**WEAR** CONTAMINATION **FLUID CONDITION** 

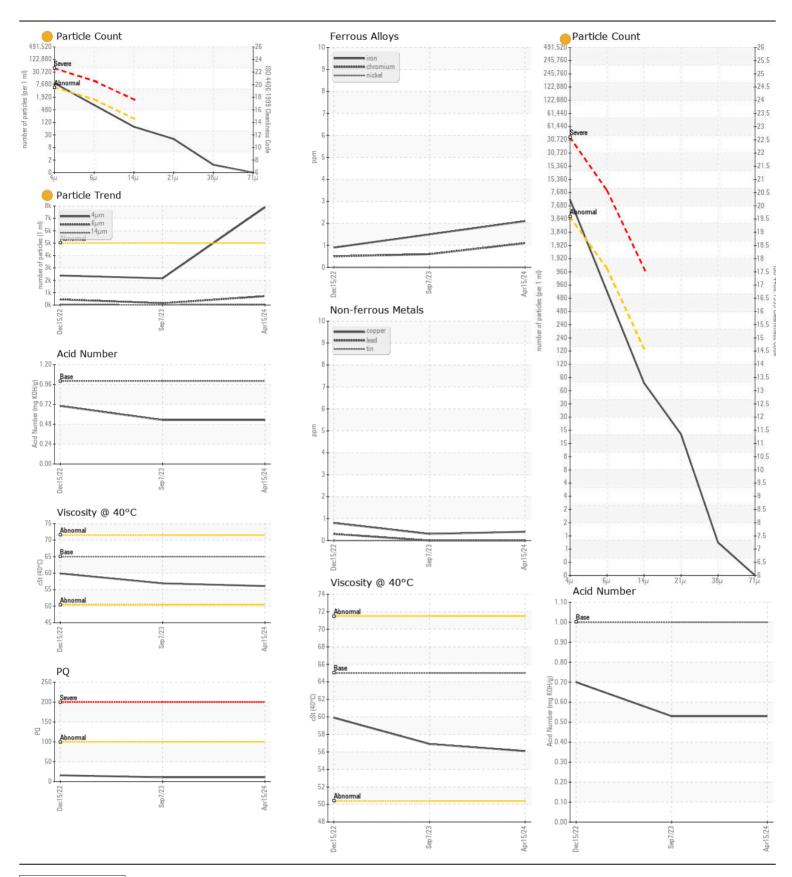
**NORMAL ATTENTION NORMAL** 

[W65770]

## JOHN DEERE 524 P 1DW524PAPNLT13387

**Hvdraulic System** 

| DECOMMEND ATION  | <b>-</b> .          | 11011            |                            | 11 5741   | ( )                  | 100                   |                       |
|--|---------------------|------------------|----------------------------|-----------|----------------------|-----------------------|-----------------------|
| RECOMMENDATION   | Test Sample Number  | UOM              | Method<br>Client Info      | Limit/Abn | Current<br>JR0206791 | History1<br>JR0178128 | History2<br>JR0155673 |
| No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: Top Up Amount: 2 GALLONS W65770 ) | Sample Date         |                  | Client Info                |           | 15 Apr 2024          | 07 Sep 2023           | 15 Dec 2022           |
|  | Machine Age         | hrs              | Client Info                |           | 1452                 | 1010                  | 441                   |
|  | Oil Age             | hrs              | Client Info                |           | 1452                 | 1010                  | 0                     |
|  | Filter Age          | hrs              | Client Info                |           | 0                    | 0                     | 0                     |
|  | Oil Changed         | 1110             | Client Info                |           | Oil Added            | Not Changd            | N/A                   |
|  | Filter Changed      |                  | Client Info                |           | Not Change           | Ü                     | N/A                   |
|  | Sample Status       |                  |                            |           | ATTENTION            | 0                     | NORMAL                |
| WEAR   | PQ                  |                  | ASTM D8184                 |           | 11                   | 11                    | 16                    |
| WEAT   | Iron                | ppm              | ASTM D5185m                | >20       | 2                    | 2                     | <1                    |
| All component wear rates are normal.   | Chromium            | ppm              | ASTM D5185m                |           | 1                    | <1                    | <1                    |
|  | Nickel              | ppm              | ASTM D5185m                |           | 0                    | 0                     | 0                     |
|  | Titanium            | ppm              | ASTM D5185m                |           | 0                    | 0                     | 0                     |
|  | Silver              | ppm              | ASTM D5185m                |           | 0                    | 0                     | 0                     |
|  | Aluminum            | ppm              | ASTM D5185m                | >10       | <1                   | 1                     | <1                    |
|  | Lead                | ppm              | ASTM D5185m                | >10       | 0                    | 0                     | <1                    |
|  | Copper              | ppm              | ASTM D5185m                | >75       | <1                   | <1                    | <1                    |
|  | Tin                 | ppm              | ASTM D5185m                | >10       | 0                    | 0                     | 0                     |
|  | Vanadium            | ppm              | ASTM D5185m                |           | 0                    | 0                     | 0                     |
|  | White Metal         | scalar           | *Visual                    | NONE      | NONE                 | NONE                  | NONE                  |
|  | Yellow Metal        | scalar           | *Visual                    | NONE      | NONE                 | NONE                  | NONE                  |
| CONTAMINATION  | Silicon             | ppm              | ASTM D5185m                | >20       | <1                   | 1                     | <1                    |
|  | Potassium           | ppm              | ASTM D5185m                | >20       | 9                    | 2                     | 3                     |
| There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.   | Water               |                  | WC Method                  | >0.1      | NEG                  | NEG                   | NEG                   |
|  | Particles >4µm      |                  | ASTM D7647                 | >5000     | <b>7889</b>          | 2155                  | 2383                  |
|  | Particles >6µm      |                  | ASTM D7647                 |           | 714                  | 145                   | 456                   |
|  | Particles >14μm     |                  | ASTM D7647                 |           | 65                   | 15                    | 35                    |
|  | Particles >21μm     |                  | ASTM D7647                 |           | 17                   | 4                     | 9                     |
|  | Particles >38µm     |                  | ASTM D7647                 |           | 1                    | 0                     | 0                     |
|  | Particles >71μm     |                  | ASTM D7647                 |           | 0                    | 0                     | 0                     |
|  | Oil Cleanliness     |                  | ISO 4406 (c)               |           | 20/17/13             | 18/14/11              | 18/16/12              |
|  | Silt                | scalar           | *Visual                    | NONE      | NONE                 | NONE                  | NONE                  |
|  | Debris<br>Sand/Dirt | scalar           | *Visual *Visual            | NONE      | NONE<br>NONE         | NONE<br>NONE          | NONE                  |
|  |                     | scalar           | *Visual                    | NORML     |                      | NORML                 | NORMI                 |
|  | Appearance<br>Odor  | scalar<br>scalar | *Visual                    | NORML     | NORML<br>NORML       | NORML                 | NORML                 |
|  | Emulsified Water    |                  |                            | >0.1      | NEG                  | NEG                   | NEG                   |
| TI LUD CONDITION   | Cadium              |                  | ACTM DE10Em                |           | 4                    | 0                     | 0                     |
| FLUID CONDITION  | Sodium              | ppm              | ASTM D5185m                |           | 4                    | 2                     | 3                     |
| The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.   | Boron<br>Barium     | ppm              | ASTM D5185m<br>ASTM D5185m |           | 0                    | 0                     | <1                    |
|  | Molybdenum          | ppm              | ASTM D5165III              |           | 0<br>1               | 1                     | <1                    |
|  | Manganese           | ppm              | ASTM D5185m                |           | 0                    | 0                     | <1                    |
|  | Magnesium           | ppm              | ASTM D5185m                |           | 3                    | 3                     | 2                     |
|  | Calcium             | ppm              | ASTM D5185m                | 87        | 84                   | 100                   | 87                    |
|  | Phosphorus          | ppm              | ASTM D5185m                |           | 524                  | 605                   | 579                   |
|  | Zinc                | ppm              | ASTM D5185m                | 900       | 644                  | 815                   | 753                   |
|  | Sulfur              | ppm              | ASTM D5185m                |           | 1521                 | 1909                  | 1732                  |
|  | Acid Number (AN)    | mg KOH/g         | ASTM D8045                 |           | 0.53                 | 0.53                  | 0.70                  |
|  | Visc @ 40°C         | cSt              | ASTM D445                  |           | 56.1                 | 56.9                  | 59.9                  |





Certificate L2367

Unique Number : 10981969

Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : JR0206791 : 06151891

Received **Tested** 

: 17 Apr 2024 : 18 Apr 2024 Diagnosed

: 19 Apr 2024 - Don Baldridge

**CARLTON'S BACKHOE** 9550 STATESVILLE ROAD CHARLOTTE, NC US 28269

Contact: LEO

Test Package : CONST ( Additional Tests: PQ ) 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)

T: (704)547-0211 F: