



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [91088]
Machine Id
JOHN DEERE 350G 1FF350GXEDE809712
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 500 HR SERV)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0003246	LECP184518	LECP178329
Sample Date		Client Info		10 Jun 2019	18 Feb 2019	04 Sep 2018
Machine Age	hrs	Client Info		5111	4629	4085
Oil Age	hrs	Client Info		482	544	647
Filter Age	hrs	Client Info		482	544	647
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 68	▲ 108	▲ 75
Chromium	ppm	ASTM D5185m	>11	2	2	2
Nickel	ppm	ASTM D5185m	>5	2	2	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>31	7	7	6
Lead	ppm	ASTM D5185m	>26	7	3	1
Copper	ppm	ASTM D5185m	>26	3	4	4
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	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 component.

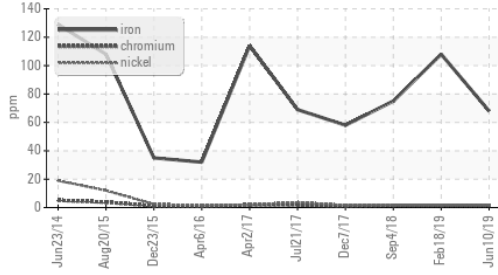
Silicon	ppm	ASTM D5185m	>22	7	8	7
Potassium	ppm	ASTM D5185m	>20	3	8	9
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	1	1
Nitration	Abs/cm	*ASTM D7624	>20	12.3	11.4	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.5	25.3	23.7
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

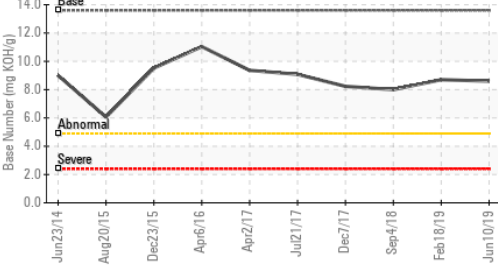
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	4	6	4
Boron	ppm	ASTM D5185m		50	95	86
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		196	230	98
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		756	850	470
Calcium	ppm	ASTM D5185m		1826	1615	1553
Phosphorus	ppm	ASTM D5185m		974	789	910
Zinc	ppm	ASTM D5185m		1202	1154	1087
Sulfur	ppm	ASTM D5185m		2601	2698	2664
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.7	19.9	18.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.6	8.7	8
Visc @ 100°C	cSt	ASTM D445	15.4	15.1	14.76	14.2

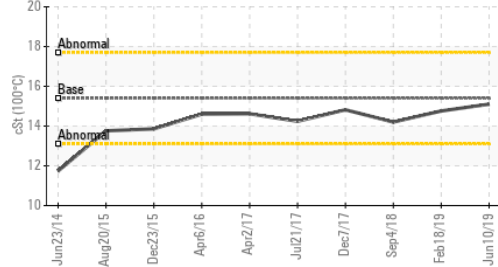
▲ Ferrous Alloys



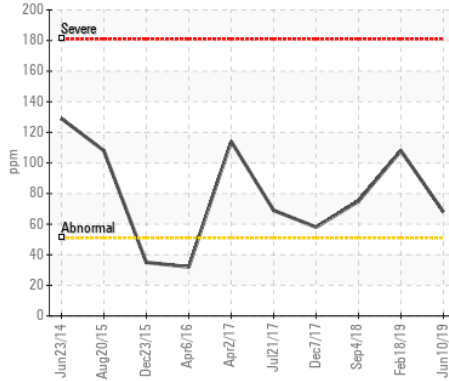
Base Number



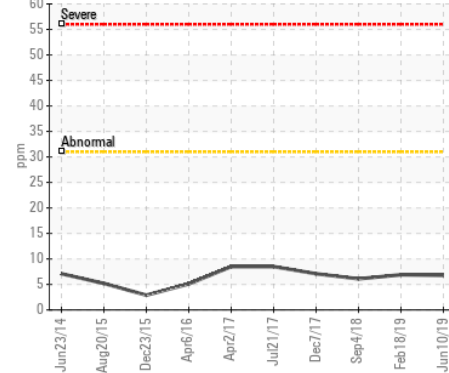
Viscosity @ 100°C



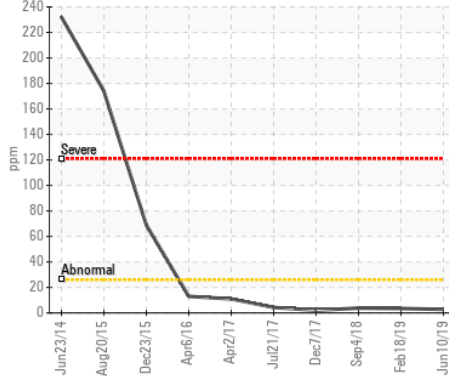
▲ Iron (ppm)



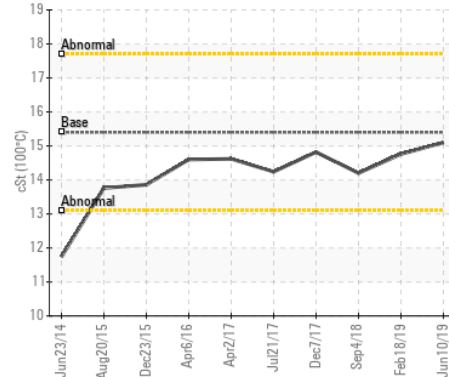
Aluminum (ppm)



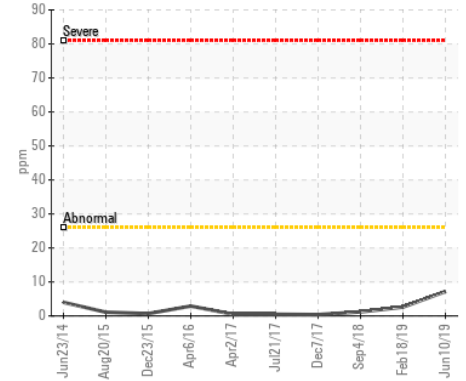
Copper (ppm)



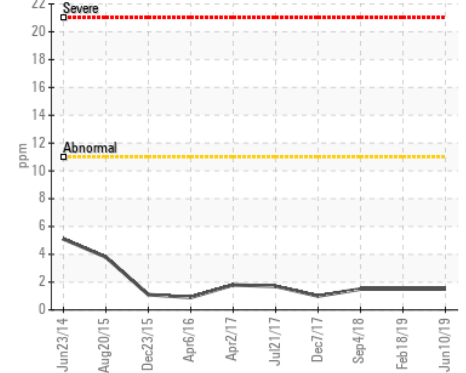
Viscosity @ 100°C



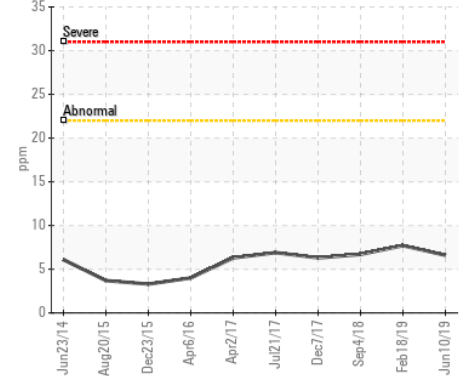
Lead (ppm)



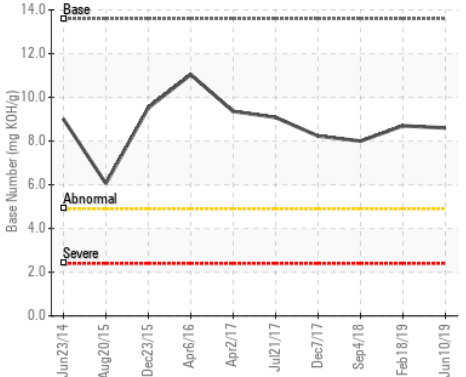
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0003246 **Received** : 17 Jun 2019
Lab Number : 04736314 **Diagnosed** : 19 Jun 2019
Unique Number : 8633093 **Diagnostician** : Don Baldrige
Test Package : MOBCE (Additional Tests: PQ, 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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