CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[05W46514]

Machine Id

JOHN DEERE 1FF350GXPKF814131

Component

Pump Drive

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (1 GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

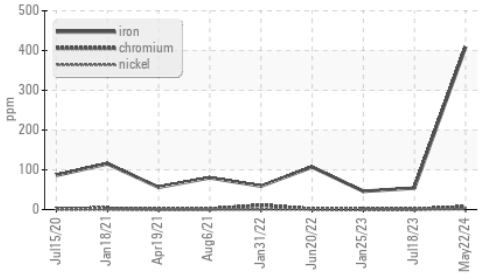
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

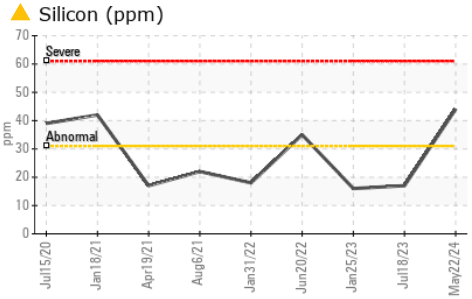
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214566	JR0170066	JR0160451
Sample Date		Client Info		22 May 2024	18 Jul 2023	25 Jan 2023
Machine Age	hrs	Client Info		4980	3941	3430
Oil Age	hrs	Client Info		1039	0	484
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	NORMAL
PQ		ASTM D8184		129	18	15
Iron	ppm	ASTM D5185m	>151	▲ 409	54	46
Chromium	ppm	ASTM D5185m	>11	7	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		2	<1	<1
Silver	ppm	ASTM D5185m		1	0	0
Aluminum	ppm	ASTM D5185m	>21	● 12	2	3
Lead	ppm	ASTM D5185m	>51	<1	0	0
Copper	ppm	ASTM D5185m	>51	4	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>31	▲ 44	17	16
Potassium	ppm	ASTM D5185m	>20	339	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>51	40	2	3
Boron	ppm	ASTM D5185m		258	298	319
Barium	ppm	ASTM D5185m		3	0	<1
Molybdenum	ppm	ASTM D5185m		216	240	253
Manganese	ppm	ASTM D5185m		6	1	1
Magnesium	ppm	ASTM D5185m		709	786	786
Calcium	ppm	ASTM D5185m		1308	1432	1437
Phosphorus	ppm	ASTM D5185m		907	922	903
Zinc	ppm	ASTM D5185m		954	978	972
Sulfur	ppm	ASTM D5185m		3139	3846	3740
Visc @ 40°C	cSt	ASTM D445	117	67.2	63.8	67.0

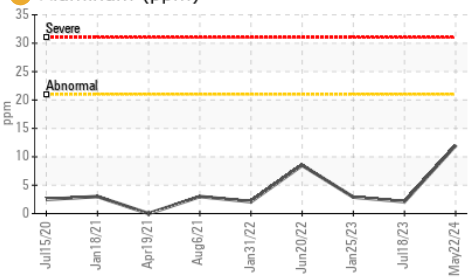
Ferrous Alloys



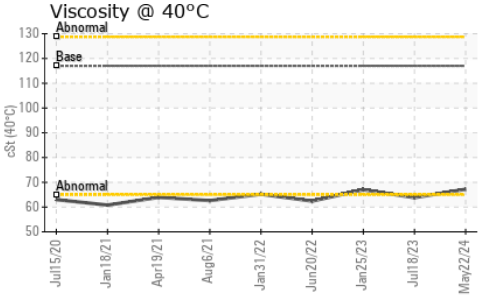
Silicon (ppm)



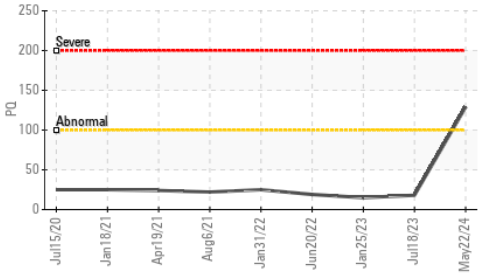
Aluminum (ppm)



