

#### Machine Id HAMM H12i H2352440 Component Rear Differential Fluid JOHN DEERE GL-5 80W90 (--- GAL)

### RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

#### **CONTAMINATION**

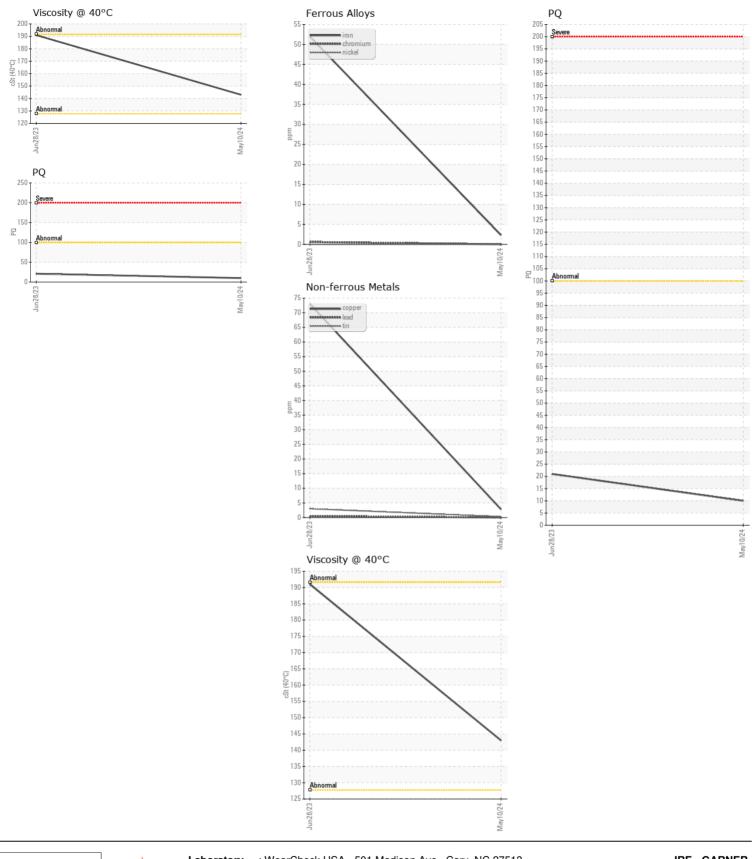
There is no indication of any contamination in the oil.

