



# LUBE PLUS+

## OIL ANALYSIS REPORT

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



Machine Id  
**KOMATSU HD465-5 60 (S/N 4963)**  
Component  
**Hydraulic System**  
Fluid  
**SAE 10W (40 GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LP0001352</b>	WCM2324092	---
Sample Date		Client Info		<b>01 Jul 2024</b>	20 Feb 2018	---
Machine Age	hrs	Client Info		<b>31680</b>	22165	---
Oil Age	hrs	Client Info		<b>4398</b>	740	---
Filter Age	hrs	Client Info		<b>4398</b>	740	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>8</b>	4	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>8</b>	4	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	1	---
Copper	ppm	ASTM D5185m	>75	<b>30</b>	8	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

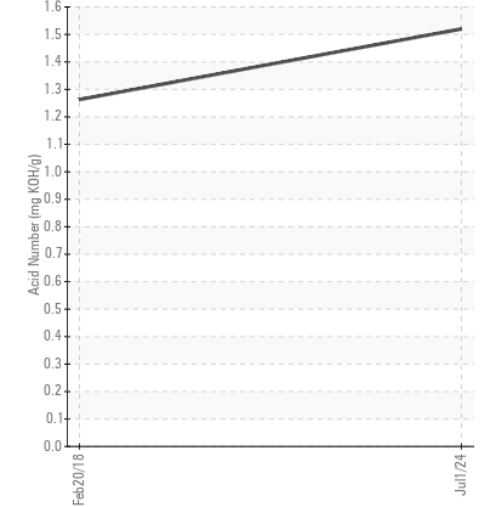
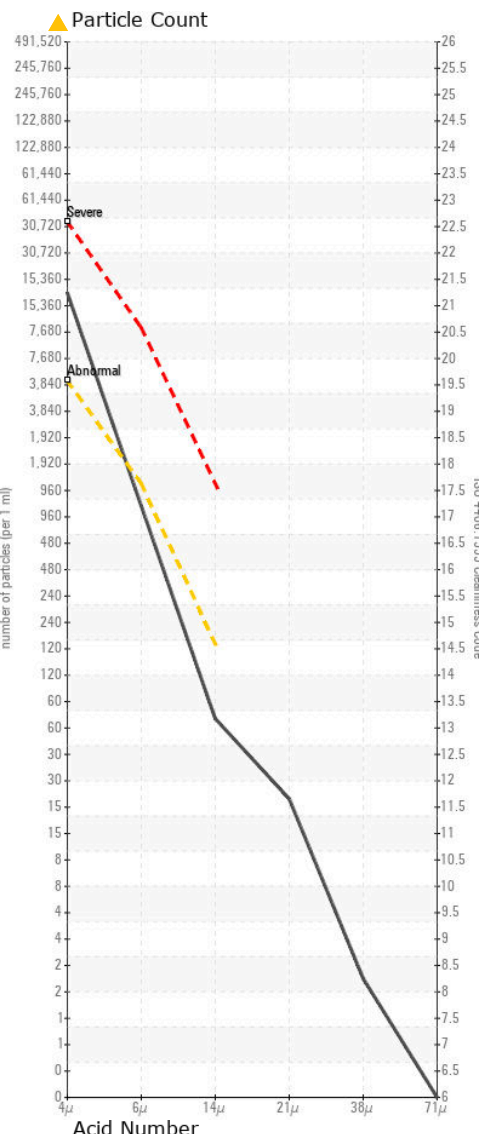
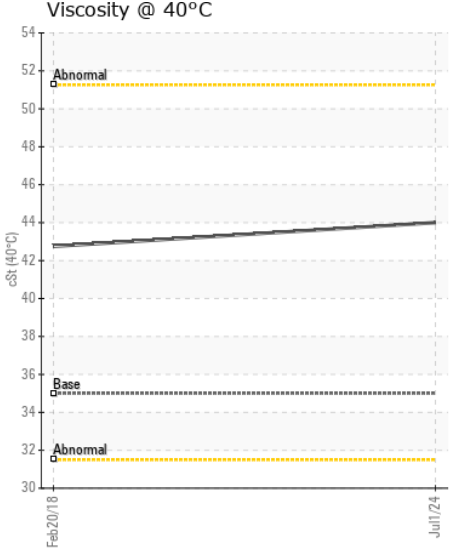
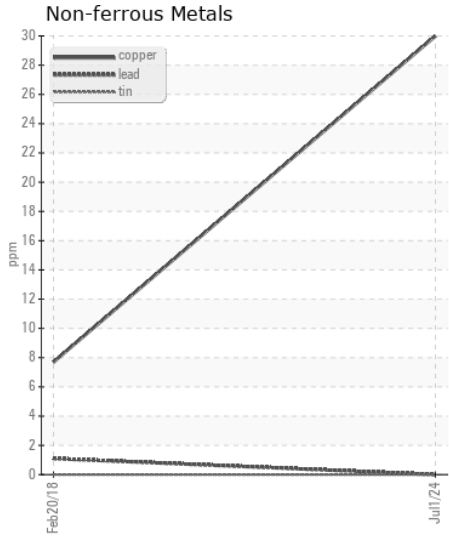
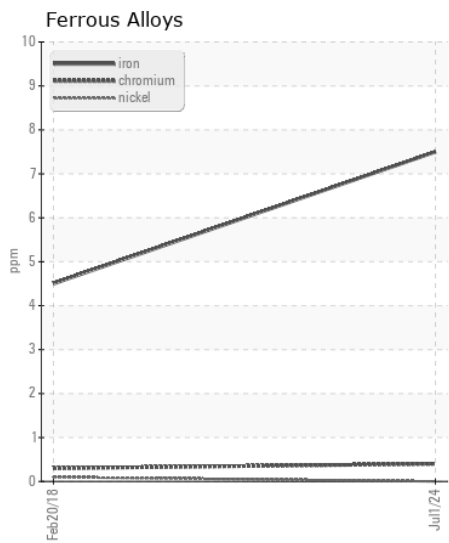
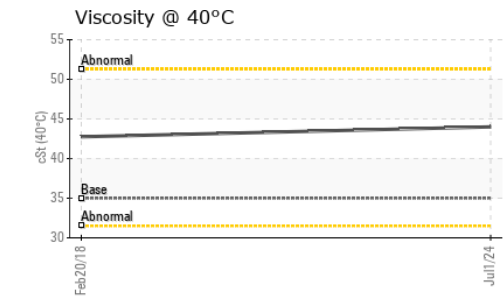
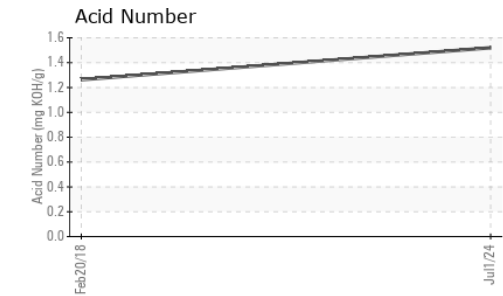
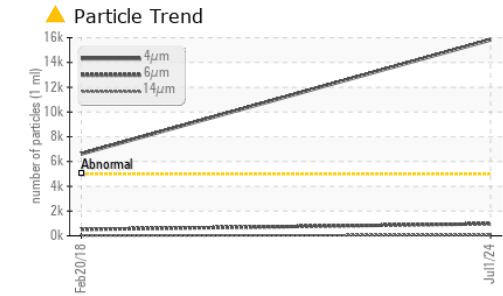
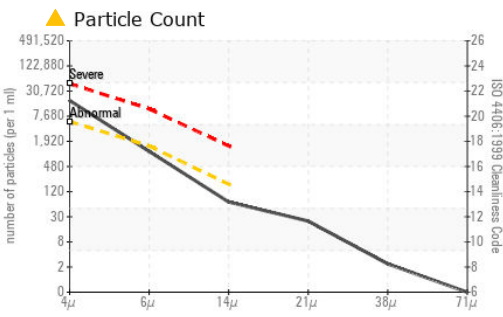
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>18</b>	10	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>▲ 15828</b>	6613	---
Particles >6µm		ASTM D7647	>1300	<b>970</b>	512	---
Particles >14µm		ASTM D7647	>160	<b>60</b>	23	---
Particles >21µm		ASTM D7647	>40	<b>21</b>	6	---
Particles >38µm		ASTM D7647	>10	<b>2</b>	0	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/17/13</b>	20/16/12	---
Silt	scalar	*Visual	NONE	<b>NONE</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	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	---
Boron	ppm	ASTM D5185m		<b>20</b>	26	---
Barium	ppm	ASTM D5185m		<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m		<b>8</b>	12	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>118</b>	127	---
Calcium	ppm	ASTM D5185m		<b>2851</b>	3474	---
Phosphorus	ppm	ASTM D5185m		<b>1114</b>	914	---
Zinc	ppm	ASTM D5185m		<b>1207</b>	1093	---
Sulfur	ppm	ASTM D5185m		<b>4130</b>	3582	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.52</b>	1.263	---
Visc @ 40°C	cSt	ASTM D445	35.0	<b>44.0</b>	42.75	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0001352  
**Lab Number** : 06236787  
**Unique Number** : 11125621  
**Test Package** : MOB 2  
**Received** : 15 Jul 2024  
**Tested** : 17 Jul 2024  
**Diagnosed** : 17 Jul 2024 - Don Baldrige

**S.M. LORUSSO & SONS**  
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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)