

LAMPIRAN

LAMPIRAN 1

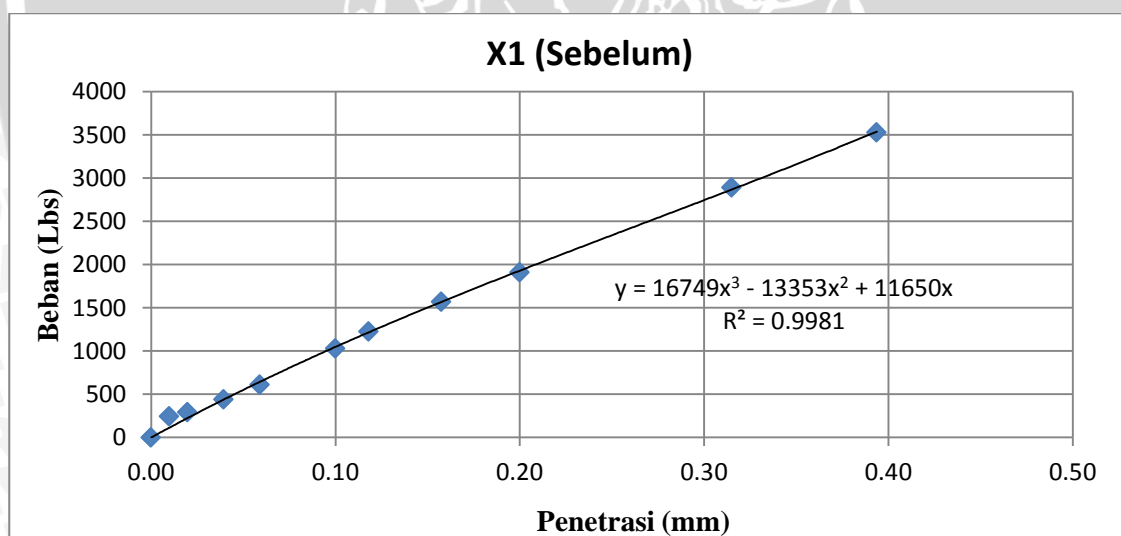
X1 (SEBELUM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	5	245.1
0.5	0.0197	6	294.12
1	0.0394	9	441.18
1.5	0.0591	12.5	612.75
2.5	0.1	21	1029.42
3	0.1181	25	1225.5
4	0.1575	32	1568.64
5	0.2	39	1911.78
8	0.3150	59	2892.18
10	0.3937	72	3529.44

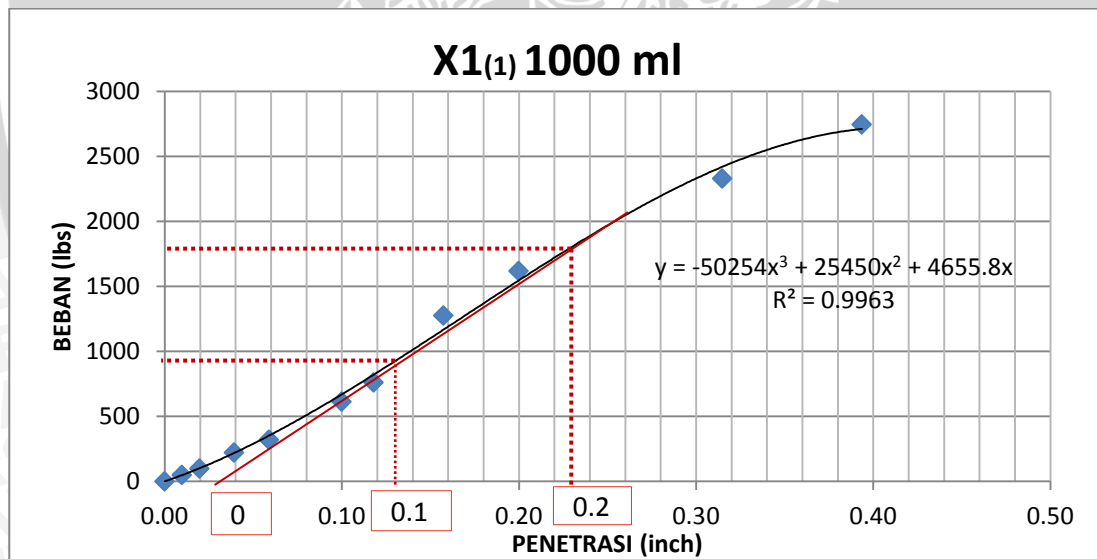


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1036.02	3000	34.53
0.2"	1832.26	4500	40.72

X1₁ (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	4.5	220.59
1.5	0.0591	6.5	318.63
2.54	0.1	12.5	612.75
3	0.1181	15.5	759.81
4	0.1575	26	1274.52
5.08	0.2	33	1617.66
8	0.3150	47.5	2328.45
10	0.3937	56	2745.12

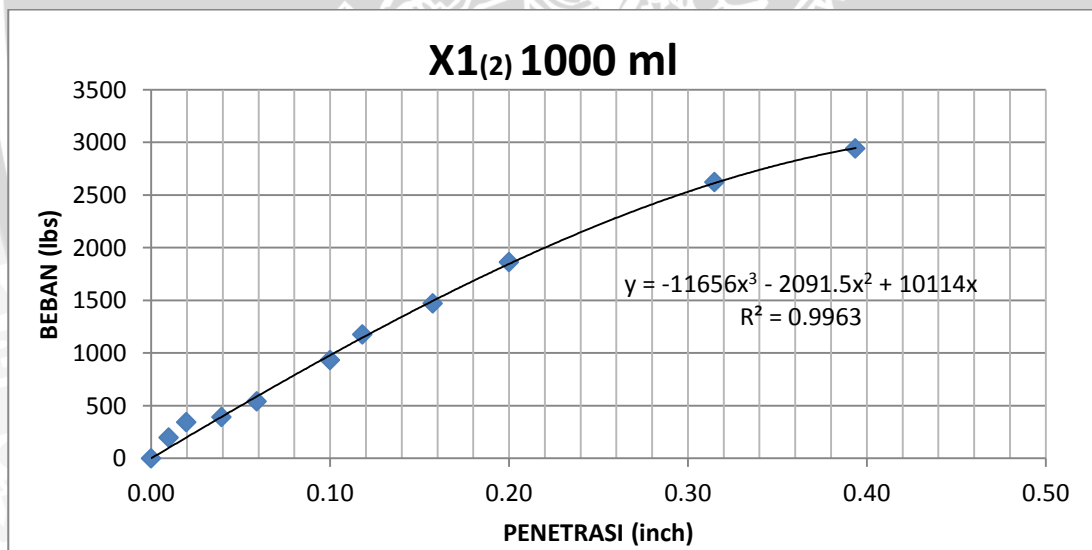


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	887.006	3000	29.57
0.2"	1796.173	4500	39.92

X1₂ (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	7	343.14
1	0.0394	8	392.16
1.5	0.0591	11	539.22
2.54	0.1	19	931.38
3	0.1181	24	1176.48
4	0.1575	30	1470.6
5.08	0.2	38	1862.76
8	0.3150	53.5	2622.57
10	0.3937	60	2941.2



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	965.58	3000	32.19
0.2"	1739.89	4500	38.66

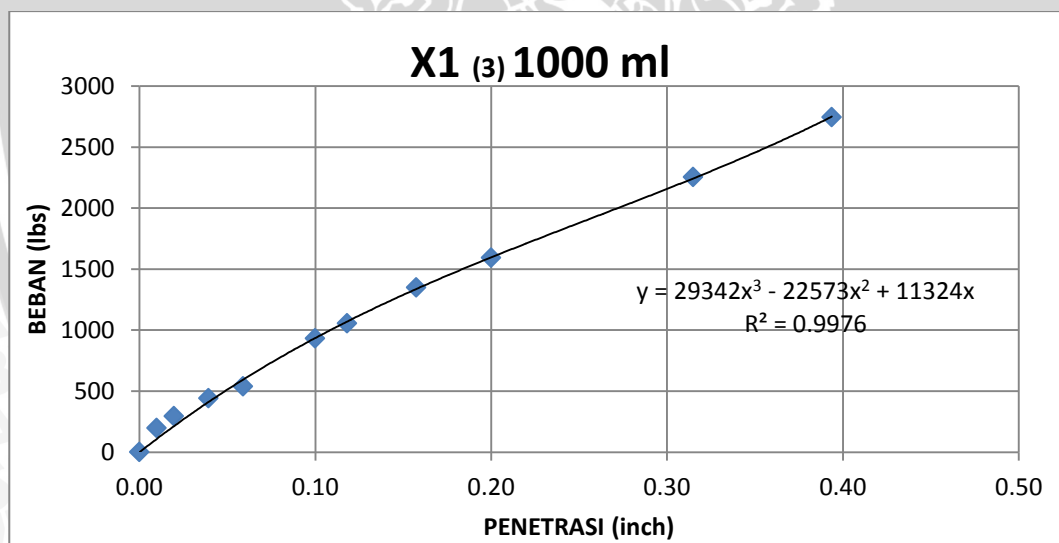
X13 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	6	294.12
1	0.0394	9	441.18
1.5	0.0591	11	539.22
2.54	0.1	19	931.38
3	0.1181	21.5	1053.93
4	0.1575	27.5	1348.05
5.08	0.2	32.5	1593.15
8	0.315	46	2254.92
10	0.3937	56	2745.12



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	925.98	3000	30.87
0.2"	1516.43	4500	33.70

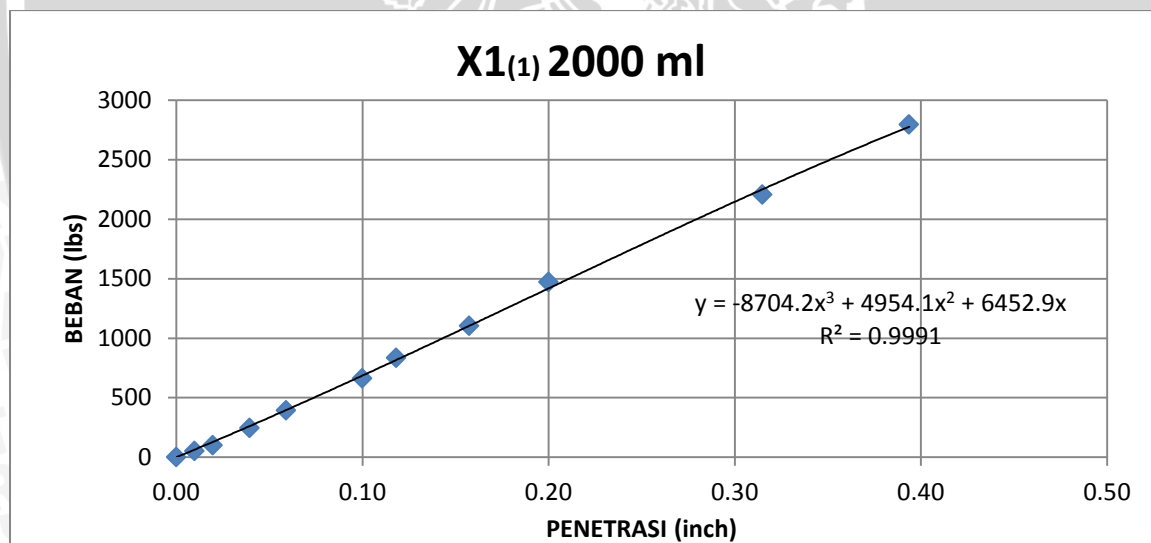
X11 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	5	245.1
1.5	0.0591	8	392.16
2.54	0.1	13.5	661.77
3	0.1181	17	833.34
4	0.1575	22.5	1102.95
5.08	0.2	30	1470.6
8	0.3150	45	2205.9
10	0.3937	57	2794.14



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	690.23	3000	23.01
0.2"	1452.51	4500	32.28

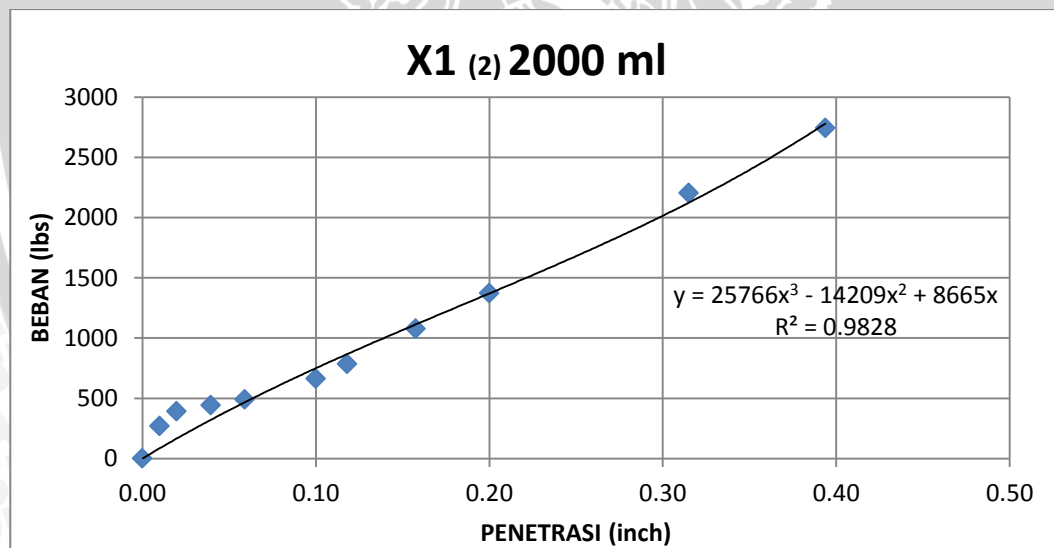
X1₂ (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	5.5	269.61
0.5	0.0197	8	392.16
1	0.0394	9	441.18
1.5	0.0591	10	490.2
2.54	0.1	13.5	661.77
3	0.1181	16	784.32
4	0.1575	22	1078.44
5.08	0.2	28	1372.56
8	0.3150	45	2205.9
10	0.3937	56	2745.12

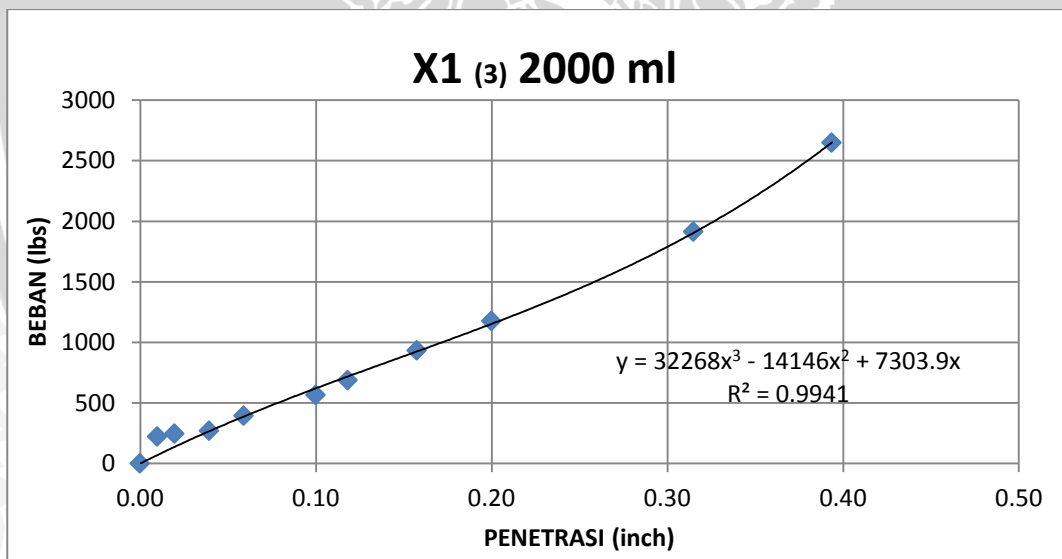


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	719.30	3000	23.98
0.2"	1123.78	4500	24.97

X13(PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	4.5	220.59
0.5	0.0197	5	245.1
1	0.0394	5.5	269.61
1.5	0.0591	8	392.16
2.54	0.1	11.5	563.73
3	0.1181	14	686.28
4	0.1575	19	931.38
5.08	0.2	24	1176.48
8	0.315	39	1911.78
10	0.3937	54	2647.08



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	605.283	3000	20.18
0.2"	1026.30	4500	22.81

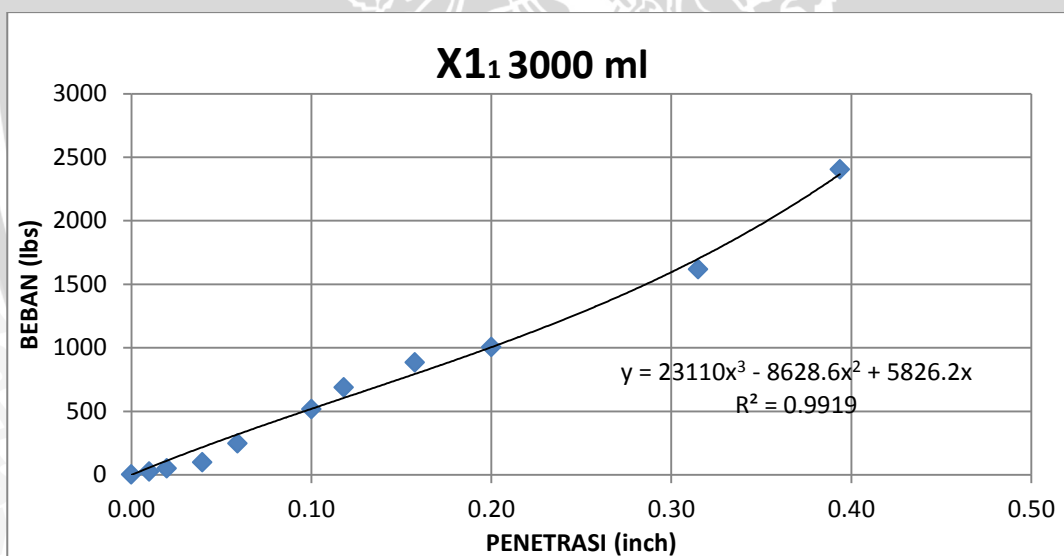
X11 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi	Penetrasi	Pembacaan	Beban
mm	inch	proving ring	(Lbs)
0	0.0000	0	0
0.25	0.0098	0.5	24.51
0.5	0.0197	1	49.02
1	0.0394	2	98.04
1.5	0.0591	5	245.1
2.54	0.1	10.5	514.71
3	0.1181	14	686.28
4	0.1575	18	882.36
5.08	0.2	20.5	1004.91
8	0.3150	33	1617.66
10	0.3937	49	2401.98



Penetrasi	Beban	Beban	CBR
		Standart	(%)
0.1"	532.78	3000	17.76
0.2"	1111.73	4500	24.71

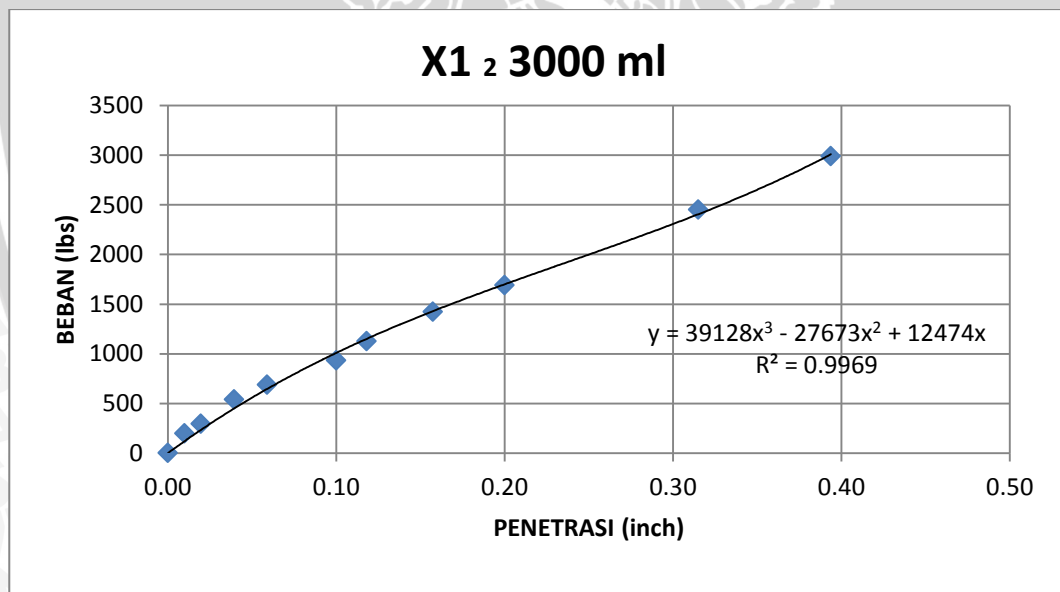
X12 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	6	294.12
1	0.0394	11	539.22
1.5	0.0591	14	686.28
2.54	0.1	19	931.38
3	0.1181	23	1127.46
4	0.1575	29	1421.58
5.08	0.2	34.5	1691.19
8	0.3150	50	2451
10	0.3937	61	2990.22



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	996.93	3000	33.23
0.2"	1597.99	4500	35.51

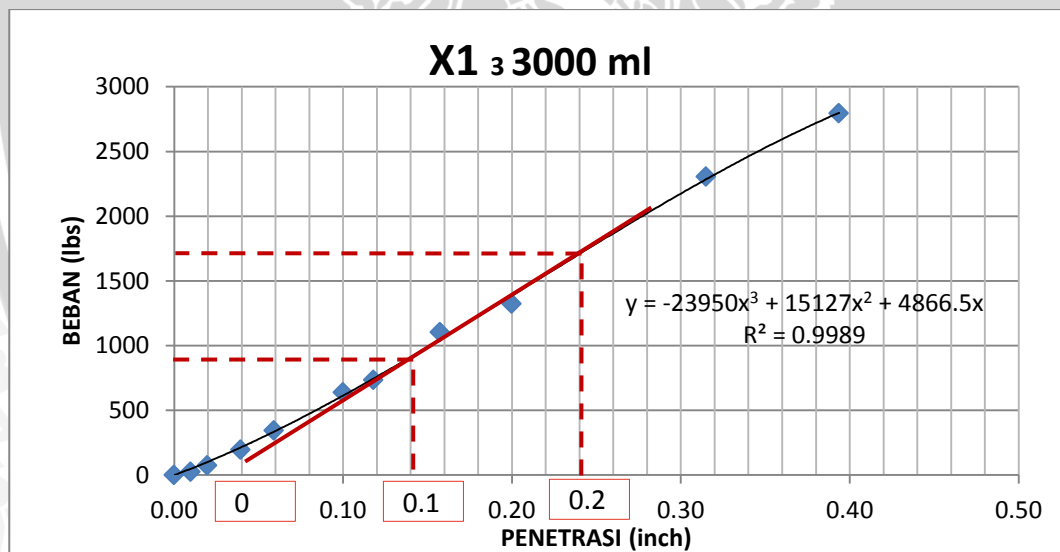
X13(PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	0.5	24.51
0.5	0.0197	1.5	73.53
1	0.0394	4	196.08
1.5	0.0591	7	343.14
2.54	0.1	13	637.26
3	0.1181	15	735.3
4	0.1575	22.5	1102.95
5.08	0.2	27	1323.54
8	0.315	47	2303.94
10	0.3937	57	2794.14



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	921.52	3000	30.72
0.2"	1755.96	4500	39.02

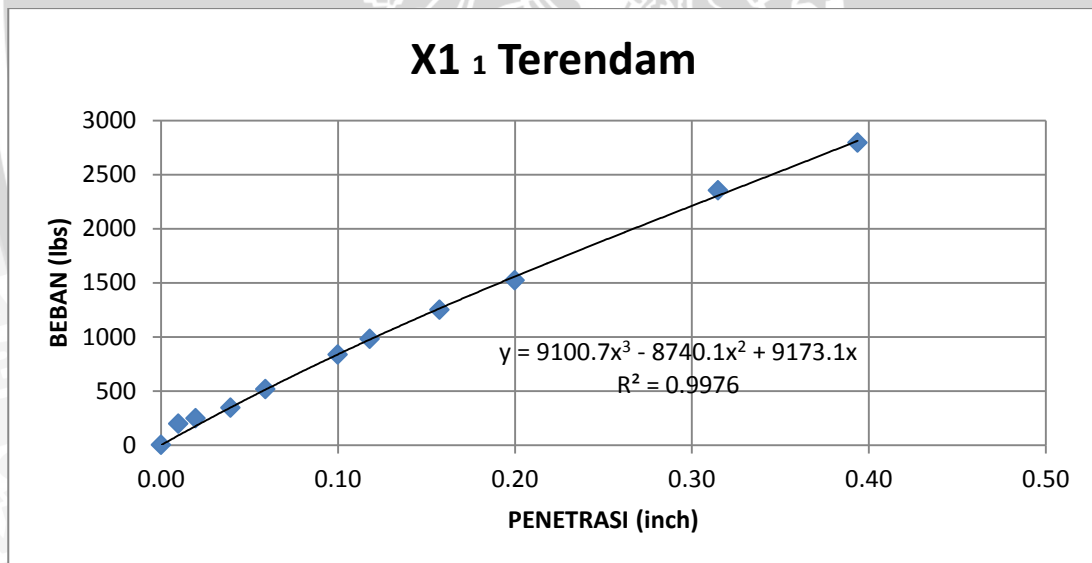
X11 (TERENDAM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	4	196.08	
0.5	0.0197	5	245.1	
1	0.0394	7	343.14	
1.5	0.0591	10.5	514.71	
2.54	0.1	17	833.34	
3	0.1181	20	980.4	
4	0.1575	25.5	1250.01	
5.08	0.2	31	1519.62	
8	0.3150	48	2352.96	
10	0.3937	57	2794.14	



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	829.90	3000	27.66
0.2"	1485.00	4500	33.00

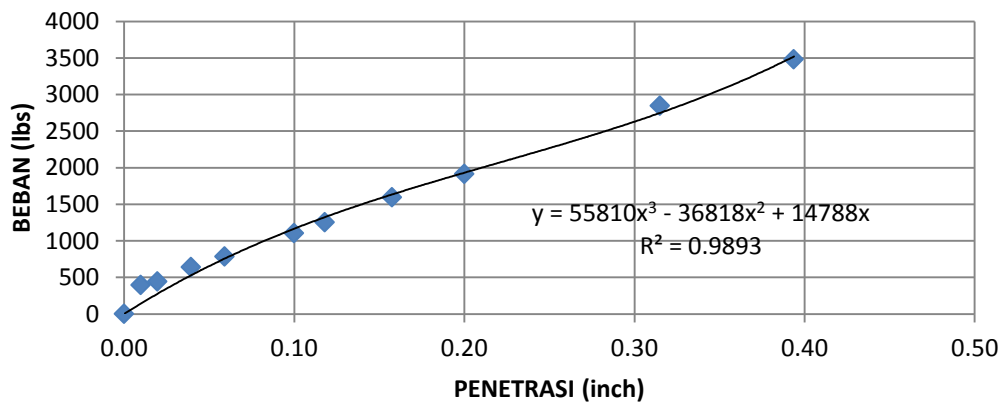
X1₂ (TERENDAM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	8	392.16
0.5	0.0197	9	441.18
1	0.0394	13	637.26
1.5	0.0591	16	784.32
2.54	0.1	22.5	1102.95
3	0.1181	25.5	1250.01
4	0.1575	32.5	1593.15
5.08	0.2	39	1911.78
8	0.3150	58	2843.16
10	0.3937	71	3480.42

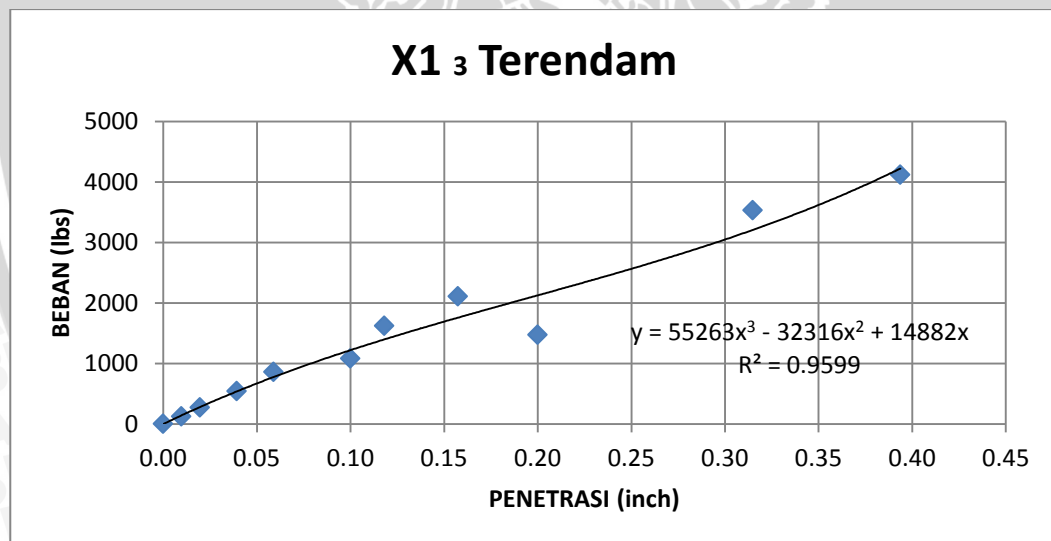
X1₂ Terendam

Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1134.78	3000	37.83
0.2"	1678.19	4500	37.29

X1₃ (TERENDAM)

Unit Load	: 0.01 mm
Faktor Kalibrasi	: 49.02 Lbs/div
Luas piston	: 3 inch ²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2.5	122.55
0.5	0.0197	5.5	269.61
1	0.0394	11	539.22
1.5	0.0591	17.5	857.85
2.54	0.1	22	1078.44
3	0.1181	33	1617.66
4	0.1575	43	2107.86
5.08	0.2	30	1470.6
8	0.315	72	3529.44
10	0.3937	84	4117.68



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1217.43	3000	40.58
0.2"	2101.90	4500	46.73

LAMPIRAN 2

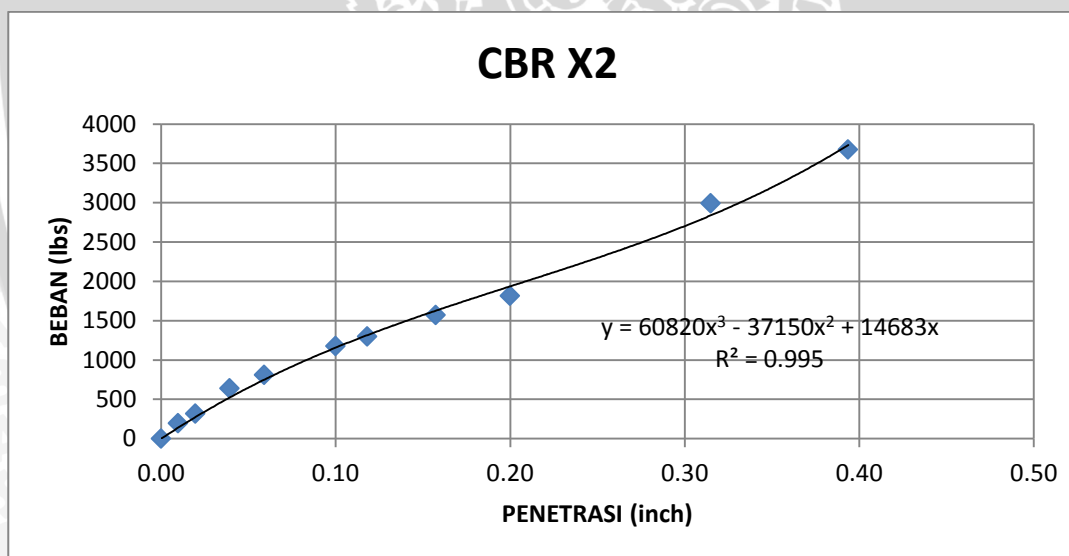
X2 (SEBELUM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	3	147.06
1	0.0394	6	294.12
1.5	0.0591	9.5	465.69
2.54	0.1	26	1274.52
3	0.1181	21.5	1053.93
4	0.1575	40	1960.8
5.08	0.2	50	2451
8	0.3	70	3431.4
10	0.3937	80	3921.6

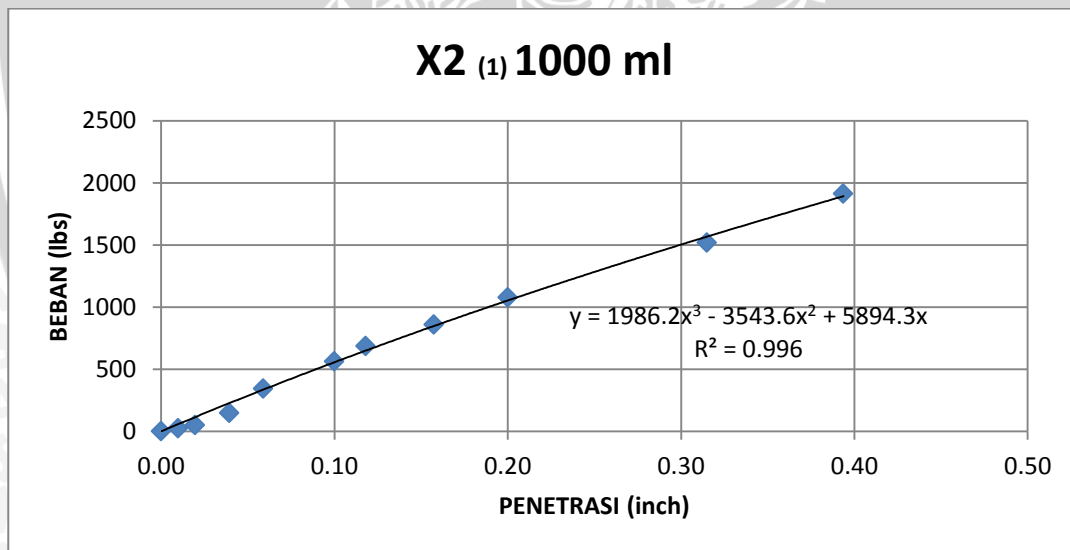


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1150.80	3000	38.36
0.2"	1666.60	4500	37.04

X21 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi	Penetrasi	Pembacaan proving ring	Beban
mm	inch		(Lbs)
0	0.0000	0	0
0.25	0.0098	0.5	24.51
0.5	0.0197	1	49.02
1	0.0394	3	147.06
1.5	0.0591	7	343.14
2.54	0.1	11.5	563.73
3	0.1181	14	686.28
4	0.1575	17.5	857.85
5.08	0.2	22	1078.44
8	0.3	31	1519.62
10	0.3937	39	1911.78

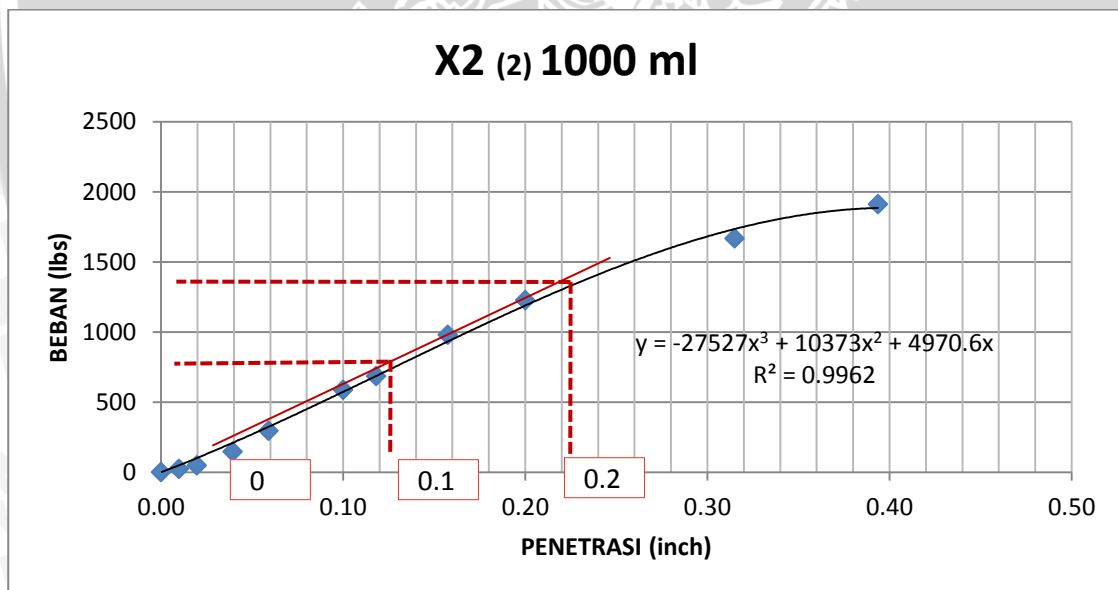


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	553.97	3000	18.47
0.2"	1037.09	4500	23.05

X22 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	0.5	24.51
0.5	0.0197	1	49.02
1	0.0394	3	147.06
1.5	0.0591	6	294.12
2.54	0.1	12	588.24
3	0.1181	14	686.28
4	0.1575	20	980.4
5.08	0.2	25	1225.5
8	0.3	34	1666.68
10	0.3937	39	1911.78



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	915.591	3000	30.52
0.2"	1597.75	4500	35.51

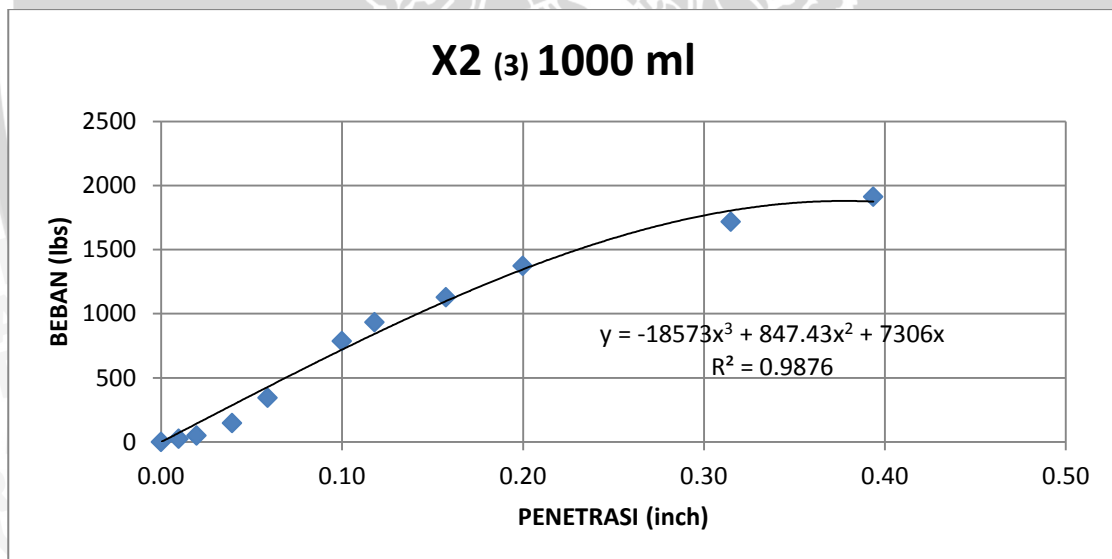
X23 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	0.5	24.51
0.5	0.0197	1	49.02
1	0.0394	3	147.06
1.5	0.0591	7	343.14
2.54	0.1	16	784.32
3	0.1181	19	931.38
4	0.1575	23	1127.46
5.08	0.2	28	1372.56
8	0.3	35	1715.7
10	0.3937	39	1911.78



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	737.38	3000	24.58
0.2"	1481.54	4500	32.92

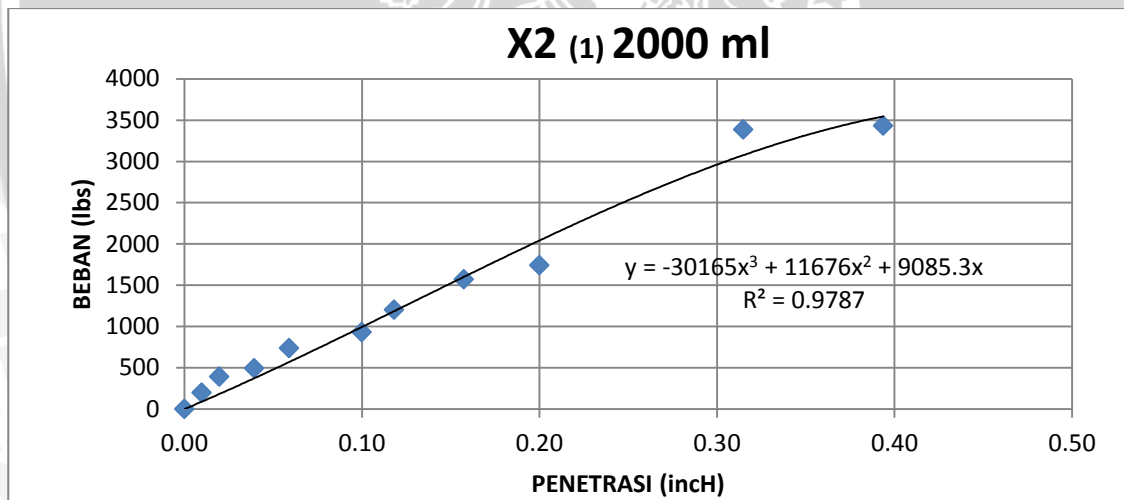
X21 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	8	392.16
1	0.0394	10	490.2
1.5	0.0591	15	735.3
2.54	0.1	19	931.38
3	0.1181	24.5	1200.99
4	0.1575	32	1568.64
5.08	0.2	35.5	1740.21
8	0.3	69	3382.38
10	0.3937	70	3431.4



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	963.93	3000	32.13
0.2"	1793.38	4500	39.85

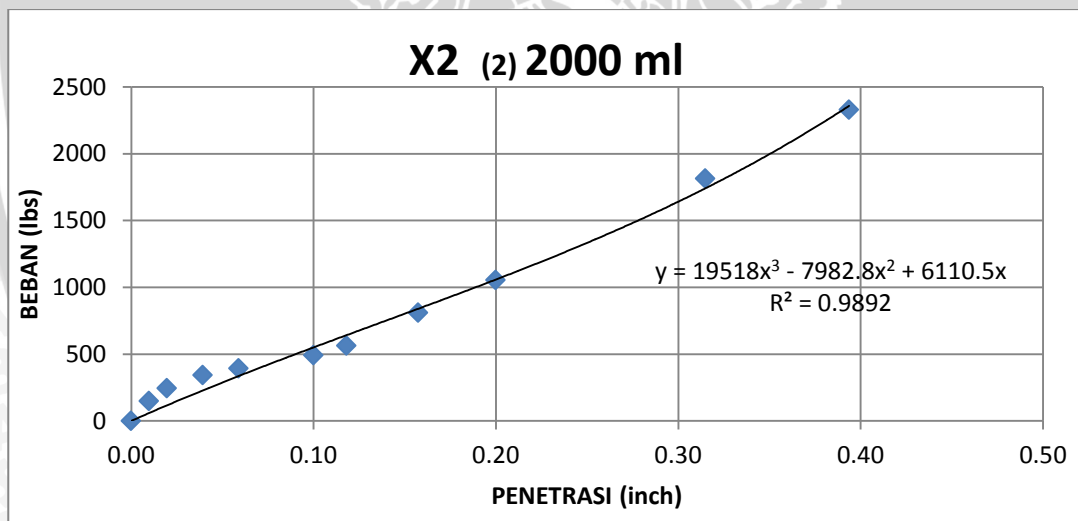
X22 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	5	245.1
1	0.0394	7	343.14
1.5	0.0591	8	392.16
2.54	0.1	10	490.2
3	0.1181	11.5	563.73
4	0.1575	16.5	808.83
5.08	0.2	21.5	1053.93
8	0.3	37	1813.74
10	0.3937	47.5	2328.45



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	531.35	3000	17.711
0.2"	904.06	4500	20.09

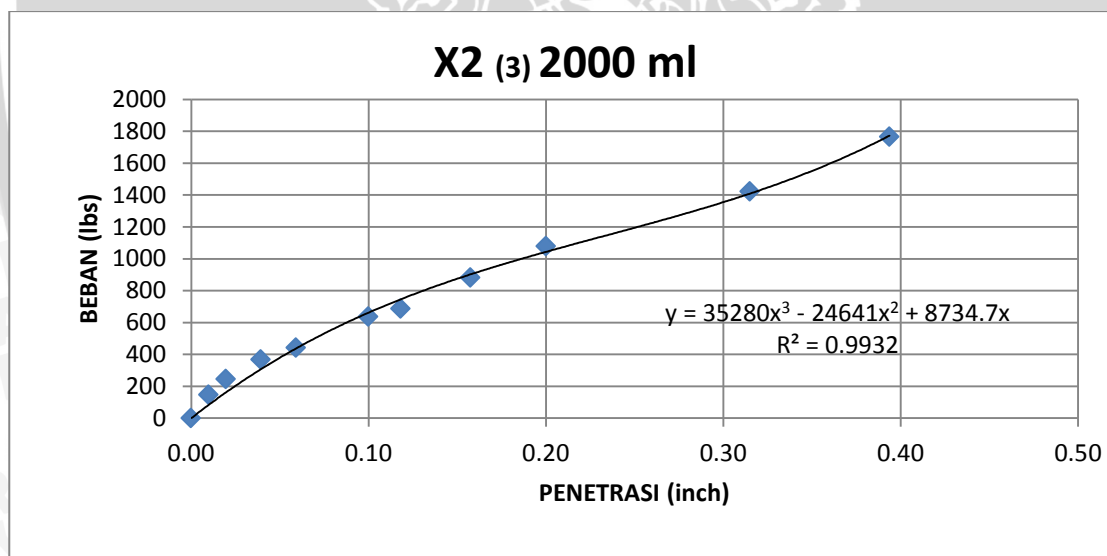
X23(PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	5	245.1
1	0.0394	7.5	367.65
1.5	0.0591	9	441.18
2.54	0.1	13	637.26
3	0.1181	14	686.28
4	0.1575	18	882.36
5.08	0.2	22	1078.44
8	0.3	29	1421.58
10	0.3937	36	1764.72



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	651.01	3000	21.70
0.2"	953.35	4500	21.19

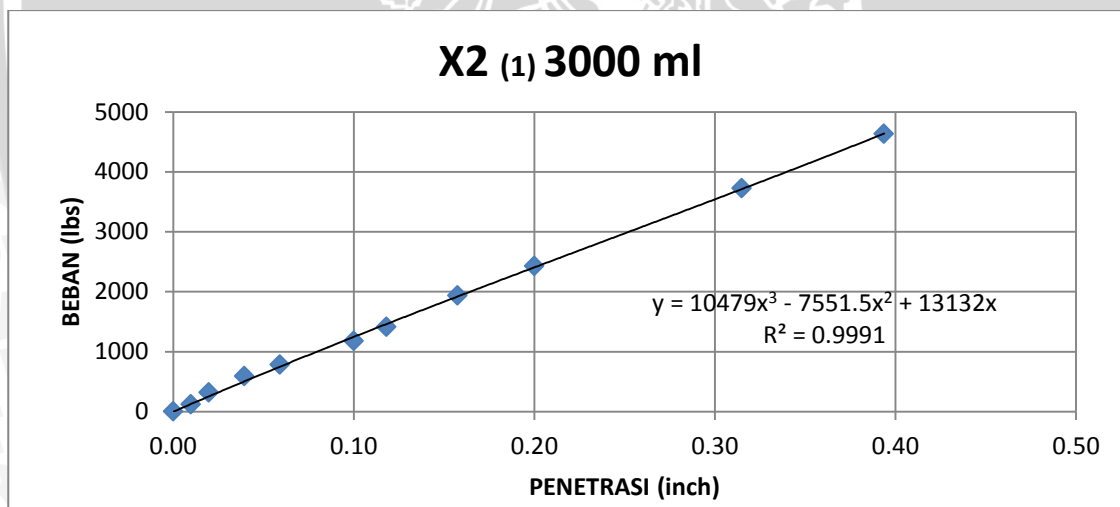
X21 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0.25	0.0098	2.5	122.55
0.5	0.0197	6.5	318.63
1	0.0394	12	588.24
1.5	0.0591	16	784.32
2.54	0.1	24	1176.48
3	0.1181	28.8	1411.776
4	0.1575	39.5	1936.29
5.08	0.2	49.5	2426.49
8	0.3	76	3725.52
10	0.3937	94.5	4632.39



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1241.41	3000	40.32
0.2"	2354.12	4500	52.31

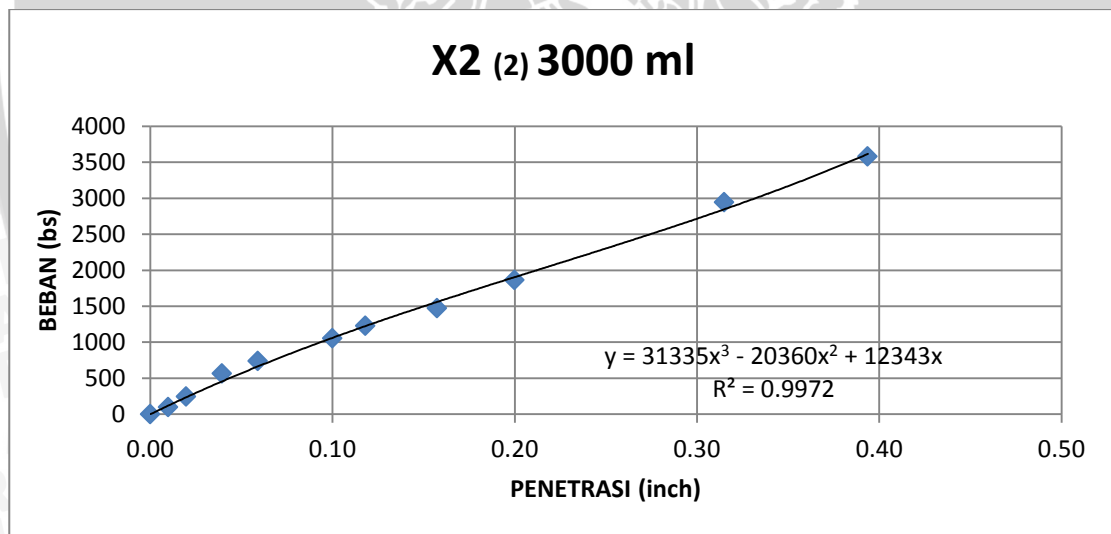
X22 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	5	245.1
1	0.0394	11.5	563.73
1.5	0.0591	15	735.3
2.54	0.1	21.5	1053.93
3	0.1181	25	1225.5
4	0.1575	30	1470.6
5.08	0.2	38	1862.76
8	0.3	60	2941.2
10	0.3937	73	3578.46



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1055.56	3000	35.19
0.2"	1853.06	4500	48.18

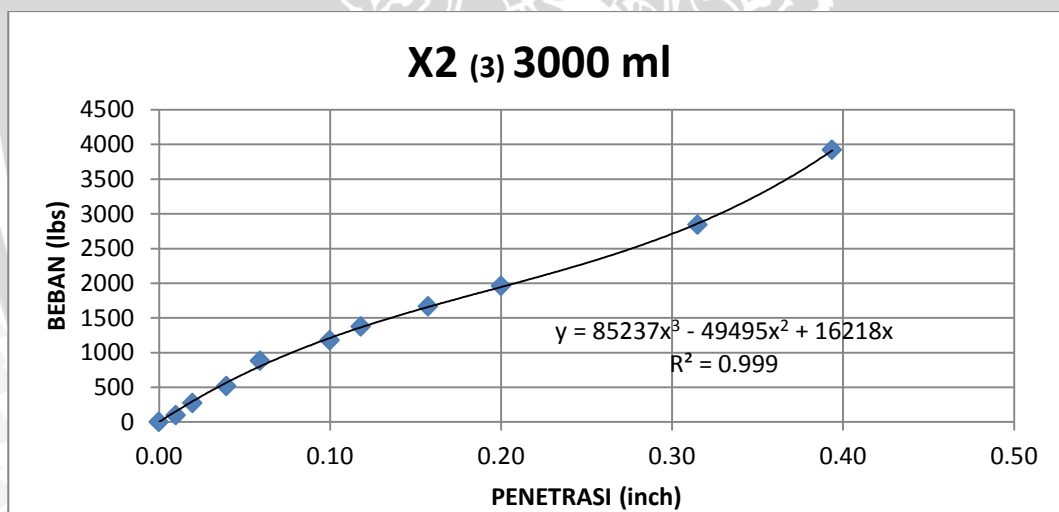
X23(PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	5.5	269.61
1	0.0394	10.5	514.71
1.5	0.0591	18	882.36
2.54	0.1	24	1176.48
3	0.1181	28	1372.56
4	0.1575	34	1666.68
5.08	0.2	40	1960.8
8	0.3	58	2843.16
10	0.3937	80	3921.6

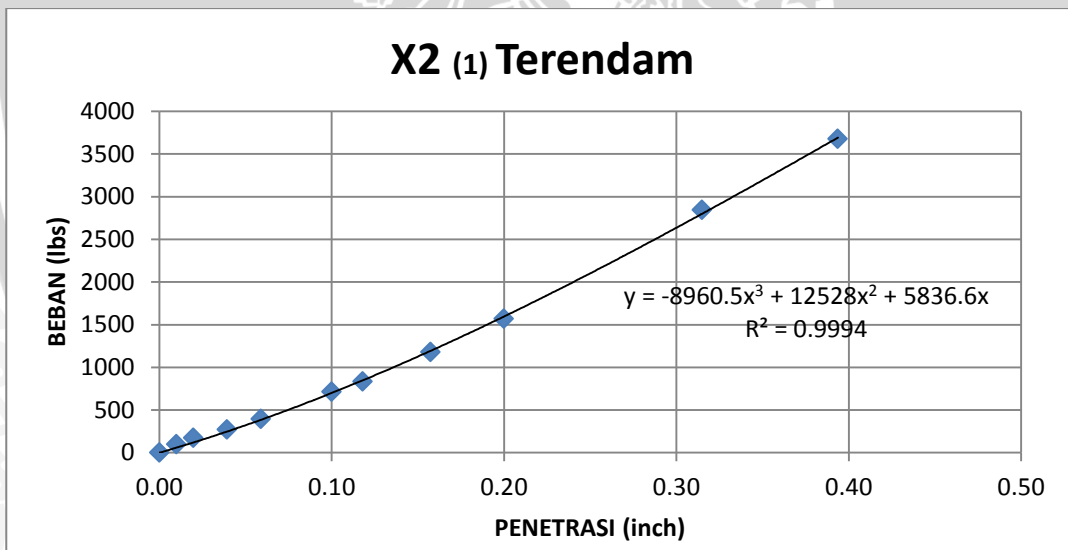


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1218.13	3000	40.60
0.2"	1994.06	4500	44.31

X21 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	3.5	171.57
1	0.0394	5.5	269.61
1.5	0.0591	8	392.16
2.54	0.1	14.5	710.79
3	0.1181	17	833.34
4	0.1575	24	1176.48
5.08	0.2	32	1568.64
8	0.3	58	2843.16
10	0.3937	75	3676.5



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	692.78	3000	23.09
0.2"	1539.50	4500	34.21



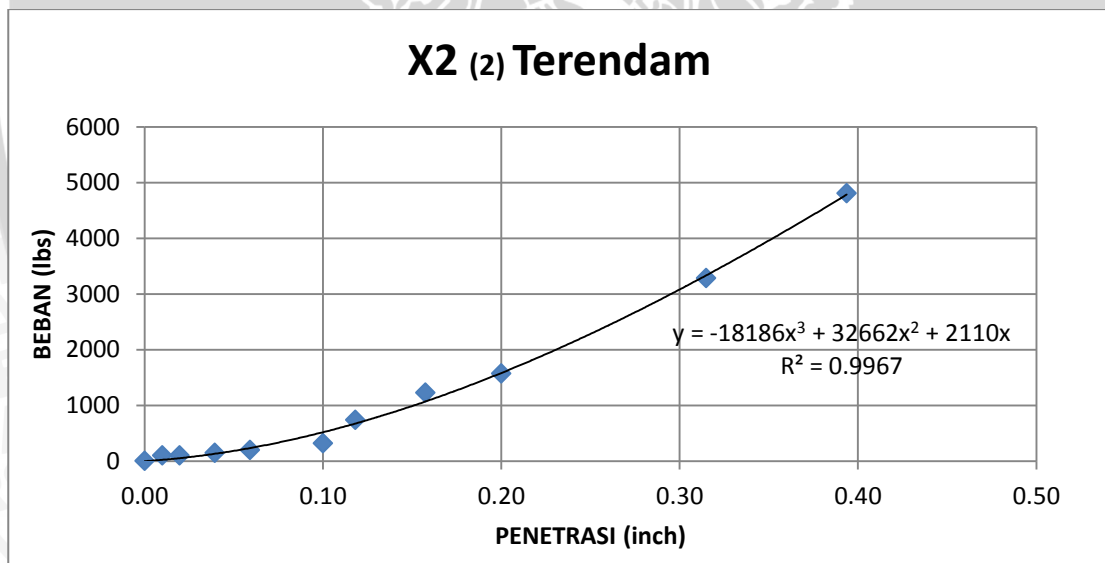
X22 (TERENDAM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	2	98.04
1	0.0394	3	147.06
1.5	0.0591	4	196.08
2.54	0.1	6.5	318.63
3	0.1181	15	735.3
4	0.1575	25	1225.5
5.08	0.2	32	1568.64
8	0.3	67	3284.34
10	0.3937	98	4803.96

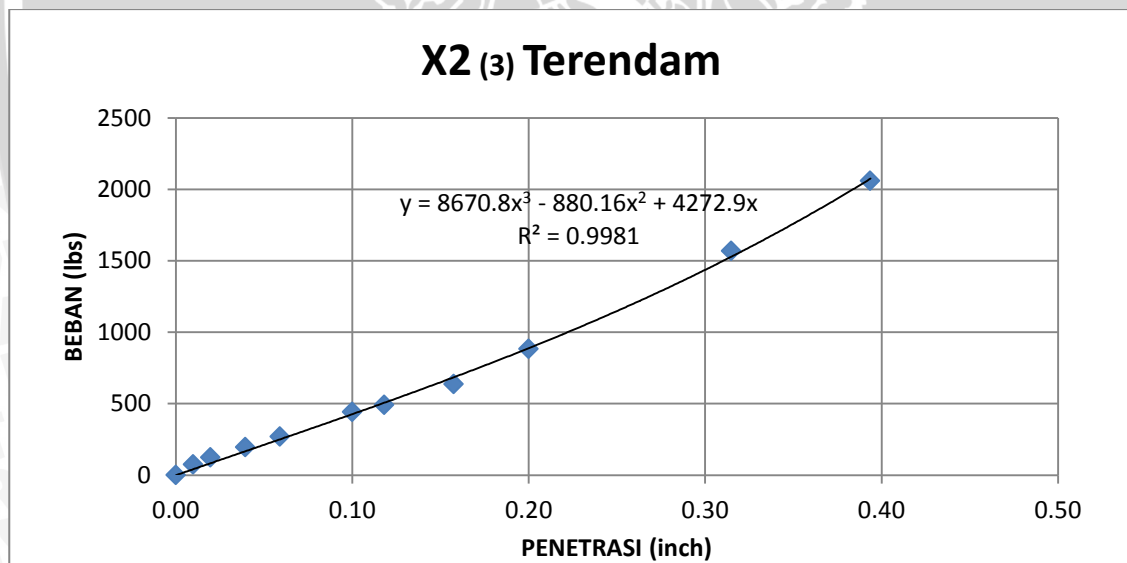


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	514.63	3000	17.15
0.2"	1544.54	4500	34.32

X23 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1.5	73.53
0.5	0.0197	2.5	122.55
1	0.0394	4	196.08
1.5	0.0591	5.5	269.61
2.54	0.1	9	441.18
3	0.1181	10	490.2
4	0.1575	13	637.26
5.08	0.2	18	882.36
8	0.3	32	1568.64
10	0.3937	42	2058.84

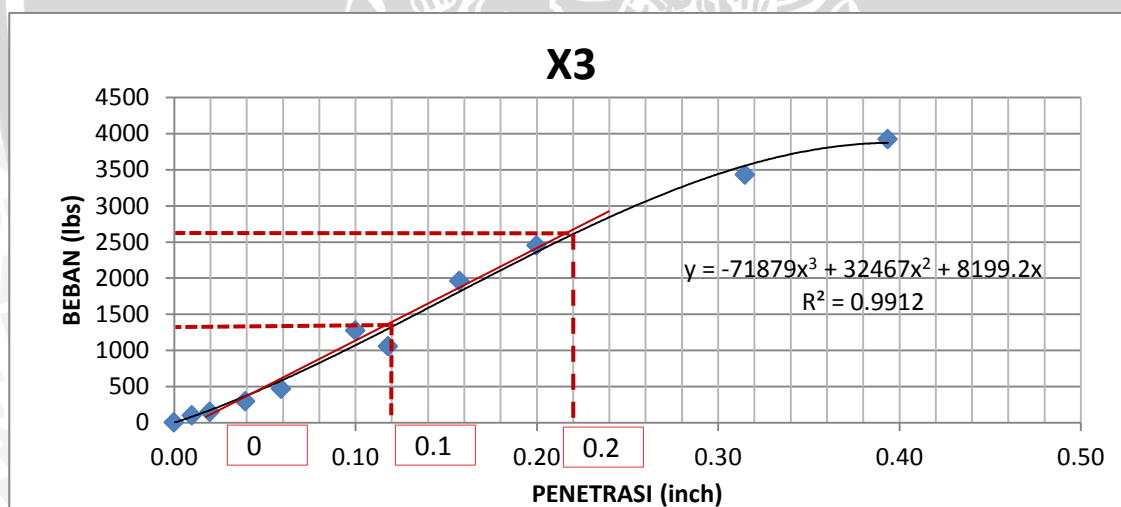


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	418.40	3000	13.95
0.2"	819.20	4500	18.20

LAMPIRAN 3 X3 (SEBELUM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	3	147.06
1	0.0394	6	294.12
1.5	0.0591	9.5	465.69
2.54	0.1	26	1274.52
3	0.1181	21.5	1053.93
4	0.1575	40	1960.8
5.08	0.2	50	2451
8	0.3	70	3431.4
10	0.3937	80	3921.6

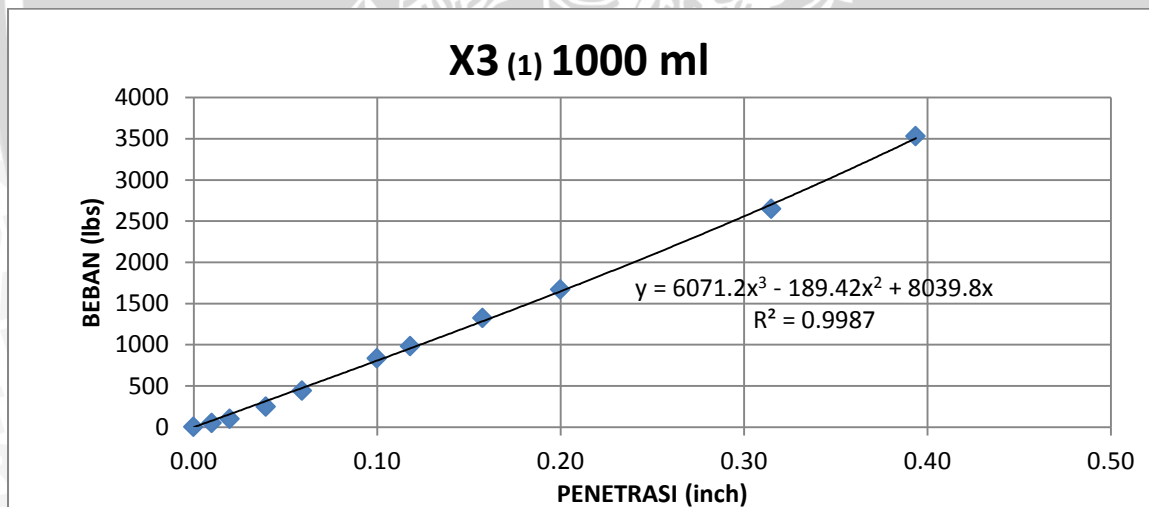


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1121.665	3000	37.39
0.2"	2755.24	4500	61.23

X31 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	5	245.1
1.5	0.0591	9	441.18
2.54	0.1	17	833.34
3	0.1181	20	980.4
4	0.1575	27	1323.54
5.08	0.2	34	1666.68
8	0.3	54	2647.08
10	0.3937	72	3529.44

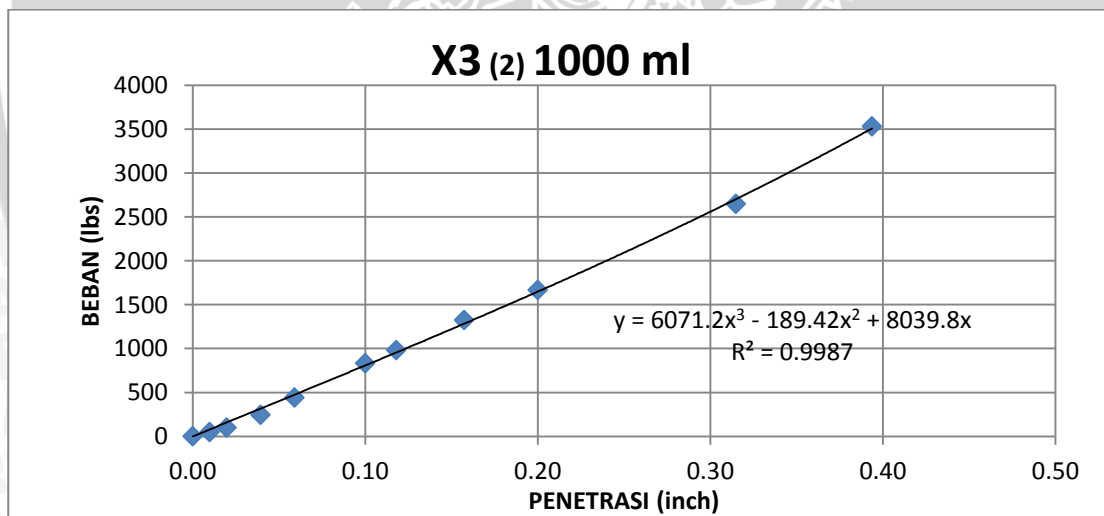


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	817.744	3000	27.26
0.2"	1726.128	4500	38.36

X32 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	5	245.1
1.5	0.0591	9	441.18
2.54	0.1	17	833.34
3	0.1181	20	980.4
4	0.1575	27	1323.54
5.08	0.2	34	1666.68
8	0.3	54	2647.08
10	0.3937	72	3529.44



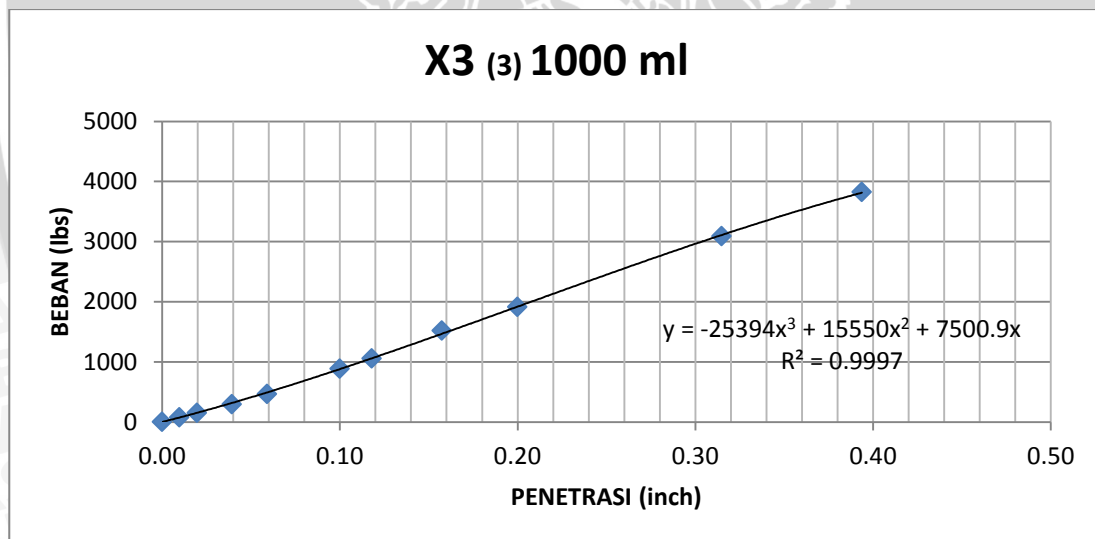
Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	817.744	3000	27.26
0.2"	1726.13	4500	38.36



X33 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1.5	73.53
0.5	0.0197	3	147.06
1	0.0394	6	294.12
1.5	0.0591	9.5	465.69
2.54	0.1	18	882.36
3	0.1181	21.5	1053.93
4	0.1575	31	1519.62
5.08	0.2	39	1911.78
8	0.3	63	3088.26
10	0.3937	78	3823.56

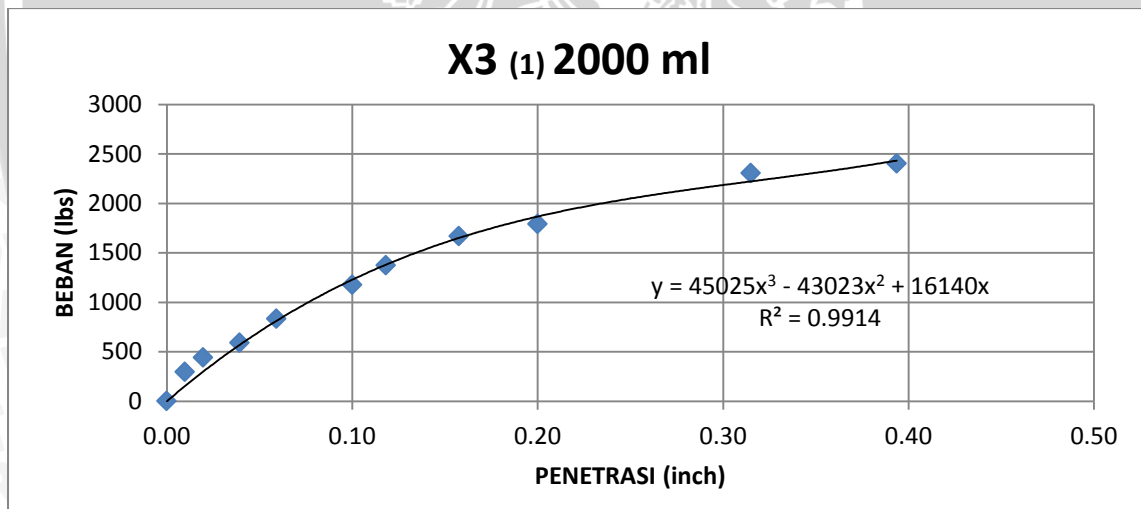


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	882.595	3000	29.42
0.2"	1938.76	4500	43.08

X31 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi	Penetrasi	Pembacaan	Beban
mm	inch	proving ring	(Lbs)
0	0.0000	0	0
0.25	0.0098	6	294.12
0.5	0.0197	9	441.18
1	0.0394	12	588.24
1.5	0.0591	17	833.34
2.54	0.1	24	1176.48
3	0.1181	28	1372.56
4	0.1575	34	1666.68
5.08	0.2	36.5	1789.23
8	0.3	47	2303.94
10	0.3937	49	2401.98



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1209.76	3000	41.4
0.2"	1715.02	4500	38.1

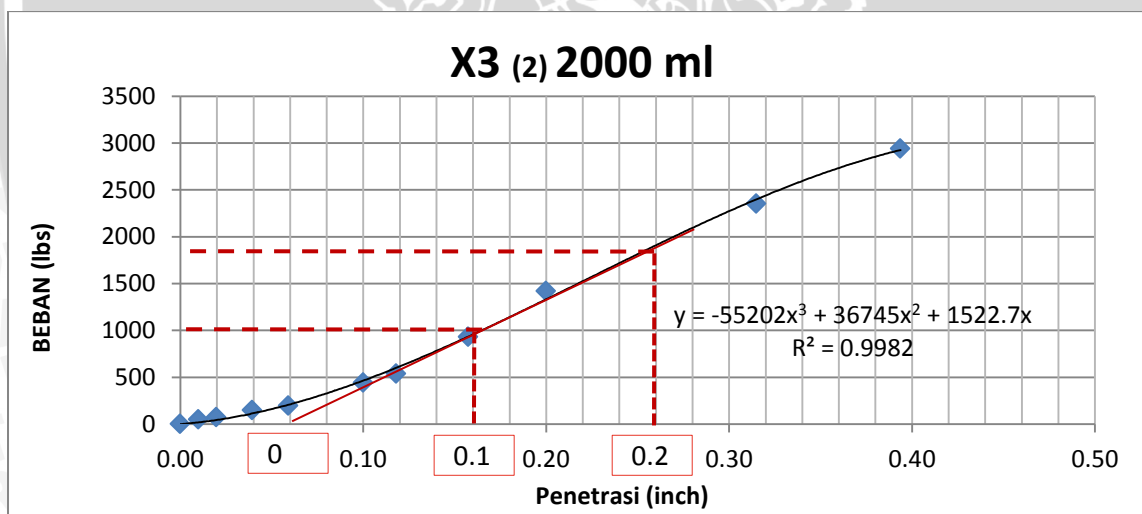
X32 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	3	147.06
1.5	0.0591	4	196.08
2.54	0.1	9	441.18
3	0.1181	11	539.22
4	0.1575	19	931.38
5.08	0.2	29	1421.58
8	0.3	48	2352.96
10	0.3937	60	2941.2



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	942.16	3000	31.41
0.2"	1841.099	4500	40.91

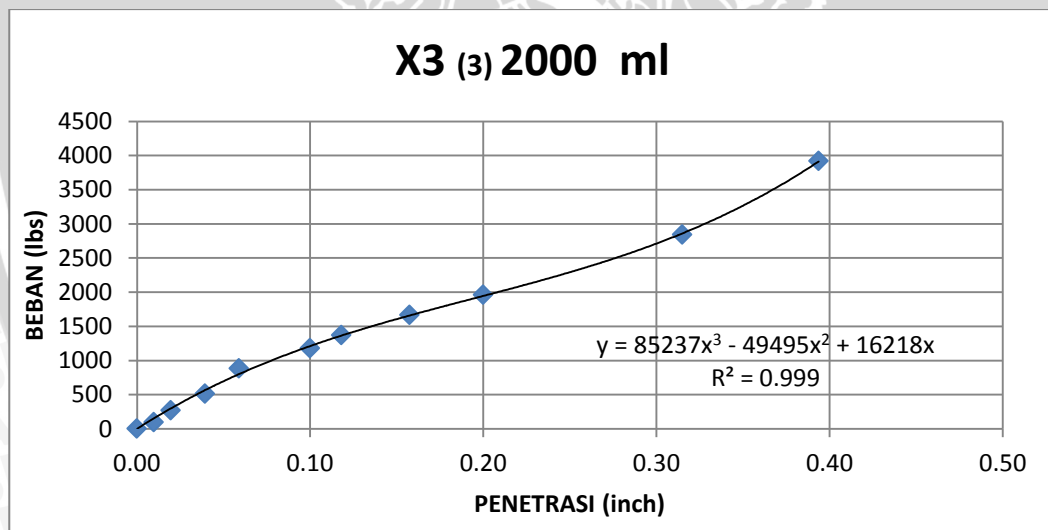
X33 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	3		98.04
0.5	0.0197	5		269.61
1	0.0394	7		514.71
1.5	0.0591	9		882.36
2.54	0.1	16		1176.48
3	0.1181	20		1372.56
4	0.1575	26.5		1666.68
5.08	0.2	32		1960.8
8	0.3	39		2843.16
10	0.3937	58		3921.6



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	869.07	3000	28.97
0.2"	1448.82	4500	32.19

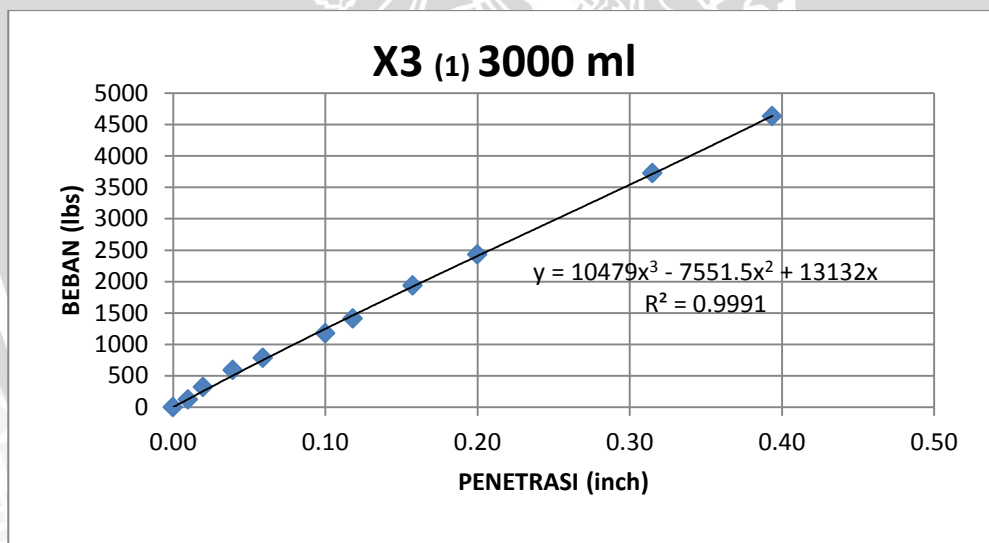
X31 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi	Penetrasi	Pembacaan	Beban
mm	inch	proving ring	(Lbs)
0	0.0000	0	0
0.25	0.0098	2.5	122.55
0.5	0.0197	6.5	318.63
1	0.0394	12	588.24
1.5	0.0591	16	784.32
2.54	0.1	24	1176.48
3	0.1181	28.8	1411.776
4	0.1575	39.5	1936.29
5.08	0.2	49.5	2426.49
8	0.3	76	3725.52
10	0.3937	94.5	4632.39



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1241.41	3000	40.32
0.2"	2354.12	4500	52.31

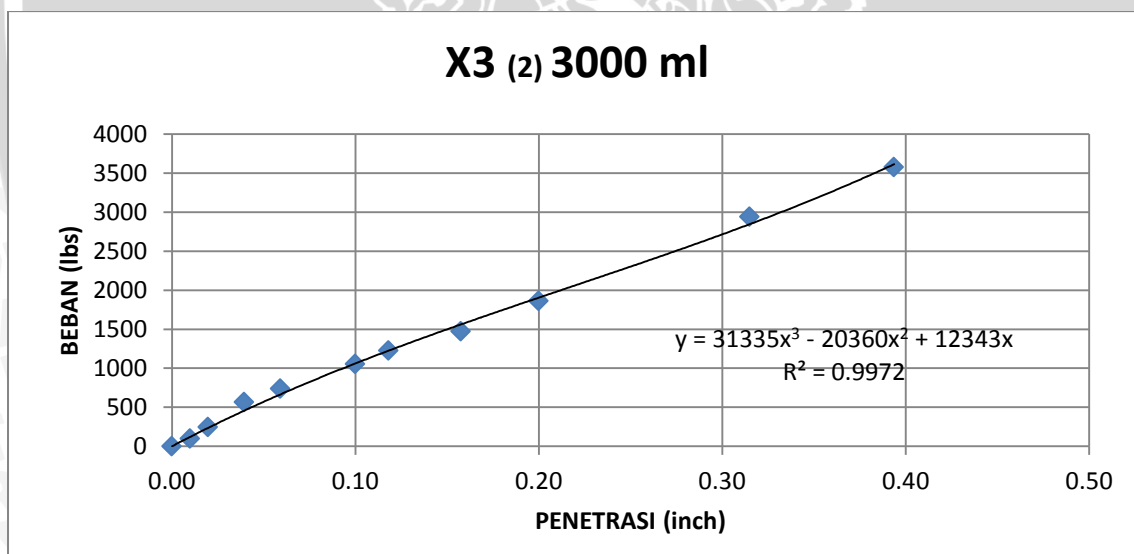
X32 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	5	245.1
1	0.0394	11.5	563.73
1.5	0.0591	15	735.3
2.54	0.1	21.5	1053.93
3	0.1181	25	1225.5
4	0.1575	30	1470.6
5.08	0.2	38	1862.76
8	0.3	60	2941.2
10	0.3937	73	3578.46



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1055.56	3000	35.19
0.2"	1853.06	4500	48.18

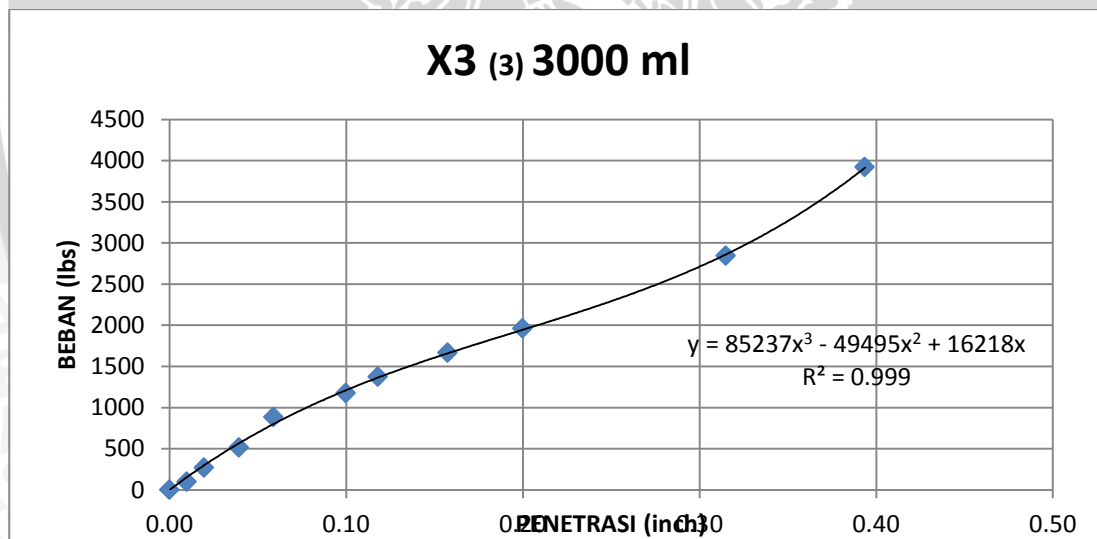
X33 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	5.5	269.61
1	0.0394	10.5	514.71
1.5	0.0591	18	882.36
2.54	0.1	24	1176.48
3	0.1181	28	1372.56
4	0.1575	34	1666.68
5.08	0.2	40	1960.8
8	0.3	58	2843.16
10	0.3937	80	3921.6

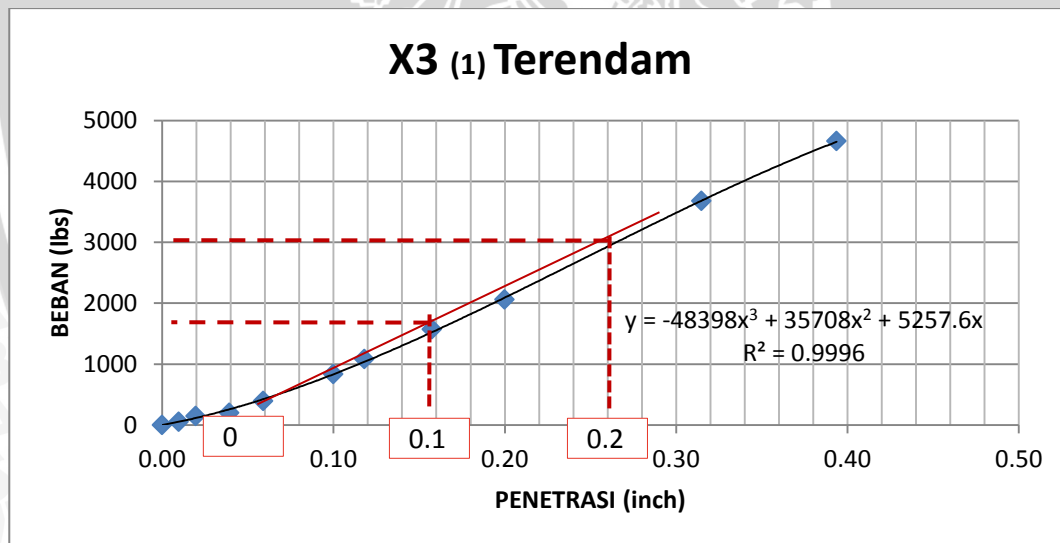


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1218.13	3000	40.60
0.2"	1994.06	4500	44.31

X31 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	1	49.02	
0.5	0.0197	3	147.06	
1	0.0394	4	196.08	
1.5	0.0591	8	392.16	
2.54	0.1	17	833.34	
3	0.1181	22	1078.44	
4	0.1575	32	1568.64	
5.08	0.2	42	2058.84	
8	0.3	75	3676.5	
10	0.3937	95	4656.9	

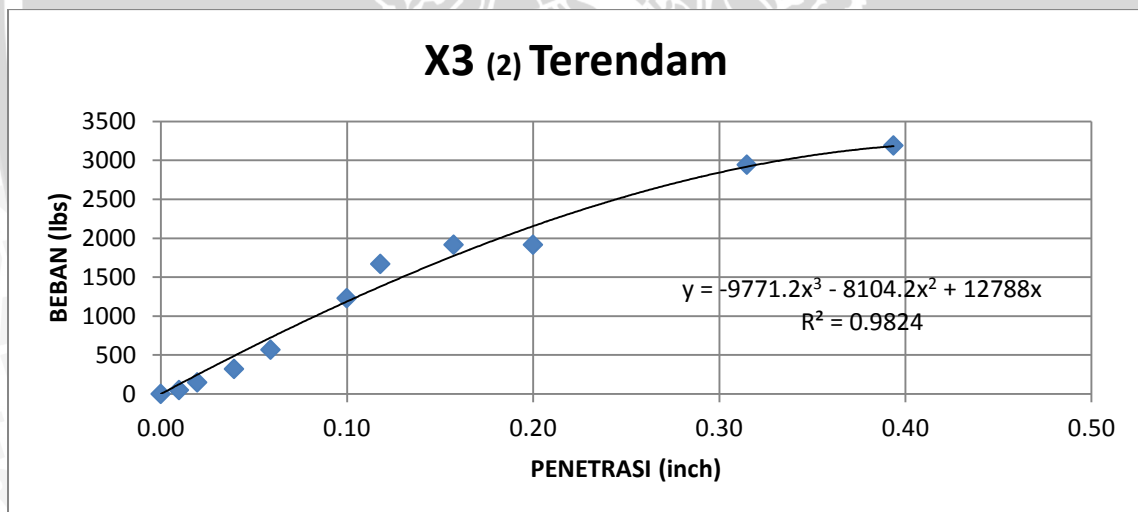


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	882.78	3000	29.43
0.2"	2479.68	4500	55.10

X32 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	3	147.06
1	0.0394	6.5	318.63
1.5	0.0591	11.5	563.73
2.54	0.1	25	1225.5
3	0.1181	34	1666.68
4	0.1575	39	1911.78
5.08	0.2	39	1911.78
8	0.3	60	2941.2
10	0.3937	65	3186.3



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1197.76	3000	39.92
0.2"	2233.44	4500	49.63

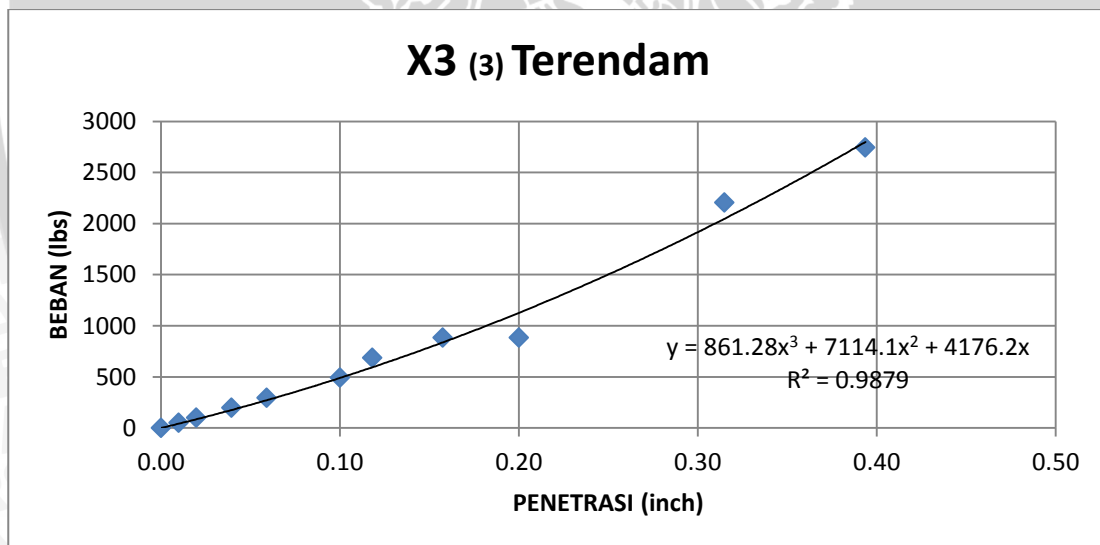
X33 (TERENDAM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	1		49.02
0.5	0.0197	2		98.04
1	0.0394	4		196.08
1.5	0.0591	6		294.12
2.54	0.1	10		490.2
3	0.1181	14		686.28
4	0.1575	18		882.36
5.08	0.2	18		882.36
8	0.3	45		2205.9
10	0.3937	56		2745.12

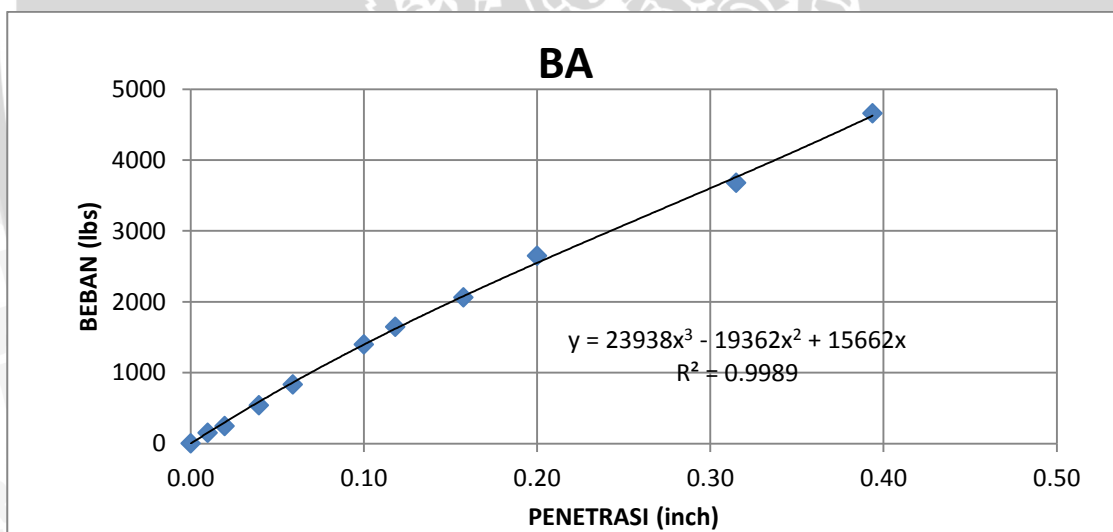


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	484.89	3000	16.16
0.2"	1088.97	4500	24.20

**LAMPIRAN 4
BA (SEBELUM)**

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	5	245.1
1	0.0394	11	539.22
1.5	0.0591	17	833.34
2.54	0.1	28.5	1397.07
3	0.1181	33.5	1642.17
4	0.1575	42	2058.84
5.08	0.2	54	2647.08
8	0.3	75	3676.5
10	0.3937	95	4656.9



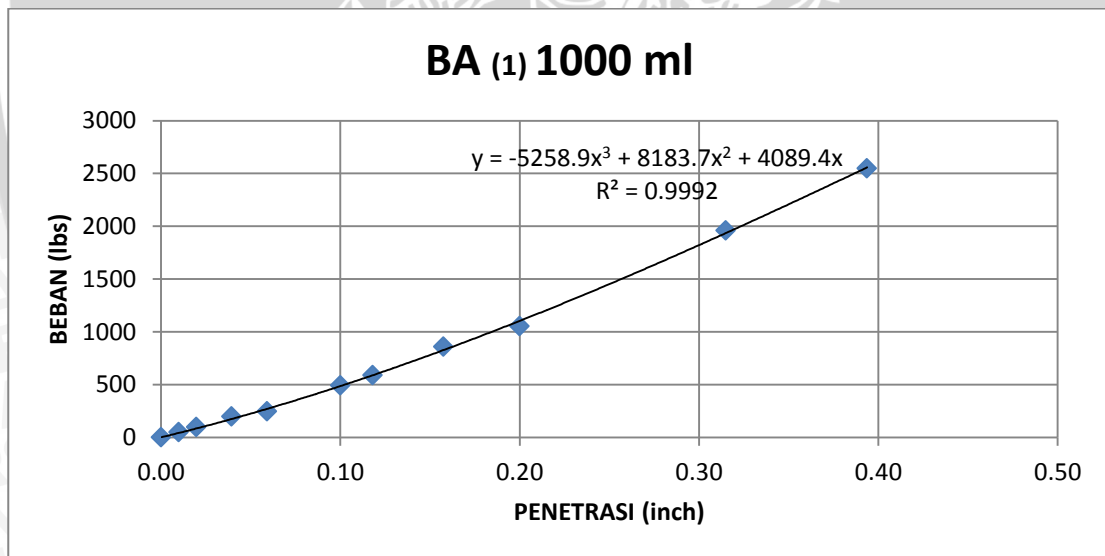
Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1403.66	3000	46.79
0.2"	2606.54	4500	57.92



BA1 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	4	196.08
1.5	0.0591	5	245.1
2.54	0.1	10	490.2
3	0.1181	12	588.24
4	0.1575	17.5	857.85
5.08	0.2	21.5	1053.93
8	0.3	40	1960.8
10	0.3937	52	2549.04

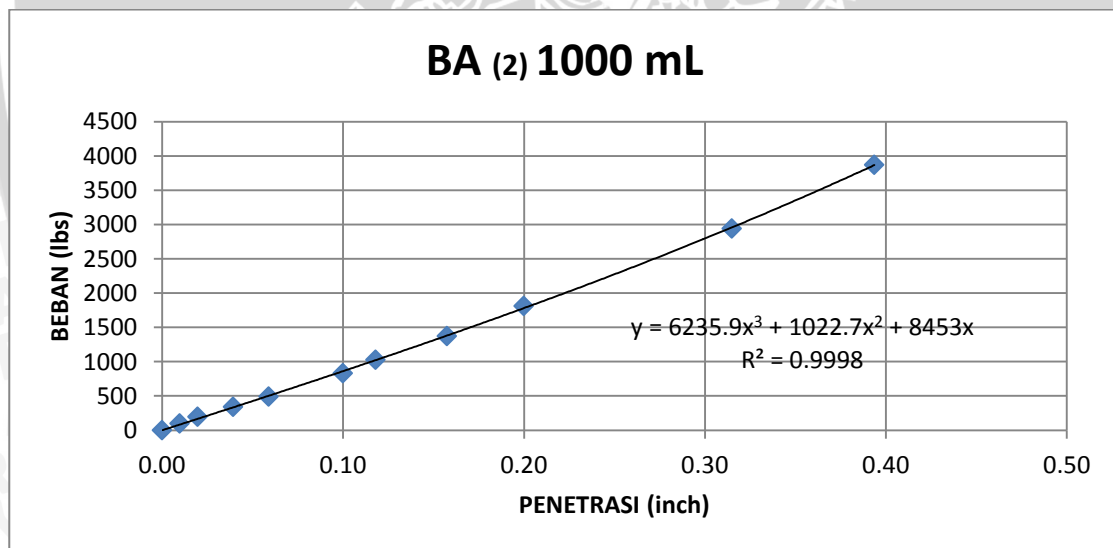


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	490.73	3000	16.36
0.2"	1145.12	4500	25.45

BA2 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	4	196.08
1	0.0394	7	343.14
1.5	0.0591	10	490.2
2.54	0.1	17	833.34
3	0.1181	21	1029.42
4	0.1575	28	1372.56
5.08	0.2	37	1813.74
8	0.3	60	2941.2
10	0.3937	79	3872.58



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	859.524	3000	28.65
0.2"	1763.512	4500	39.20

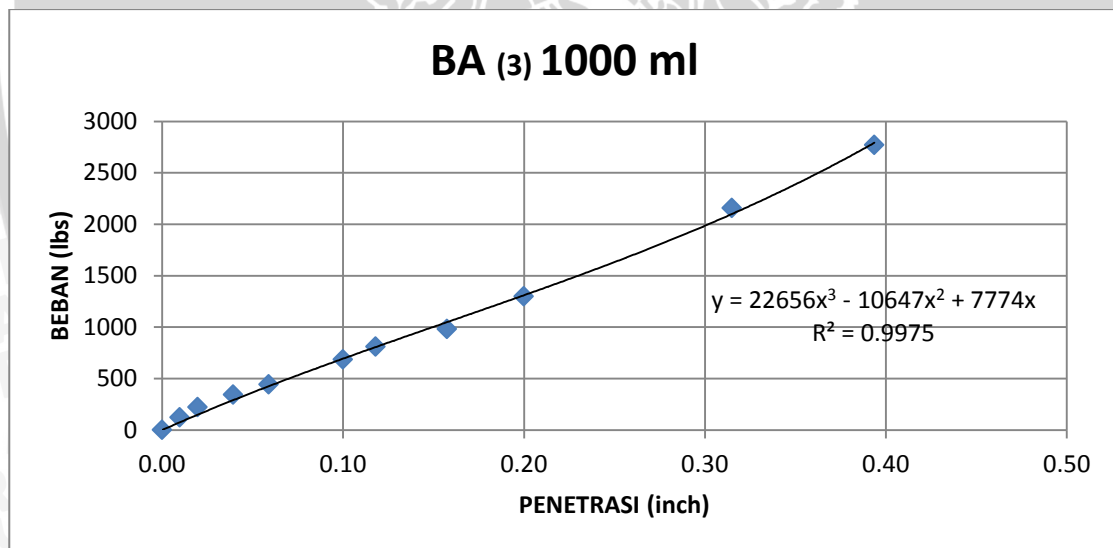
BA3 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	2.5	122.55
0.5	0.0197	4.5	220.59
1	0.0394	7	343.14
1.5	0.0591	9	441.18
2.54	0.1	14	686.28
3	0.1181	16.5	808.83
4	0.1575	20	980.4
5.08	0.2	26.5	1299.03
8	0.3	44	2156.88
10	0.3937	56.5	2769.63



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	683.16	3000	27.77
0.2"	1226,78	4500	27.26

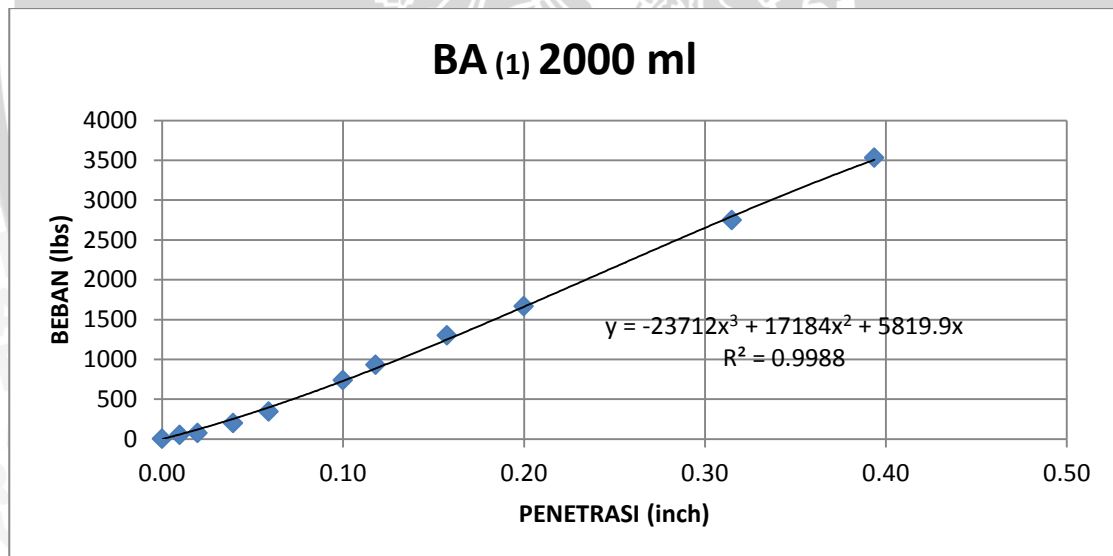
BA1 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	4	196.08
1.5	0.0591	7	343.14
2.54	0.1	15	735.3
3	0.1181	19	931.38
4	0.1575	26.5	1299.03
5.08	0.2	34	1666.68
8	0.3	56	2745.12
10	0.3937	72	3529.44



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	737.71	3000	24.59
0.2"	1722.95	4500	38.29

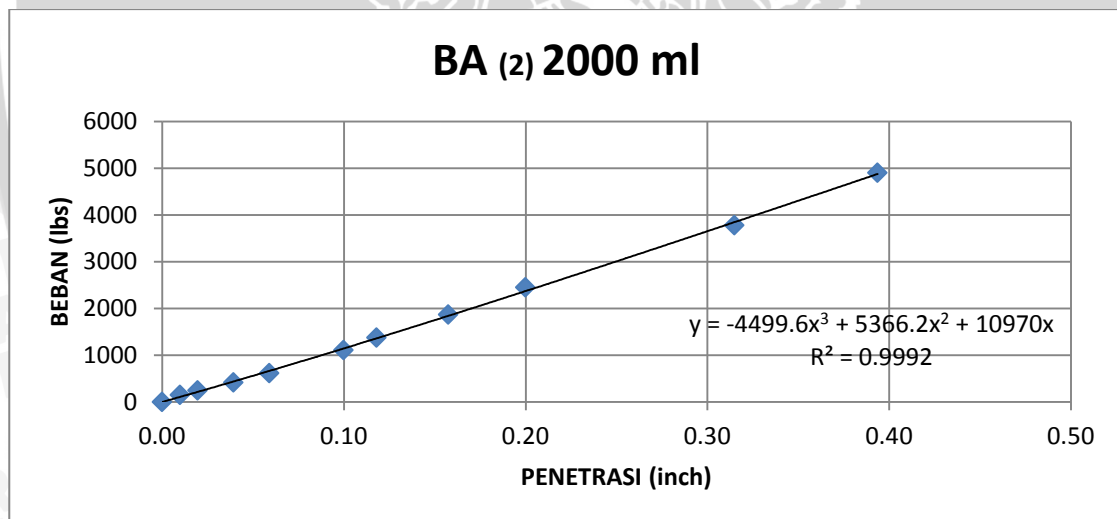
BA2 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0.25	0.0098	3	147.06
0.5	0.0197	5	245.1
1	0.0394	8.5	416.67
1.5	0.0591	12.5	612.75
2.54	0.1	22.5	1102.95
3	0.1181	28	1372.56
4	0.1575	38	1862.76
5.08	0.2	50	2451
8	0.3	77	3774.54
10	0.3937	100	4902



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1145.54	3000	38.18
0.2"	2367.69	4500	52.62

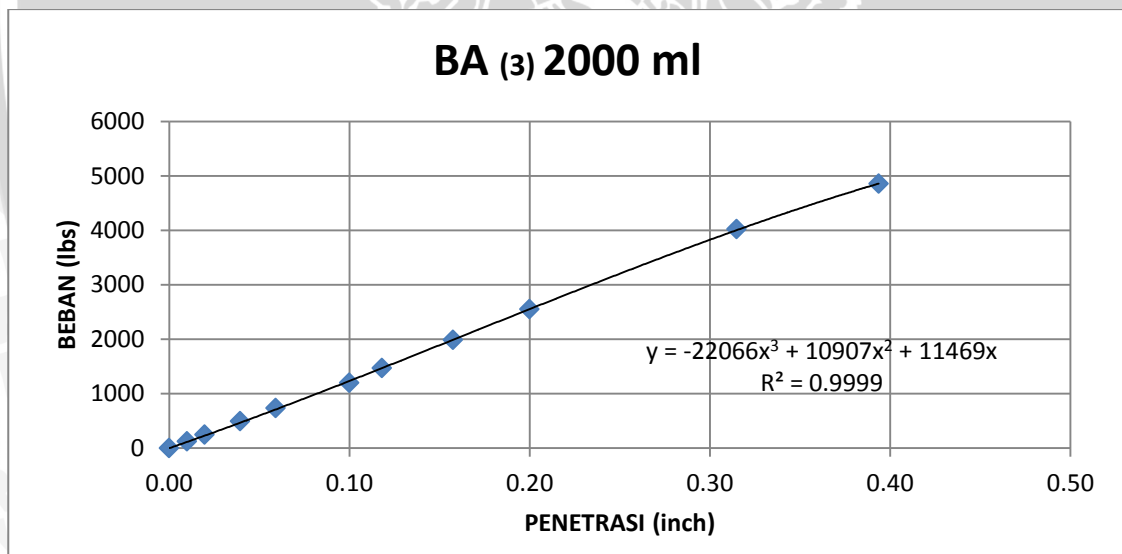
BA3(PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	2.5	122.55
0.5	0.0197	5	245.1
1	0.0394	10	490.2
1.5	0.0591	15	735.3
2.54	0.1	24.5	1200.99
3	0.1181	30	1470.6
4	0.1575	40.5	1985.31
5.08	0.2	52	2549.04
8	0.3	82	4019.64
10	0.3937	99	4852.98



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1230.95	3000	41.03
0.2"	2529.94	4500	56.22

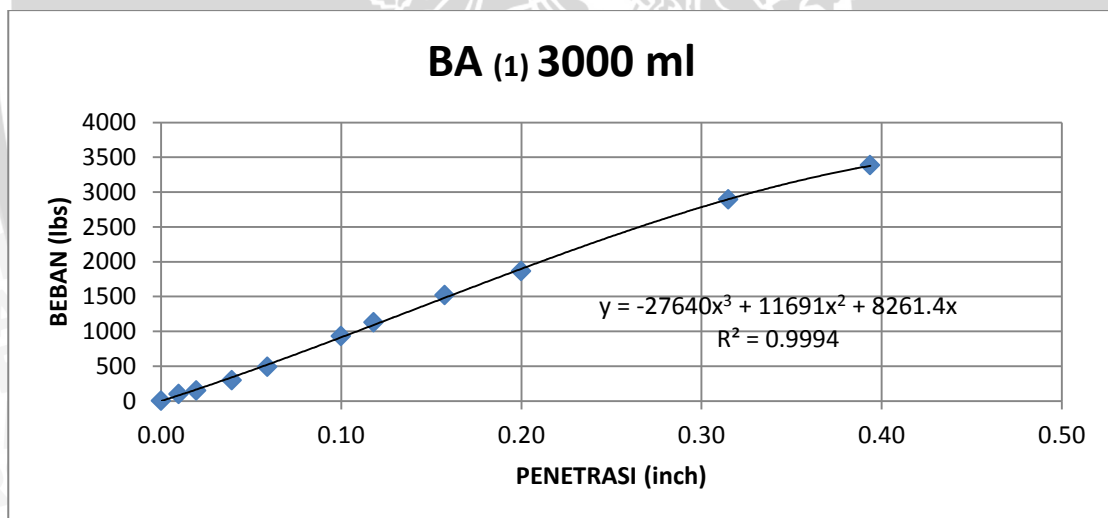
BA1 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	2		98.04
0.5	0.0197	3		147.06
1	0.0394	6		294.12
1.5	0.0591	10		490.2
2.54	0.1	19		931.38
3	0.1181	23		1127.46
4	0.1575	31		1519.62
5.08	0.2	38		1862.76
8	0.3	59		2892.18
10	0.3937	69		3382.38



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	918.3	3000	30.6
0.2"	1920.8	4500	42.68

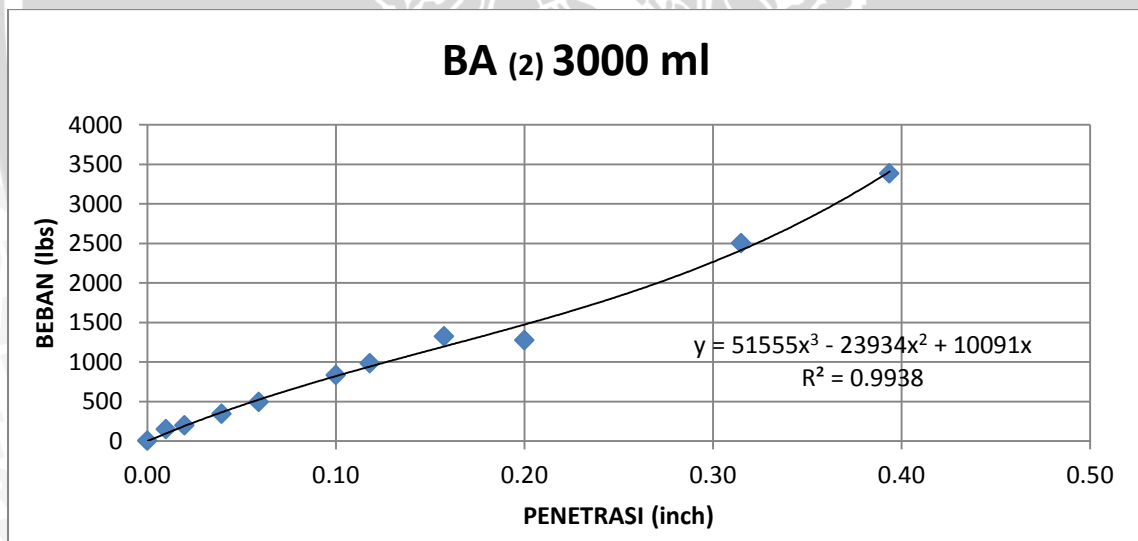
BA2 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	4	196.08
1	0.0394	7	343.14
1.5	0.0591	10	490.2
2.54	0.1	17	833.34
3	0.1181	20	980.4
4	0.1575	27	1323.54
5.08	0.2	26	1274.52
8	0.3	51	2500.02
10	0.3937	69	3382.38



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	818.28	3000	27.28
0.2"	1448.96	4500	32.20

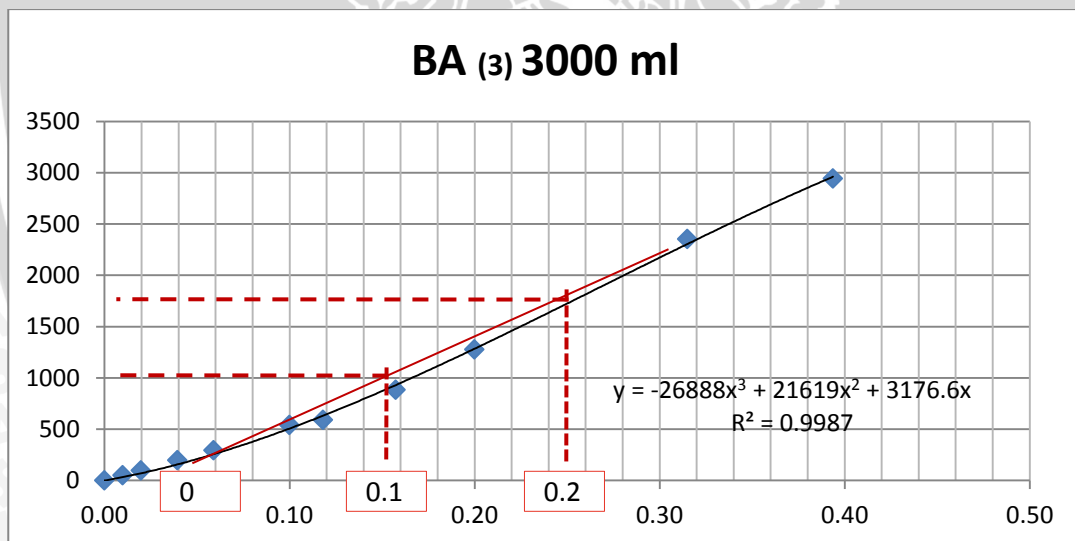
BA3 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	4	196.08
1.5	0.0591	6	294.12
2.54	0.1	11	539.22
3	0.1181	12	588.24
4	0.1575	18	882.36
5.08	0.2	26	1274.52
8	0.3	48	2352.96
10	0.3937	60	2941.2

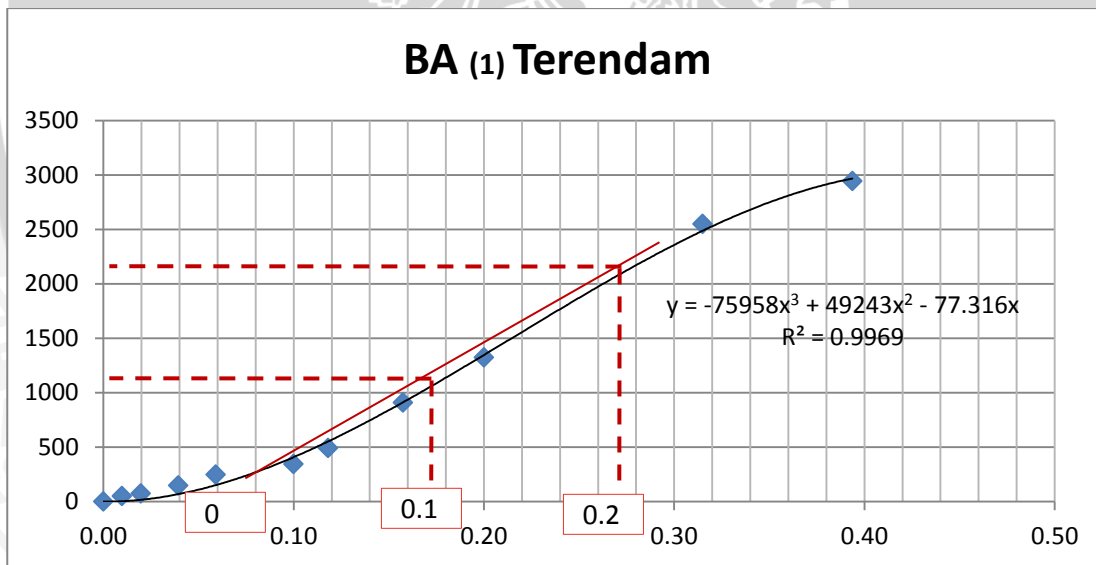


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	501	3000	16.7
0.2"	1237.64	4500	27.50

BA1 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	3	147.06
1.5	0.0591	5	245.1
2.54	0.1	7	343.14
3	0.1181	10	490.2
4	0.1575	18.5	906.87
5.08	0.2	27	1323.54
8	0.3	52	2549.04
10	0.3937	60	2941.2



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1031.25	3000	41.71
0.2"	2036.65	4500	45.26

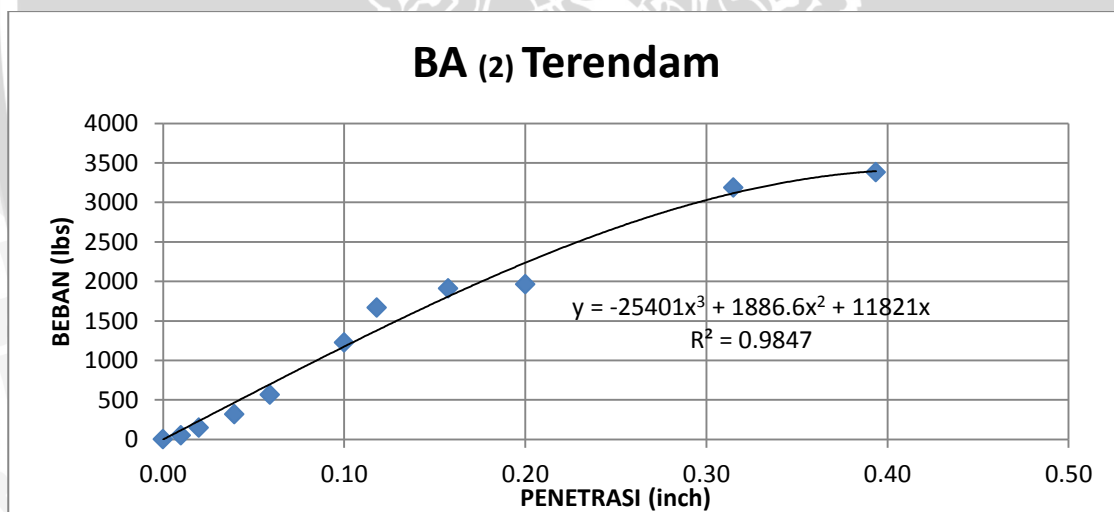
BA2 (TERENDAM)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring		Beban (Lbs)
0	0.0000	0	0	0
0.25	0.0098	1	49.02	49.02
0.5	0.0197	3	147.06	147.06
1	0.0394	6.5	318.63	318.63
1.5	0.0591	11.5	563.73	563.73
2.54	0.1	25	1225.5	1225.5
3	0.1181	34	1666.68	1666.68
4	0.1575	39	1911.78	1911.78
5.08	0.2	40	1960.8	1960.8
8	0.3	65	3186.3	3186.3
10	0.3937	69	3382.38	3382.38

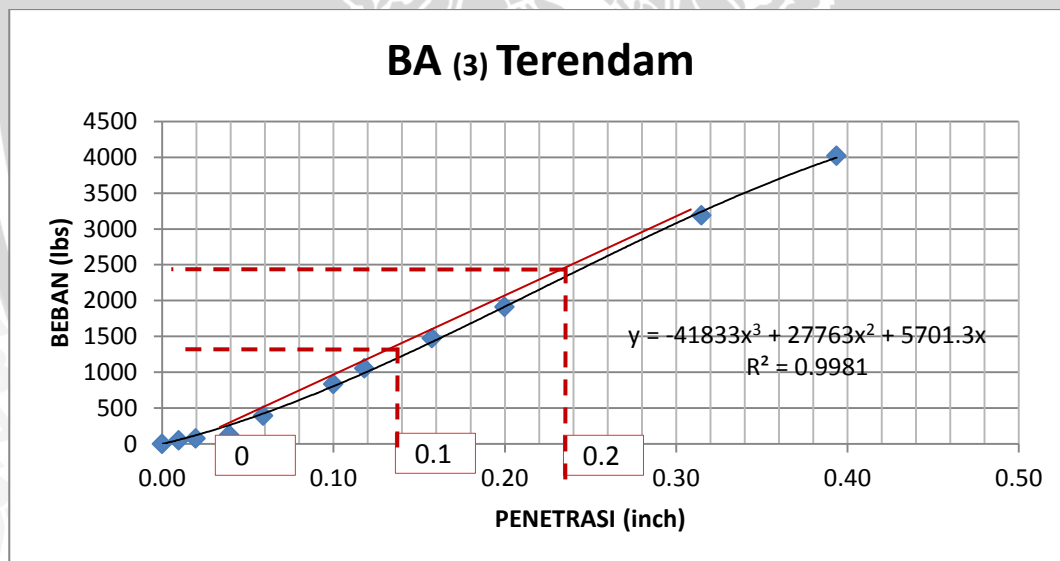


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1192.62	3000	39.75
0.2"	2372.88	4500	52.73

BA3 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	2.5	122.55
1.5	0.0591	8	392.16
2.54	0.1	17	833.34
3	0.1181	21.5	1053.93
4	0.1575	30	1470.6
5.08	0.2	39	1911.78
8	0.3	65	3186.3
10	0.3937	82	4019.64

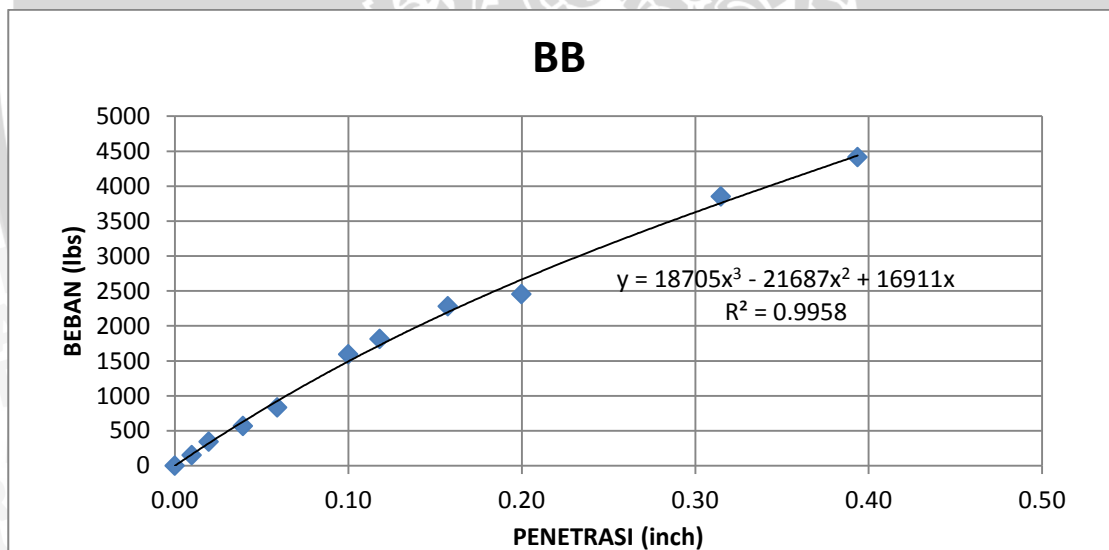


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1166.12	3000	27.21
0.2"	2320.44	4500	44.42

LAMPIRAN 4 BB (SEBELUM)

Unit Load : 0.01 mm
Faktor Kalibrasi : 49.02 Lbs/div
Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	7	343.14
1	0.0394	11.5	563.73
1.5	0.0591	17	833.34
2.54	0.1	32.5	1593.15
3	0.1181	37	1813.74
4	0.1575	46.5	2279.43
5.08	0.2	50	2451
8	0.3	78.5	3848.07
10	0.3937	90	4411.8

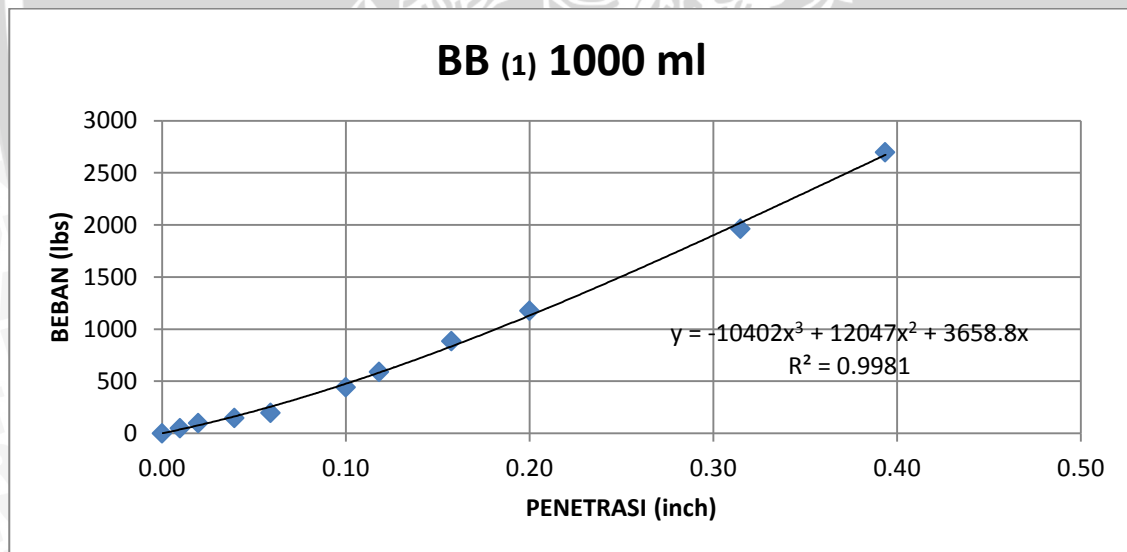


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1444.87	3000	48.16
0.2"	2279.85	4500	50.66

BB1 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	3	147.06
1.5	0.0591	4	196.08
2.54	0.1	9	441.18
3	0.1181	12	588.24
4	0.1575	18	882.36
5.08	0.2	24	1176.48
8	0.3	40	1960.8
10	0.3937	55	2696.1



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	477.09	3000	15.90
0.2"	1140.12	4500	25.33

