App. 9 Summary of the Drilling Operation II-2

r	М	T	1	-	١	2	۲
	п	J	1	_	ŧ	~	

[MJI-15]				·		:			
	Su	rvey		Perio	<u> </u>		.s.		Man-day
	Peri	od	Day	Work s		Off		Engineer	Worker
Operation				s h	ift		shift	man	man
Preparation	13.08.87-	18.08.87	6	6				36	90
				Drilli	ng				
				37			<u>-</u>	78	159
Drilling	19.08.87-	31.08.87	13	Recove	ring				i
			·	:	•		-		-
Removing	01.09.87-	03.09.87	3	5			- 1	18	30
Total	13.08.87-	03.09.87	22	48				132	279
Drilling Lengt	h					Core	recove	ry of 100	m hole
Length	7							C	ore
planned	350.00m	Overbur	den	14.70m	· D	epth	Со	re r	ecovery
Increase	 				of	hole	re	covery c	umulated
or			<u> </u>	:		(m)		(%)	(%)
decrease	1.00m	Core le	ngth	333.15m		A ANY			1300
in	· ·		İ			0-100		98.5	98.5
length]		10	0-200		98.2	98.3
Length	·	Core			20	0-300	1	00.0	98.9
drilled	351.00m	recover	y	99.1 %	30	0-351	1	00.0	99.1
Working hour		h	%	7 %		Ef	ficien	cy of Dri	lling
Drilling	2	10.45	71.2	54.9	4	4870			
Other workin	g	85.15	28.8	22.2	m/s	urvey	perio	d 351.0	Om/22days
Recovering		<u>-</u>		-	(n/	day)		(15.95	m/day)
Sub total	2	96.00 1	00.0	77.1	m/s	hift	1	351.00	/48shift
Reassemblage		18.00	·	4.7	(m/	shift)	(7.31m	/shift)
Dismantlemen		26.00	· .	6.8	!				
Water				 					
transportation	on	***	,			Dr	illing	length/b	it
Road constru									er i erkedir.
and others		44.00		11.4	Bit	size	нх	NQ	ВQ
Total	3	84.00	100	100.0		lled	(m)	(m)	(m)
						gth	16.30	136.80	The second of the second
Casing pipe in	serted		1		Cor				1
	Meter	age			•	gth	0.40	134.85	177.90
Size Metera	1	ing x 10	0 R	ecovery					
	lengt	_					distant	*	¥
(m)	1	 (%)		(%)					\$ - 1
нх 2.00)	0.6	+	100.0					
NW 18.00		5.1		100.0	1				
BW 153.10		43.6	+	100.0				90 - 150 - 1	
1 DH 1 122.10	<u></u>			.00.0	L				

App. 9 Summary of the Drilling Operation II - 3

[MJI-13]

MJI-13]	-				······						:
		Su	rvey			Perio	d .				Man-day
		Peri	od.	D	ay	Work s	hift	Off	shift	Engineer	Worker
Operation						e y	ilı		shift	man	mar
Preparation	19.0	7.87-	26.07.8	7	8	8				48	128
						Drilli	ng				
						37			-	74	148
Drilling	27.0	7 . 87-	08.08.8	7	13	Recove	ring				
						<u></u> _	,				-
Removing			12.08.8		4	4		٠.		24	16
Total	t t	7.87-	12.08.8	7	25	49			_	146	292
Drilling Len	th	· · · · · ·						Core	recove	ry of 100	m hole
Length					-			. •			ore
planned	350).00m	Overbu	rde	n	29.35տ		epth	Co		ecovery
Increase	• 🛊 • -		1		-		of	hole			umulated
or								(m)		(%)	(%)
decrease	1	.00m	Core 1	eng	t h	333.60m					
in								0-100		88.6	88.6
length								0-200		00.0	95.3
Length			Core		1			0-300		00.0	97.0
drilled	351	.00m	recove			97.5 %	30	0-351	· · ·	00.0	97.5
Working hour			h		%	%		Ef	ficien	cy of Dri	lling
Drilling		2	34.00	79		59.7					
Other work	ng		62.00	20	. 9	15.8	m/s	urvey	perio	d 351.0	00m/25day
Recovering	. 1 2	<u> </u>	-	<u> </u>		-		day)			m/day)
Sub total		2	96.00	100	.0	75.5	m/s	hift		351.00	/49shift
Reassembla			48.00	1.		12.2	(m/	shift).	(7.16л	n/shift)
Dismantlem	nt		32.00			8.2					
Water											
transporta	ion		-					Dr	illing	length/b	it
Road const	uction	1									
and others	<u> </u>	1.40	16.00	: <u>(</u>		4.1	Bit	size	нх	NQ	BQ
Total		3	92.00			100.0	Dri	lled	(m)	(m)	(m)
							len	gth	24.00	126.10	200.9
Casing pipe	nserte	d					Cor	e.			19.
		Meter	age				len	gth	0.00	112.70	200.9
Size Mete	age	drill	ing x 1	00	Re	covery					
		lengt	h	14							
(1	1)		(%)		Ŀ	(%)					
HX 2	00		0.6			100.0					
NW 31	00	-	8.8			100.0			5		
BW 150	10		42.8		77.	100.0					1.

App. 9 Summary of the Drilling Operation II - 4

[MJI-14]

_[MJI-14]	· · · · · · · · · · · · · · · · · · ·						<u> </u>					
					rvey			Perio					Man-day
				Peri	od	D	ау	Work s	hift	Off		Engineer	Worker
Ō	peration	n						a h	ifi		shift	man	man
	Prepara	ation	22.0	9.87-	23.09.	37	_2	4	10		-	8: -	80
						7	1	Drilli	ng				
ł			•					39			-	52	234
	Drilli	ng	24.0	9.87-	06.10.	37	13	Recove	ring				
	1.7				r !		*:	-			-		
	Removi	ng	07.1	0.87-	08.10.	37	2	4			:	8	86
١	Total			9.87-	08.10.	37	17	47			- 1	68	400
D	rilling	Length	3							Core	recove	ry of 100	
	Length]			٠.					1.1	C	ore
1	planne	d	350	.00m	Overb	irde	n'	17.30л	D	epth	Co	re r	ecovery
	Increas	se							of	hole	re	covery c	umulated
	or			•			- [(m)		(%)	(%)
	decreas	se	1	.00m	Core	leng	th	286.80m	115	1. g. 20.	ja para		- <u>154</u> - 155 - 1 <u>1</u>
	in		· ·							0-100)	47.8	47.8
	length	**.							10	0-200)	96.4	74.4
	Length				Core				20	0-300	1	00.0	83.5
	drille	d	351	.00m	recove	ery		85.9 %	30	0-351		99.6	85.9
W	orking l	hour			h	; ;	78	7. %		Εf	ficien	cy of Dri	lling
	Drilli	ng		. 2	32.00	74	. 4	61.7		41 1			
	Other	working	3		80.00	25	. 6	21.3	m/s	urvey	perio	d 351.0	Om/17days
	Recover	ring				-		-	(m/	day)	·	(20.65	m/day)
	Sub to	tál		3	12.00	100	.0	83.0	m/s	hift		351.00	/47shift
	Reasser	mblage			17.00			4.5	(m/	shift	.)	(7.47m	/shift)
	Dismant	tlement	:		19.00			5.1	1.				TWA SE
	Water												
	transp	ortatio	n l							Dr	illing	length/b	it
	Road co	onstruc	tion			-							
	and otl	hers			28.00			7.4	Bit	size	нх	NQ	BQ
	Total			3	76.00			100.0	Dri	lled	(m)	(m)	(m)
									len	gth	17.30	95.90	237.80
C	asing p	ipe ins	erte	d					Cor	е			. ,
				Meter	age				len	gth	0.00	51.20	235.60
	Size	Meterag	ge	drill	ing x	100	Re	ecovery			1.77		
				lengt	h -						e de la companya de l		
		(m)			(%)			(%)			•		
	нх	2.00)		0.6		1	100.0		100 120 140			
	NW	62.00	i		17.7			100.0		1 2			
	BW	113.20		* - L	32.3			100.0		<i>i.</i>			
L									<u> </u>				

App. 9 Summary of the Drilling Operation II-5

[MJI-15]

[MJI-15]]						-					
			Su	rvey			Perio	d		T	Total	Man-day
			Peri	od	Da	ìу	Work s	hift	Off	shift	Engineer	Worker
Operati	on						s h	i f 1		shift	man	man
Prepa	ration	27.0	7.87-	29.07.8	37	3	3	{			9	57
							Drilli	ng				
							12				12	36
Drill	ing	30.0	7.87-	03.08.8	37	5.	Recove	ring				
					<u> </u>		3			- 1	3	9
Remov	ing			05.08.8		2	. 2			_	6	36
Total		27.0	7.87-	05.08.8	37	10	20			_	30	138
Drillin	g Lengtl	1				Т			Core	recove	ry of 100	m hole
Lengt	h .										C	ore
plann	ed	150	.00m	Overb	ırdei	n	32.00m	, D	epth	Co	re r	ecovery
Incre	ase	· 4·2						of	hole	re	covery c	umulated
or									(m)		(%)	(%)
decre	ase	1	.10m	Core	leng	t h	104.50m					<u> </u>
in									0-100		53.4	53.4
lengt	h	<u> </u>		<u> </u>				10	0-151	.1 1	00.0	87.7
Lengt	h .			Core	-	T						
drill	ed	151	.10m	recov			87.7 %					
Working	hour			h		7	%		Ef	ficien	cy of Dri	lling
Drill	ing			88.00	73	. 3	55.0	5.	<u> </u>			
Other	working	3		8.00	6	. 7	5.0	m/s	urvey	perio	d 151.1	Om/10days
Recov	ering			24.00	20	. 0	15.0		day)			m/day)
Sub t	otal .		1	20.00	100	.0	75.0		hift	-		/20shift
Reass	emblage			14.00			8.8	(m/	shift)	(7.56m	/shift)
Disma	ntlement			16.00			10.0				· · · · · · · · · · · · · · · · · · ·	
Water												· · · · · · · · · · · · · · · · · · ·
trans	portatio	on		<u>-</u>					Dr	illing	length/b	it
Road	constru	ction]								
and o	thers			10.00	-		6.2		size		NQ	BQ
Total			1	60.00			100.0		lled	(m)	(m)	(m)
an print						a,ery a mice			gth	30.00	17.80	103.30
Casing	pipe ins	serte	d		u 1			Cor	e			
	1 - 1 - 1	[Meter	age	. [·	len	gth	0.00	1.20	103.30
Size	Metera	ge	drill	ing x	100	Re	covery					
	4.0	·	lengt	h						. **		
	· (m)		<u>/</u>	(%)			(%)					
нх	1.00)		0.6			100.0				-	
NW	30.00 8.8					100.0						
BW	47.80			31.6			100.0	٠.				

App. 9 Summary of the Drilling Operation 1-6

์ [พา	[-16]							· · · · · · · · · · · · · · · · · · ·				
			Surv	еу	<u> </u>		Period				Total Ma	n-day
			Peri	od	D	ay	Work s	hift	Off		Engineer	Worker
Oper	ation		1				* h	itt		ah ift	man	man
Pr	reparation	12.0	7 . 87 –	21.09.	87	10	10				30	110
	11.00		••••••			-	Drilli	ng				
	Mar.		•				12			-	12	36
Dr	rilling	22.0	7.87	25.07.	87	4	Recove	ring				
		. 5								-	_	
Re	emoving	26.10	0.87			1	11		1		3	18
To	otal	12.0	7.87-	26.07.	87	15	23				45	164
Dril	lling Lengt	h							Core	recove	ry of 100	m hole
Le	ength	1										ore
l pl	lanned	150	.00m	Overb	urde	n	16.40m	D	epth	Co		ecovery
Ir	ncrease							of	hole			umulated
	or								(m)	13	(%)	(%)
d€	ecrease	1.	.00m	Core	leng	th	134.60m		<u> </u>			
	i n								0-100		82.6	82.6
16	ength							10	0-151	1	00.0	99.3
Le	ength			Core						· · · · · · · · · · · · · · · · · · ·		
dr	illed	151	.00m	recov	ery		99.3%		£ 10			
Work	cing hour		1.1	h		% .	7.		Ef	ficien	cy of Dri	lling
Dr	illing			77.40	80	. 9	42.2					
- Ot	her working	g [18.20	19	. 1	10.0	m/s	urvey	perio	4.7	Om/15days
Re	covering						-		day)			m/day)
St	ıb total			96.00	100	.0	52.2	m/s	hift		1 - 1	/23shift
Re	eassemblage	× 1.		24.00			13.0	(m/	shift)	(6.65m	/shift)
Di	smantlemen	t		8.00			4.4		***			
Wa	iter											4
tr	ansportatio	on	<u> </u>						Dr	illing	length/b	it
Ro	ad construc	ction									i es	
an	nd others			56.00			30.4	Bit	size	нх	NQ	BQ
To	tal		1	84.00			100.0	Dri	lled	(m)	(m)	(m)
					1. 1			len	gth.	16.40	10.60	124.00
Casi	ng pipe in	serte	d	er e	1. :			Cor				
		1	Meter	age	1			len	gth	0.60	9.20	123.80
Si	ze Metera	ge d	drill	ing x	100	Re	covery	:4				· · · · · · · · · · · · · · · · · · ·
			lengt	h .	٠,							1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	(m)			(%)			(%)		. <i>(1</i>)		the man	
Н		1.00 0.7				100.0		1911 A		seleje.		
N	W 16.40	6.40 10.9				100.0						
В	W 27.00)		17.9			100.0					

App. 9 Summary of the Drilling Operation II - 7

[MJI-17]

L	MJI-1/	1			····								
			· · · ·		rvey	- T <u>-</u>		Peri		1			Man-day
<u> </u>				Peri	od	D	ay	L	shift	Off	shift	Engineer	
0	perati		1								shift;	man	man
	Prepa	ration	06.0	8.87-	10.08.8	37	- 5	ļ	<u> </u>			15	109
					•			Drill					
·			12.4.2			<u>. </u> .		13		<u> </u>		15	45
)	Drill	ing	11.0	8.87-	15.08.	37	5	Recov	vering	3	. '		
								-	-	ļ			
	Remov	ing			17.08.		2			ļ	- . ·	6	32
	Total			8.8/-	17.08.8	3/	12	20)	<u> </u>	<u>-</u>	36	186
D		g Lengt	h			•	.]			Core	recove	ry of 100	
	Lengt		1.2.										ore
	plann		150	.00m	Overb	ırde	n	10.00)epth			ecovery
	Incre								0:	hol	e re	•	umulated
	or					. :				(m)		(%)	(%)
	decre	ase	1	.00m	Core	leng	th	141.00) m			<u> </u>	
	in		1		1. A					0-10		00.0	100.0
	lengt		1		7 10		4		10	00-15	11	00.0	100.0
	Lengt			1.5	Core			1					
	dril1		151	.00m	recov			100.07					
W	orking				h	100	%	, ,	. 1	E	fficien	cy of Dri	lling
	Drill				93.00	89		58.		1 1 2 4			
		workin	g		11.00		.6	6.9			y perio	and the second second	00m/12days
		ering		 _	-					/day)			Sm/day)
		otal			04.00	100	. 0	65.0	_ '	shift		1.0	/20shift
		emblage			16.00	<u> </u>		10.0		/shif	t)	(7.55n	(shift)
		ntlemen	t		16.00	<u> </u>		10.0				*.	
	Water						٠.			~ <u>.</u>			
		portati							_	D	rilling	length/l	oit
		constru	ction	!									
		thers			24.00	<u> </u>	, t	15.0		t siz		NQ	BQ
	Total			1	60.00	,		100.0		illed	(m)	(m)	(m)
						,				ngth	10.00	29.00	112.00
C	asing	pipe in	serte	d	C. 1				Co	re	100		
2			. 1	Meter	-				lei	ngth	0.00	29.00	112.00
	Size	Metera	ge	drill	ing x	100	Re	cover	7				
	·.]			lengt	h								
		(m)			(%)			(%)					
	нх	нх 1.00 0.7			1		100.0						
	NW 10.00 6.6						100.0	7				.	
	BW	39.0	0		25.8			100.0	7	1.13			

App. 9 Summary of the Drilling Operation II - 8

[MJI~18]

	ľ W-	JI~18	1											
					Su	rvey			Perio					Man-day
					Peri	od	D	ау	Work s		Off		Engineer	Worker
	0pe	erati	on				T		ı,h	ift		shift	man	мва
	I	repa	ration	29.0	8.87-	30.08.8	37	2	5			-	5	54
				-				:	Drilli	ng				
1									10				12	30
1	I	Drill	ing	31.0	8.87-	03.09.8	37	. 4	Recove	ring			• : "	
									_		·	-		
	I	Remov	ing			05.09.8		2	2			-	6	39
		[otal			8.87-	05.09.8	37	8	17		V.	- 1	23	123
ı			g Lengtl	1							Core	recove	ry of 100	
١		Lengt		}										ore
	I	plann	ed .	150	.00m	Overbu	irde	n	22.60m		epth	Co	anger berick gibt i bereit in	ecovery
		Incre	ase		:	. :			,	of	hole		•	umulated
		or				17.5			•	,	(m)		(%)	(%)
1.	C	iecre	ase	3	.70m	Core 1	eng	th	75.80m		9 % ¹			est they t
		in									0-100		37.9	37.9
	-	lengt								10	0-153	.7	86.6	57.8
		Lengt				Core			e de la companya de l					<u> </u>
		irill		153	.70m	recove			57.8%				·	
			hour		1000	h .		7	2		Ef	ficien	y of Dri	lling
1		rill				63.00		. 8	46.3	42	1 47 1 17 1 1 1			
	L		working	3	<u>.</u> : -	17.00	21	. 2	12.5		1.60 (0)	perio	and the second second	Om/15days
			ering						-		day)	<u> </u>		m/day)
		Sub t					100	.0	58.8	1 1	hift	A 19 19 19 19 19 19 19 19 19 19 19 19 19	for the second of the second	/23shift
			emblage			26.00			19.1	(n/	shift)	(6.68m	/shift)
	-		ntlement	-		22.00			16.2					ie o tribili e e e e General e e e
1.		later					,							
1	<u> </u>		portatio						-		Dr	illing	length/b	1t
	1 7		construc	tion			•					I	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	ABUTANA Table 22 Table
	<u>.</u>		thers		<u> </u>	8.00	<u> </u>	· .	5.9		size		NQ	
	<u> </u> 1	otal			<u> </u>	36.00		<u>:</u>	100.0		lled	(m)	(m)	(m)
	_						·				gth	22.60	30.20	100.90
1	Cas	sing	pipe ins				. •			Cor		0.00		(- 00
	_	<u>. </u>		4	Meter	177				ien	gth	0.20	9.70	65.90
	5	Size	Meterag			ing x 1	00	ке	covery	500 0			y grad Maria T	
					lengt		:		/9/\	. *			Part of the	
	-	3737	(m)			(%)			(%)			· . · · ·		
1	-	HX 1.00 0.7				<u></u>	_	100.0						
	-	NW 22.60 14.7						100.0		 				
L		BW	52.80			34.4.			100.0					

App. 9 Summary of the Drilling Operation II - 9

	Sn	rvey		Perio	d		1	Total	ian-day
	Peri		Day	Work s		Off	shift	Engineer	Worker
Operation			,	· I	ili		ahii t	man	mar
Preparation	18.08.8-2	1.08.87	4	4			_	12	72
			-	Drilli	ng				
	* .			13			_	15	39
Drilling	22.08.87-	26.08.87	5	Recove	ring				
				· . · –			-	_	_
Removing	27.08.87-	28.08.87	2	2	1	Ŷ.	-	6	34
Total	18.08.87-	28.08.87	11	19			-	33	145
rilling Lengt	h			, 	(Core	recove	ry of 100	m hole
Length			•					C	ore
planned	150.00m	Overbur	den	25.10m	D	epth	Co	re r	ecovery
Increase					of	hole	re	covery c	umulated
or						(m)	•	(%)	(%)
decrease	1.00m	Core le	ngth	118.30m					4. 18 ¹
in						0-100		39.9	89.9
length		1.7			10	0-151	-10	00.0	94.0
Length		Core				: -			
drilled	151.00m	recover	у	94.0%					
orking hour		h	%	%		Ef	ficien	cy of Dri	lling
Drilling		84.00	80.8	55.3		i	1.5		ingager (f. d.
Other workin	g	20.00	19.2	13.1	m/s	urvey	perio	151.0	Om/llday
Recovering		-	. , -	-	(m/	day)		(13.73	m/day)
Sub total	1	04.00 1	00.0	68.4	m/s	hift		151.00	/19shift
Reassemblage		16.00		10.5	(m/	shift)	(7.95m	/shift)
Dismantlemen	t	24.00		15.8					- Ja
Water									
transportati	on		1	-		Dr	illing	length/b	it
Road constru	ction								
and others		8.00		5.3	Bit	size	нх	NQ	BQ
Total	1	52.00		100.0	Dri	lled	(m)	(m)	(m)
					len	gth	25.10	14.80	111.1
asing pipe in	serted				Cor	e			
	Meter	'age			len	gth	0.00	7.20	111.1
Size Metera	ge drill	ing x 10	0 R	ecovery					:
	lengt	h					1		
(m)		(%)		(%)					
НХ 1.0	0	0.7		100.0	1				
NW 26.2	0	17.4		100.0					
BW 39.9	0	26.4		100.0	•				

App. 9 Summary of the Drilling Operation $II - I \cdot 0$

[MJI-20]

Survey	[MJ	I-20)											
Preparation				Su	rvey		· de					Total	Man-day
Preparation 05.09.87-07.09.87 3 5 - 9 70				Peri	od	Da	y	1		Off		Engineer	Worker
Drilling	Ope	ration						s h	ilt		shift	man	man
Drilling	P	reparation	05.09	8.87-	07.09.8	7	3	5			_	9	70
Drilling					•			Drilli	ng				
Removing						. -		12				15	36
Total	D	rilling	08.09	9.87-	12.09.8	7	5	Recove	ring				
Total											_	i – 7	
Drilling Length Core Core Core Depth Core Core Core Depth Core Core Core Depth Core	R	emoving						<u> </u>					
Length planned	T	otal	05.09	9.87-	16.09.8	7 1	2	19					
Planned 150.00m Overburden 20.50m Of hole recovery cumulated (m) (%) (Dri	lling Lengt	h	,						Core	recove		
Increase Or decrease 1.00m Core length 124.00m (7) (7) (7)	1 1	T											4 5
Or decrease 1.00m Core length 124.00m			150.	.00m	Overbu	rden		20.50m					8.15.3
decrease 1.00m Core length 124.00m	I	ncrease	1				-		of		e re	•	
Ingth Length Core Fecovery 95.0%		or.	1 7 7	٠.			·			(m)		(%)	(%)
length	d	ecrease	1.	.00m	Core 1	engt	h	124.00m		4 - 1			
Length drilled 151.00m recovery 95.0%		in		.			İ					<u> </u>	
drilled	1	ength	<u> </u>						10	0-15	1 1	00.0	95.0
Working hour	L	ength			Core		-			300			
Drilling	d	rilled	151.	.00m	recove					1			
Other working 23.00 24.0 13.7 m/survey period 151.00m/12days Recovering - - (m/day) (12.58m/day) Sub total 96.00 100.0 57.2 m/shift 151.00/21shift Reassemblage 32.00 19.0 (m/shift) (7.19m/shift) Dismantlement 16.00 9.5 Water transportation - - Drilling length/bit Road construction and others 24.00 14.3 Bit size HX NQ BQ Total 168.00 100.0 Drilled (m) (m) (m) Casing pipe inserted Recovery length 1ength 25.40 16.50 109.10 Core length (m) (%)	Wor	king hour			h	%	,	%		E.	fficien	cy of Dri	lling
Recovering	D	rilling			73.00				1.	- 1 - 1 - 1		<u> </u>	
Sub total 96.00 100.0 57.2 m/shift 151.00/21shift Reassemblage 32.00 19.0 (m/shift) (7.19m/shift)	0	ther workin	g		23.00	24.	0	13.7	100		y perio	and the second second	
Reassemblage 32.00 19.0 (m/shift) (7.19m/shift)	R	ecovering				<u> </u>							
Dismantlement 16.00 9.5	S	ub total			96.00	100.	0	57.2	m/s	hift		the state of the s	
Water transportation -	R	eassemblage			32.00	÷ .		19.0	(m/	shif	t)	(7.19m	/shift)
transportation	D	ismantlemen	t		16.00			9.5					
Road construction and others 24.00 14.3 Bit size HX NQ BQ Total	W	ater					-						
and others 24.00 14.3 Bit size HX NQ BQ Total 168.00 100.0 Drilled (m) (m) (m) Casing pipe inserted Core Size Meterage drilling x 100 Recovery length (%) (%) HX 1.00 0.7 100.0 NW 25.40 16.8 100.0	t	ransportati	on							D	rilling	length/b	it
Total 168.00 100.0 Drilled (m) (m) (m) (m) length 25.40 16.50 109.10 Core length 1.20 13.70 109.10 (m) (m) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	R	oad constru	ction									ar jiring	
Casing pipe inserted Casing pipe inserted Core Core Length 1.20 13.70 109.10	a	nd others				: 							
Casing pipe inserted Size Meterage drilling x 100 Recovery	T	otal		1	68.00			100.0	100 100 100	The second second			
Size Meterage Meterage drilling x 100 Recovery length (%)											25.40	16.50	109.10
Size Meterage drilling x 100 Recovery length (%)	Cas	ing pipe in	serted	i]				-					
length (%) (%) (%) HX 1.00 0.7 100.0 NW 25.40 16.8 100.0									len	gth	1.20	13.70	109.10
(m) (%) (%) (%)	s	ize Metera	_		. –	00	Re	covery		1	+1 - F		
HX 1.00 0.7 100.0 NW 25.40 16.8 100.0]	lengt	h		-				e Mark		
NW 25.40 16.8 100.0		(m)			(%)								
1 77 1 (100) 07 7 100 0		NW 25.40	0							100		and the state	
BW 41.90 27.7 100.0		BW 41.90)		27.7			100.0		1985	9 2. <u>2. 2. 1.</u>		

App. 9 Summary of the Drilling Operation II - 1 1

[MJI-21]

	riji – Zi	.2 	*****					***************************************					
					rvey			Perio		, ··			Man-day
				Peri	od	Da	y	Work s		Off		Engineer	Worker
0	perati	on						s h	itt		shift	man	man
	Prepa	ration	25.1	0.87-	26.10.8	7	2	2			-	6	74
٠,						٠,		Drilli	ng				
							٠	24			-	24	120
	Drill	ing	27.1	0.87-	03.11.8	7	8	Recove	ring				
				+		1					<u>.</u> .	· -	- :
	Remov	ing	04.1	1.87~	05.11.8	7	2	4		11 .	- '	6	74
	Total		25.1	0.87-	05.11.8	7 .1	12.	30	1.31		-	36	268
D	rillin	g Lengt	h	a f	- 1		T			Core	recove	ry of 100	m hole
	Lengt	h	7									C	ore
	plann	ed .	280	.00m	Overbu	rdei	1	36.10m	E	epth	Co	re r	ecovery
	Incre	ase			3. 1				of	hole	re	covery c	umulated
	or									(m)		(%)	(%)
	decre	ase	. 1	.00m	Core 1	engt	:h	237.35m	Ę				
	in				: .			÷		0-100		88.8	88.8
	lengt	h					1	•	10	0-200	1	00.0	95.4
	Lengt	h	,		Core		7		20	0-281	1	00.0	96.9
	drill	ed	281	.00m	recove	ry		96.9 %	 				
W	orking	hour	-		h	7	6	%		Ef	ficien	cy of Dri	lling
	Drill	ing		1	41.00	73.	4	58.7					
	Other	workin	g		51.00	26	6	21.2	m/s	urvey	perio	d 281.0	Om/12days
	Recov	ering	· .			- -	- ;		(m <i>)</i>	day)		(23.42	m/day)
	Sub t	otal		1	92.00	100.	. 0	79.9	m/s	hift		281.00	/30shift
	Reass	emblage			16.00			6.7	(m/	shift)	(9.37n	/shift)
	Disma	ntlemen	t		16.00	٠		6.7	T		·		and the second
	Water						-		1	* .*	:		
-	trans	portati	on		_			_		Dr	illing	length/b	it
		constru						<u> </u>				ing the state of t	
	and o	thers			16.00	: .		6.7	Bit	size	нх	NQ	BQ
	Total		77.7	2	40.00		******	100.0	Dri	lled	(m)	(m)	(m)
								daeco	ler	ngth	36.10	84.00	160.90
C	asing	pipe in	serte	d					Cor				
:	Table 8			Meter	age					ngth	0.00	The second second	160.90
	Size	Metera	1.		ing x 1	00	Re	covery			L		
				lengt									
		(m)			(%)			(%)	1				
	НХ				73	100.0		1 v.	*				
	NW	36.10 12.8					100.0	1					
	BW	120.1			42.7		1	100.0	1				
	2.51		<u> </u>						ــــــــــــــــــــــــــــــــــــــ				

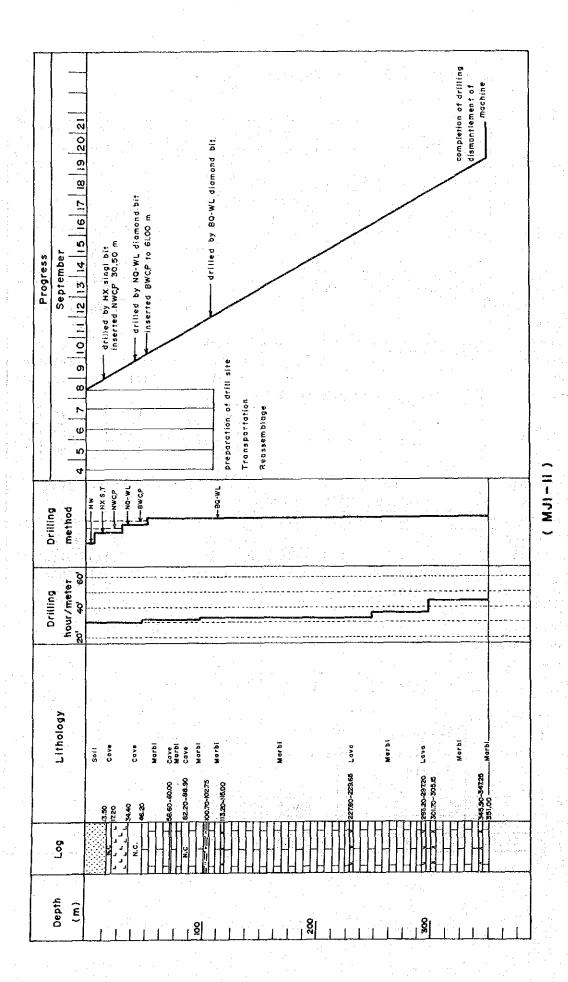
App. 9 Summary of the Drilling Operation II - 12

[MJI-22]

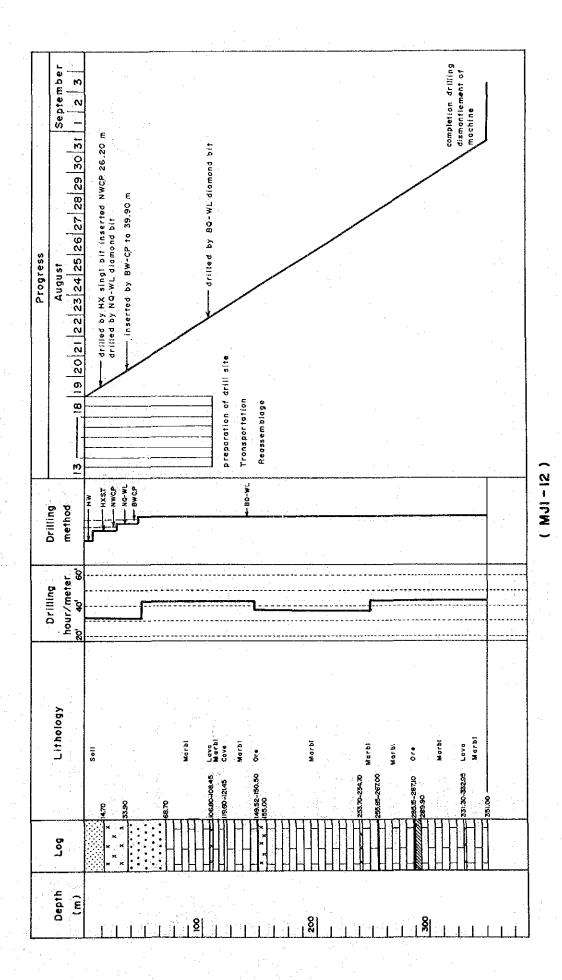
[MJ1-22	4			······································								
				rvey			Perio					Man-day
			Peri	od	D	ау	Work :		Off	shift	Engineer	
Operati	on	1 .		-		1 :	• 1	111		shift	man	тал
Prepa	ration	06.1	1.87-	08.11.8	7	3	4			<u> </u>	9	75
 						1	Drill	ng				
						1	28				30	90
Drill	ing	09.1	1.87-	18.11.8	7	10	Recove	ring		and the		
		<u></u>		: · · ·								
Remov				20.11.8		2	4			-	6	43
Total			1.87-	20.11.8	7	15	36	ng nama yang sa		- 31, 33	45	208
	g Lengtl	1 30 . :	* · .			ĺ			Core	recove	ry of 100	
Lengt	h ,											ore
plann	ed	270	.00m	Overbu	rde	n	43.001	-6	epth			ecovery
Incre	ase				.:	-	I.	of	hole			umulated
or				:			1000		(m)		(%)	(%)
decre	ase	30	.00m	Core 1	eng	th	242.55		5 g 1 g			
in						1		L	0-100	·	74.6	74.6
lengt	h						1 to 1 to 1	.i	0-200		00.0	90.8
Lengt	h			Core	12.0	- }		20	0-300	1	00.0	94.4
drill	ed	300	.00m	recove			94.4 7		3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		<u> </u>	
Working	hour			h		%	%		Ef	ficien	cy of Dri	lling
Drill	ing		1	59.00	7.1	. 0	55.2					with the
Other	working	3	3 (2.0)	65.00	29	. 0	22.6	m/s	urvey	perio	and the second second second	Om/15days
Recov	ering			<u> </u>			<u> </u>	(m/	day)			m/day)
Sub t	otal		2	24.00	100	. 0	77.8	m/s	hift		300.00	/36shift
Reass	emblage		,1	24.00			8.3	(m/	shift	.)	(8.33m	/shift)
Disma	ntlement		-	16.00			5.6					
Water												
trans	portatio	n	1 1 1			<u> </u>	-		Dr	illing	length/b	it
Road	construc	tion			,				<u> </u>	<u> </u>		
and o	thers			24.00			8.3		size	НХ	NQ	BQ
Total			2	88.00			100.0	Dri	lled	(m)		(m)
					.,,			len	gth	43.00	38.00	219.00
Casing	pipe ins	serte	d		:			Co	re			
			Meter	age				len	gth	0.00	23.55	219.00
Size					00	Re	ecovery				4 - 4 - 1 - 1	
	length							1	•	A STATE	5	
	(%)						(%)		. 60			
нх	HX 2.50 0.8						100.0]	11.			
NW	NW 43.00 14.3						100.0	1			To the Ale	
BW						7.	100.0	1		7 2		

App. 9 Summary of the Drilling Operation II - 13

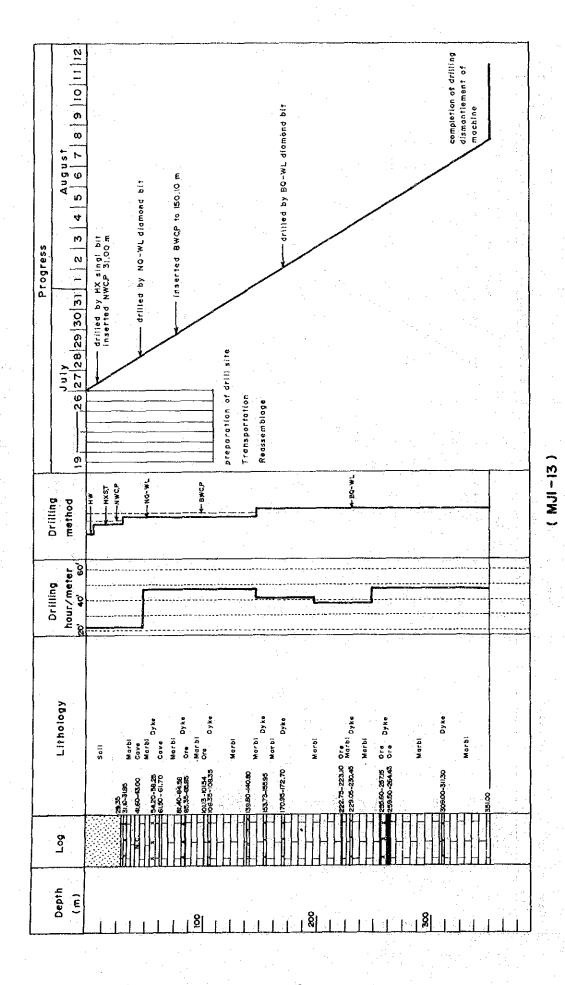
[MJI-23]												
	Su	rvey			Perio	d			Total Man-day			
Peri			od	D	ау	Work s	i i	Off		Engineer	Work	er
Operation					a h	ilt		shift	man	1	man	
Preparation	09.10	9.10.87-10.10.87		7	2	4			••	6 :	7	4
						Drilli	ng					
						30		······································		30	12	0
Drilling	11.10	10.87-21.10.87		7	8	Recove	ring					
					·	-						
Removing		.10.87-24.10.87			3	3				9	5	7
Total		0.87-	05.11.8	17	16	37			_	45	25	
Drilling Lengt	h						(Core	recove	ry of 100	m hol	e
Length							Core					
planned	270	270.00m Overburd		ırde	n	15.40m	,					
Increase							Į.	of hole recovery cumulated				
or							(m) (%) (%)					
decrease	6	.30m	Core 1	re length		235.20m				· · · · · · · · · · · · · · · · · · ·		· · · · · · ·
in							0-100 70.1 70.1					
length	<u> </u>						100-200 99.6 86.1					
Length	176.7						200-276.3 100.0 90.1					
drilled	276.30m recover											
Working hour		h			7.	7.	Efficiency of Drilling					
Drilling					3.2 61.3			. ·		<u> </u>		<u> </u>
Other working		66.30		26	6.8 22.5		m/survey period 276.30m/16days					
Recovering							(m/day) (17.27m/day)					
Sub total				100	.0	83.8	m/shift 276.30/37shift					
Reassemblage		20.00				6.7	(m/shift) (7.46m/shift)					.)
Dismantlement		16.00		· 	5.4							
Water												
transportation							Drilling length/bit					
Road construction		· .								. <u> </u>		
and others			12.00			4.1	1	size		NQ	В	IQ .
Total		296.00				100.0	Dri.	lled	(m)	(m)	1 '	(m)
							len		15.40	60.50	200	.40
Casing pipe inserted						Cor		1				
Meterage						len	gth	0.00	38.55	196	6.5	
Size Metera				00	Re	covery						
length				:								
(m)			(%)			(%)	J					
нх 3.0		- 1	1.1	<u>:</u>		100.0	l '					
NW 33.0	0	<u> </u>	11.9	17		100.0						
BW 86.0	0	2 11	31.1			100.0	<u> </u>			1.		



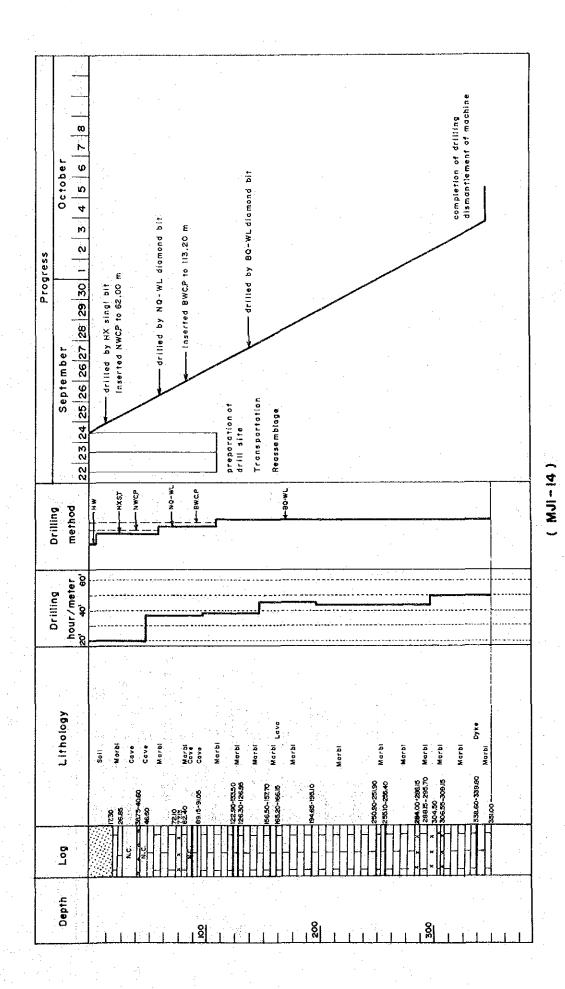
AP.10 Drilling Progress MJI-11



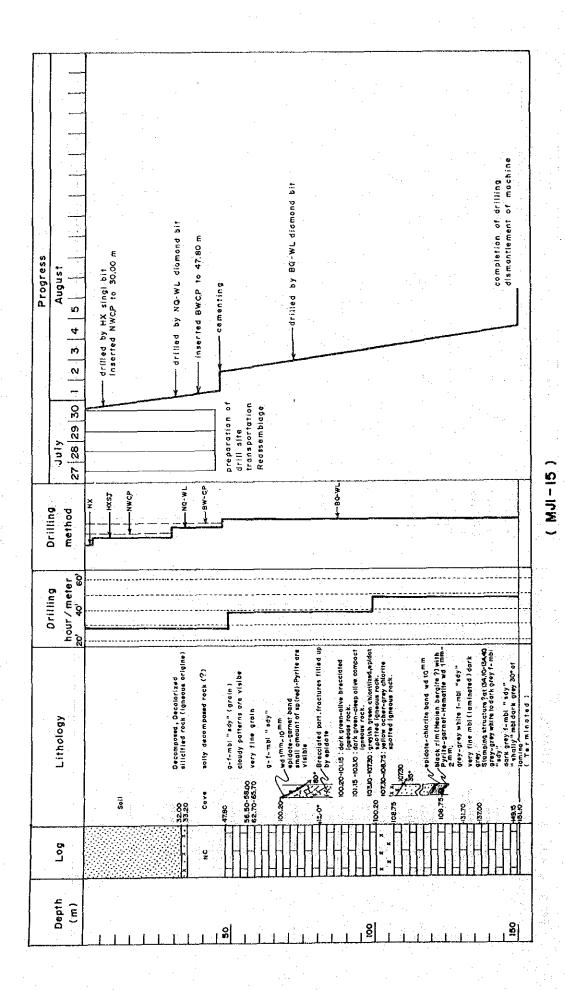
AP.10 Drilling Progress MJI-12



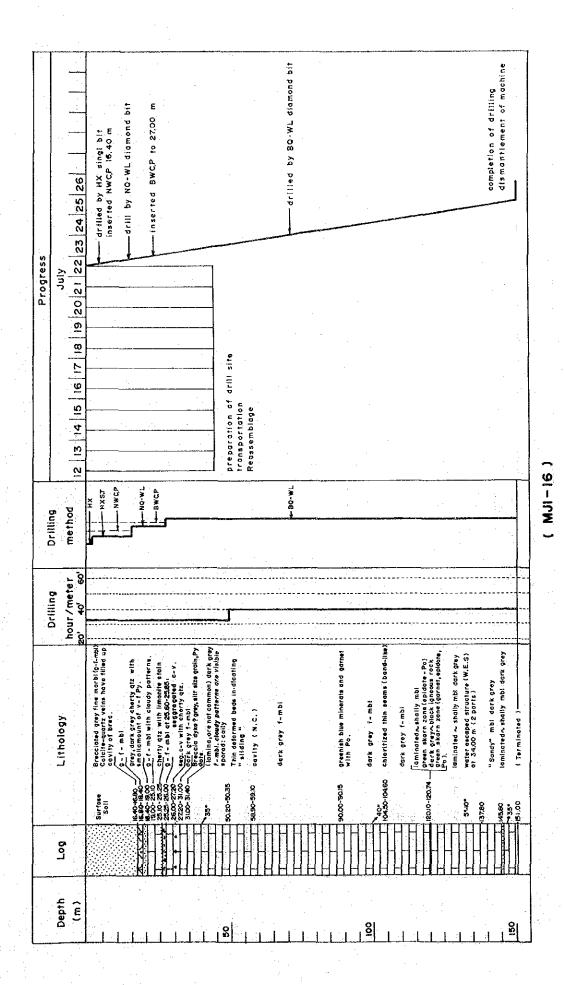
AP.10 Drilling Progress MJI-13



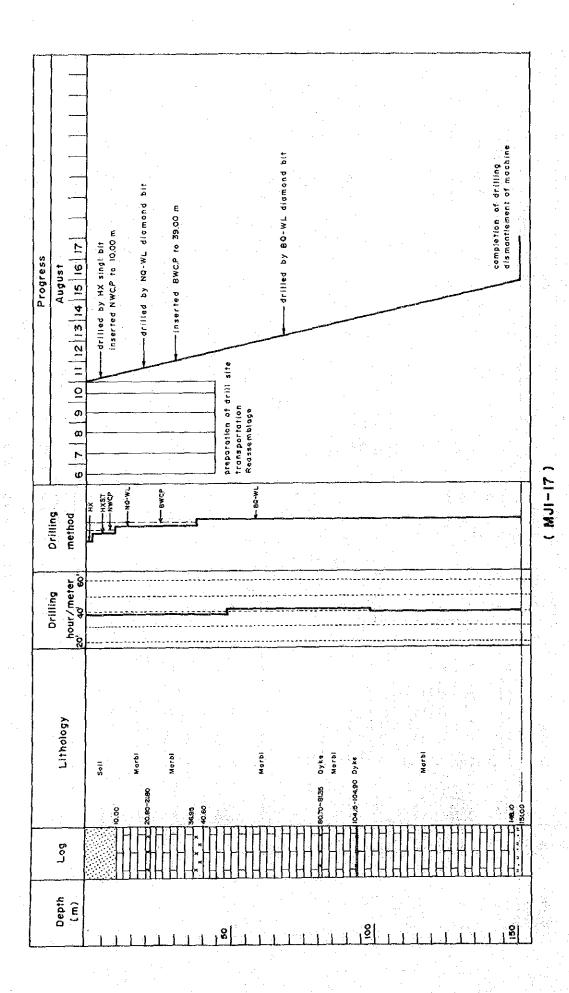
AP.10 Drilling Progress MJI-14



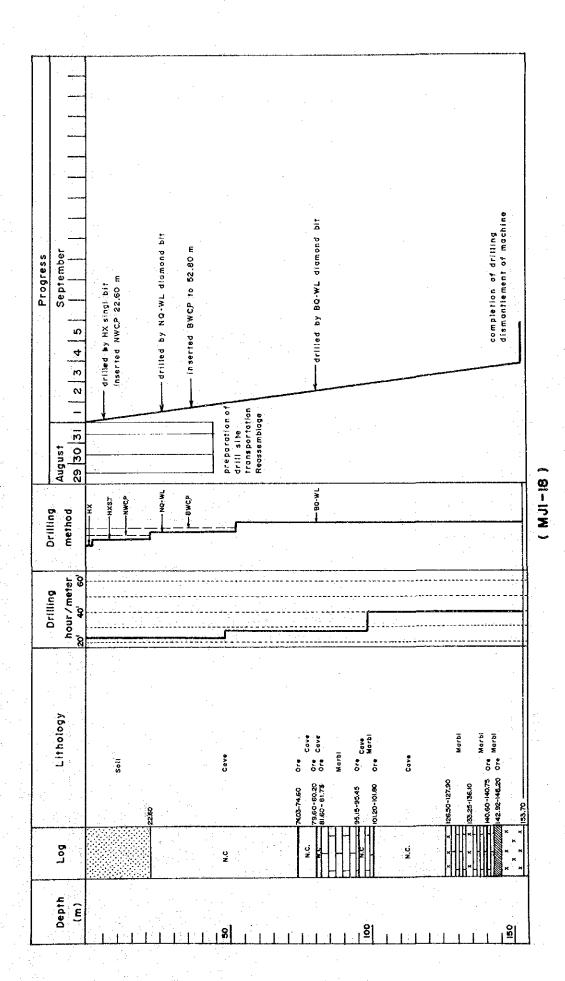
AP.10 Drilling Progress MJI-15



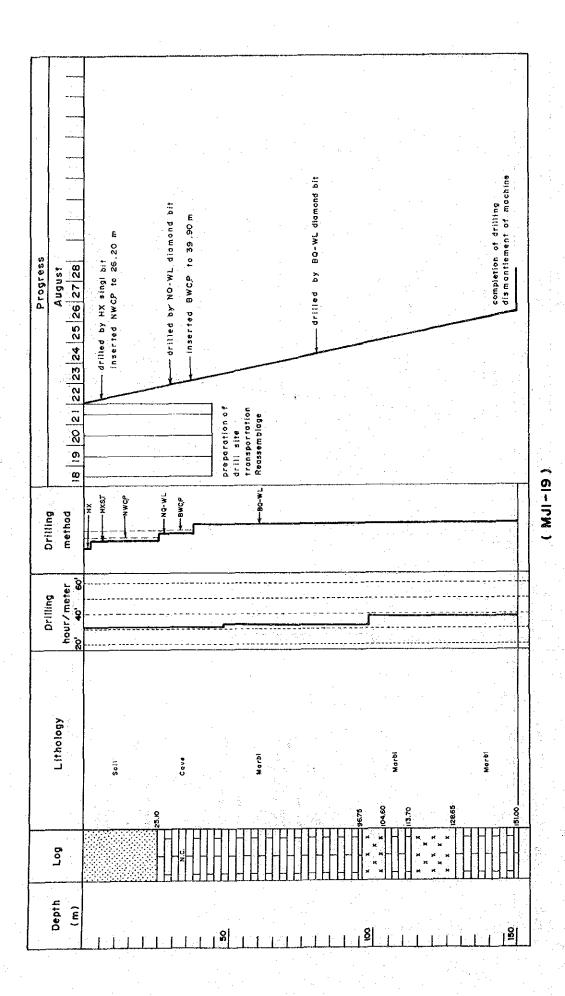
AP.10 Drilling Progress MJI-16



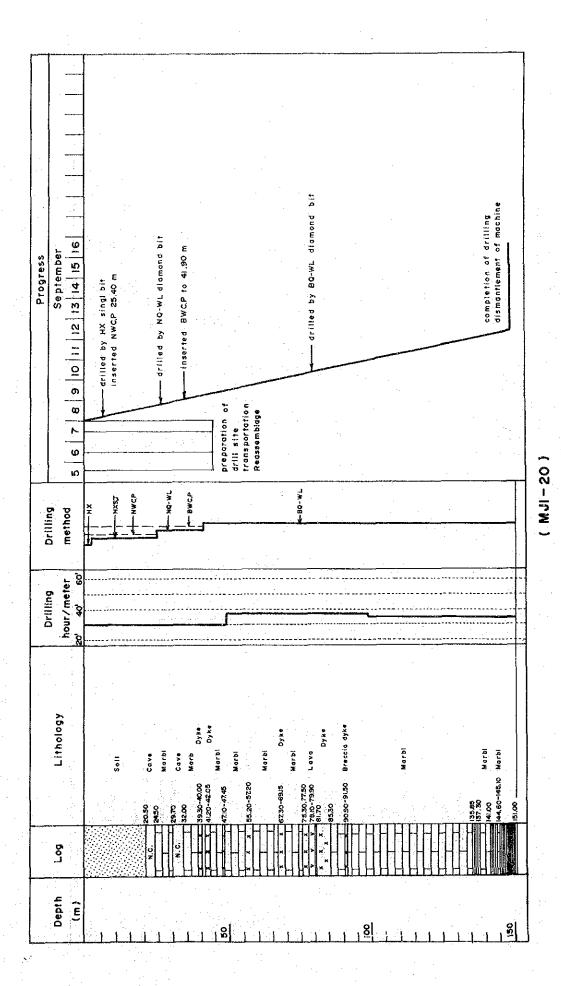
AP.10 Drilling Progress MJI-17



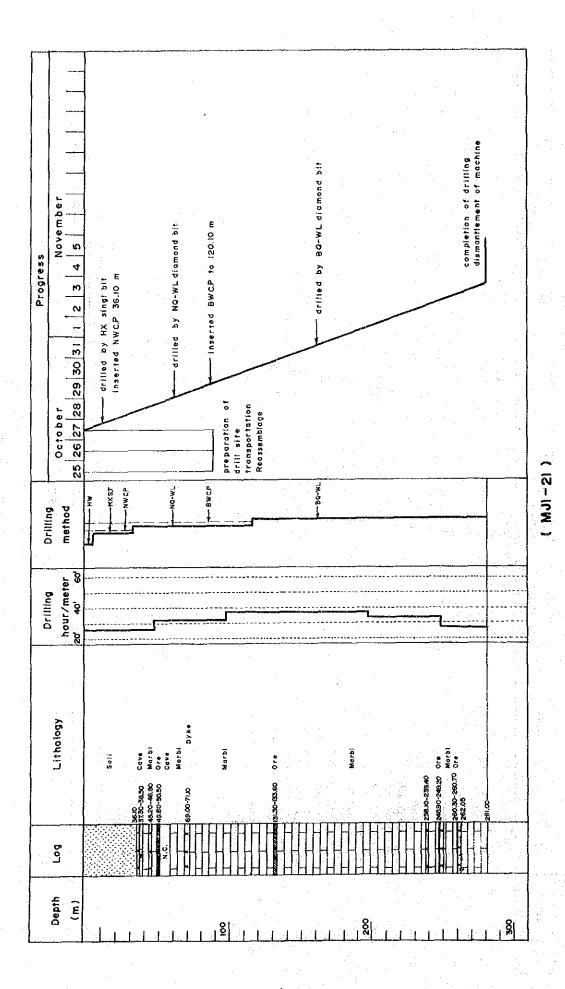
AP.10 Drilling Progress MJI-18



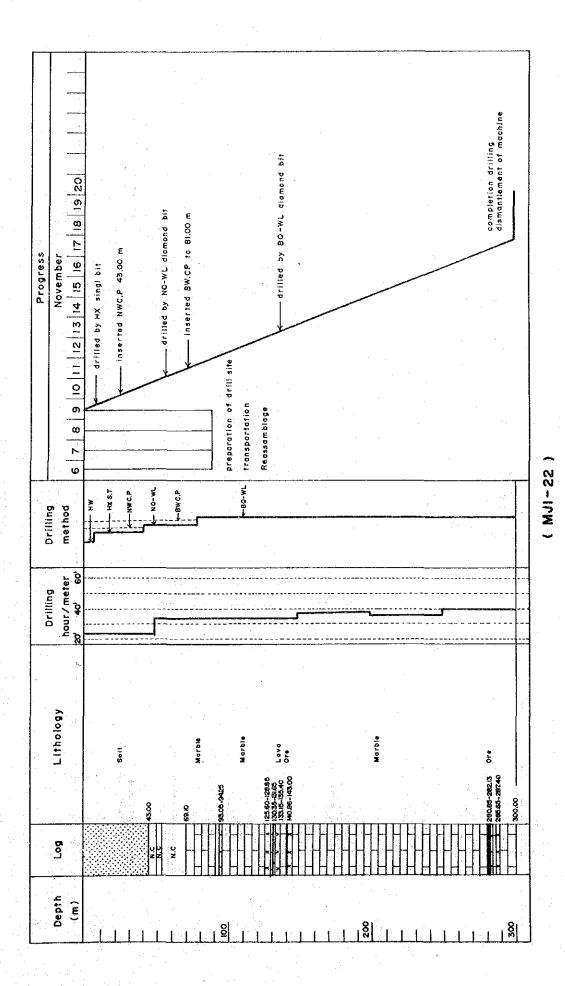
AP.10 Drilling Progress MJI-19



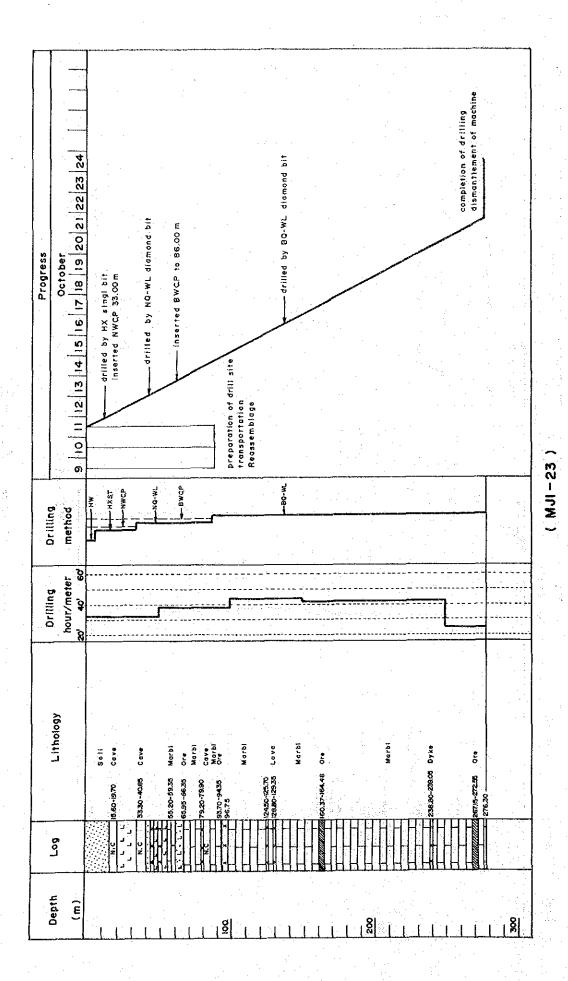
AP.10 Drilling Progress MJI-20

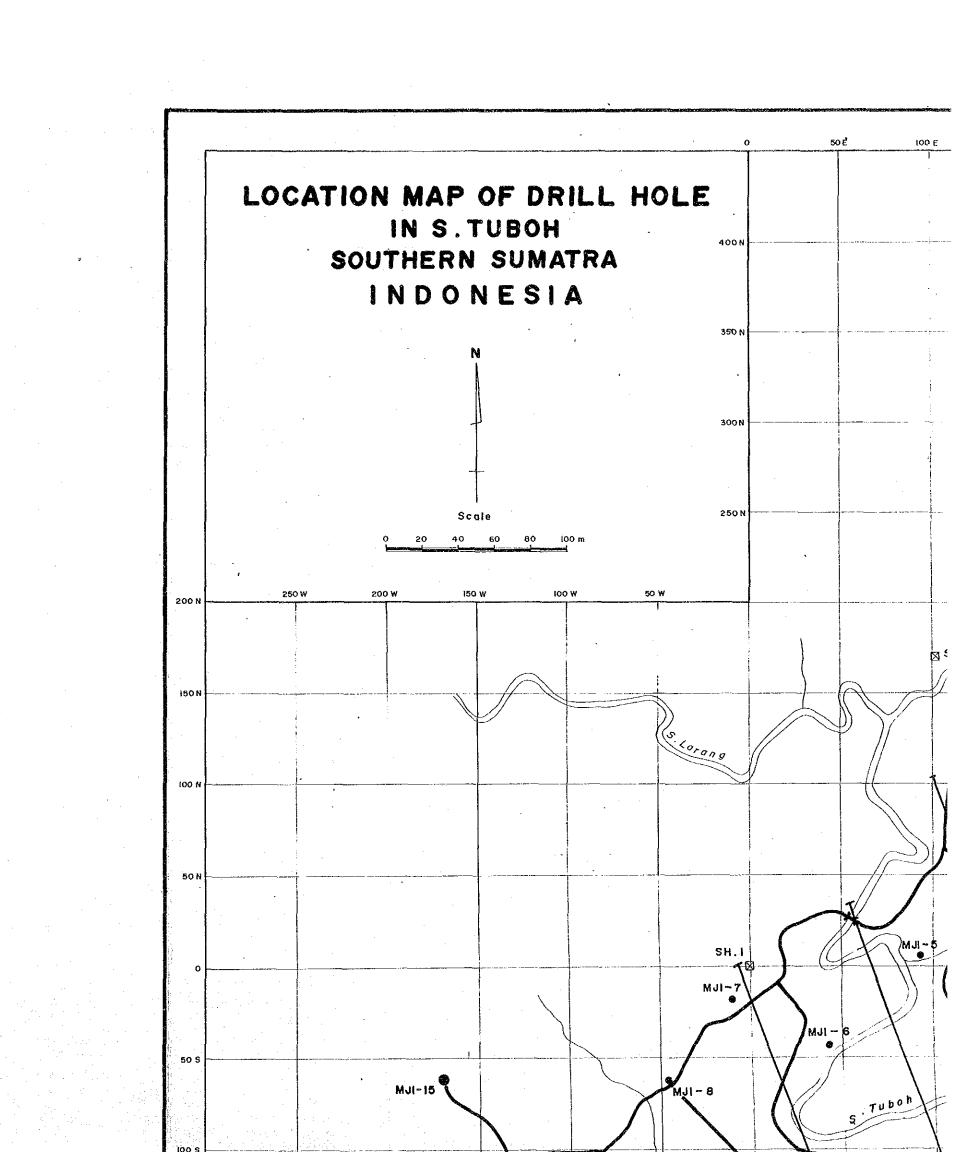


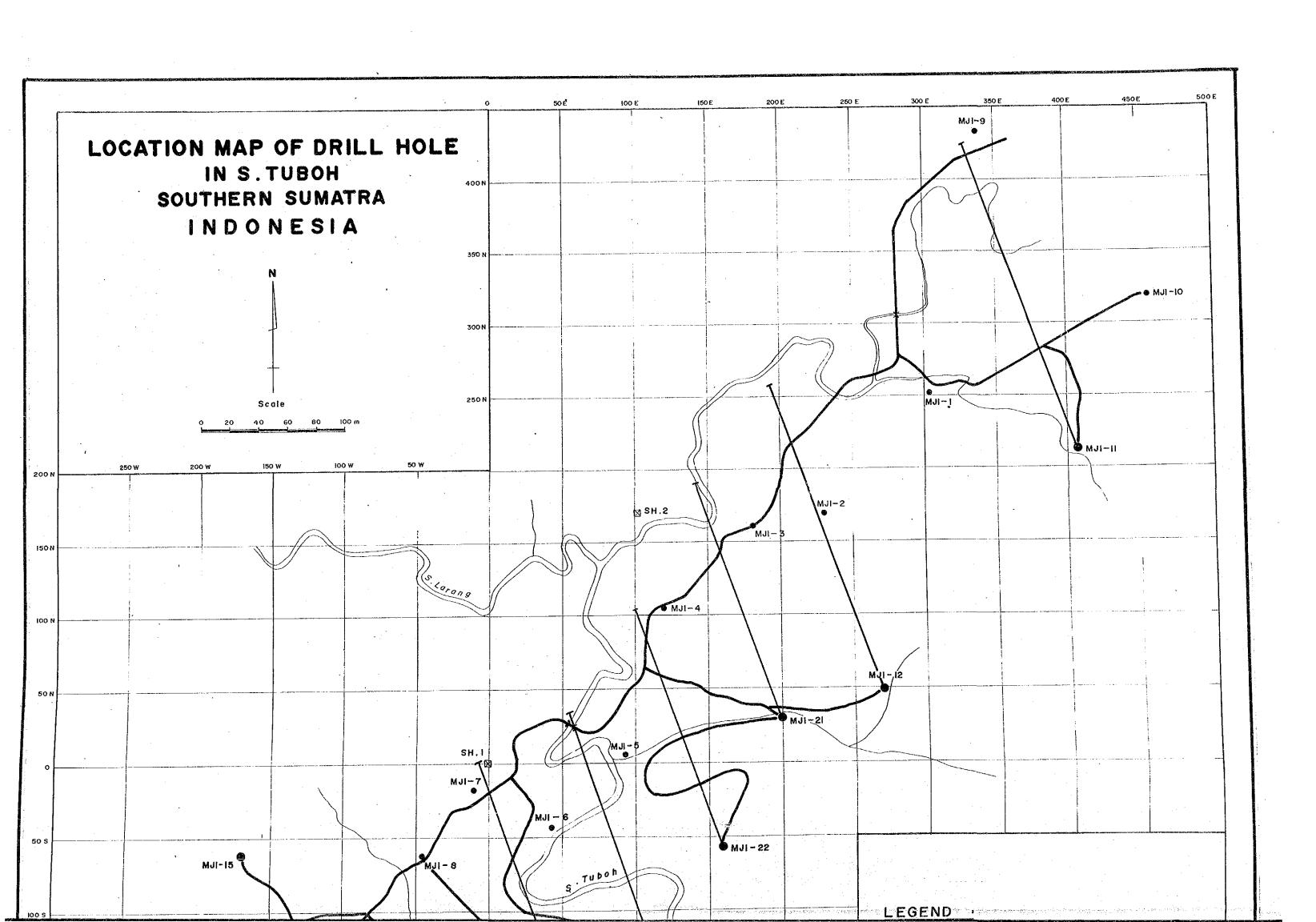
AP. I 0 Drilling Progress MJI-21

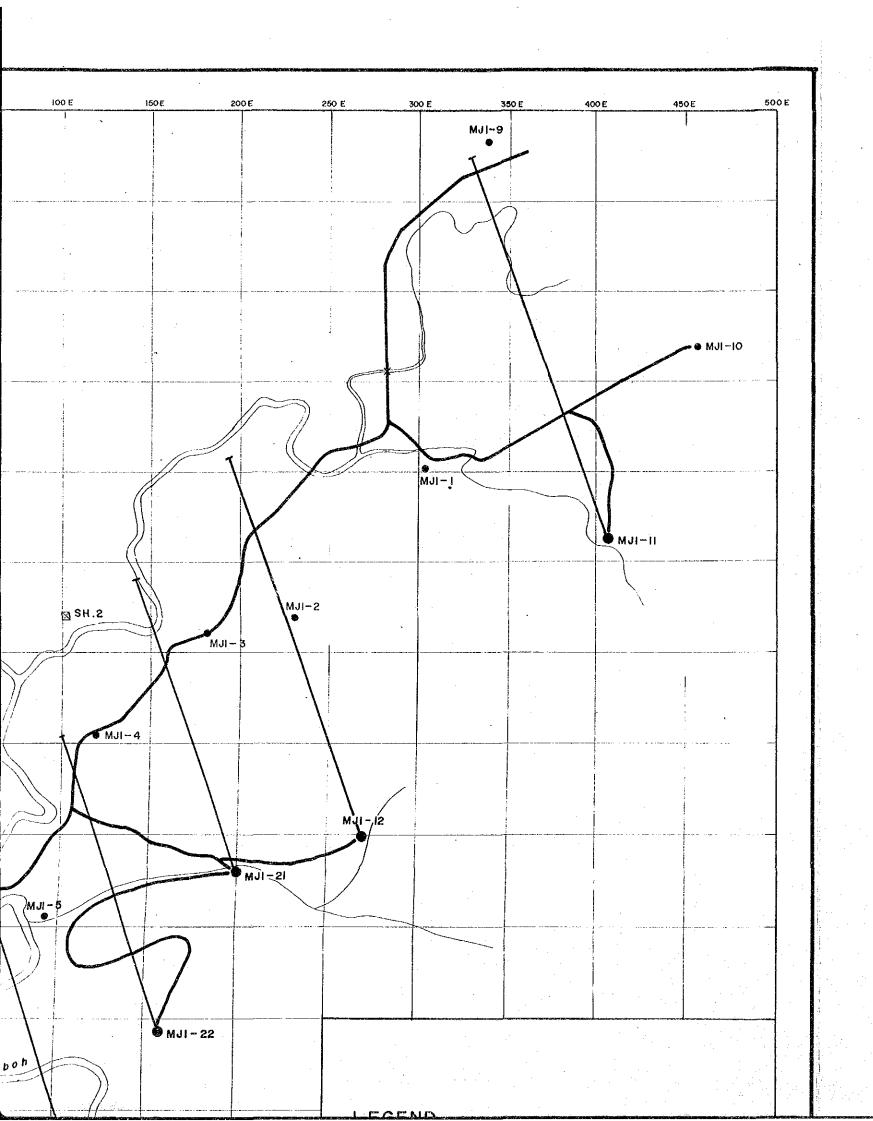


AP.10 Drilling Progress MJI-22









PL. I

17673

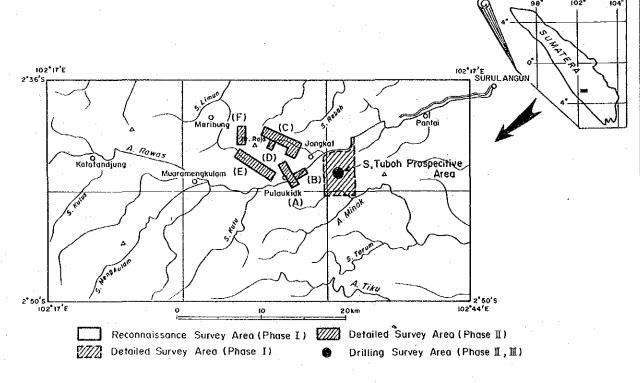
REPORT ON THE MINERAL EXPLORATION OF

SOUTHERN SUMATERA AREA, THE REPUBLIC OF INDONESIA

PHASE III

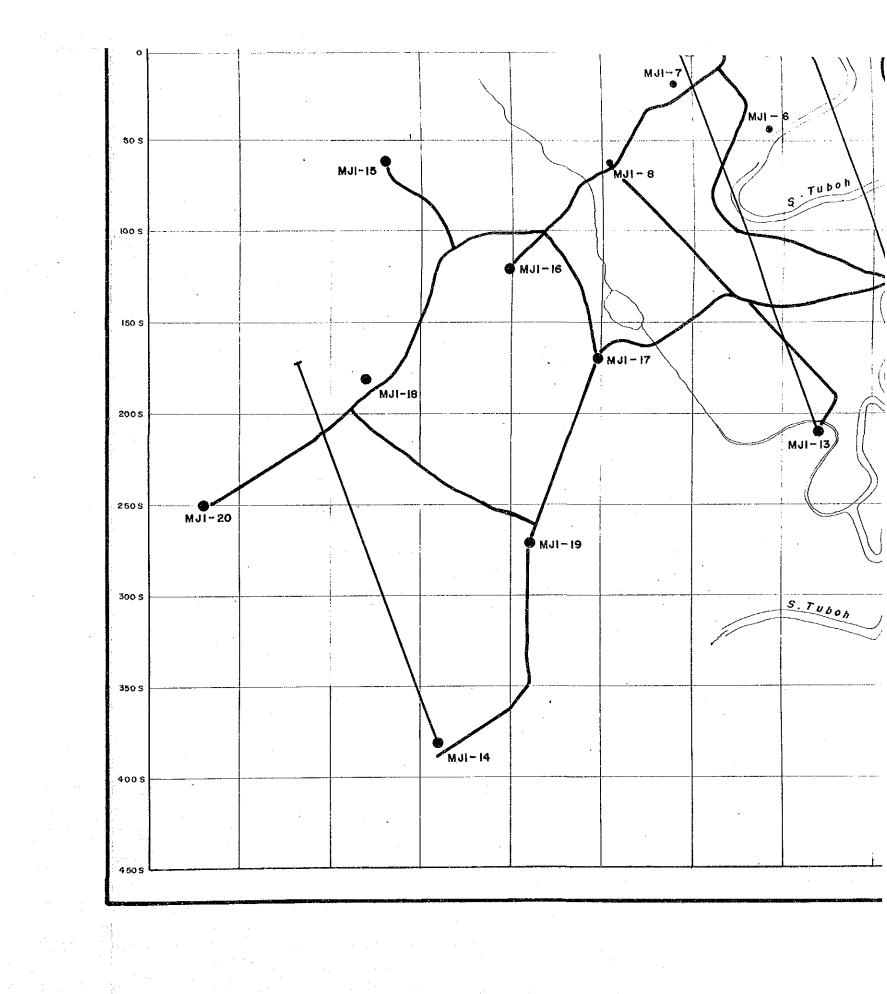
国際協力事業

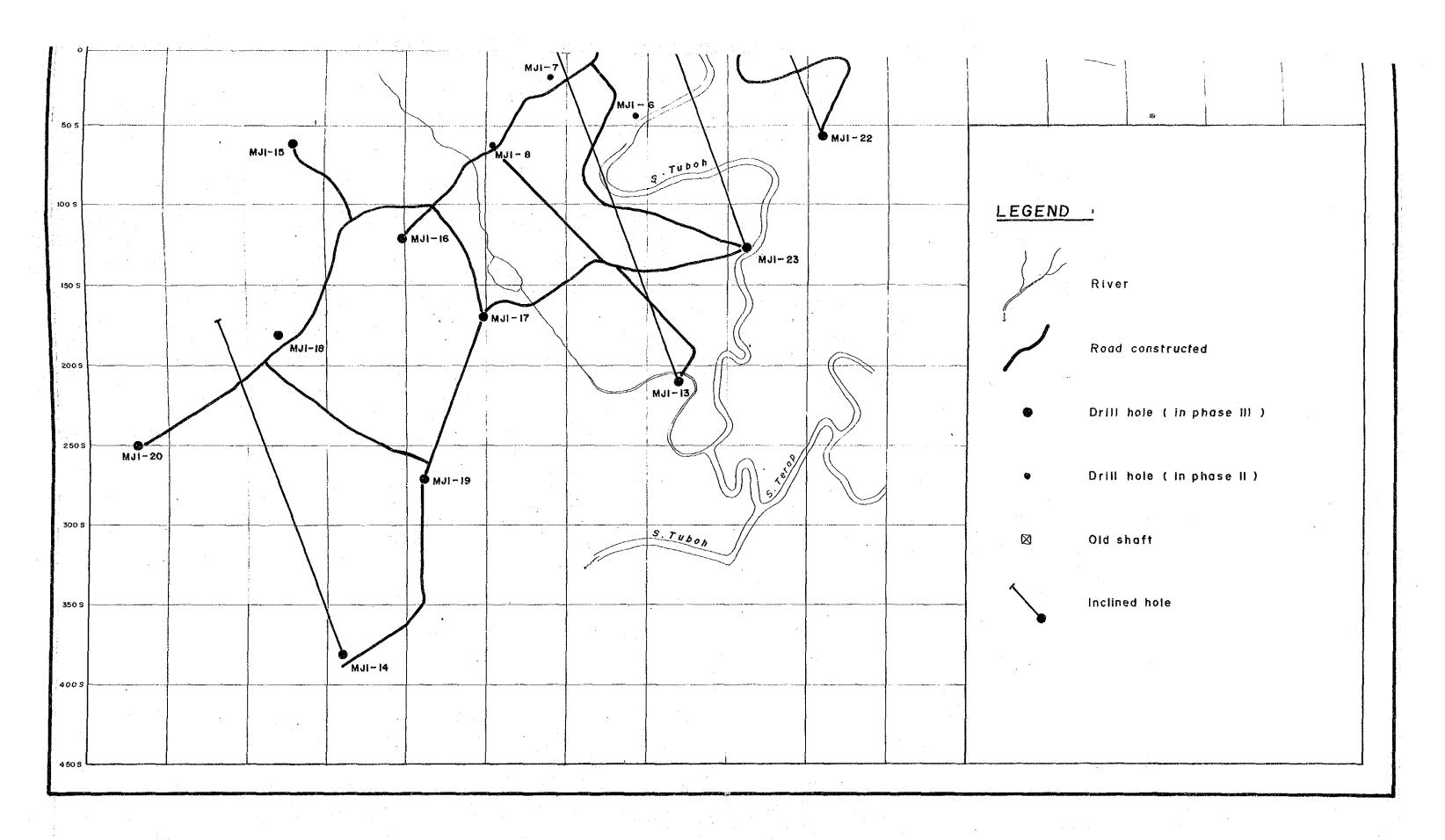
LOCATION MAP OF DRILL HOLE 図書資料室蔵。
IN S. TUBOH
SOUTHERN SUMATRA
INDONESIA

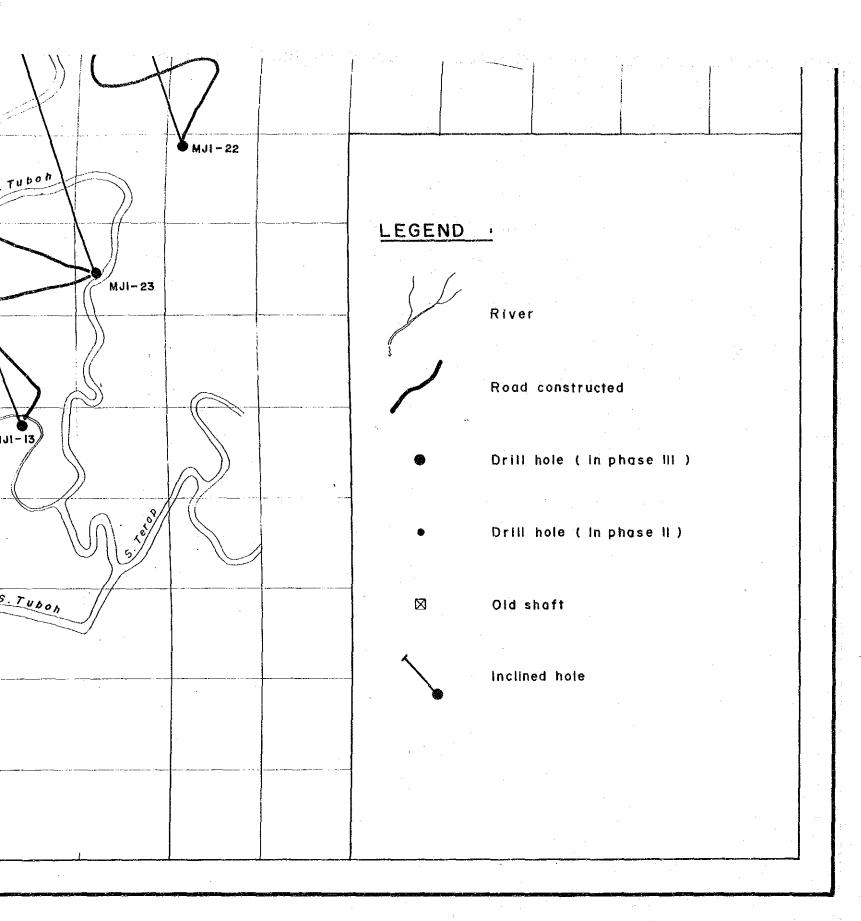


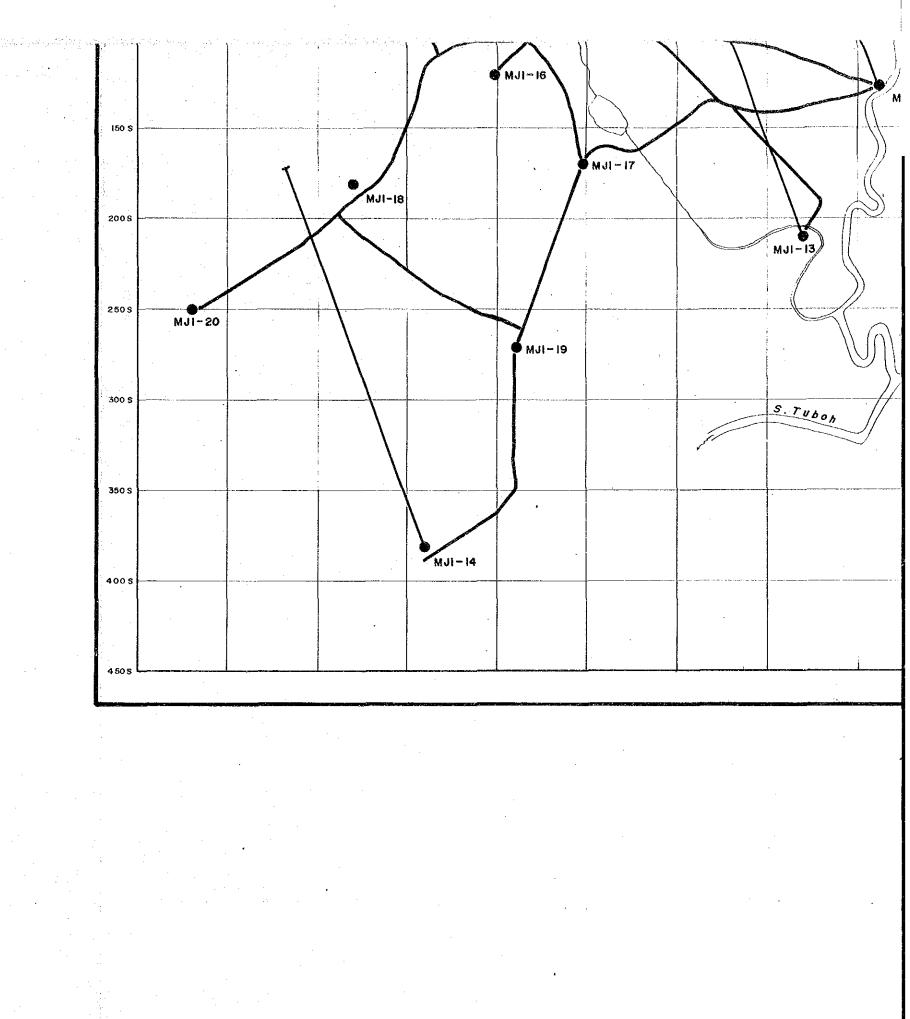
FEBRUARY · 1988

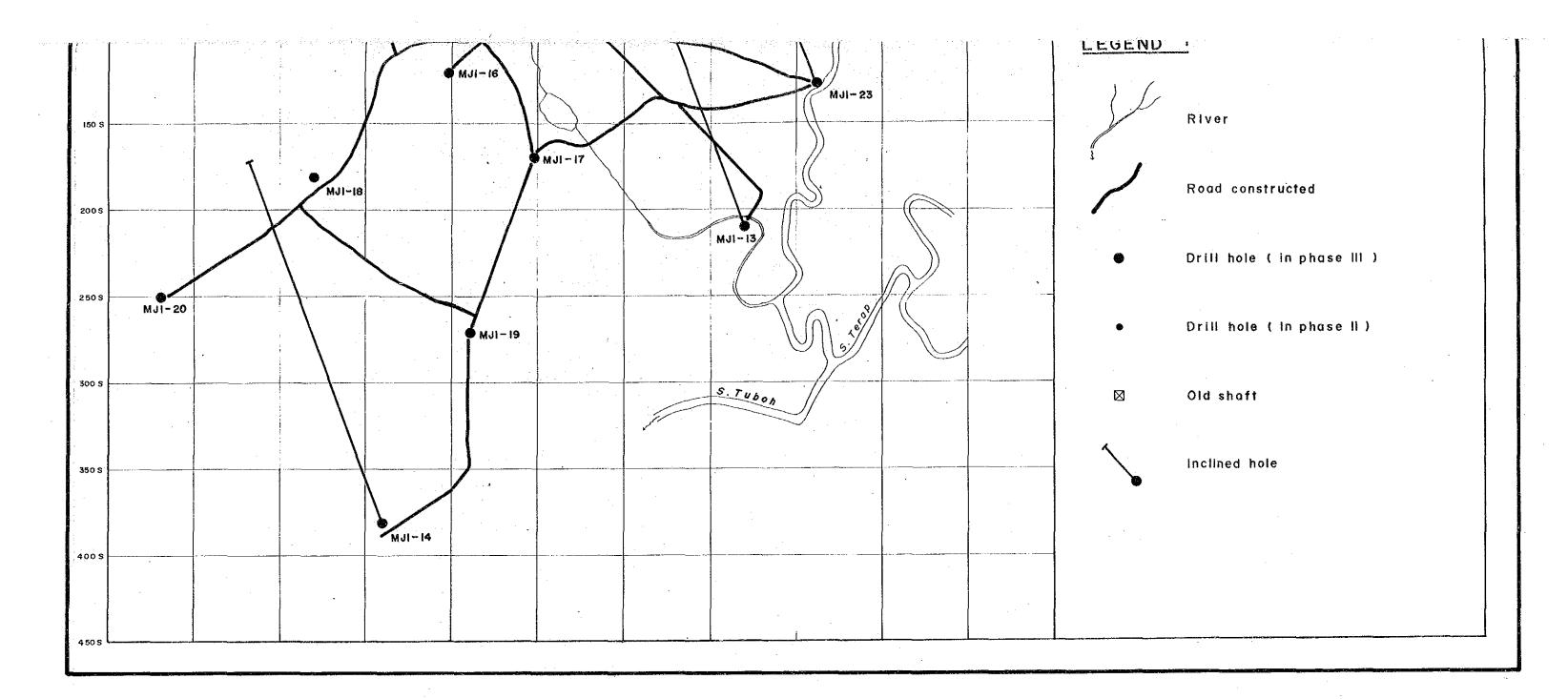
JAPAN INTERNATIONAL COOPERATION AGENCY METAL MINING AGENCY OF JAPAN

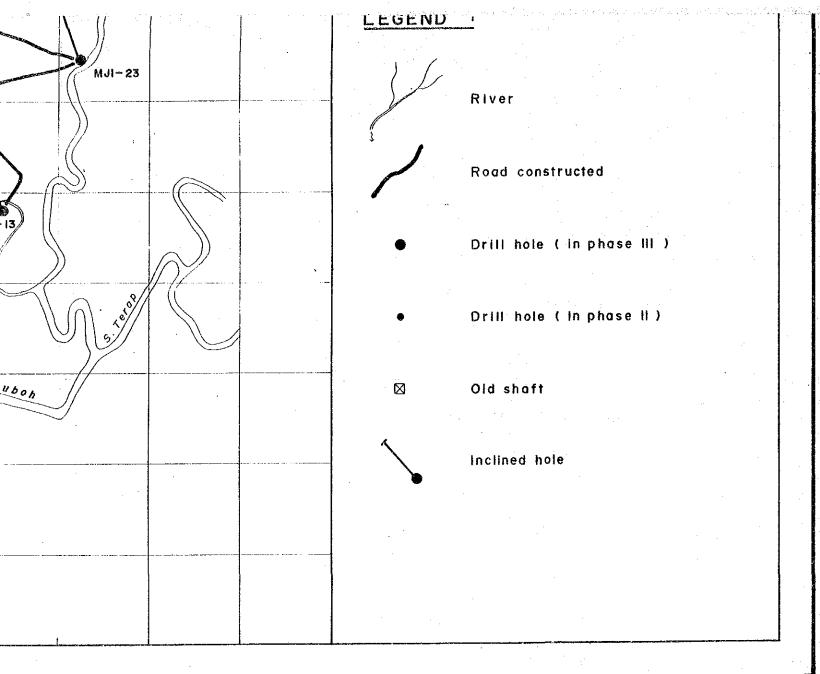




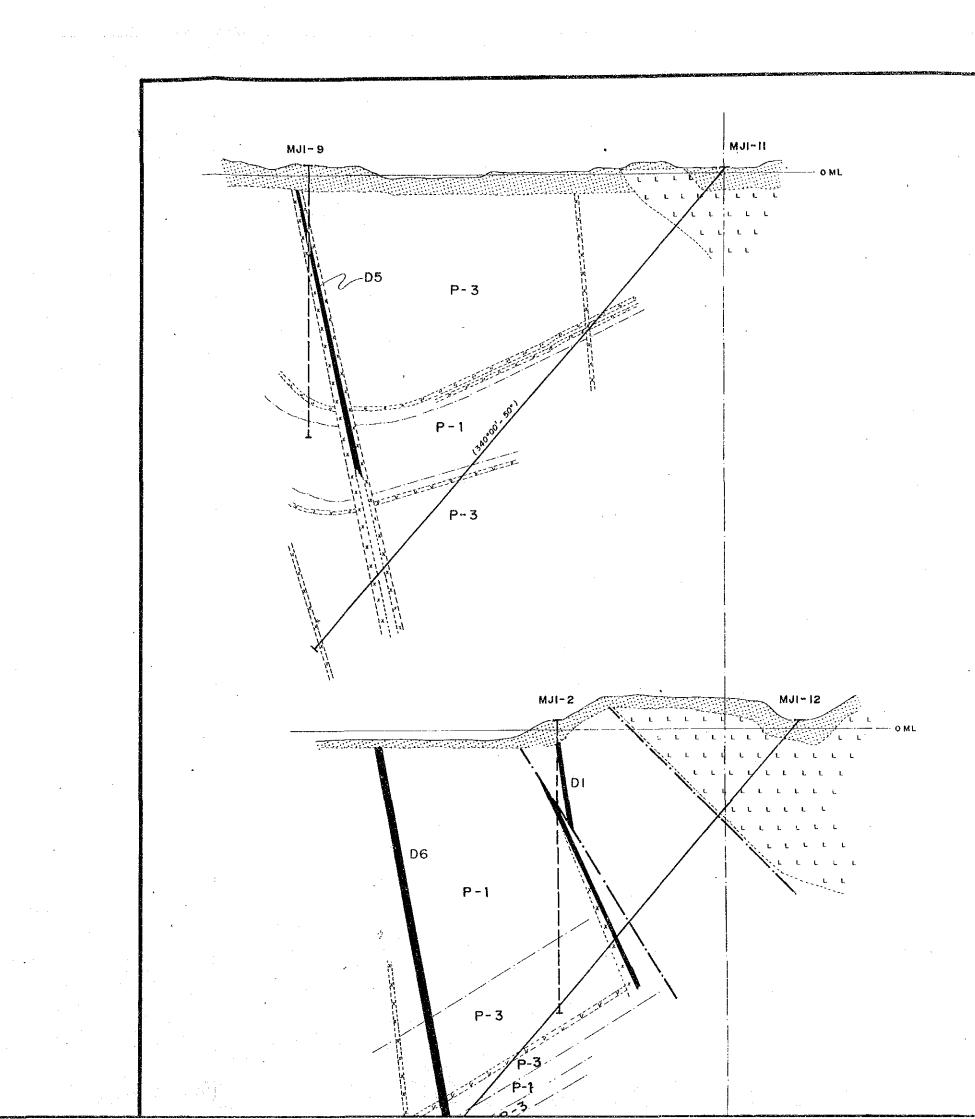


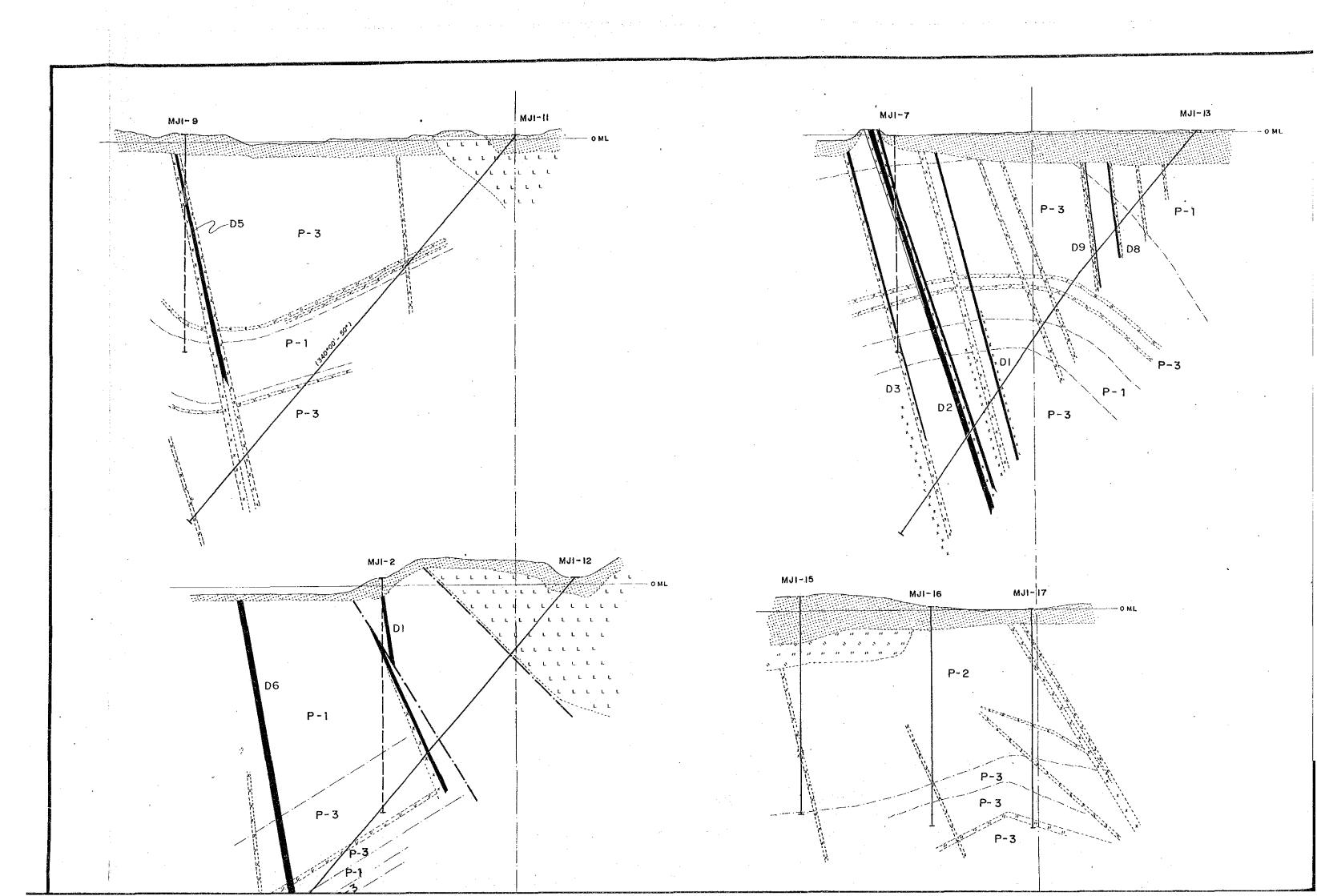






eres (Name 1) eres (1).		LEGEND	e de presentado en la como de tenero de la como de la c La como de la		
MJI-23		1/			
			River		
)			Road constructed		
3		•	Drill hole (in phase III)		
5.46.68		•	Orill hole (in phase ii)		
boh		⊠	Old shaft	2	
			Inclined hole		
		- * *			
•					
				•	
:	;				







図書資料室蔵書

REPORT ON THE MINERAL EXPLORATION OF

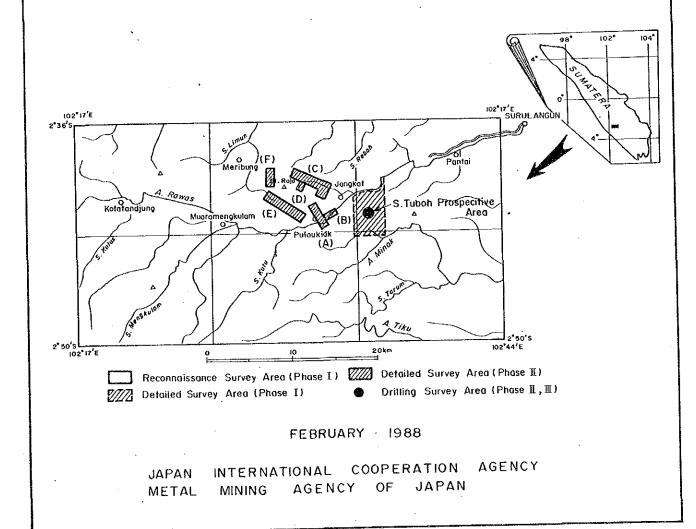
SOUTHERN SUMATERA AREA, THE REPUBLIC OF INDONESIA

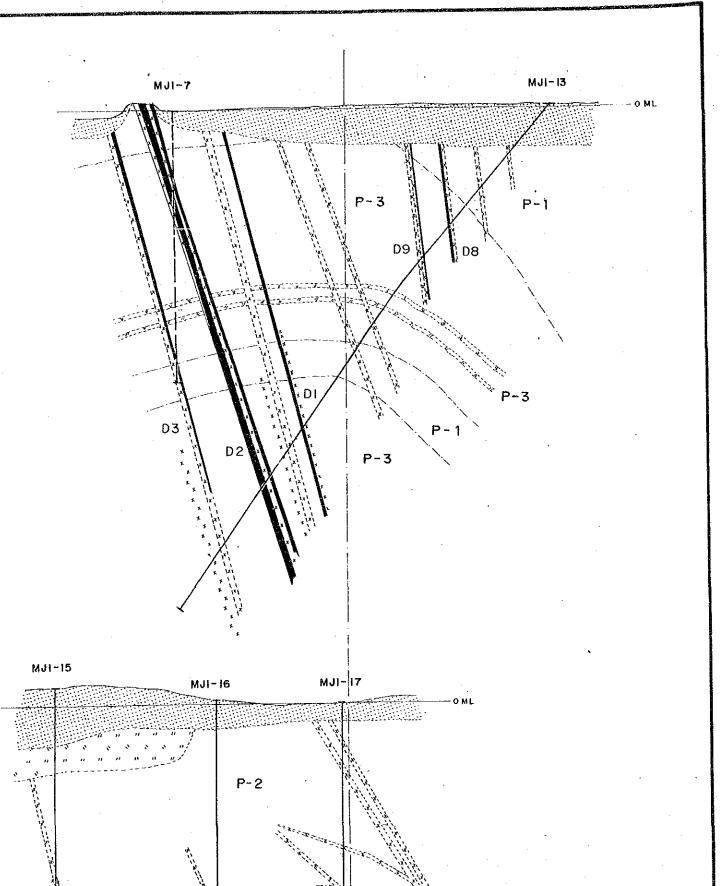
PHASE Ⅲ

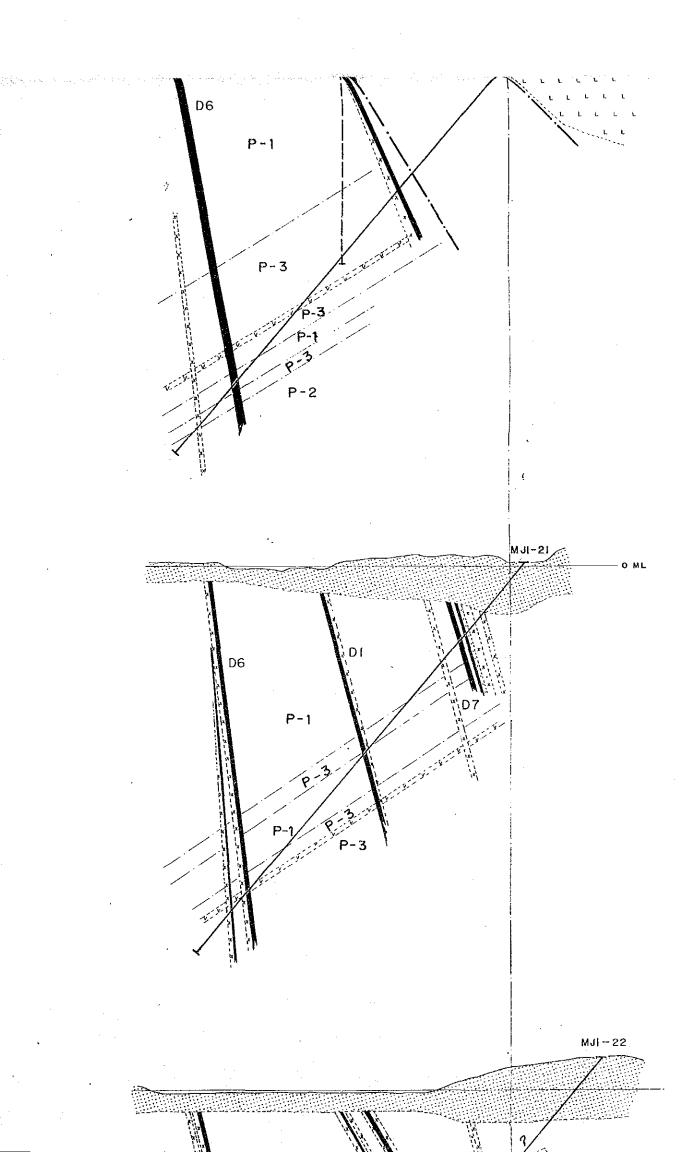
国際協力事業団

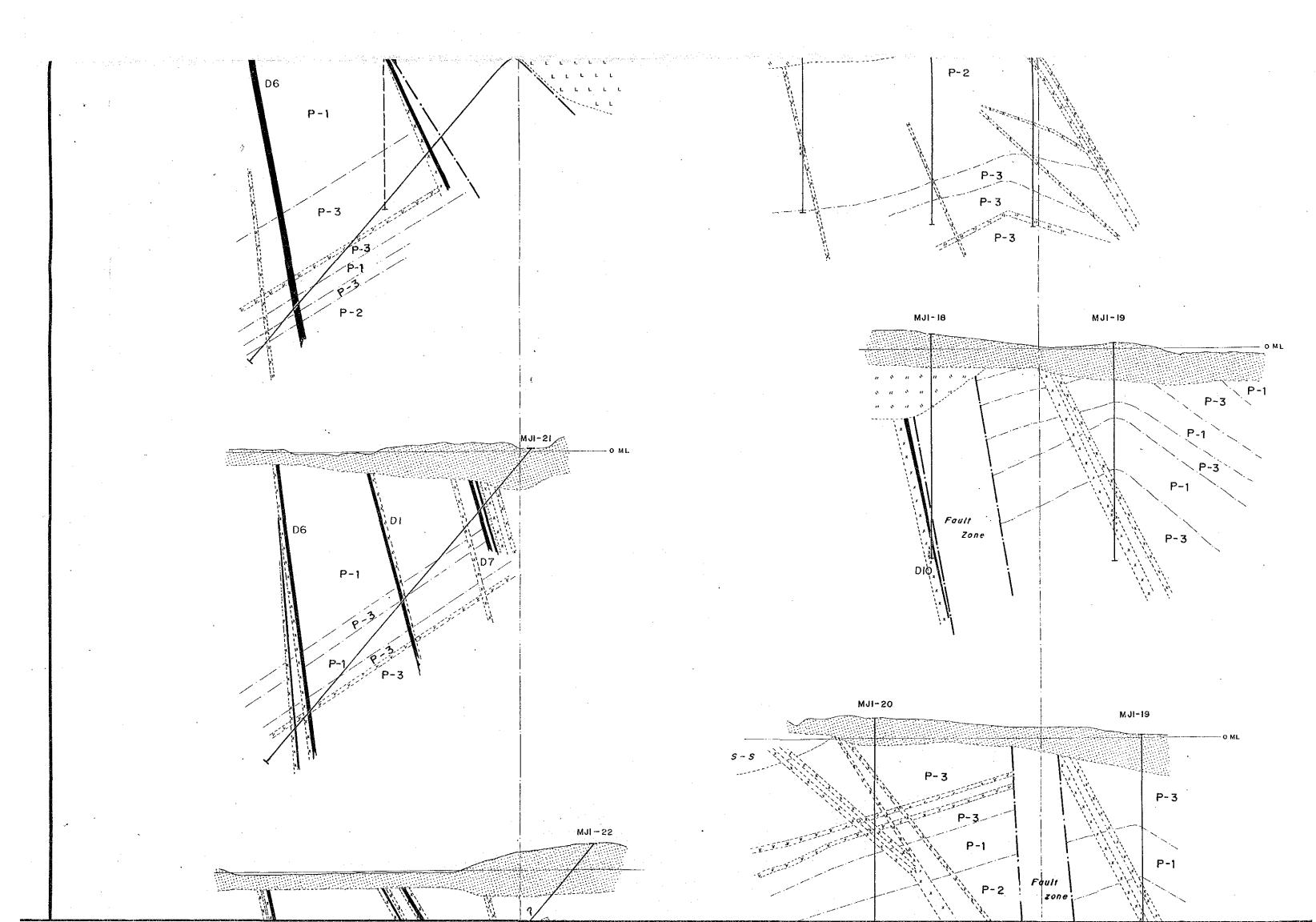
17673

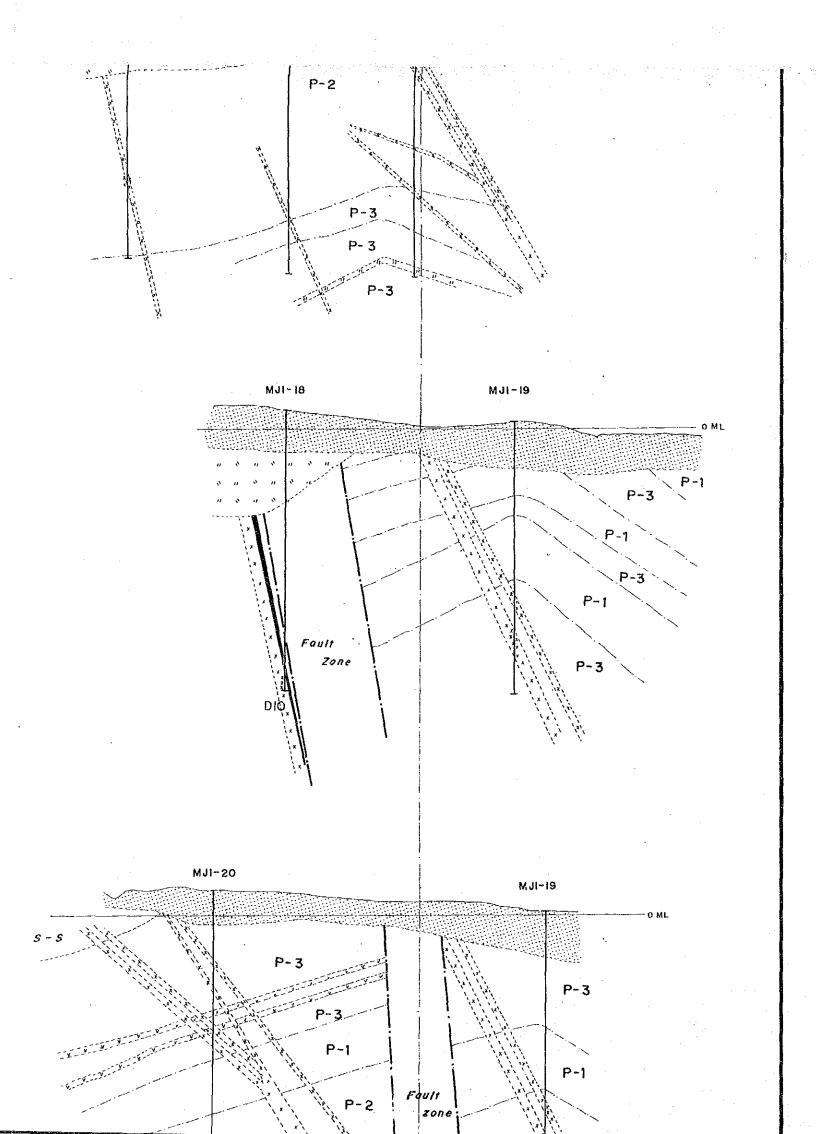
DRILLING PROFILE OF PHASE-III SOUTHERN SUMATRA AREA





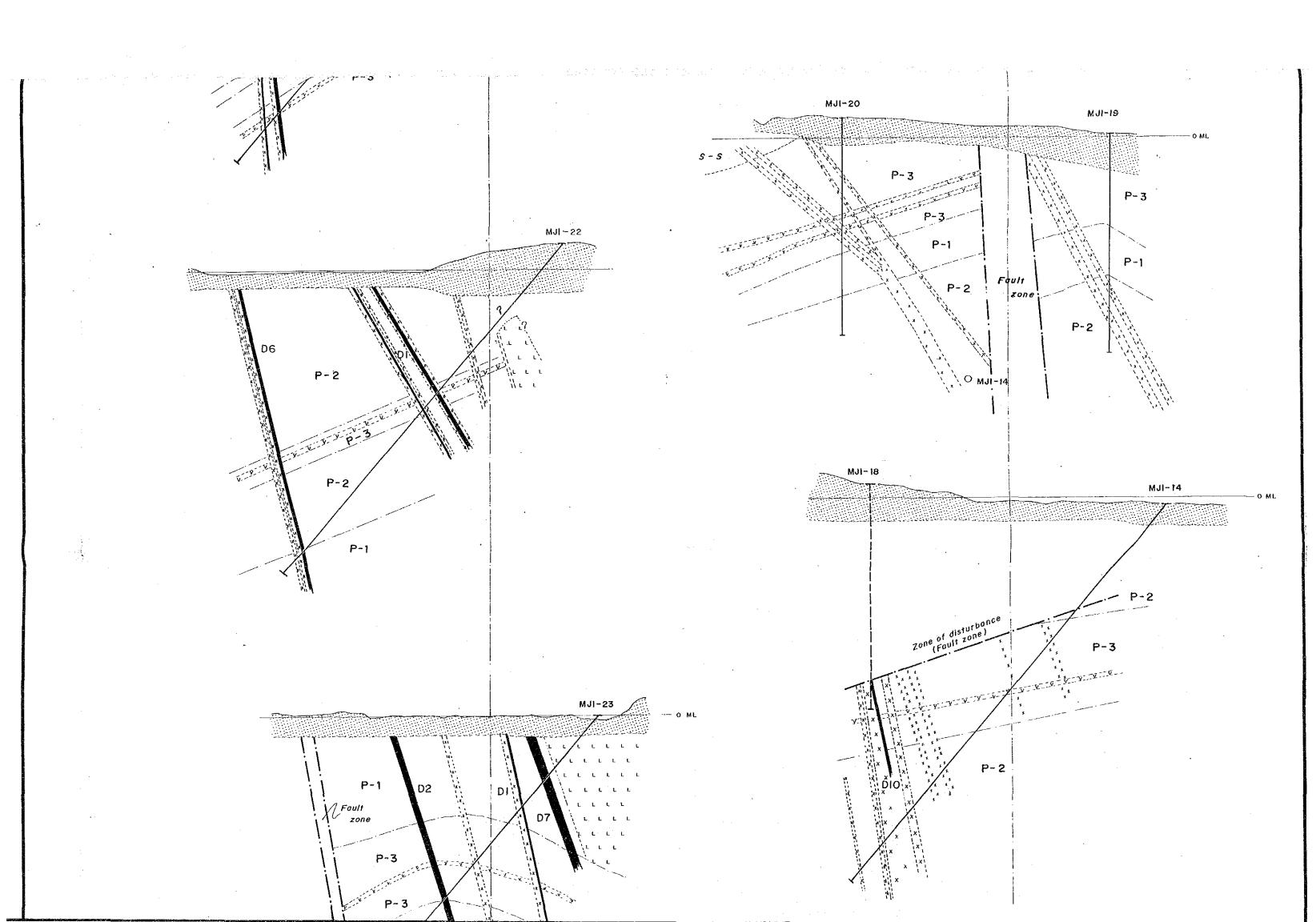


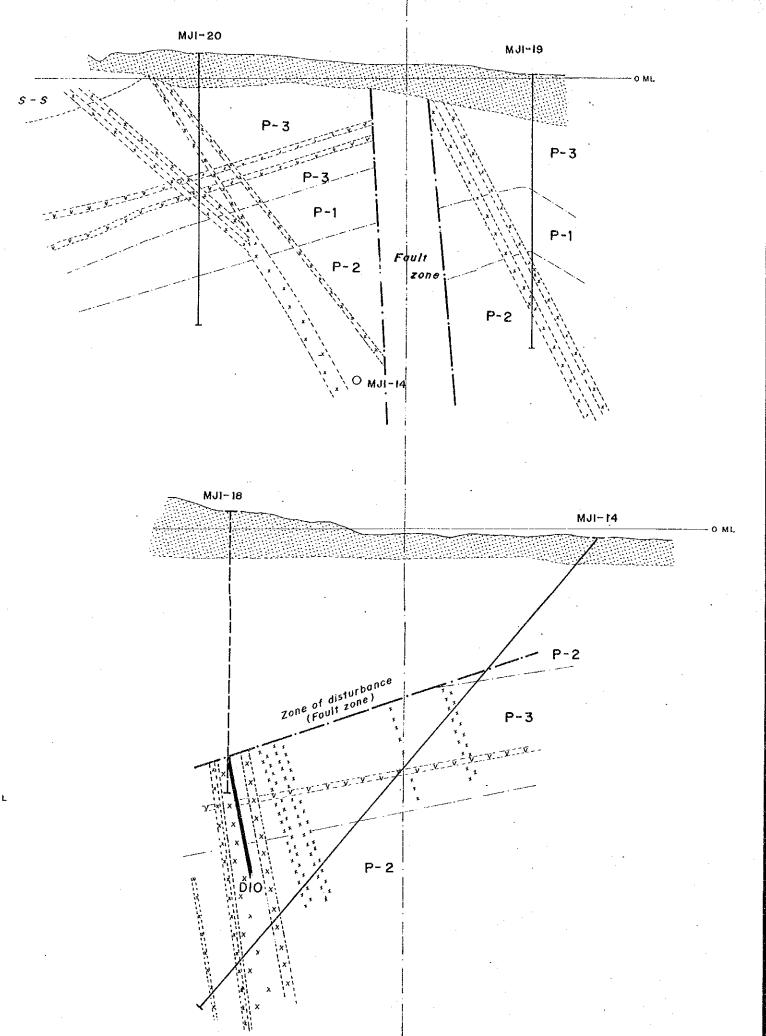




FÉBRUARY 1988

JAPAN INTERNATIONAL COOPERATION AGENCY METAL MINING AGENCY OF JAPAN

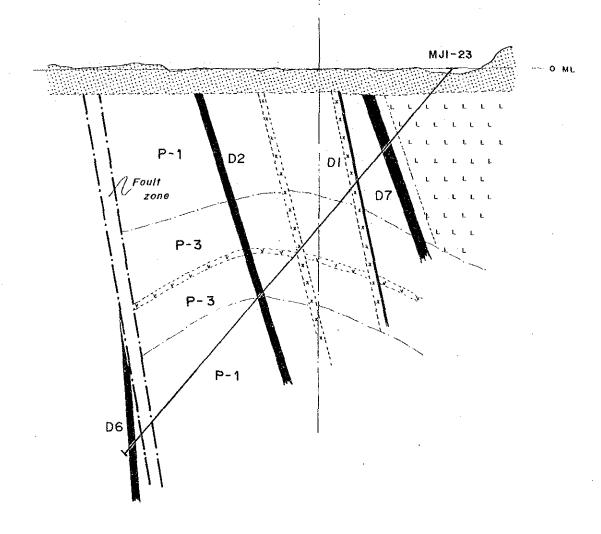




---- O M

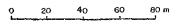
DRILLING PROFILE OF PHASE-III SOUTHERN SUMATRA AREA

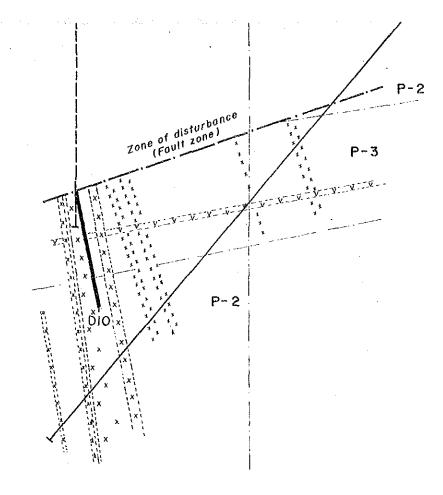
0 20 40 60 80



DRILLING PROFILE OF PHASE-III

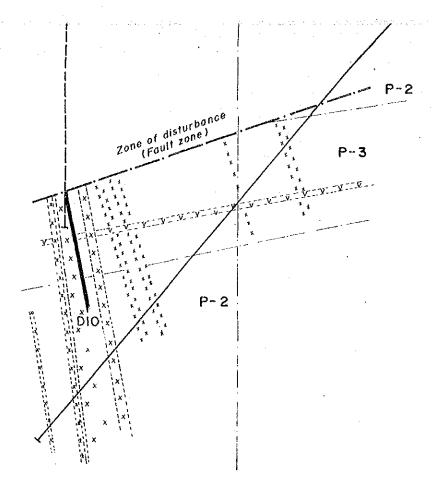
SOUTHERN SUMATRA AREA



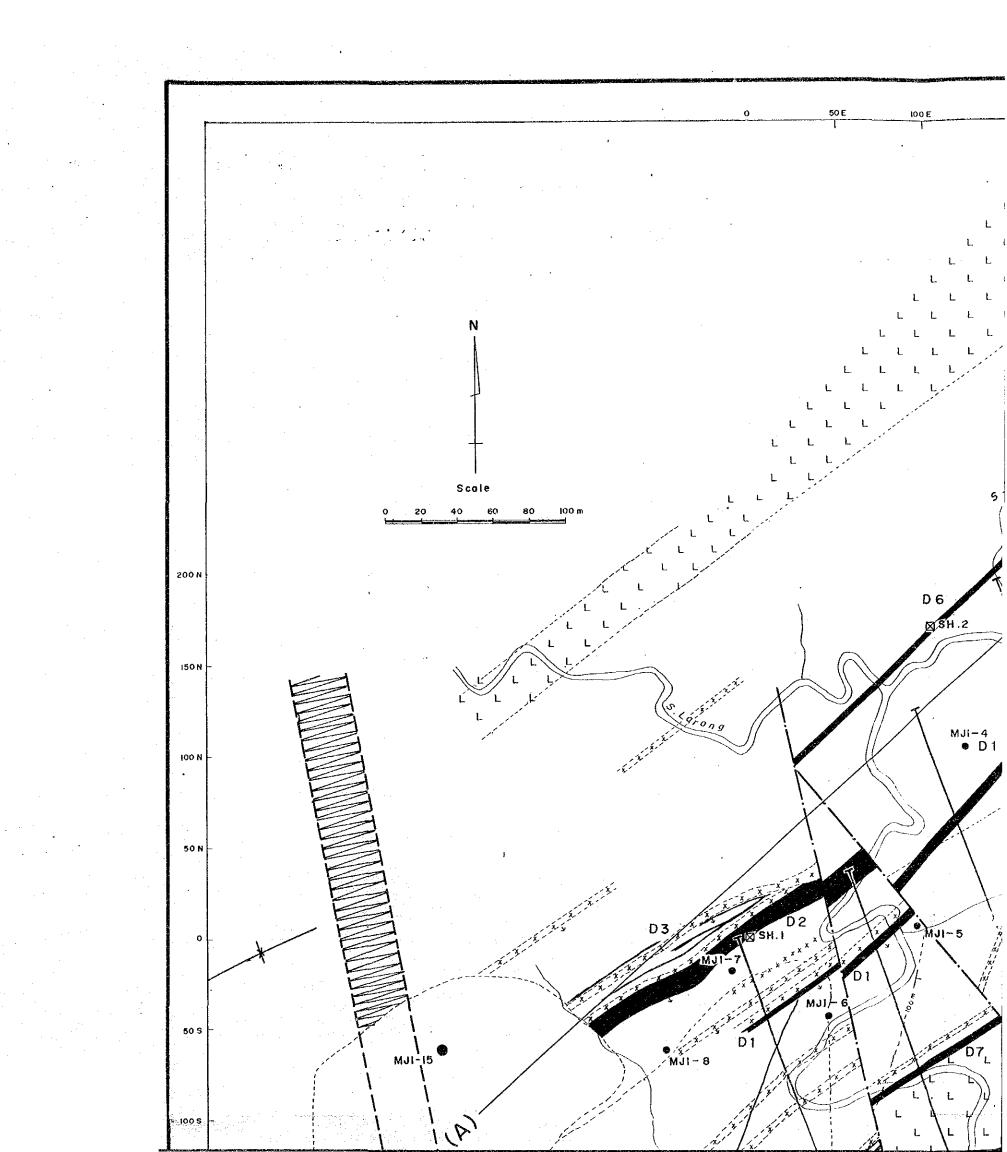


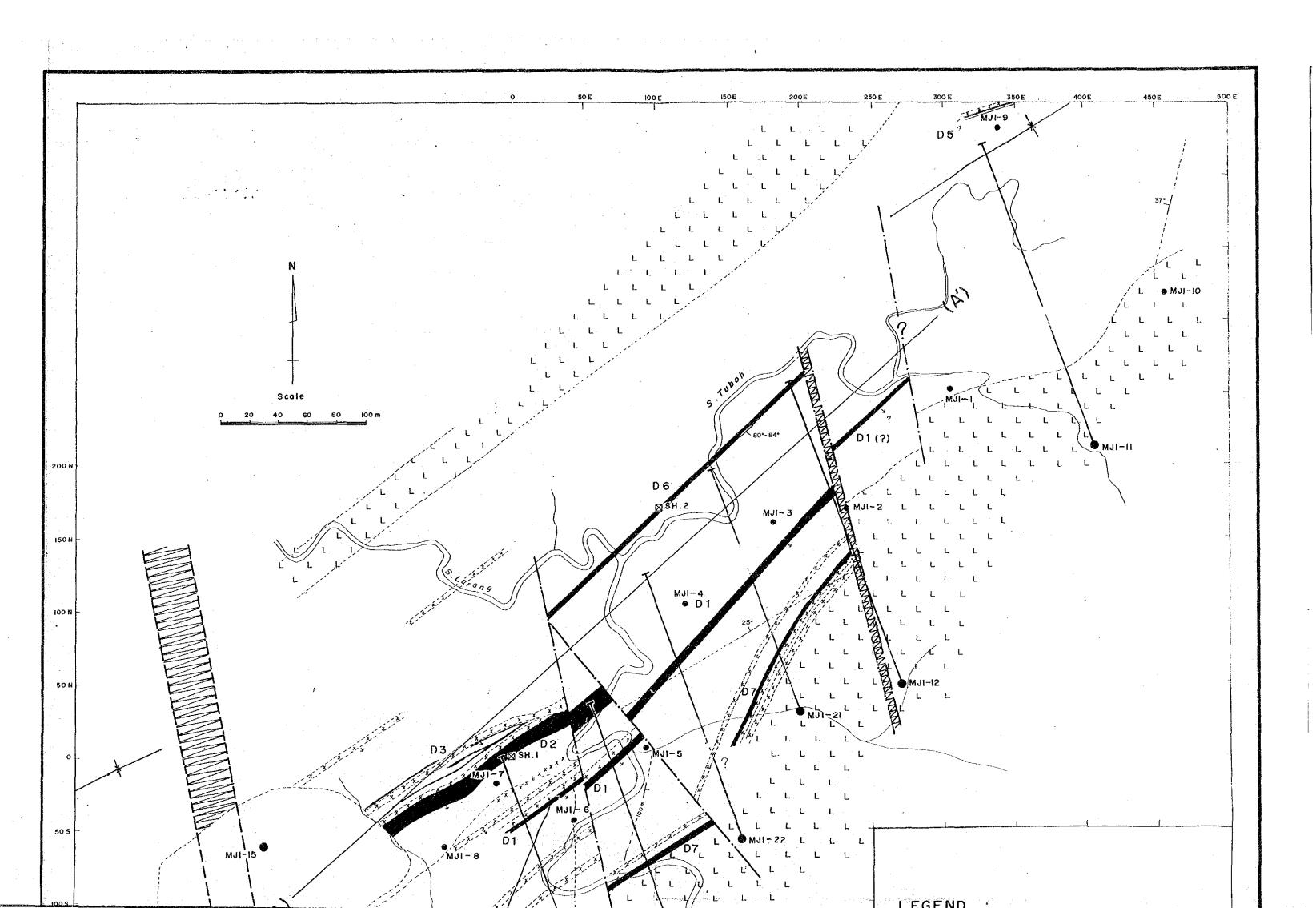
LEGEND : Surface soil Weak consolidated crystal tuff S. Minak Formation Marble (P-1 , P-2 , P-3) S.Rawas Formation Mafic lava Alkoline intrusive (shallow facies) Alkaline intrusive (Deep facies) Mineralized zone

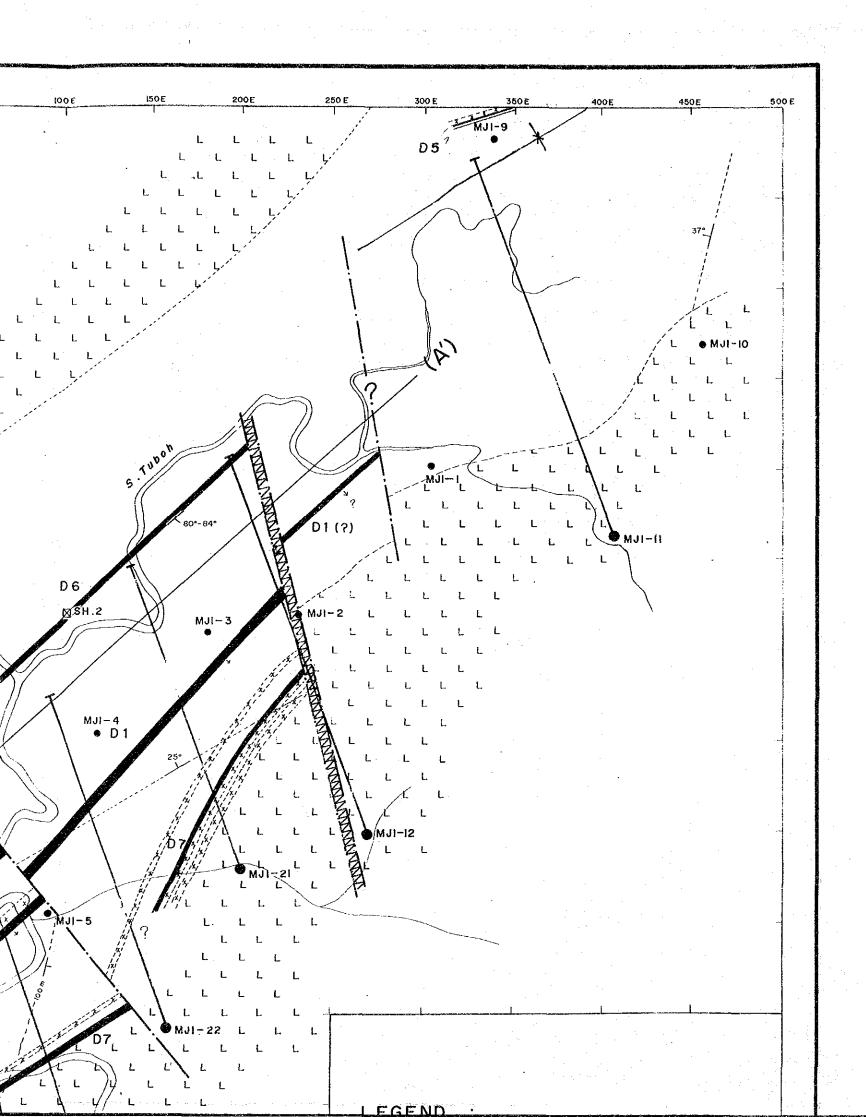
Boundary of grain size of marble



LEGEND :		
		Surface soil
, Minak Formation	$\begin{bmatrix} n & \phi & n \\ \phi & n & \phi \end{bmatrix}$	Weak consolidated crystal tuff
		Marble (P-1 , P-2 , P-3)
.Rawas Formation	n n n	Tuff
	V V	Mafic lova
		Alkaline intrusive (shallow facies)
	L L L	Alkaline intrusive (Deep facles)
		Mineralized zone
		Boundary of grain size of marble







PL. 3

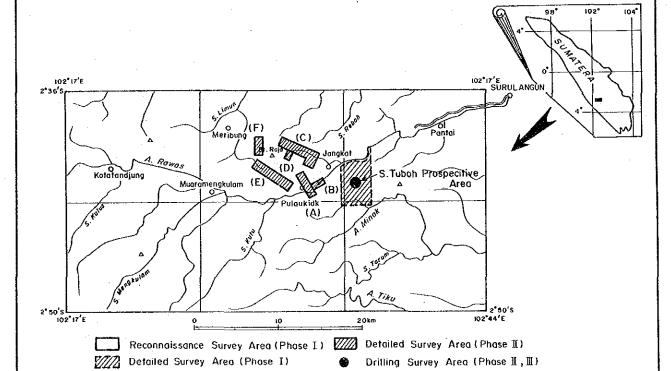
REPORT ON THE MINERAL EXPLORATION OF

SOUTHERN SUMATERA AREA, THE REPUBLIC OF INDONESIA

PHASE II

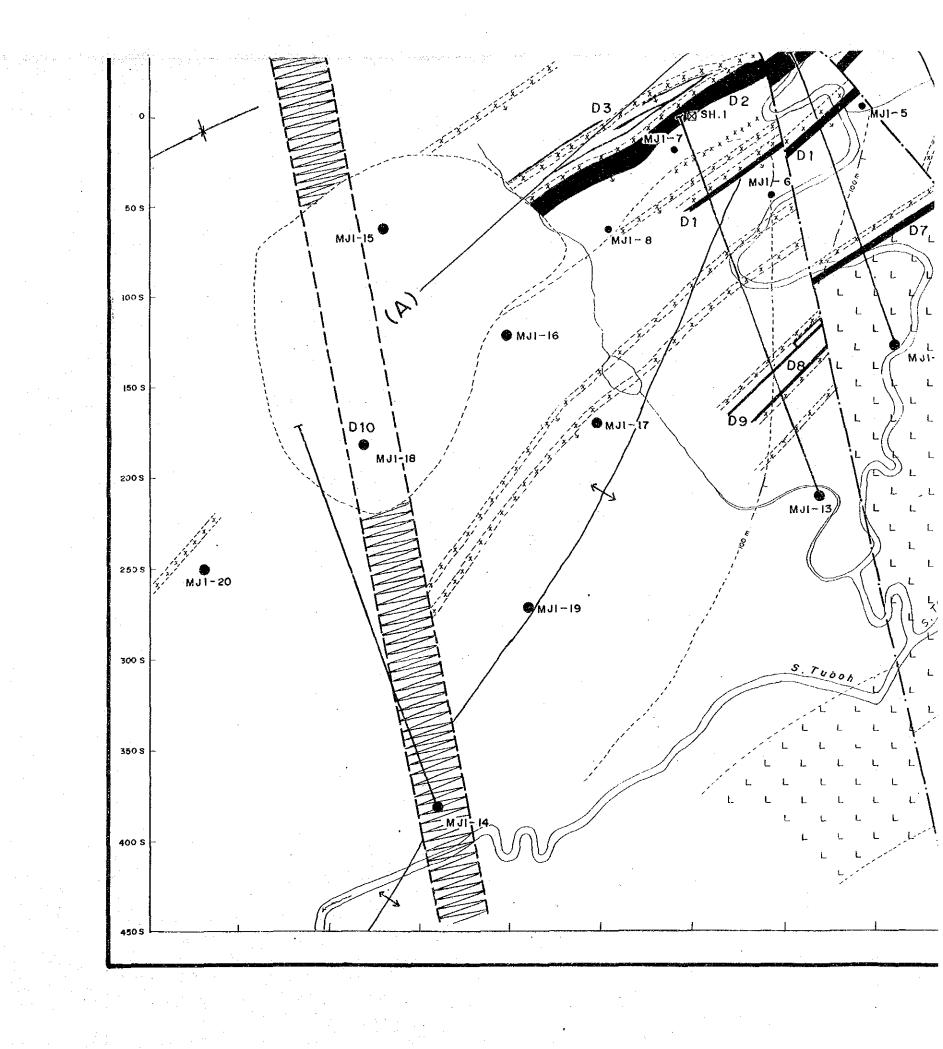
DISTRIBUTION MAP OF MINERALIZATION IN S. TUBOH SOUTHERN SUMATRA INDONESIA

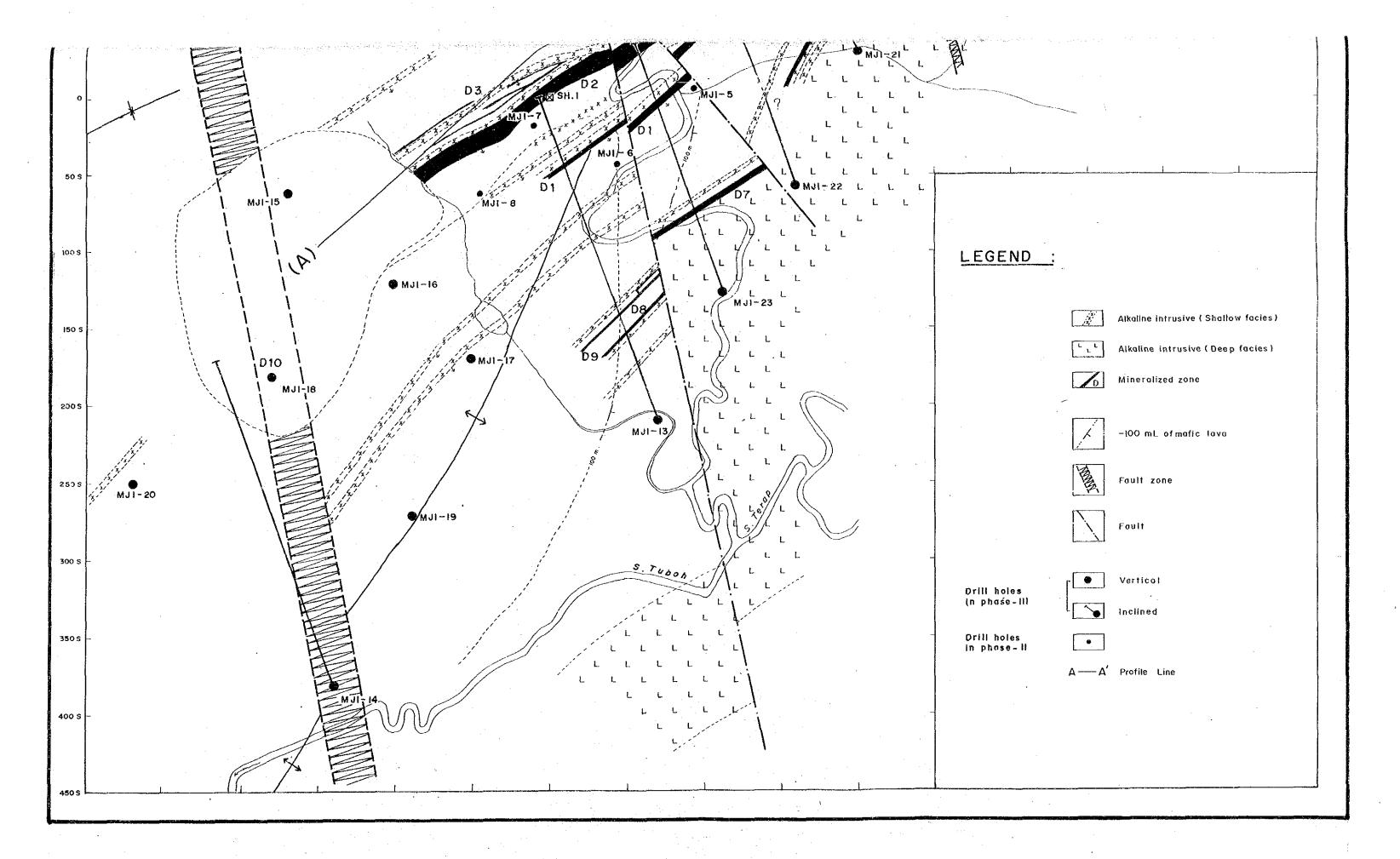
国際協力重要团 17673 図書資料室蔵書

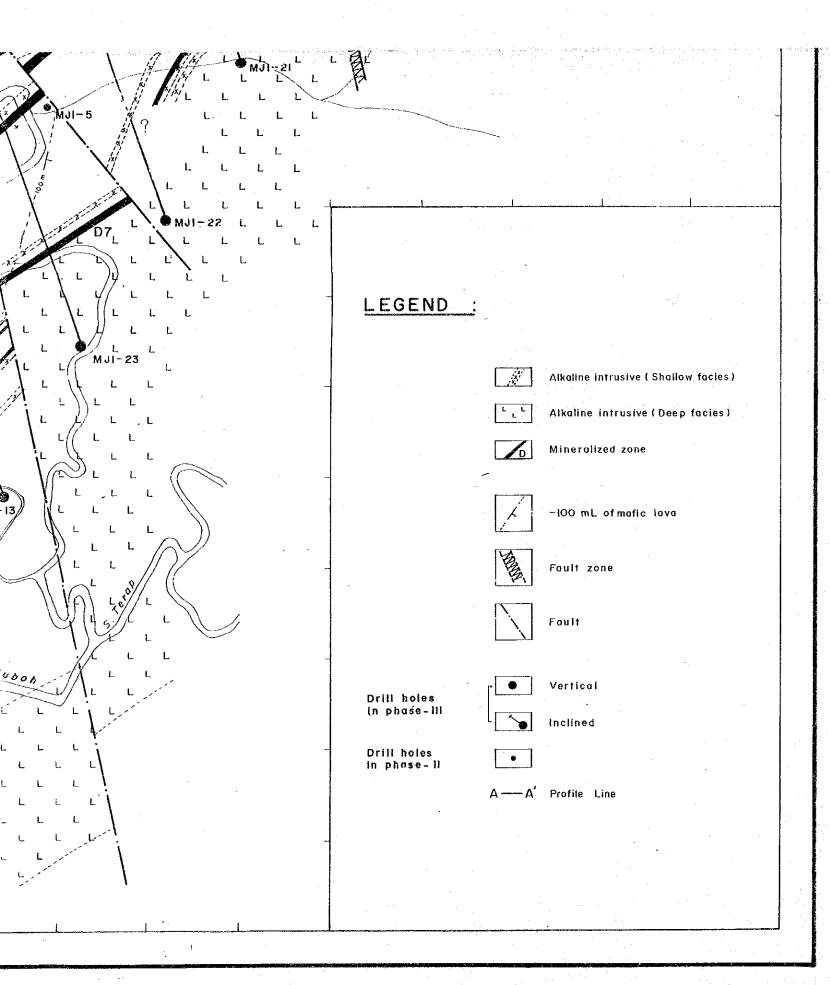


FEBRUARY 1988

JAPAN INTERNATIONAL COOPERATION AGENCY METAL MINING AGENCY OF JAPAN







JAPAN INTERNATIONAL COOPERATION AGENCY METAL MINING AGENCY OF JAPAN

