



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area  
**[G14819]**  
 Machine Id  
**JOHN DEERE 530545**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

## RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0007191</b>	WE0006046	---
Sample Date		Client Info		<b>11 Apr 2024</b>	10 Nov 2023	---
Machine Age	hrs	Client Info		<b>1294</b>	940	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	Changed	---
Sample Status				<b>ATTENTION</b>	ATTENTION	---

## WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<b>1</b>	6	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	3	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	1	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>75	<b>&lt;1</b>	8	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

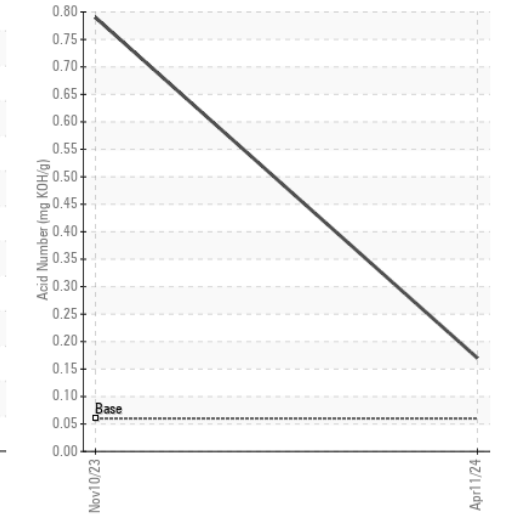
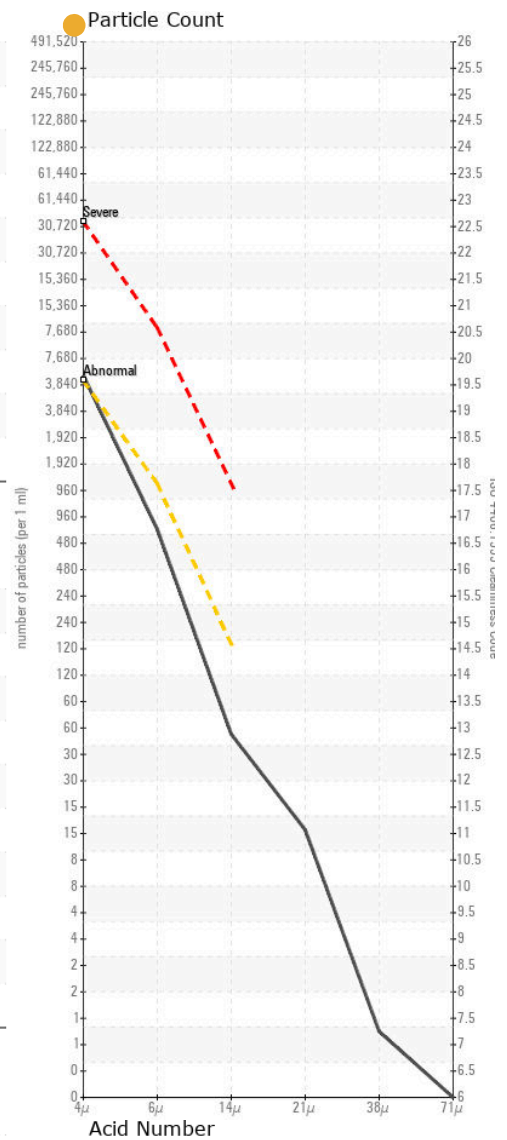
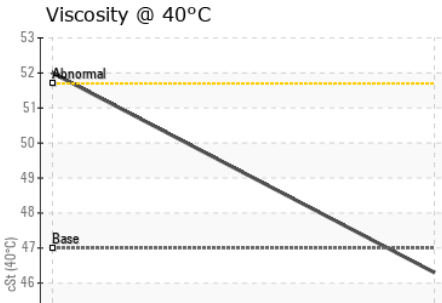
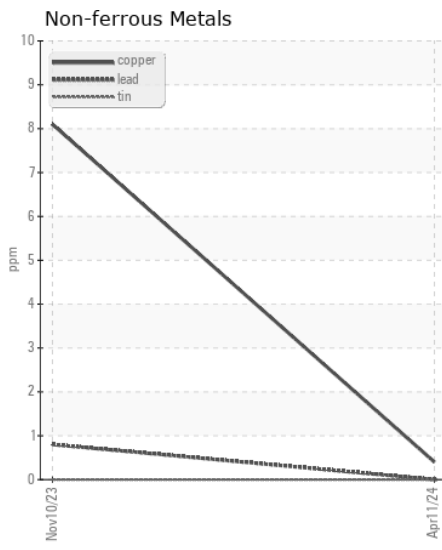
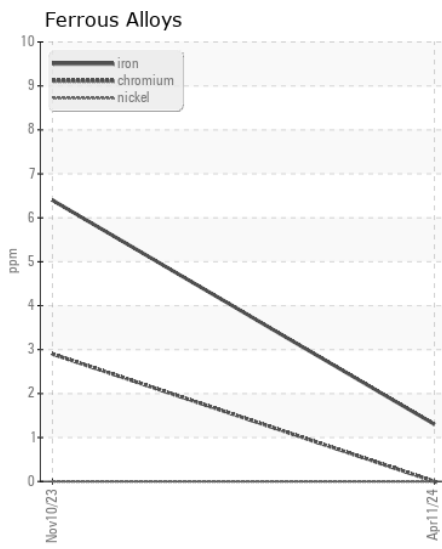
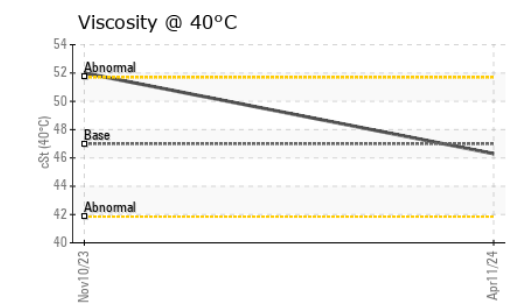
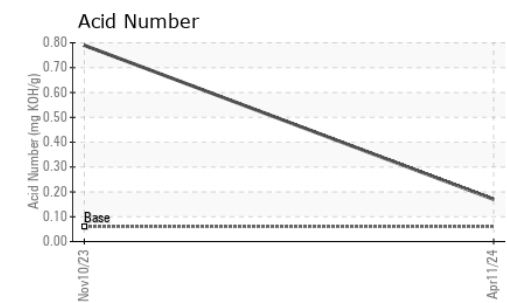
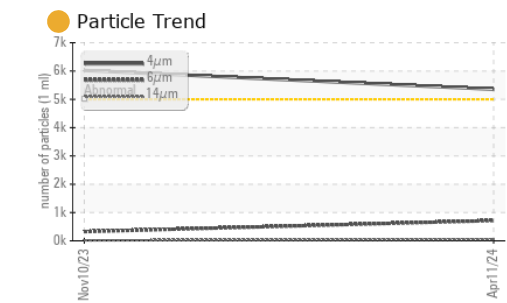
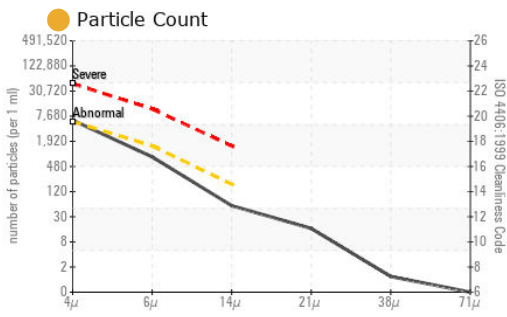
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	3	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>5355</b>	6021	---
Particles >6µm		ASTM D7647	>1300	<b>715</b>	324	---
Particles >14µm		ASTM D7647	>160	<b>49</b>	15	---
Particles >21µm		ASTM D7647	>40	<b>14</b>	5	---
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>20/17/13</b>	20/16/11	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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>2</b>	0	---
Boron	ppm	ASTM D5185m		<b>0</b>	41	---
Barium	ppm	ASTM D5185m		<b>0</b>	6	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	12	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m		<b>0</b>	74	---
Calcium	ppm	ASTM D5185m		<b>12</b>	794	---
Phosphorus	ppm	ASTM D5185m	827	<b>427</b>	752	---
Zinc	ppm	ASTM D5185m	0	<b>21</b>	861	---
Sulfur	ppm	ASTM D5185m	13	<b>89</b>	2272	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.17</b>	0.79	---
Visc @ 40°C	cSt	ASTM D445	47	<b>46.3</b>	52.0	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0007191 **Received** : 17 Apr 2024  
**Lab Number** : 06151895 **Tested** : 18 Apr 2024  
**Unique Number** : 10981973 **Diagnosed** : 19 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**WARRIOR TRACTOR AND EQUIPMENT - GRAYSVILLE**  
 4308 WATER TRAIL  
 GRAYSVILLE, AL  
 US 35073  
 Contact: BEN BYRKET  
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Certificate L2367  
 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)