23393 has 24 MA's), (12, 23423), (43, 23699), (45, 23723), (46, 23729), (51, 23756), (60, 23831), (74, 23930), (95, 24131), (101, 24194), (108, 24260), (109, 24278), (136, 24443), (146, 24485), (159, 24596), (166, 24689), (170, 24725), (172, 24758), (182, 24869),

Gene: BigDome_28 Start: 23719, Stop: 25311, Start Num: 8
Candidate Starts for BigDome_28:
(Start: 8 @23719 has 24 MA's), (12, 23749), (18, 23848), (Start: 26 @23917 has 23 MA's), (39, 23998), (43, 24025), (55, 24136), (60, 24157), (64, 24193), (90, 24415), (97, 24493), (101, 24520), (103, 24538), (109, 24604), (111, 24631), (122, 24712), (126, 24721), (136, 24790), (146, 24832), (166, 25036), (170, 25072), (172, 25105), (176, 25141), (182, 25213),

Gene: Bloom_152 Start: 100610, Stop: 102271, Start Num: 5
Candidate Starts for Bloom_152:
(Start: 5 @100610 has 13 MA's), (Start: 6 @100613 has 4 MA's), (31, 100838), (65, 101096), (69, 101117), (140, 101720), (143, 101735), (160, 101873), (170, 101999), (171, 102020), (175, 102062), (183, 102146), (193, 102263),

Gene: BooTeria_134 Start: 95748, Stop: 97658, Start Num: 5
Candidate Starts for BooTeria_134:
(Start: 5 @95748 has 13 MA's), (7, 95754), (13, 95835), (33, 95991), (68, 96246), (104, 96597), (127, 96990), (146, 97125), (154, 97197),

Gene: BossLady_28 Start: 23701, Stop: 25299, Start Num: 8
Candidate Starts for BossLady_28:
(3, 23650), (4, 23656), (Start: 8 @23701 has 24 MA's), (12, 23731), (21, 23857), (27, 23908), (39, 23980), (43, 24007), (45, 24031), (46, 24037), (55, 24118), (60, 24139), (68, 24193), (74, 24238), (76, 24259), (79, 24280), (101, 24502), (103, 24520), (109, 24586), (123, 24685), (126, 24691), (131, 24736), (136, 24760), (145, 24799), (166, 25006), (170, 25042), (172, 25075), (173, 25084), (176, 25111), (182, 25186), (186, 25216),

Gene: Brent_26 Start: 23376, Stop: 24986, Start Num: 8
Candidate Starts for Brent_26:
(Start: 8 @23376 has 24 MA's), (10, 23391), (12, 23406), (Start: 26 @23574 has 23 MA's), (45, 23706), (46, 23712), (51, 23739), (60, 23814), (74, 23913), (95, 24114), (101, 24177), (103, 24195), (108, 24243), (109, 24261), (126, 24372), (136, 24441), (145, 24480), (159, 24594), (161, 24612), (166, 24687), (170, 24723), (172, 24756), (173, 24765), (182, 24867),

Gene: Chilliams_143 Start: 89749, Stop: 91368, Start Num: 5
Candidate Starts for Chilliams_143:
(Start: 5 @89749 has 13 MA's), (13, 89836), (94, 90487), (102, 90574), (106, 90613), (128, 90775), (140, 90826), (142, 90838), (162, 91000),

Gene: Circuit_27 Start: 22611, Stop: 24224, Start Num: 9
Candidate Starts for Circuit_27:
(2, 22551), (Start: 9 @22611 has 2 MA's), (16, 22719), (45, 22938), (46, 22944), (66, 23097), (77, 23181), (81, 23235), (115, 23598), (149, 23748), (172, 24003),

Gene: Crewmate_26 Start: 19076, Stop: 20530, Start Num: 26
Candidate Starts for Crewmate_26:
(Start: 26 @19076 has 23 MA's), (27, 19085), (30, 19094), (38, 19145), (41, 19172), (63, 19343), (68, 19367), (73, 19400), (85, 19544), (105, 19697), (133, 19949), (150, 20021), (161, 20141), (168, 20228), (170, 20252), (177, 20324), (191, 20492),

Gene: DrManhattan_60 Start: 37563, Stop: 39020, Start Num: 26
Candidate Starts for DrManhattan_60:
(Start: 26 @37563 has 23 MA's), (30, 37581), (38, 37632), (41, 37659), (57, 37779), (68, 37845), (109, 38253), (133, 38436), (150, 38508), (151, 38511), (154, 38562), (168, 38715), (170, 38739), (191, 38979),

Gene: DrSierra_55 Start: 37478, Stop: 38938, Start Num: 26
Candidate Starts for DrSierra_55:
(Start: 26 @37478 has 23 MA's), (27, 37487), (38, 37547), (41, 37574), (48, 37625), (68, 37769), (73, 37802), (79, 37862), (83, 37922), (133, 38354), (150, 38426), (151, 38429), (168, 38633), (170, 38657), (191, 38897),

Gene: DunneganBoMo_134 Start: 95017, Stop: 96927, Start Num: 5
Candidate Starts for DunneganBoMo_134:
(Start: 5 @95017 has 13 MA's), (7, 95023), (13, 95104), (33, 95260), (68, 95515), (104, 95866), (127, 96259), (146, 96394), (154, 96466),

Gene: EastWest_29 Start: 23578, Stop: 25173, Start Num: 8
Candidate Starts for EastWest_29:
(Start: 8 @23578 has 24 MA's), (27, 23785), (31, 23797), (43, 23884), (47, 23917), (55, 23995), (60, 24016), (62, 24034), (75, 24133), (84, 24241), (97, 24352), (99, 24367), (100, 24376), (107, 24436), (121, 24568), (126, 24577), (131, 24622), (134, 24640), (149, 24697), (170, 24916), (187, 25093),

Gene: Elezi_25 Start: 20494, Stop: 21990, Start Num: 26
Candidate Starts for Elezi_25:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: Ellewin_134 Start: 94866, Stop: 96776, Start Num: 5
Candidate Starts for Ellewin_134:
(Start: 5 @94866 has 13 MA's), (7, 94872), (13, 94953), (33, 95109), (68, 95364), (89, 95577), (104, 95715), (127, 96108), (146, 96243), (154, 96315),

Gene: Emmetator_137 Start: 94934, Stop: 96844, Start Num: 5
Candidate Starts for Emmetator_137:
(Start: 5 @94934 has 13 MA's), (7, 94940), (13, 95021), (33, 95177), (68, 95432), (89, 95645), (104, 95783), (127, 96176), (143, 96302), (145, 96308), (154, 96383),

Gene: Eraser_25 Start: 20494, Stop: 21996, Start Num: 26
Candidate Starts for Eraser_25:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21415), (150, 21487), (151, 21490), (154, 21541), (168, 21694), (170, 21718), (177, 21790), (191, 21958),

Gene: FloraSnap32_144 Start: 99125, Stop: 100783, Start Num: 6
Candidate Starts for FloraSnap32_144:
(Start: 5 @99122 has 13 MA's), (Start: 6 @99125 has 4 MA's), (31, 99350), (65, 99608), (69, 99629), (140, 100232), (143, 100247), (160, 100385), (171, 100532), (183, 100658), (193, 100775),

Gene: Fransoyer_46 Start: 35542, Stop: 37236, Start Num: 11
Candidate Starts for Fransoyer_46:
(Start: 11 @35542 has 3 MA's), (21, 35674), (28, 35734), (32, 35752), (36, 35782), (37, 35785), (67, 36025), (74, 36073), (98, 36346), (129, 36592), (135, 36634), (141, 36664), (147, 36691), (150, 36712), (160, 36820), (165, 36880), (167, 36922), (169, 36964), (178, 37069), (180, 37096),

Gene: Franzy_26 Start: 23375, Stop: 24985, Start Num: 8
Candidate Starts for Franzy_26:
(Start: 8 @23375 has 24 MA's), (10, 23390), (12, 23405), (Start: 26 @23573 has 23 MA's), (45, 23705), (46, 23711), (51, 23738), (60, 23813), (74, 23912), (78, 23951), (95, 24113), (101, 24176), (103, 24194), (108, 24242), (109, 24260), (126, 24371), (136, 24440), (145, 24479), (159, 24593), (161, 24611), (166, 24686), (170, 24722), (172, 24755), (173, 24764), (182, 24866),

Gene: FrostedClock_148 Start: 100610, Stop: 102268, Start Num: 6

Candidate Starts for FrostedClock_148:
(Start: 5 @100607 has 13 MA's), (Start: 6 @100610 has 4 MA's), (31, 100835), (65, 101093), (69, 101114), (140, 101717), (143, 101732), (160, 101870), (170, 101996), (171, 102017), (175, 102059), (183, 102143), (193, 102260),

Gene: GoldenEssence_134 Start: 94008, Stop: 95666, Start Num: 6
Candidate Starts for GoldenEssence_134:
(Start: 5 @94005 has 13 MA's), (Start: 6 @94008 has 4 MA's), (31, 94233), (65, 94491), (69, 94512), (140, 95115), (143, 95130), (160, 95268), (171, 95415), (183, 95541), (193, 95658),

Gene: GravityBall_28 Start: 23729, Stop: 25318, Start Num: 8
Candidate Starts for GravityBall_28:
(Start: 8 @23729 has 24 MA's), (12, 23759), (18, 23858), (Start: 26 @23927 has 23 MA's), (39, 24008), (43, 24035), (55, 24146), (60, 24167), (64, 24203), (90, 24425), (97, 24503), (101, 24530), (103, 24548), (109, 24614), (111, 24641), (136, 24797), (146, 24839), (166, 25043), (170, 25079), (172, 25112), (176, 25148), (182, 25220),

Gene: Grekaycon_28 Start: 23647, Stop: 25245, Start Num: 8
Candidate Starts for Grekaycon_28:
(Start: 8 @23647 has 24 MA's), (12, 23677), (21, 23803), (27, 23854), (39, 23926), (43, 23953), (45, 23977), (46, 23983), (55, 24064), (60, 24085), (74, 24184), (76, 24205), (79, 24226), (101, 24448), (103, 24466), (109, 24532), (123, 24631), (126, 24637), (131, 24682), (136, 24706), (145, 24745), (166, 24952), (170, 24988), (172, 25021), (176, 25057), (182, 25132), (186, 25162),

Gene: IttyBittyPiggy_23 Start: 18356, Stop: 19831, Start Num: 26
Candidate Starts for IttyBittyPiggy_23:
(Start: 26 @18356 has 23 MA's), (27, 18365), (30, 18374), (41, 18452), (48, 18503), (52, 18524), (57, 18581), (58, 18587), (68, 18647), (73, 18680), (79, 18740), (105, 19001), (132, 19235), (154, 19364), (168, 19517), (170, 19541), (177, 19613), (191, 19781),

Gene: JKerns_28 Start: 23674, Stop: 25272, Start Num: 8
Candidate Starts for JKerns_28:
(Start: 8 @23674 has 24 MA's), (12, 23704), (21, 23830), (27, 23881), (39, 23953), (43, 23980), (45, 24004), (46, 24010), (55, 24091), (60, 24112), (68, 24166), (74, 24211), (101, 24475), (103, 24493), (109, 24559), (123, 24658), (126, 24664), (131, 24709), (136, 24733), (145, 24772), (166, 24979), (170, 25015), (172, 25048), (173, 25057), (176, 25084), (182, 25159), (186, 25189),

Gene: Jawnski_26 Start: 23388, Stop: 24995, Start Num: 8
Candidate Starts for Jawnski_26:
(Start: 8 @23388 has 24 MA's), (12, 23418), (43, 23694), (45, 23718), (46, 23724), (60, 23826), (74, 23925), (95, 24126), (101, 24189), (103, 24207), (108, 24255), (109, 24273), (126, 24387), (136, 24456), (145, 24495), (159, 24609), (161, 24627), (166, 24702), (170, 24738), (172, 24771), (182, 24882), (186, 24912),

Gene: Jordan_28 Start: 23644, Stop: 25242, Start Num: 8
Candidate Starts for Jordan_28:
(Start: 8 @23644 has 24 MA's), (12, 23674), (21, 23800), (27, 23851), (39, 23923), (43, 23950), (45, 23974), (46, 23980), (55, 24061), (60, 24082), (68, 24136), (74, 24181), (101, 24445), (103, 24463), (109, 24529), (123, 24628), (126, 24634), (131, 24679), (136, 24703), (145, 24742), (166, 24949), (170, 24985), (172, 25018), (173, 25027), (176, 25054), (182, 25129), (186, 25159),

Gene: Jstan_27 Start: 20590, Stop: 21990, Start Num: 41
Candidate Starts for Jstan_27:

(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: JuneStar_24 Start: 20659, Stop: 22146, Start Num: 26
Candidate Starts for JuneStar_24:
(Start: 26 @20659 has 23 MA's), (27, 20668), (30, 20677), (38, 20728), (41, 20755), (68, 20950), (72, 20974), (79, 21043), (133, 21541), (146, 21589), (154, 21667), (168, 21832), (170, 21856), (177, 21928), (181, 21991),

Gene: KSunshine22_140 Start: 96432, Stop: 98336, Start Num: 7
Candidate Starts for KSunshine22_140:
(Start: 5 @96426 has 13 MA's), (7, 96432), (13, 96513), (33, 96669), (68, 96924), (89, 97137), (104, 97275), (127, 97668), (146, 97803), (154, 97875),

Gene: KeAlii_24 Start: 18542, Stop: 20020, Start Num: 26
Candidate Starts for KeAlii_24:
(24, 18524), (Start: 26 @18542 has 23 MA's), (27, 18551), (57, 18767), (58, 18773), (59, 18776), (63, 18809), (69, 18839), (132, 19433), (133, 19436), (151, 19511), (168, 19715), (170, 19739), (177, 19811), (191, 19979),

Gene: King2_26 Start: 23393, Stop: 24982, Start Num: 8
Candidate Starts for King2_26:
(Start: 8 @23393 has 24 MA's), (10, 23408), (12, 23423), (14, 23480), (21, 23549), (27, 23600), (43, 23699), (45, 23723), (46, 23729), (51, 23756), (55, 23810), (60, 23831), (74, 23930), (95, 24131), (101, 24194), (109, 24278), (136, 24443), (145, 24482), (159, 24596), (161, 24614), (166, 24689), (170, 24725), (172, 24758), (182, 24869), (186, 24899),

Gene: Laure_151 Start: 92476, Stop: 94164, Start Num: 5
Candidate Starts for Laure_151:
(Start: 5 @92476 has 13 MA's), (15, 92575), (91, 93193), (92, 93214), (93, 93226), (96, 93268), (105, 93343), (117, 93454), (124, 93481), (154, 93667), (160, 93724), (164, 93757), (174, 93895), (192, 94111),

Gene: LeeroyJ_28 Start: 23729, Stop: 25318, Start Num: 8
Candidate Starts for LeeroyJ_28:
(Start: 8 @23729 has 24 MA's), (12, 23759), (18, 23858), (Start: 26 @23927 has 23 MA's), (39, 24008), (43, 24035), (55, 24146), (60, 24167), (64, 24203), (90, 24425), (92, 24449), (97, 24503), (101, 24530), (103, 24548), (109, 24614), (111, 24641), (113, 24662), (136, 24797), (146, 24839), (166, 25043), (170, 25079), (172, 25112), (176, 25148), (182, 25220),

Gene: LeoJr_147 Start: 99111, Stop: 100919, Start Num: 13
Candidate Starts for LeoJr_147:
(Start: 5 @99024 has 13 MA's), (7, 99030), (13, 99111), (56, 99456), (69, 99528), (99, 99837), (110, 99951), (120, 100035), (125, 100167), (127, 100257), (138, 100353), (154, 100458), (175, 100704), (178, 100737), (184, 100803),

Gene: London_25 Start: 20494, Stop: 21990, Start Num: 26
Candidate Starts for London_25:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: Martha_28 Start: 23648, Stop: 25246, Start Num: 8
Candidate Starts for Martha_28:
(3, 23597), (Start: 8 @23648 has 24 MA's), (12, 23678), (21, 23804), (27, 23855), (39, 23927), (43, 23954), (45, 23978), (46, 23984), (55, 24065), (60, 24086), (74, 24185), (76, 24206), (79, 24227), (101, 24449), (103, 24467), (109, 24533), (123, 24632), (126, 24638), (131, 24683), (136, 24707), (145, 24746), (166, 24953), (170, 24989), (172, 25022), (176, 25058), (182, 25133), (186, 25163),

Gene: Mimi_148 Start: 99675, Stop: 101336, Start Num: 5
Candidate Starts for Mimi_148:
(Start: 5 @99675 has 13 MA's), (Start: 6 @99678 has 4 MA's), (31, 99903), (65, 100161), (69, 100182), (140, 100785), (143, 100800), (160, 100938), (170, 101064), (171, 101085), (175, 101127), (183, 101211), (193, 101328),

