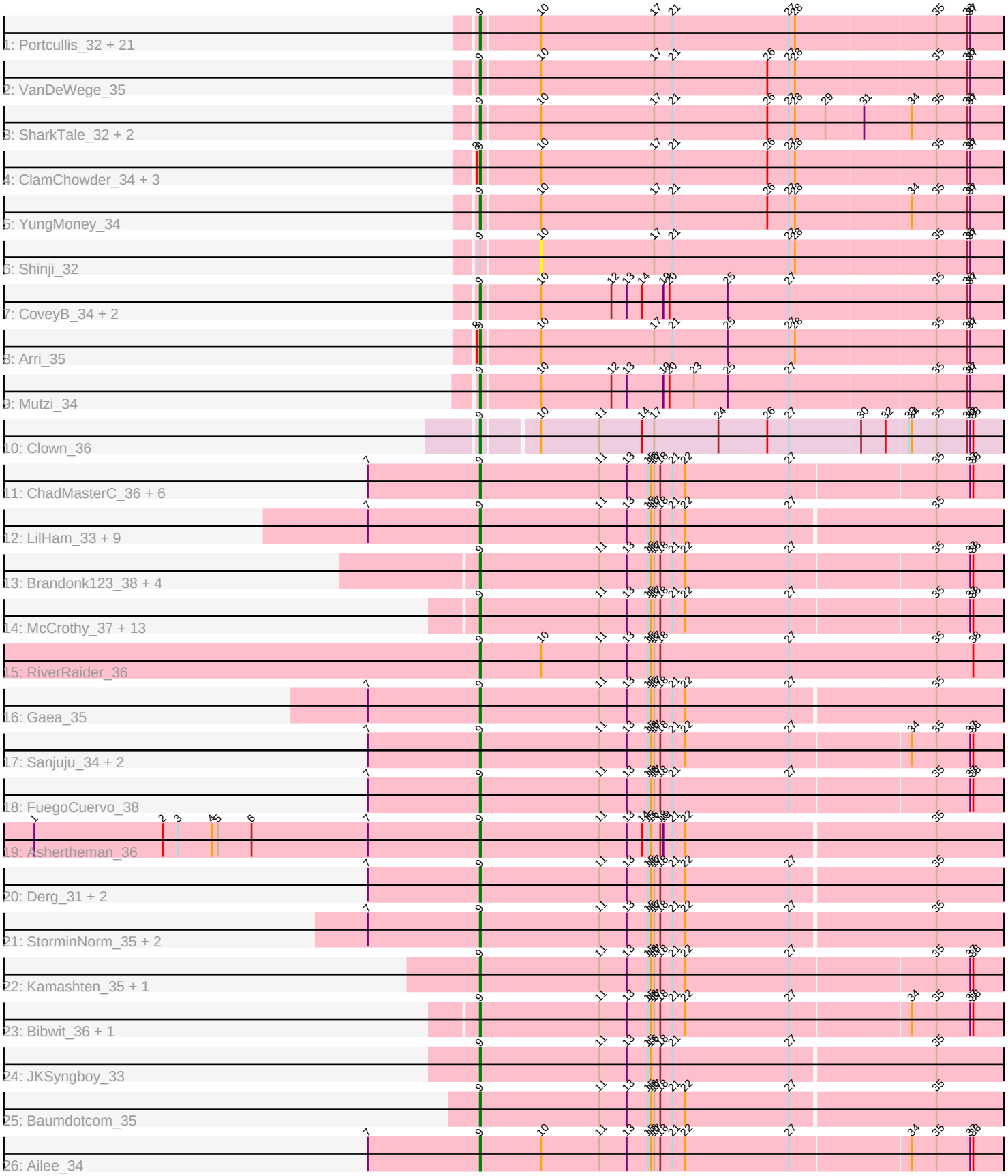
Pham 347477


1: Portcullis_32 + 21
2: VanDeWege_35
3: SharkTale_32 + 2
4: ClamChowder_34 + 3
5: YungMoney_34
6: Shinji_32
7: CoveyB_34 + 2
8: Arri_35
9: Mutzi_34
10: Clown_36
11: ChadMasterC_36 + 6
12: LilHam_33 + 9
13: Brandonk123_38 + 4
14: McCrothy_37 + 13
15: RiverRaider_36
16: Gaea_35
17: Sanjuju_34 + 2
18: FuegoCuervo_38
19: Ashertheman_36
20: Derg_31 + 2
21: StorminNorm_35 + 2
22: Kamashten_35 + 1
23: Bibwit_36 + 1
24: JKSyngboy_33
25: Baumdotcom_35
26: Ailee_34

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 347477 Report

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

Pham number 347477 has 94 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Portcullis_32, Wizard_32, TillyBobJoe_32, SmokingBunny_32, Gezellig_32, Halo3_33, JohnPork_32, PullumCavea_32, Jambalaya_32, Sendy_33, KimmyK_34, Egi03_32, Fireball_33, RogerDodger_35, Phlop_32, Valary_35, Nubi_32, CherryCola_35, Salvador_32, Evamon_32, Togo_32, Savbucketdawg_32
• Track 2 : VanDeWege_35
• Track 3 : SharkTale_32, Sixsevenium_33, Bakery_33
• Track 4 : ClamChowder_34, PinkCoffee_34, Fugax_34, Barb_34
• Track 5 : YungMoney_34
• Track 6 : Shinji_32
• Track 7 : CoveyB_34, Twister6_34, Danyall_34
• Track 8 : Arri_35
• Track 9 : Mutzi_34
• Track 10 : Clown_36
• Track 11 : ChadMasterC_36, Shivanishola_37, Kewpiedoll_35, Fitzgerald_34, Barsten_36, Stultus_34, MoontowerMania_35
• Track 12 : LilHam_33, Bizzy_36, Ribeye_36, YorkOnyx_36, Saronaya_35, Flatwoods_36, Tangerine_35, Kroos_36, Kwobi_37, Gustavo_35
• Track 13 : Brandonk123_38, Lennon_37, Geodirt_34, Sitar_37, Affeca_35
• Track 14 : McCrothy_37, BobBob_34, McKinley_39, Fosterous_35, Nordenberg_31, Love_40, Sedona_37, Charming_37, Galadriel_37, Tangent_37, Vivi2_39, Rofo_37, Angelicage_35, Paries_39
• Track 15 : RiverRaider_36
• Track 16 : Gaea_35
• Track 17 : Sanjuju_34, Jabberwocky_34, Brawn1_32
• Track 18 : FuegoCuervo_38
• Track 19 : Ashertheman_36
• Track 20 : Derg_31, Stichling_33, Baddon_35
• Track 21 : StorminNorm_35, Tycho_35, SchottB_34
• Track 22 : Kamashten_35, Thing3_35
• Track 23 : Bibwit_36, Keitabear_37
• Track 24 : JKSyngboy_33
• Track 25 : Baumdotcom_35
• Track 26 : Ailee_34

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

The start number called the most often in the published annotations is 9, it was called in 86 of the 86 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Affeca_35, Ailee_34, Angelicage_35, Arri_35, Ashertheman_36, Baddon_35, Bakery_33, Barb_34, Barsten_36, Baumdotcom_35, Bibwit_36, Bizzy_36, BobBob_34, Brandonk123_38, Brawn1_32, ChadMasterC_36, Charming_37, CherryCola_35, ClamChowder_34, Clown_36, CoveyB_34, Danyall_34, Derg_31, Egi03_32, Evamon_32, Fireball_33, Fitzgerald_34, Flatwoods_36, Fosterous_35, FuegoCuervo_38, Fugax_34, Gaea_35, Galadriel_37, Geodirt_34, Gezellig_32, Gustavo_35, Halo3_33, JKSyngboy_33, Jabberwocky_34, Jambalaya_32, JohnPork_32, Kamashten_35, Keitabear_37, Kewpiedoll_35, KimmyK_34, Kroos_36, Kwobi_37, Lennon_37, LilHam_33, Love_40, McCrothy_37, McKinley_39, MoontowerMania_35, Mutzi_34, Nordenberg_31, Nubi_32, Paries_39, Phlop_32, PinkCoffee_34, Portcullis_32, PullumCavea_32, Ribeye_36, RiverRaider_36, Rofo_37, RogerDodger_35, Salvador_32, Sanjuju_34, Saronaya_35, Savbucketdawg_32, SchottB_34, Sedona_37, Sendy_33, SharkTale_32, Shivanishola_37, Sitar_37, Sixsevenium_33, SmokingBunny_32, Stichling_33, StorminNorm_35, Stultus_34, Tangent_37, Tangerine_35, Thing3_35, TillyBobJoe_32, Togo_32, Twister6_34, Tycho_35, Valary_35, VanDeWege_35, Vivi2_39, Wizard_32, YorkOnyx_36, YungMoney_34,

Genes that have the "Most Annotated" start but do not call it:
• Shinji_32,

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

Summary by start number:

Start 9:
• Found in 94 of 94 (100.0%) of genes in pham
• Manual Annotations of this start: 86 of 86
• Called 98.9% of time when present
• Phage (with cluster) where this start called: Affeca_35 (DE1), Ailee_34 (DE1), Angelicage_35 (DE1), Arri_35 (DC1), Ashertheman_36 (DE1), Baddon_35 (DE1), Bakery_33 (DC1), Barb_34 (DC1), Barsten_36 (DE1), Baumdotcom_35 (DE1), Bibwit_36 (DE1), Bizzy_36 (DE1), BobBob_34 (DE1), Brandonk123_38 (DE1), Brawn1_32 (DE1), ChadMasterC_36 (DE1), Charming_37 (DE1), CherryCola_35 (DC1), ClamChowder_34 (DC1), Clown_36 (DC2), CoveyB_34 (DC1), Danyall_34 (DC1), Derg_31 (DE1), Egi03_32 (DC1), Evamon_32 (DC1), Fireball_33 (DC1), Fitzgerald_34 (DE1), Flatwoods_36 (DE1), Fosterous_35 (DE1), FuegoCuervo_38 (DE1), Fugax_34 (DC1), Gaea_35 (DE1), Galadriel_37 (DE1), Geodirt_34 (DE1), Gezellig_32 (DC1), Gustavo_35 (DE1), Halo3_33 (DC1), JKSyngboy_33 (DE1), Jabberwocky_34 (DE1), Jambalaya_32 (DC1), JohnPork_32 (DC1), Kamashten_35 (DE1), Keitabear_37 (DE1), Kewpiedoll_35 (DE1), KimmyK_34 (DC1), Kroos_36 (DE1), Kwobi_37 (DE1), Lennon_37 (DE1), LilHam_33 (DE1), Love_40 (DE1), McCrothy_37 (DE1), McKinley_39 (DE1), MoontowerMania_35 (DE1), Mutzi_34 (DC1), Nordenberg_31 (DE1), Nubi_32 (DC1), Paries_39 (DE1), Phlop_32 (DC1), PinkCoffee_34 (DC1), Portcullis_32 (DC1), PullumCavea_32 (DC1), Ribeye_36 (DE1), RiverRaider_36 (DE1), Rofo_37 (DE1), RogerDodger_35 (DC1), Salvador_32 (DC1), Sanjuju_34 (DE1), Saronaya_35 (DE1), Savbucketdawg_32 (DC1),

SchottB_34 (DE1), Sedona_37 (DE1), Sendy_33 (DC1), SharkTale_32 (DC1), Shivanishola_37 (DE1), Sitar_37 (DE1), Sixsevenium_33 (DC1), SmokingBunny_32 (DC1), Stichling_33 (DE1), StorminNorm_35 (DE1), Stultus_34 (DE1), Tangent_37 (DE1), Tangerine_35 (DE1), Thing3_35 (DE1), TillyBobJoe_32 (DC1), Togo_32 (DC1), Twister6_34 (DC1), Tycho_35 (DE1), Valary_35 (DC1), VanDeWege_35 (DC1), Vivi2_39 (DE1), Wizard_32 (DC1), YorkOnyx_36 (DE1), YungMoney_34 (DC1),

Start 10:
• Found in 40 of 94 (42.6%) of genes in pham
• No Manual Annotations of this start.
• Called 2.5% of time when present
• Phage (with cluster) where this start called: Shinji_32 (DC1),

Summary by clusters:

There are 3 clusters represented in this pham: DE1, DC2, DC1,

Info for manual annotations of cluster DC1:
•Start number 9 was manually annotated 32 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 9 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 9 was manually annotated 53 times for cluster DE1.

Gene Information:

Gene: Affeca_35 Start: 33020, Stop: 33577, Start Num: 9
Candidate Starts for Affeca_35:
(Start: 9 @33020 has 86 MA's), (11, 33137), (13, 33164), (15, 33185), (16, 33188), (17, 33191), (18, 33197), (21, 33209), (22, 33221), (27, 33323), (35, 33461), (37, 33494), (38, 33497),

Gene: Ailee_34 Start: 32905, Stop: 33462, Start Num: 9
Candidate Starts for Ailee_34:
(7, 32797), (Start: 9 @32905 has 86 MA's), (10, 32965), (11, 33022), (13, 33049), (15, 33070), (16, 33073), (17, 33076), (18, 33082), (21, 33094), (22, 33106), (27, 33208), (34, 33322), (35, 33346), (37, 33379), (38, 33382),

Gene: Angelicage_35 Start: 33438, Stop: 33995, Start Num: 9
Candidate Starts for Angelicage_35:
(Start: 9 @33438 has 86 MA's), (11, 33555), (13, 33582), (15, 33603), (16, 33606), (17, 33609), (18, 33615), (21, 33627), (22, 33639), (27, 33741), (35, 33879), (37, 33912), (38, 33915),

Gene: Arri_35 Start: 28371, Stop: 28919, Start Num: 9
Candidate Starts for Arri_35:
(8, 28368), (Start: 9 @28371 has 86 MA's), (10, 28425), (17, 28536), (21, 28554), (25, 28608), (27, 28668), (28, 28674), (35, 28809), (36, 28839), (37, 28842),

Gene: Ashertheman_36 Start: 31698, Stop: 32255, Start Num: 9

Candidate Starts for Ashertheman_36:
(1, 31263), (2, 31389), (3, 31404), (4, 31437), (5, 31443), (6, 31476), (7, 31590), (Start: 9 @31698 has 86 MA's), (11, 31815), (13, 31842), (14, 31857), (15, 31863), (16, 31866), (18, 31875), (19, 31878), (21, 31887), (22, 31899), (35, 32139),

Gene: Baddon_35 Start: 32495, Stop: 33052, Start Num: 9
Candidate Starts for Baddon_35:
(7, 32387), (Start: 9 @32495 has 86 MA's), (11, 32612), (13, 32639), (15, 32660), (16, 32663), (17, 32666), (18, 32672), (21, 32684), (22, 32696), (27, 32798), (35, 32936),

Gene: Bakery_33 Start: 27582, Stop: 28130, Start Num: 9
Candidate Starts for Bakery_33:
(Start: 9 @27582 has 86 MA's), (10, 27636), (17, 27747), (21, 27765), (26, 27858), (27, 27879), (28, 27885), (29, 27915), (31, 27951), (34, 27996), (35, 28020), (36, 28050), (37, 28053),

Gene: Barb_34 Start: 28389, Stop: 28937, Start Num: 9
Candidate Starts for Barb_34:
(8, 28386), (Start: 9 @28389 has 86 MA's), (10, 28443), (17, 28554), (21, 28572), (26, 28665), (27, 28686), (28, 28692), (35, 28827), (36, 28857), (37, 28860),

Gene: Barsten_36 Start: 32046, Stop: 32603, Start Num: 9
Candidate Starts for Barsten_36:
(7, 31938), (Start: 9 @32046 has 86 MA's), (11, 32163), (13, 32190), (15, 32211), (16, 32214), (17, 32217), (18, 32223), (21, 32235), (22, 32247), (27, 32349), (35, 32487), (37, 32520), (38, 32523),

Gene: Baumdotcom_35 Start: 31350, Stop: 31907, Start Num: 9
Candidate Starts for Baumdotcom_35:
(Start: 9 @31350 has 86 MA's), (11, 31467), (13, 31494), (15, 31515), (16, 31518), (17, 31521), (18, 31527), (21, 31539), (22, 31551), (27, 31653), (35, 31791),

Gene: Bibwit_36 Start: 32839, Stop: 33396, Start Num: 9
Candidate Starts for Bibwit_36:
(Start: 9 @32839 has 86 MA's), (11, 32956), (13, 32983), (15, 33004), (16, 33007), (17, 33010), (18, 33016), (21, 33028), (22, 33040), (27, 33142), (34, 33256), (35, 33280), (37, 33313), (38, 33316),

Gene: Bizzy_36 Start: 31642, Stop: 32199, Start Num: 9
Candidate Starts for Bizzy_36:
(7, 31534), (Start: 9 @31642 has 86 MA's), (11, 31759), (13, 31786), (15, 31807), (16, 31810), (17, 31813), (18, 31819), (21, 31831), (22, 31843), (27, 31945), (35, 32083),

Gene: BobBob_34 Start: 32119, Stop: 32676, Start Num: 9
Candidate Starts for BobBob_34:
(Start: 9 @32119 has 86 MA's), (11, 32236), (13, 32263), (15, 32284), (16, 32287), (17, 32290), (18, 32296), (21, 32308), (22, 32320), (27, 32422), (35, 32560), (37, 32593), (38, 32596),

Gene: Brandonk123_38 Start: 33185, Stop: 33742, Start Num: 9
Candidate Starts for Brandonk123_38:
(Start: 9 @33185 has 86 MA's), (11, 33302), (13, 33329), (15, 33350), (16, 33353), (17, 33356), (18, 33362), (21, 33374), (22, 33386), (27, 33488), (35, 33626), (37, 33659), (38, 33662),

Gene: Brawn1_32 Start: 31388, Stop: 31945, Start Num: 9
Candidate Starts for Brawn1_32:

(7, 31280), (Start: 9 @31388 has 86 MA's), (11, 31505), (13, 31532), (15, 31553), (16, 31556), (17, 31559), (18, 31565), (21, 31577), (22, 31589), (27, 31691), (34, 31805), (35, 31829), (37, 31862), (38, 31865),

Gene: ChadMasterC_36 Start: 33445, Stop: 34002, Start Num: 9
Candidate Starts for ChadMasterC_36:
(7, 33337), (Start: 9 @33445 has 86 MA's), (11, 33562), (13, 33589), (15, 33610), (16, 33613), (17, 33616), (18, 33622), (21, 33634), (22, 33646), (27, 33748), (35, 33886), (37, 33919), (38, 33922),

Gene: Charming_37 Start: 32686, Stop: 33243, Start Num: 9
Candidate Starts for Charming_37:
(Start: 9 @32686 has 86 MA's), (11, 32803), (13, 32830), (15, 32851), (16, 32854), (17, 32857), (18, 32863), (21, 32875), (22, 32887), (27, 32989), (35, 33127), (37, 33160), (38, 33163),

Gene: CherryCola_35 Start: 28609, Stop: 29157, Start Num: 9
Candidate Starts for CherryCola_35:
(Start: 9 @28609 has 86 MA's), (10, 28663), (17, 28774), (21, 28792), (27, 28906), (28, 28912), (35, 29047), (36, 29077), (37, 29080),

Gene: ClamChowder_34 Start: 28389, Stop: 28937, Start Num: 9
Candidate Starts for ClamChowder_34:
(8, 28386), (Start: 9 @28389 has 86 MA's), (10, 28443), (17, 28554), (21, 28572), (26, 28665), (27, 28686), (28, 28692), (35, 28827), (36, 28857), (37, 28860),

Gene: Clown_36 Start: 30418, Stop: 30960, Start Num: 9
Candidate Starts for Clown_36:
(Start: 9 @30418 has 86 MA's), (10, 30466), (11, 30523), (14, 30565), (17, 30577), (24, 30640), (26, 30688), (27, 30709), (30, 30778), (32, 30802), (33, 30823), (34, 30826), (35, 30850), (36, 30880), (37, 30883), (38, 30886),

Gene: CoveyB_34 Start: 28189, Stop: 28737, Start Num: 9
Candidate Starts for CoveyB_34:
(Start: 9 @28189 has 86 MA's), (10, 28243), (12, 28312), (13, 28327), (14, 28342), (19, 28363), (20, 28369), (25, 28426), (27, 28486), (35, 28627), (36, 28657), (37, 28660),

Gene: Danyall_34 Start: 28189, Stop: 28737, Start Num: 9
Candidate Starts for Danyall_34:
(Start: 9 @28189 has 86 MA's), (10, 28243), (12, 28312), (13, 28327), (14, 28342), (19, 28363), (20, 28369), (25, 28426), (27, 28486), (35, 28627), (36, 28657), (37, 28660),

Gene: Derg_31 Start: 31238, Stop: 31795, Start Num: 9
Candidate Starts for Derg_31:
(7, 31130), (Start: 9 @31238 has 86 MA's), (11, 31355), (13, 31382), (15, 31403), (16, 31406), (17, 31409), (18, 31415), (21, 31427), (22, 31439), (27, 31541), (35, 31679),

Gene: Egi03_32 Start: 27867, Stop: 28415, Start Num: 9
Candidate Starts for Egi03_32:
(Start: 9 @27867 has 86 MA's), (10, 27921), (17, 28032), (21, 28050), (27, 28164), (28, 28170), (35, 28305), (36, 28335), (37, 28338),

Gene: Evamon_32 Start: 27675, Stop: 28223, Start Num: 9
Candidate Starts for Evamon_32:

(Start: 9 @27675 has 86 MA's), (10, 27729), (17, 27840), (21, 27858), (27, 27972), (28, 27978), (35, 28113), (36, 28143), (37, 28146),

Gene: Fireball_33 Start: 27798, Stop: 28346, Start Num: 9
Candidate Starts for Fireball_33:
(Start: 9 @27798 has 86 MA's), (10, 27852), (17, 27963), (21, 27981), (27, 28095), (28, 28101), (35, 28236), (36, 28266), (37, 28269),

Gene: Fitzgerald_34 Start: 32663, Stop: 33220, Start Num: 9
Candidate Starts for Fitzgerald_34:
(7, 32555), (Start: 9 @32663 has 86 MA's), (11, 32780), (13, 32807), (15, 32828), (16, 32831), (17, 32834), (18, 32840), (21, 32852), (22, 32864), (27, 32966), (35, 33104), (37, 33137), (38, 33140),

Gene: Flatwoods_36 Start: 31599, Stop: 32156, Start Num: 9
Candidate Starts for Flatwoods_36:
(7, 31491), (Start: 9 @31599 has 86 MA's), (11, 31716), (13, 31743), (15, 31764), (16, 31767), (17, 31770), (18, 31776), (21, 31788), (22, 31800), (27, 31902), (35, 32040),

Gene: Fosterous_35 Start: 33111, Stop: 33668, Start Num: 9
Candidate Starts for Fosterous_35:
(Start: 9 @33111 has 86 MA's), (11, 33228), (13, 33255), (15, 33276), (16, 33279), (17, 33282), (18, 33288), (21, 33300), (22, 33312), (27, 33414), (35, 33552), (37, 33585), (38, 33588),

Gene: FuegoCuervo_38 Start: 31050, Stop: 31607, Start Num: 9
Candidate Starts for FuegoCuervo_38:
(7, 30942), (Start: 9 @31050 has 86 MA's), (11, 31167), (13, 31194), (15, 31215), (16, 31218), (17, 31221), (18, 31227), (21, 31239), (27, 31353), (35, 31491), (37, 31524), (38, 31527),

Gene: Fugax_34 Start: 28389, Stop: 28937, Start Num: 9
Candidate Starts for Fugax_34:
(8, 28386), (Start: 9 @28389 has 86 MA's), (10, 28443), (17, 28554), (21, 28572), (26, 28665), (27, 28686), (28, 28692), (35, 28827), (36, 28857), (37, 28860),

Gene: Gaea_35 Start: 31247, Stop: 31804, Start Num: 9
Candidate Starts for Gaea_35:
(7, 31139), (Start: 9 @31247 has 86 MA's), (11, 31364), (13, 31391), (15, 31412), (16, 31415), (17, 31418), (18, 31424), (21, 31436), (22, 31448), (27, 31550), (35, 31688),

Gene: Galadriel_37 Start: 33600, Stop: 34157, Start Num: 9
Candidate Starts for Galadriel_37:
(Start: 9 @33600 has 86 MA's), (11, 33717), (13, 33744), (15, 33765), (16, 33768), (17, 33771), (18, 33777), (21, 33789), (22, 33801), (27, 33903), (35, 34041), (37, 34074), (38, 34077),

Gene: Geodirt_34 Start: 32588, Stop: 33145, Start Num: 9
Candidate Starts for Geodirt_34:
(Start: 9 @32588 has 86 MA's), (11, 32705), (13, 32732), (15, 32753), (16, 32756), (17, 32759), (18, 32765), (21, 32777), (22, 32789), (27, 32891), (35, 33029), (37, 33062), (38, 33065),

Gene: Gezellig_32 Start: 27807, Stop: 28355, Start Num: 9
Candidate Starts for Gezellig_32:
(Start: 9 @27807 has 86 MA's), (10, 27861), (17, 27972), (21, 27990), (27, 28104), (28, 28110), (35, 28245), (36, 28275), (37, 28278),

Gene: Gustavo_35 Start: 31402, Stop: 31959, Start Num: 9
Candidate Starts for Gustavo_35:
(7, 31294), (Start: 9 @31402 has 86 MA's), (11, 31519), (13, 31546), (15, 31567), (16, 31570), (17, 31573), (18, 31579), (21, 31591), (22, 31603), (27, 31705), (35, 31843),

Gene: Halo3_33 Start: 28100, Stop: 28648, Start Num: 9
Candidate Starts for Halo3_33:
(Start: 9 @28100 has 86 MA's), (10, 28154), (17, 28265), (21, 28283), (27, 28397), (28, 28403), (35, 28538), (36, 28568), (37, 28571),

Gene: JKSyngboy_33 Start: 31977, Stop: 32534, Start Num: 9
Candidate Starts for JKSyngboy_33:
(Start: 9 @31977 has 86 MA's), (11, 32094), (13, 32121), (15, 32142), (16, 32145), (18, 32154), (21, 32166), (27, 32280), (35, 32418),

Gene: Jabberwocky_34 Start: 33124, Stop: 33681, Start Num: 9
Candidate Starts for Jabberwocky_34:
(7, 33016), (Start: 9 @33124 has 86 MA's), (11, 33241), (13, 33268), (15, 33289), (16, 33292), (17, 33295), (18, 33301), (21, 33313), (22, 33325), (27, 33427), (34, 33541), (35, 33565), (37, 33598), (38, 33601),

Gene: Jambalaya_32 Start: 27454, Stop: 28002, Start Num: 9
Candidate Starts for Jambalaya_32:
(Start: 9 @27454 has 86 MA's), (10, 27508), (17, 27619), (21, 27637), (27, 27751), (28, 27757), (35, 27892), (36, 27922), (37, 27925),

Gene: JohnPork_32 Start: 27708, Stop: 28256, Start Num: 9
Candidate Starts for JohnPork_32:
(Start: 9 @27708 has 86 MA's), (10, 27762), (17, 27873), (21, 27891), (27, 28005), (28, 28011), (35, 28146), (36, 28176), (37, 28179),

Gene: Kamashten_35 Start: 32576, Stop: 33133, Start Num: 9
Candidate Starts for Kamashten_35:
(Start: 9 @32576 has 86 MA's), (11, 32693), (13, 32720), (15, 32741), (16, 32744), (17, 32747), (18, 32753), (21, 32765), (22, 32777), (27, 32879), (35, 33017), (37, 33050), (38, 33053),

Gene: Keitabear_37 Start: 34546, Stop: 35103, Start Num: 9
Candidate Starts for Keitabear_37:
(Start: 9 @34546 has 86 MA's), (11, 34663), (13, 34690), (15, 34711), (16, 34714), (17, 34717), (18, 34723), (21, 34735), (22, 34747), (27, 34849), (34, 34963), (35, 34987), (37, 35020), (38, 35023),

Gene: Kewpiedoll_35 Start: 31983, Stop: 32540, Start Num: 9
Candidate Starts for Kewpiedoll_35:
(7, 31875), (Start: 9 @31983 has 86 MA's), (11, 32100), (13, 32127), (15, 32148), (16, 32151), (17, 32154), (18, 32160), (21, 32172), (22, 32184), (27, 32286), (35, 32424), (37, 32457), (38, 32460),

Gene: KimmyK_34 Start: 28389, Stop: 28937, Start Num: 9
Candidate Starts for KimmyK_34:
(Start: 9 @28389 has 86 MA's), (10, 28443), (17, 28554), (21, 28572), (27, 28686), (28, 28692), (35, 28827), (36, 28857), (37, 28860),

Gene: Kroos_36 Start: 32155, Stop: 32712, Start Num: 9
Candidate Starts for Kroos_36:

(7, 32047), (Start: 9 @32155 has 86 MA's), (11, 32272), (13, 32299), (15, 32320), (16, 32323), (17, 32326), (18, 32332), (21, 32344), (22, 32356), (27, 32458), (35, 32596),

Gene: Kwobi_37 Start: 32141, Stop: 32698, Start Num: 9
Candidate Starts for Kwobi_37:
(7, 32033), (Start: 9 @32141 has 86 MA's), (11, 32258), (13, 32285), (15, 32306), (16, 32309), (17, 32312), (18, 32318), (21, 32330), (22, 32342), (27, 32444), (35, 32582),

Gene: Lennon_37 Start: 34333, Stop: 34890, Start Num: 9
Candidate Starts for Lennon_37:
(Start: 9 @34333 has 86 MA's), (11, 34450), (13, 34477), (15, 34498), (16, 34501), (17, 34504), (18, 34510), (21, 34522), (22, 34534), (27, 34636), (35, 34774), (37, 34807), (38, 34810),

Gene: LilHam_33 Start: 30744, Stop: 31301, Start Num: 9
Candidate Starts for LilHam_33:
(7, 30636), (Start: 9 @30744 has 86 MA's), (11, 30861), (13, 30888), (15, 30909), (16, 30912), (17, 30915), (18, 30921), (21, 30933), (22, 30945), (27, 31047), (35, 31185),

Gene: Love_40 Start: 34116, Stop: 34673, Start Num: 9
Candidate Starts for Love_40:
(Start: 9 @34116 has 86 MA's), (11, 34233), (13, 34260), (15, 34281), (16, 34284), (17, 34287), (18, 34293), (21, 34305), (22, 34317), (27, 34419), (35, 34557), (37, 34590), (38, 34593),

Gene: McCrothy_37 Start: 33924, Stop: 34481, Start Num: 9
Candidate Starts for McCrothy_37:
(Start: 9 @33924 has 86 MA's), (11, 34041), (13, 34068), (15, 34089), (16, 34092), (17, 34095), (18, 34101), (21, 34113), (22, 34125), (27, 34227), (35, 34365), (37, 34398), (38, 34401),

Gene: McKinley_39 Start: 34142, Stop: 34699, Start Num: 9
Candidate Starts for McKinley_39:
(Start: 9 @34142 has 86 MA's), (11, 34259), (13, 34286), (15, 34307), (16, 34310), (17, 34313), (18, 34319), (21, 34331), (22, 34343), (27, 34445), (35, 34583), (37, 34616), (38, 34619),

Gene: MoontowerMania_35 Start: 32350, Stop: 32907, Start Num: 9
Candidate Starts for MoontowerMania_35:
(7, 32242), (Start: 9 @32350 has 86 MA's), (11, 32467), (13, 32494), (15, 32515), (16, 32518), (17, 32521), (18, 32527), (21, 32539), (22, 32551), (27, 32653), (35, 32791), (37, 32824), (38, 32827),

Gene: Mutzi_34 Start: 28104, Stop: 28652, Start Num: 9
Candidate Starts for Mutzi_34:
(Start: 9 @28104 has 86 MA's), (10, 28158), (12, 28227), (13, 28242), (19, 28278), (20, 28284), (23, 28308), (25, 28341), (27, 28401), (35, 28542), (36, 28572), (37, 28575),

Gene: Nordenberg_31 Start: 32312, Stop: 32869, Start Num: 9
Candidate Starts for Nordenberg_31:
(Start: 9 @32312 has 86 MA's), (11, 32429), (13, 32456), (15, 32477), (16, 32480), (17, 32483), (18, 32489), (21, 32501), (22, 32513), (27, 32615), (35, 32753), (37, 32786), (38, 32789),

Gene: Nubi_32 Start: 27677, Stop: 28225, Start Num: 9
Candidate Starts for Nubi_32:
(Start: 9 @27677 has 86 MA's), (10, 27731), (17, 27842), (21, 27860), (27, 27974), (28, 27980), (35, 28115), (36, 28145), (37, 28148),

Gene: Paries_39 Start: 33778, Stop: 34335, Start Num: 9
Candidate Starts for Paries_39:
(Start: 9 @33778 has 86 MA's), (11, 33895), (13, 33922), (15, 33943), (16, 33946), (17, 33949), (18, 33955), (21, 33967), (22, 33979), (27, 34081), (35, 34219), (37, 34252), (38, 34255),

Gene: Phlop_32 Start: 27759, Stop: 28307, Start Num: 9
Candidate Starts for Phlop_32:
(Start: 9 @27759 has 86 MA's), (10, 27813), (17, 27924), (21, 27942), (27, 28056), (28, 28062), (35, 28197), (36, 28227), (37, 28230),

Gene: PinkCoffee_34 Start: 28398, Stop: 28946, Start Num: 9
Candidate Starts for PinkCoffee_34:
(8, 28395), (Start: 9 @28398 has 86 MA's), (10, 28452), (17, 28563), (21, 28581), (26, 28674), (27, 28695), (28, 28701), (35, 28836), (36, 28866), (37, 28869),

Gene: Portcullis_32 Start: 27708, Stop: 28256, Start Num: 9
Candidate Starts for Portcullis_32:
(Start: 9 @27708 has 86 MA's), (10, 27762), (17, 27873), (21, 27891), (27, 28005), (28, 28011), (35, 28146), (36, 28176), (37, 28179),

Gene: PullumCavea_32 Start: 27759, Stop: 28307, Start Num: 9
Candidate Starts for PullumCavea_32:
(Start: 9 @27759 has 86 MA's), (10, 27813), (17, 27924), (21, 27942), (27, 28056), (28, 28062), (35, 28197), (36, 28227), (37, 28230),

Gene: Ribeye_36 Start: 32559, Stop: 33116, Start Num: 9
Candidate Starts for Ribeye_36:
(7, 32451), (Start: 9 @32559 has 86 MA's), (11, 32676), (13, 32703), (15, 32724), (16, 32727), (17, 32730), (18, 32736), (21, 32748), (22, 32760), (27, 32862), (35, 33000),

Gene: RiverRaider_36 Start: 30847, Stop: 31410, Start Num: 9
Candidate Starts for RiverRaider_36:
(Start: 9 @30847 has 86 MA's), (10, 30907), (11, 30964), (13, 30991), (15, 31012), (16, 31015), (17, 31018), (18, 31024), (27, 31150), (35, 31294), (38, 31330),

Gene: Rofo_37 Start: 33176, Stop: 33733, Start Num: 9
Candidate Starts for Rofo_37:
(Start: 9 @33176 has 86 MA's), (11, 33293), (13, 33320), (15, 33341), (16, 33344), (17, 33347), (18, 33353), (21, 33365), (22, 33377), (27, 33479), (35, 33617), (37, 33650), (38, 33653),

Gene: RogerDodger_35 Start: 28537, Stop: 29085, Start Num: 9
Candidate Starts for RogerDodger_35:
(Start: 9 @28537 has 86 MA's), (10, 28591), (17, 28702), (21, 28720), (27, 28834), (28, 28840), (35, 28975), (36, 29005), (37, 29008),

Gene: Salvador_32 Start: 27673, Stop: 28221, Start Num: 9
Candidate Starts for Salvador_32:
(Start: 9 @27673 has 86 MA's), (10, 27727), (17, 27838), (21, 27856), (27, 27970), (28, 27976), (35, 28111), (36, 28141), (37, 28144),

Gene: Sanjuju_34 Start: 32739, Stop: 33296, Start Num: 9
Candidate Starts for Sanjuju_34:

(7, 32631), (Start: 9 @32739 has 86 MA's), (11, 32856), (13, 32883), (15, 32904), (16, 32907), (17, 32910), (18, 32916), (21, 32928), (22, 32940), (27, 33042), (34, 33156), (35, 33180), (37, 33213), (38, 33216),

Gene: Saronaya_35 Start: 31402, Stop: 31959, Start Num: 9
Candidate Starts for Saronaya_35:
(7, 31294), (Start: 9 @31402 has 86 MA's), (11, 31519), (13, 31546), (15, 31567), (16, 31570), (17, 31573), (18, 31579), (21, 31591), (22, 31603), (27, 31705), (35, 31843),

Gene: Savbucketdawg_32 Start: 27454, Stop: 28002, Start Num: 9
Candidate Starts for Savbucketdawg_32:
(Start: 9 @27454 has 86 MA's), (10, 27508), (17, 27619), (21, 27637), (27, 27751), (28, 27757), (35, 27892), (36, 27922), (37, 27925),

Gene: SchottB_34 Start: 32417, Stop: 32974, Start Num: 9
Candidate Starts for SchottB_34:
(7, 32309), (Start: 9 @32417 has 86 MA's), (11, 32534), (13, 32561), (15, 32582), (16, 32585), (17, 32588), (18, 32594), (21, 32606), (22, 32618), (27, 32720), (35, 32858),

Gene: Sedona_37 Start: 34282, Stop: 34839, Start Num: 9
Candidate Starts for Sedona_37:
(Start: 9 @34282 has 86 MA's), (11, 34399), (13, 34426), (15, 34447), (16, 34450), (17, 34453), (18, 34459), (21, 34471), (22, 34483), (27, 34585), (35, 34723), (37, 34756), (38, 34759),

Gene: Sendy_33 Start: 27879, Stop: 28427, Start Num: 9
Candidate Starts for Sendy_33:
(Start: 9 @27879 has 86 MA's), (10, 27933), (17, 28044), (21, 28062), (27, 28176), (28, 28182), (35, 28317), (36, 28347), (37, 28350),

Gene: SharkTale_32 Start: 28471, Stop: 29019, Start Num: 9
Candidate Starts for SharkTale_32:
(Start: 9 @28471 has 86 MA's), (10, 28525), (17, 28636), (21, 28654), (26, 28747), (27, 28768), (28, 28774), (29, 28804), (31, 28840), (34, 28885), (35, 28909), (36, 28939), (37, 28942),

Gene: Shinji_32 Start: 27703, Stop: 28197, Start Num: 10
Candidate Starts for Shinji_32:
(Start: 9 @27649 has 86 MA's), (10, 27703), (17, 27814), (21, 27832), (27, 27946), (28, 27952), (35, 28087), (36, 28117), (37, 28120),

Gene: Shivanishola_37 Start: 32638, Stop: 33195, Start Num: 9
Candidate Starts for Shivanishola_37:
(7, 32530), (Start: 9 @32638 has 86 MA's), (11, 32755), (13, 32782), (15, 32803), (16, 32806), (17, 32809), (18, 32815), (21, 32827), (22, 32839), (27, 32941), (35, 33079), (37, 33112), (38, 33115),

Gene: Sitar_37 Start: 34333, Stop: 34890, Start Num: 9
Candidate Starts for Sitar_37:
(Start: 9 @34333 has 86 MA's), (11, 34450), (13, 34477), (15, 34498), (16, 34501), (17, 34504), (18, 34510), (21, 34522), (22, 34534), (27, 34636), (35, 34774), (37, 34807), (38, 34810),

Gene: Sixsevenium_33 Start: 27582, Stop: 28130, Start Num: 9
Candidate Starts for Sixsevenium_33:
(Start: 9 @27582 has 86 MA's), (10, 27636), (17, 27747), (21, 27765), (26, 27858), (27, 27879), (28, 27885), (29, 27915), (31, 27951), (34, 27996), (35, 28020), (36, 28050), (37, 28053),

Gene: SmokingBunny_32 Start: 27664, Stop: 28212, Start Num: 9
Candidate Starts for SmokingBunny_32:
(Start: 9 @27664 has 86 MA's), (10, 27718), (17, 27829), (21, 27847), (27, 27961), (28, 27967), (35, 28102), (36, 28132), (37, 28135),

Gene: Stichling_33 Start: 30937, Stop: 31494, Start Num: 9
Candidate Starts for Stichling_33:
(7, 30829), (Start: 9 @30937 has 86 MA's), (11, 31054), (13, 31081), (15, 31102), (16, 31105), (17, 31108), (18, 31114), (21, 31126), (22, 31138), (27, 31240), (35, 31378),

Gene: StorminNorm_35 Start: 31284, Stop: 31841, Start Num: 9
Candidate Starts for StorminNorm_35:
(7, 31176), (Start: 9 @31284 has 86 MA's), (11, 31401), (13, 31428), (15, 31449), (16, 31452), (17, 31455), (18, 31461), (21, 31473), (22, 31485), (27, 31587), (35, 31725),

Gene: Stultus_34 Start: 31655, Stop: 32212, Start Num: 9
Candidate Starts for Stultus_34:
(7, 31547), (Start: 9 @31655 has 86 MA's), (11, 31772), (13, 31799), (15, 31820), (16, 31823), (17, 31826), (18, 31832), (21, 31844), (22, 31856), (27, 31958), (35, 32096), (37, 32129), (38, 32132),

Gene: Tangent_37 Start: 32698, Stop: 33255, Start Num: 9
Candidate Starts for Tangent_37:
(Start: 9 @32698 has 86 MA's), (11, 32815), (13, 32842), (15, 32863), (16, 32866), (17, 32869), (18, 32875), (21, 32887), (22, 32899), (27, 33001), (35, 33139), (37, 33172), (38, 33175),

Gene: Tangerine_35 Start: 31287, Stop: 31844, Start Num: 9
Candidate Starts for Tangerine_35:
(7, 31179), (Start: 9 @31287 has 86 MA's), (11, 31404), (13, 31431), (15, 31452), (16, 31455), (17, 31458), (18, 31464), (21, 31476), (22, 31488), (27, 31590), (35, 31728),

Gene: Thing3_35 Start: 32576, Stop: 33133, Start Num: 9
Candidate Starts for Thing3_35:
(Start: 9 @32576 has 86 MA's), (11, 32693), (13, 32720), (15, 32741), (16, 32744), (17, 32747), (18, 32753), (21, 32765), (22, 32777), (27, 32879), (35, 33017), (37, 33050), (38, 33053),

Gene: TillyBobJoe_32 Start: 27463, Stop: 28011, Start Num: 9
Candidate Starts for TillyBobJoe_32:
(Start: 9 @27463 has 86 MA's), (10, 27517), (17, 27628), (21, 27646), (27, 27760), (28, 27766), (35, 27901), (36, 27931), (37, 27934),

Gene: Togo_32 Start: 27664, Stop: 28212, Start Num: 9
Candidate Starts for Togo_32:
(Start: 9 @27664 has 86 MA's), (10, 27718), (17, 27829), (21, 27847), (27, 27961), (28, 27967), (35, 28102), (36, 28132), (37, 28135),

Gene: Twister6_34 Start: 28100, Stop: 28648, Start Num: 9
Candidate Starts for Twister6_34:
(Start: 9 @28100 has 86 MA's), (10, 28154), (12, 28223), (13, 28238), (14, 28253), (19, 28274), (20, 28280), (25, 28337), (27, 28397), (35, 28538), (36, 28568), (37, 28571),

Gene: Tycho_35 Start: 31376, Stop: 31933, Start Num: 9
Candidate Starts for Tycho_35:

(7, 31268), (Start: 9 @31376 has 86 MA's), (11, 31493), (13, 31520), (15, 31541), (16, 31544), (17, 31547), (18, 31553), (21, 31565), (22, 31577), (27, 31679), (35, 31817),

Gene: Valary_35 Start: 28609, Stop: 29157, Start Num: 9
Candidate Starts for Valary_35:
(Start: 9 @28609 has 86 MA's), (10, 28663), (17, 28774), (21, 28792), (27, 28906), (28, 28912), (35, 29047), (36, 29077), (37, 29080),

Gene: VanDeWege_35 Start: 28436, Stop: 28984, Start Num: 9
Candidate Starts for VanDeWege_35:
(Start: 9 @28436 has 86 MA's), (10, 28490), (17, 28601), (21, 28619), (26, 28712), (27, 28733), (28, 28739), (35, 28874), (36, 28904), (37, 28907),

Gene: Vivi2_39 Start: 33856, Stop: 34413, Start Num: 9
Candidate Starts for Vivi2_39:
(Start: 9 @33856 has 86 MA's), (11, 33973), (13, 34000), (15, 34021), (16, 34024), (17, 34027), (18, 34033), (21, 34045), (22, 34057), (27, 34159), (35, 34297), (37, 34330), (38, 34333),

Gene: Wizard_32 Start: 27807, Stop: 28355, Start Num: 9
Candidate Starts for Wizard_32:
(Start: 9 @27807 has 86 MA's), (10, 27861), (17, 27972), (21, 27990), (27, 28104), (28, 28110), (35, 28245), (36, 28275), (37, 28278),

Gene: YorkOnyx_36 Start: 31635, Stop: 32192, Start Num: 9
Candidate Starts for YorkOnyx_36:
(7, 31527), (Start: 9 @31635 has 86 MA's), (11, 31752), (13, 31779), (15, 31800), (16, 31803), (17, 31806), (18, 31812), (21, 31824), (22, 31836), (27, 31938), (35, 32076),

Gene: YungMoney_34 Start: 29155, Stop: 29703, Start Num: 9
Candidate Starts for YungMoney_34:
(Start: 9 @29155 has 86 MA's), (10, 29209), (17, 29320), (21, 29338), (26, 29431), (27, 29452), (28, 29458), (34, 29569), (35, 29593), (36, 29623), (37, 29626),