



# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area

**TRUCK - URBAN**

Machine Id

**FORD 64**

Component

**Diesel Engine**

Fluid

**SHELL Rotella T5 15W-40 (1 GAL)**

## DIAGNOSIS

### ▲ Recommendation

Check for low coolant level. We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

Sodium and/or potassium levels are high.

### ● Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PE0004125</b>	---	---
Sample Date	Client Info		<b>13 Jun 2024</b>	---	---
Machine Age	mls	Client Info	<b>274408</b>	---	---
Oil Age	mls	Client Info	<b>5025</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>14</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>3</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>18</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>63</b>	---	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>927</b>	---	---
Calcium	ppm	ASTM D5185m	<b>1169</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>1118</b>	---	---
Zinc	ppm	ASTM D5185m	<b>1305</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>3839</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	---	---
Sodium	ppm	ASTM D5185m	● <b>59</b>	---	---
Potassium	ppm	ASTM D5185m >20	▲ <b>154</b>	---	---
Glycol	%	*ASTM D2982	<b>NEG</b>	---	---

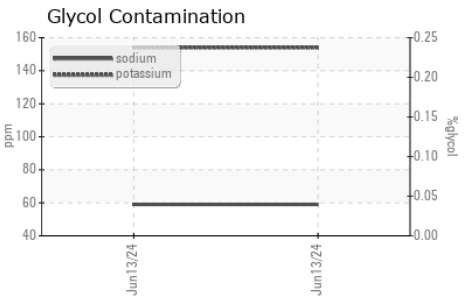
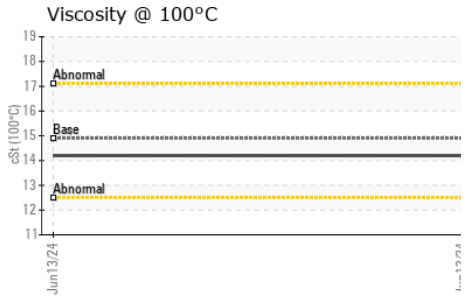
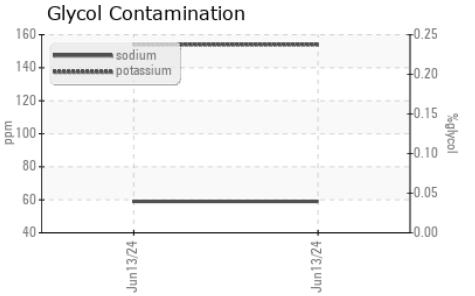
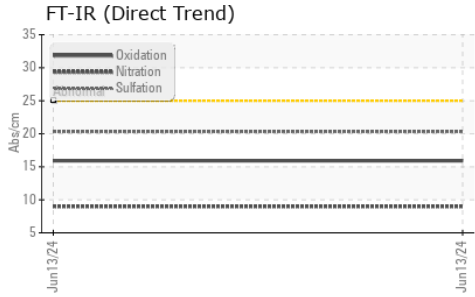
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.9</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10	<b>9.2</b>	---	---

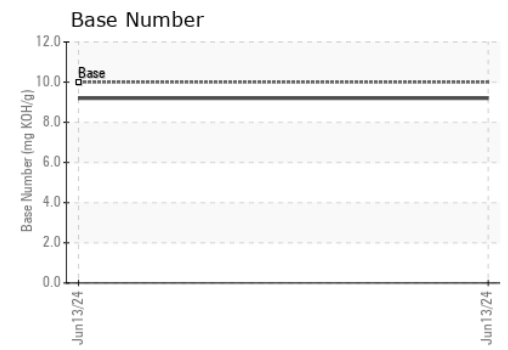
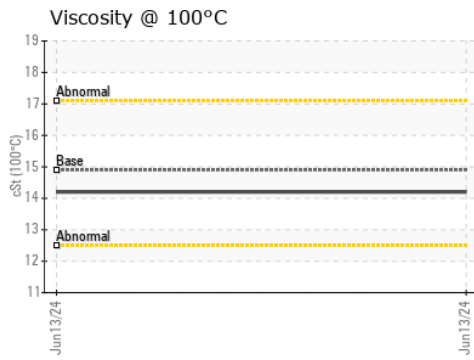
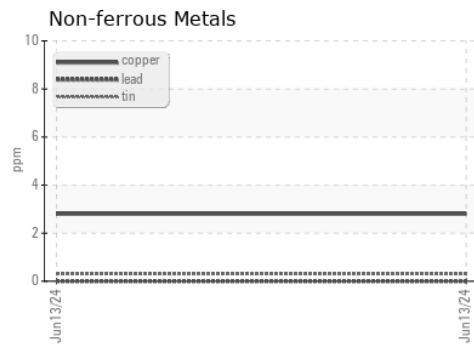
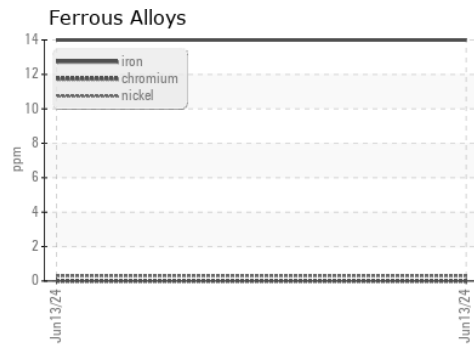
# OIL ANALYSIS REPORT



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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	14.2	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0004125      **Received** : 21 Jun 2024  
**Lab Number** : **06217468**      **Tested** : 25 Jun 2024  
**Unique Number** : 11090332      **Diagnosed** : 25 Jun 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: FT-IR, Glycol, ICP, KV100, SCREEN, TBN )

**PetroCard - Aberdeen**  
 110 Commerce St  
 Aberdeen, WA  
 US 98520  
 Contact: Sean McNealley  
 smcnealley@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)