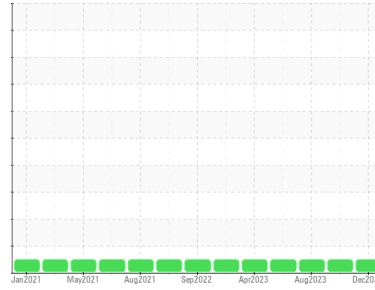




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**51000 series**  
 Machine Id  
**Freightliner 51900**

Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (40 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0805745</b>	WC0864515	WC0837219
Sample Date	Client Info		<b>19 Dec 2023</b>	24 Oct 2023	21 Aug 2023
Machine Age	mls	Client Info	<b>640996</b>	604282	566986
Oil Age	mls	Client Info	<b>36714</b>	37294	40198
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>65	<b>20</b>	20	19
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	1	1
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>35	<b>12</b>	7	6
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>180	<b>4</b>	4	4
Tin	ppm	ASTM D5185(m)	>8	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)	>35	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	2	<b>3</b>	2	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>62</b>	62	63
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>994</b>	1013	1053
Calcium	ppm	ASTM D5185(m)	1050	<b>1118</b>	1122	1125
Phosphorus	ppm	ASTM D5185(m)	995	<b>1011</b>	993	1085
Zinc	ppm	ASTM D5185(m)	1180	<b>1199</b>	1246	1259
Sulfur	ppm	ASTM D5185(m)	2600	<b>2443</b>	2221	2273
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

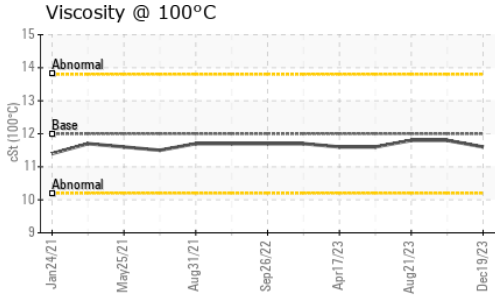
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>4</b>	4	3
Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.6</b>	0.7	0.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.2</b>	9.6	9.9
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>21.2</b>	22.3	22.6



# OIL ANALYSIS REPORT

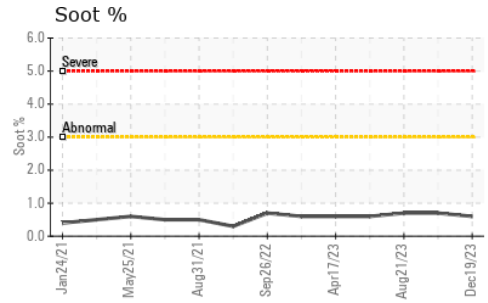
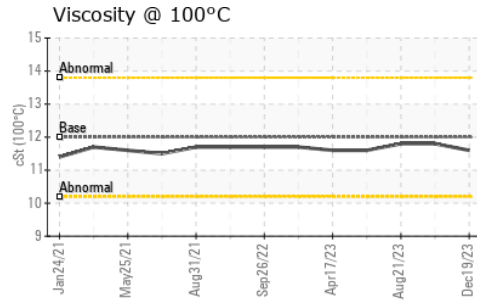
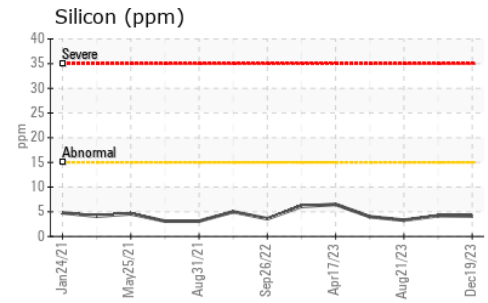
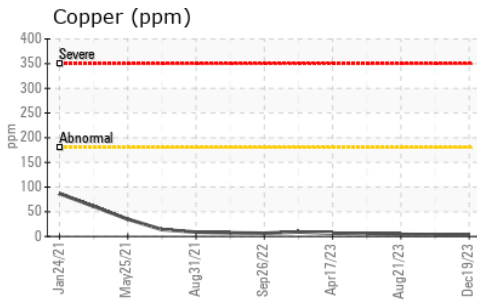
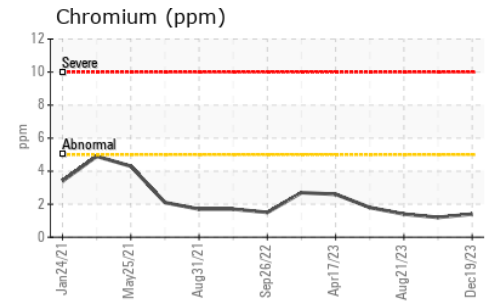
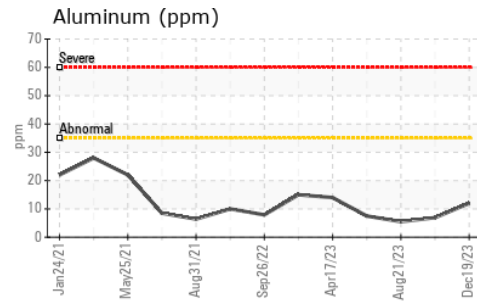
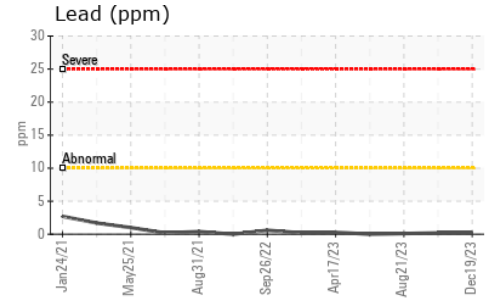
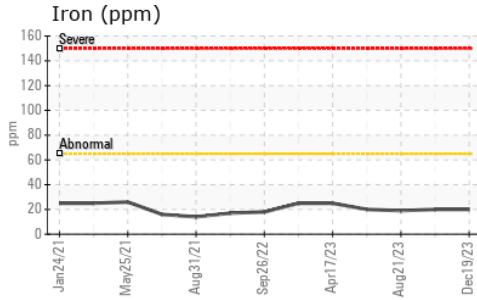


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.3</b>	18.5	18.8

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>11.6</b>	11.8	11.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0805745 **Received** : 28 Dec 2023 1335 SHAWSON DRIVE  
**Lab Number** : **02605505** **Diagnosed** : 28 Dec 2023 MISSISSAUGA, ON  
**Unique Number** : 5698590 **Diagnostician** : Wes Davis CA L4W 1C4  
**Test Package** : MOB 1

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.

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