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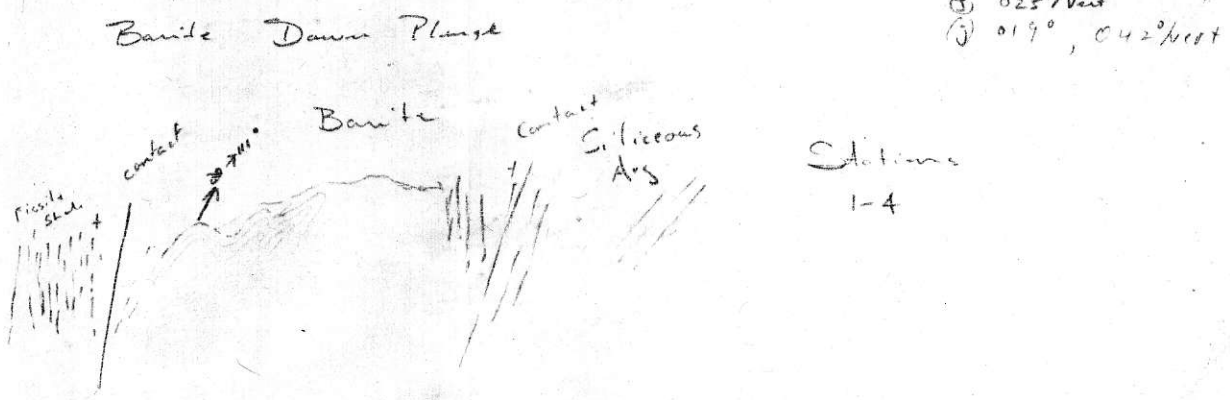
GATAGA PROJECT

Field Notes

Date... June '8... Location... Kwadacha Park... NTS...
 Survey Type... Geological... UTM Begin... End...
 Plotted on... Geology by... L. Dickson...
 STN No. Prefix...

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
1B1-1		1770	V thin bedded shale weathers to a light grey with yellow staining. Interbeds of black v. to coarse crystalline lsst. Thinly bedded 3-1 cm dull grey-black weathered surface. Most thickness of some coarse sand on shales with occasional white laminae common (thin of shale).	(A) 080/10° NW (B) 061/152° NW 100/125° NW White laminae 121/150° NDE	
		1771-1775	Smoking grey weathering almost black foliated smelly. Sections with mud black bituminous argillaceous laminations. Black and to coarsely crystalline, fractured filled by clean white calcite. Dark coal frags in section.		
2		1800	Contact between bedded barite and sandstone very fissile, jet black argillite. Characteristically to small flat chips with yellow oxide stain. Lowermost section above barite with inclusions of barite weather to chalky white.	(C) 112/175° NE to vert.	
3			Barite - Well laminated 1 to 3 mm thick, generally with moderately high argillite content. Bifurcating minor folds 20" → 111 Sample 4D-1	(D) 101/158° SW 140/156° SW 127/154° SW	
4			Barite underlain by massive thickly bedded siliceous argillite	(E) 113/157° SW (F) 117/31° SW	

SKETCHES





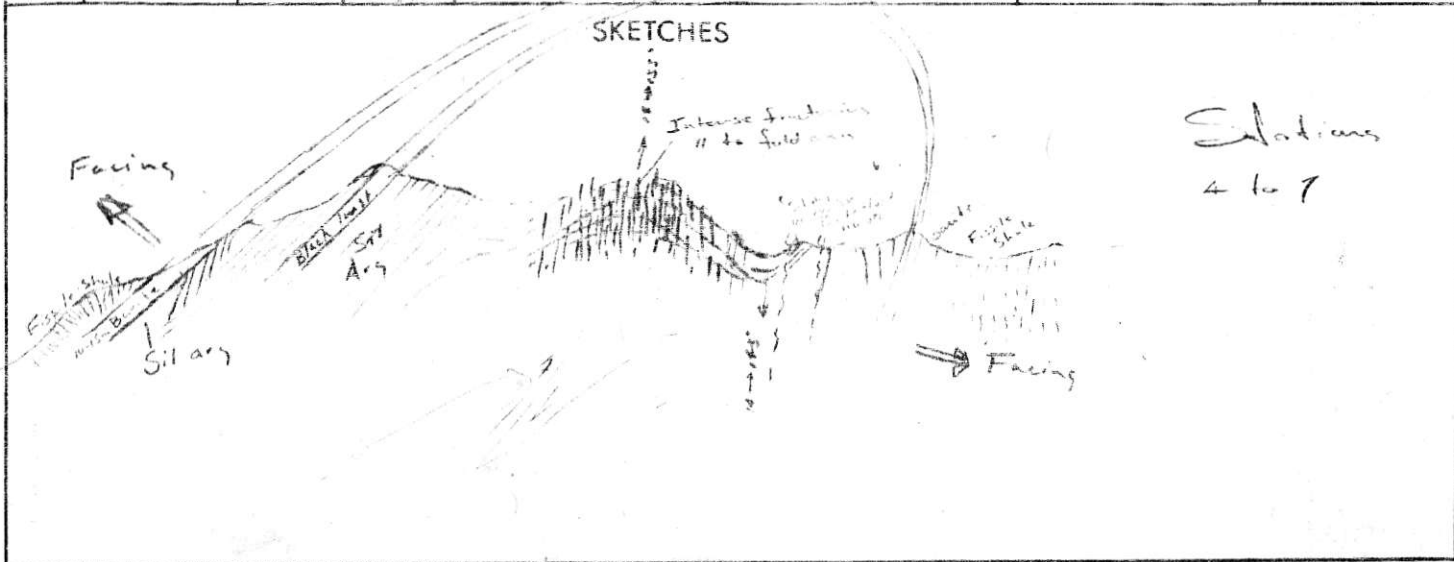
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
4			Amphibole weathers to very light grey color with yellow stain	ⓐ 122°/52° SW ⓑ 120°/67° SW	
5			Thin massive beds of light grey weathering hard rather sil. arg exposure 2-3 m max Incline plunging open orthogonal fold All axes - 138° / 74° SW (1/1 axial). 14° trending at 135° Small normal fault transverse to direction of anticline axis / 85° SW Small cycline NE of anticline - sil arg truncated by a east west fault Along apparent fault is a minor amount of weakly nodular basalt. Nodules to 1.5 cm in diameter L-5A		
6			Thin-Med. thickly bedded siliceous argillite with argillite partings Thin bed approx 7cm thick of laminated basalt and siliceous argillite As you move NE along the ridge the argillite becomes more fissile and very deep to contact dipping	ⓐ 121°/81° NE 124°/65° NE 130°/69° NE	

SKETCHES



Stations
4 to 7



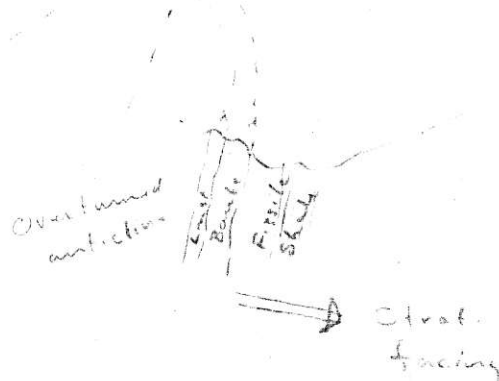
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Field Notes

Date June 18 Location..... NTS.....
 Survey Type..... UTM Begin..... End.....
 Plotted on..... Geology by.....
 STN No. Prefix.....

