James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[51612]
Machine Id
JOHN DEERE 648LII 1DW648LBLJF692655
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

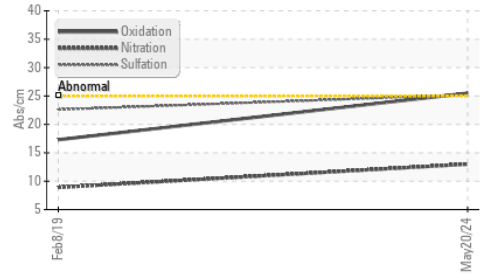
There is no indication of any contamination in the oil.

FLUID CONDITION

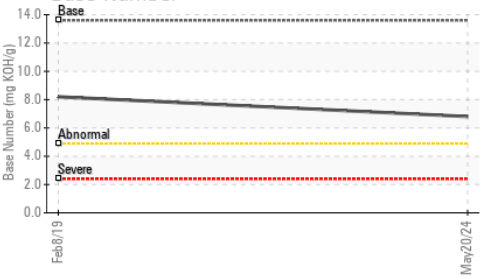
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212158	JRMC472739	---
Sample Date		Client Info		20 May 2024	08 Feb 2019	---
Machine Age	hrs	Client Info		10340	496	---
Oil Age	hrs	Client Info		0	496	---
Filter Age	hrs	Client Info		0	496	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>51	45	35	---
Chromium	ppm	ASTM D5185m	>11	<1	1	---
Nickel	ppm	ASTM D5185m	>5	4	4	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	<1	6	---
Lead	ppm	ASTM D5185m	>26	<1	<1	---
Copper	ppm	ASTM D5185m	>26	4	▲ 333	---
Tin	ppm	ASTM D5185m	>4	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	8	13	---
Potassium	ppm	ASTM D5185m	>20	0	3	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	1.2	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	13.0	8.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.2	22.6	---
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	---
Sodium	ppm	ASTM D5185m	>31	4	8	---
Boron	ppm	ASTM D5185m		23	179	---
Barium	ppm	ASTM D5185m		0	1	---
Molybdenum	ppm	ASTM D5185m		45	260	---
Manganese	ppm	ASTM D5185m		0	7	---
Magnesium	ppm	ASTM D5185m		502	931	---
Calcium	ppm	ASTM D5185m		1805	1564	---
Phosphorus	ppm	ASTM D5185m		757	944	---
Zinc	ppm	ASTM D5185m		965	1077	---
Sulfur	ppm	ASTM D5185m		2601	2632	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	17.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.8	8.2	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	10.4	---

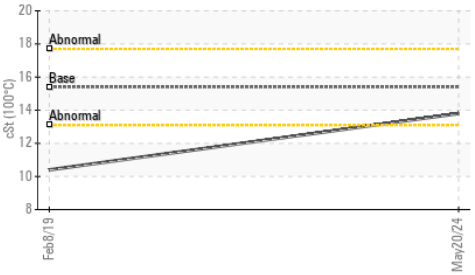
FT-IR (Direct Trend)



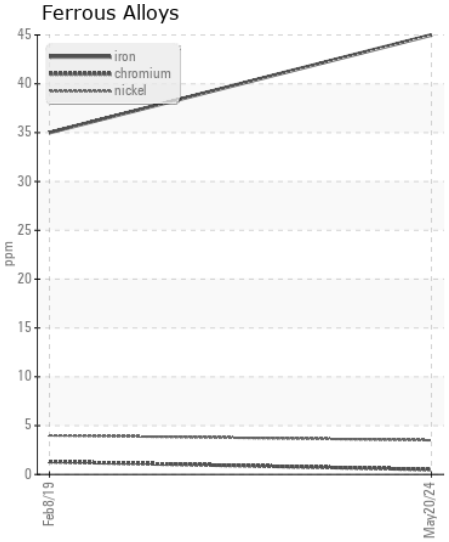
Base Number



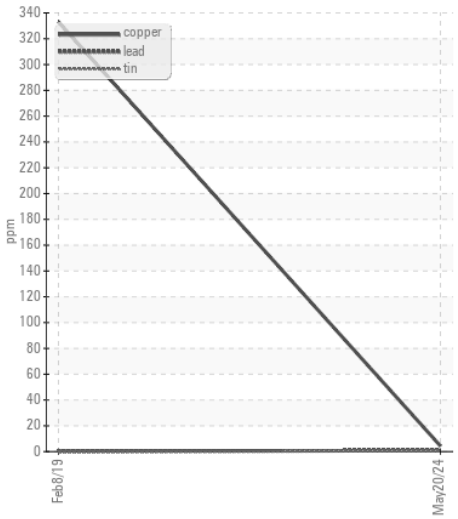
Viscosity @ 100°C



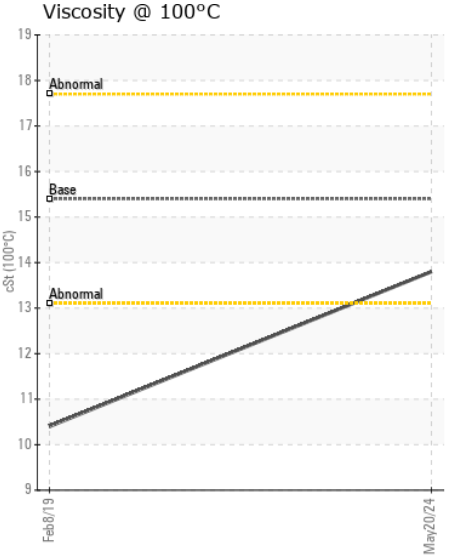
Ferrous Alloys



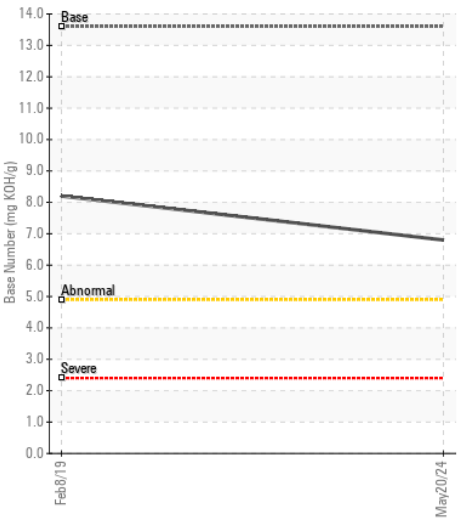
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212158 **Received** : 22 May 2024
Lab Number : 06187461 **Tested** : 23 May 2024
Unique Number : 11044213 **Diagnosed** : 24 May 2024 - Wes Davis
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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