

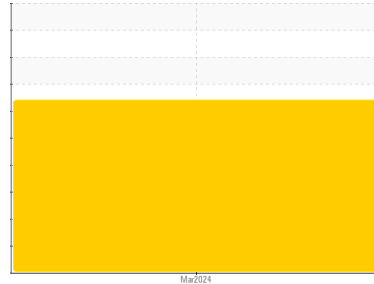
PROBLEM SUMMARY

Sample Rating Trend

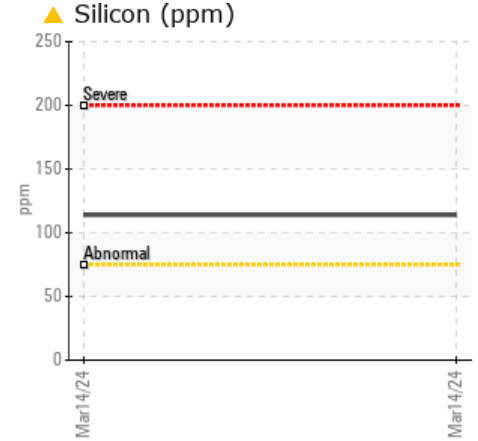
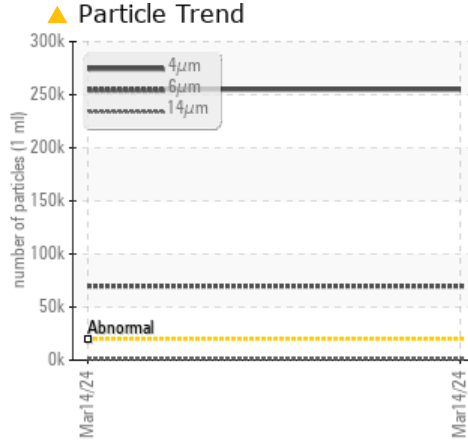
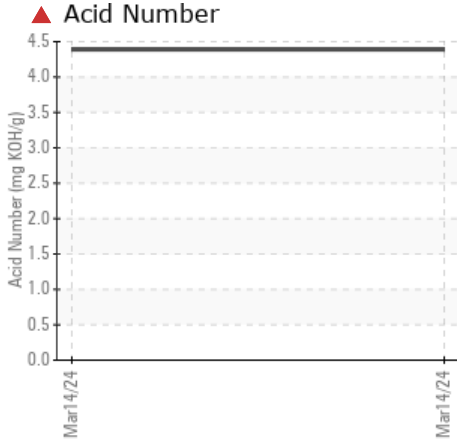
DEGRADATION



Area
TRUCK - URBAN
 Machine Id
FREIGHTLINER 100
 Component
Front Differential
 Fluid
{not provided} (2 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Silicon	ppm	ASTM D5185m	>75	▲ 114	---	---
Particles >4µm		ASTM D7647	>20000	▲ 255061	---	---
Particles >6µm		ASTM D7647	>5000	▲ 69726	---	---
Particles >14µm		ASTM D7647	>640	▲ 1241	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 25/23/17	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 4.39	---	---

Customer Id: PETABE
 Sample No.: PE0003163
 Lab Number: 06131512
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

Area
TRUCK - URBAN
 Machine Id
FREIGHTLINER 100
 Component
Front Differential
 Fluid
{not provided} (2 GAL)



DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

▲ Fluid Condition

The AN level is above the recommended limit.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info		PE0003163	---	---
Sample Date	Client Info		14 Mar 2024	---	---
Machine Age	mls	Client Info	735000	---	---
Oil Age	mls	Client Info	735000	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>.2	NEG	---	---
-------	-----------	-----	------------	-----	-----

WEAR METALS method limit/base current history1 history2

PQ		ASTM D8184		36	---	---
Iron	ppm	ASTM D5185m	>500	495	---	---
Chromium	ppm	ASTM D5185m	>10	4	---	---
Nickel	ppm	ASTM D5185m	>10	1	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>25	5	---	---
Lead	ppm	ASTM D5185m	>25	<1	---	---
Copper	ppm	ASTM D5185m	>100	2	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		<1	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m		164	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		1	---	---
Manganese	ppm	ASTM D5185m		20	---	---
Magnesium	ppm	ASTM D5185m		4	---	---
Calcium	ppm	ASTM D5185m		73	---	---
Phosphorus	ppm	ASTM D5185m		1331	---	---
Zinc	ppm	ASTM D5185m		32	---	---
Sulfur	ppm	ASTM D5185m		21666	---	---

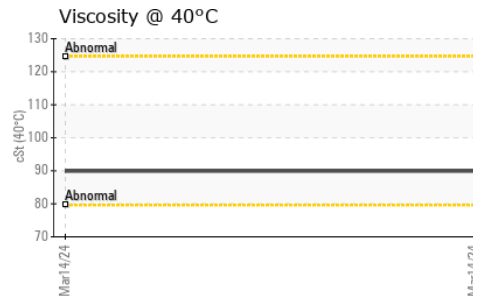
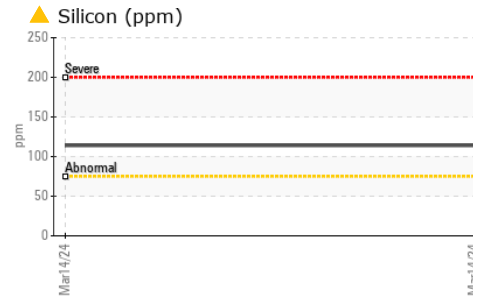
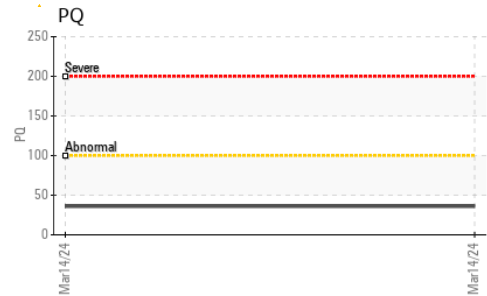
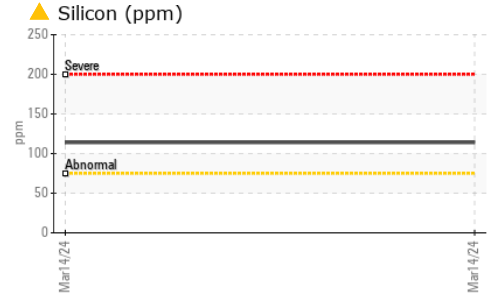
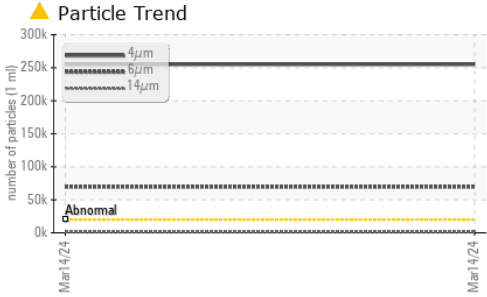
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>75	▲ 114	---	---
Sodium	ppm	ASTM D5185m		12	---	---
Potassium	ppm	ASTM D5185m	>20	10	---	---

FLUID CLEANLINESS method limit/base current history1 history2

Particles >4µm		ASTM D7647	>20000	▲ 255061	---	---
Particles >6µm		ASTM D7647	>5000	▲ 69726	---	---
Particles >14µm		ASTM D7647	>640	▲ 1241	---	---
Particles >21µm		ASTM D7647	>160	154	---	---
Particles >38µm		ASTM D7647	>40	3	---	---
Particles >71µm		ASTM D7647	>10	1	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 25/23/17	---	---

OIL ANALYSIS REPORT



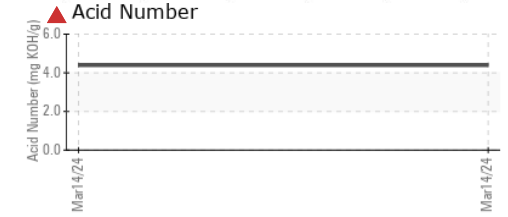
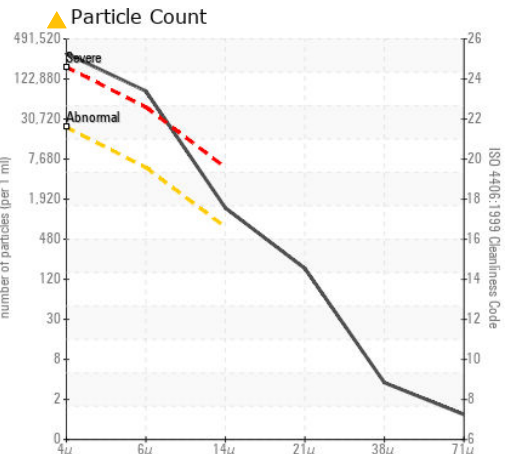
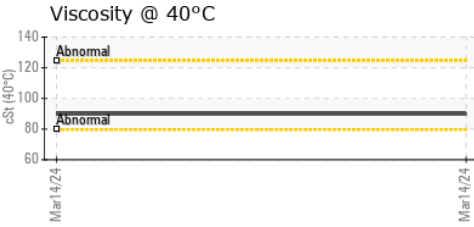
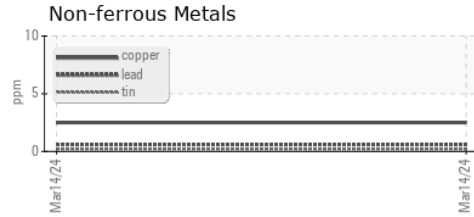
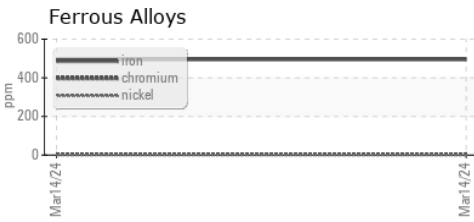
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 4.39	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		89.9	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003163 **Received** : 27 Mar 2024
Lab Number : 06131512 **Tested** : 02 Apr 2024
Unique Number : 10950977 **Diagnosed** : 02 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN, TAN Man)

PetroCard - Aberdeen
 110 Commerce St
 Aberdeen, WA
 US 98520
 Contact: ED ROZMARYN
 erozmaryn@petrocard.com

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)