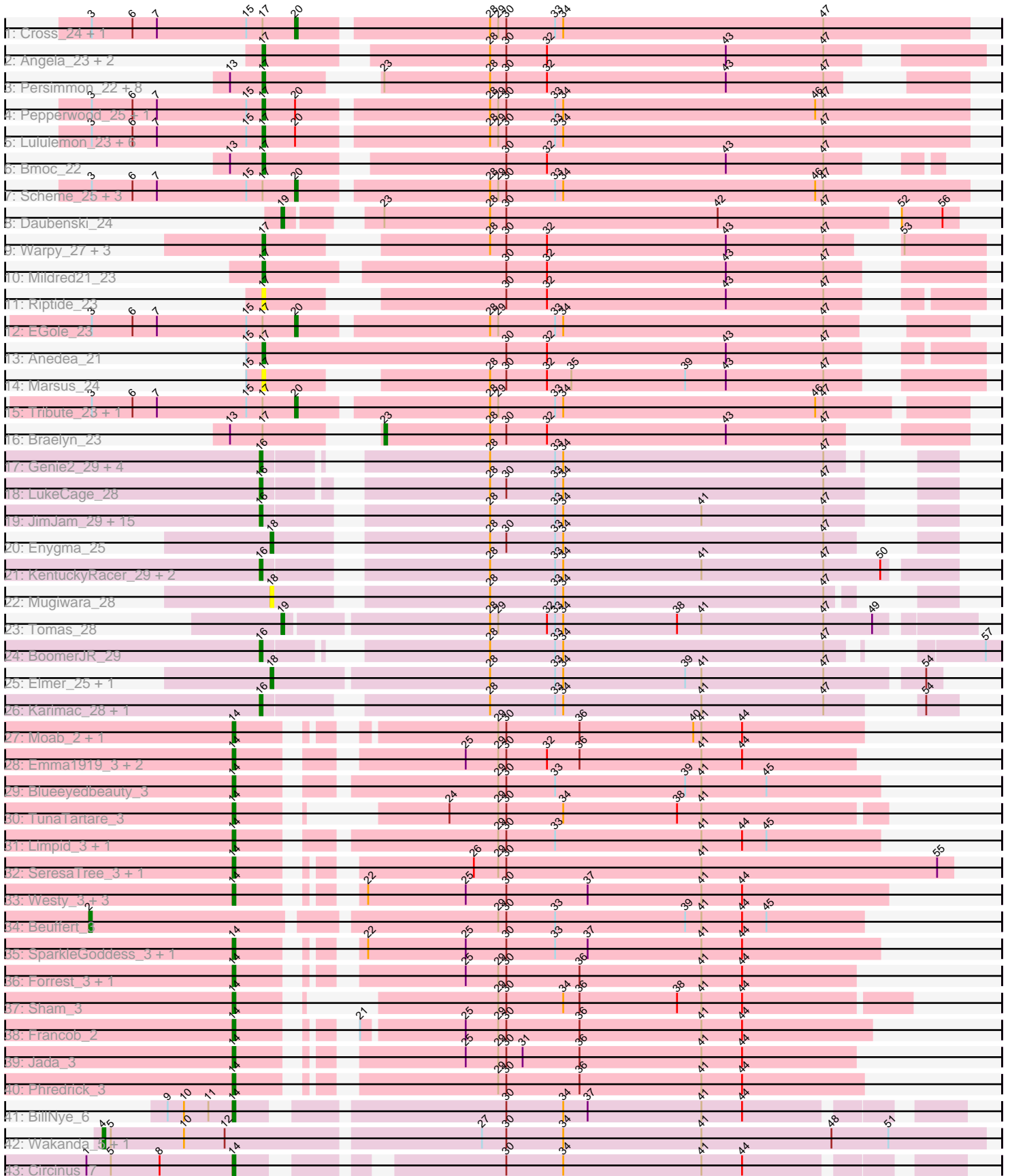


Pham 202824



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 202824 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202824 has 102 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Cross_24, Peebs_24
- Track 2 : Angela_23, MulchMansion_23, LilMartin_23
- Track 3 : Persimmon_22, NootNoot_23, Navo_22, Squillum_23, WhereRU_22, Bartholomune_23, PinkiePie_23, Liandry_23, Paradiddles_23
- Track 4 : Pepperwood_25, Larnav_24
- Track 5 : Lululemon_23, BlueOtter_24, Cursive_22, Watermoore_24, Leo04_24, HangryHippo_24, PacManQ_23
- Track 6 : Bmoc_22
- Track 7 : Scheme_25, Samisti12_22, Shuckle_23, Sushi23_25
- Track 8 : Daubenski_24
- Track 9 : Warpy_27, Jay2Jay_27, Evy_24, Targaryen_22
- Track 10 : Mildred21_23
- Track 11 : Riptide_23
- Track 12 : EGole_23
- Track 13 : Anedea_21
- Track 14 : Marsus_24
- Track 15 : Tribute_23, Teutsch_23
- Track 16 : Braelyn_23
- Track 17 : Genie2_29, Yaboi_30, Stanimal_29, StarPlatinum_27, Sollertia_29
- Track 18 : LukeCage_28
- Track 19 : JimJam_29, PumpkinSpice_28, Jollison_28, Rikishi_31, Wipeout_27, Starbow_27, Quarant19_29, MindFlayer_27, Battuta_27, Birchlyn_26, SaltySpittoon_29, Spilled_28, Amabiko_29, Bordeaux_27, TomSawyer_27, Spelly_29
- Track 20 : Enygma_25
- Track 21 : KentuckyRacer_29, CeilingFan_31, Gibbi_31
- Track 22 : Mugiwara_28
- Track 23 : Tomas_28
- Track 24 : BoomerJR_29
- Track 25 : Elmer_25, Wofford_25
- Track 26 : Karimac_28, IchabodCrane_26
- Track 27 : Moab_2, Patelgo_3
- Track 28 : Emma1919_3, MeganTheeKilla_3, Gilson_3
- Track 29 : Blueeyedbeauty_3
- Track 30 : TunaTartare_3
- Track 31 : Limpid_3, Annadreamy_3
- Track 32 : SeresaTree_3, Faust_2
- Track 33 : Westy_3, Comrade_3, Belfort_3, Karp_3

- Track 34 : Beuffert_3
- Track 35 : SparkleGoddess_3, Stigma_3
- Track 36 : Forrest_3, Kenrey_3
- Track 37 : Sham_3
- Track 38 : Francob_2
- Track 39 : Jada_3
- Track 40 : Phredrick_3
- Track 41 : BillNye_6
- Track 42 : Wakanda_5, Muntaha_6
- Track 43 : Circinus_7

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

The start number called the most often in the published annotations is 17, it was called in 28 of the 92 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea_21, Angela_23, Bartholomune_23, BlueOtter_24, Bmoc_22, Cursive_22, Evy_24, HangryHippo_24, Jay2Jay_27, Larnav_24, Leo04_24, Liandry_23, LilMartin_23, Lululemon_23, Marsus_24, Mildred21_23, MulchMansion_23, Navo_22, NootNoot_23, PacManQ_23, Paradiddles_23, Pepperwood_25, Persimmon_22, PinkiePie_23, Riptide_23, Squillium_23, Targaryen_22, Warpy_27, Watermoore_24, WhereRU_22,

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

- Braelyn_23, Cross_24, EGole_23, Peebs_24, Samisti12_22, Scheme_25, Shuckle_23, Sushi23_25, Teutsch_23, Tribute_23,

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

- Amabiko_29, Annadreamy_3, Battuta_27, Belfort_3, Beuffert_3, BillNye_6, Birchlyn_26, Blueeyedbeauty_3, BoomerJR_29, Bordeaux_27, CeilingFan_31, Circinus_7, Comrade_3, Daubenski_24, Elmer_25, Emma1919_3, Enygma_25, Faust_2, Forrest_3, Francob_2, Genie2_29, Gibbi_31, Gilson_3, IchabodCrane_26, Jada_3, JimJam_29, Jollison_28, Karimac_28, Karp_3, Kenrey_3, KentuckyRacer_29, Limpid_3, LukeCage_28, MeganTheeKilla_3, MindFlayer_27, Moab_2, Mugiwara_28, Muntaha_6, Patelgo_3, Phredrick_3, PumpkinSpice_28, Quaran19_29, Rikishi_31, SaltySpitoon_29, SeresaTree_3, Sham_3, Sollertia_29, SparkleGoddess_3, Spelly_29, Spilled_28, Stanimal_29, StarPlatinum_27, Starbow_27, Stigma_3, TomSawyer_27, Tomas_28, TunaTartare_3, Wakanda_5, Westy_3, Wipeout_27, Wofford_25, Yaboi_30,

Summary by start number:

Start 2:

- Found in 1 of 102 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beuffert_3 (BK1),

Start 4:

- Found in 2 of 102 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Muntaha_6 (BK2), Wakanda_5 (BK2),

Start 14:

- Found in 25 of 102 (24.5%) of genes in pham
- Manual Annotations of this start: 23 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_3 (BK1), Belfort_3 (BK1), BillNye_6 (BK2), Blueeyedbeauty_3 (BK1), Circinus_7 (BK2), Comrade_3 (BK1), Emma1919_3 (BK1), Faust_2 (BK1), Forrest_3 (BK1), Francob_2 (BK1), Gilson_3 (BK1), Jada_3 (BK1), Karp_3 (BK1), Kenrey_3 (BK1), Limpid_3 (BK1), MeganTheeKilla_3 (BK1), Moab_2 (BK1), Patelgo_3 (BK1), Phredrick_3 (BK1), SeresaTree_3 (BK1), Sham_3 (BK1), SparkleGoddess_3 (BK1), Stigma_3 (BK1), TunaTartare_3 (BK1), Westy_3 (BK1),

Start 16:

- Found in 28 of 102 (27.5%) of genes in pham
- Manual Annotations of this start: 25 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amabiko_29 (BE2), Battuta_27 (BE2), Birchlyn_26 (BE2), BoomerJR_29 (BE2), Bordeaux_27 (BE2), CeilingFan_31 (BE2), Genie2_29 (BE2), Gibbi_31 (BE2), IchabodCrane_26 (BE2), JimJam_29 (BE2), Jollison_28 (BE2), Karimac_28 (BE2), KentuckyRacer_29 (BE2), LukeCage_28 (BE2), MindFlayer_27 (BE2), PumpkinSpice_28 (BE2), Quarant19_29 (BE2), Rikishi_31 (BE2), SaltySpittoon_29 (BE2), Sollertia_29 (BE2), Spelly_29 (BE2), Spilled_28 (BE2), Stanimal_29 (BE2), StarPlatinum_27 (BE2), Starbow_27 (BE2), TomSawyer_27 (BE2), Wipeout_27 (BE2), Yaboi_30 (BE2),

Start 17:

