

# **OIL ANALYSIS REPORT**

## Sample Rating Trend

# NORMAL

# DWGCWLB3LL1010785

Component

**Diesel Engine** 

**DOOSAN 15W40 (--- GAL)** 

#### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the

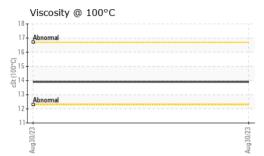
### **Fluid Condition**

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

			,	Aug 2023		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0811258		
Sample Date		Client Info		30 Aug 2023		
Machine Age	hrs	Client Info		4956		
Oil Age	hrs	Client Info		500		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Glycol		WC Method		NEG		
			1111-11		la ta ta mod	la la la ma O
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	3		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>5	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>40	<1		
Copper	ppm	ASTM D5185(m)	>30	2		
Tin	ppm	ASTM D5185(m)	>15	<1		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		81		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		4		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		444		
Calcium	ppm	ASTM D5185(m)		1664		
Phosphorus	ppm	ASTM D5185(m)		856		
Zinc	ppm	ASTM D5185(m)		922		
Sulfur	ppm	ASTM D5185(m)		2629		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	5		
Sodium	ppm	ASTM D5185(m)		2		
Potassium	ppm	ASTM D5185(m)	>20	4		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0		
Nitration	Abs/cm	ASTM D7624*	>20	9.0		
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.1		
Odilation						
FLUID DEGRADA	TION	method	limit/base	current	history1	history2



## **OIL ANALYSIS REPORT**



VISUAL		method				history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	VLITE		
Debris	scalar	Visual*	NONE	VLITE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
<b>Emulsified Water</b>	scalar	Visual*	>0.1	NEG		
Free Water	scalar	Visual*		NEG		
ELLIID DDODEDI	TIEC	mothod	limit/base	current	history1	history?

Visc @ 100°C	cSt	ASTM D7279(m)	13.9	
GRAPHS				
Iron (ppm)			Lead (ppm)	
120 Severe			80 Severe	
80				
Abnormal			40 Abnormal	-
20			20	
0 23			- 0 <del>   </del>	73
Aug30/23			Aug30/23 Aug30/23	Aug30/23
Aluminum (ppm	1)		Chromium (ppm)	
50 Severe			50 40 Severe	
Abnormal			E 20 Abnormal	
10			10	
0)/23 🗖			1/23	1/23
Aug30/23			Aug30/23 Aug30/23	Aug30/23
Copper (ppm)			Silicon (ppm)	
Severe			Severe 30	
<sub>∈</sub> 30 Abnormal			Eag	
E 20			Abnormal	
10			10	
0/23			0 1520	0/23
Aug30/23			Aug30/23	Aug30/23
Viscosity @ 100	°C		Soot %	
Abnormal			5.0 Severe	
Abnormal			4.0 de Abnormal	
Abnormal			2.0	
12			1.0	
4ng30/23			Aug30/23 +	62/0
Aug3			Aug30/23 Aug30/23	Aug30/23

: 05 Sep 2023

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**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5633246

: WC0811258 : 02580186

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

Diagnosed Diagnostician : Wes Davis

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.

C.G. EQUIPMENT

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