Gene: MissSwiss_60 Start: 37830, Stop: 39293, Start Num: 26
Candidate Starts for MissSwiss_60:
(22, 37791), (Start: 26 @37830 has 23 MA's), (30, 37848), (38, 37899), (41, 37926), (48, 37977), (57, 38046), (68, 38112), (86, 38292), (92, 38343), (100, 38433), (109, 38520), (114, 38574), (133, 38709), (150, 38781), (151, 38784), (154, 38835), (168, 38988), (170, 39012), (191, 39252),

Gene: NathanVaag_26 Start: 23369, Stop: 24958, Start Num: 8
Candidate Starts for NathanVaag_26:
(Start: 8 @23369 has 24 MA's), (12, 23399), (45, 23699), (46, 23705), (51, 23732), (60, 23807), (74, 23906), (95, 24107), (101, 24170), (108, 24236), (109, 24254), (136, 24419), (159, 24572), (161, 24590), (166, 24665), (170, 24701), (172, 24734), (182, 24845),

Gene: Niobe_25 Start: 20494, Stop: 21990, Start Num: 26
Candidate Starts for Niobe_25:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: Nitro_24 Start: 19868, Stop: 21319, Start Num: 26
Candidate Starts for Nitro_24:
(24, 19850), (Start: 26 @19868 has 23 MA's), (27, 19877), (30, 19886), (38, 19937), (41, 19964), (63, 20135), (68, 20159), (71, 20177), (79, 20252), (83, 20312), (88, 20363), (133, 20771), (150, 20843), (151, 20846), (154, 20897), (168, 21050), (170, 21074), (177, 21146), (191, 21281),

Gene: ObiToo_25 Start: 18813, Stop: 20267, Start Num: 26
Candidate Starts for ObiToo_25:
(Start: 26 @18813 has 23 MA's), (27, 18822), (30, 18831), (38, 18882), (41, 18909), (63, 19080), (68, 19104), (73, 19137), (85, 19281), (105, 19434), (133, 19686), (150, 19758), (161, 19878), (168, 19965), (170, 19989), (177, 20061), (191, 20229),

Gene: Panchaali_136 Start: 95349, Stop: 97271, Start Num: 5
Candidate Starts for Panchaali_136:
(Start: 5 @95349 has 13 MA's), (Start: 6 @95352 has 4 MA's), (19, 95493), (29, 95571), (44, 95664), (54, 95769), (69, 95862), (92, 96090), (116, 96345), (127, 96609), (137, 96702), (184, 97155),

Gene: PandaPo_60 Start: 37838, Stop: 39301, Start Num: 26
Candidate Starts for PandaPo_60:
(22, 37799), (Start: 26 @37838 has 23 MA's), (30, 37856), (38, 37907), (41, 37934), (48, 37985), (57, 38054), (68, 38120), (79, 38213), (86, 38300), (92, 38351), (100, 38441), (109, 38528), (114, 38582), (133, 38717), (150, 38789), (151, 38792), (154, 38843), (168, 38996), (170, 39020), (191, 39260),

Gene: Patbob_144 Start: 100134, Stop: 101795, Start Num: 5
Candidate Starts for Patbob_144:
(Start: 5 @100134 has 13 MA's), (Start: 6 @100137 has 4 MA's), (65, 100620), (69, 100641), (119, 101136), (140, 101244), (143, 101259), (160, 101397), (171, 101544), (175, 101586), (183, 101670), (193, 101787),

Gene: Phrampa_141 Start: 101796, Stop: 103436, Start Num: 6
Candidate Starts for Phrampa_141:
(Start: 5 @101793 has 13 MA's), (Start: 6 @101796 has 4 MA's), (28, 102012), (35, 102048), (61, 102255), (69, 102306), (100, 102618), (143, 102900), (153, 102972), (171, 103185),

Gene: Piccoletto_26 Start: 23368, Stop: 24960, Start Num: 8
Candidate Starts for Piccoletto_26:
(Start: 8 @23368 has 24 MA's), (12, 23398), (18, 23497), (27, 23575), (37, 23629), (42, 23671), (45, 23698), (46, 23704), (51, 23731), (60, 23806), (74, 23905), (95, 24106), (101, 24169), (103, 24187), (108, 24235), (109, 24253), (136, 24421), (145, 24460), (159, 24574), (161, 24592), (166, 24667), (170, 24703), (172, 24736), (182, 24847),

Gene: Pippa_28 Start: 23773, Stop: 25371, Start Num: 8
Candidate Starts for Pippa_28:
(Start: 8 @23773 has 24 MA's), (12, 23803), (21, 23929), (39, 24052), (43, 24079), (45, 24103), (46, 24109), (55, 24190), (60, 24211), (74, 24310), (76, 24331), (79, 24352), (101, 24574), (103, 24592), (109, 24658), (111, 24685), (112, 24697), (123, 24757), (126, 24763), (131, 24808), (136, 24832), (145, 24871), (166, 25078), (172, 25147), (173, 25156), (176, 25183), (182, 25258), (186, 25288),

Gene: Pixelle_24 Start: 20263, Stop: 21774, Start Num: 26
Candidate Starts for Pixelle_24:
(24, 20245), (Start: 26 @20263 has 23 MA's), (27, 20272), (30, 20281), (38, 20332), (41, 20359), (54, 20467), (63, 20530), (68, 20554), (72, 20578), (79, 20647), (83, 20707), (150, 21253), (151, 21256), (154, 21307), (168, 21460), (170, 21484), (177, 21556), (191, 21724),

Gene: Racecar_149 Start: 100663, Stop: 102324, Start Num: 5
Candidate Starts for Racecar_149:
(Start: 5 @100663 has 13 MA's), (Start: 6 @100666 has 4 MA's), (31, 100891), (65, 101149), (69, 101170), (140, 101773), (143, 101788), (160, 101926), (170, 102052), (171, 102073), (175, 102115), (183, 102199), (193, 102316),

Gene: Reedo_59 Start: 37394, Stop: 38914, Start Num: 26
Candidate Starts for Reedo_59:
(13, 37280), (Start: 26 @37394 has 23 MA's), (27, 37403), (34, 37439), (38, 37463), (48, 37541), (49, 37547), (52, 37562), (54, 37598), (57, 37619), (68, 37685), (83, 37838), (109, 38087), (133, 38330), (146, 38378), (150, 38402), (151, 38405), (154, 38456), (161, 38522), (168, 38609), (170, 38633), (177, 38705), (185, 38798), (189, 38834), (191, 38873),

Gene: ReginaGlobina_147 Start: 99503, Stop: 101404, Start Num: 5
Candidate Starts for ReginaGlobina_147:
(Start: 5 @99503 has 13 MA's), (7, 99509), (13, 99590), (33, 99746), (68, 100001), (91, 100214), (99, 100316), (110, 100430), (127, 100742), (146, 100871), (154, 100943), (184, 101288),

Gene: Rockabye_146 Start: 91370, Stop: 93013, Start Num: 5
Candidate Starts for Rockabye_146:

(1, 91307), (Start: 5 @91370 has 13 MA's), (13, 91457), (20, 91514), (28, 91586), (33, 91613), (69, 91865), (94, 92108), (102, 92195), (106, 92234), (128, 92408), (140, 92459), (142, 92471), (148, 92492), (162, 92633),

Gene: RubyRalph_46 Start: 35471, Stop: 37165, Start Num: 11
Candidate Starts for RubyRalph_46:
(Start: 11 @35471 has 3 MA's), (21, 35603), (28, 35663), (32, 35681), (36, 35711), (37, 35714), (67, 35954), (74, 36002), (98, 36275), (129, 36521), (135, 36563), (141, 36593), (147, 36620), (150, 36641), (156, 36725), (160, 36749), (165, 36809), (167, 36851), (169, 36893), (178, 36998), (180, 37025),

Gene: SJReid_148 Start: 89888, Stop: 91558, Start Num: 5
Candidate Starts for SJReid_148:
(Start: 5 @89888 has 13 MA's), (13, 89975), (30, 90110), (56, 90320), (61, 90344), (65, 90371), (69, 90392), (91, 90599), (118, 90902), (140, 91004), (142, 91016), (159, 91151), (162, 91178), (181, 91421), (188, 91463),

Gene: SadLad_48 Start: 36414, Stop: 38108, Start Num: 11
Candidate Starts for SadLad_48:
(Start: 11 @36414 has 3 MA's), (21, 36546), (28, 36606), (32, 36624), (36, 36654), (37, 36657), (67, 36897), (74, 36945), (98, 37218), (129, 37464), (135, 37506), (141, 37536), (147, 37563), (150, 37584), (156, 37668), (160, 37692), (165, 37752), (167, 37794), (169, 37836), (178, 37941), (180, 37968),

Gene: Shade_28 Start: 23623, Stop: 25212, Start Num: 8
Candidate Starts for Shade_28:
(Start: 8 @23623 has 24 MA's), (10, 23638), (12, 23653), (18, 23752), (21, 23779), (27, 23830), (43, 23929), (45, 23953), (46, 23959), (55, 24040), (60, 24061), (68, 24115), (74, 24160), (87, 24298), (101, 24424), (109, 24508), (111, 24535), (136, 24673), (145, 24712), (166, 24919), (170, 24955), (172, 24988), (173, 24997), (176, 25024), (182, 25099), (186, 25129),

Gene: Skelbel_26 Start: 20494, Stop: 21990, Start Num: 26
Candidate Starts for Skelbel_26:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: Sonny_28 Start: 23644, Stop: 25242, Start Num: 8
Candidate Starts for Sonny_28:
(Start: 8 @23644 has 24 MA's), (12, 23674), (21, 23800), (27, 23851), (39, 23923), (43, 23950), (45, 23974), (46, 23980), (55, 24061), (60, 24082), (76, 24202), (101, 24445), (103, 24463), (109, 24529), (123, 24628), (126, 24634), (131, 24679), (136, 24703), (145, 24742), (166, 24949), (170, 24985), (172, 25018), (173, 25027), (176, 25054), (182, 25129), (186, 25159),

Gene: StevieBAY_28 Start: 23729, Stop: 25318, Start Num: 8
Candidate Starts for StevieBAY_28:
(Start: 8 @23729 has 24 MA's), (12, 23759), (18, 23858), (Start: 26 @23927 has 23 MA's), (39, 24008), (43, 24035), (55, 24146), (60, 24167), (64, 24203), (90, 24425), (97, 24503), (101, 24530), (103, 24548), (109, 24614), (111, 24641), (136, 24797), (146, 24839), (166, 25043), (170, 25079), (172, 25112), (176, 25148), (182, 25220),

Gene: Stewart25555_134 Start: 96026, Stop: 97936, Start Num: 5
Candidate Starts for Stewart25555_134:

(Start: 5 @96026 has 13 MA's), (13, 96113), (59, 96470), (61, 96482), (104, 96875), (127, 97268), (130, 97289), (144, 97391), (154, 97469), (190, 97883),

Gene: Subaru_25 Start: 20494, Stop: 21990, Start Num: 26
Candidate Starts for Subaru_25:
(24, 20476), (Start: 26 @20494 has 23 MA's), (27, 20503), (30, 20512), (38, 20563), (41, 20590), (63, 20761), (68, 20785), (79, 20878), (83, 20938), (88, 20989), (133, 21409), (150, 21481), (151, 21484), (154, 21535), (168, 21688), (170, 21712), (177, 21784), (191, 21952),

Gene: Sue2_25 Start: 19348, Stop: 20793, Start Num: 26
Candidate Starts for Sue2_25:
(25, 19333), (Start: 26 @19348 has 23 MA's), (30, 19366), (38, 19417), (41, 19444), (48, 19495), (57, 19564), (68, 19630), (80, 19726), (86, 19810), (100, 19939), (105, 19975), (114, 20077), (132, 20203), (133, 20206), (150, 20278), (151, 20281), (152, 20317), (168, 20485), (170, 20509), (177, 20581), (179, 20605), (190, 20737), (191, 20752),

Gene: TaeYoung_28 Start: 23648, Stop: 25246, Start Num: 8
Candidate Starts for TaeYoung_28:
(Start: 8 @23648 has 24 MA's), (12, 23678), (21, 23804), (27, 23855), (39, 23927), (43, 23954), (45, 23978), (46, 23984), (55, 24065), (60, 24086), (74, 24185), (76, 24206), (79, 24227), (101, 24449), (103, 24467), (109, 24533), (123, 24632), (126, 24638), (131, 24683), (136, 24707), (145, 24746), (166, 24953), (170, 24989), (172, 25022), (176, 25058), (182, 25133), (186, 25163),

Gene: Talia1610_150 Start: 100678, Stop: 102339, Start Num: 5
Candidate Starts for Talia1610_150:
(Start: 5 @100678 has 13 MA's), (Start: 6 @100681 has 4 MA's), (31, 100906), (65, 101164), (69, 101185), (140, 101788), (143, 101803), (160, 101941), (170, 102067), (171, 102088), (175, 102130), (183, 102214), (193, 102331),

