

OIL ANALYSIS REPORT



Machine Id 607390

Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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.

		method	limit/base	ourroat	bioton (1	biotom/0
SAMPLE INFORI	VIATION		limit/base	current	history1	history2
Sample Number		Client Info		PCA0118859	PCA0113345	
Sample Date		Client Info		04 Apr 2024	13 Dec 2023	
Machine Age	mls	Client Info		235455	0	
Oil Age	mls	Client Info		0 Not Observed	0	
Oil Changed		Client Info		Not Changd	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	37	27	
Chromium	ppm	ASTM D5185m	>20	2	1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	12	10	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	9	7	
Tin	ppm	ASTM D5185m	>15	0	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
				•		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base 2		-	history2
		method		current	history1	
Boron	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 4	history1 8	
Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50 0	current 4 0	history1 8 0 57 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 4 0 62 <1 926	history1 8 0 57 <1 830	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	Current 4 0 62 <1 926 1425	history1 8 0 57 <1 830 1232	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	Current 4 0 62 <1 926 1425 1103	history1 8 0 57 <1 830 1232 1032	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180	current 4 0 62 <1 926 1425 1103 1327	history1 8 0 57 <1 830 1232 1032 1272	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 4 0 62 <1 926 1425 1103	history1 8 0 57 <1 830 1232 1032 1272 2914	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180	current 4 0 62 <1 926 1425 1103 1327	history1 8 0 57 <1 830 1232 1032 1272	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 4 0 62 <1 926 1425 1103 1327 3468 current 6	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	current 4 0 62 <1 926 1425 1103 1327 3468 current 6	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25 >20	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3 current	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2 history1	 history2 history2
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	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3 current 0.7	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2 history1 0 0.7	 history2 history2 history2
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	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3 current 0.7 9.2	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2 history1 0 0.7 9.4	 history2 history2
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	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3 current 0.7 9.2 21.6	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2 history1 0.7 9.4 20.2	 history2 history2 history2
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 TS ppm ppm ppm	method ASTM D5185m ASTM D7185M ASTM D7624 *ASTM D7415 method	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	current 4 0 62 <1 926 1425 1103 1327 3468 current 6 2 3 current 0.7 9.2 21.6	history1 8 0 57 <1 830 1232 1032 1272 2914 history1 4 <1 2 history1 0.7 9.4 20.2 history1	 history2 history2 history2 history2



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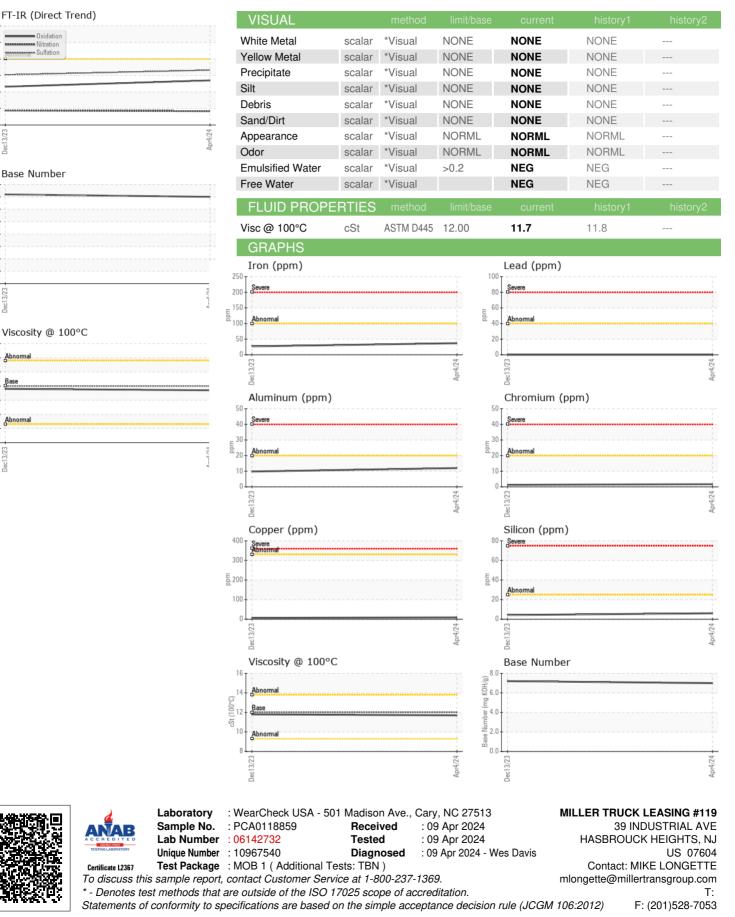
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