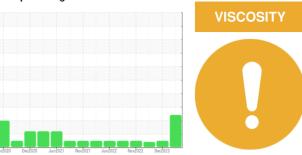


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

Component
Transmission (Auto)

Fluid

**COGNIS EMGARD 2805 ATF (36 hrs)** 

## 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 fluid.

### Fluid Condition

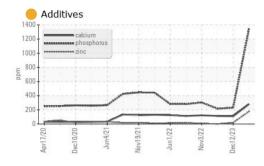
The fluid viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

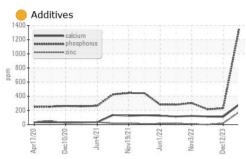
Machine Age mls Client Info			Aprizozo Di	eczozo Junzozi Nor	V2021 JUN2022 140V2022	0802023	
Company   Com	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Cample Date	Sample Number		Client Info		PCA0116106	PCA0114669	PCA0095660
Machine Age mls Client Info	Sample Date		Client Info		21 Apr 2024	12 Dec 2023	04 Apr 2023
Dil Changed   Client Info   N/A   Changed   ATTENTION   NORMAL   ABNORMAL   ABNORMAL	Machine Age	mls	Client Info		-	393890	
ATTENTION   NORMAL   ABNORMAL	Oil Age	mls	Client Info		0	75000	75000
ATTENTION   NORMAL   ABNORMAL	Oil Changed		Client Info		N/A	Changed	Not Changd
Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >160         19         58         28           Chromium         ppm         ASTM D5185m         >5         <1	Sample Status				ATTENTION		ABNORMAL
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM DS185m         >160         19         58         28           Chromium         ppm         ASTM DS185m         >5         <1         0         0           Nickel         ppm         ASTM DS185m         >5         0         0         0           Silver         ppm         ASTM DS185m         >5         0         0         0           Aluminum         ppm         ASTM DS185m         >50         0         17         8           Lead         ppm         ASTM DS185m         >50         0         9         6           Copper         ppm         ASTM DS185m         >50         0         9         6           Copper         ppm         ASTM DS185m         10         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <0         <0         <0         <0         <0         <0         <0         <0         <0         <0         <0         <0         <0         <0	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Water		WC Method	>0.1	NEG	NEG	NEG
Description	WEAR METAL	S	method	limit/base	current	history1	history2
ASTM D5185m   ASTM D5185m   D	Iron	ppm	ASTM D5185m	>160	19	58	28
Description	Chromium	ppm	ASTM D5185m	>5	<1	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0
Astrological Part   Astr	Titanium	ppm	ASTM D5185m		0	0	0
December   December	Silver	ppm	ASTM D5185m	>5	0	0	0
Description	Aluminum	ppm	ASTM D5185m	>50	0	17	8
Description	Lead		ASTM D5185m	>50	0	9	6
Vanadium         ppm         ASTM D5185m         0         <1	Copper	ppm	ASTM D5185m	>225	2	44	20
Vanadium         ppm         ASTM D5185m         0         <1	Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         260         84         91           Barium         ppm         ASTM D5185m         1         0         0           Molybdenum         ppm         ASTM D5185m         11         0         0           Manganese         ppm         ASTM D5185m         2         <1         <1           Magnesium         ppm         ASTM D5185m         280         110         113           Phosphorus         ppm         ASTM D5185m         1339         230         216           Zinc         ppm         ASTM D5185m         176         19         0           Zinc         ppm         ASTM D5185m         25531         1723         1471           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         1 <td< th=""><th>Vanadium</th><th></th><th>ASTM D5185m</th><th></th><th>0</th><th>&lt;1</th><th>0</th></td<>	Vanadium		ASTM D5185m		0	<1	0
Description	Cadmium		ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         11         0         0           Manganese         ppm         ASTM D5185m         2         <1         <1           Magnesium         ppm         ASTM D5185m         69         0         2           Calcium         ppm         ASTM D5185m         280         110         113           Phosphorus         ppm         ASTM D5185m         1339         230         216           Zinc         ppm         ASTM D5185m         176         19         0           Sulfur         ppm         ASTM D5185m         25531         1723         1471           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         4         4         3           Potassium         ppm         ASTM D5185m         >20         0         0         0           Wite All         scalar         "	Boron	ppm	ASTM D5185m		<b>260</b>	84	91
Manganese         ppm         ASTM D5185m         2         <1	Barium	ppm	ASTM D5185m		1	0	0
Magnesium         ppm         ASTM D5185m         69         0         2           Calcium         ppm         ASTM D5185m         280         110         113           Phosphorus         ppm         ASTM D5185m         1339         230         216           Zinc         ppm         ASTM D5185m         176         19         0           Sulfur         ppm         ASTM D5185m         25531         1723         1471           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         0         0         0           Sodium         ppm         ASTM D5185m         >20         0         0         0           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE	Molybdenum	ppm	ASTM D5185m		11	0	0
Calcium         ppm         ASTM D5185m         280         110         113           Phosphorus         ppm         ASTM D5185m         1339         230         216           Zinc         ppm         ASTM D5185m         176         19         0           Sulfur         ppm         ASTM D5185m         25531         1723         1471           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         0         0         0           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE           Poebris         scalar </th <th>Manganese</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>2</th> <th>&lt;1</th> <th>&lt;1</th>	Manganese	ppm	ASTM D5185m		2	<1	<1
Phosphorus         ppm         ASTM D5185m         1339         230         216           Zinc         ppm         ASTM D5185m         176         19         0           Sulfur         ppm         ASTM D5185m         25531         1723         1471           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         0         0         0           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Poebris         scalar         *Visual         NONE         NONE         NONE         NONE           Poebris         scalar         *Visual         NONE         NONE         NONE	Magnesium	ppm	ASTM D5185m		<b>69</b>	0	2
25   25   25   25   25   25   25   25	Calcium	ppm	ASTM D5185m		280	110	113
CONTAMINANTS method limit/base current history1 history2  Silicon ppm ASTM D5185m >20 4 4 3  Sodium ppm ASTM D5185m >20 0 0 0 0  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Scalar *Visual NONE NONE NONE NONE  Scand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Ddor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Phosphorus	ppm	ASTM D5185m		<b>1339</b>	230	216
CONTAMINANTS method limit/base current history1 history2  Silicon ppm ASTM D5185m >20 4 4 4 3  Sodium ppm ASTM D5185m   1 6 4  Potassium ppm ASTM D5185m   20 0 0 0 0  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Scand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Ddor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Zinc	ppm	ASTM D5185m		<b>176</b>	19	0
Silicon	Sulfur	ppm	ASTM D5185m		_ 25531	1723	1471
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 0 0  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Silicon	ppm	ASTM D5185m	>20	4	4	3
VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Odor scalar *Visual NORML NORML NORML NORML Demulsified Water scalar *Visual >0.1 NEG NEG NEG	Sodium	ppm	ASTM D5185m		1	6	4
White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Dedor scalar *Visual NORML NORML NORML NORML Demulsified Water scalar *Visual >0.1 NEG NEG NEG	Potassium	ppm	ASTM D5185m	>20	0	0	0
Yellow Metal     scalar     *Visual     NONE     NONE     NONE     NONE       Precipitate     scalar     *Visual     NONE     NONE     NONE     NONE       Silt     scalar     *Visual     NONE     NONE     NONE     NONE       Debris     scalar     *Visual     NONE     NONE     NONE     NONE       Sand/Dirt     scalar     *Visual     NONE     NONE     NONE     NONE       Appearance     scalar     *Visual     NORML     NORML     NORML     NORML     NORML       Ddor     scalar     *Visual     NORML     NORML     NORML     NORML     NORML       Emulsified Water     scalar     *Visual     >0.1     NEG     NEG     NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE MODER Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris     scalar     *Visual     NONE     NONE     NONE     MODER       Sand/Dirt     scalar     *Visual     NONE     NONE     NONE     NONE       Appearance     scalar     *Visual     NORML     NEG     NEG     NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG

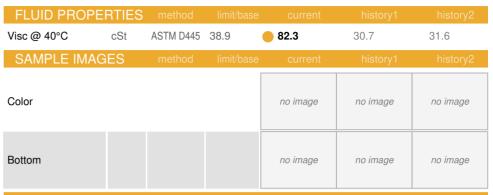
Submitted By: Paul Riddick



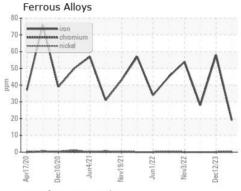
# **OIL ANALYSIS REPORT**

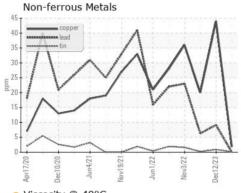


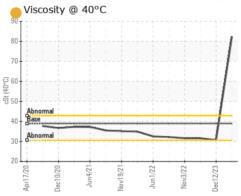




### **GRAPHS**









Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0116106 Lab Number : 06156309 Unique Number : 10991732

Received **Tested** Diagnosed

: 22 Apr 2024 : 23 Apr 2024 : 24 Apr 2024 - Sean Felton

100 INDEPENDENCE BLVD COLUMBIA, SC

NW WHITE & CO - SPECIAL SERVICE DIVISION

US 29210 Contact: George Edwards

Test Package : FLEET Certificate 12367 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)

Report Id: NWWSSC [WUSCAR] 06156309 (Generated: 04/24/2024 16:43:12) Rev: 1

Submitted By: Paul Riddick

gedwards@nwwhite.com

T:

F: