



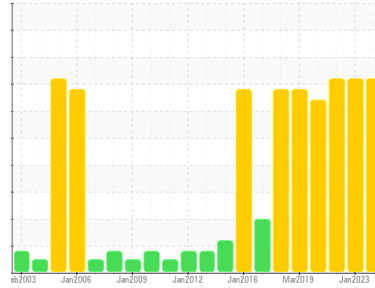
# PROBLEM SUMMARY

Sample Rating Trend

WEAR

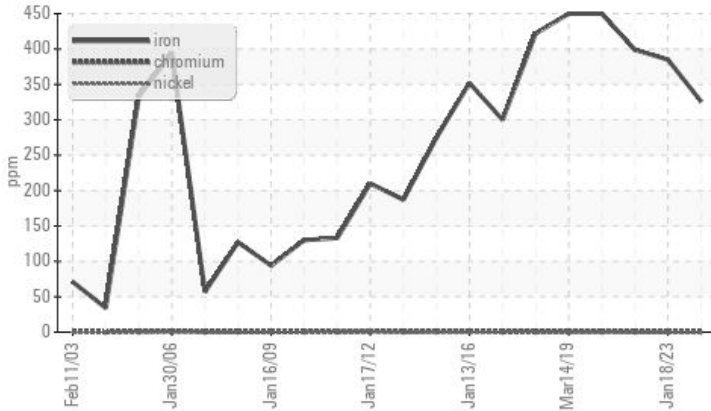


Machine Id  
**1653**  
Component  
**Hydraulic System**  
Fluid  
**MOBIL VACUOLINE OIL 1405 (22 GAL)**

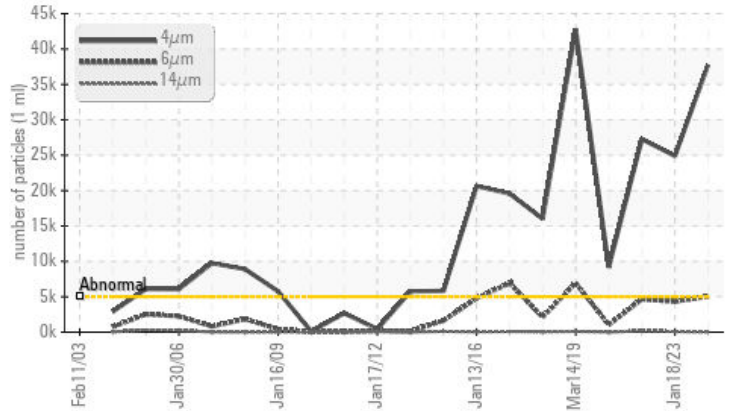


## COMPONENT CONDITION SUMMARY

### Ferrous Alloys



### Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m >20	326	385	399
Particles >4µm		ASTM D7647 >5000	37750	24899	27267
Particles >6µm		ASTM D7647 >1300	5034	4319	4672
Oil Cleanliness		ISO 4406 (c) >19/17/14	22/20/12	22/19/14	22/19/15

Customer Id: THESYL  
Sample No.: WC0865386  
Lab Number: 06075690  
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](mailto:don.b505@comcast.net)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 18 Jan 2023 Diag: Don Baldrige

#### WEAR



We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The iron level is severe. 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



### 17 Jan 2022 Diag: Don Baldrige

#### WEAR



We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The iron level is severe. 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



### 01 Apr 2020 Diag: Jonathan Hester

#### WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The iron level is severe. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid.

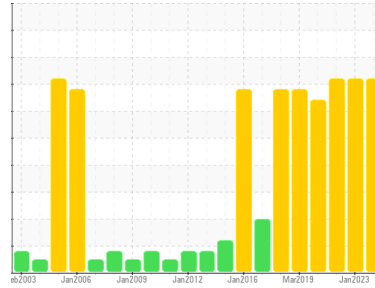
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**1653**

Component  
**Hydraulic System**

Fluid  
**MOBIL VACUOLINE OIL 1405 (22 GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### Wear

The iron level is severe.

### Contamination

There is a high 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 suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0865386</b>	WC0767617	WC0651812
Sample Date	Client Info		<b>16 Jan 2024</b>	18 Jan 2023	17 Jan 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>326</b>	385	399
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >20	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >20	<1	<1	1
Lead	ppm	ASTM D5185m >20	<1	<1	0
Copper	ppm	ASTM D5185m >20	4	4	3
Tin	ppm	ASTM D5185m >20	<1	0	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	3	4	4

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	41	46	57
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	2	2	2
Magnesium	ppm	ASTM D5185m	0	1	2
Calcium	ppm	ASTM D5185m	1	8	4
Phosphorus	ppm	ASTM D5185m	295	304	341
Zinc	ppm	ASTM D5185m	23	32	33
Sulfur	ppm	ASTM D5185m	2554	2968	2806

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	2	2
Sodium	ppm	ASTM D5185m	1	0	<1
Potassium	ppm	ASTM D5185m >20	28	39	33

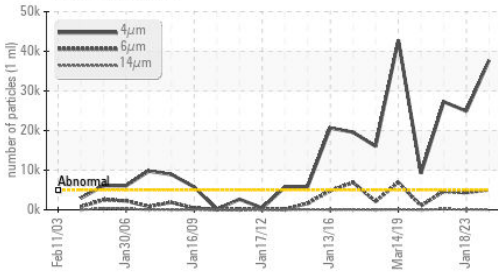
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>37750</b>	24899	27267
Particles >6µm	ASTM D7647	>1300	<b>5034</b>	4319	4672
Particles >14µm	ASTM D7647	>160	33	85	180
Particles >21µm	ASTM D7647	>40	2	6	34
Particles >38µm	ASTM D7647	>10	0	0	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>22/20/12</b>	22/19/14	22/19/15

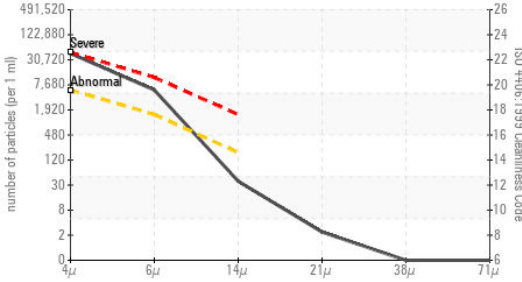


# OIL ANALYSIS REPORT

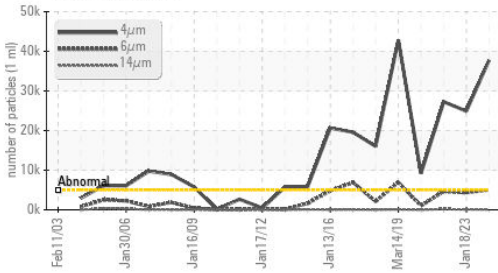
## Particle Trend



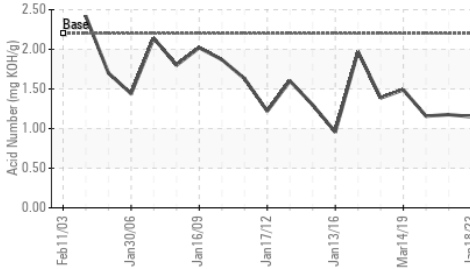
## Particle Count



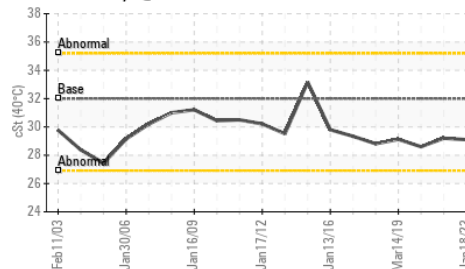
## Particle Trend



## Acid Number



## Viscosity @ 40°C



## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g ASTM D8045	2.2	<b>1.07</b>	1.15	1.176

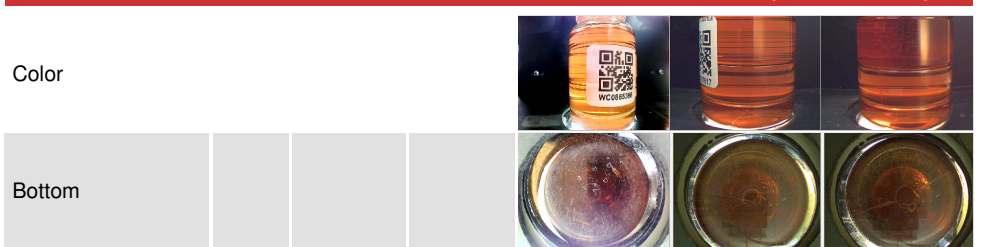
## VISUAL

method	limit/base	current	history1	history2	
White Metal	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar *Visual	NONE	<b>NONE</b>	NONE	LIGHT
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	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar *Visual		<b>NEG</b>	NEG	NEG

## FLUID PROPERTIES

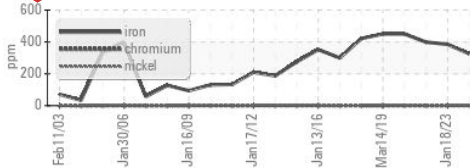
method	limit/base	current	history1	history2	
Visc @ 40°C	cSt ASTM D445	32	<b>29.1</b>	29.1	29.2

## SAMPLE IMAGES

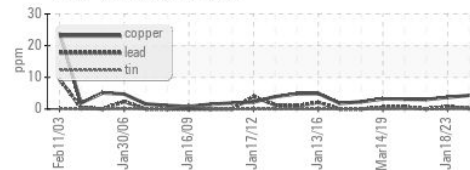


## GRAPHS

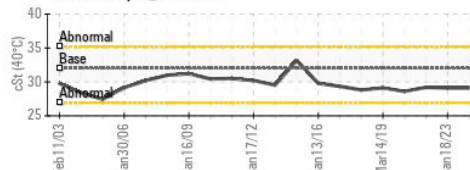
### Ferrous Alloys



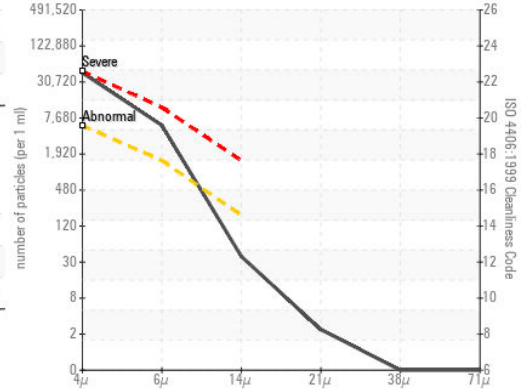
### Non-ferrous Metals



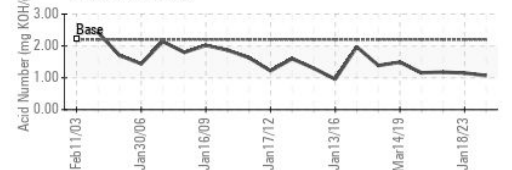
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0865386  
 Lab Number : 06075690  
 Unique Number : 10857781  
 Test Package : IND 2

**KOYO BEARINGS USA LLC S**  
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 US 30467  
 Contact: RUSSELL ZIPPERER  
 russell.zipperer@jtekt.com  
 T: (912)564-7151  
 F: (912)564-7244

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)