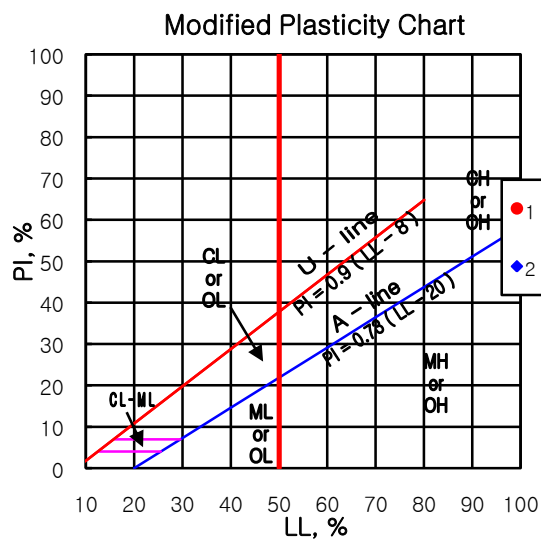
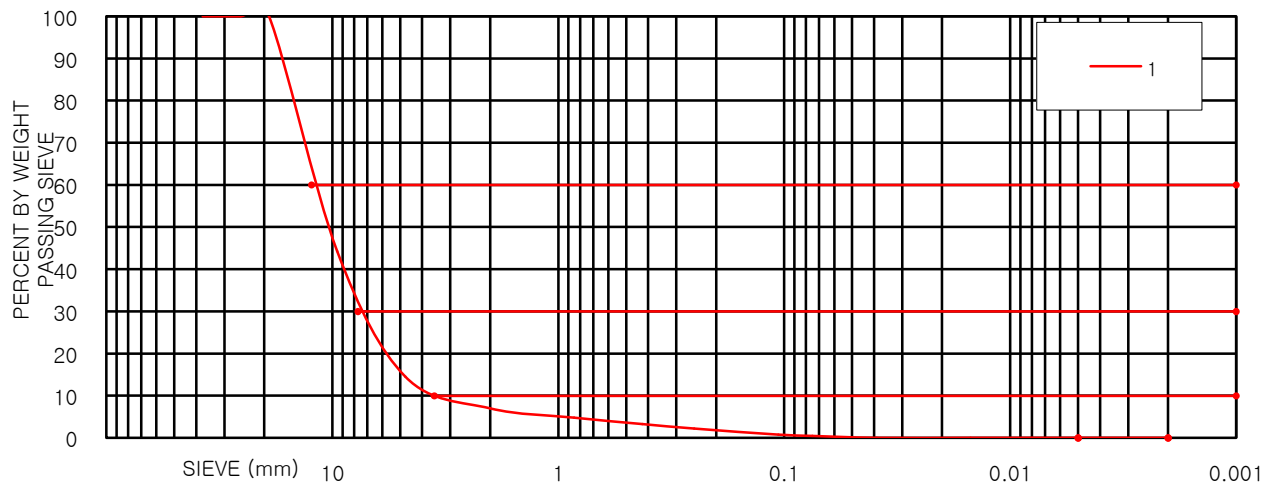


Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-6	1.0	1	4.7	2.642	N	P	P	3.5400	7.7090	12.3595	3.5	1.4
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	14.5	7.0	4.8	3.3	2.2	0.8	0.5	-	GP			



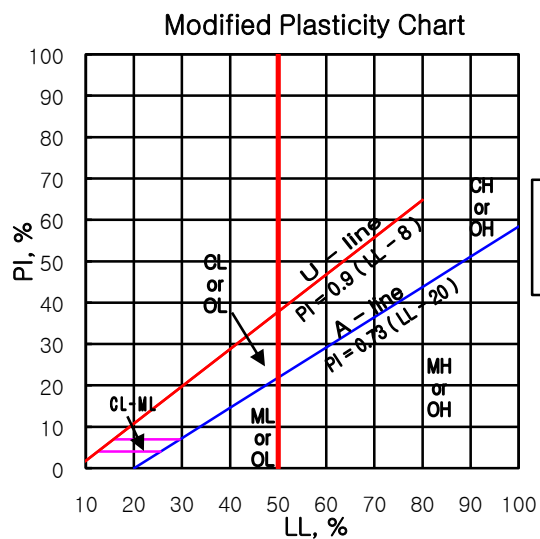
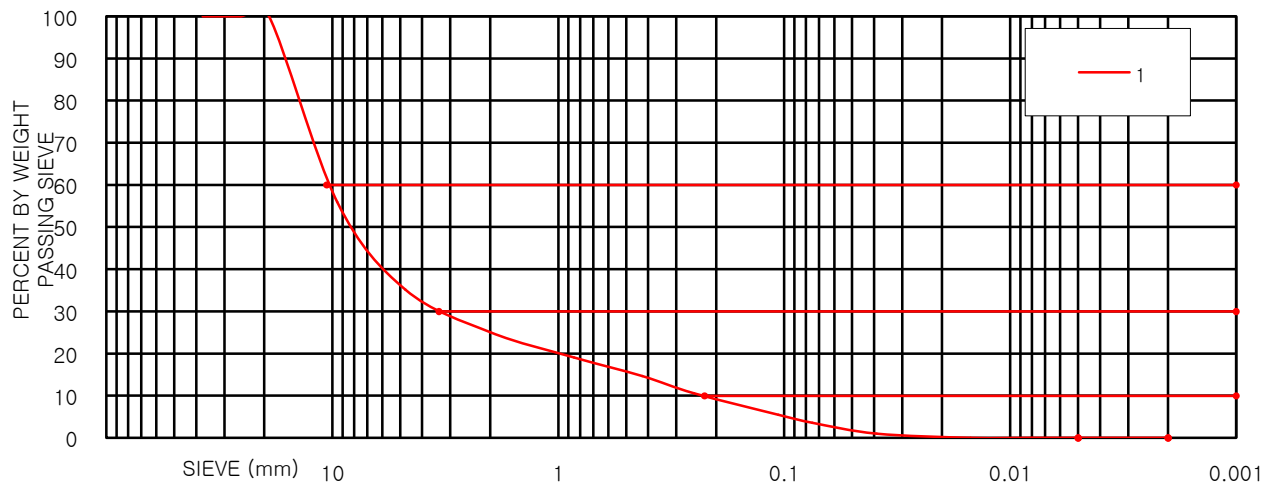
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-6	3.0	1	16.4	2.634	N	P	P	0.2254	3.3729	10.5925	47.0	4.8
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	35.2	25.1	19.1	14.7	10.6	5.5	3.6	-	GP			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

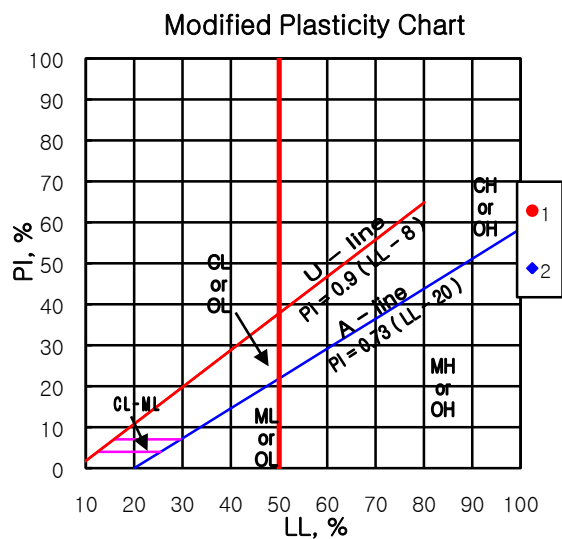
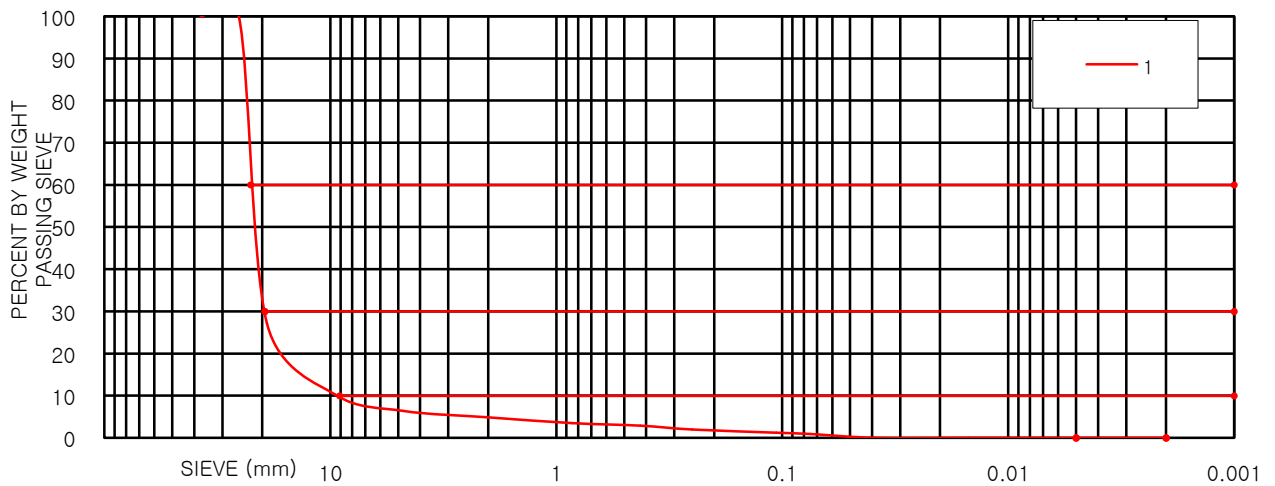
Remarks	
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-6	5.0	1	6.8	2.626	N	P	P	9.0991	19.4984	22.4905	2.5	1.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	6.4	4.9	3.5	2.9	2.0	1.2	0.9	-	GP	



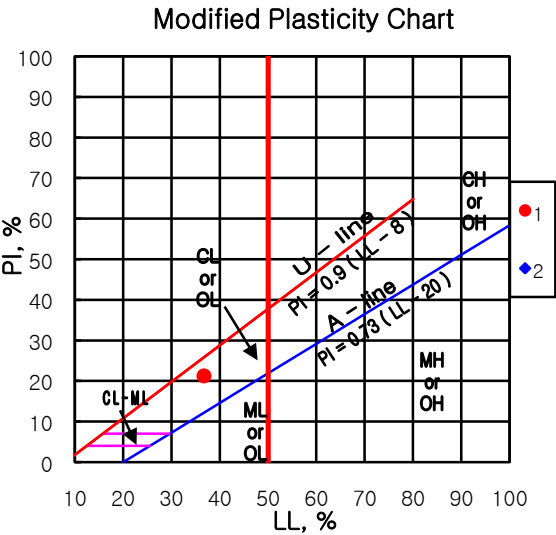
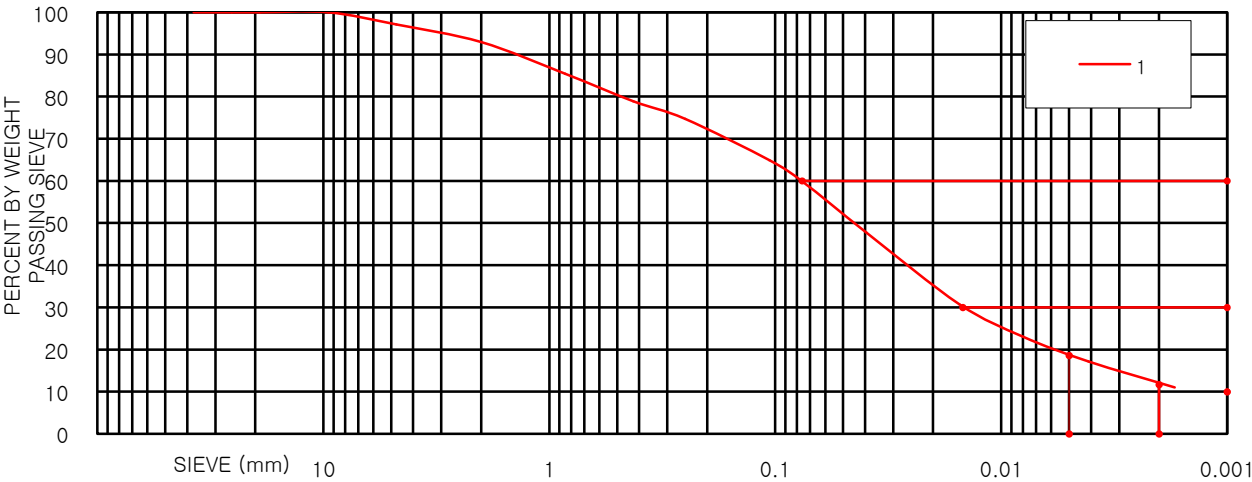
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-07	4.0	1	34.4	2.676	36.7	15.4	21.3	0.0010	0.0148	0.0760	76.0	2.9
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	97.1	92.9	85.4	78.9	74.7	64.9	59.7	11.7	CL			



	1	2	3	비고
A	1.82			
CI	0.11			
LI	0.89			

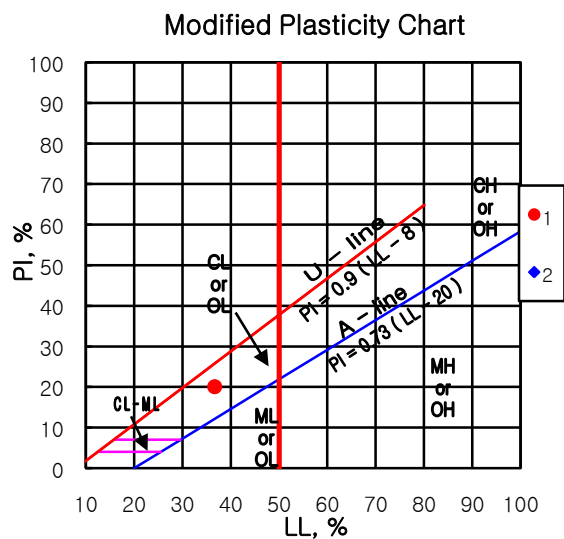
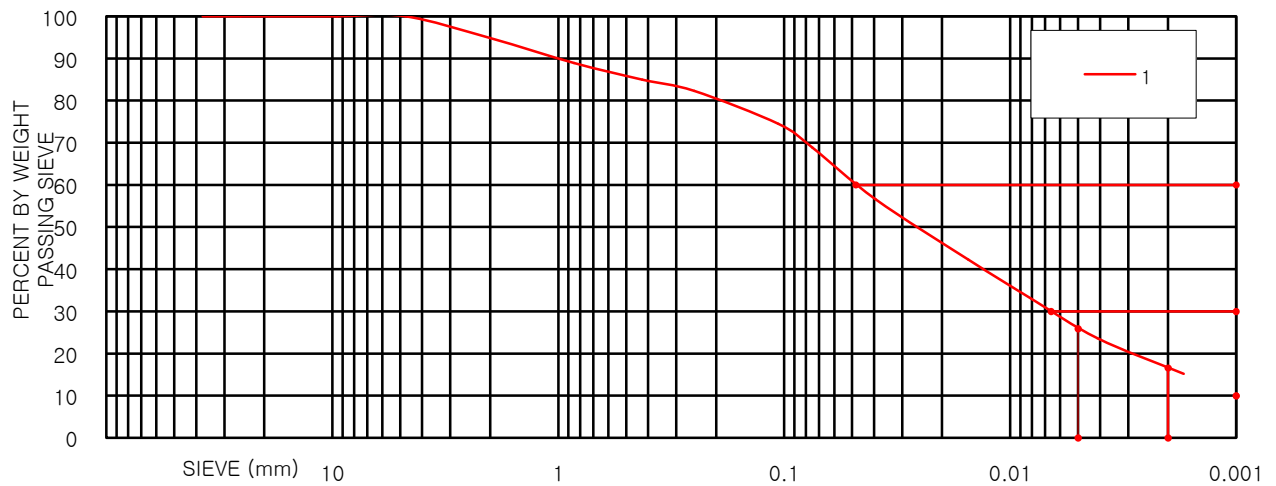
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-07	8.0	1	35.5	2.682	36.6	16.5	20.1	0.0010	0.0066	0.0482	48.2	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	94.8	88.9	85.0	82.3	74.5	68.9	16.6	CL	



	1	2	3	비고
A	1.21			
CI	0.05			
LI	0.95			

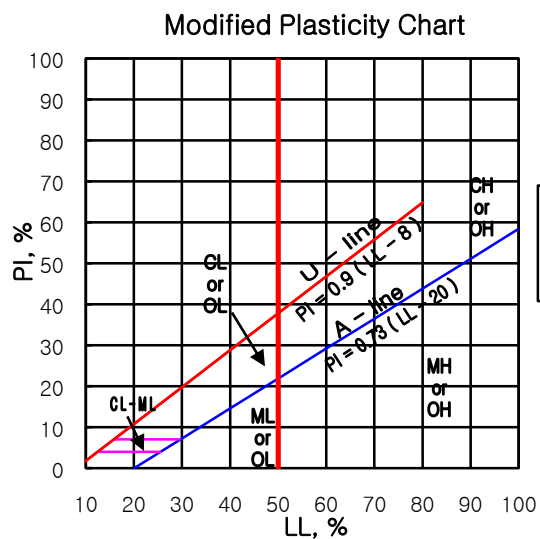
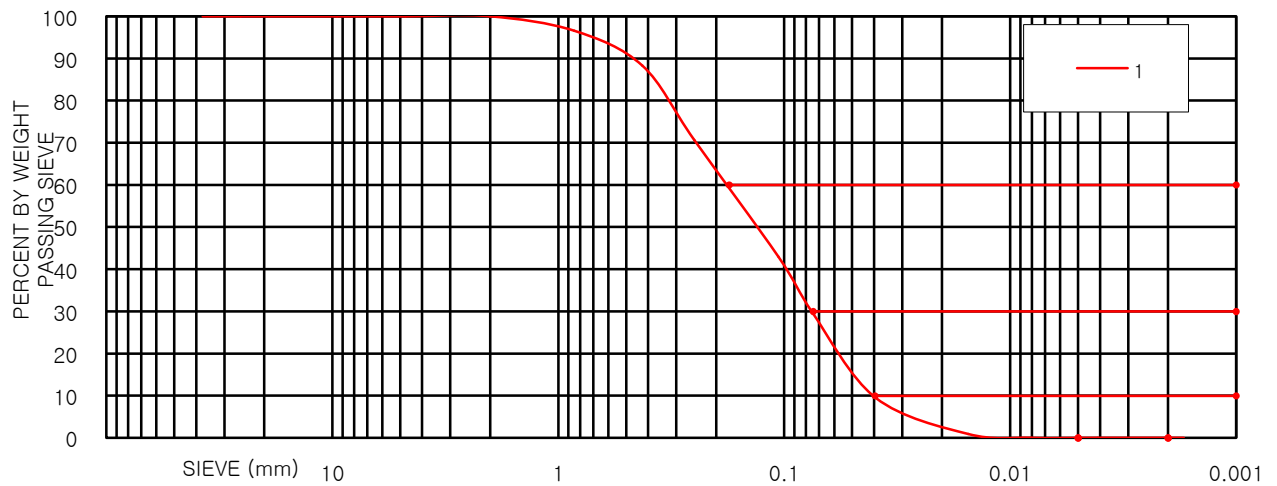
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-08	2.0	1	15.4	2.659	N	P	P	0.0396	0.0745	0.1754	4.4	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	100.0	96.5	88.3	70.7	43.0	29.8	-	SM	



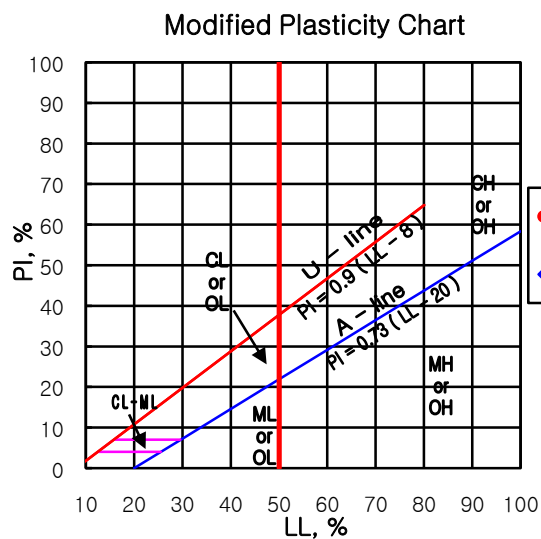
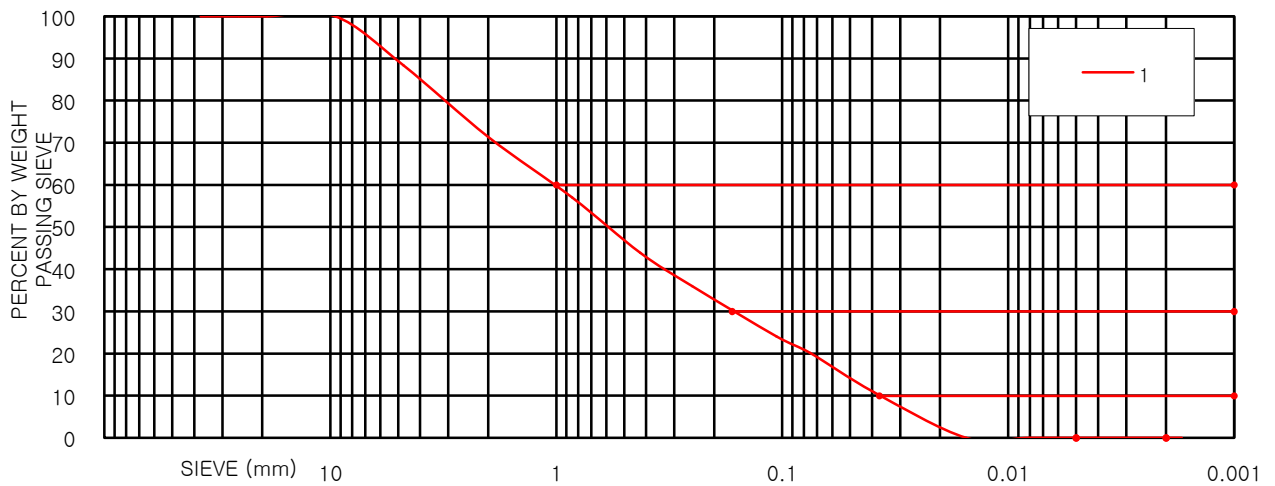
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
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KS F 2302	05. 07. 26 확인
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KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-08	4.0	1	13.9	2.655	N	P	P	0.0372	0.1667	1.0000	26.9	0.7
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	88.3	71.4	57.0	43.9	36.0	24.1	20.1	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

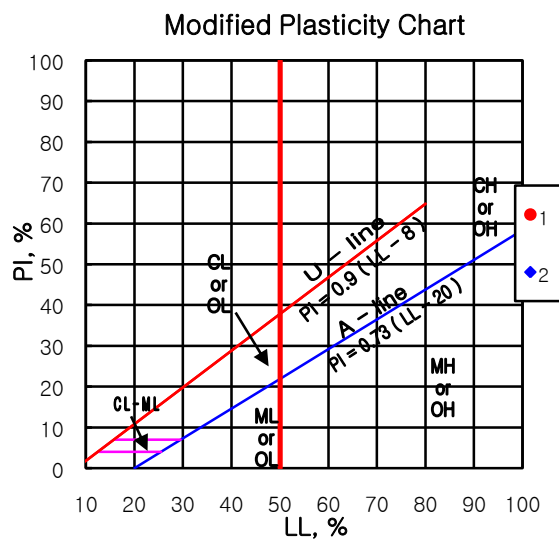
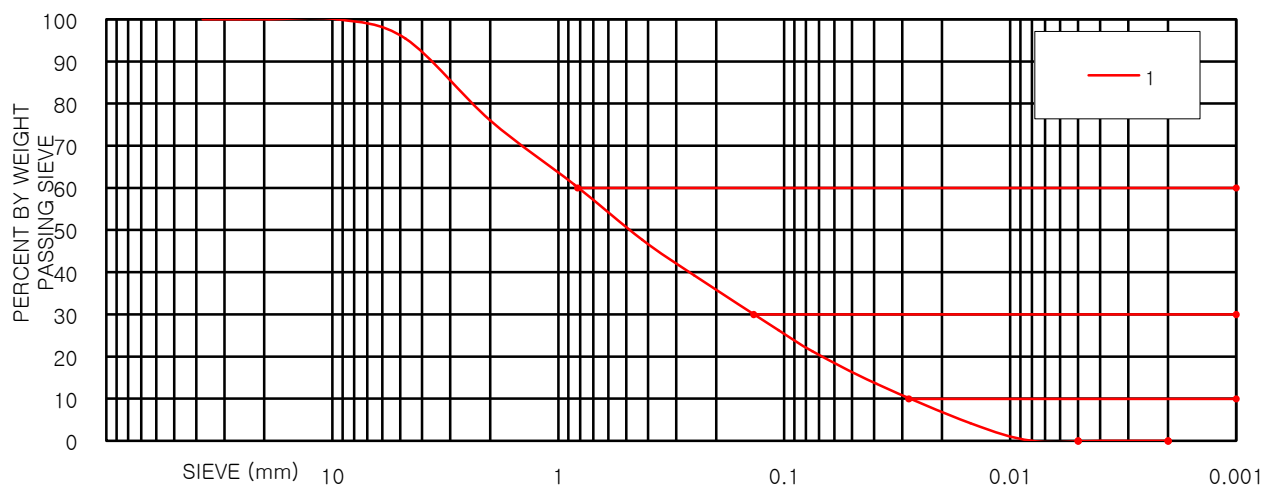
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-9	1.0	1	23.0	2.656	N	P	P	0.0281	0.1365	0.8222	29.2	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	95.4	76.0	60.8	47.7	39.3	26.3	21.3	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

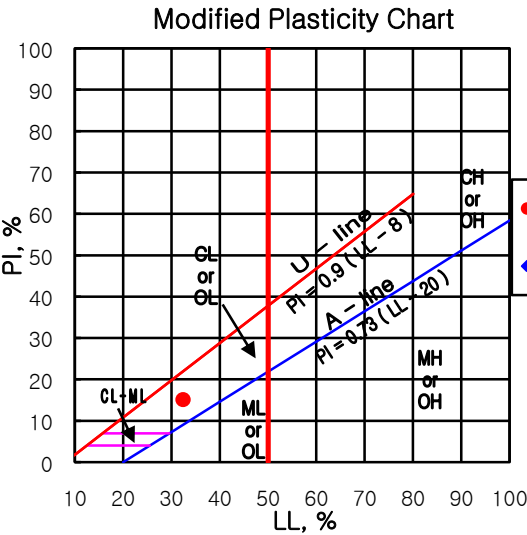
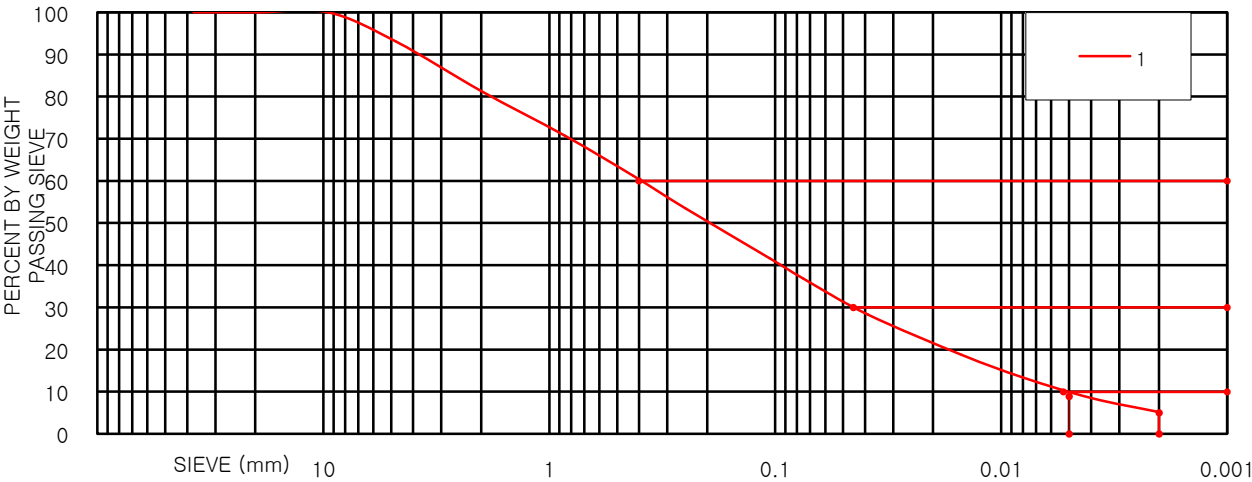
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KS F 2306	05. 07. 26 확인
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KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-9	2.0	1	27.1	2.663	32.4	17.2	15.2	0.0053	0.0451	0.4018	75.7	1.0

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	93.0	81.3	70.7	61.2	53.5	41.7	36.8	5.0	SC	



	1	2	3	비고
A	3.04			
CI	0.35			
LI	0.65			

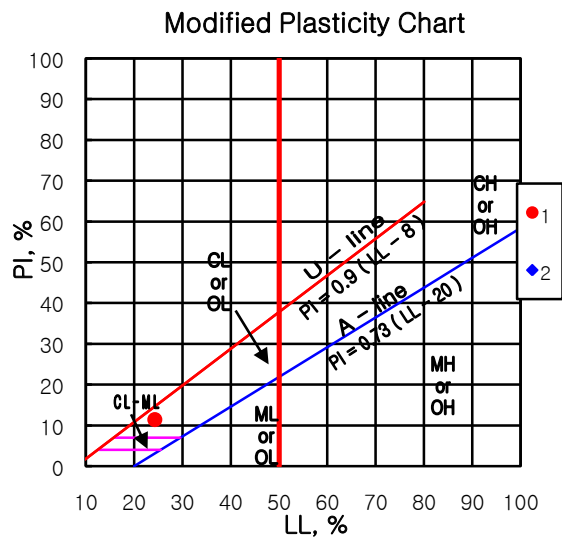
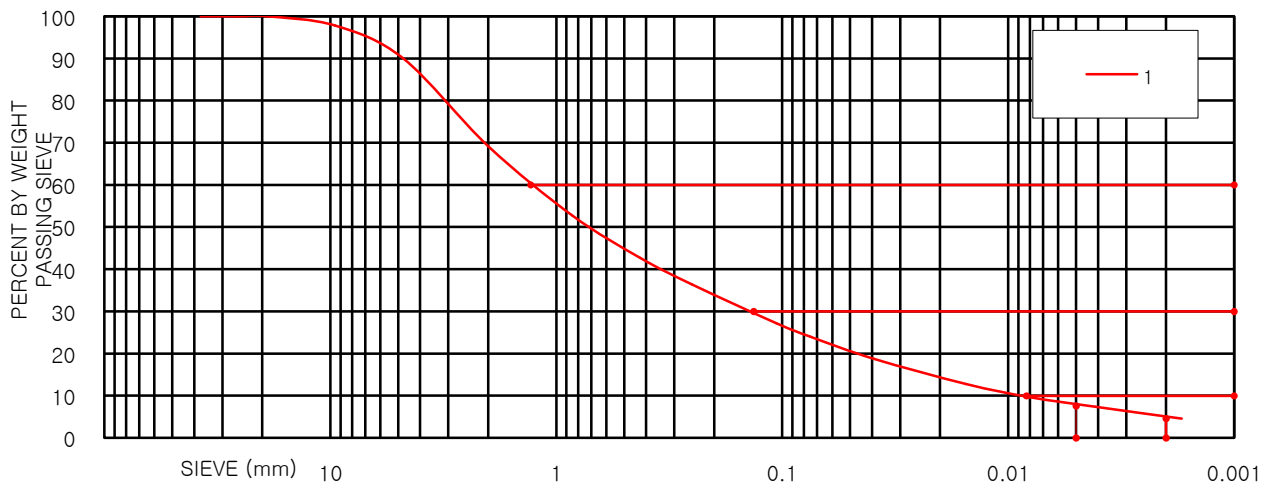
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-9	4.0	1	13.6	2.664	24.2	12.7	11.5	0.0083	0.1337	1.2972	156.3	1.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	90.0	69.2	52.8	42.7	36.4	27.2	24.0	4.6	SC	



	1	2	3	비고
A	2.50			
CI	0.92			
LI	0.08			

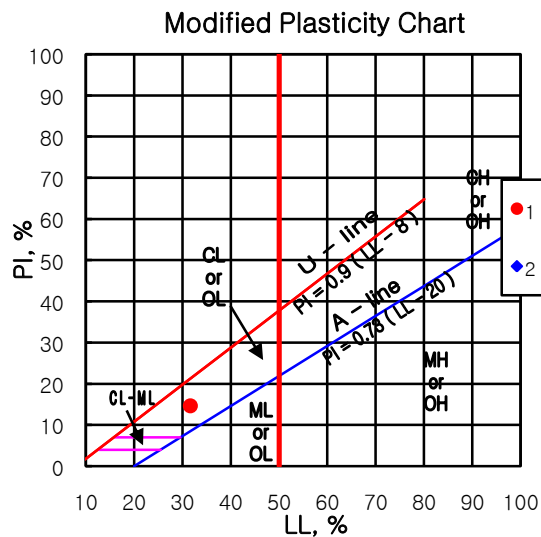
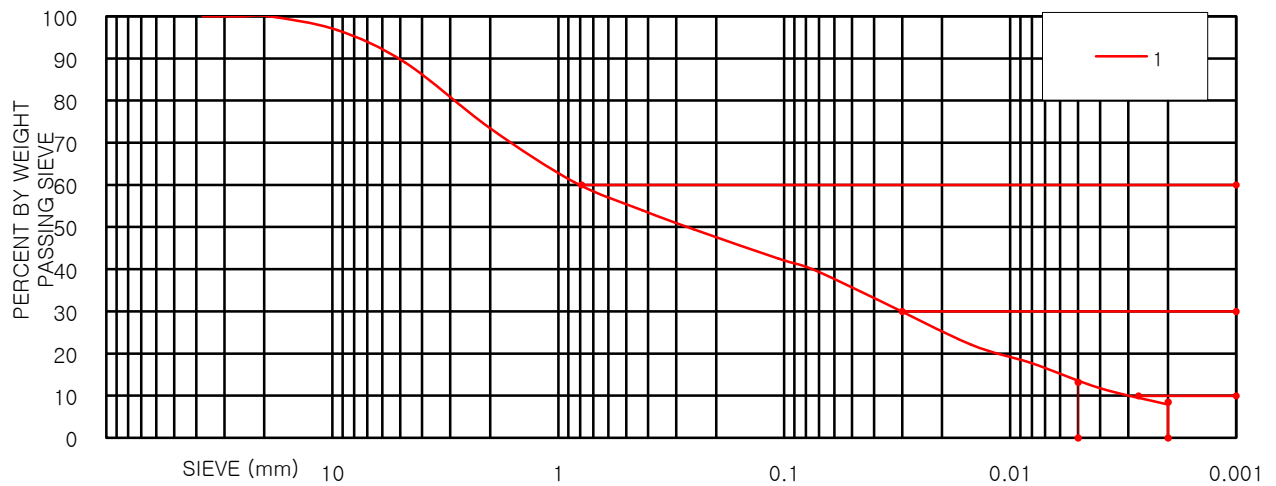
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-9	5.0	1	22.4	2.679	31.6	16.9	14.7	0.0027	0.0301	0.7889	291.7	0.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.0	73.4	60.7	54.0	49.4	42.5	40.0	8.5	SC	



	1	2	3	비고
A	1.73			
CI	0.63			
LI	0.37			

Remarks

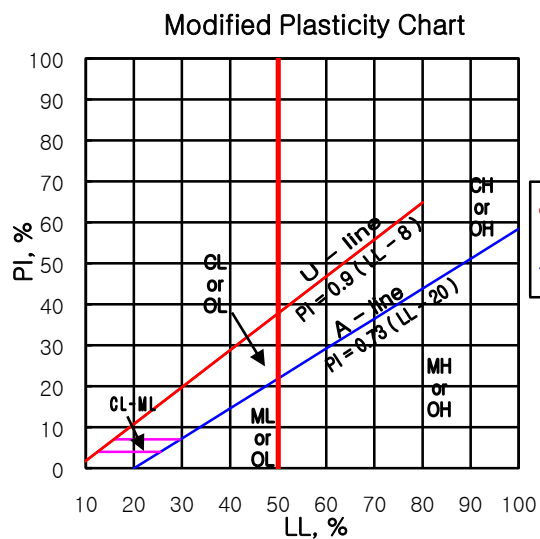
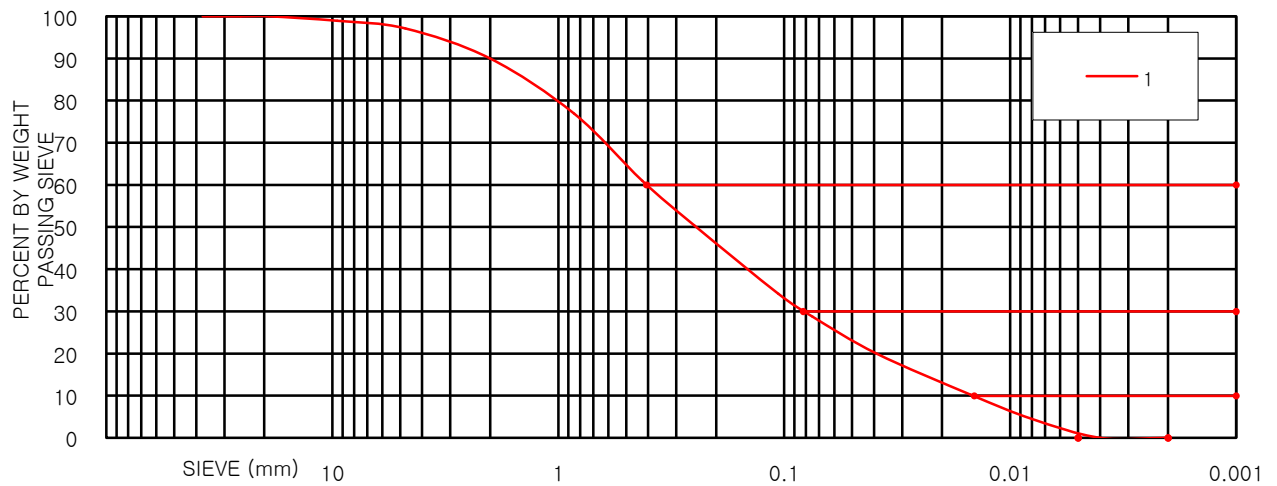
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
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KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-10	2.0	1	22.9	2.657	N	P	P	0.0144	0.0824	0.4064	28.2	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.1	90.0	76.9	61.0	50.4	34.2	28.8	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

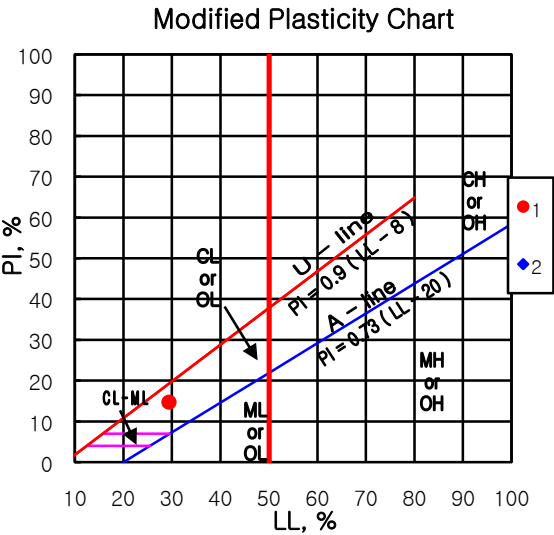
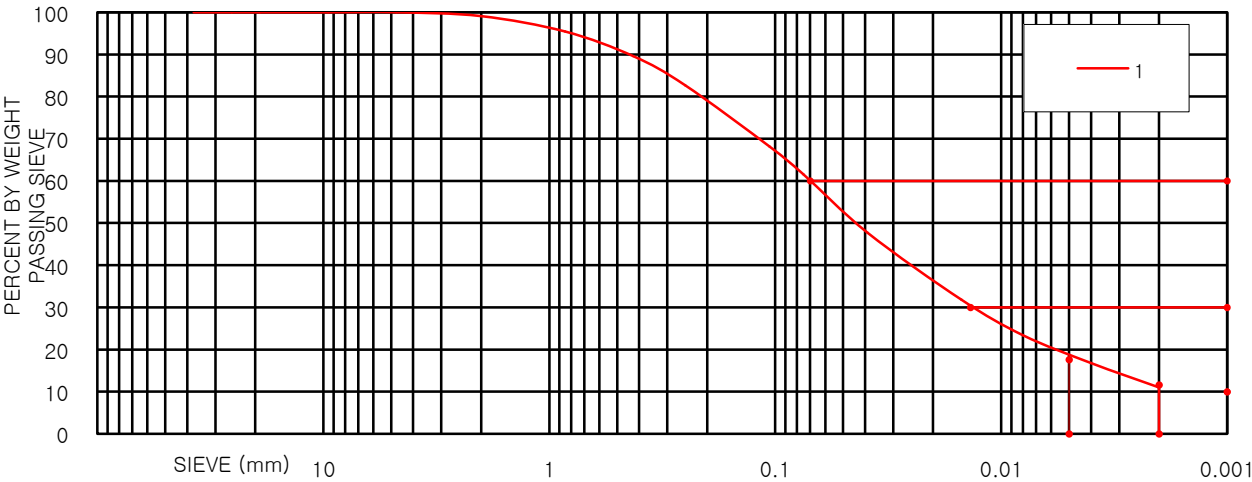
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Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-11	2.0	1	24.5	2.683	29.4	14.6	14.8	0.0010	0.0137	0.0700	70.0	2.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	99.1	95.4	89.6	82.7	68.2	61.6	11.6	CL	



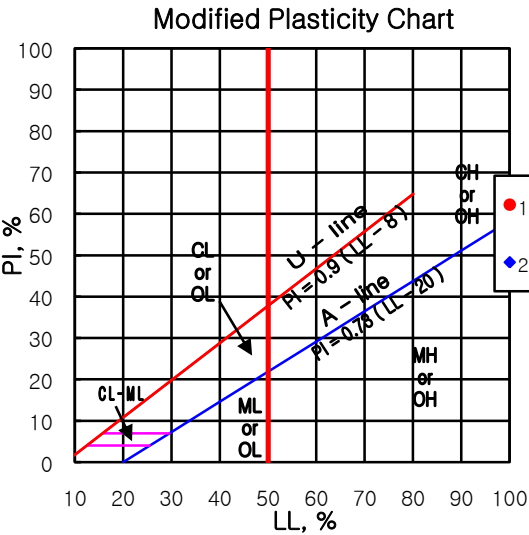
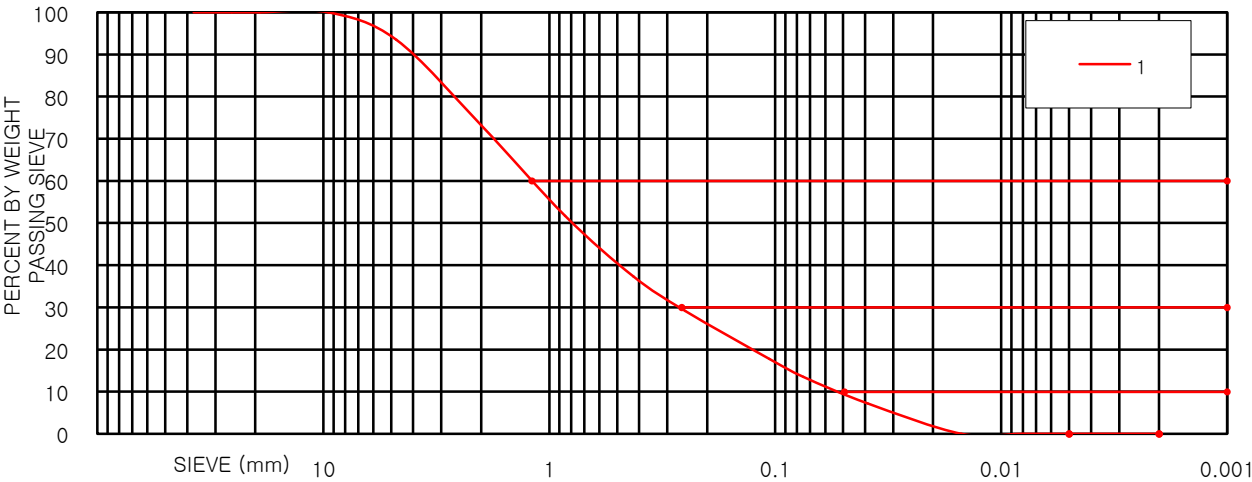
	1	2	3	비고
A	1.28			
CI	0.33			
LI	0.67			

Remarks	
KS F 2301	05. 11. 25 개정
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-11	4.0	1	11.9	2.671	N	P	P	0.0494	0.2594	1.1940	24.2	1.1
Curve No.	Sieve Analysis Data (% Passing)							USCS	Description			
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075					0.002
1	93.5	73.2	51.7	37.4	29.2	17.8	13.5	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

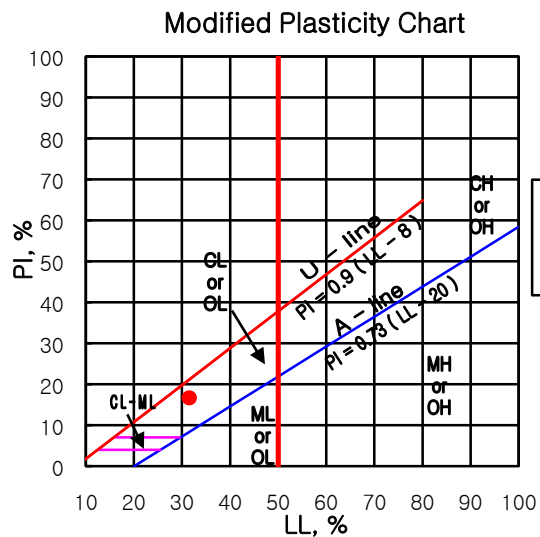
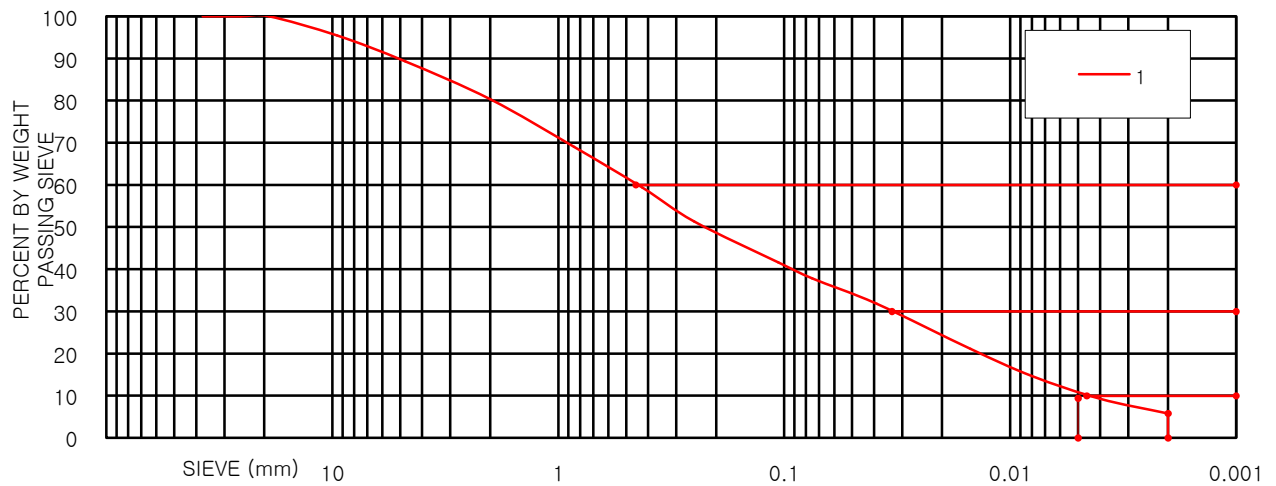
Remarks	
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-13	1.0	1	16.2	2.673	31.5	14.8	16.7	0.0046	0.0333	0.4539	99.1	0.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.3	80.3	69.0	59.4	51.3	41.6	37.8	5.8	SC	



	1	2	3	비고
A	2.88			
CI	0.91			
LI	0.09			

Remarks

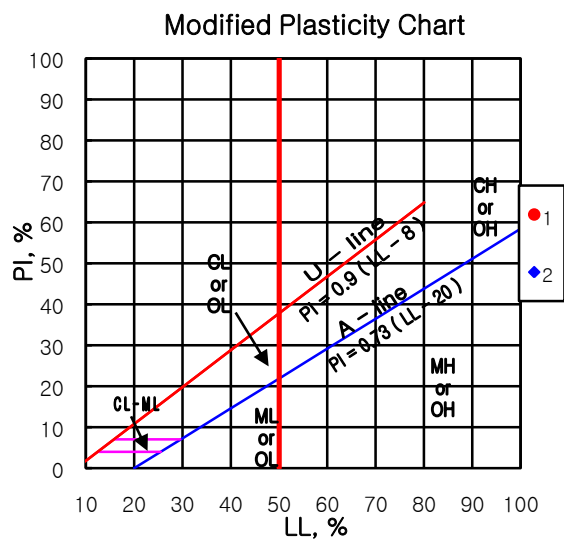
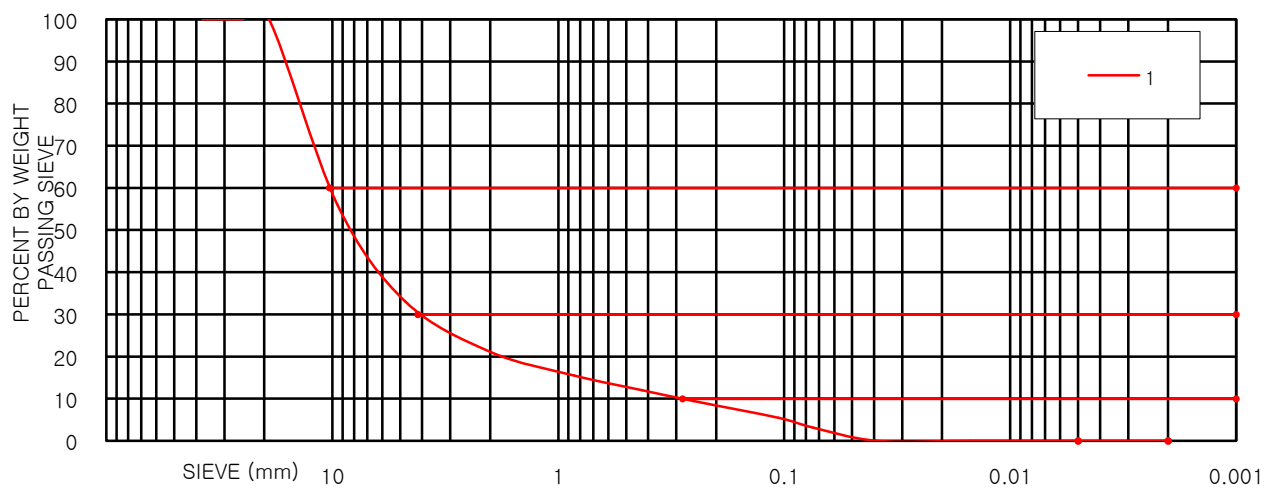
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-15	1.0	1	19.0	2.625	N	P	P	0.2818	4.1879	10.2802	36.5	6.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	33.0	21.1	15.5	12.0	9.4	5.5	3.2	0.0	GP	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

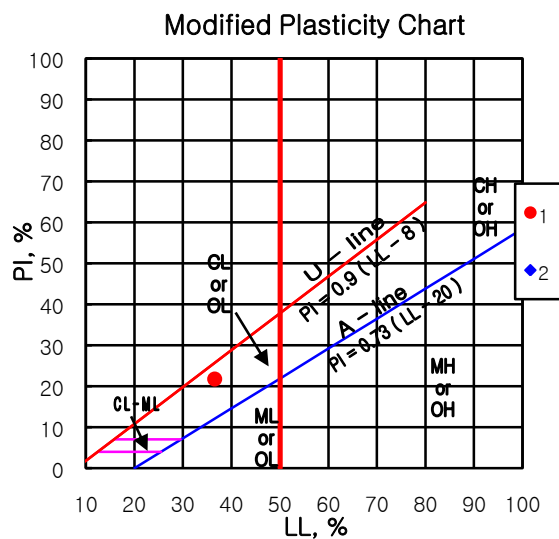
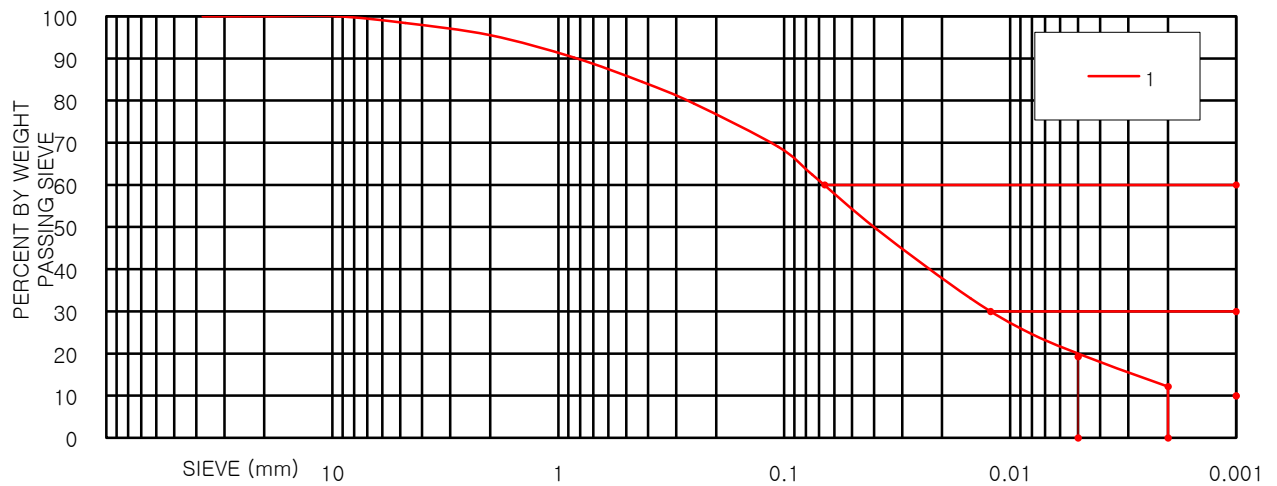
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KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-17	1.0	1	27.6	2.667	36.5	14.7	21.8	0.0010	0.0122	0.0662	66.2	2.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	98.4	95.5	90.2	84.4	79.3	69.0	62.4	12.2	CL	



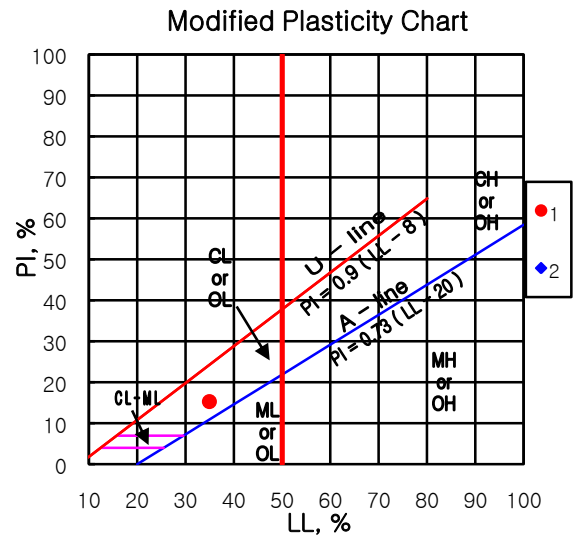
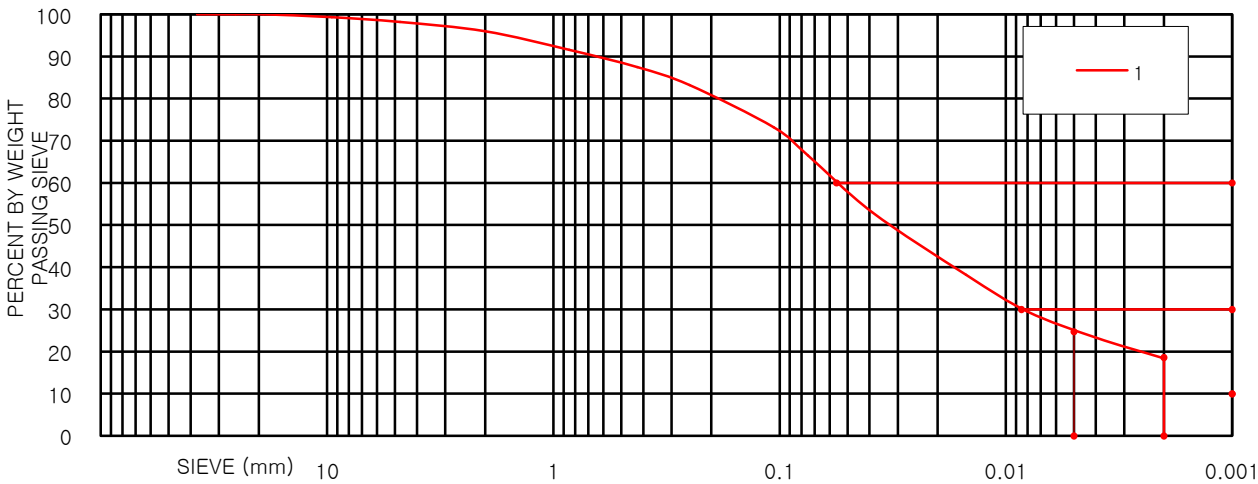
	1	2	3	비고
A	1.79			
CI	0.41			
LI	0.59			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-17	2.0	1	22.5	2.673	34.9	19.6	15.3	0.0010	0.0085	0.0560	56.0	1.3
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	98.2	96.0	91.6	87.5	83.2	73.2	66.5	18.6	CL			



	1	2	3	비고
A	0.82			
CI	0.81			
LI	0.19			

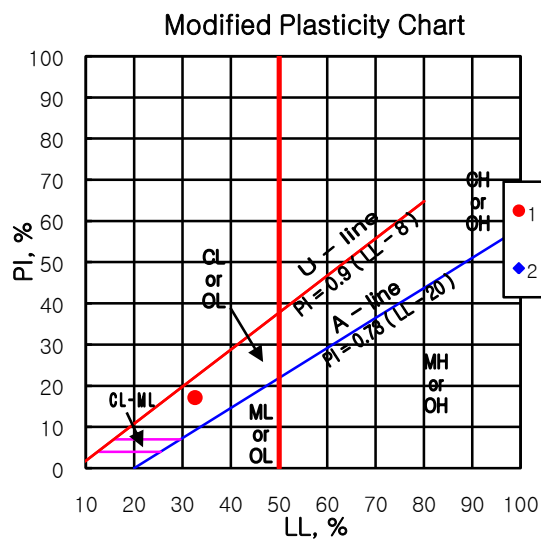
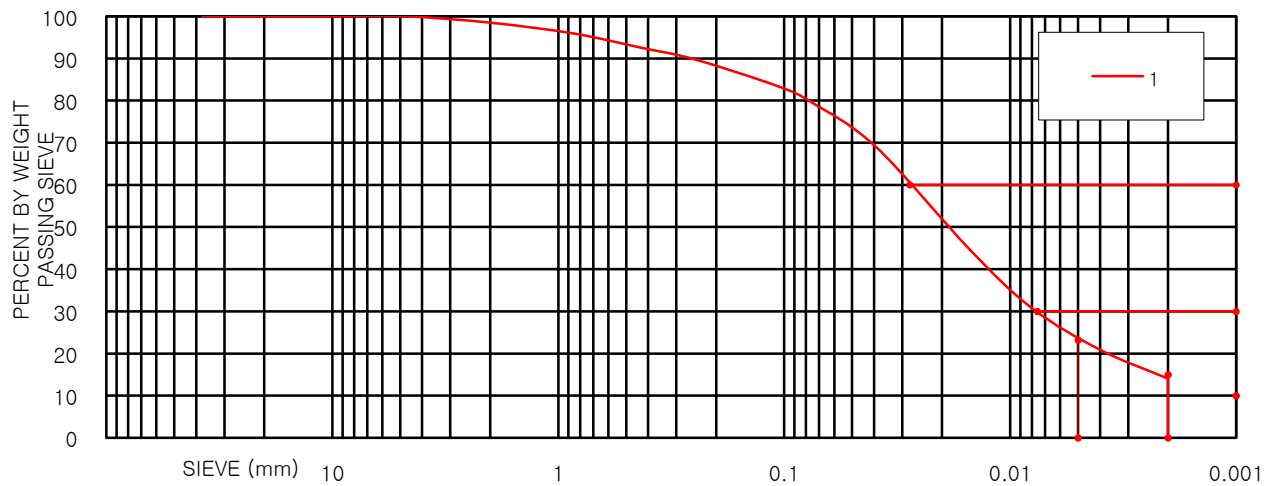
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KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-19	1.0	1	21.0	2.685	32.6	15.4	17.2	0.0010	0.0076	0.0278	27.8	2.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	98.5	95.9	92.5	89.8	83.4	79.5	15.0	CL	



	1	2	3	비고
A	1.15			
CI	0.68			
LI	0.32			

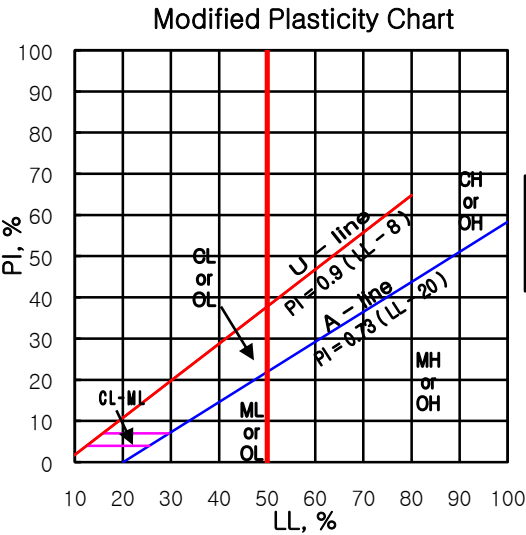
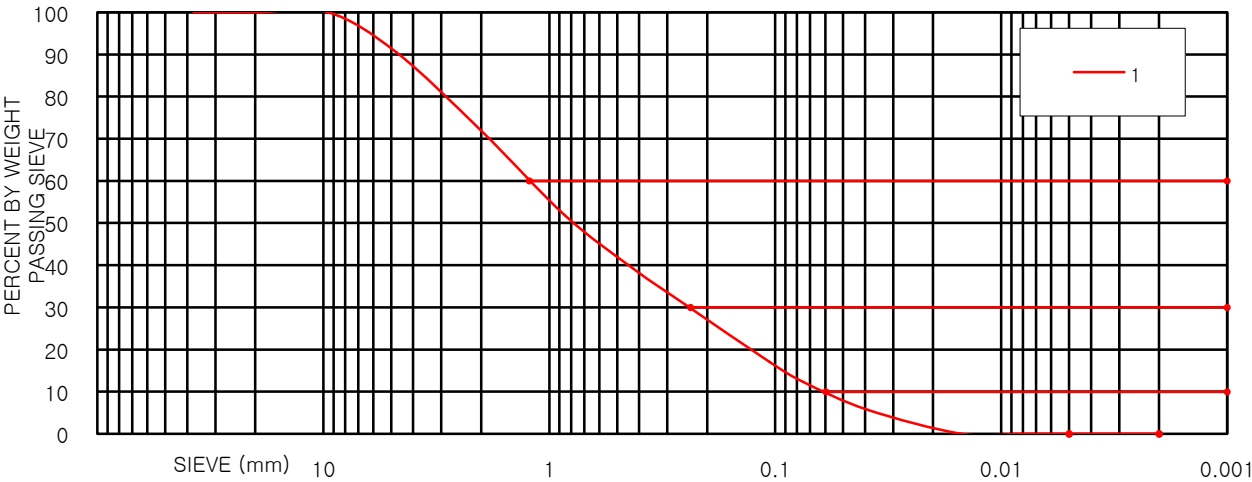
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-19	2.0	1	17.7	2.658	N	P	P	0.0597	0.2371	1.2246	20.5	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	90.5	71.9	51.8	39.2	30.7	17.1	12.3	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

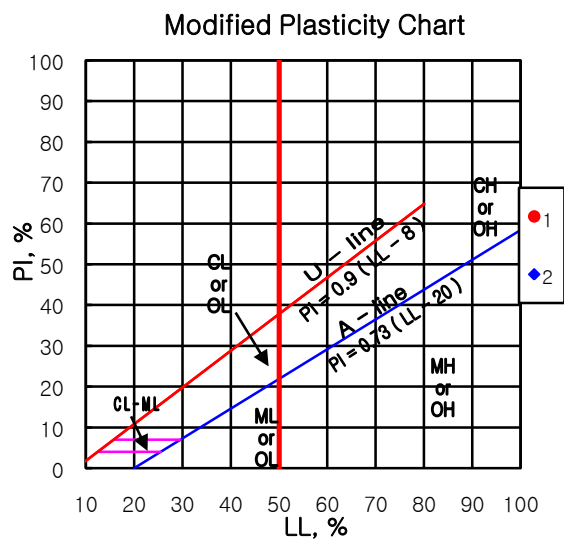
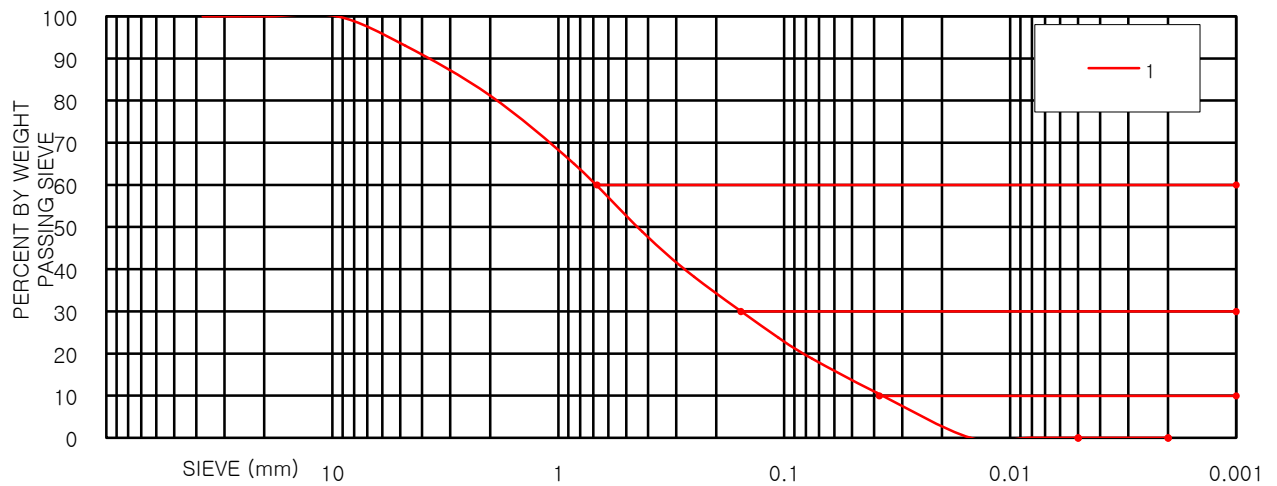
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KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-19	3.0	1	14.0	2.659	N	P	P	0.0379	0.1556	0.6745	17.8	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	93.0	81.2	65.0	48.9	38.2	23.8	18.8	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

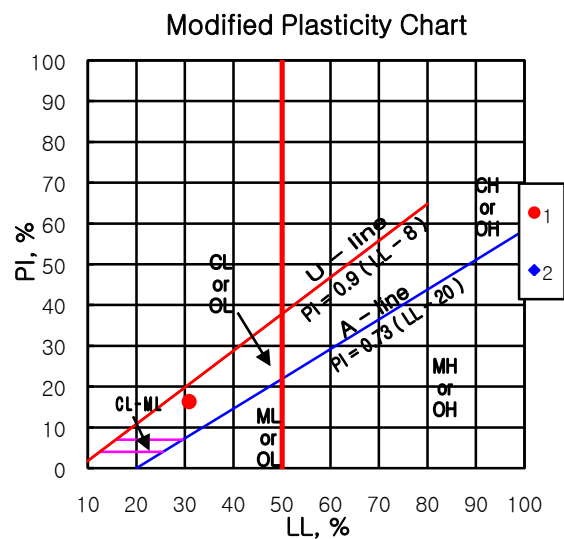
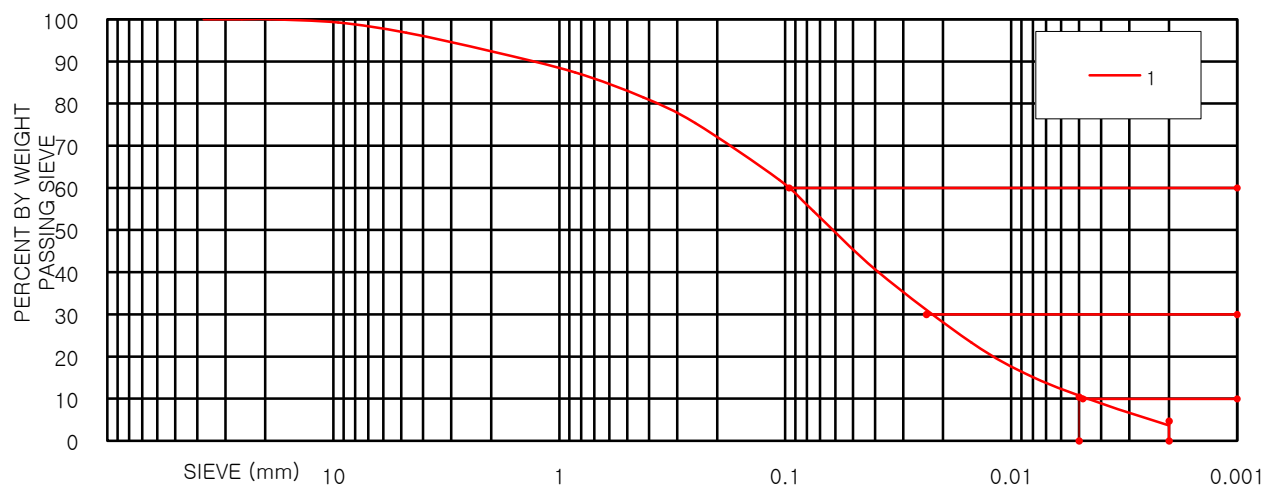
Remarks	
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-20	1.0	1	24.7	2.696	30.8	14.5	16.3	0.0048	0.0237	0.0962	20.0	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	96.8	92.4	87.4	81.5	75.4	61.9	54.5	4.7	CL	



	1	2	3	비고
A	3.47			
CI	0.38			
LI	0.62			

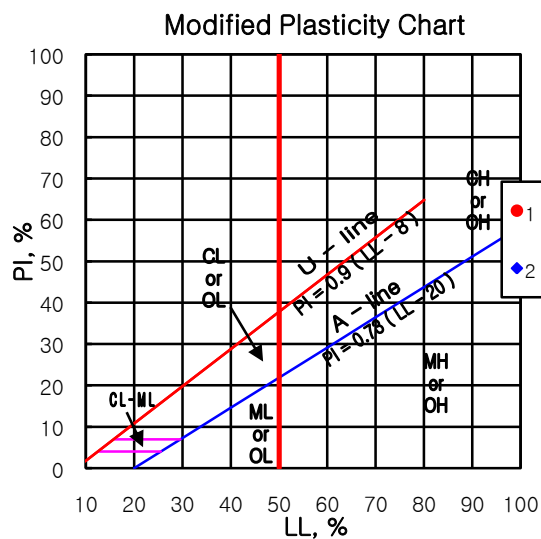
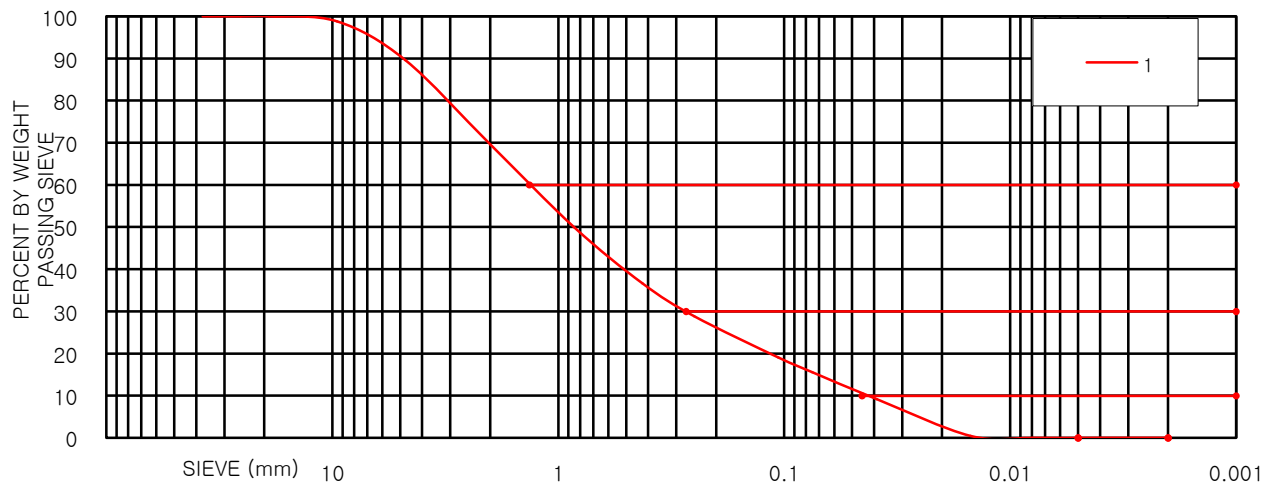
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-20	3.0	1	10.4	2.654	N	P	P	0.0453	0.2716	1.3428	29.6	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.6	69.6	50.0	36.7	28.9	19.1	15.6	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

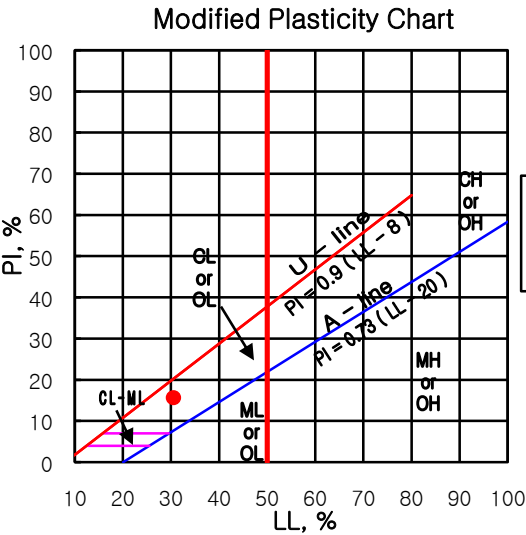
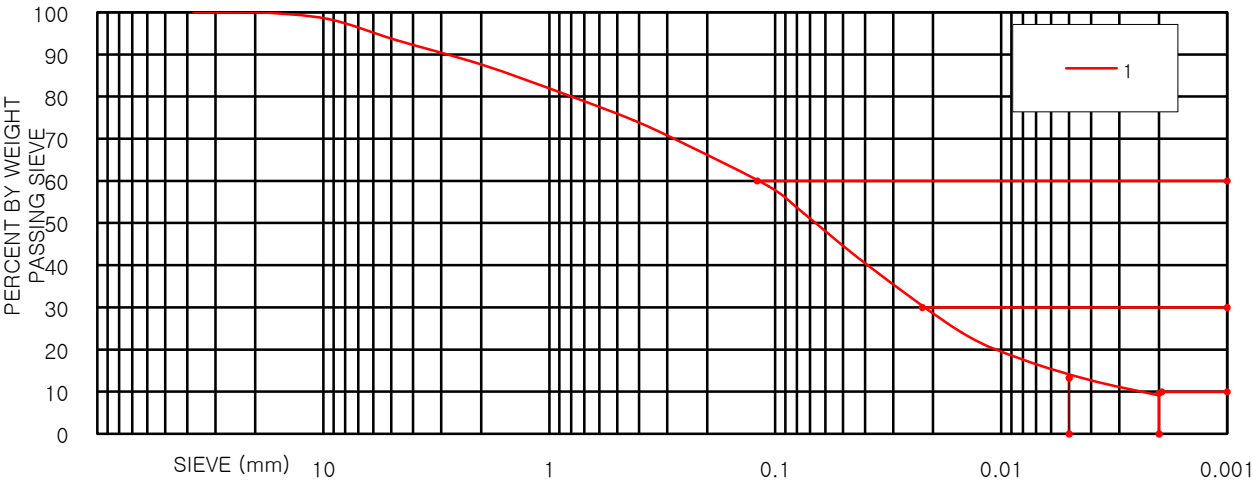
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-21	1.0	1	28.4	2.686	30.5	14.8	15.7	0.0019	0.0223	0.1202	61.8	2.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	93.4	87.6	80.6	74.4	68.7	58.6	52.4	9.7	CL	



	1	2	3	비고
A	1.62			
CI	0.13			
LI	0.87			

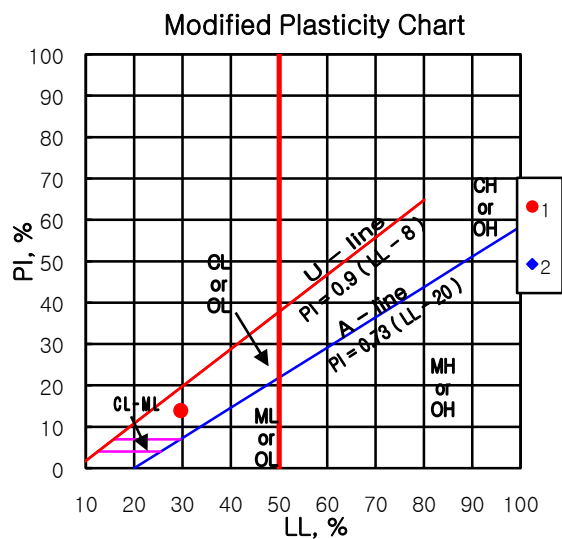
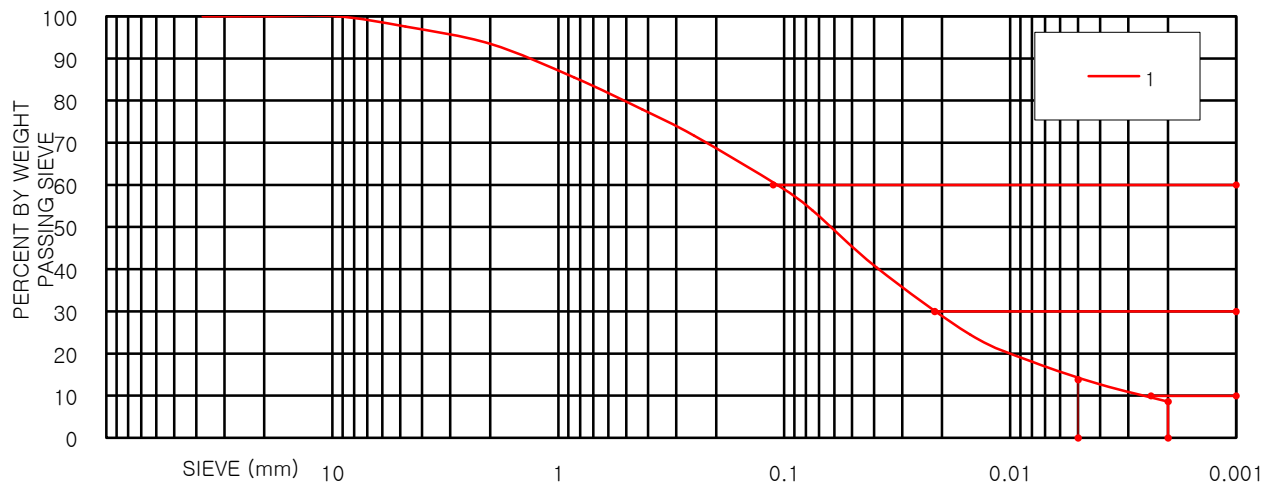
Remarks	
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-21	2.0	1	20.2	2.691	29.6	15.7	13.9	0.0024	0.0216	0.1119	47.0	1.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.6	93.5	85.5	77.9	71.7	59.8	54.0	8.6	CL	

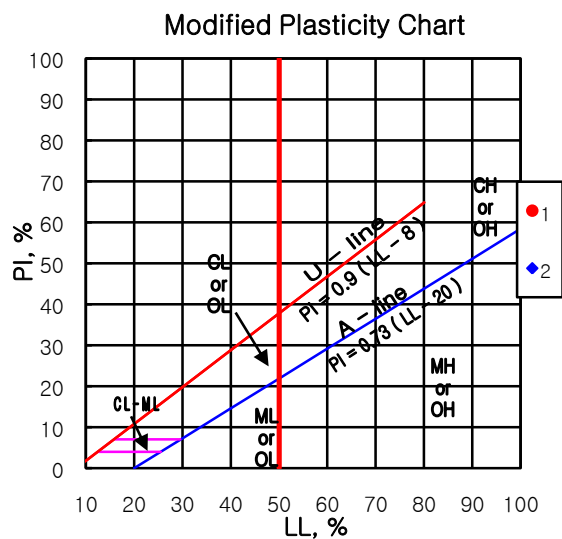
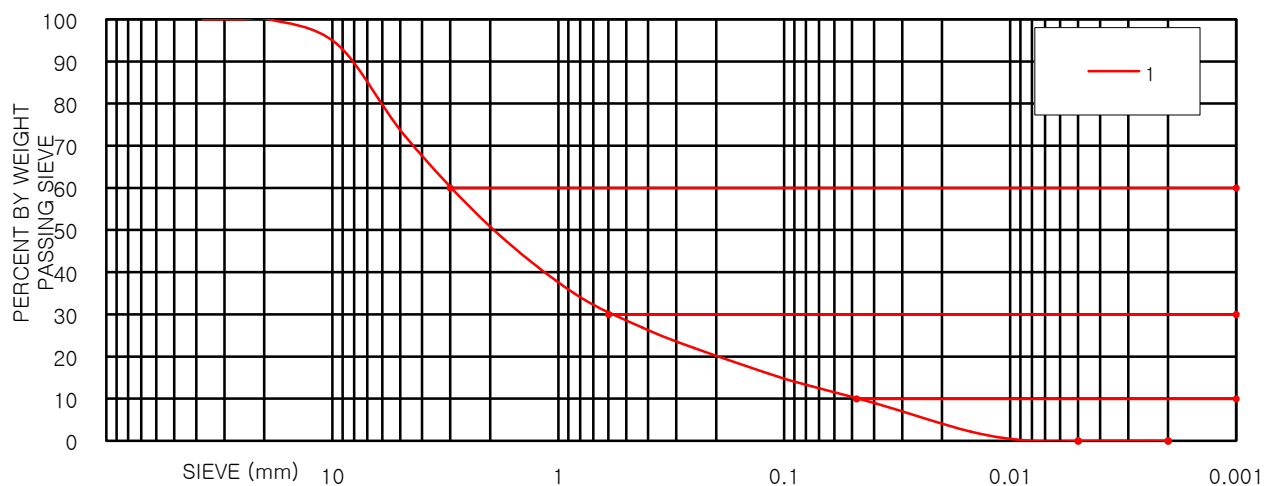


	1	2	3	비고
A	1.62			
CI	0.68			
LI	0.32			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

[illegible][illegible]

	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks

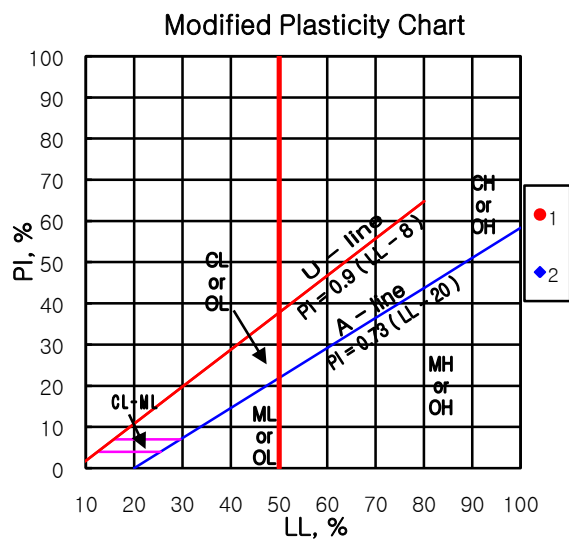
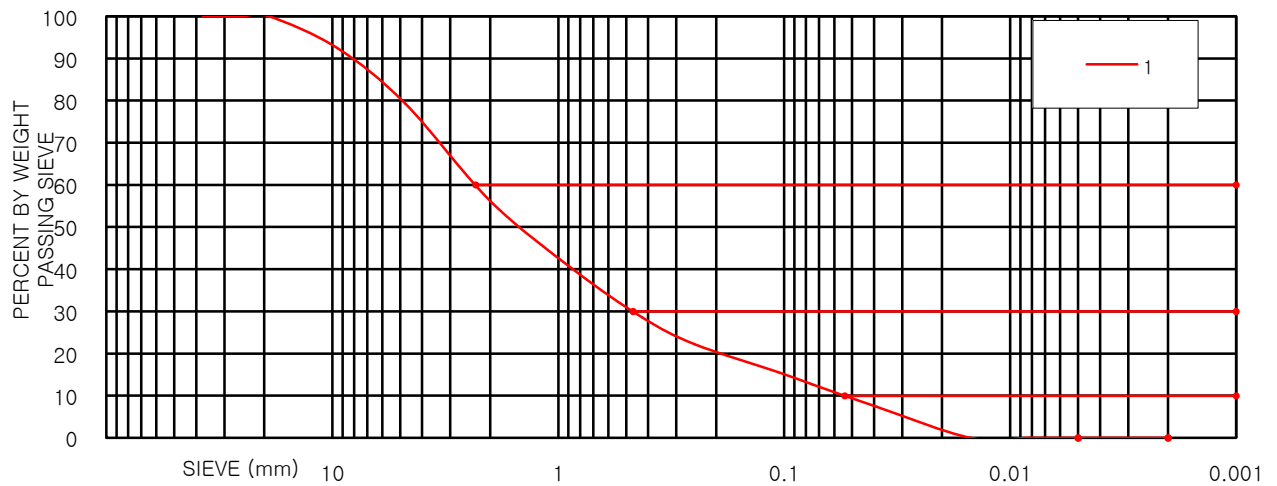
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-24	1.0	1	11.4	2.658	N	P	P	0.0540	0.4667	2.3174	43.0	1.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	79.3	56.2	39.8	28.6	22.3	15.6	12.7	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

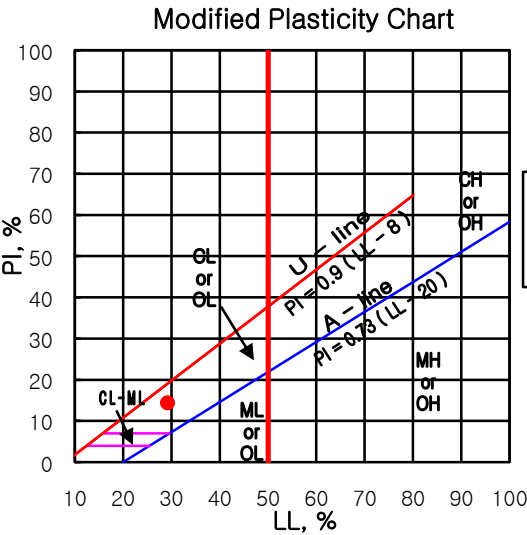
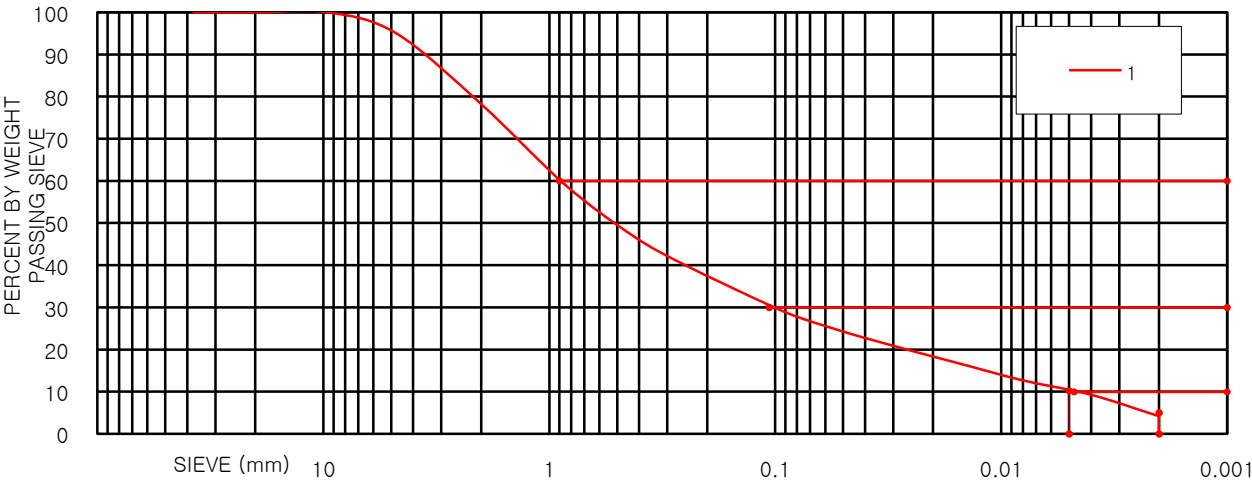
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-24	4.0	1	23.2	2.656	29.1	14.6	14.5	0.0048	0.1064	0.9016	189.7	2.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	95.0	78.2	59.1	46.9	40.0	30.5	27.3	5.0	SC	



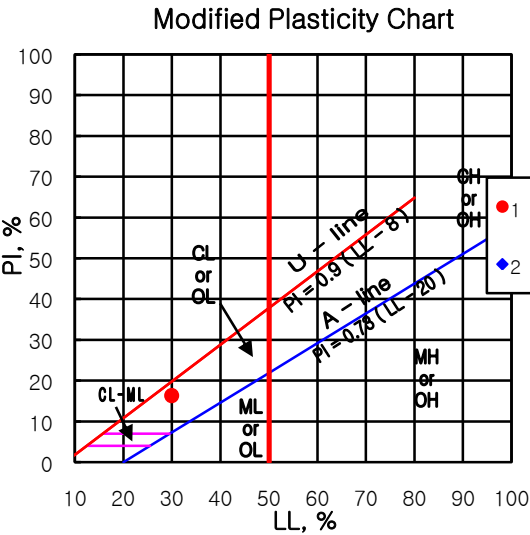
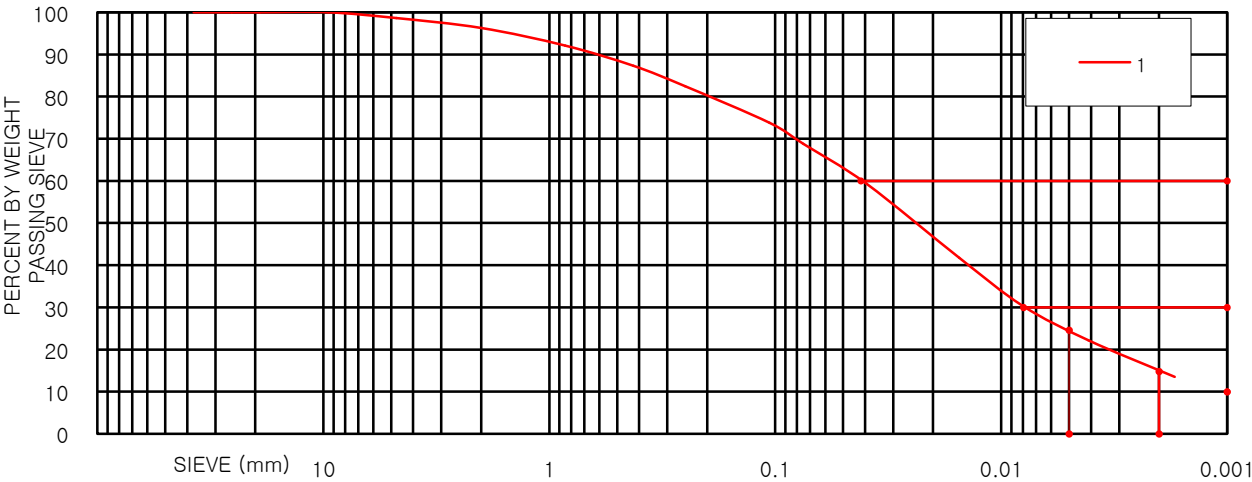
	1	2	3	비고
A	2.90			
CI	0.41			
LI	0.59			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-25	2.0	1	27.7	2.674	29.9	13.6	16.3	0.0010	0.0080	0.0418	41.8	1.5
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	98.6	96.3	92.1	87.3	82.4	73.8	68.8	14.8	CL			



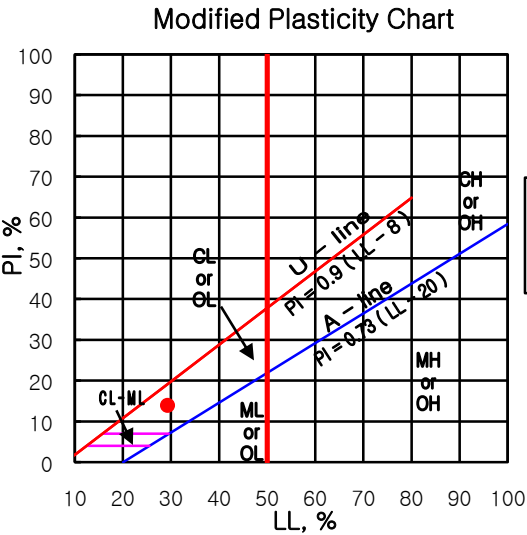
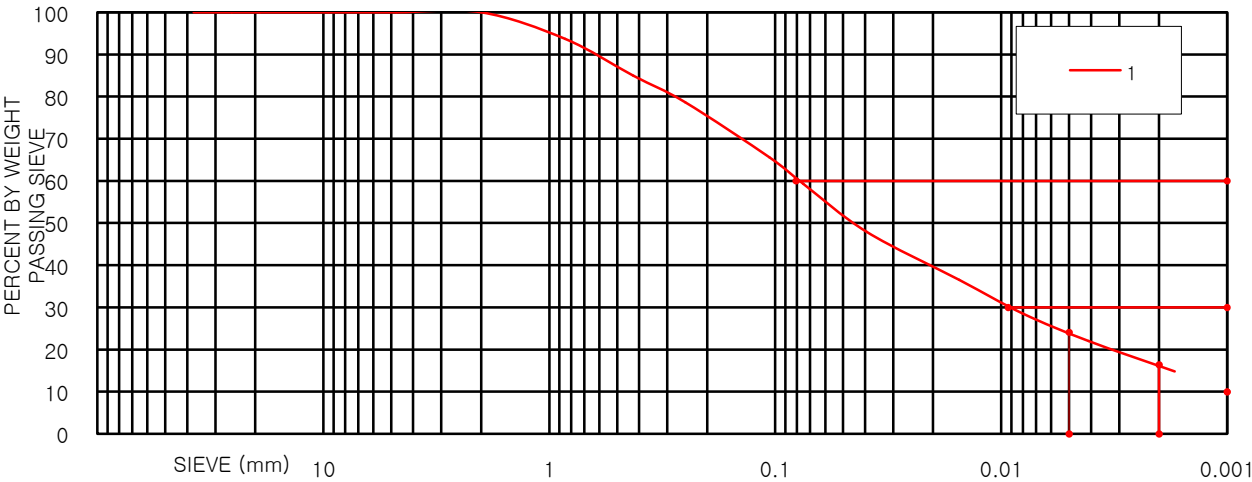
	1	2	3	비고
A	1.10			
CI	0.13			
LI	0.87			

Remarks	
KS F 2301	05. 11. 25 개정
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-25	4.0	1	23.0	2.676	29.2	15.2	14.0	0.0010	0.0093	0.0809	80.9	1.1
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	100.0	100.0	93.7	85.0	78.7	65.6	59.3	16.4	CL			



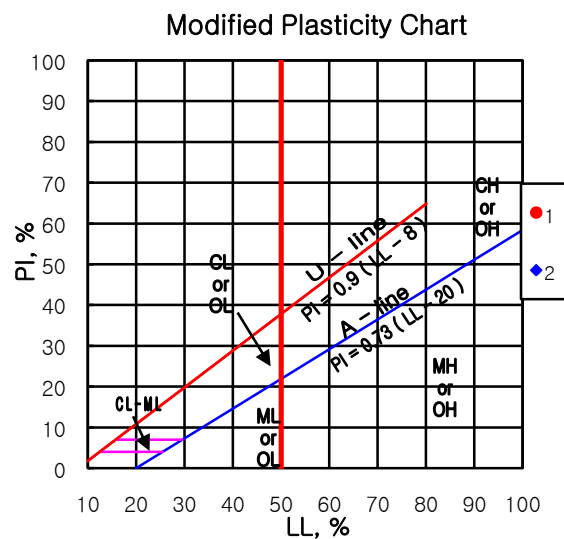
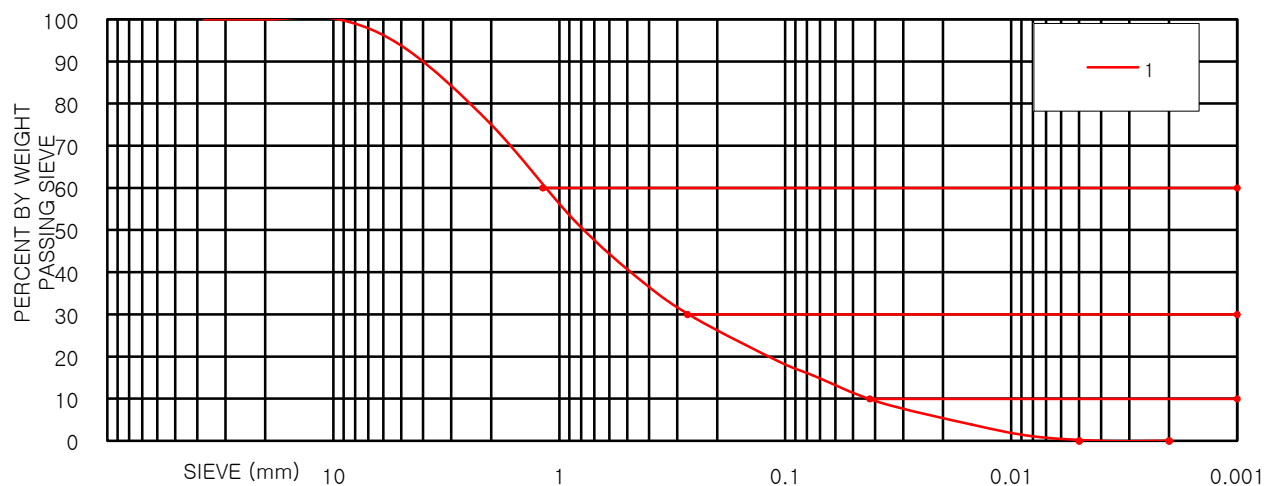
	1	2	3	비고
A	0.85			
CI	0.44			
LI	0.56			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5궁구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-26	1.0	1	8.8	2.671	N	P	P	0.0423	0.2710	1.1830	28.0	1.5
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	92.9	75.0	52.1	37.6	29.1	18.8	15.5	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

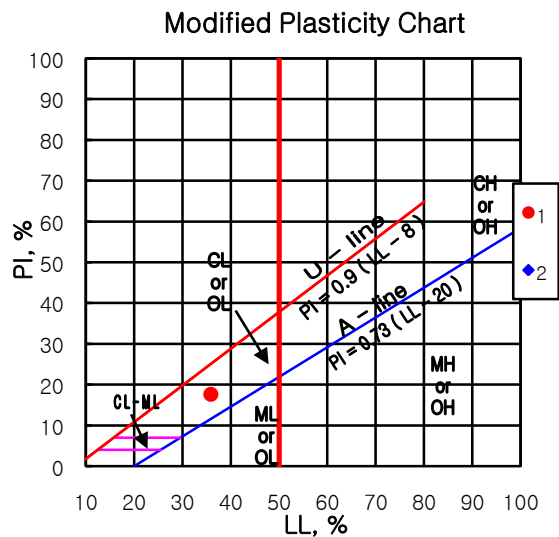
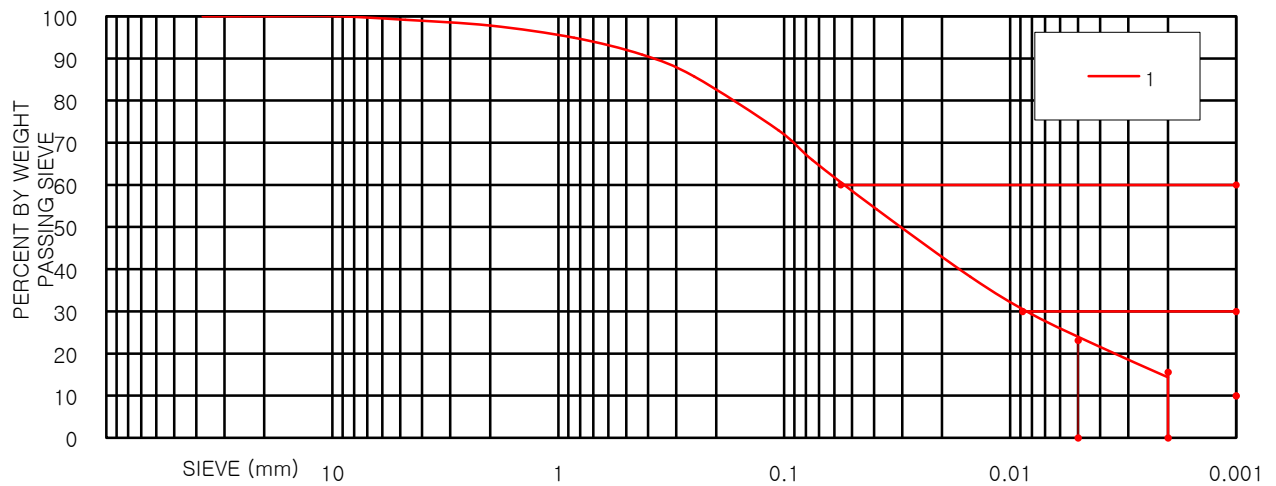
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-26	3.0	1	23.7	2.676	35.8	18.1	17.7	0.0010	0.0088	0.0562	56.2	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	99.2	97.8	94.9	90.9	85.7	73.0	65.9	15.6	CL	



	1	2	3	비고
A	1.13			
CI	0.68			
LI	0.32			

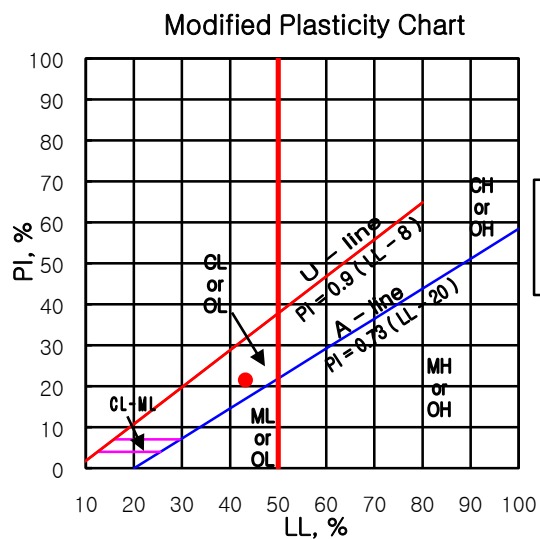
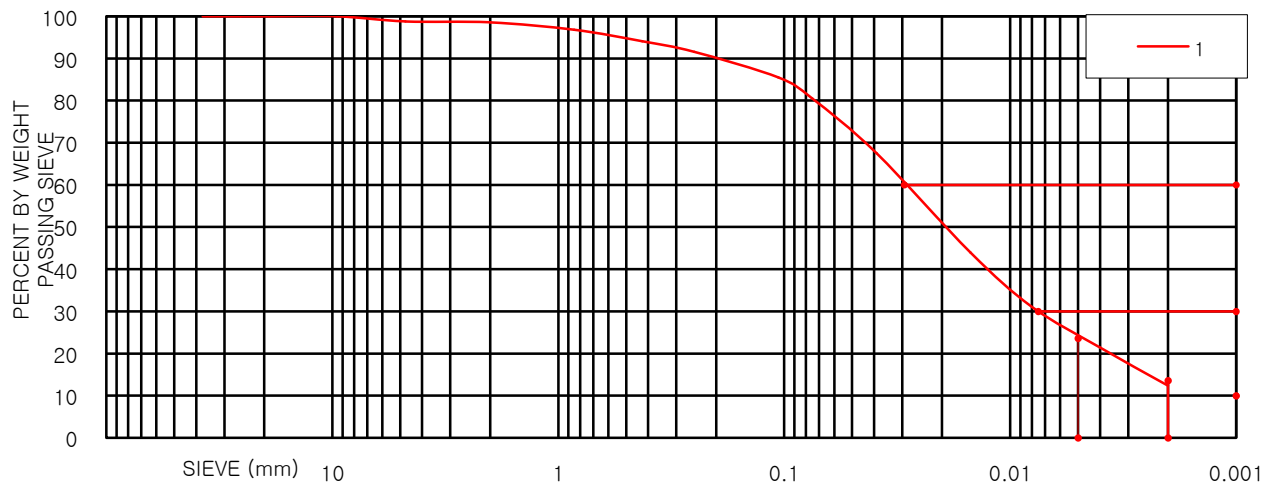
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-26	5.0	1	27.2	2.689	43.1	21.5	21.6	0.0010	0.0075	0.0294	29.4	1.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	98.8	98.5	96.8	94.1	91.6	85.5	80.5	13.6	CL	



	1	2	3	비고
A	1.59			
CI	0.74			
LI	0.26			

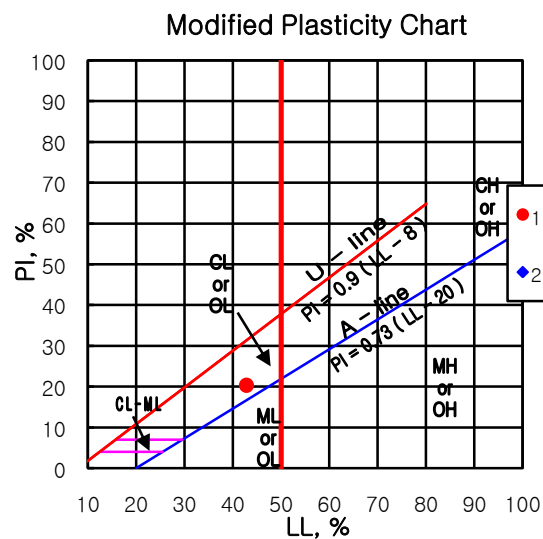
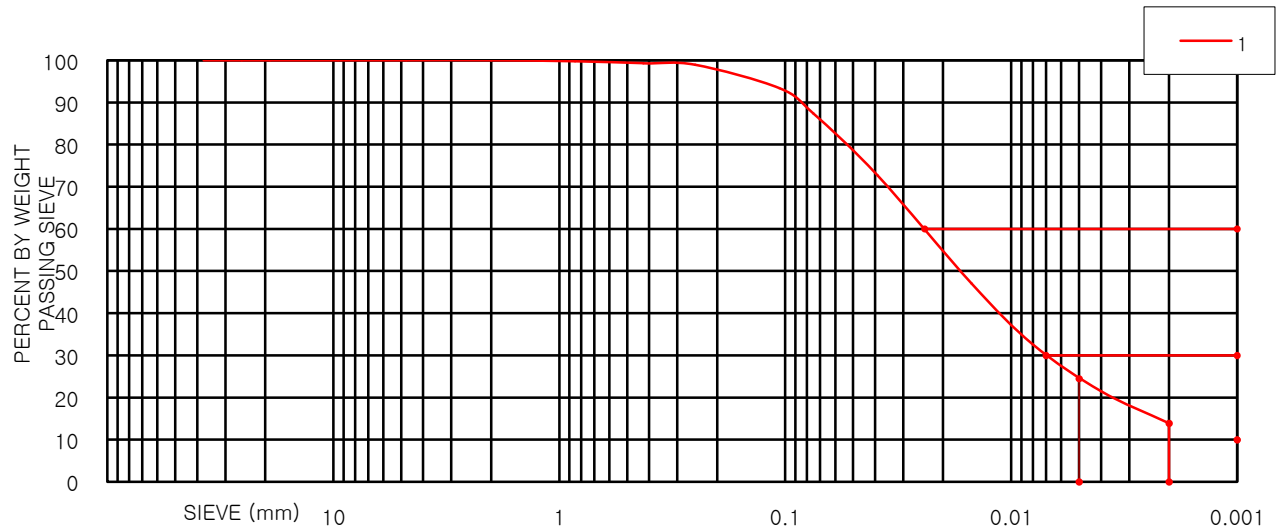
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-27	2.0	1	20.4	2.681	42.8	22.5	20.3	0.0010	0.0070	0.0242	24.2	2.0

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	100.0	99.8	99.3	99.0	93.4	87.4	13.9	CL	



	1	2	3	비고
A	1.46			
CI	1.10			
LI	-0.10			

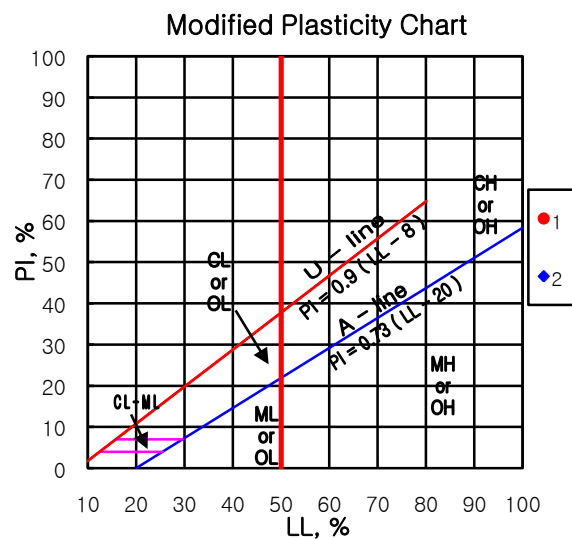
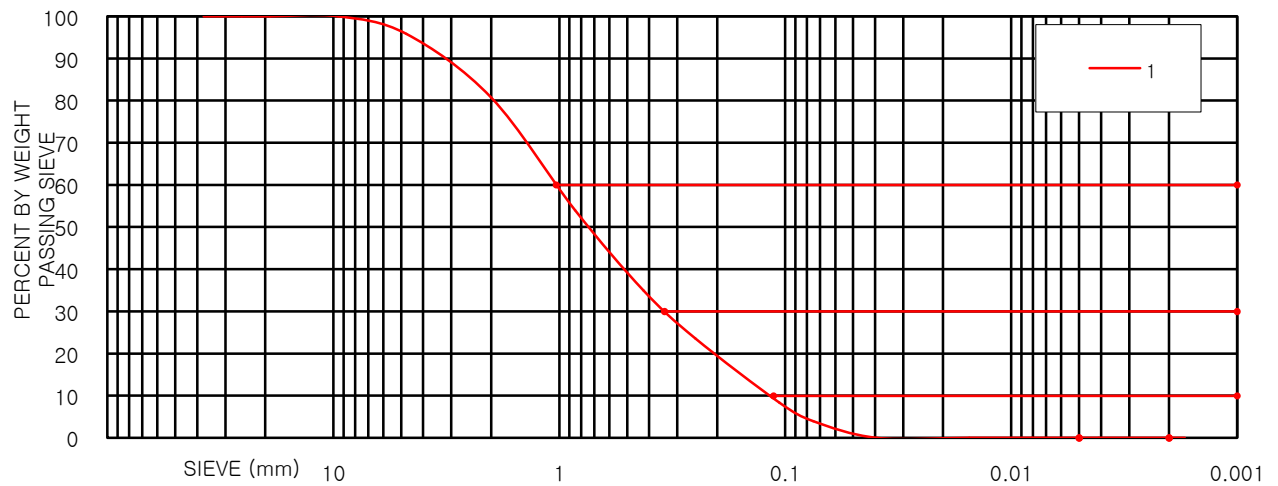
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-27	4.0	1	11.2	2.665	N	P	P	0.1127	0.3420	1.0328	9.2	1.0

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	95.8	80.7	54.0	35.0	23.6	8.4	4.0	-	SW	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

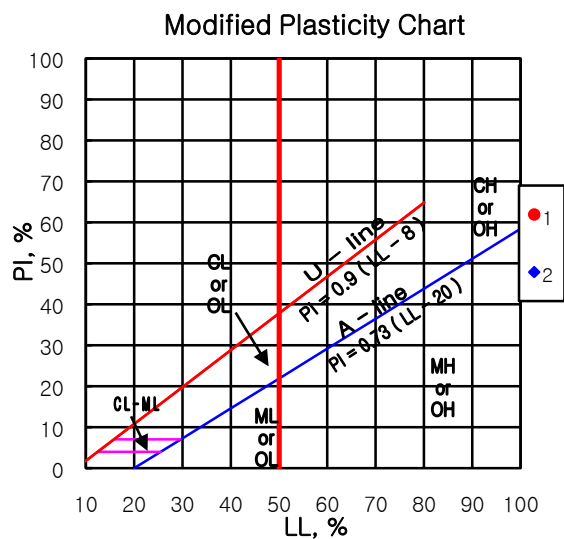
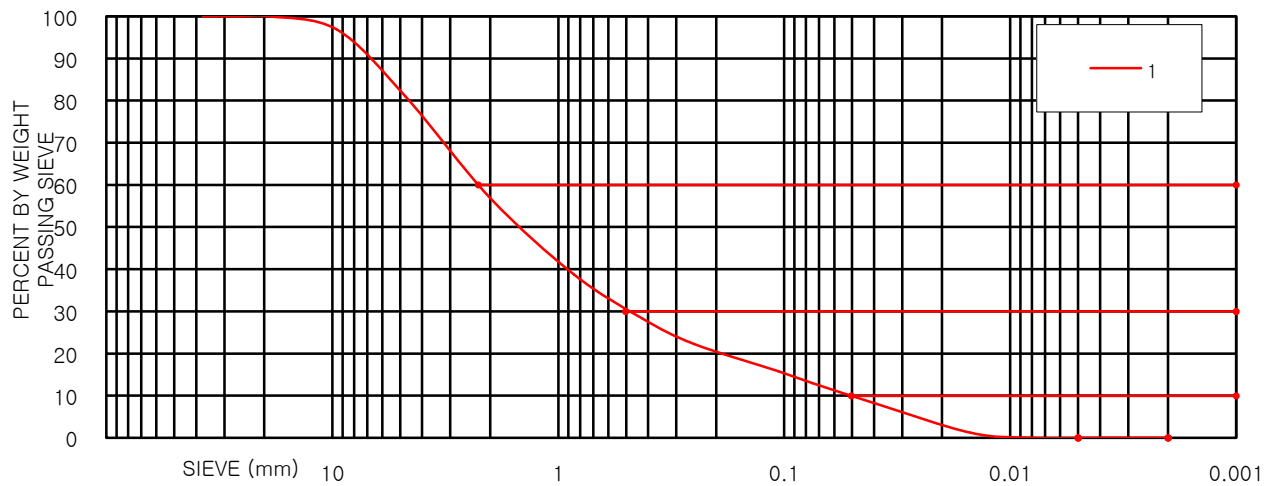
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-29	1.0	1	5.5	2.656	N	P	P	0.0505	0.5035	2.2594	44.8	2.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	81.0	56.9	38.7	28.3	22.3	15.8	13.0	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

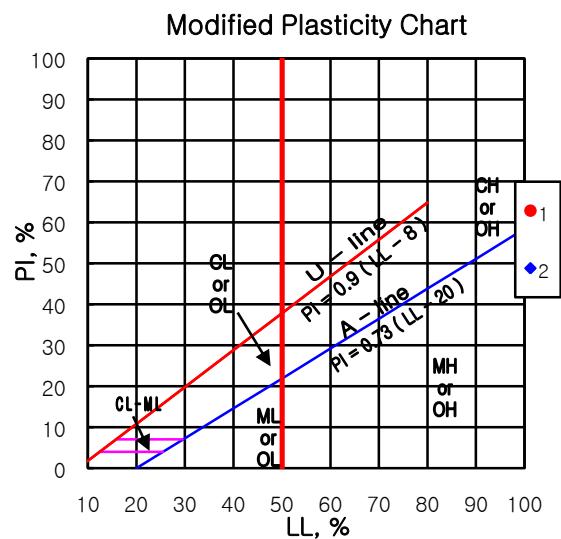
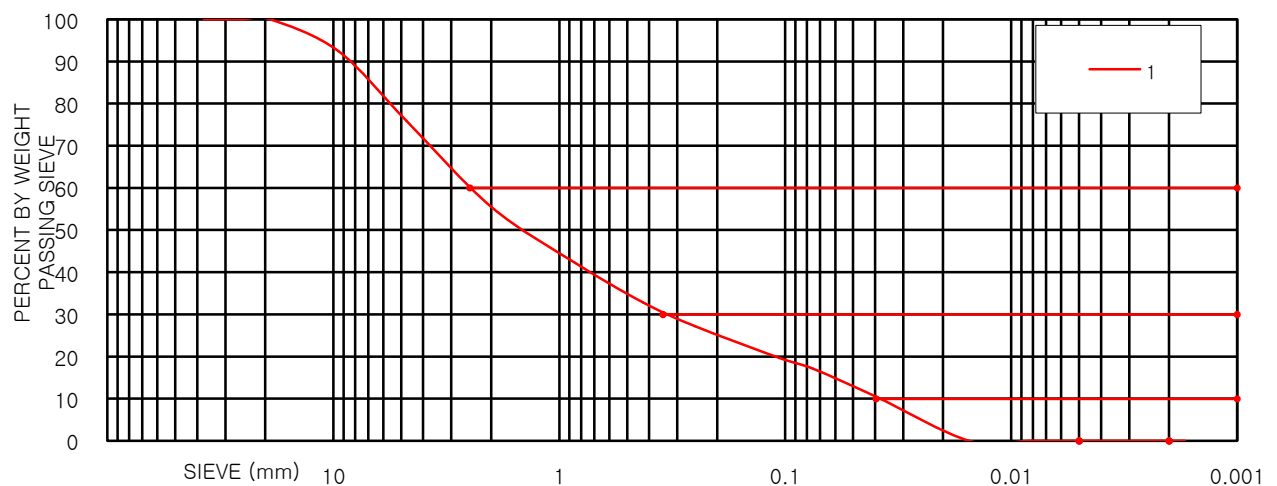
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-29	3.0	1	11.4	2.656	N	P	P	0.0396	0.3475	2.4889	62.8	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	75.9	55.5	42.2	32.8	27.2	19.7	17.1	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

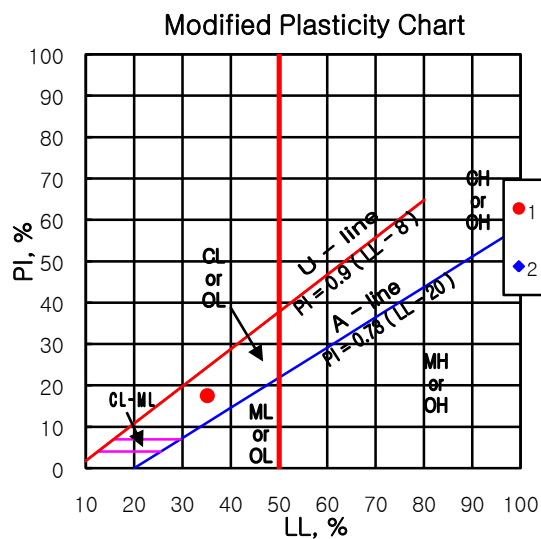
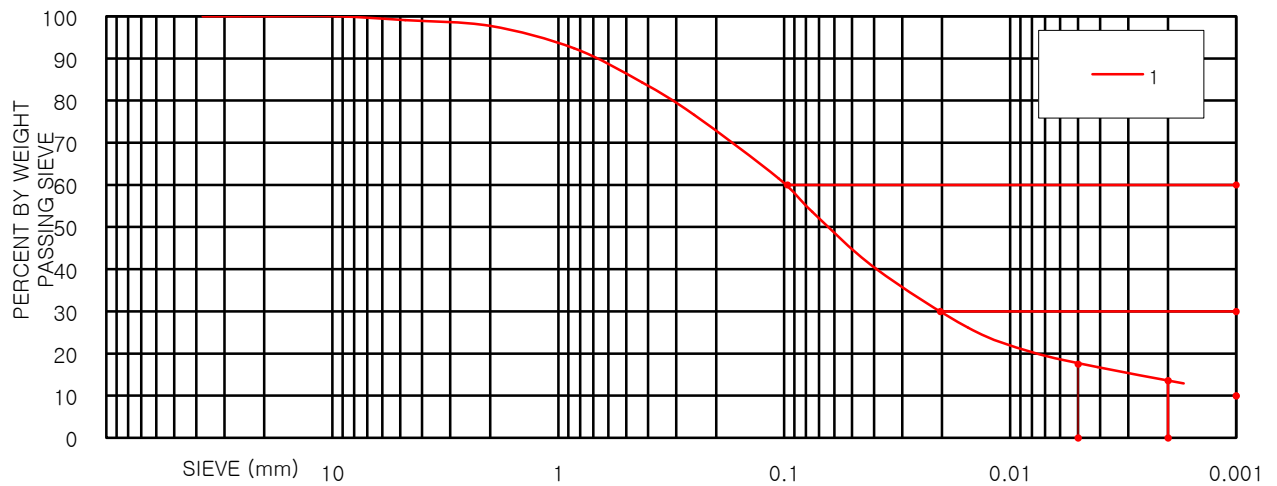
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-29	4.0	1	28.6	2.684	35.1	17.5	17.6	0.0010	0.0204	0.0968	96.8	4.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	99.1	97.7	92.4	84.3	76.6	61.6	53.6	13.6	CL	



	1	2	3	비고
A	1.29			
CI	0.37			
LI	0.63			

Remarks

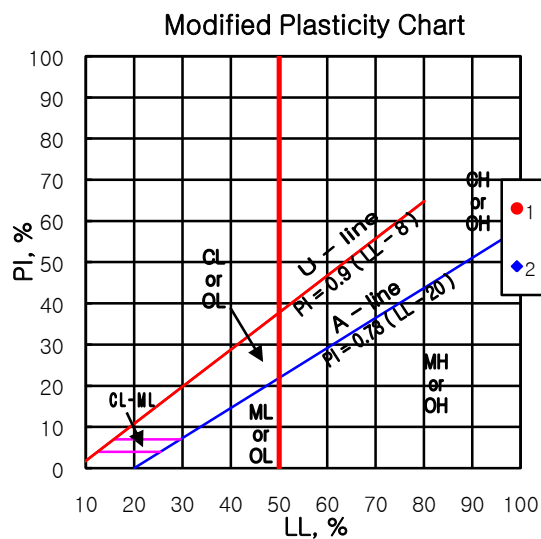
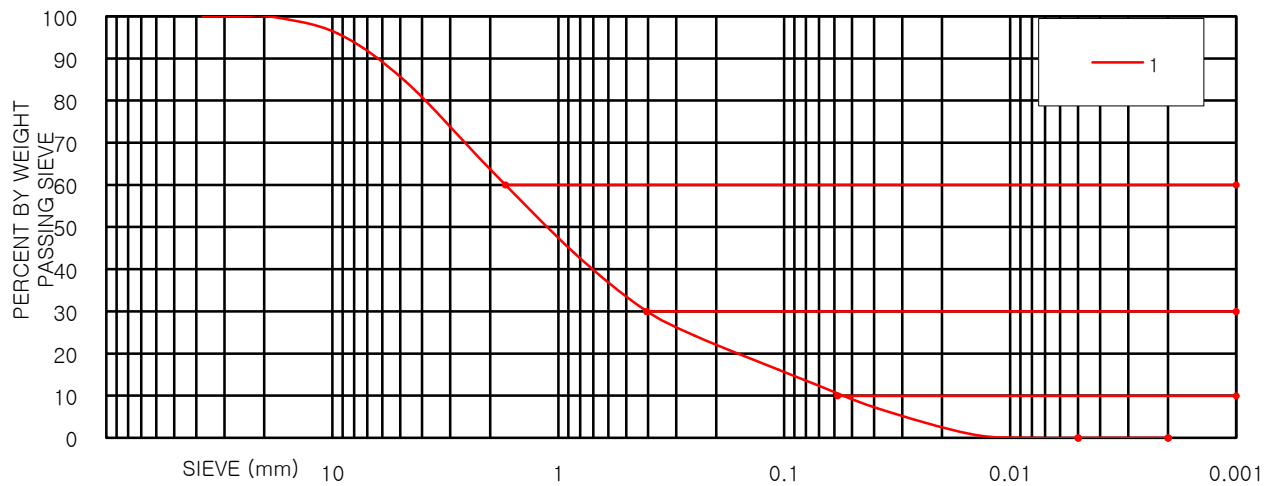
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-30	3.0	1	14.3	2.659	N	P	P	0.0581	0.4064	1.7140	29.5	1.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	84.6	63.7	43.9	30.8	24.3	16.2	13.0	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

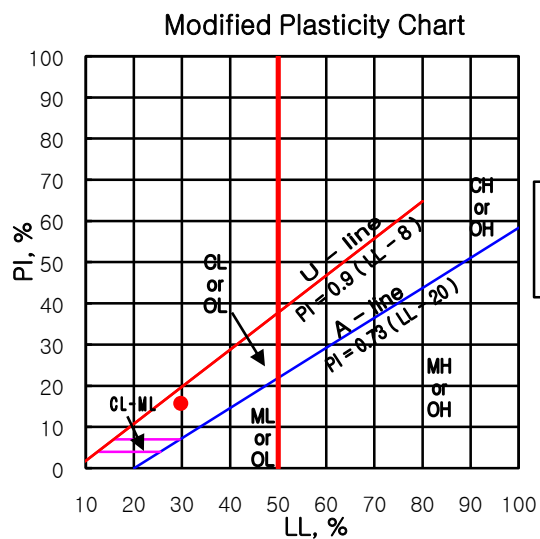
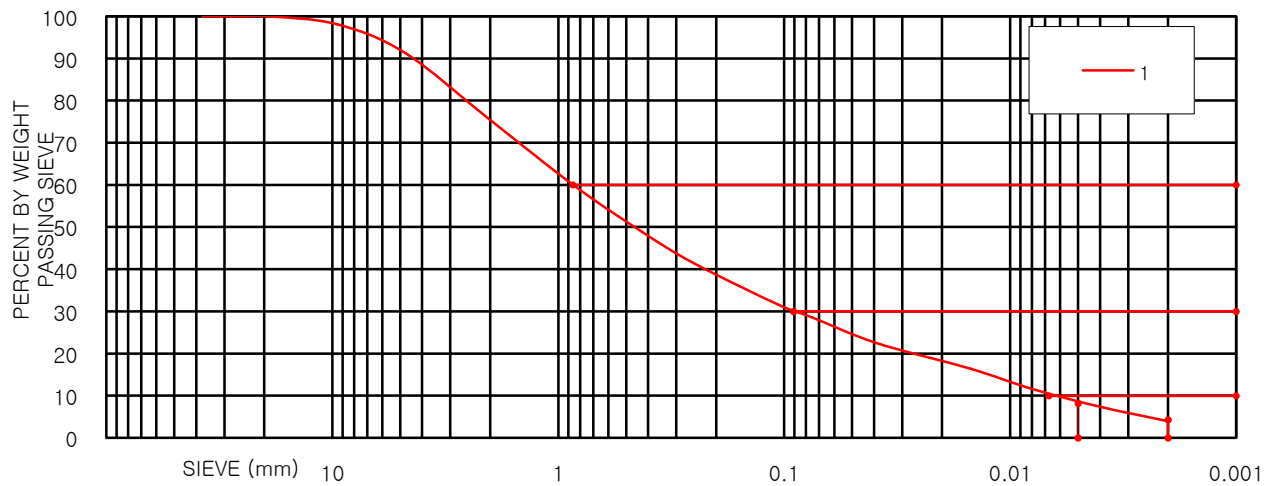
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-30	4.0	1	14.2	2.663	29.7	13.9	15.8	0.0067	0.0910	0.8630	127.9	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	91.3	75.4	59.8	48.8	41.4	31.6	28.6	4.3	SC	



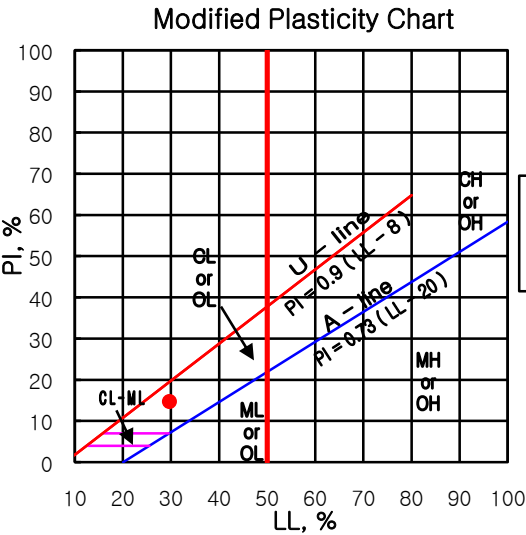
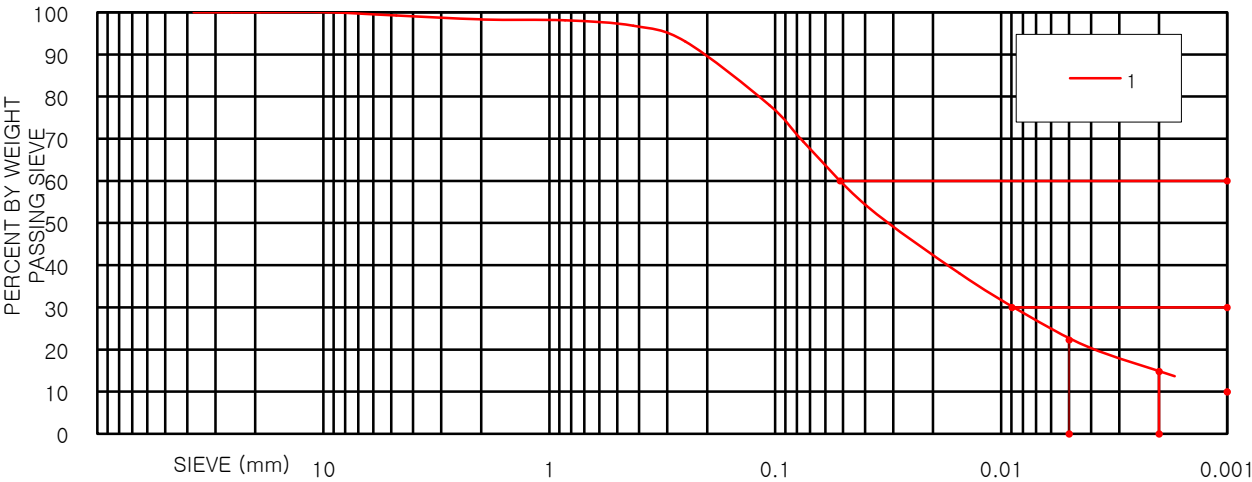
	1	2	3	비고
A	3.67			
CI	0.98			
LI	0.02			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-31	1.0	1	24.0	2.691	29.6	14.8	14.8	0.0010	0.0090	0.0516	51.6	1.6
Curve No.	Sieve Analysis Data (% Passing)							USCS	Description			
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075					0.002
1	99.2	98.3	98.1	96.8	93.1	78.0	69.3	14.8	CL			



	1	2	3	비고
A	1.00			
CI	0.38			
LI	0.62			

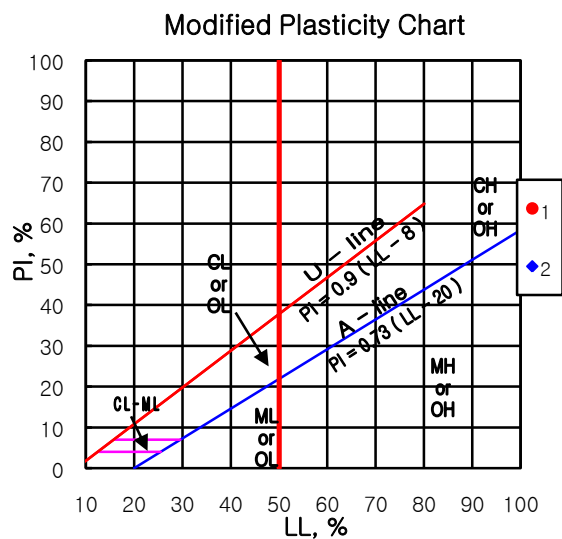
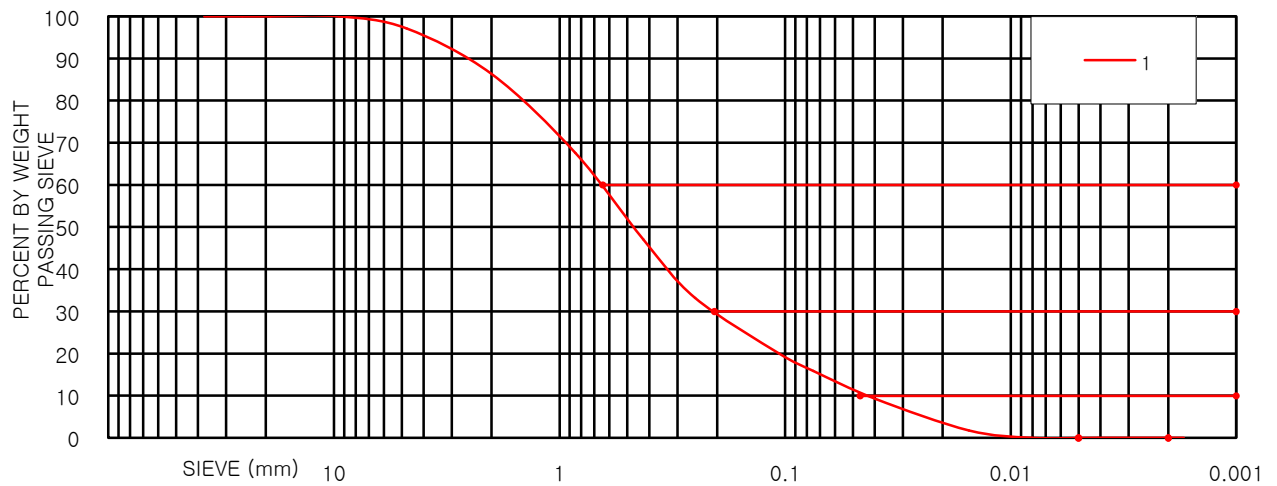
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-31	2.0	1	12.5	2.661	N	P	P	0.0465	0.2056	0.6427	13.8	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.1	86.3	67.6	47.1	33.2	20.0	15.9	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

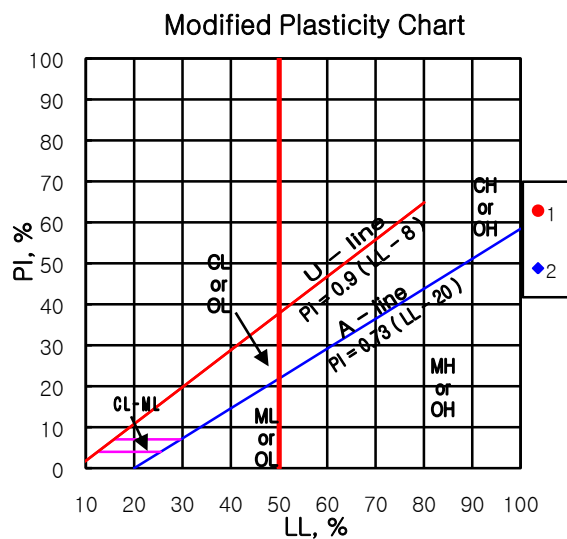
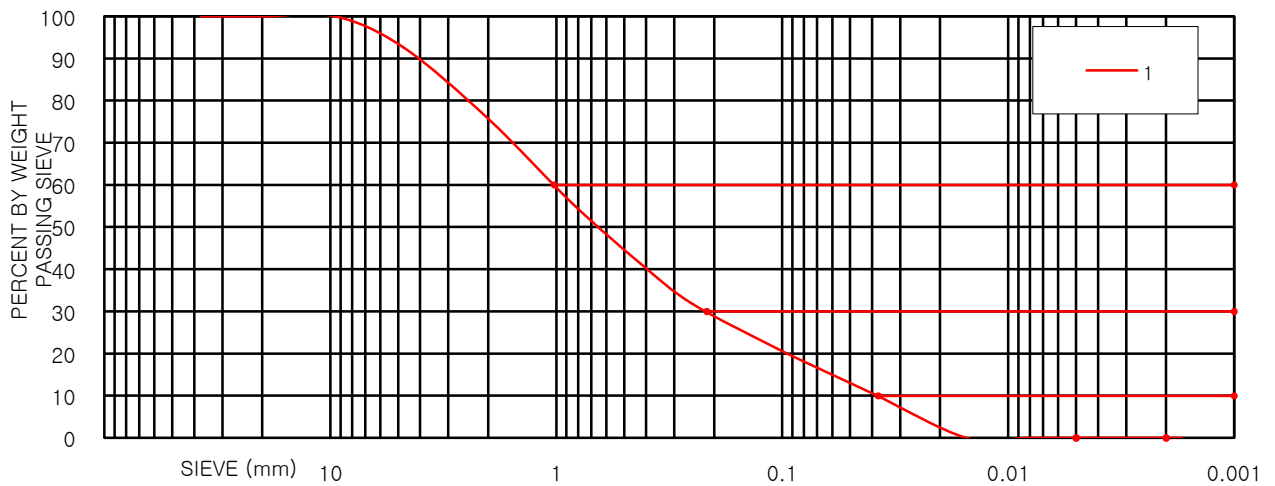
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-31	3.0	1	11.8	2.643	N	P	P	0.0376	0.2158	1.0233	27.2	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	92.6	75.7	55.7	41.4	31.8	21.3	17.4	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

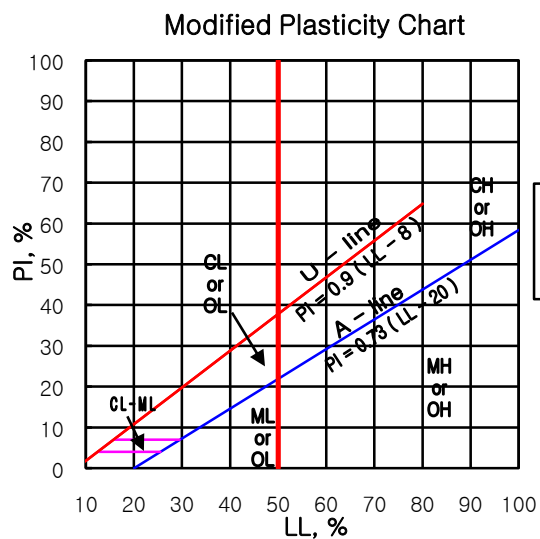
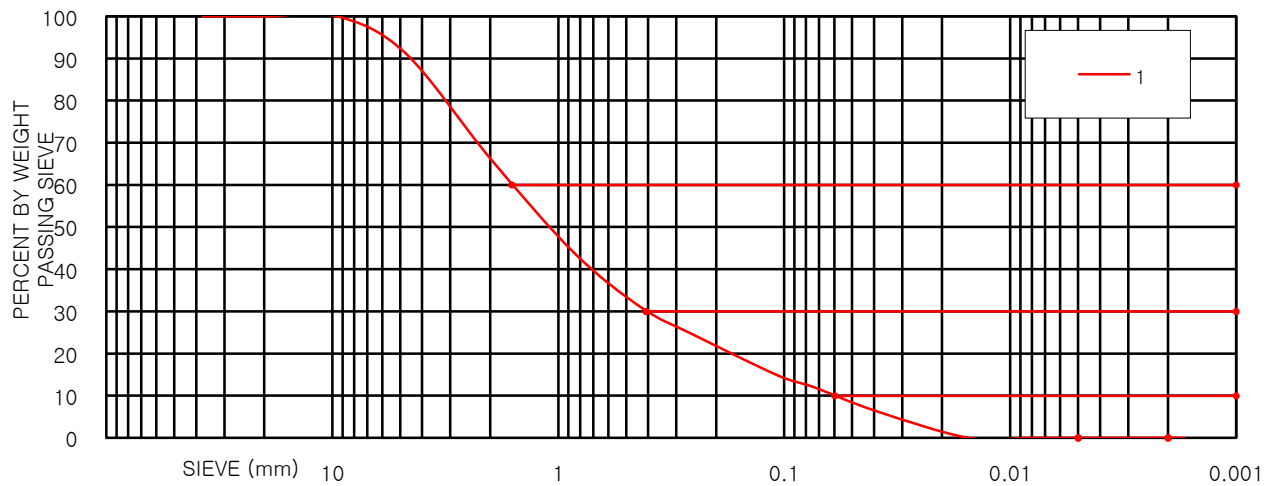
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-31	4.0	1	10.2	2.634	N	P	P	0.0597	0.4093	1.6069	26.9	1.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	91.3	66.3	43.9	30.8	24.4	14.8	12.2	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

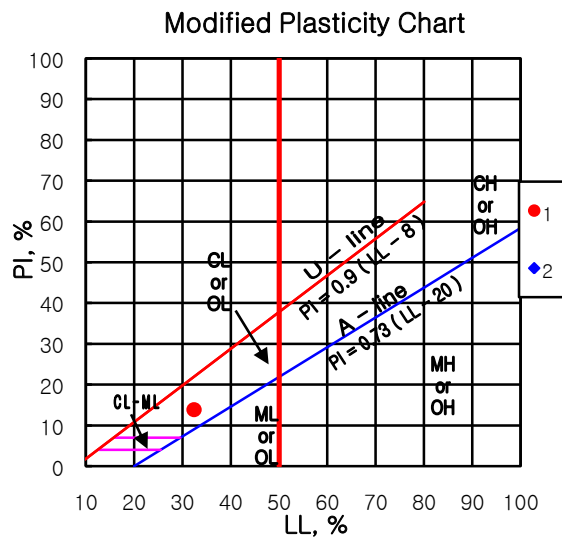
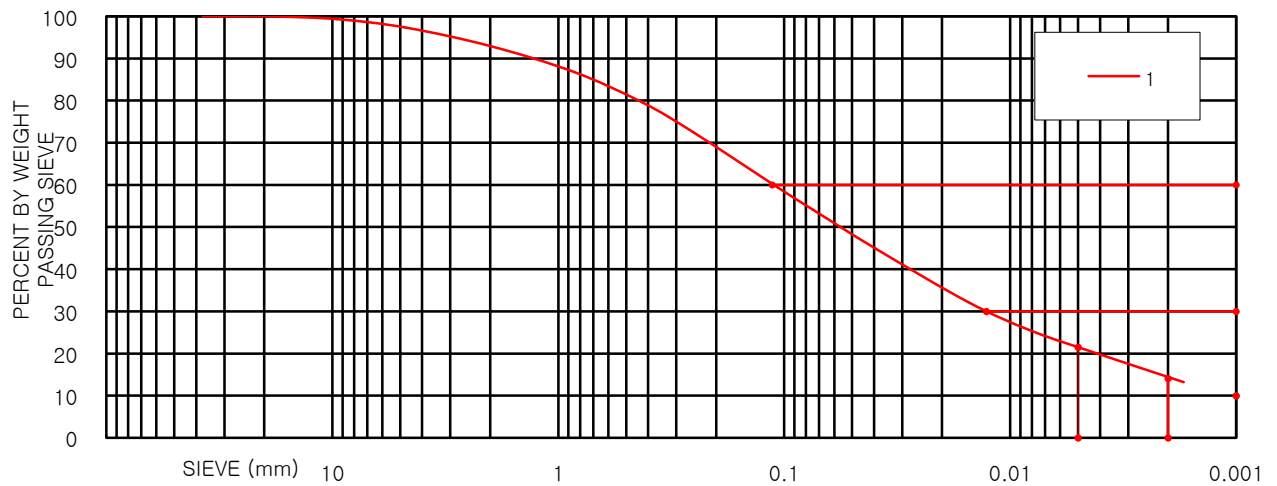
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-32	1.0	1	22.1	2.674	32.4	18.5	13.9	0.0010	0.0127	0.1130	113.0	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.3	93.0	86.8	79.6	72.4	59.3	54.2	14.1	CL	



	1	2	3	비고
A	0.99			
CI	0.74			
LI	0.26			

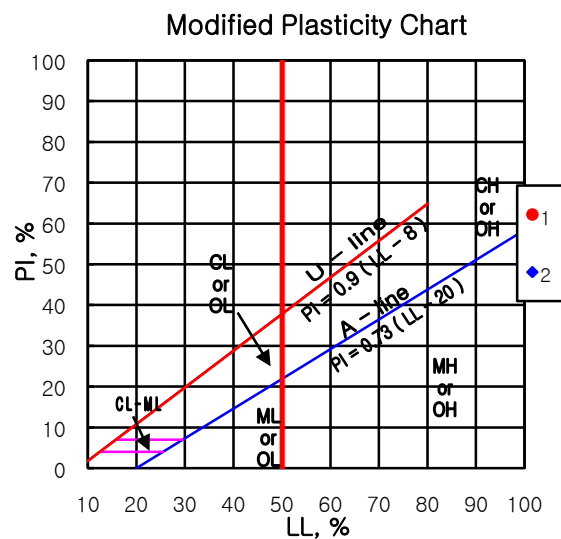
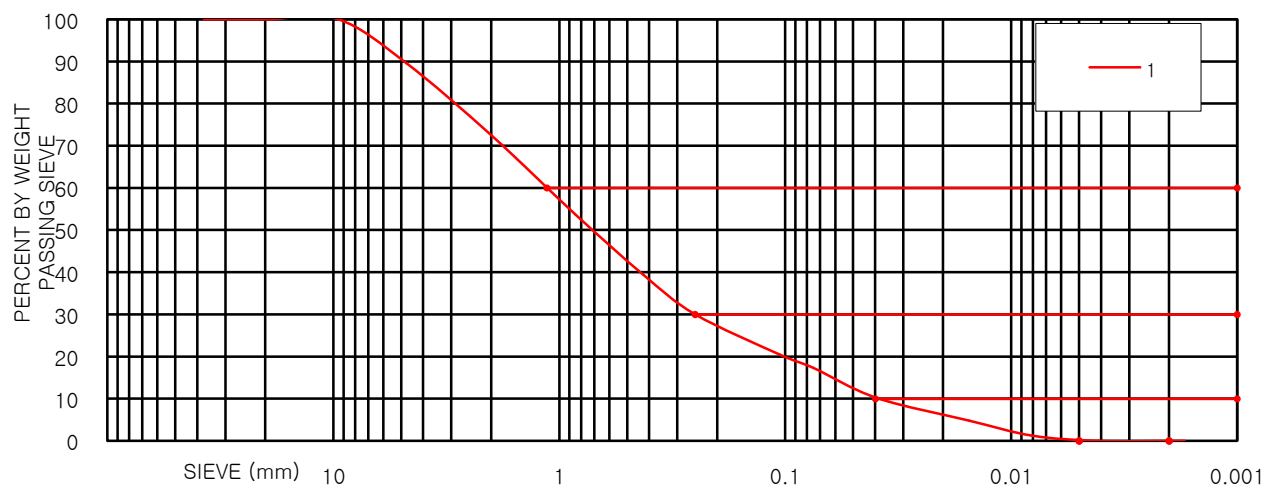
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-32	3.0	1	10.9	2.656	N	P	P	0.0399	0.2506	1.1350	28.4	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.6	72.5	53.8	39.4	30.0	20.5	17.3	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

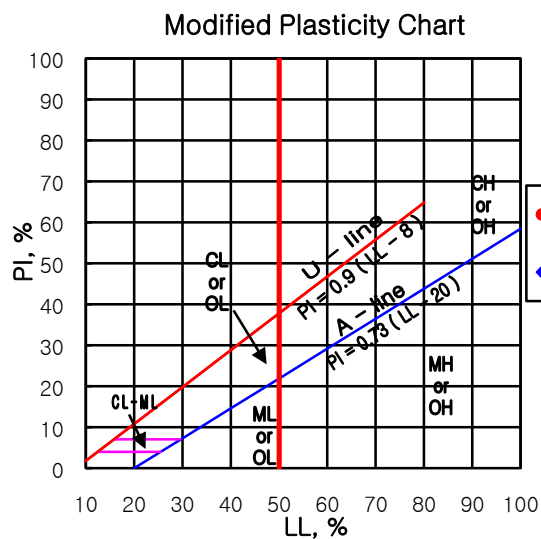
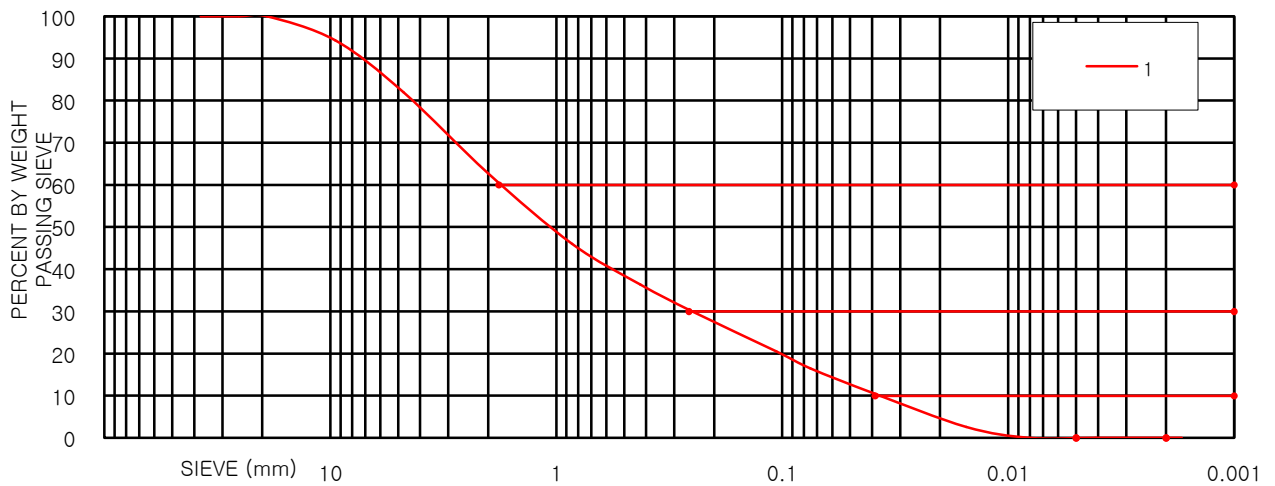
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-32	5.0	1	12.6	2.659	N	P	P	0.0388	0.2588	1.7947	46.2	1.0

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	82.0	62.7	46.0	36.4	30.0	20.5	16.5	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

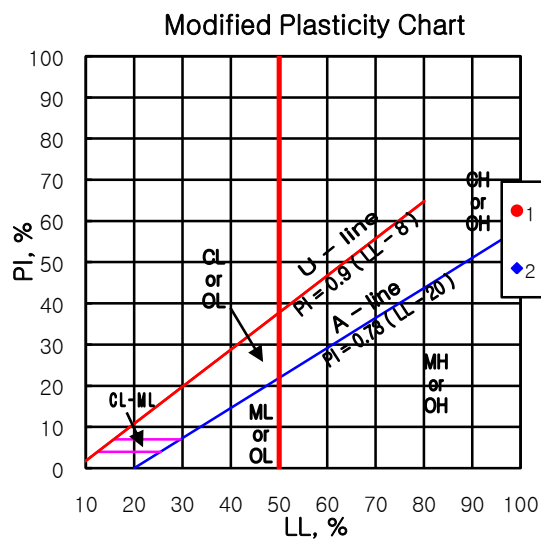
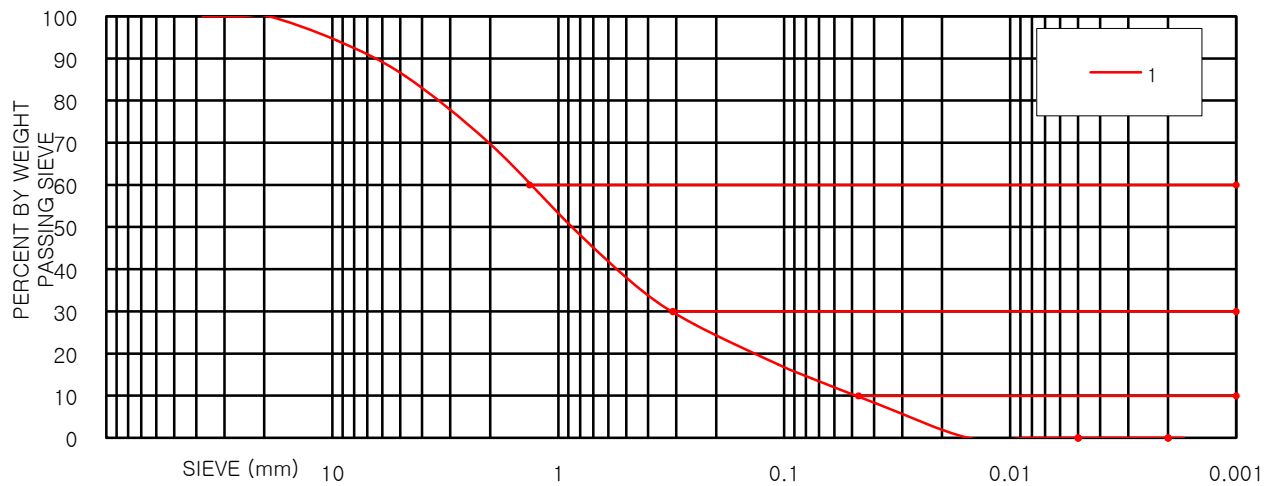
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-33	2.0	1	11.2	2.652	N	P	P	0.0469	0.3112	1.3397	28.6	1.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	85.8	69.7	49.5	34.9	27.0	17.4	14.1	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

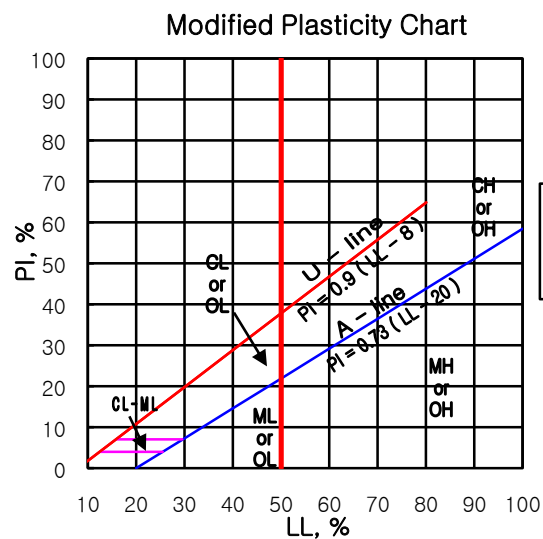
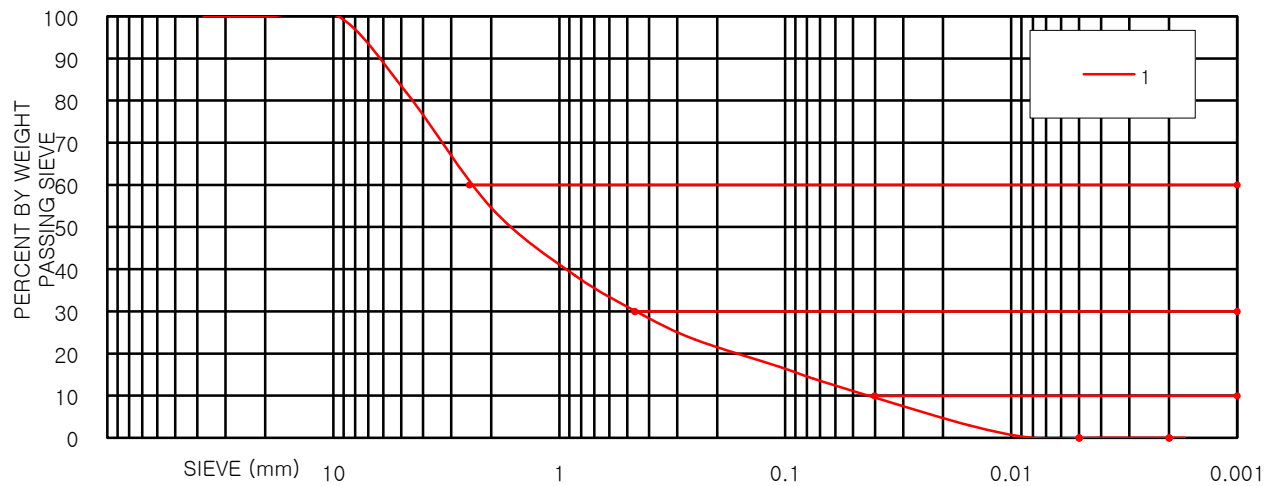
Remarks

KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-33	3.0	1	13.8	2.668	N	P	P	0.0403	0.4634	2.5003	62.1	2.1
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	81.9	54.6	38.5	29.1	23.3	16.9	14.1	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

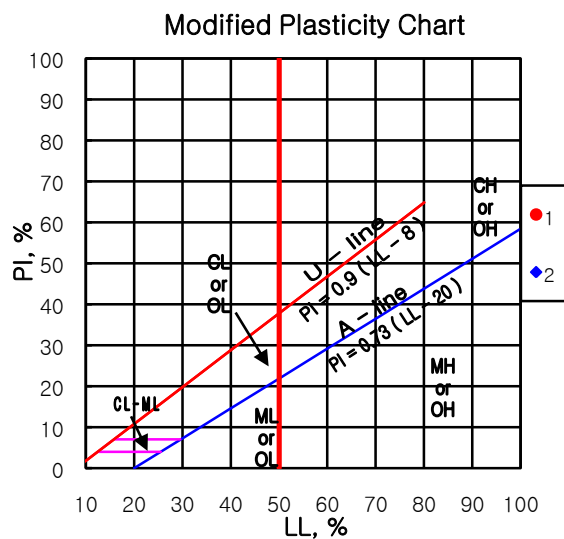
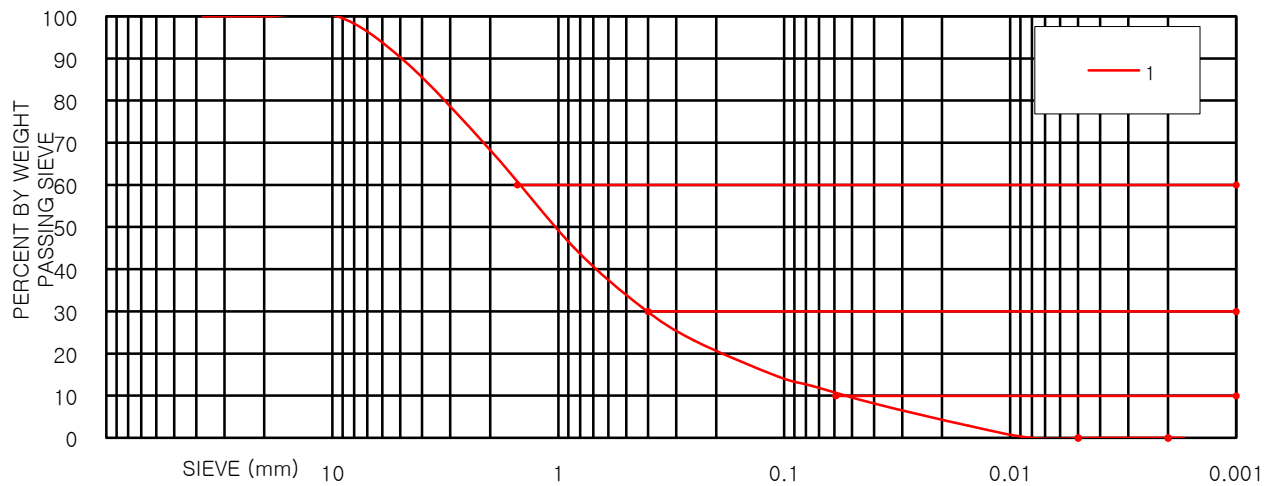
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-33	5.0	1	11.1	2.643	N	P	P	0.0592	0.4009	1.5171	25.6	1.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.2	68.3	45.1	30.9	23.1	14.5	12.3	-	SM	



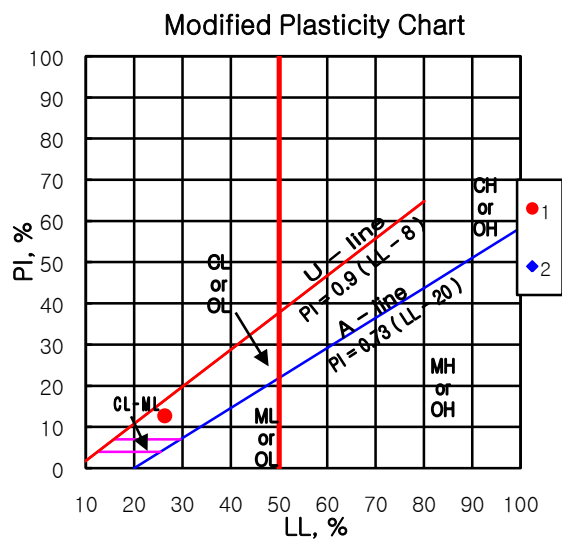
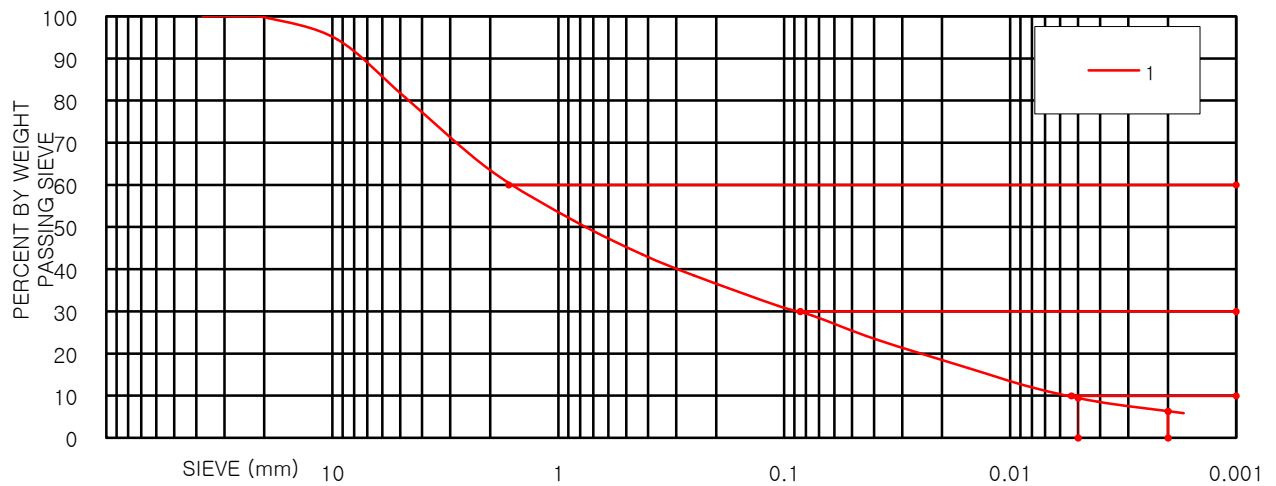
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-34	1.0	1	15.8	2.672	26.3	13.5	12.8	0.0054	0.0849	1.6558	309.0	0.8
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	80.7	63.5	51.5	43.5	38.5	31.3	29.0	6.3	SC			



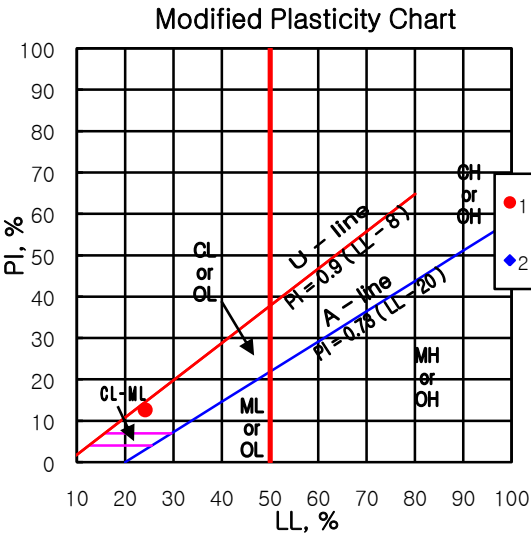
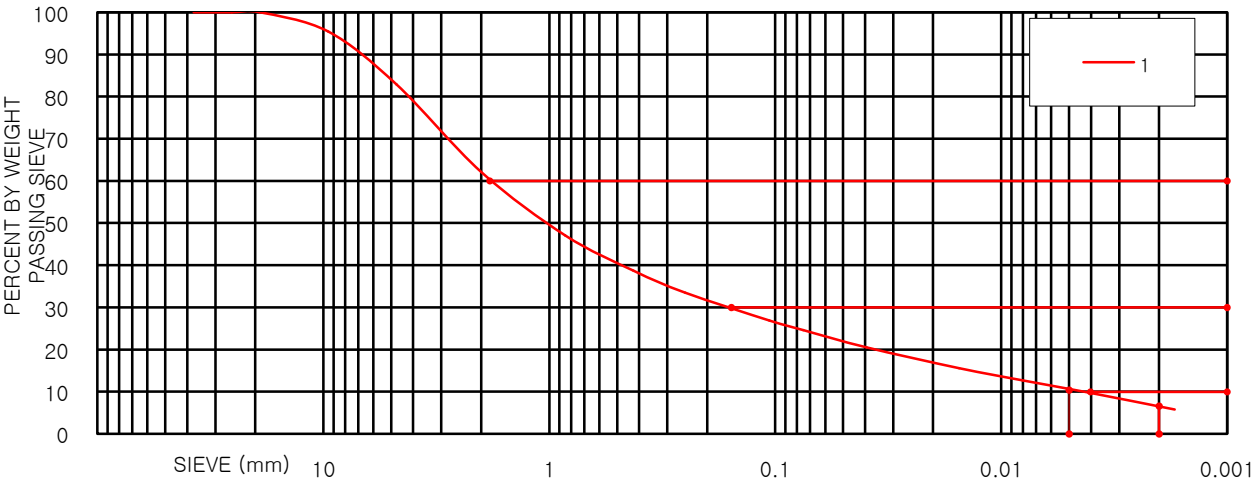
	1	2	3	비고
A	2.02			
CI	0.82			
LI	0.18			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-34	2.0	1	14.2	2.659	24.1	11.4	12.7	0.0040	0.1563	1.8323	455.0	3.3
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	82.9	62.1	47.1	38.7	33.5	26.9	24.6	6.6	SC			



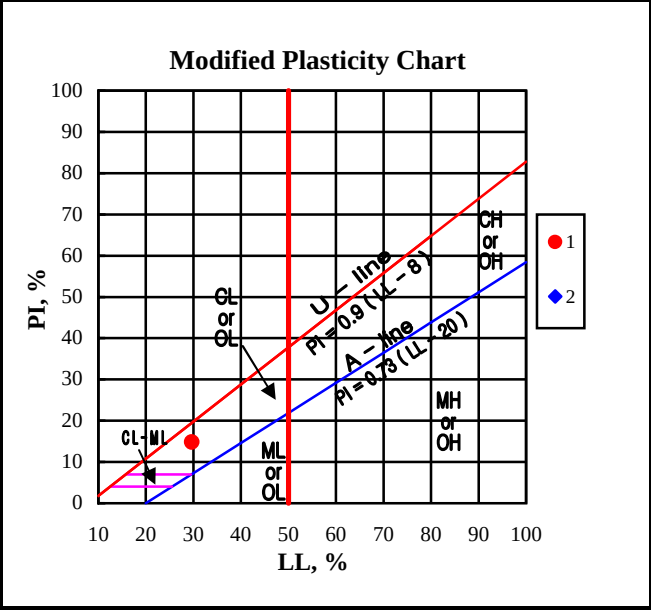
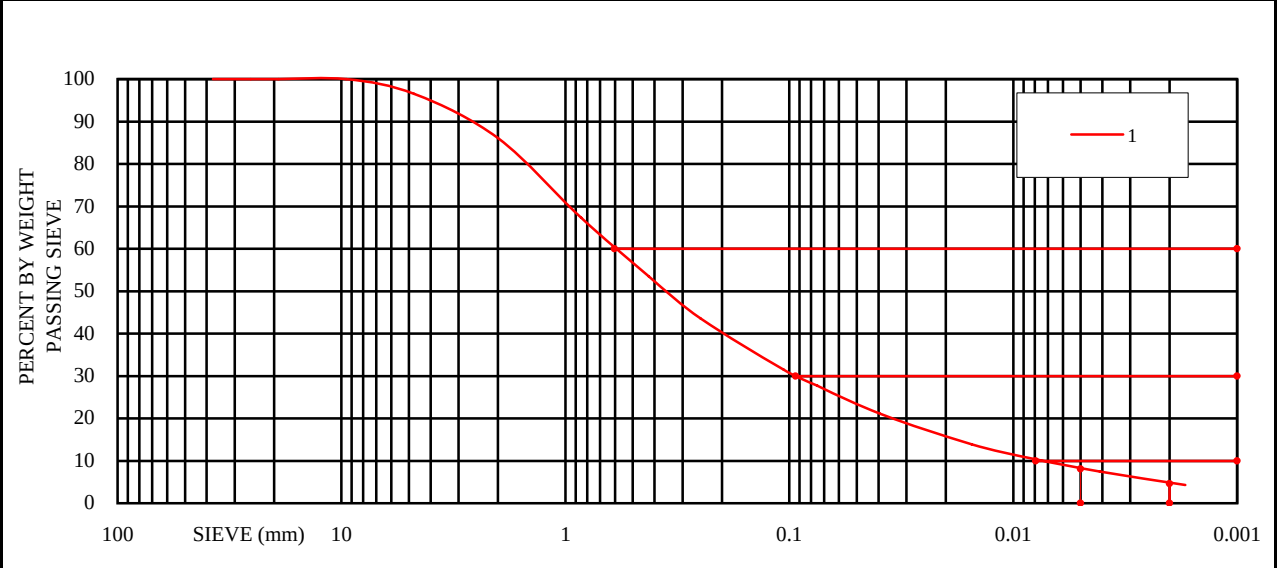
	1	2	3	비고
A	1.92			
CI	0.78			
LI	0.22			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-34	3.0	1	17.0	2.671	29.7	14.9	14.8	0.0079	0.0938	0.6039	76.2	1.8
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	96.5	86.1	67.3	53.5	43.6	31.5	27.7	4.6	SC			



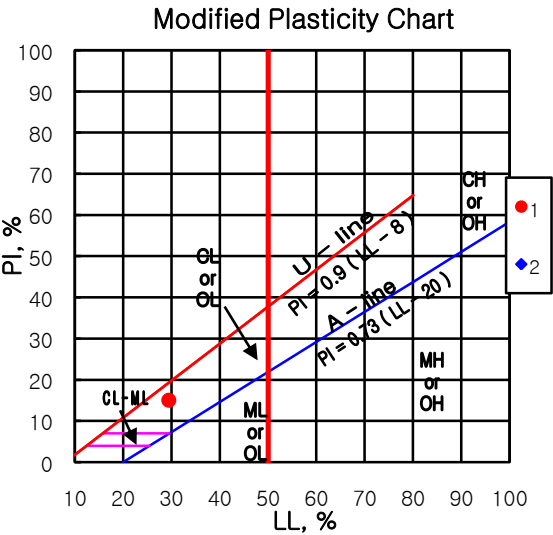
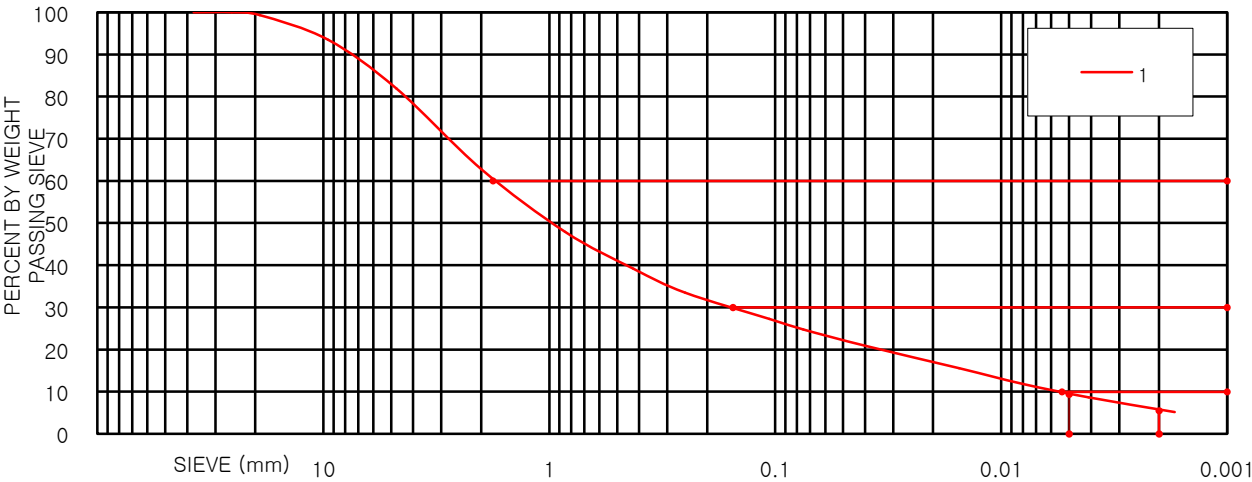
	1	2	3	비고
A	3.22			
CI	0.86			
LI	0.14			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-35	1.0	1	15.7	2.673	29.4	14.3	15.1	0.0054	0.1538	1.7742	329.6	2.5
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	81.9	62.8	47.9	39.2	33.5	27.3	24.8	5.5	SC			



	1	2	3	비고
A	2.75			
CI	0.91			
LI	0.09			

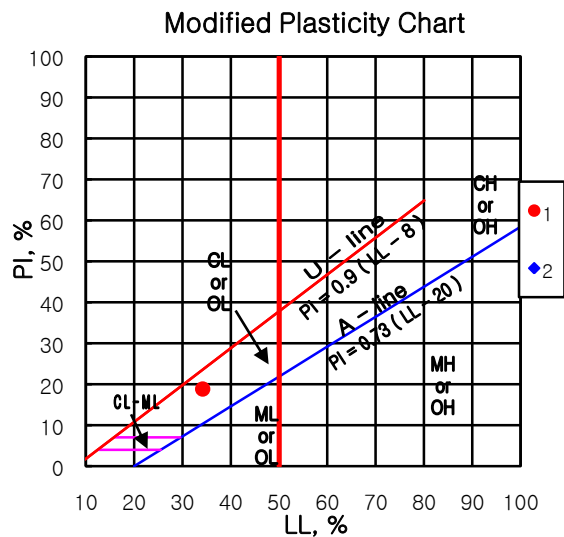
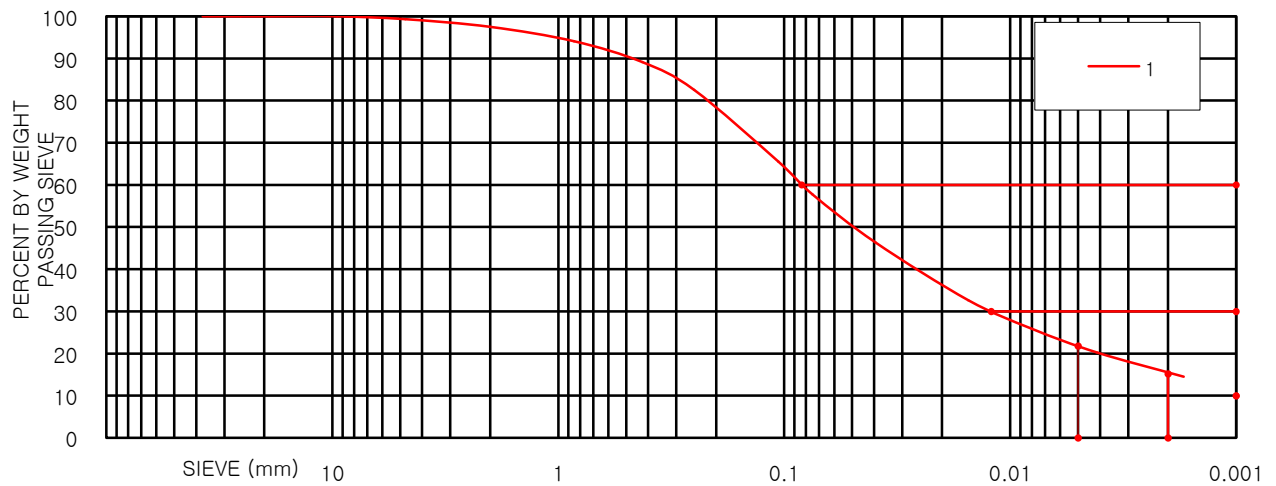
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-35	2.0	1	24.2	2.686	34.2	15.4	18.8	0.0010	0.0121	0.0838	83.8	1.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	99.3	97.5	94.1	89.1	82.5	65.5	57.8	15.2	CL	



	1	2	3	비고
A	1.24			
CI	0.53			
LI	0.47			

Remarks

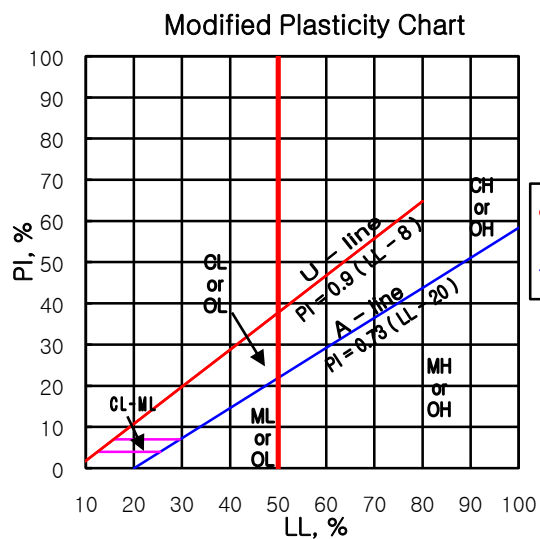
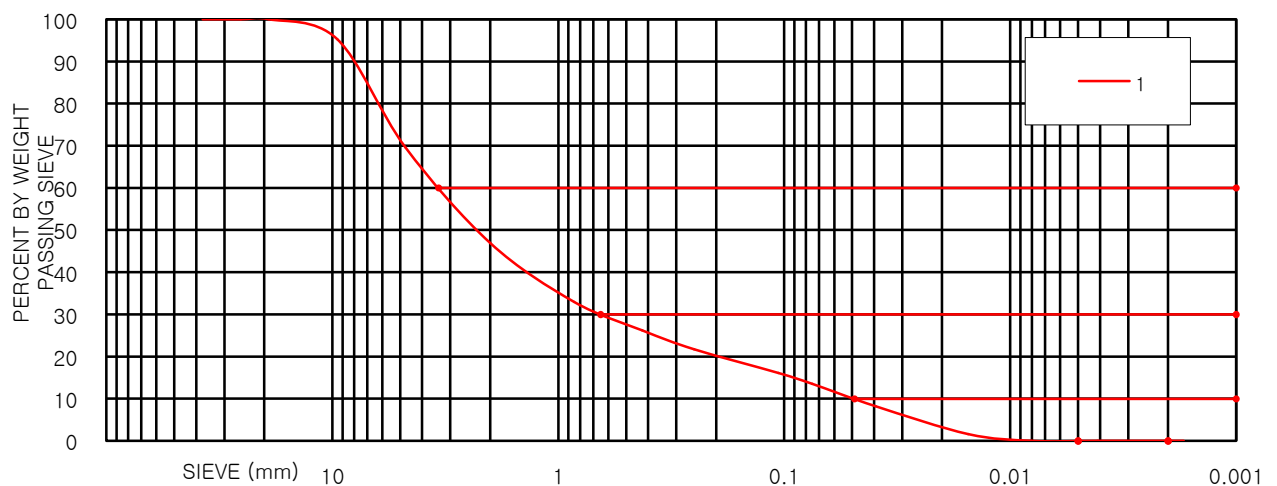
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NSB-36	2.0	1	13.3	2.634	N	P	P	0.0489	0.6501	3.3884	69.3	2.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	69.6	46.9	33.0	26.2	21.7	16.1	13.5	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks

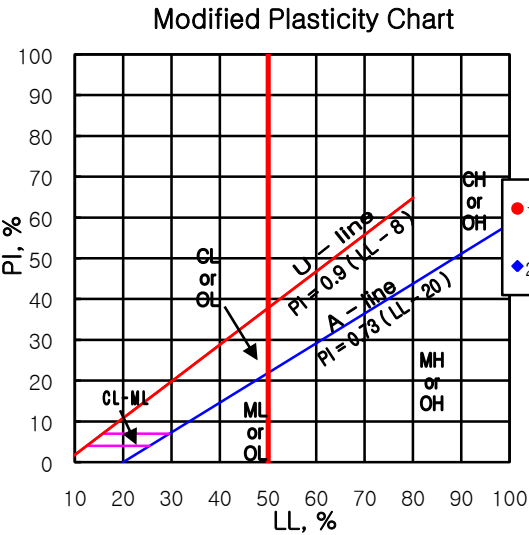
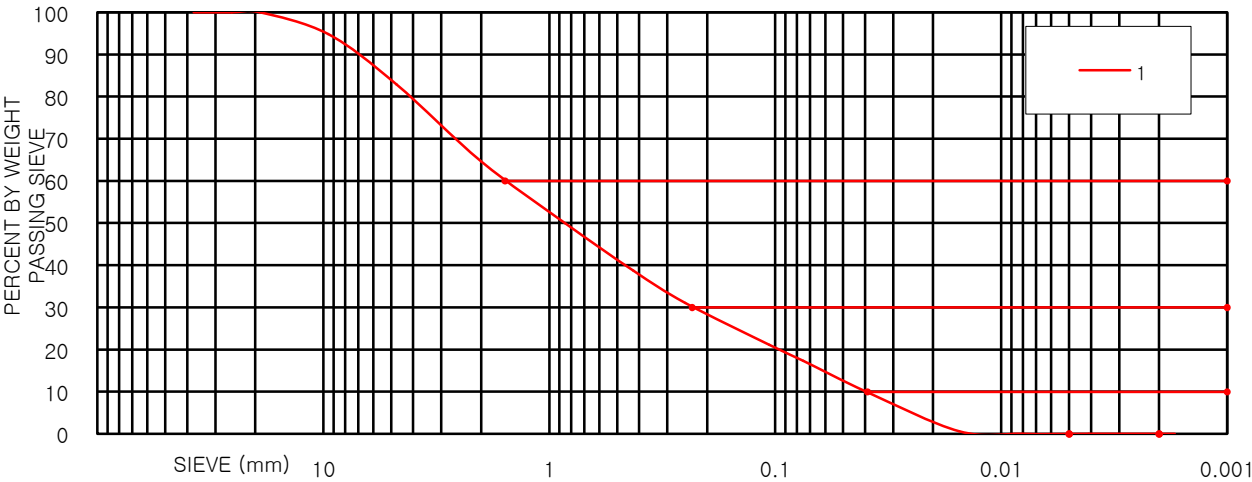
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질실험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NSB-36	5.0	1	14.4	2.643	N	P	P	0.0391	0.2333	1.5704	40.2	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	82.9	64.6	50.0	38.7	31.1	21.1	17.3	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

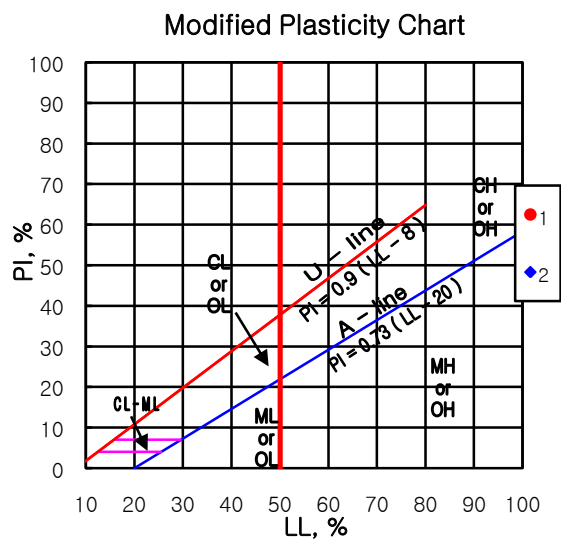
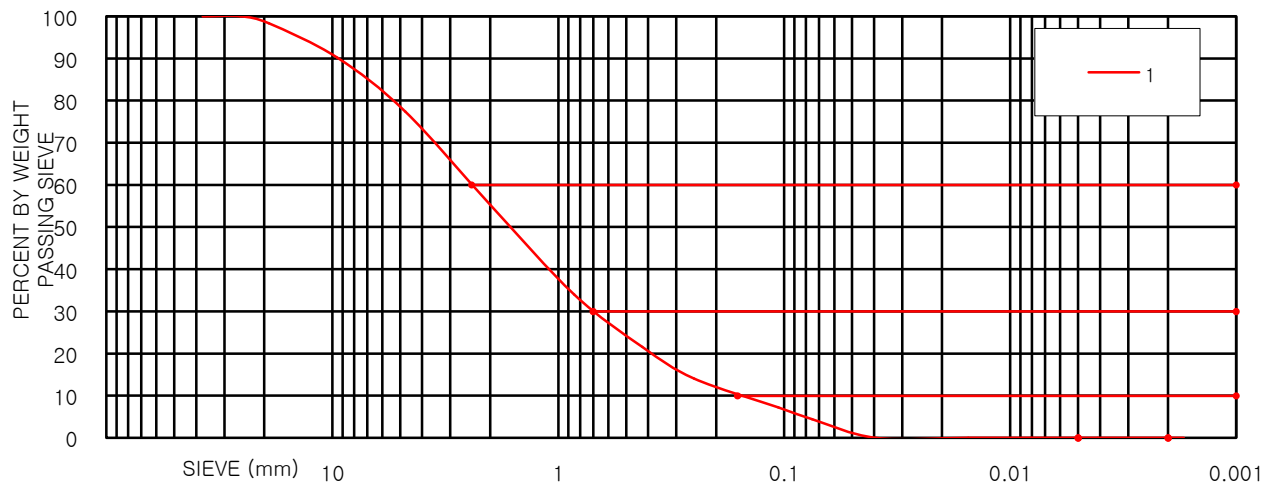
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-5	1.0	1	16.1	2.656	N	P	P	0.1611	0.7015	2.4210	15.0	1.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	77.4	55.3	34.0	21.6	14.1	7.2	4.4	-	SW	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

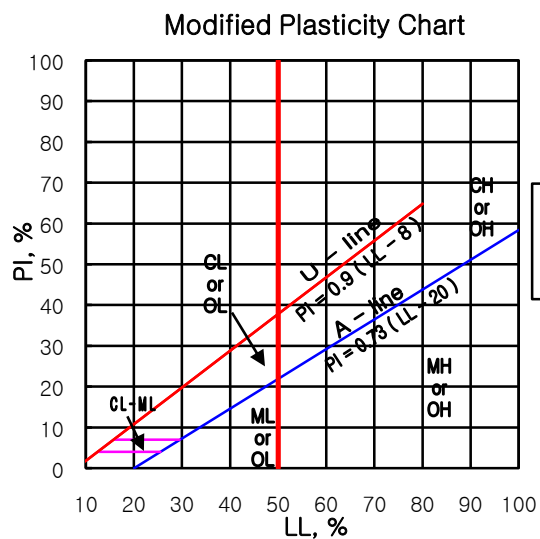
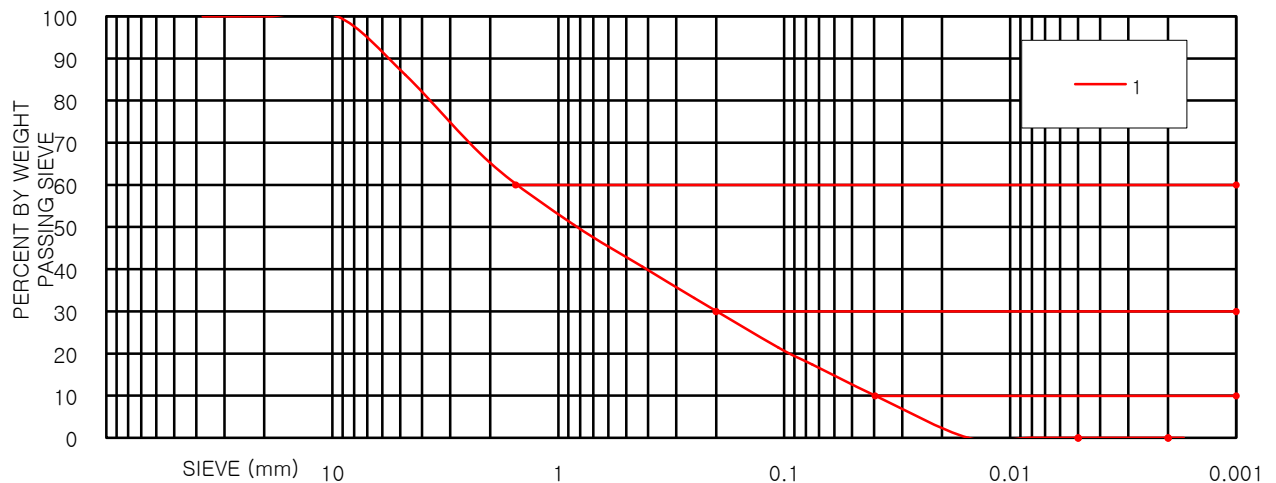
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-5	2.0	1	12.7	2.659	N	P	P	0.0396	0.2004	1.5453	39.0	0.7

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	86.1	65.2	50.5	40.6	33.2	21.4	17.4	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

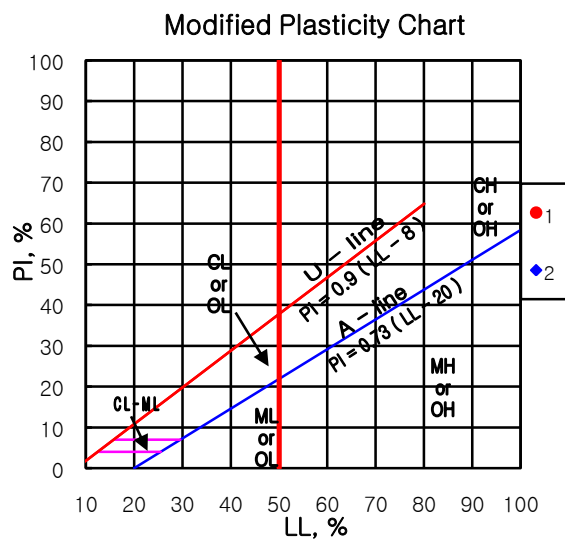
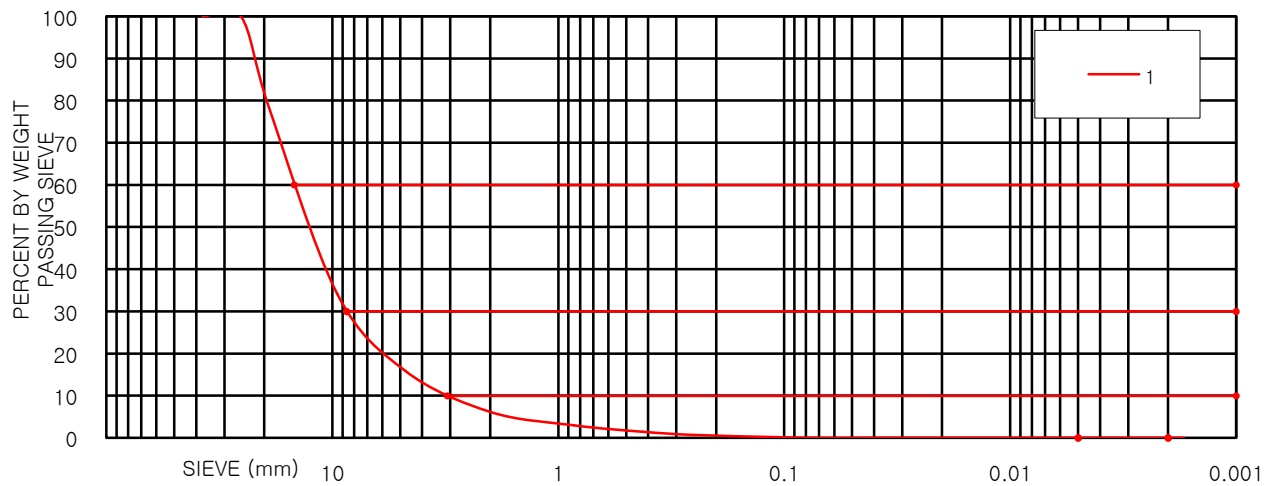
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KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-15	1.0	1	5.5	2.625	N	P	P	3.0974	8.6497	14.7571	4.8	1.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	15.9	6.2	3.0	1.5	0.7	0.2	0.0	-	GW	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

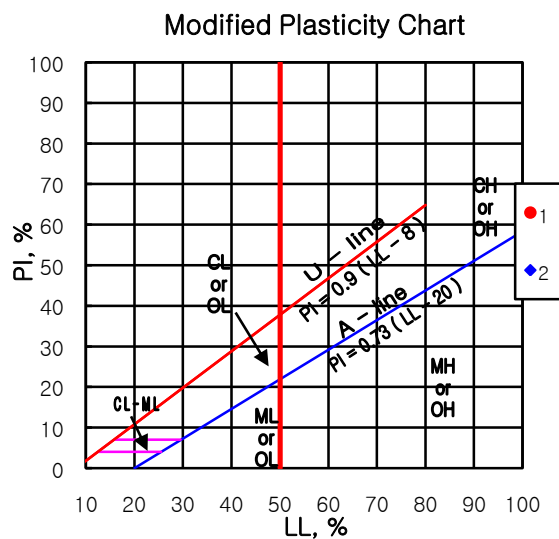
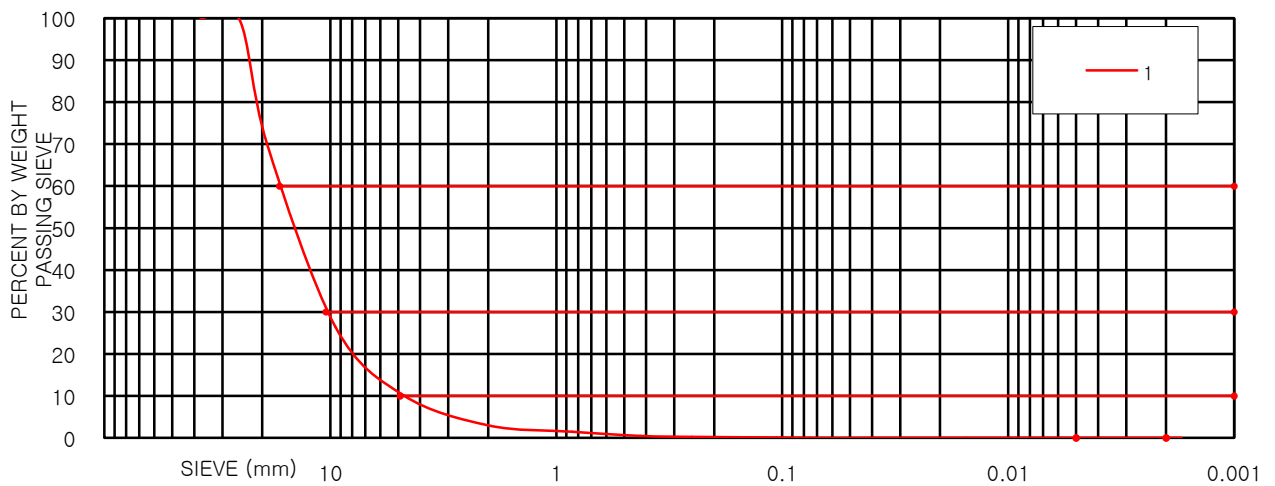
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-15	3.0	1	7.6	2.641	N	P	P	4.9091	10.4472	16.7880	3.4	1.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	10.2	3.0	1.5	0.5	0.3	0.1	0.0	-	GP	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

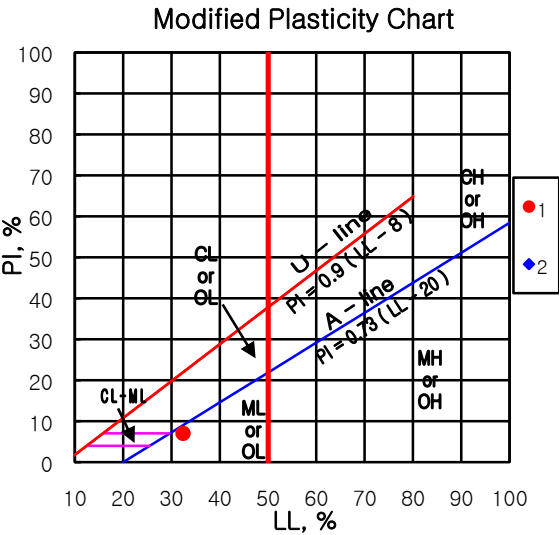
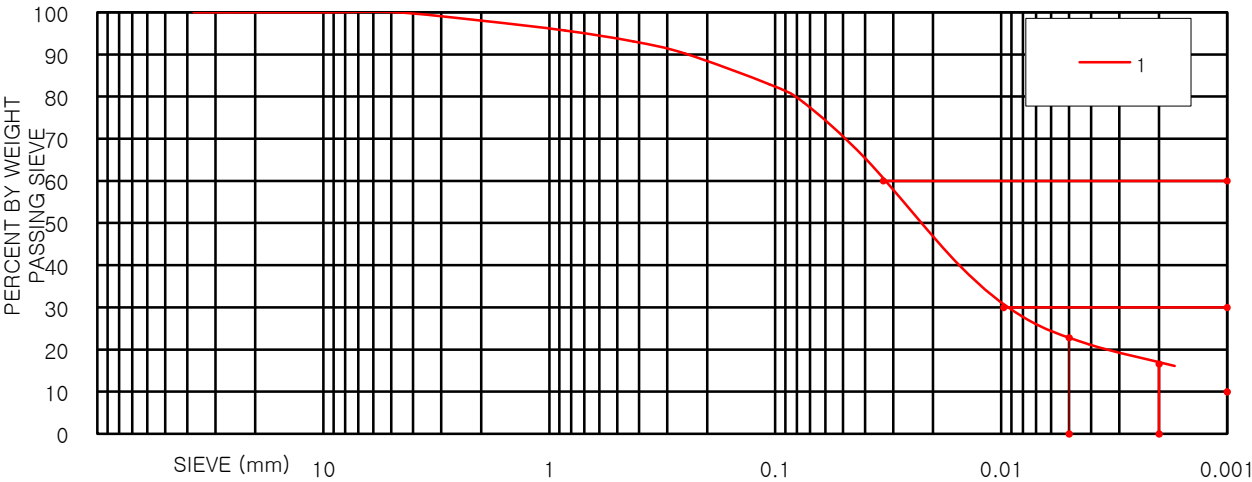
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-16	1.0	1	26.5	2.682	32.4	25.4	7.0	0.0010	0.0097	0.0333	33.3	2.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	98.0	95.7	93.1	90.2	82.9	78.7	16.6	ML	



	1	2	3	비고
A	0.42			
CI	0.84			
LI	0.16			

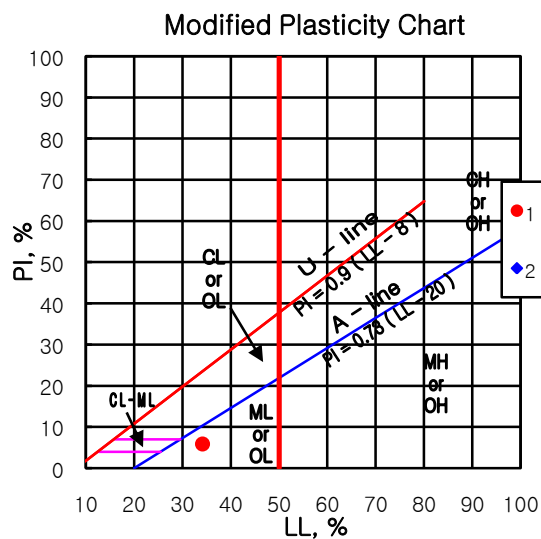
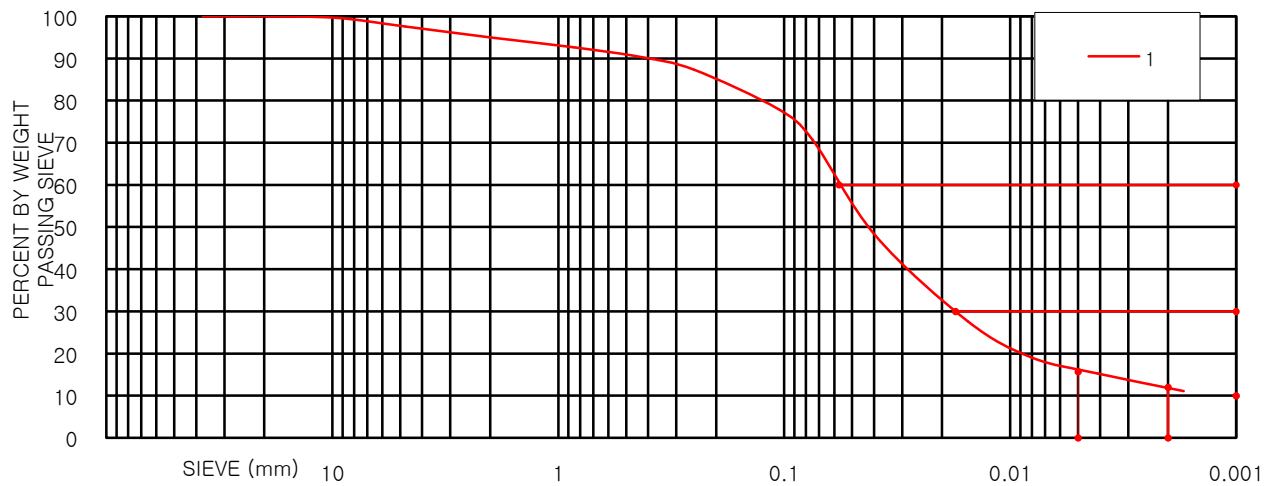
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-16	2.0	1	28.6	2.679	34.1	28.2	5.9	0.0010	0.0175	0.0573	57.3	5.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.6	95.0	92.6	90.3	87.3	78.0	70.8	12.0	ML	



	1	2	3	비고
A	0.49			
CI	0.94			
LI	0.06			

Remarks

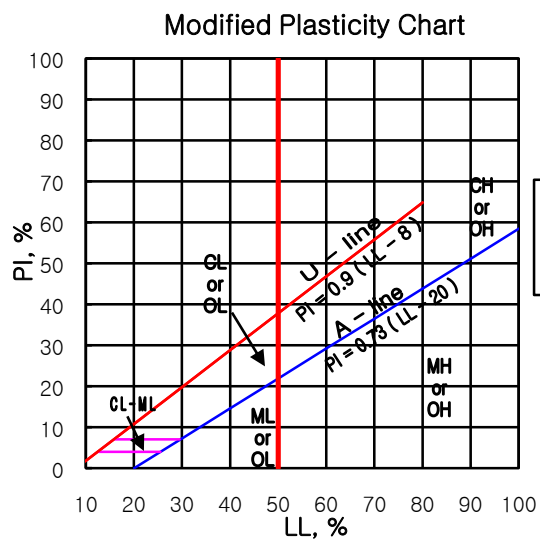
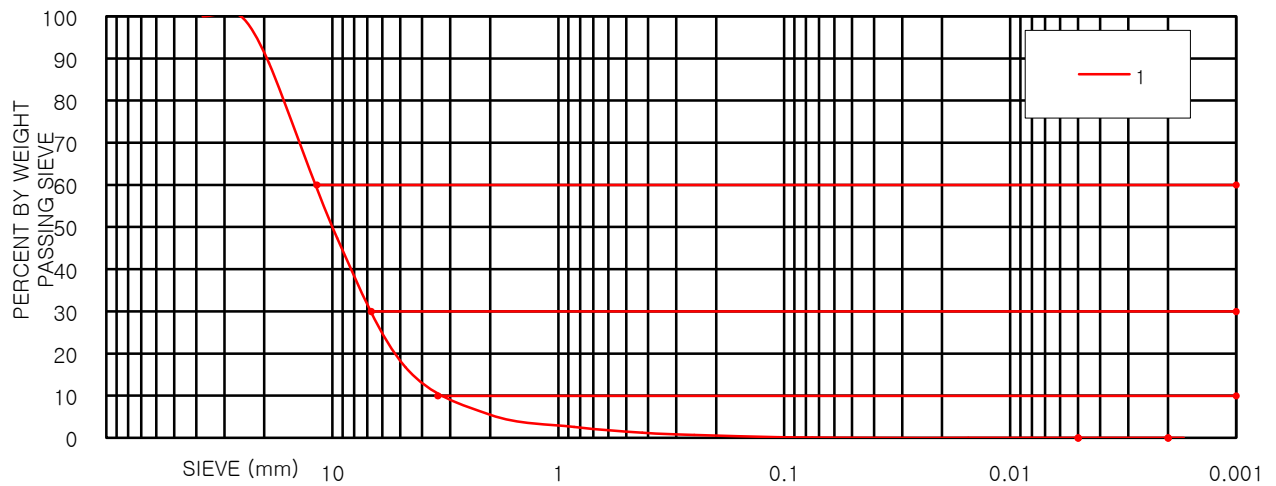
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-17	1.0	1	3.6	2.634	N	P	P	3.4119	6.7298	11.7220	3.4	1.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	16.8	5.5	2.6	1.2	0.7	0.2	0.1	-	GP	



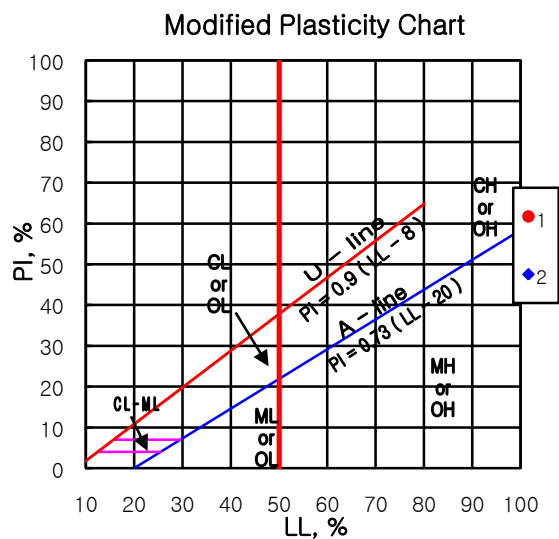
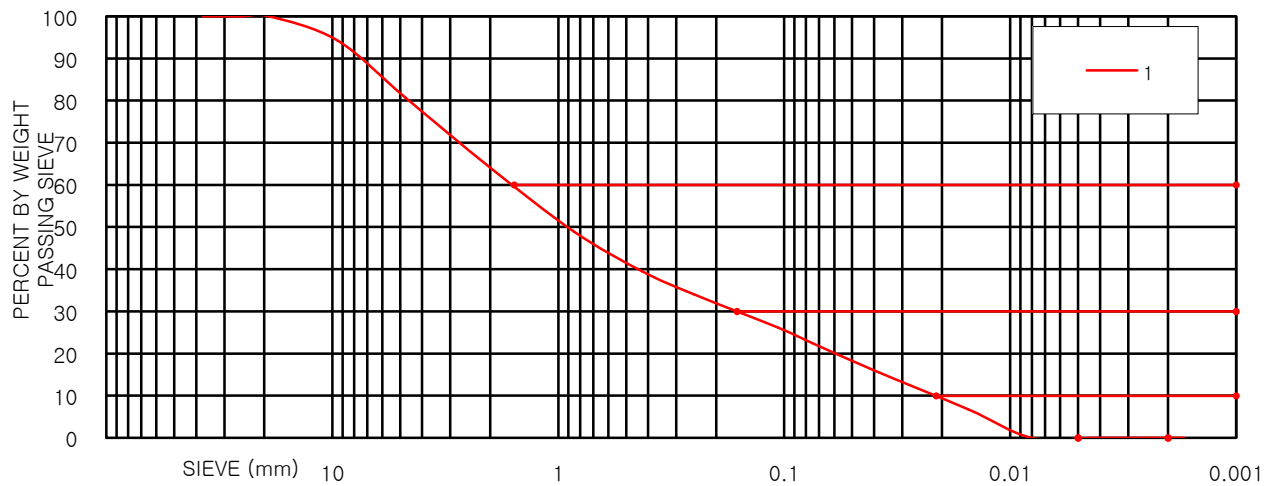
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-25	1.0	1	10.4	2.659	N	P	P	0.0213	0.1618	1.5668	73.6	0.8
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	80.7	64.1	48.9	39.5	34.0	26.1	22.5	-	SM			



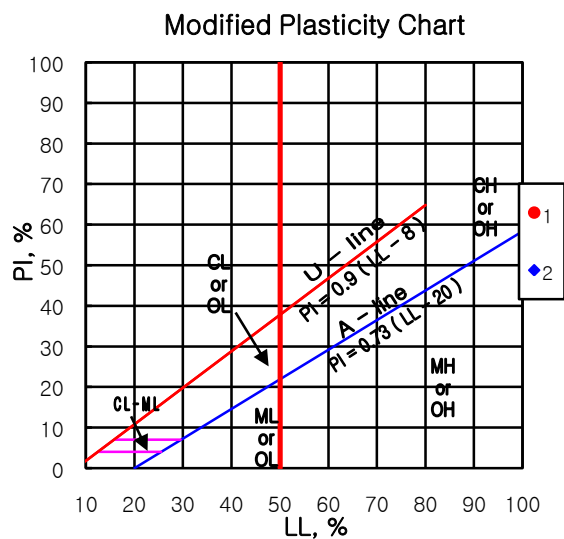
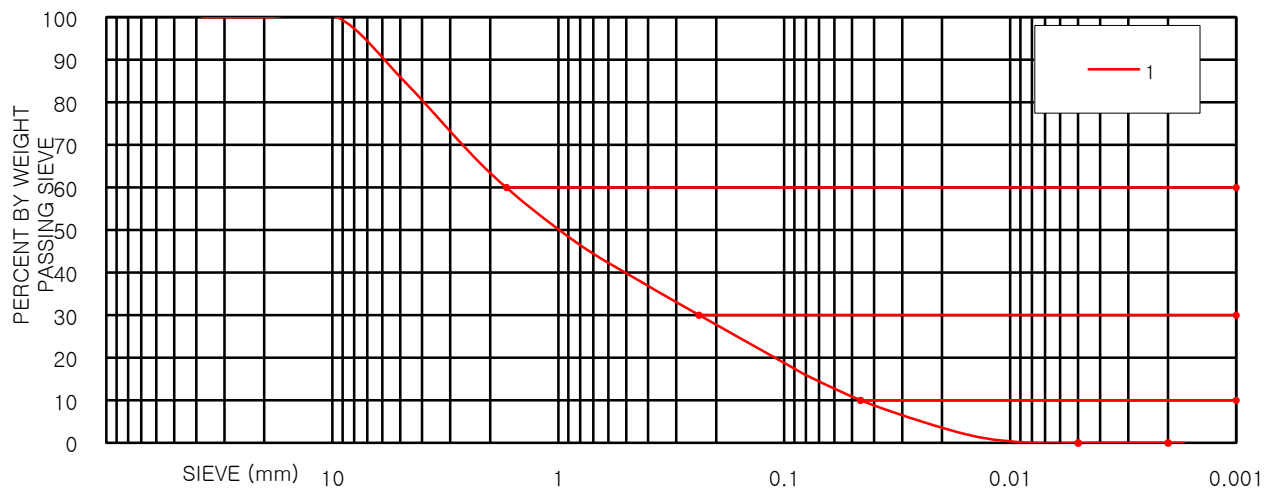
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-26	1.0	1	8.1	2.656	N	P	P	0.0460	0.2382	1.6943	36.8	0.7
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	84.7	63.4	47.5	37.7	30.7	19.6	15.2	-	SM			



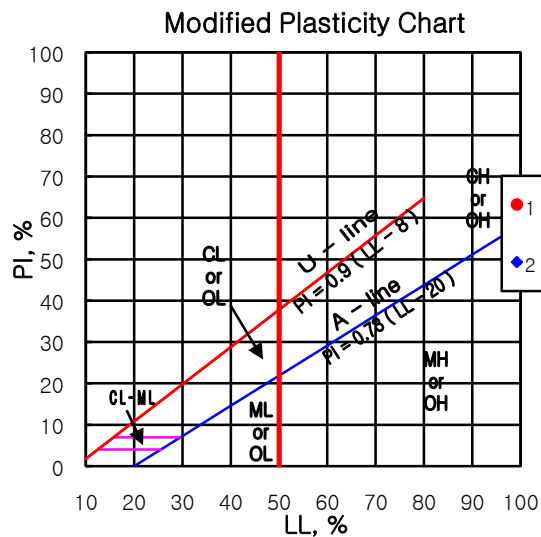
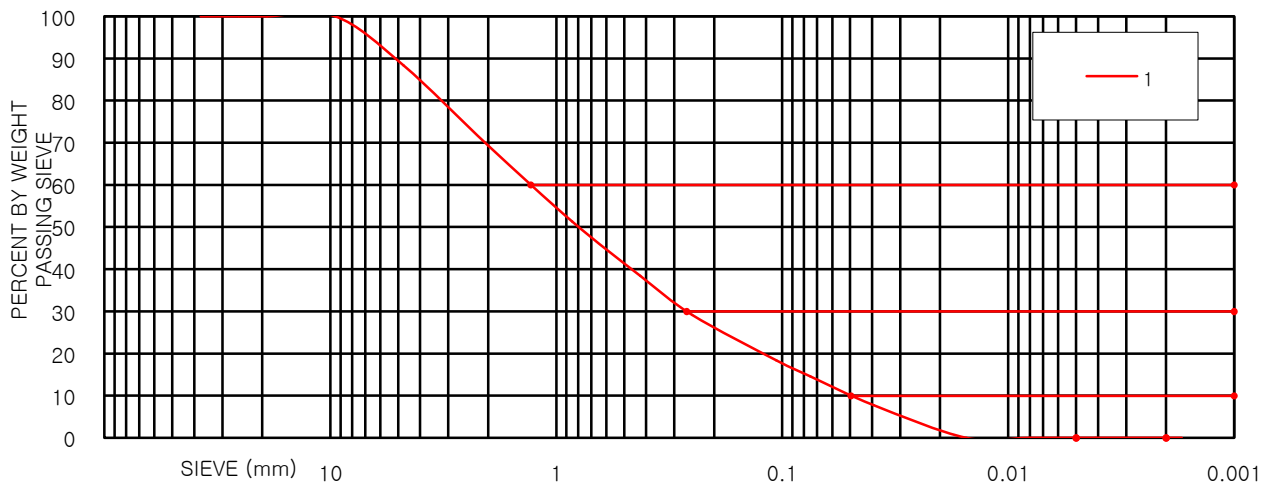
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-29	1.0	1	11.1	2.662	N	P	P	0.0497	0.2649	1.2972	26.1	1.1
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	88.4	69.3	51.3	38.4	29.2	18.4	14.6	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks

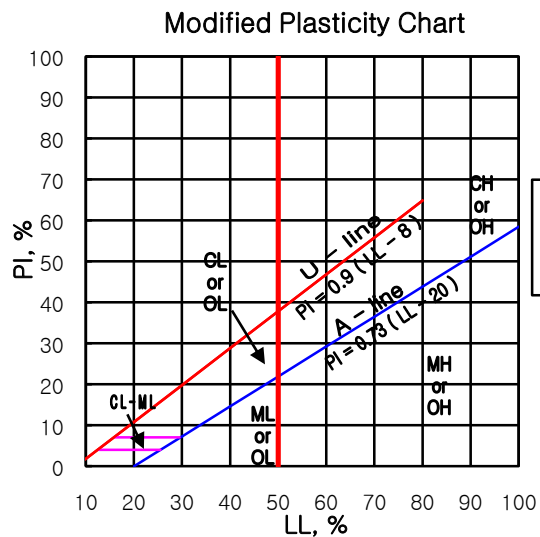
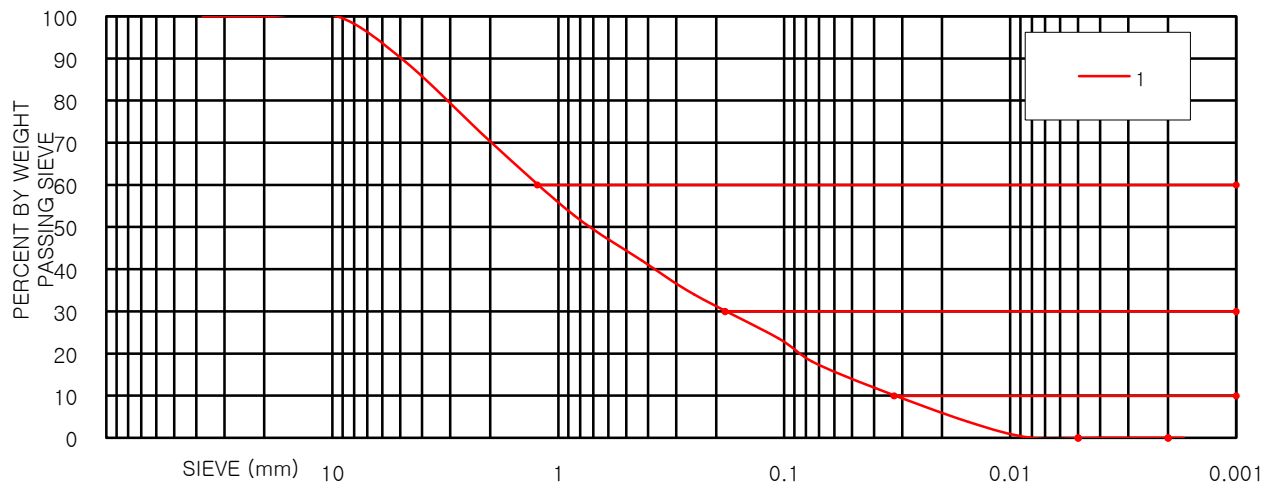
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-30	1.0	1	23.0	2.659	N	P	P	0.0327	0.1828	1.2388	37.9	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	89.2	70.3	52.8	42.0	34.0	23.6	18.1	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks

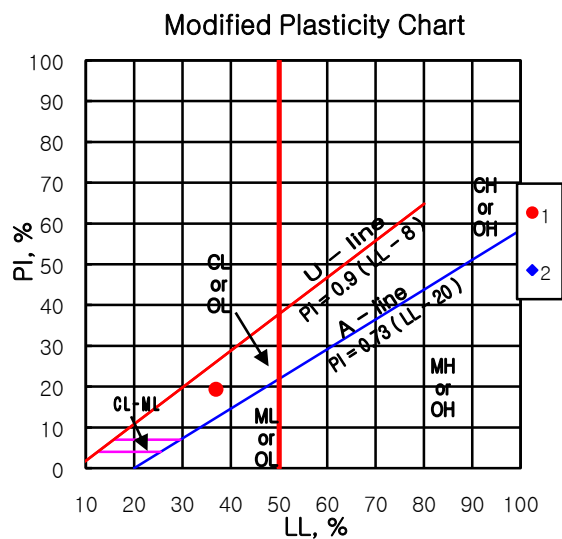
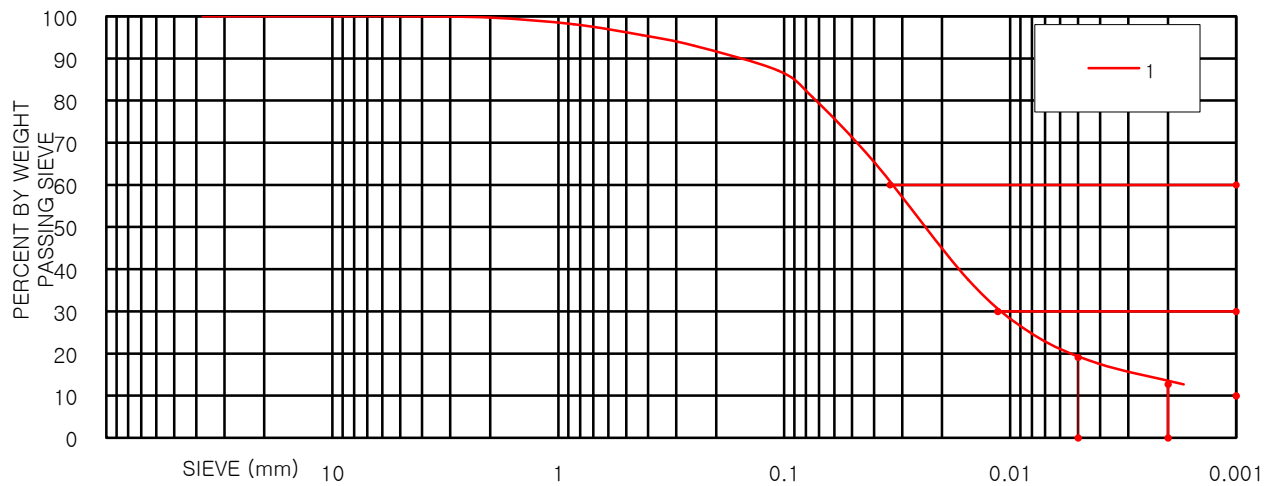
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-32	2.0	1	29.3	2.682	36.9	17.5	19.4	0.0010	0.0114	0.0340	34.0	3.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	99.7	98.1	95.5	93.0	87.1	80.9	12.7	CL	



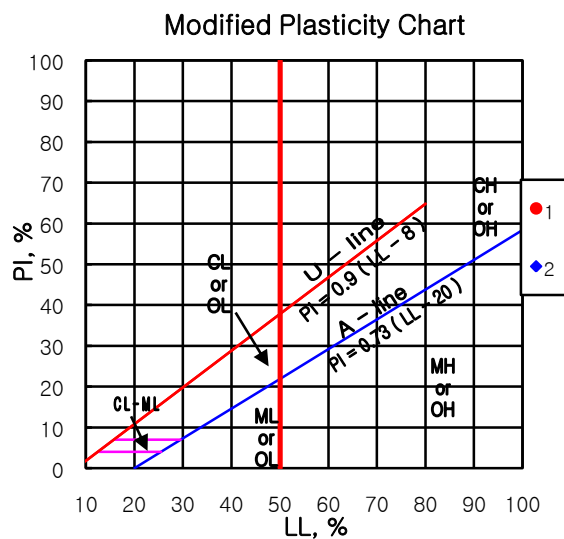
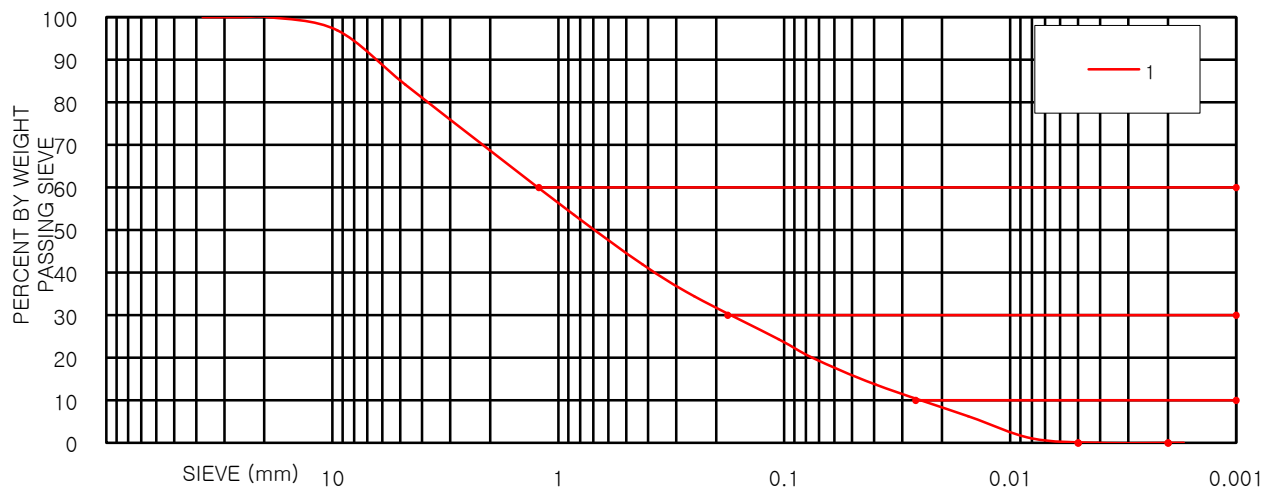
	1	2	3	비고
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CI	0.39			
LI	0.61			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-32	3.0	1	8.4	2.656	N	P	P	0.0262	0.1778	1.2190	46.6	1.0
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	84.2	68.7	53.6	42.0	34.5	24.4	20.0	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

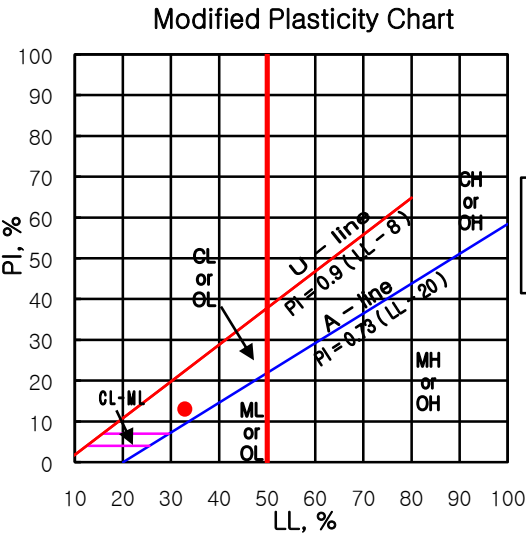
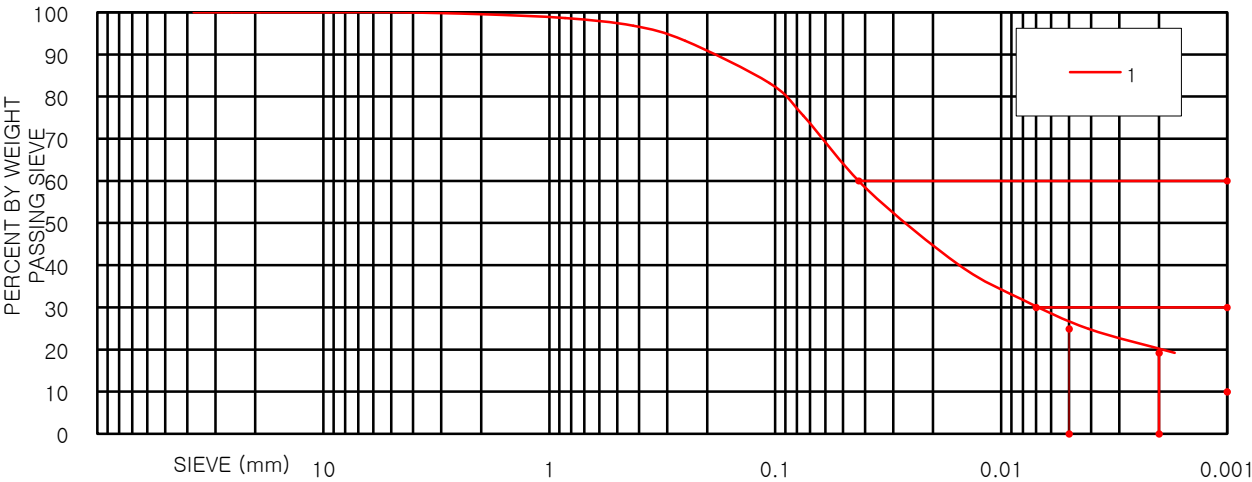
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-33	2.0	1	26.3	2.684	32.8	19.8	13.0	0.0010	0.0070	0.0427	42.7	1.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	99.5	98.6	96.8	93.2	83.2	75.5	19.2	CL	



	1	2	3	비고
A	0.68			
CI	0.50			
LI	0.50			

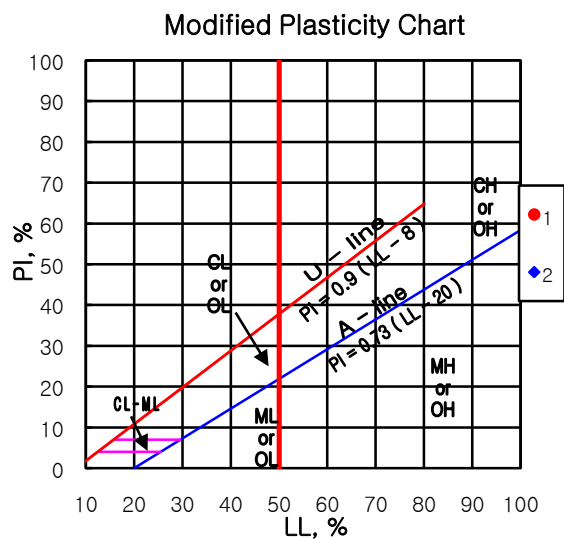
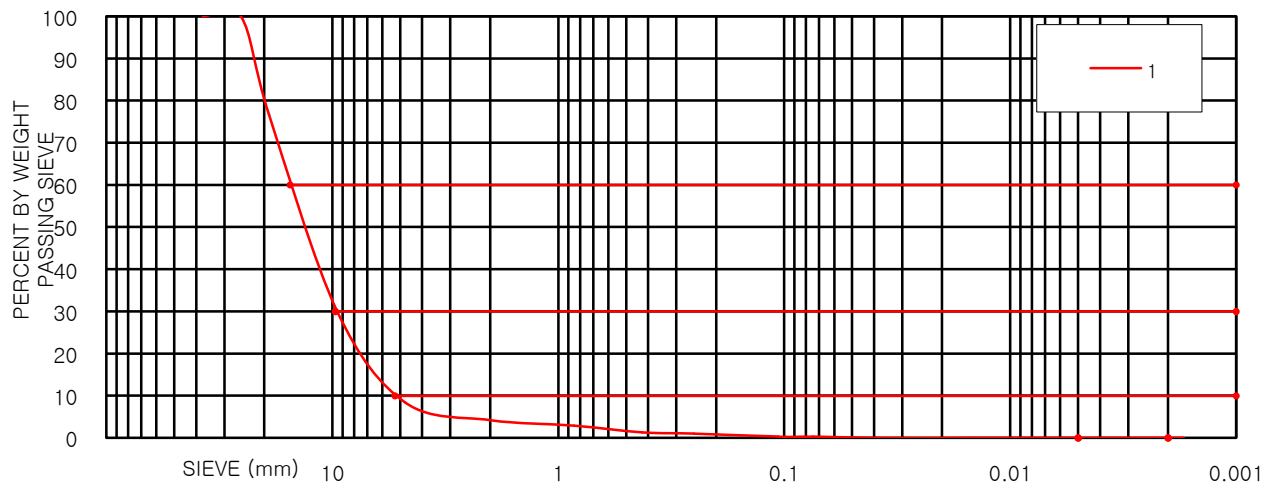
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-41	1.0	1	5.8	2.625	N	P	P	5.2845	9.7051	15.3815	2.9	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	8.4	4.2	2.9	1.3	1.0	0.3	0.3	-	GP	



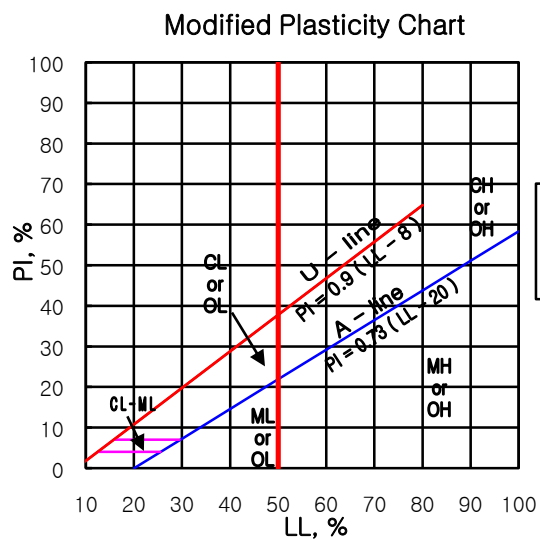
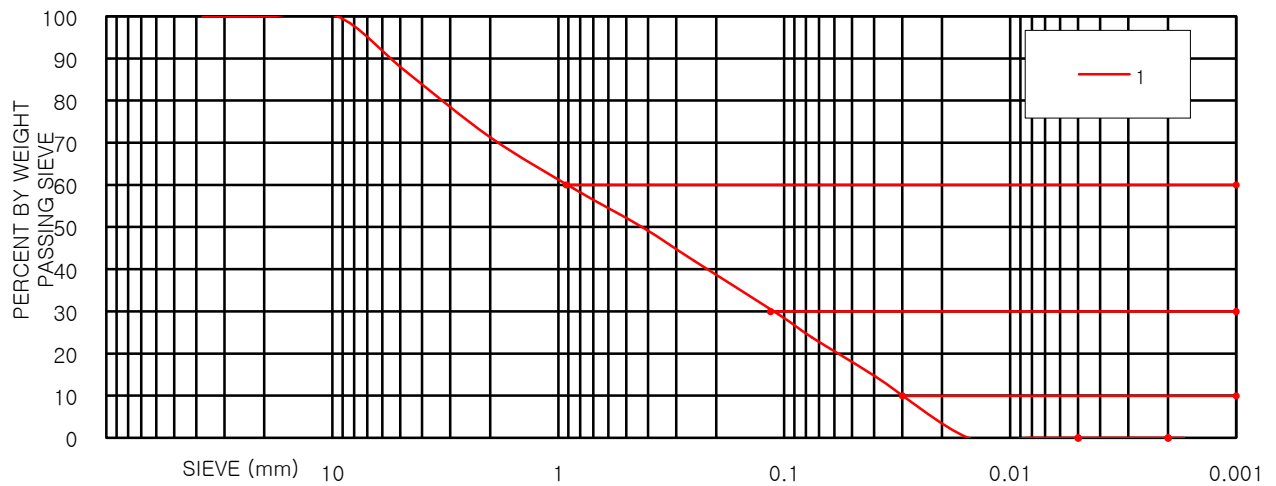
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 복선전철 제 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-47	1.0	1	18.5	2.659	N	P	P	0.0300	0.1151	0.9226	30.8	0.5
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	87.0	71.3	59.1	50.0	42.0	29.3	23.8	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

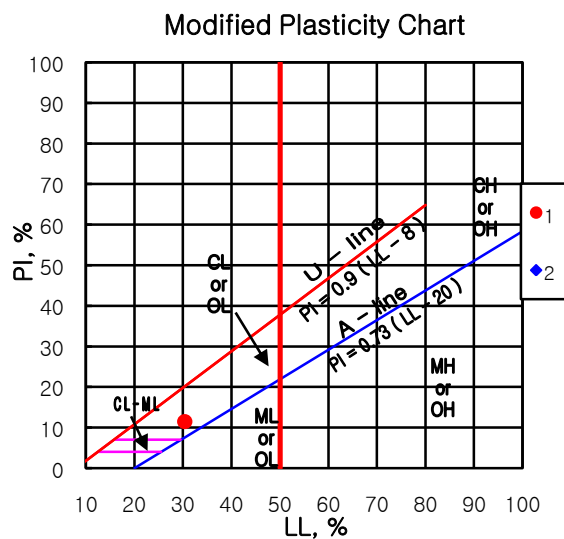
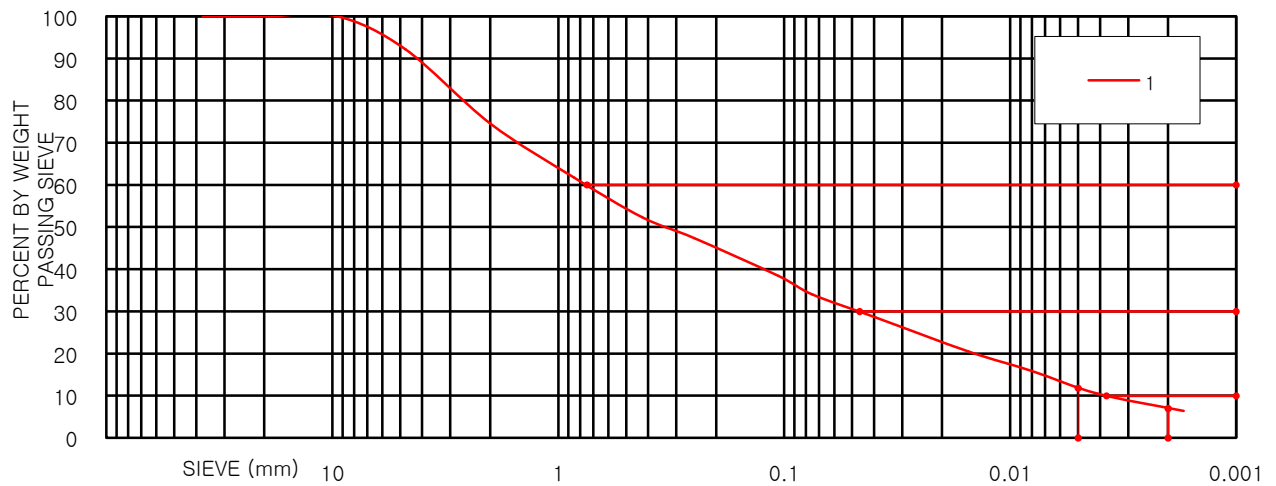
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-52	1.0	1	19.6	2.673	30.4	18.9	11.5	0.0037	0.0463	0.7464	199.1	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	92.2	74.6	61.7	52.3	47.4	38.4	34.0	7.0	SC	



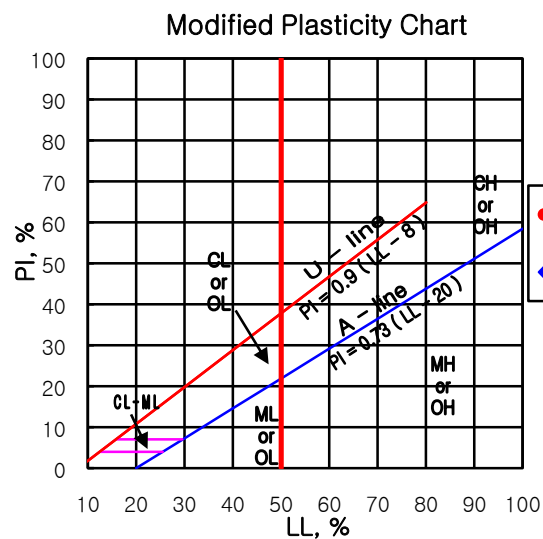
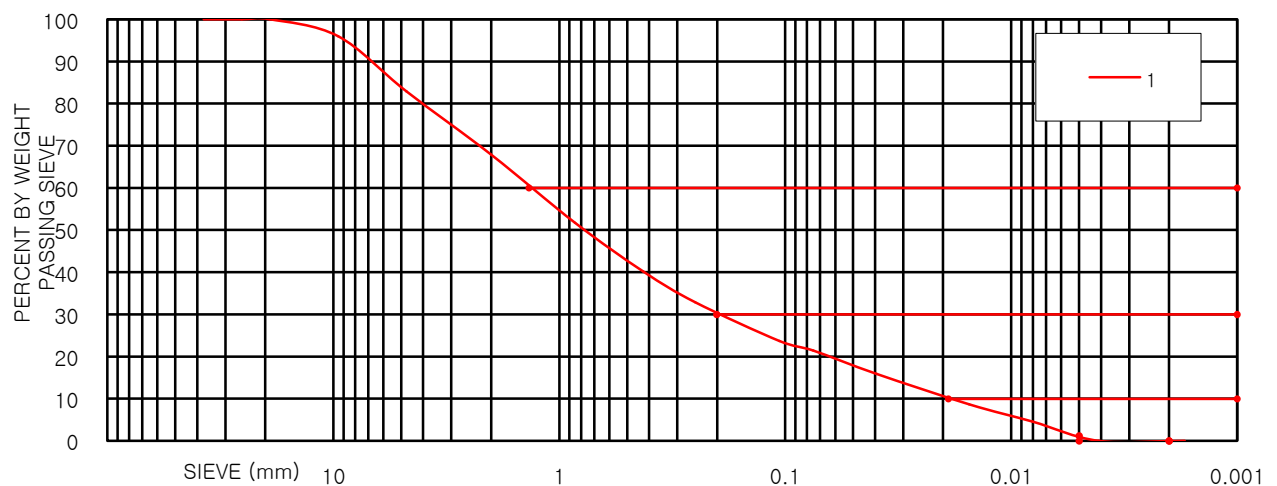
	1	2	3	비고
A	1.64			
CI	0.94			
LI	0.06			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-53	1.0	1	21.1	2.658	N	P	P	0.0190	0.2009	1.3614	71.8	1.6
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	82.9	67.9	51.7	40.2	32.9	23.7	21.4	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

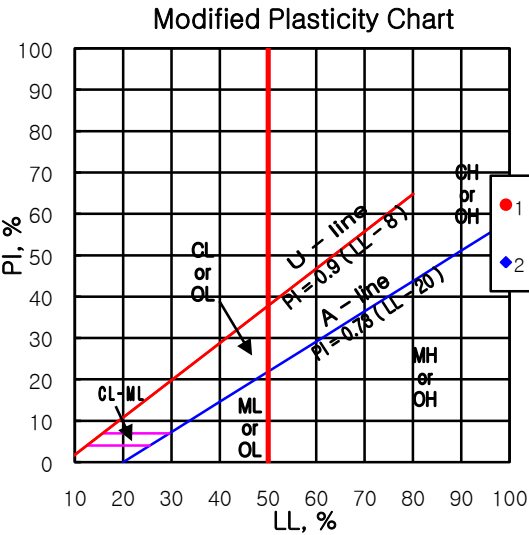
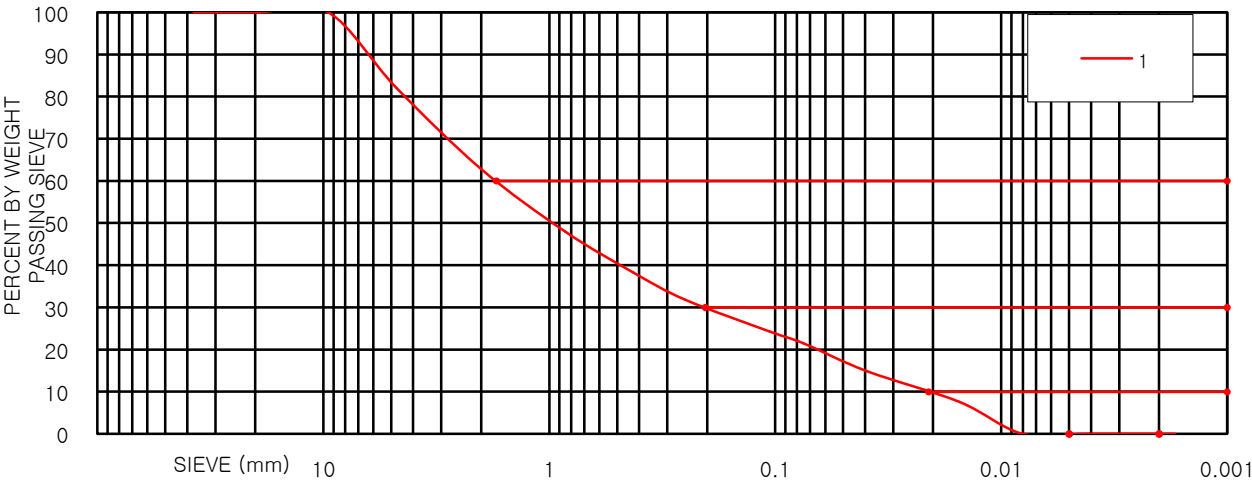
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-53	2.0	1	11.7	2.662	N	P	P	0.0209	0.2042	1.7140	81.8	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	82.1	62.8	48.0	38.3	31.8	24.3	21.5	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

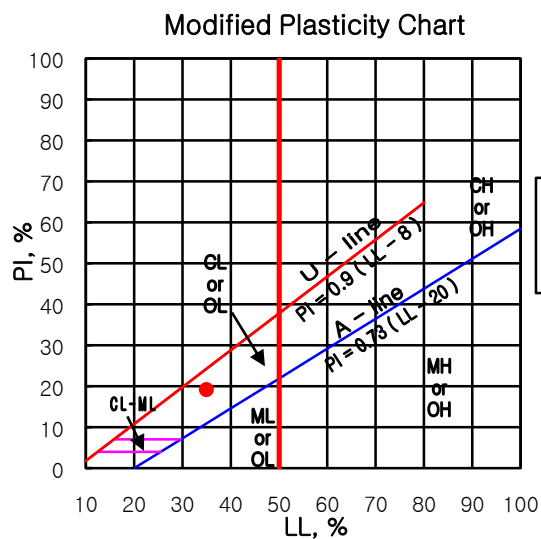
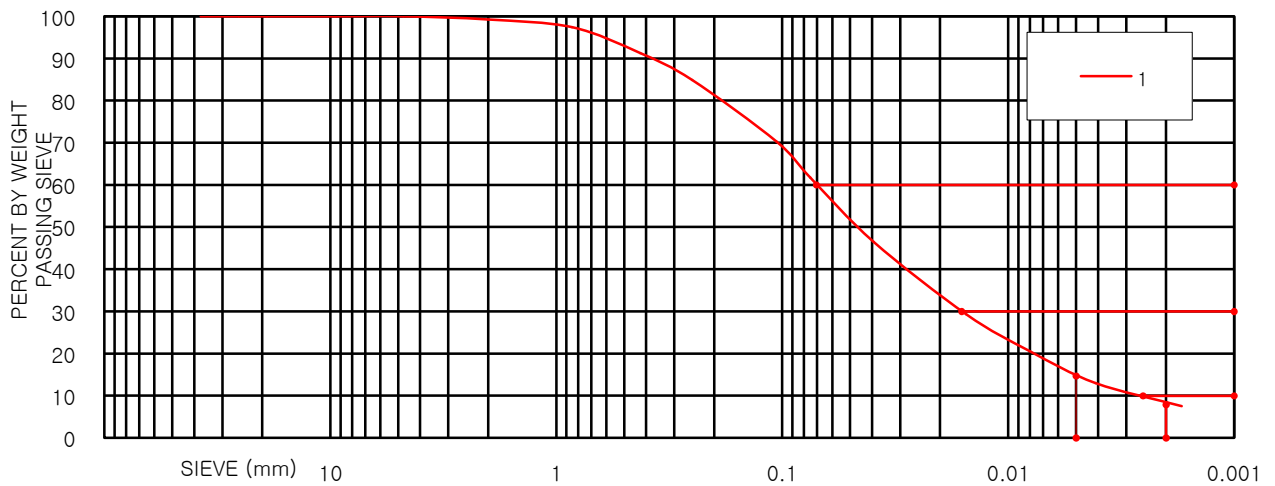
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-54	1.0	1	27.7	2.682	34.9	15.7	19.2	0.0025	0.0161	0.0706	27.9	1.4

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	99.3	97.4	91.3	84.9	70.3	61.7	7.9	CL	



	1	2	3	비고
A	2.43			
CI	0.37			
LI	0.63			

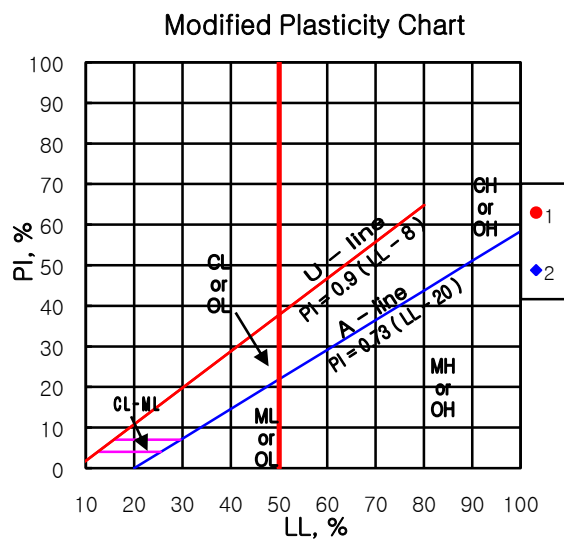
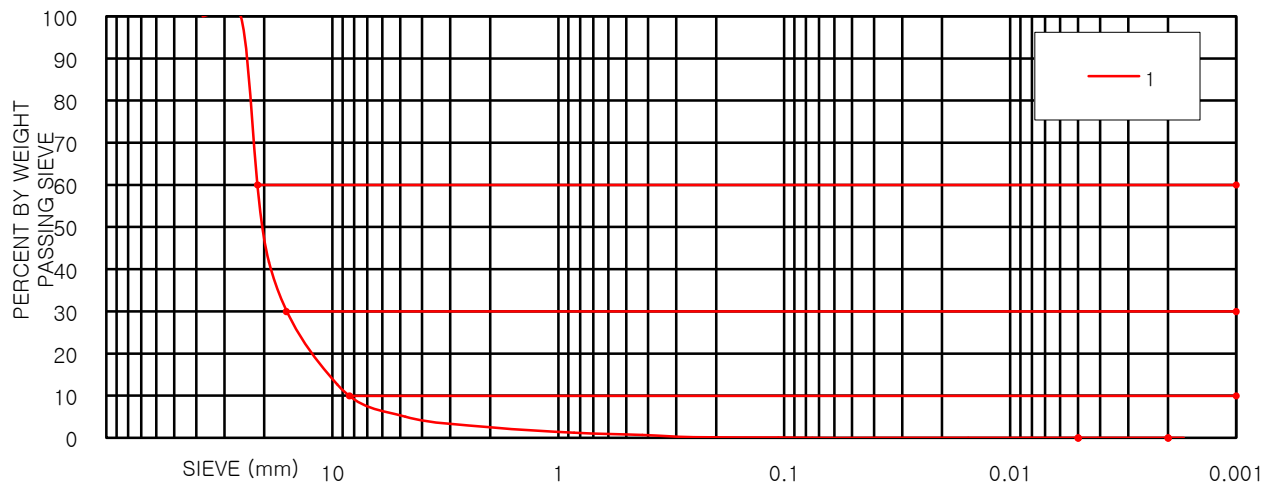
Remarks

KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-54	2.0	1	2.0	2.625	N	P	P	8.3946	15.9956	21.4289	2.6	1.4
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	5.0	2.5	1.2	0.7	0.2	0.1	0.0	-	GP			



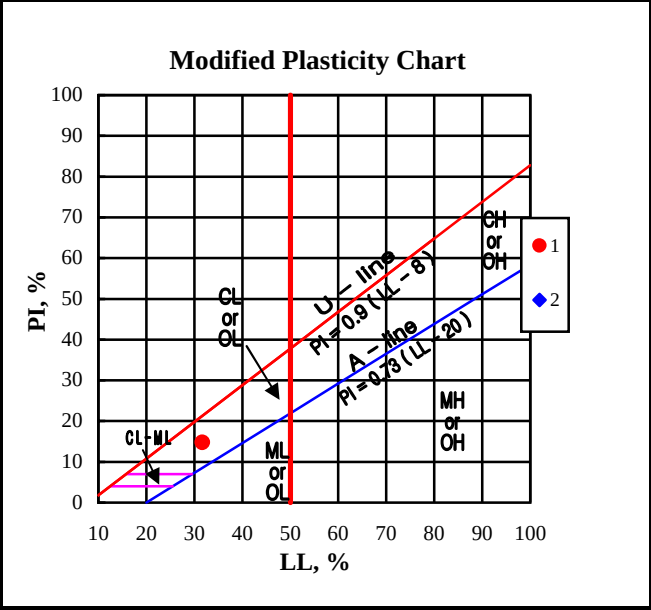
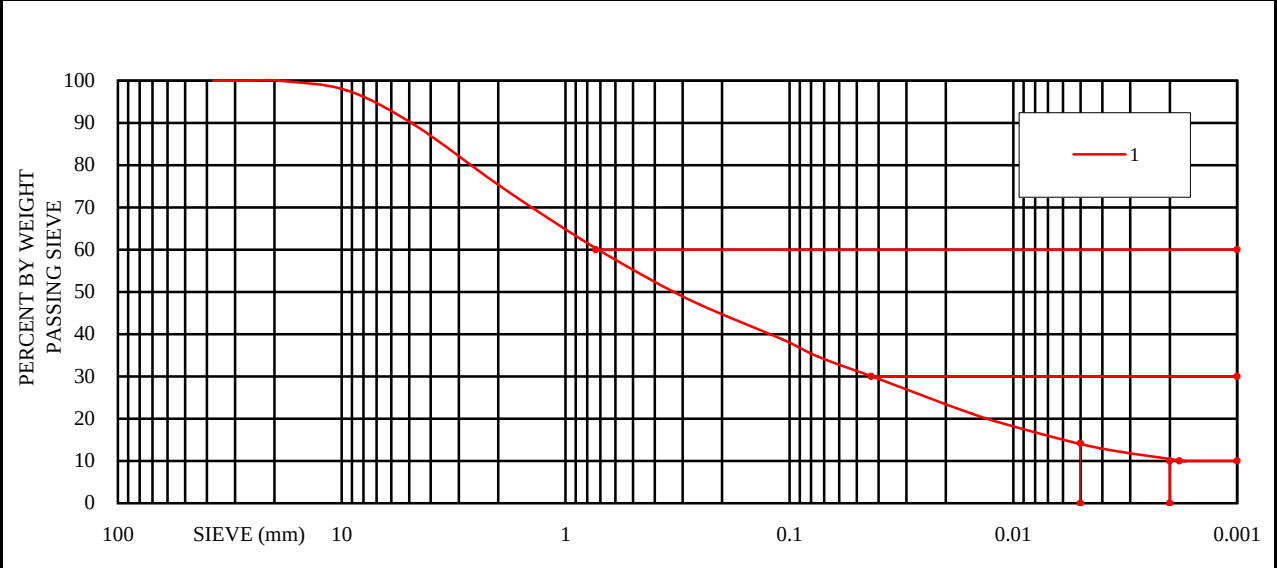
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-57	1.0	1	17.5	2.656	31.7	16.9	14.8	0.0018	0.0432	0.7328	405.5	1.4
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	89.6	75.4	62.4	53.2	47.0	38.6	34.8	10.0	SC			



	1	2	3	비고
A	1.48			
CI	0.96			
LI	0.04			

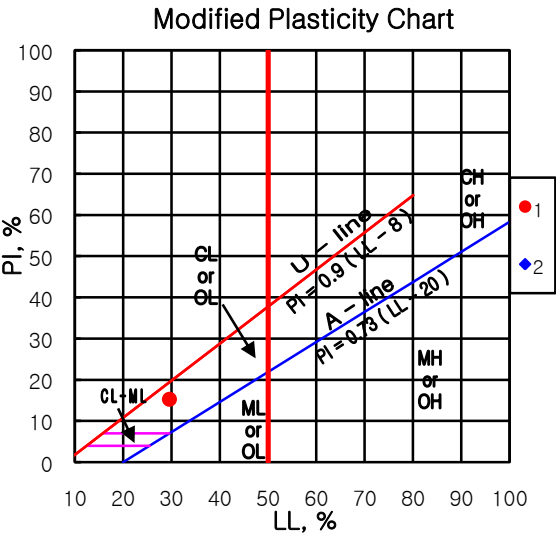
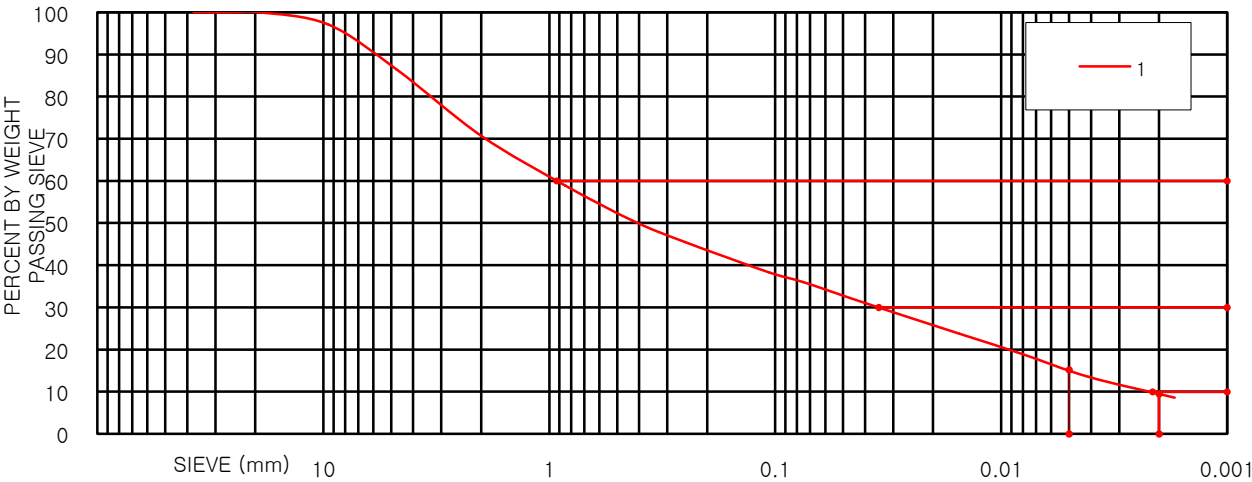
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-57	2.0	1	17.5	2.656	29.5	14.2	15.3	0.0021	0.0348	0.9268	433.5	0.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	86.5	70.7	58.9	50.5	45.5	38.3	36.0	9.5	SC	



	1	2	3	비고
A	1.61			
CI	0.79			
LI	0.21			

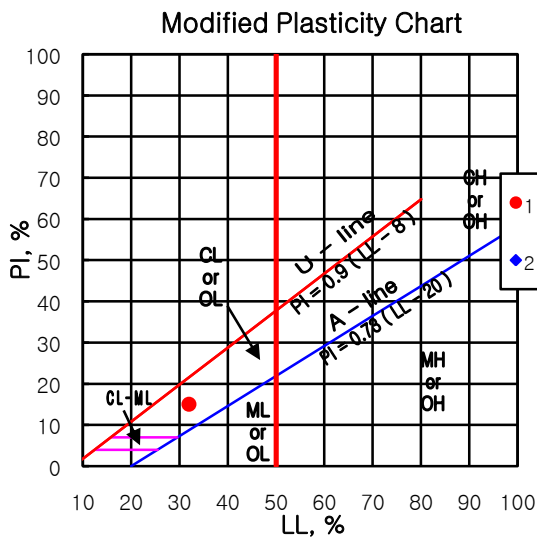
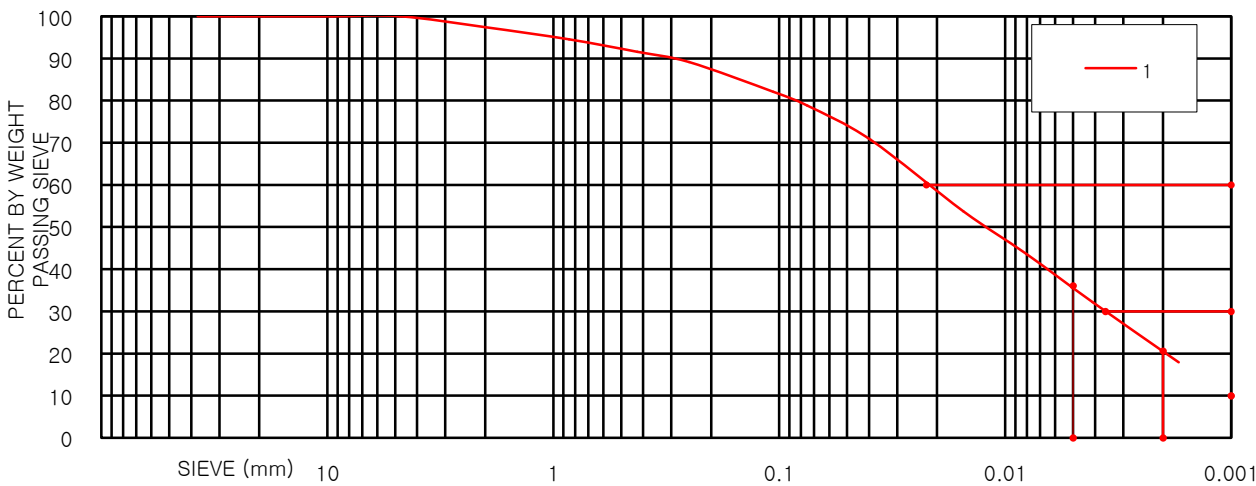
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-57	3.0	1	21.5	2.674	31.9	16.8	15.1	0.0010	0.0036	0.0223	22.3	0.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	97.4	94.5	91.6	89.1	82.1	78.8	20.6	CL	

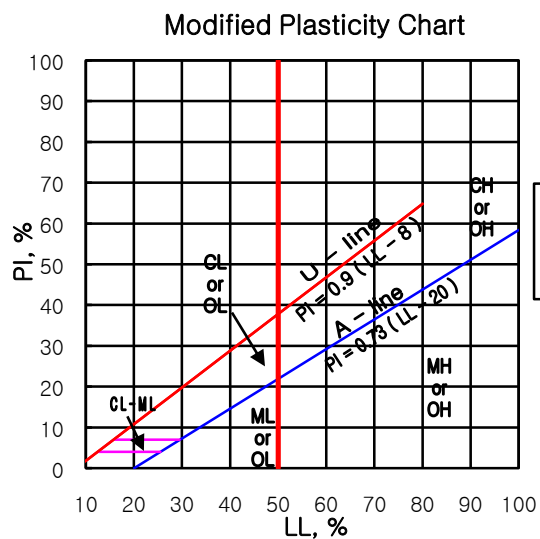
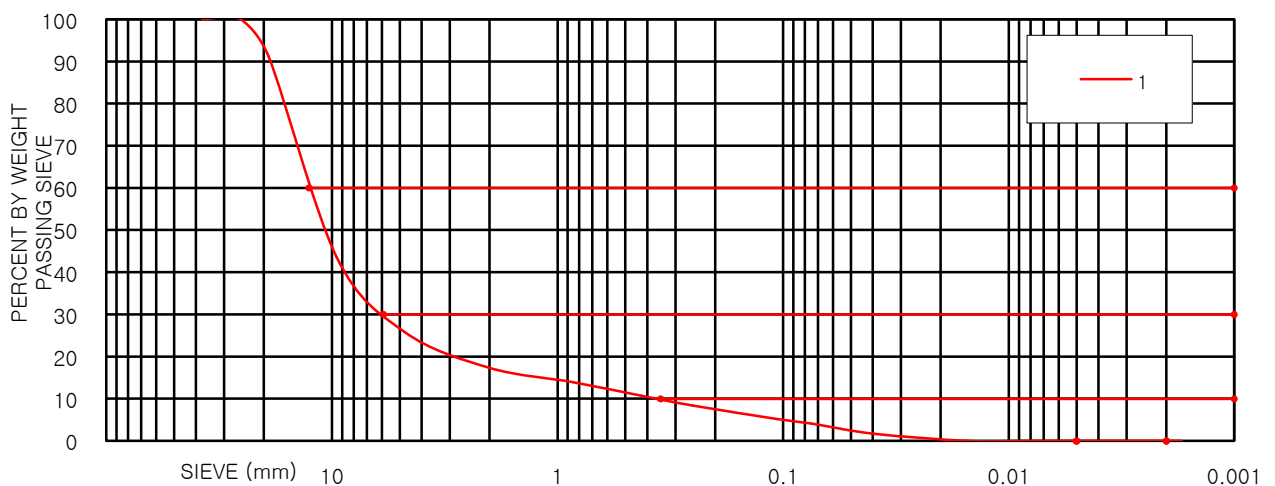


	1	2	3	비고
A	0.73			
CI	0.69			
LI	0.31			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

[illegible][illegible]

	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks

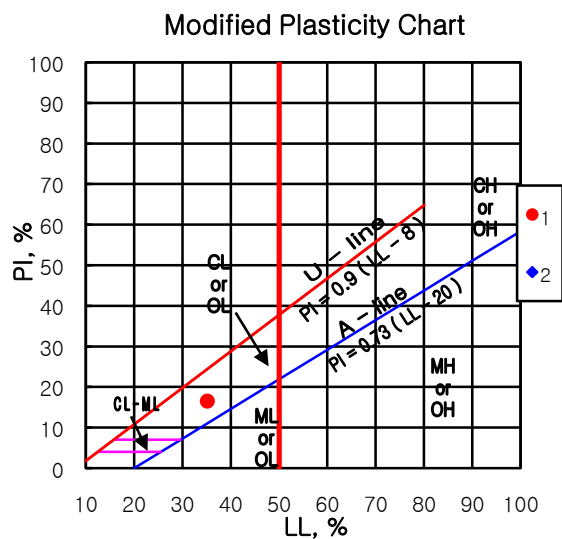
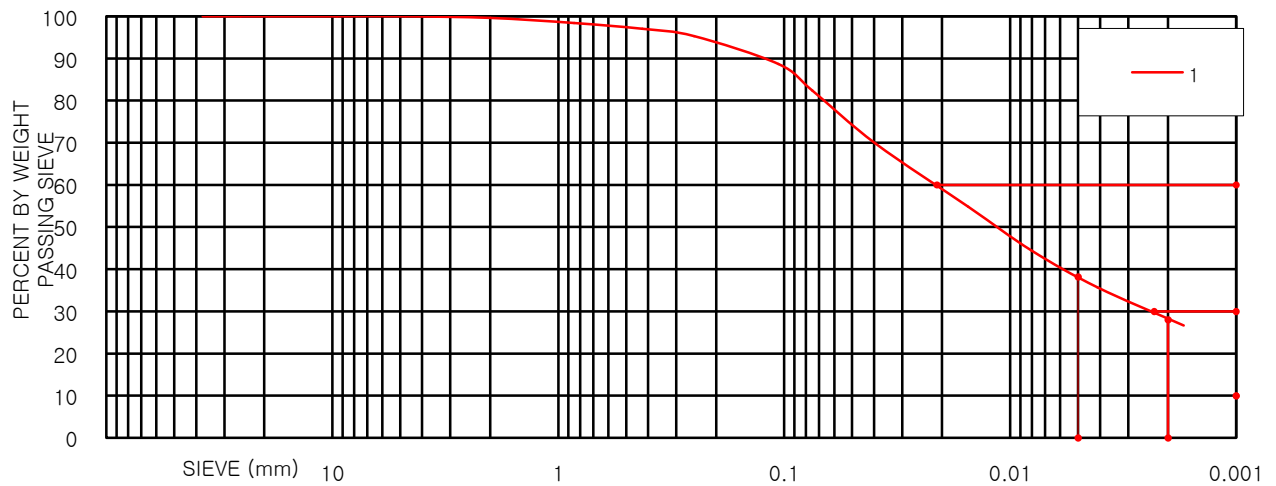
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-60	1.0	1	22.1	2.694	35.1	18.5	16.6	0.0010	0.0023	0.0211	21.1	0.3

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	99.6	98.4	97.0	95.3	88.7	82.4	28.0	CL	



	1	2	3	비고
A	0.59			
CI	0.79			
LI	0.21			

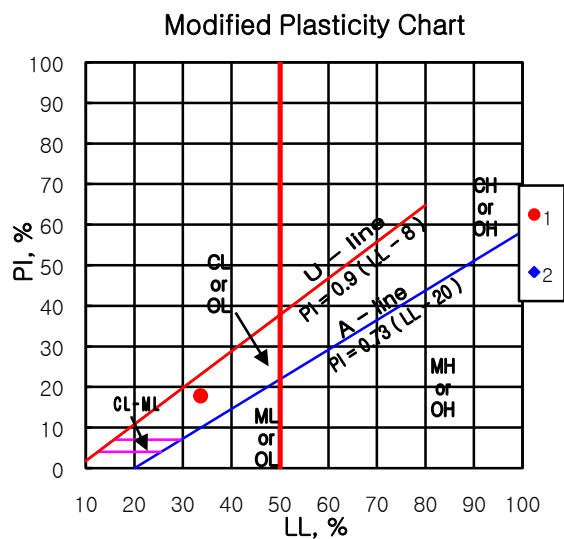
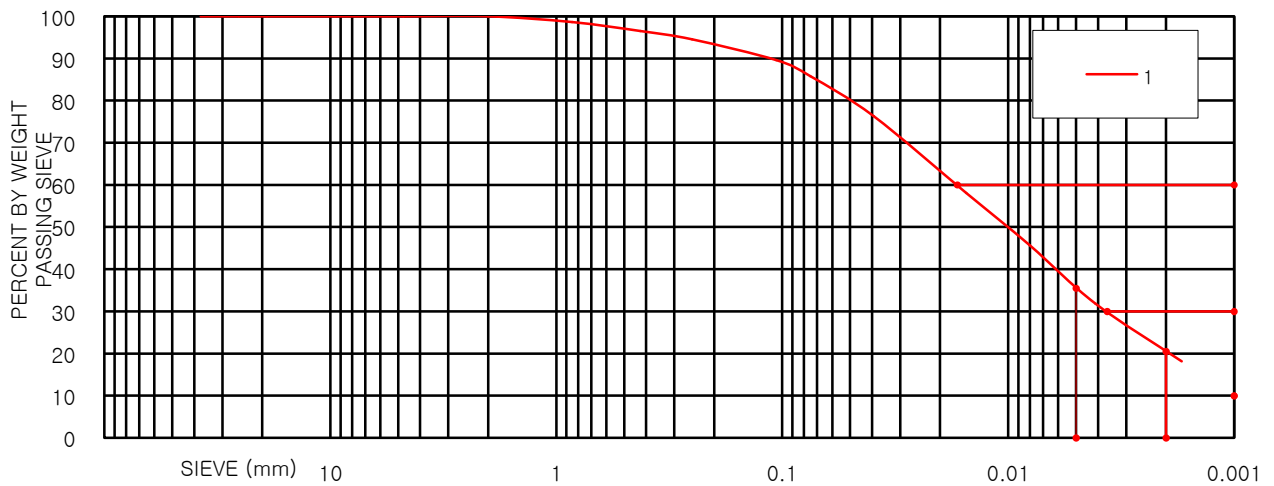
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-60	3.0	1	28.9	2.686	33.6	15.8	17.8	0.0010	0.0036	0.0168	16.8	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	100.0	98.6	96.5	94.5	89.6	85.8	20.5	CL	



	1	2	3	비고
A	0.87			
CI	0.26			
LI	0.74			

Remarks

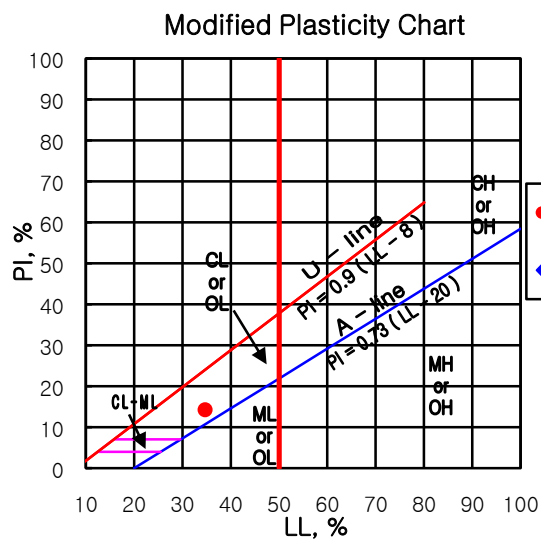
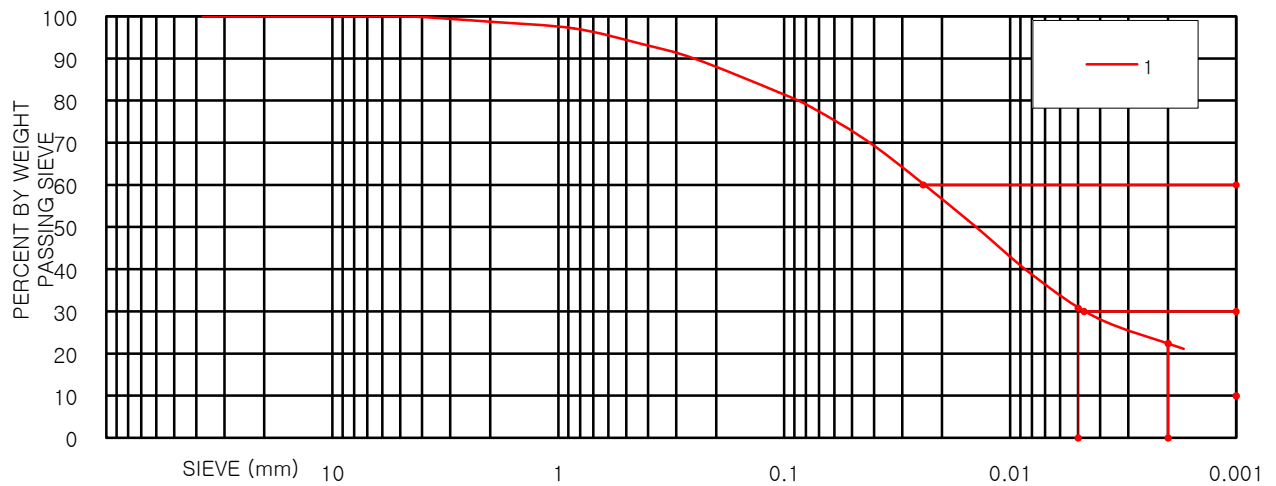
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-63	1.0	1	25.9	2.681	34.6	20.3	14.3	0.0010	0.0047	0.0243	24.3	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	98.7	97.1	93.4	90.0	82.0	78.3	22.4	CL	



	1	2	3	비고
A	0.64			
CI	0.61			
LI	0.39			

Remarks

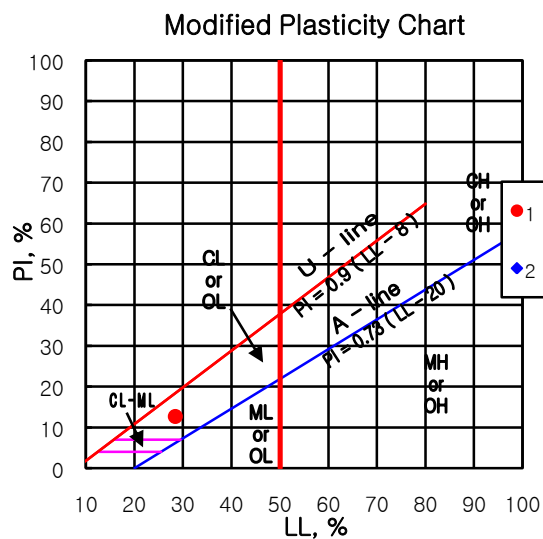
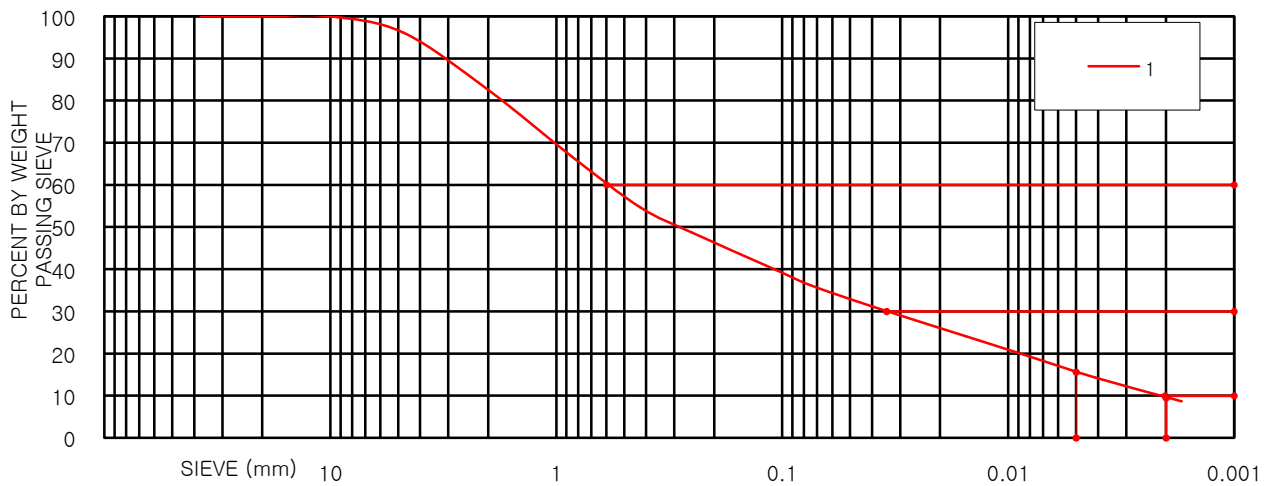
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-63	3.0	1	24.0	2.658	28.4	15.7	12.7	0.0020	0.0345	0.5984	296.5	1.0

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	96.1	82.5	66.7	54.7	48.7	39.8	36.2	9.5	SC	



	1	2	3	비고
A	1.34			
CI	0.35			
LI	0.65			

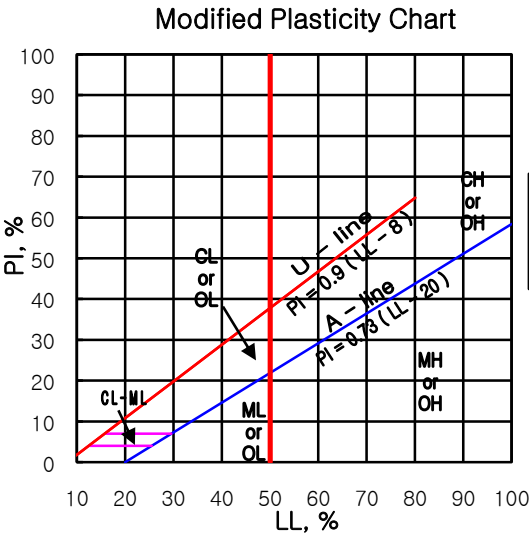
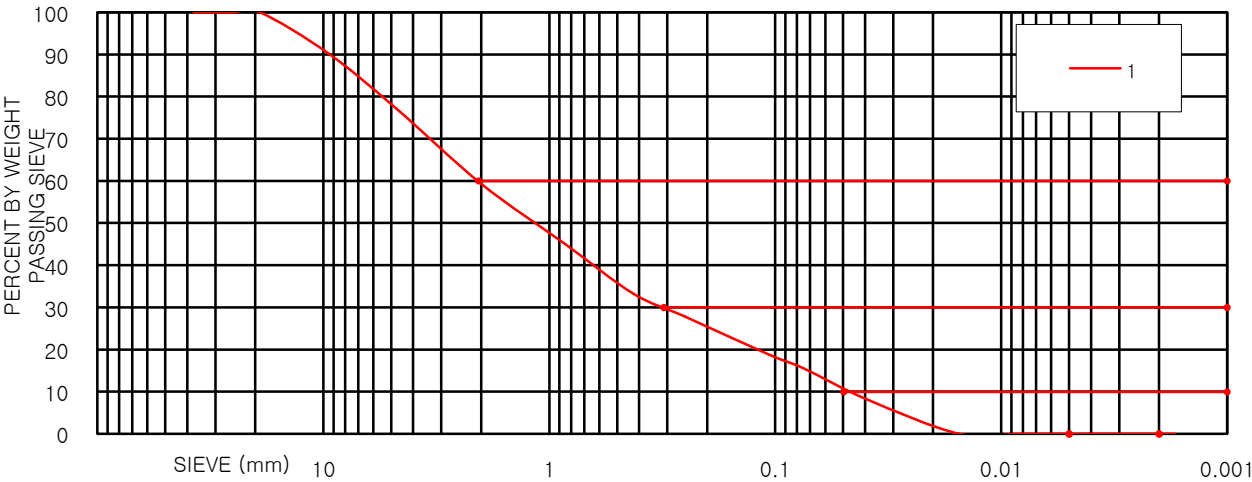
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-63	4.0	1	16.7	2.662	N	P	P	0.0498	0.3112	2.0559	41.3	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	77.2	59.3	45.0	33.3	27.8	18.8	15.6	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

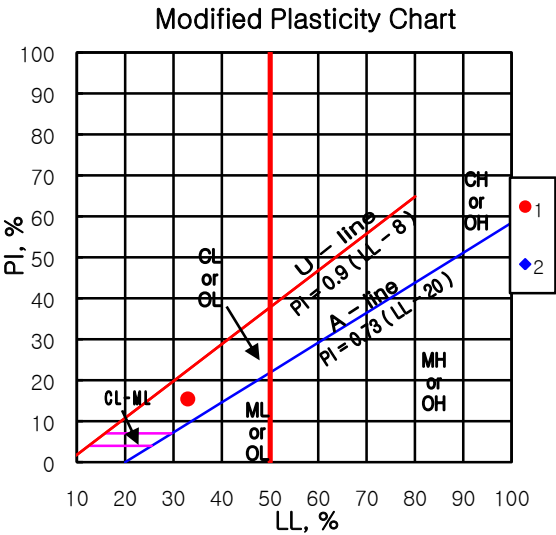
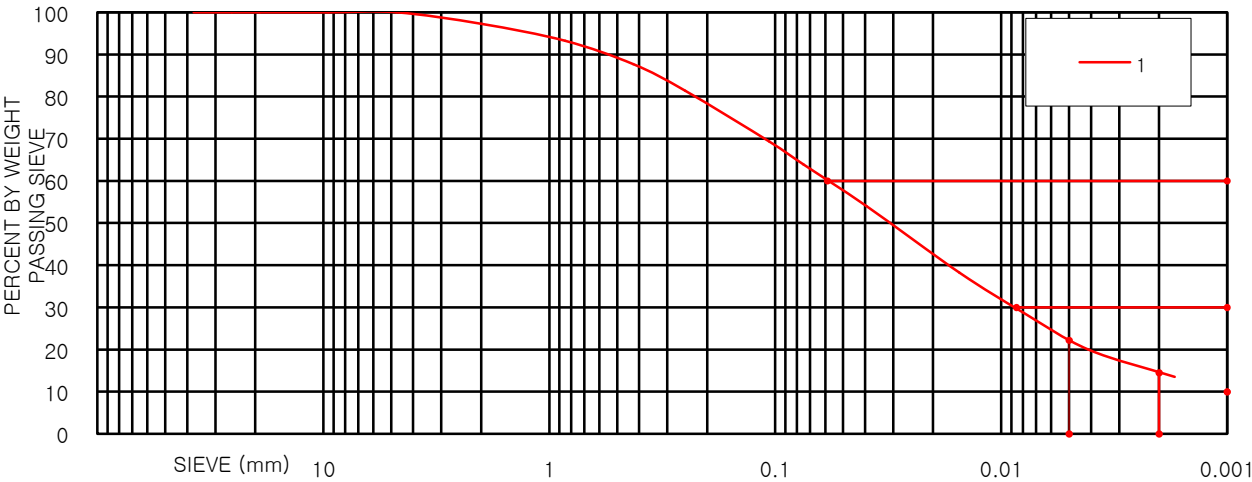
Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-64	1.0	1	25.7	2.672	32.9	17.4	15.5	0.0010	0.0086	0.0587	58.7	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	97.3	93.2	87.7	81.4	69.3	63.9	14.5	CL	



	1	2	3	비고
A	1.07			
CI	0.46			
LI	0.54			

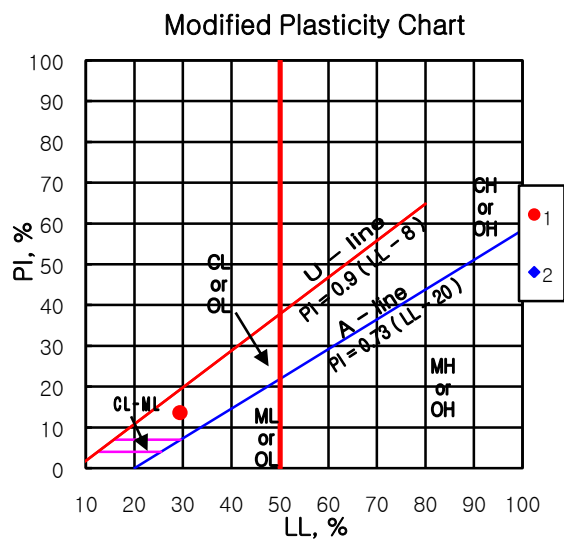
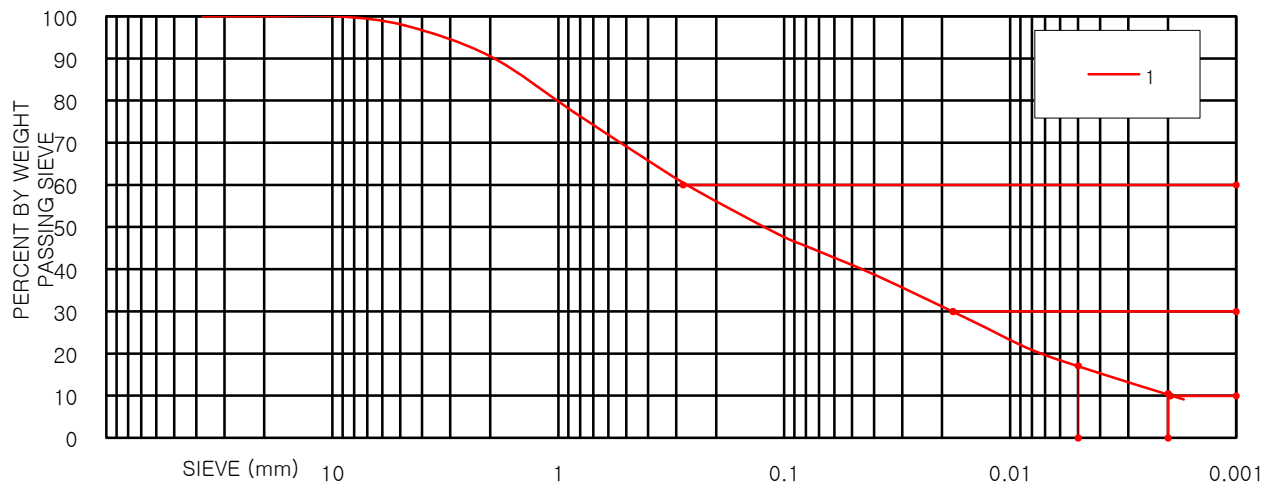
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KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-64	2.0	1	16.6	2.668	29.4	15.7	13.7	0.0020	0.0179	0.2805	143.5	0.6

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.8	90.5	77.2	66.7	59.0	48.3	44.9	10.5	SC	



	1	2	3	비고
A	1.30			
CI	0.94			
LI	0.06			

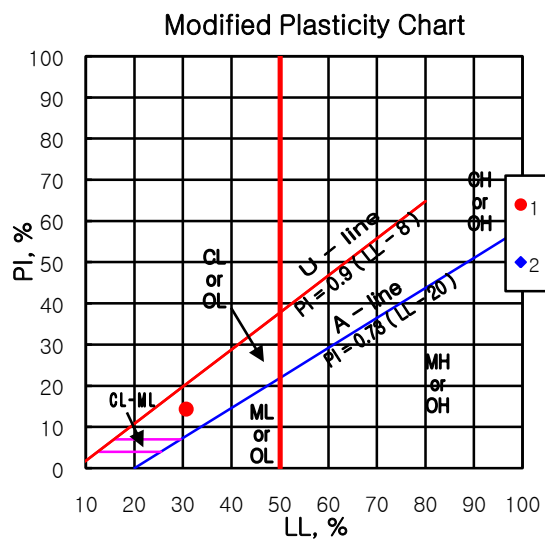
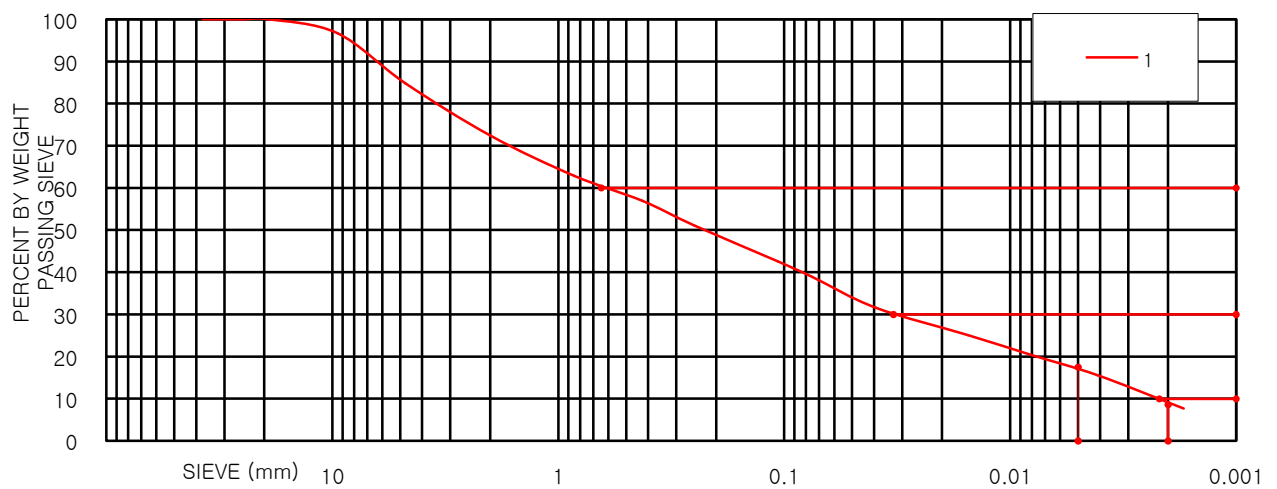
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
NTB-81	1.0	1	19.0	2.672	30.6	16.2	14.4	0.0022	0.0329	0.6457	295.1	0.8

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	84.8	72.4	62.9	56.9	51.1	42.5	38.9	8.6	SC	



	1	2	3	비고
A	1.67			
CI	0.80			
LI	0.20			

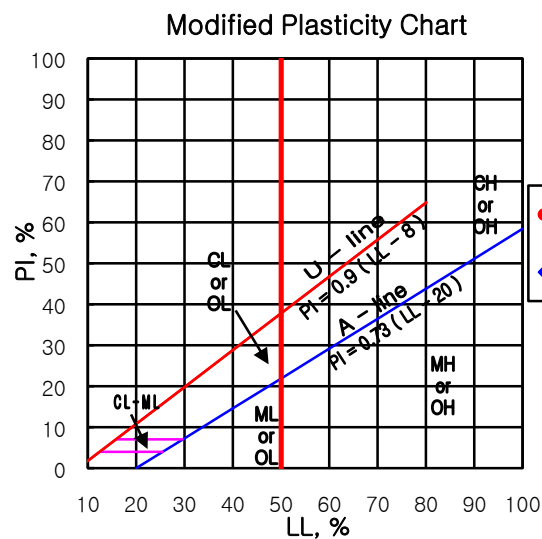
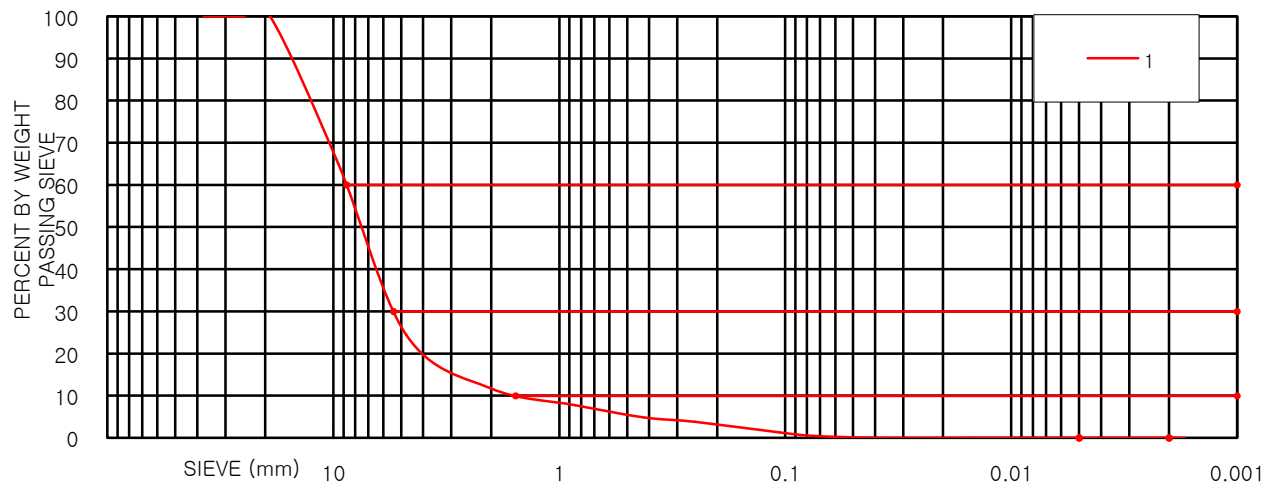
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KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 도담~영천 5공구 지반조사 실내 토질시험

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
NTB-82	1.0	1	10.7	2.632	N	P	P	1.5596	5.4200	8.7297	5.6	2.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	24.4	11.7	7.8	4.9	3.8	1.3	0.5	-	GW	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Lab. Test Summary Table (I)

Date : 2014. 08.

Project : 중앙선 도담~영천 5공구 지반조사

SHEET : 1 OF 1

[illegible]

Soil Test Data

PROJECT : 중앙선 도담-영천 복선전철 제5공구 지반조사 용역

SJ-15-028

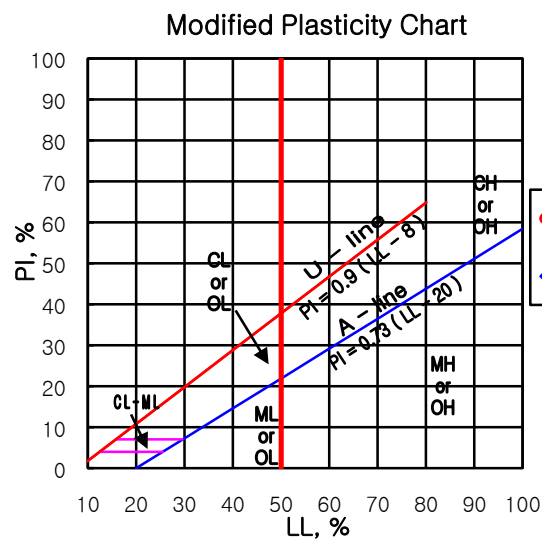
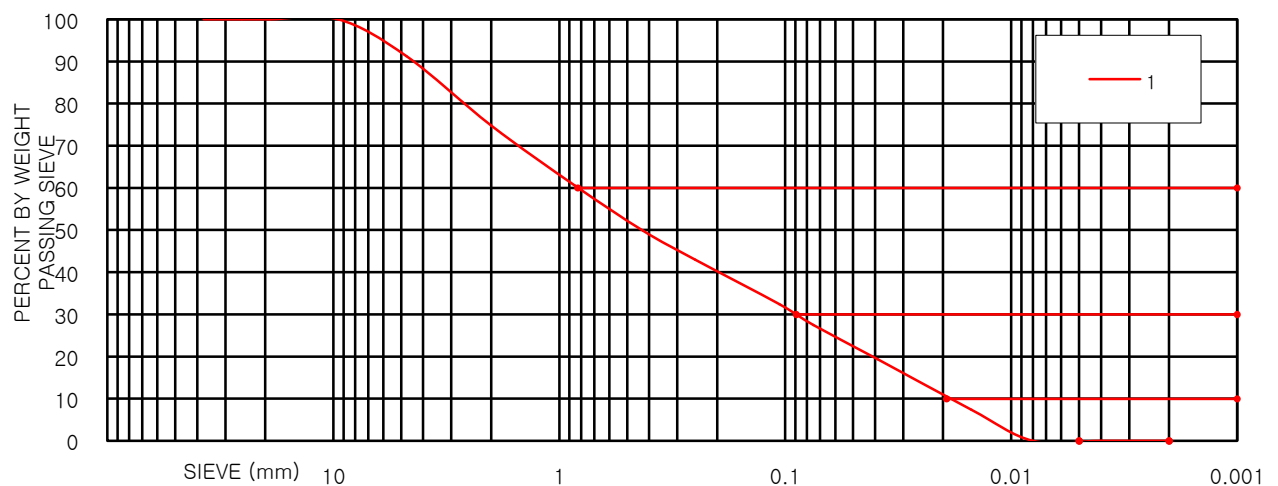
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Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-1	-	1	15.9	2.663	N	P	P	0.0193	0.0893	0.8279	42.9	0.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	91.3	74.8	60.5	49.8	43.0	32.4	27.5	-	SM	



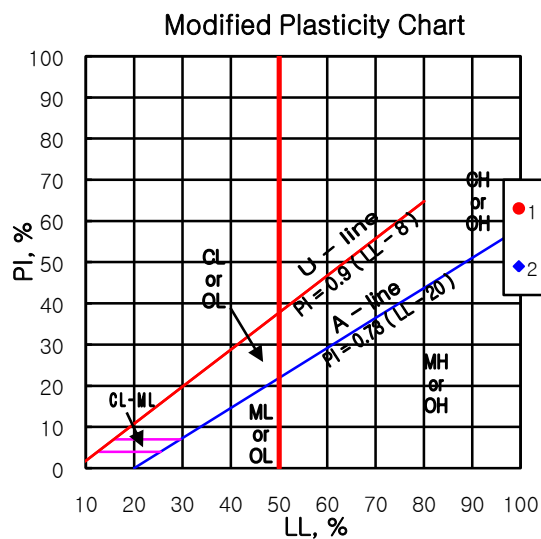
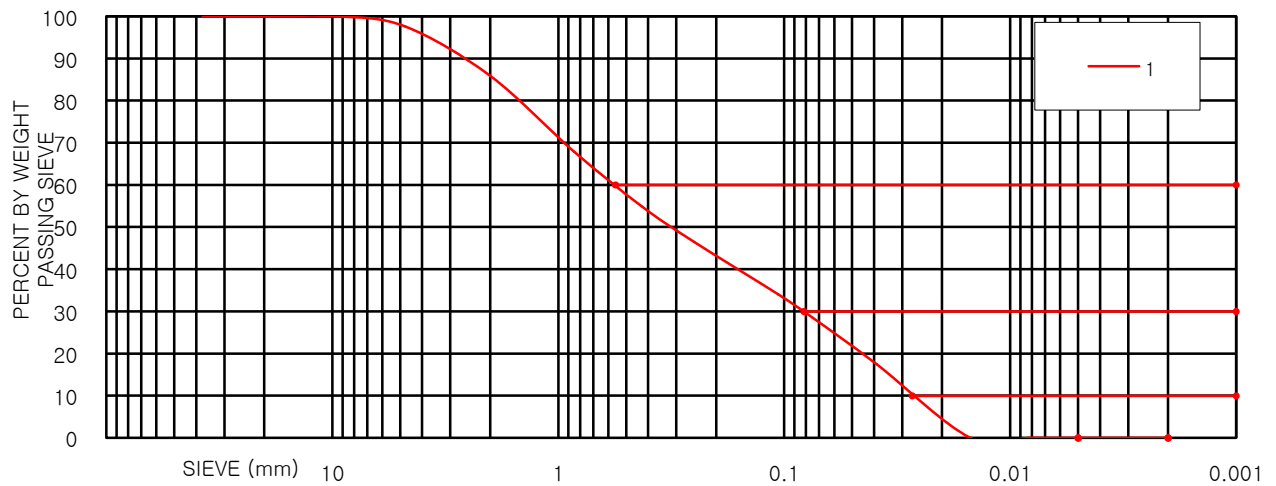
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-2	-	1	13.1	2.66	N	P	P	0.0271	0.0818	0.5585	20.6	0.4
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	97.6	85.9	67.9	54.8	46.5	34.0	28.6	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

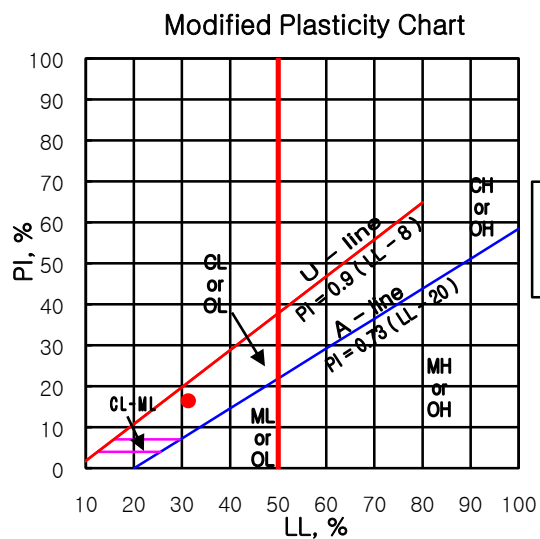
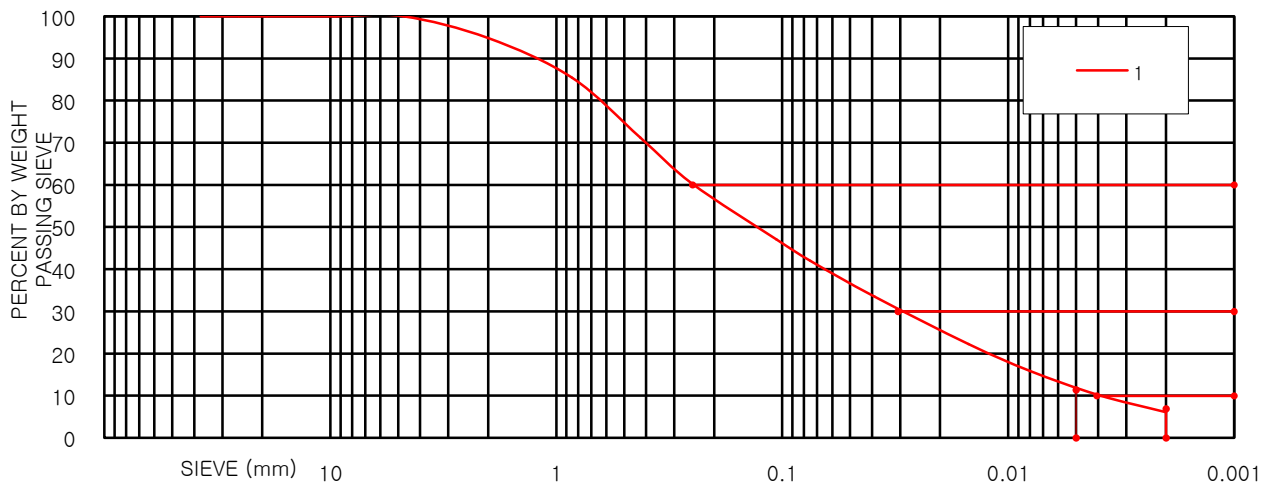
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-3	-	1	19.1	2.67	31.3	14.8	16.5	0.0041	0.0307	0.2495	61.5	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	94.8	85.4	71.2	60.3	47.1	42.0	6.9	SC	



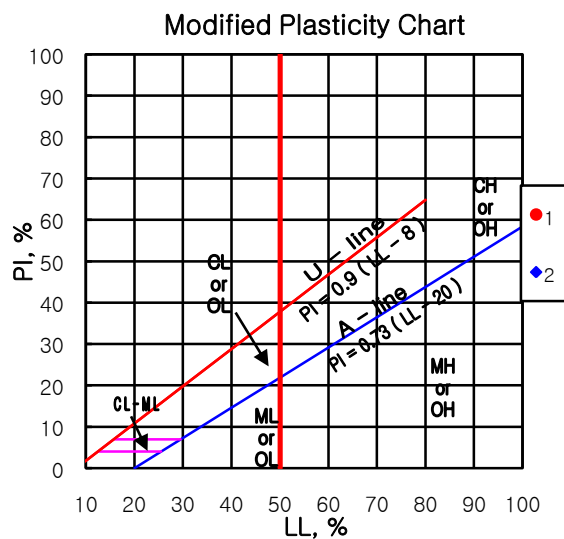
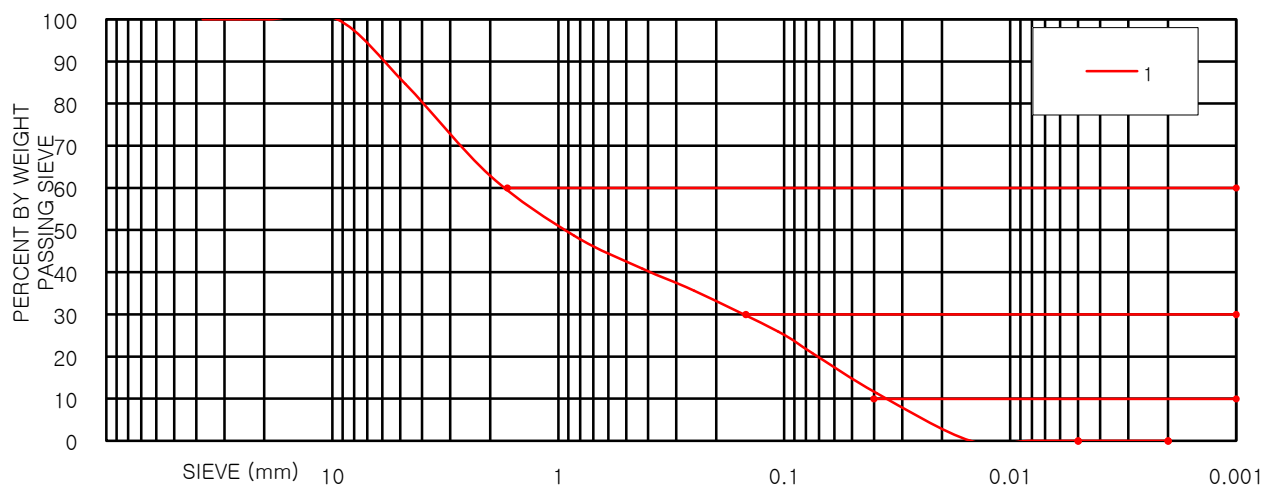
	1	2	3	비고
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CI	0.74			
LI	0.26			

Remarks	
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-4	-	1	16.1	2.66	N	P	P	0.0401	0.1479	1.6827	42.0	0.3
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	84.7	62.9	48.7	40.9	35.6	25.9	20.8	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

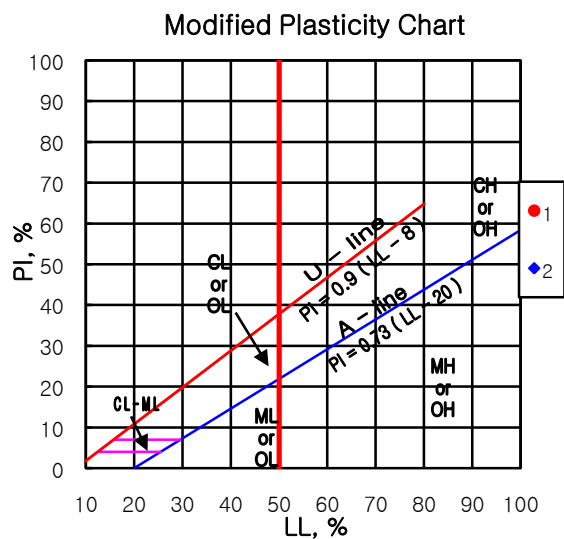
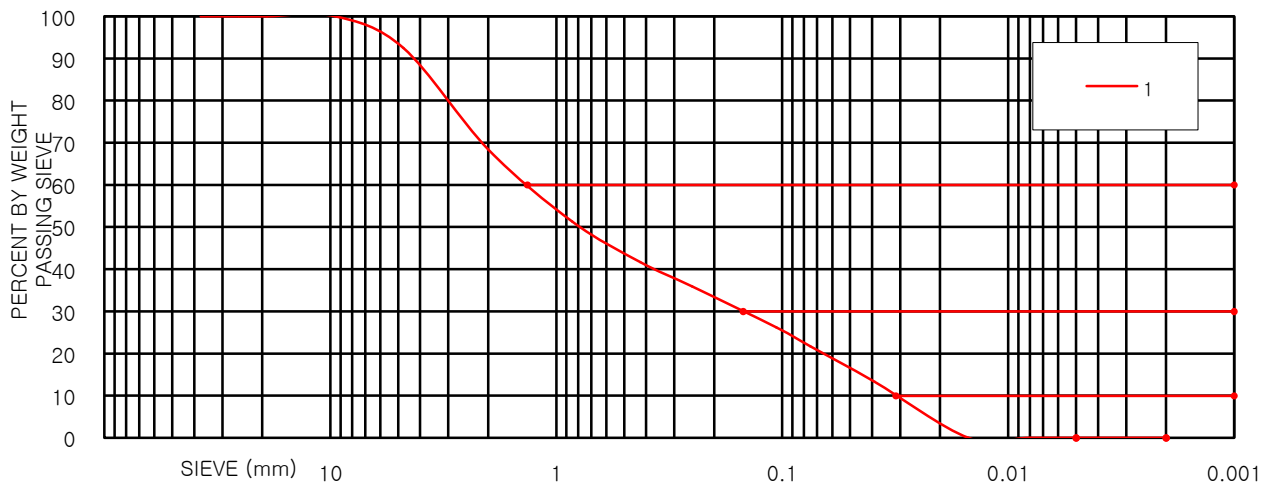
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-5	-	1	19.0	2.67	N	P	P	0.0314	0.1489	1.3428	42.8	0.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	92.5	68.4	51.3	41.7	35.9	26.2	21.7	-	SM	



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

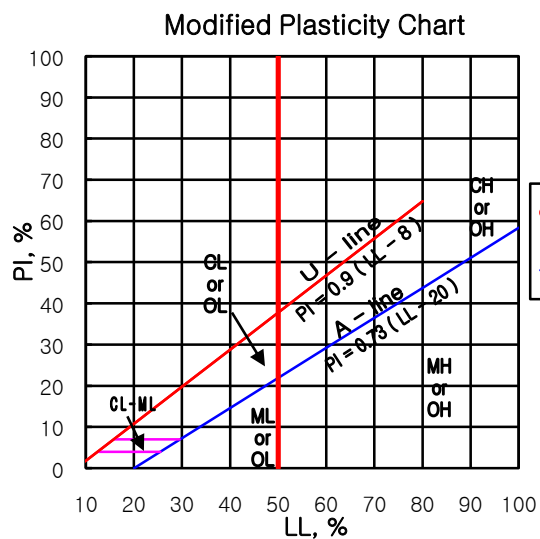
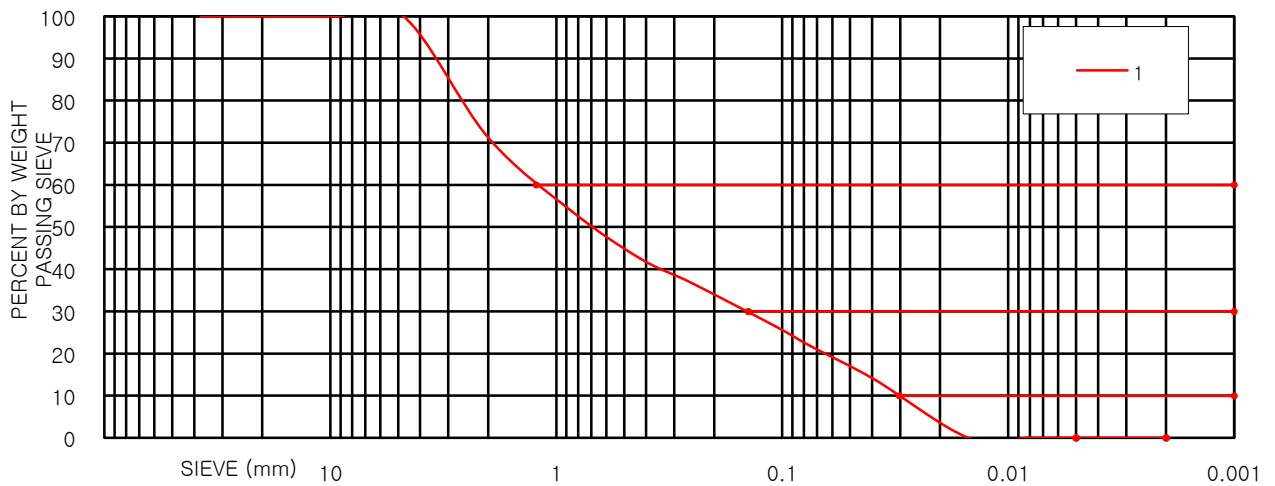
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-6	-	1	13.0	2.67	N	P	P	0.0303	0.1413	1.2274	40.5	0.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	100.0	71.2	53.7	42.6	36.7	26.5	21.8	-	SM	



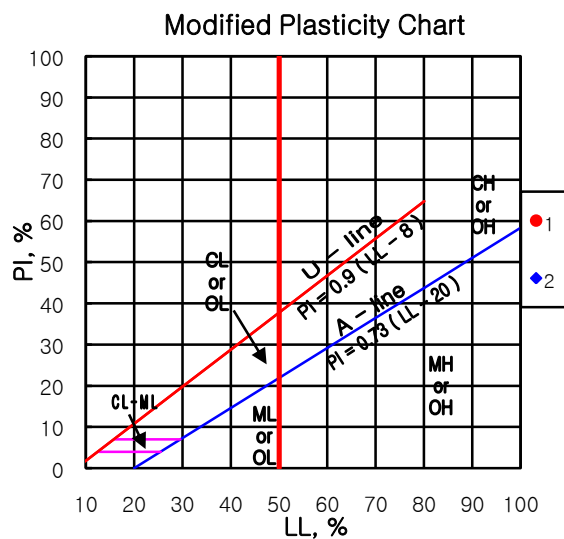
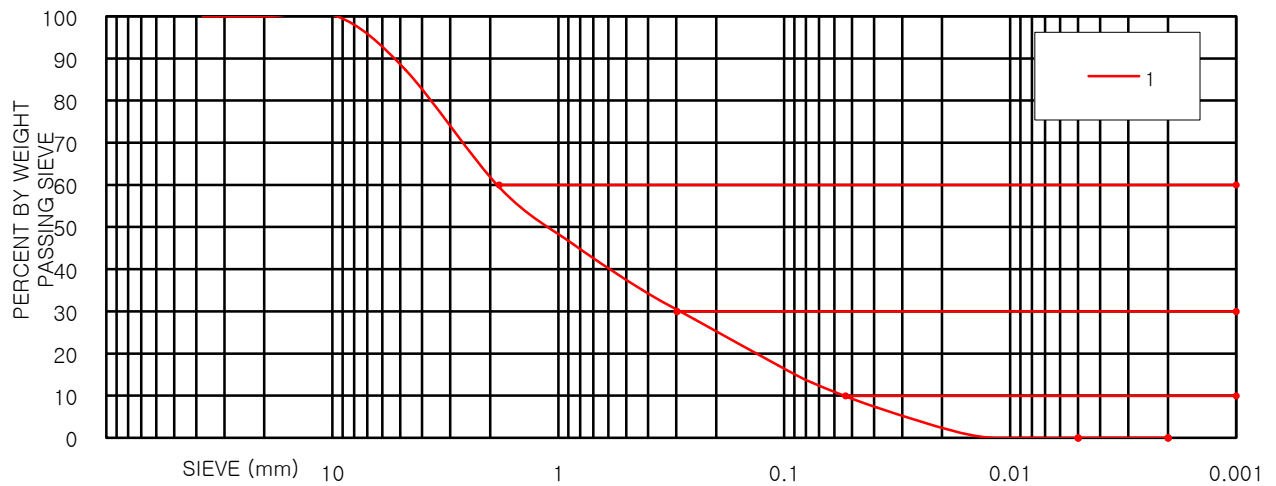
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-7	-	1	15.5	2.65	N	P	P	0.0536	0.2985	1.8281	34.1	0.9
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	87.3	59.2	45.8	35.1	28.2	17.2	13.1	-	SM			



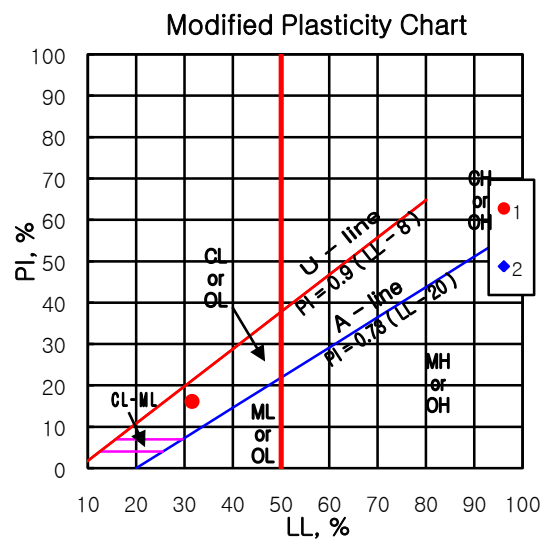
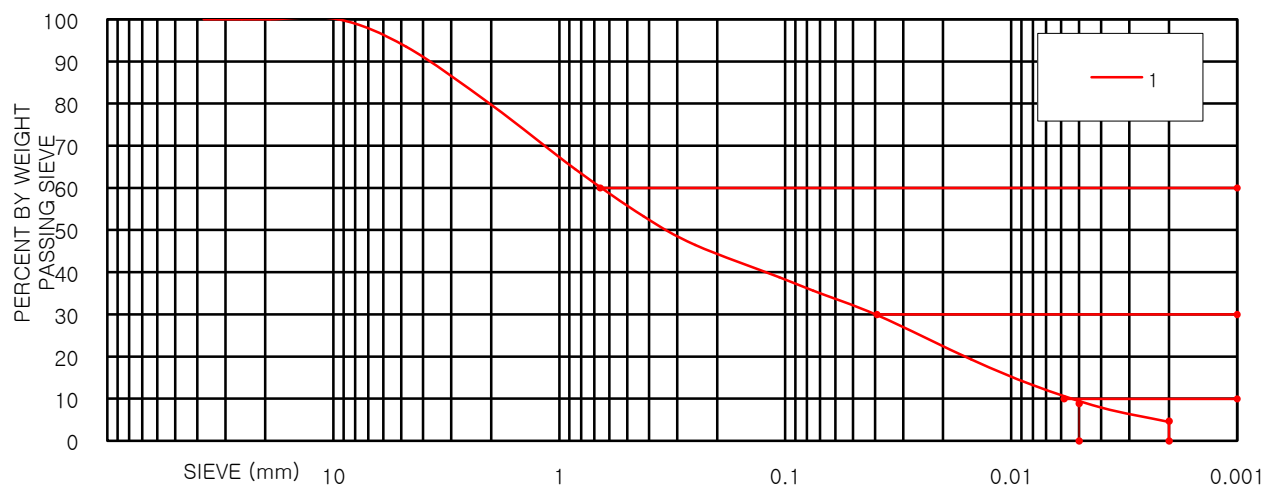
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-8	-	1	21.5	2.67	31.5	15.3	16.2	0.0058	0.0393	0.6592	113.0	0.4
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	93.5	79.8	64.5	53.3	46.5	38.8	35.6	4.7	SC			



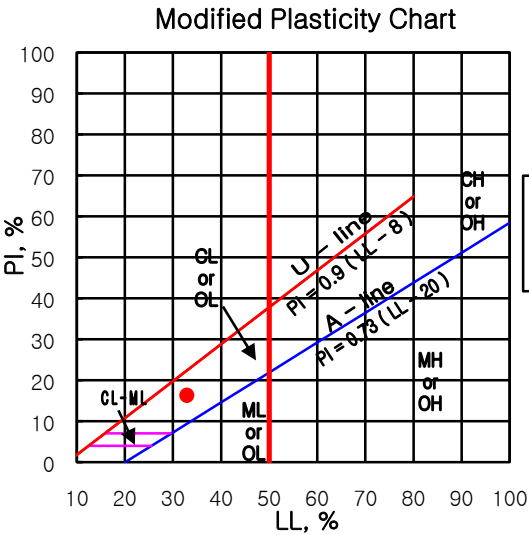
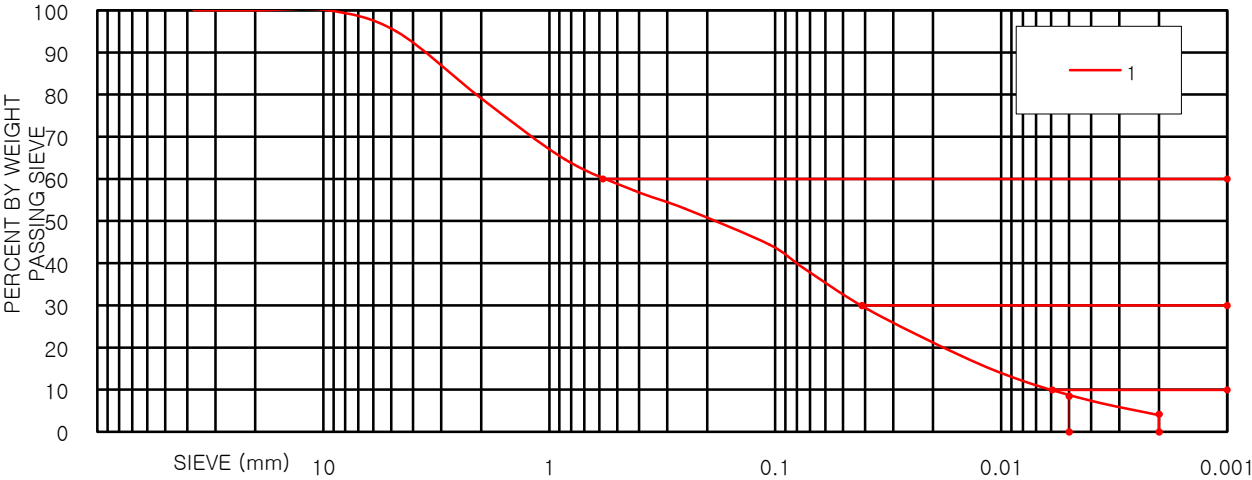
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CI	0.62			
LI	0.38			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-9	-	1	24.4	2.67	32.8	16.5	16.3	0.0059	0.0413	0.5794	97.5	0.5
Curve No.	Sieve Analysis Data (% Passing)							USCS	Description			
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075					0.002
1	95.0	79.1	64.6	57.3	52.9	44.4	38.9	4.2	SC			



	1	2	3	비고
A	3.88			
CI	0.52			
LI	0.48			

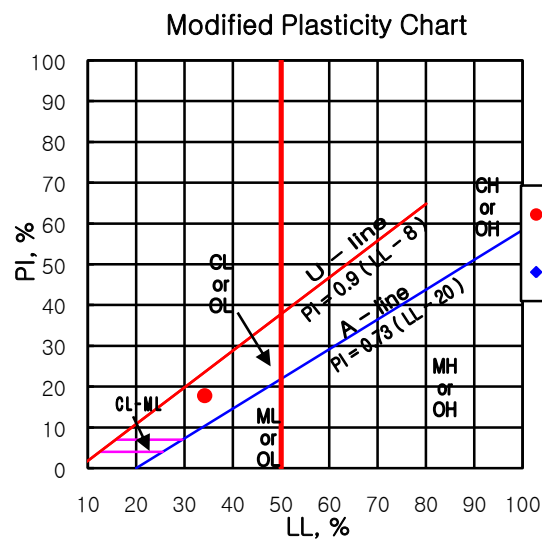
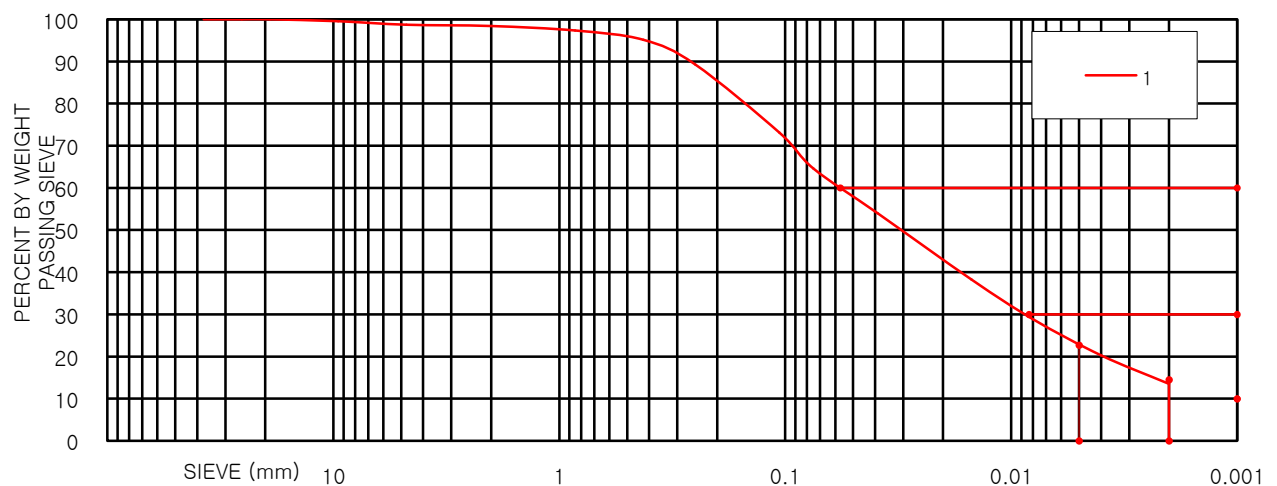
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KS F 2302	05. 07. 26 확인
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KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
TP-10	-	1	27.7	2.70	34.2	16.4	17.8	0.0010	0.0083	0.0570	57.0	1.2

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	98.7	98.4	97.3	95.1	89.3	73.1	64.6	14.5	CL	



	1	2	3	비고
A	1.23			
CI	0.36			
LI	0.64			

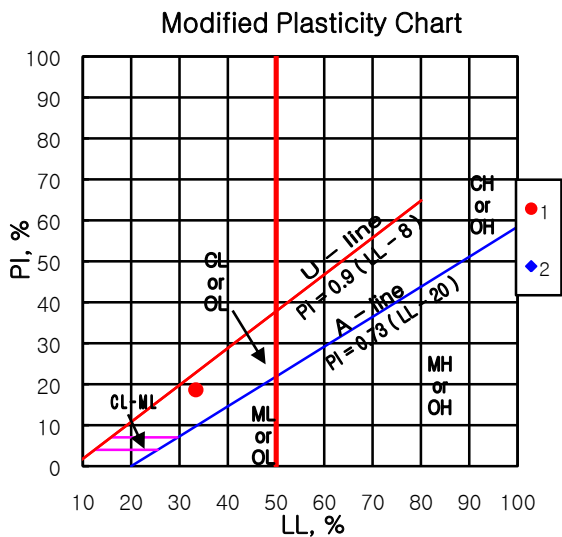
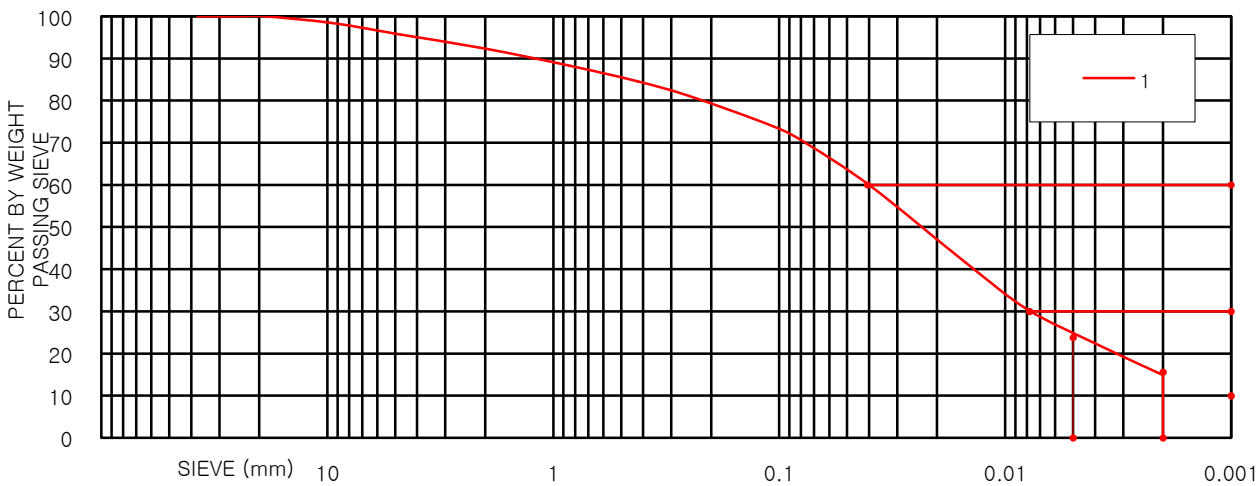
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KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-11	-	1	28.5	2.70	33.4	14.7	18.7	0.0010	0.0078	0.0407	40.7	1.5

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	95.7	92.3	88.3	84.6	81.1	73.9	69.7	15.6	CL	



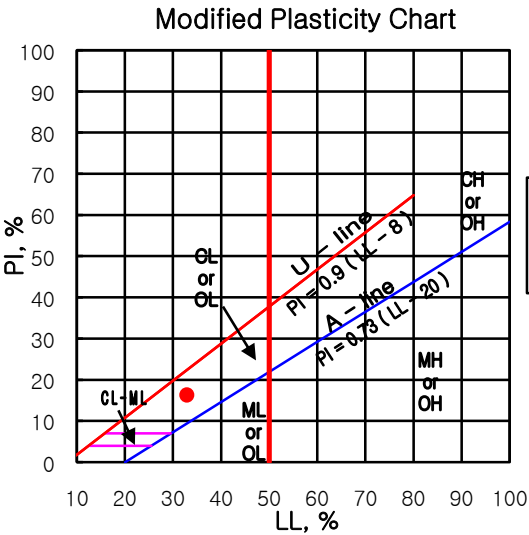
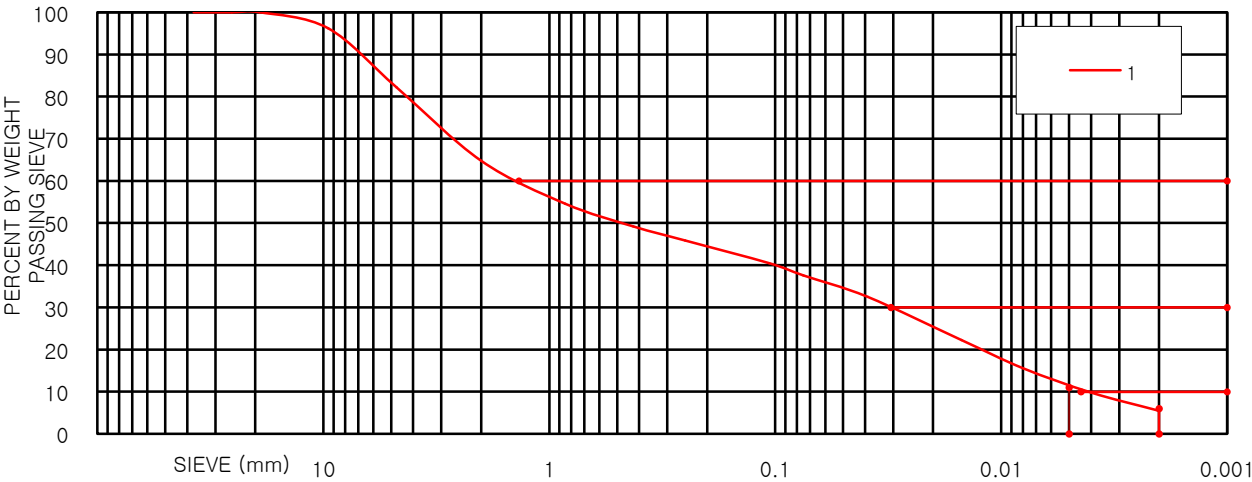
	1	2	3	비고
A	1.20			
CI	0.26			
LI	0.74			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-12	-	1	17.4	2.68	32.8	16.5	16.3	0.0044	0.0308	1.3614	306.9	0.2
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	82.2	64.7	54.6	49.2	45.9	40.5	37.6	6.0	SC			



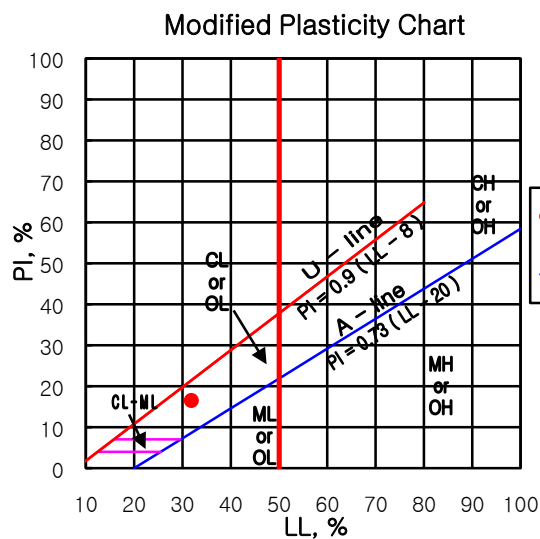
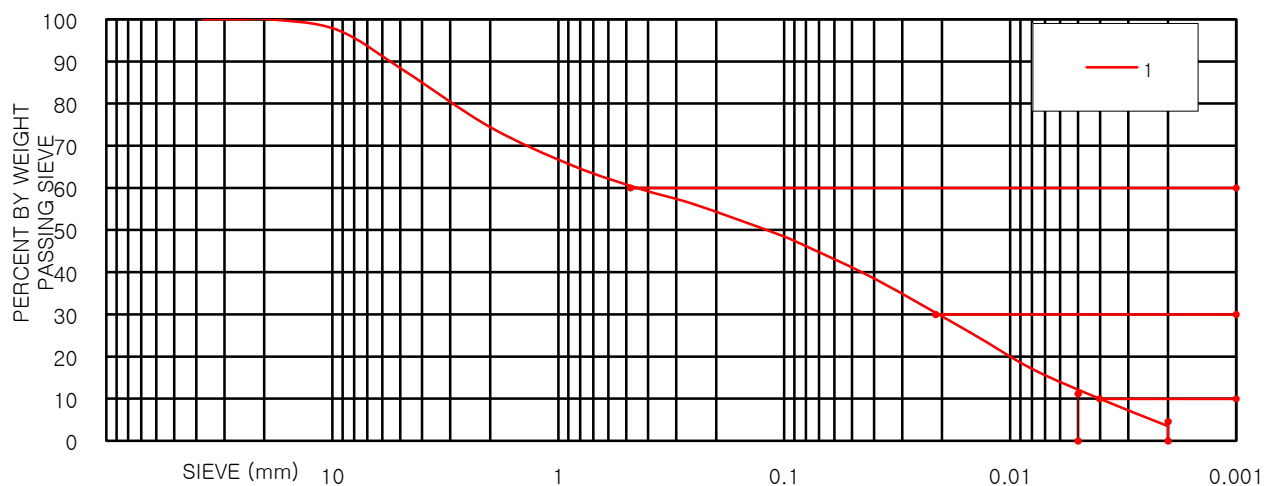
	1	2	3	비고
A	2.72			
CI	0.94			
LI	0.06			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-13	-	1	20.3	2.66	31.8	15.2	16.6	0.0040	0.0214	0.4797	119.4	0.2
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	87.6	74.4	65.2	59.6	56.1	49.0	45.5	4.6	SC			



	1	2	3	비고
A	3.61			
CI	0.69			
LI	0.31			

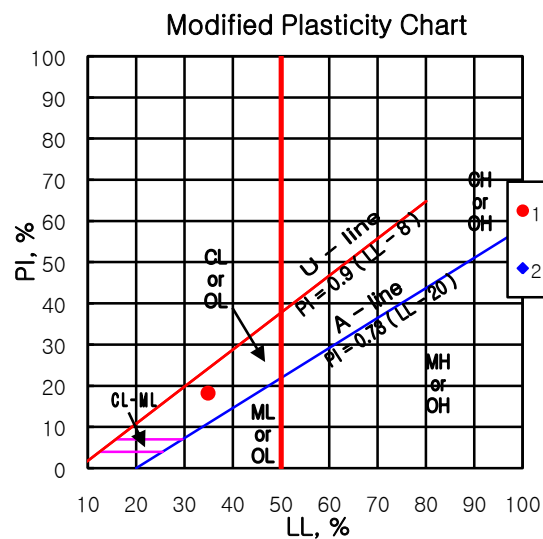
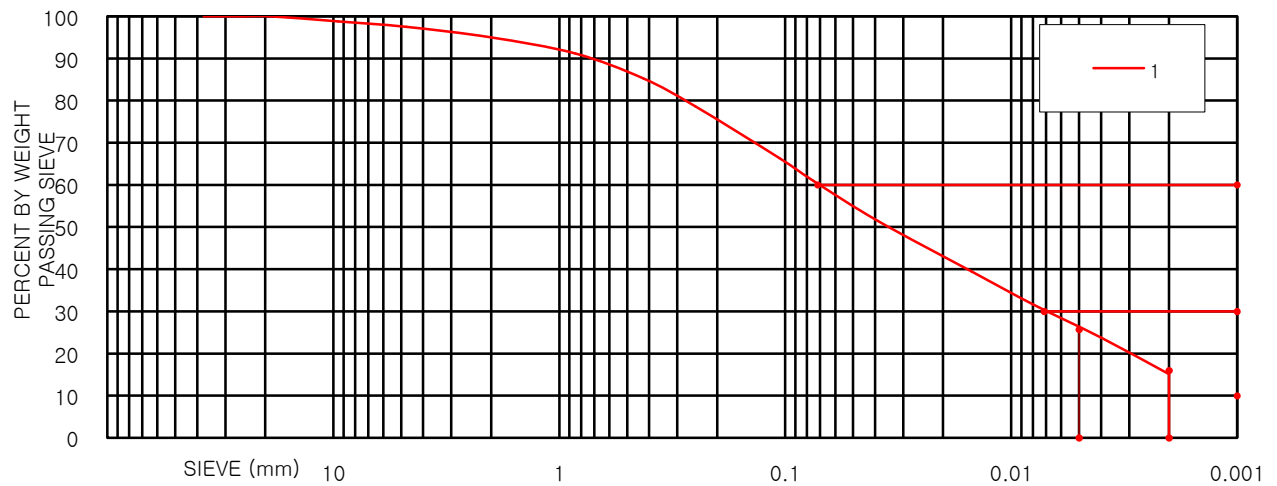
Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
TP-14	-	1	26.5	2.67	34.8	16.5	18.3	0.0000	0.0071	0.0718	7177.9	71.1

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	97.5	95.0	91.2	85.3	78.7	66.4	61.0	16.0	CL	



	1	2	3	비고
A	1.14			
CI	0.45			
LI	0.55			

Remarks

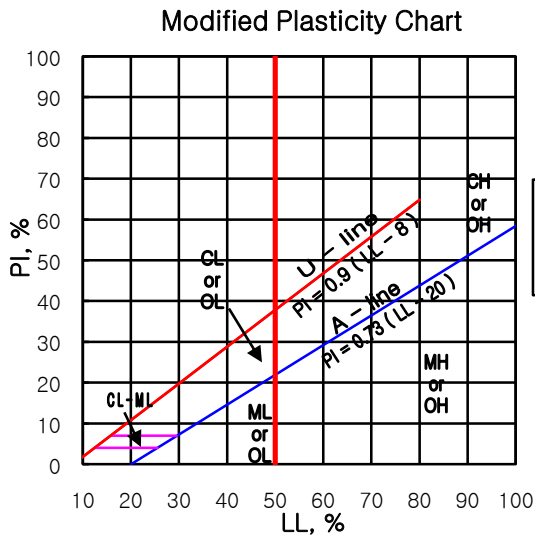
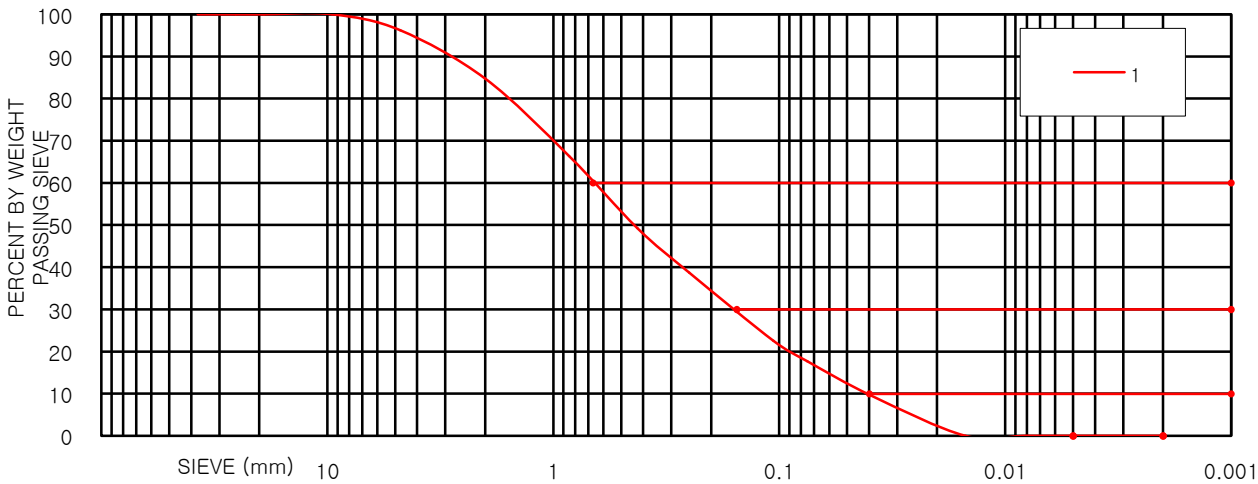
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KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

Sample No.	Depth(m)	Curve	W _n	G _s	LL	PL	PI	D ₁₀	D ₃₀	D ₆₀	C _u	C _g
TP-15	-	1	15.6	2.66	N	P	P	0.0399	0.1542	0.6668	16.7	0.9

Curve No.	Sieve Analysis Data (% Passing)								USCS	Description
	Sieve Size.									
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002		
1	96.2	84.7	66.4	49.3	38.7	22.6	17.7	-	SM	



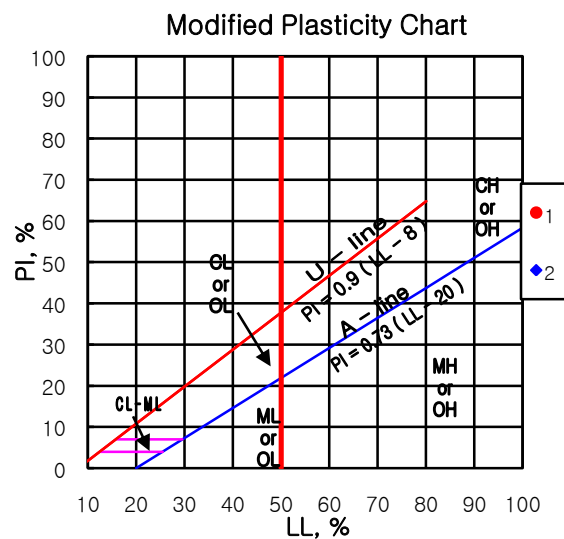
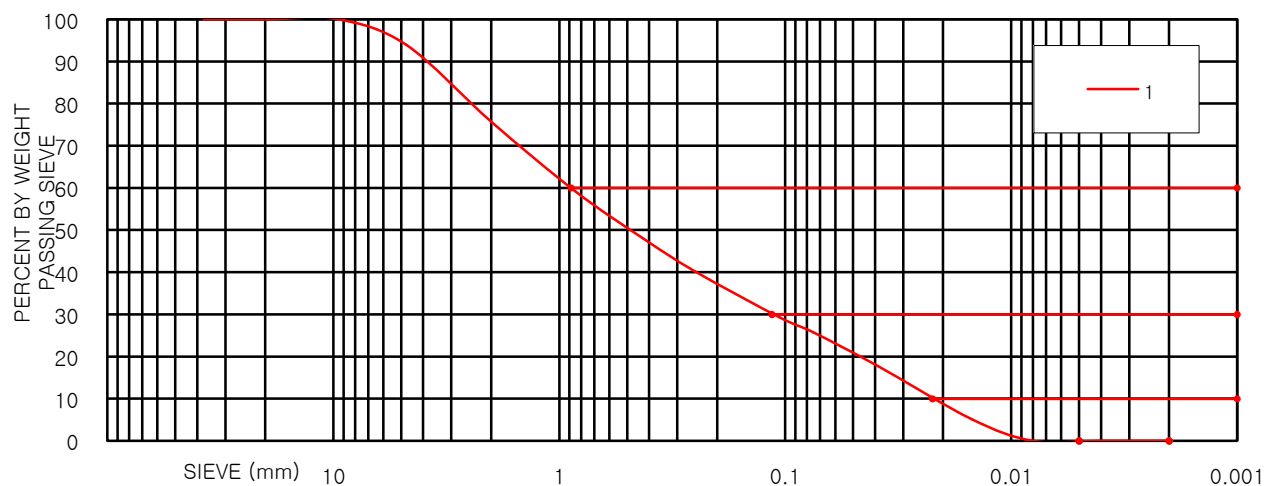
	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Classification of a Soil (USCS)

Project : 중앙선 도담~영전 5공구 지반조사

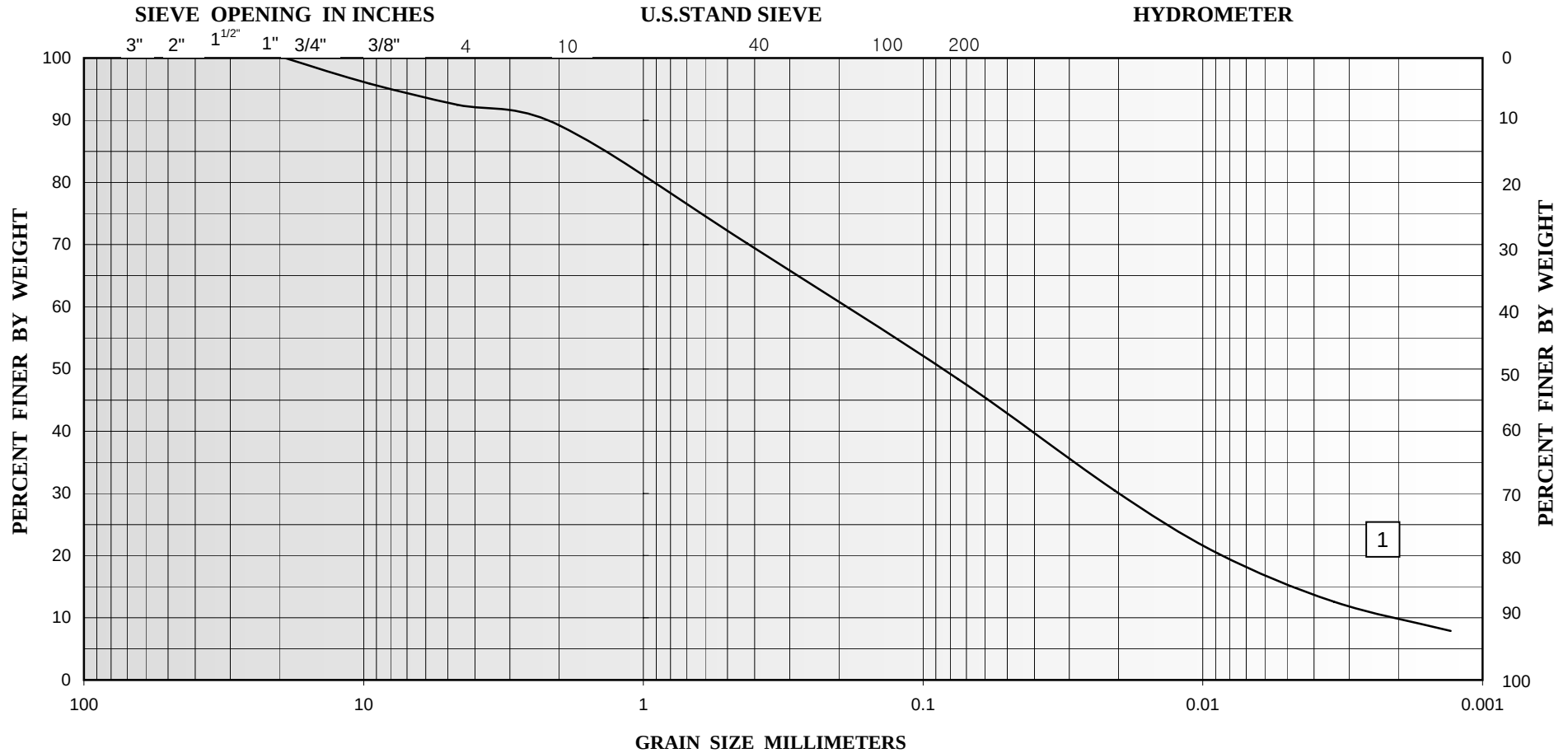
Sample No.	Depth(m)	Curve	Wn	Gs	LL	PL	PI	D10	D30	D60	Cu	Cg
TP-16	-	1	16.4	2.65	N	P	P	0.0223	0.1146	0.8872	39.8	0.7
Curve No.	Sieve Analysis Data (% Passing)								USCS	Description		
	Sieve Size.											
	4.75	2.00	0.85	0.425	0.250	0.106	0.075	0.002				
1	93.9	75.7	59.2	48.0	40.2	29.3	25.8	-	SM			



	1	2	3	비고
A	#####			
CI	#####			
LI	#####			

Remarks	
KS F 2301	05. 11. 25 개정
KS F 2302	05. 07. 26 확인
KS F 2303	05. 07. 26 확인
KS F 2306	05. 07. 26 확인
KS F 2309	04. 12. 29 개정
KS F 2324	06. 10. 19 개정

Gradation Curves

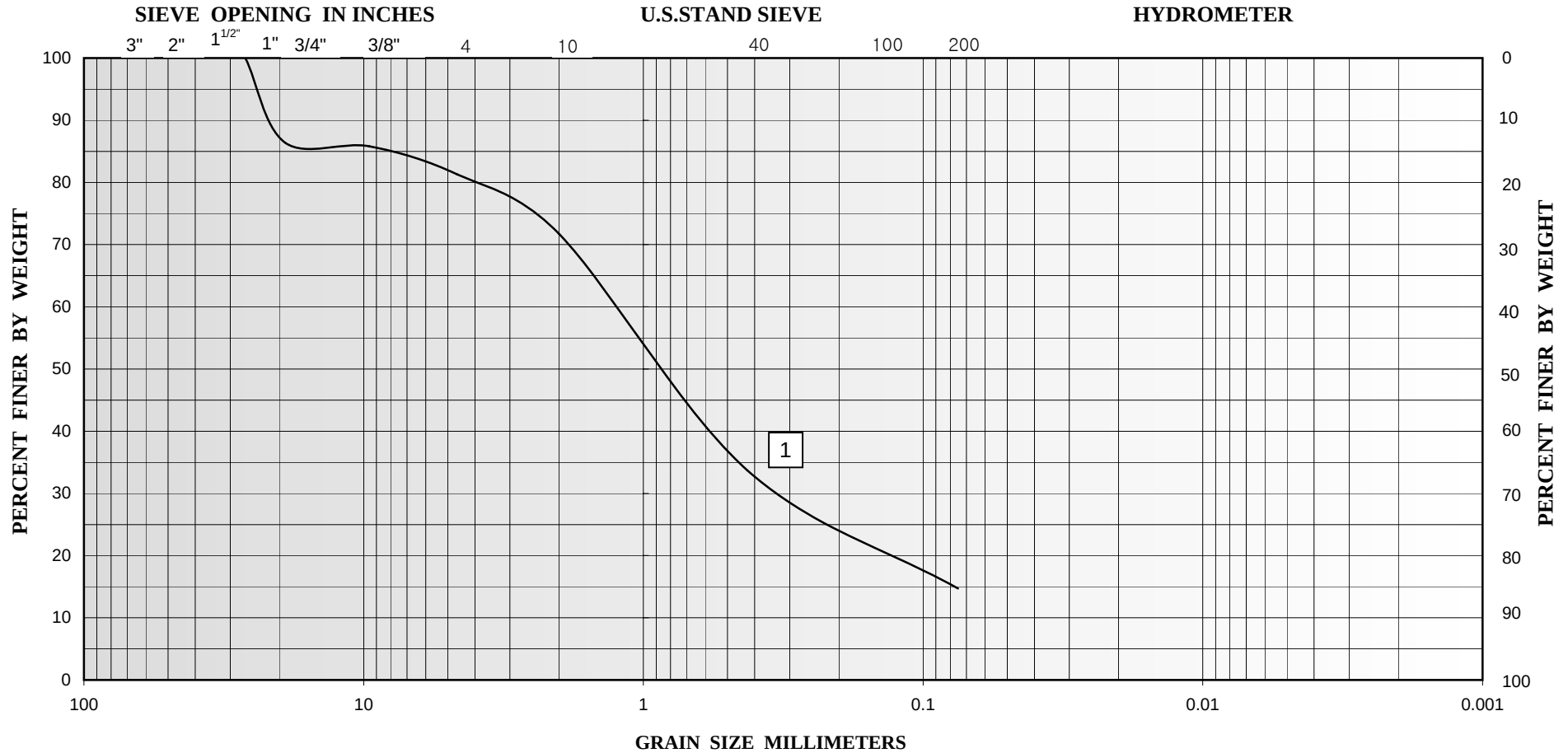


COB BLE	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Depth(m)	Classification	Wn (%)	GS	LL (%)	PI	USCS	Borehole No.	NTP - 01
NTP - 01	1.00	SILTY SAND	17.5	2.69	32.6	7.6	SM		
								Test Method	KS F 2302 - 2002
								Date	2015. 5.

■ Project : 중앙선 도담·영천 복선전철 제5공구 지반조사 용역

Gradation Curves

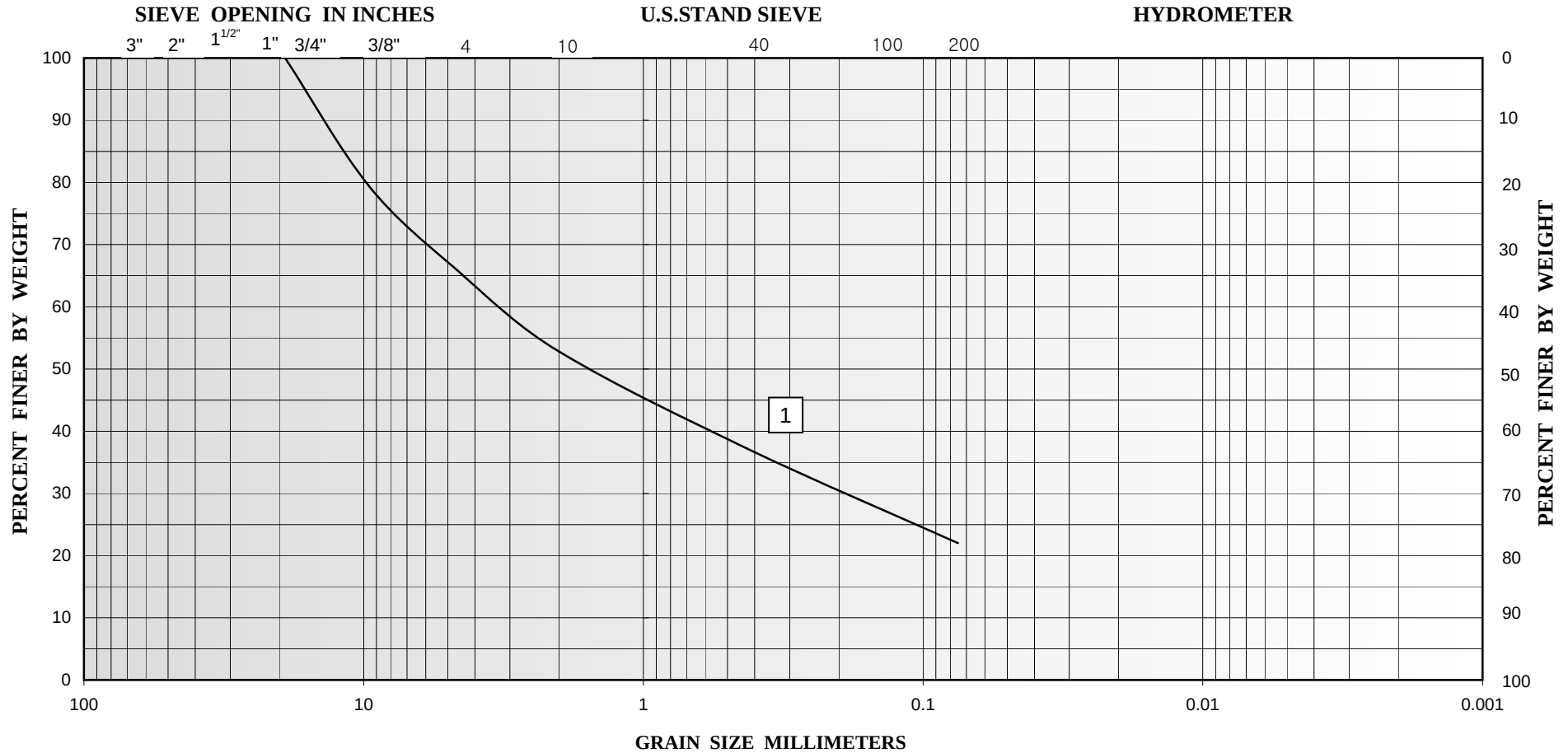


COB BLE	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Depth(m)	Classification	Wn (%)	GS	LL (%)	PI	USCS	Borehole No.	NTP - 02
NTP - 02	1.50	SILTY SAND WITH SAND	13.1	2.67	NP	-	SM		
								Test Method	KS F 2302 - 2002
								Date	2015. 5.

■ Project : 중앙선 도담·영천 복선전철 제5공구 지반조사 용역

Gradation Curves

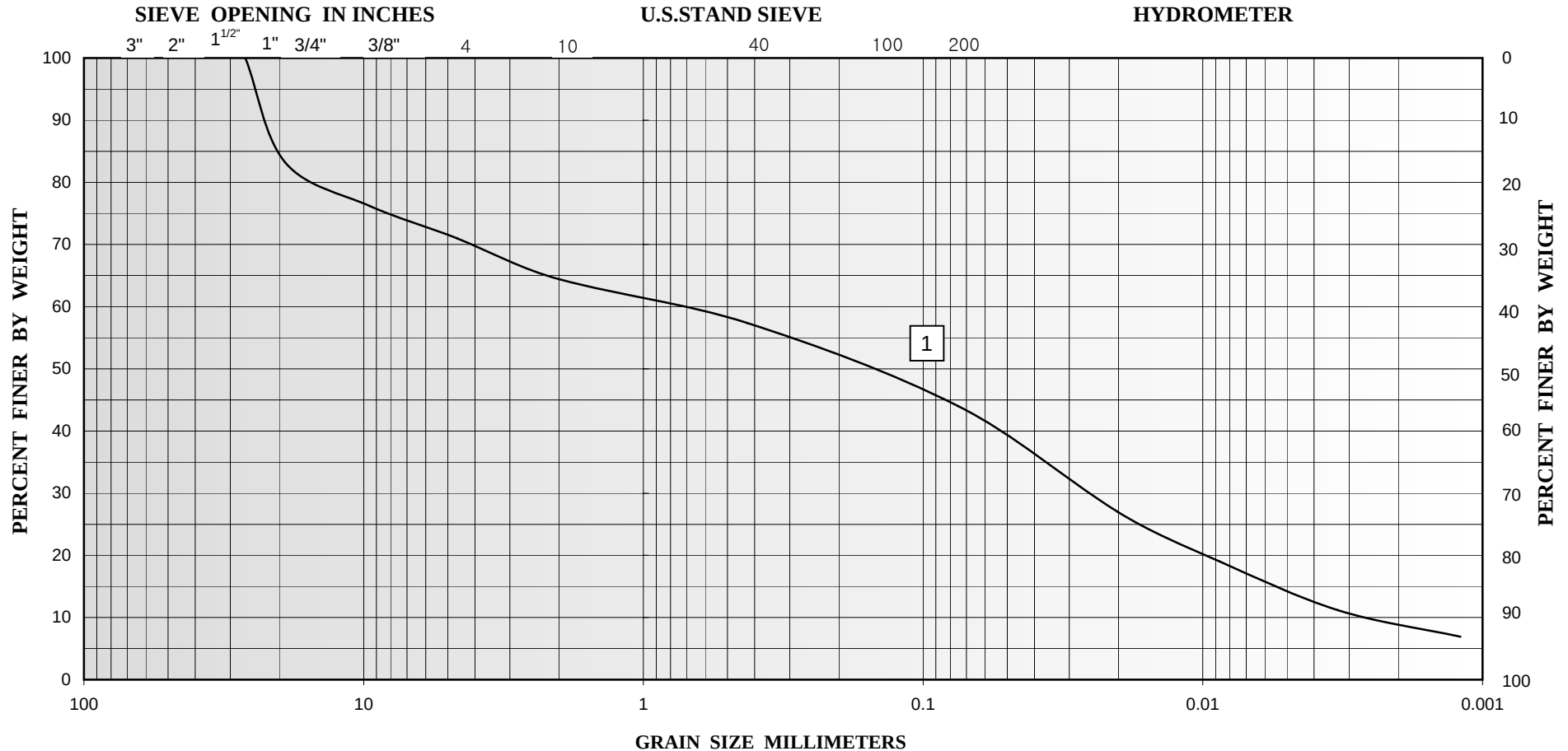


COB BLE	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

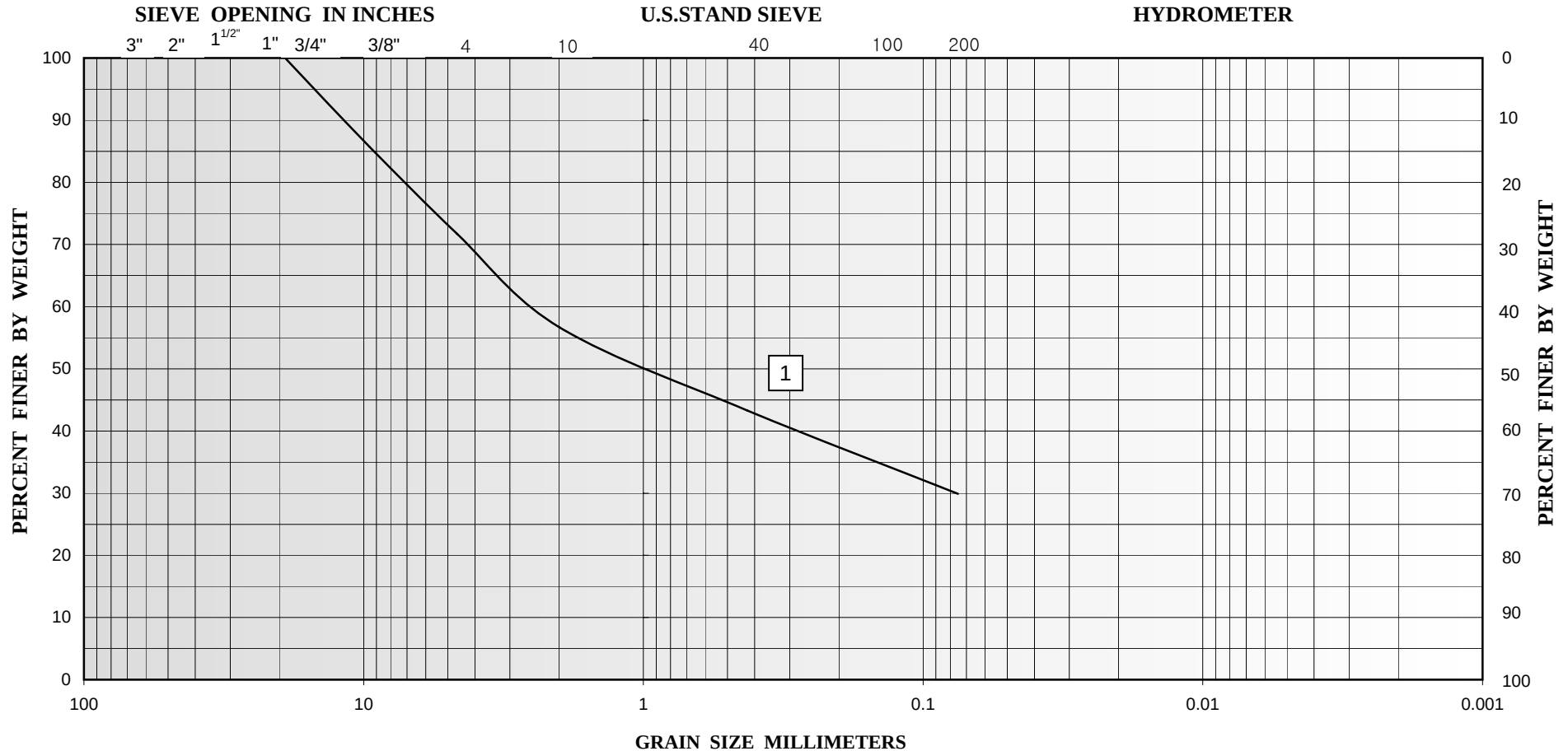
Sample No.	Depth(m)	Classification	Wn (%)	GS	LL (%)	PI	USCS	Borehole No.	NTP - 03
NTP - 03	0.50	SILTY SAND WITH SAND	4.0	2.66	NP	-	SM		
								Test Method	KS F 2302 - 2002
								Date	2015. 5.

■ Project : 중앙선 도담·영천 복선전철 제5공구 지반조사 용역

Gradation Curves



Gradation Curves



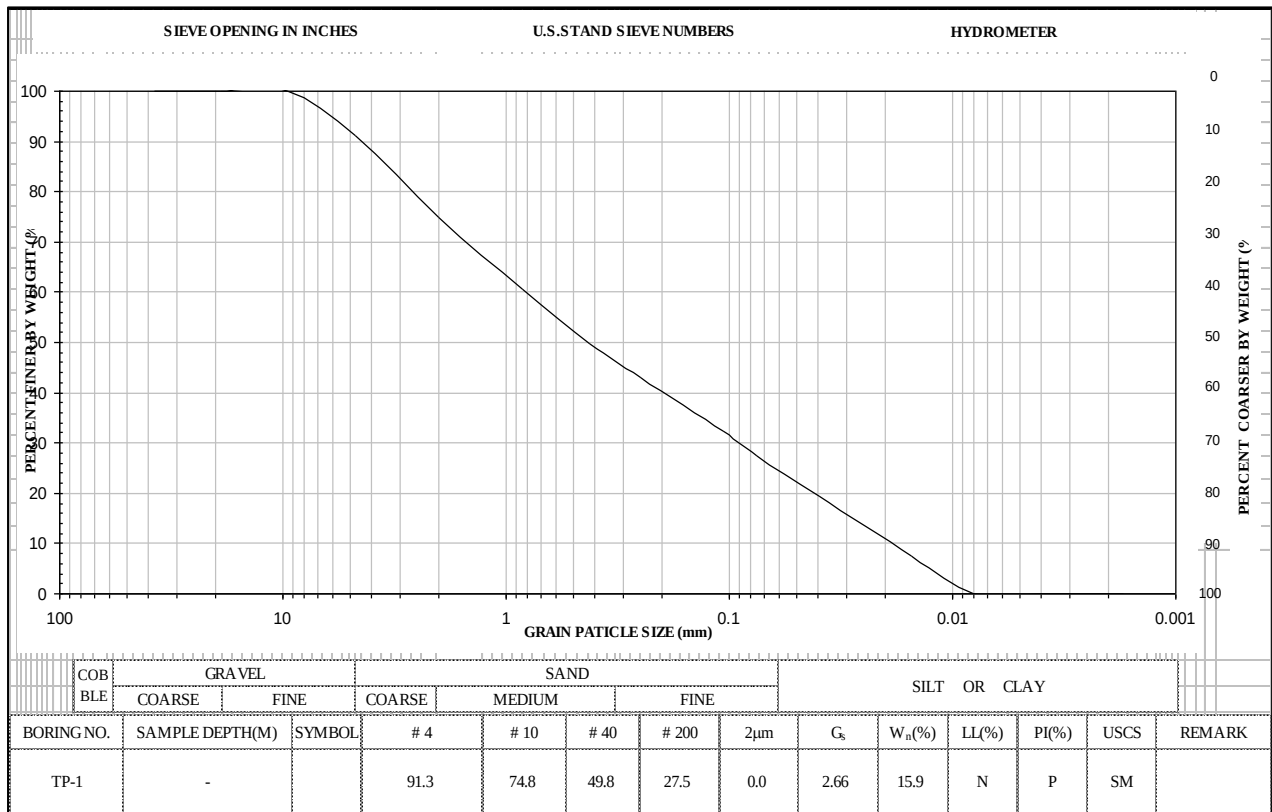
COB BLE	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Depth(m)	Classification	Wn (%)	GS	LL (%)	PI	USCS	Borehole No.	NTP-5
NTP-5	1.00	SILTY SAND WITH GRAVEL	7.9	2.68	NP	-	SM		
								Test Method	KS F 2302 - 2002
								Date	2015. 5.

■ Project : 중앙선 도담·영천 복선전철 제5공구 지반조사 용역

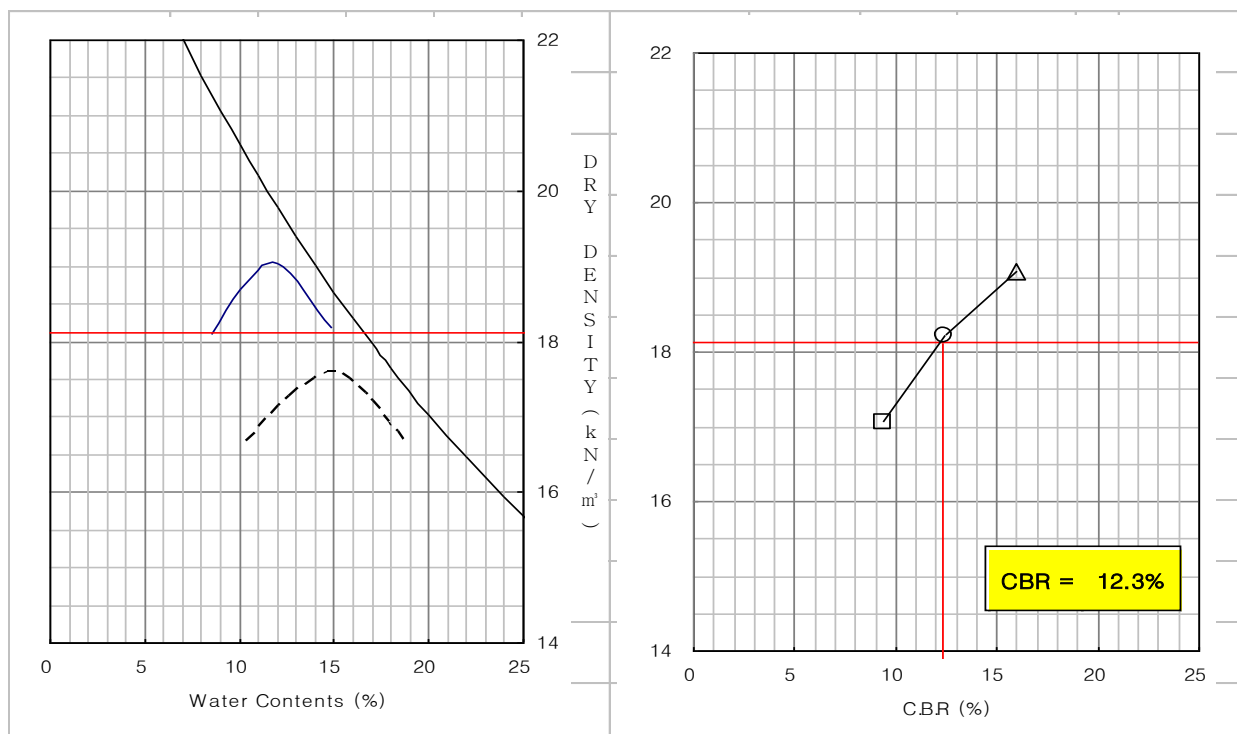
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.8.
Boring No.	TP-1	Depth	-	시 험 자	김병현



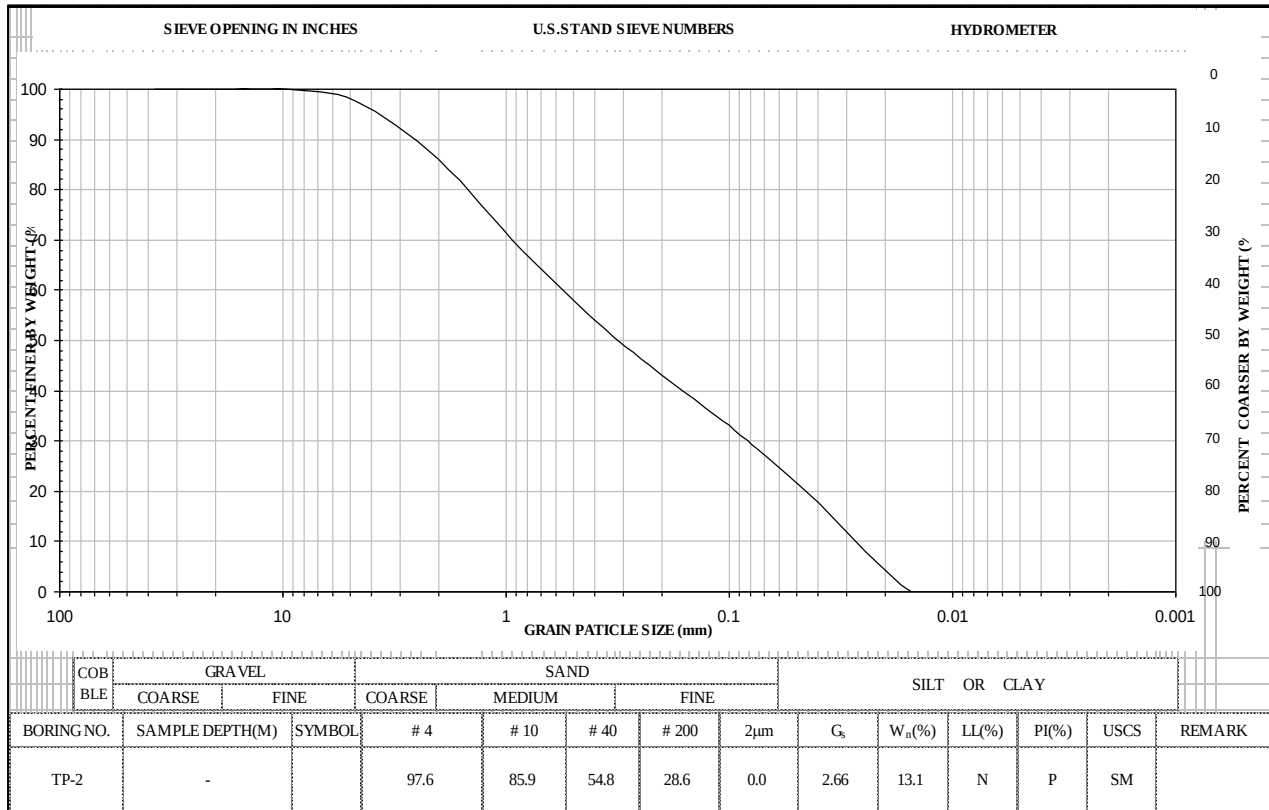
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.61	15
D (———)	19.07	11.8

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.8	12.5	0.26
25 ($\bigcirc$)	11.8	14.8	0.47
10 ($\square$)	11.8	16.5	0.98



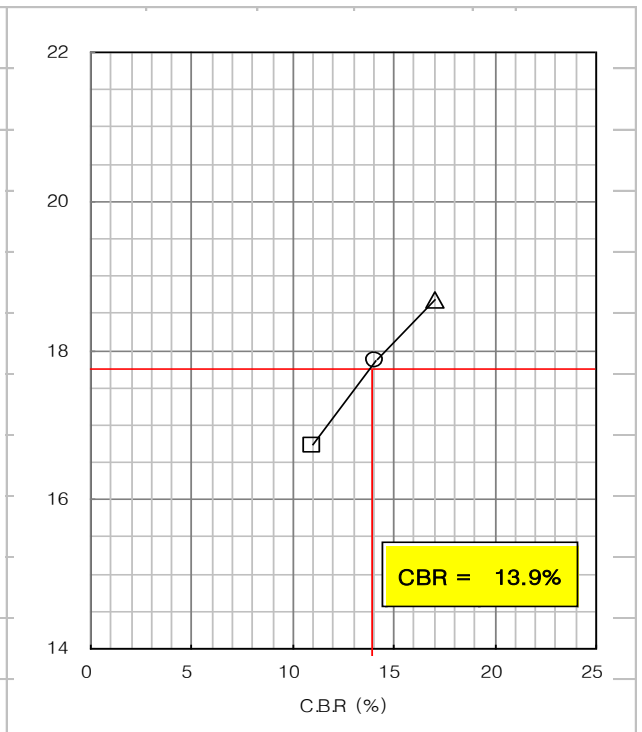
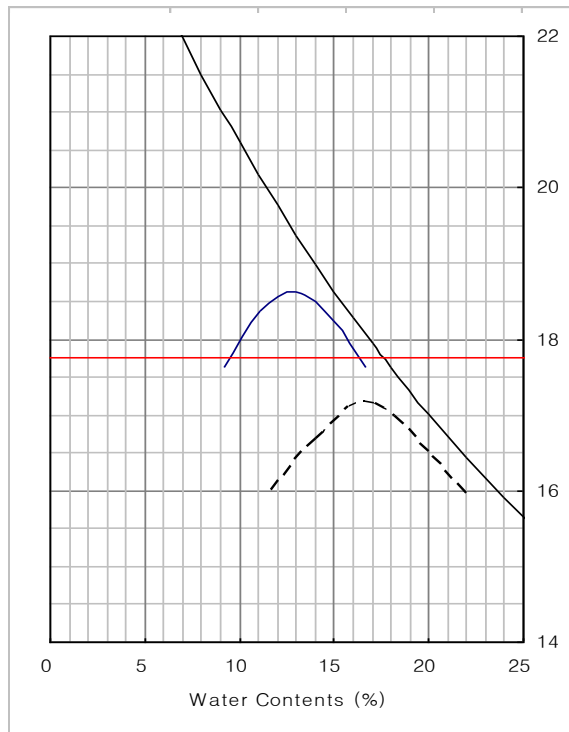
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08.
Boring No.	TP-2	Depth	-	시 험 자	김병현



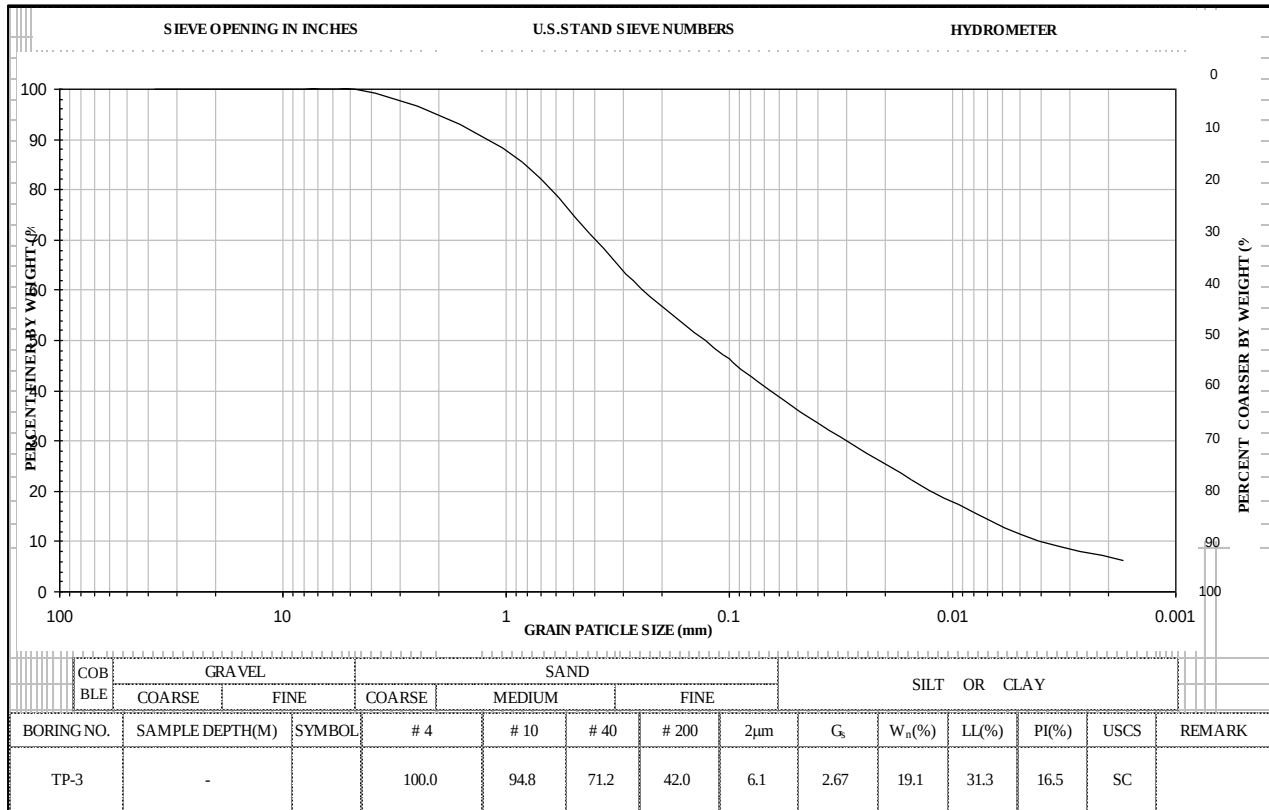
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.14	16.8
D (———)	18.68	12.8

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	12.8	13.6	0.31
25 ($\circ$)	12.8	16.0	0.48
10 ($\square$)	12.8	17.9	1.02



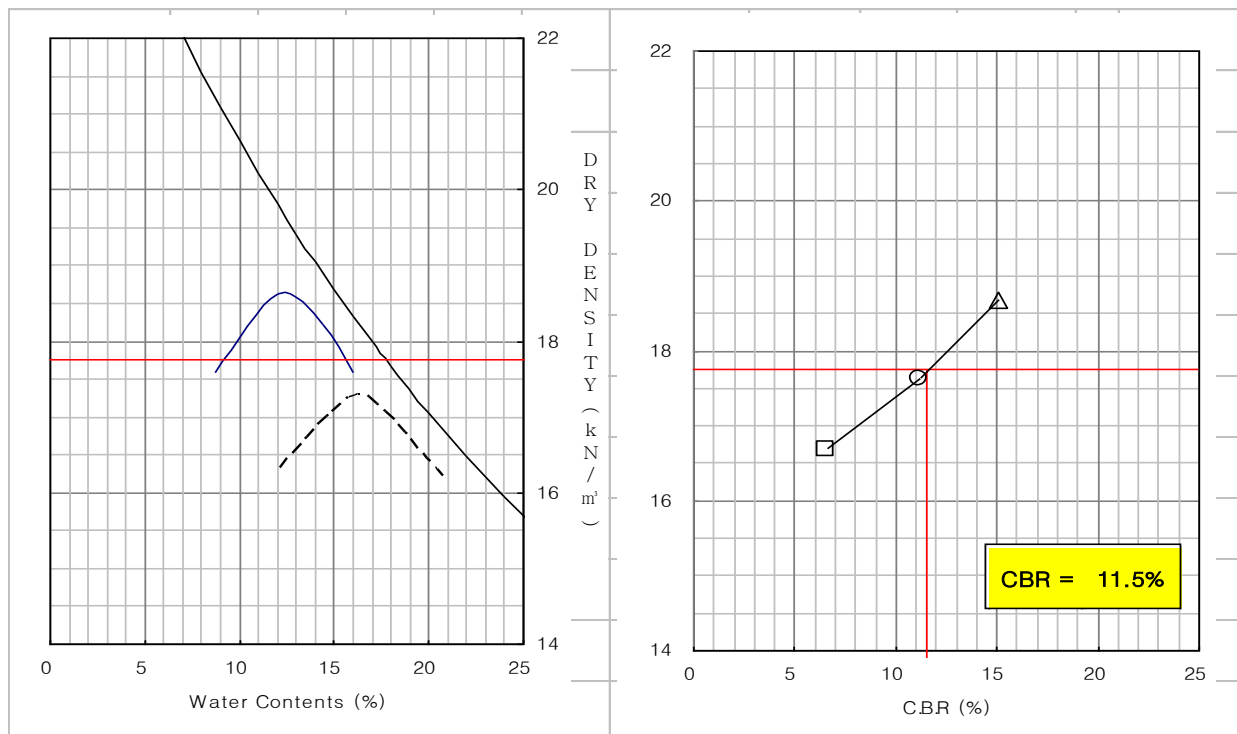
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-3	Depth	-	시 험 자	김병현



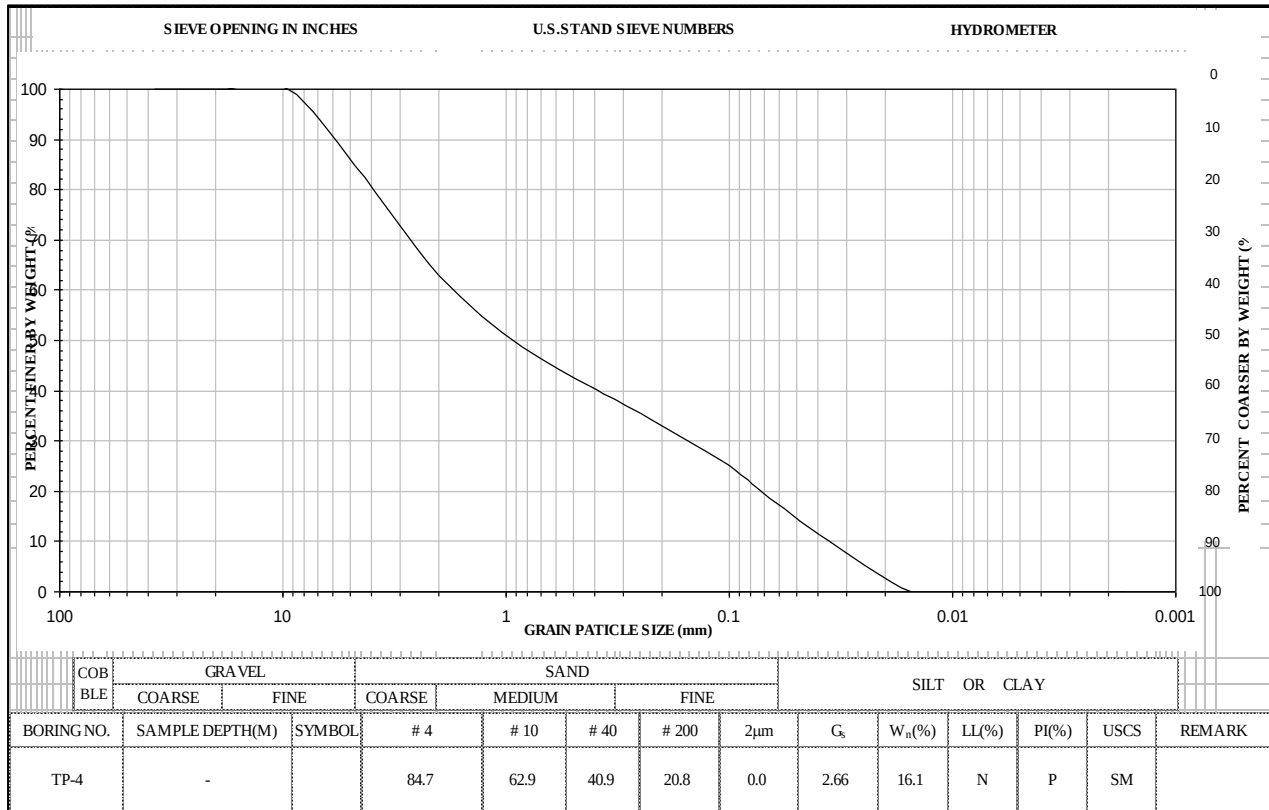
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.41	17.1
D (———)	18.68	12.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	12.3	13.0	0.25
25 ($\bigcirc$)	12.3	15.4	0.45
10 ($\square$)	12.3	17.2	0.94



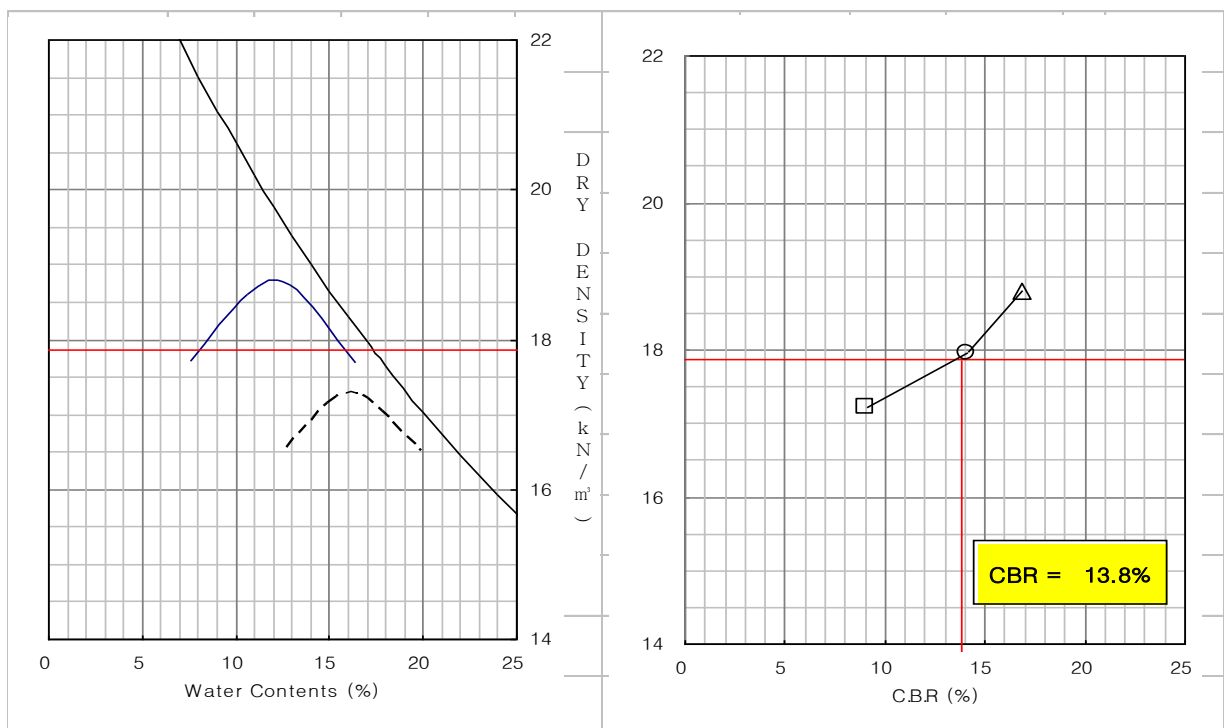
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-4	Depth	-	시 험 자	김병현



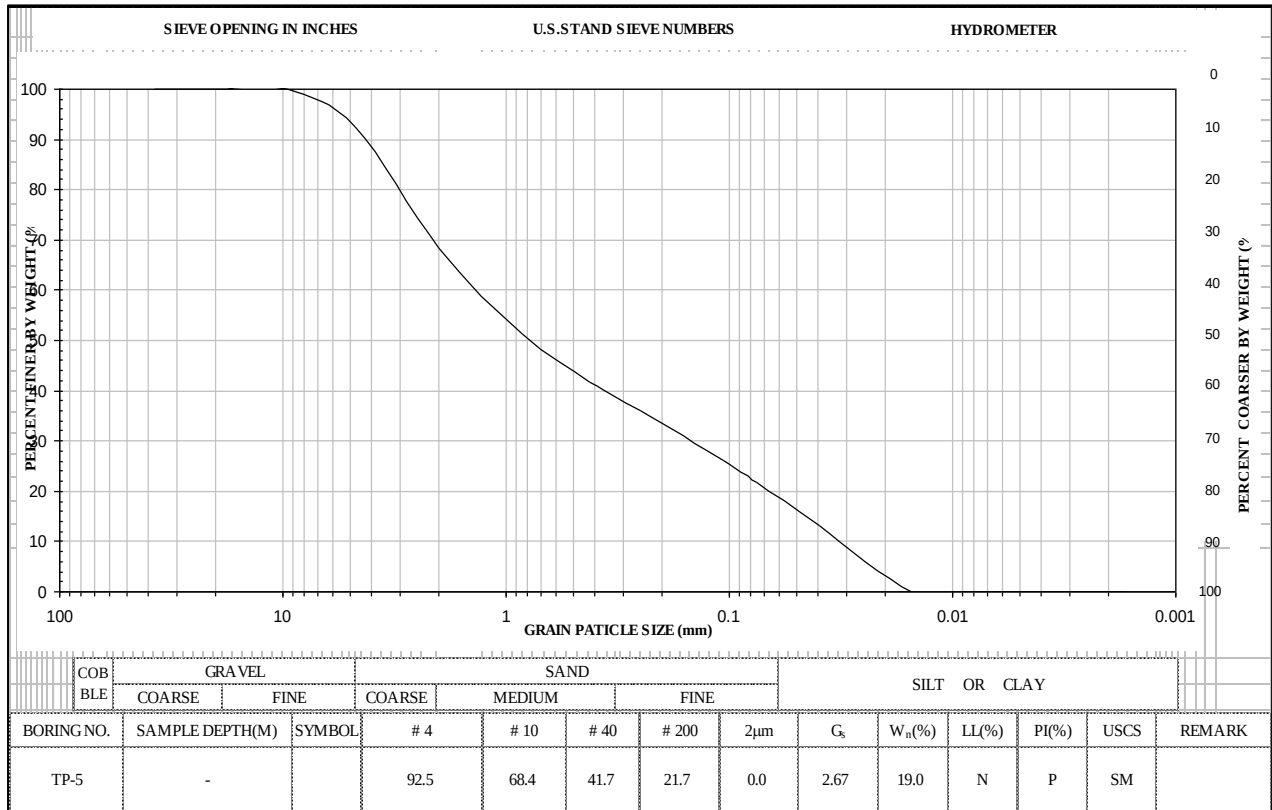
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.34	16.1
D (———)	18.81	12.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	12.3	13.0	0.25
25 (○)	12.3	15.4	0.45
10 (□)	12.3	17.2	0.94



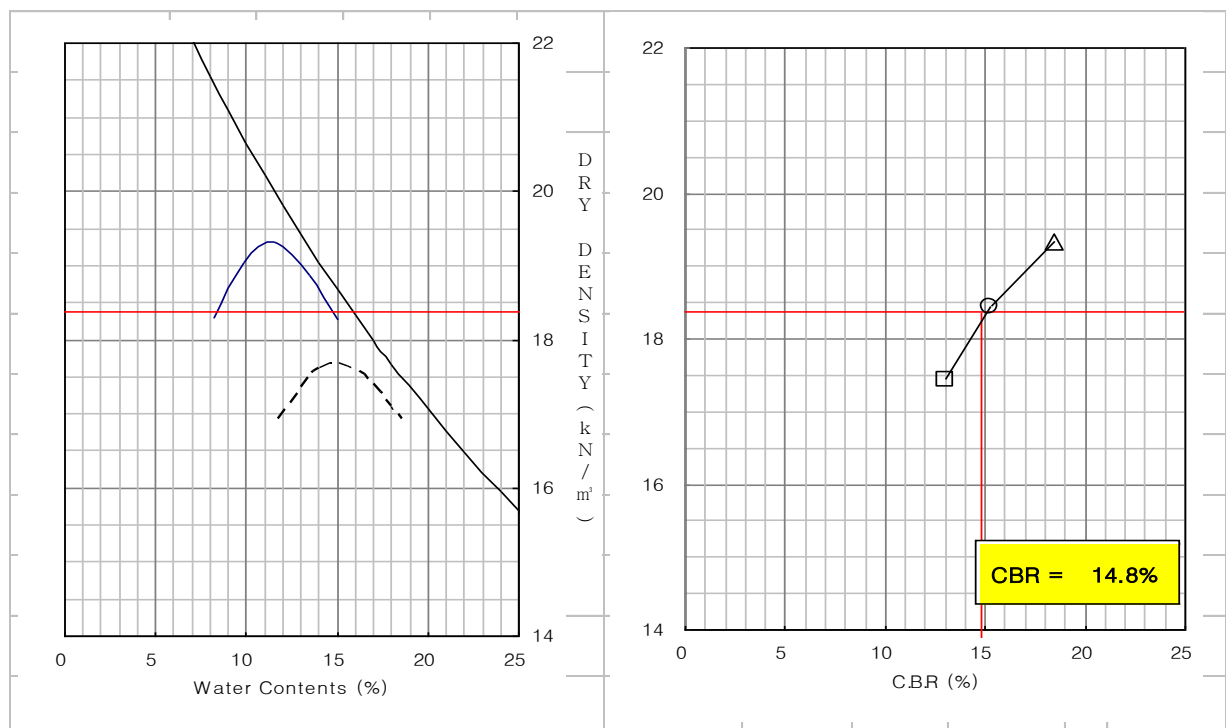
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08.
Boring No.	TP-5	Depth	-	시 험 자	김병현



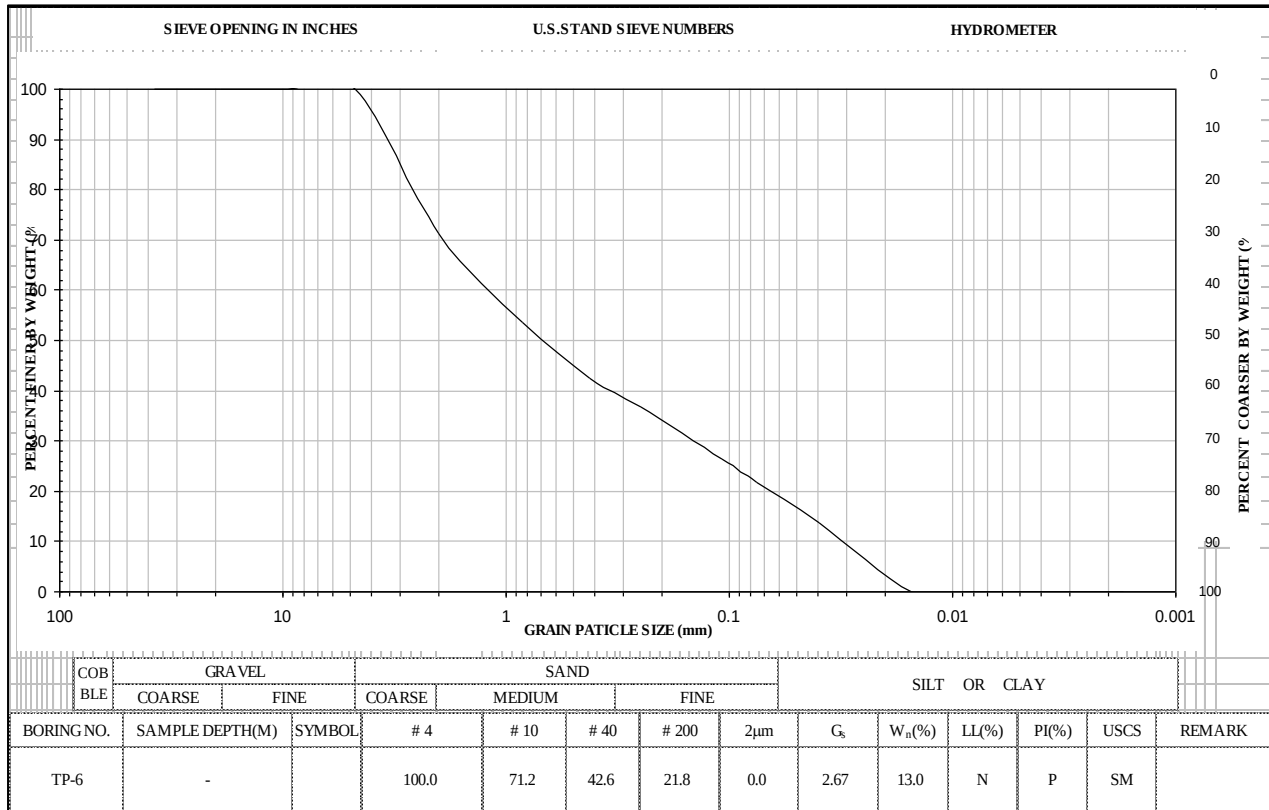
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.67	15.2
D (———)	19.34	11.6

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.6	12.3	0.16
25 ($\bigcirc$)	11.6	14.5	0.36
10 ($\square$)	11.6	16.2	0.77



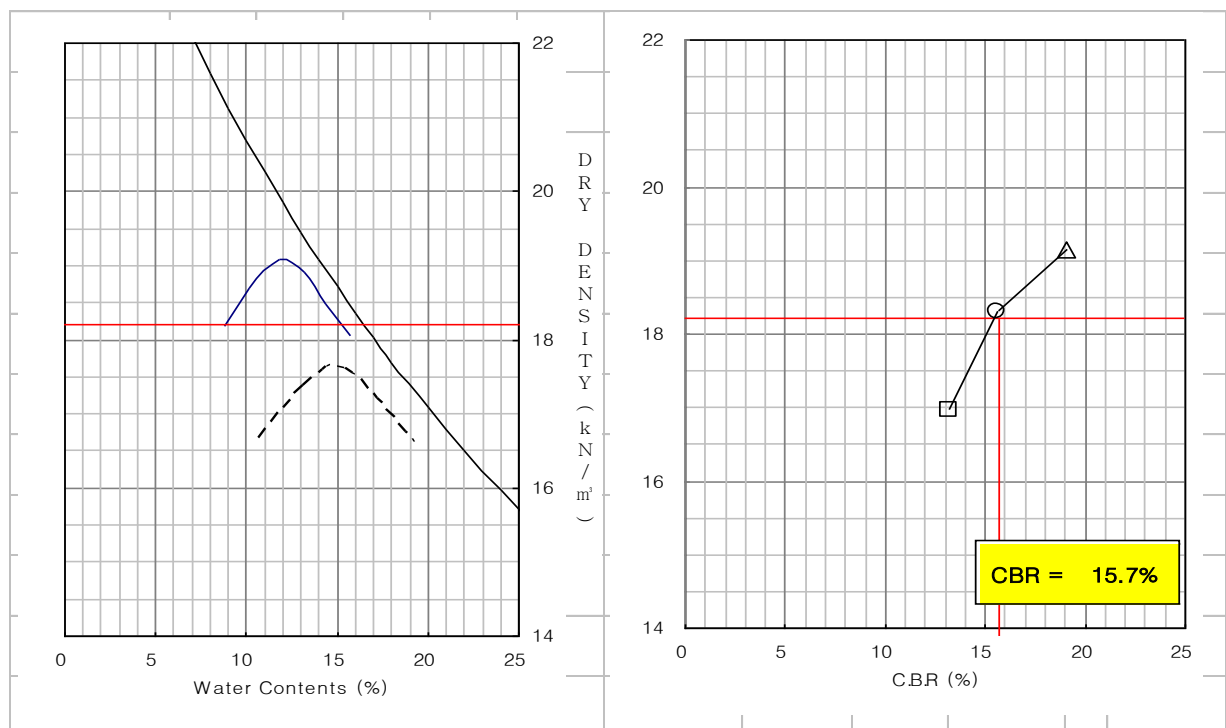
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-6	Depth	-	시 험 자	김병현



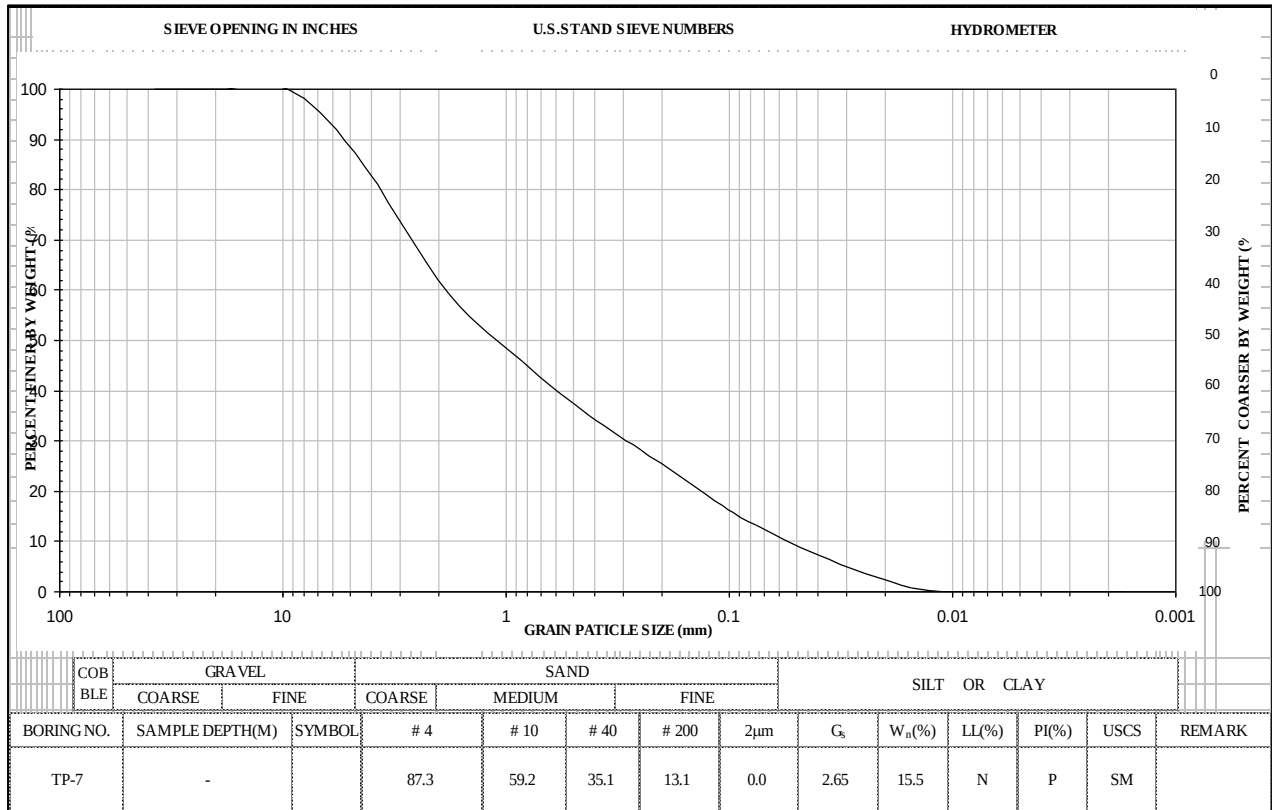
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.61	15.31
D (———)	19.17	11.8

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.8	12.5	0.26
25 ($\bigcirc$)	11.8	14.8	0.47
10 ($\square$)	11.8	16.5	0.98



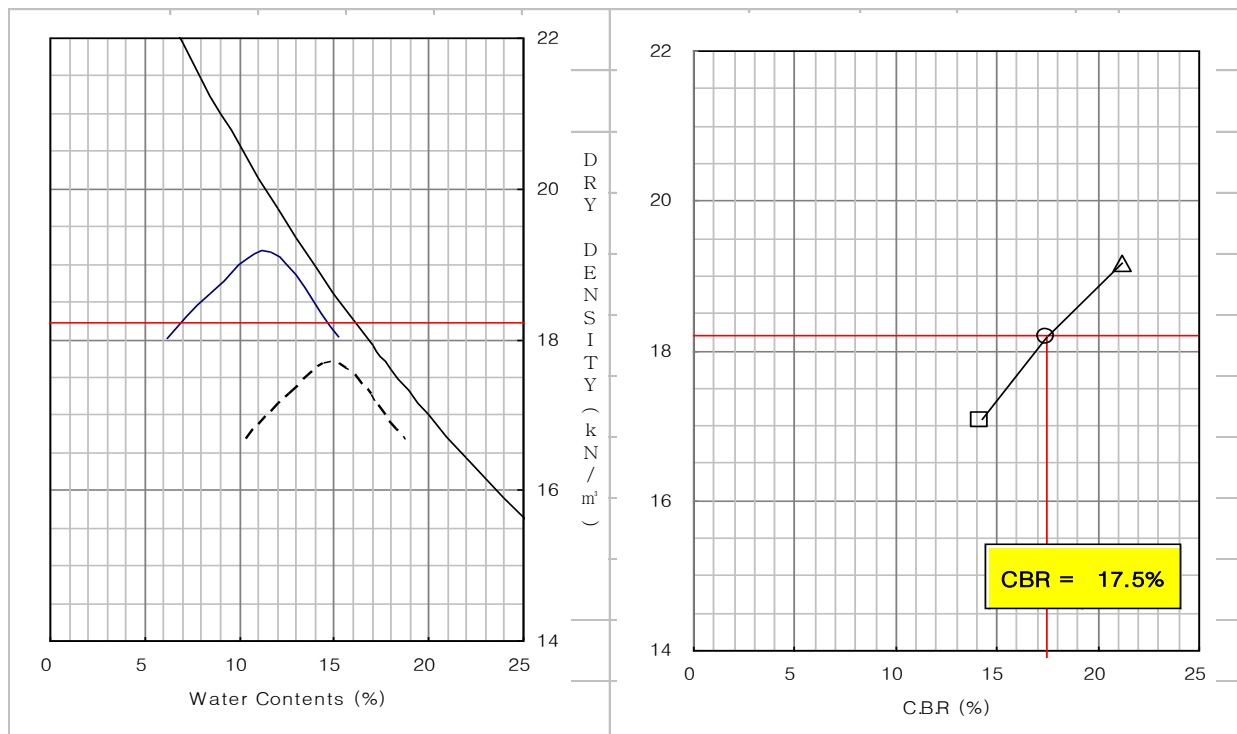
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-7	Depth	-	시 험 자	김병현



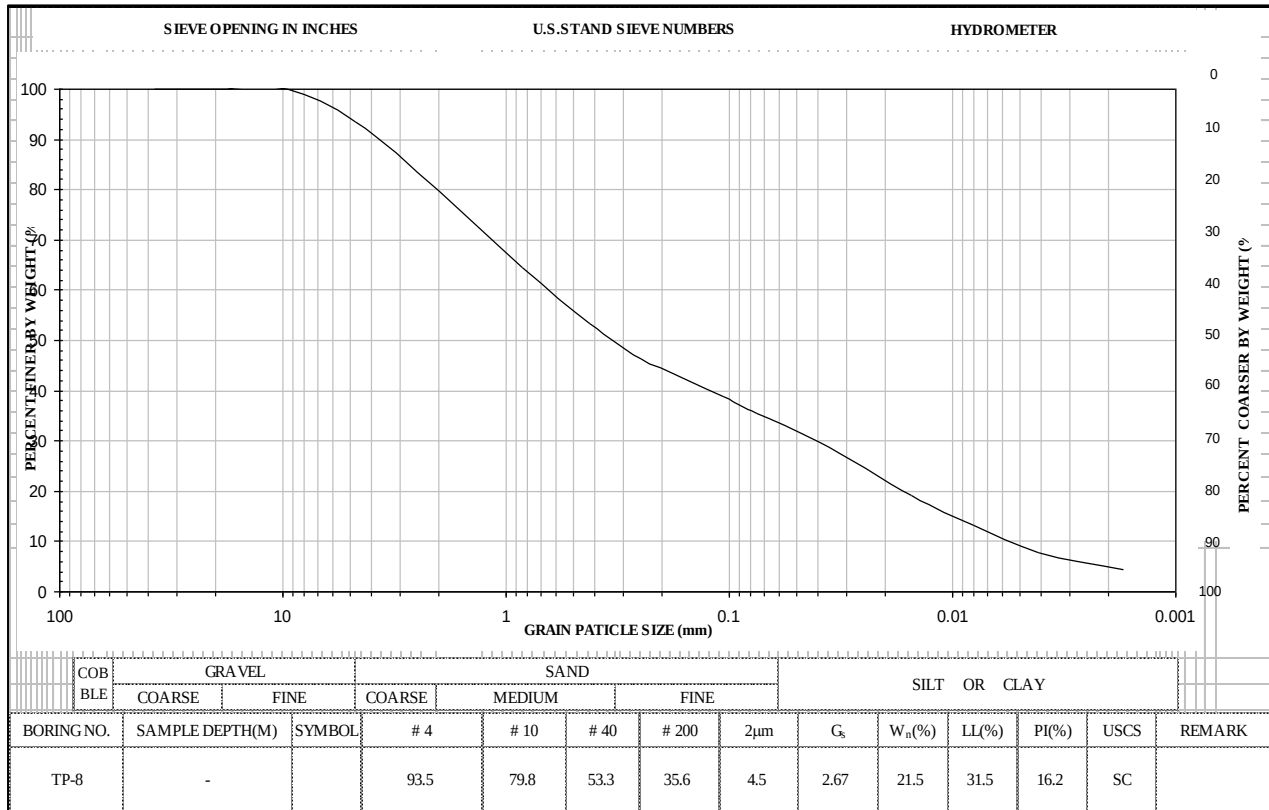
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.70	15.2
D (———)	19.17	11.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.3	12.0	0.27
25 ($\circ$)	11.3	14.1	0.49
10 ($\square$)	11.3	15.8	1.03



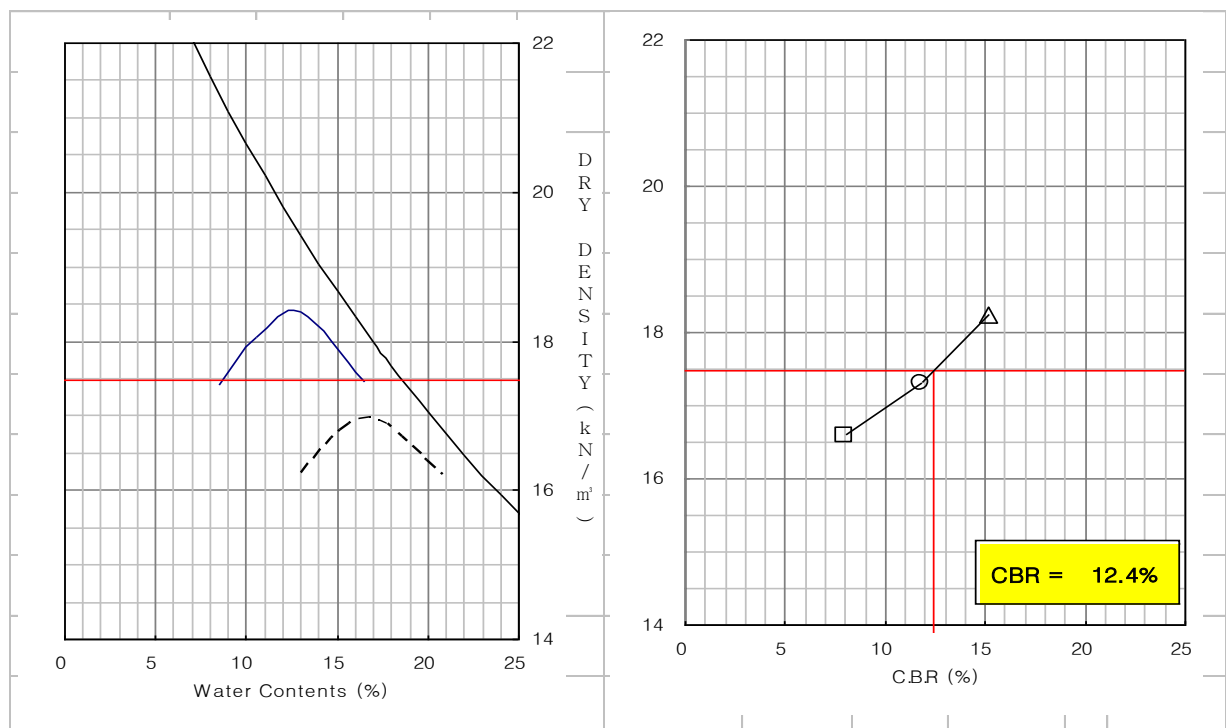
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2013.12.
Boring No.	TP-8	Depth	-	시 험 자	한재명



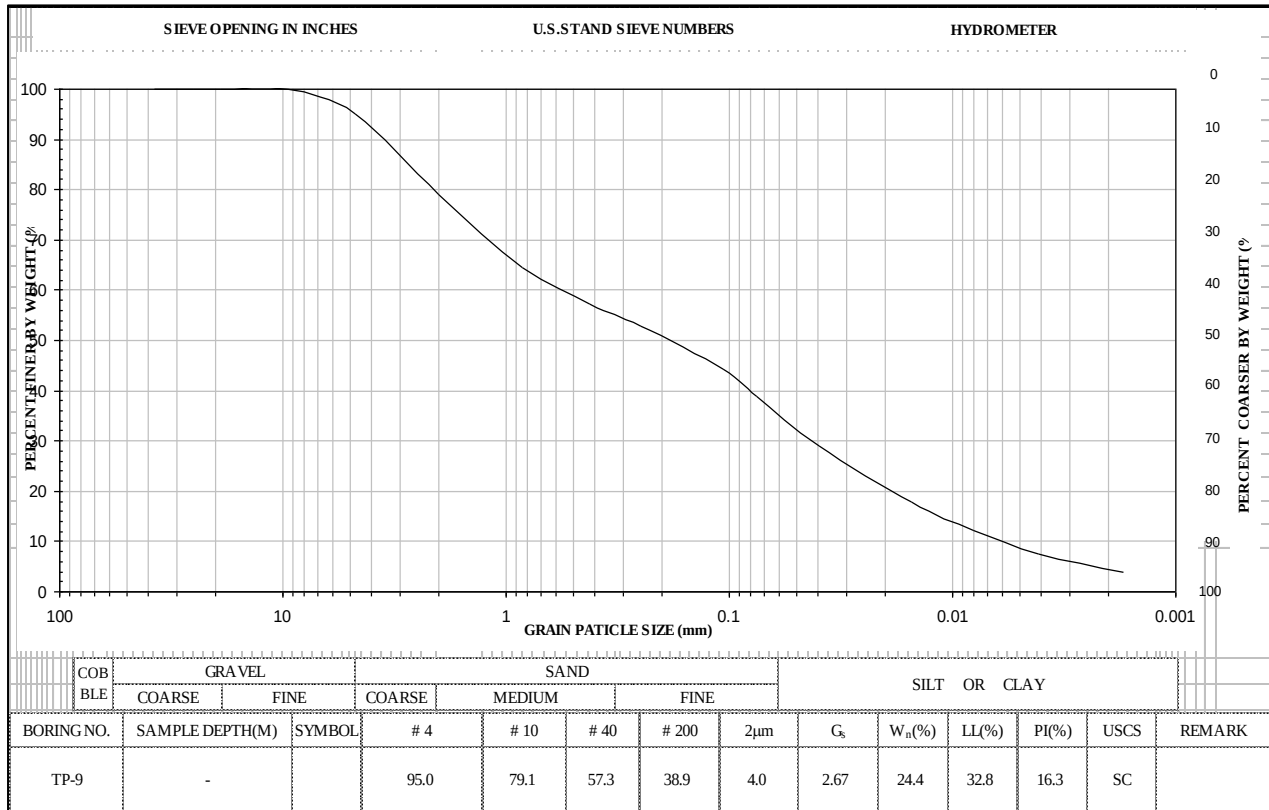
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	16.95	17.1
D (———)	18.39	12.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	12.3	13.0	0.25
25 ($\circ$)	12.3	15.4	0.45
10 ($\square$)	12.3	17.2	0.94



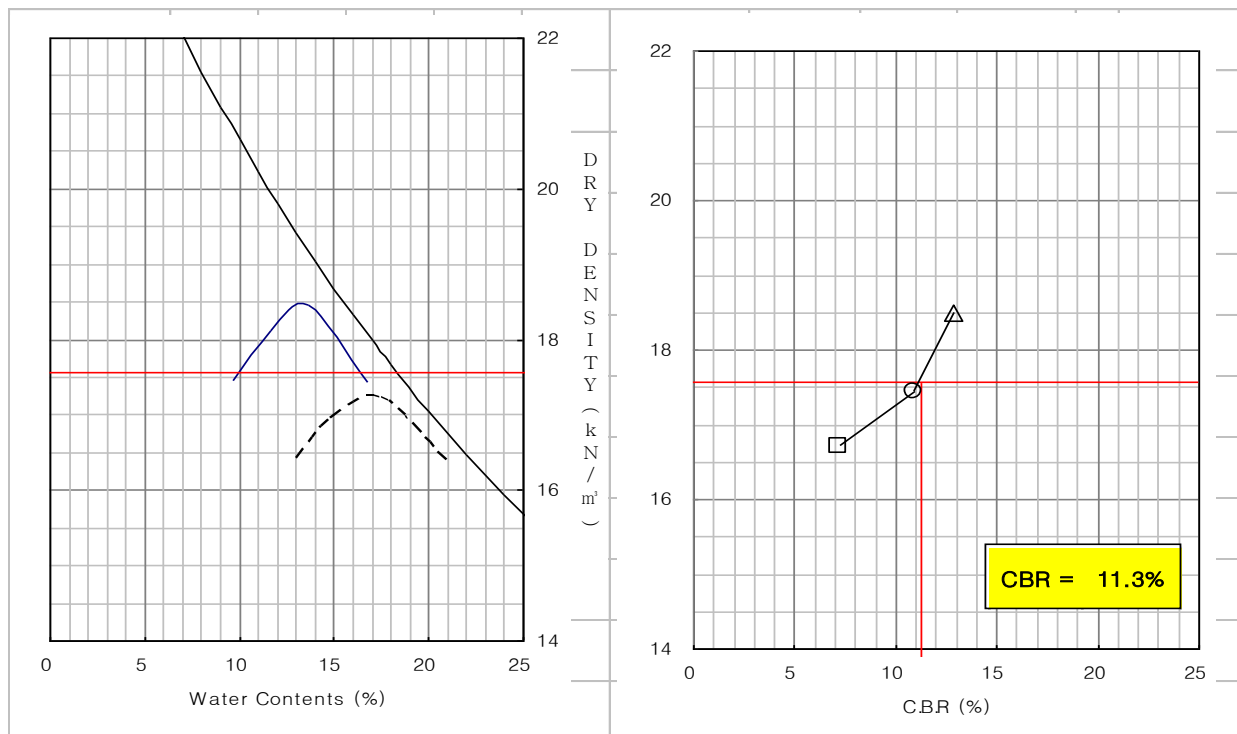
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-9	Depth	-	시 험 자	김병현



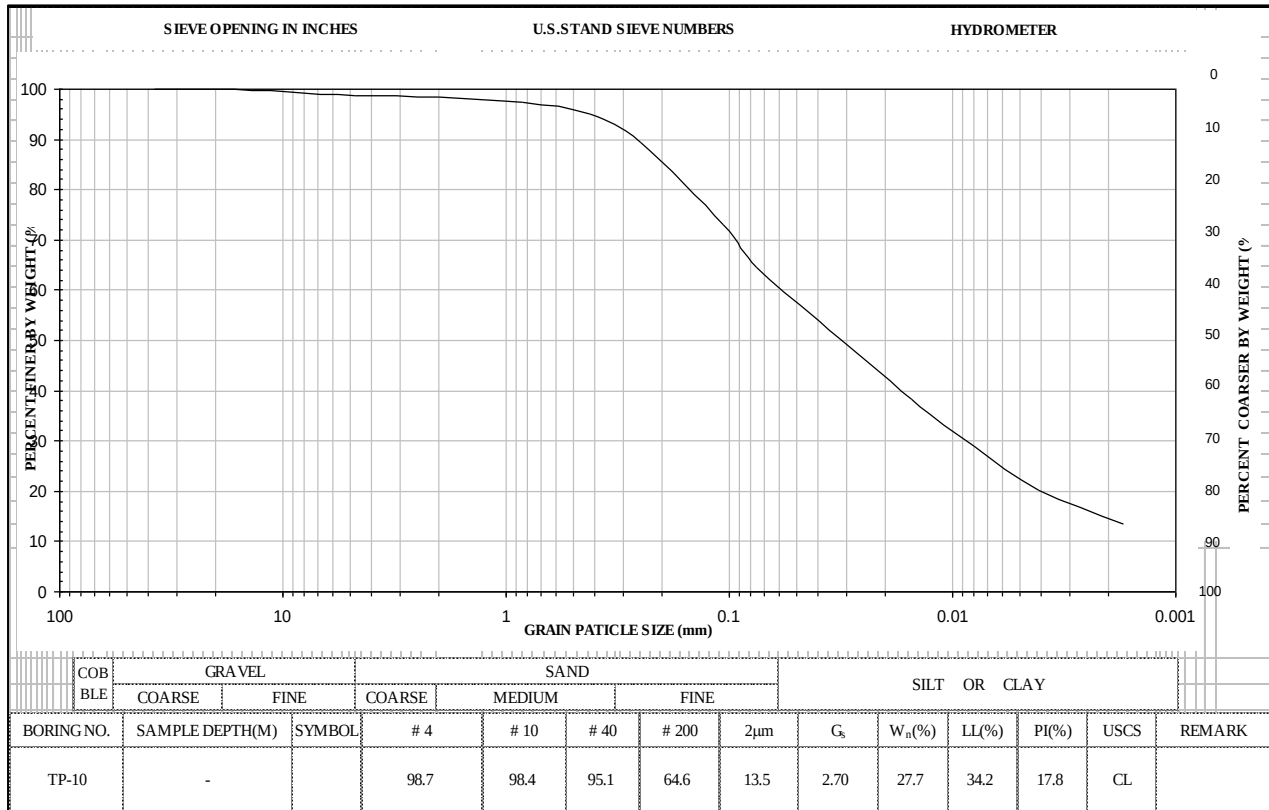
Compaction Test	$\gamma_{d \max}$ (kN/m^3)	O.M.C (%)
A (- - - -)	17.30	17.2
D (———)	18.50	13.5

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	13.5	14.3	0.30
25 ($\bigcirc$)	13.5	16.9	0.45
10 ($\square$)	13.5	18.9	0.96



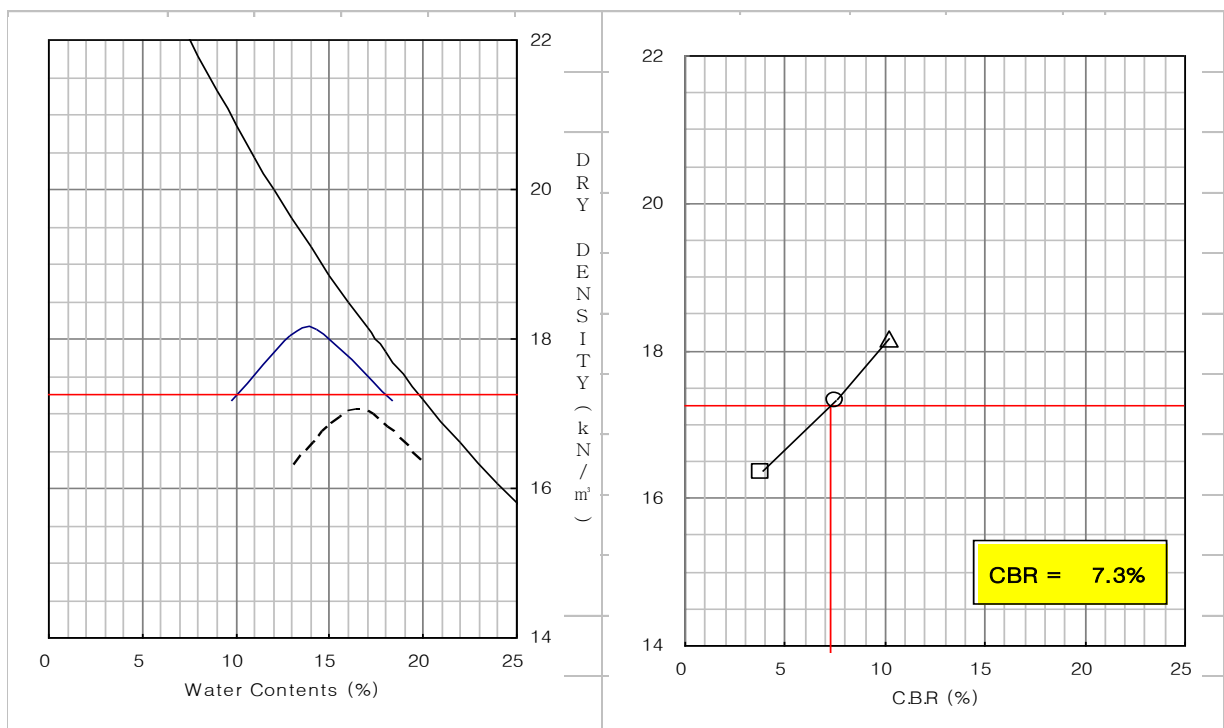
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-10	Depth	-	시 험 자	김병현



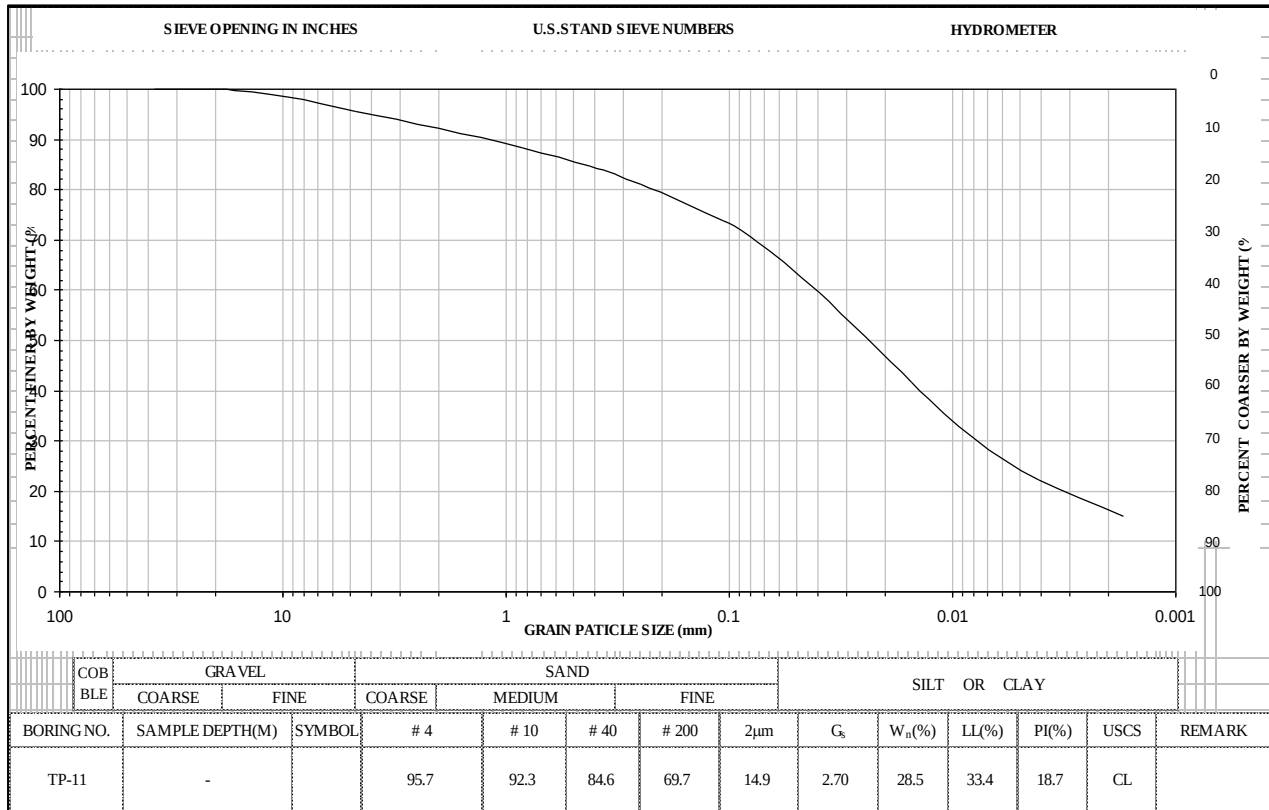
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.08	16.8
D (———)	18.16	14.6

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	14.6	15.5	0.21
25 ($\bigcirc$)	14.6	18.3	0.38
10 ($\square$)	14.6	20.4	0.79



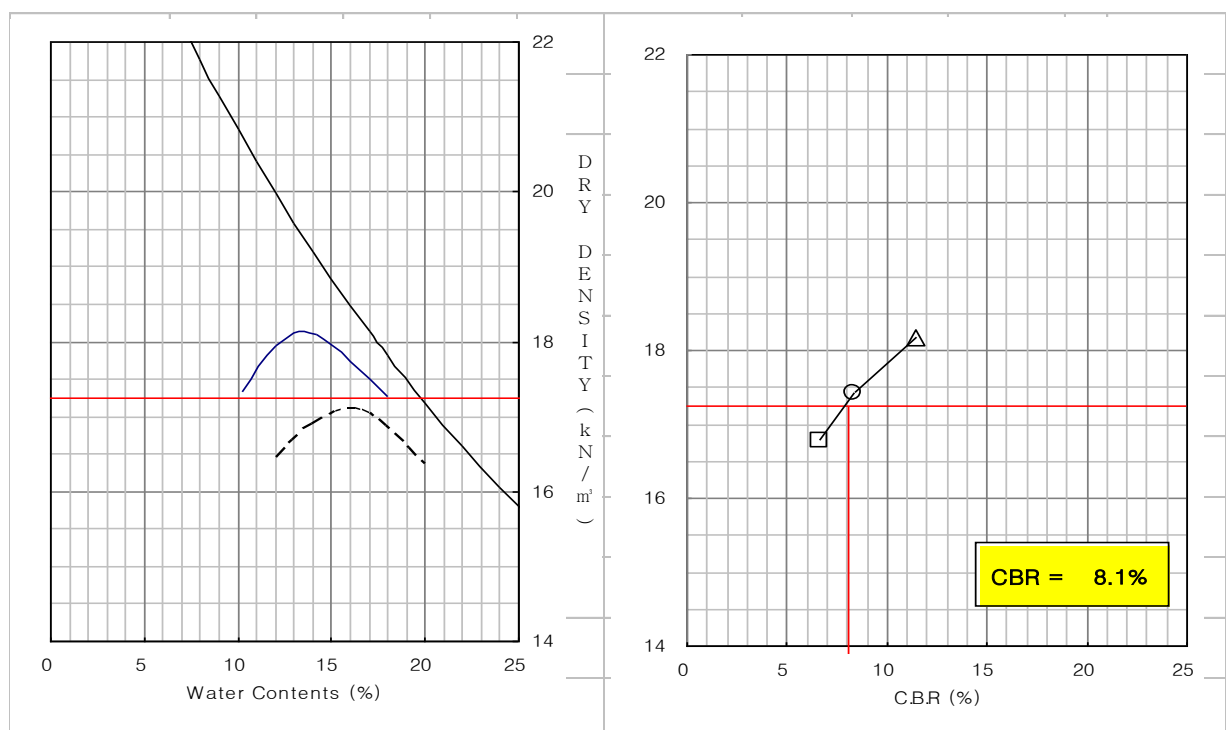
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-11	Depth	-	시 험 자	김병현



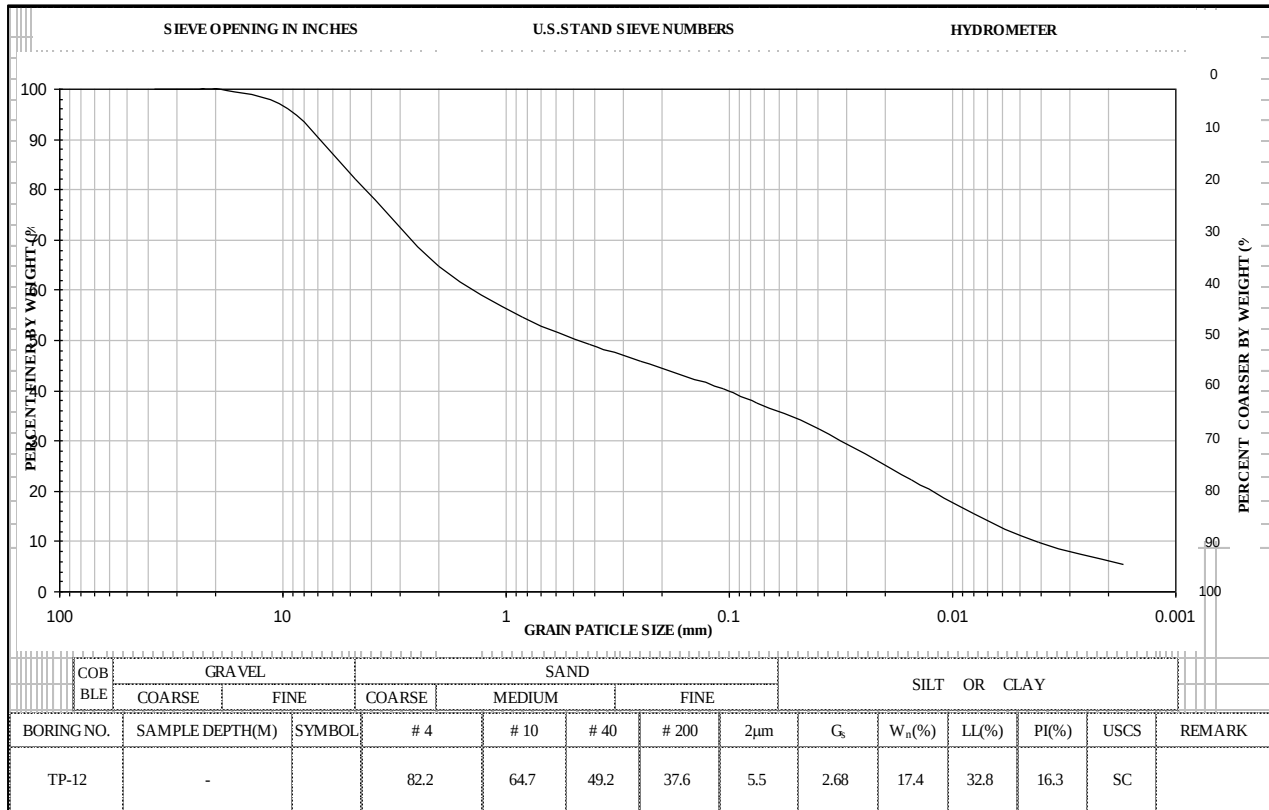
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.31	16.4
D (———)	18.16	13.6

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	13.6	14.4	0.23
25 ($\bigcirc$)	13.6	17.0	0.41
10 ($\square$)	13.6	19.0	0.85



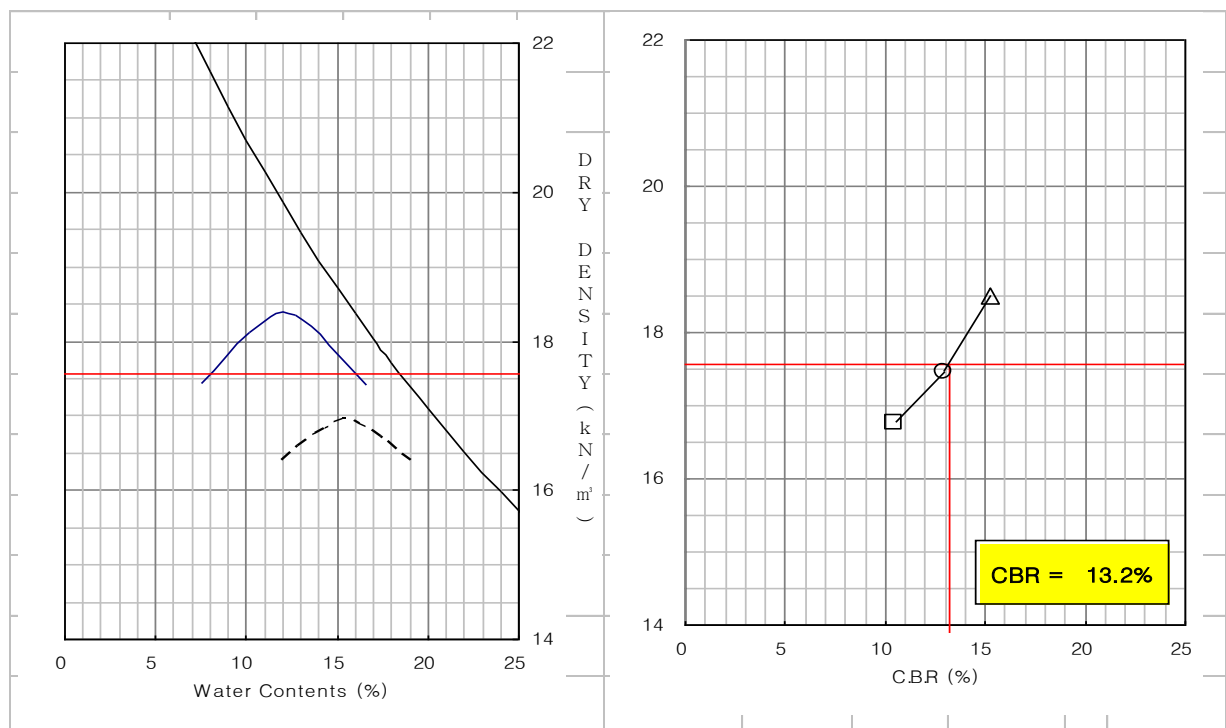
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	20.14.08
Boring No.	TP-12	Depth	-	시 험 자	김병현



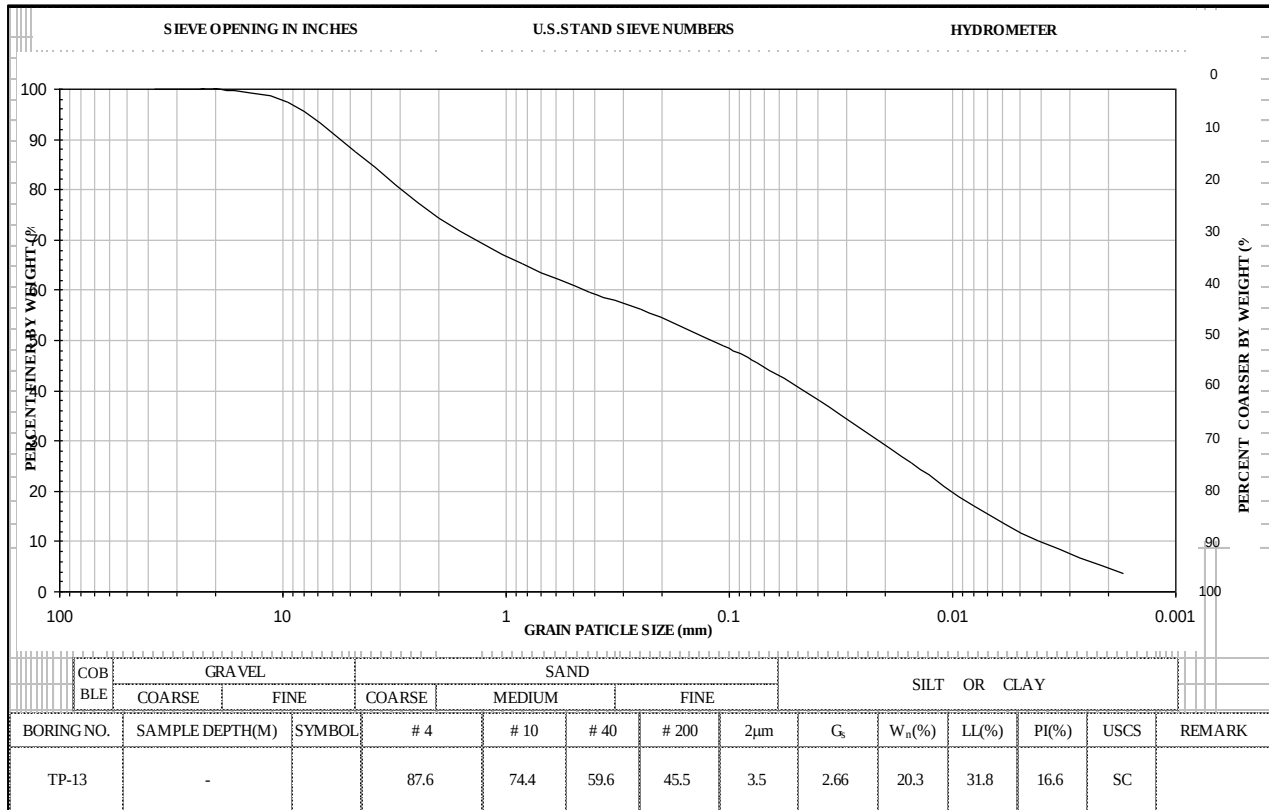
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.07	15.4
D (———)	18.50	11.2

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.2	11.9	0.28
25 ($\bigcirc$)	11.2	14.0	0.50
10 ($\square$)	11.2	15.7	1.04



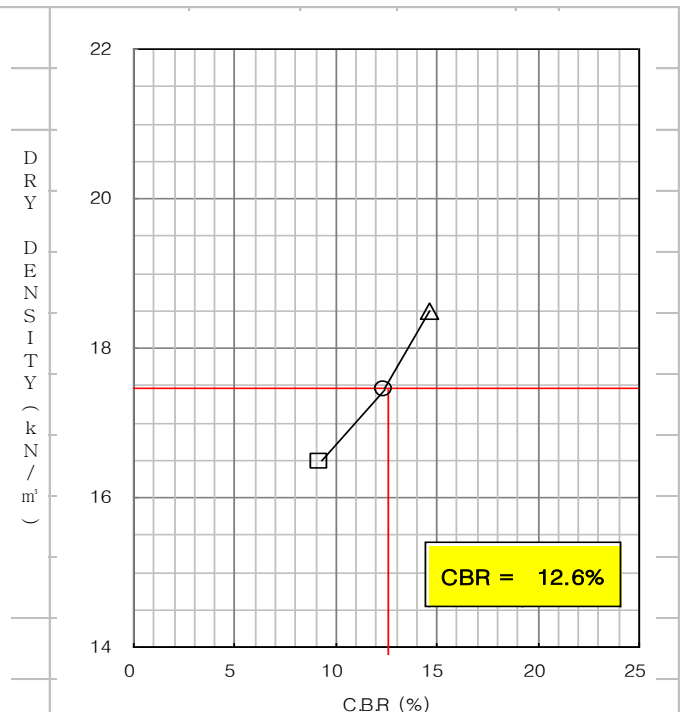
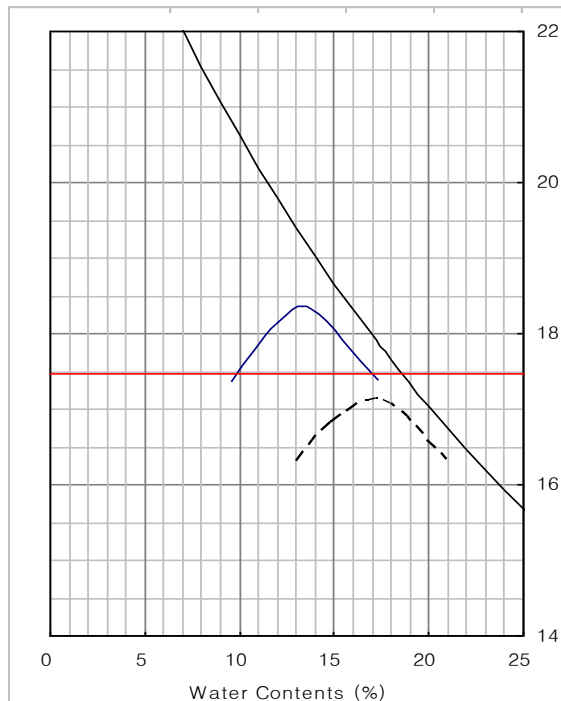
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08.
Boring No.	TP-13	Depth	-	시 험 자	김병현



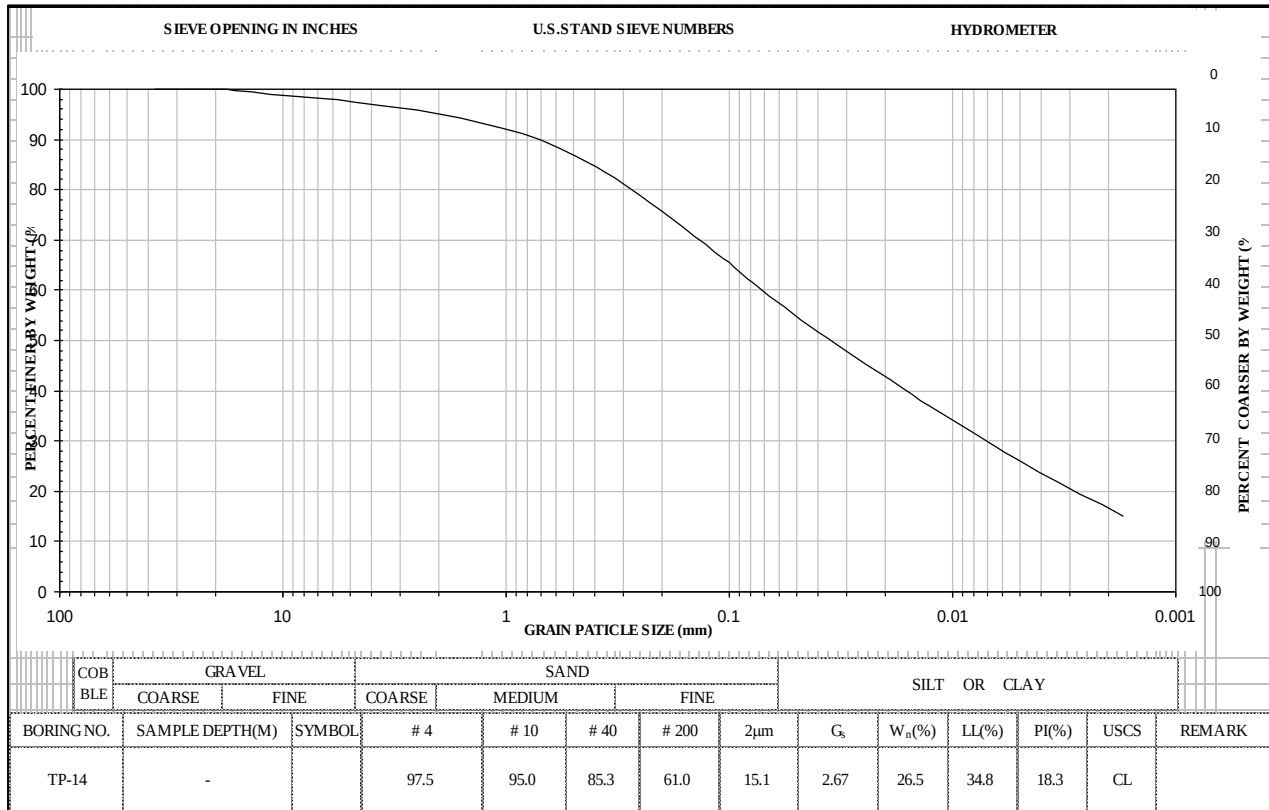
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.20	17.4
D (———)	18.39	13.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	13.3	14.1	0.30
25 (○)	13.3	16.6	0.46
10 (□)	13.3	18.6	0.98



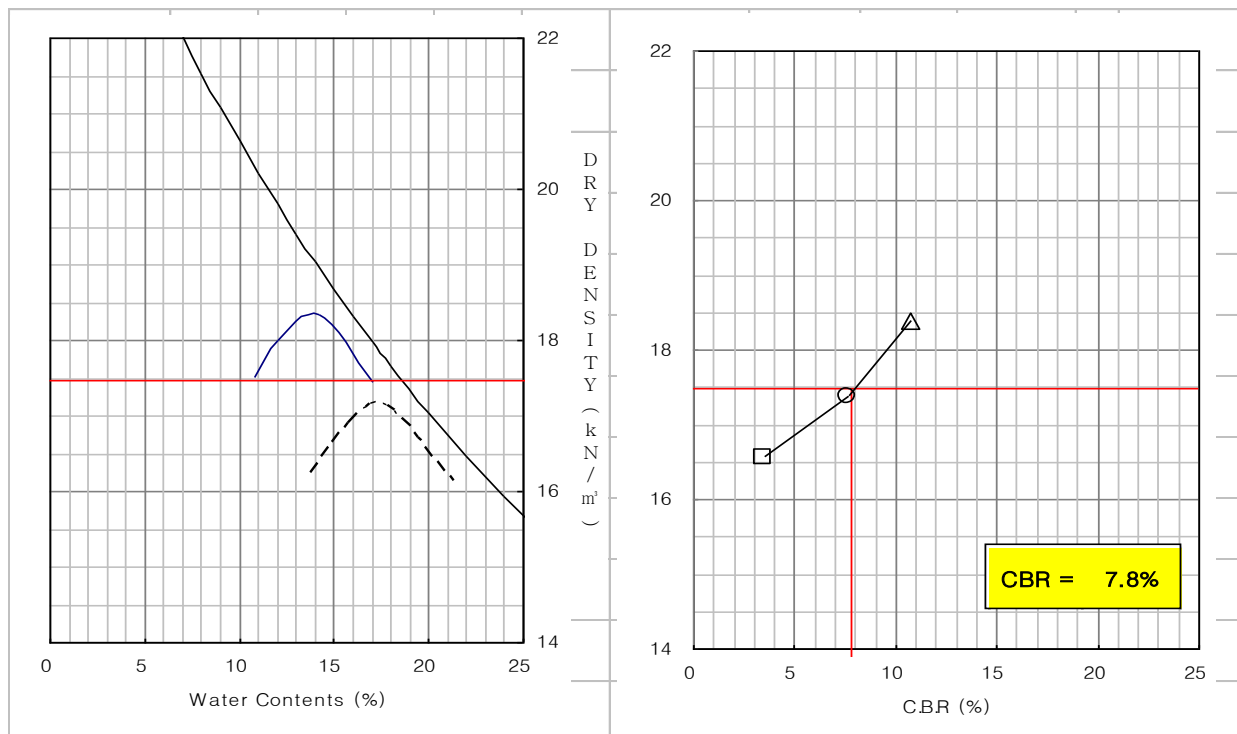
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-14	Depth	-	시 험 자	김병현



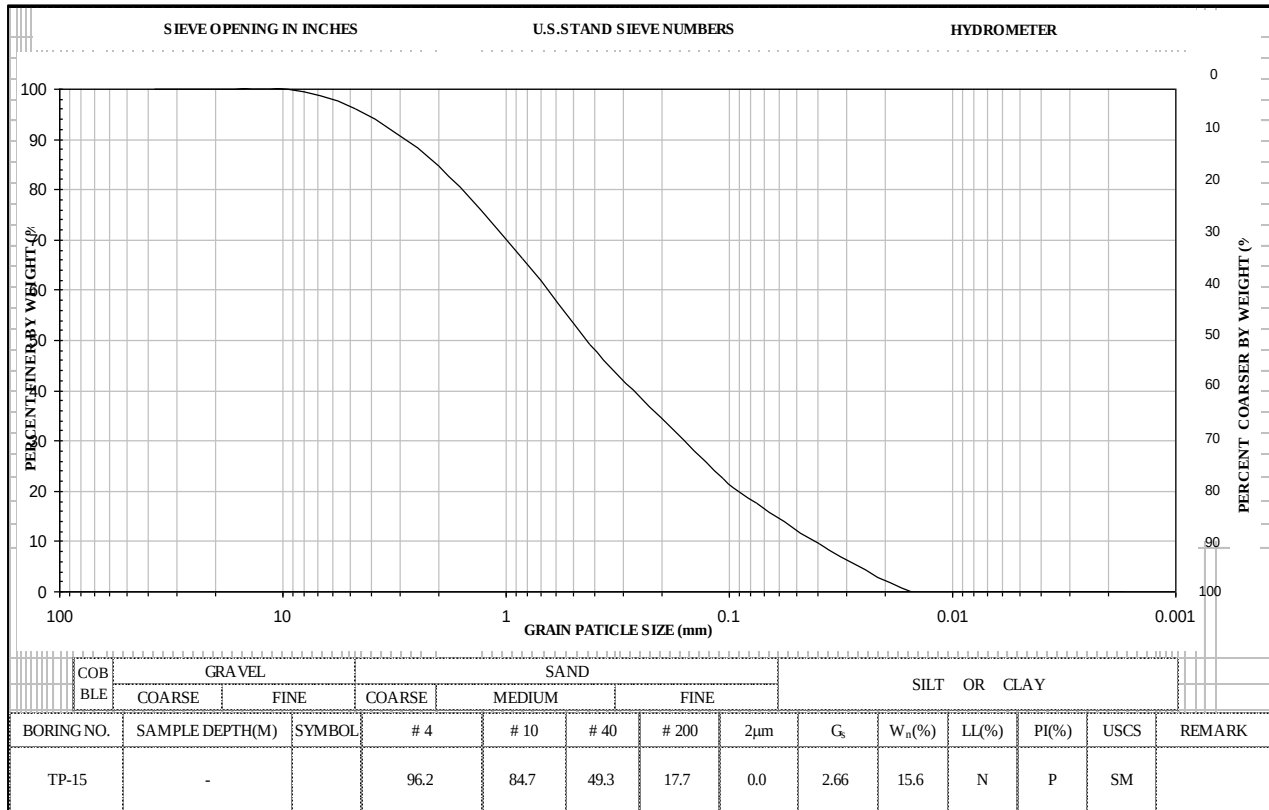
Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.21	17.3
D (———)	18.40	14

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	14.0	14.8	0.29
25 ($\circ$)	14.0	17.5	0.44
10 ($\square$)	14.0	19.6	0.93



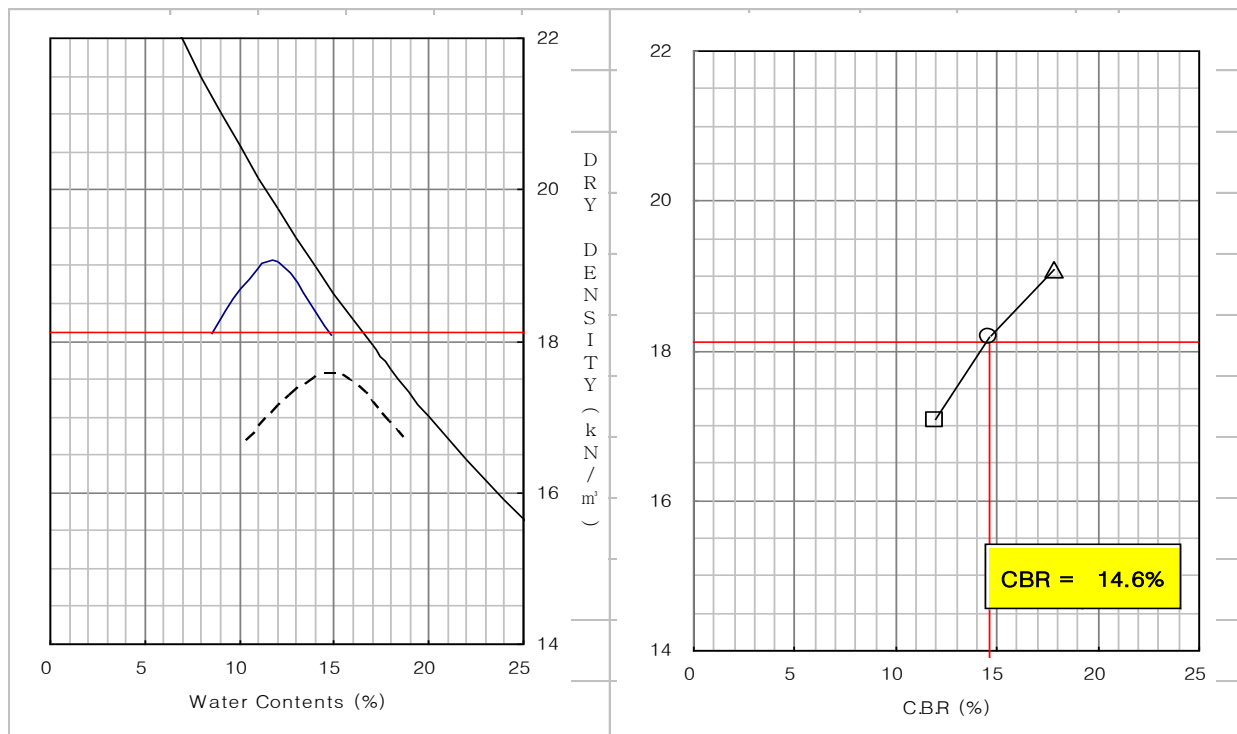
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-15	Depth	-	시 험 자	김병현



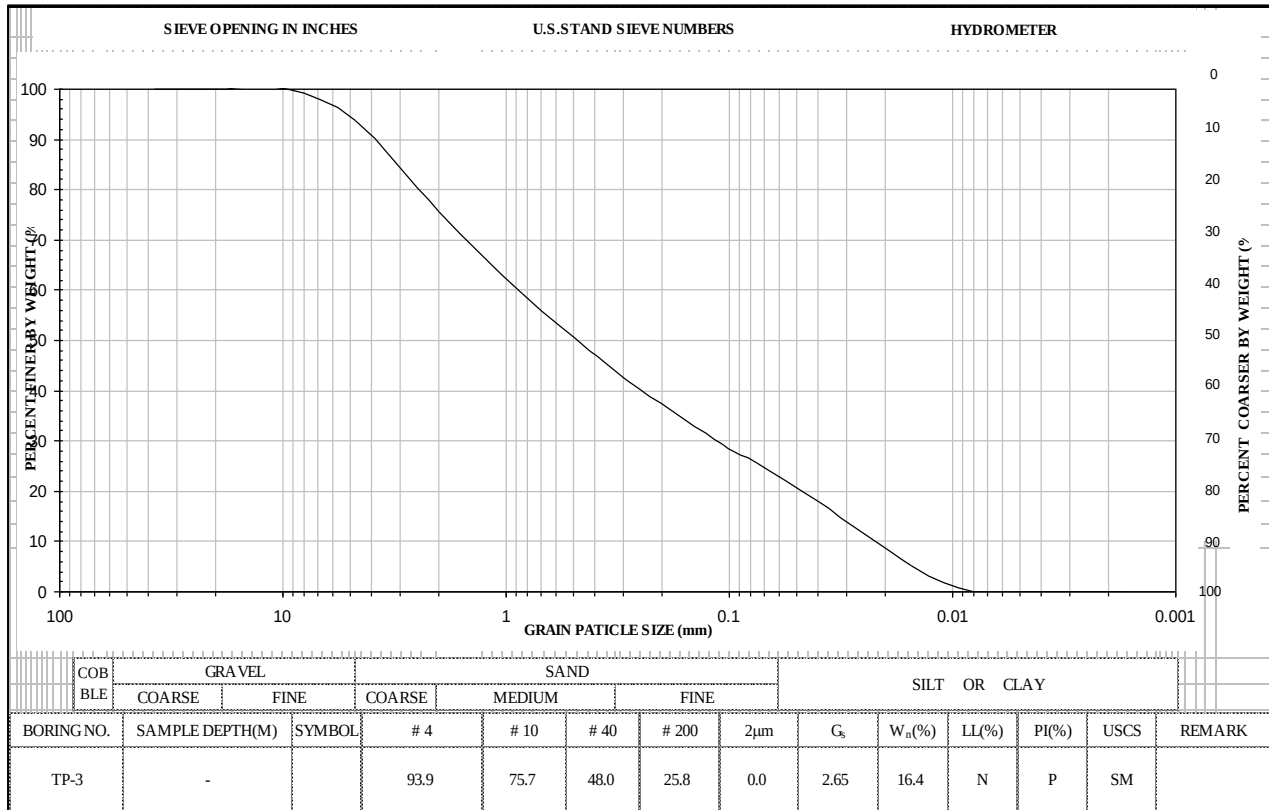
Compaction Test	$\gamma_{d \max}$ (kN/m^3)	O.M.C (%)
A (- - - -)	17.60	15
D (———)	19.07	11.8

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	11.8	12.5	0.26
25 ($\bigcirc$)	11.8	14.8	0.47
10 ($\square$)	11.8	16.5	0.98



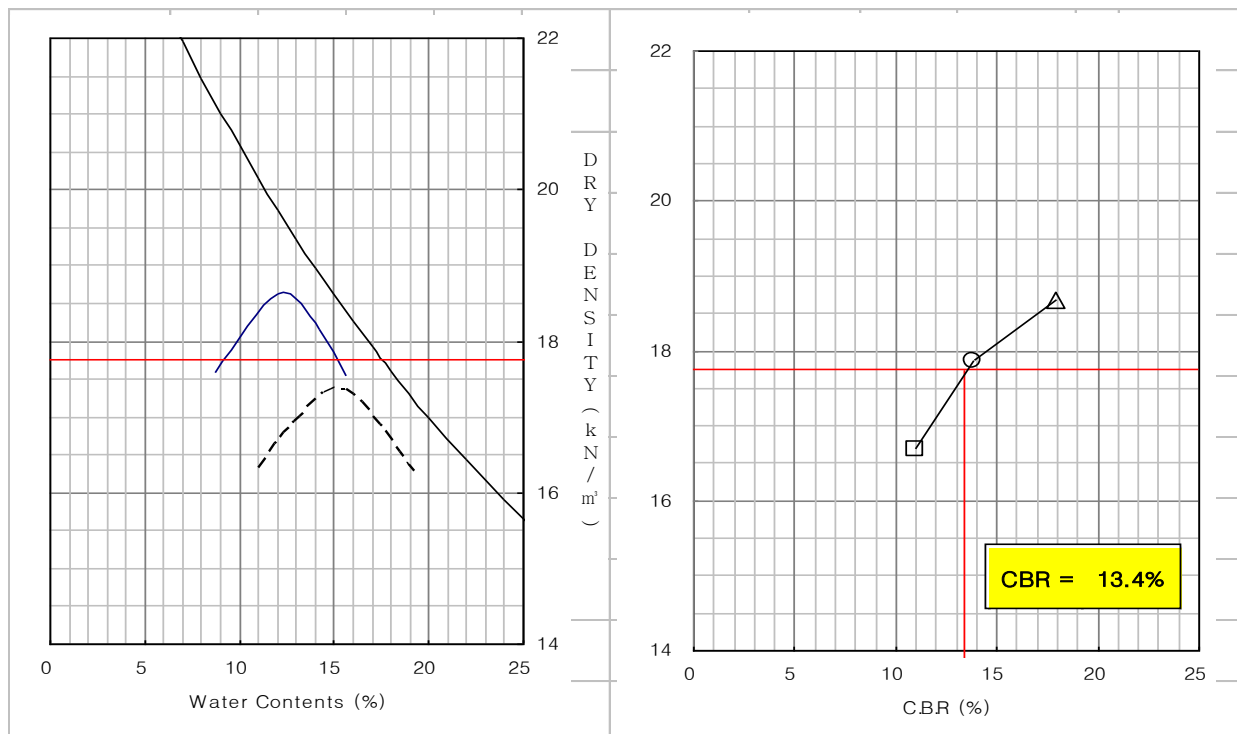
COMPACTION AND C.B.R TEST

조 사 명	중앙선 도담~영천 5공구 지반조사			시험일자	2014.08
Boring No.	TP-3	Depth	-	시 험 자	김병현



Compaction Test	$\gamma_{d \max}$ (kN/m ³)	O.M.C (%)
A (- - - -)	17.41	15.3
D (———)	18.68	12.3

C.B.R Test	MC. (%) MOULDING	MC. (%) SOAKING	SWELL (%)
55 (Δ)	12.3	13.0	0.25
25 ($\bigcirc$)	12.3	15.4	0.45
10 ($\square$)	12.3	17.2	0.94



Compaction & C.B.R Test

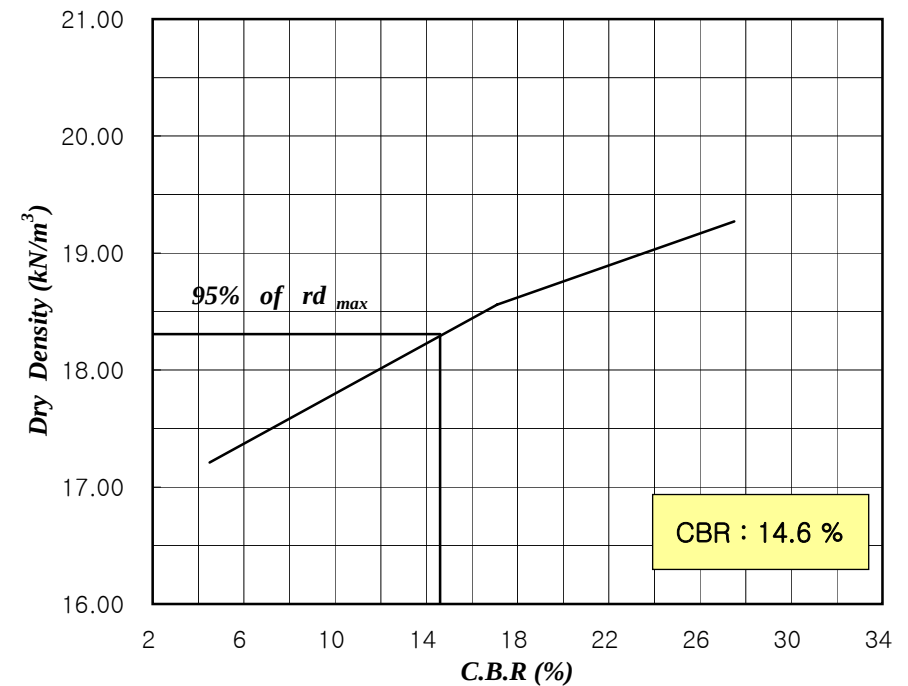
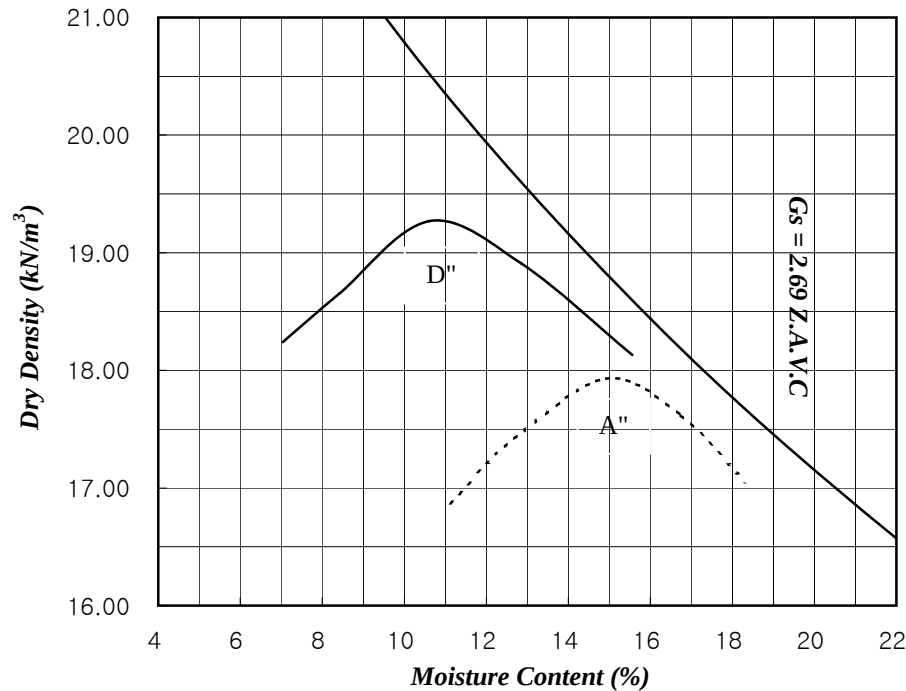
■ Project	중앙선 도담-영천 복선전철 제5공구 지반조사 용역	■ Borehole No.	NTP - 01
■ Test Method	KS F 2312 : 2001	■ Depth	1.00 m
		■ Date	2015. 05

MC :	17.5	%
LL :	32.6	%
PI :	7.6	%
G_s :	2.69	
USCS :	SM	

$$1\text{t/m}^3 = 9.807 \text{ kN/m}^3$$

TYPE	Compaction Test		
D"	Maximum Dry Density :	19.27	kN/m^3
	Optimum Moisture Content :	10.6	%
A"	Maximum Dry Density :	17.93	kN/m^3
	Optimum Moisture Content :	14.9	%

C.B.R Test			
Number of	MC (%)		Swelling
Blows	Moulding	After-Soak	(%)
55	10.6	12.1	0.09
25	10.6	12.9	0.15
10	10.6	14.1	0.27



■ Remark	■ Operator	■ Approved
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Compaction & C.B.R Test

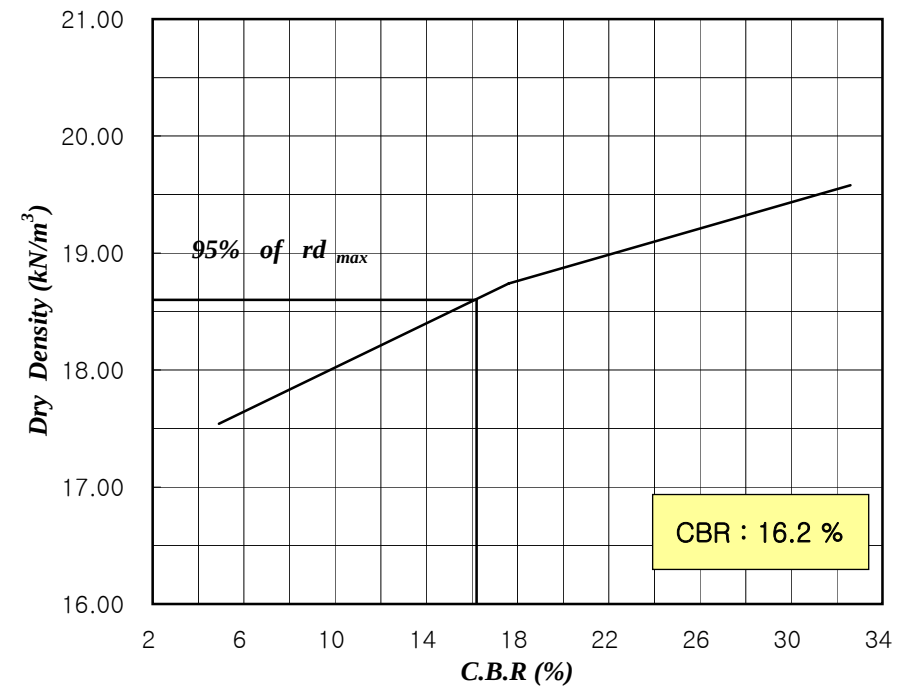
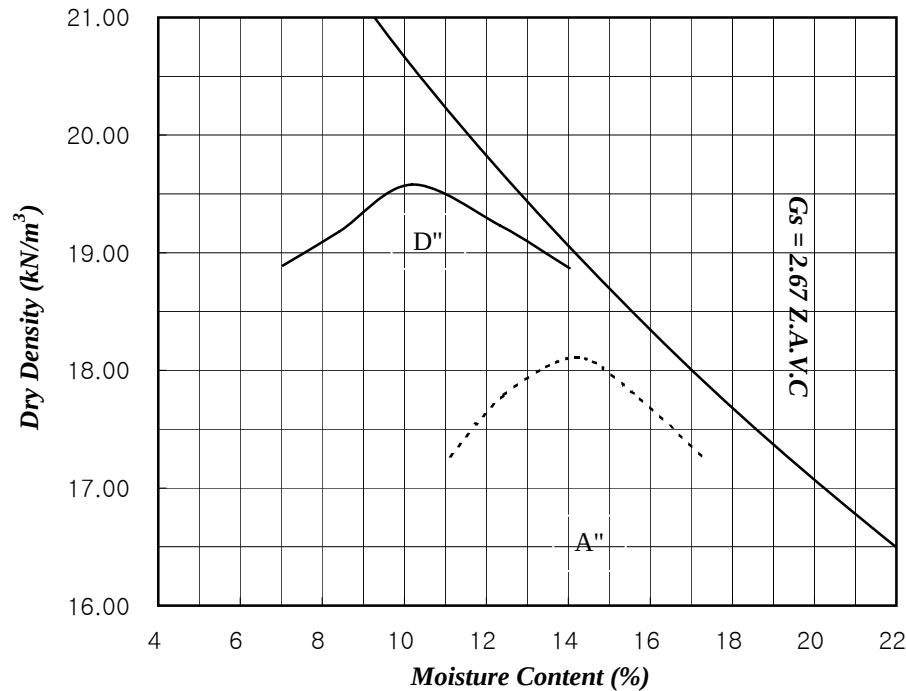
■ Project	중앙선 도담-영천 복선전철 제5공구 지반조사 용역	■ Borehole No.	NTP - 02
■ Test Method	KS F 2312 : 2001	■ Depth	1.50 m
		■ Date	2015. 05

MC :	13.1	%
LL :	NP	%
PI :	-	%
G_s :	2.67	
USCS :	SM	

$$1\text{t/m}^3 = 9.807 \text{ kN/m}^3$$

TYPE	Compaction Test		
D"	Maximum Dry Density :	19.58	kN/m^3
	Optimum Moisture Content :	10.2	%
A"	Maximum Dry Density :	18.11	kN/m^3
	Optimum Moisture Content :	14.2	%

C.B.R Test			
Number of Blows	MC (%)		Swelling (%)
	Moulding	After-Soak	
55	10.2	12.5	0.07
25	10.2	13.2	0.13
10	10.2	13.7	0.19



■ Remark	■ Operator	■ Approved
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Compaction & C.B.R Test

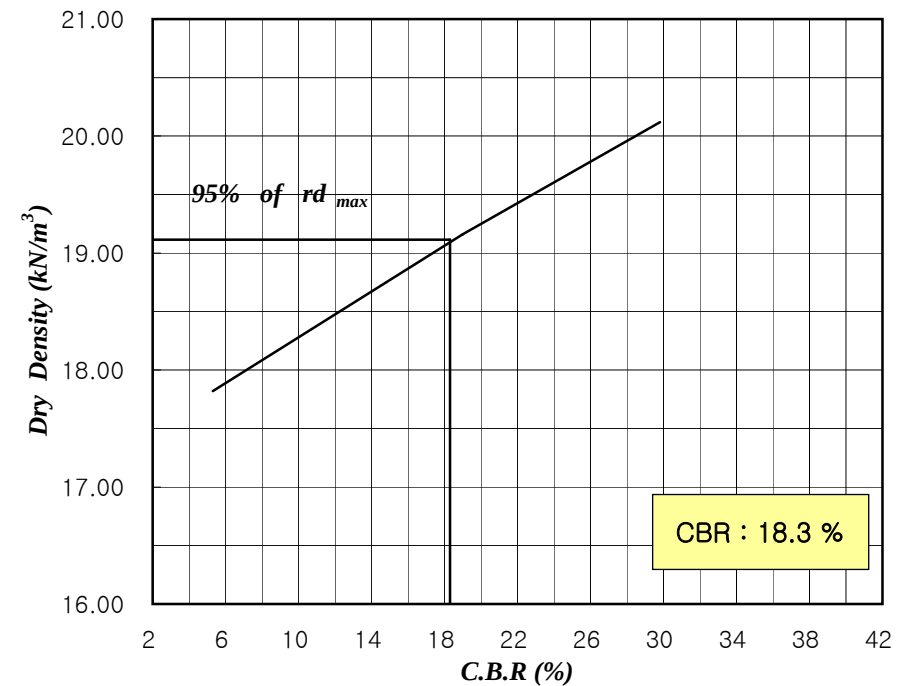
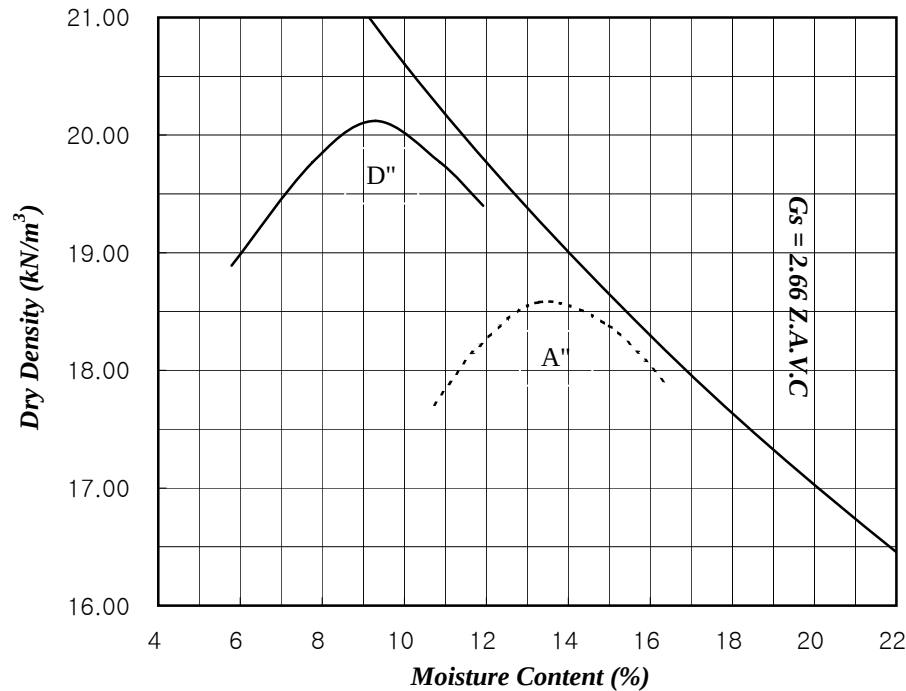
■ Project	중앙선 도담-영천 복선전철 제5공구 지반조사 용역	■ Borehole No.	NTP - 03
■ Test Method	KS F 2312 : 2001	■ Depth	0.50 m
		■ Date	2015. 05

MC :	4.0	%
LL :	NP	%
PI :	-	%
G _s :	2.66	
USCS :	SM	

$$1\text{t/m}^3 = 9.807 \text{ kN/m}^3$$

TYPE	Compaction Test		
D''	Maximum Dry Density :	20.12	kN/m ³
	Optimum Moisture Content :	9.3	%
A''	Maximum Dry Density :	18.58	kN/m ³
	Optimum Moisture Content :	13.3	%

C.B.R Test			
Number of Blows	MC (%)		Swelling (%)
	Moulding	After-Soak	
55	9.3	11.4	0.08
25	9.3	12.3	0.13
10	9.3	12.9	0.21



■ Remark	■ Operator	■ Approved
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Compaction & C.B.R Test

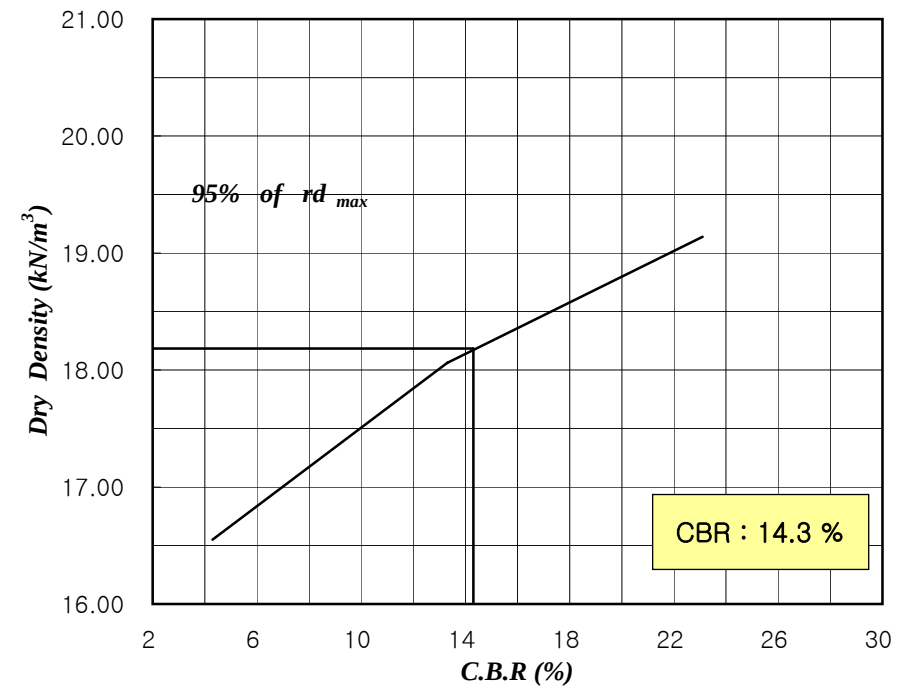
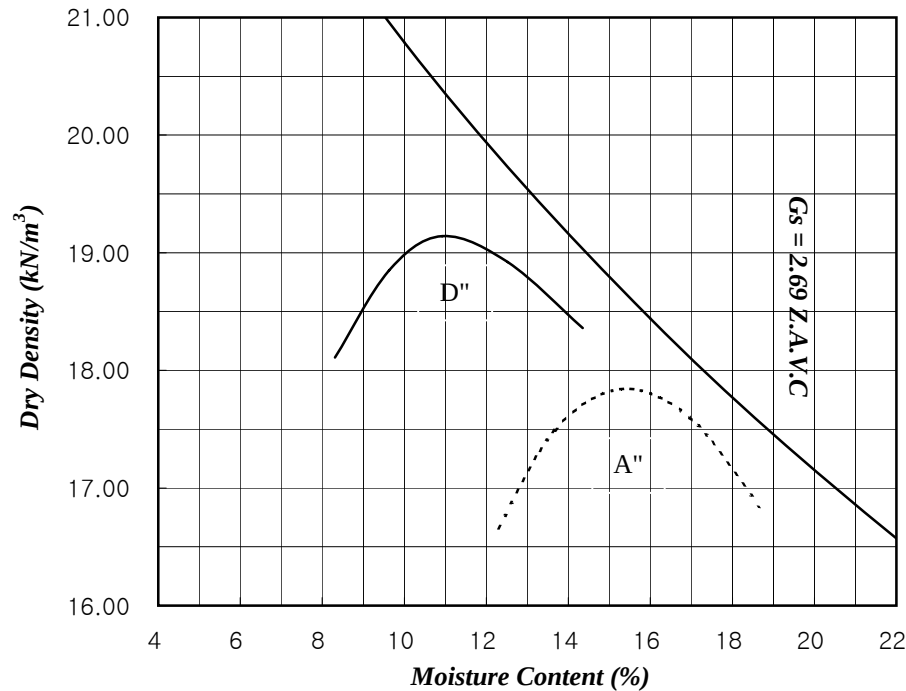
■ Project	중앙선 도담-영천 복선전철 제5공구 지반조사 용역	■ Borehole No.	NTP - 04
■ Test Method	KS F 2312 : 2001	■ Depth	0.20 m
		■ Date	2015. 05

MC :	16.1	%
LL :	31.7	%
PI :	7.2	%
G _s :	2.69	
USCS :	SM	

$$1\text{t/m}^3 = 9.807 \text{ kN/m}^3$$

TYPE	Compaction Test		
D"	Maximum Dry Density :	19.14	kN/m ³
	Optimum Moisture Content :	10.9	%
A"	Maximum Dry Density :	17.84	kN/m ³
	Optimum Moisture Content :	15.3	%

C.B.R Test			
Number of Blows	MC (%)		Swelling (%)
	Moulding	After-Soak	
55	10.9	11.8	0.08
25	10.9	12.3	0.16
10	10.9	13.2	0.28



■ Remark	■ Operator	■ Approved
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Compaction & C.B.R Test

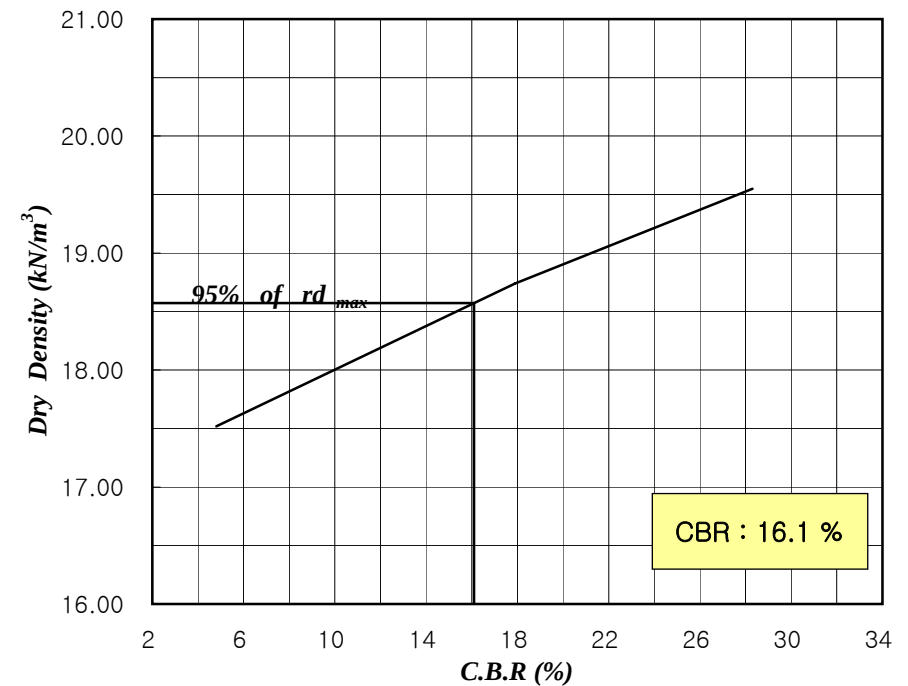
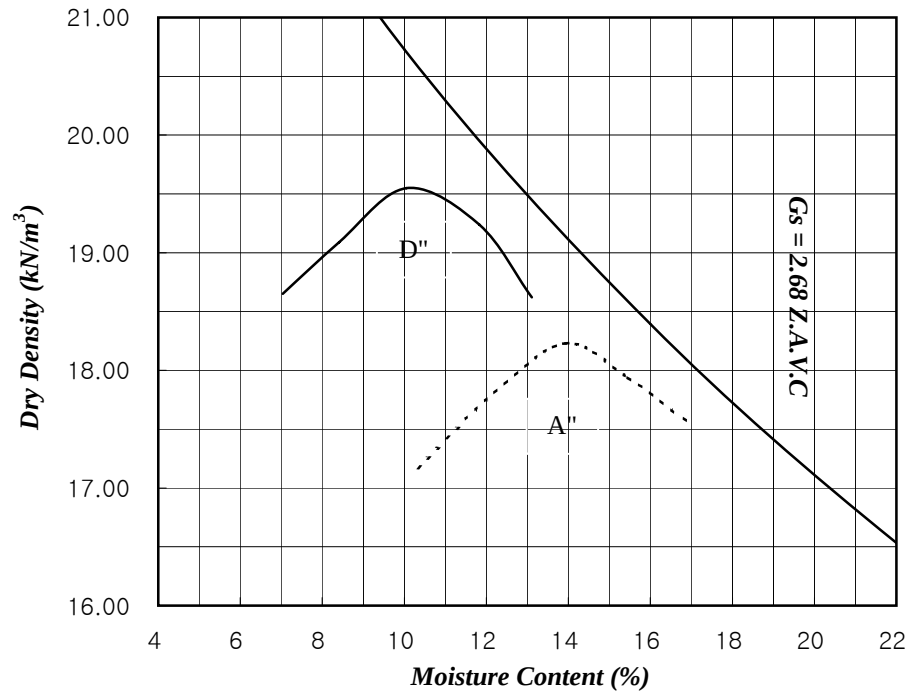
■ Project	중앙선 도담-영천 복선전철 제5공구 지반조사 용역	■ Borehole No.	NTP - 05
■ Test Method	KS F 2312 : 2001	■ Depth	1.00 m
		■ Date	2015. 05

MC :	7.9	%
LL :	NP	%
PI :	-	%
G_s :	2.68	
USCS :	SM	

$$1\text{t/m}^3 = 9.807 \text{ kN/m}^3$$

TYPE	Compaction Test		
D"	Maximum Dry Density :	19.55	kN/m^3
	Optimum Moisture Content :	10.1	%
A"	Maximum Dry Density :	18.23	kN/m^3
	Optimum Moisture Content :	13.9	%

C.B.R Test			
Number of Blows	MC (%)		Swelling (%)
	Moulding	After-Soak	
55	10.1	11.7	0.07
25	10.1	12.5	0.12
10	10.1	13.6	0.24



■ Remark	■ Operator	■ Approved
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6.2 실내암석시험

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-1	40.4~40.6	50.6	101.5	525.95									108.0		1.78
NTB-1	50.9~51.0	49.8	99.7	519.75									122.7		1.98
NTB-2	31.6~31.8	50.4	101.3	513.46									153.2		2.44
NTB-2	46.4~46.5	49.9	100.5	524.60									203.9		2.82
NTB-3	34.3~34.5	51.0	100.2	548.32									151.5		3.21
NTB-3	47.4~47.6	50.6	97.6	521.90									236.8		1.17
NTB-4	12.9~13.0	50.5	99.6	533.40									155.0		2.47
NTB-4	15.7~15.9	50.5	99.3	523.04									54.2		1.22
NTB-5	10.3~10.5	49.7	101.3	541.18									111.0		2.10
NTB-5	12.5~12.7	48.9	100.9	524.18									134.0		2.51
NTB-8	62.3~62.5	50.2	99.3	548.90									86.6		2.00
NTB-8	80.3~80.5	49.7	100.2	539.78									280.5		3.24
NTB-9	2.5~2.7	50.7	98.7	529.81									163.8		2.00
NTB-9	3.6~3.8	50.5	100.2	533.40									139.2		2.03
NTB-9	5.5~5.6	48.7	97.6	514.83									119.2		1.24
NTB-10	2.0~2.1	50.7	101.0	529.81									72.0		1.35
NTB-10	5.0~5.1	49.3	100.5	528.69									53.7		0.32
NTB-10	7.0~7.1	50.2	97.6	514.20									69.8		0.22

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-12	6.2~6.4	50.7	100.4	537.83									49.5		0.97
NTB-12	9.1~9.3	50.7	99.6	522.81									114.3		2.20
NTB-12	11.4~11.6	51.0	99.6	518.39									219.2		2.01
NTB-13	17.5~17.6	49.8	101.2	518.59									121.3		0.97
NTB-13	24.6~24.8	50.1	100.2	526.23									150.4		1.23
NTB-13	26.5~26.7	50.6	99.6	542.36									74.8		0.84
NTB-14	5.2~5.4	49.7	99.3	519.34									101.9		1.15
NTB-14	13.1~13.2	51.3	100.6	527.18									113.7		1.81
NTB-14	22.7~22.9	49.1	100.3	521.48									184.4		1.93
NTB-15	45.0~45.2	50.2	101.6	534.67									168.2		1.49
NTB-15	53.7~53.9	48.9	97.3	496.34									154.3		1.31
NTB-16	16.5~16.7	52.4	98.3	536.17									101.7		0.95
NTB-16	35.6~35.7	50.5	101.3	533.40									74.6		1.53
NTB-17	57.7~57.8	49.5	100.3	543.40									66.8		1.02
NTB-17	69.5~69.6	50.5	99.2	533.40									74.1		1.17
NTB-18	58.0~58.2	50.5	99.7	517.67									125.6		0.49
NTB-18	66.1~66.3	50.5	100.6	518.21									29.2		0.90
NTB-19	60.8~60.9	49.8	98.6	527.39									130.9		0.97

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-19	74.0~74.2	51.3	100.9	538.12									155.9		1.08
NTB-23	69.5~69.7	51.3	99.6	542.27									83.5		1.36
NTB-23	73.6~73.7	49.8	100.7	527.67									156.9		1.91
NTB-24	18.3~18.5	51.2	100.7	537.64									84.5		1.11
NTB-24	23.5~23.7	50.9	99.6	548.21									121.4		1.62
NTB-25	12.6~12.8	50.6	101.5	525.95									57.9		1.24
NTB-25	18.0~18.2	49.8	100.9	547.12									102.9		1.63
NTB-26	6.4~6.6	50.6	99.4	525.68									62.8		0.97
NTB-26	6.7~6.9	49.7	101.5	531.67									55.7		1.24
NTB-27	14.0~14.1	50.7	99.6	526.74									67.9		0.88
NTB-27	15.5~15.6	50.4	101.3	519.34									80.4		3.60
NTB-28	6.5~6.6	49.5	99.8	525.71									84.5		1.32
NTB-28	20.7~20.8	49.7	100.7	521.52									69.4		3.37
NTB-29	39.3~39.4	51.3	101.2	529.67									85.4		1.67
NTB-29	48.3~48.4	50.5	100.7	519.53									62.3		1.41
NTB-30	44.9~45.1	50.0	98.7	532.48									121.8		1.41
NTB-31	20.2~20.3	49.2	100.5	520.37									70.1		1.30
NTB-32	10.5~10.7	48.9	100.6	518.29									61.3		1.25

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-33	9.2~9.3	49.9	101.6	535.19									102.4		1.46
NTB-34	14.9~15.1	49.1	99.5	511.68									78.3		1.78
NTB-35	18.0~18.1	50.6	100.8	524.37									58.9		1.27
NTB-36	14.7~14.9	50.0	100.1	528.41									60.1		1.06
NTB-37	6.2~6.4	50.7	99.6	526.65									112.7		1.55
NTB-38	20.4~20.6	49.5	98.7	518.65									84.8		1.60
NTB-39	22.8~23.0	49.1	101.6	523.67									62.5		2.03
NTB-40	21.5~21.7	48.9	99.5	522.76									189.9		2.02
NTB-41	10.8~10.9	48.9	99.5	525.29									86.1		1.74
NTB-43	25.1~25.2	50.6	100.8	534.51									255.4		2.45
NTB-44	21.1~21.2	49.6	99.8	524.28									308.7		3.57
NTB-45	12.5~12.6	49.9	100.8	529.61									68.2		3.75
NTB-46	5.0~5.2	50.6	101.4	531.55									173.0		2.16
NTB-49	114.8~115.0	50.1	98.7	531.05									60.4		2.04
NTB-50	90.2~90.4	50.3	99.3	526.54									176.4		1.78
NTB-51	75.3~75.5	50.3	100.3	532.49									72.7		1.45
NTB-52	35.8~35.9	51.6	101.2	543.17									128.8		1.67
NTB-53	54.2~54.3	50.6	100.2	533.53									58.7		1.16

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-54	86.4~86.5	49.7	98.6	513.53									111.0		1.27
NTB-55	56.7~56.8	50.7	99.9	528.19									162.1		1.43
NTB-56	60.4~60.5	49.6	100.8	522.67									56.7		0.26
NTB-57	170.5~170.6	50.6	100.8	534.65									265.5		1.61
NTB-58	156.5~156.6	50.3	100.1	530.29									101.7		2.01
NTB-59	59.6~59.7	49.8	101.6	519.67									102.9		1.49
NTB-60	93.7~93.8	50.4	101.1	536.57									248.8		1.74
NTB-61	28.7~28.8	50.5	100.1	543.68									380.4		1.96
NTB-62	17.4~17.5	49.7	99.6	526.39									210.9		0.82
NTB-63	16.9~17.0	49.3	100.5	528.69									156.5		0.88
NTB-64	9.6~9.7	49.8	99.6	537.53									64.4		1.13
NTB-65	18.0~18.2	50.7	100.3	529.67									229.3		1.60
NTB-66	45.9~16.4	51.3	101.2	542.10									177.8		1.67
NTB-67	70.0~70.1	50.2	99.6	528.64									91.6		0.41
NTB-68	58.0	49.3	101.2	532.15									217.8		2.07
NTB-69	54.3~54.4	50.3	100.6	526.95									58.1		1.25
NTB-70	11.8~12.0	50.4	99.8	537.84									256.4		2.24
NTB-70	18.2~18.4	50.9	99.5	523.34									323.1		3.46

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-70	25.0~25.2	49.8	100.3	524.85									255.0		2.19
NTB-70	30.5~30.7	50.7	100.7	528.69									87.4		0.47
NTB-70	31.8~31.9	51.2	100.6	531.65									324.9		2.21
NTB-71	3.4~3.6	48.7	96.7	511.28									161.1		1.47
NTB-71	5.2~5.4	50.6	100.2	531.25									223.3		1.52
NTB-71	7.1~7.2	49.1	100.8	528.26									192.0		1.53
NTB-72	15.0~15.3	50.6	101.2	523.54									106.2		1.31
NTB-73	9.4~9.6	50.2	99.5	532.17									83.4		1.18
NTB-74	50.3~50.5	49.6	100.4	518.54									74.1		0.77
NTB-75	26.5~26.7	50.1	97.4	520.95									158.2		1.76
NTB-76	26.8~26.9	50.3	101.6	532.21									185.2		1.44
NTB-77	66.7~66.9	49.7	100.4	528.55									128.9		1.73
NTB-78	34.0~34.2	49.9	99.2	517.29									132.1		1.15
NTB-79	45.6~45.8	52.1	101.2	528.66									123.3		1.47
NTB-80	34.8~34.9	51.8	100.8	519.64									123.3		1.59
NTB-81	15.3~15.5	49.6	100.1	526.55									193.5		1.74
NTB-82	13.5~13.7	50.6	101.2	528.69									86.1		0.98
NTB-85	34.7~34.9	49.6	100.3	524.21									65.5		0.92

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-86	57.6~57.7	50.6	99.6	542.36									74.9		1.23
NTB-87	2.0~2.2	49.5	99.9	512.36									62.6		1.20
NTB-87	3.0~3.1	51.0	98.6	526.31									70.4		1.70
NTB-87	4.0~4.1	50.6	100.6	518.64									43.6		3.18
NTB-88	9.4~9.5	50.6	97.6	521.09									62.25		1.70
NTB-1	44.0~51.6			374.24	2.63	2.632	0.57	0.213	3.951	1.967					
NTB-9	2.2~5.2			418.65	2.67	2.668	1.14	0.222	3.86	2.01					
NTB-9	2.9~3.9			524.21	2.71	2.709	0.37	0.239	4.02	2.15					
NTB-9	4.1~6.0			328.67	2.66	2.663	0.66	0.234	3.93	2.22					
NTB-10	2.1~2.5			366.22	2.73	2.728	1.01	0.209	2.36	1.49					
NTB-10	5.1~5.5			428.61	2.59	2.556	0.57	0.209	2.42	1.56					
NTB-10	7.1~7.5			624.58	2.61	2.607	0.59	0.210	2.55	1.53					
NTB-12	6.4~6.9			421.57	2.63	2.633	1.32	0.211	2.21	1.39					
NTB-12	9.3~9.6			253.94	2.66	2.662	0.24	0.221	3.86	2.01					
NTB-12	10.6~11.8			586.21	2.58	2.582	0.85	0.218	4.35	2.31					
NTB-13	21.7~23.8			548.21	2.57	2.572	0.65	0.200	3.60	1.80					
NTB-13	17.0~20.3			512.48	2.68	2.681	0.93	0.202	4.10	2.10					
NTB-13	25.8~26.1			520.16	2.77	2.773	0.87	0.209	4.05	2.00					

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-14	4.0~13.9			483.62	2.74	2.743	0.68	0.244	3.48	1.96					
NTB-14	3.0~14.5			438.28	2.65	2.652	1.03	0.203	3.84	2.01					
NTB-14	20.9~24.8			542.03	2.59	2.589	0.84	0.215	4.02	2.21					
NTB-15	33.7~52.8			435.26	2.62	2.623	0.47	2.295	2.95	1.75					
NTB-16	17.7~32.5			524.21	2.67	2.671	0.77	0.221	2.92	1.63					
NTB-17	53.0~54.4			348.26	2.74	2.744	1.12	2.589	2.35	1.46					
NTB-27	14.5~16.0			465.32	2.57	2.571	0.59	0.221	2.22	1.03					
NTB-28	2.7~21.8			395.65	2.71	2.709	0.95	0.224	2.24	1.12					
NTB-29	33.6~39.1			425.69	2.69	2.690	0.87	0.231	2.34	1.68					
NTB-49	89.4~110.3			368.26	2.67	2.673	0.65	0.219	2.458	1.426					
NTB-50	71.7~87.8			512.65	2.77	2.771	0.87	0.198	2.985	2.031					
NTB-51	73.6~75.5			459.32	2.65	2.649	1.11	0.219	2.58	1.25					
NTB-64	6.3~9.4			328.69	2.66	2.663	1.03	2.228	3.86	2.03					
NTB-65	12.5~16.5			457.21	2.75	2.748	0.75	0.234	4.29	2.53					
NTB-66	42.6~49.0			531.24	2.70	2.702	0.66	0.229	4.02	2.35					
NTB-70	13.2~32.0			365.33	2.72	2.721	0.84	0.218	4.206	2.215					
NTB-70	14.2~24.3			487.21	2.59	2.593	1.32	0.201	4.356	2.223					
NTB-70	17.3~32.0			427.51	2.69	2.689	0.57	0.234	3.60	2.12					

UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

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UNCONFINED STRENGTH TEST FOR ROCK CORE

PROJECT NAME : 중앙선 도담-영천 복선전철 제 5공구 지반조사

DATE : 2015. 01

Boring NO.	DEPTH (m)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (gr)	SPECIFIC GRAVITY	UNIT WEIGHT (t/m3)	Abs. (%)	POISSON'S RATIO (μ)	ELASTIC		STRENGTH PARAMETER		COMPRESSIVE	Tensile Strength (MPa)	Young's Modulus (*10 ⁵ MPa)
									WAVE (km/sec)				STRENGTH		
									P	S	C (MPa)	Φ(°)	(MPa)		
NTB-87	2.7~3.0	49.6	50.3	288.65										23.00	0.59
NTB-13	16.0~16.3	50.1	101.2	532.21							19.75	46.43			
NTB-14	21.6~21.9	49.7	99.6	528.55							14.99	48.91			
NTB-70	16.0~16.3	50.6	100.2	517.29							27.33	45.91			
NTB-70	20.2~20.5	50.3	98.6	528.66							34.50	34.53			
NTB-70	26.5~26.8	51.8	100.8	519.64							21.43	54.23			
NTB-71	2.0~2.3	49.8	99.8	526.55							25.24	42.43			
NTB-71	4.3~4.6	50.3	100.9	528.69							27.22	47.70			
NTB-87	5.5~5.8	49.2	100.4	524.21							21.21	47.05			

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NBB - 1	5.70	-	-	-	-	-	-	-	44.0	-	-	-	-	-	-
NBB - 1	6.20	-	-	-	-	-	-	-	50.6	-	-	-	-	-	-
NBB - 2	4.10	-	-	-	-	-	-	-	35.8	-	-	-	-	-	-
NBB - 2	4.80	-	-	-	-	-	-	-	48.8	-	-	-	-	-	-
NBB - 3	15.30	-	-	-	-	-	-	-	11.4	-	-	-	-	-	-
NBB - 3	16.50	-	-	-	-	-	-	-	10.7	-	-	-	-	-	-
NBB - 4	9.00	-	-	-	-	-	-	-	34.5	-	-	-	-	-	-
NBB - 4	9.90	-	-	-	-	-	-	-	33.2	-	-	-	-	-	-
NBB - 5	7.50	-	-	-	-	-	-	-	48.6	-	-	-	-	-	-
NBB - 5	8.10	-	-	-	-	-	-	-	48.4	-	-	-	-	-	-
NBB - 6	8.70	-	-	-	-	-	-	-	39.7	-	-	-	-	-	-
NBB - 6	9.30	-	-	-	-	-	-	-	41.5	-	-	-	-	-	-
NBB - 7	11.60	-	-	-	-	-	-	-	111.1	-	-	-	-	-	-
NBB - 7	13.00	-	-	-	-	-	-	-	32.8	-	-	-	-	-	-
NBB - 8	4.50	-	-	-	-	-	-	-	28.5	-	-	-	-	-	-
NBB - 8	5.20	-	-	-	-	-	-	-	34.7	-	-	-	-	-	-
NBB - 9	5.80	-	-	-	-	-	-	-	48.7	-	-	-	-	-	-
NBB - 9	6.70	-	-	-	-	-	-	-	58.0	-	-	-	-	-	-
NBB - 10	6.60	-	-	-	-	-	-	-	22.7	-	-	-	-	-	-
NBB - 10	8.00	-	-	-	-	-	-	-	28.2	-	-	-	-	-	-
NBB - 11	6.40	-	-	-	-	-	-	-	26.9	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NBB - 11	7.00	-	-	-	-	-	-	-	35.3	-	-	-	-	-	-
NBB - 12	5.40	-	-	-	-	-	-	-	41.3	-	-	-	-	-	-
NBB - 12	6.00	-	-	-	-	-	-	-	74.2	-	-	-	-	-	-
NBB - 14	5.00	-	-	-	-	-	-	-	39.2	-	-	-	-	-	-
NBB - 14	6.80	-	-	-	-	-	-	-	36.0	-	-	-	-	-	-
NBB - 15	5.10	-	-	-	-	-	-	-	21.2	-	-	-	-	-	-
NBB - 15	6.50	-	-	-	-	-	-	-	22.1	-	-	-	-	-	-
NBB - 16	5.00	-	-	-	-	-	-	-	18.6	-	-	-	-	-	-
NBB - 17	5.30	-	-	-	-	-	-	-	19.7	-	-	-	-	-	-
NBB - 17	5.70	-	-	-	-	-	-	-	44.2	-	-	-	-	-	-
NBB - 19	4.30	-	-	-	-	-	-	-	13.2	-	-	-	-	-	-
NBB - 19	5.30	-	-	-	-	-	-	-	49.3	-	-	-	-	-	-
NBB - 20	3.00	-	-	-	-	-	-	-	31.4	-	-	-	-	-	-
NBB - 20	4.60	-	-	-	-	-	-	-	42.5	-	-	-	-	-	-
NBB - 21	4.00	-	-	-	-	-	-	-	18.4	-	-	-	-	-	-
NBB - 21	5.30	-	-	-	-	-	-	-	14.3	-	-	-	-	-	-
NBB - 22	4.40	-	-	-	-	-	-	-	22.8	-	-	-	-	-	-
NBB - 24	7.60	-	-	-	-	-	-	-	11.5	-	-	-	-	-	-
NBB - 25	5.50	-	-	-	-	-	-	-	23.6	-	-	-	-	-	-
NBB - 25	5.60	-	-	-	-	-	-	-	40.6	-	-	-	-	-	-
NBB - 26	4.80	-	-	-	-	-	-	-	36.4	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NBB - 26	5.30	-	-	-	-	-	-	-	29.4	-	-	-	-	-	-
NBB - 27	9.10	-	-	-	-	-	-	-	24.8	-	-	-	-	-	-
NBB - 27	10.70	-	-	-	-	-	-	-	86.5	-	-	-	-	-	-
NBB - 28	8.30	-	-	-	-	-	-	-	36.3	-	-	-	-	-	-
NBB - 28	9.50	-	-	-	-	-	-	-	41.9	-	-	-	-	-	-
NBB - 29	6.00	-	-	-	-	-	-	-	48.8	-	-	-	-	-	-
NBB - 29	7.00	-	-	-	-	-	-	-	28.4	-	-	-	-	-	-
NBB - 30	5.50	-	-	-	-	-	-	-	19.3	-	-	-	-	-	-
NBB - 30	6.80	-	-	-	-	-	-	-	21.4	-	-	-	-	-	-
NBB - 31	3.40	-	-	-	-	-	-	-	24.9	-	-	-	-	-	-
NBB - 31	3.90	-	-	-	-	-	-	-	17.1	-	-	-	-	-	-
NBB - 32	5.30	-	-	-	-	-	-	-	15.4	-	-	-	-	-	-
NBB - 32	6.50	-	-	-	-	-	-	-	12.6	-	-	-	-	-	-
NBB - 33	2.70	-	-	-	-	-	-	-	18.8	-	-	-	-	-	-
NBB - 33	3.30	-	-	-	-	-	-	-	53.7	-	-	-	-	-	-
NBB - 40	8.20	-	-	-	-	-	-	-	14.8	-	-	-	-	-	-
NBB - 40	8.70	-	-	-	-	-	-	-	32.2	-	-	-	-	-	-
NBB - 41	5.50	-	-	-	-	-	-	-	26.3	-	-	-	-	-	-
NBB - 41	6.20	-	-	-	-	-	-	-	23.7	-	-	-	-	-	-
NBB - 42	7.70	-	-	-	-	-	-	-	16.4	-	-	-	-	-	-
NBB - 42	8.40	-	-	-	-	-	-	-	26.3	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NBB - 44	5.20	-	-	-	-	-	-	-	20.1	-	-	-	-	-	-
NBB - 44	5.80	-	-	-	-	-	-	-	12.5	-	-	-	-	-	-
NBB - 45	5.80	-	-	-	-	-	-	-	21.1	-	-	-	-	-	-
NBB - 45	6.80	-	-	-	-	-	-	-	13.7	-	-	-	-	-	-
NBB - 48	4.00	-	-	-	-	-	-	-	30.2	-	-	-	-	-	-
NBB - 48	4.20	-	-	-	-	-	-	-	29.6	-	-	-	-	-	-
NBB - 49	4.30	-	-	-	-	-	-	-	56.3	-	-	-	-	-	-
NBB - 49	4.50	-	-	-	-	-	-	-	61.4	-	-	-	-	-	-
NBB - 50	2.50	-	-	-	-	-	-	-	35.2	-	-	-	-	-	-
NBB - 50	4.80	-	-	-	-	-	-	-	53.1	-	-	-	-	-	-
NBB - 51	4.90	-	-	-	-	-	-	-	39.9	-	-	-	-	-	-
NBB - 52	2.60	-	-	-	-	-	-	-	47.4	-	-	-	-	-	-
NBB - 52	3.70	-	-	-	-	-	-	-	21.3	-	-	-	-	-	-
NBB - 56	2.70	-	-	-	-	-	-	-	34.2	-	-	-	-	-	-
NBB - 56	3.30	-	-	-	-	-	-	-	36.7	-	-	-	-	-	-
NBB - 57	2.90	-	-	-	-	-	-	-	23.0	-	-	-	-	-	-
NBB - 57	3.80	-	-	-	-	-	-	-	24.8	-	-	-	-	-	-
NBB - 58	3.50	-	-	-	-	-	-	-	45.4	-	-	-	-	-	-
NBB - 58	5.30	-	-	-	-	-	-	-	34.0	-	-	-	-	-	-
NBB - 59	4.50	-	-	-	-	-	-	-	25.8	-	-	-	-	-	-
NBB - 59	4.90	-	-	-	-	-	-	-	65.2	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NBB - 60	5.10	-	-	-	-	-	-	-	14.9	-	-	-	-	-	-
NBB - 60	5.60	-	-	-	-	-	-	-	30.9	-	-	-	-	-	-
NBB - 71	7.70	-	-	-	-	-	-	-	20.2	-	-	-	-	-	-
NBB - 71	9.30	-	-	-	-	-	-	-	15.8	-	-	-	-	-	-
NBB - 72	7.00	-	-	-	-	-	-	-	17.9	-	-	-	-	-	-
NBB - 73	7.10	-	-	-	-	-	-	-	42.0	-	-	-	-	-	-
NBB - 73	7.40	-	-	-	-	-	-	-	33.0	-	-	-	-	-	-
NBB - 75	6.10	-	-	-	-	-	-	-	25.9	-	-	-	-	-	-
NBB - 75	6.80	-	-	-	-	-	-	-	20.3	-	-	-	-	-	-
NCB - 1	5.20	26.161	2.67	0.85	3691.7	2330.3	-	-	60.5	0.27	6.564E+03	-	-	-	-
NCB - 1	10.50	26.046	2.68	0.93	3066.7	1941.3	-	-	40.8	0.28	5.366E+03	-	-	-	-
NCB - 1	11.10	-	-	-	-	-	-	-	-	-	-	-	-	13.6	27.3
NCB - 2	2.00	25.362	2.64	2.11	3115.9	2264.7	-	-	48.2	0.28	6.766E+03	-	-	-	-
NCB - 2	12.00	25.897	2.68	1.02	4688.6	3265.5	-	-	110.7	0.24	1.294E+03	-	-	-	-
NCB - 3	5.90	-	-	-	-	-	-	-	-	-	-	-	-	22.9	31.4
NCB - 3	7.20	25.003	2.54	2.88	1872.3	1164.2	-	-	23.6	0.31	3.387E+03	-	-	-	-
NCB - 3	22.60	26.222	2.69	0.57	3042.6	2309.6	-	-	35.7	0.28	4.888E+03	-	-	-	-
NCB - 4	2.70	-	-	-	-	-	-	-	-	-	-	-	-	28.7	33.1
NCB - 4	6.30	25.505	2.65	1.56	3397.6	2364.8	-	-	52.4	0.27	7.031E+03	-	-	-	-
NCB - 4	11.50	23.523	2.51	4.52	1415.3	961.7	-	-	12.5	0.33	1.904E+03	-	-	-	-
NCB - 5	9.30	25.840	2.65	0.44	3818.3	2416.9	-	-	64.8	0.26	8.664E+03	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NCB - 5	15.50	25.591	2.66	1.55	3291.1	2118.6	-	-	52.8	0.27	7.060E+03	-	-	-	-
NCB - 6	3.50	-	-	-	-	-	-	-	-	-	-	-	-	23.4	30.4
NCB - 6	7.70	25.817	2.64	0.89	3900.4	2594.4	-	-	73.6	0.26	9.287E+03	-	-	-	-
NCB - 6	11.80	25.573	2.63	1.68	3014.8	2171.6	-	-	36.2	0.28	5.086E+03	-	-	-	-
NCB - 7	6.90	24.574	2.59	2.54	2194.3	1463.3	-	-	27.5	0.30	3.987E+03	-	-	-	-
NCB - 7	16.80	25.944	2.67	0.66	2741.6	1669.8	-	-	39.5	0.28	5.246E+03	-	-	-	-
NCB - 9	1.80	26.321	2.69	0.63	3723.6	2521.1	-	-	74.2	0.25	8.825E+03	-	-	-	-
NCB - 9	10.20	26.089	2.68	0.62	3711.4	2630.7	-	-	72.6	0.26	9.315E+03	-	-	-	-
NTB - 1	26.30	26.077	2.68	1.22	3178.9	1794.5	-	-	51.5	0.28	6.923E+03	-	-	-	-
NTB - 1	28.40	-	-	-	-	-	-	4.18	-	-	-	-	-	-	-
NTB - 1	29.40	-	-	-	-	-	-	-	-	-	-	6.3	41.3	-	-
NTB - 1	31.20	26.035	2.69	0.59	4591.3	3014.8	-	-	109.0	0.24	1.247E+04	-	-	-	-
NTB - 2	33.00	26.460	2.72	0.86	3908.7	2399.7	-	-	76.9	0.26	1.011E+04	-	-	-	-
NTB - 2	35.00	26.343	2.71	0.33	4986.6	3174.9	-	-	134.1	0.23	1.634E+04	-	-	-	-
NTB - 3	30.60	-	-	-	-	-	-	4.88	-	-	-	-	-	-	-
NTB - 3	35.50	26.524	2.71	0.57	3815.7	2231.1	-	-	86.3	0.26	1.119E+04	-	-	-	-
NTB - 3	39.00	-	-	-	-	-	-	-	-	-	-	6.7	43.8	-	-
NTB - 3	44.00	26.561	2.72	0.61	3564.2	2175.2	-	-	55.0	0.27	7.348E+03	-	-	-	-
NTB - 4	6.20	26.152	2.69	1.11	4126.4	2194.8	-	-	74.1	0.27	9.405E+03	-	-	-	-
NTB - 4	10.70	22.973	2.46	4.01	3094.5	1869.7	-	-	38.1	0.28	5.117E+03	-	-	-	-
NTB - 5	3.70	-	-	-	-	-	-	-	-	-	-	7.8	45.3	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 5	4.80	25.640	2.65	1.03	3876.5	2194.8	-	-	86.2	0.26	1.088E+04	-	-	-	-
NTB - 5	6.60	-	-	-	-	-	-	5.11	-	-	-	-	-	-	-
NTB - 5	13.30	26.016	2.68	1.47	2576.4	1327.6	-	-	30.1	0.29	4.160E+03	-	-	-	-
NTB - 8	64.00	-	-	-	-	-	-	-	-	-	-	-	-	18.6	31.0
NTB - 8	67.10	21.853	2.37	6.09	1648.5	1011.3	-	-	16.7	0.30	2.391E+03	-	-	-	-
NTB - 8	76.50	23.749	2.51	3.20	3728.1	2327.5	-	-	58.7	0.27	7.625E+03	-	-	-	-
NTB - 15	36.50	20.258	2.22	7.30	2948.1	1831.9	-	-	35.7	0.28	4.793E+03	-	-	-	-
NTB - 15	38.10	-	-	-	-	-	-	-	-	-	-	4.0	36.0	-	-
NTB - 15	41.20	-	-	-	-	-	-	2.69	-	-	-	-	-	-	-
NTB - 15	45.30	23.713	2.57	2.79	1698.4	952.6	-	-	13.8	0.30	1.961E+03	-	-	-	-
NTB - 16	19.20	26.929	2.75	0.50	5564.3	3709.3	-	-	167.9	0.22	2.003E+04	-	-	-	-
NTB - 16	28.00	26.108	2.69	1.53	2643.7	1594.4	-	-	29.4	0.28	4.152E+03	-	-	-	-
NTB - 17	55.20	-	-	-	-	-	-	-	-	-	-	6.4	40.9	-	-
NTB - 17	58.20	-	-	-	-	-	-	4.40	-	-	-	-	-	-	-
NTB - 17	58.50	25.598	2.66	1.36	3164.9	2001.7	-	-	51.8	0.27	6.775E+03	-	-	-	-
NTB - 17	66.50	26.475	2.73	0.31	3284.6	2085.7	-	-	58.4	0.27	7.672E+03	-	-	-	-
NTB - 18	63.80	26.606	2.76	0.81	4471.6	2923.2	-	-	86.4	0.25	1.099E+04	-	-	-	-
NTB - 18	67.20	24.847	2.59	0.94	2330.4	1265.5	-	-	21.6	0.29	3.005E+03	-	-	-	-
NTB - 19	63.40	-	-	-	-	-	-	-	-	-	-	5.1	39.0	-	-
NTB - 19	66.30	26.014	2.71	1.01	2417.6	1293.8	-	-	22.2	0.29	3.137E+03	-	-	-	-
NTB - 19	67.20	-	-	-	-	-	-	3.81	-	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 19	71.00	25.955	2.72	1.14	2196.8	1194.2	-	-	21.3	0.29	3.109E+03	-	-	-	-
NTB - 23	58.50	-	-	-	-	-	-	-	-	-	-	12.5	47.7	-	-
NTB - 23	59.40	25.414	2.63	1.23	5359.9	3359.6	-	-	125.3	0.24	1.494E+04	-	-	-	-
NTB - 23	60.40	-	-	-	-	-	-	7.96	-	-	-	-	-	-	-
NTB - 23	65.60	26.709	2.73	0.21	5996.4	3876.8	-	-	190.3	0.21	2.165E+04	-	-	-	-
NTB - 24	13.60	25.560	2.64	1.41	1745.5	1089.7	-	-	20.8	0.30	2.982E+03	-	-	-	-
NTB - 24	16.40	24.985	2.61	1.95	3231.1	1969.8	-	-	53.8	0.27	7.030E+03	-	-	-	-
NTB - 25	3.20	-	-	-	-	-	-	4.66	-	-	-	-	-	-	-
NTB - 25	4.70	24.316	2.53	2.02	4318.5	2911.6	-	-	78.4	0.26	1.008E+04	-	-	-	-
NTB - 25	13.90	25.927	2.67	0.18	4327.7	2841.2	-	-	111.4	0.25	1.352E+04	-	-	-	-
NTB - 25	15.70	-	-	-	-	-	-	-	-	-	-	7.0	45.9	-	-
NTB - 26	4.00	24.394	2.55	1.19	3639.2	2548.3	-	-	61.9	0.27	7.987E+03	-	-	-	-
NTB - 26	6.60	24.308	2.53	1.73	3250.8	2071.6	-	-	49.4	0.27	6.532E+03	-	-	-	-
NTB - 27	13.10	-	-	-	-	-	-	9.88	-	-	-	-	-	-	-
NTB - 27	13.60	26.304	2.71	0.38	4695.2	3162.6	-	-	91.2	0.25	1.114E+04	-	-	-	-
NTB - 27	14.50	-	-	-	-	-	-	-	-	-	-	15.0	46.7	-	-
NTB - 27	15.60	26.348	2.71	0.37	4813.5	3176.4	-	-	99.7	0.25	1.190E+04	-	-	-	-
NTB - 28	3.60	25.470	2.66	1.03	3984.1	2710.9	-	-	84.5	0.26	1.023E+04	-	-	-	-
NTB - 28	6.30	26.432	2.70	0.41	3994.2	2809.7	-	-	85.3	0.26	9.939E+03	-	-	-	-
NTB - 29	35.10	25.340	2.65	0.84	4273.1	2926.5	-	-	90.2	0.25	1.101E+04	-	-	-	-
NTB - 29	35.70	-	-	-	-	-	-	7.40	-	-	-	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 29	38.50	-	-	-	-	-	-	-	-	-	-	10.7	45.7	-	-
NTB - 29	40.30	26.008	2.69	1.47	2984.4	1912.7	-	-	34.6	0.29	4.623E+03	-	-	-	-
NTB - 30	43.20	26.211	2.69	1.39	3094.1	1901.3	-	-	40.1	0.28	5.082E+03	-	-	-	-
NTB - 30	46.70	26.472	2.71	0.58	2913.7	1869.8	-	-	34.5	0.29	4.553E+03	-	-	-	-
NTB - 31	9.50	-	-	-	-	-	-	-	-	-	-	28.7	50.4	-	-
NTB - 31	10.30	26.424	2.73	0.36	3351.9	2173.6	-	-	54.3	0.27	7.080E+03	-	-	-	-
NTB - 31	11.00	-	-	-	-	-	-	18.16	-	-	-	-	-	-	-
NTB - 31	13.00	26.807	2.73	0.15	4013.8	2756.7	-	-	104.5	0.25	1.266E+04	-	-	-	-
NTB - 33	4.50	24.771	2.64	1.78	3184.6	2027.5	-	-	52.1	0.28	6.930E+03	-	-	-	-
NTB - 33	10.30	26.638	2.75	0.58	4185.6	2793.9	-	-	92.9	0.26	1.122E+04	-	-	-	-
NTB - 34	5.40	26.134	2.68	1.32	2958.1	1846.3	-	-	34.2	0.29	4.584E+03	-	-	-	-
NTB - 34	9.60	25.514	2.66	0.98	3694.2	2283.5	-	-	80.4	0.27	9.802E+03	-	-	-	-
NTB - 35	6.40	25.718	2.65	0.75	4264.5	2571.3	-	-	94.9	0.25	1.147E+04	-	-	-	-
NTB - 35	7.10	-	-	-	-	-	-	-	-	-	-	21.7	47.6	-	-
NTB - 35	7.80	-	-	-	-	-	-	14.20	-	-	-	-	-	-	-
NTB - 35	9.00	-	-	-	-	-	-	-	-	-	-	-	-	18.6	30.8
NTB - 35	12.70	26.115	2.68	1.41	2967.5	1893.2	-	-	35.8	0.29	4.579E+03	-	-	-	-
NTB - 36	6.00	26.432	2.71	0.31	3456.2	2152.1	-	-	73.5	0.27	8.898E+03	-	-	-	-
NTB - 36	7.90	-	-	-	-	-	-	7.49	-	-	-	-	-	-	-
NTB - 36	11.50	25.454	2.66	1.11	4376.1	2933.7	-	-	88.7	0.26	1.087E+04	-	-	-	-
NTB - 36	12.50	-	-	-	-	-	-	-	-	-	-	11.7	47.4	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave	S-Wave						Cohesion	Friction	Cohesion	Friction
					m/sec	m/sec						Mpa	deg	Kpa	deg
NTB - 37	1.80	26.102	2.68	1.57	2796.8	1719.5	-	-	29.1	0.29	4.282E+03	-	-	-	-
NTB - 37	8.50	26.200	2.69	1.30	2826.5	1723.9	-	-	39.2	0.28	5.638E+03	-	-	-	-
NTB - 37	10.00	-	-	-	-	-	-	-	-	-	-	7.5	45.0	-	-
NTB - 37	10.60	-	-	-	-	-	-	5.07	-	-	-	-	-	-	-
NTB - 38	4.60	26.071	2.68	1.33	2833.7	1705.8	-	-	36.8	0.28	4.948E+03	-	-	-	-
NTB - 38	10.50	25.894	2.68	0.26	3752.1	2374.4	-	-	87.4	0.27	1.098E+04	-	-	-	-
NTB - 39	6.00	26.551	2.73	0.35	3631.9	2536.3	-	-	61.2	0.27	7.844E+03	-	-	-	-
NTB - 39	7.50	-	-	-	-	-	-	10.75	-	-	-	-	-	-	-
NTB - 39	7.70	-	-	-	-	-	-	-	-	-	-	15.5	46.2	-	-
NTB - 39	10.50	26.463	2.74	0.33	3290.4	1989.6	-	-	54.0	0.28	7.092E+03	-	-	-	-
NTB - 40	6.10	26.476	2.71	0.34	5012.6	3109.8	-	-	137.1	0.23	1.645E+04	-	-	-	-
NTB - 40	9.50	26.620	2.71	0.25	5395.2	3476.9	-	-	153.9	0.23	1.772E+04	-	-	-	-
NTB - 41	3.00	26.302	2.71	0.34	4895.1	3133.3	-	-	126.0	0.24	1.531E+04	-	-	-	-
NTB - 41	5.30	-	-	-	-	-	-	10.78	-	-	-	-	-	-	-
NTB - 41	6.90	-	-	-	-	-	-	-	-	-	-	16.6	49.5	-	-
NTB - 41	9.00	23.298	2.56	2.97	2876.8	1578.4	-	-	35.0	0.28	4.706E+03	-	-	-	-
NTB - 43	9.50	-	-	-	-	-	-	-	-	-	-	19.3	48.5	-	-
NTB - 43	11.30	26.207	2.70	0.35	5221.7	3329.1	-	-	133.5	0.24	1.641E+04	-	-	-	-
NTB - 43	13.00	-	-	-	-	-	-	13.36	-	-	-	-	-	-	-
NTB - 43	15.80	26.133	2.68	1.25	3094.7	1946.2	-	-	34.0	0.28	4.712E+03	-	-	-	-
NTB - 44	6.50	26.083	2.71	0.27	5148.2	3207.7	-	-	142.5	0.23	1.710E+04	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave	S-Wave						Cohesion	Friction	Cohesion	Friction
					m/sec	m/sec						Mpa	deg	Kpa	deg
NTB - 44	13.20	25.491	2.65	0.99	3596.2	2153.6	-	-	78.6	0.27	9.465E+03	-	-	-	-
NTB - 45	14.10	26.271	2.72	0.18	3167.8	1883.4	-	-	56.1	0.28	7.384E+03	-	-	-	-
NTB - 45	15.10	26.476	2.73	0.18	3631.4	2536.9	-	-	62.8	0.27	8.060E+03	-	-	-	-
NTB - 46	4.00	-	-	-	-	-	-	12.49	-	-	-	-	-	-	-
NTB - 46	4.30	-	-	-	-	-	-	-	-	-	-	18.8	46.8	-	-
NTB - 46	5.00	25.762	2.69	0.23	4138.6	2612.1	-	-	87.4	0.26	1.025E+04	-	-	-	-
NTB - 46	6.20	23.958	2.53	0.25	3269.2	2028.3	-	-	38.3	0.28	5.114E+03	-	-	-	-
NTB - 49	93.20	-	-	-	-	-	-	-	-	-	-	-	-	24.5	26.4
NTB - 49	101.20	-	-	-	-	-	-	6.83	-	-	-	-	-	-	-
NTB - 49	101.50	23.917	2.54	2.20	3054.8	1792.5	-	-	52.5	0.28	6.810E+03	-	-	-	-
NTB - 49	103.40	24.020	2.58	1.64	3994.1	2163.7	-	-	65.1	0.27	8.333E+03	-	-	-	-
NTB - 49	106.70	-	-	-	-	-	-	-	-	-	-	11.1	43.7	-	-
NTB - 50	77.60	23.565	2.51	2.50	2851.0	1738.6	-	-	32.5	0.29	4.558E+03	-	-	-	-
NTB - 50	84.20	26.766	2.76	0.42	5361.4	3455.2	-	-	157.6	0.23	1.896E+04	-	-	-	-
NTB - 51	73.50	-	-	-	-	-	-	-	-	-	-	7.1	42.9	-	-
NTB - 51	77.30	26.156	2.69	1.40	2806.3	1729.9	-	-	30.9	0.29	4.248E+03	-	-	-	-
NTB - 51	77.50	-	-	-	-	-	-	4.58	-	-	-	-	-	-	-
NTB - 51	80.30	26.228	2.69	1.29	3169.5	1917.6	-	-	43.7	0.28	5.827E+03	-	-	-	-
NTB - 52	39.80	26.832	2.73	0.45	5097.9	3221.6	-	-	147.7	0.23	1.742E+04	-	-	-	-
NTB - 52	46.70	26.288	2.68	1.09	3140.6	1863.1	-	-	54.5	0.28	7.051E+03	-	-	-	-
NTB - 53	37.90	-	-	-	-	-	-	-	-	-	-	10.8	46.0	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 53	39.00	26.454	2.73	0.39	3211.3	2541.6	-	-	60.9	0.27	7.626E+03	-	-	-	-
NTB - 53	39.90	-	-	-	-	-	-	6.92	-	-	-	-	-	-	-
NTB - 53	44.50	25.634	2.67	1.19	3416.9	2622.8	-	-	65.4	0.27	8.272E+03	-	-	-	-
NTB - 54	72.20	25.383	2.63	1.12	4377.6	2814.7	-	-	115.6	0.25	1.371E+04	-	-	-	-
NTB - 54	75.70	25.822	2.67	0.20	4895.1	3109.8	-	-	123.7	0.24	1.451E+04	-	-	-	-
NTB - 55	44.40	26.646	2.73	0.15	5493.6	3271.6	-	-	164.6	0.22	1.808E+04	-	-	-	-
NTB - 55	45.70	-	-	-	-	-	-	-	-	-	-	12.6	49.5	-	-
NTB - 55	46.60	-	-	-	-	-	-	10.95	-	-	-	-	-	-	-
NTB - 55	51.60	26.465	2.76	0.71	4097.6	2203.7	-	-	76.5	0.27	9.888E+03	-	-	-	-
NTB - 56	58.10	25.438	2.64	1.44	2368.1	1210.9	-	-	32.6	0.29	4.325E+03	-	-	-	-
NTB - 56	63.20	26.558	2.76	0.30	3831.5	2297.2	-	-	64.1	0.27	8.463E+03	-	-	-	-
NTB - 57	153.60	26.176	2.68	0.61	3737.5	2719.4	-	-	57.6	0.27	8.193E+03	-	-	-	-
NTB - 57	155.00	-	-	-	-	-	-	6.88	-	-	-	-	-	-	-
NTB - 57	157.00	-	-	-	-	-	-	-	-	-	-	10.7	44.5	-	-
NTB - 57	159.60	25.598	2.62	0.68	3296.7	1801.7	-	-	46.0	0.27	6.067E+03	-	-	-	-
NTB - 58	158.20	25.450	2.65	0.82	4371.3	2833.9	-	-	77.9	0.26	9.534E+03	-	-	-	-
NTB - 58	164.00	26.750	2.73	0.20	5397.8	3301.6	-	-	171.5	0.22	2.029E+04	-	-	-	-
NTB - 59	61.70	24.988	2.59	0.93	2618.6	1473.4	-	-	26.5	0.29	3.821E+03	-	-	-	-
NTB - 59	62.70	-	-	-	-	-	-	4.09	-	-	-	-	-	-	-
NTB - 59	64.10	-	-	-	-	-	-	-	-	-	-	6.5	42.1	-	-
NTB - 59	68.00	26.201	2.68	0.55	3476.9	1964.8	-	-	61.6	0.27	7.805E+03	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 60	83.10	25.908	2.68	0.20	3931.6	2491.9	-	-	92.0	0.25	1.129E+04	-	-	-	-
NTB - 60	86.70	26.446	2.72	0.53	3407.6	2161.9	-	-	52.9	0.27	6.783E+03	-	-	-	-
NTB - 61	13.20	25.837	2.68	0.27	4565.8	2989.1	-	-	82.2	0.26	1.004E+04	-	-	-	-
NTB - 61	13.70	-	-	-	-	-	-	5.92	-	-	-	-	-	-	-
NTB - 61	14.50	-	-	-	-	-	-	-	-	-	-	8.0	47.7	-	-
NTB - 61	17.20	25.987	2.67	0.15	3316.5	2147.2	-	-	37.1	0.28	4.997E+03	-	-	-	-
NTB - 62	11.80	26.460	2.76	0.63	4714.6	3096.2	-	-	85.5	0.26	1.054E+04	-	-	-	-
NTB - 62	14.70	25.700	2.67	0.20	3053.9	1564.8	-	-	39.8	0.27	5.355E+03	-	-	-	-
NTB - 63	6.00	26.389	2.71	0.31	4925.9	3294.9	-	-	120.5	0.24	1.401E+04	-	-	-	-
NTB - 63	7.60	-	-	-	-	-	-	3.79	-	-	-	-	-	-	-
NTB - 63	10.20	25.522	2.64	1.52	2589.2	1392.6	-	-	25.1	0.29	3.603E+03	-	-	-	-
NTB - 63	15.40	-	-	-	-	-	-	-	-	-	-	6.0	39.1	-	-
NTB - 64	5.00	26.095	2.71	0.81	2417.3	1264.5	-	-	24.4	0.29	3.435E+03	-	-	-	-
NTB - 64	7.90	25.772	2.68	0.27	4215.6	2834.8	-	-	83.9	0.25	1.037E+04	-	-	-	-
NTB - 65	3.10	26.732	2.73	0.22	5538.1	3671.6	-	-	176.1	0.22	2.034E+04	-	-	-	-
NTB - 65	3.80	-	-	-	-	-	-	9.17	-	-	-	-	-	-	-
NTB - 65	6.50	-	-	-	-	-	-	-	-	-	-	14.4	48.3	-	-
NTB - 65	7.90	26.483	2.73	0.29	3875.6	2084.8	-	-	67.4	0.26	8.473E+03	-	-	-	-
NTB - 66	34.70	26.408	2.76	0.76	4094.2	2710.6	-	-	80.0	0.26	9.888E+03	-	-	-	-
NTB - 66	37.20	26.323	2.71	0.20	5162.0	3386.2	-	-	147.2	0.23	1.749E+04	-	-	-	-
NTB - 67	52.70	26.180	2.68	0.42	3613.3	2713.7	-	-	64.5	0.27	8.257E+03	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 67	57.40	-	-	-	-	-	-	-	-	-	-	12.0	47.8	-	-
NTB - 67	60.00	-	-	-	-	-	-	7.34	-	-	-	-	-	-	-
NTB - 67	63.00	26.174	2.68	0.53	3426.5	2600.4	-	-	59.4	0.27	7.708E+03	-	-	-	-
NTB - 68	52.50	25.823	2.68	0.29	4472.2	2895.1	-	-	95.6	0.25	1.174E+04	-	-	-	-
NTB - 68	57.50	25.386	2.65	0.67	4230.2	2704.3	-	-	82.2	0.25	1.035E+04	-	-	-	-
NTB - 69	44.20	26.171	2.69	1.37	2574.1	1408.2	-	-	30.6	0.29	4.228E+03	-	-	-	-
NTB - 69	46.40	-	-	-	-	-	-	10.15	-	-	-	-	-	-	-
NTB - 69	47.20	-	-	-	-	-	-	-	-	-	-	14.8	47.5	-	-
NTB - 69	48.70	26.866	2.75	0.48	5129.7	3294.5	-	-	142.4	0.23	1.651E+04	-	-	-	-
NTB - 72	3.40	25.665	2.65	1.00	4369.2	2764.4	-	-	91.5	0.25	1.168E+04	-	-	-	-
NTB - 72	6.10	25.502	2.65	0.98	4184.9	2589.9	-	-	89.0	0.25	1.137E+04	-	-	-	-
NTB - 72	12.30	-	-	-	-	-	-	-	-	-	-	-	-	27.7	30.0
NTB - 73	2.80	25.394	2.65	1.19	4092.6	2472.4	-	-	83.4	0.24	1.071E+04	-	-	-	-
NTB - 73	3.50	-	-	-	-	-	-	5.43	-	-	-	-	-	-	-
NTB - 73	6.40	-	-	-	-	-	-	-	-	-	-	8.1	45.3	-	-
NTB - 73	7.80	26.392	2.71	0.20	5016.2	3382.7	-	-	128.6	0.24	1.544E+04	-	-	-	-
NTB - 74	39.60	25.511	2.65	1.17	4326.2	2811.6	-	-	90.2	0.25	1.139E+04	-	-	-	-
NTB - 74	40.80	26.654	2.71	0.21	5294.2	3427.9	-	-	145.0	0.23	1.723E+04	-	-	-	-
NTB - 75	11.50	25.447	2.66	1.13	4041.6	2731.2	-	-	76.5	0.25	9.814E+03	-	-	-	-
NTB - 75	12.00	-	-	-	-	-	-	5.70	-	-	-	-	-	-	-
NTB - 75	12.90	-	-	-	-	-	-	-	-	-	-	8.4	44.5	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

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Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave	S-Wave						Cohesion	Friction	Cohesion	Friction
					m/sec	m/sec						Mpa	deg	Kpa	deg
NTB - 75	14.70	25.323	2.65	1.01	3962.8	2529.9	-	-	73.7	0.26	9.516E+03	-	-	-	-
NTB - 76	11.10	25.870	2.68	0.31	4117.2	2603.1	-	-	86.1	0.24	1.065E+04	-	-	-	-
NTB - 76	15.10	26.460	2.72	0.86	4622.7	3018.8	-	-	99.8	0.25	1.225E+04	-	-	-	-
NTB - 77	14.00	-	-	-	-	-	-	5.06	-	-	-	-	-	-	-
NTB - 77	14.20	26.702	2.75	0.40	4965.9	3390.2	-	-	124.5	0.24	1.474E+04	-	-	-	-
NTB - 77	14.50	-	-	-	-	-	-	-	-	-	-	8.2	49.4	-	-
NTB - 77	17.00	26.062	2.68	0.55	3724.2	2160.8	-	-	65.9	0.26	8.359E+03	-	-	-	-
NTB - 78	19.80	26.217	2.67	0.63	3392.6	2581.9	-	-	59.4	0.27	7.575E+03	-	-	-	-
NTB - 78	21.70	26.088	2.68	0.70	4014.8	2705.4	-	-	67.8	0.27	8.886E+03	-	-	-	-
NTB - 79	39.90	-	-	-	-	-	-	-	-	-	-	12.7	46.8	-	-
NTB - 79	41.10	26.812	2.73	0.13	5879.6	3728.4	-	-	202.8	0.21	2.228E+04	-	-	-	-
NTB - 79	41.60	-	-	-	-	-	-	7.57	-	-	-	-	-	-	-
NTB - 79	46.50	26.164	2.69	0.84	3922.5	2694.1	-	-	60.7	0.27	7.609E+03	-	-	-	-
NTB - 80	19.60	26.115	2.68	0.62	4127.3	2815.2	-	-	61.8	0.28	7.596E+03	-	-	-	-
NTB - 80	21.50	26.286	2.70	0.71	4094.2	2762.7	-	-	67.2	0.27	8.727E+03	-	-	-	-
NTB - 81	6.70	26.751	2.75	0.46	5289.2	3209.8	-	-	160.3	0.22	1.891E+04	-	-	-	-
NTB - 81	7.90	-	-	-	-	-	-	-	-	-	-	21.5	46.5	-	-
NTB - 81	9.10	-	-	-	-	-	-	13.91	-	-	-	-	-	-	-
NTB - 81	12.40	26.023	2.68	0.33	3895.2	2581.6	-	-	60.1	0.28	7.638E+03	-	-	-	-
NTB - 82	6.80	20.046	2.28	10.27	1723.2	894.3	-	-	7.7	0.32	1.142E+03	-	-	-	-
NTB - 82	9.20	26.367	2.72	0.26	2143.2	1169.8	-	-	26.4	0.30	3.788E+03	-	-	-	-

Rock Core Test Data

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

Hole No.	Depth m	Unit Weight kN/m ³	Sp./G	Absorption Ratio %	Wave Velocity		Point Load Strength Mpa	Tensile Strength Mpa	Comp. Strength Mpa	Poisson's Ratio	Young's Modulus Mpa	Triaxial comp. Str		Rock Joint Shear	
					P-Wave m/sec	S-Wave m/sec						Cohesion Mpa	Friction Angle deg	Cohesion Kpa	Friction Angle deg
NTB - 85	21.50	-	-	-	-	-	-	-	-	-	-	4.9	39.3	-	-
NTB - 85	23.00	26.650	2.73	0.20	5142.5	3198.7	-	-	151.6	0.22	1.733E+04	-	-	-	-
NTB - 85	23.80	-	-	-	-	-	-	2.87	-	-	-	-	-	-	-
NTB - 85	26.70	26.502	2.73	0.30	3984.6	2705.2	-	-	61.1	0.27	7.752E+03	-	-	-	-
NTB - 86	45.00	26.203	2.68	0.45	4205.9	2864.4	-	-	64.7	0.27	8.297E+03	-	-	-	-
NTB - 86	47.10	26.719	2.75	0.40	5492.9	3526.4	-	-	172.1	0.22	1.986E+04	-	-	-	-
NTB - 88	1.50	-	-	-	-	-	-	4.87	-	-	-	-	-	-	-
NTB - 88	2.60	-	-	-	-	-	-	-	-	-	-	6.7	40.9	-	-
NTB - 88	4.20	22.027	2.47	6.83	1724.6	925.8	-	-	14.0	0.30	2.170E+03	-	-	-	-
NTB - 88	9.00	26.170	2.69	0.85	3792.8	2563.3	-	-	75.1	0.26	9.372E+03	-	-	-	-
							이	하	여	백					

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

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<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NCB - 1	5.20	5.19	9.86	351.26	561.20	556.46	2.67	0.85
NCB - 1	10.50	5.19	9.82	349.12	556.88	551.76	2.68	0.93
NCB - 2	2.00	5.19	9.94	344.95	555.32	543.83	2.64	2.11
NCB - 2	12.00	5.20	9.87	352.73	562.58	556.90	2.68	1.02
NCB - 3	7.20	5.05	9.94	307.22	506.12	491.93	2.54	2.88
NCB - 3	22.60	5.00	9.92	329.28	523.78	520.82	2.69	0.57
NCB - 4	6.30	5.04	9.91	324.86	522.21	514.20	2.65	1.56
NCB - 4	11.50	5.07	9.90	301.62	501.08	479.41	2.51	4.52
NCB - 5	9.30	5.02	9.87	321.56	517.02	514.73	2.65	0.44
NCB - 5	15.50	5.03	9.88	324.70	520.25	512.32	2.66	1.55
NCB - 6	7.70	5.05	9.87	326.48	525.06	520.45	2.64	0.89
NCB - 6	11.80	5.05	9.85	324.54	523.12	514.47	2.63	1.68
NCB - 7	6.90	5.06	9.86	312.70	509.48	496.84	2.59	2.54
NCB - 7	16.80	5.06	9.81	328.60	525.35	521.88	2.67	0.66
NCB - 9	1.80	5.05	9.83	334.08	531.78	528.46	2.69	0.63
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole No.</i>	<i>Depth m</i>	<i>Dia. cm</i>	<i>Height cm</i>	<i>Wet Weight g</i>	<i>Surface dry Weight g</i>	<i>Dry Weight g</i>	<i>Sp./G GS</i>	<i>Absorption Ratio %</i>
NCB - 9	10.20	4.97	9.76	317.44	506.82	503.71	2.68	0.62
NTB - 1	26.30	5.06	9.78	331.74	529.32	522.95	2.68	1.22
NTB - 1	31.20	5.07	9.82	332.52	529.42	526.32	2.69	0.59
NTB - 2	33.00	5.20	9.76	356.42	564.08	559.25	2.72	0.86
NTB - 2	35.00	5.21	9.85	356.98	565.94	564.09	2.71	0.33
NTB - 3	35.50	5.06	9.87	340.88	539.88	536.81	2.71	0.57
NTB - 3	44.00	5.06	9.81	339.70	537.54	534.30	2.72	0.61
NTB - 4	6.20	5.06	9.87	336.12	535.16	529.28	2.69	1.11
NTB - 4	10.70	5.07	9.95	290.10	489.42	470.56	2.46	4.01
NTB - 5	4.80	5.06	9.85	325.68	523.22	517.88	2.65	1.03
NTB - 5	13.30	5.06	9.82	333.02	531.54	523.86	2.68	1.47
NTB - 8	67.10	5.07	9.86	272.00	470.60	443.57	2.37	6.09
NTB - 8	76.50	5.07	9.90	300.46	499.50	484.01	2.51	3.20
NTB - 15	36.50	5.03	9.89	239.38	435.62	405.97	2.22	7.30
NTB - 15	45.20	5.04	9.89	299.32	490.42	477.11	2.57	2.79
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 16	19.20	5.07	9.91	351.52	552.11	549.39	2.75	0.50
NTB - 16	28.00	5.07	9.92	339.92	541.32	533.17	2.69	1.53
NTB - 17	58.50	5.07	9.89	329.60	528.27	521.17	2.66	1.36
NTB - 17	66.50	5.06	9.96	343.98	542.40	540.70	2.73	0.31
NTB - 18	63.80	5.06	9.90	347.08	544.52	540.12	2.76	0.81
NTB - 18	67.20	5.05	9.99	313.82	511.74	506.97	2.59	0.94
NTB - 19	66.30	5.06	9.91	336.64	533.95	528.63	2.71	1.01
NTB - 19	71.00	5.06	9.92	337.56	533.97	527.96	2.72	1.14
NTB - 23	59.40	5.07	9.82	322.38	520.08	513.77	2.63	1.23
NTB - 23	65.60	5.07	9.87	344.76	543.83	542.70	2.73	0.21
NTB - 24	13.60	5.06	9.88	326.46	525.12	517.82	2.64	1.41
NTB - 24	16.40	5.07	9.89	319.78	518.62	508.70	2.61	1.95
NTB - 25	4.70	5.07	9.90	305.92	505.56	495.57	2.53	2.02
NTB - 25	13.90	5.08	9.97	334.92	535.22	534.24	2.67	0.18
NTB - 26	4.00	5.08	9.94	308.18	507.10	501.15	2.55	1.19
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 26	6.60	5.07	9.88	304.14	502.96	494.42	2.53	1.73
NTB - 27	13.60	5.05	9.96	338.89	537.15	535.09	2.71	0.38
NTB - 27	15.60	5.05	9.74	332.14	526.08	524.15	2.71	0.37
NTB - 28	3.60	5.06	9.81	323.21	517.61	512.34	2.66	1.03
NTB - 28	6.30	5.08	9.52	328.94	522.17	520.06	2.70	0.41
NTB - 29	35.10	5.06	10.03	327.15	525.54	521.16	2.65	0.84
NTB - 29	40.30	5.06	9.96	338.46	539.01	531.18	2.69	1.47
NTB - 30	43.20	5.06	9.43	323.14	513.90	506.83	2.69	1.39
NTB - 30	46.70	5.06	9.82	338.49	536.15	533.04	2.71	0.58
NTB - 31	10.30	5.04	9.75	333.02	526.01	524.12	2.73	0.36
NTB - 31	13.00	5.06	9.89	345.26	544.49	543.65	2.73	0.15
NTB - 33	4.50	5.20	9.94	337.48	542.69	533.22	2.64	1.78
NTB - 33	10.30	5.19	9.90	364.23	572.22	568.91	2.75	0.58
NTB - 34	5.40	5.08	9.98	342.59	546.15	539.06	2.68	1.32
NTB - 34	9.60	5.07	10.03	331.69	531.98	526.81	2.66	0.98
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 35	6.40	5.07	9.96	330.94	531.28	527.33	2.65	0.75
NTB - 35	12.70	5.07	9.51	325.09	518.46	511.27	2.68	1.41
NTB - 36	6.00	5.09	9.76	338.41	536.73	535.08	2.71	0.31
NTB - 36	11.50	5.07	9.89	327.31	524.00	518.24	2.66	1.11
NTB - 37	1.80	5.07	9.96	341.06	543.59	535.21	2.68	1.57
NTB - 37	8.50	5.07	9.94	340.94	543.08	536.13	2.69	1.30
NTB - 38	4.60	5.08	9.93	340.02	542.19	535.06	2.68	1.33
NTB - 38	10.50	5.08	10.01	336.71	537.09	535.71	2.68	0.26
NTB - 39	6.00	5.07	9.96	346.20	546.33	544.40	2.73	0.35
NTB - 39	10.50	5.07	9.91	344.18	541.64	539.87	2.74	0.33
NTB - 40	6.10	5.07	9.98	344.41	545.81	543.96	2.71	0.34
NTB - 40	9.50	5.07	9.96	345.26	547.21	545.83	2.71	0.25
NTB - 41	3.00	5.07	9.97	342.16	541.69	539.84	2.71	0.34
NTB - 41	9.00	5.08	9.89	298.46	490.37	476.23	2.56	2.97
NTB - 43	11.30	5.07	9.94	338.94	538.13	536.27	2.70	0.35
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 43	15.80	5.07	9.98	340.93	543.61	536.92	2.68	1.25
NTB - 44	6.50	5.08	9.90	337.91	535.13	533.69	2.71	0.27
NTB - 44	13.20	5.08	9.76	323.28	519.28	514.20	2.65	0.99
NTB - 45	14.10	5.07	10.06	344.94	545.06	544.08	2.72	0.18
NTB - 45	15.10	5.06	9.98	343.91	542.79	541.82	2.73	0.18
NTB - 46	5.00	5.05	9.69	321.28	511.05	509.87	2.69	0.23
NTB - 46	6.20	5.05	9.93	300.06	496.82	485.90	2.53	2.25
NTB - 49	101.50	5.04	9.90	298.42	492.28	481.69	2.54	2.20
NTB - 49	103.40	4.94	9.98	291.48	476.21	468.51	2.58	1.64
NTB - 50	77.60	5.04	9.86	291.60	484.52	472.68	2.51	2.50
NTB - 50	84.20	5.04	9.94	346.29	543.51	541.26	2.76	0.42
NTB - 51	77.30	5.07	9.87	338.72	538.90	531.47	2.69	1.40
NTB - 51	80.30	5.05	9.95	339.07	539.86	533.01	2.69	1.29
NTB - 52	39.80	5.04	9.94	345.51	545.01	542.58	2.73	0.45
NTB - 52	46.70	5.04	9.99	338.82	540.11	534.26	2.68	1.09
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 53	39.00	5.04	9.79	334.93	528.95	526.87	2.73	0.39
NTB - 53	44.50	5.05	9.86	326.84	522.39	516.23	2.67	1.19
NTB - 54	72.20	5.05	9.81	318.98	514.30	508.59	2.63	1.12
NTB - 54	75.70	5.06	9.97	331.21	528.96	527.90	2.67	0.20
NTB - 55	44.40	5.05	9.99	344.82	544.49	543.68	2.73	0.15
NTB - 55	51.60	5.05	10.05	348.89	547.06	543.23	2.76	0.71
NTB - 56	58.10	5.03	9.86	319.99	515.58	508.24	2.64	1.44
NTB - 56	63.20	5.05	9.94	344.92	540.81	539.17	2.76	0.30
NTB - 57	153.60	5.06	9.99	338.14	539.47	536.21	2.68	0.61
NTB - 57	159.60	5.05	9.89	321.96	520.62	517.08	2.62	0.68
NTB - 58	158.20	5.06	9.96	326.41	524.05	519.78	2.65	0.82
NTB - 58	164.00	5.06	9.97	347.31	547.99	546.88	2.73	0.20
NTB - 59	61.70	5.04	9.90	311.48	507.94	503.26	2.59	0.93
NTB - 59	68.00	5.03	9.84	328.96	525.27	522.41	2.68	0.55
NTB - 60	83.10	5.01	9.89	323.18	516.12	515.08	2.68	0.20
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 60	86.70	5.01	9.94	335.63	531.21	528.43	2.72	0.53
NTB - 61	13.20	4.99	9.98	323.50	515.59	514.22	2.68	0.27
NTB - 61	17.20	5.00	9.94	324.04	517.97	517.19	2.67	0.15
NTB - 62	11.80	5.20	9.99	367.41	576.05	572.43	2.76	0.63
NTB - 62	14.70	5.20	9.95	347.33	554.90	553.77	2.67	0.20
NTB - 63	6.00	5.02	9.84	331.75	525.73	524.08	2.71	0.31
NTB - 63	10.20	5.03	9.89	322.84	519.25	511.47	2.64	1.52
NTB - 64	5.00	5.03	9.98	335.97	531.99	527.71	2.71	0.81
NTB - 64	7.90	5.06	9.92	329.40	525.62	524.23	2.68	0.27
NTB - 65	3.10	5.06	9.94	345.68	546.04	544.86	2.73	0.22
NTB - 65	7.90	5.06	9.96	343.80	542.43	540.87	2.73	0.29
NTB - 66	34.70	5.06	10.05	349.93	548.33	544.21	2.76	0.76
NTB - 66	37.20	5.05	10.03	340.88	540.33	539.25	2.71	0.20
NTB - 67	52.70	5.07	9.98	338.51	540.15	537.87	2.68	0.42
NTB - 67	63.00	5.09	9.72	333.02	530.66	527.88	2.68	0.53
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 68	52.50	5.07	9.64	322.10	513.95	512.46	2.68	0.29
NTB - 68	57.50	5.07	9.89	323.84	520.35	516.87	2.65	0.67
NTB - 69	43.20	5.07	9.96	341.68	543.94	536.61	2.69	1.37
NTB - 69	48.70	5.07	9.64	340.79	535.73	533.16	2.75	0.48
NTB - 72	3.40	5.07	9.92	329.49	529.34	524.12	2.65	1.00
NTB - 72	6.10	5.07	9.98	329.64	529.08	523.94	2.65	0.98
NTB - 73	2.80	5.07	9.95	327.83	526.35	520.15	2.65	1.19
NTB - 73	7.80	5.06	9.88	338.06	535.76	534.69	2.71	0.20
NTB - 74	39.60	4.96	9.97	315.42	506.98	501.13	2.65	1.17
NTB - 74	40.80	5.00	9.99	336.93	534.27	533.14	2.71	0.21
NTB - 75	11.50	5.03	10.03	326.28	523.01	517.18	2.66	1.13
NTB - 75	14.70	5.07	9.96	326.48	524.49	519.22	2.65	1.01
NTB - 76	11.10	5.03	9.81	323.60	515.84	514.25	2.68	0.31
NTB - 76	15.10	5.06	9.79	338.59	535.73	531.17	2.72	0.86
NTB - 77	14.20	5.05	9.94	346.00	544.26	542.10	2.75	0.40
Test Method :		ASTM C 97			Operator :		Approved :	

Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

NES-14-179

<i>Borehole</i> <i>No.</i>	<i>Depth</i> <i>m</i>	<i>Dia.</i> <i>cm</i>	<i>Height</i> <i>cm</i>	<i>Wet</i> <i>Weight</i> <i>g</i>	<i>Surface dry</i> <i>Weight</i> <i>g</i>	<i>Dry</i> <i>Weight</i> <i>g</i>	<i>Sp./G</i> <i>GS</i>	<i>Absorption</i> <i>Ratio</i> <i>%</i>
NTB - 77	17.00	5.03	9.69	322.26	514.54	511.72	2.68	0.55
NTB - 78	19.80	5.08	9.78	333.55	533.28	529.92	2.67	0.63
NTB - 78	21.70	5.03	9.94	331.42	529.15	525.45	2.68	0.70
NTB - 79	41.10	5.01	9.96	340.95	537.54	536.82	2.73	0.13
NTB - 79	46.50	5.01	9.94	331.48	527.16	522.79	2.69	0.84
NTB - 80	19.60	5.07	9.92	336.64	536.59	533.31	2.68	0.62
NTB - 80	21.50	5.08	9.98	343.71	546.03	542.19	2.70	0.71
NTB - 81	6.70	5.05	9.97	348.29	547.25	544.73	2.75	0.46
NTB - 81	12.40	5.04	9.86	328.44	523.73	522.00	2.68	0.33
NTB - 82	6.80	5.04	9.85	248.78	442.94	401.70	2.28	10.27
NTB - 82	9.20	5.05	9.96	339.92	537.80	536.38	2.72	0.26
NTB - 85	23.00	5.09	9.89	347.14	547.99	546.88	2.73	0.20
NTB - 85	26.70	5.07	9.92	344.29	542.83	541.22	2.73	0.30
NTB - 86	45.00	5.07	9.95	338.12	539.16	536.74	2.68	0.45
NTB - 86	47.10	5.08	9.94	350.99	551.11	548.90	2.75	0.40
Test Method :		ASTM C 97			Operator :		Approved :	

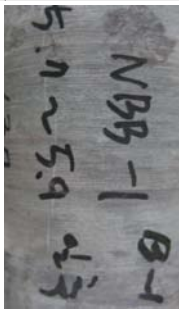
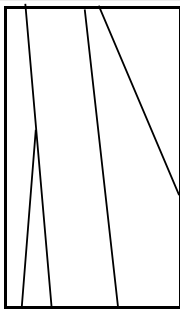
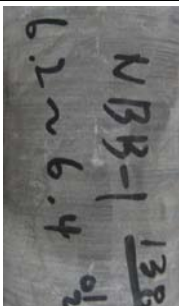
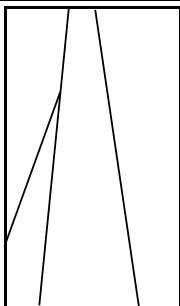
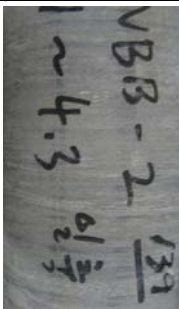
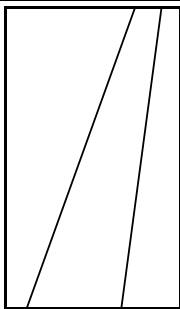
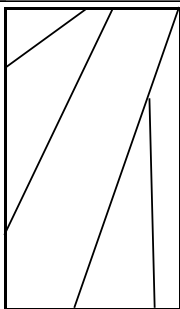
Specific Gravity / Absorptance

PROJECT : 중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)

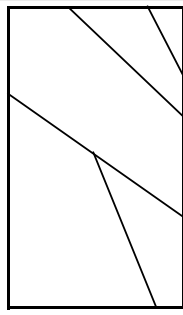
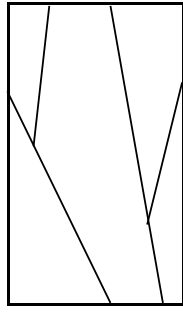
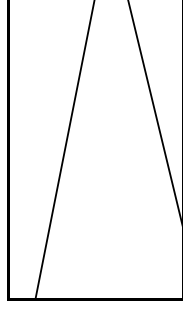
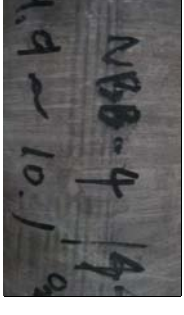
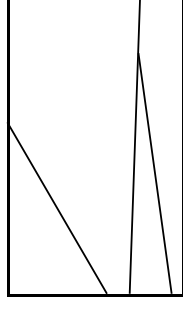
NES-14-179

<i>Borehole No.</i>	<i>Depth m</i>	<i>Dia. cm</i>	<i>Height cm</i>	<i>Wet Weight g</i>	<i>Surface dry Weight g</i>	<i>Dry Weight g</i>	<i>Sp./G GS</i>	<i>Absorption Ratio %</i>
NTB - 88	4.20	5.09	9.95	288.96	485.83	454.76	2.47	6.83
NTB - 88	9.00	5	9.98	359.81	572.59	567.78	2.69	0.85
		이	하	여	백			
Test Method :		ASTM C 97			Operator :		Approved :	

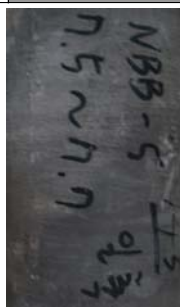
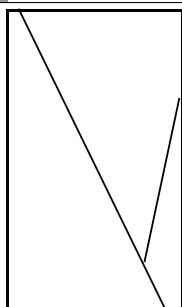
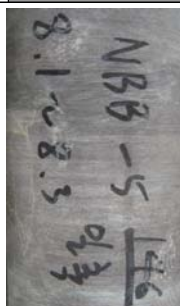
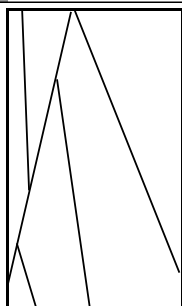
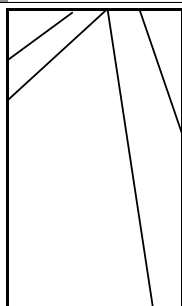
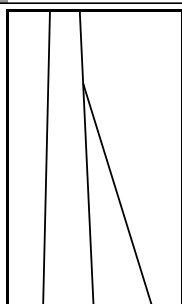
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 1	■ Depth	5.70 m
Specimen Diameter (cm)		5.19		
Specimen Height (cm)		10.00		
Specimen Weight (g)		570.92		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		93.0		
Comp. Strength (MPa)		44.0		
■ Borehole No.		NBB - 1	■ Depth	6.20 m
Specimen Diameter (cm)		5.19		
Specimen Height (cm)		9.98		
Specimen Weight (g)		571.53		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		107.0		
Comp. Strength (MPa)		50.6		
■ Borehole No.		NBB - 2	■ Depth	4.10 m
Specimen Diameter (cm)		5.21		
Specimen Height (cm)		10.00		
Specimen Weight (g)		572.72		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		76.3		
Comp. Strength (MPa)		35.8		
■ Borehole No.		NBB - 2	■ Depth	4.80 m
Specimen Diameter (cm)		5.16		
Specimen Height (cm)		9.98		
Specimen Weight (g)		571.14		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		102.0		
Comp. Strength (MPa)		48.8		
■ Remark				

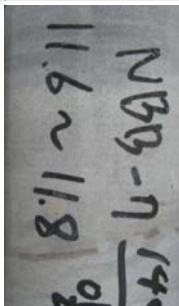
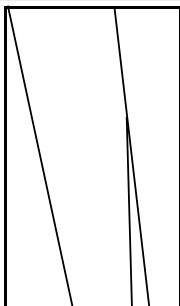
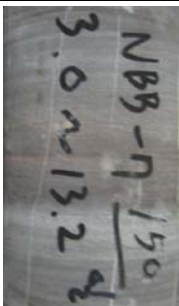
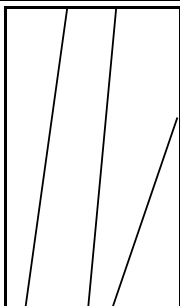
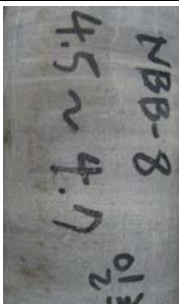
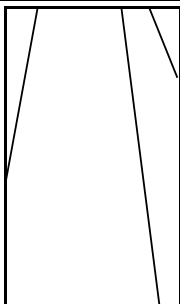
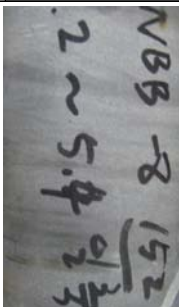
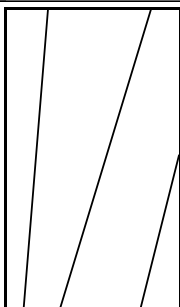
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 3	■ Depth	15.30 m
<i>Specimen Diameter (cm)</i>	5.06	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	9.98		
<i>Specimen Weight (g)</i>	515.24		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	23.0		
<i>Comp. Strength (MPa)</i>	11.4		
■ Borehole No.	NBB - 3	■ Depth	16.50 m
<i>Specimen Diameter (cm)</i>	5.06	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	500.31		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	21.5		
<i>Comp. Strength (MPa)</i>	10.7		
■ Borehole No.	NBB - 4	■ Depth	9.00 m
<i>Specimen Diameter (cm)</i>	5.05	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	541.49		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	69.2		
<i>Comp. Strength (MPa)</i>	34.5		
■ Borehole No.	NBB - 4	■ Depth	9.90 m
<i>Specimen Diameter (cm)</i>	5.06	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.30		
<i>Specimen Weight (g)</i>	556.54		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	66.8		
<i>Comp. Strength (MPa)</i>	33.2		
■ Remark			

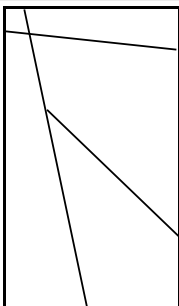
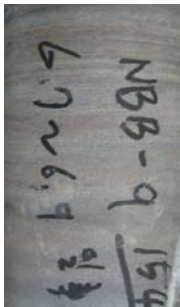
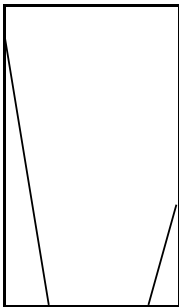
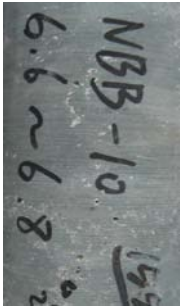
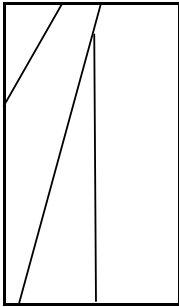
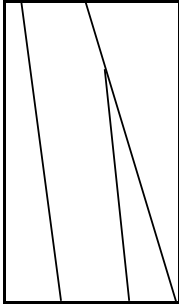
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 5	■ Depth	7.50 m
Specimen Diameter (cm)		5.05		
Specimen Height (cm)		10.30		
Specimen Weight (g)		562.26		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		97.3		
Comp. Strength (MPa)		48.6		
■ Borehole No.		NBB - 5	■ Depth	8.10 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		10.20		
Specimen Weight (g)		562.26		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		97.3		
Comp. Strength (MPa)		48.4		
■ Borehole No.		NBB - 6	■ Depth	8.70 m
Specimen Diameter (cm)		5.21		
Specimen Height (cm)		10.20		
Specimen Weight (g)		582.14		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		84.6		
Comp. Strength (MPa)		39.7		
■ Borehole No.		NBB - 6	■ Depth	9.30 m
Specimen Diameter (cm)		5.20		
Specimen Height (cm)		9.97		
Specimen Weight (g)		570.51		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		88.2		
Comp. Strength (MPa)		41.5		
■ Remark				

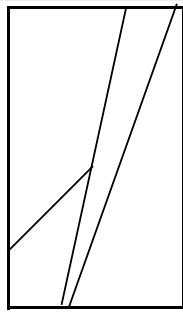
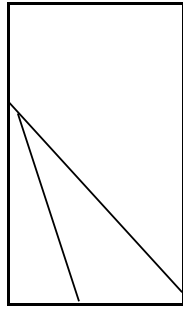
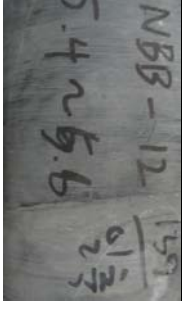
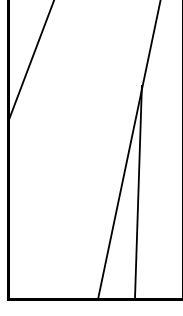
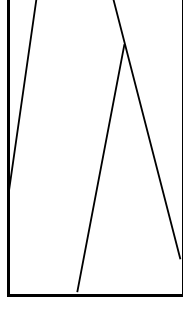
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 7	■ Depth	11.60 m
Specimen Diameter (cm)		5.07		
Specimen Height (cm)		9.93		
Specimen Weight (g)		541.12		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		224.2		
Comp. Strength (MPa)		111.1		
■ Borehole No.		NBB - 7	■ Depth	13.00 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		10.30		
Specimen Weight (g)		554.60		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		65.9		
Comp. Strength (MPa)		32.8		
■ Borehole No.		NBB - 8	■ Depth	4.50 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		9.99		
Specimen Weight (g)		523.12		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		57.3		
Comp. Strength (MPa)		28.5		
■ Borehole No.		NBB - 8	■ Depth	5.20 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		8.84		
Specimen Weight (g)		462.24		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		69.8		
Comp. Strength (MPa)		34.7		
■ Remark				

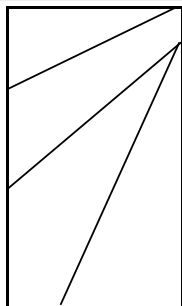
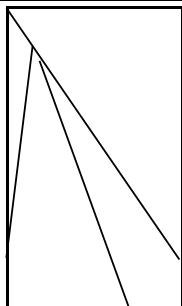
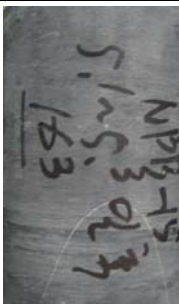
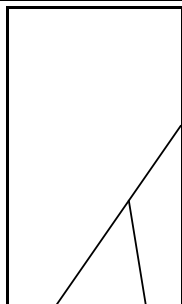
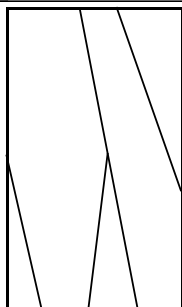
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 9	■ Depth	5.80 m
<i>Specimen Diameter (cm)</i>	5.06	 Before Test	 After Test
<i>Specimen Height (cm)</i>	10.10		
<i>Specimen Weight (g)</i>	487.63		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	97.9		
<i>Comp. Strength (MPa)</i>	48.7		
■ Borehole No. NBB - 9			
<i>Specimen Diameter (cm)</i>	5.06	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.97		
<i>Specimen Weight (g)</i>	539.28		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	116.7		
<i>Comp. Strength (MPa)</i>	58.0		
■ Borehole No. NBB - 10			
<i>Specimen Diameter (cm)</i>	5.06	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.91		
<i>Specimen Weight (g)</i>	523.51		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	45.6		
<i>Comp. Strength (MPa)</i>	22.7		
■ Borehole No. NBB - 10			
<i>Specimen Diameter (cm)</i>	5.05	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.93		
<i>Specimen Weight (g)</i>	525.38		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	56.5		
<i>Comp. Strength (MPa)</i>	28.2		
■ Remark			

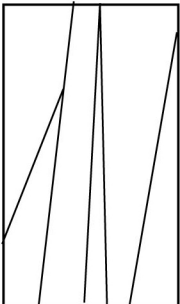
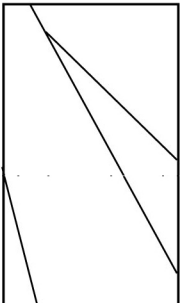
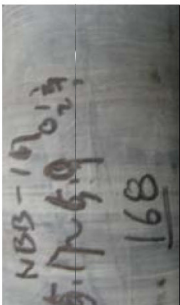
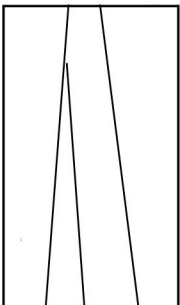
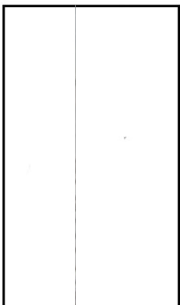
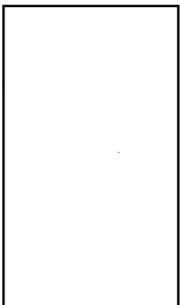
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 11	■ Depth	6.40 m
<i>Specimen Diameter (cm)</i>	5.17	 Before Test After Test	
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	567.72		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	56.5		
<i>Comp. Strength (MPa)</i>	26.9		
■ Borehole No.	NBB - 11		
<i>Specimen Diameter (cm)</i>	5.18	 Before Test After Test	
<i>Specimen Height (cm)</i>	9.66		
<i>Specimen Weight (g)</i>	526.01		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	74.3		
<i>Comp. Strength (MPa)</i>	35.3		
■ Borehole No.	NBB - 12		
<i>Specimen Diameter (cm)</i>	5.15	 Before Test After Test	
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	570.28		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	86.0		
<i>Comp. Strength (MPa)</i>	41.3		
■ Borehole No.	NBB - 12		
<i>Specimen Diameter (cm)</i>	5.17	 Before Test After Test	
<i>Specimen Height (cm)</i>	9.89		
<i>Specimen Weight (g)</i>	562.60		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	155.8		
<i>Comp. Strength (MPa)</i>	74.2		
■ Remark			

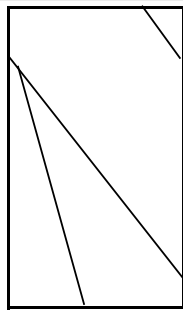
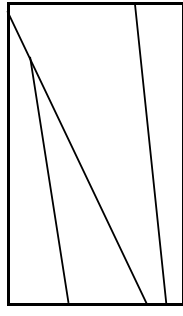
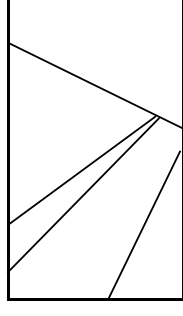
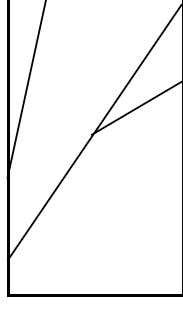
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 14	■ Depth	5.00 m
Specimen Diameter (cm)		5.17		
Specimen Height (cm)		9.97		
Specimen Weight (g)		580.44		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		82.3		
Comp. Strength (MPa)		39.2		
■ Borehole No.		NBB - 14	■ Depth	6.80 m
Specimen Diameter (cm)		5.21		
Specimen Height (cm)		9.44		
Specimen Weight (g)		509.59		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		76.7		
Comp. Strength (MPa)		36.0		
■ Borehole No.		NBB - 15	■ Depth	5.10 m
Specimen Diameter (cm)		5.03		
Specimen Height (cm)		9.93		
Specimen Weight (g)		513.62		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		42.1		
Comp. Strength (MPa)		21.2		
■ Borehole No.		NBB - 15	■ Depth	6.50 m
Specimen Diameter (cm)		5.20		
Specimen Height (cm)		9.93		
Specimen Weight (g)		581.54		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		47.0		
Comp. Strength (MPa)		22.1		
■ Remark				

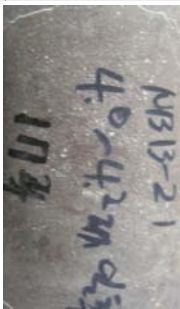
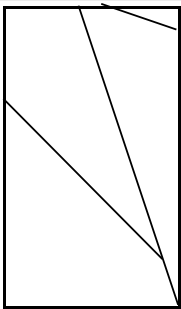
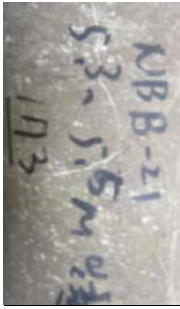
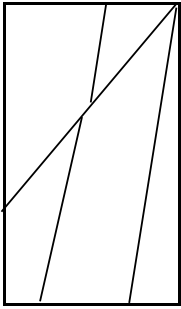
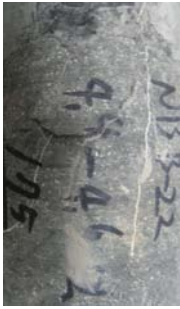
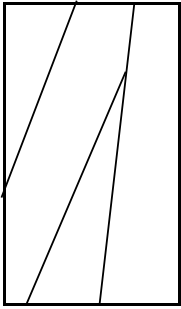
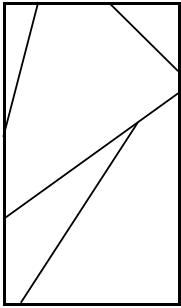
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 16	■ Depth	5.00 m
<i>Specimen Diameter (cm)</i>	5.21	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.10		
<i>Specimen Weight (g)</i>	571.10		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	39.7		
<i>Comp. Strength (MPa)</i>	18.6		
■ Borehole No.	NBB - 17	■ Depth	5.30 m
<i>Specimen Diameter (cm)</i>	5.21	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.10		
<i>Specimen Weight (g)</i>	558.48		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	41.9		
<i>Comp. Strength (MPa)</i>	19.7		
■ Borehole No.	NBB - 17	■ Depth	5.70 m
<i>Specimen Diameter (cm)</i>	5.22	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	594.54		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	94.6		
<i>Comp. Strength (MPa)</i>	44.2		
■ Borehole No.		■ Depth	m
<i>Specimen Diameter (cm)</i>		 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>			
<i>Specimen Weight (g)</i>			
<i>Unit Weight (kN/m³)</i>			
<i>Failure Load (kN)</i>			
<i>Comp. Strength (MPa)</i>			
■ Remark			

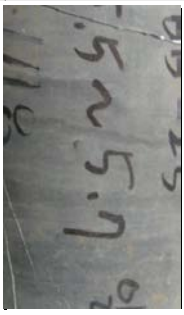
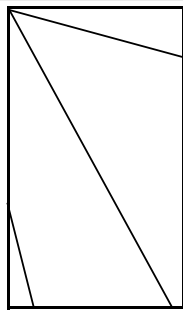
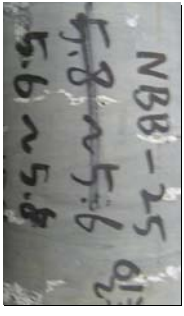
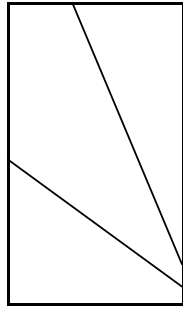
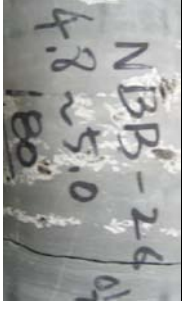
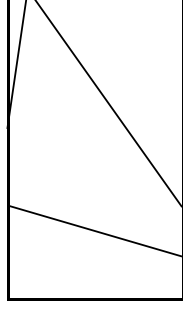
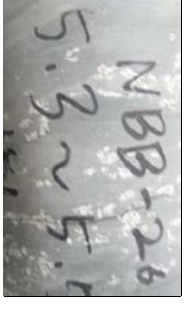
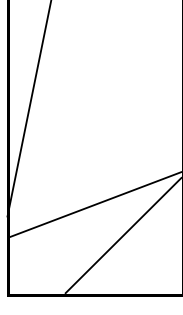
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 19	■ Depth	4.30 m
Specimen Diameter (cm)	5.08	 Before Test	 After Test
Specimen Height (cm)	10.00		
Specimen Weight (g)	522.26		
Unit Weight (kN/m ³)	—		
Failure Load (kN)	26.8		
Comp. Strength (MPa)	13.2		
■ Borehole No. NBB - 19			
Specimen Diameter (cm)	5.07	 Before Test	 After Test
Specimen Height (cm)	9.90		
Specimen Weight (g)	527.46		
Unit Weight (kN/m ³)	—		
Failure Load (kN)	99.6		
Comp. Strength (MPa)	49.3		
■ Borehole No. NBB - 20			
Specimen Diameter (cm)	5.06	 Before Test	 After Test
Specimen Height (cm)	9.96		
Specimen Weight (g)	526.68		
Unit Weight (kN/m ³)	—		
Failure Load (kN)	63.2		
Comp. Strength (MPa)	31.4		
■ Borehole No. NBB - 20			
Specimen Diameter (cm)	5.07	 Before Test	 After Test
Specimen Height (cm)	9.95		
Specimen Weight (g)	531.24		
Unit Weight (kN/m ³)	—		
Failure Load (kN)	85.9		
Comp. Strength (MPa)	42.5		
■ Remark			

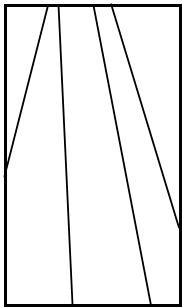
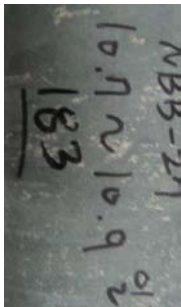
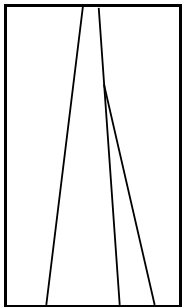
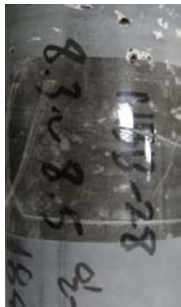
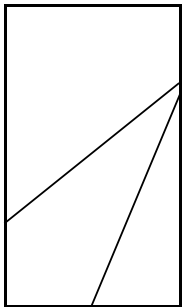
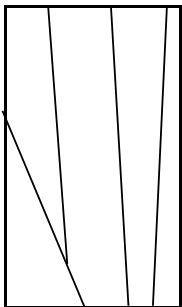
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 21	■ Depth	4.00 m
Specimen Diameter (cm)	5.07	 Before Test	 After Test
Specimen Height (cm)	10.00		
Specimen Weight (g)	528.86		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	37.2		
Comp. Strength (MPa)	18.4		
■ Borehole No. NBB - 21			
Specimen Diameter (cm)	5.07	 Before Test	 After Test
Specimen Height (cm)	9.14		
Specimen Weight (g)	481.21		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	28.8		
Comp. Strength (MPa)	14.3		
■ Borehole No. NBB - 22			
Specimen Diameter (cm)	5.03	 Before Test	 After Test
Specimen Height (cm)	9.87		
Specimen Weight (g)	516.80		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	45.3		
Comp. Strength (MPa)	22.8		
■ Borehole No. NBB - 24			
Specimen Diameter (cm)	5.08	 Before Test	 After Test
Specimen Height (cm)	10.00		
Specimen Weight (g)	497.08		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	23.3		
Comp. Strength (MPa)	11.5		
■ Remark			

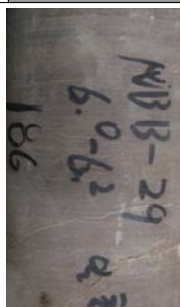
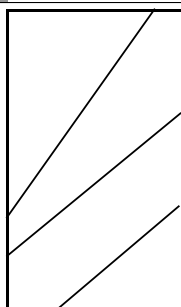
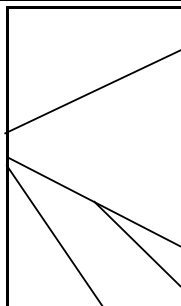
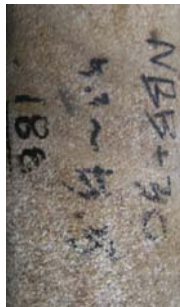
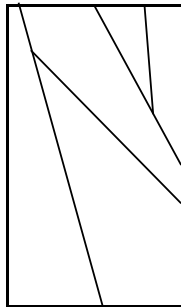
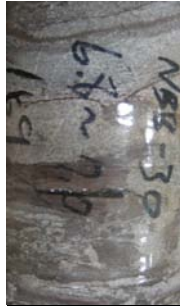
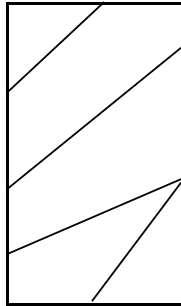
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 25	■ Depth	5.50 m
<i>Specimen Diameter (cm)</i>	5.07	 Before Test	 After Test
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	532.70		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	47.6		
<i>Comp. Strength (MPa)</i>	23.6		
■ Borehole No.	NBB - 25	■ Depth	5.60 m
<i>Specimen Diameter (cm)</i>	5.07	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.89		
<i>Specimen Weight (g)</i>	535.87		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	81.9		
<i>Comp. Strength (MPa)</i>	40.6		
■ Borehole No.	NBB - 26	■ Depth	4.80 m
<i>Specimen Diameter (cm)</i>	5.05	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.67		
<i>Specimen Weight (g)</i>	499.77		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	73.0		
<i>Comp. Strength (MPa)</i>	36.4		
■ Borehole No.	NBB - 26	■ Depth	5.30 m
<i>Specimen Diameter (cm)</i>	5.06	 Before Test	 After Test
<i>Specimen Height (cm)</i>	7.66		
<i>Specimen Weight (g)</i>	401.88		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	59.2		
<i>Comp. Strength (MPa)</i>	29.4		
■ Remark			

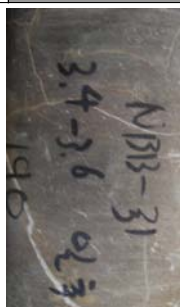
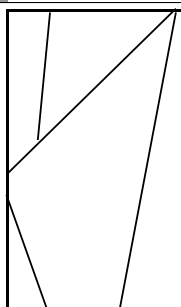
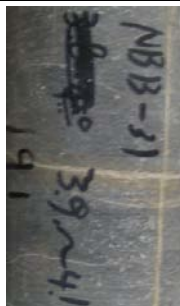
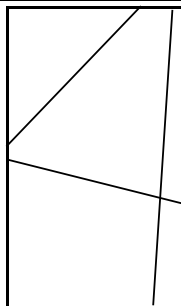
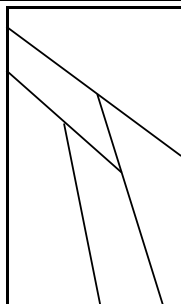
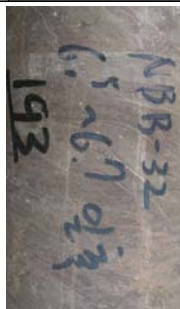
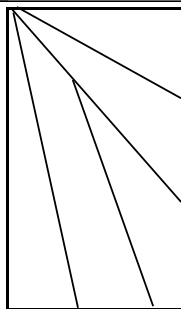
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 27	■ Depth	9.10 m
<i>Specimen Diameter (cm)</i>	5.08	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	9.47		
<i>Specimen Weight (g)</i>	510.18		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	50.3		
<i>Comp. Strength (MPa)</i>	24.8		
■ Borehole No.	NBB - 27	■ Depth	10.70 m
<i>Specimen Diameter (cm)</i>	5.07	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	9.92		
<i>Specimen Weight (g)</i>	530.41		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	174.6		
<i>Comp. Strength (MPa)</i>	86.5		
■ Borehole No.	NBB - 28	■ Depth	8.30 m
<i>Specimen Diameter (cm)</i>	5.06	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	9.84		
<i>Specimen Weight (g)</i>	543.69		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	72.9		
<i>Comp. Strength (MPa)</i>	36.3		
■ Borehole No.	NBB - 28	■ Depth	9.50 m
<i>Specimen Diameter (cm)</i>	5.06	 <i>Before Test</i>	 <i>After Test</i>
<i>Specimen Height (cm)</i>	10.00		
<i>Specimen Weight (g)</i>	538.12		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	84.2		
<i>Comp. Strength (MPa)</i>	41.9		
■ Remark			

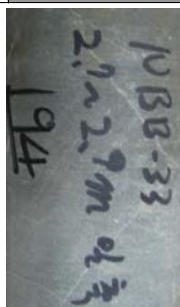
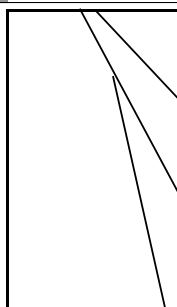
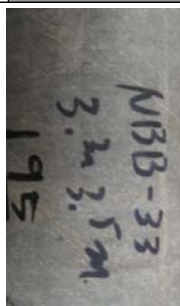
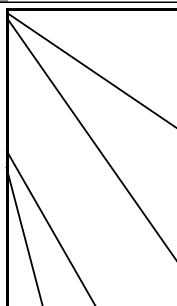
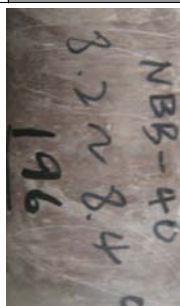
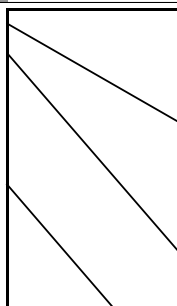
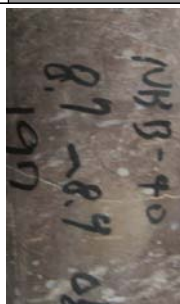
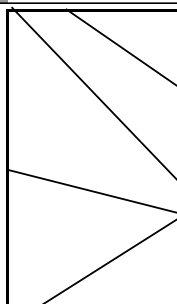
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 29	■ Depth	6.00 m
Specimen Diameter (cm)		5.02		
Specimen Height (cm)		9.82		
Specimen Weight (g)		527.92		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		96.6		
Comp. Strength (MPa)		48.8		
■ Borehole No.		NBB - 29	■ Depth	7.00 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		9.90		
Specimen Weight (g)		530.38		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		57.2		
Comp. Strength (MPa)		28.4		
■ Borehole No.		NBB - 30	■ Depth	5.50 m
Specimen Diameter (cm)		5.04		
Specimen Height (cm)		9.81		
Specimen Weight (g)		456.04		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		38.5		
Comp. Strength (MPa)		19.3		
■ Borehole No.		NBB - 30	■ Depth	6.80 m
Specimen Diameter (cm)		5.04		
Specimen Height (cm)		9.91		
Specimen Weight (g)		514.78		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		42.7		
Comp. Strength (MPa)		21.4		
■ Remark				

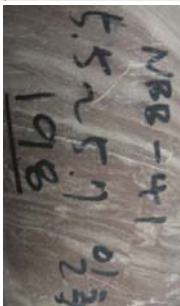
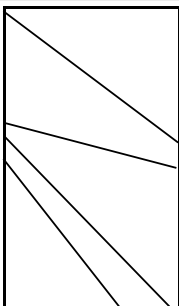
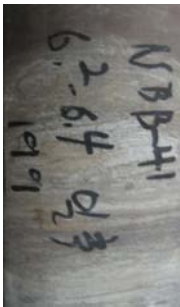
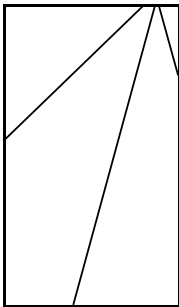
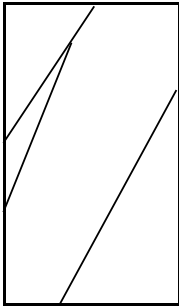
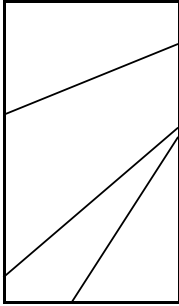
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 31	■ Depth	3.40 m
Specimen Diameter (cm)		5.04		
Specimen Height (cm)		9.99		
Specimen Weight (g)		512.22		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		49.6		
Comp. Strength (MPa)		24.9		
■ Borehole No.		NBB - 31	■ Depth	3.90 m
Specimen Diameter (cm)		5.01		
Specimen Height (cm)		9.93		
Specimen Weight (g)		490.80		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		33.7		
Comp. Strength (MPa)		17.1		
■ Borehole No.		NBB - 32	■ Depth	5.30 m
Specimen Diameter (cm)		5.02		
Specimen Height (cm)		9.95		
Specimen Weight (g)		498.86		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		30.4		
Comp. Strength (MPa)		15.4		
■ Borehole No.		NBB - 32	■ Depth	6.50 m
Specimen Diameter (cm)		5.02		
Specimen Height (cm)		9.85		
Specimen Weight (g)		493.36		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		24.9		
Comp. Strength (MPa)		12.6		
■ Remark				

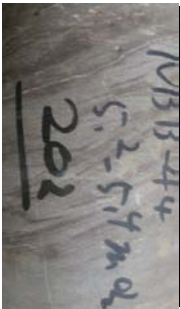
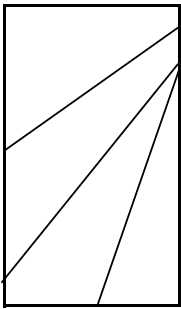
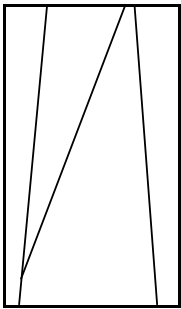
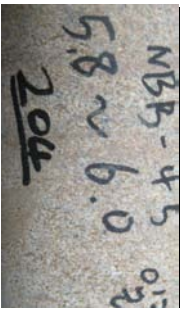
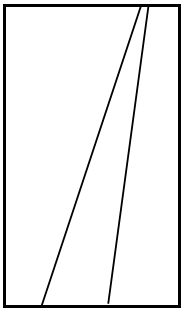
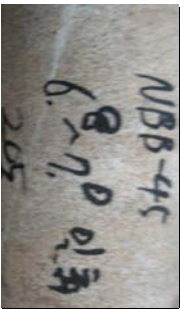
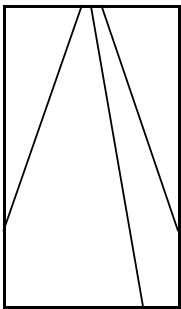
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 33	■ Depth	2.70 m
Specimen Diameter (cm)		5.03		
Specimen Height (cm)		10.00		
Specimen Weight (g)		535.82		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		96.9		
Comp. Strength (MPa)		48.8		
■ Borehole No.		NBB - 33	■ Depth	3.30 m
Specimen Diameter (cm)		5.03		
Specimen Height (cm)		9.93		
Specimen Weight (g)		518.33		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		106.8		
Comp. Strength (MPa)		53.7		
■ Borehole No.		NBB - 40	■ Depth	8.20 m
Specimen Diameter (cm)		5.05		
Specimen Height (cm)		9.96		
Specimen Weight (g)		511.73		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		29.7		
Comp. Strength (MPa)		14.8		
■ Borehole No.		NBB - 40	■ Depth	8.70 m
Specimen Diameter (cm)		5.04		
Specimen Height (cm)		9.91		
Specimen Weight (g)		506.67		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		64.3		
Comp. Strength (MPa)		32.2		
■ Remark				

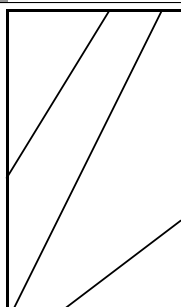
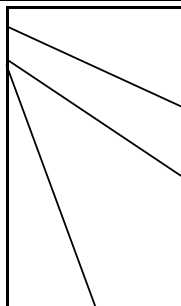
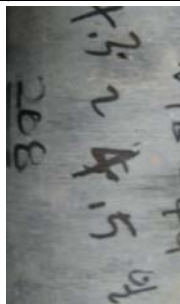
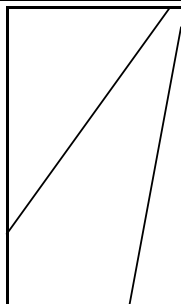
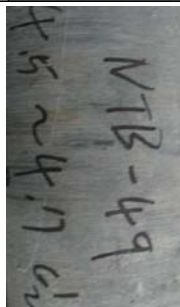
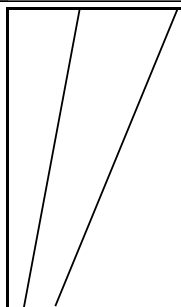
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 41	■ Depth	5.50 m
<i>Specimen Diameter (cm)</i>	5.05	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.94		
<i>Specimen Weight (g)</i>	516.20		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	52.6		
<i>Comp. Strength (MPa)</i>	26.3		
■ Borehole No.	NBB - 41	■ Depth	6.20 m
<i>Specimen Diameter (cm)</i>	5.04	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.84		
<i>Specimen Weight (g)</i>	515.04		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	47.3		
<i>Comp. Strength (MPa)</i>	23.7		
■ Borehole No.	NBB - 42	■ Depth	7.70 m
<i>Specimen Diameter (cm)</i>	5.06	 Before Test	 After Test
<i>Specimen Height (cm)</i>	8.86		
<i>Specimen Weight (g)</i>	465.78		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	33.0		
<i>Comp. Strength (MPa)</i>	16.4		
■ Borehole No.	NBB - 42	■ Depth	8.40 m
<i>Specimen Diameter (cm)</i>	5.05	 Before Test	 After Test
<i>Specimen Height (cm)</i>	9.94		
<i>Specimen Weight (g)</i>	524.58		
<i>Unit Weight (kN/m³)</i>	-		
<i>Failure Load (kN)</i>	52.7		
<i>Comp. Strength (MPa)</i>	26.3		
■ Remark			

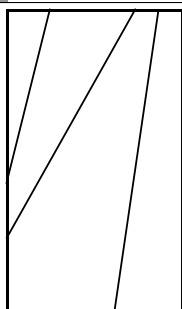
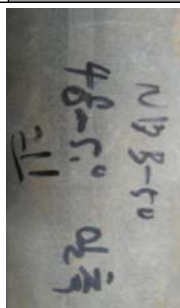
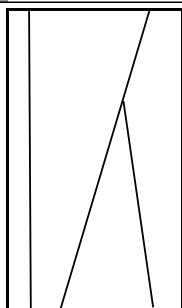
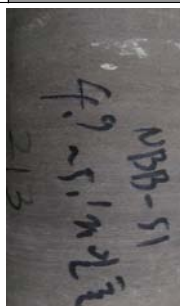
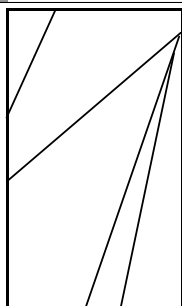
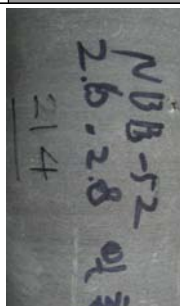
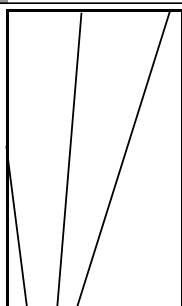
Unconfined Compression Test For Rock Core

Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
Test Method	ASTM D 7012	Date	2014. 8.
Borehole No.	NBB - 44	Depth	5.20 m
Specimen Diameter (cm)	5.05	 Before Test	 After Test
Specimen Height (cm)	9.99		
Specimen Weight (g)	519.48		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	40.3		
Comp. Strength (MPa)	20.1		
Borehole No.	NBB - 44	Depth	5.80 m
Specimen Diameter (cm)	5.06	 Before Test	 After Test
Specimen Height (cm)	9.83		
Specimen Weight (g)	498.88		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	25.1		
Comp. Strength (MPa)	12.5		
Borehole No.	NBB - 45	Depth	5.80 m
Specimen Diameter (cm)	5.05	 Before Test	 After Test
Specimen Height (cm)	9.94		
Specimen Weight (g)	509.75		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	42.2		
Comp. Strength (MPa)	21.1		
Borehole No.	NBB - 45	Depth	6.80 m
Specimen Diameter (cm)	5.06	 Before Test	 After Test
Specimen Height (cm)	9.94		
Specimen Weight (g)	503.75		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	27.6		
Comp. Strength (MPa)	13.7		
Remark			

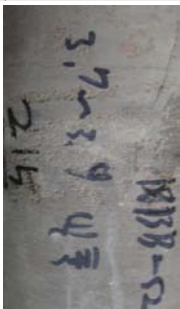
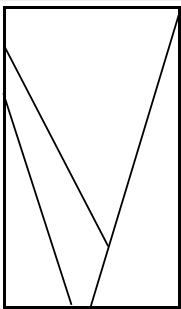
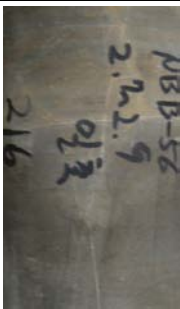
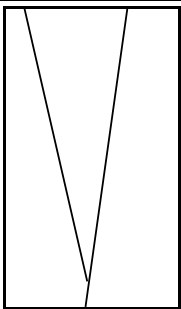
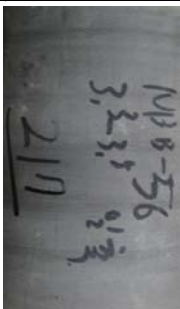
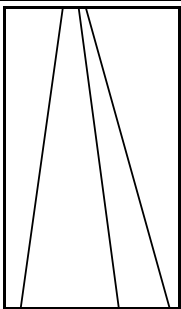
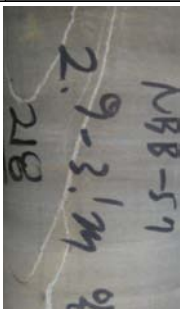
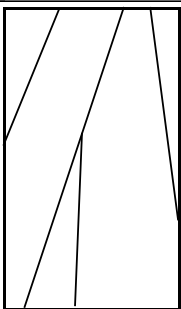
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 48	■ Depth	4.00 m
Specimen Diameter (cm)		5.14		
Specimen Height (cm)		9.90		
Specimen Weight (g)		544.73		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		62.7		
Comp. Strength (MPa)		30.2		
■ Borehole No.		NBB - 48	■ Depth	4.20 m
Specimen Diameter (cm)		5.20		
Specimen Height (cm)		10.00		
Specimen Weight (g)		569.78		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		62.9		
Comp. Strength (MPa)		29.6		
■ Borehole No.		NBB - 49	■ Depth	4.30 m
Specimen Diameter (cm)		5.08		
Specimen Height (cm)		9.92		
Specimen Weight (g)		534.96		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		114.2		
Comp. Strength (MPa)		56.3		
■ Borehole No.		NBB - 49	■ Depth	4.50 m
Specimen Diameter (cm)		5.21		
Specimen Height (cm)		9.99		
Specimen Weight (g)		590.24		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		130.9		
Comp. Strength (MPa)		61.4		
■ Remark				

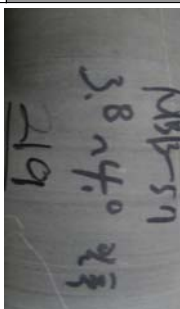
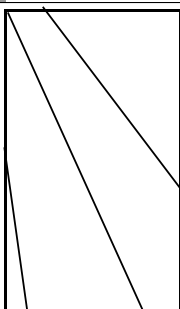
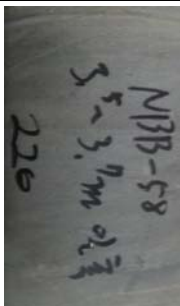
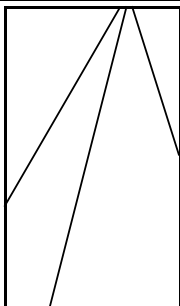
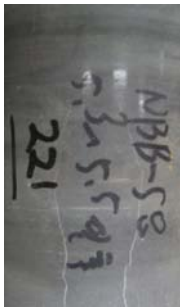
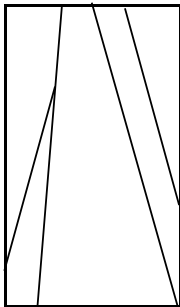
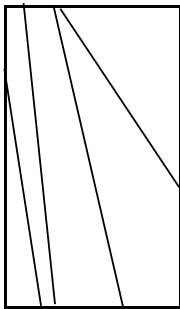
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 50	■ Depth	2.50 m
Specimen Diameter (cm)		5.13		
Specimen Height (cm)		10.00		
Specimen Weight (g)		570.11		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		72.7		
Comp. Strength (MPa)		35.2		
■ Borehole No.		NBB - 50	■ Depth	4.80 m
Specimen Diameter (cm)		5.01		
Specimen Height (cm)		10.10		
Specimen Weight (g)		516.49		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		104.7		
Comp. Strength (MPa)		53.1		
■ Borehole No.		NBB - 51	■ Depth	4.90 m
Specimen Diameter (cm)		5.07		
Specimen Height (cm)		9.98		
Specimen Weight (g)		538.62		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		80.5		
Comp. Strength (MPa)		39.9		
■ Borehole No.		NBB - 52	■ Depth	2.60 m
Specimen Diameter (cm)		5.04		
Specimen Height (cm)		9.70		
Specimen Weight (g)		500.14		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		94.5		
Comp. Strength (MPa)		47.4		
■ Remark				

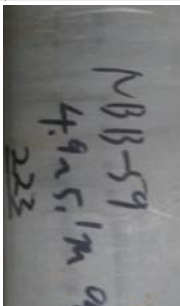
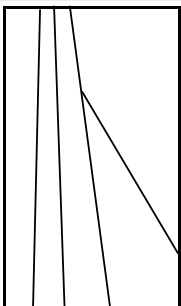
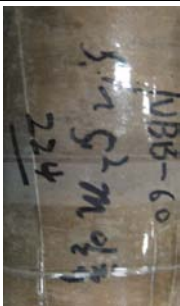
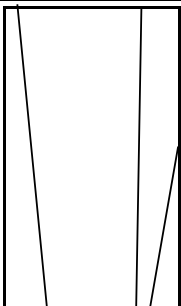
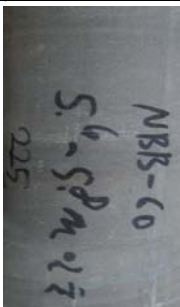
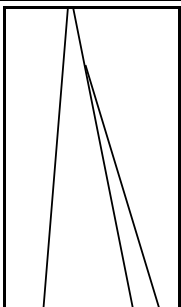
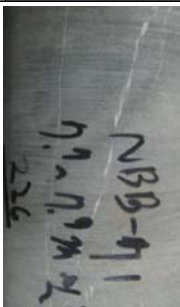
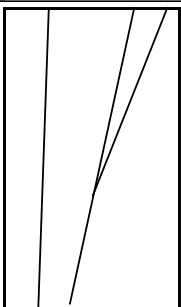
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 52	■ Depth	3.70 m
Specimen Diameter (cm)	5.05	 Before Test	 After Test
Specimen Height (cm)	10.00		
Specimen Weight (g)	552.80		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	42.7		
Comp. Strength (MPa)	21.3		
■ Borehole No. NBB - 56			
Specimen Diameter (cm)	5.06	 Before Test	 After Test
Specimen Height (cm)	9.98		
Specimen Weight (g)	521.05		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	68.7		
Comp. Strength (MPa)	34.2		
■ Borehole No. NBB - 56		■ Depth 3.30 m	
Specimen Diameter (cm)	5.06	 Before Test	 After Test
Specimen Height (cm)	9.91		
Specimen Weight (g)	527.72		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	73.9		
Comp. Strength (MPa)	36.7		
■ Borehole No. NBB - 57		■ Depth 2.90 m	
Specimen Diameter (cm)	5.07	 Before Test	 After Test
Specimen Height (cm)	9.96		
Specimen Weight (g)	523.48		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	46.4		
Comp. Strength (MPa)	23.0		
■ Remark			

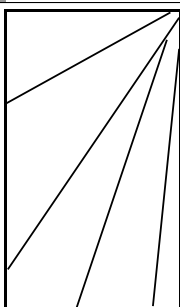
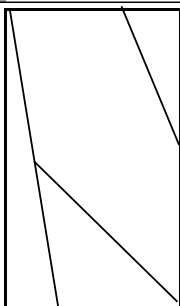
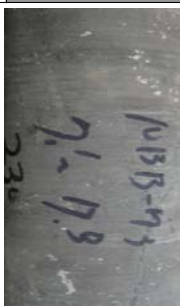
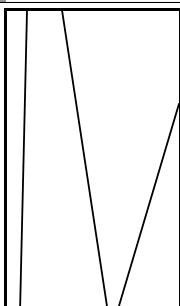
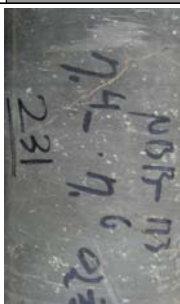
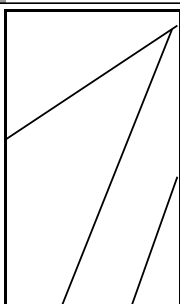
Unconfined Compression Test For Rock Core

■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 57	■ Depth	3.80 m
Specimen Diameter (cm)		5.15		
Specimen Height (cm)		10.00		
Specimen Weight (g)		570.17		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		51.6		
Comp. Strength (MPa)		24.8		
■ Borehole No.		NBB - 58	■ Depth	3.50 m
Specimen Diameter (cm)		5.19		
Specimen Height (cm)		10.10		
Specimen Weight (g)		557.36		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		96.0		
Comp. Strength (MPa)		45.4		
■ Borehole No.		NBB - 58	■ Depth	5.30 m
Specimen Diameter (cm)		5.14		
Specimen Height (cm)		9.99		
Specimen Weight (g)		563.50		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		70.6		
Comp. Strength (MPa)		34.0		
■ Borehole No.		NBB - 59	■ Depth	4.50 m
Specimen Diameter (cm)		5.05		
Specimen Height (cm)		10.00		
Specimen Weight (g)		533.06		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		51.7		
Comp. Strength (MPa)		25.8		
■ Remark				

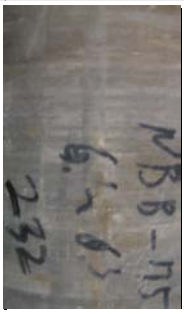
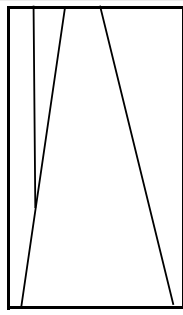
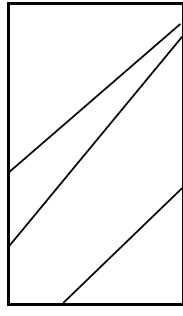
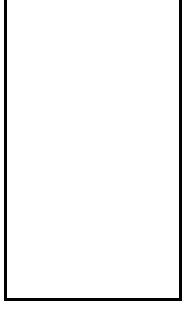
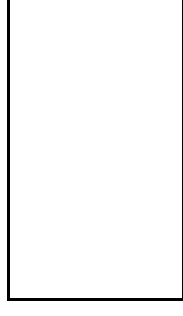
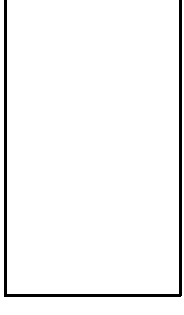
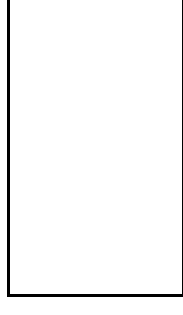
Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 59	■ Depth	4.90 m
Specimen Diameter (cm)	5.20	  Before Test After Test	
Specimen Height (cm)	10.10		
Specimen Weight (g)	580.18		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	138.4		
Comp. Strength (MPa)	65.2		
■ Borehole No. NBB - 60			■ Depth 5.10 m
Specimen Diameter (cm)	5.03	  Before Test After Test	
Specimen Height (cm)	9.98		
Specimen Weight (g)	497.82		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	29.7		
Comp. Strength (MPa)	14.9		
■ Borehole No. NBB - 60			■ Depth 5.60 m
Specimen Diameter (cm)	5.14	  Before Test After Test	
Specimen Height (cm)	9.96		
Specimen Weight (g)	571.00		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	64.1		
Comp. Strength (MPa)	30.9		
■ Borehole No. NBB - 71			■ Depth 7.70 m
Specimen Diameter (cm)	5.05	  Before Test After Test	
Specimen Height (cm)	9.92		
Specimen Weight (g)	522.49		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	40.5		
Comp. Strength (MPa)	20.2		
■ Remark			

Unconfined Compression Test For Rock Core

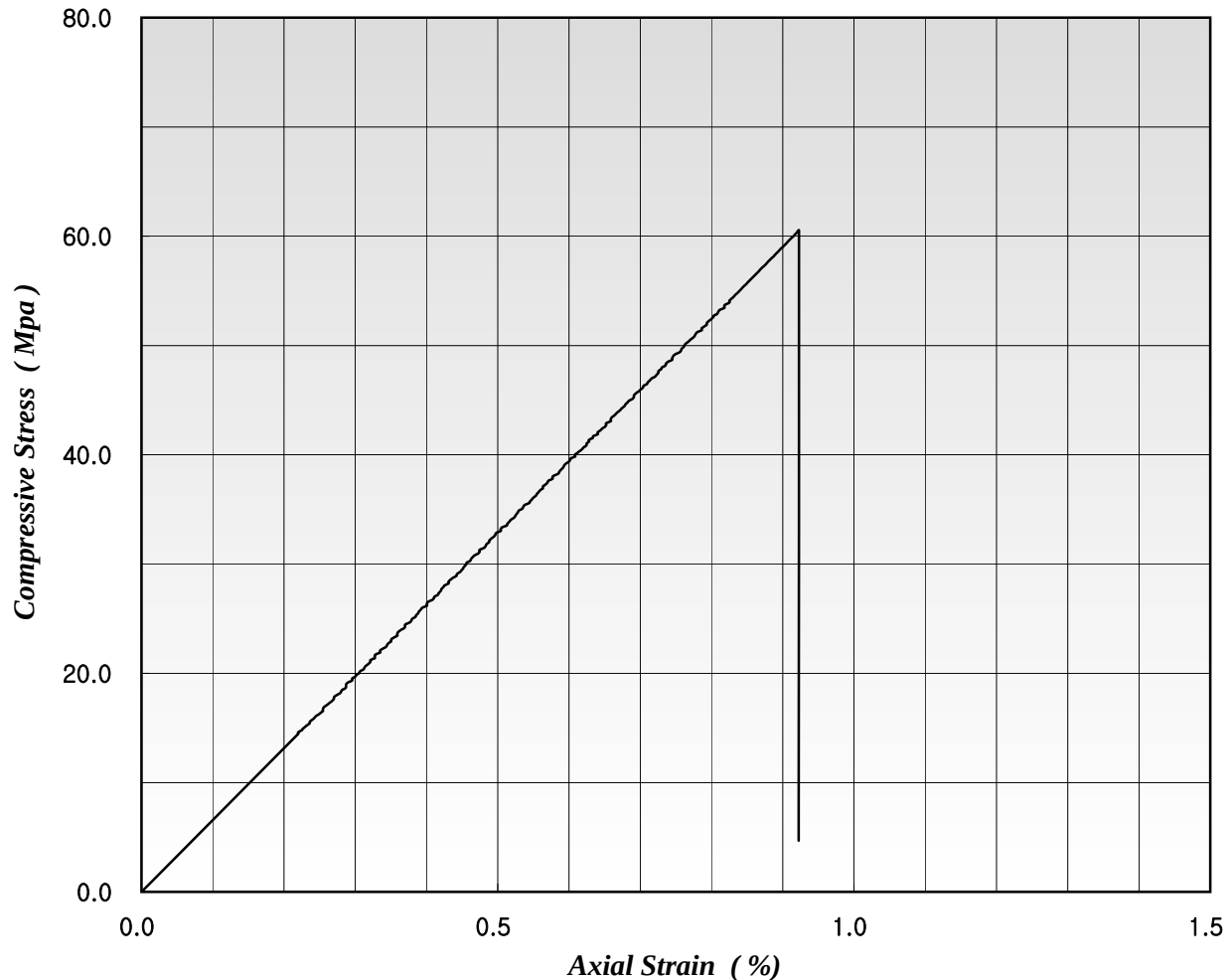
■ Project		중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method		ASTM D 7012	■ Date	2014. 8.
■ Borehole No.		NBB - 71	■ Depth	9.30 m
Specimen Diameter (cm)		5.06		
Specimen Height (cm)		10.00		
Specimen Weight (g)		531.76		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		31.7		
Comp. Strength (MPa)		15.8		
■ Borehole No.		NBB - 72	■ Depth	7.00 m
Specimen Diameter (cm)		5.12		
Specimen Height (cm)		9.88		
Specimen Weight (g)		542.61		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		36.9		
Comp. Strength (MPa)		17.9		
■ Borehole No.		NBB - 73	■ Depth	7.10 m
Specimen Diameter (cm)		5.07		
Specimen Height (cm)		9.96		
Specimen Weight (g)		529.88		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		84.7		
Comp. Strength (MPa)		42.0		
■ Borehole No.		NBB - 73	■ Depth	7.40 m
Specimen Diameter (cm)		5.21		
Specimen Height (cm)		9.90		
Specimen Weight (g)		585.94		
Unit Weight (kN/m ³)		-		
Failure Load (kN)		70.3		
Comp. Strength (MPa)		33.0		
■ Remark				

Unconfined Compression Test For Rock Core

■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)		
■ Test Method	ASTM D 7012	■ Date	2014. 8.
■ Borehole No.	NBB - 75	■ Depth	6.10 m
Specimen Diameter (cm)	5.04	 Before Test	 After Test
Specimen Height (cm)	10.00		
Specimen Weight (g)	485.36		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	51.6		
Comp. Strength (MPa)	25.9		
■ Borehole No. NBB - 75			
Specimen Diameter (cm)	5.03	 Before Test	 After Test
Specimen Height (cm)	9.99		
Specimen Weight (g)	512.12		
Unit Weight (kN/m ³)	-		
Failure Load (kN)	40.3		
Comp. Strength (MPa)	20.3		
■ Borehole No.			
Specimen Diameter (cm)		 Before Test	 After Test
Specimen Height (cm)			
Specimen Weight (g)			
Unit Weight (kN/m ³)			
Failure Load (kN)			
Comp. Strength (MPa)			
■ Borehole No. NBB - 73		■ Depth	m
Specimen Diameter (cm)		 Before Test	 After Test
Specimen Height (cm)			
Specimen Weight (g)			
Unit Weight (kN/m ³)			
Failure Load (kN)			
Comp. Strength (MPa)			
■ Remark			

Unconfined Compression Test For Rock Core

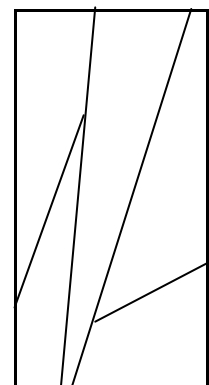
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 1
		■ Depth	5.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.19
Specimen Height (cm)	9.86
Specimen Weight (g)	556.46
Unit Weight (kN/m ³)	26.161
Comp. Strength (Mpa)	60.5
Young's Modulus E ₅₀ (Mpa)	6.564E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3691.7



Before Test



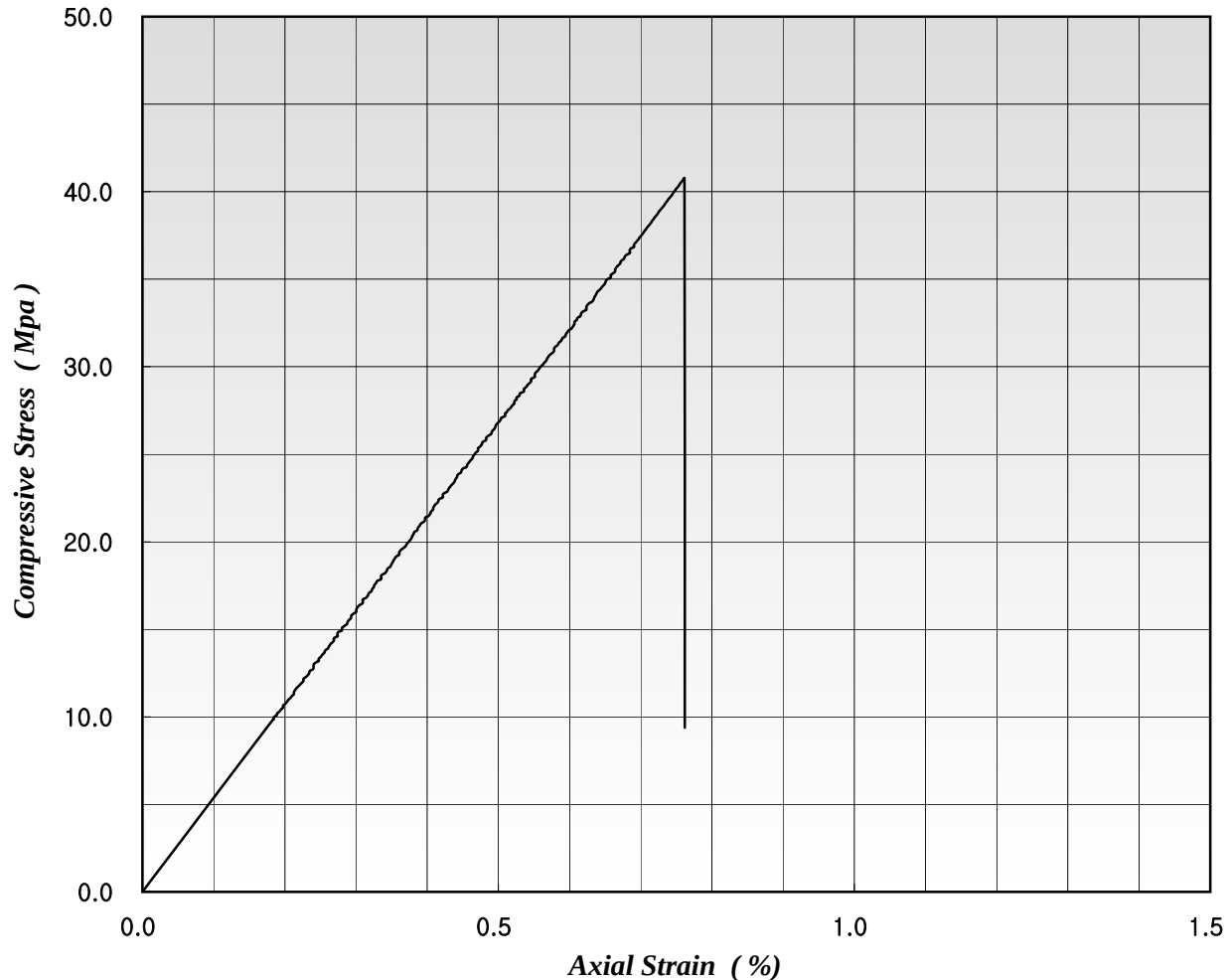
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

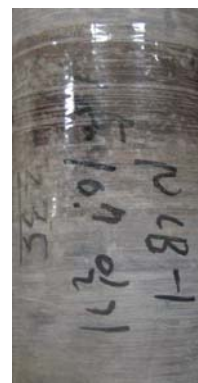
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

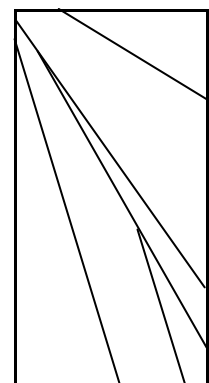
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 1
		■ Depth	10.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.19
Specimen Height (cm)	9.82
Specimen Weight (g)	551.76
Unit Weight (kN/m ³)	26.046
Comp. Strength (Mpa)	40.8
Young's Modulus E ₅₀ (Mpa)	5.366E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3066.7



Before Test



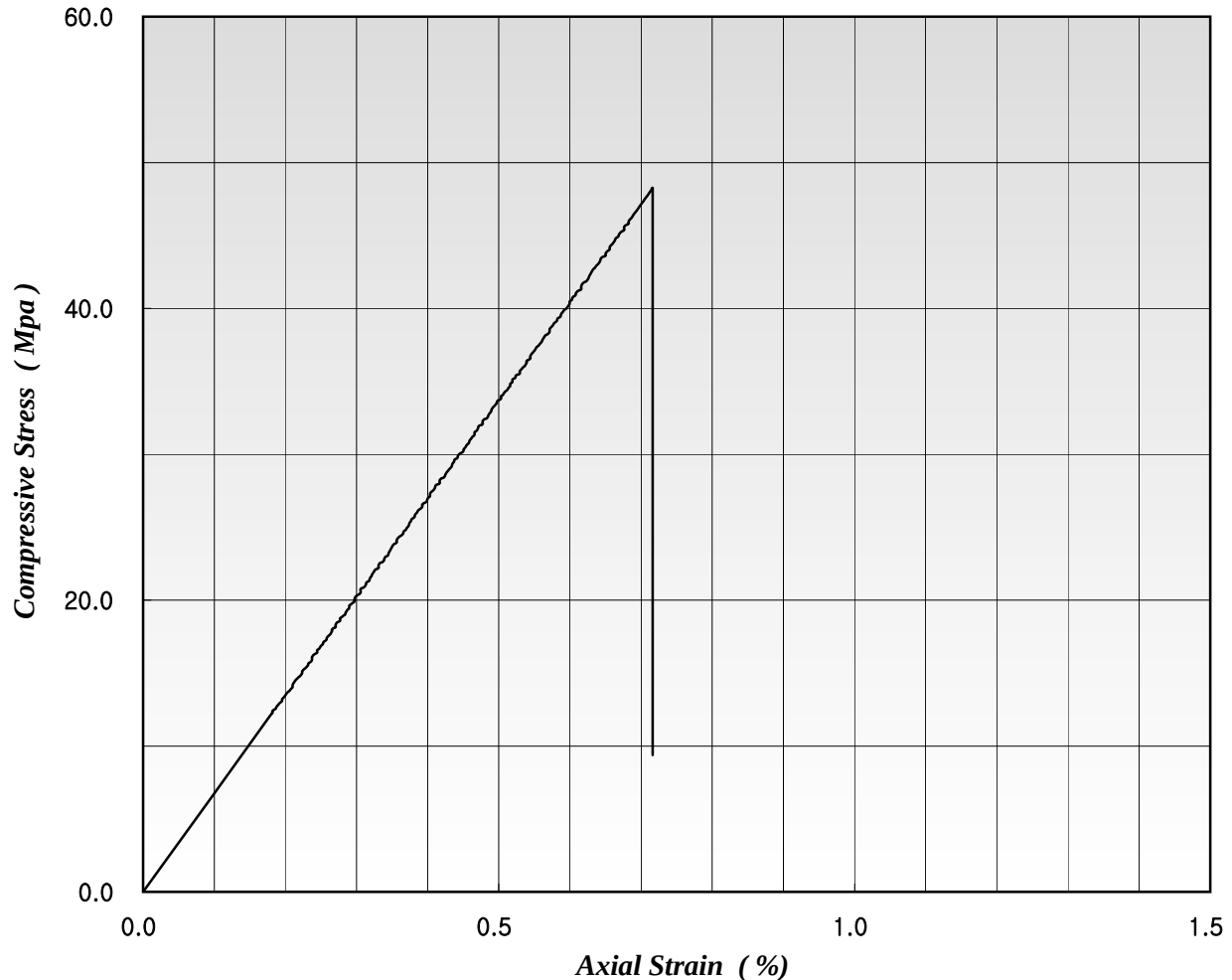
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

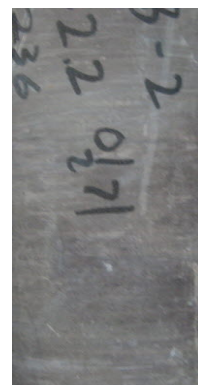
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

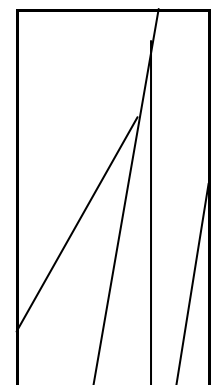
■ Project	중앙선 도당~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 2
		■ Depth	2.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.19
Specimen Height (cm)	9.94
Specimen Weight (g)	543.83
Unit Weight (kN/m ³)	25.362
Comp. Strength (Mpa)	48.2
Young's Modulus E ₅₀ (Mpa)	6.766E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3115.9



Before Test



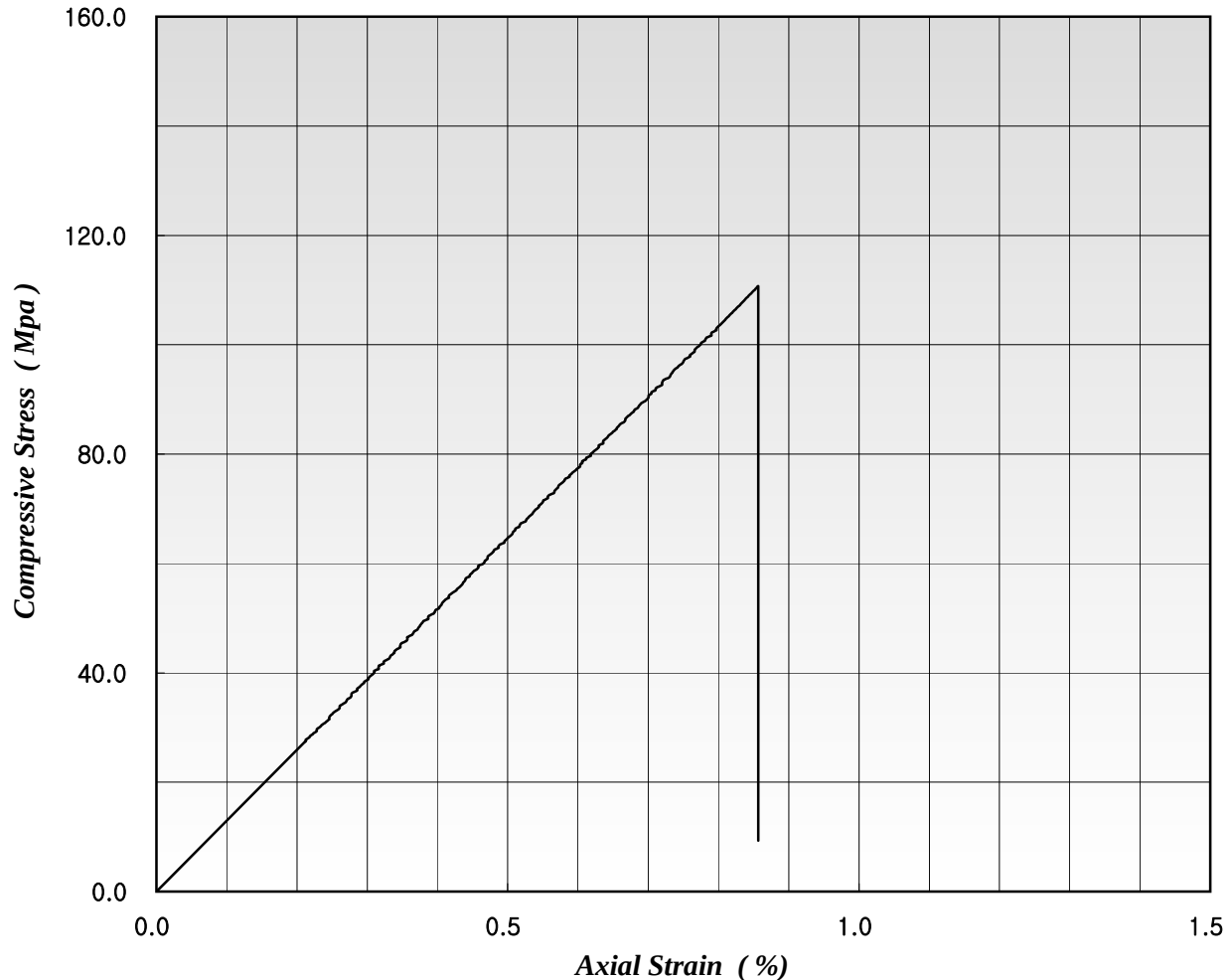
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

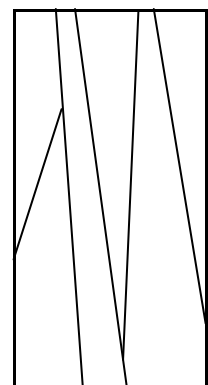
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 2
		■ Depth	12.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.20
Specimen Height (cm)	9.87
Specimen Weight (g)	556.90
Unit Weight (kN/m ³)	25.897
Comp. Strength (Mpa)	110.7
Young's Modulus E ₅₀ (Mpa)	1.294E+04
Poisson's Ratio	0.24
Elastic Wave Velocity (m/s)	4688.6



Before Test



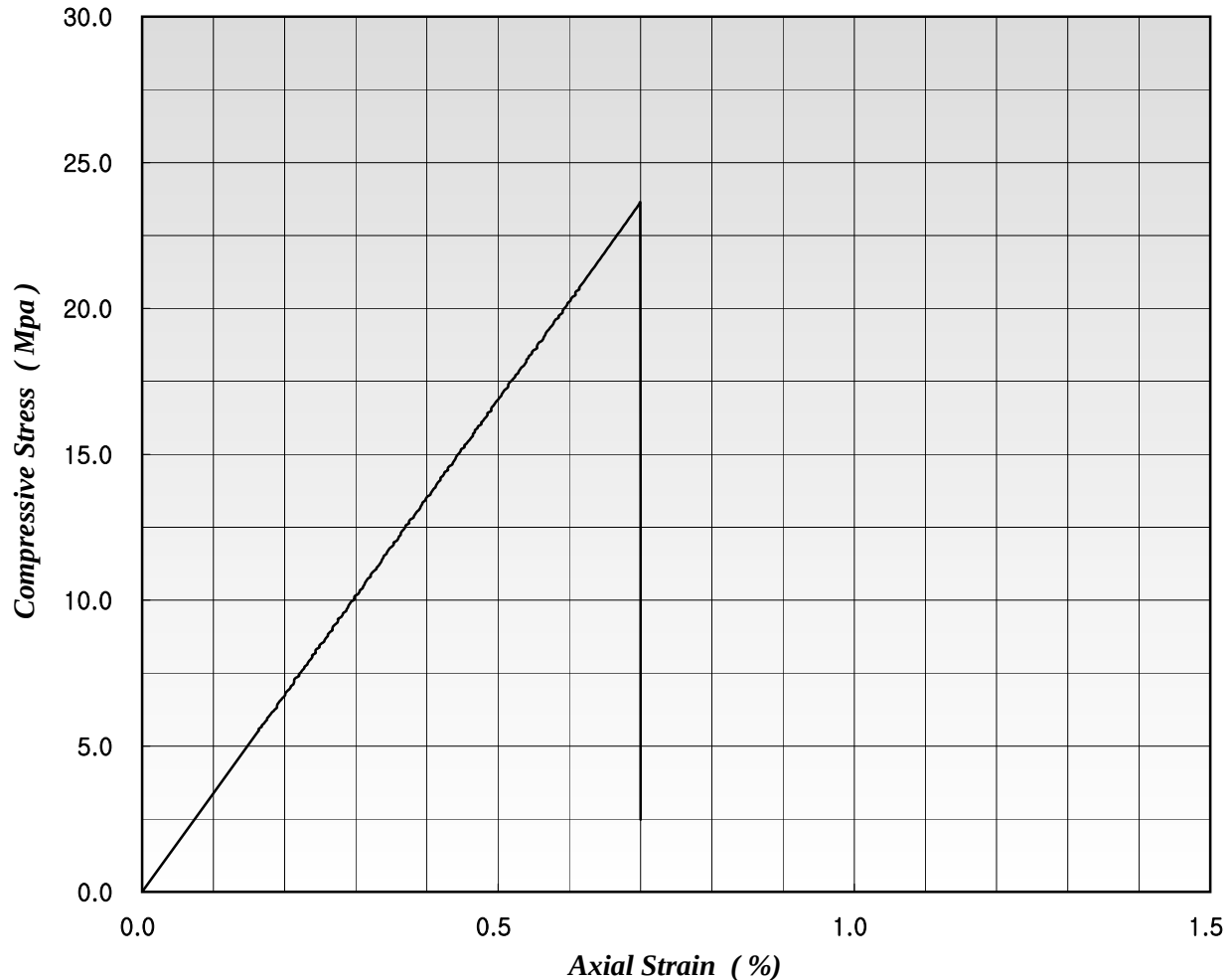
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

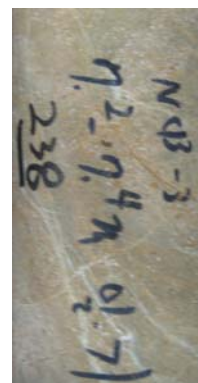
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

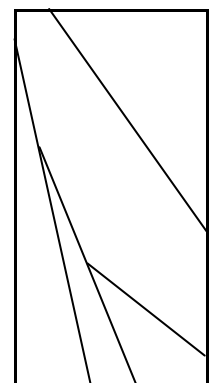
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 3
		■ Depth	7.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.94
Specimen Weight (g)	491.93
Unit Weight (kN/m ³)	25.003
Comp. Strength (Mpa)	23.6
Young's Modulus E ₅₀ (Mpa)	3.387E+03
Poisson's Ratio	0.31
Elastic Wave Velocity (m/s)	1872.3



Before Test



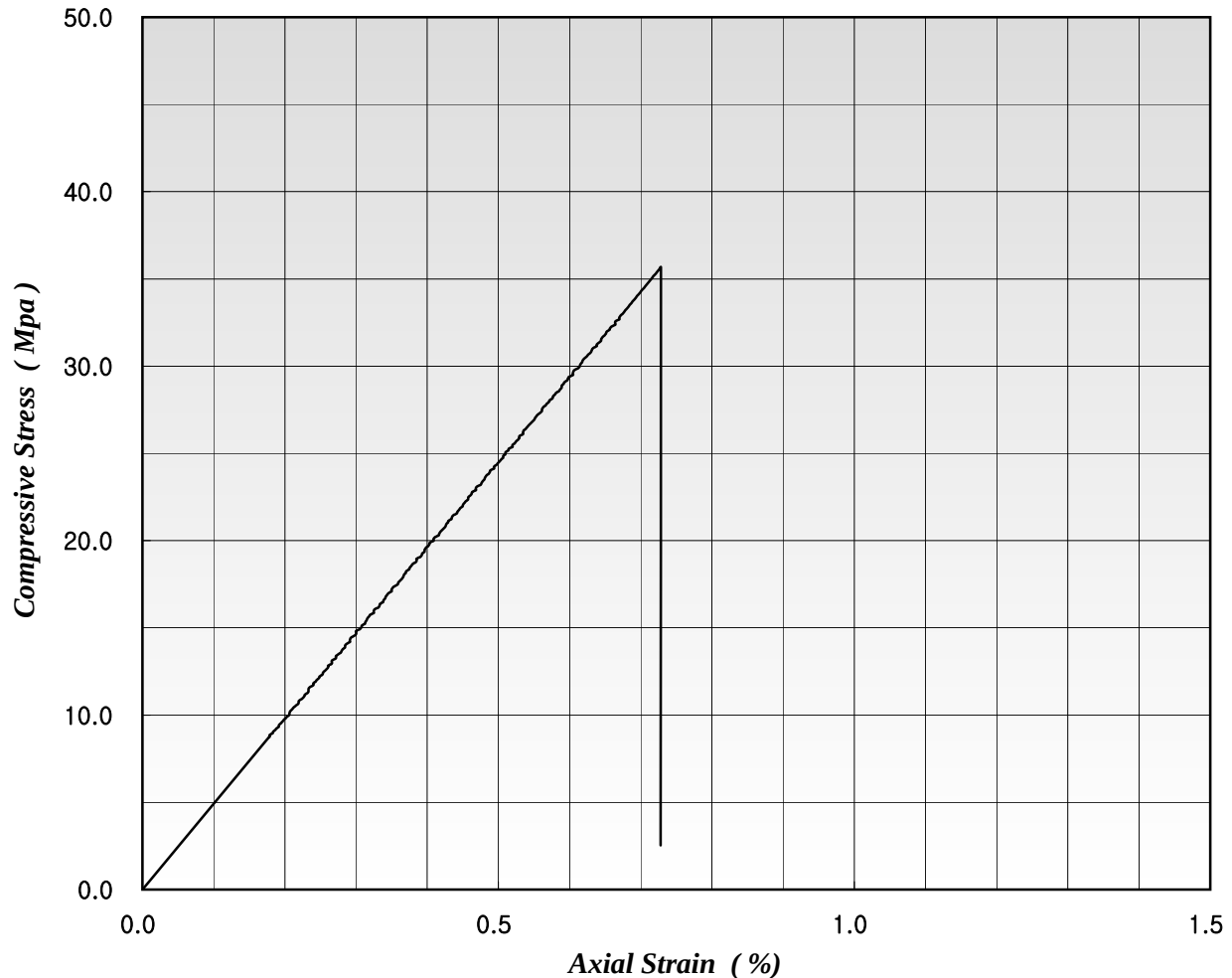
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

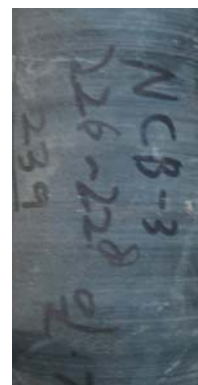
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

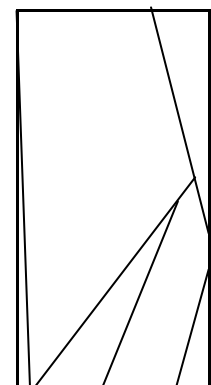
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 3
		■ Depth	22.60 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.00
Specimen Height (cm)	9.92
Specimen Weight (g)	520.82
Unit Weight (kN/m ³)	26.222
Comp. Strength (Mpa)	35.7
Young's Modulus E ₅₀ (Mpa)	4.888E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3042.6



Before Test



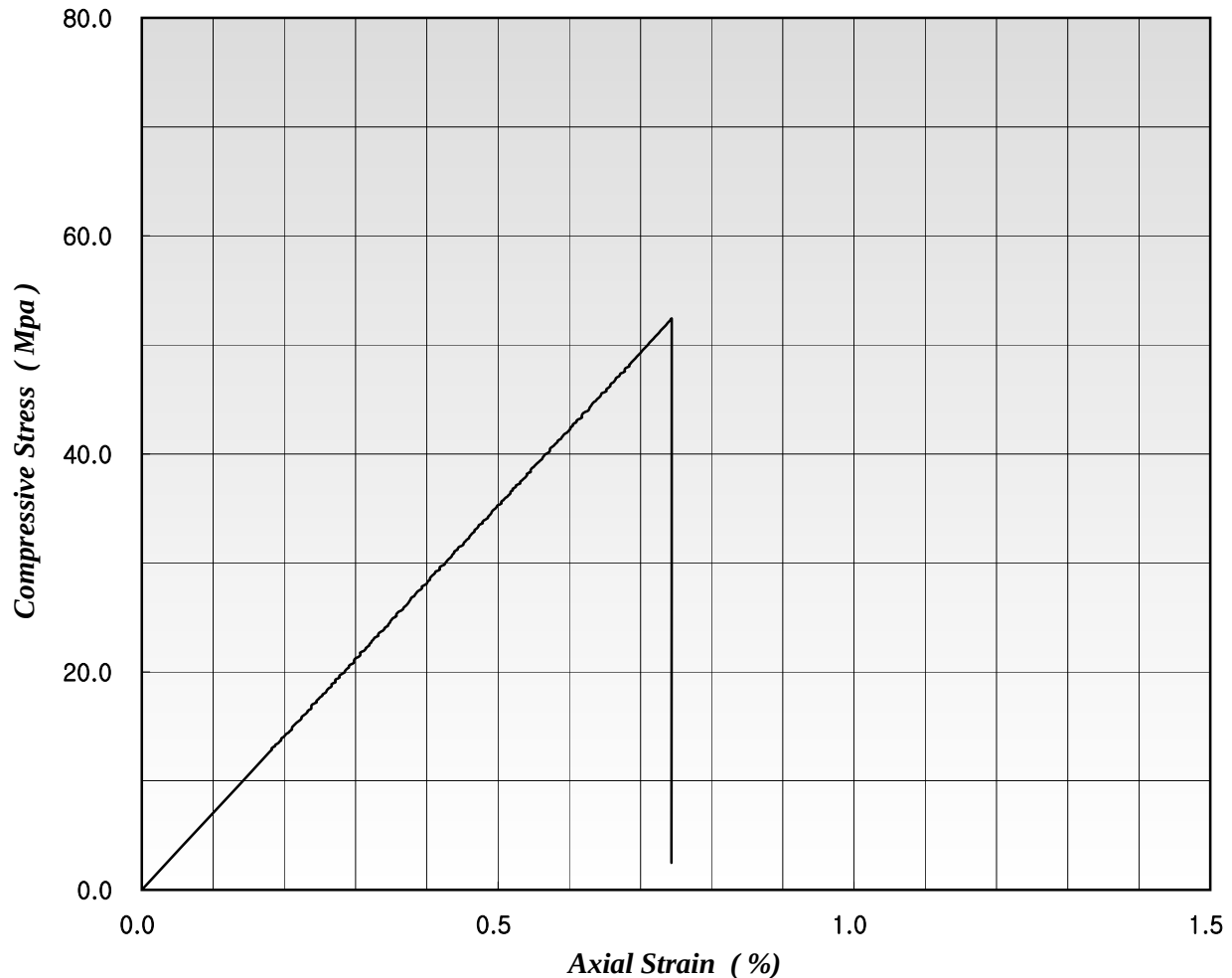
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

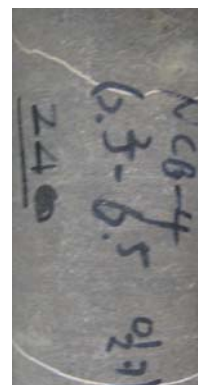
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

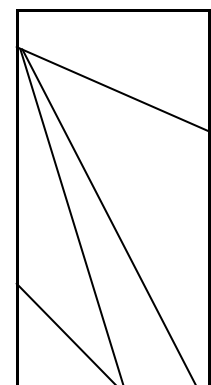
■ Project		■ Borehole No.	NCB - 4
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	6.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.04
Specimen Height (cm)	9.91
Specimen Weight (g)	514.20
Unit Weight (kN/m ³)	25.505
Comp. Strength (Mpa)	52.4
Young's Modulus E ₅₀ (Mpa)	7.031E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3397.6



Before Test



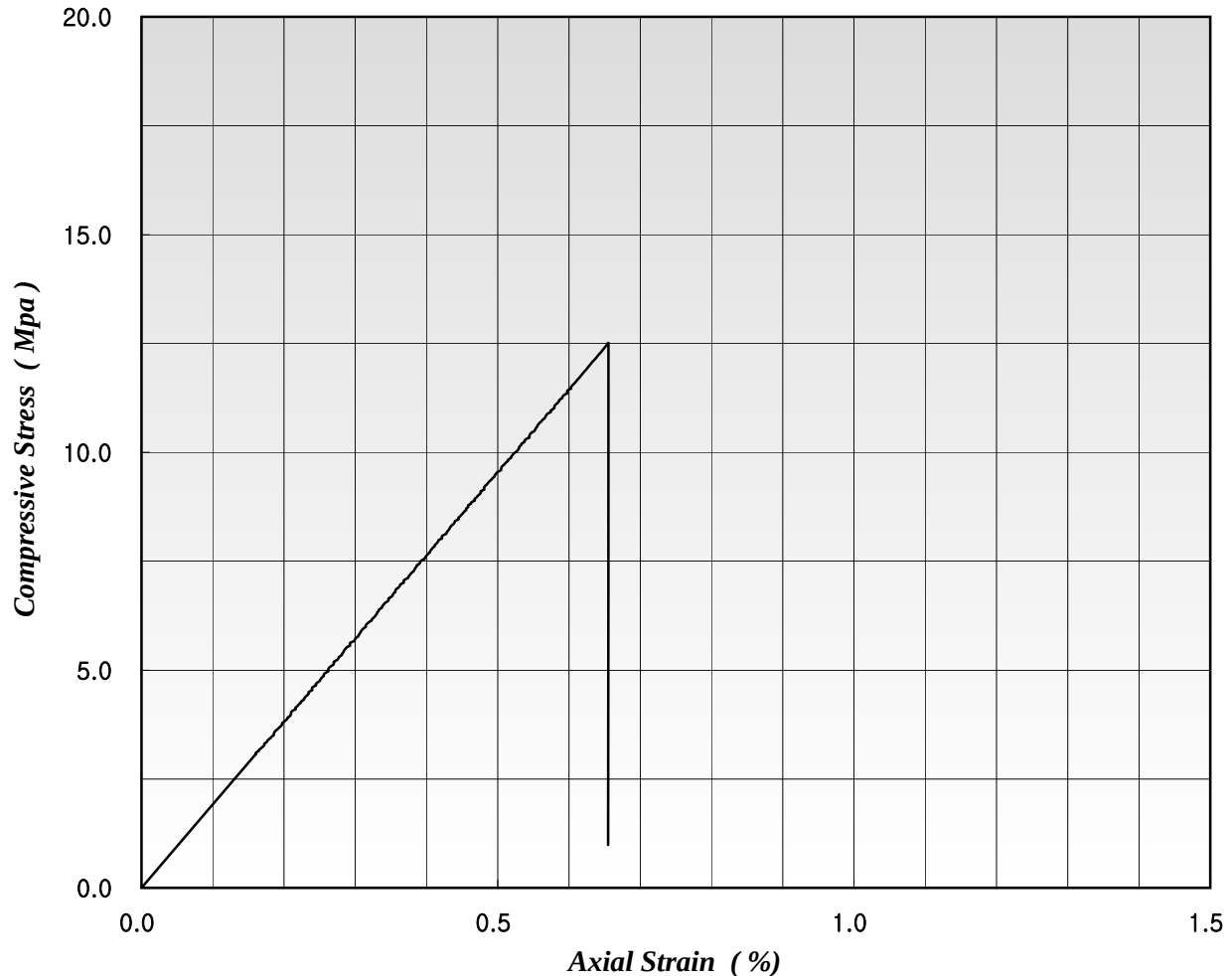
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark		■ Operator	
		■ Approved	

Unconfined Compression Test For Rock Core

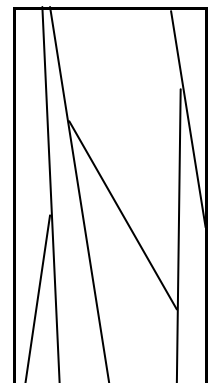
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 4
		■ Depth	11.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.90
Specimen Weight (g)	479.41
Unit Weight (kN/m ³)	23.523
Comp. Strength (Mpa)	12.5
Young's Modulus E ₅₀ (Mpa)	1.904E+03
Poisson's Ratio	0.33
Elastic Wave Velocity (m/s)	1415.3



Before Test



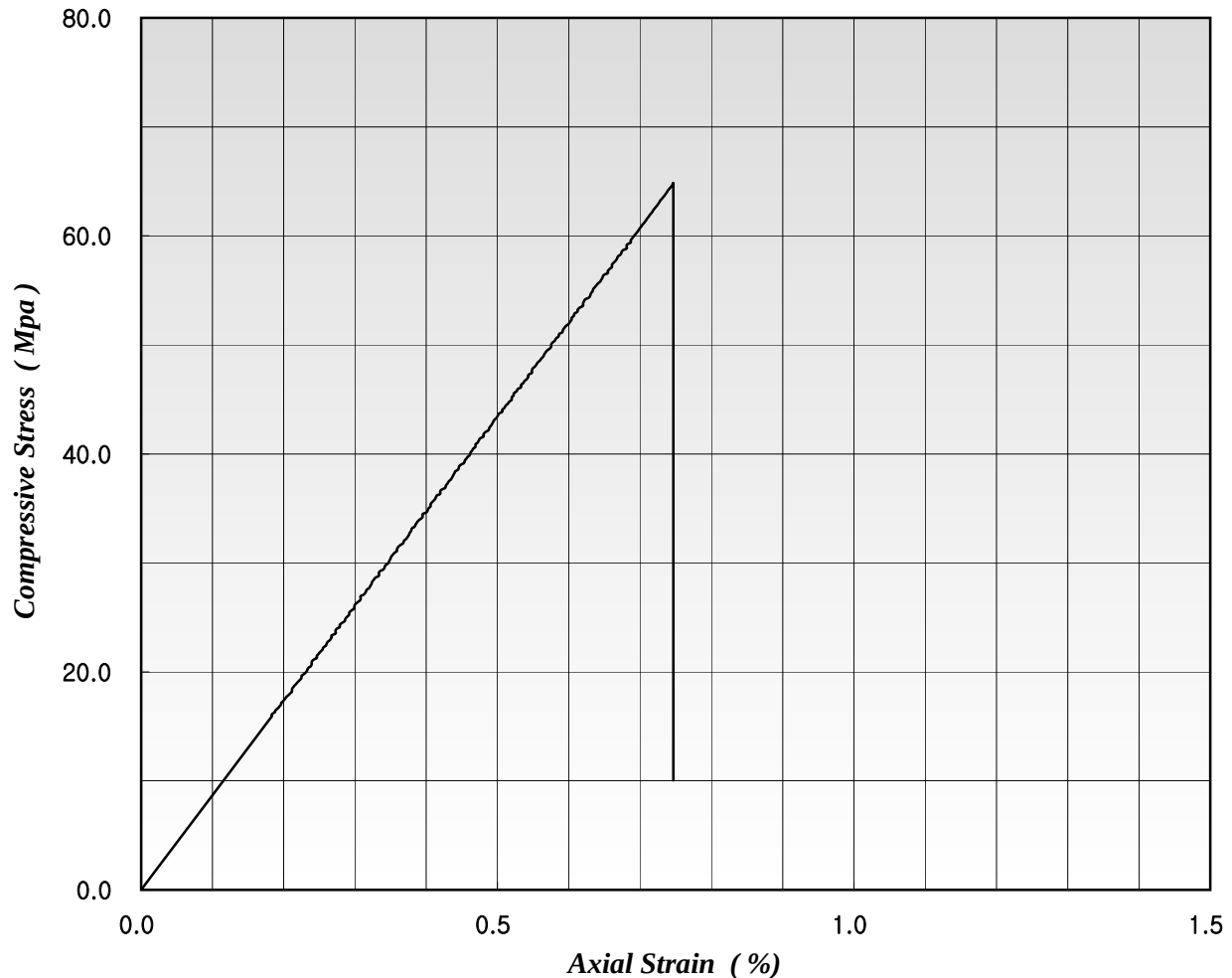
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

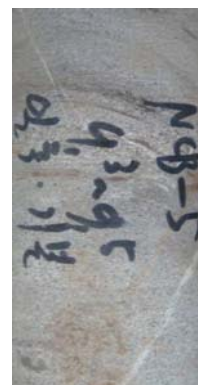
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

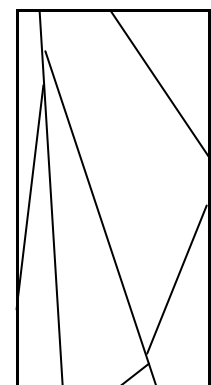
■ Project		■ Borehole No.	NCB - 5
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	9.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.02
Specimen Height (cm)	9.87
Specimen Weight (g)	514.73
Unit Weight (kN/m ³)	25.840
Comp. Strength (Mpa)	64.8
Young's Modulus E ₅₀ (Mpa)	8.664E+03
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3818.3



Before Test



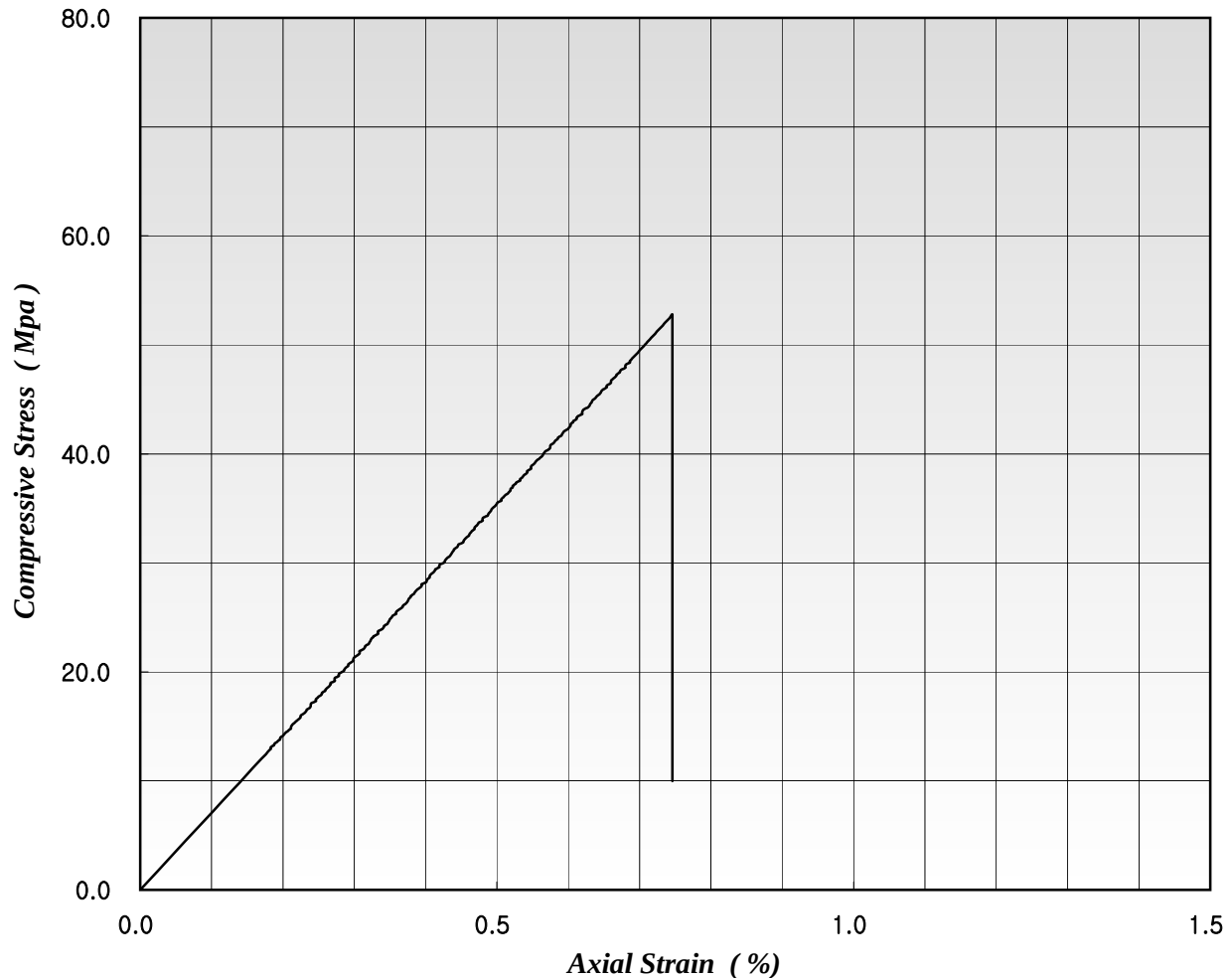
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

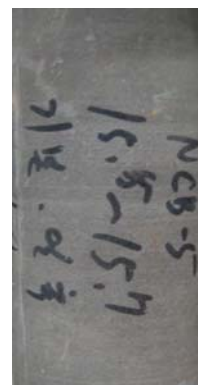
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

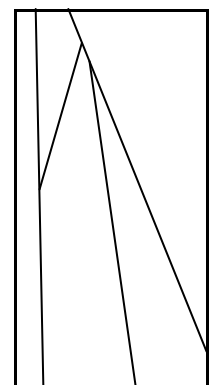
■ Project		■ Borehole No.	NCB - 5
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	15.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.03
Specimen Height (cm)	9.88
Specimen Weight (g)	512.32
Unit Weight (kN/m ³)	25.591
Comp. Strength (Mpa)	52.8
Young's Modulus E ₅₀ (Mpa)	7.060E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3291.1



Before Test



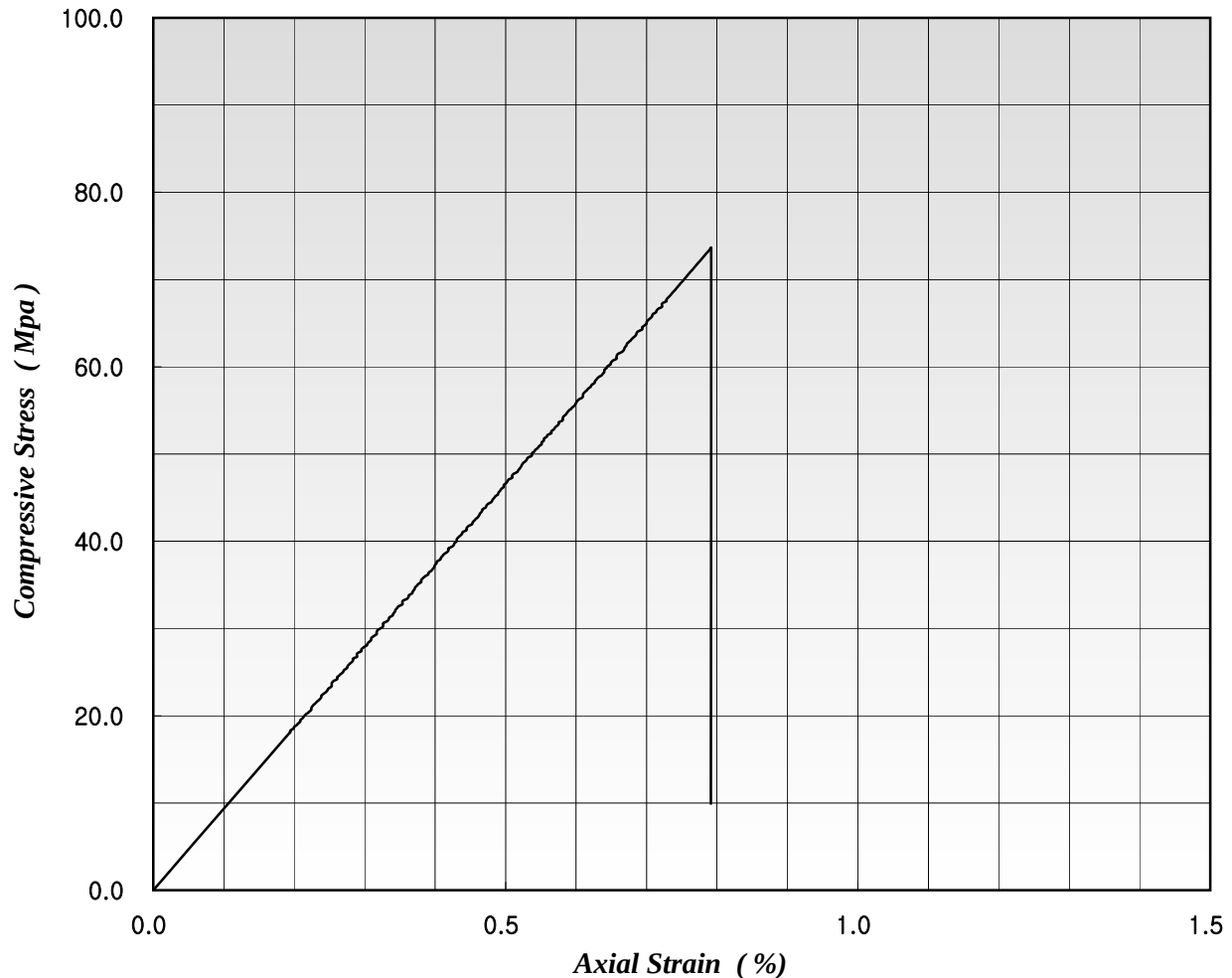
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

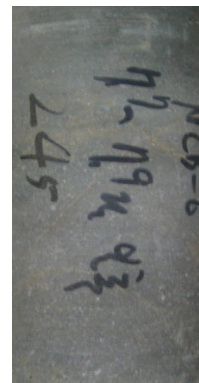
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

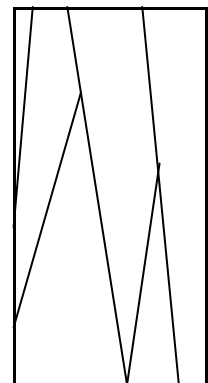
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 6
		■ Depth	7.70 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.87
Specimen Weight (g)	520.45
Unit Weight (kN/m ³)	25.817
Comp. Strength (Mpa)	73.6
Young's Modulus E ₅₀ (Mpa)	9.287E+03
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3900.4



Before Test



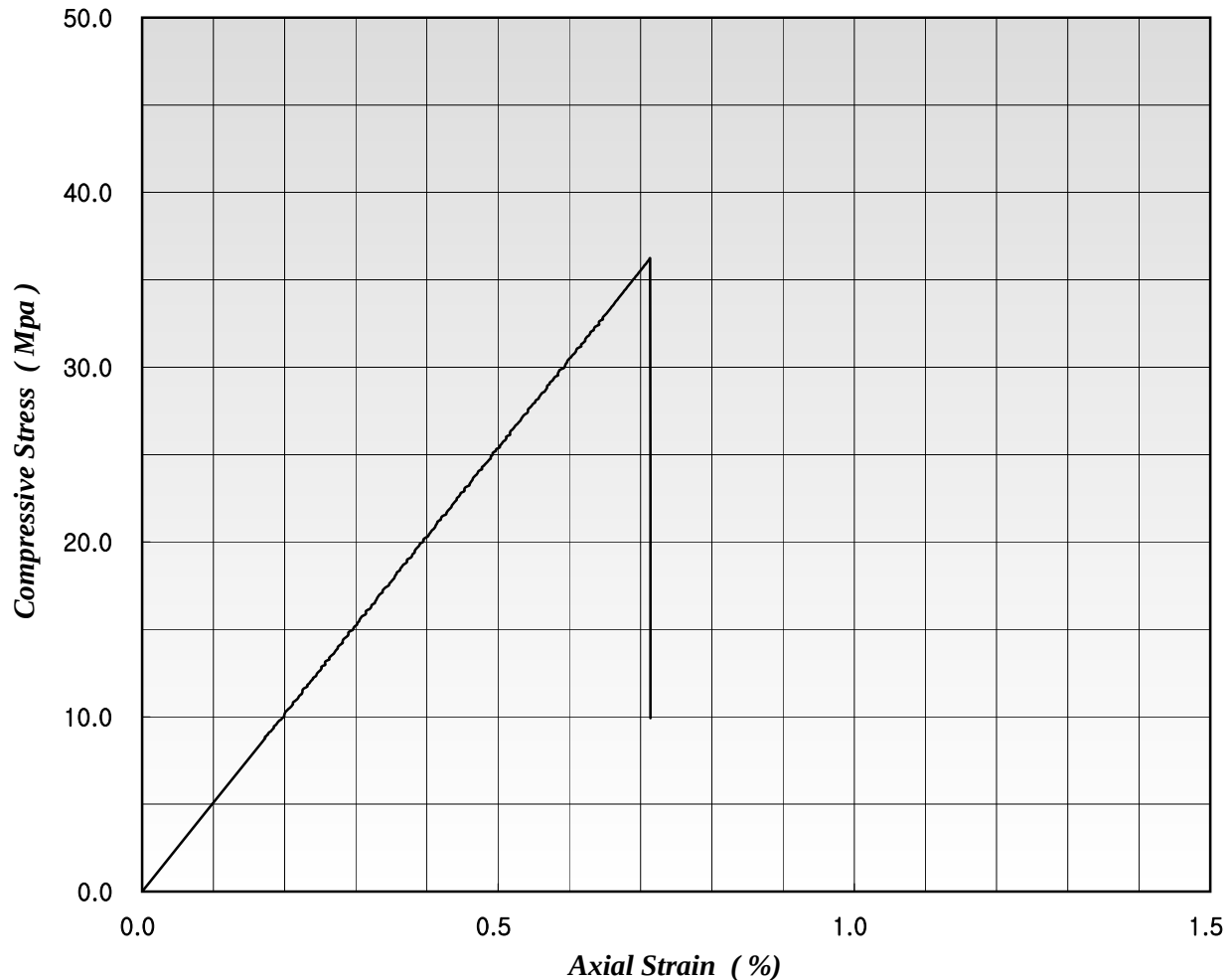
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

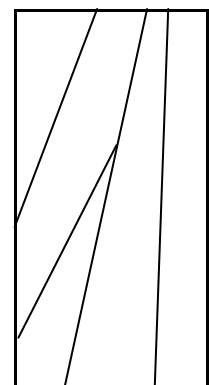
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 6
		■ Depth	11.80 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.85
Specimen Weight (g)	514.47
Unit Weight (kN/m ³)	25.573
Comp. Strength (Mpa)	36.2
Young's Modulus E ₅₀ (Mpa)	5.086E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3014.8



Before Test



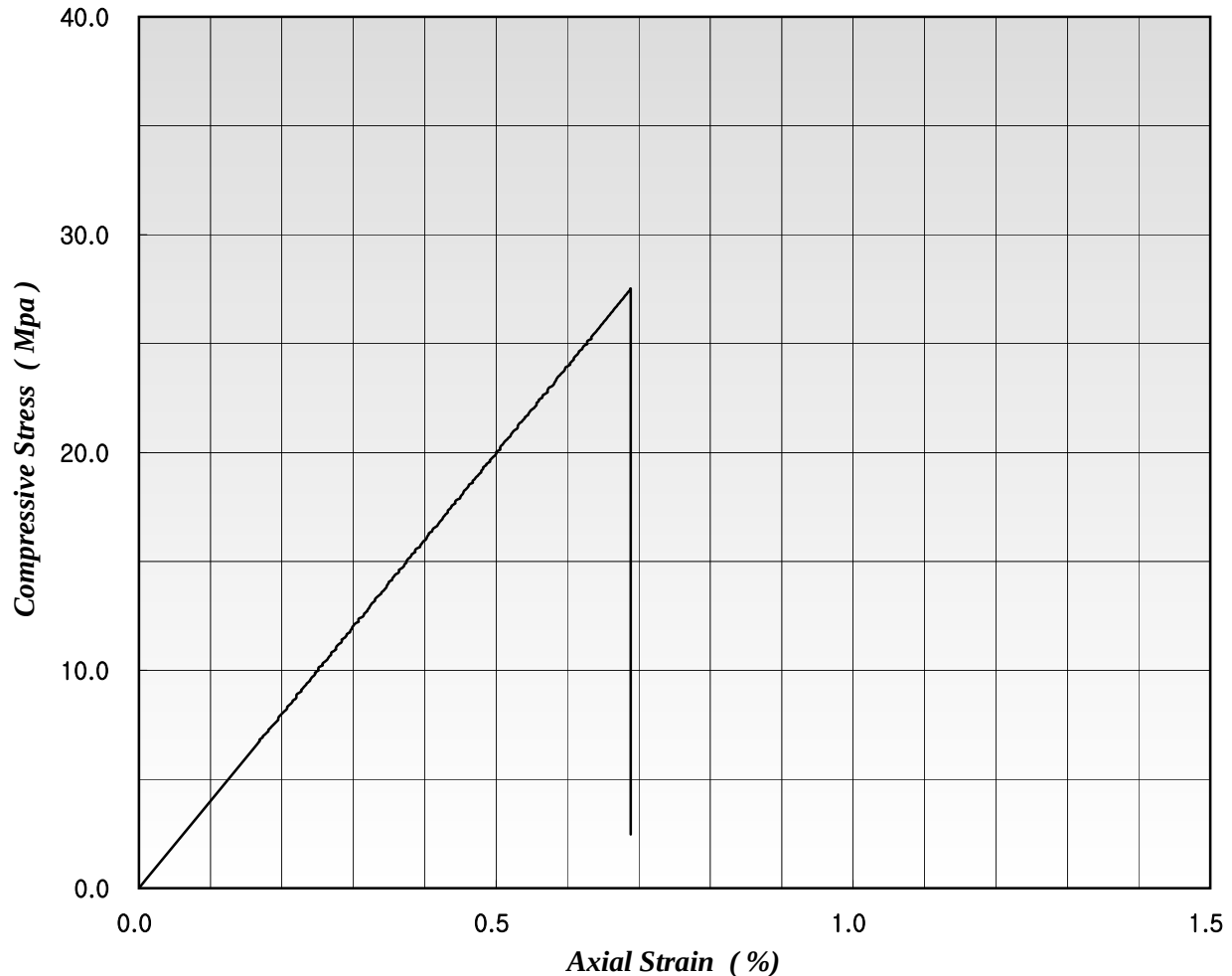
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

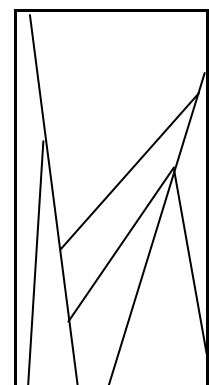
■ Project		■ Borehole No.	NCB - 7
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	6.90 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.86
Specimen Weight (g)	496.84
Unit Weight (kN/m ³)	24.574
Comp. Strength (Mpa)	27.5
Young's Modulus E ₅₀ (Mpa)	3.987E+03
Poisson's Ratio	0.30
Elastic Wave Velocity (m/s)	2194.3



Before Test



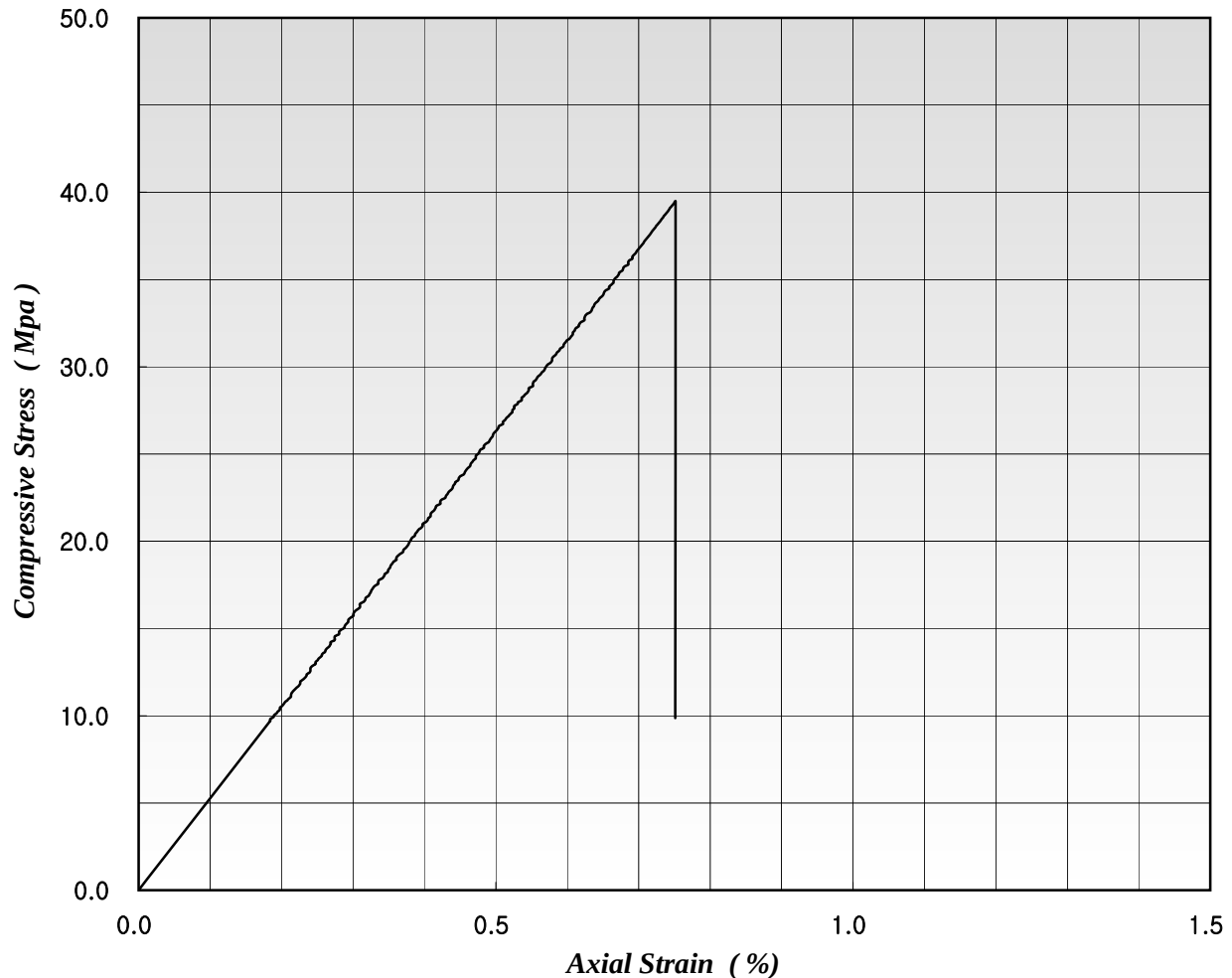
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

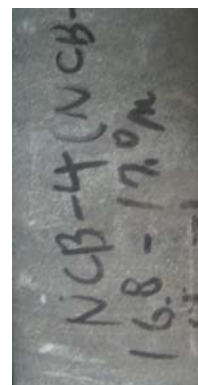
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

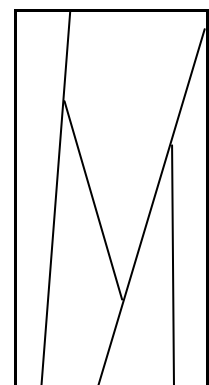
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 7
		■ Depth	16.80 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.81
Specimen Weight (g)	521.88
Unit Weight (kN/m ³)	25.944
Comp. Strength (Mpa)	39.5
Young's Modulus E ₅₀ (Mpa)	5.246E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	2741.6



Before Test



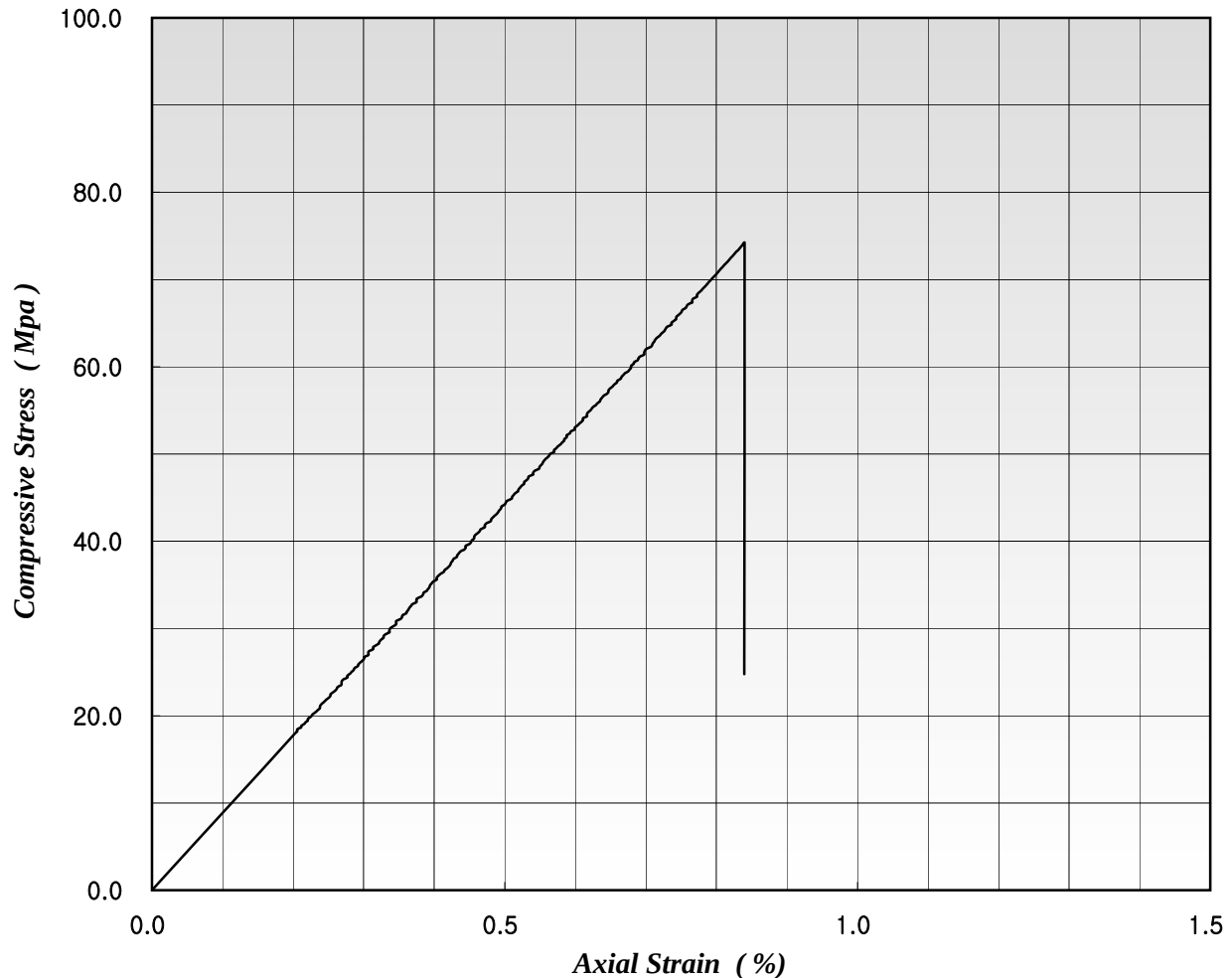
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

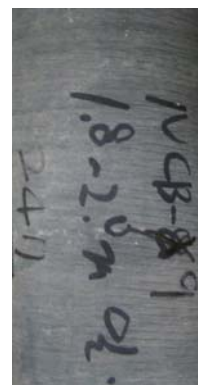
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

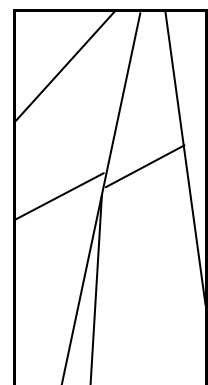
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 9
		■ Depth	1.80 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.83
Specimen Weight (g)	528.46
Unit Weight (kN/m ³)	26.321
Comp. Strength (Mpa)	74.2
Young's Modulus E ₅₀ (Mpa)	8.825E+03
Poisson's Ratio	0.25
Elastic Wave Velocity (m/s)	3723.6



Before Test



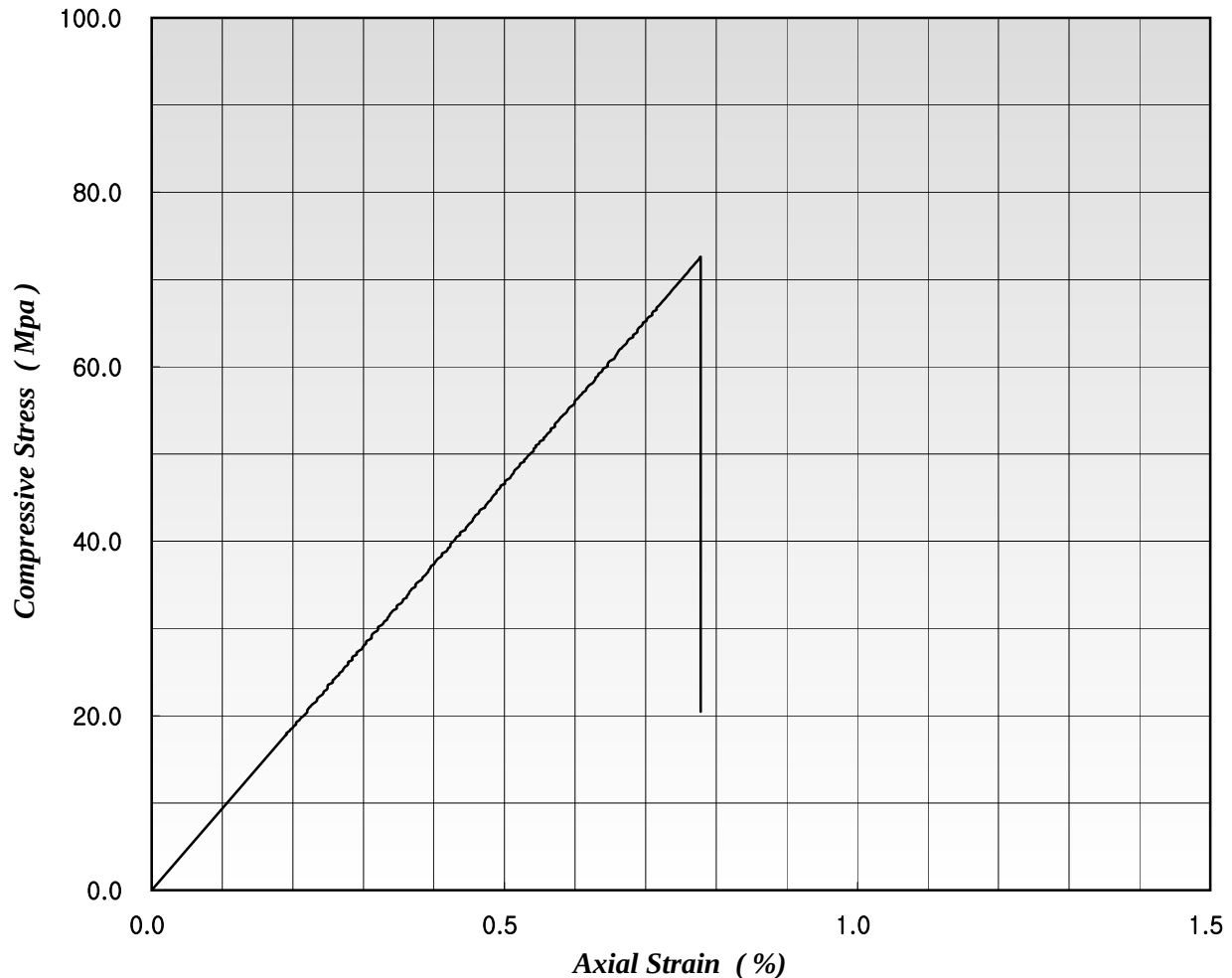
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

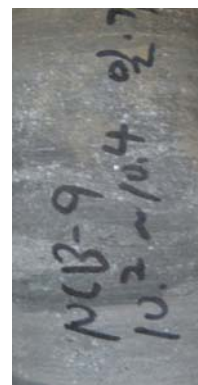
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

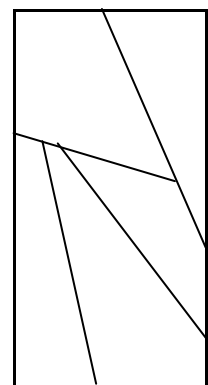
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NCB - 9
		■ Depth	10.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	4.97
Specimen Height (cm)	9.76
Specimen Weight (g)	503.71
Unit Weight (kN/m ³)	26.089
Comp. Strength (Mpa)	72.6
Young's Modulus E ₅₀ (Mpa)	9.315E+03
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3711.4



Before Test



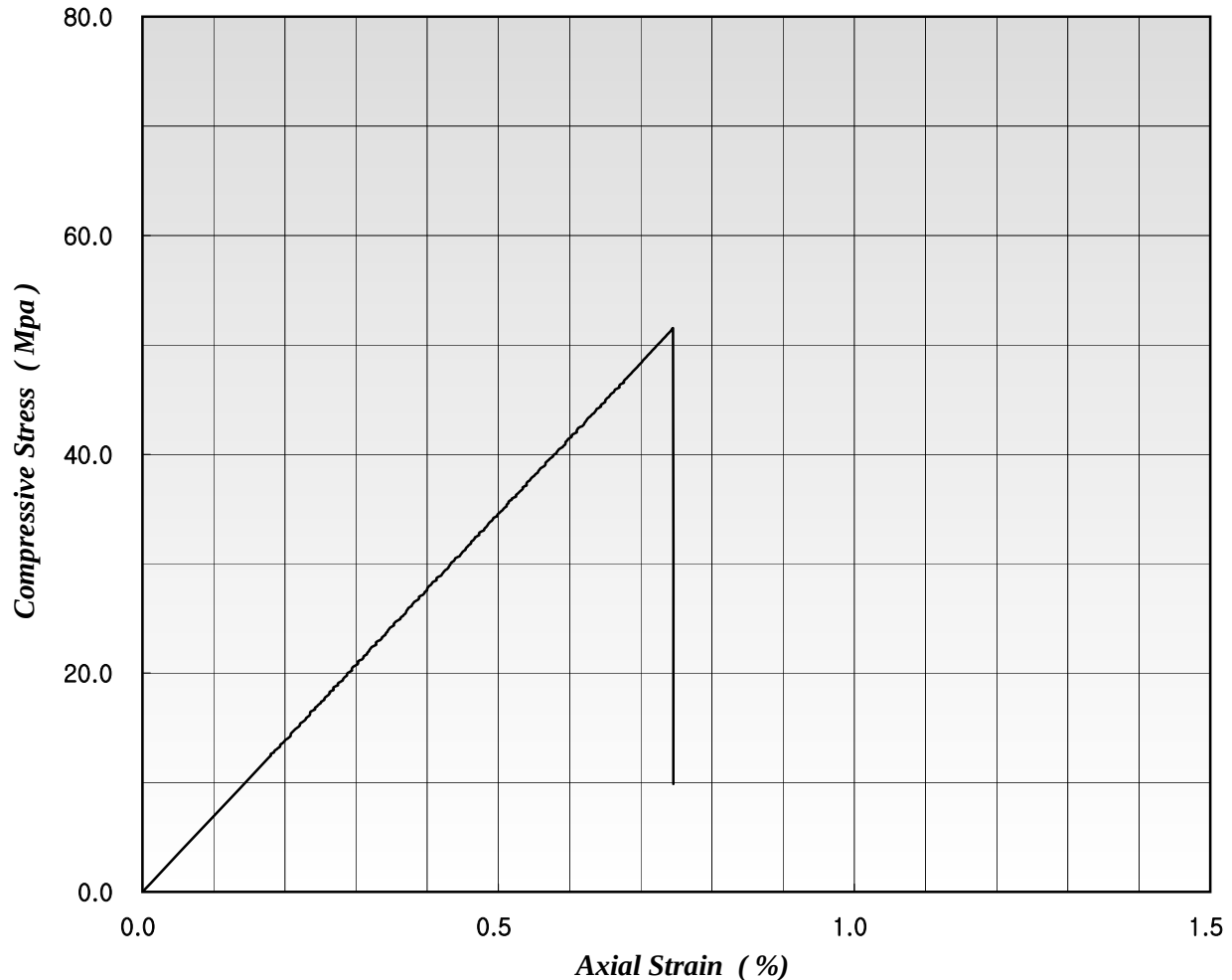
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

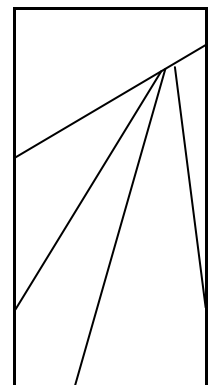
■ Project		■ Borehole No.	NTB - 1
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	26.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.78
Specimen Weight (g)	522.95
Unit Weight (kN/m ³)	26.077
Comp. Strength (Mpa)	51.5
Young's Modulus E ₅₀ (Mpa)	6.923E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3178.9



Before Test



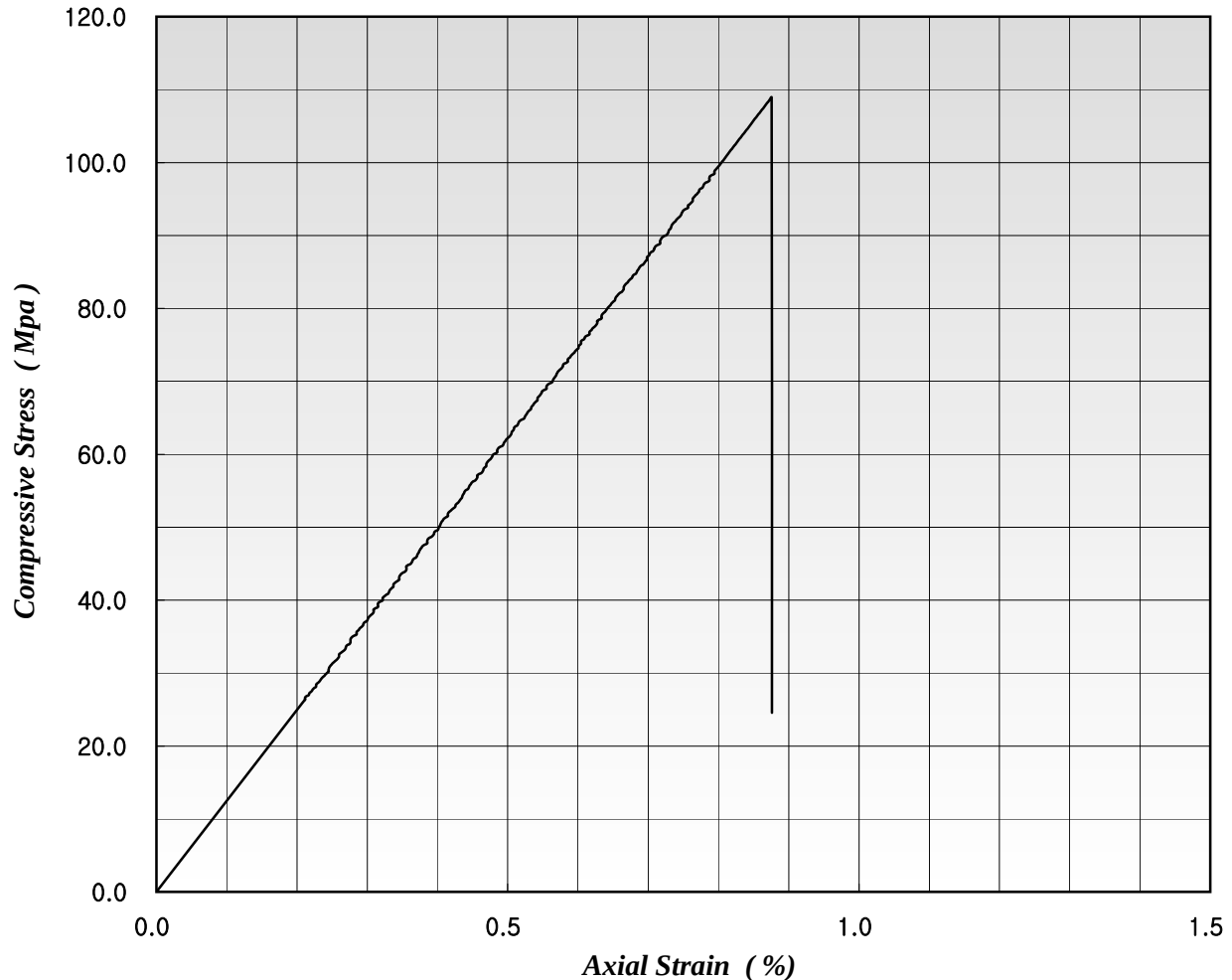
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark		■ Operator	
		■ Approved	

Unconfined Compression Test For Rock Core

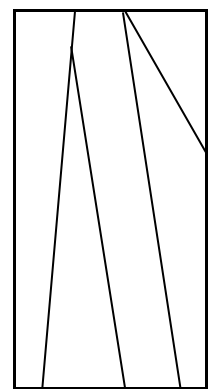
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 1
		■ Depth	31.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.82
Specimen Weight (g)	526.32
Unit Weight (kN/m ³)	26.035
Comp. Strength (Mpa)	108.9
Young's Modulus E ₅₀ (Mpa)	1.247E+04
Poisson's Ratio	0.24
Elastic Wave Velocity (m/s)	4591.3



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

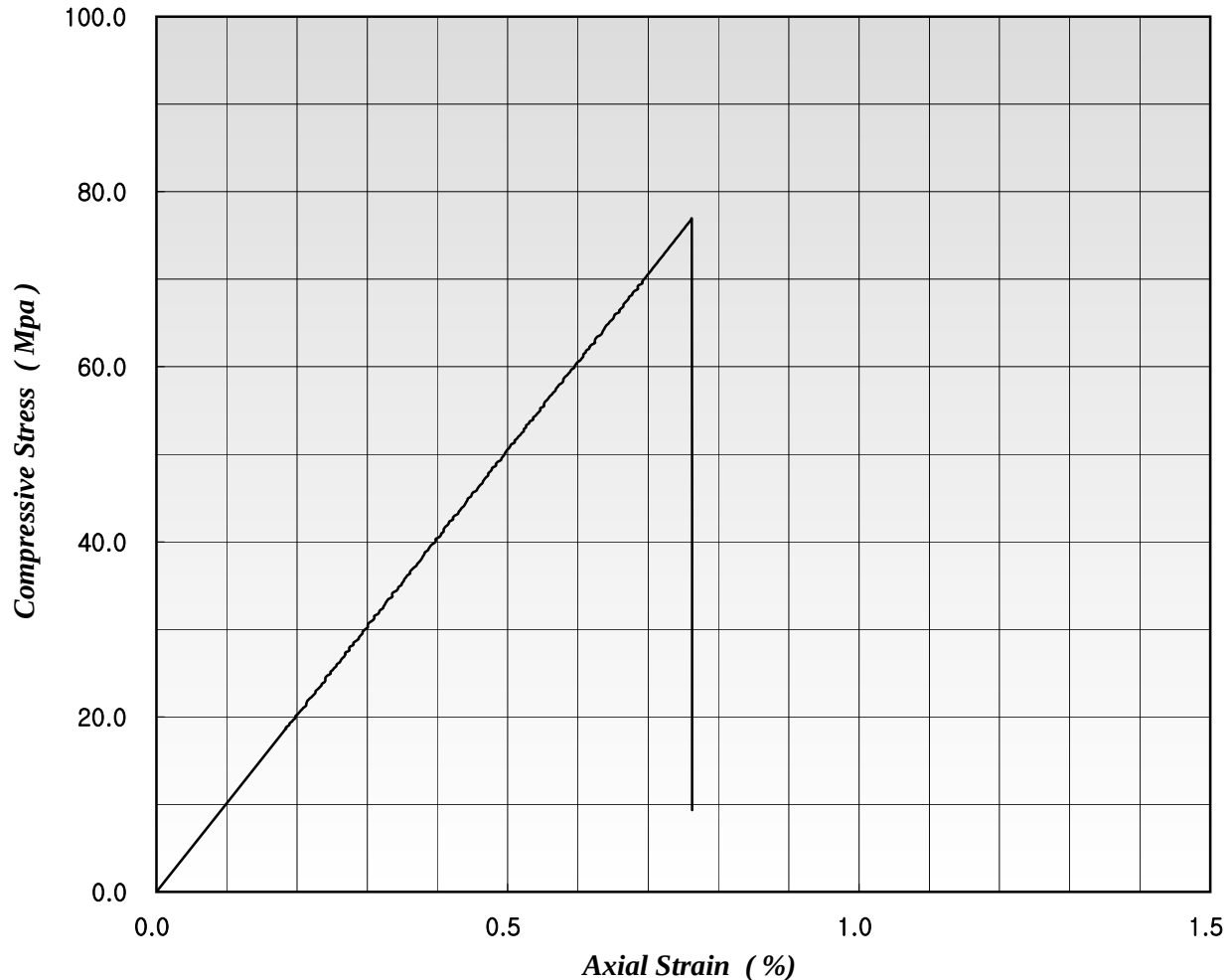
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제5공구 지반조사 용역				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-01	40.4~40.6		
직 경 Diameter(mm)	50.60	길 이 Length(mm)	101.50	무 게 Weight (g)	525.95
Results of test	Young's Modulus (*10 ⁵ MPa)	1.78	Compressive Strength (MPa)	107.99	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5골구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-01	50.9~51.0		
직 경 Diameter(mm)	49.80	길 이 Length(mm)	99.70	무 게 Weight (g)	519.75
Results of test	Young's Modulus (*10 ⁵ MPa)	1.98	Compressive Strength (MPa)	122.71	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-02	31.6~31.8		
직 경 Diameter(mm)	50.40	길 이 Length(mm)	101.30	무 게 Weight (g)	513.46
Results of test	Young's Modulus (*10 ⁵ MPa)	2.44	Compressive Strength (MPa)	153.16	

Unconfined Compression Test For Rock Core

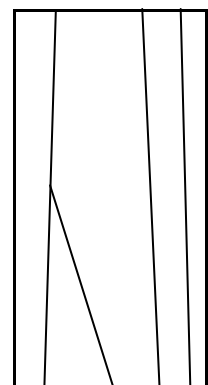
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 2
		■ Depth	33.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.20
Specimen Height (cm)	9.76
Specimen Weight (g)	559.25
Unit Weight (kN/m ³)	26.460
Comp. Strength (Mpa)	76.9
Young's Modulus E ₅₀ (Mpa)	1.011E+04
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3908.7



Before Test



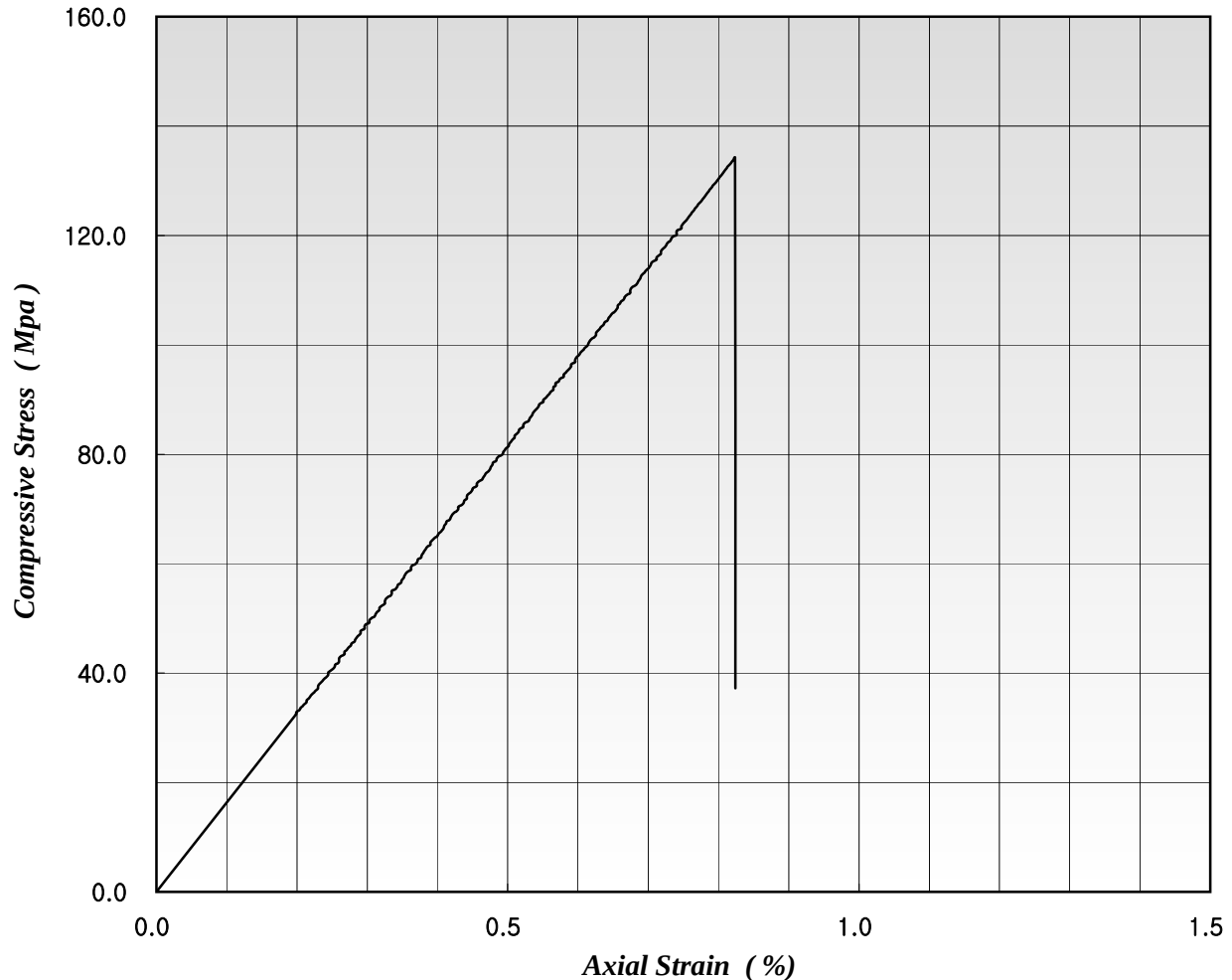
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

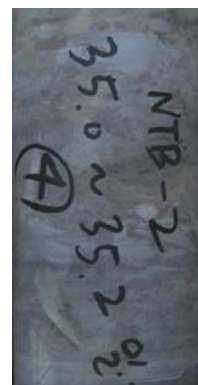
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

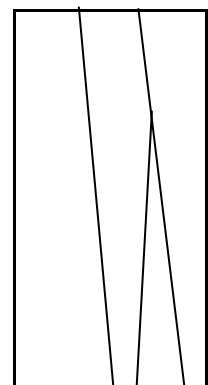
■ Project		■ Borehole No.	NTB - 2
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	35.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.21
Specimen Height (cm)	9.85
Specimen Weight (g)	564.09
Unit Weight (kN/m ³)	26.343
Comp. Strength (Mpa)	134.2
Young's Modulus E ₅₀ (Mpa)	1.634E+04
Poisson's Ratio	0.23
Elastic Wave Velocity (m/s)	4986.6



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

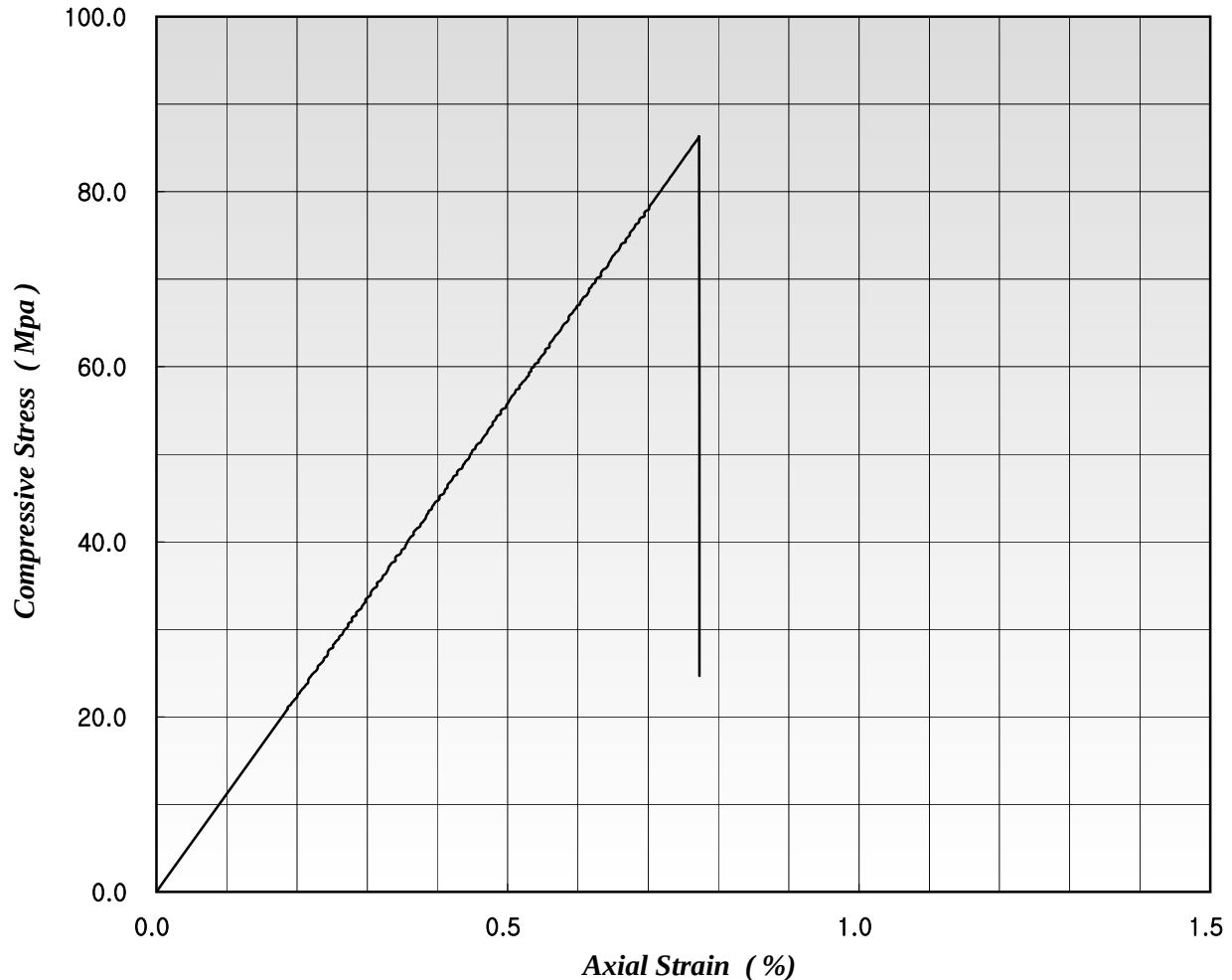
■ Remark		■ Operator	
		■ Approved	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-02	46.4~46.5		
직 경 Diameter(mm)	49.90	길 이 Length(mm)	100.50	무 게 Weight (g)	524.6
Results of test	Young's Modulus (*10 ⁵ MPa)	2.82	Compressive Strength (MPa)	203.91	

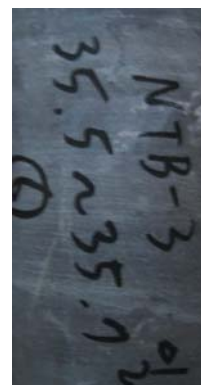
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-03	34.3~34.5		
직 경 Diameter(mm)	51.00	길 이 Length(mm)	100.20	무 게 Weight (g)	548.32
Results of test	Young's Modulus (*10 ⁵ MPa)	3.21	Compressive Strength (MPa)	151.53	

Unconfined Compression Test For Rock Core

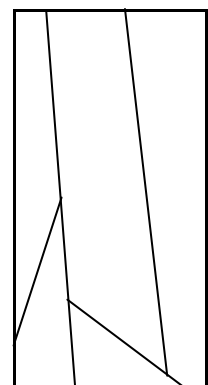
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 3
		■ Depth	35.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.87
Specimen Weight (g)	536.81
Unit Weight (kN/m ³)	26.524
Comp. Strength (Mpa)	86.3
Young's Modulus E ₅₀ (Mpa)	1.119E+04
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3815.7



Before Test



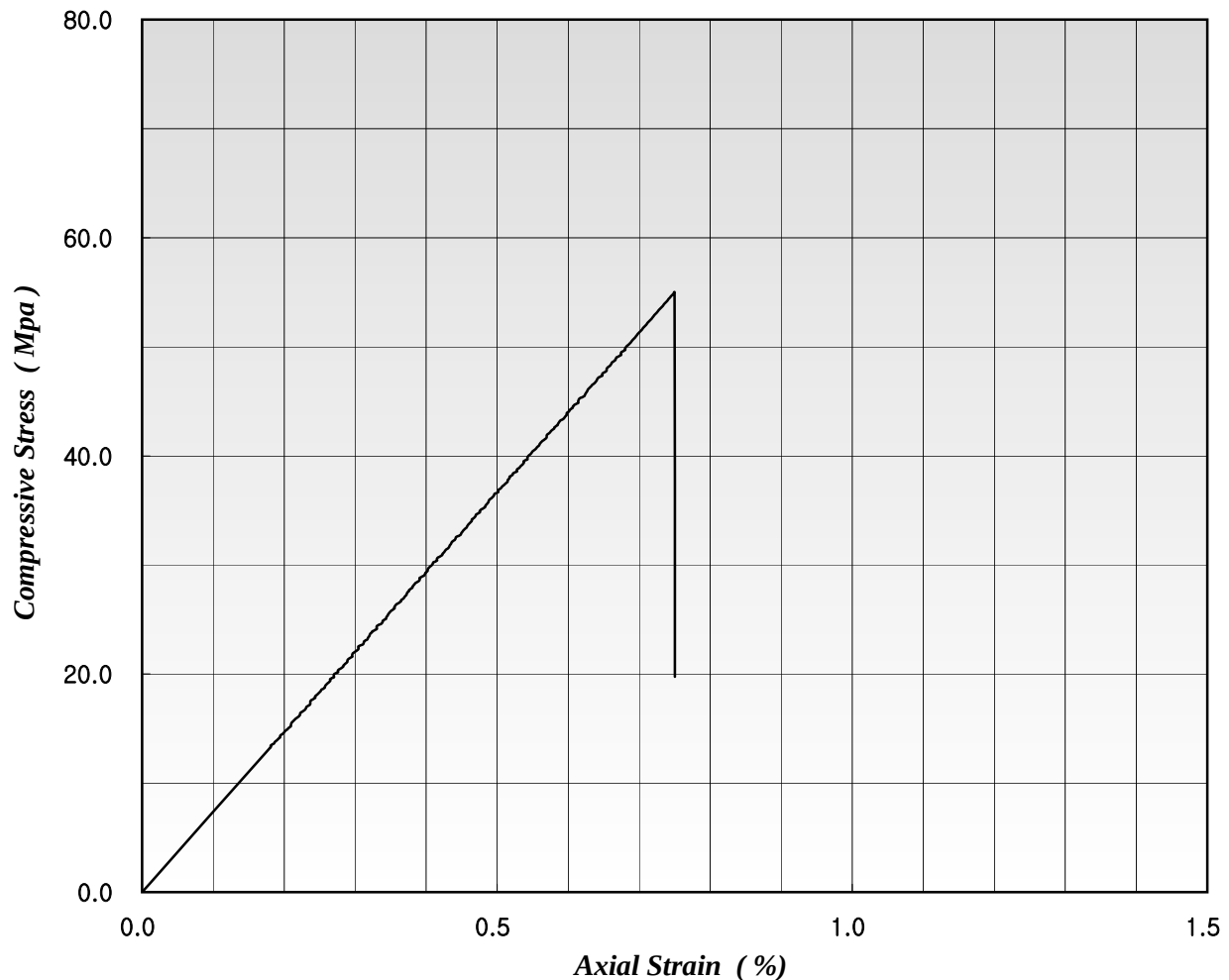
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

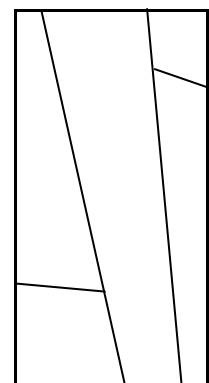
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 3
		■ Depth	44.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.81
Specimen Weight (g)	534.30
Unit Weight (kN/m ³)	26.561
Comp. Strength (Mpa)	55.0
Young's Modulus E ₅₀ (Mpa)	7.348E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3564.2



Before Test



After Test

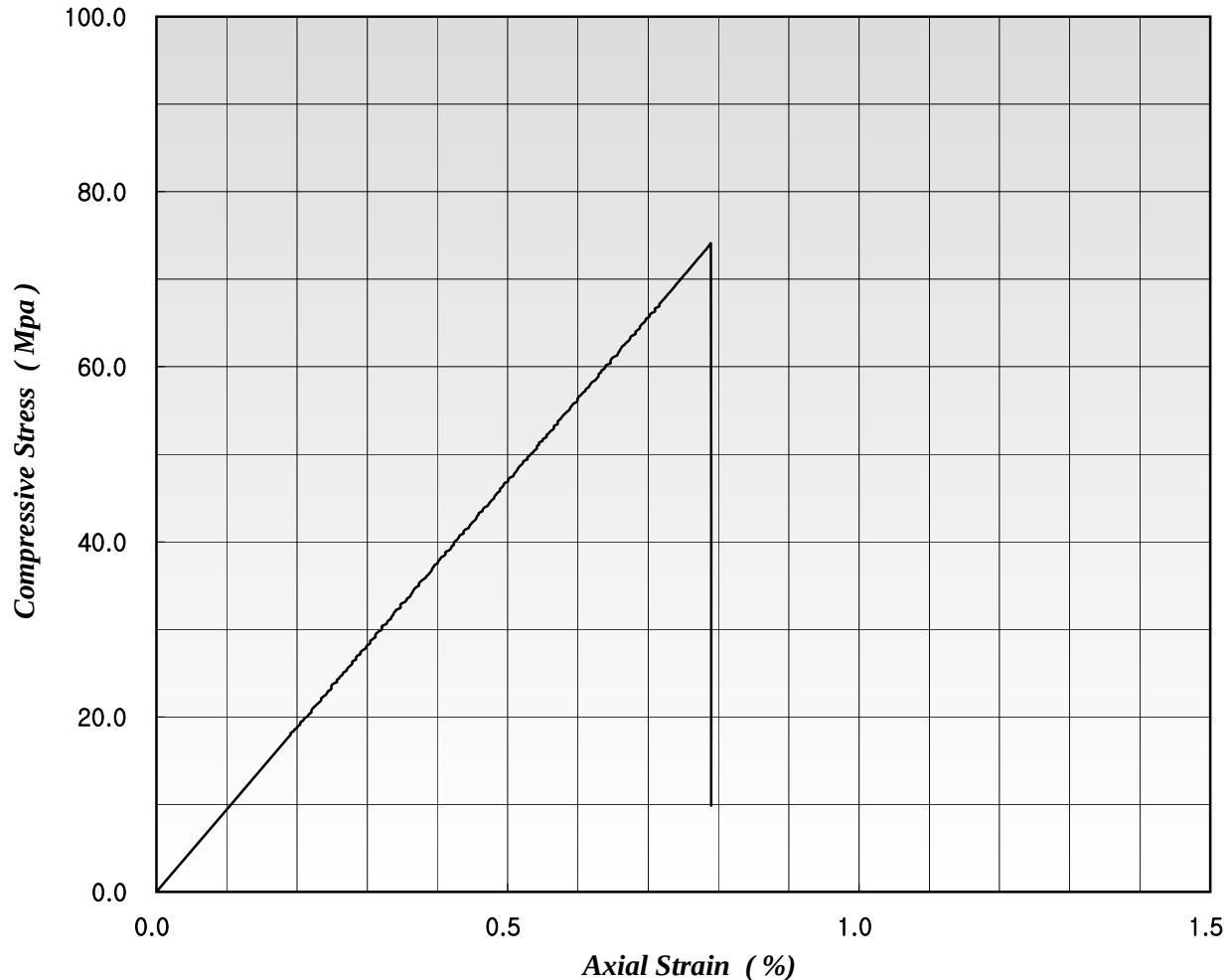
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

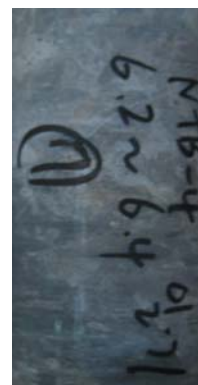
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-03	47.4~47.6		
직 경 Diameter(mm)	50.60	길 이 Length(mm)	97.60	무 게 Weight (g)	521.9
Results of test	Young's Modulus (*10 ⁵ MPa)	1.17	Compressive Strength (MPa)	236.77	
</					

Unconfined Compression Test For Rock Core

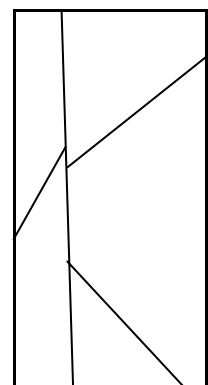
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 4
		■ Depth	6.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.87
Specimen Weight (g)	529.28
Unit Weight (kN/m ³)	26.152
Comp. Strength (Mpa)	74.1
Young's Modulus E ₅₀ (Mpa)	9.405E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	4126.4



Before Test



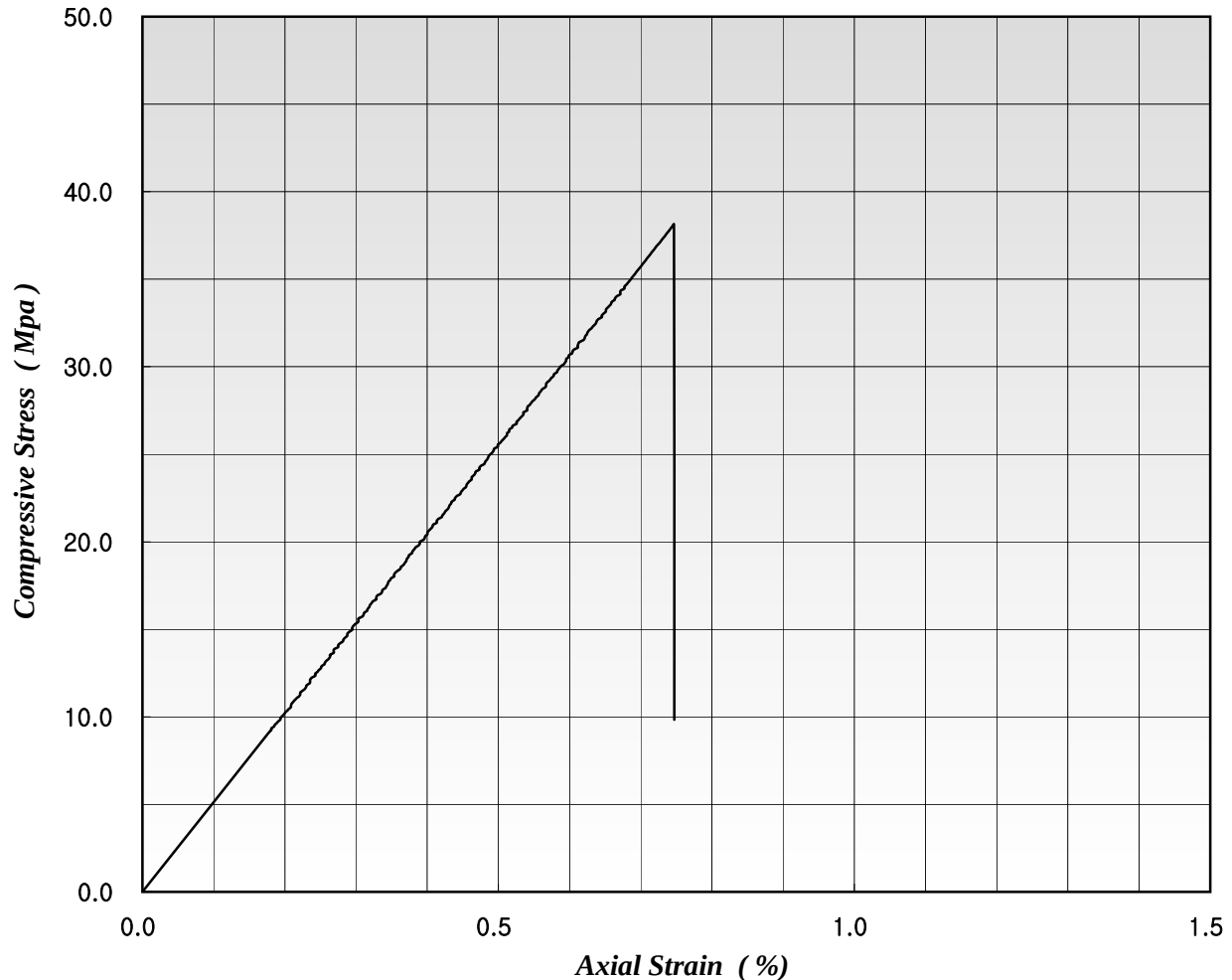
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

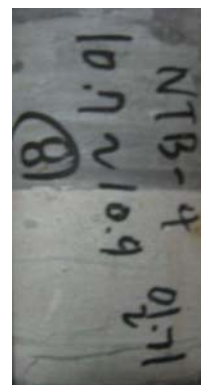
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

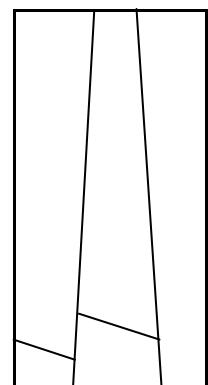
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 4
		■ Depth	10.70 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.95
Specimen Weight (g)	470.56
Unit Weight (kN/m ³)	22.973
Comp. Strength (Mpa)	38.1
Young's Modulus E ₅₀ (Mpa)	5.117E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	3094.5



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

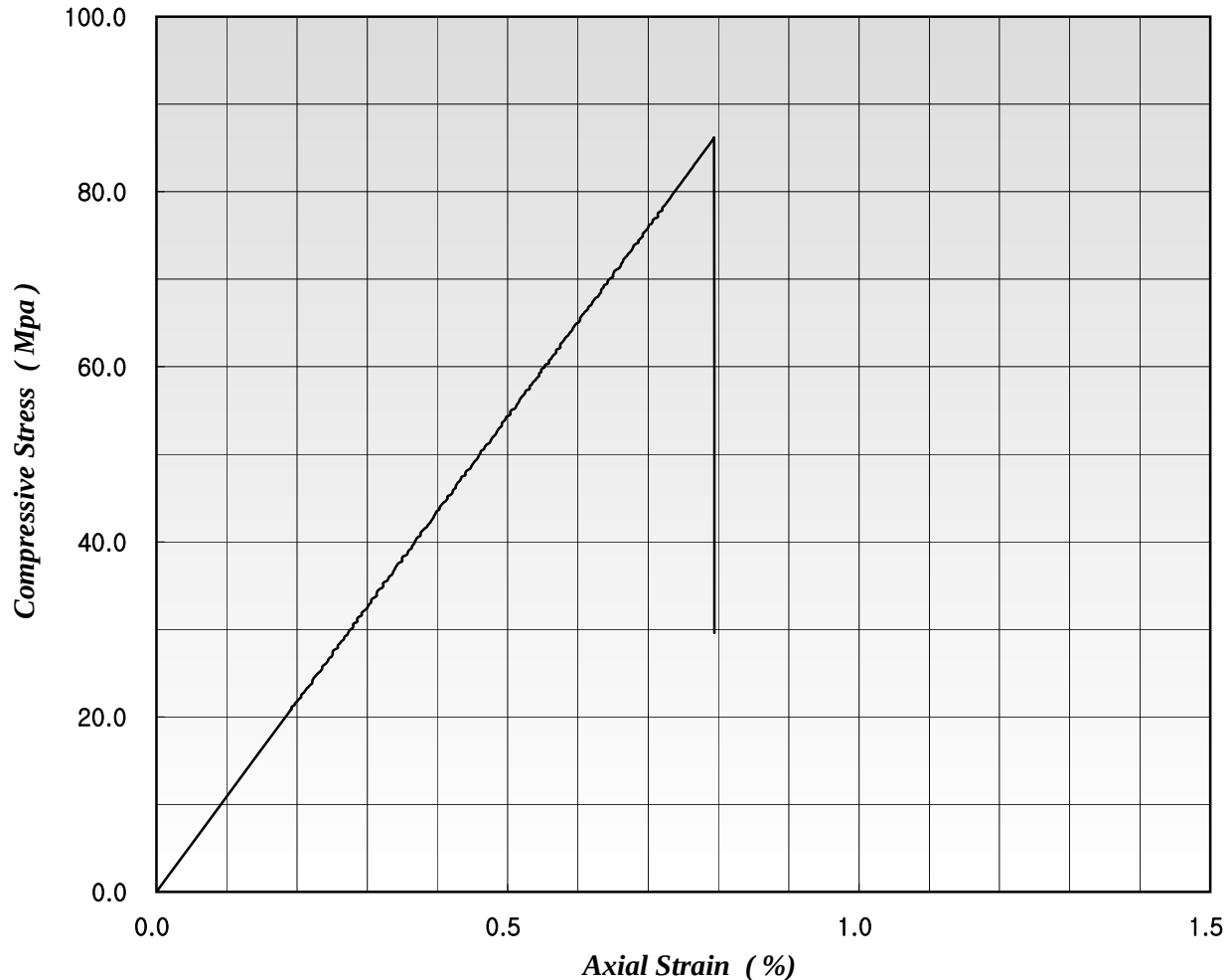
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-04	12.9~13.0		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	99.60	무 게 Weight (g)	533.4
Results of test	Young's Modulus (*10 ⁵ MPa)	2.47	Compressive Strength (MPa)	155.01	
</					

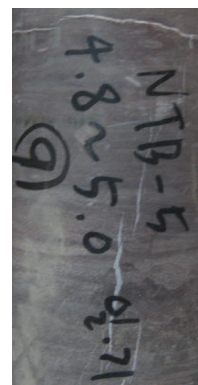
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-4	15.7~15.9		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	99.32	무 게 Weight (g)	523.04
Results of test	Young's Modulus (*10 ⁵ MPa)	1.22	Compressive Strength (MPa)	54.21	
<					

Unconfined Compression Test For Rock Core

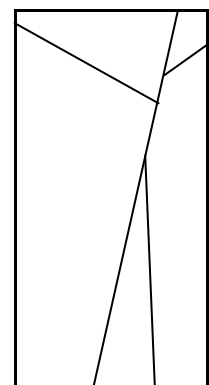
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 5
		■ Depth	4.80 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.85
Specimen Weight (g)	517.88
Unit Weight (kN/m ³)	25.640
Comp. Strength (Mpa)	86.2
Young's Modulus E ₅₀ (Mpa)	1.088E+04
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	3876.5



Before Test



After Test

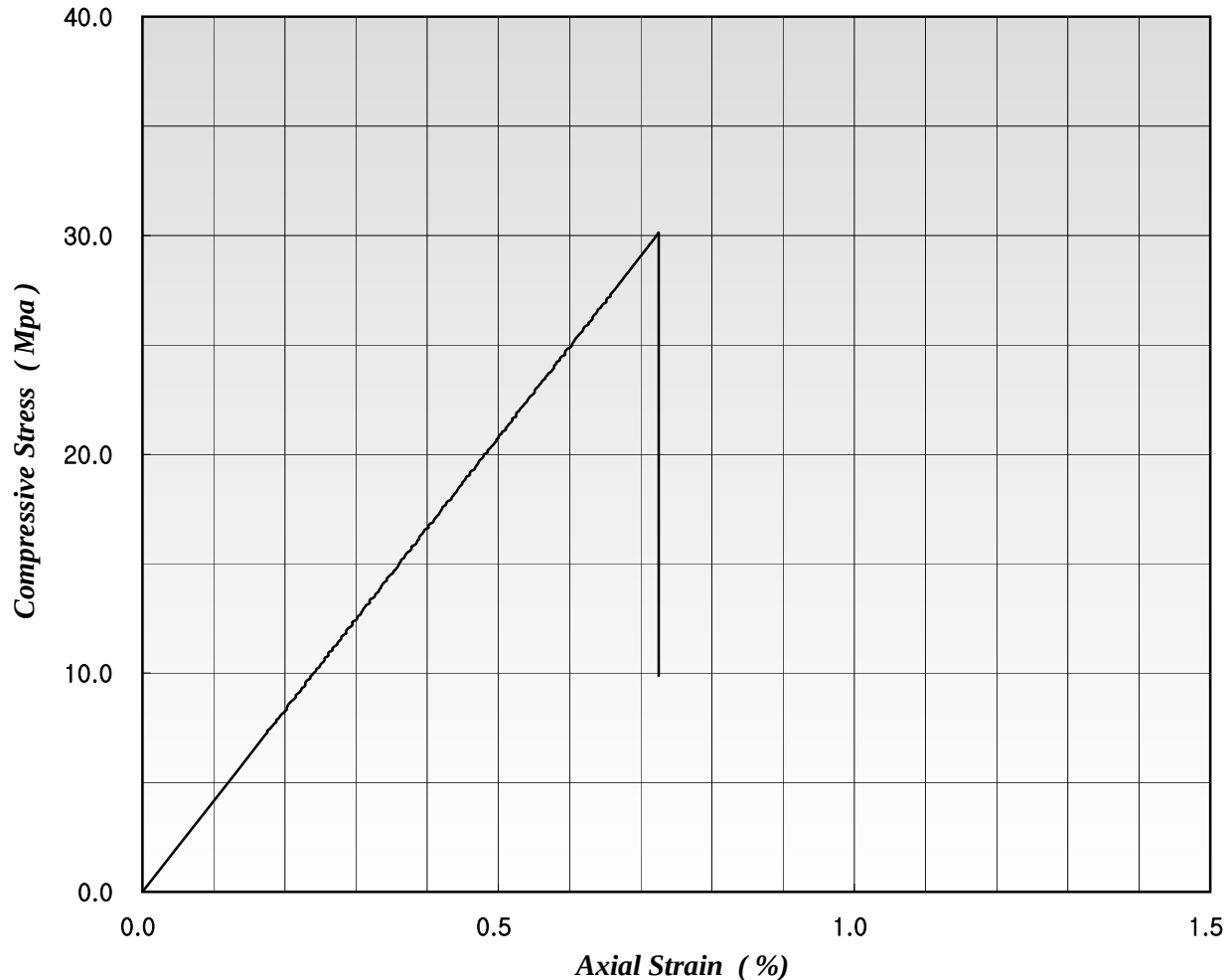
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

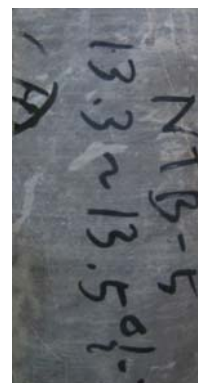
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-05	10.3~10.5		
직 경 Diameter(mm)	49.70	길 이 Length(mm)	101.31	무 게 Weight (g)	541.18
Results of test	Young's Modulus (*10 ⁵ MPa)	2.10	Compressive Strength (MPa)	110.99	

Unconfined Compression Test For Rock Core

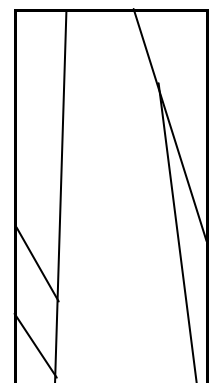
■ Project		■ Borehole No.	NTB - 5
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	13.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.82
Specimen Weight (g)	523.86
Unit Weight (kN/m ³)	26.016
Comp. Strength (Mpa)	30.1
Young's Modulus E ₅₀ (Mpa)	4.160E+03
Poisson's Ratio	0.29
Elastic Wave Velocity (m/s)	2576.4



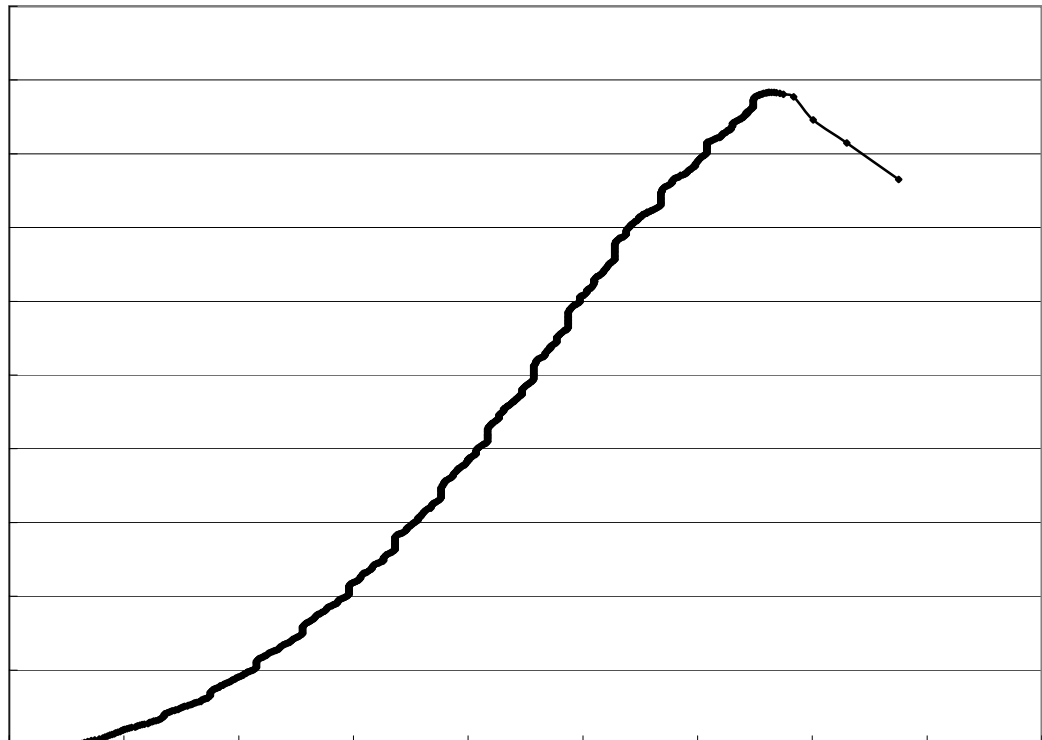
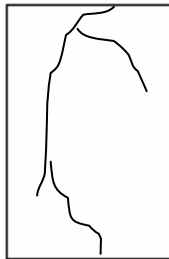
Before Test



After Test

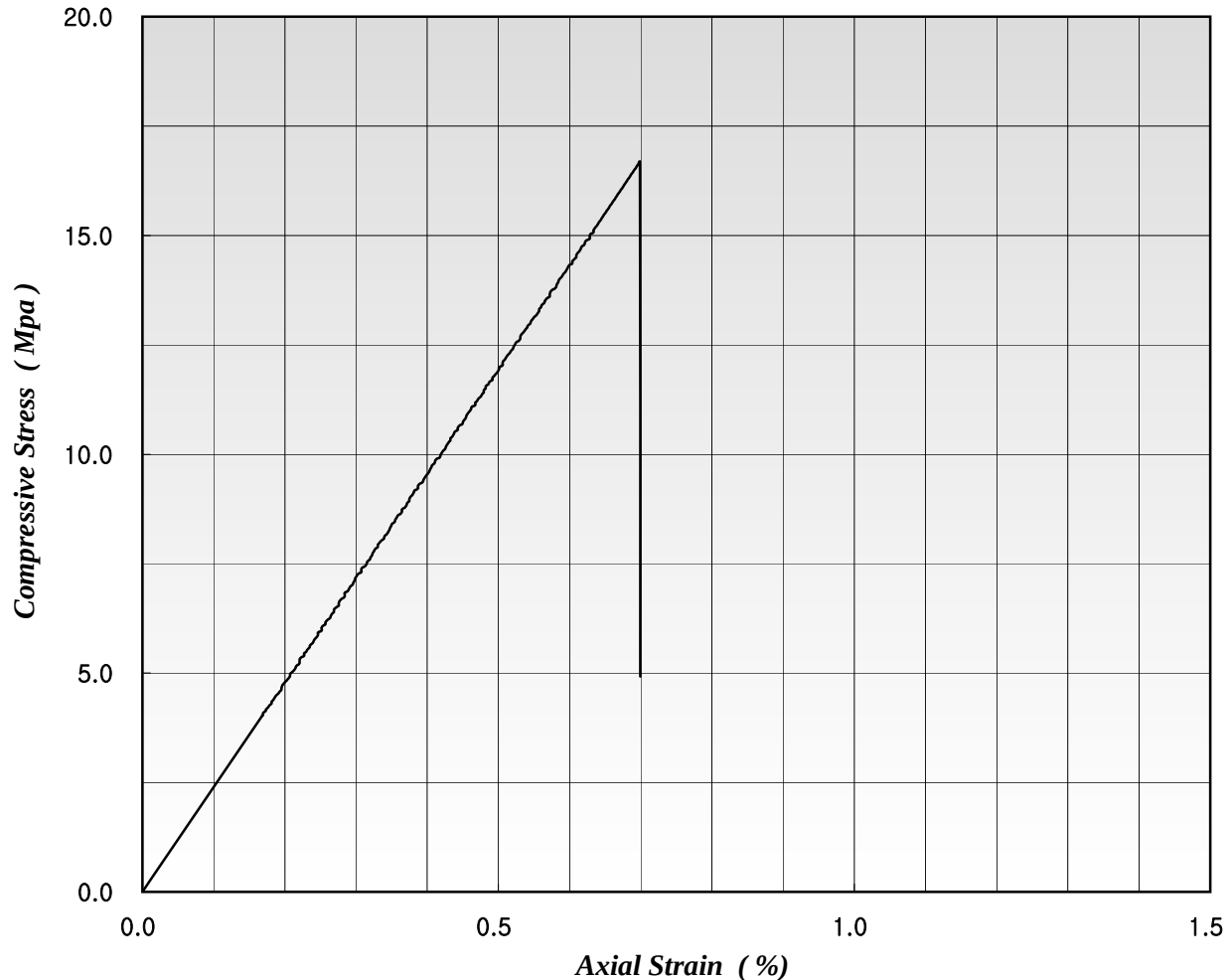
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark		■ Operator	
		■ Approved	

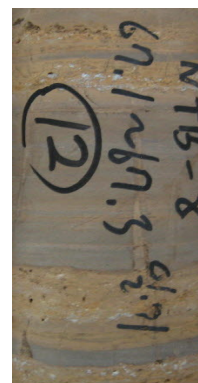
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-08	62.3~62.5		
직 경 Diameter(mm)	50.22	길 이 Length(mm)	99.31	무 게 Weight (g)	548.9
Results of test	Young's Modulus (*10 ⁵ MPa)	2.00	Compressive Strength (MPa)	86.63	
Stress (MPa)  Axial Strain(%)					
파괴전			파괴후		
					

Unconfined Compression Test For Rock Core

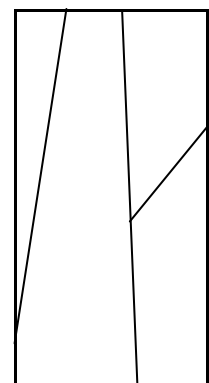
■ Project		■ Borehole No.	NTB - 8
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	67.10 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.86
Specimen Weight (g)	443.57
Unit Weight (kN/m ³)	21.853
Comp. Strength (Mpa)	16.7
Young's Modulus E ₅₀ (Mpa)	2.391E+03
Poisson's Ratio	0.30
Elastic Wave Velocity (m/s)	1648.5



Before Test



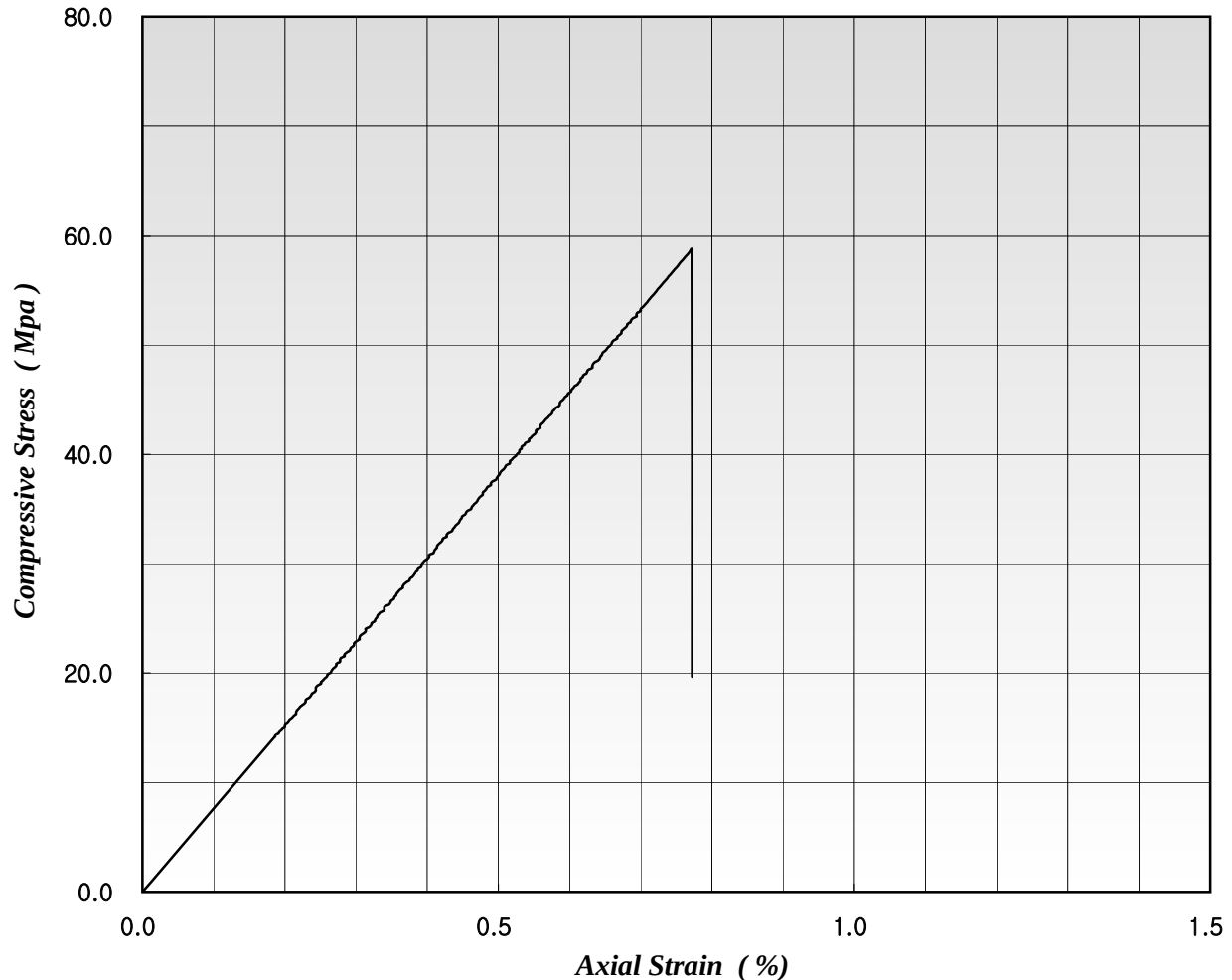
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

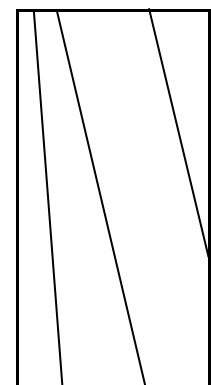
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 8
		■ Depth	76.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.90
Specimen Weight (g)	484.01
Unit Weight (kN/m ³)	23.749
Comp. Strength (Mpa)	58.7
Young's Modulus E ₅₀ (Mpa)	7.625E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3728.1



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-08	80.3~80.5		
직 경 Diameter(mm)	49.71	길 이 Length(mm)	100.15	무 게 Weight (g)	539.78
Results of test	Young's Modulus (*10 ⁵ MPa)	3.24	Compressive Strength (MPa)	280.48	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-09	2.5~2.7		
직 경 Diameter(mm)	50.70	길 이 Length(mm)	98.72	무 게 Weight (g)	529.81
Results of test	Young's Modulus (*10 ⁵ MPa)	2.00	Compressive Strength (MPa)	163.79	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-09	5.5~5.6		
직 경 Diameter(mm)	48.70	길 이 Length(mm)	97.60	무 게 Weight (g)	514.83
Results of test	Young's Modulus (*10 ⁵ MPa)	1.24	Compressive Strength (MPa)	119.22	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-10	2.0~2.1		
직 경 Diameter(mm)	50.70	길 이 Length(mm)	101.00	무 게 Weight (g)	529.81
Results of test	Young's Modulus (*10 ⁵ MPa)	1.35	Compressive Strength (MPa)	71.96	
Stress (MPa) Axial Strain(%)					
파괴전			파괴후		

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-10	5.0~5.1		
직 경 Diameter(mm)	49.30	길 이 Length(mm)	100.50	무 게 Weight (g)	528.69
Results of test	Young's Modulus (*10 ⁵ MPa)	0.32	Compressive Strength (MPa)	53.67	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-10	7.0~7.1		
직 경 Diameter(mm)	50.20	길 이 Length(mm)	97.60	무 게 Weight (g)	514.2
Results of test	Young's Modulus (*10 ⁵ MPa)	0.22	Compressive Strength (MPa)	69.77	
<					

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-12	6.2~6.4		
직 경 Diameter(mm)	50.70	길 이 Length(mm)	100.37	무 게 Weight (g)	537.83
Results of test	Young's Modulus (*10 ⁵ MPa)	0.97	Compressive Strength (MPa)	49.45	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙돈 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-12	9.1~9.3		
직 경 Diameter(mm)	50.70	길 이 Length(mm)	99.64	무 게 Weight (g)	522.81
Results of test	Young's Modulus (*10 ⁵ MPa)	2.20	Compressive Strength (MPa)	114.25	
Stress (MPa)					

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-12	11.4~11.6		
직 경 Diameter(mm)	51.00	길 이 Length(mm)	99.60	무 게 Weight (g)	518.39
Results of test	Young's Modulus (*10 ⁵ MPa)	2.01	Compressive Strength (MPa)	219.21	
</					

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-13	17.5~17.6		
직 경 Diameter(mm)	49.80	길 이 Length(mm)	101.20	무 게 Weight (g)	518.59
Results of test	Young's Modulus (*10 ⁵ MPa)	0.97	Compressive Strength (MPa)	121.33	
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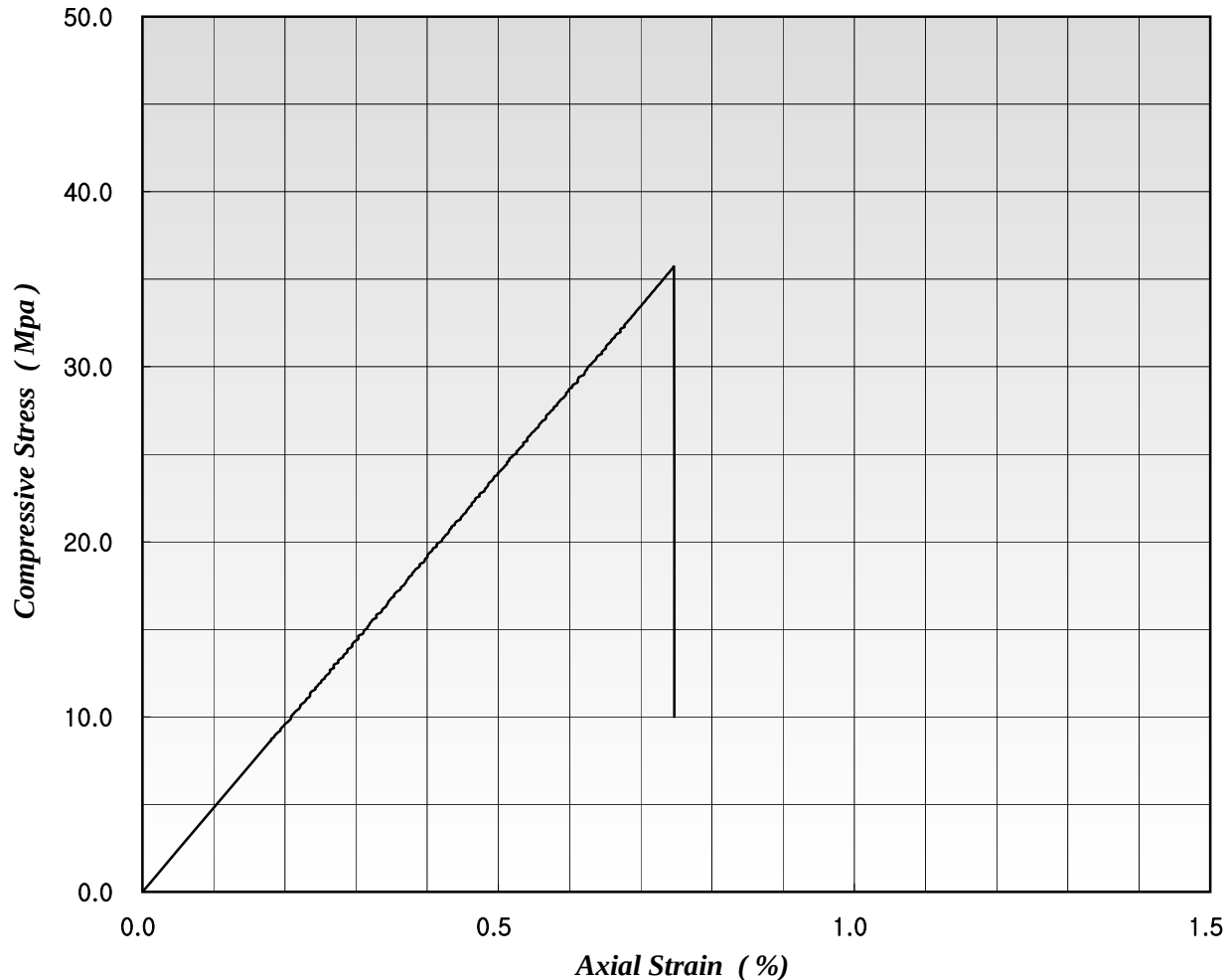
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-13	26.5~26.7		
직 경 Diameter(mm)	50.60	길 이 Length(mm)	99.60	무 게 Weight (g)	542.36
Results of test	Young's Modulus (*10 ⁵ MPa)	0.84	Compressive Strength (MPa)	74.82	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-14	5.2~5.4		
직 경 Diameter(mm)	49.70	길 이 Length(mm)	99.30	무 게 Weight (g)	519.34
Results of test	Young's Modulus (*10 ⁵ MPa)	1.15	Compressive Strength (MPa)	101.86	
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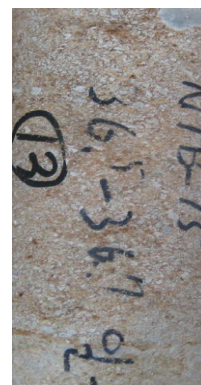
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-14	22.7~22.9		
직 경 Diameter(mm)	49.10	길 이 Length(mm)	100.30	무 게 Weight (g)	521.48
Results of test	Young's Modulus (*10 ⁵ MPa)	1.93	Compressive Strength (MPa)	184.41	

Unconfined Compression Test For Rock Core

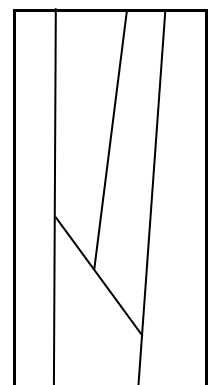
■ Project		■ Borehole No.	NTB - 15
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	36.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.03
Specimen Height (cm)	9.89
Specimen Weight (g)	405.97
Unit Weight (kN/m ³)	20.258
Comp. Strength (Mpa)	35.7
Young's Modulus E ₅₀ (Mpa)	4.793E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	2948.1



Before Test



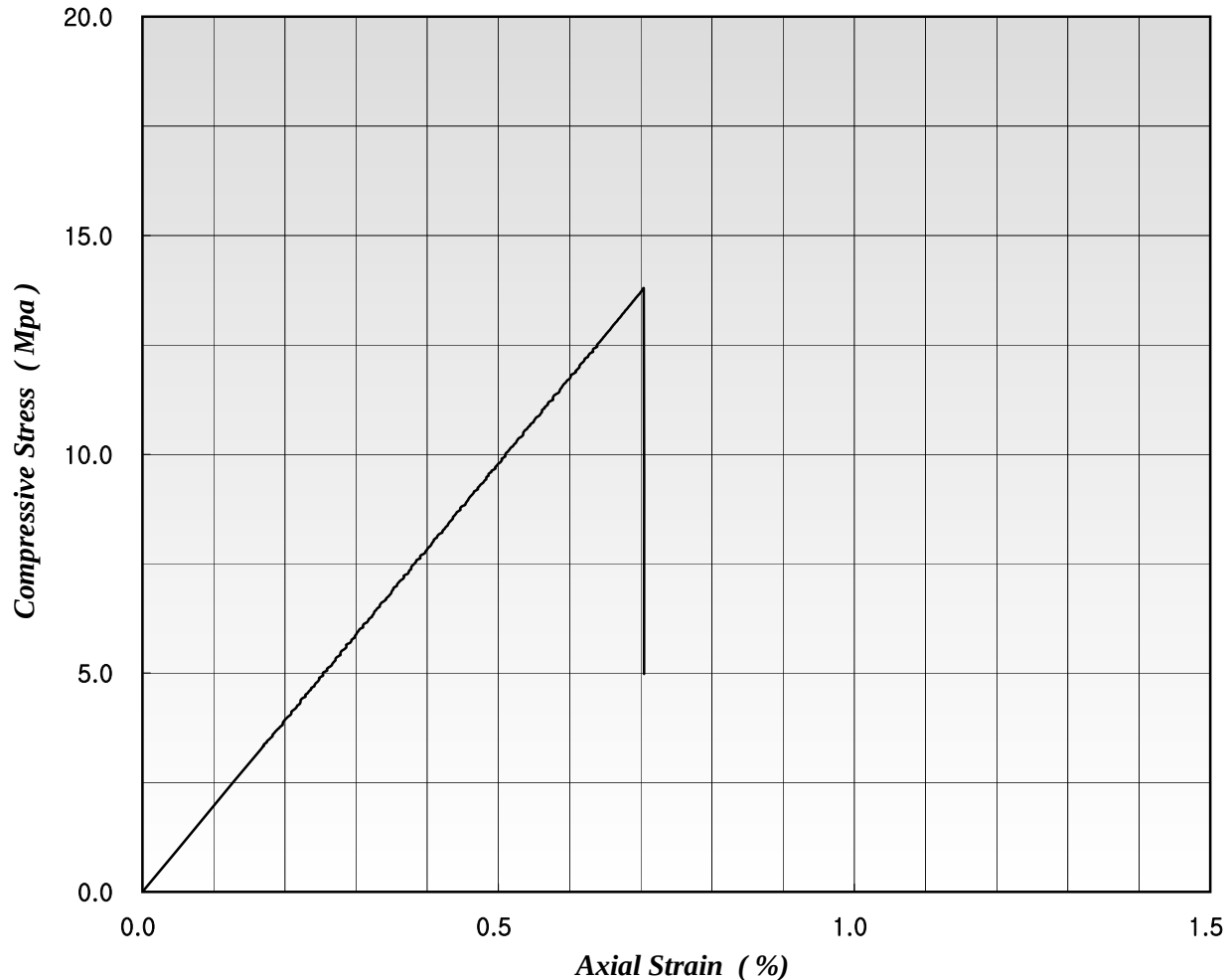
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

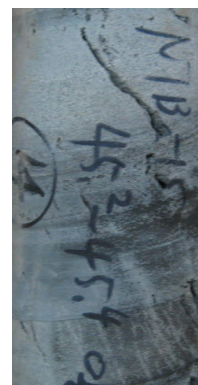
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

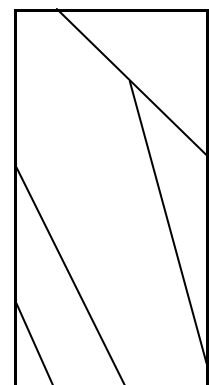
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 15
		■ Depth	45.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.04
Specimen Height (cm)	9.89
Specimen Weight (g)	477.11
Unit Weight (kN/m ³)	23.713
Comp. Strength (Mpa)	13.8
Young's Modulus E ₅₀ (Mpa)	1.961E+03
Poisson's Ratio	0.30
Elastic Wave Velocity (m/s)	1698.4



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

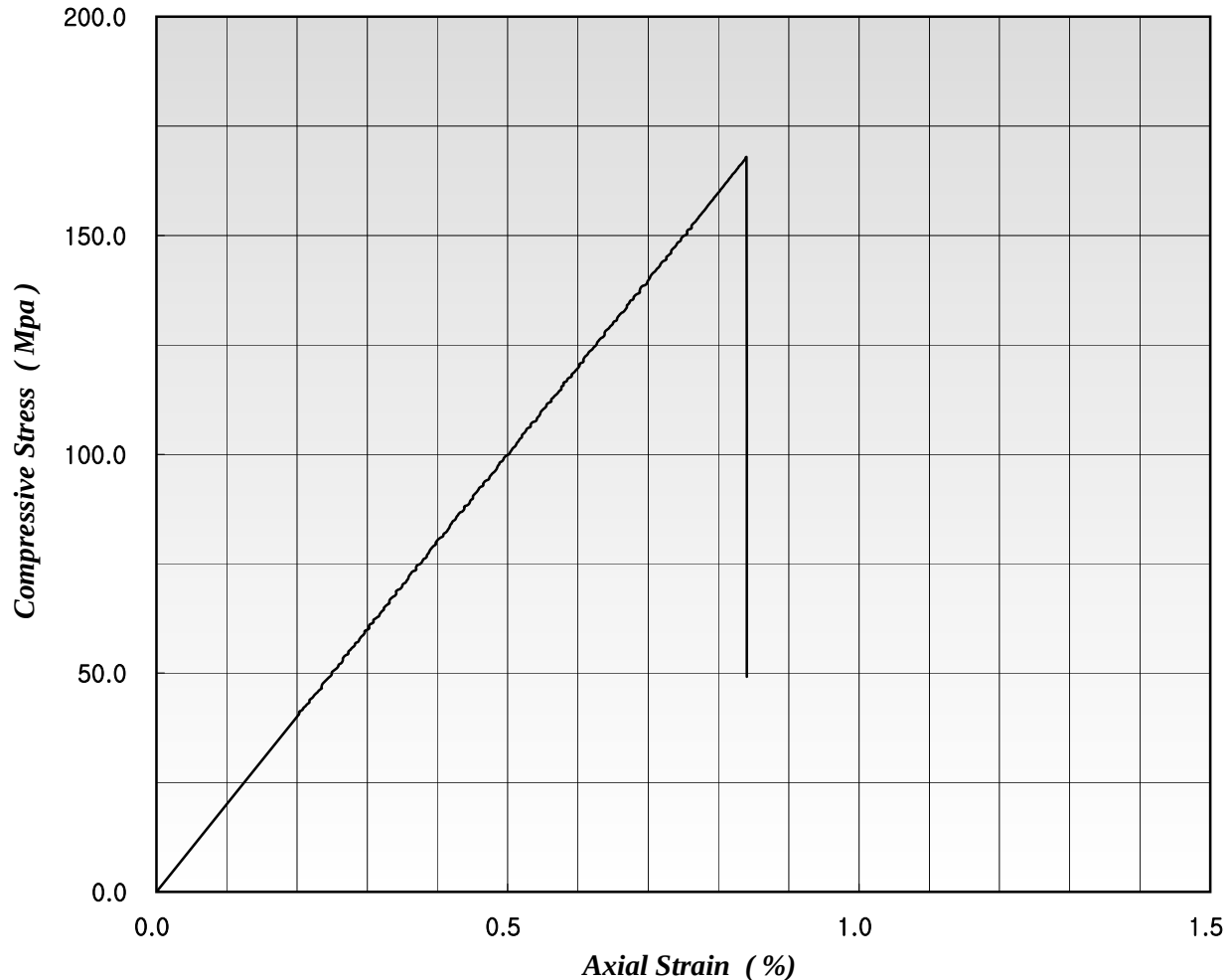
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-15	53.7~53.9		
직 경 Diameter(mm)	48.90	길 이 Length(mm)	97.30	무 게 Weight (g)	496.34
Results of test	Young's Modulus (*10 ⁵ MPa)	1.31	Compressive Strength (MPa)	154.29	
 					

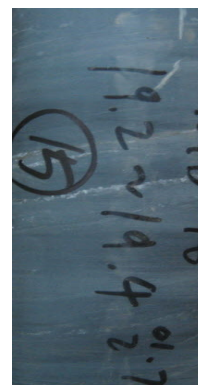
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-16	16.5~16.7		
직 경 Diameter(mm)	52.40	길 이 Length(mm)	98.30	무 게 Weight (g)	536.17
Results of test	Young's Modulus (*10 ⁵ MPa)	0.95	Compressive Strength (MPa)	101.67	
<					

Unconfined Compression Test For Rock Core

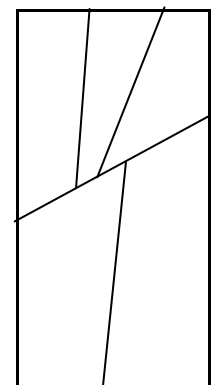
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 16
		■ Depth	19.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.91
Specimen Weight (g)	549.39
Unit Weight (kN/m ³)	26.929
Comp. Strength (Mpa)	167.9
Young's Modulus E ₅₀ (Mpa)	2.003E+04
Poisson's Ratio	0.22
Elastic Wave Velocity (m/s)	5564.3



Before Test



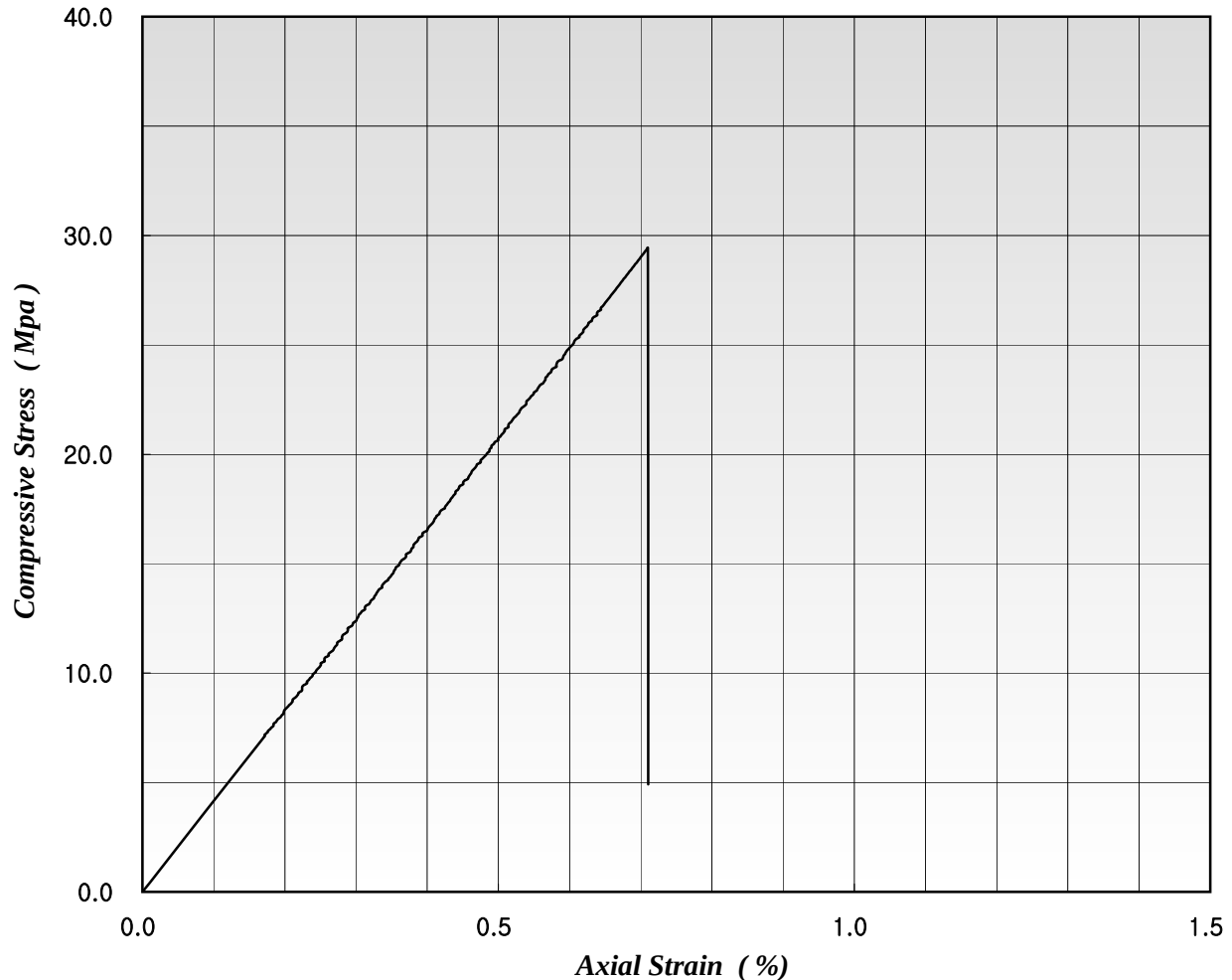
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

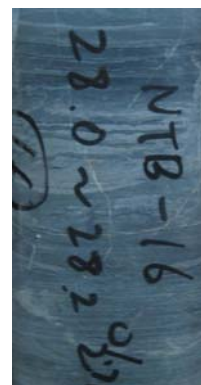
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

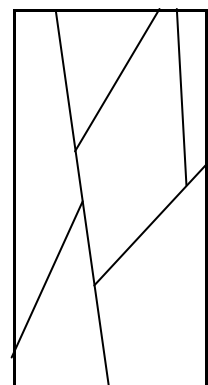
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 16
		■ Depth	28.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.92
Specimen Weight (g)	533.17
Unit Weight (kN/m ³)	26.108
Comp. Strength (Mpa)	29.4
Young's Modulus E ₅₀ (Mpa)	4.152E+03
Poisson's Ratio	0.28
Elastic Wave Velocity (m/s)	2643.7



Before Test



After Test

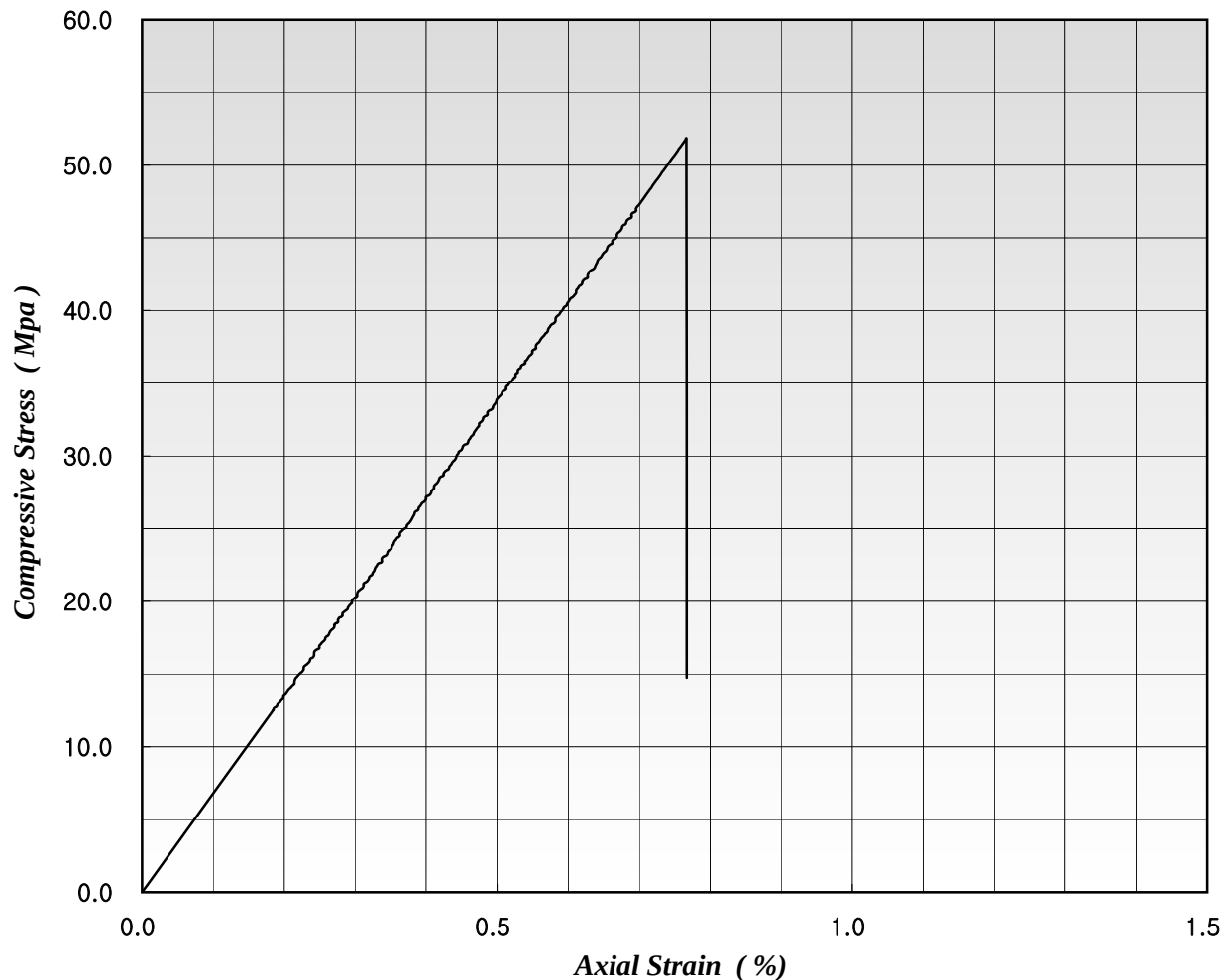
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

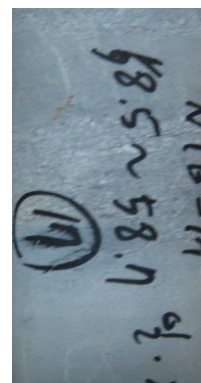
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-16	35.6~35.7		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	101.27	무 게 Weight (g)	533.4
Results of test	Young's Modulus (*10 ⁵ MPa)	1.53	Compressive Strength (MPa)	74.63	
<					

Unconfined Compression Test For Rock Core

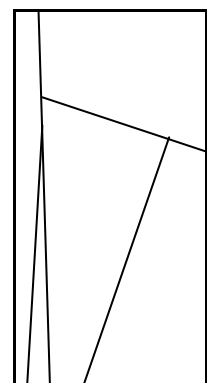
■ Project		■ Borehole No.	NTB - 17
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	58.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.89
Specimen Weight (g)	521.17
Unit Weight (kN/m ³)	25.598
Comp. Strength (Mpa)	51.8
Young's Modulus E ₅₀ (Mpa)	6.775E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3164.9



Before Test



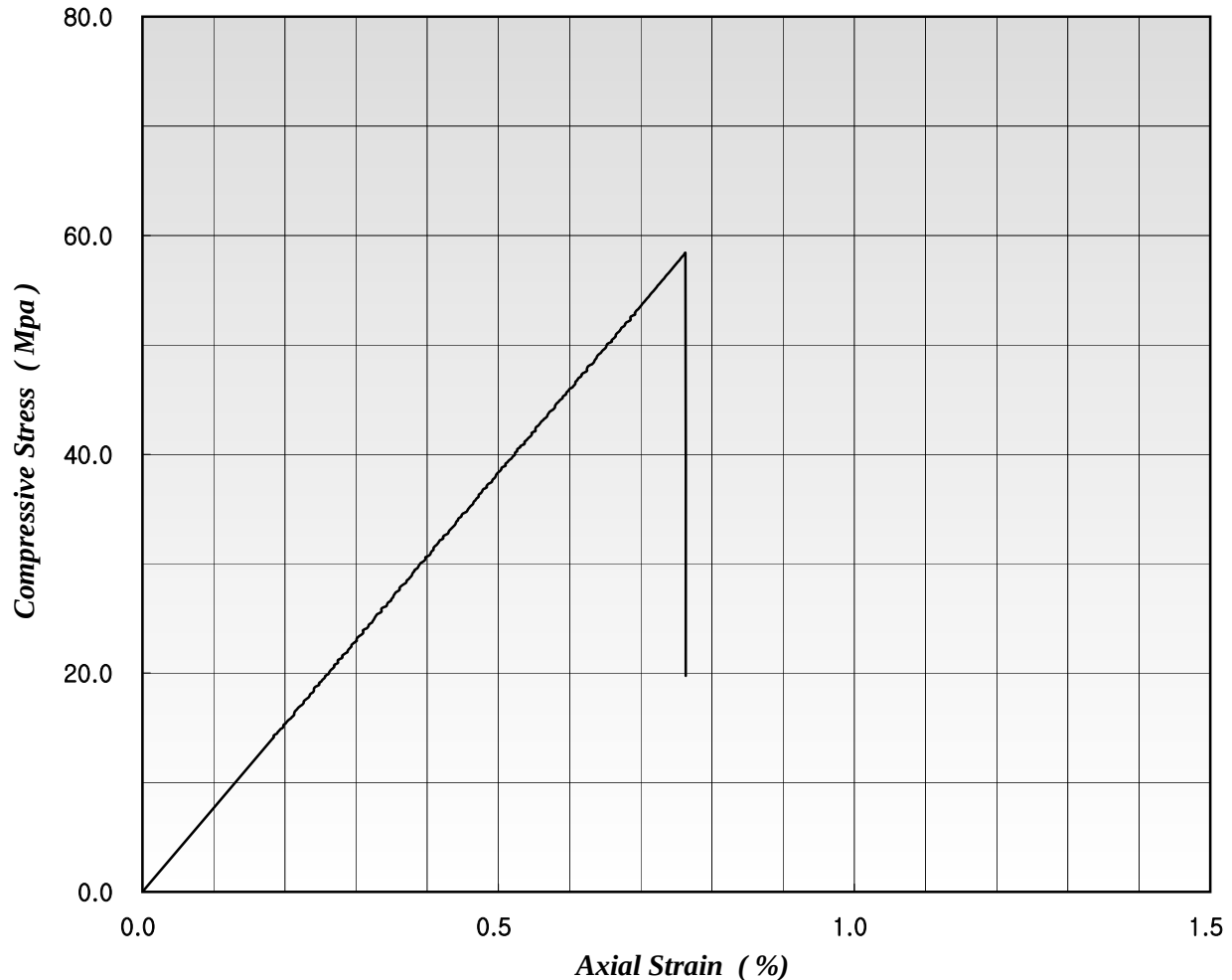
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

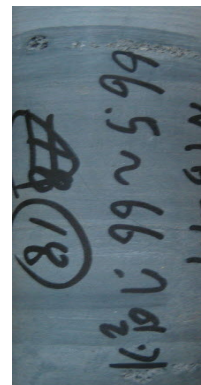
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

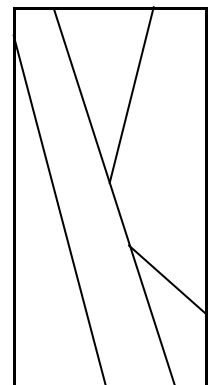
■ Project		■ Borehole No.	NTB - 17
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	66.50 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.96
Specimen Weight (g)	540.70
Unit Weight (kN/m ³)	26.475
Comp. Strength (Mpa)	58.4
Young's Modulus E ₅₀ (Mpa)	7.672E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3284.6



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

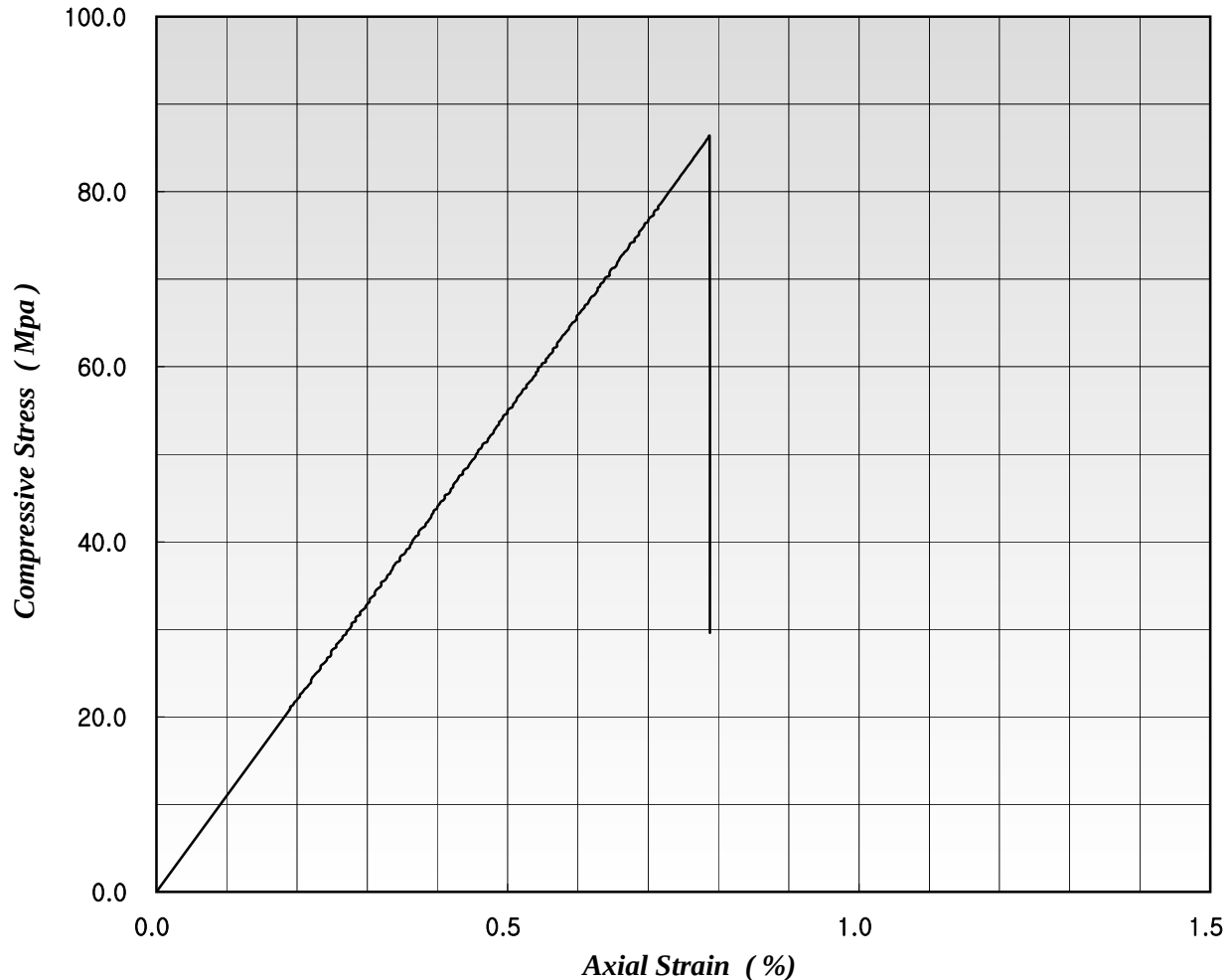
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-17	69.5~69.6		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	99.20	무 게 Weight (g)	533.4
Results of test	Young's Modulus (*10 ⁵ MPa)	1.17	Compressive Strength (MPa)	74.05	

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-18	58.0~58.2		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	99.70	무 게 Weight (g)	517.67
Results of test	Young's Modulus (*10 ⁵ MPa)	0.49	Compressive Strength (MPa)	125.63	

Unconfined Compression Test For Rock Core

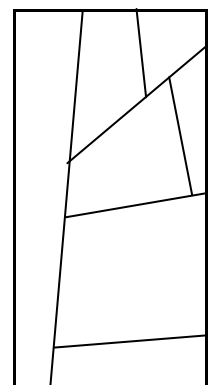
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 18
		■ Depth	63.80 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.90
Specimen Weight (g)	540.12
Unit Weight (kN/m ³)	26.606
Comp. Strength (Mpa)	86.4
Young's Modulus E ₅₀ (Mpa)	1.099E+04
Poisson's Ratio	0.25
Elastic Wave Velocity (m/s)	4471.6



Before Test



After Test

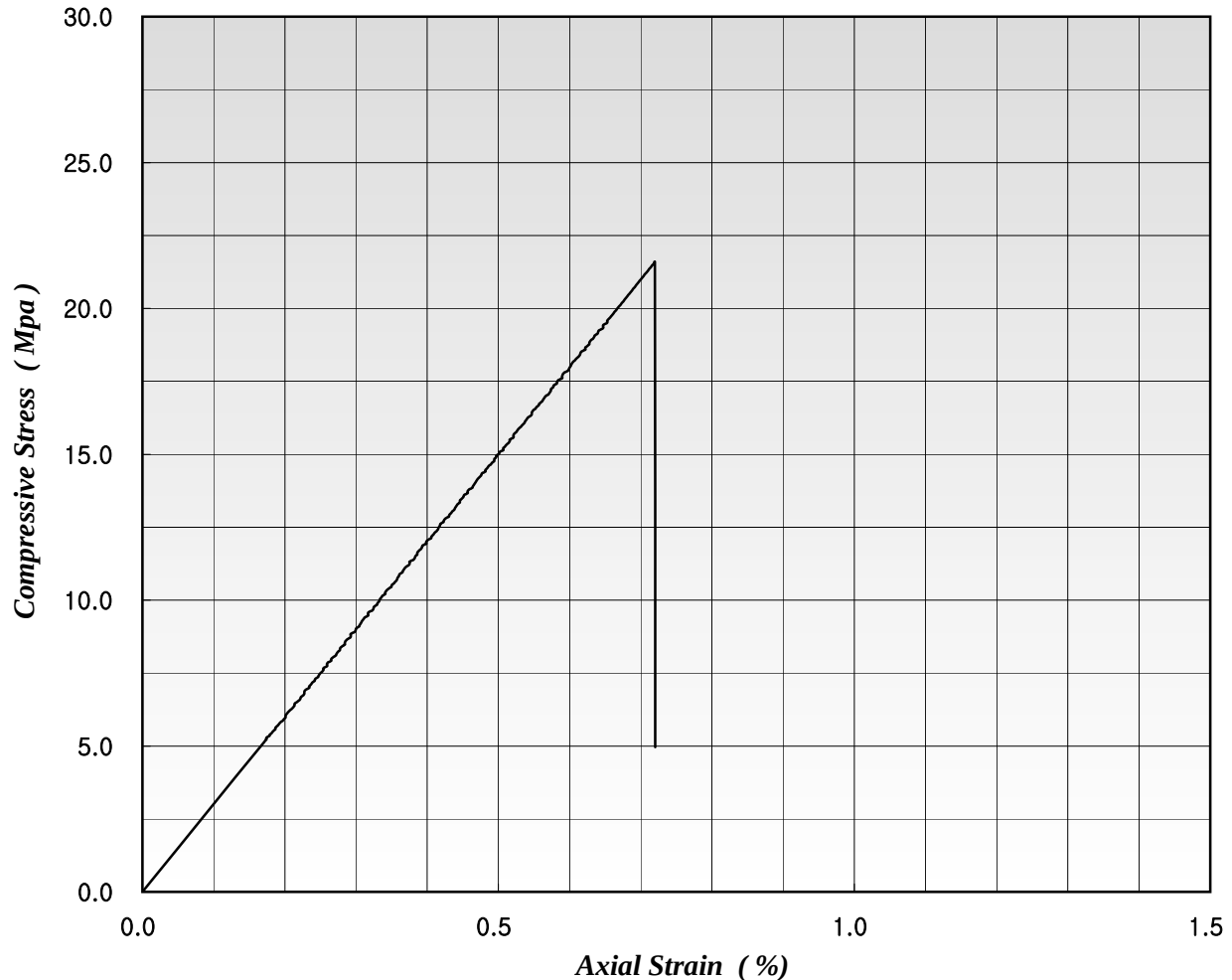
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

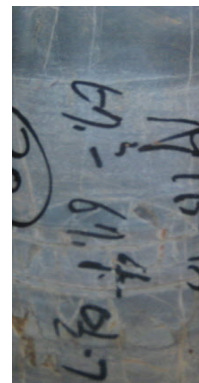
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-18	66.1~66.3		
직 경 Diameter(mm)	50.50	길 이 Length(mm)	100.60	무 게 Weight (g)	518.21
Results of test	Young's Modulus (*10 ⁵ MPa)	0.90	Compressive Strength (MPa)	29.24	

Unconfined Compression Test For Rock Core

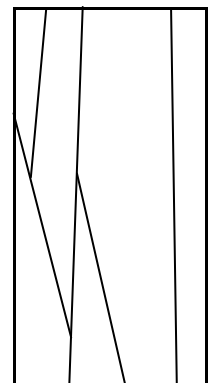
■ Project		■ Borehole No.	NTB - 18
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	67.20 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.99
Specimen Weight (g)	506.97
Unit Weight (kN/m ³)	24.847
Comp. Strength (Mpa)	21.6
Young's Modulus E ₅₀ (Mpa)	3.005E+03
Poisson's Ratio	0.29
Elastic Wave Velocity (m/s)	2330.9



Before Test



After Test

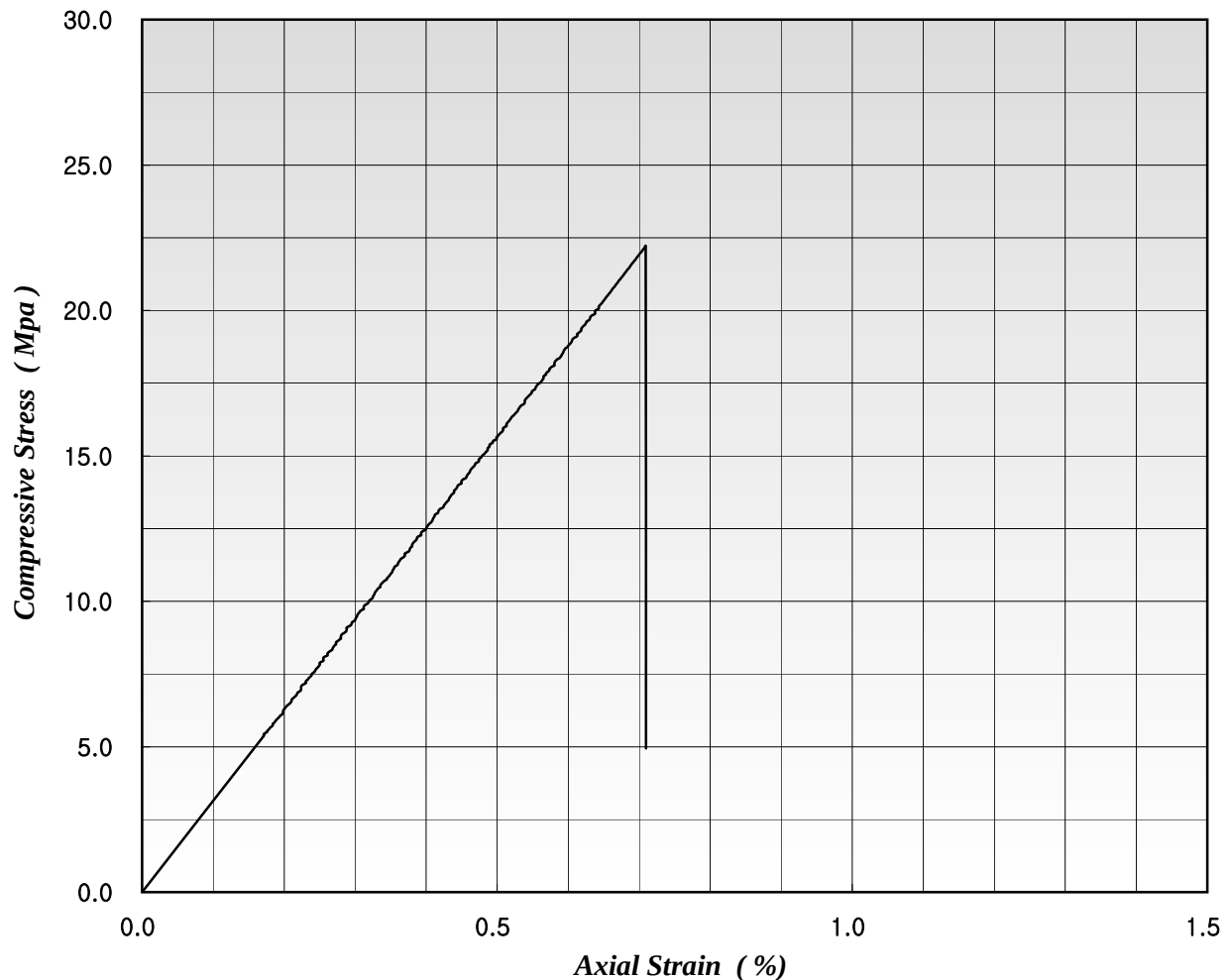
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST																									
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사																								
시험일자 Date of Test	2015.01		시험자 Tested by	김병현																					
Numbers of specimens (Boring number & Depths)		NTB-19	60.8~60.9																						
직 경 Diameter(mm)	49.80	길 이 Length(mm)	98.60	무 게 Weight (g)	527.39																				
Results of test	Young's Modulus (*10 ⁵ MPa)	0.97	Compressive Strength (MPa)	130.85																					
140 120 100 80 60 40 20 0 0 0.002 0.004 0.006 0.008 0.01 0.012 0.014 <table><caption>Approximate data points from the Stress-Strain graph</caption><thead><tr><th>Axial Strain (%)</th><th>Stress (MPa)</th></tr></thead><tbody><tr><td>0.000</td><td>0</td></tr><tr><td>0.002</td><td>2</td></tr><tr><td>0.004</td><td>10</td></tr><tr><td>0.006</td><td>25</td></tr><tr><td>0.008</td><td>45</td></tr><tr><td>0.010</td><td>80</td></tr><tr><td>0.012</td><td>120</td></tr><tr><td>0.0125</td><td>131</td></tr><tr><td>0.013</td><td>120</td></tr></tbody></table>						Axial Strain (%)	Stress (MPa)	0.000	0	0.002	2	0.004	10	0.006	25	0.008	45	0.010	80	0.012	120	0.0125	131	0.013	120
Axial Strain (%)	Stress (MPa)																								
0.000	0																								
0.002	2																								
0.004	10																								
0.006	25																								
0.008	45																								
0.010	80																								
0.012	120																								
0.0125	131																								
0.013	120																								
파괴전			파괴후																						

Unconfined Compression Test For Rock Core

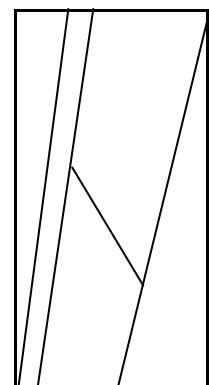
■ Project		■ Borehole No.	NTB - 19
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	66.30 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.91
Specimen Weight (g)	528.63
Unit Weight (kN/m ³)	26.014
Comp. Strength (Mpa)	22.2
Young's Modulus E ₅₀ (Mpa)	3.137E+03
Poisson's Ratio	0.29
Elastic Wave Velocity (m/s)	2417.6



Before Test



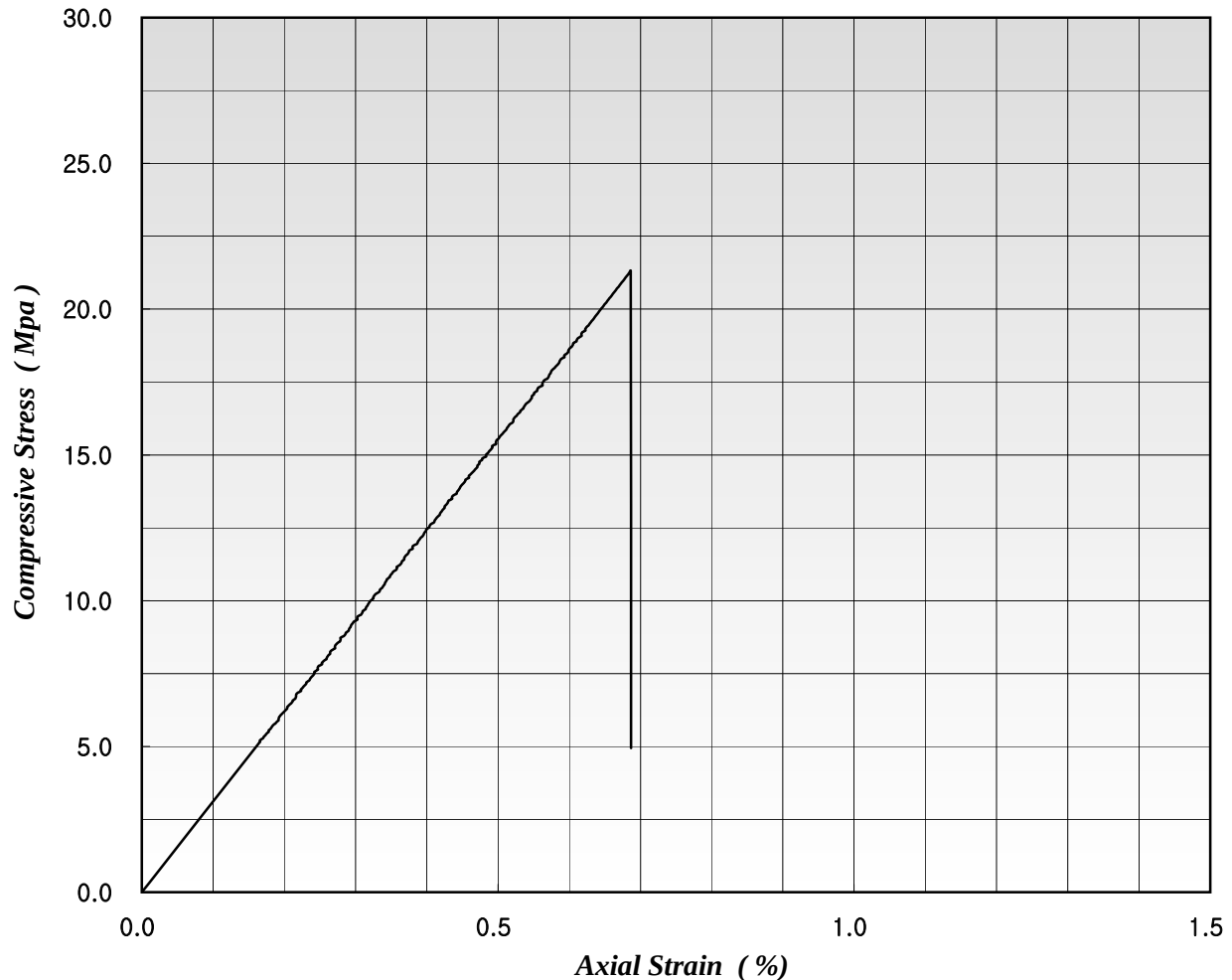
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

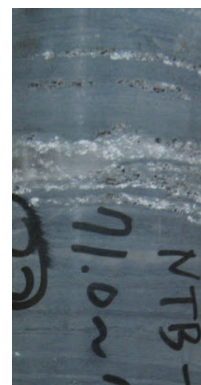
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

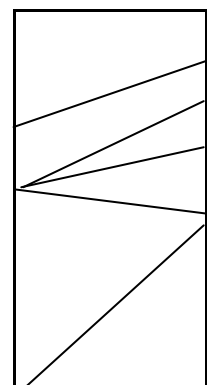
■ Project		■ Borehole No.	NTB - 19
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	71.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.92
Specimen Weight (g)	527.96
Unit Weight (kN/m ³)	25.955
Comp. Strength (Mpa)	21.3
Young's Modulus E ₅₀ (Mpa)	3.109E+03
Poisson's Ratio	0.29
Elastic Wave Velocity (m/s)	2196.8



Before Test



After Test

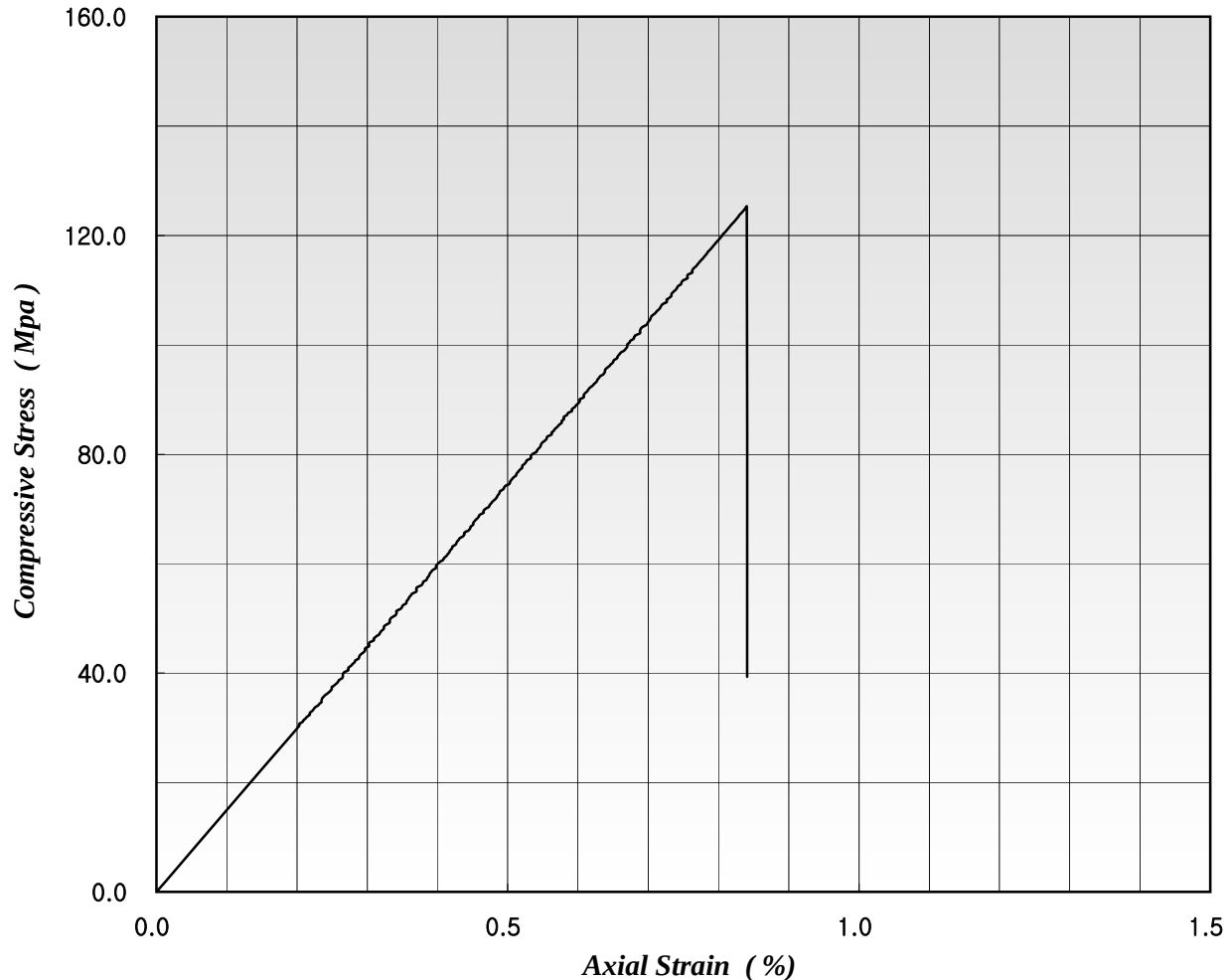
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-19	74.0~74.2		
직 경 Diameter(mm)	51.30	길 이 Length(mm)	100.90	무 게 Weight (g)	538.12
Results of test	Young's Modulus (*10 ⁵ MPa)	1.08	Compressive Strength (MPa)	155.85	

Unconfined Compression Test For Rock Core

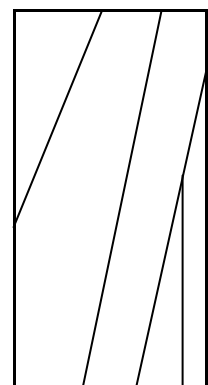
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 23
		■ Depth	59.40 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.82
Specimen Weight (g)	513.77
Unit Weight (kN/m ³)	25.414
Comp. Strength (Mpa)	125.3
Young's Modulus E ₅₀ (Mpa)	1.494E+04
Poisson's Ratio	0.24
Elastic Wave Velocity (m/s)	5359.9



Before Test



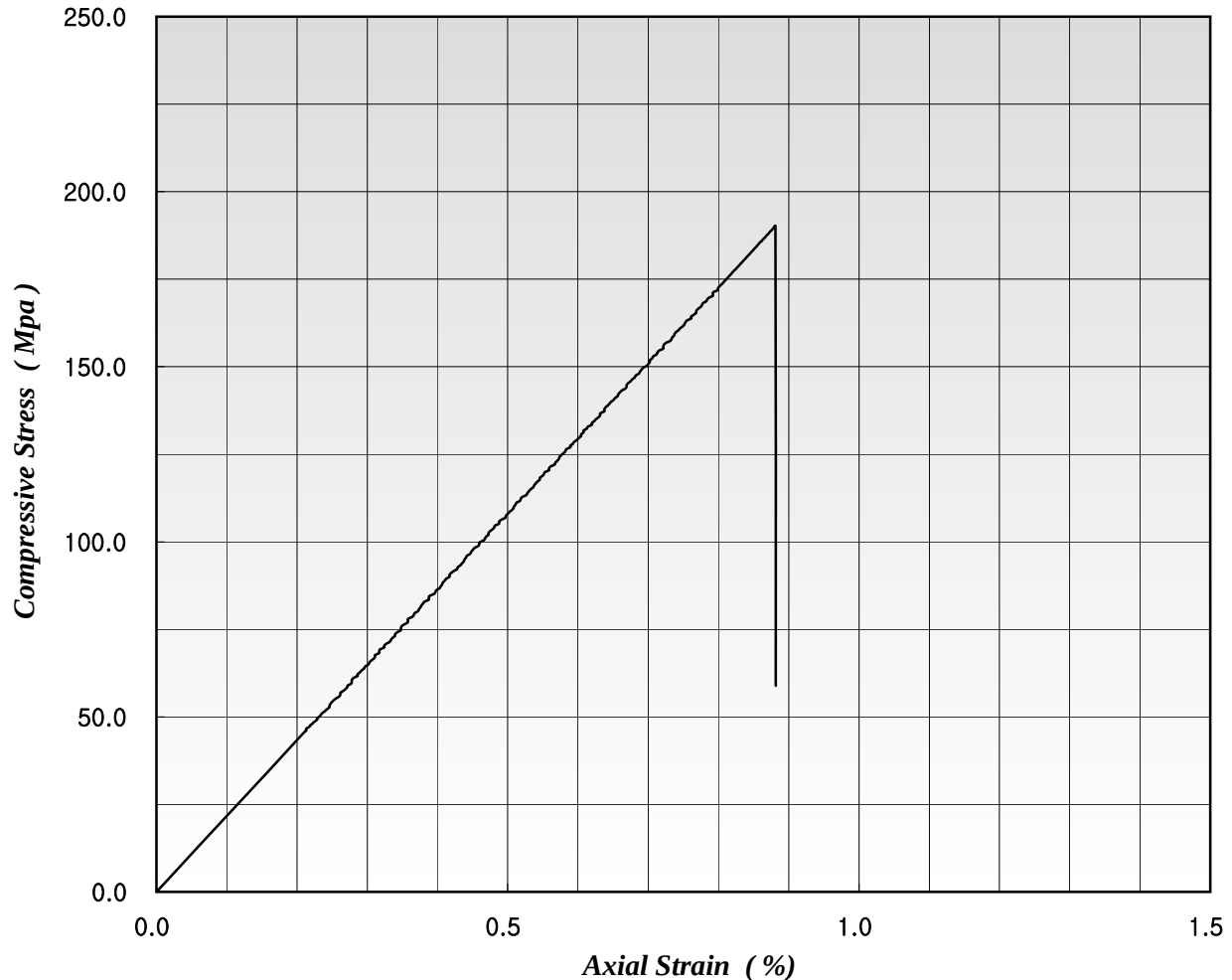
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

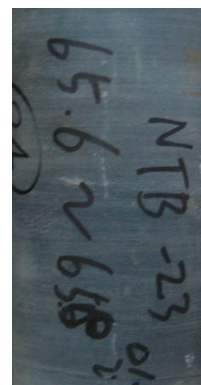
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

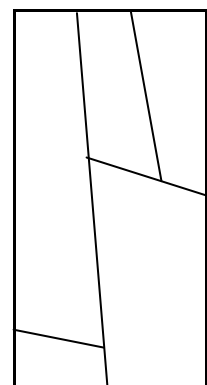
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 23
		■ Depth	65.60 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.87
Specimen Weight (g)	542.70
Unit Weight (kN/m ³)	26.709
Comp. Strength (Mpa)	190.2
Young's Modulus E ₅₀ (Mpa)	2.165E+04
Poisson's Ratio	0.21
Elastic Wave Velocity (m/s)	5996.4



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

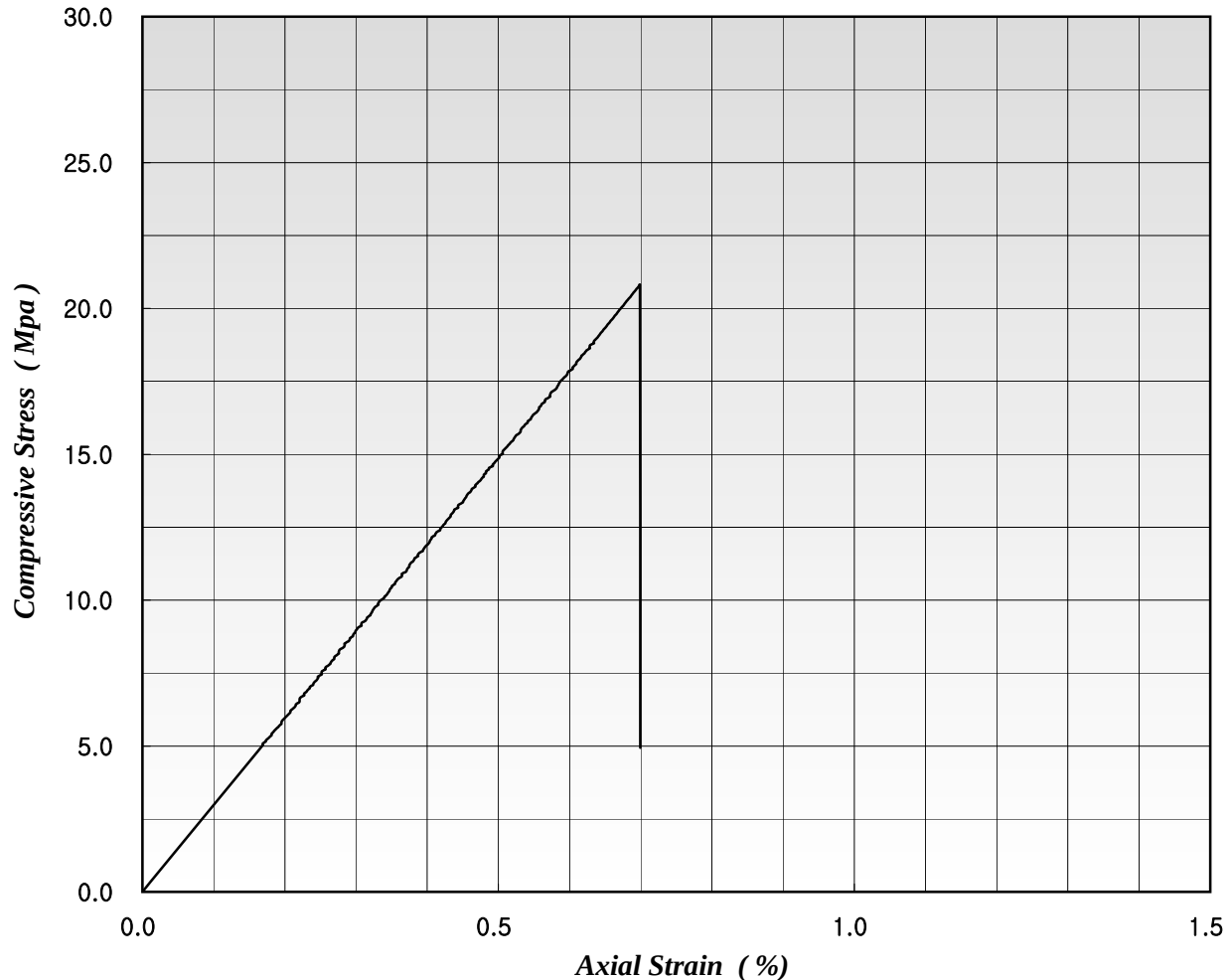
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-23	69.5~69.7		
직 경 Diameter(mm)	51.30	길 이 Length(mm)	99.60	무 게 Weight (g)	542.27
Results of test	Young's Modulus (*10 ⁵ MPa)	1.36	Compressive Strength (MPa)	83.45	

ROCK DEFORMATION TEST					
조 사 명 Project Name	수원 외곽순환(북부)도로 민간투자사업 건설공사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-23	73.6~73.7		
직 경 Diameter(mm)	49.80	길 이 Length(mm)	100.69	무 게 Weight (g)	527.67
Results of test	Young's Modulus (*10 ⁵ MPa)	1.91	Compressive Strength (MPa)	156.92	

Unconfined Compression Test For Rock Core

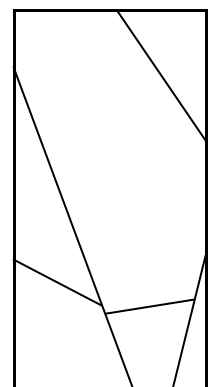
■ Project		■ Borehole No.	NTB - 24
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	13.60 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.06
Specimen Height (cm)	9.88
Specimen Weight (g)	517.82
Unit Weight (kN/m ³)	25.560
Comp. Strength (Mpa)	20.8
Young's Modulus E ₅₀ (Mpa)	2.982E+03
Poisson's Ratio	0.30
Elastic Wave Velocity (m/s)	1745.5



Before Test



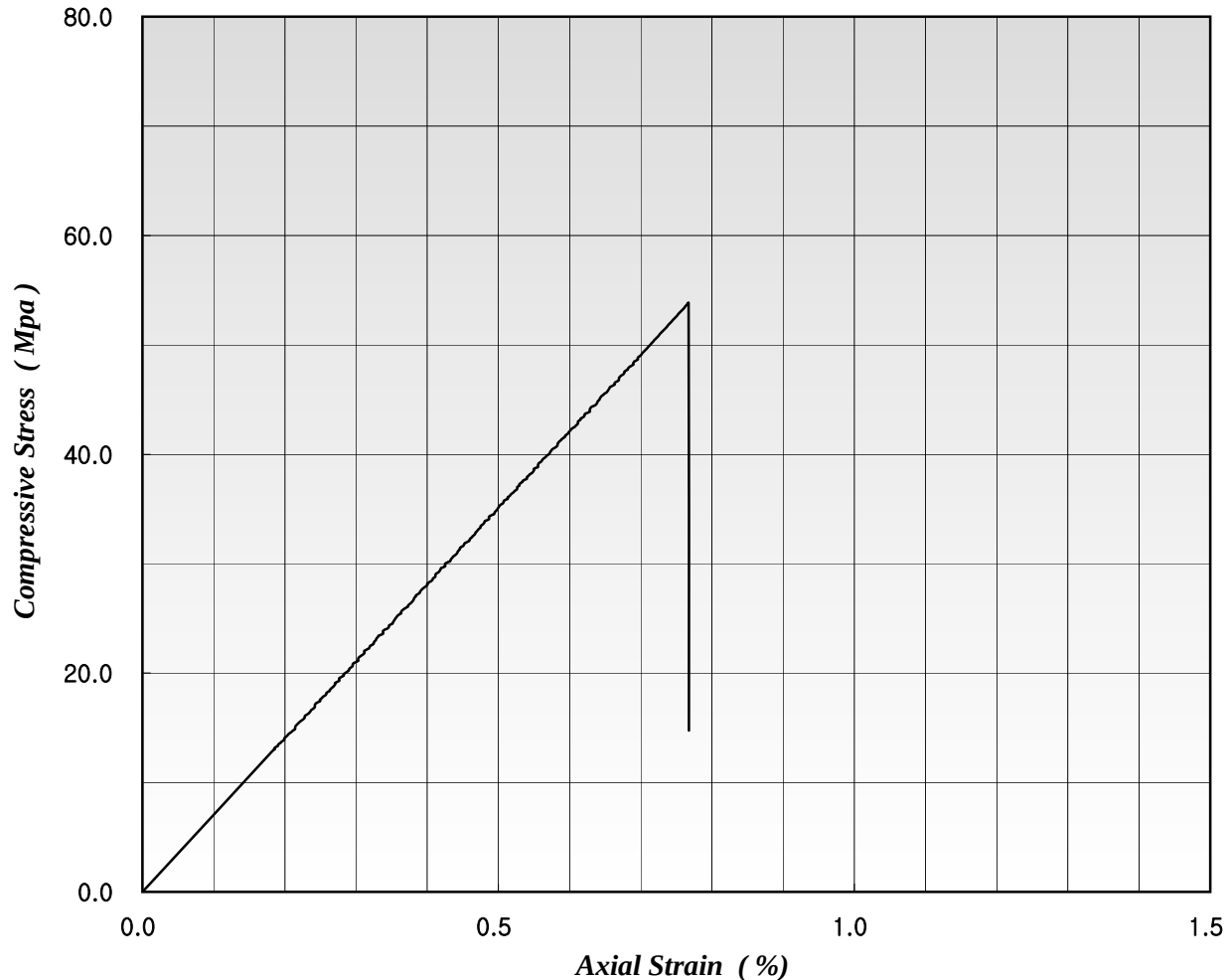
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

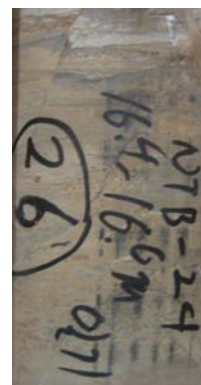
■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

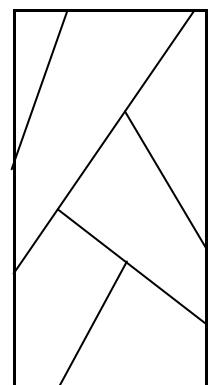
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 24
		■ Depth	16.40 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.89
Specimen Weight (g)	508.70
Unit Weight (kN/m ³)	24.985
Comp. Strength (Mpa)	53.8
Young's Modulus E ₅₀ (Mpa)	7.030E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3231.1



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

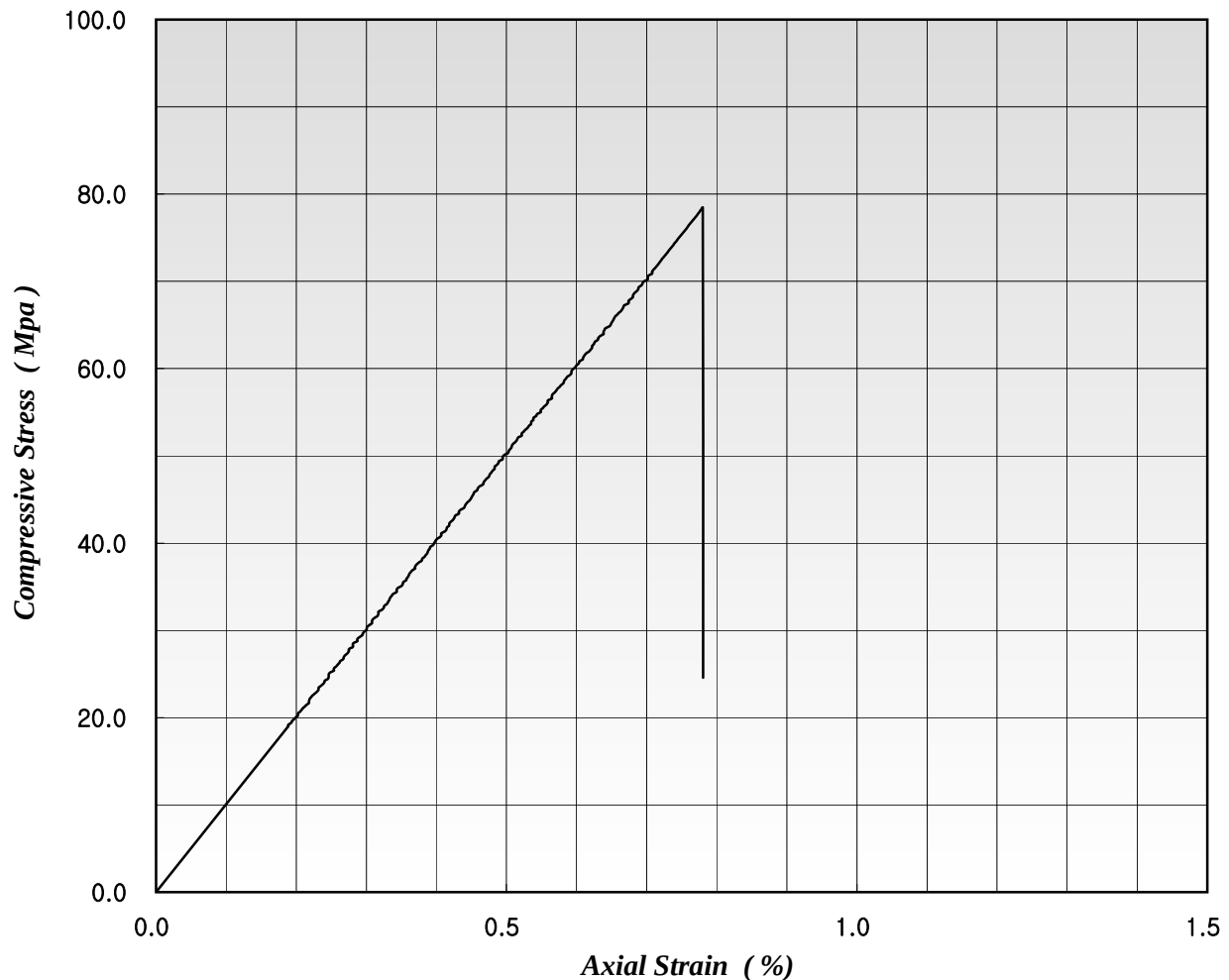
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-24	18.3~18.5		
직 경 Diameter(mm)	51.20	길 이 Length(mm)	100.70	무 게 Weight (g)	537.64
Results of test	Young's Modulus (*10 ⁵ MPa)	1.11	Compressive Strength (MPa)	84.54	

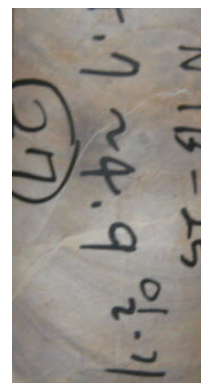
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-24	23.5~23.7		
직 경 Diameter(mm)	50.90	길 이 Length(mm)	99.60	무 게 Weight (g)	548.21
Results of test	Young's Modulus (*10 ⁵ MPa)	1.62	Compressive Strength (MPa)	121.37	
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Unconfined Compression Test For Rock Core

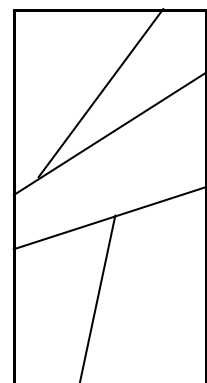
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 25
		■ Depth	4.70 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.90
Specimen Weight (g)	495.57
Unit Weight (kN/m ³)	24.316
Comp. Strength (Mpa)	78.4
Young's Modulus E ₅₀ (Mpa)	1.008E+04
Poisson's Ratio	0.26
Elastic Wave Velocity (m/s)	4318.5



Before Test



After Test

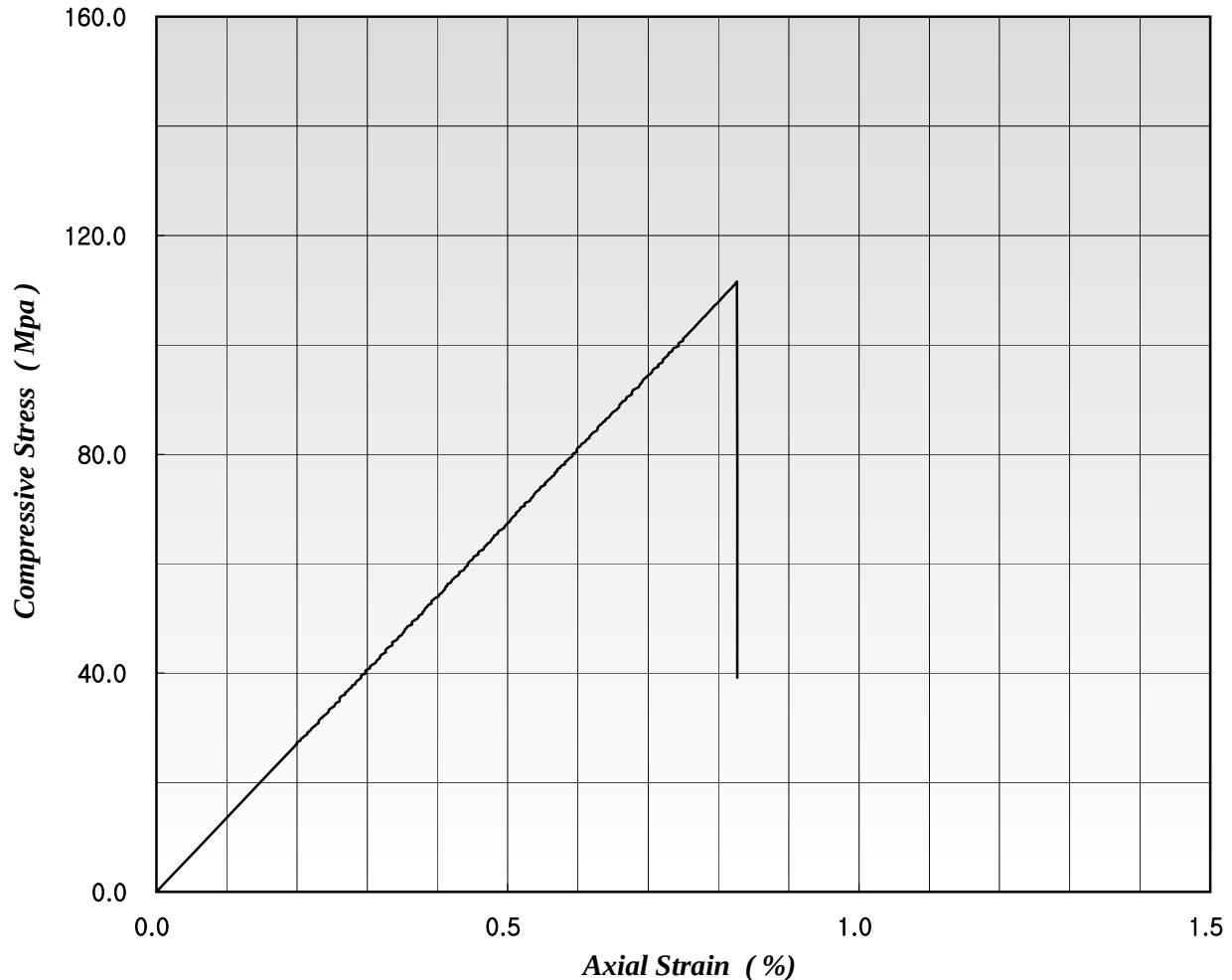
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

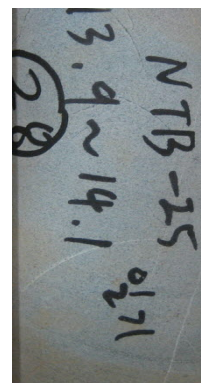
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2014.11.19		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-25	12.6~12.8		
직 경 Diameter(mm)	50.60	길 이 Length(mm)	101.50	무 게 Weight (g)	525.95
Results of test	Young's Modulus (*10 ⁵ MPa)	1.24	Compressive Strength (MPa)	57.86	

Unconfined Compression Test For Rock Core

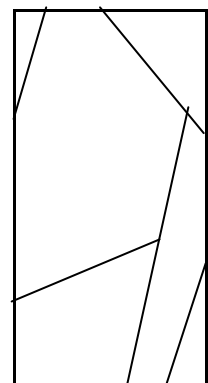
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 25
		■ Depth	13.90 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.08
Specimen Height (cm)	9.97
Specimen Weight (g)	534.24
Unit Weight (kN/m ³)	25.927
Comp. Strength (Mpa)	111.5
Young's Modulus E ₅₀ (Mpa)	1.352E+04
Poisson's Ratio	0.25
Elastic Wave Velocity (m/s)	4327.7



Before Test



After Test

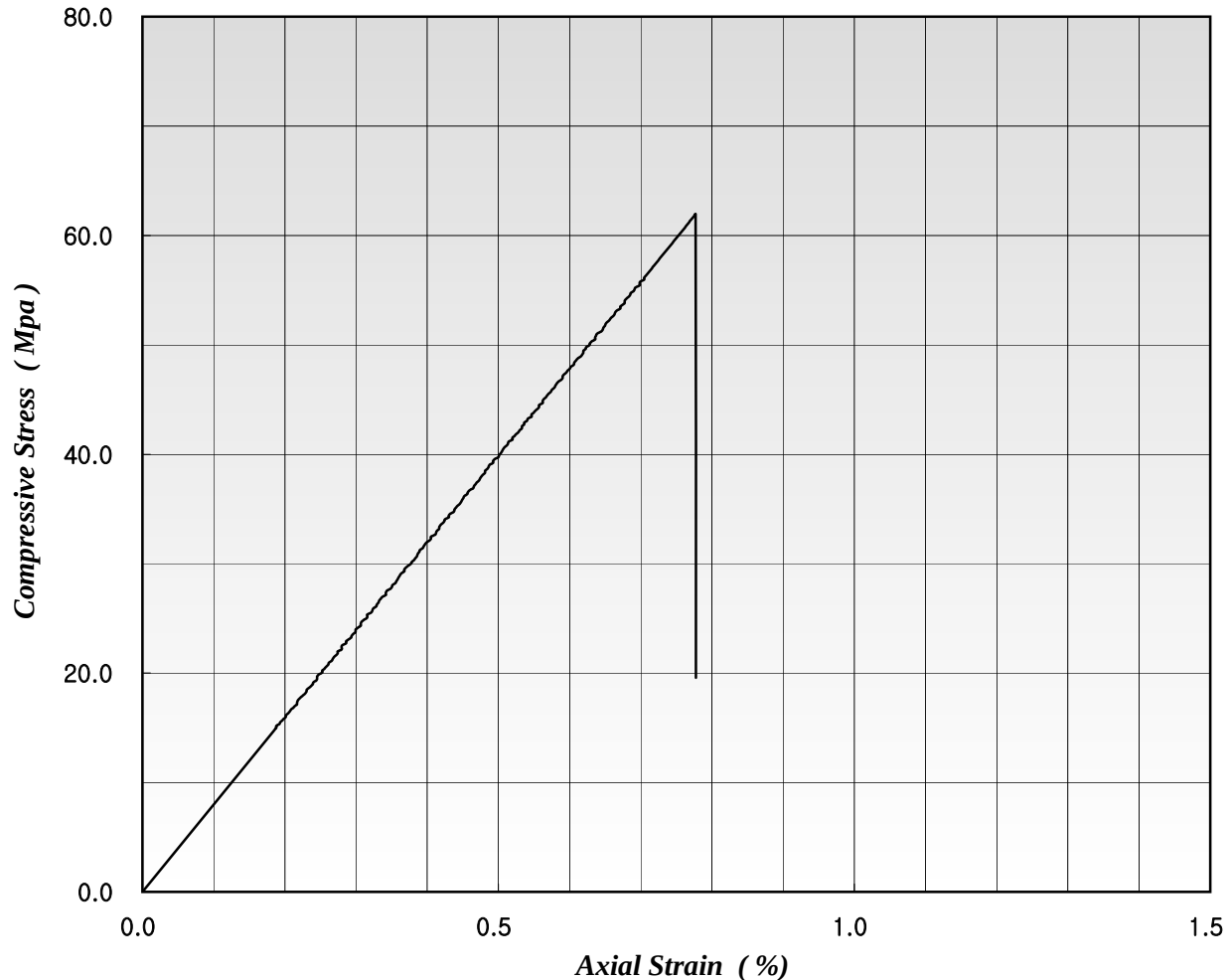
Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

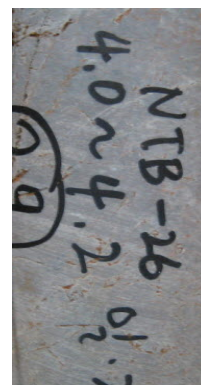
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-25	18.0~18.2		
직 경 Diameter(mm)	49.80	길 이 Length(mm)	100.90	무 게 Weight (g)	547.12
Results of test	Young's Modulus (*10 ⁵ MPa)	1.63	Compressive Strength (MPa)	102.94	

Unconfined Compression Test For Rock Core

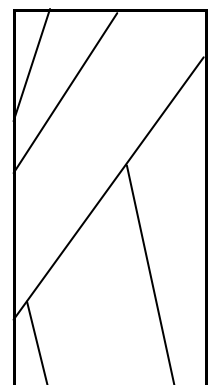
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 26
		■ Depth	4.00 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.08
Specimen Height (cm)	9.94
Specimen Weight (g)	501.15
Unit Weight (kN/m ³)	24.394
Comp. Strength (Mpa)	61.9
Young's Modulus E ₅₀ (Mpa)	7.987E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3639.2



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

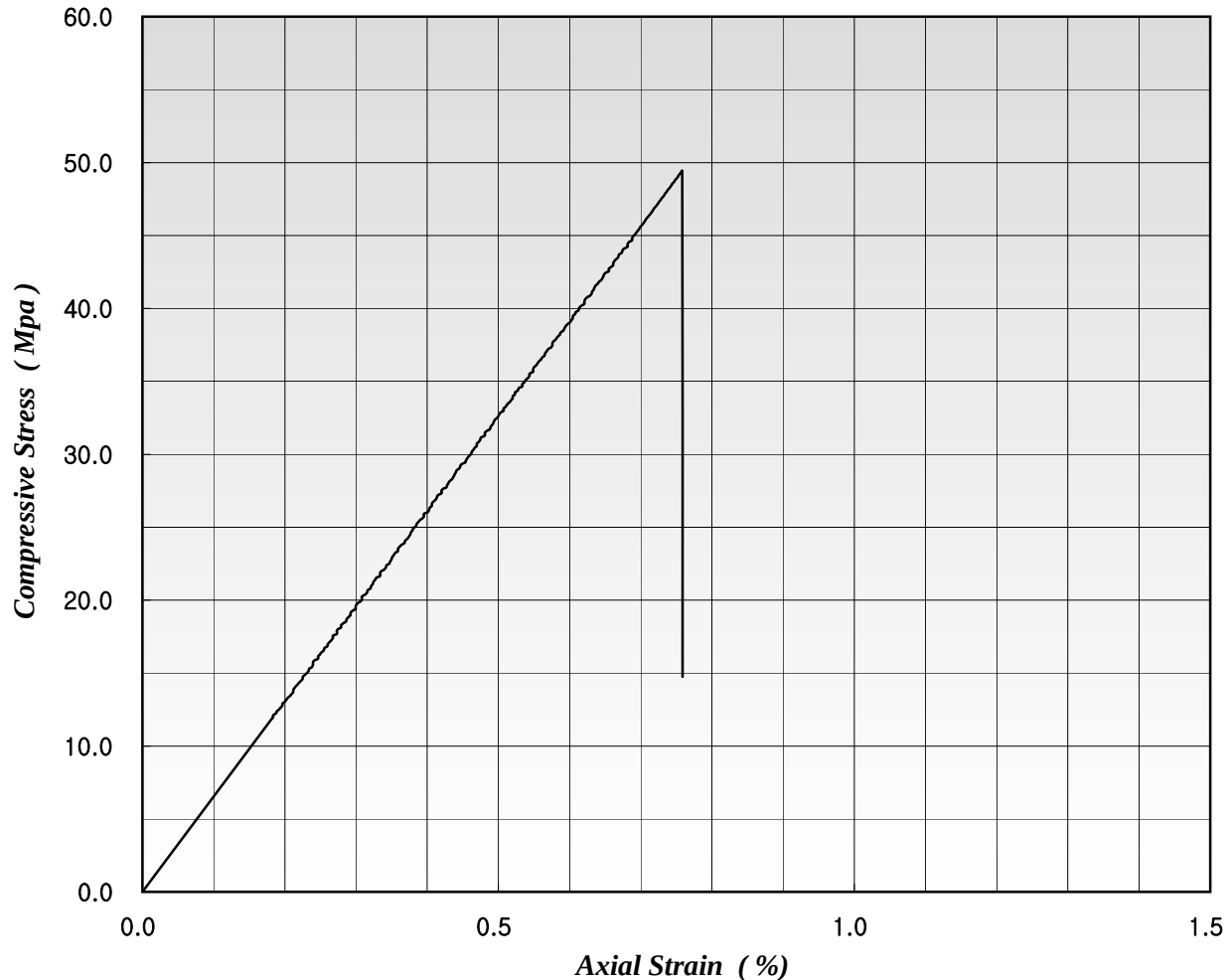
■ Remark	■ Operator
	■ Approved

ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-26	6.4~6.6		
직 경 Diameter(mm)	50.60	길 이 Length(mm)	99.40	무 게 Weight (g)	525.68
Results of test	Young's Modulus (*10 ⁵ MPa)	0.97	Compressive Strength (MPa)	62.83	
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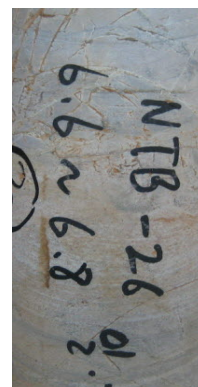
ROCK DEFORMATION TEST					
조 사 명 Project Name	중앙선 도담-영천 복선전철 제 5공구 지반조사				
시험일자 Date of Test	2015.01		시험자 Tested by	김병현	
Numbers of specimens (Boring number & Depths)		NTB-26	6.7~6.9		
직 경 Diameter(mm)	49.70	길 이 Length(mm)	101.50	무 게 Weight (g)	531.67
Results of test	Young's Modulus (*10 ⁵ MPa)	1.24	Compressive Strength (MPa)	55.71	

Unconfined Compression Test For Rock Core

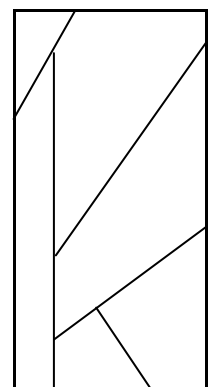
■ Project		■ Borehole No.	NTB - 26
	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Depth	6.60 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.07
Specimen Height (cm)	9.88
Specimen Weight (g)	494.42
Unit Weight (kN/m ³)	24.308
Comp. Strength (Mpa)	49.4
Young's Modulus E ₅₀ (Mpa)	6.532E+03
Poisson's Ratio	0.27
Elastic Wave Velocity (m/s)	3250.8



Before Test



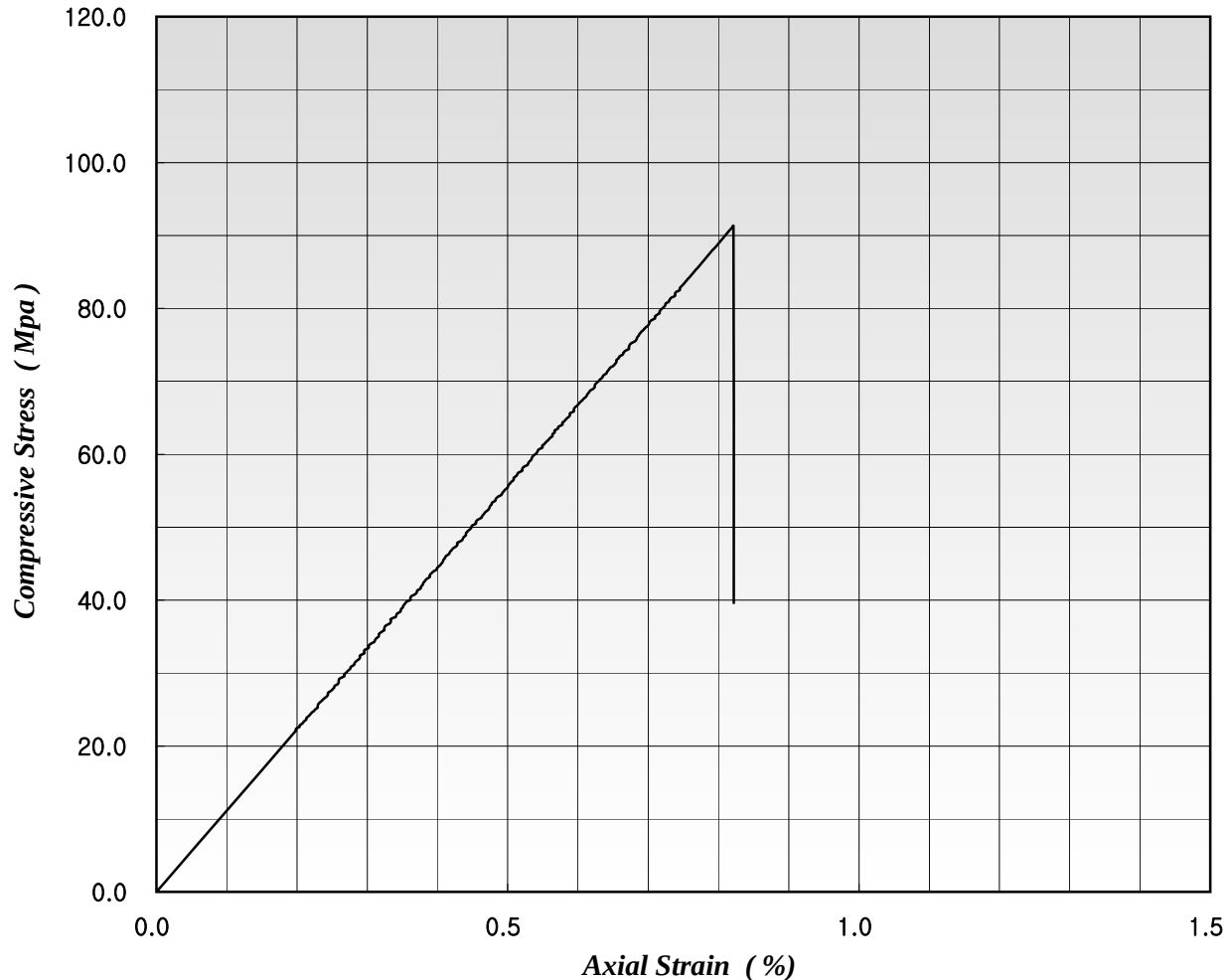
After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved

Unconfined Compression Test For Rock Core

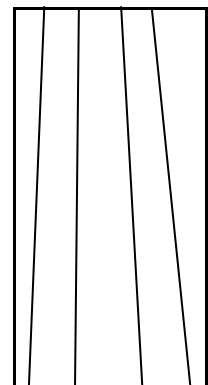
■ Project	중앙선 도담~영천 5공구 지반조사 실내암석시험 의뢰(안)	■ Borehole No.	NTB - 27
		■ Depth	13.60 m
■ Test Method	ASTM D 7012	■ Date	2014. 9.



Specimen Diameter (cm)	5.05
Specimen Height (cm)	9.96
Specimen Weight (g)	535.09
Unit Weight (kN/m ³)	26.304
Comp. Strength (Mpa)	91.3
Young's Modulus E ₅₀ (Mpa)	1.114E+04
Poisson's Ratio	0.25
Elastic Wave Velocity (m/s)	4695.2



Before Test



After Test

Description : 1 kgf/cm² = 0.098 MPa, 1 g/cm³ = 9.807 kN/m³

■ Remark	■ Operator
	■ Approved