



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 46
Component
Upper Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0917737	WC0685987	---
Sample Date		Client Info		03 Jun 2024	13 Nov 2023	---
Machine Age	hrs	Client Info		3088	2557	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	4	5	---
Chromium	ppm	ASTM D5185(m)	>5	0	0	---
Nickel	ppm	ASTM D5185(m)	>5	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>15	<1	1	---
Lead	ppm	ASTM D5185(m)	>30	0	<1	---
Copper	ppm	ASTM D5185(m)	>125	2	3	---
Tin	ppm	ASTM D5185(m)	>5	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

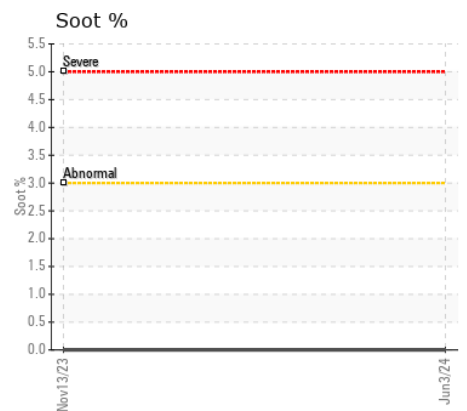
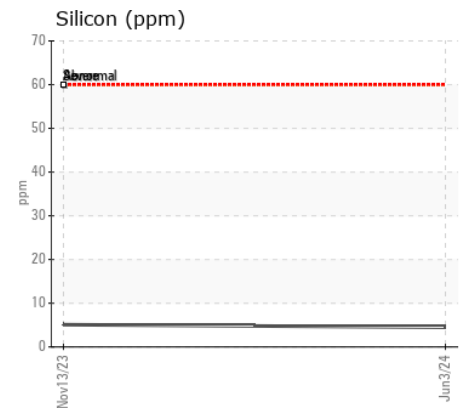
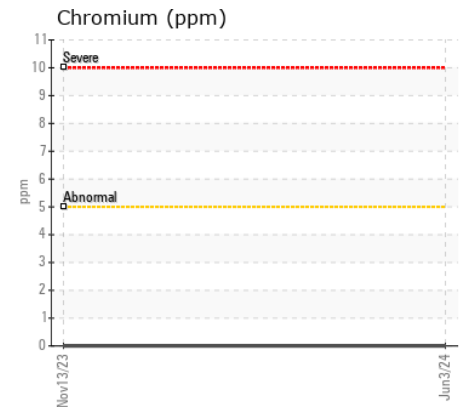
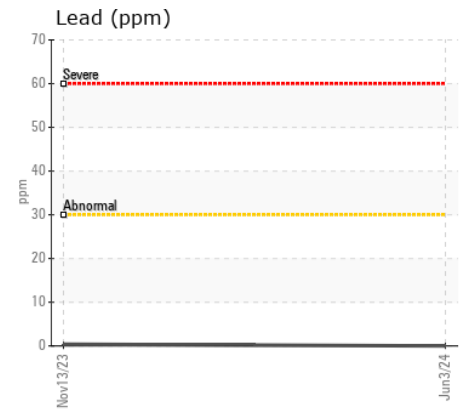
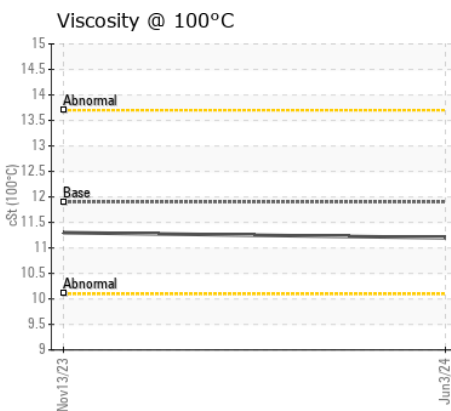
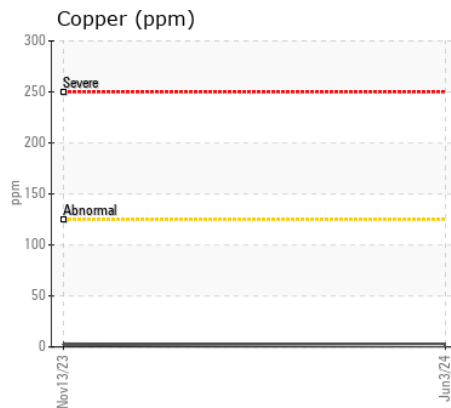
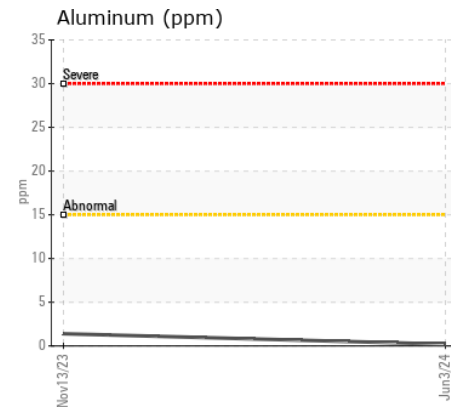
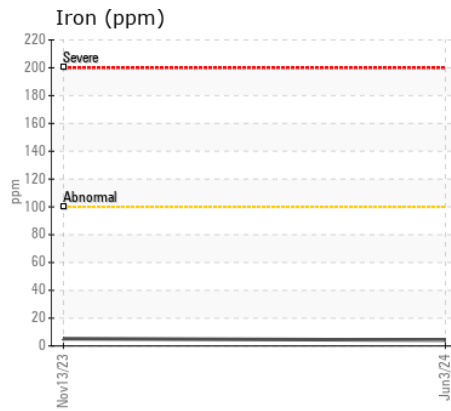
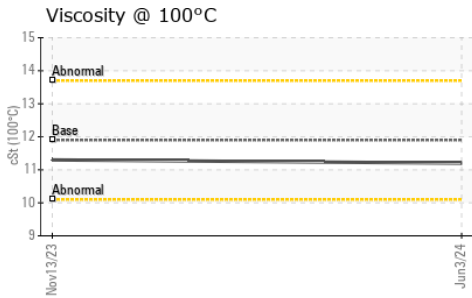
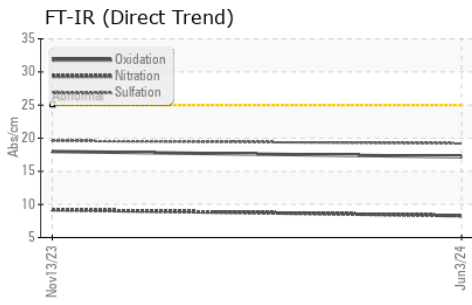
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	5	---
Potassium	ppm	ASTM D5185(m)	>20	0	<1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.3	9.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	19.6	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		4	4	---
Boron	ppm	ASTM D5185(m)	0	55	39	---
Barium	ppm	ASTM D5185(m)	0	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	64	61	60	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	1160	1043	1086	---
Calcium	ppm	ASTM D5185(m)	820	875	854	---
Phosphorus	ppm	ASTM D5185(m)	1160	1019	1029	---
Zinc	ppm	ASTM D5185(m)	1260	1155	1193	---
Sulfur	ppm	ASTM D5185(m)	3000	2708	2982	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.2	18.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	11.9	11.2	11.3	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0917737
Lab Number : 02639812
Unique Number : 5788974
Test Package : MOB 1
Received : 05 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 06 Jun 2024 - Wes Davis

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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.