James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 624 P 1DW624PACPLX19142
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. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

CONTAMINATION

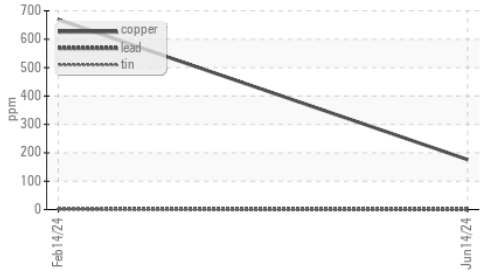
There is no indication of any contamination in the oil.

FLUID CONDITION

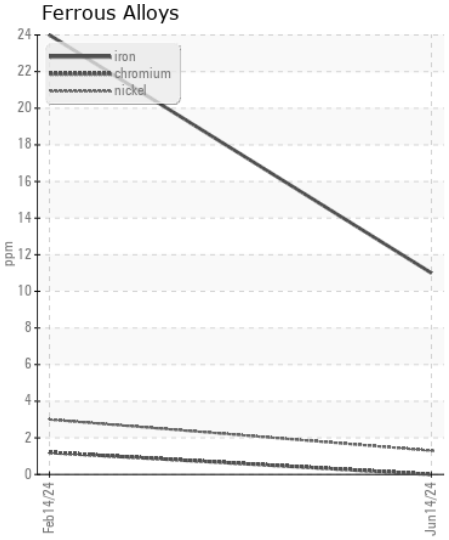
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218336	JR0199388	---
Sample Date		Client Info		14 Jun 2024	14 Feb 2024	---
Machine Age	hrs	Client Info		474	474	---
Oil Age	hrs	Client Info		474	474	---
Filter Age	hrs	Client Info		474	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>51	11	24	---
Chromium	ppm	ASTM D5185m	>11	0	1	---
Nickel	ppm	ASTM D5185m	>5	1	3	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	5	3	---
Lead	ppm	ASTM D5185m	>26	0	2	---
Copper	ppm	ASTM D5185m	>26	▲ 176	▲ 669	---
Tin	ppm	ASTM D5185m	>4	<1	2	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	7	14	---
Potassium	ppm	ASTM D5185m	>20	4	4	---
Fuel	%	ASTM D3524	>2.1	<1.0	0.4	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.3	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.7	---
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	0	---
Boron	ppm	ASTM D5185m		212	263	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		243	261	---
Manganese	ppm	ASTM D5185m		2	5	---
Magnesium	ppm	ASTM D5185m		873	783	---
Calcium	ppm	ASTM D5185m		1474	1372	---
Phosphorus	ppm	ASTM D5185m		981	915	---
Zinc	ppm	ASTM D5185m		1127	1025	---
Sulfur	ppm	ASTM D5185m		3598	3557	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	16.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.4	8.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	9.9	---

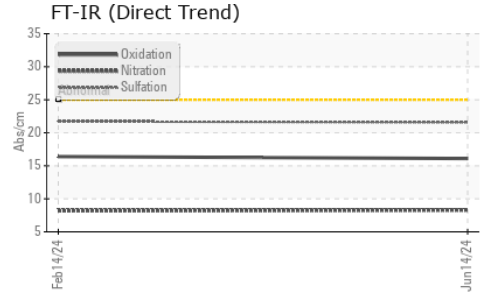
Non-ferrous Metals



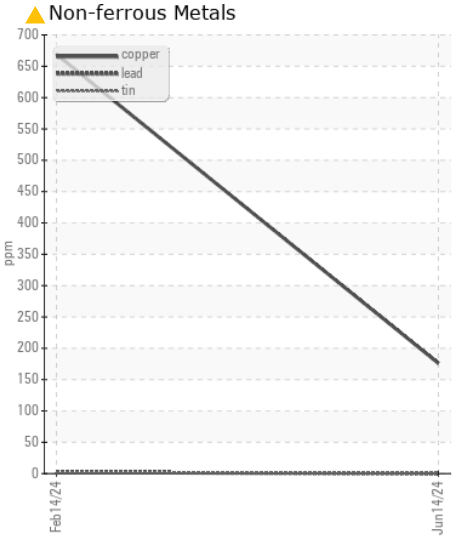
Ferrous Alloys



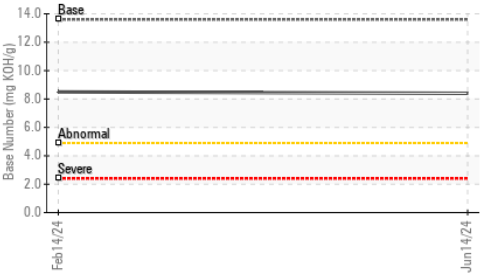
FT-IR (Direct Trend)



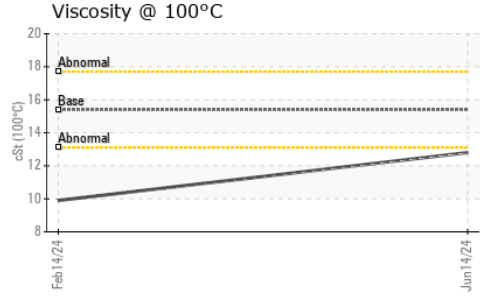
Non-ferrous Metals



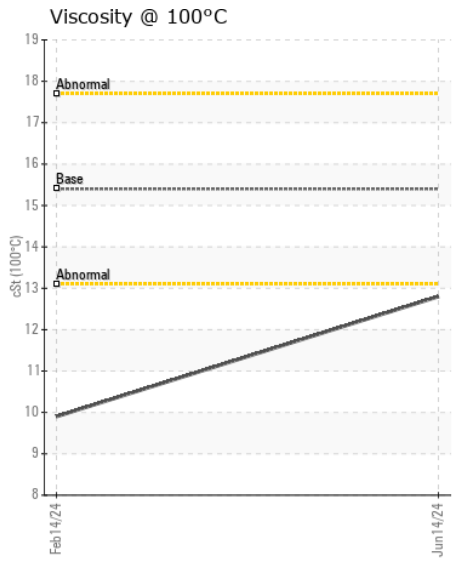
Base Number



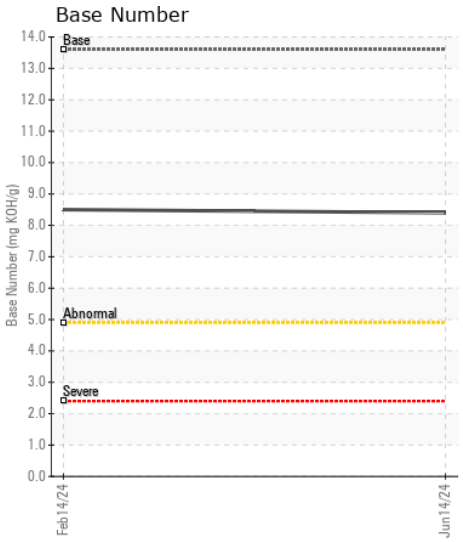
Viscosity @ 100°C



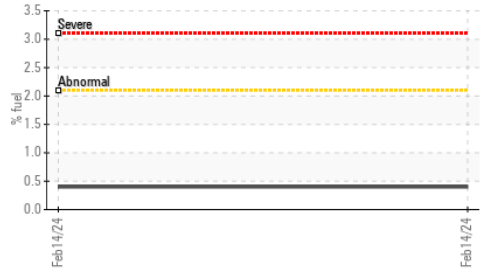
Viscosity @ 100°C



Base Number



Fuel Dilution



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218336 **Received** : 18 Jun 2024
Lab Number : 06213299 **Tested** : 19 Jun 2024
Unique Number : 11086163 **Diagnosed** : 20 Jun 2024 - Sean Felton
Test Package : CONST (Additional Tests: FuelDilution, 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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