

# **OIL ANALYSIS REPORT**

Area [41770632] 9689

Component **Diesel Engine** 

**DIESEL ENGINE OIL SAE 10W30 (--- GAL)** 

# Sample Rating Trend



## Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

# Contamination

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.

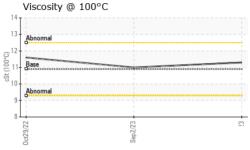
# **Fluid Condition**

The condition of the oil is acceptable for the time in service.

		Oct	2022	Sep 2023 Oct 20	23	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853329	WC0853393	WC0737960
Sample Date		Client Info		14 Oct 2023	02 Sep 2023	29 Oct 2022
Machine Age	kms	Client Info		73805	0	18071
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<b>△</b> 2.6
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	46	21	68
Chromium	ppm	ASTM D5185(m)	>20	1	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	0	1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	33	10	27
Lead	ppm	ASTM D5185(m)	>40	<1	0	<1
Copper	ppm	ASTM D5185(m)	>330	2	1	15
Tin	ppm	ASTM D5185(m)	>15	<1	<1	1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	31	36	20
Barium	ppm	ASTM D5185(m)		<1	0	6
Molybdenum	ppm	ASTM D5185(m)	100	2	2	48
Manganese	ppm	ASTM D5185(m)		<1	<1	7
Magnesium	ppm	ASTM D5185(m)	450	771	705	788
Calcium	ppm	ASTM D5185(m)	3000	1402	1280	1224
Phosphorus	ppm	ASTM D5185(m)	1150	703	677	714
Zinc Sulfur	ppm	ASTM D5185(m) ASTM D5185(m)		809 2521	732 2379	810 1917
Lithium	ppm	ASTM D5185(m)	4230	<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6	4	17
Sodium	ppm	ASTM D5185(m)		4	3	6
Potassium	ppm	ASTM D5185(m)	>20	69	25	67
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.6	0.4	0.6
Nitration	Abs/cm	ASTM D7624*	>20	11.8	10.2	13.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.5	22.8	26.3
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.7	18.0	27.3



# **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	ΓIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.3	11.0	<b>▲</b> 11.6
GRAPHS						
Iron (ppm)				Lead (ppm)		

GRAPHS				
Iron (ppm)		Lead (ppm)		
250		80 Severe		
200 Severe	-	70		
150	Ε	· ·		
100 - Abnormal	5	Abnormal		
50		20		
0		10		
0ct29/22	Oct14/23.	0ct29/22	Sep2/23 ·	Oct14/23.
0	0 25			00
Aluminum (ppm)		Chromium (p	pm)	
40 - Severe 35 -		40 Severe		
30		30		
E 25 Abnorma	E	25 20 Abnormal		
15		15		
5		5		
23 23 23 23 23 23 23 23 23 23 23 23 23 2		22	23	23
0ct29/22	Oct14/23	0ct29/22	Sep2/23	Oct14/23
Copper (ppm)		Silicon (ppm)		
Severe Abnormal		Severe		
300		60-		
250 E 200		50 +		
150		30 Abnormal		
100		20		
50		0		
Oct29/72	0ct14/23	0ct29/22	Sep2/23	Oct14/23
o Siscosity @ 100°C	ő	Soot %	65	0
14 T		8.0 Severe		
Abnormal		7.0 Abnormal		
		F.O.		
(2) 12 Base	***************************************	4.0		
Abnormal		2.0		
9+		1.0		
× 723	-723	0.0	723	723
0ct29/22	0ct14/23	Oct29/22	Sep 2/23	Oct14/23



**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5658582 Test Package : MOB 1

: 02589516

: WC0853329

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 17 Oct 2023 Diagnosed : 17 Oct 2023

Diagnostician : Wes Davis

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.

**Rush Truck Centres** 7450 Torbram Rd. Mississauga, ON CA L4T 1G9 Contact: Serdar Okur sokur@rushtruckcentres.ca T: (905)671-7600