

## SOUTH NICHOLSON BASIN

### SOUTH NICHOLSON GROUP

Mittiebah Sandstone	Esi	Quartz sandstone, feldspathic sandstone, arkose
Mullera Formation	Esl	Micaceous siltstone, quartz sandstone, glauconitic sandstone, ferruginous sandstone and siltstone, ironstone
Constance Sandstone	Esa	Quartz sandstone
	Esa <sub>4</sub>	Medium quartz sandstone
	Esa <sub>b</sub>	Siltstone, thin bedded and laminated micaceous; blocky white quartz sandstone interbeds
	Esa <sub>3</sub>	Quartz sandstone, reddish brown and white medium to coarse
	Esa <sub>w</sub>	Fine sandstone and siltstone, purplish brown thin bedded and laminated, micaceous; quartz sandstone interbeds
	Esa <sub>2</sub>	Quartz sandstone, white, medium to coarse
	Esa <sub>p</sub>	Micaceous siltstone, shale and fine sandstone, purplish brown and grey thin bedded and laminated
	Esa <sub>1</sub>	Sandstone, white medium to coarse; cobble conglomerate lenses

## LAWN HILL PLATFORM

### FICKLING GROUP

Doomadgee Formation	Pfd	Sandstone, grey and brown or reddish, fine to coarse; fissile shale and siltstone, dark grey, with flaggy claystone interbeds; dolomite, dolomitic sandstone and conglomerate
Mount Les Siltstone	Pfl	Dolomitic siltstone and shale; flaggy dolomite interbeds
Walford Dolomite	Pfw	Dolomite, blocky grey oolitic, stromatolitic and intraclastic; minor dolomitic sandstone and shale, often silicified at the top
Fish River Formation	Pff	Sandstone, fine to coarse, flaggy to massive; minor conglomerate and siltstone

### TAWALLAH GROUP EQUIVALENT

Peters Creek Volcanics	Ptp	Alternating sequence of basalt, rhyolite and rhyodacite; some intermediate volcanics, possibly trachyte and andesite; minor tuff, shale, siltstone, sandstone, dolomite, and conglomerate
Wire Creek Sandstone	Pti	Coarse, gritty sandstone with scattered quartz pebbles; cobble and boulder conglomerate lenses

## McARTHUR BASIN SEQUENCE

### McARTHUR GROUP

Karns Dolomite	Emk	Dolomite, algal dolomite, dolarenite; laminated, oolitic and algal chert; dolomitic siltstone and sandstone, silty and sandy dolomite, oolitic-chamosite dolomite
Masterton Sandstone	Ems	Sandstone, medium to coarse, pebbly in upper part; minor beds of clast-supported conglomerate; locally micaceous siltstone and breccia at the bottom

### TAWALLAH GROUP

Packsaddle Microgranite	Egr	Microgranite, pink, porphyritic
Hobblechain Rhyolite	Eth	Rhyolite, reddish-brown, porphyritic
Gold Creek Volcanics	Etg	Trachyte and latite flows, tuff, tuffaceous and lithic sandstone, siltstone
Wollogorang Formation	Eto <sub>2</sub>	Dolomitic and quartz sandstone, ferruginous in parts, feldspathic; dolomitic siltstone
	Eto <sub>1</sub>	Dolomitic siltstone; dolomite; stromatolitic dolomite; oolitic dolomite
	Ete	Quartz latite and quartz trachyte lava flows and sills; minor siltstone; volcanic breccia and conglomerate
Aquarium Formation	Etq	Glauconitic sandstone, fine to medium; glauconitic and dolomitic siltstone; dolomitic siltstone; dolomite
Sly Creek Sandstone	Etl	Lithic and quartz sandstone, fine to medium, flaggy, locally feldspathic, minor conglomerate
McDermott Formation	Etd	Dolomite, laminated, stromatolitic, sandy, oolitic and intraclast-rich; dolarenite; quartz sandstone, fine to medium clayey; glauconitic sandstone; shale and siltstone
Seigel Volcanics	Ets	Vesicular and amygdaloidal basalt; massive non-vesicular basalt; thin siltstone, sandstone and tuff interbeds
Carolina Sandstone Member	Ets <sub>c</sub>	Lithic sandstone and quartz sandstone, fine to medium, flaggy or massive; minor siltstone beds in north and conglomerate in south-west
	do	Dolerite dyke
Westmoreland Conglomerate	Ptw <sub>4</sub>	Matrix-supported cobble conglomerate overlain by conglomeratic, lithic and quartz sandstone, often ferruginous, pebble-free in upper part. Red, calcareous siltstone locally at the top
	Ptw <sub>3</sub>	Matrix-supported boulder and cobble conglomerate grading westward into lithic sandstone with thin pebble beds, feldspathic in central part
	Ptw <sub>2b</sub>	Matrix- and clast-supported boulder and cobble conglomerate; interbeds of feldspathic sandstone; lithic sandstone at the top
	Ptw <sub>2a</sub>	Lenses of mostly clast-supported pebble and cobble conglomerate overlain by lithic and quartz sandstone, ferruginous in parts
	Ptw <sub>1</sub>	Locally developed red micaceous siltstone, basal conglomerate and talus breccia overlain by lithic and quartz sandstone
	Ptw	Undivided Westmoreland Conglomerate

## BASEMENT SEQUENCE

Nicholson Granite Complex	Egn <sub>b</sub>	Biotite ± muscovite granite and adamellite, medium to fine, equigranular
	Egn <sub>a</sub>	Hornblende-biotite adamellite and granodiorite, medium to coarse, inequigranular
Cliffdale Volcanics	Ecc <sub>b</sub>	Billicumidji Rhyolite Member. Alkali rhyolite lava, red, flow-banded, with numerous ashfall tuff horizons
	Ecc <sub>a</sub>	Rhyolitic and alkali rhyolitic ignimbrite; rhyolitic lava, ashfall tuff
Murphy Metamorphics	Elm <sub>2</sub>	Predominantly immature metasandstone, poorly sorted, fine- to coarse-grained
	Elm <sub>1</sub>	Predominantly metasiltstone and shale, well sorted, often highly ferruginous Fish River area: quartz-albite-biotite-chlorite schist
	Elm	Nicholson River/Collins Creek area: undivided metasediments, commonly sheared and brecciated; quartz-mica schists