

OIL ANALYSIS REPORT

Sample Rating Trend



Area (16065Z) Walgreens Machine Id [Walgreens] 136A61356 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 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.

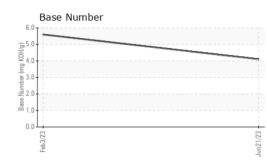
Fluid Condition

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

SAMPLE INFORI	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		PCA0096020	PCA0090900	
Sample Date		Client Info		21 Jun 2023	03 Feb 2023	
Machine Age	mls	Client Info		361044	308510	
Oil Age	mls	Client Info		50000	50000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	34	27	
Chromium	ppm	ASTM D5185m	>5	3	2	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>30	12	10	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m	>150	9	8	
Tin	ppm	ASTM D5185m	>5	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
	pp		11 1.0	-	-	
ADDITIVES			limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	2	3	0	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	3 0	0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	3 0 85	0 0 60	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	3 0 85 <1	0 0 60 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	3 0 85 <1 1220	0 0 60 <1 861	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	3 0 85 <1 1220 1412	0 0 60 <1 861 1054	
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	2 0 50 0 950 1050 995	3 0 85 <1 1220 1412 1264	0 0 60 <1 861 1054 919	
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 ASTM D5185m	2 0 50 0 950 1050 995 1180	3 0 85 <1 1220 1412 1264 1624	0 0 60 <1 861 1054 919 1146	
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	2 0 50 0 950 1050 995	3 0 85 <1 1220 1412 1264	0 0 60 <1 861 1054 919	
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 50 950 1050 995 1180 2600	3 0 85 <1 1220 1412 1264 1624	0 0 60 <1 861 1054 919 1146	
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	2 0 50 950 1050 995 1180 2600	3 0 85 <1 1220 1412 1264 1624 3833	0 0 60 <1 861 1054 919 1146 2431	
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	2 0 50 950 1050 995 1180 2600	3 0 85 <1 1220 1412 1264 1624 3833 current	0 0 60 <1 861 1054 919 1146 2431 history 1	
Boron 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 ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	3 0 85 <1 1220 1412 1264 1624 3833 current 7	0 0 60 <1 861 1054 919 1146 2431 history 1 6	 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m 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 >20	3 0 85 <1 1220 1412 1264 1624 3833 <u>current</u> 7 4	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1	 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base	3 0 85 <1 1220 1412 1264 1624 3833 <u>current</u> 7 4 8	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9	 history 2
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 50 950 1050 995 1180 2600 imit/base >20 imit/base >20	3 0 85 <1 1220 1412 1264 1624 3833 current 7 4 8 8	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9 history 1	 history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >20	3 0 85 <1 1220 1412 1264 1624 3833 current 7 4 8 8 current 1.1	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9 history 1 1.2	 history 2 history 2
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 imit/base >20 20 imit/base >20	3 0 85 <1 1220 1412 1264 1624 3833 current 7 4 8 current 1.1 9.2	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9 history 1 1.2 9.9	 history 2 history 2
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 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	3 0 85 <1 1220 1412 1264 1624 3833 current 7 4 8 current 1.1 9.2 22.5	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9 history 1 1.2 9.9 23.2	 history 2 history 2 history 2
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 D7844 *ASTM D7844 *ASTM D7844	2 0 50 950 1050 995 1180 2600 2600 220 220 220 imit/base >3 20 30 30	3 0 85 <1 1220 1412 1264 1624 3833 current 7 4 8 current 1.1 9.2 22.5 current	0 0 60 <1 861 1054 919 1146 2431 history 1 6 <1 9 history 1 1.2 9.9 23.2 history 1	 history 2 history 2 history 2 history 2



OIL ANALYSIS REPORT



Viscosity @ 100°C



bpm

bpm

13

cSt (100°C)

10

8

Unique Number : 10538794

Laboratory

Sample No.

Lab Number

Feb3/23

Abnorm

: PCA0096020

: 05888311

VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.5	
GRAPHS						
Non-ferrous Metal	S		Jun21/23			
Viscosity @ 100°C			6.0	Base Number		
14 Abnormal			5.0			

(B/H0X Bul)

ja 3.0 2.0

0.0

Feb3/23

Base

Jun21/23 -

: 30 Jun 2023

: 04 Jul 2023



Diagnostician : Don Baldridge Test Package : FLEET Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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

Received

Diagnosed

Transervice - Shop 1370 - Berkeley-Perrysburg 28727 Oregon Road Perrysburg, OH US 43551 Contact: Curtis Hart chart@transervice.com T: (419)666-3277 F: (419)666-3279

Jun21/23 -