

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **T323** Component **Transmission (Auto)** Fluid **COGNIS EMGARD 2805 ATF (--- QTS)**

DIAGNOSIS

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.

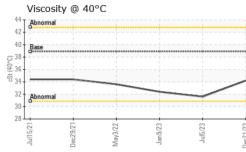
Fluid Condition

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

| SAMPLE INFORM | /IATION | method | | | | history2 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Number | | Client Info | | PCA0114726 | PCA0098188 | PCA0087424 |
| Sample Date | | Client Info | | 21 Dec 2023 | 05 Jul 2023 | 09 Jan 2023 |
| Machine Age | mls | Client Info | | 228416 | 228416 | 201103 |
| Oil Age | mls | Client Info | | 228416 | 228416 | 0 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINATI | ON | method | limit/base | current | history1 | history2 |
| Water | | WC Method | | NEG | NEG | NEG |
| WEAR METALS | 2 | method | | - | | history2 |
| | > | | limit/base | current | history1 | |
| Iron | ppm | ASTM D5185m | >160 | 30 | 51 | 31 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >50 | 12 | 18 | 10 |
| Lead | ppm | ASTM D5185m | >50 | 3 | 15 | 12 |
| Copper | ppm | ASTM D5185m | >225 | 9 | 21 | 13 |
| Tin | ppm | ASTM D5185m | >10 | 1 | 2 | 1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 80 | 90 | 89 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | | A OTH A DEVOE | | 0 | <1 | <1 |
| Molybdenum | ppm | ASTM D5185m | | 0 | | |
| • | ppm ppm | ASTM D5185m ASTM D5185m | | <1 | <1 | <1 |
| Manganese | | | | - | | |
| Manganese Magnesium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Manganese Magnesium Calcium | ppm ppm | ASTM D5185m ASTM D5185m | | <1 0 | <1 <1 | <1 <1 |
| Manganese Magnesium Calcium Phosphorus | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | <1 0 102 | <1 <1 125 | <1 <1 125 |
| Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 0 102 210 | <1 <1 125 232 | <1 <1 125 233 |
| Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | <1 0 102 210 0 | <1 <1 125 232 0 | <1 <1 125 233 0 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base >20 | <1 0 102 210 0 2194 | <1 <1 125 232 0 2096 | <1 <1 125 233 0 2118 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 0 102 210 0 2194 current | <1 <1 125 232 0 2096 history1 | <1 <1 125 233 0 2118 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 0 102 210 0 2194 current 4 | <1 <1 125 232 0 2096 history1 4 | <1 <1 125 233 0 2118 history2 4 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | >20 | <1 0 102 210 0 2194 current 4 2 | <1 <1 125 232 0 2096 history1 4 0 | <1 <1 125 233 0 2118 history2 4 4 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium VISUAL | ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >20 >20 | <1 0 102 210 0 2194 current 4 2 0 | <1 <1 125 232 0 2096 history1 4 0 2 | <1 <1 125 233 0 2118 history2 4 4 0 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal | ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >20 >20 limit/base | <1 0 102 210 0 2194 current 4 2 0 0 current | <1 <1 125 232 0 2096 history1 4 0 2 history1 | <1 <1 125 233 0 2118 history2 4 4 0 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m | >20 >20 limit/base NONE | <1 0 102 210 0 2194 current 4 2 0 0 current NONE | <1 <1 125 232 0 2096 history1 4 0 2 2 history1 NONE | <1 <1 125 233 0 2118 history2 4 4 4 0 history2 NONE |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Yisual | >20 >20 limit/base NONE NONE | <1 0 102 210 0 2194 current 4 2 0 0 current NONE NONE | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE | <1 <1 125 233 0 2118 history2 4 4 4 0 history2 NONE NONE NONE |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt | ppm ppm ppm ppm ppm ppm rS ppm ppm ppm ppm scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Yuisual *Visual *Visual | >20 >20 limit/base NONE NONE NONE | <1 0 102 210 0 2194 <i>current</i> 4 2 0 <i>current</i> NONE NONE NONE | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE NONE | <1 <1 125 233 0 2118 history2 4 4 4 0 history2 NONE NONE NONE NONE |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris | ppm ppm ppm ppm ppm ppm rS ppm ppm ppm ppm scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual | >20 >20 limit/base NONE NONE NONE NONE | <1 0 102 210 0 2194 current 4 2 0 current NONE NONE NONE NONE NONE | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE NONE NONE | <1 <1 125 233 0 2118 history2 4 4 4 0 history2 NONE NONE NONE NONE NONE NONE |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual | >20 >20 limit/base NONE NONE NONE NONE NONE | <1 0 102 210 0 2194 current 4 2 0 current NONE NONE NONE NONE NONE NONE NONE | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE NONE NONE NONE NONE | <1 <1125 233 0 2118 125 233 0 2118 13 14 0 14 0 14 0 10 10 10 10 10 10 10 10 10 10 10 10 1 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual | >20 >20 limit/base NONE NONE NONE NONE NONE | <1 0 102 210 0 2194 current 4 2 0 current NONE NONE NONE NONE NONE NONE NONE NON | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON | <1 <1 125 233 0 2118 history2 4 4 4 0 history2 NONE NONE NONE NONE NONE NONE NONE NON |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | >20 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE | <1 0 102 210 0 2194 current 4 2 0 current NONE NONE NONE NONE NONE NONE NONE NON | <1 <1 125 232 0 2096 history1 4 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NO | <1 <p><1</p> 125 233 0 2118 history2 4 4 4 0 history2 NONE NORML |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor | ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | >20 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NORML NORML | <1 0 102 210 0 2194 current 4 2 0 current NONE NONE NONE NONE NONE NONE NONE NON | <1 <1 125 232 0 2096 history1 4 0 2 history1 4 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON | <1 <1 125 233 0 2118 125 233 0 2118 13 14 4 4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |



OIL ANALYSIS REPORT



| | FLUID PRO | PERTIES | method | limit/base | current | history1 | history2 |
|---------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|----------|--------------------|-----------------------------------------|
| | Visc @ 40°C | cSt | ASTM D445 | 38.9 | 34.2 | 31.6 | 32.4 |
| | SAMPLE IM | AGES | method | limit/base | current | history1 | history2 |
| | Color | | | | no image | no image | no image |
| Jul5/23 Dec21/23 | Bottom | | | | no image | no image | no image |
| | CRAPHS Ferrous Alloys | Maq3122 | Jul5/23 | Dec21/23 | | | |
| | : WearCheck USA : PCA0114726 : 06050307 : 10816256 : FLEET contact Customer S | - 501 Madis Recieved Diagnose Diagnost ervice at 1-8 | son Ave., Ca I : 03 . ad : 04 . ician : Dor 00-237-1365 | ary, NC 2751 Jan 2024 Jan 2024 n Baldridge 9. | | (Contact: GEOR | NDENCE BLVD COLUMBIA, SC US 29210 |

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)

Certificate L2367

Т:

F: