





Apx. 36 Drill Operation Details (1)

1

Rig	T H S - 5					Y B M - 3 E S				
Date	Drilling Hole No.	Shift		Drill performed		Drilling Hole No.	Shift		Drill performed	
		1st	2nd	Daily	Total		1st	2nd	Daily	Total
		m	m	m	m		m	m	m	m
7.10	Drilling team members left Tokyo									
12	Drilling team arrived in Nairobi, Kenya via London									
	Courtesy visits to Kenya Governmental Organizations, Embassy of Japan, JICA and MMAJ offices, Nairobi									
13	General discustion with M.G.D.									
14	Drilling team members arrived in Kericho									
15	Courtesy visits to District Commission and County Councillor Kericho.									
16	Started provisional works and construction of access road to drill sites									
18	Mobilization of drill rig and equipments to drill site BRL-2, BR-17.									
19	BRL-2	Mounting								
20		do.								
21		17.40		17.40	17.40	BR-17	Mounting			
22		26.10	10.00	36.10	53.50		do.			
23		36.00	11.00	47.00	100.50		do.			
24		Dismounting								
25	BR-23	Mounting								
			11.50	11.50	11.50		11.10	17.20	28.30	28.30
26		23.40	15.30	38.70	50.20		21.90		21.90	50.20
		Dismounting								
27		Mounting								
28	BR-26					BR-21	11.50	10.60	22.10	22.10
			1.70	1.70	1.70		25.40	3.00	28.40	50.50
29		16.10	16.20	32.30	34.00		Dismounting			
30		Holiday								
31		9.10	7.30	16.40	50.40	BR-27	Mounting			
							4.10		4.10	4.10
8. 1		Dismounting								
2	BR-21'	Mounting								
3		1.30	14.90	16.20	16.20		8.90	12.10	21.00	25.10
4		7.20	17.50	24.70	40.90		9.00	8.40	17.40	42.50
5		6.90	2.30	9.20	50.10	BR-25	Dismounting			
							Mounting			
6							2.40		2.40	2.40
7	BRL-3	Dismounting								
		Mounting								
8			4.90	4.90	4.90		10.80	12.80	23.60	26.00
9		12.60	39.00	51.60	56.50	BR-20	9.10	9.40	18.50	44.50
10		18.40	17.60	36.00	92.50		5.60		5.60	50.10
11		8.20		8.20	100.70		Dismounting			
12		Mounting								
	BR-24	Dismounting								
		Mounting								
13		Holiday								
14		13.30	8.50	21.80	21.80		Dismounting			
15		9.00	19.70	28.70	50.50	BR-19	Mounting			
							2.30	2.30	2.30	
16		Dismounting								
17	BR-22	Mounting								
18		6.50	8.70	15.20	15.20		7.40	11.70	19.10	21.40
19		4.70	3.10	7.80	23.00		15.10	9.80	24.90	46.30
20		0.50	0.80	1.30	24.30		3.80		3.80	50.10
21		8.20	6.00	14.20	38.50	BR-18	Dismounting			
		Mounting								
		do.								

Apx. 36 Drill Operation Details (2)

Rig		T H S - 5				Y B M - 3 E S						
Date	Drilling Hole No.	Shift		Drill performed		Drilling Hole No.	Shift		Drill performed			
		1st	2nd	Daily	Total		1st	2nd	Daily	Total		
		m	m	m	m			m	m	m	m	
8.22		11.60		11.60	50.10		4.10	4.10	4.10			
23		Dismounting					20.70	14.90	35.60	39.70		
24		do.					12.80		12.80	52.50		
25		do.					Dismounting					
26		do.					do.					
27		Holiday					Holiday					
28		Packing					Packing					
29		do.					do.					
30		do.					do.					
31		Moving from Buru Hill to Kuge										
9. 1		Provisional work										
2	KG-4	Mounting										
3		do.										
4		4.00		4.00	4.00							
5		15.90		15.90	19.90							
6		7.20		7.20	27.10	KG-5	Mounting					
7		14.90	18.10	33.00	60.10		do.					
8		Dismounting					5.80	27.20	33.00	33.00		
9	KG-6	Mounting										
10		Holiday										
11		4.40	21.50	25.90	25.90		2.90			60.10		
12		13.10	12.80	25.90	51.80		Dismounting					
13		8.30		8.30	60.10	KG-3	Mounting					
14		Dismounting					15.60	18.70	34.30	42.10		
15	KG-2	Mounting										
			7.90	7.90	7.90		Dismounting					
16		24.00	19.00	43.00	50.90		Mounting					
17		9.20		9.20	60.10	KG-1	Mounting					
18		Dismounting					8.50	8.40	16.90	16.90		
19		do.					13.50	11.70	25.20	42.10		
20		do.					10.80	7.20	18.00	60.10		
21		do.					Dismounting					
22		do.					do.					
23		Moving from Kuge to Kisumu, transportation of cores, etc.										
24		Completion work and sampling										
25		do.										
26		do.										
27		do.										
28		Moving from Kisumu to Nairobi										
29												
30		Preparatory works returning to Japan										
10. 1		do.										
2		do.										
3		Reporting, Courtesy visits to Governmental organizations										
4		do.										
5		do.										
6		Preparatory works returning to Japan										
7		do.										
8		Left Nairobi										
9		Arrived in Tokyo										

Apx. 37 Summary of Drilling Results (1)

Item	Drilling hole No.	Mobilization	BRL-2	BRL-3	BR-17	BR-18	
Drilling Data	Drilling length (m)		100.50	100.70	50.20	52.50	
	Core length (m)		82.10	92.20	43.15	44.30	
	Core recovery (%)		81.7	91.6	86.0	84.40	
	Depth by NQ size (m)		48.10	100.70	50.20	52.50	
	do. BQ size (m)		52.40	0	0	0	
	Casing pipe NW (m)		4.10	4.10	4.10	4.10	
	do. BW (m)		48.10	0	0	0	
	Drilling machine		THS-5	THS-5	YBM-3ES	YBM-3ES	
Working Period	Working Period	7.15~7.18	7.19~7.24	8.7~8.12	7.21~7.26	8.20~8.25	
	Actual Working (d)	4	6	6	6	6	
	No Working (d)	0	0	0	0	0	
	Total (d)	4	6	6	6	6	
	Actual Working Days	Mounting (d)		2	1	3	2
		Drilling (d) (shifts)		3 (5)	4 (6)	2 (3)	3 (4)
		Dismounting (d)		1	1	1	1
		Others (d)		0	0	0	0
		Total (d)		6	6	6	6
	Drilling length/Working Period (m/d)		16.75	16.78	8.36	8.75	
	Drilling length/Drilling days (m/d)		3.35	25.17	25.1	17.5	
	Drilling length/Drilling shifts (m/s)		20.1	16.78	16.73	13.21	
Working Time	Drilling (h)		27	30	19	21	
	Hoisting & lowering rod etc. (h)		13	8	5	3	
	Repairing (h)		0	0	0	0	
	Sub total (h)		38	38	24	24	
	Mounting (h)		16	8	24	16	
	Dismounting (h)		8	8	8	8	
	Others (h)		0	0	0	0	
	Total (h)		62	54	56	40	
Drilling length/Drilling hour (m/h)		3.72	3.35	2.64	2.5		
Total Number of Workers	Driller	15	8	8	7	7	
	Counterport driller	10	10	12	6	8	
	Labor	32	25	24	26	23	
	Pump operater	0	20	12	6	8	
	Gardman	29	40	24	12	16	
	Labor for access construction	16	25	16	8	12	
	Total	102	113	96	65	74	
Total drilling workers/Drilling length (w/m)		1.12	0.95	1.29	1.40		

Apx. 37 Summary of Drilling Results (2)

