

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id **0527m** Component

Diesel Engine

DIESEL ENGINE OIL SAE 30 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

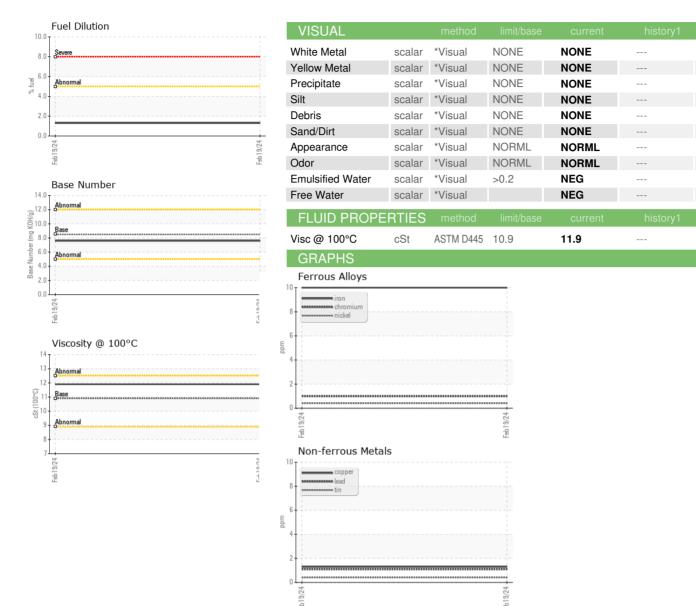
Fluid Condition

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

				Feb 2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0092888		
Sample Date		Client Info		19 Feb 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	10		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	1		
Copper	ppm	ASTM D5185m	>330	1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 10	history1	history2
	ppm					
Boron		ASTM D5185m	250	10		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	10 0		
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	10 0 63		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	10 0 63 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	10 0 63 <1 897		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	10 0 63 <1 897 1027		
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	250 10 100 450 3000 1150	10 0 63 <1 897 1027 1018		
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	250 10 100 450 3000 1150	10 0 63 <1 897 1027 1018		
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	250 10 100 450 3000 1150 1350 4250	10 0 63 <1 897 1027 1018 1193 3071	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	10 0 63 <1 897 1027 1018 1193 3071	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	10 0 63 <1 897 1027 1018 1193 3071 current	 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >75	10 0 63 <1 897 1027 1018 1193 3071 current 5	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20	10 0 63 <1 897 1027 1018 1193 3071 current 5 2	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 2 1.3	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 1.3 current	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 2 1.3 current	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D78185m ASTM D78185m ASTM D7844 *ASTM D7844 *ASTM D7624	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 2 1.3 current 0.1 7.3	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D78185m ASTM D78185m ASTM D7844 *ASTM D7844 *ASTM D7624	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20 >30	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 2 1.3 current 0.1 7.3 19.1	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm	ASTM D5185m ASTM D7624 *ASTM D7624 *ASTM D7415 method	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20 >30 limit/base	10 0 63 <1 897 1027 1018 1193 3071 current 5 2 2 1.3 current 0.1 7.3 19.1 current	history1 history1 history1 history1	history2 history2 history2 history2



OIL ANALYSIS REPORT







Laboratory Sample No.

Lab Number : 06105741 Unique Number: 10903971

St (10

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0092888

Viscosity @ 100°C

Received **Tested** Diagnosed

: 05 Mar 2024 : 05 Mar 2024 - Wes Davis

: 01 Mar 2024

Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel) To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

GFL Environmental - 641 - Alpena 1241 KING SETTLEMENT RD

ALPENA, MI US 49707

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Report Id: GFL641 [WUSCAR] 06105741 (Generated: 03/05/2024 09:57:49) Rev: 1

Base Number

12.0 (mg KOH/g) 0.8

6.0 Base 2.0 0.0

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