



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**14**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TLY0001849</b>	---	---
Sample Date		Client Info		<b>27 Dec 2023</b>	---	---
Machine Age	mls	Client Info		<b>39462</b>	---	---
Oil Age	mls	Client Info		<b>0</b>	---	---
Filter Age	mls	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>164</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>60</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>9</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>34</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>7</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

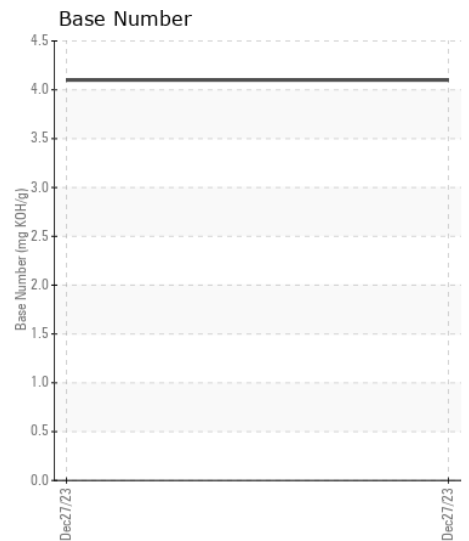
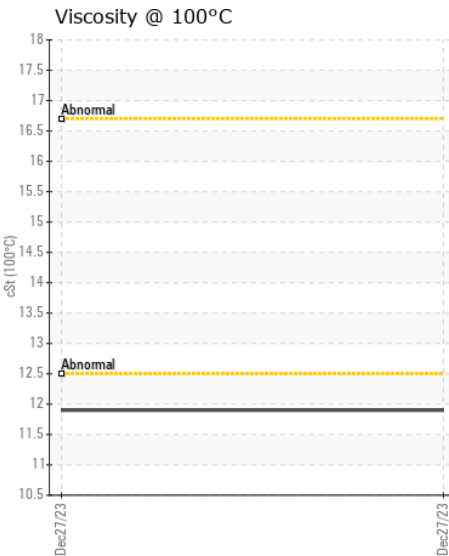
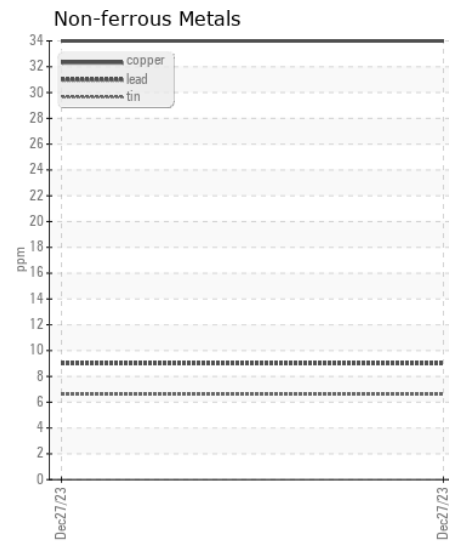
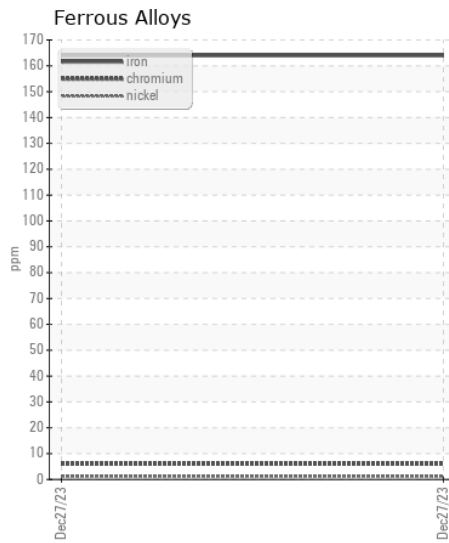
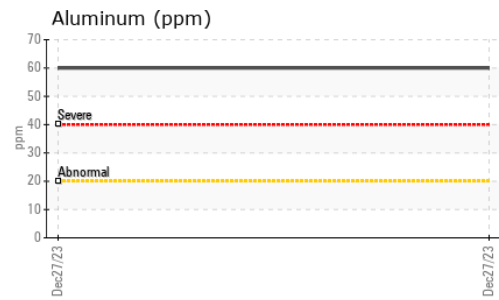
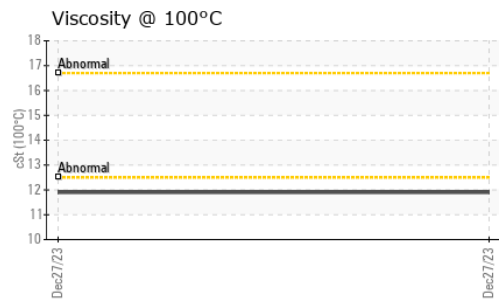
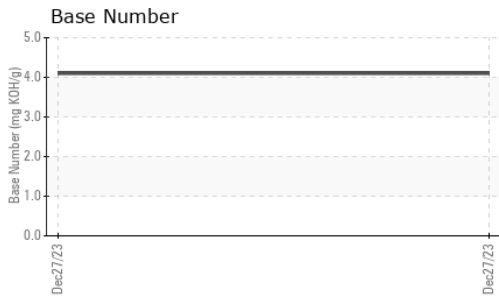
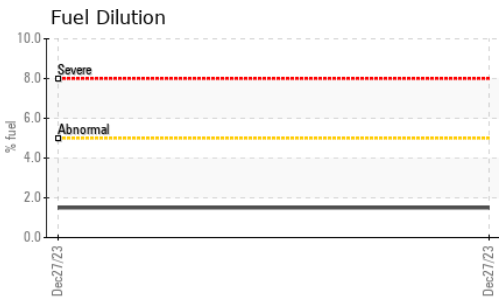
Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>46</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>216</b>	---	---
Fuel	%	ASTM D3524	>5	<b>1.5</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.8</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>28.1</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

## 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 D5185m		<b>8</b>	---	---
Boron	ppm	ASTM D5185m		<b>21</b>	---	---
Barium	ppm	ASTM D5185m		<b>4</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>22</b>	---	---
Manganese	ppm	ASTM D5185m		<b>8</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>800</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1470</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>818</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1007</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2955</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.9</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.1</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>11.9</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TLY0001849 **Received** : 08 Jan 2024  
**Lab Number** : 06054692 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10820641 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**COCKEYS ENTERPRISES**  
 3300 TRANSWAY RD  
 HALETHORP, MD  
 US 21227  
 Contact: FRANK ROLNIAK  
 frank.rolniak@cockeys.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)

T:  
F: