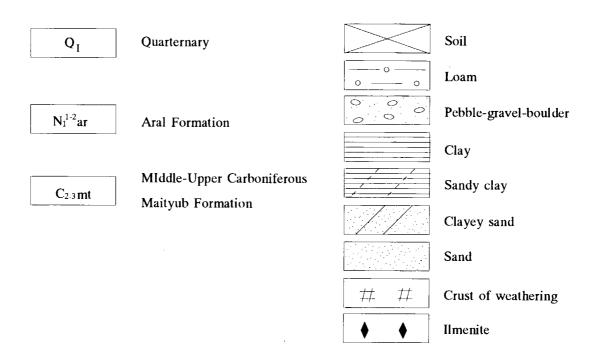
APPENDICES

Appendix 1. Geologic Core Logs of the Drillings

Appendix 1.Geologic Core Logs of the Drillings

Legend



Abbreviation

il	ilmenite
qz	quartz
feld	feldspar
frags	fragments
crs	coarse

			N	ИЈВК — 1	(1:	200) ELEVA COORD	TION INATE	: : N	469.4 / 14,6	36,59		5,40	2,404	.4
F	Depth	o e c	Depth	Geology & Mi	ne	ralization				Ass		.		
	, n	S	m				Sample #	Depih B	limenile kg/m ¹	lircon kr/m ³	Rutile kg/m ³	Beyene,	Anoihe kr/m ¹	
11 - 111	0	<u> </u>	0.30	Soil Loam										
	-	0.0												
	_	0		Pebble-gravel-boulder o	lepc	osits								
		0		w/Sand&Clay Boulder(MAX.7×15cm)										
	_													
		0												
G		0												
		0°.												
	10-	0												
		0.												
		0			1									
	ļ	0	12, 80											
			-	Dense,plastic Clay										
	_													
	20-													
۲.														
65														
N1 1-2	-											2		
ī			26.80											
		-		Some dusty impregnation ilmenite	n of 1	f								
		-	-	ilmenite			38/32-1	<u>18,00</u> 29,00		0.07	Tr	0.04	7.99	
			29.90				32-2			0.05		0.02		
+	-30-	#		Crust of weathering on	s	ltstone	32-3			0.02	Tr	Tr	1. 57	
E		1 #	32.00				32-4			0.02	Tr	0.02	5.20	
C 2-3		1												
-		1												
		1												
	-	1											1	
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	40 -	_												
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		-												
		_												
		-												
	50					<u></u>						L	L	L

			l	M J B K – 2 (1:200) ELEY COOR	VATI RDIN	ION IATE	:		9.54 636,4		E 5.4	02,441	.6
F	Depth	ပ	Depth							say	· ·		
ſ		-	порел	Geology & Mineralization	s	ample	Depth	Ilmenit		-		Anothe kg/m ³	
9.11 - 11.1	0		0.10	Soil			E	Kg/m	<u>kg/m</u>	* <u>kg/m</u> *	' <u> ks/</u> m'	kg/m'	
		0	<u> </u>	Dense loam			1						
	.	0.0		Pebble-gravel-boulder deposits									
	.			w/Sand & Clay							ļ		
				Boulder(MAX.7×12cm)									
		20.		Sandy clayey material(30%)									
	-	2											
–		°o						1					
G	-	0			Ĩ								
		0											
	_	0.0											
		0											
	10 -	ô.											
	-	1.0							ł				
		D	12.10										
	.	E.		Dense,vely plastic Clay						1	.		
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	20-												
	20-							1					
	-												
	-												
	-		23. 60				23.60			1			
	-		10.00	Poorly sandy clay	F	a / 4 A ·	T						
		11		Dusty ilmenite impregnation	3	8/28-1	25.00	3.96	00.11	0.02	0.02	1.06	
-		-	26.00	(to 1%)		28-2		2. 90	0. 07	Tr	٦r	0.22	
	-		26.80	Sandy clay w/ilmenite(145%)		28-3	26.80	99.16	2.88	0.36	0. 22	8.64	
1-2	-	2	27.40	Clay Sandy w/ilmenite(to \$ ~7%)	F	28-4	27.40	117.34	2.48	0.16	0.18	6. 41	
ī	-			Poorly sandy clay ilmenite		28-5	28.30	56.38	1. 33	0.05	0. 02	0.50	
-	-	+	29.50	(1~3%)		28-5	29.50	24. 59	0.45	0.04	0.04	0.72	
	30 —	\mathbb{Z}	30.20	Clay Sandy w/ilmenite($3 \rightarrow 5\%$)	E	28-7		47.93	0.43	0.04	0.05	2,92	
	_				Γ	28-8		1 12	0.04	Tr	Τr	2. 11	
	l				-		J1.50						
	-					28-9	33.00	1. 24	0.04	Tr	Tr	2.30	
	-			Dense,plastic Clay w/dasty ilmenite(<1%)	┝	28-10		0. 29	0. 02	Tr	Tr	0. 77	
	-				┢		34.00						
	_					28-11	35.00	0.52	0. 04	Tr	0.02	2.16	
	4				Ļ_	28-12	36.00	0, 70	0. 02	Tr .	0.02	2.90	
	_				L	28-13	37.00	0.70	0. 02	Tr	٦r	1.89	
		•				28-14		2.65	0.11	Tr	0.02	0.43	
	1					28-t5	39.00	1.35	0. 09	Īr	0.02	2. 83	
	-				\vdash	28-16		1. 21			Tr		
	40 -	•			-		40.00		0. 07	11		1.12	
	4				\vdash	28-17	41.00	0.50	0. 02	Tr	0.02	0.70	
	_			42.85~42.90m		28-18	42.00	4. 88	<u>0. 31</u>	0. 02	0.16	3. 55	
┣──┤		000	42.90	Sandy material w/qz fragments		28-19	42.90	14.96	0. 41	0.02	0.18	8.05	
]	# #	44.00	Crust of weathering		28-20	44.00	0: 20	0. 0 Z [.]	Tr	Tr	0.07	
Ε	1			Shale w/vertical bedding (85-87°)						†			
C 2-3	-												
ပီ	-									ĺ			
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			١	ИЈВК-З	(1:20		ATION DINATE	: : N		75 m 86.257	7.6 E	5,402	.491.	2
F	Depth	ပ	Depth	0 1 0 M						Ass			<u> </u>	
r	n n	_	n n	Geology & M	inera	llization	Sample	Depth	Ilmenite ke/m ³	Lircon kr/m ³	Rutile	Reu- coxene, kg/m	Anothe	
Q () - ())	0	- o o o		Loam w/rare Pebble and	grave	e]						<u>8</u> _2.m_		
		0.0	1. 40		5									
ΙÖ		° O ° O ° ° O	14 14	Gravel-Pebble-sand de w∕rare boulder(max¢1										
	20 -		10.20	Olive grey~grey very plastic clay w/ra and limonit	re hen	matite								
N1 1-2 a r	30		32.00 33.50 13.70 34.60 35.20 37.60	26.00~28.50m Sandy clayey w/Poo sandy ilmenite il=2~3% il=2~5% il=2~3% il=2~3% il=2~3% il=2~3% il=2~3% il=2~3%	~4cm)		38/24 - 1 $24 - 2$ $24 - 3$ $24 - 4$ $24 - 5$ $24 - 6$ $24 - 7$ $24 - 8$ $24 - 9$ $24 - 11$ $24 - 12$ $24 - 13$ $24 - 14$ $24 - 15$	26.00 27.50 28.50 29.30 30.00 30.50 31.30 32.00 33.00 33.00 33.50 34.60 35.20 35.40 35.40 36.40 37.60 38.20	9.70 42.35 89.73 61.74 61.74 75.85 134.46 122.85 24.57 122.13 27.86 106.42 166.64	0.05 0.36 1.22 1.82 1.30 1.30 2.25 2.57 0.49 0.68 2.11 2.47 2.03	Tr 0. 02 0. 11 0. 13 0. 05 0. 09 0. 07 0. 07 0. 07 0. 05 0. 05 0. 05 0. 05 0. 05 0. 04 0. 11 0. 13 0. 05 0. 09 0. 07 0. 07 0. 07 0. 05 0. 09 0. 07 0. 07 0. 05 0. 09 0. 07 0. 07 0. 05 0. 09 0. 07 0. 05 0. 09 0. 07 0. 07 0. 05 0. 09 0. 07 0. 07 0. 05 0. 07 0. 05 0. 07 0. 05 0. 07 0. 05 0. 07 0. 05 0. 07 0. 05 0. 05 0. 05 0. 07 0. 05 0. 05 0. 05 0. 05 0. 07 0. 05 0. 05	Tr Tr 0. 23 0. 22 0. 04 0. 13 0. 02 Tr 0. 13 0. 02 Tr 0. 13 0. 13 0. 13 0. 13 0. 13 0. 14 0. 14 0. 15 0. 34	1.55 6.48 7.97 8.87 1.85 6.23 4.54 12.94 22.19 53.73 1.04 0.88 1.22 27.56 1.19	
C2-3 m t	40	## ## ##		38.2m qz&feld frags crust of weathering white clay Bottom of the holes			24-15 24-16 24-17	3.20 3.00 40.00		2.03 0.007 0.02	Tr Tr Tr	0.009 Tr	0.68	
	50													

			!	MJBK-4 (1:200) ELEVATION : 470.26 m COORDINATE : N 14,635,877.8 E 5,402,584.6
F	Depth	с	Depth	Geology & Mineralization Assay
911-111		- °	Π	ja supie Uepin ji menilej 4 i reon kuli lej čožene, knotne g m kr/m² kr/m² kr/m² kr/m² kr/m² kr/m²
U U			1.00	Gravel-Pebble-sand depos ts w/boulder(max \$\overline 20cm)
C2-3 mt N11-2 ar			9.80 24.00 26.00 27.00 28.00 29.20 29.60 31.80 31.80 31.20 33.90 33.90 36.00	Yellowish brow~Olive grey dense plastic clay 34.60 24.00~26.00m $34/6^{-1}$ Sandy clayey w/dust- like i1 $31/16^{-1}$ 11=1~3% 16^{-2} 11=1% 16^{-2} 11=1% 16^{-4} 11=1% 16^{-4} 11=1% 16^{-4} 11=1% 16^{-4} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=1% 16^{-5} 11=2% ~3-5% 16^{-10} 11=2~3% 32.10^{-1} 11=2~3% $32.4.9^{-1}$ 11=2~3% $32.4.9^{-1}$ 11=2~3% 16^{-10} 11=2~3% 16^{-10} 11=2~3% 16^{-10} 11=2~3% 16^{-10} 11=2~3% 16^{-10} 11=2~3% 16^{-10} 11=2.2 16^{-10} 11=2.2 16^{-10} 11=2.3.1<
	40			

			N	ИЈВК — 5	(1	• 2003 1	EVAT ORD I		: : N		40 m 85,685	i.6 H	<u>5,40</u>	2,632	.2
F	Depth	с e с	Depth	Geology	& Min	eralization					Ass				
	Ш	S						Sample #	Depih B	llmenite <u>kg/</u> m ³	lircon kg/m ^j	Rutile kg/m ¹	estene.	Anothe kg/m ³	
Q -	° •	- •		Loam w/Pebbles											
	-{0	ð•		Sand,clay,glavel, w/sowe boulder	Pebble d	eposits									
		•0	1.40												1
		00		Gravel-Pebble-bou (max ¢=12cm)	lder der	osits			:						
		D.		$(\max \varphi = 12 \operatorname{Cm})$											
5		° 0													
Ľ		٥° (7. 80												
				Olive grey~grey dęnse,vęry plasti	-										
				dense,verý plasti clay w/limonit oo ilmenite impregna and gradually inc to 10~20%,ilmeni in clay mass	c lite	+ 19									
				and gradually inc to 10~20% ilmeni	reasing te to 1	isad									
				in clay mass											
														,	
	ĮĘ														
	L , E														
			21.00						21.00						
		1		Olive grey sandy w/sandy il,&iron	cley			38/12- 1	22.00	3.06	0.09	Īr	0.02	0.41	
		<i>-</i>	23.20					12-2	23.20	3. 28	0.07	. Tr	Īr	0.70	
1			24.50	sandy cley w/gran	ular ilr	nenite(1-3%)		12-3	24.00	7.04	0.18	Tr	0. 02	25.67 43.38	
		•		Yellow brown,red	brown s	andv⊸clev		12-4	25.00	7.65 9.18	0.20	0.02	Tr 0, 02	32. 54	
		ź		w/sandy ilmenite(12- 6	<u>26.00</u> 27.00	8. 84	0.14	0. 02	0. 02	53. 21	
		•	28.00	, , ,				12-7	28.00	10.48	0.23	0.02	0. 02	57.47	
6		Z	<u>X0, VV</u>	Grey sand cley w/ 29.0m qz frags (g	ilmenito	e (3-5%)		12- 8	29.00	28.15	0.56	0.04	0.07	2. 38	
1-2	30-8	0+ 0)+	29.90	29.9m qz frags (ϕ				12-9	29.90		t. 62	0.09	0. 034	10.15	
Ī	1 1	π.		Grey~brown cley				12-10	31.00	0.76	0.13	0. 02	0.02	12.17	
				Credeposited crus	t of we	sathering		12-11	32.00	0.86	0.13	Tr	0.11	1. 27	
										l					
	<u>↓</u> ₣		34.00												
Ē	-	# #		Crust of weatheri Yellow-brown sand											
C 2-3		# #			scone										
	†		37.00	Bottom of the hol	e										
	.														
1															
1	40-														
										1					
	50														ė.
L	1V1				<u> </u>	l				·					-

			I	МЈВК— 6	(1:200)	ELEVAT COORDI	TION NATE	:	468 N 14,0	.07 m 536,4	93.1	E 5,4	401,92	23.4
F	Depth m		Depth m	Geology & Mi	neralizat	tion	Sample			As	say			
Q 11 - 1H	0	- o -	ш	Dense loam w/Pebbles			1		Ilmenito kr/m ³	kr/m	k¢/m'	coxene kg/m	kg/m ³	
		<u> </u>	1.60	Dense Toam W/Febbles										
	-	0°		Pebble-gravel deposits w/boulders(max.4×10cm										
	_	° 0 ° °		w/boulders(max.4 × i0cm)										
									1					
ō	-	°0												
	-	°°°	8. 80											
	10-			Danaga alaw										
	- 10			Dense clay										
	-													
	-													
	-													l
	-													
L .			-					•						
a	20-	_												
N1 1-2														i
Z	-													
			23.50	Poor dust like ilmenite	(1%)		34/32- 1	23.20	1. 26	0.02	 Tr	0. 02	0. 88	
	_		25.70	· · ·			32- 2	25.00 26.00	2. 70	0.05	0.02	0. 02	0.99	
			26.50	Sandy clay w/ilmenite(1			32- 3	27.00	44. 32	0.70	0.09	Q. 31	5.49	
		#	27.70	Clayey Sand w/ilmenite(3~5%)		32- 4	28.00		1.01	0. 11	0.65	3. 31	
ц З	-	#		Redeposited crust of we	athering		32-5 32-6	29.00	0. 94 1. 26	0.02	Tr Tr	0.02	0.07	
C 2-3	30-	#	30.00				32- 0	29.90	1. 10			V. V2	V. 2.3	
	-													
	-													
	4													
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	4													
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	4													
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			١	ИЈВК — 7 (1:200) ELEVAT COORDIN	ION NATE	: : N	468. 14,6	10 m 36,29	8.6	E <u>5</u> ,4	01,97	0.6
F	Depth	с	Depth	Geology & Mineral	ization				Ass		_		
	m n		m			Sample #	Depth m	llmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Rey- coxene kg/m ³	Anothe kg/m ³	
Q †1 ~)	0	<u> </u>	0.30	Soil Dense loam									
		ő°.											
		°0		Pebble-gravel-boulder deposit w/sand&clay	S								
		0.0											
	-	0											
		0											
Ø		00											
		00											·
	· · · ·	0	9.20										
	10-			Dense,plastic clay									
	-												
					1								
	2,0												
	-												
	-												
	-				-		25.00						
	-		20.00			34/28- 1	26.00	0.34	0.02	Tr	Tr	0.56	
	-		26.00	Grains of ilmenite	Ì	28- 2	27.00	3.60	0.13	0.02	0.02	0.45	
			4	Sabnd clay w/ilmenite		28-3		6.44	0.16	0.02	0.02	5.72	
- L	-			Sabhd Clay W/Timenite		28- 4	28.20	5.11	0.09	0.02	0.02	0.68	
2 8	-		29.50	Sandy clay w/ilmenite(5~7%)	F	28-5	29.50 30.20	85.01	1.46	0.11	0.20	4.01	
1 1-2	30-	• /•	<u>30.20</u> 31.00	Clayey Sand w/ilmenite(5~7%)		28- 6	31.00	287.23	3.96	0.20	0.27	1.94	
ź	-	•	32,00	Sandy clay w/ilmenite(\sim 5%)		28-7	32.00	84.47	1.33	0.11	0.14	6.98	
		•	32.50	Sandy clay w/ilmenite(3%)		28- 8 28- 9	32.50	<u>34.70</u> 127.82	0.70	0 <u>.02</u> 0.11	0.04	2.09	
		1	33.60 34.20	Clayey Sand w/ilmenite(5-7%) Clayey Sand w/ilmenite(1-3%)		28-9	33.60 34.20	48.26	0.94	0.11	0.45	8.59	
	_	1.		Clayey Sand w/ilmenite(7~10%		28-11	35.00	246.06	3,10	0.18	0.04	9.18	
	-	1.1		Clayey Sand w/ilmenite(3~5%)	-	28-12	35.80		2.88 2.02	0.11	0.02	6.93 4.18	
	-	/	36.60 37.30		-	28-13 28-14		117.09 194.92	2.02	0.05	0.05	4.18 5.89	
	-	#				28-15	38,50	2.41	0.04	Tr	0,09	0.45	
+	-	# #		Redeposited crust of weathering	ng	28-16	39.50	1.12	0.02	Tr	0.02	4.43	
E S	40-			on clayey shale	-								
C 2-3	-	# #				[1						
	-	#											
	-	#	43.00		1								
	-												
	-												
	-											İ	
	-												
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	-												
Ĺ	50]			

МЈВК-8

(1:200)

ELEVATION : COORDINATE :

468.47 m N 14.636.107.5 E 5,402,017.7

				COORD I	NATE	: 1	1 14,6	636,10)7.5	<u>E 5,4</u>	102,01	7.7
F	Depth ຜ	Depth	Geology & Mine	nalization				Ass	say			
	N II	m	deology & Mille	51 a 1 1 2 a C 1 0 11	Sample #	Depth 🗳	llmenite kg/m ³	Zircon kg/m³	Rutile kg/m ³	Reu- coxene,	Anothe kg/m ³	
Q -	0	0.80	Dense loam									
	000											ľ
			Sand-Pebble-gravel deposi w/rare boulder	ts								
	°0											
1	- 0 0											
a												
	000	8.00										
			Dense,plastic clay w/hematite &ilmenite									
	10-											
				:								
			1									
			;									
		1										
	20-											
			· · · · · ·	-		:						
						23.50						
		24.60			34/24- 1	24.60	0.61	0.02	Tr	Tr	0.29	
		25.30	Poorly Sabnd clay w/dusty	ilmenite	24- 2	25.30	2.29	0.05	0.02	Tr	0.43	
		26.00	'Sandy clay w/ilmenite(3 \sim !	5%)	24-3	26.00	34.07	0.77	0.07	0.04	1.42	
	· ·	27.20	Clayey Sand w/ilmenite(5%		24-4	27.20	113.44	3.10	0.31	0.14	1.30	
			Dense clay w/ilmenite(🕼	ins of ilmenite	24-5		19.89	0.45	0.07	0.02	0.97	
-		28.50	Sandy clay w/ilmenite(1%)		24-6	28.50 29.30	73.15	1.85	0.22	0.23	0.81	
2 a		29.30		108)		29.30						
N1 1-2	30	30.60	Sandy clay w/ilmenite(3~	10/6)	24- 7	30.60	279.81	4.36	0.23	0.86	2.65	
z	1	77 44	Dense clay w/ilmenite(<1%)	24- 8	32.00	35.32	6.14	0.52	0.14	2.56	
		32.00	Sandy clay w/ilmenite(3%)		24-9	33.00	24.75	0.47	0.04	0.04	0.43	
	1	_33.00 33.50	Sandy clay w/ilmenite(5%)		24-10	33.00	91.33	1.49	0.13	0.18	8.68	
			Dense clay w/few ilmenite((<1%)	24-11		4.30	0.18	0.02	0.02	1.96	
		<u>34.90</u> 35,70	Sandy clay w/fewilmenite		24-12	34.90 35.70	29.61	0.45	0.02	0.16	1.57	
		35.70	Sandy clay w/ilmenite(3%)		24-13	36.50	52.87	0.70	0.02	0.02	3.83	
	- •/•	37.50	Clayey Sand w/ilmenite(5	~10%)	24-14	37.50	197.95	1.76	0.11	0.43	3.24	
		31.00			24-15		7.92	0.31	Tr	0.05	9.11	
	_		Dense clay w/ilmenite(<1%))	24-16	38.50	3.56	0.09	0.02	0.04	5.76	[
	40				24-10	39.50	7.13	0.09	0.02	0.04	7.90	
	40	40.40	Clavey Sand w/ilmenite(7	-10%)	24-17	40.40	172.76	2.25	0.31	0.04	12.20	
7	#		Clayey Sand w/ilmenite(7 & silicous rock fragments	,	24-19	42.00	13.12	0.23	0.05	0.05	3.96	
<u>ع</u>	1 # #		Crust of weathering deposi	ited shale	24-20		6.55	0.31	0.04	0.09	3.89	
C2-3		43.00				43.00	0.00		0.04	0.00		
	4							ľ				
	-											
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											1	
	50											

			N	ИЈВК — 9	(1	:200)	ELEVAT COORDI	'ION NATE	: : N	469. 14,6	30 m 35,91	2.7	E_5,4	02,06	4.7
F	Depth	с	Depth	Geology &	Min	nolizat	tion				Ass				
1	m	Se		Geology &	PI I D	eralizat	LION	Sample #	Depth	Ilmenite	Zircon kg/m ³	Rutile	Reu- coxene,	Anothe kg/m ³	
Q I - III	0	0 - 0	0.30												
		0.0										1			
	1	0													
	-	°O													
o o	-	° °.													
	-	0													
		0													
		000													
	}····	00	8.00												
] [
	10-														
	-														
	20-														
									27.00						
								34/20- 1		5.18	0.09	0.02	. 0. 02	0.97	
- L			28.50					20-2	29.00	4.12	0.07	0.02	Tr	6.62	
8 2		1, 1	30.00	Sandy clay w/ilmeni	te(1	~5%)		20-3	30.00	65.92	1.28	0.07	0.04	3.62	
1-2	30-	Y		Clayey Sand w/ilmen				20-4	_	101.18	1.71	0.20	0.72	1.51	
Ī		<u>× :</u>	31.50					5	31.00 31.50	156.92	2.39	0.14	0.49	. 17.84	
		<u>;</u> ;	32.50	Sandy clay w/ilmeni	te(1	~5%)		20-6	32.50	39.13	0.68	0.05	0.16	2.41	
		1	33.70	Clayey Sand w/ilmen	ite(5	~7%)		20- 7	33.70	121.21	2.20	0.13	0.45	5.69	
		•/+		Sandy clay w/ilmeni	te(abo	ut5%)		20-8	35.00	78.44	1.82	0.13	3.74	9.97	
		17	35.00						33.00				0.47	0.00	
		1.	00.00	Clayey Sand w/ilmen	1te(5	~ (%)		20-9	36.50	111.15	2.23	0.11	0.47	9.99	
		000	<u>36.70</u> 37.70	Dense clay Sand w/ilmenite(1 ~	-10%)			20-10	37.70	184.01	2.23	0.07	0.05	4.36	
		#		Sana my rimenitas(f)				20-11		7.04	0.22	0.02	0.13	11,16	
E		#		Crust of weathering				20-12	39.00	4.82	0.13	0.02	0.04	12.74	
C 2-3	40-	#						2012	40.00	+.02	U. 13	0.02	0.04	12.14	
Ö	-	# #													
	+	#	42.00												
	4														
		:													
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МЈВК — 10

(1:200)

ELEVATION : COORDINATE : 469.36 m N 14,635,719.6 E 5,402,111.4

			VI 3 B K = 1 0 (1:200)	COORDINA	TE	: 1	14,6		19.6	E 5,4	402,11	1.4
F	Depth ග	Depth	Geology & Mineralizati	0.0				Ass				
	N II	m	deology & mineralizati	Sam Sam	ple #	Depth 🔳	llmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reu- coxene, kg/m ³	Anothe kg/m³	
Q 1 - H	0	1.00	Dense loam									
	-0°											
	-0°		Clay sand pebble gravel									
	°0											
	- 0 .											
a	-0											
	0											
	0											
	ő	8.00										
		0.00										
	10-		Dense clay w/homatite									
	2.0											
	2,0											
											•	
	-											
	-	25.00		34/1	5- 1	25.00	0.32	0.02	Tr	Tr	0.72	
	-		Rare dusty impregnation of ilmenite			26.00						
		27.00			6- 2	27.00	2.27	0.05	0.02	0.02	0.50	
	1/.	20 50	Clayey Sand w/ilmenite(1 \sim 3%)	1	6-3	20 50	23.15	0.49	0.05	0.04	2.30	
- L		28.50 29.00	Clayey Sand w/ilmenite(3-5%)	· · · ·	6-4	28.50 29.00	56.54	1.04		0.31	4.52	
	30-	<u>29.50</u> 30.10	Clayey Sand w/ilmenite(3~5%) Clayey w/ilmenite(<1%) Clayey Sand w/ilmenite(7~10%)		6-5 6-6	<u>29.50</u> 30.10	202.45 51.80	<u>6.08</u> 1.08	0.90	0.86	<u>52.29</u> 2.18	
N1 1-2	30		Sandy clay w/ilmenite($1 \sim 3\%$)		6- 7		41.22	1.01	0.22	0.32	2.75	
Z		31.50				31.50						
		32,40	Clayey Sand w/ilmenite(5 \sim 10%)		6-8	32.40	204.17	3.55	0.38	2.88	12.94	
		33.70	Sandy clay w/ilmenite(1 ~5%)	1	6-9	33.70	151.65	0.34	0.72	0.67	5.58	
	- /		Clayey Sand w/ilmenite(3-5%)	1	6-10	34.60	108.34	1.76	0.07	0.72	4.59	
-	- #	¥¥		1	6-11		19.91	0.23	0.02	0.07	1.17	
٤	#	36.00	Crust of weathering with rock debris of slate			36.00						
C 2-3												
0												
	1											
	40 —											ļ
	-											
	4			Ì								
	-											
	50											

		١		VATION : 488.01 m RDINATE : N 14,632,772.4 E 5,406,	624.1
F	Depth a m s	Depth m	Geology & Mineralization	Assay Sample Depth Ilmenite Zircon Rutile Beurne Anot # kg/m ³ kg/m ³ kg/m ³ kg/m ³ kg/m ³	the
Q -	0 ><	0.50	Soil,vegetal layer Lome w/clay		/
a 1		9.70	Boulder-pebbledeposits w/sand Grey-brown clay w/gravel & Sand		
		<u>11,70</u> 16.00	Light-grey,dense clay w/iron oxide and sand(5~7%)		
N1 1-2 a r		22.40	Grey-brown,dense clay w/sand(3~5%) Poor ilmenite impregnation		
		<u>24.00</u> <u>25.50</u> <u>27.20</u>	Red-brown clay w/sand(5~10%) Red-gray clay w/sand(20~30%) (redeposited crust of wethering) Brown sandy clay w/finesand(20~30%)		
3 m t	30	31.80	Light brown clayeysand.clay(30~50%) (crust of weathering) Joints w/iron oxide Light brown clayey sand clay(30~40%) Iron and manganese		
C2-(34.50 37.00	Ochres are in fractures Light brown,yellow brown sand Ochre in fractures (Crust of weathering on porphyrite)		
	40				

M J B K - 1 2 (1:200)

(1:200) ELE

ELEVATION :

: 488.96 m N 14 632 661 7 F 5 406 728 9

				ŗ	ијвк — т 2	(1		COORDI		: N		32,66	51.7	E 5,4	106,72	28.8
Γ	F	Depth	U U	Depth	Coology	& Min	eralizati	0.7				Ass	say			
		m	Se	m	Geology	oz mini		υn	Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reu- coxene kg/m ³	Anothe kg/m ³	
	- 41	0	\ge	0.50	Soil Loam											
-			0	1.40	Grey sandy clay											
		-	O.°.		Boulder-pebble d	eposits w	/sand									
		_	° 0													
		-	0													
			0													
			°O													
	Ι															
	g]	<u>ل</u>													
		10	0	10.00												
		10	0		Light gray dense	clav w/s	and & oray	el								
			°/0			0, uj, c		Ŭ.								
			00	13.00												
					Brown grey dense and manganese oc	_clay w/r	ests of iro	noxide								
					and manganese oc	nre										
												1				
				16.90	Light grow play	w/cond										
			•	17.50	Light grey clay Red brown cley w		l imoregnati	ons								
				18,60	Red brown cley w of ilmenite	, conce and	, ,	0110								
		2.0			Grey brown dense	alay										
					Grey brown dense	Clay										
	ŗ	-		22.40												
	2 a	-			Light grey clay In base of bed,	w/sand	FY and ilmo	aita		23.30	_					
	1-2	-			impregnation	sanu iv-i	JA and Thile	nite	2GL/12-1	24.30	8.93	0.23	Tr	0.11	0.77	
	ź		ſ	25.30		, , , , ,	• • •		12- 2		22.54	0.67	Tr	0.34	2.41	
		-	.*/		Light grey sand impregnation	w/clay 1	menite		12- 3	25.90	6.70	0.23	Tr	0.07	5.15	
		-	/ ,	26,90	Light grey sand	w/clav&	lmenite		12- 4	26.90	34.83	0.92	Tr	0.38	1.85	
		-	•	28.00 28.50	Sand w/ilmenite	ţ			12- 5	28,00 28,50	119.05	4.95	0.29	0.92	0.49	
		-	•/.		Sand w/clay&ilm	enite imp	regnation		12- 6		107.75	3.96	0.45	0.79	0.68	
		30 —		29.90					12- 7	29.90 30.90	2.54	10.49	Tr	0.04	17.51	· · · · ·
		4			Yellow brown cla (redeposited cru	y w/Sand st of wea	thering)		12- 8	30.90	3.08	0.22	0.02	0.16	5.63	
		-	· · · · · · · · · · · · · · · · · · ·	32.50						31.90						
ľ		4	<u>í</u> #		Yellow brown cla	y w/Sand										
		4	#	35.00												
			μ., μ.		Green brown dong	a clav-ca	nd denosite									
			#		Green brown dens (crust of weathe	ring)	na acpusits									
		t F	- <u>-</u>	37.50	Casu harris and											
			# #	38.70	Grey brown sand											
	.	40 -	# #	39.20 40.20	Brown fine sand Clay (crust of w	eathering)									
	Εļ		#													
]	#	41.40	Weathered siltson Bottom of the ho	le										
	ן נ]														
ľ																
			ĺ													
		-														
		50														

