

OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- 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.

			Nov2023	Feb2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0119011	PCA0112255	
Sample Date		Client Info		23 Feb 2024	16 Nov 2023	
Machine Age	mls	Client Info		42757	28818	
Oil Age	mls	Client Info		42757	28818	
Oil Changed		Client Info		Changed	Not Changd	
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	69	68	
Chromium	ppm	ASTM D5185m	>20	2	2	
Nickel	ppm	ASTM D5185m	>4	1	<1	
Titanium	ppm	ASTM D5185m	27	5	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	24	22	
Lead		ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m		27	32	
Tin	ppm	ASTM D5185m	>15	4	3	
Vanadium	ppm	ASTM D5185m	>15	4 <1	0	
Cadmium	ppm	ASTM D5185m		0	0	
Gaumum	ppm	ASTIVI DJIOJII				
				J.	-	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	2		-	history2
				current	history1	
Boron	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 22	history1 24 2 46	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	2 0 50	current 22 <1	history1 24 2	
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 22 <1 43	history1 24 2 46	
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 22 <1 43 9	history1 24 2 46 10	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 22 <1 43 9 634	history1 24 2 46 10 560	
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	2 0 50 0 950 1050	current 22 <1 43 9 634 1623	history1 24 2 46 10 560 1579	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	current 22 <1 43 9 634 1623 885	history1 24 2 46 10 560 1579 732	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 22 <1 43 9 634 1623 885 1099	history1 24 2 46 10 560 1579 732 964	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 22 <1 43 9 634 1623 885 1099 2608	history1 24 2 46 10 560 1579 732 964 3018	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 22 <1 43 9 634 1623 885 1099 2608 current	history1 24 2 46 10 560 1579 732 964 3018 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm 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	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 22 <1 43 9 634 1623 885 1099 2608 current 9	history1 24 2 46 10 560 1579 732 964 3018 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm 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	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	22 <1 43 9 634 1623 885 1099 2608 current 9 5 43	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5 43 current	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49 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 TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5 43 current 0.7	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49 history1 0.6	 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	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5 43 current 0.7 10.9	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49 history1 0.6 9.2	 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	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5 43 0.7 10.9 22.1	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49 history1 0.6 9.2 22.4	 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 ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 20 >20 >30 >30 imit/base	current 22 <1 43 9 634 1623 885 1099 2608 current 9 5 43 current 0.7 10.9 22.1 current	history1 24 2 46 10 560 1579 732 964 3018 history1 10 2 49 history1 0.6 9.2 22.4 history1	 history2 history2 history2 history2



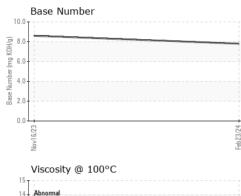
cSt (100°C) Ba

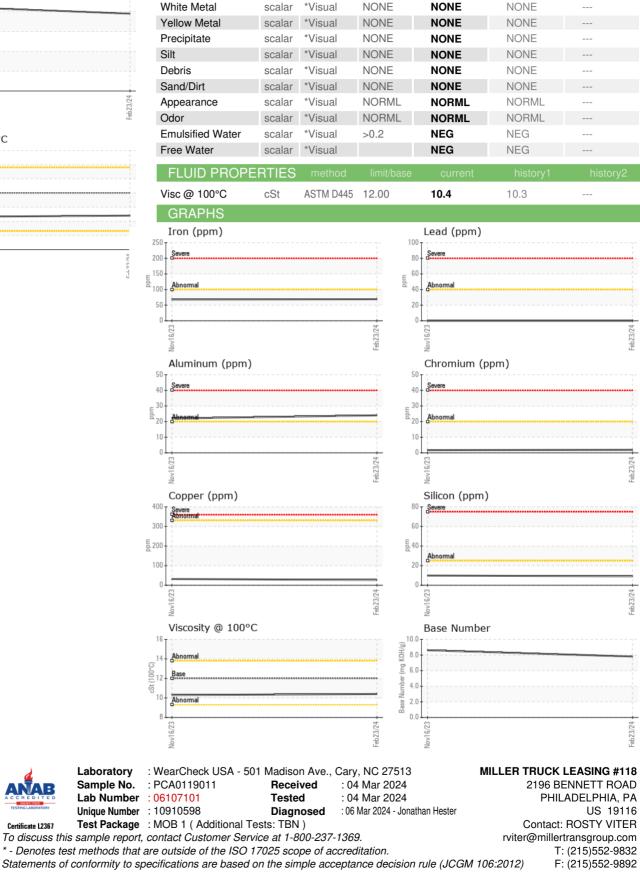
Abnormal

Vov1

OIL ANALYSIS REPORT

VISUAL





Certificate L2367

Contact/Location: ROSTY VITER - MILPHINE