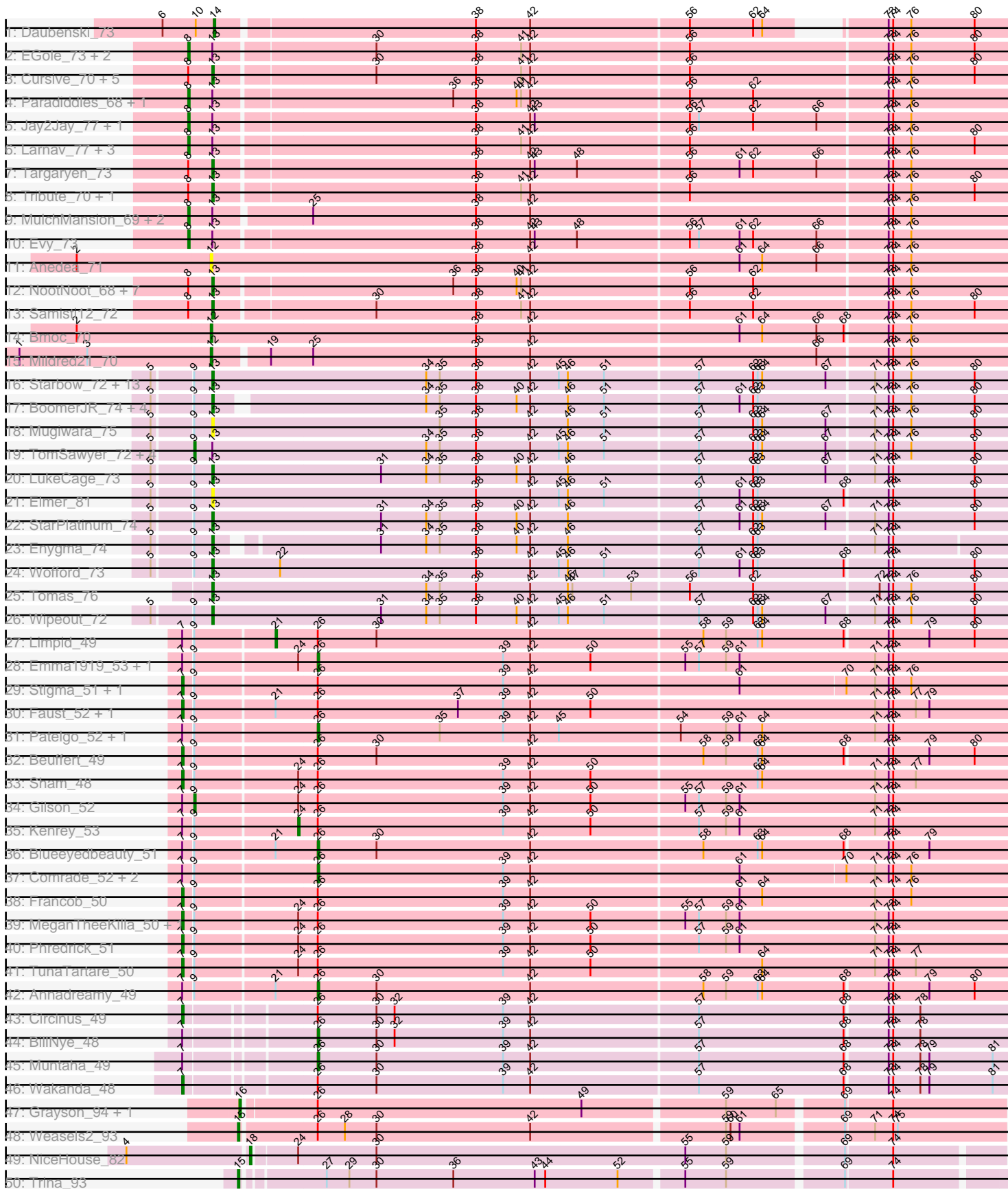


Pham 163482



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 163482 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163482 has 103 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Daubenski_73
- Track 2 : EGole_73, BlueOtter_74, HangryHippo_74
- Track 3 : Cursive_70, Watermoore_72, PacManQ_73, Leo04_73, Cross_72, Lululemon_73
- Track 4 : Paradiddles_68, Braelyn_71
- Track 5 : Jay2Jay_77, Warpy_76
- Track 6 : Larnav_77, Teutsch_72, Peebs_71, Sushi23_72
- Track 7 : Targaryen_73
- Track 8 : Tribute_70, Pepperwood_72
- Track 9 : MulchMansion_69, LilMartin_69, Angela_69
- Track 10 : Evy_73
- Track 11 : Anedea_71
- Track 12 : NootNoot_68, Squillium_71, Persimmon_68, Bartholomune_70, Navo_72, WhereRU_71, Liandry_71, PinkiePie_70
- Track 13 : Samisti12_72
- Track 14 : Bmoc_70
- Track 15 : Mildred21_70
- Track 16 : Starbow_72, Battuta_72, CeilingFan_76, Birchlyn_71, SaltySpittoon_74, Bordeaux_72, Gibbi_78, Spelly_74, Karimac_73, Amabiko_74, Quaran19_74, KentuckyRacer_78, JimJam_74, PumpkinSpice_73
- Track 17 : BoomerJR_74, Stanimal_74, Sollertia_74, Genie2_74, Yaboi_74
- Track 18 : Mugiwara_75
- Track 19 : TomSawyer_72, Spilled_75, IchabodCrane_71, MindFlayer_72, Jollison_79
- Track 20 : LukeCage_73
- Track 21 : Elmer_81
- Track 22 : StarPlatinum_74
- Track 23 : Enygma_74
- Track 24 : Wofford_73
- Track 25 : Tomas_76
- Track 26 : Wipeout_72
- Track 27 : Limpid_49
- Track 28 : Emma1919_53, Forrest_53
- Track 29 : Stigma_51, Karp_50
- Track 30 : Faust_52, SeresaTree_51
- Track 31 : Patelgo_52, Moab_52
- Track 32 : Beuffert_49

- Track 33 : Sham_48
- Track 34 : Gilson_52
- Track 35 : Kenrey_53
- Track 36 : Blueeyedbeauty_51
- Track 37 : Comrade_52, Belfort_53, SparkleGoddess_52
- Track 38 : Francob_50
- Track 39 : MeganTheeKilla_50, Jada_51
- Track 40 : Phredrick_51
- Track 41 : TunaTartare_50
- Track 42 : Annadreamy_49
- Track 43 : Circinus_49
- Track 44 : BillNye_48
- Track 45 : Muntaha_49
- Track 46 : Wakanda_48
- Track 47 : Grayson_94, Peregrin_91
- Track 48 : Weasels2_93
- Track 49 : NiceHouse_82
- Track 50 : Trina_93
- Track 51 : Francesca_66
- Track 52 : Dorin_66

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

The start number called the most often in the published annotations is 13, it was called in 36 of the 86 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_74, Bartholomune_70, Battuta_72, Birchlyn_71, BoomerJR_74, Bordeaux_72, CeilingFan_76, Cross_72, Cursive_70, Elmer_81, Enygma_74, Genie2_74, Gibbi_78, JimJam_74, Karimac_73, KentuckyRacer_78, Leo04_73, Liandry_71, LukeCage_73, Lululemon_73, Mugiwara_75, Navo_72, NootNoot_68, PacManQ_73, Pepperwood_72, Persimmon_68, PinkiePie_70, PumpkinSpice_73, Quarant19_74, SaltySpittoon_74, Samisti12_72, Sollertia_74, Spelly_74, Squillum_71, Stanimal_74, StarPlatinum_74, Starbow_72, Targaryen_73, Tomas_76, Tribute_70, Watermoore_72, WhereRU_71, Wipeout_72, Wofford_73, Yaboi_74,

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

- Angela_69, BlueOtter_74, Braelyn_71, EGole_73, Evy_73, HangryHippo_74, IchabodCrane_71, Jay2Jay_77, Jollison_79, Larnav_77, LilMartin_69, MindFlayer_72, MulchMansion_69, Paradiddles_68, Peebs_71, Spilled_75, Sushi23_72, Teutsch_72, TomSawyer_72, Warpy_76,

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

- Anedea_71, Annadreamy_49, Belfort_53, Beuffert_49, BillNye_48, Blueeyedbeauty_51, Bmoc_70, Circinus_49, Comrade_52, Daubenski_73, Dorin_66, Emma1919_53, Faust_52, Forrest_53, Francesca_66, Francob_50, Gilson_52, Grayson_94, Jada_51, Karp_50, Kenrey_53, Limpid_49, MeganTheeKilla_50, Mildred21_70, Moab_52, Muntaha_49, NiceHouse_82, Patelgo_52, Peregrin_91, Phredrick_51, SeresaTree_51, Sham_48, SparkleGoddess_52, Stigma_51, Trina_93, TunaTartare_50, Wakanda_48, Weasels2_93,

Summary by start number:

Start 7:

- Found in 27 of 103 (26.2%) of genes in pham
- Manual Annotations of this start: 12 of 86
- Called 48.1% of time when present
- Phage (with cluster) where this start called: Beuffert_49 (BK1), Circinus_49 (BK2), Faust_52 (BK1), Francob_50 (BK1), Jada_51 (BK1), Karp_50 (BK1), MeganTheeKilla_50 (BK1), Phredrick_51 (BK1), SeresaTree_51 (BK1), Sham_48 (BK1), Stigma_51 (BK1), TunaTartare_50 (BK1), Wakanda_48 (BK2),

Start 8:

- Found in 33 of 103 (32.0%) of genes in pham
- Manual Annotations of this start: 12 of 86
- Called 45.5% of time when present
- Phage (with cluster) where this start called: Angela_69 (BE1), BlueOtter_74 (BE1), Braelyn_71 (BE1), EGole_73 (BE1), Evy_73 (BE1), HangryHippo_74 (BE1), Jay2Jay_77 (BE1), Larnav_77 (BE1), LilMartin_69 (BE1), MulchMansion_69 (BE1), Paradiddles_68 (BE1), Peebs_71 (BE1), Sushi23_72 (BE1), Teutsch_72 (BE1), Warpy_76 (BE1),

Start 9:

- Found in 54 of 103 (52.4%) of genes in pham
- Manual Annotations of this start: 5 of 86
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Gilson_52 (BK1), IchabodCrane_71 (BE2), Jollison_79 (BE2), MindFlayer_72 (BE2), Spilled_75 (BE2), TomSawyer_72 (BE2),

Start 12:

- Found in 3 of 103 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anedea_71 (BE1), Bmoc_70 (BE1), Mildred21_70 (BE1),

Start 13:

- Found in 65 of 103 (63.1%) of genes in pham
- Manual Annotations of this start: 36 of 86
- Called 69.2% of time when present
- Phage (with cluster) where this start called: Amabiko_74 (BE2), Bartholomune_70 (BE1), Battuta_72 (BE2), Birchlyn_71 (BE2), BoomerJR_74 (BE2), Bordeaux_72 (BE2), CeilingFan_76 (BE2), Cross_72 (BE1), Cursive_70 (BE1), Elmer_81 (BE2), Enygma_74 (BE2), Genie2_74 (BE2), Gibbi_78 (BE2), JimJam_74 (BE2), Karimac_73 (BE2), KentuckyRacer_78 (BE2), Leo04_73 (BE1), Liandry_71 (BE1), LukeCage_73 (BE2), Lululemon_73 (BE1), Mugiwara_75 (BE2), Navo_72 (BE1), NootNoot_68 (BE1), PacManQ_73 (BE1), Pepperwood_72 (BE1), Persimmon_68 (BE1), PinkiePie_70 (BE1), PumpkinSpice_73 (BE2), Quarant19_74 (BE2), SaltySpittoon_74 (BE2), Samisti12_72 (BE1), Sollertia_74 (BE2), Spelly_74 (BE2), Squillium_71 (BE1), Stanimal_74 (BE2), StarPlatinum_74 (BE2), Starbow_72 (BE2), Targaryen_73 (BE1), Tomas_76 (BE2), Tribute_70 (BE1), Watermoore_72 (BE1), WhereRU_71 (BE1), Wipeout_72 (BE2), Wofford_73 (BE2), Yaboi_74 (BE2),

Start 14:

- Found in 1 of 103 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daubenski_73 (BE1),

Start 15:

- Found in 2 of 103 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trina_93 (CE), Weasels2_93 (CB),

Start 16:

- Found in 2 of 103 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Grayson_94 (CB), Peregrin_91 (CB),

Start 18:

- Found in 1 of 103 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NiceHouse_82 (CE),

Start 20:

- Found in 2 of 103 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dorin_66 (CG),

Start 21:

- Found in 5 of 103 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Limpid_49 (BK1),

Start 23:

- Found in 2 of 103 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Francesca_66 (CG),

Start 24:

- Found in 10 of 103 (9.7%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Kenrey_53 (BK1),

Start 26:

- Found in 30 of 103 (29.1%) of genes in pham
- Manual Annotations of this start: 11 of 86
- Called 36.7% of time when present

- Phage (with cluster) where this start called: Annadreamy_49 (BK1), Belfort_53 (BK1), BillNye_48 (BK2), Blueeyedbeauty_51 (BK1), Comrade_52 (BK1), Emma1919_53 (BK1), Forrest_53 (BK1), Moab_52 (BK1), Muntaha_49 (BK2), Patelgo_52 (BK1), SparkleGoddess_52 (BK1),

Summary by clusters:

There are 7 clusters represented in this pham: CB, CG, CE, BK1, BK2, BE2, BE1,

Info for manual annotations of cluster BE1:

- Start number 8 was manually annotated 12 times for cluster BE1.
- Start number 12 was manually annotated 2 times for cluster BE1.
- Start number 13 was manually annotated 14 times for cluster BE1.
- Start number 14 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 9 was manually annotated 4 times for cluster BE2.
- Start number 13 was manually annotated 22 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 7 was manually annotated 10 times for cluster BK1.
- Start number 9 was manually annotated 1 time for cluster BK1.
- Start number 21 was manually annotated 1 time for cluster BK1.
- Start number 24 was manually annotated 1 time for cluster BK1.
- Start number 26 was manually annotated 9 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 7 was manually annotated 2 times for cluster BK2.
- Start number 26 was manually annotated 2 times for cluster BK2.

Info for manual annotations of cluster CB:

- Start number 15 was manually annotated 1 time for cluster CB.
- Start number 16 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CE:

- Start number 15 was manually annotated 1 time for cluster CE.
- Start number 18 was manually annotated 1 time for cluster CE.

