

Fig 2.3 'Elite' Walk Thru - Practical Vision - ACD 20mg - Case 72 x 30 tablet bottles © Jim McCallum Publishing Ltd 2012										
Step No	Description	Process Time per		Delay Time				Distance m		
		case	batch	wks	days	hrs	min			
1	Unload from truck								20	
2	Wait - checking and labelling								20	Samples supplied
3	Move to staging area for sampling									Omit
4	Wait									Omit
5	Move to sampling booth conveyor									Omit
6	Wait									Omit
7	Move into sampling booth									Omit
8	Take sample (sample goes to QC)									Omit
9	Move back down conveyor									Omit
10	Wait									Omit
11	Move to warehouse staging area								38	
12	Wait						1			Reduce
13	Move to rack								30	
14	Wait in rack				5					Reduce
15	Move back to warehouse staging area								30	
16	Wait (incl pallet change)						1			Reduce
17	Move to dispensing staging area via air lock								74	TPT DAY 1
18	Wait						1			Reduce
19	Move to dispensing room								16	
20	Wait								30	
21	Dispense one batch active								30	
22	Wait (for other materials)					1		30		
23	Move to wait area									Omit
24	Wait									Omit
25	Move to granulation staging area								44	
26	Wait						1			Reduce
27	Move to granulation room								16	
28	Wait (incl check)								30	
29	Move to machine								4	
*30	Mixing (14.4kg active)	1.8s	10m							14400g
31	Move to mill								2	
*32	Milling	5.4s	30m							
33	Move to mixer								2	
*34	Mixing	2.7s	15m							
35	Wait (add materials)								5	
*36	Mixing	0.9s	5m							
37	Move to tableting staging area								64	
38	Wait						4			Kanban
39	Move to tableting machine								18	TPT DAY 2
40	Wait (incl check)								10	
*41	Tableting (120,000 tablets/hr)	1.5m	8.6h							720000
42	Move to warehouse staging area									6
43	Wait									8.57
44	Move to rack									Omit
45	Wait in rack									Omit
46	Move back to warehouse staging area									Omit
47	Wait									Omit
48	Move to packaging staging area area								38	TPT DAY 3
49	Wait						4			
50	Move to packaging line								16	
*51	Packaging (120 bottles/min)	1.2m	6.7h							24000
52	Wait									3.33
53	Move to new warehouse holding area								56	TPT DAY
54	Wait (incl pallet change)						1			Reduce
55	Move to rack									Omit
56	Wait QA release				1					Reduce
57	Wait shipping instructions				1					Reduce
58	Move to despatch area									Omit
59	Wait (incl wrap and paperwork)						1			Reduce
60	Move to loading bay								34	Change
	Ready for shipment									
	Totals	Throughput Time (steps 17 to 56)	2m 53s	16.3h	0	1	12	135	350	
		Pipeline Lead Time (steps 1 to 60)	2m 53s	16.3h	0	7	15	155	502	
	Total PV throughput time (from dispensing to QA release) is process time + delay time = 1d + 1d + 1d = 3 days minimum									
	Total PV pipeline lead time (from entry to exit) is entry + process + delay + exit time = 5d + 1d + 1d + 1d + 1d = 9 days minimum									
	No of steps	60	41							
	No of value adds	6	6							
	No of non value adds	54	35							
	VA time (case)	6m 41s	2m 53s							
	VA time (batch)	37h	16.3h							
	TPT	32.3d	4d							
	PLT	64.1d	10d							
	Distance travelled	984m	502m							