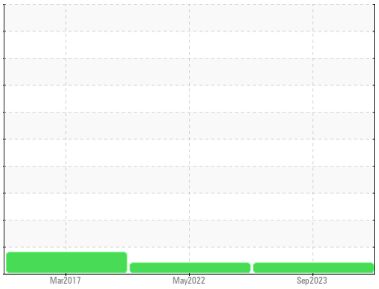
PROBLEM SUMMARY

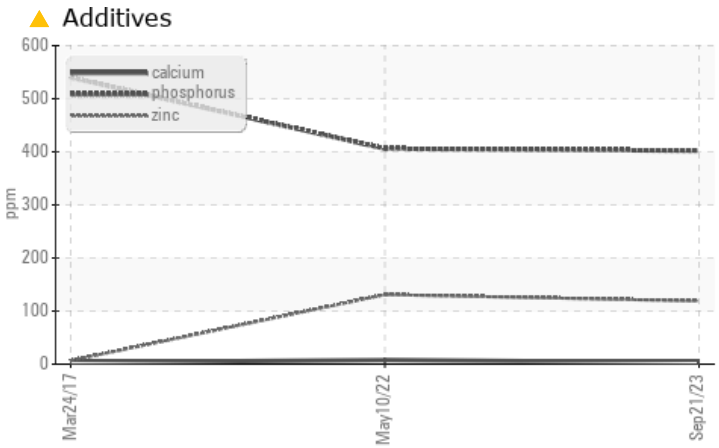
Sample Rating Trend



ADDITIVES

Area
Store 9 - Marietta
Machine Id
JOHN DEERE 35G 1FF035GXCGK278573
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (11 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Zinc	ppm	ASTM D5185m	0	▲ **119**	▲ 131	7

Customer Id: LESMAROH
Sample No.: LEC0042651
Lab Number: 05964526
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.
Flush System	---	---	?	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

HISTORICAL DIAGNOSIS

10 May 2022 Diag: Don Baldridge

ADDITIVES

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

view report

24 Mar 2017 Diag: Don Baldridge

ISO

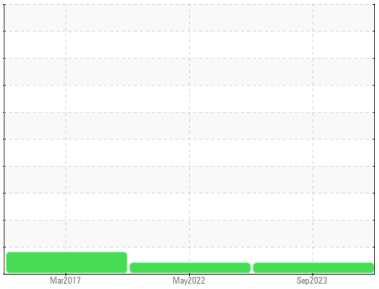
No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES

Area
Store 9 - Marietta
Machine Id
JOHN DEERE 35G 1FF035GXCGK278573
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (11 GAL)

DIAGNOSIS

▲ Recommendation

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

▲ Fluid Condition

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**LEC0042651**	LEC0029749	LECP171866
Sample Date		Client Info		**21 Sep 2023**	10 May 2022	24 Mar 2017
Machine Age	hrs	Client Info		**2128**	1256	1
Oil Age	hrs	Client Info		**2128**	500	1
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**13**	16	15
Iron	ppm	ASTM D5185m	>32	**4**	5	<1
Chromium	ppm	ASTM D5185m	>9	**0**	0	<1
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>9	**0**	<1	<1
Lead	ppm	ASTM D5185m	>28	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**1**	8	2
Tin	ppm	ASTM D5185m	>5	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	1	0
Barium	ppm	ASTM D5185m		**<1**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**5**	3	6
Calcium	ppm	ASTM D5185m		**3**	8	3
Phosphorus	ppm	ASTM D5185m	827	**402**	406	540
Zinc	ppm	ASTM D5185m	0	▲ **119**	▲ 131	7
Sulfur	ppm	ASTM D5185m	13	**672**	667	252

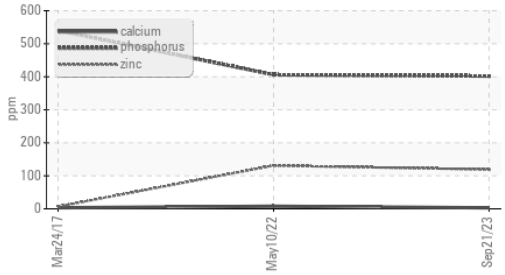
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	**<1**	<1	3
Sodium	ppm	ASTM D5185m	>21	**<1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	**3580**	4879	▲ 16320
Particles >6µm		ASTM D7647	>20000	**750**	439	831
Particles >14µm		ASTM D7647	>640	**68**	38	23
Particles >21µm		ASTM D7647	>160	**18**	9	14
Particles >38µm		ASTM D7647	>40	**1**	0	11
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	**19/17/13**	19/16/12	▲ 21/17/12

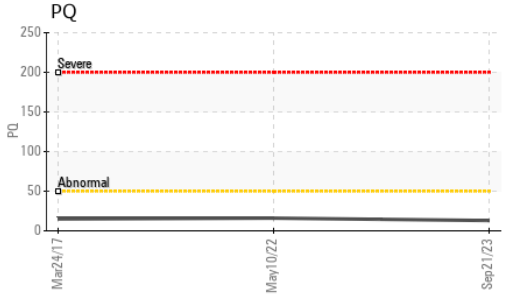
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	**0.20**	0.26	0.113

OIL ANALYSIS REPORT

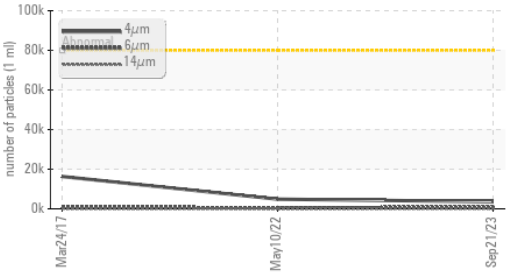
Additives



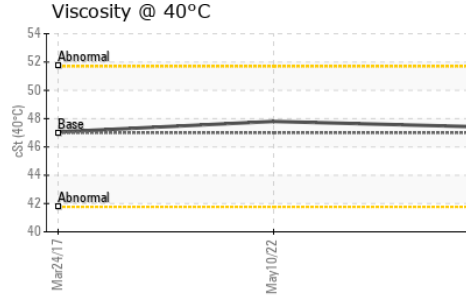
PQ



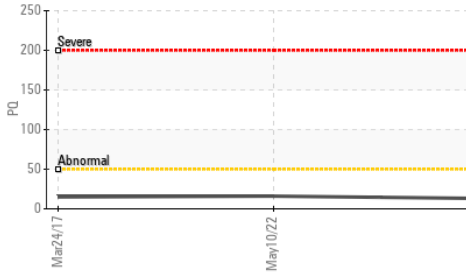
Particle Trend



Viscosity @ 40°C

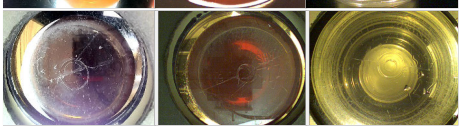


PQ



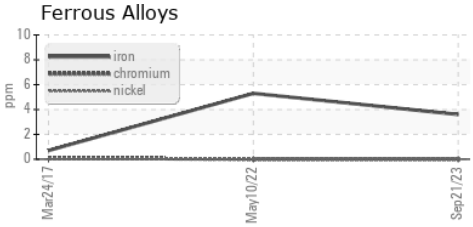
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	**47.4**	47.8	47.06

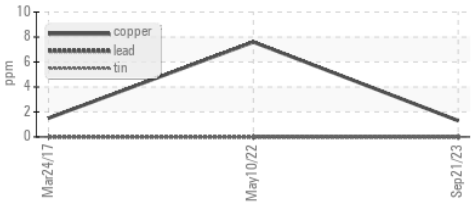
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

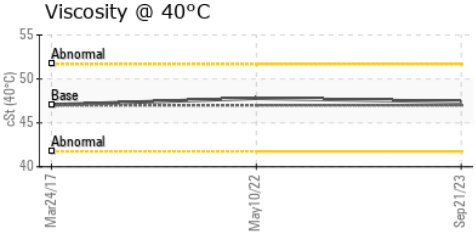
Ferrous Alloys



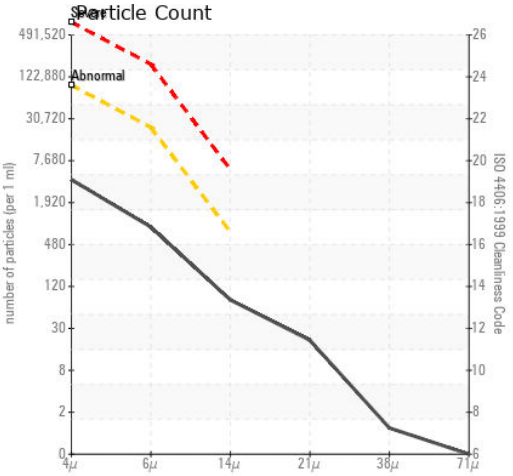
Non-ferrous Metals



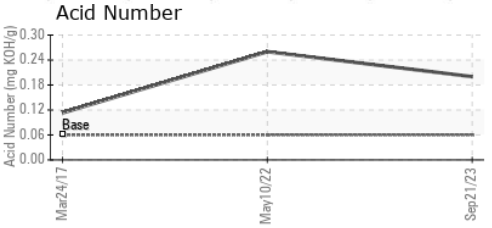
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0042651 **Received** : 29 Sep 2023
Lab Number : 05964526 **Diagnosed** : 02 Oct 2023
Unique Number : 10671077 **Diagnostician** : Don Baldridge
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)

LESLIE EQUIPMENT COMPANY
105 TENNIS CENTER DR.
MARIETTA, OH
US 45750-9765
Contact: LEANNE KENDALL
KendalLeanne@lec1.com
T:
F: (740)373-5570