



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**JOHN DEERE 1FF075GXHFJ015781**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218051</b>	JR0166508	JR0144102
Sample Date		Client Info		<b>20 May 2024</b>	07 Apr 2023	13 Sep 2022
Machine Age	hrs	Client Info		<b>4257</b>	3774	3488
Oil Age	hrs	Client Info		<b>4257</b>	3774	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	12	5
Iron	ppm	ASTM D5185m	>32	<b>13</b>	13	10
Chromium	ppm	ASTM D5185m	>9	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>&lt;1</b>	0	1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

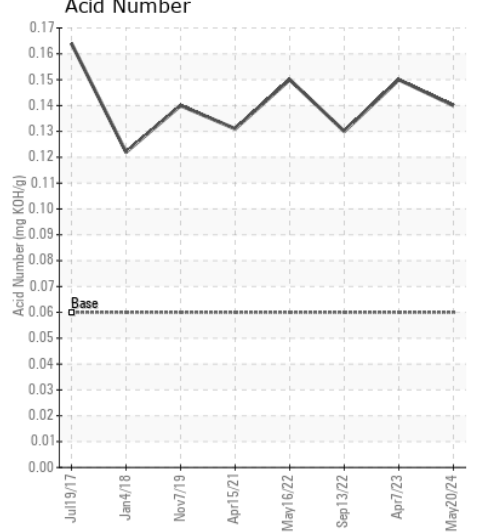
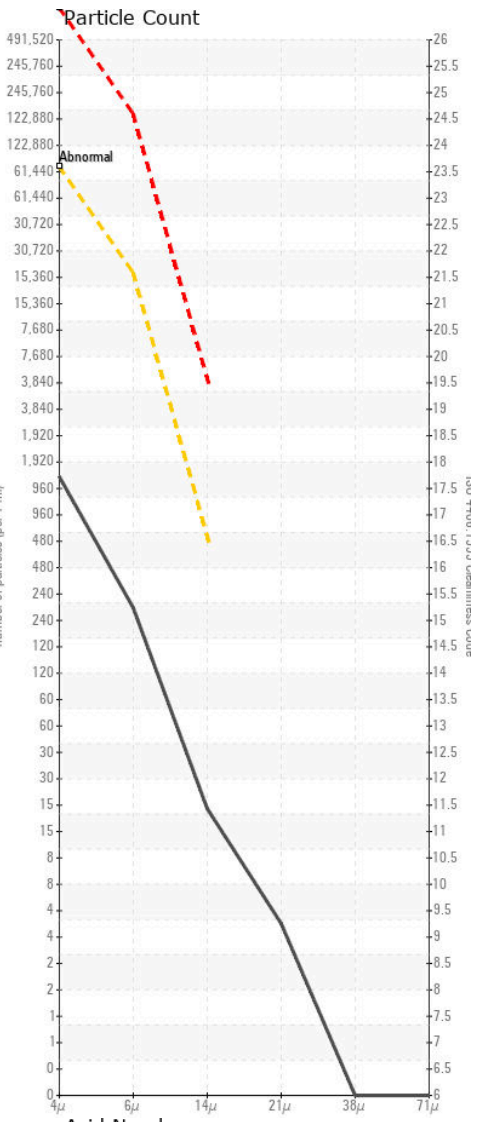
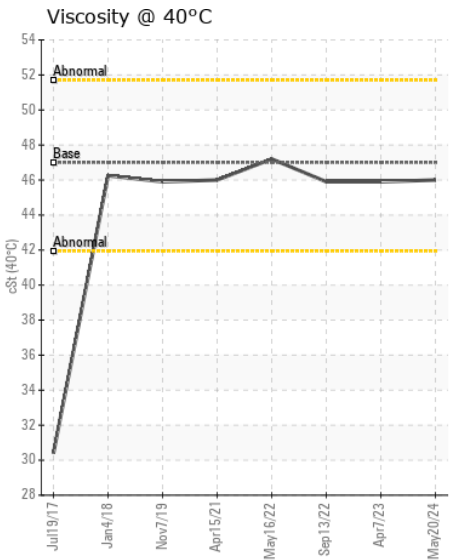
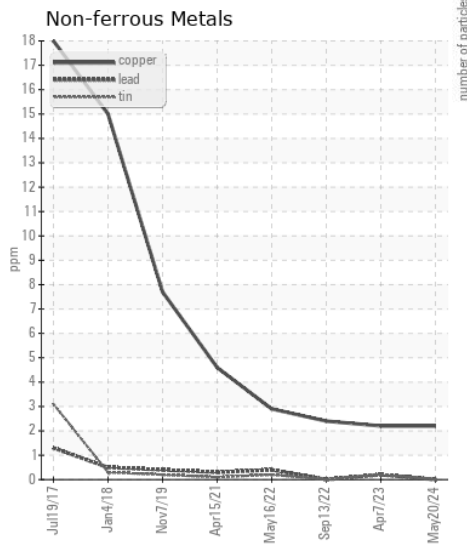
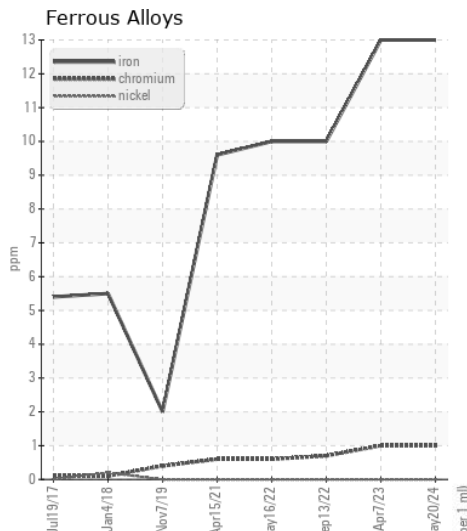
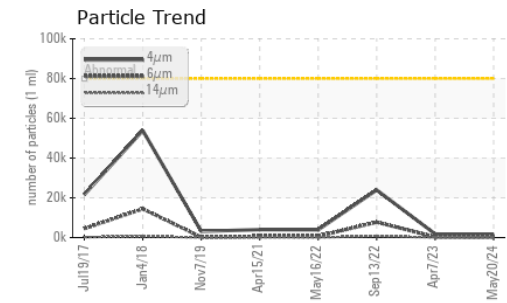
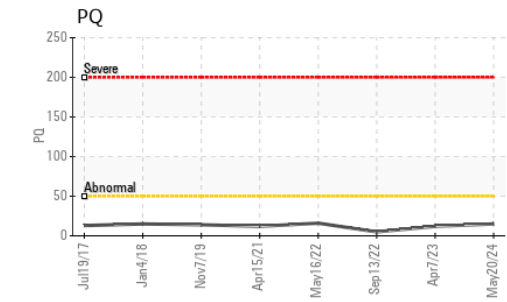
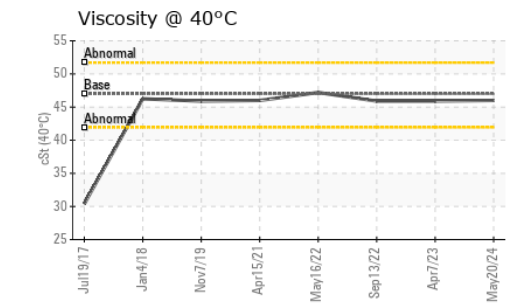
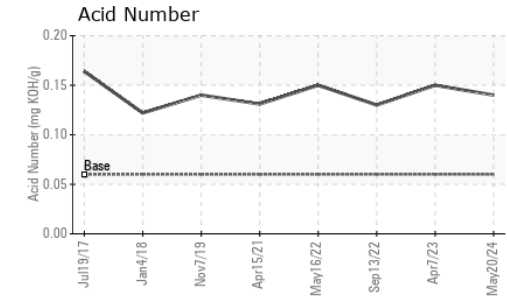
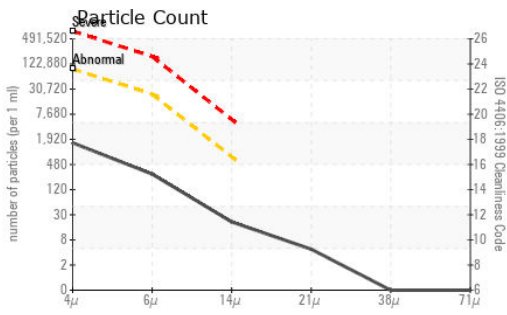
There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>3</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>1388</b>	1797	23945
Particles >6µm		ASTM D7647	>20000	<b>249</b>	327	7787
Particles >14µm		ASTM D7647	>640	<b>18</b>	18	658
Particles >21µm		ASTM D7647	>160	<b>4</b>	3	192
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	8
Particles >71µm		ASTM D7647	>10	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>18/15/11</b>	18/16/11	22/20/17
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	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	<b>2</b>	<1	2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>4</b>	6	5
Calcium	ppm	ASTM D5185m		<b>12</b>	10	10
Phosphorus	ppm	ASTM D5185m	827	<b>321</b>	314	338
Zinc	ppm	ASTM D5185m	0	<b>80</b>	76	72
Sulfur	ppm	ASTM D5185m	13	<b>1434</b>	1203	1227
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.14</b>	0.15	0.13
Visc @ 40°C	cSt	ASTM D445	47	<b>46.0</b>	45.9	45.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0218051

Lab Number : 06189715

Unique Number : 11046467

Test Package : CONST ( Additional Tests: PQ )

Received : 23 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 2024 - Jonathan Hester

NPL CONSTRUCTION

7611 COPPERMINE DR

MANASSAS, VA

US 20109-2668

Contact: BRANDON

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: