

Efficiency of Each Drill Hole

Songwe

Hole No.	Depth of Hole			Core Recovery	Bit Size of Drilling			Efficiency		
	Planned Length	Increase or Decrease Length	Length Drilling		Core Length	73mm		Drilling Period	Drilling Shift	
						Drilling Length	Core Length			
	m	m	m	m	m	m	m/day	m/s		
JMS-12	50.00	0.20	50.20	46.10	1.70	1.50	48.50	44.60	16.73	10.04
13	50.00	0.10	50.10	47.70	2.30	0.00	47.80	47.70	12.52	10.02
14	50.00	0.10	50.10	48.00	0.60	0.00	49.50	48.00	16.70	10.02
15	50.00	0.10	50.10	49.70	1.50	1.10	48.60	48.60	12.53	10.02
16	50.00	0.10	50.10	49.50	1.80	1.50	48.30	48.00	25.05	12.52
17	50.00	0.10	50.10	28.40	17.30	0.00	32.80	28.40	16.70	8.35
18	50.00	0.20	50.20	42.70	1.50	0.90	48.70	41.80	16.73	10.04
19	50.00	0.30	50.30	48.20	2.60	0.60	47.70	47.60	16.76	12.57
Total	400.00	1.20	401.20	360.30	29.30	5.60	371.90	354.70	16.71	10.28

Tundulu

Hole No.	Depth of Hole			Core Recovery	Bit Size of Drilling			Efficiency		
	Planned Length	Increase or Decrease Length	Length Drilling		Core Length	73mm		Drilling Period	Drilling Shift	
						Drilling Length	Core Length			
	m	m	m	m	m	m	m/day	m/s		
JMT-25	50.00	0.30	50.30	45.30	1.60	0.00	48.70	45.30	25.15	12.57
26	50.00	0.20	50.20	44.90	5.20	0.50	45.00	44.40	25.10	12.55
27	50.00	0.20	50.20	47.90	1.60	0.10	48.60	47.80	25.10	12.55
Total	150.00	0.70	150.70	138.10	8.40	0.60	142.30	137.50	25.11	12.55

Efficiency of Each Drill Hole

Chilwa

Hole No.	Depth of Hole			Core Recovery 0 ~ 50	Size of Drilling				Efficiency		
	Planned Length m	Increase or Decrease Length m	Length Drilling m		Core Length m	Length Drilling m	Core Length m	Length Drilling m	Core Length m	Drilling Period m/day	Drilling Shift m/s
JMC				%							
1	50.00	0.20	50.20	91.7	6.90	0.00	43.30	39.70	25.10	12.55	
2	50.00	0.10	50.10	93.5	1.60	0.90	48.50	45.30	16.70	10.02	
3	50.00	0.30	50.30	93.9	1.70	0.60	48.60	45.60	25.10	12.57	
4	50.00	0.20	50.20	85.0	3.50	0.00	46.70	39.70	16.73	10.04	
5	50.00	0.30	50.30	82.1	2.80	0.00	47.50	39.00	16.80	10.06	
6	50.00	0.10	50.10	82.6	10.50	0.00	39.60	31.80	16.70	10.02	
7	50.00	0.20	50.20	84.2	9.70	0.00	40.50	34.10	16.73	10.04	
8	50.00	0.30	50.30	84.8	9.40	0.00	40.90	34.70	12.58	8.38	
9	50.00	0.10	50.10	85.8	5.70	0.00	44.40	38.10	16.70	12.52	
10	50.00	0.30	50.30	88.1	2.50	0.30	47.80	42.10	16.77	10.06	
11	50.00	0.10	50.10	93.3	1.50	0.40	48.60	45.30	16.70	18.35	
12	50.00	0.20	50.20	96.0	2.60	0.40	47.60	45.70	25.10	12.55	
13	50.00	0.30	50.30	99.8	1.80	0.00	48.50	48.40	25.15	12.57	
14	50.00	0.20	50.20	95.6	1.60	1.20	48.60	46.40	16.73	10.04	
15	50.00	0.20	50.20	94.1	2.60	0.00	47.60	44.80	16.73	10.04	
16	50.00	0.20	50.20	96.8	4.00	0.00	46.20	44.70	25.10	12.55	
17	50.00	0.20	50.20	83.5	2.00	0.00	48.20	33.90	25.10	12.55	
18	50.00	0.10	50.10	98.3	3.50	0.00	46.60	45.80	16.70	10.02	

Efficiency of Each Drill Hole

Chilwa

Hole No.	Depth of Hole			Core Recovery 0 ~ 50 %	Size of Drilling			Efficiency		
	Planned Length m	Increase or Decrease Length m	Length Drilling m		Core Length m	Length Drilling m	Core Length m	Drilling Period m/day	Drilling Shift m/s	
										73mm Length Drilling m
19	50.00	0.20	50.20	48.30	1.50	0.50	48.70	47.80	16.73	10.04
20	50.00	0.20	50.20	49.20	1.80	1.40	48.40	47.80	16.73	10.04
21	50.00	0.30	50.30	45.80	1.50	0.00	48.80	45.80	16.76	10.06
22	50.00	0.20	50.20	49.00	2.10	1.10	48.10	47.90	16.73	10.04
23	50.00	0.10	50.10	39.70	9.60	0.00	40.50	39.70	16.70	10.02
24	50.00	0.30	50.30	44.30	3.00	0.00	47.30	44.30	16.77	10.06
25	50.00	0.10	50.10	47.20	2.90	0.00	47.20	43.90	16.70	10.02
26	50.00	0.20	50.20	47.25	2.00	0.00	48.20	47.25	16.73	10.04
27	50.00	0.20	50.20	48.70	2.00	0.50	48.20	48.20	25.10	12.55
28	50.00	0.20	50.20	48.40	1.80	0.00	48.40	48.40	16.73	10.04
29	50.00	0.30	50.30	48.40	1.60	1.20	48.70	47.20	25.15	12.57
30	50.00	0.20	50.20	45.30	2.50	1.70	47.70	45.30	16.73	10.04
31	50.00	0.20	50.20	35.00	7.00	0.00	43.20	35.00	16.73	10.04
32	50.00	0.10	50.10	46.40	3.00	0.50	47.10	45.90	16.70	10.02
Total	160.00	6.40	1606.40	1391.85	116.20	10.70	1490.20	1379.55	18.69	10.49

Appendix 7
Operational results of drill hole

Operational Results by Drill Hole

JMC-1

Working Period	Period				Number of Days	Actual Working Days	Day Off	Total Number of Workers
	Preparation	10th OCT. '88~12th OCT. '88			3	3	-	120
	Drilling	13th OCT. '88~14th OCT. '88			2	2	-	48
	Removing				-	-	-	-
	Total	10th OCT. '88~14th OCT. '88			5	5	-	168
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section		Total
	Increase or Decrease in Length	0.20 m	Core Length	39.70 m	0 ~ 50.20 m	91.7 %	91.7 %	
	Length Drilled	50.20 m	Core Recovery	91.7 %	m	%	% %	
Working Time	Drilling	30°00' ^H	68.2 %	38.5 %	m	%	% %	
	Out Drilling	14°00'	31.8	17.9	m	%	% %	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	44°00'	100	56.4	50.20 m/Working Period		10.04 m/day	
	Construct	27°00'	-	34.6	50.20 m/Working Days		10.04 m/day	
	take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day	
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day	
Road + others	7°00'	-	9.0	Total workers/ 50.20 m		3.35 Man/m		
G - Total	78°00'	-	100	Total Drilling Workers/ 50.20 m		0.96 Man/m		
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 6.90 m	13.7 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	6.90 m	43.30 m		
	m	%	%	Core Length	0.00	39.70		

Operational Results by Drill Hole

JMC-2

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	6th Oct. '88~8th Oct. '88		3	3	-	110
	Drilling	8th Oct. '88~10th Oct. '88		3	2.5	-	60
	Removing			-	-	-	-
	Total	6th Oct. '88~10th Oct. '88		6	5.5	-	170
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 ^m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 ^m	Core Length	46.20 ^m	0 ~ 50.10 ^m	93.5 %	93.5 %
	Length Drilled	50.10 ^m	Core Recovery	93.5 %			
Working Time	Drilling	31°00' ^H	56.4 %	34.4 %			
	Out Drilling	24°00'	43.6	26.7			
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.1	50.10 m/Working Period		8.35 m/day
	Construct	27°00'	-	30.0	50.10 m/Working Days		9.11 m/day
	take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.10 m/Net Drilling Days		20.04 m/day
Road . others	8°00'	-	8.9	Total workers/ 50.20m		3.39 Man/m	
G . Total	90°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.10m		1.20 Man/m
	BW-CP 1.60 m	3.2	%	100 %	Drilling of Size		
	m		%	%	Bit size	BW	56-T
	m		%	%	Drilling	1.60 ^m	48.50 ^m
				Core Length	0.90	45.30	

Operational Results by Drill Hole

JMC-3

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers	
		Working Period		Preparation	7th Oct. '88~10th Oct. '88		4	4
Drilling	11th Oct. '88~12th Oct. '88			2	2	-	48	
Removing				-	-	-	-	
Total	7th Oct. '88~12th Oct. '88			6	6	-	173	
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.30 m	Core Length	46.20 m	0 ~ 50.30 m	93.9 %	93.9 %	
	Length Drilled	50.30 m	Core Recovery	93.9 %	m	%	%	
Working Time	Drilling	28°30' ^H	64.8 %	32.4 %	m	%	%	
	Out Drilling	15°30'	35.2	17.6	m	%	%	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	44°00'	100	50.0	50.30m/Working Period		8.38 m/day	
	Construct	36°00'	-	40.9	50.30m/Working Days		8.38 m/day	
	Take to pieces	-	-	-	50.30m/Drilling Period		25.15 m/day	
	Moving of water	-	-	-	50.30m/Net Drilling Days		25.15 m/day	
Road - others	8°00'	-	9.1	Total workers/ 50.30 m		3.44 Man/m		
G . Total	88°00'	-	100	Total Drilling Workers/ 50.30 m		0.95 Man/m		
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 1.70 m	3.4 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	1.70 ^m	48.60 ^m		
	m	%	%	Core Length	0.60	45.60		

Operational Results by Drill Hole

JMC-4

Working Period	Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers		
	Preparation	1st Oct. '83~3rd Oct. '88	3	3	-	105		
	Drilling	3rd Oct. '88~5th Oct. '88	3	2.5	-	75		
	Removing		-	-	-	-		
Total	1st Oct. '88~5th Oct. '88	6	5.5	-	180			
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole		Total	
	Increase or Decrease in Length	0.20 m	Core Length	39.70 m	0 ~ 50.20m	85.0 %	85.0 %	
	Length Drilled	50.20 m	Core Recovery	85.0 %	m	%	%	%
					m	%	%	%
Working Time	Drilling	32°00' H	58.2 %	35.5 %	m	%	%	%
	Out Drilling	23°00'	41.8	25.6	m	%	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	55°00'	100	61.1	50.20 m/Working Period		8.37 m/day	
	Construct	27°00'	-	30.0	50.20 m/Working Days		9.13 m/day	
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day	
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day	
Road · others	8°00'	-	8.9	Total workers/ 50.20 m		3.59 Man/m		
G · Total	90°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage		Inserted Length Drilling Length	%	Recovery of Casing Pipe		Total Drilling Workers/ 50.20 m	1.50 Man/m
	BW-CP 3.50 m	7.0 %	100 %		Drilling of Size			
	m	%	%		Bit size	BW	56-T	
	m	%	%		Drilling	3.50 m	46.70 m	
					Core Length	0.00	39.70	

Operational Results by Drill Hole

JMC-5

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	3rd Oct. '88 to 5th Oct. '88		3	3	-	128
	Drilling	6th Oct. '88 to 8th Oct. '88		3	2.5	-	75
	Removing			-	-	-	-
	Total	3th Oct. '88 to 8th Oct. '88		6	5.5	-	203
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.30 m	Core Length	39.00 m	0 to 50.30 m	82.1 %	82.1 %
	Length Drilled	50.30 m	Core Recovery	82.1 %	m	%	%
Working Time	Drilling	33°00' H	60.0 %	36.7 %	m	%	%
	Out Drilling	22°00'	40.0	24.4	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.1	50.30 m/Working Period		8.38 m/day
	Construct	27°00'	-	30.0	50.30 m/Working Days		9.15 m/day
	take to pieces	-	-	-	50.30 m/Drilling Period		16.8 m/day
	Moving of water	-	-	-	50.30 m/Net Drilling Days		20.12 m/day
Road - others	8°00'	-	8.9	Total workers/ 50.30 m		4.04 Man/m	
G . Total	90°00'	-	100	Total Drilling Workers/ 50.30 m		1.49 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 13.30m	26.4	%	100 %	Bit size	BW	56-T
	m		%	%	Drilling	2.80 m	42.50 m
	m		%	%	Core Length	0.00	39.00

Operational Results by Drill Hole

JMC-6

Working Period	Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers			
	Preparation	31st JUL.'88~5th AUG.'88			6	6	-	340		
	Drilling	6th AUG.'88 ~8th AUG.'88			3	2.5	0.5	141		
	Removing				-	-	-	-		
Total	31st JUL.'88~8th AUG.'88			9	8.5	0.5	481			
Depth of Drilling				Core Recovery for each 100 m section						
Drilling Length	Planned Length	50.10 m	Over-burden	m	Depth of Hole		Section		Total	
	Increase or Decrease in Length	0.10 m	Core Length	31.80 m	0~50.10 m	82.6 %		82.6 %		
	Length Drilled	50.10 m	Core Recovery	82.6 %	m	%		%		
					m	%		%		
Working Time	Drilling	38°00' H	69.1 %	31.7 %	m	%		%		
	Out Drilling	17°00'	30.9	14.1	m	%		%		
	Regain of Accident	-	-	-	Efficiency of Drilling					
	Total	55°00'	100	45.8	50.10m/Working Period		5.57 m/day			
	Construct	57°00'	-	47.5	50.10m/Working Days		5.89 m/day			
	take to pieces	-	-	-	50.10m/Drilling Period		16.70 m/day			
	Moving of water	-	-	-	50.10m/Net Drilling Days		20.04 m/day			
Road · others	8°00'	-	6.7	Total workers/ 50.10 m		9.60 Man/m				
G · Total	120°00'	-	100							
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length %	Recovery of Casing Pipe %	Total Drilling Workers/ 50.10 m		2.81 Man/m				
	Drilling of Size									
	BW-CP 10.50m	21.0 %	100 %	Bit size	BW	56-T				
	m	%	%	Drilling	10.50 m	39.60 m				
m	%	%	Core Length	-	31.80					

Operational Results by Drill Hole

JMC-7

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	9th AUG. '88~11th AUG. '88		3	3	-	120
	Drilling	11th AUG. '88~13th AUG. '88		3	2.5	-	47
	Removing			-	-	-	-
	Total	9th AUG. '88~11th AUG. '88		6	5.5	-	167
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	34.10 m	0~50.20 m	84.2 %	84.2 %
	Length Drilled	50.20 m	Core Recovery	84.2 %	m	%	%
Working Time	Drilling	40°30'H	73.6 %	45.0 %	m	%	%
	Out Drilling	14°30'	26.4	16.1	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.1	50.20m/Working Period		8.37 m/day
	Construct	27°00'	-	30.0	50.20m/Working Days		9.13 m/day
	take to pieces	-	-	-	50.20m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20m/Net Drilling Days		20.08 m/day
	Road · others	8°00'	-	8.9	Total workers/ 50.20 m		3.33 Man/m
G · Total	90°00'	-	100	Total Drilling Workers/ 50.20 m		0.93 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 12.80m	25.5 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	9.70 m	40.50 m	
	m	%	%	Core Length	0.00	34.10	

Operational Results by Drill Hole

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	19th OCT.'88~22nd OCT.'88		4	4	-	93
	Drilling	22nd OCT.'88~25th OCT.'88		4	3	-	72
	Removing	1st NOV.'88~6th NOV.'88		12	12		275
	Total	19th OCT.'88~6th NOV.'88		20	19	-	440
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.30 m	Core Length	34.70 m	0~50.30 m	84.8 %	84.8 %
	Length Drilled	50.30 m	Core Recovery	84.8 %	m	%	%
					m	%	%
Working Time	Drilling	34°30' H	58.5 %	14.9 %	m	%	%
	Out Drilling	24°30'	41.5	10.6	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	59°00'	100	25.5	50.30 m/Working Period		2.52 m/day
	Construct	36°00'	-	15.5	50.30 m/Working Days		2.65 m/day
	take to pieces	-	-	-	50.30 m/Drilling Period		12.58 m/day
	Moving of water	-	-	-	50.30 m/Net Drilling Days		16.77 m/day
	Road . others	137°00'	-	59.0	Total workers/ 50.30 m		8.75 Man/m
G . Total	232°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.30 m		1.43 Man/m
	BW-CP 9.40 m	18.7 %	100 %	Drilling of Size			
	m	%	%	Bit size	BW	56-T	
	m	%	%	Drilling	9.40 m	40.90 m	
				Core Length	0.00	34.70	

Operational Results by Drill Hole

JMC-9

		Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Working Period						
Preparation		18th OCT. '88~20th OCT. '88			3	3	-	105
Drilling		20th OCT. '88~22nd OCT. '88			3	2	-	48
Removing					-	-	-	-
Total		18th OCT. '88~22nd OCT. '88			6	5	-	153
Depth of Drilling					Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.10 m	Core Length	38.10 m	0~50.10 m	85.8 %	85.8 %	
	Length Drilled	50.10 m	Core Recovery	85.8 %	m	%	% %	
Working Time	Drilling	29°00' H	65.9 %	37.2 %	m	%	% %	
	Out Drilling	15°00'	34.1	19.2	m	%	% %	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	44°00'	100	56.4	50.10 m/Working Period		8.35 m/day	
	Construct	27°00'	-	34.6	50.10 m/Working Days		10.02 m/day	
	take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day	
	Moving of water	-	-	-	50.10 m/Net Drilling Days		25.05 m/day	
	Road · others	7°00'	-	9.0	Total workers/ 50.10 m		3.05 Man/m	
G · Total	78°00'	-	100	Total Drilling Workers/ 50.10 m		0.96 Man/m		
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 5.70 m	11.4 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	5.70 m	44.40 m		
	m	%	%	Core Length	0.00	38.10		

Operational Results by Drill Hole

JMC-10

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers	
Working Period	Preparation	15th OCT. '88~17th OCT. '88		3	3	-	115	
	Drilling	18th OCT. '88~20th OCT. '88		3	2.5	-	60	
	Removing			-	-	-	-	
	Total	15th OCT. '88~20th OCT. '88		6	5.5	-	175	
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.30 m	Core Length	42.40 m	0 ~ 50.30 m	88.1 %	88.1 %	
	Length Drilled	50.30 m	Core Recovery	88.1 %	m	%	%	
					m	%	%	
Working Time	Drilling	35°00' ^H	63.6 %	38.9 %	m	%	%	
	Out Drilling	20°00'	36.4	22.2	m	%	%	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	55°00'	100	61.1	50.30 m/Working Period		8.38 m/day	
	Construct	27°00'	-	30.0	50.30 m/Working Days		9.15 m/day	
	Take to pieces	-	-	-	50.30 m/Drilling Period		16.77 m/day	
	Moving of water	-	-	-	50.30 m/Net Drilling Days		20.12 m/day	
	Road · others	8°00'	-	8.9	Total workers/ 50.30 m		3.48 Man/m	
Casing Pipe Inserted	G · Total		90°00'	-	100	Total Drilling Workers/ 50.30 m		1.19 Man/m
	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 2.50 m	5.0	%	100 %	Bit size	BW	56-T	
	m		%	%	Drilling	2.50 m	47.80 m	
	m		%	%	Core Length	0.30	42.10	

Operational Results by Drill Hole

JMC-11

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	12th OCT. '88~14th OCT. '88		3	3	-	95
	Drilling	15th OCT. '88~17th OCT. '88		3	3	-	72
	Removing			-	-	-	-
	Total	12th OCT. '88~17th OCT. '88		6	6	-	167
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 m	Core Length	45.70 m	0 ~ 50.10 m	93.3 %	93.3 %
	Length Drilled	50.10 m	Core Recovery	93.3 %	m	%	%
Working Time	Drilling	41°30'H	62.9 %	40.7 %	m	%	%
	Out Drilling	24°30'	37.1	24.0	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	66°00'	100	64.7	50.10 m/Working Period		8.35 m/day
	Construct	27°00'	-	26.5	50.10 m/Working Days		8.35 m/day
	Take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.10 m/Net Drilling Days		16.70 m/day
Road . others	9°00'	-	8.8	Total workers/ 50.10 m		3.33 Man/m	
G . Total	102°00'	-	100	Total Drilling Workers/ 50.10 m		1.44 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.50 m	3.0 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	1.50 m	48.60 m	
	m	%	%	Core Length	0.40	45.30	

Operational Results by Drill Hole

JMC-12

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	25th SEP.'88~28th SEP.'88		4	4	-	110
	Drilling	29th SEP.'88~30th SEP.'88		2	2	-	60
	Removing			-	-	-	-
	Total	25th SEP.'88~30th SEP.'88		6	6	-	170
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	46.10 m	0~50.20 m	96.0 %	96.0 %
	Length Drilled	50.20 m	Core Recovery	96.0 %			
Working Time	Drilling	25°30'H	58.0 %	29.0 %			
	Out Drilling	18°30'	42.0	21.0			
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	50.0	50.20 m/Working Period		8.37 m/day
	Construct	36°00'	-	40.9	50.20 m/Working Days		8.37 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day
Road - others	8°00'	-	9.1	Total workers/ 50.20 m		3.39 Man/m	
G - Total	88°00'	-	100	Total Drilling Workers/ 50.20 m		1.20 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 3.50 m	7.0	%	100 %	Bit size	BW	56-T
	m		%	%	Drilling	2.60 m	47.60m
	m		%	%	Core Length	0.40	45.70

Operational Results by Drill Hole

JMC-13

Working Period	Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	21st SEP.'88~26th SEP.'88			6	6	-	210
	Drilling	27th SEP.'88~28th SEP.'88			2	2	-	68
	Removing				-	-	-	-
	Total	21st SEP.'88~28th SEP.'88			8	8	-	278
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.30 m	Core Length	48.40 m	0~50.30 m	99.8 %	99.8 %	
	Length Drilled	50.30 m	Core Recovery	99.8 %	m	%	%	
					m	%	%	
Working Time	Drilling	26°00'H	59.1 %	24.1 %	m	%	%	
	Out Drilling	18°00'	40.9	16.7	m	%	%	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	44°00'	100	40.8	50.30 m/Working Period		6.29 m/day	
	Construct	36°00'	-	33.3	50.30 m/Working Days		6.29 m/day	
	take to pieces	-	-	-	50.30 m/Drilling Period		25.15 m/day	
	Moving of water	-	-	-	50.30 m/Net Drilling Days		25.15 m/day	
	Road - others	28°00'	-	25.9	Total workers/ 50.30 m		5.53 Man/m	
G - Total	108°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.30 m		1.35 Man/m	
					Drilling of Size			
	BW-CP 1.80 m	3.6	%	100 %	Bit size	BW	56-T	
	m		%	%	Drilling	1.80 m	48.50m	
	m		%	%	Core Length	0.00	48.40	

Operational Results by Drill Hole

JMC-14

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Working Period		Preparation	27th SEP.'88~30th SEP.'88	4	4
		Drilling	1st OCT.'88~3rd OCT.'88	3	2.5	-	75
		Removing		-	-	-	-
		Total	27th SEP.'88~3rd OCT.'88	7	6.5	-	188
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	47.60 m	0~50.20 m	95.6 %	95.6 %
	Length Drilled	50.20 m	Core Recovery	95.60 %	m	%	%
					m	%	%
Working Time	Drilling	35°30' ^H	64.5 %	35.5 %	m	%	%
	Out Drilling	19°30'	35.5	19.5	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	55.0	50.20 m/Working Period		7.17 m/day
	Construct	36°00'	-	36.0	50.20 m/Working Days		7.73 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
Road · others	9.00	-	9.0	Total workers/ 50.20 m		3.75 Man/m	
G · Total	100°00'	-	100	Total Drilling Workers/ 50.20 m		1.49 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.60 m	3.2 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	1.60 m	48.60 m	
	m	%	%	Core Length	1.20	46.40	

Operational Results by Drill Hole

JMC-15

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	6th AUG. '88~8th AUG. '88		3	3	-	195
	Drilling	9th AUG. '88~11th AUG. '88		3	2.5	-	44
	Removing			-	-	-	-
	Total	6th AUG. '88~11th AUG. '88		6	5.5	-	239
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	44.80 m	0~50.20 m	94.1 %	94.1 %
	Length Drilled	50.20 m	Core Recovery	94.1 %	m	%	%
					m	%	%
Working Time	Drilling	41°00' H	74.5 %	45.5 %	m	%	%
	Out Drilling	14°00'	25.5	15.6	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.1	50.20 m/Working Period		8.37 m/day
	Construct	27°00'	-	30.0	50.20 m/Working Days		9.12 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
	Road · others	8°00'	-	8.9	Total workers/ 50.20 m		4.76 Man/m
	G · Total	90°00'	-	100	Total Drilling Workers/ 50.20 m		0.88 Man/m
	Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size	
BW-CP 2.60 m		5.2 %	100 %	Bit size	BW	56-T	
m		%	%	Drilling	2.60 m	47.60 m	
m		%	%	Core Length	0.00	44.80	

Operational Results by Drill Hole

JMC-16

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Working Period		Preparation	12th AUG. '88~13th AUG. '88	2	2
Working Period		Drilling	14th AUG. '88~15th AUG. '88	2	2	-	35
Working Period		Removing		-	-	-	-
Working Period		Total	12th AUG. '88~15th AUG. '88	4	4	-	170
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	44.70 m	0 ~ 50.20 m	96.8 %	96.8 %
	Length Drilled	50.20 m	Core Recovery	96.8 %	m	%	%
Working Time	Drilling	32°00' H	72.7 %	47.1 %	m	%	%
	Out Drilling	12°00'	27.3	17.6	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	64.7	50.20 m/Working Period		12.55 m/day
	Construct	18°00'	-	26.5	50.20 m/Working Days		12.55 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day
Road . others	6°00'	-	8.8	Total workers/ 50.20 m		3.39 Man/m	
Casing Pipe Inserted	G . Total	68°00'	-	100	Total Drilling Workers/50.20 m		0.69 Man/m
	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 4.00 m	7.9 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	4.00 m	46.20 m	
	m	%	%	Core Length	0.00	44.70	

Operational Results by Drill Hole

JMC-17

Working Period	Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	14th AUG. '88~15th AUG. '88	2	2	-	85	
	Drilling	16th AUG. '88~17th AUG. '88	2	2	-	35	
	Removing		-	-	-	-	
Total	14th AUG. '88~17th AUG. '88	4	4	-	120		
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole		Total
	Increase or Decrease in Length	0.20 m	Core Length	33.90 m	0 ~ 50.20 m	83.5 %	83.5 %
	Length Drilled	50.20 m	Core Recovery	83.5 %			
Working Time	Drilling	31°30' H	71.6 %	46.3 %			
	Out Drilling	12°30'	28.4	18.4			
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	64.7	50.20m/Working Period		12.55 m/day
	Construct	18°00'	-	26.5	50.20m/Working Days		12.55 m/day
	take to pieces	-	-	-	50.20m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20m/Net Drilling Days		25.10 m/day
Road · others	6°00'	-	8.8	Total workers/ 50.20 m		2.39 Man/m	
G · Total	68°00'	-	100	Total Drilling Workers/ 50.20 m		0.70 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 2.30 m	4.6 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	2.00 m	48.20 m	
	m	%	%	Core Length	0.00	33.90	

Operational Results by Drill Hole

JMC-18

Working Period	Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	18th AUG. '88~20th AUG. '88			3	3	-	135
	Drilling	20th AUG. '88~22nd AUG. '88			3	2.5	-	56
	Removing				-	-	-	-
	Total	18th AUG. '88~22nd AUG. '88			6	5.5	-	191
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.10 m	Core Length	45.80 m	0~50.10 m	98.3 %	98.3 %	
	Length Drilled	50.10 m	Core Recovery	98.3 %	m	%	%	
					m	%	%	
Working Time	Drilling	30°00' H	69.8 %	38.9 %	m	%	%	
	Out Drilling	13°00'	30.2	16.9	m	%	%	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	43°00'	100	55.8	50.10 m/Working Period		8.35 m/day	
	Construct	27°00'	-	35.1	50.10 m/Working Days		9.11 m/day	
	take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day	
	Moving of water	-	-	-	50.10 m/Net Drilling Days		20.04 m/day	
	Road · others	7°00'	-	9.1	Total workers/ 50.10 m		3.81 Man/m	
G · Total	77°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.10 m		1.11 Man/m	
	BW-CP 12.50 m	24.9 %		100 %	Drilling of Size			
	m	%	%	%	Bit size	BW	56-T	
	m	%	%	%	Drilling	3.50 m	46.60 m	
					Core Length	0.00	45.80	

Operational Results by Drill Hole

JMC-19

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	1st SEP.'88~4th SEP.'88		4	4	-	136
	Drilling	4th SEP.'88~6th SEP.'88		3	2.5	-	82
	Removing			-	-	-	-
	Total	1st SEP.'88~6th SEP.'88		7	6.5	-	218
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	48.30 m	0 ~ 50.20 m	98.2 %	98.2 %
	Length Drilled	50.20 m	Core Recovery	98.2 %	m	%	%
Working Time	Drilling	30°30' ^H	55.5 %	30.5 %	m	%	%
	Out Drilling	24°30'	44.5	24.5	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	55.0	50.20 m/Working Period		7.17 m/day
	Construct	36°00'	-	36.0	50.20 m/Working Days		7.23 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
Road · others	9°00'	-	9.0	Total workers/ 50.20m		4.34 Man/m	
G · Total	100°00'	-	100	Total Drilling Workers/ 50.20m		1.63 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.50 m	2.9 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	1.50 m	48.70 m	
	m	%	%	Core Length	0.50	47.80	

Operational Results by Drill Hole

JMC-20

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	7th SEP.'88~9th SEP.'88		3	3	-	85
	Drilling	9th SEP.'88~11th SEP.'88		3	2.5	-	103
	Removing			-	-	-	-
	Total	7th SEP.'88~11th SEP.'88		6	5.5	-	188
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	49.20 m	0 ~ 50.20 m	98.8 %	98.8 %
	Length Drilled	50.20 m	Core Recovery	98.8 %	m	%	%
Working Time	Drilling	35°00' H	63.6 %	38.9 %	m	%	%
	Out Drilling	20°00'	36.4	22.2	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.1	50.20 m/Working Period		8.37 m/day
	Construct	27°00'	-	30.0	50.20 m/Working Days		9.13 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
Road · others	8°00'	-	8.9	Total workers/ 50.20 m		3.75 Man/m	
G · Total	90°00'	-	100	Total Drilling Workers/ 50.20 m		2.05 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.80 m	3.6 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	1.80 m	48.40 m	
	m	%	%	Core Length	1.40	47.80	

Operational Results by Drill Hole

JMC-21

		Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Period						
Working Period	Preparation	12th SEP.'88~14th SEP.'88			3	3	-	122
	Drilling	14th SEP.'88~16th SEP.'88			3	2.5	-	79
	Removing	17th SEP.'88~17th SEP.'88			1	1	-	3
	Total	12th SEP.'88~17th SEP.'88			7	6.5	-	204
Depth of Drilling					Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.30 m	Core Length	45.80 m	0 ~ 50.30 m	93.9 %	93.9 %	
	Length Drilled	50.30 m	Core Recovery	93.9 %	m	%	% %	
Working Time	Drilling	29°00' ^H	46.1 %	29.5 %	m	%	% %	
	Out Drilling	25°00'	39.8	25.5	m	%	% %	
	Regain of Accident	9°00'	14.1	9.0	Efficiency of Drilling			
	Total	64°00'	100	64.0	50.30 m/Working Period		7.19 m/day	
	Construct	27°00'	-	27.0	50.30 m/Working Days		7.74 m/day	
	take to pieces	-	-	-	50.30 m/Drilling Period		16.76 m/day	
	Moving of water	-	-	-	50.30 m/Net Drilling Days		20.12 m/day	
	Road . others	9°00'	-	9°00'	Total workers/ 50.30 m		4.06 Man/m	
Casing Pipe Inserted	G . Total	100°00'	-	100	Total Drilling Workers/ 50.30 m		1.57 Man/m	
	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe Length	Drilling of Size			
	BW-CP 2.30 m	4.6 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	1.50 ^m	48.80 ^m		
	m	%	%	Core Length	0.00	45.80		

Operational Results by Drill Hole

JMC-22

Working Period	Period				Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	19th SEP. '88~22nd SEP. '88				4	4	-	125
	Drilling	22nd SEP. '88~24th SEP. '88				3	2.5	-	70
	Removing					-	-	-	-
	Total	19th SEP. '88~24th SEP. '88				7	6.5	-	195
Depth of Drilling				Core Recovery for each 100 m section					
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section		Total	
	Increase or Decrease in Length	0.20 m	Core Length	49.00 m	0~50.20 m	99.6 %	99.6 %		
	Length Drilled	50.20 m	Core Recovery	99.6 %	m	%	% %		
					m	%	% %		
Working Time	Drilling	30°30' H	55.5 %	30.5 %	m	%	% %		
	Out Drilling	24°30'	44.5	24.5	m	%	% %		
	Regain of Accident	-	-	-	Efficiency of Drilling				
	Total	55°00'	100	55.0	50.20 m/Working Period		7.17 m/day		
	Construct	36°00'	-	36.0	50.20 m/Working Days		7.72 m/day		
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day		
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day		
	Road · others	9°00'	-	9.0	Total workers/ 50.20 m		3.88 Man/m		
G · Total	100°00'	-	100	Total Drilling Workers/ 50.20 m		1.39 Man/m			
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length %		Recovery of Casing Pipe		Drilling of Size			
	BW-CP 2.10 m	4.2 %	100 %	Bit size	BW	56-T			
	m	%	%	Drilling	2.10 m	48.10 m			
	m	%	%	Core Length	1.10	47.90			

Operational Results by Drill Hole

JMC-23

Working Period	Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers		
	Preparation	16th SEP.'88~19th SEP.'88		4	4	-	105	
	Drilling	20th SEP.'88~22nd SEP.'88		3	2.5	-	70	
	Removing			-	-	-	-	
Total	16th SEP.'88~22nd SEP.'88		7	6.5	-	175		
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section		Total
	Increase or Decrease in Length	0.10 m	Core Length	39.70 m	0 ~ 50.10 m	98.0 %	98.0 %	
	Length Drilled	50.10 m	Core Recovery	98.0 %	m	%	% %	
Working Time	Drilling	29°30' ^H	53.6 %	29.5 %	m	%	% %	
	Out Drilling	25°30'	46.4	25.5	m	%	% %	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	55°00'	100	55.00	50.10 m/Working Period		7.16 m/day	
	Construct	36°00'	-	36.00	50.10 m/Working Days		7.71 m/day	
	take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day	
	Moving of water	-	-	-	50.10 m/Net Drilling Days		20.04 m/day	
Road · others	9°00'	-	9.00	Total workers/ 50.10 m		3.49 Man/m		
G · Total	100°00'	-	100	Total Drilling Workers/ 50.10 m		1.40 Man/m		
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 9.60 m	19.2 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	9.60 m	40.50 m		
	m	%	%	Core Length	0.00	39.70		

Operational Results by Drill Hole

JMC-24

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	21st AUG. '88~22nd AUG. '88		2	2	-	95
	Drilling	22nd AUG. '88~24th AUG. '88		3	2.5	-	50
	Removing			-	-	-	-
	Total	21st AUG. '88~24th AUG. '88		5	4.5	-	145
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.30 m	Core Length	44.30 m	0~50.30 m	93.7 %	93.7 %
	Length Drilled	50.30 m	Core Recovery	93.7 %		%	%
Working Time	Drilling	35°30'	64.5 %	44.4 %		%	%
	Out Drilling	19°30'	35.5	24.4		%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	68.8	50.30 m/Working Period		10.06 m/day
	Construct	18°00'	-	22.5	50.30 m/Working Days		11.18 m/day
	take to pieces	-	-	-	50.30 m/Drilling Period		16.77 m/day
	Moving of water	-	-	-	50.30 m/Net Drilling Days		20.12 m/day
Road · others	7°00'	-	8.7	Total workers/ 50.30 m		2.88 Man/m	
G · Total	80°00'	-	100	Total Drilling Workers/ 50.30m		0.99 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 3.00 m	6.00 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	3.00 m	47.30 m	
	m	%	%	Core Length	0.00	44.30	

Operational Results by Drill Hole

JMC-25

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	16th AUG. '88~17th AUG. '88		2	2	-	95
	Drilling	18th AUG. '88~20th AUG. '88		3	2.5	-	46
	Removing			-	-	-	-
	Total	16th AUG. '88~ 20th AUG. '88		5	4.5	-	141
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 m	Core Length	47.20 m	0 ~ 50.10 m	100 %	100 %
	Length Drilled	50.10 m	Core Recovery	93 %	m	%	%
					m	%	%
Working Time	Drilling	36°30' H	66.4 %	45.6 %	m	%	%
	Out Drilling	18°30'	33.6	23.1	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	68.7	50.10 m/Working Period		10.02 m/day
	Construct	18°00'	-	22.5	50.10 m/Working Days		11.13 m/day
	take to pieces	-	-	-	50.10 m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.10 m/Net Drilling Days		20.04 m/day
	Road · others	7°00'	-	8.8	Total workers/ 50.10 m		2.81 Man/m
G · Total	80°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.10 m		0.92 Man/m
		Drilling Length	%		Drilling of Size		
	BW-CP 6.40 m	12.8 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	2.90 m	47.20 m	
	m	%	%	Core Length	0.00	43.90	

Operational Results by Drill Hole

JMC-26

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers	
Working Period	Preparation	22nd AUG.'88~25th AUG.'88		4	4	-	135	
	Drilling	26th AUG.'88~28th AUG.'88		3	2.5	-	80	
	Removing			-	-	-	-	
	Total	22nd AUG.'88~28th AUG.'88		7	6.5	-	215	
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.20 m	Core Length	47.25 m	0 ~ 50.20m	98.0 %	98.0 %	
	Length Drilled	50.20 m	Core Recovery	98.0 %	m	%	%	
Working Time	Drilling	39°00' ^H	60.9 %	39.0 %	m	%	%	
	Out Drilling	16°00'	25.0	16.0	m	%	%	
	Regain of Accident	9°00'	14.1	9.0	Efficiency of Drilling			
	Total	64°00'	100	64.0	50.20m/Working Period		7.17 m/day	
	Construct	27°00'	-	27.0	50.20m/Working Days		7.72 m/day	
	take to pieces	-	-	-	50.20m/Drilling Period		16.73 m/day	
	Moving of water	-	-	-	50.20m/Net Drilling Days		20.08 m/day	
	Road · others	9°00'	-	9.0	Total workers/ 50.20 m		4.28 Man/m	
Casing Pipe Inserted	G · Total		100°00'	-	100	Total Drilling Workers/ 50.20 m		1.59 Man/m
	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
	BW-CP 2.0 m	3.9 %	100 %	Bit size	BW	56-T		
	m	%	%	Drilling	2.00 m	48.20 m		
	m	%	%	Core Length	0.00	47.25		

Operational Results by Drill Hole

JMC-27

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	28th AUG. '88~30th AUG. '88		3	3	-	110
	Drilling	31st AUG. '88~1st SEP. '88		2	2	-	64
	Removing			-	-	-	-
	Total	28th AUG. '88~1st SEP. '88		5	5	-	174
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	48.70 m	0 ~ 50.20 m	100 %	100 %
	Length Drilled	50.20 m	Core Recovery	100 %			
Working Time	Drilling	27°00' ^H	61.4 %	35.1 %			
	Out Drilling	17°00'	38.6	22.0			
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	57.1	50.20 m/Working Period		10.04 m/day
	Construct	27°00'	-	35.1	50.20 m/Working Days		10.04 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day
Road · others	6°00'	-	7.8	Total workers/ 50.20 m		3.47 Man/m	
G · Total	77°00'	-	100	Total Drilling Workers/ 50.20 m		1.27 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 2.00 m	3.9 %		100 %	Bit size	BW	56-T
	m	%		%	Drilling	2.00 m	48.20 m
	m	%		%	Core Length	0.50	48.20

Operational Results by Drill Hole

JMC-28

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	9th SEP.'88~11th SEP.'88		3	3	-	100
	Drilling	12th SEP.'88~14th SEP.'88		3	2.5	-	70
	Removing			-	-	-	-
	Total	9th SEP.'88~14th SEP.'88		6	5.5	-	170
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	48.40 m	0~50.20 m	100 %	100 %
	Length Drilled	50.20 m	Core Recovery	100 %	m	%	%
					m	%	%
Working Time	Drilling	31°30' H	57.3 %	35.4 %	m	%	%
	Out Drilling	23°30'	42.7	26.4	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.8	50.20 m/Working Period		8.37 m/day
	Construct	27°00'	-	30.3	50.20 m/Working Days		9.13 m/day
	Take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
	Road - others	7°00'	-	7.9	Total workers/ 50.20 m		3.39 Man/m
G - Total	89°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.20 m		1.39 Man/m
	BW-CP 1.80 m	3.6	%	100 %	Drilling of Size		
	m		%	%	Bit size	BW	56-T
	m		%	%	Drilling	1.80 m	48.40 m
					Core Length	0.00	48.40

Operational Results by Drill Hole

JMC-29

Working Period	Period				Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	14th SEP. '88~17th SEP. '88				4	4	-	108
	Drilling	18th SEP. '88~19th SEP. '88				2	2	-	56
	Removing					-	-	-	-
Total	14th SEP. '88~19th SEP. '88				6	6	-	164	
Depth of Drilling					Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 ^m	Overburden		Depth of Hole		Section		Total
	Increase or Decrease in Length	0.30 ^m	Core Length	48.40 ^m	0~48.40 ^m	97.0 %	97.0 %		
	Length Drilled	50.30 ^m	Core Recovery	97.0 %					
Working Time	Drilling	23°30' ^H	53.4 %	26.7 %					
	Out Drilling	20°30'	46.6	23.3					
	Regain of Accident	-	-	-	Efficiency of Drilling				
	Total	44°00'	100	50.0	50.30m/Working Period		8.38 m/day		
	Construct	36°00'	-	40.9	50.30m/Working Days		8.35 m/day		
	take to pieces	-	-	-	50.30m/Drilling Period		25.15 m/day		
	Moving of water	-	-	-	50.30m/Net Drilling Days		25.15 m/day		
Road - others	8°00'	-	9.1	Total workers/ 50.30 ^m		3.26 Man/m			
G - Total	88°00'	-	100						
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.30 m		1.11 Man/m		
	BW-CP 1.60 m	3.2 %	100 %	Drilling of Size					
	m	%	%	Bit size	BW	56-T			
	m	%	%	Drilling	1.60 ^m	48.70 ^m			
				Core Length	1:20	47.20			

Operational Results by Drill Hole

JMC-30

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	26th AUG.'88~28th AUG.'88		3	3	-	135
	Drilling	28th AUG.'88~30th AUG.'88		3	2.5	-	80
	Removing			-	-	-	-
	Total	26th AUG.'88~30th AUG.'88		6	5.5	-	215
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	45.30 m	0 ~ 50.20 m	90.2 %	90.2 %
	Length Drilled	50.20 m	Core Recovery	90.2 %	m	%	%
Working Time	Drilling	34°00' H	75.6 %	42.5 %	m	%	%
	Out Drilling	11°00'	24.4	13.7	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	45°00'	100	56.2	50.20 m/Working Period		8.37 m/day
	Construct	27°00'	-	33.8	50.20 m/Working Days		9.13 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
Road · others	8°00'	-	10.0	Total workers/ 50.20 m		4.28 Man/m	
G · Total	80°00'	-	100	Total Drilling Workers/ 50.20 m		1.59 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 2.50 m	4.9 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	2.50 m	47.70 m	
	m	%	%	Core Length	1.70	45.30	

Operational Results by Drill Hole

JMC-31

		Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	30th AUG.'88~1st SEP.'88			3	3	-	110
	Drilling	2nd SEP.'88~4th SEP.'88			3	2.5	-	85
	Removing				-	-	-	-
	Total	30th AUG.'88~4th SEP.'88			6	5.5	-	195
Depth of Drilling					Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section		Total
	Increase or Decrease in Length	0.20 m	Core Length	35.00 m	0 ~ 50.20 m	81.0 %	81.0 %	
	Length Drilled	50.20 m	Core Recovery	81.0 %	m	%	% %	
					m	%	% %	
Working Time	Drilling	31°30' H	57.3 %	35.4 %	m	%	% %	
	Out Drilling	23°30'	42.7	26.4	m	%	% %	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	55°00'	100	61.8	50.20 m/Working Period		8.37 m/day	
	Construct	27°00'	-	30.3	50.20 m/Working Days		9.13 m/day	
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day	
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day	
	Road - others	7°00'	-	7.9	Total workers/ 50.20 m		3.88 Man/m	
G - Total	89°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.20 m		1.69 Man/m	
	BW-CP 7.00 m	1.4 %	100 %	Drilling of Size				
	m	%	%	Bit size	BW	56-T		
	m	%	%	Drilling	7.00 m	43.20 m		
				Core Length	0.00	35.00		

Operational Results by Drill Hole

JMC-32

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	4th SEP.'88~6th SEP.'88		3	3	-	90
	Drilling	7th SEP.'88~9th SEP.'88		3	2.5	-	80
	Removing			-	-	-	-
	Total	4th SEP.'88~9th SEP.'88		6	5.5	-	170
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 m	Core Length	46.40 m	0 ~ 50.10m	97.5 %	97.5 %
	Length Drilled	50.10 m	Core Recovery	97.5 %	m	%	%
Working Time	Drilling	32°00' ^H	58.2 %	36.0 %	m	%	%
	Out Drilling	23°00'	41.8	25.8	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	61.8	50.10m/Working Period		8.35 m/day
	Construct	27°00'	-	30.3	50.10m/Working Days		9.11 m/day
	Take to pieces	-	-	-	50.10m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.10m/Net Drilling Days		20.04 m/day
Road - others	7°00'	-	7.9	Total workers/ 50.10 m		3.39 Man/m	
G .Total	89°00'	-	100	Total Drilling Workers/ 50.10 m		1.60 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 3.00 m	6.0 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	3.00 ^m	47.10 ^m	
	m	%	%	Core Length	0.50	45.90	

Operational Results by Drill Hole

JMS-12

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Working Period		Preparation	24th JUN. '88~29th JUN. '88	6	6
		Drilling	30th JUN. '88~3rd JUL. '88	4	4	-	100
		Removing		-	-	-	-
		Total	24th JUN. '88~3rd JUL. '88	10	10	-	345
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	46.10 m	0~50.20 m	92.2 %	92.2 %
	Drilled Length	50.20 m	Core Recovery	92.2 %	m	%	%
Working Time	Drilling	37°00' H	67.3 %	32.4 %	m	%	%
	Out Drilling	18°00'	32.7	15.8	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	55°00'	100	48.2	50.20m/Working Period		5.02 m/day
	Construct	38°00'	-	33.4	50.20m/Working Days		5.02 m/day
	take to pieces	-	-	-	50.20m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20m/Net Drilling Days		16.73 m/day
Road - others	21°00'	-	18.4	Total workers/ 50.20 m		6.87 Man/m	
G - Total	114°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.20 m		1.99 Man/m
	BW-CP 1.70 m	3.4 %	100 %	Drilling of Size			
	m	%	%	Bit size	BW	56-T	
	m	%	%	Drilling	1.70 m	48.50 m	
				Core Length	1.50	44.60	

Operational Results by Drill Hole

JMS-13

Working Period	Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers				
	Preparation	30th JUN. '88~3rd JUL. '88	4	4	-	191				
	Drilling	3rd JUL. '88~6th JUL. '88	4	2.5	1	57				
	Removing		-	-	-	-				
Total	30th JUN. '88~3rd JUL. '88	8	6.5	1	248					
Depth of Drilling				Core Recovery for each 100 m section						
Drilling Length	Planned Length	50.00 ^m	Over-burden		Depth of Hole		Section		Total	
	Increase or Decrease in Length	0.10 ^m	Core Length	47.70 ^m	0~50.10 ^m	99.8 %		99.8 %		
	Length Drilled	50.10 ^m	Core Recovery	99.8 %						
Working Time	Drilling	42°00' H	76.4 %	42 %						
	Out Drilling	13°00'	23.6	13						
	Regain of Accident	-	-	-	Efficiency of Drilling					
	Total	55°00'	100	55	50.10 m/Working Period		6.26 m/day			
	Construct	36°00'	-	36	50.10 m/Working Days		7.70 m/day			
	take to pieces	-	-	-	50.10 m/Drilling Period		12.52 m/day			
	Moving of water	-	-	-	50.10 m/Net Drilling Days		20.04 m/day			
Road · others	9°00'	-	9	Total workers/ 50.20 m		4.95 Man/m				
G · Total	100°00'	-	100							
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/50.20 m		1.13 Man/m			
	BW-CP 2.30 m	4.6 %	100 %	Drilling of Size						
	m	%	%	Bit size	BW	56-T				
	m	%	%	Drilling	2.30 ^m	47.80 ^m				
				Core Length	0.00	47.70				

Operational Results by Drill Hole

JMS-14

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	4th JUL. '88~6th JUL. '88		3	2	1	90
	Drilling	7th JUL. '88~9th JUL. '88		3	2.5	-	76
	Removing			-	-	-	-
	Total	4th JUL. '88~9th JUL. '88		6	4.5	1	166
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 ^m	Over-burden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 ^m	Core Length	48.00 ^m	0~50.10 ^m	97.0 %	97.0 %
	Length Drilled	50.10 ^m	Core Recovery	97.0 %			
Working Time	Drilling	41°30' ^H	69.2 %	50.6 %			
	Out Drilling	18°30'	30.8	22.6			
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	60°00'	100	73.2	50.1 m/Working Period		8.35 m/day
	Construct	-	-	-	50.1 m/Working Days		11.13 m/day
	take to pieces	20°00'	-	24.4	50.1 m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.1 m/Net Drilling Days		20.04 m/day
Road - others	2°00'	-	2.4	Total workers/ 50.10 m		3.31 Man/m	
G . Total	82°00'	-	100	Total Drilling Workers/ 50.10 m		1.52 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 0.60 m	1.2	%	100 %	Bit size	BW	56-T
	m		%	%	Drilling	0.60 ^m	49.50 ^m
	m		%	%	Core Length	0.00	48.00

Operational Results by Drill Hole

Working Period	Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	7th JUL. '88~9th JUL. '88		3	3	-	135	
	Drilling	9th JUL. '88~12th JUL. '88		4	2.5	1	99	
	Removing			-	-	-	-	
	Total	7th JUL. '88~12th JUL. '88		7	5.5	1	234	
Depth of Drilling				Core Recovery for each 100 m section				
Drilling Length	Planned Length	50.00 m	Over-burden		Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.10 m	Core Length	49.7 m	0~50.10 m	99.2 %	99.2 %	
	Length Drilled	50.10 m	Core Recovery	99.2 %	m	%	%	
					m	%	%	
Working Time	Drilling	40°00'H	72.7 %	44.9 %	m	%	%	
	Out Drilling	15°00'	27.3	16.9	m	%	%	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	55°00'	100	61.8	50.10m/Working Period		7.16 m/day	
	Construct	18°00'	-	20.2	50.10m/Working Days		9.11 m/day	
	take to pieces	-	-	-	50.10m/Drilling Period		12.53 m/day	
	Moving of water	-	-	-	50.10m/Net Drilling Days		20.04 m/day	
	Road · others	16°00'	-	18.0	Total workers/ 50.10 m		4.67 Man/m	
G · Total	89°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/50.10 m			1.98 Man/m
					Drilling of Size			
	BW-CP 1.50 m	3.0 %		100 %	Bit size	BW	56-T	
	m	%		%	Drilling	1.50 m	48.60 m	
	m	%		%	Core Length	1.10	48.60	

Operational Results by Drill Hole

		Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers
		Working Period						
Preparation		10th JUL. '88~12th JUL. '88			3	3	-	119
Drilling		13th JUL. '88~14th JUL. '88			2	2	-	58
Removing					-	-	-	-
Total		10th JUL. '88~14th JUL. '88			5	5	-	177
Depth of Drilling					Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total	
	Increase or Decrease in Length	0.10 m	Core Length	49.50 m	0~50.10 m	99.4 %	99.4 %	
	Length Drilled	50.10 m	Core Recovery	99.4 %	m	%	% %	
Working Time	Drilling	31°30' ^H	71.6 %	41.4 %	m	%	% %	
	Out Drilling	12°30'	28.4	16.5	m	%	% %	
	Regain of Accident	-	-	-	Efficiency of Drilling			
	Total	44°00'	100	57.9	50.10 m/Working Period		10.02 m/day	
	Construct	27°00'	-	35.5	50.10 m/Working Days		10.02 m/day	
	take to pieces	-	-	-	50.10 m/Drilling Period		25.05 m/day	
	Moving of water	-	-	-	50.10 m/Net Drilling Days		25.05 m/day	
Road · others	5°00'	-	6.6	Total workers/ 50.10 m		3.53 Man/m		
G · Total	76°00'	-	100					
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.10 m		1.16 Man/m	
					Drilling of Size			
	BW-CP 1.80 ^m	3.6 %		100 %	Bit size	BW	56-T	
	m	%		%	Drilling	1.80 ^m	48.30 ^m	
m	%		%	Core Length	1.50	48.00		

Operational Results by Drill Hole

JMS-17

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	13th JUL.'88~14th JUL.'88		2	2	-	115
	Drilling	15th JUL.'88~17th JUL.'88		3	3	-	82
	Removing			-	-	-	-
	Total	13th JUL.'88~14th JUL.'88		5	5	-	197
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.10 m	Overburden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.10 m	Core Length	28.40 m	0~50.10 m	86.6 %	86.6 %
	Length Drilled	50.10 m	Core Recovery	86.6 %	m	%	%
Working Time	Drilling	43°30' ^H	66.0 %	46.3 %	m	%	%
	Out Drilling	22°30'	34.0	23.9	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	66°00'	100	70.2	50.10m/Working Period		10.02 m/day
	Construct	20°00'	-	21.3	50.10m/Working Days		10.02 m/day
	take to pieces	-	-	-	50.10m/Drilling Period		16.70 m/day
	Moving of water	-	-	-	50.10m/Net Drilling Days		16.70 m/day
Road · others	8°00'	-	8.5	Total workers/ 50.10 m		3.93 Man/m	
G · Total	94°00'	-	100	Total Drilling Workers/ 50.10 m		1.64 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 17.30m	34.5 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	17.30 m	32.80 m	
	m	%	%	Core Length	0.00	28.40	

Operational Results by Drill Hole

JMS-18

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	15th JUL. '88~17th JUL. '88		3	3	-	103
	Drilling	18th JUL. '88~20th JUL. '88		3	2.5	-	114
	Removing			-	-	-	-
	Total	15th JUL. '88~20th JUL. '88		6	5.5	-	217
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	42.70 m	0~50.20 m	86.1 %	86.1 %
	Length Drilled	50.20 m	Core Recovery	86.1 %	m	%	%
Working Time	Drilling	30°00' H	65.2 %	37.5 %	m	%	%
	Out Drilling	16°00'	34.8	20.0	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	46°00'	100	57.5	50.20 m/Working Period		8.37 m/day
	Construct	28°00'		35.0	50.20 m/Working Days		9.13 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		16.73 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		20.08 m/day
Road - others	6°00'	-	7.5	Total workers/ 50.20 m			4.32 Man/m
G - Total	80°00'	-	100	Total Drilling Workers/ 50.20 m			2.27 Man/m
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.50 m	2.99 %		100 %	Bit size	BW	56-T
	m	%		%	Drilling	1.50 m	48.70 m
	m	%		%	Core Length	0.90	41.80

Operational Results by Drill Hole

JMS-19

Working Period	Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers	
	Preparation	18th JUL.'88~20th JUL.'88	3	3	-	140	
	Drilling	20th JUL.'88~22nd JUL.'88	2	2	-	60	
	Removing		-	-	-	-	
	Total	18th JUL.'88~22nd JUL.'88	6	5	-	200	
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.30 m	Core Length	48.20 m	0~50.30 m	99.8 %	99.8 %
	Length Drilled	50.30 m	Core Recovery	99.8 %	m	%	%
					m	%	%
Working Time	Drilling	30°00' ^H	69.3 %	39.1 %	m	%	%
	Out Drilling	13°30'	30.7	17.3	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	56.4	50.30m/Working Period		8.38 m/day
	Construct	27°00'	-	34.6	50.30m/Working Days		10.06 m/day
	take to pieces	-	-	-	50.30m/Drilling Period		16.76 m/day
	Moving of water	-	-	-	50.30m/Net Drilling Days		25.15 m/day
	Road · others	7°00'	-	9.0	Total workers/ 50.30 m		3.98 Man/m
G · Total	78°00'	-	100				
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Total Drilling Workers/ 50.30 m	1.19 Man/m	
	BW-CP 2.60 m	5.2 %	100 %	Drilling of Size			
	m	%	%	Bit size	BW	56-T	
	m	%	%	Drilling	2.60 m	47.70 m	
				Core Length	0.60	47.60	

Operational Results by Drill Hole

JMT-25

		Period			Number of Days	Actual Working Days	Day Off	Total Number of Workers	
		Working Period		Preparation	25th JUL. '88~26th JUL. '88		2	2	-
Drilling	27th JUL. '88~28th JUL. '88			2	2	-	59		
Removing				-	-	-	-		
Total	25th JUL. '88~28th JUL. '88			4	4		134		
Depth of Drilling				Core Recovery for each 100 m section					
Drilling Length		Planned Length	50.30 ^m	Over-burden		Depth of Hole	Section	Total	
		Increase or Decrease in Length	0.30 ^m	Core Length	45.30 ^m	0~50.30 ^m	93.0 %	93.0 %	
		Length Drilled	50.30 ^m	Core Recovery	93.0 %		%	%	
Working Time		Drilling	31°30' ^H	71.6 %	46.3 %		%	%	
		Out Drilling	12°30'	28.4	18.4		%	%	
		Regain of Accident	-	-	-	Efficiency of Drilling			
		Total	44°00'	100	64.7	50.30 m/Working Period		12.58 m/day	
		Construct	18°00'	-	26.5	50.30 m/Working Days		12.58 m/day	
		take to pieces	-	-	-	50.30 m/Drilling Period		25.15 m/day	
		Moving of water	-	-	-	50.30 m/Net Drilling Days		25.15 m/day	
		Road . others	6°00'	-	8.8	Total workers/ 50.30 m		2.66 Man/m	
Casing Pipe Inserted		G . Total	68°00'	-	100	Total Drilling Workers/ 50.30 m		1.17 Man/m	
		Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size			
		BW-CP 1.60 m	3.2	%	100 %	Bit size	BW	56-T	
		m		%	%	Drilling	1.60 ^m	48.70 ^m	
		%	%	Core Length	-	45.30			

Operational Results by Drill Hole

JMT-26

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	17th JUL. '88~24th JUL. '88		8	8	-	324
	Drilling	25th JUL. '88~26th JUL. '88		2	2	-	60
	Removing			-	-	-	-
	Total	17th JUL. '88~26th JUL. '88		10	10	-	384
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Overburden		Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	44.90 m	0~50.20 m	98.7 %	98.7 %
	Length Drilled	50.20 m	Core Recovery	98.7 %	m	%	%
Working Time	Drilling	32°30' ^H	73.9 %	20.6 %	m	%	%
	Out Drilling	11°30'	26.1	7.3	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	27.9	50.20 m/Working Period		5.02 m/day
	Construct	64°00'		40.5	50.20 m/Working Days		5.02 m/day
	take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day
Road · others	50°00'	-	31.6	Total workers/ 50.20 m		7.65 Man/m	
G · Total	158°00'	-	100	Total Drilling Workers/ 50.20 m		1.20 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 5.20 m	10.4 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	5.20 m	45.00 m	
	m	%	%	Core Length	0.50	44.40	

Operational Results by Drill Hole

JMT-27

		Period		Number of Days	Actual Working Days	Day Off	Total Number of Workers
Working Period	Preparation	27th JUL. '88~28th JUL. '88		2	2	-	90
	Drilling	29th JUL. '88~30th JUL. '88		2	2	-	59
	Removing	29th JUL. '88~30th JUL. '88		2	2	-	100
	Total	27th JUL. '88~30th JUL. '88		2	2	-	249
Depth of Drilling				Core Recovery for each 100 m section			
Drilling Length	Planned Length	50.00 m	Over-burden	m	Depth of Hole	Section	Total
	Increase or Decrease in Length	0.20 m	Core Length	47.90 m	0 ~ 50.20 m	98.4 %	98.4 %
	Length Drilled	50.20 m	Core Recovery	98.4 %	m	%	%
Working Time	Drilling	32°00' H	72.7 %	30.8 %	m	%	%
	Out Drilling	12°00'	27.3	11.5	m	%	%
	Regain of Accident	-	-	-	Efficiency of Drilling		
	Total	44°00'	100	42.3	50.20 m/Working Period		8.37 m/day
	Construct	54°00'	-	11.5	50.20 m/Working Days		8.37 m/day
	Take to pieces	-	-	-	50.20 m/Drilling Period		25.10 m/day
	Moving of water	-	-	-	50.20 m/Net Drilling Days		25.10 m/day
Road - others	6°00'	-	5.8	Total workers/ 50.20 m		4.96 Man/m	
G - Total	104°00'	-	100	Total Drilling Workers/ 50.20 m		1.18 Man/m	
Casing Pipe Inserted	Pipe Size & Meterage	Inserted Length Drilling Length	%	Recovery of Casing Pipe	Drilling of Size		
	BW-CP 1.60 m	3.2 %	100 %	Bit size	BW	56-T	
	m	%	%	Drilling	1.60 m	48.60 m	
	m	%	%	Core Length	0.10	47.80	

Appendix 8

List of the used equipments for drilling

List of the Used Equipments for Drilling

Item	Model	Quantity	Capacity, Type, and Specification
Drilling Machine	YMB-05DA	2	Capacity 56mm 55mm Inner Diameter of Spindle 42mm
Engine for Drill	DY-41B	2	Diesel Engine 7.5PS/1800rpm
Pump	MG-5A	1	Piston ϕ 68mm Capacity 35~42 ℓ /min.
Engine for Drill	NFA-70	1	Diesel Engine
Generator	XT 38L	1	3.4KVA, 220V, 50 c/s
Engine for Generator	EY27-2D	1	Gasoline Engine 7.0PS/1800rpm
Pump	TAA600K	2	Capacity 42.8 ℓ /min. Pressure 40 kg/cm ²
Engine for Pump	L60SSNT	2	Diesel Engine 6.0PS/1800rpm
Pump	L-25	1	Capacity 70 ℓ /min Pressure 40 kg/cm ²
Engine for Pump	NF-10	1	Diesel Engine
Derrick			
Rod Holder	RH-45	1	Hand Typ
Drill Rods	40.5	30	3.00 M/pc
	40.5	35	1.50 M/pc
Casing Pipes	BW	7	1.5 M/pc
	"	5	1.0 M/pc
	"	5	0.5 M/pc
	"	5	0.3 M/pc
Double core Barrel	56-T	3	3.00 M/pc
	"	3	1.50 M/pc
Inner Tube	56-T	2	3.00 M/pc
	"	2	1.50 M/pc

Appendix 9

Articles of consumption and drilling parts

Articles of consumption and Drilling Parts

Description	Specification	Unit	Quantity			
			JMS Songue	JMT Thundulu	JMC Chilwa	Total
Light Oil	40#	ℓ	48	20	135	203
Mobil Oil	30#	ℓ	52	18	170	240
Hydraulic Oil	90#	ℓ	23	10	138	171
Solblu	EM	ℓ	-	-	100	100
TK-60		kg	55.8	17	205	277.8
Cement		kg	480	280	1040	1800
Casing Metal Shoe		pc	4	1	13	18
Double Core Barrel Assy	56mmx3.00m	set	1	-	2	3
Double Core Barrel Assy	56mmx1.50m	set	1	-	2	3
Inner Tube	56mmx3.00m	set	-	-	2	2
Inner Tube	56mmx1.50m	set	-	1	1	2
Extension Tube		pc	6	2	12	20
Core Lifter		pc	7	3	15	25
Core Lifter Case		pc	4	2	8	14
Drill Rod	40.5mmx3.00m	pc	6	2	8	16
Drill Rod	40.5mmx1.50m	pc	4	1	12	17
Drill Rod Coupling	40.5mm	pc	2	1	6	8
Casing Pipe	BWx1.50m	pc	-	-	1	1
Casing Pipe	BWx1.00m	pc	-	-	1	1
Casing Pipe	BWx0.50m	pc	-	-	1	1
Casing Pipe	BWx0.30m	pc	-	-	1	1
Core Box		pc	70	27	285	382
Wire Rope	9mmx30m	roll	2	-	2	4
Manila Rope	12mmx100m	"	2	-	2	4
Vinyl Rope	10mmx200m	pc	2	-	2	4
Piston Rod	MG-5A	pc	-	1	1	2
Piston Rubber	68mmφ	pc	1	-	2	3
V-Packing	MG-5A	pc	10	-	10	20
Steel ball	MG-5A 1-1/2	pc	2	-	4	6

Description	Specification	Unit	Quantity			
			JMS Songue	JMT Thundulu	JMC Chilwa	Total
Spark Plug	EY27-2D	pc	2	1	7	10
Air Element	EY27-2D	pc	1	-	1	2
Brush	EY27-20	pc	3	1	8	12
Steel Ball	TAA-600K	pc	1	-	3	4
V-Packing	DY-41B	pc	5	-	6	11
Water Swivel Packing	40.5mm	pc	2	-	2	4
Water Swivel Oil Seal	40.5mm	pc	1	1	1	3
Water Swivel Felt Ring	CH	pc	1	-	1	2
V-Belt	TA-600K	pc	2	-	2	4
Pressure Gauge	YBH-05DA	pc	-	1	1	2
Chuck Piece	YBM-05DA	pc	-	-	2	2
Round Screw	YBM-05DA	pc	-	-	3	3
V-Belt	YBM-05DA	pc	-	2	3	5
V-Packing	SP-30B	pc	9	-	9	18
Steel Ball	SP-30B	pc	-	-	4	4
Nozzle Assy	DY-41B	pc	-	1	1	2
Delivery Valve Element	DY-41B	pc	-	1	-	1
Nozzle	DY-41B	pc	-	-	1	1
Nozzle	L-60SSNT	pc	1	-	2	3
V-Belt	L-60SSNT	pc	-	2	2	4
L.O. Element	L-60SSNT	pc	1	-	1	2
V Packing	TAA-600K	pc	6	2	4	12
Needle	TAA-600K	pc	-	-	1	1
Pipe Wrench	600mm	pc	2	-	4	6
Pipe Wrench	450mm	pc	3	-	5	8

Appendix 10

Drilling meterage of diamond bits

Drilling Meterage of Diamond Bits

JMS Songwe
JMT Tundulu

Item	Type	Bit No.	Drilling Meterage by Drill Holes Unit Meter										Total		
			JMS 12	JMS 13	JMS 14	JMS 15	JMS 16	JMS 17	JMS 18	JMS 19	JMT 25	JMT 26		JMT 27	
Bit	56T													38.30	
		C741	23.20	15.10											
		C742		16.20											16.20
		C743	25.30		10.40										35.70
		C744			27.50										27.50
		C745				28.20									28.20
		C746			11.60	16.70									28.30
		C747					29.60								29.60
		C748					14.90								14.90
		C749						26.00							26.00
		C750						6.80	4.40						11.20
		C751			2.40		3.70	3.80							9.90
		C752								21.90					21.90
		C753								22.40					22.40
		C754									27.60				27.60
		C755									8.80				8.80
		C756			14.10						11.30				25.40
		C757										31.60			31.60
		C758										17.10	4.00		21.10
		C759											41.00		41.00
		C760												26.40	26.40
C761												22.20	22.20		
		Total	48.50	47.80	49.50	48.60	48.30	32.80	48.70	47.70	48.70	45.00	48.60	514.20	

Drilling Meterage of Diamond Bits

JMC Chilwa

Item	Type	Bit No.	Drilling Meterage by Drill Hole, Unit Meter											Total			
			JMC 1	JMC 2	JMC 3	JMC 4	JMC 5	JMC 6	JMC 7	JMC 8	JMC 9	JMC 10	JMC 11				
Bit	56T	C762	39.10													39.10	
		C763	4.20												7.70	11.90	
		C764		30.90													30.90
		C765		17.60	3.60												21.20
		C766					35.00										35.00
		C767				20.50											20.50
		C768				24.50						3.40					27.90
		C769					26.20										26.20
		C770					20.50				7.20						27.70
		18910						7.00	9.80								16.80
		18911						5.50	24.30								29.80
		18912							5.50	30.20							35.70
		18913								3.10	32.40						35.50
		18914									5.10	34.40					39.50
		18915										10.00	31.00				41.00
		18916											16.80	10.00			26.80
		18917													30.90		30.90
		Total	43.30	48.50	48.60	46.70	47.50	39.60	40.50	40.90	44.40	47.80	48.60		496.40		

Drilling Meterage of Diamond Bits

JMC Chilwa

Item	Type	Bit No.	Drilling Meterage by Drill Hole, Unit Meter											Total		
			JMC 12	JMC 13	JMC 14	JMC 15	JMC 16	JMC 17	JMC 18	JMC 19	JMC 20	JMC 21	JMC 22			
Bit	56T	18931	6.80		12.70		6.60								26.10	
		18932		12.00		8.40	9.50								29.90	
		18933	40.80												40.80	
		18934		30.00											30.00	
		18935				39.20									39.20	
		18936			35.90										35.90	
		18937					30.10								30.10	
		18938						13.90	17.10						31.00	
		18939							30.40						30.40	
		18940								29.50	4.00				33.50	
		18941										36.60			36.60	
		18942										11.80	10.70	12.70	35.20	
		18943											34.80		34.80	
		18944												35.40	35.40	
		18945									41.90				41.90	
		G750			6.50											6.50
		G758									2.80					2.80
		G760											3.30			3.30
		G761								3.90						3.90
				Total	47.60	48.50	48.60	47.60	46.20	48.20	46.60	48.70	48.40	48.80	48.10	527.30

Drilling Meterage of Diamond Bits

JMC Chilwa

Item	Type	Bit No.	Drilling Meterage by Drill Hole , Unit Meter										Total		
			JMC 23	JMC 24	JMC 25	JMC 26	JMC 27	JMC 28	JMC 29	JMC 30	JMC 31	JMC 32			
Bit	56T	18918	32.20											32.20	
		18919	6.40	28.40										34.80	
		18920			31.50	6.90									38.40
		18921		18.90	15.70										34.60
		18922				34.60			4.20						38.80
		18923				6.70	14.40			9.20					30.30
		18924					33.80	3.10							36.90
		18925						41.10							41.10
		18926								36.10					36.10
		18927									35.60				35.60
		18928									7.00	5.80	14.20		27.00
		18929										32.80			32.80
		18930											32.90		32.90
		C742									3.40				3.40
		C748										5.10			5.10
		C751			1.90										1.90
		C755											4.60		4.60
				Total	40.50	47.30	47.20	48.20	48.20	48.40	48.70	47.70	43.20	47.10	466.50

