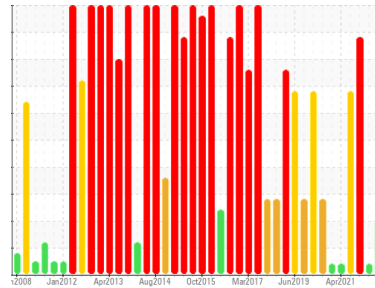


PROBLEM SUMMARY

Sample Rating Trend



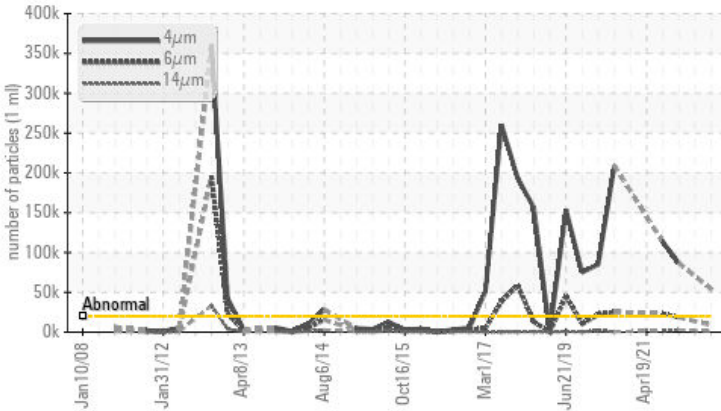
ISO



Area
TM 11
 Machine Id
TM 11 REEL DRUM REDUCER
 Component
Gearbox
 Fluid
ROYAL PURPLE SYNERGY 90/220 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	SEVERE
Particles >4µm	ASTM D7647	>20000	▲ 54212	---	● 86794
Particles >6µm	ASTM D7647	>5000	▲ 8960	---	● 18634
Particles >14µm	ASTM D7647	>640	▲ 1053	---	● 2932
Particles >21µm	ASTM D7647	>160	▲ 423	---	● 890
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/20/17	---	● 24/21/19

Customer Id: KIMMOBTM11
 Sample No.: RP0034367
 Lab Number: 05994357
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

05 May 2023 Diag: Don Baldrige

VIS DEBRIS



We recommend you filter the oil on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



30 Mar 2022 Diag: Doug Bogart

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Oct 2021 Diag: Doug Bogart

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

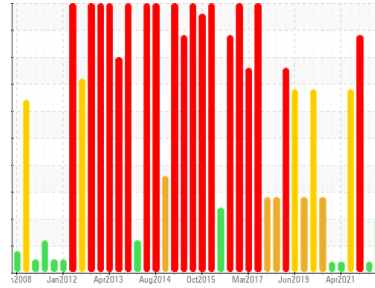
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
TM 11
 Machine Id
TM 11 REEL DRUM REDUCER
 Component
Gearbox
 Fluid
ROYAL PURPLE SYNERGY 90/220 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0034367	RP0023584	RP0016696
Sample Date	Client Info		08 Aug 2023	05 May 2023	30 Mar 2022
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		18	22	---
Iron	ppm	ASTM D5185m >200	20	18	26
Chromium	ppm	ASTM D5185m >15	<1	0	<1
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >25	<1	<1	<1
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >200	<1	<1	<1
Tin	ppm	ASTM D5185m >25	<1	0	<1
Antimony	ppm	ASTM D5185m >5	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	21	15	18
Barium	ppm	ASTM D5185m	19	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	0	0
Calcium	ppm	ASTM D5185m	2	2	8
Phosphorus	ppm	ASTM D5185m 370	399	411	418
Zinc	ppm	ASTM D5185m	41	12	52

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	7	6	12
Sodium	ppm	ASTM D5185m	1	0	<1
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >0.2	0.015	0.010	0.007
ppm Water	ppm	ASTM D6304 >2000	156.8	103.1	70.2

FLUID CLEANLINESS

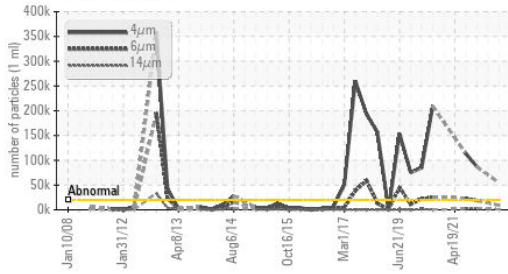
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 54212	---	● 86794
Particles >6µm	ASTM D7647	>5000	▲ 8960	---	● 18634
Particles >14µm	ASTM D7647	>640	▲ 1053	---	● 2932
Particles >21µm	ASTM D7647	>160	▲ 423	---	● 890
Particles >38µm	ASTM D7647	>40	20	---	● 89
Particles >71µm	ASTM D7647	>10	0	---	● 5
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/20/17	---	● 24/21/19

FLUID DEGRADATION

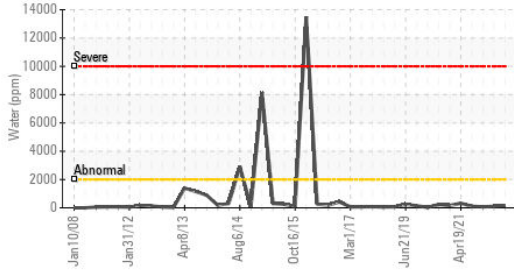
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.33	1.18	1.10	0.88

OIL ANALYSIS REPORT

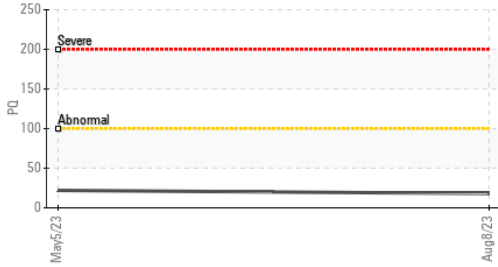
▲ Particle Trend



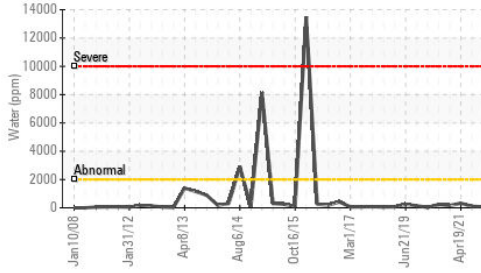
Water (KF)



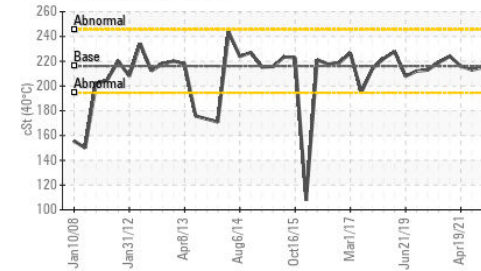
PQ



Water (KF)



Viscosity @ 40°C



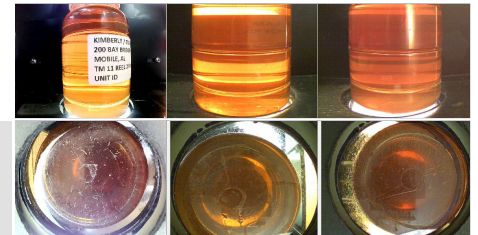
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	216.1	218	220

SAMPLE IMAGES	method	limit/base	current	history1	history2
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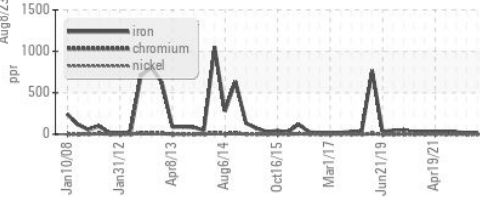
Color

Bottom

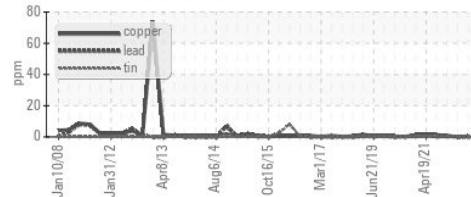


GRAPHS

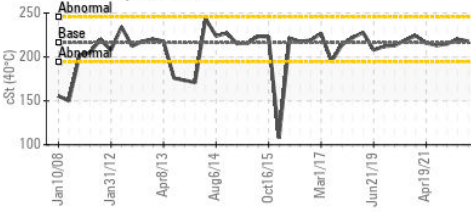
Ferrous Alloys



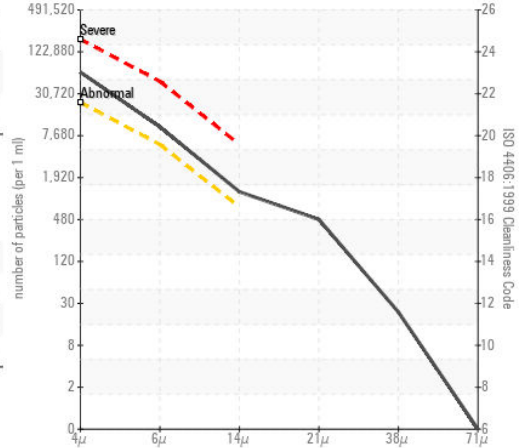
Non-ferrous Metals



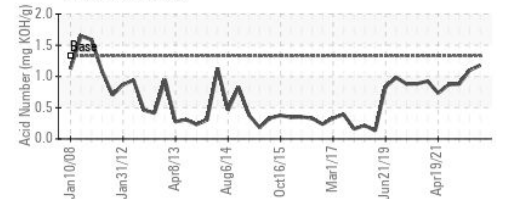
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034367 **Received** : 31 Oct 2023
Lab Number : 05994357 **Diagnosed** : 01 Nov 2023
Unique Number : 10722717 **Diagnostician** : Don Baldrige

Kimberly-Clark - Mobile - TM 11
 200 BAYBRIDGE RD
 MOBILE, AL
 US 36610
 Contact: LARRY WEAVER
 Larry.D.Weaver@kcc.com

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)

T: (251)452-6335