- Found in 40 of 102 (39.2%) of genes in pham
- Manual Annotations of this start: 28 of 92
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Anedea_21 (BE1), Angela_23 (BE1), Bartholomune_23 (BE1), BlueOtter_24 (BE1), Bmoc_22 (BE1), Cursive_22 (BE1), Evy_24 (BE1), HangryHippo_24 (BE1), Jay2Jay_27 (BE1), Larnav_24 (BE1), Leo04_24 (BE1), Liandry_23 (BE1), LilMartin_23 (BE1), Lululemon_23 (BE1), Marsus_24 (BE1), Mildred21_23 (BE1), MulchMansion_23 (BE1), Navo_22 (BE1), NootNoot_23 (BE1), PacManQ_23 (BE1), Paradiddles_23 (BE1), Pepperwood_25 (BE1), Persimmon_22 (BE1), PinkiePie_23 (BE1), Riptide_23 (BE1), Squillium_23 (BE1), Targaryen_22 (BE1), Warpy_27 (BE1), Watermoore_24 (BE1), WhereRU_22 (BE1),

Start 18:

- Found in 4 of 102 (3.9%) of genes in pham
- Manual Annotations of this start: 3 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elmer_25 (BE2), Enygma_25 (BE2), Mugiwara_28 (BE2), Wofford_25 (BE2),

Start 19:

- Found in 2 of 102 (2.0%) of genes in pham

- Manual Annotations of this start: 2 of 92
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daubenski_24 (BE1), Tomas_28 (BE2),

Start 20:

- Found in 18 of 102 (17.6%) of genes in pham
- Manual Annotations of this start: 7 of 92
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Cross_24 (BE1), EGole_23 (BE1), Peebs_24 (BE1), Samisti12_22 (BE1), Scheme_25 (BE1), Shuckle_23 (BE1), Sushi23_25 (BE1), Teutsch_23 (BE1), Tribute_23 (BE1),

Start 23:

- Found in 11 of 102 (10.8%) of genes in pham
- Manual Annotations of this start: 1 of 92
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Braelyn_23 (BE1),

Summary by clusters:

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 17 was manually annotated 28 times for cluster BE1.
- Start number 19 was manually annotated 1 time for cluster BE1.
- Start number 20 was manually annotated 7 times for cluster BE1.
- Start number 23 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 16 was manually annotated 25 times for cluster BE2.
- Start number 18 was manually annotated 3 times for cluster BE2.
- Start number 19 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 2 was manually annotated 1 time for cluster BK1.
- Start number 14 was manually annotated 21 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 4 was manually annotated 2 times for cluster BK2.
- Start number 14 was manually annotated 2 times for cluster BK2.

Gene Information:

Gene: Amabiko_29 Start: 13103, Stop: 12864, Start Num: 16

Candidate Starts for Amabiko_29:

(Start: 16 @13103 has 25 MA's), (28, 13031), (33, 13007), (34, 13004), (41, 12953), (47, 12908),

Gene: Anedea_21 Start: 10696, Stop: 10448, Start Num: 17

Candidate Starts for Anedea_21:

(15, 10702), (Start: 17 @10696 has 28 MA's), (30, 10606), (32, 10591), (43, 10525), (47, 10489),

Gene: Angela_23 Start: 11461, Stop: 11222, Start Num: 17
Candidate Starts for Angela_23:
(Start: 17 @11461 has 28 MA's), (28, 11389), (30, 11383), (32, 11368), (43, 11302), (47, 11266),

Gene: Annadreamy_3 Start: 1146, Stop: 922, Start Num: 14
Candidate Starts for Annadreamy_3:
(Start: 14 @1146 has 23 MA's), (29, 1062), (30, 1059), (33, 1041), (41, 987), (44, 972), (45, 963),

Gene: Bartholomune_23 Start: 11049, Stop: 10831, Start Num: 17
Candidate Starts for Bartholomune_23:
(13, 11061), (Start: 17 @11049 has 28 MA's), (Start: 23 @11025 has 1 MA's), (28, 10986), (30, 10980),
(32, 10965), (43, 10899), (47, 10863),

Gene: Battuta_27 Start: 13079, Stop: 12855, Start Num: 16
Candidate Starts for Battuta_27:
(Start: 16 @13079 has 25 MA's), (28, 13007), (33, 12983), (34, 12980), (41, 12929), (47, 12884),

Gene: Belfort_3 Start: 1094, Stop: 873, Start Num: 14
Candidate Starts for Belfort_3:
(Start: 14 @1094 has 23 MA's), (22, 1064), (25, 1028), (30, 1013), (37, 983), (41, 941), (44, 926),

Gene: Beuffert_3 Start: 1218, Stop: 943, Start Num: 2
Candidate Starts for Beuffert_3:
(Start: 2 @1218 has 1 MA's), (29, 1077), (30, 1074), (33, 1056), (39, 1008), (41, 1002), (44, 987), (45, 978),

Gene: BillNye_6 Start: 2944, Stop: 2702, Start Num: 14
Candidate Starts for BillNye_6:
(9, 2968), (10, 2962), (11, 2953), (Start: 14 @2944 has 23 MA's), (30, 2857), (34, 2836), (37, 2827),
(41, 2785), (44, 2770),

Gene: Birchlyn_26 Start: 10960, Stop: 10721, Start Num: 16
Candidate Starts for Birchlyn_26:
(Start: 16 @10960 has 25 MA's), (28, 10888), (33, 10864), (34, 10861), (41, 10810), (47, 10765),

Gene: BlueOtter_24 Start: 11379, Stop: 11125, Start Num: 17
Candidate Starts for BlueOtter_24:
(3, 11442), (6, 11427), (7, 11418), (15, 11385), (Start: 17 @11379 has 28 MA's), (Start: 20 @11367 has 7 MA's), (28, 11301), (29, 11298), (30, 11295), (33, 11277), (34, 11274), (47, 11178),

Gene: Blueeyedbeauty_3 Start: 1146, Stop: 922, Start Num: 14
Candidate Starts for Blueeyedbeauty_3:
(Start: 14 @1146 has 23 MA's), (29, 1062), (30, 1059), (33, 1041), (39, 993), (41, 987), (45, 963),

Gene: Bmoc_22 Start: 11328, Stop: 11107, Start Num: 17
Candidate Starts for Bmoc_22:
(13, 11340), (Start: 17 @11328 has 28 MA's), (30, 11250), (32, 11235), (43, 11169), (47, 11133),

Gene: BoomerJR_29 Start: 12941, Stop: 12714, Start Num: 16
Candidate Starts for BoomerJR_29:
(Start: 16 @12941 has 25 MA's), (28, 12875), (33, 12851), (34, 12848), (47, 12752), (57, 12719),

Gene: Bordeaux_27 Start: 13094, Stop: 12855, Start Num: 16

Candidate Starts for Bordeaux_27:

(Start: 16 @13094 has 25 MA's), (28, 13022), (33, 12998), (34, 12995), (41, 12944), (47, 12899),

Gene: Braelyn_23 Start: 11069, Stop: 10875, Start Num: 23

Candidate Starts for Braelyn_23:

(13, 11105), (Start: 17 @11093 has 28 MA's), (Start: 23 @11069 has 1 MA's), (28, 11030), (30, 11024), (32, 11009), (43, 10943), (47, 10907),

Gene: CeilingFan_31 Start: 12854, Stop: 12615, Start Num: 16

Candidate Starts for CeilingFan_31:

(Start: 16 @12854 has 25 MA's), (28, 12782), (33, 12758), (34, 12755), (41, 12704), (47, 12659), (50, 12638),

Gene: Circinus_7 Start: 2825, Stop: 2592, Start Num: 14

Candidate Starts for Circinus_7:

(1, 2879), (5, 2870), (8, 2852), (Start: 14 @2825 has 23 MA's), (30, 2747), (34, 2726), (41, 2675), (44, 2660),

Gene: Comrade_3 Start: 1095, Stop: 874, Start Num: 14

Candidate Starts for Comrade_3:

(Start: 14 @1095 has 23 MA's), (22, 1065), (25, 1029), (30, 1014), (37, 984), (41, 942), (44, 927),

Gene: Cross_24 Start: 11368, Stop: 11126, Start Num: 20

Candidate Starts for Cross_24:

(3, 11443), (6, 11428), (7, 11419), (15, 11386), (Start: 17 @11380 has 28 MA's), (Start: 20 @11368 has 7 MA's), (28, 11302), (29, 11299), (30, 11296), (33, 11278), (34, 11275), (47, 11179),

Gene: Cursive_22 Start: 10197, Stop: 9943, Start Num: 17

Candidate Starts for Cursive_22:

(3, 10260), (6, 10245), (7, 10236), (15, 10203), (Start: 17 @10197 has 28 MA's), (Start: 20 @10185 has 7 MA's), (28, 10119), (29, 10116), (30, 10113), (33, 10095), (34, 10092), (47, 9996),

Gene: Daubenski_24 Start: 11214, Stop: 10984, Start Num: 19

Candidate Starts for Daubenski_24:

(Start: 19 @11214 has 2 MA's), (Start: 23 @11190 has 1 MA's), (28, 11151), (30, 11145), (42, 11067), (47, 11028), (52, 11004), (56, 10989),

Gene: EGole_23 Start: 11616, Stop: 11392, Start Num: 20

Candidate Starts for EGole_23:

(3, 11691), (6, 11676), (7, 11667), (15, 11634), (Start: 17 @11628 has 28 MA's), (Start: 20 @11616 has 7 MA's), (28, 11550), (29, 11547), (33, 11526), (34, 11523), (47, 11427),

Gene: Elmer_25 Start: 11762, Stop: 11523, Start Num: 18

Candidate Starts for Elmer_25:

(Start: 18 @11762 has 3 MA's), (28, 11684), (33, 11660), (34, 11657), (39, 11612), (41, 11606), (47, 11561), (54, 11528),

Gene: Emma1919_3 Start: 1108, Stop: 896, Start Num: 14

Candidate Starts for Emma1919_3:

(Start: 14 @1108 has 23 MA's), (25, 1039), (29, 1027), (30, 1024), (32, 1009), (36, 997), (41, 952), (44, 937),

Gene: Enygma_25 Start: 12062, Stop: 11844, Start Num: 18

Candidate Starts for Enygma_25:

(Start: 18 @12062 has 3 MA's), (28, 11993), (30, 11987), (33, 11969), (34, 11966), (47, 11870),

Gene: Evy_24 Start: 11519, Stop: 11292, Start Num: 17

Candidate Starts for Evy_24:

(Start: 17 @11519 has 28 MA's), (28, 11456), (30, 11450), (32, 11435), (43, 11369), (47, 11333), (53, 11321),

Gene: Faust_2 Start: 1232, Stop: 987, Start Num: 14

Candidate Starts for Faust_2:

(Start: 14 @1232 has 23 MA's), (26, 1163), (29, 1154), (30, 1151), (41, 1079), (55, 992),

Gene: Forrest_3 Start: 1105, Stop: 896, Start Num: 14

Candidate Starts for Forrest_3:

(Start: 14 @1105 has 23 MA's), (25, 1039), (29, 1027), (30, 1024), (36, 997), (41, 952), (44, 937),

Gene: Francob_2 Start: 1107, Stop: 895, Start Num: 14

Candidate Starts for Francob_2:

