

## **OIL ANALYSIS REPORT**



Machine Id 213034

Component Front Diesel Engine Fluid CHEVRON DELO 400 LE 15W40 (--- GAL)

### DIAGNOSIS

#### Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

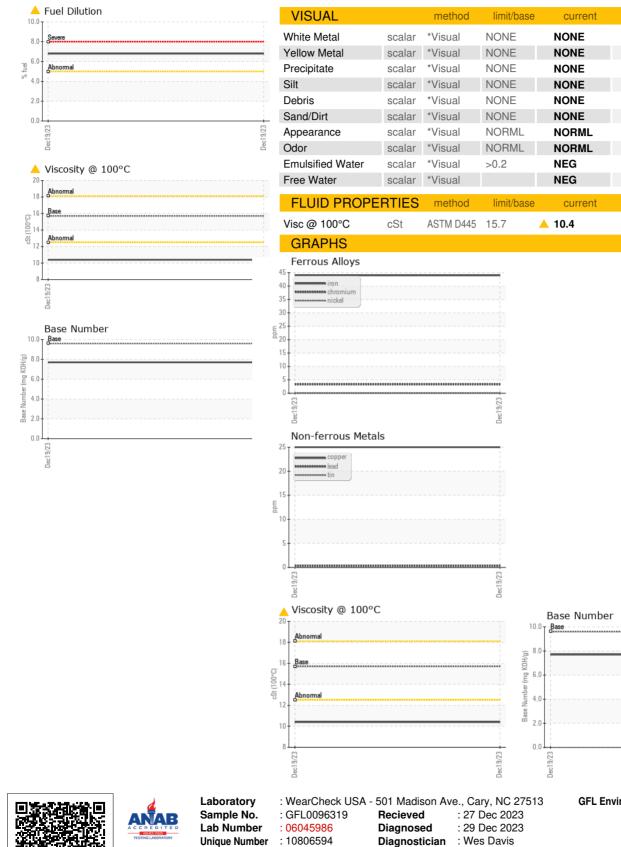
#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0096319		
Sample Date		Client Info		19 Dec 2023		
Machine Age	hrs	Client Info		339		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
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	44		
Chromium	ppm	ASTM D5185m	>20	3		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		2		
Silver	ppm	ASTM D5185m	>3	9		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	25		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		57		
Devision		ASTM D5185m		0		
Barium	ppm	A DO THE DO TOOLL		-		
Barium Molybdenum	ppm ppm	ASTM D5185m		5		
				-		
Molybdenum	ppm	ASTM D5185m		5		
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		5		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1200	5 4 655		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300	5 4 655 1280		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		5 4 655 1280 843	  	
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	1300	5 4 655 1280 843 1070	  	  
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	1300 3200 limit/base	5 4 655 1280 843 1070 3142	   	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	1300 3200 limit/base	5 4 655 1280 843 1070 3142 current	   	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm <b>TS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	1300 3200 limit/base	5 4 655 1280 843 1070 3142 current 26	    history1 	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm <b>TS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	1300 3200 limit/base >25	5 4 655 1280 843 1070 3142 <u>current</u> 26 10	    history1 	    history2 
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300 3200 limit/base >25 >20	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4	    history1  	    history2  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	1300 3200 limit/base >25 >20 >5	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4 4 ▲ 6.8	    history1  	    history2  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm ppm	ASTM D5185m ASTM D5185m	1300 3200 limit/base >25 >20 >5 limit/base	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4 4 ▲ 6.8 <u>current</u>	    history1     history1	   history2     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D3524	1300 3200 limit/base >25 >20 >5 limit/base >3	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4 4 ▲ 6.8 <u>current</u> 0.3	    history1     history1	    history2    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7624	1300 3200 limit/base >25 >20 >5 limit/base >3 >20	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4 €.8 <u>current</u> 0.3 10.1	     history1    history1	    history2    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7624	1300 3200 limit/base >25 >20 >5 limit/base >3 >20 >30	5 4 655 1280 843 1070 3142 <u>current</u> 26 10 4 <b>6.8</b> <b>current</b> 0.3 10.1 21.5	     history1    history1  history1	     history2   history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm % % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	1300 3200 >25 >20 >20 >5 limit/base >3 >20 >30 20 >30 limit/base >25	5 4 655 1280 843 1070 3142 26 10 4 ▲ 6.8 current 0.3 10.1 21.5 current	    history1    history1  history1   history1	        history2 history2    history2



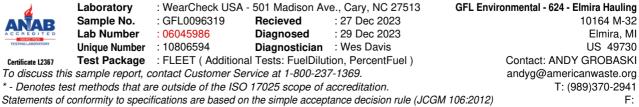
# **OIL ANALYSIS REPORT**



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.



history1

history

history2

history2

Report Id: GFL624 [WUSCAR] 06045986 (Generated: 12/29/2023 14:37:27) Rev: 1

Certificate L2367

Contact/Location: ANDY GROBASKI - GFL624

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