

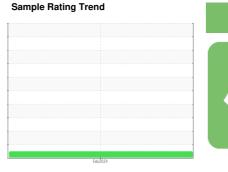
# **OIL ANALYSIS REPORT**

# NOT GIVEN WC0867927

Component

**Diesel Engine** 

{not provided} (--- GAL)





## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

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.

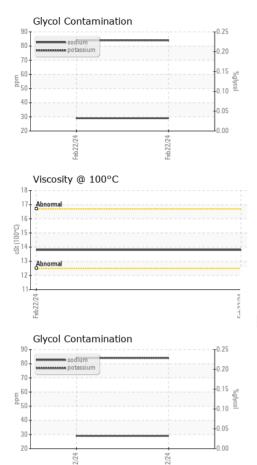
### **Fluid Condition**

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

		L		Feb 2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0867927		
Sample Date		Client Info		22 Feb 2024		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	47		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	14		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	<1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 22	history1	history2
	ppm		limit/base		,	history2
Boron		ASTM D5185m	limit/base	22		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	22 0		
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 0 79		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 0 79 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 0 79 <1 567		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 0 79 <1 567 1705		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 0 79 <1 567 1705 1024		
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 ASTM D5185m	limit/base	22 0 79 <1 567 1705 1024 1256		
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	22 0 79 <1 567 1705 1024 1256 3423		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	22 0 79 <1 567 1705 1024 1256 3423 current	     history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	22 0 79 <1 567 1705 1024 1256 3423 current	history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25	22 0 79 <1 567 1705 1024 1256 3423 current 4 29	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  METHOD ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84 NEG	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m	limit/base >25 >20 limit/base	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84 NEG	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185m *ASTM D5185m	limit/base >25 >20 limit/base >3	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84 NEG current 0.4	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >3 >20	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84 NEG current 0.4 7.8	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30	22 0 79 <1 567 1705 1024 1256 3423 current 4 29 84 NEG current 0.4 7.8 18.8	history1 history1	history2 history2



## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water Free Water	scalar	*Visual *Visual	>0.2	NEG NEG		
	scalar		11 11 11			
FLUID PROPERT		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		13.8		
GRAPHS				Load (nnm)		
Iron (ppm)				Lead (ppm)		
200 Severe				Severe		-
E 150			E 60	1 :		
150 Abnormal			40	Abnormal		-
50+			20			
0744						1/24
Feb22/24			Feb22/24	Feb22/24		Feb 22/24
Aluminum (ppm)				Chromium (p	pm)	
Severe			50	Severe		
40 0			40	T 9		
abnormal			E 30	Abnormal		_
10			10	1		
0						Sept.
Feb22/24			Feb22/24	Feb22/24		Feb22/24
			윤			2
Copper (ppm)  400   Severe			80	Silicon (ppm)		
<b>Abrioimal</b>			60	Ī		
E 200			E 40			
100+			20	Abnormal		
0 7.74			45/24			1/24
Feb22/24			Feb22/24	Feb22/24		Feb 22/24
Viscosity @ 100°C				Base Number	r	
Abnormal			10.0 ₽°.0			
16			ġ 8.0 <u>E</u> 6.0			
Abnormal			u 5.0			
Abnormal			9.8 8.06 9.6 9.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3			
10			<del></del>	1		
Feb22/24			Feb22/24	Feb22/24		Feb22/24
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Laboratory Sample No.

Lab Number : 06098960 Unique Number : 10897190

: WC0867927

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 23 Feb 2024 **Tested** 

Diagnosed Test Package: MOB 1 (Additional Tests: Glycol, TBN)

: 27 Feb 2024 : 27 Feb 2024 - Sean Felton

89 BOGGAN CUT RD

WADESBORO, NC US 28135

Contact: MATT POWELL powell.berkeley@anson.k12.nc.us

ANSON CO SCHOOL BUS GARAGE

\* - 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)

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F: