

UIN 032F68C

Diesel Engine				
Unit No.	119974-002302			
Unit: Make Model	Mercedes Benz			
Serial No. Site				

Compartment:	
Name	Gasoline Engine
Make	
Model	
Serial No.	
Capacity:	

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Customer:
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DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Fuel dilution satisfactory. Viscosity within specified operating range.

Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

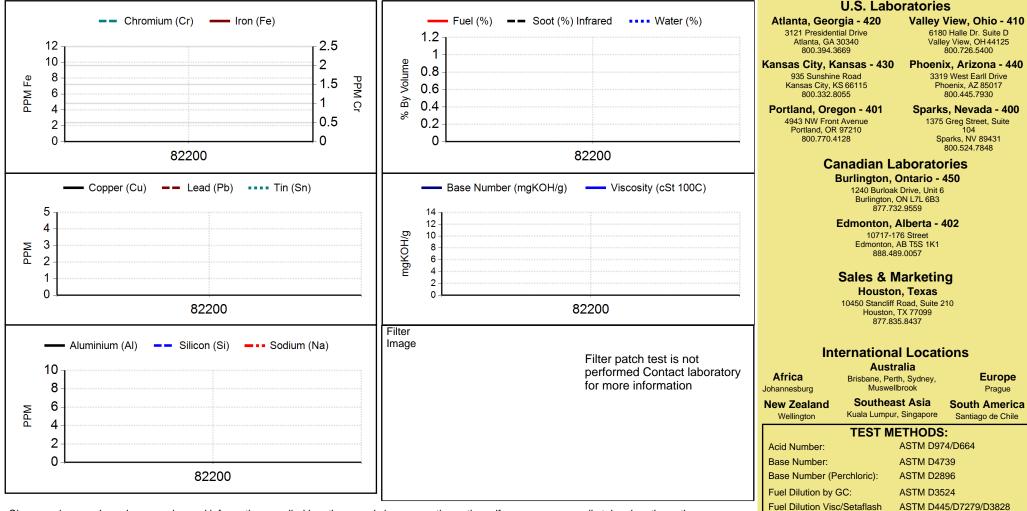
DATE SAMPLED		12-Apr-13
DATE RECEIVED DATE REPORTED		19-Apr-13 23-Apr-13
LAB NO.		43020399994
SIF NO.		12318159
TIME ON UNIT	Mi	82200
TIME ON OIL	Mi	2200
OIL BRAND		Mobil
OIL TYPE		Unidentified
OIL GRADE		SAE 5W40
OIL ADDED		
FILTER		0
		Changed
WO NUMBER		
Metals (ppm)		
Iron (Fe)		10
Chromium (Cr)		2
Lead (Pb)		3
Copper (Cu)		4
Tin (Sn)		<1
Aluminium (Al)		3
Nickel (Ni)		<1
Silver (Ag)		<1
Titanium (Ti)		<1
Vanadium (V)		<1
Contaminants (ppm)		
Silicon (Si)		2
Sodium (Na)		9
Potassium (K)		<5
Water (%)		<0.05
Coolant		No
Additives (ppm)		
Magnesium (Mg)		641
Calcium (Ca)		1404
Barium (Ba)		<1
Phosphorus (P)		1011
Zinc (Zn)		1225
Molybdenum (Mo)		29
Boron (B)		93
Physical Tests		
Viscosity (cSt 100C)		13.2
Fuel (%)		<1
Soot (%) Infrared		<0.1
Physical / Chemical		
Base Number (mgK0	OH/g)	5.8



ANALYST: Sam.Smith Kansas City







Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

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Acid Number:	ASTM D974/D664
Base Number:	ASTM D4739
Base Number (Perchloric):	ASTM D2896
Fuel Dilution by GC:	ASTM D3524
Fuel Dilution Visc/Setaflash	ASTM D445/D7279/D3828
Fuel Soot ATR/IR:	In-House
Glycol:	ASTM D2982
Metals by Rotrode AES:	ASTM D6595
Metals by ICP AES:	AASTM D5185
FOx, NOx, SOx, FTIR:	ASTM D7418/D7414/D7415
	D7624
Particle Count:	ASTM D7647
Viscosity:	ASTM D445 / D7279
Water KF:	ASTM E203 Mod / D6403D
Water Crackle:	In House