



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
Freightliner 192
 Component
Front Diesel Engine
 Fluid
SHELL ROTELLA T4 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0382619	WC0382618	WC0382616
Sample Date		Client Info		21 Jan 2024	28 Apr 2023	10 Jul 2022
Machine Age	hrs	Client Info		1236300	1129900	1007385
Oil Age	hrs	Client Info		36300	29900	64248
Filter Age	hrs	Client Info		36300	29900	64248
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	16	19	29
Chromium	ppm	ASTM D5185(m)	>6	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>50	4	4	7
Lead	ppm	ASTM D5185(m)	>10	0	0	<1
Copper	ppm	ASTM D5185(m)	>50	2	2	3
Tin	ppm	ASTM D5185(m)	>6	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

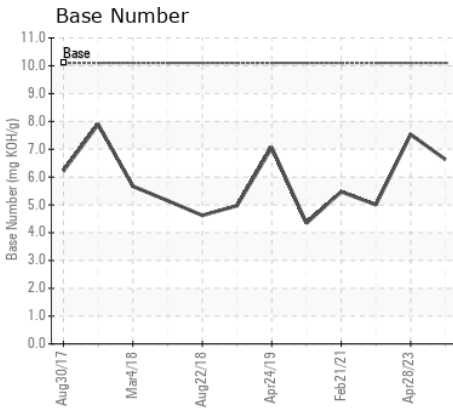
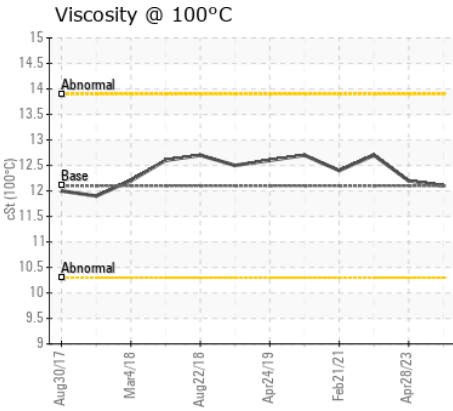
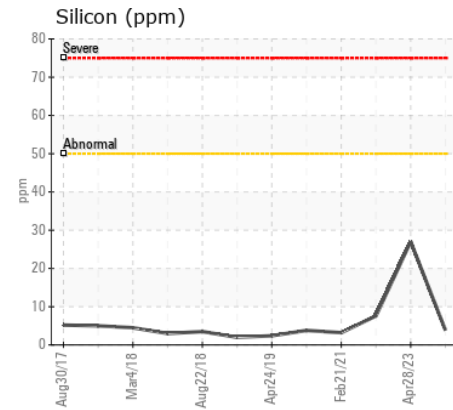
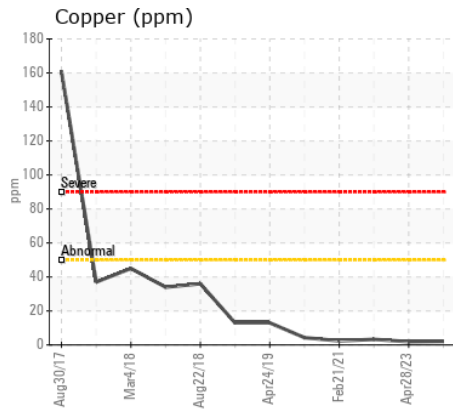
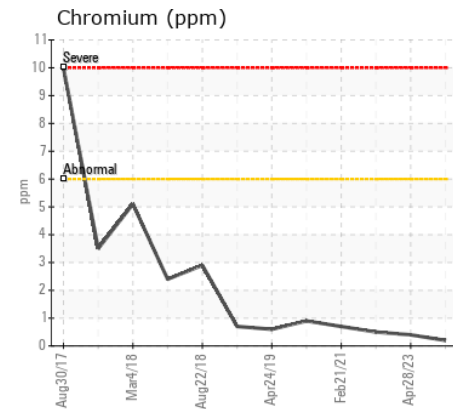
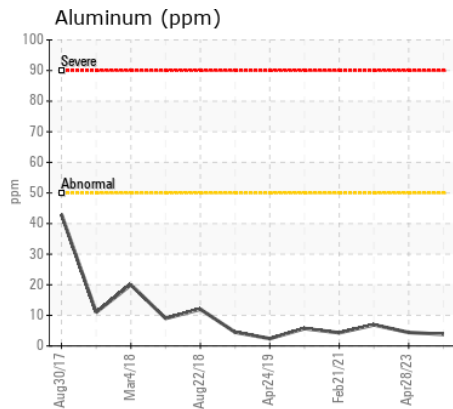
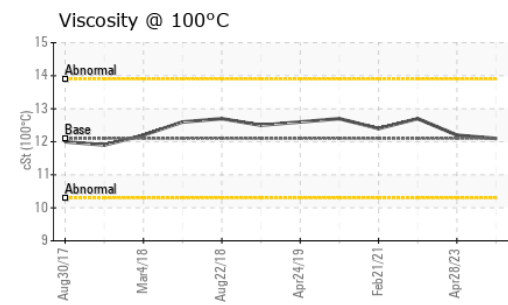
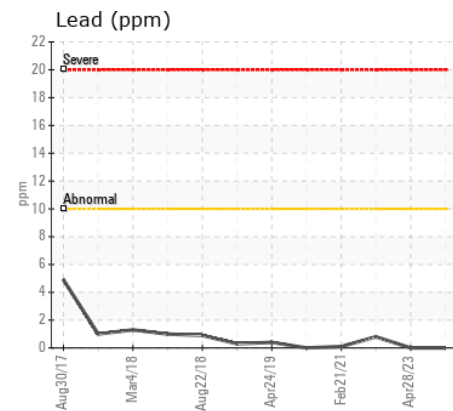
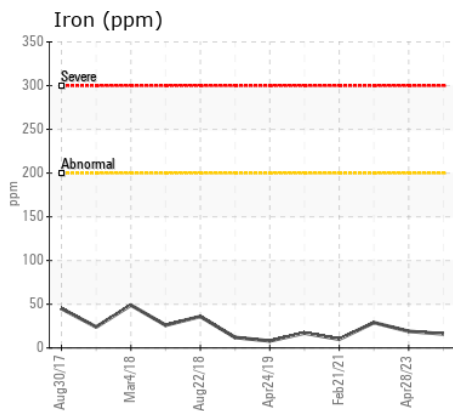
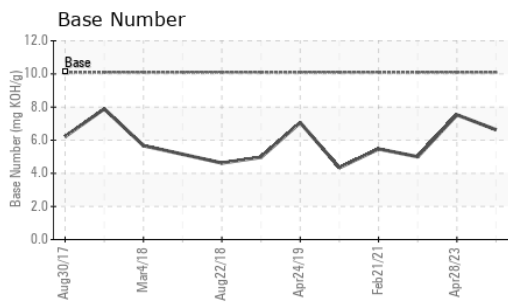
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	4	27	8
Potassium	ppm	ASTM D5185(m)	>20	2	2	10
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	0.2	0.2	0.4
Nitration	Abs/cm	ASTM D7624*	>20	6.7	6.8	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	20.9	25.7
Emulsified Water	scalar	Visual*	>0.2	NEG	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 D5185(m)		1	3	12
Boron	ppm	ASTM D5185(m)		8	59	47
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		<1	49	<1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		16	321	15
Calcium	ppm	ASTM D5185(m)		2265	1916	2249
Phosphorus	ppm	ASTM D5185(m)		850	1074	909
Zinc	ppm	ASTM D5185(m)		998	1197	1141
Sulfur	ppm	ASTM D5185(m)		3041	2801	2816
Oxidation	Abs/.1mm	ASTM D7414*	>25	11.2	16.2	20.2
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	6.63	7.53	5.00
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	12.1	12.2	12.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0382619 **Received** : 22 Jan 2024
Lab Number : 02610116 **Diagnosed** : 23 Jan 2024
Unique Number : 5711202 **Diagnostician** : Kevin Marson
Test Package : MOB 2

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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.