



MEMBER	LITHOLOGY	THICKNESS	STRUCTURES	FAUNA	AGE
Winnifred Member	Medium-to thick-bedded, sandy to silty dolomite and limestone, with sparse beds of collapse breccia, shale, and phosphatic quartzose sandstone.	9 to 733 feet	Cross-bedding, ripple marks, chert lenses, nodules, and lined vugs.	<u>Myophoria</u> cf. <u>M. costata</u> Zenk., <u>Myophoria</u> cf. <u>M. laevigata</u> Ziet., <u>Paleocardita</u> sp., <u>Lima</u> sp., <u>Pleuromya</u> sp., <u>Orbiculoidea</u> sp.	Middle or Upper Triassic-Ladinian or Karnian
Brewster Limestone Member	Medium-to thick-bedded, relatively pure, pelletoid, fossiliferous limestones, with local intercalations of slightly silty to sandy quartzose dolomite.	11 to 205 feet	Chert nodules and lenses.	<u>Terebratula</u> cf. <u>T. julica</u> Bittner, <u>Lima</u> ( <u>Mysidioptera</u> ) <u>poyana</u> McLearn, <u>Pentacrinus</u> sp., <u>Spiriferina</u> sp.	Upper Triassic-Karnian
Starlight Evaporite Member	Buff, yellow, light grey to reddish-brown weathering, interbedded, interfingering, carbonates, sandstones, siltstones, shales, collapse breccias, with local lenticular beds of gypsum.	103 to 762 feet	Simple and planar cross-stratification, regular to wavy sand and silt laminations, honeycomb breccia.	<u>Gervillia</u> sp., <u>Lima</u> sp., <u>Myophoria</u> sp.	Middle or Upper Triassic
Llama Member	Medium to dark grey-brown and yellow-brown, carbonaceous, pyritiferous, slightly micaceous, silty to sandy quartzose dolomite, and dolomitic siltstone, with local intercalated beds of fissile, carbonaceous, silty shale and intraformational breccia.	28 to 490 feet	Micro cross-stratification, phosphatic laminations.	<u>Spiriferina</u> cf. <u>S. stracheyi</u> Salter, <u>Lingula</u> <u>selwyni</u> Whiteaves, <u>Daonella</u> cf. <u>D. dubia</u> Gabb, <u>Gervillia</u> sp., <u>Hoernesia</u> sp. <u>Pleuromya</u> sp., <u>Gymnotoceras</u> sp.	Middle Triassic-Anisian
Whistler Member	Recessive-weathering, silty, quartzose, carbonaceous, pyritiferous, slightly phosphatic medium-to dark grey-weathering dolomite, with some resistant, thin-to medium-bedded dolomitic siltstone beds, and phosphatic pebble conglomerate.	12 to 140 feet	Lenticular, pyritiferous, and light grey weathering, quartz-carbonate laminations, nodules of pyrite and calcite.	<u>Gymnotoceras</u> sp., <u>Gymnotoceras</u> <u>helle</u> McLearn, <u>Germanutilus</u> sp. <u>Longobardites</u> cf. <u>L. nahwisi</u> McLearn <u>Parapopanoceras</u> sp., <u>Ceratites</u> <u>hayesi</u> McLearn, <u>Proarcestes</u> sp., <u>Ptychites</u> sp., <u>Pearylandites</u> sp., <u>Daonella</u> cf. <u>D.</u> <u>dubia</u> Gabb, <u>Pseudomonotis</u> sp., <u>Spiriferina</u> cf. <u>S. stracheyi</u> Salter.	Middle Triassic-Anisian
Vega Siltstone Member	Cyclical alternations of well-indurated, medium grey, carbonaceous, pyritiferous, dolomitic siltstone to silty dolomite, and shale.	160 to 442 feet	Regular to lenticular laminations, flow rolls, flute casts, groove casts, bounce casts, ripple-marks, convolute and micro cross-laminations.	<u>Euflemingites</u> sp., fish scales, poorly preserved fish skeletons, and fragments, <u>Pseudomonotis</u> <u>occidentalis</u> Whiteaves.	Lower Triassic-Smithian
Phroso Siltstone Member	Thin-bedded shaly-to flaggy-weathering, grey brown to dark grey, carbonaceous, pyritiferous, micromicaceous, shaly siltstones, and silty shales; with minor intercalations of dolomitic siltstone and sandstone.	150 to 463 feet	Micro cross-laminations, flow rolls, regular to lenticular laminations.	<u>Claraia</u> <u>stachei</u> Bittner, <u>Proptychites</u> ? fish jaws ? and skeletal fragments	Lower Triassic-Griesbachian

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Figure 8. Table showing members of the Spray River Group in the Jasper region with their associated lithology, thickness, structures, fauna, and suggested age.