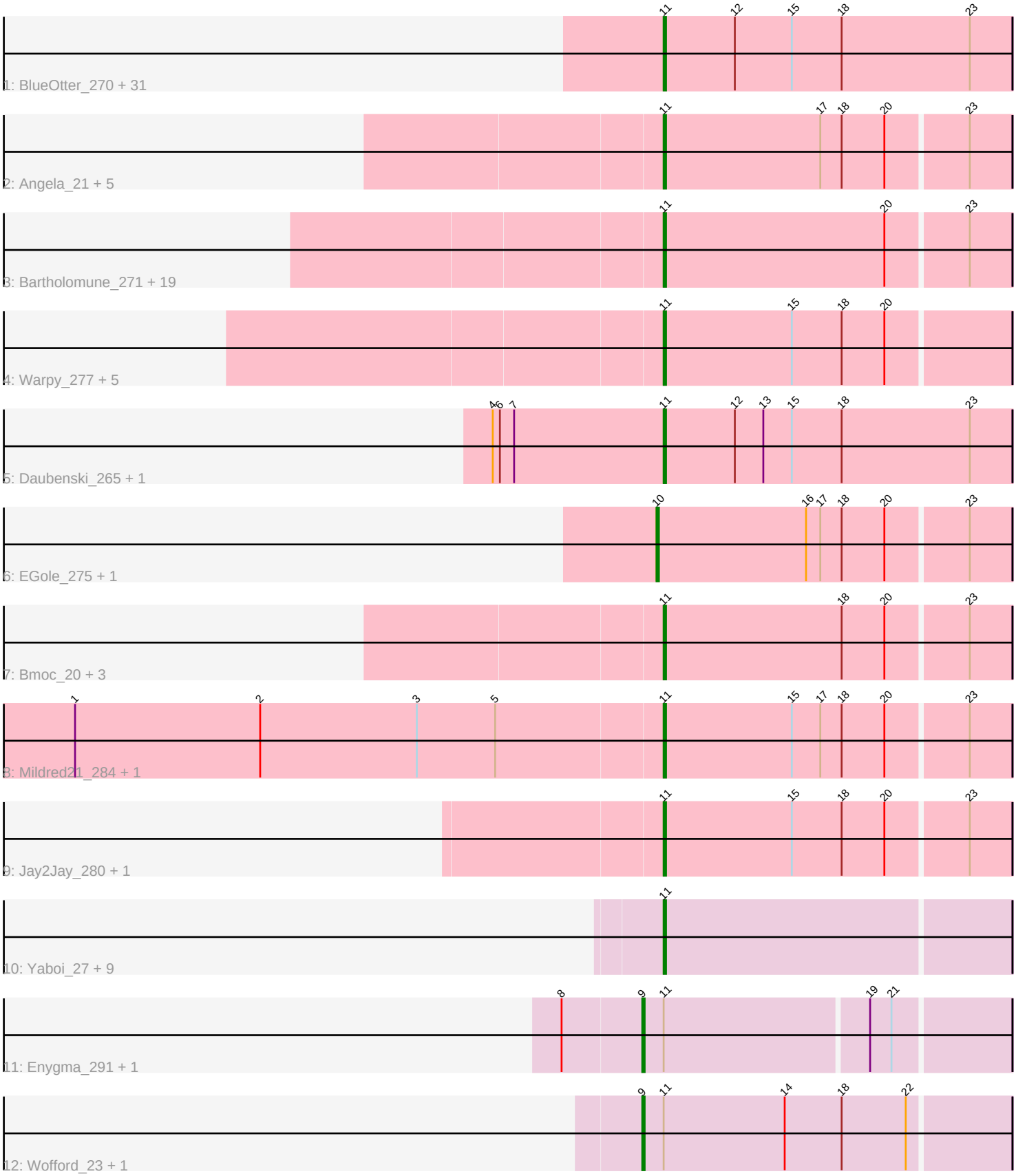
Pham 196450


11
12
15
18
23
1: BlueOtter_270 + 31
11
17
18
20
23
2: Angela_21 + 5
11
20
23
3: Bartholomune_271 + 19
11
15
18
20
4: Warpy_277 + 5
4
6
7
11
12
13
15
18
23
5: Daubenski_265 + 1
10
16
17
18
20
23
6: EGole_275 + 1
11
18
20
23
7: Bmoc_20 + 3
1
2
3
5
11
15
17
18
20
23
8: Mildred21_284 + 1
11
15
18
20
23
9: Jay2Jay_280 + 1
11
10: Yaboi_27 + 9
8
9
11
19
21
11: Enygma_291 + 1
9
11
14
18
22
12: Wofford_23 + 1

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 196450 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196450 has 90 members, 2 are drafts.

Phages represented in each track:
• Track 1 : BlueOtter_270, Cross_22, Leo04_273, Cross_270, Peebs_269, Peebs_22, Scheme_276, Larnav_272, Lululemon_21, Pepperwood_23, Scheme_23, Cursive_274, Samisti12_20, Larnav_22, Pepperwood_272, Sushi23_23, Samisti12_271, Teutsch_268, BlueOtter_22, Cursive_20, Watermoore_22, HangryHippo_270, Watermoore_269, Leo04_22, HangryHippo_22, Sushi23_273, PacManQ_268, Teutsch_21, Tribute_21, Lululemon_268, Tribute_267, PacManQ_21
• Track 2 : Angela_21, MulchMansion_277, LilMartin_273, Angela_278, MulchMansion_21, LilMartin_21
• Track 3 : Bartholomune_271, NootNoot_21, Persimmon_20, Navo_20, Squillium_21, Navo_262, WhereRU_20, Bartholomune_21, PinkiePie_21, NootNoot_266, Braelyn_266, Squillium_273, Liandry_270, Liandry_21, Paradiddles_262, WhereRU_269, Paradiddles_21, PinkiePie_271, Braelyn_21, Persimmon_271
• Track 4 : Warpy_277, Warpy_25, Evy_22, Targaryen_271, Targaryen_20, Evy_260
• Track 5 : Daubenski_265, Daubenski_21
• Track 6 : EGole_275, EGole_21
• Track 7 : Bmoc_20, Bmoc_276, Anedea_19, Anedea_284
• Track 8 : Mildred21_284, Mildred21_21
• Track 9 : Jay2Jay_280, Jay2Jay_25
• Track 10 : Yaboi_27, BoomerJR_282, Stanimal_282, BoomerJR_27, Genie2_282, Sollertia_283, Genie2_27, Stanimal_27, Sollertia_27, Yaboi_287
• Track 11 : Enygma_291, Enygma_23
• Track 12 : Wofford_23, Wofford_281

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 82 of the 88 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anedea_19, Anedea_284, Angela_21, Angela_278, Bartholomune_21, Bartholomune_271, BlueOtter_22, BlueOtter_270, Bmoc_20, Bmoc_276, BoomerJR_27, BoomerJR_282, Braelyn_21, Braelyn_266, Cross_22, Cross_270, Cursive_20, Cursive_274, Daubenski_21, Daubenski_265, Evy_22, Evy_260,

Genie2_27, Genie2_282, HangryHippo_22, HangryHippo_270, Jay2Jay_25, Jay2Jay_280, Larnav_22, Larnav_272, Leo04_22, Leo04_273, Liandry_21, Liandry_270, LilMartin_21, LilMartin_273, Lululemon_21, Lululemon_268, Mildred21_21, Mildred21_284, MulchMansion_21, MulchMansion_277, Navo_20, Navo_262, NootNoot_21, NootNoot_266, PacManQ_21, PacManQ_268, Paradiddles_21, Paradiddles_262, Peebs_22, Peebs_269, Pepperwood_23, Pepperwood_272, Persimmon_20, Persimmon_271, PinkiePie_21, PinkiePie_271, Samisti12_20, Samisti12_271, Scheme_23, Scheme_276, Sollertia_27, Sollertia_283, Squillium_21, Squillium_273, Stanimal_27, Stanimal_282, Sushi23_23, Sushi23_273, Targaryen_20, Targaryen_271, Teutsch_21, Teutsch_268, Tribute_21, Tribute_267, Warpy_25, Warpy_277, Watermoore_22, Watermoore_269, WhereRU_20, WhereRU_269, Yaboi_27, Yaboi_287,

Genes that have the "Most Annotated" start but do not call it:
• Enygma_23, Enygma_291, Wofford_23, Wofford_281,

Genes that do not have the "Most Annotated" start:
• EGole_21, EGole_275,

Summary by start number:

Start 9:
• Found in 4 of 90 (4.4%) of genes in pham
• Manual Annotations of this start: 4 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Enygma_23 (BE2), Enygma_291 (BE2), Wofford_23 (BE2), Wofford_281 (BE2),

Start 10:
• Found in 2 of 90 (2.2%) of genes in pham
• Manual Annotations of this start: 2 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EGole_21 (BE1), EGole_275 (BE1),

Start 11:
• Found in 88 of 90 (97.8%) of genes in pham
• Manual Annotations of this start: 82 of 88
• Called 95.5% of time when present
• Phage (with cluster) where this start called: Anedea_19 (BE1), Anedea_284 (BE1), Angela_21 (BE1), Angela_278 (BE1), Bartholomune_21 (BE1), Bartholomune_271 (BE1), BlueOtter_22 (BE1), BlueOtter_270 (BE1), Bmoc_20 (BE1), Bmoc_276 (BE1), BoomerJR_27 (BE2), BoomerJR_282 (BE2), Braelyn_21 (BE1), Braelyn_266 (BE1), Cross_22 (BE1), Cross_270 (BE1), Cursive_20 (BE1), Cursive_274 (BE1), Daubenski_21 (BE1), Daubenski_265 (BE1), Evy_22 (BE1), Evy_260 (BE1), Genie2_27 (BE2), Genie2_282 (BE2), HangryHippo_22 (BE1), HangryHippo_270 (BE1), Jay2Jay_25 (BE1), Jay2Jay_280 (BE1), Larnav_22 (BE1), Larnav_272 (BE1), Leo04_22 (BE1), Leo04_273 (BE1), Liandry_21 (BE1), Liandry_270 (BE1), LilMartin_21 (BE1), LilMartin_273 (BE1), Lululemon_21 (BE1), Lululemon_268 (BE1), Mildred21_21 (BE1), Mildred21_284 (BE1), MulchMansion_21 (BE1), MulchMansion_277 (BE1), Navo_20 (BE1), Navo_262 (BE1), NootNoot_21 (BE1), NootNoot_266 (BE1), PacManQ_21 (BE1), PacManQ_268 (BE1), Paradiddles_21 (BE1), Paradiddles_262 (BE1), Peebs_22 (BE1), Peebs_269 (BE1), Pepperwood_23 (BE1), Pepperwood_272 (BE1), Persimmon_20 (BE1), Persimmon_271 (BE1),

PinkiePie_21 (BE1), PinkiePie_271 (BE1), Samisti12_20 (BE1), Samisti12_271 (BE1), Scheme_23 (BE1), Scheme_276 (BE1), Sollertia_27 (BE2), Sollertia_283 (BE2), Squillium_21 (BE1), Squillium_273 (BE1), Stanimal_27 (BE2), Stanimal_282 (BE2), Sushi23_23 (BE1), Sushi23_273 (BE1), Targaryen_20 (BE1), Targaryen_271 (BE1), Teutsch_21 (BE1), Teutsch_268 (BE1), Tribute_21 (BE1), Tribute_267 (BE1), Warpy_25 (BE1), Warpy_277 (BE1), Watermoore_22 (BE1), Watermoore_269 (BE1), WhereRU_20 (BE1), WhereRU_269 (BE1), Yaboi_27 (BE2), Yaboi_287 (BE2),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 10 was manually annotated 2 times for cluster BE1.
•Start number 11 was manually annotated 72 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 9 was manually annotated 4 times for cluster BE2.
•Start number 11 was manually annotated 10 times for cluster BE2.

Gene Information:

Gene: Anedea_19 Start: 9329, Stop: 9186, Start Num: 11
Candidate Starts for Anedea_19:
(Start: 11 @9329 has 82 MA's), (18, 9254), (20, 9236), (23, 9203),

Gene: Anedea_284 Start: 132378, Stop: 132235, Start Num: 11
Candidate Starts for Anedea_284:
(Start: 11 @132378 has 82 MA's), (18, 132303), (20, 132285), (23, 132252),

Gene: Angela_21 Start: 10177, Stop: 10034, Start Num: 11
Candidate Starts for Angela_21:
(Start: 11 @10177 has 82 MA's), (17, 10111), (18, 10102), (20, 10084), (23, 10051),

Gene: Angela_278 Start: 132580, Stop: 132437, Start Num: 11
Candidate Starts for Angela_278:
(Start: 11 @132580 has 82 MA's), (17, 132514), (18, 132505), (20, 132487), (23, 132454),

Gene: Bartholomune_271 Start: 130869, Stop: 130726, Start Num: 11
Candidate Starts for Bartholomune_271:
(Start: 11 @130869 has 82 MA's), (20, 130776), (23, 130743),

Gene: Bartholomune_21 Start: 9770, Stop: 9627, Start Num: 11
Candidate Starts for Bartholomune_21:
(Start: 11 @9770 has 82 MA's), (20, 9677), (23, 9644),

Gene: BlueOtter_270 Start: 131120, Stop: 130974, Start Num: 11
Candidate Starts for BlueOtter_270:
(Start: 11 @131120 has 82 MA's), (12, 131090), (15, 131066), (18, 131045), (23, 130991),

Gene: BlueOtter_22 Start: 10033, Stop: 9887, Start Num: 11

Candidate Starts for BlueOtter_22:
(Start: 11 @10033 has 82 MA's), (12, 10003), (15, 9979), (18, 9958), (23, 9904),

Gene: Bmoc_20 Start: 9992, Stop: 9849, Start Num: 11
Candidate Starts for Bmoc_20:
(Start: 11 @9992 has 82 MA's), (18, 9917), (20, 9899), (23, 9866),

Gene: Bmoc_276 Start: 131814, Stop: 131671, Start Num: 11
Candidate Starts for Bmoc_276:
(Start: 11 @131814 has 82 MA's), (18, 131739), (20, 131721), (23, 131688),

Gene: BoomerJR_282 Start: 130205, Stop: 130062, Start Num: 11
Candidate Starts for BoomerJR_282:
(Start: 11 @130205 has 82 MA's),

Gene: BoomerJR_27 Start: 11417, Stop: 11274, Start Num: 11
Candidate Starts for BoomerJR_27:
(Start: 11 @11417 has 82 MA's),

Gene: Braelyn_266 Start: 130224, Stop: 130081, Start Num: 11
Candidate Starts for Braelyn_266:
(Start: 11 @130224 has 82 MA's), (20, 130131), (23, 130098),

Gene: Braelyn_21 Start: 9814, Stop: 9671, Start Num: 11
Candidate Starts for Braelyn_21:
(Start: 11 @9814 has 82 MA's), (20, 9721), (23, 9688),

Gene: Cross_22 Start: 10034, Stop: 9888, Start Num: 11
Candidate Starts for Cross_22:
(Start: 11 @10034 has 82 MA's), (12, 10004), (15, 9980), (18, 9959), (23, 9905),

Gene: Cross_270 Start: 131766, Stop: 131620, Start Num: 11
Candidate Starts for Cross_270:
(Start: 11 @131766 has 82 MA's), (12, 131736), (15, 131712), (18, 131691), (23, 131637),

Gene: Cursive_274 Start: 130860, Stop: 130714, Start Num: 11
Candidate Starts for Cursive_274:
(Start: 11 @130860 has 82 MA's), (12, 130830), (15, 130806), (18, 130785), (23, 130731),

Gene: Cursive_20 Start: 8851, Stop: 8705, Start Num: 11
Candidate Starts for Cursive_20:
(Start: 11 @8851 has 82 MA's), (12, 8821), (15, 8797), (18, 8776), (23, 8722),

Gene: Daubenski_265 Start: 132056, Stop: 131910, Start Num: 11
Candidate Starts for Daubenski_265:
(4, 132128), (6, 132125), (7, 132119), (Start: 11 @132056 has 82 MA's), (12, 132026), (13, 132014), (15, 132002), (18, 131981), (23, 131927),

Gene: Daubenski_21 Start: 9680, Stop: 9534, Start Num: 11
Candidate Starts for Daubenski_21:
(4, 9752), (6, 9749), (7, 9743), (Start: 11 @9680 has 82 MA's), (12, 9650), (13, 9638), (15, 9626), (18, 9605), (23, 9551),

Gene: EGole_275 Start: 134640, Stop: 134494, Start Num: 10
Candidate Starts for EGole_275:
(Start: 10 @134640 has 2 MA's), (16, 134577), (17, 134571), (18, 134562), (20, 134544), (23, 134511),

Gene: EGole_21 Start: 10328, Stop: 10182, Start Num: 10
Candidate Starts for EGole_21:
(Start: 10 @10328 has 2 MA's), (16, 10265), (17, 10259), (18, 10250), (20, 10232), (23, 10199),

Gene: Enygma_291 Start: 132953, Stop: 132804, Start Num: 9
Candidate Starts for Enygma_291:
(8, 132986), (Start: 9 @132953 has 4 MA's), (Start: 11 @132944 has 82 MA's), (19, 132860), (21, 132851),

Gene: Enygma_23 Start: 10529, Stop: 10380, Start Num: 9
Candidate Starts for Enygma_23:
(8, 10562), (Start: 9 @10529 has 4 MA's), (Start: 11 @10520 has 82 MA's), (19, 10436), (21, 10427),

Gene: Evy_22 Start: 10239, Stop: 10096, Start Num: 11
Candidate Starts for Evy_22:
(Start: 11 @10239 has 82 MA's), (15, 10185), (18, 10164), (20, 10146),

Gene: Evy_260 Start: 131968, Stop: 131825, Start Num: 11
Candidate Starts for Evy_260:
(Start: 11 @131968 has 82 MA's), (15, 131914), (18, 131893), (20, 131875),

Gene: Genie2_282 Start: 130318, Stop: 130175, Start Num: 11
Candidate Starts for Genie2_282:
(Start: 11 @130318 has 82 MA's),

Gene: Genie2_27 Start: 11417, Stop: 11274, Start Num: 11
Candidate Starts for Genie2_27:
(Start: 11 @11417 has 82 MA's),

Gene: HangryHippo_270 Start: 131120, Stop: 130974, Start Num: 11
Candidate Starts for HangryHippo_270:
(Start: 11 @131120 has 82 MA's), (12, 131090), (15, 131066), (18, 131045), (23, 130991),

Gene: HangryHippo_22 Start: 10033, Stop: 9887, Start Num: 11
Candidate Starts for HangryHippo_22:
(Start: 11 @10033 has 82 MA's), (12, 10003), (15, 9979), (18, 9958), (23, 9904),

Gene: Jay2Jay_280 Start: 132521, Stop: 132378, Start Num: 11
Candidate Starts for Jay2Jay_280:
(Start: 11 @132521 has 82 MA's), (15, 132467), (18, 132446), (20, 132428), (23, 132395),

Gene: Jay2Jay_25 Start: 10428, Stop: 10285, Start Num: 11
Candidate Starts for Jay2Jay_25:
(Start: 11 @10428 has 82 MA's), (15, 10374), (18, 10353), (20, 10335), (23, 10302),

Gene: Larnav_272 Start: 132039, Stop: 131893, Start Num: 11
Candidate Starts for Larnav_272:
(Start: 11 @132039 has 82 MA's), (12, 132009), (15, 131985), (18, 131964), (23, 131910),

Gene: Larnav_22 Start: 10034, Stop: 9888, Start Num: 11
Candidate Starts for Larnav_22:
(Start: 11 @10034 has 82 MA's), (12, 10004), (15, 9980), (18, 9959), (23, 9905),

Gene: Leo04_273 Start: 132150, Stop: 132004, Start Num: 11
Candidate Starts for Leo04_273:
(Start: 11 @132150 has 82 MA's), (12, 132120), (15, 132096), (18, 132075), (23, 132021),

Gene: Leo04_22 Start: 10032, Stop: 9886, Start Num: 11
Candidate Starts for Leo04_22:
(Start: 11 @10032 has 82 MA's), (12, 10002), (15, 9978), (18, 9957), (23, 9903),

Gene: Liandry_270 Start: 131290, Stop: 131147, Start Num: 11
Candidate Starts for Liandry_270:
(Start: 11 @131290 has 82 MA's), (20, 131197), (23, 131164),

Gene: Liandry_21 Start: 9769, Stop: 9626, Start Num: 11
Candidate Starts for Liandry_21:
(Start: 11 @9769 has 82 MA's), (20, 9676), (23, 9643),

Gene: LilMartin_273 Start: 131468, Stop: 131325, Start Num: 11
Candidate Starts for LilMartin_273:
(Start: 11 @131468 has 82 MA's), (17, 131402), (18, 131393), (20, 131375), (23, 131342),

Gene: LilMartin_21 Start: 10124, Stop: 9981, Start Num: 11
Candidate Starts for LilMartin_21:
(Start: 11 @10124 has 82 MA's), (17, 10058), (18, 10049), (20, 10031), (23, 9998),

Gene: Lululemon_21 Start: 9413, Stop: 9267, Start Num: 11
Candidate Starts for Lululemon_21:
(Start: 11 @9413 has 82 MA's), (12, 9383), (15, 9359), (18, 9338), (23, 9284),

Gene: Lululemon_268 Start: 130305, Stop: 130159, Start Num: 11
Candidate Starts for Lululemon_268:
(Start: 11 @130305 has 82 MA's), (12, 130275), (15, 130251), (18, 130230), (23, 130176),

Gene: Mildred21_284 Start: 130962, Stop: 130819, Start Num: 11
Candidate Starts for Mildred21_284:
(1, 131208), (2, 131130), (3, 131064), (5, 131031), (Start: 11 @130962 has 82 MA's), (15, 130908), (17, 130896), (18, 130887), (20, 130869), (23, 130836),

Gene: Mildred21_21 Start: 9804, Stop: 9661, Start Num: 11
Candidate Starts for Mildred21_21:
(1, 10050), (2, 9972), (3, 9906), (5, 9873), (Start: 11 @9804 has 82 MA's), (15, 9750), (17, 9738), (18, 9729), (20, 9711), (23, 9678),

Gene: MulchMansion_277 Start: 133103, Stop: 132960, Start Num: 11
Candidate Starts for MulchMansion_277:
(Start: 11 @133103 has 82 MA's), (17, 133037), (18, 133028), (20, 133010), (23, 132977),

Gene: MulchMansion_21 Start: 10125, Stop: 9982, Start Num: 11
Candidate Starts for MulchMansion_21:

(Start: 11 @10125 has 82 MA's), (17, 10059), (18, 10050), (20, 10032), (23, 9999),

Gene: Navo_20 Start: 9568, Stop: 9425, Start Num: 11
Candidate Starts for Navo_20:
(Start: 11 @9568 has 82 MA's), (20, 9475), (23, 9442),

Gene: Navo_262 Start: 129193, Stop: 129050, Start Num: 11
Candidate Starts for Navo_262:
(Start: 11 @129193 has 82 MA's), (20, 129100), (23, 129067),

Gene: NootNoot_21 Start: 9780, Stop: 9637, Start Num: 11
Candidate Starts for NootNoot_21:
(Start: 11 @9780 has 82 MA's), (20, 9687), (23, 9654),

Gene: NootNoot_266 Start: 130079, Stop: 129936, Start Num: 11
Candidate Starts for NootNoot_266:
(Start: 11 @130079 has 82 MA's), (20, 129986), (23, 129953),

Gene: PacManQ_268 Start: 130305, Stop: 130159, Start Num: 11
Candidate Starts for PacManQ_268:
(Start: 11 @130305 has 82 MA's), (12, 130275), (15, 130251), (18, 130230), (23, 130176),

Gene: PacManQ_21 Start: 9413, Stop: 9267, Start Num: 11
Candidate Starts for PacManQ_21:
(Start: 11 @9413 has 82 MA's), (12, 9383), (15, 9359), (18, 9338), (23, 9284),

Gene: Paradiddles_262 Start: 132476, Stop: 132333, Start Num: 11
Candidate Starts for Paradiddles_262:
(Start: 11 @132476 has 82 MA's), (20, 132383), (23, 132350),

Gene: Paradiddles_21 Start: 9768, Stop: 9625, Start Num: 11
Candidate Starts for Paradiddles_21:
(Start: 11 @9768 has 82 MA's), (20, 9675), (23, 9642),

Gene: Peebs_269 Start: 132006, Stop: 131860, Start Num: 11
Candidate Starts for Peebs_269:
(Start: 11 @132006 has 82 MA's), (12, 131976), (15, 131952), (18, 131931), (23, 131877),

Gene: Peebs_22 Start: 10031, Stop: 9885, Start Num: 11
Candidate Starts for Peebs_22:
(Start: 11 @10031 has 82 MA's), (12, 10001), (15, 9977), (18, 9956), (23, 9902),

Gene: Pepperwood_23 Start: 10186, Stop: 10040, Start Num: 11
Candidate Starts for Pepperwood_23:
(Start: 11 @10186 has 82 MA's), (12, 10156), (15, 10132), (18, 10111), (23, 10057),

Gene: Pepperwood_272 Start: 131971, Stop: 131825, Start Num: 11
Candidate Starts for Pepperwood_272:
(Start: 11 @131971 has 82 MA's), (12, 131941), (15, 131917), (18, 131896), (23, 131842),

Gene: Persimmon_20 Start: 9600, Stop: 9457, Start Num: 11
Candidate Starts for Persimmon_20:
(Start: 11 @9600 has 82 MA's), (20, 9507), (23, 9474),

Gene: Persimmon_271 Start: 130411, Stop: 130268, Start Num: 11
Candidate Starts for Persimmon_271:
(Start: 11 @130411 has 82 MA's), (20, 130318), (23, 130285),

Gene: PinkiePie_21 Start: 9770, Stop: 9627, Start Num: 11
Candidate Starts for PinkiePie_21:
(Start: 11 @9770 has 82 MA's), (20, 9677), (23, 9644),

Gene: PinkiePie_271 Start: 131291, Stop: 131148, Start Num: 11
Candidate Starts for PinkiePie_271:
(Start: 11 @131291 has 82 MA's), (20, 131198), (23, 131165),

Gene: Samisti12_20 Start: 9634, Stop: 9488, Start Num: 11
Candidate Starts for Samisti12_20:
(Start: 11 @9634 has 82 MA's), (12, 9604), (15, 9580), (18, 9559), (23, 9505),

Gene: Samisti12_271 Start: 132678, Stop: 132532, Start Num: 11
Candidate Starts for Samisti12_271:
(Start: 11 @132678 has 82 MA's), (12, 132648), (15, 132624), (18, 132603), (23, 132549),

Gene: Scheme_276 Start: 133380, Stop: 133234, Start Num: 11
Candidate Starts for Scheme_276:
(Start: 11 @133380 has 82 MA's), (12, 133350), (15, 133326), (18, 133305), (23, 133251),

Gene: Scheme_23 Start: 10185, Stop: 10039, Start Num: 11
Candidate Starts for Scheme_23:
(Start: 11 @10185 has 82 MA's), (12, 10155), (15, 10131), (18, 10110), (23, 10056),

Gene: Sollertia_283 Start: 130307, Stop: 130164, Start Num: 11
Candidate Starts for Sollertia_283:
(Start: 11 @130307 has 82 MA's),

Gene: Sollertia_27 Start: 11417, Stop: 11274, Start Num: 11
Candidate Starts for Sollertia_27:
(Start: 11 @11417 has 82 MA's),

Gene: Squillium_21 Start: 9769, Stop: 9626, Start Num: 11
Candidate Starts for Squillium_21:
(Start: 11 @9769 has 82 MA's), (20, 9676), (23, 9643),

Gene: Squillium_273 Start: 131293, Stop: 131150, Start Num: 11
Candidate Starts for Squillium_273:
(Start: 11 @131293 has 82 MA's), (20, 131200), (23, 131167),

Gene: Stanimal_282 Start: 130691, Stop: 130548, Start Num: 11
Candidate Starts for Stanimal_282:
(Start: 11 @130691 has 82 MA's),

Gene: Stanimal_27 Start: 11417, Stop: 11274, Start Num: 11
Candidate Starts for Stanimal_27:
(Start: 11 @11417 has 82 MA's),

Gene: Sushi23_23 Start: 10033, Stop: 9887, Start Num: 11
Candidate Starts for Sushi23_23:
(Start: 11 @10033 has 82 MA's), (12, 10003), (15, 9979), (18, 9958), (23, 9904),

Gene: Sushi23_273 Start: 132876, Stop: 132730, Start Num: 11
Candidate Starts for Sushi23_273:
(Start: 11 @132876 has 82 MA's), (12, 132846), (15, 132822), (18, 132801), (23, 132747),

Gene: Targaryen_271 Start: 133911, Stop: 133768, Start Num: 11
Candidate Starts for Targaryen_271:
(Start: 11 @133911 has 82 MA's), (15, 133857), (18, 133836), (20, 133818),

Gene: Targaryen_20 Start: 10235, Stop: 10092, Start Num: 11
Candidate Starts for Targaryen_20:
(Start: 11 @10235 has 82 MA's), (15, 10181), (18, 10160), (20, 10142),

Gene: Teutsch_268 Start: 131844, Stop: 131698, Start Num: 11
Candidate Starts for Teutsch_268:
(Start: 11 @131844 has 82 MA's), (12, 131814), (15, 131790), (18, 131769), (23, 131715),

Gene: Teutsch_21 Start: 9635, Stop: 9489, Start Num: 11
Candidate Starts for Teutsch_21:
(Start: 11 @9635 has 82 MA's), (12, 9605), (15, 9581), (18, 9560), (23, 9506),

Gene: Tribute_21 Start: 9886, Stop: 9740, Start Num: 11
Candidate Starts for Tribute_21:
(Start: 11 @9886 has 82 MA's), (12, 9856), (15, 9832), (18, 9811), (23, 9757),

Gene: Tribute_267 Start: 132430, Stop: 132284, Start Num: 11
Candidate Starts for Tribute_267:
(Start: 11 @132430 has 82 MA's), (12, 132400), (15, 132376), (18, 132355), (23, 132301),

Gene: Warpy_277 Start: 131987, Stop: 131844, Start Num: 11
Candidate Starts for Warpy_277:
(Start: 11 @131987 has 82 MA's), (15, 131933), (18, 131912), (20, 131894),

Gene: Warpy_25 Start: 10449, Stop: 10306, Start Num: 11
Candidate Starts for Warpy_25:
(Start: 11 @10449 has 82 MA's), (15, 10395), (18, 10374), (20, 10356),

Gene: Watermoore_22 Start: 10034, Stop: 9888, Start Num: 11
Candidate Starts for Watermoore_22:
(Start: 11 @10034 has 82 MA's), (12, 10004), (15, 9980), (18, 9959), (23, 9905),

Gene: Watermoore_269 Start: 132630, Stop: 132484, Start Num: 11
Candidate Starts for Watermoore_269:
(Start: 11 @132630 has 82 MA's), (12, 132600), (15, 132576), (18, 132555), (23, 132501),

Gene: WhereRU_20 Start: 9600, Stop: 9457, Start Num: 11
Candidate Starts for WhereRU_20:
(Start: 11 @9600 has 82 MA's), (20, 9507), (23, 9474),

Gene: WhereRU_269 Start: 130745, Stop: 130602, Start Num: 11

Candidate Starts for WhereRU_269:
(Start: 11 @130745 has 82 MA's), (20, 130652), (23, 130619),

Gene: Wofford_23 Start: 10193, Stop: 10041, Start Num: 9
Candidate Starts for Wofford_23:
(Start: 9 @10193 has 4 MA's), (Start: 11 @10184 has 82 MA's), (14, 10133), (18, 10109), (22, 10082),

Gene: Wofford_281 Start: 131986, Stop: 131834, Start Num: 9
Candidate Starts for Wofford_281:
(Start: 9 @131986 has 4 MA's), (Start: 11 @131977 has 82 MA's), (14, 131926), (18, 131902), (22, 131875),

Gene: Yaboi_27 Start: 11417, Stop: 11274, Start Num: 11
Candidate Starts for Yaboi_27:
(Start: 11 @11417 has 82 MA's),

Gene: Yaboi_287 Start: 130235, Stop: 130092, Start Num: 11
Candidate Starts for Yaboi_287:
(Start: 11 @130235 has 82 MA's),