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REPORT ON FUEL EFFICIENCY TRIAL

DOMINION MINING BANNOCKBURN SITE

27th May, 1994

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EXECUTIVE SUMMARY

An evaluation of Fuel Technology Pty Ltd's Combustion Catalyst, FTC-1, was commenced during 1991 at Dominion Mining's Labouchere gold mine operation. This evaluation, using international engineering standard procedures to determine fuel efficiency changes, indicated reduced fuel consumption in the mobile mining equipment and power generation facility following FTC-1 treatment of fuel.

Similar but more detailed studies were then completed at the Bannockburn and Paddy's Flat operations providing further confirmation of the fuel efficiency and maintenance benefits achievable by the introduction to fuel supply of the FTC Combustion Catalyst.

Following plant upgrades and discussions with Bannockburn Mill Superintendent, Mr Bob Markovich, it was agreed to re-evaluate the efficiencies of FTC usage in Bannockburn's power generation facility.

A study of the power station fuel consumption was conducted by two analytical methods namely, Carbon Balance and Specific Fuel Consumption. Untreated tests were conducted on 30th March, 1994 followed by six (6) weeks FTC-1 treatment of fuel. Treated tests were then conducted, providing evidence of reduced fuel consumption in the 3.3% to 3.8% region.

The purpose of this report is to review the test procedures applied to this study and report the results achieved.

INTRODUCTION

The power generation facility at Dominion Mining's Bannockburn operation comprises of four Cummins KTA50 1.2 MW generators.

Genset No. 1 was unavailable for untreated Carbon Balance tests and Genset No. 2 received new injectors between tests so was not included in treated tests.

Specific Fuel Consumption (SFC) tests were completed on Gensets 1, 3 and 4.

TEST PROCEDURES

SPECIFIC FUEL CONSUMPTION TESTS

1. Specific Fuel Consumption (SFC) is an engineering test whereby the absolute amount of fuel consumed by the equipment at specified power settings is determined by volume or weight measurement. Volumes are corrected for temperature and density variations. Trials are before and after treatment.

CARBON BALANCE TESTS

2. Carbon Balance Measurement (CB) whereby the mass of carbon in the exhaust is calculated as a measure of fuel being burned. The elements measured in this test include the exhaust gas composition, its temperature and the gas flow rate calculated from the pressure and exhaust stack cross sectional area. While this is an Engineering Standard Test (AS2077-1982), because field testing involves equipment with variable exhaust stack configurates, the precision of the absolute carbon mass measurement is not ideal. However, because these tests are based on back to back (before and after) trials on the same piece of equipment, the variables introduced by turbulent gas flow tend to cancel out.

EXHAUST SMOKE EMISSION TESTS

3. Smoke testing is carried out using a Bosch diesel smoke tester. This equipment takes a measured sample of the exhaust gas at a given power loading and analyses the density of the soot on a filter paper. Tests are run on untreated fuel and after fuel has been treated for a period. In most cases smoke levels rise in the first few hundred hours after introducing FTC into the fuel and finally reduce to levels which are 20 to 50% below those measured on untreated fuel.

RESULTS

The results of the test methods are detailed in this section.

1. SPECIFIC FUEL CONSUMPTION (SFC)

Baseline SFC tests were conducted on Units 1, 3 and 4 on 30th March, 1994 and treated tests on the same units on 12th May, 1994. The tests were conducted as close as practicable at the same loadings. Fuel flow was measured by means of an Oval flow meter. Energy measurements were measured by the Microvip Mk 1.2 Energy Analyser connected into each unit's section of the control room switchboard. The Microvip measures and prints out on demand the following parameters:

kWatt	kVArh	LmA
Ampere	kWh	MVAr
Volt	Hours	PF Med
	TT_	

These values are shown in the sample printouts in Appendix B. The SFC Test Data Retrieval Sheets are also included, Appendix C.

A summary of Specific Fuel Consumption measurements is shown in Table I.

TABLE I SFC TEST RESULTS - L/kWh

Unit No.	Load kW	Baseline	Treated	% Change
		30/3/94	12/5/94	
1	700/780	0.2581	0.2463	-4.6
3	720/780	0.2627	0.2575	-2.0
4	730/770	0.2594	0.2508	-3.3
AVERAGE	1,3 & 4	0.2600	0.2515	-3.3

Fuel temperatures and density were measured with density corrected to 15°C which is standard industry practice for comparison.

The corrections for density are (kg/kWh) shown in Table II.

TABLE II CORRECTED SFC TEST RESULTS - kg/kWh

Unit No.	Load KW	Baseline 30/3/94	Treated 12/5/94	% Change
1	700/780	0.2093	0.2012	-3.9
3	720/780	0.2136	0.2082	-2.6
4	730/770	0.2109	0.2036	-3.5
AVERAGE		0.2113	0.2043	-3.3

2. CARBON BALANCE (CB)

Carbon Balance tests were conducted in conjunction with SFC tests.

The results and computer analysis sheets are included in Appendix D.

TABLE III
CB TEST RESULTS - CARBON FLOW g/s

	Load KW	Baseline 30/3/94	Treated 12/5/94	% Change
3	700/720	33.003	31.736	-3.8
4	750/770	42.641	41.203	-3.4
AVERAGE		37.822	36.4695	-3.6

3. SMOKE TEST

Bosch smoke measurement using a Bosch smoke meter were also taken. The Bosch measurement scale ranges from 0.0 (clean) to 9.9 (dirty).

TABLE IV BOSCH SMOKE COMPARISON

Unit No.	Load KW	Baseline 30/3/94	Treated 12/5/94	% Change
3	700/720	1.9	1.8	- 5.3%
4	750/770	1.6	1.6	N/C

A significant reduction in smoke emissions are not generally measured following a short FTC-1 treatment period. We would expect to measure a more significant reduction in smoke following three (3) months treatment of fuel.

CONCLUSION

This series of fuel efficiency tests conducted in Dominion Mining's Bannockburn power generation facility provides evidence of reductions in fuel consumption in the region of 3.3% to 3.6% as a result of FTC-1 fuel treatment.

The two engineering methods applied namely "Carbon Balance" and "Specific Fuel Consumption" have also achieved a good level of correlation.

These measured efficiency gains fall within the normal range measured in similar equipment and, along with longer term maintenance benefits, will represent significant savings to Dominion Minings Bannockburn operations.

Appendix "A"

Bosch Smoke Meter Patches

BOSCH SMOKE TESTS

Unit No. Baseline Bosch No Treated Bosch No

1.9

1.8

Appendix "B"

Microvip Mk 1.2 Energy Analyser Sample Printout

Unit No. 3

Unit No. 3

micro VIP	
KWatt	90.4
Cos0 PF	+0.86
Ampere	145
	417
Volt	
KVArh 000	779.085
KWh 903	000 450
K.Wh 500	72.0 a T.10
Hours	1004.36
1 - 4	888
LmA	
MVAr ai	> 918
P.F.Med.	>0.97
HIZ	.50.3
micro VIP	
KWatt	92.7
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Cos0 PF	+0.86
Amrere	149
riiir ei e	
Volt	417
KVArh ØØE	88 087
N. Y. P. L.	
KWh 003	135.313
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MI 1/0	> 934
MWAr si	/ _//-7
P.F.Med.	<i>></i> 0.97
	50.9
HZ	7512
micro VIP	
	97.9
KWatt	71.3
Cos0 PF	+0.84
COSE LL	
Ampere	169
Volt	417
4010	
KVArh 008	197 . 648
KWh 003	EA 707
war car	
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Hours 8	1004.56
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1 0.	1004.56 999 > 979
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LmA MVAr Ai P.F.Med.	1004.56 000 > 979 >0.96
LmA MVAr di	1004.56 999 > 979
LmA MVAr Ai P.F.Med.	1004.56 000 > 979 >0.96
LmA MVAr di P.F.Med. Hz	1004.56 000 > 979 >0.96
LmA MVAr Ai P.F.Med. Hz micro VIP	1004.56 900 > 979 >0.96 100
LmA MVAr Ai P.F.Med. Hz micro VIP	1004.56 000 > 979 >0.96
LmA MVAr Ai P.F.Med. Hz micro VIP	904.56 900 > 979 >0.96 100
LmA MVAr Ai P.F.Med. Hz micro VIP	96.4 +0.85
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt CosØ PF	96.4 +0.85
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt CosØ PF Ampere	96.4 +0.85
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LmA MVAr Ai P.F.Med. Hz micro VIP KWatt Cos0 PF Ampere Volt KVArh 001 KUh 803	984.56 989 > 979 > 9.96 100 96.4 +0.85 155 417 67.613 378.811
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt CosØ PF Amsere Voit KVArh 001 KUh 003	96.4 +0.85 +07.613
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt Cos0 PF Ampere Volt KVArh 001 KUh 003	964,56 969 > 979 > 9.96 100 96.4 +0.85 155 417 67.613 870.811 1005.06
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt CosØ PF Amsere Volt KVArh 001 KWh 003 Hours 0	9604,56 960 > 979 >0.96 100 96.4 +0.85 155 417 97.613 970.811 1005.06 900
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LmA MVAr Ai P.F.Med. Hz micro VIP KWatt CosØ PF Amsere Voit KVArh 001 KUh 003 Hours 0 LmA MVAr Ai	96.4 +0.85 +0.85 +0.85 +0.85 +0.85 +0.85 +0.85 97.613 \$70.811 900 > 966
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LmA MVAr Ai P.F.Med. Hz micro VIP KWatt Cos0 PF Ampere Voit KVArh 00: KVArh 00: Hours 6 LmA MVAr Ai P.F.Med. Hz micro VIP	964.56 969 > 979 > 96.4 + 96.4 + 96.85 155 417 97.613 97.811 998 > 966 > 8.96 > 8.96 - 50.2
LmA MVAr Ai P.F.Med. Hz micro VIP KWatt Cos0 PF Ampere Volt KVArh 00: KWArh 00: Hours 6 LmA MVAr Ai P.F.Med. Hz micro VIP KWatt Cos0 PF Ampere	964.56 969 > 979 > 97.96 109 96.4 +0.85 155 417 67.613 97.811 900 > 966 > 96 > 96 > 97.8 +0.85 169
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KWatt 98.5	
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Ampere 163	
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KYArh 00059.175	
KWh 00137.916	
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BASELINE 30/3/94

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Y K K H L	mF ol VA Wh ou mA	er t rr	: 6.1 1	00 90	19 49	458	9	1419 .0	7617530	8555428
Y K K H L	mF ol VA Wh ou mA	er t rr	: 6.1 1	00 90	19 49	+ 4500 >	9	1418.99	76175303	86554207
V K K H L IV	mF ol VA Wh ow Ar	er t rr		06 98	19 49	+ 4500 >	9	1418.99	76175303	86554207
Y K K H L W F	mF Ol VA Wh OMA A F	er t rr		06 98	19 49	+ 450 >>	9	.1418 .09 .	761753009	865542073
V K K H L IV	mF Ol VA Wh OMA A F	er t rr		06 98	19 49	+ 450 >>	9	.1418 .09 .	76175303	865542073
V K K H L P C H	MFOYA WA WA MA MA MA MA MA MA MA MA MA MA MA MA MA	er trr		66 99	19	+ 450 >>	9	.1418 .09 .	761753009	865542073
V K K H L P C H	MFOYA WA WA MA MA MA MA MA MA MA MA MA MA MA MA MA	er trr		66 99	19	+ 450 >>	9	.1418 .09 .	761753009	865542073
V K K H L W P H mi	mp ol VA Wh om Ar cr	er t rs		66 99	1949	+ 450 >>	9	.1418.09.0	761753939.	8555420739
VKKHLVPH mim	mpolyhou OAWhou OARA Cat	er t rs e		00 90	19 49 88	+ 450 >>	9	.1418.09.0	761753939.	8555420739
VKKHLVPH mim	mpolyhou OAWhou OARA Cat	er t rs e		00 90	19 49 88	+ 450 >>	9	.1418.09.0	761753939.	8555420739
KKKH LV PH MIKUC	mpl VA WowAr Eat os	er thr rs		66 60 d.	19 49 88	+ 450 >>	9	.14-10 .00 .0 .7 .	761753039.	8555420738 19
KKKH LV PH MIKUC	mpl VA WowAr Eat os	er t rs e		66 60 d.	19 49 88	+ 450 >>	9	.14-10 .00 .0 .7 .	761753939.	8555420738 19
VXXXIVA AUCA	MP1AHWAMA.Z CAOMF	er r an otoer		66 60 d.	19 49 88	+ 450 >>	9		76175303976	3555428738 196
VKKHLWFH mWGAV	mpl VAH VAH VA VA VA VA VA VA VA VA VA VA VA VA VA	et r e e e e t		66 60 d.	1949	+ 450 >> +	9 6 95 99	.1418 :09 :0 P :14	761753939761	8555420738 1965
VKKHLWFH mWGAV	mpl VAH WAAAAAAA Caomol	ethr reprotector		00 80 d. IP 60	194988	+ 450 >> + 6		. 1410 .00 .0 P .145	76175300007610	8555420738 19659
VKKHLVPH mWCAVK	movwoma.z caomova	ethr reprotector		00 80 d. IP 60	194988	+ 450 >> + 6		. 1410 .00 .0 P .145	76175300007610	8555420738 19659
VKKHLWPH iWCAVKK	molywoma.z caomolyw taethar	ethr reprotector		00 80 d. IP 60	194988	+ 450 >> + 6		. 1410 .00 .0 P .145	76175300007610	8555420738 19659
VKKHLWPH iWCAVKK	molywoma.z caomolyw taethar	ethr reprotector		00 80 d. IP 60	1949	+ 450 >> + 6		. 1410 . 00 . 0 . P . 1401 .	761750000761074	8585428738 1955932
VKKHLVPH iWCAVKKH	molahuare caomolahu	eth r otoeth r		00 80 d. IP 60	194988	+ 450 >> + 6		. 1410 . 00 . 0 . P . 1401 .	761750000761074	8585428738 1955932
VKKHLWPH iWCAVKKHL	movwoma.z caomovwom	eth r ar oteeth r		86 99 d. IP F	19 49 60 20 51	+ 450 >> + 6	9 95 96 5	.1510 .00 .0 P .1401 .0	7617500007610740	8555420738 19559320
VKKHIVOH iWCAVKKHIV	movwoma.z caomovwomar	ethr s er otoeth r		06 60 d. IP 60	19 49 60 20 51	+ 450 >> + 610 >	9 85 98 98 5	.1410.000.0 P.1451.00	76175300076107407	8555428738 196593208
VKKHIVOH iWCAVKKHIV	movwoma.z caomovwomar	ethr s er otoeth r		06 60 d. IP 60	19 49 60 20 51	+ 450 >> + 610 >	9 85 98 98 5	.1410.000.0 P.1451.00	76175300076107407	8555428738 196593208
VKKHIVOH iWCAVKKHIV	moVWomA.z caomoVWomA.F	eth r ar oteeth r		06 60 d. IP 60	19 49 60 20 51	+ 450 >> + 610 >		.1418.09.0 . P.1451.09.	7617500007610740	8555428730 1955932383

Unit No. 4

micro VIF	
KWatt	96.5
Cos0 PF	+0.79
Amrere	170
Volt	415
KVArh 002:	18.998
KWh 0051	
	386.52
l mê	BAA
MVAr Ai	> 963
)0.9 <u>2</u>
Hz	50.2
· · · · · · · · · · · · · · · · · · ·	
micro VIP	
KWatt	97.4
	+0.79
Ampere	170
Wolt -	415
KVArh 8023	
KWh 9054	
2017 DET 1	67.82
i mA	AAA
	2 966
And the second s)0.92
reretting.	
KHX	3.49

TREATED 12/5/94

Unit No. 1	Unit No 1
micro VIP KWatt 89.5 Cos0 PF +0.71 Ampere 174 Volt 421 KVArh 02707.159 KWh 03232.703 Hours 0043.38 LmA 000 MVAr Ai > 906 P.F.Med. >0.77 Hz 50.2	micro VIP KWatt 89.0 Cos0 PF +0.72 Ampere 171 Volt 421 KVArh 02780.099 KWh 03308.052 Hours 0844.28 LMA 000 MVAr Ai > 892 P.F.Med. >0.77 Hz 50.1
micro VIP KWatt 89.4 Cos0 PF +0.72 Ammere 172 Volt 421 KVArh 02721.967 KWM 93247.890 Hours 0043.48 LMA 000 MVAr Ai > 897 P.F.Med. >0.77 Hz 50.1	micro VIP KWatt 89.5 Cos0 PF +0.72 Ammere 169 Woll 421 KWArh 0.794.498 KWArh 0.2022.804 Hours 0044.38 Lma 000 MVAr ai 5901 P.F.Med 50.77 Hz 50.0
micro VIP KWatt 89.3 Cos0 PF +0.72 Ampere 171 Volt 421 KVArh 02736.452 KWh 03263.058 Hours 0043.58 LmA 000 MVAr \(\text{M} \)	micro VIP KWatt 91.1 Cos@ PF +6.73 Ampere 170 Volt 421 KVArh 02808.505 KWh 03337.712 Hours 0044.48 LmA 000 MVAr Ai > 910 PAF.Med. >0.77 Hz 50.1
micro VIP KULLE 88.8 COSØ PF +0.71 Ampere 171 Volt 421 KVArh 92736.918 KWh 93278.940 Hours 2944.08 LmA 909 MVAr Ai >885 P.F.Med. >8.77 Hz 58.2	
micro VIP KWatt 87.8 Cos0 PF +0.71 Ammere 170 Volt 421 KVArh 02765.534 KWh 83293.831 Hours 0844.18 LmA 200 MVAr Ai > 884 P.F.Med. >0.27 Hz 50.2	

Unit No. 3

micro VIF	
KWatt	98.0
Cos0 PF	+0.82
	166
Ampere	
Volt	421
KVArh 68	
PAYER IN COL	A. J. On Tal. T
KWh 80	346.520
Hours	8363.50
11(-1	000
Marian asi	952
The second second	10 101
P.C.Mad.)0.8 1
Mz	Mg.1.
1 10 100	
micro VIF	
KWatt	95.2
	20 Table 9 Table
Cos0 PF	+0,80
Ameera	161
Volt	421
KYArh 08.	265.095
	362.289
KWh 60	ucas acp
Hours	8684.09
Tania -	aga
1.411077 - 14 1.4	
ebar si	934
P.F.Med.	>0.Sl
	construction of
1-175	50.1
micro VIP	2 10 11
	erre erre
KWatt .	95.1
Cos0 PF	40.88 T
A	163
Ampere	
Wolt	420
KVArh 002	
EAHLET SES	Cr Co r Or
KWh 0 03	178 125
Hours 🔑 🗵	A GARLETTE G. A. C.A.
_m(i)	1/11/11/1
MVAr ai 🥍	> 952
P.F.Med.	
Hz	>0.81
	70.01. 50.1
	70.6F 30.1
	70.61 50.1
micro YIP	30.1
	30.1
KWatt	30.1 38.9
KWatt CosØ PF	30.1 98.9 ⊹0.82
KWatt CosØ PF	30.1 98.9 ⊹0.82
KWatt CosØ PF Ampera	30.1 98.9 ⊹0.82 169
KWatt CosØ PF Ammere Volt	30.1 98.9 -0.82 169 421
KWatt Cos0 PF Ammera Volt KVArh 002	30.1 98.9 •0.82 169 421 88.317
KWatt Cos0 PF Ammera Volt KVArh 002	30.1 98.9 •0.82 169 421 88.317
KWatt Cos0 PF Ameera Volt KVArh 003 KWh 003	30.1 98.9 •0.82 169 421 88.917 94.132
KWatt Cos0 PF Ammera Volt KVArh 002	30.1 98.9 +0.82 169 +21 88.917 94.132 804.20
KWatt CosØ PF Ampera Volt KVArh 002 KUh 003 Hours C	30.1 98.9 +0.82 169 +21 88.917 94.132 804.20
KWatt Cos0 PF Ampera Volt KVArh 903 KWh 903 Hours C	30.1 98.9 +0.82 169 +21 88.317 94.132 804.20 808
KWatt Cos0 PF Ammera Volt KVArh 903 KWh 903 Hours C	30.1 98.9 +0.82 169 +21 88.917 94.132 204.20 208 208
KWatt Cos0 PF Ammera Volt KVArh 903 KWh 903 Hours C	30.1 98.9 +0.82 169 +21 88.917 94.132 204.20 208 208
KWatt Cos0 PF Ampera Volt KVArh 002 KUh 003 Hours C	39.1 98.9 •0.82 169 •21 88.317 94.132 204.20 908 • 984 >0.81
KWatt Cos0 PF Ammera Volt KVArh 903 KWh 903 Hours C	30.1 98.9 +0.82 169 +21 88.917 94.132 204.20 208 208
KWatt Cos0 PF Ampera Volt KVArh 903 KWh 903 Hours C Lms F.F. Mad.	39.1 98.9 •0.82 169 •21 88.317 94.132 204.20 908 • 984 >0.81
KWatt Cos0 PF Ampera Volt KVArh 002 KUh 003 Hours C	39.1 98.9 •0.82 169 •21 88.317 94.132 204.20 908 • 984 >0.81
KWatt Cos0 PF Ammere Volt KVArh 903 KUh 903 Hours C Lee MVAc Al P.F. Had Az micro VIF	30.1 98.9 9.82 169 421 88.317 94.132 204.20 208 208 208 2081 30.1
KWatt Cos0 PF Ammere Volt KVArh 002 KUh 003 Hours C Lme MVAr Al P.F. Med. Az micro VIP KWatt	30.1 98.9 9.82 169 421 88.317 94.132 204.20 208 208 208 208 208 208 208 2
KWatt Cos0 PF Ammere Volt KVArh 903 KUh 903 Hours C Lee MVAc Al P.F. Had Az micro VIF	39.1 98.9 9.82 169 421 88.917 94.132 804.20 808 984 20.81 50.1 91.2 +6.81
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours C Los0 MVAr Al P.F. Mad. Az micro VIF KWatt Cos0 PF	39.1 98.9 9.82 169 421 88.917 94.132 804.20 808 984 20.81 50.1 91.2 +6.81
KWatt Cos0 PF Ampere Volt KVArh 002 KUh 003 Hours 0 Lme **VAr Al C.5. Mad. Az micro VIP KWatt Cos0 PF Ampere	30.1 98.9 90.82 169 421 98.317 94.132 204.20 2084 20.81 50.1 91.2 +0.81 155
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm0 **VAr Ai F.F. Mad. hz micro VIF KWatt Cos0 PF Ammera Volt	30.1 98.9 90.82 169 421 98.317 94.132 804.20 808 20.81 50.1 91.2 +0.81 155 422
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm0 **VAr Ai F.F. Mad. hz micro VIF KWatt Cos0 PF Ammera Volt	30.1 98.9 90.82 169 421 98.317 94.132 804.20 808 20.81 50.1 91.2 +0.81 155 422
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm2 MVAr Al P.F. Mad hz micro VIP KWatt Cos0 PF Ammera Volt KVArh 002	30.1 98.9 -0.82 169 -21 88.317 94.132 204.20 -208 -208 20.81 50.1 91.2 +0.81 135 422 99.443
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm0 rVAr A1 F.F.Mad. hz micro VIF KWatt Cos0 PF Ammera Volt KVArh 202 KUh 004	39.1 98.9 -0.82 169 -21 88.317 94.132 204.20 -008 -2081 50.1 91.2 +0.81 155 422 99.443 39.766
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm0 rVAr A1 F.F.Mad. hz micro VIF KWatt Cos0 PF Ammera Volt KVArh 202 KUh 004	30.1 98.9 -0.82 169 -21 88.317 94.132 204.20 -208 -208 20.81 50.1 91.2 +0.81 135 422 99.443
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours C Lm6 TVAr Al F.F. Mad. Hz micro VIF KWatt Cos0 PF Ammera Volt KVArh 002 KUh 004 Hours 0	39.1 98.9 -0.82 169 -21 88.317 94.132 204.20 -008 -584 20.81 50.1 91.2 +0.81 155 422 99.443 39.766 304.30
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm2 MVAr Al P.F. Med. hz micro VIP KWatt Cos0 PF Ammera Volt KVArh 002 KUh 004 Hours 01 Lm4	30.1 38.9 -0.82 169 -21 88.317 94.132 204.20 -008 -584 20.81 50.1 91.2 +0.81 155 422 95.443 39.766 004.30 000
KWatt Cos0 PF Ampera Volt KVArh 002 KWh 003 Hours C Lm2 MVAr AI P.L.Mad Micro VIF KWatt Cos0 PF Ampera Volt KVArh 002 KWh 0034 Hours 01 Lm4 MVAr AI	30.1 98.9 -0.82 169 421 88.917 94.132 204.20 204.20 208.21 50.1 91.2 +0.81 155 422 93.443 39.766
KWatt Cos0 PF Ampera Volt KVArh 002 KWh 003 Hours C Lm2 MVAr AI P.L.Mad Micro VIF KWatt Cos0 PF Ampera Volt KVArh 002 KWh 0034 Hours 01 Lm4 MVAr AI	30.1 98.9 -0.82 169 421 88.917 94.132 204.20 204.20 208.21 50.1 91.2 +0.81 155 422 93.443 39.766
KWatt Cos0 PF Ammera Volt KVArh 002 KUh 003 Hours 0 Lm2 MVAr Al P.F. Med. hz micro VIP KWatt Cos0 PF Ammera Volt KVArh 002 KUh 004 Hours 01 Lm4	30.1 38.9 -0.82 169 -21 88.317 94.132 204.20 -008 -584 20.81 50.1 91.2 +0.81 155 422 95.443 39.766 004.30 000

Unit No.	4
micro VIF	e gazanler dip ayanını O
KWatt	191
Cose PF	40.86
Ampare.	155
Volt	428
KVArh 00 KWh 00	361,109
KUH AA	498.249
Hours	0005.56
LmA	999
Myar si	> 103
P.F.Med.)8.81
Li-	50.1
micro VIF	
KWatt	95,8
Cos0 PF	+0.85
Ampere	150
Volt	420
KWArh 80	200 215
KUF 88'	500 102
Hours -	JOBLICO
	989
LmA	× 952
MVAr ai	20.81
P.F. Mad.	59.1
Hz	ciel a 12
11777	
micro VIF	,
Kuatt .	95,7
Cos0 PF	+0.85
Ameara	154
Volt	419
KVArh ØØS	389.971
KWhi 005 Hours 6	145.843
Hours	1986.26
LmA	989
MVAr Ai	> 947
P.F.Med.	>0.81
HZ	50.1
micro VIF	
Klatt	97.5
Cos0 PF	+0.86
Amsere	157
Volt	419
KYArh 003	
Muh 005	61.953
Hours 8	886.36
Lma	eas
Muar oi	> 964
Myar ai P.F.Mad.	>0.82
42	59.1
micro VIP	
KWatt	92.9
	+0.85
Amrere	149
Volt	419
KVArh 8840	
MANUFACTURE CONTROL OF THE	77.933
KWh 0057	7.233 196.46
LmA	888
MVAr si	> 937
P, F. Med.)8.82 ·
Hy	50.1

Appendix "C"

Specific Fuel Consumption Data Sheets



DIESEL GENERATOR SPECIFIC FUEL CONSUMPTION LOG

CUSTOMER DOMINION MININE	ENGINE NO	Date:	Base 30 (3/94— Treated
	Location BANNOCK BURN		
ENGINE: Make CUMMINS Model KTA 50 - G3 Serial No.	ALTERNATOR: Make Rating 1200	Density @15°°	Base O·8350. Treated
Engine Hrs Start 0876		Der!	251.3 0.811

Temperatures °C

	7		_	-		Contract resourcement and	_	7		7		eratures		
TIME Start Finish	Δ T	Nom. Load kW	kWh Start Finish	Δ kWh	kW. Av.	Kv Volts	Amps	FUEL METER Start Finish	Fuel Ltrs.	L/kWh	E.Gas	Air In Dry Wet	J.W. Out In	FUEL IN
1546		714.16	323-458			3300	146	13488.44		-		32.5		51.3
1550	10	92.7	338 919.	122-142	732.8	3300	149	135 20,40	31-96	0.2617				
1600	10	97.9	354.737	124.962	749.8	3300	160	13552.19	31.79	0 2544			Ì	
1610	10	761.56	370.811	126.985	761.9	3300	155	135 84,90	32.71	0.2576				
1620	15	97.8	386.655	125.168	751.0	3300 .	160	13617.71	3281	0.2621				
1630	10	96.7	402 882	128.193	769.2	3300	154	13650.75	33.04	0.2577				
1640	10	99	119 208	128 975	773.8	3300	162	13683.85	33.10	0.2566		28.8		51.4
1650	10	98.5	435.685	130-168	781.0	3300	159	13717-32	33.47	0 5211		-		
	Are		886.593					228 88		0.2281				



CUSTOMER DOMINION MINING	ENGINE NO/	Date:	Base
*	Location BANNOCKBURN		11 calca _11 / 3 / 17
ENGINE:	ALTERNATOR:		
Make Cummers Model KTA 50 = 63	MakeRating/200	Density @15°°	Base Treated
Serial No.	Rating 1200		Trouted
Engine Hrs Start 29454 Finish		0.817	2 44.1.
r musit			Temperatures °C

TIME	A	Nom	kWh	A	kW.	V.	Amne	FUEL	Eugl	L/kWh	E.Gas	Airla	J.W.	lie
	Δ	Nom.		Δ		Kv	Amps	1	Fuel	LIKAAU	E.Gas	Air In	1	
Start	T	Load	Start	kWh	Av.	Volts		METER	Ltrs.			Dry	Out	1
Finish		k₩ ∀ 7. 9	Finish					Start				Wet	In	IN
			¥ 7.9	-CONTRACTOR				Finish						-
* <u>*</u>		89:5												
1625		707.05	3232.703			3.3	174	14729.2				23.8		44.1
		89.4		1									1	
1635	10		3247.89	119.977	719.8	3.3	172	14757.52	28.32	0.2360				
		89.3			_									
16 45	10		3263.058	119.827	718.9	3.3	171	14786-16	28.64	0.2390				<u> </u>
		88.8			9						1			
16 55	10		3278.040	118.357	710.1-	3.3	171	14815 92	29.76	0.2514				
_		87.8												
1705	10	693.62	3293.031	118.428	710.6	33	170	14845.64	29.72	0.2509				
		89.0										_		
1715	10	703.1	3308.052	118.665	711-9	3.3	171	14875.24	29.6	0.2494		21.8		
-		89.5							7.					
1725	10	707.05	3322.804	116.540	699.2	3.3	169	1490434	29.1	0.2496				
		91.1			1								1.	
1735	10	719.69	3737 - 7/2	1/7.773	706.6	3.3	170	14933.60	29.26	0.2484				
			000 57/											
-			829.571					204.4		0.2463	-4.6%	-		-
							-			-	-		-	
									16ulton	600000	-3-9%			
	-								1000/1110	10.7017	- 5.9%)		



CUSTOMER DOMINION MINING	ENGINE NO.		Date:	Base 30/3/94. Treated
	Location	BANNOCKBURN		0.826 @ 28°C
ENGINE: Make CUMMINIS Model ISTA SD-63		ALTERNATOR: Make Rating 200	Density @15°°	Base 0.8350 Treated

	Finish _											Sau eratures		FUE
TIME Start Finish	A T Mint.	Nom. Load kW	kWh Start Finish	Δ kWh	kW. Av.	Ky Volts	Amps	FUEL METER Start Finish	Fuel Ltrs.	∐kWh	E.Gas	Air In Dry Wet	J.W. Out In	IXI
1210		772	39.7		772	3.3	165	12827/6/			212.2	29.5		48.1
1220	10	772	56.123	129.74	77.825	3.3.	166	12861.92	34.31	0.2644.				
1230-	10	805.8	72 82	131.90	791	3.3	169	12896.09	34.17	0.2591	0.2618			
12 40	10	97.9	89.222	129.57	777.5	3.3	162	12930.50	3541	0.2733	4	1		
12.50	10	767.09	W5.368	127.55	765.3	3.3	162	12964-14	33.64	0.2637	0-2685			
15.20	10	98.5	121.809	129.88	779.3	3.3	163	12997.71	33.57	0 2585				
13.10	10	780.52.	137.916	127.24	763.5	3.3	163	13031.65	33.94.	0 2667	0.2626			
13-20	10	797.9	154 291	12936	776.2	3.3	164	13065.59	33.94	0.2624				
13.30	16	788 42	170-838	130.72	784.3	3.3	164	13049.75	34.16	0.2613		34.0		48.6
	AIR		1035 99						272.14	0 2627				
									Vallew 1	1 0-2136				
									V					



CUSTOMER	Domin	ion mi	NING.	ENGINE NO.	3				Date:	Ва	reated 12/5	5194		
				Location B	ANNOCKI	BURN								
ENGINE: Make Cummin 3 Model 479 50 63 Serial No. Engine Hrs Start 26489 Finish			Make Density @15°° Base Model kTA 50 63 Rating 1200 Treated 0.8372. Serial No. Engine Hrs Start 26489 Density @15°° Base											
TIME Start Finish	Δ T	Nom. Load kW	kWh Start Finish	Δ kWh	kW. Av.	Kv Volts	Amps	FUEL METER Start Finish	Fuel Ltrs.	L/kWh	E.Gas	Air In Dry Wet	J.W. Out	FUEL IN
11 20		98	346.520			3-3	166	159/3.90				24.9		55.5
11:30	10	95.2	362 289	124.575	747.4	3.0	161	15945.98		0.2575	2			
11 40	10	751.2	378 - 125	125-104	750.6	3.3	163	15978.0	32.02	0 2559				
11.50	10		394 132	126.455	758 73	3.3	169	16010.8	32.8	0 2593				
12.00	10	720.4	409 766	123.508	741.04	3 - 3	155	16042.6	318	0.2574				
_			499.643	-				128.7		0.2575	-2%			
									Ky B. L	0.2082	-2.69	4		
									0					