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/STRAT THICK	SAMPLES/PHOTO
7			Interbedded siliceous argillite and jet black argillite. Contact with 2-3 metre wide band of light grey weathering, blocky, fine grained limestone. A hole around contact. Numerous small vesicles.	(D) 137°/V.1.	
			Limestone in contact with 2-4m of bedded basalt. Sample (LD-2)	(B) 127°/76° SW	
			V. thinly laminated basalt & argillite. Basalt not traceable for more than 10m in either direction along strike.		
			Basalt in contact with argillite to porous, blocky argillite. Weathering into shaly chips.	(D) 120/62° SW to vert	
8			Porous argillite, quartz, white weathered surface	(B) 118/45° SW (B) 112/27° SW	

SKETCHES





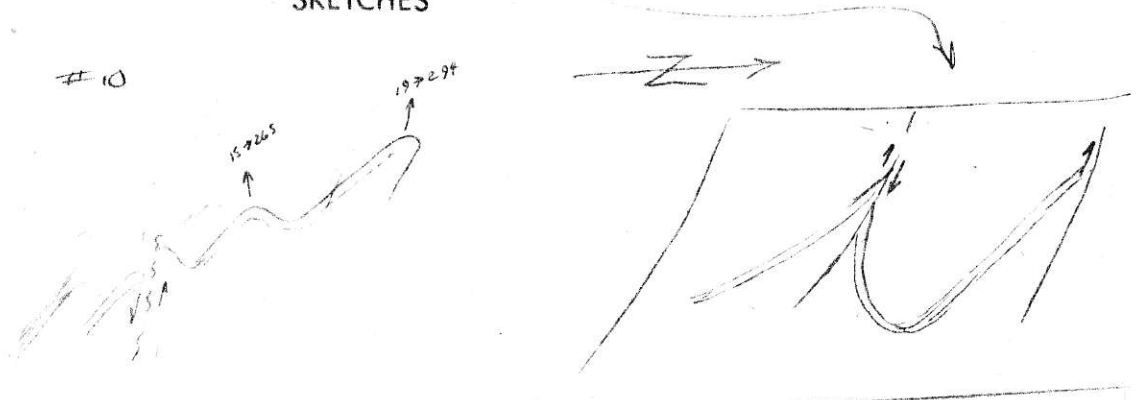
GATAGA PROJECT

Field Notes

Date Friday June 19th Location..... NTS.....
 Survey Type..... UTM Begin..... End.....
 Plotted on..... Geology by L. Dickson
 STN No. Prefix.....

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
9			Down slope along strike from #8 interbeds of siliceous arg (to 3cm) within friable detrital shale	Axial plane (S-type fold) 129°/49°SW 27°→291° ① 114/69°SW	
10			Very friable, grayish black shale Weather to a light gray color with yellow oxidation staining (2 Photos taken)		
10B			Open Plunging Antiform Tight to appressed plunging antiforms Z-type folding predominant Axial plane 112/61°SW, 19°→234° a syncline from station #10B open anticline - syncline pair in siliceous argillite 19°→234°	Axial plane 089°/82°N 10°→265°	
11			Style of folds in shale is shallow plunging 15-20° anticline-syncline pairs to the west. Core of anticline occupied by siliceous argillite Other some very friable shale. Shearing most pronounced in friable shale where small scale reverse faults occur just at the hinge of the short limb.		

SKETCHES





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Field Notes

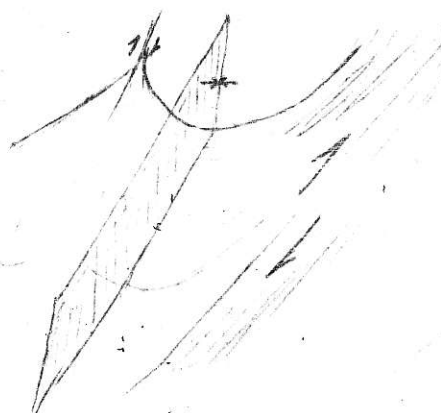
Date..... Location..... NTS.....
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/STRAT THICK	SAMPLES/PHOTO
11			Tight z-type fold goes into open syncline to the N with an excellent vertical cleavage on the hinge area photo taken	major open fold 8° → 115° Axial plane vertical	
12			Very fissile black shale beneath and to the north of syncline	(1) 126° / 150° SW (2) 151 / 52 SW	
13			Minor anticline syncline pass Axial plane cleavage to fold axis folded black shale with very thin 2 mm laminae of barite Barite approx 1 cm thick Folded quartzite & argillite thrust over black folial lens < 5 cm and submassive argillite	11° → 275° Axial plane: 102 / 48° SW Fault plane 119° / 39° SW	
14			Medium thickly bedded very siliceous argillite which weather to a dull grey surface From the weathered surface there appears to contain alot of carbonate but none is evident. Tightly appressed z-type folds common. Siliceous zone bounded above and below Two photos taken of tight z-type folding	Axial plane: 110° / N + 29° → 291 Axial plane: 21° → 293	

SKETCHES

Station 11

Station 14



Axial plane
128 / 28° SW



GATAGA PROJECT Field Notes

Date June 20 Location..... NTS.....
 Survey Type..... UTM Begin..... End.....
 Plotted on..... Geology by.....
 STN No. Prefix.....

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
14			zone approx 15-20 meters thick and is separated on western side by a small reverse fault. "Main" zone 2-type folds. Underlain by very fissile detach slate	Field grid 102°/82° SE 18° → all (B) 121°/69° SE [Sketch]	
15			Small pod of gneiss block, fine crystalline. Underlain by a thin bed of detach siliceous shale with underlain by very fissile detach slate. Shale weathers to small chips, weather to light grey (Note: Bedding is only discernible in weathered chips). Fault contacts of carbonaceous black shale (rusty) to the S with thinly bedded whitish grey barite. Shale weathers to light greyish white with strong yellow staining locally. Contains thin interbedded < 1cm of thinly bedded dark grey fossiliferous shale. Vertical to steep 70-85° cleavage in shale. No bedding of shales adjacent to fault.	(B) 110°/12° N 108°/10° N (B) 125°/77° SE 125°/77° SE Shales (B)	

SKETCHES



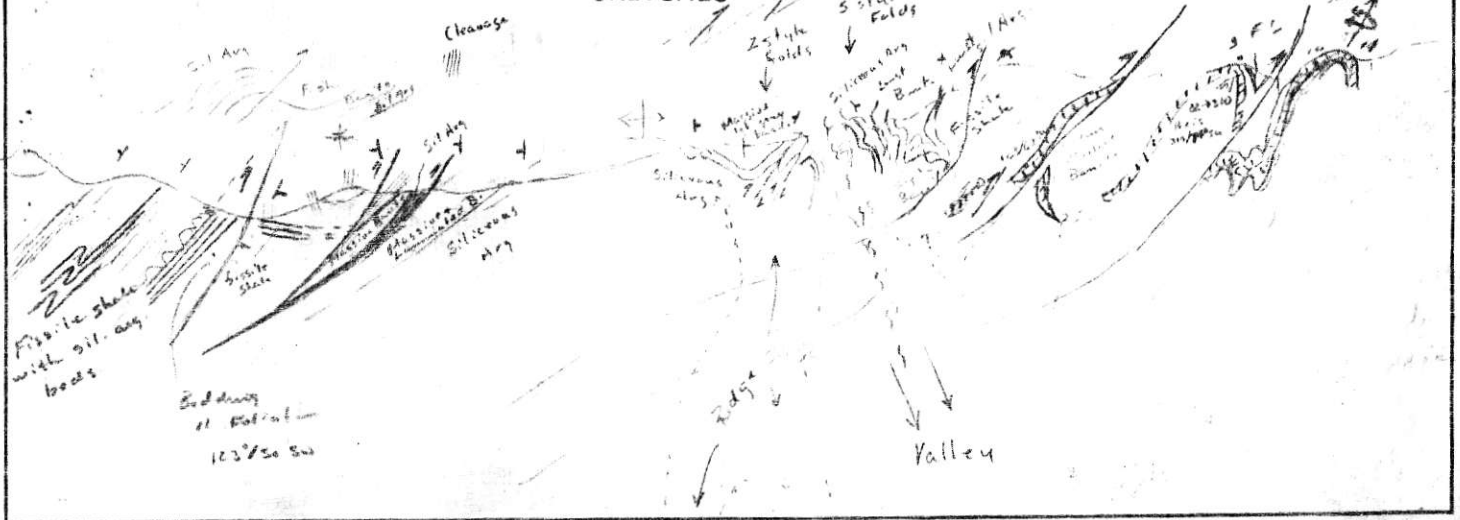
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Field Notes

Date..... Location..... NTS.....
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
16			<p>Basalt - approx 25m thick with a siliceous argillite bed approx 1-1.5 m thick at base. These beds appear to be a repetition of the massive basalt. Basalt grades from finely laminated with air- up cleats at the base to light grey massive basalt up section. Minor argillaceous component. Basalt underlain by black siliceous argillite. Sample 6D-3</p>	<p>Basalt (A) 115°/95° SW (B) 120°/55° SW Cleavage of argillite (C) 100°/124° SW (D) 115°/45° SW</p>	
17			<p>Finely laminated basalt with interbeds of lentil. Basalt with thin interbeds of up up cleats (Also noted in the lentil LBI-G17a. Zone generally thin 25cm of nodular basalt) LBI-G17c siliceous argillite Lentil as thin lens 2 photos lentil LBI-G17b and as continuous beds up to 20 cm thick. Contact with basalt is generally very irregular. Lentil nodules to blocky, dark grey mass (Some lentil as noted at #16 lentil with folial small, fine black, fine granular texture. Characteristically with</p>		

SKETCHES





GATAGA PROJECT Field Notes

Date June 21, 1981 Location NTS.....
 Survey Type UTM Begin End.....
 Plotted on Geology by.....
 STN No. Prefix.....

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
18		1725m	Thinly bedded (2-5 mm) dolomitic siliceous siltstone. Characteristically with brownish orange weather surface. Fresh surface grey.	(E) 66°/76° NE	
19		1760m	Weakly dolomitic siliceous siltstone. Thinly bedded. Grey with tan-orange weathered surface. Flaggy made of weathering. (Two photos - bedding, weathering)	(D) 156°/21° NE	
		1810m	Interbedded fossiliferous siltstone and massive beds of dolomite to 20 cm. Discrete cleavage near attitude from #19. Flaser bedding L81-G19.	(E) 136°/69° SW } // cleavage (D) 132°/63° SW }	
20		1840m	Interbedded siliceous & dolomitic siltstone to 10 cm thick and greyish silty dolomite with argillite lamination - flaser bedding & laminations and flaser bedding indicates shallow water, relatively high energy depositional environment L81-G20	(F) 024°/41° NE (E) 135°/72° SW	
21			Thinly bedded argillite dolomite & dolomitic silty dolomite and massive beds of dolomite quartzite. All units generally weather to tan brown except	(D) 130°/62° NE (E) 125°/65° NE (B) 140°/62° NE (A) 122°/62° NE	

SKETCHES which weather to tan white.
 Cleavage 45° to bedding



GATAGA PROJECT

Field Notes

Date June 21/81 Location NTS
 Survey Type UTM Begin End
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
22		1395	Thickly bedded dolomitic siltstone with thinly bedded argillaceous dolomite	(A) 180°/35° NE (B) 150°/32° NE (C) 140°/40° NE	
23			Facies change from "22" to thickly bedded finely laminated dolomitic siltstone. Beds vary 1-2 cm. Siltstone at the base tend to be grey with white laminations made up of calcareous siltstone that weathers to tan with reddish cast & bedding mass. Well bedded siltstone contains very light grey weathering, subconformably fractured chips of grey siltstone. Sections have pinkish-red cast on the weathered surface. Upper section of approximately siltstone contains finely laminated medium crystalline lust beds to 10 cm. Grades into section characterized by interbedded calcareous arenaceous dolomite and massive grey lust with white calcite veins. Lust with	(D) 142°/54° NE (E) 111°/40° NE (F) 142°/54° NE (G)	

max thickness of SKETCHES 1-2 m. Generally weather to buff grey color but pink cast is noted in sections. Bioclastic lust is common. Two major ^{massive grey} lust beds are present, the latter contains by fissile, jet black carbonaceous shale that weathers to angular chips with a characteristic bluish grey cast. (Two hole crinoid ossicles noted in lust bed under logging, fissile shale.)



GATAGA PROJECT Field Notes

Date... June 21/81... Location..... NTS.....
 Survey Type..... UTM Begin..... End.....
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
24		2110	Same as #23 and 22. Found 4 separate N-S along crest of ridge, direction change in attitude. About 200m thick, thickly bedded to summit. Res. greenish-brown silty dolomite with minor orange-brown dolomite to predominantly grey silty dolomite siltstone at the summit. Dolomite still present but in minor part by the weather to greenish grey with tan dolomite interbeds.	(D) 094/27° NE 097/31° N 90/40° N T.p. 124° 01' N / 5.00' S. side Elev 2050 (D) 095/44 N (B) 150/90° SW	
			Underlain by massive thickly bedded to thickly bedded dolomite. Weather to tan orange. Limestone very fine granular, dark grey, is very hard. Sample L81-624	(D) Below summit to the North 102/47° NE	
25			Stratigraphically below #24 thick section of fine laminated m-laminated grey quartzite with minor dolomite. Sample L81-625 Crest of ridge. encumbered approx 15m of light blue-grey siliceous argillite	(E) 019/32° SE no attitudes obtainable	

SKETCHES

150/80 SW

95/44 N



GATAGA PROJECT Field Notes

Date June 22 Location NTS
 Survey Type UTM Begin End
 Plotted on Geology by
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STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/ STRAT THICK	SAMPLES/ PHOTO
26		1640	Fissile black shale weathers to blue-white with yellow stain. Dark grey lust 2-3m & fine granular texture. Overlain by black siliceous argillite with carbonaceous sections. Uppermost meter of siliceous argillite contains laminations of basalt. Grades upward into a section of finely laminated grey-black basalt and massive, dull grey weathering lust. Lust beds to 1 m thick in basalt.	(B) 11 (E) 072/30°S	
		1655	(Intraformational congl. Sample 281-626 Mudchip basalt to approx 1m)	(B) 194 / 44° SW	
		1670	Thick Diagenetic basalt weathers to 1.5cm fragments of 1m bedding. Overlain by fissile shale and siliceous argillite.	(B) 105° / 20° SW	
		1675	Massive, dull grey weathering lust with v-cutting calcite filled vugs. 1/2 to 1m. Overlain siliceous argillite (finely laminated) and underlain by major basalt.		
			Basalt thinly laminated, alternating	(B) 118 / 46° SW	

SKETCHES

Basalt rich and argillite rich laminae. Weathered surface grey-green. Argillite laminations often outlined by rusty oxides on the surface. Laminated basalt, approx 7m thick overlain by fissile black shale with rusty weathered surface. Contains interbed of massive grey lust approx 1/2 m thick.

1682 m Second major basalt, very fetid smell. Finely laminated basalt and argillite (remainder to lower section). Contains lenses of v.f. laminated, light grey lust to 1.5 m thick. Section grades upward at 1675m to interbedded calcareous argillite and basalt. Interbedded basalt & argillite likely folded above 1675m. Open and closed folds noted 7-8 200

OUEP



GATAGA PROJECT

Field Notes

Date..... June 23..... Location..... NTS.....
 Survey Type..... UTM Begin..... End.....
 Plotted on..... Geology by... L. D. Dickow, Darn, M.
 STN No. Prefix.....

STN No.	DIST/DIR To next	ELEV. (m)	LITHOLOGY	STRUCTURE/STRAT THICK	SAMPLES/PHOTO
27			Massive bedded sil. Silt Bed approx 3m, massive dark grey, w/ granular texture. Underneath overlain by brown and reddish brown calcareous siltstone. Good planar laminations, some asymmetrical ripple. Weathers to flussy fragments which weather to tan to purple - pink.	(E) 125/35° SE	
28			Silt overlain by massive grey. Underneath overlain by calcareous to bedded. Devonian quartzite overlain by laminated block siliceous siltstone. To the south x-laminations in thin plate are vertical. Bedded with x-cutting great small sections in upper section. Approx 3m thick. Overlain by flussy weathering chips of brown and light grey dolomitic siltstone. Weathers to very light grey or tan brown with a pinkish coat. 3-10m.	(E) 125/45° NE	

SKETCHES

