

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Area (4827UA) 834031

Natural Gas Engine Fluid

{not provided} (--- 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.

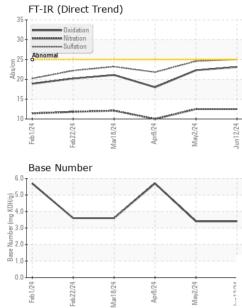
#### Fluid Condition

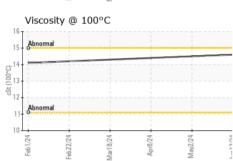
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0116547	GFL0116605	GFL0111882
Sample Date		Client Info		12 Jun 2024	02 May 2024	08 Apr 2024
Machine Age	hrs	Client Info		1207	929	759
Oil Age	hrs	Client Info		1207	929	759
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	44	42	41
Chromium	ppm	ASTM D5185m	>4	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>9	2	2	3
Lead	ppm	ASTM D5185m	>30	2	0	2
Copper	ppm	ASTM D5185m	>35	14	16	17
Tin	ppm	ASTM D5185m	>4	<1	<1	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method				history2
//DDIIIVE0		method	IIIII/Dase	current	history1	TIIStory2
Boron	ppm	ASTM D5185m	iiiii/base	7	5	2
	ppm ppm		inni/base		5 2	
Boron		ASTM D5185m	IIIII/Jase	7 2 59	5	2
Boron Barium	ppm	ASTM D5185m ASTM D5185m	IIIII/Jase	7 2	5 2	2 5 52 12
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		7 2 59	5 2 55	2 5 52 12 780
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 2 59 11 742 1390	5 2 55 12 794 1343	2 5 52 12 780 1289
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 2 59 11 742 1390 721	5 2 55 12 794 1343 721	2 5 52 12 780 1289 733
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 2 59 11 742 1390 721 1024	5 2 55 12 794 1343 721 941	2 5 52 12 780 1289 733 954
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 2 59 11 742 1390 721	5 2 55 12 794 1343 721	2 5 52 12 780 1289 733
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	7 2 59 11 742 1390 721 1024	5 2 55 12 794 1343 721 941	2 5 52 12 780 1289 733 954
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	7 2 59 11 742 1390 721 1024 2569	5 2 55 12 794 1343 721 941 2599	2 5 52 12 780 1289 733 954 2628
Boron 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	limit/base	7 2 59 11 742 1390 721 1024 2569 current	5 2 55 12 794 1343 721 941 2599 history1	2 5 52 12 780 1289 733 954 2628 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >+100	7 2 59 11 742 1390 721 1024 2569 current 25	5 2 55 12 794 1343 721 941 2599 history1 31	2 5 52 12 780 1289 733 954 2628 history2 31
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >+100	7 2 59 11 742 1390 721 1024 2569 current 25 5	5 2 55 12 794 1343 721 941 2599 history1 31 4	2 5 52 12 780 1289 733 954 2628 <b>history2</b> 31 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20	7 2 59 11 742 1390 721 1024 2569 current 25 5 3	5 2 55 12 794 1343 721 941 2599 history1 31 4 2	2 5 52 12 780 1289 733 954 2628 history2 31 5 5 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	7 2 59 11 742 1390 721 1024 2569 current 25 5 3 3 current	5 2 55 12 794 1343 721 941 2599 history1 31 4 2 2 history1	2 5 52 12 780 1289 733 954 2628 history2 31 5 5 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	7 2 59 11 742 1390 721 1024 2569 current 25 5 3 3 current 0	5 2 55 12 794 1343 721 941 2599 history1 31 4 2 2 history1 0	2 5 52 12 780 1289 733 954 2628 history2 31 5 5 5 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm rS ppm ppm ppm ppm spm ppm ppm spm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base >20	7 2 59 11 742 1390 721 1024 2569 <i>current</i> 25 5 3 <i>current</i> 0 12.5	5 2 55 12 794 1343 721 941 2599 history1 31 4 2 2 history1 0 12.5	2 5 52 12 780 1289 733 954 2628 history2 31 5 5 5 history2 0.4 10.0
Boron 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 rS ppm ppm ppm ppm spm ppm ppm spm	ASTM D5185m ASTM D5185m	limit/base >+100 ≥20 limit/base >20 ≥20 ≥30	7 2 59 11 742 1390 721 1024 2569 current 25 5 3 3 current 0 12.5 25.0	5 2 55 12 794 1343 721 941 2599 history1 31 4 2 2 history1 0 12.5 24.6	2 5 52 12 780 1289 733 954 2628 <b>history2</b> 31 5 5 5 <b>history2</b> 0.4 10.0 21.8



# **OIL ANALYSIS REPORT**





nd)		VISUAL		method	limit/base	current	history1	history2	
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
State of the Owner		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
$\sim$		Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
State and the second state of the second state	********	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Mar1 8/24 Apr8/24	May2/24 Jun12/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
A	Jun Jun	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
		Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG	
$\wedge$		Free Water	scalar	*Visual		NEG	NEG	NEG	
$/ \setminus$		FLUID PROPE	ERTIES	method	limit/base	current	history1	history2	
		Visc @ 100°C	cSt	ASTM D445		14.6	14.5	14.4	
		GRAPHS							
		Ferrous Alloys							
Mar 1 0/24 + Apr8/24 +	May2/24 -	40 - iron chromium							
Apr	May	35 nickel							
				1					
		E 25							
		15							
		10-		1					
		0		and a discovered and her passed in the					
			Mari 0/24 - Apr8/24 -	May2/24 -	Jun12/24 .				
		Feb2	Api	May	Jun				
4		Non-ferrous Meta	ls						
Apr8/24	May2/24	20 copper							
	2	15 - tin							
		톨 10 -							
		5-							
			TAXABLE AND ADDRESS	No. of a local distance of the local distanc	Contraction of the local division of the loc				
		24 0 24	/24-	24	24				
		Feb 1/24 Feb 22/24	Mar10/24 Apr8/24	May2/24	Jun 12/2				
		Viscosity @ 100°			_,	Base Number			
		16	· · · · · · · · · · · · · · · · · · ·	1	6.				
	15 - Abnormal			5.					
	14-			(B/HO			$\backslash$		
		(Ĵ) 00[] 75			g K		_		
		113- ts3			(B/HO) Bull Base Base Number 1	D			
		12			N 2.	D			
		11- Abnormal							
		10			0.				
		Feb 1/24 Feb 22/24	Mar 1 0/24 Apr8/24	May2/24	Jun12/24	Feb 1/24 Feb 22/24	Mar18/24 Apr8/24	May2/24	
		Feb.	Ap	Mar	Jun	Febź	Mar	Ma	
4	Laboratory	: WearCheck USA - 50			, Cary, NC 27513 GFL Env : 14 Jun 2024 : 18 Jun 2024		vironmental - 652 - Fredericksburg Hauling 10954 Houser Drive Fredericksburg, VA		
ANAB	Sample No. Lab Number	: GFL0116547 : 06211021	Recei Teste						
TESTING LABORATORY	Unique Number	: 11083885	Diagr		: 18 Jun 2024 - Wes Davis		US 22408		
Certificate L2367	Test Package	: FLEET	Ũ	-			Contact: WILLIAM MILC		
		contact Customer Serv					wmi	lo@gflenv.com	
		are outside of the ISO a pecifications are based				rule (JCGM 106	5:201 <i>2</i> )	T: F:	
	, -i						,		

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Submitted By: TECHNICIAN ACCOUNT

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