WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL ABNORMAL



Area [2008294]

## MACK 1M1AK07Y37N017348

Component Diesel Engine

DIESEL ENGINE OIL SAE 10W30 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		IL0033508		
	Sample Date		Client Info		06 Mar 2024		
	Machine Age	kms	Client Info		983884		
	Oil Age	kms	Client Info		0		
	Filter Age	kms	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>120	13		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>20	<1		
	Nickel	ppm	ASTM D5185(m)		<1		
	Titanium	ppm	ASTM D5185(m)	>2	0		
	Silver	ppm	ASTM D5185(m)	>2	0		
	Aluminum	ppm	ASTM D5185(m)	>20	2		
	Lead	ppm	ASTM D5185(m)	>40	2		
	Copper	ppm	ASTM D5185(m)	>330	2		
	Tin	ppm	ASTM D5185(m)	>15	0		
	Vanadium	ppm	ASTM D5185(m)		0		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	3		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		6		
	Fuel		WC Method		<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>4	0.5		
	Nitration	Abs/cm	ASTM D7624*	>20	10.1		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	26.1		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		3		
Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	250	42		
	Barium	ppm	ASTM D5185(m)	10	0		
	Molybdenum	ppm	ASTM D5185(m)	100	5		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)	450	71		
	Calcium	ppm	ASTM D5185(m)	3000	2162		
	Phosphorus	ppm	ASTM D5185(m)	1150	921		
	Zinc	ppm	ASTM D5185(m)	1350	1093		
	Sulfur	ppm	ASTM D5185(m)	4250	2897		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	21.6		
	Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>13.8</b>		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: IL0033508 Lab Number : 02620734 Unique Number : 5737844 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested** 

: 08 Mar 2024 : 08 Mar 2024

: 08 Mar 2024 - Kevin Marson Diagnosed

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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