Item		Drilling hole No.	BR-19	BR-20	BR-21	BR-21*	BR-22	
Drilling Data	Drilling length (m)		50.10	50.20	50.50	50.10	50.10	
	Core length (m)		44.80	48.20	29.50	43.30	42.60	
	Core recovery (%)		89.4	96.0	58.4	86.4	85.0	
	Depth by NQ size (m)		18.10	3.0	2.60	38.00	30.00	
	do. BQ size (m)		32.00	47.20	47.90	12.10	20.10	
	Casing pipe NW (m)		3.10	3.0	2.60	2.60	4.10	
	do. BW (m)		18.10	3.0	4.10	0	30.00	
	Drilling machine		YBM-3ES	YBM-3ES	YBM-3ES	THS-5	THS-5	
Working Period	Working Period		8.15~8.19	8.10~8.14	7.26~7.29	8.2~8.6	8.17~8.23	
	Actual Working (d)		5	4	4	5	7	
	No Working (d)		0	1	0	0	0	
	Total (d)		5	5	4	5	7	
	Actual Working Days	Mounting (d)		1	1	1	1	1
		Drilling (d) (shifts)		4 (6)	2 (3)	2 (4)	3 (6)	5 (9)
		Dismounting (d)		1	1	1	1	1
		Others (d)		0	0	0	0	0
		Total (d)		6	4	4	5	7
	Drilling length/Working Period (m/d)		10.02	10.04	12.62	10.02	7.15	
	Drilling length/Drilling days (m/d)		12.52	25.1	25.25	16.7	10.02	
Drilling length/Drilling shifts (m/s)		8.35	16.73	12.82	8.35	5.56		
Working Time	Drilling (h)		33	20	26	28	40	
	Holsting & lowering rod etc. (h)		18	3	6	7	15	
	Repairing (h)		0	0	0	0	0	
	Sub total (h)		41	23	32	35	55	
	Mounting (h)		8	8	8	8	8	
	Dismounting (h)		8	8	8	8	8	
	Others (h)		0	0	0	0	0	
	Total (h)		57	39	48	51	71	
Drilling length/Drilling hour (m/h)		1.51	2.51	1.94	1.78			
Total Number of Workers	Driller		8	5	5	8	11	
	Counterport driller		8	6	6	12	18	
	Labor		12	16	16	24	28	
	Pump operater		22	6	6	12	18	
	Gardman		12	12	12	24	36	
	Labor for access construction		24	8	8	12	20	
	Total		16	53	53	92	131	
	Total drilling workers/Drilling length (w/m)		0.58	1.05	1.04	1.83	2.61	

\* Re-drilled hole

Apx. 37 Summary of Drilling Results (3)

Item		Drilling hole No.	BR-23	BR-24	BR-25	BR-26	BR-27	
Drilling Data	Drilling length (m)		50.20	50.50	50.10	50.40	50.10	
	Core length (m)		48.5	46.60	40.20	41.40	40.20	
	Core recovery (%)		96.6	92.3	80.0	82.1	80.0	
	Depth by NQ size (m)		15.10	50.50	21.10	33.20	50.10	
	do. BQ size (m)		35.10	0	29.00	17.20	0	
	Casing pipe NW (m)		4.10	4.10	4.10	4.10	4.10	
	do. BW (m)		15.10	0	21.10	43.10	0	
	Drilling machine		THS-5	THS-5	YBM-3ES	THS-5	YBM-3ES	
Working Period	Working Period		7.25~7.27	8.12~8.16	8.5~8.9	7.28~8.1	7.31~8.4	
	Actual Working (d)		3	4	5	4	5	
	No Working (d)		0	1	0	1	0	
	Total (d)		3	5	5	5	5	
	Actual Working Days	Mounting (d)		1	1	1	1	1
		Drilling (d) (shifts)		2 (3)	2 (4)	4 (6)	3 (5)	4 (6)
		Dismounting (d)		1	1	1	1	1
		Others (d)		0	0	0	0	0
		Total (d)		4	4	6	5	5
	Drilling length/Working Period (m/d)		16.73	10.1	10.02	10.08	10.02	
	Drilling length/Drilling days (m/d)		25.1	25.25	12.52	16.8	12.52	
Drilling length/Drilling shifts (m/s)		16.73	12.62	8.35	10.08	8.35		
Working Time	Drilling (h)		18	24	34	18	34	
	Hoisting & lowering rod etc. (h)		6	7	10	9	10	
	Repairing (h)		0	0	0	0	0	
	Sub total (h)		24	31	44	27	44	
	Mounting (h)		8	8	8	8	8	
	Dismounting (h)		8	8	8	8	8	
	Others (h)		0	0	0	0	0	
	Total (h)		40	47	60	43	60	
	Drilling length/Drilling hour (m/h)		2.78	2.1	1.47	2.8	1.47	
Total Number of Workers	Driller		5	6	8	7	8	
	Counterport driller		6	8	12	10	12	
	Labor		16	18	24	20	24	
	Pump operator		6	8	12	10	12	
	Gardman		12	16	24	20	24	
	Labor for access construction		8	8	16	12	16	
	Total		53	64	96	79	96	
	Total drilling workers/Drilling length (w/m)		1.05	1.26	1.91	1.56		

Apx. 37 Summary of Drilling Results (4)

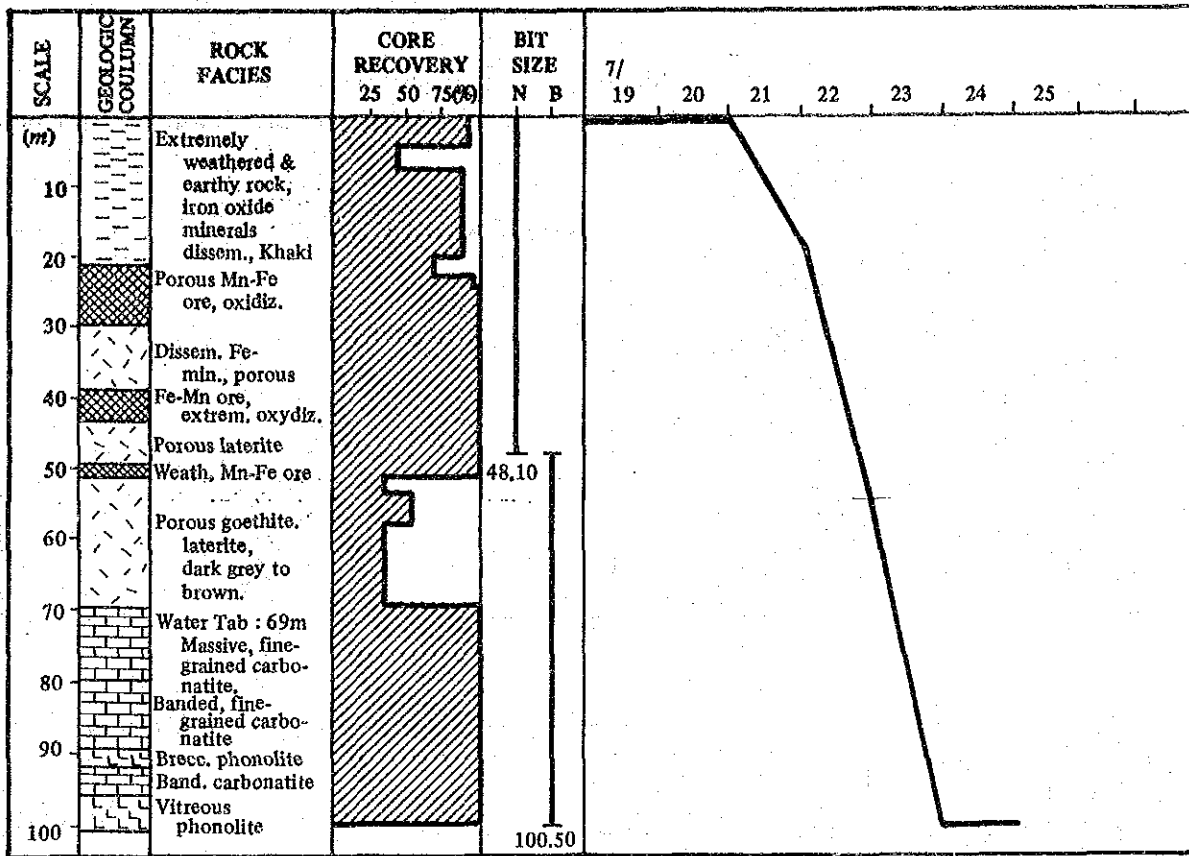
Item	Drilling hole No.	Moving	KG-1	KG-2	KG-3	KG-4	
Drilling Data	Drilling length (m)		60.10	60.10	60.10	60.10	
	Core length (m)		57.30	58.90	54.00	56.20	
	Core recovery (%)		95.3	98.0	89.9	93.5	
	Depth by NQ size (m)		42.10	45.00	42.10	39.80	
	do. BQ size (m)		18.00	15.10	18.00	20.30	
	Casing pipe NW (m)		4.10	4.50	4.10	4.00	
	do. BW (m)		42.10	45.00	42.10	42.00	
	Drilling machine		YBM-3ES	THS-5	YBM-3ES	THS-5	
Working Period	Working Period	8.24~9.1	9.17~9.22	9.15~9.20	9.13~9.16	9.2~9.8	
	Actual Working (d)	8	6	6	4	7	
	No Working (d)	1	0	0	0	0	
	Total (d)	9	6	6	4	7	
	Actual Working Days	Mounting (d)		1	1	1	2
		Drilling (d) (shifts)		3 (6)	3 (4)	2 (4)	4 (5)
		Dismounting (d)		2	3	1	1
		Others (d)		0	0	0	0
		Total (d)		6	7	4	7
	Drilling length/Working Period (m/d)		10.01	10.01	15.02	8.58	
	Drilling length/Drilling days (m/d)		20.03	20.03	30.05	15.02	
Drilling length/Drilling shifts (m/s)		10.01	15.02	15.02	12.02		
Working Time	Drilling (h)		30	24	23	25	
	Hoisting & lowering rod etc. (h)		9	5	8	8	
	Repairing (h)		0	0	0	0	
	Sub total (h)		39	29	31	35	
	Mounting (h)		8	8	8	16	
	Dismounting (h)		16	24	8	8	
	Others (h)		0	0	0	0	
	Total (h)		70	62	49	64	
	Drilling length/Drilling hour (m/h)		2.0	2.5	2.61	2.4	
Total Number of Workers	Driller	44	9	10	6	8	
	Counterport driller	28	14	14	8	10	
	Labor	52	31	42	18	25	
	Pump operator	0	12	8	8	10	
	Gardman	54	24	16	16	20	
	Labor for access construction	30	12	12	10	16	
	Total	208	102	102	66	83	
	Total drilling workers/Drilling length (w/m)		1.69	1.69	1.09	1.38	



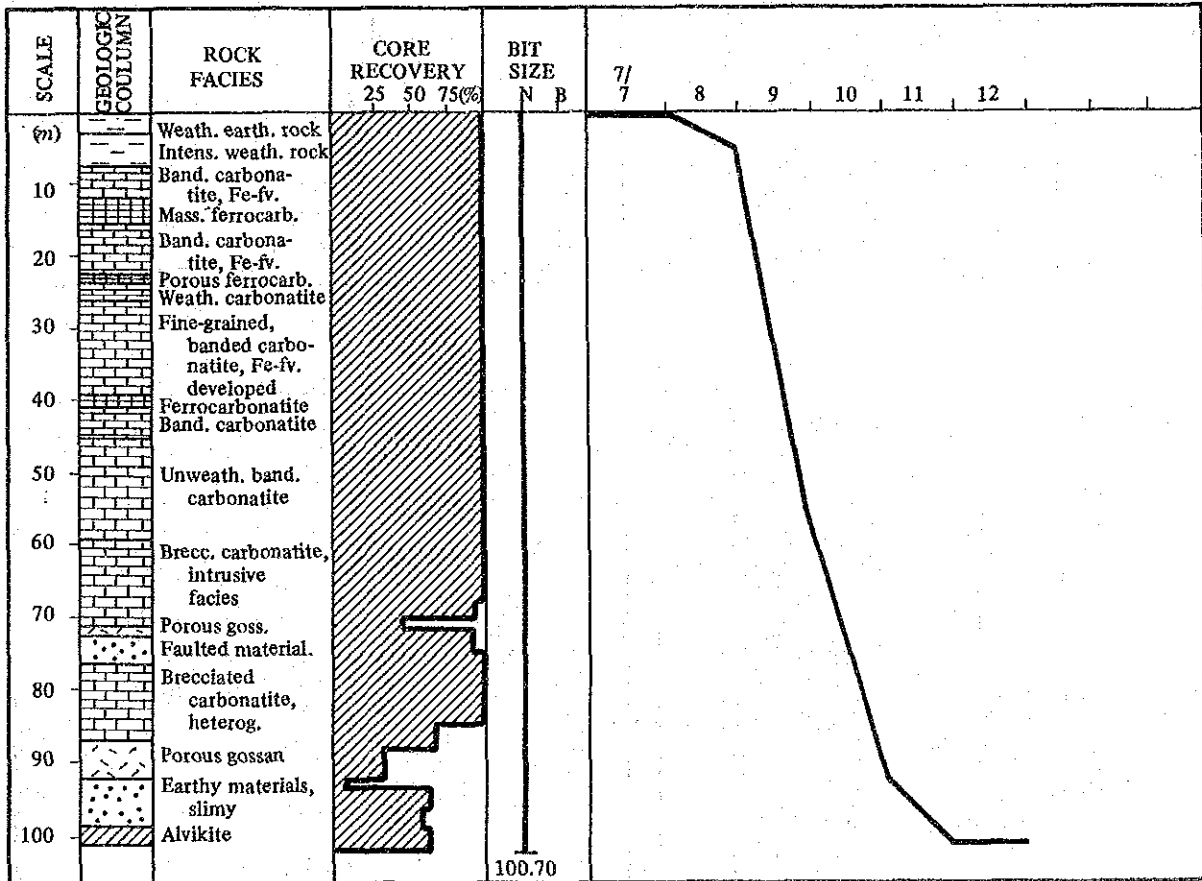
Apx. 37 Summary of Drilling Results (5)

Item		Drilling hole No.	KG-5	KG-6	Demobilization	Total	
Drilling Data	Drilling length (m)		60.10	60.10		1,116.30 (1,166.80)*	
	Core length (m)		56.60	59.70		1,000.45 (1,029.75)*	
	Core recovery (%)		94.20	99.30		89.60 (88.25)*	
	Depth by NQ size (m)		42.50	39.00		763.70	
	do. BQ size (m)		17.60	21.10		403.10	
	Casing pipe NW (m)		4.00	4.40		77.40	
	do. BW (m)		45.00	39.00		437.80	
	Drilling machine		YBM-3ES	THS-5			
Working Period	Working Period		9.4~9.12	9.9~9.14	9.20~9.27		
	Actual Working (d)		8	5	6	124	
	No Working (d)		1	1	1	7	
	Total (d)		9	6	7	131	
	Actual Working Days	Mounting (d)		4	1		28
		Drilling (d) (shifts)		3 (5)	3 (5)		61 (99)
		Dismounting (d)		1	1		23
		Others (d)		0	0		0
		Total (d)		8	5		111
	Drilling length/Working Period (m/d)		6.67	10.01			
	Drilling length/Drilling days (m/d)		20.03	20.03			
Drilling length/Drilling shifts (m/s)		12.02	12.02				
Working Time	Drilling (h)		23	24		519	
	Hoisting & lowering rod etc. (h)		10	8		168	
	Repairing (h)		0	0		0	
	Sub total (h)		33	30		677	
	Mounting (h)		32	8		224	
	Dismounting (h)		8	8		184	
	Others (h)		0	0		0	
	Total (h)		75	48		1,096	
	Drilling length/Drilling hour (m/h)		2.61	2.50			
Total Number of Workers	Driller		10	7	9	219	
	Counterport driller		10	10	19	257	
	Labor		35	20	19	570	
	Pump operator		10	10	0	216	
	Gardman		20	20	36	519	
	Labor for access construction		12	12	0	315	
	Total		97	79	83	2,096	
	Total drilling workers/Drilling length (w/m)		1.61	1.31			

\* Figures including BR-21 (abandoned hole)

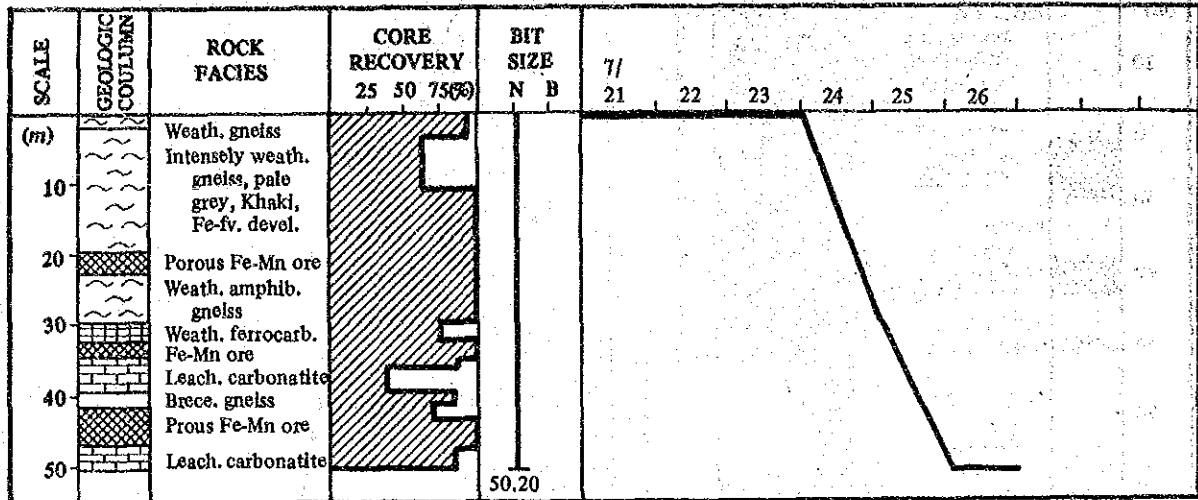


BRL-3

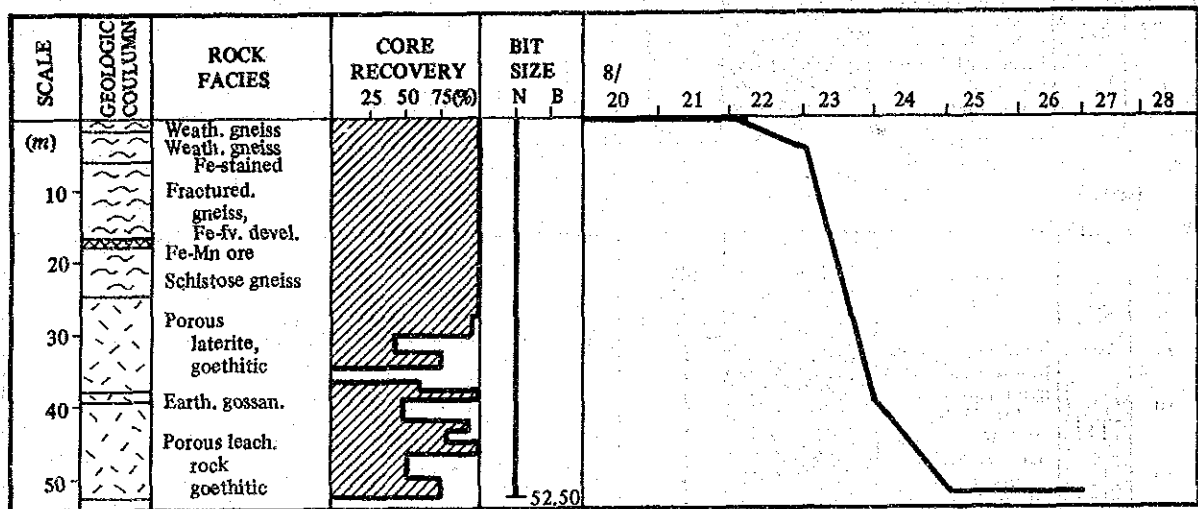


BR-17

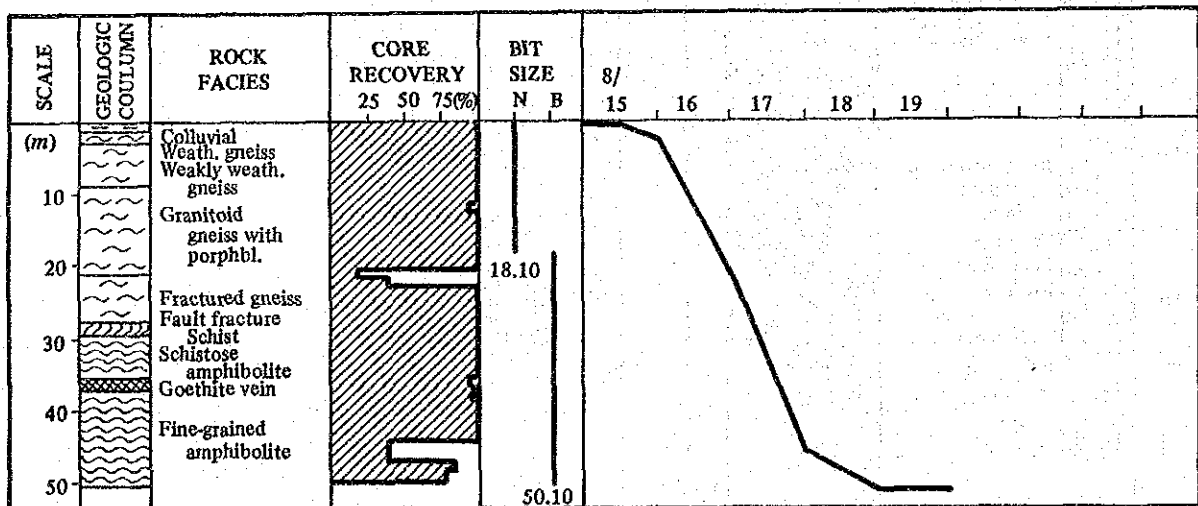
## Apx. 38 Drilling Progress by Hole (2)



BR-18

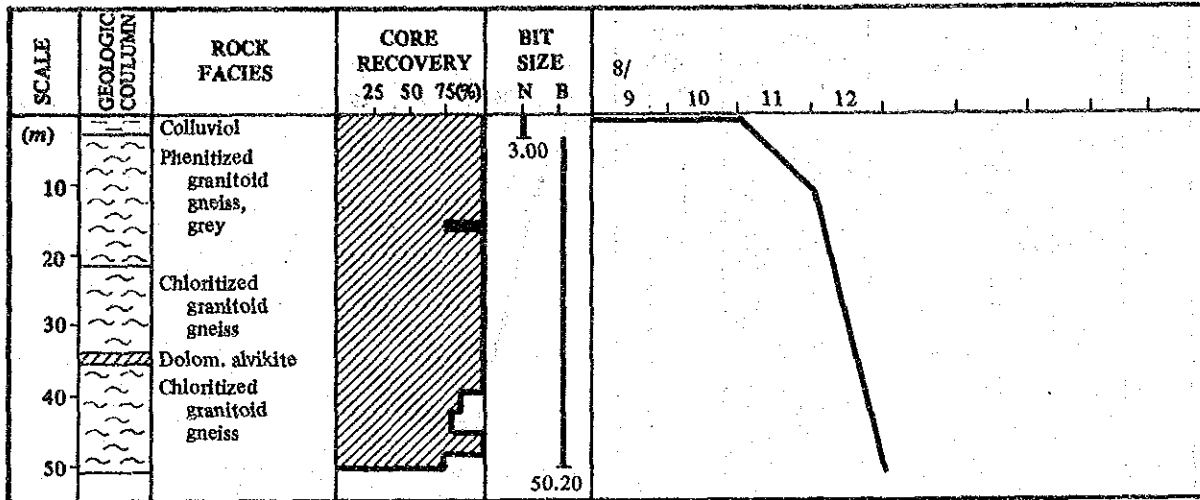


BR-19

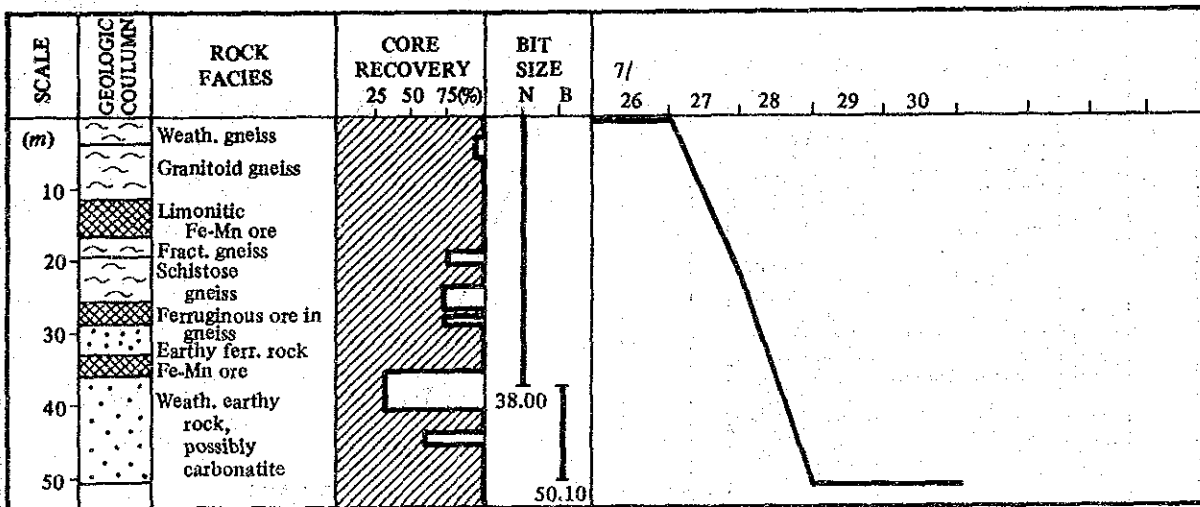


BR-20

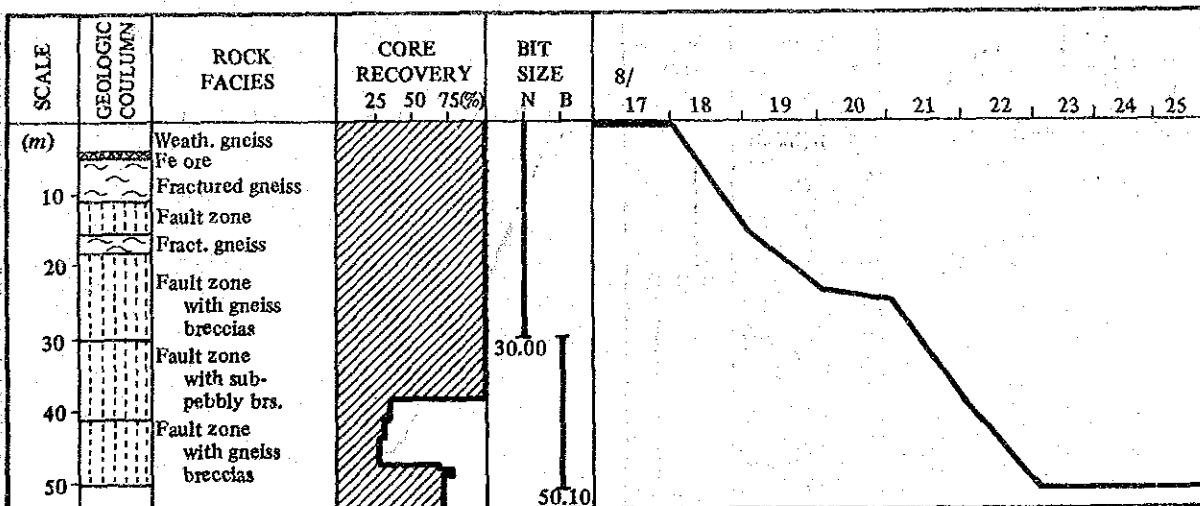
Apx. 38 Drilling Progress by Hole (3)



BR-21

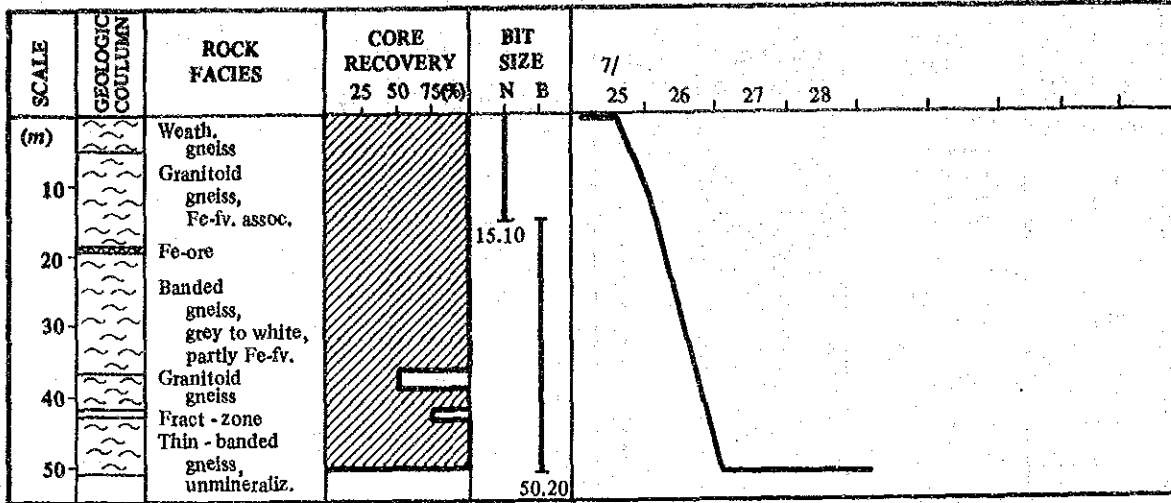


BR-22

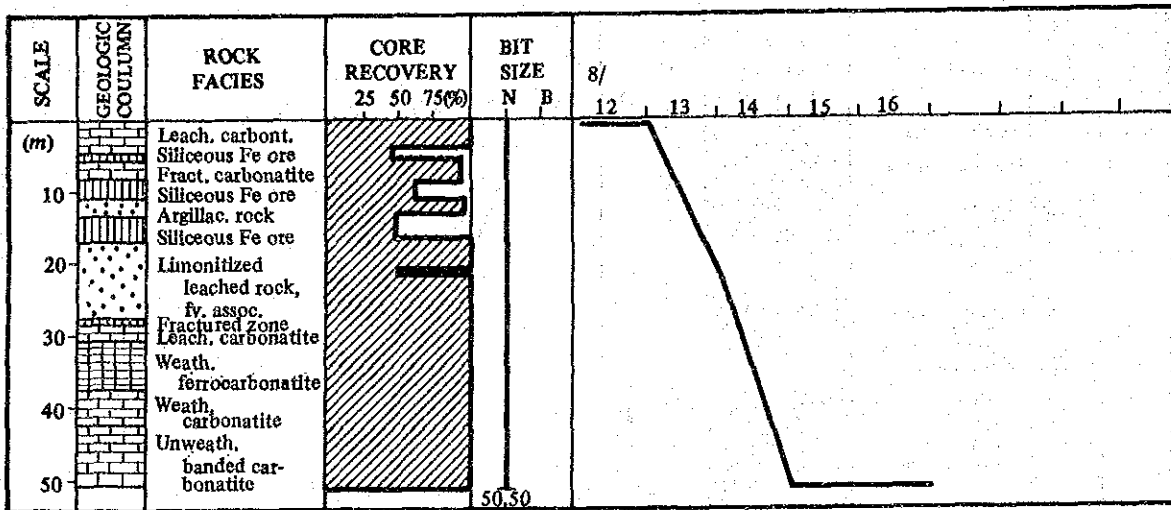


BR-23

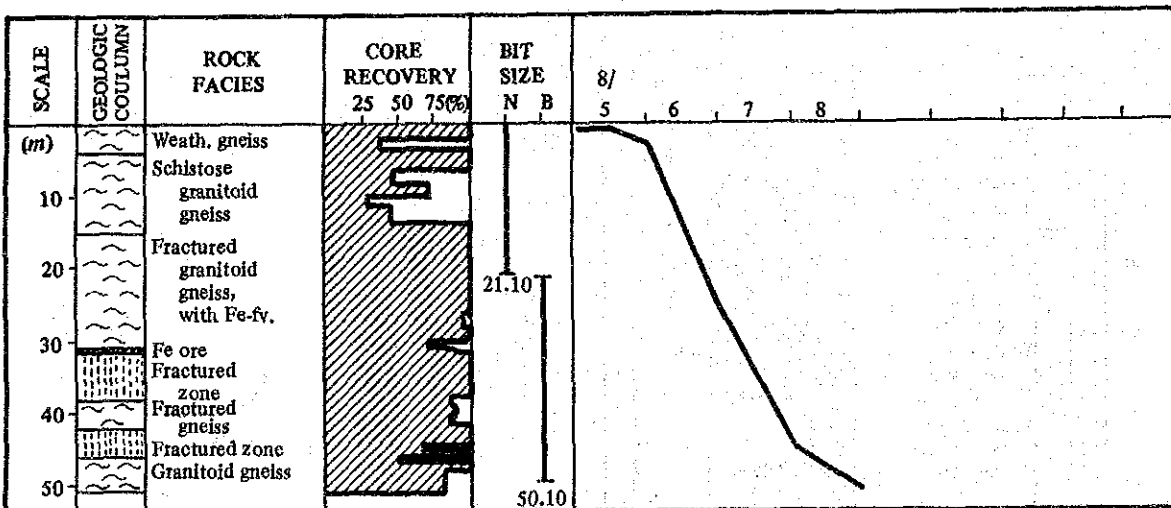
Apx. 38 Drilling Progress by Hole (4)



BR-24

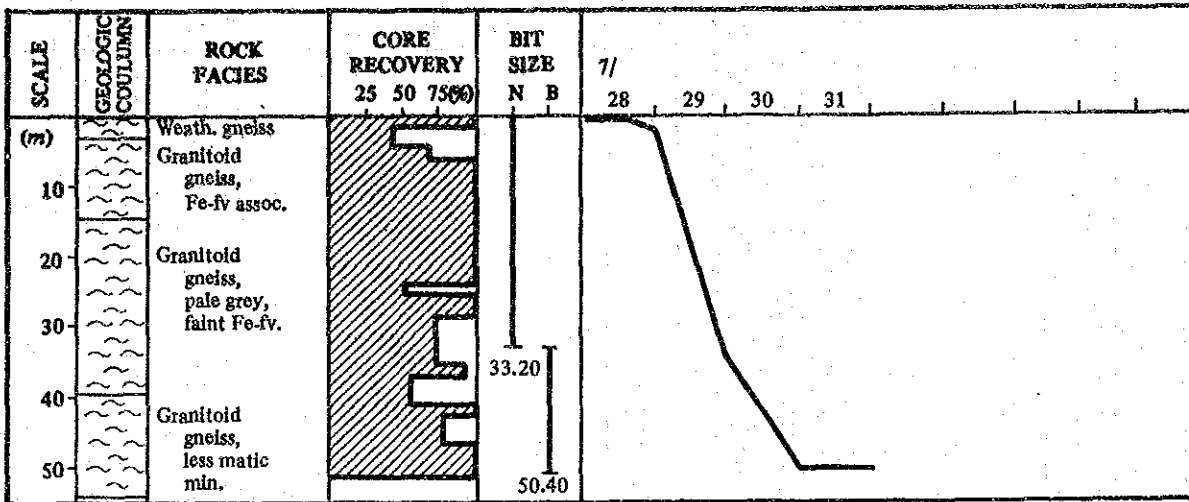


BR-25

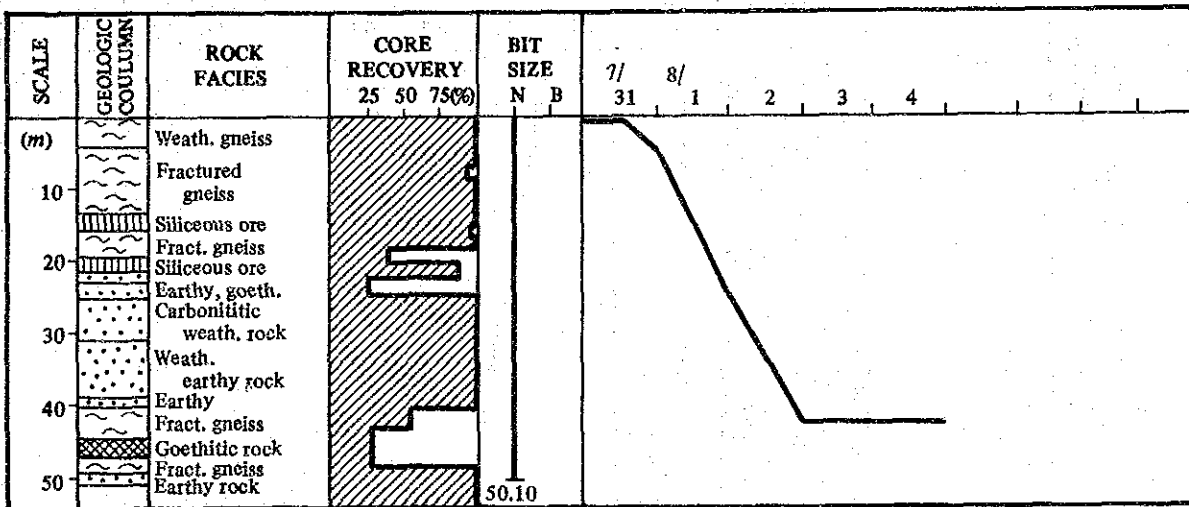


BR-26

Apx. 38 Drilling Progress by Hole (5)

