

# **OIL ANALYSIS REPORT**

Area [41020921] 4380

Component **Diesel Engine** 

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

Sample Rating Trend



### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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 oil.

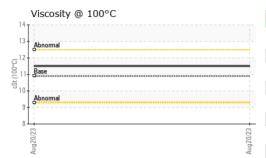
### **Fluid Condition**

The condition of the oil is acceptable for the time in

				Aug2023		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0796296		
Sample Date		Client Info		20 Aug 2023		
Machine Age	kms	Client Info		528410		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	17		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)	7	<1		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	7		
Lead	ppm	ASTM D5185(m)	>40	2		
Copper	ppm	ASTM D5185(m)	>330	1		
Tin		ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	1 /		0		
	ppm	ASTM D5185(m)		0		
Beryllium Cadmium	ppm	ASTM D5185(m) ASTM D5185(m)		0		
ADDITIVES	ррт	method	limit/base	current	history1	history2
	202			36		- Illstoryz
Boron	ppm	ASTM D5185(m)	250			
Barium	ppm	ASTM D5185(m) ASTM D5185(m)	100	0		
Molybdenum	ppm		100	2		
Manganese	ppm	ASTM D5185(m)	450	<1		
Magnesium	ppm	ASTM D5185(m)	450 3000	740		
Calcium	ppm	ASTM D5185(m)		1368		
Phosphorus	ppm	ASTM D5185(m)	1150	747		
Zinc	ppm	ASTM D5185(m)		801		
Sulfur Lithium	ppm	ASTM D5185(m) ASTM D5185(m)	4250	2561 <1		
CONTAMINANTS			limit/bass			
		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5		
Sodium Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>20	3 14		
	ppm					
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.3		
Nitration	Abs/cm	ASTM D7624*	>20	10.6		
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.0		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.1		



## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
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		
<b>Emulsified Water</b>	scalar	Visual*	>0.2	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	TIFS	method	limit/base	current	historv1	history2

Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.5	
GRAPHS					
Jron (ppm)  Severe  John John John John John John John John			Aug20/23	Lead (ppm)  100 80 80 40 40 20  EEEE/2025any	Aug20/23
Aluminum (ppm)				Chromium (ppm)	
Severe  Abnormal  0  620026hry			Aug20/23	Severe  Abnormal  10  0  EXECUTE 10  Abnormal	Aug20/23
Copper (ppm)				Silicon (ppm)	
300 Severe Abnormal				80 T Severe 60 E 40 Abnormal	
Aug20/23			Aug20/23	Aug20/23	Aug20/23
Viscosity @ 100°C			Aug20/23 Aug	Soot %  5.0   Severe  Abnormal  2.0   Sout %	Aug20/23



**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number Unique Number : 5631650

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : 02578590

: WC0796296

Received Diagnosed

Diagnostician : Wes Davis

: 28 Aug 2023

: 28 Aug 2023

Test Package : MOB 1 ( Additional Tests: Visual )

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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