

MOTORISED SCRAPER				AS PER REVISED NORMS AS PER C.W.C BULLETIN NO. 39 JAN 82			
A	CAPACITY	:	14/20 cuyd & 15/20 cuyd 10.64/15.20 cum & 11.40/15.20 cum	OUTPUT / TRIP = A x B x C = 15.20 x 0.9 x 0.72 = 9.85 cum			
B	CONTAINER EFFICIENCY	:	90%	LOADING TIME	1.5 MIN	A 100%	40% LIFE
C	COMPACTION FACTOR	:	0.72 ( HEARTING MATERIAL )	UNLOADING TIME	1.0 MIN	B 80%	40 to 75%
D	AVERAGE SPEED	:	25 KM/HR	SPOTTING TIME	0.5 MIN	C 65%	75% to FULL
E	PRODUCTION HOUR	:	50 MIN		3.0 MIN	D 40%	FULL BUT IN WORKING CONDITIONS

LEAD in KM	TRAVEL TIME in Min	CYCLE TIME in Min	No. of TRIPS/HOUR	OUTPUT in 150 WORKING DAYS											
				SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
				A	B	C	D	A	B	C	D	A	B	C	D
				900 Hrs Qty	720 Hrs Qty	585 Hrs Qty	360 Hrs Qty	1200 Hrs Qty	960 Hrs Qty	780 Hrs Qty	480 Hrs Qty	1500 Hrs Qty	1200 Hrs Qty	975 Hrs Qty	600 Hrs Qty
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4.8	7.8	6.41	56.82 / 2.006	45.46 / 1.605	36.93 / 1.304	22.72 / 0.802	75.77 / 2.675	60.61 / 2.140	49.25 / 1.739	30.30 / 1.070	94.70 / 3.344	75.77 / 2.675	61.56 / 2.173	37.88 / 1.337
1.5	7.2	10.2	4.9	43.44 / 1.534	34.75 / 1.227	28.24 / 0.997	17.37 / 0.613	57.92 / 2.045	46.33 / 1.636	37.65 / 1.329	23.17 / 0.818	72.40 / 2.556	57.92 / 2.045	47.06 / 1.661	28.96 / 1.022
2	9.6	12.6	3.96	35.10 / 1.239	28.08 / 0.991	22.82 / 0.305	14.04 / 0.495	46.80 / 1.652	37.45 / 1.322	30.42 / 1.074	18.72 / 0.661	58.51 / 2.066	46.80 / 1.652	38.03 / 1.343	23.40 / 0.826
2.5	12	15	3.33	29.52 / 1.042	23.62 / 0.834	19.19 / 0.677	11.80 / 0.416	39.36 / 1.389	31.48 / 1.111	25.58 / 0.903	15.74 / 0.555	49.20 / 1.237	39.36 / 1.389	31.98 / 1.129	19.68 / 0.694
3	14.4	17.4	2.87	25.44 / 0.898	20.35 / 0.718	16.54 / 0.584	10.18 / 0.359	33.92 / 1.197	27.14 / 0.958	22.05 / 0.778	13.57 / 0.479	42.40 / 1.497	33.92 / 1.197	27.56 / 0.973	16.96 / 0.598
3.5	16.3	19.8	2.52	22.34 / 0.788	17.87 / 0.631	14.52 / 0.512	8.93 / 0.315	29.78 / 1.051	23.83 / 0.841	19.36 / 0.683	11.91 / 0.420	37.23 / 1.314	29.78 / 1.051	24.20 / 0.854	14.89 / 0.525
4	19.2	22.2	2.25	19.95 / 0.704	15.96 / 0.563	12.97 / 0.458	7.98 / 0.281	26.59 / 0.939	21.28 / 0.751	17.25 / 0.610	10.64 / 0.375	33.24 / 1.173	26.59 / 0.939	21.60 / 0.762	13.29 / 0.469

LEAD in KM	TRAVEL TIME in Min	CYCLE TIME in Min	No. of TRIPS/HOUR	OUTPUT in 200 WORKING DAYS											
				A	B	C	D	A	B	C	D	A	B	C	D
				1200 Hrs Qty	960 Hrs Qty	780 Hrs Qty	480 Hrs Qty	1600 Hrs Qty	1280 Hrs Qty	1040 Hrs Qty	640 Hrs Qty	2000 Hrs Qty	1600 Hrs Qty	1300 Hrs Qty	800 Hrs Qty
				TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4.8	7.8	6.41	75.77 / 2.675	60.61 / 2.140	49.25 / 1.739	30.30 / 1.070	101.02 / 3.567	80.82 / 2.854	65.66 / 2.318	40.40 / 1.426	126.28 / 4.459	101.02 / 3.567	82.08 / 2.898	50.51 / 1.783
1.5	7.2	10.2	4.9	57.92 / 2.045	46.33 / 1.636	37.65 / 1.329	23.17 / 0.818	77.22 / 2.727	61.78 / 2.181	50.20 / 1.772	30.90 / 1.091	96.53 / 3.406	77.22 / 2.727	62.74 / 2.215	38.61 / 1.863
2	9.6	12.6	3.96	46.80 / 1.652	37.45 / 1.322	30.42 / 1.074	18.72 / 0.661	62.41 / 2.203	49.92 / 1.762	40.57 / 1.432	24.96 / 0.881	75.01 / 2.754	62.41 / 2.203	50.70 / 1.790	31.20 / 1.095
2.5	12	15	3.33	39.36 / 1.389	31.48 / 1.111	25.58 / 0.903	15.74 / 0.555	52.48 / 1.853	41.98 / 1.482	34.11 / 1.204	21.00 / 0.741	65.6 / 2.316	52.48 / 1.853	42.64 / 1.505	26.24 / 0.926
3	14.4	17.4	2.87	33.92 / 1.197	27.14 / 0.958	22.05 / 0.778	13.57 / 0.479	45.23 / 1.597	36.18 / 1.277	29.40 / 1.038	18.09 / 0.638	56.54 / 1.996	45.23 / 1.597	36.75 / 1.297	22.62 / 0.798
3.5	16.3	19.8	2.52	29.78 / 1.051	23.83 / 0.841	19.36 / 0.683	11.91 / 0.420	39.72 / 1.402	31.77 / 1.121	25.81 / 0.911	15.88 / 0.560	48.64 / 1.753	39.72 / 1.402	32.27 / 1.199	19.86 / 0.701
4	19.2	22.2	2.25	26.59 / 0.939	21.26 / 0.751	17.29 / 0.610	10.64 / 0.375	35.46 / 1.252	28.87 / 1.001	23.05 / 0.814	14.18 / 0.500	44.33 / 1.565	35.46 / 1.252	28.81 / 1.017	17.73 / 0.626

<b>1</b>	<b>MOTORISED SCRAPER</b>			
A	CAPACITY	:	24/32 cuyd 18.4 / 24.5 Cum.	OUTPUT / TRIP = A x B x C = 24.5 x 0.9 x 0.72 = 15.88 cum
B	CONTAINER EFFICIENCY	:	90%	LOADING TIME 1.5 MIN
C	COMPACTION FACTOR	:	0.72 ( HEARTING MATERIAL )	UNLOADING TIME 1.0 MIN
D	AVERAGE SPEED	:	25 KM/HR	SPOTTING TIME 0.5 MIN
E	PRODUCTION HOUR	:	50 MIN	3.0 MIN

LEAD in KM	TRAVEL TIME in H	CYCLE TIME in A	No. of TRIPS/HO	OUTPUT in 150 WORKING DAYS											
				SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
				A	B	C	D	A	B	C	D	A	B	C	D
				900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty			
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4.8	7.8	6.41	91.61 / 3.235	73.29/2.588	59.55/2.102	36.64/1.293	122.15/4.313	97.72/3.450	79.4/2.803	48.86/1.725	152.7/5.392	122.15/4.313	99.25/3.504	61.07/2.156
1.5	7.2	10.2	4.9	70.03 / 2.473	50.02/1.766	45.52/1.607	28.01/0.989	93.37/3.297	74.7/2.367	60.7/2.143	37.35/1.319	116.72/4.121	93.37/3.297	75.87/2.679	46.69/1.648
2	9.6	12.6	3.96	56.6 / 1.998	45.28/1.597	36.79/1.369	22.64/0.799	75.46/2.664	60.37/2.131	49.05/1.732	30.18/1.065	94.33/3.331	75.46/2.664	61.31/2.165	37.73/1.332
2.5	12	15	3.33	47.6 / 1.68	38.07/1.344	30.94/1.092	19.04/0.672	63.46/2.24	50.77/1.732	41.25/1.456	25.38/0.896	79.32/2.801	63.46/2.24	51.59/1.82	31.73/1.12
3	14.4	17.4	2.87	41.02/1.448	32.81/1.158	26.66/0.941	16.40/0.579	54.7/1.931	43.75/1.545	35.55/1.255	21.88/0.772	68.36/2.414	57.4/1.931	44.44/1.569	27.36/0.96
3.5	16.3	19.8	2.52	36.02/1.272	28.81/1.017	23.41/0.826	14.4/0.508	48.02/1.695	38.42/1.356	31.21/1.102	19.21/0.678	60.03/2.179	48.02/1.695	39.02/1.337	24.01/0.847
4	19.2	22.2	2.25	32.16/1.135	25.73/0.908	20.9/0.738	12.86/0.454	42.88/1.514	34.30/1.211	27.87/0.984	17.15/0.605	53.60/1.892	42.88/1.514	34.84/1.23	21.44/0.757

LEAD in KM	TRAVEL TIME in H	CYCLE TIME in A	No. of TRIPS/HO	OUTPUT in 200 WORKING DAYS											
				A	B	C	D	A	B	C	D	A	B	C	D
				1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
				Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT			
1	4.8	7.8	6.41	122.15/4.135	97.72/3.45	79.43/2.803	48.86/1.725	162.87/5.76	130.29/4.601	105.86/3.378	65.15/2.3	203.58/7.189	162.87/5.76	132.33/4.673	81.43/2.875
1.5	7.2	10.2	4.9	93.37/3.297	74.7/2.637	60.7/2.143	37.35/1.319	124.55/4.4	99.60/3.157	80.92/2.857	49.80/1.758	155.62/5.495	124.55/4.4	101.2/3.573	62.25/2.198
2	9.6	12.6	3.96	75.46/2.664	60.37/2.131	49.05/1.732	30.18/1.065	100.82/3.56	80.49/2.842	65.40/2.309	40.25/1.421	125.77/4.441	100.82/3.56	81.92/2.892	50.31/1.776
2.5	12	15	3.33	63.46/2.24	50.77/1.792	41.25/1.456	25.38/0.896	84.7/3.00	67.68/2.39	55/1.942	33.84/1.195	105.76/3.734	84.7/3.00	68.8/2.429	42.30/1.493
3	14.4	17.4	2.87	54.7/1.931	43.75/1.545	35.55/1.255	21.88/0.772	73.01/2.58	58.34/2.06	47.40/1.673	29.17/1.03	91.15/3.218	73.01/2.58	59.32/2.094	36.46/1.287
3.5	16.3	19.8	2.52	48.02/1.695	38.42/1.356	31.21/1.102	19.21/0.678	64.16/2.16	51.22/1.808	41.61/1.469	25.61/0.904	80.04/2.826	64.16/2.26	52.13/1.84	32.01/1.13
4	19.2	22.2	2.25	42.88/1.514	34.30/1.211	27.87/0.984	17.15/0.605	57.22/2.02	45.73/1.614	37.16/1.312	22.87/0.807	71.46/2.523	57.22/2.02	46.49/1.64	28.58/1.009

MOTORISED SCRAPER			
A	CAPACITY	: 15/21 cuyd 11.5/16.06 Cum.	OUTPUT / TRIP = A x B x C = 16.06 x 0.9 x 0.72 = 15.88 cum
B	CONTAINER EFFICIENCY	: 90%	LOADING TIME 1.5 MIN
C	COMPACTION FACTOR	: 0.72 ( HEARTING MATERIAL )	UNLOADING TIME 1.0 MIN
D	AVERAGE SPEED	: 25 KM/HR	SPOTTING TIME 0.5 MIN
E	PRODUCTION HOUR	: 50 MIN	3.0 MIN

LEAD in KM	TRAVEL TIME in MIN	CYCLE TIME in MIN	No. of TRIPS/HOUR	OUTPUT in 150 WORKING DAYS											
				SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
				A	B	C	D	A	B	C	D	A	B	C	D
				900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty			
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4.8	7.8	6.41	60.0/2.118	48.0/1.695	39.0/1.337	24.0/0.847	80.0/2.825	64.0/2.26	52.0/1.836	32.0/1.13	100.0/3.531	80.0/2.825	65.0/2.295	40.0/1.412
1.5	7.2	10.2	4.9	45.86/1.619	39.69/1.295	29.81/1.052	18.34/0.647	61.15/2.159	48.92/1.727	39.75/1.403	24.46/0.863	76.44/2.7	61.15/2.159	49.69/1.754	30.58/1.079
2	9.6	12.6	3.96	37.06/1.308	29.65/1.047	24.09/0.850	14.82/0.523	49.42/1.745	39.53/1.395	32.12/1.134	19.77/0.698	61.78/2.181	49.42/1.745	40.15/1.418	24.71/0.872
2.5	12	15	3.33	31.17/1.1	24.94/0.88	20.26/0.715	12.47/0.44	41.56/1.467	33.25/1.174	27.01/0.953	16.62/0.586	51.95/1.834	41.56/1.467	33.77/1.192	20.78/0.733
3	14.4	17.4	2.87	26.86/0.948	21.50/0.758	17.46/0.616	10.75/0.379	35.82/1.264	28.65/1.011	23.3/0.822	14.33/0.506	44.77/1.581	35.82/1.264	29.10/1.027	17.91/0.632
3.5	16.3	19.8	2.52	23.58/0.832	18.87/0.666	15.33/0.541	9.43/0.333	31.45/1.11	25.16/0.888	20.44/0.721	12.58/0.444	39.31/1.388	31.45/1.11	25.55/0.902	15.72/0.555
4	19.2	22.2	2.25	21.06/0.743	16.85/0.594	13.69/0.488	8.42/0.297	28.08/0.991	22.46/0.793	18.25/0.644	11.23/0.396	35.10/1.239	28.08/0.991	22.82/0.805	14.04/0.495

LEAD in KM	TRAVEL TIME in MIN	CYCLE TIME in MIN	No. of TRIPS/HOUR	OUTPUT in 200 WORKING DAYS											
				A	B	C	D	A	B	C	D	A	B	C	D
				1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
				Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT			
1	4.8	7.8	6.41	80/2.825	64/2.26	52/1.836	32/1.13	108.66/3.766	88.33/2.942	69.33/2.448	42.66/1.506	133.33/4.708	106.66/9.766	86.66/3.06	53.33/1.883
1.5	7.2	10.2	4.9	61.15/2.159	48.92/1.727	39.75/1.403	24.46/0.863	81.54/2.879	65.23/2.303	53.0/1.871	32.61/1.151	101.92/3.6	81.54/2.879	66.25/2.339	40.77/1.439
2	9.6	12.6	3.96	49.42/1.745	39.53/1.395	32.12/1.134	19.77/0.698	65.89/2.327	52.72/1.861	42.88/1.512	26.36/0.930	82.37/2.908	65.89/2.327	53.34/1.89	32.95/1.163
2.5	12	15	3.33	41.56/1.467	33.25/1.174	27.01/0.953	16.62/0.586	55.41/1.956	44.333/1.565	36.02/1.272	22.16/0.782	69.26/2.445	5.41/1.856	45.02/1.589	27.70/0.978
3	14.4	17.4	2.87	35.82/1.264	28.65/1.011	23.3/0.822	14.33/0.506	47.76/1.686	38.21/1.349	31.04/1.096	19.10/0.674	59.70/2.108	47.76/1.686	38.8/1.37	23.88/0.843
3.5	16.3	19.8	2.52	31.45/1.11	25.16/0.88	20.44/0.721	12.58/0.444	41.93/1.48	33.55/1.131	27.26/0.962	16.77/0.592	52.42/1.851	41.93/1.48	34.07/1.203	20.97/0.74
4	19.2	22.2	2.25	28.08/0.991	22.46/0.793	18.25/0.644	11.23/0.396	37.44/1.322	29.95/1.057	24.84/0.859	14.98/0.529	46.8/1.652	37.44/1322	30.42/1.074	18.72/0.66

MOTORISED SCRAPER			
A	CAPACITY	: 14/15cuyd 10.64/13.68 Cum.	OUTPUT / TRIP = A x B x C = 13.68 x 0.9 x 0.72 = 8.86 cum
B	CONTAINER EFFICIENCY	: 90%	LOADING TIME 1.5 MIN
C	COMPACTION FACTOR	: 0.72 ( HEARTING MATERIAL )	UNLOADING TIME 1.0 MIN
D	AVERAGE SPEED	: 25 KM/HR	SPOTTING TIME 0.5 MIN
E	PRODUCTION HOUR	: 50 MIN	3.0 MIN

LEAD in KM	TRAVEL TIME in min	CYCLE TIME in min	No. of TRIPS/HOUR	OUTPUT in 150 WORKING DAYS											
				SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
				A	B	C	D	A	B	C	D	A	B	C	D
				900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty			
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT			
1	4.8	7.8	6.41	51.11/1.805	40.89/1.444	33.22/1.173	20.445/0.722	68.15/2.406	54.52/1.925	44.298/1.564	27.26/0.962	85.18/3.008	68.15/2.406	55.372/1.955	34.075/1.203
1.5	7.2	10.2	4.9	39.07/1.379	31.258/1.103	25.4/0.896	15.629/0.551	52.1/1.889	41.68/1.471	33.862/1.195	20.838/0.735	65.12/2.299	52.1/1.839	42.328/1.494	26.048/0.919
2	9.6	12.6	3.96	31.178/1.101	25.26/0.892	20.53/0.724	12.63/0.446	42.10/1.486	33.68/1.189	27.366/0.966	16.84/0.594	52.628/1.859	42.10/1.486	34.208/1.208	24.051/0.743
2.5	12	15	3.33	26.55/0.937	21.24/0.75	17.26/0.609	10.62/0.375	35.4/1.25	28.032/1	23.012/0.812	14.16/0.5	44.255/1.562	35.4/1.25	28.766/1.015	17.702/0.625
3	14.4	17.4	2.87	22.88/0.808	18.31/0.646	14.88/0.525	9.154/0.323	30.51/1.077	24.41/0.862	19.833/0.70	12.20/0.431	38.142/1.346	30.51/1.077	24.792/0.875	15.256/0.538
3.5	16.3	19.8	2.52	20.094/0.709	16.08/0.567	13.06/0.461	8.037/0.283	26.8/0.946	21.43/0.756	17.415/0.615	10.71/0.378	33.49/1.182	26.8/0.946	21.769/0.768	13.396/0.473
4	19.2	22.2	2.25	17.941/0.633	14.35/0.506	11.66/0.411	7.176/0.253	23.92/0.844	19.14/0.675	15.549/0.549	9.568/0.337	29.90/1.055	23.92/0.844	19.436/0.686	11.961/0.422

LEAD in KM	TRAVEL TIME	CYCLE TIME in min	No. of TRIPS/H	OUTPUT in 200 WORKING DAYS											
				A	B	C	D	A	B	C	D	A	B	C	D
				1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
				Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT				
1	4.8	7.8	6.41	68.15/2.406	54.52/1.925	44.298/1.564	27.26/0.962	90.868/3.208	72.694/2.567	59.064/2.085	36.347/1.283	113.58/4.011	90.868/3.208	73.83/2.607	45.434/1.604
1.5	7.2	10.2	4.9	52.1/1.839	41.68/1.471	33.862/1.196	20.838/0.735	69.462/2.453	55.569/1.962	45.15/1.594	27.784/0.981	86.828/3.066	69.462/2.453	56.438/1.993	34.731/1.226
2	9.6	12.6	3.96	42.10/1.486	33.68/1.189	27.366/0.966	16.84/0.544	56.136/1.982	44.909/1.585	36.49/1.288	22.454/0.792	70.171/2.478	56.136/1.982	45.61/1.61	28.068/0.833
2.5	12	15	3.33	35.4/1.25	28.32/1.00	23.012/0.812	14.16/0.5	47.206/1.667	37.764/1.333	30.683/1.083	18.882/0.666	59.00/2.083	47.206/1.667	38.354/1.354	23.603/0.833
3	14.4	17.4	2.87	30.51/1.077	24.41/0.862	19.833/0.70	12.20/0.431	40.685/1.436	32.548/1.49	26.445/0.933	16.274/0.574	50.856/1.795	40.685/1.436	33.056/1.167	20.34/0.718
3.5	16.3	19.8	2.52	26.8/0.946	21.43/0.756	17.415/0.615	10.71/0.378	35.723/1.251	28.578/1.009	23.22/0.82	14.289/0.504	44.654/1.576	35.723/1.261	29.025/1.025	17.81/0.630
4	19.2	22.2	2.25	23.92/0.844	19.14/0.675	15.549/0.549	9.568/0.337	31.896/1.126	25.516/0.901	20.732/0.732	12.758/0.45	39.87/1.407	31.896/1.126	25.915/0.915	15.918/0.568

MOTORISED SCRAPER						
A	CAPACITY	:	12/16cuyd 9.12/12.16 Cum.	OUTPUT / TRIP =	A x B x C =	12.16 x 0.9 x 0.72 = 7.88 cum
B	CONTAINER EFFICIENCY	:	90%	LOADING TIME	1.5 MIN	
C	COMPACTION FACTOR	:	0.72 ( HEARTING MATERIAL )	UNLOADING TIME	1.0 MIN	
D	AVERAGE SPEED	:	25 KM/HR	SPOTTING TIME	0.5 MIN	
E	PRODUCTION HOUR	:	50 MIN		3.0 MIN	

LEAD in KM	TRAVEL TIME in	CYCLE TIME in	No. of TRIPS/HO	OUTPUT in 150 WORKING DAYS											
				SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
				A	B	C	D	A	B	C	D	A	B	C	D
				900 Hrs Qty	720 Hrs Qty	585 Hrs Qty	360 Hrs Qty	1200 Hrs Qty	960 Hrs Qty	780 Hrs Qty	480 Hrs Qty	1500 Hrs Qty	1200 Hrs Qty	975 Hrs Qty	600 Hrs Qty
TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4.8	7.8	6.41	45.46/1.605	36.367/1.284	29.548/1.043	18.18/0.642	60.612/2.14	48.49/1.712	39.398/1.391	24.24/0.856	75.77/2.675	60.612/2.14	49.248/1.739	30.306/1.07
1.5	7.2	10.2	4.9	34.75/1.227	27.8/0.981	22.588/0.797	13.90/0.49	46.334/1.636	37.067/1.309	30.117/1.063	18.53/0.654	57.92/2.045	46.334/1.536	37.646/1.329	23.167/0.818
2	9.6	12.6	3.96	27.72/0.978	22.467/0.793	18.254/0.644	11.23/0.396	37.445/1.322	29.956/1.057	24.339/0.859	14.98/0.529	46.81/1.653	37.445/1.322	30.424/1.074	18.722/0.661
2.5	12	15	3.33	23.61/0.833	18.893/0.667	15.35/0.542	9.45/0.333	31.488/1.111	25.19/0.889	20.467/0.722	12.59/0.445	39.36/1.389	31.488/1.111	25.584/0.903	15.744/0.555
3	14.4	17.4	2.87	20.35/0.718	16.283/0.575	13.23/0.467	8.14/0.287	27.138/0.958	21.71/0.766	17.64/0.622	10.85/0.383	33.92/1.197	27.138/0.958	2.05/0.778	13.569/0.479
3.5	16.3	19.8	2.52	17.87/0.631	14.297/0.504	11.616/0.41	7.15/0.252	23.829/0.841	19.063/0.673	15.488/0.546	9.53/0.336	29.78/1.051	23.829/0.841	19.361/0.683	11.914/0.42
4	19.2	22.2	2.25	15.96/0.563	12.765/0.45	10.372/0.366	6.38/0.225	21.276/0.751	17.02/0.601	13.829/0.488	8.51/0.30	26.6/0.939	21.276/0.751	17.286/0.61	10.638/0.375

LEAD in KM	TRAVEL TIME	CYCLE TIME in	No. of TRIPS/H	OUTPUT in 200 WORKING DAYS											
				A	B	C	D	A	B	C	D	A	B	C	D
				1200 Hrs Qty	960 Hrs Qty	780 Hrs Qty	480 Hrs Qty	1600 Hrs Qty	1280 Hrs Qty	1040 Hrs Qty	640 Hrs Qty	2000 Hrs Qty	1600 Hrs Qty	1300 Hrs Qty	800 Hrs Qty
				TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT	TCM/MCFT
1	4.8	7.8	6.41	60.612/2.14	48.49/1.712	39.398/1.391	24.24/0.856	80.817/2.854	64.65/2.283	52.53/1.855	32.33/1.141	101.02/3.567	80.817/2.854	65.664/2.318	40.41/1.427
1.5	7.2	10.2	4.9	46.334/1.636	37.067/1.309	30.117/1.063	18.53/0.654	61.779/2.181	49.42/1.745	40.16/1.418	24.75/0.872	77.22/2.727	61.779/2.181	50.195/1.772	30.89/1.09
2	9.6	12.6	3.96	37.445/1.322	29.956/1.057	24.339/0.859	14.98/0.529	49.927/1.763	39.94/1.41	32.45/1.145	19.97/0.705	62.40/2.203	49.927/1.763	40.566/1.432	24.96/0.881
2.5	12	15	3.33	31.488/1.111	25.19/0.889	20.467/0.722	12.59/0.445	41.984/1.482	33.58/1.186	27.29/0.963	16.79/0.592	52.48/1.853	41.984/1.482	34.112/1.204	30.90/0.741
3	14.4	17.4	2.87	27.138/0.958	21.71/0.766	17.64/0.622	10.85/0.383	36.184/1.277	28.95/1.022	23.52/0.83	14.47/0.511	45.23/1.597	36.184/1.277	39.4/1.038	18.09/0.838
3.5	16.3	19.8	2.52	23.829/0.841	19.063/0.678	15.488/0.546	9.53/0.336	31.772/1.22	25.42/0.897	20.65/0.729	12.71/0.448	39.72/1.402	31.772/1.22	25.81/0.911	15.89/0.561
4	19.2	22.2	2.25	21.276/0.751	17.02/0.601	13.829/0.488	8.51/0.30	28.368/1.001	22.69/0.801	18.44/0.651	11.35/0.40	35.46/1.252	28.368/1.001	20.049/0.708	14.18/0.50

**EXCAVATOR : HIND MARION 101M**

A	CAPACITY	:	3 cuy / 2.28 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.64 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	1.64 x 75 = 123 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	110.700	88.560	71.955	44.280	147.600	118.080	95.940	59.040	184.500	147.600	119.925	73.800
MCFT	3.909	3.127	2.541	1.563	5.212	4.169	3.388	2.084	6.515	5.212	4.235	2.606

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	147.600	118.080	95.940	59.040	196.800	157.440	127.920	78.720	246.000	196.800	159.900	98.400
MCFT	5.212	4.169	3.388	2.084	6.949	5.559	4.517	2.779	8.687	6.949	5.646	3.474

**EXCAVATOR : POCLAIN HC 300 ( BACKHOE )**

A	CAPACITY	:	2 5/8 cuy / 1.99 cum say 2.00 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.44 cum
E	TIME REQUIRED/LOAD	:	30 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	100
H	PRODUCTION/HOUR ( COMPACTED )	:	1.44 x 100 = 144 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	129.600	103.680	84.240	51.840	172.800	138.240	112.320	69.120	216.000	172.800	140.400	86.400
MCFT	4.576	3.661	2.974	1.830	6.102	4.881	3.966	2.440	7.628	6.102	4.958	3.051

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	172.800	138.240	112.320	69.120	230.400	184.320	149.760	92.160	288.000	230.400	187.200	115.200
MCFT	6.102	4.881	3.966	2.440	8.136	6.510	5.288	3.254	10.170	8.136	6.610	4.068

**EXCAVATOR : P & H - 955A**

A	CAPACITY	:	2.5 cuy / 1.9 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.36 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	1.36 x 75 = 102.6 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	92.340	73.872	60.021	36.936	123.120	98.496	80.028	49.248	153.900	123.120	100.035	61.560
MCFT	3.260	2.608	2.119	1.304	4.347	3.478	2.826	1.739	5.435	4.347	3.532	2.173

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	123.120	98.496	80.028	49.248	164.160	131.328	106.704	65.664	205.200	164.160	133.380	82.080
MCFT	4.347	3.478	2.826	1.739	5.797	4.637	3.768	2.318	7.246	5.797	4.710	2.898

**EXCAVATOR : POCLAIN HC 80**

A	CAPACITY	:	1.18 cuy / 0.9 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	0.64 cum
E	TIME REQUIRED/LOAD	:	30 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	100
H	PRODUCTION/HOUR ( COMPACTED )	:	0.64 x 100 = 64 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	57.600	46.080	37.440	23.040	76.800	61.440	49.920	30.720	96.000	76.800	62.400	38.400
MCFT	2.034	1.627	1.322	0.813	2.712	2.169	1.762	1.084	3.390	2.712	2.203	1.356

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	76.800	61.400	49.920	30.720	102.400	81.920	66.560	40.960	128.000	102.400	83.200	51.200
MCFT	2.712	2.169	1.762	1.084	3.661	2.892	2.350	1.446	4.520	3.616	2.938	1.808

**EXCAVATOR : POCLAIN CK 90**

A	CAPACITY	:	1.24 cuy / 0.95 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	0.68 cum
E	TIME REQUIRED/LOAD	:	30 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	100
H	PRODUCTION/HOUR ( COMPACTED )	:	0.68 x 100 = 68 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty				Qty				Qty				
TCM	61.200	48.960	39.780	24.480	81.600	65.280	53.040	32.640	102.000	81.600	66.300	40.800
MCFT	2.161	1.729	1.404	0.864	2.881	2.305	1.873	1.152	3.602	2.881	2.341	1.440

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty				Qty				Qty				
TCM	81.600	65.280	53.040	32.640	108.800	87.040	70.720	43.520	136.000	108.800	88.400	54.400
MCFT	2.881	2.305	1.873	1.152	3.842	3.073	2.497	1.536	4.802	3.842	3.121	1.921

**EXCAVATOR : POCLAIN ( HC 300 ) SHOVEL ATTACHMENT**

A	CAPACITY	:	4 1/4 cuy / 3.23 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	2.32 cum
E	TIME REQUIRED/LOAD	:	45 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	67
H	PRODUCTION/HOUR ( COMPACTED )	:	2.32 x 67 = 155.44 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	139.896	111.916	90.932	55.958	186.528	149.222	121.243	74.611	233.160	186.528	151.554	93.264
MCFT	4.940	3.952	3.211	1.976	6.587	5.269	4.281	2.634	8.233	6.587	5.352	3.293

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	186.528	149.222	121.243	74.611	248.704	198.963	161.657	99.481	310.880	248.704	202.072	124.352
MCFT	6.587	5.269	4.281	2.634	8.782	7.026	5.710	3.513	10.981	8.782	7.136	4.391

**EXCAVATOR : TRACTOR SHOVEL CAT - A955**

A	CAPACITY	:	1.75 cuy / 1.33 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	0.95 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	0.95 x 75 = 71.25 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	64.125	51.300	41.681	25.650	85.500	68.400	55.575	34.200	106.875	85.500	69.468	42.750
MCFT	2.264	1.811	1.471	0.905	3.019	2.415	1.962	1.207	3.774	3.019	2.453	1.504

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	85.500	68.400	55.575	34.200	114.000	91.200	74.100	45.600	142.500	114.000	92.625	57.000
MCFT	3.019	2.415	1.952	1.207	4.025	3.220	2.616	1.610	5.032	4.025	3.271	2.012

**EXCAVATOR : TRACTOR SHOVEL HANOMAG - K11**

A	CAPACITY	:	1.90 cuy / 1.44 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.03 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	1.03 x 75 = 77.25 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	69.525	55.620	45.191	27.810	92.700	74.160	60.255	37.080	115.875	92.700	75.318	46.350
MCFT	2.455	1.964	1.595	0.982	3.273	2.618	2.127	1.309	4.092	3.273	2.659	1.636

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	92.700	74.160	60.255	37.080	123.600	98.880	80.340	49.440	154.500	123.600	100.425	61.800
MCFT	3.273	2.618	2.127	1.309	4.364	3.491	2.837	1.745	5.456	4.364	3.546	2.182

**EXCAVATOR : TRACTOR SHOVEL KOMATSU - D6053**

A	CAPACITY	:	2.20 cuy / 1.667 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.2 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	1.2 x 75 = 90 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	81.000	64.800	52.650	32.400	108.000	86.400	70.200	43.200	135.000	108.000	87.750	54.000
MCFT	2.860	2.288	1.859	1.144	3.813	3.051	2.479	1.525	4.767	3.813	3.090	1.906

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	108.000	86.400	70.200	43.200	144.000	115.200	93.600	57.000	180.000	144.000	117.000	72.000
MCFT	3.813	3.051	2.479	1.525	5.085	4.068	3.305	2.034	6.356	5.085	4.131	2.543

**EXCAVATOR : TRACTOR SHOVEL CAT 977 L**

A	CAPACITY	:	2.75 cuy / 2.09 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.5 cum
E	TIME REQUIRED/LOAD	:	40 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	75
H	PRODUCTION/HOUR ( COMPACTED )	:	1.5 x 75 = 112.5 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	101.250	81.000	65.812	40.500	135.000	108.000	87.750	54.000	168.750	135.000	109.687	67.500
MCFT	3.575	2.860	2.324	1.430	4.767	3.813	3.093	1.906	5.959	4.767	3.873	2.383

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	135.000	108.000	87.750	54.000	180.000	144.000	117.000	72.000	225.000	180.000	146.250	90.000
MCFT	4.767	3.813	3.098	1.906	6.356	5.085	4.131	2.542	7.945	6.356	5.164	3.178

**WHEEL LOADER : EIMCO**

A	CAPACITY	:	.42 cuy / 0.32 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	0.2304 cum
E	TIME REQUIRED/LOAD	:	30 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	100
H	PRODUCTION/HOUR ( COMPACTED )	:	0.2304 x 100 = 23.04 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	20.736	16.588	13.478	8.294	27.648	22.118	17.971	11.059	34.560	27.648	22.464	13.824
MCFT	0.732	0.585	0.475	0.292	0.976	0.781	0.634	0.390	1.220	0.976	0.793	0.488

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	27.648	22.118	17.971	11.059	36.864	29.491	23.961	14.745	46.080	36.864	29.952	18.432
MCFT	0.976	0.784	0.634	0.390	1.302	1.041	0.846	0.520	1.627	1.302	1.057	0.651

**WHEEL LOADER : TEREX 72-21**

A	CAPACITY	:	2.0 cuy / 1.52 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	1.09 cum
E	TIME REQUIRED/LOAD	:	30 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	100
H	PRODUCTION/HOUR ( COMPACTED )	:	1.09 x 100 = 109 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	98.100	78.480	63.765	39.240	130.800	104.640	85.020	52.320	163.500	130.800	106.275	65.400
MCFT	3.464	2.771	2.251	1.385	4.619	3.695	3.002	1.847	5.773	4.619	3.753	2.309

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	103.800	104.640	85.020	52.320	174.400	139.520	113.360	69.760	218.000	174.400	141.700	87.200
MCFT	4.619	3.695	3.002	1.847	6.158	4.927	4.003	2.463	7.698	6.158	5.004	3.079

**WHEEL LOADER : FIAT ALLIS**

A	CAPACITY	:	4.5 cuy / 3.42 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	2.46 cum
E	TIME REQUIRED/LOAD	:	45 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	67
H	PRODUCTION/HOUR ( COMPACTED )	:	2.46 x 67 = 164.8 say 165 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	148.500	118.800	96.525	59.400	198.000	158.400	128.700	79.200	247.500	198.000	160.875	99.000
MCFT	5.244	4.195	3.408	2.097	6.992	5.593	4.545	2.796	8.740	6.992	5.681	3.496

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
TCM	198.000	158.400	128.700	79.200	264.000	211.200	171.600	105.600	330.000	264.000	214.500	132.000
MCFT	6.992	5.593	4.545	2.796	9.323	7.456	6.060	3.729	11.653	9.323	7.575	4.661

**WHEEL LOADER : BEML 3035**

A	CAPACITY	:	5.1 cuy / 3.9 cum
B	CONTAINER EFFICIENCY	:	90%
C	COMPACTION FACTOR	:	0.8
D	OUTPUT/LOAD ( COMPACTED )	:	3.672 cum
E	TIME REQUIRED/LOAD	:	45 sec
F	PRODUCTION HOUR	:	50 min
G	No. of LOADS/HOUR	:	67
H	PRODUCTION/HOUR ( COMPACTED )	:	3.672 x 67 = 246.02 cum

OUTPUT	OUTPUT in 150 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	900 Hrs	720 Hrs	585 Hrs	360 Hrs	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1500 Hrs	1200 Hrs	975 Hrs	600 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	221.418	177.130	143.920	88.570	295.220	236.180	191.890	118.080	369.030	295.220	239.860	147.610
MCFT	7.819	6.259	5.082	3.127	10.425	8.340	6.776	4.169	13.032	10.425	8.470	5.212

OUTPUT	OUTPUT in 200 WORKING DAYS											
	SINGLE SHIFT				DAY LIGHT SHIFT				DOUBLE SHIFT			
	A	B	C	D	A	B	C	D	A	B	C	D
	1200 Hrs	960 Hrs	780 Hrs	480 Hrs	1600 Hrs	1280 Hrs	1040 Hrs	640 Hrs	2000 Hrs	1600 Hrs	1300 Hrs	800 Hrs
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	
TCM	295.220	236.180	191.890	118.080	393.630	314.900	255.860	157.450	492.040	393.630	319.820	196.810
MCFT	10.425	8.340	6.776	4.169	13.900	11.120	9.035	5.560	17.376	13.900	11.290	6.950