



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**DODGE NO UNIT WC0484039**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T6 5W40 (--- GAL)**

## RECOMMENDATION

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0484039</b>	---	---
Sample Date		Client Info		<b>20 May 2024</b>	---	---
Machine Age	kms	Client Info		<b>176440</b>	---	---
Oil Age	kms	Client Info		<b>16000</b>	---	---
Filter Age	kms	Client Info		<b>16000</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>46</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>1</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>18</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

There is an abnormal level of sulfation indicated.

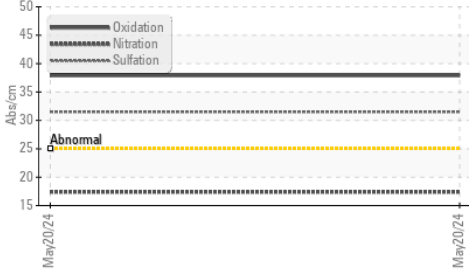
Silicon	ppm	ASTM D5185(m)	>25	<b>7</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---
Soot %	%	ASTM D7844*	>3	<b>0.6</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>17.4</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>▲ 31.5</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

A small degree of oil oxidation was indicated. Viscosity of sample indicates oil is within SAE 50 range, advise investigate. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>84</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>82</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>1903</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>790</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>991</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>2514</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>▲ 37.9</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.2	<b>▲ 16.7</b>	---	---

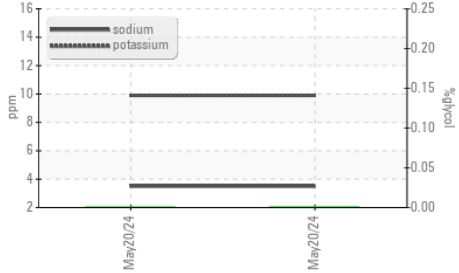
▲ FT-IR (Direct Trend)



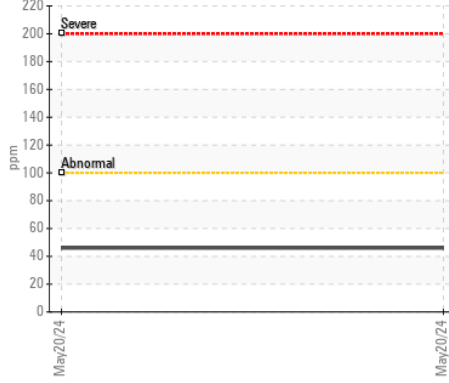
▲ Viscosity @ 100°C



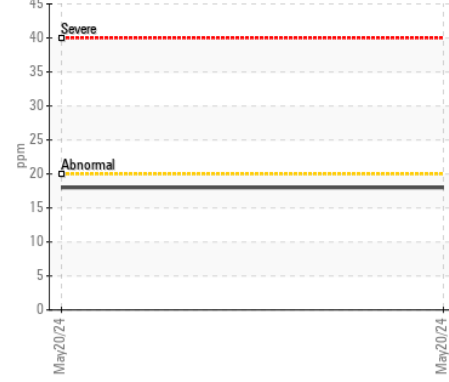
Glycol Contamination



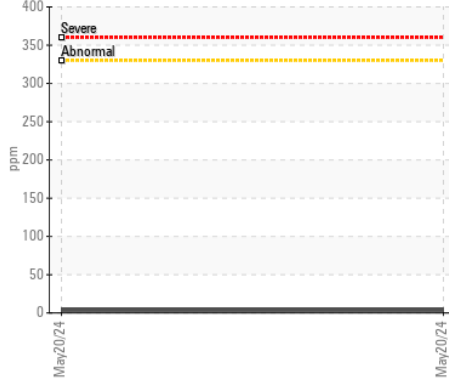
Iron (ppm)



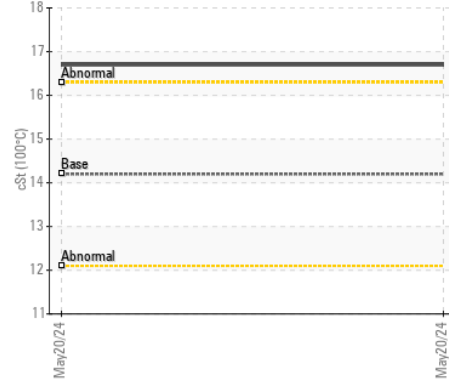
Aluminum (ppm)



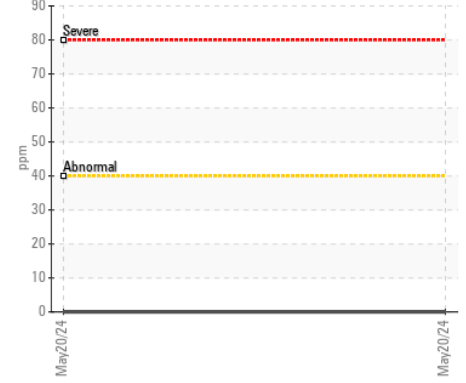
Copper (ppm)



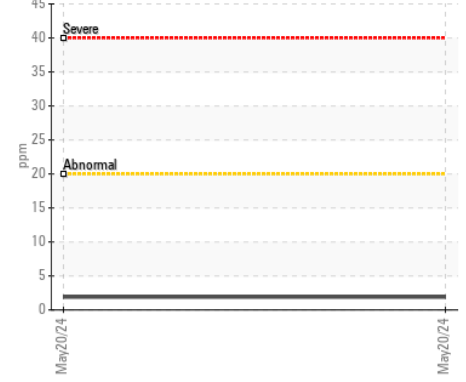
▲ Viscosity @ 100°C



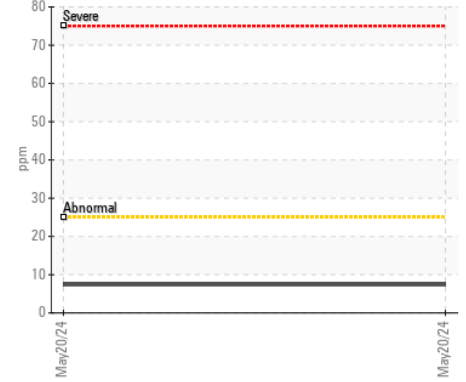
Lead (ppm)



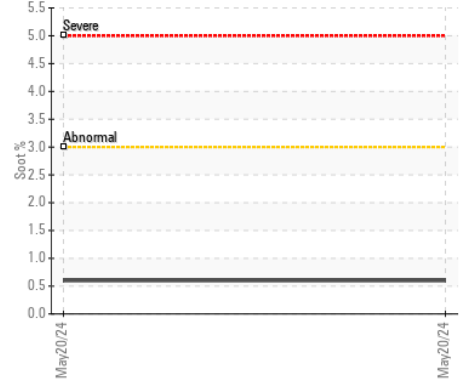
Chromium (ppm)



Silicon (ppm)



Soot %



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0484039 **Received** : 22 May 2024  
**Lab Number** : 02636856 **Tested** : 22 May 2024  
**Unique Number** : 5786018 **Diagnosed** : 22 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, Visual )

**PEDERSON AGGREGATES**  
 RR #3, 748 DAVIS DRIVE  
 UXBRIDGE, ON  
 CA L9P 1R3  
 Contact: Kaj Pedersen  
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 T: (905)852-7861  
 F:

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.