



Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 5/30/2014

CEE Project Number:
1300006-3

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 6-5-14

Test Vehicle

Test Vehicle: EDV 1

Engine Family: DTAOXO.12A1T

Vehicle Model: ATA125-D

VIN Number: LSNAAHTJ4D1019516





Test Procedures and Equipment

The ATA125-D off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model AIA 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model AIA 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model AIA 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005303	5/30/2014	0.471	0.159	0.630	9.340
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.642	9.340

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA 110 IS

Vehicle Color: Red/Blk

Last Six of Vin# 019516

Received at CEE Time: 11:30

Received by: L. P. Swienko

Receiptant Signature: L. P. Swienko

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-3

Make: TAC TAO Model ATA110B

Vin# LSNAAH1TJ4D1019516 Year: 2013

Odometer: NA Color: Red/151k

Displace: 110cc Fuel System: 1x1V

Trans: Auto PCV: X Yes No

Fuel Cap. 2.3L = 1.6 gal X 50% .3 gal

Eng. Fam. DTADXD.12AIT Evap Fam.

Curb Wt. 185/bs = 83.9KG + 80 = 163.7KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0000 C 0.0241

Special Instructions:

TaoTao Project Work Sheet

Project # 1300006-3 EDV # 1

Vin# LSNAAWTJ4D1019516 Req. Miles 250KM

<u>Work Required</u>	<u>Date Completed</u>	<u>Tech.</u>
Check-in	<u>5-19-14</u>	<u>LPS</u>
Pictures	<u>5-19-14</u>	<u>LPS</u>
Durability 250KM	<u>5-22-14</u>	<u>Jarica</u>
Precondition	<u>5-29-14</u>	<u>A.H.</u>
Test CVS75FTP	<u>5-30-14</u>	<u>A.H.</u>
Data QA/QC	<u>6-2-14</u>	<u>LPS</u>
Release	<u> </u>	<u> </u>

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005303	DATE	05-30-2014	RANGE	AUTO
VEHICLE REF	1300006-3	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ4D1019516	ENGINE FAM.	DTAOXO.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.c/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%= .3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	302.2Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	WOT				
REMARKS	CONFIRMATORY TEST				
REMARKS					
START TIME	11:11:02	END TIME	11:52:08	FINAL ODO.	317.0KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.3	0.0 for	0.0	111.6 for	-2.7	1
2	Delay 10	0.000	0.000	10.0	0.0 for	0.0	204.7 for	-1.1	1
3	Ready	0.000	0.000	0.5	0.0 for	0.0	217.2 for	-74.1	281
4	Crank	0.000	0.000	1.6	0.0 for	0.0	361.5 for	-24.5	795
5	Phase 1	2.693	4.329	505.0	0.0 for	0.0	458.9 for	-33.5	787
6	Phase 2	3.867	6.215	864.0	0.0 for	0.0	802.4 for	-12.9	1831
7	Eng Off	0.000	0.000	5.6	0.0 for	0.0	1485.6 for	-2.3	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	1593.2 for	-71.7	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	1668.7 for	-1.1	775
10	Soak	0.016	0.025	525.0	0.0 for	0.0	1735.5 for	-23.7	2
11	Ready	0.001	0.001	12.1	0.0 for	0.0	1832.2 for	-34.0	3
12	Crank 3	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.672	4.295	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2453.7 SECONDS DVT= 284.8

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry=	73.4	Tdp =	54.9
SAMPLE	34.95	230.1	5.9	0.179	4.6	BARO.=	753.50	SEC =	507.1
AMBIENT	4.56	1.2	0.0	0.045	1.9	NoxKf=	0.953	VOLC=	2822.9
GRAMS	1.404	21.306	0.860	197.14	1.276	M.P.G.	102.10	DF =	65.205
GMS/MI	0.521	7.911	0.319	73.21	.473	MPGnhv	103.56	MI =	2.693
G/Mwgt	0.092	1.397	0.056	12.92	.083	R-H =	52.40	KM =	4.328

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry=	73.1	Tdp =	53.4
SAMPLE	44.77	433.3	3.6	0.142	6.1	BARO.=	753.50	SEC =	874.6
AMBIENT	3.80	1.5	0.2	0.045	1.9	NoxKf=	0.939	VOLC=	4867.4
GRAMS	3.261	69.298	0.842	246.41	2.920	M.P.G.	94.26	DF =	70.598
GMS/MI	0.843	17.920	0.218	63.72	.755	MPGnhv	96.52	MI =	3.867
G/Mwgt	0.422	8.960	0.109	31.86	.377	R-H =	50.10	KM =	6.215

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry=	74.3	Tdp =	54.3
SAMPLE	45.17	377.1	5.6	0.175	5.7	BARO.=	753.50	SEC =	506.0
AMBIENT	3.51	1.6	0.0	0.045	1.8	NoxKf=	0.947	VOLC=	2809.3
GRAMS	1.914	34.782	0.807	190.42	1.734	M.P.G.	94.82	DF =	61.687
GMS/MI	0.716	13.017	0.302	71.27	.649	MPGnhv	96.69	MI =	2.672
G/Mwgt	0.167	3.032	0.070	16.60	.151	R-H =	49.70	KM =	4.295

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.757	15.012	0.255	67.15	.680	M.P.G.	95.69	NHVmpg	97.733
GRAMS/KM	0.471	9.340	0.159	41.78	.423	L/100k	2.46	NHVkp1	41.554

CEE Quality Audit

Accept Reject
Date 4-2-14 By [Signature]

California Environmental Engineering
2530 S. Birch Street. Santa Ana California

TEST NUMBER	V6005303	DATE	05-30-2014	RANGE	AUTO
VEHICLE REF	1300006-3	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ4D1019516	ENGINE FAM.	DTAOXO.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	302.2km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS					
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	34.89	234.5	6.1	0.177	4.50	11:20:10
ZERO	set	-0.20	0.4	0.2	0.000	0.01	11:21:10
OFFSET 10% Lim		-0.2	+0.1	+0.2	+0.0	+0.0	
SPAN	set	100.43	236.0	93.5	1.918	47.99	11:22:11
OFFSET 10% Lim		-0.1	+2.0	+0.4	-0.8	+0.4	
ZERO	set	-0.49	-0.1	-0.1	0.000	0.00	11:23:12
AMBIENT1	read	4.56	1.2	-0.1	0.045	1.94	11:24:12
SAMPLE1	read	34.95	230.1	5.9	0.179	4.68	11:25:12
ZERO	chek	-0.30	0.1	-0.4	0.001	0.00	11:26:12
SPAN	chek	100.75	231.6	93.3	1.942	48.07	11:27:12
SPAN VALUES		100.50	230.0	93.1	1.935	47.80	END # 1

MODE		THCd3A	COLd3A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	45.35	427.6	3.7	0.145	3.70	11:34:44
ZERO	set	-0.04	-0.7	0.3	0.003	0.01	11:35:44
OFFSET 10% Lim		-0.0	-0.1	+0.3	+0.1	+0.0	
SPAN	set	100.31	947.0	93.5	1.938	47.54	11:36:56
OFFSET 10% Lim		-0.2	-0.1	+0.4	+0.1	-0.5	
ZERO	set	-0.62	-0.3	0.1	0.001	0.00	11:37:57
AMBIENT2	read	3.80	1.5	0.2	0.045	1.92	11:38:57
SAMPLE2	read	44.77	433.3	3.6	0.142	6.17	11:39:57
ZERO	chek	-0.38	-0.2	-0.1	0.001	0.01	11:40:57
SPAN	chek	100.64	957.4	93.4	1.938	48.23	11:41:57
SPAN VALUES		100.50	948.0	93.1	1.935	47.80	END # 2

MODE		THCd3A	COLd3A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	45.75	372.4	6.3	0.177	5.13	11:52:37
ZERO	set	0.22	-0.6	0.4	0.002	0.01	11:53:37
OFFSET 10% Lim		+0.2	-0.1	+0.4	+0.1	+0.0	
SPAN	set	100.50	946.1	93.2	1.927	47.92	11:54:38
OFFSET 10% Lim		+0.0	-0.2	+0.1	-0.4	+0.2	
ZERO	set	-0.23	0.1	0.1	0.002	0.00	11:55:39
AMBIENT3	read	3.51	1.6	0.0	0.045	1.90	11:56:39
SAMPLE3	read	45.17	377.1	5.6	0.175	5.78	11:57:39
ZERO	chek	-0.03	-0.5	-0.2	0.000	-0.01	11:58:39
SPAN	chek	100.77	958.7	93.2	1.941	47.96	11:59:39
SPAN VALUES		100.50	948.0	93.1	1.935	47.80	END # 3

□

CEE Quality Audit
 Accept Reject
 Date 6-2-14 By: [Signature]

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005303

Make:	TAO TAO	Eng. Fam:	DTAOXO.12A1T
Model:	ATA110B	Evap Fam:	
Year:	2013	Date:	May 30, 2014
VIN:	L5NAAHTJ4D1019516	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.80
DF	65.21
V-Mix	2822.90
Miles	2.69
Km	4.33
Nox kf	0.95

Phase II Inputs	
Ambient	0.00
Sample	1.20
DF	70.60
V-Mix	4867.40
Miles	3.87
Km	6.22
Nox kf	0.94

Phase III Inputs	
Ambient	0.00
Sample	0.90
DF	61.69
V-Mix	2809.30
Miles	2.67
Km	4.30
Nox kf	0.95

Phase I Results	
N2Oconc	0.800
N2O mass	0.117
g/mi	0.043
g/km	0.027
g/m wgt	0.019
g/km wgt	0.012

Phase II Results	
N2Oconc	1.200
N2O mass	0.303
g/mi	0.078
g/km	0.049
g/m wgt	0.078
g/km wgt	0.049

Phase III Results	
N2Oconc	0.900
N2O mass	0.131
g/mi	0.049
g/km	0.030
g/m wgt	0.028
g/km wgt	0.017

Total N2O in Grams per mile	0.124882607
Total N2O in Grams per kilometer	0.077598454

(ii) $Density_{N2O} = \text{Density of nitrous oxide is } 51.81 \text{ g/ft}^3 (1.83 \text{ kg/m}^3), \text{ at } 68 \text{ }^\circ\text{F} (20 \text{ }^\circ\text{C}) \text{ and } 760 \text{ mm Hg} (101.3\text{kPa}) \text{ pressure.}$

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1,000,000)$

(B) $N_2 O_{conc} = N_2 O_a - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

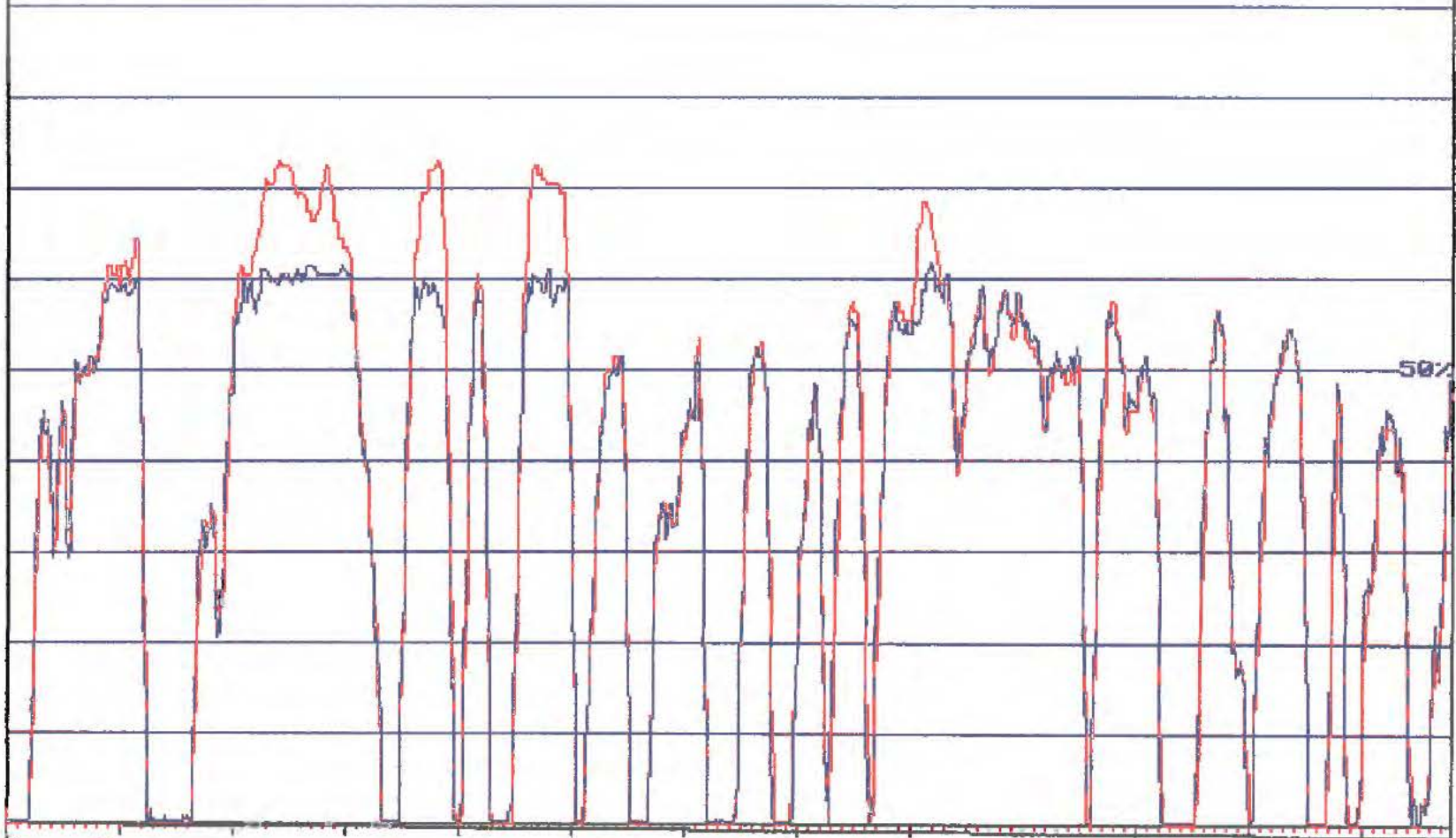
CEE Quality Audit

Accept Reject
 Date 6-2-14 By: [Signature]

'Esc' = new Test

GRAPH Copyright ALS'96

06-10-2014 100%



V6005303a 2455
TIME 0-50a Tr mph 0-50a CYCLEm 0-50a 1200+

CEE Quality Audit

Accept Reject
Date 6-2-14 By *Phanich*

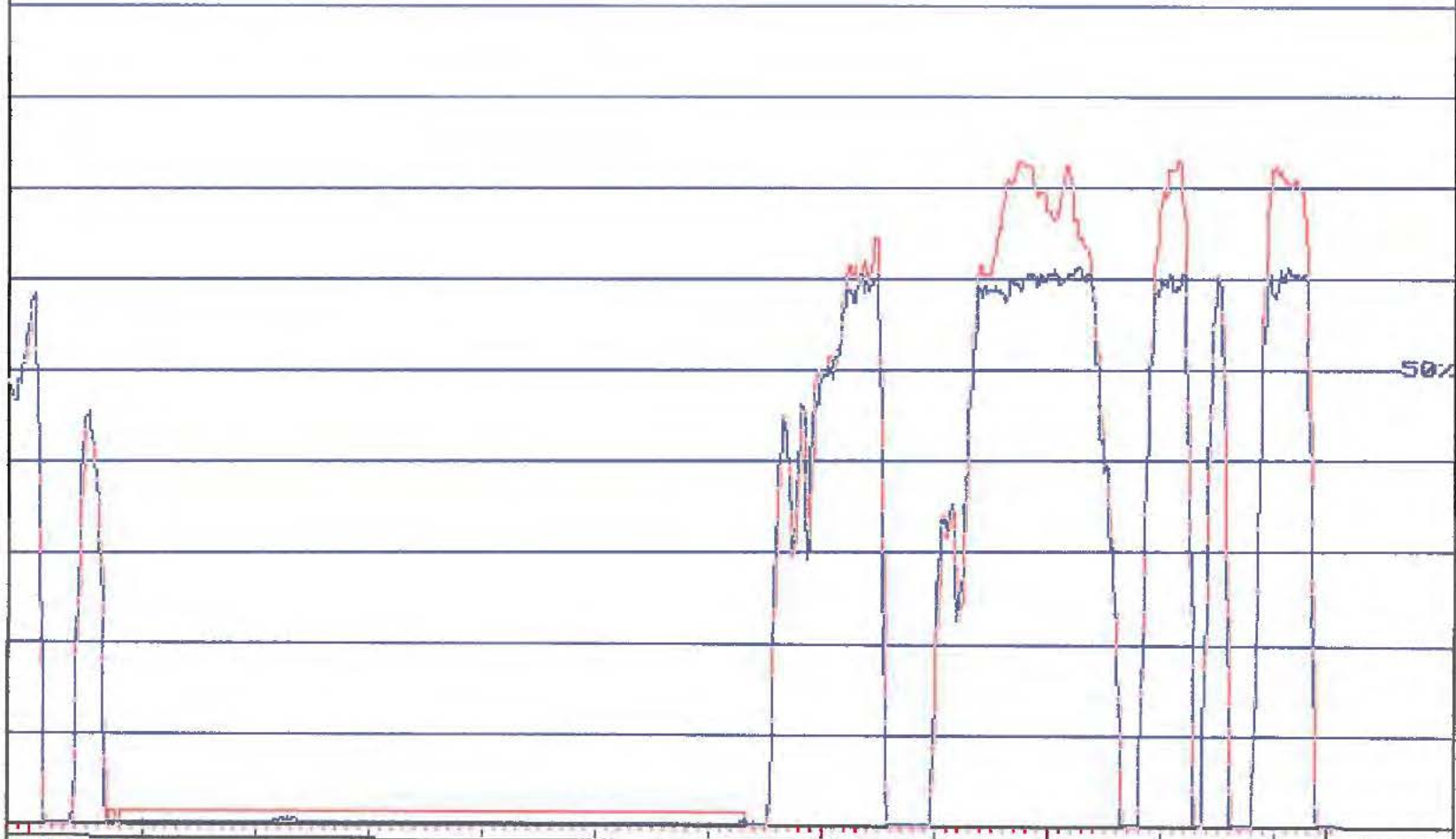
CX009

EPA-001255

'Esc'=new Test

GRAPH Copyright ALS'96

06-10-2014 100%



+ 1280
V6005303a 2455
TIME 0- 0a

Tr mph 0- 50a CYCLEm 0- 50a

2560+

CX099

EPA-001256

CEE Quality Audit CEE Quality
Accept _____ Reject _____ Accept _____ R.
Date _____ By: _____ Date _____ E.

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005298	DATE	05-29-2014	RANGE	AUTO
VEHICLE REF	1300006-3	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ4D1019516	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP. FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%- .3	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	291.5km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS					
REMARKS					
REMARKS					
START TIME	16:00:57	END TIME	16:23:50	FINAL ODO.	302.2KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	0.2	0.0 for	0.0	227.1 for	-4.4	531
2	PHASE 1	2.726	4.381	505.0	0.0 for	0.0	234.2 for	-17.0	531
3	PHASE 2	3.854	6.195	867.0	0.0 for	0.0	256.3 for	-4.8	531
4	END	0.000	0.000	0.0	0.0 for	0.0	278.2 for	-5.5	513
5	END	0.000	0.000	0.0	0.0 for	0.0	364.5 for	-4.6	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	369.3 for	-13.9	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	461.0 for	-29.8	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	1229.5 for	-7.5	0
9	Soak+b1	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
TEST COMPLETED		1372.0	SECONDS	DVT=	93.5				
PHASE 1		6.580	10.576	1372.2	VOLUME=	7633.5			

REMARKS
REMARKS
REMARKS

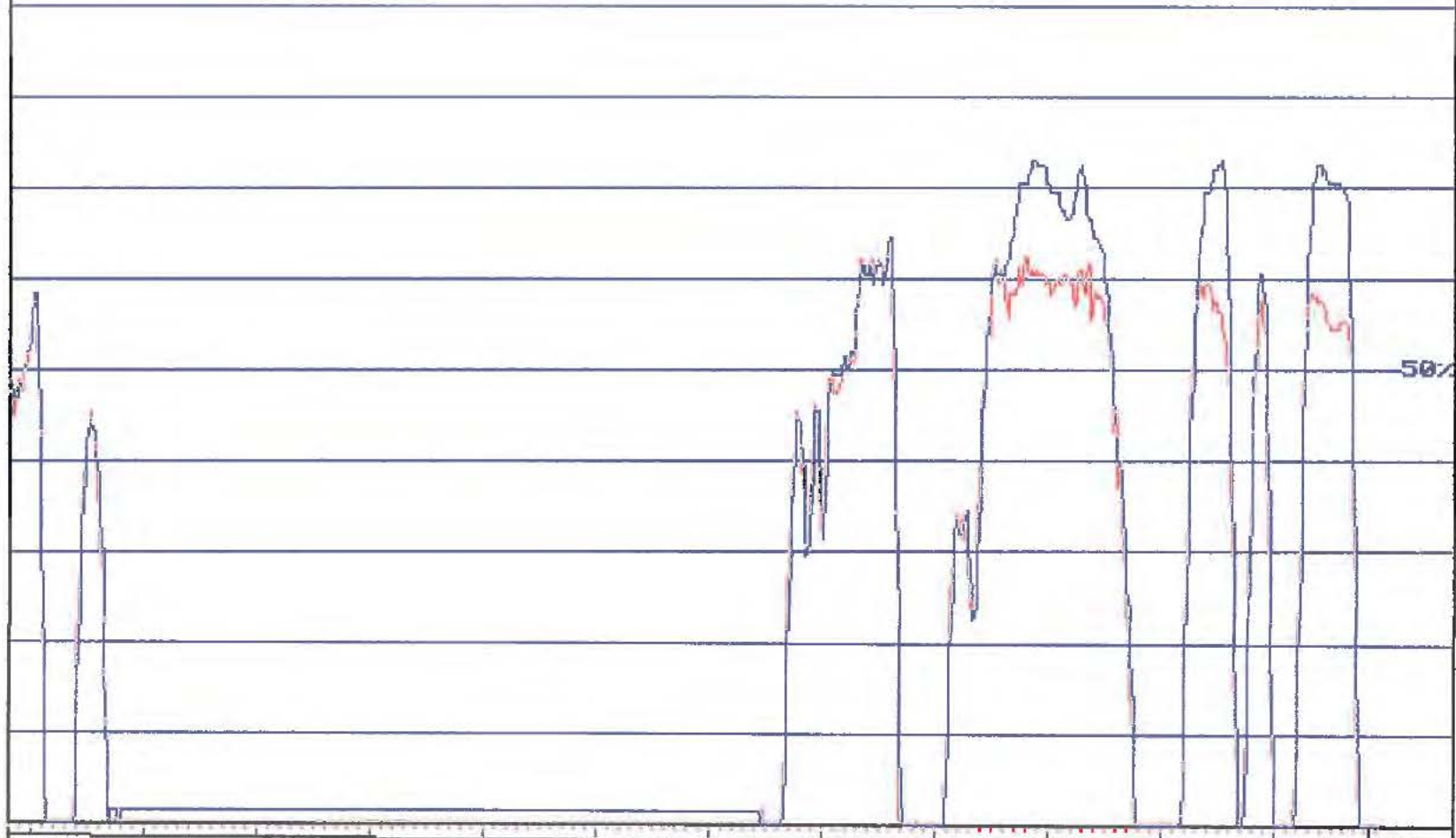
CEE Quality Audit

Accept Reject
Date 6-2-14 By: [Signature]

'Esc'=new Test

GRAPH Copyright ALS'96

06-10-2014 100%



+ 1280 V6005298a 2493 2560+
TIME 0- 0a CYCLEm 0- 50a Tr mph 0- 50a

CX099

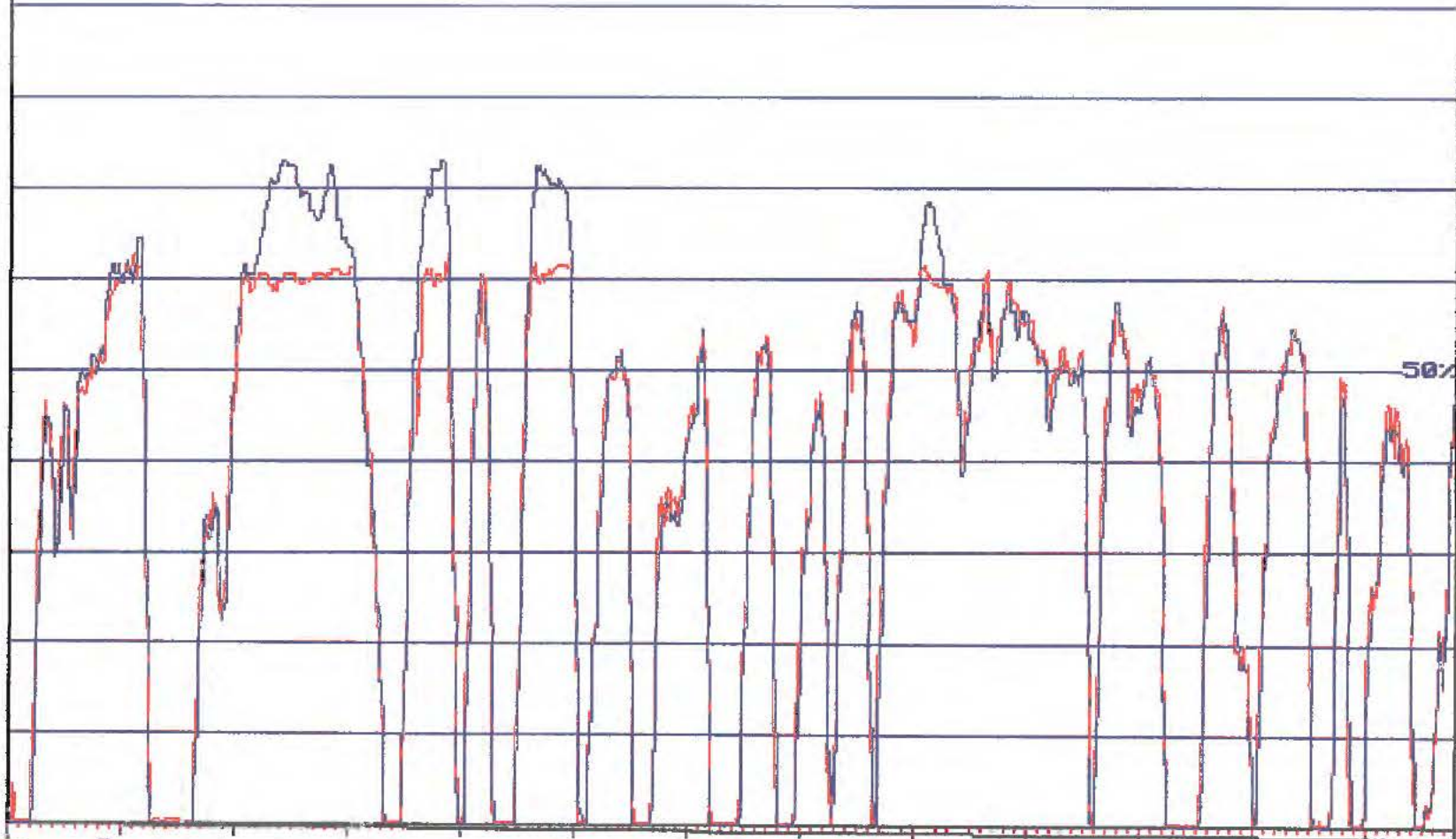
EPA-001258

CEE Quality Audit
Accept Reject
Date 6-2-14 By: *[Signature]*

'Esc'=new Test

GRAPH Copyright ALS'96

06-10-2014 100%



+ 0
V6005298a 2493
TIME 0- 0a

CYCLEm 0- 50a Tr mph 0- 50a

1280+

CX099

EPA-001259

Deterioration Factors page extracted from the certification application for



Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 6/18/2014

CEE Project Number:
1300006-4

Prepared for:
TAO TAO, USA

Report Prepared by:



Larry Swiencki, Project Manager

California Environmental Engineering, LLC

Date: 6-19-14

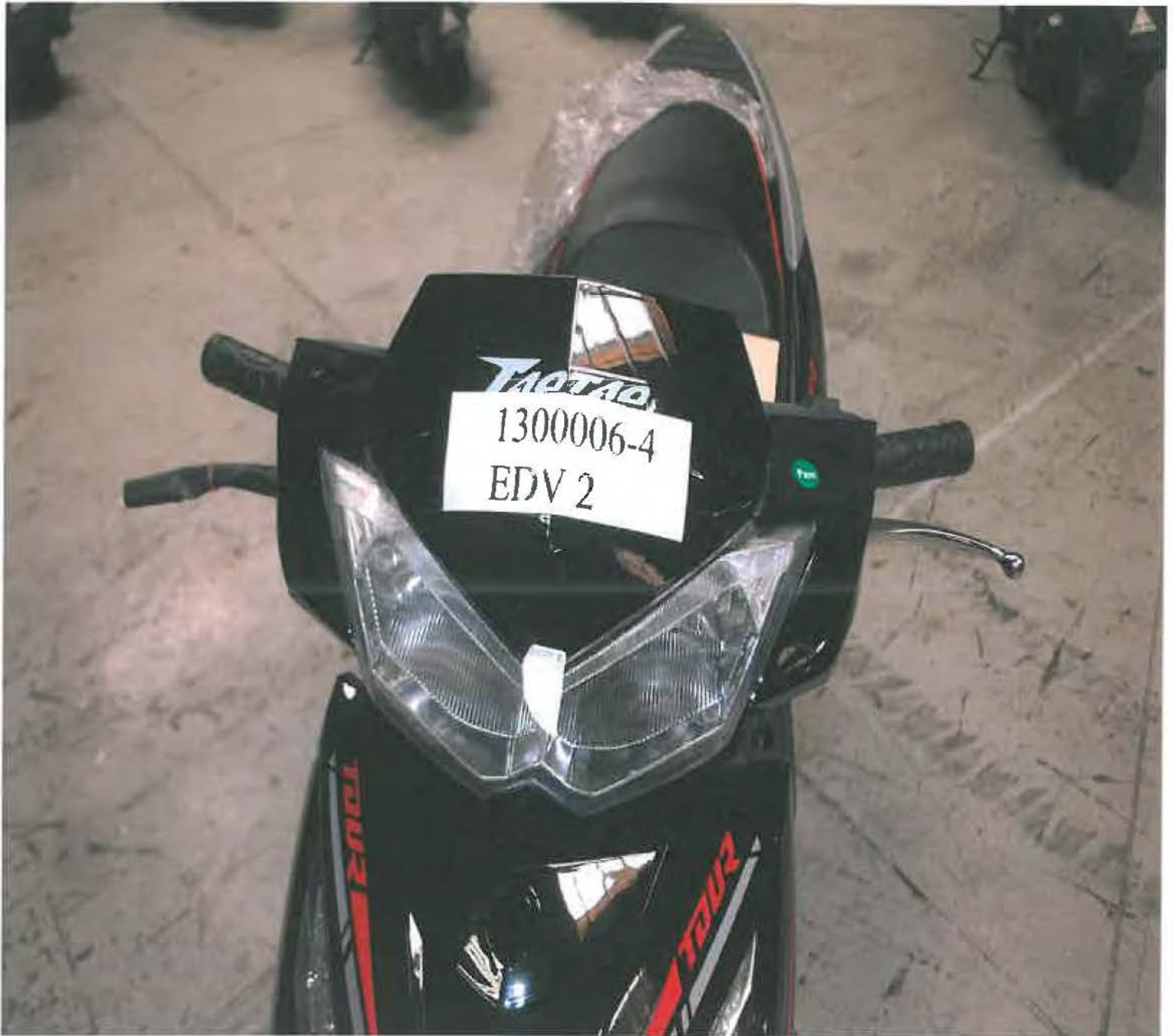
Test Vehicle

Test Vehicle: EDV 2

Engine Family: DTAOC.150MC2

Vehicle Model: CY150T

VIN Number: L9NTELKE3D1250004



VEHICLE EMISSION CONTROL INFORMATION IMPORTED BY TATTOO USA, INC. 
 ENGINE FAMILY (EPA USE ONLY) ENGINE DISPLACEMENT: 150cc
 PERFORMANCE FAMILY (EPA USE ONLY) EVAPORATIVE FAMILY (EPA USE ONLY)

THIS VEHICLE CONFORMS TO US EPA REGULATIONS APPLICABLE TO 2013 MODEL YEAR 150cc HIGHWAY
 MOTORCYCLES AND IS CERTIFIED TO 34144 NO. 12014M CO. ENGINE FAMILY EXHAUST EMISSION
 STANDARD.

ENGINE EMISSION CONTROL SYSTEM: TWC-2+

ENGINE PERFORMANCE SPECIFICATIONS (SEE OWNER'S MANUAL FOR MORE DETAILS)
 MAX. SPEED: 100.0 mph MAX. TORQUE: 10.00 ft-lb MAX. FUEL CONSUMPTION: 0.00 gal/mi @ 60 mph
 BRAKE P.L.O.S. (DOT) BRAKE P.L.O.S. (DOT) BRAKE P.L.O.S. (DOT)

THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE, FUEL: GASOLINE 11 OCT. OR HIGHER.
 MANUFACTURED BY TATTOO GROUP CO., LTD.
 MADE IN CHINA

WFO: TATTOO GROUP CO., LTD.

DATE OF MFG:	09/2013	GVWR: 75KG	
FRONT GAWR	WITH TIRES	RIMS AT	COLD
152kg	130/80-13	MT3. 50XJ13	225KPa
REAR GAWR	WITH TIRES	RIMS AT	COLD
152kg	130/80-13	MT3. 50XJ13	225KPa

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
 VEHICLE SAFETY STANDARDS
 IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE
 VIN: **L9NTELKE3D1250004** TYPE: MOTORCYCLE

Test Procedures and Equipment

The ATA110B off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model AIA 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model AIA 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model AIA 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005370	6/18/2014	0.150	0.343	0.493	2.705
Multiplicative Deterioration Factors (provided by TaoTao)				1.000	1.000
Full Useful Life Emissions				0.493	2.705

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: CY150T

Vehicle Color: Red/Blk

Last Six of Vin# 250004

Received at CEE Time: 11:50

Received by: LPSWIENCKI

Receiptant Signature: LPSWIENCKI

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 13000000-4

Make: TAOTAO Model CY150T

Vin# LGNTELKE3D1250004 Year: 2013

Odometer: 13KM Color: RED/BLK

Displace: 149CC Fuel System: 1X1V

Trans: CVT PCV: Yes No

Fuel Cap. 2.0 gal X 50% 1.0 gal

Eng. Fam. PTAOC.150M02 Evap Fam. _____

Curb Wt. 145 KG + 80 = 225 KG

Inertia Wt. KG 220

Coefficients: A 10.43 B 0.0000 C 0.0257

Special Instructions: _____

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-f
 Make: TAOTAO
 VIN# L9NTELE3D1250004

CLIENT: TAO TAO
 MODEL: CY150T
 ENG. FAM: DTADL150M02

YEAR: 2013

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS
5-27-14	7:26 am	5:00 pm	0.0 km	129.0 km	69.7	Flora Tupa	
5-28-14	8:50 am	5:00 pm	129.0 km	212.1 km	114.5	Flora Tupa	
5-29-14	9:09 AM	11:23 am	212.1 km	293.2 km	158.3	Marcos T.	
5-29-14	2:21 pm	5:00 pm	293.2 km	380.4 km	205.4	Marcos T.	
5-30-14	10:15 AM	5:00 pm	380.4 km	506.6 km	273.6	Flora Tupa	
5-31-14	1:41 pm	5:00 pm	506.6 km	638.0 km	344.5 miles	Marcos	
5-31-14	1:23 pm	5:00 pm	638.0 km	769.6 km	415.6	Marcos T.	
6-1-14	8:00 AM	5:00 pm	769.6 KM	939.6 km	507.3 miles	BRAYAN U	Marcos T.
6-4-14	9:00 AM	12:00 pm	939.6 KM	1,035	559	BRAYAN U	
6-9-14	5:00 AM	4:00 pm	1035.2 km	1275.1 km	188.5 miles	Marcos Tupa	
6-9-14	5:00 PM	6:00 PM	1275.1 km	1275.1 km	682.5 km	BRAYAN U	
6-10-14	5:05 AM	10:31	1275.1 km	1436.1 km	775.4 miles	Marcos Tupa	
6-10-14	12:53 pm	4:00 pm	1436.1 km	1564.3 km	847.3	Flora Tupa	
6-11-14	4:40 PM	6:00	1564.3 km	1609.1 km	268.8 km	BRAYAN U	
6-11-14	6:22 am	10:06 am	1609.1 km	1733.8 km	936.2 miles	Marcos Tupa	
6-11-14	11:00 am	3:30	1733.8 km	1836.0 km	991.4 miles	Marcos T.	
6-12-14	5:45 am	10:30	1836.0 km	1935.8 km	1095.3 miles	Marcos T.	
6-12-14	5:00 PM		1935.8 km	2092.0 km			
6-13-14	5:17 AM	8:00 am	2092.0 km	2210.6 km	1193.6	Marcos T.	
6-13-14	12:00	3:28	2210.6 km	2281.5 km	1231.9 km	Marcos T.	
6-16-14	5:24 AM	7:23	2444.3	2,500.0 km	1349.9 miles	Marcos T.	

EPA 001271

COMMENTS: _____

Quality Audit
 Reject
 6-17-14 By: *L. P. Mencia*

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005370	DATE	06-18-2014	RANGE	AUTO
VEHICLE REF	1300006-4	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKE3D1250004	ENGINE FAM.	DTADC.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA	TEST TYPE	EPAAH____,MCT	Gr.C/gal.	2433
MAKE	TAO TAO	SHIFT FILE	AUTO .M_T	FUEL Fract.	.8646
MODEL	CY150T	INERTIA WGT	220KG	SP. GRAVITY	.741
YEAR	2013	F0_SET_SI	10.43	N.H.V.	18489
TANK CAP	50%=1.0	F1_SET_SI	0.000	WT FACTOR	.43
ODOMETER	2510.6km	F2_SET_SI	0.0257	WT FACTOR	1
TRANS.	AUTO			WT FACTOR	.57
REMARKS	CONFIRMATORY				
REMARKS					
REMARKS					
START TIME	10:42:32	END TIME	11:23:46	FINAL ODO.	25020.3

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.4	0.0 for	0.0	0.0 for	0.0	1
2	Delay 10	0.000	0.000	10.0	0.0 for	0.0	0.0 for	0.0	1
3	Ready	0.000	0.000	0.4	0.0 for	0.0	0.0 for	0.0	281
4	Crank	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	795
5	Phase 1	2.933	4.714	505.0	0.0 for	0.0	0.0 for	0.0	787
6	Phase 2	3.896	6.262	864.0	0.0 for	0.0	0.0 for	0.0	1831
7	Eng Off	0.000	0.001	10.6	0.0 for	0.0	0.0 for	0.0	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	0.0 for	0.0	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	775
10	Soak	0.015	0.024	525.0	0.0 for	0.0	0.0 for	0.0	2
11	Ready	0.000	0.001	16.9	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	0.2	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.909	4.675	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.001	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2462.8 SECONDS DVT= 1.1

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry=	74.3	Tdp =	50.8
SAMPLE	23.52	198.1	11.1	0.210	3.1	BARO.=	755.50	SEC =	506.4
AMBIENT	3.67	3.2	0.0	0.045	1.8	NoxKf=	0.915	VOLC=	2818.8
GRAMS	0.917	18.118	1.551	242.29	.854	M.P.G.	95.51	DF =	57.718
GMS/MI	0.313	6.177	0.529	82.61	.291	MPGnhv	96.07	MI =	2.933
G/Mwgt	0.058	1.141	0.098	15.26	.053	R-H =	43.70	KM =	4.714

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry=	75.1	Tdp =	50.9
SAMPLE	13.85	79.8	9.5	0.189	2.6	BARO.=	755.50	SEC =	879.6
AMBIENT	3.47	2.5	0.3	0.046	1.8	NoxKf=	0.916	VOLC=	4899.4
GRAMS	0.835	12.492	2.237	365.00	.767	M.P.G.	89.66	DF =	67.552
GMS/MI	0.214	3.206	0.574	93.69	.197	MPGnhv	89.83	MI =	3.896
G/Mwgt	0.107	1.603	0.287	46.84	.098	R-H =	42.70	KM =	6.262

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry=	73.3	Tdp =	50.0
SAMPLE	18.76	178.0	10.8	0.209	3.1	BARO.=	755.50	SEC =	505.2
AMBIENT	3.11	1.6	0.0	0.044	1.8	NoxKf=	0.909	VOLC=	2818.2
GRAMS	0.723	16.393	1.498	242.20	.663	M.P.G.	95.93	DF =	58.598
GMS/MI	0.248	5.635	0.515	83.26	.228	MPGnhv	96.28	MI =	2.909
G/Mwgt	0.061	1.373	0.126	20.29	.055	R-H =	43.90	KM =	4.676

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.241	4.347	0.551	89.10	.222	M.P.G.	92.17	NHVmpg	92.448
GRAMS/KM	0.150	2.705	0.343	55.43	.138	L/100k	2.55	NHVkpl	39.307

