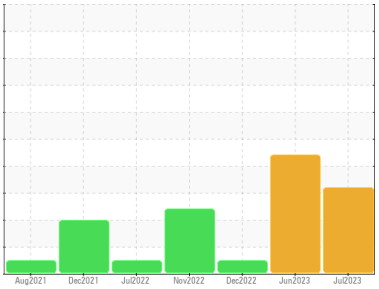
PROBLEM SUMMARY

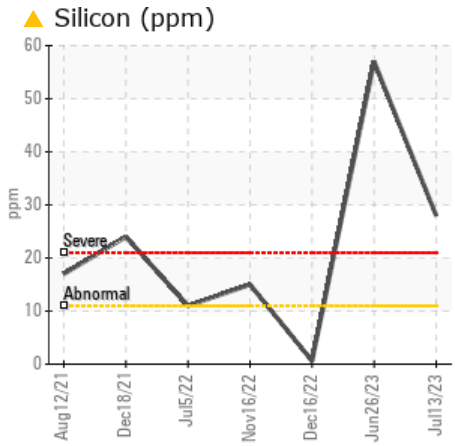
Area
{unassigned}
Machine Id
JOHN DEERE 300GL 1FF300GXTLF731734
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 GAL)

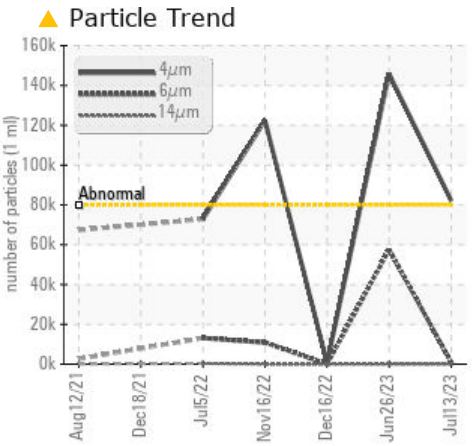
Sample Rating Trend

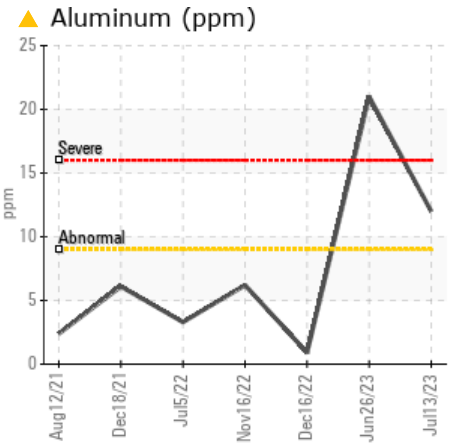


DIRT

COMPONENT CONDITION SUMMARY







RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Aluminum	ppm	ASTM D5185m	>9	▲ **12**	▲ 21	<1
Silicon	ppm	ASTM D5185m	>11	▲ **28**	▲ 57	<1
Particles >4µm		ASTM D7647	>80000	▲ **82164**	▲ 145836	584
Oil Cleanliness		ISO 4406 (c)	>23/21/16	▲ **24/17/7**	▲ 24/23/11	16/13/10

Customer Id: LESMAROH
Sample No.: LEC0041772
Lab Number: 05899285
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

26 Jun 2023 Diag: Angela Borella

DIRT

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.The iron level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid.

view report

16 Dec 2022 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

16 Nov 2022 Diag: Angela Borella

DIRT

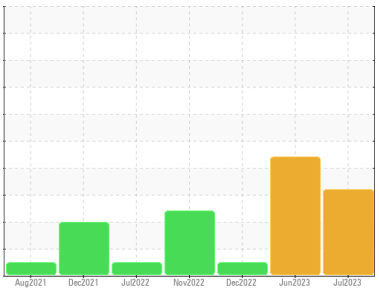
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
{unassigned}
Machine Id
JOHN DEERE 300GL 1FF300GXTLF731734
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 GAL)

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**LEC0041772**	LEC0042396	LEC0037951
Sample Date		Client Info		**13 Jul 2023**	26 Jun 2023	16 Dec 2022
Machine Age	hrs	Client Info		**2319**	2259	2009
Oil Age	hrs	Client Info		**310**	250	2009
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**16**	31	7
Iron	ppm	ASTM D5185m	>32	**14**	▲ 34	0
Chromium	ppm	ASTM D5185m	>9	**0**	<1	0
Nickel	ppm	ASTM D5185m	>5	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	▲ **12**	▲ 21	<1
Lead	ppm	ASTM D5185m	>28	**0**	<1	0
Copper	ppm	ASTM D5185m	>50	**2**	3	0
Tin	ppm	ASTM D5185m	>5	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	2	0
Molybdenum	ppm	ASTM D5185m		**<1**	2	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**<1**	7	0
Calcium	ppm	ASTM D5185m		**17**	30	0
Phosphorus	ppm	ASTM D5185m	827	**601**	519	600
Zinc	ppm	ASTM D5185m	0	**9**	12	6
Sulfur	ppm	ASTM D5185m	13	**75**	64	40

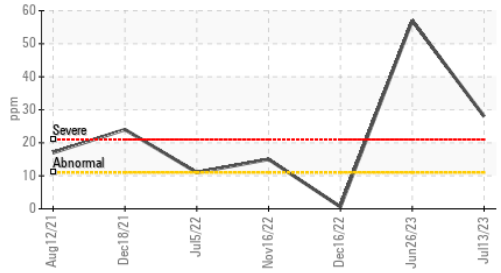
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	▲ **28**	▲ 57	<1
Sodium	ppm	ASTM D5185m	>21	**<1**	3	0
Potassium	ppm	ASTM D5185m	>20	**1**	5	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	▲ **82164**	▲ 145836	584
Particles >6µm		ASTM D7647	>20000	**977**	▲ 57492	61
Particles >14µm		ASTM D7647	>640	**1**	11	6
Particles >21µm		ASTM D7647	>160	**0**	1	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	▲ **24/17/7**	▲ 24/23/11	16/13/10

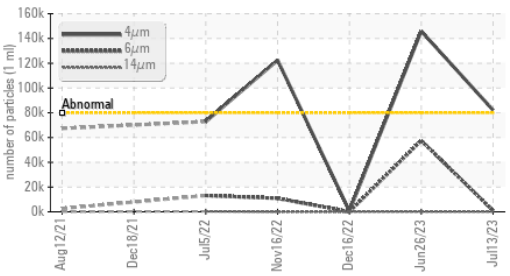
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	**0.13**	0.14	0.06

OIL ANALYSIS REPORT

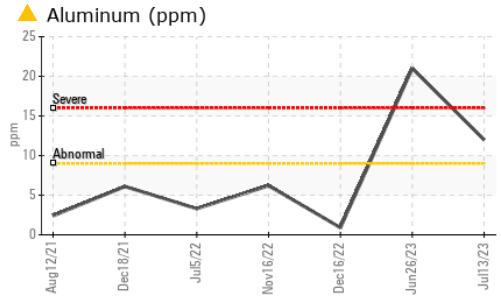
Silicon (ppm)



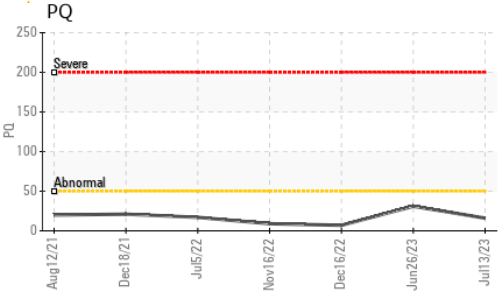
Particle Trend



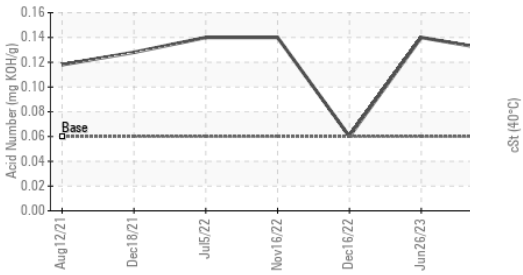
Aluminum (ppm)



PQ



Acid Number



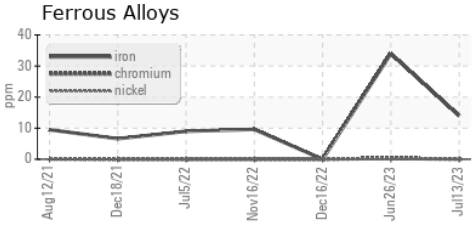
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	**48.0**	47.8	48.3

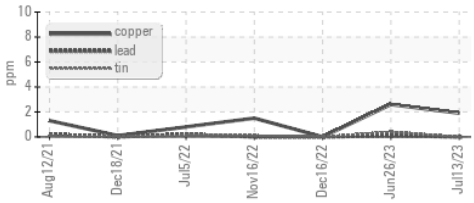
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

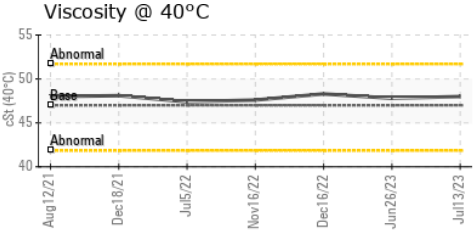
Ferrous Alloys



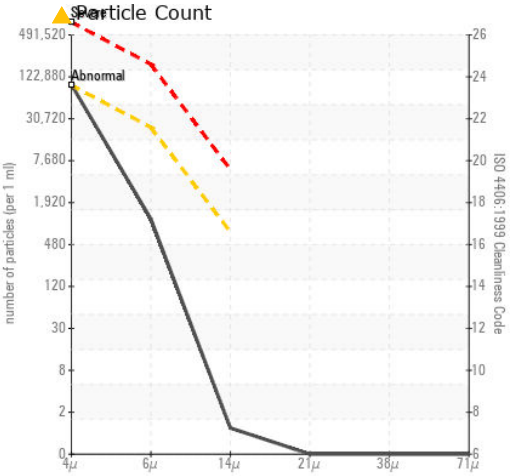
Non-ferrous Metals



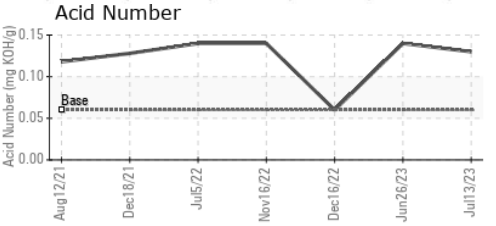
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0041772 **Received** : 14 Jul 2023
Lab Number : 05899285 **Diagnosed** : 18 Jul 2023
Unique Number : 10560641 **Diagnostician** : Jonathan Hester
Test Package : CONST (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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