WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id **56170** 

Component Diesel Engine

Fluid FNOINE O

DIESEL ENGINE OIL SAE 10W30 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0892074		
	Sample Date		Client Info		24 Feb 2024		
	Machine Age	mls	Client Info		0		
	Oil Age	mls	Client Info		38303		
	Filter Age	mls	Client Info		38303		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>100	61		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		10		
	Nickel	ppm	ASTM D5185(m)		1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	<1		
	Aluminum	ppm	ASTM D5185(m)	>20	61		
	Lead	ppm	ASTM D5185(m)	>40	6		
	Copper	ppm	ASTM D5185(m)	>330	231		
	Tin	ppm	ASTM D5185(m)	>15	4		
	Vanadium	ppm	ASTM D5185(m)		0		
CONTAMINATION	Silicon	nnm	ACTM DE10E(m)	. 25	8		
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>20	102		
	Fuel	ppiii	WC Method		<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	, 0.2	NEG		
	Soot %	%	ASTM D7844*	>3	0.3		
	Nitration	Abs/cm	ASTM D7624*	>20	10.8		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	23.4		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		5		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	250	23		
	Barium	ppm	ASTM D5185(m)	10	<1		
	Molybdenum	ppm	ASTM D5185(m)	100	49		
	Manganese	ppm	ASTM D5185(m)		4		
	Magnesium	ppm	ASTM D5185(m)	450	586		
	Calcium	ppm	ASTM D5185(m)	3000	1711		
	Phosphorus	ppm	ASTM D5185(m)	1150	727		
	Zinc	ppm	ASTM D5185(m)	1350	871		
	Sulfur	ppm	ASTM D5185(m)	4250	1596		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	26.8		
	Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.4		
D				_			





CALA ISO 17025:2017 Accredited Laboratory

Laboratory

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Sample No. : WC0892074 Lab Number : 02618864 Unique Number : 5735974 Test Package : MOB 1

: 29 Feb 2024 **Tested** : 29 Feb 2024 - Kevin Marson Diagnosed

Received

: 29 Feb 2024

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.

**MANITOULIN TRANSPORT** 

75 MUMFORD ROAD LIVELY, ON CA P3Y 1L1

Contact: Todd Smith tosmith@manitoulintransport.com T: (705)562-3302

F: x: