

## **OIL ANALYSIS REPORT**

Sample Rating Trend





834012 Component Natural Gas Engine Fluid NOT GIVEN (--- GAL)

### DIAGNOSIS Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

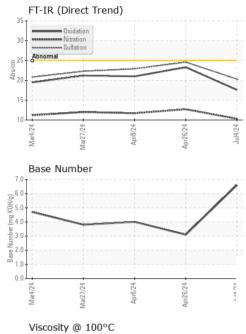
#### Fluid Condition

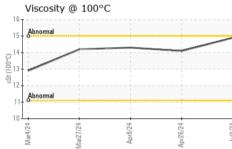
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0127215	GFL0116607	GFL0116555
Sample Date		Client Info		04 Jul 2024	26 Apr 2024	08 Apr 2024
Machine Age	hrs	Client Info		1386	760	603
Oil Age	hrs	Client Info		1386	760	603
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	12	63	55
Chromium	ppm	ASTM D5185m	>4	1	<1	2
Nickel	ppm	ASTM D5185m	>2	<1	2	2
Titanium	ppm	ASTM D5185m		1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>9	3	3	3
Lead	ppm	ASTM D5185m	>30	<1	2	2
Copper	ppm	ASTM D5185m	>35	3	20	20
Tin	ppm	ASTM D5185m	>4	1	2	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Deven		ACTM DE10Em		15	6	6
Boron	ppm	ASTM D5185m		15	0	0
Boron Barium	ppm ppm	ASTM D5185m		0	2	4
				-		
Barium	ppm	ASTM D5185m		0	2	4
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 53	2 54	4 51
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 53 2	2 54 18	4 51 18
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 2 624 1636 803	2 54 18 759	4 51 18 747
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 2 624 1636	2 54 18 759 1210	4 51 18 747 1235
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 2 624 1636 803	2 54 18 759 1210 741	4 51 18 747 1235 712
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 53 2 624 1636 803 1041	2 54 18 759 1210 741 933	4 51 18 747 1235 712 916
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 2 624 1636 803 1041 2554	2 54 18 759 1210 741 933 2411	4 51 18 747 1235 712 916 2488
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>+100	0 53 2 624 1636 803 1041 2554 current	2 54 18 759 1210 741 933 2411 history1	4 51 18 747 1235 712 916 2488 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>+100	0 53 2 624 1636 803 1041 2554 current 7	2 54 18 759 1210 741 933 2411 history1 30	4 51 18 747 1235 712 916 2488 history2 32
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>+100	0 53 2 624 1636 803 1041 2554 current 7 7 7	2 54 18 759 1210 741 933 2411 history1 30 5	4 51 18 747 1235 712 916 2488 history2 32 5
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	>+100 >20	0 53 2 624 1636 803 1041 2554 current 7 7 7 4	2 54 18 759 1210 741 933 2411 <b>history1</b> 30 5 4	4 51 18 747 1235 712 916 2488 history2 32 5 4
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base	0 53 2 624 1636 803 1041 2554 <i>current</i> 7 7 7 4	2 54 18 759 1210 741 933 2411 history1 30 5 4 4 history1	4 51 18 747 1235 712 916 2488 history2 32 5 4 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base	0 53 2 624 1636 803 1041 2554 <i>current</i> 7 7 7 4 <i>current</i> 0	2 54 18 759 1210 741 933 2411 history1 30 5 4 4 history1 0	4 51 18 747 1235 712 916 2488 history2 32 5 4 4 history2 0.1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base >20	0 53 2 624 1636 803 1041 2554 <u>current</u> 7 7 4 <u>current</u> 0 10.3	2 54 18 759 1210 741 933 2411 <b>history1</b> 30 5 4 <b>history1</b> 0 12.7	4 51 18 747 1235 712 916 2488 history2 32 5 4 4 history2 0.1 11.7
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base >20 >30	0 53 2 624 1636 803 1041 2554 <u>current</u> 7 7 7 4 <u>current</u> 0 10.3 20.3	2 54 18 759 1210 741 933 2411 history1 30 5 4 4 history1 0 12.7 24.6	4 51 18 747 1235 712 916 2488 history2 32 5 4 4 history2 0.1 11.7 22.9
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAC	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	>+100 >20 limit/base >20 >30 limit/base	0 53 2 624 1636 803 1041 2554 <i>current</i> 7 7 7 4 <i>current</i> 0 10.3 20.3 <i>current</i>	2 54 18 759 1210 741 933 2411 <b>history1</b> 30 5 4 <b>history1</b> 0 12.7 24.6 <b>history1</b>	4 51 18 747 1235 712 916 2488 history2 32 5 4 4 history2 0.1 11.7 22.9 history2

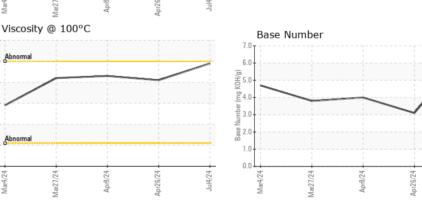


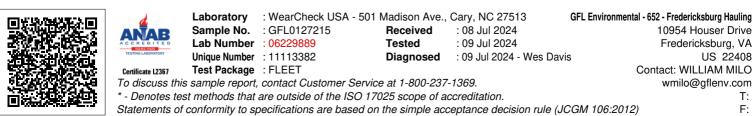
# **OIL ANALYSIS REPORT**





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	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		14.9	14.1	14.3
GRAPHS						
40 30 20 10 0 0 +22 +22 +22 +22 +22 +22 +22 +22 +2	Apr8/24	Apr26/24	42/Hinc			
Non-ferrous Meta	ls					
copper						
20 tin						
15		$\sim$				
10						
5-						





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