(Start: 14 @1107 has 23 MA's), (21, 1080), (25, 1044), (29, 1032), (30, 1029), (36, 1002), (41, 957), (44, 942),

Gene: Genie2_29 Start: 12944, Stop: 12732, Start Num: 16

Candidate Starts for Genie2_29:

(Start: 16 @12944 has 25 MA's), (28, 12878), (33, 12854), (34, 12851), (47, 12755),

Gene: Gibbi_31 Start: 12714, Stop: 12475, Start Num: 16

Candidate Starts for Gibbi_31:

(Start: 16 @12714 has 25 MA's), (28, 12642), (33, 12618), (34, 12615), (41, 12564), (47, 12519), (50, 12498),

Gene: Gilson_3 Start: 1105, Stop: 896, Start Num: 14

Candidate Starts for Gilson_3:

(Start: 14 @1105 has 23 MA's), (25, 1039), (29, 1027), (30, 1024), (32, 1009), (36, 997), (41, 952), (44, 937),

Gene: HangryHippo_24 Start: 11379, Stop: 11125, Start Num: 17

Candidate Starts for HangryHippo_24:

(3, 11442), (6, 11427), (7, 11418), (15, 11385), (Start: 17 @11379 has 28 MA's), (Start: 20 @11367 has 7 MA's), (28, 11301), (29, 11298), (30, 11295), (33, 11277), (34, 11274), (47, 11178),

Gene: IchabodCrane_26 Start: 12707, Stop: 12483, Start Num: 16

Candidate Starts for IchabodCrane_26:

(Start: 16 @12707 has 25 MA's), (28, 12635), (33, 12611), (34, 12608), (41, 12557), (47, 12512), (54, 12494),

Gene: Jada_3 Start: 1105, Stop: 896, Start Num: 14

Candidate Starts for Jada_3:

(Start: 14 @1105 has 23 MA's), (25, 1039), (29, 1027), (30, 1024), (31, 1018), (36, 997), (41, 952), (44, 937),

Gene: Jay2Jay_27 Start: 11709, Stop: 11482, Start Num: 17

Candidate Starts for Jay2Jay_27:

(Start: 17 @11709 has 28 MA's), (28, 11646), (30, 11640), (32, 11625), (43, 11559), (47, 11523), (53, 11511),

Gene: JimJam_29 Start: 13042, Stop: 12818, Start Num: 16

Candidate Starts for JimJam_29:

(Start: 16 @13042 has 25 MA's), (28, 12970), (33, 12946), (34, 12943), (41, 12892), (47, 12847),

Gene: Jollison_28 Start: 13060, Stop: 12821, Start Num: 16

Candidate Starts for Jollison_28:

(Start: 16 @13060 has 25 MA's), (28, 12988), (33, 12964), (34, 12961), (41, 12910), (47, 12865),

Gene: Karimac_28 Start: 13110, Stop: 12886, Start Num: 16

Candidate Starts for Karimac_28:

(Start: 16 @13110 has 25 MA's), (28, 13038), (33, 13014), (34, 13011), (41, 12960), (47, 12915), (54, 12897),

Gene: Karp_3 Start: 1095, Stop: 874, Start Num: 14

Candidate Starts for Karp_3:

(Start: 14 @1095 has 23 MA's), (22, 1065), (25, 1029), (30, 1014), (37, 984), (41, 942), (44, 927),

Gene: Kenrey_3 Start: 1094, Stop: 894, Start Num: 14

Candidate Starts for Kenrey_3:

(Start: 14 @1094 has 23 MA's), (25, 1040), (29, 1028), (30, 1025), (36, 998), (41, 953), (44, 938),

Gene: KentuckyRacer_29 Start: 12855, Stop: 12616, Start Num: 16

Candidate Starts for KentuckyRacer_29:

(Start: 16 @12855 has 25 MA's), (28, 12783), (33, 12759), (34, 12756), (41, 12705), (47, 12660), (50, 12639),

Gene: Larnav_24 Start: 11380, Stop: 11126, Start Num: 17

Candidate Starts for Larnav_24:

(3, 11443), (6, 11428), (7, 11419), (15, 11386), (Start: 17 @11380 has 28 MA's), (Start: 20 @11368 has 7 MA's), (28, 11302), (29, 11299), (30, 11296), (33, 11278), (34, 11275), (46, 11182), (47, 11179),

Gene: Leo04_24 Start: 11378, Stop: 11124, Start Num: 17

Candidate Starts for Leo04_24:

(3, 11441), (6, 11426), (7, 11417), (15, 11384), (Start: 17 @11378 has 28 MA's), (Start: 20 @11366 has 7 MA's), (28, 11300), (29, 11297), (30, 11294), (33, 11276), (34, 11273), (47, 11177),

Gene: Liandry_23 Start: 11048, Stop: 10830, Start Num: 17

Candidate Starts for Liandry_23:

(13, 11060), (Start: 17 @11048 has 28 MA's), (Start: 23 @11024 has 1 MA's), (28, 10985), (30, 10979), (32, 10964), (43, 10898), (47, 10862),

Gene: LilMartin_23 Start: 11408, Stop: 11169, Start Num: 17

Candidate Starts for LilMartin_23:

(Start: 17 @11408 has 28 MA's), (28, 11336), (30, 11330), (32, 11315), (43, 11249), (47, 11213),

Gene: Limpid_3 Start: 1145, Stop: 921, Start Num: 14

Candidate Starts for Limpid_3:

(Start: 14 @1145 has 23 MA's), (29, 1061), (30, 1058), (33, 1040), (41, 986), (44, 971), (45, 962),