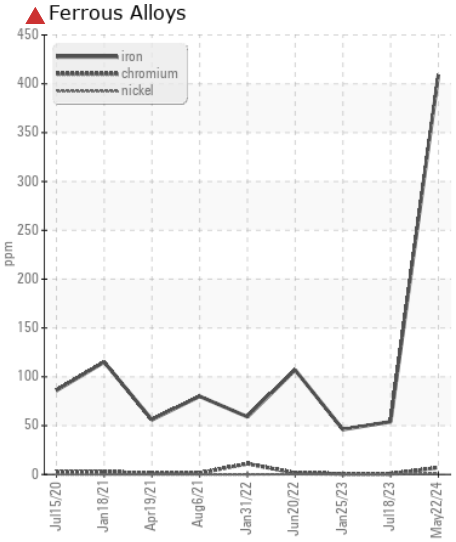
Viscosity @ 40°C



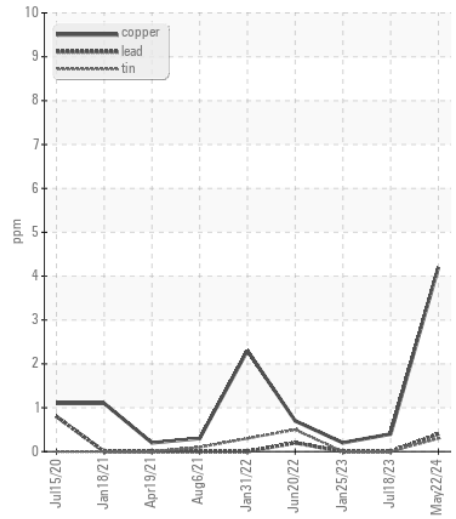
PQ



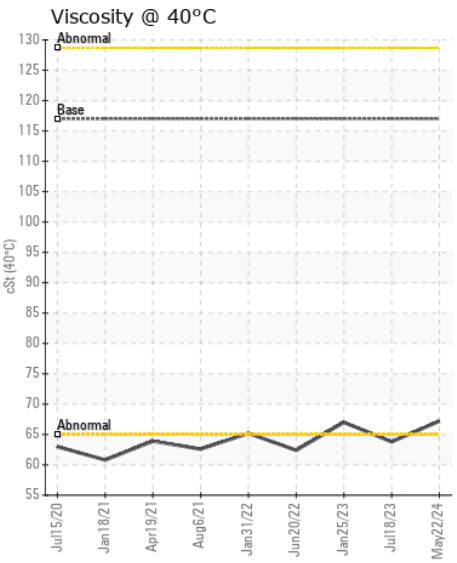
Ferrous Alloys



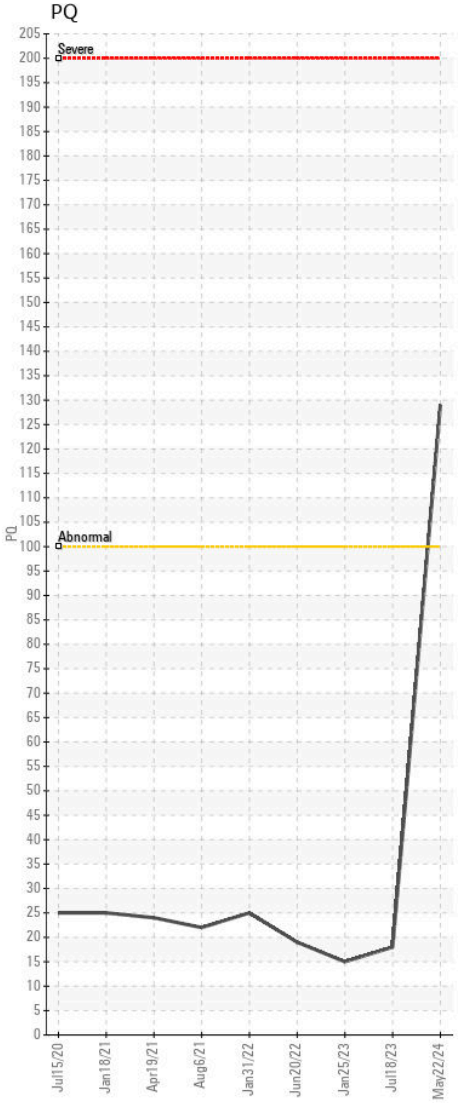
Non-ferrous Metals



Viscosity @ 40°C



PQ



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214566
Lab Number : 06191289
Unique Number : 11048041
Test Package : CONST (Additional Tests: PQ)

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Sean Felton

FITZGERALD EXCAVATING
PO BOX 2168
WINCHESTER, VA
US 22604
Contact: Service Manager
T:
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)