



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**Store 9 - Marietta [149024]**

Machine Id  
**JOHN DEERE 310G T0310SG902056**

Component  
**Diesel Engine**

Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (9 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0049351</b>	LEC0030186	LECP115982
Sample Date		Client Info		<b>17 May 2024</b>	17 Jun 2022	27 Mar 2012
Machine Age	hrs	Client Info		<b>2712</b>	2701	2438
Oil Age	hrs	Client Info		<b>11</b>	500	86
Filter Age	hrs	Client Info		<b>0</b>	500	86
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	MARGINAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>11</b>	6	21
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	<1	3
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	5
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

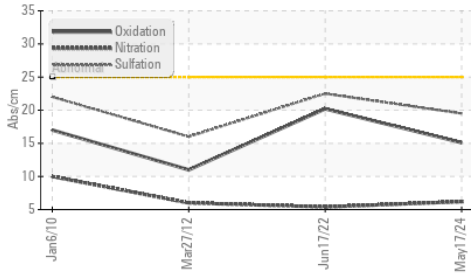
Silicon	ppm	ASTM D5185m	>120	<b>9</b>	8	▲ 39
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	1
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.2</b>	5.4	6.
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.5</b>	22.5	16.
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

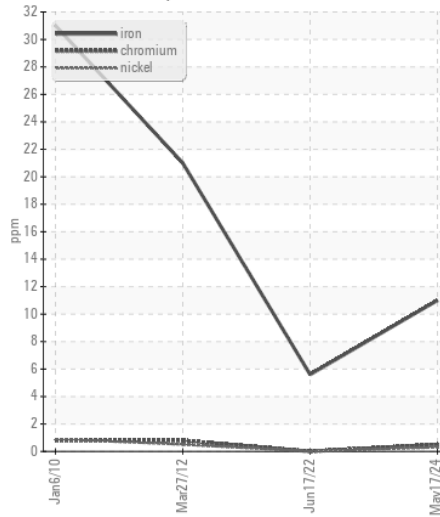
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>3</b>	<1	4
Boron	ppm	ASTM D5185m		<b>273</b>	80	16
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>230</b>	47	18
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>749</b>	480	738
Calcium	ppm	ASTM D5185m		<b>1345</b>	1614	1576
Phosphorus	ppm	ASTM D5185m		<b>811</b>	749	1110
Zinc	ppm	ASTM D5185m		<b>993</b>	935	1228
Sulfur	ppm	ASTM D5185m		<b>2957</b>	2816	3010
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	20.2	11.
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.8</b>	11.3	9.15
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.1</b>	13.6	13.62

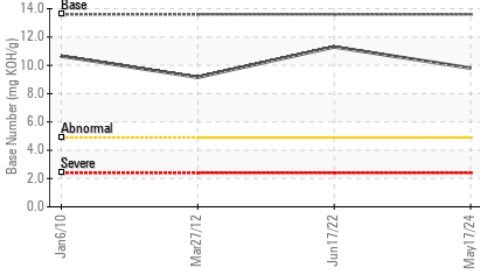
FT-IR (Direct Trend)



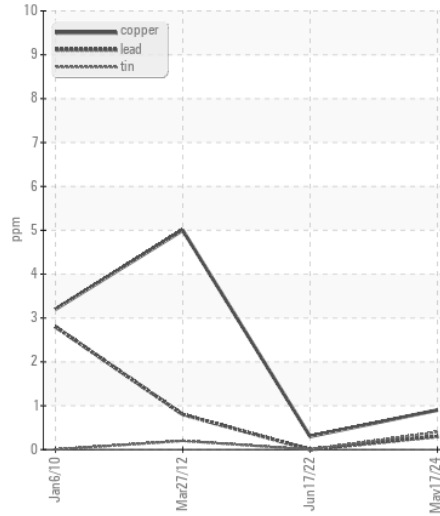
Ferrous Alloys



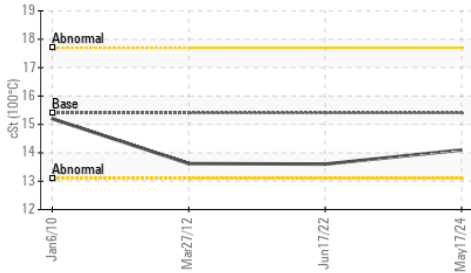
Base Number



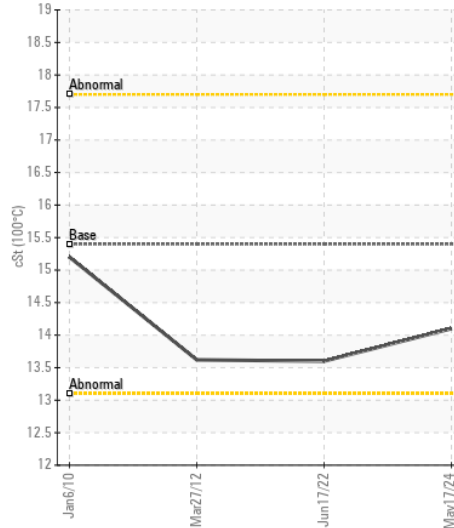
Non-ferrous Metals



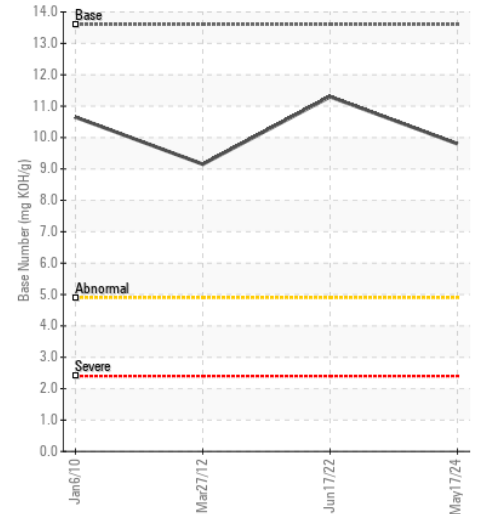
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : LEC0049351 Received : 23 May 2024  
 Lab Number : 06188980 Tested : 24 May 2024  
 Unique Number : 11045732 Diagnosed : 24 May 2024 - Wes Davis  
 Test Package : CONST ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.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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