

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

434026 Component 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

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

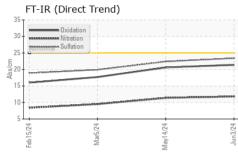
Fluid Condition

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

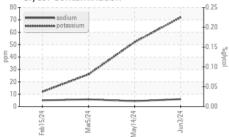
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0122071	GFL0116543	GFL0111855
Sample Date		Client Info		03 Jun 2024	14 May 2024	05 Mar 2024
Machine Age	hrs	Client Info		928	801	313
Oil Age	hrs	Client Info		928	801	313
Oil Changed		Client Info		Not Changd	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	33	33	30
Chromium	ppm	ASTM D5185m	>4	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	13	10	6
Lead	ppm	ASTM D5185m	>30	4	2	<1
Copper	ppm	ASTM D5185m	>35	12	10	9
Tin	ppm	ASTM D5185m	>4	2	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		15	6	38
	ppm ppm					
Boron		ASTM D5185m		15	6	38
Boron Barium	ppm	ASTM D5185m ASTM D5185m		15 7	6 7	38 6
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		15 7 55	6 7 51	38 6 54
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 7 55 4	6 7 51 4	38 6 54 4
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 7 55 4 766	6 7 51 4 833	38 6 54 4 762
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 7 55 4 766 1195	6 7 51 4 833 1281	38 6 54 4 762 1194
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 ASTM D5185m		15 7 55 4 766 1195 715	6 7 51 4 833 1281 686	38 6 54 4 762 1194 672
Boron 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 ASTM D5185m	limit/base	15 7 55 4 766 1195 715 869	6 7 51 4 833 1281 686 947	38 6 54 4 762 1194 672 830
Boron 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 ASTM D5185m	limit/base	15 7 55 4 766 1195 715 869 2477	6 7 51 4 833 1281 686 947 2766	38 6 54 4 762 1194 672 830 2235
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 ASTM D5185m	limit/base	15 7 55 4 766 1195 715 869 2477 current	6 7 51 4 833 1281 686 947 2766 history1	38 6 54 4 762 1194 672 830 2235 history2
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 method ASTM D5185m	limit/base	15 7 55 4 766 1195 715 869 2477 current 80	6 7 51 4 833 1281 686 947 2766 history1 82	38 6 54 4 762 1194 672 830 2235 history2 87
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >+100	15 7 55 4 766 1195 715 869 2477 current 80 6	6 7 51 4 833 1281 686 947 2766 history1 82 4	38 6 54 4 762 1194 672 830 2235 history2 87 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20	15 7 55 4 766 1195 715 869 2477 current 80 6 72	6 7 51 4 833 1281 686 947 2766 history1 82 4 52	38 6 54 4 762 1194 672 830 2235 history2 87 6 26
Boron 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	limit/base >+100 >20 limit/base	15 7 55 4 766 1195 715 869 2477 current 80 6 72 current	6 7 51 4 833 1281 686 947 2766 history1 82 4 52 history1	38 6 54 4 762 1194 672 830 2235 history2 87 6 26 26 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	15 7 55 4 766 1195 715 869 2477 <u>current</u> 80 6 72 <u>current</u> 0	6 7 51 4 833 1281 686 947 2766 history1 82 4 52 history1 0.1	38 6 54 4 762 1194 672 830 2235 history2 87 6 26 26 history2 0
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 ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	15 7 55 4 766 1195 715 869 2477 <i>current</i> 80 6 72 <i>current</i> 0 11.8	6 7 51 4 833 1281 686 947 2766 history1 82 4 52 history1 0.1 0.1 11.4	38 6 54 4 762 1194 672 830 2235 history2 87 6 26 26 history2 0 9.5
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 ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 ≥20 limit/base ≥20 s30	15 7 55 4 766 1195 715 869 2477 <u>current</u> 80 6 72 <u>current</u> 0 11.8 23.4	6 7 51 4 833 1281 686 947 2766 history1 82 4 52 history1 0.1 11.4 22.4	38 6 54 4 762 1194 672 830 2235 history2 87 6 26 26 history2 0 9.5 19.9 history2
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 ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >+100 >20 limit/base >20 >30 limit/base	15 7 55 4 766 1195 715 869 2477 <i>current</i> 80 6 72 <i>current</i> 0 11.8 23.4	6 7 51 4 833 1281 686 947 2766 history1 82 4 52 history1 0.1 11.4 22.4 history1	38 6 54 4 762 1194 672 830 2235 history2 87 6 26 26 history2 0 9.5 19.9

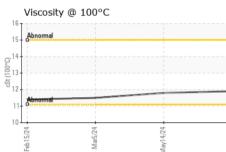


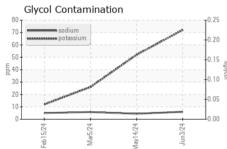
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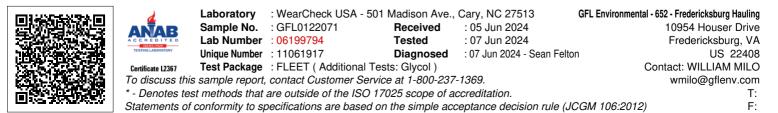
Glycol Contamination







VISUAL		method	limit/base	current	history1	histo
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 Odor	scalar	*Visual *Visual	NORML NORML	NORML NORML	NORML NORML	NOR
Emulsified Water	scalar scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID PROP		method	limit/base	current	history1	hist
Visc @ 100°C	cSt	ASTM D445	iiiiii/base	11.9	11.8	11.5
GRAPHS	COL	ASTIVI D445		11.9	11.0	0.1T
Ferrous Alloys						
I		_				
iron chromium						
- nickel						
+						
j -						
/24	#\$\$5444444444444444444444	/24	/24			
b15/24		sy14/24	un3/24			
Feb15/24		May14/24	Jun3/24			
Kehl5/24	als	May14/24	Jun3/24			
Feb15/24 Mar5/24	als	May14/24	Jun3/24			
Non-ferrous Met	als	May14/24	Jun3/24			
Von-ferrous Met	als	May14/24	Jun3/24			
PCSIR	als	May14/24	Jun3/24			
PCGIPP	als	May14/24	Jun3/24			
PCSING	als	May14/24	42/Emul			
PCSING	als	May14/24	42/Enul			
Non-ferrous Met	als	May14/24	Jun3/24			
PCSING	als	May14/24	Jun3/24			
PC/Stree	als	May14/24	\$2.6 mL			
PCSING	als	May14/24	42/Emul			
hOggew Non-ferrous Meta lead tin	als	May14/24	42/Enul			
PC/Stree	als					
PCGPEW	als					
Problem Mars/24	221111111111111111111111111111111111111	May14/24	4/m3/24			
PCSINAL PCSINA	221111111111111111111111111111111111111		Jun3/24	Base Number		
Non-ferrous Meta bogsew Viscosity @ 100°	221111111111111111111111111111111111111		+32Eunr	Base Number		
PCGPEW Non-ferrous Meta bcgpew Viscosity @ 100°	221111111111111111111111111111111111111		+topped and the second			
hOggew Non-ferrous Meta boggew Hoggew	221111111111111111111111111111111111111		+topped and the second			
POSEW Non-ferrous Meta boogper Posew Posev	221111111111111111111111111111111111111		+topped and the second			
POSEW Non-ferrous Meta boogper Posew Posev	221111111111111111111111111111111111111		+topped and the second			
POSEW Non-ferrous Meta boogper Posew Posev	221111111111111111111111111111111111111		+topped and the second			
hOggew Non-ferrous Meta boggew HOggew HOggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew	221111111111111111111111111111111111111		+topped and the second			
hOggew Non-ferrous Meta boggew HOggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew	221111111111111111111111111111111111111		+topped and the second			
Non-ferrous Meta Non-ferrous Meta Bead P2/51 rpg Viscosity @ 100°	221111111111111111111111111111111111111		9.0 8.0 (b)(HC)(X) 6.0 9.0 (b)(HC)(X) 6.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9			
Non-ferrous Meta Non-ferrous Meta Bain P2/Stipe Viscosity @ 100°	221111111111111111111111111111111111111		+topped and the second			
Non-ferrous Meta Non-ferrous Meta brogsew Viscosity @ 100°	221111111111111111111111111111111111111	May14/24	9.0 8.0 (δ)HOX MOX = 20 1.0 0 00			
hOggew Non-ferrous Meta boggew HOggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew Hoggew	221111111111111111111111111111111111111		9.0 8.0 (b)(HO) bu) 9.0 8.0 (b)(HO) bu) 9.0 9.0 8.0 (b)(HO) 9.0 9.0 9.0 9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9		Mar5/24	



Report Id: GFL652 [WUSCAR] 06199794 (Generated: 06/07/2024 22:41:08) Rev: 1

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