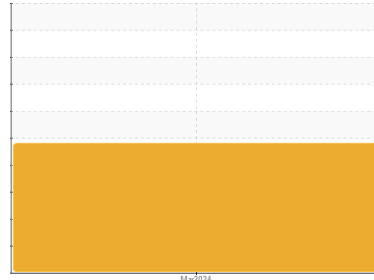


Area  
**TRUCK - URBAN**  
 Machine Id  
**FREIGHTLINER 100**  
 Component  
**Rear Differential**  
 Fluid  
**{not provided} (2 GAL)**



**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 at the top-end of the recommended limit.

**SAMPLE INFORMATION**    method    limit/base    current    history1    history2

Sample Number	Client Info		<b>PE0003162</b>	---	---
Sample Date	Client Info		<b>14 Mar 2024</b>	---	---
Machine Age	mls	Client Info	<b>735000</b>	---	---
Oil Age	mls	Client Info	<b>735000</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

**CONTAMINATION**    method    limit/base    current    history1    history2

Water	WC Method	>.2	<b>NEG</b>	---	---
-------	-----------	-----	------------	-----	-----

**WEAR METALS**    method    limit/base    current    history1    history2

PQ		ASTM D8184		<b>38</b>	---	---
Iron	ppm	ASTM D5185m	>500	<b>449</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	---	---
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>100	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---

**ADDITIVES**    method    limit/base    current    history1    history2

Boron	ppm	ASTM D5185m		<b>129</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>1</b>	---	---
Manganese	ppm	ASTM D5185m		<b>12</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>4</b>	---	---
Calcium	ppm	ASTM D5185m		<b>63</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>1460</b>	---	---
Zinc	ppm	ASTM D5185m		<b>38</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>24906</b>	---	---

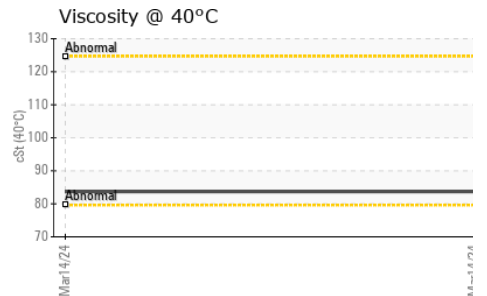
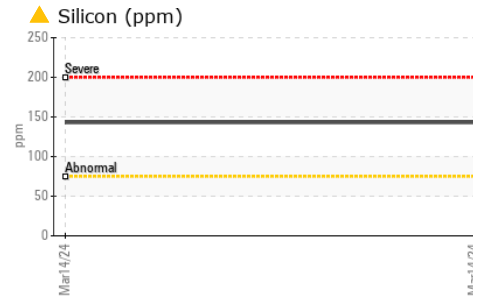
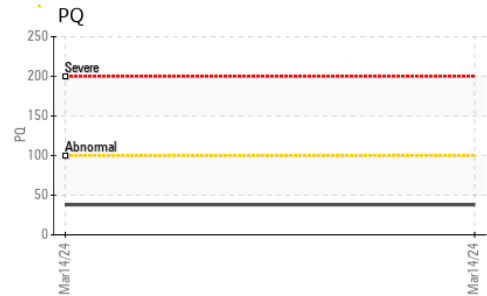
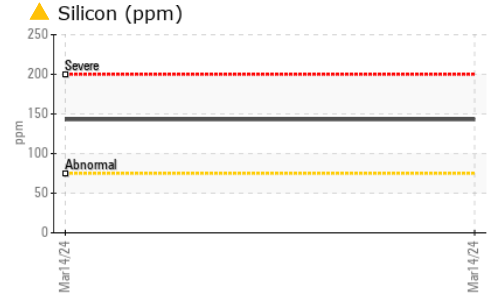
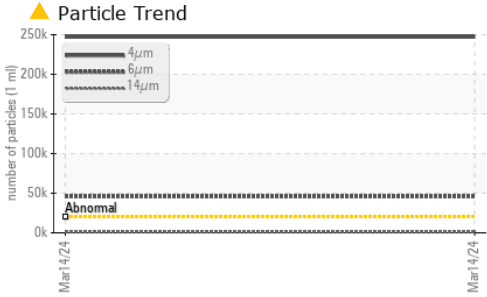
**CONTAMINANTS**    method    limit/base    current    history1    history2

Silicon	ppm	ASTM D5185m	>75	<b>▲ 143</b>	---	---
Sodium	ppm	ASTM D5185m		<b>12</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	---	---

**FLUID CLEANLINESS**    method    limit/base    current    history1    history2

Particles >4µm		ASTM D7647	>20000	<b>▲ 247119</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>▲ 45780</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>▲ 988</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>▲ 176</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>4</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 25/23/17</b>	---	---

# OIL ANALYSIS REPORT



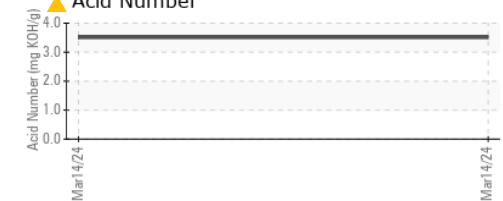
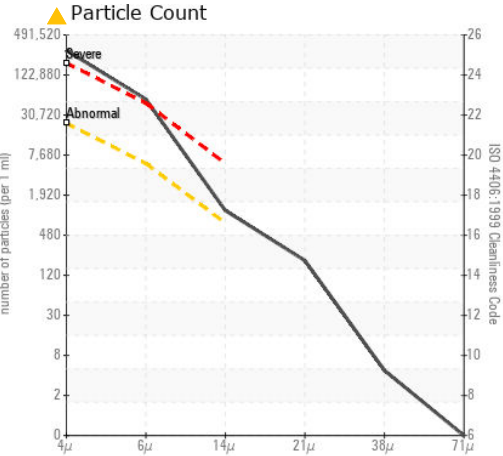
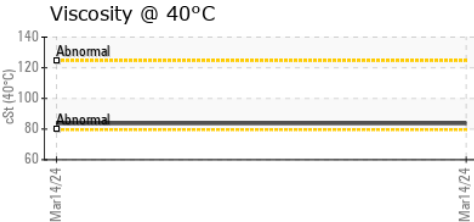
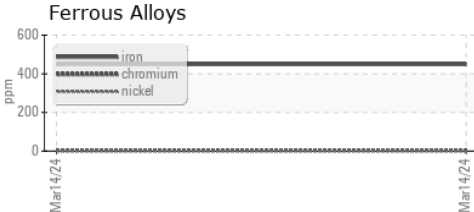
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 3.51	---	---

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	83.7	---	---

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

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0003162      **Received** : 27 Mar 2024  
**Lab Number** : 06131513      **Tested** : 28 Mar 2024  
**Unique Number** : 10950978      **Diagnosed** : 02 Apr 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

**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)