

OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

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.

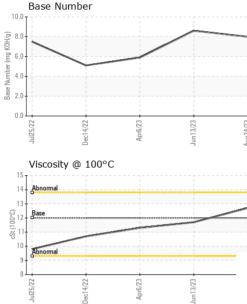
Fluid Condition

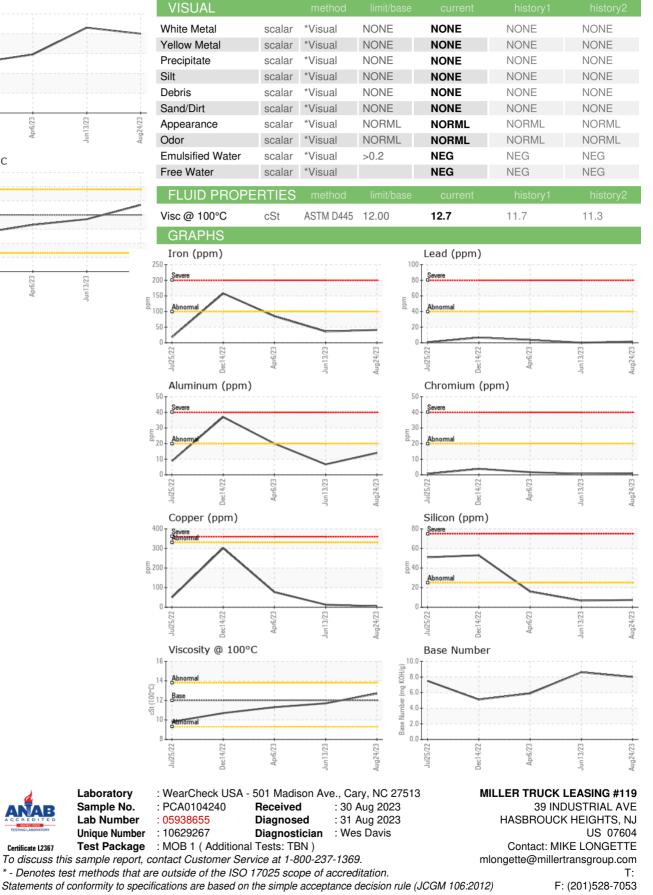
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		Jul2022	Dec2022	Apr2023 Jun2023	Aug2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104240	PCA0095933	PCA0095954
Sample Date		Client Info		24 Aug 2023	13 Jun 2023	06 Apr 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	41	36	85
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	14	7	20
Lead	ppm	ASTM D5185m	>40	2	0	4
Copper	ppm	ASTM D5185m	>330	5	13	77
Tin	ppm	ASTM D5185m	>15	2	1	3
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	6	9
DOIOII	ppin		L		*	0
	ppm	ASTM D5185m	0	0	0	3
Barium				0 62		
Barium Molybdenum	ppm	ASTM D5185m	0 50		0	3
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0 50	62	0 67	3 61
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	62 <1	0 67 <1	3 61 2
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	62 <1 939	0 67 <1 926	3 61 2 812
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	62 <1 939 1302	0 67 <1 926 1209	3 61 2 812 1174
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	62 <1 939 1302 1104	0 67 <1 926 1209 1032	3 61 2 812 1174 942
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180	62 <1 939 1302 1104 1418	0 67 <1 926 1209 1032 1262	3 61 2 812 1174 942 1255
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	62 <1 939 1302 1104 1418 3764	0 67 <1 926 1209 1032 1262 3316	3 61 2 812 1174 942 1255 2723
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	0 50 0 950 1050 995 1180 2600	62 <1 939 1302 1104 1418 3764 current	0 67 <1 926 1209 1032 1262 3316 history1	3 61 2 812 1174 942 1255 2723 history2
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 method ASTM D5185m	0 50 0 950 1050 995 1180 2600	62 <1 939 1302 1104 1418 3764 current 7	0 67 <1 926 1209 1032 1262 3316 history1 7	3 61 2 812 1174 942 1255 2723 history2 16
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >25	62 <1 939 1302 1104 1418 3764 current 7 2	0 67 <1 926 1209 1032 1262 3316 history1 7 2	3 61 2 812 1174 942 1255 2723 history2 16 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >25 >20	62 <1 939 1302 1104 1418 3764 current 7 2 2 2	0 67 <1 926 1209 1032 1262 3316 history1 7 2 0	3 61 2 812 1174 942 1255 2723 history2 16 3 0
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	0 50 0 950 1050 995 1180 2600 limit/base >25 >20	62 <1 939 1302 1104 1418 3764 current 7 2 2 2 2	0 67 <1 926 1209 1032 1262 3316 history1 7 2 0 0 history1	3 61 2 812 1174 942 1255 2723 history2 16 3 0 history2
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	0 50 0 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i>	62 <1 939 1302 1104 1418 3764 current 7 2 2 2 2 current 1.4	0 67 <1 926 1209 1032 1262 3316 history1 7 2 0 history1 1.1	3 61 2 812 1174 942 1255 2723 history2 16 3 0 history2 1.3
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	0 50 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	62 <1 939 1302 1104 1418 3764 <i>current</i> 7 2 2 2 2 <i>current</i> 1.4 12.8	0 67 <1 926 1209 1032 1262 3316 history1 7 2 0 0 history1 1.1 1.1	3 61 2 812 1174 942 1255 2723 history2 16 3 0 history2 1.3 13.0
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	0 50 950 1050 995 1180 2600 imit/base >25 20 imit/base >3 >20 >30	62 <1 939 1302 1104 1418 3764 current 7 2 2 2 2 current 1.4 12.8 24.3	0 67 <1 926 1209 1032 1262 3316 history1 7 2 0 history1 1.1 1.1 1.1 1.1 23.0	3 61 2 812 1174 942 1255 2723 history2 16 3 0 history2 1.3 1.3 1.3 2.3.6



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Certificate L2367

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