Gene: LukeCage_28 Start: 12798, Stop: 12577, Start Num: 16

Candidate Starts for LukeCage_28:

(Start: 16 @12798 has 25 MA's), (28, 12729), (30, 12723), (33, 12705), (34, 12702), (47, 12606),

Gene: Lululemon_23 Start: 10759, Stop: 10505, Start Num: 17

Candidate Starts for Lululemon_23:

(3, 10822), (6, 10807), (7, 10798), (15, 10765), (Start: 17 @10759 has 28 MA's), (Start: 20 @10747 has 7 MA's), (28, 10681), (29, 10678), (30, 10675), (33, 10657), (34, 10654), (47, 10558),

Gene: Marsus_24 Start: 11255, Stop: 11025, Start Num: 17

Candidate Starts for Marsus_24:

(15, 11261), (Start: 17 @11255 has 28 MA's), (28, 11192), (30, 11186), (32, 11171), (35, 11162), (39, 11120), (43, 11105), (47, 11069),

Gene: MeganTheeKilla_3 Start: 1105, Stop: 896, Start Num: 14

Candidate Starts for MeganTheeKilla_3:

(Start: 14 @1105 has 23 MA's), (25, 1039), (29, 1027), (30, 1024), (32, 1009), (36, 997), (41, 952), (44, 937),

Gene: Mildred21_23 Start: 11103, Stop: 10861, Start Num: 17

Candidate Starts for Mildred21_23:

(Start: 17 @11103 has 28 MA's), (30, 11022), (32, 11007), (43, 10941), (47, 10905),

Gene: MindFlayer_27 Start: 12713, Stop: 12474, Start Num: 16

Candidate Starts for MindFlayer_27:

(Start: 16 @12713 has 25 MA's), (28, 12641), (33, 12617), (34, 12614), (41, 12563), (47, 12518),

Gene: Moab_2 Start: 1056, Stop: 847, Start Num: 14

Candidate Starts for Moab_2:

(Start: 14 @1056 has 23 MA's), (29, 981), (30, 978), (36, 951), (40, 909), (41, 906), (44, 891),

Gene: Mugiwara_28 Start: 12446, Stop: 12231, Start Num: 18

Candidate Starts for Mugiwara_28:

(Start: 18 @12446 has 3 MA's), (28, 12377), (33, 12353), (34, 12350), (47, 12254),

Gene: MulchMansion_23 Start: 11409, Stop: 11170, Start Num: 17

Candidate Starts for MulchMansion_23:

(Start: 17 @11409 has 28 MA's), (28, 11337), (30, 11331), (32, 11316), (43, 11250), (47, 11214),

Gene: Muntaha_6 Start: 2539, Stop: 2219, Start Num: 4

Candidate Starts for Muntaha_6:

(Start: 4 @2539 has 2 MA's), (5, 2536), (10, 2509), (12, 2494), (27, 2404), (30, 2395), (34, 2374), (41, 2323), (48, 2275), (51, 2254),

Gene: Navo_22 Start: 10856, Stop: 10629, Start Num: 17

Candidate Starts for Navo_22:

(13, 10868), (Start: 17 @10856 has 28 MA's), (Start: 23 @10832 has 1 MA's), (28, 10793), (30, 10787), (32, 10772), (43, 10706), (47, 10670),

Gene: NootNoot_23 Start: 11056, Stop: 10838, Start Num: 17

Candidate Starts for NootNoot_23:

(13, 11068), (Start: 17 @11056 has 28 MA's), (Start: 23 @11032 has 1 MA's), (28, 10993), (30, 10987), (32, 10972), (43, 10906), (47, 10870),

Gene: PacManQ_23 Start: 10759, Stop: 10505, Start Num: 17

Candidate Starts for PacManQ_23:

(3, 10822), (6, 10807), (7, 10798), (15, 10765), (Start: 17 @10759 has 28 MA's), (Start: 20 @10747 has 7 MA's), (28, 10681), (29, 10678), (30, 10675), (33, 10657), (34, 10654), (47, 10558),

Gene: Paradiddles_23 Start: 11047, Stop: 10829, Start Num: 17

Candidate Starts for Paradiddles_23:

(13, 11059), (Start: 17 @11047 has 28 MA's), (Start: 23 @11023 has 1 MA's), (28, 10984), (30, 10978), (32, 10963), (43, 10897), (47, 10861),

Gene: Patelgo_3 Start: 1056, Stop: 847, Start Num: 14

Candidate Starts for Patelgo_3:

(Start: 14 @1056 has 23 MA's), (29, 981), (30, 978), (36, 951), (40, 909), (41, 906), (44, 891),

Gene: Peebs_24 Start: 11347, Stop: 11123, Start Num: 20

Candidate Starts for Peebs_24:

(3, 11422), (6, 11407), (7, 11398), (15, 11365), (Start: 17 @11359 has 28 MA's), (Start: 20 @11347 has 7 MA's), (28, 11281), (29, 11278), (30, 11275), (33, 11257), (34, 11254), (47, 11158),

Gene: Pepperwood_25 Start: 11532, Stop: 11278, Start Num: 17

Candidate Starts for Pepperwood_25:

(3, 11595), (6, 11580), (7, 11571), (15, 11538), (Start: 17 @11532 has 28 MA's), (Start: 20 @11520 has 7 MA's), (28, 11454), (29, 11451), (30, 11448), (33, 11430), (34, 11427), (46, 11334), (47, 11331),

Gene: Persimmon_22 Start: 10875, Stop: 10660, Start Num: 17

Candidate Starts for Persimmon_22:

