

### **OIL ANALYSIS REPORT**

# (35768Z) Walgreens - Tractor [Walgreens - Tractor] 136A62543

**Diesel Engine** 

Fluic PETRO CANADA DURON SHP 10W30 (11 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Area

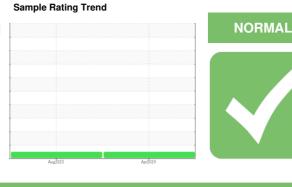
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

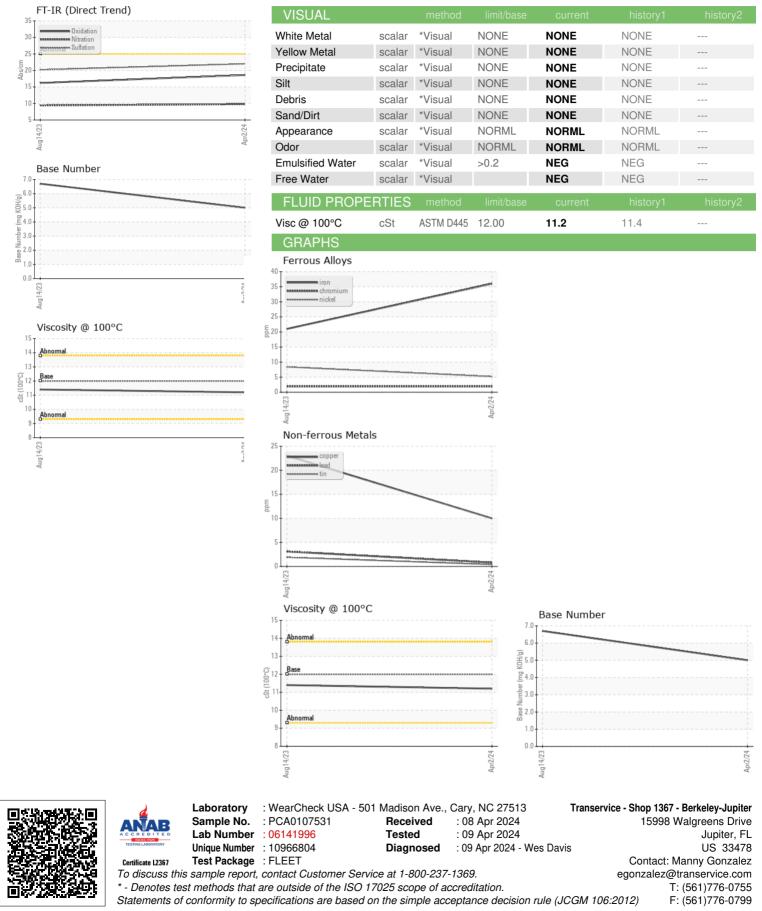
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0107531	PCA0094384	
Sample Date		Client Info		02 Apr 2024	14 Aug 2023	
Machine Age	mls	Client Info		181455	135103	
Oil Age	mls	Client Info		181455	135103	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT		method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	36	21	
Chromium	ppm	ASTM D5185m	>20	2	2	
Nickel	ppm	ASTM D5185m	>4	5	8	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	3	5	
Lead	ppm	ASTM D5185m	>40	<1	3	
Copper	ppm	ASTM D5185m	>330	10	23	
Tin	ppm	ASTM D5185m	>15	<1	2	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron		ASTM D5185m	2	<1	8	
	ppm				0	
	ppm ppm					
Barium	ppm	ASTM D5185m	0	0	0	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 59	0 60	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 59 <1	0 60 1	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 59 <1 953	0 60 1 954	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 59 <1 953 1135	0 60 1 954 1219	
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 50 0 950 1050 995	0 59 <1 953 1135 988	0 60 1 954 1219 982	  
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 59 <1 953 1135	0 60 1 954 1219	
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	0 50 0 950 1050 995 1180 2600	0 59 <1 953 1135 988 1261 3131	0 60 1 954 1219 982 1344 3424	
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	0 50 950 1050 995 1180 2600	0 59 <1 953 1135 988 1261 3131 current	0 60 1 954 1219 982 1344 3424 history1	   
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	0 50 0 950 1050 995 1180 2600	0 59 <1 953 1135 988 1261 3131 current 6	0 60 1 954 1219 982 1344 3424 history1 7	     history2
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	0 50 950 1050 995 1180 2600 limit/base >25	0 59 <1 953 1135 988 1261 3131 current 6 2	0 60 1 954 1219 982 1344 3424 history1 7 3	     history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <b>limit/base</b> >25	0 59 <1 953 1135 988 1261 3131 <u>current</u> 6 2 6	0 60 1 954 1219 982 1344 3424 history1 7 3 13	     history2  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	0 59 <1 953 1135 988 1261 3131 <u>current</u> 6 2 6 6	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 history1	     history2
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	0 50 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b>	0 59 <1 953 1135 988 1261 3131 current 6 2 6 current 0.4	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 history1 0.3	     history2  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	0 59 <1 953 1135 988 1261 3131 <u>current</u> 6 2 6 2 6 <u>current</u> 0.4 9.8	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 history1 0.3 9.4	     history2    history2
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	0 50 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b>	0 59 <1 953 1135 988 1261 3131 current 6 2 6 current 0.4	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 history1 0.3	     history2   history2
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 ppm ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <b>imit/base</b> >25 <b>imit/base</b> >20	0 59 <1 953 1135 988 1261 3131 <u>current</u> 6 2 6 2 6 <u>current</u> 0.4 9.8	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 history1 0.3 9.4	     history2   history2
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 TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 imit/base >25 20 imit/base >20 >3 >20	0 59 <1 953 1135 988 1261 3131 <u>current</u> 6 2 6 2 6 <u>current</u> 0.4 9.8 22.0	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 0.3 9.4 20.2	     history2   history2  history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	0 50 950 1050 995 1180 2600 <b>imit/base</b> >25 <b>imit/base</b> >20 <b>imit/base</b> >3 >20	0 59 <1 953 1135 988 1261 3131 current 6 2 6 2 6 current 0.4 9.8 22.0 current	0 60 1 954 1219 982 1344 3424 history1 7 3 13 13 0.3 9.4 20.2 history1	     history2  history2  history2  history2



## **OIL ANALYSIS REPORT**



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Submitted By: Manny Gonzalez