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KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
POLITEKNIK KESEHATAN TANJUNGKARANG
JURUSAN KESEHATAN LINGKUNGAN
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Lampiran : ..... Eks
Hal : **Izin Penelitian**

Yth, Kepala Jurusan Kesehatan Lingungan
Di – Bandar Lampung

Sehubungan dengan penyusunan Skripsi bagi mahasiswa tingkat IV Program Studi Sanitasi Lingkungan Program Sarjana Terapan Jurusan Kesehatan Lingkungan Politeknik Kesehatan Kementrian Kesehatan Tanjungkarang Tahun Akademik 2021/2022, maka kami Mengharapkan dapat diberikan izin kepada mahasiswa untuk dapat melakukan penelitian di Istitusi yang Bpk/Ibu pimpin. Adapun mahasiswa yang melakukan penelitian sebagai berikut :

NO	NAMA	JUDUL	TEMPAT PENELITIAN
1	Hafid meibiansyah NIM : 1813351047	EFEKTIVITAS BIJI KELOR SEBAGAI BAHAN KOAGULAN LIMBAH CAIR TAPIOCA	Laboratorium Kesehatan Lingkungan

Atas perhatian dan kerjasamanya kami ucapkan terima kasih.

Ketua Prodi
Sanitasi Lingkungan Program Sarjana Terapan

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
DIREKTORAT JENDERAL TENAGA KESEHATAN

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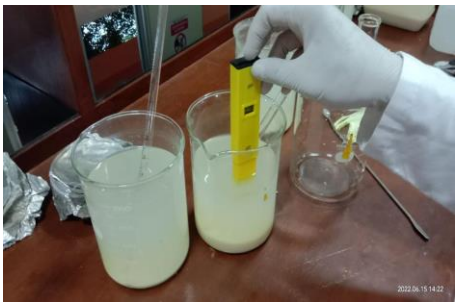
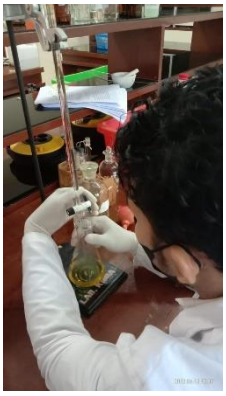
Tembusan Yth:
1. Ka. Jurusan Kesehatan Lingkungan

DOKUMENTASI

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Hasil Perhitungan

1. BOD *(Biochemical Oxygen Demand*)

a. Sebelum perlakuan

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(26{,}6-2{,}5)-[(27{,}5-21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{24{,}1 - 6{,}4 \times 0{,}99}{0{,}01}$$

$$= 1.752{,}3 \text{ mg/L}$$

b. Sebelum perlakuan (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(27-2{,}7)-[(27{,}5-21{,}1)(1-0{,}01)}{0{,}01}$$

$$= \frac{24{,}3 - (6{,}4) \times 0{,}99}{0{,}01}$$

$$= 1.772{,}1 \text{ mg/L}$$

c. Sebelum perlakuan (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(27-2{,}7)-[(27{,}5-21{,}1)(1-0{,}01)}{0{,}01}$$

$$= \frac{24{,}3 - (6{,}4) \times 0{,}99}{0{,}01}$$

$$= 1.772{,}1 \text{ mg/L}$$

d. Sebelum perlakuan (pengulangan)

$$BOD_5{}^{20}\,(mg/\,L) = \frac{(X0 - X5) - [(B0 - B5)(1 - P)]}{P}$$

$$= \frac{(27 - 2{,}7) - [(27{,}5 - 21{,}1)(1 - 0{,}01)}{0{,}01}$$

$$= \frac{24{,}3 - (6{,}4) \times 0{,}99}{0{,}01}$$

$$= 1.772{,}1 \text{ mg/L}$$

e. Setelah perlakuan

1) Dosis 1000 mg/L

$$BOD_5{}^{20}\,(mg/\,L) = \frac{(X0 - X5) - [(B0 - B5)(1 - P)]}{P}$$

$$= \frac{(17\text{-}0{,}62) - [(27{,}5 - 21{,}1)(1 - 0{,}01)]}{0{,}01}$$

$$= \frac{16{,}38 - 6{,}4 \times 0{,}99}{0{,}01}$$

$$= 988{,}02 \text{ mg/L}$$

2) Dosis 1000 mg/L (pengulangan)

$$BOD_5{}^{20}\,(mg/\,L) = \frac{(X0 - X5) - [(B0 - B5)(1 - P)]}{P}$$

$$= \frac{(17 - 0{,}6) - [(27{,}5\text{-}21{,}1)(1 - 0{,}01)]}{0{,}01}$$

$$= \frac{16{,}4 - 6{,}4x\ 0{,}99}{0{,}01}$$

$$= 990 \text{ mg/L}$$

3) Dosis 1000 mg/L (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(17-0{,}8)-[(27{,}5-21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{16{,}2-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 970\ mg/L$$

4) Dosis 1000 mg/L (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(17-1)-[(27{,}5-21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{16-6{,}4x\ 0{,}99\ 0{,}01}{}$$

$$= 950{,}4\ mg/L$$

5) Dosis 1500 mg

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(16-0{,}4)-[(27{,}5-21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}6-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 910\ mg/L$$

6) Dosis 1500 mg (pengulangan)

$$BOD_5\,^{20}\,(mg/\,L) = \frac{(X0-X5\,)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(16\text{-}0{,}46\,)-[(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}54-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 904{,}86\ mg/L$$

7) Dosis 1500 mg (pengulangan)

$$BOD_5\,^{20}\,(mg/\,L) = \frac{(X0-X5\,)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(17\text{-}1{,}33\,)-[(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}67-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 917{,}73\ mg/L$$

8) Dosis 1500 mg (pengulangan)

$$BOD_5\,^{20}\,(mg/\,L) = \frac{(X0-X5\,)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(16\text{-}0{,}48\,)-[(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}52-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 902{,}88\ mg/L$$

9) Dosis 2000 mg

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5) - [(B0-B5)(1-P)]}{P}$$

$$= \frac{(16\text{-}0{,}43) - [(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}53 - 6{,}4x\ 0{,}99}{0{,}01}$$

$$= 903{,}87\ mg/L$$

10) Dosis 2000 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5) - [(B0-B5)(1-P)]}{P}$$

$$= \frac{(17\text{-}1{,}51) - [(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}49 - 6{,}4x\ 0{,}99}{0{,}01}$$

$$= 899{,}91\ mg/L$$

11) Dosis 2000 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5) - [(B0-B5)(1-P)]}{P}$$

$$= \frac{(17\text{-}1{,}48) - [(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{15{,}52 - 6{,}4x\ 0{,}99}{0{,}01}$$

$$= 902{,}88\ mg/L$$

12) Dosis 2000 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(16,3-0,8)-[(27,5-21,1)(1-0,01)]}{0,01}$$

$$= \frac{15,5-6,4x\ 0,99}{0,01}$$

$$= 900,9\ mg/L$$

13) Dosis 2500 mg

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(15,5-0,8)-[(27,5-21,1)(1-0,01)]}{0,01}$$

$$= \frac{14,7-6,4x\ 0,99}{0,01}$$

$$= 827,64\ mg/L$$

14) Dosis 2500 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/L) = \frac{(X0-X5)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(16-1,14)-[(27,5-21,1)(1-0,01)]}{0,01}$$

$$= \frac{14,86-6,4x\ 0,99}{0,01}$$

$$= 837,54\ mg/L$$

15) Dosis 2500 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/\,L) = \frac{(X0-X5\,)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(15\text{-}0{,}01)-[(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{14{,}99-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 850{,}41\ mg/L$$

16) Dosis 2500 mg (pengulangan)

$$BOD_5{}^{20}\,(mg/\,L) = \frac{(X0-X5\,)-[(B0-B5)(1-P)]}{P}$$

$$= \frac{(15\text{-}0{,}14)-[(27{,}5\text{-}21{,}1)(1-0{,}01)]}{0{,}01}$$

$$= \frac{14{,}86-6{,}4x\ 0{,}99}{0{,}01}$$

$$= 837{,}54\ mg/L$$

2. COD *(Chemichal Oxygen Demand)*

a. Sebelum perlakuan

$$COD\ (mg/\,L) = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}8-3{,}5)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}3\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1056\ mg/L$$

b. Sebelum perlakuan (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(5{,}9-1{,}6)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{4{,}3\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1376\ mg/L$$

c. Sebelum perlakuan (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}5-2{,}5)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{4\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1280\ mg/L$$

d. Sebelum perlakuan (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}7-3{,}2)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}5\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1120\ mg/L$$

e. Sesudah perlakuan

1) Dosis 1000 mg

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(7-3{,}8)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}2\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1024 \text{ mg/L}$$

2) Dosis 1000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(5{,}9-1{,}6)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{4{,}3\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1376 \text{ mg/L}$$

3) Dosis 1000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(4{,}9-1{,}6)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}3\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1056 \text{ mg/L}$$

4) Dosis 1000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(4{,}9-1{,}2)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}7\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1184 \text{ mg/L}$$

5) Dosis 1500 mg

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}7-3{,}8)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{2{,}9x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 928 \text{ mg/L}$$

6) Dosis 1500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}6-2{,}4)x\ 0{,}1\ x\ 8000}{2.5}$$

$$= \frac{4{,}2\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1344 \text{ mg/L}$$

7) Dosis 1500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}8-3{,}1)x\ 0{,}1\ x\ 8000}{2.5}$$

$$= \frac{3{,}7\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1184 \text{ mg/L}$$

8) Dosis 1500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(5{,}5-2{,}2)x\ 0{,}1\ x\ 8000}{2.5}$$

$$= \frac{3{,}3\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1056 \text{ mg/L}$$

9) Dosis 2000 mg

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(7-4{,}2)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{2{,}8\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 896 \text{ mg/L}$$

10) Dosis 2000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}4-2{,}3)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{4{,}1\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1312 \text{ mg/L}$$

11) Dosis 2000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}7-3{,}2)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}5\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1120 \text{ mg/L}$$

12) Dosis 2000 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6-2{,}3)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{3{,}7\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1184 \text{ mg/L}$$

13) Dosis 2500 mg

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(7-4,4)x\ 0,1\ x\ 8000}{2,5}$$

$$= \frac{2,6x\ 0,1\ x\ 8000}{2,5}$$

$$= 832 \text{ mg/L}$$

14) Dosis 2500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6,4-2,3)x\ 0,1\ x\ 8000}{2,5}$$

$$= \frac{4\ x\ 0,1\ x\ 8000}{2,5}$$

$$= 1280 \text{ mg/L}$$

15) Dosis 2500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(5,4-2,3)x\ 0,1\ x\ 8000}{2,5}$$

$$= \frac{3,1\ x\ 0,1\ x\ 8000}{2,5}$$

$$= 992 \text{ mg/L}$$

16) Dosis 2500 mg (pengulangan)

$$\text{COD (mg/ L)} = \frac{(a-b)x\ Np\ x\ 8000}{Vs}$$

$$= \frac{(6{,}8-2{,}3)x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= \frac{4{,}5\ x\ 0{,}1\ x\ 8000}{2{,}5}$$

$$= 1440 \text{ mg/L}$$

3. TSS (*Total Suspended Solid*) : $\frac{\text{Berat sesudah} - \text{Berat sebelum x } 1000}{\text{Vsampel}}$

a. Sampel Sebelum Perlakuan/ Pengolahan Limbah Cair

1) Berat kertas saring sebelum : 445 mg

2) Berat kertas saring sesudah : 485 mg

$$\text{TSS (mg/L)} = \frac{555-530\ x\ 1000}{100}$$

$$= \frac{40000}{100}$$

$$= 400 \text{ mg/L}$$

b. Sampel sebelum perlakuan (pengulangan)

1) Berat kertas saring sebelum : 398,5 mg

2) Berat kertas saring sesudah : 434,2 mg

$$\text{TSS (mg/L)} = \frac{434{,}2-398{,}5\ x\ 1000}{100}$$

$$= \frac{357.00}{100}$$

$$= 357 \text{ mg/L}$$

c. Sampel sebelum perlakuan (pengulangan)

1) Berat kertas saring sebelum : 398,5 mg

2) Berat kertas saring sesudah : 454,2 mg

$$\text{TSS (mg/L)} = \frac{464{,}2 - 428{,}5 \text{ x } 1000}{100}$$

$$= \frac{35700}{100}$$

$$= 357 \text{ mg/L}$$

d. Sampel sebelum perlakuan (pengulangan)

1) Berat kertas saring sebelum : 398,5 mg

2) Berat kertas saring sesudah : 434,2 mg

$$\text{TSS (mg/L)} = \frac{439{,}2 - 392{,}7 \text{ x } 1000}{100}$$

$$= \frac{47200}{100}$$

$$= 472 \text{ mg/L}$$

b. Sampel Setelah Perlakuan

1) Dosis 1000 mg

a) Berat kertas saring sebelum : 399,2 mg
b) Berat kertas saring sesudah : 424,2 mg

$$\text{TSS (mg/L)} = \frac{424{,}2 - 399{,}2 \text{ x } 1000}{100}$$

$$= \frac{25.000}{100}$$

$$= 250 \text{ mg/L}$$

Dosis 1000 mg (pengulangan)

a) Berat kertas saring sebelum : 410,8 mg

b) Berat kertas saring sesudah : 446,1 mg

$$\text{TSS (mg/L)} = \frac{446{,}1-410{,}8 \text{ x } 1000}{100}$$

$$= \frac{35.300}{100}$$

$$= 353 \text{ mg/L}$$

a) Berat kertas saring sebelum : 404,3 mg

b) Berat kertas saring sesudah : 431,8 mg

$$\text{TSS (mg/L)} = \frac{431{,}8-404{,}3 \text{ x } 1000}{100}$$

$$= \frac{27.500}{100}$$

$$= 275 \text{ mg/L}$$

a) Berat kertas saring sebelum : 407,8 mg

b) Berat kertas saring sesudah : 436,1 mg

$$\text{TSS (mg/L)} = \frac{436{,}1-407{,}8 \text{ x } 1000}{100}$$

$$= \frac{28.300}{100}$$

$$= 283 \text{ mg/L}$$

3) Dosis 1500 mg

a) Berat kertas saring sebelum : 406,8 mg

b) Berat kertas saring sesudah : 421,8 mg

$$\text{TSS (mg/L)} = \frac{421{,}8-406{,}8 \text{ x } 1000}{100}$$

$$= \frac{15.000}{100}$$

$$= 150 \text{ mg/L}$$

Dosis 1500 mg (pengulangan)

a) Berat kertas saring sebelum : 397,6 mg

b) Berat kertas saring sesudah : 430,6 mg

$$\text{TSS (mg/L)} = \frac{430{,}6-397{,}6 \text{ x } 1000}{100}$$

$$= \frac{33.000}{100}$$

$$= 330 \text{ mg/L}$$

Dosis 1500 mg (pengulangan)

a) Berat kertas saring sebelum : 399,2 mg
b) Berat kertas saring sesudah : 424,2 mg

$$\text{TSS (mg/L)} = \frac{424{,}2-399{,}2 \text{ x } 1000}{100}$$

$$= \frac{25.000}{100}$$

$$= 250 \text{ mg/L}$$

Dosis 1500 mg (pengulangan)

a) Berat kertas saring sebelum : 407,8 mg

b) Berat kertas saring sesudah : 436,1 mg

$$\text{TSS (mg/L)} = \frac{436{,}1-407{,}8 \text{ x } 1000}{100}$$

$$= \frac{28.300}{100}$$

$$= 283 \text{ mg/L}$$

3) Dosis 2000 mg

a) Berat kertas saring sebelum : 394,4 mg

b) Berat kertas saring sesudah : 494,4 mg

$$\text{TSS (mg/L)} = \frac{494{,}4 - 394{,}4 \times 1000}{100}$$

$$= \frac{10000}{100}$$

$$= 100 \text{ mg/L}$$

Dosis 2000 mg (pengulangan)

a) Berat kertas saring sebelum : 406,8 mg

b) Berat kertas saring sesudah : 421,8 mg

$$\text{TSS (mg/L)} = \frac{421{,}8 - 406{,}8 \times 1000}{100}$$

$$= \frac{15.000}{100}$$

$$= 150 \text{ mg/L}$$

Dosis 2000 mg (pengulangan)

a) Berat kertas saring sebelum : 394,4 mg

b) Berat kertas saring sesudah : 425,9 mg

$$\text{TSS (mg/L)} = \frac{425{,}9 - 394{,}4 \times 1000}{100}$$

$$= \frac{31.500}{100}$$

$$= 315 \text{ mg/L}$$

Dosis 2000 mg (pengulangan)

a) Berat kertas saring sebelum : 414,3 mg

b) Berat kertas saring sesudah : 425,3mg

$$\text{TSS (mg/L)} = \frac{425,3-414,3 \text{ x } 1000}{100}$$

$$= \frac{11.000}{100}$$

$$= 110 \text{ mg/L}$$

2) Dosis 2500 mg

a) Berat kertas saring sebelum : 401,7 mg

b) Berat kertas saring sesudah : 411,6 mg

$$\text{TSS (mg/L)} = \frac{411,6-401,7 \text{ x } 1000}{100}$$

$$= \frac{9.900}{100}$$

$$= 99 \text{ mg/L}$$

Dosis 2500 mg (pengulangan)

a) Berat kertas saring sebelum : 403,5 mg

b) Berat kertas saring sesudah : 411,4 mg

$$\text{TSS (mg/L)} = \frac{420,4-400,5 \text{ x } 1000}{100}$$

$$= \frac{7900}{100}$$

$$= 79 \text{ mg/L}$$

Dosis 2500 mg (pengulangan)

a) Berat kertas saring sebelum : 406,8 mg

b) Berat kertas saring sesudah : 421,8 mg

$$\text{TSS (mg/L)} = \frac{421{,}8 - 406{,}8 \times 1000}{100}$$

$$= \frac{15.000}{100}$$

$$= 150 \text{ mg/L}$$

Dosis 2500 mg (pengulangan)

a) Berat kertas saring sebelum : 414,3 mg

b) Berat kertas saring sesudah : 425,3mg

$$\text{TSS (mg/L)} = \frac{425{,}3 - 414{,}3 \times 1000}{100}$$

$$= \frac{11.000}{100}$$

$$= 110 \text{ mg/L}$$

4. pH

a. Sebelum perlakuan = 5

Sebelum perlakuan (pengulangan) = 5
Sebelum perlakuan (pengulangan) = 5
Sebelum perlakuan (pengulangan) = 5

b. Setelah perlakuan

1) Dosis 1000 mg = 5

Dosis 1000 mg (pengulangan) = 5
Dosis 1000 mg (pengulangan) = 5
Dosis 1000 mg (pengulangan) = 5

2) Dosis 1500 mg = 5

Dosis 1500 mg (pengulangan) = 4,7
Dosis 1500 mg (pengulangan) = 5
Dosis 1500 mg (pengulangan) = 5

3) Dosis 2000 mg = 5

Dosis 2000 mg (pengulangan) = 5
Dosis 2000 mg (pengulangan) = 5
Dosis 2000 mg (pengulangan) = 5

3) Dosis 2500 mg = 5

Dosis 2500 mg (pengulangan) = 4,9
Dosis 2500 mg (pengulangan) = 5
Dosis 2500 mg (pengulangan) = 5

HASIL ANALISIS SPSS

BOD

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	DOSIS[b]	.	Enter

a. Dependent Variable: BOD1

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.963[a]	.928	.892	12.89518

a. Predictors: (Constant), DOSIS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4290.179	1	4290.179	25.800	.037[b]
	Residual	332.571	3	166.286		
	Total	4622.750	4			

a. Dependent Variable: BOD1

b. Predictors: (Constant), DOSIS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	980.571	11.738		83.539	.000
	DOSIS	-.044	.009	-.963	-5.079	.037

a. Dependent Variable: BOD1

COD

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	DOSIS[b]	.	Enter

a. Dependent Variable: COD1

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.943[a]	.889	.834	31.07227

a. Predictors: (Constant), DOSIS

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15477.029	1	15477.029	16.030	.057[b]
	Residual	1930.971	3	965.486		
	Total	17408.000	4			

a. Dependent Variable: COD1

b. Predictors: (Constant), DOSIS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1070.629	28.284		37.853	.001
	DOSIS	-.084	.021	-.943	-4.004	.057

a. Dependent Variable: COD1

TSS

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	DOSIS[b]	.	Enter

a. Dependent Variable: TSS1

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996[a]	.992	.988	14.29985

a. Predictors: (Constant), DOSIS

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	52341.779	1	52341.779	255.968	.004[b]
	Residual	408.971	3	204.486		
	Total	52750.750	4			

a. Dependent Variable: TSS1

b. Predictors: (Constant), DOSIS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	398.771	13.017		30.636	.001
	DOSIS	-.155	.010	-.996	-15.999	.004

a. Dependent Variable: TSS1