



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[05W46514]
 Machine Id
JOHN DEERE 1FF350GXPKE814131
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (51 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214565	JR0170006	JR0160452
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		4980	0	3430
Filter Age	hrs	Client Info		1000	0	484
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	20	11	11
Iron	ppm	ASTM D5185m	>32	8	10	8
Chromium	ppm	ASTM D5185m	>9	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>9	<1	<1	0
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	4	7	10
Tin	ppm	ASTM D5185m	>5	0	<1	<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

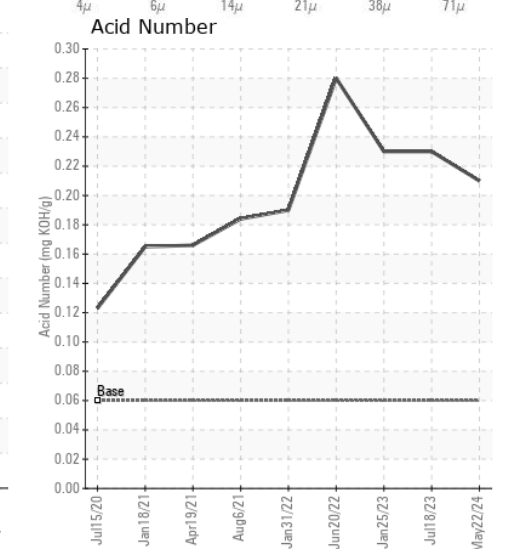
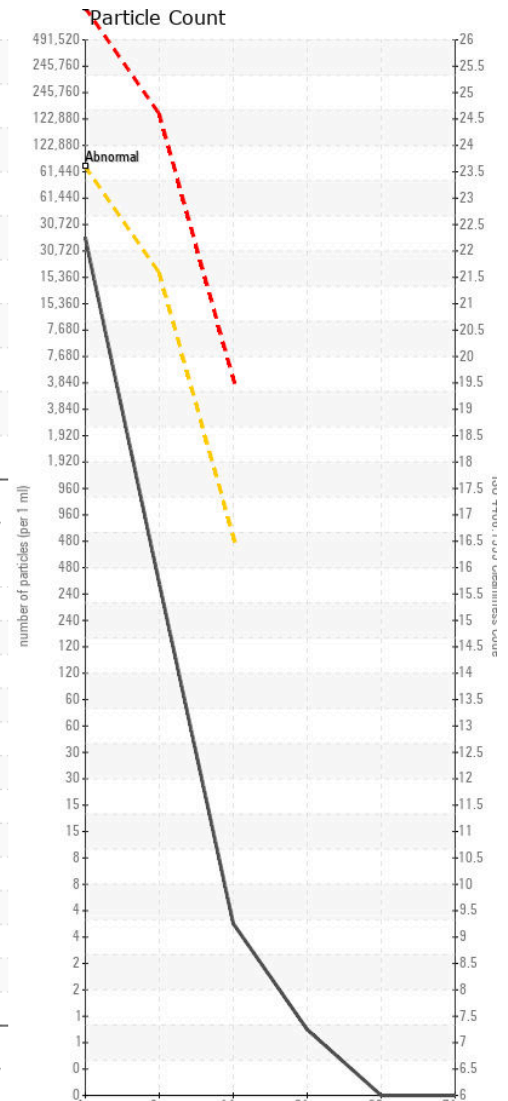
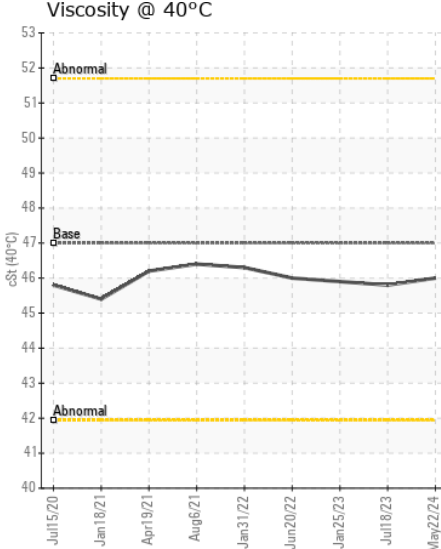
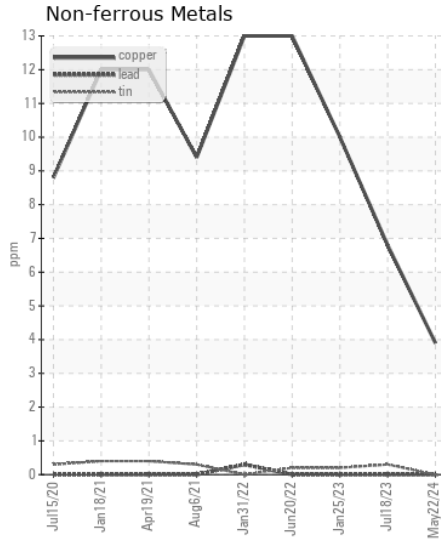
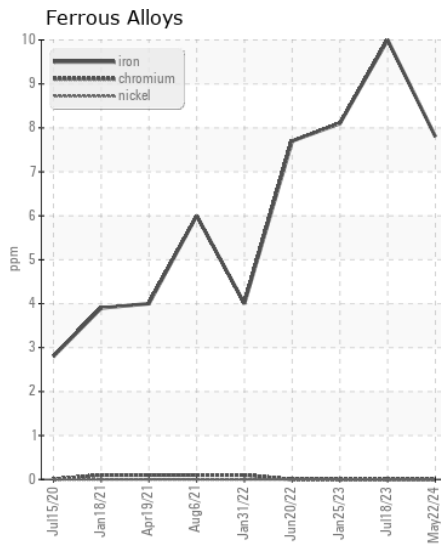
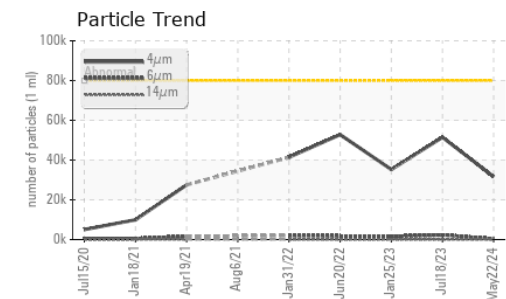
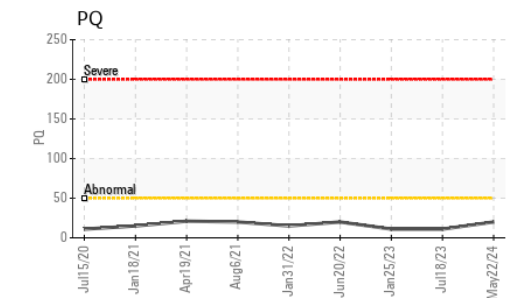
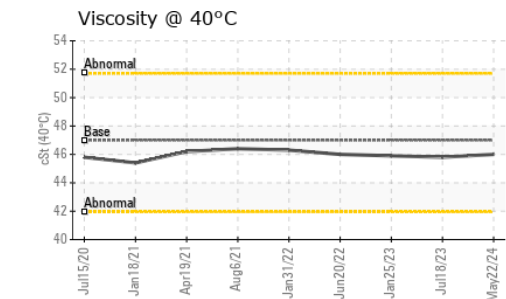
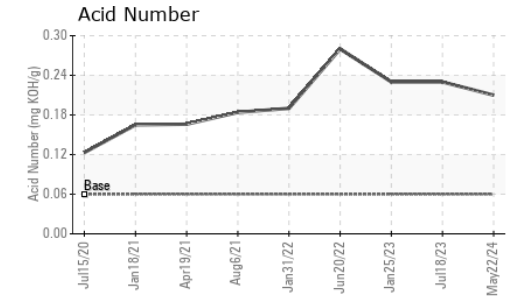
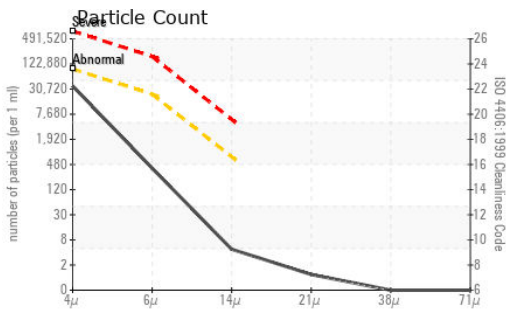
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>11	2	2	2
Potassium	ppm	ASTM D5185m	>20	<1	1	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	31616	51444	35248
Particles >6µm		ASTM D7647	>20000	344	2308	1596
Particles >14µm		ASTM D7647	>640	4	20	33
Particles >21µm		ASTM D7647	>160	1	6	8
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	22/16/9	23/18/11	22/18/12
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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<1	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		0	<1	<1
Calcium	ppm	ASTM D5185m		53	6	10
Phosphorus	ppm	ASTM D5185m	827	475	454	487
Zinc	ppm	ASTM D5185m	0	36	36	41
Sulfur	ppm	ASTM D5185m	13	217	183	217
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.21	0.23	0.23
Visc @ 40°C	cSt	ASTM D445	47	46.0	45.8	45.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214565 **Received** : 24 May 2024
Lab Number : 06190957 **Tested** : 29 May 2024
Unique Number : 11047709 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

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

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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F: