



# OIL ANALYSIS REPORT

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

Machine Id  
**TAKEUCHI TL12R2 412102176**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001970</b>	---	---
Sample Date		Client Info		<b>11 Jun 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1857</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>29</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>14</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

There is no indication of any contamination in the oil.

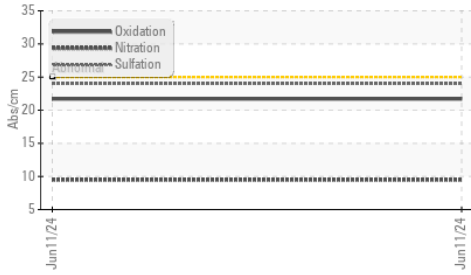
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</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

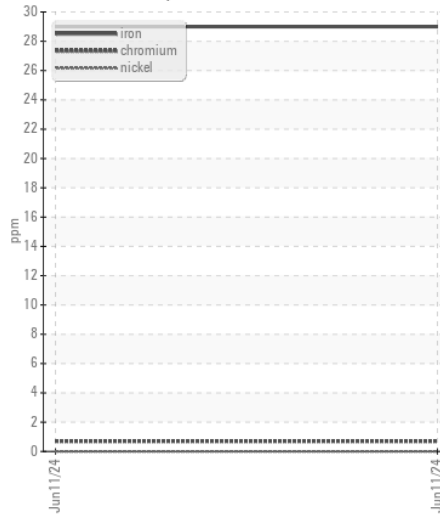
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>4</b>	---	---
Boron	ppm	ASTM D5185m	250	<b>30</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>48</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>555</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1802</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>794</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>912</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>2766</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.7</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.8</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.8</b>	---	---

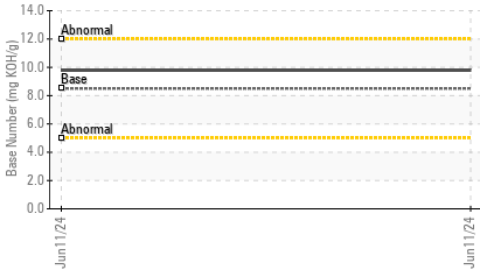
FT-IR (Direct Trend)



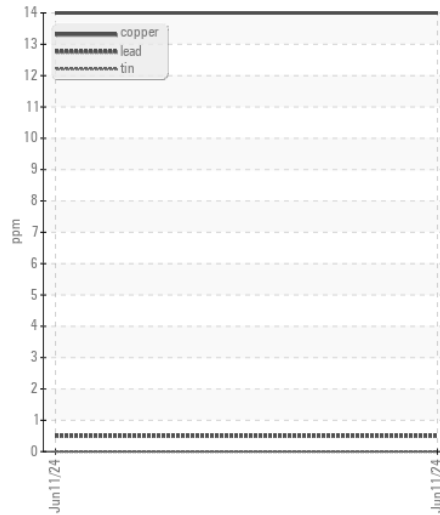
Ferrous Alloys



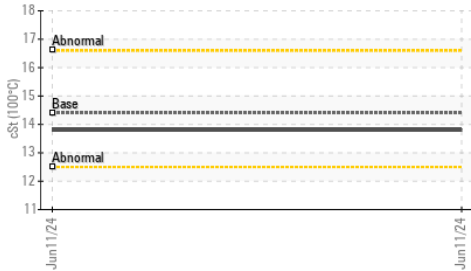
Base Number



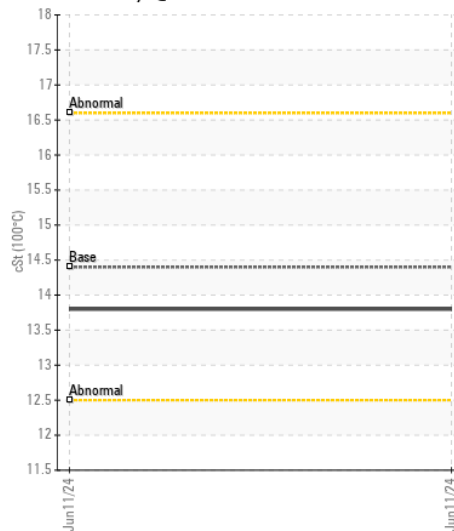
Non-ferrous Metals



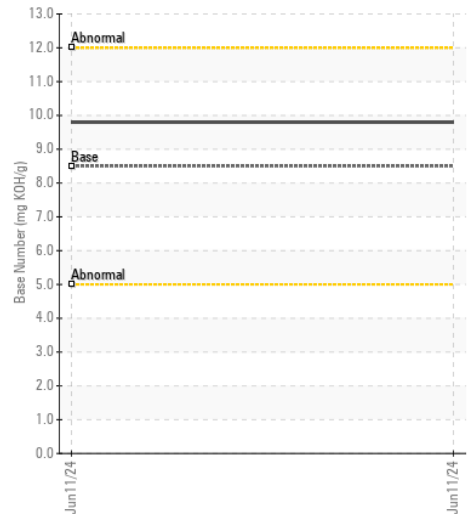
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ML0001970

Lab Number : 06221950

Unique Number : 11100147

Test Package : CONST ( Additional Tests: TBN )

Received : 26 Jun 2024

Tested : 28 Jun 2024

Diagnosed : 28 Jun 2024 - Don Baldrige

MCCLUNG-LOGAN EQUIPMENT CO - WINCHESTER

160 KENTMERE COURT

WINCHESTER, VA

US 22603

Contact: DAKOTA HARTLEY

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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)