

OIL ANALYSIS REPORT

(YA133454) [0111056] 3690C Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (40 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

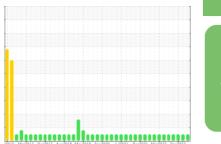
All component wear rates are normal.

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.





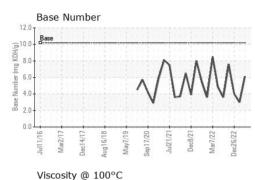
NORMAL

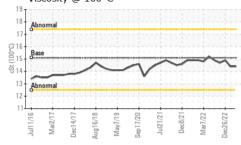
Sample Rating Trend

Sample Number Client Info GFL0111056 GFL0087755 GFL0062759 Sample Date Client Info 18185 17760 15796 Oil Age hrs Client Info 1220 800 643 Oil Age hrs Client Info 1220 800 643 Oil Changed Client Info Client Info NORMAL NORMAL NORMAL Sample Status Immode Immit/base current History1 History2 Water WC Method >0.1 NEG NEG NEG Chromium ppm ASTM 05185m >50 8 18 21 Chromium ppm ASTM 05185m >22 <1 <1 1 Titaniam ppm ASTM 05185m >30 0 0 0 Silver ppm ASTM 05185m >30 1 2 3 3 Chromium ppm ASTM 05185m >30 1 2 1 5 1	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 06 Mar 2024 19 Sep 2023 26 Dec 2022 Machine Age hrs Client Info 18185 17760 15796 Oil Age hrs Client Info 1220 800 643 Oil Changed Client Info Changed Not Changd Not Changd Sample Status Imit Date current History1 History2 Water WC Method >0.1 NEG NEG NEG Wetar WC Method >0.1 NEG NEG NEG Wetar WC Method >0.1 NEG NEG NEG Iron ppm ASTM D5185m >50 8 18 21 Chromium ppm ASTM D5185m >2 <1 <1 1 Silver ppm ASTM D5185m >3 0 0 0 Lead ppm ASTM D5185m >30 1 2 3 Copper ppm ASTM D5185m >3	Sample Number		Client Info		GFL0111056	GFL0087755	GFL0062759
Machine Age hrs Client Info 18185 17760 15796 Oil Age hrs Client Info 1220 800 643 Oil Changed Client Info Changed Not Changd Not Changd Sample Status Imit/base current NoRMAL NORMAL Veter WC Method >0.1 NEG NEG NEG Water WC Method >0.1 NEG NEG NEG Veter WC Method >0.1 NEG NEG NEG Iron ppm ASTM D5185m >50 8 18 21 Chromium ppm ASTM D5185m >4 2 3 3 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 1 2 1 Copper ppm ASTM D5185m >50 1 5 1 Caddium ppm ASTM D5185m <			Client Info		06 Mar 2024	19 Sep 2023	26 Dec 2022
Oil Age hrs Client Info 1220 800 643 Oil Changed Client Info Changed Not Changd Not Changd Sample Status I Imit/base current History1 History2 Water WC Method >0.1 NEG NEG NEG Water WC Method >0.1 NEG NEG NEG WeAR METALS method imit/base current History1 History2 Iron ppm ASTM D5185m >50 8 18 21 Chromium ppm ASTM D5185m >2 <1 <1 1 Titanium ppm ASTM D5185m >3 0 0 <1 5 Silver ppm ASTM D5185m >30 1 2 3 3 Aduminum ppm ASTM D5185m >30 1 <1 <1 Lead ppm ASTM D5185m >50 15 <1 <1 <th></th> <th>hrs</th> <th></th> <th></th> <th></th> <th></th> <th></th>		hrs					
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Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 8 18 21 Chromium ppm ASTM D5185m >2 <1	-		Client Info		Changed	Not Changd	Not Changd
Water WC Method >0.1 NEG NEG NEG Wear ppm ASTM D5185m >50 8 18 21 Iron ppm ASTM D5185m >50 8 18 21 Chromium ppm ASTM D5185m >2 <1 <11 1 Titanium ppm ASTM D5185m >2 <1 <1 1 Silver ppm ASTM D5185m >3 0 0 <1 5 Lead ppm ASTM D5185m >3 0 1 2 3 5 Vanadium ppm ASTM D5185m >3 0 0 0 0 Vanadium ppm ASTM D5185m >4 1 2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 1 <1 <1 <t< th=""><th>•</th><th></th><th></th><th></th><th>•</th><th>NORMAL</th><th>0</th></t<>	•				•	NORMAL	0
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Nickel ppm ASTM D5185m >2 <1	Iron	ppm	ASTM D5185m	>50	8	18	21
Titanium ppm ASTM D5185m 0 0 <1	Chromium	ppm	ASTM D5185m	>4	2	3	3
Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 4 2 6 Lead ppm ASTM D5185m >30 1 2 3 Copper ppm ASTM D5185m >35 0 1 5 Tin ppm ASTM D5185m >4 1 2 <1	Nickel	ppm	ASTM D5185m	>2	<1	<1	1
Atuminum ppm ASTM D5185m >9 4 2 6 Lead ppm ASTM D5185m >30 1 2 3 Copper ppm ASTM D5185m >35 0 1 5 Tin ppm ASTM D5185m >4 1 2 <1 Vanadium ppm ASTM D5185m >4 1 2 <1 Cadmium ppm ASTM D5185m >4 1 <1 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 15 <1 6 Barium ppm ASTM D5185m 50 48 57 50 Magnaese ppm ASTM D5185m 760 769 703 667 Zinc ppm ASTM D5185m 780 <	Titanium	ppm	ASTM D5185m		0	0	<1
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Copper ppm ASTM D5185m >35 0 1 5 Tin ppm ASTM D5185m >4 1 2 <1 Vanadium ppm ASTM D5185m >4 1 21 <1 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 15 <1 6 Barium ppm ASTM D5185m 50 48 57 50 Magnesium ppm ASTM D5185m 50 48 57 50 Magnesium ppm ASTM D5185m 50 14 <1 <1 Magnesium ppm ASTM D5185m 50 13 590 549 Calcium ppm ASTM D5185m 760 769 703 667 Zinc ppm ASTM D5185m 740 2439 <t< th=""><th>Aluminum</th><th>ppm</th><th>ASTM D5185m</th><th>>9</th><th>4</th><th>2</th><th>6</th></t<>	Aluminum	ppm	ASTM D5185m	>9	4	2	6
Tin ppm ASTM D5185m >4 1 2 <1	Lead	ppm		>30	1	2	3
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>35	0	1	5
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 15 <1 6 Barium ppm ASTM D5185m 50 0 0 0 Molybdenum ppm ASTM D5185m 50 48 57 50 Manganese ppm ASTM D5185m 50 48 57 50 Manganese ppm ASTM D5185m 560 531 590 549 Calcium ppm ASTM D5185m 760 769 703 667 Zinc ppm ASTM D5185m 780 951 985 983 Sulfur ppm ASTM D5185m 2400 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Solium ppm ASTM D5185m >20 2 <	Tin	ppm	ASTM D5185m	>4	1	2	<1
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Boron ppm ASTM D5185m 50 15 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 50 48 57 50 Manganese ppm ASTM D5185m 0 1 4 <1 Magnesium ppm ASTM D5185m 560 531 590 549 Calcium ppm ASTM D5185m 560 531 590 549 Calcium ppm ASTM D5185m 780 769 703 667 Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANT method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 2 3 2 Sodium ppm ASTM D7624 >20							
Molybdenum ppm ASTM D5185m 50 48 57 50 Manganese ppm ASTM D5185m 0 1 4 <1 Magnesium ppm ASTM D5185m 560 531 590 549 Calcium ppm ASTM D5185m 1510 1496 1730 1584 Phosphorus ppm ASTM D5185m 780 769 703 667 Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 3 2 NFRA-RED method limit/base current history1 history2 Soot % % 'ASTM D7844 0 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Manganese ppm ASTM D5185m 0 1 4 <1		ppm					
Magnesium ppm ASTM D5185m 560 531 590 549 Calcium ppm ASTM D5185m 1510 1496 1730 1584 Phosphorus ppm ASTM D5185m 780 769 703 667 Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/.mm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.lmm *ASTM D7415 >30<	Boron		ASTM D5185m	50 5	15	<1	6
Calcium ppm ASTM D5185m 1510 1496 1730 1584 Phosphorus ppm ASTM D5185m 780 769 703 667 Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.9 10.7 12.2 Sout % % *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/cm *ASTM D7415	Boron Barium	ppm	ASTM D5185m ASTM D5185m	50 5	15 0	<1 0 57	6 0
Phosphorus ppm ASTM D5185m 780 769 703 667 Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 8 2 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.mm *ASTM D741 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7415	Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	15 0 48	<1 0 57	6 0 50
Zinc ppm ASTM D5185m 870 951 985 983 Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 8 2 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7624	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	15 0 48 1	<1 0 57 4 590	6 0 50 <1 549
Sulfur ppm ASTM D5185m 2040 2439 2755 2921 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >20 2 8 2 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.tm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tm *ASTM D74	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	15 0 48 1 531	<1 0 57 4 590	6 0 50 <1 549 1584
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m >+100 5 2 8 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.tmm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tmm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510	15 0 48 1 531 1496 769	<1 0 57 4 590 1730 703	6 0 50 <1 549 1584 667
Silicon ppm ASTM D5185m >+100 4 19 10 Sodium ppm ASTM D5185m ><100	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	15 0 48 1 531 1496 769 951	<1 0 57 4 590 1730 703	6 0 50 <1 549 1584 667 983
Sodium ppm ASTM D5185m 5 2 8 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870	15 0 48 1 531 1496 769 951	<1 0 57 4 590 1730 703 985	6 0 50 <1 549 1584 667 983
Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	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	50 5 50 0 560 1510 780 870 2040	15 0 48 1 531 1496 769 951 2439	<1 0 57 4 590 1730 703 985 2755	6 0 50 <1 549 1584 667 983 2921
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.tmm *ASTM D7615 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tmm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm 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	50 5 50 0 560 1510 780 870 2040	15 0 48 1 531 1496 769 951 2439 current	<1 0 57 4 590 1730 703 985 2755 history1	6 0 50 <1 549 1584 667 983 2921 history2
Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	50 5 50 0 560 1510 780 870 2040	15 0 48 1 531 1496 769 951 2439 current 4	<1 0 57 4 590 1730 703 985 2755 history1 19	6 0 50 <1 549 1584 667 983 2921 history2 10
Nitration Abs/cm *ASTM D7624 >20 9.9 10.7 12.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	15 0 48 1 531 1496 769 951 2439 current 4 5	<1 0 57 4 590 1730 703 985 2755 history1 19 2	6 0 50 <1 549 1584 667 983 2921 history2 10 8
Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.8 23.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	15 0 48 1 531 1496 769 951 2439 current 4 5 2	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	15 0 48 1 531 1496 769 951 2439 current 4 5 2 2	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3 3 history1	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2 2 history2
Oxidation Abs/.1mm *ASTM D7414 >25 16.8 19.1 19.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 2040 >+100 >20 20 }	15 0 48 1 531 1496 769 951 2439 <u>current</u> 4 5 2 2 <u>current</u> 0	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3 history1 0.1	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2 2 history2 0.1
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 00 560 1510 780 870 2040 Iimit/base >+100 20 Iimit/base	15 0 48 1 531 1496 769 951 2439 <i>current</i> 4 5 2 2 <i>current</i> 0 9.9	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3 history1 0.1 10.7	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2 2 history2 0.1 12.2
Base Number (BN) mg KOH/g ASTM D2896 10.2 6.1 3.0 4.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 560 1510 780 870 2040 Iinit/base >+100 \$-20 Iinit/base \$-20	15 0 48 1 531 496 769 951 2439 <u>current</u> 4 5 2 2 <u>current</u> 0 9.9 19.3	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3 3 history1 0.1 10.7 23.8	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2 2 10 8 2 2 history2 0.1 12.2 23.6
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	50 50 560 1510 780 870 2040 >+100 >+100 20 imit/base >20 >20 >30	15 0 48 1 531 1496 769 951 2439 <i>current</i> 4 5 2 2 <i>current</i> 0 9.9 19.3	<1 0 57 4 590 1730 703 985 2755 history1 19 2 3 history1 0.1 10.7 23.8 history1	6 0 50 <1 549 1584 667 983 2921 history2 10 8 2 2 history2 0.1 12.2 23.6 history2

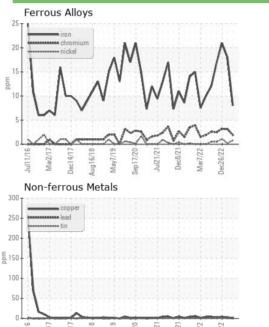


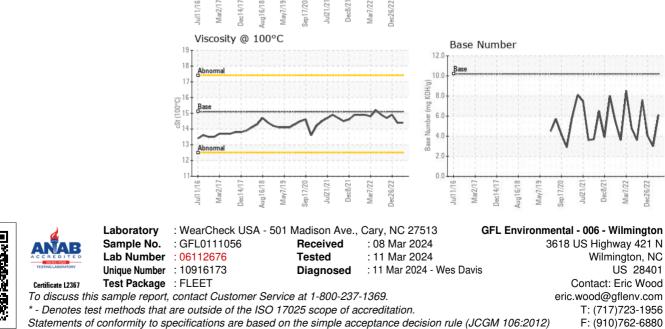
OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.4	14.9
GRAPHS						





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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