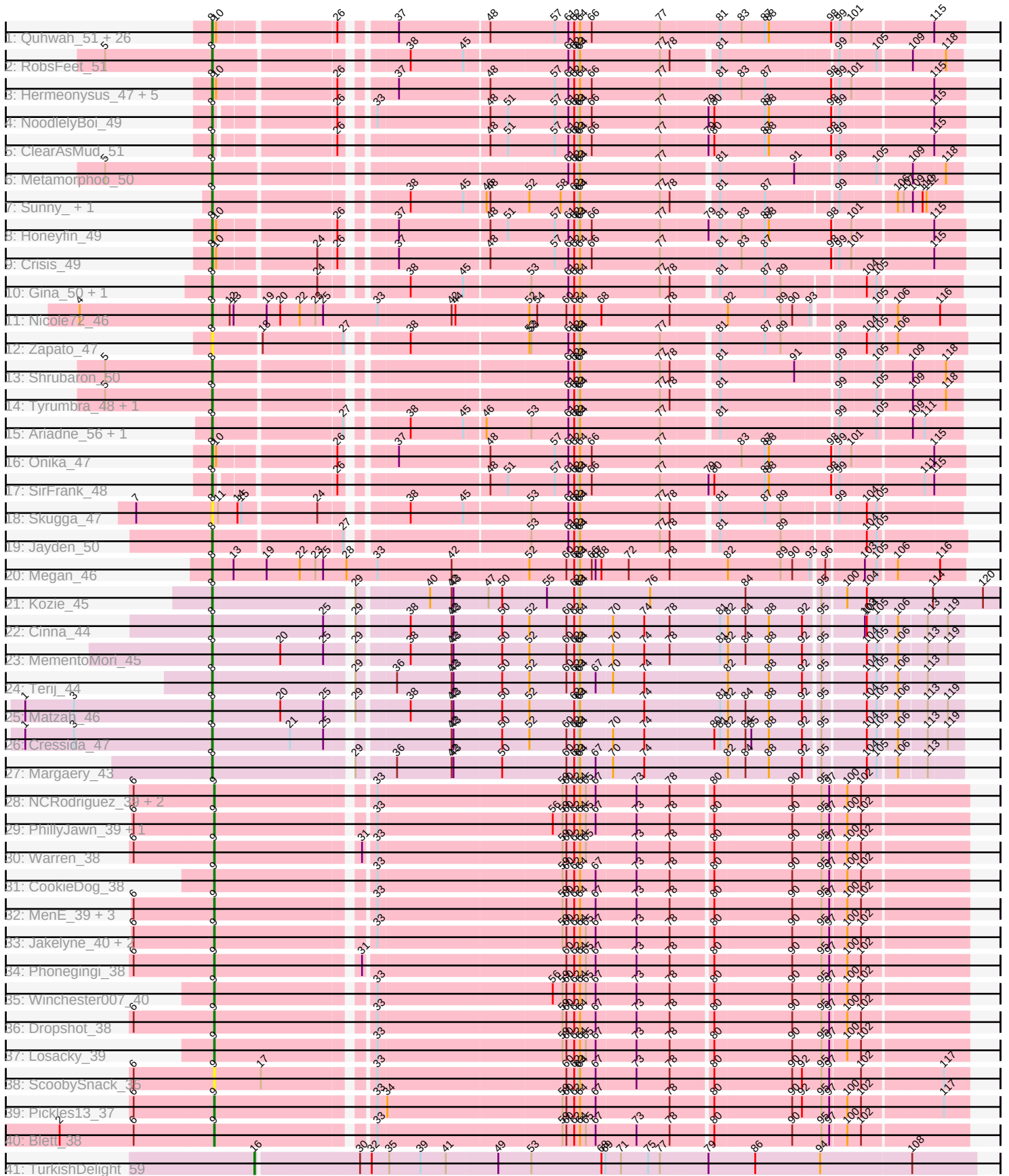


Pham 330739



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 330739 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330739 has 84 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Quhwah_51, BrazzalePHS_47, KaiHaiDragon_48, CrazyRich_47, Germa_49, Rockwell_47, Busephilis_47, EarickHC_48, Paschalis_47, Savannah_47, Jefe_48, PierreOrion_48, Ganandorf_47, Phrancesco_48, Selwyn23_49, Lucretia_48, BeagleBug_47, Ramiel05_47, Yeti_48, Shotgun_47, Cranjis_49, Jollipop_48, Pulchra_49, PiperSansNom_48, PhedwardCullen_47, Antares_48, Kowalski_47
- Track 2 : RobsFeet_51
- Track 3 : Hermeonysus_47, Glorp_49, Scumberland_49, Phorgeous_47, Piperis_48, LittleFortune_49
- Track 4 : NoodlelyBoi_49
- Track 5 : ClearAsMud_51
- Track 6 : Metamorphoo_50
- Track 7 : Sunny_, Merry_
- Track 8 : Honeyfin_49
- Track 9 : Crisis_49
- Track 10 : Gina_50, Teamocil_50
- Track 11 : Nicole72_46
- Track 12 : Zapato_47
- Track 13 : Shrubaron_50
- Track 14 : Tyrumbra_48, Fireman_50
- Track 15 : Ariadne_56, Smarties_56
- Track 16 : Onika_47
- Track 17 : SirFrank_48
- Track 18 : Skugga_47
- Track 19 : Jayden_50
- Track 20 : Megan_46
- Track 21 : Kozie_45
- Track 22 : Cinna_44
- Track 23 : MementoMori_45
- Track 24 : Terij_44
- Track 25 : Matzah_46
- Track 26 : Cressida_47
- Track 27 : Margaery_43
- Track 28 : NCRodriguez_39, Bush_39, Phingu_41
- Track 29 : PhillyJawn_39, Appa_38
- Track 30 : Warren_38
- Track 31 : CookieDog_38
- Track 32 : MenE_39, Carrillo_40, Violeta_40, Antuna_39

- Track 33 : Jakelyne_40, Mariel_39, Guzman_38
- Track 34 : Phonegingi_38
- Track 35 : Winchester007_40
- Track 36 : Dropshot_38
- Track 37 : Losacky_39
- Track 38 : ScoobySnack_35
- Track 39 : Pickles13_37
- Track 40 : Blett_38
- Track 41 : TurkishDelight_59

