



# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area

**DMG**  
Machine Id

**JOHN DEERE 5090M 100468**

Component

**Hydraulic System**

Fluid

**TDH FLUID SAE 75W80 (--- QTS)**

## DIAGNOSIS

### Recommendation

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

### Wear

The iron level is abnormal. All other component wear rates are normal.

### 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC06136260</b>	---	---
Sample Date	Client Info		<b>18 Mar 2024</b>	---	---
Machine Age	hrs	Client Info	<b>1877</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>30</b>	---	---
Iron	ppm	ASTM D5185m >20	<b>▲ 45</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m >10	<b>3</b>	---	---
Lead	ppm	ASTM D5185m >10	<b>4</b>	---	---
Copper	ppm	ASTM D5185m >75	<b>13</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 10	<b>6</b>	---	---
Barium	ppm	ASTM D5185m 10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m 10	<b>2</b>	---	---
Manganese	ppm	ASTM D5185m	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m 100	<b>68</b>	---	---
Calcium	ppm	ASTM D5185m 3500	<b>3278</b>	---	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1156</b>	---	---
Zinc	ppm	ASTM D5185m 1150	<b>1253</b>	---	---
Sulfur	ppm	ASTM D5185m 5000	<b>4321</b>	---	---

## CONTAMINANTS

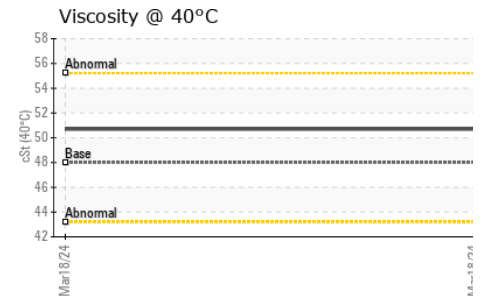
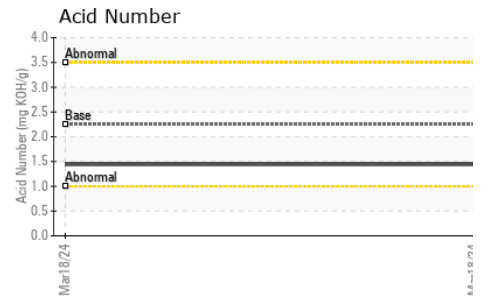
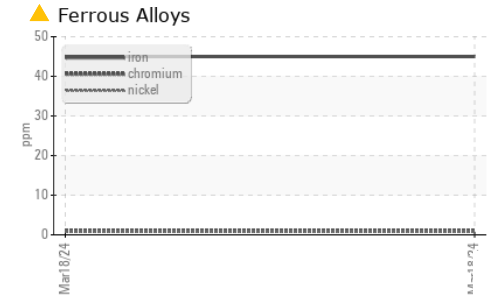
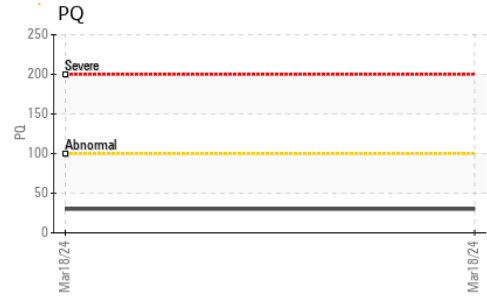
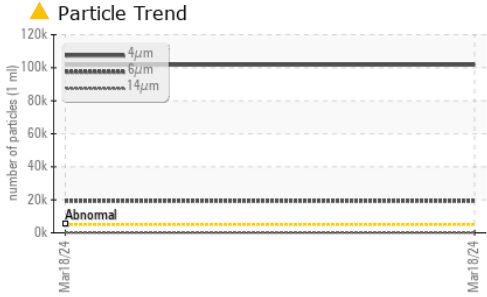
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>8</b>	---	---
Sodium	ppm	ASTM D5185m	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>4</b>	---	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 101707</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 19290</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>147</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>20</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>2</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 24/21/14</b>	---	---



# OIL ANALYSIS REPORT





FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	<b>1.44</b>	---	---

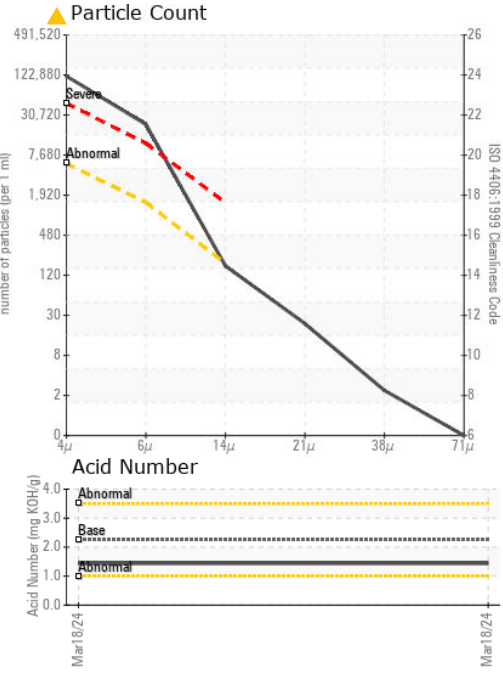
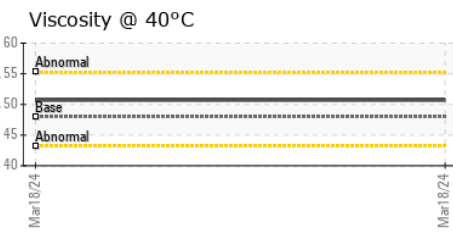
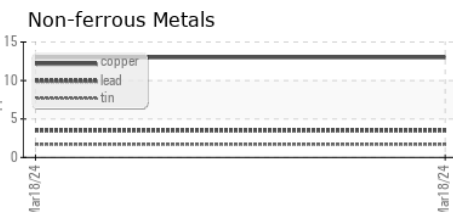
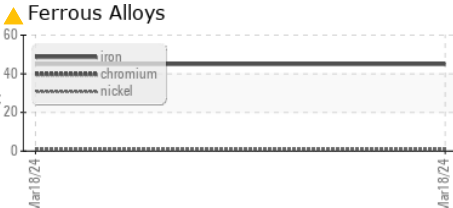
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---
Free Water	scalar	*Visual		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	48	<b>50.7</b>	---	---

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06136260      **Received** : 02 Apr 2024  
**Lab Number** : **06136260**      **Tested** : 03 Apr 2024  
**Unique Number** : 10955725      **Diagnosed** : 04 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**QUALITY EQUIPMENT LLC**  
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 US 27577  
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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)