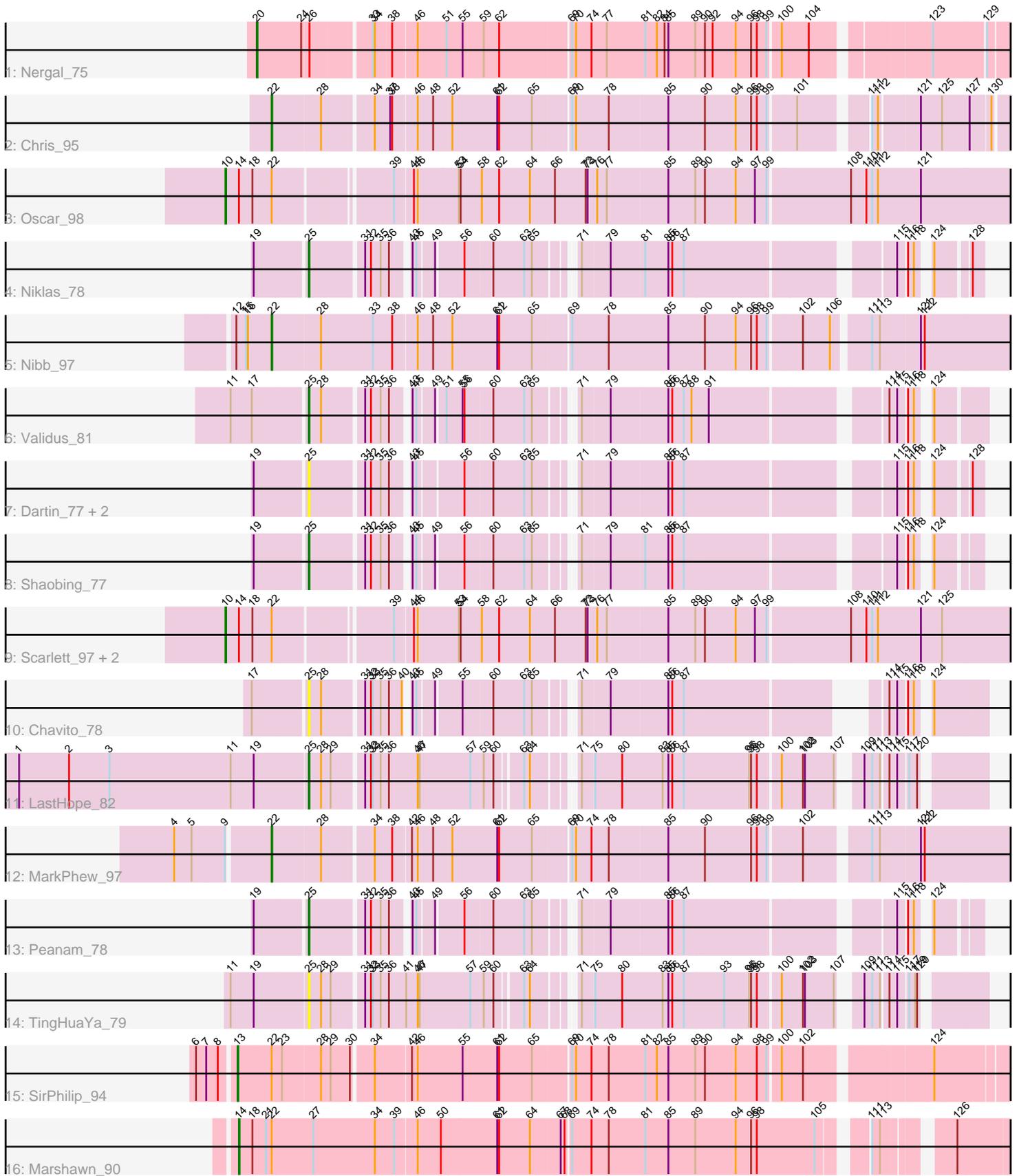


# Pham 284202



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 284202 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284202 has 20 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Nergal\_75
- Track 2 : Chris\_95
- Track 3 : Oscar\_98
- Track 4 : Niklas\_78
- Track 5 : Nibb\_97
- Track 6 : Validus\_81
- Track 7 : Dartin\_77, Richo\_77, McMater\_77
- Track 8 : Shaobing\_77
- Track 9 : Scarlett\_97, LeMond\_97, KiSi\_98
- Track 10 : Chavito\_78
- Track 11 : LastHope\_82
- Track 12 : MarkPhew\_97
- Track 13 : Peanam\_78
- Track 14 : TingHuaYa\_79
- Track 15 : SirPhilip\_94
- Track 16 : Marshawn\_90

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

The start number called the most often in the published annotations is 25, it was called in 5 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Chavito\_78, Dartin\_77, LastHope\_82, McMater\_77, Niklas\_78, Peanam\_78, Richo\_77, Shaobing\_77, TingHuaYa\_79, Validus\_81,

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

- 

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

- Chris\_95, KiSi\_98, LeMond\_97, MarkPhew\_97, Marshawn\_90, Nergal\_75, Nibb\_97, Oscar\_98, Scarlett\_97, SirPhilip\_94,

### **Summary by start number:**

Start 10:

- Found in 4 of 20 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 4 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KiSi\_98 (K1), LeMond\_97 (K1), Oscar\_98 (K1), Scarlett\_97 (K1),

Start 13:

- Found in 1 of 20 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SirPhilip\_94 (K6),

Start 14:

- Found in 5 of 20 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Marshawn\_90 (K6),

Start 20:

- Found in 1 of 20 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nergal\_75 (AG),

Start 22:

- Found in 9 of 20 ( 45.0% ) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Chris\_95 (K1), MarkPhew\_97 (K1), Nibb\_97 (K1),

Start 25:

- Found in 10 of 20 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 5 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chavito\_78 (K1), Dartin\_77 (K1), LastHope\_82 (K1), McMater\_77 (K1), Niklas\_78 (K1), Peanam\_78 (K1), Richo\_77 (K1), Shaobing\_77 (K1), TingHuaYa\_79 (K1), Validus\_81 (K1),

**Summary by clusters:**

There are 3 clusters represented in this pham: K1, K6, AG,

Info for manual annotations of cluster AG:

- Start number 20 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster K1:

- Start number 10 was manually annotated 4 times for cluster K1.
- Start number 22 was manually annotated 3 times for cluster K1.
- Start number 25 was manually annotated 5 times for cluster K1.

Info for manual annotations of cluster K6:

- Start number 13 was manually annotated 1 time for cluster K6.
- Start number 14 was manually annotated 1 time for cluster K6.

**Gene Information:**

Gene: Chavito\_78 Start: 51311, Stop: 52174, Start Num: 25

Candidate Starts for Chavito\_78:

(17, 51233), (Start: 25 @51311 has 5 MA's), (28, 51329), (31, 51386), (32, 51395), (33, 51398), (35, 51410), (36, 51422), (40, 51440), (43, 51443), (45, 51449), (49, 51473), (55, 51509), (60, 51551), (63, 51599), (65, 51611), (71, 51659), (79, 51701), (85, 51788), (86, 51794), (87, 51812), (114, 52049), (115, 52061), (116, 52073), (118, 52082), (124, 52094),

Gene: Chris\_95 Start: 58806, Stop: 59939, Start Num: 22

Candidate Starts for Chris\_95:

(Start: 22 @58806 has 3 MA's), (28, 58878), (34, 58947), (37, 58971), (38, 58974), (46, 59010), (48, 59034), (52, 59064), (61, 59133), (62, 59136), (65, 59187), (69, 59241), (70, 59247), (78, 59298), (85, 59388), (90, 59445), (94, 59493), (96, 59517), (98, 59526), (99, 59541), (101, 59577), (111, 59667), (112, 59676), (121, 59730), (125, 59763), (127, 59805), (130, 59835),

Gene: Dartin\_77 Start: 50562, Stop: 51440, Start Num: 25

Candidate Starts for Dartin\_77:

(19, 50487), (Start: 25 @50562 has 5 MA's), (31, 50637), (32, 50646), (35, 50661), (36, 50673), (43, 50694), (45, 50700), (56, 50763), (60, 50802), (63, 50850), (65, 50862), (71, 50910), (79, 50952), (85, 51039), (86, 51045), (87, 51063), (115, 51345), (116, 51357), (118, 51366), (124, 51378), (128, 51423),

Gene: KiSi\_98 Start: 59172, Stop: 60431, Start Num: 10

Candidate Starts for KiSi\_98:

(Start: 10 @59172 has 4 MA's), (Start: 14 @59193 has 1 MA's), (18, 59214), (Start: 22 @59244 has 3 MA's), (39, 59409), (44, 59436), (46, 59442), (53, 59505), (54, 59508), (58, 59541), (62, 59568), (64, 59616), (66, 59655), (72, 59703), (73, 59706), (76, 59721), (77, 59736), (85, 59829), (89, 59871), (90, 59886), (94, 59934), (97, 59964), (99, 59982), (108, 60102), (110, 60126), (111, 60135), (112, 60144), (121, 60210), (125, 60243),

Gene: LastHope\_82 Start: 50083, Stop: 51000, Start Num: 25

Candidate Starts for LastHope\_82:

(1, 49636), (2, 49714), (3, 49777), (11, 49966), (19, 50002), (Start: 25 @50083 has 5 MA's), (28, 50101), (29, 50116), (31, 50158), (32, 50167), (33, 50170), (35, 50182), (36, 50194), (46, 50239), (47, 50242), (57, 50320), (59, 50338), (60, 50350), (63, 50386), (64, 50395), (71, 50446), (75, 50464), (80, 50506), (83, 50569), (85, 50578), (86, 50584), (87, 50602), (95, 50701), (96, 50704), (98, 50713), (100, 50743), (102, 50773), (103, 50776), (107, 50821), (109, 50842), (111, 50854), (113, 50866), (114, 50875), (115, 50887), (117, 50899), (120, 50911),

Gene: LeMond\_97 Start: 59129, Stop: 60388, Start Num: 10

Candidate Starts for LeMond\_97:

(Start: 10 @59129 has 4 MA's), (Start: 14 @59150 has 1 MA's), (18, 59171), (Start: 22 @59201 has 3 MA's), (39, 59366), (44, 59393), (46, 59399), (53, 59462), (54, 59465), (58, 59498), (62, 59525), (64, 59573), (66, 59612), (72, 59660), (73, 59663), (76, 59678), (77, 59693), (85, 59786), (89, 59828), (90, 59843), (94, 59891), (97, 59921), (99, 59939), (108, 60059), (110, 60083), (111, 60092), (112, 60101), (121, 60167), (125, 60200),

Gene: MarkPhew\_97 Start: 58854, Stop: 60011, Start Num: 22

Candidate Starts for MarkPhew\_97:

(4, 58713), (5, 58740), (9, 58791), (Start: 22 @58854 has 3 MA's), (28, 58926), (34, 58995), (38, 59022), (42, 59049), (46, 59058), (48, 59082), (52, 59112), (61, 59181), (62, 59184), (65, 59235), (69, 59289), (70, 59295), (74, 59319), (78, 59346), (85, 59436), (90, 59493), (96, 59565), (98, 59574), (99, 59589), (102, 59634), (111, 59721), (113, 59733), (121, 59790), (122, 59796),

Gene: Marshawn\_90 Start: 58111, Stop: 59241, Start Num: 14

Candidate Starts for Marshawn\_90:

(Start: 14 @58111 has 1 MA's), (18, 58132), (21, 58153), (Start: 22 @58162 has 3 MA's), (27, 58225), (34, 58321), (39, 58351), (46, 58384), (50, 58420), (61, 58507), (62, 58510), (64, 58558), (67, 58603), (68, 58609), (69, 58615), (74, 58645), (78, 58672), (81, 58729), (85, 58765), (89, 58807), (94, 58870), (96, 58894), (98, 58903), (105, 58993), (111, 59047), (113, 59059), (126, 59143),

Gene: McMater\_77 Start: 50562, Stop: 51440, Start Num: 25

Candidate Starts for McMater\_77:

(19, 50487), (Start: 25 @50562 has 5 MA's), (31, 50637), (32, 50646), (35, 50661), (36, 50673), (43, 50694), (45, 50700), (56, 50763), (60, 50802), (63, 50850), (65, 50862), (71, 50910), (79, 50952), (85, 51039), (86, 51045), (87, 51063), (115, 51345), (116, 51357), (118, 51366), (124, 51378), (128, 51423),

Gene: Nergal\_75 Start: 50377, Stop: 51474, Start Num: 20

Candidate Starts for Nergal\_75:

(Start: 20 @50377 has 1 MA's), (24, 50446), (26, 50455), (33, 50539), (34, 50542), (38, 50566), (46, 50602), (51, 50647), (55, 50671), (59, 50704), (62, 50728), (69, 50833), (70, 50839), (74, 50863), (77, 50887), (81, 50947), (82, 50965), (84, 50977), (85, 50983), (89, 51025), (90, 51040), (92, 51052), (94, 51088), (96, 51112), (98, 51121), (99, 51136), (100, 51151), (104, 51190), (123, 51343), (129, 51418),

Gene: Nibb\_97 Start: 58597, Stop: 59775, Start Num: 22

Candidate Starts for Nibb\_97:

(12, 58543), (15, 58558), (16, 58561), (Start: 22 @58597 has 3 MA's), (28, 58669), (33, 58747), (38, 58777), (46, 58813), (48, 58837), (52, 58867), (61, 58936), (62, 58939), (65, 58990), (69, 59044), (78, 59101), (85, 59194), (90, 59251), (94, 59299), (96, 59323), (98, 59332), (99, 59347), (102, 59392), (106, 59434), (111, 59485), (113, 59497), (121, 59554), (122, 59560),

Gene: Niklas\_78 Start: 50623, Stop: 51501, Start Num: 25

Candidate Starts for Niklas\_78:

(19, 50548), (Start: 25 @50623 has 5 MA's), (31, 50698), (32, 50707), (35, 50722), (36, 50734), (43, 50755), (45, 50761), (49, 50785), (56, 50824), (60, 50863), (63, 50911), (65, 50923), (71, 50971), (79, 51013), (81, 51064), (85, 51100), (86, 51106), (87, 51124), (115, 51406), (116, 51418), (118, 51427), (124, 51439), (128, 51484),

Gene: Oscar\_98 Start: 59051, Stop: 60310, Start Num: 10

Candidate Starts for Oscar\_98:

(Start: 10 @59051 has 4 MA's), (Start: 14 @59072 has 1 MA's), (18, 59093), (Start: 22 @59123 has 3 MA's), (39, 59288), (44, 59315), (46, 59321), (53, 59384), (54, 59387), (58, 59420), (62, 59447), (64, 59495), (66, 59534), (72, 59582), (73, 59585), (76, 59600), (77, 59615), (85, 59708), (89, 59750), (90, 59765), (94, 59813), (97, 59843), (99, 59861), (108, 59981), (110, 60005), (111, 60014), (112, 60023), (121, 60089),

Gene: Peanam\_78 Start: 50581, Stop: 51459, Start Num: 25

Candidate Starts for Peanam\_78:

(19, 50506), (Start: 25 @50581 has 5 MA's), (31, 50656), (32, 50665), (35, 50680), (36, 50692), (43, 50713), (45, 50719), (49, 50743), (56, 50782), (60, 50821), (63, 50869), (65, 50881), (71, 50929), (79, 50971), (85, 51058), (86, 51064), (87, 51082), (115, 51364), (116, 51376), (118, 51385), (124, 51397),

Gene: Richo\_77 Start: 50562, Stop: 51440, Start Num: 25

Candidate Starts for Richo\_77:

(19, 50487), (Start: 25 @50562 has 5 MA's), (31, 50637), (32, 50646), (35, 50661), (36, 50673), (43, 50694), (45, 50700), (56, 50763), (60, 50802), (63, 50850), (65, 50862), (71, 50910), (79, 50952), (85, 51039), (86, 51045), (87, 51063), (115, 51345), (116, 51357), (118, 51366), (124, 51378), (128, 51423),

Gene: Scarlett\_97 Start: 58920, Stop: 60179, Start Num: 10

Candidate Starts for Scarlett\_97:

(Start: 10 @58920 has 4 MA's), (Start: 14 @58941 has 1 MA's), (18, 58962), (Start: 22 @58992 has 3 MA's), (39, 59157), (44, 59184), (46, 59190), (53, 59253), (54, 59256), (58, 59289), (62, 59316), (64, 59364), (66, 59403), (72, 59451), (73, 59454), (76, 59469), (77, 59484), (85, 59577), (89, 59619), (90, 59634), (94, 59682), (97, 59712), (99, 59730), (108, 59850), (110, 59874), (111, 59883), (112, 59892), (121, 59958), (125, 59991),

Gene: Shaobing\_77 Start: 50598, Stop: 51476, Start Num: 25

Candidate Starts for Shaobing\_77:

(19, 50523), (Start: 25 @50598 has 5 MA's), (31, 50673), (32, 50682), (35, 50697), (36, 50709), (43, 50730), (45, 50736), (49, 50760), (56, 50799), (60, 50838), (63, 50886), (65, 50898), (71, 50946), (79, 50988), (81, 51039), (85, 51075), (86, 51081), (87, 51099), (115, 51381), (116, 51393), (118, 51402), (124, 51414),

Gene: SirPhilip\_94 Start: 58988, Stop: 60181, Start Num: 13

Candidate Starts for SirPhilip\_94:

(6, 58934), (7, 58949), (8, 58967), (Start: 13 @58988 has 1 MA's), (Start: 22 @59039 has 3 MA's), (23, 59054), (28, 59111), (29, 59123), (30, 59150), (34, 59180), (42, 59234), (46, 59243), (55, 59312), (61, 59366), (62, 59369), (65, 59420), (69, 59474), (70, 59480), (74, 59504), (78, 59531), (81, 59588), (82, 59606), (85, 59624), (89, 59666), (90, 59681), (94, 59729), (98, 59762), (99, 59777), (100, 59792), (102, 59822), (124, 59993),

Gene: TingHuaYa\_79 Start: 50154, Stop: 51071, Start Num: 25

Candidate Starts for TingHuaYa\_79:

(11, 50037), (19, 50073), (Start: 25 @50154 has 5 MA's), (28, 50172), (29, 50187), (31, 50229), (32, 50238), (33, 50241), (35, 50253), (36, 50265), (41, 50292), (46, 50310), (47, 50313), (57, 50391), (59, 50409), (60, 50421), (63, 50457), (64, 50466), (71, 50517), (75, 50535), (80, 50577), (83, 50640), (85, 50649), (86, 50655), (87, 50673), (93, 50733), (95, 50772), (96, 50775), (98, 50784), (100, 50814), (102, 50844), (103, 50847), (107, 50892), (109, 50913), (111, 50925), (113, 50937), (114, 50946), (115, 50958), (117, 50970), (119, 50979), (120, 50982),

Gene: Validus\_81 Start: 51145, Stop: 52035, Start Num: 25

Candidate Starts for Validus\_81:

(11, 51034), (17, 51067), (Start: 25 @51145 has 5 MA's), (28, 51163), (31, 51220), (32, 51229), (35, 51244), (36, 51256), (43, 51277), (45, 51283), (49, 51307), (51, 51319), (55, 51343), (56, 51346), (60, 51385), (63, 51433), (65, 51445), (71, 51493), (79, 51535), (85, 51622), (86, 51628), (87, 51646), (88, 51658), (91, 51682), (114, 51919), (115, 51931), (116, 51943), (118, 51952), (124, 51964),