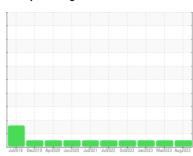


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



190814

Component **Diesel Engine**

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.

QTS)		JulZ019 Dec2	019 Apr2020 Jun2020 Jul2	021 Jul2022 Oct2022 Jan2023 Mar2	023 Aug2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number Sample Date		Client Info		PCA0103042 08 Aug 2023	PCA0094284 24 Mar 2023	PCA0089689 11 Jan 2023
Machine Age	mls	Client Info		125680	109327	100927
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	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	22	12	19
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	1	<1	2
Lead	ppm	ASTM D5185m	>40	1	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
A D D I TIVEO						
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 4	history1 9	nistory2 12
	ppm			4 0		12 2
Boron		ASTM D5185m	2	4	9	12
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50 0	4 0	9	12 2 68 <1
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 0 66	9 0 56 <1 924	12 2 68 <1 884
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	4 0 66 <1	9 0 56 <1 924 1217	12 2 68 <1 884 1206
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 0 66 <1 985 1195 1054	9 0 56 <1 924 1217 961	12 2 68 <1 884 1206 1024
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	4 0 66 <1 985 1195 1054 1322	9 0 56 <1 924 1217 961 1315	12 2 68 <1 884 1206 1024 1228
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	2 0 50 0 950 1050 995	4 0 66 <1 985 1195 1054	9 0 56 <1 924 1217 961	12 2 68 <1 884 1206 1024
Boron 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	2 0 50 0 950 1050 995 1180	4 0 66 <1 985 1195 1054 1322	9 0 56 <1 924 1217 961 1315	12 2 68 <1 884 1206 1024 1228
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	4 0 66 <1 985 1195 1054 1322 3650 current	9 0 56 <1 924 1217 961 1315 3164	12 2 68 <1 884 1206 1024 1228 3140 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	4 0 66 <1 985 1195 1054 1322 3650 current 4	9 0 56 <1 924 1217 961 1315 3164 history1	12 2 68 <1 884 1206 1024 1228 3140 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	4 0 66 <1 985 1195 1054 1322 3650 current	9 0 56 <1 924 1217 961 1315 3164 history1	12 2 68 <1 884 1206 1024 1228 3140 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	2 0 50 0 950 1050 995 1180 2600 limit/base	4 0 66 <1 985 1195 1054 1322 3650 current 4 3	9 0 56 <1 924 1217 961 1315 3164 history1	12 2 68 <1 884 1206 1024 1228 3140 history2 4
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	2 0 50 0 950 1050 995 1180 2600 limit/base >25	4 0 66 <1 985 1195 1054 1322 3650 current 4 3 1	9 0 56 <1 924 1217 961 1315 3164 history1 4 1 3 history1 0.5	12 2 68 <1 884 1206 1024 1228 3140 history2 4 0 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	4 0 66 <1 985 1195 1054 1322 3650 current 4 3 1	9 0 56 <1 924 1217 961 1315 3164 history1 4 1 3	12 2 68 <1 884 1206 1024 1228 3140 history2 4 0 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m method *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 >20	4 0 66 <1 985 1195 1054 1322 3650 current 4 3 1	9 0 56 <1 924 1217 961 1315 3164 history1 4 1 3 history1 0.5	12 2 68 <1 884 1206 1024 1228 3140 history2 4 0 3 history2 0.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	4 0 66 <1 985 1195 1054 1322 3650 current 4 3 1 current 1	9 0 56 <1 924 1217 961 1315 3164 history1 4 1 3 history1 0.5 8.1	12 2 68 <1 884 1206 1024 1228 3140 history2 4 0 3 history2 0.7 8.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	4 0 66 <1 985 1195 1054 1322 3650 current 4 3 1 current 1 10.0 20.1	9 0 56 <1 924 1217 961 1315 3164 history1 4 1 3 history1 0.5 8.1 18.8	12 2 68 <1 884 1206 1024 1228 3140 history2 4 0 3 history2 0.7 8.9 19.6



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number

Unique Number

Test Package : MOB 1 (Additional Tests: TBN) Certificate L2367

: PCA0103042 : 05925764

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10605711

Diagnosed

: 16 Aug 2023 Diagnostician : Wes Davis

: 16 Aug 2023

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

MILLER TRUCK LEASING #119

39 INDUSTRIAL AVE HASBROUCK HEIGHTS, NJ

US 07604 Contact: MIKE LONGETTE

mlongette@millertransgroup.com

T: F: (201)528-7053