



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**  
**ABNORMAL**  
**NORMAL**



Area  
**Store 4 - Fairmont [RO# 152860]**  
Machine Id  
**JOHN DEERE 250G 1FF250GXCNF611955**  
Component  
**Hydraulic System**  
Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0050973</b>	LEC0045503	LEC0042077
Sample Date		Client Info		<b>05 Jul 2024</b>	26 Oct 2023	10 Jul 2023
Machine Age	hrs	Client Info		<b>1576</b>	1027	517
Oil Age	hrs	Client Info		<b>1576</b>	1027	517
Filter Age	hrs	Client Info		<b>549</b>	510	517
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	SEVERE	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>22</b>	10	12
Iron	ppm	ASTM D5185m	>32	<b>20</b>	▲ 52	10
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	2	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	● <b>13</b>	● 32	4
Lead	ppm	ASTM D5185m	>28	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>4</b>	3	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

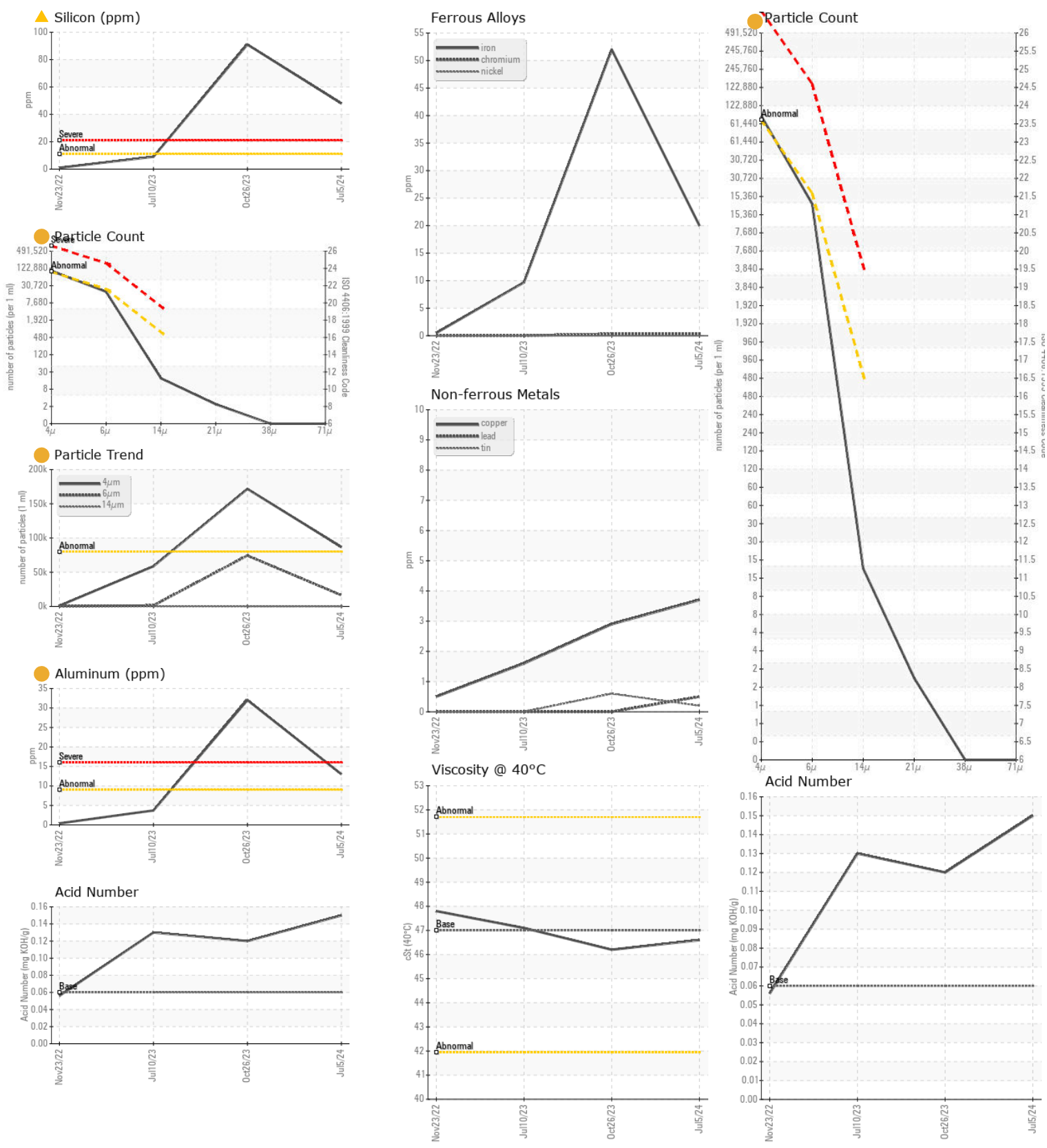
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>11	▲ <b>48</b>	▲ 91	9
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	5	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	● <b>86831</b>	▲ 171640	58674
Particles >6µm		ASTM D7647	>20000	<b>16311</b>	▲ 74210	1290
Particles >14µm		ASTM D7647	>640	<b>16</b>	24	51
Particles >21µm		ASTM D7647	>160	<b>2</b>	5	10
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	● <b>24/21/11</b>	▲ 25/23/12	23/17/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
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	>0.075	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	<b>0</b>	4	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	20	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	3	<1
Calcium	ppm	ASTM D5185m		<b>9</b>	27	3
Phosphorus	ppm	ASTM D5185m	827	<b>427</b>	503	560
Zinc	ppm	ASTM D5185m	0	<b>24</b>	43	20
Sulfur	ppm	ASTM D5185m	13	<b>119</b>	96	177
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.15</b>	0.12	0.13
Visc @ 40°C	cSt	ASTM D445	47	<b>46.6</b>	46.2	47.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0050973 **Received** : 15 Jul 2024  
**Lab Number** : 06235786 **Tested** : 16 Jul 2024  
**Unique Number** : 11124620 **Diagnosed** : 16 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ)

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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)