



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 544L F685945
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0185004	---	---
Sample Date		Client Info		11 Jun 2024	---	---
Machine Age	hrs	Client Info		3827	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	12	---	---
Chromium	ppm	ASTM D5185m	>11	<1	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	5	---	---
Lead	ppm	ASTM D5185m	>26	1	---	---
Copper	ppm	ASTM D5185m	>26	1	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

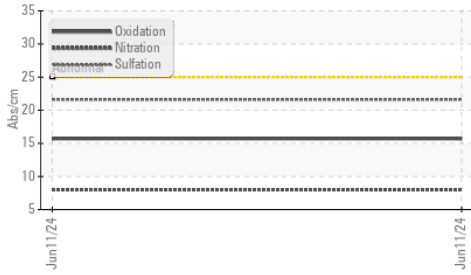
Silicon	ppm	ASTM D5185m	>22	7	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

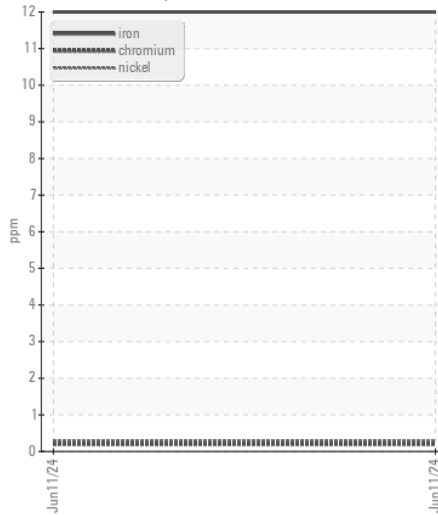
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<1	---	---
Boron	ppm	ASTM D5185m		270	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		262	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		820	---	---
Calcium	ppm	ASTM D5185m		1362	---	---
Phosphorus	ppm	ASTM D5185m		813	---	---
Zinc	ppm	ASTM D5185m		1063	---	---
Sulfur	ppm	ASTM D5185m		3189	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.2	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	---	---

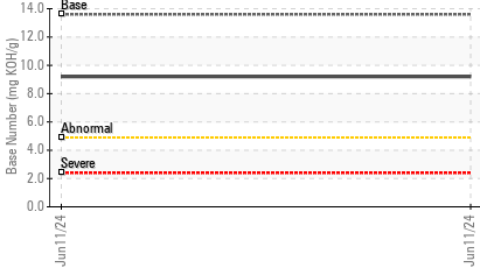
FT-IR (Direct Trend)



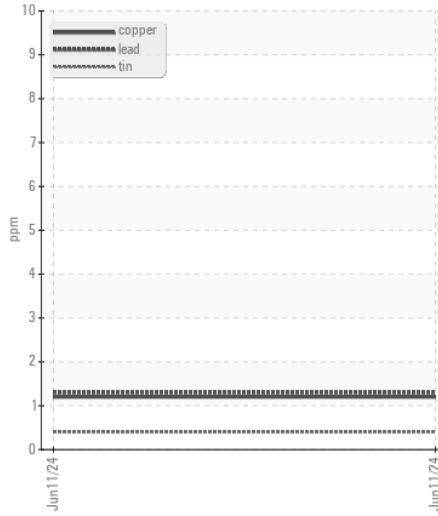
Ferrous Alloys



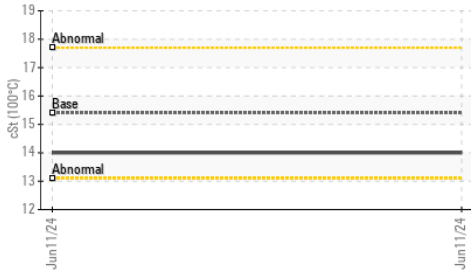
Base Number



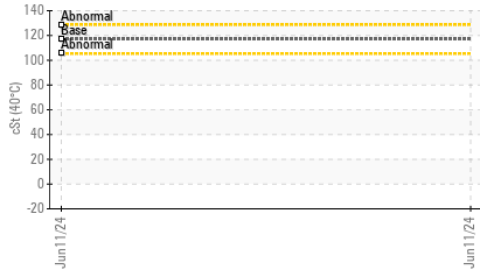
Non-ferrous Metals



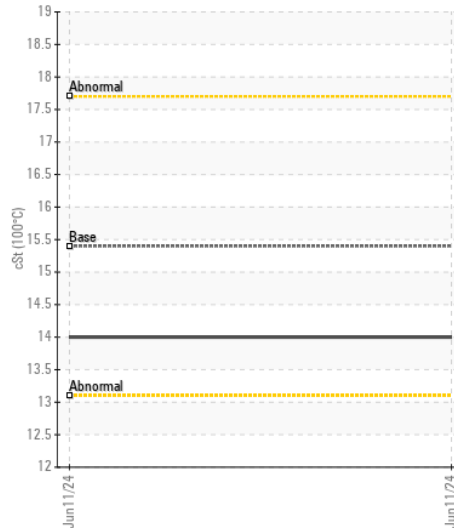
Viscosity @ 100°C



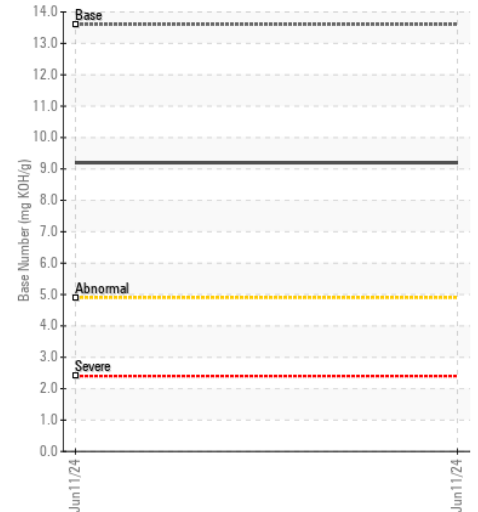
Viscosity @ 40°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0185004 **Received** : 14 Jun 2024
Lab Number : 06209873 **Tested** : 17 Jun 2024
Unique Number : 11082737 **Diagnosed** : 17 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: KV40, TBN)

JRE - ASHEVILLE
 101 BRUCE DRIVE
 ASHEVILLE, NC
 US 28806

Contact: Randy Warren
 randy.warren@jamesriverequipment.com

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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