CUSTOMER DOMINION MINIME	engine no4_	Date:	Base 30/3/94. Treated
	Location BANNOCKBURN	Laboration	
ENGINE: Make CUMMINS. Model K7450 G3	ALTERNATOR: Make Rating	Density @15°°	BaseO · 8 3 S O Treated
Serial No Engine Hrs Start2 1460 Finish	Using PlH meter.		0.813

						Contract of the Contract of th						Jeramies		-
TIME Start Finish	Δ T	Nom. Load kW	kWh Start Finish	Δ kWh	kW. Av.	Kv Volts	Amps	FUEL METER Start Finish	Fuel Ltrs.	L∕kWh	E.Gas	Air In Dry Wet	J.W. Out In	FUEL
1705		759.19	448.382			3300	169	847873.4			-	27.3		48.1
1715	10	97.5	460.576.	127.933	767.6	3300	166	8479069	. 33.5	0.2618				
1725	10	95.5	480.767	124.117	744.7	3300.	170	8479394	32.5	02618			1800	
1735	10	00.2	495.854	122 979	737.9	3300.	166	847971.4	32.0	0.2602.				
1745	10	767 09	511-173	121 020	726.1	3300	166	248 003.0	31.6	0.2611				
1755	to	762.35	527-189	126 5 26	759.2	3300	170	848035-1	321	0.2537				
1805	16	97.4	543-279	127.111	762.7	3300.	170	848057.9	32.8	0.5280				
		Ase		749.686				104.5		0.2594		24.5		49,
									164 /16.L	0.210	7			
													3	
														- 1



CUSTOMER Dominion mining ENGINENO. 4

DIESEL GENERATOR SPECIFIC FUEL CONSUMPTION LOG

Date:

				Location BA	MOCKBO	ian				•	realed 12/5	<u> </u>		
Mod	ic <u>Cumr</u> lel <u>HTA</u> al No.	50 63	3			ALTERNAT Make			Density	r@15°° Ba T	reated			
Eng	ine Hrs Start										. 8!	2 6) 42	- ,
	T HIISH						المتحدد				Temp	eratures		
TIME Start Finish	Δ T	Nom. Load kW	kWh Start Finish	Δ kWh	kW. Av.	Kv Volts	Amps	FUEL METER Start Finish	Fuel Ltrs.	L/kWh	E.Gas	Air In Dry Wet	J.W. Out In	
1330		101 79 7 ·9	498.249			3.3	155	16073-1		y.		26 9		524
1350	20	95 750.5	530.136	251.907	755.7	3.3	150	16136.34	63.24	0.2510				
1400	10	95.7	545.843	124.085		3.3	154	16/67:36	31 02	0.2499				
1410	10		561.953	127.269		3.3		16199.41						
1420	10	733.91	577 933	126.242		3 3	149	16231-02	31.61	0.2503				
. ;		1	629.503					157.92		0.2508	-3.3%			
									Ky /kuh	.0.2036	-3.50	10.	-	
								- W. 10						
	40 A 184													

Appendix "D"

Carbon Balance Printouts

CARBON BALANCE RESULTS

COMPANY :	Dominion Minit	ng		LOCATION :	Bannockburn		
EQUIPMENT : ENG. TYPE : RATING :	GENSET CUMMINS			UNIT NR. : MODEL : FUEL :	3 KTA 50 G3 Shell Formula		
BASELINE TEST				DATE :	30/4/94		
ENG. HOURS :	25604			ENG. RPM:	1200		
AMB. TEMP (C):	21.0			STACK(mm):			
BAROMETRIC(m	971			LOAD:	710 - 720		
	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	AVERAGE	% ST.DEV
PRES DIFF (Pa):	186	186	186	186	186	186	0.00
EXHST TEMP (C)	468.4	468.4	468.4	468.8	468.9	469	0.05
HC (ppm) :	0	0	0	0		0.0	#DIV/0!
CO (%) :	0.08	0.08	0.08	0.08	0.08	0.080	0.00
CO2 (%) :	9.25	9.25	9.25	9.25	9.25	9.25	0.00
O2 (%) :	5.34	5.35	5.35	5.35		5.35	0.08
CARB FLOW(g/s):	33.008	33.007	33.007	32.998	32.996	33.003	0.02
REYNOLDS NR. :	4.42E+04						
TREATED TEST	.			DATE :	11/5/94		
ENG. HOURS :	26467			ENG. RPM:	1200		
AMB. TEMP (C):	26.4			STACK(mm):	320		
BAROMETRIC(m	970			LOAD:	700 - 720		
	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	AVERAGE	% ST.DEV
PRES DIFF (Pa):	183	183	184	183	183	183	0.24
EXHST TEMP (C)	460	460	460	460	460	460	0.00
HC (ppm) :	0	0	0	0	0	0.0	#DIV/0!
CO (%) :	0.08	0.08	0.08	0.08	0.08	0.080	0.00
CO2 (%) :	8.98	8.89	8.88	8.94	8.92	8.92	0.45
O2 (%) :	7.24	7.24	7.24	7.23	7.22	7.23	0.12
	31.922	31.607	31.658	31.782	31,713	31.736	0.39
CARB FLOW(g/s):					200		
CARB FLOW(g/s): REYNOLDS NR. :	4.41E+04		TOTAL HOU	RS ON TREAT	TED FUEL:	863	
						-3.8	%

CARBON BALANCE RESULTS

PRES DIFF (Pa): 330 330 330 330 330 330 330 330 330 EXHST TEMP (C) 446.3 446.4 446.5 446.7 446.7 447 HC (ppm) : 0 0 0 0 0 0 0 0 0 0 0.0 # CO (%) : 0.065 0.065 0.065 0.065 0.065 0.065 0.065 CO2 (%) : 8.84 8.84 8.84 8.84 8.84 8.84 8.84 O2 (%) : 4.25 4.25 4.25 4.25 4.25 CARB FLOW(g/s): 42.647 42.644 42.641 42.635 42.635 TREATED TEST DATE : 11/5/94 ENG. HOURS : 22418 ENG. RPM: 1200 STACK(mm): 1200 STAC		100	Bannockburn	LOCATION :		g	Dominion Mining	COMPANY :
ENG. HOURS : 21452	1	100 AV	KTA 50 G3	MODEL :				ENG. TYPE :
AMB. TEMP (C): 21.6 BAROMETRIC(m 971 TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE 97 PRES DIFF (Pa): 330 330 330 330 330 330 330 EXHST TEMP (C) 446.3 446.4 446.5 446.7 446.7 447 HC (ppm): 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			30/4/94	DATE :				BASELINE TEST
AMB. TEMP (C): 21.6 BAROMETRIC(m 971 TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE 97 PRES DIFF (Pa): 330 330 330 330 330 330 330 EXHST TEMP (C) 446.3 446.4 446.5 446.7 446.7 447 HC (ppm): 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1200	ENG RPM			21452	ENG HOURS .
BAROMETRIC(m 971								
PRES DIFF (Pa): 330 330 330 330 330 330 330 330 330								
PRES DIFF (Pa): 330 330 330 330 330 330 330 330 330 EXHST TEMP (C) 446.3 446.4 446.5 446.7 446.7 447 HC (ppm): 0 0 0 0 0 0 0 0 0 0.0 # (CO (%) : 0.065 0.066	% ST.DEV	AVERAGE	TEST 5	TEST 4	TEST 3	TEST 2	TEST 1	
EXHST TEMP (C)	0.00							PRES DIFF (Pa):
HC (ppm) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.04							
CO (%) : 0.065	#DIV/0!							
CO2 (%) : 8.84 8.84 8.84 8.84 8.84 8.84 8.84 8.	0.00		0.065	0.065	0.065	0.065	0.065	
O2 (%) : 4.25 4.26 4.264 4.264 4.263 42.641 42.641 42.635 42.641 42.641 42.635 42.641 42.635 42.641 42.641 42.641 42.635 42.635 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.641 42.642 42.642 42.642 42.642 42.643	0.00	8.84	8.84	8.84	8.84	8.84	8.84	
TREATED TEST DATE: 11/5/94 ENG. HOURS: 22418 AMB. TEMP (C): 26 BAROMETRIC(m 971 TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE 97 PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm): 0 0 0 0 0 0 0 0.0 # CO (%): 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%): 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%): 7.68 7.69 7.69 7.69 7.69 7.68 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	0.00		4.25	4.25		4.25	4.25	
TREATED TEST ENG. HOURS : 22418 ENG. RPM: 1200 STACK(mm): BAROMETRIC(m 971 TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE % PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm) : 0 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.68 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	0.01	42.641	42.635	42.635	42.641	42.644	42.647	CARB FLOW(g/s):
ENG. HOURS : 22418 AMB. TEMP (C) : 26 BAROMETRIC(m 971	17	1.5	-				5.98E+04	REYNOLDS NR. :
AMB. TEMP (C): 26 STACK(mm): LOAD: 770 ### TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE % PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm): 0 0 0 0 0 0 0 0.0 # CO (%): 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.0			11/5/94	DATE :		× ×	Maria .	TREATED TEST
BAROMETRIC(m 971 LOAD: 770 TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE % PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm) : 0 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194			1200	ENG. RPM:			22418	ENG. HOURS :
TEST 1 TEST 2 TEST 3 TEST 4 TEST 5 AVERAGE % PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm) : 0 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194				STACK(mm):			26	AMB. TEMP (C):
PRES DIFF (Pa): 322 322 321 321 322 322 EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm) : 0 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.68 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194			770	LOAD:			971	BAROMETRIC(m
EXHST TEMP (C) 442.6 442.6 442.9 443 443.1 443 HC (ppm) : 0 0 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	% ST.DEV	AVERAGE	TEST 5	TEST 4	TEST 3	TEST 2	TEST 1	
HC (ppm) : 0 0 0 0 0 0 0.0 # CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 CO2 (%) : 7.68 7.69 7.69 7.69 7.69 7.68 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	0.17	322	322	321	321	322	322	PRES DIFF (Pa):
CO (%) : 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	0.03	443	443.1	443	442.9	442.6	442.6	EXHST TEMP (C)
CO2 (%) : 8.64 8.66 8.66 8.65 8.65 8.65 O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.69 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	#DIV/0!	0.0	0	0	0	0	0	HC (ppm) :
O2 (%) : 7.68 7.69 7.69 7.69 7.69 7.69 CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	0.00	0.060	0.06	0.06	0.06	0.06	0.06	CO (%) :
CARB FLOW(g/s): 41.170 41.264 41.191 41.142 41.203 41.194	0.10	8.65	8.65	8.65	8.66	8.66	8.64	CO2 (%) :
	0.07	7.69	7.68	7.69	7.69	7.69	7.68	O2 (%) :
REYNOLDS NR. : 5.91E+04 TOTAL HOURS ON TREATED FUEL : 966	0.11	41.194	41.203	41.142	41.191	41.264	41.170	CARB FLOW(g/s):
		966	ED FUEL :	S ON TREAT	OTAL HOUF		5.91E+04	REYNOLDS NR. :
PERCENTAGE CHANGE IN FUEL CONSUMPTION ((TREATED-BASE)/BASE*100): -3.4 %		-3.4	ASE*100) ·	ED-BASE)/B	ON ((TREAT	CONSUMPT	ANGE IN FUEL	PERCENTAGE CE
			=======================================		(110211	2011001411	III ODD (
REMARKS:								REMARKS: