

Griffiths	Dingle	Stabler	Nos	Con	ST	adk	atpA	dxr	glyA	recA	sodA	tpi	
RT001	RT001	RT001	15	RT001	3	1	1	2	1	1	1	1	
		RT002	1	RT002	2	1	1	2	1	5	3	1	
RT002	RT002	RT002	10	RT002	8	1	1	2	6	1	5	1	
		RT002	4	RT002	35	2	5	8	1	1	3	6	
		RT002	1	RT002	48	1	1	2	1	1	5	1	
		RT002	1	RT002	New	1	1	2	6	1	5	4	New (ST146)
RT003	RT003			RT003	12	1	1	6	4	3	5	1	
		RT003	1	RT003	57	1	1	6	4	3	5	13	
RT005	RT005	RT005	2	RT005	6	2	1	6	1	1	5	1	
		RT005		RT005	72	2	1	6	13	1	5	1	
		RT005		RT005	89	2	1	6	1	1	21	1	
		RT005		RT005	90	2	1	16	1	1	5	1	
		RT005	1	RT005	New	2	1	6	8	1	5	1	New (ST131)
RT009	RT009	RT009	1	RT009	3	1	1	2	1	1	1	1	
RT010		RT010	3	RT010	15	1	1	6	1	8	5	1	
RT011	RT011			RT011	36	2	1	2	3	1	5	1	
		RT011		RT011	77	2	1	6	1	3	5	1	
		RT011	1	RT011	New	2	1	2	16	1	5	1	New (ST138)
RT012	RT012	RT012	3	RT012	54	1	4	7	1	1	3	3	
		RT013	1	RT013	45	4	1	6	1	1	5	1	
		RT013		RT013	71	4	1	6	1	1	15	1	
		RT013		RT013	78	4	1	6	1	1	1	1	
RT014	RT014	RT014	2	RT014	2	1	1	2	1	5	3	1	
		RT014	1	RT014	13	1	1	6	1	5	3	1	
RT014	RT014			RT014	14	1	1	2	1	5	5	3	
		RT014	1	RT014	49	1	1	2	1	5	3	3	
		RT014		RT014	50	1	1	6	1	5	3	17	
		RT014	1	RT014	New	5	1	6	1	5	3	1	New (ST132)
RT015	RT015	RT015	3	RT015	10	2	1	2	1	1	3	1	
		RT015	4	RT015	44	2	5	2	1	1	3	1	
RT017	RT017	RT017	8	RT017	37	3	7	3	8	6	9	11	
		RT017	1	RT017	86	3	7	3	8	6	19	11	
RT018	RT018	RT018	1	RT018	17	1	1	2	1	1	5	3	
RT019	RT019			RT019	67	1	1	9	9	1	3	5	
RT020	RT020	RT020	2	RT020	2	1	1	2	1	5	3	1	
		RT020		RT020	28	1	1	2	1	1	3	1	
		RT020		RT020	68	1	4	2	1	5	3	1	
RT021	RT021	RT021	1	RT021	56	1	3	6	3	1	5	1	
		RT021		RT021	70	1	3	6	3	1	14	1	
		RT022	1	RT022	66	1	1	2	6	1	5	3	
RT023	RT023	RT023	4	RT023	5	1	6	4	7	2	8	7	
RT023	RT023	RT023	1	RT023	22	1	1	4	7	2	8	7	
		RT023		RT023	25	6	6	4	7	2	8	7	
RT026	RT026	RT026	1	RT026	7	1	1	7	1	1	5	1	
RT027	RT027	RT027	53	RT027	1	1	1	1	10	1	3	5	
		RT029	1	RT029	New	1	1	2	3	1	3	1	New (ST137)
		RT030	1	RT030	48	1	1	2	1	1	5	1	
		RT031	1	RT031	29	1	1	2	16	1	3	1	
		RT033	1	RT033	11	5	8	5	11	9	11	8	

RT035				RT035	40	4	5	6	1	3	1	1
RT036				RT036	1	1	1	1	10	1	3	5
		RT036	1	RT036	62	1	1	1	9	1	3	1
	RT038			RT038	48	1	1	2	1	1	5	1
RT039				RT039	26	1	1	6	1	4	3	4
		RT042	1	RT042	6	2	1	6	1	1	5	1
RT046	RT046	RT046	1	RT046	35	2	5	8	1	1	3	6
		RT050	1	RT050	6	2	1	6	1	1	5	1
RT050	RT050	RT050	1	RT050	16	1	1	2	6	1	3	1
RT050	RT050	RT050	2	RT050	18	1	1	2	5	1	3	1
		RT052	1	RT052	New	2	1	6	16	1	5	13 New (ST136)
	RT053	RT053	1	RT053	63	1	1	7	5	1	3	3
	RT054	RT054	2	RT054	43	1	7	6	1	1	5	6
RT056	RT056			RT056	34	1	5	7	1	1	3	1
	RT056			RT056	58	1	5	7	1	1	13	1
		RT059	1	RT059	53	1	2	2	1	1	5	1
RT060				RT060	38	3	7	10	8	6	2	9
		RT062	1	RT062	44	2	5	2	1	1	3	1
	RT062			RT062	75	7	3	13	1	10	1	1
RT063				RT063	5	1	6	4	7	2	8	7
RT064		RT064	1	RT064	33	1	1	2	1	6	5	3
				RT066	11	5	8	5	11	9	11	8
RT067				RT067	27	1	1	6	1	1	3	4
	RT070			RT070	15	1	1	6	1	8	5	1
	RT070	RT070	1	RT070	55	1	1	6	6	1	12	12
RT072	RT072			RT072	3	1	1	2	1	1	1	1
RT072				RT072	69	1	1	7	1	1	1	1
RT076	RT076			RT076	2	1	1	2	1	5	3	1
RT078	RT078	RT078	106	RT078	11	5	8	5	11	9	11	8
RT081	RT081	RT081	1	RT081	9	1	1	6	1	1	6	1
		RT081	1	RT081	New	2	1	2	1	1	1	3 New (ST139)
RT085		RT085	1	RT085	39	3	7	10	8	7	2	10
		RT087	2	RT087	46	4	1	6	1	1	10	1
		RT087	1	RT087	New	4	1	6	1	1	10	12 New (ST145)
		RT094	2	RT094	12	1	1	6	4	3	5	1
	RT097	RT097	1	RT097	21	2	2	2	1	1	1	3
RT103	RT103			RT103	53	1	2	2	1	1	5	1
	RT103			RT103	73	1	2	12	1	1	5	1
	RT103			RT103	76	1	1	6	1	1	1	1
	RT104			RT104	48	1	1	2	1	1	5	1
	RT106			RT106	41	1	1	9	9	1	3	2
RT106	RT106	RT106	9	RT106	42	1	1	2	1	1	7	1
		RT106	1	RT106	New	1	1	2	8	1	7	1 New (ST135)
		RT107	1	RT107	New	2	1	2	1	1	1	3 New (ST139)
RT110	RT110			RT110	19	1	1	8	2	1	1	3
		RT111	1	RT111	New	1	1	9	9	1	1	2 New (ST140)
RT115	RT115			RT115	3	1	1	2	1	1	1	1
		RT116	1	RT116	10	2	1	2	1	1	3	1
RT118		RT118	1	RT118	42	1	1	2	1	1	7	1
		RT126	10	RT126	11	5	8	5	11	9	11	8

			RT127	3	RT127	11	5	8	5	11	9	11	8	
RT129	RT129				RT129	13	1	1	6	1	5	3	1	
			RT135	1	RT135	41	1	1	9	9	1	3	2	
RT137	RT137				RT137	4	1	2	2	1	1	5	3	
					RT138	23	3	7	14	14	11	16	15	
	RT139	RT139		1	RT139	52	1	1	2	6	1	12	1	
RT140	RT140	RT140		1	RT140	26	1	1	6	1	4	3	4	
RT153					RT153	32	1	1	11	1	1	3	2	
RT159					RT159	8	1	1	2	6	1	5	1	
RT174	RT174				RT174	42	1	1	2	1	1	7	1	
			RT176	2	RT176	1	1	1	1	10	1	3	5	
RT186	RT186	RT186		1	RT186	51	1	1	2	6	1	7	6	
RT191					RT191	46	4	1	6	1	1	10	1	
	RT194				RT194	41	1	1	9	9	1	3	2	
			RT196	1	RT196	New	1	1	2	2	1	5	3	New (ST144)
RT202					RT202	20	1	1	8	1	1	4	3	
	RT202				RT202	24	1	1	8	12	1	4	3	
			RT212	1	RT212	5	1	6	4	7	2	8	7	
	RT216	RT216		1	RT216	33	1	1	2	1	6	5	3	
RT220	RT220				RT220	2	1	1	2	1	5	3	1	
	RT224				RT224	65	1	1	7	3	1	5	6	
RT225	RT225				RT225	12	1	1	6	4	3	5	1	
	RT228				RT228	92	1	1	2	3	1	5	1	
			RT237	5	RT237	11	5	8	5	11	9	11	8	
			RT239	1	RT239	New	10	8	5	11	9	11	8	New (ST147)
			RT243	1	RT243	New	2	1	2	1	1	1	3	New (ST139)
RT249					RT249	51	1	1	2	6	1	7	6	
			RT259	1	RT259	New	1	3	7	1	3	1	6	New (ST141)
RT262	RT262	2			RT262	3	1	1	2	1	1	1	1	
	RT262	1			RT262	New	1	11	6	16	1	1	1	New (ST143)
	RT264	1			RT264	New	8	7	14	8	6	25	15	New (ST142)
	RT268	1			RT268	3	1	1	2	1	1	1	1	
	RT271	1			RT271	6	2	1	6	1	1	5	1	
	RT274	1			RT274	New	1	1	7	1	1	3	3	New (ST133)
	RT280	1			RT280	11	5	8	5	11	9	11	8	
	RT281	1			RT281	11	5	8	5	11	9	11	8	
	RT283	1			RT283	New	1	3	2	15	1	3	3	New (ST134)
	RT291	1			RT291	New	5	8	5	11	9	11	20	New (ST148)
RT305					RT305	3	1	1	2	1	1	1	1	
RT316					RT316	59	1	3	6	15	1	17	1	
RT319					RT319	74	1	1	13	1	3	1	14	
RT320					RT320	46	4	1	6	1	1	10	1	
RT321					RT321	41	1	1	9	9	1	3	2	
RT323					RT323	31	1	5	7	6	1	1	1	
RT326					RT326	91	1	1	6	6	1	6	1	
RT336					RT336	60	1	3	15	15	1	3	1	
						30	8	7	14	8	6	16	15	
						47	1	1	11	17	1	3	2	
						61	1	5	11	1	1	3	2	
						64	1	1	6	1	1	13	1	

79	1	3	2	1	1	1	16
80	1	1	13	1	3	1	3
81	3	1	3	8	6	9	11
82	1	1	6	1	1	1	3
83	1	1	6	1	1	3	1
84	1	9	2	1	1	1	1
85	1	10	7	1	1	3	3
86	3	7	3	8	6	19	11
87	3	7	3	8	6	20	10
88	9	7	3	8	6	18	10
93	3	7	3	8	11	20	10
94	2	1	6	1	1	10	1
95	1	5	11	17	1	3	1
96	1	6	4	7	12	8	7
97	1	1	11	1	1	22	1
98	1	1	2	6	1	1	3
99	1	11	6	6	1	12	12
100	1	1	6	19	2	24	1
101	1	2	2	1	1	23	1
102	1	1	2	1	5	5	1
103	1	1	2	15	8	5	3
104	1	1	13	1	1	1	6
105	2	2	4	1	1	1	3
106	2	1	2	10	1	5	1
107	4	1	6	1	3	1	1
108	1	1	6	1	8	5	5
109	3	12	10	18	6	18	15
110	1	1	2	1	13	3	1
111	1	1	2	1	1	3	3
112	1	1	7	3	1	5	3
113	2	1	17	1	1	5	1
114	1	1	9	9	1	1	18
115	1	1	2	6	1	7	3
116	1	1	9	9	1	22	5
117	1	1	7	1	2	5	1
118	1	13	2	1	1	1	19
119	1	1	2	20	1	5	1
120	1	1	1	1	5	3	1
121	3	7	3	8	7	2	10
122	1	1	4	1	1	1	10
123	1	14	9	1	1	3	2

Griffiths	Dingle	Stabler	Nos	Con	ST	adk	atpA	dxr	glyA	recA	sodA	tpi