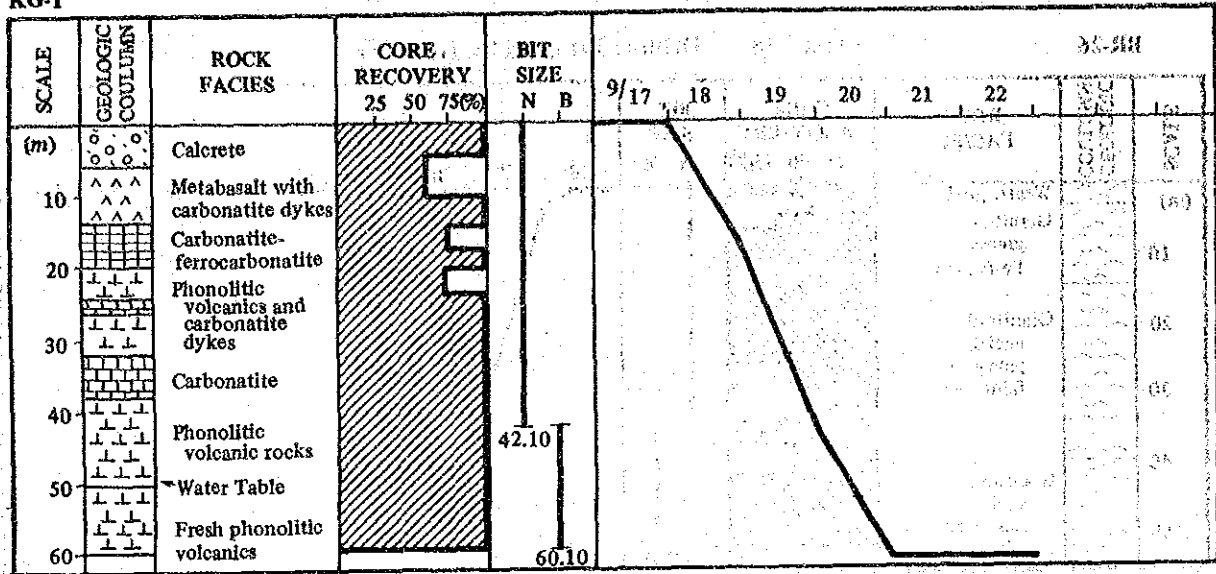


BR-27

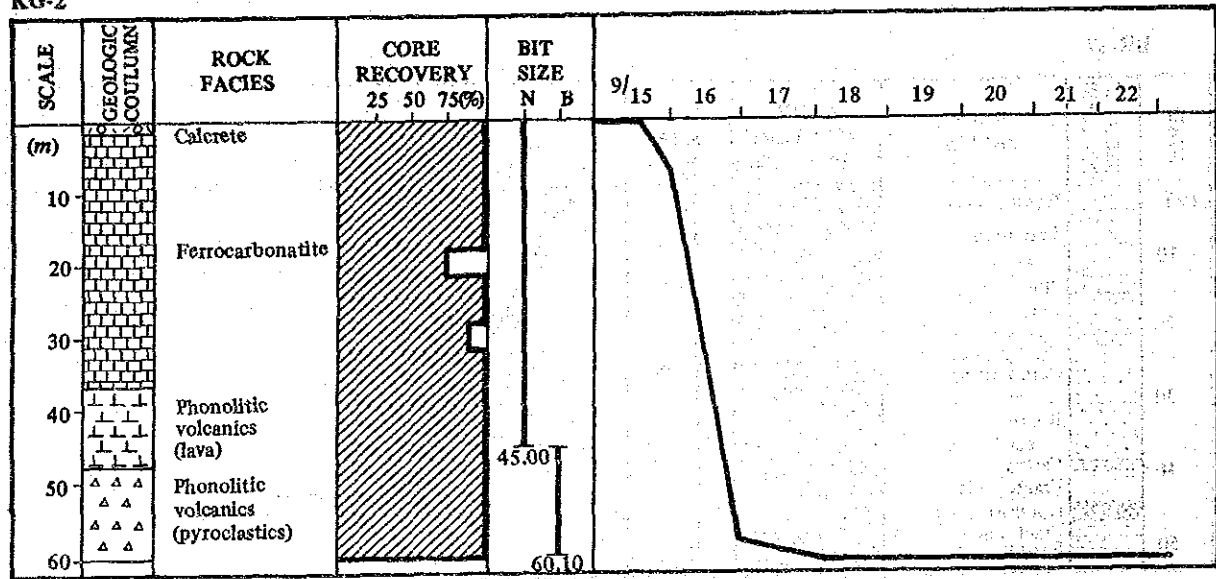


Apx. 38 Drilling Progress by Hole (6)

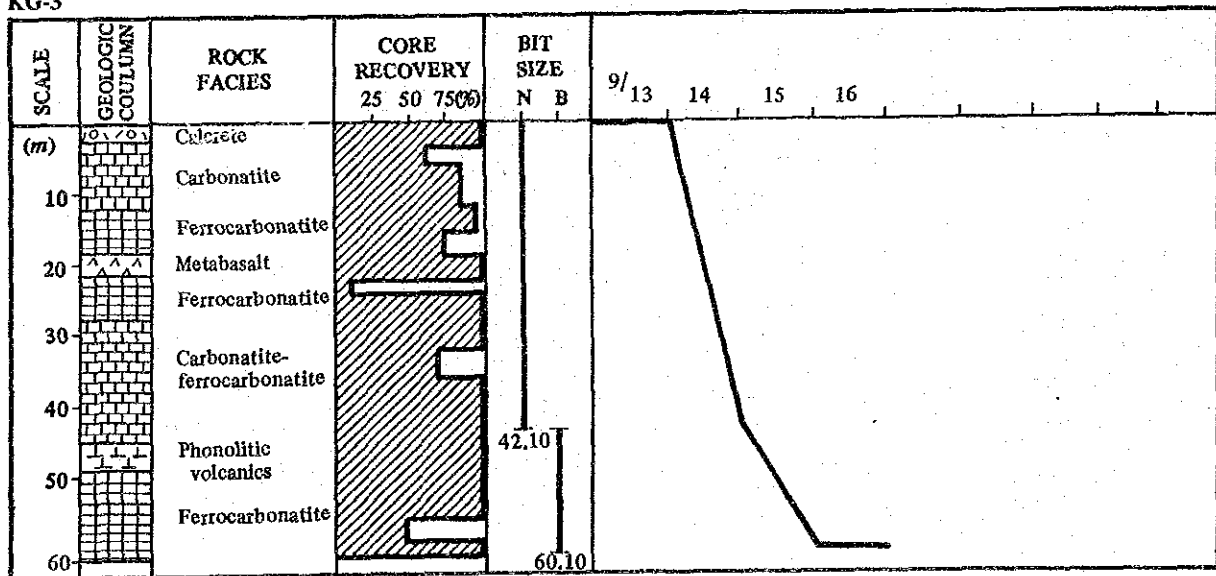
KG-1



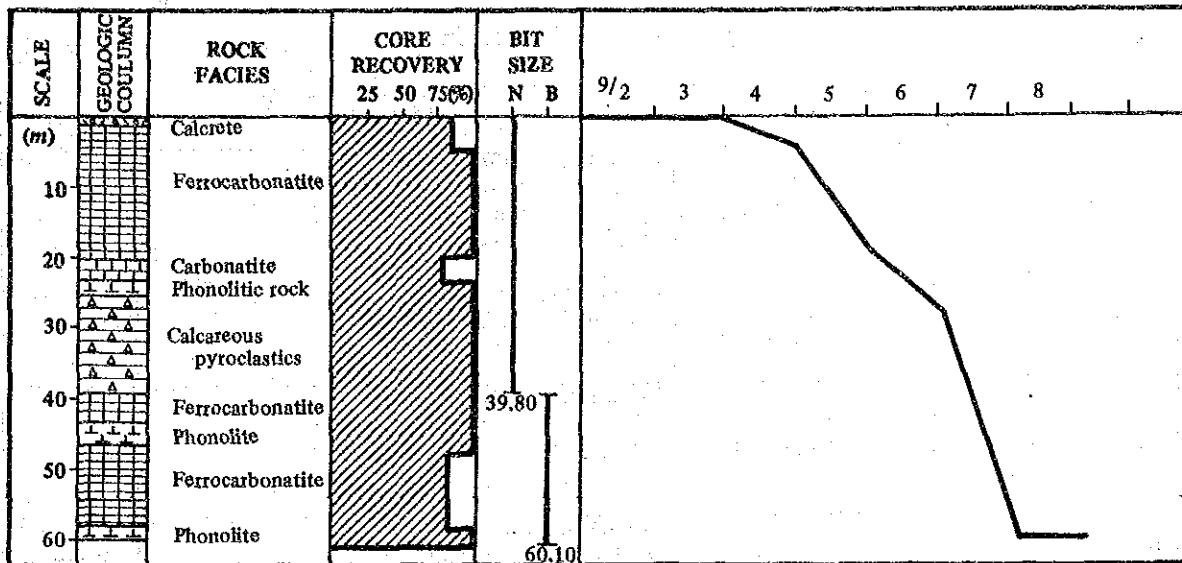
KG-2



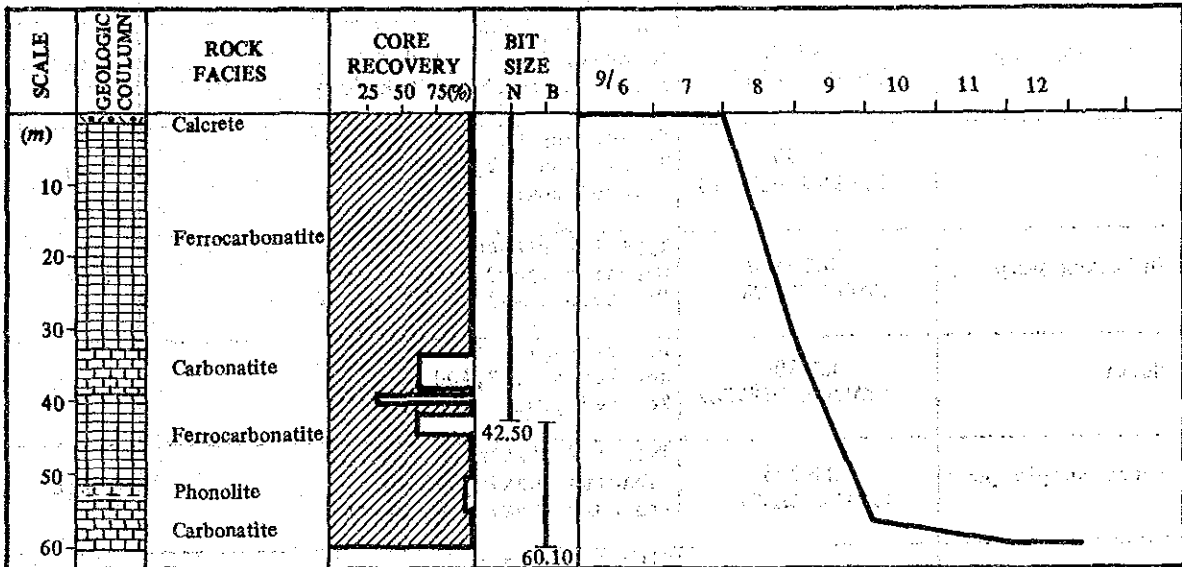
KG-3



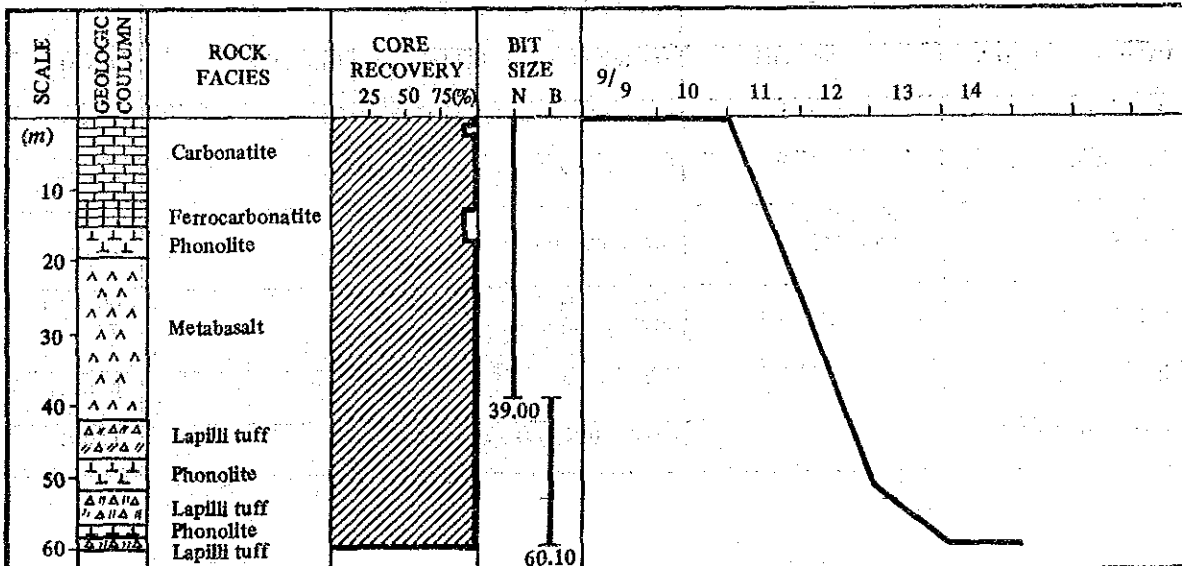
KG-4



KG-5



KG-6





Apx. 39 Drilling Equipments

Article	Model	Specification	Quantity
Drilling machine	THS-5 (TONE BORING)	Capacity : BQWL 290m Inner diameter of spindle : 80mm Spindle speed : 125, 250, 500 r.p.m Weight : 950kg	1 set
Motor	F2L912 (MITSUI-DEUTZ)	Diesel engine : Revolution : 2,500 r.p.m Related power : 30 p.s	1 set
Drilling machine	YBM-3ES (YOSHIDA BORING)	Capacity : BQWL 240m Inner diameter of spindle : 93mm Spindle speed : 125,250,500,750 r.p.m Weight : 650kg	1 set
Motor	NF-110EX (YANMAR DIESEL)	Diesel engine : Revolution : 2,400 r.p.m Related power : 11 p.s	1 set
Drilling pump	NAS-3B (TONE BORING)	Type : 2 piston Capacity (max) : 130 /min Pressure (max) : 26 kg/cm <sup>2</sup>	1 set
Motor	NS-90C (YANMAR DIESEL)	Diesel engine : Revolution : 2,400 r.p.m Related power : 9 p.s	1 set
Drilling pump	NES-100 (TONE BORING)	Type : 2 piston Capacity (max) : 100 /min Pressure (max) : 30 kg/cm <sup>2</sup>	1 set
Motor	NF-90K (YANMAR DIESEL)	Diesel engine : Revolution : 2,400 r.p.m Related power : 9 p.s	1 set
Water supply pump	MS-703 (DELTA ALAT)	Type : 2 piston Capacity (max) : 80 /min Pressure (max) : 40 kg/cm <sup>2</sup>	1 set
Motor	E70-N (KUBOTA)	Diesel engine : Revolution : 3,000 r.p.m Related power : 7 p.s	1 set
wire line hoist	For THS	Attached to drilling machine 300m	1 set
Derrick	DRP-6	Pipe structural derrick 6.0m	2 sets
Inclined Derrick	DRP-6S	Pipe structural derrick 6.0m	1 set
Generator	EB 1500X (HONDA)	Gasoline engine : 1.5 kva	1 set
Drill rod	Wire line rod	NQWL x 3m BQWL x 3m	80 pcs 70 pcs
Water tank		2m <sup>3</sup>	6 sets
Water supply pipe		25mm polyvinyl pipes	1500m

Apx. 40 Amount of Consumed Materials and Diamond Bits (1)

Article	Unit	BRL-2	BRL-3	BR-17	BR-18	BR-19	BR-20	BR-21	BR-22	BR-23	BR-24
Diamond bit (NQ)	Pcs	1	1	1	1	1				1	1
do. (BQ)	Pcs	1				1	2	1	1	1	
Diamond reaming shell (NQ)	Pcs	1	1	1		1				1	
do. (BQ)	Pcs	1				1			1	1	
Metal crown (NX.BX)	Pcs		1	1	1	1	1	2	1	1	1
Core lifter (NQ)	Pcs	1	1	1	1	1				1	1
do. (BQ)	Pcs	1				1			1		
Core lifter case (NQ)	Pcs	1		1		1			1		1
do. (BQ)	Pcs	1				1			1		
Core box (NQ)	Pcs	7	14	6	7	3	1	6	5	3	8
do. (BQ)	Pcs	4				3	5	2	2	4	
Cutting Oil (Detergent powder)	Dz	10	6	3	6	4	3	13	6	3	4
Diesel	l	60	65	35	70	70	35	105	90	30	50
Gasoline	"	20	10	10	15	15	10	26	20	10	10
Engine oil	"										
Grease	kg										

Apx. 40 Amount of Consumed Materials and Diamond Bits (2)

Article	Unit	BR-25	BR-26	BR-27	KG-1	KG-2	KG-3	KG-4	KG-5	KG-6	Total
Diamond bit (NQ)	Pcs		1		1		1	1	1	1	13
do. (BQ)	Pcs	1	1		1	1	1	1	1	1	15
Diamond reaming shell (NQ)	Pcs		1		1			1		1	9
do. (BQ)	Pcs	1			1		1			1	8
Metal crown (NX.BX)	Pcs	1	1	1	1	1	1	1	1	1	8
Core lifter (NQ)	Pcs		1		1		1	1	1	1	13
do. (BQ)	Pcs	1			1			1		1	7
Core lifter case (NQ)	Pcs		1		1		1		1	1	10
do. (BQ)	Pcs	1					1		1		6
Core box (NQ)	Pcs	3	3	7	6	7	6	6	6	6	120
do. (BQ)	Pcs	5	3		1	2	2	2	2	3	40
Cutting Oil (Detergent powder)	Dz	4	3	3	2	2	2	2	2	2	80
Diesel	ℓ	70	35	60	70	35	60	60	60	50	1,110
Gasoline	"	15	5	15	20	10	20	15	15	15	276
Engine oil	"										
Grease	kg										







