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TEN STRATIGRAPHIC SECTIONS FROM THE LOWER CAMBRIAN SEKWI FORMATION, MACKENZIE MOUNTAINS, NORTHWESTERN CANADA

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CONTENTS

	Page
Abstract/Résumé	
Introduction	1
Previous work and acknowledgments	2
Depositional belts	3
Grand cycles	3
Grand cycle A, lower half-cycle (A1)	4
Grand cycle A, upper half-cycle (A2)	5
Grand cycle B, lower half-cycle (B1)	5
Grand cycle B, upper half-cycle (B2)	6
Post Sekwi dark shale and platy limestone	7
Appendix (description of sections 1-10).....	8
References	96

Illustrations (in pocket)

Figure 1. Stratigraphic sections 1-5

2. Stratigraphic sections 6-10

3. Lower Cambrian facies distribution diagram

ABSTRACT

A Precambrian and early Lower Cambrian clastic succession underlies the Sekwi Formation and extends a short distance into the formation at all but one locality. Above the clastic succession, nine of the Sekwi sections contain mainly carbonate that is part of a regional carbonate unit called the middle carbonate belt. This belt is flanked on the northeast by an inner (near shore) detrital belt and on the southwest by an outer (basinal) detrital belt. The remaining Sekwi section is almost wholly within the outer detrital belt. This section, and carbonate sections containing some outer detrital strata, locally define a northeasterly directed protusion of the outer detrital belt into the middle carbonate belt.

Sekwi strata within the middle carbonate belt are grouped into two major clastic-carbonate pairs, or grand cycles. The Precambrian-early Lower Cambrian clastic succession and an overlying thick carbonate succession constitute the lower cycle. A regional regression that brought inner detrital clasts onto a carbonate shelf is responsible for the clastic portion of the upper grand cycle. The carbonate part of the upper grand cycle is by far the thickest of the four half-cycles within the formation. Three and locally four subcycles are tentatively recognized in this half-cycle. Sekwi deposition closed near the end of Lower Cambrian time when a gradual transgression deposited dark, platy limestone and shale over uppermost Sekwi carbonates belonging to the medial and upper part of the Bonnia-Olenellus Zone.

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INTRODUCTION

Data in this paper have been organized with two purposes in mind. The first is to provide exploration companies with a number of correlated reference sections to assist in their search for lead-zinc deposits in Lower Cambrian rocks of Mackenzie Mountains -- a search that has been active in the area since 1972. The second is to fulfill the need to organize existing data in a "progress report" that can be evaluated before incorporating them into a more comprehensive study, which is the construction of a Lower Cambrian depositional model for the area. Based on the present and additional sections, the model will ultimately be used to strengthen lithologic correlations across complex facies changes and to relate these changes to various paleoenvironments.

The present data are summarized in 10 stratigraphic sections illustrated in Figures 1 and 2. Lithologic units shown in the sections are keyed by numbers to descriptions in the appendix. Fossil localities, keyed by another set of numbers, are likewise described in the appendix. In all, the appendix contains descriptions of 237 lithologic units and 205 fossil collections. The sections are located on an index map included on Figures 1 to 3; map coordinates for the sections are listed on Figures 1 and 2.

Figure 3 contains an interpretation of the stratigraphic data in terms of depositional belts (facies) and depositional cycles. Some of the more important interpretations shown in this figure are described in the text.

Depositional belts and cycles in the Lower Cambrian of the Mackenzie Mountains have been described in a recent paper by the writer (Fritz, 1976). Since that paper uses generalized data from three of the sections presented

here in detail, and generalized data from Figure 3 as well, the two papers are closely related. The recent paper stresses lateral facies changes across the depositional strike, and provides environmental interpretations. The present paper emphasizes detailed sections for local stratigraphic control.

PREVIOUS WORK AND ACKNOWLEDGMENTS

The Sekwi Formation was named and described by Handfield in 1968, after the stratigraphic unit had been mapped to the south (Green and Roddick, 1961, units 4, 5; Green, Roddick, and Blusson, 1967, units 4, 5) and to the southeast and east (Gabrielse, Roddick, and Blusson, 1965, units 15, 16) of the type section (index map, section 10). Blusson wrote a brief description (1971, p. 10) of the formation and presented a map (1972) of the area surrounding the type section. Contemporaneous and later descriptions of the Sekwi Formation and faunas were published by Handfield (1971), North (1971, p. 311), Fritz (1972, 1973, 1976), and Gabrielse and others (1973, p. 34-36).

Most of the data presented in this paper were gathered by the writer during brief trips into the Mackenzie Mountains between 1965 and 1972. Field support and information on the local geology were given by H. Gabrielse in 1965 and by S.L. Blusson in 1969, 1970 and 1972. Field support was also provided by R.G. Garrett in 1970. Assistance in measuring the sections was rendered by J.R. Thomas in 1965, C.E. Fipkie in 1969, and W.L.G. Annand in 1970. The writer is most grateful to the above mentioned persons for help provided.

During the writing of this report, comparisons were made with unprocessed biostratigraphic data collected by the writer from the Sekwi Formation in 1974 and 1975. These data will be the subject of a future publication.

DEPOSITIONAL BELTS

The present area lies within a region in which Lower Cambrian strata undergo a rapid lateral transition across the depositional strike. This has led Gabrielse (1967, p. 276) to state, "Lower Cambrian strata display a marked facies change westerly from the west flank of Redstone Arch into Selwyn Basin, reflecting the continuing negative character of the basin. In some areas three main belts of facies can be recognized — an eastern belt dominated by sandstones, a central belt characterized by varicoloured sandy dolomites, and a western belt consisting essentially of limestones, shales, and siltstones." The three belts described by Gabrielse fit closely into a three-belt model used in the Great Basin by Palmer (1960) for Upper Cambrian strata and Robison (1960) for Middle Cambrian strata. Their belts consist of an inner detrital belt of quartzite and brightly coloured siltstone and shale (near-shore detritus), a middle carbonate belt of thin to thick bedded limestone and dolomite (carbonate shelf), and an outer detrital belt of dark, platy limestone and dark shale (unstable slope and basin deposits). The distribution of these three belts in the Mackenzie Mountains is shown in Figure 3.

GRAND CYCLES

Most of the strata shown in Figure 3 have also been assigned to grand cycles. Cambrian grand cycles were first defined in the Canadian Rocky Mountains by Aitken (1966, p. 405), who states that grand cycles are "depositional cycles...., each comprising 300 to 2,000 feet of strata and two or more fossil zones.... Each...commences at an abrupt basal contact, and consists of a lower, shaly half-cycle gradationally overlain by a carbonate half-cycle." The writer (Fritz, 1975, 1976) has recognized

grand cycles in Lower Cambrian strata of the Mackenzie Mountains and noted that they are best developed in areas where the middle carbonate belt predominates. In the present paper Lower Cambrian strata will be described in ascending order, starting with the lowest half-cycle. A letter-number combination is used to identify each half-cycle in the following discussion, and is also used to identify these half-cycles in Figures 1-3.

Grand cycle A, lower half-cycle (A1)

A quartzite and siltstone succession immediately underlying the Sekwi Formation constitutes most of this half-cycle. In the eastern portion of the Sekwi map-area (near sections 8-10) Blusson (1971, 1972) assigned these strata to map-units 12 (quartzite) and 13 (siltstone). These strata grade westward into siltstone and shale which Blusson (1971, p. 9) has included in the upper portion of his map-unit 10. Blusson (1971) has placed map-unit 10 in the Proterozoic, map-unit 12 in the "Cambrian and/or Precambrian", and map-unit 13 in the Lower Cambrian. Above these strata in seven, and possibly eight, of the sections measured is a succession of limy siltstone that Green and Roddick (1961) have informally named the "Swiss cheese limestone". These limy siltstone beds are displaced by limestone in section 9 and were not seen (covered?) at section 4, but elsewhere they constitute the basal portion of the Sekwi Formation, which is also the uppermost portion of half-cycle A1. Fossils demonstrate that the boundary between the Fallotaspis Zone and the Nevadella Zone is within the "Swiss cheese" siltstone in sections 2 and 8 (Figs. 1, 2), and it is postulated that the boundary lies within these or equivalent beds in the other sections.

Grand cycle A, upper half-cycle (A2)

In sections 1, 3, 5 and 8-10 most of the strata above the "Swiss cheese" siltstone or its equivalent (above A1) consists of thin-bedded limestone that grades upwards into dolomite or thick-bedded limestone. In some sections (1, 8-10) the highest carbonate consists of thick-bedded dolomite that contains "floating" grains of quartz sand. This half-cycle in sections 1-3, 5, and 8-10 is assigned (Fig. 3) to the middle carbonate belt.

In sections 6 (units 2, 3) and 7 (units 2-4) dark platy limestone and siltstone with penecontemporaneous folds are equivalent to strata in half-cycle A2 of the other sections. These strata are believed to represent basin or slope deposits (Fritz, 1976), and are therefore assigned to the outer detrital belt (Fig. 3). Some other beds (section 5, parts of unit 9 and 10; section 8, units 5, 6; section 10, unit 5) have outer detrital characteristics, but are grouped with the middle carbonate strata because of space limitations in Figure 3, and because they are part of a half-cycle succession that belong predominantly in the middle carbonate belt

Grand cycle B, lower half-cycle (B1)

In the northwestern portion of the area (sections 1-3), light yellowish green weathering siltstone and some maroon weathering siltstone comprise this half-cycle. In sections 4, 5, and 8-10 the half-cycle is represented by light brown weathering quartzite, orange weathering dolomite, and siltstone that weathers to light brown dirt. Highly coloured siltstone, ripple marks, mud cracks, thin beds of trilobite hash and the presence of Skolithos sp. all suggest that the half-cycle was deposited under intertidal conditions. The widespread distribution of this half-cycle indicates a regional regression that brought inner detrital clastics across the carbonate shelf.

Beds equivalent to this half-cycle in section 7 (units 6-11) consist of medium brownish grey weathering siltstone with penecontemporaneous slump structures. Clasts in these beds are believed (Fritz, 1976) to have been deposited on an unstable slope after bypassing the carbonate shelf. No shallow water or "slope" siltstone of this age is present in section 6, and therefore it is thought that equivalent strata (part of unit 3) at this site were deposited in the basin beyond, or nearly beyond, the unstable slope.

Fossils indicate that the boundary between the Nevadella Zone and the Bonnia-Olenellus Zone is within this half-cycle at sections 2, 3, and 8. It is probably within the half-cycle at sections 1, 4, 5, 9, 10. Recent data (Fritz, 1976) obtained close to section 7 indicate that here the boundary lies near the contact between the siltstone equivalent of this half-cycle (units 5-10) and the underlying dark, platy limestone (unit 4).

Grand cycle B, upper half-cycle (B2)

Medium grey weathering limestone in thin, wavy beds is the predominant lithology in this half-cycle. The limestone in the lowest carbonate succession (B2a) is thick parting at numerous sections and forms prominant cliffs. In sections 3 and 5 thick limestone mounds are also present in this interval.

Above limestone B2a are alternate clastic (B2b, -d, -f) and carbonate (B2c, -e, -g) successions forming sub-cycles(?) that are tentatively correlated in Figures 1 and 2. A patter of sparse dots differentiates the clastic halves of these sub-cycles(?) in Figure 3. Correlation of the sub-cycles(?) is still uncertain because of the similarity of the siltstone-limestone pairs, great distance between sections, and weak faunal control.

Section 7 contains a thick succession of dolomite (units 14, 16-18) that is thought (Fritz, 1976) to have been deposited under restricted, very

shallow water conditions. Section 6 contains a thick shale and platy limestone succession (units 5-10) that is partially equivalent to half-cycle B2, and is believed (Fritz, 1976) to have been deposited on an unstable slope. These strata are therefore assigned to the outer detrital belt (Fig. 3). The overlying thin, wavy bedded limestone (unit 11) is assigned to the middle carbonate belt. The uppermost middle carbonate bed here and at the site of the other sections represents the top of half-cycle B2 and the top of the Sekwi Formation.

POST-SEKWI DARK SHALE AND PLATY LIMESTONE

Dark shale and platy limestone that Blusson (1971, 1972) had assigned to map-unit 15 and 16 were observed to overlie the Sekwi Formation at 8 of the 10 measured sections. Unit 16 probably overlies the Sekwi at the remaining two sections (top of 7 not measured, top of 8 covered). At most of the sections the contact between the Sekwi Formation and the overlying map-unit is within the Bonnia-Olenellus Zone. This contact is believed (Fritz, 1976) to be diachronous, ranging from the medial to the upper part of this zone. The contact at section 4 differs from the others, as here late Lower Cambrian(?) dolomite of the Sekwi Formation is unconformably overlain by dark shale and platy limestone that is early Ordovician in age.

