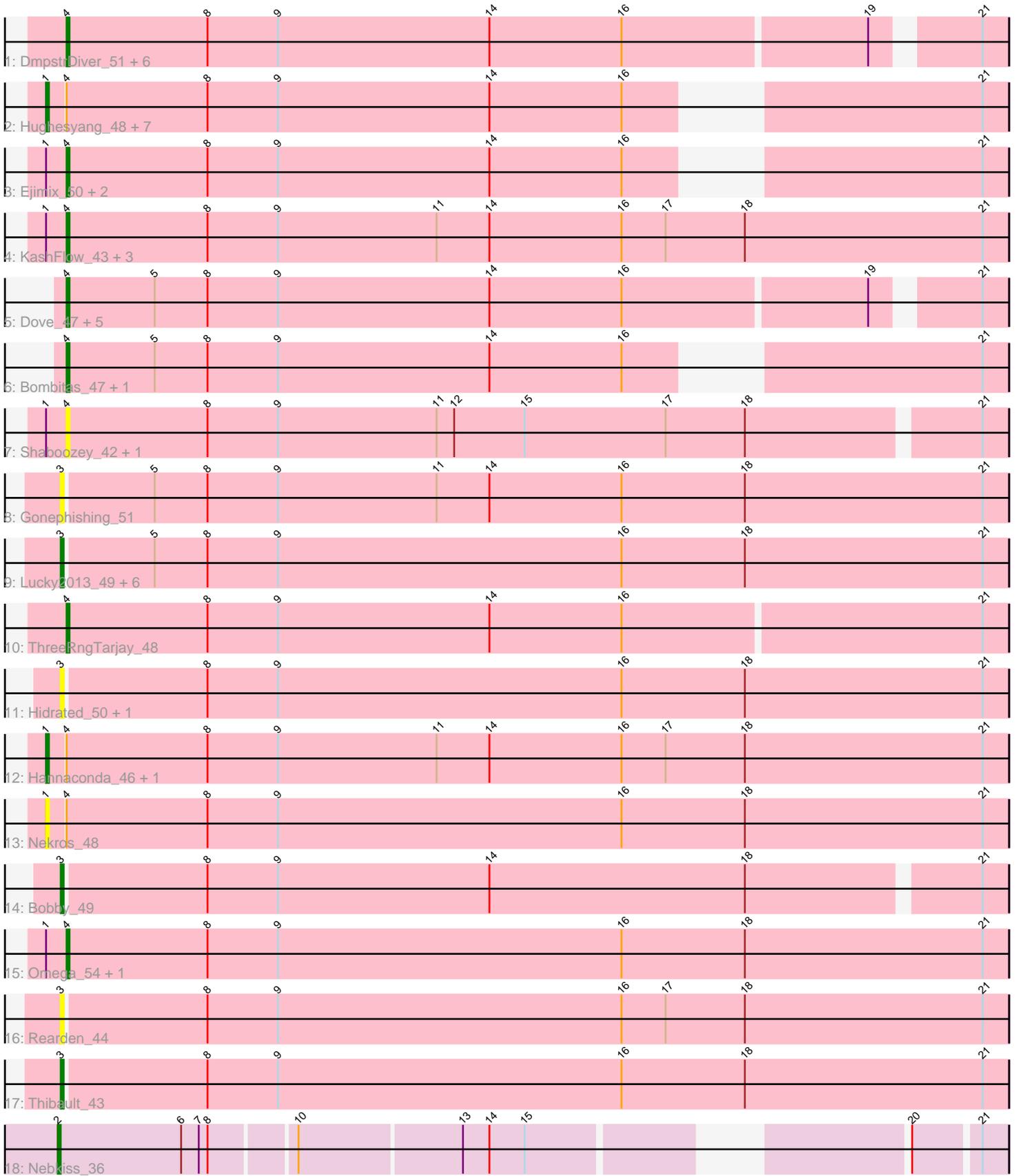# Pham 291242

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 291242 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291242 has 52 members, 11 are drafts.

Phages represented in each track:
• Track 1 : DmpstrDiver_51, Duke13_53, Kalah2_50, Optimus_55, Minerva_56, Odette_50, Schatzie_47
• Track 2 : Hughesyang_48, Wanda_56, Beem_50, Phoebus_49, Halley_50, HokkenD_43, Yeet_48, BAKA_54
• Track 3 : Ejimix_50, EricMillard_50, Bagrid_49
• Track 4 : KashFlow_43, Redno2_48, Dallas_52, Zelink_51
• Track 5 : Dove_47, Pound_52, Constella_42, JuicyJay_52, Klein_50, Xiaokay_45
• Track 6 : Bombitas_47, NihilNomen_49
• Track 7 : Shaboozey_42, BronnyJames_42
• Track 8 : Gonephishing_51
• Track 9 : Lucky2013_49, Porcelain_48, Courthouse_49, Superphikiman_49, Ariel_49, Squint_48, MiaZeal_49
• Track 10 : ThreeRngTarjay_48
• Track 11 : Hidrated_50, Marleymoo_51
• Track 12 : Hannaconda_46, LittleE_54
• Track 13 : Nekros_48
• Track 14 : Bobby_49
• Track 15 : Omega_54, Nibley_44
• Track 16 : Rearden_44
• Track 17 : Thibault_43
• Track 18 : Nebkiss_36

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

The start number called the most often in the published annotations is 4, it was called in 21 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bagrid_49, Bombitas_47, BronnyJames_42, Constella_42, Dallas_52, DmpstrDiver_51, Dove_47, Duke13_53, Ejimix_50, EricMillard_50, JuicyJay_52, Kalah2_50, KashFlow_43, Klein_50, Minerva_56, Nibley_44, NihilNomen_49, Odette_50, Omega_54, Optimus_55, Pound_52, Redno2_48, Schatzie_47, Shaboozey_42, ThreeRngTarjay_48, Xiaokay_45, Zelink_51,

Genes that have the "Most Annotated" start but do not call it:
• BAKA_54, Beem_50, Halley_50, Hannaconda_46, HokkenD_43, Hughesyang_48, LittleE_54, Nekros_48, Phoebus_49, Wanda_56, Yeet_48,

Genes that do not have the "Most Annotated" start:
• Ariel_49, Bobby_49, Courthouse_49, Gonephishing_51, Hidrated_50, Lucky2013_49, Marleymoo_51, MiaZeal_49, Nebkiss_36, Porcelain_48, Rearden_44, Squint_48, Superphikiman_49, Thibault_43,

Summary by start number:

Start 1:
• Found in 22 of 52 (42.3%) of genes in pham
• Manual Annotations of this start: 10 of 41
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BAKA_54 (J), Beem_50 (J), Halley_50 (J), Hannaconda_46 (J), HokkenD_43 (J), Hughesyang_48 (J), LittleE_54 (J), Nekros_48 (J), Phoebus_49 (J), Wanda_56 (J), Yeet_48 (J),

Start 2:
• Found in 1 of 52 (1.9%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nebkiss_36 (X),

Start 3:
• Found in 13 of 52 (25.0%) of genes in pham
• Manual Annotations of this start: 9 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ariel_49 (J), Bobby_49 (J), Courthouse_49 (J), Gonephishing_51 (J), Hidrated_50 (J), Lucky2013_49 (J), Marleymoo_51 (J), MiaZeal_49 (J), Porcelain_48 (J), Rearden_44 (J), Squint_48 (J), Superphikiman_49 (J), Thibault_43 (J),

Start 4:
• Found in 38 of 52 (73.1%) of genes in pham
• Manual Annotations of this start: 21 of 41
• Called 71.1% of time when present
• Phage (with cluster) where this start called: Bagrid_49 (J), Bombitas_47 (J), BronnyJames_42 (J), Constella_42 (J), Dallas_52 (J), DmpstrDiver_51 (J), Dove_47 (J), Duke13_53 (J), Ejimix_50 (J), EricMillard_50 (J), JuicyJay_52 (J), Kalah2_50 (J), KashFlow_43 (J), Klein_50 (J), Minerva_56 (J), Nibley_44 (J), NihilNomen_49 (J), Odette_50 (J), Omega_54 (J), Optimus_55 (J), Pound_52 (J), Redno2_48 (J), Schatzie_47 (J), Shaboozey_42 (J), ThreeRngTarjay_48 (J), Xiaokay_45 (J), Zelink_51 (J),

Summary by clusters:

There are 2 clusters represented in this pham: X, J,

Info for manual annotations of cluster J:
•Start number 1 was manually annotated 10 times for cluster J.
•Start number 3 was manually annotated 9 times for cluster J.

