

Werkdocument

Aan

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-	-
Datum	Bijlage(n)
15-11-99	- 6
Nummer	Product
RIKZ/AB-99.851X	- Zeetunnel
Onderwerp	
Troebelheidsmetingen Westerschelde: ijkpunt DOW-steiger <u>23-9-99</u> + <u>21-10-99</u>	

Op 6-9-99 zijn alle troebelheidsmeters bij de DOW-steiger opnieuw ingesteld. De ijklijnen, die nu gevonden worden (ijking 23-9-99) wijken af van de gecumuleerde ijklijn tot nu toe. Aan de start van de T1-situatie is het daarom beter te beginnen met een nieuwe ijklijnenreeks.

DOW	-4	NAP:	$Y = 1,613 X - 0,672$	$r^2 = 0,905$	vanaf 6-9-99 (zie bijlage 1)
DOW	-11	NAP:	$Y = 2,153 X - 0,959$	$r^2 = 0,872$	vanaf 6-9-99 (zie bijlage 3)
DOW	-17	NAP:	$Y = 2,379 X - 2,973$	$r^2 = 0,943$	vanaf 6-9-99 (zie bijlage 5)

Op 21-10-99 is een nieuwe ijking uitgevoerd. De resultaten komen overeen met de ijking van 23-9-99 en zijn daarom gecumuleerd.

De meetgegevens over de **periode 6-9-99 tot 21-10-99** kunnen verwerkt worden met de volgende formules:

DOW	-4	NAP:	$Y = 1,525 X - 0,126$	$r^2 = 0,889$	(zie bijlage 2)
DOW	-11	NAP:	$Y = 1,917 X + 1,672$	$r^2 = 0,801$	(zie bijlage 4)
DOW	-17	NAP:	$Y = 2,207 X - 0,803$	$r^2 = 0,853$	(zie bijlage 6)

Bijlage 1

Dep Var: ZS4NAP N: 8 Multiple R: 0.951 Squared multiple R: 0.905

Adjusted squared multiple R: 0.889 Standard error of estimate: 2.947

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	-0.672	2.845	0.000	-0.236	0.821
MEX4NAP	1.613	0.213	0.951	7.571	0.000

Analysis of Variance

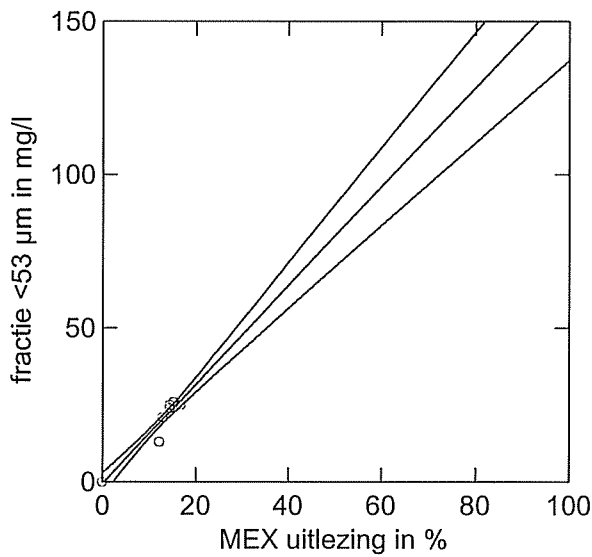
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	497.776	1	497.776	57.326	0.000
Residual	52.099	6	8.683		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.932)
 Case 3 is an outlier (Studentized Residual = -5.091)

Durbin-Watson D Statistic 2.032
 First Order Autocorrelation -0.040

DOW -4.00 NAP 230999



bijlage 2

Dep Var: ZS4NAP N: 15 Multiple R: 0.943 Squared multiple R: 0.889

Adjusted squared multiple R: 0.880 Standard error of estimate: 2.637

Effect	Coefficient	Std Error	Std Coef	Tolerance	t	P(2 Tail)
CONSTANT	-0.126	2.326	0.000	.	-0.054	0.958
MEX4NAP	1.525	0.150	0.943	1.000	10.187	0.000

Analysis of Variance

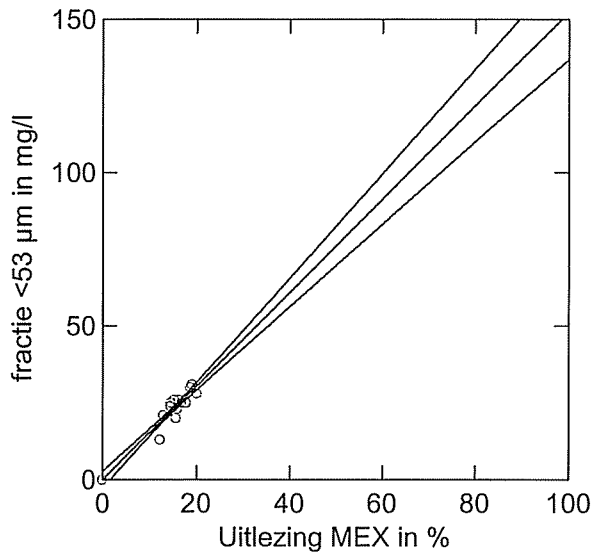
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	721.361	1	721.361	103.767	0.000
Residual	90.373	13	6.952		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.778)
 Case 3 is an outlier (Studentized Residual = -2.752)

Durbin-Watson D Statistic 1.648
 First Order Autocorrelation 0.154

DOW -4 NAP 230999 + 211099



Bijlage 3

Dep Var: ZS11NAP N: 8 Multiple R: 0.934 Squared multiple R: 0.872

Adjusted squared multiple R: 0.851 Standard error of estimate: 4.586

Effect	Coefficient	Std Error	Std Coef	Tolerance	t	P(2 Tail)
CONSTANT	-0.959	4.165	0.000	.	-0.230	0.825
MEX11NAP	2.153	0.336	0.934	1.000	6.408	0.001

Analysis of Variance

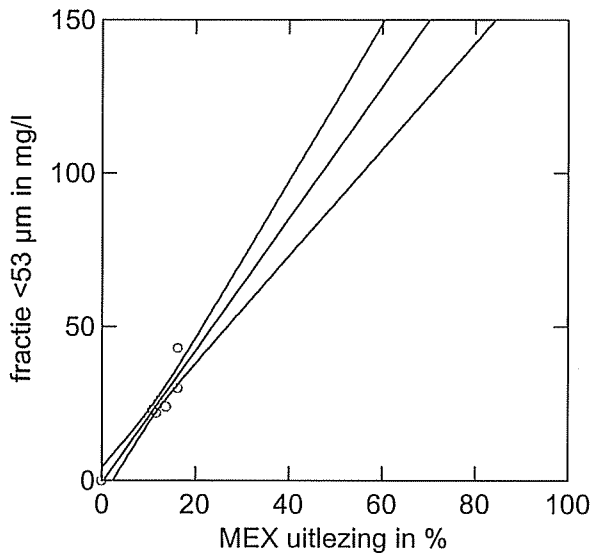
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	863.664	1	863.664	41.058	0.001
Residual	126.211	6	21.035		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.825)
 Case 2 is an outlier (Studentized Residual = 5.027)

Durbin-Watson D Statistic 1.290
 First Order Autocorrelation 0.351

DOW -11.00 NAP 230999



Bijlage 4

Dep Var: ZS11NAP N: 15 Multiple R: 0.895 Squared multiple R: 0.801

Adjusted squared multiple R: 0.786 Standard error of estimate: 4.556

Effect	Coefficient	Std Error	Std Coef	Tolerance	t	P(2 Tail)
CONSTANT	1.672	3.738	0.000	.	0.447	0.662
MEX11NAP	1.917	0.265	0.895	1.000	7.232	0.000

Analysis of Variance

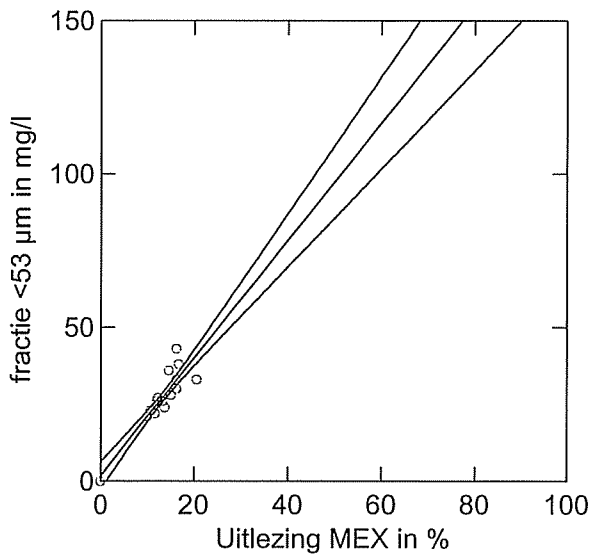
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	1085.540	1	1085.540	52.307	0.000
Residual	269.793	13	20.753		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.673)
 Case 2 is an outlier (Studentized Residual = 2.924)

Durbin-Watson D Statistic 2.063
 First Order Autocorrelation -0.051

DOW -11 NAP 230999 + 211099



Bijlage 5

Dep Var: ZS17NAP N: 8 Multiple R: 0.971 Squared multiple R: 0.943

Adjusted squared multiple R: 0.933 Standard error of estimate: 4.183

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	-2.973	3.581	0.000	-0.830	0.438
MEX17NAP	2.379	0.239	0.971	9.957	0.000

Analysis of Variance

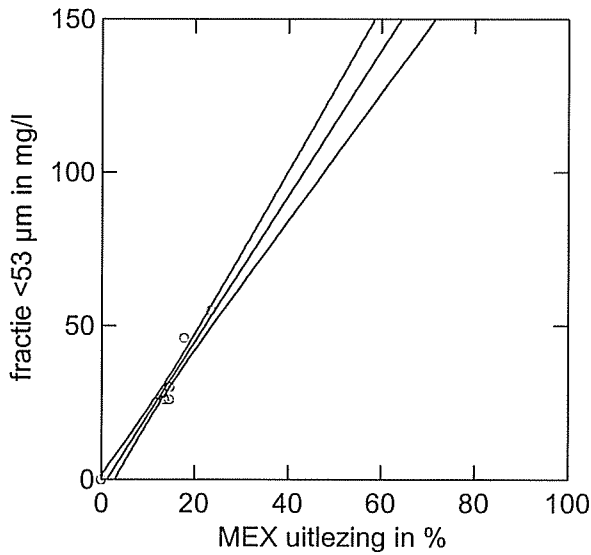
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	1734.991	1	1734.991	99.134	0.000
Residual	105.009	6	17.501		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.733)
 Case 3 is an outlier (Studentized Residual = 2.251)

Durbin-Watson D Statistic 1.643
 First Order Autocorrelation 0.136

DOW -17.00 NAP 230999



bijlage 6

Dep Var: ZS17NAP N: 15 Multiple R: 0.924 Squared multiple R: 0.853

Adjusted squared multiple R: 0.842 Standard error of estimate: 4.712

Effect	Coefficient	Std Error	Std Coef	Tolerance	t	P(2 Tail)
CONSTANT	-0.803	3.877	0.000	.	-0.207	0.839
MEX17NAP	2.207	0.254	0.924	1.000	8.694	0.000

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
Regression	1677.809	1	1677.809	75.579	0.000
Residual	288.591	13	22.199		

*** WARNING ***

Case 1 has large leverage (Leverage = 0.677)

Durbin-Watson D Statistic 1.276

First Order Autocorrelation 0.351

DOW -17 NAP 230999 + 211099

