James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 444K 1DW444KZTHF678950
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 lead level is abnormal. All other component wear rates are normal.

CONTAMINATION

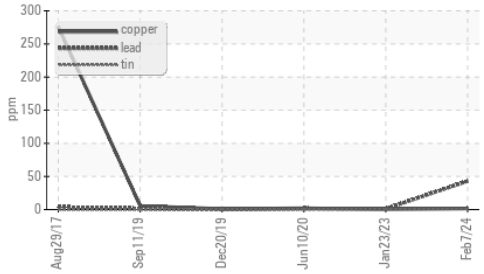
There is no indication of any contamination in the oil.

FLUID CONDITION

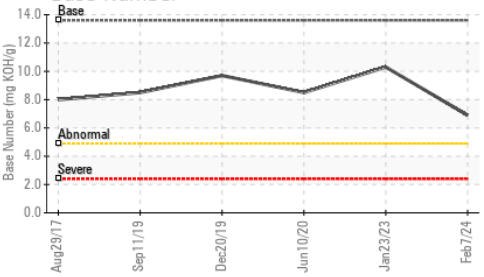
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0202204	JR0156730	JR0050207
Sample Date		Client Info		07 Feb 2024	23 Jan 2023	10 Jun 2020
Machine Age	hrs	Client Info		4409	3552	1954
Oil Age	hrs	Client Info		857	3552	0
Filter Age	hrs	Client Info		857	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	9	3	15
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	4	3	7
Lead	ppm	ASTM D5185m	>26	▲ 43	1	2
Copper	ppm	ASTM D5185m	>26	2	<1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	2	8	7
Potassium	ppm	ASTM D5185m	>20	1	2	4
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	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.0	5.8	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.1	19.5	23.9
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	2	2	2
Boron	ppm	ASTM D5185m		99	258	189
Barium	ppm	ASTM D5185m		0	11	0
Molybdenum	ppm	ASTM D5185m		229	220	236
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		746	733	857
Calcium	ppm	ASTM D5185m		1322	1322	1458
Phosphorus	ppm	ASTM D5185m		752	816	841
Zinc	ppm	ASTM D5185m		942	997	1023
Sulfur	ppm	ASTM D5185m		2739	3286	2492
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	14.2	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.9	10.3	8.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	14.5	14.0

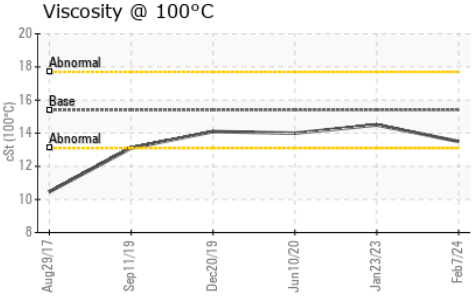
Non-ferrous Metals



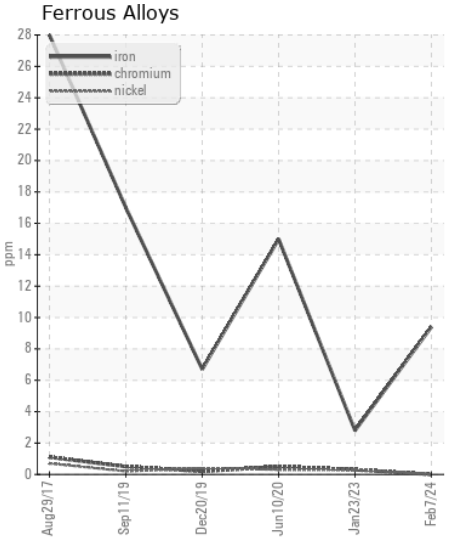
Base Number



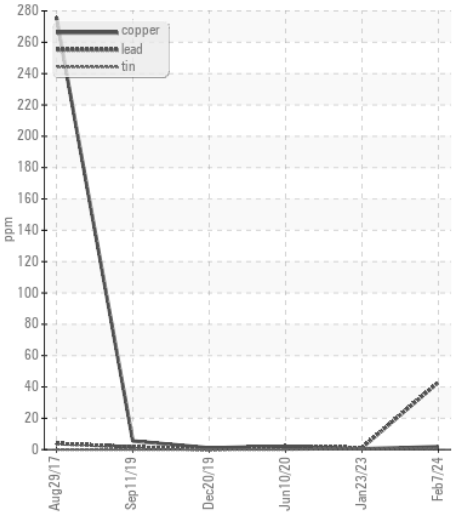
Viscosity @ 100°C



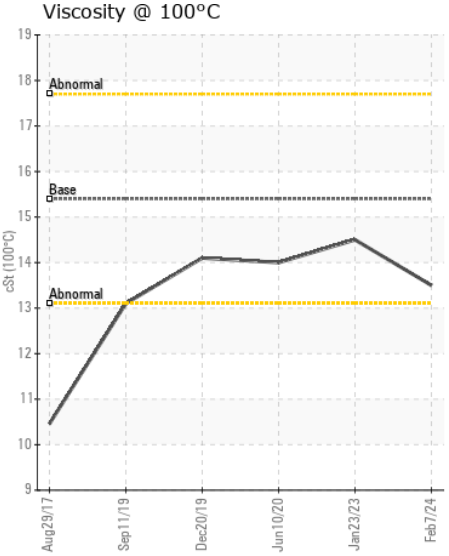
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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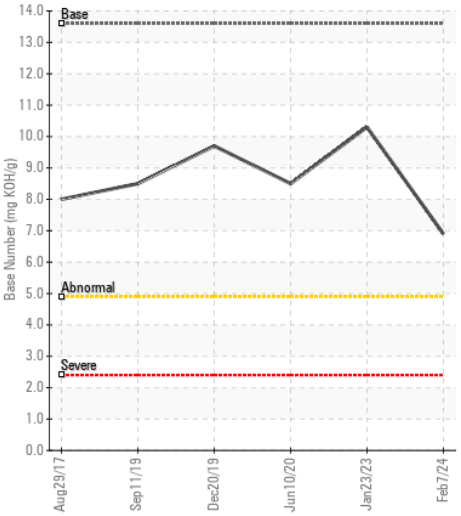

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0202204
Lab Number : 06084666
Unique Number : 10872111
Test Package : CONST (Additional Tests: TBN)

Received : 09 Feb 2024
Tested : 12 Feb 2024
Diagnosed : 12 Feb 2024 - Sean Felton

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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