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

The start number called the most often in the published annotations is 8, it was called in 56 of the 74 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_48, Ariadne_56, BeagleBug_47, BrazzalePHS_47, Busephilis_47, Cinna_44, ClearAsMud_51, Cranjis_49, CrazyRich_47, Cressida_47, Crisis_49, EarickHC_48, Fireman_50, Ganandorf_47, Germa_49, Gina_50, Glorp_49, Hermeonysus_47, Honeyfin_49, Jayden_50, Jefe_48, Jollipop_48, KaiHaiDragon_48, Kowalski_47, Kozi_45, LittleFortune_49, Lucretia_48, Margaery_43, Matzah_46, Megan_46, MementoMori_45, Merry_, Metamorphoo_50, Nicole72_46, NoodlelyBoi_49, Onika_47, Paschalis_47, PhedwardCullen_47, Phorgeous_47, Phrancesco_48, PierreOrion_48, PiperSansNom_48, Piperis_48, Pulchra_49, Quhwah_51, Ramiel05_47, RobsFeet_51, Rockwell_47, Savannah_47, Scumberland_49, Selwyn23_49, Shotgun_47, Shrubaron_50, SirFrank_48, Skugga_47, Smarties_56, Sunny_, Teamocil_50, Terij_44, Tyrumbra_48, Yeti_48, Zapato_47,

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

-

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

- Antuna_39, Appa_38, Blett_38, Bush_39, Carrillo_40, CookieDog_38, Dropshot_38, Guzman_38, Jakelyne_40, Losacky_39, Mariel_39, MenE_39, NCRodriguez_39, PhillyJawn_39, Phingu_41, Phonegingi_38, Pickles13_37, ScoobySnack_35, TurkishDelight_59, Violeta_40, Warren_38, Winchester007_40,

Summary by start number:

Start 8:

- Found in 62 of 84 (73.8%) of genes in pham
- Manual Annotations of this start: 56 of 74
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_48 (EC), Ariadne_56 (EC), BeagleBug_47 (EC), BrazzalePHS_47 (EC), Busephilis_47 (EC), Cinna_44 (EI), ClearAsMud_51 (EC), Cranjis_49 (EC), CrazyRich_47 (EC), Cressida_47 (EI), Crisis_49 (EC), EarickHC_48 (EC), Fireman_50 (EC), Ganandorf_47 (EC), Germa_49 (EC), Gina_50 (EC), Glorp_49 (EC), Hermeonysus_47 (EC), Honeyfin_49 (EC), Jayden_50 (EC), Jefe_48 (EC), Jollipop_48 (EC), KaiHaiDragon_48 (EC),

Kowalski_47 (EC), Kozié_45 (EI), LittleFortune_49 (EC), Lucretia_48 (EC), Margaery_43 (EI), Matzah_46 (EI), Megan_46 (EC), MementoMori_45 (EI), Merry_ (EC), Metamorphoo_50 (EC), Nicole72_46 (EC), NoodlelyBoi_49 (EC), Onika_47 (EC), Paschalis_47 (EC), PhedwardCullen_47 (EC), Phorgeous_47 (EC), Phrancesco_48 (EC), PierreOrion_48 (EC), PiperSansNom_48 (EC), Piperis_48 (EC), Pulchra_49 (EC), Quhwah_51 (EC), Ramiel05_47 (EC), RobsFeet_51 (EC), Rockwell_47 (EC), Savannah_47 (EC), Scumberland_49 (EC), Selwyn23_49 (EC), Shotgun_47 (EC), Shrubaron_50 (EC), SirFrank_48 (EC), Skugga_47 (EC), Smarties_56 (EC), Sunny_ (EC), Teamocil_50 (EC), Terij_44 (EI), Tyumbra_48 (EC), Yeti_48 (EC), Zapato_47 (EC),

Start 9:

- Found in 21 of 84 (25.0%) of genes in pham
- Manual Annotations of this start: 17 of 74
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antuna_39 (GA), Appa_38 (GA), Blett_38 (GA), Bush_39 (GA), Carrillo_40 (GA), CookieDog_38 (GA), Dropshot_38 (GA), Guzman_38 (GA), Jakelyne_40 (GA), Losacky_39 (GA), Mariel_39 (GA), MenE_39 (GA), NCRodriguez_39 (GA), PhillyJawn_39 (GA), Phingu_41 (GA), Phonegingi_38 (GA), Pickles13_37 (GA), ScoobySnack_35 (GA), Violeta_40 (GA), Warren_38 (GA), Winchester007_40 (GA),

Start 16:

- Found in 1 of 84 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 74
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TurkishDelight_59 (singleton),

Summary by clusters:

There are 4 clusters represented in this pham: singleton, EI, GA, EC,

Info for manual annotations of cluster EC:

- Start number 8 was manually annotated 49 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 8 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster GA:

- Start number 9 was manually annotated 17 times for cluster GA.

Gene Information:

Gene: Antares_48 Start: 32715, Stop: 33788, Start Num: 8

Candidate Starts for Antares_48:

(Start: 8 @32715 has 56 MA's), (10, 32721), (26, 32889), (37, 32952), (48, 33087), (57, 33186), (61, 33207), (62, 33216), (64, 33225), (66, 33243), (77, 33348), (81, 33435), (83, 33462), (87, 33498), (88, 33504), (98, 33600), (99, 33609), (101, 33627), (115, 33741),

Gene: Antuna_39 Start: 23251, Stop: 24342, Start Num: 9

Candidate Starts for Antuna_39:

(6, 23131), (Start: 9 @23251 has 17 MA's), (33, 23473), (59, 23749), (60, 23755), (62, 23767), (64, 23776), (67, 23800), (73, 23860), (78, 23911), (80, 23971), (90, 24085), (95, 24130), (97, 24142), (100, 24166), (102, 24187),

Gene: Appa_38 Start: 23128, Stop: 24219, Start Num: 9

Candidate Starts for Appa_38:

(6, 23008), (Start: 9 @23128 has 17 MA's), (33, 23350), (56, 23611), (59, 23626), (60, 23632), (62, 23644), (64, 23653), (65, 23662), (67, 23677), (73, 23737), (78, 23788), (80, 23848), (90, 23962), (95, 24007), (97, 24019), (100, 24043), (102, 24064),

Gene: Ariadne_56 Start: 34302, Stop: 35345, Start Num: 8

Candidate Starts for Ariadne_56:

(Start: 8 @34302 has 56 MA's), (27, 34488), (38, 34560), (45, 34641), (46, 34668), (53, 34734), (61, 34791), (62, 34800), (63, 34806), (64, 34809), (77, 34932), (81, 35010), (99, 35175), (105, 35229), (109, 35274), (111, 35292),

Gene: BeagleBug_47 Start: 32496, Stop: 33569, Start Num: 8

Candidate Starts for BeagleBug_47:

(Start: 8 @32496 has 56 MA's), (10, 32502), (26, 32670), (37, 32733), (48, 32868), (57, 32967), (61, 32988), (62, 32997), (64, 33006), (66, 33024), (77, 33129), (81, 33216), (83, 33243), (87, 33279), (88, 33285), (98, 33381), (99, 33390), (101, 33408), (115, 33522),

Gene: Blett_38 Start: 23308, Stop: 24399, Start Num: 9

Candidate Starts for Blett_38:

(2, 23074), (6, 23188), (Start: 9 @23308 has 17 MA's), (33, 23530), (59, 23806), (60, 23812), (62, 23824), (64, 23833), (65, 23842), (67, 23857), (73, 23917), (78, 23968), (80, 24028), (90, 24142), (95, 24187), (97, 24199), (100, 24223), (102, 24244),

Gene: BrazzalePHS_47 Start: 32510, Stop: 33583, Start Num: 8

Candidate Starts for BrazzalePHS_47:

(Start: 8 @32510 has 56 MA's), (10, 32516), (26, 32684), (37, 32747), (48, 32882), (57, 32981), (61, 33002), (62, 33011), (64, 33020), (66, 33038), (77, 33143), (81, 33230), (83, 33257), (87, 33293), (88, 33299), (98, 33395), (99, 33404), (101, 33422), (115, 33536),

Gene: Busephilis_47 Start: 32451, Stop: 33524, Start Num: 8

Candidate Starts for Busephilis_47:

(Start: 8 @32451 has 56 MA's), (10, 32457), (26, 32625), (37, 32688), (48, 32823), (57, 32922), (61, 32943), (62, 32952), (64, 32961), (66, 32979), (77, 33084), (81, 33171), (83, 33198), (87, 33234), (88, 33240), (98, 33336), (99, 33345), (101, 33363), (115, 33477),

Gene: Bush_39 Start: 23256, Stop: 24347, Start Num: 9

Candidate Starts for Bush_39:

(6, 23136), (Start: 9 @23256 has 17 MA's), (33, 23478), (59, 23754), (60, 23760), (62, 23772), (64, 23781), (65, 23790), (67, 23805), (73, 23865), (78, 23916), (80, 23976), (90, 24090), (95, 24135), (97, 24147), (100, 24171), (102, 24192),

Gene: Carrillo_40 Start: 23229, Stop: 24320, Start Num: 9

Candidate Starts for Carrillo_40:

(6, 23109), (Start: 9 @23229 has 17 MA's), (33, 23451), (59, 23727), (60, 23733), (62, 23745), (64, 23754), (67, 23778), (73, 23838), (78, 23889), (80, 23949), (90, 24063), (95, 24108), (97, 24120), (100, 24144), (102, 24165),

Gene: Cinna_44 Start: 32757, Stop: 33833, Start Num: 8

Candidate Starts for Cinna_44:

(Start: 8 @32757 has 56 MA's), (25, 32928), (29, 32958), (38, 33030), (42, 33093), (43, 33096), (50, 33168), (52, 33207), (60, 33264), (62, 33276), (64, 33285), (70, 33333), (74, 33381), (78, 33420), (81, 33495), (82, 33507), (84, 33531), (88, 33567), (92, 33618), (95, 33639), (103, 33699), (104, 33702), (105, 33717), (106, 33741), (113, 33783), (119, 33810),

Gene: ClearAsMud_51 Start: 32933, Stop: 33994, Start Num: 8

Candidate Starts for ClearAsMud_51:

(Start: 8 @32933 has 56 MA's), (26, 33098), (48, 33296), (51, 33323), (57, 33395), (61, 33416), (62, 33425), (63, 33431), (64, 33434), (66, 33452), (77, 33557), (79, 33626), (80, 33635), (87, 33707), (88, 33713), (98, 33806), (99, 33815), (115, 33947),

Gene: CookieDog_38 Start: 23229, Stop: 24320, Start Num: 9

Candidate Starts for CookieDog_38:

(Start: 9 @23229 has 17 MA's), (33, 23451), (59, 23727), (60, 23733), (62, 23745), (64, 23754), (67, 23778), (73, 23838), (78, 23889), (80, 23949), (90, 24063), (95, 24108), (97, 24120), (100, 24144), (102, 24165),

Gene: Cranjis_49 Start: 32670, Stop: 33743, Start Num: 8

Candidate Starts for Cranjis_49:

(Start: 8 @32670 has 56 MA's), (10, 32676), (26, 32844), (37, 32907), (48, 33042), (57, 33141), (61, 33162), (62, 33171), (64, 33180), (66, 33198), (77, 33303), (81, 33390), (83, 33417), (87, 33453), (88, 33459), (98, 33555), (99, 33564), (101, 33582), (115, 33696),

Gene: CrazyRich_47 Start: 32479, Stop: 33552, Start Num: 8

Candidate Starts for CrazyRich_47:

(Start: 8 @32479 has 56 MA's), (10, 32485), (26, 32653), (37, 32716), (48, 32851), (57, 32950), (61, 32971), (62, 32980), (64, 32989), (66, 33007), (77, 33112), (81, 33199), (83, 33226), (87, 33262), (88, 33268), (98, 33364), (99, 33373), (101, 33391), (115, 33505),

Gene: Cressida_47 Start: 32382, Stop: 33458, Start Num: 8

Candidate Starts for Cressida_47:

(1, 32100), (3, 32175), (Start: 8 @32382 has 56 MA's), (21, 32502), (25, 32553), (42, 32718), (43, 32721), (50, 32793), (52, 32832), (60, 32889), (62, 32901), (63, 32907), (64, 32910), (70, 32958), (74, 33006), (80, 33111), (81, 33120), (82, 33132), (84, 33156), (85, 33165), (88, 33192), (92, 33243), (95, 33264), (104, 33327), (105, 33342), (106, 33366), (113, 33408), (119, 33435),

Gene: Crisis_49 Start: 32470, Stop: 33543, Start Num: 8

Candidate Starts for Crisis_49:

(Start: 8 @32470 has 56 MA's), (10, 32476), (24, 32617), (26, 32644), (37, 32707), (48, 32842), (57, 32941), (61, 32962), (62, 32971), (64, 32980), (66, 32998), (77, 33103), (81, 33190), (83, 33217), (87, 33253), (98, 33355), (99, 33364), (101, 33382), (115, 33496),

Gene: Dropshot_38 Start: 22963, Stop: 24054, Start Num: 9

Candidate Starts for Dropshot_38:

(6, 22843), (Start: 9 @22963 has 17 MA's), (33, 23185), (59, 23461), (60, 23467), (62, 23479), (64, 23488), (67, 23512), (73, 23572), (78, 23623), (80, 23683), (90, 23797), (95, 23842), (97, 23854), (100, 23878), (102, 23899),

Gene: EarickHC_48 Start: 32393, Stop: 33466, Start Num: 8

Candidate Starts for EarickHC_48:

(Start: 8 @32393 has 56 MA's), (10, 32399), (26, 32567), (37, 32630), (48, 32765), (57, 32864), (61, 32885), (62, 32894), (64, 32903), (66, 32921), (77, 33026), (81, 33113), (83, 33140), (87, 33176), (88,

33182), (98, 33278), (99, 33287), (101, 33305), (115, 33419),

Gene: Fireman_50 Start: 34343, Stop: 35389, Start Num: 8

Candidate Starts for Fireman_50:

(5, 34184), (Start: 8 @34343 has 56 MA's), (61, 34835), (62, 34844), (63, 34850), (64, 34853), (77, 34976), (78, 34991), (81, 35054), (99, 35219), (105, 35273), (109, 35318), (118, 35366),

Gene: Ganandorf_47 Start: 32532, Stop: 33605, Start Num: 8

Candidate Starts for Ganandorf_47:

(Start: 8 @32532 has 56 MA's), (10, 32538), (26, 32706), (37, 32769), (48, 32904), (57, 33003), (61, 33024), (62, 33033), (64, 33042), (66, 33060), (77, 33165), (81, 33252), (83, 33279), (87, 33315), (88, 33321), (98, 33417), (99, 33426), (101, 33444), (115, 33558),

Gene: Germa_49 Start: 32361, Stop: 33434, Start Num: 8

Candidate Starts for Germa_49:

(Start: 8 @32361 has 56 MA's), (10, 32367), (26, 32535), (37, 32598), (48, 32733), (57, 32832), (61, 32853), (62, 32862), (64, 32871), (66, 32889), (77, 32994), (81, 33081), (83, 33108), (87, 33144), (88, 33150), (98, 33246), (99, 33255), (101, 33273), (115, 33387),

Gene: Gina_50 Start: 32486, Stop: 33529, Start Num: 8

Candidate Starts for Gina_50:

(Start: 8 @32486 has 56 MA's), (24, 32639), (38, 32747), (45, 32828), (53, 32921), (61, 32978), (62, 32987), (64, 32996), (77, 33119), (78, 33134), (81, 33197), (87, 33260), (89, 33284), (104, 33398), (105, 33413),

Gene: Glorp_49 Start: 32533, Stop: 33606, Start Num: 8

Candidate Starts for Glorp_49:

(Start: 8 @32533 has 56 MA's), (10, 32539), (26, 32707), (37, 32770), (48, 32905), (57, 33004), (61, 33025), (62, 33034), (64, 33043), (66, 33061), (77, 33166), (81, 33253), (83, 33280), (87, 33316), (98, 33418), (99, 33427), (101, 33445), (115, 33559),

Gene: Guzman_38 Start: 23227, Stop: 24318, Start Num: 9

Candidate Starts for Guzman_38:

(6, 23107), (Start: 9 @23227 has 17 MA's), (33, 23449), (59, 23725), (60, 23731), (62, 23743), (64, 23752), (65, 23761), (67, 23776), (73, 23836), (78, 23887), (80, 23947), (90, 24061), (95, 24106), (97, 24118), (100, 24142), (102, 24163),

Gene: Hermeonysus_47 Start: 32399, Stop: 33472, Start Num: 8

Candidate Starts for Hermeonysus_47:

(Start: 8 @32399 has 56 MA's), (10, 32405), (26, 32573), (37, 32636), (48, 32771), (57, 32870), (61, 32891), (62, 32900), (64, 32909), (66, 32927), (77, 33032), (81, 33119), (83, 33146), (87, 33182), (98, 33284), (99, 33293), (101, 33311), (115, 33425),

Gene: Honeyfin_49 Start: 32720, Stop: 33793, Start Num: 8

Candidate Starts for Honeyfin_49:

(Start: 8 @32720 has 56 MA's), (10, 32726), (26, 32894), (37, 32957), (48, 33092), (51, 33119), (57, 33191), (61, 33212), (62, 33221), (63, 33227), (64, 33230), (66, 33248), (77, 33353), (79, 33422), (81, 33440), (83, 33467), (87, 33503), (88, 33509), (98, 33605), (101, 33632), (115, 33746),

Gene: Jakelyne_40 Start: 23368, Stop: 24459, Start Num: 9

Candidate Starts for Jakelyne_40:

(6, 23248), (Start: 9 @23368 has 17 MA's), (33, 23590), (59, 23866), (60, 23872), (62, 23884), (64, 23893), (65, 23902), (67, 23917), (73, 23977), (78, 24028), (80, 24088), (90, 24202), (95, 24247), (97,

24259), (100, 24283), (102, 24304),

Gene: Jayden_50 Start: 33182, Stop: 34231, Start Num: 8

Candidate Starts for Jayden_50:

(Start: 8 @33182 has 56 MA's), (27, 33368), (53, 33614), (61, 33671), (62, 33680), (63, 33686), (64, 33689), (77, 33812), (78, 33827), (81, 33890), (89, 33977), (104, 34091), (105, 34106),

Gene: Jefe_48 Start: 32457, Stop: 33530, Start Num: 8

Candidate Starts for Jefe_48:

(Start: 8 @32457 has 56 MA's), (10, 32463), (26, 32631), (37, 32694), (48, 32829), (57, 32928), (61, 32949), (62, 32958), (64, 32967), (66, 32985), (77, 33090), (81, 33177), (83, 33204), (87, 33240), (88, 33246), (98, 33342), (99, 33351), (101, 33369), (115, 33483),

Gene: Jollipop_48 Start: 32796, Stop: 33869, Start Num: 8

Candidate Starts for Jollipop_48:

(Start: 8 @32796 has 56 MA's), (10, 32802), (26, 32970), (37, 33033), (48, 33168), (57, 33267), (61, 33288), (62, 33297), (64, 33306), (66, 33324), (77, 33429), (81, 33516), (83, 33543), (87, 33579), (88, 33585), (98, 33681), (99, 33690), (101, 33708), (115, 33822),

Gene: KaiHaiDragon_48 Start: 32393, Stop: 33466, Start Num: 8

Candidate Starts for KaiHaiDragon_48:

(Start: 8 @32393 has 56 MA's), (10, 32399), (26, 32567), (37, 32630), (48, 32765), (57, 32864), (61, 32885), (62, 32894), (64, 32903), (66, 32921), (77, 33026), (81, 33113), (83, 33140), (87, 33176), (88, 33182), (98, 33278), (99, 33287), (101, 33305), (115, 33419),

Gene: Kowalski_47 Start: 32506, Stop: 33579, Start Num: 8

Candidate Starts for Kowalski_47:

(Start: 8 @32506 has 56 MA's), (10, 32512), (26, 32680), (37, 32743), (48, 32878), (57, 32977), (61, 32998), (62, 33007), (64, 33016), (66, 33034), (77, 33139), (81, 33226), (83, 33253), (87, 33289), (88, 33295), (98, 33391), (99, 33400), (101, 33418), (115, 33532),

Gene: Kozie_45 Start: 32730, Stop: 33875, Start Num: 8

Candidate Starts for Kozie_45:

(Start: 8 @32730 has 56 MA's), (29, 32928), (40, 33030), (42, 33063), (43, 33066), (47, 33117), (50, 33138), (55, 33204), (62, 33246), (63, 33252), (64, 33255), (76, 33360), (84, 33501), (95, 33609), (100, 33642), (104, 33672), (114, 33774), (120, 33849),

Gene: LittleFortune_49 Start: 32762, Stop: 33835, Start Num: 8

Candidate Starts for LittleFortune_49:

(Start: 8 @32762 has 56 MA's), (10, 32768), (26, 32936), (37, 32999), (48, 33134), (57, 33233), (61, 33254), (62, 33263), (64, 33272), (66, 33290), (77, 33395), (81, 33482), (83, 33509), (87, 33545), (98, 33647), (99, 33656), (101, 33674), (115, 33788),

Gene: Losacky_39 Start: 23393, Stop: 24484, Start Num: 9

Candidate Starts for Losacky_39:

(Start: 9 @23393 has 17 MA's), (33, 23615), (59, 23891), (60, 23897), (62, 23909), (64, 23918), (65, 23927), (67, 23942), (73, 24002), (78, 24053), (80, 24113), (90, 24227), (95, 24272), (97, 24284), (100, 24308), (102, 24329),

Gene: Lucretia_48 Start: 32449, Stop: 33522, Start Num: 8

Candidate Starts for Lucretia_48:

(Start: 8 @32449 has 56 MA's), (10, 32455), (26, 32623), (37, 32686), (48, 32821), (57, 32920), (61, 32941), (62, 32950), (64, 32959), (66, 32977), (77, 33082), (81, 33169), (83, 33196), (87, 33232), (88,

33238), (98, 33334), (99, 33343), (101, 33361), (115, 33475),

Gene: Margaery_43 Start: 32008, Stop: 33084, Start Num: 8

Candidate Starts for Margaery_43:

(Start: 8 @32008 has 56 MA's), (29, 32209), (36, 32260), (42, 32344), (43, 32347), (50, 32419), (60, 32515), (62, 32527), (63, 32533), (64, 32536), (67, 32560), (70, 32584), (74, 32632), (82, 32758), (84, 32782), (88, 32818), (92, 32869), (95, 32890), (104, 32953), (105, 32968), (106, 32992), (113, 33034),

Gene: Mariel_39 Start: 23697, Stop: 24788, Start Num: 9

Candidate Starts for Mariel_39:

(6, 23577), (Start: 9 @23697 has 17 MA's), (33, 23919), (59, 24195), (60, 24201), (62, 24213), (64, 24222), (65, 24231), (67, 24246), (73, 24306), (78, 24357), (80, 24417), (90, 24531), (95, 24576), (97, 24588), (100, 24612), (102, 24633),

Gene: Matzah_46 Start: 32852, Stop: 33928, Start Num: 8

Candidate Starts for Matzah_46:

(1, 32570), (3, 32645), (Start: 8 @32852 has 56 MA's), (20, 32957), (25, 33023), (29, 33053), (38, 33125), (42, 33188), (43, 33191), (50, 33263), (52, 33302), (62, 33371), (63, 33377), (64, 33380), (74, 33476), (81, 33590), (82, 33602), (84, 33626), (88, 33662), (92, 33713), (95, 33734), (104, 33797), (105, 33812), (106, 33836), (113, 33878), (119, 33905),

Gene: Megan_46 Start: 35850, Stop: 36962, Start Num: 8

Candidate Starts for Megan_46:

(Start: 8 @35850 has 56 MA's), (13, 35883), (19, 35934), (22, 35985), (23, 36009), (25, 36021), (28, 36057), (33, 36105), (42, 36216), (52, 36330), (60, 36387), (62, 36399), (63, 36405), (64, 36408), (66, 36426), (67, 36432), (68, 36441), (72, 36480), (78, 36543), (82, 36627), (89, 36705), (90, 36723), (93, 36750), (96, 36765), (103, 36819), (105, 36837), (106, 36861), (116, 36924),

Gene: MementoMori_45 Start: 32445, Stop: 33521, Start Num: 8

Candidate Starts for MementoMori_45:

(Start: 8 @32445 has 56 MA's), (20, 32550), (25, 32616), (29, 32646), (38, 32718), (42, 32781), (43, 32784), (50, 32856), (52, 32895), (60, 32952), (62, 32964), (63, 32970), (64, 32973), (70, 33021), (74, 33069), (78, 33108), (81, 33183), (82, 33195), (84, 33219), (88, 33255), (92, 33306), (95, 33327), (104, 33390), (105, 33405), (106, 33429), (113, 33471), (119, 33498),

Gene: MenE_39 Start: 23273, Stop: 24364, Start Num: 9

Candidate Starts for MenE_39:

(6, 23153), (Start: 9 @23273 has 17 MA's), (33, 23495), (59, 23771), (60, 23777), (62, 23789), (64, 23798), (67, 23822), (73, 23882), (78, 23933), (80, 23993), (90, 24107), (95, 24152), (97, 24164), (100, 24188), (102, 24209),

Gene: Merry_ Start: 34028, Stop: 35068, Start Num: 8

Candidate Starts for Merry_:

(Start: 8 @34028 has 56 MA's), (38, 34286), (45, 34367), (46, 34394), (48, 34400), (52, 34457), (58, 34505), (62, 34526), (63, 34532), (64, 34535), (77, 34658), (78, 34673), (81, 34736), (87, 34799), (99, 34898), (106, 34976), (107, 34985), (109, 34997), (110, 35012), (112, 35018),

Gene: Metamorphoo_50 Start: 33605, Stop: 34651, Start Num: 8

Candidate Starts for Metamorphoo_50:

(5, 33446), (Start: 8 @33605 has 56 MA's), (61, 34097), (62, 34106), (63, 34112), (64, 34115), (77, 34238), (81, 34316), (91, 34424), (99, 34481), (105, 34535), (109, 34580), (118, 34628),

Gene: NCRodriguez_39 Start: 23450, Stop: 24541, Start Num: 9

Candidate Starts for NCRodriguez_39:

(6, 23330), (Start: 9 @23450 has 17 MA's), (33, 23672), (59, 23948), (60, 23954), (62, 23966), (64, 23975), (65, 23984), (67, 23999), (73, 24059), (78, 24110), (80, 24170), (90, 24284), (95, 24329), (97, 24341), (100, 24365), (102, 24386),

Gene: Nicole72_46 Start: 36271, Stop: 37380, Start Num: 8

Candidate Starts for Nicole72_46:

(4, 36070), (Start: 8 @36271 has 56 MA's), (12, 36295), (13, 36301), (19, 36352), (20, 36373), (22, 36403), (23, 36427), (25, 36439), (33, 36523), (42, 36634), (44, 36640), (52, 36748), (54, 36760), (60, 36805), (62, 36817), (64, 36826), (68, 36859), (78, 36961), (82, 37045), (89, 37123), (90, 37141), (93, 37168), (105, 37255), (106, 37279), (116, 37342),

Gene: NoodlelyBoi_49 Start: 33145, Stop: 34206, Start Num: 8

Candidate Starts for NoodlelyBoi_49:

(Start: 8 @33145 has 56 MA's), (26, 33310), (33, 33343), (48, 33508), (51, 33535), (57, 33607), (61, 33628), (62, 33637), (63, 33643), (64, 33646), (66, 33664), (77, 33769), (79, 33838), (80, 33847), (87, 33919), (88, 33925), (98, 34018), (99, 34027), (115, 34159),

Gene: Onika_47 Start: 32481, Stop: 33554, Start Num: 8

Candidate Starts for Onika_47:

(Start: 8 @32481 has 56 MA's), (10, 32487), (26, 32655), (37, 32718), (48, 32853), (57, 32952), (61, 32973), (62, 32982), (64, 32991), (66, 33009), (77, 33114), (83, 33228), (87, 33264), (88, 33270), (98, 33366), (99, 33375), (101, 33393), (115, 33507),

Gene: Paschalis_47 Start: 32488, Stop: 33561, Start Num: 8

Candidate Starts for Paschalis_47:

(Start: 8 @32488 has 56 MA's), (10, 32494), (26, 32662), (37, 32725), (48, 32860), (57, 32959), (61, 32980), (62, 32989), (64, 32998), (66, 33016), (77, 33121), (81, 33208), (83, 33235), (87, 33271), (88, 33277), (98, 33373), (99, 33382), (101, 33400), (115, 33514),

Gene: PhedwardCullen_47 Start: 32239, Stop: 33312, Start Num: 8

Candidate Starts for PhedwardCullen_47:

(Start: 8 @32239 has 56 MA's), (10, 32245), (26, 32413), (37, 32476), (48, 32611), (57, 32710), (61, 32731), (62, 32740), (64, 32749), (66, 32767), (77, 32872), (81, 32959), (83, 32986), (87, 33022), (88, 33028), (98, 33124), (99, 33133), (101, 33151), (115, 33265),

Gene: PhillyJawn_39 Start: 23125, Stop: 24216, Start Num: 9

Candidate Starts for PhillyJawn_39:

(6, 23005), (Start: 9 @23125 has 17 MA's), (33, 23347), (56, 23608), (59, 23623), (60, 23629), (62, 23641), (64, 23650), (65, 23659), (67, 23674), (73, 23734), (78, 23785), (80, 23845), (90, 23959), (95, 24004), (97, 24016), (100, 24040), (102, 24061),

Gene: Phingu_41 Start: 23341, Stop: 24432, Start Num: 9

Candidate Starts for Phingu_41:

(6, 23221), (Start: 9 @23341 has 17 MA's), (33, 23563), (59, 23839), (60, 23845), (62, 23857), (64, 23866), (65, 23875), (67, 23890), (73, 23950), (78, 24001), (80, 24061), (90, 24175), (95, 24220), (97, 24232), (100, 24256), (102, 24277),

Gene: Phonegingi_38 Start: 23165, Stop: 24256, Start Num: 9

Candidate Starts for Phonegingi_38:

(6, 23045), (Start: 9 @23165 has 17 MA's), (31, 23372), (60, 23669), (62, 23681), (64, 23690), (65, 23699), (67, 23714), (73, 23774), (78, 23825), (80, 23885), (90, 23999), (95, 24044), (97, 24056), (100, 24080), (102, 24101),

Gene: Phorgeous_47 Start: 32351, Stop: 33424, Start Num: 8

Candidate Starts for Phorgeous_47:

(Start: 8 @32351 has 56 MA's), (10, 32357), (26, 32525), (37, 32588), (48, 32723), (57, 32822), (61, 32843), (62, 32852), (64, 32861), (66, 32879), (77, 32984), (81, 33071), (83, 33098), (87, 33134), (98, 33236), (99, 33245), (101, 33263), (115, 33377),

Gene: Phrancesco_48 Start: 32641, Stop: 33714, Start Num: 8

Candidate Starts for Phrancesco_48:

(Start: 8 @32641 has 56 MA's), (10, 32647), (26, 32815), (37, 32878), (48, 33013), (57, 33112), (61, 33133), (62, 33142), (64, 33151), (66, 33169), (77, 33274), (81, 33361), (83, 33388), (87, 33424), (88, 33430), (98, 33526), (99, 33535), (101, 33553), (115, 33667),

Gene: Pickles13_37 Start: 23435, Stop: 24526, Start Num: 9

Candidate Starts for Pickles13_37:

(6, 23315), (Start: 9 @23435 has 17 MA's), (33, 23657), (34, 23669), (59, 23933), (60, 23939), (62, 23951), (64, 23960), (67, 23984), (78, 24095), (80, 24155), (90, 24269), (92, 24284), (95, 24314), (97, 24326), (100, 24350), (102, 24371), (117, 24488),

Gene: PierreOrion_48 Start: 32655, Stop: 33728, Start Num: 8

Candidate Starts for PierreOrion_48:

(Start: 8 @32655 has 56 MA's), (10, 32661), (26, 32829), (37, 32892), (48, 33027), (57, 33126), (61, 33147), (62, 33156), (64, 33165), (66, 33183), (77, 33288), (81, 33375), (83, 33402), (87, 33438), (88, 33444), (98, 33540), (99, 33549), (101, 33567), (115, 33681),

Gene: PiperSansNom_48 Start: 32795, Stop: 33868, Start Num: 8

Candidate Starts for PiperSansNom_48:

(Start: 8 @32795 has 56 MA's), (10, 32801), (26, 32969), (37, 33032), (48, 33167), (57, 33266), (61, 33287), (62, 33296), (64, 33305), (66, 33323), (77, 33428), (81, 33515), (83, 33542), (87, 33578), (88, 33584), (98, 33680), (99, 33689), (101, 33707), (115, 33821),

Gene: Piperis_48 Start: 32474, Stop: 33547, Start Num: 8

Candidate Starts for Piperis_48:

(Start: 8 @32474 has 56 MA's), (10, 32480), (26, 32648), (37, 32711), (48, 32846), (57, 32945), (61, 32966), (62, 32975), (64, 32984), (66, 33002), (77, 33107), (81, 33194), (83, 33221), (87, 33257), (98, 33359), (99, 33368), (101, 33386), (115, 33500),

Gene: Pulchra_49 Start: 32871, Stop: 33944, Start Num: 8

Candidate Starts for Pulchra_49:

(Start: 8 @32871 has 56 MA's), (10, 32877), (26, 33045), (37, 33108), (48, 33243), (57, 33342), (61, 33363), (62, 33372), (64, 33381), (66, 33399), (77, 33504), (81, 33591), (83, 33618), (87, 33654), (88, 33660), (98, 33756), (99, 33765), (101, 33783), (115, 33897),

Gene: Quhwah_51 Start: 33103, Stop: 34176, Start Num: 8

Candidate Starts for Quhwah_51:

(Start: 8 @33103 has 56 MA's), (10, 33109), (26, 33277), (37, 33340), (48, 33475), (57, 33574), (61, 33595), (62, 33604), (64, 33613), (66, 33631), (77, 33736), (81, 33823), (83, 33850), (87, 33886), (88, 33892), (98, 33988), (99, 33997), (101, 34015), (115, 34129),

Gene: Ramiel05_47 Start: 32506, Stop: 33579, Start Num: 8

Candidate Starts for Ramiel05_47:

(Start: 8 @32506 has 56 MA's), (10, 32512), (26, 32680), (37, 32743), (48, 32878), (57, 32977), (61, 32998), (62, 33007), (64, 33016), (66, 33034), (77, 33139), (81, 33226), (83, 33253), (87, 33289), (88,

33295), (98, 33391), (99, 33400), (101, 33418), (115, 33532),

Gene: RobsFeet_51 Start: 33886, Stop: 34932, Start Num: 8

Candidate Starts for RobsFeet_51:

(5, 33727), (Start: 8 @33886 has 56 MA's), (38, 34147), (45, 34228), (61, 34378), (62, 34387), (63, 34393), (64, 34396), (77, 34519), (78, 34534), (81, 34597), (99, 34762), (105, 34816), (109, 34861), (118, 34909),

Gene: Rockwell_47 Start: 32506, Stop: 33579, Start Num: 8

Candidate Starts for Rockwell_47:

(Start: 8 @32506 has 56 MA's), (10, 32512), (26, 32680), (37, 32743), (48, 32878), (57, 32977), (61, 32998), (62, 33007), (64, 33016), (66, 33034), (77, 33139), (81, 33226), (83, 33253), (87, 33289), (88, 33295), (98, 33391), (99, 33400), (101, 33418), (115, 33532),

Gene: Savannah_47 Start: 32533, Stop: 33606, Start Num: 8

Candidate Starts for Savannah_47:

(Start: 8 @32533 has 56 MA's), (10, 32539), (26, 32707), (37, 32770), (48, 32905), (57, 33004), (61, 33025), (62, 33034), (64, 33043), (66, 33061), (77, 33166), (81, 33253), (83, 33280), (87, 33316), (88, 33322), (98, 33418), (99, 33427), (101, 33445), (115, 33559),

Gene: ScoobySnack_35 Start: 22946, Stop: 24037, Start Num: 9

Candidate Starts for ScoobySnack_35:

(6, 22826), (Start: 9 @22946 has 17 MA's), (17, 23018), (33, 23168), (60, 23450), (62, 23462), (63, 23468), (64, 23471), (67, 23495), (73, 23555), (78, 23606), (80, 23666), (90, 23780), (92, 23795), (95, 23825), (97, 23837), (102, 23882), (117, 23999),

Gene: Scumberland_49 Start: 32728, Stop: 33801, Start Num: 8

Candidate Starts for Scumberland_49:

(Start: 8 @32728 has 56 MA's), (10, 32734), (26, 32902), (37, 32965), (48, 33100), (57, 33199), (61, 33220), (62, 33229), (64, 33238), (66, 33256), (77, 33361), (81, 33448), (83, 33475), (87, 33511), (98, 33613), (99, 33622), (101, 33640), (115, 33754),

Gene: Selwyn23_49 Start: 32705, Stop: 33778, Start Num: 8

Candidate Starts for Selwyn23_49:

(Start: 8 @32705 has 56 MA's), (10, 32711), (26, 32879), (37, 32942), (48, 33077), (57, 33176), (61, 33197), (62, 33206), (64, 33215), (66, 33233), (77, 33338), (81, 33425), (83, 33452), (87, 33488), (88, 33494), (98, 33590), (99, 33599), (101, 33617), (115, 33731),

Gene: Shotgun_47 Start: 32332, Stop: 33405, Start Num: 8

Candidate Starts for Shotgun_47:

(Start: 8 @32332 has 56 MA's), (10, 32338), (26, 32506), (37, 32569), (48, 32704), (57, 32803), (61, 32824), (62, 32833), (64, 32842), (66, 32860), (77, 32965), (81, 33052), (83, 33079), (87, 33115), (88, 33121), (98, 33217), (99, 33226), (101, 33244), (115, 33358),

Gene: Shrubaron_50 Start: 33520, Stop: 34566, Start Num: 8

Candidate Starts for Shrubaron_50:

(5, 33361), (Start: 8 @33520 has 56 MA's), (61, 34012), (62, 34021), (63, 34027), (64, 34030), (77, 34153), (78, 34168), (81, 34231), (91, 34339), (99, 34396), (105, 34450), (109, 34495), (118, 34543),

Gene: SirFrank_48 Start: 32715, Stop: 33776, Start Num: 8

Candidate Starts for SirFrank_48:

(Start: 8 @32715 has 56 MA's), (26, 32880), (48, 33078), (51, 33105), (57, 33177), (61, 33198), (62, 33207), (63, 33213), (64, 33216), (66, 33234), (77, 33339), (79, 33408), (80, 33417), (87, 33489), (88,

33495), (98, 33588), (99, 33597), (111, 33714), (115, 33729),

Gene: Skugga_47 Start: 32507, Stop: 33550, Start Num: 8

Candidate Starts for Skugga_47:

(7, 32396), (Start: 8 @32507 has 56 MA's), (11, 32516), (14, 32546), (15, 32552), (24, 32660), (38, 32768), (45, 32849), (53, 32942), (61, 32999), (62, 33008), (63, 33014), (64, 33017), (77, 33140), (78, 33155), (81, 33218), (87, 33281), (89, 33305), (99, 33380), (104, 33419), (105, 33434),

Gene: Smarties_56 Start: 34302, Stop: 35345, Start Num: 8

Candidate Starts for Smarties_56:

(Start: 8 @34302 has 56 MA's), (27, 34488), (38, 34560), (45, 34641), (46, 34668), (53, 34734), (61, 34791), (62, 34800), (63, 34806), (64, 34809), (77, 34932), (81, 35010), (99, 35175), (105, 35229), (109, 35274), (111, 35292),

Gene: Sunny_ Start: 34030, Stop: 35070, Start Num: 8

Candidate Starts for Sunny_:

(Start: 8 @34030 has 56 MA's), (38, 34288), (45, 34369), (46, 34396), (48, 34402), (52, 34459), (58, 34507), (62, 34528), (63, 34534), (64, 34537), (77, 34660), (78, 34675), (81, 34738), (87, 34801), (99, 34900), (106, 34978), (107, 34987), (109, 34999), (110, 35014), (112, 35020),

Gene: Teamocil_50 Start: 32585, Stop: 33628, Start Num: 8

Candidate Starts for Teamocil_50:

(Start: 8 @32585 has 56 MA's), (24, 32738), (38, 32846), (45, 32927), (53, 33020), (61, 33077), (62, 33086), (64, 33095), (77, 33218), (78, 33233), (81, 33296), (87, 33359), (89, 33383), (104, 33497), (105, 33512),

Gene: Terij_44 Start: 31471, Stop: 32544, Start Num: 8

Candidate Starts for Terij_44:

(Start: 8 @31471 has 56 MA's), (29, 31669), (36, 31720), (42, 31804), (43, 31807), (50, 31879), (52, 31918), (60, 31975), (62, 31987), (63, 31993), (64, 31996), (67, 32020), (70, 32044), (74, 32092), (82, 32218), (88, 32278), (92, 32329), (95, 32350), (104, 32413), (105, 32428), (106, 32452), (113, 32494),

Gene: TurkishDelight_59 Start: 49631, Stop: 50719, Start Num: 16

Candidate Starts for TurkishDelight_59:

(Start: 16 @49631 has 1 MA's), (30, 49781), (32, 49799), (35, 49826), (39, 49874), (41, 49913), (49, 49991), (53, 50042), (68, 50150), (69, 50156), (71, 50180), (75, 50222), (77, 50240), (79, 50312), (86, 50384), (94, 50483), (108, 50621),

Gene: Tyrumbra_48 Start: 33686, Stop: 34732, Start Num: 8

Candidate Starts for Tyrumbra_48:

(5, 33527), (Start: 8 @33686 has 56 MA's), (61, 34178), (62, 34187), (63, 34193), (64, 34196), (77, 34319), (78, 34334), (81, 34397), (99, 34562), (105, 34616), (109, 34661), (118, 34709),

Gene: Violeta_40 Start: 23220, Stop: 24311, Start Num: 9

Candidate Starts for Violeta_40:

(6, 23100), (Start: 9 @23220 has 17 MA's), (33, 23442), (59, 23718), (60, 23724), (62, 23736), (64, 23745), (67, 23769), (73, 23829), (78, 23880), (80, 23940), (90, 24054), (95, 24099), (97, 24111), (100, 24135), (102, 24156),

Gene: Warren_38 Start: 23181, Stop: 24272, Start Num: 9

Candidate Starts for Warren_38:

(6, 23061), (Start: 9 @23181 has 17 MA's), (31, 23388), (33, 23403), (59, 23679), (60, 23685), (62, 23697), (64, 23706), (65, 23715), (73, 23790), (78, 23841), (80, 23901), (90, 24015), (95, 24060), (97,

24072), (100, 24096), (102, 24117),

Gene: Winchester007_40 Start: 23263, Stop: 24354, Start Num: 9

Candidate Starts for Winchester007_40:

(Start: 9 @23263 has 17 MA's), (33, 23485), (56, 23746), (59, 23761), (60, 23767), (62, 23779), (64, 23788), (65, 23797), (67, 23812), (73, 23872), (78, 23923), (80, 23983), (90, 24097), (95, 24142), (97, 24154), (100, 24178), (102, 24199),

Gene: Yeti_48 Start: 32507, Stop: 33580, Start Num: 8

Candidate Starts for Yeti_48:

(Start: 8 @32507 has 56 MA's), (10, 32513), (26, 32681), (37, 32744), (48, 32879), (57, 32978), (61, 32999), (62, 33008), (64, 33017), (66, 33035), (77, 33140), (81, 33227), (83, 33254), (87, 33290), (88, 33296), (98, 33392), (99, 33401), (101, 33419), (115, 33533),

Gene: Zapato_47 Start: 32655, Stop: 33710, Start Num: 8

Candidate Starts for Zapato_47:

(Start: 8 @32655 has 56 MA's), (18, 32724), (27, 32844), (38, 32916), (52, 33087), (53, 33090), (61, 33147), (62, 33156), (63, 33162), (64, 33165), (77, 33288), (81, 33366), (87, 33429), (89, 33453), (99, 33531), (104, 33570), (105, 33585), (106, 33609),