



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
KOMATSU KD-1
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

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		WC0746163	WC0746111	---
Sample Date		Client Info		12 Dec 2023	16 Nov 2023	---
Machine Age	hrs	Client Info		216	0	---
Oil Age	hrs	Client Info		10	216	---
Filter Age	hrs	Client Info		10	216	---
Oil Changed		Client Info		Not Changd	Changed	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				MARGINAL	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	28	---
Chromium	ppm	ASTM D5185m	>20	4	1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	15	▲ 13	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	<1	2	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

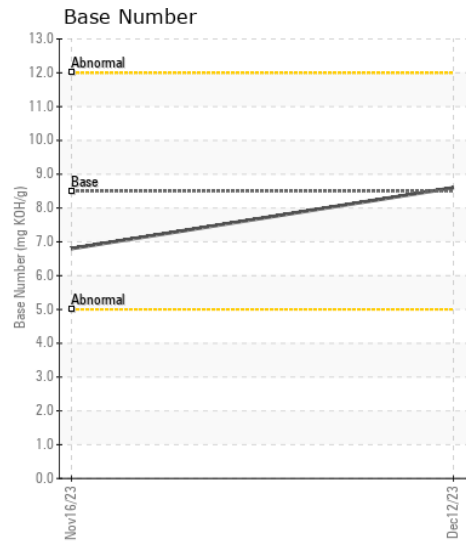
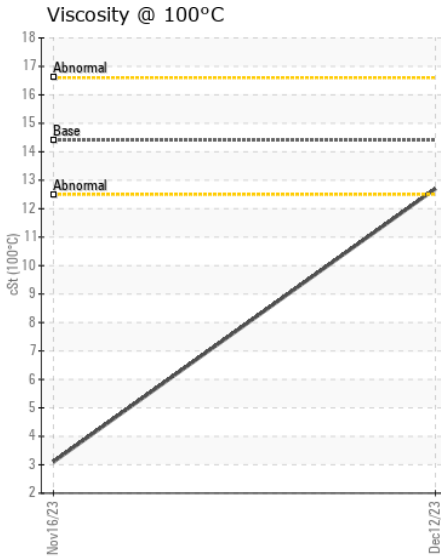
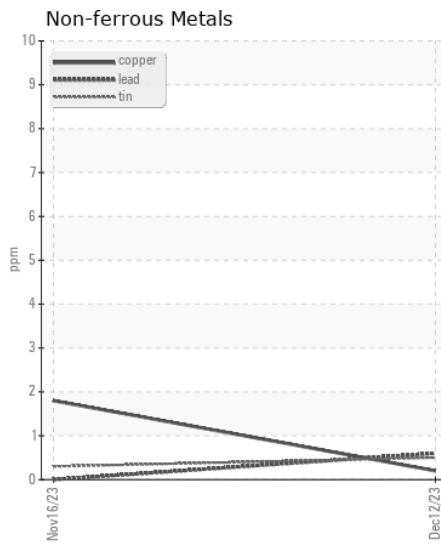
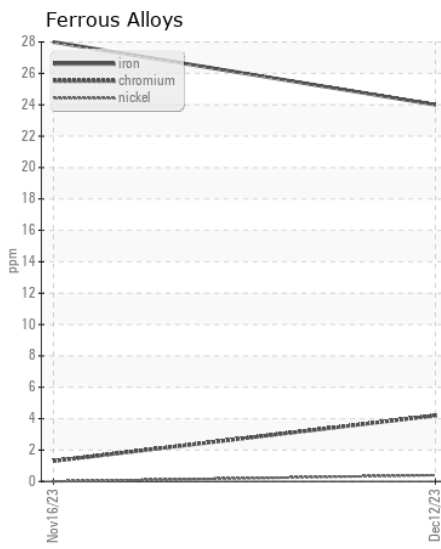
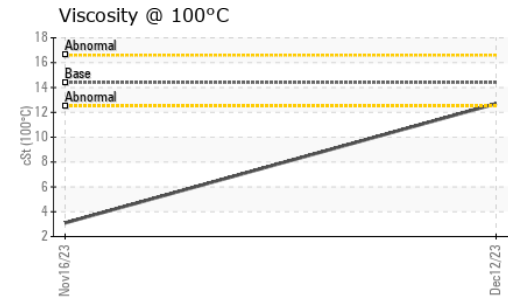
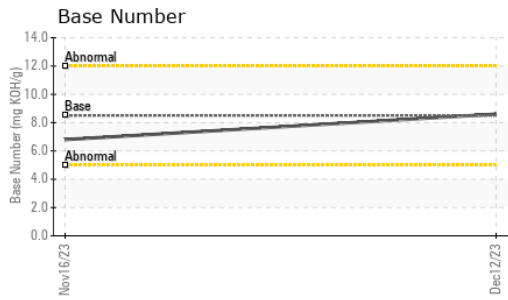
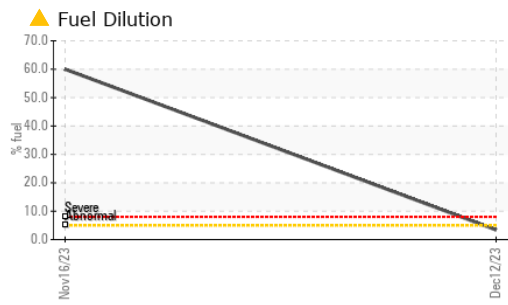
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	14	▲ 26	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel	%	ASTM D3524	>5	▲ 3.4	◆ 60.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	5.7	6.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	15.1	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

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	1	<1	---
Boron	ppm	ASTM D5185m	250	307	84	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	107	21	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	664	130	---
Calcium	ppm	ASTM D5185m	3000	1465	565	---
Phosphorus	ppm	ASTM D5185m	1150	751	275	---
Zinc	ppm	ASTM D5185m	1350	897	360	---
Sulfur	ppm	ASTM D5185m	4250	2720	897	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	9.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.6	6.8	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	▲ 3.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0746163 **Received** : 08 Jan 2024
Lab Number : 06054642 **Diagnosed** : 12 Jan 2024
Unique Number : 10820591 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: PercentFuel)

ASSOCIATED GRAIN TERMINALS
 13723 HWY 15
 BRAITHWAITE, LA
 US 70040
 Contact: Service Manager

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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