



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>

Machine Id  
**KOMATSU PC228 PC228-1 (S/N 1028)**  
 Component  
**Right Final Drive**  
 Fluid  
**SAE 50W (--- GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TLY0002462</b>	TLY0001785	---
Sample Date		Client Info		<b>14 May 2024</b>	19 Jun 2023	---
Machine Age	hrs	Client Info		<b>6143</b>	5605	---
Oil Age	hrs	Client Info		<b>5605</b>	1605	---
Filter Age	hrs	Client Info		<b>5605</b>	1605	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

## WEAR

The copper level is abnormal. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 608</b>	495	---
Chromium	ppm	ASTM D5185m	>10	<b>9</b>	8	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	1	---
Titanium	ppm	ASTM D5185m		<b>2</b>	3	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>● 24</b>	● 23	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>50	<b>▲ 83</b>	▲ 75	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

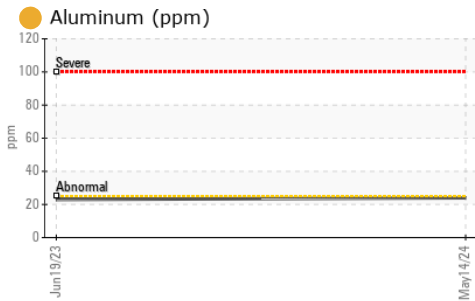
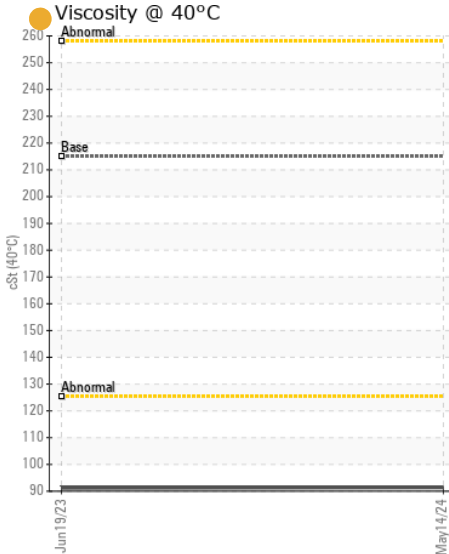
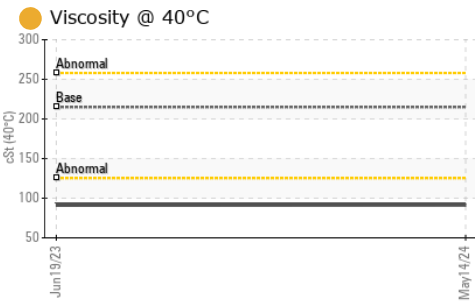
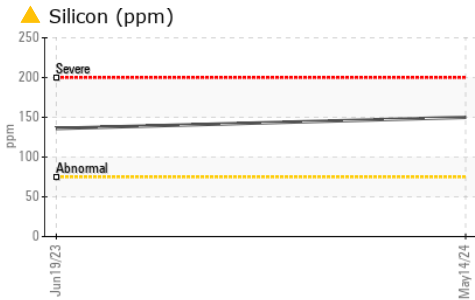
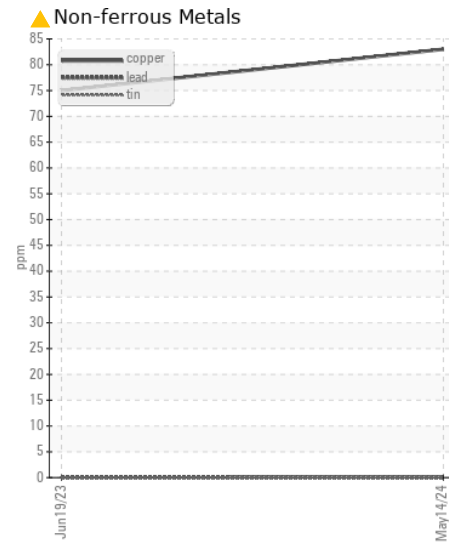
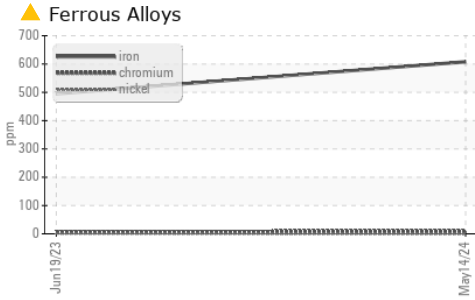
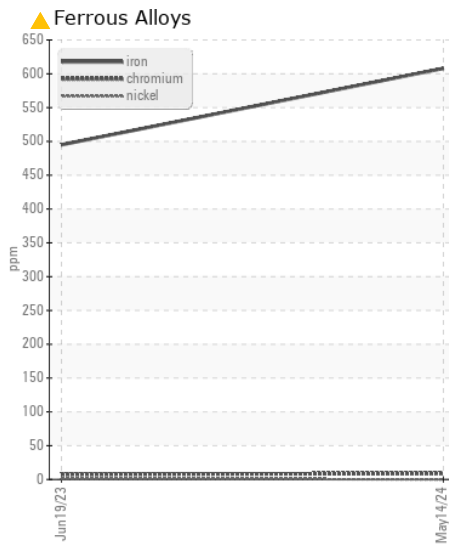
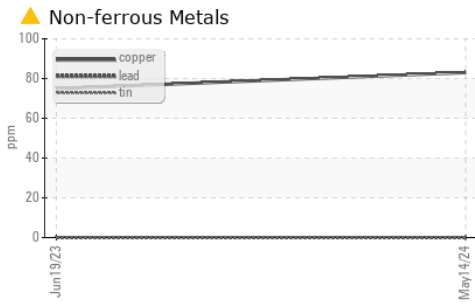
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 150</b>	▲ 136	---
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	8	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	---
Boron	ppm	ASTM D5185m		<b>4</b>	<1	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	1	---
Manganese	ppm	ASTM D5185m		<b>5</b>	4	---
Magnesium	ppm	ASTM D5185m		<b>16</b>	15	---
Calcium	ppm	ASTM D5185m		<b>3522</b>	3893	---
Phosphorus	ppm	ASTM D5185m		<b>846</b>	836	---
Zinc	ppm	ASTM D5185m		<b>984</b>	1014	---
Sulfur	ppm	ASTM D5185m		<b>5557</b>	5341	---
Visc @ 40°C	cSt	ASTM D445	215	<b>● 91.4</b>	● 91.2	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TLY0002462  
**Lab Number** : 06194304  
**Unique Number** : 11056427  
**Test Package** : CONST

**Received** : 29 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Don Baldrige

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)

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