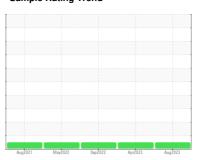


# **OIL ANALYSIS REPORT**

Sample Rating Trend



**NORMAL** 



Machine Id **9521** Component

**Diesel Engine** 

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

## Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

## 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

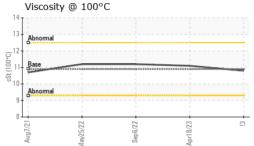
## **Fluid Condition**

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

		Aug2021	May2022	Sep2022 Apr2023	Aug2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853395	WC0796242	WC0703107
Sample Date		Client Info		31 Aug 2023	18 Apr 2023	06 Sep 2022
Machine Age	kms	Client Info		299324	284807	248475
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	26	12	17
Chromium	ppm	ASTM D5185(m)	>20	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<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	4	3	4
Lead	ppm	ASTM D5185(m)	>40	3	<1	2
Copper	ppm	ASTM D5185(m)	>330	4	2	2
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
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	29	62	55
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	3	3	2
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	728	729	669
Calcium	ppm	ASTM D5185(m)	3000	1313	1398	1296
Phosphorus	ppm	ASTM D5185(m)	1150	704	739	705
Zinc	ppm	ASTM D5185(m)	1350	761	766	730
Sulfur	ppm	ASTM D5185(m)	4250	2416	2574	2449
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	4	4
Sodium	ppm	ASTM D5185(m)		4	3	3
Potassium	ppm	ASTM D5185(m)	>20	10	7	9
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.3	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	10.9	9.3	5.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.5	19.5	15.1
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.7	14.8	8.2



# **OIL ANALYSIS REPORT**



VISUAL		method				history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.8	11.1	11.2

Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.8	11.1	11.2	
GRAPHS							
Iron (ppm)				Lead (ppm	)		
200 Severe				80 Severe			
		; ;		60			
150 -		     		Abnormal			
100 - Abnormal				30			
50				10			
1721	1/22	1/23	/23	0 1/2/1	77/	1/23	/23
Aug7/21	Sep6/22.	Apr18/23 -	Aug31/23	Aug7/2	May.55/22 Sep.6/22	Apr18/23	Aug31/23
Aluminum (ppm)	)			Chromium	(ppm)		
40 - Severe				40 - Severe			
35				30			
Abnormal		 		Abnormal			
15				15			
10				5			
721	722	/23	/23	0 1/2/1	77	/23	123
Aug7/21	Sep6/22.	Apr18/23	Aug31/23	Aug7/21	May.55/22.	Apr18/23	Aug31/23
Copper (ppm)				Silicon (ppi	m)		
Severe 350 - Abnormal				70 Severe			
250				50			
E 200				E 40			
150				Abnormal			
50				10-			
721	722		73	721	- 77	723	13
Aug7/21	Sep 6/22	Apr18/23	Aug31/23	Aug7/21	Sep 6/22 ·	Apr18/23	Aug31/23
Viscosity @ 100°	C			Soot %			
14				8.0 Severe			
Abnormal				6.0 Abnormal			
11- Base			-	5.0			
10 T				3.0			
Abnormal 9				1.0			
N21—	22		23	0.0	- 22	23	23
4ug7/21	Sep 6/22.	pr18/23 -	ıg31/23	/Lgnv	3y25/22	pr18/23.	ıg31/23



**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5633661 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0853395 : 02580601

Received : 06 Sep 2023 Diagnosed : 06 Sep 2023 Diagnostician : Kevin Marson

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