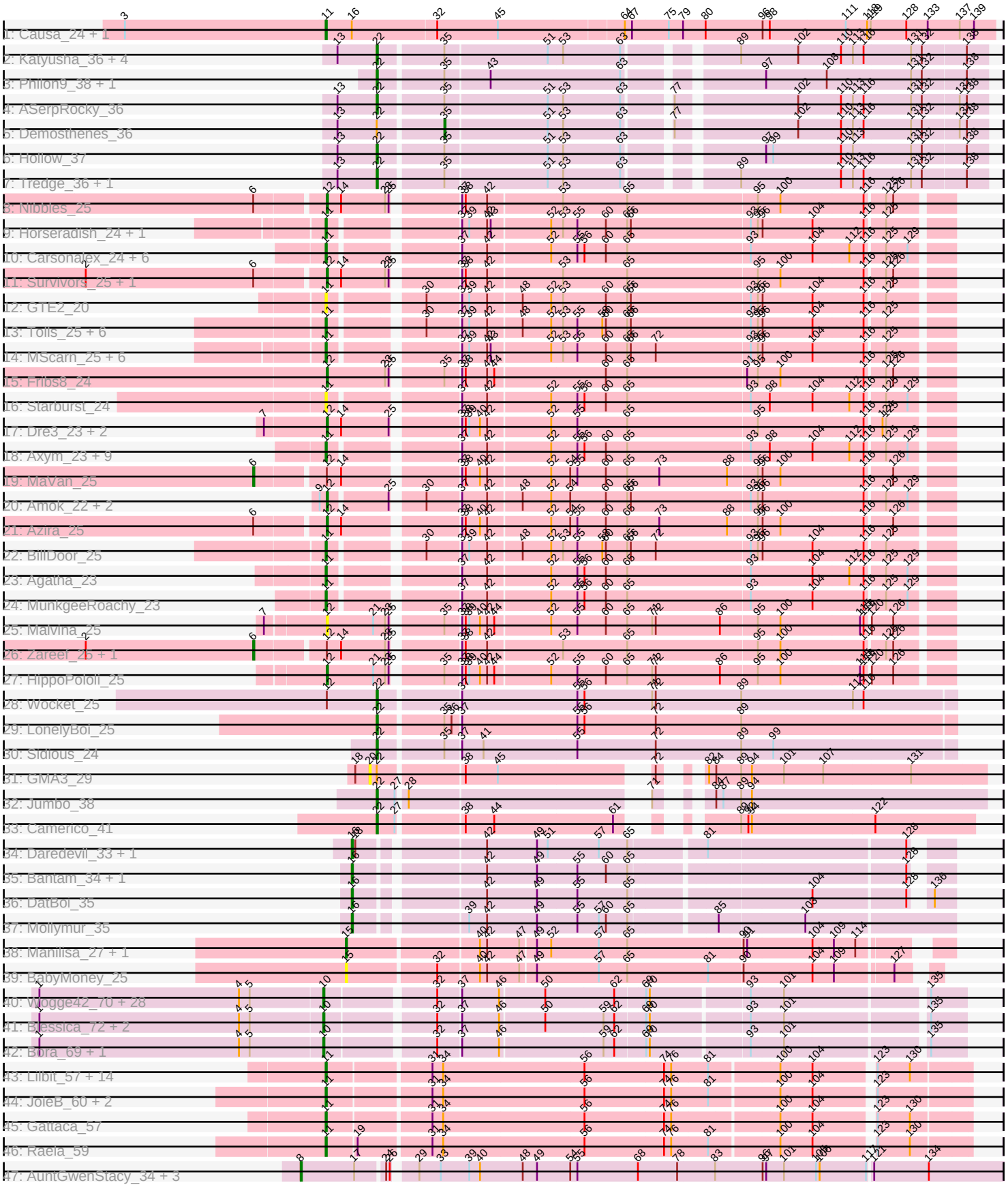
# Pham 347366


1: Causa_24 + 1
2: Katyusha_36 + 4
3: Philon9_38 + 1
4: ASerpRocky_36
5: Demosthenes_36
6: Hollow_37
7: Tredge_36 + 1
8: Nibbles_25
9: Horseradish_24 + 1
10: Carsonalex_24 + 6
11: Survivors_25 + 1
12: GTE2_20
13: Tolls_25 + 6
14: MScarn_25 + 6
15: Fribs8_24
16: Starburst_24
17: Dre3_23 + 2
18: Axym_23 + 9
19: MaVan_25
20: Amok_22 + 2
21: Azira_25
22: BillDoor_25
23: Agatha_23
24: MunkgeeRoachy_23
25: Malvina_25
26: Zareef_25 + 1
27: HippoPolloi_25
28: Wocket_25
29: LonelyBoi_25
30: Sidious_24
31: GMA3_29
32: Jumbo_38
33: Camerico_41
34: Daredevil_33 + 1
35: Bantam_34 + 1
36: DatBoi_35
37: Mollymur_35
38: Manilisa_27 + 1
39: BabyMoney_25
40: Wogge42_70 + 28
41: Blessica_72 + 2
42: Bora_69 + 1
43: Lilbit_57 + 14
44: JoieB_60 + 2
45: Gattaca_57
46: Raela_59
47: AuntGwenStacy_34 + 3

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 347366 Report

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

Pham number 347366 has 141 members, 17 are drafts.

Phages represented in each track:
• Track 1 : Causa_24, StAugustine_22
• Track 2 : Katyusha_36, Teech_36, Benczkowski14_36, Kvothe_36, Niagara_36
• Track 3 : Philon9_38, Vitaenoii_38
• Track 4 : ASerpRocky_36
• Track 5 : Demosthenes_36
• Track 6 : Hollow_37
• Track 7 : Tredge_36, Teatealatte_36
• Track 8 : Nibbles_25
• Track 9 : Horseradish_24, Yummy_24
• Track 10 : Carsonalex_24, Cozz_23, RSchmailzl_24, Nina_24, Typhonomachy_23, Burnsey_23, Quasar_23
• Track 11 : Survivors_25, Wallaby_27
• Track 12 : GTE2_20
• Track 13 : Tolls_25, AndPeggy_22, CanesSauce_23, Yarn_22, SteamedHams_25, CaramelLatte_23, ChocoMunchkin_23
• Track 14 : MScarn_25, Blondies_24, Biskit_24, Buttrmlkdreams_23, SketchMex_22, SweatNTears_25, Troje_23
• Track 15 : Fribs8_24
• Track 16 : Starburst_24
• Track 17 : Dre3_23, Gibbous_23, Cleo_23
• Track 18 : Axym_23, Sopespian_23, RADical_24, RedBaron_25, ChickenTender_25, GoldHunter_23, Socotra_24, PsychoKiller_23, Bubble_23, Eliott_23
• Track 19 : MaVan_25
• Track 20 : Amok_22, Emalyn_22, AikoCarson_22
• Track 21 : Azira_25
• Track 22 : BillDoor_25
• Track 23 : Agatha_23
• Track 24 : MunkgeeRoachy_23
• Track 25 : Malvina_25
• Track 26 : Zareef_25, Wolfwood_25
• Track 27 : HippoPololi_25
• Track 28 : Wocket_25
• Track 29 : LonelyBoi_25
• Track 30 : Sidious_24
• Track 31 : GMA3_29
• Track 32 : Jumbo_38

• Track 33 : Camerico_41
• Track 34 : Daredevil_33, Towmatter_32
• Track 35 : Bantam_34, SpeedDemon_360
• Track 36 : DatBoi_35
• Track 37 : Mollymur_35
• Track 38 : Manilisa_27, Phishy_26
• Track 39 : BabyMoney_25
• Track 40 : Wogge42_70, Imara_71, Winget_72, Shida_71, SchoolBus_71, KingPhillip3_71, Catdawg_71, Schuy_72, Krili_70, JangDynasty_71, TelAviv_68, YungJamal_76, Dylan_71, Vagabond_71, YoyoKar_69, Corndog_74, Wildflower_71, Alkhayr_71, Vorrps_71, Mori_71, Ashwin_73, Firecracker_73, Familton_72, Zakhe101_70, FoulBall_71, Smooch_74, NiebruSaylor_70, Idergollasper_71, Zebo_71
• Track 41 : Blessica_72, Ryadel_75, MadKillah_72
• Track 42 : Bora_69, Murai_72
• Track 43 : Lilbit_57, Corazon_57, FeliMaine_61, MosMoris_56, Blackbeetle_59, GoongGoong_58, Marvin_55, Caprice_58, Tesla_56, Poise_59, LittleLaf_59, Clarkson_60, Beelzebub_63, Huphlepuff_61, RedRaider77_58
• Track 44 : JoieB_60, VasuNzinga_58, Pringar_58
• Track 45 : Gattaca_57
• Track 46 : Raela_59
• Track 47 : AuntGwenStacy_34, Typha_34, Faiyaz_34, Hilltopfarm_34

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

The start number called the most often in the published annotations is 11, it was called in 50 of the 124 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Agatha_23, AndPeggy_22, Axym_23, Beelzebub_63, BillDoor_25, Biskit_24, Blackbeetle_59, Blondies_24, Bubble_23, Burnsey_23, Buttrmlkdreams_23, CanesSauce_23, Caprice_58, CaramelLatte_23, Carsonalex_24, Causa_24, ChickenTender_25, ChocoMunchkin_23, Clarkson_60, Corazon_57, Cozz_23, Eliott_23, FeliMaine_61, GTE2_20, Gattaca_57, GoldHunter_23, GoongGoong_58, Horseradish_24, Huphlepuff_61, JoieB_60, Lilbit_57, LittleLaf_59, MScarn_25, Marvin_55, MosMoris_56, MunkgeeRoachy_23, Nina_24, Poise_59, Pringar_58, PsychoKiller_23, Quasar_23, RADical_24, RSchmailzl_24, Raela_59, RedBaron_25, RedRaider77_58, SketchMex_22, Socotra_24, Sopespian_23, StAugustine_22, Starburst_24, SteamedHams_25, SweatNTears_25, Tesla_56, Tolls_25, Troje_23, Typhonomachy_23, VasuNzinga_58, Yarn_22, Yummy_24,

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

Genes that do not have the "Most Annotated" start:
• ASerpRocky_36, AikoCarson_22, Alkhayr_71, Amok_22, Ashwin_73, AuntGwenStacy_34, Azira_25, BabyMoney_25, Bantam_34, Benczkowski14_36, Blessica_72, Bora_69, Camerico_41, Catdawg_71, Cleo_23, Corndog_74, Daredevil_33, DatBoi_35, Demosthenes_36, Dre3_23, Dylan_71, Emalyn_22, Faiyaz_34, Familton_72, Firecracker_73, FoulBall_71, Fribs8_24, GMA3_29,

Gibbous_23, Hilltopfarm_34, HippoPololi_25, Hollow_37, Idergollasper_71, Imara_71, JangDynasty_71, Jumbo_38, Katyusha_36, KingPhillip3_71, Krili_70, Kvothe_36, LonelyBoi_25, MaVan_25, MadKillah_72, Malvina_25, Manilisa_27, Mollymur_35, Mori_71, Murai_72, Niagara_36, Nibbles_25, NiebruSaylor_70, Philon9_38, Phishy_26, Ryadel_75, SchoolBus_71, Schuy_72, Shida_71, Sidious_24, Smooch_74, SpeedDemon_360, Survivors_25, Teatealatte_36, Teech_36, TelAviv_68, Towmatter_32, Tredge_36, Typha_34, Vagabond_71, Vitaenoii_38, Vorrps_71, Wallaby_27, Wildflower_71, Winget_72, Wocket_25, Wogge42_70, Wolfwood_25, YoyoKar_69, YungJamal_76, Zakhe101_70, Zareef_25, Zebo_71,

**Summary by start number:**

Start 6:
• Found in 7 of 141 ( 5.0% ) of genes in pham
• Manual Annotations of this start: 3 of 124
• Called 42.9% of time when present
• Phage (with cluster) where this start called: MaVan_25 (CT), Wolfwood_25 (CT), Zareef_25 (CT),

Start 8:
• Found in 4 of 141 ( 2.8% ) of genes in pham
• Manual Annotations of this start: 4 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_34 (Y), Faiyaz_34 (Y), Hilltopfarm_34 (Y), Typha_34 (Y),

Start 10:
• Found in 34 of 141 ( 24.1% ) of genes in pham
• Manual Annotations of this start: 32 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alkhayr_71 (O), Ashwin_73 (O), Blessica_72 (O), Bora_69 (O), Catdawg_71 (O), Corndog_74 (O), Dylan_71 (O), Familton_72 (O), Firecracker_73 (O), FoulBall_71 (O), Idergollasper_71 (O), Imara_71 (O), JangDynasty_71 (O), KingPhillip3_71 (O), Krili_70 (O), MadKillah_72 (O), Mori_71 (O), Murai_72 (O), NiebruSaylor_70 (O), Ryadel_75 (O), SchoolBus_71 (O), Schuy_72 (O), Shida_71 (O), Smooch_74 (O), TelAviv_68 (O), Vagabond_71 (O), Vorrps_71 (O), Wildflower_71 (O), Winget_72 (O), Wogge42_70 (O), YoyoKar_69 (O), YungJamal_76 (O), Zakhe101_70 (O), Zebo_71 (O),

Start 11:
• Found in 60 of 141 ( 42.6% ) of genes in pham
• Manual Annotations of this start: 50 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agatha_23 (CT), AndPeggy_22 (CT), Axym_23 (CT), Beelzebub_63 (S), BillDoor_25 (CT), Biskit_24 (CT), Blackbeetle_59 (S), Blondies_24 (CT), Bubble_23 (CT), Burnsey_23 (CT), Buttrmlkdreams_23 (CT), CanesSauce_23 (CT), Caprice_58 (S), CaramelLatte_23 (CT), Carsonalex_24 (CT), Causa_24 (AI), ChickenTender_25 (CT), ChocoMunchkin_23 (CT), Clarkson_60 (S), Corazon_57 (S), Cozz_23 (CT), Eliott_23 (CT), FeliMaine_61 (S), GTE2_20 (CT), Gattaca_57 (S), GoldHunter_23 (CT), GoongGoong_58 (S), Horseradish_24 (CT), Huphlepuff_61 (S), JoieB_60 (S), Lilbit_57 (S), LittleLaf_59 (S), MScarn_25 (CT), Marvin_55 (S), MosMoris_56 (S), MunkgeeRoachy_23 (CT), Nina_24 (CT), Poise_59 (S), Pringar_58 (S), PsychoKiller_23 (CT), Quasar_23 (CT), RADical_24 (CT),

RSchmailzl_24 (CT), Raela_59 (S), RedBaron_25 (CT), RedRaider77_58 (S), SketchMex_22 (CT), Socotra_24 (CT), Sopespian_23 (CT), StAugustine_22 (AI), Starburst_24 (CT), SteamedHams_25 (CT), SweatNTears_25 (CT), Tesla_56 (S), Tolls_25 (CT), Troje_23 (CT), Typhonomachy_23 (CT), VasuNzinga_58 (S), Yarn_22 (CT), Yummy_24 (CT),

Start 12:
• Found in 17 of 141 ( 12.1% ) of genes in pham
• Manual Annotations of this start: 11 of 124
• Called 76.5% of time when present
• Phage (with cluster) where this start called: AikoCarson_22 (CT), Amok_22 (CT), Azira_25 (CT), Cleo_23 (CT), Dre3_23 (CT), Emalyn_22 (CT), Fribs8_24 (CT), Gibbous_23 (CT), HippoPololi_25 (CT), Malvina_25 (CT), Nibbles_25 (CT), Survivors_25 (CT), Wallaby_27 (CT),

Start 15:
• Found in 3 of 141 ( 2.1% ) of genes in pham
• Manual Annotations of this start: 1 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BabyMoney_25 (DT), Manilisa_27 (DT), Phishy_26 (DT),

Start 16:
• Found in 8 of 141 ( 5.7% ) of genes in pham
• Manual Annotations of this start: 6 of 124
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Bantam_34 (DL), Daredevil_33 (DL), DatBoi_35 (DL), Mollymur_35 (DL), SpeedDemon_360 (DL), Towmatter_32 (DL),

Start 20:
• Found in 1 of 141 ( 0.7% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA3_29 (DF2),

Start 22:
• Found in 18 of 141 ( 12.8% ) of genes in pham
• Manual Annotations of this start: 16 of 124
• Called 88.9% of time when present
• Phage (with cluster) where this start called: ASerpRocky_36 (CS4), Benczkowski14_36 (CS4), Camerico_41 (DF4), Hollow_37 (CS4), Jumbo_38 (DF3), Katyusha_36 (CS4), Kvothe_36 (CS4), LonelyBoi_25 (CY7), Niagara_36 (CS4), Philon9_38 (CS4), Sidious_24 (CZ7), Teatealatte_36 (CS4), Teech_36 (CS4), Tredge_36 (CS4), Vitaenoii_38 (CS4), Wocket_25 (CV),

Start 35:
• Found in 17 of 141 ( 12.1% ) of genes in pham
• Manual Annotations of this start: 1 of 124
• Called 5.9% of time when present
• Phage (with cluster) where this start called: Demosthenes_36 (CS4),

**Summary by clusters:**

There are 14 clusters represented in this pham: DL, CY7, AI, DF4, CZ7, O, DF2, S, DF3, Y, CS4, DT, CV, CT,

Info for manual annotations of cluster AI:
•Start number 11 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster CS4:
•Start number 22 was manually annotated 11 times for cluster CS4.
•Start number 35 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster CT:
•Start number 6 was manually annotated 3 times for cluster CT.
•Start number 11 was manually annotated 28 times for cluster CT.
•Start number 12 was manually annotated 11 times for cluster CT.

Info for manual annotations of cluster CV:
•Start number 22 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY7:
•Start number 22 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ7:
•Start number 22 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DF3:
•Start number 22 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:
•Start number 22 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster DL:
•Start number 16 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DT:
•Start number 15 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster O:
•Start number 10 was manually annotated 32 times for cluster O.

Info for manual annotations of cluster S:
•Start number 11 was manually annotated 20 times for cluster S.

Info for manual annotations of cluster Y:
•Start number 8 was manually annotated 4 times for cluster Y.

### *Gene Information:*

Gene: ASerpRocky_36 Start: 41807, Stop: 42283, Start Num: 22
Candidate Starts for ASerpRocky_36:

(13, 41774), (Start: 22 @41807 has 16 MA's), (Start: 35 @41858 has 1 MA's), (51, 41942), (53, 41954), (63, 42002), (77, 42035), (102, 42128), (110, 42164), (113, 42173), (116, 42182), (131, 42221), (132, 42230), (137, 42260), (138, 42266),

Gene: Agatha_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Agatha_23:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: AikoCarson_22 Start: 18977, Stop: 19465, Start Num: 12
Candidate Starts for AikoCarson_22:
(9, 18971), (Start: 12 @18977 has 11 MA's), (25, 19022), (30, 19043), (37, 19070), (42, 19091), (48, 19118), (52, 19142), (54, 19157), (60, 19187), (65, 19205), (66, 19208), (93, 19307), (95, 19313), (96, 19316), (116, 19400), (125, 19415), (129, 19433),

Gene: Alkhayr_71 Start: 45256, Stop: 45753, Start Num: 10
Candidate Starts for Alkhayr_71:
(1, 45019), (4, 45187), (5, 45196), (Start: 10 @45256 has 32 MA's), (32, 45340), (37, 45358), (46, 45388), (50, 45424), (62, 45481), (69, 45505), (70, 45508), (93, 45586), (101, 45613), (135, 45724),

Gene: Amok_22 Start: 18974, Stop: 19462, Start Num: 12
Candidate Starts for Amok_22:
(9, 18968), (Start: 12 @18974 has 11 MA's), (25, 19019), (30, 19040), (37, 19067), (42, 19088), (48, 19115), (52, 19139), (54, 19154), (60, 19184), (65, 19202), (66, 19205), (93, 19304), (95, 19310), (96, 19313), (116, 19397), (125, 19412), (129, 19430),

Gene: AndPeggy_22 Start: 19379, Stop: 19867, Start Num: 11
Candidate Starts for AndPeggy_22:
(Start: 11 @19379 has 50 MA's), (30, 19445), (37, 19472), (39, 19478), (42, 19493), (48, 19520), (52, 19544), (53, 19553), (55, 19565), (58, 19586), (60, 19589), (65, 19607), (66, 19610), (93, 19709), (95, 19715), (96, 19718), (104, 19760), (116, 19802), (125, 19817),

Gene: Ashwin_73 Start: 46026, Stop: 46523, Start Num: 10
Candidate Starts for Ashwin_73:
(1, 45789), (4, 45957), (5, 45966), (Start: 10 @46026 has 32 MA's), (32, 46110), (37, 46128), (46, 46158), (50, 46194), (62, 46251), (69, 46275), (70, 46278), (93, 46356), (101, 46383), (135, 46494),

Gene: AuntGwenStacy_34 Start: 30688, Stop: 31254, Start Num: 8
Candidate Starts for AuntGwenStacy_34:
(Start: 8 @30688 has 4 MA's), (17, 30733), (24, 30754), (26, 30757), (29, 30772), (33, 30790), (39, 30814), (40, 30823), (48, 30859), (49, 30871), (54, 30898), (55, 30904), (68, 30955), (78, 30988), (83, 31018), (96, 31057), (97, 31060), (101, 31075), (105, 31102), (106, 31105), (117, 31144), (121, 31147), (134, 31192),

Gene: Axym_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Axym_23:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (98, 20064), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Azira_25 Start: 20672, Stop: 21166, Start Num: 12
Candidate Starts for Azira_25:

(Start: 6 @20618 has 3 MA's), (Start: 12 @20672 has 11 MA's), (14, 20684), (37, 20771), (38, 20774), (40, 20786), (42, 20792), (52, 20843), (54, 20858), (55, 20864), (60, 20888), (65, 20906), (73, 20933), (88, 20990), (95, 21014), (96, 21017), (100, 21032), (116, 21101), (126, 21122),

Gene: BabyMoney_25 Start: 21466, Stop: 21930, Start Num: 15
Candidate Starts for BabyMoney_25:
(Start: 15 @21466 has 1 MA's), (32, 21538), (40, 21571), (42, 21577), (47, 21604), (49, 21616), (57, 21667), (65, 21691), (81, 21757), (90, 21784), (104, 21841), (109, 21859), (127, 21904),

Gene: Bantam_34 Start: 30999, Stop: 31454, Start Num: 16
Candidate Starts for Bantam_34:
(Start: 16 @30999 has 6 MA's), (42, 31095), (49, 31137), (55, 31170), (60, 31194), (65, 31212), (128, 31428),

Gene: Beelzebub_63 Start: 34497, Stop: 35006, Start Num: 11
Candidate Starts for Beelzebub_63:
(Start: 11 @34497 has 50 MA's), (31, 34578), (34, 34587), (56, 34704), (74, 34770), (76, 34776), (81, 34806), (100, 34860), (104, 34887), (123, 34932), (130, 34959),

Gene: Benczkowski14_36 Start: 41840, Stop: 42316, Start Num: 22
Candidate Starts for Benczkowski14_36:
(13, 41807), (Start: 22 @41840 has 16 MA's), (Start: 35 @41891 has 1 MA's), (51, 41975), (53, 41987), (63, 42035), (89, 42113), (102, 42161), (110, 42197), (113, 42206), (116, 42215), (131, 42254), (132, 42263), (138, 42299),

Gene: BillDoor_25 Start: 19347, Stop: 19835, Start Num: 11
Candidate Starts for BillDoor_25:
(Start: 11 @19347 has 50 MA's), (30, 19413), (37, 19440), (39, 19446), (42, 19461), (48, 19488), (52, 19512), (53, 19521), (55, 19533), (58, 19554), (60, 19557), (65, 19575), (66, 19578), (72, 19599), (93, 19677), (95, 19683), (96, 19686), (104, 19728), (116, 19770), (125, 19785),

Gene: Biskit_24 Start: 19367, Stop: 19855, Start Num: 11
Candidate Starts for Biskit_24:
(Start: 11 @19367 has 50 MA's), (37, 19460), (39, 19466), (42, 19481), (43, 19484), (52, 19532), (53, 19541), (55, 19553), (60, 19577), (65, 19595), (66, 19598), (72, 19619), (93, 19697), (95, 19703), (96, 19706), (104, 19748), (116, 19790), (125, 19805),

Gene: Blackbeetle_59 Start: 33542, Stop: 34051, Start Num: 11
Candidate Starts for Blackbeetle_59:
(Start: 11 @33542 has 50 MA's), (31, 33623), (34, 33632), (56, 33749), (74, 33815), (76, 33821), (81, 33851), (100, 33905), (104, 33932), (123, 33977), (130, 34004),

Gene: Blessica_72 Start: 45855, Stop: 46352, Start Num: 10
Candidate Starts for Blessica_72:
(1, 45618), (4, 45786), (5, 45795), (Start: 10 @45855 has 32 MA's), (32, 45939), (37, 45957), (46, 45987), (50, 46023), (59, 46071), (62, 46080), (69, 46104), (70, 46107), (93, 46185), (101, 46212), (135, 46323),

Gene: Blondies_24 Start: 19350, Stop: 19838, Start Num: 11
Candidate Starts for Blondies_24:
(Start: 11 @19350 has 50 MA's), (37, 19443), (39, 19449), (42, 19464), (43, 19467), (52, 19515), (53, 19524), (55, 19536), (60, 19560), (65, 19578), (66, 19581), (72, 19602), (93, 19680), (95, 19686), (96, 19689), (104, 19731), (116, 19773), (125, 19788),

Gene: Bora_69 Start: 45236, Stop: 45733, Start Num: 10
Candidate Starts for Bora_69:
(1, 44999), (4, 45167), (5, 45176), (Start: 10 @45236 has 32 MA's), (32, 45320), (37, 45338), (46, 45368), (59, 45452), (62, 45461), (69, 45485), (70, 45488), (93, 45566), (101, 45593), (135, 45704),

Gene: Bubble_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Bubble_23:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (98, 20064), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Burnsey_23 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for Burnsey_23:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: Buttrmlkdreams_23 Start: 19349, Stop: 19837, Start Num: 11
Candidate Starts for Buttrmlkdreams_23:
(Start: 11 @19349 has 50 MA's), (37, 19442), (39, 19448), (42, 19463), (43, 19466), (52, 19514), (53, 19523), (55, 19535), (60, 19559), (65, 19577), (66, 19580), (72, 19601), (93, 19679), (95, 19685), (96, 19688), (104, 19730), (116, 19772), (125, 19787),

Gene: Camerico_41 Start: 43731, Stop: 44168, Start Num: 22
Candidate Starts for Camerico_41:
(Start: 22 @43731 has 16 MA's), (27, 43746), (38, 43797), (44, 43821), (61, 43920), (89, 43974), (92, 43980), (94, 43983), (122, 44085),

Gene: CanesSauce_23 Start: 19380, Stop: 19868, Start Num: 11
Candidate Starts for CanesSauce_23:
(Start: 11 @19380 has 50 MA's), (30, 19446), (37, 19473), (39, 19479), (42, 19494), (48, 19521), (52, 19545), (53, 19554), (55, 19566), (58, 19587), (60, 19590), (65, 19608), (66, 19611), (93, 19710), (95, 19716), (96, 19719), (104, 19761), (116, 19803), (125, 19818),

Gene: Caprice_58 Start: 33856, Stop: 34365, Start Num: 11
Candidate Starts for Caprice_58:
(Start: 11 @33856 has 50 MA's), (31, 33937), (34, 33946), (56, 34063), (74, 34129), (76, 34135), (81, 34165), (100, 34219), (104, 34246), (123, 34291), (130, 34318),

Gene: CaramelLatte_23 Start: 19380, Stop: 19868, Start Num: 11
Candidate Starts for CaramelLatte_23:
(Start: 11 @19380 has 50 MA's), (30, 19446), (37, 19473), (39, 19479), (42, 19494), (48, 19521), (52, 19545), (53, 19554), (55, 19566), (58, 19587), (60, 19590), (65, 19608), (66, 19611), (93, 19710), (95, 19716), (96, 19719), (104, 19761), (116, 19803), (125, 19818),

Gene: Carsonalex_24 Start: 19777, Stop: 20265, Start Num: 11
Candidate Starts for Carsonalex_24:
(Start: 11 @19777 has 50 MA's), (37, 19870), (42, 19891), (52, 19942), (55, 19963), (56, 19969), (60, 19987), (65, 20005), (93, 20107), (104, 20158), (112, 20188), (116, 20200), (125, 20215), (129, 20233),

Gene: Catdawg_71 Start: 45591, Stop: 46088, Start Num: 10

Candidate Starts for Catdawg_71:
(1, 45354), (4, 45522), (5, 45531), (Start: 10 @45591 has 32 MA's), (32, 45675), (37, 45693), (46, 45723), (50, 45759), (62, 45816), (69, 45840), (70, 45843), (93, 45921), (101, 45948), (135, 46059),

Gene: Causa_24 Start: 17176, Stop: 17727, Start Num: 11
Candidate Starts for Causa_24:
(3, 17008), (Start: 11 @17176 has 50 MA's), (Start: 16 @17197 has 6 MA's), (32, 17266), (45, 17317), (64, 17419), (67, 17425), (75, 17455), (79, 17467), (80, 17485), (96, 17533), (98, 17539), (111, 17602), (118, 17620), (119, 17623), (128, 17653), (133, 17671), (137, 17698), (139, 17710),

Gene: ChickenTender_25 Start: 19781, Stop: 20269, Start Num: 11
Candidate Starts for ChickenTender_25:
(Start: 11 @19781 has 50 MA's), (37, 19874), (42, 19895), (52, 19946), (55, 19967), (56, 19973), (60, 19991), (65, 20009), (93, 20111), (98, 20126), (104, 20162), (112, 20192), (116, 20204), (125, 20219), (129, 20237),

Gene: ChocoMunchkin_23 Start: 19380, Stop: 19868, Start Num: 11
Candidate Starts for ChocoMunchkin_23:
(Start: 11 @19380 has 50 MA's), (30, 19446), (37, 19473), (39, 19479), (42, 19494), (48, 19521), (52, 19545), (53, 19554), (55, 19566), (58, 19587), (60, 19590), (65, 19608), (66, 19611), (93, 19710), (95, 19716), (96, 19719), (104, 19761), (116, 19803), (125, 19818),

Gene: Clarkson_60 Start: 34225, Stop: 34734, Start Num: 11
Candidate Starts for Clarkson_60:
(Start: 11 @34225 has 50 MA's), (31, 34306), (34, 34315), (56, 34432), (74, 34498), (76, 34504), (81, 34534), (100, 34588), (104, 34615), (123, 34660), (130, 34687),

Gene: Cleo_23 Start: 20016, Stop: 20510, Start Num: 12
Candidate Starts for Cleo_23:
(7, 19965), (Start: 12 @20016 has 11 MA's), (14, 20028), (25, 20067), (37, 20115), (38, 20118), (39, 20121), (40, 20130), (42, 20136), (52, 20187), (55, 20208), (65, 20250), (95, 20358), (116, 20445), (124, 20457), (125, 20460),

Gene: Corazon_57 Start: 34419, Stop: 34928, Start Num: 11
Candidate Starts for Corazon_57:
(Start: 11 @34419 has 50 MA's), (31, 34500), (34, 34509), (56, 34626), (74, 34692), (76, 34698), (81, 34728), (100, 34782), (104, 34809), (123, 34854), (130, 34881),

Gene: Corndog_74 Start: 46585, Stop: 47082, Start Num: 10
Candidate Starts for Corndog_74:
(1, 46348), (4, 46516), (5, 46525), (Start: 10 @46585 has 32 MA's), (32, 46669), (37, 46687), (46, 46717), (50, 46753), (62, 46810), (69, 46834), (70, 46837), (93, 46915), (101, 46942), (135, 47053),

Gene: Cozz_23 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for Cozz_23:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: Daredevil_33 Start: 29513, Stop: 29968, Start Num: 16
Candidate Starts for Daredevil_33:
(Start: 16 @29513 has 6 MA's), (18, 29516), (42, 29609), (49, 29651), (51, 29660), (57, 29702), (65, 29726), (81, 29783), (128, 29942),

Gene: DatBoi_35 Start: 31729, Stop: 32184, Start Num: 16
Candidate Starts for DatBoi_35:
(Start: 16 @31729 has 6 MA's), (42, 31825), (49, 31867), (55, 31900), (65, 31942), (104, 32083), (128, 32158), (136, 32167),

Gene: Demosthenes_36 Start: 41831, Stop: 42256, Start Num: 35
Candidate Starts for Demosthenes_36:
(13, 41747), (Start: 22 @41780 has 16 MA's), (Start: 35 @41831 has 1 MA's), (51, 41915), (53, 41927), (63, 41975), (77, 42008), (102, 42101), (110, 42137), (113, 42146), (116, 42155), (131, 42194), (132, 42203), (137, 42233), (138, 42239),

Gene: Dre3_23 Start: 19942, Stop: 20436, Start Num: 12
Candidate Starts for Dre3_23:
(7, 19891), (Start: 12 @19942 has 11 MA's), (14, 19954), (25, 19993), (37, 20041), (38, 20044), (39, 20047), (40, 20056), (42, 20062), (52, 20113), (55, 20134), (65, 20176), (95, 20284), (116, 20371), (124, 20383), (125, 20386),

Gene: Dylan_71 Start: 45638, Stop: 46135, Start Num: 10
Candidate Starts for Dylan_71:
(1, 45401), (4, 45569), (5, 45578), (Start: 10 @45638 has 32 MA's), (32, 45722), (37, 45740), (46, 45770), (50, 45806), (62, 45863), (69, 45887), (70, 45890), (93, 45968), (101, 45995), (135, 46106),

Gene: Eliott_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Eliott_23:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (98, 20064), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Emalyn_22 Start: 18976, Stop: 19464, Start Num: 12
Candidate Starts for Emalyn_22:
(9, 18970), (Start: 12 @18976 has 11 MA's), (25, 19021), (30, 19042), (37, 19069), (42, 19090), (48, 19117), (52, 19141), (54, 19156), (60, 19186), (65, 19204), (66, 19207), (93, 19306), (95, 19312), (96, 19315), (116, 19399), (125, 19414), (129, 19432),

Gene: Faiyaz_34 Start: 30688, Stop: 31254, Start Num: 8
Candidate Starts for Faiyaz_34:
(Start: 8 @30688 has 4 MA's), (17, 30733), (24, 30754), (26, 30757), (29, 30772), (33, 30790), (39, 30814), (40, 30823), (48, 30859), (49, 30871), (54, 30898), (55, 30904), (68, 30955), (78, 30988), (83, 31018), (96, 31057), (97, 31060), (101, 31075), (105, 31102), (106, 31105), (117, 31144), (121, 31147), (134, 31192),

Gene: Familton_72 Start: 45548, Stop: 46045, Start Num: 10
Candidate Starts for Familton_72:
(1, 45311), (4, 45479), (5, 45488), (Start: 10 @45548 has 32 MA's), (32, 45632), (37, 45650), (46, 45680), (50, 45716), (62, 45773), (69, 45797), (70, 45800), (93, 45878), (101, 45905), (135, 46016),

Gene: FeliMaine_61 Start: 34467, Stop: 34976, Start Num: 11
Candidate Starts for FeliMaine_61:
(Start: 11 @34467 has 50 MA's), (31, 34548), (34, 34557), (56, 34674), (74, 34740), (76, 34746), (81, 34776), (100, 34830), (104, 34857), (123, 34902), (130, 34929),

Gene: Firecracker_73 Start: 45938, Stop: 46435, Start Num: 10

Candidate Starts for Firecracker_73:
(1, 45701), (4, 45869), (5, 45878), (Start: 10 @45938 has 32 MA's), (32, 46022), (37, 46040), (46, 46070), (50, 46106), (62, 46163), (69, 46187), (70, 46190), (93, 46268), (101, 46295), (135, 46406),

Gene: FoulBall_71 Start: 45542, Stop: 46039, Start Num: 10
Candidate Starts for FoulBall_71:
(1, 45305), (4, 45473), (5, 45482), (Start: 10 @45542 has 32 MA's), (32, 45626), (37, 45644), (46, 45674), (50, 45710), (62, 45767), (69, 45791), (70, 45794), (93, 45872), (101, 45899), (135, 46010),

Gene: Fribs8_24 Start: 20525, Stop: 21019, Start Num: 12
Candidate Starts for Fribs8_24:
(Start: 12 @20525 has 11 MA's), (23, 20573), (25, 20576), (Start: 35 @20612 has 1 MA's), (37, 20624), (38, 20627), (42, 20645), (44, 20651), (60, 20741), (65, 20759), (91, 20858), (95, 20867), (100, 20885), (116, 20954), (125, 20969), (126, 20975),

Gene: GMA3_29 Start: 37413, Stop: 37865, Start Num: 20
Candidate Starts for GMA3_29:
(18, 37401), (20, 37413), (Start: 22 @37419 has 16 MA's), (38, 37485), (45, 37512), (72, 37620), (82, 37635), (84, 37641), (89, 37662), (94, 37671), (101, 37698), (107, 37731), (131, 37803),

Gene: GTE2_20 Start: 19052, Stop: 19540, Start Num: 11
Candidate Starts for GTE2_20:
(Start: 11 @19052 has 50 MA's), (30, 19118), (37, 19145), (39, 19151), (42, 19166), (48, 19193), (52, 19217), (53, 19226), (60, 19262), (65, 19280), (66, 19283), (93, 19382), (95, 19388), (96, 19391), (104, 19433), (116, 19475), (125, 19490),

Gene: Gattaca_57 Start: 33646, Stop: 34155, Start Num: 11
Candidate Starts for Gattaca_57:
(Start: 11 @33646 has 50 MA's), (31, 33727), (34, 33736), (56, 33853), (74, 33919), (76, 33925), (100, 34009), (104, 34036), (123, 34081), (130, 34108),

Gene: Gibbous_23 Start: 19942, Stop: 20436, Start Num: 12
Candidate Starts for Gibbous_23:
(7, 19891), (Start: 12 @19942 has 11 MA's), (14, 19954), (25, 19993), (37, 20041), (38, 20044), (39, 20047), (40, 20056), (42, 20062), (52, 20113), (55, 20134), (65, 20176), (95, 20284), (116, 20371), (124, 20383), (125, 20386),

Gene: GoldHunter_23 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for GoldHunter_23:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (98, 20065), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: GoongGoong_58 Start: 33445, Stop: 33954, Start Num: 11
Candidate Starts for GoongGoong_58:
(Start: 11 @33445 has 50 MA's), (31, 33526), (34, 33535), (56, 33652), (74, 33718), (76, 33724), (81, 33754), (100, 33808), (104, 33835), (123, 33880), (130, 33907),

Gene: Hilltopfarm_34 Start: 30718, Stop: 31284, Start Num: 8
Candidate Starts for Hilltopfarm_34:
(Start: 8 @30718 has 4 MA's), (17, 30763), (24, 30784), (26, 30787), (29, 30802), (33, 30820), (39, 30844), (40, 30853), (48, 30889), (49, 30901), (54, 30928), (55, 30934), (68, 30985), (78, 31018), (83, 31048), (96, 31087), (97, 31090), (101, 31105), (105, 31132), (106, 31135), (117, 31174), (121,

31177), (134, 31222),

Gene: HippoPololi_25 Start: 20591, Stop: 21085, Start Num: 12
Candidate Starts for HippoPololi_25:
(Start: 12 @20591 has 11 MA's), (21, 20630), (23, 20639), (25, 20642), (Start: 35 @20678 has 1 MA's), (37, 20690), (38, 20693), (39, 20696), (40, 20705), (42, 20711), (44, 20717), (52, 20762), (55, 20783), (60, 20807), (65, 20825), (71, 20846), (72, 20849), (86, 20903), (95, 20933), (100, 20951), (115, 21017), (116, 21020), (120, 21023), (126, 21041),

Gene: Hollow_37 Start: 42186, Stop: 42662, Start Num: 22
Candidate Starts for Hollow_37:
(13, 42153), (Start: 22 @42186 has 16 MA's), (Start: 35 @42237 has 1 MA's), (51, 42321), (53, 42333), (63, 42381), (97, 42480), (99, 42486), (110, 42543), (113, 42552), (131, 42600), (132, 42609), (138, 42645),

Gene: Horseradish_24 Start: 19263, Stop: 19751, Start Num: 11
Candidate Starts for Horseradish_24:
(Start: 11 @19263 has 50 MA's), (37, 19356), (39, 19362), (42, 19377), (43, 19380), (52, 19428), (53, 19437), (55, 19449), (60, 19473), (65, 19491), (66, 19494), (93, 19593), (95, 19599), (96, 19602), (104, 19644), (116, 19686), (125, 19701),

Gene: Huphlepuff_61 Start: 34030, Stop: 34539, Start Num: 11
Candidate Starts for Huphlepuff_61:
(Start: 11 @34030 has 50 MA's), (31, 34111), (34, 34120), (56, 34237), (74, 34303), (76, 34309), (81, 34339), (100, 34393), (104, 34420), (123, 34465), (130, 34492),

Gene: Idergollasper_71 Start: 45542, Stop: 46039, Start Num: 10
Candidate Starts for Idergollasper_71:
(1, 45305), (4, 45473), (5, 45482), (Start: 10 @45542 has 32 MA's), (32, 45626), (37, 45644), (46, 45674), (50, 45710), (62, 45767), (69, 45791), (70, 45794), (93, 45872), (101, 45899), (135, 46010),

Gene: Imara_71 Start: 45342, Stop: 45839, Start Num: 10
Candidate Starts for Imara_71:
(1, 45105), (4, 45273), (5, 45282), (Start: 10 @45342 has 32 MA's), (32, 45426), (37, 45444), (46, 45474), (50, 45510), (62, 45567), (69, 45591), (70, 45594), (93, 45672), (101, 45699), (135, 45810),

Gene: JangDynasty_71 Start: 45628, Stop: 46125, Start Num: 10
Candidate Starts for JangDynasty_71:
(1, 45391), (4, 45559), (5, 45568), (Start: 10 @45628 has 32 MA's), (32, 45712), (37, 45730), (46, 45760), (50, 45796), (62, 45853), (69, 45877), (70, 45880), (93, 45958), (101, 45985), (135, 46096),

Gene: JoieB_60 Start: 34463, Stop: 34972, Start Num: 11
Candidate Starts for JoieB_60:
(Start: 11 @34463 has 50 MA's), (31, 34544), (34, 34553), (56, 34670), (74, 34736), (76, 34742), (81, 34772), (100, 34826), (104, 34853), (123, 34898),

Gene: Jumbo_38 Start: 42756, Stop: 43202, Start Num: 22
Candidate Starts for Jumbo_38:
(Start: 22 @42756 has 16 MA's), (27, 42771), (28, 42777), (71, 42954), (84, 42978), (87, 42984), (89, 42999), (94, 43008),

Gene: Katyusha_36 Start: 41840, Stop: 42316, Start Num: 22
Candidate Starts for Katyusha_36:

(13, 41807), (Start: 22 @41840 has 16 MA's), (Start: 35 @41891 has 1 MA's), (51, 41975), (53, 41987), (63, 42035), (89, 42113), (102, 42161), (110, 42197), (113, 42206), (116, 42215), (131, 42254), (132, 42263), (138, 42299),

Gene: KingPhillip3_71 Start: 45557, Stop: 46054, Start Num: 10
Candidate Starts for KingPhillip3_71:
(1, 45320), (4, 45488), (5, 45497), (Start: 10 @45557 has 32 MA's), (32, 45641), (37, 45659), (46, 45689), (50, 45725), (62, 45782), (69, 45806), (70, 45809), (93, 45887), (101, 45914), (135, 46025),

Gene: Krili_70 Start: 45052, Stop: 45549, Start Num: 10
Candidate Starts for Krili_70:
(1, 44815), (4, 44983), (5, 44992), (Start: 10 @45052 has 32 MA's), (32, 45136), (37, 45154), (46, 45184), (50, 45220), (62, 45277), (69, 45301), (70, 45304), (93, 45382), (101, 45409), (135, 45520),

Gene: Kvothe_36 Start: 41739, Stop: 42215, Start Num: 22
Candidate Starts for Kvothe_36:
(13, 41706), (Start: 22 @41739 has 16 MA's), (Start: 35 @41790 has 1 MA's), (51, 41874), (53, 41886), (63, 41934), (89, 42012), (102, 42060), (110, 42096), (113, 42105), (116, 42114), (131, 42153), (132, 42162), (138, 42198),

Gene: Lilbit_57 Start: 34226, Stop: 34735, Start Num: 11
Candidate Starts for Lilbit_57:
(Start: 11 @34226 has 50 MA's), (31, 34307), (34, 34316), (56, 34433), (74, 34499), (76, 34505), (81, 34535), (100, 34589), (104, 34616), (123, 34661), (130, 34688),

Gene: LittleLaf_59 Start: 33955, Stop: 34464, Start Num: 11
Candidate Starts for LittleLaf_59:
(Start: 11 @33955 has 50 MA's), (31, 34036), (34, 34045), (56, 34162), (74, 34228), (76, 34234), (81, 34264), (100, 34318), (104, 34345), (123, 34390), (130, 34417),

Gene: LonelyBoi_25 Start: 21703, Stop: 22176, Start Num: 22
Candidate Starts for LonelyBoi_25:
(Start: 22 @21703 has 16 MA's), (Start: 35 @21754 has 1 MA's), (36, 21760), (37, 21766), (55, 21862), (56, 21868), (72, 21928), (89, 22000),

Gene: MScarn_25 Start: 19352, Stop: 19840, Start Num: 11
Candidate Starts for MScarn_25:
(Start: 11 @19352 has 50 MA's), (37, 19445), (39, 19451), (42, 19466), (43, 19469), (52, 19517), (53, 19526), (55, 19538), (60, 19562), (65, 19580), (66, 19583), (72, 19604), (93, 19682), (95, 19688), (96, 19691), (104, 19733), (116, 19775), (125, 19790),

Gene: MaVan_25 Start: 20618, Stop: 21166, Start Num: 6
Candidate Starts for MaVan_25:
(Start: 6 @20618 has 3 MA's), (Start: 12 @20672 has 11 MA's), (14, 20684), (37, 20771), (38, 20774), (40, 20786), (42, 20792), (52, 20843), (54, 20858), (55, 20864), (60, 20888), (65, 20906), (73, 20933), (88, 20990), (95, 21014), (96, 21017), (100, 21032), (116, 21101), (126, 21122),

Gene: MadKillah_72 Start: 45321, Stop: 45818, Start Num: 10
Candidate Starts for MadKillah_72:
(1, 45084), (4, 45252), (5, 45261), (Start: 10 @45321 has 32 MA's), (32, 45405), (37, 45423), (46, 45453), (50, 45489), (59, 45537), (62, 45546), (69, 45570), (70, 45573), (93, 45651), (101, 45678), (135, 45789),

Gene: Malvina_25 Start: 20594, Stop: 21088, Start Num: 12
Candidate Starts for Malvina_25:
(7, 20546), (Start: 12 @20594 has 11 MA's), (21, 20633), (23, 20642), (25, 20645), (Start: 35 @20681 has 1 MA's), (37, 20693), (38, 20696), (39, 20699), (40, 20708), (42, 20714), (44, 20720), (52, 20765), (55, 20786), (60, 20810), (65, 20828), (71, 20849), (72, 20852), (86, 20906), (95, 20936), (100, 20954), (115, 21020), (116, 21023), (120, 21026), (126, 21044),

Gene: Manilisa_27 Start: 22550, Stop: 23020, Start Num: 15
Candidate Starts for Manilisa_27:
(Start: 15 @22550 has 1 MA's), (40, 22655), (42, 22661), (47, 22688), (49, 22700), (52, 22712), (57, 22751), (65, 22775), (90, 22868), (91, 22871), (104, 22925), (109, 22943), (114, 22961),

Gene: Marvin_55 Start: 33713, Stop: 34222, Start Num: 11
Candidate Starts for Marvin_55:
(Start: 11 @33713 has 50 MA's), (31, 33794), (34, 33803), (56, 33920), (74, 33986), (76, 33992), (81, 34022), (100, 34076), (104, 34103), (123, 34148), (130, 34175),

Gene: Mollymur_35 Start: 32198, Stop: 32668, Start Num: 16
Candidate Starts for Mollymur_35:
(Start: 16 @32198 has 6 MA's), (39, 32279), (42, 32294), (49, 32336), (55, 32369), (57, 32387), (60, 32393), (65, 32411), (85, 32477), (103, 32546),

Gene: Mori_71 Start: 45583, Stop: 46080, Start Num: 10
Candidate Starts for Mori_71:
(1, 45346), (4, 45514), (5, 45523), (Start: 10 @45583 has 32 MA's), (32, 45667), (37, 45685), (46, 45715), (50, 45751), (62, 45808), (69, 45832), (70, 45835), (93, 45913), (101, 45940), (135, 46051),

Gene: MosMoris_56 Start: 33646, Stop: 34155, Start Num: 11
Candidate Starts for MosMoris_56:
(Start: 11 @33646 has 50 MA's), (31, 33727), (34, 33736), (56, 33853), (74, 33919), (76, 33925), (81, 33955), (100, 34009), (104, 34036), (123, 34081), (130, 34108),

Gene: MunkgeeRoachy_23 Start: 19767, Stop: 20255, Start Num: 11
Candidate Starts for MunkgeeRoachy_23:
(Start: 11 @19767 has 50 MA's), (37, 19860), (42, 19881), (52, 19932), (55, 19953), (56, 19959), (60, 19977), (65, 19995), (93, 20097), (104, 20148), (116, 20190), (125, 20205), (129, 20223),

Gene: Murai_72 Start: 45764, Stop: 46261, Start Num: 10
Candidate Starts for Murai_72:
(1, 45527), (4, 45695), (5, 45704), (Start: 10 @45764 has 32 MA's), (32, 45848), (37, 45866), (46, 45896), (59, 45980), (62, 45989), (69, 46013), (70, 46016), (93, 46094), (101, 46121), (135, 46232),

Gene: Niagara_36 Start: 41797, Stop: 42273, Start Num: 22
Candidate Starts for Niagara_36:
(13, 41764), (Start: 22 @41797 has 16 MA's), (Start: 35 @41848 has 1 MA's), (51, 41932), (53, 41944), (63, 41992), (89, 42070), (102, 42118), (110, 42154), (113, 42163), (116, 42172), (131, 42211), (132, 42220), (138, 42256),

Gene: Nibbles_25 Start: 20672, Stop: 21166, Start Num: 12
Candidate Starts for Nibbles_25:
(Start: 6 @20618 has 3 MA's), (Start: 12 @20672 has 11 MA's), (14, 20684), (23, 20720), (25, 20723), (37, 20771), (38, 20774), (42, 20792), (53, 20852), (65, 20906), (95, 21014), (100, 21032), (116, 21101), (125, 21116), (126, 21122),

Gene: NiebruSaylor_70 Start: 44971, Stop: 45468, Start Num: 10
Candidate Starts for NiebruSaylor_70:
(1, 44734), (4, 44902), (5, 44911), (Start: 10 @44971 has 32 MA's), (32, 45055), (37, 45073), (46, 45103), (50, 45139), (62, 45196), (69, 45220), (70, 45223), (93, 45301), (101, 45328), (135, 45439),

Gene: Nina_24 Start: 20762, Stop: 21250, Start Num: 11
Candidate Starts for Nina_24:
(Start: 11 @20762 has 50 MA's), (37, 20855), (42, 20876), (52, 20927), (55, 20948), (56, 20954), (60, 20972), (65, 20990), (93, 21092), (104, 21143), (112, 21173), (116, 21185), (125, 21200), (129, 21218),

Gene: Philon9_38 Start: 43004, Stop: 43480, Start Num: 22
Candidate Starts for Philon9_38:
(Start: 22 @43004 has 16 MA's), (Start: 35 @43055 has 1 MA's), (43, 43091), (63, 43199), (97, 43298), (108, 43349), (131, 43418), (132, 43427), (138, 43463),

Gene: Phishy_26 Start: 22279, Stop: 22749, Start Num: 15
Candidate Starts for Phishy_26:
(Start: 15 @22279 has 1 MA's), (40, 22384), (42, 22390), (47, 22417), (49, 22429), (52, 22441), (57, 22480), (65, 22504), (90, 22597), (91, 22600), (104, 22654), (109, 22672), (114, 22690),

Gene: Poise_59 Start: 33542, Stop: 34051, Start Num: 11
Candidate Starts for Poise_59:
(Start: 11 @33542 has 50 MA's), (31, 33623), (34, 33632), (56, 33749), (74, 33815), (76, 33821), (81, 33851), (100, 33905), (104, 33932), (123, 33977), (130, 34004),

Gene: Pringar_58 Start: 33831, Stop: 34340, Start Num: 11
Candidate Starts for Pringar_58:
(Start: 11 @33831 has 50 MA's), (31, 33912), (34, 33921), (56, 34038), (74, 34104), (76, 34110), (81, 34140), (100, 34194), (104, 34221), (123, 34266),

Gene: PsychoKiller_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for PsychoKiller_23:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (98, 20064), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Quasar_23 Start: 20328, Stop: 20816, Start Num: 11
Candidate Starts for Quasar_23:
(Start: 11 @20328 has 50 MA's), (37, 20421), (42, 20442), (52, 20493), (55, 20514), (56, 20520), (60, 20538), (65, 20556), (93, 20658), (104, 20709), (112, 20739), (116, 20751), (125, 20766), (129, 20784),

Gene: RADical_24 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for RADical_24:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (98, 20065), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: RSchmailzl_24 Start: 19863, Stop: 20351, Start Num: 11
Candidate Starts for RSchmailzl_24:

(Start: 11 @19863 has 50 MA's), (37, 19956), (42, 19977), (52, 20028), (55, 20049), (56, 20055), (60, 20073), (65, 20091), (93, 20193), (104, 20244), (112, 20274), (116, 20286), (125, 20301), (129, 20319),

Gene: Raela_59 Start: 34099, Stop: 34608, Start Num: 11
Candidate Starts for Raela_59:
(Start: 11 @34099 has 50 MA's), (19, 34123), (31, 34180), (34, 34189), (56, 34306), (74, 34372), (76, 34378), (81, 34408), (100, 34462), (104, 34489), (123, 34534), (130, 34561),

Gene: RedBaron_25 Start: 19763, Stop: 20251, Start Num: 11
Candidate Starts for RedBaron_25:
(Start: 11 @19763 has 50 MA's), (37, 19856), (42, 19877), (52, 19928), (55, 19949), (56, 19955), (60, 19973), (65, 19991), (93, 20093), (98, 20108), (104, 20144), (112, 20174), (116, 20186), (125, 20201), (129, 20219),

Gene: RedRaider77_58 Start: 33487, Stop: 33996, Start Num: 11
Candidate Starts for RedRaider77_58:
(Start: 11 @33487 has 50 MA's), (31, 33568), (34, 33577), (56, 33694), (74, 33760), (76, 33766), (81, 33796), (100, 33850), (104, 33877), (123, 33922), (130, 33949),

Gene: Ryadel_75 Start: 46376, Stop: 46873, Start Num: 10
Candidate Starts for Ryadel_75:
(1, 46139), (4, 46307), (5, 46316), (Start: 10 @46376 has 32 MA's), (32, 46460), (37, 46478), (46, 46508), (50, 46544), (59, 46592), (62, 46601), (69, 46625), (70, 46628), (93, 46706), (101, 46733), (135, 46844),

Gene: SchoolBus_71 Start: 45524, Stop: 46021, Start Num: 10
Candidate Starts for SchoolBus_71:
(1, 45287), (4, 45455), (5, 45464), (Start: 10 @45524 has 32 MA's), (32, 45608), (37, 45626), (46, 45656), (50, 45692), (62, 45749), (69, 45773), (70, 45776), (93, 45854), (101, 45881), (135, 45992),

Gene: Schuy_72 Start: 45327, Stop: 45824, Start Num: 10
Candidate Starts for Schuy_72:
(1, 45090), (4, 45258), (5, 45267), (Start: 10 @45327 has 32 MA's), (32, 45411), (37, 45429), (46, 45459), (50, 45495), (62, 45552), (69, 45576), (70, 45579), (93, 45657), (101, 45684), (135, 45795),

Gene: Shida_71 Start: 45234, Stop: 45731, Start Num: 10
Candidate Starts for Shida_71:
(1, 44997), (4, 45165), (5, 45174), (Start: 10 @45234 has 32 MA's), (32, 45318), (37, 45336), (46, 45366), (50, 45402), (62, 45459), (69, 45483), (70, 45486), (93, 45564), (101, 45591), (135, 45702),

Gene: Sidious_24 Start: 21354, Stop: 21827, Start Num: 22
Candidate Starts for Sidious_24:
(Start: 22 @21354 has 16 MA's), (Start: 35 @21405 has 1 MA's), (37, 21417), (41, 21435), (55, 21513), (72, 21579), (89, 21651), (99, 21678),

Gene: SketchMex_22 Start: 19367, Stop: 19855, Start Num: 11
Candidate Starts for SketchMex_22:
(Start: 11 @19367 has 50 MA's), (37, 19460), (39, 19466), (42, 19481), (43, 19484), (52, 19532), (53, 19541), (55, 19553), (60, 19577), (65, 19595), (66, 19598), (72, 19619), (93, 19697), (95, 19703), (96, 19706), (104, 19748), (116, 19790), (125, 19805),

Gene: Smooch_74 Start: 47280, Stop: 47777, Start Num: 10

Candidate Starts for Smooch_74:
(1, 47043), (4, 47211), (5, 47220), (Start: 10 @47280 has 32 MA's), (32, 47364), (37, 47382), (46, 47412), (50, 47448), (62, 47505), (69, 47529), (70, 47532), (93, 47610), (101, 47637), (135, 47748),

Gene: Socotra_24 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Socotra_24:
(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (98, 20064), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Sopespian_23 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for Sopespian_23:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (98, 20065), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: SpeedDemon_360 Start: 32848, Stop: 33303, Start Num: 16
Candidate Starts for SpeedDemon_360:
(Start: 16 @32848 has 6 MA's), (42, 32944), (49, 32986), (55, 33019), (60, 33043), (65, 33061), (128, 33277),

Gene: StAugustine_22 Start: 17170, Stop: 17721, Start Num: 11
Candidate Starts for StAugustine_22:
(3, 17002), (Start: 11 @17170 has 50 MA's), (Start: 16 @17191 has 6 MA's), (32, 17260), (45, 17311), (64, 17413), (67, 17419), (75, 17449), (79, 17461), (80, 17479), (96, 17527), (98, 17533), (111, 17596), (118, 17614), (119, 17617), (128, 17647), (133, 17665), (137, 17692), (139, 17704),

Gene: Starburst_24 Start: 19720, Stop: 20208, Start Num: 11
Candidate Starts for Starburst_24:
(Start: 11 @19720 has 50 MA's), (37, 19813), (42, 19834), (52, 19885), (55, 19906), (56, 19912), (60, 19930), (65, 19948), (93, 20050), (98, 20065), (104, 20101), (112, 20131), (116, 20143), (125, 20158), (129, 20176),

Gene: SteamedHams_25 Start: 19380, Stop: 19868, Start Num: 11
Candidate Starts for SteamedHams_25:
(Start: 11 @19380 has 50 MA's), (30, 19446), (37, 19473), (39, 19479), (42, 19494), (48, 19521), (52, 19545), (53, 19554), (55, 19566), (58, 19587), (60, 19590), (65, 19608), (66, 19611), (93, 19710), (95, 19716), (96, 19719), (104, 19761), (116, 19803), (125, 19818),

Gene: Survivors_25 Start: 20521, Stop: 21015, Start Num: 12
Candidate Starts for Survivors_25:
(2, 20326), (Start: 6 @20467 has 3 MA's), (Start: 12 @20521 has 11 MA's), (14, 20533), (23, 20569), (25, 20572), (37, 20620), (38, 20623), (42, 20641), (53, 20701), (65, 20755), (95, 20863), (100, 20881), (116, 20950), (125, 20965), (126, 20971),

Gene: SweatNTears_25 Start: 19878, Stop: 20366, Start Num: 11
Candidate Starts for SweatNTears_25:
(Start: 11 @19878 has 50 MA's), (37, 19971), (39, 19977), (42, 19992), (43, 19995), (52, 20043), (53, 20052), (55, 20064), (60, 20088), (65, 20106), (66, 20109), (72, 20130), (93, 20208), (95, 20214), (96, 20217), (104, 20259), (116, 20301), (125, 20316),

Gene: Teatealatte_36 Start: 41742, Stop: 42218, Start Num: 22
Candidate Starts for Teatealatte_36:

(13, 41709), (Start: 22 @41742 has 16 MA's), (Start: 35 @41793 has 1 MA's), (51, 41877), (53, 41889), (63, 41937), (89, 42015), (110, 42099), (113, 42108), (116, 42117), (131, 42156), (132, 42165), (138, 42201),

Gene: Teech_36 Start: 41543, Stop: 42019, Start Num: 22
Candidate Starts for Teech_36:
(13, 41510), (Start: 22 @41543 has 16 MA's), (Start: 35 @41594 has 1 MA's), (51, 41678), (53, 41690), (63, 41738), (89, 41816), (102, 41864), (110, 41900), (113, 41909), (116, 41918), (131, 41957), (132, 41966), (138, 42002),

Gene: TelAviv_68 Start: 45509, Stop: 46006, Start Num: 10
Candidate Starts for TelAviv_68:
(1, 45272), (4, 45440), (5, 45449), (Start: 10 @45509 has 32 MA's), (32, 45593), (37, 45611), (46, 45641), (50, 45677), (62, 45734), (69, 45758), (70, 45761), (93, 45839), (101, 45866), (135, 45977),

Gene: Tesla_56 Start: 33336, Stop: 33845, Start Num: 11
Candidate Starts for Tesla_56:
(Start: 11 @33336 has 50 MA's), (31, 33417), (34, 33426), (56, 33543), (74, 33609), (76, 33615), (81, 33645), (100, 33699), (104, 33726), (123, 33771), (130, 33798),

Gene: Tolls_25 Start: 19383, Stop: 19871, Start Num: 11
Candidate Starts for Tolls_25:
(Start: 11 @19383 has 50 MA's), (30, 19449), (37, 19476), (39, 19482), (42, 19497), (48, 19524), (52, 19548), (53, 19557), (55, 19569), (58, 19590), (60, 19593), (65, 19611), (66, 19614), (93, 19713), (95, 19719), (96, 19722), (104, 19764), (116, 19806), (125, 19821),

Gene: Towmatter_32 Start: 29350, Stop: 29805, Start Num: 16
Candidate Starts for Towmatter_32:
(Start: 16 @29350 has 6 MA's), (18, 29353), (42, 29446), (49, 29488), (51, 29497), (57, 29539), (65, 29563), (81, 29620), (128, 29779),

Gene: Tredge_36 Start: 41742, Stop: 42218, Start Num: 22
Candidate Starts for Tredge_36:
(13, 41709), (Start: 22 @41742 has 16 MA's), (Start: 35 @41793 has 1 MA's), (51, 41877), (53, 41889), (63, 41937), (89, 42015), (110, 42099), (113, 42108), (116, 42117), (131, 42156), (132, 42165), (138, 42201),

Gene: Troje_23 Start: 19349, Stop: 19837, Start Num: 11
Candidate Starts for Troje_23:
(Start: 11 @19349 has 50 MA's), (37, 19442), (39, 19448), (42, 19463), (43, 19466), (52, 19514), (53, 19523), (55, 19535), (60, 19559), (65, 19577), (66, 19580), (72, 19601), (93, 19679), (95, 19685), (96, 19688), (104, 19730), (116, 19772), (125, 19787),

Gene: Typha_34 Start: 30688, Stop: 31254, Start Num: 8
Candidate Starts for Typha_34:
(Start: 8 @30688 has 4 MA's), (17, 30733), (24, 30754), (26, 30757), (29, 30772), (33, 30790), (39, 30814), (40, 30823), (48, 30859), (49, 30871), (54, 30898), (55, 30904), (68, 30955), (78, 30988), (83, 31018), (96, 31057), (97, 31060), (101, 31075), (105, 31102), (106, 31105), (117, 31144), (121, 31147), (134, 31192),

Gene: Typhonomachy_23 Start: 19719, Stop: 20207, Start Num: 11
Candidate Starts for Typhonomachy_23:

(Start: 11 @19719 has 50 MA's), (37, 19812), (42, 19833), (52, 19884), (55, 19905), (56, 19911), (60, 19929), (65, 19947), (93, 20049), (104, 20100), (112, 20130), (116, 20142), (125, 20157), (129, 20175),

Gene: Vagabond_71 Start: 45372, Stop: 45869, Start Num: 10
Candidate Starts for Vagabond_71:
(1, 45135), (4, 45303), (5, 45312), (Start: 10 @45372 has 32 MA's), (32, 45456), (37, 45474), (46, 45504), (50, 45540), (62, 45597), (69, 45621), (70, 45624), (93, 45702), (101, 45729), (135, 45840),

Gene: VasuNzinga_58 Start: 33405, Stop: 33914, Start Num: 11
Candidate Starts for VasuNzinga_58:
(Start: 11 @33405 has 50 MA's), (31, 33486), (34, 33495), (56, 33612), (74, 33678), (76, 33684), (81, 33714), (100, 33768), (104, 33795), (123, 33840),

Gene: Vitaenoii_38 Start: 43003, Stop: 43479, Start Num: 22
Candidate Starts for Vitaenoii_38:
(Start: 22 @43003 has 16 MA's), (Start: 35 @43054 has 1 MA's), (43, 43090), (63, 43198), (97, 43297), (108, 43348), (131, 43417), (132, 43426), (138, 43462),

Gene: Vorrps_71 Start: 45584, Stop: 46081, Start Num: 10
Candidate Starts for Vorrps_71:
(1, 45347), (4, 45515), (5, 45524), (Start: 10 @45584 has 32 MA's), (32, 45668), (37, 45686), (46, 45716), (50, 45752), (62, 45809), (69, 45833), (70, 45836), (93, 45914), (101, 45941), (135, 46052),

Gene: Wallaby_27 Start: 20665, Stop: 21159, Start Num: 12
Candidate Starts for Wallaby_27:
(2, 20470), (Start: 6 @20611 has 3 MA's), (Start: 12 @20665 has 11 MA's), (14, 20677), (23, 20713), (25, 20716), (37, 20764), (38, 20767), (42, 20785), (53, 20845), (65, 20899), (95, 21007), (100, 21025), (116, 21094), (125, 21109), (126, 21115),

Gene: Wildflower_71 Start: 45096, Stop: 45593, Start Num: 10
Candidate Starts for Wildflower_71:
(1, 44859), (4, 45027), (5, 45036), (Start: 10 @45096 has 32 MA's), (32, 45180), (37, 45198), (46, 45228), (50, 45264), (62, 45321), (69, 45345), (70, 45348), (93, 45426), (101, 45453), (135, 45564),

Gene: Winget_72 Start: 45802, Stop: 46299, Start Num: 10
Candidate Starts for Winget_72:
(1, 45565), (4, 45733), (5, 45742), (Start: 10 @45802 has 32 MA's), (32, 45886), (37, 45904), (46, 45934), (50, 45970), (62, 46027), (69, 46051), (70, 46054), (93, 46132), (101, 46159), (135, 46270),

Gene: Wocket_25 Start: 21027, Stop: 21500, Start Num: 22
Candidate Starts for Wocket_25:
(Start: 12 @20985 has 11 MA's), (Start: 22 @21027 has 16 MA's), (37, 21090), (55, 21186), (56, 21192), (71, 21249), (72, 21252), (89, 21324), (113, 21417), (116, 21426),

Gene: Wogge42_70 Start: 45243, Stop: 45740, Start Num: 10
Candidate Starts for Wogge42_70:
(1, 45006), (4, 45174), (5, 45183), (Start: 10 @45243 has 32 MA's), (32, 45327), (37, 45345), (46, 45375), (50, 45411), (62, 45468), (69, 45492), (70, 45495), (93, 45573), (101, 45600), (135, 45711),

Gene: Wolfwood_25 Start: 20611, Stop: 21159, Start Num: 6
Candidate Starts for Wolfwood_25:

(2, 20470), (Start: 6 @20611 has 3 MA's), (Start: 12 @20665 has 11 MA's), (14, 20677), (23, 20713), (25, 20716), (37, 20764), (38, 20767), (42, 20785), (53, 20845), (65, 20899), (95, 21007), (100, 21025), (116, 21094), (125, 21109), (126, 21115),

Gene: Yarn_22 Start: 19373, Stop: 19861, Start Num: 11
Candidate Starts for Yarn_22:
(Start: 11 @19373 has 50 MA's), (30, 19439), (37, 19466), (39, 19472), (42, 19487), (48, 19514), (52, 19538), (53, 19547), (55, 19559), (58, 19580), (60, 19583), (65, 19601), (66, 19604), (93, 19703), (95, 19709), (96, 19712), (104, 19754), (116, 19796), (125, 19811),

Gene: YoyoKar_69 Start: 45086, Stop: 45583, Start Num: 10
Candidate Starts for YoyoKar_69:
(1, 44849), (4, 45017), (5, 45026), (Start: 10 @45086 has 32 MA's), (32, 45170), (37, 45188), (46, 45218), (50, 45254), (62, 45311), (69, 45335), (70, 45338), (93, 45416), (101, 45443), (135, 45554),

Gene: Yummy_24 Start: 19263, Stop: 19751, Start Num: 11
Candidate Starts for Yummy_24:
(Start: 11 @19263 has 50 MA's), (37, 19356), (39, 19362), (42, 19377), (43, 19380), (52, 19428), (53, 19437), (55, 19449), (60, 19473), (65, 19491), (66, 19494), (93, 19593), (95, 19599), (96, 19602), (104, 19644), (116, 19686), (125, 19701),

Gene: YungJamal_76 Start: 46994, Stop: 47491, Start Num: 10
Candidate Starts for YungJamal_76:
(1, 46757), (4, 46925), (5, 46934), (Start: 10 @46994 has 32 MA's), (32, 47078), (37, 47096), (46, 47126), (50, 47162), (62, 47219), (69, 47243), (70, 47246), (93, 47324), (101, 47351), (135, 47462),

Gene: Zakhe101_70 Start: 45642, Stop: 46139, Start Num: 10
Candidate Starts for Zakhe101_70:
(1, 45405), (4, 45573), (5, 45582), (Start: 10 @45642 has 32 MA's), (32, 45726), (37, 45744), (46, 45774), (50, 45810), (62, 45867), (69, 45891), (70, 45894), (93, 45972), (101, 45999), (135, 46110),

Gene: Zareef_25 Start: 20619, Stop: 21167, Start Num: 6
Candidate Starts for Zareef_25:
(2, 20478), (Start: 6 @20619 has 3 MA's), (Start: 12 @20673 has 11 MA's), (14, 20685), (23, 20721), (25, 20724), (37, 20772), (38, 20775), (42, 20793), (53, 20853), (65, 20907), (95, 21015), (100, 21033), (116, 21102), (125, 21117), (126, 21123),

Gene: Zebo_71 Start: 45533, Stop: 46030, Start Num: 10
Candidate Starts for Zebo_71:
(1, 45296), (4, 45464), (5, 45473), (Start: 10 @45533 has 32 MA's), (32, 45617), (37, 45635), (46, 45665), (50, 45701), (62, 45758), (69, 45782), (70, 45785), (93, 45863), (101, 45890), (135, 46001),