(13, 10887), (Start: 17 @10875 has 28 MA's), (Start: 23 @10851 has 1 MA's), (28, 10812), (30, 10806), (32, 10791), (43, 10725), (47, 10689),

Gene: Phredrick_3 Start: 1105, Stop: 893, Start Num: 14

Candidate Starts for Phredrick_3:

(Start: 14 @1105 has 23 MA's), (29, 1027), (30, 1024), (36, 997), (41, 952), (44, 937),

Gene: PinkiePie_23 Start: 11049, Stop: 10831, Start Num: 17

Candidate Starts for PinkiePie_23:

(13, 11061), (Start: 17 @11049 has 28 MA's), (Start: 23 @11025 has 1 MA's), (28, 10986), (30, 10980), (32, 10965), (43, 10899), (47, 10863),

Gene: PumpkinSpice_28 Start: 13103, Stop: 12864, Start Num: 16

Candidate Starts for PumpkinSpice_28:

(Start: 16 @13103 has 25 MA's), (28, 13031), (33, 13007), (34, 13004), (41, 12953), (47, 12908),

Gene: Quaran19_29 Start: 13094, Stop: 12855, Start Num: 16

Candidate Starts for Quaran19_29:

(Start: 16 @13094 has 25 MA's), (28, 13022), (33, 12998), (34, 12995), (41, 12944), (47, 12899),

Gene: Rikishi_31 Start: 13009, Stop: 12770, Start Num: 16

Candidate Starts for Rikishi_31:

(Start: 16 @13009 has 25 MA's), (28, 12937), (33, 12913), (34, 12910), (41, 12859), (47, 12814),

Gene: Riptide_23 Start: 10961, Stop: 10734, Start Num: 17

Candidate Starts for Riptide_23:

(Start: 17 @10961 has 28 MA's), (30, 10892), (32, 10877), (43, 10811), (47, 10775),

Gene: SaltySpitoot_29 Start: 13103, Stop: 12864, Start Num: 16
Candidate Starts for SaltySpitoot_29:
(Start: 16 @13103 has 25 MA's), (28, 13031), (33, 13007), (34, 13004), (41, 12953), (47, 12908),

Gene: Samisti12_22 Start: 10959, Stop: 10717, Start Num: 20
Candidate Starts for Samisti12_22:
(3, 11034), (6, 11019), (7, 11010), (15, 10977), (Start: 17 @10971 has 28 MA's), (Start: 20 @10959 has 7 MA's), (28, 10893), (29, 10890), (30, 10887), (33, 10869), (34, 10866), (46, 10773), (47, 10770),

Gene: Scheme_25 Start: 11531, Stop: 11289, Start Num: 20
Candidate Starts for Scheme_25:
(3, 11606), (6, 11591), (7, 11582), (15, 11549), (Start: 17 @11543 has 28 MA's), (Start: 20 @11531 has 7 MA's), (28, 11465), (29, 11462), (30, 11459), (33, 11441), (34, 11438), (46, 11345), (47, 11342),

Gene: SeresaTree_3 Start: 1232, Stop: 987, Start Num: 14
Candidate Starts for SeresaTree_3:
(Start: 14 @1232 has 23 MA's), (26, 1163), (29, 1154), (30, 1151), (41, 1079), (55, 992),

Gene: Sham_3 Start: 1234, Stop: 1022, Start Num: 14
Candidate Starts for Sham_3:
(Start: 14 @1234 has 23 MA's), (29, 1171), (30, 1168), (34, 1147), (36, 1141), (38, 1105), (41, 1096), (44, 1081),

Gene: Shuckle_23 Start: 11517, Stop: 11275, Start Num: 20
Candidate Starts for Shuckle_23:
(3, 11592), (6, 11577), (7, 11568), (15, 11535), (Start: 17 @11529 has 28 MA's), (Start: 20 @11517 has 7 MA's), (28, 11451), (29, 11448), (30, 11445), (33, 11427), (34, 11424), (46, 11331), (47, 11328),

Gene: Sollertia_29 Start: 12944, Stop: 12732, Start Num: 16
Candidate Starts for Sollertia_29:
(Start: 16 @12944 has 25 MA's), (28, 12878), (33, 12854), (34, 12851), (47, 12755),

Gene: SparkleGoddess_3 Start: 1091, Stop: 873, Start Num: 14
Candidate Starts for SparkleGoddess_3:
(Start: 14 @1091 has 23 MA's), (22, 1061), (25, 1025), (30, 1010), (33, 992), (37, 980), (41, 938), (44, 923),

Gene: Spelly_29 Start: 13058, Stop: 12819, Start Num: 16
Candidate Starts for Spelly_29:
(Start: 16 @13058 has 25 MA's), (28, 12986), (33, 12962), (34, 12959), (41, 12908), (47, 12863),

Gene: Spilled_28 Start: 12713, Stop: 12474, Start Num: 16
Candidate Starts for Spilled_28:
(Start: 16 @12713 has 25 MA's), (28, 12641), (33, 12617), (34, 12614), (41, 12563), (47, 12518),

Gene: Squillium_23 Start: 11048, Stop: 10830, Start Num: 17
Candidate Starts for Squillium_23:
(13, 11060), (Start: 17 @11048 has 28 MA's), (Start: 23 @11024 has 1 MA's), (28, 10985), (30, 10979), (32, 10964), (43, 10898), (47, 10862),

Gene: Stanimal_29 Start: 12944, Stop: 12732, Start Num: 16
Candidate Starts for Stanimal_29:

(Start: 16 @12944 has 25 MA's), (28, 12878), (33, 12854), (34, 12851), (47, 12755),

Gene: StarPlatinum_27 Start: 12696, Stop: 12475, Start Num: 16

Candidate Starts for StarPlatinum_27:

(Start: 16 @12696 has 25 MA's), (28, 12627), (33, 12603), (34, 12600), (47, 12504),

Gene: Starbow_27 Start: 13079, Stop: 12855, Start Num: 16

Candidate Starts for Starbow_27:

(Start: 16 @13079 has 25 MA's), (28, 13007), (33, 12983), (34, 12980), (41, 12929), (47, 12884),

Gene: Stigma_3 Start: 1095, Stop: 874, Start Num: 14

Candidate Starts for Stigma_3:

(Start: 14 @1095 has 23 MA's), (22, 1065), (25, 1029), (30, 1014), (33, 996), (37, 984), (41, 942), (44, 927),

Gene: Sushi23_25 Start: 11367, Stop: 11125, Start Num: 20

Candidate Starts for Sushi23_25:

(3, 11442), (6, 11427), (7, 11418), (15, 11385), (Start: 17 @11379 has 28 MA's), (Start: 20 @11367 has 7 MA's), (28, 11301), (29, 11298), (30, 11295), (33, 11277), (34, 11274), (46, 11181), (47, 11178),

Gene: Targaryen_22 Start: 11515, Stop: 11288, Start Num: 17

Candidate Starts for Targaryen_22:

(Start: 17 @11515 has 28 MA's), (28, 11452), (30, 11446), (32, 11431), (43, 11365), (47, 11329), (53, 11317),

Gene: Teutsch_23 Start: 10963, Stop: 10727, Start Num: 20

Candidate Starts for Teutsch_23:

(3, 11038), (6, 11023), (7, 11014), (15, 10981), (Start: 17 @10975 has 28 MA's), (Start: 20 @10963 has 7 MA's), (28, 10897), (29, 10894), (33, 10873), (34, 10870), (46, 10777), (47, 10774),

Gene: TomSawyer_27 Start: 12697, Stop: 12458, Start Num: 16

Candidate Starts for TomSawyer_27:

(Start: 16 @12697 has 25 MA's), (28, 12625), (33, 12601), (34, 12598), (41, 12547), (47, 12502),

Gene: Tomas_28 Start: 13089, Stop: 12844, Start Num: 19

Candidate Starts for Tomas_28:

(Start: 19 @13089 has 2 MA's), (28, 13017), (29, 13014), (32, 12996), (33, 12993), (34, 12990), (38, 12948), (41, 12939), (47, 12894), (49, 12876),

Gene: Tribute_23 Start: 11214, Stop: 10978, Start Num: 20

Candidate Starts for Tribute_23:

(3, 11289), (6, 11274), (7, 11265), (15, 11232), (Start: 17 @11226 has 28 MA's), (Start: 20 @11214 has 7 MA's), (28, 11148), (29, 11145), (33, 11124), (34, 11121), (46, 11028), (47, 11025),

Gene: TunaTartare_3 Start: 1216, Stop: 1013, Start Num: 14

Candidate Starts for TunaTartare_3:

(Start: 14 @1216 has 23 MA's), (24, 1171), (29, 1153), (30, 1150), (34, 1129), (38, 1087), (41, 1078),

Gene: Wakanda_5 Start: 2438, Stop: 2118, Start Num: 4

Candidate Starts for Wakanda_5:

(Start: 4 @2438 has 2 MA's), (5, 2435), (10, 2408), (12, 2393), (27, 2303), (30, 2294), (34, 2273), (41, 2222), (48, 2174), (51, 2153),

Gene: Warpy_27 Start: 11729, Stop: 11502, Start Num: 17

Candidate Starts for Warpy_27:

(Start: 17 @11729 has 28 MA's), (28, 11666), (30, 11660), (32, 11645), (43, 11579), (47, 11543), (53, 11531),

Gene: Watermoore_24 Start: 11380, Stop: 11126, Start Num: 17

Candidate Starts for Watermoore_24:

(3, 11443), (6, 11428), (7, 11419), (15, 11386), (Start: 17 @11380 has 28 MA's), (Start: 20 @11368 has 7 MA's), (28, 11302), (29, 11299), (30, 11296), (33, 11278), (34, 11275), (47, 11179),

Gene: Westy_3 Start: 1095, Stop: 874, Start Num: 14

Candidate Starts for Westy_3:

(Start: 14 @1095 has 23 MA's), (22, 1065), (25, 1029), (30, 1014), (37, 984), (41, 942), (44, 927),

Gene: WhereRU_22 Start: 10875, Stop: 10660, Start Num: 17

Candidate Starts for WhereRU_22:

(13, 10887), (Start: 17 @10875 has 28 MA's), (Start: 23 @10851 has 1 MA's), (28, 10812), (30, 10806), (32, 10791), (43, 10725), (47, 10689),

Gene: Wipeout_27 Start: 12719, Stop: 12480, Start Num: 16

Candidate Starts for Wipeout_27:

(Start: 16 @12719 has 25 MA's), (28, 12647), (33, 12623), (34, 12620), (41, 12569), (47, 12524),

Gene: Wofford_25 Start: 11766, Stop: 11527, Start Num: 18

Candidate Starts for Wofford_25:

(Start: 18 @11766 has 3 MA's), (28, 11688), (33, 11664), (34, 11661), (39, 11616), (41, 11610), (47, 11565), (54, 11532),

Gene: Yaboi_30 Start: 12920, Stop: 12708, Start Num: 16

Candidate Starts for Yaboi_30:

(Start: 16 @12920 has 25 MA's), (28, 12854), (33, 12830), (34, 12827), (47, 12731),