



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 296320 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296320 has 147 members, 37 are drafts.

Phages represented in each track:

- Track 1 : Basilisk_31
- Track 2 : Ruchi_30
- Track 3 : WileyE_31
- Track 4 : Vulpecula_30
- Track 5 : TaylorSipht_30
- Track 6 : Abidatro_30
- Track 7 : Brynnie_30
- Track 8 : Jamun_29
- Track 9 : Kepler_33, Amelia_33, HannahPhantana_33, Daob_34, Jerole_33
- Track 10 : Antrice_35
- Track 11 : Cote_34, Coral_32
- Track 12 : Melons_33
- Track 13 : Zhuangyuan_35
- Track 14 : Cygnet_32
- Track 15 : Lunar_33
- Track 16 : PhluffyCoco_31, Atlantica_31, RedFox_31, AdoptaAdorbs_30, HamCheese_31, Camara_31, Glotell_32, Oppalora_30, Laphuphu24k_30, Rattail_31, Amphitrite_31, Fingolfin_31, AmiCi24_30, Juno112_30, DanHam62_31
- Track 17 : Andrew_32
- Track 18 : AlexMinion_33
- Track 19 : Babushka_28, Renna12_30
- Track 20 : Leona_30
- Track 21 : Hillester_80, Lasker_78, BasketStar_76, DarwinJr_81, RadFad_81, Crescenzo_81
- Track 22 : Ding_76
- Track 23 : Raphaella_77, Mapleville_72, Kabloowy_76, Hestia_70, AdaS_72, Faja_79, YoungHarleezy_76, BenchScraper_76, JellyBread_73, CookieBear_75, Sporco_78
- Track 24 : Gorpy_74, SonDevVon_83, MaterMagnus_76, Sakai_73, Aikyam_75
- Track 25 : CosmicBrownie_73
- Track 26 : Persistence_70
- Track 27 : BlueShadow_74
- Track 28 : Anekin_78
- Track 29 : Windest_80, BillyTP_77, Lawnathon_78
- Track 30 : JakeTheSnake_79
- Track 31 : Isolde_74
- Track 32 : SpicyFrank_78, MidnightRain_81

- Track 33 : GumGum_81
- Track 34 : Raqqa_74
- Track 35 : Globfish_76, EvePickles_75, ThayneTheZag_81
- Track 36 : LeBruni_77
- Track 37 : Tiff81_72
- Track 38 : Richie_79
- Track 39 : MurphyJoseph_72
- Track 40 : Seahorse_84
- Track 41 : MUWow_78
- Track 42 : Phrank15_80
- Track 43 : Shukran_73
- Track 44 : Bhageatrice_80
- Track 45 : Sashimi_74
- Track 46 : Auxilium_74
- Track 47 : NewKitty_78
- Track 48 : AbbyDaisy_79
- Track 49 : ThursdayNight_48
- Track 50 : Simpson_48, Joemato_46, JohnDoe_46, Flutur_45
- Track 51 : Tutumahutu_47, AGrandiflora_48, Cyan_46, Lego_45, Powerpuff_48, YesChef_46
- Track 52 : Tuck_49
- Track 53 : Kaylissa_47
- Track 54 : Tbone_46
- Track 55 : Lizalica_44
- Track 56 : Amyev_46, Tian_45
- Track 57 : Warda_46
- Track 58 : DrSierra_43
- Track 59 : Schaffner_46
- Track 60 : Cassia_45
- Track 61 : Community_48
- Track 62 : lter_45
- Track 63 : IttyBittyPiggy_46
- Track 64 : Crewmate_51
- Track 65 : Ascela_45
- Track 66 : Janeemi_48
- Track 67 : ObiToo_51
- Track 68 : Mudpuppy_42
- Track 69 : Phives_50
- Track 70 : Nitro_44
- Track 71 : Wildwest_45
- Track 72 : JuneStar_48
- Track 73 : Pixelle_47
- Track 74 : Pumpkins_45
- Track 75 : MaGuCo_43
- Track 76 : IUFootball_46, Liebe_46, Maureen_46
- Track 77 : Alatato_57
- Track 78 : Maruru_65, Sonali_65
- Track 79 : Mufasa8_70
- Track 80 : Sunshine23_66
- Track 81 : Altadena_50
- Track 82 : Vitus_45
- Track 83 : Hirko_43
- Track 84 : Vibaki_44, GoldDust_45, Gooberta_45

- Track 85 : Music_44
- Track 86 : Zucker_73
- Track 87 : Cassini_73
- Track 88 : BellaJr_70
- Track 89 : BlackSpider_65

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

The start number called the most often in the published annotations is 45, it was called in 38 of the 110 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy_79, AdaS_72, Aikyam_75, Alatato_57, Anekin_78, Auxilium_74, BasketStar_76, BellaJr_70, BenchScraper_76, Bhageatrice_80, BillyTP_77, BlackSpider_65, BlueShadow_74, Cassini_73, CookieBear_75, CosmicBrownie_73, Crescenzo_81, DarwinJr_81, Ding_76, EvePickles_75, Faja_79, Globfish_76, Gorpy_74, GumGum_81, Hestia_70, Hillester_80, Isolde_74, JakeTheSnake_79, JellyBread_73, Kabloowy_76, Lasker_78, Lawnathon_78, LeBruni_77, MUWow_78, Mapleville_72, MaterMagnus_76, MidnightRain_81, MurphyJoseph_72, NewKitty_78, Persistence_70, Phrank15_80, RadFad_81, Raphaella_77, Richie_79, Sakai_73, Sashimi_74, Seahorse_84, Shukran_73, SonDevVon_83, SpicyFrank_78, Sporco_78, ThayneTheZag_81, Tiff81_72, Windest_80, YoungHarleezy_76, Zucker_73,

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

- Raqqa_74,

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

- AGrandiflora_48, Abidatro_30, AdoptaAdorbs_30, AlexMinion_33, Altadena_50, Amelia_33, AmiCi24_30, Amphitrite_31, Amyev_46, Andrew_32, Antrice_35, Ascela_45, Atlantica_31, Babushka_28, Basilisk_31, Brynnie_30, Camara_31, Cassia_45, Community_48, Coral_32, Cote_34, Crewmate_51, Cyan_46, Cygnet_32, DanHam62_31, Daob_34, DrSierra_43, Fingolfin_31, Flutur_45, Glotell_32, GoldDust_45, Gooberta_45, HamCheese_31, HannahPhantana_33, Hirko_43, IUFootball_46, Iter_45, IttyBittyPiggy_46, Jamun_29, Janeemi_48, Jerole_33, Joemato_46, JohnDoe_46, JuneStar_48, Juno112_30, Kaylissa_47, Kepler_33, Laphuphu24k_30, Lego_45, Leona_30, Liebe_46, Lizalica_44, Lunar_33, MaGuCo_43, Maruru_65, Maureen_46, Melons_33, Mudpuppy_42, Mufasa8_70, Music_44, Nitro_44, ObiToo_51, Oppalora_30, Phives_50, PhluffyCoco_31, Pixelle_47, Powerpuff_48, Pumpkins_45, Rattail_31, RedFox_31, Renna12_30, Ruchi_30, Schaffner_46, Simpson_48, Sonali_65, Sunshine23_66, TaylorSipht_30, Tbone_46, ThursdayNight_48, Tian_45, Tuck_49, Tutumahutu_47, Vibaki_44, Vitus_45, Vulpecula_30, Warda_46, Wildwest_45, WileyE_31, YesChef_46, Zhuangyuan_35,

Summary by start number:

Start 19:

- Found in 1 of 147 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 110

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lunar_33 (AS2),

Start 30:

- Found in 11 of 147 (7.5%) of genes in pham
- Manual Annotations of this start: 8 of 110
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Amelia_33 (AS2), Coral_32 (AS2), Cote_34 (AS2), Daob_34 (AS2), HannahPhantana_33 (AS2), Jerole_33 (AS2), Kepler_33 (AS2), Melons_33 (AS2),

Start 37:

- Found in 3 of 147 (2.0%) of genes in pham
- Manual Annotations of this start: 3 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antrice_35 (AS2), Cygnet_32 (AS2), Zhuangyuan_35 (AS2),

Start 38:

- Found in 3 of 147 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maruru_65 (FG), Sonali_65 (FG), Sunshine23_66 (FG),

Start 40:

- Found in 1 of 147 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altadena_50 (FH),

Start 41:

- Found in 38 of 147 (25.9%) of genes in pham
- Manual Annotations of this start: 21 of 110
- Called 76.3% of time when present
- Phage (with cluster) where this start called: Abidatro_30 (AS1), AdoptaAdorbs_30 (AS3), AlexMinion_33 (AS3), AmiCi24_30 (AS3), Amphitrite_31 (AS3), Andrew_32 (AS3), Atlantica_31 (AS3), Babushka_28 (AS3), Basilisk_31 (AS1), Brynnie_30 (AS1), Camara_31 (AS3), DanHam62_31 (AS3), Fingolfin_31 (AS3), Glotell_32 (AS3), HamCheese_31 (AS3), Jamun_29 (AS1), Juno112_30 (AS3), Laphuphu24k_30 (AS3), Leona_30 (AS3), Mufasa8_70 (FG), Oppalora_30 (AS3), PhluffyCoco_31 (AS3), Rattail_31 (AS3), RedFox_31 (AS3), Renna12_30 (AS3), Ruchi_30 (AS1), TaylorSipht_30 (AS1), Vulpecula_30 (AS1), WileyE_31 (AS1),

Start 43:

- Found in 1 of 147 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phives_50 (AZ1),

Start 44:

- Found in 44 of 147 (29.9%) of genes in pham
- Manual Annotations of this start: 35 of 110

- Called 100.0% of time when present
- Phage (with cluster) where this start called: AGrandiflora_48 (AZ1), Amyev_46 (AZ1), Ascela_45 (AZ1), Cassia_45 (AZ1), Community_48 (AZ1), Crewmate_51 (AZ1), Cyan_46 (AZ1), DrSierra_43 (AZ1), Flutur_45 (AZ), GoldDust_45 (FL), Gooberta_45 (FL), Hirko_43 (FL), IUFootball_46 (AZ2), Iter_45 (AZ1), IttyBittyPiggy_46 (AZ1), Janeemi_48 (AZ1), Joemato_46 (AZ1), JohnDoe_46 (AZ1), JuneStar_48 (AZ1), Kaylissa_47 (AZ1), Lego_45 (AZ1), Liebe_46 (AZ2), Lizalica_44 (AZ1), MaGuCo_43 (AZ2), Maureen_46 (AZ2), Mudpuppy_42 (AZ1), Music_44 (FL), Nitro_44 (AZ1), ObiToo_51 (AZ1), Pixelle_47 (AZ1), Powerpuff_48 (AZ1), Pumpkins_45 (AZ1), Schaffner_46 (AZ1), Simpson_48 (AZ1), Tbone_46 (AZ1), ThursdayNight_48 (AZ), Tian_45 (AZ1), Tuck_49 (AZ1), Tutumahutu_47 (AZ1), Vibaki_44 (FL), Vitus_45 (FL), Warda_46 (AZ1), Wildwest_45 (AZ1), YesChef_46 (AZ1),

Start 45:

- Found in 57 of 147 (38.8%) of genes in pham
- Manual Annotations of this start: 38 of 110
- Called 98.2% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_79 (AY), AdaS_72 (AY), Aikyam_75 (AY), Alatato_57 (FB), Anekin_78 (AY), Auxilium_74 (AY), BasketStar_76 (AY), BellaJr_70 (FN), BenchScraper_76 (AY), Bhageatrice_80 (AY), BillyTP_77 (AY), BlackSpider_65 (FN), BlueShadow_74 (AY), Cassini_73 (FN), CookieBear_75 (AY), CosmicBrownie_73 (AY), Crescenzo_81 (AY), DarwinJr_81 (AY), Ding_76 (AY), EvePickles_75 (AY), Faja_79 (AY), Globfish_76 (AY), Gorpy_74 (AY), GumGum_81 (AY), Hestia_70 (AY), Hillester_80 (AY), Isolde_74 (AY), JakeTheSnake_79 (AY), JellyBread_73 (AY), Kabloowy_76 (AY), Lasker_78 (AY), Lawnathon_78 (AY), LeBruni_77 (AY), MUWow_78 (AY), Mapleville_72 (AY), MaterMagnus_76 (AY), MidnightRain_81 (AY), MurphyJoseph_72 (AY), NewKitty_78 (AY), Persistence_70 (AY), Phrank15_80 (AY), RadFad_81 (AY), Raphaella_77 (AY), Richie_79 (AY), Sakai_73 (AY), Sashimi_74 (AY), Seahorse_84 (AY), Shukran_73 (AY), SonDevVon_83 (AY), SpicyFrank_78 (AY), Sporco_78 (AY), ThayneTheZag_81 (AY), Tiff81_72 (AY), Windest_80 (AY), YoungHarleezy_76 (AY), Zucker_73 (FN),

Start 48:

- Found in 10 of 147 (6.8%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Raqqa_74 (AY),

Summary by clusters:

There are 12 clusters represented in this pham: AS3, AS2, AS1, FH, FB, FG, AY, AZ1, AZ2, AZ, FL, FN,

Info for manual annotations of cluster AS1:

- Start number 41 was manually annotated 8 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 19 was manually annotated 1 time for cluster AS2.
- Start number 30 was manually annotated 8 times for cluster AS2.
- Start number 37 was manually annotated 3 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 41 was manually annotated 12 times for cluster AS3.

Info for manual annotations of cluster AY:

- Start number 45 was manually annotated 35 times for cluster AY.

Info for manual annotations of cluster AZ1:

- Start number 43 was manually annotated 1 time for cluster AZ1.
- Start number 44 was manually annotated 28 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 44 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster FB:

- Start number 45 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FG:

- Start number 38 was manually annotated 2 times for cluster FG.
- Start number 41 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FH:

- Start number 40 was manually annotated 1 time for cluster FH.

Info for manual annotations of cluster FL:

- Start number 44 was manually annotated 4 times for cluster FL.

Info for manual annotations of cluster FN:

- Start number 45 was manually annotated 2 times for cluster FN.

Gene Information:

Gene: AGrandiflora_48 Start: 33790, Stop: 34203, Start Num: 44

Candidate Starts for AGrandiflora_48:

(Start: 44 @33790 has 35 MA's), (54, 33844), (67, 33970), (74, 34024), (90, 34177), (92, 34195),

Gene: AbbyDaisy_79 Start: 44094, Stop: 44489, Start Num: 45

Candidate Starts for AbbyDaisy_79:

(Start: 45 @44094 has 38 MA's), (48, 44118), (51, 44139), (62, 44265), (84, 44463),

Gene: Abidatro_30 Start: 21728, Stop: 21387, Start Num: 41

Candidate Starts for Abidatro_30:

(Start: 41 @21728 has 21 MA's), (48, 21707), (71, 21497), (81, 21401),

Gene: AdaS_72 Start: 39804, Stop: 40205, Start Num: 45

Candidate Starts for AdaS_72:

(Start: 45 @39804 has 38 MA's), (62, 39972), (72, 40041),

Gene: AdoptaAdorbs_30 Start: 21209, Stop: 20868, Start Num: 41

Candidate Starts for AdoptaAdorbs_30:

(Start: 41 @21209 has 21 MA's), (46, 21191),

Gene: Aikyam_75 Start: 40510, Stop: 40911, Start Num: 45
Candidate Starts for Aikyam_75:
(21, 40264), (Start: 45 @40510 has 38 MA's), (62, 40678), (72, 40747),

Gene: Alatato_57 Start: 32552, Stop: 32914, Start Num: 45
Candidate Starts for Alatato_57:
(Start: 45 @32552 has 38 MA's), (61, 32687), (62, 32708),

Gene: AlexMinion_33 Start: 21398, Stop: 21057, Start Num: 41
Candidate Starts for AlexMinion_33:
(Start: 41 @21398 has 21 MA's),

Gene: Altadena_50 Start: 34978, Stop: 35370, Start Num: 40
Candidate Starts for Altadena_50:
(Start: 40 @34978 has 1 MA's), (56, 35077), (69, 35206), (77, 35281),

Gene: Amelia_33 Start: 21955, Stop: 21515, Start Num: 30
Candidate Starts for Amelia_33:
(15, 22189), (24, 22048), (Start: 30 @21955 has 8 MA's), (Start: 41 @21865 has 21 MA's), (81, 21532),

Gene: AmiCi24_30 Start: 21208, Stop: 20867, Start Num: 41
Candidate Starts for AmiCi24_30:
(Start: 41 @21208 has 21 MA's), (46, 21190),

Gene: Amphitrite_31 Start: 21207, Stop: 20866, Start Num: 41
Candidate Starts for Amphitrite_31:
(Start: 41 @21207 has 21 MA's), (46, 21189),

Gene: Amyev_46 Start: 34828, Stop: 35223, Start Num: 44
Candidate Starts for Amyev_46:
(7, 34264), (10, 34336), (11, 34345), (13, 34423), (26, 34654), (29, 34726), (Start: 44 @34828 has 35 MA's), (54, 34882), (67, 35008),

Gene: Andrew_32 Start: 21174, Stop: 20812, Start Num: 41
Candidate Starts for Andrew_32:
(Start: 41 @21174 has 21 MA's), (57, 21087), (70, 20958), (76, 20892),

Gene: Anekin_78 Start: 43082, Stop: 43483, Start Num: 45
Candidate Starts for Anekin_78:
(21, 42836), (Start: 45 @43082 has 38 MA's), (62, 43250), (72, 43319),

Gene: Antrice_35 Start: 22982, Stop: 22596, Start Num: 37
Candidate Starts for Antrice_35:
(Start: 37 @22982 has 3 MA's), (60, 22820), (64, 22775), (65, 22766), (80, 22634),

Gene: Ascela_45 Start: 33111, Stop: 33515, Start Num: 44
Candidate Starts for Ascela_45:
(Start: 44 @33111 has 35 MA's), (57, 33198), (67, 33291), (74, 33345), (88, 33489),

Gene: Atlantica_31 Start: 21209, Stop: 20868, Start Num: 41
Candidate Starts for Atlantica_31:
(Start: 41 @21209 has 21 MA's), (46, 21191),

Gene: Auxilium_74 Start: 40053, Stop: 40418, Start Num: 45
Candidate Starts for Auxilium_74:
(Start: 45 @40053 has 38 MA's), (55, 40116), (58, 40149), (62, 40209), (71, 40272),

Gene: Babushka_28 Start: 21123, Stop: 20782, Start Num: 41
Candidate Starts for Babushka_28:
(Start: 41 @21123 has 21 MA's), (47, 21102),

Gene: Basilisk_31 Start: 22679, Stop: 22335, Start Num: 41
Candidate Starts for Basilisk_31:
(Start: 41 @22679 has 21 MA's), (48, 22658), (49, 22652), (52, 22634), (57, 22586),

Gene: BasketStar_76 Start: 42848, Stop: 43237, Start Num: 45
Candidate Starts for BasketStar_76:
(1, 41279), (2, 41414), (3, 41525), (4, 41561), (5, 41624), (8, 42302), (17, 42518), (Start: 45 @42848 has 38 MA's), (60, 42971), (62, 43004), (64, 43019), (72, 43073), (81, 43163),

Gene: BellaJr_70 Start: 41160, Stop: 41555, Start Num: 45
Candidate Starts for BellaJr_70:
(23, 40953), (Start: 45 @41160 has 38 MA's), (48, 41184), (51, 41205), (60, 41298), (62, 41331), (84, 41529),

Gene: BenchScraper_76 Start: 41215, Stop: 41616, Start Num: 45
Candidate Starts for BenchScraper_76:
(Start: 45 @41215 has 38 MA's), (62, 41383), (72, 41452),

Gene: Bhageatrice_80 Start: 44894, Stop: 45259, Start Num: 45
Candidate Starts for Bhageatrice_80:
(Start: 45 @44894 has 38 MA's), (55, 44957), (58, 44990), (62, 45050), (71, 45113),

Gene: BillyTP_77 Start: 43046, Stop: 43435, Start Num: 45
Candidate Starts for BillyTP_77:
(Start: 45 @43046 has 38 MA's), (60, 43169), (62, 43202), (64, 43217), (72, 43271),

Gene: BlackSpider_65 Start: 39612, Stop: 40001, Start Num: 45
Candidate Starts for BlackSpider_65:
(33, 39510), (Start: 45 @39612 has 38 MA's), (60, 39735), (62, 39768), (64, 39783), (68, 39804), (72, 39837),

Gene: BlueShadow_74 Start: 42358, Stop: 42759, Start Num: 45
Candidate Starts for BlueShadow_74:
(Start: 45 @42358 has 38 MA's), (62, 42526), (72, 42595),

Gene: Brynnie_30 Start: 22557, Stop: 22213, Start Num: 41
Candidate Starts for Brynnie_30:
(Start: 41 @22557 has 21 MA's), (48, 22536), (62, 22389), (81, 22230),

Gene: Camara_31 Start: 21210, Stop: 20869, Start Num: 41
Candidate Starts for Camara_31:
(Start: 41 @21210 has 21 MA's), (46, 21192),

Gene: Cassia_45 Start: 33045, Stop: 33434, Start Num: 44
Candidate Starts for Cassia_45:

(20, 32820), (Start: 44 @33045 has 35 MA's), (54, 33099), (67, 33225), (74, 33279), (86, 33408), (89, 33426),

Gene: Cassini_73 Start: 42039, Stop: 42428, Start Num: 45

Candidate Starts for Cassini_73:

(Start: 45 @42039 has 38 MA's), (60, 42162), (64, 42210), (72, 42264),

Gene: Community_48 Start: 35107, Stop: 35478, Start Num: 44

Candidate Starts for Community_48:

(Start: 44 @35107 has 35 MA's), (58, 35209), (67, 35287), (74, 35341),

Gene: CookieBear_75 Start: 41689, Stop: 42090, Start Num: 45

Candidate Starts for CookieBear_75:

(Start: 45 @41689 has 38 MA's), (62, 41857), (72, 41926),

Gene: Coral_32 Start: 21794, Stop: 21354, Start Num: 30

Candidate Starts for Coral_32:

(9, 22211), (15, 22028), (24, 21887), (Start: 30 @21794 has 8 MA's), (Start: 41 @21704 has 21 MA's), (81, 21371),

Gene: CosmicBrownie_73 Start: 41072, Stop: 41473, Start Num: 45

Candidate Starts for CosmicBrownie_73:

(23, 40865), (Start: 45 @41072 has 38 MA's), (52, 41117), (67, 41273), (75, 41336),

Gene: Cote_34 Start: 22271, Stop: 21831, Start Num: 30

Candidate Starts for Cote_34:

(9, 22688), (15, 22505), (24, 22364), (Start: 30 @22271 has 8 MA's), (Start: 41 @22181 has 21 MA's), (81, 21848),

Gene: Crescenzo_81 Start: 44484, Stop: 44873, Start Num: 45

Candidate Starts for Crescenzo_81:

(1, 42915), (2, 43050), (3, 43161), (4, 43197), (5, 43260), (8, 43938), (17, 44154), (Start: 45 @44484 has 38 MA's), (60, 44607), (62, 44640), (64, 44655), (72, 44709), (81, 44799),

Gene: Crewmate_51 Start: 33740, Stop: 34135, Start Num: 44

Candidate Starts for Crewmate_51:

(Start: 44 @33740 has 35 MA's), (54, 33794), (67, 33920),

Gene: Cyan_46 Start: 33389, Stop: 33802, Start Num: 44

Candidate Starts for Cyan_46:

(Start: 44 @33389 has 35 MA's), (54, 33443), (67, 33569), (74, 33623), (90, 33776), (92, 33794),

Gene: Cygnet_32 Start: 22555, Stop: 22169, Start Num: 37

Candidate Starts for Cygnet_32:

(Start: 37 @22555 has 3 MA's), (80, 22207),

Gene: DanHam62_31 Start: 21209, Stop: 20868, Start Num: 41

Candidate Starts for DanHam62_31:

(Start: 41 @21209 has 21 MA's), (46, 21191),

Gene: Daob_34 Start: 22289, Stop: 21849, Start Num: 30

Candidate Starts for Daob_34:

(15, 22523), (24, 22382), (Start: 30 @22289 has 8 MA's), (Start: 41 @22199 has 21 MA's), (81, 21866),

Gene: DarwinJr_81 Start: 44439, Stop: 44828, Start Num: 45

Candidate Starts for DarwinJr_81:

(1, 42870), (2, 43005), (3, 43116), (4, 43152), (5, 43215), (8, 43893), (17, 44109), (Start: 45 @44439 has 38 MA's), (60, 44562), (62, 44595), (64, 44610), (72, 44664), (81, 44754),

Gene: Ding_76 Start: 42235, Stop: 42624, Start Num: 45

Candidate Starts for Ding_76:

(17, 41905), (18, 41920), (Start: 45 @42235 has 38 MA's), (52, 42268), (60, 42358), (62, 42391), (67, 42424), (68, 42427), (71, 42454), (72, 42460), (82, 42571),

Gene: DrSierra_43 Start: 31383, Stop: 31799, Start Num: 44

Candidate Starts for DrSierra_43:

(Start: 44 @31383 has 35 MA's), (67, 31566), (74, 31620), (90, 31773), (92, 31791),

Gene: EvePickles_75 Start: 42959, Stop: 43348, Start Num: 45

Candidate Starts for EvePickles_75:

(Start: 45 @42959 has 38 MA's), (60, 43082), (62, 43115), (64, 43130), (72, 43184),

Gene: Faja_79 Start: 43731, Stop: 44132, Start Num: 45

Candidate Starts for Faja_79:

(Start: 45 @43731 has 38 MA's), (62, 43899), (72, 43968),

Gene: Fingolfin_31 Start: 21210, Stop: 20869, Start Num: 41

Candidate Starts for Fingolfin_31:

(Start: 41 @21210 has 21 MA's), (46, 21192),

Gene: Flutur_45 Start: 33645, Stop: 34058, Start Num: 44

Candidate Starts for Flutur_45:

(16, 33315), (Start: 44 @33645 has 35 MA's), (54, 33699), (67, 33825), (74, 33879), (90, 34032), (92, 34050),

Gene: Globfish_76 Start: 41426, Stop: 41815, Start Num: 45

Candidate Starts for Globfish_76:

(Start: 45 @41426 has 38 MA's), (60, 41549), (62, 41582), (64, 41597), (72, 41651),

Gene: Glotell_32 Start: 21366, Stop: 21025, Start Num: 41

Candidate Starts for Glotell_32:

(Start: 41 @21366 has 21 MA's), (46, 21348),

Gene: GoldDust_45 Start: 35305, Stop: 35673, Start Num: 44

Candidate Starts for GoldDust_45:

(Start: 44 @35305 has 35 MA's), (62, 35458), (67, 35491), (69, 35506),

Gene: Gooberta_45 Start: 35304, Stop: 35672, Start Num: 44

Candidate Starts for Gooberta_45:

(Start: 44 @35304 has 35 MA's), (62, 35457), (67, 35490), (69, 35505),

Gene: Gorpy_74 Start: 42930, Stop: 43331, Start Num: 45

Candidate Starts for Gorpy_74:

(21, 42684), (Start: 45 @42930 has 38 MA's), (62, 43098), (72, 43167),

Gene: GumGum_81 Start: 42873, Stop: 43274, Start Num: 45

Candidate Starts for GumGum_81:

(Start: 45 @42873 has 38 MA's), (62, 43041), (72, 43110),

Gene: HamCheese_31 Start: 21194, Stop: 20853, Start Num: 41

Candidate Starts for HamCheese_31:

(Start: 41 @21194 has 21 MA's), (46, 21176),

Gene: HannahPhantana_33 Start: 21951, Stop: 21511, Start Num: 30

Candidate Starts for HannahPhantana_33:

(15, 22185), (24, 22044), (Start: 30 @21951 has 8 MA's), (Start: 41 @21861 has 21 MA's), (81, 21528),

Gene: Hestia_70 Start: 39954, Stop: 40355, Start Num: 45

Candidate Starts for Hestia_70:

(Start: 45 @39954 has 38 MA's), (62, 40122), (72, 40191),

Gene: Hillester_80 Start: 42975, Stop: 43364, Start Num: 45

Candidate Starts for Hillester_80:

(1, 41406), (2, 41541), (3, 41652), (4, 41688), (5, 41751), (8, 42429), (17, 42645), (Start: 45 @42975 has 38 MA's), (60, 43098), (62, 43131), (64, 43146), (72, 43200), (81, 43290),

Gene: Hirko_43 Start: 34532, Stop: 34897, Start Num: 44

Candidate Starts for Hirko_43:

(Start: 44 @34532 has 35 MA's), (62, 34685), (67, 34718), (69, 34733), (78, 34814),

Gene: IUFootball_46 Start: 34755, Stop: 35162, Start Num: 44

Candidate Starts for IUFootball_46:

(39, 34737), (Start: 44 @34755 has 35 MA's), (53, 34800), (57, 34845), (58, 34860),

Gene: Isolde_74 Start: 41800, Stop: 42201, Start Num: 45

Candidate Starts for Isolde_74:

(32, 41689), (Start: 45 @41800 has 38 MA's), (62, 41968), (72, 42037),

Gene: Iter_45 Start: 33105, Stop: 33509, Start Num: 44

Candidate Starts for Iter_45:

(Start: 44 @33105 has 35 MA's), (57, 33192), (67, 33285), (74, 33339), (88, 33483), (91, 33501),

Gene: IttyBittyPiggy_46 Start: 32844, Stop: 33215, Start Num: 44

Candidate Starts for IttyBittyPiggy_46:

(Start: 44 @32844 has 35 MA's), (54, 32898), (67, 33024), (74, 33078),

Gene: JakeTheSnake_79 Start: 44784, Stop: 45149, Start Num: 45

Candidate Starts for JakeTheSnake_79:

(Start: 45 @44784 has 38 MA's), (52, 44817), (58, 44880), (62, 44940), (71, 45003),

Gene: Jamun_29 Start: 21575, Stop: 21234, Start Num: 41

Candidate Starts for Jamun_29:

(Start: 41 @21575 has 21 MA's), (57, 21482), (75, 21311), (80, 21251), (81, 21248),

Gene: Janeemi_48 Start: 35112, Stop: 35516, Start Num: 44

Candidate Starts for Janeemi_48:

(Start: 44 @35112 has 35 MA's), (67, 35292), (74, 35346), (88, 35490), (91, 35508),

Gene: JellyBread_73 Start: 41945, Stop: 42346, Start Num: 45

Candidate Starts for JellyBread_73:
(Start: 45 @41945 has 38 MA's), (62, 42113), (72, 42182),

Gene: Jerole_33 Start: 22074, Stop: 21634, Start Num: 30
Candidate Starts for Jerole_33:
(15, 22308), (24, 22167), (Start: 30 @22074 has 8 MA's), (Start: 41 @21984 has 21 MA's), (81, 21651),

Gene: Joemato_46 Start: 33415, Stop: 33828, Start Num: 44
Candidate Starts for Joemato_46:
(16, 33085), (Start: 44 @33415 has 35 MA's), (54, 33469), (67, 33595), (74, 33649), (90, 33802), (92, 33820),

Gene: JohnDoe_46 Start: 33411, Stop: 33824, Start Num: 44
Candidate Starts for JohnDoe_46:
(16, 33081), (Start: 44 @33411 has 35 MA's), (54, 33465), (67, 33591), (74, 33645), (90, 33798), (92, 33816),

Gene: JuneStar_48 Start: 35661, Stop: 36011, Start Num: 44
Candidate Starts for JuneStar_48:
(Start: 44 @35661 has 35 MA's), (54, 35715), (67, 35841),

Gene: Juno112_30 Start: 21210, Stop: 20869, Start Num: 41
Candidate Starts for Juno112_30:
(Start: 41 @21210 has 21 MA's), (46, 21192),

Gene: Kabloowy_76 Start: 42829, Stop: 43230, Start Num: 45
Candidate Starts for Kabloowy_76:
(Start: 45 @42829 has 38 MA's), (62, 42997), (72, 43066),

Gene: Kaylissa_47 Start: 33807, Stop: 34220, Start Num: 44
Candidate Starts for Kaylissa_47:
(Start: 44 @33807 has 35 MA's), (54, 33861), (67, 33987), (74, 34041), (90, 34194), (92, 34212),

Gene: Kepler_33 Start: 22238, Stop: 21798, Start Num: 30
Candidate Starts for Kepler_33:
(15, 22472), (24, 22331), (Start: 30 @22238 has 8 MA's), (Start: 41 @22148 has 21 MA's), (81, 21815),

Gene: Laphuphu24k_30 Start: 21194, Stop: 20853, Start Num: 41
Candidate Starts for Laphuphu24k_30:
(Start: 41 @21194 has 21 MA's), (46, 21176),

Gene: Lasker_78 Start: 43324, Stop: 43713, Start Num: 45
Candidate Starts for Lasker_78:
(1, 41755), (2, 41890), (3, 42001), (4, 42037), (5, 42100), (8, 42778), (17, 42994), (Start: 45 @43324 has 38 MA's), (60, 43447), (62, 43480), (64, 43495), (72, 43549), (81, 43639),

Gene: Lawnathon_78 Start: 42050, Stop: 42439, Start Num: 45
Candidate Starts for Lawnathon_78:
(Start: 45 @42050 has 38 MA's), (60, 42173), (62, 42206), (64, 42221), (72, 42275),

Gene: LeBruni_77 Start: 41868, Stop: 42263, Start Num: 45
Candidate Starts for LeBruni_77:

(Start: 45 @41868 has 38 MA's), (51, 41913), (60, 42006), (62, 42039), (74, 42126), (75, 42135), (84, 42237),

Gene: Lego_45 Start: 33126, Stop: 33539, Start Num: 44

Candidate Starts for Lego_45:

(Start: 44 @33126 has 35 MA's), (54, 33180), (67, 33306), (74, 33360), (90, 33513), (92, 33531),

Gene: Leona_30 Start: 21281, Stop: 20940, Start Num: 41

Candidate Starts for Leona_30:

(Start: 41 @21281 has 21 MA's), (59, 21173), (60, 21152),

Gene: Liebe_46 Start: 34755, Stop: 35162, Start Num: 44

Candidate Starts for Liebe_46:

(39, 34737), (Start: 44 @34755 has 35 MA's), (53, 34800), (57, 34845), (58, 34860),

Gene: Lizalica_44 Start: 32567, Stop: 32941, Start Num: 44

Candidate Starts for Lizalica_44:

(Start: 44 @32567 has 35 MA's), (58, 32672), (67, 32750), (74, 32804),

Gene: Lunar_33 Start: 22122, Stop: 21499, Start Num: 19

Candidate Starts for Lunar_33:

(14, 22215), (Start: 19 @22122 has 1 MA's), (24, 22032), (Start: 30 @21939 has 8 MA's), (Start: 41 @21849 has 21 MA's), (81, 21516),

Gene: MUWow_78 Start: 43655, Stop: 44044, Start Num: 45

Candidate Starts for MUWow_78:

(21, 43409), (Start: 45 @43655 has 38 MA's), (60, 43778), (62, 43811), (64, 43826), (72, 43880),

Gene: MaGuCo_43 Start: 33237, Stop: 33617, Start Num: 44

Candidate Starts for MaGuCo_43:

(34, 33171), (36, 33189), (Start: 44 @33237 has 35 MA's), (47, 33249), (53, 33282), (57, 33327), (58, 33342), (63, 33396),

Gene: Mapleville_72 Start: 41369, Stop: 41770, Start Num: 45

Candidate Starts for Mapleville_72:

(Start: 45 @41369 has 38 MA's), (62, 41537), (72, 41606),

Gene: Maruru_65 Start: 44640, Stop: 45053, Start Num: 38

Candidate Starts for Maruru_65:

(27, 44490), (Start: 38 @44640 has 2 MA's), (55, 44730), (57, 44748), (69, 44871), (73, 44895),

Gene: MaterMagnus_76 Start: 42682, Stop: 43083, Start Num: 45

Candidate Starts for MaterMagnus_76:

(21, 42436), (Start: 45 @42682 has 38 MA's), (62, 42850), (72, 42919),

Gene: Maureen_46 Start: 34755, Stop: 35162, Start Num: 44

Candidate Starts for Maureen_46:

(39, 34737), (Start: 44 @34755 has 35 MA's), (53, 34800), (57, 34845), (58, 34860),

Gene: Melons_33 Start: 21939, Stop: 21499, Start Num: 30

Candidate Starts for Melons_33:

(24, 22032), (Start: 30 @21939 has 8 MA's), (Start: 41 @21849 has 21 MA's), (81, 21516),

Gene: MidnightRain_81 Start: 43270, Stop: 43659, Start Num: 45
Candidate Starts for MidnightRain_81:
(Start: 45 @43270 has 38 MA's), (60, 43393), (62, 43426), (64, 43441), (72, 43495),

Gene: Mudpuppy_42 Start: 33064, Stop: 33480, Start Num: 44
Candidate Starts for Mudpuppy_42:
(Start: 44 @33064 has 35 MA's), (54, 33118), (67, 33244), (74, 33298), (90, 33454), (92, 33472),

Gene: Mufasa8_70 Start: 44952, Stop: 45344, Start Num: 41
Candidate Starts for Mufasa8_70:
(28, 44829), (35, 44901), (Start: 41 @44952 has 21 MA's), (56, 45045),

Gene: MurphyJoseph_72 Start: 40710, Stop: 41099, Start Num: 45
Candidate Starts for MurphyJoseph_72:
(Start: 45 @40710 has 38 MA's), (60, 40833), (62, 40866), (64, 40881), (72, 40935), (81, 41025),

Gene: Music_44 Start: 34907, Stop: 35269, Start Num: 44
Candidate Starts for Music_44:
(Start: 44 @34907 has 35 MA's), (54, 34958), (67, 35090),

Gene: NewKitty_78 Start: 43640, Stop: 44041, Start Num: 45
Candidate Starts for NewKitty_78:
(Start: 45 @43640 has 38 MA's), (62, 43808), (66, 43835), (72, 43877),

Gene: Nitro_44 Start: 33699, Stop: 34070, Start Num: 44
Candidate Starts for Nitro_44:
(Start: 44 @33699 has 35 MA's), (57, 33786), (67, 33879), (74, 33933), (83, 34026),

Gene: ObiToo_51 Start: 34185, Stop: 34577, Start Num: 44
Candidate Starts for ObiToo_51:
(Start: 44 @34185 has 35 MA's), (54, 34239), (67, 34365), (87, 34551), (89, 34569),

Gene: Oppalora_30 Start: 21208, Stop: 20867, Start Num: 41
Candidate Starts for Oppalora_30:
(Start: 41 @21208 has 21 MA's), (46, 21190),

Gene: Persistence_70 Start: 40343, Stop: 40708, Start Num: 45
Candidate Starts for Persistence_70:
(Start: 45 @40343 has 38 MA's), (52, 40376), (54, 40391), (58, 40439), (62, 40499), (71, 40562),

Gene: Phives_50 Start: 35604, Stop: 36011, Start Num: 43
Candidate Starts for Phives_50:
(Start: 43 @35604 has 1 MA's), (67, 35787), (74, 35841), (83, 35934), (88, 35985), (91, 36003),

Gene: PhluffyCoco_31 Start: 21194, Stop: 20853, Start Num: 41
Candidate Starts for PhluffyCoco_31:
(Start: 41 @21194 has 21 MA's), (46, 21176),

Gene: Phrank15_80 Start: 42781, Stop: 43146, Start Num: 45
Candidate Starts for Phrank15_80:
(Start: 30 @42679 has 8 MA's), (Start: 45 @42781 has 38 MA's), (52, 42814), (56, 42856), (58, 42877),
(62, 42937), (71, 43000),

Gene: Pixelle_47 Start: 35172, Stop: 35567, Start Num: 44

Candidate Starts for Pixelle_47:

(Start: 44 @35172 has 35 MA's), (54, 35226), (67, 35352),

Gene: Powerpuff_48 Start: 34514, Stop: 34927, Start Num: 44

Candidate Starts for Powerpuff_48:

(Start: 44 @34514 has 35 MA's), (54, 34568), (67, 34694), (74, 34748), (90, 34901), (92, 34919),

Gene: Pumpkins_45 Start: 33566, Stop: 33961, Start Num: 44

Candidate Starts for Pumpkins_45:

(Start: 44 @33566 has 35 MA's), (54, 33620), (67, 33749),

Gene: RadFad_81 Start: 42975, Stop: 43364, Start Num: 45

Candidate Starts for RadFad_81:

(1, 41406), (2, 41541), (3, 41652), (4, 41688), (5, 41751), (8, 42429), (17, 42645), (Start: 45 @42975 has 38 MA's), (60, 43098), (62, 43131), (64, 43146), (72, 43200), (81, 43290),

Gene: Raphaella_77 Start: 41746, Stop: 42147, Start Num: 45

Candidate Starts for Raphaella_77:

(Start: 45 @41746 has 38 MA's), (62, 41914), (72, 41983),

Gene: Raqqa_74 Start: 42460, Stop: 42840, Start Num: 48

Candidate Starts for Raqqa_74:

(Start: 45 @42436 has 38 MA's), (48, 42460), (51, 42481), (60, 42574), (62, 42607), (75, 42703),

Gene: Rattail_31 Start: 21290, Stop: 20949, Start Num: 41

Candidate Starts for Rattail_31:

(Start: 41 @21290 has 21 MA's), (46, 21272),

Gene: RedFox_31 Start: 21207, Stop: 20866, Start Num: 41

Candidate Starts for RedFox_31:

(Start: 41 @21207 has 21 MA's), (46, 21189),

Gene: Renna12_30 Start: 21228, Stop: 20887, Start Num: 41

Candidate Starts for Renna12_30:

(Start: 41 @21228 has 21 MA's), (47, 21207),

Gene: Richie_79 Start: 43614, Stop: 44015, Start Num: 45

Candidate Starts for Richie_79:

(21, 43368), (Start: 45 @43614 has 38 MA's), (62, 43782), (72, 43851),

Gene: Ruchi_30 Start: 22625, Stop: 22281, Start Num: 41

Candidate Starts for Ruchi_30:

(Start: 41 @22625 has 21 MA's), (48, 22604), (52, 22580), (57, 22532), (81, 22298),

Gene: Sakai_73 Start: 41641, Stop: 42042, Start Num: 45

Candidate Starts for Sakai_73:

(21, 41395), (Start: 45 @41641 has 38 MA's), (62, 41809), (72, 41878),

Gene: Sashimi_74 Start: 42326, Stop: 42715, Start Num: 45

Candidate Starts for Sashimi_74:

(Start: 45 @42326 has 38 MA's), (60, 42449), (72, 42551), (81, 42641),

Gene: Schaffner_46 Start: 33571, Stop: 33933, Start Num: 44
Candidate Starts for Schaffner_46:
(Start: 44 @33571 has 35 MA's), (54, 33625), (67, 33751), (74, 33805),

Gene: Seahorse_84 Start: 47304, Stop: 47699, Start Num: 45
Candidate Starts for Seahorse_84:
(Start: 45 @47304 has 38 MA's), (51, 47349), (62, 47475), (75, 47571), (84, 47673),

Gene: Shukran_73 Start: 41223, Stop: 41588, Start Num: 45
Candidate Starts for Shukran_73:
(22, 41013), (31, 41118), (42, 41211), (Start: 45 @41223 has 38 MA's), (52, 41256), (58, 41319), (62, 41379),

Gene: Simpson_48 Start: 33419, Stop: 33832, Start Num: 44
Candidate Starts for Simpson_48:
(16, 33089), (Start: 44 @33419 has 35 MA's), (54, 33473), (67, 33599), (74, 33653), (90, 33806), (92, 33824),

Gene: SonDevVon_83 Start: 42690, Stop: 43091, Start Num: 45
Candidate Starts for SonDevVon_83:
(21, 42444), (Start: 45 @42690 has 38 MA's), (62, 42858), (72, 42927),

Gene: Sonali_65 Start: 45108, Stop: 45521, Start Num: 38
Candidate Starts for Sonali_65:
(27, 44958), (Start: 38 @45108 has 2 MA's), (55, 45198), (57, 45216), (69, 45339), (73, 45363),

Gene: SpicyFrank_78 Start: 42043, Stop: 42432, Start Num: 45
Candidate Starts for SpicyFrank_78:
(Start: 45 @42043 has 38 MA's), (60, 42166), (62, 42199), (64, 42214), (72, 42268),

Gene: Sporco_78 Start: 43426, Stop: 43827, Start Num: 45
Candidate Starts for Sporco_78:
(Start: 45 @43426 has 38 MA's), (62, 43594), (72, 43663),

Gene: Sunshine23_66 Start: 44762, Stop: 45172, Start Num: 38
Candidate Starts for Sunshine23_66:
(27, 44612), (Start: 38 @44762 has 2 MA's), (50, 44810), (55, 44852), (57, 44870), (62, 44945), (69, 44993), (73, 45017),

Gene: TaylorSipht_30 Start: 21627, Stop: 21286, Start Num: 41
Candidate Starts for TaylorSipht_30:
(Start: 41 @21627 has 21 MA's), (48, 21606), (57, 21534), (75, 21363), (80, 21303),

Gene: Tbone_46 Start: 33975, Stop: 34388, Start Num: 44
Candidate Starts for Tbone_46:
(26, 33801), (29, 33873), (Start: 44 @33975 has 35 MA's), (54, 34029), (67, 34155), (74, 34209), (90, 34362), (92, 34380),

Gene: ThayneTheZag_81 Start: 42670, Stop: 43059, Start Num: 45
Candidate Starts for ThayneTheZag_81:
(Start: 45 @42670 has 38 MA's), (60, 42793), (62, 42826), (64, 42841), (72, 42895),

Gene: ThursdayNight_48 Start: 33913, Stop: 34314, Start Num: 44

Candidate Starts for ThursdayNight_48:

(Start: 44 @33913 has 35 MA's), (58, 34021), (67, 34105), (79, 34225), (85, 34288),

Gene: Tian_45 Start: 34828, Stop: 35223, Start Num: 44

Candidate Starts for Tian_45:

(7, 34264), (10, 34336), (11, 34345), (13, 34423), (26, 34654), (29, 34726), (Start: 44 @34828 has 35 MA's), (54, 34882), (67, 35008),

Gene: Tiff81_72 Start: 40921, Stop: 41316, Start Num: 45

Candidate Starts for Tiff81_72:

(Start: 45 @40921 has 38 MA's), (51, 40966), (62, 41092), (75, 41188), (84, 41290),

Gene: Tuck_49 Start: 35489, Stop: 35893, Start Num: 44

Candidate Starts for Tuck_49:

(Start: 44 @35489 has 35 MA's), (67, 35669), (74, 35723), (83, 35816), (88, 35867), (91, 35885),

Gene: Tutumahutu_47 Start: 33397, Stop: 33810, Start Num: 44

Candidate Starts for Tutumahutu_47:

(Start: 44 @33397 has 35 MA's), (54, 33451), (67, 33577), (74, 33631), (90, 33784), (92, 33802),

Gene: Vibaki_44 Start: 34927, Stop: 35295, Start Num: 44

Candidate Starts for Vibaki_44:

(Start: 44 @34927 has 35 MA's), (62, 35080), (67, 35113), (69, 35128),

Gene: Vitus_45 Start: 33911, Stop: 34246, Start Num: 44

Candidate Starts for Vitus_45:

(Start: 44 @33911 has 35 MA's), (62, 34061), (67, 34094),

Gene: Vulpecula_30 Start: 22301, Stop: 21957, Start Num: 41

Candidate Starts for Vulpecula_30:

(Start: 41 @22301 has 21 MA's), (48, 22280), (52, 22256), (57, 22208),

Gene: Warda_46 Start: 33470, Stop: 33874, Start Num: 44

Candidate Starts for Warda_46:

(Start: 44 @33470 has 35 MA's), (54, 33524), (67, 33650), (74, 33704), (90, 33848),

Gene: Wildwest_45 Start: 33392, Stop: 33811, Start Num: 44

Candidate Starts for Wildwest_45:

(6, 32825), (12, 32918), (26, 33218), (Start: 30 @33290 has 8 MA's), (Start: 44 @33392 has 35 MA's), (67, 33578), (90, 33785), (92, 33803),

Gene: WileyE_31 Start: 21694, Stop: 21350, Start Num: 41

Candidate Starts for WileyE_31:

(Start: 41 @21694 has 21 MA's), (48, 21673), (57, 21601), (75, 21430), (81, 21367),

Gene: Windest_80 Start: 41108, Stop: 41497, Start Num: 45

Candidate Starts for Windest_80:

(Start: 45 @41108 has 38 MA's), (60, 41231), (62, 41264), (64, 41279), (72, 41333),

Gene: YesChef_46 Start: 33373, Stop: 33786, Start Num: 44

Candidate Starts for YesChef_46:

(Start: 44 @33373 has 35 MA's), (54, 33427), (67, 33553), (74, 33607), (90, 33760), (92, 33778),

Gene: YoungHarleezy_76 Start: 42016, Stop: 42417, Start Num: 45

Candidate Starts for YoungHarleezy_76:

(Start: 45 @42016 has 38 MA's), (62, 42184), (72, 42253),

Gene: Zhuangyuan_35 Start: 22960, Stop: 22577, Start Num: 37

Candidate Starts for Zhuangyuan_35:

(25, 23122), (Start: 37 @22960 has 3 MA's), (65, 22747), (80, 22615),

Gene: Zucker_73 Start: 43088, Stop: 43483, Start Num: 45

Candidate Starts for Zucker_73:

(23, 42881), (Start: 45 @43088 has 38 MA's), (51, 43133), (60, 43226), (62, 43259), (84, 43457),