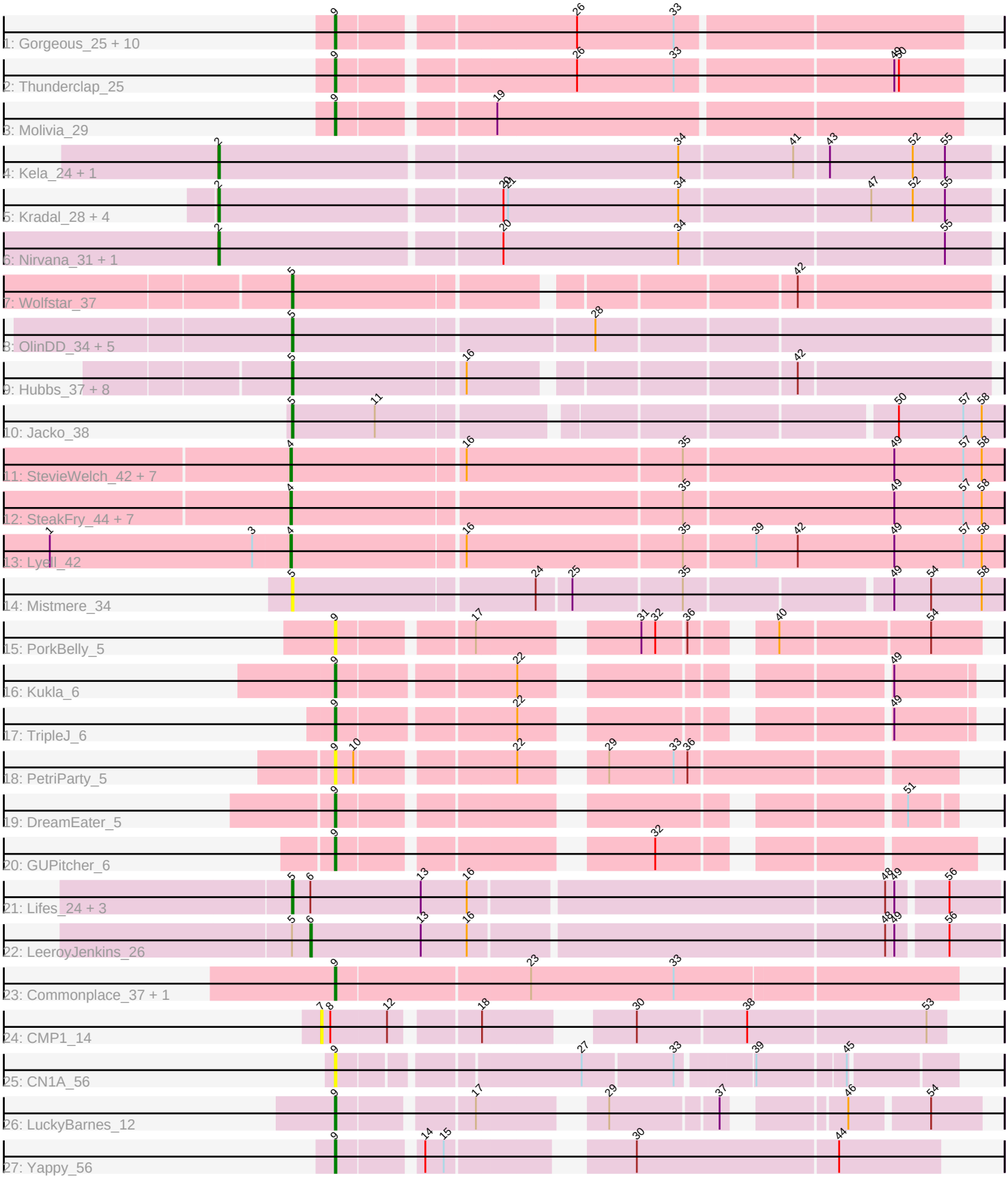
Pham 343931


1: Gorgeous_25 + 10
2: Thunderclap_25
3: Molivia_29
4: Kela_24 + 1
5: Kradal_28 + 4
6: Nirvana_31 + 1
7: Wolfstar_37
8: OlinDD_34 + 5
9: Hubbs_37 + 8
10: Jacko_38
11: StevieWelch_42 + 7
12: SteakFry_44 + 7
13: Lyell_42
14: Mistmere_34
15: PorkBelly_5
16: Kukla_6
17: TripleJ_6
18: PetriParty_5
19: DreamEater_5
20: GUPitcher_6
21: Lifes_24 + 3
22: LeeroyJenkins_26
23: Commonplace_37 + 1
24: CMP1_14
25: CN1A_56
26: LuckyBarnes_12
27: Yappy_56

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 343931 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 343931 has 74 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Gorgeous_25, Jaek_24, Ichor_24, Anansi_25, Heylee_27, Amigo_25, SorJuana_25, Yeezus_24, Boersma_26, Amavida_27, Rings_24
• Track 2 : Thunderclap_25
• Track 3 : Molivia_29
• Track 4 : Kela_24, JustBecause_24
• Track 5 : Kradal_28, Quantum_27, EhyElimayoE_28, Sarkar_28, Satis_28
• Track 6 : Nirvana_31, Frankenweenie_33
• Track 7 : Wolfstar_37
• Track 8 : OlinDD_34, Hortus1_34, Pioneer3_34, Tandem_34, Platte_34, Alleb_35
• Track 9 : Hubbs_37, Roman_37, Solimine_37, Lupine_35, Pavlo_35, Saradis_37, PhillyPhilly_36, Uterion_40, DejaVu_38
• Track 10 : Jacko_38
• Track 11 : StevieWelch_42, Musetta_42, Necrophoxinus_44, Fork_38, ASegato_41, Issa7_41, Deschain_43, Welcome_43
• Track 12 : SteakFry_44, DustyDino_45, Erenyeager_42, RunningBrook_43, HollowPurple_43, Yuma_41, Shroomer_46, Casablancas_43
• Track 13 : Lyell_42
• Track 14 : Mistmere_34
• Track 15 : PorkBelly_5
• Track 16 : Kukla_6
• Track 17 : TripleJ_6
• Track 18 : PetriParty_5
• Track 19 : DreamEater_5
• Track 20 : GUPitcher_6
• Track 21 : Lifes_24, Cassita_26, WaterT_25, BarnCat_22
• Track 22 : LeeroyJenkins_26
• Track 23 : Commonplace_37, Nonagon_36
• Track 24 : CMP1_14
• Track 25 : CN1A_56
• Track 26 : LuckyBarnes_12
• Track 27 : Yappy_56

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

The start number called the most often in the published annotations is 9, it was called in 21 of the 65 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Amavida_27, Amigo_25, Anansi_25, Boersma_26, CN1A_56, Commonplace_37, DreamEater_5, GUPitcher_6, Gorgeous_25, Heylee_27, Ichor_24, Jaek_24, Kukla_6, LuckyBarnes_12, Molivia_29, Nonagon_36, PetriParty_5, PorkBelly_5, Rings_24, SorJuana_25, Thunderclap_25, TripleJ_6, Yappy_56, Yeezus_24,

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

Genes that do not have the "Most Annotated" start:
• ASegato_41, Alleb_35, BarnCat_22, CMP1_14, Casablancas_43, Cassita_26, DejaVu_38, Deschain_43, DustyDino_45, EhyElimayoE_28, Erenyeager_42, Fork_38, Frankenweenie_33, HollowPurple_43, Hortus1_34, Hubbs_37, Issa7_41, Jacko_38, JustBecause_24, Kela_24, Kradal_28, LeeroyJenkins_26, Lifes_24, Lupine_35, Lyell_42, Mistmere_34, Musetta_42, Necrophoxinus_44, Nirvana_31, OlinDD_34, Pavlo_35, PhillyPhilly_36, Pioneer3_34, Platte_34, Quantum_27, Roman_37, RunningBrook_43, Saradis_37, Sarkar_28, Satis_28, Shroomer_46, Solimine_37, SteakFry_44, StevieWelch_42, Tandem_34, Uterion_40, WaterT_25, Welcome_43, Wolfstar_37, Yuma_41,

Summary by start number:

Start 2:
• Found in 9 of 74 (12.2%) of genes in pham
• Manual Annotations of this start: 9 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EhyElimayoE_28 (BM), Frankenweenie_33 (BM), JustBecause_24 (BM), Kela_24 (BM), Kradal_28 (BM), Nirvana_31 (BM), Quantum_27 (BM), Sarkar_28 (BM), Satis_28 (BM),

Start 4:
• Found in 17 of 74 (23.0%) of genes in pham
• Manual Annotations of this start: 15 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ASegato_41 (ED2), Casablancas_43 (ED2), Deschain_43 (ED2), DustyDino_45 (ED2), Erenyeager_42 (ED2), Fork_38 (ED2), HollowPurple_43 (ED2), Issa7_41 (ED2), Lyell_42 (ED2), Musetta_42 (ED2), Necrophoxinus_44 (ED2), RunningBrook_43 (ED2), Shroomer_46 (ED2), SteakFry_44 (ED2), StevieWelch_42 (ED2), Welcome_43 (ED2), Yuma_41 (ED2),

Start 5:
• Found in 23 of 74 (31.1%) of genes in pham
• Manual Annotations of this start: 19 of 65
• Called 95.7% of time when present
• Phage (with cluster) where this start called: Alleb_35 (ED1), BarnCat_22 (GB), Cassita_26 (GB), DejaVu_38 (ED1), Hortus1_34 (ED1), Hubbs_37 (ED1), Jacko_38 (ED1), Lifes_24 (GB), Lupine_35 (ED1), Mistmere_34 (ED3), OlinDD_34 (ED1),

Pavlo_35 (ED1), PhillyPhilly_36 (ED1), Pioneer3_34 (ED1), Platte_34 (ED1), Roman_37 (ED1), Saradis_37 (ED1), Solimine_37 (ED1), Tandem_34 (ED1), Uterion_40 (ED1), WaterT_25 (GB), Wolfstar_37 (ED),

Start 6:
• Found in 5 of 74 (6.8%) of genes in pham
• Manual Annotations of this start: 1 of 65
• Called 20.0% of time when present
• Phage (with cluster) where this start called: LeeroyJenkins_26 (GB),

Start 7:
• Found in 1 of 74 (1.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CMP1_14 (singleton),

Start 9:
• Found in 24 of 74 (32.4%) of genes in pham
• Manual Annotations of this start: 21 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amavida_27 (AQ), Amigo_25 (AQ), Anansi_25 (AQ), Boersma_26 (AQ), CN1A_56 (singleton), Commonplace_37 (JD), DreamEater_5 (FJ), GUPitcher_6 (FJ), Gorgeous_25 (AQ), Heylee_27 (AQ), Ichor_24 (AQ), Jaek_24 (AQ), Kukla_6 (FJ), LuckyBarnes_12 (singleton), Molivia_29 (AQ), Nonagon_36 (JD), PetriParty_5 (FJ), PorkBelly_5 (FJ), Rings_24 (AQ), SorJuana_25 (AQ), Thunderclap_25 (AQ), TripleJ_6 (FJ), Yappy_56 (singleton), Yeezus_24 (AQ),

Summary by clusters:

There are 10 clusters represented in this pham: AQ, singleton, BM, ED2, ED3, ED1, GB, ED, JD, FJ,

Info for manual annotations of cluster AQ:
•Start number 9 was manually annotated 13 times for cluster AQ.

Info for manual annotations of cluster BM:
•Start number 2 was manually annotated 9 times for cluster BM.

Info for manual annotations of cluster ED:
•Start number 5 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:
•Start number 5 was manually annotated 14 times for cluster ED1.

Info for manual annotations of cluster ED2:
•Start number 4 was manually annotated 15 times for cluster ED2.

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

Info for manual annotations of cluster GB:
•Start number 5 was manually annotated 4 times for cluster GB.

•Start number 6 was manually annotated 1 time for cluster GB.

Info for manual annotations of cluster JD:
•Start number 9 was manually annotated 2 times for cluster JD.

Gene Information:

Gene: ASegato_41 Start: 17204, Stop: 17656, Start Num: 4
Candidate Starts for ASegato_41:
(Start: 4 @17204 has 15 MA's), (16, 17312), (35, 17450), (49, 17585), (57, 17630), (58, 17642),

Gene: Alleb_35 Start: 15737, Stop: 16174, Start Num: 5
Candidate Starts for Alleb_35:
(Start: 5 @15737 has 19 MA's), (28, 15926),

Gene: Amavida_27 Start: 13028, Stop: 13411, Start Num: 9
Candidate Starts for Amavida_27:
(Start: 9 @13028 has 21 MA's), (26, 13169), (33, 13232),

Gene: Amigo_25 Start: 12902, Stop: 13285, Start Num: 9
Candidate Starts for Amigo_25:
(Start: 9 @12902 has 21 MA's), (26, 13043), (33, 13106),

Gene: Anansi_25 Start: 12911, Stop: 13294, Start Num: 9
Candidate Starts for Anansi_25:
(Start: 9 @12911 has 21 MA's), (26, 13052), (33, 13115),

Gene: BarnCat_22 Start: 10562, Stop: 11005, Start Num: 5
Candidate Starts for BarnCat_22:
(Start: 5 @10562 has 19 MA's), (Start: 6 @10574 has 1 MA's), (13, 10646), (16, 10676), (48, 10937), (49, 10943), (56, 10973),

Gene: Boersma_26 Start: 12902, Stop: 13285, Start Num: 9
Candidate Starts for Boersma_26:
(Start: 9 @12902 has 21 MA's), (26, 13043), (33, 13106),

Gene: CMP1_14 Start: 11444, Stop: 11800, Start Num: 7
Candidate Starts for CMP1_14:
(7, 11444), (8, 11450), (12, 11486), (18, 11534), (30, 11606), (38, 11675), (53, 11789),

Gene: CN1A_56 Start: 44523, Stop: 44161, Start Num: 9
Candidate Starts for CN1A_56:
(Start: 9 @44523 has 21 MA's), (27, 44382), (33, 44325), (39, 44280), (45, 44226),

Gene: Casablancas_43 Start: 17288, Stop: 17740, Start Num: 4
Candidate Starts for Casablancas_43:
(Start: 4 @17288 has 15 MA's), (35, 17534), (49, 17669), (57, 17714), (58, 17726),

Gene: Cassita_26 Start: 11123, Stop: 11566, Start Num: 5
Candidate Starts for Cassita_26:

(Start: 5 @11123 has 19 MA's), (Start: 6 @11135 has 1 MA's), (13, 11207), (16, 11237), (48, 11498), (49, 11504), (56, 11534),

Gene: Commonplace_37 Start: 17961, Stop: 18353, Start Num: 9
Candidate Starts for Commonplace_37:
(Start: 9 @17961 has 21 MA's), (23, 18081), (33, 18174),

Gene: DejaVu_38 Start: 16531, Stop: 16953, Start Num: 5
Candidate Starts for DejaVu_38:
(Start: 5 @16531 has 19 MA's), (16, 16639), (42, 16831),

Gene: Deschain_43 Start: 17952, Stop: 18404, Start Num: 4
Candidate Starts for Deschain_43:
(Start: 4 @17952 has 15 MA's), (16, 18060), (35, 18198), (49, 18333), (57, 18378), (58, 18390),

Gene: DreamEater_5 Start: 5566, Stop: 5901, Start Num: 9
Candidate Starts for DreamEater_5:
(Start: 9 @5566 has 21 MA's), (51, 5872),

Gene: DustyDino_45 Start: 18143, Stop: 18595, Start Num: 4
Candidate Starts for DustyDino_45:
(Start: 4 @18143 has 15 MA's), (35, 18389), (49, 18524), (57, 18569), (58, 18581),

Gene: EhyElimayoE_28 Start: 16404, Stop: 16892, Start Num: 2
Candidate Starts for EhyElimayoE_28:
(Start: 2 @16404 has 9 MA's), (20, 16581), (21, 16584), (34, 16695), (47, 16815), (52, 16842), (55, 16863),

Gene: Erenyeager_42 Start: 17538, Stop: 17990, Start Num: 4
Candidate Starts for Erenyeager_42:
(Start: 4 @17538 has 15 MA's), (35, 17784), (49, 17919), (57, 17964), (58, 17976),

Gene: Fork_38 Start: 16853, Stop: 17305, Start Num: 4
Candidate Starts for Fork_38:
(Start: 4 @16853 has 15 MA's), (16, 16961), (35, 17099), (49, 17234), (57, 17279), (58, 17291),

Gene: Frankenweenie_33 Start: 18291, Stop: 18779, Start Num: 2
Candidate Starts for Frankenweenie_33:
(Start: 2 @18291 has 9 MA's), (20, 18468), (34, 18582), (55, 18750),

Gene: GUPitcher_6 Start: 5216, Stop: 5566, Start Num: 9
Candidate Starts for GUPitcher_6:
(Start: 9 @5216 has 21 MA's), (32, 5387),

Gene: Gorgeous_25 Start: 12911, Stop: 13294, Start Num: 9
Candidate Starts for Gorgeous_25:
(Start: 9 @12911 has 21 MA's), (26, 13052), (33, 13115),

Gene: Heylee_27 Start: 13028, Stop: 13411, Start Num: 9
Candidate Starts for Heylee_27:
(Start: 9 @13028 has 21 MA's), (26, 13169), (33, 13232),

Gene: HollowPurple_43 Start: 17403, Stop: 17855, Start Num: 4

Candidate Starts for HollowPurple_43:
(Start: 4 @17403 has 15 MA's), (35, 17649), (49, 17784), (57, 17829), (58, 17841),

Gene: Hortus1_34 Start: 15751, Stop: 16188, Start Num: 5
Candidate Starts for Hortus1_34:
(Start: 5 @15751 has 19 MA's), (28, 15940),

Gene: Hubbs_37 Start: 16743, Stop: 17165, Start Num: 5
Candidate Starts for Hubbs_37:
(Start: 5 @16743 has 19 MA's), (16, 16851), (42, 17043),

Gene: Ichor_24 Start: 12902, Stop: 13285, Start Num: 9
Candidate Starts for Ichor_24:
(Start: 9 @12902 has 21 MA's), (26, 13043), (33, 13106),

Gene: Issa7_41 Start: 16856, Stop: 17308, Start Num: 4
Candidate Starts for Issa7_41:
(Start: 4 @16856 has 15 MA's), (16, 16964), (35, 17102), (49, 17237), (57, 17282), (58, 17294),

Gene: Jacko_38 Start: 16235, Stop: 16666, Start Num: 5
Candidate Starts for Jacko_38:
(Start: 5 @16235 has 19 MA's), (11, 16289), (50, 16598), (57, 16640), (58, 16652),

Gene: Jaek_24 Start: 12902, Stop: 13285, Start Num: 9
Candidate Starts for Jaek_24:
(Start: 9 @12902 has 21 MA's), (26, 13043), (33, 13106),

Gene: JustBecause_24 Start: 15143, Stop: 15631, Start Num: 2
Candidate Starts for JustBecause_24:
(Start: 2 @15143 has 9 MA's), (34, 15434), (41, 15506), (43, 15527), (52, 15581), (55, 15602),

Gene: Kela_24 Start: 15134, Stop: 15622, Start Num: 2
Candidate Starts for Kela_24:
(Start: 2 @15134 has 9 MA's), (34, 15425), (41, 15497), (43, 15518), (52, 15572), (55, 15593),

Gene: Kradal_28 Start: 16404, Stop: 16892, Start Num: 2
Candidate Starts for Kradal_28:
(Start: 2 @16404 has 9 MA's), (20, 16581), (21, 16584), (34, 16695), (47, 16815), (52, 16842), (55, 16863),

Gene: Kukla_6 Start: 5268, Stop: 5615, Start Num: 9
Candidate Starts for Kukla_6:
(Start: 9 @5268 has 21 MA's), (22, 5373), (49, 5565),

Gene: LeeroyJenkins_26 Start: 11053, Stop: 11484, Start Num: 6
Candidate Starts for LeeroyJenkins_26:
(Start: 5 @11041 has 19 MA's), (Start: 6 @11053 has 1 MA's), (13, 11125), (16, 11155), (48, 11416), (49, 11422), (56, 11452),

Gene: Lifes_24 Start: 10593, Stop: 11036, Start Num: 5
Candidate Starts for Lifes_24:
(Start: 5 @10593 has 19 MA's), (Start: 6 @10605 has 1 MA's), (13, 10677), (16, 10707), (48, 10968), (49, 10974), (56, 11004),

Gene: LuckyBarnes_12 Start: 8066, Stop: 8413, Start Num: 9
Candidate Starts for LuckyBarnes_12:
(Start: 9 @8066 has 21 MA's), (17, 8144), (29, 8207), (37, 8273), (46, 8333), (54, 8381),

Gene: Lupine_35 Start: 15944, Stop: 16366, Start Num: 5
Candidate Starts for Lupine_35:
(Start: 5 @15944 has 19 MA's), (16, 16052), (42, 16244),

Gene: Lyell_42 Start: 17461, Stop: 17913, Start Num: 4
Candidate Starts for Lyell_42:
(1, 17305), (3, 17437), (Start: 4 @17461 has 15 MA's), (16, 17569), (35, 17707), (39, 17752), (42, 17779), (49, 17842), (57, 17887), (58, 17899),

Gene: Mistmere_34 Start: 14789, Stop: 15229, Start Num: 5
Candidate Starts for Mistmere_34:
(Start: 5 @14789 has 19 MA's), (24, 14942), (25, 14963), (35, 15032), (49, 15158), (54, 15182), (58, 15215),

Gene: Molivia_29 Start: 13194, Stop: 13577, Start Num: 9
Candidate Starts for Molivia_29:
(Start: 9 @13194 has 21 MA's), (19, 13284),

Gene: Musetta_42 Start: 17572, Stop: 18024, Start Num: 4
Candidate Starts for Musetta_42:
(Start: 4 @17572 has 15 MA's), (16, 17680), (35, 17818), (49, 17953), (57, 17998), (58, 18010),

Gene: Necrophoxinus_44 Start: 18151, Stop: 18603, Start Num: 4
Candidate Starts for Necrophoxinus_44:
(Start: 4 @18151 has 15 MA's), (16, 18259), (35, 18397), (49, 18532), (57, 18577), (58, 18589),

Gene: Nirvana_31 Start: 18488, Stop: 18976, Start Num: 2
Candidate Starts for Nirvana_31:
(Start: 2 @18488 has 9 MA's), (20, 18665), (34, 18779), (55, 18947),

Gene: Nonagon_36 Start: 17661, Stop: 18053, Start Num: 9
Candidate Starts for Nonagon_36:
(Start: 9 @17661 has 21 MA's), (23, 17781), (33, 17874),

Gene: OlinDD_34 Start: 15750, Stop: 16187, Start Num: 5
Candidate Starts for OlinDD_34:
(Start: 5 @15750 has 19 MA's), (28, 15939),

Gene: Pavlo_35 Start: 16219, Stop: 16641, Start Num: 5
Candidate Starts for Pavlo_35:
(Start: 5 @16219 has 19 MA's), (16, 16327), (42, 16519),

Gene: PetriParty_5 Start: 5500, Stop: 5856, Start Num: 9
Candidate Starts for PetriParty_5:
(Start: 9 @5500 has 21 MA's), (10, 5512), (22, 5602), (29, 5641), (33, 5683), (36, 5692),

Gene: PhillyPhilly_36 Start: 16124, Stop: 16546, Start Num: 5
Candidate Starts for PhillyPhilly_36:

(Start: 5 @16124 has 19 MA's), (16, 16232), (42, 16424),

Gene: Pioneer3_34 Start: 15734, Stop: 16171, Start Num: 5
Candidate Starts for Pioneer3_34:
(Start: 5 @15734 has 19 MA's), (28, 15923),

Gene: Platte_34 Start: 15519, Stop: 15956, Start Num: 5
Candidate Starts for Platte_34:
(Start: 5 @15519 has 19 MA's), (28, 15708),

Gene: PorkBelly_5 Start: 5318, Stop: 5671, Start Num: 9
Candidate Starts for PorkBelly_5:
(Start: 9 @5318 has 21 MA's), (17, 5396), (31, 5480), (32, 5489), (36, 5507), (40, 5546), (54, 5639),

Gene: Quantum_27 Start: 16404, Stop: 16892, Start Num: 2
Candidate Starts for Quantum_27:
(Start: 2 @16404 has 9 MA's), (20, 16581), (21, 16584), (34, 16695), (47, 16815), (52, 16842), (55, 16863),

Gene: Rings_24 Start: 13033, Stop: 13416, Start Num: 9
Candidate Starts for Rings_24:
(Start: 9 @13033 has 21 MA's), (26, 13174), (33, 13237),

Gene: Roman_37 Start: 16590, Stop: 17012, Start Num: 5
Candidate Starts for Roman_37:
(Start: 5 @16590 has 19 MA's), (16, 16698), (42, 16890),

Gene: RunningBrook_43 Start: 18143, Stop: 18595, Start Num: 4
Candidate Starts for RunningBrook_43:
(Start: 4 @18143 has 15 MA's), (35, 18389), (49, 18524), (57, 18569), (58, 18581),

Gene: Saradis_37 Start: 16182, Stop: 16604, Start Num: 5
Candidate Starts for Saradis_37:
(Start: 5 @16182 has 19 MA's), (16, 16290), (42, 16482),

Gene: Sarkar_28 Start: 16404, Stop: 16892, Start Num: 2
Candidate Starts for Sarkar_28:
(Start: 2 @16404 has 9 MA's), (20, 16581), (21, 16584), (34, 16695), (47, 16815), (52, 16842), (55, 16863),

Gene: Satis_28 Start: 16400, Stop: 16888, Start Num: 2
Candidate Starts for Satis_28:
(Start: 2 @16400 has 9 MA's), (20, 16577), (21, 16580), (34, 16691), (47, 16811), (52, 16838), (55, 16859),

Gene: Shroomer_46 Start: 17683, Stop: 18135, Start Num: 4
Candidate Starts for Shroomer_46:
(Start: 4 @17683 has 15 MA's), (35, 17929), (49, 18064), (57, 18109), (58, 18121),

Gene: Solimine_37 Start: 16597, Stop: 17019, Start Num: 5
Candidate Starts for Solimine_37:
(Start: 5 @16597 has 19 MA's), (16, 16705), (42, 16897),

Gene: SorJuana_25 Start: 12911, Stop: 13294, Start Num: 9
Candidate Starts for SorJuana_25:
(Start: 9 @12911 has 21 MA's), (26, 13052), (33, 13115),

Gene: SteakFry_44 Start: 17403, Stop: 17855, Start Num: 4
Candidate Starts for SteakFry_44:
(Start: 4 @17403 has 15 MA's), (35, 17649), (49, 17784), (57, 17829), (58, 17841),

Gene: StevieWelch_42 Start: 17543, Stop: 17995, Start Num: 4
Candidate Starts for StevieWelch_42:
(Start: 4 @17543 has 15 MA's), (16, 17651), (35, 17789), (49, 17924), (57, 17969), (58, 17981),

Gene: Tandem_34 Start: 15673, Stop: 16110, Start Num: 5
Candidate Starts for Tandem_34:
(Start: 5 @15673 has 19 MA's), (28, 15862),

Gene: Thunderclap_25 Start: 12931, Stop: 13314, Start Num: 9
Candidate Starts for Thunderclap_25:
(Start: 9 @12931 has 21 MA's), (26, 13072), (33, 13135), (49, 13270), (50, 13273),

Gene: TripleJ_6 Start: 5557, Stop: 5904, Start Num: 9
Candidate Starts for TripleJ_6:
(Start: 9 @5557 has 21 MA's), (22, 5662), (49, 5854),

Gene: Uterion_40 Start: 16689, Stop: 17111, Start Num: 5
Candidate Starts for Uterion_40:
(Start: 5 @16689 has 19 MA's), (16, 16797), (42, 16989),

Gene: WaterT_25 Start: 10867, Stop: 11310, Start Num: 5
Candidate Starts for WaterT_25:
(Start: 5 @10867 has 19 MA's), (Start: 6 @10879 has 1 MA's), (13, 10951), (16, 10981), (48, 11242), (49, 11248), (56, 11278),

Gene: Welcome_43 Start: 17560, Stop: 18012, Start Num: 4
Candidate Starts for Welcome_43:
(Start: 4 @17560 has 15 MA's), (16, 17668), (35, 17806), (49, 17941), (57, 17986), (58, 17998),

Gene: Wolfstar_37 Start: 16526, Stop: 16948, Start Num: 5
Candidate Starts for Wolfstar_37:
(Start: 5 @16526 has 19 MA's), (42, 16826),

Gene: Yappy_56 Start: 18789, Stop: 19139, Start Num: 9
Candidate Starts for Yappy_56:
(Start: 9 @18789 has 21 MA's), (14, 18837), (15, 18849), (30, 18945), (44, 19074),

Gene: Yeezus_24 Start: 12901, Stop: 13284, Start Num: 9
Candidate Starts for Yeezus_24:
(Start: 9 @12901 has 21 MA's), (26, 13042), (33, 13105),

Gene: Yuma_41 Start: 17471, Stop: 17923, Start Num: 4
Candidate Starts for Yuma_41:
(Start: 4 @17471 has 15 MA's), (35, 17717), (49, 17852), (57, 17897), (58, 17909),