James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 350G 1FF350GXCDE809671
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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level has decreased, but is still abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

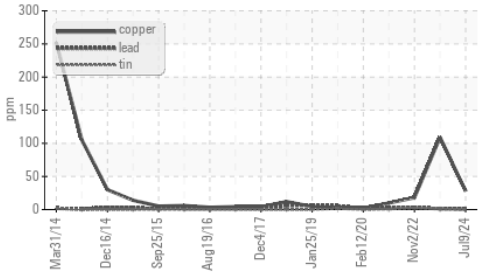
There is no indication of any contamination in the oil.

FLUID CONDITION

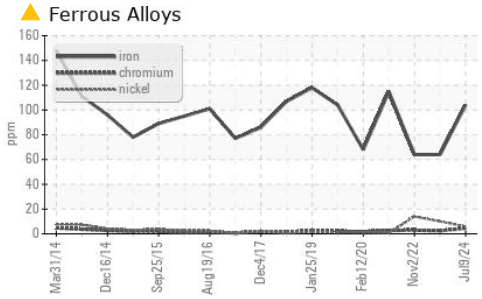
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0224507	JR0147745	JR0147887
Sample Date		Client Info		09 Jul 2024	25 Apr 2023	02 Nov 2022
Machine Age	hrs	Client Info		9452	8987	8461
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 104	▲ 64	64
Chromium	ppm	ASTM D5185m	>11	4	2	3
Nickel	ppm	ASTM D5185m	>5	6	▲ 10	▲ 14
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	2	4
Lead	ppm	ASTM D5185m	>26	<1	1	3
Copper	ppm	ASTM D5185m	>26	▲ 28	▲ 109	18
Tin	ppm	ASTM D5185m	>4	0	1	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	19	13	16
Potassium	ppm	ASTM D5185m	>20	2	4	6
Fuel		WC Method	>2.1	<1.0	<1.0	0.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.8	8.6	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	20.9	23.2
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
Sodium	ppm	ASTM D5185m	>31	6	4	18
Boron	ppm	ASTM D5185m		133	175	214
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		251	260	244
Manganese	ppm	ASTM D5185m		1	2	2
Magnesium	ppm	ASTM D5185m		790	778	747
Calcium	ppm	ASTM D5185m		1542	1439	1410
Phosphorus	ppm	ASTM D5185m		905	878	803
Zinc	ppm	ASTM D5185m		1030	1098	1036
Sulfur	ppm	ASTM D5185m		3279	2933	3127
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.2	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.7	7.7	10.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	12.7	10.0

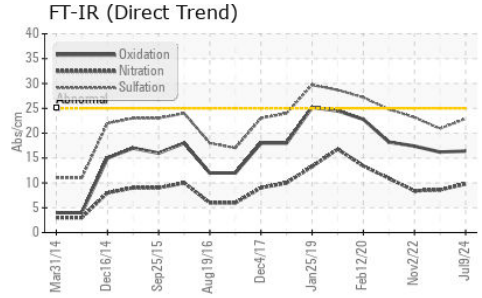
Non-ferrous Metals



Ferrous Alloys



FT-IR (Direct Trend)



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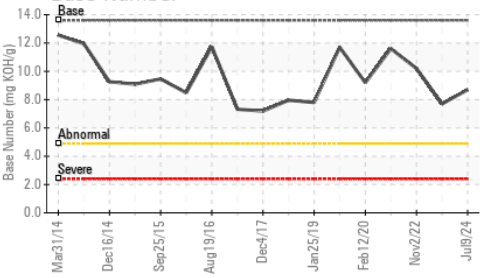
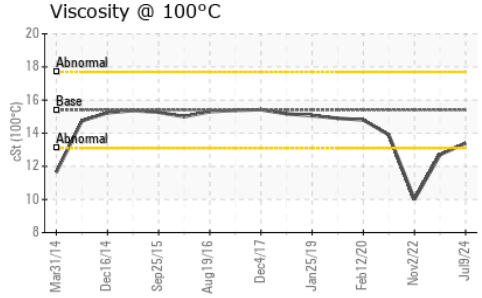


Viscosity @ 100°C



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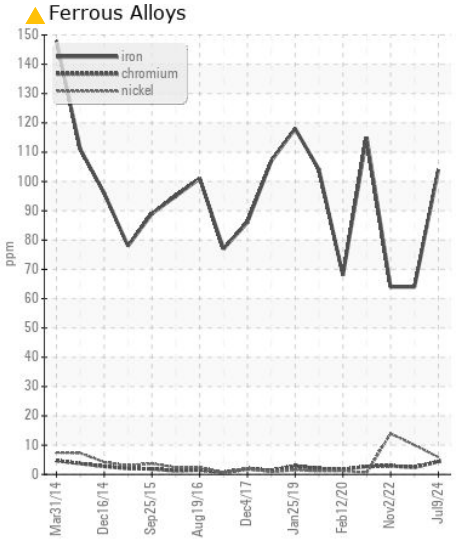

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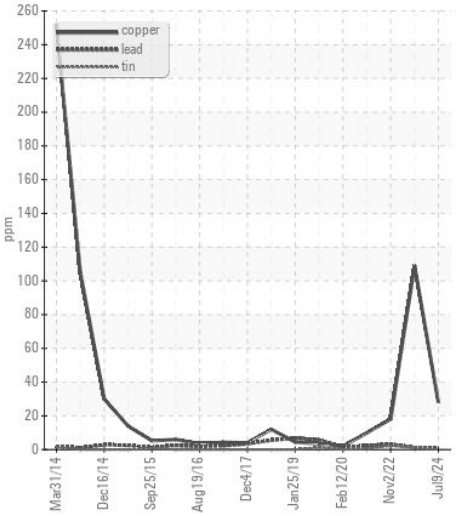
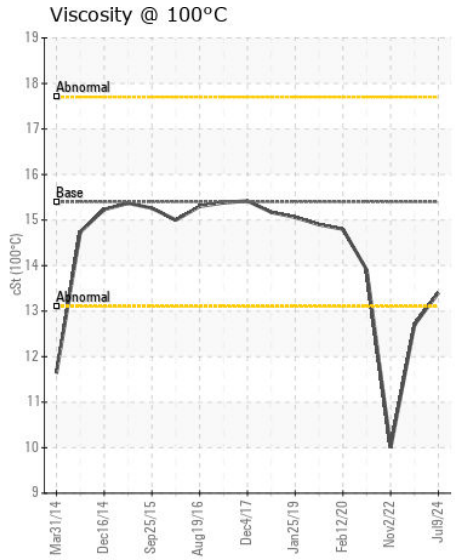


Viscosity @ 100°C



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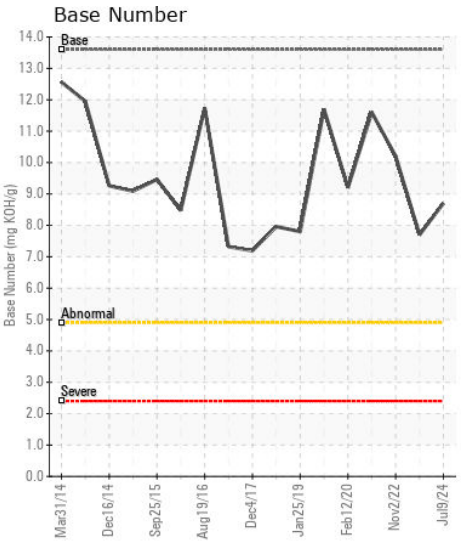

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224507
Lab Number : 06234155
Unique Number : 11122989
Test Package : CONST (Additional Tests: TBN)

Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 14 Jul 2024 - Don Baldridge

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)

JRE - ASHLAND
11047 LEADBETTER RD
ASHLAND, VA
US 23005
Contact: DAVID ZIEG
dzieg@jamesriverequipment.com
T: (804)798-6001
F: (804)798-0292