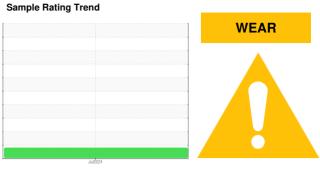


# **OIL ANALYSIS REPORT**

# (74289Z) Walgreens - Tractor [Walgreens - Tractor] 136A624344

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 0



#### **DIAGNOSIS**

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

#### Contamination

There is no indication of any contamination in the

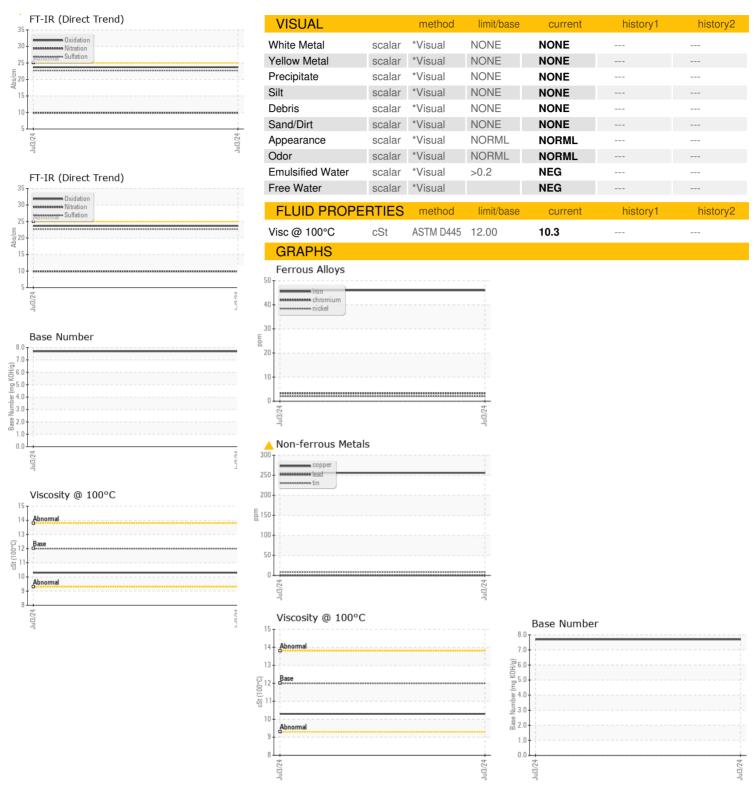
### **Fluid Condition**

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

ŭ	GAL)				Jui2024		
Sample Date   Client Info   03 Jul 2024	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Date         Client Info         03 Jul 2024             Machine Age         mls         Client Info         35416             Oil Olage         mls         Client Info         Not Changd            Oil Changed         Client Info         Not Changd            Sample Status         Imitity         Not Changd            CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	Sample Number		Client Info		PCA0129487		
Machine Age         mls         Client Info         35416	•						
Contamper   Cont	Machine Age	mls					
Cilichanged	Oil Age	mls	Client Info		35416		
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	-		Client Info		Not Changd		
Fuel   WC Method   S5   <1.0	Sample Status				ABNORMAL		
Water Glycol         WC Method WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         46             Chromium         ppm         ASTM D5185m         >5         3             Nickel         ppm         ASTM D5185m         >2         2             Silver         ppm         ASTM D5185m         >2         2             Silver         ppm         ASTM D5185m         >2         1             Aluminum         ppm         ASTM D5185m         >30         0             Copper         ppm         ASTM D5185m         >50 <th< td=""><td>CONTAMINAT</td><td>ΓΙΟΝ</td><td>method</td><td>limit/base</td><td>current</td><td>history1</td><td>history2</td></th<>	CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         46             Chromium         ppm         ASTM D5185m         >5         3             Nickel         ppm         ASTM D5185m         >2         2             Silver         ppm         ASTM D5185m         >3         <1	Fuel		WC Method	>5	<1.0		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         46	Water		WC Method	>0.2	NEG		
Irron	Glycol		WC Method		NEG		
Chromium         ppm         ASTM D5185m         >5         3             Nickel         ppm         ASTM D5185m         >2         2             Titanium         ppm         ASTM D5185m         >3         <1	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	46		
Titanium	Chromium	ppm	ASTM D5185m	>5	3		
Silver	Nickel	ppm	ASTM D5185m	>2	2		
Aluminum         ppm         ASTM D5185m         >30         10             Lead         ppm         ASTM D5185m         >30         0             Copper         ppm         ASTM D5185m         >150         256             Tin         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         950         621             Magnesium         ppm         ASTM D5185m         1050         1760	Titanium	ppm	ASTM D5185m		<1		
Lead         ppm         ASTM D5185m         >30         0             Copper         ppm         ASTM D5185m         >150         ≥ 256             Tin         ppm         ASTM D5185m         >5         8             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         995         814	Silver	ppm	ASTM D5185m	>3	<1		
Copper         ppm         ASTM D5185m         >150         ≥56             Tin         ppm         ASTM D5185m         >5         8             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         0         4             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         90         2422	Aluminum	ppm	ASTM D5185m	>30	10		
Tin	Lead	ppm	ASTM D5185m	>30	0		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         33             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         950         621             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         950         814             Zinc         ppm         ASTM D5185m         180         976             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1	Copper	ppm	ASTM D5185m	>150	<u>^</u> 256		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         33             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         995         814             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         2600         2422             Sulfur         ppm         ASTM D5185m         20         7             Sodium         ppm         ASTM D5185m         >20         7		ppm		>5	-		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         33             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         950         621             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         996              Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D5185m         >2							
Boron		ppm			0		
Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         1050         1760             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         2600         2422             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         >20         22             Potassium         ppm	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         46             Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         1050         1760             Phosphorus         ppm         ASTM D5185m         1180         976             Zinc         ppm         ASTM D5185m         2600         2422             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         >20         7             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base<							
Manganese         ppm         ASTM D5185m         0         4             Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         1050         1760             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         2600         2422             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         >20         7             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624		ppm			-		
Magnesium         ppm         ASTM D5185m         950         621             Calcium         ppm         ASTM D5185m         1050         1760             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         1180         976             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation         Abs/.1mm         *ASTM D7415         >30	•	ppm					
Calcium         ppm         ASTM D5185m         1050         1760             Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         1180         976             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base	•	ppm			-		
Phosphorus         ppm         ASTM D5185m         995         814             Zinc         ppm         ASTM D5185m         1180         976             Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base	•						
Zinc							
Sulfur         ppm         ASTM D5185m         2600         2422             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7							
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7							
Silicon         ppm         ASTM D5185m         >20         7             Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7	CONTAMINAN				current	historv1	history2
Sodium         ppm         ASTM D5185m         6             Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7							
Potassium         ppm         ASTM D5185m         >20         22             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7							
Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7				>20			
Nitration         Abs/cm         *ASTM D7624         >20         9.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7	Soot %	%	*ASTM D7844	>3	0.4		
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         23.7	Nitration	Abs/cm	*ASTM D7624	>20	9.9		
Oxidation	Sulfation	Abs/.1mm		>30	22.7		
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	23.7		



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No. Lab Number : 06231887 Unique Number : 11115380

: PCA0129487

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

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 09 Jul 2024 **Tested** 

: 10 Jul 2024 Diagnosed : 11 Jul 2024 - Don Baldridge

Transervice - Shop 1372 - Berkeley-Moreno Valley 17500 Perris Blvd. Moreno Valley, CA US 92551

Contact: Ryan Cruz rcruz@transervice.com T: (951)924-7131

 $^st$  - 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)

F: (951)924-7151