

PROBLEM SUMMARY

Sample Rating Trend

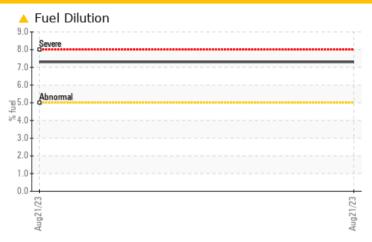
FUEL

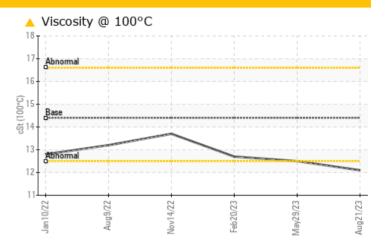
1203 Component

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS									
Sample Status				ABNORMAL	NORMAL	NORMAL			
Fuel	%	ASTM D3524	>5	7.3	<1.0	<1.0			
Visc @ 100°C	cSt	ASTM D445	144	12 1	125	12 7			

Customer Id: TOWCHANC Sample No.: WC0845024 Lab Number: 05934087 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample			?	We recommend an early resample to monitor this condition.
Information Required			?	Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the component make and model with your next sample.

HISTORICAL DIAGNOSIS

29 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



NORMAL



20 Feb 2023 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



14 Nov 2022 Diag: Wes Davis





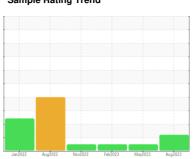
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id 1203 Component

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info WC0845024 WC0810366 WC0766316 Sample Date Client Info 21 Aug 2023 29 May 2023 20 Feb 2023 Machine Age mls Client Info 289164 0 278263 Oil Age mls Client Info Changed Changed Changed Sample Status Immitted Status Current Immitted NoRMAL NORMAL CONTAMINATION method Immitted Status current history1 history2 Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185n >100 12 7 12 12 Iron ppm ASTM 05185n >20 11 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1			Jan 2022	Aug2022 Nov2022	Feb 2023 May 2023	Aug2023	
Sample Date Client Info 21 Aug 2023 29 May 2023 20 Feb 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age Oil Age mls Oilent Info 289164 0 0 278263 Oil Age mls Oilent Info 0 0 6000 Oil Changed Sample Status Client Info Changed Changed Changed Changed NORMAL NORMAL NORMAL CONTAMINATION method limil/base current history1 history2 Glycol WC Method NEG NEG NEG NEG WEAR METALS method limil/base current history1 history2 Iron ppm ASTM D5185m >100 12 7 12 Chromium ppm ASTM D5185m >20 <1	Sample Number		Client Info		WC0845024	WC0810366	WC0766316
Oil Age mls Client Info Changed	Sample Date		Client Info		21 Aug 2023	29 May 2023	20 Feb 2023
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WEAR METALS	CONTAMINATION	١	method	limit/base	current	history1	history2
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	12	7	12
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Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 4 1 4 Lead ppm ASTM D5185m >40 0 <1	Nickel	ppm	ASTM D5185m	>4	0	0	0
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Copper ppm ASTM D5185m >330 -1 2 1 Tin ppm ASTM D5185m >15 -1 <1 0 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 10 0 0 0 Barium ppm ASTM D5185m 10 0 0 0 Molybdenum ppm ASTM D5185m 100 82 75 67 Manganese ppm ASTM D5185m 100 82 75 67 Magnesium ppm ASTM D5185m 450 257 230 266 Calcium ppm ASTM D5185m 450 257 230 266 Calcium ppm ASTM D5185m 11027 1007 971	Aluminum	ppm		>20	4	1	4
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Sodium ppm ASTM D5185m >158 30 15 12 Potassium ppm ASTM D5185m >20 1 3 2 Fuel % ASTM D3524 >5 ▲ 7.3 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 0.8 0.7 Nitration Abs/cm *ASTM D7624 >20 11.2 10.6 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 23.3 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4	CONTAMINANTS		method	limit/base			history2
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Fuel % ASTM D3524 >5 ▲ 7.3 <1.0	Sodium	ppm	ASTM D5185m	>158	30	15	12
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 0.8 0.7 Nitration Abs/cm *ASTM D7624 >20 11.2 10.6 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 23.3 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4							
Soot % % *ASTM D7844 >3 1.4 0.8 0.7 Nitration Abs/cm *ASTM D7624 >20 11.2 10.6 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 23.3 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4	Fuel	%	ASTM D3524	>5	△ 7.3	<1.0	<1.0
Nitration Abs/cm *ASTM D7624 >20 11.2 10.6 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 23.3 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 23.0 23.3 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4	Soot %	%	*ASTM D7844	>3	1.4	0.8	0.7
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.9 20.4 19.4	Nitration	Abs/cm	*ASTM D7624	>20	11.2	10.6	10.6
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	23.3	22.5
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 7.0 6.5 6.8	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.9	20.4	19.4
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	6.5	6.8



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number **Unique Number**

13

: WC0845024 : 05934087 : 10619358

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Aug 2023 Diagnosed : 28 Aug 2023 Diagnostician : Wes Davis

Base 2.0 0.0

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Nov14/22

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Feb20/23

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

TOWN OF CHAPEL HILL 6900 MILLHOUSE RD CHAPEL HILL, NC

US 27516 Contact: Lisa DePasqua

Idepasqua@townofchapelhill.org

T: (919)696-4941

Report Id: TOWCHANC [WUSCAR] 05934087 (Generated: 08/28/2023 14:27:33) Rev: 1

Contact/Location: Lisa DePasqua - TOWCHANC