

## Machine Id MCCLOSKEY 92964 - VARIABLE SPEED Component Diesel Engine Fluid

{not provided} (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		VPA054180		
	Sample Date		Client Info		08 Apr 2024		
	Machine Age	hrs	Client Info		2191		
	Oil Age	hrs	Client Info		400		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	74		
WEAR	Chromium	ppm	ASTM D5185m		1		
The aluminum level is abnormal.	Nickel	ppm	ASTM D5185m		2		
	Titanium	ppm	ASTM D5185m	21	- <1		
	Silver	ppm	ASTM D5185m	>3	5		
	Aluminum	ppm	ASTM D5185m		▲ 67		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m		244		
	Tin	ppm	ASTM D5185m		14		
	Vanadium	ppm	ASTM D5185m	10	<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	<b>6</b> 51		
Elemental level of silicon (Si) above normal indicating ingress of seal material.	Potassium	ppm	ASTM D5185m	>20	6		
	Fuel	%	ASTM D3524	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	7.9		
	Sulfation	Abs/.1mm	*ASTM D7415		18.5		
	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		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		6		
	Boron		ASTM D5185m		24		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m		2		
	Molybdenum	ppm	ASTM D5185m		72		
	Manganese	ppm	ASTM D5185m		3		
	Magnesium	ppm	ASTM D5185m		900		
	Calcium	ppm	ASTM D5185m		1456		
	Phosphorus	ppm	ASTM D5185m		1125		
	Zinc	ppm	ASTM D5185m		1394		
	Sulfur	ppm	ASTM D5185m		4161		
	<b>A 1 1 1</b>						

Oxidation

Visc @ 100°C cSt

15.1

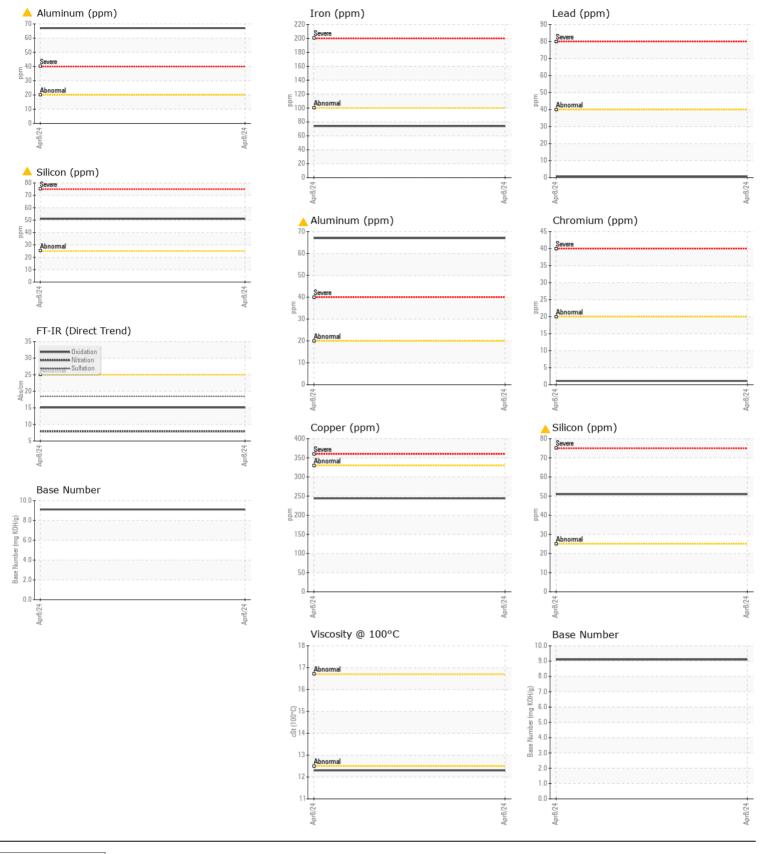
9.1

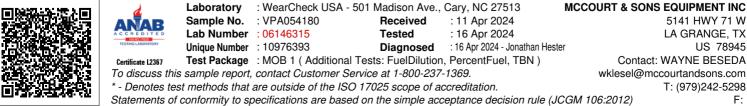
12.3

Abs/.1mm \*ASTM D7414 >25

ASTM D445

Base Number (BN) mg KOH/g ASTM D2896





Contact/Location: WAYNE BESEDA - VP1121775 Page 2 of 2