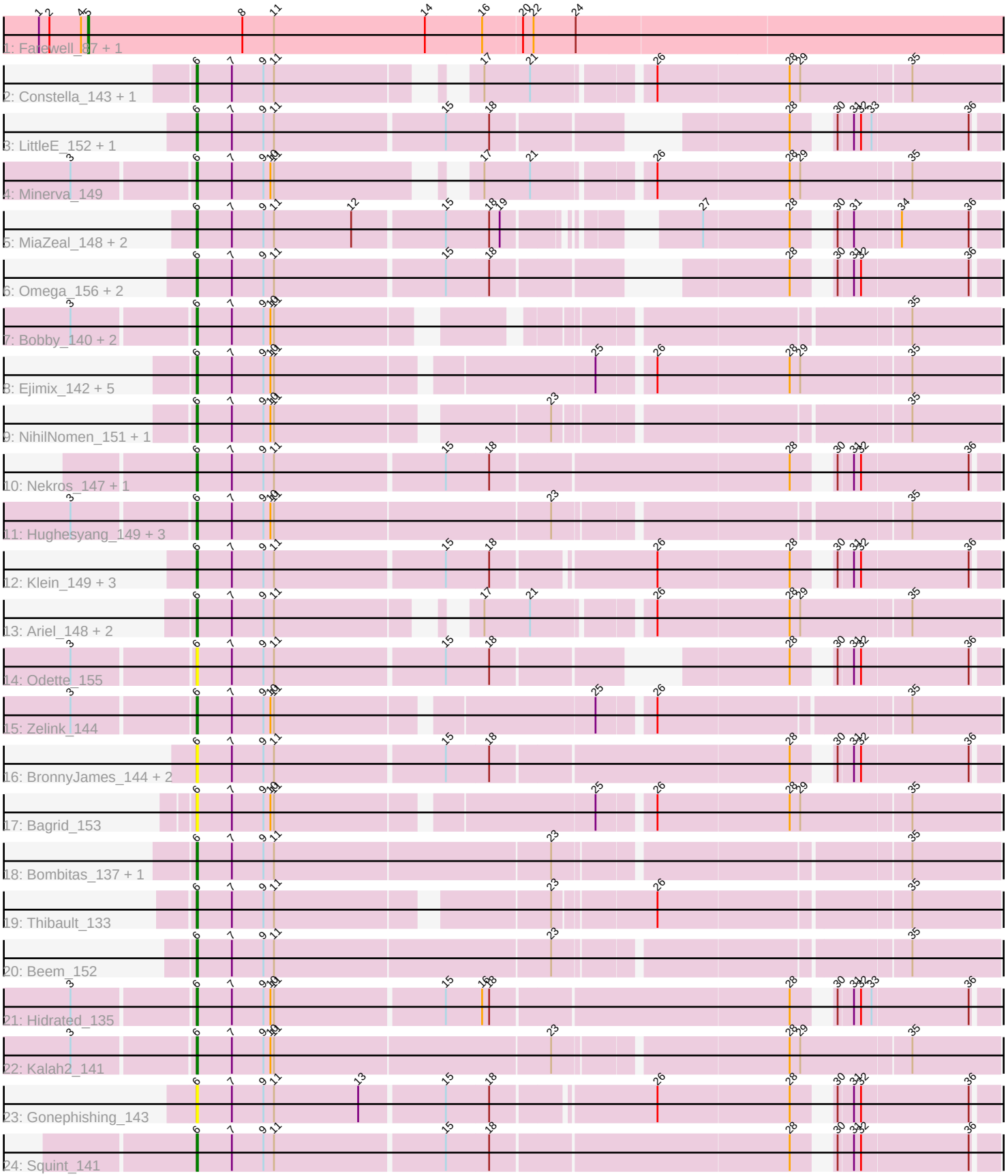
# Pham 342238


1: Farewell_137 + 1
2: Constella_143 + 1
3: LittleE_152 + 1
4: Minerva_149
5: MiaZeal_148 + 2
6: Omega_156 + 2
7: Bobby_140 + 2
8: Ejimix_142 + 5
9: NihilNomen_151 + 1
10: Nekros_147 + 1
11: Hughesyang_149 + 3
12: Klein_149 + 3
13: Ariel_148 + 2
14: Odette_155
15: Zelink_144
16: BronnyJames_144 + 2
17: Bagrid_153
18: Bombitas_137 + 1
19: Thibault_133
20: Beem_152
21: Hidrated_135
22: Kalah2_141
23: Gonephishing_143
24: Squint_141

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 342238 Report

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

Pham number 342238 has 51 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Farewell_87, Sparky_86
• Track 2 : Constella_143, Yeet_143
• Track 3 : LittleE_152, HokkenD_144
• Track 4 : Minerva_149
• Track 5 : MiaZeal_148, Porcelain_145, Lucky2013_141
• Track 6 : Omega_156, Optimus_143, Hannaconda_143
• Track 7 : Bobby_140, Marleymoo_135, Wanda_149
• Track 8 : Ejimix_142, DmpstrDiver_150, Halley_151, Dallas_150, Pound_141, Schatzie_145
• Track 9 : NihilNomen_151, Redno2_144
• Track 10 : Nekros_147, KashFlow_149
• Track 11 : Hughesyang_149, Phoebus_150, Dove_136, ThreeRngTarjay_145
• Track 12 : Klein_149, EricMillard_144, BAKA_152, Duke13_148
• Track 13 : Ariel_148, Courthouse_144, Superphikiman_146
• Track 14 : Odette_155
• Track 15 : Zelink_144
• Track 16 : BronnyJames_144, Nibley_143, Shaboozey_147
• Track 17 : Bagrid_153
• Track 18 : Bombitas_137, JuicyJay_145
• Track 19 : Thibault_133
• Track 20 : Beem_152
• Track 21 : Hidrated_135
• Track 22 : Kalah2_141
• Track 23 : Gonephishing_143
• Track 24 : Squint_141

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

The start number called the most often in the published annotations is 6, it was called in 41 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ariel_148, BAKA_152, Bagrid_153, Beem_152, Bobby_140, Bombitas_137, BronnyJames_144, Constella_143, Courthouse_144, Dallas_150, DmpstrDiver_150,

Dove_136, Duke13_148, Ejimix_142, EricMillard_144, Gonephishing_143, Halley_151, Hannaconda_143, Hidrated_135, HokkenD_144, Hughesyang_149, JuicyJay_145, Kalah2_141, KashFlow_149, Klein_149, LittleE_152, Lucky2013_141, Marleymoo_135, MiaZeal_148, Minerva_149, Nekros_147, Nibley_143, NihilNomen_151, Odette_155, Omega_156, Optimus_143, Phoebus_150, Porcelain_145, Pound_141, Redno2_144, Schatzie_145, Shaboozey_147, Squint_141, Superphikiman_146, Thibault_133, ThreeRngTarjay_145, Wanda_149, Yeet_143, Zelink_144,

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

Genes that do not have the "Most Annotated" start:
• Farewell_87, Sparky_86,

**Summary by start number:**

Start 5:
• Found in 2 of 51 ( 3.9% ) of genes in pham
• Manual Annotations of this start: 2 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Farewell_87 (AF), Sparky_86 (AF),

Start 6:
• Found in 49 of 51 ( 96.1% ) of genes in pham
• Manual Annotations of this start: 41 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ariel_148 (J), BAKA_152 (J), Bagrid_153 (J), Beem_152 (J), Bobby_140 (J), Bombitas_137 (J), BronnyJames_144 (J), Constella_143 (J), Courthouse_144 (J), Dallas_150 (J), DmpstrDiver_150 (J), Dove_136 (J), Duke13_148 (J), Ejimix_142 (J), EricMillard_144 (J), Gonephishing_143 (J), Halley_151 (J), Hannaconda_143 (J), Hidrated_135 (J), HokkenD_144 (J), Hughesyang_149 (J), JuicyJay_145 (J), Kalah2_141 (J), KashFlow_149 (J), Klein_149 (J), LittleE_152 (J), Lucky2013_141 (J), Marleymoo_135 (J), MiaZeal_148 (J), Minerva_149 (J), Nekros_147 (J), Nibley_143 (J), NihilNomen_151 (J), Odette_155 (J), Omega_156 (J), Optimus_143 (J), Phoebus_150 (J), Porcelain_145 (J), Pound_141 (J), Redno2_144 (J), Schatzie_145 (J), Shaboozey_147 (J), Squint_141 (J), Superphikiman_146 (J), Thibault_133 (J), ThreeRngTarjay_145 (J), Wanda_149 (J), Yeet_143 (J), Zelink_144 (J),

**Summary by clusters:**

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

Info for manual annotations of cluster AF:
•Start number 5 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster J:
•Start number 6 was manually annotated 41 times for cluster J.

***Gene Information:***

Gene: Ariel_148 Start: 76053, Stop: 76664, Start Num: 6
Candidate Starts for Ariel_148:
(Start: 6 @76053 has 41 MA's), (7, 76083), (9, 76110), (11, 76119), (17, 76251), (21, 76290), (26, 76380), (28, 76491), (29, 76500), (35, 76590),

Gene: BAKA_152 Start: 80701, Stop: 81333, Start Num: 6
Candidate Starts for BAKA_152:
(Start: 6 @80701 has 41 MA's), (7, 80731), (9, 80758), (11, 80767), (15, 80908), (18, 80944), (26, 81073), (28, 81184), (30, 81205), (31, 81217), (32, 81223), (36, 81313),

Gene: Bagrid_153 Start: 81396, Stop: 82040, Start Num: 6
Candidate Starts for Bagrid_153:
(Start: 6 @81396 has 41 MA's), (7, 81426), (9, 81453), (10, 81459), (11, 81462), (25, 81714), (26, 81756), (28, 81867), (29, 81876), (35, 81966),

Gene: Beem_152 Start: 80814, Stop: 81461, Start Num: 6
Candidate Starts for Beem_152:
(Start: 6 @80814 has 41 MA's), (7, 80844), (9, 80871), (11, 80880), (23, 81111), (35, 81387),

Gene: Bobby_140 Start: 80853, Stop: 81458, Start Num: 6
Candidate Starts for Bobby_140:
(3, 80754), (Start: 6 @80853 has 41 MA's), (7, 80883), (9, 80910), (10, 80916), (11, 80919), (35, 81384),

Gene: Bombitas_137 Start: 77667, Stop: 78314, Start Num: 6
Candidate Starts for Bombitas_137:
(Start: 6 @77667 has 41 MA's), (7, 77697), (9, 77724), (11, 77733), (23, 77964), (35, 78240),

Gene: BronnyJames_144 Start: 76976, Stop: 77614, Start Num: 6
Candidate Starts for BronnyJames_144:
(Start: 6 @76976 has 41 MA's), (7, 77006), (9, 77033), (11, 77042), (15, 77183), (18, 77219), (28, 77465), (30, 77486), (31, 77498), (32, 77504), (36, 77594),

Gene: Constella_143 Start: 78912, Stop: 79523, Start Num: 6
Candidate Starts for Constella_143:
(Start: 6 @78912 has 41 MA's), (7, 78942), (9, 78969), (11, 78978), (17, 79110), (21, 79149), (26, 79239), (28, 79350), (29, 79359), (35, 79449),

Gene: Courthouse_144 Start: 75911, Stop: 76522, Start Num: 6
Candidate Starts for Courthouse_144:
(Start: 6 @75911 has 41 MA's), (7, 75941), (9, 75968), (11, 75977), (17, 76109), (21, 76148), (26, 76238), (28, 76349), (29, 76358), (35, 76448),

Gene: Dallas_150 Start: 79726, Stop: 80370, Start Num: 6
Candidate Starts for Dallas_150:
(Start: 6 @79726 has 41 MA's), (7, 79756), (9, 79783), (10, 79789), (11, 79792), (25, 80044), (26, 80086), (28, 80197), (29, 80206), (35, 80296),

Gene: DmpstrDiver_150 Start: 79645, Stop: 80289, Start Num: 6
Candidate Starts for DmpstrDiver_150:
(Start: 6 @79645 has 41 MA's), (7, 79675), (9, 79702), (10, 79708), (11, 79711), (25, 79963), (26, 80005), (28, 80116), (29, 80125), (35, 80215),

Gene: Dove_136 Start: 75830, Stop: 76477, Start Num: 6
Candidate Starts for Dove_136:
(3, 75731), (Start: 6 @75830 has 41 MA's), (7, 75860), (9, 75887), (10, 75893), (11, 75896), (23, 76127), (35, 76403),

Gene: Duke13_148 Start: 78986, Stop: 79618, Start Num: 6
Candidate Starts for Duke13_148:
(Start: 6 @78986 has 41 MA's), (7, 79016), (9, 79043), (11, 79052), (15, 79193), (18, 79229), (26, 79358), (28, 79469), (30, 79490), (31, 79502), (32, 79508), (36, 79598),

Gene: Ejimix_142 Start: 79794, Stop: 80438, Start Num: 6
Candidate Starts for Ejimix_142:
(Start: 6 @79794 has 41 MA's), (7, 79824), (9, 79851), (10, 79857), (11, 79860), (25, 80112), (26, 80154), (28, 80265), (29, 80274), (35, 80364),

Gene: EricMillard_144 Start: 80338, Stop: 80970, Start Num: 6
Candidate Starts for EricMillard_144:
(Start: 6 @80338 has 41 MA's), (7, 80368), (9, 80395), (11, 80404), (15, 80545), (18, 80581), (26, 80710), (28, 80821), (30, 80842), (31, 80854), (32, 80860), (36, 80950),

Gene: Farewell_87 Start: 56708, Stop: 57493, Start Num: 5
Candidate Starts for Farewell_87:
(1, 56666), (2, 56675), (4, 56702), (Start: 5 @56708 has 2 MA's), (8, 56840), (11, 56867), (14, 56996), (16, 57044), (20, 57077), (22, 57086), (24, 57122),

Gene: Gonephishing_143 Start: 77978, Stop: 78610, Start Num: 6
Candidate Starts for Gonephishing_143:
(Start: 6 @77978 has 41 MA's), (7, 78008), (9, 78035), (11, 78044), (13, 78116), (15, 78185), (18, 78221), (26, 78350), (28, 78461), (30, 78482), (31, 78494), (32, 78500), (36, 78590),

Gene: Halley_151 Start: 80110, Stop: 80754, Start Num: 6
Candidate Starts for Halley_151:
(Start: 6 @80110 has 41 MA's), (7, 80140), (9, 80167), (10, 80173), (11, 80176), (25, 80428), (26, 80470), (28, 80581), (29, 80590), (35, 80680),

Gene: Hannaconda_143 Start: 78905, Stop: 79543, Start Num: 6
Candidate Starts for Hannaconda_143:
(Start: 6 @78905 has 41 MA's), (7, 78935), (9, 78962), (11, 78971), (15, 79112), (18, 79148), (28, 79394), (30, 79415), (31, 79427), (32, 79433), (36, 79523),

Gene: Hidrated_135 Start: 79290, Stop: 79928, Start Num: 6
Candidate Starts for Hidrated_135:
(3, 79191), (Start: 6 @79290 has 41 MA's), (7, 79320), (9, 79347), (10, 79353), (11, 79356), (15, 79497), (16, 79527), (18, 79533), (28, 79779), (30, 79800), (31, 79812), (32, 79818), (33, 79827), (36, 79908),

Gene: HokkenD_144 Start: 81241, Stop: 81879, Start Num: 6
Candidate Starts for HokkenD_144:
(Start: 6 @81241 has 41 MA's), (7, 81271), (9, 81298), (11, 81307), (15, 81448), (18, 81484), (28, 81730), (30, 81751), (31, 81763), (32, 81769), (33, 81778), (36, 81859),

Gene: Hughesyang_149 Start: 80466, Stop: 81113, Start Num: 6
Candidate Starts for Hughesyang_149:

(3, 80367), (Start: 6 @80466 has 41 MA's), (7, 80496), (9, 80523), (10, 80529), (11, 80532), (23, 80763), (35, 81039),

Gene: JuicyJay_145 Start: 81392, Stop: 82039, Start Num: 6
Candidate Starts for JuicyJay_145:
(Start: 6 @81392 has 41 MA's), (7, 81422), (9, 81449), (11, 81458), (23, 81689), (35, 81965),

Gene: Kalah2_141 Start: 79587, Stop: 80243, Start Num: 6
Candidate Starts for Kalah2_141:
(3, 79488), (Start: 6 @79587 has 41 MA's), (7, 79617), (9, 79644), (10, 79650), (11, 79653), (23, 79884), (28, 80070), (29, 80079), (35, 80169),

Gene: KashFlow_149 Start: 78904, Stop: 79542, Start Num: 6
Candidate Starts for KashFlow_149:
(Start: 6 @78904 has 41 MA's), (7, 78934), (9, 78961), (11, 78970), (15, 79111), (18, 79147), (28, 79393), (30, 79414), (31, 79426), (32, 79432), (36, 79522),

Gene: Klein_149 Start: 79476, Stop: 80108, Start Num: 6
Candidate Starts for Klein_149:
(Start: 6 @79476 has 41 MA's), (7, 79506), (9, 79533), (11, 79542), (15, 79683), (18, 79719), (26, 79848), (28, 79959), (30, 79980), (31, 79992), (32, 79998), (36, 80088),

Gene: LittleE_152 Start: 80401, Stop: 80988, Start Num: 6
Candidate Starts for LittleE_152:
(Start: 6 @80401 has 41 MA's), (7, 80431), (9, 80458), (11, 80467), (15, 80608), (18, 80644), (28, 80839), (30, 80860), (31, 80872), (32, 80878), (33, 80887), (36, 80968),

Gene: Lucky2013_141 Start: 75313, Stop: 75900, Start Num: 6
Candidate Starts for Lucky2013_141:
(Start: 6 @75313 has 41 MA's), (7, 75343), (9, 75370), (11, 75379), (12, 75445), (15, 75520), (18, 75556), (19, 75565), (27, 75682), (28, 75754), (30, 75775), (31, 75787), (34, 75823), (36, 75880),

Gene: Marleymoo_135 Start: 76599, Stop: 77204, Start Num: 6
Candidate Starts for Marleymoo_135:
(3, 76500), (Start: 6 @76599 has 41 MA's), (7, 76629), (9, 76656), (10, 76662), (11, 76665), (35, 77130),

Gene: MiaZeal_148 Start: 76460, Stop: 77047, Start Num: 6
Candidate Starts for MiaZeal_148:
(Start: 6 @76460 has 41 MA's), (7, 76490), (9, 76517), (11, 76526), (12, 76592), (15, 76667), (18, 76703), (19, 76712), (27, 76829), (28, 76901), (30, 76922), (31, 76934), (34, 76970), (36, 77027),

Gene: Minerva_149 Start: 79448, Stop: 80062, Start Num: 6
Candidate Starts for Minerva_149:
(3, 79349), (Start: 6 @79448 has 41 MA's), (7, 79478), (9, 79505), (10, 79511), (11, 79514), (17, 79649), (21, 79688), (26, 79778), (28, 79889), (29, 79898), (35, 79988),

Gene: Nekros_147 Start: 79298, Stop: 79936, Start Num: 6
Candidate Starts for Nekros_147:
(Start: 6 @79298 has 41 MA's), (7, 79328), (9, 79355), (11, 79364), (15, 79505), (18, 79541), (28, 79787), (30, 79808), (31, 79820), (32, 79826), (36, 79916),

Gene: Nibley_143 Start: 76553, Stop: 77191, Start Num: 6

Candidate Starts for Nibley_143:
(Start: 6 @76553 has 41 MA's), (7, 76583), (9, 76610), (11, 76619), (15, 76760), (18, 76796), (28, 77042), (30, 77063), (31, 77075), (32, 77081), (36, 77171),

Gene: NihilNomen_151 Start: 79340, Stop: 79963, Start Num: 6
Candidate Starts for NihilNomen_151:
(Start: 6 @79340 has 41 MA's), (7, 79370), (9, 79397), (10, 79403), (11, 79406), (23, 79616), (35, 79889),

Gene: Odette_155 Start: 82069, Stop: 82656, Start Num: 6
Candidate Starts for Odette_155:
(3, 81970), (Start: 6 @82069 has 41 MA's), (7, 82099), (9, 82126), (11, 82135), (15, 82276), (18, 82312), (28, 82507), (30, 82528), (31, 82540), (32, 82546), (36, 82636),

Gene: Omega_156 Start: 81565, Stop: 82152, Start Num: 6
Candidate Starts for Omega_156:
(Start: 6 @81565 has 41 MA's), (7, 81595), (9, 81622), (11, 81631), (15, 81772), (18, 81808), (28, 82003), (30, 82024), (31, 82036), (32, 82042), (36, 82132),

Gene: Optimus_143 Start: 79074, Stop: 79661, Start Num: 6
Candidate Starts for Optimus_143:
(Start: 6 @79074 has 41 MA's), (7, 79104), (9, 79131), (11, 79140), (15, 79281), (18, 79317), (28, 79512), (30, 79533), (31, 79545), (32, 79551), (36, 79641),

Gene: Phoebus_150 Start: 81820, Stop: 82467, Start Num: 6
Candidate Starts for Phoebus_150:
(3, 81721), (Start: 6 @81820 has 41 MA's), (7, 81850), (9, 81877), (10, 81883), (11, 81886), (23, 82117), (35, 82393),

Gene: Porcelain_145 Start: 76259, Stop: 76846, Start Num: 6
Candidate Starts for Porcelain_145:
(Start: 6 @76259 has 41 MA's), (7, 76289), (9, 76316), (11, 76325), (12, 76391), (15, 76466), (18, 76502), (19, 76511), (27, 76628), (28, 76700), (30, 76721), (31, 76733), (34, 76769), (36, 76826),

Gene: Pound_141 Start: 79053, Stop: 79697, Start Num: 6
Candidate Starts for Pound_141:
(Start: 6 @79053 has 41 MA's), (7, 79083), (9, 79110), (10, 79116), (11, 79119), (25, 79371), (26, 79413), (28, 79524), (29, 79533), (35, 79623),

Gene: Redno2_144 Start: 77342, Stop: 77965, Start Num: 6
Candidate Starts for Redno2_144:
(Start: 6 @77342 has 41 MA's), (7, 77372), (9, 77399), (10, 77405), (11, 77408), (23, 77618), (35, 77891),

Gene: Schatzie_145 Start: 79902, Stop: 80546, Start Num: 6
Candidate Starts for Schatzie_145:
(Start: 6 @79902 has 41 MA's), (7, 79932), (9, 79959), (10, 79965), (11, 79968), (25, 80220), (26, 80262), (28, 80373), (29, 80382), (35, 80472),

Gene: Shaboozey_147 Start: 76997, Stop: 77635, Start Num: 6
Candidate Starts for Shaboozey_147:
(Start: 6 @76997 has 41 MA's), (7, 77027), (9, 77054), (11, 77063), (15, 77204), (18, 77240), (28, 77486), (30, 77507), (31, 77519), (32, 77525), (36, 77615),

Gene: Sparky_86 Start: 58302, Stop: 59087, Start Num: 5
Candidate Starts for Sparky_86:
(1, 58260), (2, 58269), (4, 58296), (Start: 5 @58302 has 2 MA's), (8, 58434), (11, 58461), (14, 58590), (16, 58638), (20, 58671), (22, 58680), (24, 58716),

Gene: Squint_141 Start: 75693, Stop: 76331, Start Num: 6
Candidate Starts for Squint_141:
(Start: 6 @75693 has 41 MA's), (7, 75723), (9, 75750), (11, 75759), (15, 75900), (18, 75936), (28, 76182), (30, 76203), (31, 76215), (32, 76221), (36, 76311),

Gene: Superphikiman_146 Start: 76193, Stop: 76804, Start Num: 6
Candidate Starts for Superphikiman_146:
(Start: 6 @76193 has 41 MA's), (7, 76223), (9, 76250), (11, 76259), (17, 76391), (21, 76430), (26, 76520), (28, 76631), (29, 76640), (35, 76730),

Gene: Thibault_133 Start: 76788, Stop: 77420, Start Num: 6
Candidate Starts for Thibault_133:
(Start: 6 @76788 has 41 MA's), (7, 76818), (9, 76845), (11, 76854), (23, 77064), (26, 77145), (35, 77346),

Gene: ThreeRngTarjay_145 Start: 80411, Stop: 81058, Start Num: 6
Candidate Starts for ThreeRngTarjay_145:
(3, 80312), (Start: 6 @80411 has 41 MA's), (7, 80441), (9, 80468), (10, 80474), (11, 80477), (23, 80708), (35, 80984),

Gene: Wanda_149 Start: 77928, Stop: 78533, Start Num: 6
Candidate Starts for Wanda_149:
(3, 77829), (Start: 6 @77928 has 41 MA's), (7, 77958), (9, 77985), (10, 77991), (11, 77994), (35, 78459),

Gene: Yeet_143 Start: 79298, Stop: 79909, Start Num: 6
Candidate Starts for Yeet_143:
(Start: 6 @79298 has 41 MA's), (7, 79328), (9, 79355), (11, 79364), (17, 79496), (21, 79535), (26, 79625), (28, 79736), (29, 79745), (35, 79835),

Gene: Zelink_144 Start: 80740, Stop: 81375, Start Num: 6
Candidate Starts for Zelink_144:
(3, 80641), (Start: 6 @80740 has 41 MA's), (7, 80770), (9, 80797), (10, 80803), (11, 80806), (25, 81058), (26, 81100), (35, 81301),