



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
Store 9 - Marietta
Machine Id
JOHN DEERE 105602

Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. 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		LEC0035412	LEC0035431	---
Sample Date		Client Info		29 Sep 2023	01 Mar 2023	---
Machine Age	hrs	Client Info		421	250	---
Oil Age	hrs	Client Info		421	0	---
Filter Age	hrs	Client Info		421	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	68	38	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	5	4	---
Lead	ppm	ASTM D5185m	>26	3	<1	---
Copper	ppm	ASTM D5185m	>26	15	14	---
Tin	ppm	ASTM D5185m	>4	<1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

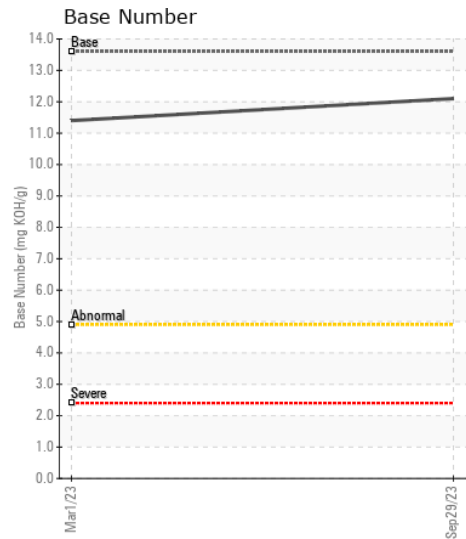
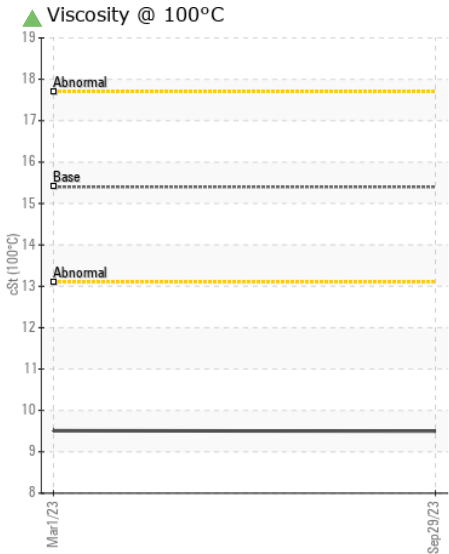
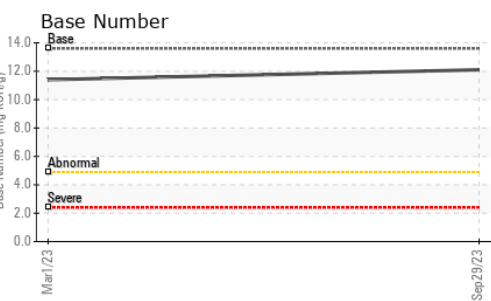
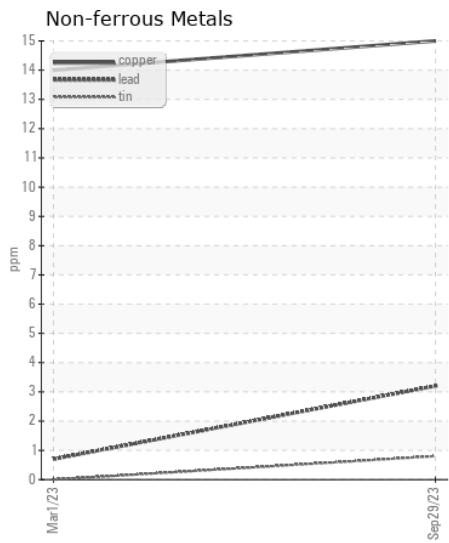
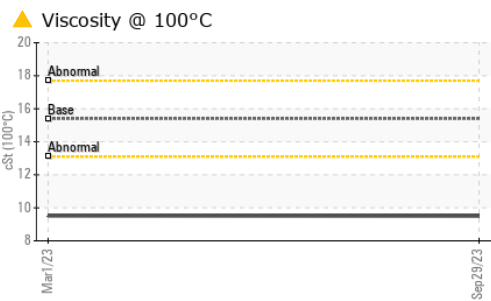
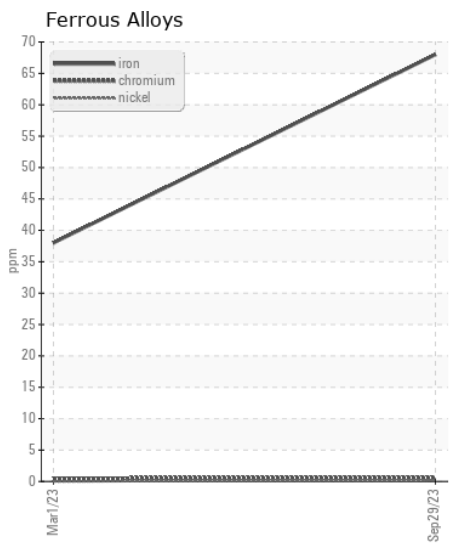
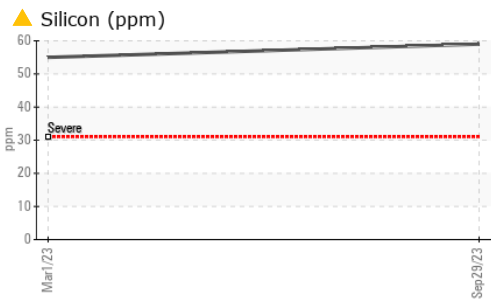
Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

Silicon	ppm	ASTM D5185m	>120	▲ 59	▲ 55	---
Potassium	ppm	ASTM D5185m	>20	1	0	---
Fuel		WC Method	>2.1	<1.0	1.8	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	6.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.4	13.9	---
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 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	18	15	---
Boron	ppm	ASTM D5185m		42	50	---
Barium	ppm	ASTM D5185m		20	16	---
Molybdenum	ppm	ASTM D5185m		113	105	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m		24	21	---
Calcium	ppm	ASTM D5185m		4124	3945	---
Phosphorus	ppm	ASTM D5185m		1234	1115	---
Zinc	ppm	ASTM D5185m		1495	1338	---
Sulfur	ppm	ASTM D5185m		7233	7869	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.8	8.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	12.1	11.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.5	▲ 9.51	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0035412 **Received** : 19 Jan 2024
Lab Number : 06065452 **Diagnosed** : 22 Jan 2024
Unique Number : 10836834 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: TBN)

BRIDGEPORT EQUIPMENT & TOOLS
 156 QUEEN ANNE DR
 BECKLEY, WV
 US 25801
 Contact: Service Manager

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)

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F: