

# **OIL ANALYSIS REPORT**

Sample Rating Trend



#### Machine Id

# 420129 KENWORTH T880

Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

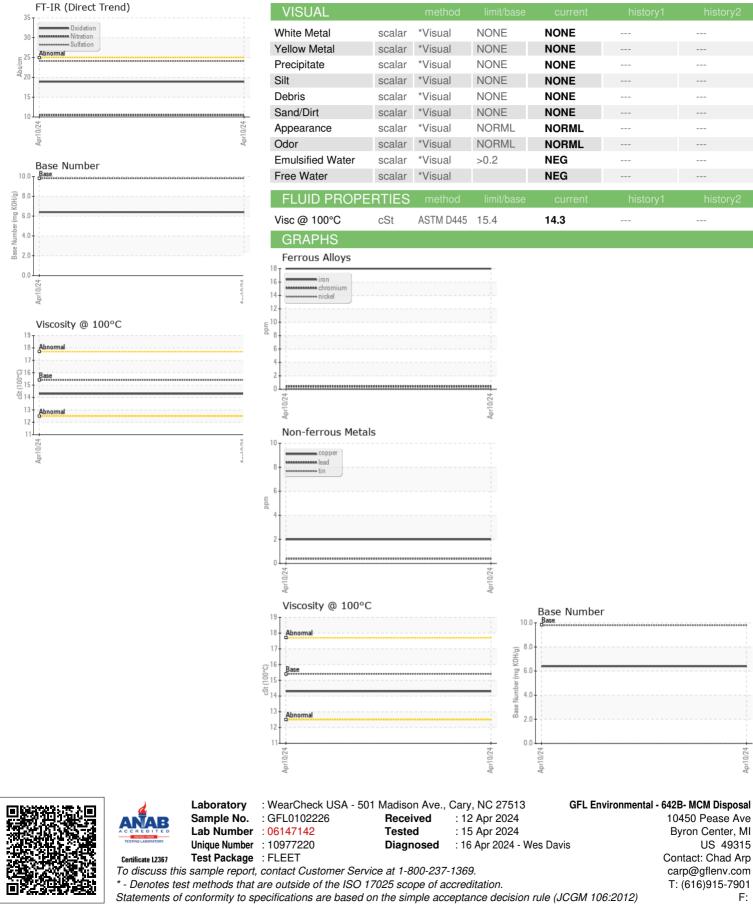
### Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0102226		
Sample Date		Client Info		10 Apr 2024		
Machine Age	hrs	Client Info		8355		
Oil Age	hrs	Client Info		54		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	18		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		87		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	4		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	2		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	79		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	3		
Manganese	ppm	ASTM D5185m	0	<1		
	ppm					
Magnesium	ppm	ASTM D5185m	1010	446		
Magnesium Calcium						
•	ppm	ASTM D5185m	1010	446		
Calcium	ppm ppm	ASTM D5185m ASTM D5185m	1010 1070	446 1787		
Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150	446 1787 1023		
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270	446 1787 1023 1249		 
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base	446 1787 1023 1249 4314	  	
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1010 1070 1150 1270 2060 limit/base	446 1787 1023 1249 4314 current	   history1	   history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25	446 1787 1023 1249 4314 current 5	   history1 	   history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25	446 1787 1023 1249 4314 <u>current</u> 5 5	   history1 	   history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25 >20	446 1787 1023 1249 4314 <u>current</u> 5 5 5 10	   history1  	  history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm <b>TTS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i>	446 1787 1023 1249 4314 current 5 5 5 10 current	   history1   history1	   history2   history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm tTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3	446 1787 1023 1249 4314 current 5 5 5 10 current 0.4	   history1   history1 	  history2  history2  history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm pm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20	446 1787 1023 1249 4314 <u>current</u> 5 5 5 10 <u>current</u> 0.4 10.5	   history1   history1 	   history2   history2  history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRA	ppm ppm ppm ppm ppm JTS ppm ppm ppm ppm % Abs/cm Abs/1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	1010 1070 1150 1270 2060 imit/base >25 >20 imit/base >3 >20 >30 imit/base	446 1787 1023 1249 4314 5 5 5 5 10 0.4 0.4 10.5 24.1 current	  history1  history1  history1 	  history2  history2  history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm pm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20 <b>limit/base</b> >3 >20 >30	446 1787 1023 1249 4314 <b>current</b> 5 5 5 10 <b>current</b> 0.4 10.5 24.1	  history1  history1  history1   history1	  history2   history2  history2   history2



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Submitted By: See also GFL642B - Jessica Shearer