CEE Quality Audit

Accept Reject
Date 6-18-14 By: J. Amador EPA-001274

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005370	DATE	06-18-2014	RANGE	AUTO
VEHICLE REF	1300006-4	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKE3D1250004	ENGINE FAM.	DTADC.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP. FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	CY150T	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N. H. V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	.43
ODOMETER	2510.6km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0257	WT FACTOR	.57
REMARKS	CONFIRMATORY				
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	25.03	204.8	11.9	0.216	2.73	10:51:39
ZERO	set	0.37	-0.2	0.2	0.001	0.01	10:52:39
OFFSET	10% Lim	+0.4	-0.1	+0.7	+0.0	+0.0	
SPAN	set	99.62	236.6	26.8	1.935	48.15	10:53:40
OFFSET	10% Lim	+1.2	+2.2	-2.3	+0.0	-0.1	
ZERO	set	-0.41	-0.8	-0.5	0.000	0.01	10:54:41
AMBIENT1	read	3.67	3.2	-0.5	0.045	1.88	10:55:41
SAMPLE1	read	23.52	198.1	11.1	0.210	3.19	10:56:41
ZERO	chek	-0.33	-0.5	-0.2	-0.002	0.00	10:57:41
SPAN	chek	97.58	230.0	27.5	1.924	48.09	10:58:41
SPAN VALUES		98.40	230.0	27.5	1.935	48.20	END # 1

MODE		THCd3A	COLd1A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	13.99	77.8	8.9	0.188	2.65	11:06:18
ZERO	set	0.03	0.0	0.3	0.001	0.01	11:07:18
OFFSET	10% Lim	+0.0	+0.0	+1.0	+0.0	+0.0	
SPAN	set	98.56	97.9	26.6	1.939	47.82	11:08:19
OFFSET	10% Lim	+0.2	+1.6	-3.0	+0.2	-0.8	
ZERO	set	-0.23	-0.9	0.4	0.001	0.00	11:09:20
AMBIENT2	read	3.47	2.5	0.3	0.046	1.88	11:10:20
SAMPLE2	read	13.85	79.8	9.5	0.189	2.69	11:11:20
ZERO	chek	-0.11	-0.7	-0.1	-0.001	0.00	11:12:20
SPAN	chek	98.83	96.4	27.0	1.931	48.55	11:13:20
SPAN VALUES		98.40	96.3	27.5	1.935	48.20	END # 2

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	19.25	171.4	11.2	0.206	3.11	11:24:15
ZERO	set	0.14	-0.4	0.6	0.001	0.01	11:25:15
OFFSET	10% Lim	+0.1	-0.1	+2.0	+0.0	+0.0	
SPAN	set	98.55	236.8	26.9	1.928	48.31	11:26:20
OFFSET	10% Lim	+0.2	+2.3	-2.0	-0.3	+0.2	
ZERO	set	-0.33	-0.8	0.0	-0.001	0.00	11:27:21
AMBIENT3	read	3.11	1.6	0.0	0.044	1.88	11:28:21
SAMPLE3	read	18.76	178.0	10.8	0.209	3.13	11:29:21
ZERO	chek	-0.18	-0.7	-0.3	0.001	0.00	11:30:21
SPAN	chek	98.65	229.9	27.6	1.946	48.14	11:31:21
SPAN VALUES		98.40	230.0	27.5	1.935	48.20	END # 3

□

CEE Quality Audit

Accept Reject

Date 6-18-14 By: L. Pineda

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005370

Make: TAO TAO	Eng. Fam: DTADC.150MC2
Model: CY150T	Evap Fam:
Year: 2013	Date: June 18, 2014
VIN: L9NTELKE3D1250004	Tech: ALEX HERRERA

Phase I Inputs		Phase II Inputs		Phase III Inputs	
Ambient	0.00	Ambient	0.00	Ambient	0.00
Sample	0.60	Sample	0.40	Sample	0.60
DF	57.72	DF	67.55	DF	58.60
V-Mix	2818.80	V-Mix	4899.40	V-Mix	2818.20
Miles	29.33	Miles	3.90	Miles	2.91
Km	47.20	Km	6.27	Km	4.68
Nox kf	0.92	Nox kf	0.92	Nox kf	0.91

Phase I Results		Phase II Results		Phase III Results	
N2Oconc	0.600	N2Oconc	0.400	N2Oconc	0.600
N2O mass	0.088	N2O mass	0.102	N2O mass	0.088
g/mi	0.003	g/mi	0.026	g/mi	0.030
g/km	0.002	g/km	0.016	g/km	0.019
g/m wgt	0.001	g/m wgt	0.026	g/m wgt	0.017
g/km wgt	0.001	g/km wgt	0.016	g/km wgt	0.011

Total N2O in Grams per mile	0.044511987
Total N2O in Grams per kilometer	0.027658467

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft³ (1.83 kg/m³), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1,000,000)$

(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

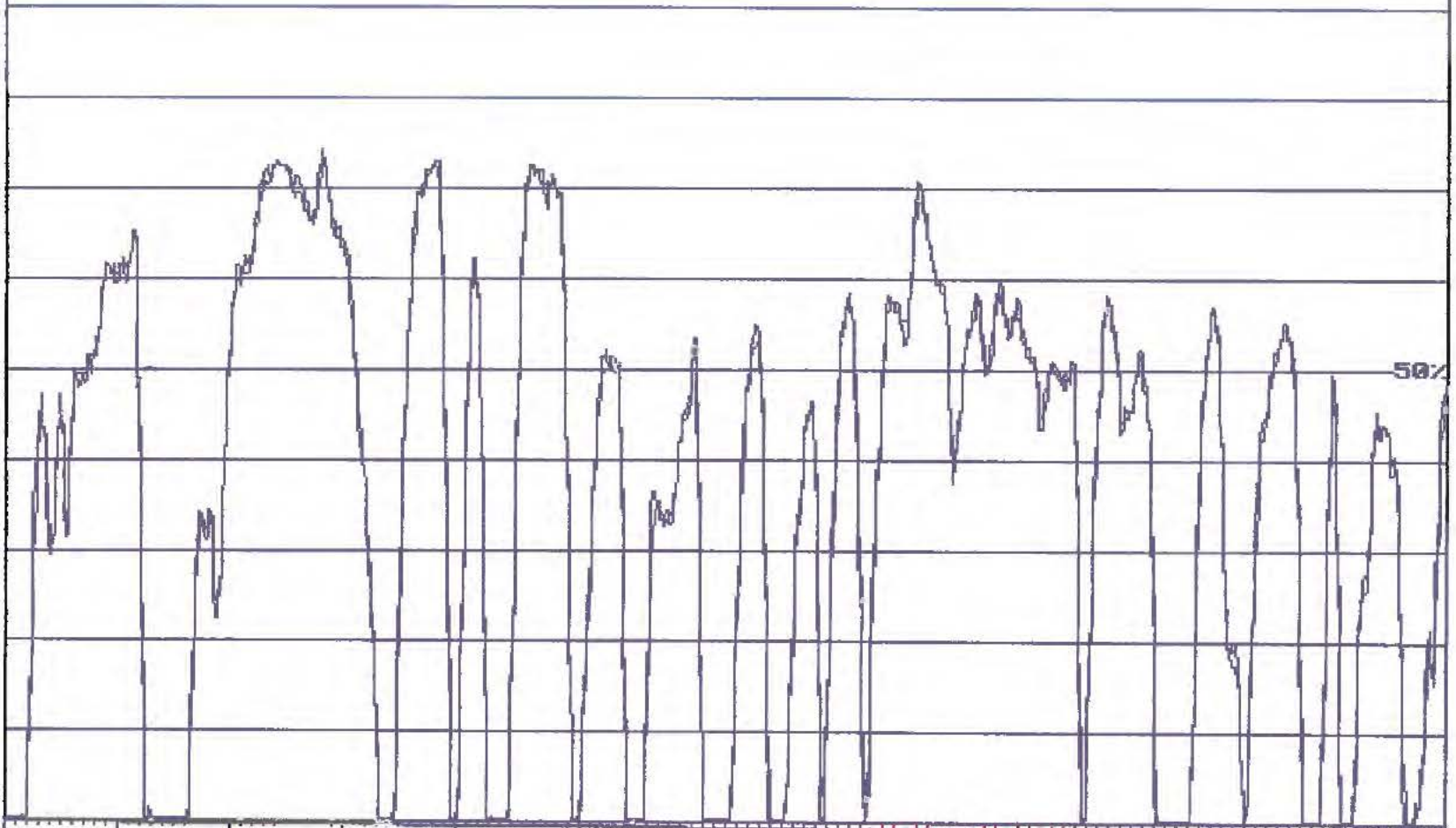
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit
 Accept Reject
 Date 6-18-14 By: [Signature]

'Esc'=new Test

GRAPH Copyright ALS '96

06-20-2014 100%



V6005370a 2463
TIME 0-0a Ir mph 0-50a CYCLEm 0-50a 1280→

CX100

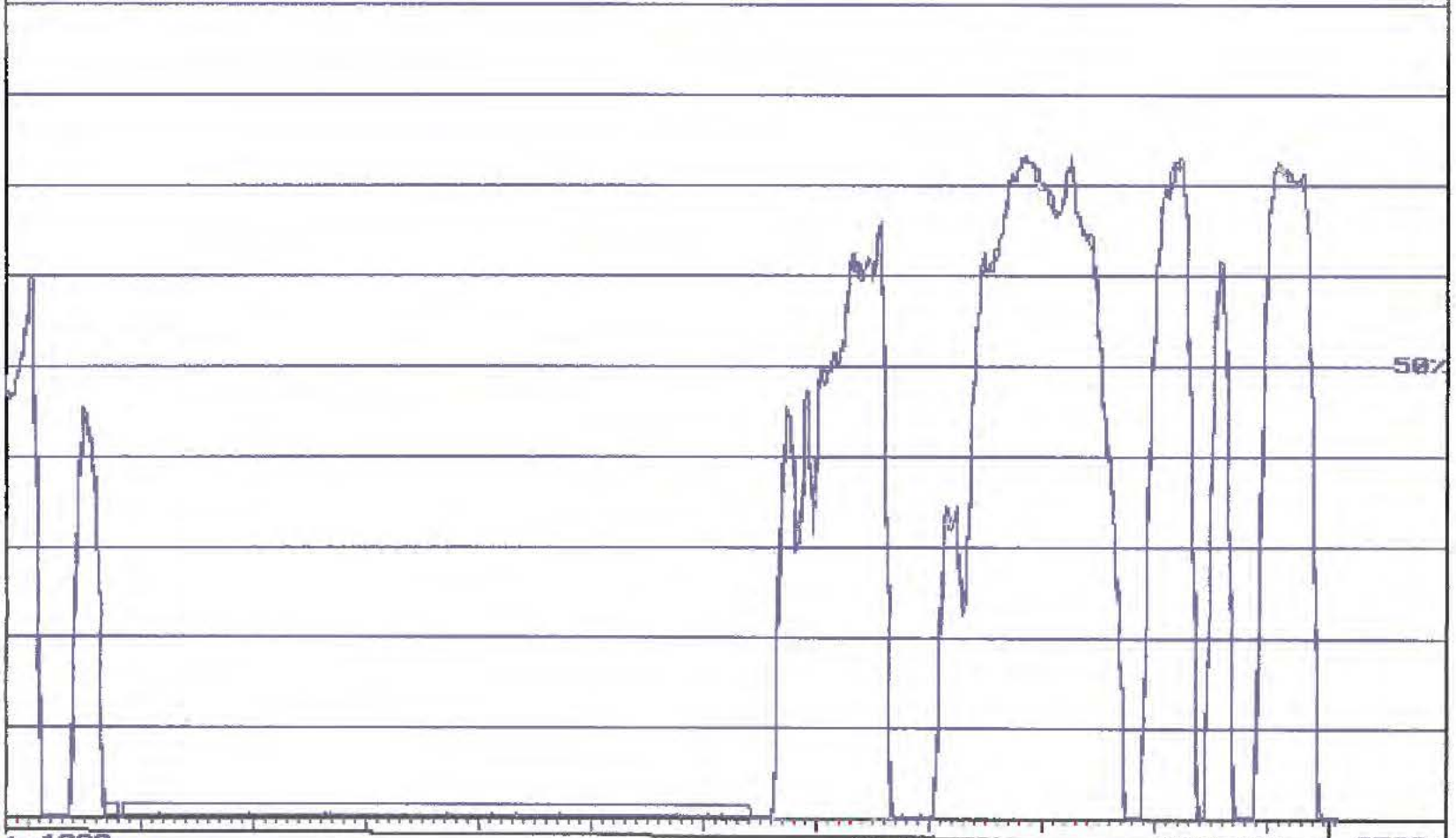
EPA-001277

CEE Quality Audit
Accept Reject
Date 6-28-14 By: L. P. [Signature]

'Eso'=new Test

GRAPH Copyright ALS'96

06-20-2014 100%



← 1280
V6065370a 2463
TIME 0-0a

Tr mph 0-50a CYCLEm 0-50a

→ 2560

CX100

EPA-001278

California Environmental Engineering
 2530 S. Birch Street. Santa Ana California

TEST NUMBER	V6005366	DATE	06-17-2014	RANGE	AUTO
VEHICLE REF	1300006-4	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKE3D1250004	ENGINE FAM.	DTADC.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA	TEST TYPE	PREPH____.MCT	Gr.C/gal.	2433
MAKE	TAO TAO	SHIFT FILE	AUTO .M_T	FUEL Fract.	.8646
MODEL	CY150T	INERTIA WGT	220KG	SP. GRAVITY	.741
YEAR	2013	F0_SET_SI	10.43	N.H.V.	18489
TANK CAP	50%=1.0	F1_SET_SI	0.000	WT FACTOR	0
ODOMETER	2500km	F2_SET_SI	0.0257	WT FACTOR	0
TRANS.	AUTO			WT FACTOR	0
REMARKS	CONFIRMATORY				
REMARKS					
REMARKS					
START TIME	15:33:09	END TIME	15:56:01	FINAL ODO.	2510.6KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	0.3	0.0 for	0.0	0.0 for	0.0	531
2	PHASE 1	2.823	4.538	505.0	0.0 for	0.0	0.0 for	0.0	531
3	PHASE 2	3.742	6.015	867.0	0.0 for	0.0	0.0 for	0.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	513
5	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+b1	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	De1ay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
TEST COMPLETED		1372.0	SECONDS	DVT=	0.0				
PHASE 1		6.566	10.553	1372.3	VOLUME=	7878.5			

REMARKS | OEM BASELINE
 REMARKS |
 REMARKS |

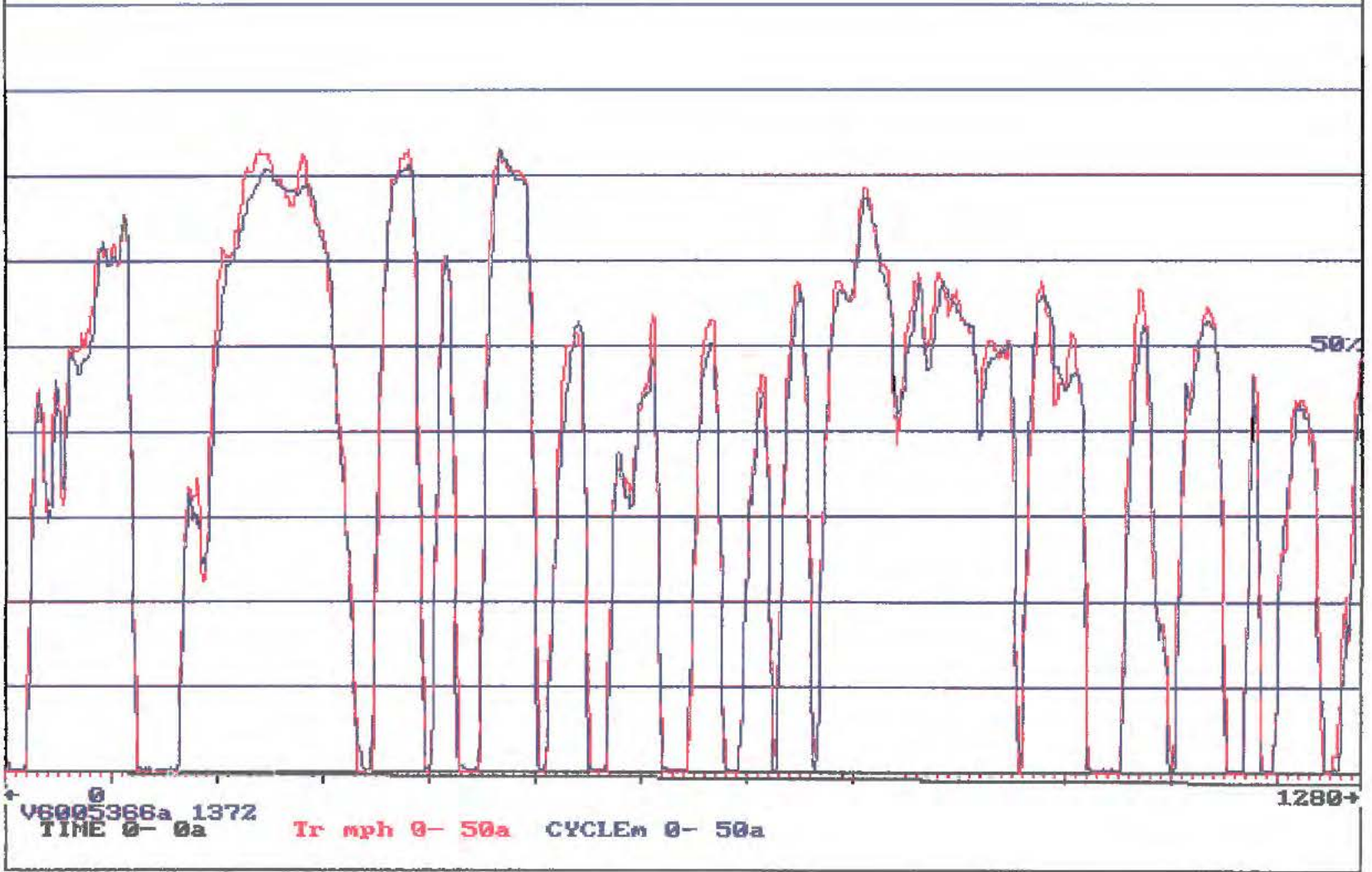
CEE Quality Audit

Accept Reject
 Date 6-28-14 By: [Signature] EPA-001279

'Esc' = new Test

GRAPH Copyright ALS '96

06-20-2014 100%



V6005366a 1372
TIME 0- 0a

Tr mph 0- 50a CYCLE 0- 50a

1280

CX100

EPA-001280

CEE Quality

Accept
Date 6-18-17

Revised *[Signature]*

'Esc'=new Test

GRAPH Copyright ALS'96

06-20-2014 100%

CX100

50%

EPA-001281



+ 1280
V6005366a 1372
TIME 0- 0s

Tr mph 0- 50a CYCLEm 0- 50a

2560+

Deterioration Factors page extracted from the certification application for



Conducted by:

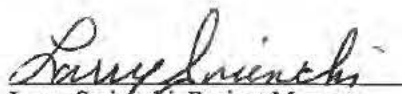
California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 5/30/2014

CEE Project Number:
1300006-5

Prepared for:
TAO TAO, USA

Report Prepared by:


Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 6-5-14

Test Vehicle

Test Vehicle: EDV 3

Engine Family: ETAOXO.12A1T

Vehicle Model: ATA110B

VIN Number: L5NAAF BXE1041955



VEHICLE EMISSION CONTROL INFORMATION
IMPORTED BY TAOTAO USA INC.

ENGINE FAMILY: ETAOX0.12A1T
ENGINE DISPLACEMENT: 107cc
PERMEATION FAMILY: ETAOPMETALC1

THIS VEHICLE MEETS US EPA REGULATIONS FOR 2014 MODEL
YEAR NEW ATVs AND IS CERTIFIED TO 1.5G/KM HC+NOx, 0.95G/KM
CO EPA ENGINE FAMILY EXHAUST EMISSION STANDARD

ENGINE EXHAUST EMISSION CONTROL SYSTEM: TWC-PAR

ENGINE TUNEUP SPECIFICATIONS:
(READ OWNER'S MANUAL FOR MORE DETAILS)

IDLE SPEED: 1400±100rpm

IDLE MIXTURE: NON ADJUSTABLE

VALVE CLEARANCE: 0.05-0.09mm IN & EX

SPARK PLUG: TT/A7RTC SPARK PLUG GAP: 0.8-0.8 mm

LUBRICANT: SAE 15W/40

THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED
GASOLINE FUEL GASOLINE 90 OCTANE OR HIGHER

MANUFACTURED BY TAOTAO USA INC. (KANGYUAN INDUSTRY CO., LTD.)
MANUFACTURED



Test Procedures and Equipment

The ATA110B off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model A1A 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model A1A 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model A1A 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005304	5/30/2014	0.244	0.265	0.509	5.500
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.519	5.500

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA110B

Vehicle Color: Black

Last Six of Vin# 041955

Received at CEE Time: 11:30

Received by: LPSWIENCKI

Recipient Signature: LPSWIENCKI

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-5

Make: TAO TAO Model ATA110R

Vin# LSNAAF1BXE1041955 Year: 2014

Odometer: NA Color: Black

Displace: 110CC Fuel System: 1X1V

Trans: Auto PCV: Yes No

Fuel Cap. 2.3L = .69Gal X 50% .3

Eng. Fam. ETA070.12AIT Evap Fam. _____

Curb Wt. 185lbs = 83.9 + 80 = 163.9KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0020 C 0.0241

Special Instructions: _____

TaoTao Project Work Sheet

Project # 1300006-5 EDV # 3

Vin# LSNAAFTBXE1041955 Req. Miles 250KM

<u>Work Required</u>	<u>Date Completed</u>	<u>Tech.</u>
Check-in	<u>5-19-14</u>	<u>L.S.B.</u>
Pictures	<u>5-19-14</u>	<u>L.S.B.</u>
Durability 250KM	<u>5/23/14</u>	<u>J.V.</u>
Precondition	<u>5/29-14</u>	<u>A.H.</u>
Test CVS75FTP	<u>5-30-14</u>	<u>A.H.</u>
Data QA/QC	<u>6-2-14</u>	<u>L.S.B.</u>
Release	<u> </u>	<u> </u>

Attachment B
Test Data Report

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005304	DATE	05-30-2014	RANGE	AUTO
VEHICLE REF	1300006-5	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAFTBXE1041955	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA	TEST TYPE	EPAAH____MCT	Gr.C/gal.	2433
MAKE	TAO TAO	SHIFT FILE	AUTO .M_T	FUEL Fract.	.8646
MODEL	ATA110B	INERTIA WGT	160KG	SP. GRAVITY	.741
YEAR	2014	F0_SET_SI	5.19	N.H.V.	18489
TANK CAP	50%=.3	F1_SET_SI	0.000	WT FACTOR	.43
ODOMETER	271.7km	F2_SET_SI	0.0241	WT FACTOR	1
TRANS.	AUTO			WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					
START TIME	13:38:25	END TIME	14:19:32	FINAL ODO.	286.6KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.3	0.0 for	0.0	220.7 for	-1.2	1
2	Delay 10	0.000	0.000	10.0	0.0 for	0.0	223.6 for	-67.7	1
3	Ready	0.000	0.000	0.2	0.0 for	0.0	361.8 for	-23.5	281
4	Crank	0.000	0.000	2.5	0.0 for	0.0	458.6 for	-34.1	795
5	Phase 1	2.700	4.340	505.0	0.0 for	0.0	804.5 for	-12.1	787
6	Phase 2	3.863	6.208	864.0	0.0 for	0.0	1596.2 for	-44.2	1831
7	Eng off	0.000	0.000	2.7	0.0 for	0.0	1641.7 for	-24.1	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	1666.6 for	-1.9	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	1736.8 for	-22.4	775
10	Soak	0.015	0.024	525.0	0.0 for	0.0	1832.6 for	-33.6	2
11	Ready	0.000	0.001	16.6	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	0.2	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.703	4.344	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2454.6 SECONDS DVT= 268.2

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry=	73.2	Tdp =	54.9
SAMPLE	26.88	151.7	9.4	0.191	3.3	BARO.=	753.50	SEC =	507.7
AMBIENT	2.88	0.6	0.0	0.044	1.8	NoxKf=	0.953	VOLC=	2819.2
GRAMS	1.107	14.045	1.368	215.88	1.038	M.P.G.	99.69	DF =	64.158
GMS/MI	0.410	5.200	0.506	79.93	.384	MPGnhv	100.67	MI =	2.701
G/Mwgt	0.073	0.920	0.090	14.14	.068	R-H =	52.70	KM =	4.341

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry=	74.2	Tdp =	54.6
SAMPLE	21.33	252.7	5.9	0.151	3.6	BARO.=	753.50	SEC =	871.7
AMBIENT	2.50	0.8	0.3	0.043	1.8	NoxKf=	0.950	VOLC=	4841.0
GRAMS	1.491	40.207	1.396	272.52	1.348	M.P.G.	101.13	DF =	75.111
GMS/MI	0.386	10.408	0.361	70.55	.349	MPGnhv	102.05	MI =	3.863
G/Mwgt	0.193	5.204	0.181	35.27	.174	R-H =	50.40	KM =	6.209

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry=	72.8	Tdp =	53.5
SAMPLE	26.21	224.6	10.2	0.176	3.7	BARO.=	753.50	SEC =	505.2
AMBIENT	2.92	1.4	0.3	0.043	1.8	NoxKf=	0.940	VOLC=	2810.2
GRAMS	1.071	20.682	1.417	194.73	.981	M.P.G.	104.45	DF =	66.640
GMS/MI	0.396	7.651	0.524	72.04	.363	MPGnhv	105.49	MI =	2.703
G/Mwgt	0.093	1.795	0.123	16.90	.085	R-H =	50.80	KM =	4.345

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.393	8.840	0.425	72.56	.358	M.P.G.	101.63	NHVmpg	102.588
GRAMS/KM	0.244	5.500	0.265	45.14	.223	L/100k	2.31	NHVkp1	43.618

CEE Quality Audit

Accept Reject
Date 6-2-14 By: EPA-001297

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005304	DATE	05-30-2014	RANGE	AUTO
VEHICLE REF	1300006-5	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAFTBXE1041955	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr. C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	271.7Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS					
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	28.13	156.6	10.2	0.194	0.87	13:47:33
ZERO	set	0.16	0.1	0.3	0.002	0.01	13:49:08
OFFSET 10% Lim		+0.2	+0.0	+0.3	+0.1	+0.0	
SPAN	set	100.27	236.8	92.6	1.936	48.07	13:50:09
OFFSET 10% Lim		-0.2	+2.3	-0.5	+0.0	+0.5	
ZERO	set	-0.38	-0.4	0.0	0.001	-0.01	13:51:10
AMBIENT1	read	2.88	0.6	0.0	0.044	1.86	13:52:10
SAMPLE1	read	26.88	151.7	9.4	0.191	3.32	13:53:10
ZERO	chek	-0.11	-0.1	-0.2	0.001	0.01	13:54:10
SPAN	chek	101.11	230.3	93.1	1.943	47.96	13:55:10
SPAN VALUES		100.50	230.0	93.1	1.935	47.80	END # 1

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	21.87	255.8	6.5	0.150	4.80	14:02:04
ZERO	set	0.20	0.6	0.2	0.000	0.00	14:03:04
OFFSET 10% Lim		+0.2	+0.2	+0.2	+0.0	+0.0	
SPAN	set	100.29	232.7	92.8	1.935	47.48	14:04:05
OFFSET 10% Lim		-0.2	+0.9	-0.3	+0.0	-0.6	
ZERO	set	-0.46	-0.4	0.2	0.002	0.00	14:05:06
AMBIENT2	read	2.50	0.8	0.3	0.043	1.86	14:06:06
SAMPLE2	read	21.33	252.7	5.9	0.151	3.64	14:07:06
ZERO	chek	-0.25	-0.2	0.1	0.002	0.00	14:08:06
SPAN	chek	100.68	231.7	92.9	1.941	48.03	14:09:36
SPAN VALUES		100.50	230.0	93.1	1.935	47.80	END # 2

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	25.69	227.2	10.0	0.178	41.37	14:27:47
ZERO	set	-0.08	-0.6	0.3	0.000	0.01	14:29:12
OFFSET 10% Lim		-0.1	-0.2	+0.3	+0.0	+0.0	
SPAN	set	100.64	234.1	93.3	1.935	47.65	14:30:13
OFFSET 10% Lim		+0.1	+1.4	+0.2	+0.0	-0.3	
ZERO	set	-0.12	0.0	0.2	0.002	0.00	14:31:14
AMBIENT3	read	2.92	1.4	0.3	0.043	1.85	14:32:14
SAMPLE3	read	26.21	224.6	10.2	0.176	3.76	14:33:14
ZERO	chek	0.14	0.2	0.1	0.001	-0.01	14:34:14
SPAN	chek	100.67	229.9	93.2	1.929	47.80	14:35:14
SPAN VALUES		100.50	230.0	93.1	1.935	47.80	END # 3

□

CEE Quality Audit

Accept Reject
Date 6-2-14 By: J. Duran

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005304

Make:	TAO TAO	Eng. Fam:	ETAOXO.12A1T
Model:	ATA110B	Evap Fam:	
Year:	2014	Date:	May 30, 2014
VIN:	L5NAAFTBXE1041955	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.90
DF	64.16
V-Mix	2819.20
Miles	2.70
Km	4.35
Nox kf	0.95

Phase II Inputs	
Ambient	0.00
Sample	0.70
DF	75.11
V-Mix	4841.00
Miles	3.86
Km	6.22
Nox kf	0.95

Phase III Inputs	
Ambient	0.00
Sample	0.80
DF	66.64
V-Mix	2810.20
Miles	2.70
Km	4.35
Nox kf	0.94

Phase I Results	
N2Oconc	0.900
N2O mass	0.131
g/mi	0.049
g/km	0.030
g/m wgt	0.021
g/km wgt	0.013

Phase II Results	
N2Oconc	0.700
N2O mass	0.176
g/mi	0.045
g/km	0.028
g/m wgt	0.045
g/km wgt	0.028

Phase III Results	
N2Oconc	0.800
N2O mass	0.116
g/mi	0.043
g/km	0.027
g/m wgt	0.025
g/km wgt	0.015

Total N2O in Grams per mile	0.090946751
Total N2O in Grams per kilometer	0.056511691

(ii) Density_{N2O} = Density of nitrous oxide is 51.81 g/ft³ (1.83 kg/m³), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

V_{mix} = Density_{N2O} × (N₂ O_{conc} / 1,000,000)

(B) N₂ O_{conc} = N₂ O_e - N₂ O_d (1 - (1/DF)).

Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

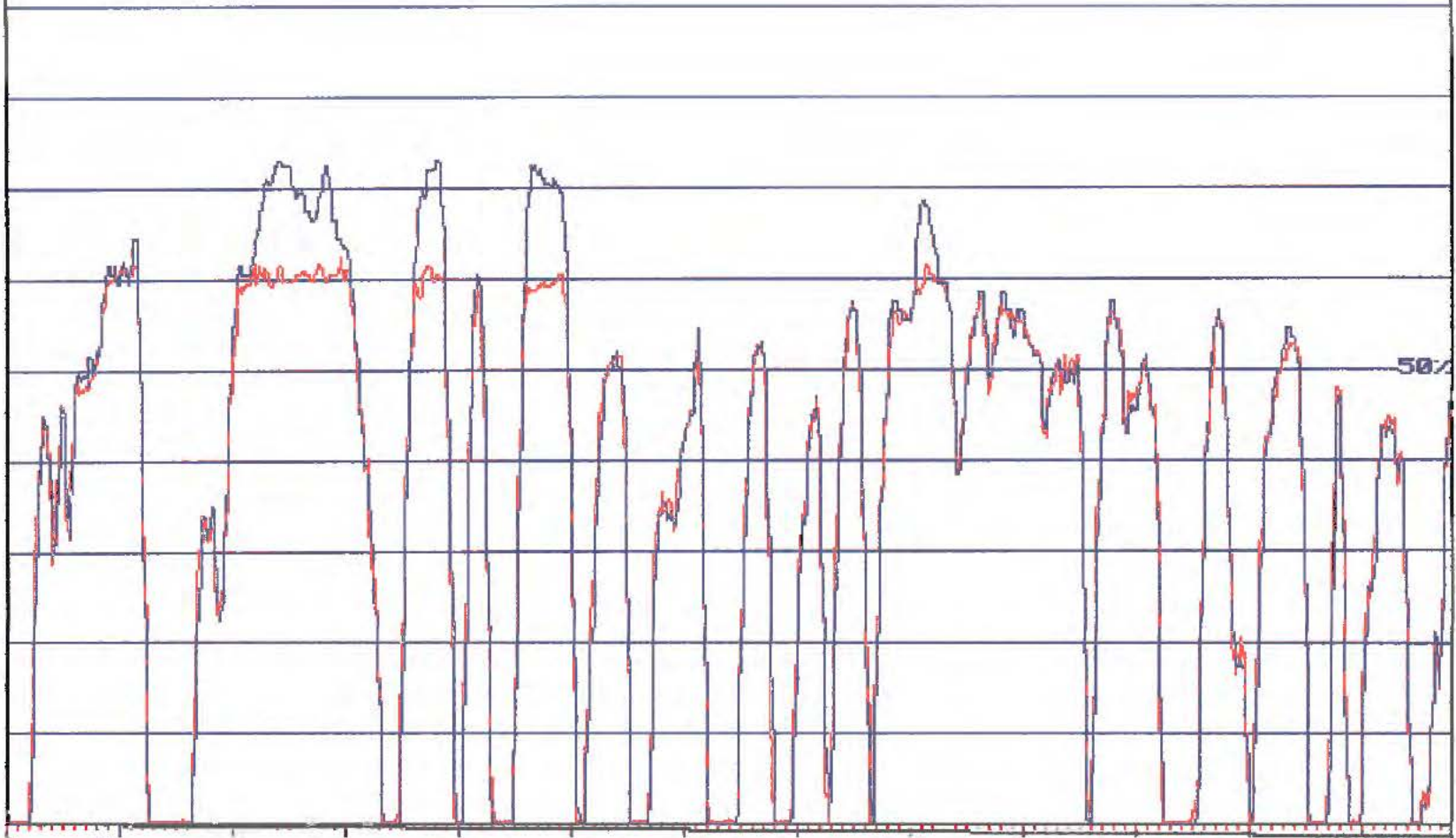
CEE Quality Audit

Accept Reject
 Date 6-2-14 By: Alex Herrera

'Esc'=new Test

GRAPH Copyright ALS'98

06-10-2014 100%



U6005304a 2458
TIME 0- 0a

CYCLEm 0- 50a Tr mph 0- 50a

1200+

CCE Quality Audit

Accept Reject
Date 6-2-14 By *[Signature]*

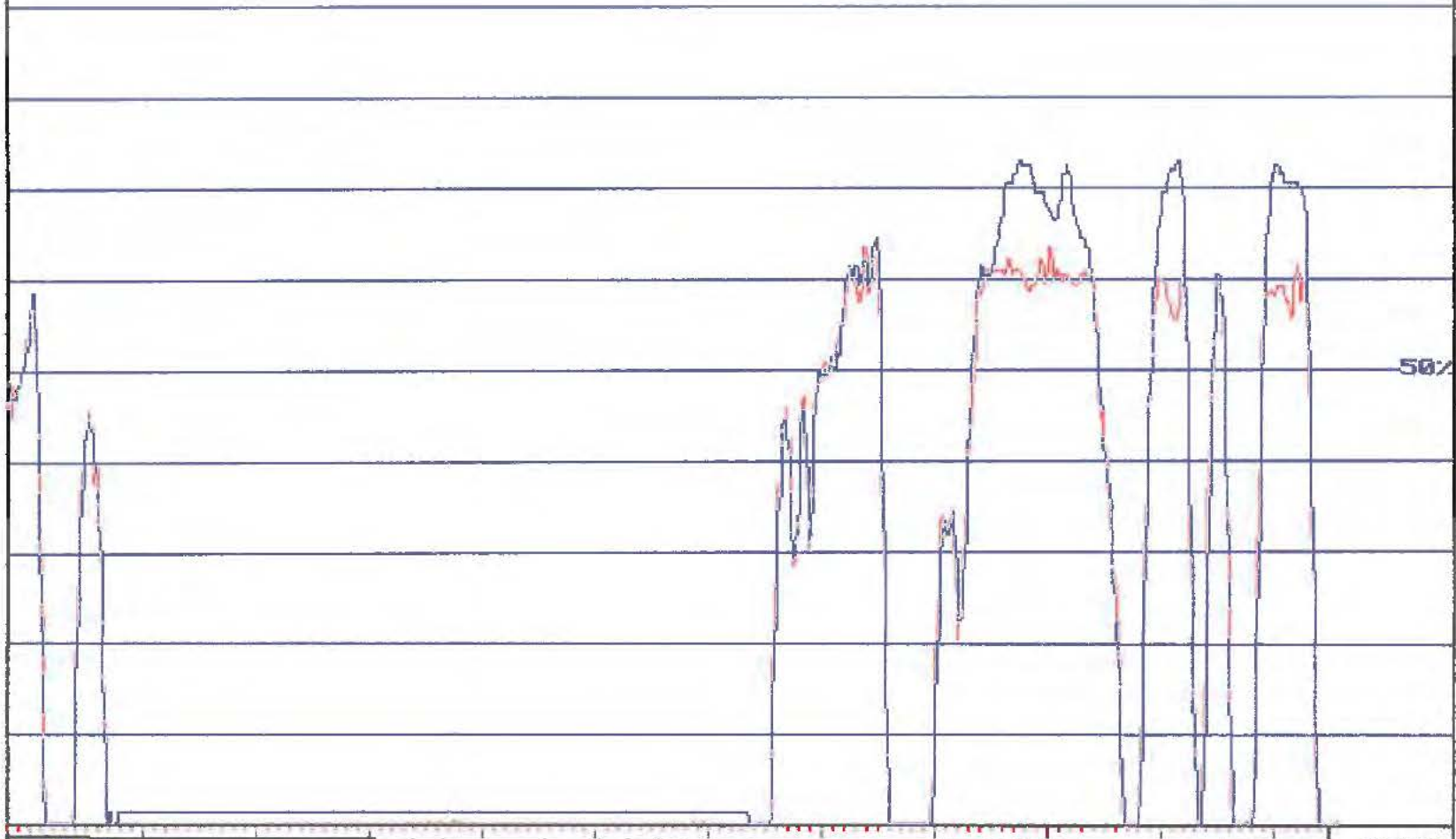
CX101

EPA-001300

'Eso'-new Test

GRAPH Copyright ALS'96

06-10-2014 100%



+ 1280
V6005304a 2456
TIME 0- 0a

CYCLEm 0- 50a Tr mph 0- 50a

2568+

CX101

EPA-001301

California Environmental Engineering
 2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005297	DATE	05-29-2014	RANGE	AUTO
VEHICLE REF	1300006-5	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAFTBXE1041955	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%= .3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	261.1Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS					
REMARKS					
REMARKS					
START TIME	11:03:04	END TIME	11:44:20	FINAL ODO.	271.7KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	CRANK	0.000	0.000	0.2	0.0 for	0.0	227.1 for	-4.4	531
2	PHASE 1	2.726	4.381	505.0	0.0 for	0.0	234.2 for	-17.0	531
3	PHASE 2	3.854	6.195	867.0	0.0 for	0.0	256.3 for	-4.8	531
4	END	0.000	0.000	0.0	0.0 for	0.0	278.2 for	-5.5	513
5	END	0.000	0.000	0.0	0.0 for	0.0	364.5 for	-4.6	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	369.3 for	-13.9	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	461.0 for	-29.8	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	1229.5 for	-7.5	0
9	Soak+b1	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
TEST COMPLETED		1372.0	SECONDS	DVT=	93.5				

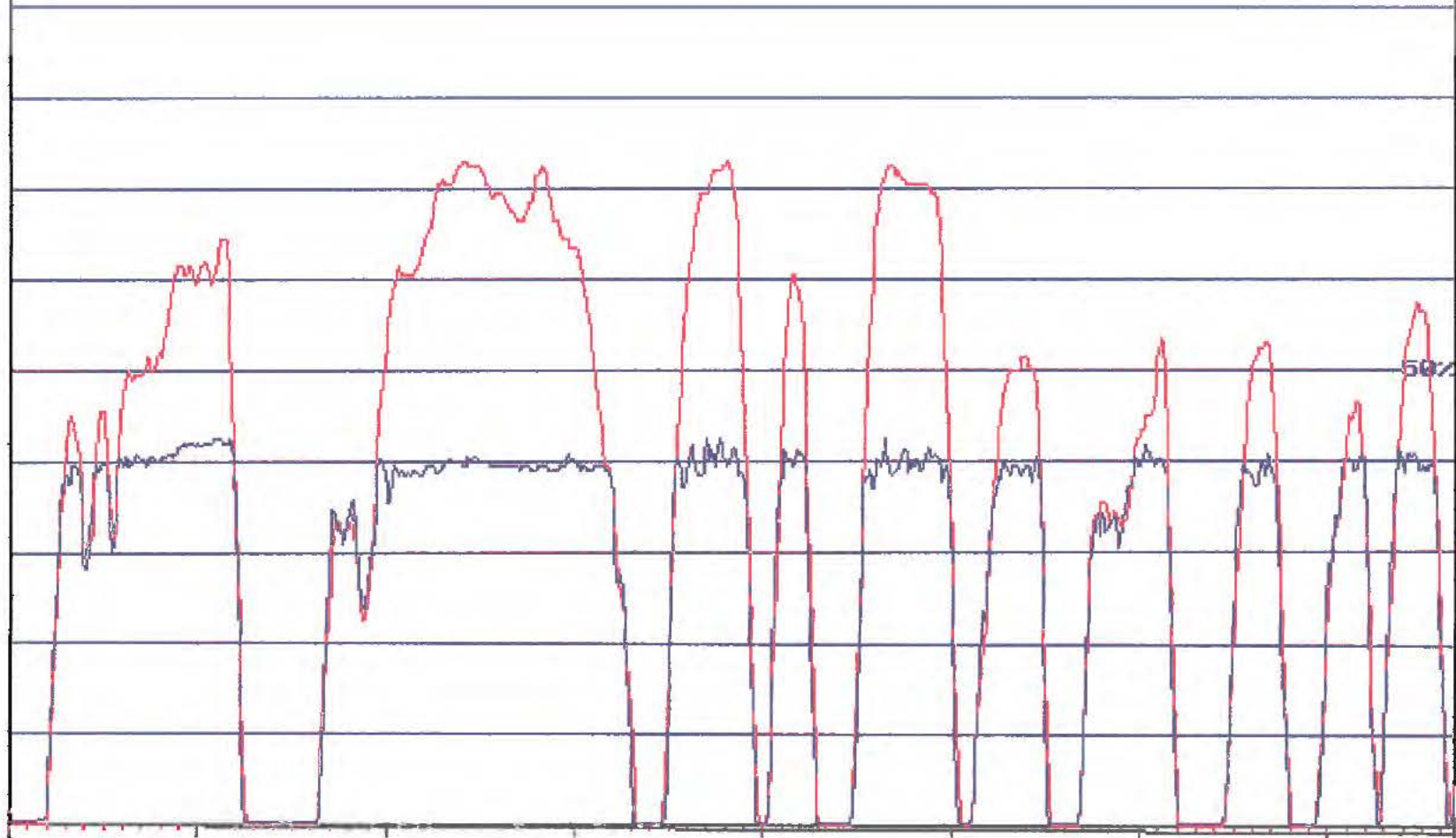
REMARKS
 REMARKS
 REMARKS

CEE Quality Audit
 Accept: Reject:
 Date: 6-2-14 By: [Signature]

'Eso' = new Test

GRAPH Copyright ALS'96

06-10-2014 100%



V6005297a 2465
TIME 0- 0a Tr mph 0- 50a CYCLEm 0- 50a 768+

CEE Quality Audit

Accept Reject
Date 6-2-14 By: *[Signature]*

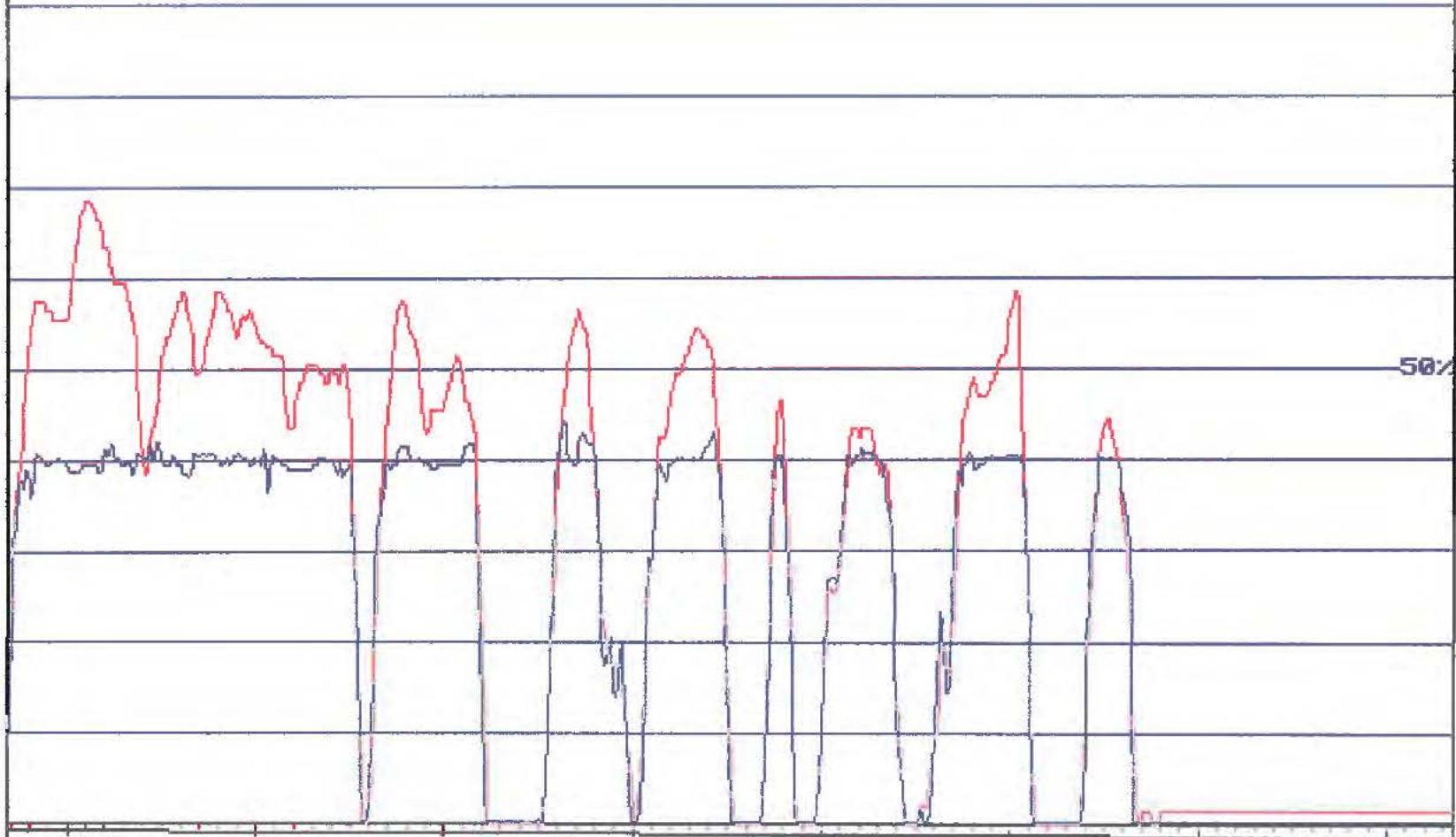
CX101

EPA-001303

'Esc'=new Test

GRAPH Copyright ALS'96

06-10-2014 100%



768
1536
2465
TIME 0-0a

Tr mph 0- 50a CYCLEm 0- 50a

1536+

CX101

EPA-001304

Deterioration Factors page extracted from the certification application for

Deterioration Factors page extracted from the certification application for



Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 7/30/2014

CEE Project Number:
1300006-6

Prepared for:
TAO TAO, USA

Report Prepared by:


Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 8-5-14



Test Procedures and Equipment

The CY50E on road scooter was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model AIA 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model AIA 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model AIA 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005498	7/30/2014	0.345	0.146	0.491	6.621
Multiplicative Deterioration Factors (provided by TaoTao)				1.000	1.000
Full Useful Life Emissions				0.491	6.621

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: GTS-50

Vehicle Color: Brown

Last Six of Vin# 101627

Received at CEE Time: 11:50

Received by: L. P. Swiencki

Receiptant Signature: L. P. Swiencki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-6

Make: TAOTAO Model CY50E/GT5-50

Vin# 19NTACK1D1101627 Year: 2013

Odometer: 1.6 KM Color: BROWN

Displace: 49 cc Fuel System: 1X1V

Trans: CVT PCV: λ Yes No

Fuel Cap. 1.32 gal X 50% .66

Eng. Fam. DTAOC.049MC2 Evap Fam. _____

Curb Wt. 85KG + 80 = 165KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0000 C 0.0241

Special Instructions: _____

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300000-6
 Make: TAOTAO
 VIN# L9NTACX1D1101627

CLIENT: TAOTAO
 MODEL: GT5-50
 ENG. FAM: DTADC.049MC2

YEAR: 2013

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS
6-29-14	4:30	11:56	232.4	232.4	125.8	GARRY	LOW BATTERY STARTER BROKEN
8-26-14	4:30	11:40	232.4	469.2	253.5	GARRY	
8-27-14	4:30	9:00	469.2	592.8	320.3	GARRY	
7-3-14	8:20	5:00	542	710		JANU	
7-7-14	8:20	5:00	710	840		JANU	
7-8-14	8:25	5:00	840	967		JANU	
7-9-14	8:20	5:00	967	1180		JANU	
7-22-14	8:20	5:00	1180	1315		JANU	
7-14-14	8:20	5:00	1315	1452		JANU	
7-15-14	8:20	5:00	1452	1600		JANU	
7-17-14	8:20	5:00	1600	1801		JANU	
7-22-14	8:00	5:00	1800	2006		JANU	
7-27-14	8:20	5:00	2006	2302		JANU	
7-29-14	8:20	5:00	2302	2501		JANU	

QX402

EPA001317

COMMENTS: _____

CEE Quality Audit
 Accept Reject
 Date 8-1-14 By: *[Signature]*

TaoTao Project Work Sheet

Project # 1300006-6 EDV # 4

Vin# L9NTACX1P1101627 Req. Miles 2500KM

<u>Work Required</u>	<u>Date Completed</u>	<u>Tech.</u>
Check-in	<u>5-16-14</u>	<u>LPS</u>
Pictures	<u>5-16-14</u>	<u>LPS</u>
Durability 2500KM	<u>7-29-14</u>	<u>Javier</u>
Precondition	<u>7-29-14</u>	<u>Rene Acosta</u>
Test CVS75FTP	<u>7-30-14</u>	<u>Alex Hernandez</u>
Data QA/QC	<u>8-4-14</u>	<u>LPS</u>
Release	<u> </u>	<u> </u>

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California

TEST NUMBER	V6005498	DATE	07-30-2014	RANGE	AUTO
VEHICLE REF	1300006-6	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTACX1D1101627	ENGINE FAM.	DTA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.c/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH .MCT	FUEL Fract.	.8646
MODEL	CY50E/GT5-50	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2528.8Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS	LOW SPEED TRACE TO 31.2MPH				
REMARKS					
START TIME	08:29:42	END TIME	09:10:51	FINAL ODO.	2542.2KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.3	0.0 for	0.0	0.0 for	0.0	1
2	Delay 10	0.001	0.001	10.0	0.0 for	0.0	0.0 for	0.0	1
3	Ready	0.000	0.000	0.5	0.0 for	0.0	0.0 for	0.0	281
4	Crank	0.000	0.000	1.4	0.0 for	0.0	0.0 for	0.0	795
5	Phase 1	2.496	4.012	505.0	0.0 for	0.0	0.0 for	0.0	787
6	Phase 2	3.319	5.335	864.0	0.0 for	0.0	0.0 for	0.0	1831
7	Eng off	0.000	0.000	3.3	0.0 for	0.0	0.0 for	0.0	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	0.0 for	0.0	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	775
10	Soak	0.016	0.026	525.0	0.0 for	0.0	0.0 for	0.0	2
11	Ready	0.000	0.001	16.9	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	1.6	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.501	4.020	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2456.9 SECONDS DVT= 1.9

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry= 72.5	Tdp = 55.3
SAMPLE	47.03	438.4	2.0	0.117	4.1	BARO.= 755.50	SEC = 506.9
AMBIENT	3.87	0.5	0.1	0.041	1.7	NoxKf= 0.957	VOLC= 2826.2
GRAMS	1.994	40.804	0.279	112.11	1.884	M.P.G. 121.86	DF = 80.946
GMS/MI	0.799	16.348	0.112	44.92	.754	MPGnhv 125.61	MI = 2.496
G/Mwgt	0.147	3.017	0.021	8.29	.139	R-H = 54.80	KM = 4.012

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry= 73.7	Tdp = 55.5
SAMPLE	23.81	153.9	4.2	0.114	2.8	BARO.= 755.50	SEC = 872.3
AMBIENT	3.90	0.5	0.1	0.041	1.8	NoxKf= 0.959	VOLC= 4859.0
GRAMS	1.583	24.576	1.035	184.93	1.496	M.P.G. 129.45	DF = 101.692
GMS/MI	0.477	7.402	0.312	55.70	.450	MPGnhv 131.71	MI = 3.320
G/Mwgt	0.238	3.701	0.156	27.85	.225	R-H = 53.00	KM = 5.336

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry= 73.6	Tdp = 55.3
SAMPLE	33.76	373.6	2.5	0.121	3.8	BARO.= 755.50	SEC = 506.6
AMBIENT	3.81	0.3	0.0	0.042	1.7	NoxKf= 0.957	VOLC= 2822.0
GRAMS	1.382	34.733	0.366	116.34	1.287	M.P.G. 127.15	DF = 82.851
GMS/MI	0.553	13.888	0.146	46.52	.514	MPGnhv 129.77	MI = 2.501
G/Mwgt	0.135	3.401	0.036	11.39	.126	R-H = 52.80	KM = 4.020

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY	
GRAMS/MI	0.555	10.641	0.234	51.46	.522	M.P.G. 127.42	NHVmpg 130.068
GRAMS/KM	0.345	6.621	0.146	32.02	.325	L/100k 1.85	NHVkp1 55.302

CEE Quality Audit

Accept Reject
Date 8-9-14 By: [Signature] EPA-001320

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005498	DATE	07-30-2014	RANGE	AUTO
VEHICLE REF	1300006-6	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTACX1D1101627	ENGINE FAM.	DTA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	CY50E/GT5-50	SHIFT FILE	AUTO .M.T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2528.8km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS	LOW SPEED TRACE TO 31.2MPH				
REMARKS					

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	46.71	422.6	2.2	0.117	3.75	08:38:54
ZERO	set	-0.38	-0.1	0.1	0.001	-0.02	08:39:54
OFFSET	10% Lim	-0.4	-0.0	+0.3	+0.0	-0.0	
SPAN	set	96.23	948.8	27.7	1.945	47.92	08:40:55
OFFSET	10% Lim	-1.1	+0.1	+0.7	+0.5	-0.2	
ZERO	set	-0.32	0.0	0.0	-0.001	0.00	08:41:56
AMBIENT1	read	3.87	0.5	0.1	0.041	1.79	08:42:56
SAMPLE1	read	47.03	438.4	2.0	0.117	4.15	08:43:56
ZERO	chek	-0.14	-0.4	0.0	-0.001	0.00	08:44:56
SPAN	chek	98.24	955.9	27.3	1.939	48.19	08:45:56
SPAN VALUES		97.30	948.0	27.5	1.935	48.00	END # 1

MODE		THCd3A	COLd1A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	23.01	91.6	4.0	0.114	2.75	08:53:22
ZERO	set	-0.07	0.3	0.0	-0.001	0.02	08:54:22
OFFSET	10% Lim	-0.1	+0.1	+0.0	-0.0	+0.0	
SPAN	set	97.21	236.8	27.2	1.937	48.16	08:55:23
OFFSET	10% Lim	-0.1	+1.6	-1.0	+0.1	+0.3	
ZERO	set	-0.22	-0.6	0.1	0.000	0.03	08:56:24
AMBIENT2	read	3.90	0.5	0.1	0.041	1.82	08:57:24
SAMPLE2	read	23.81	153.9	4.2	0.114	2.89	08:58:24
ZERO	chek	-0.08	-0.6	0.1	-0.001	0.01	08:59:24
SPAN	chek	97.93	232.4	27.4	1.932	48.15	09:00:24
SPAN VALUES		97.30	232.0	27.5	1.935	48.00	END # 2

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	34.00	279.6	2.5	0.120	3.68	09:11:21
ZERO	set	0.11	0.7	0.0	0.000	0.04	09:12:21
OFFSET	10% Lim	+0.1	+0.2	+0.0	+0.0	+0.1	
SPAN	set	98.03	237.3	26.8	1.940	47.37	09:13:22
OFFSET	10% Lim	+0.7	+1.8	-2.3	+0.2	-1.3	
ZERO	set	-0.33	-1.1	0.0	-0.002	0.03	09:14:23
AMBIENT3	read	3.81	0.3	0.0	0.042	1.78	09:15:23
SAMPLE3	read	33.76	373.6	2.5	0.121	3.81	09:16:23
ZERO	chek	-0.19	-0.6	0.1	-0.001	0.00	09:17:23
SPAN	chek	97.28	232.2	27.6	1.939	48.11	09:18:23
SPAN VALUES		97.30	232.0	27.5	1.935	48.00	END # 3

□

CEE Quality Audit
Accept ✓ Reject _____
Date 8-4-14 By: [Signature]

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005498

Make:	TAO TAO	Eng. Fam:	DTAOC.049MC2
Model:	CY50E	Evap Fam:	
Year:	2013	Date:	July 30, 2014
VIN:	L9NTACX1D1101627	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.30
DF	80.95
V-Mix	2826.20
Miles	2.50
Km	4.02
Nox kf	0.96

Phase II Inputs	
Ambient	0.00
Sample	0.60
DF	101.69
V-Mix	4859.00
Miles	3.32
Km	5.34
Nox kf	0.96

Phase III Inputs	
Ambient	0.00
Sample	0.30
DF	82.85
V-Mix	2822.00
Miles	2.50
Km	4.02
Nox kf	0.96

Phase I Results	
N2Oconc	0.300
N2O mass	0.044
g/mi	0.018
g/km	0.011
g/m wgt	0.008
g/km wgt	0.005

Phase II Results	
N2Oconc	0.600
N2O mass	0.151
g/mi	0.046
g/km	0.028
g/m wgt	0.046
g/km wgt	0.028

Phase III Results	
N2Oconc	0.300
N2O mass	0.044
g/mi	0.018
g/km	0.011
g/m wgt	0.010
g/km wgt	0.006

Total N2O in Grams per mile	0.06307403
------------------------------------	-------------------

Total N2O in Grams per kilometer	0.039192385
---	--------------------

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft³ (1.83 kg/m³), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1,000,000)$

(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit

Accept Reject
 Date 8-4-14 By: [Signature]

California Environmental Engineering
 2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005494	DATE	07-29-2014	RANGE	AUTO
VEHICLE REF	1300006-6	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTACX1D1101627	ENGINE FAM.	DTA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH____.MCT	FUEL Fract.	.8646
MODEL	CY50E/GT5-50	SHIFT FILE	AUTO .M_LT	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	2519.5km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS	CONFIRMATORY				
REMARKS					
REMARKS					
START TIME	14:06:52	END TIME	14:29:46	FINAL ODO.	2528.8

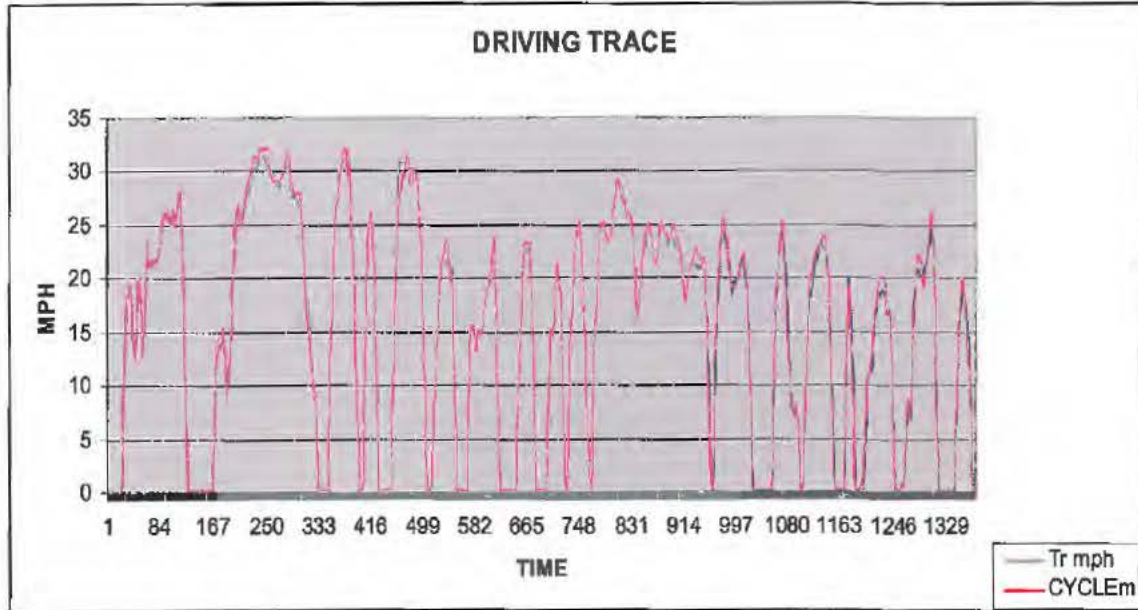
#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	1.7	0.0 for	0.0	0.0 for	0.0	531
2	PHASE 1	2.464	3.961	505.0	0.0 for	0.0	0.0 for	0.0	531
3	PHASE 2	3.324	5.342	867.0	0.0 for	0.0	0.0 for	0.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	513
5	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	Eng off	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+bl	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 0.0
 PHASE 1 5.788 9.304 1373.7 VOLUME= 7650.4

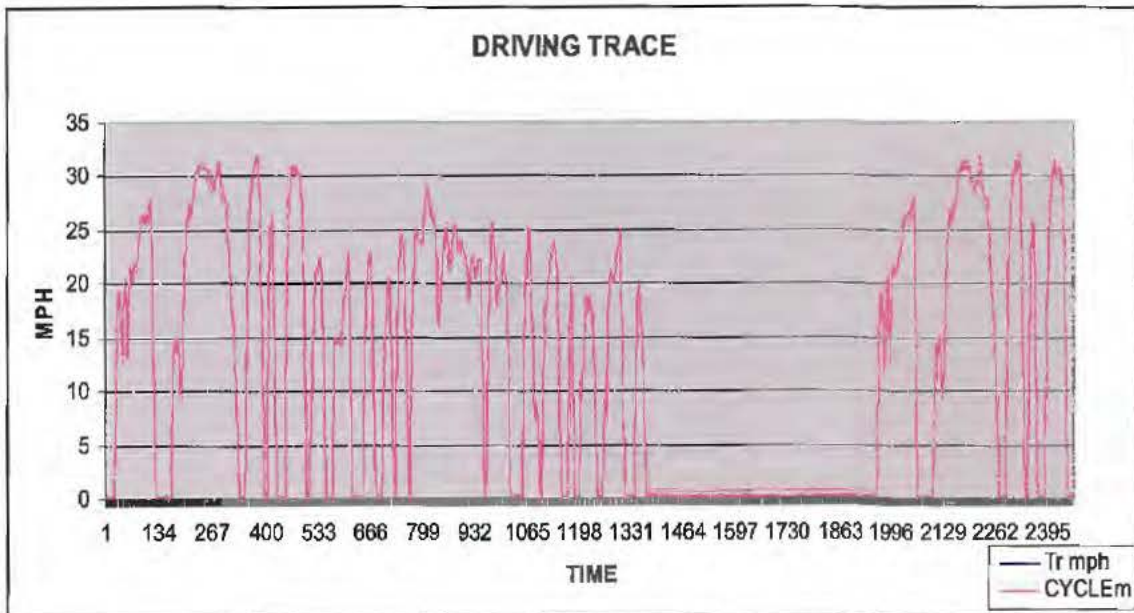
REMARKS | CONFIRMATORY
 REMARKS |
 REMARKS |

CEE Quality Audit
 Accept Reject
 Date 8-4-24 By: [Signature]

Test# V6005494 7/29/2014 Preconditioning CY50E Vin# L9NTACX1D1101627



Test# V6005498 7/30/2014 FTP CY50E Vin# L9NTACX1D1101627



CEE Quality Audit

CX102

Accept Reject EPA-001324
Date 8-4-14 By: [Signature]

Deterioration Factors page extracted from the certification application for



Conducted by:

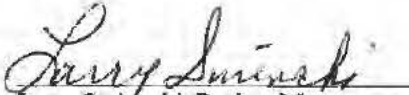
California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 5/29/2014

CEE Project Number:
1300006-7

Prepared for:
TAO TAO, USA

Report Prepared by:


Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 6-5-14

Test Vehicle

Test Vehicle: EDV 5

Engine Family: ETAOXO.12A1T

Vehicle Model: ATA125-D

VIN Number: L5NAAHTJ8E1037762





Test Procedures and Equipment

The ATA125-D off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model AIA 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model AIA 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model AIA 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005296	5/29/2014	0.234	0.260	0.494	6.116
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.503	6.116

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA110B

Vehicle Color: Red

Last Six of Vin# 037762

Received at CEE Time: 11:30

Received by: L. P. Swiewski

Receiptant Signature: L. P. Swiewski

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-7

Make: TAOTAO Model ATA110B

Vin# 15NAAHTJ8E1037762 Year: 2014

Odometer: NA Color: Red

Displace: 110CC Fuel System: IXIV

Trans: Auto PCV: Yes No

Fuel Cap. 2.3L = .6 gal X 50% .3

Eng. Fam. ETADXD.12AIT Evap Fam. _____

Curb Wt. 185 lbs

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0000 C 0.0241

Special Instructions: _____

TaoTao Project Work Sheet

Project # 1300006-7 EDV # 5

Vin# LSNAAHTJ8E1037762 Req. Miles 250KM

<u>Work Required</u>	<u>Date Completed</u>	<u>Tech.</u>
Check-in	<u>5-19-14</u>	<u>[Signature]</u>
Pictures	<u>5-19-14</u>	<u>[Signature]</u>
Durability 250KM	<u>5-23-14</u>	<u>[Signature]</u>
Precondition	<u>5-28-14</u>	<u>A.H.</u>
Test CVS75FTP	<u>5-29-14</u>	<u>A.H.</u>
Data QA/QC	<u>5-30-14</u>	<u>[Signature]</u>
Release	<u> </u>	<u> </u>

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005296	DATE	05-29-2014	RANGE	AUTO
VEHICLE REF	1300006-7	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ8E1037762	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA	TEST TYPE	EPAAH____.MCT	Gr.C/gal.	2433
MAKE	TAO TAO	SHIFT FILE	AUTO .M_T	FUEL Fract.	.8646
MODEL	ATA110B	INERTIA WGT	160KG	SP. GRAVITY	.741
YEAR	2014	F0_SET_SI	5.19	N.H.V.	18489
TANK CAP	50%- .3	F1_SET_SI	0.000	WT FACTOR	.43
ODOMETER	260.7km	F2_SET_SI	0.0241	WT FACTOR	1
TRANS.	AUTO			WT FACTOR	.57
REMARKS	WOT				
REMARKS	CONFIRMATORY TEST				
REMARKS					
START TIME	09:56:28	END TIME	10:37:49	FINAL ODO.	275.6KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.4	0.0 for	0.0	112.3 for	-1.5	1
2	Delay 10	0.000	0.000	10.0	0.0 for	0.0	220.9 for	-66.7	1
3	Ready	0.000	0.000	0.3	0.0 for	0.0	287.7 for	-3.2	281
4	Crank	0.000	0.000	2.3	0.0 for	0.0	362.4 for	-23.1	795
5	Phase 1	2.707	4.351	505.0	0.0 for	0.0	459.9 for	-32.5	787
6	Phase 2	3.871	6.223	864.0	0.0 for	0.0	804.5 for	-12.1	1831
7	Eng Off	0.000	0.000	2.0	0.0 for	0.0	1486.3 for	-1.1	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	1598.6 for	-66.7	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	1736.2 for	-23.0	775
10	Soak	0.033	0.054	525.0	0.0 for	0.0	1832.7 for	-33.3	2
11	Ready	0.001	0.002	31.5	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	0.2	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.717	4.367	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2468.7 SECONDS DVT= 264.9

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry=	72.6	Tdp =	51.7
SAMPLE	22.86	142.1	10.3	0.197	3.2	BARO.=	755.50	SEC =	507.6
AMBIENT	3.11	0.2	0.2	0.048	1.8	NoxKf=	0.923	VOLC=	2820.1
GRAMS	0.912	13.194	1.424	218.99	.847	M.P.G.	99.44	DF =	62.765
GMS/MI	0.337	4.874	0.526	80.90	.313	MPGnhv	100.15	MI =	2.707
G/Mwgt	0.060	0.862	0.093	14.31	.055	R-H =	47.90	KM =	4.351

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry=	73.3	Tdp =	51.8
SAMPLE	21.45	278.4	5.7	0.151	3.8	BARO.=	755.50	SEC =	871.0
AMBIENT	2.88	1.2	0.0	0.046	1.8	NoxKf=	0.924	VOLC=	4836.1
GRAMS	1.470	44.201	1.379	264.85	1.309	M.P.G.	101.80	DF =	74.039
GMS/MI	0.380	11.416	0.356	68.40	.338	MPGnhv	102.72	MI =	3.872
G/Mwgt	0.190	5.708	0.178	34.20	.169	R-H =	46.90	KM =	6.223

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry=	73.3	Tdp =	52.2
SAMPLE	27.17	283.0	9.4	0.182	4.1	BARO.=	755.50	SEC =	505.2
AMBIENT	3.53	1.2	0.0	0.048	1.8	NoxKf=	0.927	VOLC=	2805.2
GRAMS	1.085	26.065	1.324	196.01	.976	M.P.G.	100.72	DF =	62.906
GMS/MI	0.400	9.593	0.487	72.14	.359	MPGnhv	101.68	MI =	2.717
G/Mwgt	0.094	2.255	0.115	16.96	.084	R-H =	47.60	KM =	4.367

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.377	9.830	0.417	71.49	.338	M.P.G.	101.12	NHVmpg	102.010
GRAMS/KM	0.234	6.116	0.260	44.48	.210	L/100k	2.33	NHVkp1	43.373

CEE Quality Audit

Accept Reject
Date 5-30-14 By: [Signature]

California Environmental Engineering
2530 S. Birch Street. Santa Ana California

TEST NUMBER	V6005296	DATE	05-29-2014	RANGE	AUTO
VEHICLE REF	1300006-7	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ8E1037762	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%-.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	260.7Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS					
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	23.60	145.6	17.0	0.195	2.05	10:05:37
ZERO	set	-0.01	0.3	0.0	0.002	0.01	10:07:13
OFFSET 10% Lim		-0.0	+0.1	+0.0	+0.1	+0.0	
SPAN	set	100.45	230.2	27.0	1.918	47.87	10:08:14
OFFSET 10% Lim		-0.1	+0.1	-1.7	-0.8	+0.1	
ZERO	set	-0.05	-0.6	-0.4	0.001	0.00	10:09:15
AMBIENT1	read	3.11	0.2	0.2	0.048	1.88	10:10:15
SAMPLE1	read	22.86	142.1	10.3	0.197	3.24	10:11:15
ZERO	chek	0.11	-0.7	-0.1	0.002	0.00	10:12:15
SPAN	chek	100.76	230.5	27.5	1.938	47.44	10:13:15
SPAN VALUES		100.50	230.0	27.5	1.935	47.80	END # 1

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	21.81	446.3	7.3	0.155	9.52	10:20:08
ZERO	set	0.07	-0.5	0.3	0.003	0.01	10:21:31
OFFSET 10% Lim		+0.1	-0.1	+1.0	+0.1	+0.0	
SPAN	set	100.52	953.6	27.7	1.929	47.45	10:23:10
OFFSET 10% Lim		+0.0	+0.6	+0.7	-0.3	-0.7	
ZERO	set	-0.20	0.0	-0.5	0.000	0.00	10:24:11
AMBIENT2	read	2.88	1.2	0.0	0.046	1.86	10:25:11
SAMPLE2	read	21.45	278.4	5.7	0.151	3.86	10:26:11
ZERO	chek	-0.07	-0.1	-0.1	-0.002	-0.01	10:27:11
SPAN	chek	100.67	948.3	27.6	1.929	47.64	10:28:11
SPAN VALUES		100.50	948.0	27.5	1.935	47.80	END # 2

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	28.18	280.0	13.3	0.179	2.59	10:38:24
ZERO	set	0.26	-0.4	1.4	0.000	0.01	10:39:45
OFFSET 10% Lim		+0.3	-0.0	+4.7	+0.0	+0.0	
SPAN	set	100.70	944.2	27.5	1.912	47.68	10:40:46
OFFSET 10% Lim		+0.2	-0.4	+0.0	-1.1	-0.2	
ZERO	set	-0.36	-0.4	-0.7	0.002	0.00	10:41:47
AMBIENT3	read	3.53	1.2	-0.5	0.048	1.85	10:42:47
SAMPLE3	read	27.17	283.0	9.4	0.182	4.19	10:43:47
ZERO	chek	-0.10	-0.4	-0.2	0.001	0.00	10:44:47
SPAN	chek	100.53	958.2	27.3	1.947	47.78	10:45:47
SPAN VALUES		100.50	948.0	27.5	1.935	47.80	END # 3

□

CEE Quality Audit

Accept Reject
Date 5-30-14 By: [Signature]

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005296

Make:	TAO TAO	Eng. Fam:	ETAOXO.12A1T
Model:	ATA110B	Evap Fam:	
Year:	2014	Date:	May 29, 2014
VIN:	L5NAAHTJ8E1037762	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.10
Sample	0.80
DF	62.77
V-Mix	2820.10
Miles	2.71
Km	4.36
Nox kf	0.92

Phase II Inputs	
Ambient	0.00
Sample	0.60
DF	74.04
V-Mix	4836.10
Miles	3.87
Km	6.23
Nox kf	0.92

Phase III Inputs	
Ambient	0.00
Sample	0.80
DF	62.91
V-Mix	2805.20
Miles	2.72
Km	4.37
Nox kf	0.93

Phase I Results	
N2Oconc	0.702
N2O mass	0.103
g/mi	0.038
g/km	0.024
g/m wgt	0.016
g/km wgt	0.010

Phase II Results	
N2Oconc	0.600
N2O mass	0.150
g/mi	0.039
g/km	0.024
g/m wgt	0.039
g/km wgt	0.024

Phase III Results	
N2Oconc	0.800
N2Omass	0.116
g/mi	0.043
g/km	0.027
g/m wgt	0.024
g/km wgt	0.015

Total N2O in Grams per mile	0.07951186
Total N2O in Grams per kilometer	0.049406379

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft³ (1.83 kg/m³), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1,000,000)$

(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

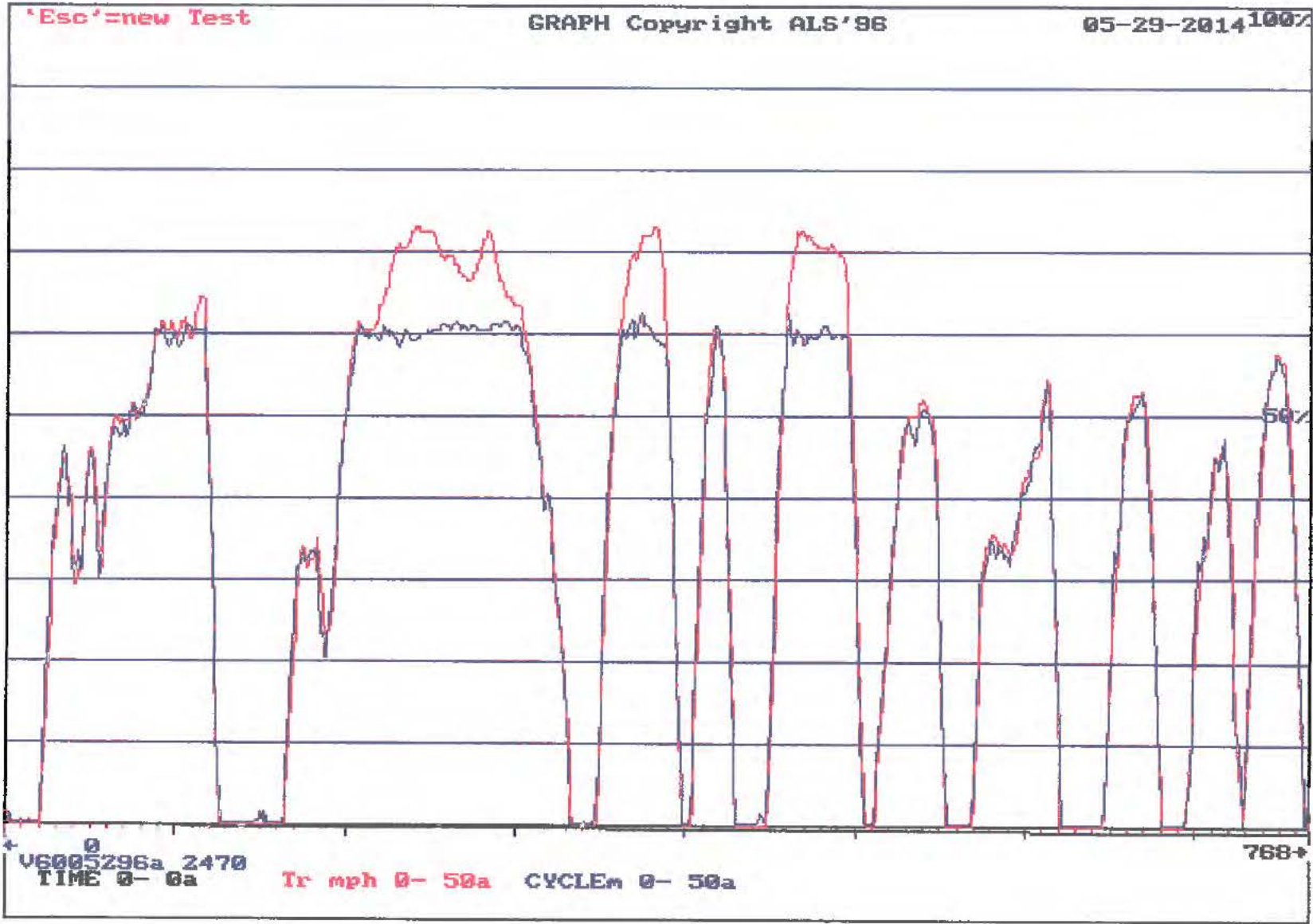
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit

Accept Reject
 Date 5-30-14 By: Alex Herrera
 EPA-001341

CX103

EPA-001342

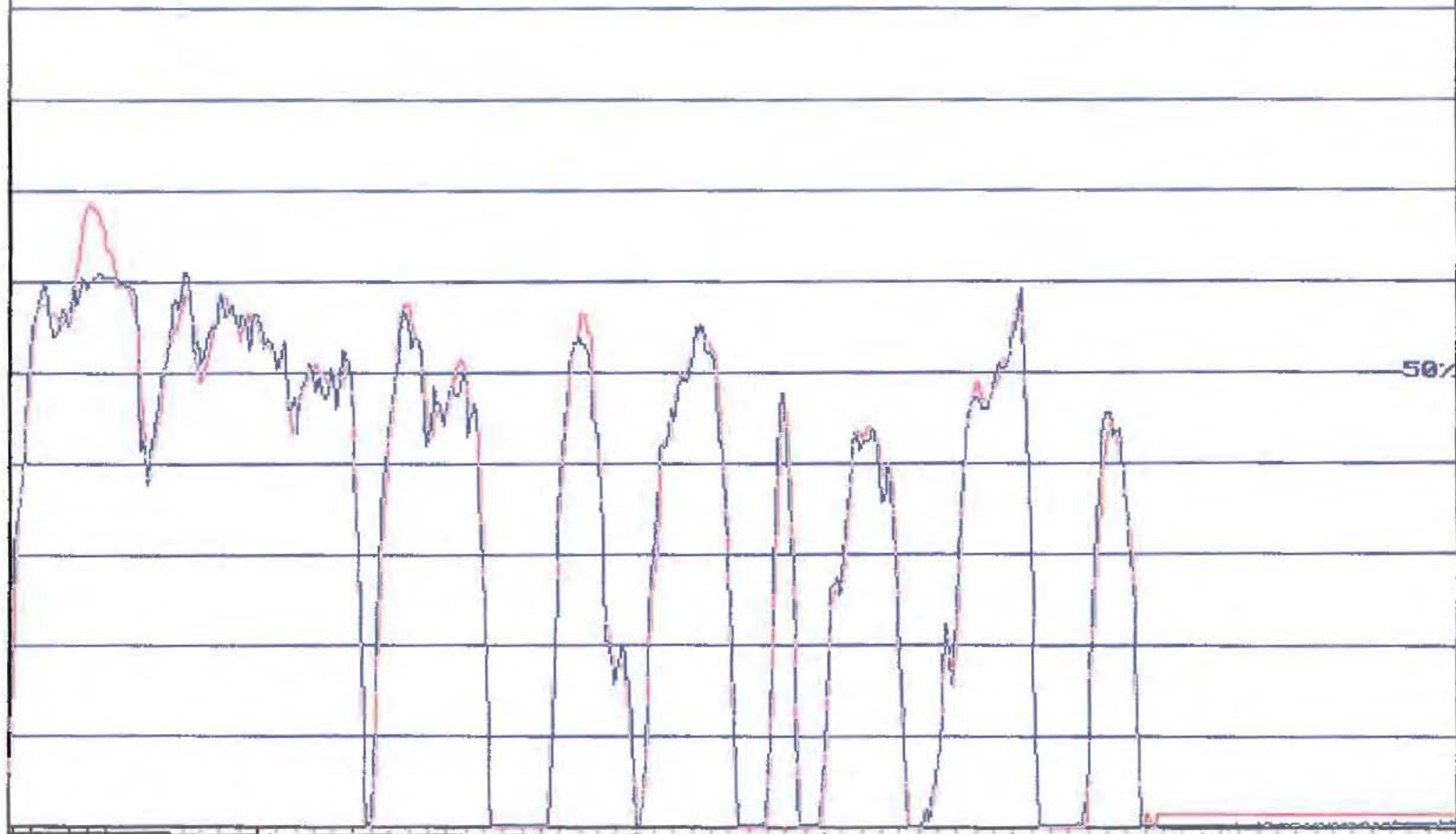


CEE Quality Audit
Accept Reject
Date 5-30-14 By: *[Signature]*

'Esc'=new Test

GRAPH Copyright ALS'96

05-29-2014 100%



50%

768
V6005296a 2470
TIME 0- 0a Ir mph 0- 50a CYCLEm 0- 50a 1536

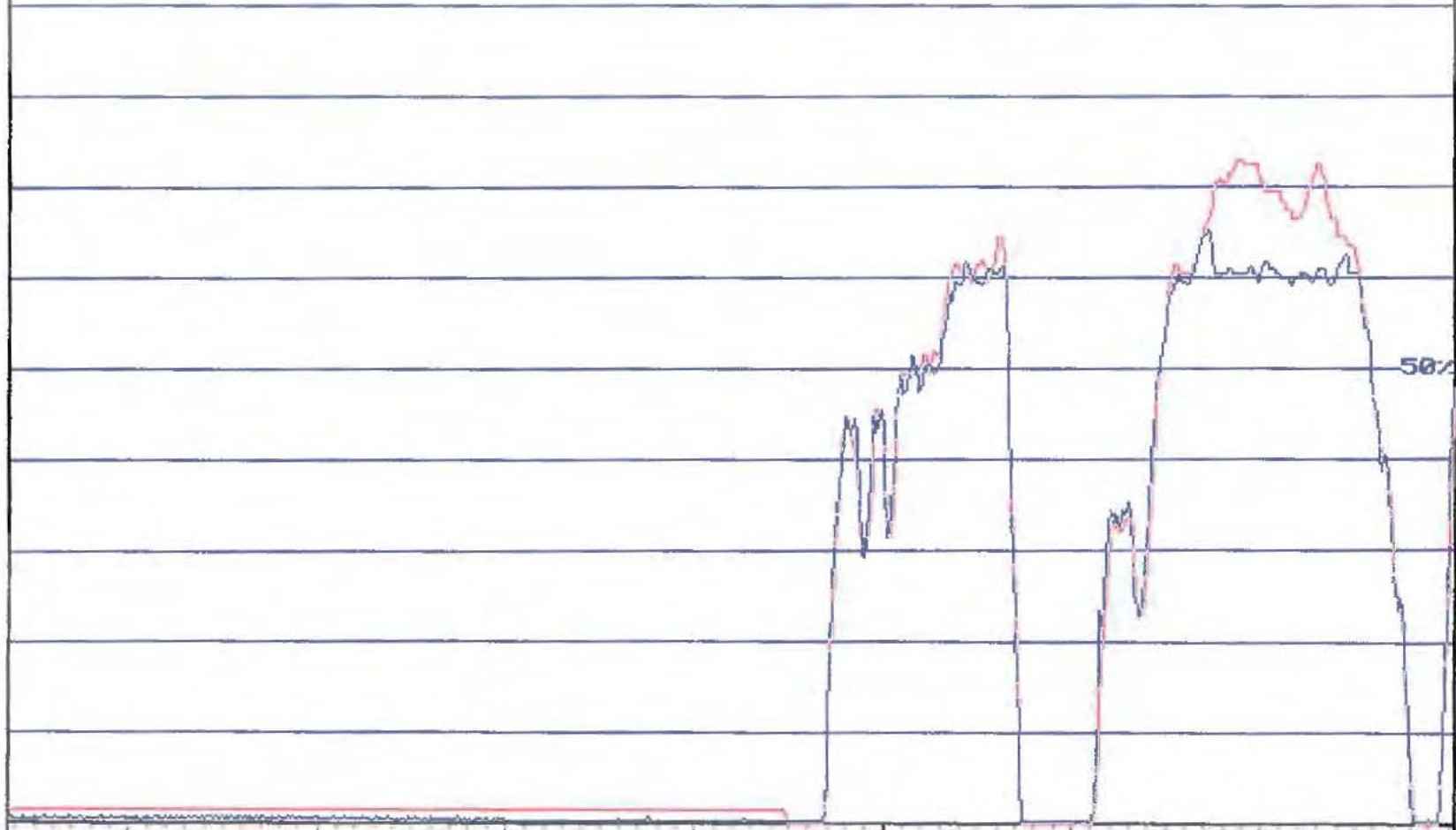
CX103

EPA-001343

'Esc'=new Test

GRAPH Copyright ALS'96

05-29-2014 100%



1536
V6005296a 2470
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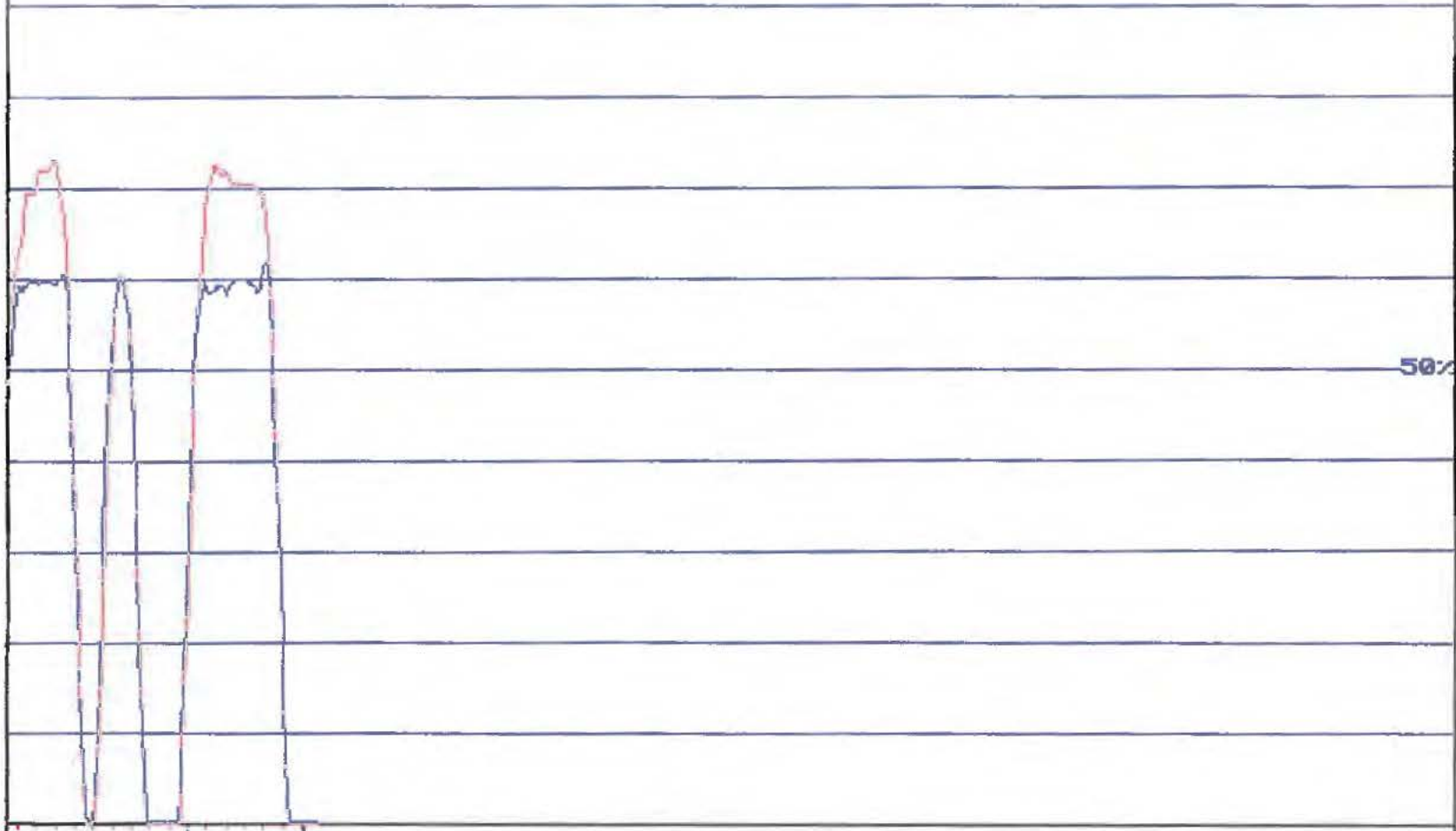
CX103

EPA-001344

'Eso'=new Test

GRAPH Copyright ALS'96

05-29-2014 100%



+ 2304
V8005296a 2470
TIME 0- 8a

Tr mph 0- 50a CYCLEm 0- 50a

3072+

CX103

EPA-001345

California Environmental Engineering
 2530 S. Birch Street. Santa Ana California

TEST NUMBER	V6005292	DATE	05-28-2014	RANGE	AUTO
VEHICLE REF	1300006-7	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ8E1037762	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%- .3	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	250.1Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS					
REMARKS					
REMARKS					
START TIME	16:00:57	END TIME	16:23:50	FINAL ODO.	260.7KM

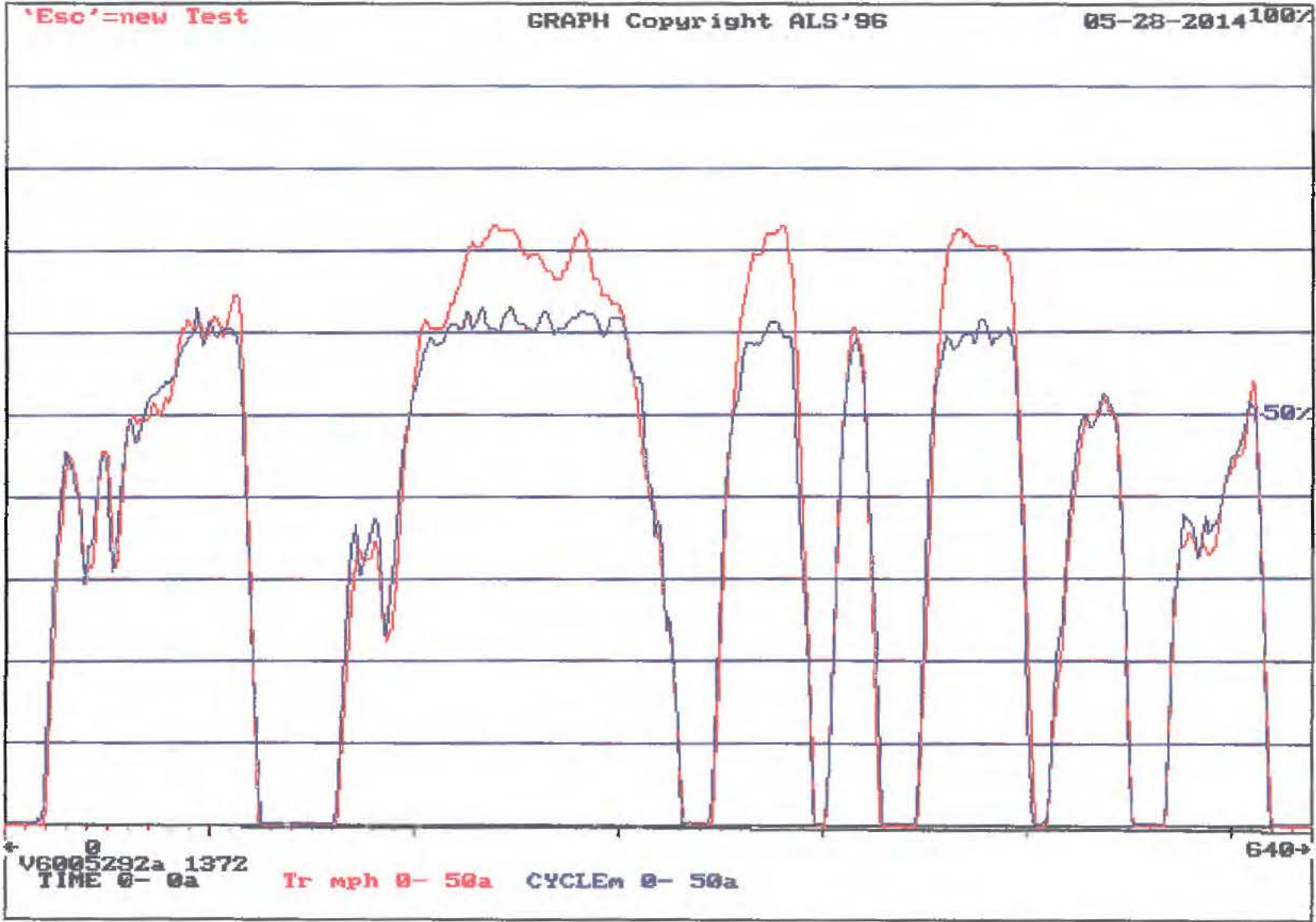
#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	0.2	0.0 for	0.0	227.1 for	-4.4	531
2	PHASE 1	2.726	4.381	505.0	0.0 for	0.0	234.2 for	-17.0	531
3	PHASE 2	3.854	6.195	867.0	0.0 for	0.0	256.3 for	-4.8	531
4	END	0.000	0.000	0.0	0.0 for	0.0	278.2 for	-5.5	513
5	END	0.000	0.000	0.0	0.0 for	0.0	364.5 for	-4.6	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	369.3 for	-13.9	0
7	Eng off	0.000	0.000	0.0	0.0 for	0.0	461.0 for	-29.8	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	1229.5 for	-7.5	0
9	Soak+b1	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 93.5
 PHASE 1 6.580 10.576 1372.2 VOLUME= 7633.5

REMARKS
 REMARKS
 REMARKS

CX103

EPA-001347

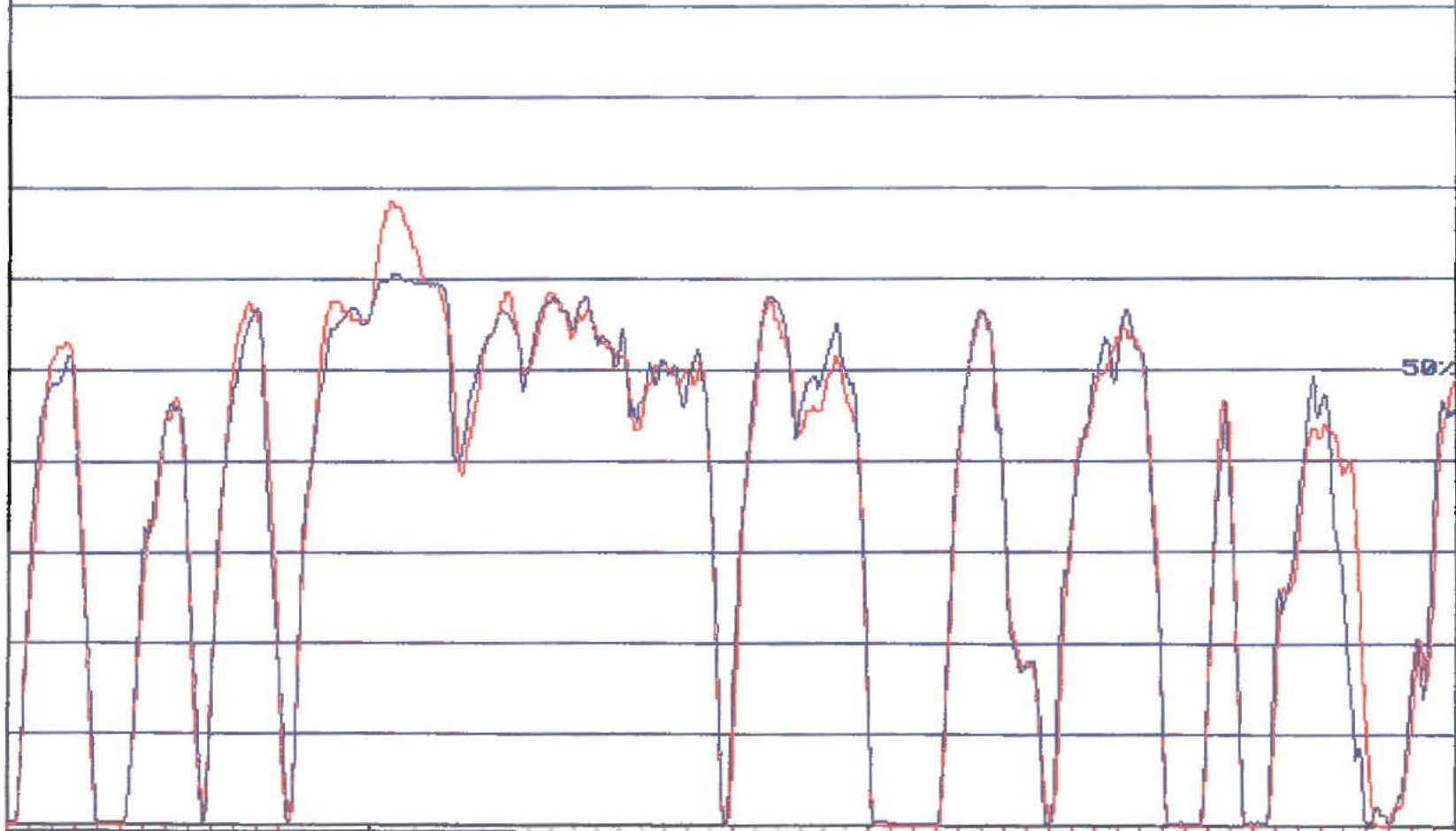


CEE Quality Audit
Accept _____ Reject _____
Date 5-30-14 By: [Signature]

'Eso'=new Test

GRAPH Copyright ALS'96

05-28-2014 100%



50%

640
V8005292a 1372
TIME 0- 0a

Tr mph 0- 50a CYCLEm 0- 50a

1200+

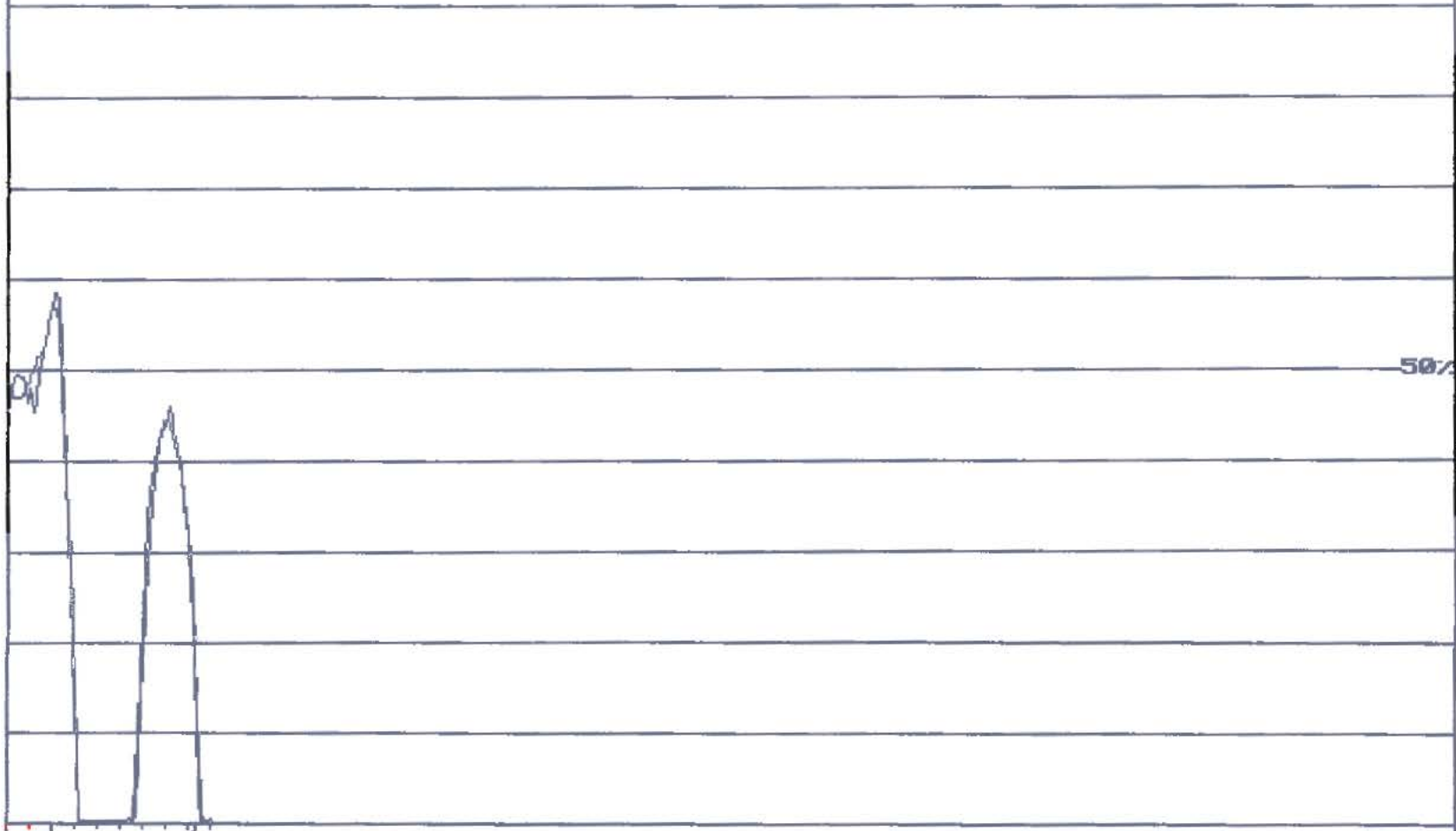
CX103

EPA-001348

'Eso'=new Test

GRAPH Copyright ALS'96

05-28-2014 100%



+ 1289
V6005292a 1372
TIME 0- 0a

Tr mph 0- 50a CYCLEm 0- 50a

1920+

CX103

EPA-001349

Deterioration Factors page extracted from the certification application for



Conducted by:

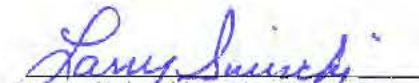
California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 7/2/2014

CEE Project Number:
1300006-8

Prepared for:
TAO TAO, USA

Report Prepared by:


Larry Swioncki, Project Manager
California Environmental Engineering, LLC

Date: 7-7-14

Test Procedures and Equipment

The CY150T on road scooter was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
 - a. Horiba Model FIA 220
 - b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
 - a. Methane analyzed by a Bendix GC
 - b. Horiba Model FIA 220 Analyzer
 - c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
 - a. Horiba Model AIA 210 (High Range)
 - b. Ranges: 0.5%, 2%
 - c. Horiba Model AIA 220 (Low Range)
 - d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
 - a. Horiba Model AIA 220
 - b. Ranges: 2, 4%
4. NO_x (CLD)
 - a. Horiba Model CLA 220
 - b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its “as-received” condition only on the basis that the vehicle’s air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.



Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005426	7/2/2014	0.163	0.338	0.501	3.391
Multiplicative Deterioration Factors (provided by TaoTao)				1.000	1.000
Full Useful Life Emissions				0.501	3.391

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: CY150T

Vehicle Color: Red/Blk

Last Six of Vin# 250050

Received at CEE Time: 11:50

Received by: L. Swiencki

Receiptant Signature: L. Swiencki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____



Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-B

Make: TAO TAO Model CY150T

Vin# 29NTEAKKEXD1250050 Year: 2013

Odometer: _____ Color: Red/Black

Displace: 149 cc Fuel System: 1x1V

Trans: CVT PCV: X Yes _____ No

Fuel Cap. 2.0gal X 50% 1.0gal

Eng. Fam. DTAOC, 150MC2 Evap Fam. _____

Curb Wt. 145KG + 80 = 225KG

Inertia Wt. KG 220

Coefficients: A 10.43 B 0.0000 C 0.0257

Special Instructions: _____

TaoTao Project Work Sheet

Project # 1300006-8 EDV # 6

Vin# 19NTEKEXP1250050 Req. Miles 2500KM

<u>Work Required</u>	<u>Date Completed</u>	<u>Tech.</u>
Check-in	<u>5-19-14</u>	<u>[Signature]</u>
Pictures	<u>5-19-14</u>	<u>[Signature]</u>
Durability 2500KM	<u>6/24/14</u>	<u>Maeco</u>
Precondition	<u>7-1-14</u>	<u>Leak Acosta</u>
Test CVS75FTP	<u>7-2-14</u>	<u>Alex Howard</u>
Data QA/QC	<u>7-3-14</u>	<u>[Signature]</u>
Release	<u> </u>	<u> </u>

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-8
 Make: TAO TAO
 VIN# L9NTELKEXD1250050

CLIENT: TAO TAO
 MODEL: CY150T
 ENG. FAM: DTAOC,150M02

YEAR: 2013

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS
6/15/14	8:30 AM	11:58 AM	0.0 km	91.0 km	49 miles	Mario	
6/15/14	1:10 PM	4:50 PM	91 km	216.9 km	117 miles	Mario	
6/16/14	9:27 AM	11:50 AM	216 km	315 km	170 miles	Mario	
6/17/14	1:00 PM	4:00 PM	315 km	469 km	253 miles	Mario	
6/19/14	8:05 AM	11:50 AM	469.0 km	634 km	342 miles	MARIO	
6/18/14	1:05 PM	4:12 PM	634 km	796 km	430 miles	Mario	
6/19/14	5:00 PM	8:00 P	634 km	796 km	430 miles	GARRY	POWER OUTAGE
6/18/14	1:15 PM	4:20 PM	796 km	935 km	508 miles	Mario	
6/10/14	4:30 PM	12:00	935 km	1119.0 km	604.7 miles	JASPER	
6/11/14	8:05 AM	12:00	1119.0 km	1262.4 km	681 miles	Mario	
6/11/14	1:00	3:30	1262.4 km	1510 km	707.81	Mario	Rattle chain
6/15/14	8:16 AM	11:50 AM	1310 km	1426 km	770.11	Mario	
6/11/14	1:10 PM	4:30 PM	1426 km	1518 km	818 miles	Mario	
6/12/14	4:20 PM	9:50	1518 km	1683 km	900.7 miles	Jasper	Brattening
6/13/14	1:35 PM	3:34	1683 km	1747.1 km	945.1	Mario	
6/13/14	5:20	11:45	1747.1 km	1952.7 km	1054.4 miles	GARRY	
6/10/14	7:45	9:00	1952.7	1969.7	1063	Mario	Dead at idle.
6/25/14	4:30 PM	12:00 PM	1969.7 km	2173.8 km	1173.8 km	BRAYAN U	
6/24/14	8:00 AM	11:45 AM	2173.8 km	2357.1 km	1262.0 MI	Mario	
6/24/14	1:15 PM	4:00 PM	2357.1 km	2500.9 km	1553.90	Mario	

COMMENTS: _____

EPA 901362

CEE Quality Audit
 Accept Reject
 Date 6-27-14 By: *[Signature]*

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005426	DATE	07-02-2014	RANGE	AUTO
VEHICLE REF	1300006-8	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKEXD1250050	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA	TEST TYPE	EPAAH____.MCT	Gr.C/gal.	2433
MAKE	TAO TAO	SHIFT FILE	AUTO .M_T	FUEL Fract.	.8646
MODEL	CY 150T	INERTIA WGT	220KG	SP. GRAVITY	.741
YEAR	2013	F0_SET_SI	10.43	N.H.V.	18489
TANK CAP	50%=1.0	F1_SET_SI	0.0000	WT FACTOR	.43
ODOMETER	2511.8km	F2_SET_SI	0.0257	WT FACTOR	1
TRANS.	CVT			WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					
START TIME	10:06:48	END TIME	10:48:00	FINAL ODO.	2527.4KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	Ready	0.000	0.000	0.2	1394.0 for	6.3	1393.0 for	2.9	1
2	Delay 10	0.000	0.001	10.0	0.0 for	0.0	0.0 for	0.0	1
3	Ready	0.000	0.000	0.6	0.0 for	0.0	0.0 for	0.0	281
4	Crank	0.000	0.000	0.9	0.0 for	0.0	0.0 for	0.0	795
5	Phase 1	2.914	4.683	505.0	0.0 for	0.0	0.0 for	0.0	787
6	Phase 2	3.902	6.271	864.0	0.0 for	0.0	0.0 for	0.0	1831
7	Eng off	0.000	0.000	3.8	0.0 for	0.0	0.0 for	0.0	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	0.0 for	0.0	1827
9	Soak+b1	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	775
10	Soak	0.015	0.024	525.0	0.0 for	0.0	0.0 for	0.0	2
11	Ready	0.000	0.001	13.9	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	1.3	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.911	4.679	511.3	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.001	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2460.3 SECONDS DVT= 3.0

PHASE 1	THC	CO	NOX	CO2	NMHC	Tdry=	73.3	Tdp =	53.5
SAMPLE	24.82	279.4	9.9	0.212	3.4	BARO.=	753.50	SEC =	506.5
AMBIENT	2.79	0.1	0.5	0.046	1.9	NOxKf=	0.940	VOLC=	2818.4
GRAMS	1.016	25.953	1.350	243.80	.946	M.P.G.	90.24	DF =	55.276
GMS/MI	0.349	8.906	0.463	83.66	.324	MPGnhv	90.81	MI =	2.914
G/Mwgt	0.064	1.637	0.085	15.38	.059	R-H =	49.90	KM =	4.684

PHASE 2	THC	CO	NOX	CO2	NMHC	Tdry=	74.3	Tdp =	53.4
SAMPLE	14.02	99.8	9.4	0.181	2.5	BARO.=	753.50	SEC =	872.8
AMBIENT	2.80	0.3	0.5	0.043	1.8	NOxKf=	0.939	VOLC=	4854.5
GRAMS	0.893	15.926	2.199	348.91	.840	M.P.G.	92.30	DF =	69.653
GMS/MI	0.229	4.081	0.564	89.42	.215	MPGnhv	92.54	MI =	3.902
G/Mwgt	0.114	2.041	0.282	44.71	.107	R-H =	48.10	KM =	6.272

PHASE 3	THC	CO	NOX	CO2	NMHC	Tdry=	73.9	Tdp =	53.5
SAMPLE	19.69	188.2	12.3	0.207	2.9	BARO.=	753.50	SEC =	512.6
AMBIENT	2.73	0.3	1.1	0.045	1.8	NOxKf=	0.940	VOLC=	2848.1
GRAMS	0.791	17.645	1.627	240.36	.740	M.P.G.	95.87	DF =	58.826
GMS/MI	0.272	6.061	0.559	82.57	.254	MPGnhv	96.30	MI =	2.911
G/Mwgt	0.066	1.476	0.136	20.11	.061	R-H =	48.90	KM =	4.679

WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.261	5.451	0.544	86.69	.244	M.P.G.	92.75	NHVmpg	93.101
GRAMS/KM	0.163	3.391	0.338	53.94	.152	L/100k	2.54	NHVkpl	39.585

CEE Quality Audit

Accept Reject
Date 2-3-14 By: [Signature] EPA-001364

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005426	DATE	07-02-2014	RANGE	AUTO
VEHICLE REF	1300006-8	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKEXD1250050	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH____.MCT	FUEL Fract.	.8646
MODEL	CY 150T	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N.H.V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	.43
ODOMETER	2511.8Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	CVT	F2_SET_SI	0.0257	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					

MODE		THCd3A	COLd3A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	25.44	268.4	9.6	0.214	3.34	10:15:58
ZERO	set	0.01	-0.7	-0.2	0.000	0.02	10:16:58
OFFSET 10% Lim		+0.0	-0.1	-0.2	+0.0	+0.0	
SPAN	set	98.74	948.2	93.2	1.931	48.91	10:17:59
OFFSET 10% Lim		+0.3	+0.0	+0.1	-0.2	+1.4	
ZERO	set	-0.33	-0.6	0.1	0.001	0.02	10:19:00
AMBIENT1	read	2.79	0.1	0.5	0.046	1.92	10:20:00
SAMPLE1	read	24.82	279.4	9.9	0.212	3.41	10:21:00
ZERO	chek	-0.20	-0.9	0.0	0.000	0.02	10:22:00
SPAN	chek	98.56	948.8	93.1	1.931	48.25	10:23:00
SPAN VALUES		98.40	948.0	93.1	1.935	48.20	END # 1

MODE		THCd3A	COLd1A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	13.76	87.7	8.8	0.183	2.53	10:30:29
ZERO	set	-0.20	0.1	0.0	0.001	0.05	10:31:29
OFFSET 10% Lim		-0.2	+0.0	+0.0	+0.0	+0.1	
SPAN	set	98.76	233.4	93.2	1.924	48.39	10:32:30
OFFSET 10% Lim		+0.4	+1.1	+0.1	-0.5	+0.4	
ZERO	set	-0.15	-0.6	0.0	0.000	0.00	10:33:31
AMBIENT2	read	2.80	0.3	0.5	0.043	1.88	10:34:31
SAMPLE2	read	14.02	99.8	9.4	0.181	2.51	10:35:31
ZERO	chek	-0.07	-0.6	-0.1	-0.001	0.00	10:36:31
SPAN	chek	98.41	229.9	93.7	1.932	48.48	10:37:31
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 2

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	20.10	240.5	11.4	0.210	2.93	10:48:30
ZERO	set	-0.09	0.3	-0.2	0.002	0.03	10:49:30
OFFSET 10% Lim		-0.1	+0.1	-0.2	+0.1	+0.1	
SPAN	set	99.00	233.5	93.5	1.930	48.63	10:50:31
OFFSET 10% Lim		+0.6	+1.2	+0.4	-0.2	+0.9	
ZERO	set	-0.23	-0.7	0.3	0.000	0.00	10:51:32
AMBIENT3	read	2.73	0.3	1.1	0.045	1.89	10:52:32
SAMPLE3	read	19.69	188.2	12.3	0.207	2.95	10:53:32
ZERO	chek	-0.15	-0.5	0.4	-0.001	0.00	10:54:32
SPAN	chek	98.19	229.8	93.5	1.931	48.63	10:55:32
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 3

□

CEE Quality Audit
Accept Reject
Date 7-3-14 By: P. Amichis

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005426

Make:	TAO TAO	Eng. Fam:	DTAOC.150MC2
Model:	CY150T	Evap Fam:	
Year:	2013	Date:	July 2, 2014
VIN:	L9NTELKEXD1250050	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.10
Sample	1.60
DF	55.28
V-Mix	2818.40
Miles	2.91
Km	4.69
Nox kf	0.94

Phase II Inputs	
Ambient	0.10
Sample	1.50
DF	69.65
V-Mix	4854.50
Miles	3.90
Km	6.28
Nox kf	0.94

Phase III Inputs	
Ambient	0.10
Sample	2.00
DF	58.83
V-Mix	2848.10
Miles	2.91
Km	4.68
Nox kf	0.94

Phase I Results	
N2Oconc	1.502
N2O mass	0.219
g/mi	0.075
g/km	0.047
g/m wgt	0.032
g/km wgt	0.020

Phase II Results	
N2Oconc	1.401
N2O mass	0.352
g/mi	0.090
g/km	0.056
g/m wgt	0.090
g/km wgt	0.056

Phase III Results	
N2Oconc	1.902
N2O mass	0.281
g/mi	0.096
g/km	0.060
g/m wgt	0.055
g/km wgt	0.034

Total N2O in Grams per mile	0.17763953
------------------------------------	-------------------

Total N2O in Grams per kilometer	0.110380086
---	--------------------

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft³ (1.83 kg/m³), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1,000,000)$

(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit

Accept _____ Reject _____
Date _____ By: _____

California Environmental Engineering
2530 S. Birch Street, Santa Ana California

TEST NUMBER	V6005423	DATE	07-01-2014	RANGE	AUTO
VEHICLE REF	1300006-8	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKEXD1250050	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	CY 150T	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N.H.V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	0
ODOMETER	2500.9Km	F1_SET_SI	0.0000	WT FACTOR	0
TRANS.	CVT	F2_SET_SI	0.0257	WT FACTOR	0
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					
START TIME	14:38:20	END TIME	15:01:13	FINAL ODO.	2511.8KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtr1
1	CRANK	0.000	0.000	1.4	0.0 for	0.0	0.0 for	0.0	531
2	PHASE 1	2.940	4.726	505.0	0.0 for	0.0	0.0 for	0.0	531
3	PHASE 2	3.901	6.271	867.0	0.0 for	0.0	0.0 for	0.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	513
5	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+b1	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

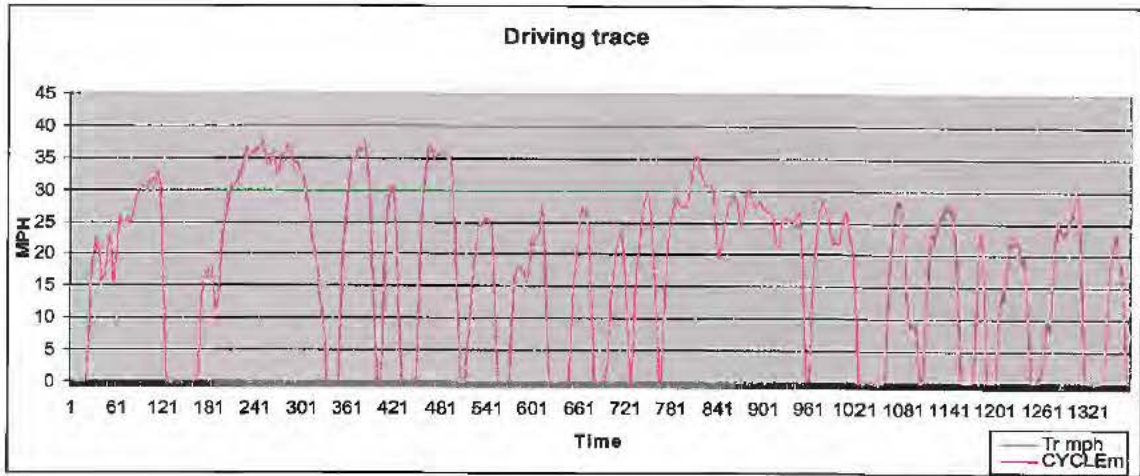
TEST COMPLETED 1372.0 SECONDS DVT= 0.0
PHASE 1 6.842 10.996 1373.4 VOLUME= 7618.9

REMARKS | CONFIRMATORY TEST
REMARKS |
REMARKS |

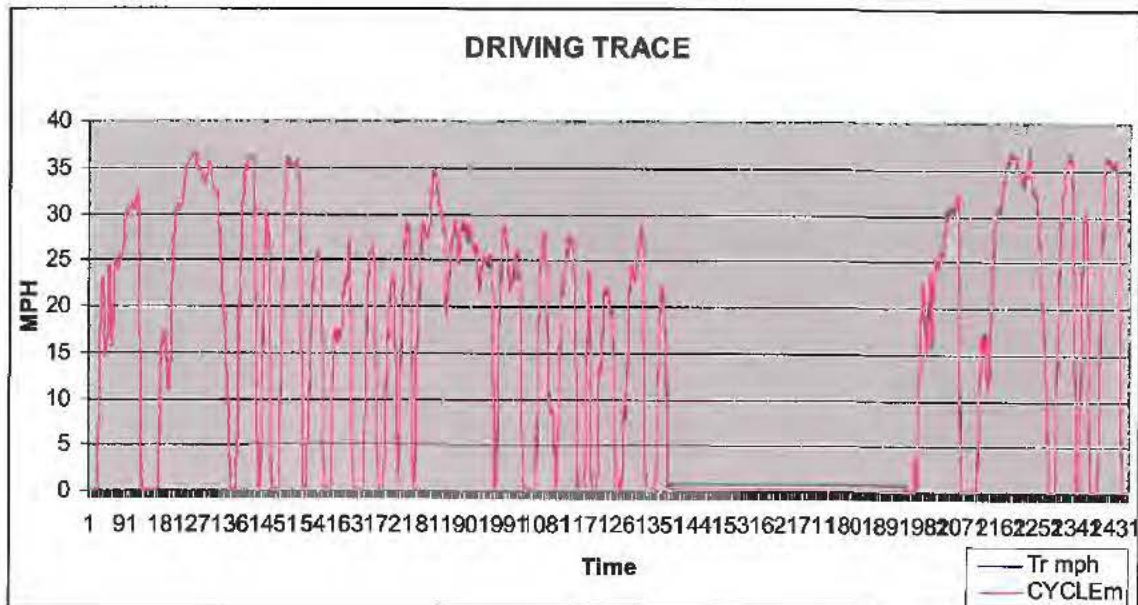
CEE Quality Audit

Accept Reject
Date 7-3-14 By: L. Businchi

Test: V6005423 7/1/2014 Prep CY150T Vin. L9NTELKEXD1250050 EDV 6



Test: V6005426 7/2/2014 FTP CY150T Vin. L9NTELKEXD1250050 EDV 6



Deterioration Factors page extracted from the certification application for