



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI 210LC-5 E184 (S/N 1FFDCJ70KEE330524)

Component
Swing Drive

Fluid
JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0198981	JR0156230	JR0143739
Sample Date		Client Info		10 Jan 2024	28 Mar 2023	12 Sep 2022
Machine Age	hrs	Client Info		9348	8670	8166
Oil Age	hrs	Client Info		1182	504	914
Filter Age	hrs	Client Info		0	504	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		112	110	65
Iron	ppm	ASTM D5185m	>400	171	132	98
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	0	<1
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	<1	0	0
Tin	ppm	ASTM D5185m	>10	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

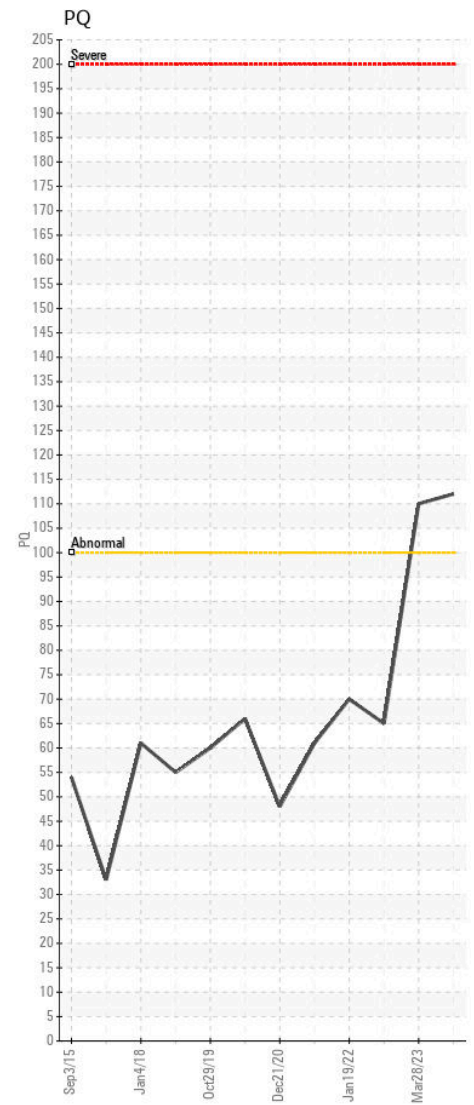
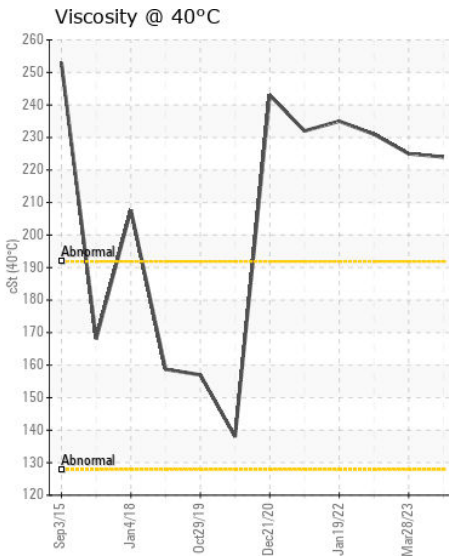
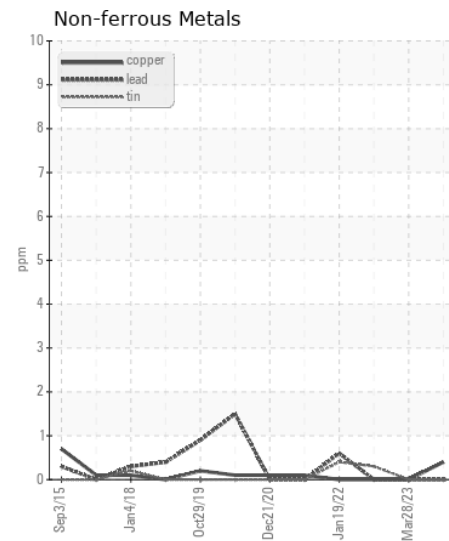
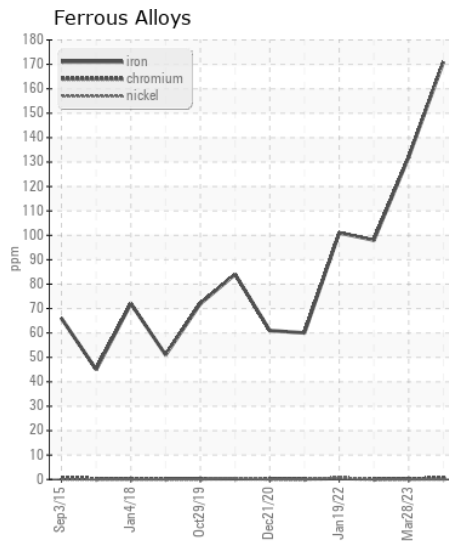
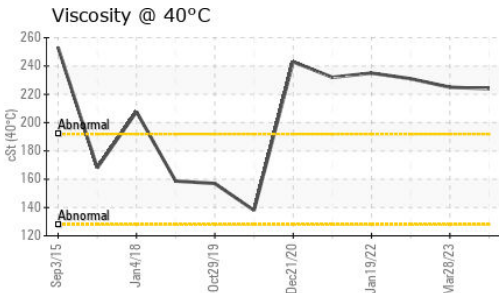
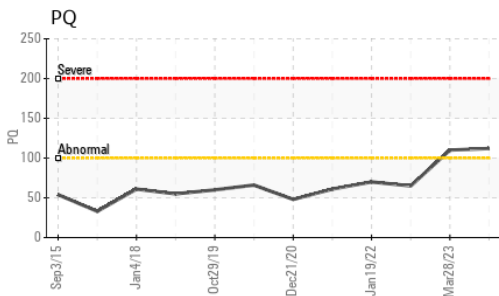
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	11	6	4
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.2	NEG	NEG	NEG
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	0	<1
Boron	ppm	ASTM D5185m		261	291	327
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	2	0
Calcium	ppm	ASTM D5185m		6	9	3
Phosphorus	ppm	ASTM D5185m		1066	1033	929
Zinc	ppm	ASTM D5185m		0	3	1
Sulfur	ppm	ASTM D5185m		19770	18980	17978
Visc @ 40°C	cSt	ASTM D445		224	225	231



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0198981 **Received** : 17 Jan 2024
Lab Number : 06063042 **Diagnosed** : 18 Jan 2024
Unique Number : 10834424 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: PQ)

MATTHEWS CONSTRUCTION
 127 GRAYSON RD
 ROCK HILL, SC
 US 29732
 Contact: Tad Clinton
 tclinton@matthewsconstructionco.com
 T: (803)207-5607
 F:

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)