

Machine Id LIEBHERR LH50M 141510

Diesel Engine

DIESEL ENGINE OIL SAE 5W30 (--- GAL)

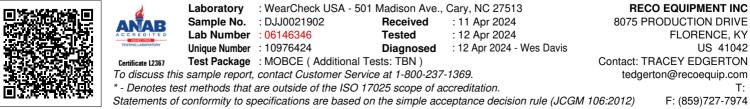
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		DJJ0021902		
	Sample Date		Client Info		05 Apr 2024		
	Machine Age	hrs	Client Info		3823		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m		<1		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m	>5	<1		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		0		
	Tin	ppm	ASTM D5185m	>5	<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>60	6		
	Potassium	ppm	ASTM D5185m	>20	2		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	8.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1		
	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		ASTM D5185m		4		
	Boron	ppm	ASTM D5185m	250	4 123		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm ppm	ASTM D5185m		45		
	Manganese	ppm	ASTM D5185m	100	45 0		
	Magnesium	ppm	ASTM D5185m	150	907		
	Calcium	ppm	ASTM D5185m		1354		
	Phosphorus		ASTM D5185m		803		
	Zinc	ppm	ASTM D5185m		945		
	Sulfur	ppm	ASTM D5185m ASTM D5185m				
	Oxidation	ppm			2997		
		Abs/.1mm	*ASTM D7414		19.1		
	Base Number (BN)	IIIY KUTI/g	AGTINI D2090	0.0	10.2		

Visc @ 100°C cSt

ASTM D445 10.9

11.3





Contact/Location: TRACEY EDGERTON - LEC0082 Page 2 of 2