



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 210G 1FF210GXCKF528128

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199809	JR0136397	JR0117531
Sample Date		Client Info		29 Jan 2024	26 Oct 2022	05 Jan 2022
Machine Age	hrs	Client Info		2228	1685	1287
Oil Age	hrs	Client Info		0	1685	1287
Filter Age	hrs	Client Info		0	0	1287
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ATTENTION	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	16	7	21
Iron	ppm	ASTM D5185m	>32	4	4	4
Chromium	ppm	ASTM D5185m	>9	<1	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>9	2	<1	<1
Lead	ppm	ASTM D5185m	>28	<1	0	<1
Copper	ppm	ASTM D5185m	>50	1	1	3
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

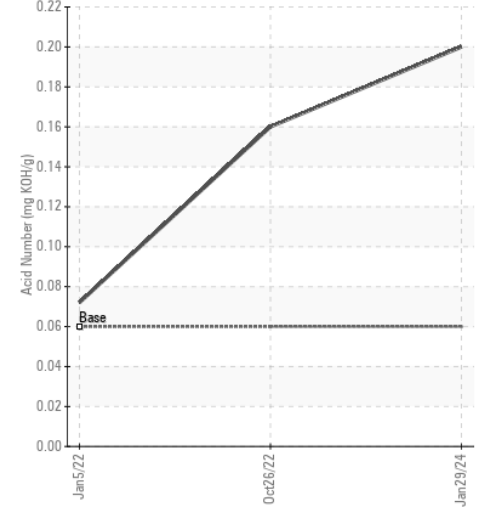
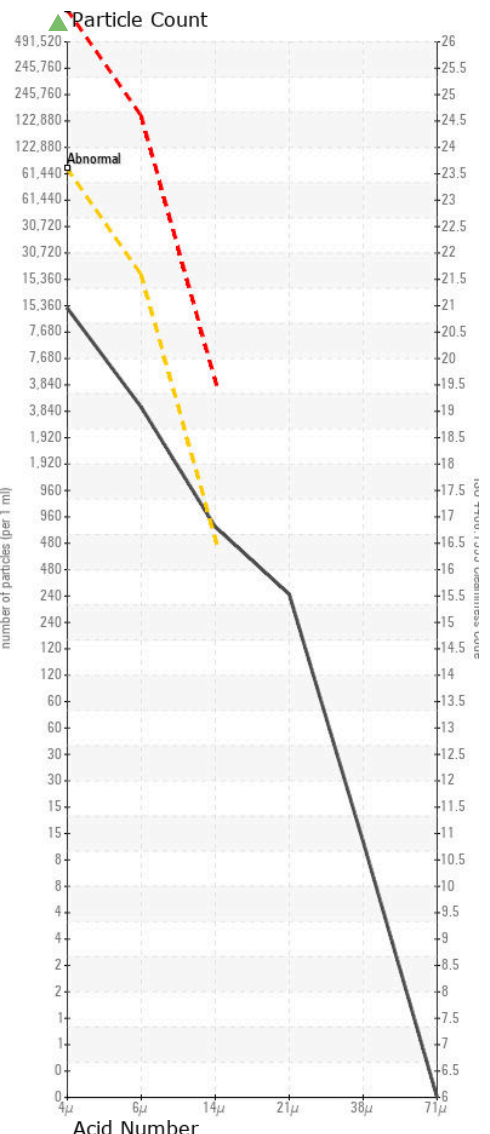
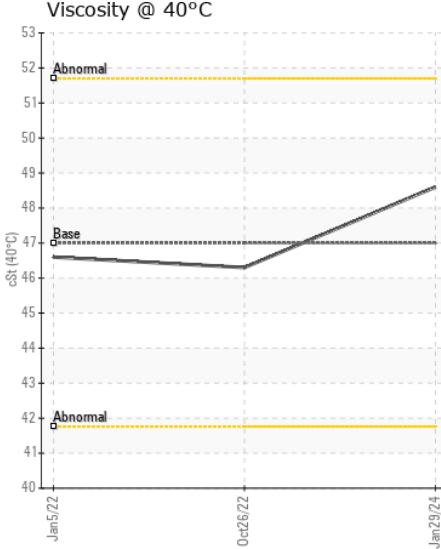
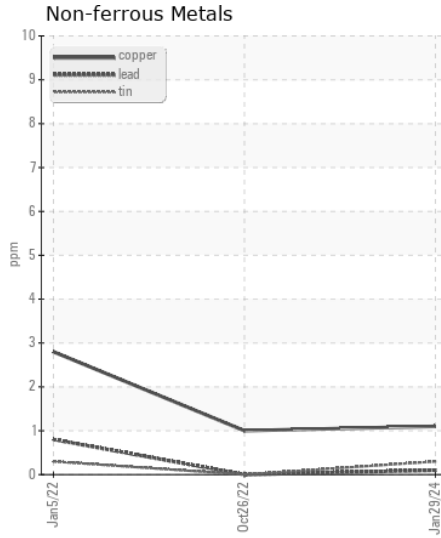
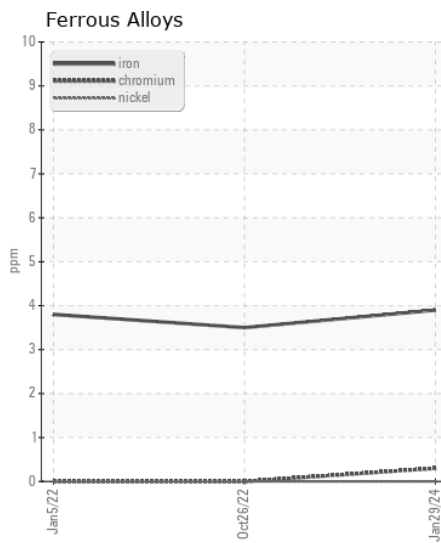
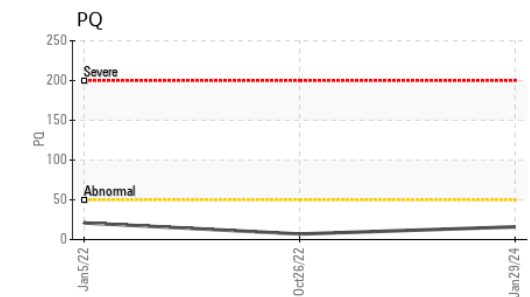
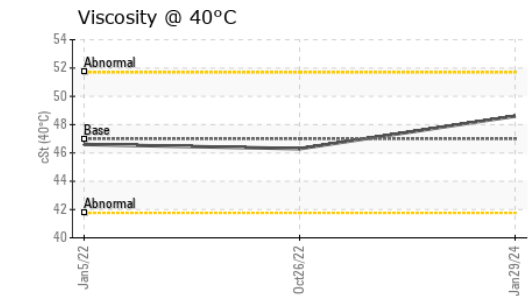
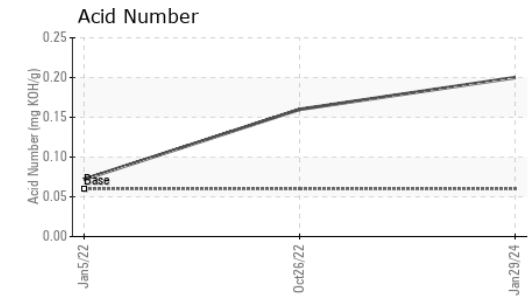
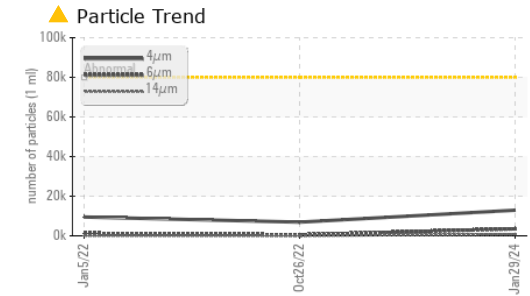
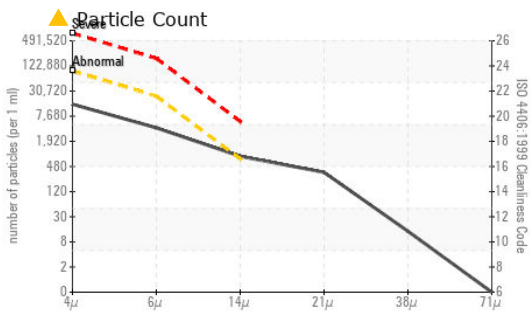
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>11	0	<1	1
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	12925	6896	▲ 9498
Particles >6µm		ASTM D7647	>20000	3535	461	1238
Particles >14µm		ASTM D7647	>640	▲ 739	24	98
Particles >21µm		ASTM D7647	>160	▲ 306	6	33
Particles >38µm		ASTM D7647	>40	12	1	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	▲ 21/19/17	20/16/12	▲ 20/17/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	0	0	1
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		<1	0	4
Calcium	ppm	ASTM D5185m		30	0	10
Phosphorus	ppm	ASTM D5185m	827	409	523	459
Zinc	ppm	ASTM D5185m	0	6	27	34
Sulfur	ppm	ASTM D5185m	13	22	132	536
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.20	0.16	0.072
Visc @ 40°C	cSt	ASTM D445	47	48.6	46.3	46.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199809 **Received** : 30 Jan 2024
Lab Number : 06074620 **Diagnosed** : 01 Feb 2024
Unique Number : 10856711 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

Certificate L2367
 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)