



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 4 - Fairmont [60208]
Machine Id
JOHN DEERE 180G 1FF180GXPCE020090
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (4 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		LECP171597	LECP159307	LECP143986
Sample Date		Client Info		13 Apr 2017	18 Sep 2015	02 Jul 2014
Machine Age	hrs	Client Info		2025	1484	915
Oil Age	hrs	Client Info		541	569	361
Filter Age	hrs	Client Info		541	569	361
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 75	59	29
Chromium	ppm	ASTM D5185m	>11	2	2	1
Nickel	ppm	ASTM D5185m	>5	1	2	<1
Titanium	ppm	ASTM D5185m		<1	1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>31	10	8	4
Lead	ppm	ASTM D5185m	>26	1	2	2
Copper	ppm	ASTM D5185m	>26	9	19	37
Tin	ppm	ASTM D5185m	>4	0	0	1
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.

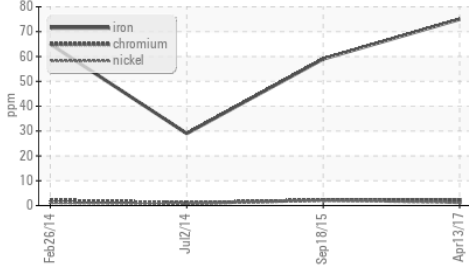
Silicon	ppm	ASTM D5185m	>22	6	6	3
Potassium	ppm	ASTM D5185m	>20	0	8	2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624		5.	4.	5.
Sulfation	Abs/.1mm	*ASTM D7415		14.	14.	15.
Silt	scalar	*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

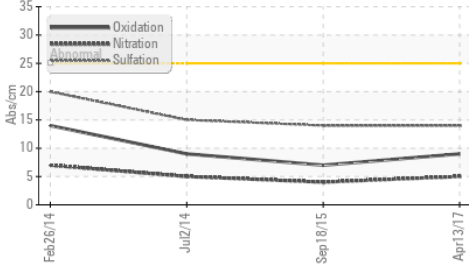
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	6	6	5
Boron	ppm	ASTM D5185m	151	3	8	34
Barium	ppm	ASTM D5185m	0.4	0	0	<1
Molybdenum	ppm	ASTM D5185m	250	43	53	83
Manganese	ppm	ASTM D5185m		<1	<1	3
Magnesium	ppm	ASTM D5185m	0	839	775	806
Calcium	ppm	ASTM D5185m	2046	1288	1334	1357
Phosphorus	ppm	ASTM D5185m	1043	987	984	1096
Zinc	ppm	ASTM D5185m	943	1201	1221	1098
Sulfur	ppm	ASTM D5185m	5012	2781	2916	782
Oxidation	Abs/.1mm	*ASTM D7414		9.	7.	9.
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	9.35	11.38	11.15
Visc @ 100°C	cSt	ASTM D445	14.4	13.35	13.59	13.29

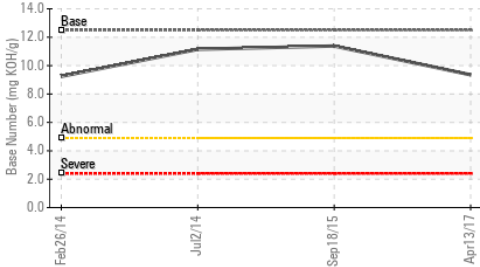
▲ Ferrous Alloys



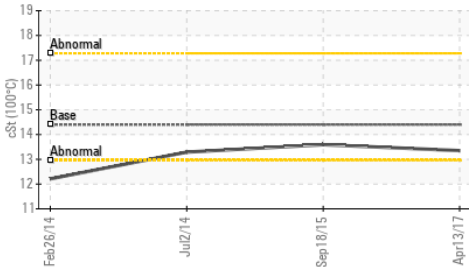
FT-IR (Direct Trend)



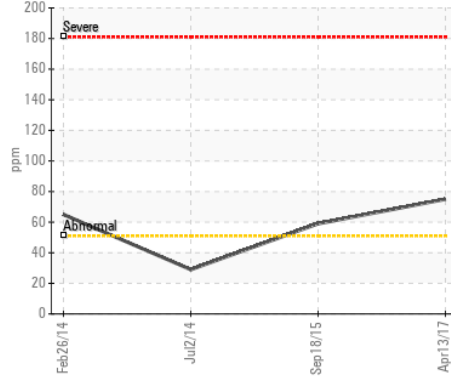
Base Number



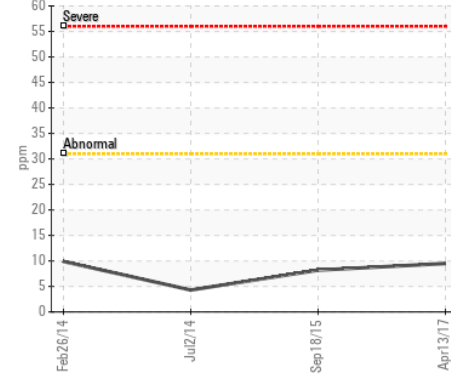
Viscosity @ 100°C



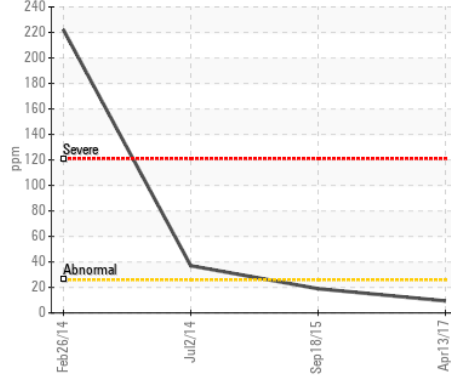
▲ Iron (ppm)



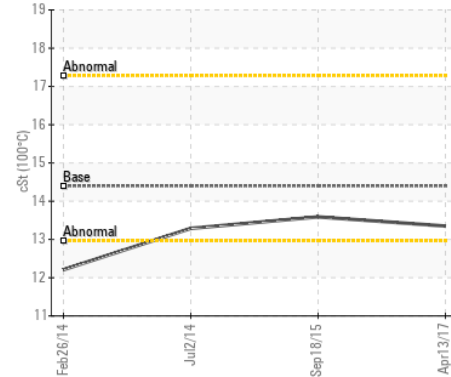
Aluminum (ppm)



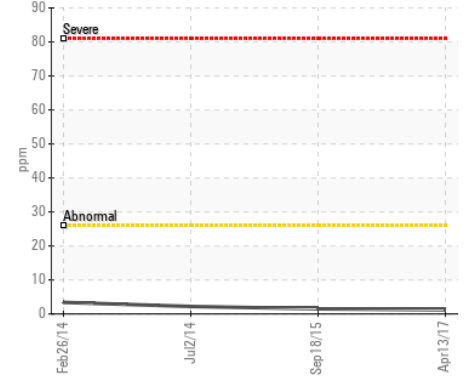
Copper (ppm)



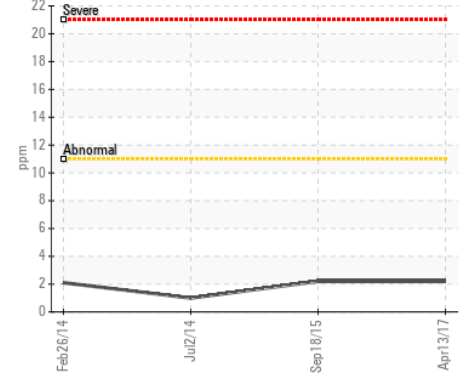
Viscosity @ 100°C



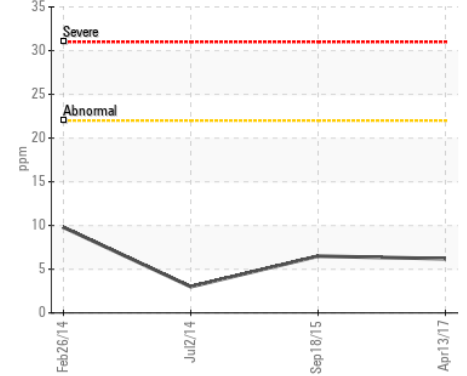
Lead (ppm)



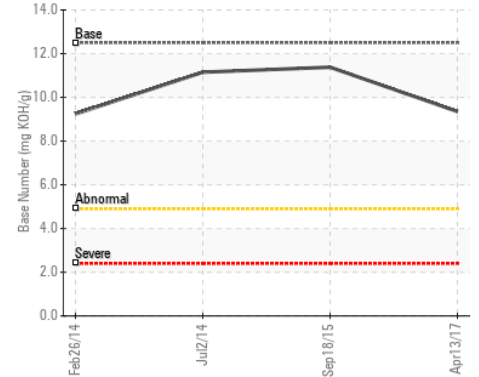
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LECP171597 **Received** : 18 Apr 2017
Lab Number : 04204824 **Tested** : 20 Apr 2017
Unique Number : 7768250 **Diagnosed** : 20 Apr 2017 - Don Baldrige
Test Package : MOB 2 (Additional Tests: PQ)

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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 F: (740)373-5570