



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [87018]
Machine Id
John Deere 648L 1DW648LXAFF668941
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (33 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LECP193377	LECP189206	LECP136592
Sample Date		Client Info		26 Feb 2019	12 Nov 2018	01 Aug 2018
Machine Age	hrs	Client Info		6110	5632	5158
Oil Age	hrs	Client Info		1591	1113	639
Filter Age	hrs	Client Info		1591	1113	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	19	14	24
Iron	ppm	ASTM D5185m	>23	18	14	11
Chromium	ppm	ASTM D5185m	>9	4	3	2
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	1	0
Aluminum	ppm	ASTM D5185m	>9	2	2	2
Lead	ppm	ASTM D5185m	>28	<1	<1	0
Copper	ppm	ASTM D5185m	>51	2	1	<1
Tin	ppm	ASTM D5185m	>5	<1	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

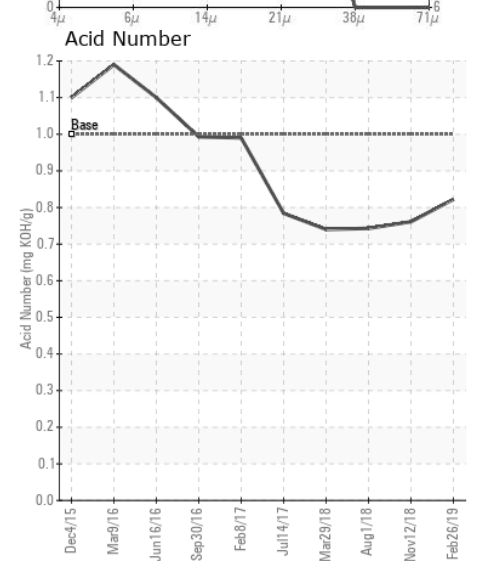
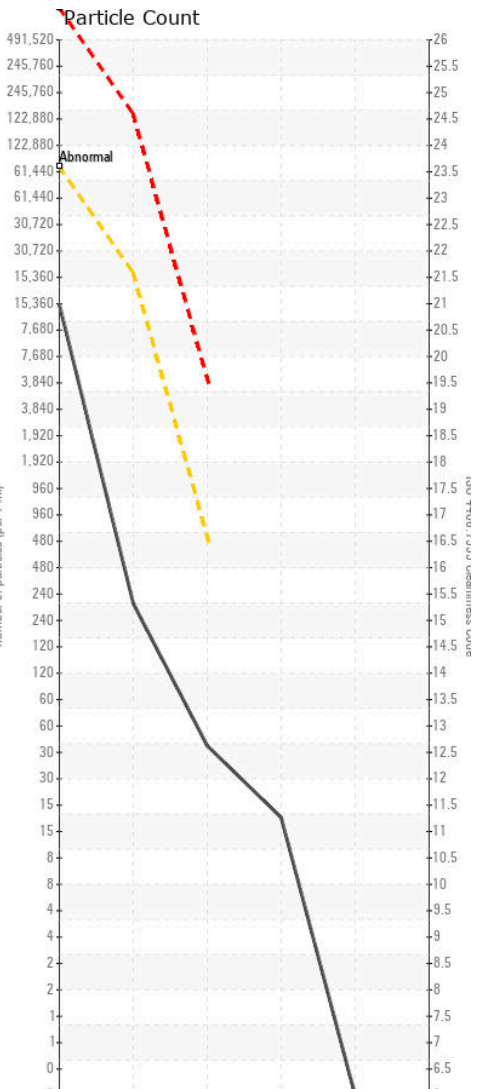
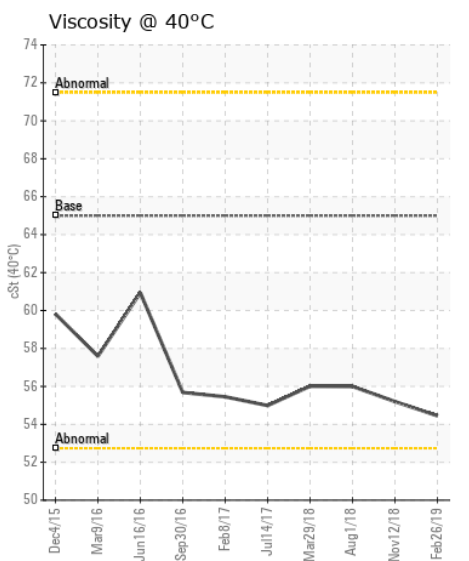
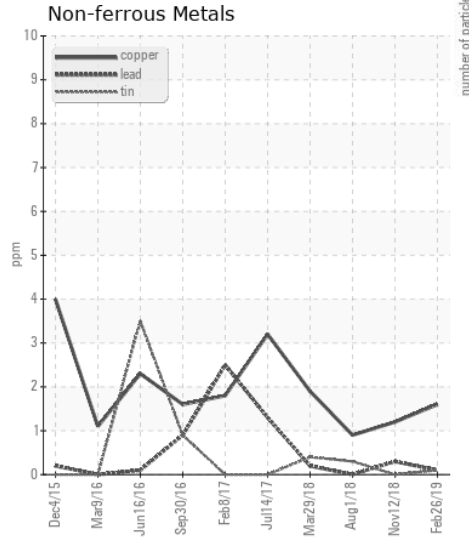
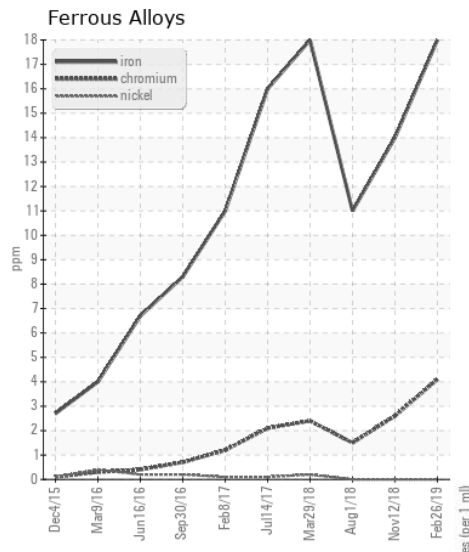
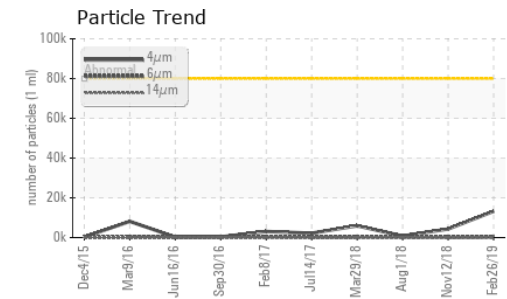
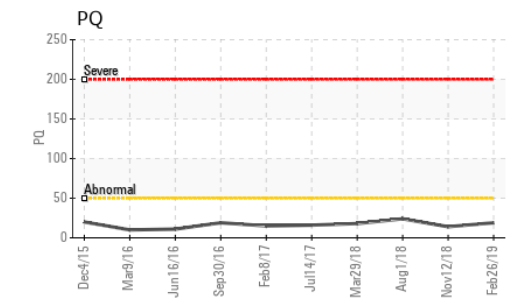
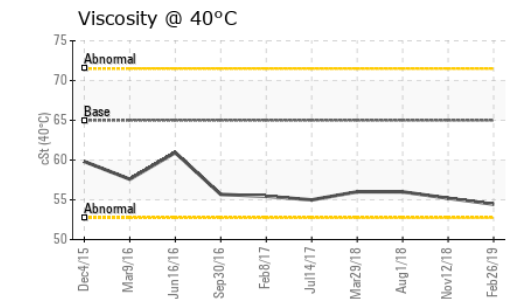
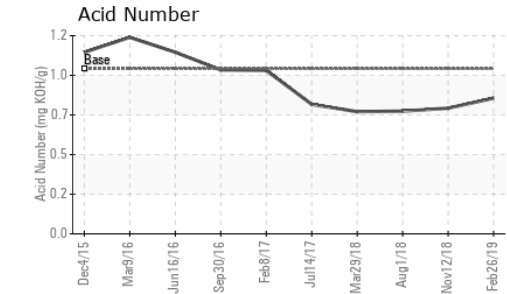
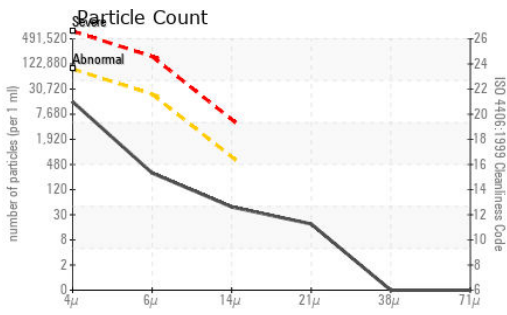
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>31	5	6	4
Potassium	ppm	ASTM D5185m	>20	1	2	1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	13250	4310	774
Particles >6µm		ASTM D7647	>20000	264	121	108
Particles >14µm		ASTM D7647	>640	41	11	11
Particles >21µm		ASTM D7647	>160	16	3	2
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/15/13	19/14/11	17/14/11
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	>0.075	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<1	1	0
Boron	ppm	ASTM D5185m		<1	<1	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		11	10	0
Calcium	ppm	ASTM D5185m	87	443	408	380
Phosphorus	ppm	ASTM D5185m	727	707	666	681
Zinc	ppm	ASTM D5185m	900	909	820	812
Sulfur	ppm	ASTM D5185m	1500	1878	1521	1567
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.822	0.761	0.743
Visc @ 40°C	cSt	ASTM D445	65	54.45	55.2	56.00



Certificate L2367

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

Sample No. : LECP193377

Lab Number : 04662086

Unique Number : 8513591

Test Package : MOB 2 (Additional Tests: PQ)

Received : 04 Mar 2019

Tested : 05 Mar 2019

Diagnosed : 05 Mar 2019 - Wes Davis

LESLIE EQUIPMENT COMPANY

105 TENNIS CENTER DR.

MARIETTA, OH

US 45750-9765

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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)