



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE EH-64
 Component
Hydraulic System
 Fluid
SHELL NATURELLE HF-E (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0030845	DC0023812	DC0021740
Sample Date		Client Info		16 Nov 2023	27 Oct 2023	28 Jul 2022
Machine Age	hrs	Client Info		5099	5097	4015
Oil Age	hrs	Client Info		0	1097	2000
Filter Age	hrs	Client Info		0	1097	500
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>32	▲ 40	▲ 35	▲ 50
Chromium	ppm	ASTM D5185m	>9	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	1	1
Lead	ppm	ASTM D5185m	>28	0	0	<1
Copper	ppm	ASTM D5185m	>50	2	2	3
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	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.

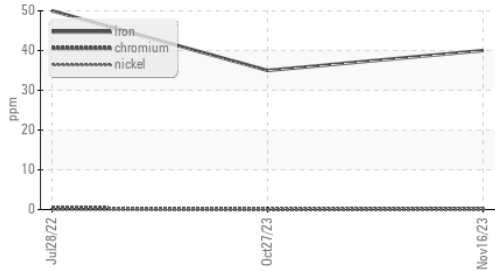
Silicon	ppm	ASTM D5185m	>11	9	7	12
Potassium	ppm	ASTM D5185m	>20	2	6	2
Water		WC Method	>0.075	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	NEG

FLUID CONDITION

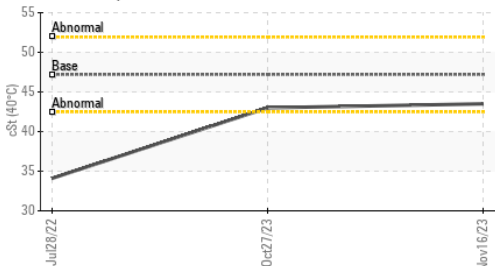
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>21	2	3	0
Boron	ppm	ASTM D5185m		0	0	2
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		1	2	5
Calcium	ppm	ASTM D5185m	0	34	30	58
Phosphorus	ppm	ASTM D5185m	160	349	287	405
Zinc	ppm	ASTM D5185m	0	68	84	68
Sulfur	ppm	ASTM D5185m	2300	2454	2040	2640
Visc @ 40°C	cSt	ASTM D445	47.2	43.5	43.0	34.1

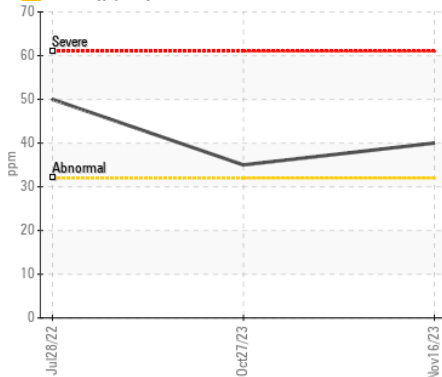
▲ Ferrous Alloys



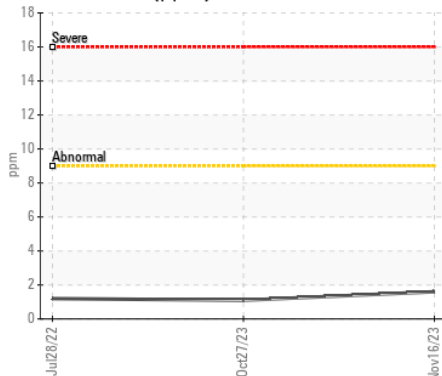
Viscosity @ 40°C



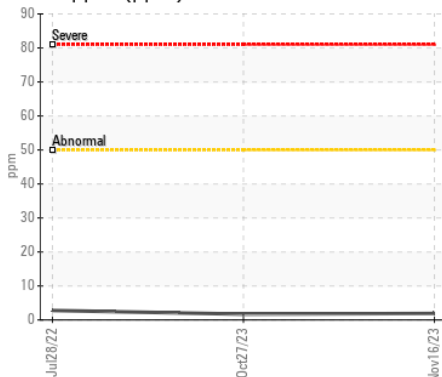
▲ Iron (ppm)



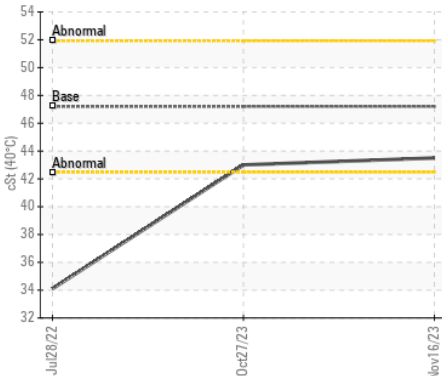
Aluminum (ppm)



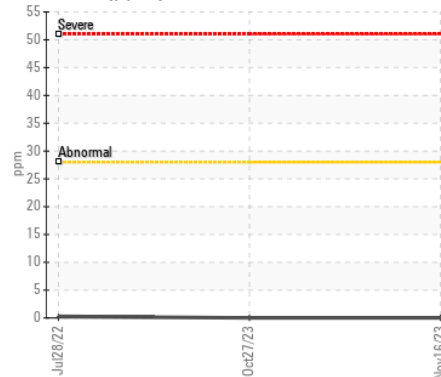
Copper (ppm)



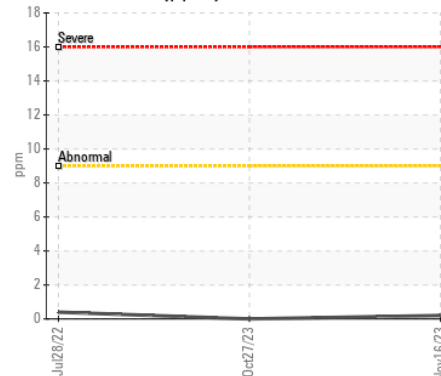
Viscosity @ 40°C



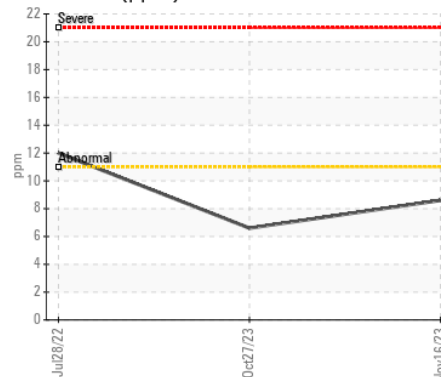
Lead (ppm)



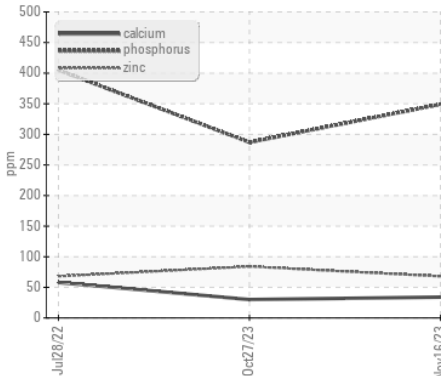
Chromium (ppm)



Silicon (ppm)



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : DC0030845 Recieved : 10 Jan 2024
 Lab Number : 06057072 Diagnosed : 12 Jan 2024
 Unique Number : 10823021 Diagnostician : Sean Felton
 Test Package : MOB 1

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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)