



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [BRADFORD BROS]
Machine Id
JOHN DEERE 350G 1FF350GXCDE809226
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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LECP180114	LECP153473	LECP181744
Sample Date		Client Info		11 Sep 2018	23 Feb 2018	13 Sep 2017
Machine Age	hrs	Client Info		5930	5417	4870
Oil Age	hrs	Client Info		513	547	519
Filter Age	hrs	Client Info		513	547	519
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ATTENTION

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>51	54	37	61
Chromium	ppm	ASTM D5185m	>11	2	1	2
Nickel	ppm	ASTM D5185m	>5	▲ 18	5	1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>31	12	7	8
Lead	ppm	ASTM D5185m	>26	<1	0	7
Copper	ppm	ASTM D5185m	>26	3	4	15
Tin	ppm	ASTM D5185m	>4	<1	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 oil.

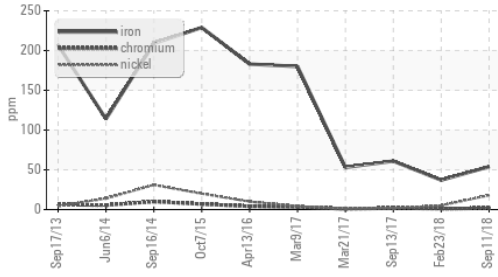
Silicon	ppm	ASTM D5185m	>22	5	12	18
Potassium	ppm	ASTM D5185m	>20	13	▲ 20	▲ 43
Fuel		WC Method	>2.1	<1.0	<1.0	0.1
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>3	1.2	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.	9.
Sulfation	Abs/.1mm	*ASTM D7415	>35	19.5	21.	23.
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

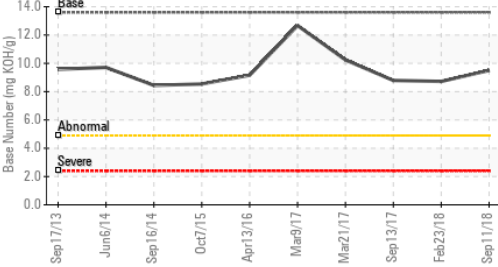
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	98	▲ 223	▲ 307
Boron	ppm	ASTM D5185m		12	128	104
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		98	259	249
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		973	823	837
Calcium	ppm	ASTM D5185m		1109	1319	1352
Phosphorus	ppm	ASTM D5185m		910	793	793
Zinc	ppm	ASTM D5185m		1076	956	958
Sulfur	ppm	ASTM D5185m		2691	2516	2489
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7	14.	16.
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.5	8.72	8.79
Visc @ 100°C	cSt	ASTM D445	15.4	13.17	14.06	▲ 10.93

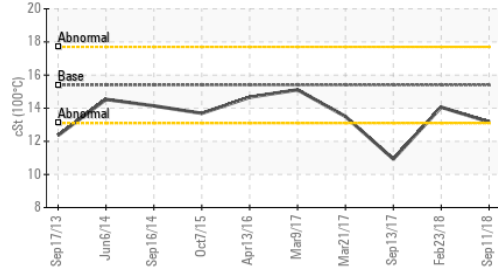
▲ Ferrous Alloys



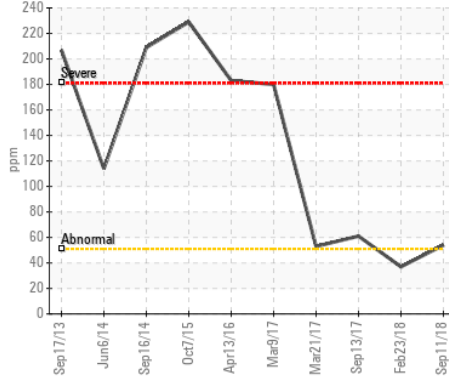
Base Number



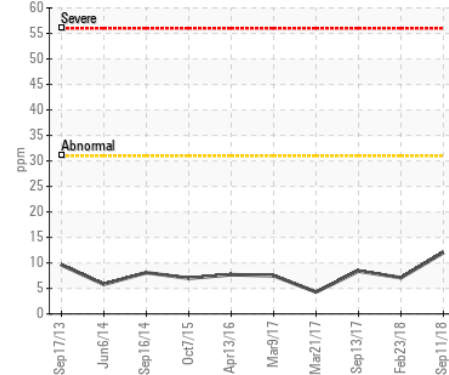
Viscosity @ 100°C



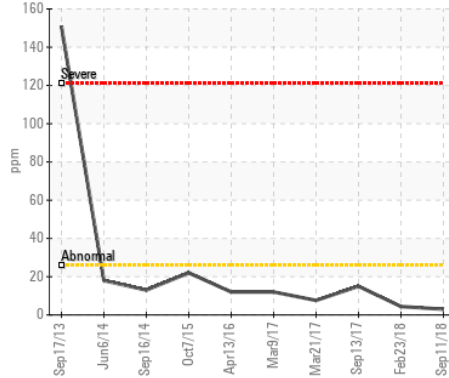
Iron (ppm)



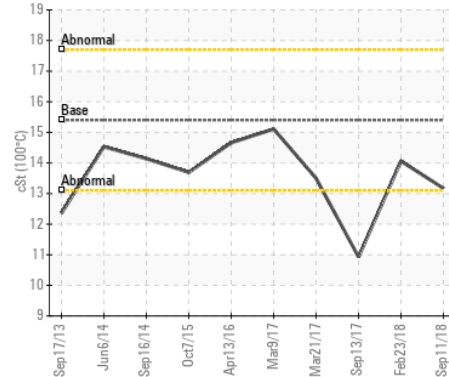
Aluminum (ppm)



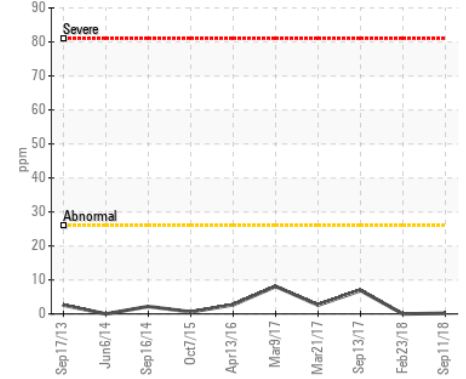
Copper (ppm)



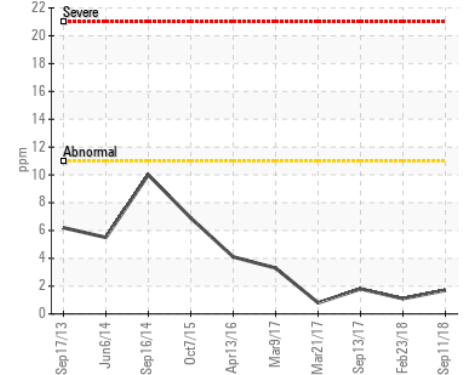
Viscosity @ 100°C



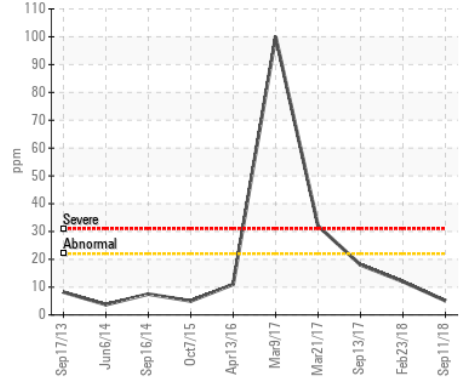
Lead (ppm)



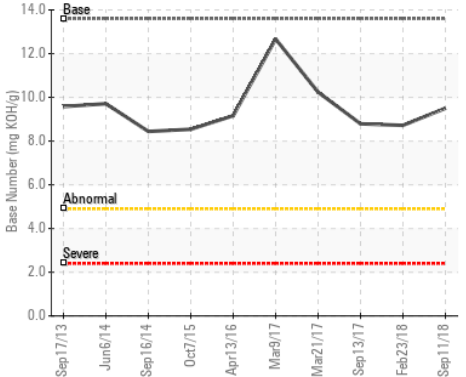
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC180114 **Received** : 18 Sep 2018
Lab Number : 04553836 **Diagnosed** : 20 Sep 2018
Unique Number : 8337694 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: PQ)

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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