

Table 5: Summary of gas flow rates and compositions in the CO₂-rich gas wells in the Flathead area

Well number	Well name and surface location (bottomhole location)	year	test type	flow rate 10 ³ m ³ /d (MMcf/d)	CO ₂ %	C ₁ %	H ₂ S %	stratigraphic interval
Rundle Group (Livingstone, Mount Head, and Etherington Formations)								
WA 24	Pacific Atlantic Flathead d-34-E/82-G-1	1953	open hole completion	35 (1.25)	69	17	3	overturned syncline of Livingstone to Etherington
		1952	DST	38 (1.35)	71	2	4	Livingstone in lower limb of overturned syncline
WA 5870	Shell Sage a-56-E/82-G-1 (d-55-E/82-G-1)	1984	perf	25 (0.887)	77	14	2	Livingstone and upper Banff (Cross section 3)
WA 5872	Shell Flathead d-26-L/82-G-1 (b-35-L/82-G-1)	1984	open hole completion	141 (5.0)	20	53	24	Livingstone and upper part of Banff (Cross section 3)
WA 6327	Shell Flathead d-58-L/82-G-1	1984	perf	119 (4.2)	42	38	17	Livingstone only (Cross section 3)
WA 4961	Shell Middlepass a-95-L/82-G-1 (b-94-L/82-G-1)	1981	gas flow up annulus	2m flare	9	76	11	Livingstone?
WA 5839	Shell Flathead c-12-A/82-G-7 (c-11-A/82-G-7)	1984	open hole completion	27 (0.958)	90	5	1	upper Banff, all Rundle, and Rocky Mountain
WA 638	Shell Honolulu Flathead d-22-A/82-G-7 (c-21-A/82-G-7)	1960	DST	TSTM	44	45	0.4	Mt. Head; structurally higher than DST in Etherington noted below (Cross section 3)
		1960	DST	10 (0.370)	85	11	2	Etherington and upper part Mt. Head; structurally lower than DST noted above (Cross section 3)
Banff Formation								
WA 5839	Shell Flathead c-12-A/82-G-7 (c-11-A/82-G-7)	1984	perf	60 (2.129)	68	30	1	(Cross section 2)
Palliser Formation								
WA 5872	Shell Flathead d-26-L/82-G-1 (b-35-L/82-G-1)	1984	perf	311 (11.0)	90	8	1	upper and lower porous zones (Cross section 2)
WA 6327	Shell Flathead d-58-L/82-G-1	1984	perf	133 (4.7)	89	9	1	upper and lower porous zones
WA 5839	Shell Flathead c-12-A/82-G-7 (c-11-A/82-G-7)	1984	perf	81 (2.8)	94	4	1	lower porous zone (Cross section 2)
WA 638	Shell Honolulu Flathead d-22-A/82-G-7 (c-21-A/82-G-7)	1960	DST	2 (0.067)	100	-	-	
Peechee Member Southesk Formation (Leduk Formation)								
WA 638	Shell Honolulu Flathead d-22-A/82-G-7 (c-21-A/82-G-7)	1960	DST	52 (1.9)	98	-	0.01	