CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[ILA PROPERTIES]

Machine Id
JOHN DEERE 350G 1FF350GXEMF815195

Component
Diesel Engine

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Valve wear is indicated. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

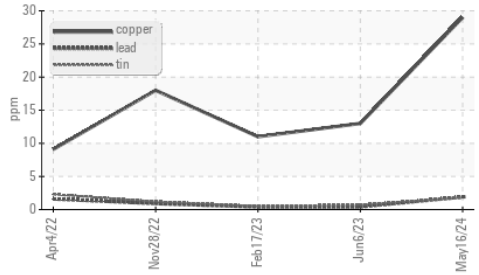
There is no indication of any contamination in the oil.

FLUID CONDITION

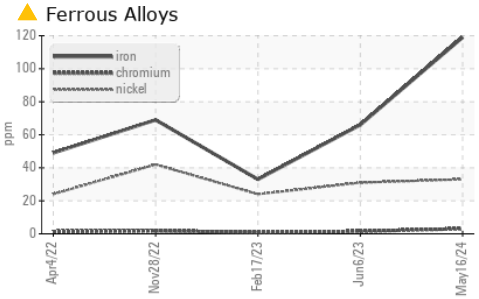
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195367	JR0174434	JR0162950
Sample Date		Client Info		16 May 2024	06 Jun 2023	17 Feb 2023
Machine Age	hrs	Client Info		1997	1435	1231
Oil Age	hrs	Client Info		0	1224	211
Filter Age	hrs	Client Info		0	0	211
Oil Changed		Client Info		Changed	N/A	Not Changd
Filter Changed		Client Info		Changed	N/A	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 119	66	33
Chromium	ppm	ASTM D5185m	>11	3	2	<1
Nickel	ppm	ASTM D5185m	>5	▲ 33	▲ 31	▲ 24
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	8	2	3
Lead	ppm	ASTM D5185m	>26	2	<1	<1
Copper	ppm	ASTM D5185m	>26	▲ 29	13	11
Tin	ppm	ASTM D5185m	>4	2	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	11	10	6
Potassium	ppm	ASTM D5185m	>20	4	2	2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.7	9.2	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.3	20.9
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	3	2	2
Boron	ppm	ASTM D5185m		164	207	237
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		269	243	238
Manganese	ppm	ASTM D5185m		2	2	<1
Magnesium	ppm	ASTM D5185m		839	888	805
Calcium	ppm	ASTM D5185m		1473	1477	1411
Phosphorus	ppm	ASTM D5185m		925	909	842
Zinc	ppm	ASTM D5185m		1089	1128	1033
Sulfur	ppm	ASTM D5185m		3238	3631	3529
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	16.3	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	8.9	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.4	13.6

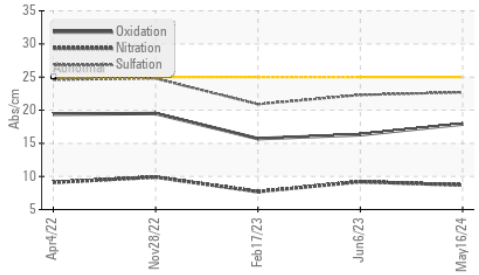
Non-ferrous Metals



Ferrous Alloys



FT-IR (Direct Trend)



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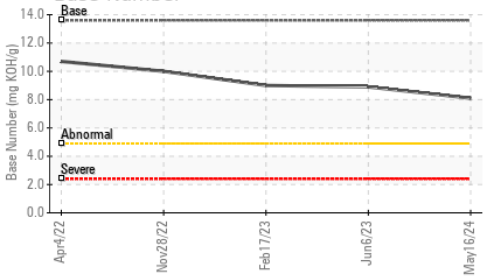
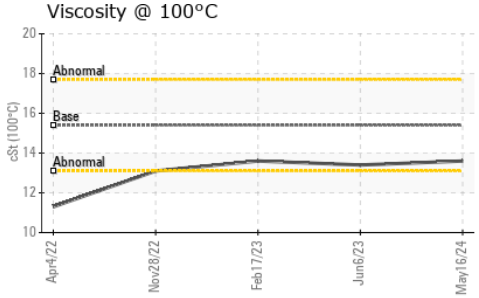


Viscosity @ 100°C



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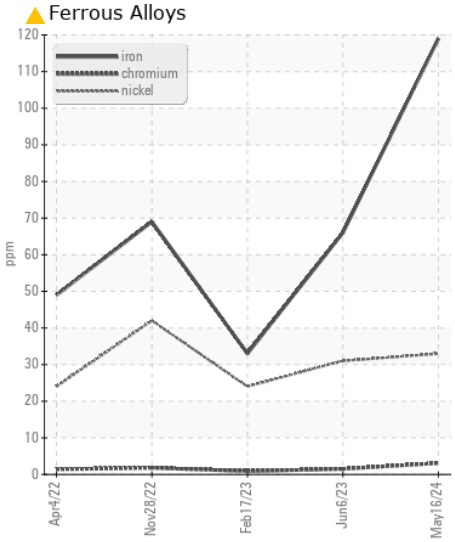

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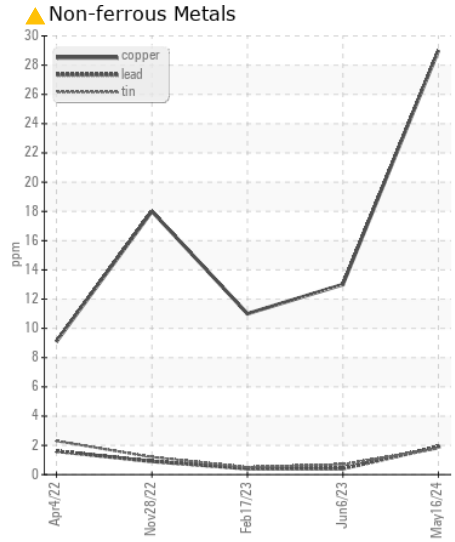

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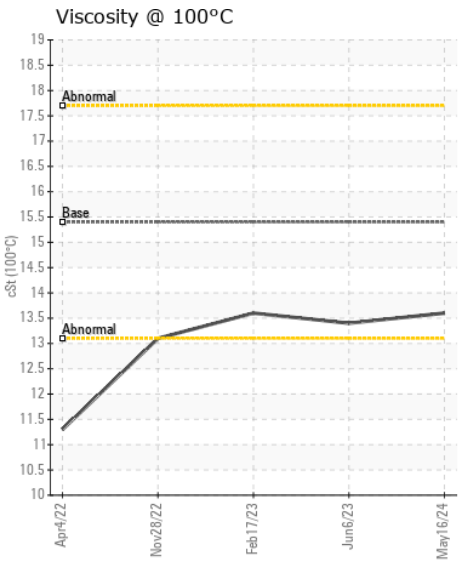

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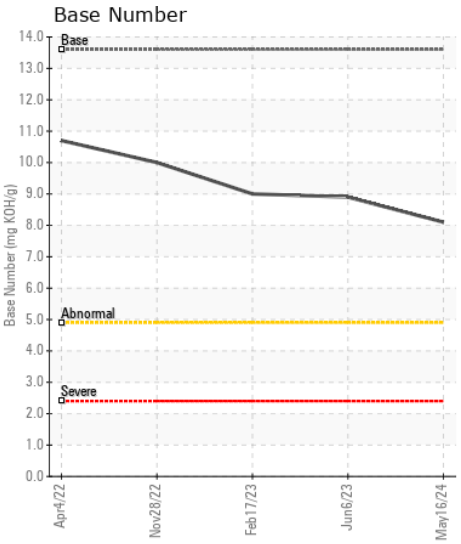

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195367
Lab Number : 06185947
Unique Number : 11042699
Test Package : CONST (Additional Tests: TBN)

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 23 May 2024 - Angela Borella

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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