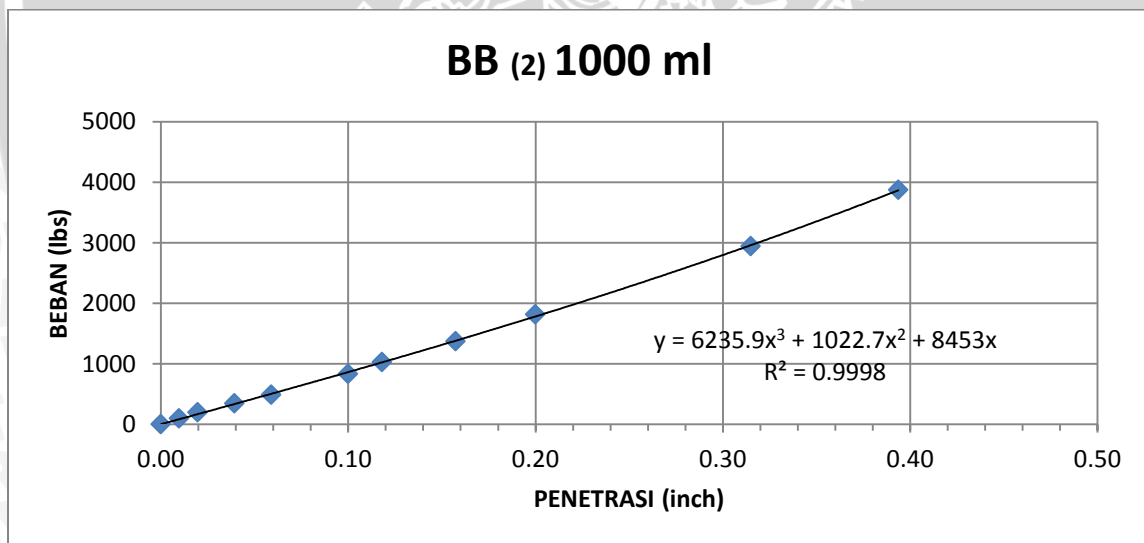
BB2 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi	Penetrasi	Pembacaan	Beban
mm	inch	proving ring	(Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	4	196.08
1	0.0394	7	343.14
1.5	0.0591	10	490.2
2.54	0.1	17	833.34
3	0.1181	21	1029.42
4	0.1575	28	1372.56
5.08	0.2	37	1813.74
8	0.3	60	2941.2
10	0.3937	79	3872.58



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	962.6	3000	32.09
0.2"	1636.36	4500	36.37

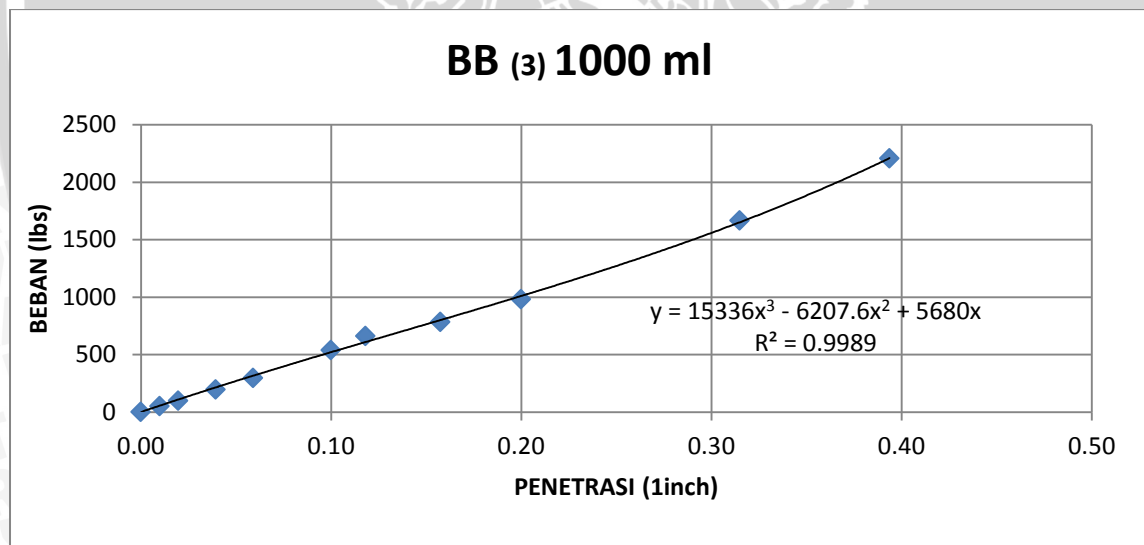
BB3 (PENAMBAHAN VOLUME 1000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	4	196.08
1.5	0.0591	6	294.12
2.54	0.1	11	539.22
3	0.1181	13.5	661.77
4	0.1575	16	784.32
5.08	0.2	20	980.4
8	0.3	34	1666.68
10	0.3937	45	2205.9



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	523.21	3000	17.44
0.2"	1025.98	4500	22.80

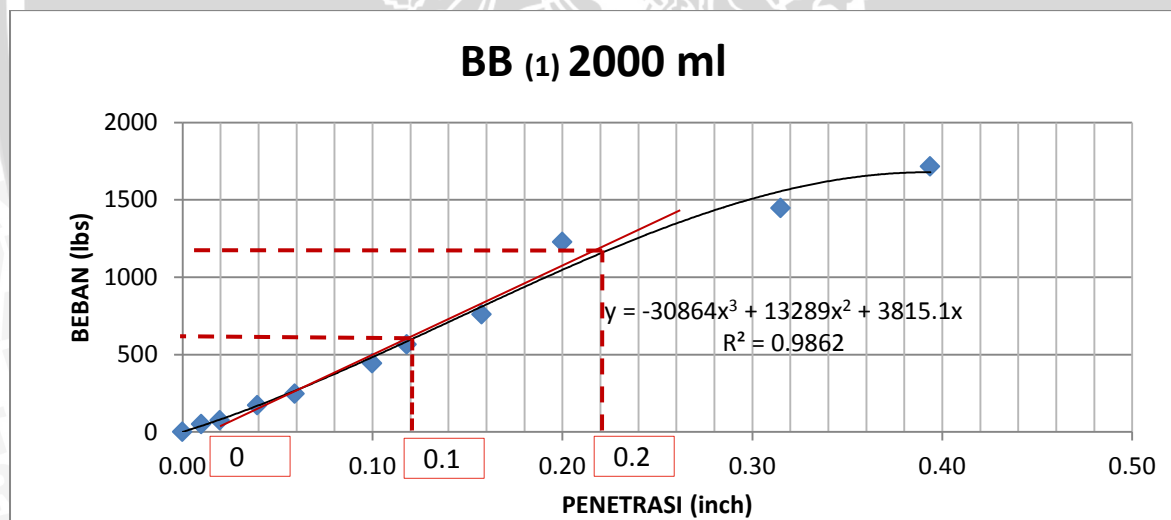
BB1 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	3.5	171.57
1.5	0.0591	5	245.1
2.54	0.1	9	441.18
3	0.1181	11.5	563.73
4	0.1575	15.5	759.81
5.08	0.2	25	1225.5
8	0.3	29.5	1446.09
10	0.3937	35	1715.7



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	514.39	3000	17.15
0.2"	1294.56	4500	28.77

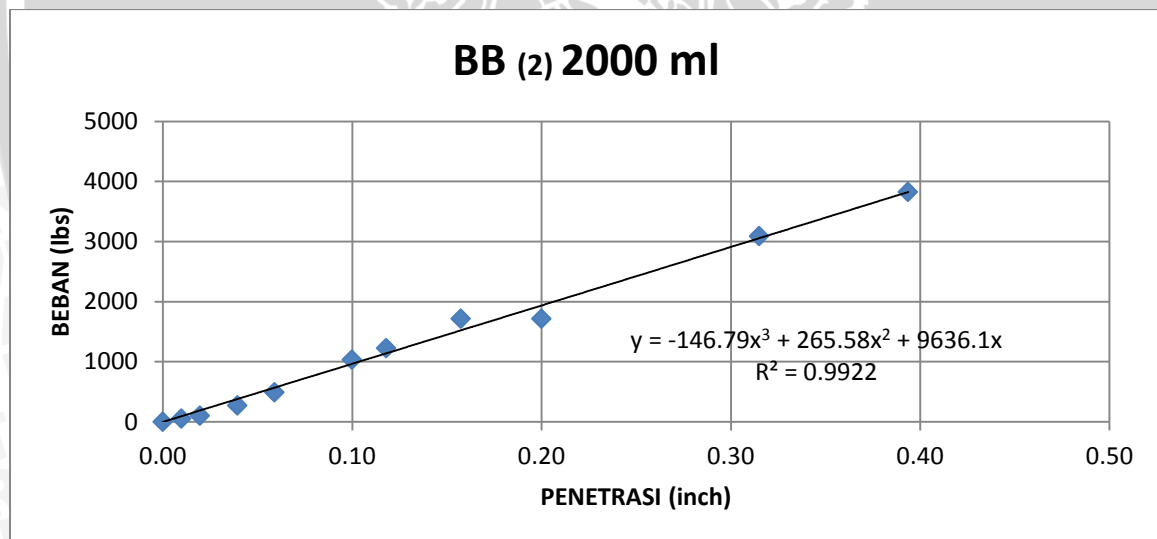
BB2 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	5.5	269.61
1.5	0.0591	10	490.2
2.54	0.1	21	1029.42
3	0.1181	25	1225.5
4	0.1575	35	1715.7
5.08	0.2	35	1715.7
8	0.3	63	3088.26
10	0.3937	78	3823.56



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	966.26	3000	32.21
0.2"	1937.83	4500	43.06

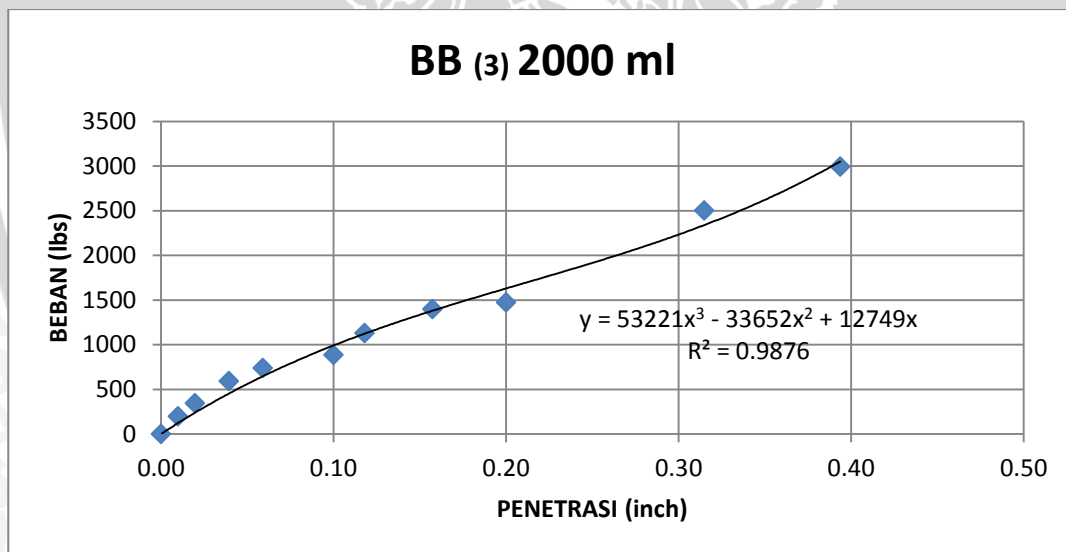
BB3 (PENAMBAHAN VOLUME 2000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	7	343.14
1	0.0394	12	588.24
1.5	0.0591	15	735.3
2.54	0.1	18	882.36
3	0.1181	23	1127.46
4	0.1575	28.5	1397.07
5.08	0.2	30	1470.6
8	0.3	51	2500.02
10	0.3937	61	2990.22



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	938.38	3000	31.28
0.2"	1139.84	4500	25.33

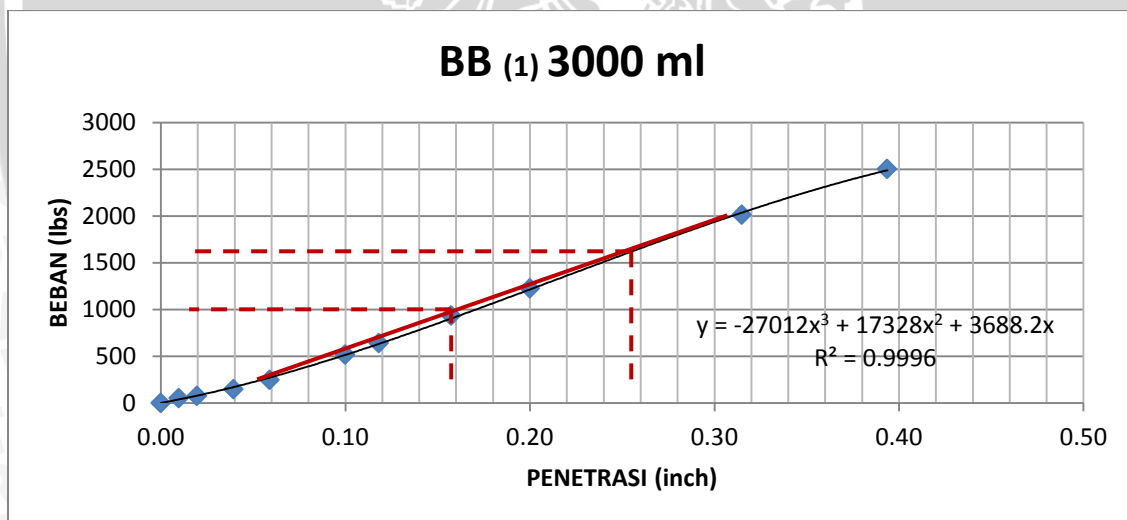
BB1 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	1.5	73.53
1	0.0394	3	147.06
1.5	0.0591	5	245.1
2.54	0.1	10.5	514.71
3	0.1181	13	637.26
4	0.1575	19	931.38
5.08	0.2	25	1225.5
8	0.3	41	2009.82
10	0.3937	51	2500.02

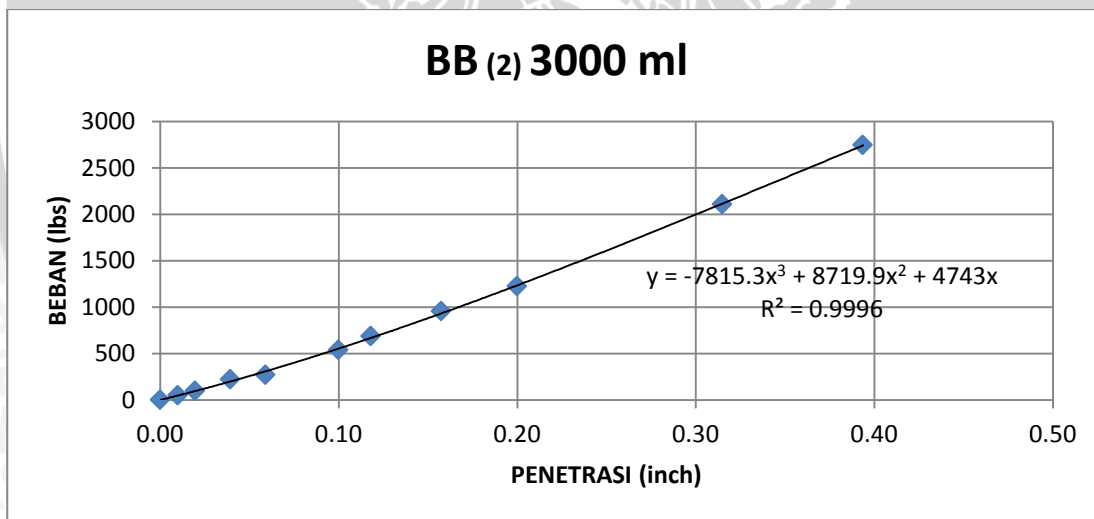


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	880.65	3000	17.22
0.2"	1500	4500	27.27

BB2 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2	98.04
1	0.0394	4.5	220.59
1.5	0.0591	5.5	269.61
2.54	0.1	11	539.22
3	0.1181	14	686.28
4	0.1575	19.5	955.89
5.08	0.2	25	1225.5
8	0.3	43	2107.86
10	0.3937	56	2745.12



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	553.88	3000	18.46
0.2"	1236.47	4500	27.48

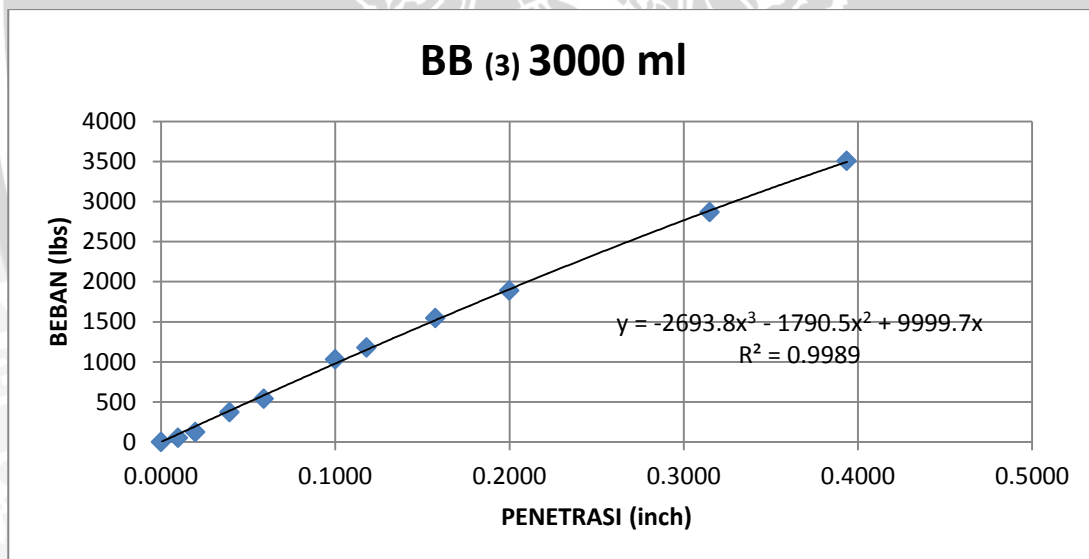
BB3 (PENAMBAHAN VOLUME 3000 ml)

Unit Load : 0.01 mm

Faktor Kalibrasi : 49.02 Lbs/div

Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	1	49.02
0.5	0.0197	2.5	122.55
1	0.0394	7.5	367.65
1.5	0.0591	11	539.22
2.54	0.1	21	1029.42
3	0.1181	24	1176.48
4	0.1575	31.5	1544.13
5.08	0.2	38.5	1887.27
8	0.3	58.5	2867.67
10	0.3937	71.5	3504.93

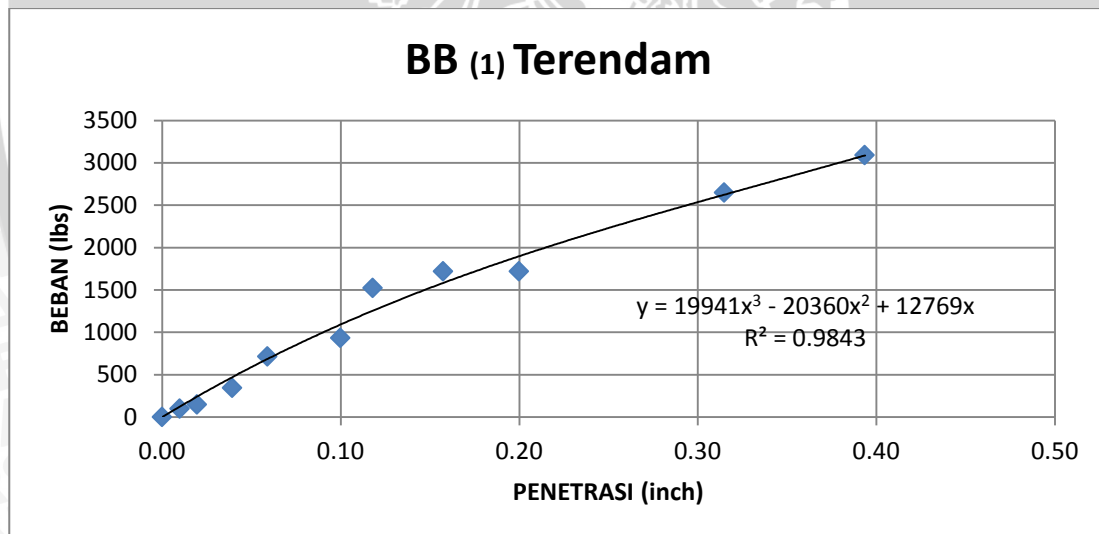


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	988.712	3000	32.96
0.2"	1981.896	4500	44.04

BB1 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan proving ring	Beban
			(Lbs)
0	0.0000	0	0
0.25	0.0098	2	98.04
0.5	0.0197	3	147.06
1	0.0394	7	343.14
1.5	0.0591	14.5	710.79
2.54	0.1	19	931.38
3	0.1181	31	1519.62
4	0.1575	35	1715.7
5.08	0.2	35	1715.7
8	0.3	54	2647.08
10	0.3937	63	3088.26

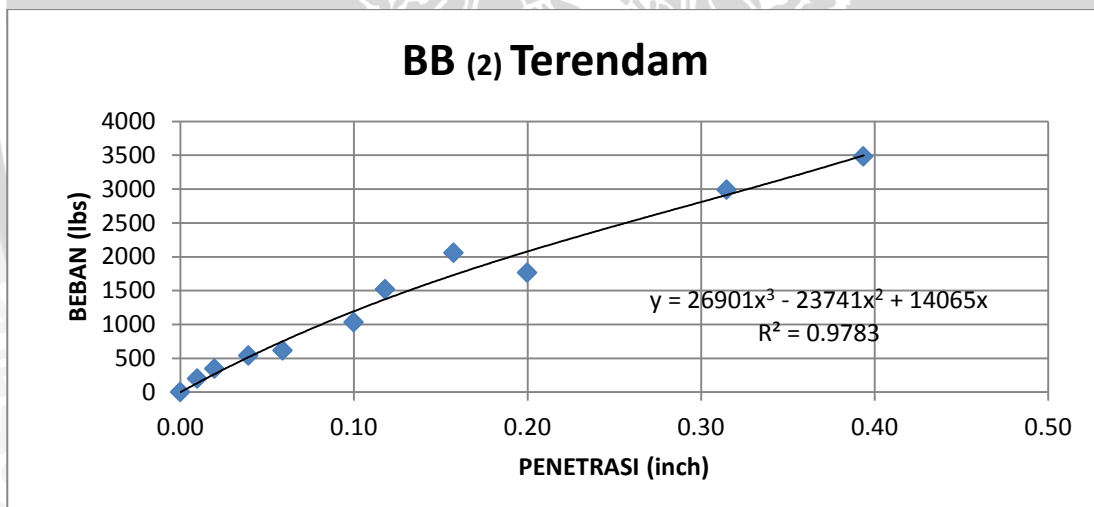


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1105.43	3000	36.85
0.2"	1996.47	4500	44.37

BB2 (TERENDAM)

Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	4	196.08
0.5	0.0197	7	343.14
1	0.0394	11	539.22
1.5	0.0591	12.5	612.75
2.54	0.1	21	1029.42
3	0.1181	31	1519.62
4	0.1575	42	2058.84
5.08	0.2	36	1764.72
8	0.3	61	2990.22
10	0.3937	71	3480.42

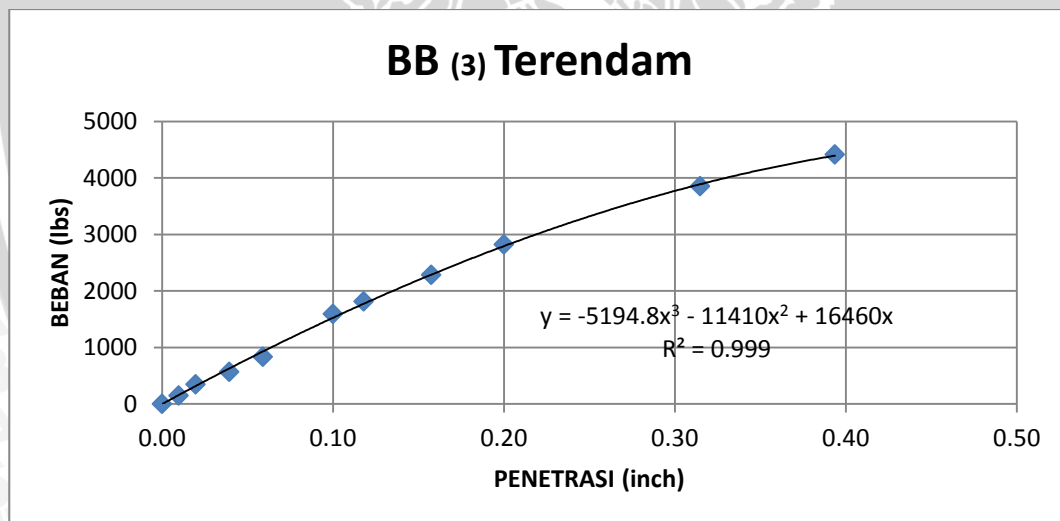


Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1245.06	3000	41.50
0.2"	2147.13	4500	47.71

BB3 (TERENDAM)

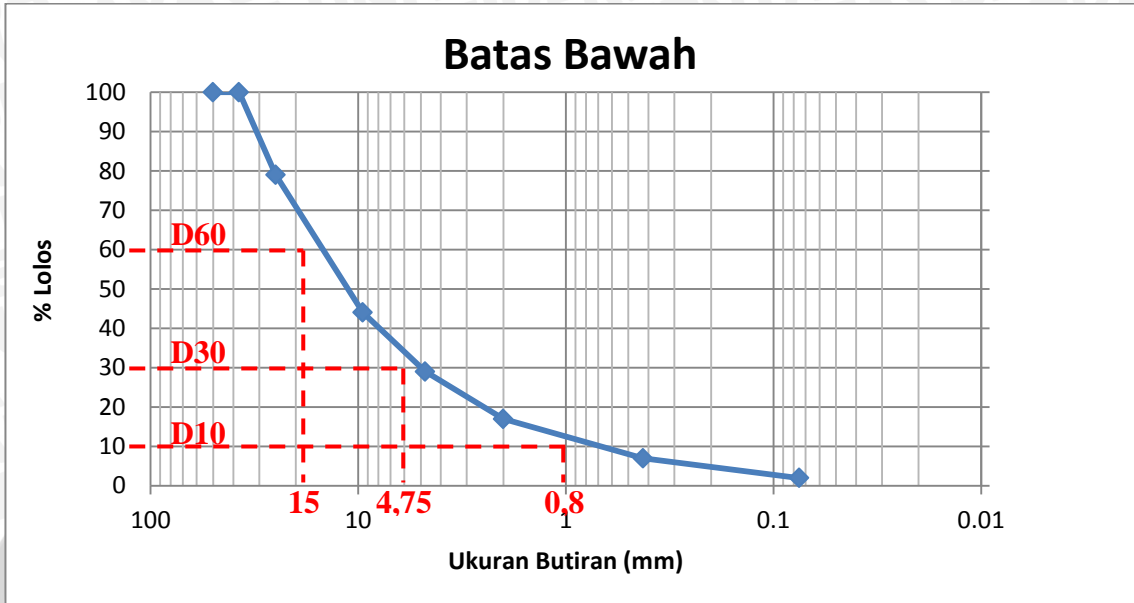
Unit Load : 0.01 mm
 Faktor Kalibrasi : 49.02 Lbs/div
 Luas piston : 3 inch²

Penetrasi mm	Penetrasi inch	Pembacaan	
		proving ring	Beban (Lbs)
0	0.0000	0	0
0.25	0.0098	3	147.06
0.5	0.0197	7	343.14
1	0.0394	11.5	563.73
1.5	0.0591	17	833.34
2.54	0.1	32.5	1593.15
3	0.1181	37	1813.74
4	0.1575	46.5	2279.43
5.08	0.2	57.5	2818.65
8	0.3	78.5	3848.07
10	0.3937	90	4411.8



Penetrasi	Beban	Beban Standart	CBR (%)
0.1"	1531.9	3000	51.06
0.2"	2835.6	4500	34.04

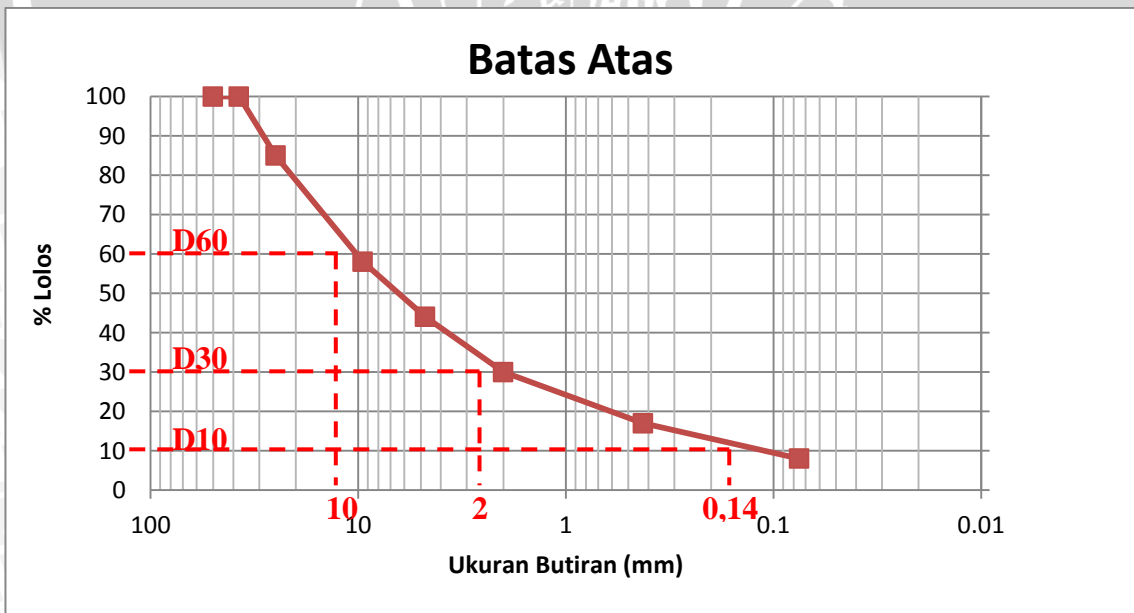
LAMPIRAN 6
Perhitungan Koefisien Keseragaman (Cu) dan Koefisien Gradasi (Cc)



Dari grafik di atas diperoleh :

D10 = 0,8 mm ; D30 = 4,75 mm ; D60 = 15 mm

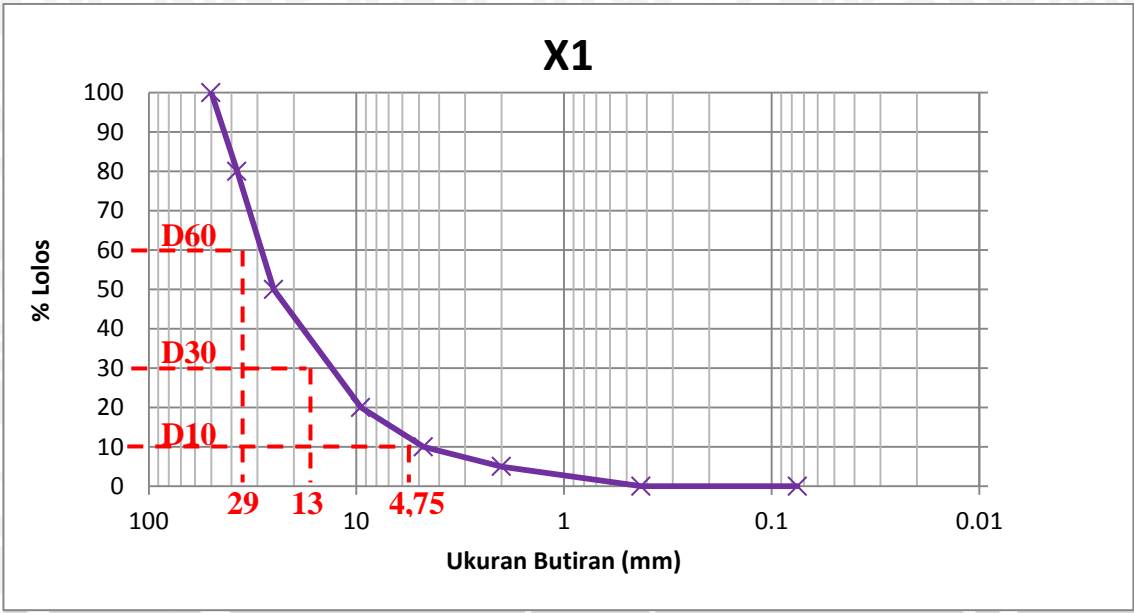
$$Cu = \frac{D60}{D10} = \frac{15}{0,8} = 18,75 ; Cc = \frac{D30^2}{D10 \times D60} = \frac{4,75^2}{0,8 \times 15} = 1,88$$



Dari grafik di atas diperoleh :

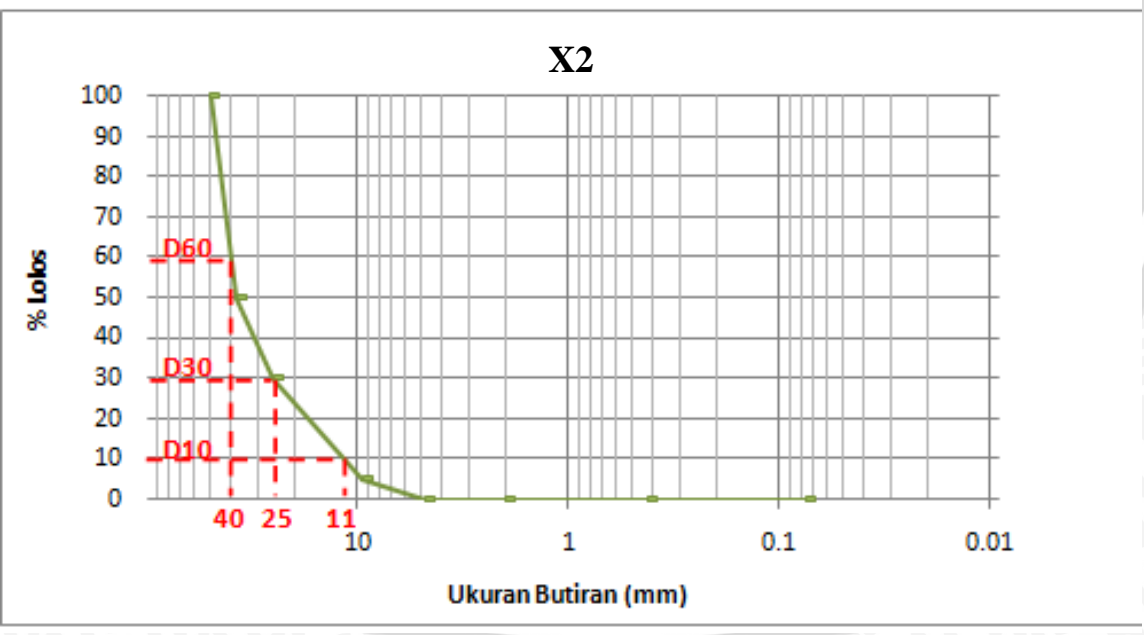
D10 = 0,14 mm ; D30 = 2 mm ; D60 = 10 mm

$$Cu = \frac{D60}{D10} = \frac{10}{0,14} = 71 ; Cc = \frac{D30^2}{D10 \times D60} = \frac{2^2}{0,14 \times 10} = 2,857$$



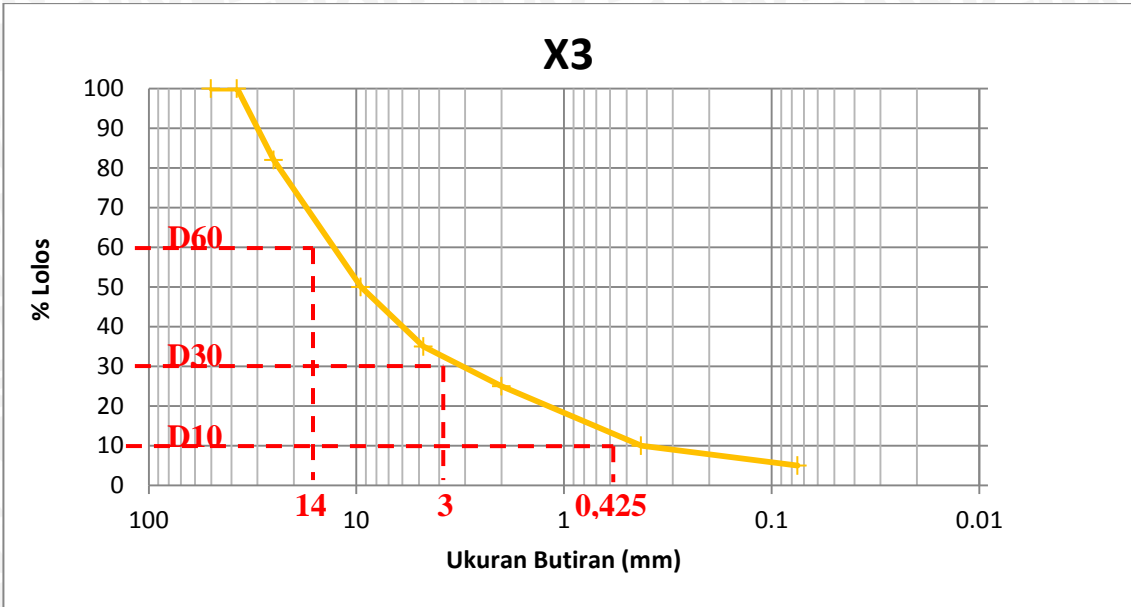
Dari grafik di atas diperoleh :

$D_{10} = 4,75 \text{ mm} \quad ; \quad D_{30} = 13 \text{ mm} \quad ; \quad D_{60} = 29 \text{ mm}$
 $C_u = \frac{D_{60}}{D_{10}} = \frac{29}{4,75} = 6,105 \quad ; \quad C_c = \frac{D_{30}^2}{D_{10} \times D_{60}} = \frac{13^2}{4,75 \times 29} = 1,227$



Dari grafik di atas diperoleh :

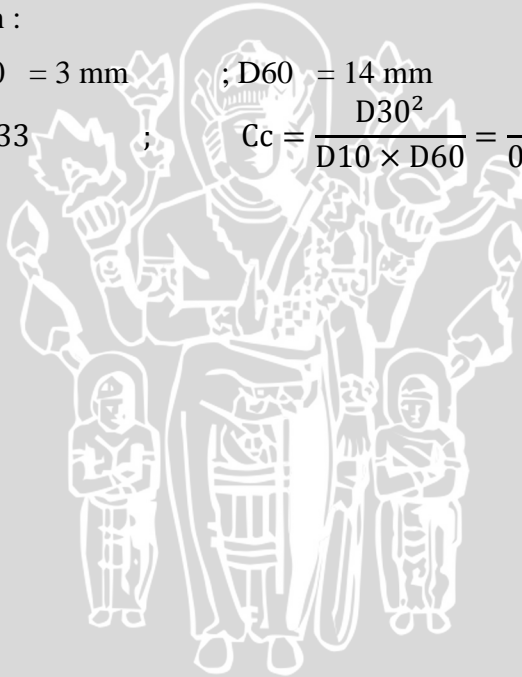
$D_{10} = 11 \text{ mm} \quad ; \quad D_{30} = 25 \text{ mm} \quad ; \quad D_{60} = 40 \text{ mm}$
 $C_u = \frac{D_{60}}{D_{10}} = \frac{40}{11} = 3,636 \quad ; \quad C_c = \frac{D_{30}^2}{D_{10} \times D_{60}} = \frac{25^2}{11 \times 40} = 1,420$



Dari grafik di atas diperoleh :

D10 = 0,425 mm ; D30 = 3 mm ; D60 = 14 mm

$$Cu = \frac{D60}{D10} = \frac{14}{0,425} = 33 ; Cc = \frac{D30^2}{D10 \times D60} = \frac{3^2}{0,425 \times 14} = 1,513$$



LAMPIRAN 7

Pengujian Keausan (Los Angeles) pada Agregat Batu Pecah

NO	PENGAMATAN		HASIL	
			1	2
1	Berat Sampel Awal	A	5000 gr	5000 gr
2	Berat Tertahan Saringan no.12	B	4425 gr	4300.2 gr
3	Keausan	$((A-B)/A)*100\%$	11.5 %	13.996 %
Rata -Rata			12.748	

Pengujian Keausan (Los Angeles) pada Agregat Slag Baja

NO	PENGAMATAN		HASIL	
			1	2
1	Berat Sampel Awal	A	5000.4 gr	5001 gr
2	Berat Tertahan Saringan no.12	B	3799.9 gr	3767.9 gr
3	Keausan	$((A-B)/A)*100\%$	24.008 %	24.657 %
Rata -Rata			24.333	

LAMPIRAN 8

Pengujian Impact pada Agregat Batu Pecah

NO	PENGAMATAN	BERAT (gr)	
1	Berat sampel (A)	341.1	338.5
2	Berat Sampel setelah penekanan dan lolos saringan 2.36mm (B)	39.8	43
3	Berat Sampel setelah penekanan dan tertahan saringan 2.36mm (C)	301.3	295.5
4	Aggregate Impact value (B/A*100%)	11.668	12.703
RATA-RATA		12.186	

Pengujian Impact pada Agregat *Slag* Baja

NO	PENGAMATAN	BERAT (gr)	
1	Berat sampel (A)	378.6	409.9
2	Berat Sampel setelah penekanan dan lolos saringan 2.36mm (B)	33.7	41.3
3	Berat Sampel setelah penekanan dan tertahan saringan 2.36mm (C)	344.9	368.6
4	Aggregate Impact value (B/A*100%)	8.901	10.076
RATA-RATA		9.488	