



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

[JEFFERSON CO SWA]

Machine Id

JOHN DEERE 410L 1T0410LXAPF437340

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Oil and filter 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		JR0195348	---	---
Sample Date		Client Info		04 Jan 2024	---	---
Machine Age	hrs	Client Info		510	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The copper level is abnormal. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	21	---	---
Chromium	ppm	ASTM D5185m	>11	<1	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	6	---	---
Lead	ppm	ASTM D5185m	>26	3	---	---
Copper	ppm	ASTM D5185m	>26	▲ 87	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

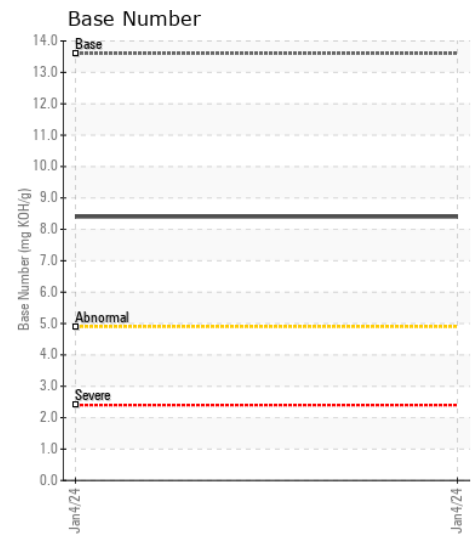
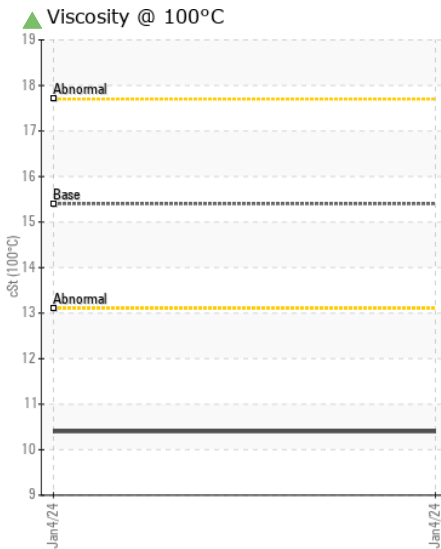
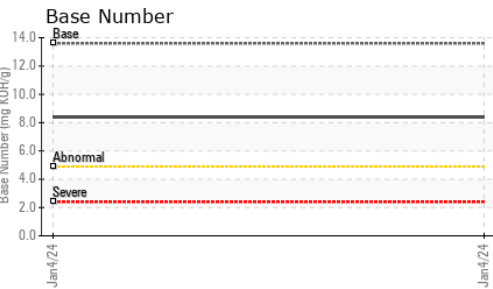
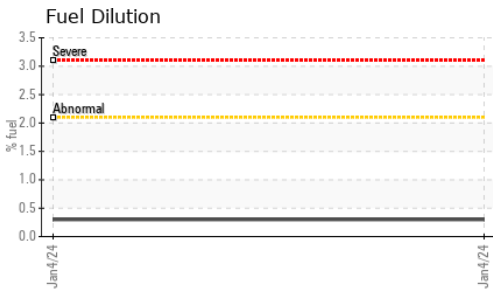
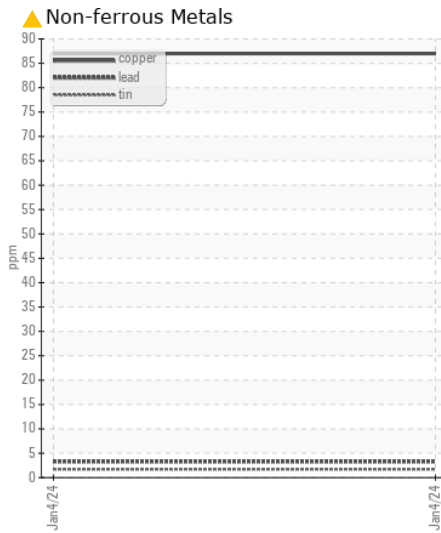
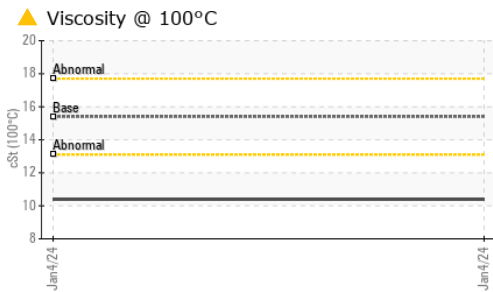
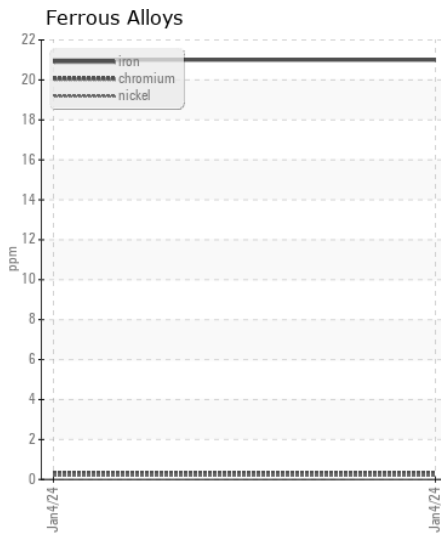
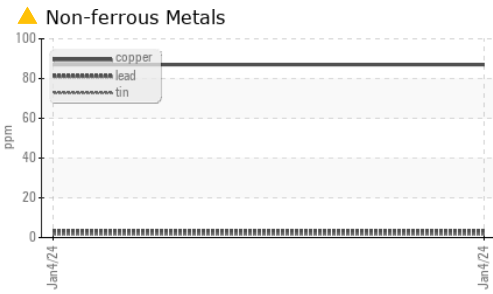
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	9	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel	%	ASTM D3524	>2.1	0.3	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	0	---	---
Boron	ppm	ASTM D5185m		264	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		179	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		609	---	---
Calcium	ppm	ASTM D5185m		1380	---	---
Phosphorus	ppm	ASTM D5185m		1043	---	---
Zinc	ppm	ASTM D5185m		951	---	---
Sulfur	ppm	ASTM D5185m		5200	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.4	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.4	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195348 **Received** : 09 Jan 2024
Lab Number : 06055716 **Diagnosed** : 11 Jan 2024
Unique Number : 10821665 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - STEPHENSON
 245 YARDMASTER COURT
 STEPHENSON, VA
 US 22656-1761
 Contact: PHIL DAUGHERTY
 pdaugherty@jamesriverequipment.com

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)

T: x:
F: (540)693-2588