



# OIL ANALYSIS REPORT

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

Machine Id  
**KOMATSU D39PXI23 DZ35 (S/N 90719)**  
 Component  
**Diesel Engine**  
 Fluid  
**DURAMAX 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0034611</b>	DC0020507	DC0014339
Sample Date		Client Info		<b>09 Feb 2024</b>	11 Apr 2022	31 Aug 2021
Machine Age	hrs	Client Info		<b>6355</b>	5801	5283
Oil Age	hrs	Client Info		<b>554</b>	500	500
Filter Age	hrs	Client Info		<b>554</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>58</b>	21	22
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>2</b>	3	7
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

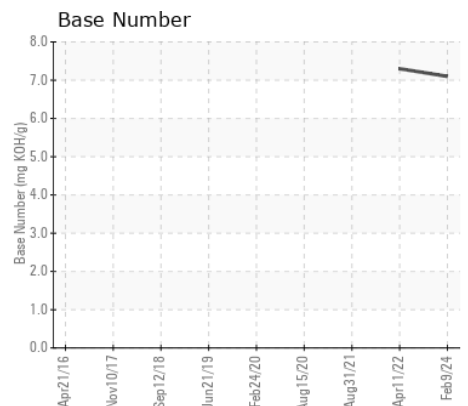
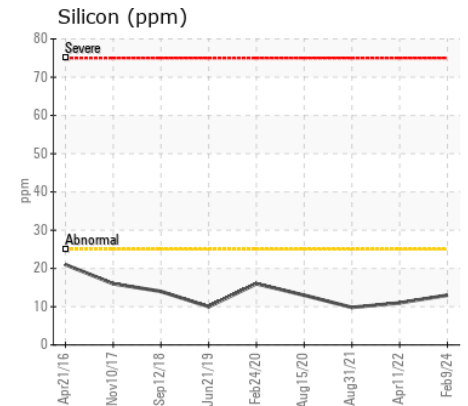
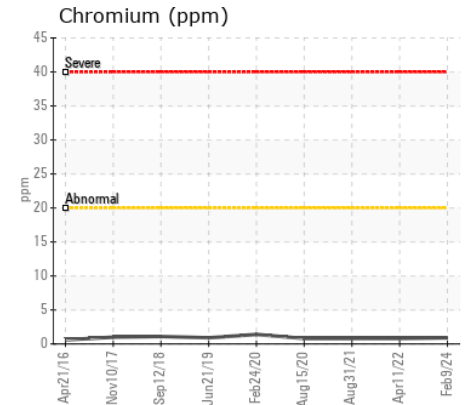
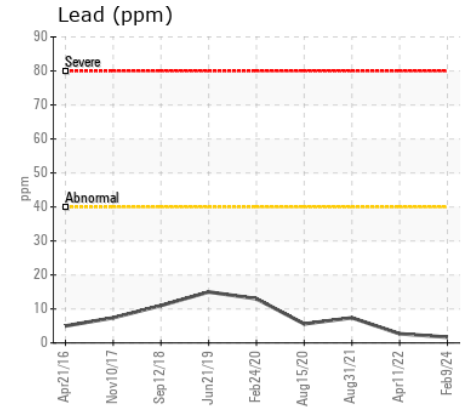
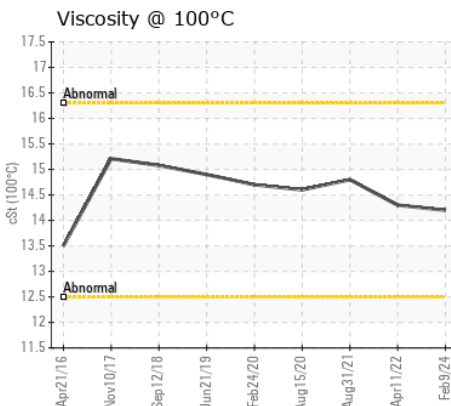
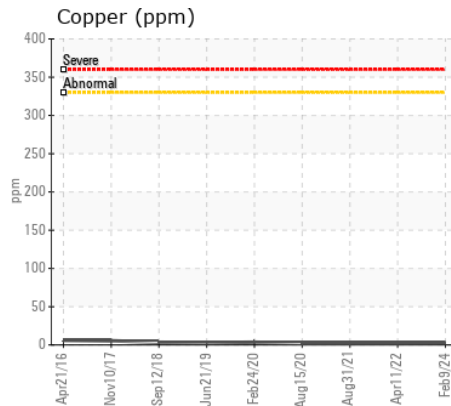
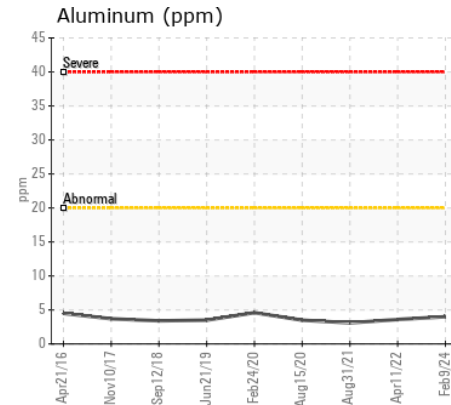
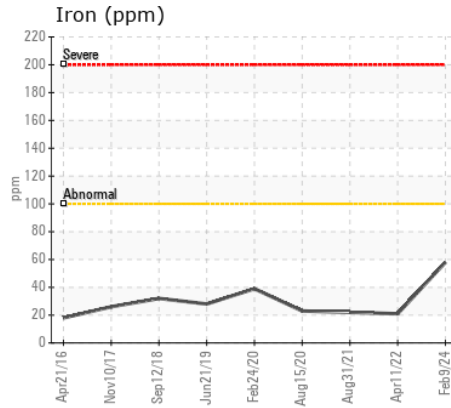
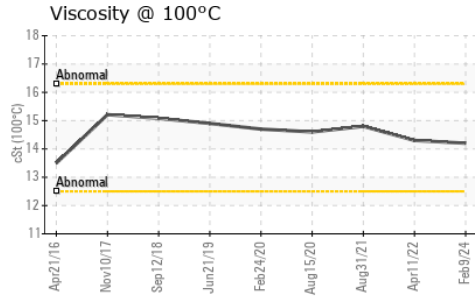
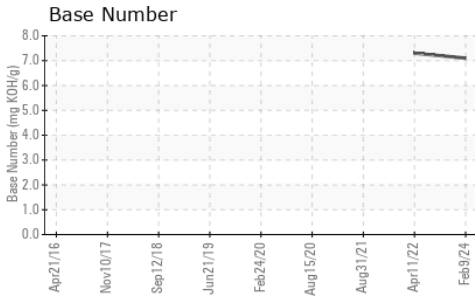
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>13</b>	11	10
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	8
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	11.1	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	24.4	25.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	<1	2
Boron	ppm	ASTM D5185m		<b>2</b>	5	8
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	4	3
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>51</b>	59	49
Calcium	ppm	ASTM D5185m		<b>2489</b>	2611	2625
Phosphorus	ppm	ASTM D5185m		<b>1032</b>	1029	885
Zinc	ppm	ASTM D5185m		<b>1168</b>	1262	1092
Sulfur	ppm	ASTM D5185m		<b>3814</b>	3484	2656
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.8</b>	17.1	17.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.1</b>	7.3	---
Visc @ 100°C	cSt	ASTM D445		<b>14.2</b>	14.3	14.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0034611 **Received** : 28 Feb 2024  
**Lab Number** : 06103474 **Tested** : 01 Mar 2024  
**Unique Number** : 10901704 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)