Table S3. Cost calculation for skidder

	A	B	C
1		**Skidder**	
2	Time	**Base Year**	
3	**Production**	Summer	Winter
4	Annual Production (m^3)	750,000	1,400,000
5	Days	106	83
6	Hours/Day	21	19
7	**Input**		
8	Annual Available Hours	2,226	1,577
9	Utilization Percentage [42]	70	70
10	Annual Production Hours	1,558	1,104
11	Expected Life (Years) [49]	4.00	
12	**Purchase Information**		
13	Equipment Purchase Cost ($) [44]	225,000	
14	Salvage Value (%) [49]	0.20	
15	Fuel Price ($) [41]	1.00	
16	Oil Lube Costs (%) [41]	0.10	
17	Insurance Costs (%) [41]	0.035	
18	Load Factor	0.25	
19	Salvage Value ($)	45,000	
20	Rate of Return on Total Capital	0.1	
21	Average Annual Equipment Value ($)	135,000	
22	Fuel Consumption (lt/hr) [50]	34.00	35.00
23	**Ownership Costs**		
24	Depreciation ($/year)	45,000	
25	Insurance ($/year)	4,725	
26	Return on Capital ($/year)	13,500	
27	Annual Ownership Costs ($/year)	63,225	
28	Total Ownership Costs ($/year)	1,517,400	
29	**Total Ownership Unit Cost ($/$m^3$)**	0.71	
30	**Labor Costs**		
31	Straight Time	1,908	1,494
32	Overtime Worked	318	83
33	Wage ($/hr) [32]	25.91	25.91
34	Overtime ($/hr)	38.87	38.87
35	Seasonal Labor Costs ($)	61,795	41,935
36	Add Employee Load (Benefits)	15,449	10,484
37	Total Labour Costs ($)	77,244	52,419
38	**Total Labor Unit Costs ($/$m^3$)**	1.29	1.23
39	**Operation Costs**		
40	Fuel cost ($/hr)	34.00	35.00
41	Oil/Lube Cost ($/hr)	3.40	3.50
42	Fuel & Lube Cost ($/$m^3$)	0.08	0.03
43	Repair & Maintenance Costs ($/year)	27,000	
44	Repair & Maintenance Costs ($/$m^3$)	0.263	
45	Total Operation Costs (Season)	66,112	48,636
46	**Total Operation Unit Costs ($/$m^3$)**	1.10	1.14
47	**Total Equipment Unit Costs (seasonal) ($/$m^3$)**	***3.09***	***3.08***
48	Number of Equipments	**9**	**24**
49	Prodcutivity (m^3/Pmh)[1]	51.36	51.36
50	Availability (%)	0.75	0.75
51	Productivity (m^3/Smh)	38.52	38.52
52	[1] obtained from contractor		