

## Machine Id **P170068B** Component **Diesel Engine** Fluid **{not provided} (--- GAL)**

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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All component wear rates are normal.

## CONTAMINATION

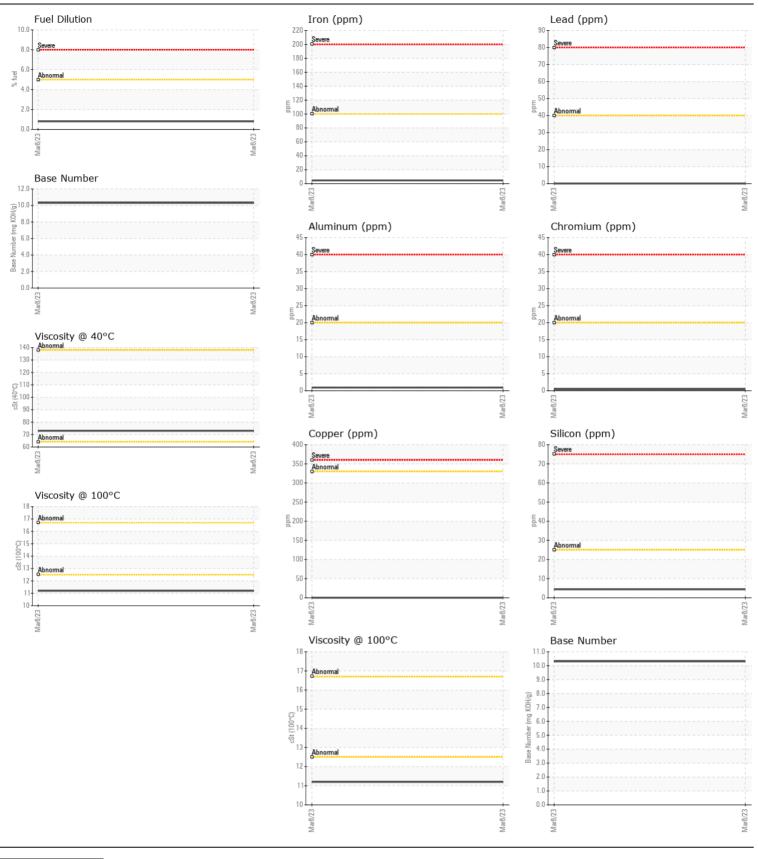
Fuel content negligible. There is no indication of any contamination in the oil.

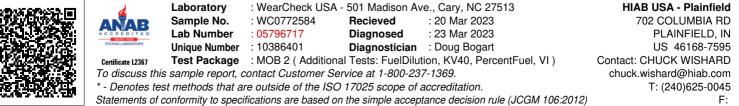
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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0772584		
Sample Date		Client Info		08 Mar 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185m	>100	4		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	<1		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>25	4		
Potassium	ppm	ASTM D5185m	>20	0		
Fuel	%	ASTM D3524	>5	0.8		
Water		WC Method	>0.2	NEG		
Glycol	24	WC Method	0	NEG		
Soot %	%	*ASTM D7844	>3	0.1		
Nitration	Abs/cm	*ASTM D7624	>20	8.5		
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Sodium	nnm	ASTM D5185m		2		
Boron	ppm ppm	ASTM D5185m		62		
Barium	ppm	ASTM D5185m		02		
Molybdenum	ppm	ASTM D5185m		45		
Manganese	ppm	ASTM D5185m		-13 <1		
Magnesium	ppm	ASTM D5185m		513		
Calcium	ppm	ASTM D5185m		1718		
Phosphorus	ppm	ASTM D5185m		1065		
Zinc	ppm	ASTM D5185m		1348		
Sulfur	ppm	ASTM D5185m		3516		
Oxidation	Abs/.1mm	*ASTM D310311	>25	21.4		
Base Number (BN)	mg KOH/g	ASTM D2896	-20	10.31		
Visc @ 40°C	cSt	ASTM D2000		73.0		
Visc @ 100°C	cSt	ASTM D445		11.2		
Viscosity Index (VI)	Scale	ASTM D443 ASTM D2270		144		
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## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





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Contact/Location: CHUCK WISHARD - HIAPLA