



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 5009

Component
Front Differential

Fluid
TRC 790 SURE UNIV GENERIC (12 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06230339	TR05258709	---
Sample Date		Client Info		27 Jun 2024	12 May 2021	---
Machine Age	hrs	Client Info		21087	18387	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Not Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	119	261	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		<1	<1	---
Aluminum	ppm	ASTM D5185m	>25	2	2	---
Lead	ppm	ASTM D5185m	>25	<1	<1	---
Copper	ppm	ASTM D5185m	>100	25	88	---
Tin	ppm	ASTM D5185m	>10	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

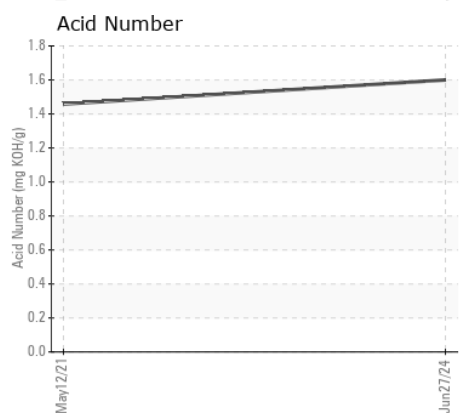
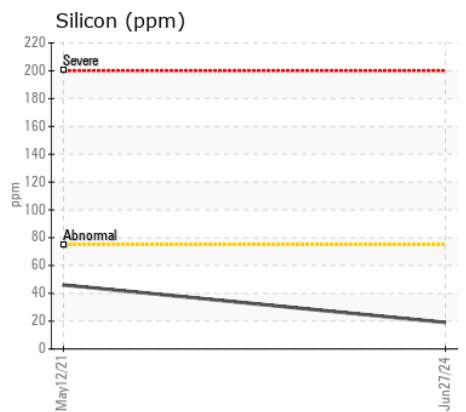
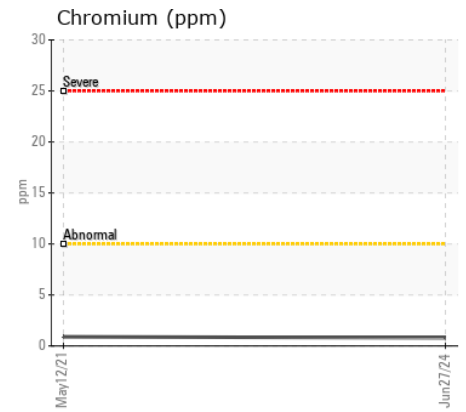
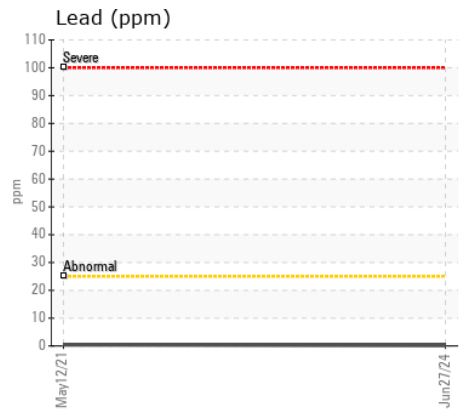
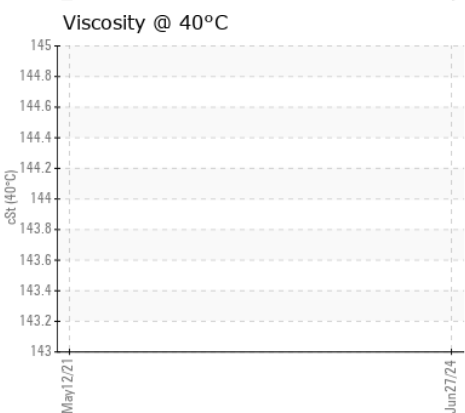
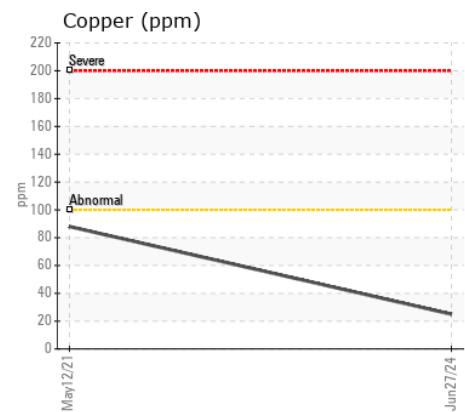
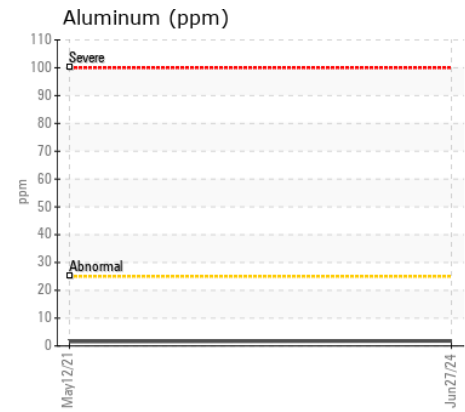
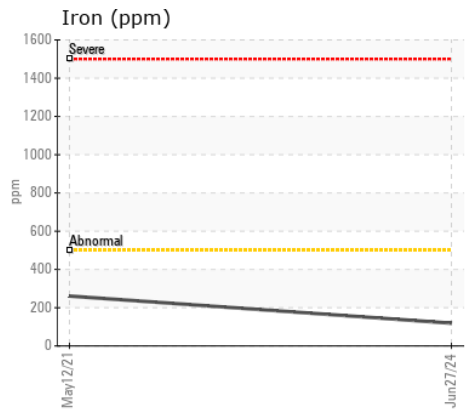
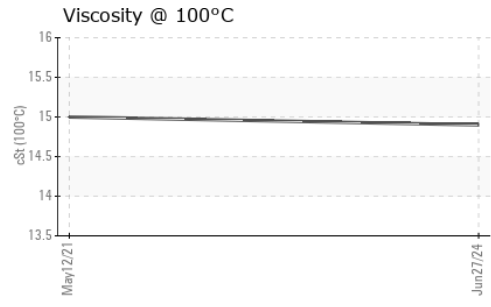
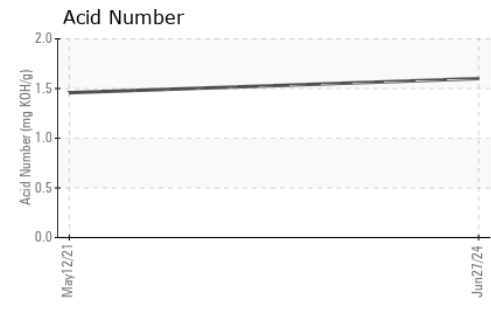
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	19	46	---
Potassium	ppm	ASTM D5185m	>20	2	1	---
Water		WC Method	>.2	NEG	NEG	---
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	>.2	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	7	---
Boron	ppm	ASTM D5185m		274	193	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		<1	<1	---
Manganese	ppm	ASTM D5185m		2	6	---
Magnesium	ppm	ASTM D5185m		2	3	---
Calcium	ppm	ASTM D5185m		6	11	---
Phosphorus	ppm	ASTM D5185m		1015	981	---
Zinc	ppm	ASTM D5185m		15	18	---
Sulfur	ppm	ASTM D5185m		20499	19670	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.60	1.458	---
Visc @ 40°C	cSt	ASTM D445		144	---	---
Visc @ 100°C	cSt	ASTM D445		14.9	15.0	---
Viscosity Index (VI)	Scale	ASTM D2270		103	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06230339 **Received** : 08 Jul 2024
Lab Number : 06230339 **Tested** : 09 Jul 2024
Unique Number : 11113832 **Diagnosed** : 10 Jul 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

MATHIOWETZ CONSTRUCTION COMPANY
 30676 COUNTY RD 24
 SLEEPY EYE, MN
 US 56085
 Contact: Jim Warwick
 jimwarwick@mathiowetzconst.com

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)

T:
F: