

# **OIL ANALYSIS REPORT**

Sample Rating Trend

GLYCOL

NO UNIT WC0849919

Diesel Engine Fluid NOT GIVEN (--- GAL)

#### DIAGNOSIS

#### Recommendation

Check for low coolant level. 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. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

#### Contamination

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

## Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

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SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0849919		
Sample Date		Client Info		11 Oct 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	28		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	<1		
Aluminum	ppm	ASTM D5185(m)	>20	1		
Lead	ppm	ASTM D5185(m)	>40	3		
Copper	ppm	ASTM D5185(m)	>330	2		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 2	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	limit/base	current 2 <1	history1 	history2 
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 2 <1 71	history1  	history2  
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 2 <1 71 0	history1   	history2   
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 2 <1 71 0 914	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	methodASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)	limit/base	current 2 <1 71 0 914 989	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	Current 2 <1 71 0 914 989 938	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	Current 2 <1 71 0 914 989 938 1117	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185(m)ASTM D5185(m)	limit/base	current           2           <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185(m)ASTM D5185(m)	limit/base	current           2           <1           71           0           914           989           938           1117           2388           <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current           2           <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	limit/base	current         2         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	limit/base limit/base >25	current         2         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	limit/base	current         2         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	limit/base	current         2         <1         71         0         914         989         938         1117         2388         <1         current         8         ▲ 180         83         0.0	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	limit/base	current         2         <1	history1                                    history1 </td <td>history2</td>	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D5184(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5184(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5184(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5184(m)	limit/base	current         2         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D5182(m)           ASTM D5182(m)           ASTM D5182(m)	limit/base	current         2         <1	history1                                             history1               history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7922*           method           ASTM D7844*           ASTM D7624*	limit/base >25 >20 limit/base >3 >20 >30	Current         2         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7922*           method           ASTM D7844*           ASTM D7624*           ASTM D7415*	limit/base >25 >20 limit/base >20 limit/base >3 >20 >3 >20 >3	Current         2         <1	history1                                             history1            history1	history2                                                            history2            history2                                                                                                 <
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7822*           method           ASTM D7844*           ASTM D7624*           ASTM D7415*           method	limit/base 	Current         2         <1	history1                                             history1                     history1            history1            history1	history2                                             history2                     history2            history2               history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7922*           method           ASTM D7844*           ASTM D7624*           ASTM D7415*           method           ASTM D7414*	limit/base >25 >20 limit/base >3 >20 >30 limit/base >30 >20 >30	Current         2         <1	history1                                          history1            history1            history1            history1            history1	history2                                                               history2               history2                  history2                                                                               -

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