



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

50000 Series

Machine Id

Freightliner 50145

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (38 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0915480	WC0828262	WC0794942
Sample Date		Client Info		20 Apr 2024	29 Aug 2023	19 Apr 2023
Machine Age	kms	Client Info		993207	27000	559092
Oil Age	kms	Client Info		0	27000	26618
Filter Age	kms	Client Info		0	27000	26618
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Chromium ppm levels are abnormal. Ring wear is indicated.

Iron	ppm	ASTM D5185(m)	>65	30	19	20
Chromium	ppm	ASTM D5185(m)	>5	▲ 7	2	2
Nickel	ppm	ASTM D5185(m)	>3	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>5	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>35	19	11	13
Lead	ppm	ASTM D5185(m)	>10	0	<1	1
Copper	ppm	ASTM D5185(m)	>180	14	20	44
Tin	ppm	ASTM D5185(m)	>8	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

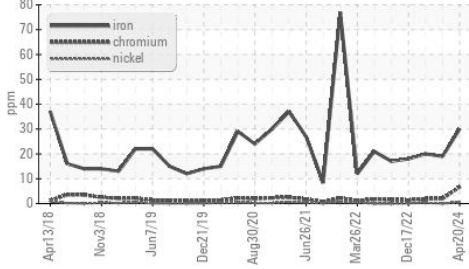
Silicon	ppm	ASTM D5185(m)	>15	5	7	5
Potassium	ppm	ASTM D5185(m)	>20	9	12	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.4	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	9.4	8.5	8.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	21.0	20.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

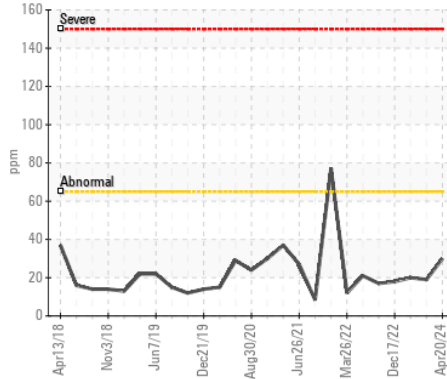
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		237	310	59
Boron	ppm	ASTM D5185(m)	2	3	3	5
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	68	66	63
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	960	942	961
Calcium	ppm	ASTM D5185(m)	1050	1114	1046	1163
Phosphorus	ppm	ASTM D5185(m)	995	872	874	965
Zinc	ppm	ASTM D5185(m)	1180	1142	1085	1125
Sulfur	ppm	ASTM D5185(m)	2600	2130	2007	2001
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.1	15.0	16.8
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.4	11.5	11.1

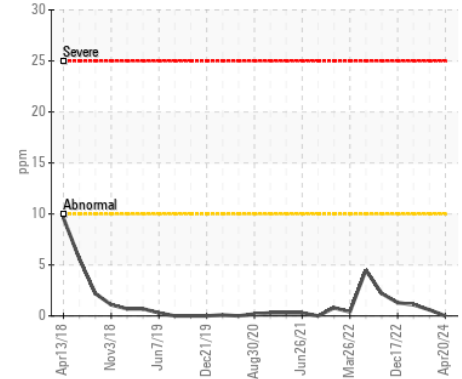
▲ Ferrous Alloys



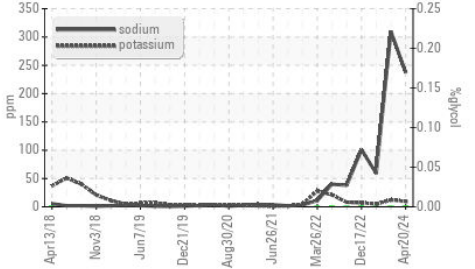
Iron (ppm)



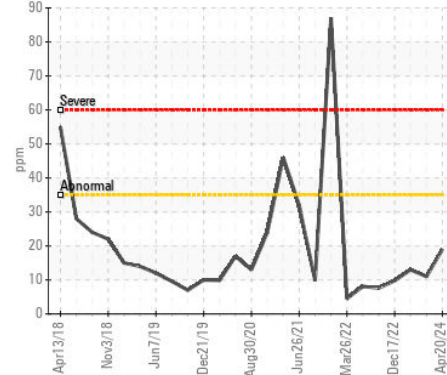
Lead (ppm)



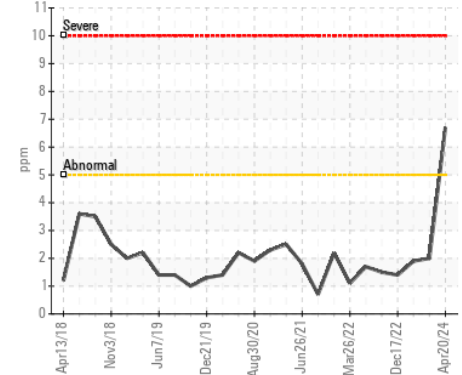
Glycol Contamination



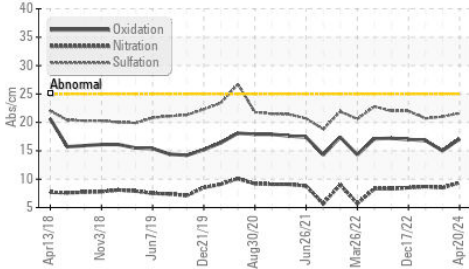
Aluminum (ppm)



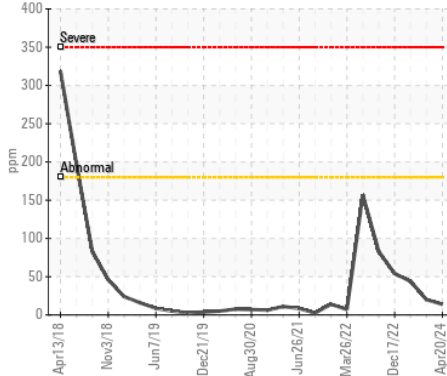
▲ Chromium (ppm)



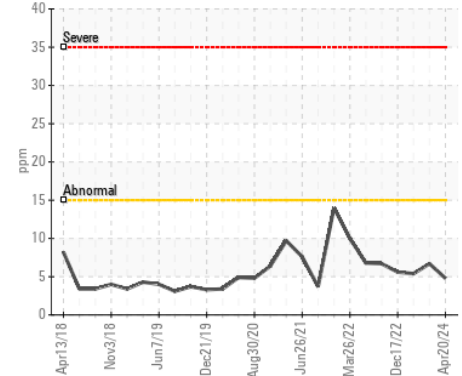
FT-IR (Direct Trend)



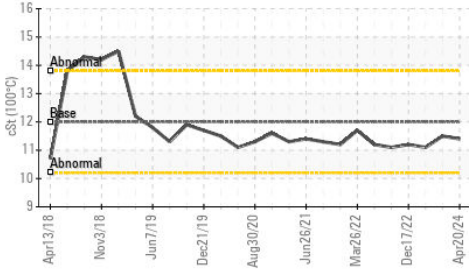
Copper (ppm)



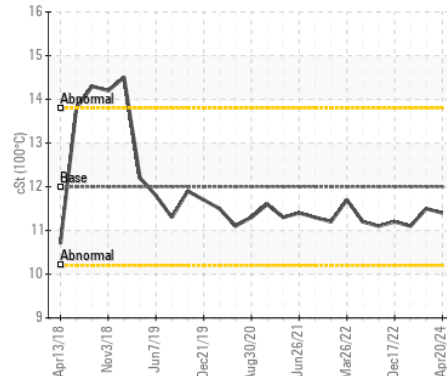
Silicon (ppm)



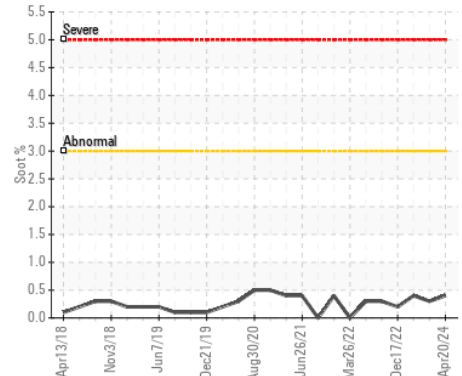
Viscosity @ 100°C



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0915480 **Received** : 30 Apr 2024
Lab Number : 02632234 **Tested** : 30 Apr 2024
Unique Number : 5773387 **Diagnosed** : 01 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

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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.