

NORMAL WEAR NORMAL CONTAMINATION FLUID CONDITION NORMAL

Machine Id MACK FL-51 **Diesel Engine** DIESEL ENGINE OIL SAE 40 (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.	Sample Number		Client Info		WC0875564		
	Sample Date		Client Info		06 May 2024		
	Machine Age	hrs	Client Info		4282		
	Oil Age	hrs	Client Info		600		
	Filter Age	hrs	Client Info		600		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
				4.00			
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m		13		
	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		1		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		2		
	Tin	ppm		>15	0		
	Vanadium	ppm	ASTM D5185m		<1 NONE		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		<1		
	Fuel	1-1-	WC Method		<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>4	0.7		
	Nitration	Abs/cm	*ASTM D7624	>20	8.8		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1		
	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		
			40TH D-10-		_		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		6		
	Barium	ppm		10	0		
	Molybdenum	ppm	ASTM D5185m	100	86		
	Manganese	ppm	ASTM D5185m	450	<1		
	Magnesium	ppm	ASTM D5185m		966		
	Calcium	ppm	ASTM D5185m		1424		
	Phosphorus	ppm	ASTM D5185m		1117		
	Zinc	ppm	ASTM D5185m		1428		
	Sulfur	ppm	ASTM D5185m	4250	3828		

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5

15.2

7.1

13.8