RT027	RT027	RT027	53	RT027	1	1	1	1	10	1	3	5
RT036				RT036	1	1	1	1	10	1	3	5
		RT176	2	RT176	1	1	1	1	10	1	3	5
		RT002	1	RT002	2	1	1	2	1	5	3	1
RT014	RT014	RT014	2	RT014	2	1	1	2	1	5	3	1
RT020	RT020	RT020	2	RT020	2	1	1	2	1	5	3	1
RT076	RT076			RT076	2	1	1	2	1	5	3	1
RT220	RT220			RT220	2	1	1	2	1	5	3	1
RT001	RT001	RT001	15	RT001	3	1	1	2	1	1	1	1
RT009	RT009	RT009	1	RT009	3	1	1	2	1	1	1	1
RT072	RT072			RT072	3	1	1	2	1	1	1	1
RT115	RT115			RT115	3	1	1	2	1	1	1	1
	RT262	RT262	2	RT262	3	1	1	2	1	1	1	1
	RT268	RT268	1	RT268	3	1	1	2	1	1	1	1
	RT305			RT305	3	1	1	2	1	1	1	1
RT137	RT137			RT137	4	1	2	2	1	1	5	3
RT023	RT023	RT023	4	RT023	5	1	6	4	7	2	8	7
RT063				RT063	5	1	6	4	7	2	8	7
	RT212	RT212	1	RT212	5	1	6	4	7	2	8	7
RT005	RT005	RT005	2	RT005	6	2	1	6	1	1	5	1
	RT042	RT042	1	RT042	6	2	1	6	1	1	5	1
	RT050	RT050	1	RT050	6	2	1	6	1	1	5	1
	RT271	RT271	1	RT271	6	2	1	6	1	1	5	1
RT026	RT026	RT026	1	RT026	7	1	1	7	1	1	5	1
RT002	RT002	RT002	10	RT002	8	1	1	2	6	1	5	1
RT159				RT159	8	1	1	2	6	1	5	1
RT081	RT081	RT081	1	RT081	9	1	1	6	1	1	6	1
RT015	RT015	RT015	3	RT015	10	2	1	2	1	1	3	1
	RT116	RT116	1	RT116	10	2	1	2	1	1	3	1
	RT033	RT066	1	RT066	11	5	8	5	11	9	11	8
RT078	RT078	RT078	106	RT078	11	5	8	5	11	9	11	8
	RT126	RT126	10	RT126	11	5	8	5	11	9	11	8
	RT127	RT127	3	RT127	11	5	8	5	11	9	11	8
	RT237	RT237	5	RT237	11	5	8	5	11	9	11	8
	RT280	RT280	1	RT280	11	5	8	5	11	9	11	8
	RT281	RT281	1	RT281	11	5	8	5	11	9	11	8
RT003	RT003			RT003	12	1	1	6	4	3	5	1
	RT094	RT094	2	RT094	12	1	1	6	4	3	5	1
RT225	RT225			RT225	12	1	1	6	4	3	5	1
	RT014	RT014	1	RT014	13	1	1	6	1	5	3	1
RT129	RT129			RT129	13	1	1	6	1	5	3	1
RT014	RT014			RT014	14	1	1	2	1	5	5	3
RT010		RT010	3	RT010	15	1	1	6	1	8	5	1
	RT070			RT070	15	1	1	6	1	8	5	1
RT050	RT050	RT050	1	RT050	16	1	1	2	6	1	3	1
RT018	RT018	RT018	1	RT018	17	1	1	2	1	1	5	3
RT050	RT050	RT050	2	RT050	18	1	1	2	5	1	3	1
RT110	RT110			RT110	19	1	1	8	2	1	1	3
RT202				RT202	20	1	1	8	1	1	4	3

	RT097	RT097	1	RT097	21	2	2	2	1	1	1	3
RT023	RT023	RT023	1	RT023	22	1	1	4	7	2	8	7
	RT138			RT138	23	3	7	14	14	11	16	15
	RT202			RT202	24	1	1	8	12	1	4	3
	RT023			RT023	25	6	6	4	7	2	8	7
RT039				RT039	26	1	1	6	1	4	3	4
RT140	RT140	RT140	1	RT140	26	1	1	6	1	4	3	4
RT067				RT067	27	1	1	6	1	1	3	4
	RT020			RT020	28	1	1	2	1	1	3	1
	RT031	1		RT031	29	1	1	2	16	1	3	1
					30	8	7	14	8	6	16	15
	RT323			RT323	31	1	5	7	6	1	1	1
RT153				RT153	32	1	1	11	1	1	3	2
RT064	RT064	1		RT064	33	1	1	2	1	6	5	3
	RT216	RT216	1	RT216	33	1	1	2	1	6	5	3
RT056	RT056			RT056	34	1	5	7	1	1	3	1
	RT002	4		RT002	35	2	5	8	1	1	3	6
RT046	RT046	RT046	1	RT046	35	2	5	8	1	1	3	6
RT011	RT011			RT011	36	2	1	2	3	1	5	1
RT017	RT017	RT017	8	RT017	37	3	7	3	8	6	9	11
RT060				RT060	38	3	7	10	8	6	2	9
RT085	RT085	1		RT085	39	3	7	10	8	7	2	10
RT035				RT035	40	4	5	6	1	3	1	1
	RT106			RT106	41	1	1	9	9	1	3	2
	RT135	1		RT135	41	1	1	9	9	1	3	2
	RT194			RT194	41	1	1	9	9	1	3	2
	RT321			RT321	41	1	1	9	9	1	3	2
RT106	RT106	RT106	9	RT106	42	1	1	2	1	1	7	1
RT118	RT118	1		RT118	42	1	1	2	1	1	7	1
RT174	RT174			RT174	42	1	1	2	1	1	7	1
	RT054	RT054	2	RT054	43	1	7	6	1	1	5	6
	RT015	RT015	4	RT015	44	2	5	2	1	1	3	1
	RT062	1		RT062	44	2	5	2	1	1	3	1
	RT013	RT013	1	RT013	45	4	1	6	1	1	5	1
	RT087	2		RT087	46	4	1	6	1	1	10	1
RT191				RT191	46	4	1	6	1	1	10	1
	RT320			RT320	46	4	1	6	1	1	10	1
					47	1	1	11	17	1	3	2
	RT002	1		RT002	48	1	1	2	1	1	5	1
	RT030	1		RT030	48	1	1	2	1	1	5	1
	RT038			RT038	48	1	1	2	1	1	5	1
	RT104			RT104	48	1	1	2	1	1	5	1
	RT014	RT014	1	RT014	49	1	1	2	1	5	3	3
	RT014			RT014	50	1	1	6	1	5	3	17
RT186	RT186	RT186	1	RT186	51	1	1	2	6	1	7	6
	RT249			RT249	51	1	1	2	6	1	7	6
	RT139	RT139	1	RT139	52	1	1	2	6	1	12	1
	RT059	1		RT059	53	1	2	2	1	1	5	1
RT103	RT103			RT103	53	1	2	2	1	1	5	1
RT012	RT012	RT012	3	RT012	54	1	4	7	1	1	3	3

	RT070	RT070	1	RT070	55	1	1	6	6	1	12	12
RT021	RT021	RT021	1	RT021	56	1	3	6	3	1	5	1
	RT003	RT003	1	RT003	57	1	1	6	4	3	5	13
	RT056			RT056	58	1	5	7	1	1	13	1
	RT316			RT316	59	1	3	6	15	1	17	1
	RT336			RT336	60	1	3	15	15	1	3	1
					61	1	5	11	1	1	3	2
	RT036	1		RT036	62	1	1	1	9	1	3	1
	RT053	RT053	1	RT053	63	1	1	7	5	1	3	3
					64	1	1	6	1	1	13	1
	RT224			RT224	65	1	1	7	3	1	5	6
	RT022	RT022	1	RT022	66	1	1	2	6	1	5	3
RT019	RT019			RT019	67	1	1	9	9	1	3	5
	RT020			RT020	68	1	4	2	1	5	3	1
RT072				RT072	69	1	1	7	1	1	1	1
	RT021			RT021	70	1	3	6	3	1	14	1
	RT013			RT013	71	4	1	6	1	1	15	1
	RT005			RT005	72	2	1	6	13	1	5	1
	RT103			RT103	73	1	2	12	1	1	5	1
	RT319			RT319	74	1	1	13	1	3	1	14
	RT062			RT062	75	7	3	13	1	10	1	1
	RT103			RT103	76	1	1	6	1	1	1	1
	RT011			RT011	77	2	1	6	1	3	5	1
	RT013			RT013	78	4	1	6	1	1	1	1
					79	1	3	2	1	1	1	16
					80	1	1	13	1	3	1	3
					81	3	1	3	8	6	9	11
					82	1	1	6	1	1	1	3
					83	1	1	6	1	1	3	1
					84	1	9	2	1	1	1	1
					85	1	10	7	1	1	3	3
		RT017	1	RT017	86	3	7	3	8	6	19	11
					86	3	7	3	8	6	19	11
					87	3	7	3	8	6	20	10
					88	9	7	3	8	6	18	10
	RT005			RT005	89	2	1	6	1	1	21	1
	RT005			RT005	90	2	1	16	1	1	5	1
	RT326			RT326	91	1	1	6	6	1	6	1
	RT228			RT228	92	1	1	2	3	1	5	1
					93	3	7	3	8	11	20	10
					94	2	1	6	1	1	10	1
					95	1	5	11	17	1	3	1
					96	1	6	4	7	12	8	7
					97	1	1	11	1	1	22	1
					98	1	1	2	6	1	1	3
					99	1	11	6	6	1	12	12
					100	1	1	6	19	2	24	1
					101	1	2	2	1	1	23	1
					102	1	1	2	1	5	5	1
					103	1	1	2	15	8	5	3

				104	1	1	13	1	1	1	6
				105	2	2	4	1	1	1	3
				106	2	1	2	10	1	5	1
				107	4	1	6	1	3	1	1
				108	1	1	6	1	8	5	5
				109	3	12	10	18	6	18	15
				110	1	1	2	1	13	3	1
				111	1	1	2	1	1	3	3
				112	1	1	7	3	1	5	3
				113	2	1	17	1	1	5	1
				114	1	1	9	9	1	1	18
				115	1	1	2	6	1	7	3
				116	1	1	9	9	1	22	5
				117	1	1	7	1	2	5	1
				118	1	13	2	1	1	1	19
				119	1	1	2	20	1	5	1
				120	1	1	1	1	5	3	1
				121	3	7	3	8	7	2	10
				122	1	1	4	1	1	1	10
				123	1	14	9	1	1	3	2
RT002	1	RT002	New	1	1	2	6	1	5	4	New (ST146)
RT005	1	RT005	New	2	1	6	8	1	5	1	New (ST131)
RT011	1	RT011	New	2	1	2	16	1	5	1	New (ST138)
RT014	1	RT014	New	5	1	6	1	5	3	1	New (ST132)
RT029	1	RT029	New	1	1	2	3	1	3	1	New (ST137)
RT052	1	RT052	New	2	1	6	16	1	5	13	New (ST136)
RT081	1	RT081	New	2	1	2	1	1	1	3	New (ST139)
RT087	1	RT087	New	4	1	6	1	1	10	12	New (ST145)
RT106	1	RT106	New	1	1	2	8	1	7	1	New (ST135)
RT107	1	RT107	New	2	1	2	1	1	1	3	New (ST139)
RT111	1	RT111	New	1	1	9	9	1	1	2	New (ST140)
RT196	1	RT196	New	1	1	2	2	1	5	3	New (ST144)
RT239	1	RT239	New	10	8	5	11	9	11	8	New (ST147)
RT243	1	RT243	New	2	1	2	1	1	1	3	New (ST139)
RT259	1	RT259	New	1	3	7	1	3	1	6	New (ST141)
RT262	1	RT262	New	1	11	6	16	1	1	1	New (ST143)
RT264	1	RT264	New	8	7	14	8	6	25	15	New (ST142)
RT274	1	RT274	New	1	1	7	1	1	3	3	New (ST133)
RT283	1	RT283	New	1	3	2	15	1	3	3	New (ST134)
RT291	1	RT291	New	5	8	5	11	9	11	20	New (ST148)