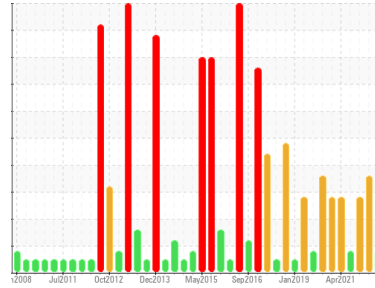


# PROBLEM SUMMARY

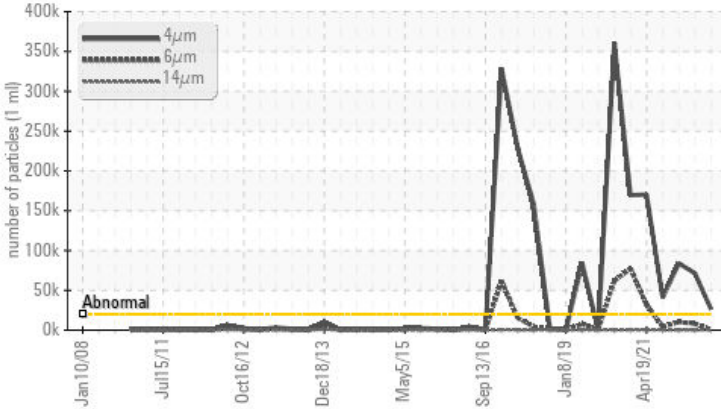
Area  
**TM 11**  
Machine Id  
**TM 11 WIRE TURNING ROLL REDUCER**  
Component  
**Gearbox**  
Fluid  
**GEAR OIL ISO 220 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status		ATTENTION	SEVERE	SEVERE
Particles >4µm	ASTM D7647 >20000	▲ 26451	● 71404	● 83956
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 22/17/12	● 23/20/13	● 24/21/16

Customer Id: KIMMOBTM11  
Sample No.: RP0034369  
Lab Number: 05994349  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 05 May 2023 Diag: Don Baldrige

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 silt (particulates < 14 microns in size) 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 silt (particulates < 14 microns in size) 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 filter the oil in this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

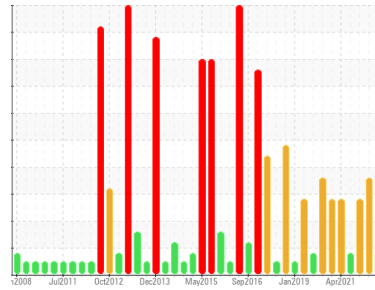
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**TM 11**  
 Machine Id  
**TM 11 WIRE TURNING ROLL REDUCER**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 220 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

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

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0034369</b>	RP0023577	RP0016698
Sample Date	Client Info		<b>08 Aug 2023</b>	05 May 2023	30 Mar 2022
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ATTENTION</b>	SEVERE	SEVERE

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>22</b>	14	---
Iron	ppm	ASTM D5185m >200	<b>90</b>	86	98
Chromium	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >15	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>10</b>	11	18
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m >5	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>15</b>	14	12
Barium	ppm	ASTM D5185m 15	<b>19</b>	0	0
Molybdenum	ppm	ASTM D5185m 15	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 50	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m 50	<b>54</b>	0	<1
Phosphorus	ppm	ASTM D5185m 350	<b>258</b>	262	299
Zinc	ppm	ASTM D5185m 100	<b>50</b>	0	7

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>2</b>	<1	2
Sodium	ppm	ASTM D5185m	<b>3</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304 >0.2	<b>0.013</b>	0.00	0.010
ppm Water	ppm	ASTM D6304 >2000	<b>139.1</b>	0.00	106.9

## FLUID CLEANLINESS

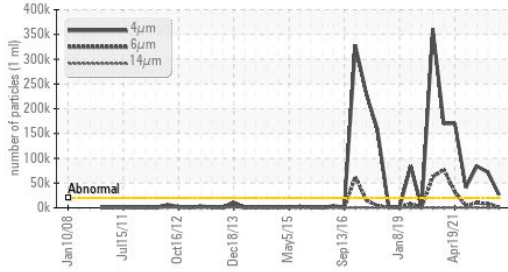
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ <b>26451</b>	71404	83956
Particles >6µm	ASTM D7647	>5000	<b>881</b>	8010	10151
Particles >14µm	ASTM D7647	>640	<b>21</b>	52	351
Particles >21µm	ASTM D7647	>160	<b>5</b>	4	72
Particles >38µm	ASTM D7647	>40	<b>0</b>	1	8
Particles >71µm	ASTM D7647	>10	<b>0</b>	1	1
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>22/17/12</b>	23/20/13	24/21/16

## FLUID DEGRADATION

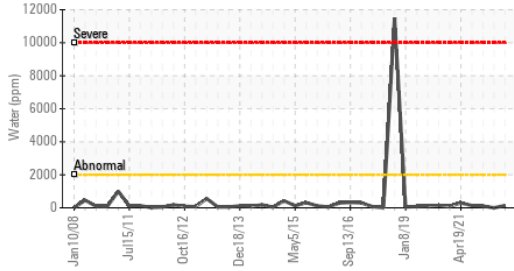
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>1.47</b>	1.49	0.96

# OIL ANALYSIS REPORT

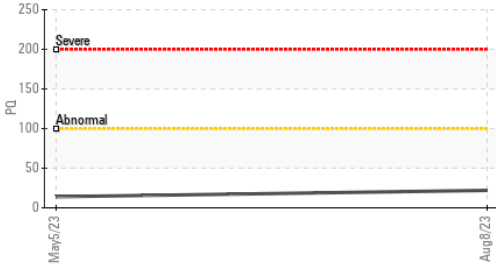
## ▲ Particle Trend



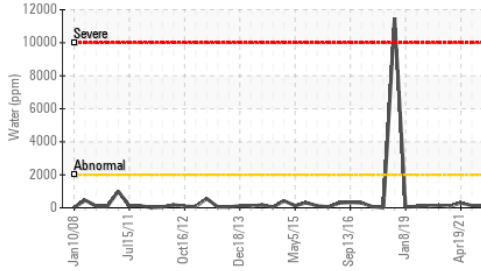
## Water (KF)



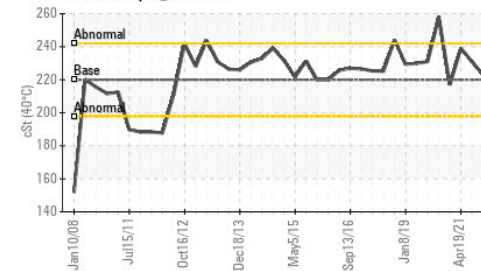
## PQ



## Water (KF)



## Viscosity @ 40°C

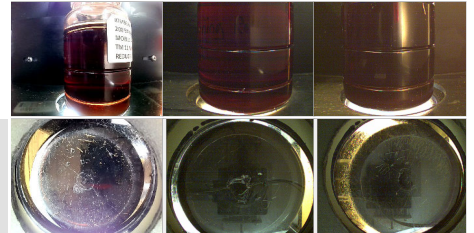


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	220	218	221

SAMPLE IMAGES	method	limit/base	current	history1	history2
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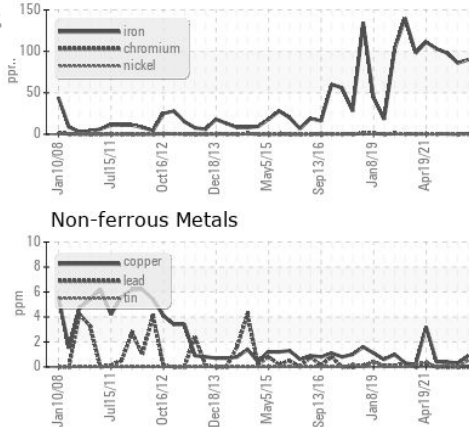
Color



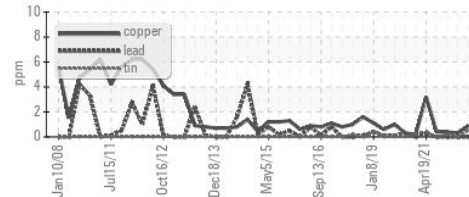
Bottom

## GRAPHS

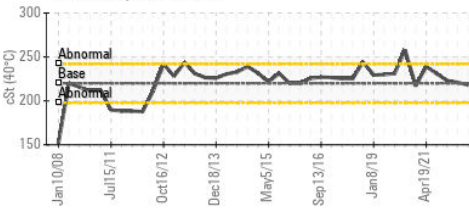
### Ferrous Alloys



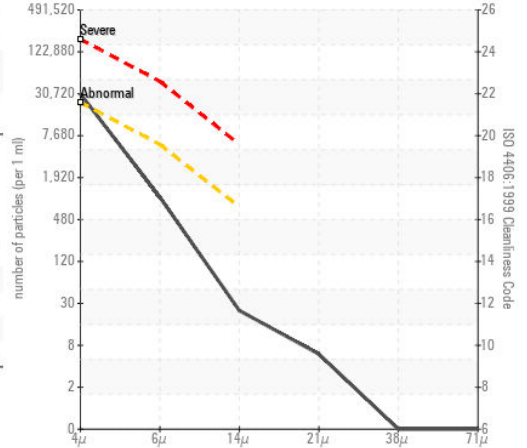
### Non-ferrous Metals



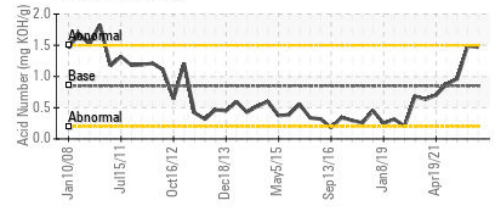
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0034369 **Received** : 31 Oct 2023  
**Lab Number** : 05994349 **Diagnosed** : 01 Nov 2023  
**Unique Number** : 10722709 **Diagnostician** : Angela Borella

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

**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount )  
 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