



# OIL ANALYSIS REPORT

|                 |          |
|-----------------|----------|
| WEAR            | NORMAL   |
| CONTAMINATION   | ABNORMAL |
| FLUID CONDITION | NORMAL   |



Machine Id  
**BELL B45E B93A645EK03007699**  
Component  
**Center Differential**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

## RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

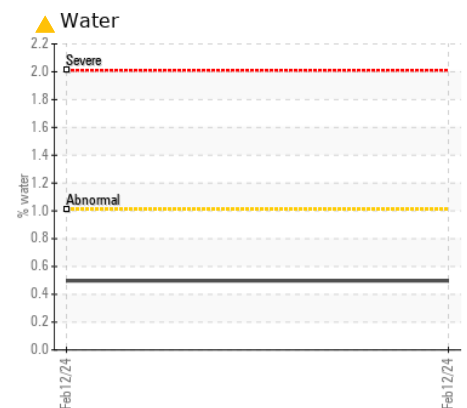
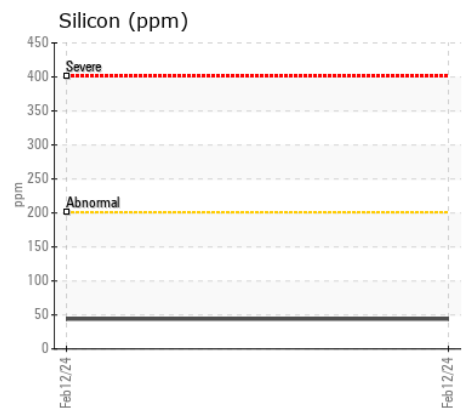
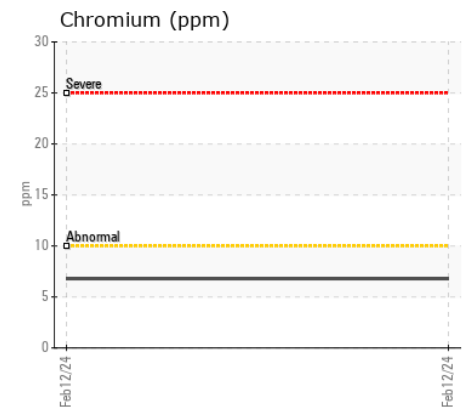
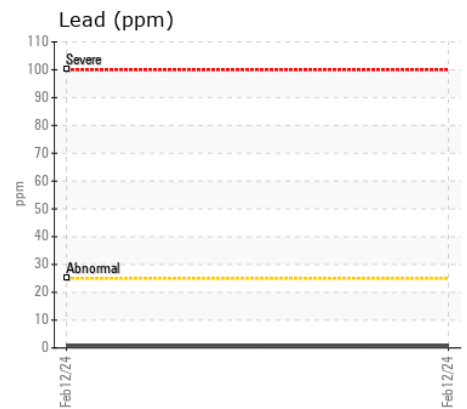
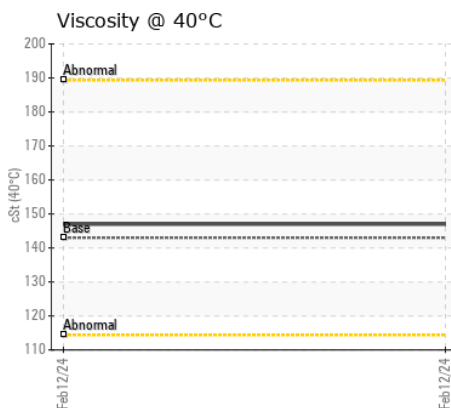
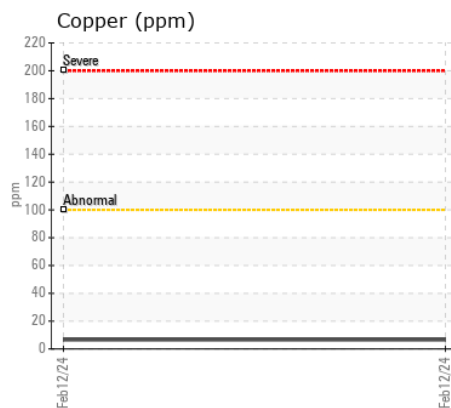
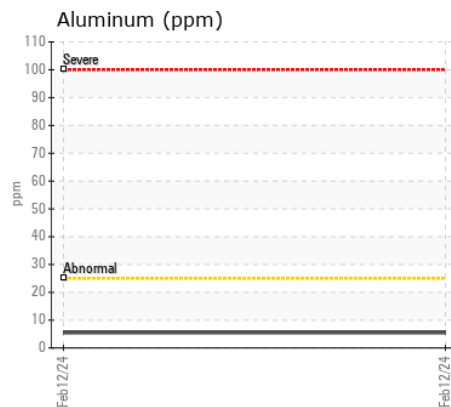
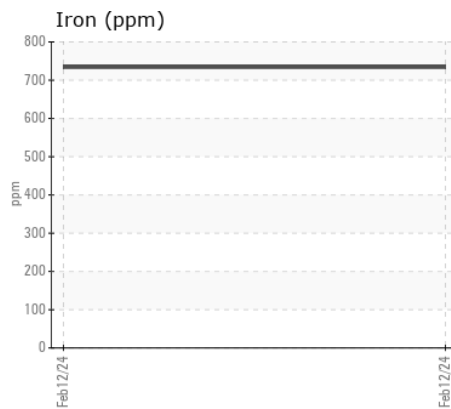
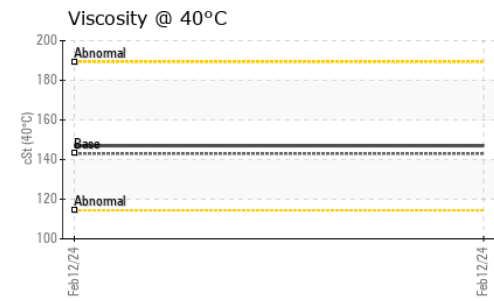
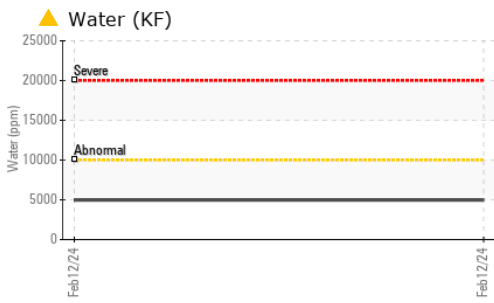
## CONTAMINATION

There is a moderate concentration of water present in the oil.

## FLUID CONDITION

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

| Test             | UOM    | Method      | Limit/Abn | Current     | History1 | History2 |
|------------------|--------|-------------|-----------|-------------|----------|----------|
| Sample Number    |        | Client Info |           | BE0003728   | ---      | ---      |
| Sample Date      |        | Client Info |           | 12 Feb 2024 | ---      | ---      |
| Machine Age      | hrs    | Client Info |           | 4170        | ---      | ---      |
| Oil Age          | hrs    | Client Info |           | 0           | ---      | ---      |
| Filter Age       | hrs    | Client Info |           | 0           | ---      | ---      |
| Oil Changed      |        | Client Info |           | Changed     | ---      | ---      |
| Filter Changed   |        | Client Info |           | Changed     | ---      | ---      |
| Sample Status    |        |             |           | ABNORMAL    | ---      | ---      |
| PQ               |        | ASTM D8184  | >3000     | 538         | ---      | ---      |
| Iron             | ppm    | ASTM D5185m | >HR:1=    | 734         | ---      | ---      |
| Chromium         | ppm    | ASTM D5185m | >10       | 7           | ---      | ---      |
| Nickel           | ppm    | ASTM D5185m | >10       | 8           | ---      | ---      |
| Titanium         | ppm    | ASTM D5185m |           | <1          | ---      | ---      |
| Silver           | ppm    | ASTM D5185m |           | 0           | ---      | ---      |
| Aluminum         | ppm    | ASTM D5185m | >25       | 6           | ---      | ---      |
| Lead             | ppm    | ASTM D5185m | >25       | <1          | ---      | ---      |
| Copper           | ppm    | ASTM D5185m | >100      | 7           | ---      | ---      |
| Tin              | ppm    | ASTM D5185m | >10       | <1          | ---      | ---      |
| Vanadium         | ppm    | ASTM D5185m |           | <1          | ---      | ---      |
| White Metal      | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Yellow Metal     | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Silicon          | ppm    | ASTM D5185m | >201      | 44          | ---      | ---      |
| Potassium        | ppm    | ASTM D5185m | >20       | 4           | ---      | ---      |
| Water            | %      | ASTM D6304  | >1.01     | ▲ 0.497     | ---      | ---      |
| ppm Water        | ppm    | ASTM D6304  | >10001    | ▲ 4970      | ---      | ---      |
| Silt             | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Debris           | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Sand/Dirt        | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Appearance       | scalar | *Visual     | NORML     | NORML       | ---      | ---      |
| Odor             | scalar | *Visual     | NORML     | NORML       | ---      | ---      |
| Emulsified Water | scalar | *Visual     | >1.01     | ▲ 0.2%      | ---      | ---      |
| Sodium           | ppm    | ASTM D5185m | >170      | 3           | ---      | ---      |
| Boron            | ppm    | ASTM D5185m | 400       | 6           | ---      | ---      |
| Barium           | ppm    | ASTM D5185m | 200       | 0           | ---      | ---      |
| Molybdenum       | ppm    | ASTM D5185m | 12        | 1           | ---      | ---      |
| Manganese        | ppm    | ASTM D5185m |           | 12          | ---      | ---      |
| Magnesium        | ppm    | ASTM D5185m | 12        | 17          | ---      | ---      |
| Calcium          | ppm    | ASTM D5185m | 150       | 43          | ---      | ---      |
| Phosphorus       | ppm    | ASTM D5185m | 1650      | 507         | ---      | ---      |
| Zinc             | ppm    | ASTM D5185m | 125       | 55          | ---      | ---      |
| Sulfur           | ppm    | ASTM D5185m | 22500     | 16626       | ---      | ---      |
| Visc @ 40°C      | cSt    | ASTM D445   | 143       | 147         | ---      | ---      |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : BE0003728 **Received** : 27 Feb 2024  
**Lab Number** : 06101982 **Tested** : 28 Feb 2024  
**Unique Number** : 10900212 **Diagnosed** : 29 Feb 2024 - Jonathan Hester  
**Test Package** : MOBCE ( Additional Tests: KF )

**Four Seasons Equipment Inc.**  
 8111 Mills Road  
 Houston, TX  
 US 77064  
 Contact: Vaughan Phillips  
 vphillips@fourseasons-equip.com  
 T: (800)234-5007  
 F:

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)