



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR CEBL-2012
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T SB 0W40 (27 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02631899	---	---
Sample Date		Client Info		23 Apr 2024	---	---
Machine Age	hrs	Client Info		27000	---	---
Oil Age	hrs	Client Info		420	---	---
Filter Age	hrs	Client Info		420	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

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

CONTAMINATION

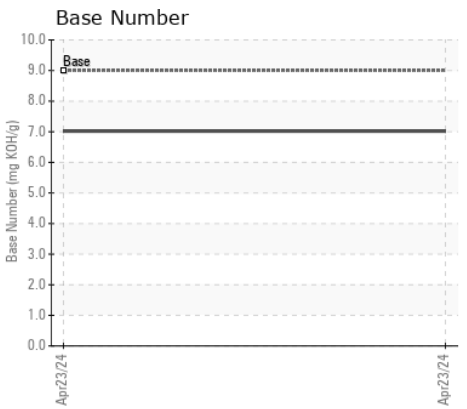
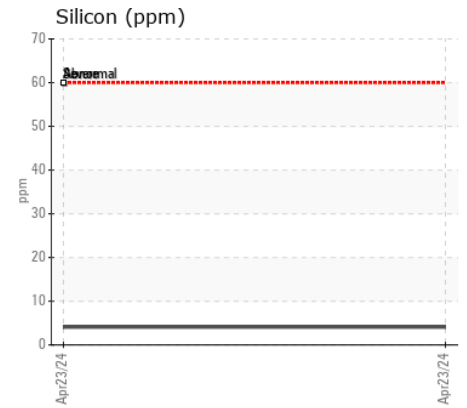
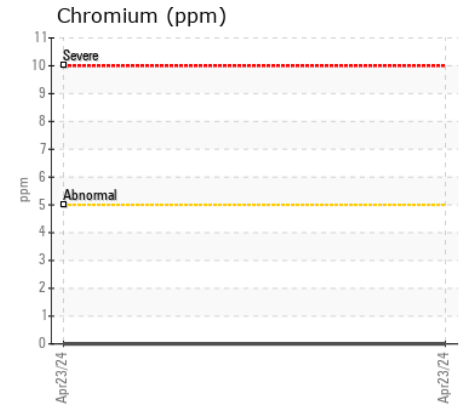
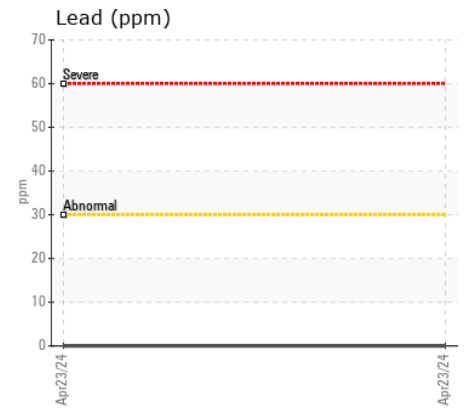
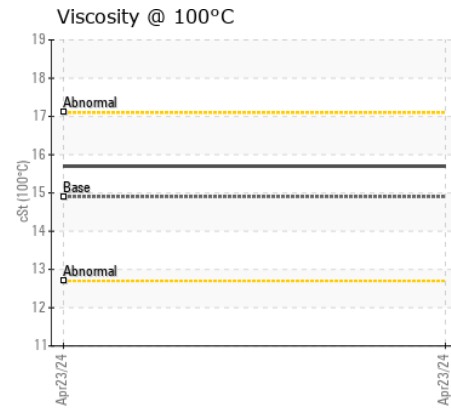
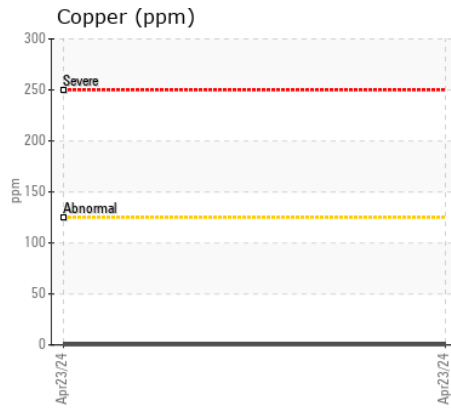
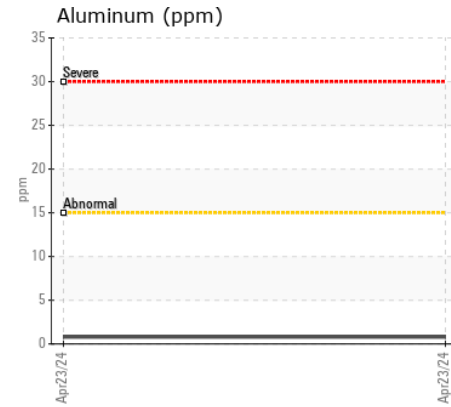
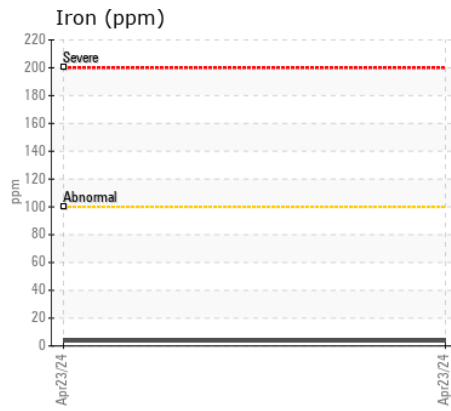
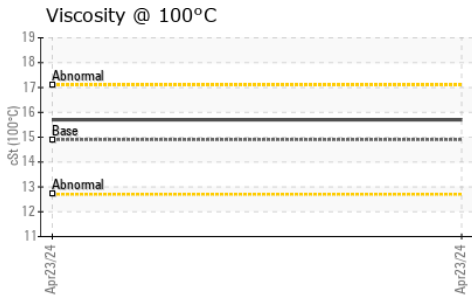
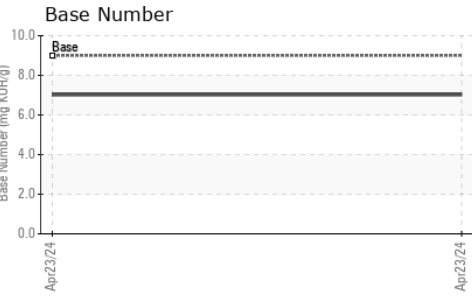
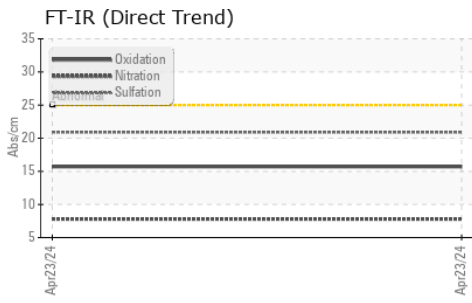
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	3	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.3	---	---
Nitration	Abs/cm	ASTM D7624*	>20	7.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	---	---
Emulsified Water	scalar	Visual*	>0.2	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)		2	---	---
Boron	ppm	ASTM D5185(m)		101	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		65	---	---
Calcium	ppm	ASTM D5185(m)		1843	---	---
Phosphorus	ppm	ASTM D5185(m)		821	---	---
Zinc	ppm	ASTM D5185(m)		955	---	---
Sulfur	ppm	ASTM D5185(m)		2403	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	9	7.02	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.9	15.7	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02631899 **Received** : 29 Apr 2024
Lab Number : 02631899 **Tested** : 29 Apr 2024
Unique Number : 5773052 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : MOB 2

PETROLES TEMIS
 10 RUBE DUBE
 VILLE-MARIE, QC
 CA J9V 1N9

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To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)