Gene Information:

Gene: Amabiko_74 Start: 53622, Stop: 54143, Start Num: 13

Candidate Starts for Amabiko_74:

(5, 53586), (Start: 9 @53610 has 5 MA's), (Start: 13 @53622 has 36 MA's), (34, 53763), (35, 53772), (38, 53796), (42, 53832), (45, 53850), (46, 53856), (51, 53880), (57, 53940), (62, 53976), (63, 53979), (64, 53982), (67, 54024), (71, 54054), (73, 54063), (74, 54066), (76, 54078), (80, 54120),

Gene: Anedea_71 Start: 53195, Stop: 53716, Start Num: 12

Candidate Starts for Anedea_71:

(2, 53108), (Start: 12 @53195 has 2 MA's), (38, 53369), (42, 53405), (61, 53540), (64, 53555), (66, 53591), (73, 53636), (74, 53639), (76, 53651),

Gene: Angela_69 Start: 52641, Stop: 53171, Start Num: 8

Candidate Starts for Angela_69:

(Start: 8 @52641 has 12 MA's), (Start: 13 @52656 has 36 MA's), (25, 52716), (38, 52824), (42, 52860), (73, 53091), (74, 53094), (76, 53106),

Gene: Annadreamy_49 Start: 42625, Stop: 43077, Start Num: 26

Candidate Starts for Annadreamy_49:

(Start: 7 @42541 has 12 MA's), (Start: 9 @42547 has 5 MA's), (Start: 21 @42598 has 1 MA's), (Start: 26 @42625 has 11 MA's), (30, 42664), (42, 42766), (58, 42877), (59, 42892), (63, 42913), (64, 42916), (68, 42970), (73, 42997), (74, 43000), (79, 43024), (80, 43054),

Gene: Bartholomune_70 Start: 53022, Stop: 53537, Start Num: 13

Candidate Starts for Bartholomune_70:

(Start: 8 @53007 has 12 MA's), (Start: 13 @53022 has 36 MA's), (36, 53175), (38, 53190), (40, 53217), (41, 53220), (42, 53226), (56, 53328), (62, 53370), (73, 53457), (74, 53460), (76, 53472),

Gene: Battuta_72 Start: 53596, Stop: 54117, Start Num: 13

Candidate Starts for Battuta_72:

(5, 53560), (Start: 9 @53584 has 5 MA's), (Start: 13 @53596 has 36 MA's), (34, 53737), (35, 53746), (38, 53770), (42, 53806), (45, 53824), (46, 53830), (51, 53854), (57, 53914), (62, 53950), (63, 53953), (64, 53956), (67, 53998), (71, 54028), (73, 54037), (74, 54040), (76, 54052), (80, 54094),

Gene: Belfort_53 Start: 45146, Stop: 45598, Start Num: 26

Candidate Starts for Belfort_53:

(Start: 7 @45062 has 12 MA's), (Start: 9 @45068 has 5 MA's), (Start: 26 @45146 has 11 MA's), (39, 45269), (42, 45287), (61, 45422), (70, 45491), (71, 45509), (73, 45518), (74, 45521), (76, 45533),

Gene: Beuffert_49 Start: 43682, Stop: 44218, Start Num: 7

Candidate Starts for Beuffert_49:

(Start: 7 @43682 has 12 MA's), (Start: 9 @43688 has 5 MA's), (Start: 26 @43766 has 11 MA's), (30, 43805), (42, 43907), (58, 44018), (59, 44033), (63, 44054), (64, 44057), (68, 44111), (73, 44138), (74, 44141), (79, 44165), (80, 44195),

Gene: BillNye_48 Start: 46547, Stop: 46999, Start Num: 26

Candidate Starts for BillNye_48:

(Start: 7 @46469 has 12 MA's), (Start: 26 @46547 has 11 MA's), (30, 46586), (32, 46598), (39, 46670), (42, 46688), (57, 46796), (68, 46892), (73, 46919), (74, 46922), (78, 46940),

Gene: Birchlyn_71 Start: 51479, Stop: 52000, Start Num: 13

Candidate Starts for Birchlyn_71:

(5, 51443), (Start: 9 @51467 has 5 MA's), (Start: 13 @51479 has 36 MA's), (34, 51620), (35, 51629), (38, 51653), (42, 51689), (45, 51707), (46, 51713), (51, 51737), (57, 51797), (62, 51833), (63, 51836), (64, 51839), (67, 51881), (71, 51911), (73, 51920), (74, 51923), (76, 51935), (80, 51977),

Gene: BlueOtter_74 Start: 54381, Stop: 54911, Start Num: 8

Candidate Starts for BlueOtter_74:

(Start: 8 @54381 has 12 MA's), (Start: 13 @54396 has 36 MA's), (30, 54498), (38, 54564), (41, 54594), (42, 54600), (56, 54702), (73, 54831), (74, 54834), (76, 54846), (80, 54888),

Gene: Blueeyedbeauty_51 Start: 43137, Stop: 43589, Start Num: 26

Candidate Starts for Blueeyedbeauty_51:

(Start: 7 @43053 has 12 MA's), (Start: 9 @43059 has 5 MA's), (Start: 21 @43110 has 1 MA's), (Start: 26 @43137 has 11 MA's), (30, 43176), (42, 43278), (58, 43389), (63, 43425), (64, 43428), (68, 43482), (73, 43509), (74, 43512), (79, 43536),

Gene: Bmoc_70 Start: 52999, Stop: 53520, Start Num: 12

Candidate Starts for Bmoc_70:

(2, 52912), (Start: 12 @52999 has 2 MA's), (38, 53173), (42, 53209), (61, 53344), (64, 53359), (66, 53395), (68, 53413), (73, 53440), (74, 53443), (76, 53455),

Gene: BoomerJR_74 Start: 53474, Stop: 53983, Start Num: 13

Candidate Starts for BoomerJR_74:

(5, 53438), (Start: 9 @53462 has 5 MA's), (Start: 13 @53474 has 36 MA's), (34, 53603), (35, 53612), (38, 53636), (40, 53663), (42, 53672), (46, 53696), (51, 53720), (57, 53780), (61, 53807), (62, 53816), (63, 53819), (71, 53894), (73, 53903), (74, 53906), (76, 53918), (80, 53960),

Gene: Bordeaux_72 Start: 53751, Stop: 54272, Start Num: 13

Candidate Starts for Bordeaux_72:

(5, 53715), (Start: 9 @53739 has 5 MA's), (Start: 13 @53751 has 36 MA's), (34, 53892), (35, 53901), (38, 53925), (42, 53961), (45, 53979), (46, 53985), (51, 54009), (57, 54069), (62, 54105), (63, 54108), (64, 54111), (67, 54153), (71, 54183), (73, 54192), (74, 54195), (76, 54207), (80, 54249),

Gene: Braelyn_71 Start: 53774, Stop: 54304, Start Num: 8

Candidate Starts for Braelyn_71:

(Start: 8 @53774 has 12 MA's), (Start: 13 @53789 has 36 MA's), (36, 53942), (38, 53957), (40, 53984), (41, 53987), (42, 53993), (56, 54095), (62, 54137), (73, 54224), (74, 54227), (76, 54239),

Gene: CeilingFan_76 Start: 53511, Stop: 54032, Start Num: 13

Candidate Starts for CeilingFan_76:

(5, 53475), (Start: 9 @53499 has 5 MA's), (Start: 13 @53511 has 36 MA's), (34, 53652), (35, 53661), (38, 53685), (42, 53721), (45, 53739), (46, 53745), (51, 53769), (57, 53829), (62, 53865), (63, 53868), (64, 53871), (67, 53913), (71, 53943), (73, 53952), (74, 53955), (76, 53967), (80, 54009),

Gene: Circinus_49 Start: 46608, Stop: 47138, Start Num: 7

Candidate Starts for Circinus_49:

(Start: 7 @46608 has 12 MA's), (Start: 26 @46686 has 11 MA's), (30, 46725), (32, 46737), (39, 46809), (42, 46827), (57, 46935), (68, 47031), (73, 47058), (74, 47061), (78, 47079),

Gene: Comrade_52 Start: 44762, Stop: 45214, Start Num: 26

Candidate Starts for Comrade_52:

(Start: 7 @44678 has 12 MA's), (Start: 9 @44684 has 5 MA's), (Start: 26 @44762 has 11 MA's), (39, 44885), (42, 44903), (61, 45038), (70, 45107), (71, 45125), (73, 45134), (74, 45137), (76, 45149),

Gene: Cross_72 Start: 54397, Stop: 54912, Start Num: 13

Candidate Starts for Cross_72:

(Start: 8 @54382 has 12 MA's), (Start: 13 @54397 has 36 MA's), (30, 54499), (38, 54565), (41, 54595), (42, 54601), (56, 54703), (73, 54832), (74, 54835), (76, 54847), (80, 54889),

Gene: Cursive_70 Start: 53922, Stop: 54437, Start Num: 13

Candidate Starts for Cursive_70:

(Start: 8 @53907 has 12 MA's), (Start: 13 @53922 has 36 MA's), (30, 54024), (38, 54090), (41, 54120), (42, 54126), (56, 54228), (73, 54357), (74, 54360), (76, 54372), (80, 54414),

Gene: Daubenski_73 Start: 54171, Stop: 54650, Start Num: 14

Candidate Starts for Daubenski_73:

(6, 54138), (10, 54159), (Start: 14 @54171 has 1 MA's), (38, 54336), (42, 54372), (56, 54474), (62, 54516), (64, 54522), (73, 54570), (74, 54573), (76, 54585), (80, 54627),

Gene: Dorin_66 Start: 55207, Stop: 55680, Start Num: 20

Candidate Starts for Dorin_66:

(11, 55174), (17, 55195), (20, 55207), (23, 55216), (30, 55276), (31, 55279), (33, 55306), (59, 55507), (69, 55579), (80, 55660),

Gene: EGole_73 Start: 55328, Stop: 55858, Start Num: 8

Candidate Starts for EGole_73:

(Start: 8 @55328 has 12 MA's), (Start: 13 @55343 has 36 MA's), (30, 55445), (38, 55511), (41, 55541), (42, 55547), (56, 55649), (73, 55778), (74, 55781), (76, 55793), (80, 55835),

Gene: Elmer_81 Start: 54689, Stop: 55210, Start Num: 13

Candidate Starts for Elmer_81:

(5, 54653), (Start: 9 @54677 has 5 MA's), (Start: 13 @54689 has 36 MA's), (38, 54863), (42, 54899), (45, 54917), (46, 54923), (51, 54947), (57, 55007), (61, 55034), (62, 55043), (63, 55046), (68, 55103), (73, 55130), (74, 55133), (80, 55187),

Gene: Emma1919_53 Start: 43559, Stop: 44014, Start Num: 26

Candidate Starts for Emma1919_53:

(Start: 7 @43475 has 12 MA's), (Start: 9 @43481 has 5 MA's), (Start: 24 @43547 has 1 MA's), (Start: 26 @43559 has 11 MA's), (39, 43682), (42, 43700), (50, 43739), (55, 43799), (57, 43808), (59, 43826), (61, 43835), (71, 43925), (73, 43934), (74, 43937),

Gene: Enygma_74 Start: 55414, Stop: 55917, Start Num: 13

Candidate Starts for Enygma_74:

(5, 55378), (Start: 9 @55402 has 5 MA's), (Start: 13 @55414 has 36 MA's), (31, 55510), (34, 55540), (35, 55549), (38, 55573), (40, 55600), (42, 55609), (46, 55633), (57, 55717), (62, 55753), (63, 55756), (71, 55831), (73, 55840), (74, 55843),

Gene: Evy_73 Start: 54276, Stop: 54806, Start Num: 8

Candidate Starts for Evy_73:

(Start: 8 @54276 has 12 MA's), (Start: 13 @54291 has 36 MA's), (38, 54459), (42, 54495), (43, 54498), (48, 54525), (56, 54597), (57, 54603), (61, 54630), (62, 54639), (66, 54681), (73, 54726), (74, 54729), (76, 54741),

Gene: Faust_52 Start: 44606, Stop: 45145, Start Num: 7

Candidate Starts for Faust_52:

(Start: 7 @44606 has 12 MA's), (Start: 9 @44612 has 5 MA's), (Start: 21 @44663 has 1 MA's), (Start: 26 @44690 has 11 MA's), (37, 44783), (39, 44813), (42, 44831), (50, 44870), (71, 45056), (73, 45065), (74, 45068), (77, 45083), (79, 45092),

Gene: Forrest_53 Start: 44256, Stop: 44711, Start Num: 26

Candidate Starts for Forrest_53:

(Start: 7 @44172 has 12 MA's), (Start: 9 @44178 has 5 MA's), (Start: 24 @44244 has 1 MA's), (Start: 26 @44256 has 11 MA's), (39, 44379), (42, 44397), (50, 44436), (55, 44496), (57, 44505), (59, 44523), (61, 44532), (71, 44622), (73, 44631), (74, 44634),

Gene: Francesca_66 Start: 55399, Stop: 55863, Start Num: 23

Candidate Starts for Francesca_66:

(11, 55357), (17, 55378), (20, 55390), (23, 55399), (30, 55459), (31, 55462), (33, 55489), (59, 55690), (69, 55762), (80, 55843),

Gene: Francob_50 Start: 43536, Stop: 44075, Start Num: 7

Candidate Starts for Francob_50:

(Start: 7 @43536 has 12 MA's), (Start: 9 @43542 has 5 MA's), (Start: 26 @43620 has 11 MA's), (39, 43743), (42, 43761), (61, 43896), (64, 43911), (71, 43986), (74, 43998), (76, 44010),

Gene: Genie2_74 Start: 53588, Stop: 54097, Start Num: 13

Candidate Starts for Genie2_74:

(5, 53552), (Start: 9 @53576 has 5 MA's), (Start: 13 @53588 has 36 MA's), (34, 53717), (35, 53726), (38, 53750), (40, 53777), (42, 53786), (46, 53810), (51, 53834), (57, 53894), (61, 53921), (62, 53930), (63, 53933), (71, 54008), (73, 54017), (74, 54020), (76, 54032), (80, 54074),

Gene: Gibbi_78 Start: 53734, Stop: 54255, Start Num: 13

Candidate Starts for Gibbi_78:

(5, 53698), (Start: 9 @53722 has 5 MA's), (Start: 13 @53734 has 36 MA's), (34, 53875), (35, 53884), (38, 53908), (42, 53944), (45, 53962), (46, 53968), (51, 53992), (57, 54052), (62, 54088), (63, 54091), (64, 54094), (67, 54136), (71, 54166), (73, 54175), (74, 54178), (76, 54190), (80, 54232),

Gene: Gilson_52 Start: 43434, Stop: 43967, Start Num: 9

Candidate Starts for Gilson_52:

(Start: 7 @43428 has 12 MA's), (Start: 9 @43434 has 5 MA's), (Start: 24 @43500 has 1 MA's), (Start: 26 @43512 has 11 MA's), (39, 43635), (42, 43653), (50, 43692), (55, 43752), (57, 43761), (59, 43779), (61, 43788), (71, 43878), (73, 43887), (74, 43890),

