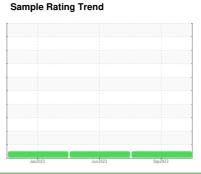


OIL ANALYSIS REPORT

(90311X) Walgreens - Tractor [Walgreens - Tractor] 136A66149

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

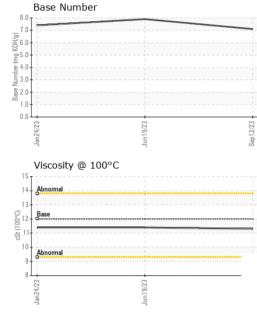
Fluid Condition

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

		Jan	2023	Jun 2023 Sep 20;		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105901	PCA0091507	PCA0087951
Sample Date		Client Info		12 Sep 2023	19 Jun 2023	24 Jan 2023
Machine Age	mls	Client Info		722882	706941	677337
Oil Age	mls	Client Info		677337	29604	50000
Oil Changed		Client Info		N/A	Oil Added	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	9	7	8
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	3	2
Lead	ppm	ASTM D5185m	>45	<1	0	<1
Copper	ppm	ASTM D5185m	>85	3	1	2
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 2	history1 <1	history2 0
	ppm					
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	2	2	<1	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	2 2	<1	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	2 2 59	<1 0 62	0 0 57
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 2 59 <1	<1 0 62 0	0 0 57 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	2 2 59 <1 963	<1 0 62 0 898	0 0 57 <1 898
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	2 2 59 <1 963 1102	<1 0 62 0 898 1085	0 0 57 <1 898 1087
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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	2 59 <1 963 1102 1010	<1 0 62 0 898 1085 1022	0 0 57 <1 898 1087 926
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 ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	2 59 <1 963 1102 1010	<1 0 62 0 898 1085 1022 1177	0 0 57 <1 898 1087 926 1177
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	2 59 <1 963 1102 1010 1223 3054	<1 0 62 0 898 1085 1022 1177 3143	0 0 57 <1 898 1087 926 1177 3198
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	2 2 59 <1 963 1102 1010 1223 3054 current	<1 0 62 0 898 1085 1022 1177 3143 history1	0 0 57 <1 898 1087 926 1177 3198
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	2 2 59 <1 963 1102 1010 1223 3054 current	<1 0 62 0 898 1085 1022 1177 3143 history1	0 0 57 <1 898 1087 926 1177 3198 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	2 2 59 <1 963 1102 1010 1223 3054 current 6 2	<1 0 62 0 898 1085 1022 1177 3143 history1 4	0 0 57 <1 898 1087 926 1177 3198 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30	2 2 59 <1 963 1102 1010 1223 3054 current 6 2	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2	0 0 57 <1 898 1087 926 1177 3198 history2 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT 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 >30 >20	2 59 <1 963 1102 1010 1223 3054 current 6 2 3	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2	0 0 57 <1 898 1087 926 1177 3198 history2 4 1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT 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 >30 >20 limit/base	2 59 <1 963 1102 1010 1223 3054 current 6 2 3	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2 history1 0.4	0 0 57 <1 898 1087 926 1177 3198 history2 4 1 <1 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm 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 >30 >20 limit/base	2 2 59 <1 963 1102 1010 1223 3054 current 6 2 3 current 0.4 8.8	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2 history1 0.4 8.4	0 0 57 <1 898 1087 926 1177 3198 history2 4 1 <1 history2 0.4 8.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >30 >20 limit/base >3 >20 >30	2 2 59 <1 963 1102 1010 1223 3054 current 6 2 3 current 0.4 8.8 19.2	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2 history1 0.4 8.4 19.4	0 0 57 <1 898 1087 926 1177 3198 history2 4 1 <1 history2 0.4 8.8 19.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m Method ASTM D5185m Method	2 0 50 0 950 1050 995 1180 2600 limit/base >30 >20 limit/base >3 >20 >30	2 2 59 <1 963 1102 1010 1223 3054 current 6 2 3 current 0.4 8.8 19.2 current	<1 0 62 0 898 1085 1022 1177 3143 history1 4 0 2 history1 0.4 8.4 19.4 history1	0 0 57 <1 898 1087 926 1177 3198 history2 4 1 <1 history2 0.4 8.8 19.9 history2



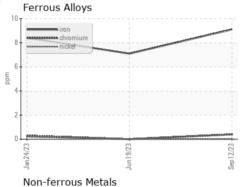
OIL ANALYSIS REPORT

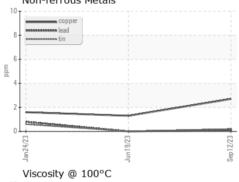


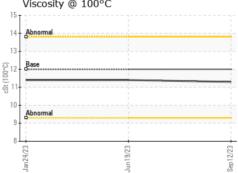
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

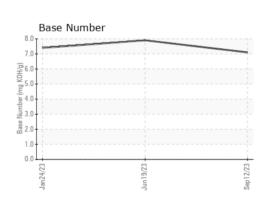
FLUID PROP	ERITES	method	iimii/base		nistory i	nistory∠
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.4	11.4

GRAPHS











Certificate L2367

Laboratory Sample No.

Lab Number Unique Number : 10670689 Test Package : FLEET

: PCA0105901

: 05964138

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Sep 2023 Diagnosed : 29 Sep 2023

Diagnostician : Wes Davis

Transervice - Shop 1361 - Berkeley-Windsor 4400 State Road 19 Windsor, WI US 53598

Contact: Mike Hurda mhurda@transervice.com

T: (608)846-2726 F: (608)846-0389

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)