



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

[7937]

Machine Id

JOHN DEERE 210G 3601411 (S/N 520918)

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: 7937)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0130635	JR0033734	JR0055612
Sample Date		Client Info		24 May 2022	13 Jan 2022	01 Apr 2021
Machine Age	hrs	Client Info		10484	9975	9036
Oil Age	hrs	Client Info		509	939	0
Filter Age	hrs	Client Info		509	939	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	44	▲ 71	44
Chromium	ppm	ASTM D5185m	>11	<1	1	1
Nickel	ppm	ASTM D5185m	>5	2	3	3
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>31	4	4	6
Lead	ppm	ASTM D5185m	>26	2	1	2
Copper	ppm	ASTM D5185m	>26	2	5	3
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

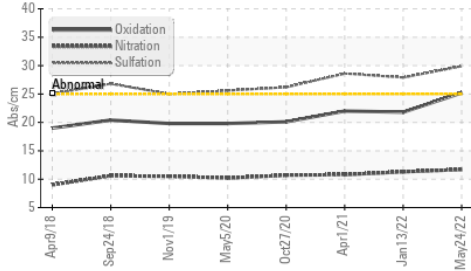
Silicon	ppm	ASTM D5185m	>22	7	10	7
Potassium	ppm	ASTM D5185m	>20	<1	3	0
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	11.7	11.3	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.9	27.9	28.6
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

FLUID CONDITION

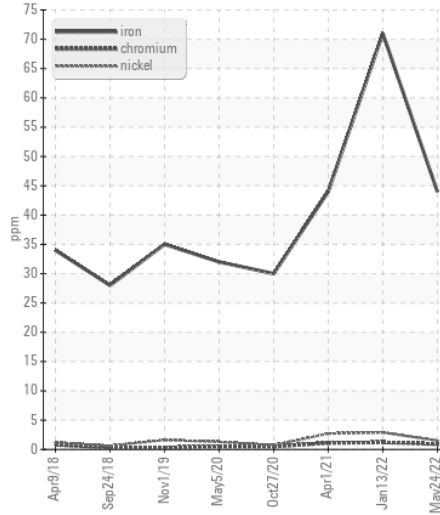
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	3	2	4
Boron	ppm	ASTM D5185m		43	65	60
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		248	273	243
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		894	846	847
Calcium	ppm	ASTM D5185m		1662	1550	1531
Phosphorus	ppm	ASTM D5185m		926	915	765
Zinc	ppm	ASTM D5185m		1097	1066	939
Sulfur	ppm	ASTM D5185m		2577	2656	2285
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.2	21.8	22
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.1	8	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.0	13.7

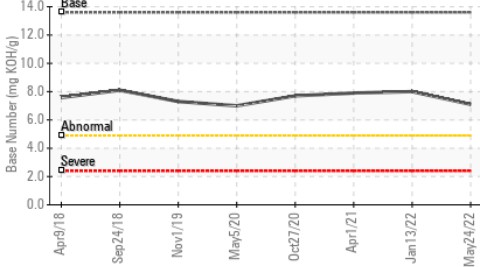
FT-IR (Direct Trend)



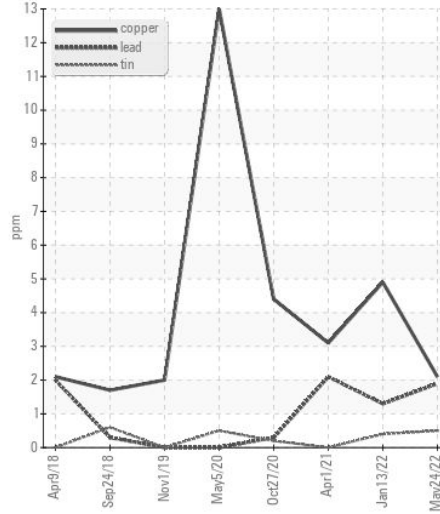
Ferrous Alloys



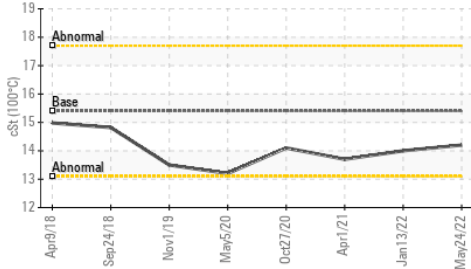
Base Number



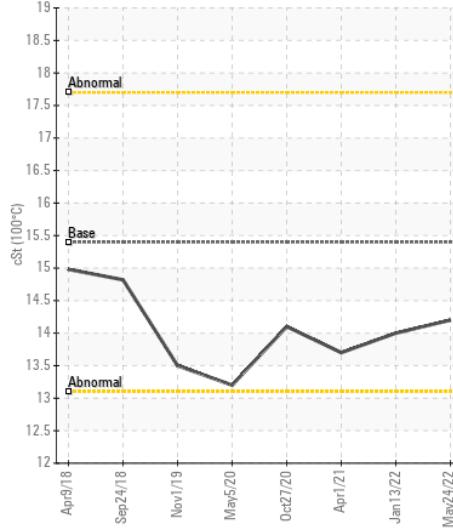
Non-ferrous Metals



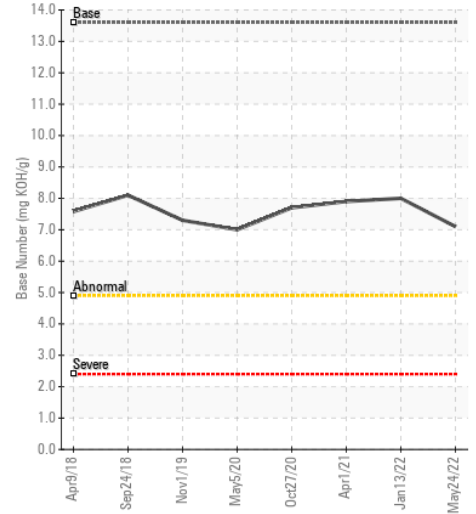
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0130635

Lab Number : 05554560

Unique Number : 9993948

Test Package : CONST (Additional Tests: TBN)

Received : 26 May 2022

Tested : 27 May 2022

Diagnosed : 27 May 2022 - Jonathan Hester

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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