			Ν	ИЈВК — 13	(1	:200)	ELEVAT COORD I		: : N	489. 14,6		0.3	E_5,4	06,86	8.2
F	Depth	ပခ	Depth	Geology	& Min	eraliza	ation	Sample	Depth I	Inonite	Ass		Reu-	Anothe	
Q31 - II	1 0	s	m 0.50 0.60	Soilvegetalbad				3ampre #		kg/m ³	kg/m ³	kg/m ³	Rey- coxene kg/m³	Anothe kg/m³	
	-	0000		Loam Pebble boulder	deposits										
	-	° 。 0		Pebble boulder w/gravel sand & c Boulder(max ϕ =40 cley=5-10%											
	-	° O		Grey san	iuy ciay										
01			8,40												
	10-	0		Sand pebbles&cl cley=30-40%	ay										
		000	12.30	Brownich grev de	nse clav										
	-		14.30	Brownish grey de w/gypsun&limoni											
	-		14.60	Light gray sandy Light grey dense		imonito	inclusion			1					
	-		17.30	light grey dense	ciay w/	imonice	Inclusion								
	-	*	18.30	Light gray clay											
ar	2,0 -		20.80	Red grey dense c hgdroxide nests	ley w/iro	n									
1 1-2	-		23.00	Lght grey white hgdroxide nests	dense cla	y w∕iro	n								
z		π		Brown red cley w spots of white s (redeposited cru	/lenticul andy clay st of wea	ers thering)								
	-	#								-					
	-	tt.	28.20	Brown grey yello	w brown										
	30-	11		Brown grey yello dense spotted ba w/sand and iron (red eposited cr	oxide ust of we	thering)								
	-	#	32.80	Brown clav											
	_	$\begin{array}{c} \mu \\ \mu \end{array}$	33.80	Brown clay (crust of wether Brown light brow		av									
+	-	- <u>∕</u> # -∆ #		Brown light brow w/rare qz frags											
C2-3 m	-	# #	37.00	Dark green silt (crust of weathe	stone										
U U	-	#	39.00	Bottom of the ho											
	40-														
	-														
	-														
	50														

A – 17

M J B K - 1 4

(1:200)

490.60 m N 14,632,378.8 <u>E 5,407,010.6</u>

	,		,		(1.200)	COORDI	NATE	: 1	14,6			E 5,4	07,01	0.6
F	Depth	ນ ອ	Depth	Geology & Mi	neralizat	ion		· · · · · ·		Ass		D		
	1	s S	m				Sample #	Depth M	Ilmenite .kg/m ³	Zircon kg/m³	Rutile kg/m ³	Keu- coxene kg/m³	Anothe kg/m ³	
Q I - III	0		0_40	Soil Brown loam & clay										
			2.20	Gray clay w/sand`	1									
			- 2.20											
		0.°.		Boulder Pebble deposits w/sand & clay										
				deposits w/sand & clay										
	-													
		0												
σ														
		0°												
	10-													
	10	0	11.00											
		0		Gravel sand deposits w/clay(30-50%)										
		P		w/clay(30-50%)										
		- 0 0	13.50											
		0	14.50	Brown crs sand w/gravel										
	-			Light grey dense clay w/iron oxide impregnati										
			16.80	w/iron oxide impregnati	on									
			10.60	Grev brown clav										
				Grey brown clay w/dense sand										
		<u> </u>	19.00	0										
	2.0 —		20.50	Grey dense clay										
L	•		20.50											
50				Brown sandy clay sand(40-50%)										
1-2		ļ	22.80											
E E		000	23.70	Yellouw brown crs sand Rock debris in base										
	-			Grev brown dense clav										
		#		Grey brown dense clay w/limonitied rock fragm (redeposited crust of w	ents eathoring)									
		<u> </u>		(redeposited clust of w	eachering)									
		# •												
		1	28.20 29.00	Sand w/brown clay clay(20-30%)										
-		#	20.00											
٤	30 —	#		Crust of weathering Grey brown sandy clayey w/joints Iron ochre in joints										
C 2-3		# #		w/joints									1	
Ö		#	32.00	tron ochre in joints										
	-	-												
	-													
	40 —													
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	·····	1 	ИЈВК— 1 5 (1:200) ELEV COOR	ATION : 491.96 m DINATE : N 14,632,237.4 E 5,407,152.0
F	Depth o m s	Depth m	Geology & Mineralization	Assay Sample Depth Ilmenite Zircon Rutile Bounder Anothe # kg/m kg/m kg/m kg/m kg/m kg/m kg/m
Q 11 - 111		0.30	Soil Loam Pebble boulde deposits w/sand	# m kg/m² kg/m² kg/m² kg/m³ kg/m³
10			Clay w/sand & gravel	
		12.50 16.00 17.00	Light-gray dense clay Brown dense clay w/sand(5-10%) Brown dense clay w/sand(5-7%)	
N1 1-2 a r		21,50 23,40 24,10 24,50 24,50 27,20	Brown dense clay w/sand(\$-7%) Red brown grey dense clay w/sand (5-10%) Red brown clay w/sand Yellow brown crs sand Red brown grey dense clay w/sand(10-20%)	23.40 Tr Tr 4.03 26L/24-1 24.10 1.19 0.04 Tr Tr 4.03 24-2 24.50 3.71 0.34 Tr 0.14 53.01 24-3 26.00 225.50 6.37 0.02 1.73 10.17 24-4 27.20 24.57 1.04 0.02 0.34 5.00
C2-3 m t	30 <i>t</i> <i>t</i> <i>t</i> <i>t</i> <i>t</i> <i>t</i> <i>t</i> <i>t</i>	28.90 29.50 29.80	Light grey sand w/ilmenite(1-3%) Light grey brown clay w/sand Brown fine sand w/clay Brown sand w/clay(30-40%) Bande and jointy sand Grey brown fine sand w/clay(20-30%) Ochre of Fe&Mn are in joints crust of wethering	24-5 28.20 46.42 1.51 0.04 0.49 98.19 24-6 28.90 169.63 2.99 0.02 1.06 9.18 24-7 29.90 0.72 0.04 Tr 0.04 4.25 24-8 30.90 0.52 0.09 Tr 0.02 1.62

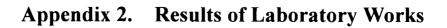
МЈВК-16

(1:200)

ELEVATION : 465.98 m COORDINATE : N 14,636,202.4 E 5,401,485.0

					(1.200)	COORDI	NATE	: 1	14,6			£ 5,4	101,48	5.0
F	Depth	с	Depth	Goology O M:	nonalizati	0.0				Ass				
	m	Se	D C P C II	Geology & Mi	neralizati	.011	Sample #	Depth	llmenite kg/m ³	Zircon kg/m ³	Rutile	Beyene.	Anothe kg/m ^J	
911-111	0	><	0.30	Soil	-			<u>_</u>	<u></u>	<u>, ts/ щ</u> "	<u>N_/ U</u>	<u> KE/B'</u>	<u>*5/ W</u>	
<u> </u>		0 — 0 D	1.10	Dense loam										
	-	Ø.°,		Clay sand pebble gravel										
	-	0.0		Clay sand pebble gravel deposits w/boulder(max.	7 🗡 15cm)									
		- O												
		0 0 0												
		0												
σ		°°												
		0 0										L.		
	-	0												
		0	9,10				:							
	10 —													
				Dense plastic clay										
														1
	-													
					1									
	4													
														1
	20 —													
	7,0													
								24.00						
						-	30/28- 1	24.00	0.49	0.02	Tr	Tr	0.63	{
	-		25.00			-	28- 2	25_00	6.34				0.70	
				Rare impregnation of il	nenite(1%)	-	20- 2	26.00	0.34	0.18	0.02	0.04	0.70	
							28- 3	27.50	3.62	0.11	Tr	0.02	1.04	
L		•	28.20			Ì	28-4		1.58	0.04	Tr	0.02	0.65	
B		• ; ;		Sand clay w/ilmenite(1-	5%)	Γ	28- 5		61.06	1.31	0.16	0.13	2.79	
1-1-						F	28- 6		45.02	0.77	0.07	0.16	3.38	
N1 1-2	30 —	•/•	30,50	Clayey sand w/ilmenite(!	7%)	ŀ		30.50	272.95	4.55	0.27	1.17	28.49	
			31.20			ł	28- 7							
	4	, †	32,70	Weak sand clay w/ilmeni	te(ab.1%)		28- 8	32.70	15.01	0.31	0.02	0.02	5.35	
	1	•		Clayey sand w/ilmenite(1 + 5%)	ſ	28- 9		28.17	0.68	0.04	0.14	2.12	
	+	\checkmark				F	28-10	34.00 34.50	132.68	1.69	0, 18	0, 18	8.91	
	_	×, '	35.50	Clayey sand w/ilmenite(ŀ	28-11	35.50	70.83	1.08	0.13	0.40	18.22	
	ji ji	<u> </u>	35.50	Sand clay w/ilmenite(ab.	3%)	Ļ	28-12	36.00	58.10	1.10	0.09	0.20	9.32	
	ŀ	• 1	37.00	Clayey sand w/ilmenite(5+10%)	ŀ	28-13 28-14	<u></u>	129.11 85.99	2.30 1.17	0.09	0.50	<u>12.15</u> 15.32	
	Ī	*/•*	38,00	Ferrous clayey sand w/il	menite(1-7%))	28-15		133.09	2.07	0.25	0.76	7.11	
	ļ	+ / +	39,00	Sand clay w/ilmenite(1-	0%)	F	28-16		165.44	2.25	0.16	0.34	17.84	
 +		μ #				F	28-17		5.36	0.07	Tr	0.02	1.04	
بر ع	40	11		Crust of weathering		ŀ	28-18	40.00	16.94	0.20	0.02	0.02	0.54	
r r	+	#	41.00			ŀ	20-10	41.00	10.34	v. 20	0.02	0.02	0.04	
C 2-3	4													ŀ
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			١	ИЈВК-17 (1:200) ELEVA COORD		: : N	466. 14,6			<u>E 5,4</u>	01,57	8.9
F	Depth	еc	Depth	Geology & Min	eralization	Sample	Death	<u>, 1 : 4 -</u>	Ass		Ren-	Anotha	
Q † - H	 	° S	m. 0.60	Dense loam w/Pebble		ampre #	veptn m	ilmenite kg/m ³	41rcon kg/m ³	kutile kg/m ³	Rey- coxene kg/m ³	Anothe kg/m³	
		000	V.VV.										
	-	0.		Clay sand Pebble gravel w/boulder(max.7×15cm)	deposits								
	-												
	-	O											
		° 0											
l o		00											
1]	0											
		. 0	9.00										
	10-												
				Dense plastic clay w/ flakes of hematite									
									:				l
	2.0 —												
	-												
	-												
					1								
	30												
							31.00						
r L						30/20 - 1	32.00		0.02	Tr	Tr	0.90	
1-2		- + -	32.50	Rare dusty impregnation	of ilmenite	20- 2	00.00	0.97	0.05	Tr	0.02	0.22	
Ī			34.00			20- 3		2.03	0.04	Tr	0.02	0.54	
				Sand clay w/ilmenite(2-3	\$)	20- 4	35.00	18.81 59.09	0.61	0.02	0.05	0.52	
			36.00	Sand clay w/ilmenite(5-7	X)	20- 5	30.00		1.13	0.14	0.43	2.12	
			37.00	Clayey sand w/ilmenite(5		20- 7	37.00 38.00		0.83	0.04	0.07	16.45	
		• /	38.00 38.20	Clayey sand w/iron oxide		20- 8	38.50	77.40	1.51	0.16	1	4.59	
		1	<u>39.50</u> 40.00	Clayey sand w/ilmenite(3 Clayey sand w/ilmenite(5		20- 9	39.50	70.65	1.62	0.09			
	40-	1,	41.00	Sand clay w/ilmenite(abo	ut3%)	20-11	41,00	88.78	1.35	0.07	0.72	2.84	
		1/	41.50	Clayey sand w/ilmenite(3		20-12	41.50	29.65	0,36	0.27	īr	1.71	
]	0/00	43.00	Clayey sand w/ilmenite(5		20-13	43.00	196.74	2.65	0.13			
	F	-	43.50 44.00	Sand clay w/ilmenite(5-7 Clay w/ilmenite(1%)	/a)	20-14 20-15	44.00	7.07	1.22 0.31	0.05		26.64	
ч З		* ⋢ ⋢ *		Crwst of weathering		20-16	40,00		0.07	0.02		31.37	
2-3		* #	46.00			20-17	_46.00	2.66	0.09	Tr	0.56	15.61	
C2							:						
	- 50												
L	JU	<u>_</u>				L		L		ι	⊢_	l	<u> </u>



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Appendix 2-1 List of Laboratory Works

		Whole	Bektemir	Bektemir	- -
° Ž	Type of work	Area	No.1 South	No.3 South	l otal
-	Microscopic observation of the thin sections	12	0	0	12
2	X-Ray diffraction analysis	9	14	2	22
ო	Preparation for analysis	0	249	22	271
4	Quantity mineralogical analysis for ilmenite, rutile and zircon of				
	usual and check samples	0	198	16	214
ഹ	Inside (same laboratory) geological check of mineralogical analysis				
	$({f II}$ classes of content – select 30 samples each)	0	90	0	06
9	at l				
	analysis (III classes of content - select 30 samples each)	0	90	0	90
7		0	25	9	31
∞	Separation of monomineral ilmenite and zircon fractions from				
	group samples	0	22	0	22
8	Grainmetric analysis of monomineral fraction	0	22	0	22
8.2	Chemical and spectral (
	Ilmenite ; TiO ₂ , Sc ₂ O ₃ , Nb ₂ O ₅ , Ta ₂ O ₅ , TR, V ₂ O ₅ , Cr ₂ O ₃ , Al ₂ O ₃				
	SiO ₂ , FeO, Fe ₂ O ₃	0	11	0	11
	Zircon; ZrO ₂ , Sc ₂ O ₃ , Hf, TR, Y, Th	0	11	0	11
8.3		0	11	0	11
6	Chemical analysis of w	0	4	0	4
10					
	(GOST) "Drinking water"	0	. 2	0	
11	Physical – mechanical test of rock;				
	* short complex	0	11	0	11
	* complete complex	0	10	0	10
	Totai of laboratory works	18	0//	46	834

Appendix 2-1 List of Laboratory Works

Appendix 2-2 Microscopic Observations of the Thin Sections

l							1	4444				Py.	Pyroclastic rocks	rocks						200	Cecondra, minerale	inerale				
ž	Sample	No. Sample Locality	Rock name				Igneous rock	LOCK			•			Cryste	Crystal fragment	ent				100						Remarks
	No.			Qz Kf PI	PI Bị	Bt Hb CpxOpx Mt IIm Sph Ap Zr	Op ₃ Mt	Ilm Spt	Ap Zr	Mz	AI FI	Kock tragment	Qz Kf	P! Bt	Hb Cpx	Opx M	tt Ap Q	z PI Ch	Ser Bt A	tct Prh E	Ep Cal C	ord Sph	Mt IIm H	Qz Kf Pi Bi Hb Cpx Opx Mt Ap Qz Pi Ch Ser Bt Act Prh Ep Cel Cord Sph Mt IIm Hm Gt Ap Lc	Lc	
-	8-91-6	9-16-8 Beloe	Bt homfels from andesite tuff						_		_	O And, Tuff		0	\triangleleft	⊲	•		∇							
7	9-16-9	Beloe	Cpx-Aug-Hb alkali feldspar granite	0 0	4	⊲			•	 •															С ^В	Cpx : aegirine-augite
ę	_	Marinogorka	9-17-2 Marinogorka Volcanic sandstone									And, Bas, Rhy, Mst	⊲	0	⊲					•	•					
4		9-20-2 Beloe	Bt-Cord homfels	_		-											4		0		_	0	•	•		Cord : poikiloblastic
5		9-20-4 Beloe	Meta-Hb andesite tuff									O And		⊲	0				4				•			
Ŷ		9-28-2 Beloe	Hb-Bt alkali feldspar granite	© 0	0000	0		•	• •	•																
7		9-28-3 Beloe	Hb-Bt granite	© 0	0 0 0 0	0	•		•	•														•		
×	_	Preobrajenka	9-28-4 Preobrajenka Aug-Hb-Bt Qz monzodiorite	0 0	0			4	•	·								·		•		•				
6	9-28-1C	0 Preobrajenka	9-28-10 Preobrajenka Schistose Bt granite	0	0 0			·	·		•														ζ	Qz : mortar structure
0) 9-30-5	Preobrajenka	9-30-5 Preobrajenka Altered andesite tuff									© And		0	0 •					~	4				•	
1		9-30-7 Preobrajenka	Altered trachyte	0	4														Ø					•		
12	2 9-30-8	Preobrajenka	9-30-8 Preobrajenka Altered andesite		0	\triangleleft												\bigtriangledown						Q	•	
A I	[Abbreviations]	[suo											[Abundance]	ance												

Appendix 2-2 Microscopic Observations of the Thin Sections

[Abbreviations] Act: actinotics, A1 allmaite, And: andesite, Ap: apartite, Aug : augite, Ba: basalt, Bt: biotite, Cal: cabiente, Cord: cordiente, Act: actinopyrovers, Ep: capidos, F1: thuorite, G4: goethine, Ha: homblende, Han: hommite, Ilm: itimente, ACI: F4:didpart, M41: mutatone, M1: magnetite, M2: monastite, Lo: lencovene, Opv: carbopyrovene, P1: plagioclase, PH: prohuite, Q2: quarte, Ser: serticite, Sph: sphene, Z7: ziroon M1: magnetite, M2: monastite, Lo: lencovene, Opv: carbopyrovene, P1: plagioclase, PH: prohuite, Q2: quarte, Ser: serticite, Sph: sphene, Z7: ziroon

[Abundance] ◎:Abundant, ○:Common, △:Poor, •:Rare

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Abbreviations

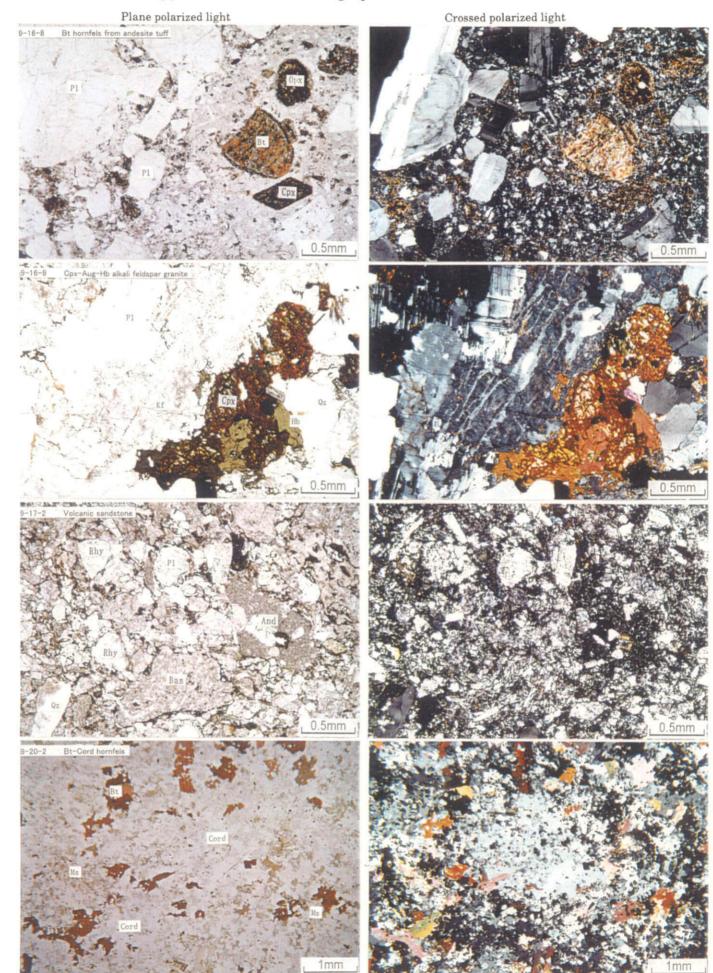
Act	:	actinolite
Al	:	allanite
And	•	andesite
Ар	:	apatite
Aug	•	augite
Bas	•	basalt
\mathbf{Bt}	•	biotite
Cal	•	calcite
$\mathbf{C}\mathbf{h}$	•	chlorite
Cord	:	Cordierite
Срх	:	clinopyroxene
Ep	:	epidote
Fl	:	fluorite
Gt	:	goethite
Hb	:	hornblende
Hm	:	hematite
Ilm	:	ilmenite
Kf	:	K-feldspar
\mathbf{Mst}	:	mudstone
Mt	:	magnetite
Mz	:	monazite
Lc	:	leucoxene
Opx	:	orthopyroxene
Pl	:	plagioclase
Prh	:	prehnite
Qz	:	quartz
Ser	:	sericite
\mathbf{Sph}	:	sphene
Zr	:	zircon

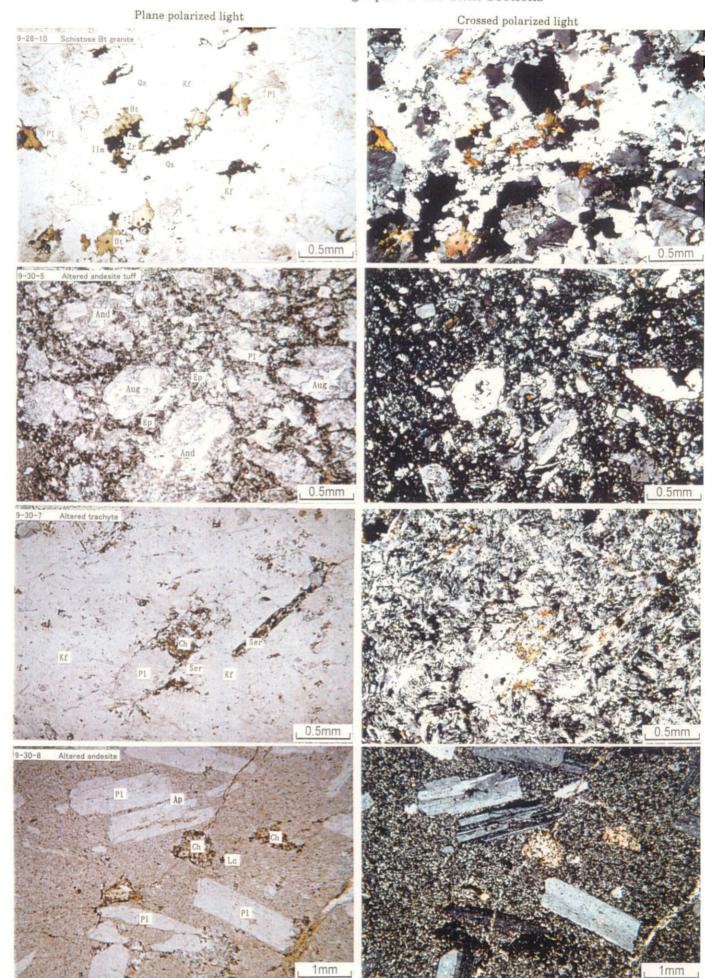
Appendix 2-3 Photomicrographs of the Thin Sections



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Appendix 2-3 Photomicrographs of the Thin Sections





Appendix 2-4 Results of X-Ray Diffraction Analysis

L	Sample no.	Locality	Rock description	a	×	S	ບ ບ	S-Sm Mont		llm Bt	t Zir		K-f	Illite	Ae	ЧН	Remarks
-	9-16-9	Beloe	aegirine-hb alkali-f.granite	0								0	0		0		TiO _{2:} 0.18 %, ZrO ₂ : 0.11 %
2	9-20-4	Beloe	meta-hb andesite tuff							0	0	0				0	TiO ₂ : 0.64 %, ZrO ₂ : 0.02 %
e	9-28-2	Beloe	hb-bt granite	0					-	0		0	0			٩	TiO _{2:} 0.37 %, ZrO ₂ : 0.03 %
4	9-28-3	Beloe	hb-bt granite	0						0	C	0	0			4	TiO _{2:} 0.09 %, ZrO ₂ : 0.03 %
5	9-28-4	Preobrazhenskiy	bt-hb quartz diorite	0			0			0	0	0	⊲			0	TiO _{2:} 1.10 %, ZrO ₂ : 0.02 %
9	9-28-10	Preobrazhenskiy	schistose hb-bt granite	0						Þ		0	0				TiO _{2:} 0.18 %, ZrO ₂ : 0.02 %
~	MJBK-1	31.0m	Clay	0	•												
ω	MJBK-3	40.0m	Clay	0	0									0			
თ	MJBK-8	42.0m	Clay	0	•				•			•	•				
10	MJBK-11	36.0m	Clay	0	0				4					•			
Ę	MJBK-13	38.0m	Clay	0	0				0					•			
12	<u> </u>	40.0m	Clay	0	⊲				0					4			
13	MJBK-3	26.3m	Ilmenite sand	0					` 0	4		4	⊲				
14	MJBK-4	30.5m	Ilmenite sand	0					7	۷ ا		⊲	4				
15	MJBK-7	32.6m	Ilmenite sand (concentrate)	0						0		0					TiO ₂ : 38.71 %, ZrO ₂ : 0.04 %
16	MJBK-7	34.5m	Ilmenite sand	0					5	0		0	0				
17	1	35.5m	Ilmenite sand	0					-	0		0					
18	MJBK-8	30.0m	Ilmenite sand	0	⊲				-	A		0	0			_	
6	MJBK-8	37.5m	Ilmenite sand	0					_	0		0					
20		40.9m	Ilmenite sand (concentrate)	0					-	4		4	4				TiO _{2:} 27.87 %, ZrO ₂ : 0.54 %
21	MJBK-9	31.5m	Ilmenite sand	0					-	A		4					
22		36.0m	Ilmenite sand (concentrate)	0					م			0	0				
	[Abundance]	e]	[A]	[Abbreviations]	ions]												
	@ : Abun	◎ : Abundant, O : Common, ∆ : Poor,	,∆: Poor, •: Rare	ð	Q= Quartz	N ¹		K= Kaolinite	linite		Ϋ́	S= Sericite	ite			C= C	C= Chlorite
				S-S B†≐	S-Sm= Sei Bt= Biotite	ericite	-Sme	S-Sm= Sericite-Smectite mixed Bt= Biotite Zir= Zircon	xed		ΣΫ́	ont= N f= K-F	Mont= Montmor K-f= K-Feldspar	Mont= Montmorillonite K-f= K-Feldspar	te	IIm= I Ae=A	llm= Ilmenite Ae=Aegirine
				HPHH	Hornh	ornhlende											
				-			,										

Appendix 2-4 Results of X-Ray Diffraction Analysis

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Appendix 2-5 Quantity Mineralogical Analysis of Usual and Check Samples

Appendix 2-5 Quantity Mineralgical Analysis of Usual and Check Samples (1)

No.	No. of	Sample	Depth	Weight of	Weight of	Weight of	Weight of	Weight of	Content		Heavy fractio	ons			Content		Content of he	avy fractions		
	drillholes	No.	(m)	dried sample	sand after	sample for	sample for	heavy	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others
				(kg)	sieving (-1.0 mm)	analysis	separation	fraction	fraction	(%)	(%)	(%)	(%)	(%)	fraction	(kg/t)	(kg/t)	(kg/t)	(kg/t)	(kg/t)
					(8)	(8)	(g)	(g)	(%)						(kg/t)					
1	MJBK-1	38/32-1	28.0 m - 29.0 m	10.3	138.9	34.7	34.7	14.52	41.84	20.26	0.67	0.01	0.33	78.73	5.54	1.14	0.04	tr	0.02	4.44
2	MJBK-1	38/32-2	29.0 m - 29.9 m	9.2	151.4	37.8	38.2	20.97	54.89	6.74	0.35	0.02	0.09	92.8	9.03	0.61	0.03	tr	0.01	8.38
3	MJBK-1	38/32-3	29.9 m - 31.0 m	9.1	82.3	41.1	40.9	7.09	17.33	43.82	0.85	0.05	0.16	55.12	1.57	0.69	0.01	tr	tr	0.87
4	MJBK-1	38/32-4	31.0 m - 32.0 m	10.9	81.7	40.8	41.4	18.37	44.37	12.73	0.34	0.02	0.03	86.88	3.33	0.42	0.01	tr	0.01	2.89
5	MJBK-2	38/28-1	23.6 m - 25.0 m	11.9	200	37.5	37.42	6.38	17.05	76.92	2.01	0.26	0.3	20.51	2.87	2.2	0.06	0.01	0.01	0.59
6	MJBK-2	38/28-2	25.0 m - 26.0 m	8.2	93	34.6	34.41	5.36	15.58	90.73	2.16	0.26	0.28	6.57	1.77	1.61	0.04	tr	tr	0.12
7	MJBK-2	38/28-3	26.0 m - 26.8 m	8.5	2790	43.5	43.5	8.19	18.83	89.12	2.59	0.32	0.2	7.77	61.81	55.09	1.6	0.2	0.12	4.8
8	MJBK-2	38/28-4	26.8 m - 27.4 m	7.6	3355	39.2	39.1	6.23	15.93	92.7	1.96	0.13	0.14	5.07	70.32	65.19	1.38	0.09	0.1	3.56
9	MJBK-2	38/28-5	27.4 m - 28.3 m	6.1	1164	36.3	36.3	6.16	16.97	96.73	2.3	0.1	0.02	0.85	32.38	31.32	0.74	0.03	0.01	0.28
10	MJBK-2	38/28-6	28.3 m - 29.5 m	10.1	780	36.5	36.5	6.78	18.57	95.21	1.72	0.11	0.16	2.8	14.35	13.66	0.25	0.02	0.02	0.4
11	MJBK-2	38/28-7	29.5 m - 30.2 m	5.9	945	29.5	29.52	5.26	17.82	93.32	0.84	0.06	0.11	5.67	28.54	26.63	0.24	0.02	0.03	1.62
12	MJBK-2	38/28-8	30.2 m - 31.5 m	12.1	203	37.6	37.32	5.11	13.69	32.14	0.66	tr	0.07	67.13	2.3	0.74	0.02	tr	tr	1.54
13	MJBK-2	38/28-9	31.5 m - 33.0 m	13.2	150	37.5	38.2	6.69	17.51	34.49	1.03	0.06	0.06	64.36	1.99	0.69	0.02	tr	tr	1.28
14	MJBK-2	38/28-10	<u>33.0 m - 34.0 m</u>	10.6	49	36.2	36.2	4.7	12.98	27.5	1.16	0.08	tr	71.26	0.6	0.16	0.01	tr	tr	0.43
15	MJBK-2	38/28-11	34.0 m - 35.0 m	11.1	160	40	40	4.22	10.55	19.24	1.23	tr	0.38	79.15	1.52	0.29	0.02	tr	0.01	1.2
16	MJBK-2	38/28-12	35.0 m - 36.0 m	10.6	230	42.3	42.5	3.96	9.32	19.46	0.59	0.05	0.21	79.69	2.02	0.39	0.01	tr	0.01	1.61
1/	MJBK-2	38/28-13	36.0 m - 37.0 m	9.1	145	36.2	36.4	3.31 4.56	<u>9.09</u> 10.91	<u>26.89</u> 82.53	0.3	0.01	0.17	72.63	1.45	0.39	0.01	tr	tr	1.05
18	MJBK-2	38/28-14	37.0 m - 38.0 m	10.3	168	42	41.8	<u>4.56</u> 6.91			3.39	0.23	0.44	13.41	1.78	1.47	0.06	tr	0.01	0.24
19	MJBK-2	38/28-15	<u>38.0 m - 39.0 m</u>	11.7	145	36.2	36		19.19	31.42	1.93	0.05	0.47	66.13	2.38	0.75	0.05	tr	0.01	1.57
20	MJBK-2	38/28-16	39.0 m - 40.0 m	11.4	105	39.1	38.3	5.547.13	14.47	50.31	2.76	0.14	0.28	46.51	1.33	0.67	0.04	tr	tr	0.62
21	MJBK-2	38/28-17	40.0 m - 41.0 m	10.2	44		44.3	3.15	16.09	41.7	1.06	0.06	0.99	56.19	0.69	0.28	0.01	tr	0.01	0.39
22	MJBK-2	38/28-18	41.0 m - 42.0 m	10.1	470 875	29.3 40.6	<u>29.7</u> 40	4.72	10.61 11.8	54.57 69.15	3.49 1.95	0.19	1.79 0.85	39.96 27.97	4.94	2.7	0.17	0.01	0.09	1.97
	MJBK-2	38/28-19	42.0 m - 42.9 m	<u>8.6</u> 7.1	350	40.6	40	0.14	0.32	71.88	3.12	0.08	<u> </u>	27.97	12.01	8.31	0.23	0.01	0.1	3.36
24	MJBK-2	38/28-20	42.9 m - 44.0 m 26.0 m - 27.5 m	12.7	125	31.2	31.35	5.34	17.03	47.22	<u> </u>	0.02	tr 0.21	50.94	0.16	0.11	0.01	tr	tr	0.04
25	MJBK-3 MJBK-3	<u>38/24-1</u> <u>38/24-2</u>	26.0 m - 27.5 m 27.5 m - 28.5 m	9.9	505	31.5	31.35	5.66	17.03	58.57	2.21	0.02	0.03	39.13	9.2	0.79	0.03	tr 0.01	tr	0.86
27	MJBK-3	38/24-2	27.5 m - 28.5 m 28.5 m - 29.3 m	8.3	1855	28.9	28.73	3.69	12.84	81.99	2.21	0.00	0.03	15.43	28.7	23.53	0.2	0.01	tr	3.6
28	MJBK-3	38/24-3	29.3 m - 30.0 m	7.7	3775	30	33.54	3.83	11.42	89.03	1.81	0.12	0.24	8.8	55.99	49.85	1.01	0.00	tr 0.13	4.43
29	MJBK-3	38/24-5	30.0 m - 30.5 m	5.9	1250	32	33.6	5.74	17.08	94.79	1.96	0.09	0.32	2.84	36.19	34.3	0.71	0.07	0.13	1.03
30	MJBK-3	38/24-6	30.5 m - 31.3 m	5.1	1180	40	42.08	7.01	16.66	88.98	1.90	0.13	0.05	8.97	38.55	34.3	0.71	0.05	0.02	3.46
31	MJBK-3	38/24-7	31.3 m - 32.0 m	11.5	3165	36.3	35.97	5.83	16.53	92.63	1.59	0.08	0.16	5.54	45.49	42.14	0.72	0.03	0.02	2.52
32	MJBK-3	38/24-8	32.0 m - 33.0 m	14.2	6175	36.1	35.97	6.88	19.13	89.79	1.5	0.05	0.02	8.64	83.19	74.7	1.25	0.04	0.01	7.19
33	MJBK-3	38/24-9	33.0 m - 33.5 m	5	2150	40.2	40.2	7.67	19.08	83.19	1.74	0.04	tr	15.03	82.04	68.25	1.43	0.03	tr	12.33
34	MJBK-3	38/24-10	33.5 m - 33.7 m	1.5	235	44	43.86	12.29	28.02	31.09	0.61	0.07	0.23	68	43.9	13.65	0.27	0.03	0.1	29.85
35	MJBK-3	38/24/11	33.7 m - 34.6 m	16.9	5780	33.7	33.43	7.03	21.03	94.34	1.51	0.04	3.31	0.8	71.92	67.85	1.09	0.03	2.38	0.58
36	MJBK-3	38/24-12	34.6 m - 35.2 m	8.2	1190	37.2	37	4.19	11.32	94.24	2.28	0.14	0.35	2.99	16.43	15.48	0.38	0.02	0.06	0.49
37	MJBK-3	38/24-13	35.2 m - 36.4 m	14.4	4960	38.7	38.57	6.88	17.84	96.23	1.9	0.1	0.67	1.1	61.44	59.12	1.17	0.02	0.41	0.68
38	MJBK-3	38/24-14	36.4 m - 37.6 m	16.6	5860	34.2	34	10.53	30.97	84.68	1.25	0.04	0.03	14	109.33	92.58	1.37	0.04	0.03	15.31
39	MJBK-3	38/24-15	37.6 m - 38.2 m	6.5	2360	36.9	36.7	9.26	25.23	97.79	1.23	0.05	0.21	0.72	91.6	89.57	1.13	0.05	0.19	0.66
40	MJBK-3	38/24-16	38.2 m - 39.0 m	6.1	185	34.6	34.47	0.8	2.32	44.56	0.59	0.04	0.75	54.73	0.7	0.31	0.004	tr	0.005	0.38
41			39.0 m - 40.0 m		330	41.2	41.08	18.05	43.94	1.22	0.06	0	0.01	98.71	18.35	0.23	0.01	tr	tr	18.11
42	MJBK-4	38/16-1	24.0 m - 25.0 m	9.1	25	25	24.02	4.93	20.52	73.87	3.29	0.09	0.16	22.59	0.56	0.41	0.02	tr	tr	0.13
43	MJBK-4		25.0 m - 26.0 m	10.9	540	33.7	33.66	6.33	18.81	69.8	2.55	0.37	0.2	27.08	9.32	6.51	0.24	0.03	0.02	2.52
44	MJBK-4		26.0 m - 27.0 m		640	40	40	6.48	16.2	82.82	3	0.38	0.28	13.52	8.29	6.87	0.25	0.03	0.02	1.12
45	MJBK-4	38/16-4	27.0 m - 28.0 m	10.8	185	34.5	34.4	6.24	18.14	78.15	2.73	0.17	0.4	18.55	3.11	2.43	0.08	0.01	0.01	0.58
46	MJBK-4		28.0 m - 29.2 m		2160	33.7	33.77	5.51	16.32	79.57	2.42	0.3	0.16	17.55	28.66	22.8	0.69	0.09	0.05	5.03
47	MJBK-4				1295	40.4	40.4	9.95	24.63	90.34	2	0.22	0.11	7.33	52.29	47.24	1.05	0.11	0.06	3.83
48	MJBK-4	38/16-7	29.6 m - 30.6 m	11	3550	40.8	40.7	8.8	21.62	90.11	2.05	0.15	tr	7.69	69.77	62.87	1.43	0.1	tr	5.37
49	MJBK-4		30.6 m - 31.4 m	8.9	2980	34.6	34.5	8.66	25.1	95.34	2.12	0.13	tr	2.41	84.04	80.12	1.78	0.11	tr	2.03
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Appendix 2-5 Quantity Mineralgical Analysis of Usual and Check Samples (2)

No.	No. of	Sample	Depth	Weight of	Weight of	Weight of	Weight of	Weight of	Content		Heavy fractio	ons	· · · · · · · · · · · · · · · · · · ·		Content	·	Content of he	avy fractions		
	drillholes	No.	(m)	dried sample	sand after	sample for	sample for	heavy	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others
				(kg)	sieving (-1.0 mm)	analysis	separation	fraction	fraction	(%)	(%)	(%)	(%)	(%)	fraction	(kg/t)	(kg/t)	(kg/l)	(kg/t)	(kg/t)
		00/06.0			<u>(g)</u>	(g)	(g)	<u>(g)</u> 8.31	(%) 23.02	97.2	1.67	0.00	0.12	0.01	(kg/t)	06.12	1.(5	0.00	0.12	
50	MJBK-4	38/16-9	31.4 m - 31.8 m	<u>5.4</u> 6.7	2320	<u>36.2</u> 40	<u>36.1</u> 39.8	3.61	9.07	97.2	2.24	0.09	0.13	0.91	98.9 34.72	<u>96.13</u> 33.01	1.65 0.78	0.09	0.13	0.9
51	MJBK-4	38/16-10		<u> </u>	2365	38.4	39.8	5.79	15.18	94.41	2.53	0.23	0.32	2.46	46.1	43.52	1.17	0.09	0.03	1.13
52 53	MJBK-4	13/16-11	32.4 m - 33.2 m 33.2 m - 33.9 m	5.6	2460	38.2	38.13	9.26	24.29	96.34	1.4	0.28	0.68	1.54	106.27	102.38	1.17	0.13	0.13	1.13
	MJBK-4 MIBK-4	38/16-12	33.9 m - 34.9 m	8.6	2430	35	35.3	4.68	13.26	91.5	1.4	0.05	0.03	6.54	4.32	3.96	0.08	tr	0.72 tr	0.28
54 55	MJBK-4 MJBK-4	38/16-13	34.9 m - 36.0 m	6.6	90	45	45.38	5.97	13.16	44.92	0.97	0.06	0.07	53.98	1.79	0.8	0.02	tr	tr	0.28
55	MJBK-4 MJBK-5	38/12-1	21.0 m - 22.0 m	8.9	155	38.7	38.4	4.38	11.41	85.63	2.45	0.09	0.35	11.48	1.99	1.7	0.02	tr	0.01	0.23
57	MIBK-5	38/12-2	22.0 m - 23.2 m	13.4	300	37.5	37.74	3.8	10.07	80.63	1.89	0.1	0.1	17.28	2.25	1.82	0.04	tr	tr	0.39
58	MJBK-5	38/12-3	23.2 m - 24.0 m	6.7	290	36.2	36.06	15.23	42.23	21.36	0.54	0.02	0.05	77.98	18.28	3.91	0.1	tr	0.01	14.26
59	MJBK-5	38/12-4	24.0 m - 25.0 m	8.2	520	32.5	32.42	14.51	44.76	14.99	0.38	0.05	зн.	84.58	28.38	4.25	0.11	0.01	tr	24.1
60	MIBK-5	38/12-5	25.0 m - 26.0 m	4.3	360	45	45.58	12.7	27.86	21.89	0.5	0.07	0.05	77.49	23.33	5.1	0.12	0.02	0.01	18.08
61	MIBK-5	38/12-6	26.0 m - 27.0 m	8	480	30	30.08	17.33	57.63	14.22	0.24	0.01	0.02	85.51	34.57	4.91	0.08	0.01	0.01	29.56
62	MIBK-5	38/12-7	27.0 m - 28.0 m	8.2	575	35.9	35.76	19.33	54.05	15.36	0.35	0.02	0.01	84.26	37.9	5.82	0.13	0.01	0.01	31.93
63	MJBK-5	38/12-8	28.0 m - 29.0 m	9.1	500	31.2	31.58	9.96	31.54	90.26	1.78	0.09	0.24	7.63	17.33	15.64	0.31	0.02	0.04	1.32
64	MJBK-5	38/12-9	29.0 m - 29.9 m	6.6	1305	40.7	40.96	15.63	38.16	91.02	1.19	0.07	0.25	7.47	75.45	68.67	0.9	0.05	0.019	5.64
65	MJBK-5	38/12-10	29.9 m - 31.0 m	7.5	830	37.9	37.92	2.49	6.57	5.77	0.91	0.2	0.17	92.95	7.27	0.42	0.07	0.01	0.01	6.76
66	MJBK-5	38/12-11	31.0 m - 32.0 m	7.6	1290	40.3	40.55	1.11	2.74	10.28	1.46	0.03	1.35	86.88	4.65	0.48	0.07	tr	0.06	4.04
67	MJBK-6	34/32-1	23.5 m - 24.5 m	10.6	150	37.5	37.76	3.22	8.53	57.77	1.05	0.14	0.66	40.38	1.21	0.7	0.01	tr	0.01	0.49
68	MJBK-6	34/32-2	24.5 m - 25.7 m	13.9	265	33.1	33	3.64	11.3	71.68	1.5	0.18	0.47	26.2	2.1	1.5	0.03	0.01	0.01	0.55
69	MJBK-6	34/32-3	25.7 m - 26.5 m	8.2	4931.7	38.5	38.43	1.8	4.68	87.41	1.37	0.18	0.22	10.82	28.17	24.62	0.39	0.05	0.06	3.05
70	MJBK-6	34/32-4	26.5 m - 27.7 m	8.3	3765	36.7	36.6	2.82	7.7	.91.93	1.6	0.18	1.03	5.26	34.95	32.13	0.56	0.06	0.36	1.84
71	MJBK-6	34/32-5	27.7 m - 28.8 m	7.9	28.2	28.2	28	4.53	16.18	89.93	1.53	0.17	0.51	7.86	0.58	0.52	0.01	tr	0.01	0.04
72	MJBK-6	34/32-6	28.8 m - 30.0 m	8	60.4	30.2	29.87	3.39	11.35	81.5	2.91	0.14	0.47	14.98	0.86	0.7	0.02	tr	0.01	0.13
73	MJBK-7	34/28-1	25.0 m - 26.0 m	9.7	75	37.5	37.9	2.5	6.6	36.68	1.74	0.26	0.26	61.06	0.51	0.19	0.01	tr	tr	0.31
74	MJBK-7	34/28-2	26.0 m - 27.0 m	8.3	182	45.5	45.8	4.88	10.66	85.28	3.16	0.4	0.32	10.84	2.34	2	0.07	0.01	0.01	0.25
75	MJBK-7	34/28-3	27.0 m - 28.2 m	11.2	420	39.3	38.9	7,13	18.33	52.14	1.28	0.12	0.17	46.29	6.87	3.58	0.09	0.01	0.01	3.18
76	MJBK-7	34/28-4	28.2 m - 29.5 m	10.6	300	37.5	37.3	4.34	11.64	86.22	1.6	0.25	0.22	11.71	3.29	2.84	0.05	0.01	0.01	0.38
77	MJBK-7	34/28-5	29.5 m - 30.2 m	9.7	2153	33.6	33.4	7.59	22.72	93.63	1.61	0.12	0.22	4.42	50.44	47.23	0.81	0.06	0.11	2.23
78	MJBK-7	34/28-6	30.2 m - 31.0 m	6.6	3120	36.5	35.3	<u>12.18</u> 6.15	34.5 18.09	97.83 90.79	1.35	0.07	0.09	0.66	163.11	159.57	2.2	0.11	0.15	1.08
79	MJBK-7	34/28-7	31.0 m - 32.0 m	10.2	2915 1120	<u>34.1</u> 35	<u>34</u> 35	5.67	16.09	90.79	1.44 1.85	0.11	0.15	5.58	51.69 20.86	46.93 19.28	0.74	0.06	0.08	3.88 1.16
80	MJBK-7	34/28-8	32.0 m - 32.5 m	<u>8.7</u> 8.6	4265	33.3	33.3	5.07	15.22	92.42	2.3	0.08	0.33	3.25	75.51	71.01	1.74	0.01	0.02	2.45
<u>81</u> 82	MJBK-7 MJBK-7	34/28-9 34/28-10	32.5 m - 33.6 m 33.6 m - 34.2 m	5.4	1340	41.8	41.8	5.44	13.01	83.03	1.61	0.03	0.53	14.76	32.29	26.81	0.52	0.00	0.25	4.77
83	MJBK-7 MJBK-7	34/28-11	34.2 m - 35.0 m	6.6	3540	41.4	41.3	11.06	26.78	95.17	1.01	0.07	0.01	3.55	143.64	136.7	1.72	0.02	0.02	5.1
84	MJBK-7 MJBK-7	34/28-11 34/28-12	35.0 m - 35.8 m	6.3	3030	35.4	35.4	10.5	29.66	96.13	1.12	0.04	0.01	2.7	142.66	137.14	1.6	0.06	0.02	3.85
85	MJBK-7	34/28-13	35.8 m - 36.6 m	11.3	4750	37.1	37.1	6.05	16.31	94.89	1.63	0.05	0.04	3.39	68.55	65.05	1.12	0.03	0.03	2.32
86	MJBK-7	34/28-13	36.6 m - 37.3 m	8.1	3525	41.2	41.8	10.9	26.08	95.43	1.33	0.11	0.25	2.88	113.48	108.29	1.51	0.13	0.28	3.27
87	MJBK-7	34/28-15	37.3 m - 38.5 m	5	275	34.3	34.2	1.04	3.04	80.51	1.05	0.06	3.1	15.28	1.67	1.34	0.02	tr	0.05	0.26
88	MJBK-7	34/28-16	38.5 m - 39.5 m	8.2	330	41.2	41.9	3.23	7.71	20.07	0.3	0.05	0.36	79.22	3.1	0.62	0.01	tr	0.01	2.46
89	MIBK-8	34/24-1	23.5 m - 24.6 m	7.5	25.6	25.6	25.4	3.79	14.92	66.56	2.56	0.32	0.4	30.16	0.51	0.34	0.01	tr	tr	0.16
90	MJBK-8		24.6 m - 25.3 m		176.5	33	32.6	1.57	4.82	81.86	1.73	0.42	0.16	15.83	1.55	1.27	0.03	0.01	tr	0.24
91	MJBK-8		25.3 m - 26.0 m		1274.6	39.8	39.6	4.46	11.26	93.65	2.12	0.21	0.12	3.9	20.21	18.93	0.43	0.04	0.02	0.79
92	MJBK-8	· · · · · · · · · · · · · · · · · · ·	26.0 m - 27.2 m		6640	37.7	37.7	5	13.26	95.91	2.61	0.26	0.12	1.1	65.71	63.02	1.72	0.17	0.08	0.72
93	MJBK-8	34/24-5	27.2 m - 28.5 m		1445	35.8	35.5	4.03	11.35	92.93	2.09	0.32	0.12	4.54	11.89	11.05	0.25	0.04	0.01	0.54
94	MJBK-8		28.5 m - 29.3 m	7.3	2390	37.3	37.1	4.8	12.94	95.91	2.44	0.27	0.31	1.07	42.37	40.64	1.03	0.12	0.13	0.45
95	MJBK-8		29.3 m - 30.6 m	12.3	6945	40.6	40.6	11.5	28.33	97.19	1.51	0.08	0.3	0.92	159.96	155.46	2.42	0.13	0.48	1.47
96	MJBK-8	34/24-8	30.6 m - 32.0 m	11.1	1925	30	_29.5	4.22	14.31	79.06	13.73	1.17	31	5.73	24.82	19.62	3.41	0.29	0.08	1.42
97	MJBK-8	34/24-9	32.0 m - 33.0 m	10	1135	35.4	38.2	4.81	12.59	96.2	1.86	0.13	0.15	1.66	14.29	13.75	0.26	0.02	0.02	0.24
98	MJBK-8		33.0 m - 33.5 m		1160	36.2	36.1	7.92	21.94	89.72	1.46	0.12	0.17	8.53	56.56	50.74	0.83	0.07	0.1	4.82
99	MJBK-8	34/24-11	33.5 m - 34.9 m	9.8	203.4	38.1	38	6.6	17.37	66.33	3.16	0.07	0.06	30.38	3.6	2.39	0.1	0.01	0.01	1.09

Appendix 2-5 Quantity Mineralgical Analysis of Usual and Check Samples (3)

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No.	No. of	Sample	Depth	Weight of	Weight of	Weight of	Weight of	Weight of	Content	Heavy fractions					Content	[Content of he]		
	drillholes	No.	(m)	dried sample	sand after	sample for	sample for	heavy	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others
			. ,	(kg)	sieving (-1.0 mm)	analysis	separation	fraction	fraction	(%)	(%)	(%)	(%)	(%)	fraction	(kg/t)	(kg/t)	(kg/t)	(kg/t)	(kg/t)
				10	(g)	(8)	(g)	(g)	(%)						(kg/t)					, , ,
100	MJBK-8	34/24-12	34.9 m - 35.7 m	5.3	435	40.6	40.5	8.72	21.53	93.1	1.43	0.07	0.49	4.91	17.67	16.45	0.25	0.01	0.09	0.87
101	MJBK-8	34/24-13	35.7 m – 36.5 m	4.9	815	38.1	38	7.29	19.18	92.03	1.23	0.02	0.04	6.68	31.91	29.37	0.39	0.01	0.01	2.13
102	MJBK-8	34/24-14	36.5 m - 37.5 m	11.8	6020	35.2	35.2	7.8	22.16	97.29	0.87	0.05	0.2	1.59	113.05	109.97	0.98	0.06	0.24	1.8
103	MJBK-8	34/24-15	37.5 m - 38.5 m	9.1	470	29.3	29.3	5.48	18.7	45.52	1.73	0.02	0.34	52.39	9.66	4.4	0.17	tr	0.03	5.06
104	MJBK-8	34/24-16	38.5 m – 39.5 m	7.8	160	40	40	10.26	25.6	37.66	1.06	0.09	0.41	60.78	5.26	1.98	0.05	0.01	0.02	3.2
105	MJBK-8	34/24-17	39.5 m 40.4 m	11.4	435	40.6	40.6	8.99	22.1	46.95	0.6	0.06	0.46	51.93	8.45	3.96	0.05	0.01	0.04	4.39
106	MJBK-8	_34/24-18_	40.4 m - 41.0 m	5.6	2085	32.5	32.3	9.04	27.9	92.11	1.2	0.16	0.02	6.51	104.2	95.98	1.25	0.17	0.02	6.78
107	MJBK-8	34/24-19	41.0 m - 42.0 m	7.7	445	41.7	41.8	7	16.7	75.29	1.32	0.29	0.38	22.72	9.68	7.29	0.13	0.03	0.03	2.2
108	MJBK-8	34/24-20	42.0 m - 43.0 m	13.1	650	40.6	30.3	3.69	12.18	60.23	2.82	0.25	0.89	35.81	6.04	3.64	0.17	0.02	0.05	2.16
109	MJBK-9	34/20-1	27.0 m - 28.0 m	7.9	154.3	38.5	38.38	6.85	17.85	82.67	1.51	0.14	0.31	15.37	3.49	2.88	0.05	0.01	0.01	0.54
110	MJBK-9	34/20-2	28.0 m - 29.0 m	9.8	264.1	33	32.91	7.35	22.33	38.03	0.7	0.04	0.02	61.21	6.02	2.29	0.04	0.01	tr	3.68
111	MJBK-9	34/20-3	29.0 m - 30.0 m	8.2	1995	31.1	30.81	4.99	16.2	92.95	1.81	0.09	0.05	5.1	39.4	36.62	0.71	0.04	0.02	2.01
112	MJBK-9	34/20-4	30.0 m - 31.0 m	9.6	3130	36.6	36.5	6.55	17.95	96.07	1.62	0.18	0.69	1.44	38.51	56.21	0.95	0.11	0.4	0.84
113	MJBK-9	34/20-5	31.0 m - 31.5 m	5.9	2460	38.4	38.33	9.08	23.69	88.27	1.35	0.08	0.27	10.03	98.77	87.18	1.33	0.08	0.27	9.91
114	MJBK-9	34/20-6	31.5 m - 32.5 m	9	1195	37.3	37.27	<u>6.62</u> 6.38	17.76 17.97	92.21 93.47	1.62 1.7	0.12	0.37	5.68	23.58	21.74	0.38	0.03	0.09	1.34
115	MJBK-9	34/20-7	32.5 m - 33.7 m	11.4	4570	35.7	35.5	5.24		83.37		0.1		4.39	72.04	67.34	1.22	0.07	0.25	3.16
116	MJBK-9	34/20-8	33.7 m - 35.0 m	12.9	4425 7170	<u>34.5</u> 42	<u>34.38</u> 41.86	7.73	15.24 18.47	92	1.93 1.4	0.13	3.98	10.59 6.24	52.28 88.86	43.58	1.01	0.07	2.08	5.54
117	MJBK-9	34/20-9	35.0 m - 36.5 m	14.9		33.1	33.1	10.08	30.45	96.48	1.4	0.04	0.03	2.28		<u>61.75</u> 102.23	1.24	0.06	0.26	5.55
<u>118</u> 119	MJBK-9	$\frac{34}{20-10}$	36.5 m - 37.7 m	12.2	<u>4245</u> 640	40	39.22	5.57	16.75	37.96	1.17	0.04	0.63	60.17	105.96 10.31	3.91	1.24 0.12	0.04	0.03	2.42
119	MJBK-9 MJBK-9	34/20-11 34/20-12	37.7 m - 39.0 m 39.0 m - 40.0 m	10.4	310	38.7	39.22	12.43	32.12	27.21	0.74	0.08	0.83	71.77	9.86	2.68	0.12	0.01	0.07	6.2 7.08
120	MIBK-10	34/20-12	25.0 m - 26.0 m	8.3	195	36.4	34.7	0.86	2.53	30.95	1.48	0.04	0.18	67.29	0.59	0.18	0.07	0.01 tr	0.02 tr	0.4
121	MJBK-10 MJBK-10	34/16-1 34/16-2	26.0 m - 27.0 m	8.9	360	33.7	32.58	1.28	3.93	79.16	2.21	0.1	0.74	17.69	1.59	1.26	0.03	0.01	0.01	0.28
122	MJBK-10 MJBK-10	$\frac{34}{16-3}$	27.0 m - 28.5 m	15.2	1795	42	41.9	5.13	12.24	88.97	1.86	0.2	0.15	8.82	14.46	12.86	0.03	0.03	0.01	1.28
124	MJBK-10	34/16-4	28.5 m - 29.0 m	6.3	1520	35.6	35.6	5.12	14.38	90.52	1.68	0.09	0.48	7.23	34.17	31.41	0.58	0.03	0.17	2.51
125	MJBK-10	34/16-5	29.0 m - 29.5 m	4.5	7856	36.7	36.62	3.06	8.36	77.1	2.32	0.34	0.33	19.91	145.88	112.47	3.38	0.5	0.48	29.05
126	MJBK-10	34/16-6	29.5 m - 30.1 m	7.2	1710	40	39.77	5.18	13.02	93.06	1.94	0.26	0.82	3.92	30.93	28.78	0.6	0.08	0.26	1.21
127	MIBK-10	34/16-7	30.1 m - 31.5 m	11.1	2650	41.4	41.34	4.38	10.6	90.54	2.23	0.47	0.71	6.05	25.29	22.9	0.56	0.12	0.18	1.53
128	MJBK-10	34/16-8	31.5 m - 32.4 m	8.1	3680	35.9	35.9	9.83	27.38	91.18	1.58	0.17	1.29	5.78	124.4	113.43	1.97	0.21	1.6	7.19
129	MJBK-10	34/16-9	32.4 m - 33.7 m	14.1	5935	34.6	34.46	7.23	20.98	95.4	0.21	0.46	0.42	3.51	88.31	84.25	0.19	0.4	0.37	3.1
130	MJBK-10	34/16-10	33.7 m - 34.6 m	6.8	2655	41.4	41.32	6.79	16.43	93.81	1.53	0.06	0.62	3.98	64.16	60.19	0.98	0.04	0.4	2.55
131	MJBK-10	34/16-11	34.6 m - 36.0 m	7.6	285	35.6	35.53	11.27	31.72	93.08	1.08	0.07	0.31	5.46	11.89	11.06	0.13	0.01	0.04	0.65
132	MJBK-12	2GL/12-1	23.3 m - 24.3 m	3.7	143.5	35.8	35.6	4.69	13.17	87.85	2.47	0.07	1.09	8.52	5.11	4.49	0.13	tr	0.06	0.43
133	MJBK-12	2GL/12-2	24.3 m - 25.9 m	4.6	531.5	33.2	33.1	4.13	12.48	86.87	2.47	0.03	1.35	9.28	14.42	12.52	0.37	tr	0.19	1.34
134	MJBK-12	2GL/12-3	25.9 m – 26.9 m	6.8	260	32.5	32.4	5.72	17.65	55.18	1.86	0.02	0.54	42.4	6.75	3.72	0.13	tr	0.04	2.86
135	MJBK-12	2GL/12-4	26.9 m - 28.0 m	5.1	790	37	37	5.04	13.62	91.72	2.4	0.02	1	4.86	21.1	19.35	0.51	tr	0.21	1.03
136	MJBK-12	2GL/12-5	28.0 m - 28.5 m	2.1	1055	32.9	32.8	4.56	13.9	94.72	3.94	0.22	0.73	0.39	69.83	66.14	2.75	0.16	0.51	0.27
137	MJBK-12	2GL/12-6	28.5 m - 29.9 m	5.7	2205	34.4	34.5	5.63	16.32	94.82	3.49	0.4	0.69	0.6	63.13	59.86	2.2	0.25	0.44	0.38
138	MJBK-12	2GL/12-7	29.9 m - 30.9 m	4.1	380	35.5	35.5	4.3	12.11	12.57	0.52		0.18	86.73	11.22	1.41	5.83		0.02	9.73
139		2GL/12-8	30.9 m - 31.9 m	3.6	490	30.6	30.4	1.13	3.72	33.79	2.35	0.1	1.83	61.93	5.06	1.71	0.12	0.01	0.09	3.13
	the second se		23.4 m - 24.1 m		45	45	45.7	11.38	24.9	22.91	0.79	0.03	0.45	76.81	2.92	0.66	0.02	. tr	tr	2.24
141			24.1 m - 24.5 m		130	32.5	32.5	14.3	44	6.49	0.6	0.01	0.24	92.66	31.78	2.06	0.19		0.08	29.45
			24.5 m - 26.0 m		2915	34.1	34.1	8.24	24.16	92.5	2.61	0.01	0.71	4.17	135.44	125.28	3.54	0.01	0.96	5.65
			<u>26.0 m - 27.2 m</u>		495	30.9	30.9	4.62	14.95	79.34	3.36	0.05	1.09	16.16	17.21	13.65	0.58	0.01	0.19	2.78
			<u>27.2 m – 28.2 m</u>		1410	33	30.6	8.84	28.89	31.66	1.03	0.02	0.33	66.96	81.47	25.79	0.84	0.02	0.27	54.55
			28.2 m - 28.9 m		1290	40.3	39.4	9.93	25.2	92.76	1.63	0.01	0.58	5.02	101.6	94.24	1.66	0.01	0.59	5.1
146			28.9 m - 29.9 m		130	32.5	32.4	2.79	8.61	14.12	0.73	0.03	0.66	84.46	2.8	0.4	0.02	tr	0.02	2.36
		·	29.9 m - 30.9 m		420	39.3	39.3	<u> </u>	0.53	23.44 42.75	3.94	0.01	0.43	72.18	1.25	0.29	0.05 0.01	tr	0.01	0.9
	MJBK-16 MJBK-16		24.0 m - 25.0 m		56.5	28.2	28.2	2.34	<u>14.54</u> 6.82	<u>42.75</u> 87.21	1.1	0.16	0.14 0.47	55.85 9.66	0.63	0.27		tr 0.01	tr	0.35
149	NJDK-10		25.0 m - 26.0 m	12.4	735	34.4	34.3	2.34	0.02	07.21	2.36	0.3	0.47	9.00	4.04	3.52	0.1	0.01	0.02	0.39

Appendix 2-5 Quantity Mineralgical Analysis of Usual and Check Samples (4)

No.	No. of	Sample	Depth	Weight of	Weight of	Weight of	Weight of	Weight of	Content	Heavy fractions					Content	Content of heavy fractions				
	drillholes	No.	(m)	dried sample	sand after	sample for	sample for	heavy	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others
				(kg)	sieving (-1.0 mm)	analysis	separation	fraction	fraction	(%)	(%)	(%)	(%)	(%)	fraction	(kg/t)	(kg/t)	(kg/t)	(kg/t)	(kg/t)
					(g)	(8)	(8)	(8)	(%)					L	(kg/t)		1			
150	MIBK-16	30/28-3	26.0 m - 27.5 m	11.4	180	33.7	33.5	5.64	16.87	75.5	2.39	0.1	0.21	21.8	2.66	2.01	0.06	tr	0.01	0.58
151	MJBK-16	30/28-4	27.5 m - 28.2 m	8.3	125	31.2	31	2.62	8.45	69.1	1.89	0.16	0.52	28.33	1.27	0.88	0.02	tr	0.01	0.36
152	MJBK-16	30/28-5	28.2 m - 29.0 m	9.5	2125	33.2	33.1	5.38	16.25	93.28	2.02	0.24	0.2	4.26	36.36	33.92	0.73	0.09	0.07	1.55
153	MJBK-16	30/28-6	29.0 m - 30.5 m	17.8	3120	36.1	36.4	5.7	15.66	91.12	1.56	0.13	0.34	6.85	27.45	25.01	0.43	0.04	0.09	1.88
154	MJBK-16	30/28-7	30.5 m - 31.2 m	8.4	4105	32	31.7	11.08	34.95	88.78	1.48	0.09	0.38	9.27	170.8	151.64	2.53	0.15	0.65	15.83
155	MJBK-16	30/28-8	31.2 m - 32.7 m	8.5	790	36.9	36.7	4.54	12.37	72.48	1.48	0.09	0.1	25.85	11.5	8.34	0.17	0.01	0.01	2.97
156	MJBK-16	30/28-9	32.7 m - 34.0 m	11.3	1100	34.3	34.3	6.1	17.78	90.4	2.19	0.15	0.46	6.8	17.31	15.65	0.38	0.02	0.08	1.18
157	MJBK-16	30/28-10	34.0 m - 34.5 m	5.7	2355	36.7	36.5	7.05	19.32	92.37	1.18	0.12	0.12	6.21	79.8	73.71	0.94	0.1	0.1	4.95
158	MJBK-16	30/28-11	34.5 m 35.5 m	10.6	4530	35.3	35.3	4.16	11.38	78.14	1.19	0.13	0.45	20.09	50.36	39.35	0.6	0.07	0.22	10.12
159	MJBK-16	30/28-12	35.5 m - 36.0 m	4.5	1605	37.5	37.5	4.02	10.72	84.43	1.6	0.13	0.3	13.54	38.23	32.28	0.61	0.05	0.11	5.18
160	MJBK-16	30/28-13	36.0 m - 36.5 m	5.7	2135	33.3	33.3	7.12	21.38	89.56	1.6	0.06	0.35	8.44	80.09	71.73	1.28	0.05	0.28	6.75
161	MJBK-16	30/28-14	36.5 m - 37.0 m	6.1	1895	29.6	29.5	5.43	18.41	83.54	1.13	0.06	0.39	14.88	57.18	47.77	0.65	0.03	0.22	8.51
162	MJBK-16	30/28-15	37.0 m - 38.0 m	8.6	3260	38.1	38	7.98	21	92.89	1.44	0.18	0.53	4.96	79.6	73.94	1.15	0.14	0.42	3.95
163	MJBK-16	30/28-16	38.0 m - 39.0 m	9.6	3910	30.5	30.7	7.79	25.37	88.93	1.21	0.09	0.18	9.59	103.35	91.91	1.25	0.09	0.19	9.91
164	MJBK-16	30/28-17	39.0 m - 40.0 m	6	245	30.6	30.5	2.7	8.85	82.58	1.21	0.07	0.22	15.92	3.61	2.98	0.04	tr	0.01	0.58
165	MJBK-16	30/28-18	40.0 m - 41.0 m	5.6	330	41.2	41.4	6.91	16.69	95.64	1.12	0.06	0.13	3.05	9.84	9.41	0.11	0.01	0.01	0.3
166	MJBK-17	30/20-1	31.0 m - 32.0 m	10.1	255	31.8	32.5	1.15	3.54	42.68	1.25	0.1	0.03	55.94	0.89	0.38	0.01	tr	tr	0.5
167	MJBK-17	30/20-2	32.0 m - 33.0 m	10.4	360	34.2	35.2	0.71	2.02	76.71	4.17	0.45	0.99	17.68	0.7	0.54	0.03	tr	0.01	0.12
168	MJBK-17	30/20-3	33.0 m - 34.0 m	11.1	300	37.5	37.7	2.04	5.41	77.57	1.71	0.22	0.25	20.25	1.46	1.13	0.02	tr	0.01	0.3
169	MJBK-17	30/20-4	34.0 m - 35.0 m	11	945	29.5	29.5	3.82	12.95	93.95	3.1	0.11	0.27	2.57	11.12	10.45	0.34	0.01	0.03	0.29
170	MJBK-17	30/20-5	35.0 m - 36.0 m	10.2	1780	41.7	41.7	8.7	20.86	90.17	1.72	0.22	0.37	7.52	36.41	32.83	0.63	0.08	0.13	2.74
171	MJBK-17	30/20-6	36.0 m - 37.0 m	13.5	4760	37.1	37.1	6.28	16.93	95.96	1.55	0.1	0.41	1.98	59.68	57.27	0.93	0.06	0.24	1.18
172	MJBK-17	30/20-7	37.0 m - 38.0 m	11.5	4245	33.1	33.2	4.16	12.53	79.1	1	0.05	0.09	19.76	46.25	36.59	0.46	0.02	0.04	9.14
173	MJBK-17	30/20-8	38.0 m - 38.5 m	5.4	1450	33.9	33.7	5.84	17.33	92.42	1.8	0.2	0.11	5.47	46.53	43	0.84	0.09	0.05	2.55
174	MJBK-17	30/20-9	38.5 m - 39.5 m	8.1	3440	40.3	40.2	4.03	10.02	92.25	2.06	0.11	0.46	5.12	42.57	39.25	0.9	0.05	0.19	2.18
175	MJBK-17	30/20-10	39.5 m - 40.0 m	3.6	1310	40.9	40.8	7.7	18.87	98.45	0.94	0.02	0.2	0.39	68.68	67.62	0.64	0.01	0.14	0.27
176	MJBK-17	30/20-11	40.0 m - 41.0 m	8.1	3755	29.3	29.1	3.27	11.24	94.68	1.44	0.07	0.77	3.04	52.09	49.32	0.75	0.04	0.4	1.58
177	MJBK-17	30/20-12	41.0 m - 41.5 m	7.7	3420	40	40	1.6	4	92.69	1.11	0.83	0.02	5.35	17.77	16.47	0.2	0.15	tr	0.95
178	MJBK-17	30/20-13	41.5 m - 43.0 m	16	5535	43.2	43	13.93	32.4	97.53	1.31	0.06	0.68	0.42	112.07	109.3	1.47	0.07	0.76	0.47
179	MJBK-17	30/20-14	43.0 m - 43.5 m	4.3	710	33.1	32.8	9.64	29.39	69.44	1.41	0.06	0.82	28.07	48.53	33.8	0.68	0.03	0.4	13.62
180	MJBK-17	30/20-15	43.5 m - 44.0 m	3.7	410	38.4	38.2	6.59	17.25	20.57	0.9	0.05	1.04	77.44	19.11	3.93	0.17	0.01	0.2	14.8
181	MJBK-17	30/20-16	44.0 m - 45.0 m	7	635	39.6	39.6	8.2	19.9	6.45	0.23	0.03	0.5	92.79	18.78	1.21	0.04	0.01	0.09	17.43
182	MJBK-17	30/20-17	45.0 m - 46.0 m	9	1600	37.5	37.4	2.21	5.91	14.08	0.5	0.04	2.9	82.48	10.51	1.48	0.05	tr	0.31	8.67

Appendix 2-5 Quantity Mineralgical Analysis of Usual and Check Samples (5)

No.	No. of	Sample	Depth	Weight of	Weight of	Weight of	Weight of	Weight of	Content		Heavy fract	ions			Content		Content of	heavy fracti	ons	•••••	· · · · · · · · · · · · · · · · · · ·
	drillholes	No.	(m)	dried sample	sand after	sample for	sample for	heavy	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	of heavy	Ilmenite	Zircon	Rutile	Leucoxene	the others	Remarks
		1		(kg)	sieving (-1.0 mm)	analysis	separation	fraction	fraction	. (%)	(%)	(%)	(%)	(%)	fraction	(kg/t)	(kg/t)	(kg/t)	(kg/t)	(kg/t)	
		1			(8)	(8)	(8)	(8)	(%)		_		L		(kg/t)				•		
1	MJBK-3	38/24-3 к	28.5 m - 29.3 m	39,8	4820	37,6	37,6	4,17	11,09	81,61	1,81	0,22	0,71	15,65	13,43	10,96	0,24	0,03	0,10	2,10	Check for usual sample
2	MJBK-3	38/24-4 к	29.3 m - 30.0 m	23,5	11000	42,9	42,5	4,67	10,99	90,82	1,58	0,23	0,34	7,03	51,43	46,71	0,81	0,12	0,17	3,62	Check for usual sample
3	MJBK-3	38/24-5 к	30.0 m - 30.5 m	13,9	4015	31,3	31,3	3,61	11,53	88,71	1,60	0,15	0,44	9,1	33,31	29,55	0,53	0,05	0,15	3,03	Check for usual sample
4	MJBK-3	38/24-6 к	30.5 m - 31.3 m	30,9	7380	42,4	42,4	7,35	17,33	95,43	1,77	0,13	0,38	2,29	41,39	39,50	0,73	0,05	0,16	0,95	Check for usual sample
5	MJBK-3	38/24-7 к	31.3 m - 32.0 m	34,2	10050	39,2	39,2	7,55	19,26	92,99	1,49	0,11	0,26	5,15	56,60	52,63	0,84	0,06	0,15	2,92	Check for usual sample
6	MJBK-3	38/24-8 к	32.0 m - 33.0 m	34,6	15770	30,8	30,8	4,91	15,94	83,29	1,19	0,11	0,16	15,25	72,66	60,52	0,86	0,08	0,12	11,08	Check for usual sample
7	MJBK-3	38/24-9 к	33.0 m - 33.5 m	14,6	5440	42,5	42,5	8,6	20,24	82,74	1,09	0,07	0,09	16,01	75,4	62,39	0,82	0,05	0,07	12,07	Check for usual sample
8	MJBK-3	38/24-11 к	33.7 m – 34.6 m	38,9	14480	42,1	42,1	10,36	24,61	95,27	1,47	0,21	0,47	2,58	91,6	87,27	1,35	0,19	0,43	2,36	Check for usual sample
9	MJBK-3	38/24-13 к	35.2 m – 36.4 m	41,6	13595	39,3	39,3	6,68	17,00	94,16	1,97	0,19	0,38	3,3	55,55	52,31	1,09	0,11	0,21	1,83	Check for usual sample
10	MJBK-3	38/24-14 к	36.4 m – 37.6 m	27,9	10830	42,3	42,3	12,96	12,64	75 ,94	1,03	0,03	0,02	22,98	118,93	90,32	1,22	0,04	0,02	27,33	Check for usual sample
11	MJBK-3	38/24-15 к	37.6 m – 38.2 m	37,9	11285	33,0	33,0	9,11	27,61	94,0	0,94	0,06	0,24	4,76	82,2	77,27	0,77	0,05	0,2	3,91	Check for usual sample
12	MJBK-4	38/16(7-12)	29.6 m – 33.9 m	45,7	400	37,5	37,5	5,26	14,03	87,62	1,57	0,14	1,0	9,67	1,23	1,08	0,02	tr	0,01	0,12	Check for fine component (-1mm)
13	MJBK-2	38/28(3-7)	26.0 m - 30.2 m	38,2	269	33,6	33,6	5,61	16,7	88,45	1,64	0,13	0,27	9,51	1,18	1,04	0,02	tr	0,01	0,11	Check for fine component (-1mm)
14	MJBK-10	34/16-4 к	28.5 m - 29.0 m	12,3	3840	30,0	29,9	4,05	13,55	90,34	2,23	0,31	0,50	6,62	42,29	38,21	0,94	0,13	0,21	2,80	Check for usual sample
15	MJBK-10	34/16-5 к	29.0 m - 29.5 m	17,9	2865	33,5	33,6	4,82	14,35	69,33	1,69	0,32	0,63	28,03	22,96	15,92	0,39	0,07	0,14	6,44	Check for usual sample
16	MJBK-10	34/16-6 к	29.5 m - 30.1 m	17,0	6950	40,6	40,6	5,40	13,30	92,08	1,37	0,06	0,04	6,45	54,38	50,07	0,75	0,03	0,02	3,51	Check for usual sample
17	MJBK-10	34/16-7 к	30.1 m - 31.5 m	32,1	9570	37,3	37,3	6,34	17,00	91,54	1,72	0,19	0,35	6,20	50,67	46,38	0,87	0,10	0,18	3,14	Check for usual sample
18	MJBK-6	34/32-3 к	25.7 m - 26.5 m	21.1	10560	39,7	39,6	2,59	6,54	89,5	1,30	0,13	0,39	8,68	32.73	29.29	0.43	0.04	0.13	2.84	Check for usual sample
19	MJBK-6	34/32-4 к	26.5 m - 27.7 m	33.0	16710	30,4	29,2	3,07	10,51	92,55	1,43	0,09	0,26	5,67	53.24	49.27	0.76	0.05	0.14	3.02	Check for usual sample
20	MJBK-10	34/16-8 к	31.5 m - 32.4 m	23,1	9560	37,3	37,24	6,56	17,62	92,72	1,51	0,13	1,91	3,73	72,92	67,61	1,10	0,09	1,40	2,72	Check for usual sample
	MJBK-10	34/16-9 к	32.4 m - 33.7 m	24,7	10280	40,1	39,96	6,86	17,17	97,91	0,65	0,08	0,73	0,63	73,41	71,88	0,48	0,06	0,53	0,46	Check for usual sample
22	MJBK-10	34/16-10 к	33.7 m - 34.6 m	21,8	8375	32,7	32,65	6,87	21,04	95,92	1,46	0,11	0,52	1,99	80,83	77,53	1,18	0,09	0,42	1,61	Check for usual sample
23	MJBK-17	30/20-12	41.0 m - 41.5 m	7,7	520	32,5	32,7	0,02	0,06	25,69	0,12	0,11	-	74,08	0,04	0,01	tr	tr	-	0,03	Check for coarse component (-1mm)
	MJBK-16	30/28-11	34.5 m - 35.5 m	10,6	160	40,0	40,2	0,05	0,12	47,57	0,09	-	0,04	52,30	0,02	0,01	tr	-	tr	0,01	Check for coarse component (-1mm)
	MJBK-10	34/16-6 к	29.5 m – 30.1 m	17,0	520	32,5	32,40	0,08	0,25	12,59	1,12	-	0,04	86,25	0,08	0,01	tr		tr	0,07	Check for coarse component (-1mm)
	MJBK-10	34/16-10	<u>33.7 m – 34.6 m</u>	6,8	485	30,3	29,96	0,12	0,4	16,85	0,75		-	82,40	0,29	0,05	tr	-	-	0,24	Check for coarse component (-1mm)
	MJBK-9	34/20-3	29.0 m - 30.0 m	8,2	80	40,0	39,54	3,86	9,76	0,81	0,15	0,01	tr	99,03	0,95	0,01	tr	tr	tr	0,94	Check for coarse component (-1mm)
	MJBK-9	34/20-7	32.5 m - 33.7 m	11,4	245	30,6	30,34	0,29	0,96	13,58	0,76	0,16	0,33	85,17	0,21	0,03	tr	tr	tr	0,18	Check for coarse component (-1mm)
	MJBK-8	34/24-14	36.5 m - 37.5 m	11,8	590	36,8	36,50	0,04	0,11	23,25	0,22	•	0,88	75,65	0,05	0,01	tr	-	tr	0,04	Check for coarse component (-1mm)
	MJBK-7	34/28-10	33.6 m - 34.2 m	5,4	250	31,2	30,53	1,75	5,73	1,00	0,02		0,05	98,93	2,65	0,03	tr	-	tr	2,62	Check for coarse component (-1mm)
	MJBK-6	34/32-3 к	25.7 m – 26.5 m	21,1	385	36,0	36,14	0,04	0,11	28,3	3,18	0,32	0,18	68,02	0,02	0,005	tr	tr	tr	0,015	Check for coarse component (-1mm)
32	MJBK-3		<u> </u>	5,1	95	35,5	35,42	1,19	3,36	6,25	0,44	0,01	0,01	93,29	0,63	0,04	tr	tr	tr	0,59	Check for coarse component (-1mm)

Appendix 2-6 Inside Geological Check of Mineralogical Analysis

Ň	No. of	Sample No.	Primary	Weight of	Weight of	Specimen	Weight of	Content of		Ilmenite	8		Zircon	
	drillholes		weight of	black sand	specimen for	for	heavy	heavy	Cla	Classes of	Content	Cla	Classes of	Content
			dry sample	after sieving	mineralogical	separation	fraction	fraction	ŏ	content	(kg/t)	5	content	(kg/t)
			(kg)	(g)	analysis (g)	(g)	(g)	(kg/t)	Basic	Checking	Checking	Basic	Basic Checking	Checking
-	MJBK-2	38/28-3	8.5	2790	42.6	42.93	7.71	58.95	II	II	55.12	1	1	1.18
2	MJBK-2	38/28-4	7.6	3355	39.2		7.29	81.74	III	Ш	76.17	Ι	I	1.32
3	MJBK-2	38/28-5	6.1	1164	36.1	36.3	6.72	35.33	I	1	33.28	I	1	0.59
4	MJBK-2	38/28-6	10.1	780	35.4		6.9	14.86	1	1	14.26	I	1>	0.22
5	MJBK-2	38/28-6	10.1	180	35.4	35.34	6.9	14.86	1	1	14.31	I	1>	0.24
9	MJBK-2	38/28-7	5.9		36.8		6.45		-	1	27.04	Ι	1	0.49
2	MJBK-3	38/24-3	8.3		39	39.27	4.35	24.76	1	1	21.34	Ι	I	0.44
ω	MJBK-3	38/24-4	7.7	3775	37.5		474		IJ	11	54	1	I	1.07
6	MJBK-3	38/24-5	5.9	1250	40.2					1	36.02	1	1	0.71
10	MJBK-3	38/24-6	5.1	1180	37.1	37.28	8.23		1	Ш	48.38	1	1	0.71
11	MJBK-3	38/24-6	5.1	1180		37.28			-	II	47.29	1	1	1.07
12	MJBK-3	38/24-7	11.5	3165			8.06		Π	II	54.85	I	1	0.96
13	MJBK-3	38/24-8	14.2	6175	35.5	-	16.7	97.72	III	Ш	88.34	Ι	1	1.22
14	MJBK-3	38/24-9	2	2150	32.1	32.2	6.27	83.72	III		73.73	I	1	0.95
15	MJBK-3	38/24-10	1.5		47.2				1	1	15.34	1	Ι	0.35
16	MJBK-3	38/24-11	16.9		33.5		77.7	75.6	III	III	70.86	Ι	1	1.26
17	MJBK-3	38/24-12	8.2	1190	32.9	32.9	3.95		1	1	15.87	1	I	0.34
18	MJBK-3	38/24-13	14.4		38.9	39.05	6.64		III	11	53.61	1	1	0.98
19	MJBK-3	38/24-13	14.4		38.9		6.64			II	53.87	1	1	0.93
20	MJBK-3	38/24-14	16.6		34.1	33.54	10.07	105.99		111	91.3	1	1	1.47
21	MJBK-3	38/24-15	6.5		36.6	36.6	10.38	102.97	111	Ш	100.97	1	1	1.22
22		38/16-5	12.3		31.1				1	1	23.4	I	1	0.55
23	MJBK-4	38/16-6	6.1	1295	40.4	39.71	9.56	11.13	II	II	43.67	Ι	1	0.85
24	MJBK-4	38/16-7	11	3550	30.5			69.56	III	111	62.57	1	I	1.31
25	MJBK-4	38/16-8	8.9	2980	29.2			77.59	III	Ш	73.92	I	1	2.54
26	MJBK-4	38/16-9	5.4	2320	32.1	32.55		103.74	III	III	100.34	-	I	1.76
Class	Classes of content:	Classes of content:	c				÷		ć					

Appendix 2-6 Inside Geological Check of Mineralogical Analysis (1)

 $\frac{\text{Ilmenite:}}{\text{Zircon:}} I = 0.33-38.89 \text{ kg/t} (15-70 \text{kg/m}^3) = II = 38.90-55.56 \text{ kg/t} (70-100 \text{kg/m}^3) = II > 55.56 \text{ kg/t} (7100 \text{kg/m}^3) = 21000 \text{kg/m}^3)$

Appendix 2-6 Inside Geological Check of Mineralogical Analysis	ନ୍ତ
6 Inside Geological Check of Mineralogic	2
6 Inside Geological Check	. <mark>О</mark>
6 Inside Geolo	, X
6 Insi	eolo
Appendix 2-6	Inside
	Appendix 2-6

No	No. of	Sample No.	Primary	Weight of	Weight of	Specimen	Weight of	Content of		Ilmenite	0		Zircon	
	drillholes		weight of	black sand	specimen for	for	heavy	heavy	Cla	Classes of	Content	Cla	Classes of	Content
	•		dry sample	after sieving	mineralogical	separation	fraction	fraction	00	content	(kg/t)	00	content	(kg/t)
			(kg)	(g)	analysis (g)	(g	(g	(kg/t)	Basic	Checking	Checking	Basic	Basic Checking	Checking
27	MJBK-4	38/16-10	6.7	2565	37.9	37.41	3.4	34.79	-	-	32.36	-	-	0.84
28	MJBK-4	38/16-11	8.1	2460	38.1	30.22	4.9	49.24	Ш	11	45.88	-	-	1.02
29	MJBK-4	38/16-11	8.1	2460	38.1	30.22	4.9	49.24	111	II	46.7	1	-	1.04
စ္တ	MJBK-4	38/16-12	5.6	2450	39	37.8	11.07	128.13	Ш	Ш	123.64	1	-	0.42
31	MJBK-5	38/12-8	9.1	500	31.4	30.18	8.15	14.84	1		12.68	1	1>	0.25
32	MJBK-5	38/12-8	9.1	500	31.4	30.18	8.15	14.84	I	-	12.62	1	1>	0.27
33	MJBK-5	38/12-9	6.6	1305	38.1	38.55	16.72	85.76	III	Ш	79.86	-	I	1.12
34	MJBK-7	34/28-5	9.7	2153	33.4	33.2	8.34	55.76	н	=	52.6	-	-	0.99
35	MJBK-7	34/28-6	6.6	3120	36.1	36.3	13.82	179.97		Ш	174.47	-	-	2.18
36	MJBK-7	34/28-6	6.6	3120	36.1	36.3	13.82	179.97	Ξ	Ш	174.52	-	_	2.18
37	MJBK-7	34/28-7	10.2	2915	34.9	35.05	5.84	47.62	I	=	45.02	_	-	0.67
38	MJBK-7	34/28-8	8.7	1120	34.9	34.8	6.18	22.86	I	-	22.09	_	-	0.43
39	MJBK-7	34/28-9	8.6	4265	33	32.95	5.6	84.29	Ш		82.3	-	-	1.28
4	MJBK-7	34/28-10	5.4	1340	41.2	41.82	5.33	31.63	1	_	27.51	-	-	0.6
4	MJBK-7	34/28-11	6.6	3540	40.8	41.13	11.72	152.84	Ħ	H	145.26	-	-	2.2
42	MJBK-7	34/28-12	6.3	3030	35.1	35.52	11.24	152.19	Ш	Ξ	148.98		-	1.77
43	MJBK-7	34/28-13	11.3	4750	37.1	37.36	6.25	70.32			65.4	-	-	1.25
44	MJBK-7	34/28-14	8.1	3525	41.5	41.72	11	114.74	Ξ		108.57		-	1.68
45	MJBK-8	34/24-3	7.1	1274.6	39.1	39	5.24	24.12	1	1	21.63		-	0.53
46	MJBK-8	34/24-4	13.4	6640	37.1	37.5	5.16	68.18	III	III	63.3	1	1	1.21
47	MJBK-8	34/24-5	13.8	1445	37.8	36.6	4.92	14.08	1	1	12.24	1	1>	0.26
48	MJBK-8	34/24-5	13.8	1445	37.8	36.6	4.92	14.08	1	1	12.14	1	1>	0.27
49	MJBK-8	34/24-6	7.3	2390	37.4	37.1	5	44.12	Ш	п	39.27	1	_	0.76
20	MJBK-8	34/24-7	12.3	6945	41.1	41.33	11.88	162.3	ш	III	155.81	-	_	1.59
51	MJBK-8	34/24-8	11.1	1925	36.6	36.4	4.98	23.73	1	1	19.86	П	-	0.34
52	MJBK-8	34/24-8	11.1	1925	36.6	36.4	4.98	23.73	I	Ι	19.48	П		0.35
53	MJBK-8	34/24-9	10	1135	34	33.86	4.87	16.32	1	1	14.62	-		0.26
54	MJBK-8	34/24-9	10	1135	34	33.86	4.87	16.32	1	-	14.61	-	1	0.29
Classe	Classes of content:	Classes of content:	ē						c		×			

 $\frac{\text{Ilmenite:}}{\text{Zircon:}} I = 0.30-2.85 \text{ kg/t} (15-70\text{kg/m}^3) = II = 38.90-55.56 \text{ kg/t} (70-100\text{kg/m}^3) = II > 55.56 \text{ kg/t} (>100\text{kg/m}^3) = \frac{10.30-2.85 \text{ kg/t}}{12.86-5.69 \text{ kg/t}} = II = 2.86-5.69 \text{ kg/t} = II > 5.69 \text{ kg/t} = II = 2.86-5.69 \text{ kg/t} = II$

weight of two black sand (w) specimen for mineralogical (w) for matrix heavy (w) Teaction (w) teavy (w) Content (w) C	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		No. of	Sample No.	Primary	Weight of	Weight of	Specimen	Weight of	Content of		Ilmenite	a		Zircon	
dry sample dry sample dry sample factricin fraction fraction fraction content. (kgl) content. (kgl) content. (kgl) $(kgl$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	1	illholes		weight of	black sand	specimen for	for	heavy	heavy	Cla	sses of	Content	Clas	sses of	Content
(wg) (w) (w) (w) $ $					dry sample	after sieving	mineralogical	separation	fraction	fraction	ő	Intent	(kg/t)	0 0	ntent	(kg/t)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $				(kg)	(g)	analysis (g)	(g)	(g)	(kg/t)	Basic	Checking	Checking	Basic	Checking	Checking
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	· ~	IJBK-8	34/24-10	4.5	1160	35.9			62.81	П	III	59.12	1	1	0.93
34/24-12 5.3 4.35 4.67 46.7 46.7 46.7 46.7 46.7 11.9 11.93 11.93 11.93 11.93 11.93 11.1 $11.52.51$	$ \begin{array}{l lllllllllllllllllllllllllllllllllll$		JBK-8	34/24-10	4.5	1160	35.9			62.81	П	Ш	58.7	-	1	1.01
34/24-13 4.9 815 $37/3$ 7.99 35.22 1 1 31.5 $1.26.29$ 1 1 $34/24-14$ 118 6020 35.1 34.2 14.1 11 115.29 1 1 $34/24-14$ 516 5020 33.5 36.58 36.20 13.37 1 11 115.29 1 1 $2G1/12-5$ 5.7 2055 31.2 31.35 36.58 502 21.26 14.21 1 115.26 1 1 115.26 1 1 115.26 1 1 115.26 1 1 115.26 1 1 1 112.26 1 1 116.20 1 1 1 11 112.26 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		AJBK-8	34/24-12	5.3	435	46.7			19.1	1	-	17.93			0.37
34/24-14 118 6020 351 348 912 1337 III 116 15626 1 1 15626 1 1 15626 1 1 15625 1 1 1327 1 1 $34/24-16$ 51 790 37.1 36.58 502 21.26 1 1 1327 1 1 $2G1/12-6$ 51 705 32.2 33.35 54.64 66.9 11 1 1327 1 1 $2G1/12-6$ 5.7 2915 34 34.57 55.3 57.78 11 1 132.7 1 1 $2G1/24-5$ 5.2 2915 34 34.57 55.78 11 1	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		AJBK-8	34/24-13	4.9	815	37.9			35.22	1	1	31.5			0.71
34,24-18 56 2085 335 3362 114 $126,25$ 11 $115,28$ 1 $115,28$ 1 $115,28$ 1 $115,28$ 1 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 1 $115,27$ 11 $115,255$ $33,355$ $34,255$ $35,758$ 11 11 11 $115,255$ 11 11 $115,256$ 11 11 11 11 11 $115,256$ 11 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ 11 $115,256$ <	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		AJBK-8	34/24-14	11.8	6020	35.1			133.7		III	126.29	1	1	1.52
2GL/12-2 4.6 531.5 31.5 31.5 31.39 3.86 14.21 1 1 13.27 1 1 $2GL/12-5$ 5.1 5.1 7.86 8.02 21.26 1 1 19.97 1 1 $2GL/12-5$ 5.7 5.7 2265 3.42 3.457 6.24 69.83 11 11 65.03 1 1 $2GL/12-5$ 5.7 22915 3.42 3.425 3.53 57.78 11 11 67.09 1 1 $2GL/24-5$ 5.2 2915 3.4 3.425 3.53 57.78 11 11 67.09 1 1 $2GL/24-5$ 5.2 2915 3.4 3.923 3.923 3.176 11 11 97.36 1 11 $2GL/24-5$ 5.2 1410 3.39 3.933 3.242 7.29 12.24 11 11.433 1 1 $2GL/24-6$ 3.2 11090 41 3.03 3.356 3.242 7.29 12.246 11 11.493 1 1 $2GL/24-6$ 3.2 1100 3.39 3.356 3.242 7.29 12.246 11 11.493 1 1 $2GL/24-6$ 3.2 1100 3.39 3.356 3.242 7.29 12.246 1 1 7.65 1 1 $2GL/24-6$ 3.1 11 3.2742 7.29 12.246 11 11.493 1	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		AJBK-8	34/24-18	5.6		33.5			126.25		III	115.28		1	1.78
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-12		4.6	5					1	1	13.27	1	1	0.38
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		JBK-12		5.1	190			:		1	1	19.97	I	II	0.57
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-	JBK-12	- N	2.1	1055				6.69		Ш	65.63	I	I	1.61
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	S	IJBK-12		5.7	2205	34.8			69.83		Ш	67.09	-	1	1.68
2GL/24-3 5.2 2915 34 34.25 3.53 57.78 II II 54.34 II I $2GL/24-5$ 5 1410 33.39 33.85 82.4 68.65 I II 1798 I I $2GL/24-5$ 5 1410 33.39 33.85 82.4 68.65 I II 1798 I I $2GL/24-6$ 3.2 1290 41 33.9 33.85 82.4 68.65 I III 114.93 I I $2GL/24-6$ 3.2 1100 33.3 33.85 82.4 68.65 I III $II19.32$ I I $30/20-4$ 11 945 36.8 36.5 3.44 81 I I 7.45 I I $30/20-4$ 11 945 36.8 36.5 3.44 81 I I 7.45 I I $30/20-4$ 11 945 36.8 36.5 3.44 8.1 I I 7.45 I I $30/20-4$ 1102 1180 42.3 36.5 3.44 8.1 I I 7.45 I I $30/20-6$ 13.5 1022 116.32 III II $II17.45III30/20-711.547.636.333.637.0777.6IIIIIII30/20-711.5$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-	JBK-15	2GL/24-3	5.2	2915	34			57.78		П	55.01	=	I	1.38
2GL/24-4 4.3 495 29.4 9.33 1.76 21.72 1 1 1798 1 1 $2GL/24-5$ 5 1410 33.9 33.85 8.24 68.65 1 111 59.63 1 1 1 $2GL/24-5$ 5 1410 33.9 33.85 8.24 68.65 1 111 59.63 1 1 1 $2GL/24-6$ 3.2 1280 33.9 33.85 8.24 68.65 1 111 59.63 1 1 1 $2GL/24-6$ 3.2 2120 33.9 32.42 33.85 32.48 111114.93 1 1 1 $30/20-4$ 111 945 35.9 35.7 8.82 119.32 11111114.94 1 1 1 $30/20-4$ 111 945 36.8 36.5 3.44 8.1 1 1 7.45 1 1 $30/20-4$ 111 945 36.8 36.5 3.44 8.1 1 1 7.45 1 1 $30/20-6$ 13.5 42.36 36.5 3.44 8.1 1 1 7.45 1 1 $30/20-7$ 11.5 42.45 33.63 3.63 7.07 77.6 1 1 1 1 1 $30/20-7$ 11.5 42.45 33.63 3.707 77.6 1 1 1 1 1 1 1 1 $30/20-8$ <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td> <td></td> <td>IJBK-15</td> <td></td> <td>5.2</td> <td>2915</td> <td>34</td> <td></td> <td></td> <td></td> <td></td> <td>П</td> <td>54.34</td> <td>11</td> <td>1</td> <td>1.42</td>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		IJBK-15		5.2	2915	34					П	54.34	11	1	1.42
2GL/24-5 5 1410 33.9 33.85 8.24 68.65 1 11 59.63 1 1 1 $2GL/24-5$ 5 1410 33.9 33.85 8.24 68.65 1 11 59.58 1 1 1 $2GL/24-6$ 3.2 1200 41 4091 12.43 122.48 11 11493 1 1 1 $2GL/24-6$ 3.2 1200 33.3 32.42 729 7006 11 11493 1 1 1 $30/28-16$ 91 4395 35.9 35.7 8.82 119.32 11 11493 1 1 1 $30/20-4$ 11 1 945 35.3 35.5 3.44 8.82 119.32 11 11.346 1 1 1 $30/20-6$ 11.5 4760 36.8 36.5 3.44 8.81 1 1 7.26 1 1 1 $30/20-7$ 11.5 4760 36.3 33.63 707 77.6 1 1 7.66 1 1 1 $30/20-7$ 11.5 4245 33.83 33.63 707 77.6 1 <td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td> <td></td> <td>JBK-15</td> <td></td> <td>4.3</td> <td></td> <td>29.4</td> <td></td> <td></td> <td></td> <td>1</td> <td>1</td> <td>17.98</td> <td></td> <td></td> <td>0.87</td>	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-15		4.3		29.4				1	1	17.98			0.87
2GL/24-5 5 1410 33.9 33.85 8.24 68.65 1 111 59.58 1 1 1 $2GL/24-6$ 3.2 1290 41 40.91 12.43 12.248 11 114.93 1 1 1 $30/28-13$ 9.1 9.1 4395 35.9 35.7 8.22 12.248 11 114.93 1 1 1 $30/28-16$ 9.1 4395 35.9 35.7 8.82 119.32 11 $11.3.46$ 1 1 1 $30/20-4$ 11 945 36.8 36.5 3.44 8.1 1 1 $11.3.46$ 1 1 1 $30/20-5$ 116 11 11 11.5 4760 36.5 3.44 8.1 1 1 1 7.26 1 1 $30/20-7$ 11.5 4760 36.4 36.5 3.44 8.1 1 1 1 7.26 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 1 1 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 1 1 1 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 1 1 1 1 $30/20-8$ 54 14.66 34.1 33.63 $3.07.6$ 1	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-15	2GL/24-5	5	1410	33.9				1		59.63	-	1	1.73
2GL/24-6 3.2 1290 41 40.91 12.43 12.248 II II 114.93 I I $30/28-13$ 6.2 2180 33 32.42 7.29 7906 II II 71.51 I I $30/28-16$ 9.1 4395 35.9 35.1 8.82 119.32 II III 113.46 I I I $30/20-4$ 11 945 35.9 35.1 3.44 8.1 I I 7.45 I I I $30/20-4$ 11 945 36.8 36.5 3.44 8.1 I I 1 I I I I $30/20-6$ 11.5 10.2 1780 42.3 42.34 9.43 38.87 I I I I I I $30/20-7$ 11.5 4245 33.8 36.17 6.97 67.94 II I I I I I $30/20-7$ 11.5 4245 33.8 36.5 3.44 8.1 I I I I I I I $30/20-7$ 11.5 4245 33.8 36.17 6.97 67.94 II I I I I I $30/20-7$ 11.5 4245 33.8 33.63 7.07 7.76 I I I I I I I $30/20-8$ 5.4 1456 34.1 34.2 4.98 </td <td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td> <td></td> <td>JBK-15</td> <td></td> <td>5</td> <td>1410</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>11</td> <td>59.58</td> <td></td> <td>-</td> <td>1.61</td>	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-15		5	1410					1	11	59.58		-	1.61
30/28-13 6.2 2180 33 32.42 7.29 79.06 IIIIII 71.51 II $30/28-16$ 9.1 4395 35.9 35.7 8.82 119.32 IIIIII 113.46 III $30/20-4$ 11 945 36.8 36.5 3.44 8.82 119.32 III 11.346 III $30/20-6$ 112 116 945 36.8 36.5 3.44 8.1 II 7.45 I $<$ I $30/20-6$ 13.5 4760 36.4 36.17 6.97 6.97 8.1 II 7.26 I $<$ I $30/20-6$ 13.5 4760 36.4 36.17 6.97 67.94 IIIIIII 7.26 I $<$ I $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 III 11 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 I 11 6.748 II $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 II 11 6.748 III $30/20-8$ 5.4 1450 34.2 4.98 39.1 II 11 67.48 III $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 II 11 67.48 II $30/20-8$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-15	2GL/24-6	3.2	1290	41		1	1		11	114.93			2.36
$30/28-16$ 9.1 4395 35.9 35.7 8.82 119.32 II II 113.46 I I I $30/20-4$ 11 945 36.8 36.5 3.44 8.1 I I 7.45 I $\langle I$ $30/20-5$ 10.2 172 1780 42.3 42.34 9.43 38.87 I I I $\langle I$ $\langle I$ $30/20-5$ 10.2 11.5 4760 36.4 36.17 6.97 67.94 II II II I I $30/20-7$ 11.5 4245 33.8 36.3 $3.6.3$ 7.07 77.6 I I I I I $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 I II I I I I $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 I II I I I $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 I II I I I $30/20-8$ 5.4 1450 34.1 34.2 4.98 33.63 7.07 77.6 I I I I I I $30/20-7$ 5.4 1450 34.1 34.3 11 II II I I I I I I I $30/20-8$ 5.4 1450 34.1 34.2 4.98 <	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-16	30/28-13	6.2		33					11	71.51	-	-	1.07
30/20-4 11 945 36.8 36.5 3.44 8.1 1 1 7.45 1 <1 $30/20-4$ 11 945 36.8 36.5 3.44 8.1 1 1 7.26 1 <1 $30/20-5$ 10.2 11.5 4760 36.4 36.17 6.97 8.1 1 1 7.26 1 <1 $30/20-7$ 11.5 4760 36.4 36.17 6.97 67.94 11 11 57.98 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 67.48 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 1 1 $30/20-8$ 5.4 1450 34.1 34.23 33.63 7.07 77.6 1 11 1 1 $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 11 1 1 1 1 $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 11 1 1 1 1 1 $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 11 1 1 1 1 1 $30/20-8$ 5.4 1450 </td <td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td> <td></td> <td>JBK-16</td> <td>30/28-16</td> <td>9.1</td> <td>4395</td> <td>35.9</td> <td></td> <td></td> <td>119.32</td> <td></td> <td>Ш</td> <td>113.46</td> <td></td> <td></td> <td>1.91</td>	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-16	30/28-16	9.1	4395	35.9			119.32		Ш	113.46			1.91
30/20-4 11 945 36.8 36.5 3.44 8.1 1 1 7.26 1 <1 $30/20-5$ 10.2 1780 42.3 42.34 9.43 38.87 1 1 35.02 1 1 $30/20-6$ 13.5 4760 36.4 36.17 6.97 67.94 11 11 57.98 1 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 67.48 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 67.48 1 1 $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 1 11 67.48 1 1 $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 11 11 67.48 1 1 $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 11 1 1 1 $30/20-8$ 8.1 1340 40.2 37.18 3.84 43.86 11 1 1 1 1 $30/20-8$ 8.1 34.0 40.2 37.18 3.84 43.86 11 1 1 1 1 1 $30/20-9$ 8.1 3.4 43.86 11 1 1 1 1 1 1 1 1 1 $30/20-9$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-4	11	945	36.8			8.1	1	I	7.45		1>	0.22
30/20-5 10.2 1780 42.3 42.34 9.43 38.87 I I 35.02 I I 1 35.02 I I I I 35.02 I I I 35.02 I I I I 35.02 I I I I 35.02 I I I I I 35.02 I I I 35.02 I I I I I I 35.02 I <td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td> <td></td> <td>JBK-17</td> <td>30/20-4</td> <td>11</td> <td>945</td> <td>36.8</td> <td></td> <td></td> <td>8.1</td> <td>1</td> <td>1</td> <td>7.26</td> <td>_</td> <td>1></td> <td>0.2</td>	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-4	11	945	36.8			8.1	1	1	7.26	_	1>	0.2
30/20-6 13.5 4760 36.4 36.17 6.97 67.94 IIIIII 57.98 III $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 IIII 67.68 III $30/20-7$ 11.5 4245 33.8 33.63 7.07 77.6 IIII 67.68 III $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 III 67.48 III $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 III 67.48 III $30/20-8$ 5.4 1450 34.1 34.2 4.98 39.1 III 7.494 II0 $30/20-9$ 8.1 3440 40.2 37.18 3.84 43.86 III 41.92 II0 $30/20-9$ 8.1 3.10 40.9 40.65 8.7 77.88 IIII 41.92 II0	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-5	10.2		42.3			38.87	1	1	35.02	1		0.76
30/20-7 11.5 4245 33.8 33.63 7.07 77.6 I III 67.68 I I 1 30/20-7 11.5 4245 33.8 33.63 7.07 77.6 I III 67.48 I I 1 1 30/20-8 5.4 1450 34.1 34.2 4.98 39.1 II I 67.48 I I 1 0 30/20-8 5.4 1450 34.1 34.2 4.98 39.1 II I 1 0 0 30/20-8 5.4 1450 34.1 34.2 4.98 39.1 II I 1 0 0 30/20-9 8.1 34.40 40.2 37.18 3.84 43.86 II I 41.92 I I 0 0 30/20-10 3.6 1310 40.9 40.65 8.7 77.88 III II 68.8 I I I 0 0	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	-	JBK-17	30/20-6	13.5		36.4			67.94		Ш	57.98	-	1	1.04
30/20-7 11.5 4245 33.8 33.63 7.07 77.6 I III 67.48 I <	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-7	11.5		33.8			77.6	1	I	67.68		-	0.9
30/20-8 5.4 1450 34.1 34.2 4.98 39.1 II I 34.94 I	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-7	11.5		33.8			77.6	1	Ξ	67.48	-		1.01
30/20-8 5.4 1450 34.1 34.2 4.98 39.1 II I 34.97 I <th<< td=""><td>JBK-17 $30/20^{-8}$ 5.4 1450 34.1 34.2 4.98 39.1 II I 34.97 I I I JBK-17 $30/20^{-9}$ 8.1 3440 40.2 37.18 3.84 43.86 II II 11.92 I I J JBK-17 $30/20^{-10}$ 3.6 1310 40.9 40.65 8.7 77.88 II II 41.92 I I I 1 <t< td=""><td></td><td>JBK-17</td><td>30/20-8</td><td>5.4</td><td>1450</td><td>34.1</td><td>34.2</td><td></td><td>39.1</td><td>II</td><td></td><td>34.94</td><td>-</td><td>-</td><td>0.63</td></t<></td></th<<>	JBK-17 $30/20^{-8}$ 5.4 1450 34.1 34.2 4.98 39.1 II I 34.97 I I I JBK-17 $30/20^{-9}$ 8.1 3440 40.2 37.18 3.84 43.86 II II 11.92 I I J JBK-17 $30/20^{-10}$ 3.6 1310 40.9 40.65 8.7 77.88 II II 41.92 I I I 1 <t< td=""><td></td><td>JBK-17</td><td>30/20-8</td><td>5.4</td><td>1450</td><td>34.1</td><td>34.2</td><td></td><td>39.1</td><td>II</td><td></td><td>34.94</td><td>-</td><td>-</td><td>0.63</td></t<>		JBK-17	30/20-8	5.4	1450	34.1	34.2		39.1	II		34.94	-	-	0.63
30/20-9 8.1 3440 40.2 37.18 3.84 43.86 II II 41.92 I I 30/20-10 3.6 1310 40.9 40.65 8.7 77.88 II II 68.8 I I I I I	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		JBK-17	30/20-8	5.4	1450	34.1	34.2			II	-	34.97			0.77
30/20-10 3.6 1310 40.9 40.65 8.7 77.88 II II 68.8 I I	JBK-17 30/20-10 3.6 1310 40.9 40.65 8.7 77.88 Ⅲ Ⅲ 68.8 1 1 1 of content: I 8.33-38.89 kg/t (15-70kg/m ³) Ⅱ 38.90-55.56 kg/t (70-100kg/m ³) Ⅲ > 55.56 kg/t (>100kg/m ³)	-	JBK-17	30/20-9	8.1	3440	40.2					=	41.92	-		0.79
	of content: I 8.33-38.89 kg/t (15-70kg/m ³) II 38.90-55.56 kg/t (70-100kg/m ³)		JBK-17	30/20-10	3.6		40.9			77.88			68.8	-	-	0.76

Appendix 2-6 Inside Geological Check of Mineralogical Analysis (3)

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Zircon		(kg/t)	<u> </u>		0.75	0.51	1.25	0.46	1.27	1 29	0.89	113	0.94	0.97		0 72	0.65	132	138	112	96.0	114	
Z	Classes of	content	Basic Checking	. 	I I	1 1	1 1		I	I								1					
	Content	(kg/t)	Checking B		46.13	31.62	104.93	37.8	58.74	58.91	41.86	55.33	55.53	61.06	61.03	46.94	28.8	70.69	70.65	54.89	47.85	59.38	50 76
Ilmenite	Classes of	content	Basic Checking		II				H		=		11			п	1			I	H		E
	CI	Ō	Basic	=	=	-	Ξ	-	11	H	=	=	=	=	=	=		H	=	=	=	=	=
Content of	heavy	fraction	(kg/t)		51.61	34.27	112.18	49.72	65.23	65.23	44.24	62.6	58.3	64.45	64.45	48.53	30.02	74.82	74.82	58.27	55.93	62.83	60 03
Weight of	heavy	fraction	(g)		3.54	3.04	13.95	10.06	5.62	5.62	7.54	8.66	6.34	4.76	4.76	1.89	5.25	7.61	7.61	7.4	4.45	5.36	20.7
Specimen	for	separation	(g)	0.50	8.15 8	39.4	43.02	33.41	40.33	40.33	40.71	40.65	35.54	37.4	37.4	13.36	41.54	41.58	41.58	37.86	34	26.5	26 E
Weight of		Ē	analysis		31.8	39.5	42.9	33.4	40.1	40.1	40.1	40.8	35.1	37.5	37.5	13.4	41.6	41.8	41.8	37.9	33.9	40.9	0.04
Weight of	black sand	after sieving	(g)	9766	CC/S	3420	5535	710	11000	11000	7380	10050	13595	16710	16710	4425	1710	6950	6950	9570	4530	1895	1805
Primary	weight of	dry sample	(kg)	6	α.	7.7	16	4.3	23.5	23.5	30.9	34.2	41.6	33	33	12.9	7.2	17	17	32.1	10.6	6.1	ÿ
Sample No.				30/20-11	20/ 20-11	30/20-12	30/20-13	30/20-14	38/24-4k	38/24-4k	38/24-6k	38/24-7k	38/24-13k	34/32-4k	34/32-4k	34/20-8	34/16-6	34/16-6k	34/16-6k	34/16-7k	30/28-11	30/28-14	30/28-14
No. of	drillholes			M.IRK-17		- 1	- 1	-1		MJBK-3	MJBK-3	- [- 1			- 1				MJBK-10	MJBK-16	100 MJBK-16	101 MJBK-16
°.				83	3	84	85	86	87	88	89	6	6	92	93	94	95	96	97	98	66	9	101

Appendix 2-6 Inside Geological Check of Mineralogical Analysis (4)

Ulasses of content:

 $III > 55.56 \text{ kg/t} (>100 \text{kg/m}^3)$ <u>Ilmenite</u>: I 8.33-38.89 kg/t (15-70kg/m³) II 38.90-55.56 kg/t (70-100kg/m³) Zircon: I 0.30-2.85 kg/t II 2.86-5.69 kg/t II >5.69 kg/t

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Appendix 2-7 Outside Geological Check of Mineralogical Analysis

			4	5	-	-	0	8		െ	2		7	3	ന		က	က	5	പ	2	2	2	6	—	1
uo	Content (ka/+)		0.34	0.55	1.1	1.5	1.49	0.58	1.32	1.	1.05	1.51	0.27	0.73	0.93	0.87	0.63	0.63	0.65	0.89	0.35	1.2	0.42	66.0		
Zircon	Classes of	sic)	-	I	I	I	II	I	I	I 1	I	I 1	1	I	1	1	1	1	I	I	I	1	1	1	1	
nite	Content (La /t)		13.72	19.1	60.54	63.27	54.74	16.15	60.61	105.53	72.32	107.84	8.96	34.54	66.05	67.66	38.18	43.31	72.96	48.43	31.11	101.51	38.98	46.21	77.11	
Ilmenite	Classes of	sic)	-	1	III	III	111			III	III	III	1	1	III	I	II	II	III	II	I	III	I	II	III	
Content of		(kg/t)	14.57	20.16	63.39	68.16	55.53	17.76	65.06	113.44	74.85	111.82	96	37.72	68.38	72.8	40.56	44.57	75.65	50.21	31.92	106.14	44.78	48.66	79.44	
Weight of	heavy	(g)	3.91	4.75	4	5.85	3.48	4.29	7.89	11.34	7.11	8.15	4.17	8.3	7.35	6.67	5.12	4.24	8.17	3.39	2.76	13.07	8.57	6.36	7.18	
Specimen	for	separation (g)	31	36.5	31.7	33.2	33.8	27.8	34.2	40.3	33.4	35.2	37.3	38.4	37.9	34.1	33.9	40.4	39.3	31.3	38.4	42.6	31.6	42.9	39.9	
Weight of	specimen for	mineralogical analysis (g)	31	37.8	31.9	33.4	33.9	27.9	34.4	40	33.4	35.8	37.1	40.8	37.2	34.1	33.9	41.1	41.1	31.2	40	42.3	33.2	43.1	40.1	
Weight of	black sand	arter stevning i (g)	531.5	190	1055	2205	2915	495	1410	1290	2180	4395	945	1780	4760	4245	1450	3440	1310	3755	3420	5535	710	2790	3355	
Primary		ury sample (kg)	4.6	5.1	2.1	5.7	5.2	4.3	5	3.2	6.2	9.1	11	10.2	13.5	11.5	5.4	8.1	3.6	8.1	7.7	16	4.3	8.5	7.6	
Sample No.			2GL/12-2	2GL/12-4	2GL/12-5	2GL/12-6	2GL/24-3	2GL/24-4	2GL/24-5	2GL/24-6	30/28-13	30/28-16	30/20-4	30/20-5	30/20-6	30/20-7	30/20-8	30/20-9	30/20-10	30/20-11	30/20-12	30/20-13	30/20-14	38/28-3	38/28-4	
	drillholes		MJBK-12	MJBK-12	MJBK-12	MJBK-12	MJBK-15	MJBK-15	MJBK-15	MJBK-15	MJBK-16	MJBK-16	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-2	MJBK-2	Classes of content:
No.			-	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16	1	18	19	20	21	22	23	asse

Appendix 2-7 Outside Geological Check of Mineralogical Analysis (1)

 $III > 55.56 \text{ kg/t} (>100 \text{kg/m}^3)$ <u>Ilmenite</u>: I 8.33–38.89 kg/t (15–70kg/m³) II 38.90–55.56 kg/t (70–100kg/m³) Zircon: I 0.30–2.85 kg/t II 2.86–5.69 kg/t II >5.69 kg/t Appendix 2-7 Outside Geological Check of Mineralogical Analysis (2)

*					יאראין אראן אראן אראן אראן אראן אראן ארא		38/24-9 3 21.50 31.5 31.2 5.6/ 38/34-10 1 E 35 4E 45 53
	5.63 7.38 7.36 3.65 6.34 9.72 9.72 9.73 9.72 9.73 9.74 9.73 9.72 9.73 9.74 9.73 9.72 9.72 9.72 9.73 9.74 9.73 9.74 9.73 9.74 9.74 9.74 9.73 9.74 9.74 9.74 9.73 9.74 9.73 9.74 9.74 9.74 9.74 9.74 9.74 9.74 9.73 9.73 9.73 9.73 9.73	32.2 34.6 32.2 38.9 33.1 33.1 33.1 33.1 31.1 31.1 30.4	34.6 32.2 34.1 34.1 36.9 33.1 33.1 33.1 33.1 33.1 31.1 31.1 30.4	46.5 46.3 33.3 34.6 32.4 32.2 38.2 34.6 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.9 37.1 36.4 37.1 37.1 38.5 32.1 37.1 37.1 37.1 37.1 37.1 37.1 36.8 36.4	235 46.5 46.3 5780 33.3 34.6 1190 32.4 32.2 4960 38.2 34.1 5860 34.2 34.1 5860 34.2 34.1 5860 34.2 34.1 5860 37.1 36.9 2360 37.1 36.9 2160 32.2 33.1 2150 32.2 33.1 250 32.2 32.1 2550 32.2 32.1 2320 37.1 37.1 2320 37.1 37.1 2320 37.1 37.1 2565 40.5 40.6 2460 36.8 36.4	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	38/24-9 50 2150 31.5 31.2 $38/24-10$ 1.5 235 46.5 46.3 $38/24-12$ 8.2 1190 32.4 32.2 $38/24-12$ 8.2 1190 32.4 32.2 $38/24-13$ 14.4 4960 33.2 34.1 $38/24-15$ 6.5 2360 34.2 34.1 $38/24-15$ 6.5 2360 34.2 34.1 $38/24-15$ 6.5 2360 34.2 34.1 $38/16-5$ 12.3 2160 32.2 33.1 $38/16-7$ 11 3550 32.2 32.1 $38/16-7$ 11 3550 32.2 32.1 $38/16-9$ 5.4 2320 37.1 37.1 $38/16-10$ 8.9 2980 30.6 31.1 $38/16-11$ 8.1 2320 37.1 37.1 $38/16-11$ 8.1 2380 30.6 31.1 $38/16-11$ 8.1 2365 40.5 40.6 $38/16-11$ 8.1 2460 36.8 36.4

 $III > 55.56 \text{ kg/t} (>100 \text{kg/m}^3)$ <u>Ilmenite</u>: I 8.33–38.89 kg/t (15–70kg/m³) П 38.90–55.56 kg/t (70–100kg/m³) <u>Zircon</u>: I 0.30–2.85 kg/t П 2.86–5.69 kg/t Ш >5.69 kg/t

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noc	Content	(kg/t)		1.4	0.2	1.01	0.8	2.39	0.57	0.34	1.04	0.36	1.8	1.39	0.91	1.18	0.27	1.01	0.16	0.71	1.65	0.22	0.16	0.64	0.27	0.4	
Zircon	Classes of	content(ba	sic)	-	I	-	1	-	I	1	-	1	I	1	I	I	-	1	-	1	н	II	-			-	
ite	Content	(kg/t)		108.03	15.71	78.43	50.32	156.78	43.36	19.37	74.24	23.26	142.39	135.42	55.71	94.4	19.87	62.52	10.25	33.36	148.32	17	13.92	61.23	16.36	31.51	
Ilmenite	Classes of	content(ba	sic)	III	1	III	II	III	II	1	III	I	III	III	III	III	Ι	III	I	П	III	I	I	II	I		
Content of	heavy	fraction	(kg/t)	113.75	16.69	82.72	54.06	167.34	45.08	20.16	76.32	24.4	149.2	141.93	58.78	100.58	20.65	64.68	10.83	35.24	153.97	19.49	14.31	62.64	17.11	33.13	
Weight of		fraction	g	9.75	9.08	16.4	8.11	13.31	5.49	5.34	5.14	4.09	11.6	10.24	5.16	9.43	4.52	4.49	3.94	3.95	11.18	3.95	4.35	8.87	10.28	7.52	
Specimen	for	separation	(g)	37.5	29.9	39.2	33.3	37.6	34.8	34.1	33.4	41.6	41.7	34.7	36.9	40.8	39.3	34.4	38.1	36.7	41	35.2	34.5	36.5	49.3	37.8	
Weight of	specimen for	mineralogical	analysis (g)	37.2	29.9	39.3	33.1	36.7	34.5	34.5	33.1	40.1	41.3	34.5	36.8	40.7	39.4	34.5	38.1	36.9	40.7	35.4	34.7	35.5	49.4	38	
Weight of	_	50	(g)	2450	500	1305	2153	3120	2915	1120	4265	1340	3540	3030	4750	3525	1274.6	6640	1445	2390	6945	1925	1135	1160	435	815	
Primary	weight of	-	(kg)	5.6	9.1	9.9	9.7	6.6	10.2	8.7	8.6	5.4	6.6	6.3	11.3	8.1	7.1	13.4	13.8	7.3	12.3	11.1	10	4.5	5.3	4.9	
Sample No.	- - -			38/16-12	38/12-8	38/12-9	34/28-5	34/28-6	34/28-7	34/28-8	34/28-9	34/28-10	34/28-11	34/28-12	34/28-13	34/28-14	34/24-3	34/24-4	34/24-5	34/24-6	34/24-7	34/24-8	34/24-9	34/24-10	34/24-12	34/24-13	
No. of	drillholes			MJBK-4	MJBK-5	MJBK-5	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-7	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	MJBK-8	
Ň				47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	99	67	68	69	2
				-																_	_	_	_				

Appendix 2-7 Outside Geological Check of Mineralogical Analysis (3)

 $\frac{\text{IImenite:}}{\text{Zircon:}} I = 0.30-2.85 \text{ kg/t} (15-70 \text{kg/m}^3) = II = 38.90-55.56 \text{ kg/t} (70-100 \text{kg/m}^3) = II > 55.56 \text{ kg/t} (>100 \text{kg/m}^3) = 2100 \text{kg/m}^3) = 2100 \text{kg/m}^3 = 21000 \text{kg/m}^3 = 2100 \text{kg/m}^3 = 2100 \text{kg/m}^3 = 2100 \text{kg/m}^3$ **Classes of content:**

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Zircon	Conter	(kg/t)																					C				;
Zirc	Classes of	content(ba sic)		I		1		Ι	-		I					-	•										-
nite	Content	(kg/t)		120.67	107	13.72	19.1	60.54	63.27	54.74	16.15	60.61	105.53	72.32	107.84	8.96	34.54	66.05	67.66	38.18	43.31	72.96	48.43	31.11	101.51	38.98	
Ilmenite	Classes of	content(ba sic)			III	-		III	H		-		III		III			III			I		П	I	III	I	
Content of	heavy	fraction (kg/t)		127.54	112.79	14.57	20.16	63.39	68.16	55.53	17.76	65.06	113.44	74.85	111.82	96	37.72	68.38	72.8	40.56	44.57	75.65	50.21	31.92	106.14	44.78	
Weight of	heavy	fraction (g)		7.8	10.33	3.91	4.75	4	5.85	3.48	4.29	7.89	11.34	7.11	8.15	4.17	8.3	7.35	6.67	5.12	4.24	8.17	3.39	2.76	13.07	8.57	
Specimen	for	separation (g)		31.2	34.1	31	36.5	31.7	33.2	33.8	27.8	34.2	40.3	33.4	35.2	37.3	38.4	37.9	34.1	33.9	40.4	39.3	31.3	38.4	42.6	31.6	
Weight of	specimen for	mineralogical analysis	(g)	34.2	34.4	31	37.8	31.9	33.4	33.9	27.9	34.4	40	33.4	35.8	37.1	40.8	37.2	34.1	33.9	41.1	41.1	31.2	40	42.3	33.2	
	_	after sieving (g)		6020	2085	531.5	190	1055	2205	2915	495	1410	1290	2180	4395	945	1780	4760	4245	1450	3440	1310	3755	3420	5535	710	
Primary	weight of	dry sample (kg)		11.8	5.6	4.6	5.1	2.1	5.7	5.2	4.3	5	3.2	6.2	9.1	11	10.2	13.5	11.5	5.4	8.1	3.6	8.1	7.7	16	4.3	
Sample No.				34/24-14	34/24-18	2GL/12-2	2GL/12-4	2GL/12-5	2GL/12-6	2GL/24-3	2GL/24-4	2GL/24-5	2GL/24-6	30/28-13	30/28-16	30/20-4	30/20-5	30/20-6	30/20-7	30/20-8	30/20-9	30/20-10	30/20-11	30/20-12	30/20-13	30/20-14	
No. of	drilholes			MJBK-8	MJBK-8	MJBK-12	MJBK-12	MJBK-12	MJBK-12	MJBK-15	MJBK-15	MJBK-15	MJBK-15	MJBK-16	MJBK-16	MJBK-17	MJBK-17	MJBK-17	MJBK-17	MJBK-17	Classes of content:						
Ňo.				2	7	72	73	74	75	76	2	78	62	8	8	82	83	84	85	86	87	88	89	60		92	Classe

 $\frac{\text{Ilmenite:}}{\text{Zircon:}} I = 8.33-38.89 \text{ kg/t} (15-70 \text{kg/m}^3) = II = 38.90-55.56 \text{ kg/t} (70-100 \text{kg/m}^3) = II > 55.56 \text{ kg/t} (>100 \text{kg/m}^3) = 2 \text{incon:} I = 0.30-2.85 \text{ kg/t} = II = 2.86-5.69 \text{ kg/t} = II > 5.69 \text{ kg/t} = 2.60 \text{ kg/t} = II > 5.69 \text{ kg/t} = II = 2.86 \text{ kg/t} = II = 2.60 \text{ kg/t} = II = 2.86 \text{ kg/t} = II = 2.86 \text{ kg/t} = II = 2.60 \text{ kg/t} = I$

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Sample No.PrimaryWeight of black sandWeight of black sandWeight of black sandWeight of 	on	Content	(kg/t)		0.67	0.48	0.9	0.66	0.71	0.63	0.46	0.99	1.05	0.8	0.62	
Sample No.PrimaryWeight of weight ofWeight of black sandWeight of forImmerite heavyweight of dry sampleafter sieving after sievingspecimen for mineralogicalKeContent of fractionImmerite fraction $dry sampleafter sieving(kg)after sieving(g)specimen for(g)heavy(g)Classes offractionContent offraction38/24-4k23.51100041.244.86.737.65118.638/24-6k30.9738042.642.56.737.65118.638/24-13k34.21005038.639.17.65118.638/24-13k34.21005038.639.17.65118.638/24-13k34.233.244.641.26.737.65111138/24-13k33.244.613.642.56.737.65111138/24-13k33.244.233.233.244.26.737.65111138/24-13k33.244.213.613.61111111138/24-13k33.211.213.612.611.8111138/24-13k33.711.212.612.612.611.612.612.612.612.612.6$	Ziro	Classes of	content(ba sic)		I	I	I	I	1	I	I	I	I 1	1	I	
Sample No.PrimaryWeight of black sandWeight of specimen for for 	nite	Content	(kg/t)		55.77	36.42	53.89	40.07	56.89	39.09	27.09	63.9	50.71	42.34	48.67	
Sample No.PrimaryWeight of weight of dry sampleWeight of black sand specimen for (kg)Specimen for heavy (kg)Content of heavy (kg)Content of heavy (kg/t)Content of heavy heavy (kg/t)Content of heavy heavy heavy heavy heavy (kg/t)Content of heavy heavy heavy heavy heavy heavy </td <td>Ilmei</td> <td>Classes of</td> <td>content(ba sic)</td> <td></td> <td>П</td> <td>II</td> <td>II</td> <td>II</td> <td>II</td> <td>II</td> <td>1</td> <td>II</td> <td>Ш</td> <td>11</td> <td>II</td> <td></td>	Ilmei	Classes of	content(ba sic)		П	II	II	II	II	II	1	II	Ш	11	II	
Sample No.Primary weight of dry sampleWeight of black sand 	Content of				57.67	37.65	57.49	46.19	60.02	41.87	28.65	66.98	53.71	46.35	52.29	
Sample No.PrimaryWeight of black sandSpecimen for specimen for for for (kg) Weight of black sandSpecimen for specimen for for (kg) Specimen for for (kg) Specimen for for (kg) Specimen for for (kg) Specimen for for (g) Specimen	Weight of	heavy	fraction (g)		5.15	6.7	7.65	5.64	4.22	1.66	4.97	6.75	6.63	3.46	6.8	
Sample No. Primary weight of weight of weight of black sand specimel dry sample dry sample dry sample dry sample gree sieving mineralo (kg) Weight of black sand specimel and specimel area signed from the second second second gree sieving mineralo (kg) 38/24-4k 23.5 11000 analys (g) 38/24-6k 30.9 7380 analys (g) 38/24-13k 41.6 13595 (g) 34/32-4k 33 16710 (g) 34/16-6k 17 9570 (g) 34/16-7k 32.1 9570 (g) 32/16-7k 32.1 9570 (g) 30/28-14 6.1 1895 (g)	Specimen	for	separation (g)		41.8	42.5	39.1	39.9	35.6	13.6	41.2	41.2	36.8	31.9	40.4	
Sample No. Primary weight of weight of weight of black sand dry sample after sieving (kg) Weight of black sand gry sample after sieving (kg) 38/24-4k 23.5 11000 38/24-6k 30.9 7380 38/24-13k 41.6 13595 34/32-4k 33 16710 34/16-6k 17 9570 34/16-7k 32.1 9570 30/28-14 6.1 1895	Weight of	specimen for	mineralogical analysis	(g)	41.2	42.6	38.6	39.2	35.5	13.8	41.5	41.5	37.8	32	40.8	
Sample No. Primary weight of dry sample (kg) (kg) 38/24-4k 23.5 38/24-6k 30.9 38/24-6k 30.9 38/24-13k 41.6 38/24-13k 41.6 33/32-4k 33.3 34/16-6k 17 34/16-6k 17 34/16-6k 17 34/16-7k 32.1 34/16-7k 32.1 32.1 32.1 32.1 32.1 32.1 32.1 32.1	Weight of		after sieving (g)		11000	7380	10050	13595	16710	4425	1710	6950	9570	4530	1895	
No. No. of drillholes Sample No. drillholes 38/24-4k 93 MJBK-3 38/24-4k 94 MJBK-3 38/24-6k 95 MJBK-3 38/24-7k 96 MJBK-3 38/24-7k 97 MJBK-6 34/32-4k 98 MJBK-10 34/16-6k 99 MJBK-10 34/16-6k 101 MJBK-10 34/16-7k 102 MJBK-10 34/16-7k 103 MJBK-16 30/28-14 103 MJBK-16 34/16-7k 103 MJBK-16 34/16-7k 103 MJBK-16 34/16-7k 103 MJBK-16 34/16-7k 103 MJBK-16 30/28-14	Primary	weight of	dry sample (kg)		23.5	30.9	34.2	41.6	33	12.9	7.2	17	32.1	10.6	6.1	
No. No. of drillholes 93 MJBK-3 94 MJBK-3 95 MJBK-3 96 MJBK-3 97 MJBK-3 98 MJBK-6 99 MJBK-10 100 MJBK-10 101 MJBK-10 102 MJBK-10 103 MJBK-10 103 MJBK-10 103 MJBK-16 103 MJBK-16 103 MJBK-16 103 MJBK-16 103 MJBK-16	Sample No.				38/24-4k	38/24-6k	38/24-7k	38/24-13k	34/32-4k	34/20-8	34/16-6	34/16-6k	34/16-7k	30/28-11	30/28-14	نز
No. 94 95 95 96 96 97 96 99 99 99 91 01 101 101 103 26 50 97 95 97 97 97 97 97 97 97 97 97 97 97 97 97	No. of	drillholes			MJBK-3	MJBK-3	MJBK-3	MJBK-3	MJBK-6	MJBK-9		MJBK-10		MJBK-16	MJBK-16	ss of conten
	No.				93	94	95	96	97	98	66	100	101	102	103	Classe

Appendix 2-7 Outside Geological Check of Mineralogical Analysis (5)

 $\frac{\text{Ilmenite}:}{\text{Zircon}:} I = 8.33-38.89 \text{ kg/t} (15-70 \text{kg/m}^3) = II = 38.90-55.56 \text{ kg/t} (70-100 \text{kg/m}^3) = II > 55.56 \text{ kg/t} (>100 \text{kg/m}^3) = 2.30-2.85 \text{ kg/t} = II = 2.86-5.69 \text{ kg/t} = II > 5.69 \text{ kg/t} = 2.86-5.69 \text{ kg/t} = 12.86-5.69 \text{$

Appendix 2-8 Chemical Analysis of Check Samples for TiO₂ and ZrO₂

				A	ssay results (%	6)
No.	No. of	Sample No.	Sampling position (m)	X−Ray s	spectral	Chemical analysis
	drillholes	·	from to	ZrO ₂	TiO₂	TiO2
1	MJBK-9	34/20-3K	29.0 ~ 30.0	0.035	2.49	2.64
2	MJBK-9	34/20-4K	30.0 ~ 31.0	0.037	4.65	4.59
3	MJBK-9	34/20-5K	31.0 ~ 31.5	0.034	3.91	4.12
4	MJBK-9	34/20-6K	31.5 ~ 32.5	0.027	2.27	2.37
				0.030	2.32	2.56
5	MJBK-9	34/20-7K	32.5 ~ 33.7	0.020	5.39	5.60
6	MJBK-9	34/20-8K	33.7 ~ 35.0	0.037	4.38	4.63
7	MJBK-9	34/20-9K	35.0 ~ 36.5	0.032	5.95	6.14
8	MJBK-9	34/20-10K	36.5 ~ 37.7	0.038	7.65	7.54
9	MJBK-8	34/24-3K	25.3 ~ 26.0	0.044	3.17	3.02
10	MJBK-8	34/24-4K	26.0 ~ 27.2	0.071	5.34	5.13
				0.070	5.29	5.05
11	MJBK-8	34/24-5K	27.2 ~ 28.5	0.048	2.29	2.44
12	MJBK-8	34/24-6K	28.5 ~ 29.3	0.059	3.18	3.06
13	MJBK-8	34/24-7K	29.3 ~ 30.6	0.041	9.43	9.63
14	MJBK-8	34/24-8K	30.6 ~ 32.0	0.030	1.85	1.93
15	MJBK-8	34/24-9K	32.0 ~ 33.0	0.036	2.25	2.43
16	MJBK-8	34/24-10K	33.0 ~ 33.5	0.052	4.91	4.82
17	MJBK-8	34/24-11K	33.5 ~ 34.9	0.022	1.47	1.42
18	MJBK-8	34/24-12K	34.9 ~ 35.7	0.026	2.22	2.47
19	MJBK-8	34/24-13K	35.7 ~ 36.5	0.051	3.29	3.50
20	MJBK-8	34/24-14K	36.5 ~ 37.5	0.039	7.28	7.31
21	MJBK-2	38/28-3K	26.0 ~ 26.8	0.063	4.09	4.04
				0.058	4.12	4.12
22	MJBK-2	38/28-4K	26.8 ~ 27.4	0.043	5.70	5.70
23	MJBK-2	38/28-5K	27.4 ~ 28.3	0.039	2.93	3.23
24	MJBK-2	38/28-6K	28.3 ~ 29.5	0.027	2.33	2.46
25	MJBK-2	38/28-7K	29.5 ~ 30.2	0.041	4.07	4.00
26	MJBK-12	2GL/12-3	25.3 ~ 26.9	0.075	3.68	3.79
27	MJBK-12	2GL/12-4	26.9 ~ 28.0	0.060	3.57	3.46
28	MJBK-12	2GL/12-5	28.0 ~ 28.5	0.094	4.28	4.12
29	MJBK-12	2GL/12-6	28.5 ~ 29.9	0.088	4.98	5.21
				0.088	5.06	5.17
30	MJBK-15	2GL/27-5	27.2 ~ 28.2	0.066	6.31	6.49
31	MJBK-15	2GL/24-6	28.2 ~ 28.9	0.055	8.45	9.15

Appendix 2-8 Chemical Analysis of Check Samples for TiO_2 and ZrO_2

Appendix 2-9 Grainmetric Analysis of Monomineral Fraction of Ilmenite

Appendix 2-9 Grainmetric Analysis of Monomineral Fraction of Ilmenite

Class of granulation					Grain	Sample No. Depth (m) Grain distribution (%)	u (%)				
(mm)	MJBK-2	MJBK-2 MJBK-3	MJBK-4	MJBK-5	MJBK-7	MJBK-8	MJBK-8	MJBK-9	MJBK-10 MJBK-16 MJBK-17	MJBK-16	MJBK-17
	26.0-27.4	26.0-27.4 29.3-38.2	29.2-33.9	28.0-29.9	30.2-37.3	26.0-30.6	40.4-41.0	30.0-37.7	29.0-34.6	34.0-39.0	36.0-43.0
+ 0.44	0.11	0.84	0.82	0.62	0.96	0.58	4.62	1.38	0.63	1.16	0.83
- 0.44+ 0.315	0.31	4.42	4.28	2.60	4.77	2.70	13.50	5.69	3.51	5.93	5.05
- 0.315 + 0.2	8.37	33.16	25.54	29.02	36.12	23.19	49.22	37.33	26.18	33.95	37.42
- 0.2 + 0.1	58.66	47.73	51.12	48.46	43.05	43.34	27.23	43.31	45.64	45.02	44.78
- 0.1 + 0.071	20.85	9.97	10.75	13.36	10.46	16.93	4.18	9.08	12.13	8.58	8.05
- 0.071 + 0.04	10.26	3.40	6.23	4.76	3.88	10.68	1.09	2.72	8.52	4.32	3.22
- 0.04 + 0	1.44	0.48	1.26	1.18	0.76	2.58	0.16	0.49	3.39	1.04	0.65
Total	100	100	100	100	100	100	100	100	100	100	100

Appendix 2-10 Grainmetric Analysis of Monomineral Fraction of Zircon

Appendix 2-10 Grainmetric Analysis of Monomineral Fraction of Zircon

30.2-37.3 26.0-30.6 4 1.17 0.95 0.95 0.60	33.9		2.2
0.95			0.96
0.60			96.0
0011			00 0
19.28 14.99 33.20		9.32 10.01	
45.42 43.06 41.59		36.96 41.06	
26.94 35.13 14.16		48.30 41.29	
6.24 5.27 0.74		3.62 6.65	
100 100 100		100 100	

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Appendix 2-11 Chemical and Spectral Quantity Analysis of Ilmenite

Appendix 2-11 Chemical and Spectral Quantity Analysis of Ilmenite

	Drillhole	Depth of sampling							Content (%)	يد.						
Ň	No.	from - to (m)	Al ₂ O ₃	SiO ₂	P ₂ 05	TiO ₂ (X-Ray spectral)	Fe (primary)	Sc ₂ O ₃	Cr ₂ O ₃	V ₂ O5	Ta ₂ O ₅	Nb ₂ O ₃	FeO	Fe ₂ O ₃	ΣTR ₂ 03 + Υ	TiO ₂ (chemical)
-	MJBK-2	26.0-27.4	1.45	3.53	0.03	57.52	34.68	0.0015	0.0175	0.17	< 0.005	< 0.004	19.1	13.67	0.02	54.5
2	MJBK-3	29.3–38.2	1.03	2.28	0.02	57.46	36.01	0.0017	0.019	0.172	< 0.005	< 0.004	24.34	9.24	0.08	51.6
3	MJBK-4	29.2-33.9	0.88	1.84	0.02	57.83	36.54	0.0017	0.0219	0.172	< 0.005	< 0.004	15.1	19.93	0.02	54.29
4	MJBK-5	28.0-29.9	1.01	1.96	0.01	58.55	36.37	0.0017	0.02	0.196	< 0.005	< 0.004	18.27	16.09	0.17	54.5
2	MJBK-7	30.2-37.3	0.94	1.95	0.01	58.72	36.41	0.0012	0.0175	0.172	< 0.005	< 0.004	22.51	11.65	0.03	54.87
9	MJBK-8	26.0-30.6	1.09	2.11	0.02	56.7	37.11	0.001	0.0219	0.178	< 0.005	< 0.004	22.07	12.83	0.05	52.32
7	MJBK-8	40.4-41.0	0.8	1.77	0.02	58.56	34.34	0.0012	0.0146	0.185	< 0.005	< 0.004	17.14	15.32	0.15	51.96
80	MJBK-9	30.0-37.7	1	2.06	0.02	58.51	35.88	0.0018	0.0204	0.171	< 0.005	< 0.004	15.81	18.33	0.05	55.23
ი	MJBK-10	29.0-34.6	1.05	2.16	0.03	58.24	35.91	0.0017	0.026	0.208	< 0.005	< 0.004	16.61	17.47	0.06	53.05
10	MJBK-16	34.0-39.0	0.8	1.66	0.02	53.37	36.67	0.0011	0.0161	0.144	< 0.005 < 0.004	< 0.004	26.74	6.99	0.05	52.47
1	MJBK-17	36.0-43.0	1.05	2.35	0.01	58.23	35.52	0.0015	0.026	0.196	< 0.005 < 0.004	< 0.004	16.5	17.37	0.06	54.5

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Appendix 2-12 Chemical and Spectral Quantity Analysis of Zircon

No.	Drillhole	Depth of sampling			Con	Content (%)		
	No.	from - to (m)	γ	Sc ₂ O ₃	Hf	Τh	ZrO ₂	ΣTR_2O_3+Y
-	MJBK-2	26.0-27.4	0.029	0.0096	0.55	< 0.01	64.71	0.23
2	MJBK-3	29.3-38.2	0.038	0.0109	0.59	< 0.01	64.53	0.21
e	MJBK-4	29.2-33.9	0.038	0.0107	0.52	< 0.01	59.28	0.17
4	MJBK-5	28.0-29.9	0.03	0.0139	0.54	< 0.01	66.26	0.18
£	MJBK-7	30.2-37.3	0.032	0.0116	0.48	< 0.01	63.37	0.17
9	MJBK-8	26.0-30.6	0.034	0.0113	0.41	< 0.01	61.88	0.1
7	MJBK-8	40.4-41.0	0.025	0.0107	0.66	< 0.01	56.56	0.08
ω	MJBK-9	30.0-37.7	0.042	0.0133	0.46	< 0.01	64.28	0.18
6	MJBK-10	29.0-34.6	0.04	0.0136	0.54	< 0.01	66.37	0.17
10	MJBK-16	34.0-39.0	0.041	0.0121	0.44	< 0.01	64.47	0.21
=	MJBK-17	36.0-43.0	0.03	0.011	0.55	< 0.01	64.68	0.21

Appendix 2-12 Chemical and Spectral Quantity Analysis of Zircon

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Appendix 2-13 Determination of Zircon Radioactivity

No.	Drillhole	Depth of sampling	Alpha ir	ntegral	Beta in	tegral
	No.	from – to (m)	Becquerel/kg	±	Becquerel/kg	±
1	MJBK-2	26.0-27.4	<880		610	150
2	MJBK-3	29.3-38.2	<880		440	140
3	MJBK-4	29.2-33.9	<710		830	150
4	MJBK-5	28.0-29.9	<850		700	150
5	MJBK-7	30.2-37.3	<670		480	170
6	MJBK-8	26.0-30.6	<720		370	140
7	MJBK-8	40.4-41.0	760	690	870	150
8	MJBK-9	30.0-37.7	<900		710	170
9	MJBK-10	29.0-34.6	<660		680	170
10	MJBK-16	34.0-39.0	870	700	700	190
11	MJBK-17	36.0-43.0	<770		420	170

Appendix 2-13 Determination of Zircon Radioactivity

Appendix 2-14 Chemical Analysis of Water Sample

Appendix 2-14 Chemical Analysis Of Water Samples

							Cation content	tent						Sum		Hardness
Sample			Ca ⁺²	-	Mg⁺²		a		Ť¥	NH ⁴⁺	Fe total	SiO ₂	Aggressivity CO2	of Mg- equivalent	Carbonate	Total
ÖN	(borehole No.)	Mg-I	Mg- equivalent	Mg-I	Mg- equivalent	Mg-I	Mg- equivalent	Mg-I	Mg- equivalent	Mg-I	Mg-l	Mg-I	Mg-I	of cation	Mg- equivalent	Mg- equivalent
-	13G		8.90		5.20		7.00		6.00					21.16	3.20	14.10
	38-42	178.36		63.19		160.87		2.28		6.00	1.00	14.00	17.60			
2	13G		8.90		5.10		6.89		6.00					20.90	3.10	14.00
	29-37.7	178.36		61.98		157.25		2.42		7.00	1.00	13.00	4.40			
e	13G		8.90		4.80		6.43		6.00					20.19	3.00	13.70
	6.44-8.0	178.36		58.33		148.00		2.48		5.00	1.00	10.00	4.40			
4	12G		8.35		4.45		8.04		7.00					20.91	3.20	12.80
	28.5-38	167.33		54.08		185.00		2.61		6.00	1.00	13.00	2.20			
9	12G		4.20		2.50		1.48		4.00					8.22	4.10	6.70
	6.6-10.3	84.07		30.38		34.00		1.63		2.00	1.00	16.00	N/D			
6K	12G		4.20		2.55		1.43		4.00					8.22	4.10	6.75
	6.6-10.3	84.07		30.99		33.00		1.62		2.00	1.00	15.00	D/N			

Note: N/D - not detected

Appendix 2-15 Chemical Analysis of Water Sample According to the State Standard (GOST) "Drinking Water"

No.	Component to be defined (dm ³⁾	Sampl	e No.2	Sampl	e No.6
1	Copper	0.0	148	0.0075	0.0070
2	Lead	<0.0	025	<0.025	<0.025
3	Zinc	0.0	158	0.0188	0.0188
4	Cadmium	0.0	025	0.001	0.001
5	Lithium	· · · · · · · · · · · · · · · · · · ·		0.	02
6	Arsenic	<0.1	<0.1	0.1	0.1
7	Fluorine	0.30	0.32	0.43	0.43
8	Molybdenum	0.0080	0.010	<0.0025	<0.0025
9	Selenium	<0.0005	<0.0005	0.0009	0.0008
10	Strontium	1.0	0.98	0	.5
11	Thallium	0.0	001	<0.0001	<0.0001
12	Beryllium	<0.00005	<0.00005	<0.00005	<0.00005
13	Vanadium	<0.02	<0.02	<0.02	<0.02
14	Manganese	<0	.05	<0	.05
15	Cobalt	0.0	125	<0.0125	<0.0125
16	Mercury	<0.0003	<0.0003	<0.0	0003
17	Titanium	0.013	0.010	0.012	0.012
18	Boron	0.06	0.07	0.1	0.1

Appendix 2-15 Chemical Analysis of Water Sample According to the State Standard (GOST) "Drinking Water"

Appendix 2-16 Physical-Mechanical Test of Rock

Appendix 2-16 Physical - Mechanical Test of Rock (1)

Definition of ground density, moisture content and density of dry ground

Complex No.1

No	No. of samples	Place of selection	Interval (m)	Ground density (g/cm ³)		e content %)	Density of dry ground (g/cm ³)
1	5	Hole 18i	8.5-9.0	1.92	29.7	29.5	1.48
				1.92 1.92	29.4 29.4		
2	7	Hole 18i	223-226	2.09 2.10 2.12	18.7 19.2 19.0	19.0	1.76
3	10	Hole 18i	35.8-36	2.0 2.03 2.06	21.7 20.1 22.5	21.4	1.67
4	14	Hole 19i	13.7-14.0	1.86 1.84 1.82	31.3 31.0 31.2	31.2	1.4
5	16	Hole 19i	25.7-26.0	1.81 1.82 1.82	34.1 34.1 34.2	34.1	1.36
6	17	Hole 19i	29.2-29.5	2.02 2.03 2.05	18.5 19.0 18.5	18.7	1.71
7	19	Hole 19i	35.0-35.3	2.10 2.12 2.13	16.7 14.8 15.9	15.8	1.83

Appendix 2-16 Physical - Mechanical Test of Rock (2)

Degree of maceration, moisture content

Complex No.1

Table No.2

Vo. No. of Place of Selection samples selection interval	Place of selection		5 -	Moisture content			Degree (Degree of maceration depending on the time in %	on depend	ing on the	time in %		
	(%)	(%)	-	1 mi	ċ	5 min.	10 min.	30 min.	1 hour	3 hours	24 hours	3 hours 24 hours 48 hours 72 hours	72 hours
5 Hole 18 8.5-9.0 30.2	8.5-9.0		30.2		1	0.1	0.1	10	12	12	12	15	15
7 Hole 18 22.3-22.6 18.7	8 22.3-22.6		18.7		F	here is no t	failure, sam	There is no failure, sample is dense	e	0.1	0.1	0.1	0.1
	35.8–36		20.7		5	20	35	80		Fully mac	erated in 4	Fully macerated in 40 minutes	
14 Hole 19 13.7-14.0 30.2	13.7-14.0		30.2		Ē	tere is no t	failure, sam	There is no failure, sample is dense	e	2	5	5	5
16 ditto 25.7–26 34	25.7-26		34		0.1	3	2	12	25	30	40	40	40
17 ditto 29.2–29.5 18.5	29.2-29.5		18.5		10	15	60	85	60	06	95	95	95
19 ditto 35–35.3		35-35.3			2	10	20	30	40	45	52	52	52

Complex No.2

Table No.3

	<u>,</u>	T			<u> </u>				_
	72 hours	2	13	32		10	87		75
	48 hours	2	10	32	utes	10	87		02
time in %	24 hours	2	10	25	d in 20 min	8	87	2	60
Degree of maceration depending on the time in $\%$	3 hours 24 hours 48 hours 72 hours	0.1	2	22	Fully macerated in 20 minutes	5	87	7	55
ion depend	1 hour	0.1	-	15	Fully	e	85	3	47
of macerat	30 min.	s dense	s dense	10		ر	70	2	35
Degree	10 min.	Failure is not seen, sample is dense	There is no failure, sample is dense	2	30	1	50		15
	5 min.	s not seen,	s no failure	0.9	с Л	J	2.5	0.5	10
	1 min.	Failure i			0.9	1	10	t	1
Moisture	(%)	29.1	28.5	21.3	22.4	37.5	17.6	18.4	24.5
Selection Moisture	(m)	11.7-12	19.5-20.0	25.3-25.8	30.3-30.5	19.5-20	29.5-29.75	37.7-38	41.2-41.5
Place of selection	2010010	Hole 18 ch 11.7-12	ditto	ditto	ditto	15 Hole 19 ch 19.5-20	18 ditto	20 ditto	ditto
No. No. of samples		4	9	8	9 6	151	18 (20 (21 6
° N			2	n	4	5	9	7	8

	<0.001	64.5	43.4	14.8	73.4	92.4	25.9	15.4		15.3	16					
	0.005- 0.001	17.5	10.1	21.6	9.7	1.2	5.2	8.7		20.7	7.7					
	0.01- 0.005	7.5	10.4	9.6	5.5	1.6	2.1	6.2		10.3	4.6					
	0.05- 0.01	8.7	16	10.8	6.7	3.2	5.6	5.4		10.6	6.2					
	0.1- 0.05	0.4	13.4	20.3	4.1	1.4	31.6	30		20.2	31.2					
n (mm) s (%)	0.25- 0.1	0.2	4.8	9.4	0.2	0.1	23.1	17.6		9.4	17.6					
Grainmetric composition (mm) content of fractions (%)	0.5- 0.25	0.2	1.8	7.1	0.2	0.1	5.4	12		7.1	12				1.16	
etric col tent of 1	1-0.5	0.2	0.1		0.1	<0.1	0.8	4.1		1	4.1				0.19	
àrainm con	2-1	0.2	<0.1	-	0.1	<0.1	0.2	0.5		1	0.5				19.3	
0	5-2	0.3	1	1.2	\$0.1	-	0.1	0.1		1.2	0.1				1.9	
	10-5	0.3	1	1.3	\$0.1 0.1	1	1	I		1.3	I	0.48			0.22	
	20-10	1	1	1.9	1	1	1	1		1.9	1	20.1	0.52	0.18		
	40-20	1	1	1	1	1	1	1		1	ı	20.1	20.9	26.0	19.5	26.5
	40	1	1	1	1	1	1	1		1	1	2.03	2	1.97	1.92	1 0.2
Selection interval	(m)	8.9-9	22.3- 22.6	35.8- 36.7	3.7-14	25.7-26	29.2-29.5	35-35.3		35.8-36.7	35-35.3	37.7-38.0		.	1.2-41.5	
Place of selection		5 Hole 18i	7 18 i	10 18 i	14 Hole 19i	16 19i	17 19i	19 19i		10 Hole 18i	19i	19i			19i	
No. of samples		5	7	10	14	16	17	19	Check:	10	19 19	20 19			21 19	
No.		1	2	m	4	5	9	7	Ch	1	2	7			8	-

Appendix 2-16 Physical - Mechanical Test of Rock (3)

Results of definition of grainmetric composition of grounds - 1

Complex No 2

Table No.4

Comments: Samples No. 4,6,8,15 have the broken structure, sleeve making is impossible. When the samples were tested for compression, slip area was not clearly identified.

Grainmetric composition (mm) content of fractions (%)	1-0.5 0.5- 0.25- 0.1- 0.05- 0.01- 0.005- 0.01 0.005 0.001 0.01 0.005 0.01	0.1 0.1 0.1 0.2 4.9 6.5	<0.1 0.2 0.3 0.4 6 4.8 12.7 75.6	3 1.4 3.7 7.4 19.7 16.7 4.5 10 27.4	1.3 3.8 8.4 17.1 10.9 9.3 18.6	0.2 0.3 0.5 4.1 1.6 8.5 8.9	11.1 17 26.8 18.2 9.6 0.6 3.7	6 0.7 0.8 1.8 12 10.1 11.2 24.2 37.7	1.2 1.3 0.9 17.6 17.4 11.6		7 1.2 1.3 0.9 18 18.1 11.4 25.4 16	
Grainr co	5-2 2-1	0.5 0.3	<0.1 <0.1	2.7 1.3	4 1.9	0.1 0.1	0.3 3.1	0.6 0.6	2.6 1.7		2.6 1.7	
	20-10 10-5	<0.1	Ŷ	1.7 3.5	3.8 5.2	0.1	<0.1	0.1 0.2	0.5 2.9		0.5 2.9	
	40-20											
selection interval	(m) 40	.7-12.0	19.5-20	25.3-25.8	30.3-31.2	19.5-20	30.25-30.95	37.7-38.3	41.2-42	-	.1–42	7_100
Place of selection		e 18i			9 18i 30.	e 19i			21 19 41.	Control:	194 41.1-42	AULIC 104 117 100
samples			2 6	3			6 18		8 21		1 21	v c
No						-						-

Comments: Samples No. 4,6,8,15 have the broken structure, sleeve making is impossible. When the samples were tested for compression, slip area was not clearly identified.

Table No.5

Appendix 2-16 Physical - Mechanical Test of Rock (3)

Results of definition of grainmetric composition of grounds - 2

Complex No.2

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Appendix 2-16 Physical - Mechanical Test of Rock (4)

Results of ground tests – 1

Complex No.2

9	
No.	
Table	

Г		6			-					1	6									8								
Maceration	Relative maceration ratio	0.1949									0.0979									0.1138								
Macer	Maceration humidity	45.4									44.1									27.6								
Porosity	ratio	0.857									0.846									0.572		4						
Porosity	(%)	46.1									45.8									36.4								
Dry ground	density (g/cm ³)	1.43									1.43							k		1.73								
Particles density (g/cm ³)	Aver.	2.655	1.43								2.64									2.72								
Particles de	Def.	1.87 2.66	2.69								1.86 2.65	2.64								2.71	2.73							
sity (g/cm ³)	Aver.	1.87									1.86									2.04								
Ground density (g/cm ³)	Def.	1.86	1.88	1.86	1.89	1.86	1.84	1.86	1.86	1.90	1.87	1.89	1.85	1.84	1.87	1.87	1.86	1.86	1.86	2.05	2.01	2.06	2.03	2.04	2.04	2.05	2.04	2.03
Ground humidity (%)	Aver.	30.5									29.9									18.2								
Ground h	Def.	29.3	32.2	33.7	33.1	28.6	32.2	27.7	29.1	28.3	29.2	29.9	28.5	27.9	33.0	33.4	27.8	29.5	30.2		22.1	18.6	18.9	18.6	18.8	16.7	16.2	15.4
Interval	Ê.	11.7-12									19.5-20									25.3-25.8								
Place of	selection	1 8i									18i		_		-					18i								
No. of	samples	4								-	9						. <u></u>			8								
No.	-										2									с	·							

Appendix 2-16 Physical - Mechanical Test of Rock (4)

Results of ground tests – 2

	r														
ation	Relative maceration ratio	0.2011		0.1168					1000	40.0					
Maceration	Maceration humidity	38. 8.		53.2					29.1						
Porosity	ratio	0.681		0.964					0.602	10000				<u> </u>	
Porosity	(%)	40.5		49.1					37.6	2					
	density (g/cm ³)	1.66		1.4					1 91						
Particles density (g/cm ³)		2.79		2.75					3.06	2					
_		1.99 2.79 2.79		1.85 2.74 2.76	2				2 19 3 05	3.07					
Ground density (g/cm ³)	Aver.			1.85					2 19						
Ground den	Def.		1.97 1.98 1.99		1.86	1.86	1.79	1.80 1.85		2.11	2.50	2.24 2.23	2.16	2.08	2.31
Ground humidity (%)	Aver.	19.7		32.4					14.8						
Ground h	Def.		12.2 15.5 20.5	29.4 30.6	30.6	36.3	36.7	31.3 30.9	31.1 517.9	18.4	11.4	16.4 10.1	17.2	13.0	12.3 16.5
Interval	Ē	30.3-30.5		19.5-20					29.5-29.7517.9						
Place of	selection		-	19i					19;						
No. of	samples	თ		15					18						
No.		4		വ					9						

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Appendix 2-16 Physical - Mechanical Test of Rock (4)

Results of ground tests – 3

Complex No.2

8	
No.	
Table	

Maceration		maceration	 0.102									0.1821								
Mace	Maceration	humidity	35.1									39.7								
٩	ratio		0.535									0.747								
ď	(%)		34.8									42.7								
Dry ground	density	(g/cm')	 1.72									1.54								
Ground density (g/cm ³) Particles density (g/cm ³)	Aver.		2.64									2.69								
Particles de	Def.		2.06 2.64	2.64								1.92 2.69	2.69							
isity (g/cm ³)	Aver.		 2.06									1.92		,	_					
	Def.		19.5 2.12	2.11	2.11	2.02	2.06	2.07	2.03	2.03	2.00	1.93	1.94	1.89	1.94	1.96	1.81	1.97	1.92	1.93
Ground humidity (%)	Aver.		19.5					-				24.4								
Ground h	Def.		17.3	24.4	19.0	18.3	19.4	18.8	18.0	20.0	20.9	24.6	23.6	25.3	24.1	24.9	24.8	26.0	19.5	26.5
Ē	(۲		37.7-38.0									41.2-41.5								
Place of	selection		20 19:									19i								
No. of	samples											21			<u>-</u>					
No.			1									œ								

Appendix 2-16 Physical - Mechanical Test of Rock (5)

Filtration ratio (method of cutting ring)

Complex No.2

No.	No. of	Place of	Selection	Filtration ratio K10	Humidity after
	samples	selection	Interval	(m/24 hours)	the test,
			(m)		(%)
1	4	Hole 18i	11.7-12	9.96-10 ⁻⁶	34.6
2	6	18i	19.5-20	1.73-10 ⁻⁵	29.4
3	8	18i	25.3-25.8	6.4-10 ⁻⁵	20.7
4	9	18i	30.3-31.2	1.24-10-4	28.0
5	15	Hole 19i	19.5-20	2.17-10 ⁻⁶	33.3
6	18	19i	30.25-30.95	7.12-10 ⁻⁶	17.9
7	20	19i	37.7-38.3	2.62-10 ⁻⁶	20.0
8	21	19i	41.2-42	1.72-10-5	27.0

Appendix 2-16 Physical - Mechanical Test of Rock (6)

Result of plasticity definition - 1

Complex No.2

No.	No. of	Place of	Selection	Flow limit	Plasticity	Number of	Plasticity
	samples	selection	Interval	(%)	limit	plasticity	ratio
			(m)		(%)		(%)
1	4	Hole 18i	11.7-12	83.1	32.4	50.7	-0.037
2	6	18i	19.5-20.0	72.5	33.4	39.1	-0.089
3	8	18i	25.3-25.8	39.6	16.9	22.7	0.057
4	9	18i	30.3-30.5	48.3	31.2	17.1	-0.672
5	15	19i	19.5-20.0	74.4	32.7	41.7	-0.007
6	18	19i	29.5-29.75	32.0	14.9	17.1	-0.006
7	20	19i	37.7-38.0	48.0	27.3	20.7	-0.377
8	21	19i	41.2-41.5	49.7	33.3	16.4	-0.543

Result of plasticity definition - 2

Complex No.1

Table No.11

No.	No. of	Place of	Selection	Flow limit	Plasticity	Number of	Plasticity
	samples	selection	Interval	(%)	limit	plasticity	ratio
			(m)		(%)		(%)
1	5	Hole 18i	8.5-9.0	69.8	29.4	40.4	0.002
2	7	18i	22.3-22.6	47.4	21.0	26.4	-0.076
3	10	18i	35.8-36.0	44.7	28.6	16.1	-0.447
4	14	19i	13.7-14.0	77.0	31.8	45.2	-0.013
5	16	19i	25.7-26.0	71.6	35.8	35.8	-0.047
6	17	19i	29.2-29.5	36.8	17.8	19.0	0.047
7	19	19i	35.0-35.3	35.1	16.9	18.2	0.692

Appendix 2-16 Physical - Mechanical Test of Rock (7)

Results of definition of grainmetric composition of ground

Complex No.3

 No. of	Place of	Place of Selection					Grainmetric composition (mm)	etric col	mpositic	um) nc				9 9 9
samples	selection	Interval			i		Coi	Content of fractions (%)	fraction	S (%)				
		(m)	100	100-	-09	40-	20-	10-5	5-2	2-1	÷	0.5-	0.25	< 0.1
				60	40	20	10				0.5	0.25	-0.1	
 2	Hole 18i	0.3-3.4	18.2	6.9	10.8	16.6	13.2	12.9	3.3	2.7	2.0	2.2	2.3	8.9
 12	19 i	0.4-4.5	•	•	•	2.9	1.8	1.7	3.7	6.6	5.5	4.9	4.7	68.2
 18	19 i	30.95-31.	4	4	•	•	•	•	0.3	2.0	10.4	26.0	22.8	38.5
		0												<u> </u>
 FI	18i	0.0-0.3			1.2	2.9	7.3	7.9	2.8	2.4	2.6	2.7	3.5	66.7
 11	19i	0.0-0.4	a	3.1	8.2	15.3	17.0	21.3	5.3	6.2	4.6	4.0	3.5	11.5

Test of Rock (8)
- Mechanical
Physical
Appendix 2-16

Results of definition of natural repose angle, density of dry ground

Complex No.3

	Place of	Selection	Angle of natural repose (degree)	repose (degree)	Volume-filling	Volume-filling mass (g/cm ³)
selection	ion	interval	In air-dry	Under the	Loose structure	Dense structure
		(m)	conditions	water		
Hole 18i	L8i	0.3-3.4	35°	44°		
19i		0.4 - 4.5	38°	45°		
19i		30.95-31.0	35°	45°		
18i		0.0-0.3	38°	44°	1.15	1.25
19i		0.0-0.4	36°	40.5°	1.36	1.41

Appendix 2-16 Physical - Mechanical Test of Rock (9)

Definition of full moisture capacity, maximum molecular moisture capacity, yield of water, filtration ratio and angle of natural repose

Complex No.4

l repose, degree		Under water			30°	45°
Angle of natural repose, degree		In dry condition			35°	38°
Filtration	Ratio	(m/24 hours)	K10		189.2	1.70
Yield of	water	(%)			5.6	7.7
Maximum	molecular	moisture	capacity	(%)	13.3	16.4
Full	moisture	capacity	(%)		18.9	24.1
Selection	Interval	(m)			3.4-7.8	4.5-9.2
No. No. of Place of Selection	samples Selection Interval				18i	19i
No. of	samples				3	13
No.					F	2

Appendix 3. Miscellaneous Data for the Drilling Survey



Appendix 3-1 List of	the Used Equipment for I	Drilling (1) No.1 machin
ltem	Model, type and specification	Quantity	Note
Drilling machine	UGB-3UK,	- 1	percussion
Motor for Drilling machine	22kw	1	
Generator	60KVA	1	
Tank for water	3m ³	1	
Tank for fuel	1m ³	1	
Tanker for water	3m ³	1	
Trailer house	6 passengers	1	
Casing pipes	12″ L= 6.70m	5	
	10″ L= 6.70m	10	
	8″ L= 2.00m	20	
Bailer	φ300mm L= 3.80m	· 1	
	¢240mm L= 3.50m	1	
	¢240mm L= 2.20m	1	ball valve
Sampler	\$\$\phi 190mm L= 5.00m	1	
Hanmer with chain	W=1,000kg	1	used for driving casing pipes
Tripod derrik	H= 9.0m	1	used for recoverying casing pipe
Implements		1	

Item	the Used Equipment for I	Quantity) No.2 machin Note
	Model, type and specification	Quantity	
Drilling machine	UGB-3UK,		percussion
Motor for Drilling machine	22kw	1	
Generator	40KVA, 400V, 52A	. 1	
Tank for water	3m ³	1	
Tank for fuel	1.5m ³	1	
Tanker for water	3m³	1	
Trailer house	6 passengers	1	
Casing pipes	12″ L= 6.70m	5	
	10″ L= 6.70m	10	
	8″ L= 2.00m	30	
Bailer	\$\$\phi_300mm L= 3.80m	1	
	Ø 240mm L= 3.50m	1	
	ϕ 240mm L= 2.20m	1	ball valve
Sampler	¢190mm L= 5.00m	1	
Hanmer with chain	W=1,000kg	1	used for driving casing pipes
Tripod derrik	H= 9.0m	1	used for recoverying casing pipes
Implements		1	

Appendix 3-1	List of the Used	Equipment for	Drilling (3)
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Appendix 3-1 List	of the Used Equipment for I	Drilling (3) No.3 machine
ltem	Model, type and specification	Quantity	Note
Drilling machine	UGB-2A-2	1	rotary
Motor for Drilling machine	MJBOK-13, 131HP	1	
Drilling Pump	MB-50, 50m3/h	1	
Pump for water	100L/min	1	
Generator	ЗКVА	1	
Tank for water	2m ³	1	· ·
Tank for fuel	1m ³	1	
Tanker for water	3m ³	1	······································
Tractor		1	
Truck	4t, 10t	2	
Bus		1	
Rods	ϕ 50mm L= 6.70m	20	
Casing pipes	¢127mm L= 3.00m	. 5	
	Ø144mm L= 4.50m	20	
	Ø 98mm L= 1.50m	5	
Core tube assembly	¢127mm L= 1.50m	3	······································
	ϕ 89mm L= 3.00m	3	
Implements		1	

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Appendix 3-2 Miscellaneous Results of Drilling Works on Individual Drillhole

Preparation	Peri	od				akdown of period		kers
· · · · · · · · · · · · · · · · · · ·		uu .	Total	days	Working days	No working days	Engineers	Worker
	21 Sept., '00 ~	~ 21 Sept., '00	1.()	1.0	-	3	8
	00 C t /00 -	. 26 Sent '00	5.0	 1	Drilling : 5.0		27	46
Drilling	22 Sept., '00 〜	- 20 Sept., 00	5.0		Accident: 0.0		-	_
Dismount	27 Sept., '00 ~	~ 27 Sept., '00	1.(0	1.0		3	6
Total	21 Sept., '00 ~	- 27 Sept., '00	7.0)	7.0		33	60
			Drillin	g Lengt	:h			
Programmed I	ength	35.00 m	Over	burden	sand & gravel,	Quarternary	12	.80 m
Prolongation		,−3.00 m		Core	e length		19	.20 m
Effective leng	th	32.00 m		Core	recovery		1	00.0 %
	Workin	g hours			Core re	ecovery by eac	h 10 mete	rs
Drilling		16.0 hrs	23.50%	17.4%	Length (m)	Each (%)	Cumi	ıla. (%)
Supplemental	drilling work	52.0 hrs	76.50%	56.5%	0 - 12.8	None core	None	core
Recovery from	n accident		-		12.8 - 20.0	100.0	10	0.0
Subtotal		68.0 hrs	100%	73.9%	20.0 - 32.0	100.0	10	0.0
Preparation/s	etting up	8.0 hrs		8.7%				
Dismount/mo	bilization	4.0 hrs		4.4%				
Transportatio	n of water	12.0 hrs		13.0%				
Others					Effective leng	rilling days		
					= 32.00m/3 days =10.67 m/d			
					Effective leng	th / Total drilli		
Total		92.0 hrs		100%	= 32.00m/6 sl	nifts = 5.33 m/s	shift	
		Dri	lling leng	th by d	iameter		· · · · · -	
Bit diameter		240mm ϕ	190m	1m Ø			To	otal
Drilling length		12.80m	19.2	0m			32.0	00m
Core length		None core	19.2	0m			19.:	20m
]	Inserted	casing	pipes			
Inserted leng	th by diameter	Inserted le	ength / D	orilling l	ength	Casing r	ecovery	
270mm ϕ	13.00m		40.60%			53.8	30%	

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-1)

		Survey period	ł		Breakdow	n of period	Total workers	
	Per	riod	Tota	days	Working days	No working days	Engineers	Worker
Preparation	18 Sept., '00 -	~ 18 Sept., '00	1.	0	1.0	-	3	8
Drilling	19 Sept '00	~ 20 Sept., '00	2.	n	Drilling : 2.0	-	9	22
Drining	19 Sept., 00	- 20 Sept., 00	<u>۲</u> .	0	Accident: 0.0	-	-	-
Dismount	21 Sept., '00 -	~ 21 Sept., '00	1.	0	1.0	-	3	5
Total	18 Sept., '00 -	~ 21 Sept., '00	4.	0	4.0		15	35
			Drillir	ng Leng	th			
Programmed	length	35.00 m	Ove	rburden	, sand & gravel,	Quarternary	12.0	00 m
Prolongation		9.00 m		Core	e length		32.0	00 m
Effective leng	th	44.00 m		Core	e recovery		100.0 %	
	Workir	ng hours			Core re	covery by each	n 10 meter	s
Drilling		18.0 hrs	50.00%	28.1%	Length (m)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	18.0 hrs	50.00%	28.1%	0 - 12.0	None core	None	core
Recovery from	n accident	-	-	—	12.0 - 20.0	100.0	100).0
Subtotal		36.0 hrs	100%	56.2%	20.0 - 30.0	100.0	100).0
Preparation/s	paration/setting up 16.0 hrs		-	25.0%	30.0 - 44.0	100.0	100	0.0
Dismount/mo	bilization	4.0 hrs	—	6.3%				
Transportatio	n of water	8.0 hrs		12.5%				
Others		—		0.0%	Effective lengt	lling days		
					= 44.00m/2 da	nys = 22.00 m/d	ł	
					Effective leng	th / Total drillin	g shifts	
Total				100%	= 44.00m/4 sh	iifts = 11.00 m/	shift	
		Dri	lling leng	th by di	ameter			
Bit diameter		240mm ϕ	190m	im Ø			To	tal
Drilling length		12.00m	32.0	0m			44.0	0m
Core length		None core	32.0	0m			32.0	0m
		I	nserted	casing p	pipes			
Inserted lengt	h by diameter	Inserted le	ngth / D	rilling le	ngth	Casing re	covery	
270mm <i>¢</i>	13.00m		29.50%			53.80)%	

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-2)

		Survey period			Breakdown	n of period	1	tal kers	
	Per	iod	Total	days	Working days	No working days	Engineers		
Preparation	30 Aug., '00 ~	- 31 Aug., '00	2.	0	2.0	—	6	10	
D	01.0	. 04 Seet. '00	2	e	Drilling : 3.6	_	22	35	
Drilling	01 Sept., '00 ~	9 04 Sept., 00	3.	0	Accident: 0.0	_	_		
Dismount	04 Sept., '00 ~	~ 04 Sept., '00	0.	4	0.4	_	2	5	
Total	21 Sept., '00 ~	~ 27 Sept., '00	6.	0	6.0		30	50	
			Drillir	ng Lengt	h				
Programmed	length	35.00 _. m	Over	burden	, sand & gravel,	Quarternary	uarternary 13.40 m		
Prolongation		6.00 m		Core	e length		41.00 m		
Effective leng	,th	41.00 m		Core	e recovery	<u> </u>	100.0 %		
	Workin	g hours			Core re	covery by eac	h 10 mete	rs	
Drilling		26.0 hrs	44.80%	27.1%	Length (m)	Each (%)	Cumu	ıla. (%)	
Supplementa	drilling work	32.0 hrs	55.20%	33.3%	0 - 13.4	None core	None	core	
Recovery fro	m accident	_	-		13.4 - 20.0	100.0	10	0.0	
Subtotal		58.0 hrs	100%	60.4%	20.0 - 30.0	100.0	10	0.0	
Preparation/	setting up	16.0 hrs	-	16.6%	30.0 - 41.0	100.0	10	0.0	
Dismount/mo	bilization	6.0 hrs	-	6.4%					
Transportatio	on of water	16.0 hrs	-	16.6%		Efficiency			
Others					Effective lengt	h / Working dr	rilling days		
					= 41.00m/4 da	l 			
					Effective length / Total drilling shifts =				
Total		96.0 hrs	-	100%	= 41.00m/8 sh	ifts = 5.12 m/s	shift		
		Dri	illing leng	th by d	iameter				
Bit diameter		190mm ϕ					To	otal	
Drilling length	1	41.00m					41.0	00m	
Core length	Core length 41.00m					<u> </u>	41.0	00m	
			Inserted	casing	pipes				
Inserted leng	th by diameter	Inserted le	ength / [Drilling lo	ength	Casing r	ecovery		
400mm ϕ	13.00m		31.70%			69.2	20%		
270mm ϕ	13.00m		31.70%	5		100.	00%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-3)

·		Survey period			Break	dowr	n of period	Total workers		
	Per	riod	Total	days	Working d	lays	No working days	Engineers	Workers	
Preparation	05 Sept., '00 -	~ 05 Sept., '00	1.	.0		1.0	_	3	10	
Deilling	06 Saat '00 a	~ 12 Sept., '00	7.	0	Drilling :	7.0	—	39	70	
Drilling	00 Sept., 00 -	- 12 Sept., 00	, ,,	U	Accident:	0.0		-	_	
Dismount	13 Sept., '00 ~	~ 14 Sept., '00	2.	0		2.0		3	15	
Total	05 Sept., '00 -	~ 14 Sept., '00	10	.0		10.0	_	45	95	
			Drillir	ng Leng	th					
Programmed	length	35.00 m	Ove	rburden	, sand & gra	ivel, (Quarternary	9.0	9.00 m	
Prolongation		1.00 m		Core	e length			27.0	00 m	
Effective leng	,th	36.00 m		Core	e recovery			100.0 %		
	Workin	ng hours			Cor	re rec	covery by each	n 10 meters		
Drilling	##**#***	18.0 hrs	14.70%	10.7%	Length (m)	Each (%)	Cumu	la. (%)	
Supplementa	drilling work	100.0 hrs	82.00%	59.5%	0 - 9	.0	None core	None	core	
Recovery fro	m accident	4.0 hrs	3.30%	2.4%	9.0 - 20).0	100.0	100).0	
Subtotal		122.0 hrs	100%	72.6%	20.0 - 30	0.0	100.0	100).0	
Preparation/s	Preparation/setting up			9.5%	30.0 - 36	6.0	100.0	100).0	
Dismount/mo	bilization	6.0 hrs	_	3.6%						
Transportatio	n of water	24.0 hrs	-	14.3%	Efficiency					
Others				0.0%	Effective length / Working drilling days					
					= 36.00m/7 days = 5.40 m/d					
					Effective length / Total drilling			g shifts		
Total		168.0 hrs		100%	= 36.00m/13 shifts = 2.77 m/shift					
		Drilling length by diameter								
Bit diameter		240mm ϕ	190 n	ım Ø				To	ta!	
Drilling length		9.00m	27.0	0m				36.0	0m	
Core length		None core	27.0	0m				27.0	0m	
		I	nserted	casing p	pipes					
Inserted leng	th by diameter	Inserted le	ngth / D	Prilling le	ength		Casing re	covery		
270mm Ø	9.20m		25.50%)			100.0	0%		
220mm Ø	33.00m		91.60%			84.80%				

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-4)

• <u>.</u>		Survey period			Breako	down	of period		tal kers
	Per	iod	Total	days	Working da	ays	No working days	Engineers	
Preparation	14 Sept., '00 ~	~ 15 Sept., '00	1.	5		1.5		3	10
	15.0 + /00 -	17 Seet 200	0	0	Drilling :	2.0		6	20
Drilling	15 Sept., 00 ^	~ 17 Sept., '00	2.	U	Accident:	0.0	-	_	_
Dismount	17 Sept., '00 ~	~ 17 Sept., '00	0.	5		0.5	_	3	5
Total	14 Sept., '00 ~	~ 17 Sept., '00	4.	0		4.0	-	12	35
			Drillir	ng Lengt	:h				
Programmed	length	35.00 m	Over	rburden,	sand & grav	gravel, Quarternary		7.80 m	
Prolongation		2.00 m		Core	e length			29.20 m	
Effective leng	,th	37.00 m		Core	e recovery			100.0 %	
	Workin	g hours			Cor	e rec	overy by each	h 10 meters	
Drilling		16.0 hrs	44.40%	24.6%	Length (r	n)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	20.0 hrs	55.60%	30.8%	0 - 7	.8	None core	None	core
Recovery fro	m accident	-	-	-	7.8 – 20	.0	100.0	100	0.0
Subtotal		36.0 hrs	100%	55.4%	20.0 - 30	0.0	100.0	100	0.0
Preparation/s	setting up	16.0 hrs	_	24.6%	30.0 37	0.0	100.0	100	0.0
Dismount/mo	bilization	4.0 hrs	-	6.2%					
Transportatio	n of water	9.0 hrs	-	13.8%	Efficiency				
Others					Effective l	engtł	n / Working dr	illing days	
			= 37.00m/2 days =18.50 m/			∕s =18.50 m∕d			
					Effective length / Total drilling shifts =				
Total		65.0 hrs	—	100%	= 37.00m/4 shifts = 9.25 m/shift				
·····		Dri	lling leng	gth by d	iameter				
Bit diameter		240mm ϕ	190m	ישו לי nm				To	tal
Drilling length	1	7.80m	29.2	0m				37.0)0m
Core length		None core	29.2	0m				29.2	20m
]	nserted	casing	pipes				
Inserted leng	th by diameter	Inserted le	ngth / D	Drilling le	ength		Casing re	ecovery	
270mm Ø	6.70m		18.10%	6			100.0	00%	
						~			
	-					·			

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-5)

		Survey period	1		Breakdow	n of period	Total y	vorkers
	Pe	riod	Tota	l days	Working days	No working days	Engineers	Workers
Preparation	27 Sept., '00 ·	~ 27 Sept., '00	0	.5	0.5		1	5
Drilling	27 Sept '00	~ 29 Sept., '00	2	.0	Drilling : 2.0	-	7	20
Drining	27 Sept., 00 ·	~ 29 Sept., 00	2	.0	Accident: 0.0		-	-
Dismount	29 Sept., '00 ·	~ 29 Sept., '00	0	.5	0.5	_	1	5
Total	27 Sept., '00 ·	~ 29 Sept., '00	3.	.0	3.0	_	9	30
			Drillir	ng Leng	th			
Programmed	length	35.00 m	Ove	rburden	, sand & gravel,	Quarternary	8.8	30 m
Prolongation		−5.00 m		Core	e length		21.20 m	
Effective leng	,th	30.00 m		Core	e recovery		100.0 %	
	Workir	ng hours		· · ·	Core re	covery by each	10 meter	s
Drilling		18,0 hrs	50.00%	32.7%	Length (m)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	18.0 hrs	50.00%	32.7%	0 - 8.8	None core	None	core
Recovery from	n accident	_	-	_	8.8 - 20.0	100.0	100	.0
Subtotal	ubtotal 36.0		100%	65.4%	20.0 - 30.0	100.0	100	.0
Preparation/s	reparation/setting up			7.3%				
Dismount/mo	bilization	8.0 hrs		14.6%				
Transportatio	n of water	7.0 hrs	—	12.7%				
Others		-		0.0%	6 Effective length / Working drilling			
					= 30.00m/2 da	ys = 15.00 m/d		
					Effective lengt	h / Total drillin	g shifts	
Total				100%	= 30.00m/4 sh	hift		
		Dril	ling leng	th by di	ameter			
Bit diameter		240mm ϕ	190m	ım Ø			Tot	al
Drilling length		8.80m	21.2	0m			30.00	Dm
Core length		None core	21.20	Om			21.20)m
		Ir	nserted	casing p	pipes			
Inserted lengt	h by diameter	Inserted ler	ngth / D	rilling le	ngth	Casing red	covery	
270mm ϕ	9.10m		30.30%			100.00	0%	
				· · ·				

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-6)

		Survey period	I		Breakdow	n of period		ital kers	
	Per	riod	Total	days	Working days	No working days	Engineers		
Preparation	23 Sept., '00 ~	~ 23 Sept., '00	0.	5	0.5		1	5	
Drilling	22 Sapt '00 a	~ 26 Sept., '00	3.	0	Drilling : 2.92	_	9.5	27	
Drilling	23 Sept., 00 -	• 20 Sept., 00	, J.	0	Accident: 0.08	_	0.5	3	
Dismount	26 Sept., '00 ~	~ 26 Sept., '00	0.	5	0.5	_	1	5	
Total	23 Sept., '00 ~	~ 26 Sept., '00	4.	0	4.0		12	40	
			Drillir	ng Lengt	th				
Programmed	length	35.00 m	Over	burden	, sand & gravel,	& gravel, Quarternary		.50 m	
Prolongation		8.00 m		Core	e length		34.50 m		
Effective leng	,th	43.00 m		Core	e recovery		100.0 %		
	Workin	g hours			Core re	covery by eacl	n 10 meter	'S	
Drilling		25.0 hrs	48.10%	33.8%	Length (m)	Each (%)	Cumu	la. (%)	
Supplemental	drilling work	25.0 hrs	48.10%	33.3%	0 - 13.4	None core	None	core	
Recovery fro	m accident	2.0 hrs	3.80%	2.7%	13.4 - 20.0	100.0	100	0.0	
Subtotal		52.0 hrs	100%	70.3%	20.0 - 30.0	100.0	100	0.0	
Preparation/s	setting up	5.0 hrs		6.7%	30.0 - 41.0	100.0	100	0.0	
Dismount/mo	bilization	7.0 hrs	-	9.5%	%				
Transportatio	n of water	10.0 hrs	—	13.5%		Efficiency			
Others					Effective lengt	h / Working dr	illing days		
					= 43.00m/3 da	ys =14.33 m/d			
					Effective lengt	ng shifts =			
Total		74.0 hrs		100%	= 43.00m/6 sh	ifts = 7.16 m/s	hift		
		Dri	lling leng	th by di	iameter	• · · · · · · · · · · · · · · · · · · ·			
Bit diameter		240mm ϕ	190m	ım Ø			То	tal	
Drilling length		8.50m	34.5	0m			43.0	0m	
Core length		None core	34.5	0m			34.5	0m	
		1	nserted	casing p	pipes				
Inserted leng	th by diameter	Inserted le	ngth / D	rilling le	ength	gth Casing recovery			
270mm Ø 8.50m			19.80%	-		100.00%			

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-7)

		Survey period	1		Breakdow	n of period	Total workers	
	Per	riod	Tota	ldays	Working days	No working days	Engineers	
Preparation	14 Sept., '00 -	~ 15 Sept., '00	2	.0	2.0	-	3	12
Drilling	16 Sept '00 c	~ 22 Sept., '00	6.	5	Drilling : 4.8	_	21.5	53
Drilling	10 Sept., 00 ·	• 22 Sept., 00	0.		Accident: 1.7		1.5	10
Dismount	22 Sept., '00 -	~ 22 Sept., '00	0.	5	0.5	_	1	5
Total	14 Sept., '00 -	~ 22 Sept., '00	9.	0	9.0		27	80
			Drillir	ng Leng	th			
Programmed	length	35.00 m	Ove	rburden	, sand & gravel,	Quarternary	8.0	00 m
Prolongation		8.00 m		Core	e length		35.00 m	
Effective leng	ţth	43.00 m		Core	e recovery		100.0 %	
	Workir	ng hours			Core re	covery by each	i 10 meter	S
Drilling		23.0 hrs	27.40%	19.8%	Length (m)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	21.0 hrs	25.00%	18.1%	0 - 8.0	None core	None	core
Recovery from	n accident	40.0 hrs	47.60%	34.5%	8.0 - 20.0	100.0	100).0
Subtotal	ubtotal 84.0 hrs		100%	72.4%	20.0 - 30.0	100.0	100	0.0
Preparation/s	etting up	16.0 hrs	_	13.8%	30.0 - 40.0	100.0	100	0.0
Dismount/mo	bilization	4.0 hrs	-	3.5%	40.0 - 43.0	100.0	100	.0
Transportatio	n of water	12.0 hrs	-	10.3%		Efficiency		
Others		<u> </u>		0.0%	Effective lengt	lling days		
					= 43.00m/6.5 d	lays = 6.61 m/c	d	
					Effective lengt	h / Total drillin	g shifts	
Total		116.0 hrs		100%	= 43.00m/10 sl	nifts = 4.30 m/	shift	
		Dri	lling leng	th by di	ameter			
Bit diameter		240mm ϕ	190m	nm Ø			Tot	al
Drilling length		8.00m	35.0	0m			43.0	0m
Core length		None core	35.0	0m			35.0	0m
		1	nserted	casing p	pipes			
Inserted lengt	h by diameter	Inserted le	ngth / D	rilling le	ength	Casing recovery		
270mm Ø	13.00m		30.20%			53.80)%	
, <u> </u>								

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-8)

		Survey period			Breakdown of period		Total workers		
	Per	iod	Total	days	Working days	No working days	Engineers		
Preparation	27 Sept., '00 ~	~ 29 Sept., '00	2.	5	2.5		3	15	
~		1.0 t 200	0		Drilling : 2.5		11	29	
Drilling	29 Sept., '00 ·	~ 1 Oct., 00	2.	5	Accident: –		-	_	
Dismount	2 Oct., '00 ~	- 2 Oct., '00	1.0	D	1.0	-	2	6	
Total	14 Sept., '00 ~	- 22 Sept., '00	6.	0	6.0		16	50	
			Drillin	g Lengt	:h		_		
Programmed I	ength	35.00 m	Over	burden,	, sand & gravel, (Quarternary	8.	8.00 m	
Prolongation		7.00 m		Core	e length		34.00 m		
Effective leng	th	42.00 m		Core	e recovery		100.0 %		
	Workin	g hours			Core rec	covery by eac	h 10 mete	rs	
Drilling		20.0 hrs	41.70%	23.3%	Length (m)	Each (%)	Cumu	ıla. (%)	
Supplemental	drilling work	16.0 hrs	33.30%	18.6%	0 - 8.0	None core	None	core	
Recovery from	n accident	12.0 hrs	25.00%	13.9%	8.0 - 20.0	100.0	10	0.0	
Subtotal		48.0 hrs	100%	55.8%	20.0 - 30.0	100.0	10	0.0	
Preparation/s	etting up	8.0 hrs	-	9.3%	30.0 - 40.0	100.0	10	0.0	
Dismount/mo	bilization	16.0 hrs	-	18.6%	40.0 - 42.0	100.0	10	0.0	
Transportatio	n of water	14.0 hrs	-	16.3%	Efficiency				
Others				0.0%	Effective lengt	rilling days			
					= 42.00m/2.5 c	lays = 16.8 m/	′d		
					Effective lengt	h / Total drilli	ng shifts		
Total		116.0 hrs		100%	= 42.00m/5 sh	ifts = 8.40 m/s	shift		
		Dri	illing leng	g length by diameter					
Bit diameter		240mm ϕ	190m	nmφ			Тс	otal	
Drilling length		8.00m	34.0	0m			42.0	00m	
Core length	<u> </u>	None core	34.0	0m			34.0	00m	
		1	Inserted	casing	pipes				
Inserted leng	th by diameter	Inserted le	ength / D	Drilling le	ength	Casing r	ecovery		
270mm Ø 13.00m		30.90%		1	53.8	30%			

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-9)

		Survey period	ł		Breakdow	n of period		tal kers
	Per	riod	Tota	l days	Working days	No working days	Engineers	
Preparation	2 Oct., '00 -	~ 2 Oct., '00	0.	.5	2.5	_	1	8
Drilling	3 Oct. '00 c	~ 6 Oct., '00	4	0	Drilling : 2.5		8	24
Draming	3 OCL, 00			.0	Accident:		3	10
Dismount	7 Oct., '00 -	~ 7 Oct., '00	1.	0	1.0		2	8
Total	2 Oct., '00 -	~ 7 Oct., '00	5.	5	6.0		14	50
			Drillir	ng Leng	th ·			
Programmed lo	ength	35.00 m	Ove	rburden	, sand & gravel,	Quarternary	8.0	00 m
Prolongation		1.00 m		Core	e length		28.	00 m
Effective lengt	:h	36.00 m		Core	e recovery		10	0.0 %
	Workin	ng hours			Core re	covery by each	n 10 meter	'S
Drilling		27.0 hrs	45.00%	27.6%	Length (m)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	17.0 hrs	28.30%	17.3%	0 - 8.0	None core	None	core
Recovery from	n accident	12.0 hrs	26.70%	16.3%	8.0 - 20.0	100.0	100	0.0
Subtotal 6		60.0 hrs	100%	61.2%	20.0 - 30.0	100.0	100	0.0
Preparation/se	etting up	8.0 hrs	-	8.2%	30.0 - 32.0	100.0	100	0.0
Dismount/mot	oilization	12.0 hrs	-	12.2%				
Transportation	of water	18.0 hrs	-	18.4%	Efficiency			
Others				0.0%	Effective lengt	h / Working dri	lling days	
					= 36.00m/4.0 c	łays = 9.00 m∕o	d	
					Effective lengt	h / Total drillin	g shifts	
Total		116.0 hrs		100%	= 36.00m/7 sh	ifts = 5.14 m/s	hift	
		Dri	lling leng	th by di	ameter			
Bit diameter		240mm ϕ	190m	ım Ø			To	al
Drilling length		8.00m	28.0	0m			36.0	0m
Core length		None core	28.0	0m			28.0	0m
		I	nserted	casing p	oipes			
Inserted length	n by diameter	Inserted le	ngth / D	rilling le	ength	Casing re	covery	
270mm <i>¢</i>	9.00m		25.00%			100.0	0%	
							<u> </u>	
			<u>.</u>			•	<u> </u>	

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-10)

Drilling 20 S Dismount 20 S	Sept., '00 ~ Sept., '00 ~ Sept., '00 ~ h Workin ing work cident	iod - 17 Sept., '00 - 20 Sept., '00 - 20 Sept., '00 - 20 Sept., '00 - 20 Sept., '00 - 13.00 m 37.00 m 37.00 m g hours 14.0 hrs - 18.0 hrs	0. 0. 0. 1. Drillir	6 2 0 bg Lengt burden Core	, sand & gravel, (e length e recovery	No working days Quarternary covery by each Each (%) None core	24.0 10 h 10 meter Cumu	Worker: 3 4 3 10 00 m 00 m 0.0 % 's
Drilling 20 S Dismount 20 S Total 20 S Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of p	Sept., '00 ~ Sept., '00 ~ Sept., '00 ~ h Workin ing work cident	 20 Sept., '00 20 Sept., '00 20 Sept., '00 50.00 m -13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs 	0. 1. Drillir Over 77.80%	6 2 0 burden Core 50.0%	Drilling : 0.6 Accident: 0.2 1.0 th , sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)	3 0.5 4 13.0 24.0 10 h 10 meter Cumu	4 — 3 10 00 m 00 m 0.0 %
Dismount 20 S Total 20 S Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of p	Sept., '00 ~ Sept., '00 ~ h Workin ing work cident	 20 Sept., '00 20 Sept., '00 50.00 m -13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs 	0. 1. Drillir Over	2 0 burden Core 50.0%	Accident: 0.2 1.0 th , sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)		— 3 10 00 m 00 m 0.0 %
Dismount 20 S Total 20 S Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of p	Sept., '00 ~ Sept., '00 ~ h Workin ing work cident	 20 Sept., '00 20 Sept., '00 50.00 m -13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs 	0. 1. Drillir Over	2 0 burden Core 50.0%	0.2 1.0 th , sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)	4 13.0 24.0 10 h 10 meter Cumu	10 00 m 00 m 0.0 %
Total 20 S Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of p	Sept., '00 ~ h Workin ing work cident	 20 Sept., '00 50.00 m -13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs 	1. Drillir Over	0 bg Lengt burden Core Core 50.0%	1.0 th , sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)	4 13.0 24.0 10 h 10 meter Cumu	10 00 m 00 m 0.0 %
Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of t	h Workin ing work cident	50.00 m -13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs -	Drillir Over	by Lengt burden Core Core 50.0%	th , sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)	13.0 24.0 10 h 10 meter Cumu	00 m 00 m 0.0 % ′s
Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of the	Workin ing work cident	-13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs -	Over	burden Core Core 50.0%	, sand & gravel, (e length e recovery Core rec Length (m)	covery by each Each (%)	24.0 10 h 10 meter Cumu	00 m 0.0 % ′s
Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of the	Workin ing work cident	-13.00 m 37.00 m g hours 14.0 hrs 4.0 hrs -	77.80%	Core Core 50.0%	e length e recovery Core rec Length (m)	covery by each Each (%)	24.0 10 h 10 meter Cumu	00 m 0.0 %
Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of y	ing work cident	37.00 m g hours 14.0 hrs 4.0 hrs —		Core 50.0%	e recovery Core rec Length (m)	Each (%)	10 h 10 meter Cumu	0.0 % rs
Drilling Supplemental drillin Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of t	ing work cident	g hours 14.0 hrs 4.0 hrs —		50.0%	Core red Length (m)	Each (%)	h 10 meter Cumu	ſS
Supplemental drilli Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of t	ing work cident	14.0 hrs 4.0 hrs —			Length (m)	Each (%)	Cumu	
Supplemental drilli Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of t	cident	4.0 hrs —						la. (%)
Recovery from acc Subtotal Preparation/settin Dismount/mobiliza Transportation of v	cident		22.20%	14.3%	0 - 8.0	None core		
Subtotal Preparation/settin Dismount/mobiliza Transportation of v			_		H		None	core
Preparation/settin Dismount/mobiliza Transportation of v		18.0 hrs			8.0 - 20.0	100.0	100).0
Dismount/mobiliza Transportation of v		10.01.0	100%	64.3%	20.0 - 30.0	100.0	100).0
Transportation of	ng up	3.0 hrs	—	10.7%	30.0 - 37.0	100.0	100).0
	ation	3.0 hrs	-	10.7%				
Others	water	4.0 hrs	-	14.3%				
				0.0%	Effective lengt	rilling days		
					= 37.00m/0.6 days = 61.66 m/d			
					Effective lengt	ng shifts		
Total		28.0 hrs		100%	= 37.00m/2 shifts = 18.50 m/shift			
		Dri	lling leng	gth by d	liameter			
Bit diameter		4″T.B.	92m	mφ			To	tal
Drilling length		13.00m	24.0	0m			24.0)0m
Core length		None core	24.0	0m			24.0	00m
]	Inserted	casing	pipes			
Inserted length by	/ diameter	Inserted le	ength / [Drilling I	ength	Casing re	ecovery	
127mm Ø	13.00m		35.10%	, D		100.0	00%	

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-11)

<u> </u>		Survey period			Breakdow	n of period		tal kers
	Per	riod	Tota	l days	Working days	No working days	Engineers	
Preparation	17 Sept., '00 •	~ 17 Sept., '00	0.	.5	0.5	-	1	6
Duilling	17 Seet '00	10 Seet '00	2.	0	Drilling : 2.0		10	18
Drilling	17 Sept., 00 -	~ 19 Sept., '00	2.	.0	Accident:		-	—
Dismount	19 Sept., '00 -	~ 19 Sept., '00	0.	.5	0.5	-	1	6
Total	17 Sept., '00 -	~ 19 Sept., '00	3.	.0	3.0	-	12	30
			Drillir	ng Leng	th			
Programmed	length	50.00 m	Ove	rburden	, sand & gravel,	Quarternary	14.0	00 m
Prolongation		−8.50 m		Core	e length		27.50 m	
Effective leng	th	41.50 m		Core	e recovery		100.0 %	
<u> </u>	Workin	ng hours			Core re	covery by each	n 10 meter	'S
Drilling		32.0 hrs	78.00%	47.8%	Length (m)	Each (%)	Cumu	la. (%)
Supplemental	drilling work	9.0 hrs	22.20%	13.4%	0 - 14.0	None core	None	core
Recovery from	n accident		-	-	14.0 - 20.0	100.0	100).0
Subtotal	Subtotal		100%	61.2%	20.0 - 30.0	100.0	100).0
Preparation/s	etting up	8.0 hrs		11.9% 30.0 - 41.5 100.0			100).0
Dismount/mo	bilization	7.0 hrs		10.5%				
Transportatio	n of water	11.0 hrs		16.4%		Efficiency	<u> </u>	
Others				0.0%	Effective lengt	lling days		
					= 41.50m/2.0 days = 20.75 m/d			
					Effective lengt	g shifts		
Total	al 67.0 hrs 100% = 41.50			= 41.50m/3 shifts = 13.83 m/shift				
		Dril	ling leng	th by di	ameter			
Bit diameter		4″T.B.	92m	mφ			Tot	tal
Drilling length		14.00m	27.5	0m			41.5	0m
Core length	Core length None core		27.5	0m			27.5	0m
		I	nserted	casing p	pipes			
Inserted lengt	Inserted length by diameter Inserted le		ngth / D	rilling le	ength	Casing re	covery	
127mm ϕ	13.50m		32.50%			77.80)%	
						······································		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-12)

		Survey period			Breakdown of period		Total workers	
	Peri	iod	Total	days	Working days	No working days	Engineers	
Preparation	11 Sept., '00 ~	- 13 Sept., '00	3.0	0	3.0		2	10
0	14.0 + '00 -	. 16 Cash /00	2.0	6	Drilling : 2.6	_	21	45
Drilling	14 Sept., UU ~	- 16 Sept., '00	2.	D	Accident: —	_	-	
Dismount	16 Sept., '00 ~	~ 16 Sept., '00	0.4	4	0.4		1	5
Total	11 Sept., '00 ~	- 16 Sept., '00	6.	0	6.0		24	60
			Drillin	ig Lengt	th			
Programmed I	ength	50.00 m	Over	burden	, sand & gravel,	Quarternary	9.00 m	
Prolongation		-11.00 m		Core	e length		30.00 m	
Effective leng	th	39.00 m		Core	e recovery		100.0 %	
	Workin	g hours			Core re	covery by eacl	h 10 meter	rs
Drilling		42.0 hrs	70.00%	47.7%	Length (m)	Each (%)	Cumu	ıla. (%)
Supplemental	drilling work	18.0 hrs	30.00%	20.5%	0 - 9.0	None core	None	core
Recovery from	n accident	-	-		9.0 - 20.0	100.0	10	0.0
Subtotal		60.0 hrs	100%	68.2%	20.0 - 30.0	100.0	10	0.0
Preparation/s	etting up	16.0 hrs	_	18.2%	30.0 - 39.0	100.0	10	0.0
Dismount/mo	bilization	4.0 hrs	_	4.5%				
Transportatio	n of water	8.0 hrs	-	9.1%		Efficiency		
Others		<u></u>		0.0%	Effective leng	th / Working dr	rilling days	
					= 39.00m/2.6	days = 15.00 m	n∕d	
					Effective lengt	th / Total drilli	ng shifts	
Total		88.0 hrs		100%	= 39.00m/4.5 shifts = 8.66 m/shift			
		Dri	lling leng	th by d	iameter			
Bit diameter		4″T.B.	92m	ım Ø			To	tal
Drilling length		9.00m	30.0	0m	<u></u>			00m
Core length		None core	30.0	0m			35.0)0m
			Inserted	casing	pipes			
Inserted leng	th by diameter	Inserted le	ength / D	Drilling l	ength	Casing r	ecovery	
127mm Ø 11.00m			28.20%	.		54.5	50%	

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-13)

<u></u>	1						Total				
		Survey period	l T		Breakdow	n of period		kers			
·	Per	iod	Total	days	Working days	No working days	Engineers	Worker			
Preparation	21 Sept., '00 -	~ 21 Sept., '00	0.	5	0.5		1	5			
Drilling	21 Sept '00 a	~ 22 Sept., '00	1.5		Drilling : 1.5		9	15			
Drining	21 Sept., 00	- 22 Sept., 00			Accident: —	_	_				
Dismount	23 Sept., '00 -	~ 23 Sept., '00	1.	0	1.0	-	1	5			
Total	21 Sept., '00 -	~ 23 Sept., '00	3.	0	3.0		11	25			
			Drillir	ng Lengt	th						
Programmed	length	50.00 m	Ove	rburden	, sand & gravel,	Quarternary	13.	00 m			
Prolongation	<u></u>	-18.00 m		Core	e length		14.50 m				
Effective leng	th	32.00 m		Core	e recovery		76.3 %				
	Workin	g hours			Core re	n 10 meter	rs				
Drilling		27.0 hrs	58.70%	38.5%	Length (m)	Each (%)	Cumu	ila. (%)			
Supplemental	drilling work	13.0 hrs	28.30%	18.6%	0 - 13.0	None core	None	core			
Recovery from	m accident	6.0 hrs	13.00%	8.6%	13.0 - 20.0	100.0	100	0.0			
Subtotal		46.0 hrs	100%	65.7%	20.0 - 30.0	100.0	100	0.0			
Preparation/s	setting up	7.0 hrs	_	9.7%	30.0 - 32.0	100.0	100).0			
Dismount/mo	bilization	7.0 hrs		9.7%				_			
Transportatio	n of water	10.0 hrs		13.9%		Efficiency					
Others		<u> </u>		0.0%	Effective length / Working drilling days						
	•	· · · · · · · · · · · · ·			= 32.00m/1.5	n/1.5 days = 21.33 m/d					
					Effective leng	e length / Total drilling shifts					
Total		88.0 hrs		100%	= 32.00m/3 shifts = 10.66 m/shift						
		Dri	lling leng	sth by d	iameter						
Bit diameter	<u> </u>	4″T.B.	92m	ım Ø			To	tal			
Drilling length		13.00m	19.0	0m			32.0)0m			
Core length		None core	14.5	0m			14.5	i0m			
<u></u>]	nserted	casing	pipes						
Inserted leng	Inserted le	ngth / D	Drilling le	ength	Casing recovery						
127mm Ø	16.00m		50.00%		62.50%						
<u> </u>											

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-14)

		Survey period			Breakdov	vn of period	Total workers			
	Peri	iod	Total	days	Working days	No working days	Engineers			
Preparation	24 Sept., '00 ~	- 24 Sept., '00	0.	5	0.5	;	2	5		
	04 S t. '00 -	. 26 Sant '00	2.	0	Drilling : 2.0)	10	25		
Drilling	24 Sept., '00 ~	20 Sept., 00	2.		Accident: —		_	—		
Dismount	26 Sept., '00 ~	- 27 Sept., '00	1.	5	1.5	5 –	4	10		
Total	24 Sept., '00 ~	- 27 Sept., '00	4.	0	4.0)	16	40		
			Drillir	ng Leng	th			<u></u>		
Programmed	length	50.00 m	Over	rburden	, sand & gravel	, Quarternary	12.	12.00 m		
Prolongation		-15.50 m		Core	e length		21.	21.10 m		
Effective leng	gth	34.50 m		Core	e recovery		9	93.7 %		
<u> </u>	Workin	g hours			Core r	ecovery by eac	ich 10 meters			
Drilling		18.0 hrs	45.00%	20.9%	Length (m)	Each (%)	Cumu	ıla. (%)		
Supplementa	l drilling work	22.0 hrs	55.00%	25.6%	0 - 13.0	None core	None	core		
Recovery fro	m accident	_		-	13.0 - 20.0	100.0	10	0.0		
Subtotal		40.0 hrs	100%	46.5%	20.0 - 30.0	86.0	92	2.2		
Preparation/	setting up	8.0 hrs	_	9.3%	30.0 - 34.5	100.0	93	9.7		
Dismount/mo	bilization	24.0 hrs	-	27.9%						
Transportatio	on of water	14.0 hrs	-	16.3%		Efficiency	, 			
Others				0.0%	rilling days					
					= 34.50m/2.0	n/d	/d			
					Effective len	gth / Total drill	ing shifts			
Total		86.0 hrs		100%	= 34.50m/4 shifts = 8.62 m/shift					
		Dri	illing len	gth by d	liameter					
Bit diameter		4″T.B.	92m	nm Ø			To	otal		
Drilling length	<u></u> ו	12.00m	22.5	i0m			34.	50m		
Core length		None core	21.1	0m			21.	10m		
			Inserted	casing	pipes					
Inserted leng	th by diameter	Inserted le	ength / [Drilling	ength	ecovery				
127mm Ø	12.00m		34.80%	6	58.30%					
				/ .· =						

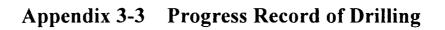
Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-15)

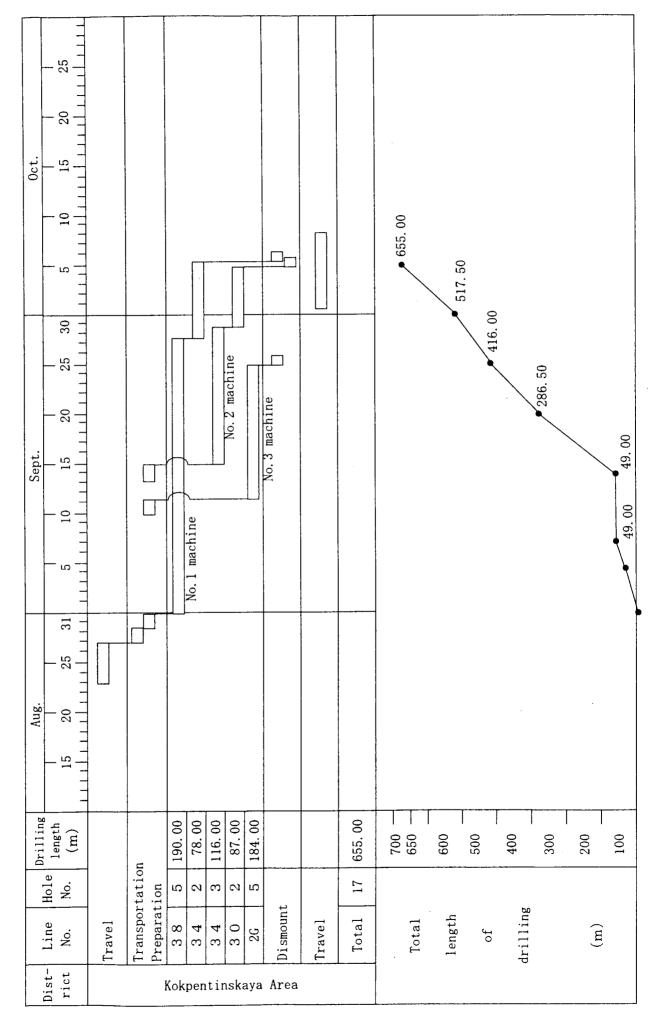
		Survey period			Breakd	lown	of period	Total workers			
	Per	riod	Tota	l days	Working da	iys	No working days	Engineers			
Preparation	30 Sept., '00 ·	~ 30 Sept., '00	0	.5	(0.5		0.5	5		
Drilling	30 Sept '00	~ 1 Oct., '00	1	.5	Drilling :	1.5		6.5	20		
Drining	30 Sept., 00		1.0		Accident: -	-		-			
Dismount	2 Oct., '00 ~	~ 2 Oct., 00	1.	.0		1.0	_	1	5		
Total	30 Sept., '00	~ 2 Oct. '00	3.	0		3.0	_	8	30		
			Drillir	ng Leng	th						
Programmed	length	35.00 m	Ove	rburden	, sand & grav	el, G	Quarternary	9.50 m			
Prolongation		6.00 m		Core	e length			31.50 m			
Effective leng	,th	41.00 m		Core	e recovery			10	0.0 %		
-	Workin	ng hours			Core	10 meter	rs				
Drilling		17.0 hrs	60.70%	34.0%	Length (m	1)	Each (%)	Cumu	la. (%)		
Supplemental	drilling work	11.0 hrs	39.30%	22.0%	0 - 9.5	5	None core	None	core		
Recovery from	n accident	—	—	—	9.5 - 20.0	0	100.0	100).0		
Subtotal		28.0 hrs	100%	56.0%	20.0 - 30.0	0	100.0	100).0		
Preparation/s	etting up	4.0 hrs		8.0%	30.0 - 40.0		100.0	100).0		
Dismount/mo	bilization	8.0 hrs	-	16.0%	40.0 - 41.0	0	100.0	100).0		
Transportatio	n of water	10.0 hrs	-	20.0%			Efficiency				
Others				0.0%	Effective le	fective length / Working drilling days					
					= 34.50m/1	⁄d					
					Effective le	g shifts					
Total		50.0 hrs		100%	hift						
		Dril	ling leng	th by di	ameter						
Bit diameter		240mm ϕ	190m	ım Ø				Tot	tal		
Drilling length		9.50m	31.5	0m				41.0	0m		
Core length		None core	31.5	0m				31.5	0m		
		Ir	nserted	casing p	pipes						
Inserted lengt	Inserted ler	ngth / D	rilling le	ngth	ngth Casing recovery						
270mm ϕ	10.50m		25.60%		47.60%						

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-16)

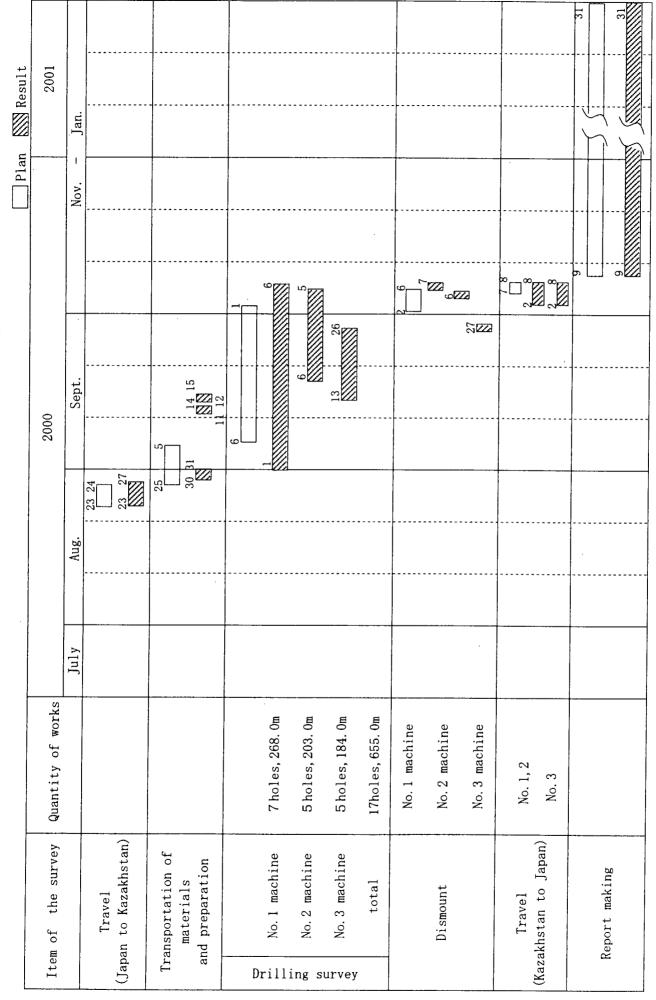
Drilling 3 Dismount 5	Oct., '00 ~ Oct., '00 ~ Oct., '00 ~	 2 Oct., '00 4 Oct., '00 6 Oct., '00 6 Oct., '00 35.00 m 35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs 36.0 hrs 	0. 2. 2. 4. Drillir	0 5 rburden Core 32.8%	, sand & gravel, e length e recovery	No working days 	Engineers 0.5 4.5 2 7 9.1 37.1 10 h 10 meter Cumu	6 21 13 40 00 m 00 m 0.0 % rs la. (%) core		
Drilling3Dismount5Total2Programmed lengthProlongationEffective lengthDrillingSupplemental drillingRecovery from accSubtotalPreparation/settingDismount/mobilizatTransportation of w	Oct., '00 ~ Oct., '00 ~ Oct., '00 ~	 4 Oct., '00 6 Oct., '00 6 Oct., '00 35.00 m 35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs 36.0 hrs 	2. 2. 4. Drillir Over 63.90% 36.10%	0 5 ng Lengt rburden Core 32.8% 18.6% 	Drilling : 1.5 Accident: 1.0 3.0 th , sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	Quarternary covery by eac Each (%) None core	4.5 2 7 9.1 37.1 10 h 10 meter Cumu None	21 13 40 00 m 00 m 0.0 % rs la. (%) core		
Dismount 5 f Total 2 f Programmed length Prolongation Effective length Drilling Supplemental drilling Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	Oct., '00 ~ Oct., '00 ~ Working	 6 Oct., '00 6 Oct., '00 35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs 	2. 4. Drillir Over 63.90% 36.10%	0 5 burden Core 32.8% 18.6%	Accident: 1.0 3.0 th , sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	Quarternary covery by eac Each (%) None core	2 7 9.1 37.1 10 h 10 meter Cumu None			
Dismount 5 f Total 2 f Programmed length Prolongation Effective length Drilling Supplemental drilling Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	Oct., '00 ~ Oct., '00 ~ Working	 6 Oct., '00 6 Oct., '00 35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs 	2. 4. Drillir Over 63.90% 36.10%	0 5 burden Core 32.8% 18.6%	1.0 3.0 th , sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	Quarternary covery by eac Each (%) None core	2 7 9.1 37.1 10 h 10 meter Cumu None	40 00 m 00 m 0.0 % rs ila. (%) core		
Total 2 Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat	Oct., '00 ~ N Working ng work sident	 6 Oct., '00 35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs 	4. Drillir Over 63.90% 36.10%	5 rburden Core 32.8% 18.6%	3.0 th , sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	covery by eac Each (%) None core	7 9.1 37.1 10 h 10 meter Cumu None	40 00 m 00 m 0.0 % rs ila. (%) core		
Programmed length Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	n Working ng work sident	35.00 m 11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs	Drillir Over 63.90% 36.10% —	ng Lengt rburden Core 32.8% 18.6%	th , sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	covery by eac Each (%) None core	9.1 37.1 10 h 10 meter Cumu None	00 m 00 m 0.0 % rs ila. (%) core		
Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	Working ng work ident	11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs	Over 63.90% 36.10%	-burden Core 32.8% 18.6%	, sand & gravel, e length e recovery Core re Length (m) 0 - 9.0	covery by eac Each (%) None core	37.1 10 h 10 meter Cumu None	00 m 0.0 % rs ila. (%) core		
Prolongation Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	Working ng work ident	11.00 m 46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs	63.90% 36.10% 	Core Core 32.8% 18.6%	e length e recovery Core re Length (m) 0 - 9.0	covery by eac Each (%) None core	37.0 10 h 10 meter Cumu None	00 m 0.0 % rs ila. (%) core		
Effective length Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	ng work :ident	46.00 m g hours 23.0 hrs 13.0 hrs — 36.0 hrs	36.10%	Core 32.8% 18.6%	Core re Length (m) 0 - 9.0	Each (%) None core	10 h 10 meter Cumu None	0.0 % rs Ila. (%) core		
Drilling Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	ng work :ident	g hours 23.0 hrs 13.0 hrs — 36.0 hrs	36.10%	32.8% 18.6% 	Core re Length (m) 0 - 9.0	Each (%) None core	h 10 meter Cumu None	rs Ila. (%) core		
Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	ng work :ident	23.0 hrs 13.0 hrs 	36.10%	18.6%	Length (m) 0 - 9.0	Each (%) None core	Cumu None	lla. (%) core		
Supplemental drillin Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	sident	13.0 hrs 	36.10%	18.6%	0 - 9.0	None core	None	core		
Recovery from acc Subtotal Preparation/setting Dismount/mobilizat Transportation of w	sident				l					
Subtotal Preparation/setting Dismount/mobilizat Transportation of w					9.0 - 20.0	100.0	100	0.0		
Preparation/setting Dismount/mobilizat Transportation of w	g up		100%	51.0%						
Dismount/mobilizat Transportation of w	g up			01.0%	20.0 - 30.0	100.0	100	0.0		
Transportation of w		6.0 hrs	_	8.6%	30.0 - 40.0 100.0		100	0.0		
· · · · · · · · · · · · · · · · · · ·	tion	16.0 hrs	_	<u> </u>		100.0	100	0.0		
Others	water	12.0 hrs	—	17.1%		Efficiency				
		_		0.0%	Effective length / Working drilling days					
					= 46.00m/2 da	d	!			
			Effective length / Total dr				ng shifts			
Total		88.0 hrs		100%	= 46.00m/4 shifts =11.50 m/shift					
		Dri	illing leng	sth by d	liameter					
Bit diameter		240mm ϕ	190n	ım Ø			To	ital		
Drilling length		9.00m	37.0	0m			46.0)0m		
Core length		None core	37.0	0m			37.0)0m		
]	Inserted	casing	pipes					
Inserted length by	diameter	Inserted le	ength / [Drilling le	ength	ecovery	scovery			
270mm Ø	10.50m		21.70%)0%)%			

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-17)





Appendix 3-3 Progress Record of Drilling (1)



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Appendix 3-3 Progress Record of Drilling (2)

3-3 Progress Record of Drilling (3) [Drilling Machine No.1(1)]	Aug. Sept.	27 28 29 30 31 2 4 6 8 10 12 14 16 18 20 22 24 26 28 1 1 1 1 1 1 1 1 1 1 1					Insert C. P.									
Appendix 3-3	Length	drill 26 (m)	 		41.00	36. 00	37.00	44. 00	32.00		190.00	200m —	150m -	100m —	50m —	0
App	aloH	No.	 rtation	ing	MJBK -3	MJBK -4	MJBK -5	MJBK -2	MJBK -1)) 1 1 1 1 1 1 1 1 1 1 1 1 1	5 holes				b -	1
	i	No.	 Transportation	Moving	3 8	3 8 3	3 8	00 07	8 8 8	- 	Total	Total	length	of	drilling (m)	
		District	 	·	South	of	Placer	No. 1							q	

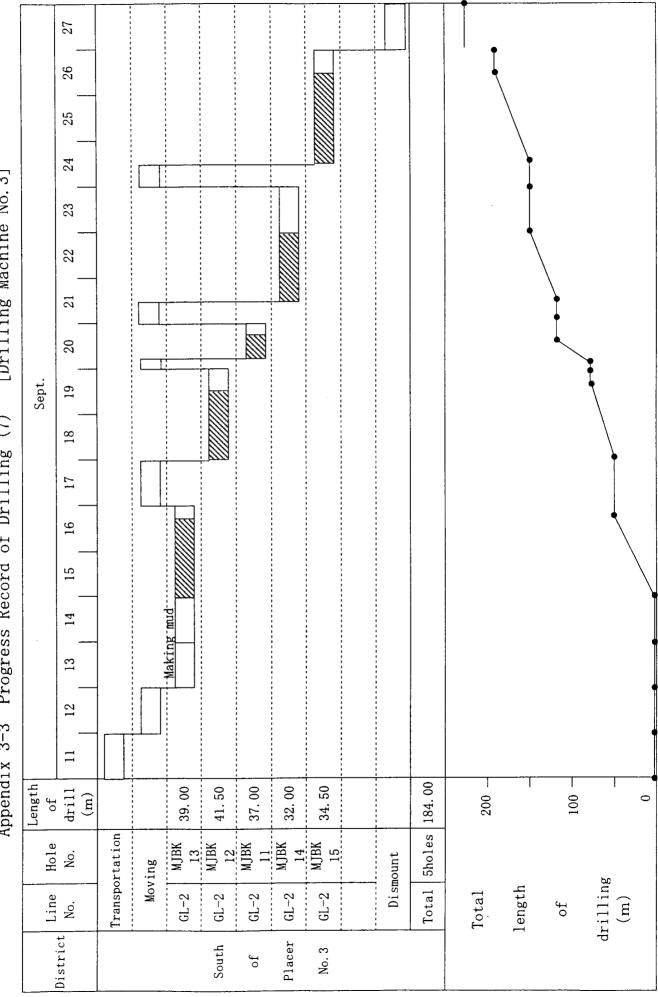
0ct.	1 2 3 4 5 6 7			Repair of generator		Repair of generator						
Sept.	28 29 30											-
Length	drill 27 (m)		42.00		36. 00		f 7 8 8 9 8 9 1 1 1 1 1 1 1 1 1 1	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	4 7 1 1 1 2 3 4 4 4 1 1 5 1 1	78. 00	50 -	0
Гон	No. No.	Moving	3 4 MJBK -9		3 4 MJBK -10		Dismount			Total 2holes	Total length of drilling (m)	
	District			South	of	Placer	No. 1			F	Tc le dri (

30 29 28 27 1 26 25 2423 Sept. 22 21 20 19 Repair of generator 18 17 16 15 14 Length Of drill (m) 150 -100 -200 Total 3holes 116.00 Ι 43.00 43.00 30.00 50 0 Transportation Hole No. MJBK -8 MJBK -7 MJBK -6 drilling Moving length Line No. Total 3 4 34 34 4 (m) of District Placer South No. 1 of

Appendix 3-3 Progress Record of Drilling (5) [Drilling Machine No. 2(1)]

Sept. Oct. 29 30 1 2 3 4 5 6														
Length of drill (m)			41.00	46.00					87.00		100	- U5		0
Line Hole NO. NO.	Moving		3 0 MJBK -16	3 0 MJBK -17				Dismount	Total 2holes	Total	length	of	drilling	(m)
District		,	South	of	Placer	No. 1	i			Ţ	le		dri	· ·

Appendix 3-3 Progress Record of Drilling (6) [Drilling Machine No.2(2)]



[Drilling Machine No. 3] Appendix 3-3 Progress Record of Drilling (7)

Appendix 4. Amount of Exploration Works by the Kazakh Side

Placer deposit	Exploration method	Quantities
1. Bektemir (Satpaev) deposit		
Û	Grid drilling (C ₂ Category)	250 x 100 m
2	Grid drilling (C ₁ Category)	500 x 100 m
3	Grid drilling (B Category)	125 x 50 m
4	Percussion drilling	3,894 m (187 drillholes)
5	Pit	98 m (6 pits)
2. Karaotkel deposit		
١	Grid drilling (C ₁ Category)	400 x 100 m
2	Grid drilling (B Category)	200 x 50 m
. 3	Percussion drilling	48,929 m (2,879 drillholes)
4	Pit and water well (ϕ 700 mm)	1,971 m (121 wells)
5	Pit for samples of separation test	12,000 m ³ (4 pits)

Appendix 4. Amount of Exploration Works by the Kazakh Side