

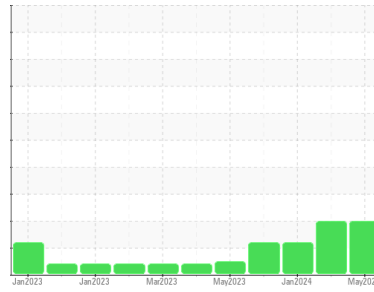


# OIL ANALYSIS REPORT



Area  
**(62A0X0D) TALLASSEE**  
 Machine Id  
**425027-345507**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- LTR)**

Sample Rating Trend



## DIAGNOSIS

- Recommendation**  
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.
- Wear**  
Aluminum ppm levels are abnormal. Piston wear is indicated.
- Contamination**  
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.
- Fluid Condition**  
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0088605</b>	GFL0080699	GFL0081857
Sample Date	Client Info	<b>20 May 2024</b>	11 Apr 2024	25 Jan 2024
Machine Age	hrs	<b>13106</b>	17874	17584
Oil Age	hrs	<b>13106</b>	1305	1015
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	<b>38</b>	29	20
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>▲ 24</b>	▲ 22	15
Lead	ppm ASTM D5185m >40	<b>1</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>7</b>	6	4
Tin	ppm ASTM D5185m >15	<b>1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>4</b>	1	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 0	<b>68</b>	61	62
Manganese	ppm ASTM D5185m	<b>1</b>	<1	<1
Magnesium	ppm ASTM D5185m 0	<b>834</b>	735	794
Calcium	ppm ASTM D5185m	<b>1104</b>	1071	1048
Phosphorus	ppm ASTM D5185m	<b>897</b>	787	837
Zinc	ppm ASTM D5185m	<b>1111</b>	1003	1109
Sulfur	ppm ASTM D5185m	<b>2969</b>	2849	2843

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>13</b>	11	10
Sodium	ppm ASTM D5185m	<b>7</b>	9	4
Potassium	ppm ASTM D5185m >20	<b>1</b>	21	4
Fuel	% ASTM D3524 >3.0	<b>▲ 3.9</b>	▲ 4.3	▲ 3.5

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>1.4</b>	1.3	1
Nitration	Abs/cm *ASTM D7624 >20	<b>12.3</b>	12.2	11.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>24.4</b>	24.5	21.9

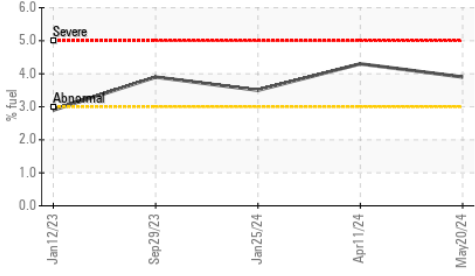
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.3</b>	18.0	16.3
Base Number (BN)	mg KOH/g ASTM D2896 9.4	<b>5.4</b>	4.2	4.8

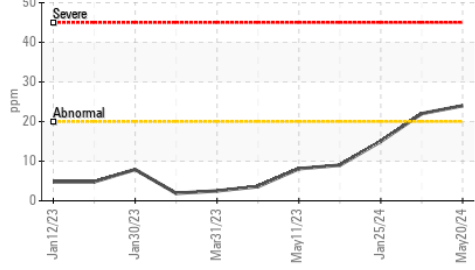


# OIL ANALYSIS REPORT

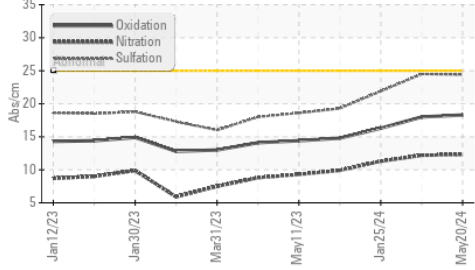
### ▲ Fuel Dilution



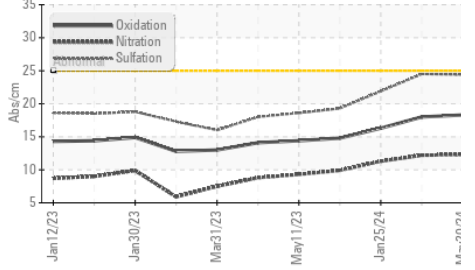
### ▲ Aluminum (ppm)



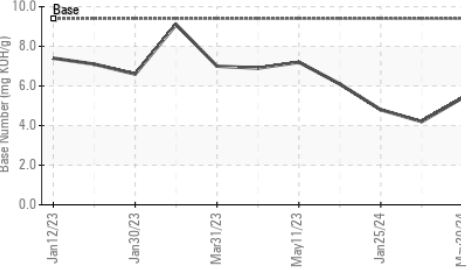
### ▲ FT-IR (Direct Trend)



### ▲ FT-IR (Direct Trend)



### ▲ Base Number

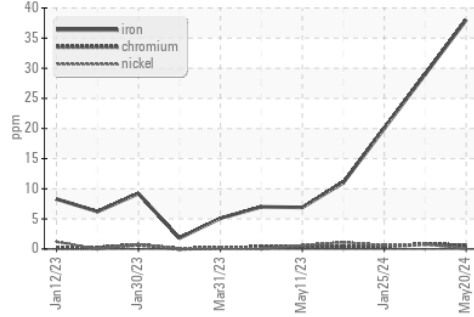


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

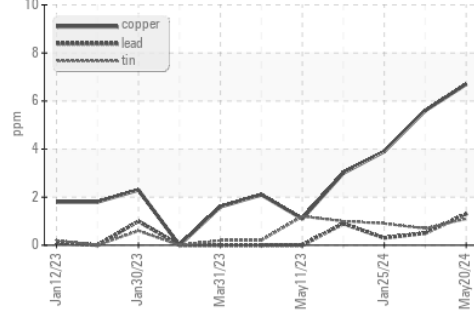
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.9	▲ 11.6

### GRAPHS

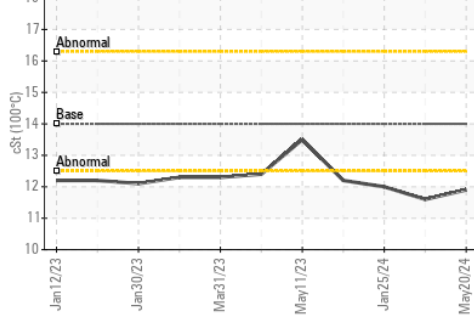
#### Ferrous Alloys



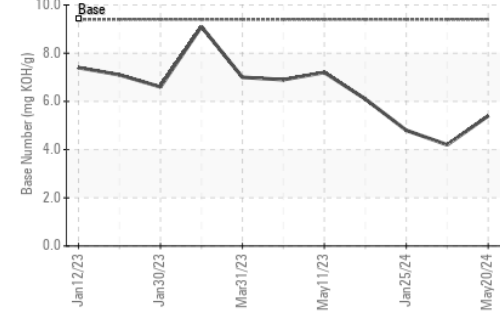
#### Non-ferrous Metals



### ▲ Viscosity @ 100°C



#### Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0088605      **Received** : 21 May 2024  
**Lab Number** : 06187175      **Tested** : 24 May 2024  
**Unique Number** : 11043927      **Diagnosed** : 24 May 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
 Contact: RICHARD HATFIELD  
 rhatfield@gflenv.com

Certificate L2367  
 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)