



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

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



Machine Id  
**JOHN DEERE 650J DOZER 22408 (S/N 131114)**  
Component  
**Right Final Drive**  
Fluid  
**AW HYDRAULIC OIL ISO 68 (4 QTS)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0950538</b>	WC0551093	WC0370618
Sample Date		Client Info		<b>10 Jul 2024</b>	25 Jun 2021	15 Aug 2019
Machine Age	hrs	Client Info		<b>13258</b>	11283	9935
Oil Age	hrs	Client Info		<b>1000</b>	1009	1000
Filter Age	hrs	Client Info		<b>1000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>750	<b>307</b>	31	32
Chromium	ppm	ASTM D5185m	>9	<b>4</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>40	<b>25</b>	0	4
Lead	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

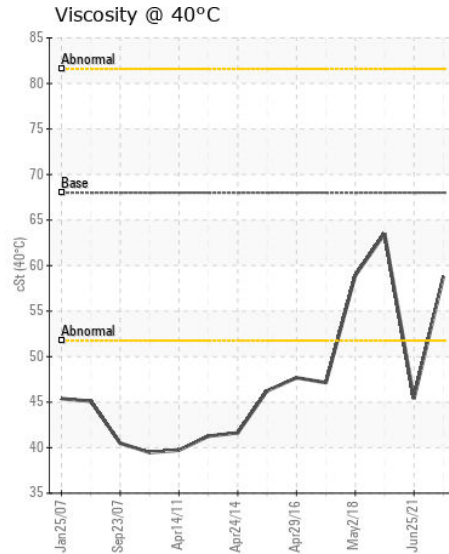
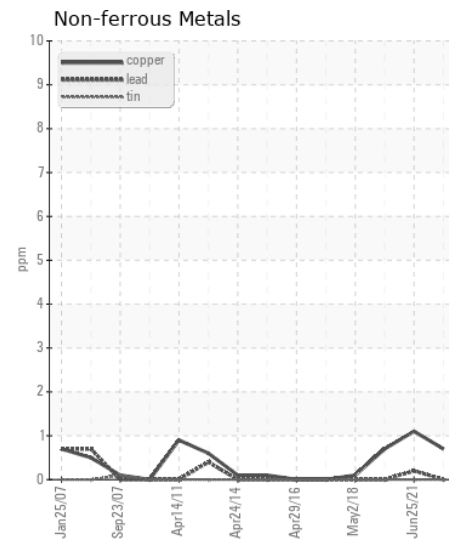
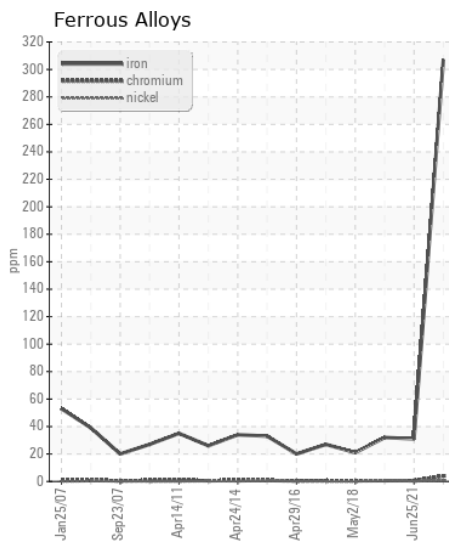
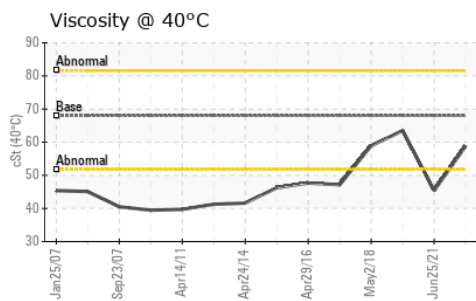
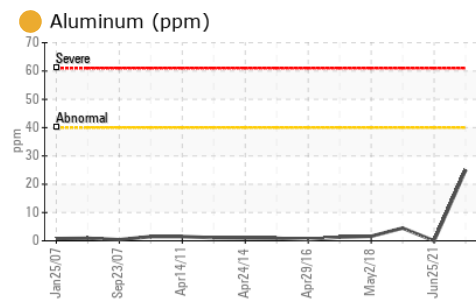
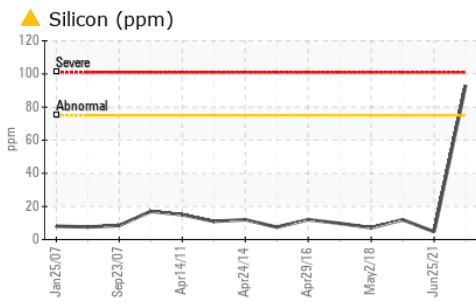
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 93</b>	5	12
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	17
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	<b>4</b>	0	2
Boron	ppm	ASTM D5185m	5	<b>6</b>	237	233
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>9</b>	22	68
Manganese	ppm	ASTM D5185m		<b>3</b>	<1	<1
Magnesium	ppm	ASTM D5185m	25	<b>28</b>	51	293
Calcium	ppm	ASTM D5185m	200	<b>141</b>	761	1220
Phosphorus	ppm	ASTM D5185m	300	<b>365</b>	701	738
Zinc	ppm	ASTM D5185m	370	<b>431</b>	826	776
Sulfur	ppm	ASTM D5185m	2500	<b>1339</b>	2656	2966
Visc @ 40°C	cSt	ASTM D445	68	<b>58.8</b>	45.4	63.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0950538  
**Lab Number** : 06233646  
**Unique Number** : 11117139  
**Test Package** : CONST  
**Received** : 11 Jul 2024  
**Tested** : 12 Jul 2024  
**Diagnosed** : 13 Jul 2024 - Don Baldrige

**SULLIVAN EASTERN INC**  
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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)