APPENDIX

SECTION 1.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	unnamed quartzite (Lower Cambrian or Precambrian)		
1	Quartzite, rust to purple weathering, thin to medium bedded, 5 per cent in beds over 2' thick. Planar laminated. Fresh surfaces medium grey, light pink, light brownish grey, fine grained.	115+	115+
	Sekwi Formation, 3802' (Lower Cambrian)		
1	Covered. Basal 10' exposed, shale, light greenish grey on weathered and fresh surfaces, light brown on weathered joint surfaces. Slightly limy, non-fissile.	234	234
2	Limestone, light grey to cream weathering, bedding thin, wavy, parting thick. Fresh surfaces light grey, finely crystalline. Interval 56'-66' above base in part replaced by orange weathering dolomite. Top 9' composed of light grey weathering limestone in thin, nodular beds.	75	309
3	Shale, light orange-brown weathering, light greenish grey on fresh surfaces.	14	323
4	Dolomite, medium grey weathering, medium bedded. Fresh surfaces medium grey and finely crystalline. Interval 48'-50' above base contains up to grit sized grains of "floating" quartz sand.	53	376

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
5	Covered. Argillaceous dolomite, medium dark grey on weathered and fresh surfaces, thin bedded and platy.	31	407
6	Dolomite, in thin beds (75 per cent), weathering medium dark grey to light grey, and in thick beds (25 per cent) weathering light grey-brown. At 1 1/2' above base is 7' subunit of thick bedded, dark grey dolomite with dolomite conglomerate in lowest beds. "Floating" medium to coarse quartz sand in 1 1/2' bed at base of unit and in various other intervals, highest sandy beds 77 1/2'-80' above base.	113	520
7	Covered. Dolomite in thin beds?.	70	590
8	Dolomite, light brown weathering, medium bedded. Fresh surfaces are light greenish grey and finely crystalline.	36	626
9	Covered. Within unit, interval 50'-58' is represented by outcrop of dolomitic shale. Shale weathers light brown to light greenish grey, fresh surfaces are light greenish grey.	74	700
10	Limestone, medium grey, weathering with light brown parting surfaces, bedding thin and nodular. GSC loc. 85808, 11' above base, *Nevadella eucharis* (Walcott).	12 1/2	712 1/2

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
11	Dolomitic sandstone, rust weathering, thick bedded. Fresh surfaces light green and light grey, fine grained. Interval 62 1/2'-72 1/2' contains quartzite, light orange weathering, grains average medium in size, poorly sorted, angular. Scolithos sp. present 39 1/2' above base.	87 1/2	800
12	Quartzite (more than 2/3), rust weathering, in thick beds. Fresh surfaces medium grey and fine grained, some medium and coarse grained. Siltstone (less than 1/3), rust weathering; interval 65 1/2'- 76' contains dull purple weathering and fresh siltstone. Scolithos sp. present 52' above base.	106	906
13	Siltstone (nearly 5/6), light greenish grey weathering. Fresh surfaces same colour as weathered or slightly darker, becomes limier 51' above base. Some limestone (slightly more than 1/6). Lower limestone light brown on weathered and fresh surfaces, dense; upper limestone dark grey on weathered and fresh surfaces. GSC loc. 85809, 69' above base, Nevadella sp., archaeocyathid.	304	1210

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
14	Limestone, medium dark grey on weathered surface, light brown to light orange siltstone mottling on bedding surfaces. Bedding thin, wavy, but parting very thick. GSC loc. 85810, 124' above base, cf. *Bristolia* sp. or *Laudonia* sp.	127	1337
15	Limestone, basal 13' dull light grey weathering, thin bedded, medium light grey on fresh surfaces. Upper 32' medium dark grey weathering with light brown and light orange parting surfaces. Fresh surfaces are dark grey. GSC loc. 85811 is in float 2' above base, *Olenellus truemani*? Walcott, *Bristolia* sp.	45	1382
16	Limestone as in unit 14, but without light brown to light orange siltstone mottling.	230	1612
17	Mainly covered by brown dirt. Some outcrops of light green to light orange-brown weathering, platy siltstone. Fresh surfaces are greenish grey and limy. Interval 118'-173' above base contains some siltstone float with ripple marks and mud cracks. Purple siltstone plates present but rare in this interval. Interval 293'-295' contains outcrop		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	of limestone, light orange-brown weathering, medium bedded, medium dark grey on fresh surfaces; limestone contains abundant fine quartz sand, especially in uppermost 2'.	367	1979
18	Limestone present in basal 17'-subunit with *Girvanella* sp. at top, medium grey weathering, bedding averages 1' in thickness. Fresh surfaces dark grey and finely crystalline. Remaining 15' of unit consists of medium dark grey shale (6'); light grey, limy siltstone (6'), and nodular dark grey limestone (3').	32	2011
19	Limestone, medium dark grey weathering, bedding thin, wavy to nodular, parting thick, bedding surfaces are mottled light orange-brown and light pink. Fresh surfaces are medium dark grey to dark grey and finely crystalline. Interval 64'-108' above base covered, probably contains thin bedded, platy limestone.	152	2163
20	Mainly covered. Basal 56' probably siltstone as is exposed in 56'-61', siltstone light grey weathering, medium grey on fresh surface. Outcrop 61'-86' above base consist of limestone. Lower 12' of limestone		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	weathers medium grey, thin wavy bedded. Upper 13' of limestone weathers light brown, is medium dark grey and finely crystalline on fresh surfaces, and is argillaceous. Interval 86'-246' above base covered by mainly nodular and thin, wavy bedded limestone float. GSC loc. 85812 in float 202' above base, Olenellus sp.	246	2409
21	Limestone, medium to medium dark grey weathering, thin,wavy bedded to nodular, thick parting. Fresh surfaces medium dark grey and finely crystalline. Interval 91'-116' above base contains platy limestone. Olenellid hash 151' above base. GSC loc. 85813, 91' above base, Wanneria? sp., "Esmeraldina" sp., Salterella sp.	251	2660
22	Mainly covered. Limestone, medium grey weathering. Bedding thin, wavy and platy. Fresh surfaces are medium dark grey and finely crystalline. Interval 61'-67' above base contains medium grey weathering limestone in beds averaging 1' in thickness. GSC 85814, 112' above base, Olenellus sp.	190	2850

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
23	Limestone, medium to medium dark grey weathering, thin bedded, thick parting. Fresh surfaces medium dark to dark grey and finely crystalline. Beds in interval 0'-85' are broadly wavy, those in interval 85-133' are wavy to nodular.	133	2983
24	Mainly covered. Interval 46'-56' contains medium grey weathering limestone in thin, wavy beds. Partings weather light brownish-orange, fresh surfaces dark grey and finely crystalline.	115	3098
25	Limestone, medium grey weathering, thin, wavy bedded, thick parting. Light brownish orange siltstone on bedding surfaces. Fresh surfaces dark grey and finely crystalline. GSC loc. 85815,154' above base, cf. Bonnia brennus Walcott, Salterella sp., Wanneria sp. GSC loc. 85816,164' above base, Bonnia sp., Salterella sp., Wanneria sp.	379	3477
26	Covered. Shale float 90 per cent, medium grey weathering, in elongate "pencils". Fresh surfaces are dark grey. Limestone float 10 per cent, in thin plates and nodules that weather light brown.	176	3653

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
27	Limestone (2/3), medium grey weathering, thin wavy bedded. Fresh surfaces medium dark grey and finely crystalline. Siltstone (1/3), light brown weathering.	149	3802
	Post Sekwi dark shale and platy limestone, 1085'		
1	Covered with medium dark grey weathering dirt. Some limestone float, medium grey weathering, in thin (3/4") plates. Also some limestone nodules (flattened baseball sized), light brown weathering, dark grey in fresh surfaces and finely crystalline.	209	209
2	Limestone, light to medium grey weathering, thin and medium bedded, platy. Fresh surfaces dark grey and finely crystalline. Interval 100'-119' covered by dark grey dirt. GSC loc. 85817, 204' above base, *Ogygopsis batis* (Walcott), *Zacanthopsis* sp.	204	413
3	Mainly shale(?) weathering to dark grey dirt. Limestone (1/3), light grey weathering, in thin and medium beds, platy. Fresh surfaces medium to dark grey, finely crystalline.	399	812

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
4.	Shale, black on wet (dry not seen) and fresh surfaces, flakey, not limy. Limestone in rare interbeds, light grey weathering. Fresh surfaces dark grey and finely crystalline. GSC loc. 85818, 30' above base, *Lancastria* sp., sponge spicules.	273	1085
	unnamed sandstone (Middle Cambrian?)		
1	Sandstone, light brown weathering with small (3/4 mm) hematite spots, mainly in thick, irregular beds. Fresh surfaces light brown, grains poorly sorted, mainly medium in size. Exotic limestone blocks present from base to at least 893' level. GSC loc. 85819 in limestone block 643' above base, *Bonnia* sp., *Piaziella* sp., olenellid fragments. GSC loc. 85320 in limestone block 644' above base, *Olenellus puertoblancoensis* (Lochman).	2228+	2228+

SECTION 2.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	unnamed quartzite, 590'+		
1	Quartzite, light pink weathering near base, yellow weathering near top, medium and thick bedded. Fresh surfaces light grey, fine grained, some grains light green, some grains of red chert.	250±	250±
2	Quartzite (50 per cent), medium grey weathering, thick bedded. Fresh surfaces medium grey, fine grained. Interval 256'-277' contains light orange weathering quartzite; interval 305'-340' contains light brown to rust weathering quartzite. Siltstone (50 per cent), rust to dark grey weathering, dark grey, fresh surfaces slightly micaceous, hard. Interval 277'-305' contains light brown and light greenish brown siltstone, fresh surfaces light brown and greenish brown.	340	590±
	Sekwi Formation, 3434'		
1	Shale, weathering and fresh surfaces maroon to brick red, bedding thin but parting up to 5' thick. Some limestone in thin, nodular bands, light brown to orange weathering, fresh surfaces light grey to purplish grey, finely crystalline. GSC		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	loc. 84298, float from 0'- 6', Kutorgina? sp. GSC loc. 84299, 18' above base, Kutorgina? sp., Parafallotaspis? sp.	56	56
2	Siltstone, light brown and light greenish brown on weathered and fresh surfaces. Parting irregular, sub-parallel to bedding, average parting interval 3/8". GSC loc. 84300, local float at base of unit, Parafallotaspis grata Fritz. GSC loc. 84301, local float from approximately 2' above base of unit, Parafallotaspis grata Fritz, Nevadella? sp. GSC loc. 84302, 21' above base, Parafallotaspis sp. GSC loc. 84303, 26' above base, Parafallotaspis sp. GSC loc. 84304, 57' above base, Parafallotaspis sp. GSC loc. 84305, 60' above base, cf. Bergeroniellus sp., Nevadella sp. GSC loc. 84306, 100' above base, unident. olenellid. GSC loc. 84307, 108' above base, "Esmeraldina" sp. GSC loc. 84308, 125' above base, unident. olenellid. GSC loc. 84309, 132' above base, "Esmeraldina" sp.	189	245
3	Siltstone, as in unit 2 but more resistant, some fine grained quartzite in thin interbeds. GSC loc. 84310, float 51' above base,		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Obollela sp., GSC loc. 84311, 63' above base, "*Esmeraldina*"? sp., *Nevadella* sp. GSC loc. 84312, float 84' above base, "*Esmeraldina*"? sp., *Nevadella* sp.	85	330
4	Sandstone and siltstone, light brown on weathered and fresh surfaces, slightly limy, thin bedded in lower 90', thick bedded in upper 18'. Sandstone is fine grained. GSC loc. 84313, 4' above base, "*Esmeraldina*"? sp., *Nevadia* sp.	108	438
5	Dolomite, orange weathering to medium pinkish grey weathering, thick bedded. Fresh surfaces light grey, cream, some medium grey, finely crystalline.	150	588
6	Dolomite, orange weathering, thin bedded. Fresh surfaces light grey and light brown, finely crystalline. Interval 27'-32' above base contains dolomite as described, but also "floating" coarse quartz grains.	297	885
7	Limestone (1/2), medium grey on weathered and fresh surfaces, bedding thin and wavy. Siltstone (1/2).	10	895

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
8	Siltstone, light greenish brown on weathered and fresh surfaces, thin bedded, slightly limy. Some purplish grey weathering beds near top of unit. Interval 53'-72' above base contains quartzite, orange and light brown weathering, thick bedded, fresh surfaces light brown, fine grained. GSC loc. 84314, base of unit, Nevadella sp. GSC loc. 84315, float from base of unit, Nevadella eucharis (Walcott).	164	1059
9	Shale, green weathering, not fissile. Interval 27'-31' contains limestone, medium grey weathering, thick parting, light grey on fresh surfaces, finely crystalline. GSC loc. 84316, local float 16' above base, Laudonia? sp., Olenellus truemani Walcott.	58	1117
10	Siltstone, light green on weathered and fresh surfaces, becoming limy and light brownish green near top, thin bedded, platy. GSC loc. 84317, local float 9' above base, Olenellus sp.	148	1265

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
11	Limestone, dark grey on weathered and fresh surfaces, bedding thin and wavy, finely crystalline. Interval 110'-113' contains archaeocyathids. Interval 117'-136' contains limestone, medium grey weathering with light orange parting surfaces, thin bedded, laminated, platy. Interval 136'-151' contains algal mounds averaging 1' thick and up to 4' thick. GSC loc. 84318, 39' above base, Olenellus sp. GSC loc. 84319, 107' above base, Tabulaconus sp., archaeocyathids. GSC loc. 84320, 111' above base, Tabulaconus sp., archaeocyathids. GSC loc. 84321, 112' above base, Tabulaconus sp., archaeocyathids.	250	1515
12	Limestone, light orange-brown weathering, thin bedded, platy. Fresh surfaces medium grey and finely crystalline.	43	1558
13	Dolomite, mainly light pink weathering, bedding thin and wavy, basal 5' dark grey with orange tint and thick bedded, upper 15' medium dark grey, thick bedded and oolitic.	42	1600
14	Limestone, dark grey to medium dark grey weathering, bedding thin and wavy. Fresh surfaces dark grey and finely crystalline. Basal 88'		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	weathers with bluish cast and has yellowish brown to orange-brown mottling on bedding surfaces. Upper 76' is thick parting and bedding surfaces weather with orange and red mottling. GSC loc. 84322, 8' above base, Olenellus sp., Proliostracus sp. GSC loc. 84323, 42' above base, Olenellus sp., Proliostracus sp. GSC loc. 84324, at top of unit, Proliostracus sp., Salterella sp.	185	1785
15	Siltstone, light brown to orange weathering, some purple weathering. Interval 55'-105' above base is light green on weathered and fresh surfaces, limy. Interval 105'-215' contains mud-cracks. Girvanella? sp. present 231' above base. Basal 19' consists of light yellow-brown weathering limestone in thin plates. GSC loc. 84325, 7' above base, Proliostracus contractus? Fritz.	282	2067
16	Limestone, light and medium blue-grey weathering, bedding thin and wavy. Siltstone exposed in interval 89'-98', light brown to light orange weathering. Covered from 98' to top of unit, probably more siltstone. Low stromatolites 1' in diameter present 89' above base. GSC loc. 84326, 33' above base, Olenellus laxocules? Fritz.	113	2180

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
17	Argillaceous limestone, weathering light brown, yellow-brown, bright red, bedding thin, very nodular. GSC loc. 84327, 13' above base, *Olenellus* sp., *Proliostracus annosus* Fritz.	35	2215
18	Limestone, light brown to medium grey weathering, thin bedded, platy, fresh surfaces medium grey, finely crystalline. *Salterella* sp. abundant. GSC loc. 84328, 2' above base, *Proliostracus annosus* Fritz, *Proliostracus*? sp. GSC loc. 84329, 94' above base, *Olenellus* sp., *Salterella* sp.	182	2397
19	Limestone, dark grey on weathered and fresh surfaces, thin bedded, very nodular.	81	2478
20	Limestone, medium grey weathering, bedding thin, wavy, parting surfaces mottled with light orange weathering siltstone. GSC loc. 84330, 74' above base, aff. *Olenellus puertoblancoensis* (Lochman). GSC loc. 84331, 93' above base, cf. *Olenellus* sp. 2 Fritz, 1972 and *Wanneria* sp.	180	2658
21	Covered. Float consists of dark limestone, dark grey weathering and fresh, bedding thin and wavy; float covering interval 91'-112' above base is predominantly nodular. Fault present at base of this interval. GSC loc. 84332, in float 47' above base, *Olenellus* sp.	112	2770

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
22	Limestone, medium grey weathering, bedding thin and platy, fresh surfaces dark grey. Bedding surfaces covered with light orange and light pink weathering siltstone.	29	2799
23	Covered. Float in interval 0'-32' above base consists of limestone, light blue-grey weathering, bedding thin and nodular. Interval 32'-63' above base covered by siltstone and argillaceous limestone, yellow-brown and light orange weathering, platy.	63	2862
24	Limestone (1/2), light grey weathering, bedding thin and wavy, partings covered by light orange weathering siltstone. Covered intervals (1/2) underlain by siltstone(?).	43	2905
25	Limestone, light yellow, light grey and light orange weathering, bedding thin and platy. Fresh surfaces dark grey and finely crystalline. Upper 39' covered, probably contains limestone as below and subordinate amount of shale.	95	3000
26	Limestone, medium grey weathering, bedding thin, wavy and nodular, parting surfaces mottled with light orange and bright red weathering siltstone. Fresh surfaces medium dark grey and		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	finely crystalline, sparry calcite present 223' above base to top of unit. Some nodular beds present 65'-201' above base. GSC loc. 84333, 10' above base, Olenellus sp. 2? Fritz, 1972. GSC loc. 84334, 115' above base, Bonnia laterispina Fritz, Olenellus sp., Wanneria sp. GSC loc. 84335, 180' above base, Bonnia laterispina Fritz, Olenellus laxoculus Fritz, Wanneria parvifrons? Fritz. GSC loc. 84336, 230' above base, Bonnia laterispina Fritz, Wanneria parvifrons Fritz. GSC loc. 84337, 340' above base, Olenellus sp., Salterella sp., Wanneria parvifrons? Fritz.	434	3434
	Post-Sekwi dark shale and platy limestone, 1009'		
1	Shale, lower 57' light brown weathering, soft, slightly limy; interval 57'-153' above base dark grey weathering, hard. Subordinate limestone present, mainly light grey weathering, some orange weathering, laminated, in thin plates and lenses. GSC loc. 84338, 61' above base, Olenellus clarki? (Resser)	153	153
2	Limestone (1/2), lower beds weather light grey, platy; upper beds weather light brownish grey, bedding thin and wavy. Shale (1/2) as in upper beds of unit 1.		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 84339, in float 16'-20' above base, Bonnia sp. (2 pairs of spines), Olenellus sp.	20	173
3	Shale, black.	166	339
4	Limestone, dark and medium grey weathering, platy, very thin bedded, very dark grey on fresh surfaces. GSC loc. 84340, float from interval 2' above base to top, Goldfieldia sp., Olenellus puertoblancoensis? (Lochman).	17	356
5	Shale, black.	215	571
6	Limestone, dark and medium grey weathering, thin bedded, fresh surfaces very dark grey. GSC loc. 84341, at top of unit, Ogygopsis? sp., Olenellus sp.	19	590
7	Black shale.	171	761
8	Siltstone, medium dark grey weathering, platy, partings 1/8" to 1/4" thick, dark grey on fresh surfaces	125	886
9	Covered, probably shale.	123	1009
	unnamed sandstone (Middle Cambrian?)		
1	Sandstone, lower 357' light brown weathering, thick bedded (ave. 1'). Fresh surfaces light grey, fine grained. Quartzite above 357' similar to that below but thin bedded, not measured above 375' level.	375+	375+

SECTION 3.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	unnamed quartzite		
1	Quartzite, rust to dark purple weathering, medium bedded. Fresh surfaces light purple, fine grained. Abundant trails on bedding surfaces of upper beds.	35+	35+
	Sekwi Formation, 3047'		
1	Limestone, orange-brown weathering, bedding medium, up to 1' in thickness, blocky. Fresh surfaces pinkish brown and light brown. Sparse brachiopod fragments present.	24	24
2	Siltstone, light brown to light grey-brown weathering. Fresh surfaces medium grey. Limestone nodules 1" thick, in layers, medium grey on weathered and fresh surfaces. Sparse glauconite present 2' above base. Fault present at top of this unit. GSC loc. 86883, 171' above base, Nevadella? sp.	176	200
3	Siltstone, limy, medium grey on weathered and fresh surfaces; and limestone, silty, orange weathering, in thin, wavy beds. Fresh limestone surfaces are medium grey.	52	252

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
4	Siltstone, limy, orange-brown weathering, fresh surfaces are medium grey. Faint medium grey weathering nodules present, fresh surfaces on nodules same as surrounding siltstone. GSC loc. 86884, 148 ' above base, cf. Botsfordia sp.	163	415
5	Limestone, medium grey weathering, thin-bedded, platy. Fresh surfaces dark grey and finely crystalline. Sparse archaeocyothids present 8' above base. GSC loc. 86885, 15' above base, Holmiella sp.	31	446
6	Siltstone, light brown and mainly medium brown weathering, in thin plates. Fresh surfaces medium grey. GSC loc. 86886, 30' above base, Bradyfallotaspis? sp. GSC loc. 86887, 49' above base, "Esmeraldina" sp., Holmia sp.	129	575
7	Limestone, light blue-grey weathering, bedding thin and nodular, abundant light brown siltstone on bedding surfaces. Fresh limestone medium grey and finely crystalline. GSC loc. 86888, in float, 25' above base, Holmiella sp. GSC loc. 86889, 38' above base, Holmiella sp. GSC loc. 86890 in float 120' above base, Holmiella? sp.	175	750

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
8	Limestone, dull medium grey weathering, thin and medium bedded. Fresh surfaces medium dark grey and finely crystalline. Oölites present but rare. GSC loc. 86891, 27' above base, Holmiella falcuta Fritz, Nevadella? sp.	142	892
9	Limestone, light grey weathering, thick parting, both planar laminated and cross-bedded. Fresh surfaces medium grey and finely crystalline. At top of this unit, section offset in order to compensate for fault.	26	918
10	Dolomite, bright, light orange weathering, bedding thin and platy, mud cracks present. Fresh surfaces are cream coloured, finely crystalline, some fine grained "floating" quartz sand present.	75	993
11	Dolomite containing large amounts of fine grained quartz sand, especially at top, light brown weathering. Fresh surfaces are brownish cream.	11	1004

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
12	Dolomite, similar to that in unit 10. Starting 82' above base, 15 per cent of dolomite weathers purple. Some fine grains of quartz sand scattered throughout interval.	184	1188
13	Siltstone, light grey-green (1/3) and maroon (2/3) weathering. Quartzite in 5' bed located 57' above base, rust weathering thick bedded, fresh surfaces medium grey-green, fine grained. GSC loc. 86892, 4' above base, Nevadella sp. GSC loc. 86893, in float 15' above base, Olenellus truemani Walcott. GSC loc. 86894, in float 25' above base, cf. Mickwitzia moniliferia Walcott.	332	1520
14	Limestone, medium and light grey weathering, in thick, irregular beds and algal mounds, some thin beds between mounds. Fresh surfaces finely crystalline to dense. Basal 54' consists of dark grey weathering limestone in thin, wavy beds that are thick parting, rust mottled. Fresh surfaces are dark grey and finely crystalline. Girvanella sp. present 54-58' above base. Scenella sp. abundant 65' above base. Archaeocyathids present 58-61' above base.	345	1865

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
15	Limestone, medium grey weathering, bedding medium and thin. Fresh surfaces medium grey and finely crystalline. Top 22' consists of light grey weathering limestone in medium and thick, blocky beds. Fresh surfaces medium grey, finely crystalline.	135	2000
16	Siltstone, bright orange and orange-yellow weathering. Dolomite present 10-18' above base, light orange weathering, in thin, platy beds.	180	2180
17	Limestone, weathers medium grey with cream cast, thick bedded. Fresh surfaces medium light to medium grey and finely crystalline. Top 4' consists of dolomite, light orange weathering, laminated, thick parting.	21	2201
18	Limestone, medium grey weathering, mainly thin wavy bedded, thick parting. Fresh surfaces dark grey and finely crystalline. Oölites present 18-21' above base; oncholites present 36-69' above base. GSC loc. 86895, in float 49' above base, Salterella sp., Wanneria sp.		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 86896, 146' above base, Proliostracus annosus Fritz. GSC loc. 86897, 215' above base, Olenellus sp., Wanneria sp. GSC loc. 86898, 235' above base, cf. Wanneria parvifrons Fritz. GSC loc. 86899, 238' above base, Proliostracus sp., Wanneria sp.	277	2478
19	Limestone, medium grey weathering, thin-bedded, thin to thick parting. Algal mounds 1 1/2' thick 7' above base and 3' thick 12' above base. Interval 59-65' above base contains light grey shale.	77	2555
20	Shale, light grey weathering	29	2584
21	Limestone, medium grey weathering, bedding thin and wavy, parting thin to thick. Fresh surfaces dark grey and finely crystalline. Basal 14' thin bedded and platy. Oolites in 1' bed 14' above base. Algal mounds 2' thick 63' above base. GSC loc. 86900, 1' above base, aff. Olenellus puertoblancoensis (Lochman). GSC loc. 86901, 454' above base, Bonnia sp. 1? Fritz, 1972, Helcionella sp.	463	3047

Post-Sekwi dark shale and platy limestone, 1703+

1	Shale (1/2), medium to dark grey weathering; and limestone (1/2) in thin, wavy and nodular beds. Limestone in basal 55' in light grey		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	interbeds. Limestone continuous in upper 9', medium grey weathering, medium dark grey on fresh surfaces.	64	64
2	Shale, basal 16 1/2' olive grey weathering. Interval 16 1/2'-19' above base contains sandstone, light brown weathering, thin bedded, medium grey on fresh surfaces, fine grained, slightly limy. Interval 19-92' contains shale, medium to dark grey weathering with limestone pods and thin, nodular limestone interbeds as in unit 22.	92	156
3	Sandstone (60 per cent), orange-brown weathering, bedding thin and platy. Fresh surfaces medium brownish grey and very fine grained. Shale (40 per cent), medium dark grey weathering. Some limestone present in medium grey weathering, platy beds with laminae, fresh surfaces dark grey.	122	278
4	Limestone, thin bedded. Lower 25' medium grey weathering, bedding surfaces wavy, thick parting, fresh surfaces medium dark grey and finely crystalline. Upper 31' medium dark grey weathering, platy, dark grey on fresh surfaces and finely crystalline. GSC loc. 86902, in float 25-56' above base, *Goldfieldia* sp.	56	334

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
5	Siltstone, medium dark grey weathering, shaly. GSC loc. 86903, float from 149' above base, probably originating from unit 2, Olenellus sp.	160	494
6	Shale (50 per cent), medium grey weathering. Limestone (50 per cent), in lower part of unit light brownish grey weathering, bedding medium, fresh surfaces medium dark grey and finely crystalline; in upper part of unit limestone as below but in light brown weathering nodules.	119	613
7	Shale, black weathering. Limestone (15 per cent), dull medium grey weathering, thin bedded, platy, laminated. Fresh limestone medium dark grey, GSC loc. 86904, in 6" bioclastic bed at base of unit, Helcionella sp., Onchocephalus? sp., cf. Pelagiella sp.	260	873
8	Limestone, medium and light grey weathering, thin and medium bedded. Fresh surfaces medium grey and medium dark grey. Interval 285-505' above base recessive, probably contains considerable amount of shale.	630	1503

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	(Ordovician? shale)		
9	Shale (50 per cent), black, siliceous to organic. Limestone (40 per cent), very light grey to white weathering, thin bedded, laminated, fresh surfaces dark grey and dense. Chert (10 per cent), in thin, laminated beds.	200+	1703+

SECTION 4.

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	Sekwi Formation 2552+ (lower portion of formation covered)		
1	Quartzite, light brown, some orange-brown weathering, medium bedded, burrowed. Fresh surfaces medium brownish grey, very fine grained. Some (5 per cent) purple weathering quartzite. Minor amount (15 per cent) of siltstone present, same colour as quartzite.	50+	50+
2	Siltstone, limy siltstone and very fine grained quartzite, in thin, platy beds except for medium beds in upper 31'. Fresh surfaces light cream to light brown. Interval 94'-96' contains limestone, medium grey weathering, bedding thin and wavy. Fresh surfaces light grey and finely crystalline. GSC loc. 88934, 39' above base, *Hyolithes* sp., *Nevadella*? sp.	127	177
3	Dolomite, orange to light orange and light grey weathering, thick bedded except for medium in top 21'. Fresh surfaces light grey and cream coloured, finely crystalline. Interval 68'-109' above base contains "floating" medium and fine quartz grains in cross beds, current flowed to south. Interval 109'-132' covered by siltstone, kahki coloured, highly burrowed.		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	GSC loc. 88935, in float 124' above base, *Olenellus laxoculus*? Fritz, *Wanneria* sp.	153	330
4	Siltstone, 0'-21' medium to light brown and rust weathering, thin bedded, fresh surfaces medium grey; 38'-43' medium brown on weathered and fresh surfaces, burrowed. Interval 21'-38' contains dolomite (1/2), orange weathering, and sandstone (1/2), brick red weathering, quartz grains up to granual in size. GSC loc. 88936, in float 10' above base, *Olenellus* sp.	43	373
5	Limestone, medium light grey weathering, bedding thin and wavy, parting thick, mottled by yellowish brown siltstone. Fresh surfaces medium light grey and finely crystalline. Limestone in basal 20' thin parting.	95	468
6	Siltstone, medium brown weathering, medium grey on fresh surfaces, limy. Interval 92'-96' and 117'-119 1/2' contains dolomite, orange weathering, thick bedded, fresh surfaces cream coloured; lower interval contains 1" layers of medium grained quartz sand.	167	635

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
7	Limestone, mainly medium grey weathering, bedding thin, wavy and nodular. Fresh surfaces medium dark grey and finely crystalline. Basal 36' one-half siltstone, light brown weathering, medium grey fracturing. Interval 36'-63' above base contains dolomitic limestone, orange weathering, medium bedded, fresh surfaces light grey and finely crystalline; thin (1/8"-3") layers of fine grained quartz sand present. Interval 164'-190' contains siltstone, medium brown weathering; and limestone, orange weathering, in thin beds and lenses, fresh surfaces medium grey and finely crystalline. GSC loc. 88937, 72' above base, Olenellus sp., Proliostracus annosus Fritz, 1972.	210 1/2	845 1/2
8	Siltstone, limy, interval 0'-23 1/2' light grey weathering, some orange weathering, platy; interval 32 1/2'-52 1/2' light yellow to light brown weathering; 52 1/2'-66' covered, may contain siltstone. Interval 23 1/2'-32 1/2' contains dolomite, orange weathering thick bedded, fresh surfaces medium grey and finely crystalline.	66 1/2	912

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
9	Dolomite. Interval 0'-28' medium dark brown and reddish brown weathering, thick bedded, vuggy, fresh surfaces dark grey and finely crystalline. Interval 28'-60' contains dull medium grey weathering dolomite in thin, wavy beds; upper 4' contains siltstone, yellowish brown weathering, limy. Interval 60'-134' contains yellowish orange weathering (60'-93') and pinkish to orange weathering (93'-134') dolomite in medium and thick beds. Fresh dolomite cream coloured, finely crystalline.	134	1046
10	Dolomite, mainly medium brown weathering; interval 0'-17' thin, wavy bedded, medium grey on fresh surfaces, finely crystalline; interval 29 1/2'-60' medium and thick bedded, blocky, fresh surfaces dark grey and finely crystalline. Limestone present in interval 17'-29 1/2', light yellow and brownish medium grey weathering, thin bedded, platy, fresh surfaces medium dark grey and finely crystalline. Interval 60'-86' contains dolomite, light		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	orange-yellow and orange-pink weathering, thin bedded, wavy and platy, fresh surfaces medium dark grey and finely crystalline.	86	1132
11	Dolomite, light yellowish cream to pinkish cream weathering, in thick (0'-40') and in medium and thick (40'-48 1/2') beds. Fresh surfaces light grey and finely crystalline.	48 1/2	1180 1/2
12	Limestone and dolomite. Basal 11 1/2' limestone, medium grey weathering, thick parting, fresh surfaces medium dark grey and finely crystalline. Interval 11 1/2'-30' contains limestone and dolomite, orange weathering, thin bedded and platy, fresh surfaces dark grey and finely crystalline. Some coarse grains of "floating" quartz sand present. GSC loc. 88938, 8 1/2' above base, Olenellus sp., Proliostracus sp.	30	1210 1/2
13	Dolomite, yellow to light orange weathering, pinkish orange in upper 15', thick bedded, fresh surfaces light grey to cream coloured, finely crystalline. Basal 28 1/2' dolomite (1/2) as described but thin bedded and platy; and siltstone (1/2), light yellowish brown and light brown weathering. Coarse		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	grains of "floating" quartz sand in interval 33 1/2'-68 1/2' above base.	83 1/2	1294
14	Dolomite, mainly orange and yellow weathering, bedding mostly thin and medium, fresh surfaces light brown and cream coloured, finely crystalline. Some shale(?) present. At 111', 3' of chocolate weathering dolomite present.	141	1435
15	Dolomite, weathering light yellow, orange and light brown (0'-20', 25'-40'); medium pinkish grey and orange-grey (40'-70'); and medium brown to reddish brown (70'-95'). Bedding medium and thin, finely crystalline.	114	1549
16	Dolomite, very light grey to light pinkish grey weathering, very thick bedded, fresh surfaces very light grey and finely crystalline.	34	1583
17	Dolomite, mainly light yellow and yellowish grey weathering, thin and some medium bedded. Fresh surfaces medium and dark grey, finely crystalline. Basal 5' contains dolomite that weathers dark grey with reddish cast; intervals 69'-73' contain medium brown weathering dolomite.	132	1715

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
18	Dolomite, interval 0'-13' medium brownish grey weathering, thick bedded, fresh surfaces dark grey and finely crystalline. Interval 34'-73' light greyish brown weathering, medium and thick bedded, fresh surfaces dark grey and finely crystalline. In this interval spherical cavities (large olive sized) present, may indicate former oncholites removed by weathering. Interval 84'-96' yellow weathering, medium bedded, fresh surfaces light grey and finely crystalline. Remaining intervals covered (argillaceous dolomite?).	96	1811
19	Dolomite, thick bedded, finely crystalline. Interval 0'-40' medium grey weathering, medium dark grey on fresh surfaces. Interval 40'-164' light grey with cream hue, light grey on fresh surfaces.	164	1975
20	Dolomite, mainly light brownish grey weathering, some medium to dark brownish grey, thin and medium bedded to approximately 200' level, remainder thick bedded. Fresh surfaces mainly medium grey, finely crystalline. Some dark grey dolomite beds present at various levels giving banded appearance to outcrop.	577	2552

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	unnamed limestone and shale 1531 (Ordovician)		
1	Shale, weathering to black dirt and some limestone in outcrops (46'-49', 66'-75') and in float. Limestone light grey weathering, in thin plates, fresh surfaces dark grey and finely crystalline. GSC loc. 88939, float 68' above base, *Hystricurus*? sp., *Leiostegium*? sp. GSC loc. 88940, float 73' above base, asaphacean-type pygidium, *Geragnostus*? sp.	100+	100+

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Map unit 13 (Blusson, 1972)		
1	Siltstone, rust weathering, dark grey on fresh surfaces, micaceous, not limy, some spheroidal weathering. Quartzite (10 per cent) present, rust to dark grey weathering, in medium and thick interbeds, planar laminated, fresh surfaces medium grey, fine grained.	305+	305+
	Sekwi Formation, 3435'		
1	Siltstone (1/2) as in unit 1 below. Quartsite (1/2), light brown weathering, thin and medium bedded, planar laminated, fresh surfaces medium grey and fine grained. Upper 5' of unit contains limestone, orange weathering, medium and thick bedded, fresh surfaces medium grey, silty and glauconitic. GSC loc. 89218, top of unit, Fallotaspis sp., Helcionella? sp., ostracode?	35	35
2	Siltstone, rust weathering, dark grey on fresh surfaces. Above 65' level siltstone becomes limy and contains limestone nodules, orange weathering, medium to dark grey on fresh surface. Flat, dark grey burrows(?) 1/4" wide are common. Limestone present in uppermost beds of unit, medium blue-grey weathering, thin bedded, platy, parting surfaces orange		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	weathering, fresh surfaces medium grey and finely crystalline. Fault present at top of unit. GSC loc. 89219, 158' above base, Holmia? sp. GSC loc. 89220, 182' above base, Holmia? sp. Fritz, 1973.	190	225
3	Covered. Siltstone?	110	335
4	Quartzite, light greenish grey to orange weathering, thick bedded, fresh surfaces light greenish grey, fine grained.	40	375
5	Siltstone, dark grey to rust weathering, fresh surfaces dark grey, interval 45'-88' limy, orange weathering. Lower 45' tectonically folded.	88	463
6	Siltstone, dark grey on weathered and fresh surfaces, basal beds black.	55	518
7	Siltstone, orange weathering, thin to thick bedded, fresh surfaces medium dark grey. Limy concretions present. Fresh surfaces in uppermost 10' are buff coloured. Burrows present.	107	625
8	Siltstone, light orange weathering, thin bedded and nodular, fresh surfaces medium grey and light brown. At 155', 1' of limestone, dark grey on weathered and fresh surfaces, bedding thin and nodular.	220	845

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
9	Limestone, dark grey on weathered and fresh surfaces, thin bedded, platy, some parting surfaces weather orange. At 138', 5' limestone bed containing depositional breccia. Interval 189'-215' contains limestone (algal?) bioherm, weathered and fresh surfaces light grey, very thick bedded, archaeocyathids present but sparse.	255	1100
10	Limestone and siltstone. Interval 0'-70', 80 per cent siltstone, light grey weathering, medium light brownish grey on fresh surfaces; and 20 per cent limestone, light orange to buff weathering, thin bedded, medium light grey on fresh surfaces. Interval 70'-90' contains quartzite in lower half, medium brownish orange weathering, light brownish orange on fresh surfaces, fine and medium grained, medium and thick bedded, slump structures present; upper half limestone, buff and light grey weathering, thick bedded, fresh surfaces medium light grey and finely crystalline. Interval 90'-159' contains limestone (60 per cent) light brownish to light yellowish grey weathering, thin bedded and platy, fresh		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	surfaces medium dark grey and finely crystalline; and siltstone (40 per cent), light brownish grey weathering, medium dark grey on fresh surfaces.	159	1259
11	Limestone, medium and dark blue-grey weathing, in thick mounds (80 per cent) containing archaeocyathids, and in thin platy beds (20 per cent), medium and dark grey on fresh surfaces.	41	1300
12	Covered. Float is siltstone, light yellowish brown on weathered and fresh surfaces, also light grey on some fresh surfaces.	110	1410
13	Carbonate. Interval 0'-32' contains limestone (1/2), rust weathering, thin bedded, fresh surfaces medium dark grey and finely crystalline; and siltstone (1/2) as described in unit 12, burrows present. Interval 32'-55' contains limestone, light and medium grey on weathered and fresh surfaces, medium and thick bedded, some cross beds up to 1' high. Interval 55'-98' contains dolomite, light pink and orange weathering, bedding and cross bedding as in limestone below, fresh surfaces light grey and medium crystalline.	98	1508

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
14	Siltstone, light brown weathering, burrowed, interval 140'-153' greenish grey and khaki weathering. Subordinate amount of quartzite, interval 92'-113' cream to light grey weathering, thick bedded, fresh surfaces light grey, mainly fine grained, sorting poor, up to grit sized; interval 153'-193' quartzite as described, but 10 per cent purple weathering; interval 201'-218' as described but purple to light brown on fresh and weathered surfaces.	232	1740
15	Limestone, medium to dark grey on weathered and fresh surfaces, bedding irregular, medium and thick. Sparse white calcite spheres present near base. Upper 21' of limestone interfingers with dolomite, orange weathering, light grey on fresh surfaces. GSC loc. 89221, 5' above base, aff. Laudonia sp. GSC loc. 89222, 8' above base, Olenellus truemani Walcott, Wanneria? sp. GSC loc. 89223, 40' above base Obolella sp.?, Olenellus sp.	90	1830
16	Shale and siltstone, light brown and khaki weathering, light grey on fresh surfaces. Some limestone in float, light brown weathering, thin bedded, fresh surfaces		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	medium grey and finely crystalline. Interval 54'-58' contains dolomite, orange weathering, in thin, irregular beds, fresh surfaces medium dark grey and finely crystalline.	80	1910
17	Limestone, medium and medium dark blue-grey weathering, bedding thin, wavy and nodular, parting thin to thick, fresh surfaces medium dark grey, finely crystalline and dense. Interval 80'-100' contains large limestone "mounds" (fused slump breccia?, algal bioherms?) 8' thick, medium light grey on fresh and weathered surfaces. Similar "mounds" 5' thick present 148'-153' above base. Sparse archaeocyathids present near base. Interval 251'-265' contains oncholites in thick blocky beds of dark grey weathering and fresh limestone. GSC loc. 89224, float located 105' above base may be from uppermost beds in unit, edelsteinaspid. GSC loc. 89225, local float, 266' above base, Olenellus laxoculus Fritz. GSC loc. 89226, local float, 286' above base Proliostracus contractus? Fritz. GSC loc. 89227, local float, 361' above base Olenellus laxoculus? Fritz, Proliostracus sp.	371	2281

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
18	Siltstone, light orange weathering, fresh surfaces mainly light grey; interval 21'-38' mainly brick-red on weathered and fresh surfaces; interval 191'-210' light brown weathering, light greenish brown on fresh surfaces. Some limestone in thin, play beds; orange weathering with light grey fresh surfaces (119'-191'), medium dark grey weathering with dark grey fresh surfaces (210'-238'), and light brownish grey weathering with medium to dark grey fresh surfaces (238'255').	255	2536
19	Limestone, medium dark grey weathering, thin, wavy bedded, mainly thick parting, fresh surfaces dark grey and finely crystalline. Intervals 68'-86' and 144'-160' above base contain 1/2 siltstone. Interval 160'-184' contains limestone, medium dark grey weathering, very thin bedded, platy, dark grey on fresh surfaces. GSC loc. 89228, 1' above base, Olenellus paraocultus Fritz. GSC 89229, 84' above base, Olenellus paraoculus? Fritz.	278	2814

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
20	Siltstone (?, covered) and carbonate. Dolomite, bright orange weathering, in 10" bed at base of unit. Intervals 14'-36' and 44'-56' contain limestone, medium dark grey weathering, bedding thin, wavy and nodular, parting thick, fresh surfaces dark grey and finely crystalline. Interval 56'-84' contains dolomite, light pinkish orange weathering, thin, wavy bedded, thick parting, fresh surfaces medium dark grey and finely crystalline.	161	2975
21	Carbonate. Interval 0'-72' contains limestone, medium dark grey weathering, thin bedded, nodular, thick parting, fresh surfaces dark grey and finely crystalline. Interval 72'-157' dolomite, orange and pinkish orange weathering, thin, wavy bedded, thick parting, fresh surfaces dark grey and finely crystalline. Interval 157'-201' mainly covered, float over lower half limestone, light and dark grey mottled, thin bedded, fresh surfaces dark grey and finely crystalline; float over upper half limestone, light grey to light brown weathering, thin bedded, platy, fresh surfaces dark grey and finely crystalline. Basal 10'		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	of this interval may contain shale or siltstone. Interval 201'-245' limestone, medium dark, dull grey weathering, bedding surfaces light brown, thin bedded, slightly wavy, thick parting, fresh surfaces dark grey and finely crystalline; Salterella sp. present at base. Interval 245'-380' dolomite, light greyish pink to orange weathering, thin to thick bedded, thick parting, fresh surfaces light to dark grey and finely crystalline; dolomite grades laterally into limestone, dull medium grey and light brown weathering, bedding irregular, thin, parting thick and thin, fresh surfaces dark grey and finely crystalline, trails(?) on bedding surfaces. Interval 380'-460', limestone, medium blue-grey weathering, 40 per cent of surfaces mottled light brown, thin bedded, nodular, fresh surfaces dark grey and finely crystalline. GSC loc. 89230, 405'-410' above base, Olenellus paraoculus? Fritz, Wanneria sp.	460	3435
	Post-Sekwi dark shale and platy limestone, 1000'±		
1	Shale, medium brown weathering, dark grey on fresh surfaces. Some limestone, dull medium grey, brown, and orange weathering, in thin		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	interbeds, dark grey to black on fresh surfaces. GSC loc. 89231, float 30' above base, *Goldfieldia* sp.	1000'±	1000'±

SECTION 6.

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	Sekwi Formation 2779' + (lowest portion of formation covered)		
1	Siltstone (70 per cent) light to medium brownish orange weathering, medium brown on fresh surfaces; and limestone (30 per cent), light to medium blue-grey weathering, in nodules averaging 1 1/2" x 3" in cross section, fresh surfaces medium dark grey, dense to finely crystalline. Intervals 24'-32' and 46'-87' above base of unit contain strata as described, but more limestone (50 per cent) present in nodules and in thin, wavy beds. GSC loc. 89299, 17' above lowest outcrop, Holmia? sp. GSC loc. 89300, 78' above lowest outcrop, Serrodiscus sp., Yukonides? sp. GSC loc. 89301, 145' above lowest outcrop, Serrodiscus sp.	238	238
2	Limestone (1/2), medium dark grey weathering, beds thin, platy, laminated, fresh surfaces medium dark grey. Siltstone (1/2), medium brown to rust weathering, medium brownish grey on fresh surfaces. Top 3 1/2' consists of limestone, light grey weathering, in thick bed containing penecontemporaneous breccia derived from thin, platy limestone		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	beds, fresh surfaces medium dark grey and finely crystalline. The lower segment of section 6 terminates at top of breccia bed. Same breccia bed immediately underlying the middle segment is 12' thick.	54	292
3	Limestone, dull medium dark grey weathering with faint purple cast, very thin bedded, platy, fresh surfaces dark grey and finely crystalline. Intervals 96'-126' and 275'-299' above base of unit contain limestone as above but in layered lenses averaging 8" high and 24" long, largest lenses are 12" high and 48" long. Interval 340' - 378' contains some limestone as described along with medium dark grey, medium bedded limestone (50 per cent) in lower 1/2 and medium light grey limestone in medium beds (70 per cent) in upper 1/2, fresh surfaces of all medium beds are dark grey to medium dark grey and finely crystalline. GSC loc. 89302, 38' above base of unit, float from much higher stratigraphic position, Ogygopsis sp. GSC loc. 89303, 299' above base of unit, cf. Bonnia sp.	403	695
4	Limestone, medium light grey weathering, mediun and thin bedded, thick parting, fresh surfaces dark grey and finely crystalline. Abundant light		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	grey weathering limestone spheres present, average diameter is 3". Basal 10' lacks spheres, medium dark grey weathering, medium bedded, fresh surfaces dark grey and finely crystalline. Top of this unit is top of section 6b. GSC loc. 89304, 13' above base of unit in section 6b, edelsteinaspid?, Olenellus? sp., Salterella sp,, sponge spicules. GSC loc. 89233 , 42' below top of unit in section 6c, Ekwipagetia sp., Hyolithes sp., Olenellus sp., Pagetides sp.	84	779
5	Siltstone, light brownish grey weathering, fresh surfaces dark grey, limy, weathers in thick (1/4") flakes. Interval 290' - 316' contains argillaceous limestone, orange-grey weathering, bedding mainly thin, platy, some beds up to 3' thick, laminated, fresh surfaces brownish medium grey to dark grey. Base of this unit is base of section 6c. GSC loc. 89234, float from interval 40' - 190' above base of unit, Bonnia sp., undescribed trilobite cf. Nelson and Durham, 1966, Pl. 6, figs. 6-9, 12, 13. GSC loc. 89235, float from 308' above base of unit,		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	Olenellus sp. 1? Fritz, 1972, undescribed trilobites as in GSC loc. 89234.	484	1263
6	Limestone, basal 18' 60 percent light grey weathering, thick bedded; and 40 per cent medium dark grey weathering, thin bedded, platy; both types dark grey and finely crystalline. Thick beds contain penecontemporaneous breccia derived from limestone of thin bedded type. Top 10' contains shale (1/2), black on weathered and fresh surfaces, brittle; and limestone (1/2), medium dark grey weathering, in thin, wavy beds and in round (2" diameter) nodules, fresh surfces dark grey, finely crystalline to dense.	28	1291
7	Silty shale, medium brownish grey weathering, float in form of small rectangles and pencils, limy, fresh surfaces medium dark brownish grey.	118	1409
8	Shale, silvery light yellow weathering, limy, medium grey in fresh surfaces.	191	1600
9	Argillaceous limestone, orange and medium grey weathering, medium and thin bedded, becoming thinner bedded and more shaly in upper 1/2, fresh surfaces dark grey and finely crystalline. Top of this unit is near top of middle segment in section 6. Lower 145' of unit 10 was		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	measured in this segment and compare with lower unit 10 strata in upper segment. GSC loc. 89236, 90' above base of unit 9, Olenellus? sp., undetermined trilobite as in GSC loc. 89234.	224	1824
10	Limestone, lower 145' in section 6c medium dark blue-grey weathering, bedding thin and wavy, partings mottled with orange-brown and red weathering siltstone, fresh surface dark grey and finely crystalline. Bed of penecontemporaneous breccia present 45' above base, and large penecontemporaneous(?) fold present 145' above base. In section 6d, 7' of strata penecontemporaneously folded 100' above base indicates slump movement in S 60°W(?) direction. In same section penecontemporaneous fold present 480' above base, axis of fold is N 05°W, direction of slump uncertain. Approximately 100' above base of unit in section 6d limestone becomes thin bedded, platy, laminated, weathered parting surfaces are medium grey and yellow-orange, fresh surfaces dark grey and finely crystalline. Base of this unit is base		

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	of section 6d. GSC loc. 89237, 20' above base of unit, cf. Bonnia laevigata Rasetti, Ogygopsis sp. GSC loc. 89238, float from 35' above base of unit, Bonnia sp. GSC loc. 89239, 90 1/2' above base of unit, cf. Bonnia tatondukensis Palmer. GSC loc. 89240, float from 125' above base of unit, Ogygopsis? sp. GSC loc. 89241, 345' above base of unit, Bonnia sp., aff. undet. trilobite in GSC loc. 89234.	680	2504
11	Limestone, dull medium light grey weathering, bedding thin, wavy, fresh surfaces medium dark grey, finely crystalline, trails(?) abundant. GSC loc. 89242, 140' above base of unit, cf. Olenellus puertoblancoensis (Lochman).	275	2779
	Post-Sekwi dark shale and platy limestone, 385'+ (basal 385' Cambrian?)		
1	Covered, float mainly siltstone, medium brownish grey weathering, fresh surfaces dark grey to medium brownish grey, some trails(?) near base of unit. Limestone (5 per cent) present in bright orange weathering, medium and thick interbeds, finely laminated, fresh surfaces dark grey and dense. Oölite present in 2" limestone bed approximately 40' above base.	385	385

Unit	Lithology	Thickness (feet)	Height Above lowest outcrop of fm. (feet)
	(Ordovician)		
2	Shale, black on weathered and fresh surfaces, hard, brittle. GSC loc. 89242, float 55' above base of unit, Didymograptus sp., Phyllograptus sp., Tetragraptus sp. This unit not measured.		

SECTION 7

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Map unit 10a (Blusson, 1972), 200'+		
1	Siltstone, rust weathering, fresh surfaces gun-metal grey, hard; and quartzite (5 per cent), rust weathering, bedding medium and thin, platy, very fine grained, burrows present (upper ± 200' of this unit unmeasured, remainder covered).	200	+200
	Sekwi Formation, 3505'±		
1	Siltstone, light brownish orange weathering, fresh surfaces light greyish brown; and sparse limestone nodules (diameters average 1 1/2"), medium grey weathering, fresh surfaces same as fresh siltstone matrix. Interval 270'-279' contains limestone, light blue-grey weathering, bedding thin, nodular, fresh surfaces dark grey and finely crystalline. Dark grey burrows 1/4" wide present. GSC loc. 86149, 269' above base, Serrodiscus mackenziensis Fritz, Yukonides lacrinus? Fritz.	429	429
2	Limestone, light to dark grey weathering, thin to thick bedded, fresh surfaces dark grey and finely crystalline. Penecontemporaneous limestone breccia abundant. Penecontemporaneous folds in interval 45'-64' above base indicate slump directions of N 65°W, N 50°W, N 63°W,		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	N 40°W. Some exotic blocks of limestone near base of unit, largest is limestone boulder 3' high and 5' long. Upper 30' of unit contains thin bedded limestone as described (50 per cent); and siltstone, light grey to light brownish grey weathering, medium light grey on fresh surfaces, limy. GSC loc. 86150, 80' above base, Judomia? absita Fritz, Nevadia? sp., Pagetides latisulcus Fritz.	94	523
3	Siltstone, light brown weathering, fresh surfaces medium grey, limy, weathers to chips averaging 1/4" x 2" x 1 1/2". Slump structures present. GSC loc. 86151, float 92' above base, Bradyfallotaspis sp. 3 Fritz, 1972, Ekwipagetia plicofimbria Fritz, Judomia? absita Fritz, Labradoria hespera Fritz, Pagetides abyssistriatus Fritz. GSC loc. 86152, float 152' above base, aff. Anadoxides sp. 1 Fritz, 1973, Bradyfallotaspis sp. 3 Fritz, 1972, Dinesus sp. 1 Fritz 1973, Edelsteinaspis? sp. 1 Fritz 1973, Ekwipagetia plicofimbria Fritz, Judomia? absita Fritz, Pagetides abyssistriatus Fritz, Sekwiaspis canola Fritz.	162	685

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
4	Limestone, dark grey to light brownish grey weathering, thin bedded, interval 41'-61' above base medium bedded, fresh surfaces dark grey and finely crystalline. Interval 10'-22' above base contains limestone in one thick bed, light orange weathering, medium grey on fresh surface. Penecontemporaneous slump structures present. GSC 86153, 38' above base, Ekwipagetia plicofimbria Fritz, Judomia? absita Fritz, Pagetides abyssistriatus Fritz.	97	782
5	Quartzite, dull orange weathering, mainly thick and medium bedded, fresh surfaces light to medium dark grey, fine and very fine grained. Cross beds present, up to 8" high.	15	797
6	Siltstone, medium to light brownish grey weathering, fresh surfaces medium dark grey, weathers to chips 1/4" x 3/4" x 3/4", limy, penecontemporaneous folds present.	48	845
7	Limestone, orange weathering, massive, medium dark grey on fresh surfaces, archaeocyathids abundant, unit laterally pinches and swells to form bioherms, greatest local thickness is 33'.	33	878

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
8	Siltstone, as in unit 6.	118	996
9	Limestone in archaeocyathid bioherms as in unit 7. Greatest local thickness is 94'. GSC loc. 86154, 92' above base, Tabulaconus sp., archaeocyathids.	94	1090
10	Siltstone, light brown weathering, medium dark grey on fresh surfaces, weathers to chips 1/4" x 1" x 1".	403	1493
11	Siltstone, as in unit 10; and quartzite (20 per cent), medium reddish brown on weathered and fresh surfaces, in thin interbeds, very fine grained, limy.	72	1565
12	Limestone, medium dark grey weathering, thin and medium bedded, dark grey on fresh surfaces and finely crystalline. Oölites present throughout unit. Pisolites present in interval 60'-145' above base. Olenellid fragments present 60' above base. Girvanella sp. bed present 80' above base. Uppermost 7' consists of limestone, bright orange weathering, thick and medium bedded, fresh surfaces medium grey and finely crystalline.	152	1717

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
13	Siltstone, light brown and light orange weathering, fresh surfaces light grey. Minor quartzite (10 per cent), light orange to light brown weathering, in thin and medium interbeds, fresh surfaces light brown and light grey, very fine grained.	218	1935
14	Dolomite, light grey weathering with some red stain, medium and thick bedded, fresh surfaces medium light to dark grey, finely crystalline. Basal 15' limestone, dark grey on weathered and fresh surfaces, bedding thin and wavy. GSC loc. 86155, 7' above base, archaeocyathids.	130	2065
15	Limestone (60 per cent), medium grey weathering, bedding thin, wavy, fresh surfaces medium dark grey and finely crystalline; and shale (40 per cent) that weathers to light brown dirt. GSC loc. 86156, 32 1/2' above base, edelsteinaspid?, Olenellus laxoculus? Fritz, Wanneria? sp. GSC loc. 86157, 55' above base, edelsteinaspid? sp., Olenellus laxoculus? Fritz.	90	2155
16	Dolomite, light grey and dark grey weathering with some red stain, bedding medium and thick, blocky, fresh surfaces light to dark grey and finely crystalline. Dolomite in uppermost 140' of unit		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	weathers light and medium brown. Limestone present in lowest 23' of unit, medium grey weathering, thin bedded, medium to dark grey on fresh surfaces, finely crystalline, oölites present.	490	2645
17	Dolomite, yellowish orange weathering, thin bedded, platy, fresh surfaces light grey and finely crystalline. Possible fault 290' above base.	360	3005
18	Dolomite, lower beds weather dark brown, medium bedded, dark grey on fresh surfaces and finely crystalline. Higher intervals weather light grey and brown, medium bedded. GSC loc. 86158, 17' above base, unidentified burrows(?). This unit not measured.	500±	3505±

SECTION 8.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Map unit 13 (Blusson, 1972)		
1	Siltstone, black on weathered and fresh surfaces, hard, not measured.	+ 100	+ 100
	Sekwi Formation, 2322+		
1	Siltstone (60 per cent), medium brown to medium orange-brown weathering, medium brownish grey on fresh surfaces, limy, dark grey burrows 1/4" wide present; and limestone (40 per cent) in nodules, medium blue-grey weathering, medium dark grey on fresh surfaces, finely crystalline. Black siltstone similar to that in map unit 13 present in several 1' beds, one bed located 52' above base of unit. GSC loc. 89340, float at base of present unit, *Parafallotaspis*? sp. GSC loc. 89339, float, 22' above base, *Holmia*? sp. GSC loc. 89338, float, 67' above base, cf. *Holmia* sp. or *Holmiella* sp.	129	129
2	Limestone, light blue-grey weathering, thin bedded, platy to broadly wavy, partings weather light orange, fresh surfaces medium dark grey and finely crystalline. Interval 20'-37' above base contains limestone (70 per cent) and siltstone (30 per cent) as in unit 1.	78	207

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
3	Limestone (60 per cent), light blue-grey weathering, in bedded nodules, dark grey on fresh surfaces and finely crystalline; and siltstone (40 per cent), orange-brown to brownish grey weathering, fresh surfaces medium brownish grey, limy.	85	292
4	Siltstone, as in unit 3 and sparse limestone nodules as in unit 3. Dark grey burrows 1/4" wide are common. GSC loc. 89337, float, 0'-10' above base of unit, Holmiella sp., Nedvadella sp., Pagetides spinulus? Fritz, Serrodiscus sp. GSC loc. 89336, 27' above base, Bradyfallotaspis sp., Keeleaspis? sp., Kootenia sp., Serrodiscus sp. GSC loc. 89335, 45' above base, Keeleaspis sp., Kootenia? sp., Nevadella faceta? Fritz.	88	380
5	Limestone, medium grey weathering, thin bedded, platy, fresh surfaces dark grey and finely crystalline. One thick bed contains pene-contemporaneous limestone breccia.	62	442
6	Dolomite, medium light grey weathering, thin bedded, medium light grey on fresh surfaces and finely crystalline. Lower 38' contains dolomite, orange-cream weathering, thick bedded, light grey on fresh surfaces, contains abundant penecontemporaneous dolomite breccia.	150	592

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
7	Dolomite, cream to pinkish cream weathering, thick bedded, fresh surfaces light grey (some mottled light and medium grey), finely to coarsely crystalline. Uppermost beds weather bright orange.	353	945
8	Shale, olive grey on weathering and fresh surfaces (0'-63'); and medium brown on weathering surfaces, medium grey on fresh surfaces (155'-175'). Interval 63'-155' above base contains 70 per cent quartzite, medium brown to medium orange-brown weathering, thick bedded, fresh surfaces medium light brown to medium grey, fine to coarse grained, Scolithos abundant; and shale (30 per cent), medium grey to rust weathering, medium grey on fresh surfaces. GSC loc. 89334, float 107' above base of unit, Judomia? sp. , Mickwitzia? sp., Salterella sp.	175	1120
9	Limestone and dolomite, weathering surface mottled medium blue-grey (limestone, 60 per cent) and orange (dolomite, 40 per cent), thick bedded, fresh surfaces of both limestone and dolomite are dark grey. Basal 12' weathers bright orange. Uppermost beds		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	marked by orange weathering, raised, oölite sized structures. GSC loc. 89333, 12' above base, Fremontella? sp., Olenellus truemani Walcott, Poulsenia sp.	52	1172
10	Shale, weathers to small, olive-brown flakes. Interval 20'-25' above base contains siltstone, khaki to reddish brown weathering, burrowed.	82	1254
11	Carbonate, basal 54' limestone, medium dark grey weathering with yellowish orange to brownish orange mottling on parting surface, very thin bedded, parting thin to thick, fresh surfaces dark grey and finely crystalline. Interval 54'-86' and 94'-98' contains dolomite, bright orange weathering, bedding thick, blocky, laminated, fresh surfaces light grey to light brown, finely crystalline, "floating" quartz sand at top of 54'-86' interval. Interval 86'-94' contains limestone, light blue-grey weathering, thin wavy bedded, medium grey on fresh surfaces and dense, "floating" quartz sand at base of interval. Interval 94'-118' contains limestone (80 per cent), medium grey weathering, thin bedded, wavy, medium and dark grey in fresh		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	surfaces; and dolomite (20 per cent), locally replacing limestone, orange weathering, medium grey in fresh surfaces, finely crystalline. GSC loc. 89332, 33' above base, Olenellus sp. GSC loc. 89331, 99' above base, Poulsenia sp.	118	1372
12	Shale, bright orange weathering, light brown to greenish grey on fresh surfaces. Intervals 53'-54' and 99'-100' contain purple weathering and fresh shale. Interval 0'-49' contains dolomitic shale, orange weathering, in medium and thin plates, fresh surfaces are light brown.	160	1532
13	Mainly dolomite, interval 15'-59' orange weathering, thin bedded, light grey on fresh surfaces; interval 71'-130' cream weathering and fresh, thick (71'-81', 124'-130') and thin (81'-124') bedded; interval 160'-164' light grey weathering, thick bedded, laminated, medium grey on fresh surfaces. Limestone present in 0'-15' and 65'-71 interval, medium dark grey on weathered and fresh surfaces, thin bedded; and in 130'-160' interval, light grey weathering, thick bedded. Interval 59'-65' contains shale, light brown weathering and fresh. GSC loc. 89330, 10' above base, Proliostracus sp. GSC loc. 89329, float, 51' above base, Olenellus sp.	164	1696

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
14	Shale, light orange-yellow weathering and fresh, and light grey fresh, slightly limy. Interval 96'-117' contains limestone, light grey weathering, thin bedded, wavy, fresh surfaces dark grey, lowermost 3' has purple weathering parting surfaces. Interval 117'-135' contains dolomite, medium grey on weathered and fresh surfaces, thick bedded, medium crystalline. Interval 135'-144' contains limestone, medium dark grey weathering and fresh, thin bedded, wavy and nodular, medium and thick parting, finely crystalline.	144	1840
15	Shale (80 per cent), light grey to light yellowish grey weathering; and dolomite (20 per cent), bright orange weathering, in thin and medium interbeds, fresh surfaces light grey and finely crystalline.	52	1892
16	Mainly dolomite, interval 0'-23' 20 per cent dolomite, interval 35'-113' 80 per cent dolomite, cream weathering, bedding mainly medium, wavy to planar laminated, fresh surfaces finely crystalline and medium grey. Interval 23'-35' covered, probably contains shale. Interval 113'-148' contains dolomite, medium dark grey weathering with some pink areas, mottled, bedding thin, wavy, parting thick, fresh surfaces medium grey		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	and finely crystalline; uppermost 3' orange weathering. Interval 148'-156' contains greenish-grey weathering and fresh shale. Interval 156'-181' contains dolomite, bright orange weathering, bedding very thin to thick, platy, laminated, fresh surfaces medium grey.	181	2073
17	Limestone, dull medium grey weathering with 50 per cent orange and red mottling, bedding thin and wavy, parting thick to thin, fresh surfaces medium dark grey and fine grained. Intervals 5'-18' and 39'-51' contain nodular beds. GSC loc. 89328, 2' above base, cf. Olenellus laxoculus Fritz. GSC loc. 89327, 29' above base, Poulsenia sp., Wanneria logani (Walcott). GSC loc. 89326, 77' above base Proliostracus sp. GSC loc. 89325, 108' above base Proliostracus annosus Fritz.	147	2220
18	Limestone, medium dark blue-grey weathering with orange and red mottling, thin bedded, wavy, fresh surfaces dark grey and finely crystalline. Parting thin to thick in basal 46' where bedding surfaces are broadly wavy to planar. Section covered above 102! level of this unit. GSC loc. 89324, 21' above base, Olenellus sp. 2 Fritz 1972, Wanneria parvifrons? Fritz. GSC loc. 89323, 36' above base, Bonnia sp., Olenellus sp. 2 Fritz, 1972, Olenellus sp. 3? Fritz, 1972,		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Wanneria logani? (Walcott). GSC loc. 89322, 62' above base, *Bonnia laterispina* Fritz, *Olenellus* sp. GSC loc. 89321, 82' above base, *Bonnia laterispina*? Fritz, *Olenellus* sp., *Wanneria parvifrons*? Fritz.	102+	2322

SECTION 9.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Map unit 13 (Blusson, 1972), not measured		
1	Siltstone, medium brownish grey to rust weathering, medium brown to medium grey on fresh surfaces, burrowed.		
	Sekwi Formation, 2,202'		
1	Limestone, medium grey weathering, partings weather medium orange-brown, bedding thin, wavy, parting thick, fresh surfaces dark grey and finely crystalline. GSC loc. 89316, 15' above base, *Parafallotaspis grata* Fritz.	119	119
2	Limestone, interval 0'-58' medium dark grey weathering, bedding thin, wavy, fresh surfaces dark grey, finely crystalline; interval 58'-100' 1/2 medium dark grey weathering and 1/2 light brown weathering, thin bedded, nodular near base, fresh surfaces dark grey and finely crystalline; interval 100'-165' medium dark grey weathering, parting surfaces weather buff, bedding thin, platy, fresh surfaces dark grey and finely crystalline. At 149', 2' bed of dolomite, orange weathering, fresh surface light grey and finely crystalline.	165	284

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
3	Mainly dolomite. Interval 0'-30' dolomite, 1/2 medium orange-brown weathering, thin bedded, platy, greenish grey fresh, silty; and 1/2 dolomite, orange weathering, medium and thick bedded, fresh surfaces cream coloured, contains quartz sand "floating" and in layers 1/2" thick. Interval 30'-46' dolomite, medium orange-brown weathering, thin bedded, platy, fresh surfaces light greenish grey, silty. Interval 46'-73' quart sandstone (1/2), orange weathering, medium and thick bedded, fresh surfaces light brown, fine to coarse grained; and siltstone (1/2), khaki weathering, light greenish grey on fresh surfaces.	73	357
4	Dolomite, bright orange weathering, thick bedded, fresh surfaces cream weathering, finely crystalline.	76	433
5	Limy siltstone, medium brown to medium orange-brown weathering, bedding thin, parting medium and thick, fresh surfaces medium grey to medium dark grey. Limestone in intervals 98'-107' and 150'-164' medium blue-grey weathering, bedding thin, wavy, fresh		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	surfaces dark grey and finely crystalline. GSC loc. 89315, 150' above base, Nevadella sp.	164	597
6	Quartzite and sandy dolomite. Interval 0'-65' dolomite with abundant quartz sand, orange-grey weathering, thin bedded, very thick parting, fresh surfaces light greenish grey. Interval 65'-80' dolomite, bright orange weathering, thin and medium bedded, fresh surfaces cream coloured, weathered rock has many holes 1/2" in diameter. Interval 80'-136' dolomitic sandstone, orange-cream weathering, medium bedded, fresh surfaces cream coloured, fine grained; raised layers of white quartz sand 3/8" thick on weathered surfaces. Interval 136'-200', quartzite and dolomitic quartzite, light orange-cream weathering, thick bedded, fresh surfaces cream and light brown, mainly fine and medium grained, sorting poor, some grit sized clasts.	200	797
7	Dolomite, intervals 0'-69', 120'-164' and 1/2 of 69'-88' bright orange weathering, thin and medium bedded, fresh surfaces light grey and finely crystalline. Interval 88'-113' and 1/2 of 69'-88 dolomitic sandstone and		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	quartzite, light pinkish grey on weathered and fresh surfaces, thick bedded, sorting very poor, very fine grained to grit sized, Scolithos at top of 88'-113' interval. Intervals 113'-120' and 164'-181' contain siltstone, khaki weathering, fresh surfaces brown and medium grey.	181	978
8	Dolomite and sandstone. Interval 0'-39' sandstone, light purple weathering and fresh, thick bedded, coarse grained, weathers to grus-like sand. Interval 39'-61' dolomitic sandstone, cream to orange-cream weathering, thin and medium bedded, fresh surfaces cream to light brown, at base crossbeds 1' high indicate current directions of N 40° W and 0°W. Interval 61'-110' dolomite, cream and orange-cream weathering, medium and thin bedded.	110	1088
9	Dolomitic siltstone, light yellow, orange-yellow and light greenish brown weathering, some mudcracks. Interval 0'-33' 1/2 siltstone as above and 1/2 dolomite, cream and pink weathering, thin bedded, fresh surfaces cream coloured. Interval 33'-38' contains siltstone, dark purple weathering and fresh, mudcracks present.	95	1183

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
10	Limestone, interval 0'-28' medium grey weathering, mainly thin, wavy bedded, fresh surfaces medium and dark grey, finely crystalline, abundant sand and grit sized limestone fragments; interval 28'-210' in part dolomite, bright orange and light pinkish cream weathering, thin and medium bedded, fresh surfaces light to dark grey and finely crystalline, laterally changing to limestone, medium light grey weathering, thin bedded, thin to thick parting, fresh surfaces medium grey and finely crystalline, "floating" coarse quartz sand 5' to 10' above base of this interval; interval 210'-254' limestone medium blue-grey weathering, bedding thin, wavy, fresh surfaces dark grey and finely crystalline. GSC loc. 89314, 9' above base of unit, Olenellus sp. 1 Fritz 1972. GSC loc. 89313, 20' above base, Olenellus sp. GSC loc. 89312, 177' above base, Olenellus sp., Proliostracus annosus Fritz, Salterella sp., Wanneria? sp. GSC loc. 89311, 242' above base, Bonnia sp., Wanneria sp.	254	1437

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
11	Mainly dolomite. Interval 0'-135' bright orange and orange-cream weathering dolomite, thin and medium bedded, platy, planar laminated; interval 135'-160' limestone, medium grey weathering, thick to thin bedded, planar laminated, fresh surfaces medium dark grey and finely crystalline; interval 160'-187' dolomite (60 per cent), bright orange weathering, thick and medium bedded, planar laminated, fine surfaces medium to dark grey and finely crystalline, and silty dolomite (40 per cent), light brown weathering, thin bedded, fresh surfaces dark grey, mudcracks near top of interval.	187	1624
12	Dolomite, light grey and cream weathering, thick bedded, fresh surfaces light grey and finely crystalline.	55	1679
13	Carbonate. Interval 0'-21' contains dolomite, pinkish cream weathering, medium bedded, planar laminated, fresh surfaces light grey and finely crystalline; subinterval 8'-16' in part limestone that grades laterally into dolomite, limestone medium grey weathering, dark grey on fresh surfaces. Interval 21'-37 1/2', dolomite, bright		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	orange weathering, thin and medium bedded, fresh surfaces medium grey and finely crystalline. Interval 37 1/2'-56' limestone, medium blue-grey weathering, medium and thin bedded, fresh surfaces dark grey and finely crystalline. Interval 56'-87' 40 per cent dolomite as in 37 1/2'-56' interval below, 30 per cent limestone as in 87'-122' interval above, and 30 per cent shale(?), (covered). Interval 87'-122' contains limestone, light blue-grey weathering, bedding thin, wavy, mottled light brown and orange-brown, fresh surfaces dark grey and finely crystalline. GSC loc. 89310, 108' above base, Bonnia sp., Olenellus turmalis? Cowie, Wanneria logani? (Walcott).	122	1801
14	Dolomite, light pinkish grey and light orange-grey weathering, bedding medium, wavy, fresh surfaces light grey and medium crystalline.	103	1904
15	Dolomite, mainly medium brownish grey weathering, bedding thin, wavy, parting thick, fresh surfaces dark grey, finely crystalline, sparse white quartz bodies 1/4" x 1/2" present, Salterella sp. present 30' above base of unit. Basal 21 1/2' mainly limestone, blue-grey weathering, bedding thin, wavy,		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	partings light brown, fresh surfaces dark grey, finely crystalline. Bright orange dolomite present in thick bed 21 1/2'-23' above base. Intervals 0'-4' and 104'-118' contain shale(?), covered. Interval 118'-149' dolomite as described, but medium dark grey weathering. GSC loc. 89309, 17' above base of unit, Bonnia fieldensis? (Walcott), Nisusia sp., Paterina sp.	149	2053
16	Limestone, light grey-brown to light orange-brown weathering, thin (80 per cent) and medium (20 per cent) bedded, fresh surfaces dark grey and finely crystalline, argillaceous. Basal 10' covered, probably shale. Interval 14'-19' contains limestone as described, but weathering bright orange. GSC loc. 89308, 10'-15' above base, Olenellus gilberti? Meek. GSC loc. 89307, 59' above base, Olenellus puertoblancoensis (Walcott).	85	2138
17	Mainly limestone, medium grey weathering, thin and some medium bedded, fresh surfaces medium dark grey and finely crystalline. Interval 0'-8' shale(?), (covered). Interval 10'-14' contains dolomite, light orange-brown weathering, medium bedded, fresh surfaces medium grey		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	and finely crystalline. GSC loc. 89306, 9' above base, Bonnia? sp., Lingulella sp., Paterina sp., Piaziella sp., Syspacephalus rapidus Fritz. GSC loc. 89305, 63 1/2' above base, Antagmus sp., Bonnia columbensis? Resser, Helcionella sp., Hyolithes sp., Kutorgina sp., Ogygopsis sp., Paterina sp., Syspacephalus laevigatus? Rasetti.	64	2202
	Post-Sekwi dark shale and platy limestone, 840'+		
1	Siltstone and shale; lower portion covered by dark grey siltstone fragments and dirt, fresh siltstone surfaces black; upper portion covered by limestone float, medium brown and medium to dark grey weathering, thin to very thin bedded, platy, fresh surfaces dark grey. Sponge spicules common from base of unit to at least 600' level. GSC loc. 89320, 13' above base, Bonnia sp., cf. Chancia sp., Ogygopsis? sp., Syspacephalus sp. Zacanthopsis sp.	840	840
2	Limestone, medium grey weathering, thin bedded, platy, dark grey on fresh surfaces and finely crystalline. GSC loc. 89319, float 650' above base, Bellefontia? sp., Hystricurus? sp. GSC loc. 89318, float estimated to be		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	1,100' above base, Apatokephalus? sp., olenid. GSC loc. 89317, estimated to be 1,600' above base, Didymograptus? sp., Phyllograptus sp.		

SECTION 10.

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Map unit 13 (Blusson, 1972), not measured		
1	Siltstone, brown weathering, brownish grey on fresh surfaces; and some interbedded quartzite, light brown weathering, thin and medium bedded, fresh surfaces light brownish grey, fine grained.		
	Sekwi Formation, 2309'		
1	Limestone, light grey weathering and fresh, thin and medium bedded, finely crystalline, sparse grains of glauconite present. GSC loc. 73025, 6' above base, *Parafallotaspis grata* Fritz.	14	14
2	Siltstone(?) or shale(?), covered.	35	49
3	Limestone, light blue-grey weathering, bedding thin, wavy, fresh surfaces medium to medium dark grey, finely crystalline. Weathered parting surfaces mottled orange-yellow (0'-95') and orange-brown (95'-340'). GSC loc. 73026, 141' above base, *Kootenia diutina* Fritz, *Pagetides spinulus* Fritz. GSC loc. 73027, 210' above base, *Bradyfallotaspis fusa* Fritz, *Bradyfallotospis* sp. 1 Fritz 1972, *Holmiella preancora* Fritz, *Keeleaspis stupenda* Fritz, *K. diutina* Fritz, *Nevadella faceta* Fritz, *P. spinulus* Fritz, undet. olenellid.	340	389

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
4	Siltstone(?) weathering to brown dirt; some limestone, light brown weathering, bedding thin (1/4"), platy. GSC loc. 73030, 41' above base, *Bradyfallotaspis fusa* Fritz, *Holmiella preancora* Fritz, *Kootenia diutina* Fritz, undet. olenellid, *Pagetides spinulus* Fritz.	75	464
5	Limestone, light blue-grey weathering, partings partially light brown (0'-80') and orange-brown (80'-241'), bedding thin, broadly wavy to platy, fresh surfaces medium dark grey and finely crystalline. Archaeocyathid-bearing limestone mounds 3' thick 51' above base and 6' thick 189' above base. Interval 241'-246' contains dolomitic limestone, bright orange weathering, fresh surfaces light brown and finely crystalline. Top 24' covered, may contain thin bedded limestone. GSC loc. 73032, 29' above base, *Bradyfallotaspis patula* Fritz, *Holmiella preancora* Fritz, *Kootenia diutina* Fritz, *Keeleaspis stupenda* Fritz, *Nevadella faceta* Fritz, *Nevadella* sp. 2 Fritz 1972, *Pagetides spinulus* Fritz, *Sekwiaspis artifrons* Fritz.		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 73033, 51' above base, H. preancora Fritz, Keeleaspis pustula Fritz, K. stupenda Fritz, K. diutina Fritz, Nevadella sp. 2 Fritz 1972, P. spinulus Fritz, Sekwiaspis artifrons Fritz. GSC loc. 73034, 115' above base, K. pustula Fritz, K. stupenda Fritz, Holmiella falcuta Fritz, H. preancora Fritz, K. diutina Fritz, N. faceta Fritz, P. spinulus Fritz, Yukonides lacrinus Fritz. GSC loc. 73035, float 148' above base, K. diutina Fritz, N. faceta Fritz, S. artifrons Fritz, Y. lacrinus Fritz. GSC loc. 73036, float 179' above base, K. pustula Fritz, K. stupenda Fritz, K. diutina Fritz, N. faceta Fritz, P. spinulus Fritz, Pagetides? sp. 1 Fritz 1972, S. artifrons Fritz, undet pygidium 1 Fritz 1972. GSC loc. 73037, float 189' above base, H. falcuta Fritz, K. pustula Fritz, K. stupenda Fritz, K. diutina Fritz, Nahanniaspis prima Fritz, N. faceta Fritz, P. spinulus Fritz, Y. lacrinus Fritz. GSC loc. 73038, float 203' above base, B. patula Fritz, H. falcuta Fritz, K. pustula Fritz, K. stupenda Fritz, K. diutina Fritz, Nevadella sp. 1 Fritz 1972, P. spinulus Fritz, Y. lacrinus Fritz.		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 73039, float 230' above base, *Gelasene*? sp. Fritz 1972, *H. falcuta* Fritz, *K. pustula* Fritz, *K. diutina* Fritz, *P. spinulus* Fritz.	270	734
6	Dolomite, orange weathering, thin and medium bedded, fresh surfaces medium grey to buff and finely crystalline.	32	766
7	Dolomite, light orange (0'-73', 229'-291'), light pinkish cream (73'-168'), and light brown (168'-229') weathering, thick bedded, fresh surfaces light buff, pinkish buff (0'-229') and light grey (229'-291'), finely crystalline. Intervals 0'-73' and 163'-229' contain considerable interbedded medium and coarse quartz grains that weather in raised laminations 1/4" thick; quartz grains present but sparse in interval 229'-291'.	291	1057
8	Quartzite (0'-14'), light and medium brown weathering, thick bedded, fresh surfaces light brown, medium to grit sized (0'-8') and fine grained (8'-14'); and dolomite (14'-23') orange to light brown weathering, beds thin to thick, average 10", fresh surfaces orange to dark grey.	23	1080

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
9	Covered, probably thin bedded limestone and siltstone. Change in dip on either side of this unit suggest presence of fault.	33	1113
10	Quartzite, light brown weathering and fresh, thin bedded, medium and coarse grained, poorly sorted; interbedded with dolomite, orange weathering, thin bedded, fresh surfaces light brown and finely crystalline. At top of unit is 1' of light blue-grey weathering limestone.	57	1170
11	Dolomite, orange weathering, thin bedded, fresh surfaces light grey and finely crystalline. Interval 50'-66' above base siltstone(?), covered by brown dirt. Top 5' consists of limestone, basal 4' light blue-grey weathering, thin bedded, fresh surfaces medium dark grey, finely crystalline; upper 1' contains coarse quartz grains, dark brown weathering, fresh surfaces light brown. GSC loc. 73040, float 12' above base, Olenellus truemani Walcott, Proliostracus depressus Fritz. GSC loc. 73041, 14' above base, Fremontella? sp. GSC loc. 73042, 52' above base, Proliostracus contractus Fritz. GSC loc. 73043, 96' above base, Olenellus sp. 1 Fritz 1972.	104	1274

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
12	Siltstone(?) in 0'-10' interval covered by brown dirt; and limestone 10'-24', light blue-grey weathering, bedding thin, wavy, orange mottled, fresh surfaces medium dark grey and finely crystalline. GSC loc. 73044, 15' above base, Proliostracus latus Fritz, Proliostracus annosus Fritz, aff. P. annosus Fritz.	24	1298
13	Dolomite, thick bedded, finely crystalline, in part (0'-38') orange weathering and medium dark grey fresh, and in part (82'-109') bright orange to brick red weathering, medium grey fresh; and limestone (38'-51', 60'-82', 109'-114') light to medium grey weathering, thin to thick bedded, fresh surfaces medium dark grey and dark grey, finely crystalline. Interval 51'-60' contains 4' of orange weathering, thin bedded dolomite at base and 5' of siltstone(?) weathering to brown dirt. GSC loc. 73045, 72' above base, Variopelta laevis Fritz.	114	1412
14	Limestone, interval 0'-49' 1/2 light blue-grey weathering, thin bedded, fresh surfaces medium dark grey and finely crystalline;		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	interval 49'-83' light to medium grey weathering, thin bedded, wavy and platy, fresh surfaces medium dark grey and finely crystalline. Siltstone(?) weathering to brown dirt occupies 1/2 of interval 0'-49'. Bright orange weathering dolomite in 3' bed present 6' below top of unit. GSC loc. 73047, at top of unit, Poulsenia sp. 1 Fritz 1972.	83	1495
15	Limestone, light to medium grey weathering, thin to thick bedded, fresh surfaces medium grey and finely crystalline. GSC loc. 73048, 18' above base of unit, Poulsenia sp. 1 Fritz 1972.	74	1569
16	Limestone, light grey weathering, partings 1/2 covered with buff siltstone, bedding thin, wavy, fresh surfaces medium dark grey and finely crystalline. GSC loc. 73049, 10' above base of unit, Olenellus laxoculus Fritz, Olenellus sequomalus Fritz, Wanneria parvifrons Fritz, Wanneria logani (Walcott). GSC loc. 73050, 17' above base, W. logani (Walcott). GSC loc. 73051, 19' above base, Olenellus sp. 2 Fritz 1972, W. logani (Walcott). GSC loc. 73052, 38' above base, O. sp. 2 Fritz 1972,		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	Olenellus sp. 3 Fritz 1972. GSC loc. 73053, 52' above base, *O.* sp. 2 Fritz 1972, *W. logani* (Walcott). GSC loc. 73054, 55' above base, *Bonnia* sp. 1 Fritz 1972, *O.* sp. 2 Fritz 1972, *W. logani* (Walcott). GSC loc. 73055, 59' above base, *W. logani* (Walcott). GSC loc. 73056, 61' above base, *O.* sp. 2 Fritz 1972, *W. logani* (Walcott). GSC loc. 73057, 64' above base, *O.* sp. 2 Fritz 1972, *W. logani* (Walcott). GSC loc. 73058, float 88' above base, *Olenellus paraoculus* Fritz. GSC loc. 73059, float 164' above base, *O. paraoculus* Fritz, *Wanneria* sp. 1 Fritz 1972. GSC loc. 73060, float 164' above base, *O. paraoculus* Fritz. GSC loc. 73061, 166' above base, *O. paraoculus* Fritz.	171	1740
17	Limestone, light orange-yellow (0'-15', 37'-49') and light grey (15'-37', 49-95') weathering, thick bedded, fresh surfaces medium grey (0'-49') and medium dark grey (49'-95'), finely crystalline. GSC loc. 73062, 75' above base, *Olenellus* sp. 2 Fritz 1972. GSC loc. 73063, 90' above base, *Bonnia laterispina* Fritz.	95	1835

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
18	Mainly limestone, interval 0'-22' limestone, light blue-grey weathering, orange mottled, thin, wavy bedded, fresh surfaces medium dark grey and finely crystalline; interval 22'-44' dolomite, orange weathering, mainly thin bedded, fresh surfaces medium dark grey to brownish grey, finely crystalline; interval 44'-59' dolomitic limestone, medium grey weathering, thick bedded, blocky, orange mottled; interval 59'-72' 1/2 shale and 1/2 dolomite, orange weathering, medium bedded; interval 72'-82' dolomitic limestone, orange weathering, thick bedded. GSC loc. 73064, 13' above base, *Olenellus paraoculus* Fritz, *Wanneria logani* (Walcott). GSC loc. 73065, 21' above base, *O. paraoculus* Fritz. GSC loc. 73066, 44' above base, *Olenellus* sp. 4 Fritz 1972.	82	1917
19	Limestone, medium light grey weathering, bedding thin in lower part (0'-60'), thickness increasing above (60'-125') until thick at top, fresh surfaces medium to dark grey and finely crystalline. GSC loc. 73067, 49' above base, *Bonnia* sp. 2 Fritz, *Zacanthopsis stribuccus* Fritz.	125	2042

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
20	Limestone, interval 10'-55' medium grey weathering, thin bedded, fresh surfaces dark grey and finely crystalline; interval 55'-167' medium dark grey weathering, thin bedded, dark grey to black on fresh surfaces, interbedded with some dark shale(?) that weathers to black soil. Basal 10' of interval dolomite, orange weathering, thin bedded, light grey on fresh surfaces.	167	2209
21	Dolomite and limestone. Interval 0'-28' contains dolomite, orange weathering, thin bedded, platy. Interval 28'-78' 1/2 dolomite as in 0'-28' and 1/2 limestone, medium grey weathering, thin bedded, platy, fresh surfaces very dark grey and finely crystalline. Interval 78'-98' covered, siltstone(?). Top 2' consists of limestone, light grey weathering, thick bedded, fresh surfaces medium dark grey, finely to coarsely crystalline. GSC loc. 73068, 30' above base, *Olenellus puertoblancoensis* (Lochman). GSC loc. 73069, 32' above base, *O. puertoblancoensis* (Lochman). GSC loc. 73070, 53' above base, *Bonnia* sp. 3 Fritz 1972, *O. puertoblancoensis* (Lochman).		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 73071, 68' above base, Bonnia sp. 3 Fritz 1972, Olenellus altifrontatus Fritz, O. puertoblancoensis (Lochman). GSC loc. 73072, 78' above base, O. puertoblancoensis (Lochman). GSC loc. 73073, top of unit, Antagmus truncatus Fritz, Bonnia columbensis Resser, Olenellus sp. 5 Fritz, Piaziella pia (Walcott), ptychoparioid sp. undet. Fritz 1972.	100	2309
	Post-Sekwi dark shale and platy limestone, 67'+		
1	Covered, probably limestone and shale. Float is limestone, medium dark grey weathering, thin bedded (ave. 3/8"), fresh surfaces dark grey and finely crystalline; and brown to black weathering dirt. GSC loc. 73074, float 9' above base, Zacanthopsis stribuccus? Fritz. GSC loc. 73075, float 10' above base of unit, Syspacephalus vapidus Fritz, Olenellus? sp., Oryctocephalus? sp., Piazella? rara Fritz.	67	67
2	Limestone, medium dark grey and medium brown weathering, thin bedded, platy, fresh surfaces dark grey and finely crystalline.		

Unit	Lithology	Thickness (feet)	Height Above base of fm. (feet)
	GSC loc. 73076, 3' above base, Baltagnostus sp., Elrathia sp., Elrathina? sp., Helcionella sp., Hypagnostus sp., Nisusia sp., Olenoides sp., Ptychagnostus richmondensis (Walcott). This unit not measured.		

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