

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 712024

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- LTR)

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

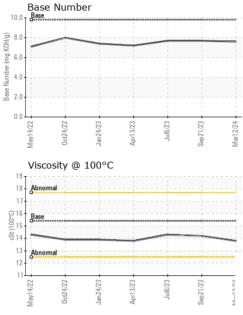
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MAT <u>ION</u>	method	limit/base	current	history1	history2		
Sample Number		Client Info		GFL0106115	GFL0078669	GFL0082081		
Sample Date		Client Info		12 Mar 2024	21 Sep 2023	06 Jul 2023		
Machine Age	hrs	Client Info		6101	4983	4439		
Oil Age	hrs	Client Info		600	600	0		
Oil Changed		Client Info		Changed	Changed	Changed		
Sample Status	-			NORMAL	NORMAL	NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2		
Fuel		WC Method	>5	<1.0	<1.0	<1.0		
Water		WC Method	>0.2	NEG	NEG	NEG		
Glycol	lycol			NEG	NEG	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>110	12	15	16		
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1		
Nickel	ppm		>2	0	0	0		
Titanium	ppm	ASTM D5185m		0	0	<1		
Silver	ppm	ASTM D5185m	>2	0	<1	0		
Aluminum	ppm	ASTM D5185m	>25	6	6	7		
Lead	ppm	ASTM D5185m	>45	0	0	<1		
Copper	ppm	ASTM D5185m	>85	1	2	<1		
Tin	ppm	ASTM D5185m	>4	0	<1	0		
Vanadium	ppm	ASTM D5185m		0	0	<1		
Cadmium	ppm	ASTM D5185m		0	0	0		
				-	-			
ADDITIVES	•••	method	limit/base	current	history1	history2		
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 9		history2 7		
					history1			
Boron	ppm	ASTM D5185m	0	9	history1 10	7		
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	0	9 0	history1 10 0	7 0		
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	9 0 56	history1 10 0 67	7 0 63		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	9 0 56 <1	history1 10 0 67 <1	7 0 63 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	9 0 56 <1 861	history1 10 0 67 <1 982	7 0 63 <1 931		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	9 0 56 <1 861 1016	history1 10 0 67 <1 982 1156	7 0 63 <1 931 1141 1003 1231		
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	0 0 60 0 1010 1070 1150	9 0 56 <1 861 1016 949	history1 10 0 67 <1 982 1156 1079	7 0 63 <1 931 1141 1003		
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	0 0 60 0 1010 1070 1150 1270	9 0 56 <1 861 1016 949 1155	history1 10 0 67 <1 982 1156 1079 1305	7 0 63 <1 931 1141 1003 1231		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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	0 0 60 0 1010 1070 1150 1270 2060	9 0 56 <1 861 1016 949 1155 2881 current 2	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4	7 0 63 <1 931 1141 1003 1231 3744 history2 3		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 Limit/base	9 0 56 <1 861 1016 949 1155 2881 current	history1 10 0 67 <1 982 1156 1079 1305 3784 history1	7 0 63 <1 931 1141 1003 1231 3744 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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	0 0 60 1010 1070 1150 1270 2060 Limit/base	9 0 56 <1 861 1016 949 1155 2881 current 2	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4	7 0 63 <1 931 1141 1003 1231 3744 history2 3		
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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	0 0 0 1010 1070 1150 1270 2060 limit/base >30 >20 limit/base	9 0 56 <1 861 1016 949 1155 2881 <i>current</i> 2 881 2 2 <1 0 <i>current</i> 1.9 8.4	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4 2 history1 1.9 7.6	7 0 63 <1 931 1141 1003 1231 3744 history2 3 2 5 history2 2.5 9.6		
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	0 0 0 1010 1070 1150 1270 2060 limit/base >30 >20 limit/base	9 0 56 <1 861 1016 949 1155 2881 <u>current</u> 2 2 <1 0 <u>current</u> 1.9	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4 2 history1 1.9	7 0 63 <1 931 1141 1003 1231 3744 history2 3 2 5 history2 2.5		
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	0 0 0 1010 1070 1150 1270 2060 limit/base >30 200 limit/base >30	9 0 56 <1 861 1016 949 1155 2881 <i>current</i> 2 881 2 2 <1 0 <i>current</i> 1.9 8.4	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4 2 history1 1.9 7.6	7 0 63 <1 931 1141 1003 1231 3744 history2 3 2 5 history2 2.5 9.6		
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 ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >30 imit/base >3 20	9 0 56 <1 861 1016 949 1155 2881 <u>current</u> 2 <1 0 <u>current</u> 1.9 8.4 20.7	history1 10 0 67 <1 982 1156 1079 1305 3784 history1 4 2 history1 1.9 7.6 20.6	7 0 63 <1 931 1141 1003 1231 3744 history2 3 2 5 <u>history2</u> 2.5 9.6 23.3		
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OIL ANALYSIS REPORT

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