**WEAR CONTAMINATION FLUID CONDITION** 

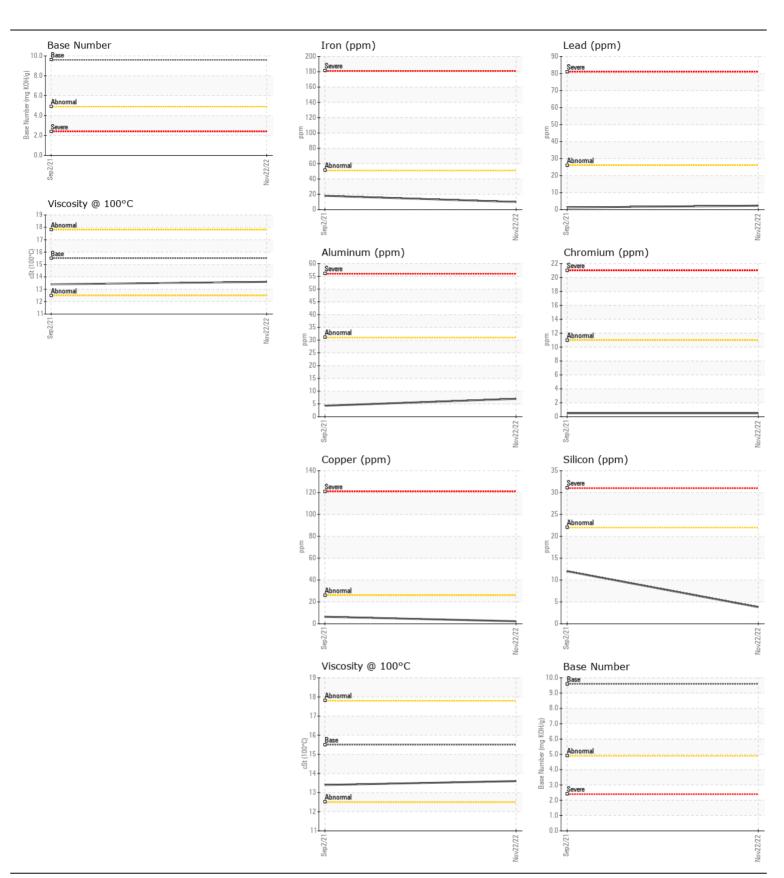
**NORMAL NORMAL NORMAL** 

## JOHN DEERE 345G 20-86 (S/N 1FF345GXHKF020532)

Diesel Engine

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

| RECOMMENDATION  | Test             | UOM      | Method      | Limit/Abn | Current     | History1    | History2 |
|---|------------------|----------|-------------|-----------|-------------|-------------|----------|
| Resample at the next service interval to monitor.   | Sample Number    |          | Client Info |           | PCA0056862  | PCA0035915  |          |
|   | Sample Date      |          | Client Info |           | 22 Nov 2022 | 02 Sep 2021 |          |
|   | Machine Age      | hrs      | Client Info |           | 2044        | 597         |          |
|   | Oil Age          | hrs      | Client Info |           | 651         | 597         |          |
|   | Filter Age       | hrs      | Client Info |           | 651         | 597         |          |
|   | Oil Changed      |          | Client Info |           | Changed     | Changed     |          |
|   | Filter Changed   |          | Client Info |           | Changed     | Changed     |          |
|   | Sample Status    |          |             |           | NORMAL      | NORMAL      |          |
| WEAR  | Iron             | ppm      | ASTM D5185m | >51       | 10          | 18          |          |
| All component wear rates are narmal   | Chromium         | ppm      | ASTM D5185m | >11       | <1          | <1          |          |
| All component wear rates are normal.  | Nickel           | ppm      | ASTM D5185m | >5        | <1          | 0           |          |
|   | Titanium         | ppm      | ASTM D5185m |           | <1          | 0           |          |
|   | Silver           | ppm      | ASTM D5185m | >3        | 0           | 2           |          |
|   | Aluminum         | ppm      | ASTM D5185m | >31       | 7           | 4           |          |
|   | Lead             | ppm      | ASTM D5185m | >26       | 2           | 1           |          |
|   | Copper           | ppm      | ASTM D5185m |           | 2           | 6           |          |
|   | Tin              | ppm      | ASTM D5185m | >4        | 2           | 3           |          |
|   | Vanadium         | ppm      | ASTM D5185m |           | <1          | <1          |          |
|   | White Metal      | scalar   | *Visual     | NONE      | NONE        | NONE        |          |
|   | Yellow Metal     | scalar   | *Visual     | NONE      | NONE        | NONE        |          |
| CONTAMINATION   | Silicon          | ppm      | ASTM D5185m | >22       | 4           | 12          |          |
|   | Potassium        | ppm      | ASTM D5185m | >20       | 2           | 3           |          |
| There is no indication of any contamination in the oil.   | Fuel             |          | WC Method   | >5        | <1.0        | <1.0        |          |
|   | Water            |          | WC Method   | >0.21     | NEG         | NEG         |          |
|   | Glycol           |          | WC Method   |           | NEG         | NEG         |          |
|   | Soot %           | %        | *ASTM D7844 | >3        | 0.4         | 0.2         |          |
|   | Nitration        | Abs/cm   | *ASTM D7624 | >20       | 7.3         | 7.6         |          |
|   | Sulfation        | Abs/.1mm | *ASTM D7415 | >30       | 18.0        | 16.3        |          |
|   | Silt             | scalar   | *Visual     | NONE      | NONE        | NONE        |          |
|   | Debris           | scalar   | *Visual     | NONE      | NONE        | NONE        |          |
|   | Sand/Dirt        | scalar   | *Visual     | NONE      | NONE        | NONE        |          |
|   | Appearance       | scalar   | *Visual     | NORML     | NORML       | NORML       |          |
|   | Odor             | scalar   | *Visual     | NORML     | NORML       | NORML       |          |
|   | Emulsified Water | scalar   | *Visual     | >0.21     | NEG         | NEG         |          |
| FLUID CONDITION   | Sodium           | ppm      | ASTM D5185m | >31       | 1           | 2           |          |
|   | Boron            | ppm      | ASTM D5185m | 1         | 3           | 189         |          |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium           | ppm      | ASTM D5185m |           | 4           | 0           |          |
|   | Molybdenum       | ppm      | ASTM D5185m | 60        | 48          | 4           |          |
|   | Manganese        | ppm      | ASTM D5185m |           | <1          | 3           |          |
|   | Magnesium        | ppm      | ASTM D5185m |           | 741         | 49          |          |
|   | Calcium          | ppm      | ASTM D5185m |           | 1218        | 2153        |          |
|   | Phosphorus       | ppm      | ASTM D5185m |           | 915         | 1005        |          |
|   | Zinc             | ppm      | ASTM D5185m |           | 1163        | 1200        |          |
|   | Sulfur           | ppm      | ASTM D5185m |           | 3275        | 2713        |          |
|   | Oxidation        | Abs/.1mm | *ASTM D7414 |           | 13.1        | 9.6         |          |
|   | Base Number (BN) |          | ASTM D2896  |           | 9.0         |             |          |
|   | Visc @ 100°C     | cSt      | ASTM D445   | 15.5      | 13.6        | 13.4        |          |





Certificate L2367

Laboratory Sample No. Lab Number

**Unique Number** 

: PCA0056862 : 05747716 : 10307320

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 24 Jan 2023 : 25 Jan 2023 Diagnosed Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

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. **JOHNSON DAVIS CONTRACTORS** 

604 HILBRATH DR LANTANA, FL US 33462

Contact: GENE GARDNER ggardner@johnsondavis.com T: (561)588-1170

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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