This document is published for **historical reference only**. To ensure you meet your legislative obligations, refer to the current legislation and guidance materials.

ExDES Engine System Emissions

Explosion Protected Diesel Engine Systems

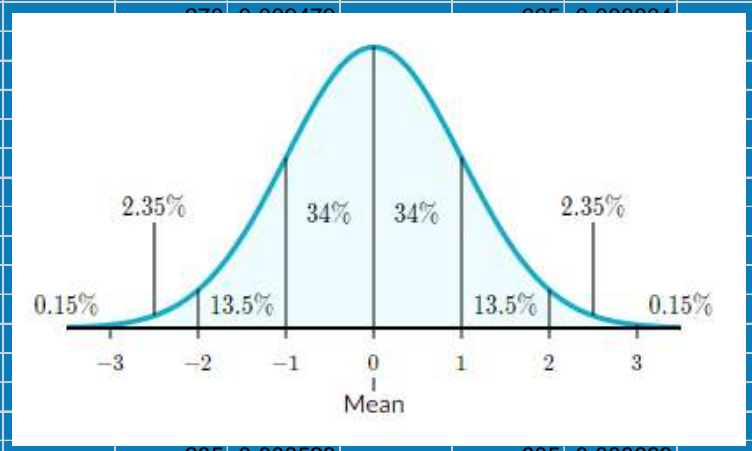
NSW GOVERNMENT

Registration data

DES Analysis

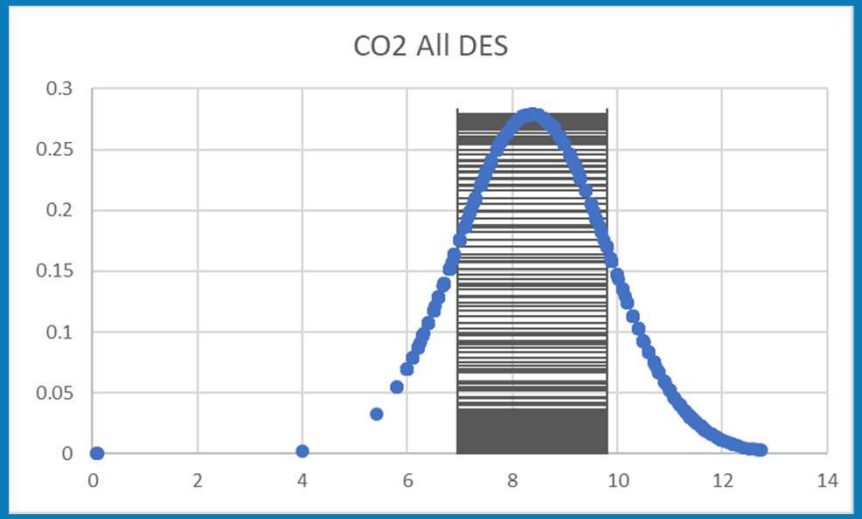
- 2852 records of baseline emission results
- Calculation of mean or average emission for CO2, CO, NOx and DP
- Calculation of standard deviation and plot of normal distribution

CO2			CO			Nox			DPM	
8.2	0.977363		230	0.007892		670	0.008771		12.3	0.030429
8.5	1.011525		342	0.001065		663	0.008828		17.7	0.044117
8.6	0.883472		300	0.005648		670	0.008771		47.1	0.000375
8.2	0.977363		250	0.009799		670	0.008771		13.3	0.033562
8.2	0.977363		300	0.005648		700	0.006496		18.5	0.045103
8.4	1.076172		260	0.009943		685	0.007976		12.1	0.029791
8.1	0.834305		240	0.009073		685	0.007976		10.8	0.025625
8.2	0.977363		255	0.009948		670	0.008771		20.9	0.045802
7.7	0.212626		250	0.009799		660	0.008788		12.4	0.030747
8.24	1.020052		235	0.008528		681	0.008269		24.6	0.040378
8.4	1.076172								18.7	0.045293
8.4	1.076172								18.7	0.045293
8.3	1.063918								14.5	0.037094
7.9	0.487784								22.4	0.044484
8.4	1.076172								16.4	0.041796
8.4	1.076172								17.5	0.043815
8.4	1.076172								17.8	0.044259
8.2	0.977363								24.6	0.040378
8.4	1.076172								17.8	0.044259
8.2	0.977363								24.6	0.040378
8.4	1.076172								17	0.042971
8.2	0.977363								24.8	0.039896
8.3	1.063918								14.3	0.036529
8.2	0.977363								15.4	0.039486
8.3	1.063918								11.1	0.026584
8.4	1.076172		235	0.008528		605	0.003699		12.6	0.031381
8.9	0.37894		310	0.004195		690	0.007541		21	0.045756
8.3	1.063918		315	0.003532		650	0.008385		14.7	0.037647
7.8	0.334088		310	0.004195		410	1.11E-09		77.1	2.12E-11
8.1	0.834305		220	0.00645		720	0.004162		14.2	0.036242
8.6	0.883472		255	0.009948		700	0.006496		12.8	0.03201
8.7	0.717019		310	0.004195		670	0.008771		13.7	0.034774
8.5	1.011525		250	0.009799		720	0.004162		18	0.044528
8.6	0.883472		260	0.009943		660	0.008788		24.9	0.03965
8.2	0.977363		230	0.007892		660	0.008788		20.4	0.045944
8.4	1.076172		255	0.009948		690	0.007541		25.8	0.037277
8.2	0.977363		250	0.009799		720	0.004162		18.9	0.04546
8.4	1.076172		270	0.009479		675	0.008602		26.3	0.035853
8.6	0.883472		220	0.00645		640	0.007617		11.6	0.028189
8.4	1.076172		250	0.009799		650	0.008385		38.8	0.004608
9.1	0.149312		270	0.009479		660	0.008788		10.2	0.023723
8.4	1.076172		195	0.002965		655	0.008637		16.4	0.041796



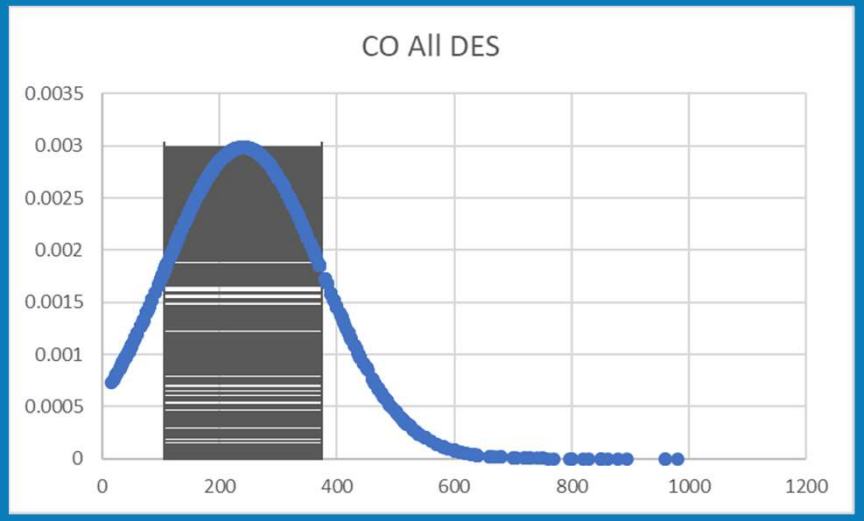
Diesel Exhaust Emissions

CO_2 Average 8.4 %



One standard deviation CO_2 upper tolerance 9.8 % (minimum 6%)

CO Average 240 ppm



One standard deviation CO upper tolerance 374 ppm

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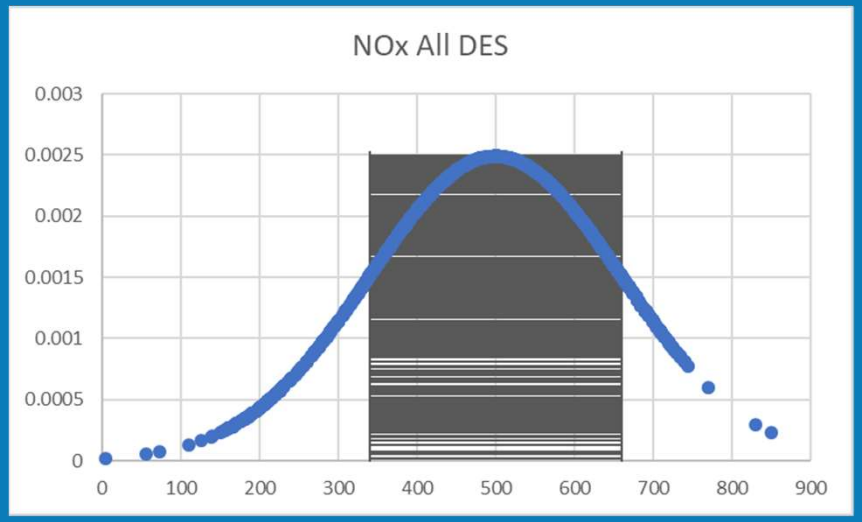
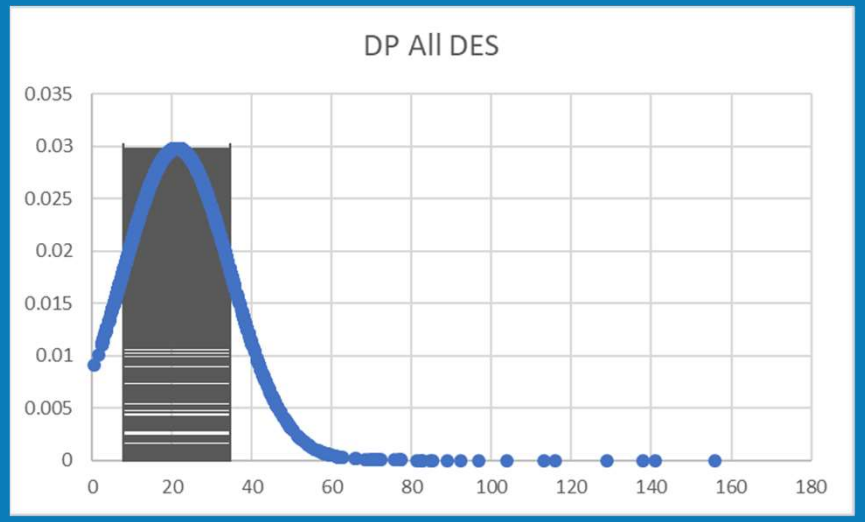
Diesel Exhaust Emissions

NOx Average 499 ppm



One standard deviation NOx upper tolerance 659 ppm

DP Average 21 mg/m^3



One standard deviation DP upper tolerance 34 mg/m^3

NSW GOVERNMENT

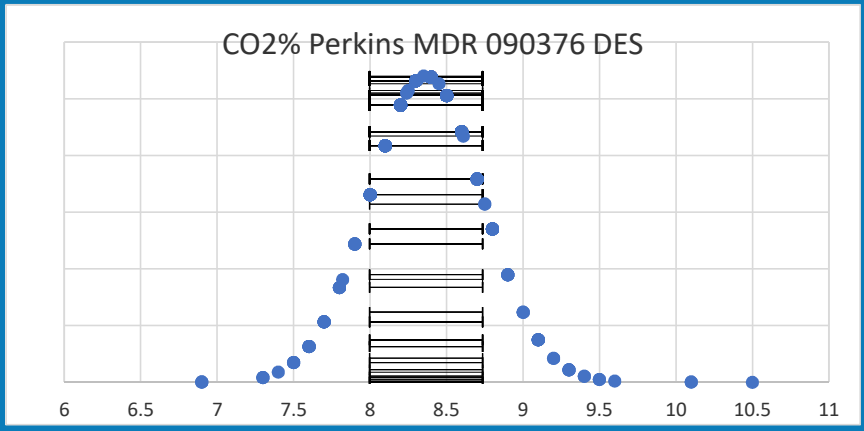
Specific Engine System Bell Curves

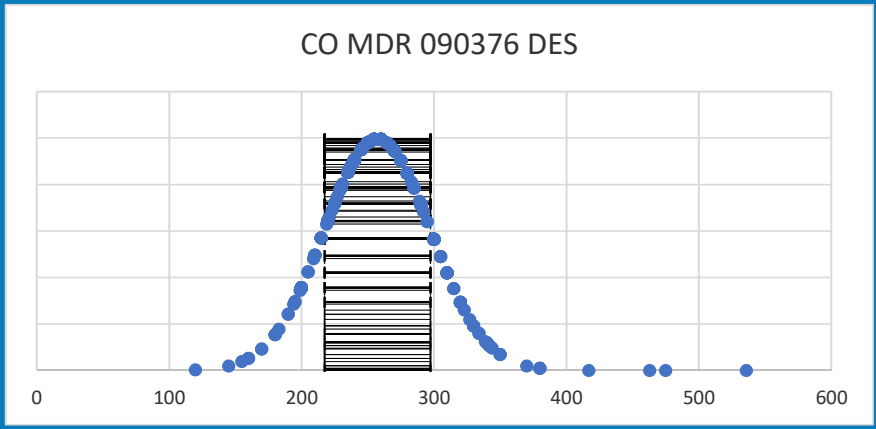
Explosion Protected Diesel Engine Systems

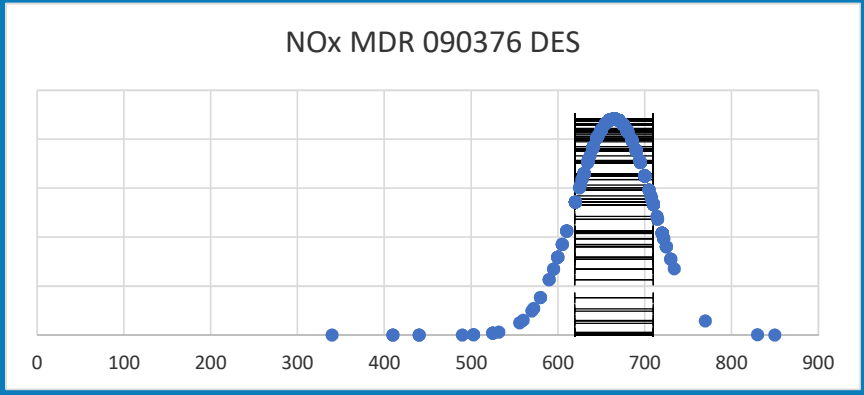
NSW GOVERNMENT

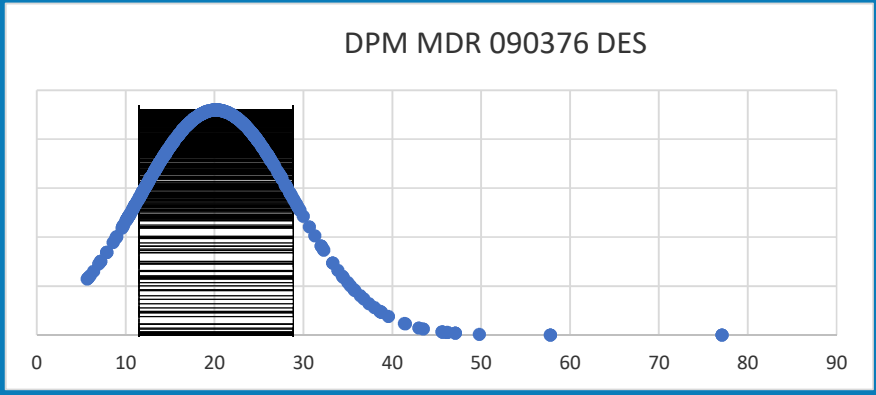
MDR 090376 DES

TYPE TEST	MDR 090376 DES						
	DB2	MDG29	Upper Baseline variation from Type test		DB4	MDG29	
CO2	7.9	8%	8.532		8.3	8%	8.964
CO	258	15%	296.7		252	15%	289.8
NOx	766	15%	750*		658	15%	756.7
DP	25.8				27.6		







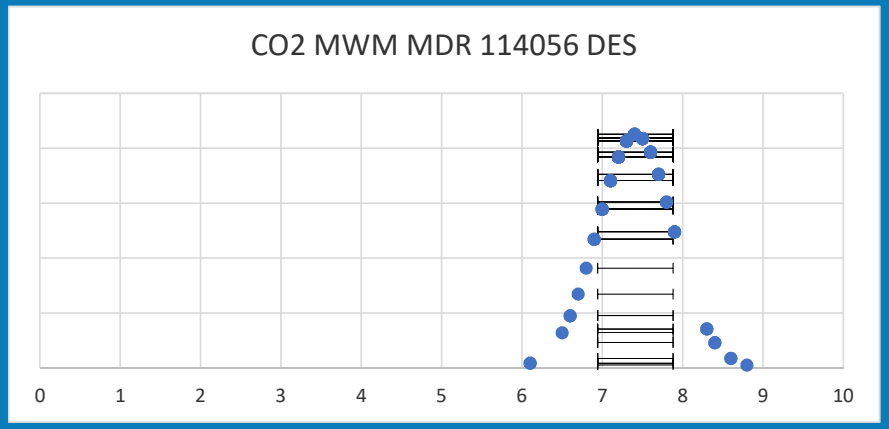


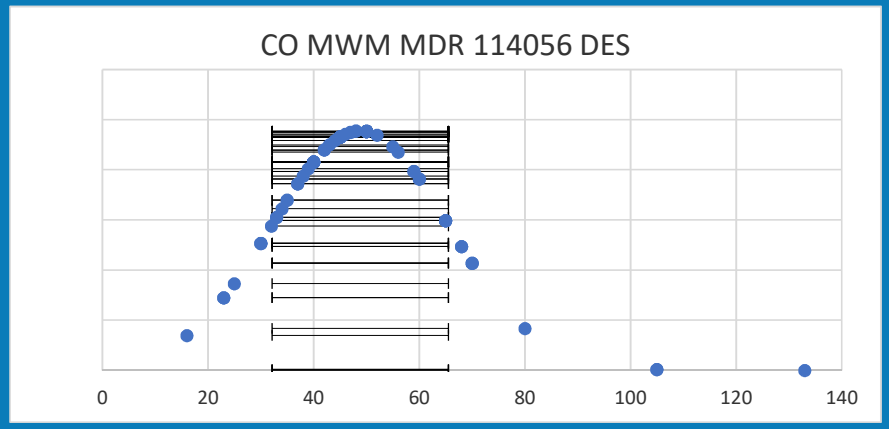
NSW GOVERNMENT

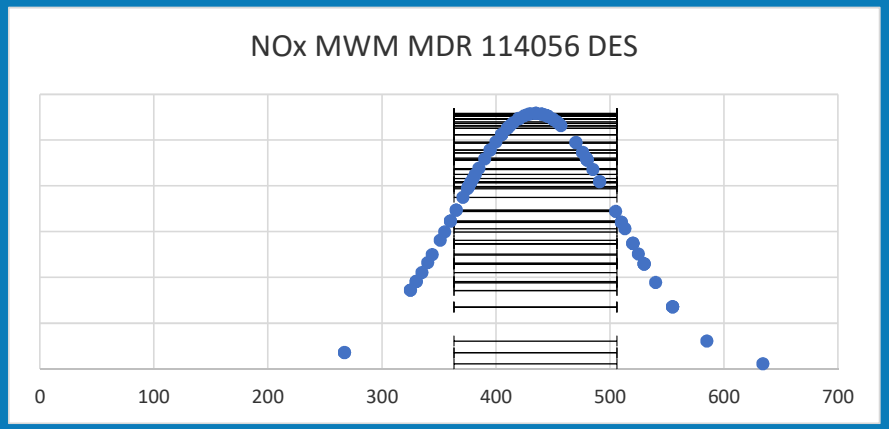
MDR 114056 DES

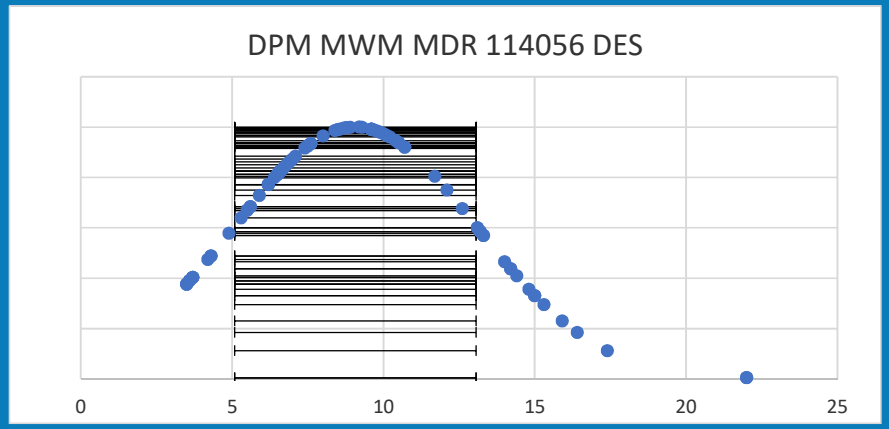
Type Test
Results Raw

CO2	7.5%
CO	45ppm
Nox	508ppm
DP	9.2mg/m3





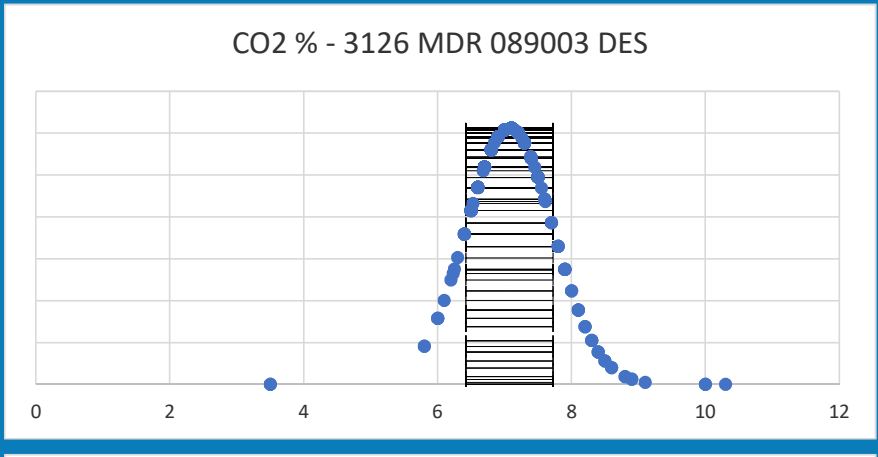


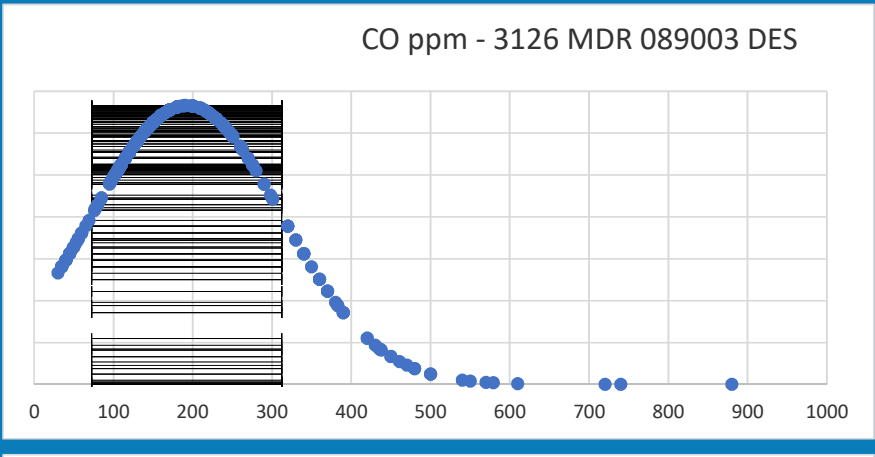


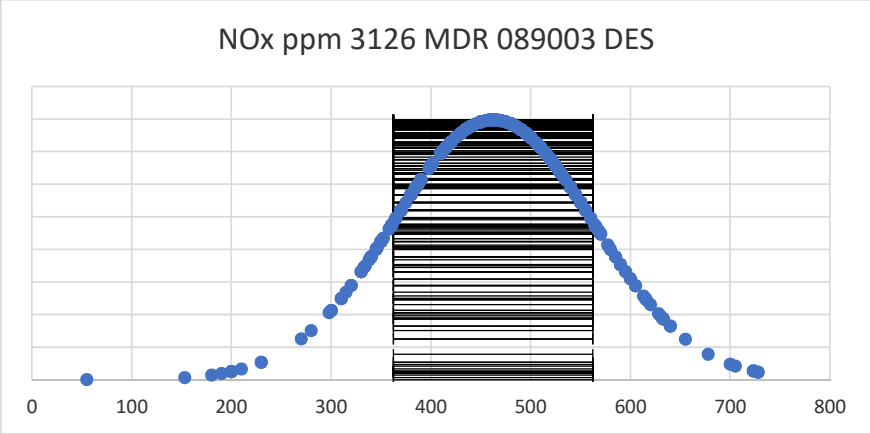
NSW GOVERNMENT

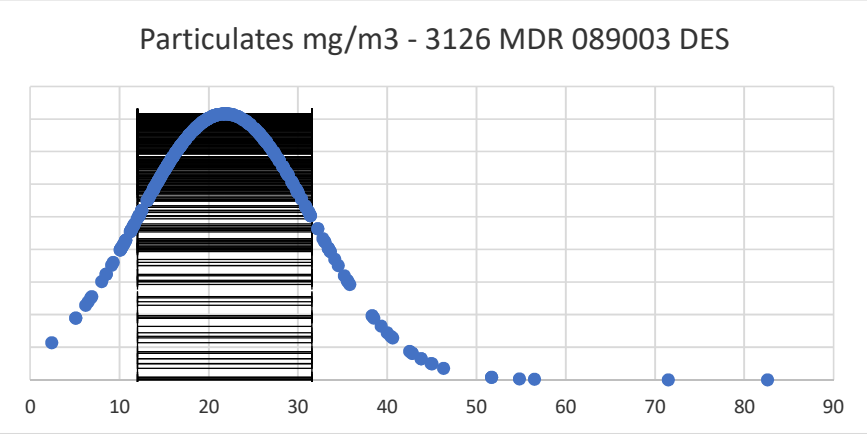
MDR 089003 DES

Type Test	
CO2	7.3
CO	200
NO x	589
DP	20.2





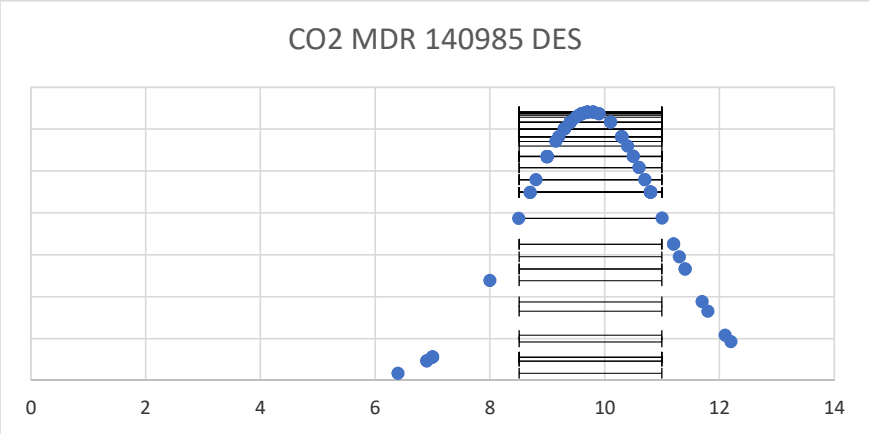


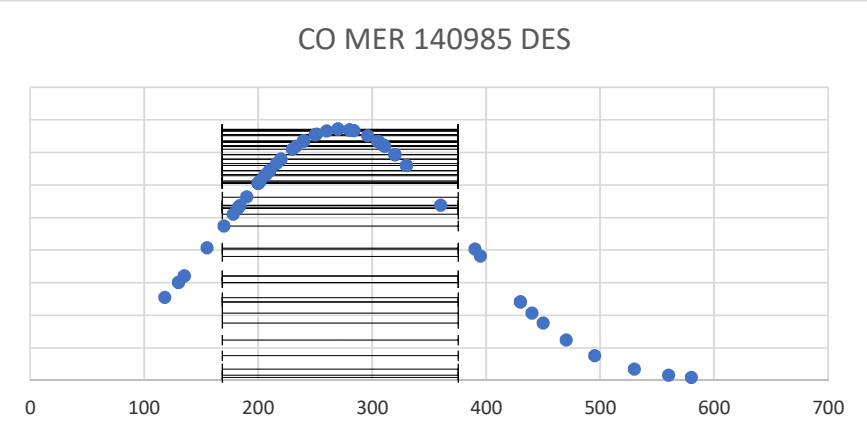


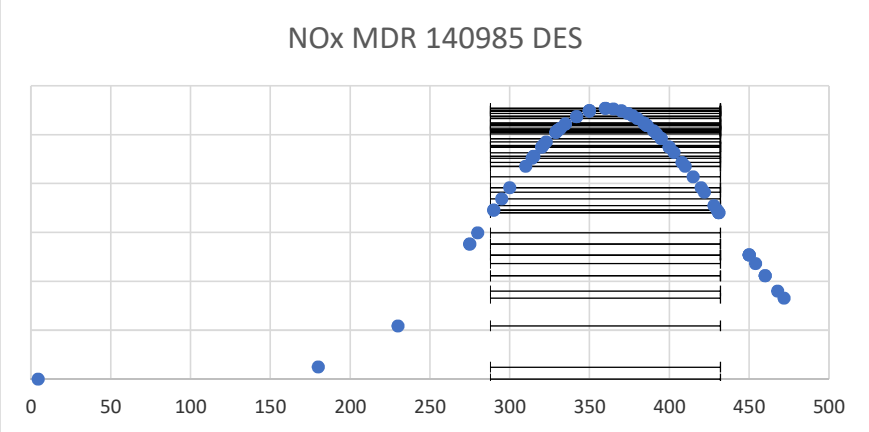
NSW GOVERNMENT

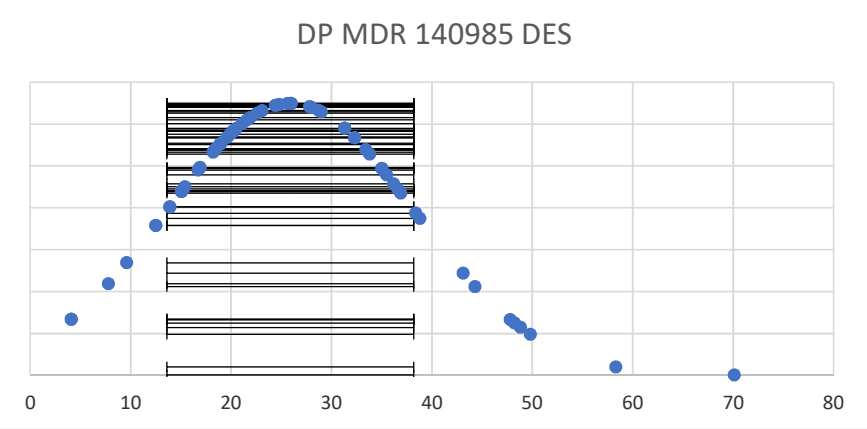
MDR 140985 DES

Type test	
CO2	9.1
CO	418
Nox	415
DP	77.4







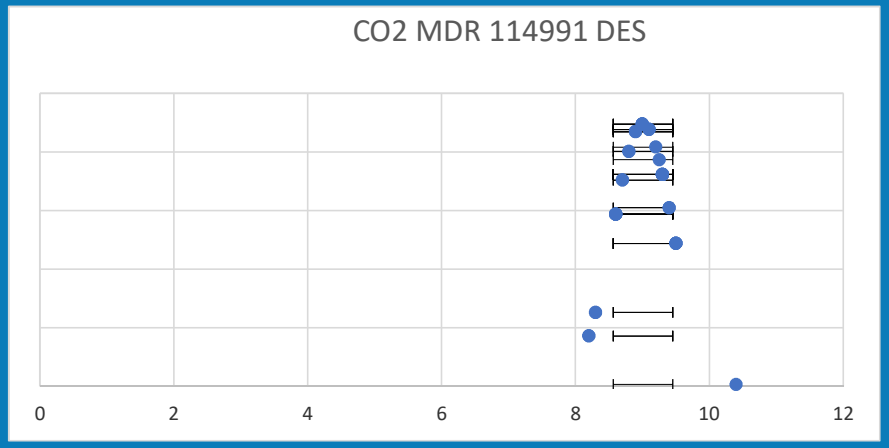


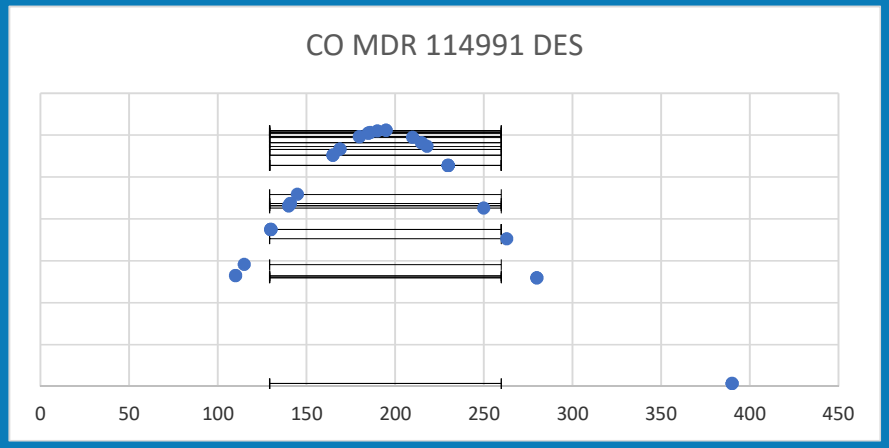
NSW GOVERNMENT

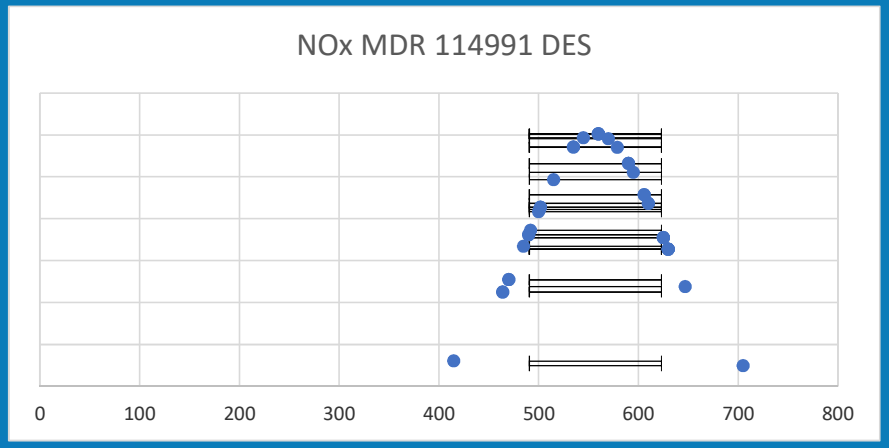
MDR 114991 DES

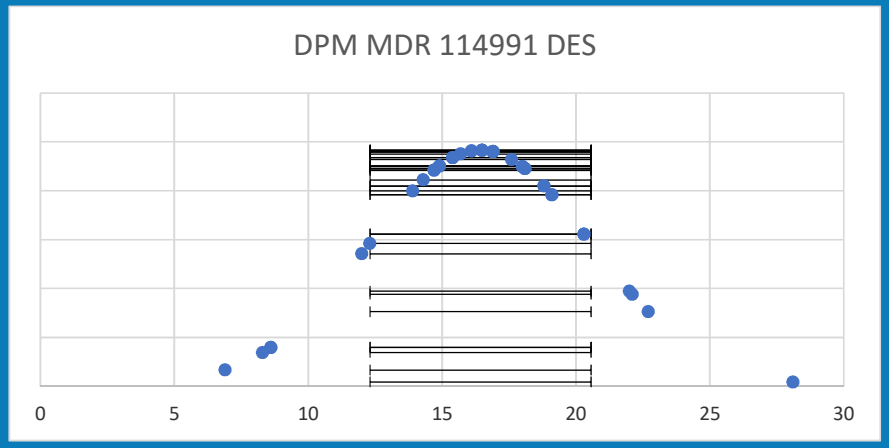
VLI HINO JO8C 122 kW

Type Test	Raw
CO2	9.4
CO	206
NO x	609
DP	16.5







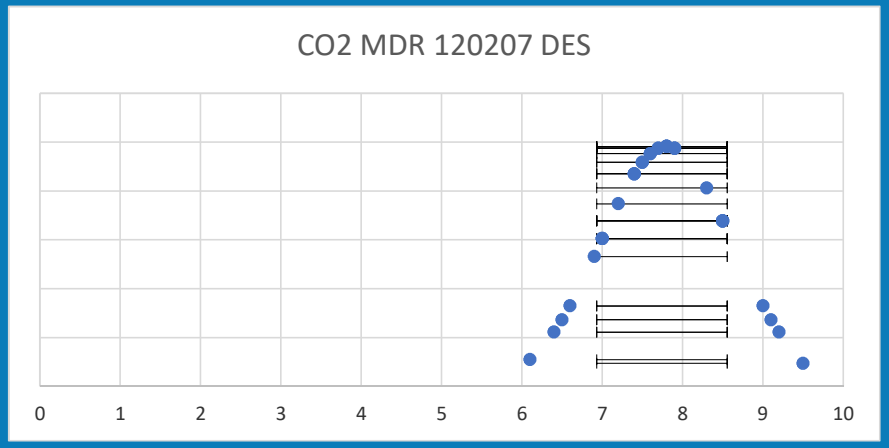


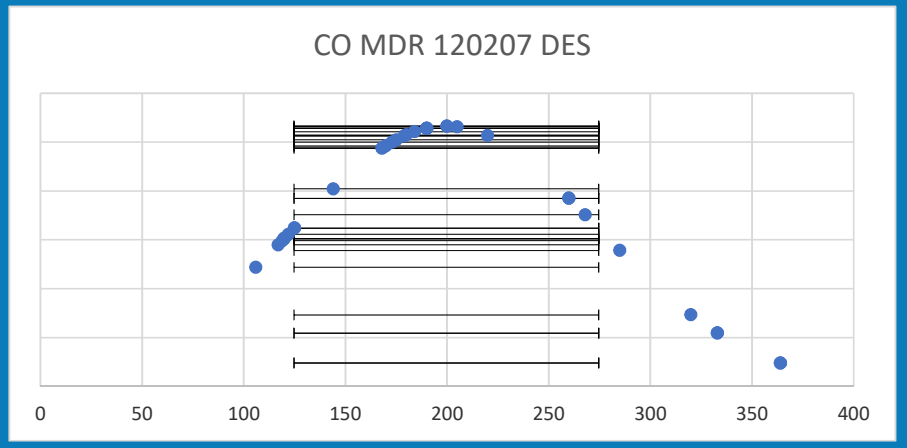
NSW GOVERNMENT

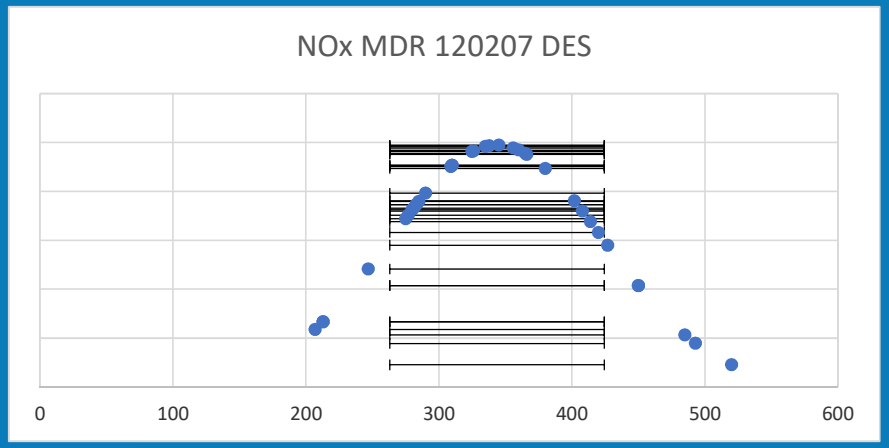
Hunter plant hire Kubota

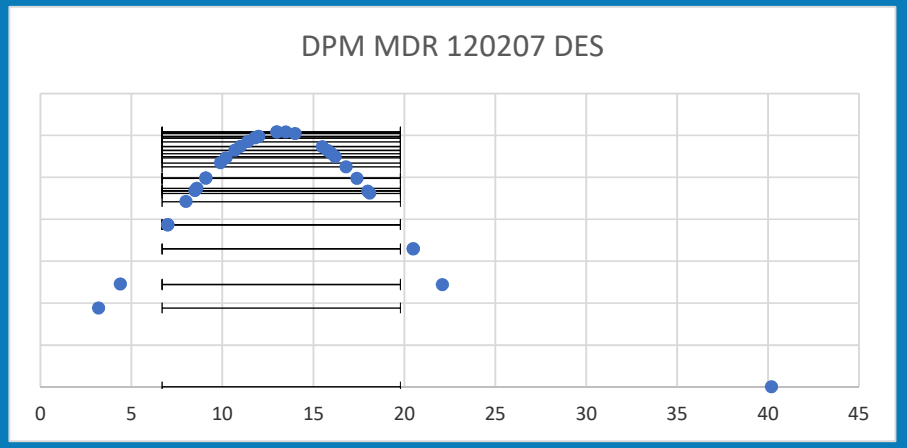
Type Test	Raw
CO2	9.6
CO	108
NO x	610
DP	

MDR 120207 DES







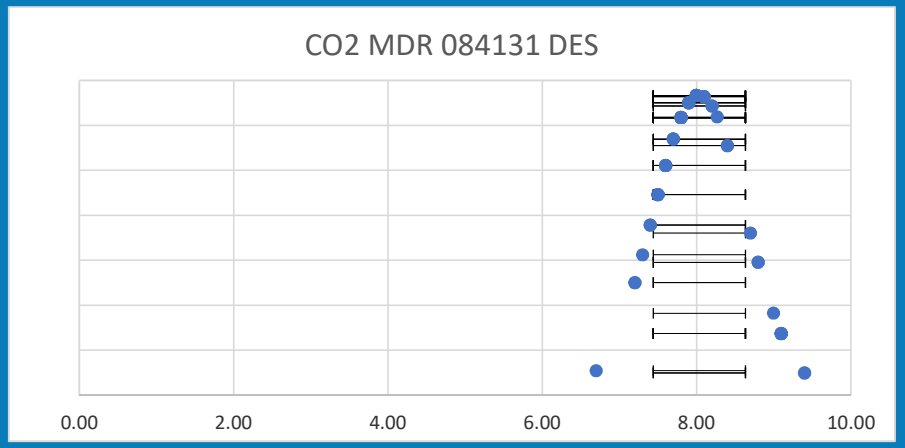


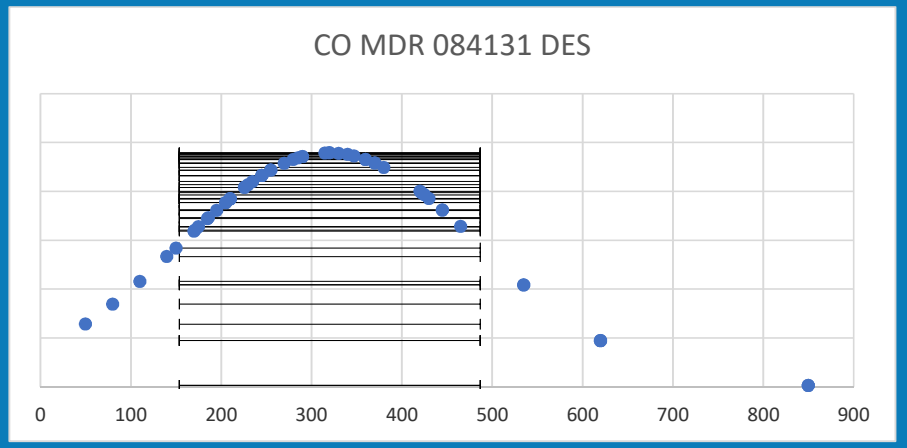
NSW GOVERNMENT

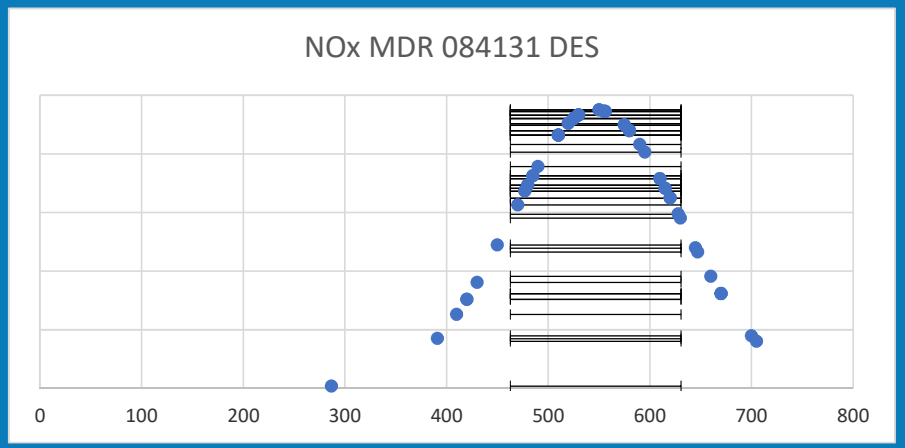
MDR 084131 DES

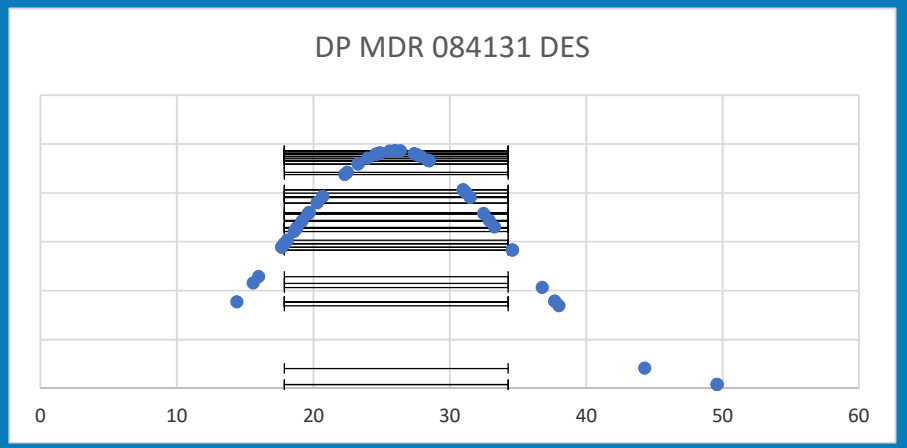
Type Test

Results	Raw
CO2	7.9
CO	280
Nox	570
DP	28.4







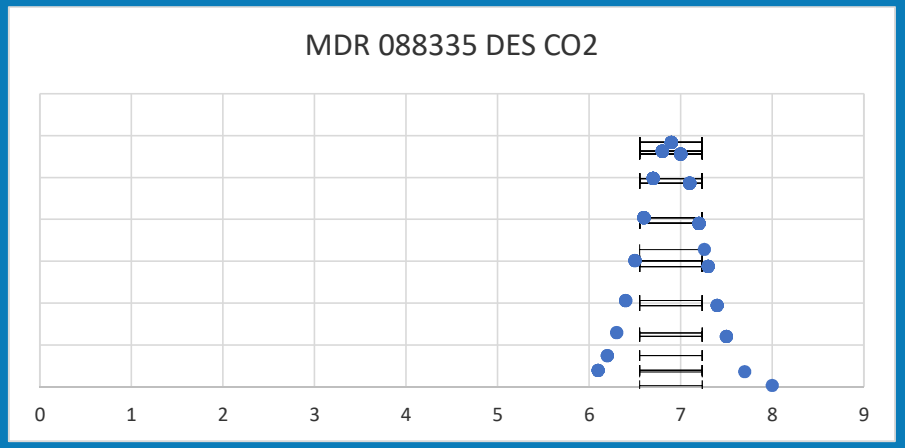


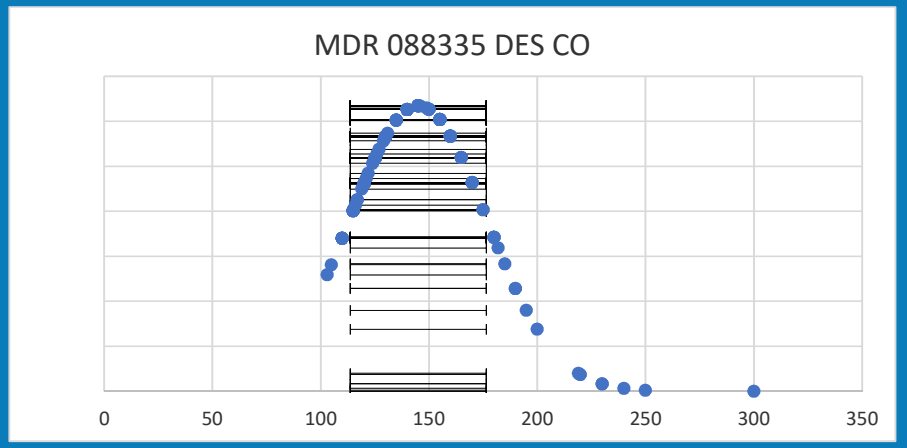
NSW GOVERNMENT

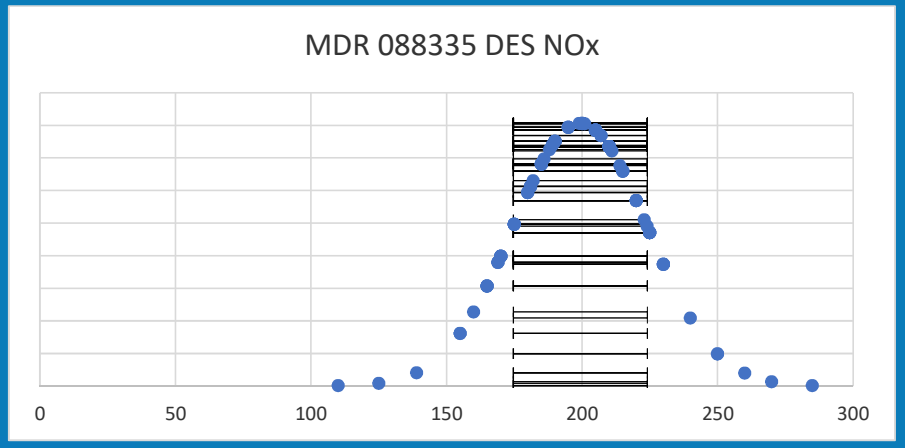
MDR 088335 DES

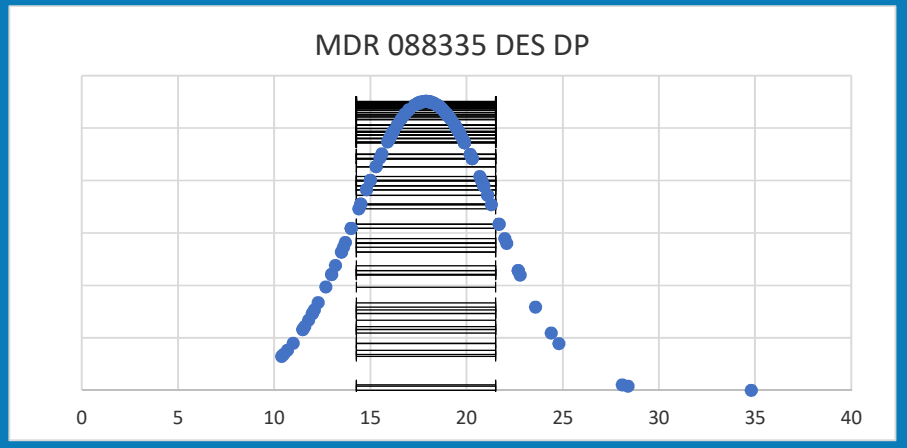
MDR 088335
DES-1b

CO2	CO	Nox	DP
8	158	260	9









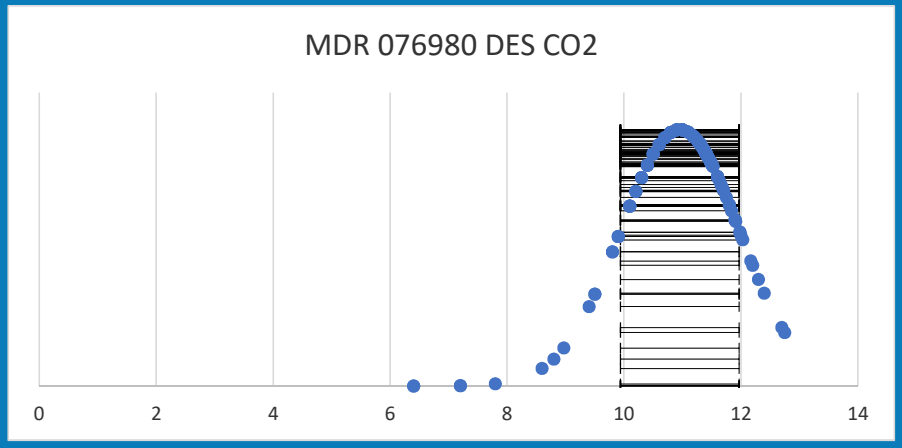
NSW GOVERNMENT

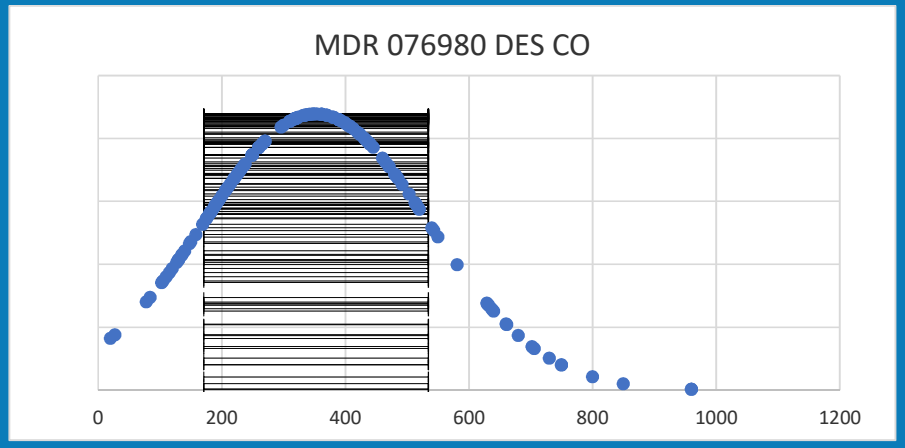
MDR 076980 DES

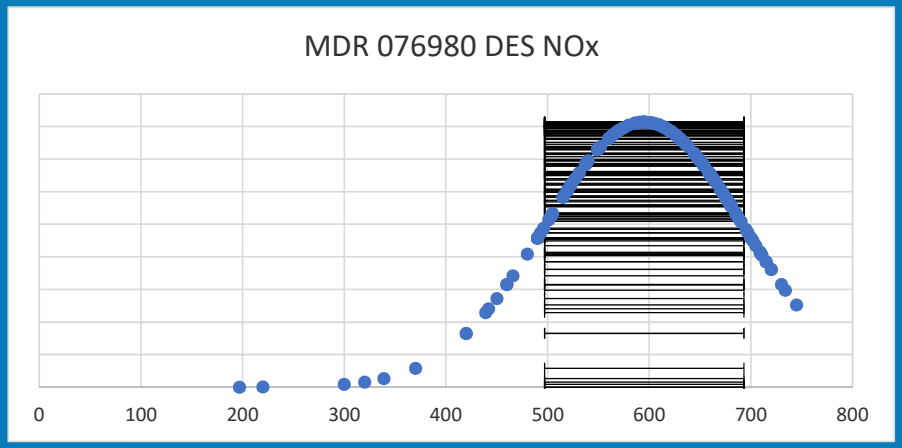
PJB Perkins 1104 (Cougar)

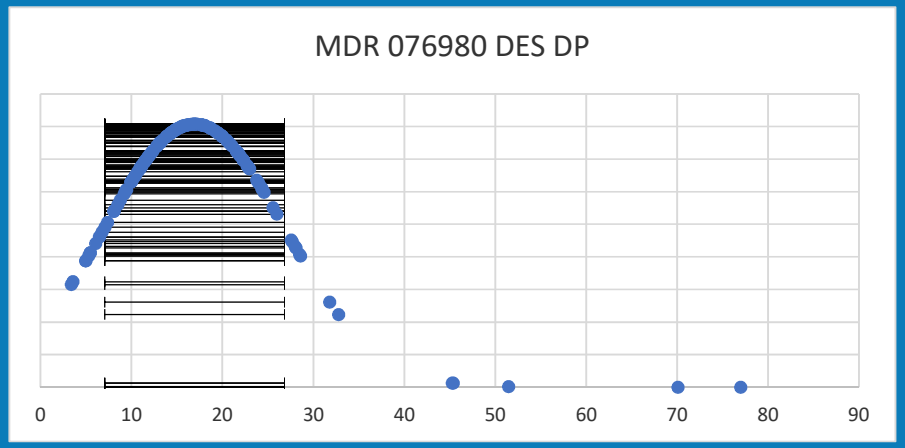
Type Test

CO2	10.4
CO	280
NO x	468
DP	







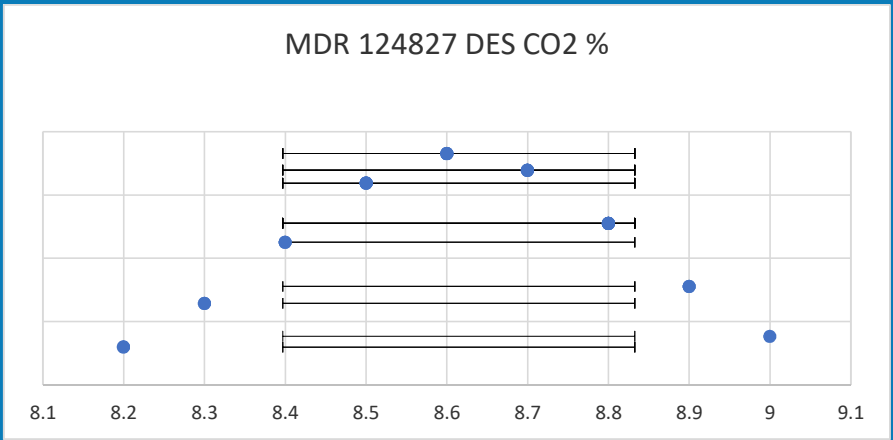


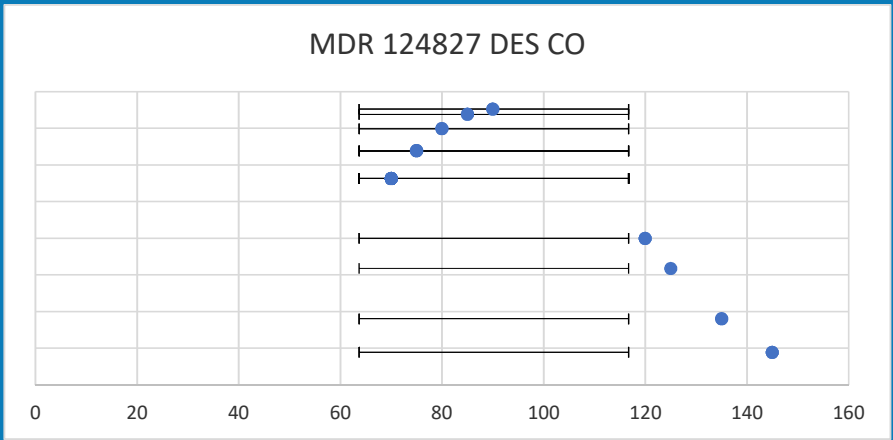
NSW GOVERNMENT

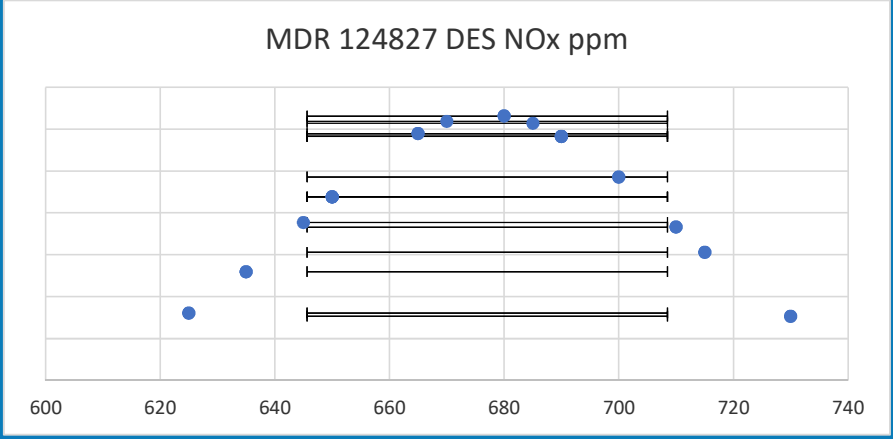
MDR 124827 DES

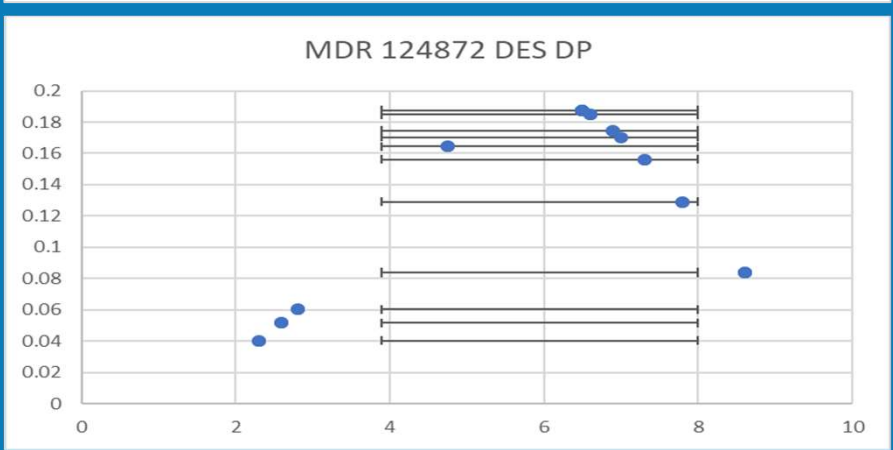
VLI HINO JO5C
Type Test

CO2	8.6
CO	50
NO x	710
DP	8.1



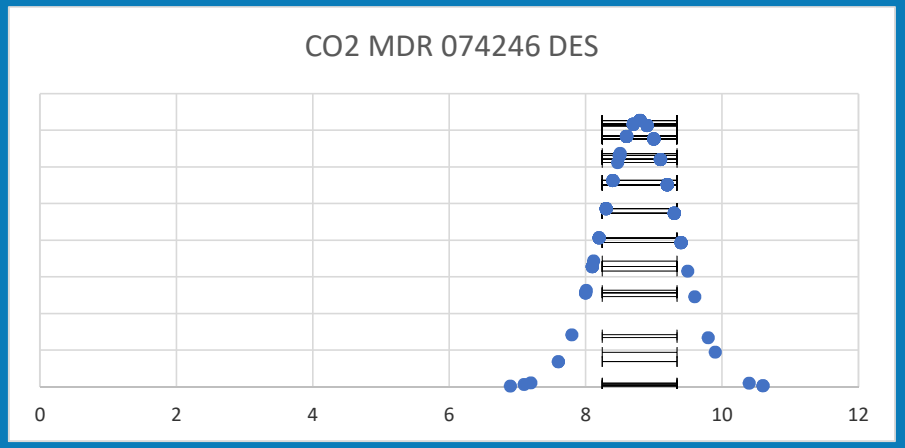


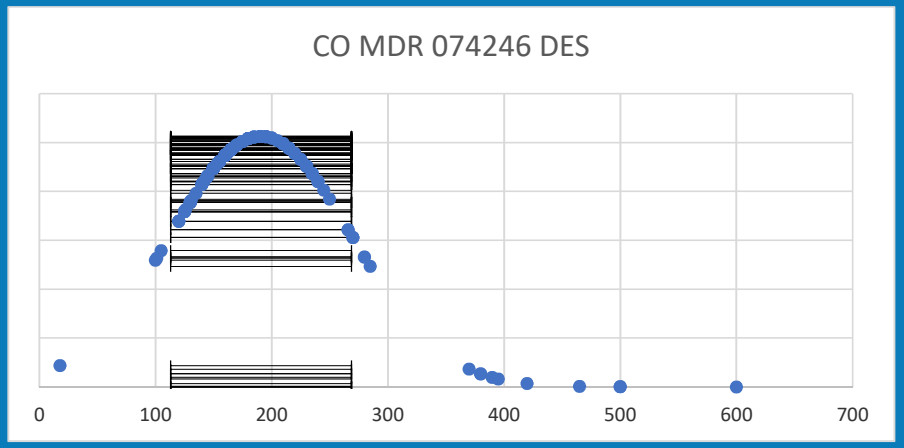


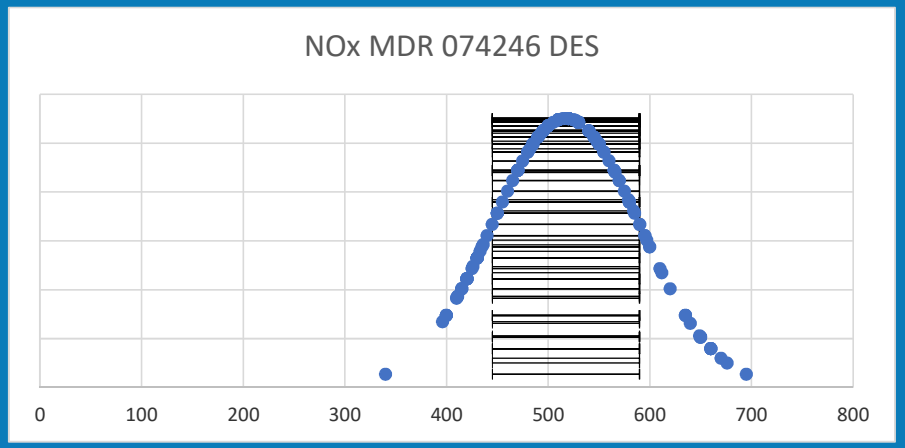


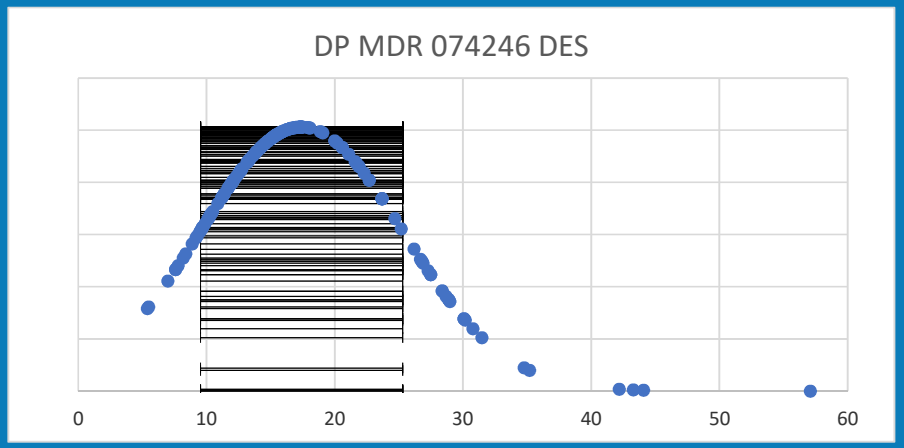
NSW GOVERNMENT

MDR 074246 DES





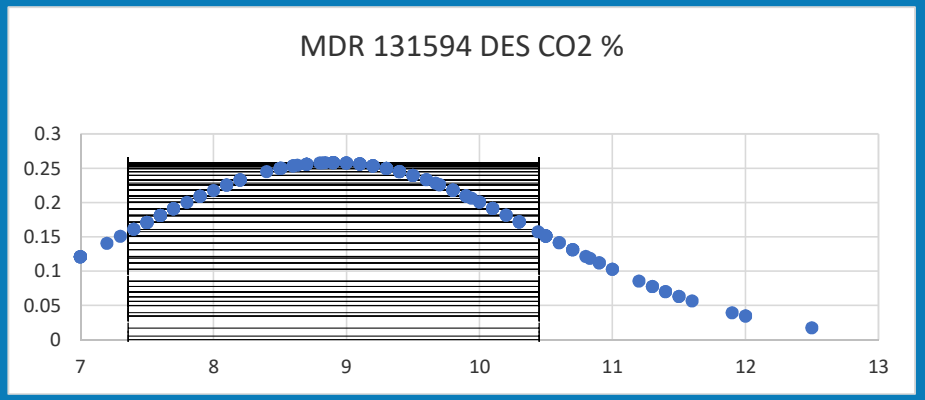


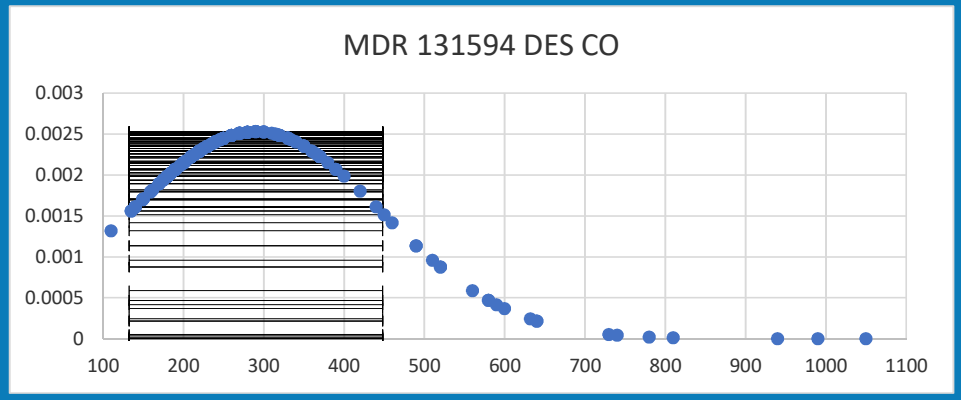


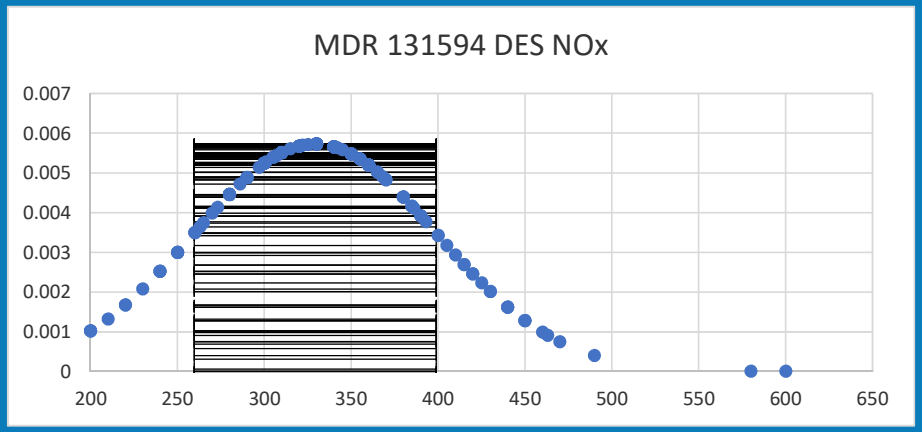
NSW GOVERNMENT

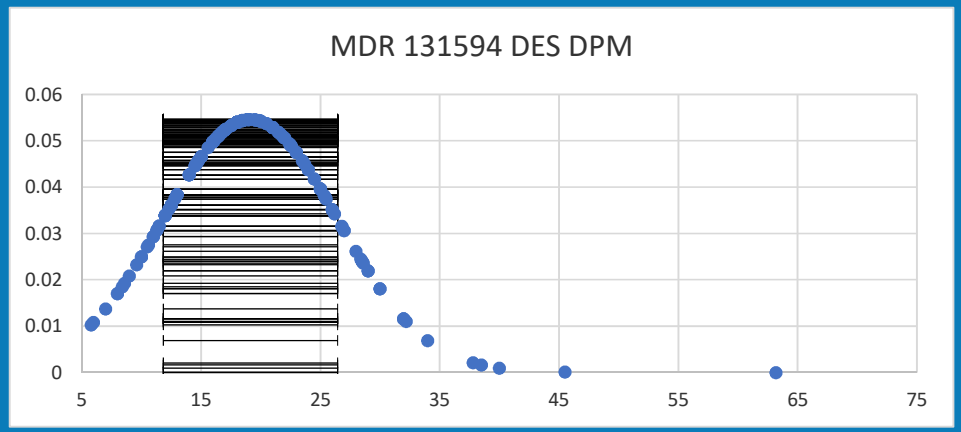
MDR 131594 DES

Type Test	
CO2	10%
CO	250ppm
Nox	520ppm
DP	30.8mg/m3









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