

## **OIL ANALYSIS REPORT**

### Area (14246Z) Walgreens - Tractor [Walgreens - Tractor] 136A61447

**Diesel Engine** 

Fluic PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

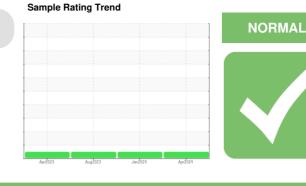
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

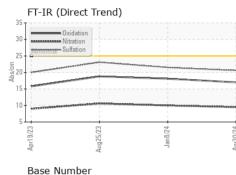
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

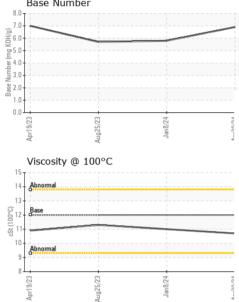


SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123046	PCA0110570	PCA0093542
Sample Date		Client Info		30 Apr 2024	08 Jan 2024	25 Aug 2023
Machine Age	mls	Client Info		244136	221845	197157
Oil Age	mls	Client Info		0	24688	163633
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method	20.L	NEG	NEG	NEG
-	0		line it /le e e e	-		
WEAR METAL	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	8	15	22
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		14	6	17
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	<1
Lead	ppm	ASTM D5185m	>40	2	3	8
Copper	ppm	ASTM D5185m	>330	0	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 15	history1 10	history2 6
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	2	15	10	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	15 1	10 0	6 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	15 1 50	10 0 53	6 0 50
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	15 1 50 <1	10 0 53 <1	6 0 50 <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	15 1 50 <1 852	10 0 53 <1 835	6 0 50 <1 879
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	15 1 50 <1 852 1230	10 0 53 <1 835 1155	6 0 50 <1 879 1505
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	15 1 50 <1 852 1230 1094	10 0 53 <1 835 1155 947	6 0 50 <1 879 1505 1056
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	15 1 50 <1 852 1230 1094 1237	10 0 53 <1 835 1155 947 1231	6 0 50 <1 879 1505 1056 1332
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	2 0 50 950 1050 995 1180 2600	15 1 50 <1 852 1230 1094 1237 3580	10 0 53 <1 835 1155 947 1231 2974	6 0 50 <1 879 1505 1056 1332 3830
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	2 0 50 950 1050 995 1180 2600	15 1 50 <1 852 1230 1094 1237 3580 current	10 0 53 <1 835 1155 947 1231 2974 history1	6 0 50 <1 879 1505 1056 1332 3830 history2
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 <b>method</b>	2 0 50 950 1050 995 1180 2600 <b>limit/base</b>	15 1 50 <1 852 1230 1094 1237 3580 current 3	10 0 53 <1 835 1155 947 1231 2974 history1 4	6 0 50 <1 879 1505 1056 1332 3830 history2 5
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 <b>method</b> ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b>	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1	10 0 53 <1 835 1155 947 1231 2974 <b>history1</b> 4 1	6 0 50 <1 879 1505 1056 1332 3830 history2 5 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 0 950 1050 995 1180 2600 <b>limit/base</b> >25 -20 <b>limit/base</b>	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 current	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 5 history1	6 0 50 <1 879 1505 1056 1332 3830 history2 5 2 5 5 5 history2
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 ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 current 0.3	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 <i>history1</i> 0.3	6 0 50 <1 879 1505 1056 1332 3830 history2 5 2 5 2 5 5 <i>history2</i> 0.4
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 TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 current	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 5 history1	6 0 50 <1 879 1505 1056 1332 3830 history2 5 2 5 5 5 history2
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 50 950 1050 995 1180 2600 <b>imit/base</b> >25 <b>imit/base</b> >3 >20	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 current 0.3 9.5 20.6	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 history1 0.3 10.0 21.5	6 0 50 <1 879 1505 1056 1332 3830 <b>history2</b> 5 2 5 5 <b>history2</b> 0.4 10.6 23.1
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 D7624 *ASTM D7415	2 0 0 50 0 950 1050 995 1180 2600 2600 255 20 220 20 3 20 20 3 3 20 3 3 20 3 3 20 3 3 3 20 3 3 3 20 3 3 3 20 3 3 3 3	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 <1 3 current 0.3 9.5 20.6 current	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 <u>history1</u> 0.3 10.0 21.5 history1	6 0 50 <1 879 1505 1056 1332 3830 history2 5 2 5 5 history2 0.4 10.6 23.1 history2
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 50 950 1050 995 1180 2600 <b>imit/base</b> >25 <b>imit/base</b> >3 >20	15 1 50 <1 852 1230 1094 1237 3580 current 3 <1 3 current 0.3 9.5 20.6	10 0 53 <1 835 1155 947 1231 2974 history1 4 1 5 history1 0.3 10.0 21.5	6 0 50 <1 879 1505 1056 1332 3830 <b>history2</b> 5 2 5 5 <b>history2</b> 0.4 10.6 23.1

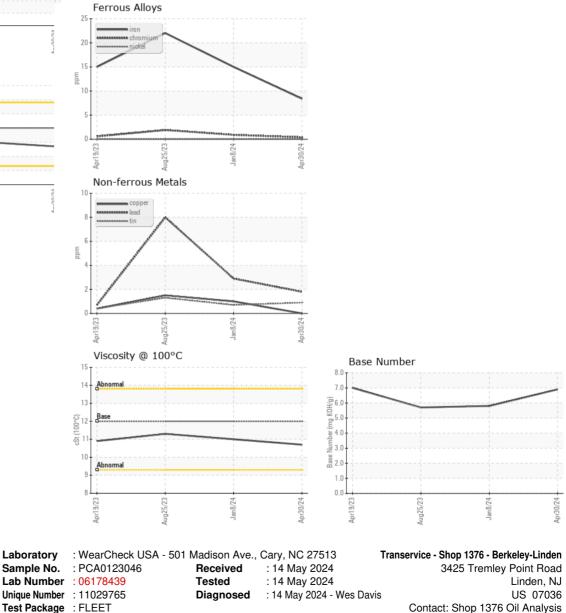


# **OIL ANALYSIS REPORT**





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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.7	11.0	11.3
GRAPHS						



Unique Number : 11029765 Test Package : FLEET Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

Laboratory

Sample No.

\* - 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)

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