



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Store 2 - Beaver [RO#146826]

Machine Id

JOHN DEERE 460P 1DW460PAEPFB06250

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		LEC0046922	LEC0042616	---
Sample Date		Client Info		24 Jan 2024	31 Aug 2023	---
Machine Age	hrs	Client Info		1148	577	---
Oil Age	hrs	Client Info		571	577	---
Filter Age	hrs	Client Info		571	577	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	15	35	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	6	4	---
Lead	ppm	ASTM D5185m	>26	7	14	---
Copper	ppm	ASTM D5185m	>26	▲ 96	▲ 540	---
Tin	ppm	ASTM D5185m	>4	5	11	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

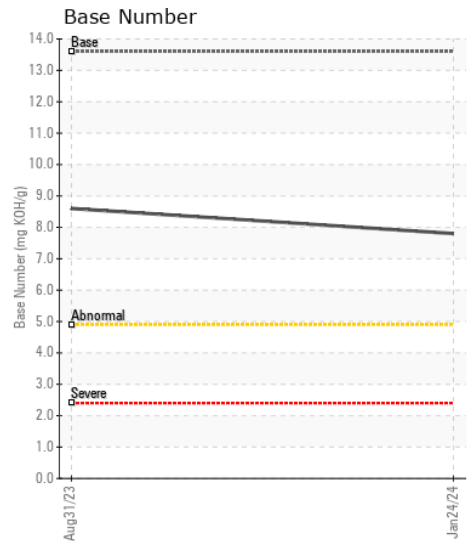
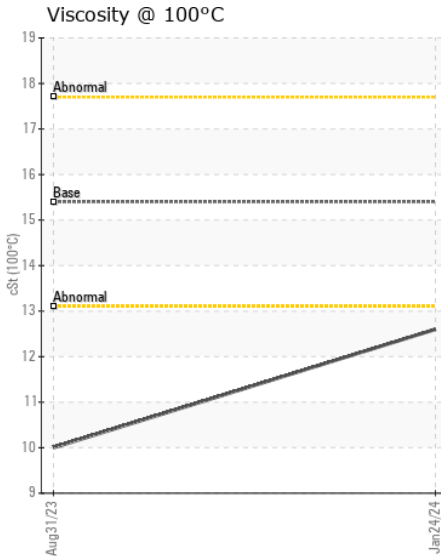
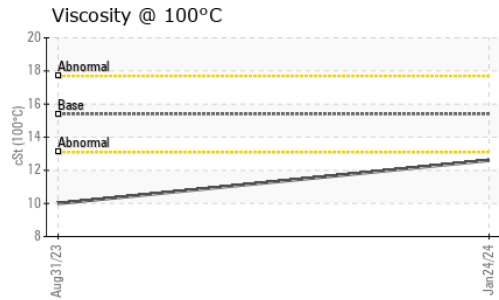
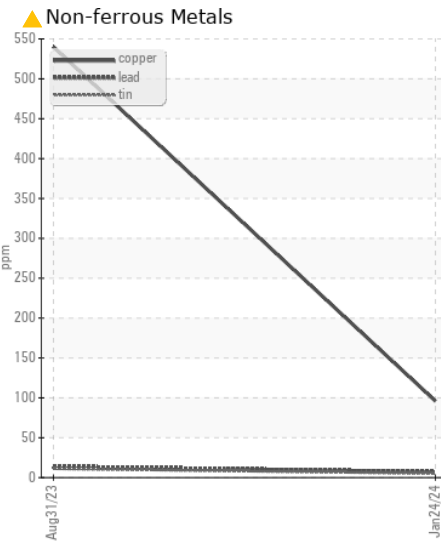
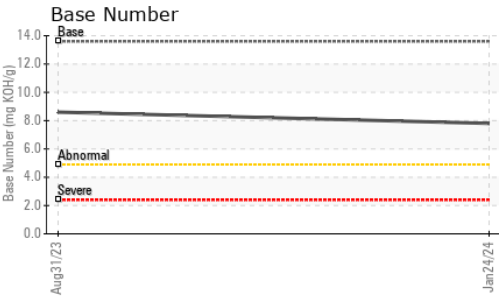
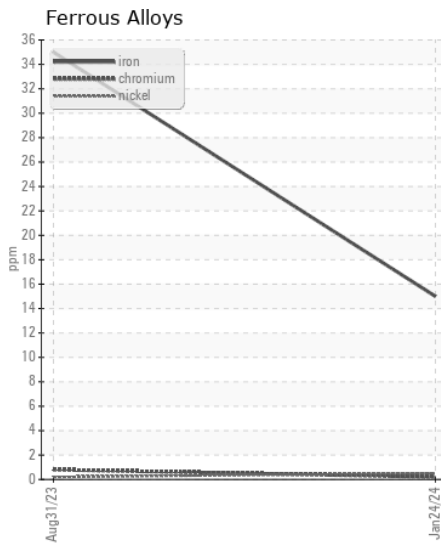
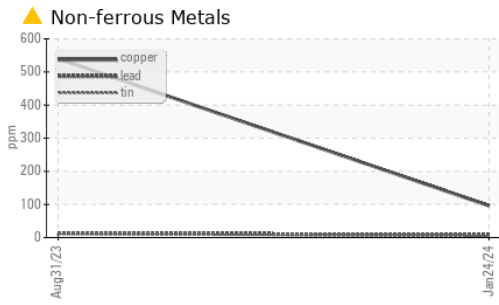
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	6	13	---
Potassium	ppm	ASTM D5185m	>20	<1	3	---
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	22.5	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	4	9	---
Boron	ppm	ASTM D5185m		202	176	---
Barium	ppm	ASTM D5185m		<1	<1	---
Molybdenum	ppm	ASTM D5185m		232	238	---
Manganese	ppm	ASTM D5185m		2	11	---
Magnesium	ppm	ASTM D5185m		815	829	---
Calcium	ppm	ASTM D5185m		1318	1358	---
Phosphorus	ppm	ASTM D5185m		896	856	---
Zinc	ppm	ASTM D5185m		1100	1050	---
Sulfur	ppm	ASTM D5185m		2884	3330	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	17.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.8	8.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	10.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0046922 **Received** : 30 Jan 2024
Lab Number : 06074337 **Diagnosed** : 31 Jan 2024
Unique Number : 10856428 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: FuelDilution, TBN)

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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)