•Start number 4 was manually annotated 21 times for cluster J.

Info for manual annotations of cluster X:
•Start number 2 was manually annotated 1 time for cluster X.

Gene Information:

Gene: Ariel_49 Start: 39699, Stop: 40019, Start Num: 3
Candidate Starts for Ariel_49:
(Start: 3 @39699 has 9 MA's), (5, 39729), (8, 39747), (9, 39771), (16, 39888), (18, 39930), (21, 40011),

Gene: BAKA_54 Start: 43546, Stop: 43842, Start Num: 1
Candidate Starts for BAKA_54:
(Start: 1 @43546 has 10 MA's), (Start: 4 @43552 has 21 MA's), (8, 43600), (9, 43624), (14, 43696), (16, 43741), (21, 43834),

Gene: Bagrid_49 Start: 42885, Stop: 43175, Start Num: 4
Candidate Starts for Bagrid_49:
(Start: 1 @42879 has 10 MA's), (Start: 4 @42885 has 21 MA's), (8, 42933), (9, 42957), (14, 43029), (16, 43074), (21, 43167),

Gene: Beem_50 Start: 43445, Stop: 43741, Start Num: 1
Candidate Starts for Beem_50:
(Start: 1 @43445 has 10 MA's), (Start: 4 @43451 has 21 MA's), (8, 43499), (9, 43523), (14, 43595), (16, 43640), (21, 43733),

Gene: Bobby_49 Start: 42027, Stop: 42341, Start Num: 3
Candidate Starts for Bobby_49:
(Start: 3 @42027 has 9 MA's), (8, 42075), (9, 42099), (14, 42171), (18, 42258), (21, 42333),

Gene: Bombitas_47 Start: 43045, Stop: 43335, Start Num: 4
Candidate Starts for Bombitas_47:
(Start: 4 @43045 has 21 MA's), (5, 43075), (8, 43093), (9, 43117), (14, 43189), (16, 43234), (21, 43327),

Gene: BronnyJames_42 Start: 37290, Stop: 37604, Start Num: 4
Candidate Starts for BronnyJames_42:
(Start: 1 @37284 has 10 MA's), (Start: 4 @37290 has 21 MA's), (8, 37338), (9, 37362), (11, 37416), (12, 37422), (15, 37446), (17, 37494), (18, 37521), (21, 37596),

Gene: Constella_42 Start: 39591, Stop: 39899, Start Num: 4
Candidate Starts for Constella_42:
(Start: 4 @39591 has 21 MA's), (5, 39621), (8, 39639), (9, 39663), (14, 39735), (16, 39780), (19, 39861), (21, 39891),

Gene: Courthouse_49 Start: 40103, Stop: 40423, Start Num: 3
Candidate Starts for Courthouse_49:
(Start: 3 @40103 has 9 MA's), (5, 40133), (8, 40151), (9, 40175), (16, 40292), (18, 40334), (21, 40415),

Gene: Dallas_52 Start: 42976, Stop: 43296, Start Num: 4
Candidate Starts for Dallas_52:

(Start: 1 @42970 has 10 MA's), (Start: 4 @42976 has 21 MA's), (8, 43024), (9, 43048), (11, 43102), (14, 43120), (16, 43165), (17, 43180), (18, 43207), (21, 43288),

Gene: DmpstrDiver_51 Start: 42981, Stop: 43289, Start Num: 4
Candidate Starts for DmpstrDiver_51:
(Start: 4 @42981 has 21 MA's), (8, 43029), (9, 43053), (14, 43125), (16, 43170), (19, 43251), (21, 43281),

Gene: Dove_47 Start: 42515, Stop: 42823, Start Num: 4
Candidate Starts for Dove_47:
(Start: 4 @42515 has 21 MA's), (5, 42545), (8, 42563), (9, 42587), (14, 42659), (16, 42704), (19, 42785), (21, 42815),

Gene: Duke13_53 Start: 43299, Stop: 43607, Start Num: 4
Candidate Starts for Duke13_53:
(Start: 4 @43299 has 21 MA's), (8, 43347), (9, 43371), (14, 43443), (16, 43488), (19, 43569), (21, 43599),

Gene: Ejimix_50 Start: 44236, Stop: 44526, Start Num: 4
Candidate Starts for Ejimix_50:
(Start: 1 @44230 has 10 MA's), (Start: 4 @44236 has 21 MA's), (8, 44284), (9, 44308), (14, 44380), (16, 44425), (21, 44518),

Gene: EricMillard_50 Start: 43737, Stop: 44027, Start Num: 4
Candidate Starts for EricMillard_50:
(Start: 1 @43731 has 10 MA's), (Start: 4 @43737 has 21 MA's), (8, 43785), (9, 43809), (14, 43881), (16, 43926), (21, 44019),

Gene: Gonephishing_51 Start: 41381, Stop: 41701, Start Num: 3
Candidate Starts for Gonephishing_51:
(Start: 3 @41381 has 9 MA's), (5, 41411), (8, 41429), (9, 41453), (11, 41507), (14, 41525), (16, 41570), (18, 41612), (21, 41693),

Gene: Halley_50 Start: 43444, Stop: 43740, Start Num: 1
Candidate Starts for Halley_50:
(Start: 1 @43444 has 10 MA's), (Start: 4 @43450 has 21 MA's), (8, 43498), (9, 43522), (14, 43594), (16, 43639), (21, 43732),

Gene: Hannaconda_46 Start: 37923, Stop: 38249, Start Num: 1
Candidate Starts for Hannaconda_46:
(Start: 1 @37923 has 10 MA's), (Start: 4 @37929 has 21 MA's), (8, 37977), (9, 38001), (11, 38055), (14, 38073), (16, 38118), (17, 38133), (18, 38160), (21, 38241),

Gene: Hidrated_50 Start: 43219, Stop: 43539, Start Num: 3
Candidate Starts for Hidrated_50:
(Start: 3 @43219 has 9 MA's), (8, 43267), (9, 43291), (16, 43408), (18, 43450), (21, 43531),

Gene: HokkenD_43 Start: 41713, Stop: 42009, Start Num: 1
Candidate Starts for HokkenD_43:
(Start: 1 @41713 has 10 MA's), (Start: 4 @41719 has 21 MA's), (8, 41767), (9, 41791), (14, 41863), (16, 41908), (21, 42001),

Gene: Hughesyang_48 Start: 43373, Stop: 43669, Start Num: 1

Candidate Starts for Hughesyang_48:
(Start: 1 @43373 has 10 MA's), (Start: 4 @43379 has 21 MA's), (8, 43427), (9, 43451), (14, 43523), (16, 43568), (21, 43661),

Gene: JuicyJay_52 Start: 45208, Stop: 45516, Start Num: 4
Candidate Starts for JuicyJay_52:
(Start: 4 @45208 has 21 MA's), (5, 45238), (8, 45256), (9, 45280), (14, 45352), (16, 45397), (19, 45478), (21, 45508),

Gene: Kalah2_50 Start: 43787, Stop: 44095, Start Num: 4
Candidate Starts for Kalah2_50:
(Start: 4 @43787 has 21 MA's), (8, 43835), (9, 43859), (14, 43931), (16, 43976), (19, 44057), (21, 44087),

Gene: KashFlow_43 Start: 37550, Stop: 37870, Start Num: 4
Candidate Starts for KashFlow_43:
(Start: 1 @37544 has 10 MA's), (Start: 4 @37550 has 21 MA's), (8, 37598), (9, 37622), (11, 37676), (14, 37694), (16, 37739), (17, 37754), (18, 37781), (21, 37862),

Gene: Klein_50 Start: 43020, Stop: 43328, Start Num: 4
Candidate Starts for Klein_50:
(Start: 4 @43020 has 21 MA's), (5, 43050), (8, 43068), (9, 43092), (14, 43164), (16, 43209), (19, 43290), (21, 43320),

Gene: LittleE_54 Start: 43242, Stop: 43568, Start Num: 1
Candidate Starts for LittleE_54:
(Start: 1 @43242 has 10 MA's), (Start: 4 @43248 has 21 MA's), (8, 43296), (9, 43320), (11, 43374), (14, 43392), (16, 43437), (17, 43452), (18, 43479), (21, 43560),

Gene: Lucky2013_49 Start: 40239, Stop: 40559, Start Num: 3
Candidate Starts for Lucky2013_49:
(Start: 3 @40239 has 9 MA's), (5, 40269), (8, 40287), (9, 40311), (16, 40428), (18, 40470), (21, 40551),

Gene: Marleymoo_51 Start: 43117, Stop: 43437, Start Num: 3
Candidate Starts for Marleymoo_51:
(Start: 3 @43117 has 9 MA's), (8, 43165), (9, 43189), (16, 43306), (18, 43348), (21, 43429),

Gene: MiaZeal_49 Start: 39914, Stop: 40234, Start Num: 3
Candidate Starts for MiaZeal_49:
(Start: 3 @39914 has 9 MA's), (5, 39944), (8, 39962), (9, 39986), (16, 40103), (18, 40145), (21, 40226),

Gene: Minerva_56 Start: 44848, Stop: 45156, Start Num: 4
Candidate Starts for Minerva_56:
(Start: 4 @44848 has 21 MA's), (8, 44896), (9, 44920), (14, 44992), (16, 45037), (19, 45118), (21, 45148),

Gene: Nebkiss_36 Start: 31284, Stop: 31568, Start Num: 2
Candidate Starts for Nebkiss_36:
(Start: 2 @31284 has 1 MA's), (6, 31326), (7, 31332), (8, 31335), (10, 31362), (13, 31416), (14, 31425), (15, 31437), (20, 31539), (21, 31560),

Gene: Nekros_48 Start: 42315, Stop: 42641, Start Num: 1
Candidate Starts for Nekros_48:

(Start: 1 @42315 has 10 MA's), (Start: 4 @42321 has 21 MA's), (8, 42369), (9, 42393), (16, 42510), (18, 42552), (21, 42633),

Gene: Nibley_44 Start: 38343, Stop: 38663, Start Num: 4
Candidate Starts for Nibley_44:
(Start: 1 @38337 has 10 MA's), (Start: 4 @38343 has 21 MA's), (8, 38391), (9, 38415), (16, 38532), (18, 38574), (21, 38655),

Gene: NihilNomen_49 Start: 43536, Stop: 43826, Start Num: 4
Candidate Starts for NihilNomen_49:
(Start: 4 @43536 has 21 MA's), (5, 43566), (8, 43584), (9, 43608), (14, 43680), (16, 43725), (21, 43818),

Gene: Odette_50 Start: 42760, Stop: 43068, Start Num: 4
Candidate Starts for Odette_50:
(Start: 4 @42760 has 21 MA's), (8, 42808), (9, 42832), (14, 42904), (16, 42949), (19, 43030), (21, 43060),

Gene: Omega_54 Start: 44553, Stop: 44873, Start Num: 4
Candidate Starts for Omega_54:
(Start: 1 @44547 has 10 MA's), (Start: 4 @44553 has 21 MA's), (8, 44601), (9, 44625), (16, 44742), (18, 44784), (21, 44865),

Gene: Optimus_55 Start: 44433, Stop: 44741, Start Num: 4
Candidate Starts for Optimus_55:
(Start: 4 @44433 has 21 MA's), (8, 44481), (9, 44505), (14, 44577), (16, 44622), (19, 44703), (21, 44733),

Gene: Phoebus_49 Start: 43731, Stop: 44027, Start Num: 1
Candidate Starts for Phoebus_49:
(Start: 1 @43731 has 10 MA's), (Start: 4 @43737 has 21 MA's), (8, 43785), (9, 43809), (14, 43881), (16, 43926), (21, 44019),

Gene: Porcelain_48 Start: 39914, Stop: 40234, Start Num: 3
Candidate Starts for Porcelain_48:
(Start: 3 @39914 has 9 MA's), (5, 39944), (8, 39962), (9, 39986), (16, 40103), (18, 40145), (21, 40226),

Gene: Pound_52 Start: 45296, Stop: 45604, Start Num: 4
Candidate Starts for Pound_52:
(Start: 4 @45296 has 21 MA's), (5, 45326), (8, 45344), (9, 45368), (14, 45440), (16, 45485), (19, 45566), (21, 45596),

Gene: Rearden_44 Start: 39525, Stop: 39845, Start Num: 3
Candidate Starts for Rearden_44:
(Start: 3 @39525 has 9 MA's), (8, 39573), (9, 39597), (16, 39714), (17, 39729), (18, 39756), (21, 39837),

Gene: Redno2_48 Start: 40492, Stop: 40812, Start Num: 4
Candidate Starts for Redno2_48:
(Start: 1 @40486 has 10 MA's), (Start: 4 @40492 has 21 MA's), (8, 40540), (9, 40564), (11, 40618), (14, 40636), (16, 40681), (17, 40696), (18, 40723), (21, 40804),

Gene: Schatzie_47 Start: 42508, Stop: 42816, Start Num: 4

Candidate Starts for Schatzie_47:
(Start: 4 @42508 has 21 MA's), (8, 42556), (9, 42580), (14, 42652), (16, 42697), (19, 42778), (21, 42808),

Gene: Shaboozey_42 Start: 37290, Stop: 37604, Start Num: 4
Candidate Starts for Shaboozey_42:
(Start: 1 @37284 has 10 MA's), (Start: 4 @37290 has 21 MA's), (8, 37338), (9, 37362), (11, 37416), (12, 37422), (15, 37446), (17, 37494), (18, 37521), (21, 37596),

Gene: Squint_48 Start: 40033, Stop: 40353, Start Num: 3
Candidate Starts for Squint_48:
(Start: 3 @40033 has 9 MA's), (5, 40063), (8, 40081), (9, 40105), (16, 40222), (18, 40264), (21, 40345),

Gene: Superphikiman_49 Start: 40105, Stop: 40425, Start Num: 3
Candidate Starts for Superphikiman_49:
(Start: 3 @40105 has 9 MA's), (5, 40135), (8, 40153), (9, 40177), (16, 40294), (18, 40336), (21, 40417),

Gene: Thibault_43 Start: 40678, Stop: 40998, Start Num: 3
Candidate Starts for Thibault_43:
(Start: 3 @40678 has 9 MA's), (8, 40726), (9, 40750), (16, 40867), (18, 40909), (21, 40990),

Gene: ThreeRngTarjay_48 Start: 43587, Stop: 43904, Start Num: 4
Candidate Starts for ThreeRngTarjay_48:
(Start: 4 @43587 has 21 MA's), (8, 43635), (9, 43659), (14, 43731), (16, 43776), (21, 43896),

Gene: Wanda_56 Start: 43319, Stop: 43615, Start Num: 1
Candidate Starts for Wanda_56:
(Start: 1 @43319 has 10 MA's), (Start: 4 @43325 has 21 MA's), (8, 43373), (9, 43397), (14, 43469), (16, 43514), (21, 43607),

Gene: Xiaokay_45 Start: 40354, Stop: 40662, Start Num: 4
Candidate Starts for Xiaokay_45:
(Start: 4 @40354 has 21 MA's), (5, 40384), (8, 40402), (9, 40426), (14, 40498), (16, 40543), (19, 40624), (21, 40654),

Gene: Yeet_48 Start: 42740, Stop: 43036, Start Num: 1
Candidate Starts for Yeet_48:
(Start: 1 @42740 has 10 MA's), (Start: 4 @42746 has 21 MA's), (8, 42794), (9, 42818), (14, 42890), (16, 42935), (21, 43028),

Gene: Zelink_51 Start: 44531, Stop: 44851, Start Num: 4
Candidate Starts for Zelink_51:
(Start: 1 @44525 has 10 MA's), (Start: 4 @44531 has 21 MA's), (8, 44579), (9, 44603), (11, 44657), (14, 44675), (16, 44720), (17, 44735), (18, 44762), (21, 44843),