



PERFORMANCE  
UNDER  
PRESSURE

OIL ANALYSIS REPORT

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

Area  
**TM 5**  
Machine Id  
**TM 5 TRANSFER DRIVE ROLL GRBX**  
Component  
**Gearbox**  
Fluid  
**GEAR OIL ISO 220 (--- GAL)**

**RECOMMENDATION**

We recommend you service the filters on this component if applicable.  
We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RP0038121</b>	RP0023599	RP05263964
Sample Date		Client Info		<b>29 Jan 2024</b>	24 May 2023	25 May 2021
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	SEVERE	ABNORMAL

**WEAR**

Gear wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>200	<b>▲ 335</b>	▲ 335	▲ 346
Chromium	ppm	ASTM D5185m	>15	<b>2</b>	4	3
Nickel	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>200	<b>&lt;1</b>	4	<1
Tin	ppm	ASTM D5185m	>25	<b>0</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**

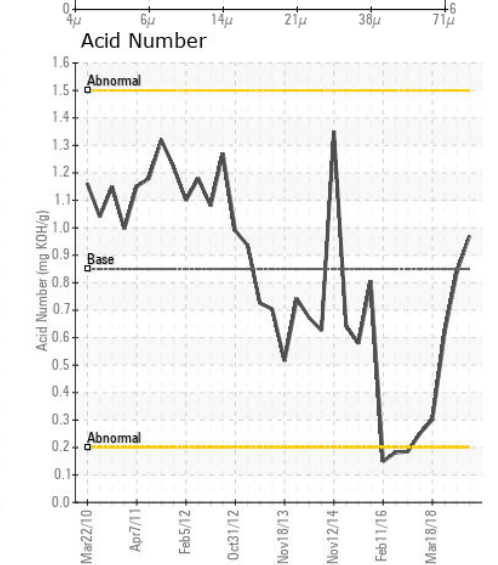
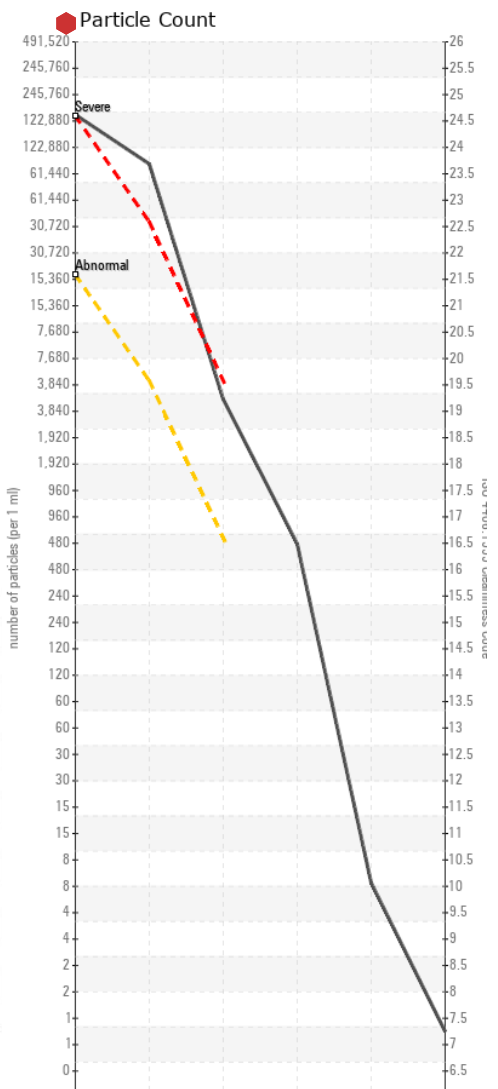
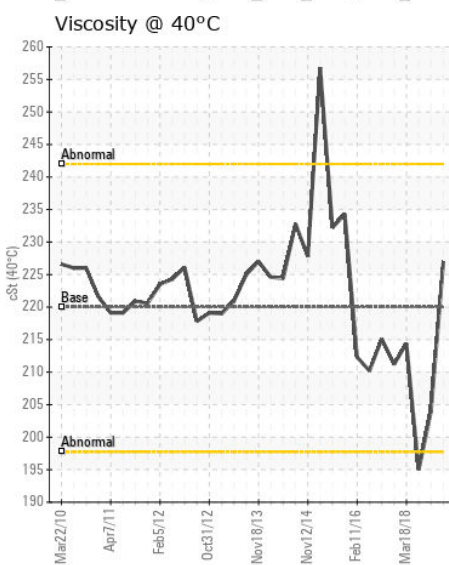
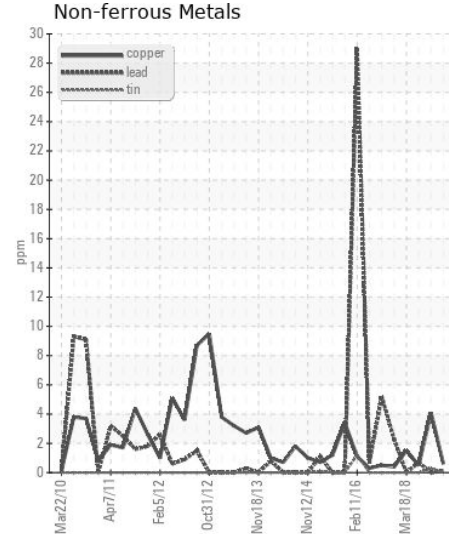
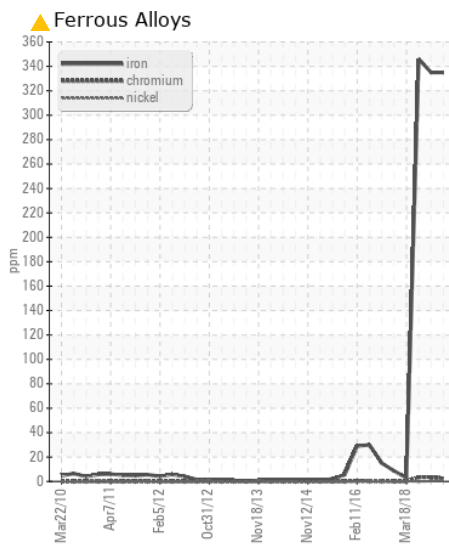
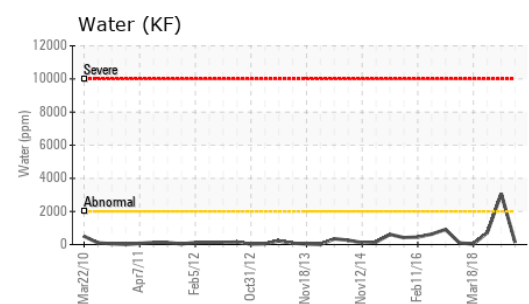
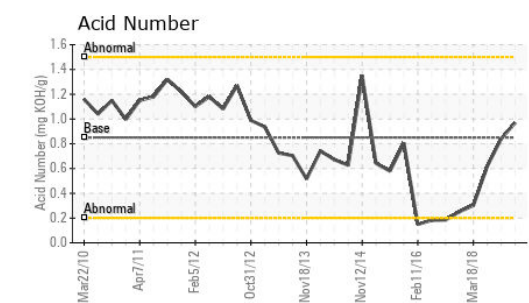
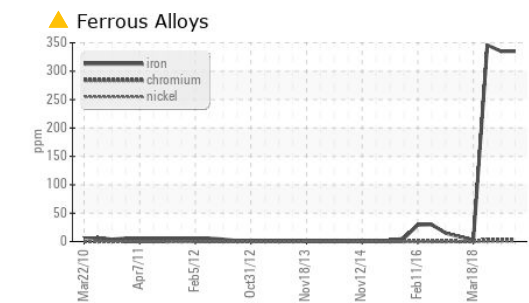
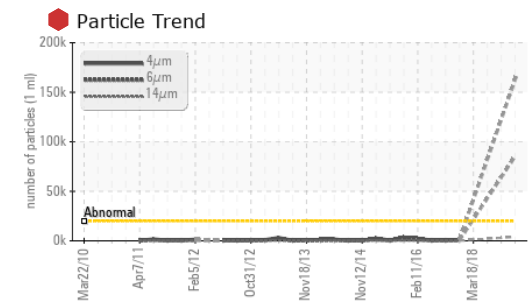
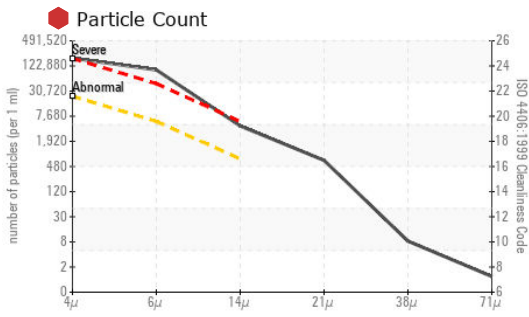
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>6</b>	▲ 107	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water	%	ASTM D6304	>0.2	<b>0.013</b>	▲ 0.308	0.072
ppm Water	ppm	ASTM D6304	>2000	<b>130</b>	▲ 3080	721.1
Particles >4µm		ASTM D7647	>20000	<b>◆ 162585</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>◆ 85289</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>◆ 3917</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>◆ 591</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>7</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>1</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>◆ 25/24/19</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>MILKY</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	0.2%	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>0</b>	3	4
Boron	ppm	ASTM D5185m	50	<b>19</b>	6	13
Barium	ppm	ASTM D5185m	15	<b>0</b>	3	5
Molybdenum	ppm	ASTM D5185m	15	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>2</b>	3	2
Magnesium	ppm	ASTM D5185m	50	<b>2</b>	2	3
Calcium	ppm	ASTM D5185m	50	<b>7</b>	11	20
Phosphorus	ppm	ASTM D5185m	350	<b>356</b>	365	257
Zinc	ppm	ASTM D5185m	100	<b>57</b>	127	114
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	<b>0.97</b>	0.84	0.619
Visc @ 40°C	cSt	ASTM D445	220	<b>227</b>	204	195



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0038121 **Received** : 30 Jan 2024  
**Lab Number** : 06074721 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10856812 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount )

**Kimberly-Clark - Mobile - TM 5**  
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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)