



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta
 Machine Id
JOHN DEERE 250G EX33 (S/N 1FF250GXHLF611604)
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 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		LEC0047721	LEC0038354	LEC0036093
Sample Date		Client Info		05 Jan 2024	19 Apr 2023	12 Oct 2022
Machine Age	hrs	Client Info		1640	1082	545
Oil Age	hrs	Client Info		500	500	545
Filter Age	hrs	Client Info		500	500	545
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	▲ 66	57	112
Chromium	ppm	ASTM D5185m	>11	2	2	4
Nickel	ppm	ASTM D5185m	>5	4	▲ 8	▲ 39
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	3	7
Lead	ppm	ASTM D5185m	>26	1	2	2
Copper	ppm	ASTM D5185m	>26	16	▲ 51	▲ 487
Tin	ppm	ASTM D5185m	>4	2	3	3
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

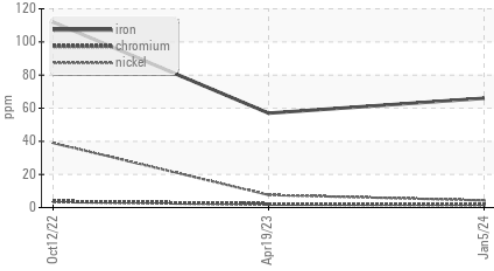
Silicon	ppm	ASTM D5185m	>120	11	11	13
Potassium	ppm	ASTM D5185m	>20	2	3	5
Fuel		WC Method	>2.1	<1.0	<1.0	0.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	0.7	1.1
Nitration	Abs/cm	*ASTM D7624	>20	10.8	11.8	14.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.6	27.5	32.3
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG

FLUID CONDITION

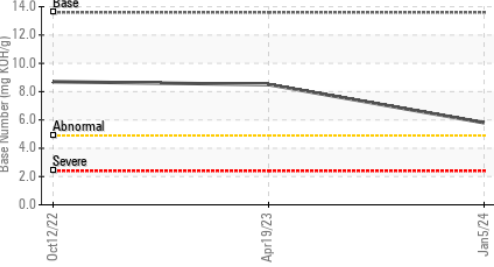
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	5	5	7
Boron	ppm	ASTM D5185m		50	99	55
Barium	ppm	ASTM D5185m		0	0	4
Molybdenum	ppm	ASTM D5185m		121	269	261
Manganese	ppm	ASTM D5185m		1	2	5
Magnesium	ppm	ASTM D5185m		524	911	879
Calcium	ppm	ASTM D5185m		1619	1668	1658
Phosphorus	ppm	ASTM D5185m		1157	956	902
Zinc	ppm	ASTM D5185m		1423	1219	1128
Sulfur	ppm	ASTM D5185m		2821	3402	2923
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.3	23.4	28.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	5.8	8.5	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.7	▲ 12.1

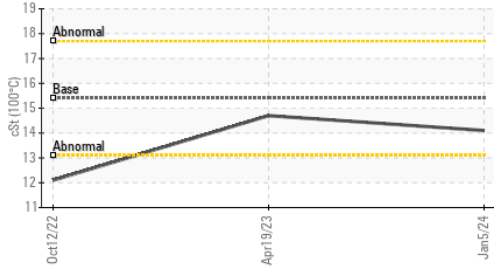
▲ Ferrous Alloys



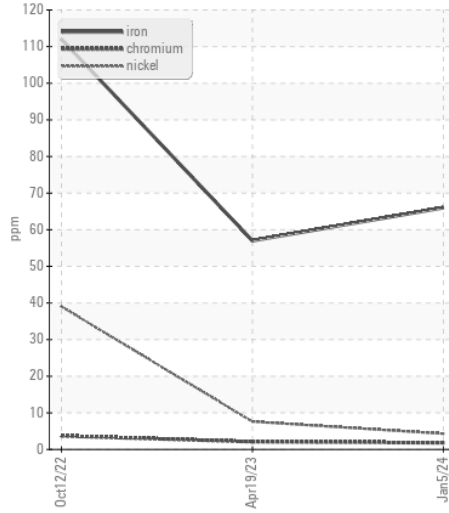
Base Number



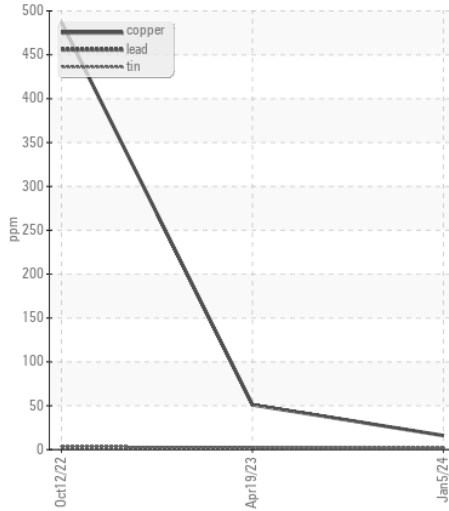
Viscosity @ 100°C



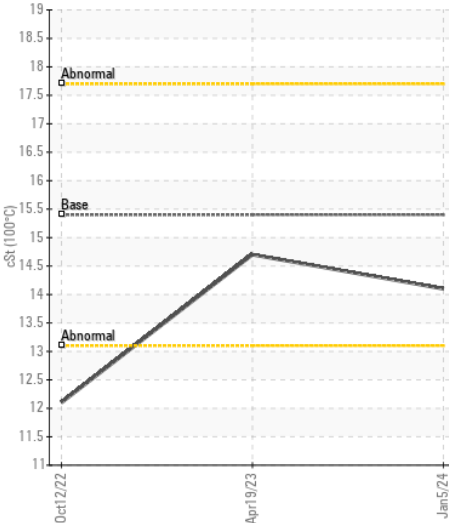
▲ Ferrous Alloys



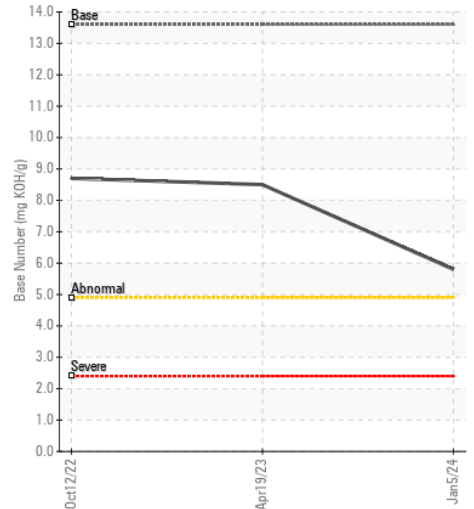
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0047721 **Received** : 17 Jan 2024
Lab Number : 06063306 **Diagnosed** : 19 Jan 2024
Unique Number : 10834688 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: TBN)

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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