

OIL ANALYSIS REPORT

Sample Rating Trend



ADVANCE MIXER M126 (S/N KCB37533)

Diesel Engine

PETRO CANADA DURON HP 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Bearing wear is indicated.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

TS)			Jul2022	Sep 2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0098509	WC0570766	
Sample Date		Client Info		04 Sep 2023	16 Jul 2022	
Machine Age	hrs	Client Info		22645	22087	
Oil Age	hrs	Client Info		22645	22087	
Oil Changed		Client Info		Changed	Changed	
Sample Status				SEVERE	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	85	69	
Chromium	ppm	ASTM D5185m	>20	2	2	
Nickel	ppm	ASTM D5185m	>4	<1	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>20	4	12	
Lead	ppm	ASTM D5185m	>40	20	4	
Copper	ppm	ASTM D5185m	>330	9 790	8	
Tin	ppm	ASTM D5185m	>15	<u>^</u> 21	1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES	1-1-	method	limit/base	current	history1	history2
	nnm		mmbasc			
Boron	ppm	ASTM D5185m	IIIIIIIIII	28	31	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	iiiiii basc	28 0	31 0	•
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	iiiiii basc	28 0 49	31 0 66	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	iiiiii base	28 0 49 3	31 0 66 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		28 0 49 3 602	31 0 66 <1 971	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	iiiiiiii Sase	28 0 49 3 602 1677	31 0 66 <1 971 1194	
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 ASTM D5185m	IIIIII	28 0 49 3 602 1677 952	31 0 66 <1 971 1194 1053	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII	28 0 49 3 602 1677	31 0 66 <1 971 1194	
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 ASTM D5185m ASTM D5185m	limit/base	28 0 49 3 602 1677 952 1173	31 0 66 <1 971 1194 1053 1284 3660	
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 ASTM D5185m	limit/base	28 0 49 3 602 1677 952 1173 2900 current	31 0 66 <1 971 1194 1053 1284 3660 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		28 0 49 3 602 1677 952 1173 2900 current	31 0 66 <1 971 1194 1053 1284 3660 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	28 0 49 3 602 1677 952 1173 2900 current	31 0 66 <1 971 1194 1053 1284 3660 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	limit/base	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm	ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982	limit/base >25 >20 limit/base	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4 NEG current	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185m *ASTM D2982 *Method *ASTM D7844	limit/base >25 >20 limit/base >3	28 0 49 3 602 1677 952 1173 2900 current	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG history1 0.9	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm	ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982	limit/base >25 >20 limit/base	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4 NEG current	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 limit/base >3 >20	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4 NEG current 0.6 10.6	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG history1 0.9 11.0	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm	ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415 method	limit/base >25 >20 limit/base >3 >20 >30 limit/base	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4 NEG current 0.6 10.6 22.4 current	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG history1 0.9 11.0 24.0 history1	history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30 limit/base >25	28 0 49 3 602 1677 952 1173 2900 current ▲ 94 16 4 NEG current 0.6 10.6 22.4	31 0 66 <1 971 1194 1053 1284 3660 history1 6 3 0 NEG history1 0.9 11.0 24.0	history2 history2



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