

## **OIL ANALYSIS REPORT**

Sample Rating Trend





833072 Component Natural Gas Engine Fluid PETRO CANADA DURON GEO LD 15W40 (30 LTR)

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

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0118904	GFL0094409	
Sample Date		Client Info		04 Jul 2024	16 Jan 2024	
Machine Age	hrs	Client Info		1861	949	
Oil Age	hrs	Client Info		1200	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	18	51	
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	
Nickel	ppm	ASTM D5185(m)	>2	<1	1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	<1	<1	
Aluminum	ppm	ASTM D5185(m)	>9	2	5	
Lead	ppm	ASTM D5185(m)	>30	<1	1	
Copper	ppm	ASTM D5185(m)	>35	3	16	
Tin	ppm	ASTM D5185(m)	>4	<1	1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 50	current 8	history1 7	history2
	ppm ppm					
Boron		ASTM D5185(m)	50	8	7	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	50 5	8 <1	7 2	
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50	8 <1 57	7 2 108	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0	8 <1 57 2	7 2 108 13	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780	8 <1 57 2 538	7 2 108 13 653	
Boron Barium Molybdenum Manganese Magnesium Calcium	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)	50 50 0 560 1510	8 <1 57 2 538 1501	7 2 108 13 653 1234	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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)	50 5 50 0 560 1510 780	8 <1 57 2 538 1501 685 892 1971	7 2 108 13 653 1234 651 745 2354	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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)	50 5 50 0 560 1510 780 870	8 <1 57 2 538 1501 685 892	7 2 108 13 653 1234 651 745	    
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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)	50 5 50 0 560 1510 780 870	8 <1 57 2 538 1501 685 892 1971	7 2 108 13 653 1234 651 745 2354	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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)	50 5 50 0 560 1510 780 870 2040	8 <1 57 2 538 1501 685 892 1971 <1	7 2 108 13 653 1234 651 745 2354 <1 kistory1 31	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm 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)	50 5 50 0 560 1510 780 870 2040	8 <1 57 2 538 1501 685 892 1971 <1 <1	7 2 108 13 653 1234 651 745 2354 <1 kistory1	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040	8 <1 57 2 538 1501 685 892 1971 <1 <1 current 6	7 2 108 13 653 1234 651 745 2354 <1 kistory1 31	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040 2040 <b>Iimit/base</b> >+100	8 <1 57 2 538 1501 685 892 1971 <1 current 6 3	7 2 108 13 653 1234 651 745 2354 <1 ×1 history1 31 2	        history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040 2040 >+100 >20	8 <1 57 2 538 1501 685 892 1971 <1 <1 <i>current</i> 6 3 0	7 2 108 13 653 1234 651 745 2354 <1 <b>history1</b> 31 2 2	       history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040 2040 >+100 >20	8 <1 57 2 538 1501 685 892 1971 <1 <1 current 6 3 0 current	7 2 108 13 653 1234 651 745 2354 <1 ×1 ×1 ×1 31 2 2 2 ×	      history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 50 00 560 1510 780 870 2040 2040 >+100 >20 20 imit/base	8 <1 57 2 538 1501 685 892 1971 <1 <1 current 6 3 0 current 0	7 2 108 13 653 1234 651 745 2354 <1 <b>history1</b> 31 2 2 2 <b>history1</b> 0	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 50 00 560 1510 780 870 2040 2040 2040 2040 2040 20 20 20 20 20 20 20 20 20 20	8 <1 57 2 538 1501 685 892 1971 <1 current 6 3 0 current 0 11.2	7 2 108 13 653 1234 651 745 2354 <1 <b>history1</b> 31 2 2 2 <b>history1</b> 0 10.1	      history2   history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7844* ASTM D7624* ASTM D7415*	50 50 50 1510 780 870 2040 <b>imit/base</b> >20 <b>imit/base</b> >20 <b>imit/base</b>	8 <1 57 2 538 1501 685 892 1971 <1 <i>current</i> 6 3 0 <i>current</i> 0 11.2 24.6	7 2 108 13 653 1234 651 745 2354 <1 <b>history1</b> 31 2 2 2 <b>history1</b> 0 10.1 23.3	       history2  history2  history2



Abnormal

Oxidation

Sulfation

35

31

<sub>5</sub>25

Abs 50

15

10

19

18

12

Jan 1

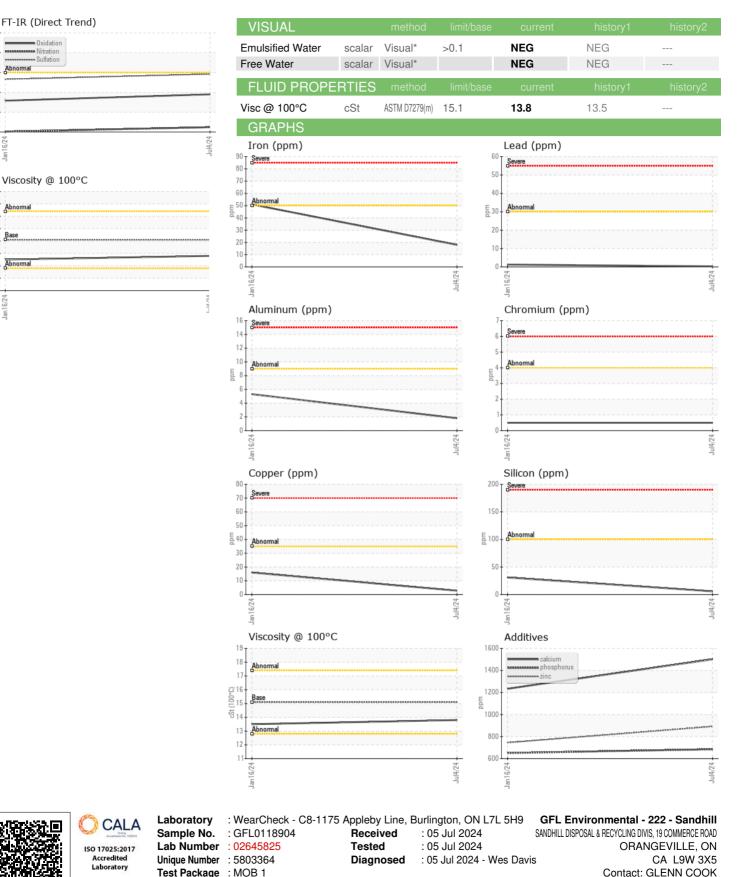
Abno

Bas

Abnor 13

Jan1

# **OIL ANALYSIS REPORT**



To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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