LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
Store 9 - Marietta
Machine Id
JOHN DEERE 200D 1FF200DXCA0512237
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. Oil and filter change at the time of sampling has been noted. (possible pump failure).

WEAR

All component wear rates are normal.

CONTAMINATION

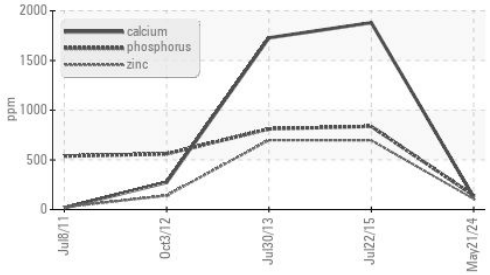
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

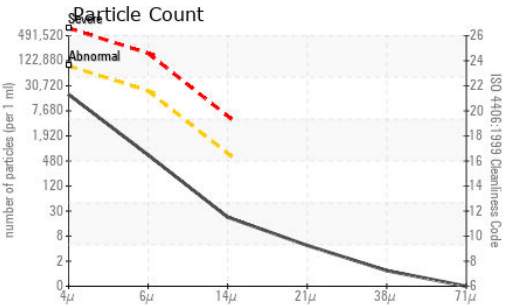
Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0050580	LECP158163	LECP128770
Sample Date		Client Info		21 May 2024	22 Jul 2015	30 Jul 2013
Machine Age	hrs	Client Info		5898	3466	2163
Oil Age	hrs	Client Info		5898	0	0
Filter Age	hrs	Client Info		5898	0	0
Oil Changed		Client Info		Changed	Not Changd	N/A
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
PQ		ASTM D8184	>50	15	21.0	16.0
Iron	ppm	ASTM D5185m	>32	2	12	4
Chromium	ppm	ASTM D5185m	>9	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>9	0	3	2
Lead	ppm	ASTM D5185m	>28	0	1	2
Copper	ppm	ASTM D5185m	>50	1	4	3
Tin	ppm	ASTM D5185m	>5	0	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
Silicon	ppm	ASTM D5185m	>11	1	12	8
Potassium	ppm	ASTM D5185m	>20	0	7	6
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	16535	231	713
Particles >6µm		ASTM D7647	>20000	589	125	388
Particles >14µm		ASTM D7647	>640	19	21	66
Particles >21µm		ASTM D7647	>160	4	7	22
Particles >38µm		ASTM D7647	>40	1	1	3
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/16/11	15/14/12	17/16/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE	LIGHT
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
Sodium	ppm	ASTM D5185m	>21	<1	4	4
Boron	ppm	ASTM D5185m		0	3	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		3	47	44
Calcium	ppm	ASTM D5185m		125	1880	1728
Phosphorus	ppm	ASTM D5185m	827	142	837	811
Zinc	ppm	ASTM D5185m	0	▲ 107	▲ 697	▲ 698
Sulfur	ppm	ASTM D5185m	13	468	1987	1940
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.22	0.946	0.996
Visc @ 40°C	cSt	ASTM D445	47	45.5	45.61	48.19

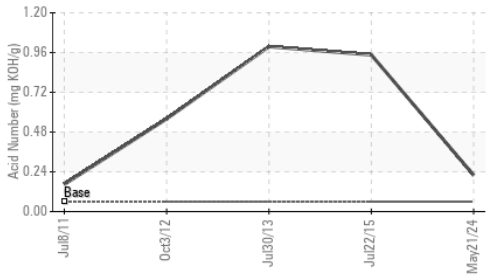
Additives



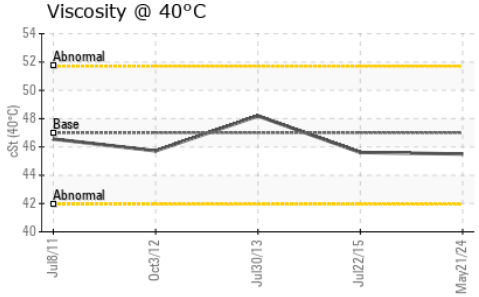
Particle Count



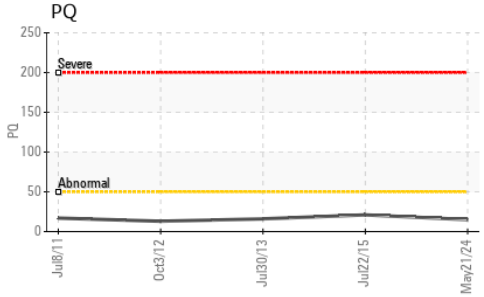
Acid Number



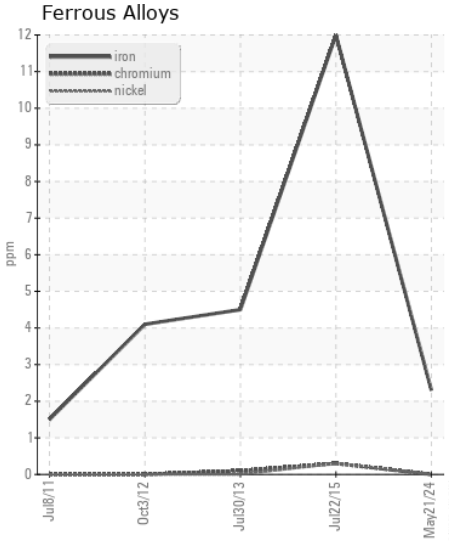
Viscosity @ 40°C



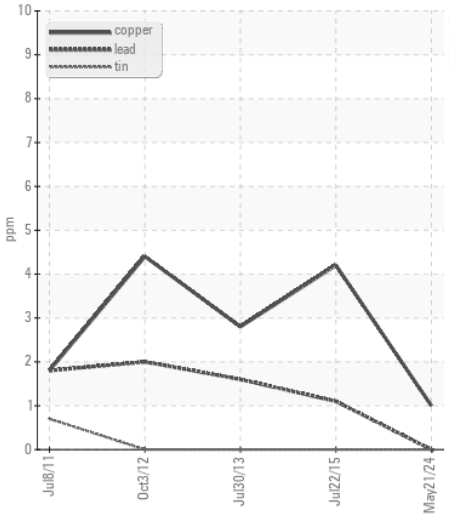
PQ



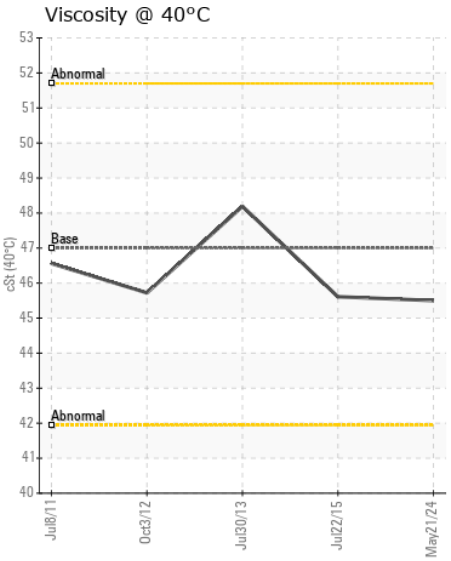
Ferrous Alloys



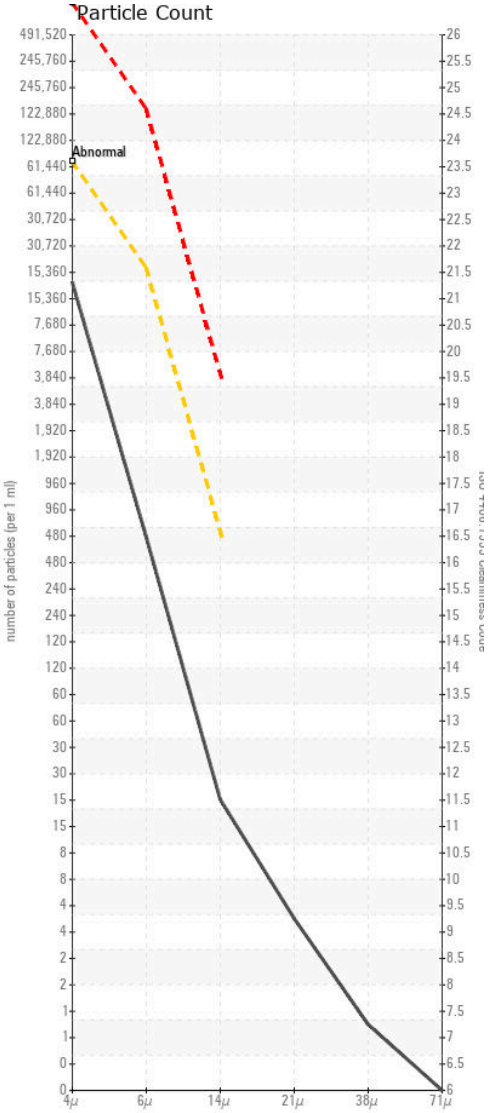
Non-ferrous Metals



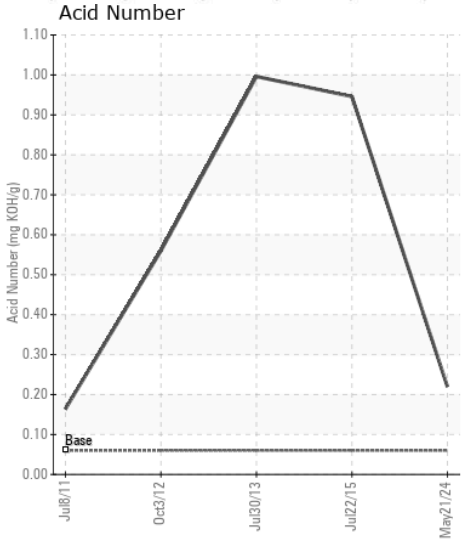
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0050580
Lab Number : 06190371
Unique Number : 11047123
Test Package : CONST (Additional Tests: PQ)

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Don Baldridge

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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