Gene: Tallboi_24 Start: 19849, Stop: 21330, Start Num: 26
Candidate Starts for Tallboi_24:
(24, 19831), (Start: 26 @19849 has 23 MA's), (27, 19858), (30, 19867), (38, 19918), (41, 19945), (63, 20116), (68, 20140), (79, 20233), (83, 20293), (88, 20341), (133, 20737), (150, 20809), (168, 21016), (170, 21040), (177, 21112), (191, 21280),

Gene: Tian_24 Start: 20257, Stop: 21768, Start Num: 26
Candidate Starts for Tian_24:
(24, 20239), (Start: 26 @20257 has 23 MA's), (27, 20266), (30, 20275), (38, 20326), (41, 20353), (54, 20461), (63, 20524), (68, 20548), (72, 20572), (79, 20641), (83, 20701), (133, 21175), (150, 21247), (151, 21250), (154, 21301), (168, 21454), (170, 21478), (177, 21550), (191, 21718),

Gene: Timinator_28 Start: 23729, Stop: 25318, Start Num: 8
Candidate Starts for Timinator_28:
(Start: 8 @23729 has 24 MA's), (12, 23759), (18, 23858), (Start: 26 @23927 has 23 MA's), (39, 24008), (43, 24035), (55, 24146), (60, 24167), (64, 24203), (90, 24425), (92, 24449), (97, 24503), (101, 24530), (103, 24548), (109, 24614), (111, 24641), (113, 24662), (136, 24797), (146, 24839), (166, 25043), (170, 25079), (172, 25112), (176, 25148), (182, 25220),

Gene: VResidence_24 Start: 18581, Stop: 20053, Start Num: 26
Candidate Starts for VResidence_24:
(Start: 26 @18581 has 23 MA's), (27, 18590), (30, 18599), (38, 18650), (48, 18728), (63, 18848), (68, 18872), (88, 19076), (102, 19205), (105, 19229), (109, 19277), (114, 19331), (133, 19469), (150, 19541), (151, 19544), (152, 19580), (157, 19625), (161, 19661), (168, 19748), (170, 19772), (177,

19844), (191, 20012),

Gene: WaddleDee_131 Start: 94203, Stop: 96113, Start Num: 5
Candidate Starts for WaddleDee_131:
(Start: 5 @94203 has 13 MA's), (7, 94209), (13, 94290), (33, 94446), (68, 94701), (104, 95052), (127, 95445), (146, 95580), (154, 95652),

Gene: Wildwest_54 Start: 38561, Stop: 40003, Start Num: 26
Candidate Starts for Wildwest_54:
(Start: 26 @38561 has 23 MA's), (27, 38570), (30, 38579), (38, 38630), (41, 38657), (48, 38708), (57, 38777), (63, 38819), (68, 38843), (73, 38876), (80, 38939), (109, 39224), (133, 39419), (150, 39491), (151, 39494), (168, 39698), (170, 39722), (191, 39962),

Gene: Wyborn_29 Start: 23980, Stop: 25587, Start Num: 9
Candidate Starts for Wyborn_29:
(Start: 9 @23980 has 2 MA's), (17, 24091), (18, 24103), (21, 24130), (23, 24133), (Start: 26 @24172 has 23 MA's), (27, 24181), (43, 24283), (45, 24307), (47, 24316), (50, 24334), (60, 24415), (65, 24454), (68, 24469), (70, 24481), (74, 24514), (75, 24532), (78, 24553), (82, 24580), (97, 24754), (100, 24778), (107, 24838), (121, 24967), (134, 25030), (136, 25036), (139, 25051), (155, 25138), (158, 25186), (161, 25207), (166, 25282), (170, 25318), (175, 25381), (176, 25387), (182, 25462), (187, 25495), (189, 25522),

Gene: Zartrosa_28 Start: 23647, Stop: 25236, Start Num: 8
Candidate Starts for Zartrosa_28:
(Start: 8 @23647 has 24 MA's), (12, 23677), (18, 23776), (21, 23803), (27, 23854), (43, 23953), (45, 23977), (46, 23983), (53, 24031), (55, 24064), (60, 24085), (68, 24139), (74, 24184), (87, 24322), (101, 24448), (109, 24532), (111, 24559), (136, 24697), (145, 24736), (166, 24943), (170, 24979), (172, 25012), (173, 25021), (176, 25048), (182, 25123), (186, 25153),