# FLUID CONDITION

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

Test         UOM         Method         Limit/Abn         Current         History1         History1           Sample Number         Client Info         ID         JR0212553         JR0175675	ry2
Sample Date         Client Info         I0 May 2024         28 Jun 2023            Machine Age         hrs         Client Info         512         358            Oil Age         hrs         Client Info         154         358            Oil Age         hrs         Client Info         0         0            Oil Changed         Client Info         Not Changd         Changed            Oil Changed         Client Info         N/A         N/A            Filter Changed         Client Info         Not Changd         Changed            Sample Status         Client Info         N/A         N/A            PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m         >500         2         52            Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >25         0             Silver         ppm         ASTM D5185m         >25         0         < </th <th></th>	
Machine Age         hrs         Client Info         512         358            Oil Age         hrs         Client Info         154         358            Filter Age         hrs         Client Info         0         0            Oil Changed         Client Info         Not Changd         Changed            Filter Changed         Client Info         N/A         N/A            Filter Changed         Client Info         N/A         N/A            Sample Status         Client Info         N/A         N/A            PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m<>500         2         52            Nickel         ppm         ASTM D5185m<>10         0             Nickel         ppm         ASTM D5185m<>25         0         2            Silver         ppm         ASTM D5185m<>25         0         2            Copper         ppm         ASTM D5185m<>100         3         73            Vanadium         ppm         ASTM D51	
Oil AgehrsClient Info154358Filter AgehrsClient Info00Oil ChangedClient InfoNot ChangdChangedFilter ChangedQClient InfoN/AN/AFilter ChangedQClient InfoN/AN/ASample StatusNORMALNORMALNORMALPQASTM D81841021IronppmASTM D5185m>500252ChromiumppmASTM D5185m>100<	
Filter Age         hrs         Client Info         0         0            Oil Changed         Client Info         Not Changd         Changed            Filter Changed         Client Info         N/A         N/A            Sample Status         Client Info         N/A         N/A            PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <1            Nickel         ppm         ASTM D5185m         >10         0         <1            Silver         ppm         ASTM D5185m         >10         0         <1            Aluminum         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         3             Vanadium         ppm         ASTM D5185m	
Oil ChangedClient InfoNot ChangedChangedFilter ChangedClient InfoN/AN/ASample StatusClient InfoN/ANORMALPQASTM D81841021IronppmASTM D5185m>500252ChromiumppmASTM D5185m>100<1NickelppmASTM D5185m>1000SilverppmASTM D5185m>2502AluminumppmASTM D5185m>250<1AluminumppmASTM D5185m>100373CopperppmASTM D5185m>1003VanadiumppmASTM D5185m>100<1VanadiumppmASTM D5185m>1003Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>75216	
Filter Changed Sample Status         Client Info         N/A         N/A            PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <1            Nickel         ppm         ASTM D5185m         >10         0         <1            Nickel         ppm         ASTM D5185m         >10         0         <1            Silver         ppm         ASTM D5185m         0         0         <1            Aluminum         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Vanadium         ppm         ASTM D5185m         >100         3             Veladu         scalar         *Visual         NONE         NONE            Silicon         ppm         ASTM D5185m         >75         2         16	
Sample Status         NORMAL         NORMAL         NORMAL            PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <11            Nickel         ppm         ASTM D5185m         >10         0         0            Titanium         ppm         ASTM D5185m         >10         0         0            Silver         ppm         ASTM D5185m         >25         0         2            Aluminum         ppm         ASTM D5185m         >25         0         <1            Lead         ppm         ASTM D5185m         >100         3         73            Copper         ppm         ASTM D5185m         >100         3         73            Vanadium         ppm         ASTM D5185m         >10         <1         3            Yellow Metal         scalar         *Visual         NONE         NONE         NONE       <	
PQ         ASTM D8184         10         21            Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <1	
Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <1            Nickel         ppm         ASTM D5185m         >10         0         0            Titanium         ppm         ASTM D5185m         >10         0         0            Silver         ppm         ASTM D5185m         0         0             Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         3             Vanadium         ppm         ASTM D5185m         >10         <1         3            Yellow Metal         scalar         *Visual         NONE         NONE         NONE       Silicon         ppm         ASTM D5185m         >75	
Iron         ppm         ASTM D5185m         >500         2         52            Chromium         ppm         ASTM D5185m         >10         0         <1            Nickel         ppm         ASTM D5185m         >10         0         0            Titanium         ppm         ASTM D5185m         >10         0         0            Silver         ppm         ASTM D5185m         0         0             Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         3             Vanadium         ppm         ASTM D5185m         >10         <1         3            Yellow Metal         scalar         *Visual         NONE         NONE         NONE       Silicon         ppm         ASTM D5185m         >75	
Chromium         ppm         ASTM D5185m         >10         0         <1	
Nickel         ppm         ASTM D5185m         >10         0         0            Titanium         ppm         ASTM D5185m         0         0         0            Silver         ppm         ASTM D5185m         0         0         0            Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         <1         3            Vanadium         ppm         ASTM D5185m         >10         <1         3            Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Silicon         ppm         ASTM D5185m         >75         2         16	
Titanium         ppm         ASTM D5185m         0         0            Silver         ppm         ASTM D5185m         0         0             Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <1	
Silver         ppm         ASTM D5185m         0         0            Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <1            Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         <1         3            Vanadium         ppm         ASTM D5185m         >10         <1         3            White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Silicon         ppm         ASTM D5185m         >75         2         16	
Aluminum         ppm         ASTM D5185m         >25         0         2            Lead         ppm         ASTM D5185m         >25         0         <10	
Lead         ppm         ASTM D5185m         >25         0         <1	
Copper         ppm         ASTM D5185m         >100         3         73            Tin         ppm         ASTM D5185m         >100         <1	
TinppmASTM D5185m>10<1	
VanadiumppmASTM D5185m00White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>75216	
White Metal     scalar     *Visual     NONE     NONE     NONE        Yellow Metal     scalar     *Visual     NONE     NONE     NONE        Silicon     ppm     ASTM D5185m     >75     2     16	
Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>75216	
Silicon ppm ASTM D5185m >75 2 16	
Potassium ppm ASTM D5185m >20 0 1	
Water WC Method >.2 NEG NEG	
Silt scalar *Visual NONE NONE	
Debris scalar *Visual NONE NONE NONE	
Sand/Dirt scalar *Visual NONE NONE	
Appearance scalar *Visual NORML NORML NORML	
Odor scalar *Visual NORML NORML NORML	
Emulsified Water scalar *Visual >.2 NEG NEG	
Sodium         ppm         ASTM D5185m         1         8	
Boron         ppm         ASTM D5185m         0         5	
Barium ppm ASTM D5185m 0 0	
Molybdenum ppm ASTM D5185m 0 0	
Manganese ppm ASTM D5185m 1 6	
MagnesiumppmASTM D5185m010	
Calcium         ppm         ASTM D5185m         35         34	
Phosphorus         ppm         ASTM D5185m         303         2455	
Zinc ppm ASTM D5185m 0 98	
Sulfur         ppm         ASTM D5185m         20594         34653	
Visc @ 40°C cSt ASTM D445 143 191	

Submitted By: RENN MASHBURN



**JRE - GARNER** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : JR0212553 Received 4161 AUBURN CHURCH RD : 13 May 2024 Lab Number : 06177444 Tested GARNER, NC : 14 May 2024 Diagnosed Unique Number : 11023497 : 15 May 2024 - Don Baldridge US 27529 Test Package : CONST (Additional Tests: PQ) Contact: RALEIGH SHOP Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. sean.betts@jamesriverequipment.com;catherine.anastasio@wearcheck.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)614-2260 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)779-5432