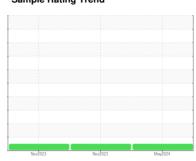


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

928093-260350

Component Transmission (Auto)

{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

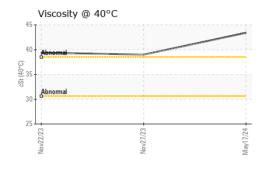
Fluid Condition

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

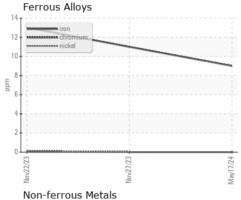
Client Info		NovZUZ3 NovZUZ3 MayZUZ4						
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age hrs Client Info 14243 0 13364 Oil Age hrs Client Info 0 0 0 0 Oil Changed hrs Client Info N/A Not Changd N/A Sample Status NoRMAL NORMAL NORMAL NORMAL CONTAMINATION method Imit base current history1 history2 Wear WC Method >0.1 NEG NEG NEG WEAR METALS method Imit base current history1 history2 Iron ppm ASTM 05185m >5 0 0 <1 Ohromium ppm ASTM 05185m >5 0 0 <1 Nickel ppm ASTM 05185m >5 0 0 0 Chromium ppm ASTM 05185m >5 0 0 0 Itanium ppm ASTM 05185m >5 0 0 0 Allegate	Sample Number		Client Info		GFL0122813	GFL0098589	GFL0098593	
Machine Age hrs Client Info 14243 0 13364 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A Not Changd N/A Sample Status Normal NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >5 0 0 <1 Iron ppm ASTM D5185m >5 0 0 <1 Vickel ppm ASTM D5185m >5 0 0 0 Chromium ppm ASTM D5185m >5 0 0 0 Itanium ppm ASTM D5185m >5 0 0 0 1 Copper	Sample Date		Client Info		17 May 2024	27 Nov 2023	22 Nov 2023	
Oil Changed Client Info N/A NORMAL NOR	Machine Age	hrs	Client Info		-	0	13364	
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2	Oil Age	hrs	Client Info		0	0	0	
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2	Oil Changed		Client Info		N/A	Not Changd	N/A	
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >160 9 11 13 Chromium ppm ASTM D5185m >5 0 0 <1 Nickel ppm ASTM D5185m >5 0 0 0 Silver ppm ASTM D5185m >5 0 0 0 Silver ppm ASTM D5185m >50 0 0 0 Adding ASTM D5185m >50 0 0 0 1 Lead ppm ASTM D5185m >50 0 0 0 1 Lead ppm ASTM D5185m >50 0 0 0 1 Lead ppm ASTM D5185m >50 0 0 0 1 Copper ppm ASTM D5185m >10 0	Sample Status				NORMAL	NORMAL	NORMAL	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >=160 9 11 13 Chromium ppm ASTM D5185m >=5 0 0 <=1	CONTAMINAT	ION	method	limit/base	current	history1	history2	
Description	Water		WC Method	>0.1	NEG	NEG	NEG	
Chromium ppm ASTM D5185m >5 0 0 <1 Nickel ppm ASTM D5185m >5 0 0 0 Tittanium ppm ASTM D5185m >5 0 0 0 Siliver ppm ASTM D5185m >50 <1	WEAR METAL	S	method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>160	9	11	13	
Description	Chromium	ppm	ASTM D5185m	>5	0	0	<1	
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0	
ASTM D5185m SO	Titanium	ppm	ASTM D5185m		0	0	0	
Aluminum	Silver	ppm	ASTM D5185m	>5	0	0	0	
Copper ppm ASTM D5185m >225 2 3 4 Tin ppm ASTM D5185m >10 0 0 <1	Aluminum	ppm	ASTM D5185m	>50	<1	2	2	
Copper ppm ASTM D5185m >22.5 2 3 4 Tin ppm ASTM D5185m >10 0 0 <1	Lead		ASTM D5185m	>50	0	0	<1	
Tin	Copper		ASTM D5185m	>225	2	3	4	
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 9 34 28 Barium ppm ASTM D5185m 0 0 0 2 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 11 12 15 Calcium ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 20 1 3 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m	Tin				0		<1	
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 9 34 28 Barium ppm ASTM D5185m 0 0 2 Molybdenum ppm ASTM D5185m 0 0 0 2 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 11 12 15 Calcium ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >	Vanadium							
Boron	Cadmium				-			
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m <1 <1 2 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 11 12 15 Calcium ppm ASTM D5185m 112 111 127 Phosphorus ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 1 4 0 Potassium ppm ASTM D5185m >20 1 4 0 Potassium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base	Boron	ppm	ASTM D5185m		9	34	28	
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 11 12 15 Calcium ppm ASTM D5185m 112 111 127 Phosphorus ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 1 4 0 Potassium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE	Barium	ppm	ASTM D5185m		0	0	2	
Magnesium ppm ASTM D5185m 11 12 15 Calcium ppm ASTM D5185m 112 111 127 Phosphorus ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NO	Molybdenum	ppm	ASTM D5185m		<1	<1	2	
Calcium ppm ASTM D5185m 112 111 127 Phosphorus ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 1 3 2 Sodium ppm ASTM D5185m 20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Visual NONE	Manganese	ppm	ASTM D5185m		0	0	0	
Phosphorus ppm ASTM D5185m 341 294 324 Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silit scalar *Visual NONE NONE NONE NONE NONE Debris	Magnesium	ppm	ASTM D5185m		11	12	15	
Zinc ppm ASTM D5185m 379 261 282 Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 1 Potassium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Vellow 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	Calcium	ppm	ASTM D5185m		112	111	127	
Sulfur ppm ASTM D5185m 1498 1224 1768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 1 Potassium ppm ASTM D5185m >20 0 14 1 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 Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NORML NORM	Phosphorus	ppm	ASTM D5185m		341	294	324	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 0 Potassium ppm ASTM D5185m >20 0 14 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML Appearance	Zinc	ppm	ASTM D5185m		379	261	282	
Silicon ppm ASTM D5185m >20 1 3 2 Sodium ppm ASTM D5185m >20 0 14 0 Potassium ppm ASTM D5185m >20 0 14 1 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 NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Odor scalar <td>Sulfur</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>1498</th> <td>1224</td> <td>1768</td>	Sulfur	ppm	ASTM D5185m		1498	1224	1768	
Sodium ppm ASTM D5185m 1 4 0 Potassium ppm ASTM D5185m >20 0 14 1 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 NORML NORML </th <th>CONTAMINAN</th> <th>TS</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAN	TS	method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 0 14 1 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 LIGHT 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 Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Silicon	ppm	ASTM D5185m	>20	1	3	2	
Potassium ppm ASTM D5185m >20 0 14 1 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 LIGHT NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Sodium	ppm	ASTM D5185m		1	4	0	
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 LIGHT NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Potassium	ppm	ASTM D5185m	>20	0	14	1	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONELIGHTNONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2	
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE LIGHT NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Silt scalar *Visual NONE NONE LIGHT NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Silt	scalar	*Visual	NONE	NONE	LIGHT	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Appearance	scalar		NORML	NORML	NORML	NORML	
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water			>0.1		NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	

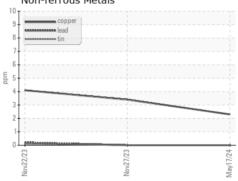


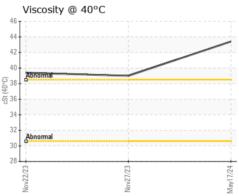
OIL ANALYSIS REPORT



FLUID PROF	PERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		43.4	39.0	39.4
SAMPLE IMA	AGES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image









Certificate 12367

Laboratory

Sample No. : GFL0122813 Lab Number : 06186591 Unique Number : 11043343

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 May 2024

Tested : 22 May 2024 Diagnosed : 23 May 2024 - Jonathan Hester

GFL Environmental - 837 - Harrison TS

22820 S State Route 291 Harrisonville, MO US 64701

Contact: SARA PATRICK spatrick@gflenv.com

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: GFL837 [WUSCAR] 06186591 (Generated: 05/23/2024 13:59:32) Rev: 1

Submitted By: JEREMY BROWN

T:

F: