

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **EX-020** Component **Right Final Drive** Fluid **GEAR OIL SAE 80W90 (--- GAL)**

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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 oil viscosity is lower than normal. Confirm oil type.

| Sample Number | | Client Info | | WC0909350 | WC0705337 | WC0475635 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Sample Date | | Client Info | | 01 Apr 2024 | 24 Aug 2022 | 05 Oct 2020 |
| Machine Age | hrs | Client Info | | 3210 | 2222 | 1024 |
| Oil Age | hrs | Client Info | | 0 | 2222 | 1024 |
| Oil Changed | | Client Info | | N/A | Not Change | Not Change |
| Sample Status | | | | ATTENTION | SEVERE | NORMAI |
| Campie Otatas | | | | ATTENTION | OLVENE | NOTIWITE |
| CONTAMINATION | ۷ | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >500 | 386 | 1 642 | 45 |
| Chromium | ppm | ASTM D5185m | >10 | 3 | <u> </u> | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 1 | 3 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 6 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 47 | <1 |
| Lead | ppm | ASTM D5185m | >25 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >50 | <1 | 8 | <1 |
| Tin | maa | ASTM D5185m | >10 | <1 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | >5 | | | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | npm | ASTM D5185m | | 0 | 0 | 0 |
| Cualifian | ppiii | | | U | Ũ | Ũ |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 400 | 53 | 103 | 96 |
| Barium | ppm | ASTM D5185m | 200 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 12 | <1 | 2 | 2 |
| Manganese | ppm | ASTM D5185m | | 3 | 16 | <1 |
| Magnesium | ppm | ASTM D5185m | 12 | 5 | 10 | 15 |
| Calcium | ppm | ASTM D5185m | 150 | 50 | 339 | 352 |
| Phosphorus | ppm | ASTM D5185m | 1650 | 440 | 1290 | 904 |
| Zinc | ppm | ASTM D5185m | 125 | 52 | 174 | 182 |
| Sulfur | ppm | ASTM D5185m | | | | |
| | | AGTIM DOTOSIII | 22500 | 19160 | 25138 | 15023 |
| CONTAMINANTS | | method | 22500 limit/base | 19160 current | 25138 history1 | 15023 history2 |
| CONTAMINANTS Silicon | ppm | Method ASTM D5185m | 22500 limit/base >75 | 19160 current 18 | 25138 history1 ▲ 213 | 15023 history2 2 |
| CONTAMINANTS Silicon Sodium | ppm ppm | Method ASTM D5185m ASTM D5185m | 22500 limit/base >75 >170 | 19160 current 18 <1 | 25138 history1 ▲ 213 <1 | 15023 history2 2 <1 |
| CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | 22500 limit/base >75 >170 >20 | 19160 current 18 <1 <1 | 25138 history1 ▲ 213 <1 8 | 15023 history2 2 <1 <1 |
| CONTAMINANTS Silicon Sodium Potassium VISUAL | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m method | 22500 limit/base >75 >170 >20 limit/base | 19160 current 18 <1 <1 current | 25138 history1 ▲ 213 <1 8 history1 | 15023 history2 2 <1 <1 <1 history2 |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal | ppm ppm ppm scalar | method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual | 22500 limit/base >75 >170 >20 limit/base NONE | 19160 <u>current</u> 18 <1 <1 <u>current</u> NONE | 25138 history1 ▲ 213 <1 8 history1 MODER | 15023 history2 2 <1 <1 <1 history2 MODER |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal | ppm ppm ppm scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE | 19160 current 18 <1 <1 current NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE | 15023 history2 2 <1 <1 history2 MODER NONE |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate | ppm ppm ppm scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE | 15023 history2 2 <1 <1 <1 history2 MODER NONE NONE |
| CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt | ppm ppm ppm scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE | 15023 history2 2 <1 <1 <1 history2 MODER NONE NONE NONE |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris | ppm ppm ppm scalar scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE NONE NONE | 15023 history2 2 <1 <1 history2 MODER NONE NONE NONE NONE NONE |
| CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt | ppm ppm ppm scalar scalar scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE NONE NONE | 15023 history2 2 <1 <1 history2 MODER NONE NONE NONE NONE NONE NONE |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance | ppm ppm ppm scalar scalar scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE NONE NONE NONE NONE | 15023 history2 2 <1 <1 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor | ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE NONE NONE NONE NONE NONE | 15023 history2 2 <1 <1 MODER MODER NONE NONE NONE NONE NONE NONE NONE NO |
| CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water | ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar | method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 22500 limit/base >75 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE NORE N | 19160 current 18 <1 <1 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 25138 history1 ▲ 213 <1 8 history1 MODER NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 15023 history2 2 <1 <1 MODER MODER NONE NONE NONE NONE NONE NONE NONE NO |



OIL ANALYSIS REPORT



| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|---------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------|-------------|------------------|---------------------------------------------|
| Visc @ 40°C cSi | t ASTM D445 | 143 | 72.0 | 160 | 164 |
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
| Color | | | no image | no image | no image |
| Bottom | | | no image | no image | no image |
| GRAPHS | | | | | |
| Ferrous Alloys | Aug24/22 | April24 | | | |
| Viscosity @ 40°C | Aug24/22 | April24 | | | |
| Base Abnomal 3 100 60 40 | | | | | |
| : WearCheck USA - 501 Ma : WC0909350 R : 06147788 T : 10977866 D | dison Ave., Cary eceived : 12 ested : 15 iagnoced : 15 | /, NC 27513 2 Apr 2024 5 Apr 2024 | Baldridae | I 1811 | E.C. PACE CO. HOLLINS RD. ROANOKE, VA |



 Unique Number
 : 10977866
 Diagnosed
 : 16 Apr 2024 - Don Baldridge

 Centificate 12367
 Test Package
 : FLEET

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 Est

 * - 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)

E.C. PACE CO. 1811 HOLLINS RD. ROANOKE, VA US 24012 Contact: EDDIE SECO ESECO@ECPACE.COM T: (276)266-5849 2012) F: (540)343-6909

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Laboratory Sample No. Lab Number

Contact/Location: EDDIE SECO - ECPROA

Page 2 of 2