

APPENDIX 9 – PETROLOGY SAMPLE DESCRIPTIONS

Report #	Author	Date	Work	Geo	Project				Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	EL6938
Description										

Central EL6938									
Officer Hill									

P6190f	PO	25/09/92	TS	NB	Hyatt					
	P02198	1	HRB071	DH	512095	28	32	581987.55	7708816.36	(1) Meta chert, including minor extremely fine hornblende> oxide grains. (2) Amphibolite schist, with minor fine lenses of recrystallised ilmenite. (Reconstituted mafic).
P6851	PU	18/05/95	TS	SH	Hyatt					
	P03396	1	HRB071	DH	512094	22	28	581987.55	7708816.36	Weathered amphibole schist with magnetite, quartz and possible ilmenite, possibly of mafic igneous origin (with hornblende) or siliceous high-iron formation (with cummingtonite).
	P03397	2	HRB072	DH	512099	23	0	582201.77	7708298.95	Weathered apparently massive biotite granodiorite with some "fresh" alkali feldspar and ragged granular quartz.
	P03398	3	HRB075	DH	689504	57	60	584018.12	7710447.2	Massive grain-supported lithic-arkosic coarse-grained sandstone, also massive adamellite, foliated granodiorite, muscovite and quartz-rich schists (metasediments), possibly lithic clasts from a conglomerate; all possibly Gardiner Sandstone.
	P03399	4	HRB076	DH	689507	46	49	584056.38	7710354.81	Metadolerite and very coarse lithic-arkosic sandstone with a sparse carbonate cement, possibly Gardiner Sandstone.
	P03400	5	HRB082	DH	698558	28	31	584560.99	7710327.99	Very small, altered chips from clay to quartz-rich, rarely with chlorite, plagioclase and leucoxene (altered dolerite or quartz microdiorite), also vein quartz and some limonite possibly after pyrite.
	P03401	6	HRB104	DH	689584	21	34	585308.39	7711252.01	Weathered massive probable biotite-quartz syenite to syenogranite with some altered plagioclase.
	P03402	7	HRB110	DH	689593	54	57	585097.99	7711760.17	Grain supported coarse lithic-arkosic sandstones (Gardiner Sandstone) with some carbonate, and matrix (quartz-biotite-muscovite schist) supported weakly feldspathic matrix supported sandstones (?Madigan Beds, feldspathic facies).
	P03403	8	HRB121	DH	689604	60	63	584562.42	7713053.68	Micaceous-arkosic grain-supported medium-grained sandstones(unmetamorphosed), porbably Gardiner Sandstone, with rare possible pyrite.
	P03404	9	HRB126	DH	689609	48	51	584256.38	7713792.83	Fine to medium bedded micaceous to quartz-rich weakly feldspathic, carbonate-(glauconite) bearing sandstones, coarser micaceous-arkosic sandstones and fine carbonate rocks, possibly all from the Gardiner Sandstone.
	P03405	10	HRB164	DH	732250	57	60	588774.6	7713336.57	Weathered quartz-biotite-(feldspar) schists, some possibly with porphyroblasts, some with magnetite; possible Blake Beds metasediments (not dolerite).
	P03406	11	HRB165	DH	732265	57	60	588793.73	7713290.37	Foliated amphibolite plus leucocratic weathered possible amphibolites with plagioclase phenocryst and/or disseminated magnetite +/- oxidised possible pyrite.
	P03407	12	HRB169	DH	732293	15	18	588889.37	7713059.39	Weathered massive biotite-poor granitoid, possibly a tonalite, with no deformation.
	P03408	13	HRB173	DH	732337	21	24	589660.28	7713811.51	Carbonaceous to sericitic to siliceous slates withlow-temperature hydrothermal vein quartz and largely colloform limonite: no dolerite, no greywacke.
	P03409	14	HRB175	DH	732352	21	24	589794.17	7713488.13	Fine schistose amphibolite apparently derived from basalt (not neccessarily extrusive, however).
	P03410	15	HRB215	DH	689669	4	7	589246.13	7713504.74	Quartz-sericite-(biotite-?ilmenite-?magnetite) schist (pelitic) with lenses of vein quartz; possibly Blake Beds.

Report #	Author	Date	Work	Geo	Project					Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P03411	16	HRB216		DH	UNKNOWN	0	0	589255.7	7713481.65	Quartz-epidote-sericite-magnetite metasediments with vein quartz, possibly altered Blake Beds.	
P03412	17	HRB219		DH	689690	58	61	589188.75	7713643.33	Crenulated quartz-sericite schists possibly metasandstone (very fine grained), unlikely to be Madigan Beds.	
P03413	18	HRB220		DH	689710	58	61	589169.62	7713689.53	Tremolite-phlogopite rock and variolitic amphibolite, plus quartz-biotite schist (?carbonaceous) and quartz-muscovite schist derived from a bimodal rock (sandstone or acid volcanic), unlike typical Madigan Beds.	
P03414	19	HRB223		DH	689735	10	13	589131.37	7713781.92	Greywacke, typical Madigan Beds with detrital muscovite and rare tourmaline.	
P03415	20	HRB230		DH	689749	12	15	589332.21	7713296.86	Biotite adamellite with quartz-biotite schists locally flooded by (?manganese) oxides, and apparently porphyritic micromonzodiorite.	
P03416	21	HRB234		DH	689782	37	40	590179.63	7713864.19	Schistose amphibolite with quartz-rich to quartzofelspathic veins and segregations, and quartz-sericite-biotite-magnetite schists, possibly Blake Beds; late veins of epidote-prehnite (amphibolite) or adularia to sericite-chlorite (sediments).	
P03417	22	HRB235		DH	689796	34	37	590198.76	7713818	Schistose amphibolite with abundant probable ilmenite, passing into an area with layer-parallel plagioclase-rich veins or segregations and disseminated finely recrystallised sphene; some quartz, sericite, epidote and limonite after pyrite in the veins.	
P03418	23	HRB237		DH	698801	9	12	590275.27	7713633.21	Fine grained leucogranite and quartz-epidote altered probable metasediment, plus vein quartz.	
P03419	24	HRB241		DH	689806	0	0	590083.99	7714095.18	Sericite-(quartz) schist and quartz-muscovite schists derived from claystone to sandstone, locally with minor tourmaline; some possibly of being Madigan Beds, but not definite.	
P03420	25	HYATT		OC	210932	0	0	584513	7710406	Weathered kaolin-limonite-quartz-leucoxene aggregate possibly derived from an amphibolite, with quartz vein.	
P03421	26	HYATT		OC	210934	0	0	584439	7710358	Recrystallised probable vein quartz with a strong fabric and later colloform patch of opal, possible manganese oxides and pyrite +/- marcasite.	
P03422	27	HYATT		OC	210937	0	0	584760	7710062	Weathered biotite adamellite gneiss with minor sphene and magnetite.	
P5660	PU	18/06/90	TS	RC	Officer Hill						
P01499	1	ORC031		DH	70782	29	30	567605.4	7711152.09	Quartz-biotite chlorite schists (1) without porphyroblasts, (2) with probable amphibole, (3) with epidote. Quartz veins with chlorite.	
P01500	2	ORC032		DH	70783	41	42	567605.7	7711101.69	Fine grained quartz-sericite-biotite schists with fresh oxides.	
P01501	3	ORC032		DH	70784	21	22	567605.7	7711101.69	Graphitic quartz-biotite metapelites with quartz-(chlorite-sphene) veins and weathered possible stilpnomelane.	
P01502	4	ORC033		DH	70785	18	19	567505.4	7711242.09	Quartz-biotite schist with tourmaline and possible ilmenite passing into biotite rich calcite.	
P01503	5	ORC033		DH	70786	21	22	567505.4	7711242.09	Quartz-biotite-graphite slates.	
P01504	6	ORC035		DH	70787	18	19	567505.2	7711202.09	Chloritised amphibolites with leucoxene; calcrete.	
P01505	7	ORC035		DH	70788	30	31	567505.2	7711202.09	Quartz-biotite-hornblende 'garbenschieffer' (with or without cummingtonite) rocks locally containing chlorite and adularia; graphitic quartz-biotite schists.	
P01506	8	ORC035		DH	70789	35	36	567505.2	7711202.09	Garbenschieffer textured quartz-hornblende with or without biotite with or without graphite schists. Minor limonite after pyrite.	
P01507	9	ORC035		DH	70790	41	42	567505.2	7711202.09	Metamorphosed quartz dolerites with minor sphene, or with ilmenite.	
P01508	10	ORC037		DH	70791	33	34	567505.4	7711162.09	Biotite amphibolite and biotite-quartz-carbonate (possibly supergene) quartz veins with limonite after pyrite; calcrete.	

Report #	Author	Date	Work	Geo	Project	Notes					Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P01509	11	ORC037		DH	70792	38	39	567505.4	7711162.09	Various assemblages of quartz, carbonate, biotite, and fresh to altered calcic amphibole. Metamorphosed impure carbonate.	
P01510	12	ORC037		DH	70793	40	41	567505.4	7711162.09	Quartz biotite schist and tremolite rock with quartz, biotite and sericite after plagioclase. Vein quartz.	
P01511	13	ORC038		DH	70794	23	24	567505.5	7711141.99	Schistose to crenulated quartz-chlorite-biotite-graphite slates.	
P01512	14	ORC038		DH	70795	39	40	567505.5	7711141.99	Quartz-chlorite-albite-carbonate-sphene schists derived from fine grained quartz dolerite; graphitic quartz-biotite slates and quartz-chlorite veins with oxidised sulphides and leucoxnised possible ilmenite.	
P01513	15	ORC042		DH	70796	14	15	567711.1	7711142.09	Quartz-biotite schist; calcrete.	
P01514	16	ORC043		DH	70797	47	48	567711.1	7711122.09	Quartz-biotite-hornblende-plagioclase-?ilmenite schists with totally sericitised felspar, (? metabasalt) and adularia bearing veins locally with limonite after pyrite; calcrete.	
P01515	17	ORC045		DH	70798	53	54	567711.3	7711082.09	Quartz-chlorite-leucoxene schists (metabasalts) with biotite, adularia, sericite and/or albite.	
P01516	18	ORC045		DH	70799	54	55	567711.3	7711082.09	Quartz-chlorite leucoxene schists with or without sericite with or without adularia veins (with or without leucoxene with or without albite) with or without chlorite with or without quartz veins.	
P01517	19	ORC047		DH	70800	36	37	568611.7	7710912.09	Quartz-biotite-sericite (after felspar)-limonite schists.	
P01518	20	ORC048		DH	70801	40	41	568611.5	7711131.79	Quartz-biotite schist, biotite schist and vein quartz with limonite after sulphide.	
P01519	21	ORC050		DH	70802	20	21	568510.9	7710912.19	Graphitic and non-graphitic quartz-biotite schists; vein quartz; limonite after sulphide(s).	
P01520	22	ORC050		DH	70803	21	22	568510.9	7710912.19	Graphitic and non graphitic quartz-biotite schist; vein quartz with limonite after sulphides.	
P01521	23	ORC050		DH	70804	43	44	568510.9	7710912.19	Quartz-chlorite-biotite schist; quartz epidote-?amphibole rock; veins of quartz and of adularia.	
P01522	24	ORC050		DH	70805	50	51	568510.9	7710912.19	Various quartz-biotite schists and heterogeneous quartz-albite-actinolite-biotite-calcite sphene rocks (metadolerites?) quartz veins; quartz felspar veins.	
P01523	25	ORC053		DH	70806	29	30	568511.1	7710882.19	Metadolerites with fresh igneous plagioclase.	
P01524	26	ORC053		DH	70807	44	45	568511.1	7710882.19	Sericitised metadolerite; graphitic and non graphitic quartz-biotite-sericite schists.	
P01525	27	ORC053		DH	70808	45	46	568511.1	7710882.19	Graphitic quartz-biotite schists with quartz veins;quartz-biotite schist; metadolerite cf. 70807.	
P01526	28	ORC054		DH	70809	15	16	568511	7710852.09	Possible metabasalt and chlorite-albite schist (?sheared metabasalt).	
P01527	29	ORC054		DH	70810	53	54	568511	7710852.09	Metabasalts with veins containing quartz, chlorite, sphene and calacite.	
P01528	30	ORC058		DH	70811	28	29	568704.6	7710862.09	Graphitic quartz-chlorite biotite schists; vein quartz; limonite after pyrite.	
P01529	31	ORC061		DH	70812	7	8	569305.2	7710911.59	Metadolerite with limonite after pyrite; quartz-carbonate veins; calcrete.	
P01530	32	ORC061		DH	70813	10	11	569305.2	7710911.59	Metamorphosed quartz dolerite; quartz-epidote-calcite veins; calcrete.	
P01531	33	ORC061		DH	70814	22	23	569305.2	7710911.59	Metadolerite, locally oxide rich and actinolite-biotite rich magnesian metadolerite; limonite after pyrite; carbonate veins; calcrete.	
P01532	34	ORC061		DH	70815	33	34	569305.2	7710911.59	Magnesian metadolerite; metadolerite; vein quartz with or without calcite.	
P01533	35	ORC061		DH	70816	43	44	569305.2	7710911.59	Metadacite, vein quartz; limonite after pyrite.	
P01534	36	ORC062		DH	70817	34	35	569405.5	7710892.19	Quartz-chlorite-biotite-magnetite schist; metadacite cf. 70816.	
P01535	37	ORC070		DH	70818	19	20	567610.9	7711952.19	Quartz-epidote rock with or without magnetite quartz-chlorite-biotite-magnetite schist.	
P01536	38	ORC070		DH	70819	23	24	567610.9	7711952.19	Quartz sericite schists derived from acid volcanics; quartz-chlorite-biotite-magnetite schists; quartz-felspar veins; adularia veins.	

Report #	Author	Date	Work	Geo	Project	Notes					Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P01537	39	ORC070		DH	70820	39	40	567610.9	7711952.19	Quartz-chlorite-biotite-magnetite schists and quartz-epidote with or without actinolite with or without chlorite with or without albite-magnetite with or without spene rocks; vein quartz.	
P01538	40	ORC071		DH	70821	11	12	568603	7710863.49	Cherty fine quartz biotite schists; vein quartz; chlorite and adularia veins. Trace limonite after pyrite.	
P01539	41	ORC072		DH	70822	30	31	569308.1	7710928.39	Magnesian biotite-actinolite rich metadolerities, and more iron rich, oxide rich metadolerites; quartz veins and fresh pyrite.	
P5727a	PU	24/09/90	TS		NB	Officer Hill					
P01652	1	OH		OC	311401	0	0	565000	7710000	Officer Hill West - 565E : 7710N. Contact between layered quartz hornblende-cummingtonite rock (BIF related) and chert with amphibole and trace carbonate.	
P6172a	PU	7/09/92	TS		SH	Officer Hill					
P02135	1	ORB0811		DH	517924	28	31	570961	7709923	Metasiltstones with quartz veins.	
P02136	2	ORB0714		DH	517037	7	10	569758.1	7711327.09	Metabasalt or metadolerite, probably intrusive.	
P02137	3	ORB0719		DH	517065	13	16	569758.1	7711152.09	Schistose meta-rhyodacite (or fhyolite?) with minor garnet.	
P02138	4	ORB0722		DH	517087	4	7	569758.1	7711077.09	Weathered metasiltstones with fine magnetite, serilite veins.	
P02139	5	ORB0723		DH	517101	7	10	569758.1	7711027.09	Fine quartz-bioite-magnetite metasiltstones.	
P02140	6	ORB0727		DH	517136	13	16	569758.1	7710927.09	Quartz-biotite-magnetite metasandstone.	
P02141	7	ORB0735		DH	517205	10	13	569908.1	7711052.09	Albitised, weakly sericitised rhyodacite porphyry.	
P02142	8	ORB0743		DH	517278	28	31	569908.1	7710752.09	Quartz-chlorite-albite-rutile-magnetite-schist.	
P02143	9	ORB0745		DH	517291	7	10	570108.1	7711327.09	Magnetite-bearing metasiltstone.	
P02144	10	ORB0747		DH	517312	16	19	570108.1	7711277.09	Weathered biotite >> quartz > rutile schists. Metamorphosed silty claystone.	
P02145	11	ORB0749		DH	517325	4	7	570108.1	7711227.09	Weathered sericcte schist. Metaclaystone. Limonite after trace pyrite.	
P02146	12	ORB0752		DH	517363	28	31	570108.1	7711102.09	Weatherad amphibole (?cummingtonite) >>biotite rocks adularia veins +/- quartz.	
P02147	13	ORB0753		DH	517374	22	25	570108.1	7711052.09	Apatite-rich biotite schist (?metaglimmerite) and leucoxene-rich biotite schist (metamorphosed altered dolerite or basalt?).	
P02148	14	ORB0762		DH	517444	10	13	570108.1	7710802.09	Weathered biotite (+/-garnet +/- albite) schists with oxid patches (?altered dolerite); talc (or muscovite)+ carbonate tourmaline aggregate.	
P02149	15	ORB0764		DH	517471	28	31	570308.1	7711277.09	Metasiltstones : quartz-biotite-muscovite schists and hornfelses.	
P02150	16	ORB0772		DH	517555	22	25	570308.1	7711077.09	Chlorite schists with quartz, limonite, leucoxene, sericite and altered biotite.	
P02151	17	ORB0804		DH	517843	31	34	565208.1	7712102.09	Vein quartz. Sericitised quartz-feldspar-biotite-muscovite-andalusite schist, with green tourmaline.	
P02155	21	OH		UN	70898	0	0	564389	7772283	Altered Antrim Plateau Basalt.	
P02156	22	OH		UN	70899	0	0	564221	7727767	Weakly weathered Antrim Plateau Basalt.	
P6190e	PO	25/09/92	TS		NB	Officer Hill					
P02197	1	ORB0710		DH	512069	18	21	571700	7709220	Weathered metamorphosed silty claystone, minor veinlets of quartz +/- hematite.	

Report #	Author	Date	Work	Geo	Project					Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P6229	PO	6/11/92	TS	NB	Officer Hill						
P02271	1	ORB0483		DH	308579	30	33	569908.1	7712177.09	Mass flow arenites; fine grained micaceous quartz sandstone; interbedded siltstone and claystone. Probably Madigan Beds. Some metamorphic biotite and muscovite; some detrital muscovite.	
P02272	2	ORB0426		DH	308606	15	18	568608.1	7708652.09	Carbonaceous to clear sericitic to siliceous fine metasediments. Early quartz veins, adularia veins; late carbonate.	
P02273	3	OH		OC	70121	0	0	570019.38	7711980	Band of BIF in amphibole-rich SHIF with limonite after amphibole.	
P02274	4	ORC014		DH	270855	22	23	569405.1	7710912.09	Sericite to chlorite rich, quartz-biotite-magnetite-bearing meta sediments (Blake Beds) with minor carbonate or sulphide.	
P6238	PU	20/11/92	TS	SH	Officer Hill						
P02275	1	ORB0339		DH	203446	12	15	569438.1	7711274.09	Vein quartz with tourmaline-quartz-rutile lenses of fragments, limonite possibly after sulphide.	
P6239a	PU	20/11/92	TS	NB	Officer Hill						
P02286	1	OH		OC	72409	0	0	569008.81	7711338	Quartz-muscovite schist with quartz veins containing limonite after sulphide, and/or tourmaline.	
P02287	2	OH		OC	72410	0	0	569011.94	7711350.5	Tourmaline-quartz-rutile rock with very small fluid inclusions.	
P02288	3	OH		OC	72412	0	0	569045.69	7711333	Quartz-muscovite. Tourmaline schist with rutile and limonite after pyrite.	
P6609	PU	10/05/94	TS	SH	Officer Hill						
P02911	1	OH		OC	655504	0	0	566963	7706598	Quartz-sericite-alkali feldspar "greissen" with diffuse quartz veins.	
P02912	2	OH		OC	655506	0	0	566865	7706495	Altered andalusite-muscovite-graphite-quartz schist, with unoriented totally sericitised andalusite of contact metamorphic origin.	
P02913	3	OH		OC	655508	0	0	566623	7706552	Amphibolite, strongly foliated and fine grained but possibly derived from a dolerite. Minor ilmenite and rare sphene andapatite.	
P02914	4	OH		OC	655516	0	0	566894	7708407	Altered rock fragments in zoned low-temperature hydrothermal quartz from cherty to granular to prismatic, with limonite after pyrite and some crystal-lined vugs.	
P02915	5	OH		OC	313497	0	0	566827	7706269	Magnetite-quartz-clay-limonite altered amphibole-bearing banded iron formation with quartz veins +/- altered amphibole +/- opal, chalcedony.	
P6628	PU	10/06/94	TS	SH	Officer Hill						
P02944	1	ORB0837		DH	UNKNOWN	0	0	566575	7706250	Quartz-plagioclase-biotite-muscovite-magnetite schist +/- microcline, locally weathered, with quartz-epidote veins.	
P02945	2	ORB0838		DH	UNKNOWN	0	0	566550	7706250	Partly altered quartz-plagioclase-biotite-magnetite schists with either cordierite and muscovite or microcline.	
P02946	3	ORB0852		DH	UNKNOWN	0	0	568050	7708300	Quartz-plagioclase-biotite-alkali feldspar schist derived from very coarse grained sandstone with coarse quartz >plagioclase. Rare muscovite.	
P02947	4	ORB0859		DH	UNKNOWN	0	0	568050	7708650	Quartz-biotite-plagioclase-alkali feldspar-muscovite schist with minor tourmaline, derived from very coarse grained sandstone.	

Report #	Author	Date	Work	Geo	Project					Notes	Central	
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938	
P02948	5	ORB0861		DH	UNKNOWN	0	0	563860	7713200	Mostly carbonaceous schists with quartz, plagioclase, biotite and muscovite and either alkali feldspar or garnet,commonly with sulphide (porous pyrite after pyrrhotite)disseminated and in veins; also massive sulphide enclosing quartz, biotite and garnet, and vein quartz with limonite after mica or ambhilolite.		
P6684	PU	1/08/94	TS	RC	Officer Hill	see also report 7203 (photomicrographs)						
P03114	1	OH		OC	656304	0	0	656900	7711500	Porphyritic biotite microgranite with weakly sercitised plagioclase and accessory zircon and fluorite.		
P6745	PU	30/11/94	TS	SH	Officer Hill							
P03268	1	ORB1131		DH	687589	16	19	570608.1	7710902.09	Leucoxene-limonite bearing quartz-sericite schists, derived from shale or claystone, partly enclosed in calcrete, with some vein quartz and some chips of soils.		
P03269	2	ORB1140		DH	687655	16	19	570608.1	7711202.09	Quartz-biotite-sericite-limonite schists possibly after siltstone to very fine sandstone.		
P03270	3	ORB1149		DH	687713	10	16	570608.1	7711652.09	Sericite to quartz-rich slates with limonite, and accessory rutile and tourmaline, derived from shales or claystones.		
P03271	4	ORB1163		DH	687810	13	16	570808.1	7710927.09	Medium grained quartz sandstone, siltstone, and interbeddedfine sandstone and siltstone, with rare casts of pyrite grains. Post Barramundi Orogeny sediment (possibly Muriel Range Sandstone).		
P03272	5	ORB1165		DH	687824	25	28	570808.1	7711302.09	Quartz to limonite +/- sericite-rich chips, of probablelow-temperature hydrothermal origin, plus clays apparently after meta-claystone.		
P03273	6	ORB1175		DH	687887	10	13	570808.1	7711402.09	Quartz-(sericite) schists with leucoxene and areas of limonite flooding, possibly derived from chert to siliceous argillite.		
P03274	7	ORB1187		DH	687956	43	46	571008.1	7710004.09	Quartz to decussate muscovite to altered biotite-rich chips possibly of hydrothermal origin?		
P03275	8	ORB1189		DH	687965	25	28	571008.1	7710202.09	Weathered schists, with quartz, chlorite and clays possiblyafter biotite, sericitised ?feldspar, leucoxene and limonite in different proportions and vein quartz + vermiform chlorite +/- limonite.		
P03276	9	ORB1192		DH	687978	30	33	571008.1	7710251.09	Quartz-chlorite schist with leucoxene and limonite, apparently derived from a siltstone or claystone.		
P03277	10	ORB1194		DH	687985	31	40	571008.1	7710302.09	Depth 31.00-40.00m incorporates Sample No's: 687985-687987. Quartz-chlorite-clay slates, apparently crenulated, possibly weathered quartz-biotite schists derived from siltstone.		
P03278	11	ORB1194		DH	687988	40	46	571008.1	7710302.09	Depth 40.00-46.00m incorporates Sample No's: 687988-687989. Quartz-sericite schist derived from a quartz-plagioclase-biotite porphyritic acid volcanic or intrusive rock, with some vein quartz.		
P03279	12	ORB1194		DH	687992	52	58	571008.1	7710302.09	Depth 52.00-58.00m incorporates Sample No's: 687992-687993Weathered quartz-chlorite-amphibole-?feldspar rocks, partly schistose, possibly similar to the Dead Bullock Soak hostunit and/or of basic igneous origin.		
P03280	13	ORB1207		DH	688057	34	37	571208.1	7710077.09	Soil and highly weathered laminated to structureless possible quartz-mica schists (metasiltstones?).		
P03281	14	ORB1207		DH	688059	40	43	571208.1	7710077.09	Fine micromosaic quartz passing into coarser quartz and into areas of limonite; probably of hydrothermal or supergene origin, less probably derived from chert.		
P03282	15	ORB1209		DH	688070	40	43	571208.1	7710152.09	Quartz to sericite-rich slates, massive to banded withminor leucoxene and tourmaline (as crystals lying in the foliation plane but not lineated). Probably derived from chert to siliceous argillite to claystone.		
P03283	16	ORB1213		DH	688089	37	40	571208.1	7710177.09	Mostly micromosaic quartz with or without limonite, (recrystallised vein quartz?) & a totally limonitised chip.		
P03284	17	ORB1213		DH	688090	40	43	571208.1	7710177.09	Microgranular quartz chips grading into limonite, of uncertain origin.		

Report #	Author	Date	Work	Geo	Project					Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P03285	18	ORB1213		DH	688091	43	46	571208.1	7710177.09	Quartz to limonite chips: quartzite, low-temperature hydrothermal quartz (including vein quartz?) or supergene quartz.	
P03286	19	ORB1220		DH	688132	31	34	571208.1	7710427.09	Recrystallised quartz veins with limonite after pyrite,also metamorphosed bimodal sandstone with a biotite-richmatrix and sericite-biotite-limonite-quartz rock with limonite after coarse pyrite.	
P03287	20	ORB1220		DH	688133	34	37	571208.1	7710427.09	Quartzite (metachert or hydrothermal quartz) and sericite-quartz-limonite schists (meta-claystones?) with some clay-limonite altered small unidentified crystals.	
P03288	21	ORB1235		DH	688214	42	45	571408.1	7710502.09	Quartz to sericite to clay (?altered biotite or limonite-stained sericite)-rich slates with minor limonite, leucoxene and tourmaline, derived from normal to siliceous argillites.	
P03289	22	ORB1240		DH	688253	22	25	570608.1	7710727.09	Quartz-chlorite rock with minor altered biotite, leucoxenised skeletal oxides and acicular to prismaticapatite, probably derived from an altered quartz dolerite or granophyre.	
P03290	23	ORB1252		DH	688329	16	19	570308.1	7710627.09	Weathered quartz-biotite-magnetite schist probably derived from a shale in the Blake Beds.	
P03291	24	ORB1261		DH	688384	10	13	570308.1	7710402.09	Calcrete-flooded inderterminate schists and weathered probable quartz-biotite schist derived from probable siltstone.	
P03292	25	ORB1261		DH	688385	13	16	570308.1	7710402.09	Quartz-rich micromosaic rocks with limonite and rare tourmaline, possibly derived from chert or siliceous argillite.	
P03293	26	ORB1262		DH	688391	13	16	570308.1	7710377.09	Laminated schist, possibly quartz-biotite-?andalusite, with post-tectonic andalusite, totally weathered and locally flooded by calcrete.	
P03294	27	ORB1263		DH	688395	7	13	570308.1	7710352.09	Depth 7.00-13.00m incorporates Sample No's: 688395-688396. Weathered quartz-biotite-clay metasandstones (bimodal) and a carbonate-clay-limonite aggregate of supergene origin.	
P03295	28	ORB1283		DH	688526	16	18	570208.1	7711102.09	Chlorite-leucoxene-magnetite-quartz schists with altered possible biotite; possibly Blake Beds.	
P03296	29	ORB1284		DH	688539	37	40	570208.1	7711077.09	Quartz-chlorite schists with leucoxene clusters, possiblyafter skeletal opaque oxides as in a quartz dolerite, and with altered amphibole fans as in the Dead Bullock Soak host unit; also vein quartz with chlorite.	
P03297	30	ORB1286		DH	688552	13	19	570208.1	7711027.09	Depth 13.00-19.00m incorporates Sample No's: 688552-688553. Quartz-chlorite-sericite-(biotite) schists with leucoxene and tourmaline, apparently derived from claystone or shale.	
P03298	31	ORB1287		DH	688558	13	19	570208.1	7711002.09	Depth 13.00-19.00m incorporates Sample No's: 688558-688559. Chlorite-biotite-plagioclase-quartz-(magnetite-leucoxene) schist apparently derived from Blake Beds felspathic siltstone.	
P03299	32	ORB1288		DH	688564	13	19	570208.1	7710977.09	Depth 13.00-19.00m incorporates Sample No's: 688564-688565. Quartz-chlorite schists with minor magnetite, biotite, rutile and plagioclase and largely layer-parallel quartz veins; apparently derived from Blake Beds. Minor clacrete.	
P6992	PU	15/11/95	TS		DQ	Officer Hill					
P03656	1	OHD001		DH	711761	95	0	570306.1	7711280.09	Mesobanded and microbanded quartz-sericite-chlorite slates with boudinaged quartz veins parallel to the schistosity, also microshears parallel to the schistosity; minor pyrite disseminated and in quartz veins.	
P03657	2	OHD001		DH	711767	98	0	570306.1	7711280.09	Quartz-chlorite-carbonate-plagioclase-leucoxene schist witha spaced schistosity and carbonate veins parallel to or at a low angle to the schistosity, with pyrite or limonite after pyrite.	
P03658	3	OHD001		DH	711769	103	0	570306.1	7711280.09	Quartz-felspar-chlorite schist (felspar-rich) with foldedlayers rich in chlorite and leucoxene (?heavy mineral laminations); early quartz-rich veins, locally with adularia, pyrite and iron-free sphalerite, also with carbonate, sericite and pyrite; later adularia to carbonate-rich veins.	

Report #	Author	Date	Work	Geo	Project					Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P03659	4	OHD001		DH	711781	127	0	570306.1	7711280.09	Altered hornblende diorite with metamorphic actinolite, chlorite, carbonate and albite, also minor late magmatic quartz to granophyre.	
P03660	5	OHD002		DH	710998	88	0	571163.1	7710135.09	Quartz-biotite schist derived from a poorly sorted matrix supported fine to medium grained sandstone, with some chlorite and sericite.	
P03661	6	OHD002		DH	711430	102	0	571163.1	7710135.09	Metamorphosed fine grained matrix-rich quartz sandstone with a quartz-chlorite schist matrix (with chlorite after biotite) and boudinaged layer-parallel quartz veins with clouded plagioclase and chlorite.	
P03662	7	OHD002		DH	711449	112	0	571163.1	7710135.09	Layered quartz-chlorite schist with altered apparently phenocrystal biotite. Apparently a sheared and metamorphosed lamprophyre (?minette), as at Dead Bullock Soak.	
P03663	8	OHD002		DH	711459	117	0	571163.1	7710135.09	Quartz-rich quartz-chlorite schist derived from a very fine to fine grained sandstone, with a boudinaged quartz vein containing limonite after sulphides passing into micaceous hematite.	
P03664	9	OHD002		DH	711483	129	0	571163.1	7710135.09	Chloritised quartz-biotite schist derived from a matrix-rich metasandstone with filaments of limonite, possibly after pyrite parallel to the schistosity.	
P03665	10	OHD002		DH	711493	134	0	571163.1	7710135.09	Chloritised quartz-biotite schist as domains separated by pyrite-quartz-rich slip zones, with intrafolial folds within each domain parallel to the main trend of the sulphide-rich areas. Minor disseminated pyrite after pyrrhotite, very minor covellite, chalcocite and rare chalcopyrite. Probable metapyrite.	
P03666	11	OHD002		DH	711494	134	0	571163.1	7710135.09	Chloritised biotite schist, locally very rich in apatite, with quartz veins containing abundant arsenopyrite andporous pyrite after pyrrhotite; possibly in part derived from apatite-rich lamprophyre or argillite with a chemical phosphate component.	
P03667	12	OHD002		DH	711499	137	0	571163.1	7710135.09	Fine quartz-biotite-chlorite schist with layer-parallel and cross cutting quartz veins, locally with clays; metamorphosed sandy siltstone with fine siltstone intraclasts.	
P03668	13	OHD002		DH	711507	141	0	571163.1	7710135.09	Layered quartz-chlorite schist, with chlorite +/- clays after biotite (including possible relict phenocrysts as in a lamprophyre), also limonite apparently after carbonate. Virtually identical to the sample from 111.6m, and interpreted as an altered, metamorphosed lamprophre.	
P03669	14	OHD002		DH	711518	146	0	571163.1	7710135.09	Vein quartz with rare carbonate, also a fracture filled by fluorite with rare limonite after pyrite.	
P03670	15	OHD002		DH	711526	150	0	571163.1	7710135.09	Brecciated and disrupted fine quartz-chlorite schist, derived from sandy siltstone. Some layer-parallel quartz veins and a network of veins partly rimmed by quartz and filled by coarse fluorite, between disrupted fragments.	
P03671	16	OHD002		DH	711533	154	0	571163.1	7710135.09	Irregularly banded carbonate-talc-chlorite-(quartz) schist with granular to porous low-temperature pyrite +/- marcasite, minor chalcopyrite, rare sphalerite and galena. Possible altered, metamorphosed ultramafic or possible meta-impure dolomite. (The sulphide mineralogy is more consistant with a meta, impure dolerite).	
P03672	17	OHD002		DH	711535	155	0	571163.1	7710135.09	Probable breccia of vein quartz with a matrix of pyrite-galena-sphalerite-chalcopyrite-carbonate-chlorite including foliated chlorite locally passing into late quartz veins.	
P03673	18	OHD002		DH	711538	156	0	571163.1	7710135.09	Very fine quartz-sericite-biotite-chlorite schist derived from a sandy siltstone. Several layer-parallel quartz veinlets containing sericite and clays.	
P03674	19	OHD002		DH	711541	158	0	571163.1	7710135.09	Lamellae of chlorite schist, occurring individually or in small packets in vein quartz with carbonate and patchy coarse aggregates of arsenopyrite, overprinted on pyrite after pyrrhotite.	
P03675	20	OHD002		DH	711553	164	0	571163.1	7710135.09	Laminated very fine quartz-chlorite schist with minor leucoxene, sericite and carbonate, in contact with a large partly recrystallised layer-parallel quartz veins, also smaller layer-parallel quartz veins and cross cutting carbonate veins.	

Report #	Author	Date	Work	Geo	Project					Notes	Central
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description	EL6938
P03676	21	OHD002		DH	711559	167	0	571163.1	7710135.09	Banded sericite to quartz-rich slates with streaky layer-parallel veins of quartz and of pyrite-quartz, disrupted apparently due to movement along the pyrite-rich veins, which commonly have chlorite to pyrite-rich extensions.	
P03677	22	OHD002		DH	711563	169	0	571163.1	7710135.09	Banded quartz-muscovite-biotite schist, probably meta-argillite. Incorporates complex folds having an axial plane at a high angle to the core axis, also boudinaged early quartz veins with sulphides. Later quartz-pyrite-clay-filled veinlets and fractures. Sulphide is very fine, probably low temperature pyrite.	
P03678	23	OHD002		DH	711574	174	0	571163.1	7710135.09	Fine to medium quartz-chlorite albite-carbonate-(sericite-leucoxene) schist apparently derived from a quartzofelspathic fine grained sandstone. Rare layer-parallel quartz stringers and cross cutting carbonate veinlets.	
P03679	24	OHD002		DH	711577	176	0	571163.1	7710135.09	Very fine quartz-chlorite-sericite schist derived from a bedded (?silty) argillite with some possible heavy mineral laminations. Includes boudins of vein quartz + sulphide, minor stringers of quartz, pyrite and adularia.	
P03680	25	OHD002		DH	711586	180	0	571163.1	7710135.09	Altered fine laminated quartz-biotite schist with limonitised carbonate, also boudins of vein quartz+ limonite after carbonate. Meta-lamprophyre (minette?).	
P03681	26	OHD002		DH	711598	186	0	571163.1	7710135.09	Laminated fine quartz-chlorite-carbonate-leucoxene schistwith layer-parallel quartz-carbonate veins and some apparently residual biotite. Apparently a metasilstone which has suffered carbonate-chlorite alteration.	
P03682	27	OHD002		DH	711598	186	0	571163.1	7710135.09	Vein quartz with shreds of schistose chlorite and patches and veins of pyrite-marcasite + arsenopyrite + carbonate.	
P03683	28	OHD002		DH	711602	188	0	571163.1	7710135.09	Very fine chlorite schist with some quartz-rich bands, folded about the schistosity. Also lenses of quartz + carbonate, veins variously rich in carbonate and pyrite+/- chlorite, and areas infiltrated by carbonate along the schistosity. Wide, largely recrystallised quartz veins with pyrite and, locally, rare sphalerite.	
P03684	29	OHD002		DH	711611	193	0	571163.1	7710135.09	Albite-chlorite-carbonate-leucoxene-altered probable basalt, with carbonate-(albite-quartz) filled vesicles.	
P03685	30	OHD002		DH	711624	199	0	571163.1	7710135.09	Quartz-chlorite-magnetite-stilpnomelane schist with BIF affinities, passing into chert with ultrafine magnetite and some carbonate, also basically BIF. Recrystallised quartz vein with scattered carbonate, and lenses of coarse quartz rimmed by coarse sulphide-carbonate aggregates.	
P03686	31	OHD002		DH	711628	201	0	571163.1	7710135.09	Banded quartz-chlorite-magnetite-stilpnomelane schist representing a shaly BIF. Microfaulting along sulphide-carbonate-quartz veins and some irregular veins and masses of sulphide. Cleavage/schistosity almost at right angles to primary layering.	
P03687	32	OHD002		DH	711633	204	0	571163.1	7710135.09	Complexly micro-folded, well-banded chloritic to sericitic, carbonaceous to non-carbonaceous slate, with boudinaged quartz veins and fine fractures variably rich in fine pyrite and in quartz.	
P03688	33	OHD002		DH	711647	210	0	571163.1	7710135.09	BIF, typically with fine magnetite, cherty quartz, stilpnomelane, cummingtonite and rare iron-rich chlorite. Planar layering, and a layer-parallel schistosity.	
P03689	34	OHD002		DH	711655	215	0	571163.1	7710135.09	Rather complexly folded and disrupted chlorite-cummingtonite-(magnetite) to quartz-chlorite-cummingtonite-magnetite rock including some magnetite microbands. Sulphide-(clay-carbonate-quartz) veins permeate disruptions and include apparently low-temperature	
P03690	35	OHD002		DH	711661	218	0	571163.1	7710135.09	Fine albite-chlorite-quartz-carbonate-(biotite-leucoxene) schist with plagioclase as laths about 0.5mm long, also accessory apatite, suggesting a fine quartz micro-doleriteas a possible protolith (or a plagioclase crystal tuff?).	

										Central
										EL6938
Report #	Author	Date	Work	Geo	Project					Notes
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description
P03691	36	OHD002		DH	711688	221	0	571163.1	7710135.09	Sheared metamorphosed lamprophyre (minette). Manifest as relict phenocrysts of biotite in a fine quartz-biotite-sericite schist matrix carbonate, disseminated and in diffuse veins, also minor lenses of secondary quartz.
P03692	37	OHD002		DH	711680	227	0	571163.1	7710135.09	Structurally complex, microfaulted, disrupted and mineralised rock. Bands variously rich in fine chlorite, carbonate, quartz and in ultrafine magnetite, indicating BIF affinity, but possibly including disrupted veins. Also discrete veins with various proportions of quartz, carbonate and sulphide, locally along microfaults.
P03693	38	OHD002		DH	711682	228	0	571163.1	7710135.09	Sequence of irregular lenses, layers and shreds of chlorite, varying to quartz-rich schists (including cherts/veins), plus large lenses and/or veins of sulphides plus chlorite+/- carbonate, and late carbonate veins. Sulphides irregular quite coarse and some microfractured pyrite > fine crystalline arsenopyrite. Lessor pyrrhotite altered to secondary pyrite, also accessory chalcopyrite. Later possibly arsenic-bearing pyrite.
P03694	39	OHD002		DH	711692	233	0	571163.1	7710135.09	Banded cummingtonite-chlorite-magnetite schist with narrow cross cutting carbonate veins.
P03695	40	OHD002		DH	711713	244	0	571163.1	7710135.09	Contact between folded largely carbonaceous sericitic slate and sparsely biotite porphyritic lamprophyre (minette) metamorphosed to a predominately fine quartz-sericite-chlorite-biotite schist. Numerous chlorite-sulphide to carbonate-sulphide veinlets.
P7203i	PU	20/09/96	TS/phot	NB	Officer Hill					Update of Report No. 6684
P03876	1	OH		OC	656304	0	0	656900	7711500	Porphyritic biotite microgranite with weakly sericitised plagioclase and accessory zircon and fluorite.