



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 488**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0906006</b>	WC0868030	WC0727384
Sample Date		Client Info		<b>19 Apr 2024</b>	12 Feb 2024	26 Jul 2023
Machine Age	mls	Client Info		<b>32404</b>	229721	219693
Oil Age	mls	Client Info		<b>5000</b>	0	0
Filter Age	mls	Client Info		<b>5000</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>22</b>	3	25
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	2
Copper	ppm	ASTM D5185m	>330	<b>1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<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

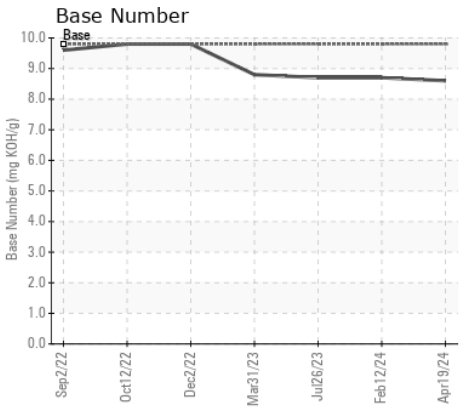
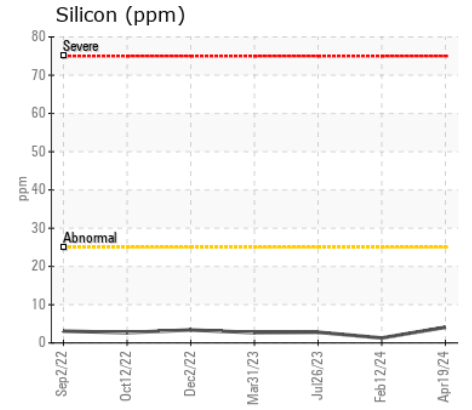
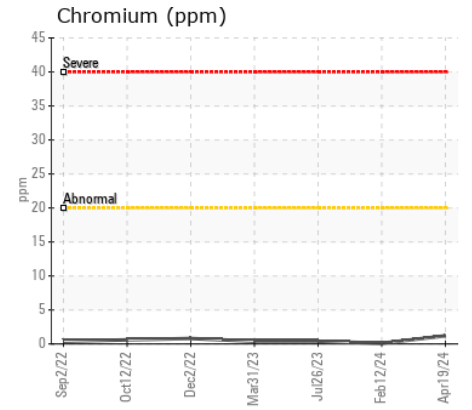
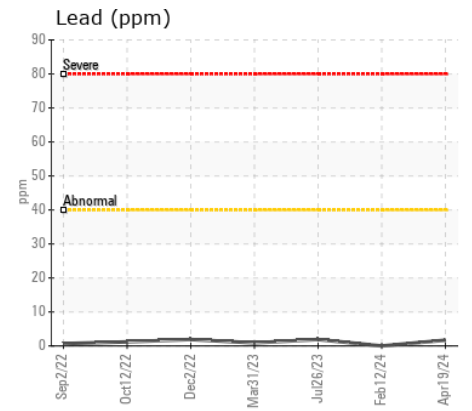
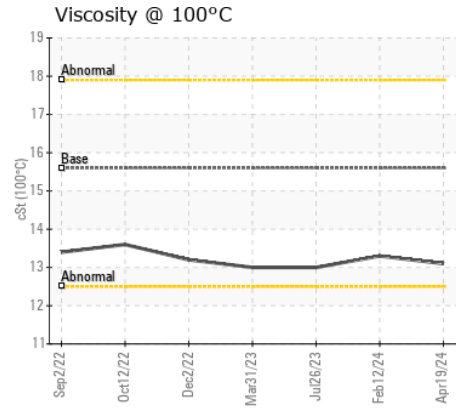
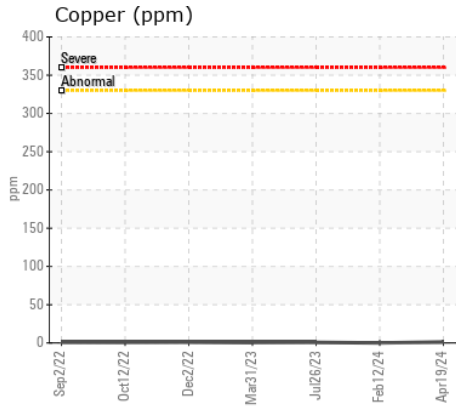
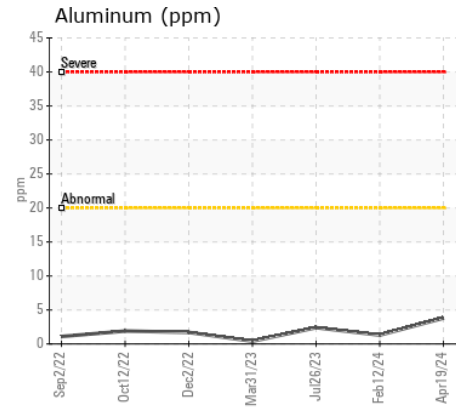
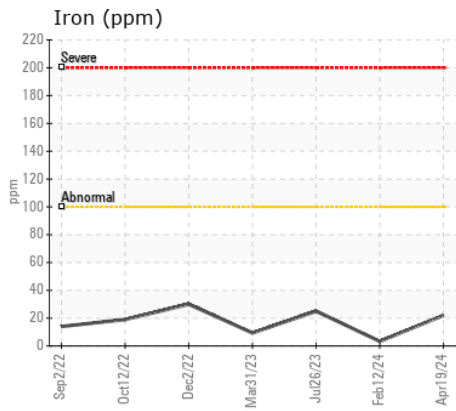
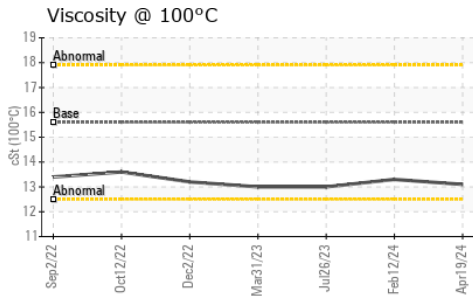
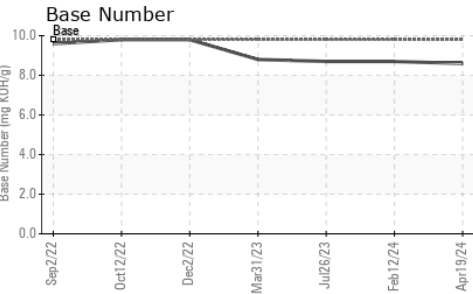
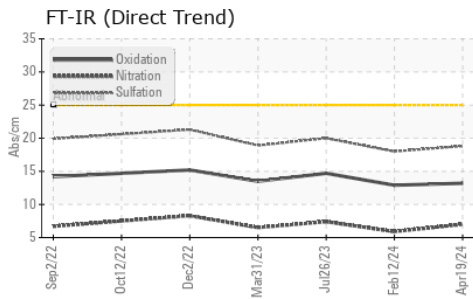
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	1	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.5	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	5.9	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	18.0	20.0
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 condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	0	<1
Boron	ppm	ASTM D5185m		<b>5</b>	8	11
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>56</b>	58	67
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>871</b>	899	851
Calcium	ppm	ASTM D5185m		<b>1182</b>	1005	1207
Phosphorus	ppm	ASTM D5185m		<b>1133</b>	1011	994
Zinc	ppm	ASTM D5185m		<b>1231</b>	1228	1214
Sulfur	ppm	ASTM D5185m		<b>3564</b>	3032	3284
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.2</b>	12.9	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	8.7	8.7
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.1</b>	13.3	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0906006  
**Lab Number** : 06161109  
**Unique Number** : 10996532  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 25 Apr 2024  
**Tested** : 29 Apr 2024  
**Diagnosed** : 29 Apr 2024 - Wes Davis

**WAYNE CO SCHOOL BUS GARAGE**  
 1603 SALEM CHURCH RD  
 GOLDSBORO, NC  
 US 27530  
 Contact: BRANDON BRIGGS  
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 T:  
 F:

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)