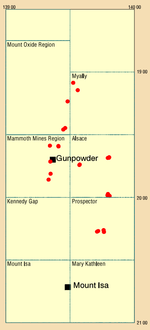

AMIRA P552 PROJECT

95/JJ/01

Scale: 1:1000

EASTING: 294936

NORTHING: 7857980

DATA TYPE: Measured Section

MAP SHEET: Mount Oxide

LOCATION: Along Seymour River

GEOLOGY: MJ Jackson

GEOLOG COMPILATION: KW Barnett

AUSTRALIA

GEOSCIENCE AUSTRALIA

Queensland Government Natural Resources and Mines

Thickness metres	Formation on 1:100K published map	Member on 1:100K published map	Total Gamma (0 — cps — 1200)	Lithology and Grainsize (mm: SAND, 0.125, 0.0625, 1/256, CLAY)	Structures/ Bedding	PC direction	Outcrop description and other notes	Thickness metres
	G.C.F.						Micaeous red lithic wacke (poor outcrop)	
480–460	T.C.Q.						460–480m: Blocky, fine to very fine grained pinkish feldspathic arenite. Medium to thick cross-stratified, ripples (several types). Fe spotting. interval 475–480m is parallel flat laminated.	480–460
450–420	Surprise Creek Formation						426–450m: Cyclic succession of coarsening-up cycles (from thin green micaeous siltstone at base to fine quartz arenite at top). Siltstones are flat laminated and fissile, sandstone are small scale planar cross-stratified and wave and current rippled. Bases of sandstone are commonly loaded, tops commonly interference rippled.	450–420
410–400							364–420m: Mostly fine grained feldspathic arenite with medium grained laminae at bases of larger sets. Trough cross-stratified throughout, cosets up to 5m. Distinctly flaggy and thin bedded in 400–407m interval with small scale cross-bedding, current ripples and green siltstone partings. Large ball and pillow at 405m.	410–400
390–360							320–364m: Medium grained slightly feldspathic quartz arenite with rare small quartz pebbles and weathered-out shale clast impressions. Large scale trough cross stratification.	390–360
350–320							315–320m: Medium grained, pebbly quartz arenite with angular white quartzite with shale clasts (no basalt) sitting on sharp planar contact.	350–320
310–280	Fiery Creek Volcanics						240–315m: Similar to 62–160m, predominantly basalt lava flows 1–5m thick. Basal 1m is a silty sandstone, uppermost 5m distinctly finer grained.	310–280
270							(Fine grained dolerite dyklets)	270
260–250							(Brecciated highly vesicular basalt)	260–250
240–230							no outcrop–(rubble of conglomerate)	240–230
220–200							160–210m: Massive to crudely stratified pebble to cobble conglomerate . Clast up to ~1m in size but mean ~20–60cms. Commonly clast supported, rarely matrix supported in a very poorly sorted rippled and trough cross-bedded sandstone. Clasts sub-rounded, dominantly quartzite, felsic igneous rock, altered basalt, red mudstone. Rare flat pebble imbrication, rare reverse grading.	220–200
190–170							Rippled sandstone with basalt clast conglomerates in basal 5m.	190–170
160–130							62–160m: Cyclic succession of massive fine grained basalt grading up to vesicular basalt in individual flows between 1–5m thick. Rare pillow like structures. Rare steeply dipping dyklets of fine grained dolerite.	160–130
120–100							Tubular 'pipes' at 100m, lined with quartz crystals, leaning to N (?flow from S to N?).	120–100
90–60							47–62m: Poorly sorted lithic arkosic arenite, thick to medium bedded with low angle planar cross-stratification. Conglomeratic in lower 3m, heavy mineral bands common.	90–60
50–40	Lochness Formation						40–47m: Clast supported pebble conglomerate, channeled at base several metres relief. Clasts of felsic rocks and sediments to 50cm across.	50–40
30–10							0–40m: Interbedded red–brown fine to medium lithic sandstone and siltstone/shale. Sandstones are small scale cross-bedded and rippled, coarser units contain contorted mudstone clasts. Siltstone/shale intervals contain current ripples, desiccation cracks. Stratification commonly discontinuous with cut and fill and erosion. Thicker beds commonly contain large intraclasts of mudstone. Most beds are graded, wet sediment disruption of beds common. 1m thick stromatolitic sandy dolostone at top of interval.	30–10

Sedimentary Structures and Bedding

BEDDING

Laminated (<1cm) · Thin bedded (1–10cm) · Medium bedded (10–30cm) · Thick bedded (>30cm)

SEDIMENTARY STRUCTURES

Planar X-stratification · Large scale trough X-stratification · Small scale trough X-stratification · Hummocky cross-stratification · Pinch & swell/wavy bedding · Flaser/lenticular bedding · Wispy lamination · Large asymmetrical ripple · Small asymmetrical ripple

Symmetrical ripple · Normally graded bed · Inversely graded bed · Fining-upward trend · Coarsening-upward trend · Scour and fill · Sole marking · Slumping

Contorted bedding · Flute cast · Gutter cast/microchannel · Load cast · Synaresis crack · Dewatering structure · Teepee · Desiccation crack · Sedimentary breccia

Sedimentary concretion · Palaeocurrent azimuth (east) · Palaeocurrent azimuth (north) · Palaeocurrent azimuth (south) · Palaeocurrent azimuth (west) · Palaeocurrent azimuth (NE) · Palaeocurrent azimuth (NW) · Palaeocurrent azimuth (SE) · Palaeocurrent azimuth (SW)

Palaeocurrent trend (north–south) · Palaeocurrent trend (east–west) · Halite cast/mould · Crystal pseudomorph · Cauliflower chert · Intraclast · Pebbles · Imbricated clasts · Rosette

Ooliteylooitic · Peloid/peloidal · Small domal stromatolite · Large domal stromatolite · 'Organ–pipe' stromatolite · Small columnar stromatolite · Large columnar stromatolite · Conical stromatolite · Stratiform stromatolite

Fenestrae · F Fault · Pyrite · Cpy Chalcopyrite · Gl Glauconite · Ph Phosphate · Py Pyrite · Sp Sphalerite · Gn Galena

Lithology Legend

SILICICLASTICS QUARTZO–FELDSPATHIC · SILICICLASTICS LITHIC · SILICICLASTICS TUFFACEOUS · SILICICLASTICS CARBONACEOUS (VARIABLY DOLOMITIC) · DOLOMITIC SILICICLASTICS · CARBONATES

Conglomerate granule to boulder · Sandstone medium to very coarse · Sandstone very fine to fine · Sandy siltstone · Siltstone mineralogy undifferentiated · Shale mineralogy undifferentiated

Dolorudite granule to boulder · Dolarenite medium to very coarse · Dolarenite very fine to fine · Silty dolarenite · Dolosiltite · Dololutite

TUFF · CHERT · CRYSTALLINE CARBONATES · BRECCIA · IGNEOUS · METAMORPHIC

Sequence Hierarchy

F* — Approximate location of significant flooding or deepening.

S* — Approximate location of significant erosion Surface (?Sequence boundary).

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