Gene: Grayson_94 Start: 57408, Stop: 57893, Start Num: 16

Candidate Starts for Grayson_94:

(Start: 16 @57408 has 2 MA's), (Start: 26 @57453 has 11 MA's), (49, 57627), (59, 57717), (65, 57750), (69, 57789), (74, 57819),

Gene: HangryHippo_74 Start: 54381, Stop: 54911, Start Num: 8

Candidate Starts for HangryHippo_74:

(Start: 8 @54381 has 12 MA's), (Start: 13 @54396 has 36 MA's), (30, 54498), (38, 54564), (41, 54594), (42, 54600), (56, 54702), (73, 54831), (74, 54834), (76, 54846), (80, 54888),

Gene: IchabodCrane_71 Start: 53311, Stop: 53844, Start Num: 9

Candidate Starts for IchabodCrane_71:

(5, 53287), (Start: 9 @53311 has 5 MA's), (Start: 13 @53323 has 36 MA's), (34, 53464), (35, 53473), (38, 53497), (42, 53533), (45, 53551), (46, 53557), (51, 53581), (57, 53641), (62, 53677), (63, 53680), (64, 53683), (67, 53725), (71, 53755), (73, 53764), (74, 53767), (76, 53779), (80, 53821),

Gene: Jada_51 Start: 43354, Stop: 43893, Start Num: 7

Candidate Starts for Jada_51:

(Start: 7 @43354 has 12 MA's), (Start: 9 @43360 has 5 MA's), (Start: 24 @43426 has 1 MA's), (Start: 26 @43438 has 11 MA's), (39, 43561), (42, 43579), (50, 43618), (55, 43678), (57, 43687), (59, 43705), (61, 43714), (71, 43804), (73, 43813), (74, 43816),

Gene: Jay2Jay_77 Start: 55129, Stop: 55659, Start Num: 8

Candidate Starts for Jay2Jay_77:

(Start: 8 @55129 has 12 MA's), (Start: 13 @55144 has 36 MA's), (38, 55312), (42, 55348), (43, 55351), (56, 55450), (57, 55456), (62, 55492), (66, 55534), (73, 55579), (74, 55582), (76, 55594),

Gene: JimJam_74 Start: 53697, Stop: 54218, Start Num: 13

Candidate Starts for JimJam_74:

(5, 53661), (Start: 9 @53685 has 5 MA's), (Start: 13 @53697 has 36 MA's), (34, 53838), (35, 53847), (38, 53871), (42, 53907), (45, 53925), (46, 53931), (51, 53955), (57, 54015), (62, 54051), (63, 54054), (64, 54057), (67, 54099), (71, 54129), (73, 54138), (74, 54141), (76, 54153), (80, 54195),

Gene: Jollison_79 Start: 53567, Stop: 54100, Start Num: 9

Candidate Starts for Jollison_79:

(5, 53543), (Start: 9 @53567 has 5 MA's), (Start: 13 @53579 has 36 MA's), (34, 53720), (35, 53729), (38, 53753), (42, 53789), (45, 53807), (46, 53813), (51, 53837), (57, 53897), (62, 53933), (63, 53936), (64, 53939), (67, 53981), (71, 54011), (73, 54020), (74, 54023), (76, 54035), (80, 54077),

Gene: Karimac_73 Start: 53728, Stop: 54249, Start Num: 13

Candidate Starts for Karimac_73:

(5, 53692), (Start: 9 @53716 has 5 MA's), (Start: 13 @53728 has 36 MA's), (34, 53869), (35, 53878), (38, 53902), (42, 53938), (45, 53956), (46, 53962), (51, 53986), (57, 54046), (62, 54082), (63, 54085), (64, 54088), (67, 54130), (71, 54160), (73, 54169), (74, 54172), (76, 54184), (80, 54226),

Gene: Karp_50 Start: 44277, Stop: 44813, Start Num: 7

Candidate Starts for Karp_50:

(Start: 7 @44277 has 12 MA's), (Start: 9 @44283 has 5 MA's), (Start: 26 @44361 has 11 MA's), (39, 44484), (42, 44502), (61, 44637), (70, 44706), (71, 44724), (73, 44733), (74, 44736), (76, 44748),

Gene: Kenrey_53 Start: 43695, Stop: 44162, Start Num: 24

Candidate Starts for Kenrey_53:

(Start: 7 @43623 has 12 MA's), (Start: 9 @43629 has 5 MA's), (Start: 24 @43695 has 1 MA's), (Start: 26 @43707 has 11 MA's), (39, 43830), (42, 43848), (50, 43887), (57, 43956), (59, 43974), (61, 43983), (71, 44073), (73, 44082), (74, 44085),

Gene: KentuckyRacer_78 Start: 53512, Stop: 54033, Start Num: 13

Candidate Starts for KentuckyRacer_78:

(5, 53476), (Start: 9 @53500 has 5 MA's), (Start: 13 @53512 has 36 MA's), (34, 53653), (35, 53662), (38, 53686), (42, 53722), (45, 53740), (46, 53746), (51, 53770), (57, 53830), (62, 53866), (63, 53869), (64, 53872), (67, 53914), (71, 53944), (73, 53953), (74, 53956), (76, 53968), (80, 54010),

Gene: Larnav_77 Start: 54366, Stop: 54896, Start Num: 8

Candidate Starts for Larnav_77:

(Start: 8 @54366 has 12 MA's), (Start: 13 @54381 has 36 MA's), (38, 54549), (41, 54579), (42, 54585), (56, 54687), (73, 54816), (74, 54819), (76, 54831), (80, 54873),

Gene: Leo04_73 Start: 54896, Stop: 55411, Start Num: 13

Candidate Starts for Leo04_73:

(Start: 8 @54881 has 12 MA's), (Start: 13 @54896 has 36 MA's), (30, 54998), (38, 55064), (41, 55094), (42, 55100), (56, 55202), (73, 55331), (74, 55334), (76, 55346), (80, 55388),

Gene: Liandry_71 Start: 53771, Stop: 54286, Start Num: 13

Candidate Starts for Liandry_71:

(Start: 8 @53756 has 12 MA's), (Start: 13 @53771 has 36 MA's), (36, 53924), (38, 53939), (40, 53966), (41, 53969), (42, 53975), (56, 54077), (62, 54119), (73, 54206), (74, 54209), (76, 54221),

Gene: LilMartin_69 Start: 52589, Stop: 53119, Start Num: 8

Candidate Starts for LilMartin_69:

(Start: 8 @52589 has 12 MA's), (Start: 13 @52604 has 36 MA's), (25, 52664), (38, 52772), (42, 52808), (73, 53039), (74, 53042), (76, 53054),

Gene: Limpid_49 Start: 42597, Stop: 43076, Start Num: 21

Candidate Starts for Limpid_49:

(Start: 7 @42540 has 12 MA's), (Start: 9 @42546 has 5 MA's), (Start: 21 @42597 has 1 MA's), (Start: 26 @42624 has 11 MA's), (30, 42663), (42, 42765), (58, 42876), (59, 42891), (63, 42912), (64, 42915), (68, 42969), (73, 42996), (74, 42999), (79, 43023), (80, 43053),

Gene: LukeCage_73 Start: 53482, Stop: 54003, Start Num: 13

Candidate Starts for LukeCage_73:

(5, 53446), (Start: 9 @53470 has 5 MA's), (Start: 13 @53482 has 36 MA's), (31, 53593), (34, 53623), (35, 53632), (38, 53656), (40, 53683), (42, 53692), (46, 53716), (57, 53800), (62, 53836), (63, 53839), (67, 53884), (71, 53914), (73, 53923), (74, 53926), (80, 53980),

Gene: Lululemon_73 Start: 53777, Stop: 54292, Start Num: 13

Candidate Starts for Lululemon_73:

(Start: 8 @53762 has 12 MA's), (Start: 13 @53777 has 36 MA's), (30, 53879), (38, 53945), (41, 53975), (42, 53981), (56, 54083), (73, 54212), (74, 54215), (76, 54227), (80, 54269),

Gene: MeganTheeKilla_50 Start: 42789, Stop: 43328, Start Num: 7

Candidate Starts for MeganTheeKilla_50:

(Start: 7 @42789 has 12 MA's), (Start: 9 @42795 has 5 MA's), (Start: 24 @42861 has 1 MA's), (Start: 26 @42873 has 11 MA's), (39, 42996), (42, 43014), (50, 43053), (55, 43113), (57, 43122), (59, 43140), (61, 43149), (71, 43239), (73, 43248), (74, 43251),

Gene: Mildred21_70 Start: 52801, Stop: 53316, Start Num: 12

Candidate Starts for Mildred21_70:

(1, 52675), (3, 52720), (Start: 12 @52801 has 2 MA's), (19, 52834), (25, 52861), (38, 52969), (42, 53005), (66, 53191), (73, 53236), (74, 53239), (76, 53251),

Gene: MindFlayer_72 Start: 53218, Stop: 53751, Start Num: 9

Candidate Starts for MindFlayer_72:

(5, 53194), (Start: 9 @53218 has 5 MA's), (Start: 13 @53230 has 36 MA's), (34, 53371), (35, 53380), (38, 53404), (42, 53440), (45, 53458), (46, 53464), (51, 53488), (57, 53548), (62, 53584), (63, 53587), (64, 53590), (67, 53632), (71, 53662), (73, 53671), (74, 53674), (76, 53686), (80, 53728),

Gene: Moab_52 Start: 44732, Stop: 45187, Start Num: 26

Candidate Starts for Moab_52:

(Start: 7 @44648 has 12 MA's), (Start: 9 @44654 has 5 MA's), (Start: 26 @44732 has 11 MA's), (35, 44813), (39, 44855), (42, 44873), (45, 44891), (54, 44969), (59, 44999), (61, 45008), (64, 45023), (71, 45098), (73, 45107), (74, 45110),

Gene: Mugiwara_75 Start: 53981, Stop: 54502, Start Num: 13

Candidate Starts for Mugiwara_75:

(5, 53945), (Start: 9 @53969 has 5 MA's), (Start: 13 @53981 has 36 MA's), (35, 54131), (38, 54155), (42, 54191), (46, 54215), (51, 54239), (57, 54299), (62, 54335), (63, 54338), (64, 54341), (67, 54383), (71, 54413), (73, 54422), (74, 54425), (76, 54437), (80, 54479),

Gene: MulchMansion_69 Start: 52589, Stop: 53119, Start Num: 8

Candidate Starts for MulchMansion_69:

(Start: 8 @52589 has 12 MA's), (Start: 13 @52604 has 36 MA's), (25, 52664), (38, 52772), (42, 52808), (73, 53039), (74, 53042), (76, 53054),

Gene: Muntaha_49 Start: 44943, Stop: 45395, Start Num: 26

Candidate Starts for Muntaha_49:

(Start: 7 @44865 has 12 MA's), (Start: 26 @44943 has 11 MA's), (30, 44982), (39, 45066), (42, 45084), (57, 45192), (68, 45288), (73, 45315), (74, 45318), (78, 45336), (79, 45342), (81, 45384),

Gene: Navo_72 Start: 53693, Stop: 54208, Start Num: 13

Candidate Starts for Navo_72:

(Start: 8 @53678 has 12 MA's), (Start: 13 @53693 has 36 MA's), (36, 53846), (38, 53861), (40, 53888), (41, 53891), (42, 53897), (56, 53999), (62, 54041), (73, 54128), (74, 54131), (76, 54143),

Gene: NiceHouse_82 Start: 60077, Stop: 60556, Start Num: 18

Candidate Starts for NiceHouse_82:

(4, 59999), (Start: 18 @60077 has 1 MA's), (Start: 24 @60104 has 1 MA's), (30, 60155), (55, 60359), (59, 60386), (69, 60458), (74, 60488),

Gene: NootNoot_68 Start: 52685, Stop: 53200, Start Num: 13

Candidate Starts for NootNoot_68:

(Start: 8 @52670 has 12 MA's), (Start: 13 @52685 has 36 MA's), (36, 52838), (38, 52853), (40, 52880), (41, 52883), (42, 52889), (56, 52991), (62, 53033), (73, 53120), (74, 53123), (76, 53135),

Gene: PacManQ_73 Start: 53777, Stop: 54292, Start Num: 13

Candidate Starts for PacManQ_73:

(Start: 8 @53762 has 12 MA's), (Start: 13 @53777 has 36 MA's), (30, 53879), (38, 53945), (41, 53975), (42, 53981), (56, 54083), (73, 54212), (74, 54215), (76, 54227), (80, 54269),

Gene: Paradiddles_68 Start: 52934, Stop: 53464, Start Num: 8

Candidate Starts for Paradiddles_68:

(Start: 8 @52934 has 12 MA's), (Start: 13 @52949 has 36 MA's), (36, 53102), (38, 53117), (40, 53144), (41, 53147), (42, 53153), (56, 53255), (62, 53297), (73, 53384), (74, 53387), (76, 53399),

Gene: Patelgo_52 Start: 44919, Stop: 45374, Start Num: 26

Candidate Starts for Patelgo_52:

(Start: 7 @44835 has 12 MA's), (Start: 9 @44841 has 5 MA's), (Start: 26 @44919 has 11 MA's), (35, 45000), (39, 45042), (42, 45060), (45, 45078), (54, 45156), (59, 45186), (61, 45195), (64, 45210), (71, 45285), (73, 45294), (74, 45297),

Gene: Peebs_71 Start: 54116, Stop: 54646, Start Num: 8

Candidate Starts for Peebs_71:

(Start: 8 @54116 has 12 MA's), (Start: 13 @54131 has 36 MA's), (38, 54299), (41, 54329), (42, 54335), (56, 54437), (73, 54566), (74, 54569), (76, 54581), (80, 54623),

Gene: Pepperwood_72 Start: 54264, Stop: 54779, Start Num: 13

Candidate Starts for Pepperwood_72:

(Start: 8 @54249 has 12 MA's), (Start: 13 @54264 has 36 MA's), (38, 54432), (41, 54462), (42, 54468), (56, 54570), (73, 54699), (74, 54702), (76, 54714), (80, 54756),

Gene: Peregrin_91 Start: 55775, Stop: 56260, Start Num: 16

Candidate Starts for Peregrin_91:

(Start: 16 @55775 has 2 MA's), (Start: 26 @55820 has 11 MA's), (49, 55994), (59, 56084), (65, 56117), (69, 56156), (74, 56186),

Gene: Persimmon_68 Start: 52618, Stop: 53133, Start Num: 13

Candidate Starts for Persimmon_68:

(Start: 8 @52603 has 12 MA's), (Start: 13 @52618 has 36 MA's), (36, 52771), (38, 52786), (40, 52813), (41, 52816), (42, 52822), (56, 52924), (62, 52966), (73, 53053), (74, 53056), (76, 53068),

Gene: Phredrick_51 Start: 42694, Stop: 43233, Start Num: 7

Candidate Starts for Phredrick_51:

(Start: 7 @42694 has 12 MA's), (Start: 9 @42700 has 5 MA's), (Start: 24 @42766 has 1 MA's), (Start: 26 @42778 has 11 MA's), (39, 42901), (42, 42919), (50, 42958), (57, 43027), (59, 43045), (61, 43054), (71, 43144), (73, 43153), (74, 43156),

Gene: PinkiePie_70 Start: 53771, Stop: 54286, Start Num: 13

Candidate Starts for PinkiePie_70:

(Start: 8 @53756 has 12 MA's), (Start: 13 @53771 has 36 MA's), (36, 53924), (38, 53939), (40, 53966), (41, 53969), (42, 53975), (56, 54077), (62, 54119), (73, 54206), (74, 54209), (76, 54221),

Gene: PumpkinSpice_73 Start: 53622, Stop: 54143, Start Num: 13

Candidate Starts for PumpkinSpice_73:

(5, 53586), (Start: 9 @53610 has 5 MA's), (Start: 13 @53622 has 36 MA's), (34, 53763), (35, 53772), (38, 53796), (42, 53832), (45, 53850), (46, 53856), (51, 53880), (57, 53940), (62, 53976), (63, 53979), (64, 53982), (67, 54024), (71, 54054), (73, 54063), (74, 54066), (76, 54078), (80, 54120),

Gene: Quaran19_74 Start: 53613, Stop: 54134, Start Num: 13

Candidate Starts for Quaran19_74:

(5, 53577), (Start: 9 @53601 has 5 MA's), (Start: 13 @53613 has 36 MA's), (34, 53754), (35, 53763), (38, 53787), (42, 53823), (45, 53841), (46, 53847), (51, 53871), (57, 53931), (62, 53967), (63, 53970), (64, 53973), (67, 54015), (71, 54045), (73, 54054), (74, 54057), (76, 54069), (80, 54111),

Gene: SaltySpittoon_74 Start: 53622, Stop: 54143, Start Num: 13

Candidate Starts for SaltySpittoon_74:

(5, 53586), (Start: 9 @53610 has 5 MA's), (Start: 13 @53622 has 36 MA's), (34, 53763), (35, 53772), (38, 53796), (42, 53832), (45, 53850), (46, 53856), (51, 53880), (57, 53940), (62, 53976), (63, 53979), (64, 53982), (67, 54024), (71, 54054), (73, 54063), (74, 54066), (76, 54078), (80, 54120),

Gene: Samisti12_72 Start: 55574, Stop: 56089, Start Num: 13

Candidate Starts for Samisti12_72:

(Start: 8 @55559 has 12 MA's), (Start: 13 @55574 has 36 MA's), (30, 55676), (38, 55742), (41, 55772), (42, 55778), (56, 55880), (62, 55922), (73, 56009), (74, 56012), (76, 56024), (80, 56066),

Gene: SeresaTree_51 Start: 43996, Stop: 44535, Start Num: 7

Candidate Starts for SeresaTree_51:

(Start: 7 @43996 has 12 MA's), (Start: 9 @44002 has 5 MA's), (Start: 21 @44053 has 1 MA's), (Start: 26 @44080 has 11 MA's), (37, 44173), (39, 44203), (42, 44221), (50, 44260), (71, 44446), (73, 44455), (74, 44458), (77, 44473), (79, 44482),

Gene: Sham_48 Start: 44537, Stop: 45076, Start Num: 7

Candidate Starts for Sham_48:

(Start: 7 @44537 has 12 MA's), (Start: 9 @44543 has 5 MA's), (Start: 24 @44609 has 1 MA's), (Start: 26 @44621 has 11 MA's), (39, 44744), (42, 44762), (50, 44801), (63, 44909), (64, 44912), (71, 44987), (73, 44996), (74, 44999), (77, 45014),

Gene: Sollertia_74 Start: 53588, Stop: 54097, Start Num: 13

Candidate Starts for Sollertia_74:

(5, 53552), (Start: 9 @53576 has 5 MA's), (Start: 13 @53588 has 36 MA's), (34, 53717), (35, 53726), (38, 53750), (40, 53777), (42, 53786), (46, 53810), (51, 53834), (57, 53894), (61, 53921), (62, 53930), (63, 53933), (71, 54008), (73, 54017), (74, 54020), (76, 54032), (80, 54074),

Gene: SparkleGoddess_52 Start: 44763, Stop: 45215, Start Num: 26

Candidate Starts for SparkleGoddess_52:

(Start: 7 @44679 has 12 MA's), (Start: 9 @44685 has 5 MA's), (Start: 26 @44763 has 11 MA's), (39, 44886), (42, 44904), (61, 45039), (70, 45108), (71, 45126), (73, 45135), (74, 45138), (76, 45150),

Gene: Spelly_74 Start: 53577, Stop: 54098, Start Num: 13

Candidate Starts for Spelly_74:

(5, 53541), (Start: 9 @53565 has 5 MA's), (Start: 13 @53577 has 36 MA's), (34, 53718), (35, 53727), (38, 53751), (42, 53787), (45, 53805), (46, 53811), (51, 53835), (57, 53895), (62, 53931), (63, 53934), (64, 53937), (67, 53979), (71, 54009), (73, 54018), (74, 54021), (76, 54033), (80, 54075),

Gene: Spilled_75 Start: 53682, Stop: 54215, Start Num: 9

Candidate Starts for Spilled_75:

(5, 53658), (Start: 9 @53682 has 5 MA's), (Start: 13 @53694 has 36 MA's), (34, 53835), (35, 53844), (38, 53868), (42, 53904), (45, 53922), (46, 53928), (51, 53952), (57, 54012), (62, 54048), (63, 54051), (64, 54054), (67, 54096), (71, 54126), (73, 54135), (74, 54138), (76, 54150), (80, 54192),

Gene: Squillium_71 Start: 53772, Stop: 54287, Start Num: 13

Candidate Starts for Squillium_71:

(Start: 8 @53757 has 12 MA's), (Start: 13 @53772 has 36 MA's), (36, 53925), (38, 53940), (40, 53967), (41, 53970), (42, 53976), (56, 54078), (62, 54120), (73, 54207), (74, 54210), (76, 54222),

Gene: Stanimal_74 Start: 53477, Stop: 53986, Start Num: 13

Candidate Starts for Stanimal_74:

(5, 53441), (Start: 9 @53465 has 5 MA's), (Start: 13 @53477 has 36 MA's), (34, 53606), (35, 53615), (38, 53639), (40, 53666), (42, 53675), (46, 53699), (51, 53723), (57, 53783), (61, 53810), (62, 53819), (63, 53822), (71, 53897), (73, 53906), (74, 53909), (76, 53921), (80, 53963),

Gene: StarPlatinum_74 Start: 54122, Stop: 54643, Start Num: 13

Candidate Starts for StarPlatinum_74:

(5, 54086), (Start: 9 @54110 has 5 MA's), (Start: 13 @54122 has 36 MA's), (31, 54233), (34, 54263), (35, 54272), (38, 54296), (40, 54323), (42, 54332), (46, 54356), (57, 54440), (61, 54467), (62, 54476), (63, 54479), (64, 54482), (67, 54524), (71, 54554), (73, 54563), (74, 54566), (80, 54620),

Gene: Starbow_72 Start: 53598, Stop: 54119, Start Num: 13

Candidate Starts for Starbow_72:

