



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ATTENTION</b>

Machine Id  
**OTTAWA 2600**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0841895</b>	WC0742431	WC0645241
Sample Date		Client Info		<b>20 Dec 2023</b>	09 May 2023	01 Aug 2022
Machine Age	mls	Client Info		<b>73184</b>	73072	72879
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	ABNORMAL	SEVERE

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>2</b>	3	2
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	2
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	1
Copper	ppm	ASTM D5185m	>330	<b>22</b>	12	12
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

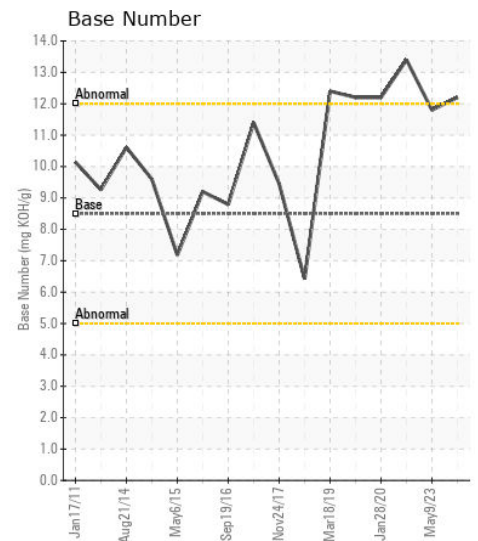
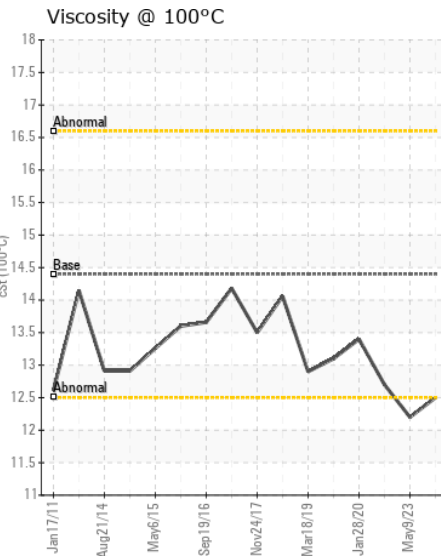
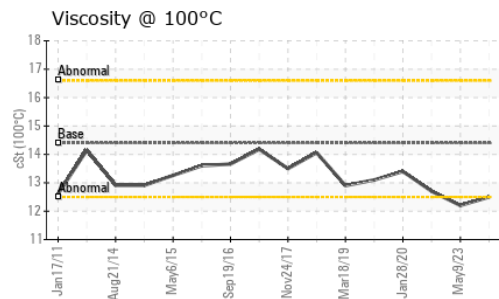
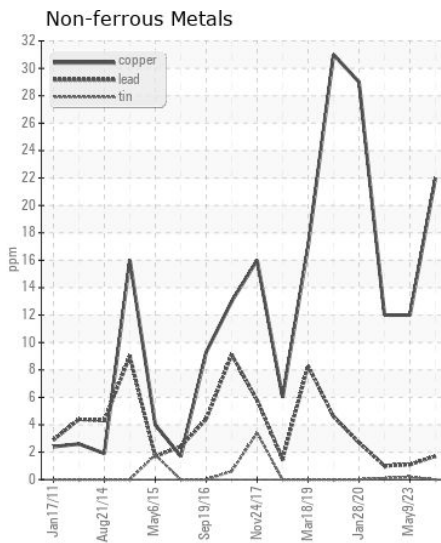
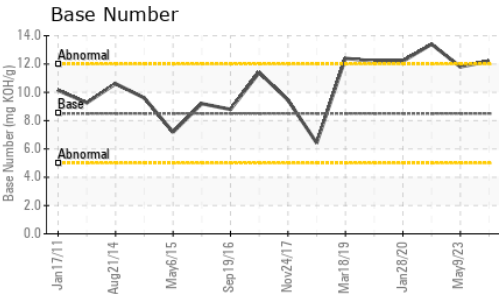
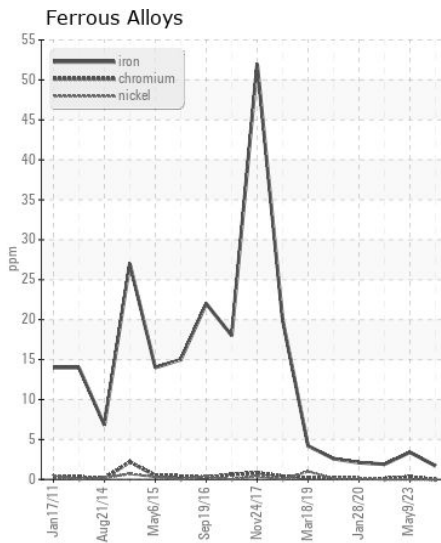
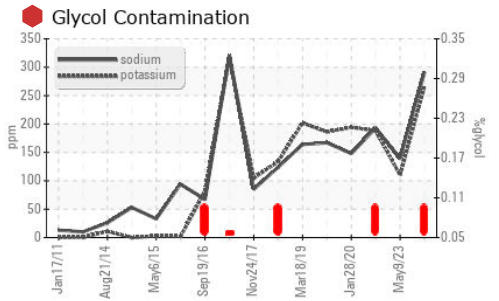
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	11	6
Potassium	ppm	ASTM D5185m	>20	<b>266</b>	110	188
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.3	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>0.10</b>	NEG	0.10
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	6.3	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.4</b>	18.4	18.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>158	<b>291</b>	139	193
Boron	ppm	ASTM D5185m	250	<b>6</b>	7	8
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>79</b>	73	75
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>876</b>	981	896
Calcium	ppm	ASTM D5185m	3000	<b>965</b>	1117	1027
Phosphorus	ppm	ASTM D5185m	1150	<b>1018</b>	1080	1020
Zinc	ppm	ASTM D5185m	1350	<b>1167</b>	1268	1254
Sulfur	ppm	ASTM D5185m	4250	<b>3218</b>	3672	3087
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.5</b>	13.8	14.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>12.2</b>	11.8	13.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.5</b>	12.2	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0841895 **Received** : 18 Jan 2024  
**Lab Number** : 06064865 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10836247 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: Glycol )

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)

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