

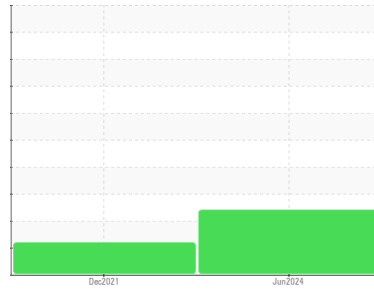
# PROBLEM SUMMARY

Machine Id  
**03BS-1138**

Component  
**Diesel Engine**

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

Sample Rating Trend

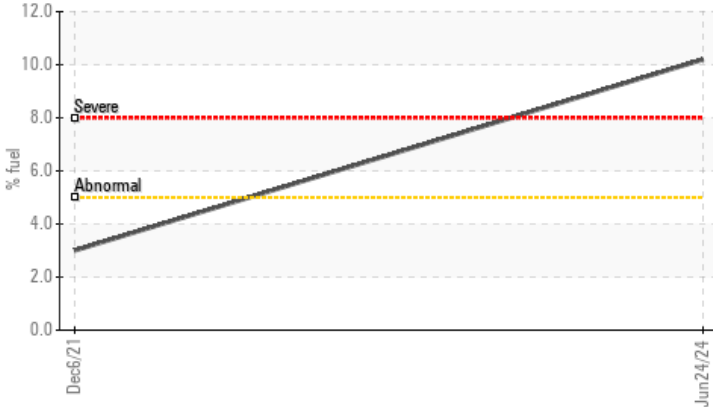


**FUEL**

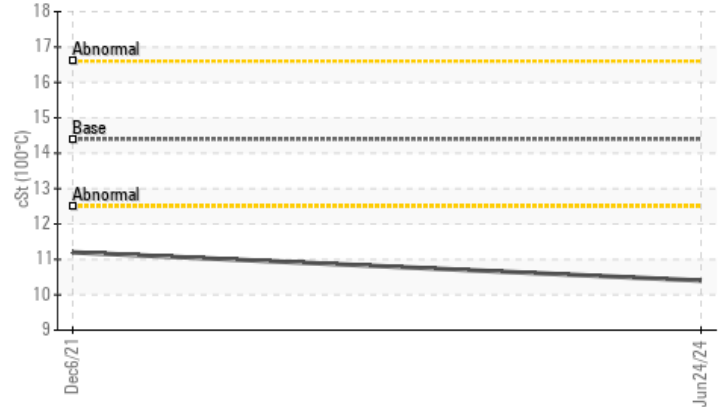


## COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



▲ Viscosity @ 100°C



## RECOMMENDATION

We advise that you check the fuel injection system. 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				<b>SEVERE</b>	<b>ABNORMAL</b>	---
Fuel	%	ASTM D3524	>5	▲ <b>10.2</b>	▲ 3.0	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ <b>10.4</b>	▲ 11.2	---

Customer Id: JAMASH  
Sample No.: JR0211805  
Lab Number: 06219519  
Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Wes Davis +1 905-569-8600 x223  
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To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto: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.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

FUEL



**06 Dec 2021 Diag: Don Baldrige**

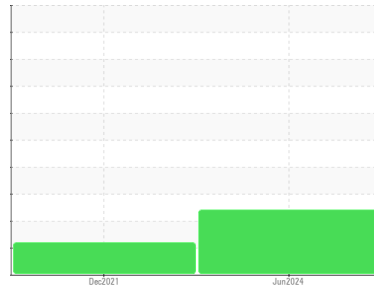
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



**FUEL**



Machine Id  
**03BS-1138**

Component  
**Diesel Engine**

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

**DIAGNOSIS**

**▲ Recommendation**

We advise that you check the fuel injection system. 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 high 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			<b>JR0211805</b>	JR0107137	---
Sample Date	Client Info			<b>24 Jun 2024</b>	06 Dec 2021	---
Machine Age	hrs	Client Info		<b>1627</b>	364	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>SEVERE</b>	ABNORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>10</b>	11	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	<1	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	---
Copper	ppm	ASTM D5185m	>330	<b>32</b>	77	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---

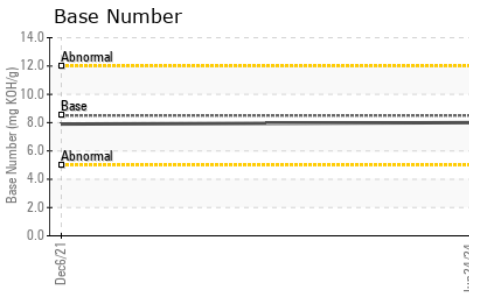
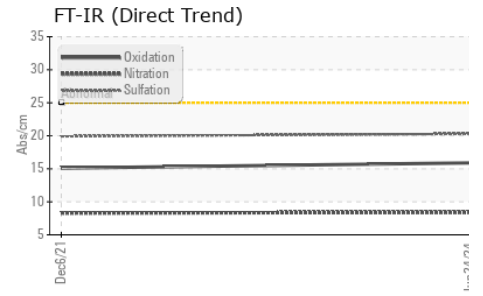
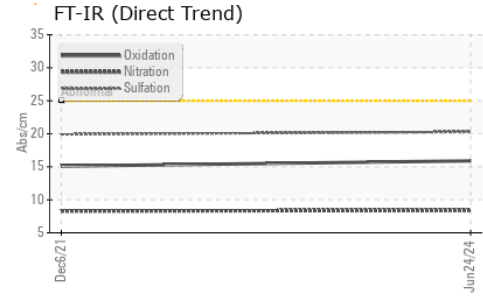
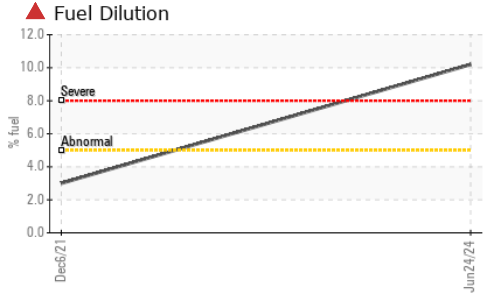
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>215</b>	31	---
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>226</b>	74	---
Manganese	ppm	ASTM D5185m		<b>1</b>	2	---
Magnesium	ppm	ASTM D5185m	450	<b>691</b>	24	---
Calcium	ppm	ASTM D5185m	3000	<b>1250</b>	2533	---
Phosphorus	ppm	ASTM D5185m	1150	<b>727</b>	859	---
Zinc	ppm	ASTM D5185m	1350	<b>949</b>	955	---
Sulfur	ppm	ASTM D5185m	4250	<b>2537</b>	3207	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	16	---
Sodium	ppm	ASTM D5185m	>158	<b>&lt;1</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	---
Fuel	%	ASTM D3524	>5	<b>▲ 10.2</b>	▲ 3.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	8.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	19.9	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	15.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.0</b>	7.9	---

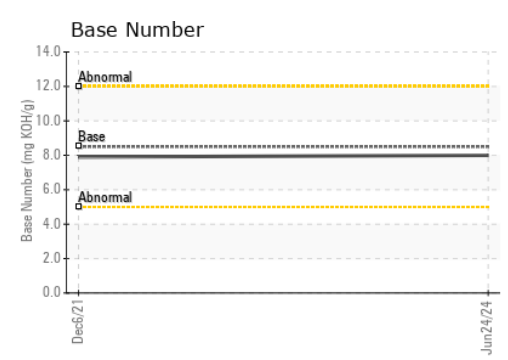
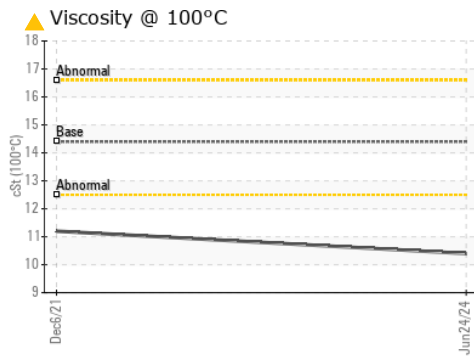
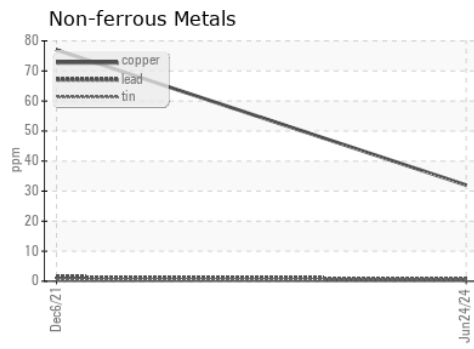
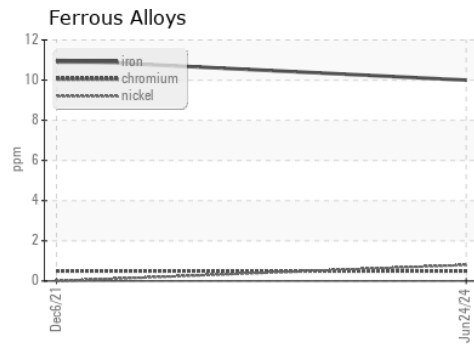
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
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	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 10.4	▲ 11.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211805      **Received** : 25 Jun 2024  
**Lab Number** : 06219519      **Tested** : 28 Jun 2024  
**Unique Number** : 11097716      **Diagnosed** : 28 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

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To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)