(5, 53562), (Start: 9 @53586 has 5 MA's), (Start: 13 @53598 has 36 MA's), (34, 53739), (35, 53748), (38, 53772), (42, 53808), (45, 53826), (46, 53832), (51, 53856), (57, 53916), (62, 53952), (63, 53955), (64, 53958), (67, 54000), (71, 54030), (73, 54039), (74, 54042), (76, 54054), (80, 54096),

Gene: Stigma_51 Start: 44693, Stop: 45229, Start Num: 7

Candidate Starts for Stigma_51:

(Start: 7 @44693 has 12 MA's), (Start: 9 @44699 has 5 MA's), (Start: 26 @44777 has 11 MA's), (39, 44900), (42, 44918), (61, 45053), (70, 45122), (71, 45140), (73, 45149), (74, 45152), (76, 45164),

Gene: Sushi23_72 Start: 54474, Stop: 55004, Start Num: 8

Candidate Starts for Sushi23_72:

(Start: 8 @54474 has 12 MA's), (Start: 13 @54489 has 36 MA's), (38, 54657), (41, 54687), (42, 54693), (56, 54795), (73, 54924), (74, 54927), (76, 54939), (80, 54981),

Gene: Targaryen_73 Start: 55193, Stop: 55708, Start Num: 13

Candidate Starts for Targaryen_73:

(Start: 8 @55178 has 12 MA's), (Start: 13 @55193 has 36 MA's), (38, 55361), (42, 55397), (43, 55400), (48, 55427), (56, 55499), (61, 55532), (62, 55541), (66, 55583), (73, 55628), (74, 55631), (76, 55643),

Gene: Teutsch_72 Start: 54737, Stop: 55267, Start Num: 8

Candidate Starts for Teutsch_72:

(Start: 8 @54737 has 12 MA's), (Start: 13 @54752 has 36 MA's), (38, 54920), (41, 54950), (42, 54956), (56, 55058), (73, 55187), (74, 55190), (76, 55202), (80, 55244),

Gene: TomSawyer_72 Start: 53204, Stop: 53737, Start Num: 9

Candidate Starts for TomSawyer_72:

(5, 53180), (Start: 9 @53204 has 5 MA's), (Start: 13 @53216 has 36 MA's), (34, 53357), (35, 53366), (38, 53390), (42, 53426), (45, 53444), (46, 53450), (51, 53474), (57, 53534), (62, 53570), (63, 53573), (64, 53576), (67, 53618), (71, 53648), (73, 53657), (74, 53660), (76, 53672), (80, 53714),

Gene: Tomas_76 Start: 55938, Stop: 56459, Start Num: 13

Candidate Starts for Tomas_76:

(Start: 13 @55938 has 36 MA's), (34, 56079), (35, 56088), (38, 56112), (42, 56148), (46, 56172), (47, 56175), (53, 56214), (56, 56250), (62, 56292), (72, 56373), (73, 56379), (74, 56382), (76, 56394), (80, 56436),

Gene: Tribute_70 Start: 53958, Stop: 54473, Start Num: 13

Candidate Starts for Tribute_70:

(Start: 8 @53943 has 12 MA's), (Start: 13 @53958 has 36 MA's), (38, 54126), (41, 54156), (42, 54162), (56, 54264), (73, 54393), (74, 54396), (76, 54408), (80, 54450),

Gene: Trina_93 Start: 63190, Stop: 63669, Start Num: 15

Candidate Starts for Trina_93:

(Start: 15 @63190 has 2 MA's), (27, 63238), (29, 63253), (30, 63271), (36, 63322), (43, 63376), (44, 63382), (52, 63430), (55, 63469), (59, 63496), (69, 63568), (74, 63598),

Gene: TunaTartare_50 Start: 44837, Stop: 45376, Start Num: 7

Candidate Starts for TunaTartare_50:

(Start: 7 @44837 has 12 MA's), (Start: 9 @44843 has 5 MA's), (Start: 24 @44909 has 1 MA's), (Start: 26 @44921 has 11 MA's), (39, 45044), (42, 45062), (50, 45101), (64, 45212), (71, 45287), (73, 45296), (74, 45299), (77, 45314),

Gene: Wakanda_48 Start: 44802, Stop: 45332, Start Num: 7

Candidate Starts for Wakanda_48:

(Start: 7 @44802 has 12 MA's), (Start: 26 @44880 has 11 MA's), (30, 44919), (39, 45003), (42, 45021), (57, 45129), (68, 45225), (73, 45252), (74, 45255), (78, 45273), (79, 45279), (81, 45321),

Gene: Warpy_76 Start: 54642, Stop: 55172, Start Num: 8

Candidate Starts for Warpy_76:

(Start: 8 @54642 has 12 MA's), (Start: 13 @54657 has 36 MA's), (38, 54825), (42, 54861), (43, 54864), (56, 54963), (57, 54969), (62, 55005), (66, 55047), (73, 55092), (74, 55095), (76, 55107),

Gene: Watermoore_72 Start: 54968, Stop: 55483, Start Num: 13

Candidate Starts for Watermoore_72:

(Start: 8 @54953 has 12 MA's), (Start: 13 @54968 has 36 MA's), (30, 55070), (38, 55136), (41, 55166), (42, 55172), (56, 55274), (73, 55403), (74, 55406), (76, 55418), (80, 55460),

Gene: Weasels2_93 Start: 56930, Stop: 57418, Start Num: 15

Candidate Starts for Weasels2_93:

(Start: 15 @56930 has 2 MA's), (Start: 26 @56978 has 11 MA's), (28, 56996), (30, 57017), (42, 57119), (59, 57242), (60, 57245), (61, 57251), (69, 57314), (71, 57332), (74, 57344), (75, 57347),

Gene: WhereRU_71 Start: 53209, Stop: 53724, Start Num: 13

Candidate Starts for WhereRU_71:

(Start: 8 @53194 has 12 MA's), (Start: 13 @53209 has 36 MA's), (36, 53362), (38, 53377), (40, 53404), (41, 53407), (42, 53413), (56, 53515), (62, 53557), (73, 53644), (74, 53647), (76, 53659),

Gene: Wipeout_72 Start: 53967, Stop: 54488, Start Num: 13

Candidate Starts for Wipeout_72:

(5, 53931), (Start: 9 @53955 has 5 MA's), (Start: 13 @53967 has 36 MA's), (31, 54078), (34, 54108), (35, 54117), (38, 54141), (40, 54168), (42, 54177), (45, 54195), (46, 54201), (51, 54225), (57, 54285), (62, 54321), (63, 54324), (64, 54327), (67, 54369), (71, 54399), (73, 54408), (74, 54411), (76, 54423), (80, 54465),

Gene: Wofford_73 Start: 54652, Stop: 55173, Start Num: 13

Candidate Starts for Wofford_73:

(5, 54616), (Start: 9 @54640 has 5 MA's), (Start: 13 @54652 has 36 MA's), (22, 54697), (38, 54826), (42, 54862), (45, 54880), (46, 54886), (51, 54910), (57, 54970), (61, 54997), (62, 55006), (63, 55009), (68, 55066), (73, 55093), (74, 55096), (80, 55150),

Gene: Yaboi_74 Start: 53565, Stop: 54074, Start Num: 13

Candidate Starts for Yaboi_74:

(5, 53529), (Start: 9 @53553 has 5 MA's), (Start: 13 @53565 has 36 MA's), (34, 53694), (35, 53703), (38, 53727), (40, 53754), (42, 53763), (46, 53787), (51, 53811), (57, 53871), (61, 53898), (62, 53907), (63, 53910), (71, 53985), (73, 53994), (74, 53997), (76, 54009), (80, 54051),