

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area [6100274428] GENERAC TW3H00130

Diesel Engine Fluid SHELL ROTELLA T 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

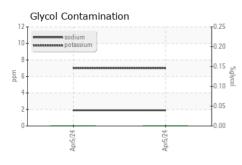
Fluid Condition

The condition of the oil is acceptable for the time in service.

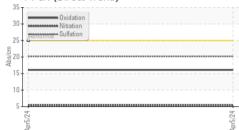
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WA0021304		
Sample Date		Client Info		05 Apr 2024		
Machine Age	hrs	Client Info		481		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	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 D5185(m)	>100	2		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>4	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>40	0		
Copper	ppm	ASTM D5185(m)	>330	<1		
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
Boron	ppm	ASTM D5185(m)	35	182		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	0	0		
Manganese			0			
	ppm	ASTM D5185(m)	0	0		
Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 15		
0			0	-		
Magnesium	ppm	ASTM D5185(m)	0 10	15		
Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 10 2340	15 2143		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 10 2340 1110	15 2143 959	 	
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 10 2340 1110 1210	15 2143 959 1110		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 10 2340 1110 1210	15 2143 959 1110 2966		
Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 10 2340 1110 1210 3890	15 2143 959 1110 2966 <1	 	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	0 10 2340 1110 1210 3890 Jimit/base	15 2143 959 1110 2966 <1 current	 history1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m)	0 10 2340 1110 1210 3890 Jimit/base	15 2143 959 1110 2966 <1 current 3	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 10 2340 1110 1210 3890 limit/base >25	15 2143 959 1110 2966 <1 current 3 2	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	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)	0 10 2340 1110 1210 3890 limit/base >25	15 2143 959 1110 2966 <1 current 3 2 7	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	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) ASTM D5185(m)	0 10 2340 1110 1210 3890 imit/base >25 >20	15 2143 959 1110 2966 <1 <i>current</i> 3 2 7 0.0	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D7922*	0 10 2340 1110 1210 3890 imit/base >25 >20 imit/base >3	15 2143 959 1110 2966 <1 current 3 2 7 0.0 current 0	 history1 history1	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7922*	0 10 2340 1110 1210 3890 imit/base >25 >20 imit/base	15 2143 959 1110 2966 <1 current 3 2 7 0.0 current	 history1 history1 	 history2 history2



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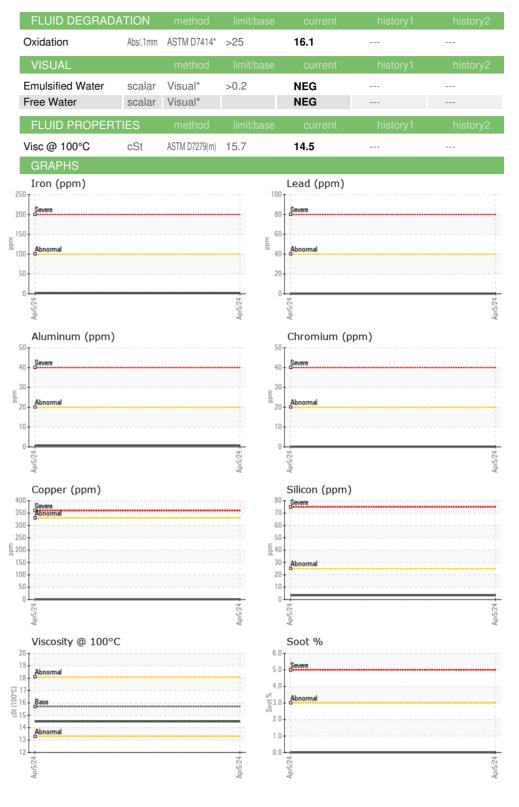


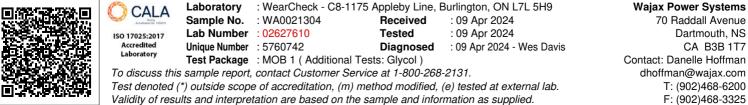
FT-IR (Direct Trend)



Viscosity @ 100°C







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Contact/Location: Danelle Hoffman - DDCDAR

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