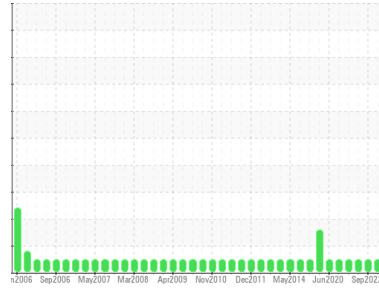




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
FREIGHTLINER 2-142
 Component
Front Diesel Engine
 Fluid
UNOCAL 76 GUARDOL QLT 15W40 (44 QTS)

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0337166	WC0723818	WC0676370
Sample Date	Client Info		17 Jan 2023	25 Sep 2022	17 May 2022
Machine Age	hrs	Client Info	5719	0	361102
Oil Age	hrs	Client Info	1040	0	4105
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>80	23	66	18
Chromium	ppm	ASTM D5185m	>5	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	<1	2	2
Lead	ppm	ASTM D5185m	>30	2	3	1
Copper	ppm	ASTM D5185m	>150	11	11	6
Tin	ppm	ASTM D5185m	>5	<1	1	<1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		47	77	128
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		7	33	58
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		593	639	631
Calcium	ppm	ASTM D5185m		1177	1357	1440
Phosphorus	ppm	ASTM D5185m		610	788	712
Zinc	ppm	ASTM D5185m	1300	743	905	816
Sulfur	ppm	ASTM D5185m		2753	3417	2857

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	4	6	4
Sodium	ppm	ASTM D5185m		6	3	4
Potassium	ppm	ASTM D5185m	>20	11	3	12

INFRA-RED

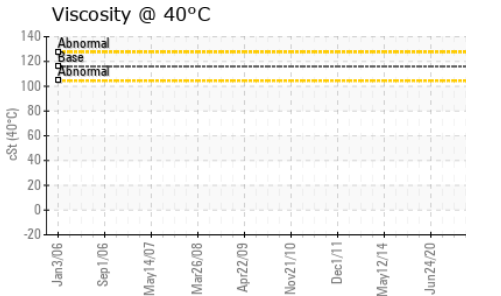
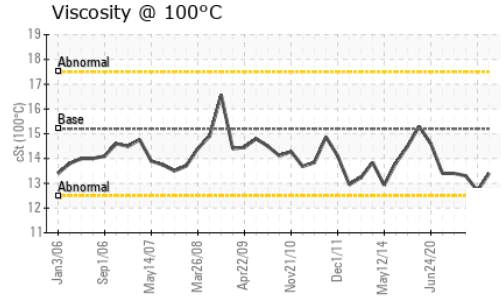
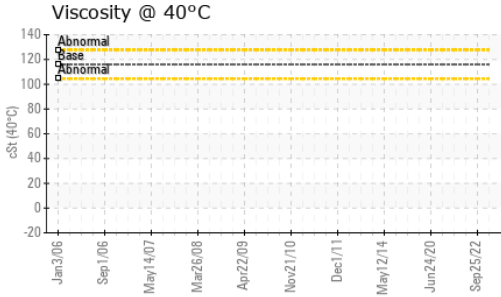
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.2	10.8	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	22.3	20.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	17.8	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	12.0	6.8	7.4	7.5



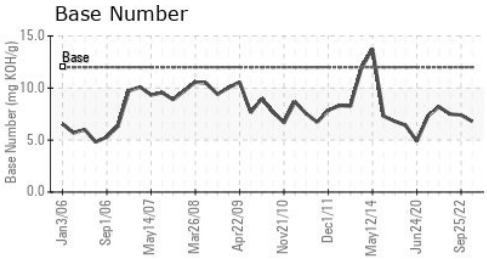
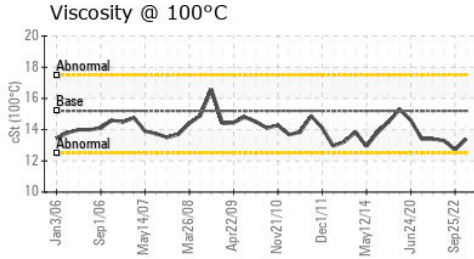
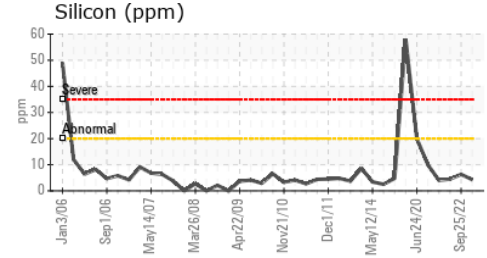
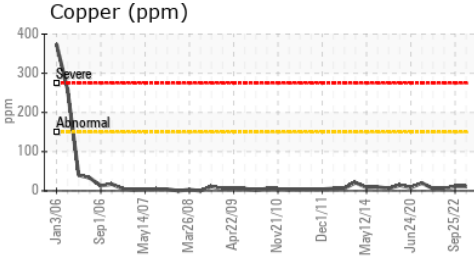
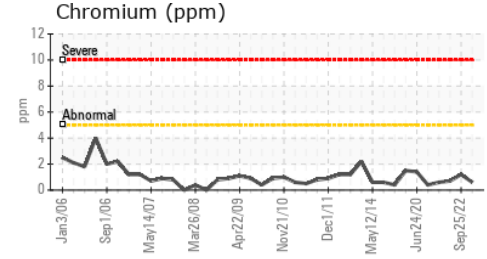
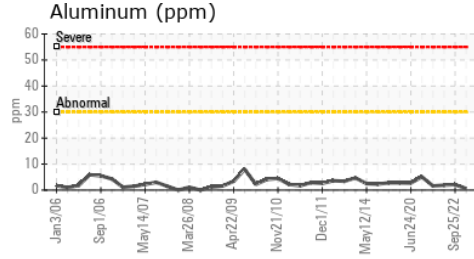
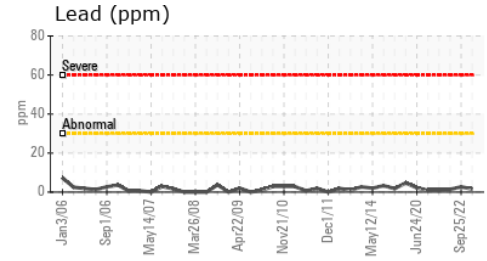
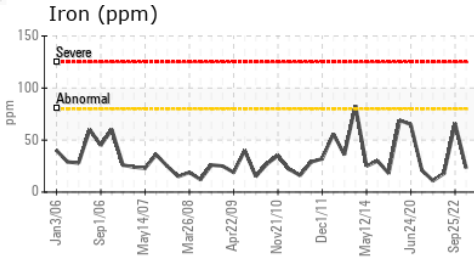
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.2	13.4	12.7	13.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0337166 **Received** : 23 Jan 2023
Lab Number : **05746926** **Diagnosed** : 25 Jan 2023
Unique Number : 10306530 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: KV40, TBN)

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 jpost@lynden.com
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 F: (907)452-1652

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)